

# SECTION **AV**

## AUDIO, VISUAL & NAVIGATION SYSTEM

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<b>WOOFER .....</b>	<b>1055</b>	
Exploded View .....	1055	
Removal and Installation .....	1055	
<b>BOSE AMP. ....</b>	<b>1056</b>	
Exploded View .....	1056	
Removal and Installation .....	1056	
<b>ANTENNA BASE .....</b>	<b>1057</b>	
Exploded View .....	1057	
Removal and Installation .....	1057	
<b>MULTIFUNCTION SWITCH .....</b>	<b>1058</b>	
Exploded View .....	1058	
Removal and Installation .....	1058	
<b>PRESET SWITCH .....</b>	<b>1059</b>	
Exploded View .....	1059	
Removal and Installation .....	1059	
<b>iPod ADAPTER .....</b>	<b>1060</b>	
Exploded View .....	1060	
Removal and Installation .....	1060	
<b>iPod CONNECTOR .....</b>	<b>1061</b>	
Exploded View .....	1061	
Removal and Installation .....	1061	
<b>AUXILIARY INPUT JACKS .....</b>	<b>1062</b>	
Exploded View .....	1062	
Removal and Installation .....	1062	
<b>MICROPHONE .....</b>	<b>1063</b>	
Exploded View .....	1063	A
Removal and Installation .....	1063	
<b>GPS ANTENNA .....</b>	<b>1064</b>	
Exploded View .....	1064	B
Harness Layout .....	1064	
Removal and Installation .....	1065	C
<b>AROUND VIEW MONITOR CONTROL UNIT .....</b>	<b>1066</b>	
Exploded View .....	1066	
Removal and Installation .....	1066	D
<b>FRONT CAMERA .....</b>	<b>1067</b>	
Exploded View .....	1067	
Removal and Installation .....	1067	E
<b>REAR CAMERA .....</b>	<b>1068</b>	
Exploded View .....	1068	
Removal and Installation .....	1068	F
<b>SIDE CAMERA LH .....</b>	<b>1069</b>	
Exploded View .....	1069	G
Removal and Installation .....	1069	
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Exploded View .....	1070	H
Removal and Installation .....	1070	
<b>SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR) .....</b>	<b>1072</b>	
Exploded View .....	1072	I
Removal and Installation .....	1072	J
<b>SONAR SENSOR .....</b>	<b>1073</b>	
<b>FRONT .....</b>	<b>1073</b>	
FRONT : Exploded View .....	1073	K
FRONT : Removal and Installation .....	1073	
<b>REAR .....</b>	<b>1073</b>	
REAR : Exploded View .....	1074	L
REAR : Removal and Installation .....	1074	
<b>BUZZER .....</b>	<b>1075</b>	
Exploded View .....	1075	M
Removal and Installation .....	1075	
<b>STEERING ANGLE SENSOR .....</b>	<b>1076</b>	
Exploded View .....	1076	
Removal and Installation .....	1076	O
<b>ANTENNA FEEDER .....</b>	<b>1077</b>	
Harness Layout .....	1077	P



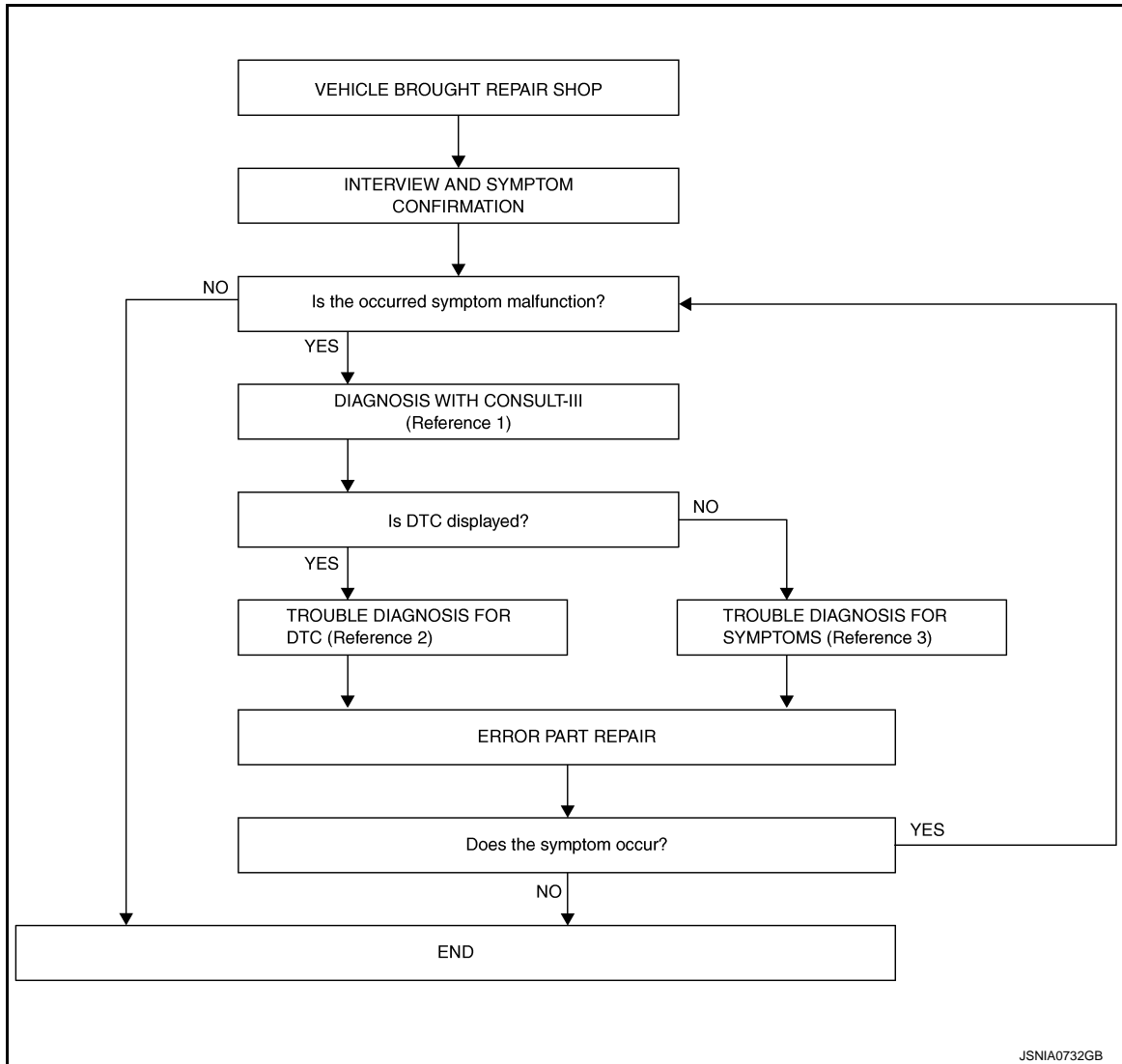
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

#### Work Flow

INFOID:000000003838526

#### OVERALL SEQUENCE



- Reference 1... Refer to [AV-43, "CONSULT-III Function \(MULTI AV\)"](#).
- Reference 2... Refer to [AV-117, "DTC Index"](#).
- Reference 3... Refer to [AV-241, "Symptom Table"](#).

#### DETAILED FLOW

##### 1. INTERVIEW AND SYMPTOM CONFIRMATION

Check the malfunction symptoms by performing the following items.

- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

Is the occurred symptom malfunction?

YES >> GO TO 2.

NO >> INSPECTION END

##### 2. DIAGNOSIS WITH CONSULT-III



# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[WITHOUT NAVIGATION]

1. Connect CONSULT-III and perform a self-diagnosis for "MULTI AV". Refer to [AV-43, "CONSULT-III Function \(MULTI AV\)"](#).

**NOTE:**

Skip to step 4 of the diagnosis procedure if "MULTI AV" is not displayed.

2. Check if any DTC is displayed in the self-diagnosis results.

Is DTC displayed?

YES >> GO TO 3.

NO >> GO TO 4.

## 3.TROUBLE DIAGNOSIS FOR DTC

1. Check the DTC indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to [AV-117, "DTC Index"](#).

>> GO TO 5.

## 4.TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-241, "Symptom Table"](#).

>> GO TO 5.

## 5.ERROR PART REPAIR

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for "MULTI AV" with CONSULT-III.

**NOTE:**

Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC has been indicated in the self-diagnosis results.

3. Check that the symptom does not occur.

Does the symptom occur?

YES >> GO TO 1.

NO >> INSPECTION END

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AV



## INSPECTION AND ADJUSTMENT

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

#### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:000000003838527

Always correct the center position of the predicted course line after disconnecting the battery negative terminal.

#### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:000000003838528

#### 1.CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to [AV-16, "REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement"](#).

### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000003838529

When camera control unit is replaced, the center position of predicted course line shall be corrected.

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:000000003838530

#### 1.CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to [AV-16, "REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement"](#).

### REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT

#### REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Description

INFOID:000000003838531

Adjust the center position of the predicted course line of the rear view monitor if it is shifted.

#### REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement

INFOID:000000003838532

#### 1.DRIVING

Drive the vehicle straight ahead 100 m (328.1 ft) or more at a speed of 30 km/h (18.6 MPH) or more.

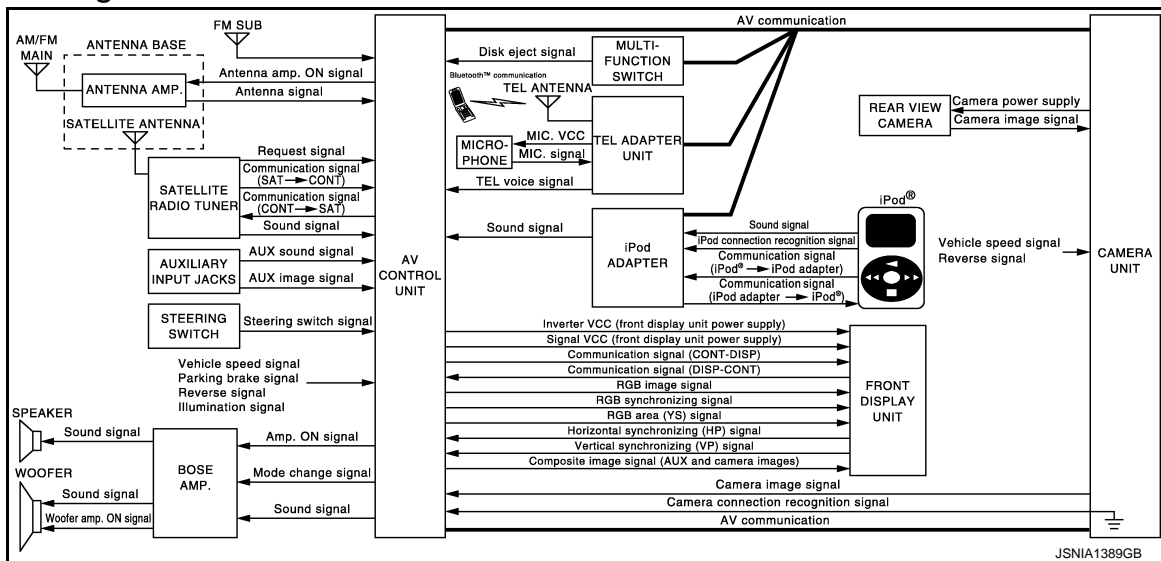
>> END



## SYSTEM DESCRIPTION

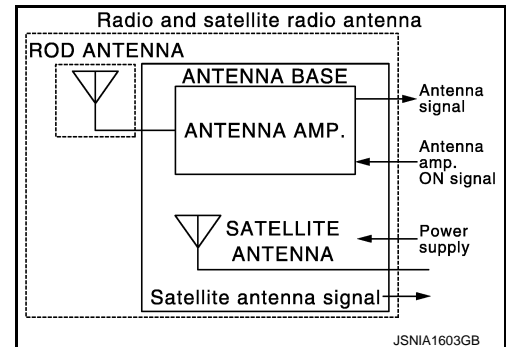
### MULTI AV SYSTEM

#### System Diagram



#### NOTE:

- The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.
- A radio antenna base integrated with radio antenna and satellite radio antenna is adopted.



#### System Description

Multi AV system means that the following systems are integrated.

System name	System explanation
AUDIO SYSTEM	<a href="#">AV-22. "System Description"</a>
VEHICLE INFORMATION SYSTEM	<ul style="list-style-type: none"> <li>Status of audio, climate control system, fuel economy, maintenance and navigation are displayed.</li> <li>AV control unit displays the fuel consumption status while receiving data signal through CAN communication from ECM, unified meter and A/C amp.</li> <li>AV control unit is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> </ul>
HANDS-FREE PHONE SYSTEM	<a href="#">AV-26. "System Description"</a>
AUXILIARY INPUT SYSTEM	Refer to the following "AUXILIARY INPUT SYSTEM".
REAR VIEW MONITOR SYSTEM	<a href="#">AV-29. "System Description"</a>

- AV control unit functions by transmitting/receiving data one by one with each unit (slave unit) that configures them completely as a master unit by connecting between units that configure the MULTI AV system with two AV communication lines (H, L).
- Two AV communication lines (H, L) adopt a twisted pair line that is resistant to noise.



# MULTI AV SYSTEM

## < SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

- AV control unit is connected by CAN communication, and it receives data signals from the ECM, unified meter and A/C amp. It computes and displays fuel economy information values with the obtained information. The transmitting/receiving of data signals is performed by BCM. In addition, it transmits the required signal of vehicle setting and receives the response signal.
- AV control unit is connected with display and serial communication, and it transmits the required signal of display and display control and receives the response signal from front display. Also, it is connected with satellite radio by serial communication, and it transmits the operating signal and receives the display signal.

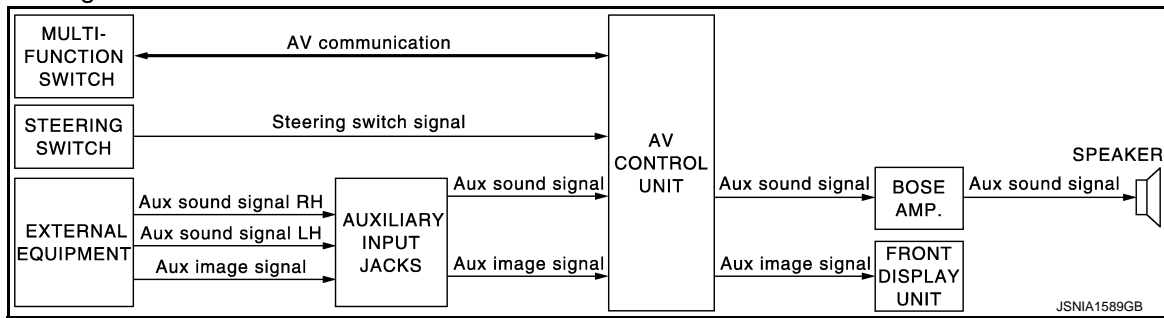
### NOTE:

AV control unit can perform CONSULT-III self-operating function and on board self-diagnosis.

- CONSULT-III self-diagnosis: refer to [AV-43, "CONSULT-III Function \(MULTI AV\)"](#).
  - On board self-diagnosis: refer to [AV-33, "Diagnosis Description"](#).
- On board self-diagnosis of TEL adapter unit can be performed.
- Refer to [AV-46, "Diagnosis Description"](#) for on board self-diagnosis.

## AUXILIARY INPUT SYSTEM

- Image and sound can be output from an external device by connecting a device with auxiliary input jacks.
- Operation can be performed with multifunction switch and steering switch. Multifunction switch transmits operation signal to AV control unit with communication.





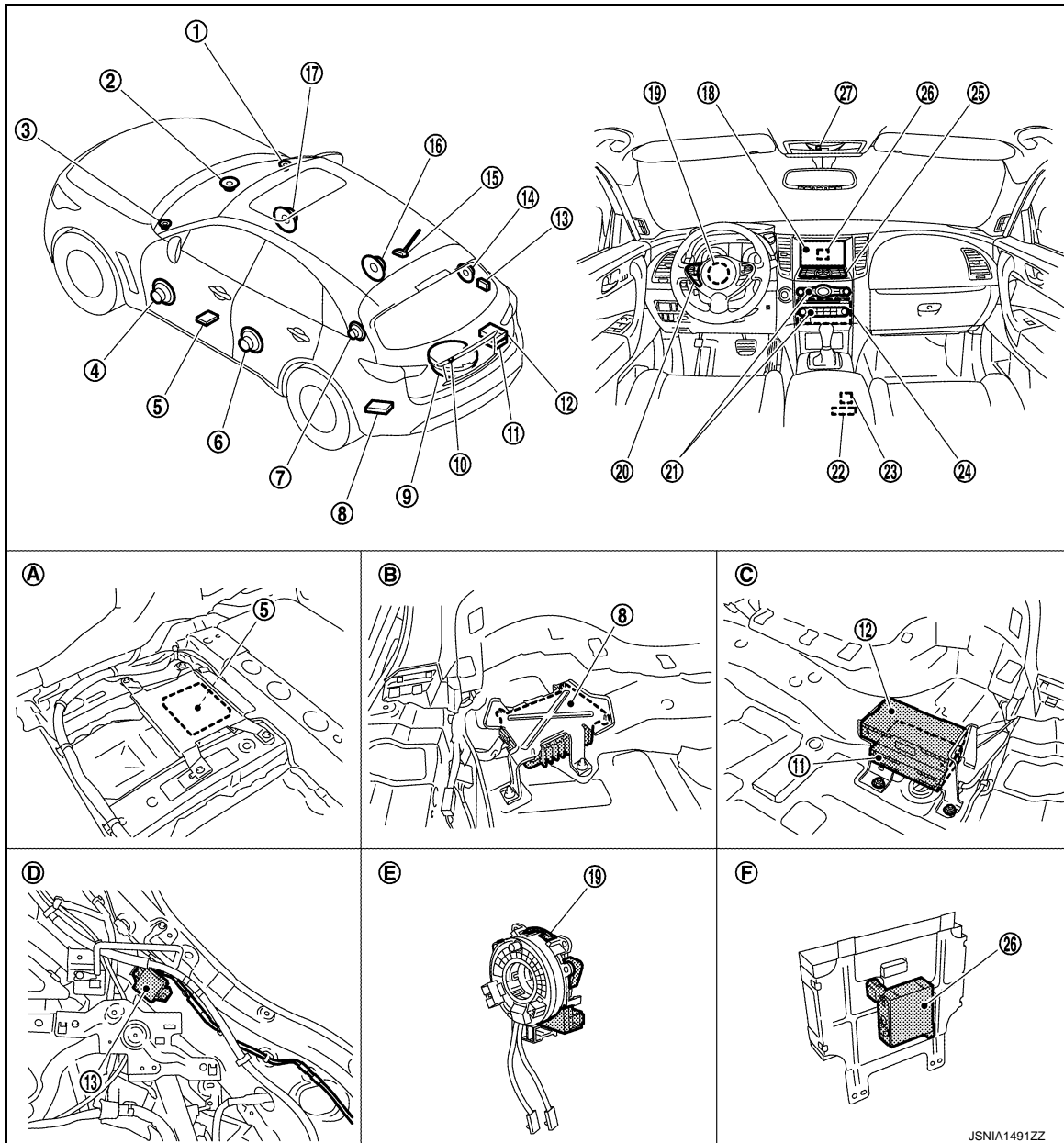
# MULTI AV SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

## Component Parts Location

INFOID:000000003838535



- |                               |                            |   |
|-------------------------------|----------------------------|---|
| 1. Front squawker RH          | 2. Center speaker          | 3. Front squawker LH                                  |
| 4. Front door speaker LH      | 5. Camera control unit     | 6. Rear door speaker LH                               |
| 7. Rear squawker LH           | 8. BOSE amp.               | 9. Woofer   |
| 10. Rear view camera          | 11. Satellite radio tuner  | 12. TEL adapter unit                                  |
| 13. TEL antenna               | 14. Rear squawker RH       | 15. Antenna base (antenna amp. and satellite antenna) |
| 16. Rear door speaker RH      | 17. Front door speaker RH  | 18. Front display unit                                |
| 19. Steering angle sensor     | 20. Steering switch        | 21. Preset switch                                     |
| 22. Auxiliary input jacks     | 23. iPod connector         | 24. AV control unit                                   |
| 25. Multifunction switch      | 26. iPod adapter           | 27. Microphone  |
| A. Under front seat (LH side) | B. Luggage floor (LH side) | C. Luggage floor (RH side)                            |
| D. Luggage side RH            | E. Spiral cable part       | F. Rear view of the front display unit                |

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# MULTI AV SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

## Component Description

INFOID:000000003838536

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Auxiliary image signal is input from the auxiliary input jacks.</li> <li>Camera image signal is input from camera control unit.</li> </ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> <li>Front display image is controlled by the serial communication from AV control unit.</li> <li>RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing). Camera image signal is input from AV control unit.</li> <li>Composite image signal (auxiliary images) is input from the AV control unit.</li> <li>Synchronize signal (HP, VP) is output to AV control unit.</li> </ul>
BOSE AMP.	<ul style="list-style-type: none"> <li>Inputs power (amp. ON) and sound signal from AV control unit, and outputs sound signal to woofer and each speaker.</li> <li>Input "Driver's Audio Stage" mode change signal from AV control unit.</li> <li>Woofer amp. ON signal is transmitted to woofer.</li> </ul>
FRONT DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>
REAR DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>
FRONT SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>
REAR SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>
CENTER SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>
WOOFER	<ul style="list-style-type: none"> <li>Inputs power (woofer amp. ON) and sound signal from BOSE amp.</li> <li>Outputs low-frequency sound.</li> </ul>
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"> <li>Operation panel is equipped with the centralized switch where audio and auxiliary input operations are integrated.</li> <li>Connected with preset switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li> </ul>
PRESET SWITCH	<ul style="list-style-type: none"> <li>Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated.</li> <li>Connected with multifunction switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li> <li>The disk ejection operating signal is performed by hardwire.</li> </ul>
CAMERA CONTROL UNIT	<ul style="list-style-type: none"> <li>Camera image signal is input from rear view camera. Camera image signal is output to AV control unit.</li> <li>Power (camera ON signal) is transmitted to rear view camera.</li> <li>Superimposes the guiding line and predicted course line to the camera image that outputs to AV control unit.</li> <li>Camera control unit is connected via AV communication.</li> </ul>
REAR VIEW CAMERA	<ul style="list-style-type: none"> <li>The image from rear camera is transmitted to camera control unit.</li> <li>It receives power (camera ON signal) from camera control unit and operates.</li> </ul>
STEERING SWITCH	<ul style="list-style-type: none"> <li>Operations such as audio and hands-free phone are possible.</li> <li>Steering switch signal (operation signal) is output to AV control unit.</li> </ul>



# MULTI AV SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

Part name	Description
STEERING ANGLE SENSOR	It is connected to the AV control unit and transmits the steering angle signal via CAN communication.
AUXILIARY INPUT JACKS	Auxiliary input jacks Image and sound signal are transmitted to AV control unit.
ANTENNA BASE	<p>A radio antenna base integrated with radio antenna amp. and satellite radio antenna is adopted.</p> <p>ANTENNA AMP.</p> <ul style="list-style-type: none"> <li>Radio signal received by rod antenna is amplified and transmitted to AV control unit.</li> <li>Power (antenna amp. ON signal) is supplied from AV control unit.</li> </ul> <p>SATELLITE RADIO ANTENNA</p> <ul style="list-style-type: none"> <li>Receives satellite radio waves and outputs it to satellite radio tuner.</li> </ul>
iPod ADAPTER	<ul style="list-style-type: none"> <li>Inputs iPod sound signal from iPod®, and outputs iPod sound signal to AV control unit.</li> <li>Receiving/transmitting of iPod® operation signals are performed as follows: <ul style="list-style-type: none"> <li>between AV control unit and iPod adapter: AV communication.</li> <li>between iPod® and iPod adapter: serial communication.</li> </ul> </li> </ul>
TEL ADAPTER UNIT	<ul style="list-style-type: none"> <li>Inputs the TEL voice signal from TEL antenna and outputs it to AV control unit.</li> <li>It is connected with AV control unit via AV communication and controlled with AV control unit.</li> </ul>
TEL ANTENNA	Receives the TEL voice signal and outputs it to TEL adapter unit.
MICROPHONE	<ul style="list-style-type: none"> <li>Used only when hands-free phone is operated.</li> <li>Outputs Mic. signal (TEL voice signal) to TEL adapter unit.</li> <li>The power (Mic. power supply) is supplied from TEL adapter unit.</li> </ul>
SATELLITE RADIO TUNER	<ul style="list-style-type: none"> <li>Inputs the satellite radio signal from satellite radio antenna and outputs the sound signal to AV control unit.</li> <li>It is controlled with AV control unit and serial communication (communication signal and request signal).</li> </ul>

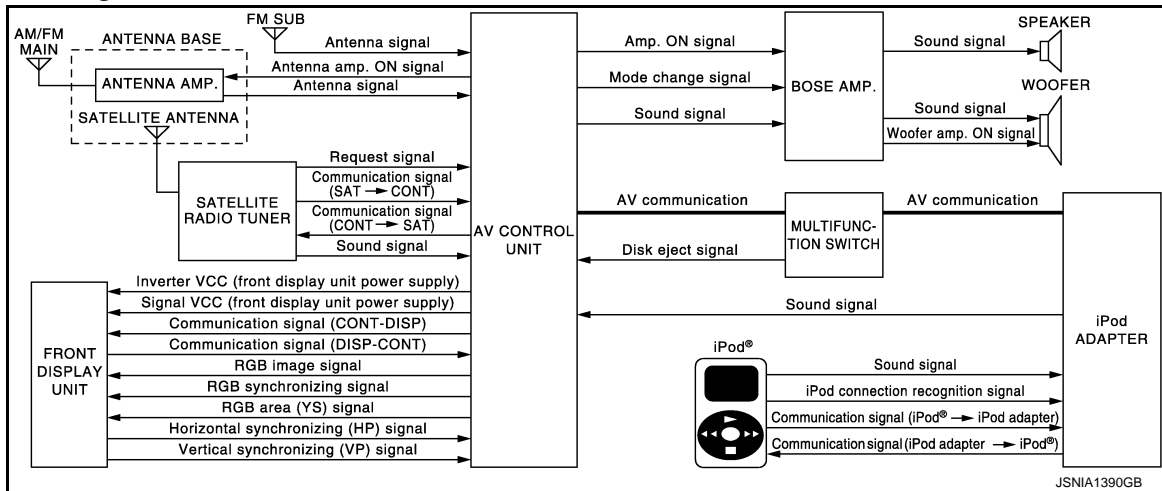
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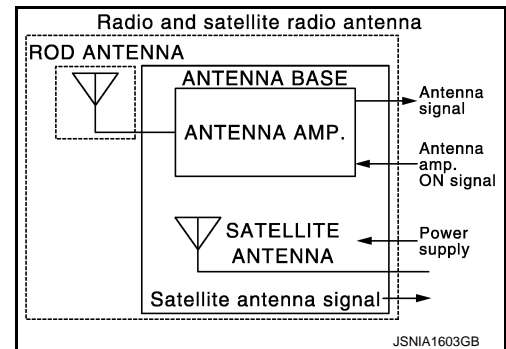
## AUDIO SYSTEM

### System Diagram



#### NOTE:

A radio antenna base integrated with radio antenna and satellite radio antenna is adopted.



### System Description

The audio system is equipped with the following functions. Each function can be operated by multifunction switch, preset switch or steering switch. It indicates the operation status of AUDIO to display.

Function
AM/FM radio
Satellite radio
CD
iPod connection
Driver's Audio Stage

### FUNCTION DESCRIPTION

#### Operating Signal

Operation of the audio system can be performed with multifunction switch, preset switch or steering switch.

- Operating signal is transmitted to AV control unit with AV communication when it is operated by multifunction switch or preset switch. The disk ejection operating signal is performed by hardware.
- Operating signal is transmitted to AV control unit with steering switch signal when it is operated by steering switch.

#### Screen Display

- The display is switched by communication signal between front display unit and AV control unit.
- The image signal that displays operating status is performed by the RGB image signal, RGB area signal and RGB synchronizing signal.

#### AM/FM Radio Mode

- AM/FM radio tuner is built into AV control unit.



# AUDIO SYSTEM

## < SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

- Audio signal is received by rod antenna, next it is amplified by antenna amp., and finally it is input into AV control unit. The FM sub antenna is installed on the back door window glass and AV control unit receives audio signal.
- Audio signal is input to BOSE amp., BOSE amp. outputs to woofer and each speaker from AV control unit.

### Satellite Radio System

- Satellite radio tuner is controlled by serial communication and request signal from AV control unit.
- Satellite radio wave is received by satellite radio antenna and is input into satellite radio tuner. Satellite radio tuner outputs satellite radio sound signal to AV control unit. AV control unit outputs satellite radio sound signal to BOSE amp., BOSE amp. outputs the sound signal to each speaker and woofer.

### CD Mode

- CD function is built into AV control unit.
- AV control unit outputs audio signals to BOSE amp., BOSE amp. outputs to woofer and each speaker when CD is inserted to AV control unit.

### iPod Connection

- Connect iPod® and iPod adapter with the wire harness. iPod adapter inputs iPod sound signal from iPod®. When iPod mode is selected, iPod adapter outputs iPod sound signal to AV control unit. AV control unit outputs sound signal to BOSE amp. and BOSE amp. outputs sound signal to woofer and each speaker.
- Receiving/transmitting of iPod® operation signals are performed as follows:
  - between AV control unit and iPod adapter: AV communication.
  - between iPod® and iPod adapter: serial communication.
- iPod® connection status can be recognized whether iPod adapter receives iPod connection recognition signal.
- iPod adapter can charge iPod®.

### Driver's Audio Stage Mode

- Driver's Audio Stage controls the speaker output characteristic by BOSE amp. so that driver seat is the center of sound.
- ON/OFF signals of Driver's Audio Stage are transmitted from AV control unit to BOSE amp. using Mode signal.

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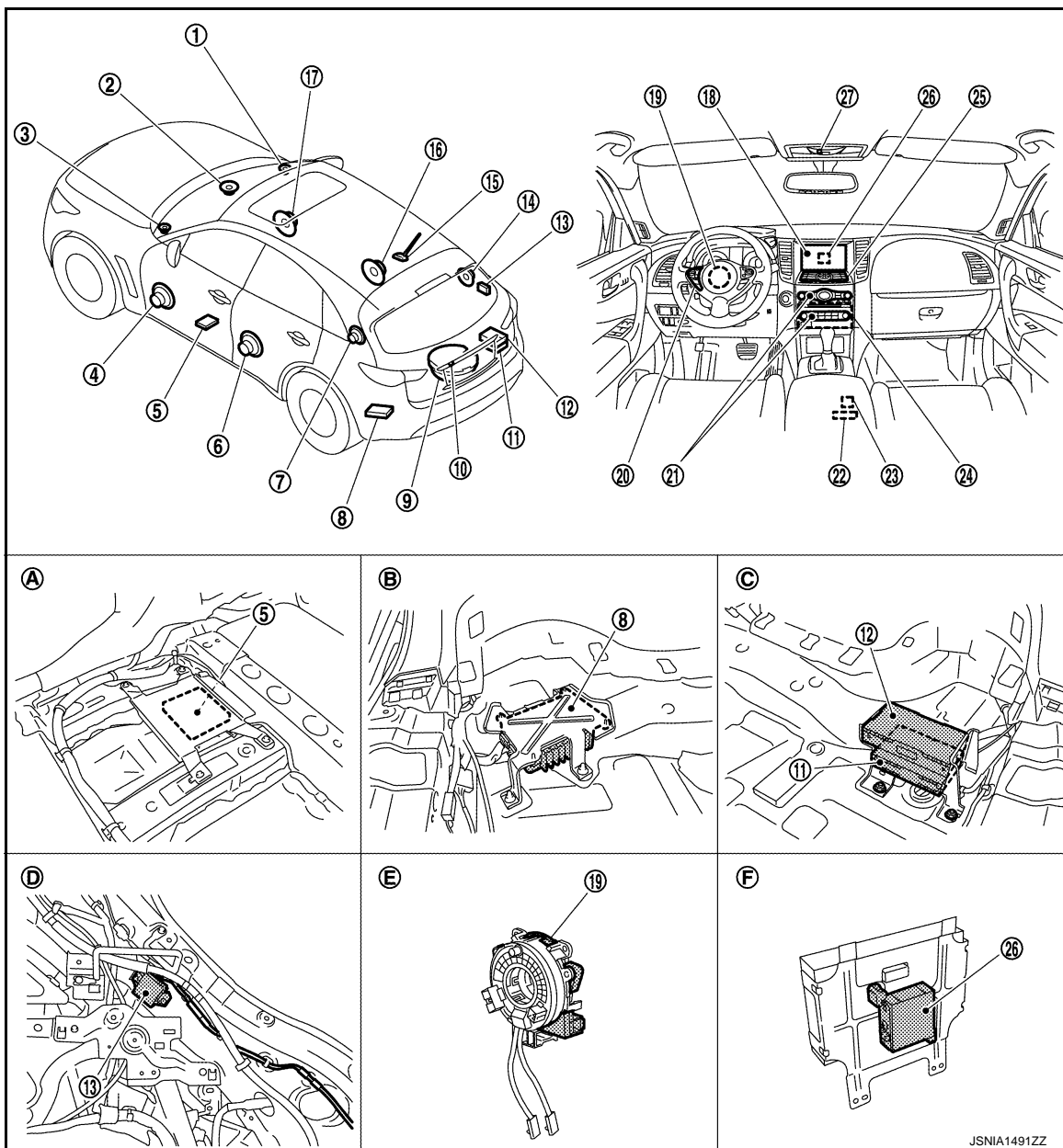
# AUDIO SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

## Component Parts Location

INFOID:000000003931342



- |                               |                            |   |
|-------------------------------|----------------------------|---|
| 1. Front squawker RH          | 2. Center speaker          | 3. Front squawker LH                                  |
| 4. Front door speaker LH      | 5. Camera control unit     | 6. Rear door speaker LH                               |
| 7. Rear squawker LH           | 8. BOSE amp.               | 9. Woofer   |
| 10. Rear view camera          | 11. Satellite radio tuner  | 12. TEL adapter unit                                  |
| 13. TEL antenna               | 14. Rear squawker RH       | 15. Antenna base (antenna amp. and satellite antenna) |
| 16. Rear door speaker RH      | 17. Front door speaker RH  | 18. Front display unit                                |
| 19. Steering angle sensor     | 20. Steering switch        | 21. Preset switch                                     |
| 22. Auxiliary input jacks     | 23. iPod connector         | 24. AV control unit                                   |
| 25. Multifunction switch      | 26. iPod adapter           | 27. Microphone  |
| A. Under front seat (LH side) | B. Luggage floor (LH side) | C. Luggage floor (RH side)                            |
| D. Luggage side RH            | E. Spiral cable part       | F. Rear view of the front display unit                |



# AUDIO SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

## Component Description

INFOID:000000003838540

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>The AM/FM receiving function and the CD playing function are equipped.</li> <li>BOSE amp. ON signal and sound signal are transmitted to BOSE amp.</li> </ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> <li>Front display image is controlled by the serial communication from AV control unit.</li> <li>RGB image signal (audio operation condition) is input from AV control unit.</li> </ul>
BOSE AMP.	<ul style="list-style-type: none"> <li>Inputs power (amp. ON) and sound signal from AV control unit, and outputs sound signal to woofer and each speaker.</li> <li>Input "Driver's Audio Stage" mode change signal from AV control unit.</li> <li>Woofer amp. ON signal is transmitted to woofer.</li> </ul>
FRONT DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>
REAR DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>
FRONT SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>
REAR SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>
CENTER SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>
WOOFER	<ul style="list-style-type: none"> <li>Inputs power (amp. ON) and sound signal from BOSE amp.</li> <li>Outputs low-frequency sound.</li> </ul>
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"> <li>Each audio operation can be operated.</li> <li>Connected with preset switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li> </ul>
PRESET SWITCH	<ul style="list-style-type: none"> <li>Each audio operation can be operated.</li> <li>It is connected to multifunction switch by AV communication. The operation signal is transmitted to AV control unit.</li> <li>The CD ejection operating signal is performed by hardwire.</li> </ul>
STEERING SWITCH	<ul style="list-style-type: none"> <li>Each audio operation can be operated.</li> <li>Steering switch signal (operation signal) is output to AV control unit.</li> </ul>
ANTENNA BASE	<p>A radio antenna base integrated with radio antenna amp. and satellite radio antenna is adopted.</p> <p>ANTENNA AMP.</p> <ul style="list-style-type: none"> <li>Radio signal received by glass antenna is amplified and transmitted to AV control unit.</li> <li>Power (antenna amp. ON signal) is supplied from AV control unit.</li> </ul> <p>SATELLITE RADIO ANTENNA</p> <ul style="list-style-type: none"> <li>Receives the satellite radio waves and outputs it to satellite radio tuner.</li> </ul>
iPod ADAPTER	<ul style="list-style-type: none"> <li>Inputs iPod sound signal from iPod®, and outputs iPod sound signal to AV control unit.</li> <li>Receiving/transmitting of iPod® operation signals are performed as follows: <ul style="list-style-type: none"> <li>between AV control unit and iPod adapter: AV communication.</li> <li>between iPod® and iPod adapter: serial communication.</li> </ul> </li> </ul>
SATELLITE RADIO TUNER	<ul style="list-style-type: none"> <li>Inputs the satellite radio signal from satellite radio antenna and outputs the sound signal to AV control unit.</li> <li>It is controlled with AV control unit and serial communication (communication signal and request signal).</li> </ul>

A

B

C

D

E

F

G

H

I

J

K

L

M

AV

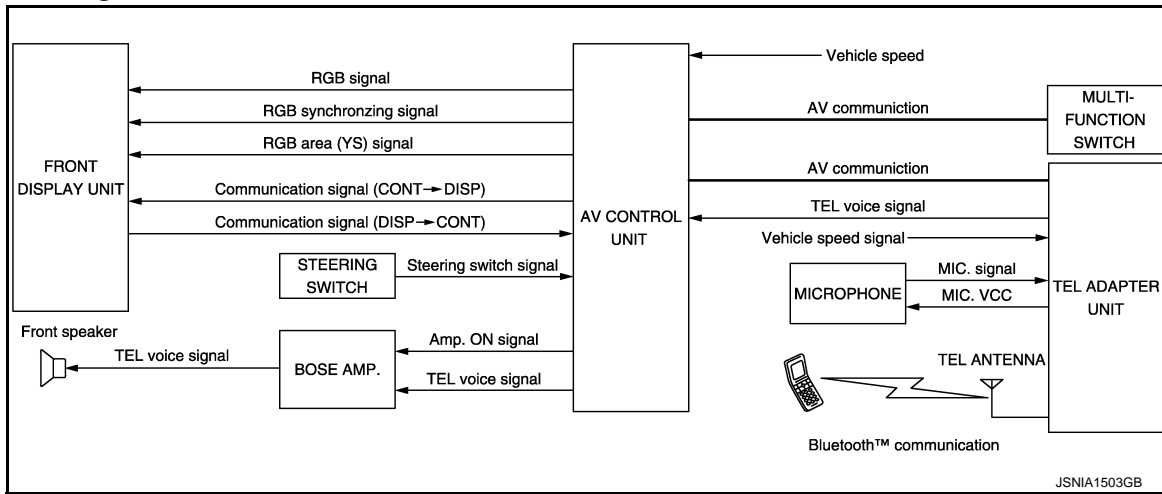
O

P



## HANDS-FREE PHONE SYSTEM

### System Diagram



### System Description

INFOID:000000003838542

- TEL adapter unit is controlled with AV communication from AV control unit.
- The connection between portable telephone and TEL adapter unit is performed via Bluetooth™ communication.
- The voice guidance signal is input from TEL adapter unit to AV control unit and output via BOSE amp. to front speaker when operating cellular phone.
- TEL adapter unit has the on board self-diagnosis function. Refer to [AV-46. "Diagnosis Description"](#).

#### When receiving a call

TEL voice signal received with the portable telephone is input from TEL antenna via TEL adapter unit to AV control unit via Bluetooth™ communication and output via BOSE amp. to front speaker. The operation is performed via steering switch or voice recognition function (TEL operation only).

#### When a call is transmitted

Voice sound (TEL voice signal) is input from the microphone to TEL adapter unit. It is input from TEL antenna via Bluetooth communication to portable telephone. It is transmitted to phone on the other side. The operation is performed with steering switch or voice recognition function (TEL operation only).



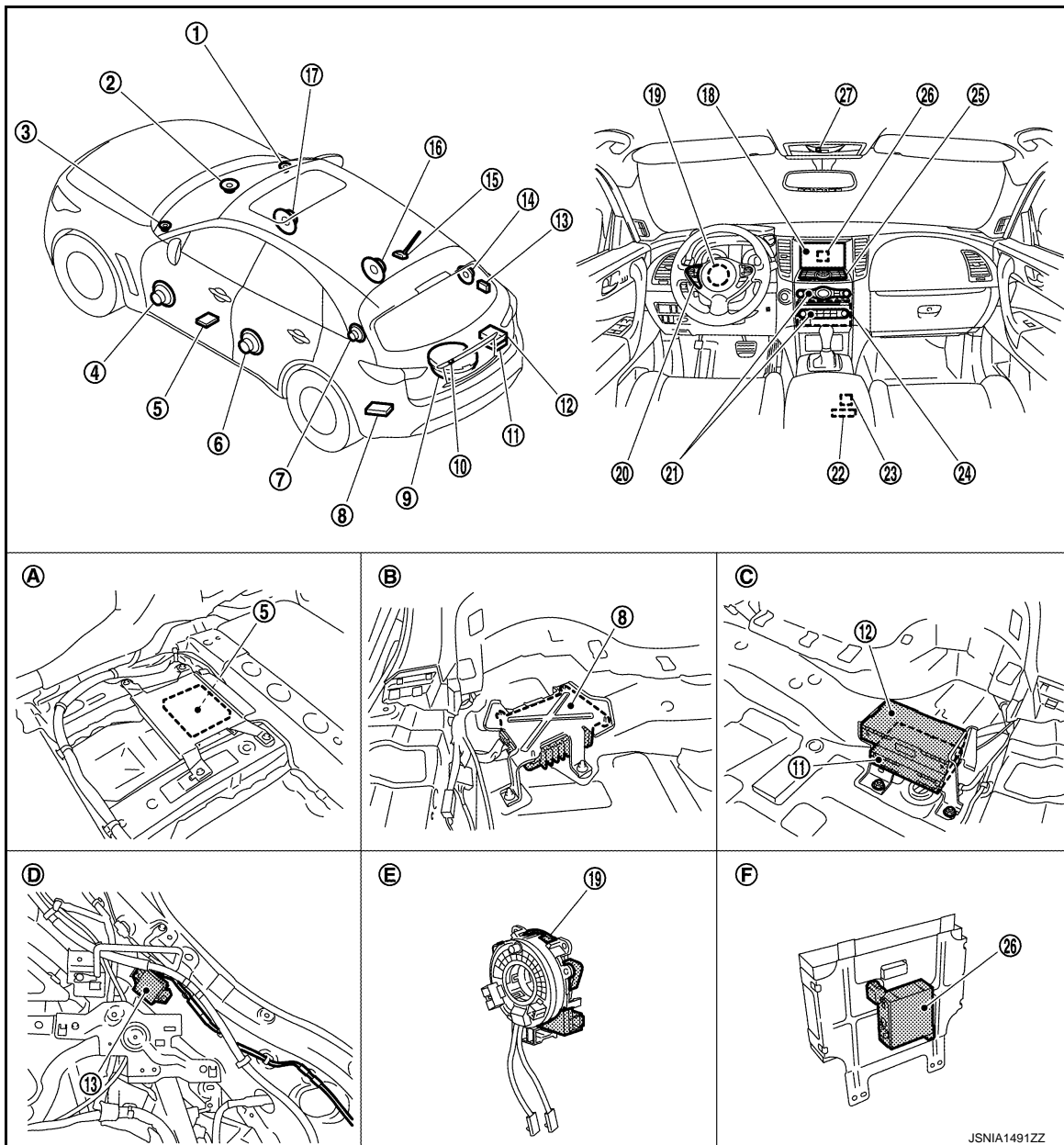
# HANDS-FREE PHONE SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

## Component Parts Location

INFOID:000000003931344



- |                               |                            |   |
|-------------------------------|----------------------------|---|
| 1. Front squawker RH          | 2. Center speaker          | 3. Front squawker LH                                  |
| 4. Front door speaker LH      | 5. Camera control unit     | 6. Rear door speaker LH                               |
| 7. Rear squawker LH           | 8. BOSE amp.               | 9. Woofer   |
| 10. Rear view camera          | 11. Satellite radio tuner  | 12. TEL adapter unit                                  |
| 13. TEL antenna               | 14. Rear squawker RH       | 15. Antenna base (antenna amp. and satellite antenna) |
| 16. Rear door speaker RH      | 17. Front door speaker RH  | 18. Front display unit                                |
| 19. Steering angle sensor     | 20. Steering switch        | 21. Preset switch                                     |
| 22. Auxiliary input jacks     | 23. iPod connector         | 24. AV control unit                                   |
| 25. Multifunction switch      | 26. iPod adapter           | 27. Microphone  |
| A. Under front seat (LH side) | B. Luggage floor (LH side) | C. Luggage floor (RH side)                            |
| D. Luggage side RH            | E. Spiral cable part       | F. Rear view of the front display unit                |



# HANDS-FREE PHONE SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

## Component Description

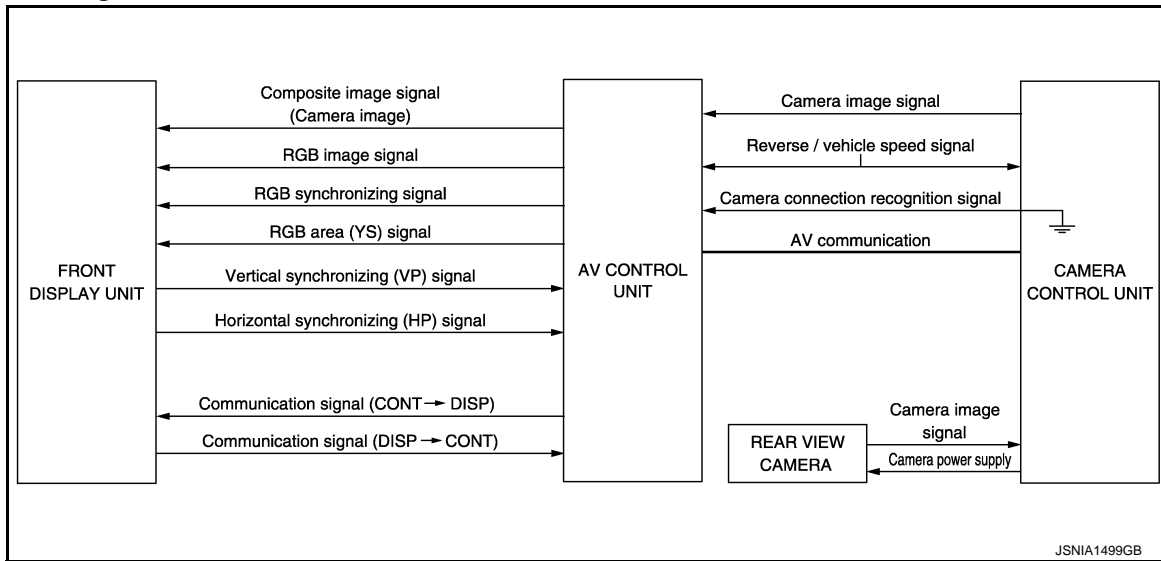
INFOID:000000003838544

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Inputs TEL voice signal or voice guidance signal from TEL adapter unit and outputs it to BOSE amp. during reception.</li><li>Connects with TEL adapter unit and AV communication and controls hands free phone system.</li></ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"><li>Front display image is controlled by the serial communication from AV control unit.</li><li>Inputs RGB image signal (RGB, RGB area and RGB synchronizing) from AV control unit and displays the status of hands free phone system.</li></ul>
BOSE AMP.	Inputs TEL voice signal or voice guidance signal from AV control unit and outputs it to front door speaker and center speaker.
FRONT DOOR SPEAKER	Outputs TEL voice signal or voice guidance signal from BOSE amp.
FRONT SQUAWKER	
PRESET SWITCH	<ul style="list-style-type: none"><li>Adjust the sound when using TEL.</li><li>The operation signal is transmitted to AV control unit via AV communication.</li></ul>
STEERING SWITCH	<ul style="list-style-type: none"><li>The hands free phone system can be operated.</li><li>Steering switch signal (operation signal) is output to AV control unit.</li></ul>
MICROPHONE	<ul style="list-style-type: none"><li>Used when operating the hands-free phone.</li><li>Outputs Mic. signal (TEL voice signal) to TEL adapter unit.</li><li>The power (Mic. power supply) is supplied from TEL adapter unit.</li></ul>
TEL ADAPTER UNIT	<ul style="list-style-type: none"><li>Inputs the TEL voice signal from TEL antenna and outputs it to AV control unit.</li><li>It is connected with AV control unit via AV communication and controlled with AV control unit.</li></ul>
TEL ANTENNA	Receives the TEL voice signal and outputs it to TEL adapter unit.



## REAR VIEW MONITOR SYSTEM

### System Diagram



### System Description

INFOID:000000003838546

#### CAMERA IMAGE OPERATION PRINCIPLE

- Power is supplied to rear view camera from camera control unit and the rear view camera outputs the camera image to camera control unit when selector lever is set to reverse position and the reverse signal on camera control unit is input.
- Camera control unit superimposes the guiding line and predicted course line to the image from rear view camera and outputs to front display unit. In this case, the reverse signal is also input to AV control unit. Therefore, AV control unit recognizes the selector lever as in the reverse position. And then AV control unit switches the image displayed by the communication signal between AV control unit and front display unit with the camera image.
- AV control unit outputs camera image signal that is inputted from camera control unit to front display unit.
- Camera control unit controls the direction and distance of predicted course line according to the sensor signal from steering angle sensor.
- Steering angle sensor connected to the AV control unit and transmits the steering angle signal via CAN communication.
- AV control unit determines whether rear view camera is equipped or not, based on the presence of camera connection recognition signal. It switches to rear view monitor image at the time of reverse signal input when rear view camera is equipped.
- Warning message under the rear view monitor display is described by AV control unit.

AV

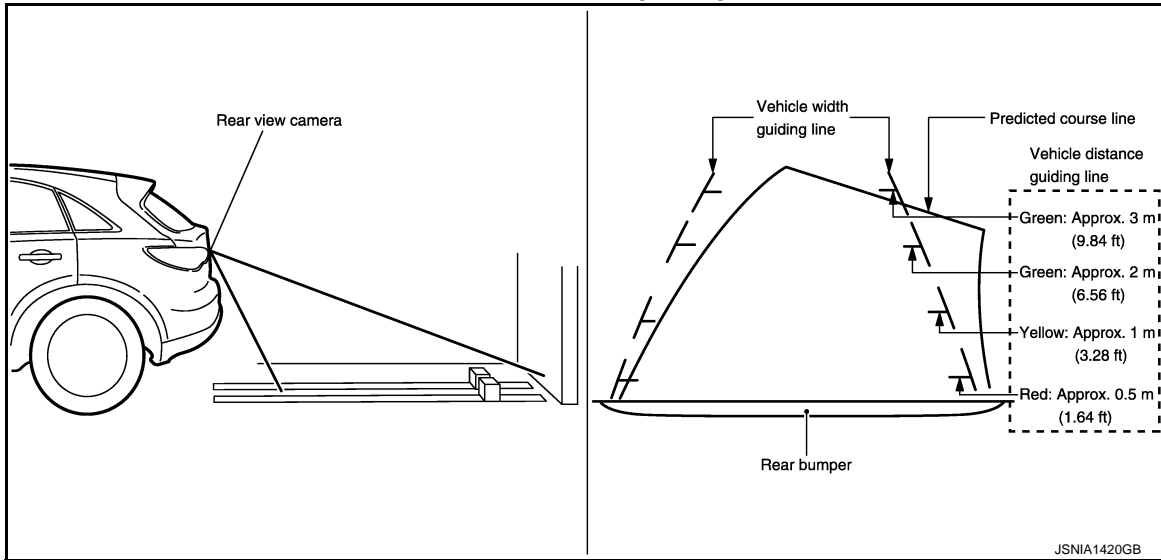


# REAR VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

Rear view monitor guiding line





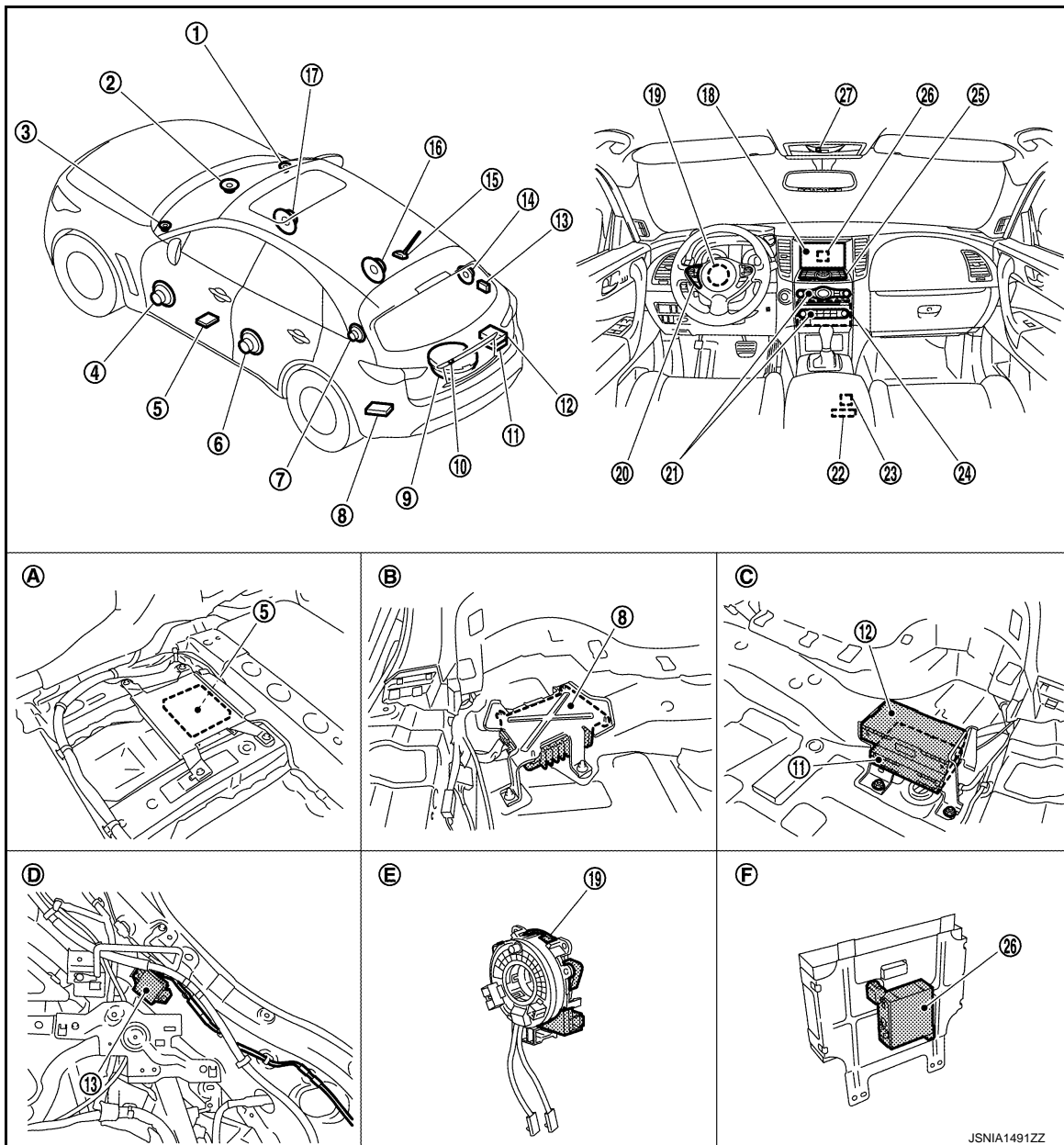
# REAR VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

## Component Parts Location

INFOID:000000003931389



- |                               |                            |   |
|-------------------------------|----------------------------|---|
| 1. Front squawker RH          | 2. Center speaker          | 3. Front squawker LH                                  |
| 4. Front door speaker LH      | 5. Camera control unit     | 6. Rear door speaker LH                               |
| 7. Rear squawker LH           | 8. BOSE amp.               | 9. Woofer   |
| 10. Rear view camera          | 11. Satellite radio tuner  | 12. TEL adapter unit                                  |
| 13. TEL antenna               | 14. Rear squawker RH       | 15. Antenna base (antenna amp. and satellite antenna) |
| 16. Rear door speaker RH      | 17. Front door speaker RH  | 18. Front display unit                                |
| 19. Steering angle sensor     | 20. Steering switch        | 21. Preset switch                                     |
| 22. Auxiliary input jacks     | 23. iPod connector         | 24. AV control unit                                   |
| 25. Multifunction switch      | 26. iPod adapter           | 27. Microphone  |
| A. Under front seat (LH side) | B. Luggage floor (LH side) | C. Luggage floor (RH side)                            |
| D. Luggage side RH            | E. Spiral cable part       | F. Rear view of the front display unit                |



# REAR VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

## Component Description

INFOID:000000003838548

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>• Image on display is transmitted to rear view monitor image by serial communication between AV control unit and front display unit.</li><li>• Warning displayed on the rear view monitor image is illustrated.</li><li>• AV control unit recognizes the presence of camera system with camera connection recognition signal.</li></ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"><li>• Camera image signal is input from AV control unit.</li><li>• RGB image signal for warning display is input from AV control unit.</li><li>• Rear view monitor image is changed by serial communication from AV control unit.</li></ul>
CAMERA CONTROL UNIT	<ul style="list-style-type: none"><li>• Camera image signal is input from rear view camera. Camera image signal is output to AV control unit.</li><li>• Power (camera ON signal) is transmitted to rear view camera.</li><li>• Superimpose the guiding line and predicted course line to the camera image that outputs to AV control unit.</li><li>• Inputs the sensor signal from steering angle sensor, and then controls the predicted course line.</li><li>• Camera control unit is connected via AV communication.</li></ul>
REAR VIEW CAMERA	<ul style="list-style-type: none"><li>• The image of vehicle rear view is transmitted to camera control unit.</li><li>• It receives power (camera ON signal) from camera control unit and operates.</li></ul>
STEERING ANGLE SENSOR	<p>It is connected to the AV control unit and transmits the steering angle signal via CAN communication.</p>



## DIAGNOSIS SYSTEM (AV CONTROL UNIT)

### Diagnosis Description

INFOID:000000003838549

#### MULTIFUNCTION SWITCH AND PRESET SWITCH SELF-DIAGNOSIS FUNCTION

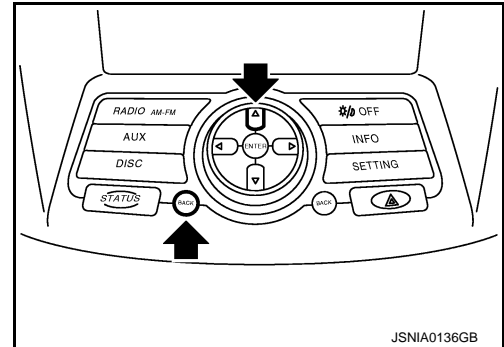
The ON/OFF operation (continuity) of each switch in the multifunction switch and preset switch can be checked.

##### Self-diagnosis Mode

- Press the "BACK" switch and the "UP" switch of the 4-direction switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more. The buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch in the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.

##### NOTE:

The hazard switch and disk eject switch cannot be checked.



##### Finishing Self-diagnosis Mode

Self-diagnosis mode is canceled when turning the ignition switch OFF.

#### MULTI AV SYSTEM ON BOARD DIAGNOSIS FUNCTION

- The AV control unit diagnosis function starts up with multifunction switch operation and AV control unit performs a diagnosis for each unit in the system during the on board diagnosis.
- Perform a CONSULT-III diagnosis if the on board diagnosis does not start, e.g., the screen does not display anything, multifunction switch does not function, etc.

### ON BOARD DIAGNOSIS

##### Description

- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- Self-diagnosis mode performs AV control unit diagnosis and the connection diagnosis between each of the units that make up the system, and it indicates the results to the display.
- The confirmation/adjustment mode allows the technician to check, modify or adjust the vehicle signals and set values, as well as to monitor the system error records and system communication status. The checking, modifying or adjusting generally requires human intervention and judgment (the system cannot make judgment automatically).

##### On Board Diagnosis Item

Mode	Description
Self Diagnosis	<ul style="list-style-type: none"> <li>AV control unit diagnosis</li> <li>Perform the connection diagnosis between each of the units.</li> </ul>

AV



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

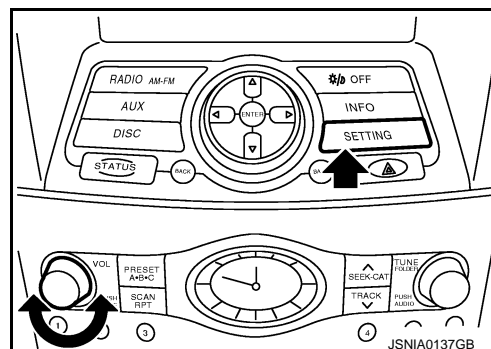
< SYSTEM DESCRIPTION >

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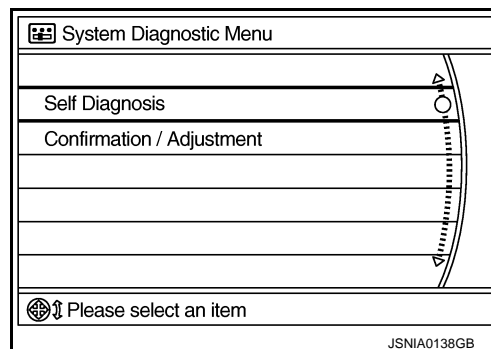
	Mode	Description
Confirmation/ Adjustment	Display Diagnosis	The confirmations of the tint with the color spectrum bar display and shading of color with the gradation bar display can be performed.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition switch, and reverse.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Climate Control	Start auto air conditioner system self-diagnosis.
	Error History	The system malfunction and the frequency when occurring in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.
	Vehicle CAN Diagnosis	The transmitting/receiving of CAN communication can be monitored.
	AV COMM Diagnosis	The communication condition of each unit of Multi AV system can be monitored.
	Camera Cont.	The signal connected to camera control unit can be checked and the guiding line position that overlaps rear view camera image can be adjusted.
	Delete Unit Connection Log	Erase the connection history of unit and error history
	Initialize Settings	Initializes AV control unit memory.

## STARTING PROCEDURE

1. Start the engine.
2. Turn the audio system OFF.
3. While pressing the “SETTING” button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. (When the self-diagnosis mode starts, a short beep will sound.)
  - Shifting from the current screen to the previous screen is performed by pressing the “BACK” button.



4. The trouble diagnosis initial screen is displayed, and then the items of “Self Diagnosis” and “Confirmation/Adjustment” can be selected.



## SELF-DIAGNOSIS MODE

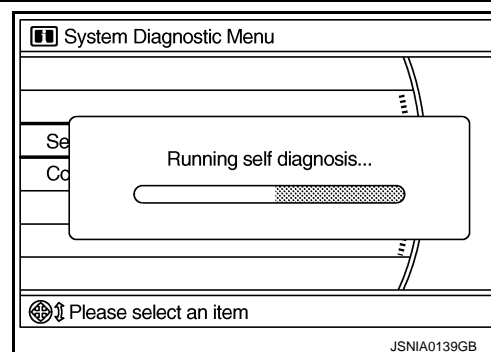


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

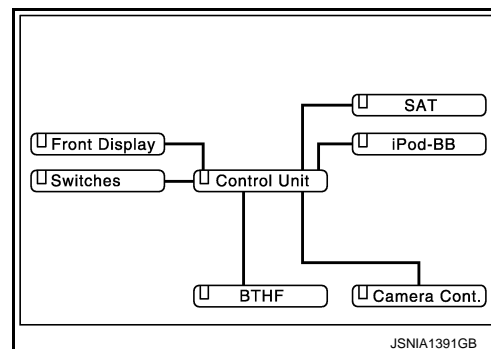
[WITHOUT NAVIGATION]

1. Start the self-diagnosis function and select "Self-diagnosis".
  - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
  - The bar graph visible on the center of the self-diagnosis subdivision screen indicates the progress of the trouble diagnosis.



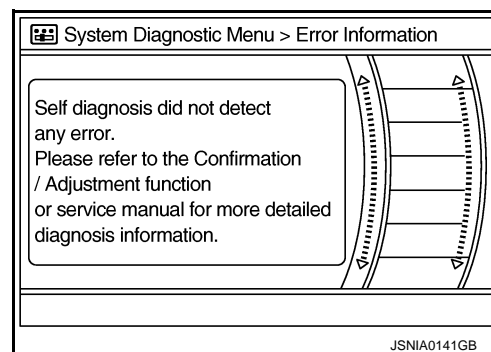
2. Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.

Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction <sup>Note</sup>	Red	Green



### NOTE:

- Only the control unit (AV control unit) is displayed in red.
- Replace AV control unit if "Self-Diagnosis did not run because of a control unit malfunction" is indicated. The symptom is an AV control unit internal error. Refer to [AV-251, "Exploded View"](#).
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.
- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.



## SELF-DIAGNOSIS RESULTS

- The self-diagnosis mode allows the technician to diagnose the connection in the communication line between AV control unit and each unit, and the internal operation of AV control unit.
- Because the start condition of the diagnosis function is a switch operation, the on board diagnosis function cannot be started up if any malfunction is detected in the communication circuit between AV control unit and the multifunction switch.
- Check the applicable display in following table, and then repair the malfunctioning parts.

Self-diagnosis Result Chart

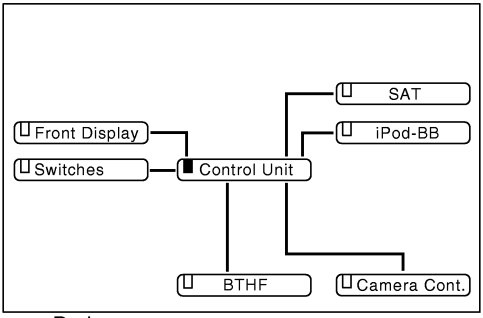
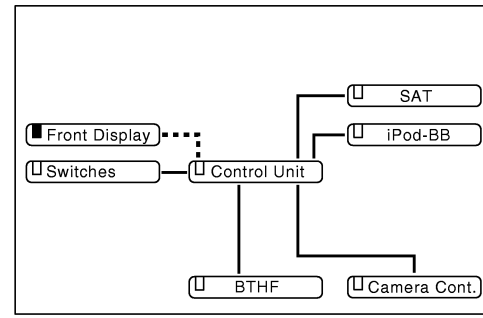
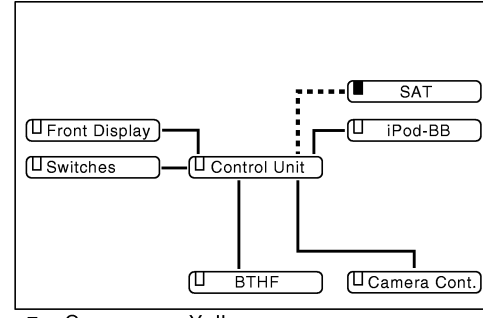
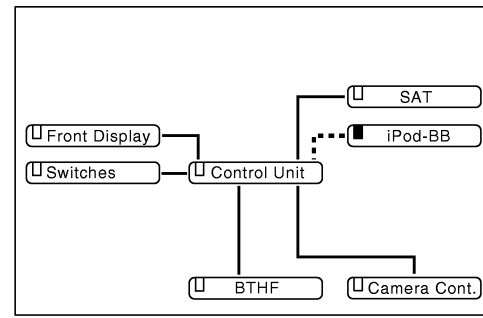
AV



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

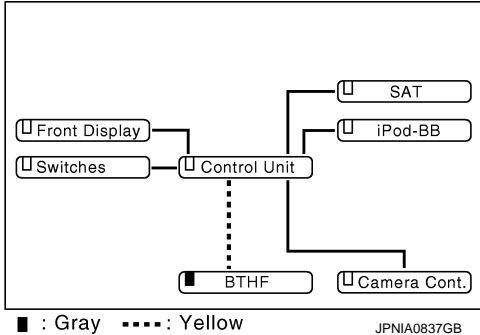
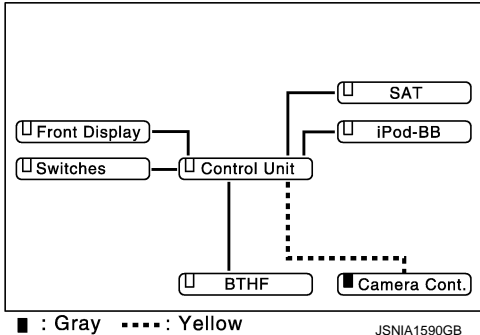
Diagnosis results	Description	Possible malfunction location / Action to take
<p>"Self-Diagnosis did not run because of a control unit malfunction"</p>  <p>■ : Red JPNIA0833GB</p> <p><b>NOTE:</b> When a control unit malfunction is detected (red in unit display), connection malfunctions with other connection units may be displayed.</p>	<p>AV control unit malfunction is detected.</p> <p>Malfunction is detected in AV control unit power supply and ground circuits.</p>	<p>Replace AV control unit.</p> <p>Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.</p>
 <p>■ : Gray    .....: Yellow JPNIA0834GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>malfunction is detected in the communication circuits between AV control unit and front display unit.</li> <li>malfunction is detected in the communication signal between AV control unit and front display unit.</li> </ul>	<p>Communication circuits between AV control unit and front display unit.</p>
 <p>■ : Gray    .....: Yellow JPNIA0835GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>satellite radio tuner power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the communication circuits between AV control unit and satellite radio tuner.</li> <li>malfunction is detected in the communication signal between AV control unit and satellite radio tuner.</li> <li>malfunction is detected in the request signal circuit between AV control unit and satellite radio tuner.</li> </ul>	<ul style="list-style-type: none"> <li>Satellite radio tuner power supply and ground circuit.</li> <li>Communication circuits between AV control unit and satellite radio tuner.</li> <li>Request signal circuit between AV control unit and satellite radio tuner.</li> </ul>
 <p>■ : Gray    .....: Yellow JPNIA0836GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and iPod adapter.</li> <li>malfunction is detected in the AV communication signal between AV control unit and iPod adapter.</li> </ul>	<ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuit.</li> <li>AV communication circuits between AV control unit and iPod adapter.</li> </ul>



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

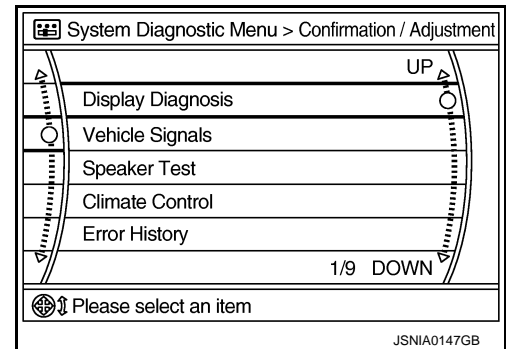
< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

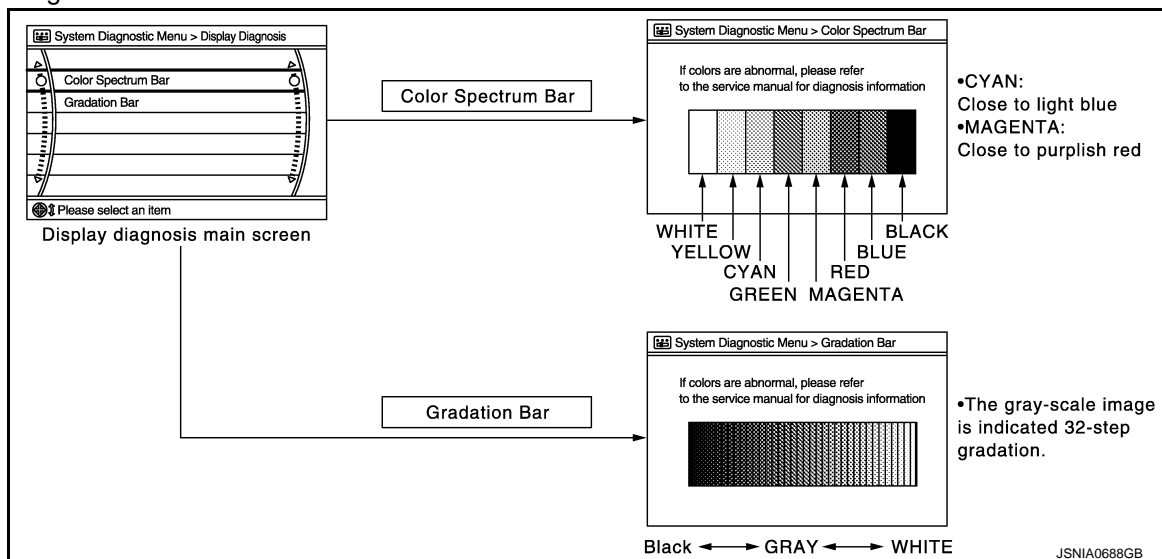
Diagnosis results	Description	Possible malfunction location / Action to take
 <p>■ : Gray    - - - - : Yellow</p> <p>JPNIA0837GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>• TEL adapter unit power supply and ground circuits malfunction are detected.</li> <li>• malfunction is detected in the AV communication circuits between AV control unit and TEL adapter unit.</li> <li>• malfunction is detected in the AV communication signal between AV control unit and TEL adapter unit.</li> </ul>	<ul style="list-style-type: none"> <li>• TEL adapter unit power supply and ground circuits.</li> <li>• AV communication circuits between AV control unit and TEL adapter unit.</li> </ul>
 <p>■ : Gray    - - - - : Yellow</p> <p>JSNIA1590GB</p>	<p>Malfunction is detected in the camera control unit recognition circuit between AV control unit and camera control unit.</p>	<p>Camera control unit recognition circuit between AV control unit and camera control unit.</p>

## CONFIRMATION/ADJUSTMENT MODE

1. Start the diagnosis function and select "Confirmation/Adjustment". The confirmation/adjustment mode indicates where each item can be checked or adjusted.
2. Select each switch on the "Confirmation/Adjustment Mode" screen to display the relevant trouble diagnosis screen. Press the "RETURN" switch to return to the initial Confirmation/Adjustment Mode screen.



## Display Diagnosis





# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

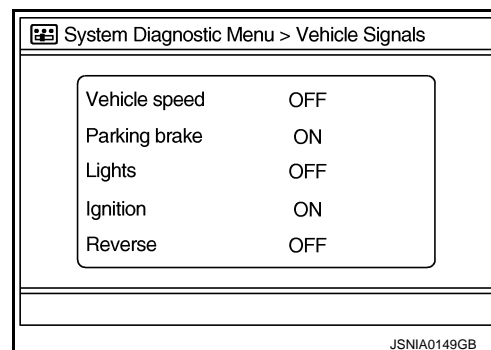
[WITHOUT NAVIGATION]

The tint of the color bar indication is as per the following list if a RGB signal error is detected.

**R (red) signal error** : Light blue (Cyan) tint  
**G (green) signal error** : Purple (Magenta) tint  
**B (blue) signal error** : Yellow tint

## Vehicle Signals

A comparison check can be made of each actual vehicle signal and the signals recognized by the system.



Diagnosis item	Display	Vehicle status	Remarks
Vehicle speed	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
		Vehicle speed = 0 km/h (0 MPH)	
Parking brake	ON	Parking brake is applied.	
	OFF	Parking brake is released.	
Lights	ON	Light switch ON	—
	OFF	Light switch OFF	
Ignition	ON	Ignition switch ON	—
	OFF	Ignition switch ACC	
Reverse	ON	Shift the selector lever to the "R" position.	Changes in indication may be delayed. This is normal.
	OFF	Shift the selector lever to a position other than the "R" position.	

## Speaker Test

Select "SPEAKER DIAGNOSIS" to display the Speaker Diagnosis screen. Press "START and NEXT" to generate a test tone in a speaker. Press "Start" to generate a test tone in the next speaker. Press "End" to stop the test tones.

### NOTE:

The frequency of test tone emitted from each speaker is as follows.

**Tweeter\*** : 3 kHz  
**Front speaker** : 300 Hz  
**Rear speaker** : 1 kHz

\*: Squawker

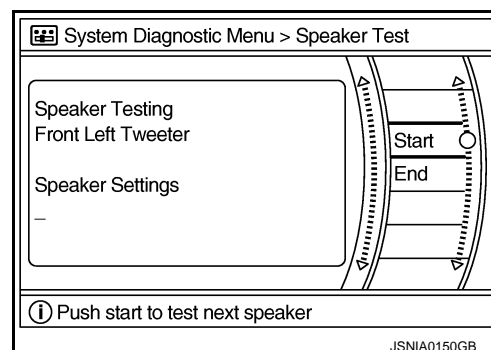
## Climate Control

Refer to "HEATER & AIR CONDITIONING CONTROL SYSTEM" for details.

## Error History

The self-diagnosis results are judged depending on whether any error occurs from when "Self-diagnosis" is selected until the self-diagnosis results are displayed.

However, the diagnosis results are judged normal if an error has occurred before the ignition switch is turned ON and then no error has occurred until the self-diagnosis start. Check the "Error Record" to detect any error that may have occurred before the self-diagnosis start because of this condition.





# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

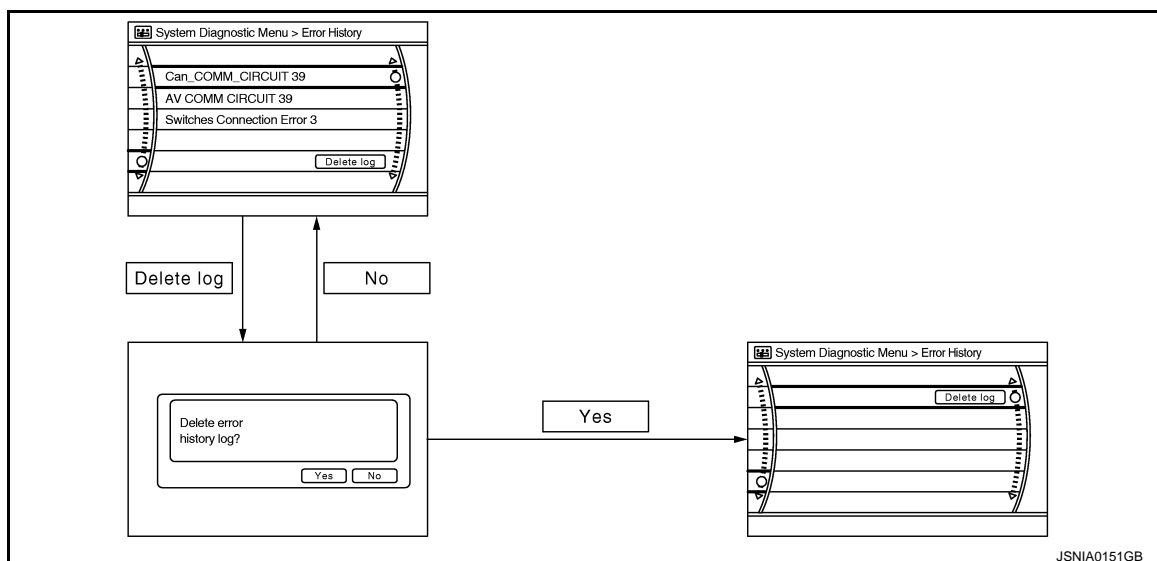
Count up method A

- The counter resets to 0 if an error occurs when the ignition switch is turned ON. The counter increases by 1 if the condition is normal at the next IGN ON cycle.
- The counter upper limit is 39. Any counts exceeding 39 are ignored. The counter can be reset (no error record display) with the "Delete log" switch or CONSULT-III.

Count up method B

- The counter increases by 1 if an error occurs when the ignition switch is ON. The counter will not decrease even if the condition is normal at the next IGN ON cycle.
- The counter upper limit is 50. Any counts exceeding 50 are ignored. The counter can be reset (no error record display) with the "Delete log" switch or CONSULT-III.

Display type of occurrence frequency	Error history display item
Count up method A	CAN communication line, control unit (CAN), AV communication line, control unit (AV communication)
Count up method B	Other than the above



Error item

Error items may be displayed simultaneously according to the cause. If error items are displayed simultaneously, the cause can be detected by the combination of display items.

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT	CAN communication malfunction is detected.	Perform diagnosis with CONSULT-III, and then repair malfunctioning parts according to the diagnosis results. Refer to <a href="#">AV-43, "CONSULT-III Function (MULTI AV)"</a> .
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected.	Replace AV control unit.
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	
FLASH-ROM Error Of Control Unit	AV control unit malfunction is detected.	
CAN Controller Memory Error		



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
Front Display Connection Error	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>front display unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the communication circuits between AV control unit and front display unit.</li> <li>malfunction is detected in the communication signal between AV control unit and front display unit.</li> </ul>	<ul style="list-style-type: none"> <li>Front display unit power supply and ground circuits.</li> <li>Communication circuits between AV control unit and front display unit.</li> </ul>
SAT Connection Error	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>satellite radio tuner power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the communication circuits between AV control unit and satellite radio tuner.</li> <li>malfunction is detected in the communication signal between AV control unit and satellite radio tuner.</li> <li>malfunction is detected in the request signal circuit between AV control unit and satellite radio tuner.</li> </ul>	<ul style="list-style-type: none"> <li>Satellite radio tuner power supply and ground circuits.</li> <li>Communication circuits between AV control unit and satellite radio tuner.</li> <li>Request signal circuit between AV control unit and satellite radio tuner.</li> </ul>
Camera Control Unit Connection Error	<p>Malfunction is detected in the camera connection recognition circuit between AV control unit and camera control unit.</p>	<p>Camera connection recognition circuit between AV control unit and camera control unit.</p>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>Switches Connection Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>multifunction switch power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and multifunction switch.</li> <li>malfunction is detected in the AV communication signal between AV control unit and multifunction switch.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and multifunction switch.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>iPod Connection Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>iPod adapter unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and iPod adapter.</li> <li>malfunction is detected in the AV communication signal between AV control unit and iPod adapter.</li> </ul>	<ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and iPod adapter.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>Rear View Camera Connection Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>camera control unit power supply and ground circuits malfunction is detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and camera control unit.</li> <li>malfunction is detected in the AV communication signal between AV control unit and camera control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Camera control unit power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and camera control unit.</li> </ul>



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

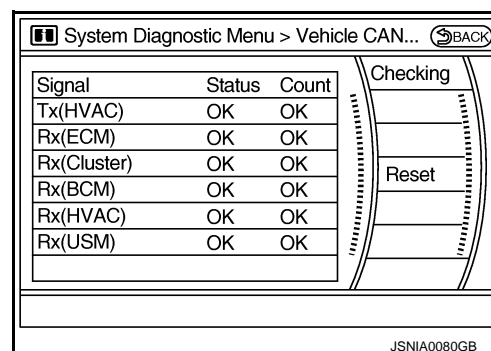
[WITHOUT NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>H/F Unit Connection Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>TEL adapter unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and TEL adapter unit.</li> <li>malfunction is detected in the AV communication signal between AV control unit and TEL adapter unit.</li> </ul>	<ul style="list-style-type: none"> <li>TEL adapter unit power supply and ground circuit.</li> <li>AV communication circuits between AV control unit and TEL adapter unit.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>Switches Connection Error</li> <li>iPod Connection Error</li> <li>Rear View Camera Connection Error</li> <li>H/F Unit Connection Error</li> </ul>	<p>Malfunction is detected in the AV communication circuits between AV control unit and camera control unit.</p>	<p>AV communication circuits between AV control unit and camera control unit.</p>

### Vehicle CAN Diagnosis

- CAN communication status and error counter is displayed.
- The error counter displays “OK” if a malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if reset.

Items	Display (Current)	Malfunction counter (Past)
Tx(HVAC)	OK / UNKWN	OK / 0 - 39
Rx(ECM)	OK / UNKWN	OK / 0 - 39
Rx(Cluster)	OK / UNKWN	OK / 0 - 39
Rx(BCM)	OK / UNKWN	OK / 0 - 39
Rx(HVAC)	OK / UNKWN	OK / 0 - 39
Rx(USM)	OK / UNKWN	OK / 0 - 39

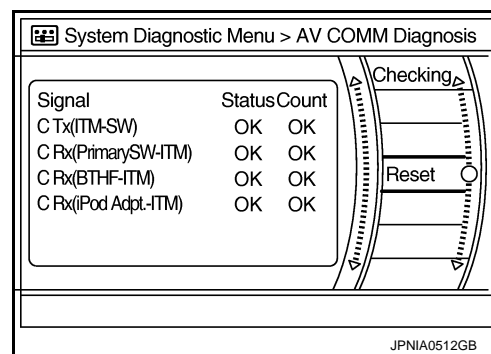


### AV COMM Diagnosis

- Displays the communication status between AV control unit (master unit) and each unit.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if reset.

Items	Status (Current)	Counter (Past)
C Tx(ITM-SW)	OK / UNKWN	OK / 0 - 39
C Rx(PrimarySW-ITM)	OK / UNKWN	OK / 0 - 39
C Rx(BTHF-ITM)*	OK / UNKWN	OK / 0 - 39
C Rx(iPod Adpt.-ITM)	OK / UNKWN	OK / 0 - 39

\*: With hands-free phone



### Camera Cont.

The two functions of “Connection Confirmation” and “Adjust Offset of Rear View Camera” are available.

#### CONNECTION CONFIRMATION

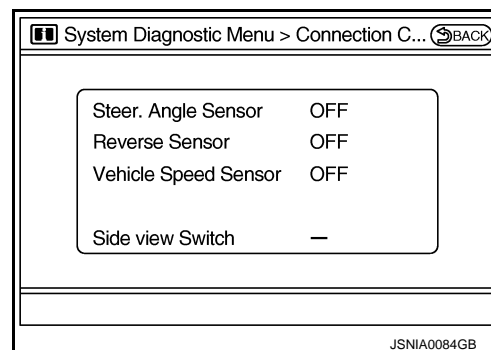


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

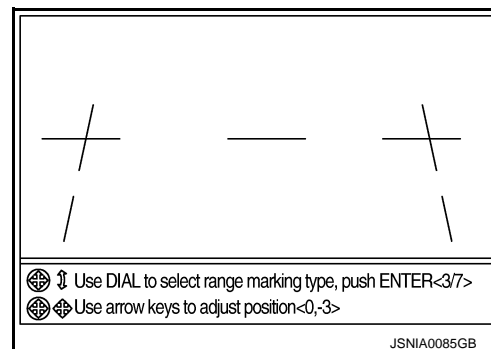
The steering angle sensor, reverse signal and vehicle speed sensor can be inspected.



Diagnosis item	Display	Vehicle status
Steer. Angle Sensor	ON	When steering the vehicle with ignition switch ON (remains ON until connection mode is stopped when it is turned ON)
	OFF	<ul style="list-style-type: none"> <li>Ignition switch at ACC</li> <li>No steering with ignition switch ON</li> </ul>
	—	Malfunction detected in camera connection recognition signal
Reverse Sensor	ON	Selector lever is in "R" with ignition switch ON
	OFF	<ul style="list-style-type: none"> <li>Ignition switch at ACC</li> <li>Selector lever is in position other than "R" with ignition switch ON</li> </ul>
	—	Malfunction detected in camera-connection recognition signal
Vehicle Speed Sensor	ON	Vehicle speed is more than 0 km/h (0 MPH) with ignition switch ON
	OFF	<ul style="list-style-type: none"> <li>Ignition switch at ACC</li> <li>Vehicle speed is 0 km/h (0 MPH) with ignition switch ON</li> </ul>
	—	Malfunction detected in camera connection recognition signal
Side view Switch	—	Not used

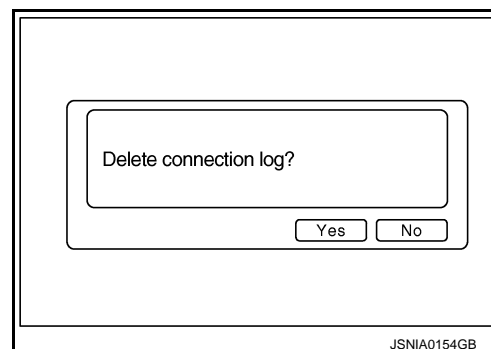
## ADJUST OFFSET OF REAR VIEW CAMERA

Use this mode to adjust the guide line display position of the rear view monitor if necessary after removing the rear view monitor camera.



## Delete Unit Connection Log

Deletes any unit connection records and error records from AV control unit memory. (Clear the records of the unit that has been removed.)



Initialize Settings

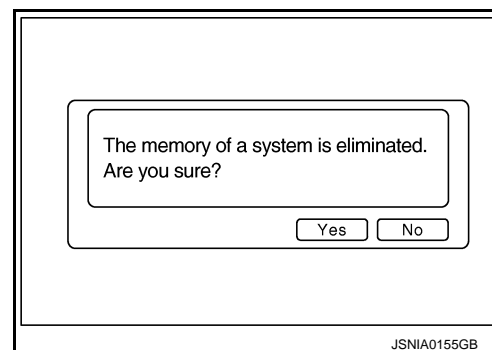


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

Initializes AV control unit memory.



## CONSULT-III Function (MULTI AV)

INFOID:000000003838550

### CONSULT-III functions

CONSULT-III performs the following functions via the communication with AV control unit.

Diagnosis mode	Description
Ecu Identification	The part number of AV control unit can be checked.
Self Diagnostic Result	Performs a diagnosis on AV control unit, a connection diagnosis for the communication circuit of the Multi AV system and displays the current and past malfunctions collectively.
Data Monitor	The diagnosis of vehicle signal that is input to AV control unit can be performed.

### AV COMMUNICATION

When "AV communication" of "CAN Diag Support Monitor" is selected, the following function will be performed.

AV communication	AV&NAVI C/U	Displays the communication status from AV control unit to each unit as well as the error counter.
	AUDIO	Displays AV control unit communication status and the error counter.

### ECU IDENTIFICATION

The part number of AV control unit is displayed.

### SELF DIAGNOSIS RESULT

- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed simultaneously.
- The timing is displayed as "0" if any of the error codes [U1000], [U1010], [U1300] or [U1310] are detected. The counter increases by 1 if the condition is normal at the next ignition switch ON cycle.

Self-diagnosis results display item

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT [U1000]	CAN communication malfunction is detected.	Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to <a href="#">AV-48, "Diagnosis Procedure"</a> .
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	Replace AV control unit.
CONTROL UNIT (AV) [U1310]	AV communication circuit initial diagnosis malfunction is detected.	
Control Unit FLASH-ROM [U1200]	AV control unit malfunction is detected.	
CAN CONT [U1216]		



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
FRONT DISP CONN [U1243]	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>front display unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in communication circuits between AV control unit and front display unit.</li> <li>malfunction is detected in communication signal between AV control unit and front display unit.</li> </ul>	<ul style="list-style-type: none"> <li>Front display unit power supply and ground circuits.</li> <li>Communication circuits between AV control unit and front display unit.</li> </ul>
CAMERA CONT. CONN [U1250]	Malfunction is detected in camera connection recognition circuit between AV control unit and camera control unit.	Camera connection recognition circuit between AV control unit and camera control unit.
SAT CONN [U1255]	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>satellite radio tuner power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in communication circuits between AV control unit and satellite radio tuner.</li> <li>malfunction is detected in communication signal between AV control unit and satellite radio tuner.</li> <li>malfunction is detected in request signal circuits between AV control unit and satellite radio tuner.</li> </ul>	<ul style="list-style-type: none"> <li>Satellite radio tuner power supply and ground circuits.</li> <li>Communication circuits between AV control unit and satellite radio tuner.</li> <li>Request signal circuits between AV control unit and satellite radio tuner.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SWITCH CONN [U1240]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>multifunction switch power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in AV communication circuits between AV control unit and multifunction switch.</li> <li>malfunction is detected in AV communication signal between AV control unit and multifunction switch.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and multifunction switch.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>REAR CAMERA LAN CONN [U1252]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>camera control unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in AV communication circuits between AV control unit and camera control unit.</li> <li>malfunction is detected in AV communication signal between AV control unit and camera control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Camera control unit power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and camera control unit.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>iPod CONN [U1254]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in AV communication circuits between AV control unit and iPod adapter.</li> <li>malfunction is detected in AV communication signal between AV control unit and iPod adapter.</li> </ul>	<ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and iPod adapter.</li> </ul>



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>HAND FREE CONN [U1256]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>TEL adapter unit power supply and ground circuit malfunction are detected.</li> <li>malfunction is detected in AV communication circuits between AV control unit and TEL adapter unit.</li> <li>malfunction is detected in AV communication signal between AV control unit and TEL adapter unit.</li> </ul>	<ul style="list-style-type: none"> <li>TEL adapter unit power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and TEL adapter unit.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SWITCH CONN [U1240]</li> <li>REAR CAMERA LAN CONN [U1252]</li> <li>iPod CONN [U1254]</li> <li>HAND FREE CONN [U1256]</li> </ul>	Malfunction is detected in the AV communication circuits between AV control unit and camera control unit.	AV communication circuits between AV control unit and camera control unit.

## DATA MONITOR

### ALL SIGNALS

- Displays the status of the following vehicle signals inputted into AV control unit.
- For each signal, actual signal can be compared with the condition recognized on the system.

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	On	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	Off	Vehicle speed = 0 km/h (0 MPH)	
PKB SIG	On	Parking brake is applied.	
	Off	Parking brake is released.	
ILLUM SIG	On	Light switch ON	—
	Off	Light switch OFF	
IGN SIG	On	Ignition switch ON	
	Off	Ignition switch ACC	
REV SIG	On	Shift the selector lever to the "R" position	Changes in indication may be delayed. This is normal.
	Off	Shift the selector lever to a position other than the "R" position	

### SELECTION FROM MENU

Allows the technician to select which vehicle signals should be displayed and displays the status of the selected vehicle signals.

Item to be selected	Description
VHCL SPD SIG	The same as when "ALL SIGNALS" is selected.
PKB SIG	
ILLUM SIG	
IGN SIG	
REV SIG	

AV

O

P



## DIAGNOSIS SYSTEM (TEL ADAPTER UNIT)

## Diagnosis Description

INFOID:000000003838551

## HANDS-FREE PHONE SYSTEM ON BOARD DIAGNOSIS

During on board diagnosis the diagnosis function of TEL adapter unit starts with the operation of steering switch and performs the diagnosis when ignition switch is turned to ACC.

## ON BOARD DIAGNOSIS ITEM

The on board diagnosis has 3 modes: the self-diagnosis mode that performs the trouble diagnosis, the speaker adaptation data deleting mode and the hands-free phone system initialization mode.

**CAUTION:**

- Perform the diagnosis with the vehicle stopped.
- Perform STEP2 if necessary.

STEP	MODE	Description
STEP1	Self-diagnosis	<ul style="list-style-type: none"> <li>• The self-diagnosis mode performs the microphone test.</li> <li>• The self-diagnosis mode also diagnoses TEL adapter unit, TEL antenna and steering switch.</li> <li>• Those results are indicated with voice guidance and displayed on the screen.</li> </ul>
STEP2	Speaker adaptation data deleting	The speaker adaptation data deleting mode can delete the speaker adaptation data.
	Hands-free phone system initialization	Hands-free phone system initialization mode can perform the initialization of the hands-free phone system.

## SELF-DIAGNOSIS RESULTS

Self-diagnosis mode reads out the self-diagnosis results and indicates DTC on the display.

**NOTE:**

- Error count is read out simultaneously when reading out the DTC name.
- The errors are read out continuously when some errors occur at the same time. The DTC displays are combined and displayed. For example, DTC 01100 is displayed when DTC 01000 and DTC 00100 are indicated at the same time.

## Self-diagnosis results

DTC	DTC name	Possible causes
DTC 10000	INTERNAL FAILURE	TEL adapter unit
DTC 01000	ANT. SHORT TO BATT OR OPEN	TEL antenna
DTC 00100	ANT. SHORT TO GROUND	
DTC 00010	STEERING REMOTE BUTTON STUCK A	Steering switch
DTC 00001	STEERING REMOTE BUTTON STUCK B	
DTC 00000	THERE ARE NO FAILURE RECORDS TO REPORT	—

## The Details Of Error Count

The error count displays "0" when an error occurs. The next time it counts up to "1" if conditions are normal with the ignition switch ON. It continues the count up unless the initialization of hands-free phone system is performed.

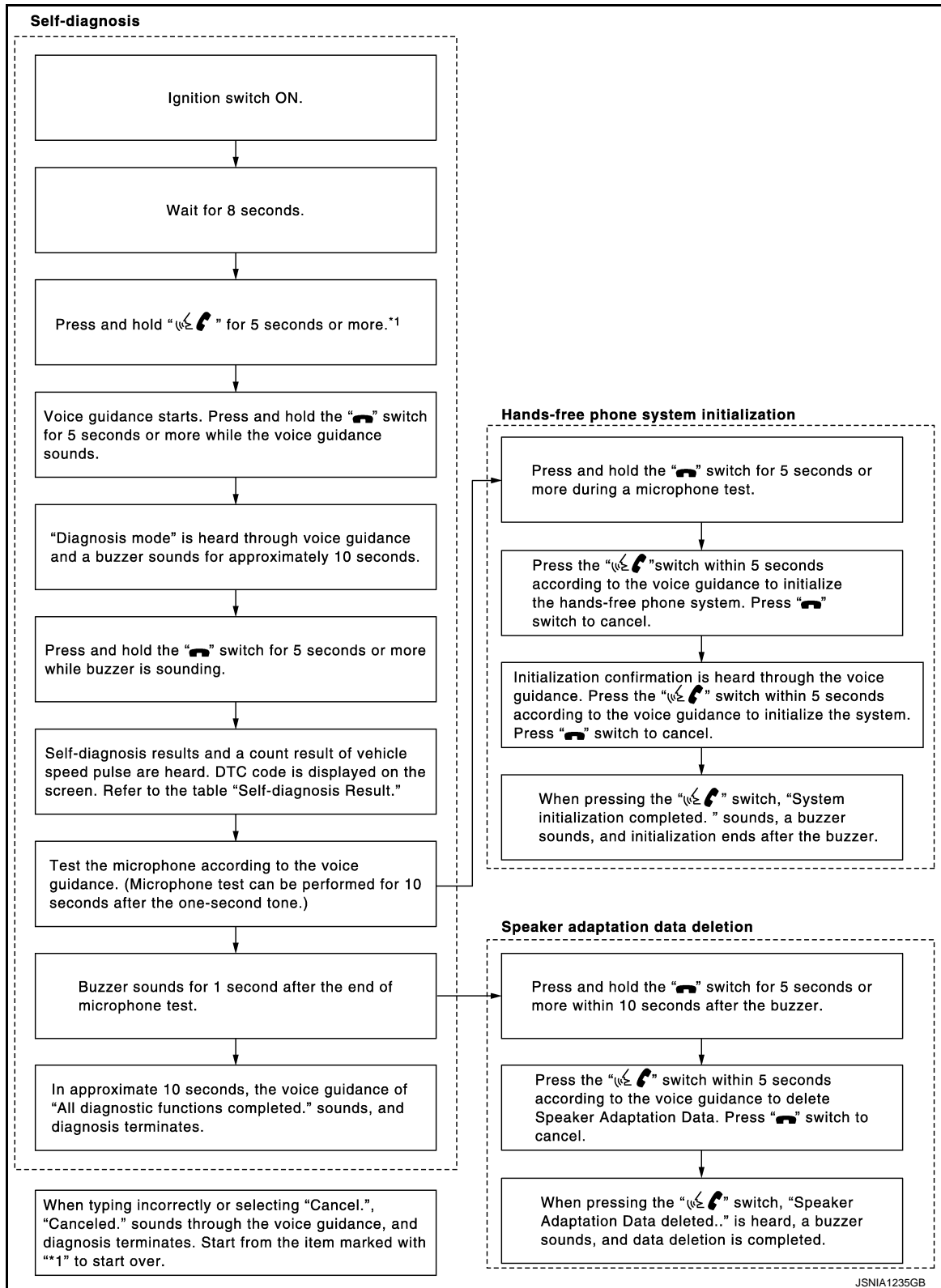


# DIAGNOSIS SYSTEM (TEL ADAPTER UNIT)

< SYSTEM DESCRIPTION >

[WITHOUT NAVIGATION]

## FLOW CHART OF TROUBLE DIAGNOSIS



A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



**DTC/CIRCUIT DIAGNOSIS****U1000 CAN COMM CIRCUIT****Description**

INFOID:000000003838552

CAN (Controller Area Network) is a serial communication line for real-time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independently). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Signal Chart. Refer to [LAN-32, "CAN Communication Signal Chart"](#).

**DTC Logic**

INFOID:000000003838553

**DTC DETECTION LOGIC**

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1000	CAN COMM CIRCUIT	AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	CAN communication system.

**Diagnosis Procedure**

INFOID:000000003838554

**1.PERFORM SELF-DIAGNOSTIC**

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check "Self Diagnostic Result" of "MULTI AV".

**Is "CAN COMM CIRCUIT" displayed?**

- YES >> Refer to "LAN system". Refer to [LAN-22, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to GI section. Refer to [GI-35, "Intermittent Incident"](#).



## U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

### U1010 CONTROL UNIT (CAN)

#### Description

INFOID:0000000003838555

Initial diagnosis of AV control unit.

#### DTC Logic

INFOID:0000000003838556

#### DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1010	CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected.	AV control unit.

#### Diagnosis Procedure

INFOID:0000000003838557

#### 1.REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit.

>> INSPECTION END

AV



# U1310 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## U1310 AV CONTROL UNIT

### Description

INFOID:000000003838558

Replace the AV control unit if this DTC is displayed. Refer to [AV-251, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.</li><li>• AV control unit includes audio function and vehicle information function.</li><li>• It is connected to ECM and unified meter and A/C amp via CAN communication to obtain necessary information for the vehicle information function.</li><li>• It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>• It inputs the illumination signals that are required for the display dimming control.</li><li>• It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>• Auxiliary image signal is input from the auxiliary input jacks.</li></ul>

### DTC Logic

INFOID:000000003838559

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1310	CONTROL UNIT (AV) [U1310]	An initial diagnosis error is detected in AV communication circuit.	Replace AV control unit.



# U1200 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## U1200 AV CONTROL UNIT

### Description

INFOID:000000003838560

Replace the AV control unit if this DTC is displayed. Refer to [AV-251, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.</li><li>• AV control unit includes audio function and vehicle information function.</li><li>• It is connected to ECM and unified meter and A/C amp via CAN communication to obtain necessary information for the vehicle information function.</li><li>• It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>• It inputs the illumination signals that are required for the display dimming control.</li><li>• It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>• Auxiliary image signal is input from the auxiliary input jacks.</li></ul>

### DTC Logic

INFOID:000000003838561

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1200	Cont Unit FLASH- ROM [U1200]	An internal malfunction is detected in AV control unit (FLASH-ROM).	Replace AV control unit.

AV



# U1216 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## U1216 AV CONTROL UNIT

### Description

INFOID:000000003838562

Replace the AV control unit if this DTC is displayed. Refer to [AV-251, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.</li><li>• AV control unit includes audio function and vehicle information function.</li><li>• It is connected to ECM and unified meter and A/C amp via CAN communication to obtain necessary information for the vehicle information function.</li><li>• It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>• It inputs the illumination signals that are required for the display dimming control.</li><li>• It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>• Auxiliary image signal is input from the auxiliary input jacks.</li></ul>

### DTC Logic

INFOID:000000003838563

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1216	CAN CONT [U1216]	Internal malfunction of AV control unit (CAN controller) is detected.	Replace AV control unit.



# U1243 FRONT DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## U1243 FRONT DISPLAY UNIT

### Description

INFOID:000000003838564

Part name	Description
FRONT DISPLAY UNIT	<ul style="list-style-type: none"><li>• Front display image is controlled by the serial communication from AV control unit.</li><li>• Inputs the RGB image signal (RGB, RGB area and RGB synchronizing) from AV control unit and the auxiliary image signal from the auxiliary input jacks.</li><li>• Outputs the synchronizing signals (HP and VP) to the AV control unit.</li></ul>

### DTC Logic

INFOID:000000003838565

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1243	FRONT DISP CONN [U1243]	<p>When either one of the following items is detected:</p> <ul style="list-style-type: none"><li>• front display unit power supply and ground circuits malfunction is detected.</li><li>• malfunction is detected in communication circuits between AV control unit and front display unit.</li><li>• malfunction is detected in communication signal between AV control unit and front display unit.</li></ul>	<ul style="list-style-type: none"><li>• Front display unit power supply and ground circuits.</li><li>• Communication circuits between AV control unit and front display unit.</li></ul>

### Diagnosis Procedure

INFOID:000000003838566

#### 1.CHECK FRONT DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check front display unit power supply and ground circuits. Refer to [AV-59. "FRONT DISPLAY UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

#### 2.CHECK CONTINUITY COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
M71	11	M83	56	Existed
	22		44	

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminals		
M71	11		Not existed
	22		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

#### 3.CHECK COMMUNICATION SIGNAL (CONT→DISP)

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.

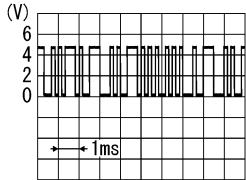


# U1243 FRONT DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M71	11	Ground	When adjusting display brightness.	

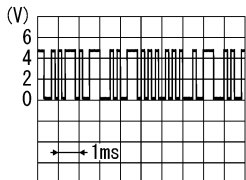
Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit.

## 4.CHECK COMMUNICATION SIGNAL (DISP→CONT)

Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M71	22	Ground	When adjusting display brightness.	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front display unit.



# U1250 CAMERA CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## U1250 CAMERA CONTROL UNIT

### Description

INFOID:0000000003838567

Part name	Description
CAMERA CONTROL UNIT	<ul style="list-style-type: none"><li>• Camera image signal is input from rear view camera, and camera image is indicated on the display.</li><li>• Power (camera ON signal) is sent to rear view camera.</li><li>• Controlled by AV communication sent from AV control unit.</li><li>• AV control unit recognizes the presence of camera system with camera connection recognition signal.</li></ul>

### DTC Logic

INFOID:0000000003838568

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1250	CAMERA CONT. CONN [U1250]	A malfunction is detected in camera connection recognition signal circuit	Camera connection recognition signal circuit

### Diagnosis Procedure

INFOID:0000000003838569

#### 1.CHECK CAMERA-CONNECTION RECOGNITION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and camera control unit connector.
3. Check continuity between AV control unit harness connector and camera control unit harness connector.

AV control unit		Camera control unit		Continuity
Connector	Terminal	Connector	Terminal	
M84	68	B50	14	Existed

#### Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector and ground.

(+)AV control unit		(-)	Voltage (Approx.)
Connector	Terminal		
M84	68	Ground	5.0 V

#### Is inspection result normal?

YES >> Replace camera control unit.

NO >> Replace AV control unit.

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AV



# U1255 SATELLITE RADIO TUNER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## U1255 SATELLITE RADIO TUNER

### Description

INFOID:000000003838570

Part name	Description
SATELLITE RADIO TUNER	<ul style="list-style-type: none"><li>Inputs the satellite radio signal from satellite radio antenna and outputs it to the AV control unit.</li><li>It is controlled with the communication (communication signal, request signal) from AV control unit.</li></ul>

### DTC Logic

INFOID:000000003838571

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1255	SAT CONN [U1255]	<p>When either one of the following items is detected:</p> <ul style="list-style-type: none"><li>satellite radio tuner power supply and ground circuits malfunction is detected.</li><li>malfunction is detected in communication circuits between AV control unit and satellite radio tuner.</li><li>malfunction is detected in communication signal between AV control unit and satellite radio tuner.</li><li>malfunction is detected in request signal circuit between AV control unit and satellite radio tuner.</li></ul>	<ul style="list-style-type: none"><li>Satellite radio tuner power supply and ground circuits.</li><li>Communication circuits between AV control unit and satellite radio tuner.</li><li>Request signal circuit between AV control unit and satellite radio tuner.</li></ul>

### Diagnosis Procedure

INFOID:000000003838572

#### 1.CHECK SATELLITE RADIO TUNER POWER SUPPLY AND GROUND CIRCUIT

Check satellite radio tuner power supply and ground circuit. Refer to [AV-62. "SATELLITE RADIO TUNER : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

#### 2.CHECK CONTINUITY COMMUNICATION CIRCUIT AND REQUEST SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect AV control unit connector and satellite radio tuner connector.
- Check continuity between AV control unit harness connector and satellite radio tuner harness connector.

AV control unit		Satellite radio tuner		Continuity
Connector	Terminals	Connector	Terminals	
M82	28	B236	8	Existed
	29		9	
	30		10	

- Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminals		
M82	28		Not existed
	29		
	30		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.



# U1255 SATELLITE RADIO TUNER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## 3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector and ground.

(+)AV control unit		(-)	Voltage (Approx.)
Connector	Terminals		
M82	28	Ground	7.5 V
	29		7.0 V

Is the inspection result normal?

- YES >> GO TO 4.  
NO >> Replace AV control unit.

## 4.CHECK SATELLITE RADIO TUNER

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector.
3. Connect satellite radio tuner.
4. Turn ignition switch ON.
5. Check voltage between satellite radio tuner harness connector and ground.

(+)Satellite radio tuner		(-)	Voltage (Approx.)
Connector	Terminal		
B236	10	Ground	7.0 V

Is the inspection result normal?

- YES >> INSPECTION END  
NO >> Replace satellite radio tuner.

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AV



## U1300 AV COMM CIRCUIT

### Description

INFOID:000000003838573

U1300 is indicated when malfunction occurs in communication signal of multi AV system. Indicated simultaneously, without fail, with the malfunction of control units connected to AV control unit with communication line. Determine the possible malfunction cause from the table below.

### SELF-DIAGNOSIS RESULTS DISPLAY ITEM

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1300 U1240	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SWITCH CONN [U1240]</li> </ul>	<p>When either one of the following items is detected:</p> <ul style="list-style-type: none"> <li>multifunction switch power supply and ground circuits malfunction is detected.</li> <li>malfunction is detected in AV communication circuits between AV control unit and multifunction switch.</li> <li>malfunction is detected in AV communication signal between AV control unit and multifunction switch.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and multifunction switch.</li> </ul>
U1300 U1252	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>REAR CAMERA CONN [U1252]</li> </ul>	<p>When either one of the following items is detected:</p> <ul style="list-style-type: none"> <li>camera control unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in AV communication circuits between AV control unit and camera control unit.</li> <li>malfunction is detected in AV communication signal between AV control unit and camera control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Camera control unit power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and camera control unit.</li> </ul>
U1300 U1254	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>iPod CONN [U1254]</li> </ul>	<p>When either one of the following items is detected:</p> <ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits malfunction is detected.</li> <li>malfunction is detected in AV communication circuits between AV control unit and iPod adapter.</li> <li>malfunction is detected in AV communication signal between AV control unit and iPod adapter.</li> </ul>	<ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and iPod adapter.</li> </ul>
U1300 U1256	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>HAND FREE CONN [U1256]</li> </ul>	<p>When either one of the following items is detected:</p> <ul style="list-style-type: none"> <li>TEL adapter unit power supply and ground circuits malfunction is detected.</li> <li>malfunction is detected in AV communication circuits between AV control unit and TEL adapter unit.</li> <li>malfunction is detected in AV communication signal between AV control unit and TEL adapter unit.</li> </ul>	<ul style="list-style-type: none"> <li>TEL adapter unit power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and TEL adapter unit.</li> </ul>
U1300 U1252 U1254 U1256	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SWITCH CONN [U1240]</li> <li>REAR CAMERA CONN [U1252]</li> <li>iPod CONN [U1254]</li> <li>HAND FREE CONN [U1256]</li> </ul>	<p>Malfunction is detected in the AV communication circuits between AV control unit and camera control unit.</p>	<p>AV communication circuits between AV control unit and camera control unit.</p>



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## POWER SUPPLY AND GROUND CIRCUIT

### AV CONTROL UNIT

#### AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000003838574

#### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19
Ignition switch ON or START	3

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

#### 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M81	19	OFF	Battery voltage
ACC power supply	M81	7	ACC	Battery voltage
Ignition signal	M85	104	ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between AV control unit and fuse.

#### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors.
3. Check continuity between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M81	20	OFF	Existed
	M85	85		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

### FRONT DISPLAY UNIT

#### FRONT DISPLAY UNIT : Diagnosis Procedure

INFOID:000000003838575

#### 1.CHECK POWER SUPPLY CIRCUIT (DISPLAY SIDE)

Check voltage between front display unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Inverter VCC	M71	2	ACC	9.0 V
Signal VCC		3		

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

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AV



## POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

### 2.CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

1. Turn ignition switch OFF.
2. Disconnect the harness connector between front display unit and AV control unit.
3. Check continuity between front display unit harness connectors and AV control unit harness connector.

Signal name	Front display unit (M71)	AV control unit (M83)	Continuity
Inverter VCC	2	59	Existed
Signal VCC	3	47	Existed

4. Check continuity between front display unit harness connectors and ground.

Signal name	Front display unit (M71)	—	Continuity
Inverter VCC	2	Ground	Not existed
Signal VCC	3	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

### 3.CHECK POWER SUPPLY CIRCUIT (AV CONTROL UNIT SIDE)

1. Connect the AV control unit harness connector.
2. Turn ignition switch ACC.
3. Check voltage between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Inverter VCC	M83	59	ACC	9.0 V
Signal VCC		47		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replacement of AV control unit.

### 4.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector.
3. Check continuity between front display unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M71	1	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## MULTIFUNCTION SWITCH

### MULTIFUNCTION SWITCH : Diagnosis Procedure

INFOID:000000003838576

#### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

#### 2.CHECK POWER SUPPLY CIRCUIT



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

Check voltage between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
ACC power supply	M72	3	ACC	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between multifunction switch and fuse.

## 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector.
3. Check continuity between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M72	1	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## BOSE AMP.

### BOSE AMP. : Diagnosis Procedure

INFOID:000000003838577

## 1.CHECK FUSE

Check for blown fuse.

Power source	Fuse No.
Battery	8

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

## 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between BOSE amp. harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B42	11	OFF	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between BOSE amp. and fuse.

## 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE amp. connector.
3. Check continuity between BOSE amp. harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B42	12	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## iPod ADAPTER



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## iPod ADAPTER : Diagnosis Procedure

INFOID:000000003838578

### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

### 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between iPod adapter harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M111	5	OFF	Battery voltage
ACC power supply	M111	3	ACC	Battery voltage

Is the inspection result normal?

YES >> INSPECTION END

NO >> Check harness between iPod adapter and fuse.

## SATELLITE RADIO TUNER

### SATELLITE RADIO TUNER : Diagnosis Procedure

INFOID:000000003838579

### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

### 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between satellite radio tuner harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B236	12	OFF	Battery voltage
ACC power supply	B236	16	ACC	Battery voltage

Is the inspection result normal?

YES >> INSPECTION END

NO >> Check harness between satellite radio tuner and fuse.

## CAMERA CONTROL UNIT

### CAMERA CONTROL UNIT : Diagnosis Procedure

INFOID:000000003838580

### 1.CHECK FUSE

Check for blown fuses.



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

## 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between camera control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B50	32	OFF	Battery voltage
ACC power supply	B50	30	ACC	Battery voltage

Is inspection result normal?

YES >> GO TO 3.

NO >> Check harness between camera control unit and fuse.

## 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector.
3. Check continuity between camera control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B50	31	OFF	Existed

Is inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## TEL ADAPTER UNIT

### TEL ADAPTER UNIT : Diagnosis Procedure

INFOID:000000003838581

## 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19
Ignition switch ON or START	3

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

## 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between TEL adapter unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B237	1	OFF	Battery voltage
ACC power supply	B237	2	ACC	Battery voltage
Ignition signal	B237	3	ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between TEL adapter unit and fuse.



## POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TEL adapter unit connector.
3. Check continuity between TEL adapter unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B237	4	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.



# RGB (R: RED) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## RGB (R: RED) SIGNAL CIRCUIT

### Description

INFOID:000000003838582

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

### Diagnosis Procedure

INFOID:000000003838583

#### 1.CHECK CONTINUITY RGB (R: RED) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M71	17	M83	40	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M71	17		Not existed

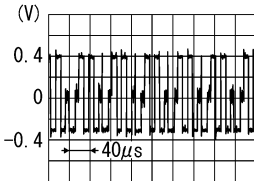
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB (R: RED) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M71	17	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2238J

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# RGB (G: GREEN) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## RGB (G: GREEN) SIGNAL CIRCUIT

### Description

INFOID:000000003838584

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

### Diagnosis Procedure

INFOID:000000003838585

#### 1.CHECK CONTINUITY RGB (G: GREEN) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M71	6	M83	39	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M71	6		Not existed

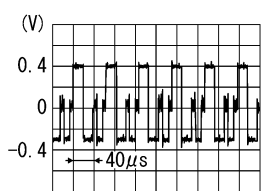
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB (G: GREEN) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M71	6	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2236J

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# RGB (B: BLUE) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## RGB (B: BLUE) SIGNAL CIRCUIT

### Description

INFOID:000000003838586

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

### Diagnosis Procedure

INFOID:000000003838587

#### 1.CHECK CONTINUITY RGB (B: BLUE) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M71	18	M83	38	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M71	18		Not existed

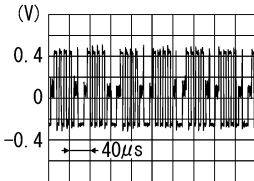
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB (B: BLUE) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M71	18	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2237J

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# RGB SYNCHRONIZING SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## RGB SYNCHRONIZING SIGNAL CIRCUIT

### Description

INFOID:000000003838588

Transmit the RGB synchronizing signal to the front display unit so as to synchronize the RGB image displayed with AV control unit.

### Diagnosis Procedure

INFOID:000000003838589

#### 1. CHECK CONTINUITY RGB SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M71	19	M83	41	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M71	19		Not existed

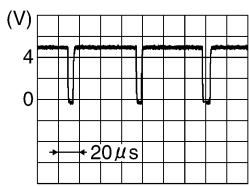
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2. CHECK RGB SYNCHRONIZING SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Reference value
Connector	Terminal		
M71	19	Ground	

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# RGB AREA (YS) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## RGB AREA (YS) SIGNAL CIRCUIT

### Description

INFOID:000000003838590

Transmits the display area of RGB image displayed by AV control unit with RGB area (YS) signal to front display unit.

### Diagnosis Procedure

INFOID:000000003838591

#### 1.CHECK CONTINUITY RGB AREA (YS) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M71	9	M83	43	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M71	9		Not existed

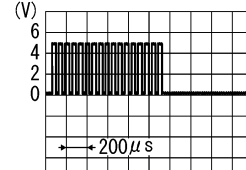
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB AREA (YS) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value (Approx.)
Connector	Terminal			
M71	9	Ground	At RGB image is displayed	5.0 V
			At AUX image is displayed	

PKIB4948J

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

### Description

INFOID:000000003838592

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from front display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

### Diagnosis Procedure

INFOID:000000003838593

#### 1.CHECK CONTINUITY HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M71	8	M83	45	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M71	8		Not existed

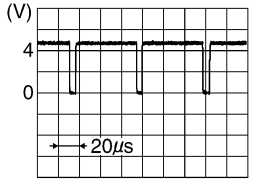
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Reference value
Connector	Terminal		
M71	8	Ground	 SKIB3601E

Is the inspection result normal?

YES >> Replace AV control unit.

NO >> Replace front display unit.



# VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

### Description

INFOID:000000003838594

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from front display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

### Diagnosis Procedure

INFOID:000000003838595

#### 1.CHECK CONTINUITY VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M71	20	M83	57	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M71	20		Not existed

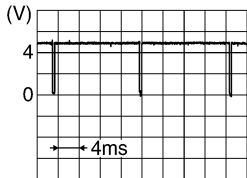
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) (V)		(-)	Reference value
Connector	Terminal		
M71	20	Ground	

Is the inspection result normal?

YES >> Replace AV control unit.

NO >> Replace front display unit.



## AUX IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003838596

- Transmits the image signal of AUX device from auxiliary input jacks to AV control unit.
- AV control unit transmits the image signal that is inputted to the front display unit.

### Diagnosis Procedure

INFOID:000000003838597

#### 1. CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT (AUX INPUT JACKS AND AV CONTROL UNIT)

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jacks connector and AV control unit connector.
3. Check continuity between auxiliary input jacks harness connector and AV control unit harness connector.

Auxiliary input jacks		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M154	7	M84	66	Existed

4. Check continuity between auxiliary input jacks harness connector and ground.

Auxiliary input jacks		Ground	Continuity
Connector	Terminal		
M154	7		Not existed

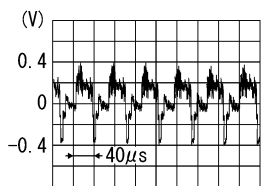
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2. CHECK AUX IMAGE SIGNAL (AUX INPUT JACKS TO AV CONTROL UNIT)

1. Connect auxiliary input jacks connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between auxiliary input jacks harness connector and ground.

(+)		(-)	Condition	Reference value
Auxiliary input jacks				
Connector	Terminal			
M154	7	Ground	At AUX image is displayed.	 <p>SKIB2251J</p>

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check that there is no malfunction in the external device.

#### 3. CHECK CONTINUITY COMPOSITE IMAGE SIGNAL CIRCUIT (AV CONTROL UNIT AND FRONT DISPLAY UNIT)

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.



# AUX IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M71	15	M83	36	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M71	15		Not existed

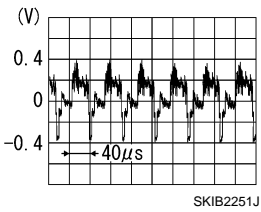
Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

## 4.CHECK COMPOSITE IMAGE SIGNAL

1. Connect AV control unit connector and front display unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M71	15	Ground	At AUX image is displayed.	

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.

AV



# DISK EJECT SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## DISK EJECT SIGNAL CIRCUIT

### Description

INFOID:000000003838598

The disk eject signal is output to AV control unit when the eject switch of multifunction switch is pressed.

### Diagnosis Procedure

INFOID:000000003838599

#### 1.CHECK CONTINUITY DISK EJECT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector and AV control unit connector.
3. Check continuity between multifunction switch harness connector and AV control unit harness connector.

Multifunction switch		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M72	14	M85	103	Existed

4. Check continuity between multifunction switch harness connector and ground.

Multifunction switch		Ground	Continuity
Connector	Terminal		
M72	14		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector and ground.

(+)AV control unit		(-)	Reference value (Approx.)
Connector	Terminal		
M85	103	Ground	3.3 V

Is the inspection result normal?

YES >> Replace preset switch.

NO >> Replace AV control unit.



# REAR VIEW CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## REAR VIEW CAMERA IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000004020318

- Camera control unit outputs camera power supply to rear view camera and inputs rear view camera image signal from rear view camera when the reverse signal is input.
- The camera control unit that inputs the camera image signal transmits the camera image signal to the AV control unit.

### Diagnosis Procedure

INFOID:000000004020319

#### 1.CHECK CONTINUITY CAMERA POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector and rear view camera connector.
3. Check continuity between camera control unit harness connector and rear view camera harness connector.

Camera control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
B50	8	D121	1	Existed

4. Check continuity between camera control unit harness connector and ground.

Camera control unit		Ground	Continuity
Connector	Terminal		
B50	8		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE CAMERA POWER SUPPLY

1. Connect camera control unit connector and rear view camera connector.
2. Turn ignition switch ON.
3. Shift position is "R"
4. Check voltage between camera control unit harness connector and ground.

(+) (+)		(-) (-)	Condition	Voltage (Approx.)
Connector	Terminal			
B50	8	Ground	Shift position is "R"	6.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace camera control unit.

#### 3.CHECK CONTINUITY CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector and rear view camera connector.
3. Check continuity between camera control unit harness connector and rear view camera harness connector.

Camera control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
B50	6	D121	3	Existed

4. Check continuity between camera control unit harness connector and ground.

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# CAMERA IMAGE SIGNAL CIRCUIT (CAMERA CONTROL UNIT TO AV CONTROL UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## CAMERA IMAGE SIGNAL CIRCUIT (CAMERA CONTROL UNIT TO AV CONTROL UNIT)

### Description

INFOID:000000003838604

- Camera control unit outputs camera ON signal to rear view camera and inputs rear view camera image signal from rear view camera when the reverse signal is input.
- The camera control unit that inputs the camera image signal transmits the camera image signal to the AV control unit.

### Diagnosis Procedure

INFOID:000000003838605

#### 1. CHECK CONTINUITY CAMERA IMAGE SIGNAL CIRCUIT (CAMERA CONTROL UNIT TO AV CONTROL UNIT)

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector and AV control unit connector.
3. Check continuity between camera control unit harness connector and AV control unit harness connector.

Camera control unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B50	12	M84	65	Existed

4. Check continuity between camera control unit harness connector and ground.

Camera control unit		Ground	Continuity
Connector	Terminal		
B50	12		Not existed

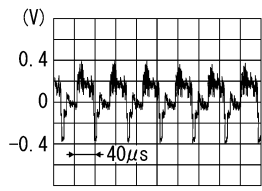
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2. CHECK CAMERA IMAGE SIGNAL (CAMERA CONTROL UNIT TO AV CONTROL UNIT)

1. Connect camera control unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between camera control unit harness connector and ground.

(+) (V)		(-)	Condition	Reference value
Connector	Terminal			
B50	12	Ground	At rear view camera image is displayed.	

Is inspection result normal?

YES >> Replace AV control unit.

NO >> Replace camera control unit.

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AV



# COMPOSITE IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## COMPOSITE IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003838606

AV control unit that inputs the camera image signal and AUX image signal transmits the composite image signal to the front display unit.

### Diagnosis Procedure

INFOID:000000003838607

#### 1. CHECK CONTINUITY COMPOSITE IMAGE SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and front display unit connector.
3. Check continuity between AV control unit harness connector and front display unit harness connector.

AV control unit		Front display unit		Continuity
Connector	Terminal	Connector	Terminal	
M83	36	M71	15	Existed

4. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M83	36		Not existed

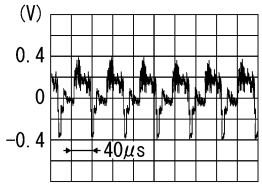
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2. CHECK COMPOSITE IMAGE SIGNAL (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

1. Connect AV control unit connector and front display unit connector.
2. Turn ignition switch ON.
3. Check signal between AV control unit harness connector and ground.

(+) (V)		(-)	Condition	Reference value
Connector	Terminal			
M83	36	Ground	At rear view camera or AUX image is displayed.	 SKIB2251J

Is inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## MICROPHONE SIGNAL CIRCUIT

### Description

INFOID:000000003838608

Supply power from TEL adapter unit to microphone. The microphone transmits the sound/voice to the microphone.

### Diagnosis Procedure

INFOID:000000003838609

#### 1.CHECK CONTINUITY BETWEEN TEL ADAPTER UNIT AND MICROPHONE CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TEL adapter unit connector and microphone connector.
3. Check continuity between TEL adapter unit harness connector and microphone harness connector.

TEL adapter unit		Microphone		Continuity
Connector	Terminals	Connector	Terminals	
B237	7	R17	1	Existed
	8		2	
	29		4	

4. Check continuity between TEL adapter unit harness connector and ground.

TEL adapter unit		Ground	Continuity
Connector	Terminals		
B237	7		Not existed
	29		

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE MICROPHONE VCC

1. Connect TEL adapter unit connector.
2. Turn ignition switch ON.
3. Check voltage between TEL adapter unit harness connector.

(+) (V)		(-)		Voltage (Approx.)
TEL adapter unit		TEL adapter unit		
Connector	Terminal	Connector	Terminal	
B237	29	B237	8	5.0 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace TEL adapter unit.

#### 3.CHECK MICROPHONE SIGNAL

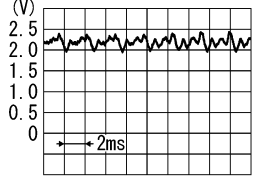
1. Turn ignition switch OFF.
2. Connect microphone connector.
3. Turn ignition switch ON.
4. Check signal between TEL adapter unit harness connector.



# MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

(+) TEL adapter unit		(-) TEL adapter unit		Condition	Reference value
Connector	Terminal	Connector	Terminal		
B237	7	B237	8	Give a voice.	 <p>PKIB5037J</p>

Is the inspection result normal?

- YES >> Replace TEL adapter unit.  
 NO >> Replace microphone.



CONTROL SIGNAL CIRCUIT

Description

INFOID:000000003838610

TEL adapter unit identifies the vehicle model according to the control signal and performs the control.

Diagnosis Procedure

INFOID:000000003838611

1.CHECK CONTINUITY CONTROL SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TEL adapter unit connector.
3. Check continuity between TEL adapter unit harness connector and ground.

TEL adapter unit		Ground	Continuity
Connector	Terminals		
B237	20		Existed
	23		
	24		

Is the inspection result normal?

- YES >> Replace TEL adapter unit.  
NO >> Repair harness or connector.

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# MODE CHANGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## MODE CHANGE SIGNAL CIRCUIT

### Description

INFOID:000000003838612

- AV control unit transmits the mode change signal to BOSE amp.
- Driver's Audio Stage controls the speaker's output characteristic by BOSE amp. so that the driver's seat is to be the center of sounds.

### Diagnosis Procedure

INFOID:000000003838613

#### 1.CHECK CONTINUITY MODE CHANGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE amp. connector and AV control unit connector.
3. Check continuity between BOSE amp. harness connector and AV control unit harness connector.

BOSE amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B41	17	M82	27	Existed

4. Check continuity between BOSE amp. harness connector and ground.

BOSE amp.		Ground	Continuity
Connector	Terminal		
B41	17		Not existed

Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Repair harness or connector.

#### 2.CHECK MODE CHANGE SIGNAL

1. Connect BOSE amp. connector.
2. Turn ignition switch ON.
3. Check signal between BOSE amp. harness connector and ground.

(+) BOSE amp.		(-)	Reference value (Approx.)
Connector	Terminal		
B41	17	Ground	8.5 V

Is the inspection result normal?

- YES >> Replace AV control unit.  
NO >> Replace BOSE amp.



# COMMUNICATION SIGNAL CIRCUIT (CONT-SAT)

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## COMMUNICATION SIGNAL CIRCUIT (CONT-SAT)

### Description

INFOID:000000003838614

Satellite radio tuner and AV control unit are connected with a serial communication. They transmit the operation signal from AV control unit to satellite radio tuner, and transmit the display signal from satellite radio tuner to AV control unit.

### Diagnosis Procedure

INFOID:000000003838615

#### 1.CHECK CONTINUITY COMMUNICATION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector and AV control unit connector.
3. Check continuity between satellite radio tuner harness connector and AV control unit harness connector.

Satellite radio tuner		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
B236	9	M82	29	Existed
	10		30	

4. Check continuity between satellite radio tuner harness connector and ground.

Satellite radio tuner		Ground	Continuity
Connector	Terminals		
B236	9		Not existed
	10		

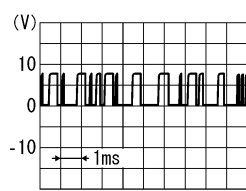
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMMUNICATION SIGNAL (SAT→CONT)

1. Connect satellite radio tuner connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner harness connector and ground.

(+) (Satellite radio tuner)		(-)	Condition	Reference value
Connector	Terminal			
B236	9	Ground	When satellite radio mode is selected.	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace satellite radio tuner.

#### 3.CHECK COMMUNICATION SIGNAL (CONT→SAT)

Check signal between satellite radio tuner harness connector and ground.

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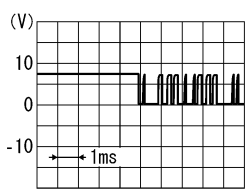
AV



# COMMUNICATION SIGNAL CIRCUIT (CONT-SAT)

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

(+) <div>Satellite radio tuner</div> <div>Connector      Terminal</div>		(-)	Condition	Reference value
B236	10	Ground	When satellite radio mode is selected.	

Is the inspection result normal?

- YES    >> Replace satellite radio tuner.  
 NO     >> Replace AV control unit.



# REQUEST SIGNAL CIRCUIT (SAT→CONT)

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## REQUEST SIGNAL CIRCUIT (SAT→CONT)

### Description

INFOID:000000003838616

Request signal transmits the signal to recognize the connection of satellite radio tuner from satellite radio tuner to AV control unit.

### Diagnosis Procedure

INFOID:000000003838617

#### 1.CHECK CONTINUITY REQUEST SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector and AV control unit connector.
3. Check continuity between satellite radio tuner unit harness connector and AV control unit harness connector.

Satellite radio tuner		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B236	8	M82	28	Existed

4. Check continuity between satellite radio tuner harness connector and ground.

Satellite radio tuner		Ground	Continuity
Connector	Terminal		
B236	8		Not existed

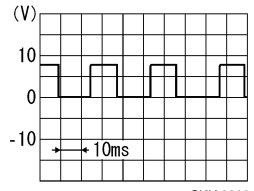
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMMUNICATION SIGNAL

1. Connect satellite radio tuner connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner harness connector and ground.

(+) (Satellite radio tuner)		(-)	Condition	Reference value
Connector	Terminal			
B236	8	Ground	When satellite radio mode is selected.	

Is the inspection result normal?

YES >> Replace AV control unit.

NO >> Replace satellite radio tuner.



# STEERING SWITCH SIGNAL A CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## STEERING SWITCH SIGNAL A CIRCUIT

### Description

INFOID:000000003838620

Transmits the steering switch signal to AV control unit.

### Diagnosis Procedure

INFOID:000000003838621

#### 1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M81	6	M36	24	Existed

3. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M81	6		Not existed

Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Repair harness or connector.

#### 2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

- YES >> GO TO 3.  
NO >> Replace spiral cable.

#### 3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector.

(+)		(-)		Reference value (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M81	6	M81	15	3.3 V

Is the inspection result normal?

- YES >> GO TO 4.  
NO >> Replace AV control unit.

#### 4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-87, "Component Inspection"](#).

Is the inspection result normal?

- YES >> INSPECTION END  
NO >> Replace steering switch.



STEERING SWITCH SIGNAL A CIRCUIT

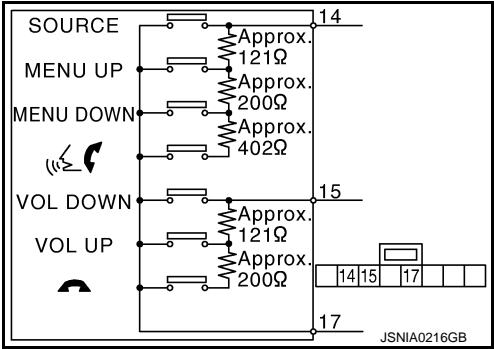
< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

Component Inspection

INFOID:000000003838622

Measure the resistance between the steering switch connector.



Steering switch		Steering switch		Condition	Resistance value (Ω)
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	SOURCE switch ON	0
				MENU UP switch ON	120 – 122
				MENU DOWN switch ON	318 – 324
				⏮️ switch ON	716 – 730
	15			VOL DOWN switch ON	0
				VOL UP switch ON	120 – 122
				⏭️ switch ON	318 – 324



# STEERING SWITCH SIGNAL B CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## STEERING SWITCH SIGNAL B CIRCUIT

### Description

INFOID:000000003838623

Transmits the steering switch signal to AV control unit.

### Diagnosis Procedure

INFOID:000000003838624

#### 1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M81	16	M36	31	Existed

3. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M81	16		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace spiral cable.

#### 3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector.

(+)		(-)		Reference value (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M81	16	M81	15	3.3 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit.

#### 4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-89, "Component Inspection"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace steering switch.



STEERING SWITCH SIGNAL B CIRCUIT

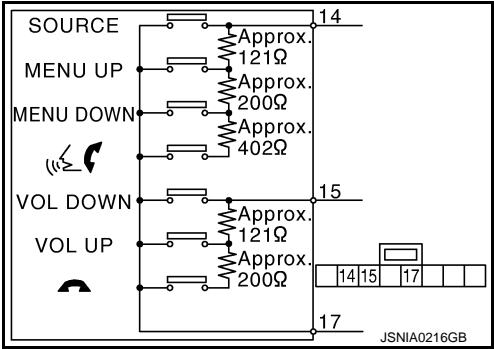
< DTC/CIRCUIT DIAGNOSIS >



[WITHOUT NAVIGATION]

Component Inspection

INFOID:000000003838625

Measure the resistance between the steering switch connector.



Steering switch		Steering switch		Condition	Resistance value (Ω)
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	SOURCE switch ON	0
				MENU UP switch ON	120 – 122
				MENU DOWN switch ON	318 – 324
				 switch ON	716 – 730
	15			VOL DOWN switch ON	0
				VOL UP switch ON	120 – 122
				 switch ON	318 – 324



# STEERING SWITCH SIGNAL GND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT NAVIGATION]

## STEERING SWITCH SIGNAL GND CIRCUIT

### Description

INFOID:000000003838626

Transmits the steering switch signal to AV control unit.

### Diagnosis Procedure

INFOID:000000003838627

#### 1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M81	15	M36	33	Existed

3. Connect AV control unit connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace spiral cable.

#### 3.CHECK GROUND CIRCUIT

1. Connect AV control unit connector.
2. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M81	15		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit.

#### 4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-91, "Component Inspection"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace steering switch.



# STEERING SWITCH SIGNAL GND CIRCUIT

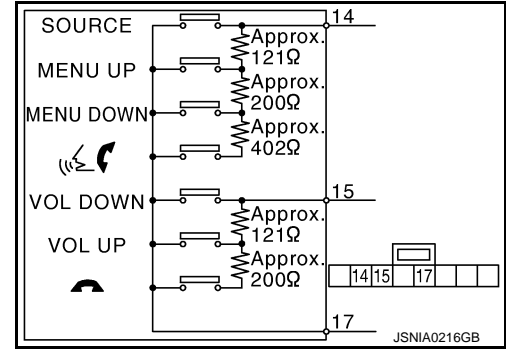
< DTC/CIRCUIT DIAGNOSIS >




[WITHOUT NAVIGATION]

## Component Inspection

INFOID:000000003838628

Measure the resistance between the steering switch connector.



Steering switch		Steering switch		Condition	Resistance value (Ω)
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	SOURCE switch ON	0
				MENU UP switch ON	120 – 122
				MENU DOWN switch ON	318 – 324
				  switch ON	716 – 730
	15			VOL DOWN switch ON	0
				VOL UP switch ON	120 – 122
				 switch ON	318 – 324

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## ECU DIAGNOSIS INFORMATION

### AV CONTROL UNIT

#### Reference Value

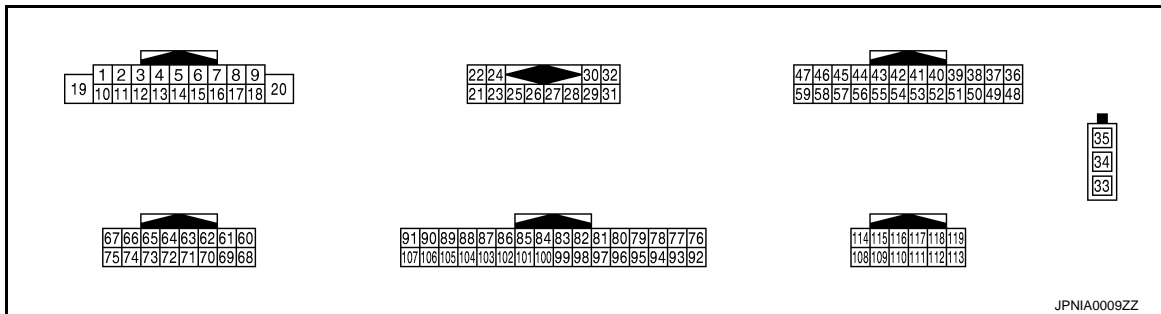
INFOID:000000003838629

#### VALUES ON THE DIAGNOSIS TOOL

##### CONSULT-III MONITOR ITEM

Monitor Item	Condition		Value/Status
VHCL SPD SIG	Ignition switch ON	Vehicle speed > 0 km/h (0 MPH)	On
		Vehicle speed = 0 km/h (0 MPH)	Off
PKB SIG	Ignition switch ON	Parking brake is applied.	On
		Parking brake is released.	Off
ILLUM SIG	Ignition switch ON	Light switch ON	On
		Light switch OFF	Off
IGN SIG	Ignition switch ON	—	On
	Ignition switch ACC	—	Off
REV SIG	Ignition switch ON	Selector lever in R position	On
		Selector lever in any position other than R	Off

#### TERMINAL LAYOUT



#### PHYSICAL VALUES


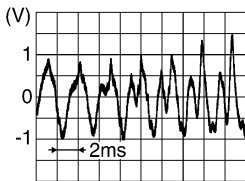
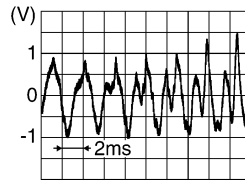
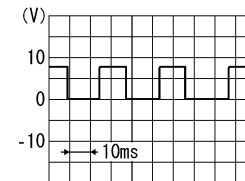
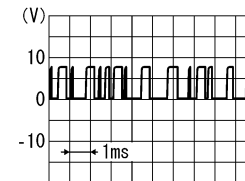
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
6 (P)	15 (B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
				Keep pressing $\Delta$ switch.	0.7 V	
				Keep pressing $\nabla$ switch.	1.3 V	
				Keep pressing $\swarrow$ switch.	2.0 V	
				Except for above.	3.3 V	
7 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R)	Ground	Illumination signal	Input	OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
15 (B)	Ground	Steering switch signal Ground	—	Ignition switch ON	—	0 V
16 (L)	15 (B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch.	0 V
					Keep pressing VOL UP switch.	0.7 V
					Keep pressing  switch.	1.3 V
					Except for above.	3.3 V
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
20 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
22 (B)	21 (W)	Satellite radio sound signal LH	Input	Ignition switch ON	When satellite radio mode is selected.	 SKIB3609E
24 (G)	23 (R)	Satellite radio sound signal RH	Input	Ignition switch ON	When satellite radio mode is selected.	 SKIB3609E
25	—	Shield	—	—	—	—
26	—	Shield	—	—	—	—
27 (SB)	Ground	Mode change signal	Output	Ignition switch ON	Driver's Audio Stage ON	0 V
					Driver's Audio Stage OFF	8.5 V
28 (W)	Ground	Request signal (SAT→CONT)	Input	Ignition switch ON	When satellite radio mode is selected.	 SKIA9299J
29 (B)	Ground	Communication signal (SAT→CONT)	Input	Ignition switch ON	When satellite radio mode is selected.	 SKIA9300J

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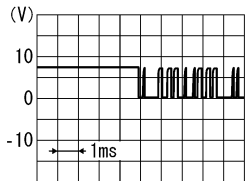
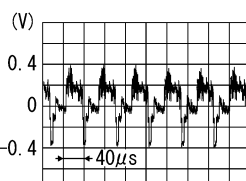
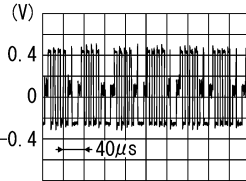
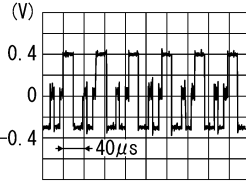
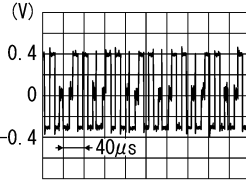
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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

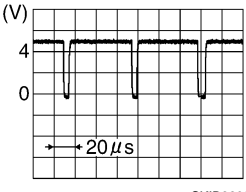
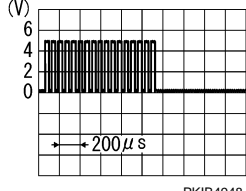
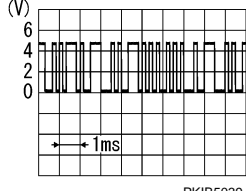
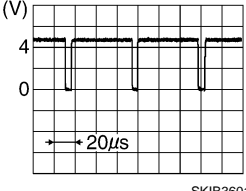
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
30 (R)	Ground	Communication signal (CONT→SAT)	Output	Ignition switch ON	When satellite radio mode is selected.	 SKIA9301J
33	—	FM sub	Input	—	—	—
34	—	AM-FM main	Input	—	—	—
35	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12.0 V
36 (SB)	Ground	Composite image signal	Output	Ignition switch ON	At rear view camera or AUX image is displayed.	 SKIB2251J
37 (V)	Ground	Composite image ground	—	Ignition switch ON	—	0 V
38 (P)	Ground	RGB signal (B: blue)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2237J
39 (L)	Ground	RGB signal (G: green)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2236J
40 (G)	Ground	RGB signal (R: red)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2238J



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
41 (W)	Ground	RGB synchronizing signal	Output	Ignition switch ON	—	
42	—	Shield	—	—	—	—
43 (B)	Ground	RGB area (YS) signal	Output	Ignition switch ON	At RGB image display	5.0 V
					At AUX image display	
44 (BR)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display brightness.	
45 (R)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON	—	
46 (LG)	Ground	Signal ground	—	Ignition switch ON	—	0 V
47 (O)	Ground	Signal VCC	Output	Ignition switch ACC	—	9.0 V
48 (BR)	—	Shield	—	—	—	—
49 (Y)	—	Shield	—	—	—	—
50	—	Shield	—	—	—	—
55	—	Shield	—	—	—	—

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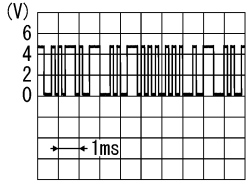
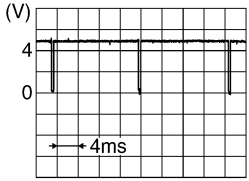
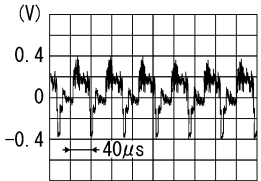
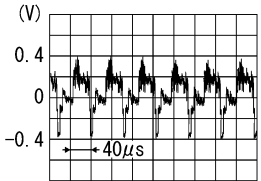
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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]


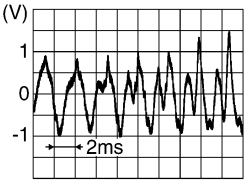
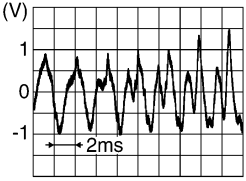
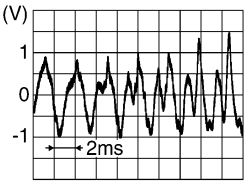
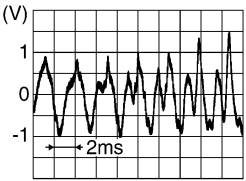
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
56 (Y)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
57 (G)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON	—	 SKIB3598E
58 (BR)	Ground	Inverter ground	—	Ignition switch ON	—	0 V
59 (Y)	Ground	Inverter VCC	Output	Ignition switch ACC	—	9.0 V
64	—	Shield	—	—	—	—
65 (W)	Ground	Camera image signal	Input	Ignition switch ON	At rear view camera image display	 SKIB2251J
66 (G)	Ground	AUX image signal	Input	Ignition switch ON	At AUX image display	 SKIB2251J
68 (W)	Ground	Camera-connection recog- nition signal	—	Ignition switch ON	Connected to camera control unit connector.	0 V
					Not connected to camera control unit connector.	5.0 V
73	—	Shield	—	—	—	—
74 (R)	Ground	AUX image signal ground	—	Ignition switch ON	—	0 V



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
80 (L)	79 (P)	TEL voice signal	Input	Ignition switch ON	During voice guide output with the  switch pressed.	 SKIB3609E
81	—	Shield	—	—	—	—
83 (BR)	82 (Y)	iPod sound signal RH	Input	Ignition switch ON	When iPod mode is select- ed.	 SKIB3609E
85 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
86 (L)	—	CAN—H	Input/ Output	—	—	—
87 (P)	—	CAN—L	Input/ Output	—	—	—
88 (LG)	—	AV communication signal (H)	Input/ Output	—	—	—
89 (V)	—	AV communication signal (L)	Input/ Output	—	—	—
90 (G)	—	AV communication signal (H)	Input/ Output	—	—	—
91 (V)*1 (R)*2	—	AV communication signal (L)	Input/ Output	—	—	—
95 (B)	97 (W)	AUX sound signal RH	Input	Ignition switch ON	When AUX mode is select- ed.	 SKIB3609E
96 (R)	97 (W)	AUX sound signal LH	Input	Ignition switch ON	When AUX mode is select- ed.	 SKIB3609E

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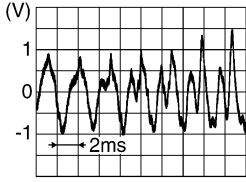
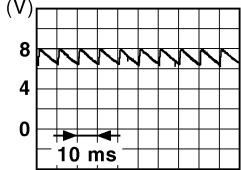
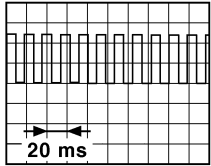
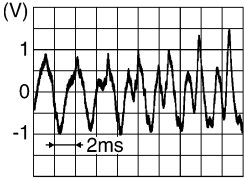
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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

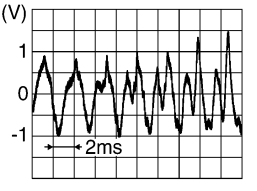
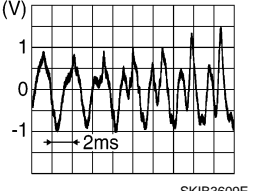
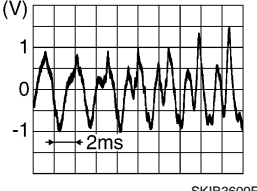
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
99 (R)	98 (G)	iPod sound signal LH	Input	Ignition switch ON	When iPod mode is select- ed.	 SKIB3609E
101 (BR)	Ground	Switch ground	—	Ignition switch ON	—	0 V
103 (SB)	Ground	Disk eject signal	Input	—	Pressing the eject switch.	0 V
					Except for above	3.3 V
104 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
105 (O)	Ground	Reverse signal	Input	Ignition switch ON	R position	12.0 V
					Other than R position	0 V
106 (V)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON	0 V
					Parking brake OFF	 JSNIA0007GB
107 (R)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25 MPH)	<b>NOTE:</b> The maximum voltage varies de- pending on the specification (destination unit).  JSNIA0012GB
108 (BR)	114 (Y)	Sound signal rear RH	Output	Ignition switch ON	Audio output	 SKIB3609E



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
109 (R)	115 (G)	Sound signal front RH	Output	Ignition switch ON	Audio output	
110 (V)	Ground	Amp. ON signal	Output	Ignition switch ON	—	10.0 V
111	—	Shield	—	—	—	—
112 (V)	118 (LG)*1 (SB)*2	Sound signal rear LH	Output	Ignition switch ON	Audio output	
113 (P)	119 (L)	Sound signal front LH	Output	Ignition switch ON	Audio output	

## NOTE:

\*1: With hands-free phone

\*2: Without hands-free phone

## Wiring Diagram - BOSE AUDIO WITHOUT NAVIGATION -

INFOID:000000003838630

## NOTE:

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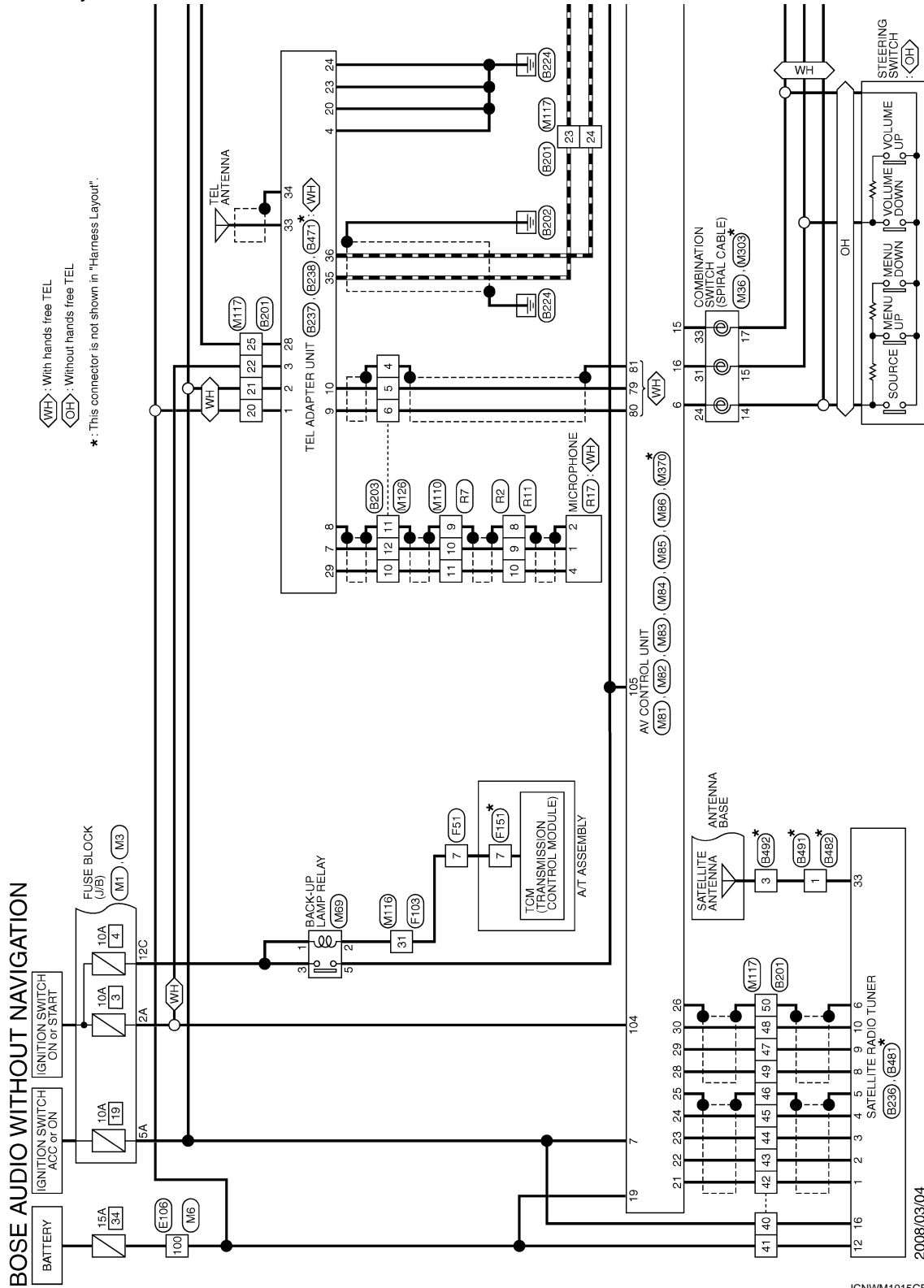


# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

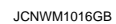




## AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

**[WITHOUT NAVIGATION]**



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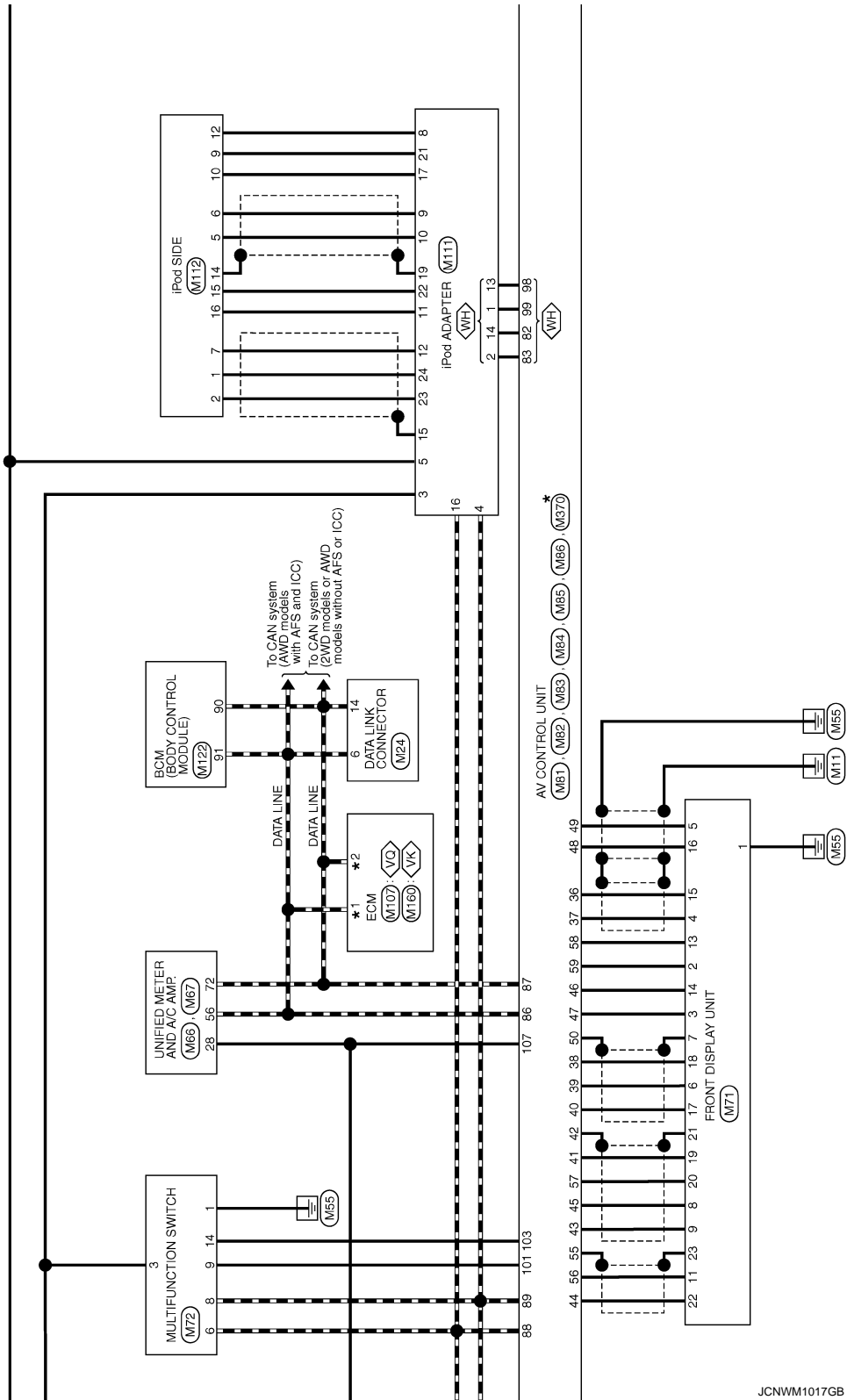
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

- ★ 1 114: <VQ>
- 105: <VK>
- ★ 2 113: <VQ>
- 101: <VK>

★: This connector is not shown in "Harness Layout".



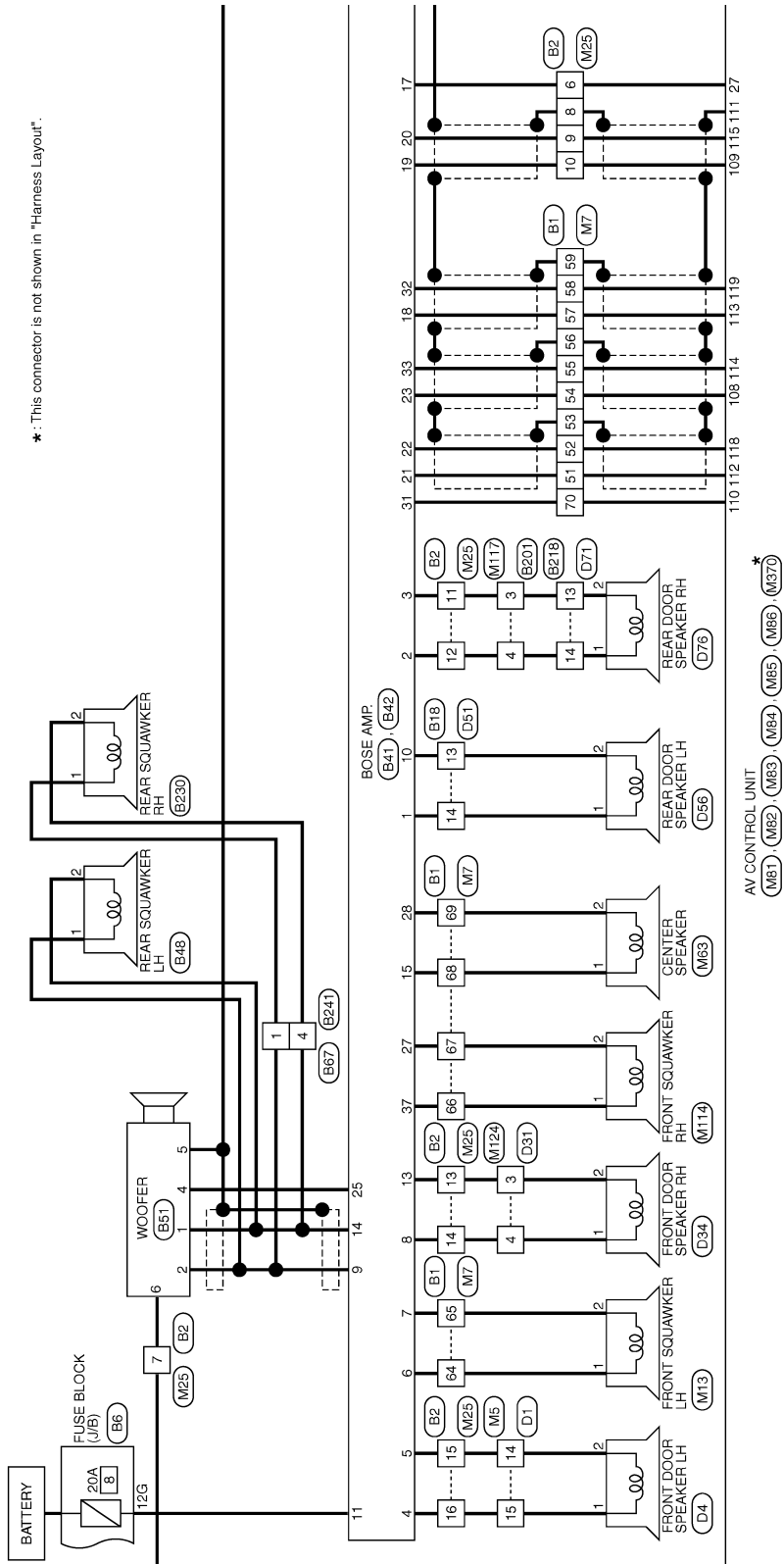
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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]



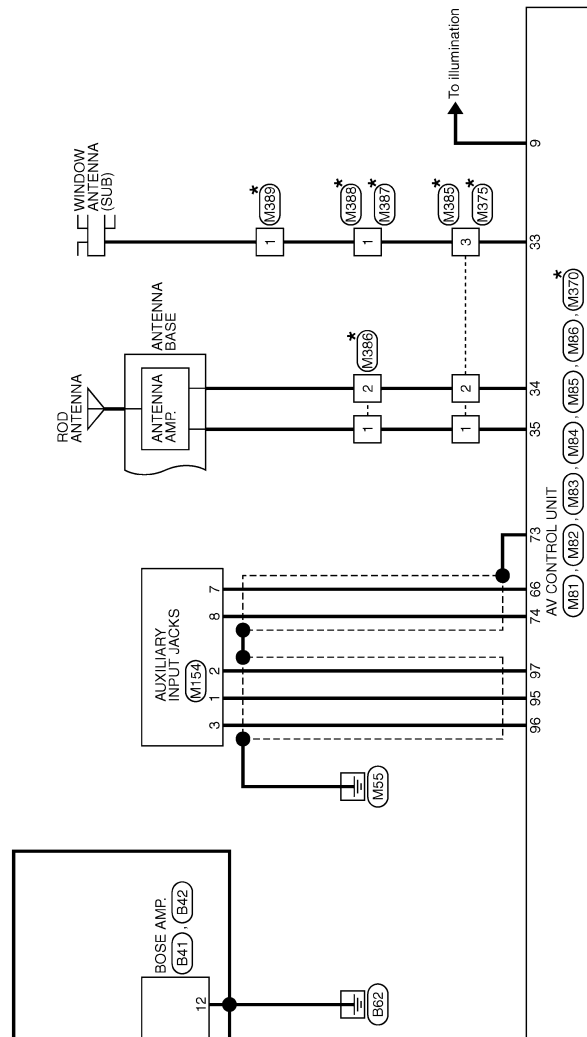
JCNWM1018GB

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★ : This connector is not shown in "Harness Layout".

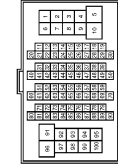


JCNWM1019GB



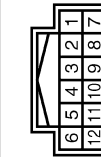
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	SB	- [Without pre-crash seat belt]
12	B	-
13	G	-
14	R	- [Without pre-crash seat belt]
15	W	- [Without pre-crash seat belt]
16	B	- [Without pre-crash seat belt]
17	L	-
18	P	-
51	V	-
52	SB	-
53	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	W	-
4	SHIELD	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

JCNWM1020GB

A  
B  
C  
D  
E  
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G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1PBR-SGA4



37	36	35	34	33	32	31	30	29	28
27	26	25	24	23	22	21	20	19	18
17	16	15							

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR RH (+)
23	BR	SOUND SIGNAL FRONT LH (-)
25	L	WOOFER AMP ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)



2	1
---	---

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR

31	GR	AMP ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)
37	V	SOUND SIGNAL FRONT SQUAWKER RH (+)



14	13	12	11	10
9	8	7	6	5
4	3	2	1	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

22	O	REVERSE
26	G	VEHICLE SPEED (8-PULSE)
30	B	ACC
31	B	GND
32	SB	BATTERY



2	4	6
1	3	5

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	W	CAMERA IMAGE SIGNAL
7	B	CAMERA GND
8	R	CAMERA POWER SUPPLY
11	SHIELD	SHIELD
12	W	CAMERA IMAGE SIGNAL
14	R	CONNECTION RECOGNITION
17	P	AV COMM (L)
18	L	AV COMM (H)
19	B	AV COMM (L)
20	W	AV COMM (H)

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP ON SIGNAL
5	B	GND
6	W	BATTERY

JCNWM1021GB



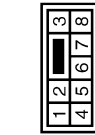
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

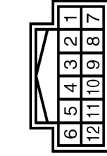
Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
20	Y	- [Without NAV]
21	LG	- [Without NAV]
22	W	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	P	- [Without entertainment system]
40	V	- [Without ICC]
41	Y	- [Without ICC]
42	G	- [Without ICC]

43	R	- [Without ICC]
44	W	- [Without ICC]
45	B	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]

Connector No.	B203
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	
5	P	
6	L	
10	P	
11	SHIELD	
12	L	

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	A16FW



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
2	R	

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SOUND SIGNAL LH (-)
2	R	SATELLITE RADIO SOUND SIGNAL LH (+)
3	W	SATELLITE RADIO SOUND SIGNAL RH (-)
4	B	SATELLITE RADIO SOUND SIGNAL RH (+)
5	SHIELD	
6	SHIELD	
8	W	REQUEST (SAT->CONT)
9	B	COMM (SAT->CONT)
10	R	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC

JCNWM1022GB



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH22FW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	L	TEL VOICE SIGNAL (+)
10	P	TEL VOICE SIGNAL (-)
20	B	CONTROL SIGNAL
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL

Connector No.	B471
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	TEL ANTENNA
34	SHIELD	SHIELD

28	P	VEHICLE SPEED (8-PUL SE)
29	P	MICROPHONE YGC

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH26FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	L	AV COMM (H)
36	P	AV COMM (L)

Connector No.	B482
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS38FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B491
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1023GB



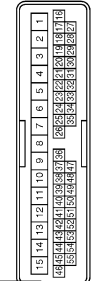
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B482
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



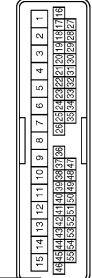
Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

JCNWM1024GB

A  
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AV  
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P



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS22FB-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



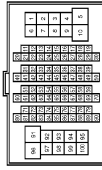
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	L	-
3	Y	-
4	SHIELD	-

Connector No.	D121
Connector Name	REAR VIEW CAMERA
Connector Type	TH64MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA POWER SUPPLY
2	L	CAMERA GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS(B-TM4



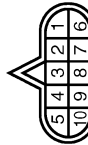
Terminal No.	Color of Wire	Signal Name [Specification]
29	LG	-
100	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TB01FW



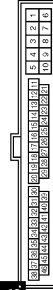
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



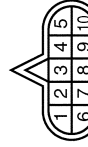
Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

JCNWM1025GB



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



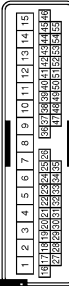
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



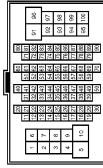
Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH42MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
29	V	-
100	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



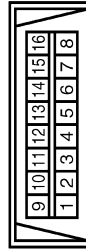
Terminal No.	Color of Wire	Signal Name [Specification]
11	Y	- [Without pre-crash seat belt]
12	V	- [Without pre-crash seat belt]
13	V	- [Without pre-crash seat belt]
14	V	- [Without pre-crash seat belt]
15	LG	- [Without pre-crash seat belt]
16	V	- [Without pre-crash seat belt]
17	G	- [Without pre-crash seat belt]
18	R	- [Without pre-crash seat belt]
51	V	-
52	LG	-
53	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

JCNWM1026GB

A  
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K  
L  
M  
AV  
O  
P



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	HS16MW-CS



1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH2FW-NH



41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72

Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPRAL CABLE)
Connector Type	TK08FY-1V




Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



3	5
2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02BR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M71
Connector Name	FRONT DISPLAY UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	INVERTER VCC
3	O	SIGNAL VCC
4	V	COMPOSITE IMAGE GND
5	Y	SHIELD
6	L	RGB (G, GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	Y	COMM (CONT->DISP)
13	BR	INVERTER GND

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

14	LG	SIGNAL GND
15	SB	COMPOSITE IMAGE SIGNAL
16	BR	SHIELD
17	G	RGB (R, RED) SIGNAL
18	P	RGB (B, BLUE) SIGNAL
19	W	RGB SYNC
20	G	VP
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT)
23	SHIELD	SHIELD

JCNWM1027GB



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



2	4	6	8	10	12	14	16
1	3	5	7	9	11	13	15

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	AGC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Connector No.	M81
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-CSZ



1	2	3	4	5	6	7	8	9
19	10	11	12	13	14	15	16	17
								18
								20

Terminal No.	Color of Wire	Signal Name [Specification]
6	P	STRG SW A
7	V	AGC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

Connector No.	M82
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	A12FW



22	24
21	23
25	26
27	28
29	31
30	32

Terminal No.	Color of Wire	Signal Name [Specification]
21	W	SATELLITE SOUND SIGNAL LH (-)
22	B	SATELLITE SOUND SIGNAL LH (+)
23	R	SATELLITE SOUND SIGNAL RH (-)
24	G	SATELLITE SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
27	SB	MODE CHANGE SIGNAL
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M83
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



47	46	45	44	43	42	41	40	39	38	37	36
59	58	57	56	55	54	53	52	51	50	49	48

47	O	SIGNAL VCC
48	BR	SHIELD
49	Y	SHIELD
50	SHIELD	SHIELD
55	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M84
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-NH



67	66	65	64	63	62	61	60
73	74	73	72	71	70	69	68

Terminal No.	Color of Wire	Signal Name [Specification]
36	SB	COMPOSITE IMAGE SIGNAL
37	V	COMPOSITE IMAGE GND
38	P	RGB (B: BLUE) SIGNAL
39	L	RGB (G: GREEN) SIGNAL
40	G	RGB (R: RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (VS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	SHIELD
65	W	CAMERA IMAGE SIGNAL
66	G	AUX IMAGE SIGNAL
68	V	CONNECTION RECOGNITION
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

JCNWM1028GB

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P

AV



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M85
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH2FW-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FB



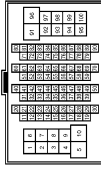
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3BMW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH63MW-CS16-TM4



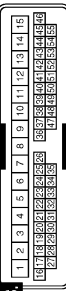
Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	Y	- [Without NAV]
21	V	-
22	O	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	V	- [Without entertainment system]
40	V	-
41	Y	- [Without ICC]
42	W	-

43	B	- [Without ICC]
44	R	-
45	G	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Connector No.	M126
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	-
5	P	-
6	L	-
10	P	-
11	SHIELD	-
12	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1030GB

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O  
P



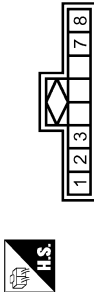
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

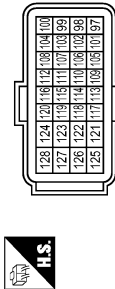
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M160
Connector Name	ECM (WITH V6 ENGINE)
Connector Type	RH2JFGY-R28-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEH CAN-L
105	L	VEH CAN-H

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M370
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP. ON SIGNAL

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	UASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1031GB



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	1
Color of Wire	-
Signal Name [Specification]	-

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A



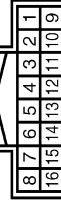
Terminal No.	1
Color of Wire	-
Signal Name [Specification]	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	8
Color of Wire	SHIELD
Signal Name [Specification]	-
Terminal No.	9
Color of Wire	R
Signal Name [Specification]	-
Terminal No.	10
Color of Wire	G
Signal Name [Specification]	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH18FW-NH



Terminal No.	9
Color of Wire	SHIELD
Signal Name [Specification]	-
Terminal No.	10
Color of Wire	R
Signal Name [Specification]	-
Terminal No.	11
Color of Wire	G
Signal Name [Specification]	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	8
Color of Wire	-
Signal Name [Specification]	-
Terminal No.	9
Color of Wire	L
Signal Name [Specification]	-
Terminal No.	10
Color of Wire	R
Signal Name [Specification]	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	1
Color of Wire	R
Signal Name [Specification]	MICROPHONE SIGNAL
Terminal No.	2
Color of Wire	SHIELD
Signal Name [Specification]	MICROPHONE GND
Terminal No.	4
Color of Wire	L
Signal Name [Specification]	MICROPHONE VCC

## DTC Index

## SELF-DIAGNOSIS RESULTS DISPLAY ITEM

JCNWM1032GB

INFOID:000000003838631



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

DTC	Display item	Refer to
U1000	CAN COMM CIRCUIT [U1000]	<a href="#">AV-48, "Diagnosis Procedure"</a>
U1010	CONTROL UNIT (CAN) [U1010]	<a href="#">AV-49, "Diagnosis Procedure"</a>
U1310	CONTROL UNIT (AV) [U1310]	<a href="#">AV-50, "DTC Logic"</a>
U1200	Control Unit FLASH-ROM [U1200]	<a href="#">AV-51, "DTC Logic"</a>
U1216	CAN CONT [U1216]	<a href="#">AV-52, "DTC Logic"</a>
U1243	FRONT DISP CONN [U1243]	<a href="#">AV-53, "Diagnosis Procedure"</a>
U1250	CAMERA CONT. CONN [U1250]	<a href="#">AV-55, "Diagnosis Procedure"</a>
U1255	SAT CONN [U1255]	<a href="#">AV-56, "Diagnosis Procedure"</a>
U1300 U1240	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• SWITCH CONN [U1240]</li> </ul>	<a href="#">AV-58, "Description"</a>
U1300 U1252	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• REAR CAMERA LAN CONN [U1252]</li> </ul>	<a href="#">AV-58, "Description"</a>
U1300 U1254	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• IPOD CONN [U1254]</li> </ul>	<a href="#">AV-58, "Description"</a>
U1300 U1256	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• HAND FREE CONN [U1256]</li> </ul>	<a href="#">AV-58, "Description"</a>
U1300 U1240 U1252 U1254 U1256	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• SWITCH CONN [U1240]</li> <li>• REAR CAMERA LAN CONN [U1252]</li> <li>• IPOD CONN [U1254]</li> <li>• HAND FREE CONN [U1256]</li> </ul>	<a href="#">AV-58, "Description"</a>



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

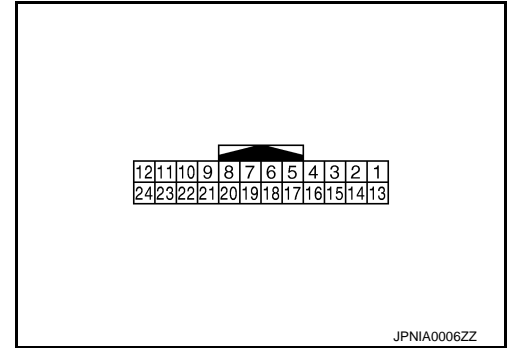
[WITHOUT NAVIGATION]

## FRONT DISPLAY UNIT

### Reference Value

INFOID:000000003838632

### TERMINAL LAYOUT



### PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Inverter VCC	Input	Ignition switch ACC	—	9.0 V
3 (O)	Ground	Signal VCC	Input	Ignition switch ACC	—	9.0 V
4 (V)	Ground	Composite image ground	—	Ignition switch ON	—	0 V
5 (Y)	—	Shield	—	—	—	—
6 (L)	Ground	RGB signal (G: green)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2236J
7	—	Shield	—	—	—	—
8 (R)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	 SKIB3601E

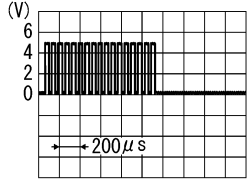
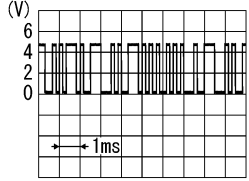
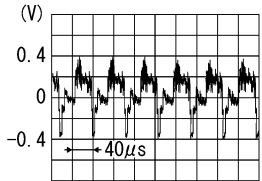
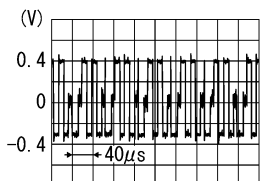
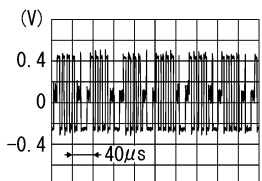
A  
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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

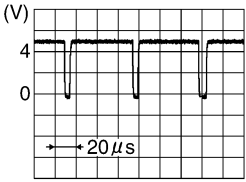
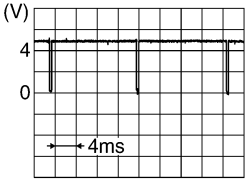
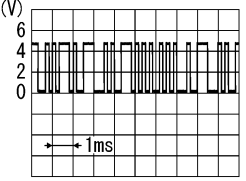
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (B)	Ground	RGB area (YS) signal	Input	Ignition switch ON	At RGB image display	5.0 V
				Ignition switch ON	At AUX image display	 <p>PKIB4948J</p>
11 (Y)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display brightness.	 <p>PKIB5039J</p>
13 (BR)	Ground	Inverter ground	—	Ignition switch ON	—	0 V
14 (LG)	Ground	Signal ground	—	Ignition switch ON	—	0 V
15 (SB)	Ground	Composite image signal	Input	Ignition switch ON	At AUX image display	 <p>SKIB2251J</p>
16 (BR)	—	Shield	—	—	—	—
17 (G)	Ground	RGB signal (R: red)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <p>SKIB2238J</p>
18 (P)	Ground	RGB signal (B: blue)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <p>SKIB2237J</p>



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
19 (W)	Ground	RGB synchronizing signal	Input	Ignition switch ON	—	 SKIB3603E
20 (G)	Ground	Vertical synchronizing (VP) signal	Output	Ignition switch On	—	 SKIB3598E
21	—	Shield	—	—	—	—
22 (BR)	Ground	Communication signal (DISP→CONT)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
23	—	Shield	—	—	—	—

Wiring Diagram - BOSE AUDIO WITHOUT NAVIGATION -

INFOID:000000003939952

**NOTE:**

AV

O

P

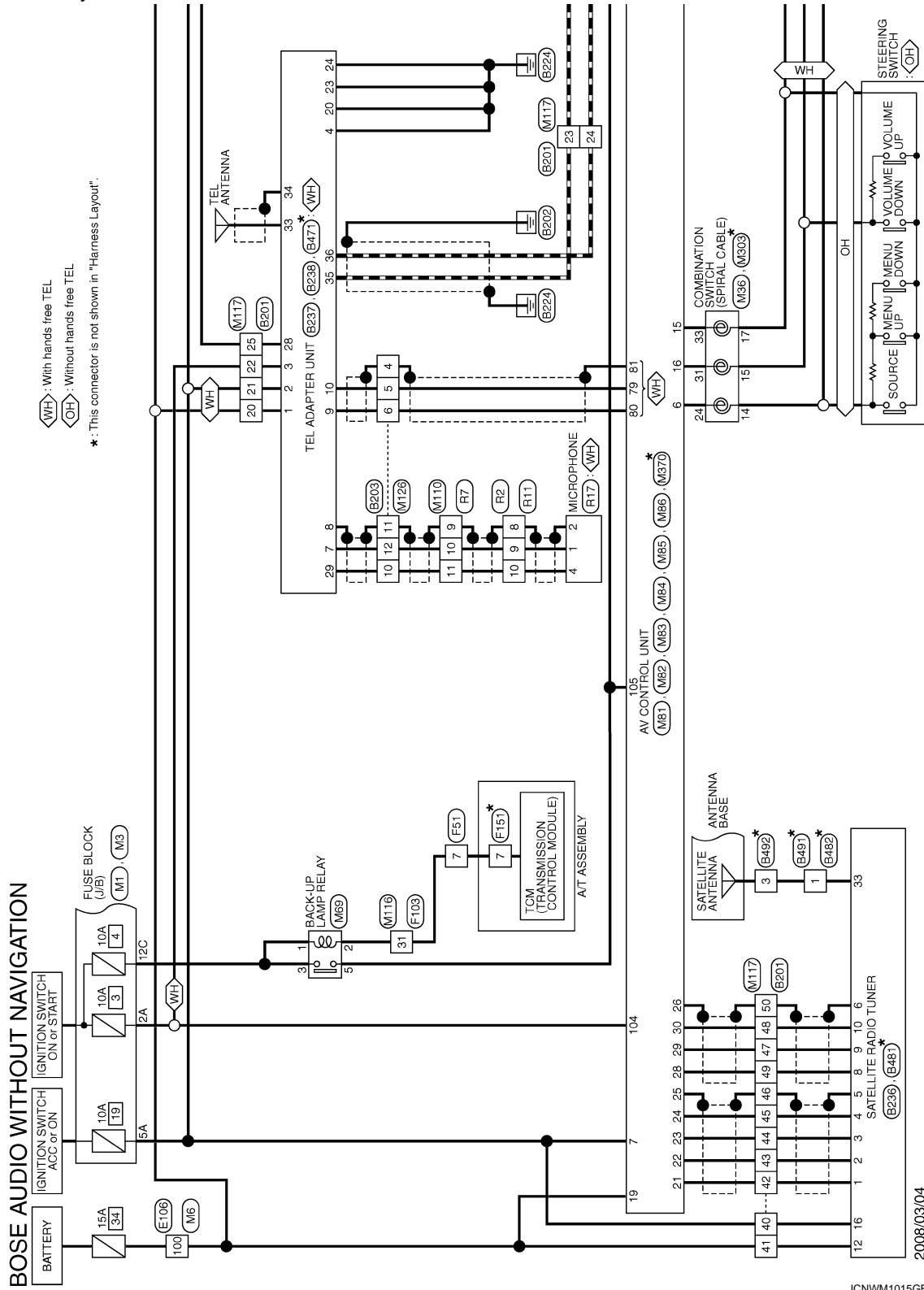


# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.





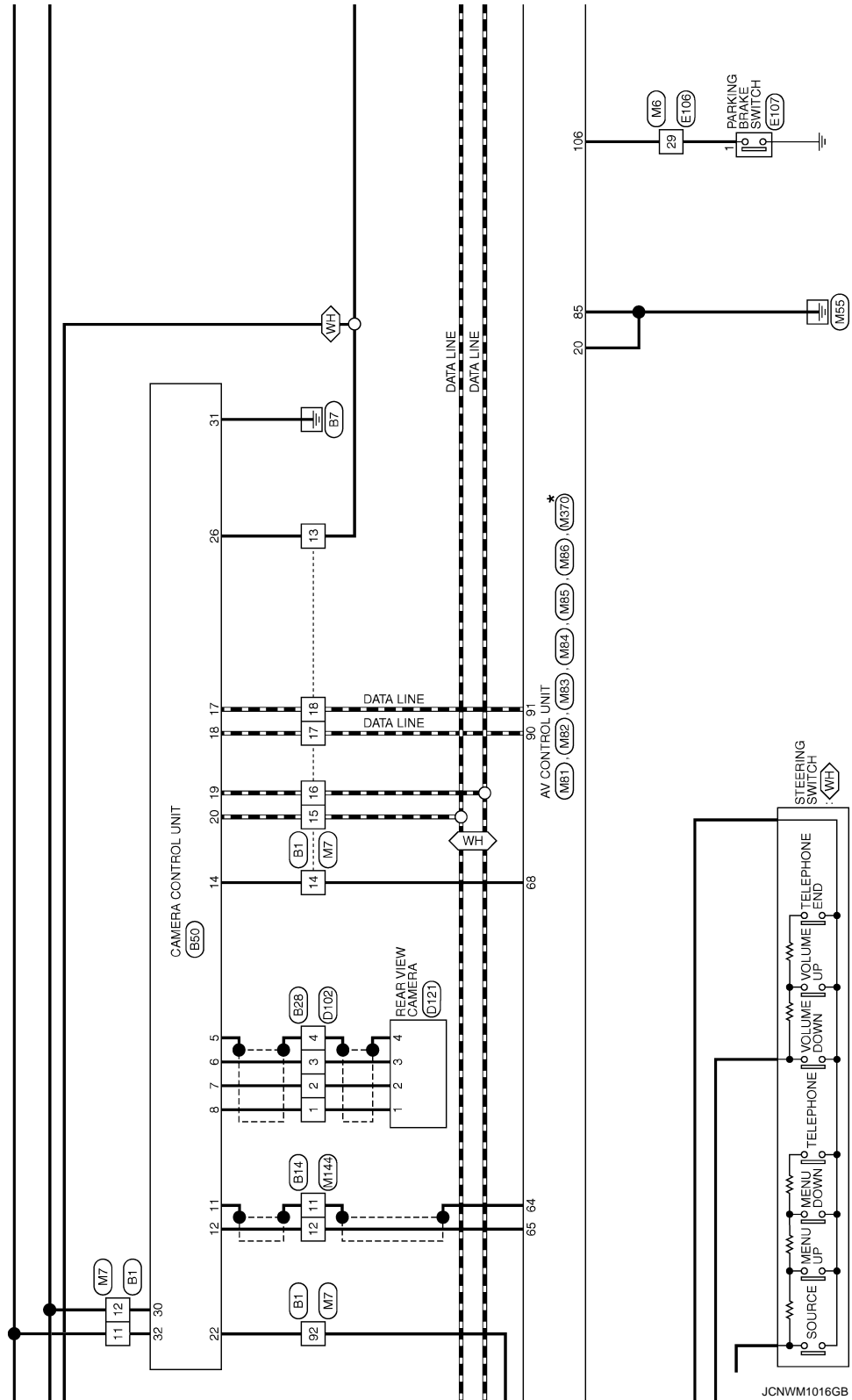
# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

◀WH▶: With hands free TEL

★: This connector is not shown in "Harness Layout".



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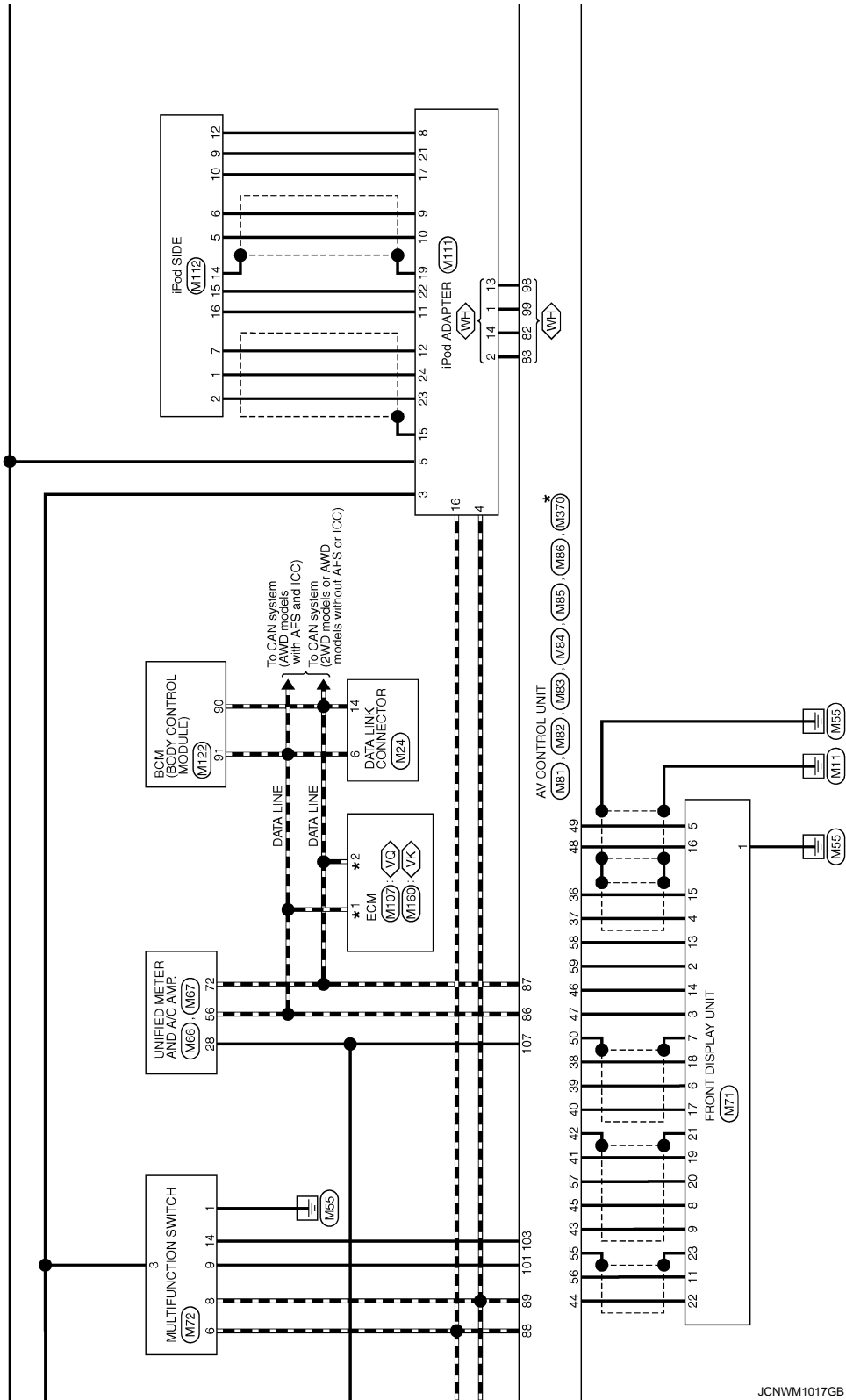
# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

- ★ 1 114: <VQ>
- 105: <VK>
- ★ 2 113: <VQ>
- 101: <VK>

★: This connector is not shown in "Harness Layout".



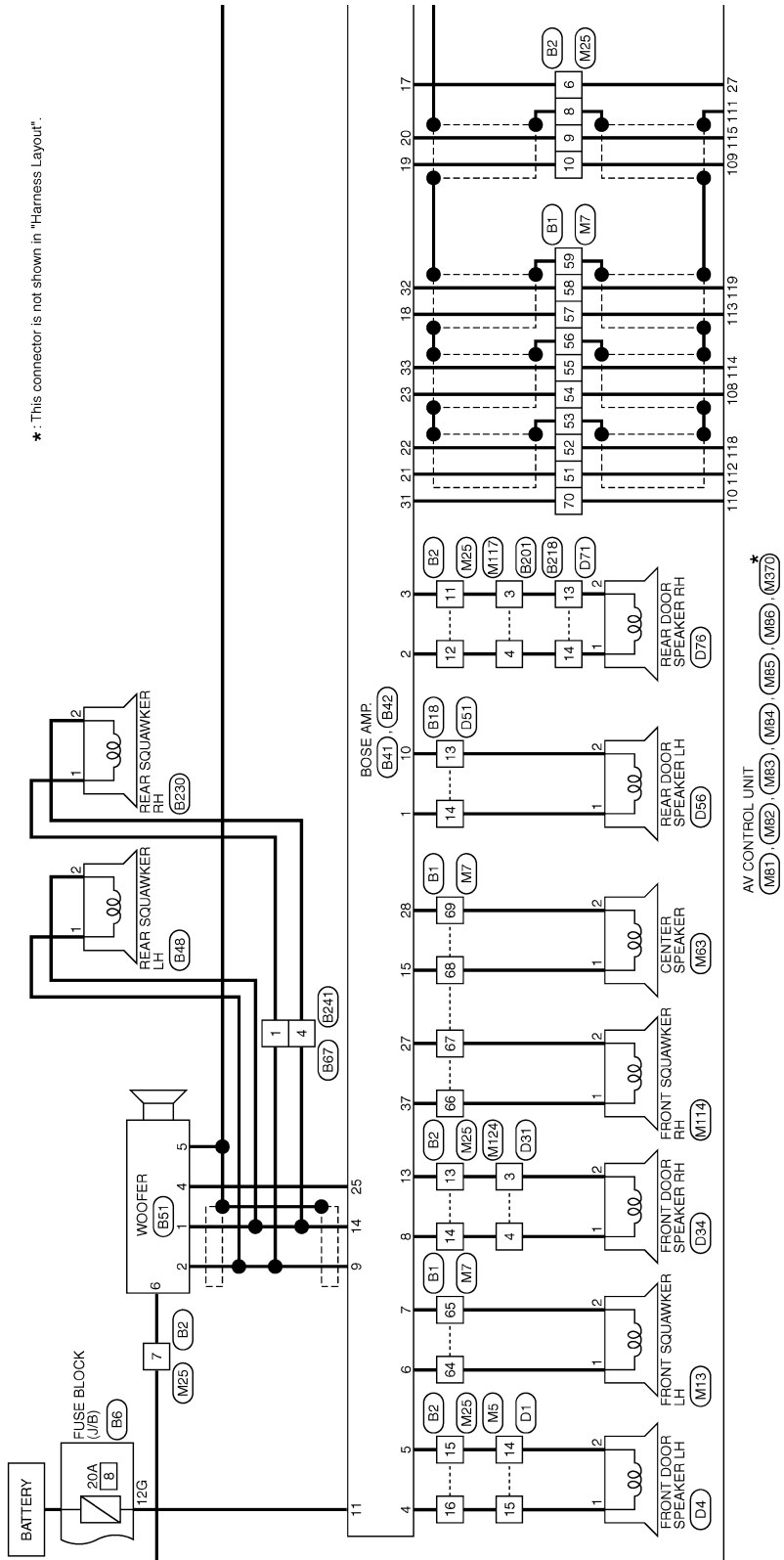
JCNWM1017GB



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

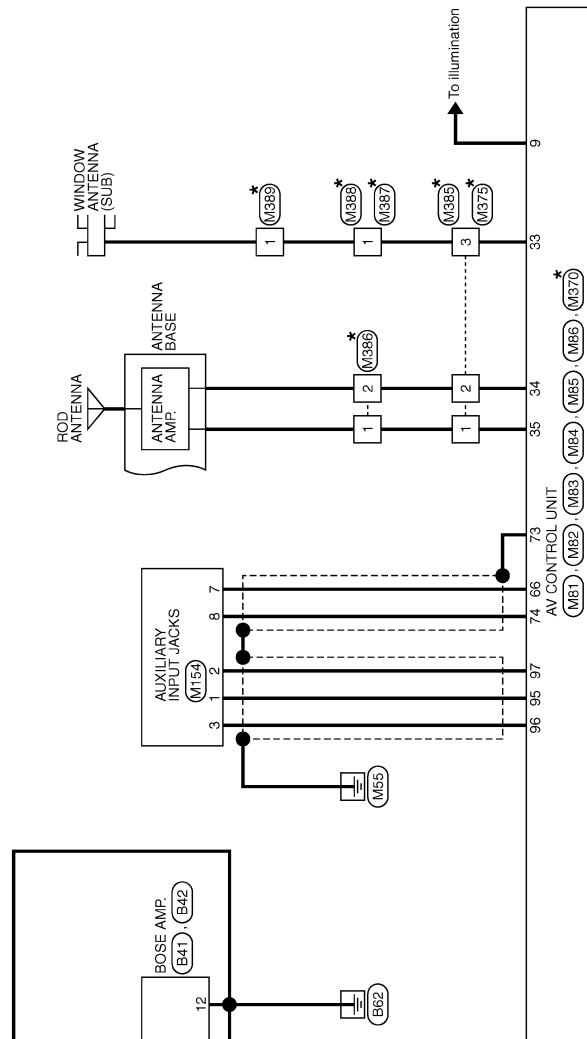
[WITHOUT NAVIGATION]



JCNWM1018GB



★ : This connector is not shown in "Harness Layout".



JCNWM1019GB



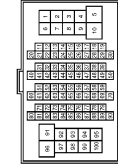
# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

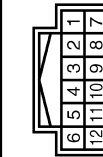
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	SB	- [Without pre-crash seat belt]
12	B	-
13	G	-
14	R	- [Without pre-crash seat belt]
15	W	- [Without pre-crash seat belt]
16	B	- [Without pre-crash seat belt]
17	L	-
18	P	-
51	V	-
52	SB	-
53	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH

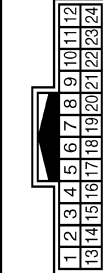


Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	W	-
4	SHIELD	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

JCNWM1020GB

A  
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E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1PBR-SGA4



37	36	35	34	33		32	31	30	29	28		
27	26	25	24	23	22	21	20	19	18	17	16	15

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR RH (+)
23	BR	SOUND SIGNAL FRONT LH (-)
25	L	WOOFER AMP ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR



2	1
---	---

31	GR	AMP ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)
37	V	SOUND SIGNAL FRONT SQUAWKER RH (+)



14		13	12		11		10	
9	8	7	6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

22	O	REVERSE
26	G	VEHICLE SPEED (8-PULSE)
30	B	ACC
31	B	GND
32	SB	BATTERY



2	4	6
1	3	5

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	W	CAMERA IMAGE SIGNAL
7	B	CAMERA GND
8	R	CAMERA POWER SUPPLY
11	SHIELD	SHIELD
12	W	CAMERA IMAGE SIGNAL
14	R	CONNECTION RECOGNITION
17	P	AV COMM (L)
18	L	AV COMM (H)
19	B	AV COMM (L)
20	W	AV COMM (H)

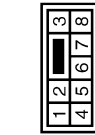
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP ON SIGNAL
5	B	GND
6	W	BATTERY

JCNWM1021GB



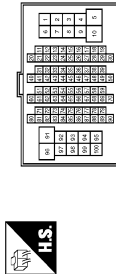
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
20	Y	- [Without NAV]
21	LG	- [Without NAV]
22	W	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	P	- [Without entertainment system]
40	V	- [Without ICC]
41	Y	- [Without ICC]
42	G	- [Without ICC]

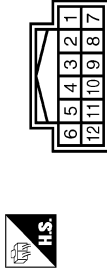
Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

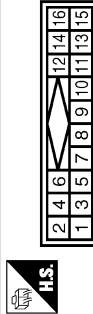
43	R	- [Without ICC]
44	W	- [Without ICC]
45	B	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]

Connector No.	B203
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	
5	P	
6	L	
10	P	
11	SHIELD	
12	L	

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	A16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SOUND SIGNAL LH (-)
2	R	SATELLITE RADIO SOUND SIGNAL LH (+)
3	W	SATELLITE RADIO SOUND SIGNAL RH (-)
4	B	SATELLITE RADIO SOUND SIGNAL RH (+)
5	SHIELD	
6	SHIELD	
8	W	REQUEST (SAT->CONT)
9	B	COMM (SAT->CONT)
10	R	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH22FW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	L	TEL VOICE SIGNAL (+)
10	P	TEL VOICE SIGNAL (-)
20	B	CONTROL SIGNAL
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL

Connector No.	B471
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	TEL ANTENNA
34	SHIELD	SHIELD

28	P	VEHICLE SPEED (8-PUL SE)
29	P	MICROPHONE YCC

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH26FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	L	AV COMM (H)
36	P	AV COMM (L)

Connector No.	B482
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS38FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B491
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1023GB



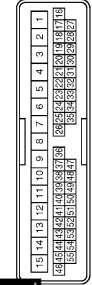
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B482
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



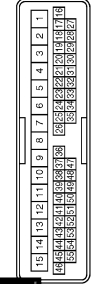
Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS22FB-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



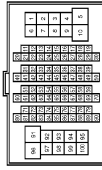
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	L	-
3	Y	-
4	SHIELD	-

Connector No.	D121
Connector Name	REAR VIEW CAMERA
Connector Type	TH64MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA POWER SUPPLY
2	L	CAMERA GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS(B-TM4



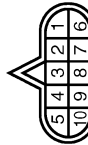
Terminal No.	Color of Wire	Signal Name [Specification]
29	LG	-
100	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TB01FW



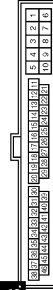
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



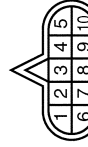
Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

JCNWM1025GB



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



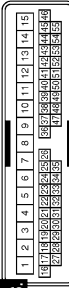
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
29	V	-
100	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



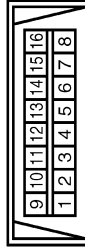
Terminal No.	Color of Wire	Signal Name [Specification]
11	Y	- [Without pre-crash seat belt]
12	V	- [Without pre-crash seat belt]
13	V	- [Without pre-crash seat belt]
14	V	- [Without pre-crash seat belt]
15	LG	- [Without pre-crash seat belt]
16	V	- [Without pre-crash seat belt]
17	G	- [Without pre-crash seat belt]
18	R	- [Without pre-crash seat belt]
51	V	-
52	LG	-
53	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUARE LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

JCNWM1026GB

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	HS16MW-CS



1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH2FW-NH



41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72

Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPRAL CABLE)
Connector Type	TK08FGY-1V



	24	25	26
	31	32	33
			34

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



3	5
2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02BR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M71
Connector Name	FRONT DISPLAY UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	INVERTER VCC
3	O	SIGNAL VCC
4	V	COMPOSITE IMAGE GND
5	Y	SHIELD
6	L	RGB (G, GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	Y	COMM (CONT->DISP)
13	BR	INVERTER GND

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

14	LG	SIGNAL GND
15	SB	COMPOSITE IMAGE SIGNAL
16	BR	SHIELD
17	G	RGB (R, RED) SIGNAL
18	P	RGB (B, BLUE) SIGNAL
19	W	RGB SYNC
20	G	VP
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT)
23	SHIELD	SHIELD



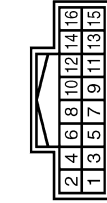
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< ECU DIAGNOSIS INFORMATION >

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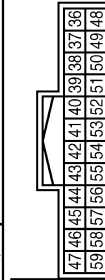
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	V	AGC
3	LG	AV COMM (H)
4	V	AV COMM (L)
5	V	SW GND
6	BR	DISK EJECT SIGNAL
7	SB	

Connector No.	M83
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
36	SB	COMPOSITE IMAGE SIGNAL
37	V	COMPOSITE IMAGE GND
38	P	RGB (B: BLUE) SIGNAL
39	L	RGB (G: GREEN) SIGNAL
40	G	RGB (R: RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (VS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

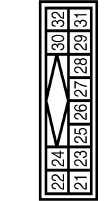
Connector No.	M81
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-CSZ



Terminal No.	Color of Wire	Signal Name [Specification]
6	P	STRG SW A
7	V	AGC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

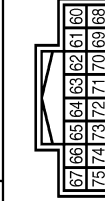
47	O	SIGNAL VCC
48	BR	SHIELD
49	Y	SHIELD
50	SHIELD	SHIELD
55	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M82
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	A12FW



Terminal No.	Color of Wire	Signal Name [Specification]
21	W	SATELLITE SOUND SIGNAL LH (-)
22	B	SATELLITE SOUND SIGNAL LH (+)
23	R	SATELLITE SOUND SIGNAL RH (-)
24	G	SATELLITE SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
27	SB	MODE CHANGE SIGNAL
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M84
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	SHIELD
65	W	CAMERA IMAGE SIGNAL
66	G	AUX IMAGE SIGNAL
68	V	CONNECTION RECOGNITION
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

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AV



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M85
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH2FW-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK2FB



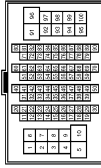
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3BMW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH63MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	Y	- [Without NAV]
21	V	-
22	O	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	V	- [Without entertainment system]
40	V	-
41	Y	- [Without ICC]
42	W	-

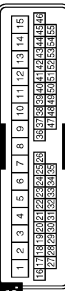
43	B	- [Without ICC]
44	R	-
45	G	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-

Connector No.	M126
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	-
5	P	-
6	L	-
10	P	-
11	SHIELD	-
12	L	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

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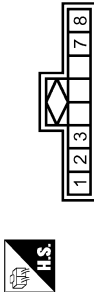
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< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

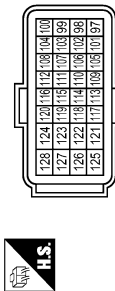
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M160
Connector Name	ECM (WITH V6 ENGINE)
Connector Type	RH2JFGY-R28-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEH CAN-L
105	L	VEH CAN-H

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M370
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP. ON SIGNAL

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



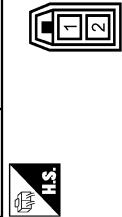
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



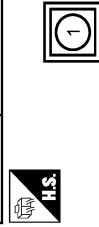
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	UASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1031GB



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A



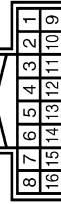
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

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# BOSE AMP.

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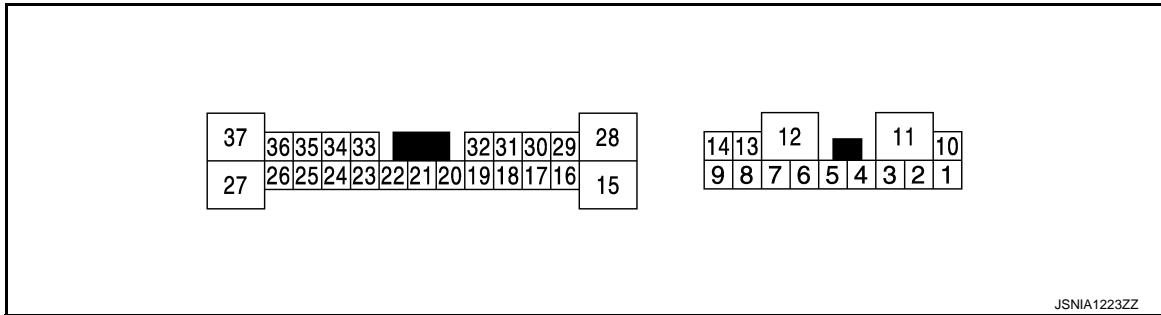
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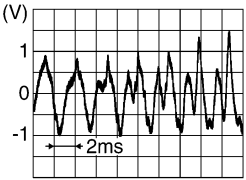
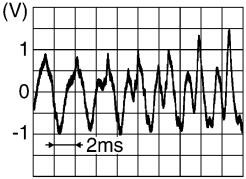
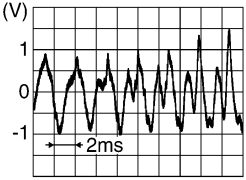
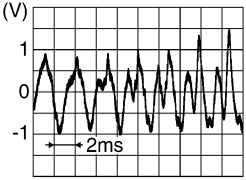
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### TERMINAL LAYOUT



### PHYSICAL VALUES

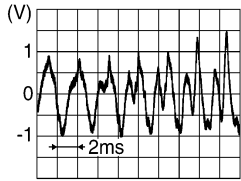
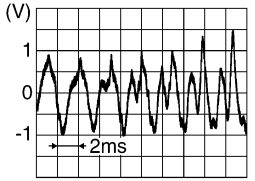
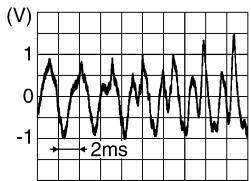
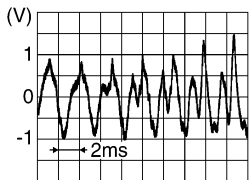
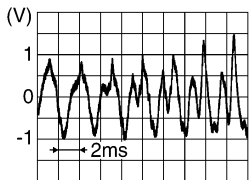
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (Y)	10 (G)	Sound signal rear door speaker LH	Output	Ignition switch ON	Audio output	 SKIB3609E
2 (SB)	3 (V)	Sound signal rear door speaker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
4 (L)	5 (P)	Sound signal front door speaker LH	Output	Ignition switch ON	Audio output	 SKIB3609E
6 (O)	7 (W)	Sound signal front squawk- er LH	Output	Ignition switch ON	Audio output	 SKIB3609E



# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
8 (LG)	13 (Y)	Sound signal front door speaker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
9 (G)	14 (R)	Sound signal woofer and rear squawker (LH and RH)	Output	Ignition switch ON	Audio output	 SKIB3609E
11 (GR)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
12 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
15 (Y)	28 (G)	Sound signal center speak- er	Output	Ignition switch ON	Audio output	 SKIB3609E
17 (O)	Ground	Mode change signal	Input	Ignition switch ON	Driver's Audio Stage ON	0 V
					Driver's Audio Stage OFF	8.5 V
18 (P)	32 (L)	Sound signal front LH	Input	Ignition switch ON	Audio output	 SKIB3609E
19 (R)	20 (G)	Sound signal front RH	Input	Ignition switch ON	Audio output	 SKIB3609E

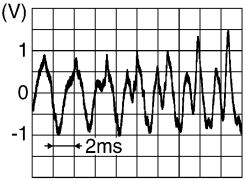
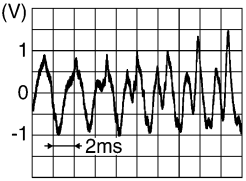
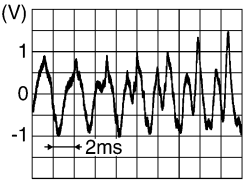
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# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
21 (V)	22 (SB)	Sound signal rear LH	Input	Ignition switch ON	Audio output	 SKIB3609E
23 (BR)	33 (Y)	Sound signal rear RH	Input	Ignition switch ON	Audio output	 SKIB3609E
25 (L)	Ground	Woofer amp. ON signal	Output	Ignition switch ACC	—	12.0 V
37 (V)	27 (LG)	Sound signal front squawker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
31 (GR)	Ground	Amp. ON signal	Input	Ignition switch ACC	—	12.0 V

Wiring Diagram - BOSE AUDIO WITHOUT NAVIGATION -

INFOID:000000003939965

**NOTE:**

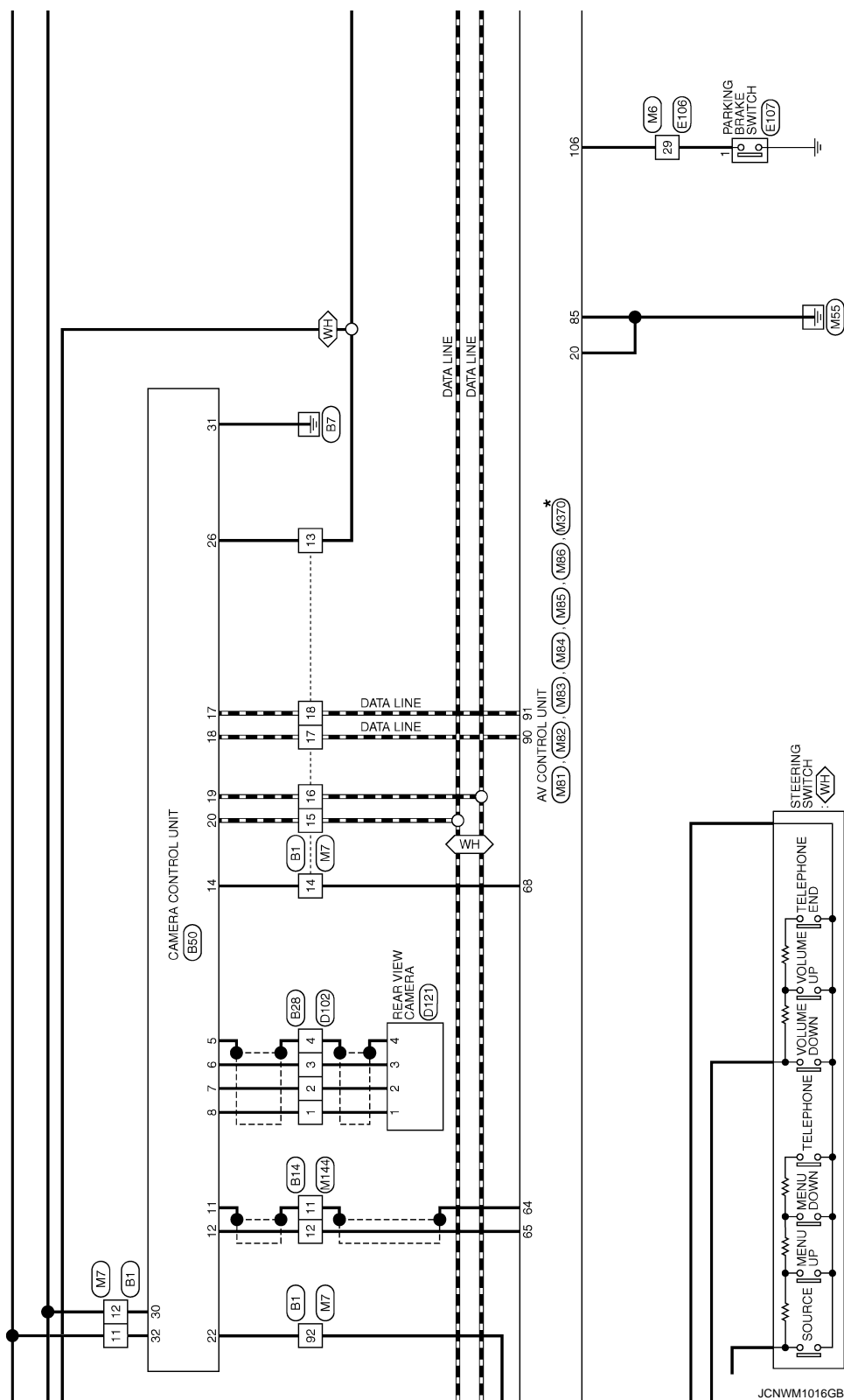






**WH** : With hands free TEL

**\*:** This connector is not shown in "Harness Layout".

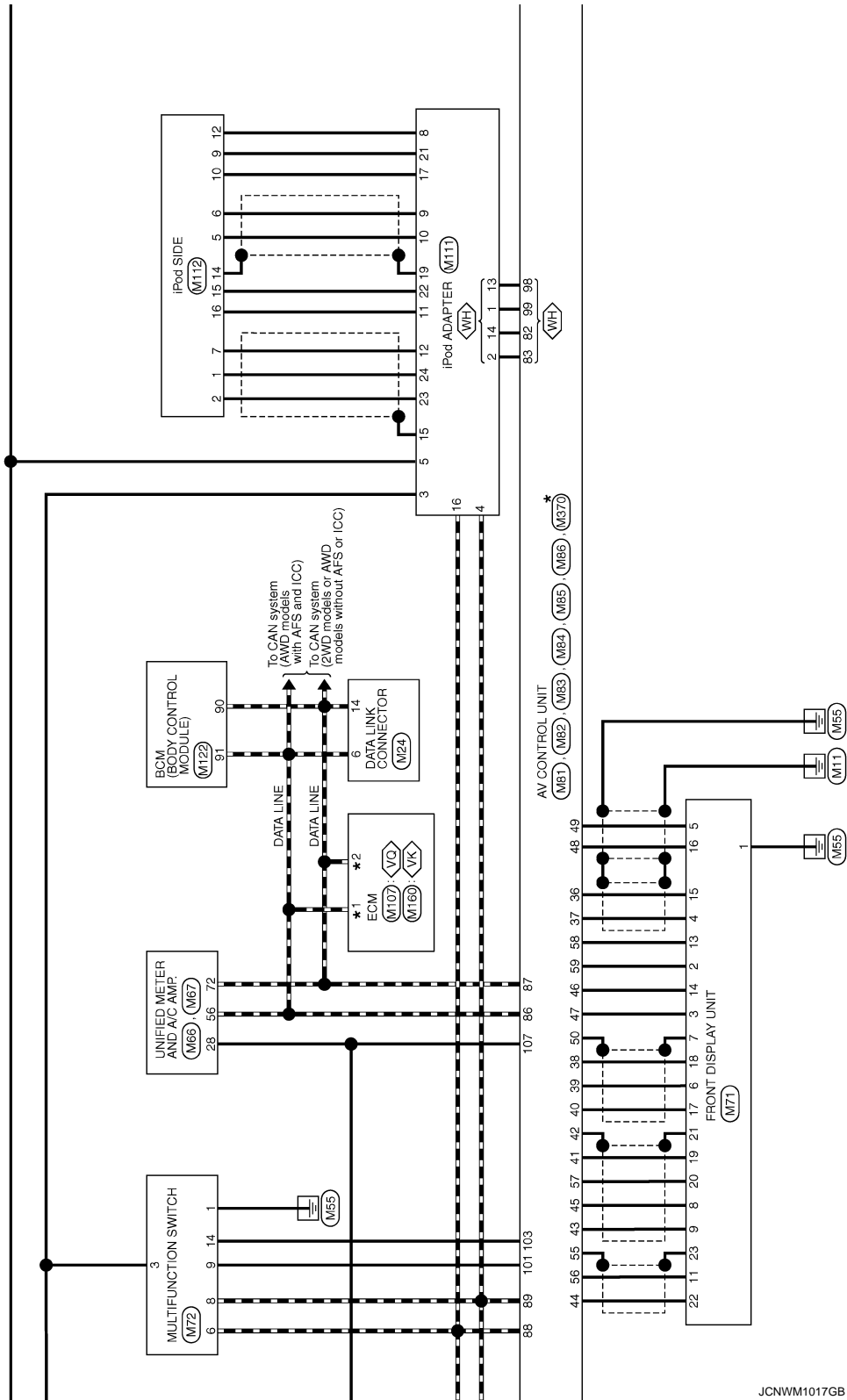




- ★ 1 114: <VQ>
- 105: <VK>
- ★ 2 113: <VQ>
- 101: <VK>

- <VQ> : With VQ engine
- <VK> : With VK engine
- <WH> : With hands free TEL

★ : This connector is not shown in "Harness Layout".



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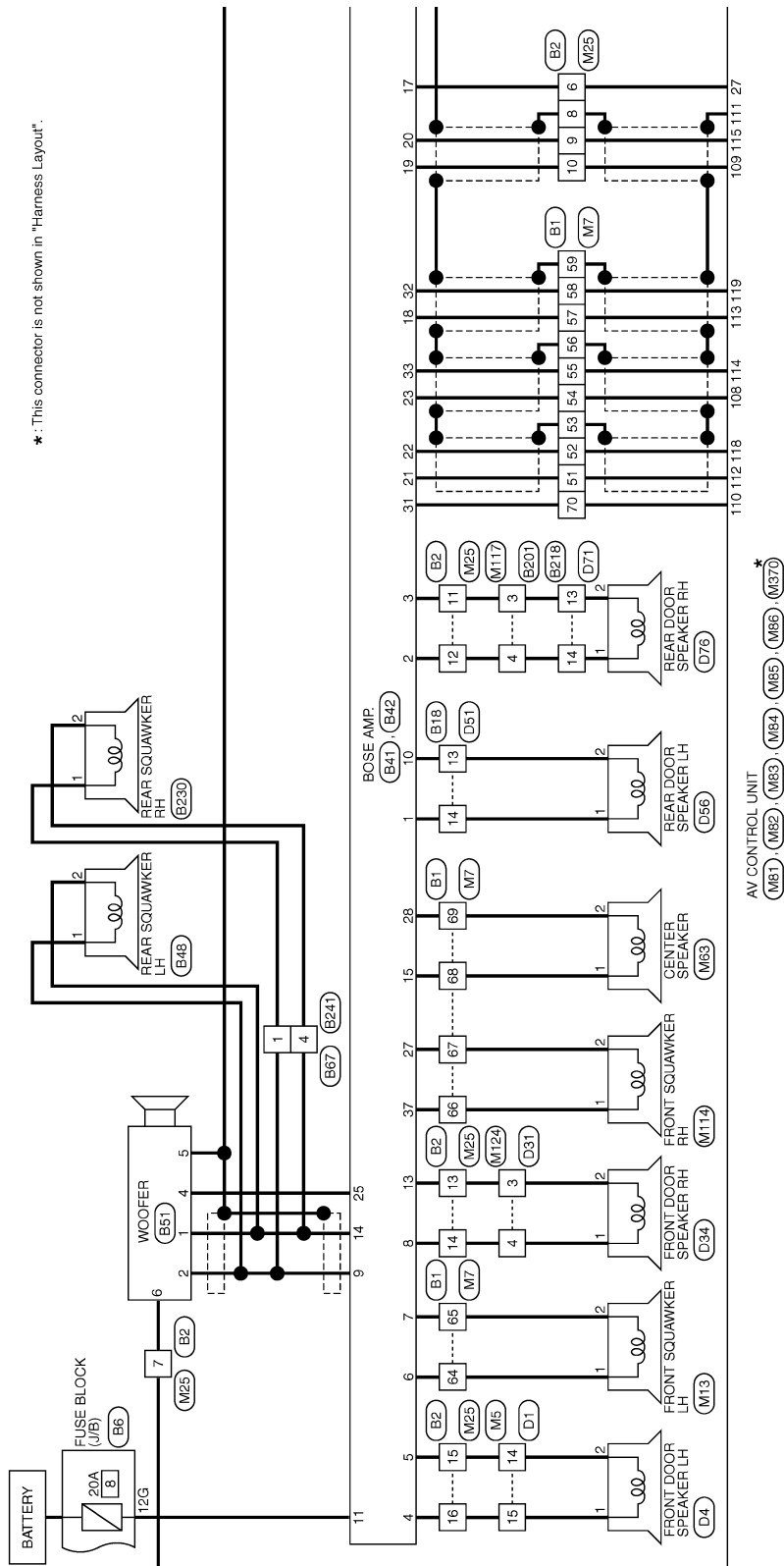
AV



# BOSE AMP.

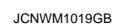
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[WITHOUT NAVIGATION]



JCNWM1018GB

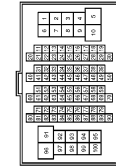






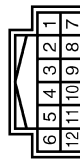
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	SB	- [Without pre-crash seat belt]
12	B	-
13	G	-
14	R	- [Without pre-crash seat belt]
15	W	- [Without pre-crash seat belt]
16	B	- [Without pre-crash seat belt]
17	L	-
18	P	-
51	V	-
52	SB	-
53	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	W	-
4	SHIELD	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1PFR-SQA4



37	36	35	34	33	32	31	30	29	28
27	26	25	24	23	22	21	20	19	18
17	16	15							

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR RH (+)
23	BR	SOUND SIGNAL REAR LH (-)
25	L	WOOFER AMP ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

31	GR	AMP ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (+)
33	Y	SOUND SIGNAL REAR RH (-)
37	V	SOUND SIGNAL FRONT SQUAWKER RH (+)



14	13	12	11	10
9	8	7	6	5
4	3	2	1	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
8	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

22	O	REVERSE
28	G	VEHICLE SPEED (8-PULSE)
30	B	ACC
31	B	GND
32	SB	BATTERY



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Connector No.	B50
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH43FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	W	CAMERA IMAGE SIGNAL
7	B	CAMERA GND
8	R	CAMERA POWER SUPPLY
11	SHIELD	SHIELD
12	W	CAMERA IMAGE SIGNAL
14	R	CONNECTION RECOGNITION
17	P	AV COMM (L)
18	L	AV COMM (H)
19	B	AV COMM (L)
20	W	AV COMM (H)

12	B	GND
13	Y	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
14	R	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY



2	4	6
1	3	5

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP ON SIGNAL
5	B	GND
6	W	BATTERY

JCNWM1021GB



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SOUND SIGNAL LH (-)
2	R	SATELLITE RADIO SOUND SIGNAL LH (+)
3	W	SATELLITE RADIO SOUND SIGNAL RH (-)
4	B	SATELLITE RADIO SOUND SIGNAL RH (+)
5	SHEILD	SHEILD
6	SHEILD	SHEILD
8	W	REQUEST (SAT->CONT)
9	B	COMM (SAT->CONT)
10	R	COMM (CONT->SAT)
12	Y	BATTERY
16	Y	ACC



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH2PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	L	TEL VOICE SIGNAL (+)
10	P	TEL VOICE SIGNAL (-)
20	B	CONTROL SIGNAL
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL

Connector No.	B471
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-TS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	TEL ANTENNA
34	SHIELD	SHIELD

28	P	VEHICLE SPEED (8-PUL SE)
29	P	MICROPHONE YCC

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH2PW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	L	AV COMM (H)
36	P	AV COMM (L)

Connector No.	B482
Connector Name	WIRE TO WIRE
Connector Type	GT16C-TS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS38FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B491
Connector Name	WIRE TO WIRE
Connector Type	GT16C-TS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
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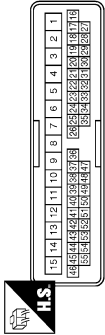
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B492
Connector Name	ANTENNA BASE
Connector Type	GT16C-TPP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



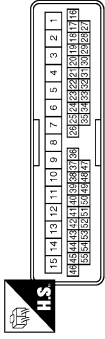
Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15

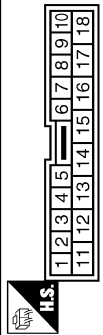


Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



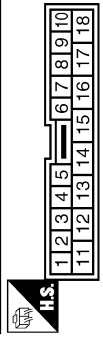
Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-



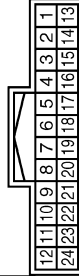
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS2FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



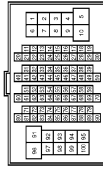
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	L	-
3	Y	-
4	SHIELD	-

Connector No.	D121
Connector Name	REAR VIEW CAMERA
Connector Type	TH64MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA POWER SUPPLY
2	L	CAMERA GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

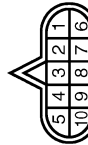


Terminal No.	Color of Wire	Signal Name [Specification]
29	LG	-
100	Y	-

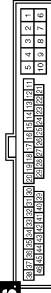
Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TB01FW



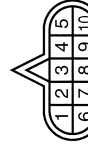
Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

JCNWM1025GB

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## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



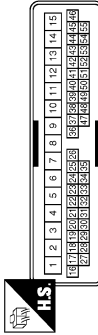
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



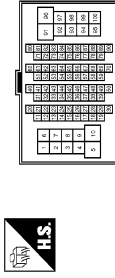
Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



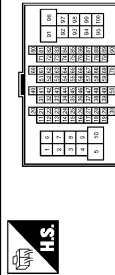
Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
29	V	-
100	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	Y	- [Without pre-crash seat belt]
12	V	- [Without pre-crash seat belt]
13	V	- [Without pre-crash seat belt]
14	V	- [Without pre-crash seat belt]
15	LG	- [Without pre-crash seat belt]
16	V	- [Without pre-crash seat belt]
17	G	- [Without pre-crash seat belt]
18	R	- [Without pre-crash seat belt]
51	V	-
52	LG	-
53	SHIELD	-

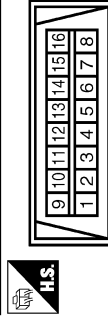
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

JCNWM1026GB



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	MS16MW-CS



1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH2FW-NH



41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72

Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FY-1V



24	25	26
31	32	33
		34

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



3	5
2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



2	1
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M71
Connector Name	FRONT DISPLAY UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	INVERTER VCC
3	O	SIGNAL VCC
4	V	COMPOSITE IMAGE GND
5	Y	SHIELD
6	L	RGB (G: GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	Y	COMM (CONT->DISP)
13	BR	INVERTER GND

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

14	LG	SIGNAL GND
15	SB	COMPOSITE IMAGE SIGNAL
16	BR	SHIELD
17	G	RGB (R: RED) SIGNAL
18	P	RGB (B: BLUE) SIGNAL
19	W	RGB SYNC
20	G	VP
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT)
23	SHIELD	SHIELD

JCNWM1027GB

A  
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I  
J  
K  
L  
M  
AV  
O  
P



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



2	4	6	8	10	12	14	16
1	3	5	7	9	11	13	15

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Connector No.	M81
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-CS2



1	2	3	4	5	6	7	8	9
19	10	11	12	13	14	15	16	17
								18
								20

Terminal No.	Color of Wire	Signal Name [Specification]
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

Connector No.	M82
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	A12FW



22	24
21	23
25	26
27	28
29	31
	30
	32

Terminal No.	Color of Wire	Signal Name [Specification]
21	W	SATELLITE SOUND SIGNAL LH (-)
22	B	SATELLITE SOUND SIGNAL LH (+)
23	R	SATELLITE SOUND SIGNAL RH (-)
24	G	SATELLITE SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
27	SB	MODE CHANGE SIGNAL
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M83
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



47	46	45	44	43	42	41	40	39	38	37	36
59	58	57	56	55	54	53	52	51	50	49	48

47	O	SIGNAL VCC
48	BR	SHIELD
49	Y	SHIELD
50	SHIELD	SHIELD
55	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M84
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-NH



67	66	65	64	63	62	61	60
73	74	73	72	71	70	69	68

Terminal No.	Color of Wire	Signal Name [Specification]
36	SB	COMPOSITE IMAGE SIGNAL
37	V	COMPOSITE IMAGE GND
38	P	RGB (B: BLUE) SIGNAL
39	L	RGB (G: GREEN) SIGNAL
40	G	RGB (R: RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (VS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	SHIELD
65	W	CAMERA IMAGE SIGNAL
66	G	AUX IMAGE SIGNAL
68	V	CONNECTION RECOGNITION
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

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## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M85
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH2FW-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FB



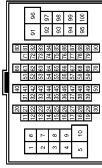
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3BMV-HS10



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



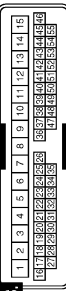
Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	- [Without NAVI]
20	Y	-
21	V	-
22	O	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	V	- [Without entertainment system]
40	V	-
41	Y	- [Without ICC]
42	W	-

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-

Connector No.	M126
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	-
5	P	-
6	L	-
10	P	-
11	SHIELD	-
12	L	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

43	B	- [Without ICC]
44	R	-
45	G	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]



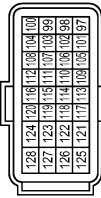
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A09FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M160
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH2JFGY-RZ8-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY



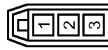
Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M370
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	GT13SH-2/1S-HU



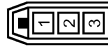
Terminal No.	Color of Wire	Signal Name [Specification]
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP. ON SIGNAL

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	UJASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1031GB

A  
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P

AV



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	PROTB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TKG4FW



1	2	3	4
---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

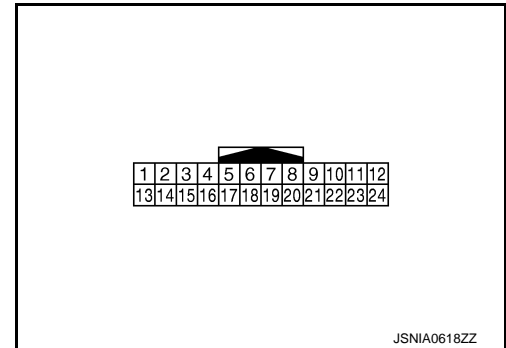


## IPOD ADAPTER

## Reference Value

INFOID:000000003910632

## TERMINAL LAYOUT



## PHYSICAL VALUES

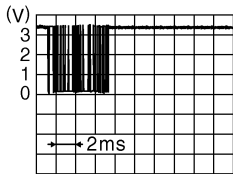
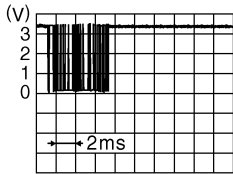
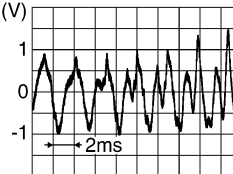
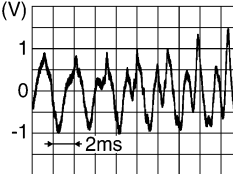
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (R)	13 (G)	iPod sound signal LH	Output	Ignition switch ON	When iPod mode is select- ed.	 SKIB3609E
2 (BR)	14 (Y)	iPod sound signal RH	Output	Ignition switch ON	When iPod mode is select- ed.	 SKIB3609E
3 (O)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
4 (V)	—	AV communication signal (L)	Input/ Output	—	—	—
5 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
8 (W)	Ground	iPod battery charge	Output	Ignition switch ON	Connected to iPod®	12.0 V



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (Y)	Ground	Communication signal (iPod adapter→iPod®)	Output	Ignition switch ON	The wave pattern is displayed just after iPod connection.	 <p>JPNIA0462GB</p> <p><b>NOTE:</b> After the wave pattern display, the value continues Approx 3.3 V</p>
10 (BR)	Ground	Communication signal (iPod®→iPod adapter)	Input	Ignition switch ON	Connected to iPod®	 <p>JPNIA0462GB</p>
11 (L)	Ground	ACCESSORY-IDENTIFY	—	Ignition switch ON	Connected to iPod®	0 V
12 (R)	23 (W)	iPod sound signal RH	Input	Ignition switch ON	When iPod mode is selected.	 <p>SKIB3609E</p>
15	—	Shield	—	—	—	—
16 (LG)	—	AV communication signal (H)	Input/ Output	—	—	—
17 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
19	—	Shield	—	—	—	—
21 (SB)	Ground	iPod connection recognition signal	Input	Ignition switch ON	Not connected to iPod®	4.0 V
					Connected to iPod®	0 V
22 (W)	Ground	ACCESSORY-DETECT	—	Ignition switch ON	Connected to iPod®	0 V
24 (B)	23 (W)	iPod sound signal LH	Input	Ignition switch ON	When iPod mode is selected.	 <p>SKIB3609E</p>



INFOID:0000000003939966

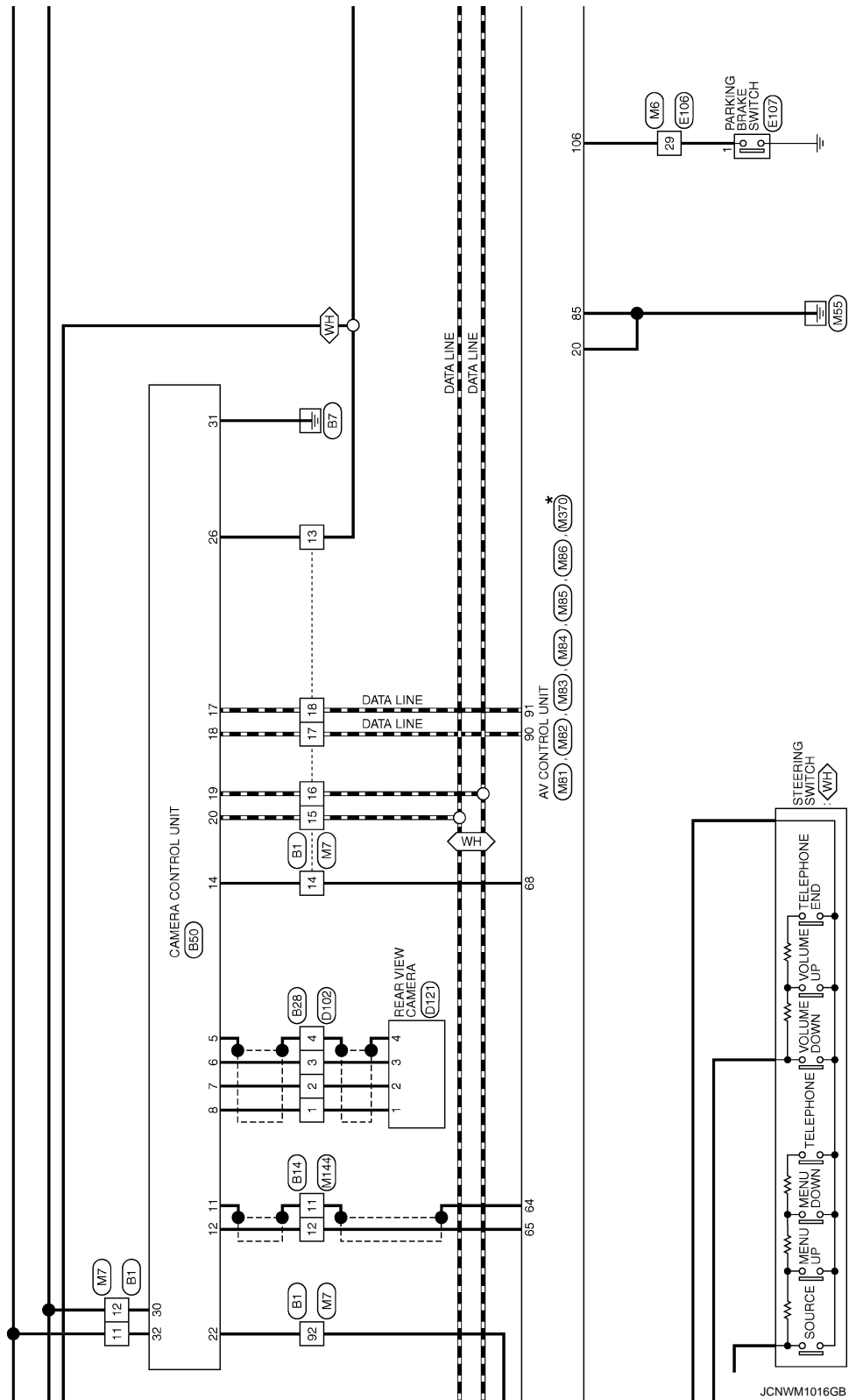
The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.





◁WH▷: With hands free TEL

★: This connector is not shown in "Harness Layout".



JCNWM1016GB



# IPOD ADAPTER

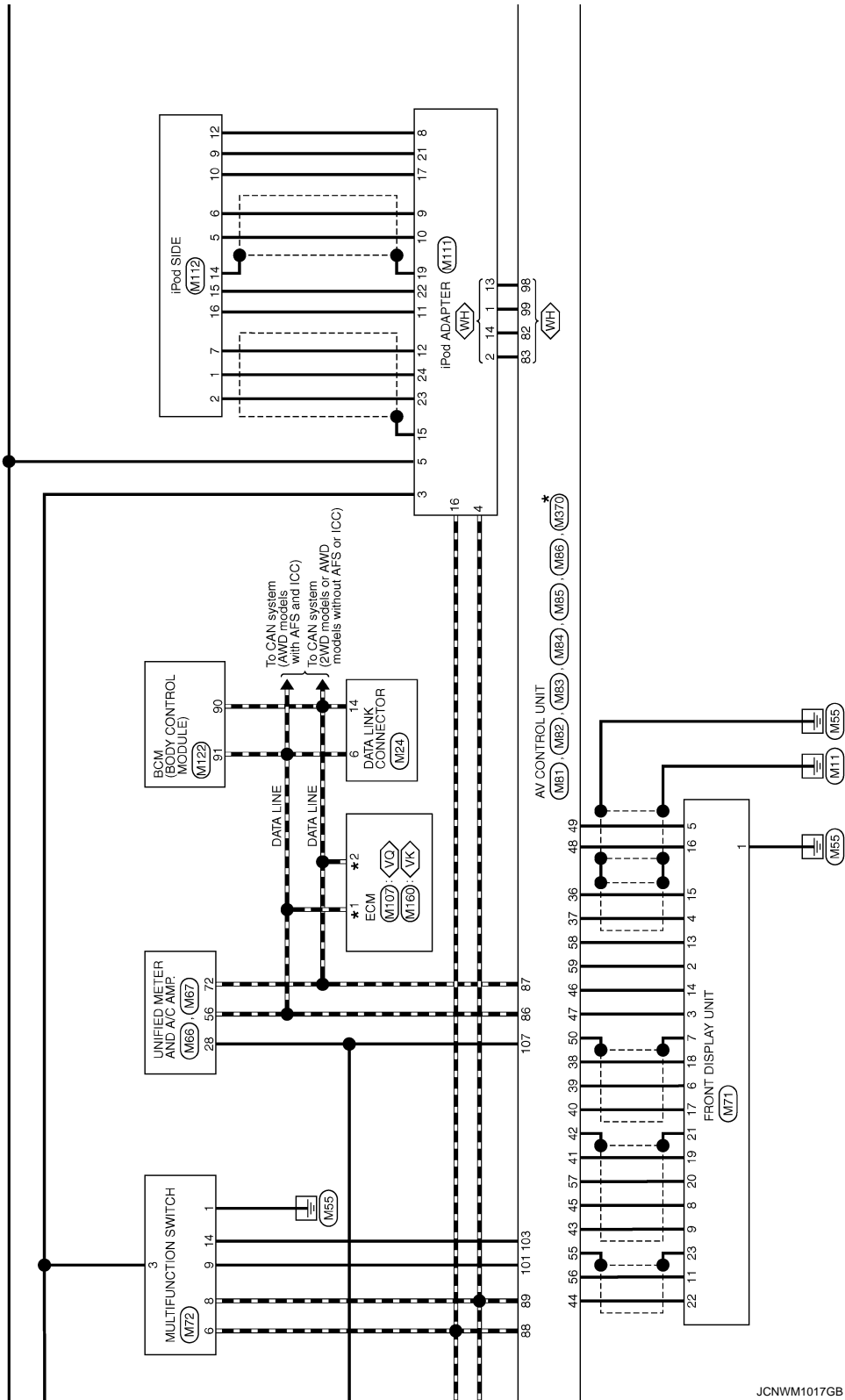
< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

- ★ 1 114: <VQ>  
105: <VK>
- ★ 2 113: <VQ>  
101: <VK>

<VQ> : With VQ engine  
<VK> : With VK engine  
<WH> : With hands free TEL

★ : This connector is not shown in "Harness Layout".

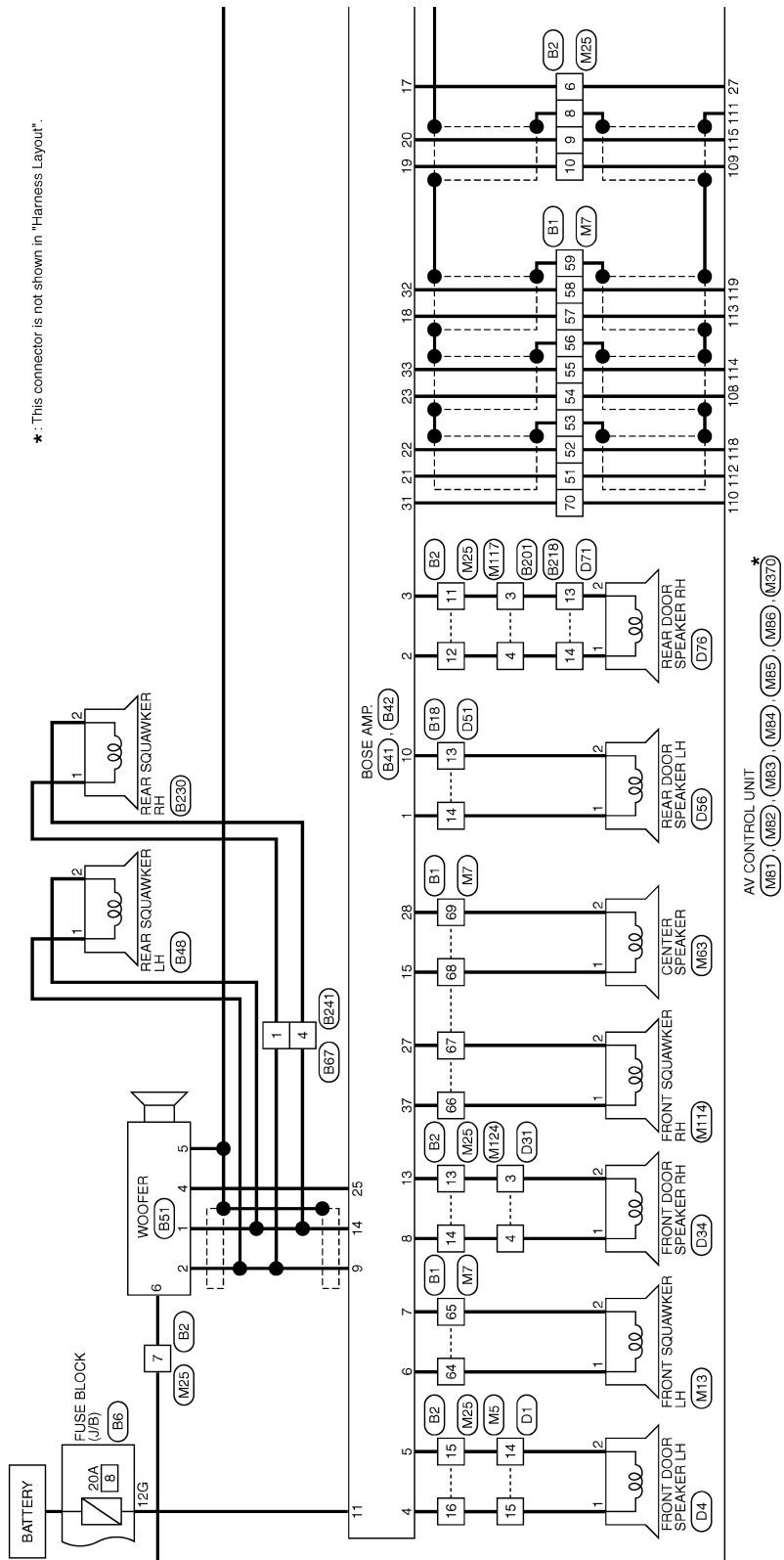


JCNWM1017GB

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AV

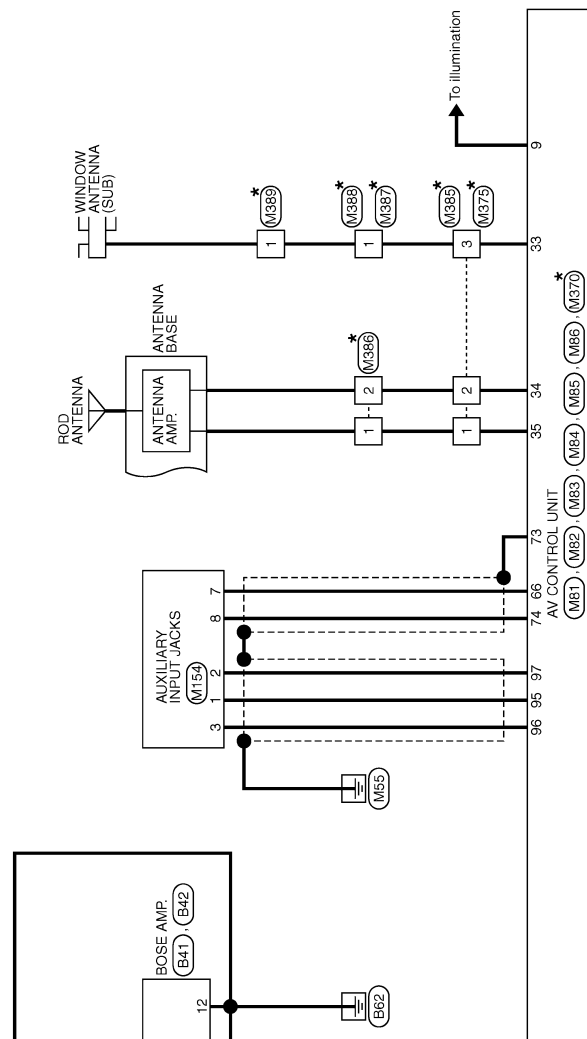




JCNWM1018GB



\* : This connector is not shown in "Harness Layout".



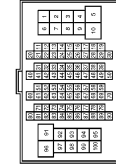
JCNWM1019GB

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AV  
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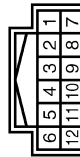
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	SB	- [Without pre-crash seat belt]
12	B	-
13	G	-
14	R	- [Without pre-crash seat belt]
15	W	- [Without pre-crash seat belt]
16	B	- [Without pre-crash seat belt]
17	L	-
18	P	-
51	V	-
52	SB	-
53	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	W	-
4	SHIELD	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1PFR-SQA4



37	36	35	34	33	32	31	30	29	28
27	26	25	24	23	22	21	20	19	18
17	16	15							

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR RH (+)
23	BR	SOUND SIGNAL REAR LH (-)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR



2	1
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

31	GR	AMP. ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (+)
33	Y	SOUND SIGNAL REAR RH (-)
37	V	SOUND SIGNAL FRONT SQUAWKER RH (+)



14	13	12	11	10
9	8	7	6	5
4	3	2	1	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
8	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

22	O	REVERSE
28	G	VEHICLE SPEED (8-PULSE)
30	B	ACC
31	B	GND
32	SB	BATTERY



2	4	6
1	3	5

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP. ON SIGNAL
5	B	GND
6	W	BATTERY

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AV



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

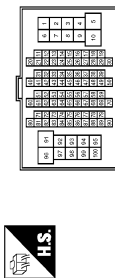
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS38MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS/6-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
20	Y	- [Without NAVI]
21	LG	- [Without NAVI]
22	W	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	P	- [Without entertainment system]
40	V	- [Without ICC]
41	Y	- [Without ICC]
42	G	- [Without ICC]

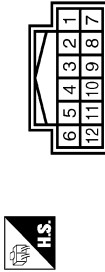
Connector No.	B213
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS3



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

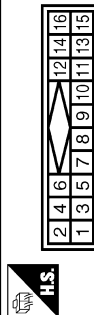
43	R	- [Without ICC]
44	W	- [Without ICC]
45	B	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]

Connector No.	B203
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	
5	P	
6	L	
10	P	
11	SHIELD	
12	L	

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	A16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SOUND SIGNAL LH (-)
2	R	SATELLITE RADIO SOUND SIGNAL LH (+)
3	W	SATELLITE RADIO SOUND SIGNAL RH (-)
4	B	SATELLITE RADIO SOUND SIGNAL RH (+)
5	SHIELD	
6	SHIELD	
8	W	REQUEST (SAT->CONT)
9	B	COMM (SAT->CONT)
10	R	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC

JCNWM1022GB



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH2PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	L	TEL VOICE SIGNAL (+)
10	P	TEL VOICE SIGNAL (-)
20	B	CONTROL SIGNAL
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL

Connector No.	B471
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	TEL ANTENNA
34	SHIELD	SHIELD

28	P	VEHICLE SPEED (8-PUL SE)
29	P	MICROPHONE YCC

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH2PW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	L	AV COMM (H)
36	P	AV COMM (L)

Connector No.	B482
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS38FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B491
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1023GB

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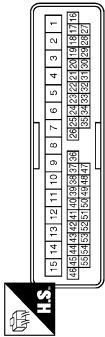
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B492
Connector Name	ANTENNA BASE
Connector Type	GT16C-TPP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



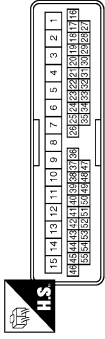
Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15

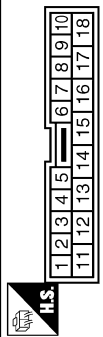


Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



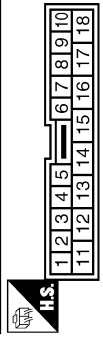
Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-



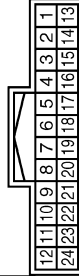
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS2FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



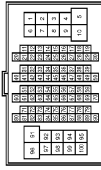
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	L	-
3	Y	-
4	SHIELD	-

Connector No.	D121
Connector Name	REAR VIEW CAMERA
Connector Type	TH64MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA POWER SUPPLY
2	L	CAMERA GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

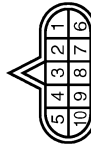


Terminal No.	Color of Wire	Signal Name [Specification]
29	LG	-
100	Y	-

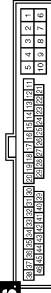
Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TB01FW



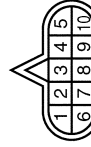
Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

JCNWM1025GB

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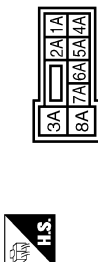
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

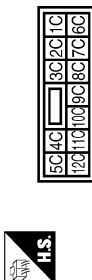
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



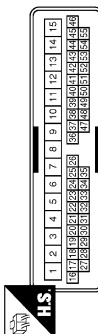
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
29	V	-
100	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	Y	- [Without pre-crash seat belt]
12	V	- [Without pre-crash seat belt]
13	V	- [Without pre-crash seat belt]
14	V	- [Without pre-crash seat belt]
15	LG	- [Without pre-crash seat belt]
16	V	- [Without pre-crash seat belt]
17	G	- [Without pre-crash seat belt]
18	R	- [Without pre-crash seat belt]
51	V	-
52	LG	-
53	SHIELD	-

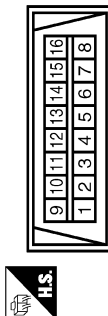
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

JCNWM1026GB



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	MS16MW-CS



1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH22FW-NH



41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72

Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FY-1V



24	25	26
31	32	33
		34

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



3	5
2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M71
Connector Name	FRONT DISPLAY UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	INVERTER VCC
3	O	SIGNAL VCC
4	V	COMPOSITE IMAGE GND
5	Y	SHIELD
6	L	RGB (G: GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	Y	COMM (CONT->DISP)
13	BR	INVERTER GND

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

14	LG	SIGNAL GND
15	SB	COMPOSITE IMAGE SIGNAL
16	BR	SHIELD
17	G	RGB (R: RED) SIGNAL
18	P	RGB (B: BLUE) SIGNAL
19	W	RGB SYNC
20	G	VP
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT)
23	SHIELD	SHIELD

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# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH

2	4	6	8	10	12	14	16
1	3	5	7	9	11	13	15



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Connector No.	M83
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH

47	46	45	44	43	42	41	40	39	38	37	36
59	58	57	56	55	54	53	52	51	50	49	48



Terminal No.	Color of Wire	Signal Name [Specification]
36	SB	COMPOSITE IMAGE SIGNAL
37	V	COMPOSITE IMAGE GND
38	P	RGB (B: BLUE) SIGNAL
39	L	RGB (G: GREEN) SIGNAL
40	G	RGB (R: RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (VS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

Connector No.	M81
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-CS2

1	2	3	4	5	6	7	8	9		
19	10	11	12	13	14	15	16	17	18	20



Terminal No.	Color of Wire	Signal Name [Specification]
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

47	O	SIGNAL VCC
48	BR	SHIELD
49	Y	SHIELD
50	SHIELD	SHIELD
55	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M82
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	A12FW

22	24	23	25	26	27	28	29	31
21	23	25	26	27	28	29	31	



Terminal No.	Color of Wire	Signal Name [Specification]
21	W	SATELLITE SOUND SIGNAL LH (-)
22	B	SATELLITE SOUND SIGNAL LH (+)
23	R	SATELLITE SOUND SIGNAL RH (-)
24	G	SATELLITE SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
27	SB	MODE CHANGE SIGNAL
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M84
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-NH

67	66	65	64	63	62	61	60
73	74	73	72	71	70	69	68



Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	SHIELD
65	W	CAMERA IMAGE SIGNAL
66	G	AUX IMAGE SIGNAL
68	V	CONNECTION RECOGNITION
73	SHIELD	SHIELD
74	R	AUX IMAGE GND



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M85
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH2FW-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FB



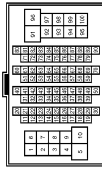
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3BMV-HS10



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	Y	- [Without NAVI]
21	V	-
22	O	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	V	- [Without entertainment system]
40	V	-
41	Y	- [Without ICC]
42	W	-

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-

Connector No.	M126
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	-
5	P	-
6	L	-
10	P	-
11	SHIELD	-
12	L	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

43	B	- [Without ICC]
44	R	-
45	G	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]

JCNWM1030GB



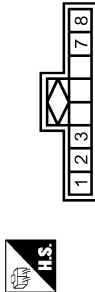
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

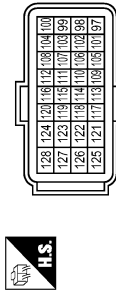
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A09FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M160
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH2JFGY-RZ8-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY



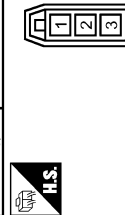
Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M370
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	GT13SH-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP. ON SIGNAL

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU



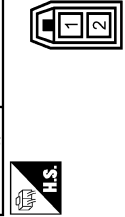
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/IPP-HU



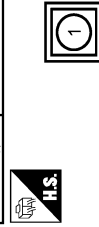
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/IPP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	UJASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1031GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

AV



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	PROTB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



1	2	3	4
---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC



# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

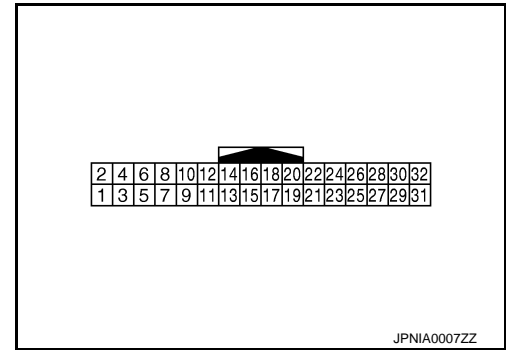
[WITHOUT NAVIGATION]

## CAMERA CONTROL UNIT

### Reference Value

INFOID:000000003838638

### TERMINAL LAYOUT



### PHYSICAL VALUES

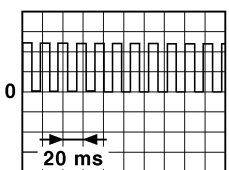
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
5	—	Shield	—	—	—	—
6 (W)	Ground	Camera image signal	Input	Ignition switch ON	At rear view camera image display	
7 (B)	Ground	Camera ground	—	Ignition switch ON	—	0 V
8 (R)	Ground	Camera power supply	Output	Ignition switch ON	R position	6.0 V
					Other than R position	0 V
11	—	Shield	—	—	—	—
12 (W)	Ground	Camera image signal	Output	Ignition switch ON	At rear view camera image display	
14 (R)	Ground	Camera connection recog- nition signal	—	Ignition switch ON	Connected to camera con- trol unit connector	0 V
					Not connected to camera control unit connector	5.0 V
17 (P)	—	AV communication signal (L)	Input/ Output	—	—	—
18 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
19 (B)	—	AV communication signal (L)	Input/ Output	—	—	—



# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
20 (W)	—	AV communication signal (H)	Input/ Output	—	—	—
22 (O)	Ground	Reverse signal	Input	Ignition switch ON	R position	12.0 V
					Other than R position	0 V
26 (G)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25 MPH)	<b>NOTE:</b> The maximum voltage varies de- pending on the specification (destination unit).  <small>JSNIA0012GB</small>
30 (B)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
31 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
32 (SB)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage

## Wiring Diagram - BOSE AUDIO WITHOUT NAVIGATION -

INFOID:000000003939967

**NOTE:**

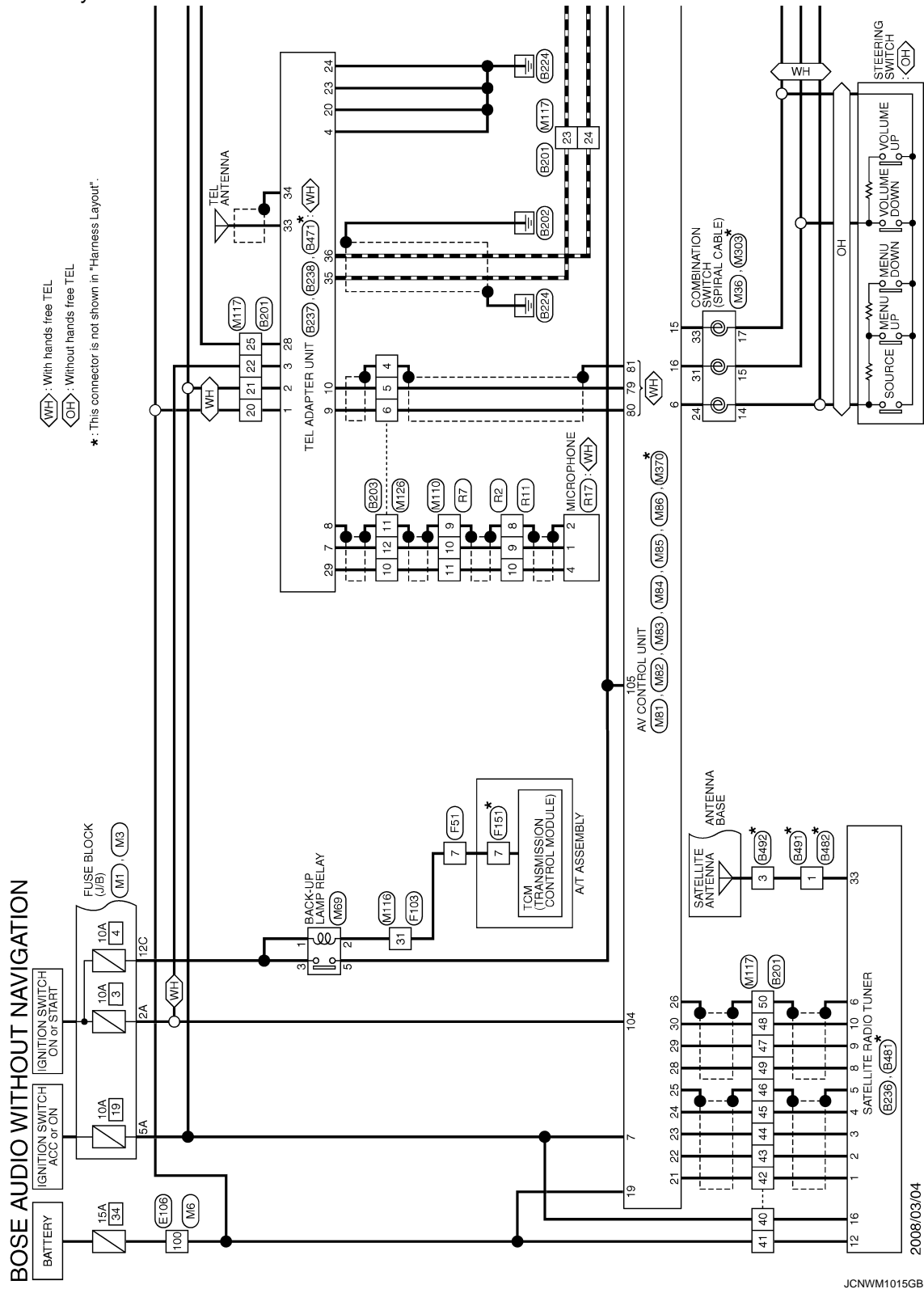


# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.





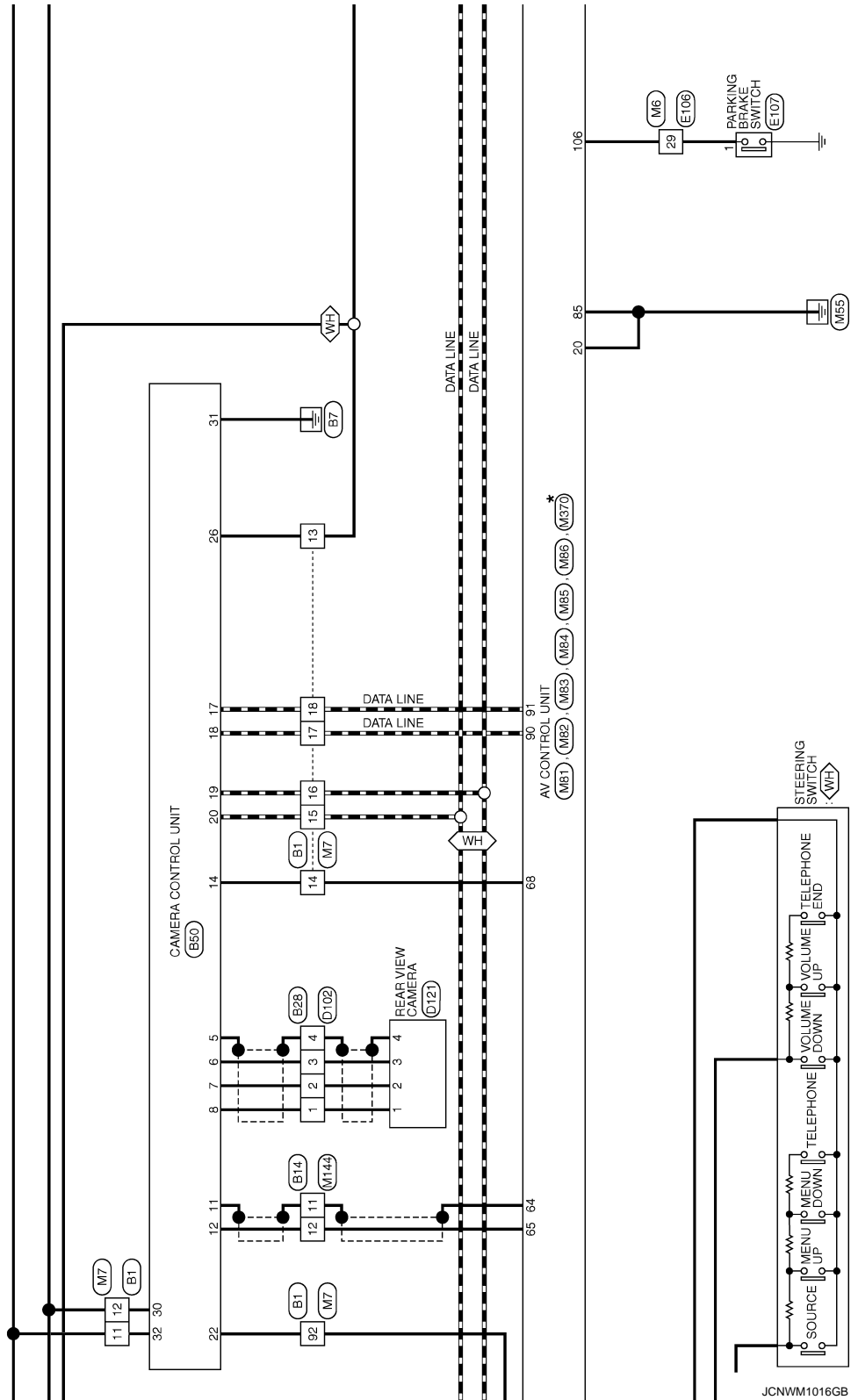
# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

◁WH▷: With hands free TEL

★: This connector is not shown in "Harness Layout".





# CAMERA CONTROL UNIT

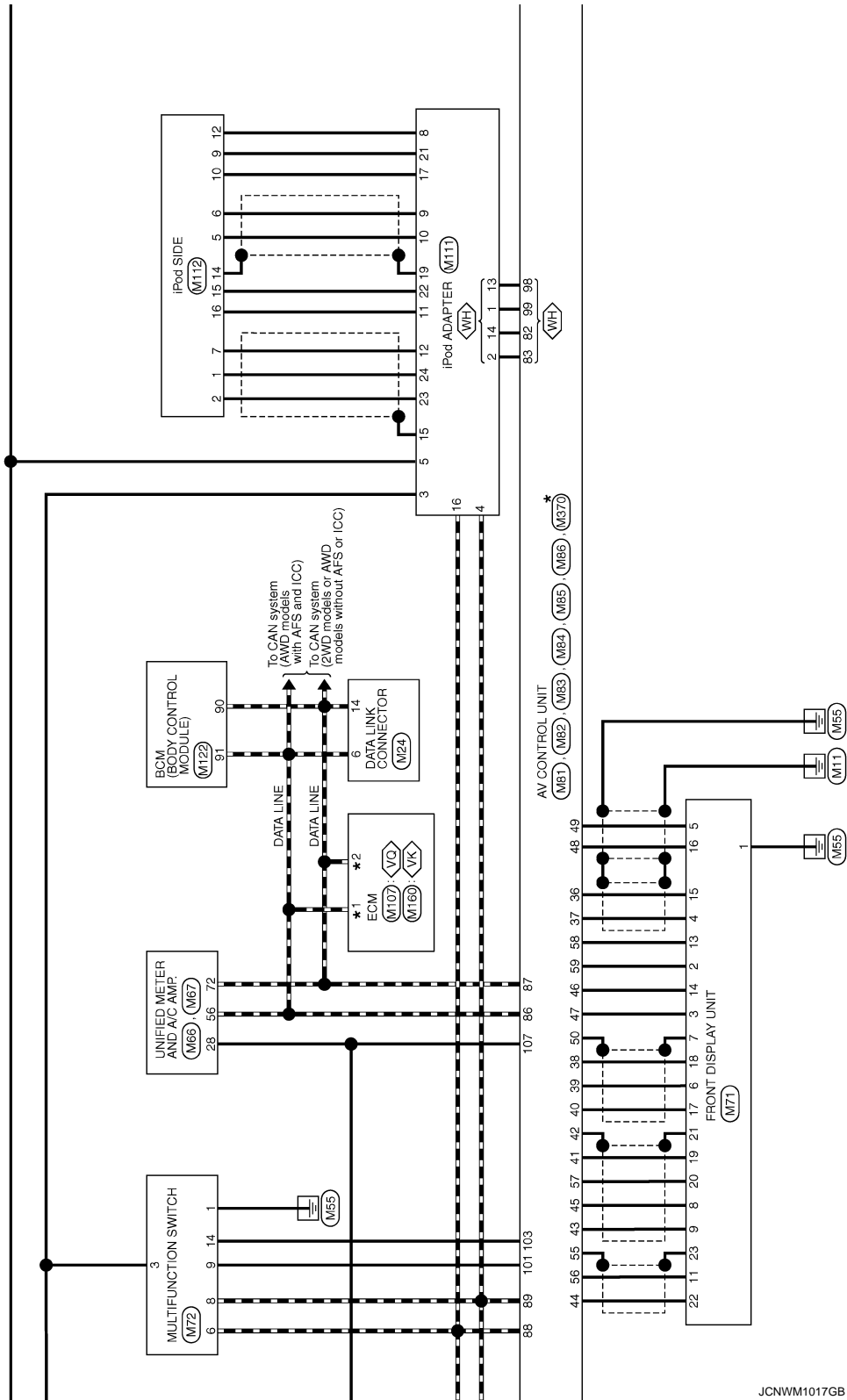
< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

- ★ 1 114: <VQ>
- 105: <VK>
- ★ 2 113: <VQ>
- 101: <VK>

<VQ> : With VQ engine  
 <VK> : With VK engine  
 <WH> : With hands free TEL

★ : This connector is not shown in "Harness Layout".



JCNWM1017GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

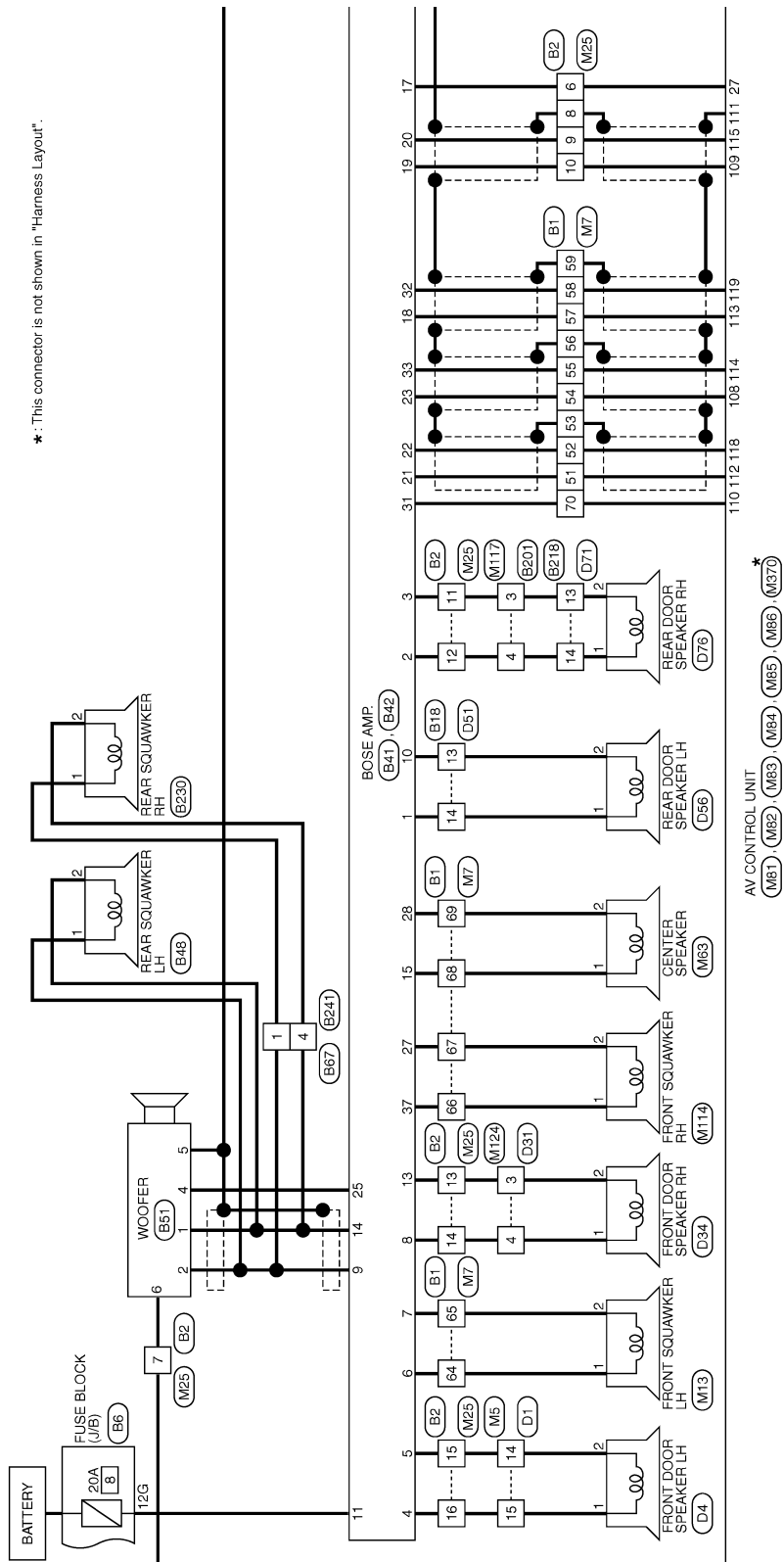
AV



# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]



JCNWM1018GB

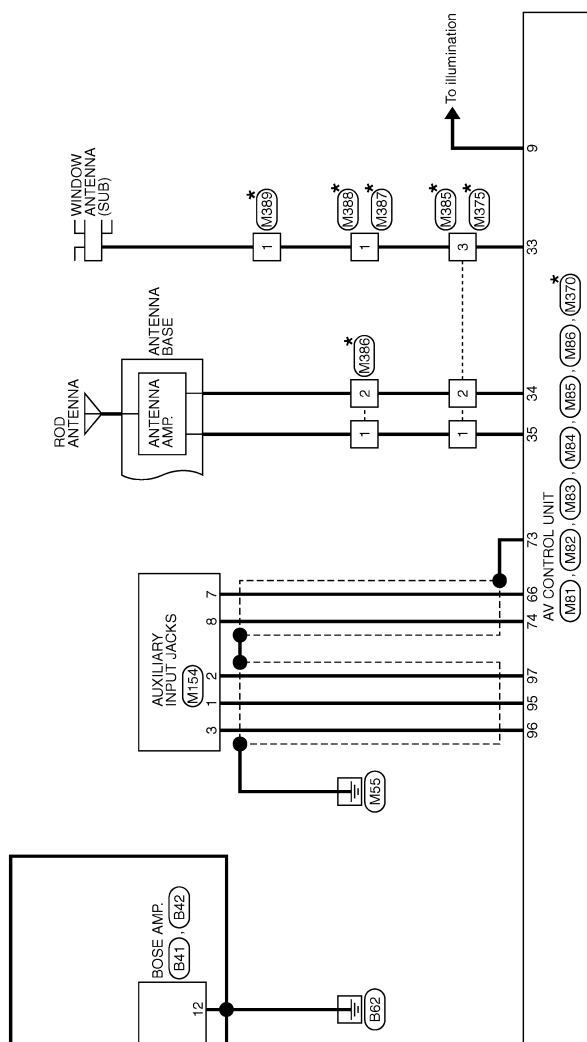


# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

\* : This connector is not shown in "Harness Layout".



JCNWM1019GB

AV



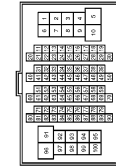
# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

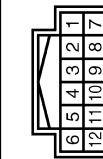
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	SB	- [Without pre-crash seat belt]
12	B	-
13	G	-
14	R	- [Without pre-crash seat belt]
15	W	- [Without pre-crash seat belt]
16	B	- [Without pre-crash seat belt]
17	L	-
18	P	-
51	V	-
52	SB	-
53	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

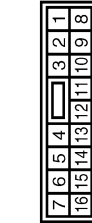
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NSB



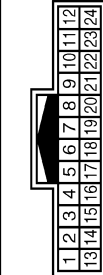
Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	W	-
4	SHIELD	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

JCNWM1020GB



# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1PFR-SQA4



37	36	35	34	33	32	31	30	29	28
27	26	25	24	23	22	21	20	19	18
17	16	15							

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR RH (+)
23	BR	SOUND SIGNAL REAR LH (-)
25	L	WOOFER AMP ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)



2	1
---	---

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR

31	GR	AMP ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (+)
33	Y	SOUND SIGNAL REAR RH (-)
37	V	SOUND SIGNAL FRONT SQUAWKER RH (+)



14	13	12	11	10
9	8	7	6	5
4	3	2	1	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
8	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

22	O	REVERSE
28	G	VEHICLE SPEED (8-PULSE)
30	B	ACC
31	B	GND
32	SB	BATTERY



2	4	6
1	3	5

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	W	CAMERA IMAGE SIGNAL
7	B	CAMERA GND
8	R	CAMERA POWER SUPPLY
11	SHIELD	SHIELD
12	W	CAMERA IMAGE SIGNAL
14	R	CONNECTION RECOGNITION
17	P	AV COMM (L)
18	L	AV COMM (H)
19	B	AV COMM (L)
20	W	AV COMM (H)

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP ON SIGNAL
5	B	GND
6	W	BATTERY

JCNWM1021GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

AV



[WITHOUT NAVIGATION]

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SOUND SIGNAL LH (-)
2	R	SATELLITE RADIO SOUND SIGNAL LH (+)
3	W	SATELLITE RADIO SOUND SIGNAL RH (-)
4	B	SATELLITE RADIO SOUND SIGNAL RH (+)
5	SHEILD	SHEILD
6	SHEILD	SHEILD
8	W	REQUEST (SAT->CONT)
9	B	COMM (SAT->CONT)
10	R	COMM (CONT->SAT)
12	Y	BATTERY
16	Y	ACC



# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH2PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	L	TEL VOICE SIGNAL (+)
10	P	TEL VOICE SIGNAL (-)
20	B	CONTROL SIGNAL
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL

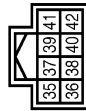
Connector No.	B471
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	TEL ANTENNA
34	SHIELD	SHIELD

28	P	VEHICLE SPEED (8-PUL SE)
29	P	MICROPHONE YCC

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH2PW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	L	AV COMM (H)
36	P	AV COMM (L)

Connector No.	B482
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS38FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B491
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1023GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

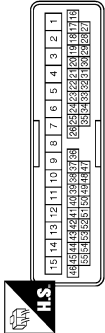
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B492
Connector Name	ANTENNA BASE
Connector Type	GT16C-TPP-HU



Terminal No.	3
Color of Wire	—
Signal Name [Specification]	SATELLITE ANTENNA

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



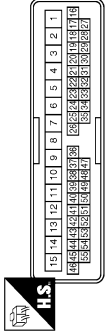
Terminal No.	14
Color of Wire	P
Signal Name [Specification]	—
Terminal No.	15
Color of Wire	L
Signal Name [Specification]	—

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	1
Color of Wire	L
Signal Name [Specification]	—
Terminal No.	2
Color of Wire	P
Signal Name [Specification]	—

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15

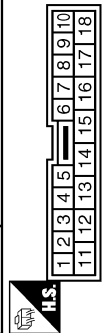


Terminal No.	3
Color of Wire	P
Signal Name [Specification]	—
Terminal No.	4
Color of Wire	L
Signal Name [Specification]	—

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



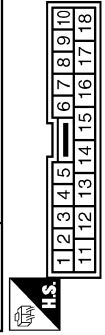
Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	1
Color of Wire	L
Signal Name [Specification]	—
Terminal No.	2
Color of Wire	P
Signal Name [Specification]	—

Terminal No.	13
Color of Wire	V
Signal Name [Specification]	—
Terminal No.	14
Color of Wire	SB
Signal Name [Specification]	—

Terminal No.	1
Color of Wire	SB
Signal Name [Specification]	—
Terminal No.	2
Color of Wire	V
Signal Name [Specification]	—

Terminal No.	13
Color of Wire	V
Signal Name [Specification]	—
Terminal No.	14
Color of Wire	SB
Signal Name [Specification]	—



# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS2FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



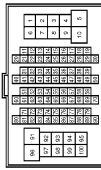
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	L	-
3	Y	-
4	SHIELD	-

Connector No.	D121
Connector Name	REAR VIEW CAMERA
Connector Type	TH64MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA POWER SUPPLY
2	L	CAMERA GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

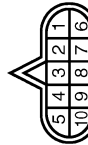


Terminal No.	Color of Wire	Signal Name [Specification]
29	LG	-
100	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TB01FW



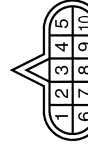
Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

JCNWM1025GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



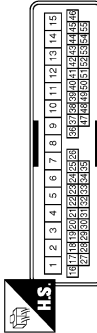
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



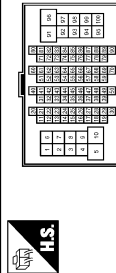
Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
29	V	-
100	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	Y	- [Without pre-crash seat belt]
12	V	- [Without pre-crash seat belt]
13	V	- [Without pre-crash seat belt]
14	V	- [Without pre-crash seat belt]
15	LG	- [Without pre-crash seat belt]
16	V	- [Without pre-crash seat belt]
17	G	- [Without pre-crash seat belt]
18	R	- [Without pre-crash seat belt]
51	V	-
52	LG	-
53	SHIELD	-

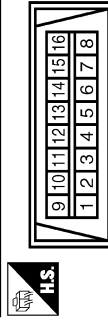
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

JCNWM1026GB



# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	MS16MW-CS



1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH22FW-NH



41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72

Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FY-1V




Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



3	5
2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



2	1
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M71
Connector Name	FRONT DISPLAY UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	INVERTER VCC
3	O	SIGNAL VCC
4	V	COMPOSITE IMAGE GND
5	Y	SHIELD
6	L	RGB (G: GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	Y	COMM (CONT->DISP)
13	BR	INVERTER GND

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

14	LG	SIGNAL GND
15	SB	COMPOSITE IMAGE SIGNAL
16	BR	SHIELD
17	G	RGB (R: RED) SIGNAL
18	P	RGB (B: BLUE) SIGNAL
19	W	RGB SYNC
20	G	VP
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT)
23	SHIELD	SHIELD

JCNWM1027GB

A  
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O  
P

AV



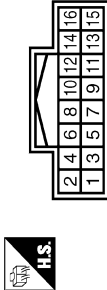
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< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

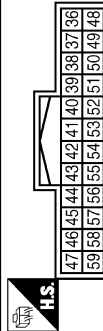
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



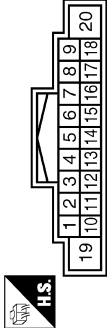
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Connector No.	M83
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
36	SB	COMPOSITE IMAGE SIGNAL
37	V	COMPOSITE IMAGE GND
38	P	RGB (B: BLUE) SIGNAL
39	L	RGB (G: GREEN) SIGNAL
40	G	RGB (R: RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (VS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

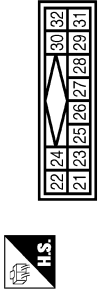
Connector No.	M81
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

47	O	SIGNAL VCC
48	BR	SHIELD
49	Y	SHIELD
50	SHIELD	SHIELD
55	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M82
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	A12FW



Terminal No.	Color of Wire	Signal Name [Specification]
21	W	SATELLITE SOUND SIGNAL LH (-)
22	B	SATELLITE SOUND SIGNAL LH (+)
23	R	SATELLITE SOUND SIGNAL RH (-)
24	G	SATELLITE SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
27	SB	MODE CHANGE SIGNAL
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M84
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	SHIELD
65	W	CAMERA IMAGE SIGNAL
66	G	AUX IMAGE SIGNAL
68	V	CONNECTION RECOGNITION
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

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# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M85
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH2FW-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92



# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FB



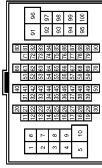
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3BMV-HS10



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	Y	- [Without NAVI]
21	V	-
22	O	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	V	- [Without entertainment system]
40	V	-
41	Y	- [Without ICC]
42	W	-

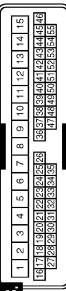
43	B	- [Without ICC]
44	R	-
45	G	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-

Connector No.	M126
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	-
5	P	-
6	L	-
10	P	-
11	SHIELD	-
12	L	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1030GB



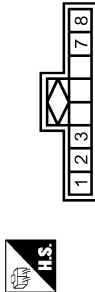
# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

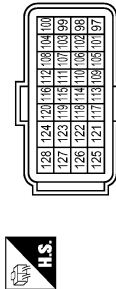
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A09FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M160
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH2JFGY-RZ8-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M370
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP. ON SIGNAL

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	UJASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1031GB

A  
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AV



# CAMERA CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	PROTB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24W-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TKG4FW



1	2	3	4
---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC



# SATELLITE RADIO TUNER

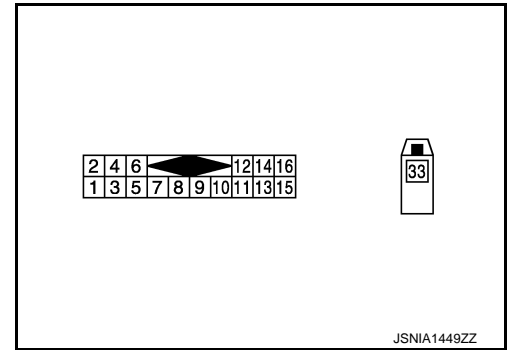
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[WITHOUT NAVIGATION]

## SATELLITE RADIO TUNER

### Reference Value

INFOID:000000003838640



### PHYSICAL VALUES

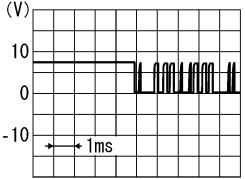
Terminal		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/Output			
2 (R)	1 (G)	Satellite radio sound signal LH	Output	Ignition switch ON	When satellite radio mode is selected.	 SKIB3609E
4 (B)	3 (W)	Satellite radio sound signal RH	Output	Ignition switch ON	When satellite radio mode is selected.	 SKIB3609E
5	—	Shield	—	—	—	—
6	—	Shield	—	—	—	—
8 (W)	Ground	Request signal (SAT→CONT)	Output	Ignition switch ON	When satellite radio mode is selected.	 SKIA9299J
9 (B)	Ground	Communication signal (SAT→CONT)	Output	Ignition switch ON	When satellite radio mode is selected.	 SKIA9300J



# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

Terminal		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
10 (R)	Ground	Communication signal (CONT→SAT)	Input	Ignition switch ON	When satellite radio mode is selected.	 SKIA9301J
12 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
16 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
33	—	Satellite antenna	Input	—	—	—

Wiring Diagram - BOSE AUDIO WITHOUT NAVIGATION -

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**NOTE:**

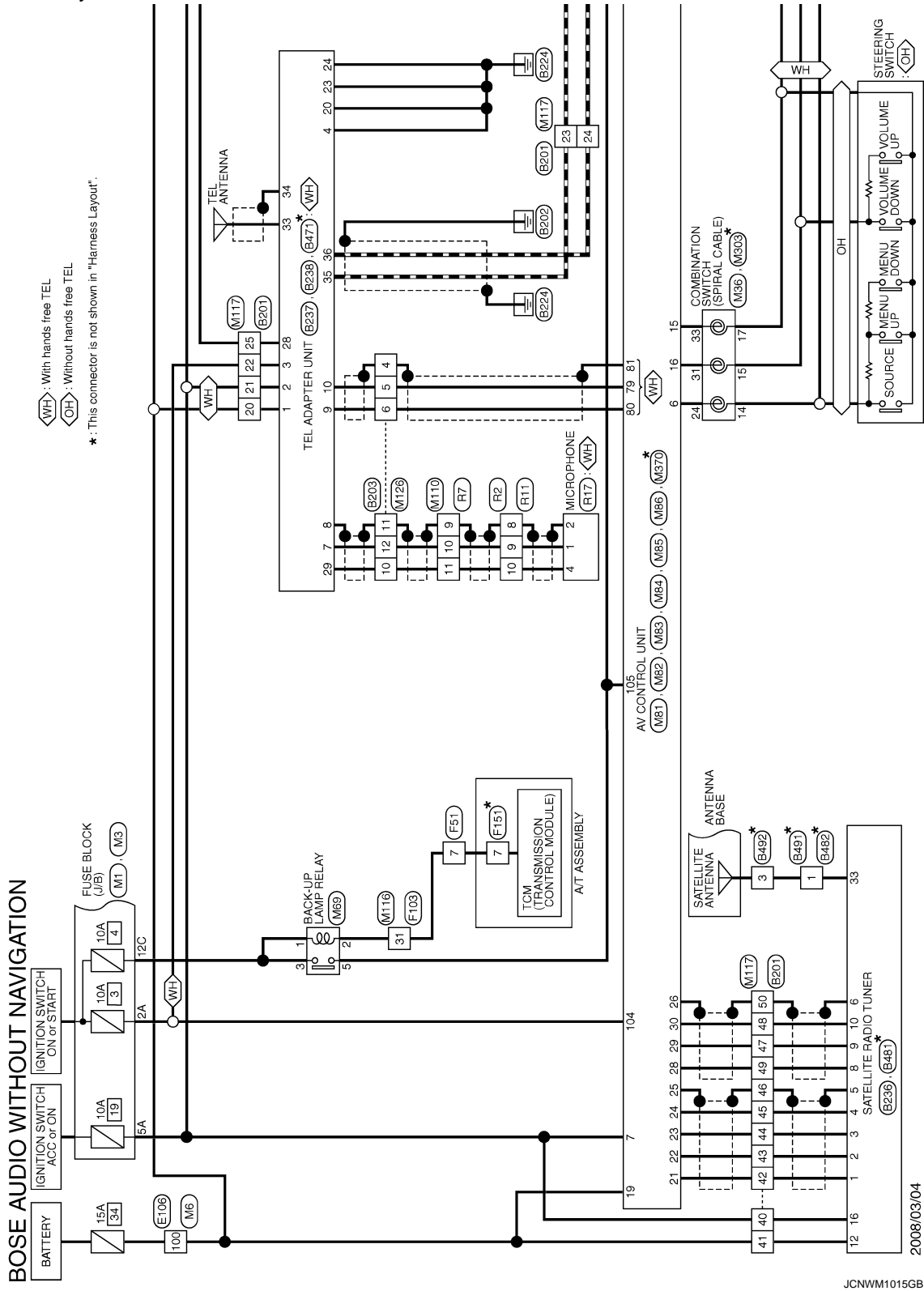


# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



JCNWM1015GB

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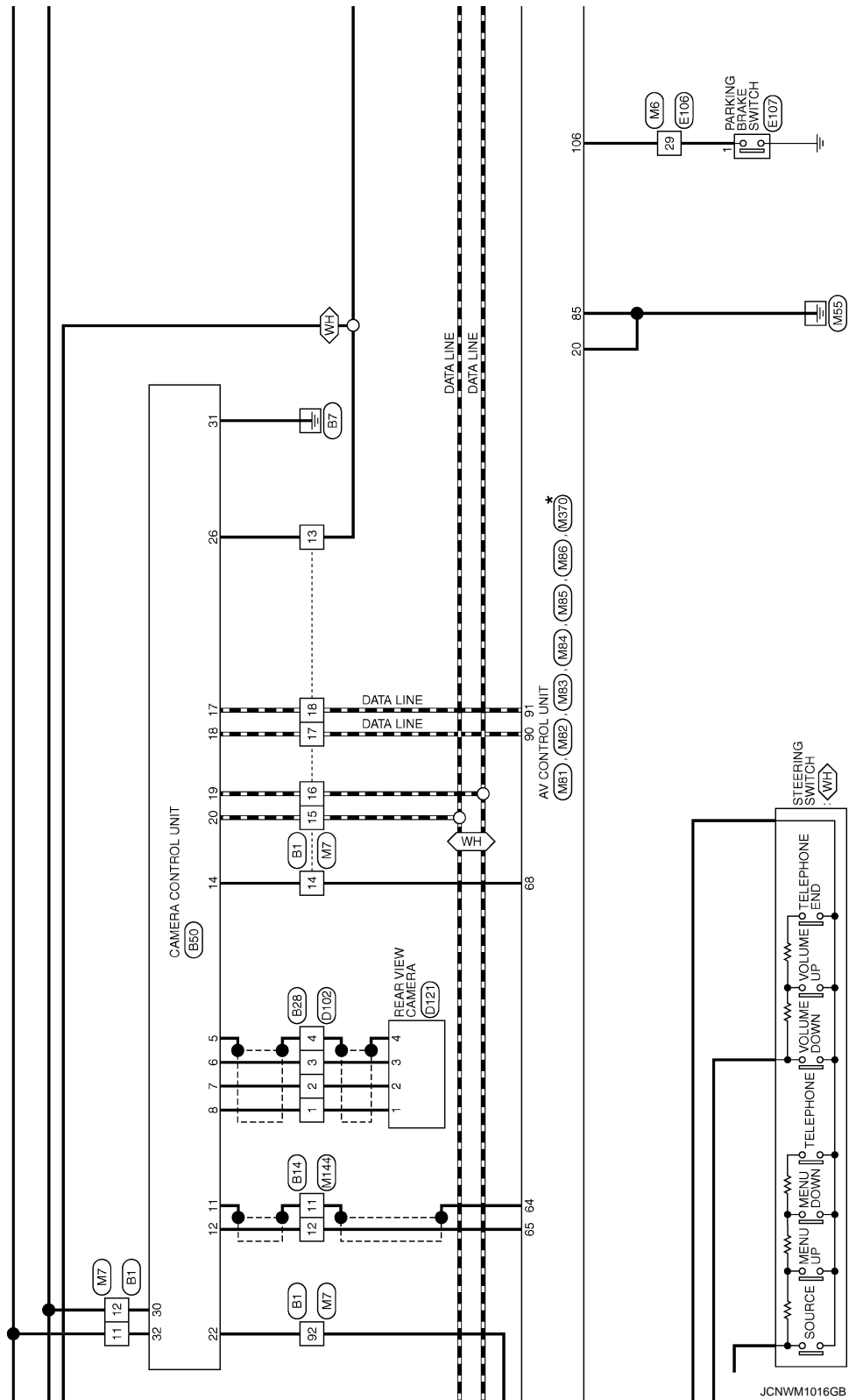
# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

◁WH▷ : With hands free TEL

★ : This connector is not shown in "Harness Layout".





# SATELLITE RADIO TUNER

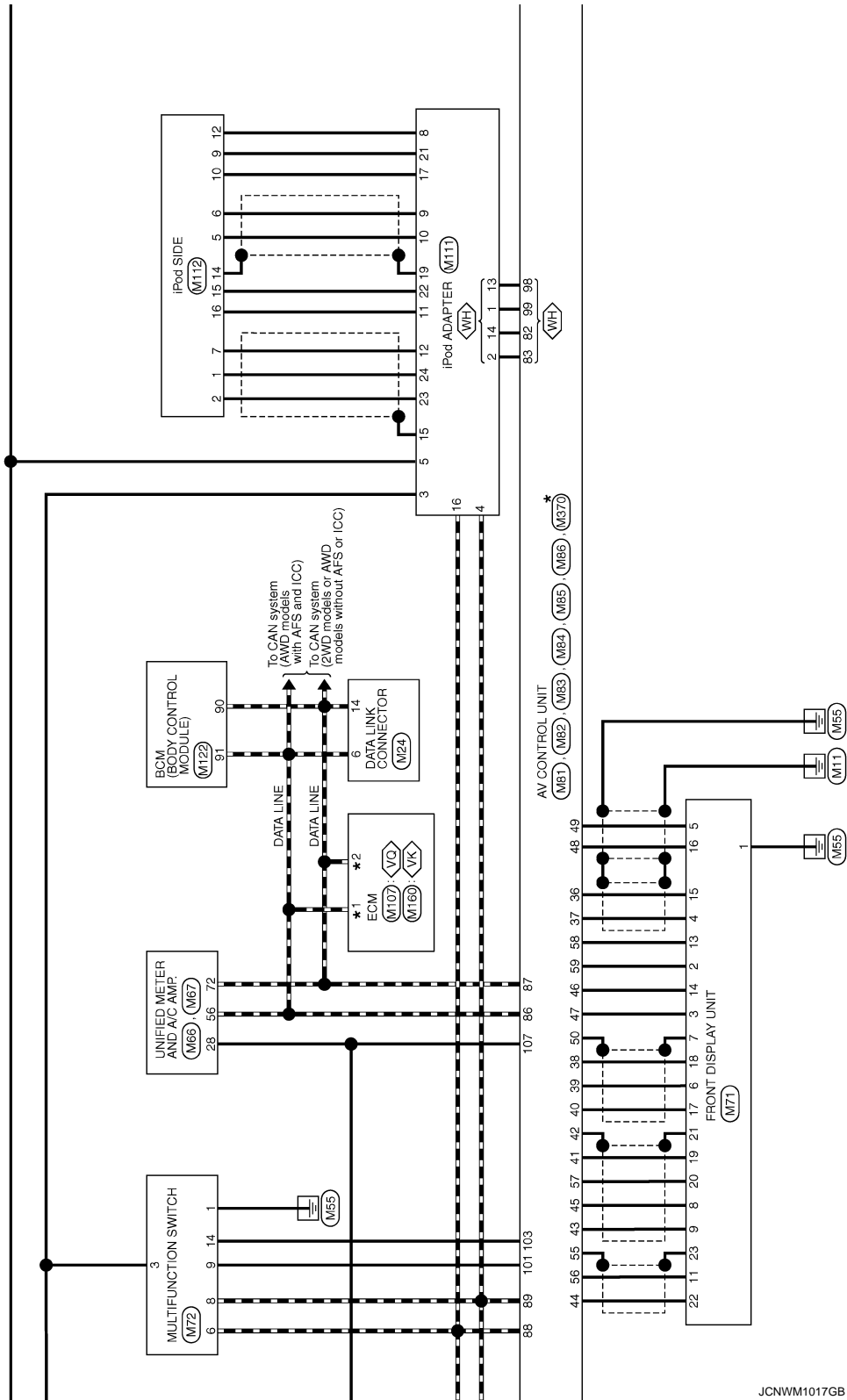
< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

- ★ 1 114: <VQ>  
105: <VK>
- ★ 2 113: <VQ>  
101: <VK>

<VQ> : With VQ engine  
<VK> : With VK engine  
<WH> : With hands free TEL

★ : This connector is not shown in "Harness Layout".



JCNWM1017GB

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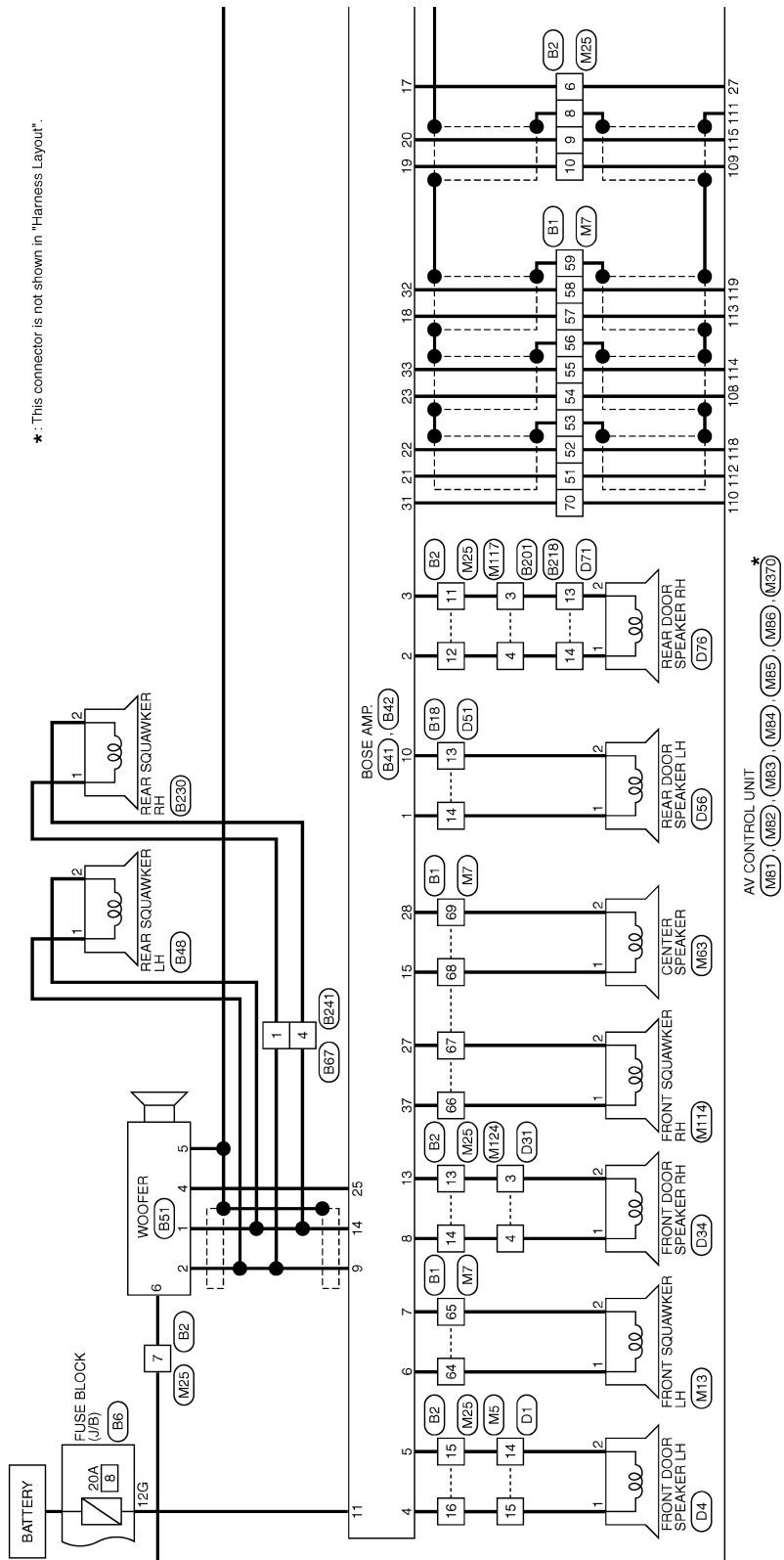
AV



# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

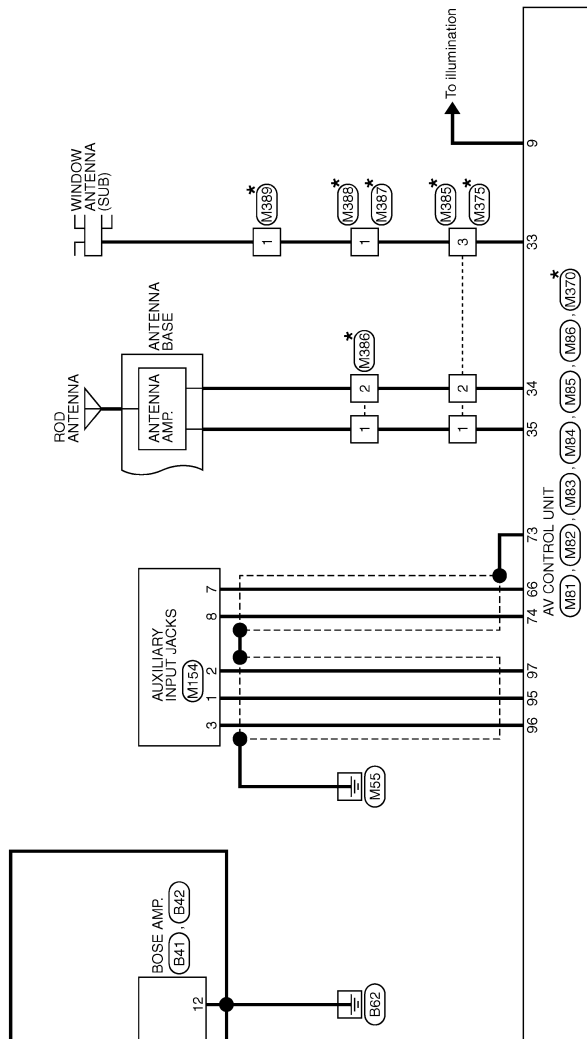
[WITHOUT NAVIGATION]



JCNWM1018GB



\* : This connector is not shown in "Harness Layout".



JCNWM1019GB

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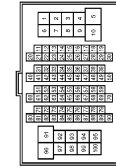
# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

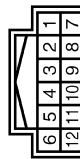
Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	SB	- [Without pre-crash seat belt]
12	B	-
13	G	-
14	R	- [Without pre-crash seat belt]
15	W	- [Without pre-crash seat belt]
16	B	- [Without pre-crash seat belt]
17	L	-
18	P	-
51	V	-
52	SB	-
53	SHIELD	-



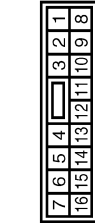
Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	W	-
4	SHIELD	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

JCNWM1020GB



# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1PFR-SGA4



37	36	35	34	33	32	31	30	29	28
27	26	25	24	23	22	21	20	19	18
17	16	15							

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR RH (+)
23	BR	SOUND SIGNAL REAR LH (-)
25	L	WOOFER AMP ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

31	GR	AMP ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (+)
33	Y	SOUND SIGNAL REAR RH (-)
37	V	SOUND SIGNAL FRONT SQUAWKER RH (+)



14	13	12	11	10
9	8	7	6	5
4	3	2	1	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
8	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

22	O	REVERSE
28	G	VEHICLE SPEED (8-PULSE)
30	B	ACC
31	B	GND
32	SB	BATTERY



2	4	6
1	3	5

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP ON SIGNAL
5	B	GND
6	W	BATTERY

JCNWM1021GB

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# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

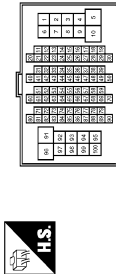
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS38MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS/6-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
20	Y	- [Without NAVI]
21	LG	- [Without NAVI]
22	W	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	P	- [Without entertainment system]
40	V	- [Without ICC]
41	Y	- [Without ICC]
42	G	- [Without ICC]

Connector No.	B213
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS3



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

43	R	- [Without ICC]
44	W	- [Without ICC]
45	B	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]

Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	
5	P	
6	L	
10	P	
11	SHIELD	
12	L	

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	A16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SOUND SIGNAL LH (-)
2	R	SATELLITE RADIO SOUND SIGNAL LH (+)
3	W	SATELLITE RADIO SOUND SIGNAL RH (-)
4	B	SATELLITE RADIO SOUND SIGNAL RH (+)
5	SHIELD	
6	SHIELD	
8	W	REQUEST (SAT->CONT)
9	B	COMM (SAT->CONT)
10	R	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC



# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH2PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	L	TEL VOICE SIGNAL (+)
10	P	TEL VOICE SIGNAL (-)
20	B	CONTROL SIGNAL
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL

Connector No.	B471
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-TS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	TEL ANTENNA
34	SHIELD	SHIELD

28	P	VEHICLE SPEED (8-PUL SE)
29	P	MICROPHONE YCC

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH2PW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	L	AV COMM (H)
36	P	AV COMM (L)

Connector No.	B482
Connector Name	WIRE TO WIRE
Connector Type	GT16C-TS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS38FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B491
Connector Name	WIRE TO WIRE
Connector Type	GT16C-TS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1023GB

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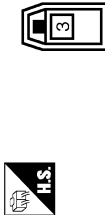
# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

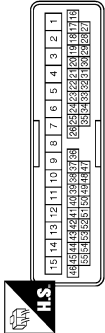
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B492
Connector Name	ANTENNA BASE
Connector Type	GT16C-TPP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



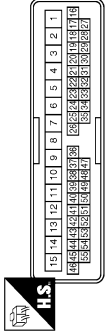
Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



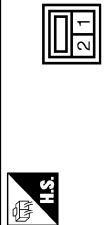
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15

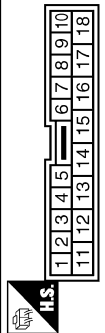


Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



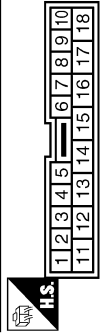
Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-



# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS2FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



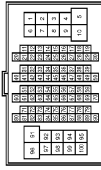
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	L	-
3	Y	-
4	SHIELD	-

Connector No.	D121
Connector Name	REAR VIEW CAMERA
Connector Type	TH64MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA POWER SUPPLY
2	L	CAMERA GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

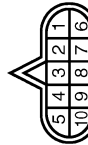


Terminal No.	Color of Wire	Signal Name [Specification]
29	LG	-
100	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TB01FW



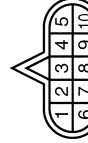
Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

JCNWM1025GB

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# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



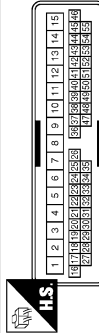
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



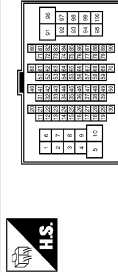
Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



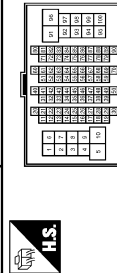
Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
29	V	-
100	Y	-

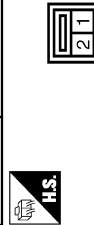
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	Y	- [Without pre-crash seat belt]
12	V	- [Without pre-crash seat belt]
13	V	- [Without pre-crash seat belt]
14	V	- [Without pre-crash seat belt]
15	LG	- [Without pre-crash seat belt]
16	V	- [Without pre-crash seat belt]
17	G	- [Without pre-crash seat belt]
18	R	- [Without pre-crash seat belt]
51	V	-
52	LG	-
53	SHIELD	-

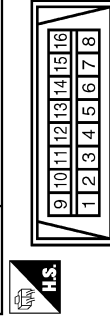
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

JCNWM1026GB



# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	MS16MW-CS



1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH2FW-NH



41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72

Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FY-1V



24	25	26
31	32	33
		34

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



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Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



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Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M71
Connector Name	FRONT DISPLAY UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	INVERTER VCC
3	O	SIGNAL VCC
4	V	COMPOSITE IMAGE GND
5	Y	SHIELD
6	L	RGB (G: GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	Y	COMM (CONT->DISP)
13	BR	INVERTER GND

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

14	LG	SIGNAL GND
15	SB	COMPOSITE IMAGE SIGNAL
16	BR	SHIELD
17	G	RGB (R: RED) SIGNAL
18	P	RGB (B: BLUE) SIGNAL
19	W	RGB SYNC
20	G	VP
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT)
23	SHIELD	SHIELD

JCNWM1027GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

AV



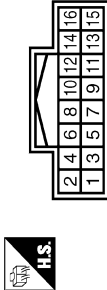
# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

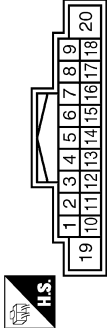
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



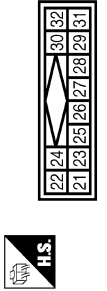
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Connector No.	M81
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-CS2



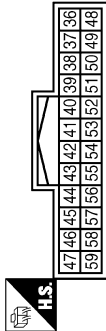
Terminal No.	Color of Wire	Signal Name [Specification]
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

Connector No.	M82
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	A12FW



Terminal No.	Color of Wire	Signal Name [Specification]
21	W	SATELLITE SOUND SIGNAL LH (-)
22	B	SATELLITE SOUND SIGNAL LH (+)
23	R	SATELLITE SOUND SIGNAL RH (-)
24	G	SATELLITE SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
27	SB	MODE CHANGE SIGNAL
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

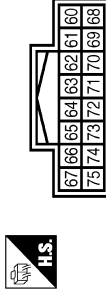
Connector No.	M83
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
36	SB	COMPOSITE IMAGE SIGNAL
37	V	COMPOSITE IMAGE GND
38	P	RGB (B: BLUE) SIGNAL
39	L	RGB (G: GREEN) SIGNAL
40	G	RGB (R: RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (VS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

47	O	SIGNAL VCC
48	BR	SHIELD
49	Y	SHIELD
50	SHIELD	SHIELD
55	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M84
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	SHIELD
65	W	CAMERA IMAGE SIGNAL
66	G	AUX IMAGE SIGNAL
68	V	CONNECTION RECOGNITION
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

JCNWM1028GB



# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M85
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH2FW-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92



# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3BMV-HS10



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	Y	- [Without NAVI]
21	V	-
22	O	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	V	- [Without entertainment system]
40	V	-
41	Y	- [Without ICC]
42	W	-

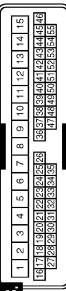
43	B	- [Without ICC]
44	R	-
45	G	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-

Connector No.	M126
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	-
5	P	-
6	L	-
10	P	-
11	SHIELD	-
12	L	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1030GB



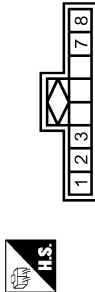
# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

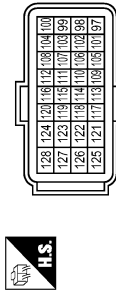
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A09FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M160
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH2JFGY-RZ8-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M370
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP. ON SIGNAL

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	UJASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1031GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

AV



# SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	PROTB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



1	2	3	4
---	---	---	---

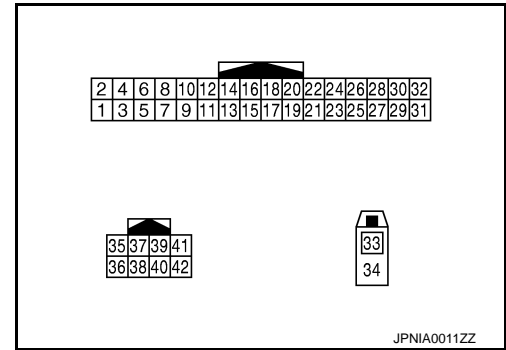
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC



## TEL ADAPTER UNIT

### Reference Value

INFOID:000000003838642



### PHYSICAL VALUES

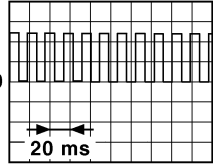
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
2 (LG)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
3 (W)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
4 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
7 (L)	8	Microphone signal	Input	Ignition switch ON	Give a voice	
8	Ground	Microphone ground	—	Ignition switch ON	—	0 V
9 (L)	10 (P)	TEL voice signal	Output	Ignition switch ON	During voice guide output with the  switch pressed.	
20 (B)	Ground	Control signal	—	Ignition switch ON	—	0 V



# TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
23 (B)	Ground	Control signal	—	Ignition switch ON	—	0 V
24 (B)	Ground	Control signal	—	Ignition switch ON	—	0 V
28 (P)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25MPH)	<b>NOTE:</b> The maximum voltage varies de- pending on the specification (destination unit).  <small>JSNIA0012GB</small>
29 (P)	8	Microphone VCC	Output	Ignition switch ON	—	5.0 V
33	—	TEL antenna	Input	—	—	—
34	—	Shield	—	—	—	—
35 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
36 (P)	—	AV communication signal (L)	Input/ Output	—	—	—

Wiring Diagram - BOSE AUDIO WITHOUT NAVIGATION -

INFOID:0000000003939969

**NOTE:**



[WITHOUT NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.





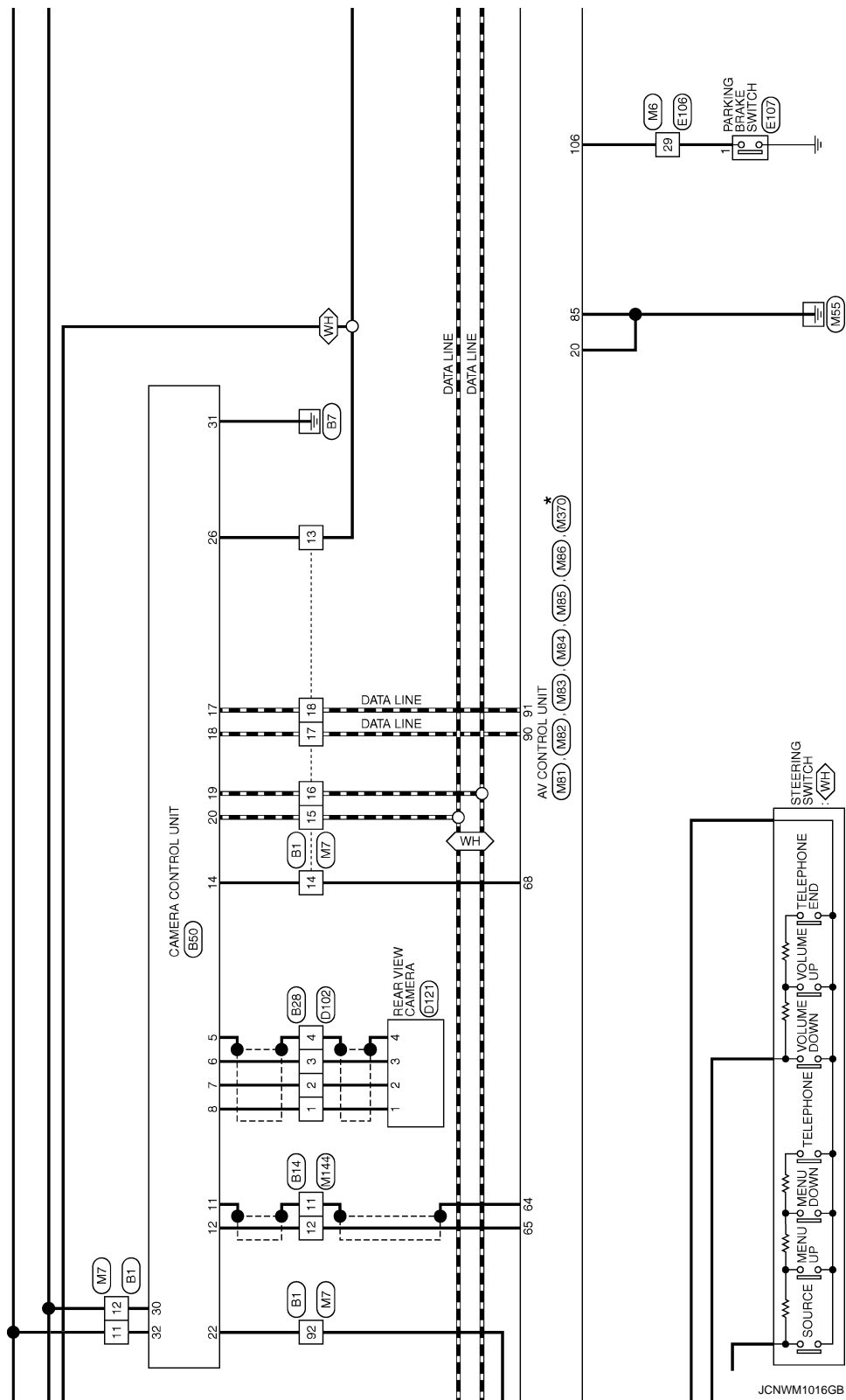
TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

◁WH▷ : With hands free TEL

★ : This connector is not shown in "Harness Layout".



JCNWM1016GB



# TEL ADAPTER UNIT

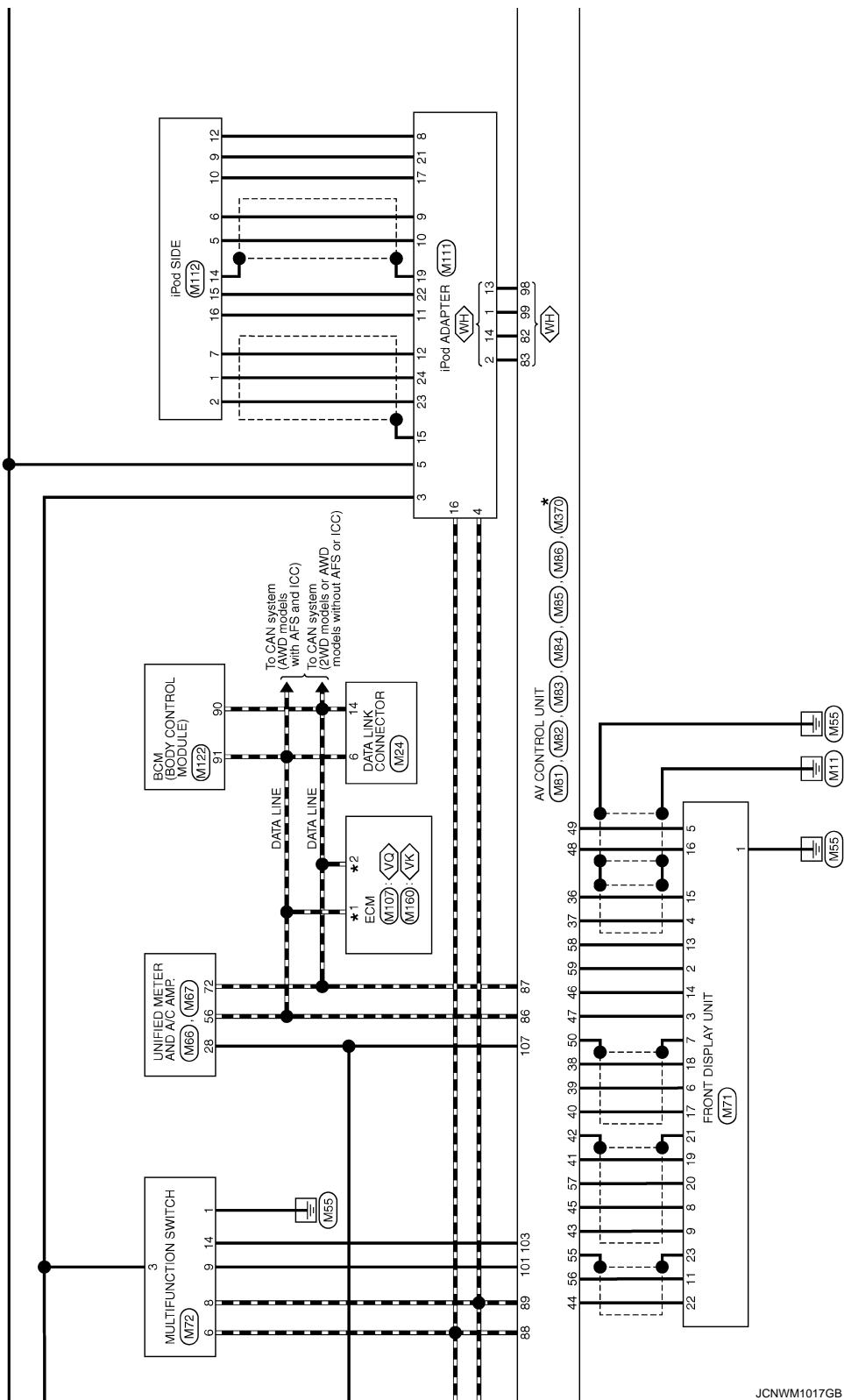
< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

- ★ 1 114: <VQ>
- 105: <VK>
- ★ 2 113: <VQ>
- 101: <VK>

<VQ> : With VQ engine  
 <VK> : With VK engine  
 <WH> : With hands free TEL

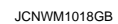
★ : This connector is not shown in "Harness Layout".



JCNWM1017GB

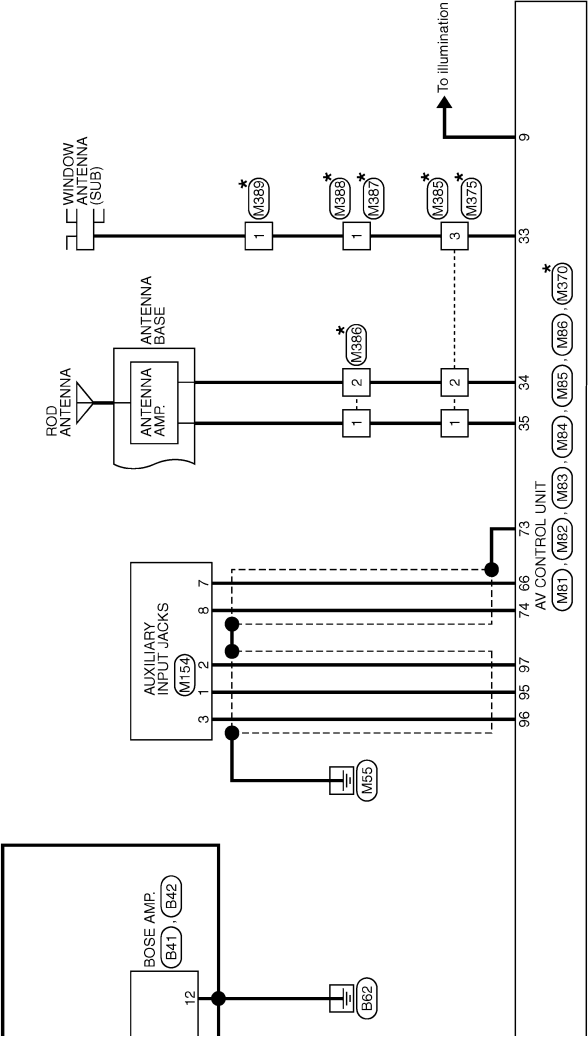
AV







★ : This connector is not shown in "Harness Layout".

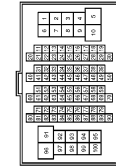


JCNWM1019GB



## BOSE AUDIO WITHOUT NAVIGATION

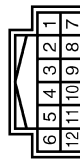
Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	SB	- [Without pre-crash seat belt]
12	B	-
13	G	-
14	R	- [Without pre-crash seat belt]
15	W	- [Without pre-crash seat belt]
16	B	- [Without pre-crash seat belt]
17	L	-
18	P	-
51	V	-
52	SB	-
53	SHIELD	-



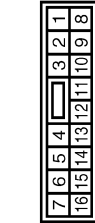
Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	W	-
4	SHIELD	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-



# TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1PFR-SQA4



37	36	35	34	33	32	31	30	29	28
27	26	25	24	23	22	21	20	19	18
17	16	15							

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR RH (+)
23	BR	SOUND SIGNAL REAR LH (-)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)



2	1
---	---

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR

31	GR	AMP. ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (+)
33	Y	SOUND SIGNAL REAR RH (-)
37	V	SOUND SIGNAL FRONT SQUAWKER RH (+)



14	13	12	11	10
9	8	7	6	5
4	3	2	1	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
8	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

22	O	REVERSE
28	G	VEHICLE SPEED (8-PULSE)
30	B	ACC
31	B	GND
32	SB	BATTERY



2	4	6
1	3	5

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	W	CAMERA IMAGE SIGNAL
7	B	CAMERA GND
8	R	CAMERA POWER SUPPLY
11	SHIELD	SHIELD
12	W	CAMERA IMAGE SIGNAL
14	R	CONNECTION RECOGNITION
17	P	AV COMM (L)
18	L	AV COMM (H)
19	B	AV COMM (L)
20	W	AV COMM (H)

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP. ON SIGNAL
5	B	GND
6	W	BATTERY

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# TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

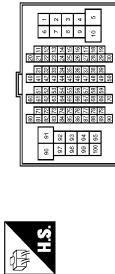
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS38MW-CS



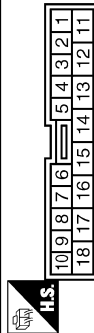
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS/8-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
20	Y	- [Without NAVI]
21	LG	- [Without NAVI]
22	W	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	P	- [Without entertainment system]
40	V	- [Without ICC]
41	Y	- [Without ICC]
42	G	- [Without ICC]

Connector No.	B213
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS3

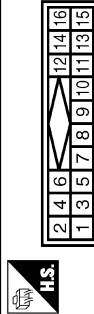


Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

43	R	- [Without ICC]
44	W	- [Without ICC]
45	B	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]

Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	
5	P	
6	L	
10	P	
11	SHIELD	
12	L	

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	A16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SOUND SIGNAL LH (-)
2	R	SATELLITE RADIO SOUND SIGNAL LH (+)
3	W	SATELLITE RADIO SOUND SIGNAL RH (-)
4	B	SATELLITE RADIO SOUND SIGNAL RH (+)
5	SHIELD	
6	SHIELD	
8	W	REQUEST (SAT->CONT)
9	B	COMM (SAT->CONT)
10	R	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC



# TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH2PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

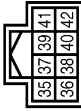
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	L	TEL VOICE SIGNAL (+)
10	P	TEL VOICE SIGNAL (-)
20	B	CONTROL SIGNAL
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL



Connector No.	B471
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-1S-HU

28	P	VEHICLE SPEED (8-PUL SE)
29	P	MICROPHONE VCC

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH2PW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	L	AV COMM (H)
36	P	AV COMM (L)

Connector No.	B481
Connector Name	SATELLITE RADIO TUNER
Connector Type	FAKRA



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	SATELLITE ANTENNA

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS38FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B491
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1023GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



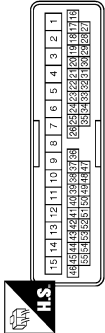
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	B492
Connector Name	ANTENNA BASE
Connector Type	GT16C-TPP-HU



Terminal No.	3
Color of Wire	—
Signal Name [Specification]	SATELLITE ANTENNA

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



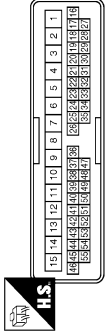
Terminal No.	14
Color of Wire	P
Signal Name [Specification]	—

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	1
Color of Wire	L
Signal Name [Specification]	—

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15

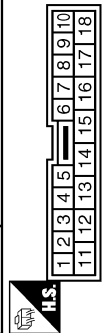


Terminal No.	3
Color of Wire	P
Signal Name [Specification]	—

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



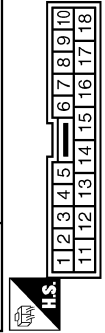
Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	1
Color of Wire	L
Signal Name [Specification]	—

Terminal No.	13
Color of Wire	V
Signal Name [Specification]	—

Terminal No.	1
Color of Wire	SB
Signal Name [Specification]	—

Terminal No.	13
Color of Wire	V
Signal Name [Specification]	—



## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS2FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



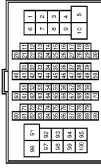
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	L	-
3	Y	-
4	SHIELD	-

Connector No.	D121
Connector Name	REAR VIEW CAMERA
Connector Type	TH64MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA POWER SUPPLY
2	L	CAMERA GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

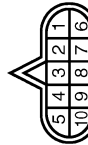


Terminal No.	Color of Wire	Signal Name [Specification]
29	LG	-
100	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TB01FW



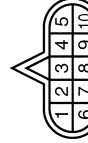
Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

JCNWM1025GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



# TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



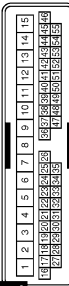
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
29	V	-
100	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
11	Y	- [Without pre-crash seat belt]
12	V	- [Without pre-crash seat belt]
13	V	- [Without pre-crash seat belt]
14	V	- [Without pre-crash seat belt]
15	LG	- [Without pre-crash seat belt]
16	V	- [Without pre-crash seat belt]
17	G	- [Without pre-crash seat belt]
18	R	- [Without pre-crash seat belt]
51	V	-
52	LG	-
53	SHIELD	-

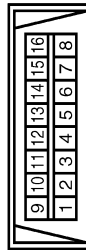
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-
66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

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# TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	MS16MW-CS



1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH22FW-NH



41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72

Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FY-1V



24	25	26	
31	32	33	34

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



3	5
2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



2	1
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M71
Connector Name	FRONT DISPLAY UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	INVERTER VCC
3	O	SIGNAL VCC
4	V	COMPOSITE IMAGE GND
5	Y	SHIELD
6	L	RGB (G: GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	Y	COMM (CONT->DISP)
13	BR	INVERTER GND

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

14	LG	SIGNAL GND
15	SB	COMPOSITE IMAGE SIGNAL
16	BR	SHIELD
17	G	RGB (R: RED) SIGNAL
18	P	RGB (B: BLUE) SIGNAL
19	W	RGB SYNC
20	G	VP
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT)
23	SHIELD	SHIELD

JCNWM1027GB

AV



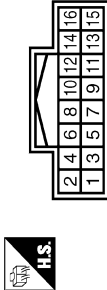
# TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

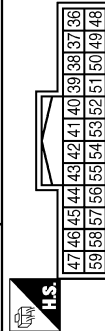
## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



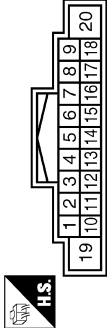
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Connector No.	M83
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
36	SB	COMPOSITE IMAGE SIGNAL
37	V	RGB (B: BLUE) SIGNAL
38	P	RGB (G: GREEN) SIGNAL
39	L	RGB (R: RED) SIGNAL
40	G	RGB SYNC
41	W	SHIELD
42	SHIELD	RGB AREA (VS) SIGNAL
43	B	COMM (DISP->CONT)
44	BR	HP
45	R	SIGNAL GND
46	LG	GND

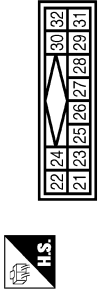
Connector No.	M81
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	P	STRG SW A
7	V	AGC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

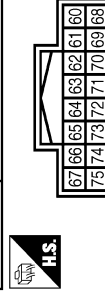
47	O	SIGNAL VCC
48	BR	SHIELD
49	Y	SHIELD
50	SHIELD	SHIELD
55	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M82
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	A12FW



Terminal No.	Color of Wire	Signal Name [Specification]
21	W	SATELLITE SOUND SIGNAL LH (-)
22	B	SATELLITE SOUND SIGNAL RH (-)
23	R	SATELLITE SOUND SIGNAL LH (+)
24	G	SATELLITE SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
27	SB	MODE CHANGE SIGNAL
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M84
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	SHIELD
65	W	CAMERA IMAGE SIGNAL
66	G	AUX IMAGE SIGNAL
68	V	CONNECTION RECOGNITION
73	SHIELD	SHIELD
74	R	AUX IMAGE GND



# TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M85
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH2FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Terminal No.	Color of Wire	Signal Name [Specification]
79	P	TEL VOICE SIGNAL (-)
80	L	TEL VOICE SIGNAL (+)
81	SHIELD	SHIELD
82	Y	IPod SOUND SIGNAL RH (-)
83	BR	IPod SOUND SIGNAL RH (+)
84	B	GND
85	L	CAN-H
86	P	CAN-L
87	LG	AV COMM (H)
88	V	AV COMM (L)
89	G	AV COMM (H)



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

91	R	AV COMM (L) [With hands free phone]
95	B	AUX SOUND SIGNAL RH (+)
96	R	AUX SOUND SIGNAL LH (+)
97	W	AUX SOUND SIGNAL GND
98	G	IPod SOUND SIGNAL LH (-)
99	R	IPod SOUND SIGNAL LH (+)
101	BR	SW GND
103	SB	DISK EJECT SIGNAL
104	G	IGNITION
105	O	REVERSE
106	V	PARKING BRAKE
107	R	VEHICLE SPEED (8-PULSE)



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH2FW-NH

Connector No.	M86
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH1ZFW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Terminal No.	Color of Wire	Signal Name [Specification]
108	BR	SOUND SIGNAL REAR RH (+)
109	R	SOUND SIGNAL FRONT RH (+)
110	V	AMP ON SIGNAL
111	B	SHIELD
112	V	SOUND SIGNAL REAR LH (+)
113	P	SOUND SIGNAL FRONT LH (+)
114	Y	SOUND SIGNAL REAR RH (-)
115	G	SOUND SIGNAL FRONT RH (-)
118	LG	SOUND SIGNAL REAR LH (-) [With hands free phone]
119	L	SOUND SIGNAL FRONT LH (-)

14	Y	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	IPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	IPod SOUND SIGNAL GND
24	B	IPod SOUND SIGNAL LH (+)

Connector No.	M107
Connector Name	ECM (WITH VQ ENGINE)
Connector Type	FR24FGY-RZP-R-LH-Z



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHICAN-LI
114	L	VEHICAN-HI

Connector No.	M112
Connector Name	IPod SIDE
Connector Type	IP16FGY



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color of Wire	Signal Name [Specification]
1	B	IPod SOUND SIGNAL LH (+)
2	W	IPod SOUND SIGNAL GND
5	BR	COMM (IPod->IPod ADAPTER)
6	Y	COMM (IPod ADAPTER->IPod)
7	R	IPod SOUND SIGNAL RH (+)
9	SB	IPod CONNECTION RECOGNITION
10	B	GND
12	W	IPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (+)
2	BR	IPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	IPod BATTERY CHARGE
9	Y	COMM (IPod->IPod ADAPTER)
10	BR	COMM (IPod ADAPTER->IPod)
11	L	ACCESSORY IDENTIFY
12	R	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (-)

Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	L	- [Without NAVI]
11	P	- [Without NAVI]

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# TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3BMV-HS10



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	- [Without NAVI]
20	Y	-
21	V	-
22	O	- [Without entertainment system]
23	L	- [Without entertainment system]
24	P	- [Without entertainment system]
25	V	- [Without entertainment system]
40	V	-
41	Y	- [Without ICC]
42	W	-

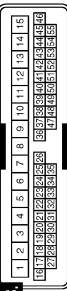
43	B	- [Without ICC]
44	R	-
45	G	- [Without ICC]
46	SHIELD	- [Without ICC]
47	B	- [Without ICC]
48	R	- [Without ICC]
49	W	- [Without ICC]
50	SHIELD	- [Without ICC]

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-

Connector No.	M126
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	SHIELD	-
5	P	-
6	L	-
10	P	-
11	SHIELD	-
12	L	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1030GB



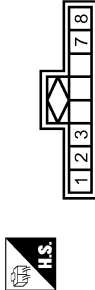
# TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A09FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M160
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH2JFGY-RZ8-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M370
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP. ON SIGNAL

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	UJASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1031GB

A  
B  
C  
D  
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F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

AV



# TEL ADAPTER UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT NAVIGATION]

## BOSE AUDIO WITHOUT NAVIGATION

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	PROTB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TKG4FW



1	2	3	4
---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC



## SYMPTOM DIAGNOSIS

### MULTI AV SYSTEM SYMPTOMS

#### Symptom Table

INFOID:000000003838644

#### OPERATION

Symptoms	Check items	Possible malfunction location / Action to take
Multifunction switch and preset switch operation does not work.	<ul style="list-style-type: none"> <li>All switches cannot be operated.</li> <li>"MULTI AV" is displayed on system selection screen when the CONSULT-III is started.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuit.</li> <li>AV communication circuit between AV control unit and multifunction switch.</li> </ul> Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-43, "CONSULT-III Function (MULTI AV)"</a> .
	<ul style="list-style-type: none"> <li>All switches cannot be operated.</li> <li>"MULTI AV" is not displayed on system selection screen when the CONSULT-III is started.</li> </ul>	AV control unit power supply and ground circuit malfunction. Refer to <a href="#">AV-59, "AV CONTROL UNIT : Diagnosis Procedure"</a> .
	Only specified switch cannot be operated.	Multifunction switch or preset switch malfunction. Perform multifunction switch and preset switch self-diagnosis function. Refer to <a href="#">AV-60, "MULTIFUNCTION SWITCH : Diagnosis Procedure"</a> .

#### RELATED TO HANDS-FREE PHONE

##### Basic Inspection

- Check that the cellular phone is corresponding type (Bluetooth™ correspond) when the hands-free related malfunction vehicle is in service before performing a diagnosis.
- There is a case that malfunction occurs due to the version change of the phone type, etc. even though it is a corresponding type. Therefore, confirm it by changing the cellular phone to another corresponding type phone, and check that it operates normally. It is necessary to distinguish whether the cause is the vehicle or cellular phone.

##### Simple check for Bluetooth™ communication

- If cellular phone and AV control unit cannot be connected with Bluetooth™ communication, following procedure allows the technician to judge which device has malfunction.

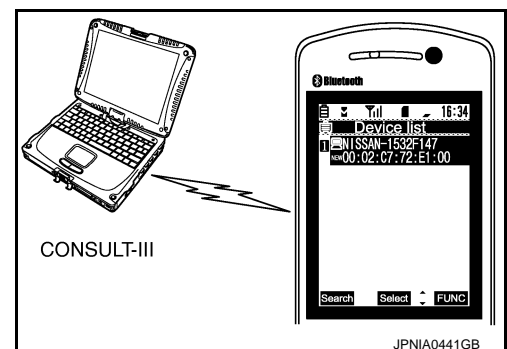
- Turn on a cellular phone, not connecting Bluetooth™ communication.
- Start CONSULT-III, then start Windows®.
- Set CONSULT-III near a cellular phone.

- When operated Bluetooth™ registration by cellular phone, check if CONSULT-III\* would be displayed on the device name.  
(If other Bluetooth™ device is located near cellular phone, a name of the device would be displayed also.)

##### NOTE:

\*:Displayed device name is "NISSAN-\*\*\*\*\*".

- If no device name is displayed, cellular phone is malfunctioning. Repair the cellular phone first, then perform diagnosis.
- If CONSULT-III is displayed on device name, cellular phone is normal. Perform diagnosis as per the following table.



##### On board self-diagnosis of hands-free phone system

Always perform the on board self-diagnosis at first after completing the basic inspection when the malfunction is detected on the hands-free phone system. Narrow down possible causes using the Diagnosis Chart if there is no malfunction in the on board self-diagnosis.

##### Trouble diagnosis chart by symptom



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITHOUT NAVIGATION]

Symptoms	Check items	Probable malfunction location
Does not recognize cellular phone connection. (No connection is displayed on the display at the guide.)	Repeat the registration of cellular phone.	TEL adapter unit malfunction. Refer to <a href="#">AV-271, "Exploded View"</a> .
Hands-free phone cannot be established.	Both the reception and the speech cannot be performed.	<ul style="list-style-type: none"> <li>Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-43, "CONSULT-III Function (MULTI AV)"</a>.</li> <li>No malfunction. TEL adapter unit malfunction. Refer to <a href="#">AV-271, "Exploded View"</a>.</li> <li>Malfunction is detected. Refer to <a href="#">AV-43, "CONSULT-III Function (MULTI AV)"</a>.</li> </ul>
The other party's voice cannot be heard by hands-free phone.	The operation of the "☞ ☜" switch can be performed.	TEL voice signal circuit malfunction between TEL adapter unit and AV control unit.
	The operation of the "☞ ☜" switch cannot be performed.	Control signal circuit. Refer to <a href="#">AV-81, "Diagnosis Procedure"</a> .
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	TEL adapter unit. Refer to <a href="#">AV-271, "Exploded View"</a> .
	Sound operation function does not work.	Microphone signal circuit. Refer to <a href="#">AV-79, "Diagnosis Procedure"</a> .

## RELATED TO RGB IMAGE

Trouble diagnosis chart by symptom

Symptoms	Check items	Possible malfunction location / Action to take
RGB image is not shown.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-43, "CONSULT-III Function (MULTI AV)"</a> .
	There is no malfunction in CONSULT-III self-diagnosis results.	<ul style="list-style-type: none"> <li>Front display unit power supply and ground circuit. Refer to <a href="#">AV-59, "FRONT DISPLAY UNIT : Diagnosis Procedure"</a>.</li> <li>Vertical synchronizing (VP) signal circuit. Refer to <a href="#">AV-71, "Diagnosis Procedure"</a>.</li> </ul>
Color of RGB image is not proper.	Light blue (Cyan) tint.	RGB signal (R: red) circuit. Refer to <a href="#">AV-65, "Diagnosis Procedure"</a> .
	Purple (Magenta) tint.	RGB signal (G: green) circuit. Refer to <a href="#">AV-66, "Diagnosis Procedure"</a> .
	Screen looks yellowish.	RGB signal (B: blue) circuit. Refer to <a href="#">AV-67, "Diagnosis Procedure"</a> .
RGB screen is rolling.	—	RGB synchronizing signal circuit. Refer to <a href="#">AV-68, "Diagnosis Procedure"</a> .
Fuel economy display is malfunctioning.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-43, "CONSULT-III Function (MULTI AV)"</a> .
	There is no malfunction in CONSULT-III self-diagnosis results.	Ignition signal circuit malfunction. Refer to <a href="#">AV-59, "AV CONTROL UNIT : Diagnosis Procedure"</a> .

## RELATED TO AUDIO

Trouble diagnosis chart by symptom

Symptoms	Check items	Possible malfunction location / Action to take
The CD cannot be removed.	—	Disk eject signal circuit. Refer to <a href="#">AV-74, "Diagnosis Procedure"</a> .



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITHOUT NAVIGATION]

Symptoms	Check items	Possible malfunction location / Action to take
Audio sound is not heard.	No sound from all speakers.	<ul style="list-style-type: none"> <li>BOSE amp. power supply and ground circuit. Refer to <a href="#">AV-61, "BOSE AMP. : Diagnosis Procedure"</a>.</li> <li>Amp. ON signal circuit</li> </ul>
	Sound is not heard from woofer.	<ul style="list-style-type: none"> <li>Woofer power supply and ground circuit.</li> <li>Sound signal woofer circuit between BOSE amp. and woofer.</li> <li>Woofer ON signal circuit between BOSE amp. and woofer.</li> </ul>
	Sound is not heard from center speaker.	Sound signal center speaker circuit.
	Sound is heard only from specific places (RH front, RH rear, LH front and LH rear).	Sound signal circuit of malfunctioning system.
It does not change to "Driver's Audio Stage" mode.	—	Mode change signal circuit. Refer to <a href="#">AV-82, "Diagnosis Procedure"</a> .
Satellite radio is not received.	"ANTENNA" is not displayed even when the channel is turned to 0 in Satellite radio mode.	Perform the following inspection procedure. <ol style="list-style-type: none"> <li>Check satellite radio antenna mounting nut for looseness. <b>NOTE:</b> Tightening torque: 6.5 N·m (0.66 kg-m, 58 in-lb.)</li> <li>Visually check for satellite radio antenna feeder.</li> <li>Replace the satellite radio antenna. Refer to <a href="#">AV-261, "Exploded View"</a>.</li> <li>Replace the satellite radio tuner. Refer to <a href="#">AV-260, "Exploded View"</a>.</li> </ol>
	"ANTENNA" is displayed when the channel is turned to 0 in Satellite radio mode.	Perform the following inspection procedure. <ol style="list-style-type: none"> <li>Check the connection between satellite radio tuner and antenna feeder.</li> <li>Check the connection between satellite radio antenna and antenna feeder.</li> <li>Check Antenna feeder for open circuit.</li> <li>Replace the satellite radio antenna. Refer to <a href="#">AV-261, "Exploded View"</a>.</li> <li>Replace the satellite radio tuner. Refer to <a href="#">AV-260, "Exploded View"</a>.</li> </ol>
The sound of Satellite radio is not heard.	Other audio sounds are normal.	Satellite radio sound signal circuit between AV control unit and satellite radio tuner.
It does not change to Satellite radio mode.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-43, "CONSULT-III Function (MULTI AV)"</a> .
AM/FM radio is not received.	Other audio sounds are normal.	<ul style="list-style-type: none"> <li>Antenna amp. ON signal circuit.</li> <li>Antenna feeder.</li> </ul>

## RELATED TO iPod®

Trouble diagnosis chart by symptom

Connect another iPod® and check if the symptom is reproduced or not. If the symptom is reproduced, diagnose the vehicle. If no malfunction is detected, replace the iPod harness.

### NOTE:

It is unable to check that between iPod® and iPod harness.

Symptoms	Check items	Possible malfunction location / Action to take
The sound of iPod® is not heard.	Other audio sounds are normal.	<ul style="list-style-type: none"> <li>iPod sound signal circuit between AV control unit and iPod adapter.</li> <li>iPod sound signal circuit between iPod® and iPod adapter.</li> </ul>
It does not change to iPod mode.	There is malfunction in the CONSULT-III self-diagnosis.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-43, "CONSULT-III Function (MULTI AV)"</a> .
"iPod is not connected" is displayed when it comes to iPod mode.	Connected to iPod®.	iPod connection recognition signal circuit between iPod® and iPod adapter.



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITHOUT NAVIGATION]

Symptoms	Check items	Possible malfunction location / Action to take
iPod® cannot charge the battery.	—	iPod battery charge circuit between iPod® and iPod adapter.
The title of music file in the iPod® is not indicated.	—	Communication circuit between iPod® and iPod adapter.
Accessing the iPod® is unavailable from the vehicle.		

## RELATED TO STEERING SWITCH

Trouble diagnosis chart by symptom

Symptoms	Probable malfunction location
None of the steering switch operations work.	Steering switch signal GND circuit. Refer to <a href="#">AV-90, "Diagnosis Procedure"</a> .
Only specified switch cannot be operated.	Steering switch.
"SOURCE", "MENU UP", "MENU DOWN", "⏮" switches of steering switch are not operated.	Steering switch signal A circuit. Refer to <a href="#">AV-86, "Diagnosis Procedure"</a> .
"VOL UP", "VOL DOWN", "⏭" switches of steering switch are not operated.	Steering switch signal B circuit. Refer to <a href="#">AV-88, "Diagnosis Procedure"</a> .

## RELATED TO AUX

### NOTE:

Check that there is no malfunction of AUX equipment main body before performing a diagnosis.

Trouble diagnosis chart by symptom

Symptoms	Check items	Probable malfunction location
No voice sound is heard when AUX mode is selected.	Voice sound is heard when other modes are selected.	AUX sound signal circuits malfunction between auxiliary input jacks and AV control unit.
Image is not displayed when AUX mode is selected.	—	<ul style="list-style-type: none"> <li>AUX image signal circuit malfunction between auxiliary input jacks and AV control unit. Refer to <a href="#">AV-72, "Diagnosis Procedure"</a>.</li> <li>Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-70, "Diagnosis Procedure"</a>.</li> <li>Vertical synchronizing (VP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-71, "Diagnosis Procedure"</a>.</li> <li>RGB area (YS) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-69, "Diagnosis Procedure"</a>.</li> </ul>
	Camera image is normal (with rear view monitor)	AUX image signal circuit malfunction between auxiliary input jacks and AV control unit. Refer to <a href="#">AV-72, "Diagnosis Procedure"</a> .
	Camera image is not displayed. (with rear view monitor)	<ul style="list-style-type: none"> <li>Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-70, "Diagnosis Procedure"</a>.</li> <li>Vertical synchronizing (VP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-71, "Diagnosis Procedure"</a>.</li> <li>RGB area (YS) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-69, "Diagnosis Procedure"</a>.</li> </ul>
It does not change from AUX mode to other modes.	—	<ul style="list-style-type: none"> <li>Vertical synchronizing (VP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-71, "Diagnosis Procedure"</a>.</li> <li>Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-70, "Diagnosis Procedure"</a>.</li> </ul>

## RELATED TO REAR VIEW MONITOR



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITHOUT NAVIGATION]

Trouble diagnosis chart by symptom

Symptoms	Check items	Probable malfunction location
Camera image is not displayed (displayed in black and nothing can be displayed)	AUX image is not displayed.	<ul style="list-style-type: none"> <li>Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-70, "Diagnosis Procedure"</a>.</li> <li>Vertical synchronizing (VP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-71, "Diagnosis Procedure"</a>.</li> </ul>
Camera image is not shown. (Guiding line is displayed.)	—	<ul style="list-style-type: none"> <li>Camera image signal circuit between camera control unit and rear view camera.</li> <li>Rear view camera power supply circuit. Refer to <a href="#">AV-75, "Diagnosis Procedure"</a>.</li> </ul>
Camera image is not displayed. (Only warning message under area is displayed.)	There is malfunction in the CONSULT-III self-diagnosis result.	Perform detected DTC self-diagnosis. Refer to <a href="#">AV-43, "CONSULT-III Function (MULTI AV)"</a> .
	AUX image is normal.	Camera image signal circuit malfunction between camera control unit and AV control unit. Refer to <a href="#">AV-77, "Diagnosis Procedure"</a> .
	AUX image is not displayed.	RGB area (YS) signal circuit malfunction between AV control unit and display unit. Refer to <a href="#">AV-69, "Diagnosis Procedure"</a> .
	Select "Camera Cont." of "Confirmation/ Adjustment" mode, Reverse Sensor is not turned ON at "Connection Confirmation".	Reverse signal circuit (camera control unit).
Camera image is rolling.	AUX image is also rolling.	Vertical synchronizing (VP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-71, "Diagnosis Procedure"</a> .
Camera image does not switch.	Malfunction of self-diagnosis result is indicated.	Camera connection recognition signal circuit Refer to <a href="#">AV-43, "CONSULT-III Function (MULTI AV)"</a> .
	Malfunction of self-diagnosis result is not indicated.	Reverse signal circuit (AV control unit).
The predicted course line display is malfunctioning.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform detected DTC self-diagnosis. Refer to <a href="#">AV-43, "CONSULT-III Function (MULTI AV)"</a> .

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P



## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[WITHOUT NAVIGATION]

### NORMAL OPERATING CONDITION

#### Description

INFOID:000000003838645

Vehicle operation information, refer to Owner's Manual.

#### BASIC OPERATIONS

Symptom	Possible cause	Possible solution
No image is displayed.	The brightness is at the lowest setting.	Adjust the brightness of the display.
	The system is in the video mode.	Press <b>&lt;DISC&gt;</b> to change the mode.
	The display is turned off.	Press <b>&lt;Day/Night&gt;</b> to turn on the display.
The screen is too dim. The movement is slow.	The temperature in the interior of the vehicle is low.	Wait until the interior of the vehicle has warmed up.
Some pixels in the display are darker or brighter than others.	This condition is an inherent characteristic of liquid crystal displays.	This is not a malfunction.
Some menu items cannot be selected.	Some menu items become unavailable while the vehicle is driven.	Park the vehicle in a safe location, and then operate the multi AV system.

#### RELATED TO VOICE RECOGNITION

Related to telephone

The system should respond correctly to all voice commands without difficulty. If problems are encountered, try the following solutions.

Where the solutions are listed by number, try each solution in turn, starting with number 1, until the problem is resolves.

Symptom	Solution
System fails to interpret the command correctly.	1. Ensure that the command is valid.
	2. Ensure that the command is spoken after the tone.
	3. Speak clearly without pausing between words and at level appropriate to the ambient noise level in the vehicle.
	4. Ensure that the ambient noise level is not excessive (for example, windows open or defroster on). <b>NOTE:</b> If it is too noisy to use the phone, it is likely that the voice commands will be recognized.
	5. If more than one command was said at a time, try saying the commands separately.
	6. If the system consistently fails to recognize commands, the voice training procedure should be carried out to improve the recognition response for the speaker. See "Speaker adaptation (SA) mode" earlier in this section. Refer to "OWNER'S MANUAL".
The system consistently selects the wrong voicetag	1. Ensure that the phone book entry name requested matches what was originally stored. This can be confirmed by using the "List Names" command.
	2. Replace one of the names being confused with a new name.

#### RELATED TO AUDIO

- The majority of the audio malfunctions are the result of outside causes (bad CD/cassette, electromagnetic interference, etc.). Check the symptoms below to diagnose the malfunction.
- The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and then determine the cause.

##### NOTE:

- CD-R is not guaranteed to play because they can contain compressed audio (MP3, WMA) or could be incorrectly mastered by the customer on a computer.
- Check if the CDs carry the Compact Disc Logo. If not, the disc is not mastered to the "red book" Compact Disc Standard and may not play.



# NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[WITHOUT NAVIGATION]

Symptom	Cause and Counter measure
Cannot play	Check if the CD was inserted correctly.
	Check if the CD is scratched or dirty.
	Check if there is condensation inside the player, and if there is, wait until the condensation is gone (about 1 hour) before using the player.
	If there is a temperature increase error, the player will play correctly after it returns to the normal temperature.
	If there is a mixture of music CD files (CD-DA data) and MP3/WMA files on a CD, only the music CD files (CD-DA data) will be played.
	Files with extensions other than ".MP3", ".WMA", ".mp3", or ".wma" cannot be played. In addition, the character codes and number of characters for folder names and file names should be in compliance with the specifications.
	Check if the disc or the file is generated in an irregular format, This may occur depending on the variation or the setting of MP3/WMA writing applications or other text editing applications.
	Check if the finalization process, such as session close and disc close, is done for the disc.
Poor sound quality	Check if the CD is scratched or dirty.
It takes a relatively long time before the music starts playing.	If there are many folder or file levels on the MP3/WMA CD, or if it is a multi session disc, some time may be required before the music starts playing.
Music cuts off or skips	The writing software and hardware combination might not match, or the writing speed, writing depth, writing width might not match the specifications. Try using the slowest writing speed.
Skipping with high bit rate files	Skipping may occur with large quantities if data such as for high bit rate data.
Move immediately to the next song when playing	When a non-MP3/WMA file has been given an extension of ".MP3", ".WMA", ".mp3", or ".wma", or when play is prohibited by copyright protection, the player will skip to the next song.
The songs do not play back in the desired order.	The playback order is the order in which the files were written by the software, so the files might not play in the desired order.

Noise resulting from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources, is not a malfunction.

## NOTE:

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from a time difference between the broadcast waves directly from the station arriving at the antenna and the waves reflected by mountains or buildings.

AV



## PRECAUTION

### PRECAUTIONS

#### Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000004024552

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### **WARNING:**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

#### PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

#### **WARNING:**

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

#### Precaution for Trouble Diagnosis

INFOID:000000003838647

#### AV COMMUNICATION SYSTEM

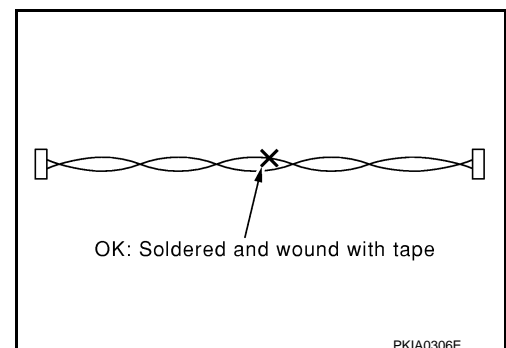
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

#### Precaution for Harness Repair

INFOID:000000003838648

#### AV COMMUNICATION SYSTEM

- Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in).]



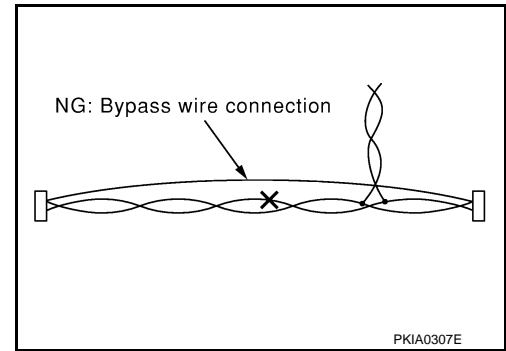


## PRECAUTIONS

### < PRECAUTION >

[WITHOUT NAVIGATION]

- Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)



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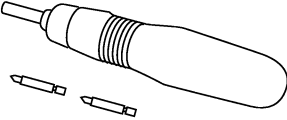


## PREPARATION

### PREPARATION

#### Commercial Service Tools

INFOID:000000003838649

Tool name	Description
<p>Power tool</p>  <p>PBIC0191E</p>	<p>Loosening screws</p>



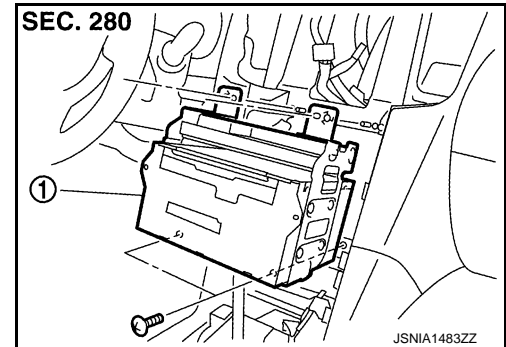
## REMOVAL AND INSTALLATION

### AV CONTROL UNIT

#### Exploded View

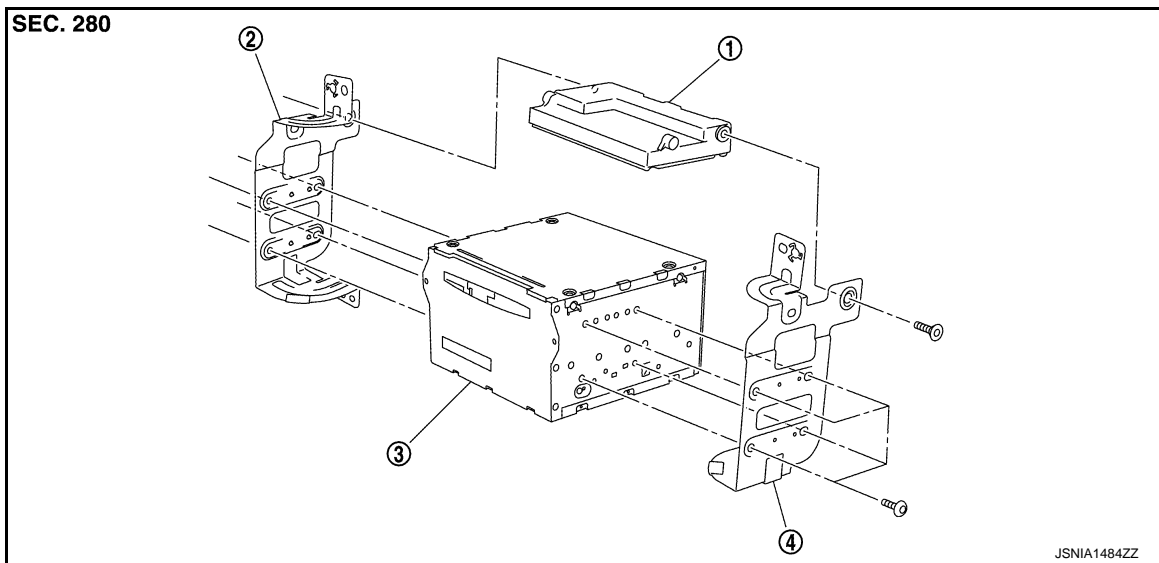
#### REMOVAL

INFOID:000000003928822



1: AV control unit

#### DISASSEMBLY



- |                               |               |                    |
|-------------------------------|---------------|--------------------|
| 1. Unified meter and A/C amp. | 2. Bracket LH | 3. AV control unit |
| 4. Bracket RH                 |               |                    |

### Removal and Installation

INFOID:000000003928823

AV

#### REMOVAL

1. Remove front display unit. Refer to [AV-252. "Removal and Installation"](#).
2. Remove AV control unit with a unified meter and A/C amp. as a single unit from the body.
3. Remove bracket screws, and then remove AV control unit.

#### INSTALLATION

Installation is the reverse order of removal.

#### CAUTION:

Since AV control unit connector and unified meter and A/C amp. connector have the same form, be careful not to insert them wrongly.



# FRONT DISPLAY UNIT

< REMOVAL AND INSTALLATION >

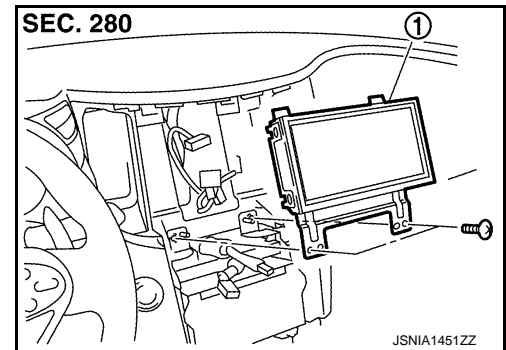
[WITHOUT NAVIGATION]

## FRONT DISPLAY UNIT

### Exploded View

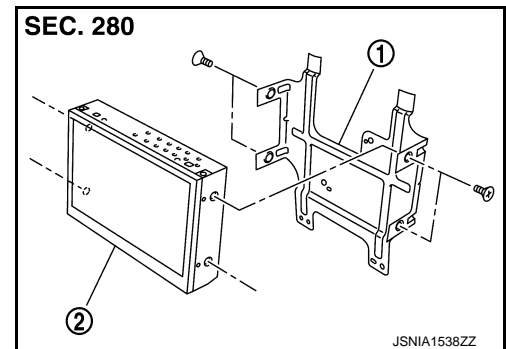
INFOID:000000003928824

#### REMOVAL



1. Front display unit

#### DISASSEMBLY



1. Bracket
2. Front display unit

### Removal and Installation

INFOID:000000003928825

#### REMOVAL

1. Remove cluster lid D. Refer to [IP-12, "Removal and Installation"](#).
2. Remove front display unit mounting screws.
3. Disconnect connector, and remove front display unit.

#### INSTALLATION

Installation is the reverse order of removal.



# FRONT DOOR SPEAKER

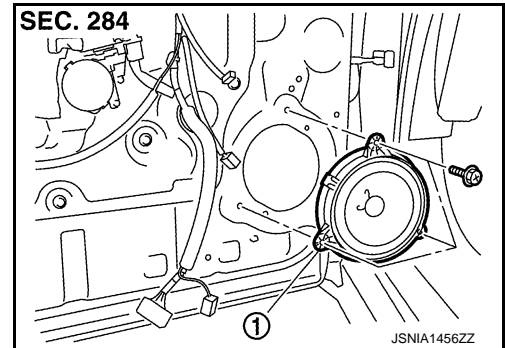
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

## FRONT DOOR SPEAKER

Exploded View

INFOID:0000000003928826



1. Front door speaker

## Removal and Installation

INFOID:0000000003928827

### REMOVAL

1. Remove front door finisher. Refer to [INT-11. "Removal and Installation"](#).
2. Remove front door speaker mounting bolts.
3. Disconnect connector and remove front door speaker.

### INSTALLATION

Installation is the reverse order of removal.

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## REAR DOOR SPEAKER

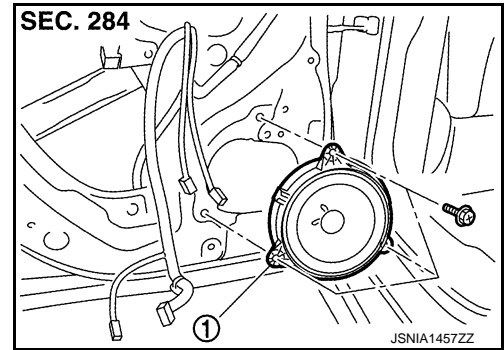
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

### REAR DOOR SPEAKER

#### Exploded View

INFOID:0000000003928828



1. Rear door speaker

#### Removal and Installation

INFOID:0000000003928829

##### REMOVAL

1. Remove rear door finisher. Refer to [INT-14, "Removal and Installation"](#).
2. Remove rear door speaker mounting bolts.
3. Disconnect connector and remove rear door speaker.

##### INSTALLATION

Installation is the reverse order of removal.



# FRONT SQUAWKER

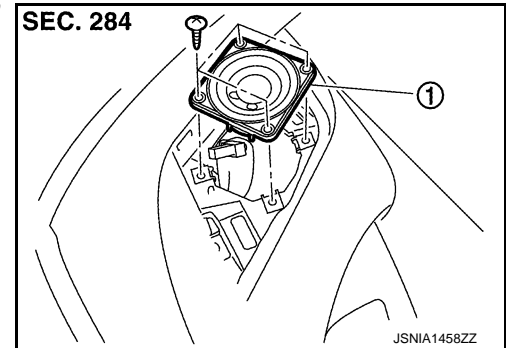
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

## FRONT SQUAWKER

### Exploded View

INFOID:0000000003928830



1. Front squawker

### Removal and Installation

INFOID:0000000003928831

#### REMOVAL

1. Remove speaker grille. Refer to [IP-12. "Removal and Installation"](#).
2. Remove front squawker mounting screws.
3. Disconnect connector and remove front squawker.

#### INSTALLATION

Installation is the reverse order of removal.

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## REAR SQUAWKER

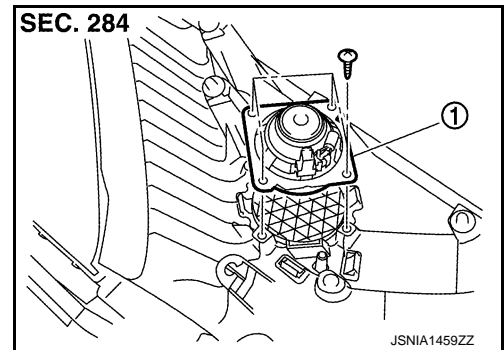
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

### REAR SQUAWKER

#### Exploded View

INFOID:0000000003928832



1. Rear squawker

#### Removal and Installation

INFOID:0000000003928833

##### REMOVAL

1. Remove luggage side finisher upper. Refer to [INT-28, "Exploded View"](#).
2. Remove rear squawker mounting screws.
3. Remove rear squawker.

##### INSTALLATION

Installation is the reverse order of removal.



# CENTER SPEAKER

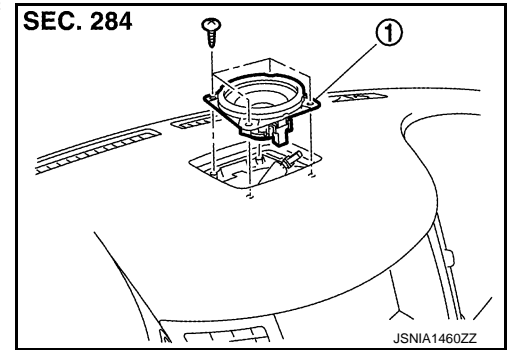
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

## CENTER SPEAKER

### Exploded View

INFOID:0000000003928834



1. Center speaker

### Removal and Installation

INFOID:0000000003928835

#### REMOVAL

1. Remove center speaker grille. Refer to [IP-11, "Exploded View"](#).
2. Remove center speaker mounting screws, lift up the center speaker and disconnect connector.
3. Remove center speaker.

#### INSTALLATION

Installation is the reverse order of removal.

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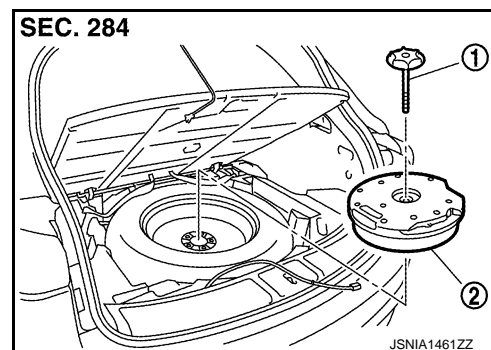
AV



## WOOFER

### Exploded View

INFOID:0000000003928836



1. Woofer clamp
2. Woofer

### Removal and Installation

INFOID:0000000003928837

#### REMOVAL

1. Pull up luggage finisher cover and hang the strap to upper body.
2. Remove woofer clamp.
3. Remove harness clip and connector.
4. Remove woofer.

#### INSTALLATION

Installation is the reverse order of removal.

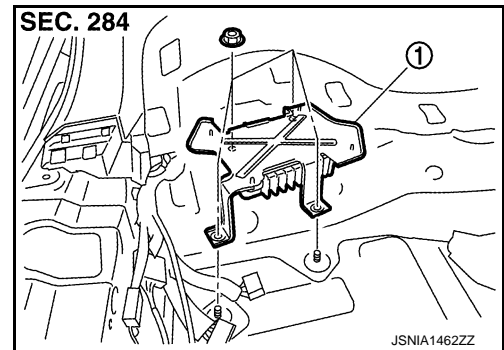


## BOSE AMP.

## Exploded View

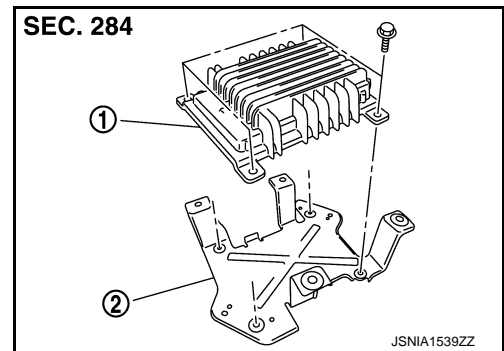
INFOID:000000003928838

## REMOVAL



1. BOSE amp.

## DISASSEMBLY



1. BOSE amp.
2. Bracket

## Removal and Installation

INFOID:000000003928839

## REMOVAL

1. Remove luggage floor spacer (LH). Refer to [INT-28, "Exploded View"](#).
2. Remove BOSE amp. mounting nuts.
3. Disconnect connector and remove BOSE amp.

## INSTALLATION

Installation is the reverse order of removal.

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# SATELLITE RADIO TUNER

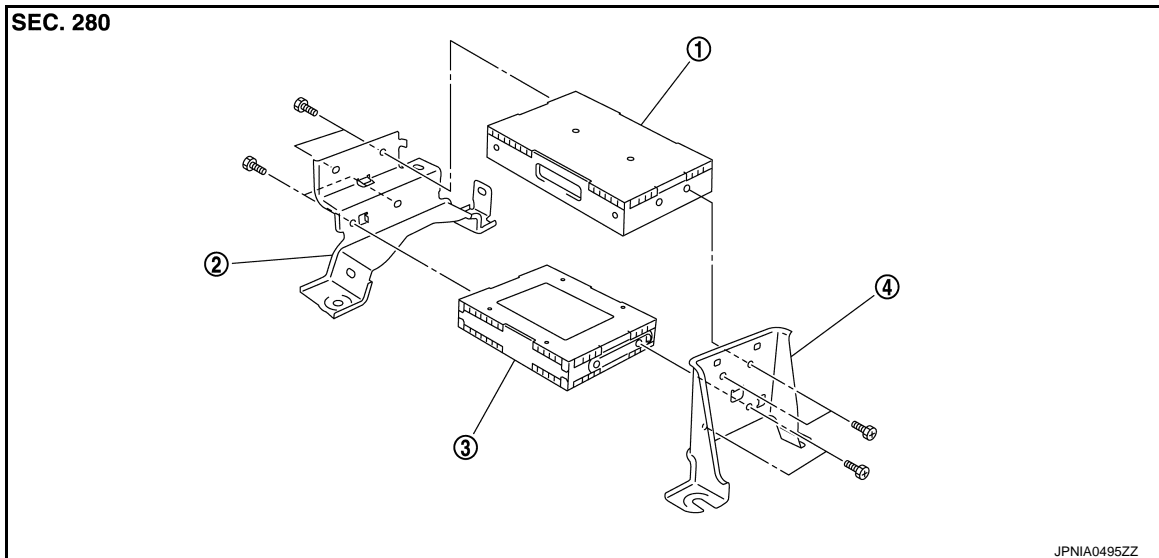
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

## SATELLITE RADIO TUNER

### Exploded View

INFOID:000000003928863



1. TEL adapter unit

2. Bracket (front)

3. Satellite radio tuner

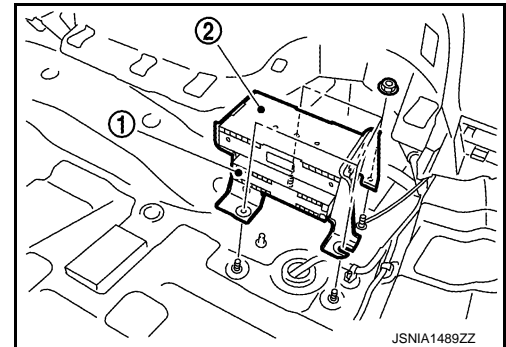
4. Bracket (rear)

### Removal and Installation

INFOID:000000003928864

#### REMOVAL

1. Remove luggage floor spacer (RH). Refer to [INT-28, "Exploded View"](#).
2. Remove nuts, and then satellite radio tuner connector and TEL adapter unit connector.
3. Remove satellite radio tuner (1) with TEL adapter unit (2) as a single unit from the body.



#### INSTALLATION

Install in the reverse order of removal.



# ANTENNA BASE

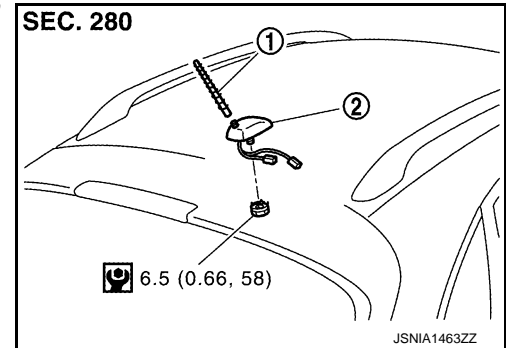
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

## ANTENNA BASE

### Exploded View

INFOID:0000000003928840



1. Antenna rod
2. Antenna base

Refer to [GI-4, "Components"](#) for symbols in the figure.

### Removal and Installation

INFOID:0000000003928841

#### REMOVAL

1. Remove headlining (rear). Keep a service area. Refer to [INT-23, "Exploded View"](#).
2. Remove antenna base mounting nut.
3. Disconnect connector and remove antenna base.

#### INSTALLATION

Installation is the reverse order of removal.

**Antenna base mounting nut** : 6.5 N·m (0.66 kg-m, 58 in-lb)

#### CAUTION:

Be careful about tightening torque. Antenna sensitivity becomes poor, and when it is excessive, roof panel may be deformed, when roof antenna mounting nut tightening torque is loose.

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## MULTIFUNCTION SWITCH

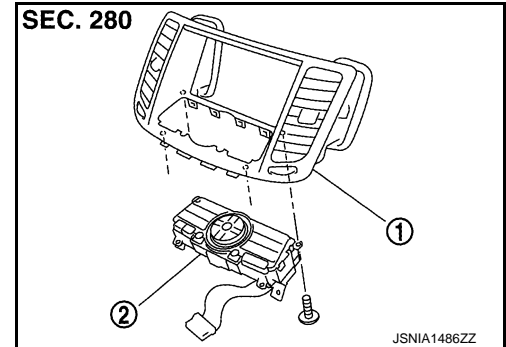
### Exploded View

INFOID:000000003928842

#### REMOVAL

Refer to [IP-11, "Exploded View"](#).

#### DISASSEMBLY



1. Cluster lid D
2. Multifunction switch

### Removal and Installation

INFOID:000000003928843

#### REMOVAL

1. Remove cluster lid D. Refer to [IP-11, "Exploded View"](#).
2. Remove multifunction switch mounting screws.
3. Disconnect connector and remove multifunction switch.

#### INSTALLATION

Installation is the reverse order of removal.



# PRESET SWITCH

< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

## PRESET SWITCH

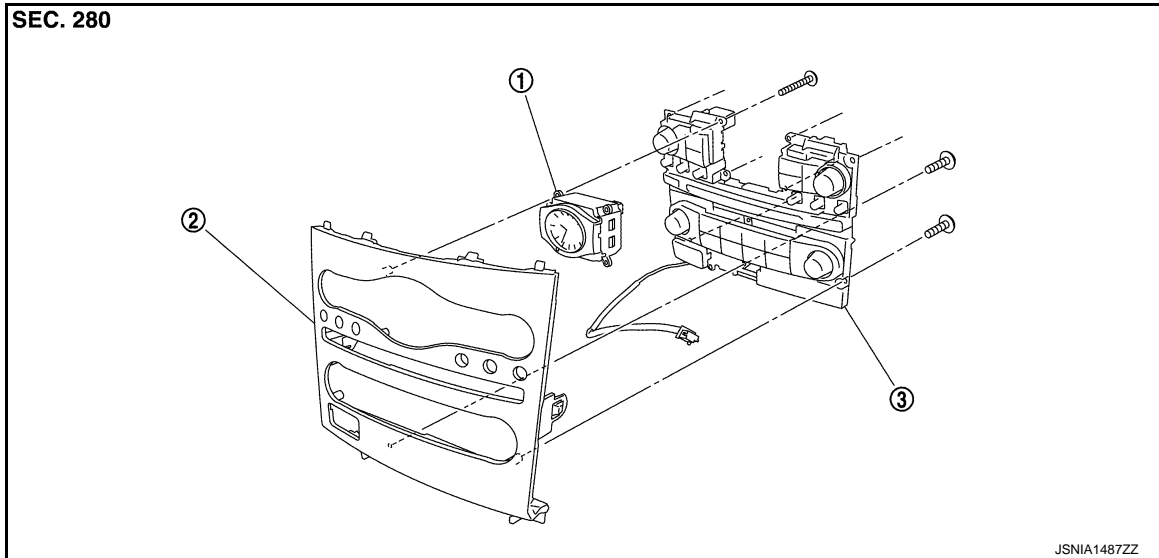
### Exploded View

INFOID:000000003928844

#### REMOVAL

Refer to [IP-11, "Exploded View"](#).

#### DISASSEMBLY



1. Clock

2. Cluster lid C

3. Preset switch

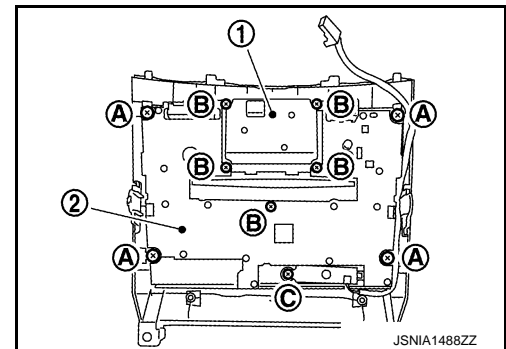
### Removal and Installation

INFOID:000000003928845

#### REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove preset switch mounting screws.
3. Remove preset switch.

- 1. Clock
- 2. Preset switch
- A. Screw
- B. Screw
- C. Screw



#### INSTALLATION

Installation is the reverse order of removal.

#### NOTE:

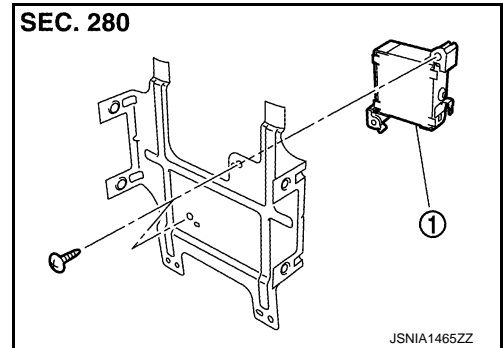
When installing preset switch, do not allow the print wire that connects preset switch and multifunction switch to get caught in between AV control unit and preset switch.



## IPOD ADAPTER

### Exploded View

INFOID:000000003928846



1. iPod adapter

### Removal and Installation

INFOID:000000003928847

#### REMOVAL

1. Remove front display unit with bracket. Refer to [AV-252, "Removal and Installation"](#).
2. Remove front display from display bracket.
3. Remove iPod adapter mounting screws.
4. Disconnect connector and remove iPod adapter.

#### INSTALLATION

Install in the reverse order of removal.



# IPOD CONNECTOR

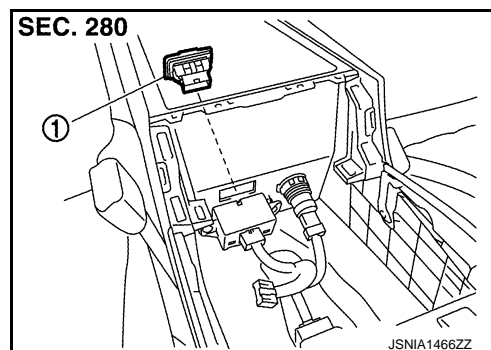
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

## IPOD CONNECTOR

### Exploded View

INFOID:0000000003928848



1. iPod connector

### Removal and Installation

INFOID:0000000003928849

#### REMOVAL

1. Remove console box assembly. Refer to [IP-22, "Exploded View"](#).
2. Press pawl from the back of console finisher to remove iPod connector.

#### INSTALLATION

Install in the reverse order of removal.

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## AUXILIARY INPUT JACKS

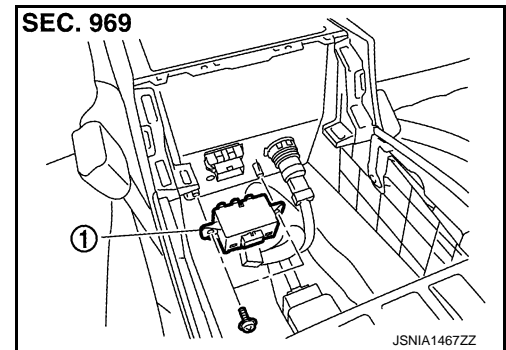
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

### AUXILIARY INPUT JACKS

#### Exploded View

INFOID:000000003928850



1. Auxiliary input jacks

#### Removal and Installation

INFOID:000000003928851

##### REMOVAL

1. Remove console box assembly. Refer to [JP-22, "Exploded View"](#).
2. Remove auxiliary mounting screws.
3. Disconnect connector and remove auxiliary input jacks.

##### INSTALLATION

Installation is the reverse order of removal.



# MICROPHONE

< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

## MICROPHONE

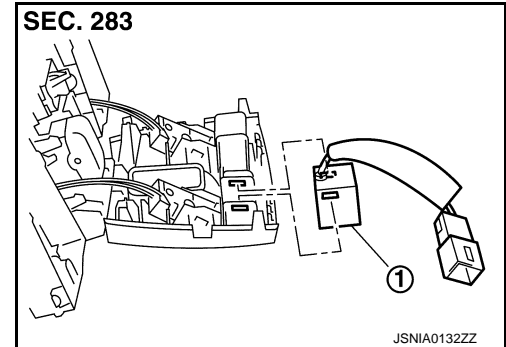
### Exploded View

INFOID:000000003928852

#### REMOVAL

Refer to [INT-23. "Exploded View"](#).

#### DISASSEMBLY



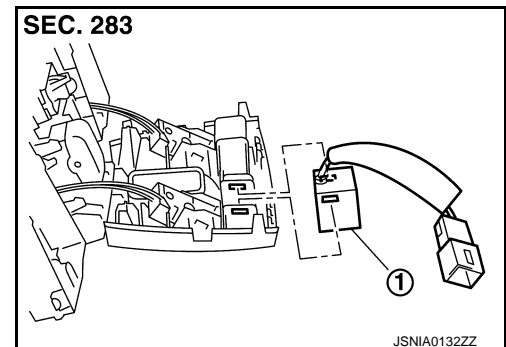
1. Microphone

### Removal and Installation

INFOID:000000003928853

#### REMOVAL

1. Remove map lamp assembly. Refer to [INT-23. "Exploded View"](#).
2. Remove microphone (1), stretching pawls of map lamp assembly.



#### INSTALLATION

Installation is the reverse order of removal.

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# CAMERA CONTROL UNIT

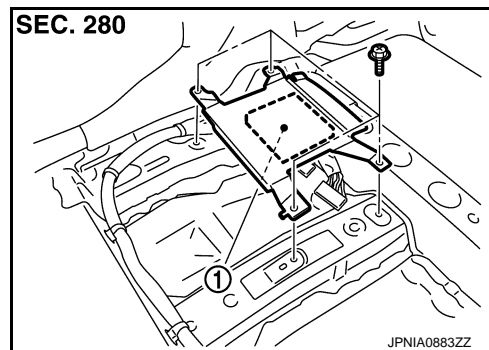
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

## CAMERA CONTROL UNIT

### Exploded View

INFOID:000000003928855



1. Camera control unit

### Removal and Installation

INFOID:000000003928856

#### REMOVAL

1. Remove front seat (LH side). Refer to [SE-70, "Exploded View"](#).
2. Remove floor carpet. Keep a service area.
3. Remove camera control unit mounting screws.
4. Disconnect connector and remove camera control unit.

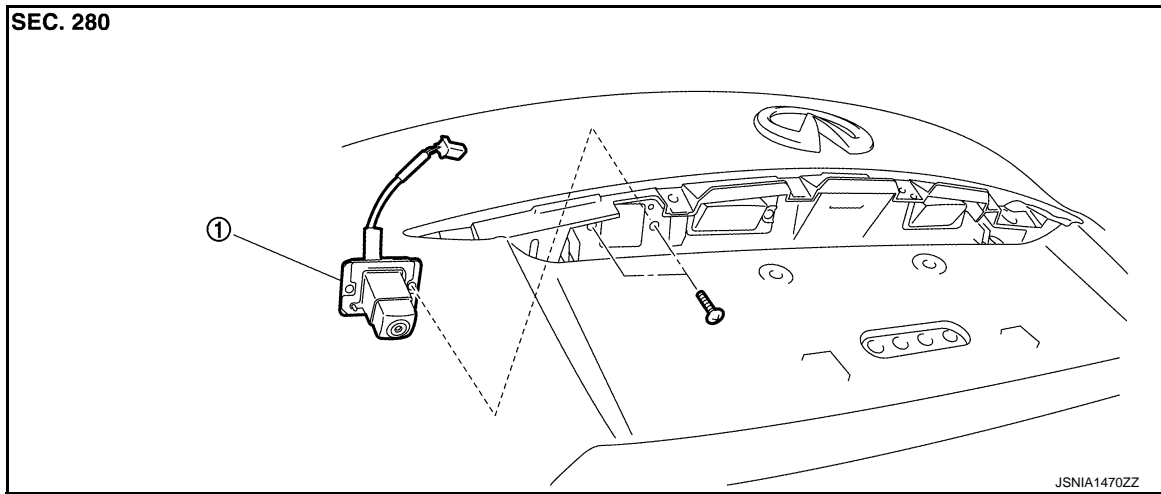
#### INSTALLATION

1. Installation is the reverse order of removal.
2. Perform predicted course line center position adjustment. Refer to [AV-16, "REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement"](#).



## REAR VIEW CAMERA

### Exploded View



1. Rear view camera

### Removal and Installation

INFOID:000000003928858

#### REMOVAL

1. Remove back door outside finisher upper. Refer to [EXT-49, "Exploded View"](#).
2. Remove door handle cover. Refer to [EXT-49, "Exploded View"](#).
3. Remove rear view camera mounting screws and rear view camera harness connector.
4. Remove rear view camera.

#### INSTALLATION

1. Installation is the reverse order of removal.
2. Adjust the guide line position if the guide line position is shifted after installing the rear view camera. Refer to [AV-270, "Adjustment"](#).

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# REAR VIEW CAMERA

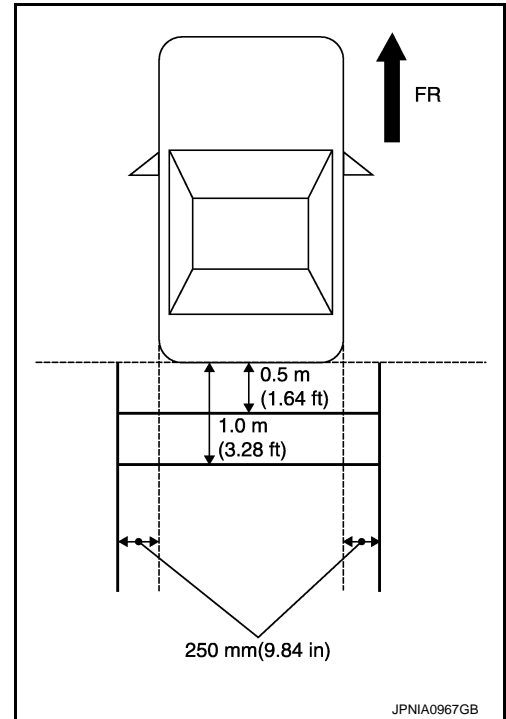
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

INFOID:000000003959279

## Adjustment

1. Draw lines on rearward area of the vehicle passing through the following points: 250 mm (9.84 in) from both sides of the vehicle, and 0.5 m (1.64 ft), 1.0 m (3.28 ft) from the rear end of the bumper.
2. Set into "Adjust offset of rear view camera" mode of Confirmation/Adjustment mode.



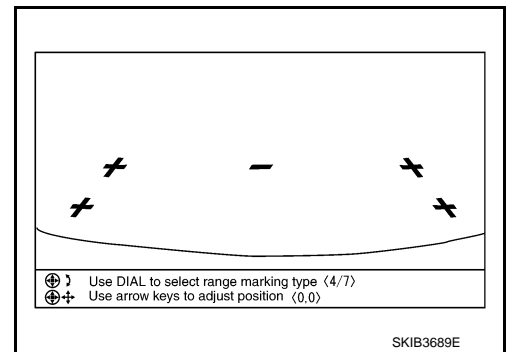
3. Rotate the center dial, and then select the guiding line pattern so that its angle is aligned with the correction line of the rear of the vehicle.

**Selected pattern : 7**

4. Fine adjust the guiding line so that its position is aligned to the correction line by pressing the up/down/left/right switches. Pressing "ENTER" enable the camera control unit to memory the adjusted guiding line position.

**Up/Down adjustment range : -20 - 20**

**Left/Right adjustment range : -20 - 20**



### CAUTION:

Never operate other function such as pressing BACK while writing index data.

If Confirmation/Adjustment mode does not function in the above procedure, perform one of the following service to adjust the index again.

- Remove battery for five min. Then reconnect battery.
- Remove camera control unit connector for five min. Then reconnect camera control unit connector.



# TEL ADAPTER UNIT

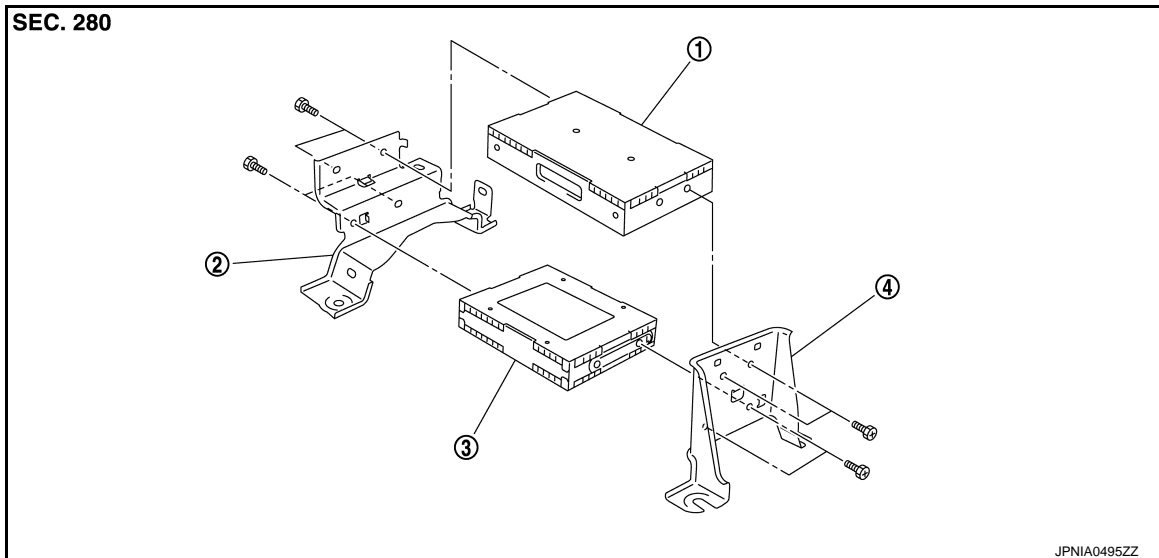
< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

## TEL ADAPTER UNIT

### Exploded View

INFOID:000000003928865



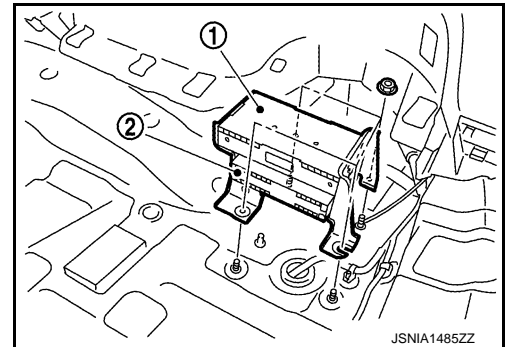
- |                     |                    |                          |
|---------------------|--------------------|--------------------------|
| 1. TEL adapter unit | 2. Bracket (front) | 3. Satellite radio tuner |
| 4. Bracket (rear)   |                    |                          |

### Removal and Installation

INFOID:000000003928866

#### REMOVAL

1. Remove luggage floor spacer (RH). Refer to [INT-28, "Exploded View"](#).
2. Remove nuts, and then remove TEL adapter unit connector and satellite radio tuner connector.
3. Remove TEL adapter unit (1) with satellite radio tuner (2) as a single unit from the body.



#### INSTALLATION

Install in the reverse order of removal.



# STEERING ANGLE SENSOR

< REMOVAL AND INSTALLATION >

[WITHOUT NAVIGATION]

## STEERING ANGLE SENSOR

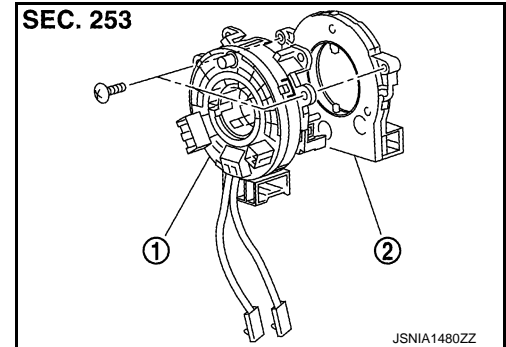
### Exploded View

INFOID:000000003928861

#### REMOVAL

Refer to [SR-8, "Exploded View"](#).

#### DISASSEMBLY



1. Spiral cable
2. Steering angle sensor

### Removal and Installation

INFOID:000000003928862

#### REMOVAL

1. Remove spiral cable. Refer to [SR-8, "Exploded View"](#).
2. Remove steering angle sensor mounting screws.
3. Remove steering angle sensor.

#### INSTALLATION

Installation is the reverse order of removal.



# ANTENNA FEEDER

< REMOVAL AND INSTALLATION >

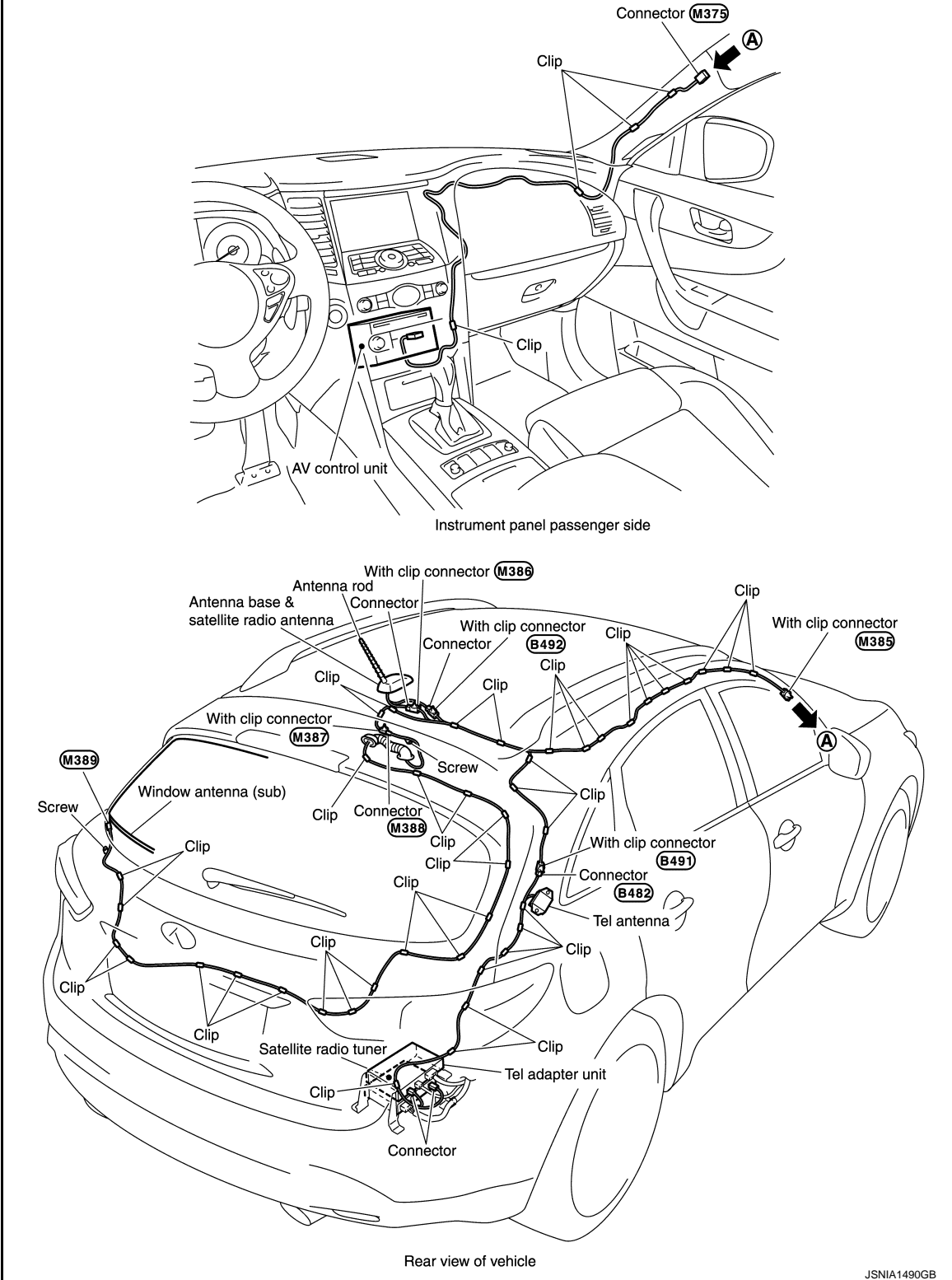
[WITHOUT NAVIGATION]

## ANTENNA FEEDER

### Harness Layout

INFOID:000000003928860

SEC. 280



JSNIA1490GB

A  
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AV



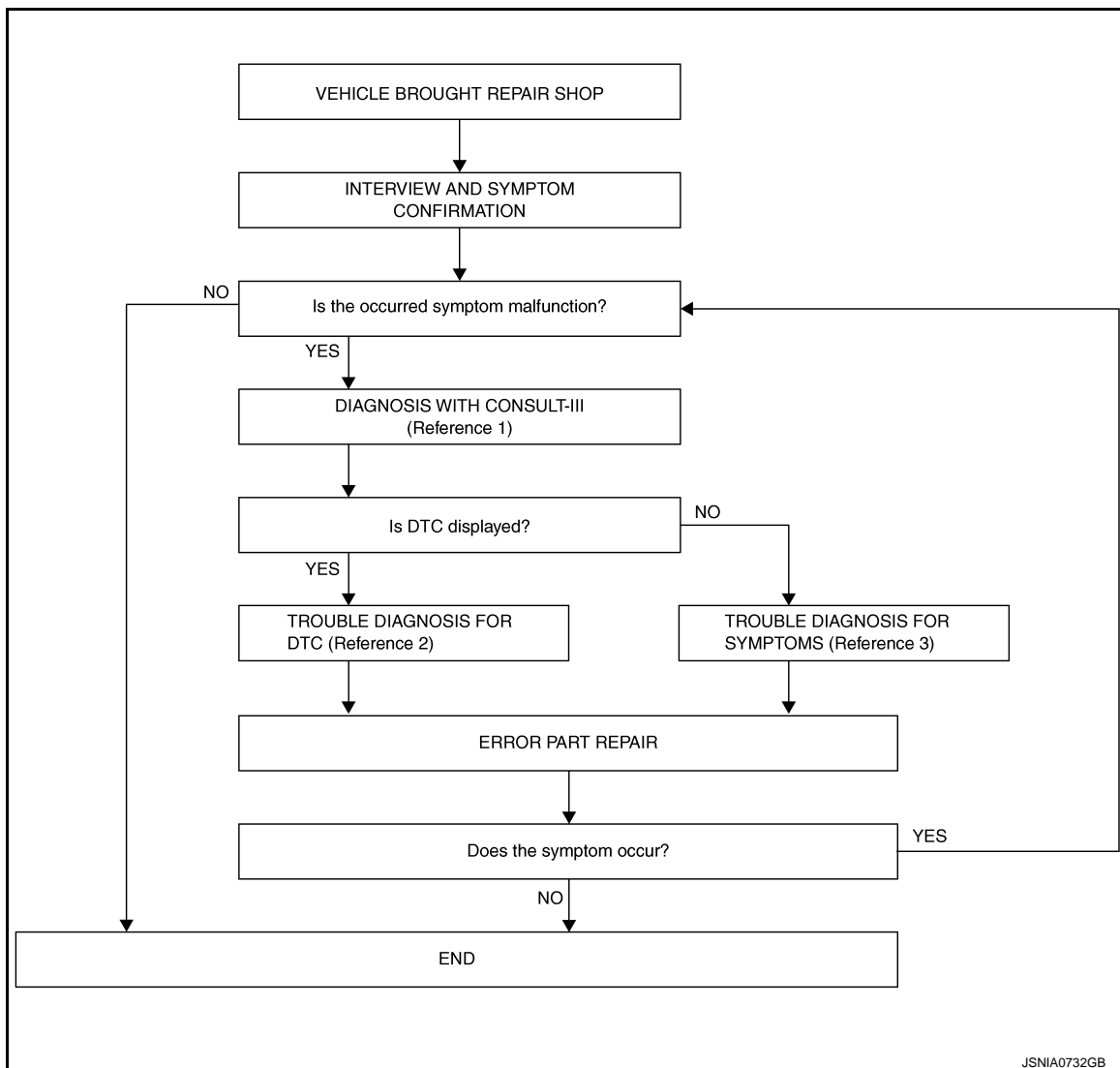
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

Work Flow (Multi AV)

INFOID:000000003940609

#### OVERALL SEQUENCE



- Reference 1... Refer to [AV-330, "CONSULT-III Function \(MULTI AV\)".](#)
- Reference 2... Refer to [AV-442, "DTC Index".](#)
- Reference 3... Refer to [AV-565, "Symptom Table".](#)

#### DETAILED FLOW

##### 1. INTERVIEW AND SYMPTOM CONFIRMATION

Check the malfunction symptoms by performing the following items.

- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

Is the occurred symptom malfunction?

YES >> GO TO 2.

NO >> INSPECTION END

##### 2. DIAGNOSIS WITH CONSULT-III



# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[NAVIGATION (SINGLE MONITOR)]

1. Connect CONSULT-III and perform a self-diagnosis for "MULTI AV". Refer to [AV-330, "CONSULT-III Function \(MULTI AV\)".](#)

**NOTE:**

Skip to step 4 of the diagnosis procedure if "MULTI AV" is not displayed.

2. Check if any DTC is displayed in the self-diagnosis results.

Is DTC displayed?

YES >> GO TO 3.

NO >> GO TO 4.

## 3.TROUBLE DIAGNOSIS FOR DTC

1. Check the DTC indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to [AV-442, "DTC Index".](#)

>> GO TO 5.

## 4.TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-565, "Symptom Table".](#)

>> GO TO 5.

## 5.ERROR PART REPAIR

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for "MULTI AV" with CONSULT-III.

**NOTE:**

Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC has been indicated in the self-diagnosis results.

3. Check that the symptom does not occur.

Does the symptom occur?

YES >> GO TO 1.

NO >> INSPECTION END

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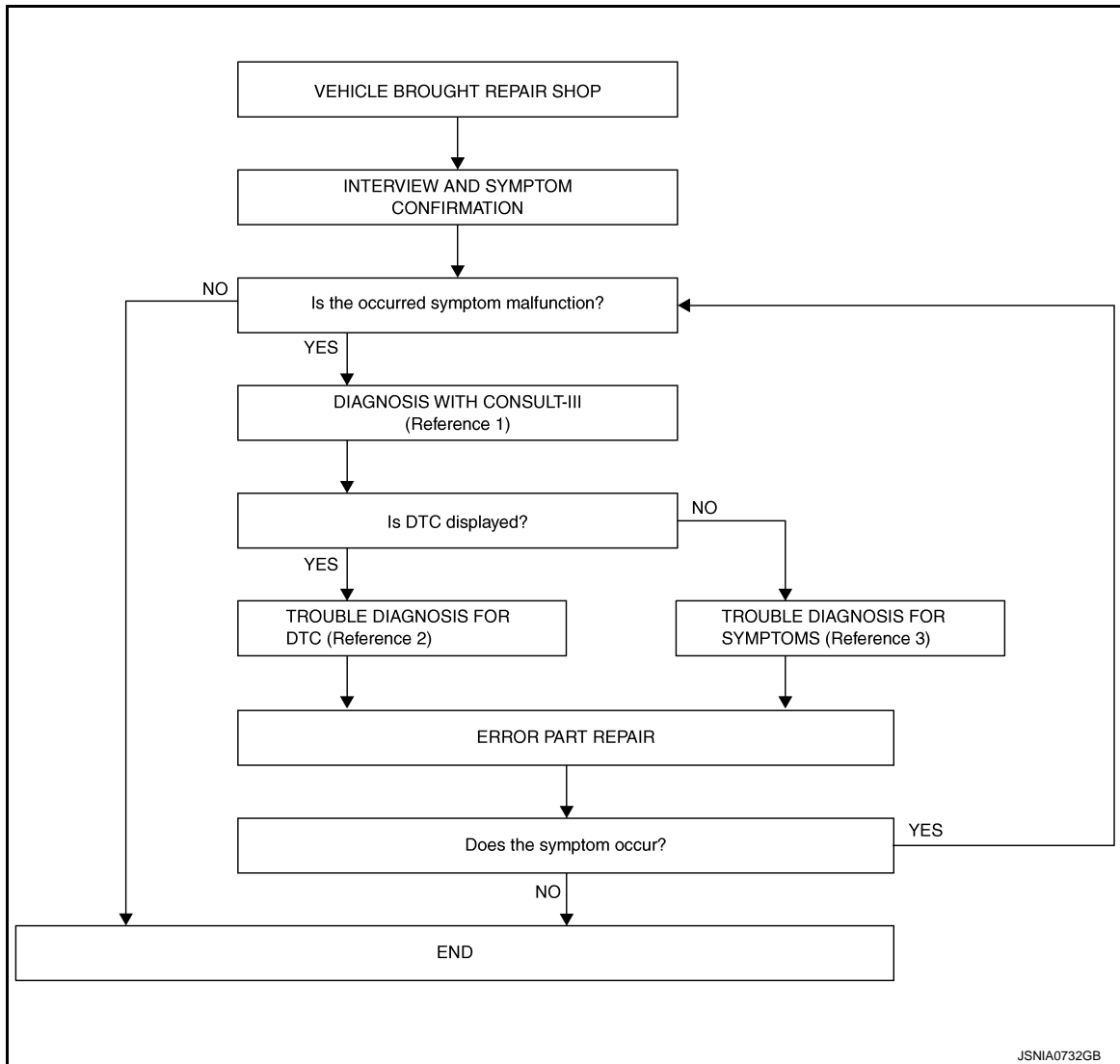
AV



## Work Flow (Sonar)

INFOID:000000003940610

### OVERALL SEQUENCE



- Reference 1... Refer to [AV-337, "CONSULT-III Function \(SONAR\)"](#).
- Reference 2... Refer to [AV-564, "DTC Index"](#).
- Reference 3... Refer to [AV-565, "Symptom Table"](#).

### DETAILED FLOW

#### 1. INTERVIEW AND SYMPTOM CONFIRMATION

Check the malfunction symptoms by performing the following items.

- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

Is the occurred symptom malfunction?

YES >> GO TO 2.

NO >> INSPECTION END

#### 2. DIAGNOSIS WITH CONSULT-III

1. Connect CONSULT-III and perform a self-diagnosis for "SONAR". Refer to [AV-337, "CONSULT-III Function \(SONAR\)"](#).

#### NOTE:

Skip to step 4 of the diagnosis procedure if "SONAR" is not displayed.



# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[NAVIGATION (SINGLE MONITOR)]

2. Check if any DTC is displayed in the self-diagnosis results.

Is DTC displayed?

- YES >> GO TO 3.  
NO >> GO TO 4.

## 3.TROUBLE DIAGNOSIS FOR DTC

1. Check the DTC indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to [AV-564. "DTC Index"](#).

>> GO TO 5.

## 4.TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-565. "Symptom Table"](#).

>> GO TO 5.

## 5.ERROR PART REPAIR

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for "SONAR" with CONSULT-III.

### NOTE:

Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC has been indicated in the self-diagnosis results.

3. Check that the symptom does not occur.

Does the symptom occur?

- YES >> GO TO 1.  
NO >> INSPECTION END

A  
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AV



## INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[NAVIGATION (SINGLE MONITOR)]

### INSPECTION AND ADJUSTMENT

#### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

#### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000003826534

Always correct the center position of the predicted course line after disconnecting the battery negative terminal.

#### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000003826535

#### 1. CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to [AV-278, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement"](#).

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000003826536

When around view monitor control unit is replaced, the center position of predicted course line shall be corrected.

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000003826537

#### 1. CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to [AV-278, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement"](#).

#### PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT

#### PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Description

INFOID:0000000003826538

Adjust the center position of the predicted course line of the around view monitor if it is shifted.

#### PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement

INFOID:0000000003826539

#### 1. STEERING OPERATION

Steer the steering wheel to the leftmost and rightmost ends.

>> GO TO 2.

#### 2. DRIVING

Drive the vehicle straight ahead 100 m (328.1 ft) or more at a speed of 30 km/h (18.6 MPH) or more.

>> END

#### CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR)



## CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description

INFOID:000000003826540

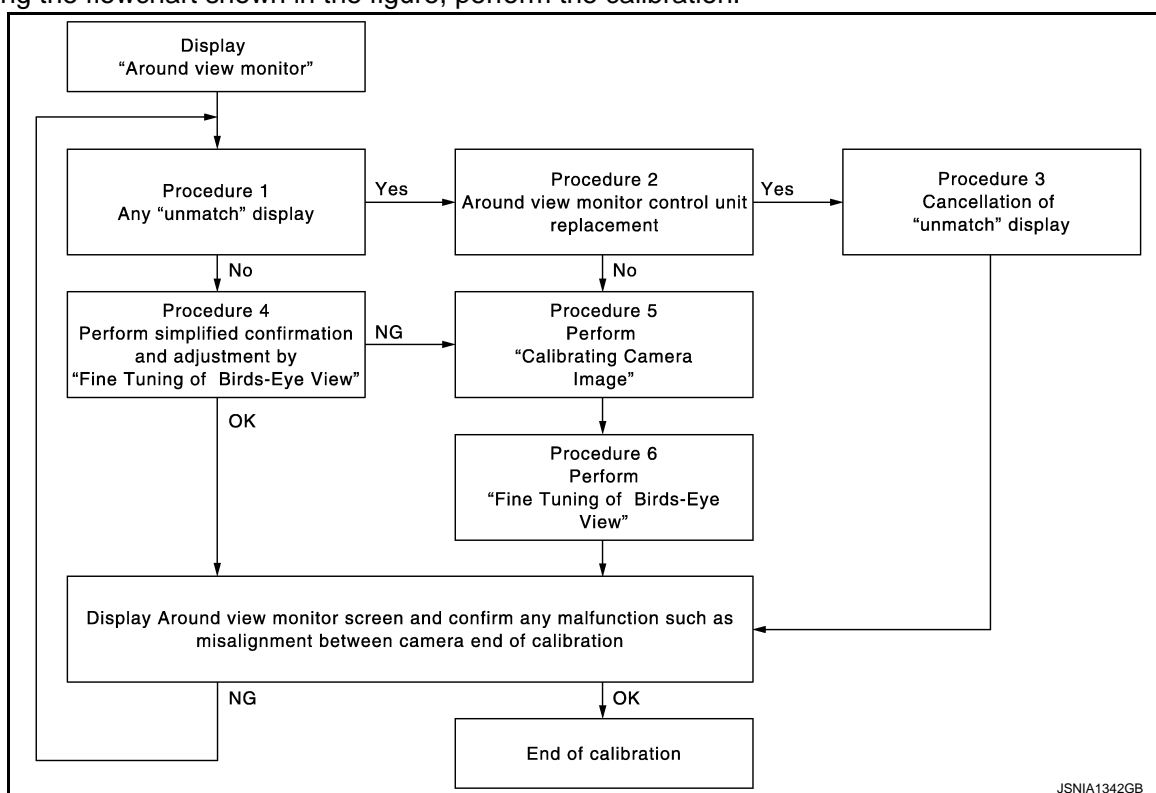
- Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.
- Align the white lines on the road near the vehicle at the boundary of each camera image by this camera calibration. The white lines far from the vehicle may not be aligned at the boundary of each camera image. The farther the line, the greater the difference is.

## CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Special Repair Requirement

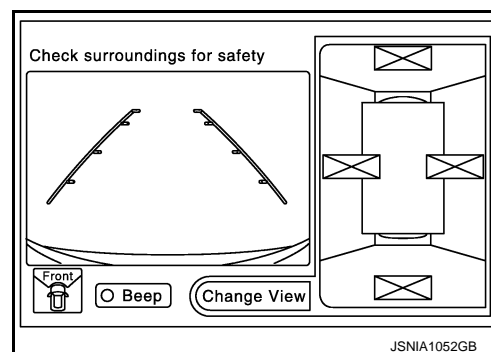
INFOID:000000003826541

## Calibration flowchart

Following the flowchart shown in the figure, perform the calibration.

**NOTE:**

In the un-match display, the un-match camera position is indicated as "⊠" on the birds-eye view.



## Calibration procedure

## 1. AROUND VIEW MONITOR SCREEN CONFIRMATION



# INSPECTION AND ADJUSTMENT

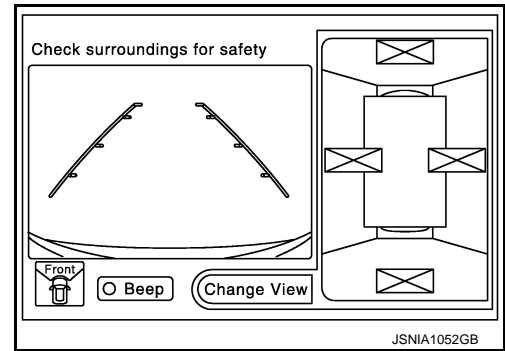
## < BASIC INSPECTION >

## [NAVIGATION (SINGLE MONITOR)]

Check that there is the un-match display in any camera.

Is the un-match display visible?

- YES >> GO TO 2.  
NO >> GO TO 4.



## 2.CHECK THAT AROUND VIEW MONITOR CONTROL UNIT IS REPLACED

Check that the around view monitor control unit is replaced.

Is the around view monitor control unit replaced?

- YES >> GO TO 3.  
NO >> GO TO 5.

## 3.RELEASE UN-MATCH DISPLAY (PERFORM ONLY WHEN THE AROUND VIEW MONITOR CONTROL UNIT IS REPLACED)

1. Select "Camera Cont." of Confirmation/ Adjustment mode, and then set to "Calibrating Camera Image" mode.
2. Press the "ENTER" switch of the multifunction switch on each screen of "Rear Camera", "Front Camera", "Dr-Side Camera", "Pass-Side Camera".

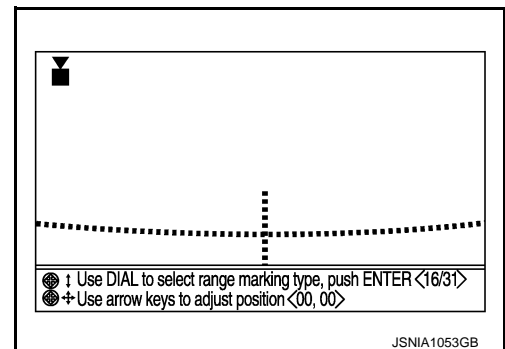
### CAUTION:

- Do never operate the center dial and up/down/left/right switches. Only press the "ENTER" switch.
- Never perform "Initialize Camera Image Calibration".

3. Display the around view monitor screen, and check that there is no malfunction such as a difference between each camera image.

Is there a malfunction?

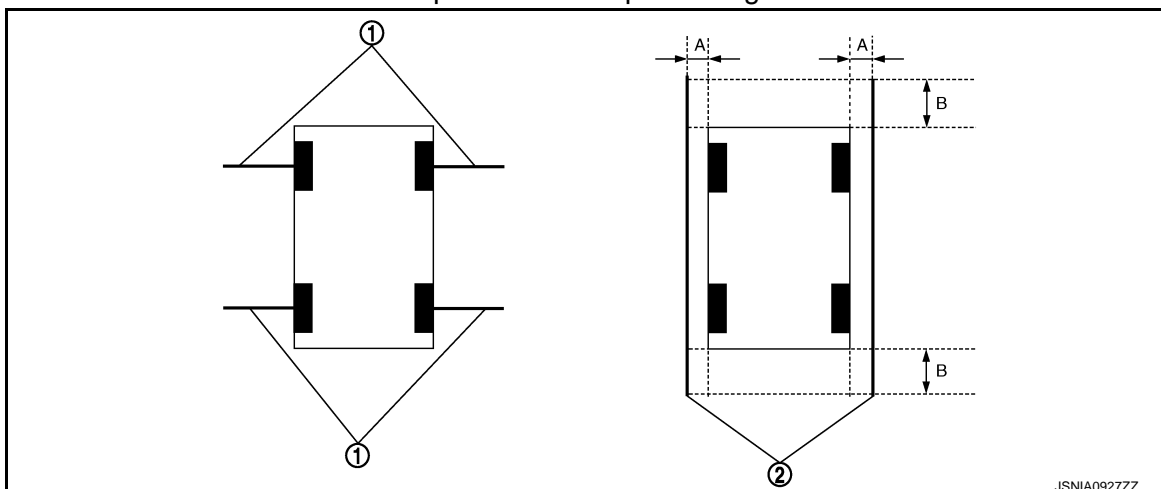
- YES >> Calibration end  
NO >> GO TO 1.



## 4.PERFORM SIMPLIFIED CONFIRMATION/ADJUSTMENT BY "FINE TUNING OF BIRDS-EYE VIEW"

1. Put target line 1 on the ground beside each axle using packing tape, etc.
2. Put target lines 2 equal to the vehicle total length + approximately 1.0 m (39.3 in) from the vehicle side (right and left) at approximately 30 cm (11.8 in) away from the vehicle (make the line as parallel with the vehicle as possible).

Preparation of simplified target line





# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

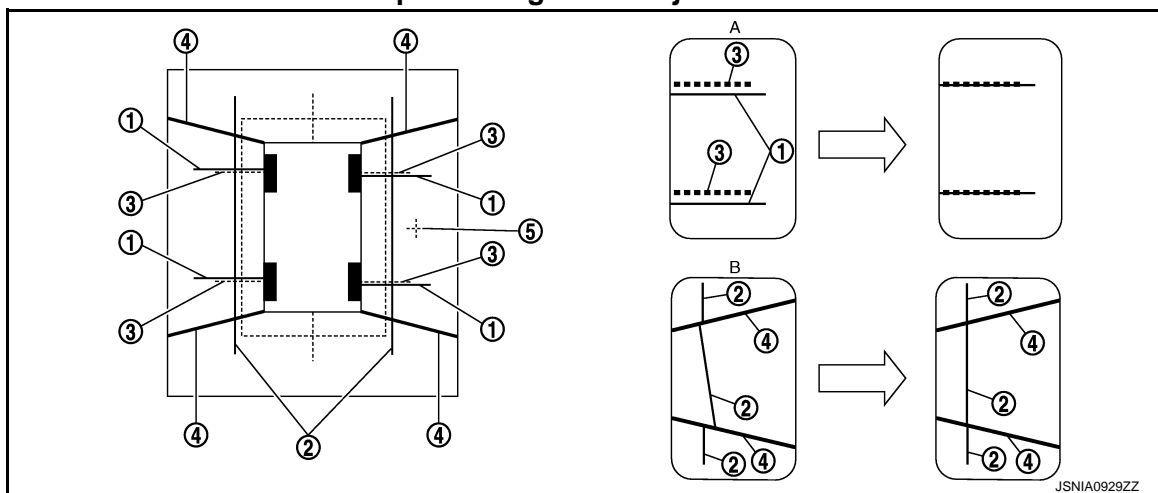
[NAVIGATION (SINGLE MONITOR)]

1. Target lines 1
2. Target lines 2
- A. Approx. 30 cm (11.8in)
- B. Approx. 1.0 m (39.3 in)
3. Select "Camera Cont." of Confirmation/ Adjustment mode, and then set to "Fine Tuning of Birds-Eye View-mode."
4. Select left and right cameras by pressing the "CAMERA" switch, and perform the following confirmation.
  - Check that target line 1 is aligned with the marker on the screen. Overlap the line aligned to the marker with the upper/lower switches if necessary.
  - Check if there is a difference between target lines 2 between cameras. Adjust target lines 2 to be straight lines by operating the center dial and left/right switches if necessary.

## CAUTION:

- Never adjust the front camera and rear camera. Only adjust the right and left cameras.
- Operate the center dial slowly because the changing of the screen takes approximately 1 second.

## Simplified target line adjustment method



1. Target lines 1
2. Target lines 2
3. Marker for target line 1
4. Boundary between cameras
5. Crosshairs cursor (mark indicated the selected camera)
- A. Adjustment method for target lines 1 (right)
- B. Adjustment method for target lines 2 (right)
5. Adjust left and right cameras. Check that the difference between target line 1 and the marker on the screen, and between target lines 2 is solved.

## NOTE:

- It can be initialized to the NISSAN factory default condition with "Initialize Camera Image Calibration" of "Calibrating Camera Image".
- The adjustment value is cancelled on this mode by performing "Initialize Camera Image Calibration".

## Is the difference corrected?

- YES >> Finish the writing to around view monitor control unit by pressing "ENTER" switch.
- NO >> GO TO 5.

## 5.PERFORM "CALIBRATING CAMERA IMAGE"

### Preparation of target line

1. Hang a string with a weight as shown in the figure. Put the points FM0, RM0 (mark) on the ground at the center of the vehicle front end and rear end with white packing tape or a pen.
2. Route the vinyl string under the vehicle, and then pull and fix it on the point approximately 1.0 m (39.9 in) to the front and rear of the vehicle through the points FM0 and RM0 using packing tape.

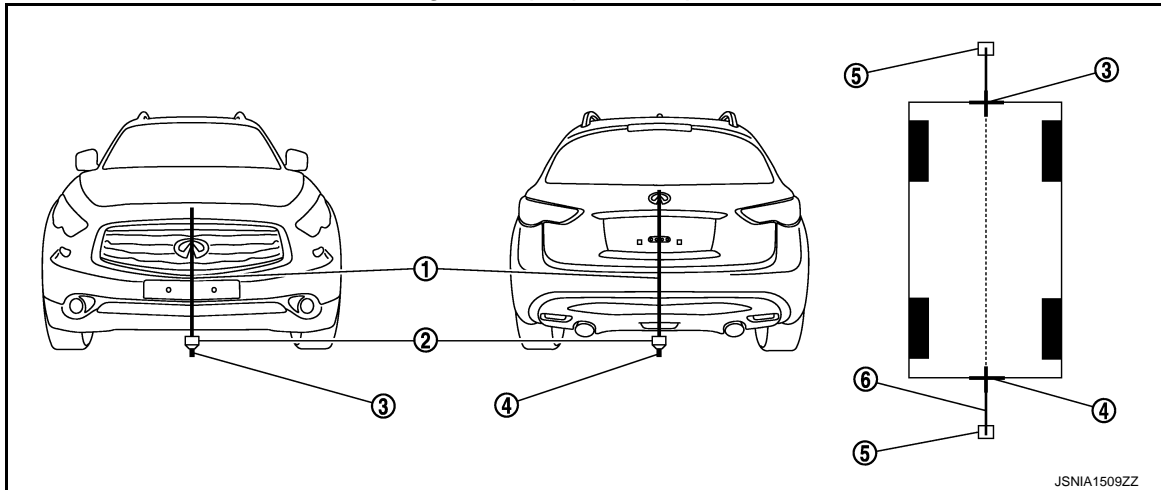


# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[NAVIGATION (SINGLE MONITOR)]

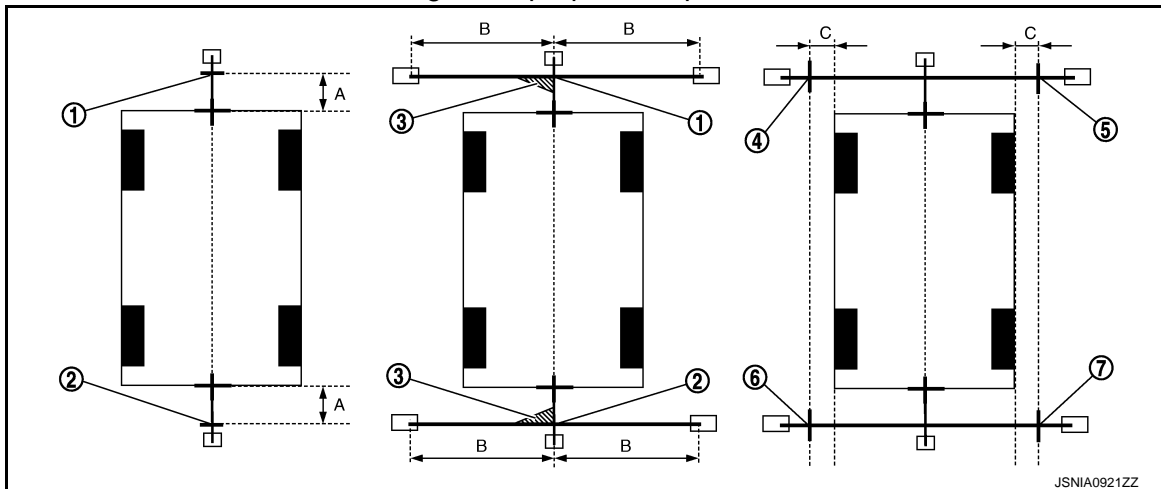
## Target line preparation procedure 1



- |                     |   |                     |
|---------------------|---|---------------------|
| 1. Thread           | 2. Weight                                 | 3. Point FM0 (mark) |
| 4. Point RM0 (mark) | 5. Packing tape (to fix the vinyl string) | 6. Vinyl string     |

- Put the points FM and RM (mark) 75 cm (29.5 in) from the points FM0 and RM0 individually.
- Route the vinyl string through the points FM and RM using a triangle scale, and then fix it at approximately 1.5 m (59 in) on both sides with packing tape.
- Put the points FL, FR, RL, and RR (mark) to both right and left [vehicle width / 2 + 30 cm (11.8 in)] from the points FM and RM.

## Target line preparation procedure 2



- |                    |                    |                    |
|--------------------|--------------------|--------------------|
| 1. Point FM        | 2. Point RM        | 3. Triangle scale  |
| 4. Point FL (mark) | 5. Point FR (mark) | 6. Point RL (mark) |
| 7. Point RR (mark) |                    |                    |

- |                    |                          |  |
|--------------------|--------------------------|--|
| A. 75 cm (29.5 in) | B. Approx. 1.5 m (59 in) | C. 30 cm (11.8 in)<br>[Vehicle width / 2 + 30 cm (11.8 in)<br>from the points FM and RM] |
|--------------------|--------------------------|--|

- Draw the lines of the points FL – RL and FR – RR with vinyl string, and fix it with packing tape.
- Put a mark on the center of each axle, draw vertical lines to the lines of the points FL – RL and FR – RR from the marks on the center of the axle using a triangle scale, and then fix the lines using packing tape.

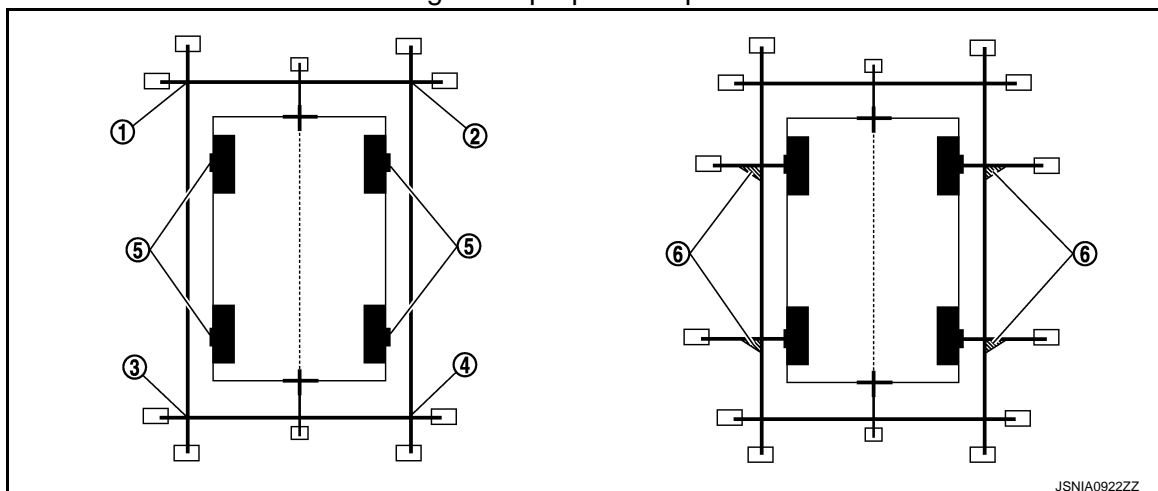


# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[NAVIGATION (SINGLE MONITOR)]

## Target line preparation procedure 3



- |             |                            |                   |
|-------------|----------------------------|-------------------|
| 1. Point FL | 2. Point FR                | 3. Point RL       |
| 4. Point RR | 5. Center position of axle | 6. Triangle scale |

### Perform "Calibrating Camera Image"

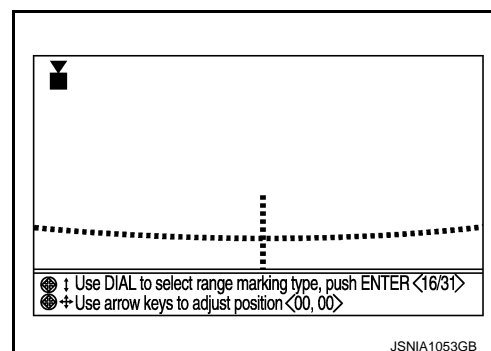
1. Select "Camera Cont." of "Confirmation/ Adjustment" mode, and then set to "Calibrating Camera Image" mode.
2. Overlap the target lines drawn on the ground with the calibration marker on the screen by operating the center dial and upper/lower/left/right switches of multifunction switch on each screen of "Rear Camera", "Pass-Side Camera", "Front Camera", "Dr-Side Camera".

#### Adjustment range

Rotation direction (Center dial) : 31 patterns (16 on the center)

Upper/lower direction (upper/lower switch) : -99 - 99

Left/right direction (left/right switch) : -99 - 99



3. "Writing..." is displayed by pressing the "ENTER" switch, and then the adjustment result is written to the around view monitor control unit.

#### CAUTION:

Check that "Writing..." is displayed. Do never perform other operations while "Writing..." is displayed.

>> GO TO 6.

## 6.PERFORM "FINE TUNING OF BIRDS-EYE VIEW"

This mode is designed to align the boundary between each camera image that could not be aligned in the "Calibrating Camera Image" mode.

1. Select "Camera Cont." of "Confirmation/ Adjustment" mode, and then set to "Fine Tuning of Birds-Eye View" mode.



## INSPECTION AND ADJUSTMENT

### < BASIC INSPECTION >

### [NAVIGATION (SINGLE MONITOR)]

2. Operate the center dial and upper/lower/left/right switch to overlap the marker on the screen and the target lines on the ground.

**NOTE:**

Move the “+”- mark on the camera position to adjustment by pressing the “CAMERA” switch.

3. When the target line is overlapped on the marker, press the “ENTER” switch to write the adjustment result to the around view monitor control unit.

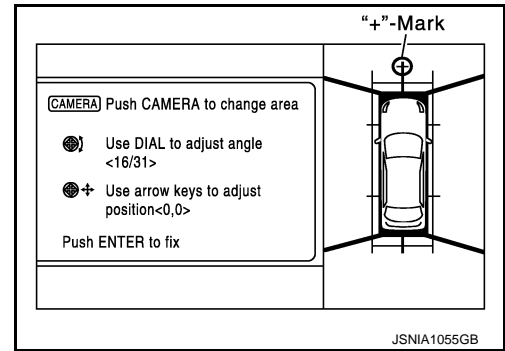
**CAUTION:**

**Check that “Writing...” is displayed. Do never perform other operations while “Writing...” is displayed.**

**NOTE:**

- It can be initialized to the NISSAN factory default condition with “Initialize Camera Image Calibration” of “Calibrating Camera Image”.
- The adjustment value is cancelled on this mode by performing “Initialize Camera Image Calibration”.

>> Calibration end

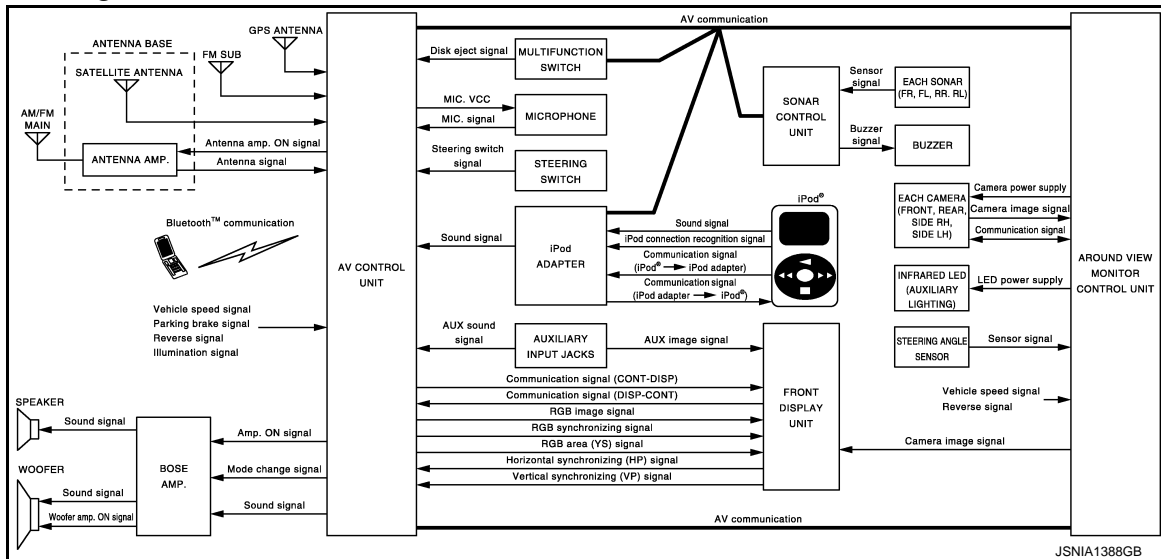




## SYSTEM DESCRIPTION

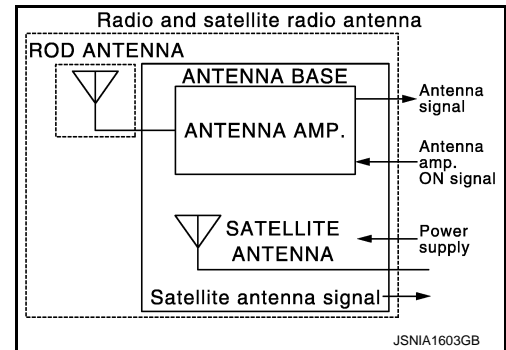
### MULTI AV SYSTEM

#### System Diagram



#### NOTE:

- The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.
- A radio antenna base integrated with radio antenna and satellite radio antenna is adopted.



#### System Description

Multi AV system means that the following systems are integrated.

System name	System explanation
AUDIO SYSTEM	<a href="#">AV-292. "System Description"</a>
NAVIGATION SYSTEM	<a href="#">AV-297. "System Description"</a>
AROUND VIEW MONITOR SYSTEM	<a href="#">AV-302. "System Description"</a>
CAMERA ASSISTANCE SONAR SYSTEM	<a href="#">AV-312. "System Description"</a>
VEHICLE INFORMATION SYSTEM	<ul style="list-style-type: none"> <li>• Status of audio, climate control system, fuel economy, maintenance and navigation are displayed.</li> <li>• AV control unit displays the fuel consumption status while receiving data signal through CAN communication from ECM, unified meter and A/C amp.</li> <li>• AV control unit is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> </ul>
HANDS-FREE PHONE SYSTEM	Refer to the following "HANDS-FREE PHONE SYSTEM".
AUXILIARY INPUT SYSTEM	Refer to the following "AUXILIARY INPUT SYSTEM".
VOICE RECOGNITION SYSTEM	Refer to the following "VOICE RECOGNITION SYSTEM".
TOUCH PANEL SYSTEM	Refer to the following "TOUCH PANEL SYSTEM".



# MULTI AV SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (SINGLE MONITOR)]

- AV control unit function by transmitting/receiving data one by one with each unit (slave unit) that configures them completely as a master unit by connecting between units that configure MULTI AV system with two AV communication lines (H, L).
- Around view monitor control unit transmits/receives the data signal with sonar control unit and controls sonar control unit. Around view monitor control unit transmits the information received from sonar control unit to AV control unit.
- Two AV communication lines (H, L) adopt a twisted pair line that is resistant to noise.
- AV control unit is connected by CAN communication, and it receives data signals from ECM, unified meter and A/C amp. It computes and displays fuel economy information value with the obtained information. The transmitting/receiving of data signal is performed by BCM. In addition, it transmits the required signal of vehicle setting and receives the response signal.
- AV control unit is connected with front display unit and serial communication, and it transmits the required signal of display and display control and receives the response signal from front display unit.

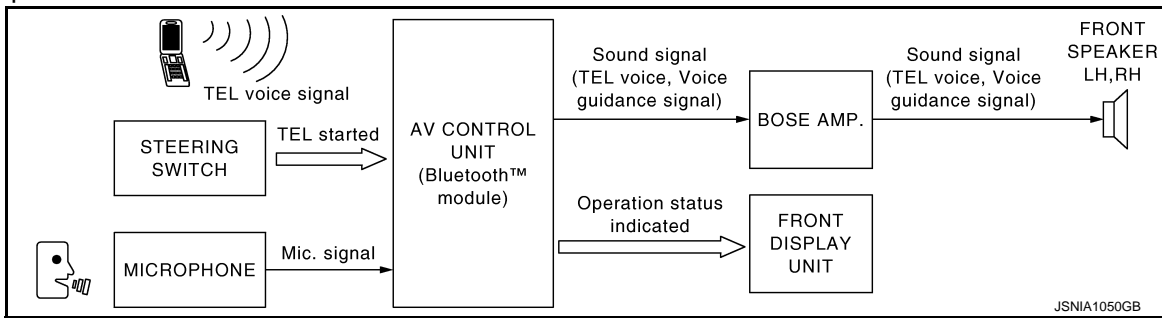
### NOTE:

AV control unit can perform CONSULT-III self-operating function and on board self-diagnosis.

- CONSULT-III self diagnosis: Refer to [AV-330, "CONSULT-III Function \(MULTI AV\)"](#).
- On board self diagnosis: Refer to [AV-317, "Diagnosis Description"](#).

## HANDS-FREE PHONE SYSTEM

- Hands-free communication can be operated by connecting using Bluetooth™ with cellular phone.
- Operation is performed by steering switch, and operating condition is indicated on display.
- Guide sound that is heard during operation is input from AV control unit to BOSE amp. and is output from front speakers.



### When a Call is Originated

Spoken voice sound output from the microphone (Mic. Signal) is input into AV control unit. AV control unit outputs to cellular phone with Bluetooth™ communication as a TEL voice signal. Voice sound is then heard by the other party.

### When Receiving a Call

Voice sound is input to one's own cellular phone from the other party. TEL voice signal is output to front speakers, and the signal is input to BOSE amp. via AV control unit by establishing Bluetooth™ communication from cellular phone.

## AUXILIARY INPUT SYSTEM

- Image and sound can be output from an external device by connecting a device with auxiliary input jacks.

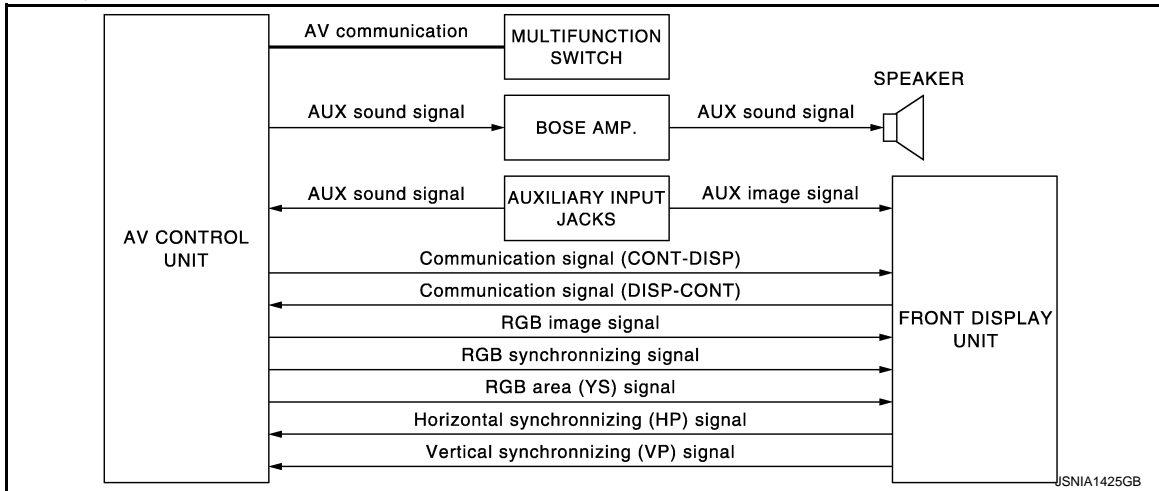


# MULTI AV SYSTEM

## < SYSTEM DESCRIPTION >

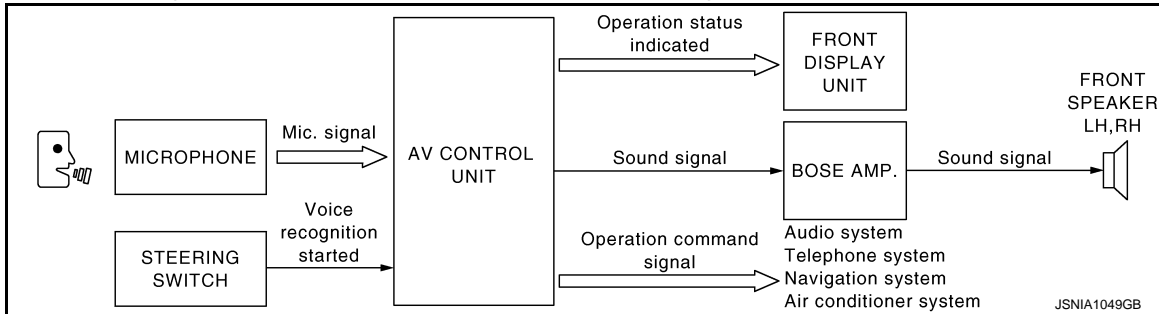
## [NAVIGATION (SINGLE MONITOR)]

- Operation can be performed with multifunction switch and steering switch. Multifunction switch transmits operation signal to AV control unit by AV communication.



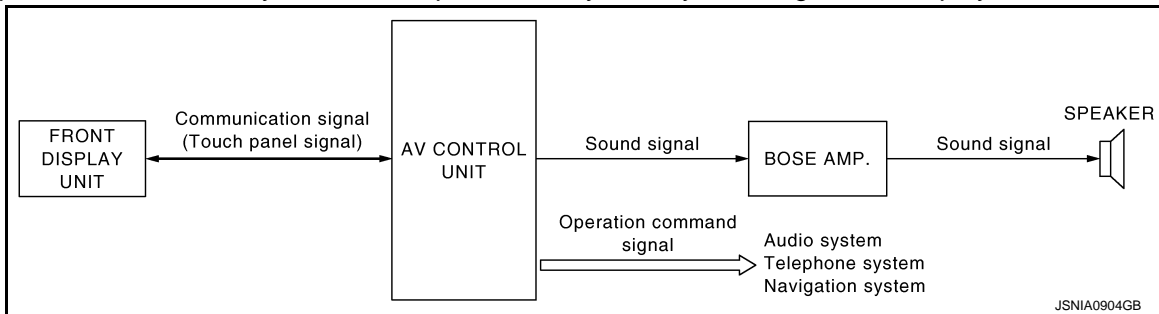
## VOICE RECOGNITION SYSTEM

- Each operation of multi AV system can be performed by inputting sound to microphone.
- Start of sound recognition system can be performed by steering switch.



## TOUCH PANEL SYSTEM

Each operation of multi AV system can be performed by directly touching a front display unit.



AV



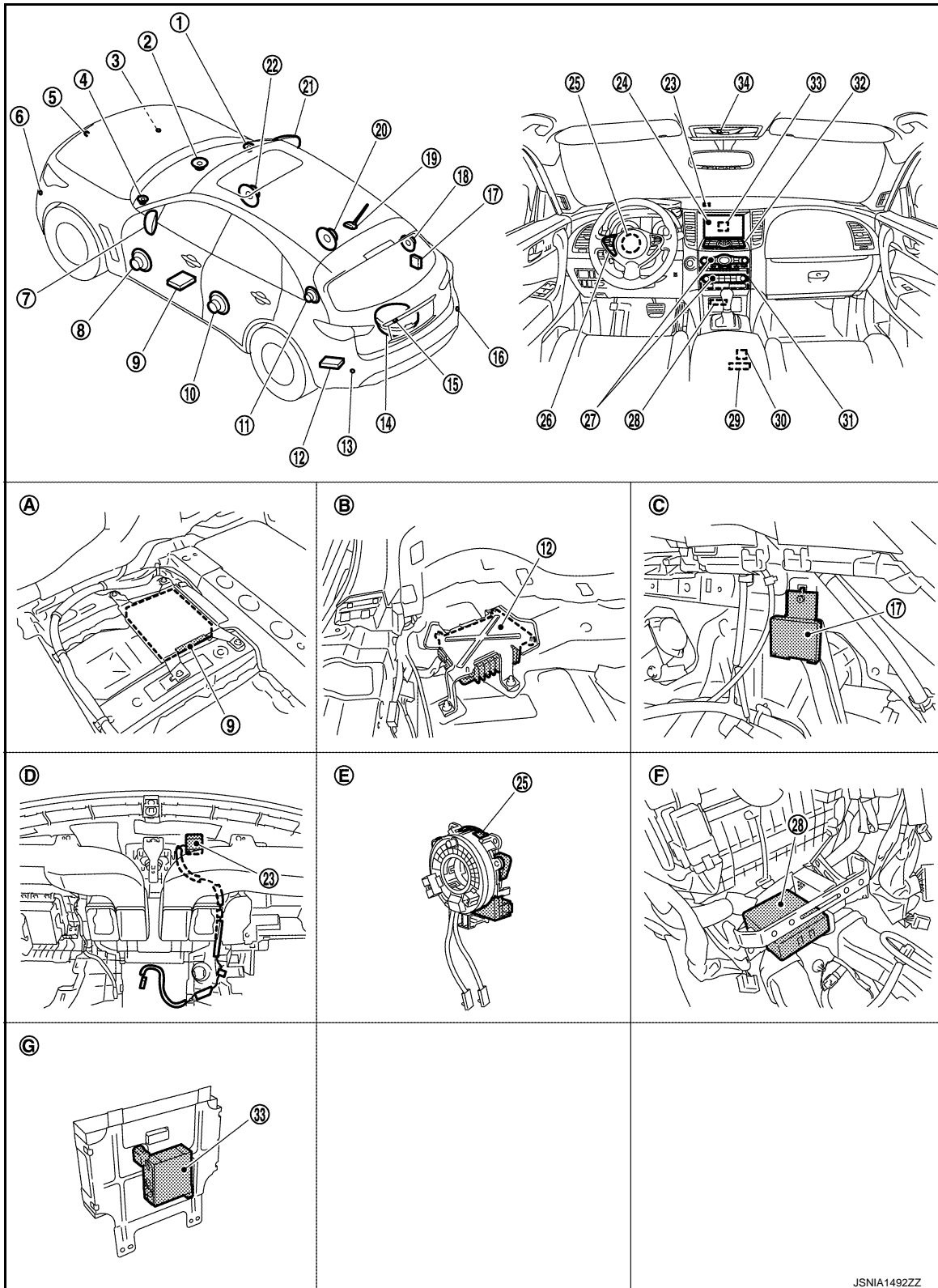
# MULTI AV SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## Component Parts Location

INFOID:000000003826544



- |                          |                          |                                     |
|--------------------------|--------------------------|-------------------------------------|
| 1. Front squawker RH     | 2. Center speaker        | 3. Corner sensor front RH           |
| 4. Front squawker LH     | 5. Front camera          | 6. Corner sensor front LH           |
| 7. Side camera LH        | 8. Front door speaker LH | 9. Around view monitor control unit |
| 10. Rear door speaker LH | 11. Rear squawker LH     | 12. BOSE amp.                       |

JSNIA1492ZZ



# MULTI AV SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (SINGLE MONITOR)]

- |   |                            |  |
|---|----------------------------|--|
| 13. Corner sensor rear LH                             | 14. Woofer                 | 15. Rear camera  |
| 16. Corner sensor rear RH                             | 17. Buzzer                 | 18. Rear squawker RH                                     |
| 19. Antenna base (antenna amp. and satellite antenna) | 20. Rear door speaker RH   | 21. Side camera RH and infrared LED (auxiliary lighting) |
| 22. Front door speaker RH                             | 23. GPS antenna            | 24. Front display unit                                   |
| 25. Steering angle sensor                             | 26. Steering switch        | 27. Preset switch  |
| 28. Sonar control unit (with around view monitor)     | 29. Auxiliary input jacks  | 30. iPod connector                                       |
| 31. AV control unit                                   | 32. Multifunction switch   | 33. iPod adapter   |
| 34. Microphone  |                            |  |
| A. Under front seat (LH side)                         | B. Luggage floor (LH side) | C. Luggage side RH                                       |
| D. Instrument panel rear side                         | E. Spiral cable part       | F. Console pocket assembly removed condition             |
| G. Rear view of the front display unit                |                            |  |

## Component Description

INFOID:000000003826545

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Update of map data is performed with the CONSULT-III and the applicable cable.</li> </ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> <li>Front display image is controlled by the serial communication from AV control unit.</li> <li>RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing).</li> <li>Auxiliary image signal is input from the auxiliary input jacks.</li> <li>Camera image signal input to around view monitor control unit.</li> <li>Synchronize signal (HP, VP) is output to AV control unit.</li> <li>Touch panel function can be operated for each system by touching a display directly.</li> </ul>
BOSE AMP.	<ul style="list-style-type: none"> <li>Inputs power (amp. ON) and sound signal from AV control unit, and outputs sound signal to woofer and each speaker.</li> <li>Input "Driver's Audio Stage" mode change signal from AV control unit.</li> <li>Woofer amp. ON signal is transmitted to woofer.</li> </ul>
FRONT DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>
REAR DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>
FRONT SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>
REAR SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>
CENTER SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>



# MULTI AV SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (SINGLE MONITOR)]

Part name	Description
WOOFER	<ul style="list-style-type: none"> <li>Inputs power (amp. ON) and sound signal from BOSE amp.</li> <li>Outputs low-frequency sound.</li> </ul>
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"> <li>Operation panel is equipped with the centralized switch where audio, auxiliary input and navigation operations are integrated.</li> <li>Connected with preset switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li> </ul>
PRESET SWITCH	<ul style="list-style-type: none"> <li>Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated.</li> <li>Connected with multifunction switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li> <li>The disk ejection operating signal is performed by hardwire.</li> </ul>
AROUND VIEW MONITOR CONTROL UNIT	<ul style="list-style-type: none"> <li>It supplies power to front camera, rear camera, and side camera. And then it superimposes the images from each camera and outputs them to front display unit.</li> <li>Superimpose the guiding line, predicted course line and sonar indicator to the camera image that outputs to front display unit.</li> <li>It performs the reception/transmission of communication signal with each camera.</li> <li>Inputs the sensor signal from steering angle sensor, and then controls the predicted course line.</li> <li>It transmits the sonar operation signal from sonar control unit and receives the sonar information from sonar control unit via AV communication.</li> <li>It transmits the information received/transmitted with sonar control unit via AV communication to AV control unit.</li> </ul>
FRONT CAMERA	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle front to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>
REAR CAMERA	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle rear to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>
SIDE CAMERA LH	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle LH to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>
SIDE CAMERA RH	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle RH to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>
INFRARED LED (AUXILIARY LIGHTING)	<ul style="list-style-type: none"> <li>It illuminates around the front RH wheel by the power supply from around view monitor control unit to improve nighttime visibility of Front-Side view.</li> <li>The infrared LED is an invisible light ray.</li> </ul>
STEERING SWITCH	<ul style="list-style-type: none"> <li>Operations for audio, hands-free phone, audio response and navigation, etc. are possible.</li> <li>Steering switch signal (operation signal) is output to AV control unit.</li> </ul>
STEERING ANGLE SENSOR	Steering signal necessary for predicted course line control is transmitted to around view monitor control unit.
MICROPHONE	<ul style="list-style-type: none"> <li>Used for hands-free phone operation and voice recognition.</li> <li>Mic signal is transmitted to AV control unit.</li> <li>Power (Mic VCC) is supplied from AV control unit.</li> </ul>
AUXILIARY INPUT JACKS	Image signal of auxiliary input is output to front display unit, and sound signal is output to AV control unit.
GPS ANTENNA	GPS signal is received and transmitted to AV control unit.



# MULTI AV SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Part name	Description
ANTENNA BASE	<p>A radio antenna base integrated with radio antenna amp. and satellite radio antenna is adopted.</p> <p>ANTENNA AMP.</p> <ul style="list-style-type: none"> <li>Radio signal received by rod antenna is amplified and transmitted to AV control unit.</li> <li>Power (antenna amp. ON signal) is supplied from AV control unit.</li> </ul> <p>SATELLITE RADIO ANTENNA</p> <ul style="list-style-type: none"> <li>Receives satellite radio waves and outputs it to AV control unit.</li> </ul>
iPod ADAPTER	<ul style="list-style-type: none"> <li>Inputs iPod sound signal from iPod®, and outputs iPod sound signal to AV control unit.</li> <li>Receiving/transmitting of iPod® operation signals are performed as follows: <ul style="list-style-type: none"> <li>between AV control unit and iPod adapter: AV communication.</li> <li>between iPod® and iPod adapter: serial communication.</li> </ul> </li> </ul>
SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)	<ul style="list-style-type: none"> <li>It is connected with around view monitor control unit via AV communication and receives the sonar operation signal from around view monitor control unit.</li> <li>It transmits the sonar detection status to around view monitor control unit via AV communication.</li> <li>It judges the warning level according to the signal from corner sensor and outputs the buzzer drive signal.</li> <li>Trouble diagnosis is supported with CONSULT-III (K-LINE).</li> </ul>
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to sonar control unit.
BUZZER	The warning buzzer outputs with the signal from sonar control unit.

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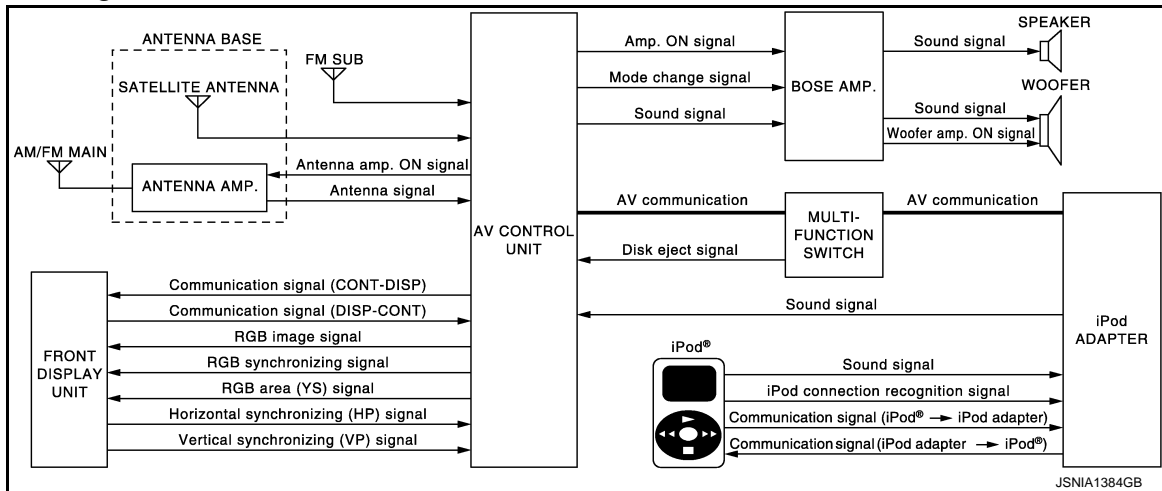
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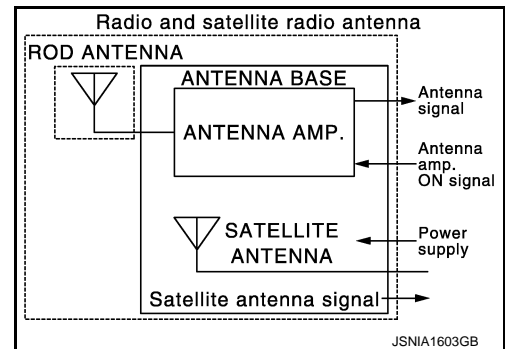
## AUDIO SYSTEM

### System Diagram



#### NOTE:

A radio antenna base integrated with radio antenna and satellite radio antenna is adopted.



### System Description

INFOID:000000003826547

The audio system is equipped with the following functions. Each function is operated by multifunction switch, preset switch, touch panel, steering switch or audio recognition. Operation status of AUDIO is indicated at display.

Function
AM/FM radio
Satellite radio
CD
Music Box (Hard Disk Drive)
CF (Compact Flash)
iPod connection
Driver's Audio Stage

### FUNCTION DESCRIPTION

#### Operating Signal

Audio system operation can be performed with multifunction switch, preset switch, steering switch, touch panel function or voice recognition function.

- Operating signal is transmitted to AV control unit with AV communication when it is operated by multifunction switch or preset switch. The disk ejection operating signal is performed by hardware.
- Operating signal is transmitted to AV control unit with steering switch signal when it is operated by steering switch.
- Refer to [AV-285, "System Description"](#) for explanation of voice recognition function and touch panel function.

#### Screen Display



# AUDIO SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (SINGLE MONITOR)]

- The display is switched by communication signal between front display unit and AV control unit.
- The image signal that displays operating status is performed by the RGB image signal, RGB area signal and RGB synchronizing signal.

### AM/FM Radio Mode

- AM/FM radio tuner is built into AV control unit.
- Audio signal is received by rod antenna, next it is amplified by antenna amp., and finally it is input into AV control unit. The FM sub antenna is installed on the back door window glass and AV control unit receives audio signal.
- Audio signal is input to BOSE amp. and BOSE amp. outputs to woofer and each speaker for AV control unit.

### Satellite Radio Mode

- Satellite radio tuner is built into AV control unit.
- Audio signal (satellite radio) is received by satellite antenna, and it is input to AV control unit. AV control unit outputs audio signal to BOSE amp. The signal is also outputted from BOSE amp. to both woofer and each speaker.

### CD Mode

- CD function is built into AV control unit.
- AV control unit outputs audio signals to BOSE amp. and BOSE amp. outputs to woofer and each speaker when CD is inserted to AV control unit.

### Music Box Mode

- Music CD data is stored on HDD that is built into AV control unit, and it can be played.
- AV control unit outputs music (audio signal) that is stored on HDD to BOSE amp., and BOSE amp. outputs to woofer and each speaker.

### CF Mode

- AV control unit has built in CF replay function.
- Music (audio signal) that is stored in CF outputs to BOSE amp. and BOSE amp. outputs to woofer and each speaker when CF is inserted into AV control unit.

### iPod Connection

- Connect iPod® and iPod adapter with wire harness and iPod adapter inputs iPod sound signal from iPod®. When iPod mode is selected, iPod adapter outputs iPod sound signal to AV control unit. AV control unit outputs sound signal to BOSE amp., and BOSE amp. output sound signal to woofer and each speaker.
- Receiving/transmitting of iPod® operation signals are performed as follows:
  - between AV control unit and iPod adapter: AV communication.
  - between iPod® and iPod adapter: serial communication.
- The iPod® connection status can be recognized whether iPod adapter receives iPod connection recognition signal.
- The iPod adapter can charge iPod®.

### Driver's Audio Stage Mode

- Driver's Audio Stage controls the speaker's output characteristics by BOSE amp. so that the driver seat is the center of sound.
- ON/OFF signals of Driver's Audio Stage are transmitted from AV control unit to BOSE amp. using mode change signal.

AV



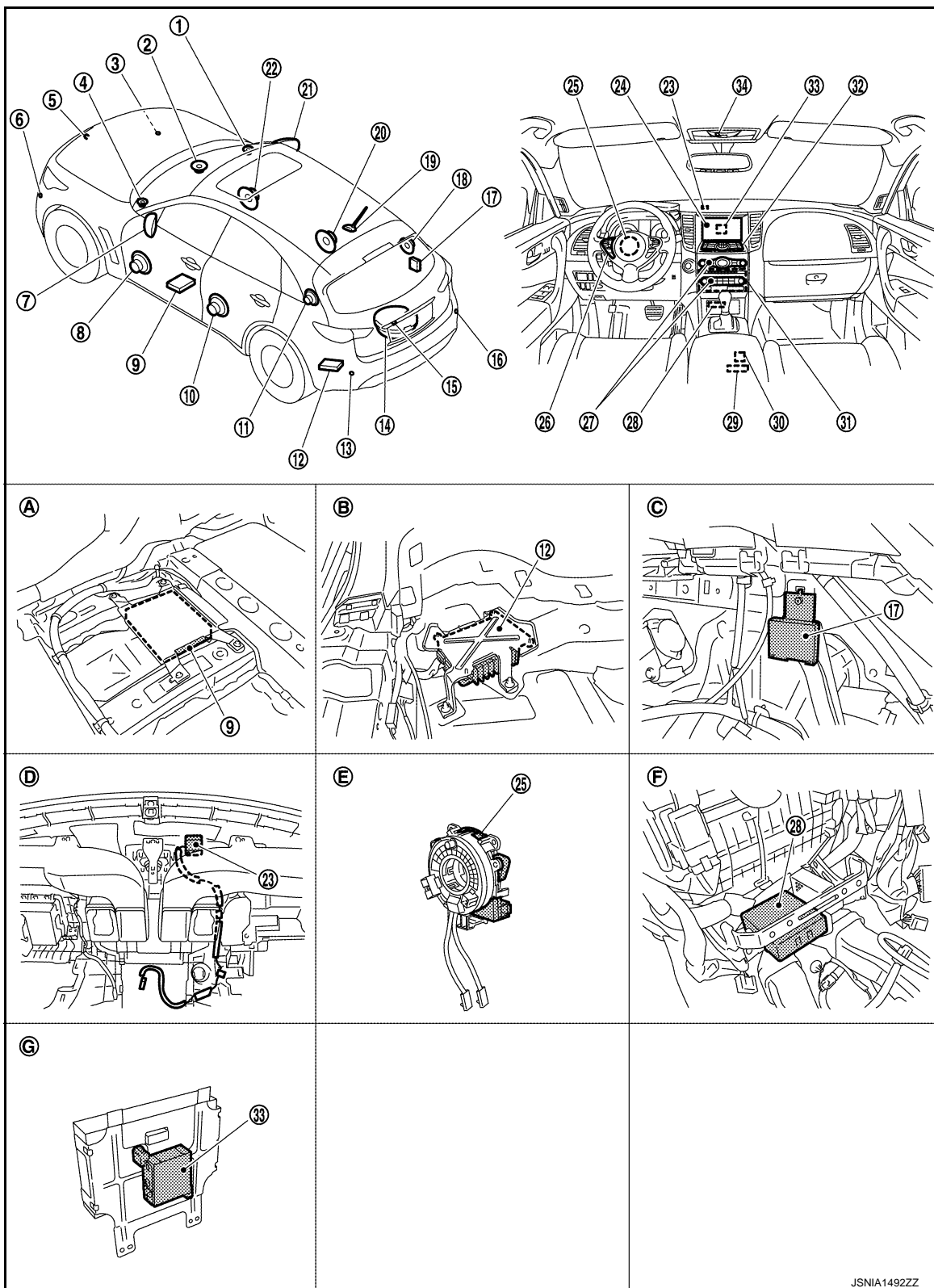
# AUDIO SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## Component Parts Location

INFOID:000000003931390



- |                          |                          |                                     |
|--------------------------|--------------------------|-------------------------------------|
| 1. Front squawker RH     | 2. Center speaker        | 3. Corner sensor front RH           |
| 4. Front squawker LH     | 5. Front camera          | 6. Corner sensor front LH           |
| 7. Side camera LH        | 8. Front door speaker LH | 9. Around view monitor control unit |
| 10. Rear door speaker LH | 11. Rear squawker LH     | 12. BOSE amp.                       |

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# AUDIO SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (SINGLE MONITOR)]

- |   |                            |  |
|---|----------------------------|--|
| 13. Corner sensor rear LH                             | 14. Woofer                 | 15. Rear camera  |
| 16. Corner sensor rear RH                             | 17. Buzzer                 | 18. Rear squawker RH                                     |
| 19. Antenna base (antenna amp. and satellite antenna) | 20. Rear door speaker RH   | 21. Side camera RH and infrared LED (auxiliary lighting) |
| 22. Front door speaker RH                             | 23. GPS antenna            | 24. Front display unit                                   |
| 25. Steering angle sensor                             | 26. Steering switch        | 27. Preset switch  |
| 28. Sonar control unit (with around view monitor)     | 29. Auxiliary input jacks  | 30. iPod connector                                       |
| 31. AV control unit                                   | 32. Multifunction switch   | 33. iPod adapter   |
| 34. Microphone  |                            |  |
| A. Under front seat (LH side)                         | B. Luggage floor (LH side) | C. Luggage side RH                                       |
| D. Instrument panel rear side                         | E. Spiral cable part       | F. Console pocket assembly removed condition             |
| G. Rear view of the front display unit                |                            |  |

## Component Description

INFOID:0000000003826549

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Receiving function of AM/FM/satellite radio, replaying function of CD, replaying/saving functions of music box (HDD), replaying function of CF and voice recognition function are integrated.</li> <li>Audio signal is output to BOSE amp. from each function.</li> </ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> <li>Front display image is controlled by the serial communication from AV control unit.</li> <li>RGB image signal (audio operation condition) is input from AV control unit.</li> <li>Touch panel function can be operated for each system by touching the display directly.</li> </ul>
iPod ADAPTER	<ul style="list-style-type: none"> <li>Inputs iPod sound signal from iPod®, and outputs iPod sound signal to AV control unit.</li> <li>Receiving/transmitting of iPod® operation signals are performed as follows: <ul style="list-style-type: none"> <li>between AV control unit and iPod adapter: AV communication.</li> <li>between iPod® and iPod adapter: serial communication.</li> </ul> </li> </ul>
BOSE AMP.	<ul style="list-style-type: none"> <li>Inputs power (amp. ON) and sound signal from AV control unit, and outputs sound signal to woofer and each speaker.</li> <li>Input "Driver's Audio Stage" mode change signal from AV control unit.</li> <li>Woofer amp. ON signal is transmitted to woofer.</li> </ul>
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"> <li>Each audio operation can be operated.</li> <li>Connected with preset switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li> </ul>
PRESET SWITCH	<ul style="list-style-type: none"> <li>Each audio operation can be operated.</li> <li>Connected with multifunction switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li> <li>The disk ejection operating signal is performed by hardwire.</li> </ul>
STEERING SWITCH	<ul style="list-style-type: none"> <li>Each audio operation can be operated.</li> <li>Steering switch signal (operation signal) is output to AV control unit.</li> </ul>
FRONT DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>
REAR DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>
FRONT SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>
REAR SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>
CENTER SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>



## AUDIO SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Part name	Description
WOOFER	<ul style="list-style-type: none"><li>• Inputs power (amp. ON) and sound signals from BOSE amp.</li><li>• Outputs low-frequency sound.</li></ul>
ANTENNA BASE	<p>A radio antenna base integrated with radio antenna amp. and satellite radio antenna is adopted.</p> <p>ANTENNA AMP.</p> <ul style="list-style-type: none"><li>• Radio signal received by rod antenna is amplified and transmitted to AV control unit.</li><li>• Power (antenna amp. ON signal) is supplied from AV control unit.</li></ul> <p>SATELLITE RADIO ANTENNA</p> <ul style="list-style-type: none"><li>• Receives satellite radio waves and outputs it to AV control unit.</li></ul>



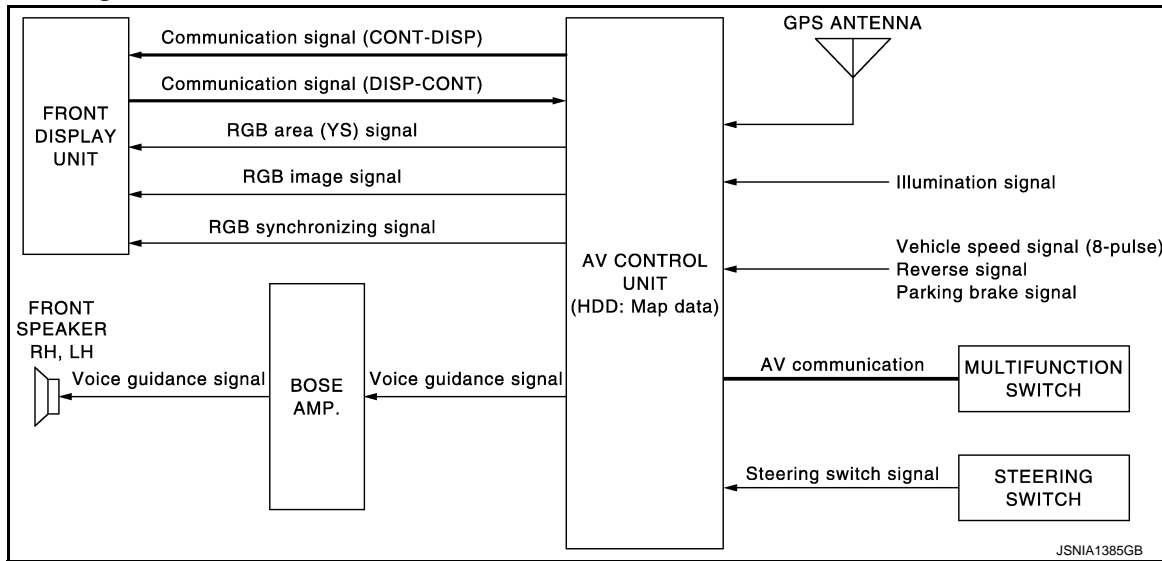
# NAVIGATION SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## NAVIGATION SYSTEM

### System Diagram



### System Description

INFOID:000000003826551

#### DESCRIPTION

- AV control unit controls navigation function while GPS tuner has built-in map data, GYRO (angle speed sensor), on the HDD (Hard Disk Drive).
- AV control unit inputs operation signals with communication signals, through display (touch panel), multi-function switch and steering switch.
- Guide sound is output to front speaker through BOSE amp. from AV control unit when operating navigation system.
- The vehicle position is calculated through the GYRO (angle speed sensor), vehicle sensor, signal from GPS satellite and map data stored on HDD (Hard Disk Drive), and transmits the map image signal (RGB image, RGB area, RGB synchronizing) to display.

#### POSITION DETECTION PRINCIPLE

The navigation system periodically calculates the current vehicle position according to the following three types of signals.

- Travel distance of the vehicle as determined by the vehicle speed sensor
- Vehicle turning angle determined by the gyroscope (angular speed sensor)
- The travel direction of the vehicle determined by the GPS antenna (GPS information)

The current position of the vehicle is then identified by comparing the calculated vehicle position with map data, which is stored in the HDD (Hard Disk Drive) (map-matching), and indicated on the screen with the current location mark. More accurate data is used by comparing position detection results from GPS to map-matching.

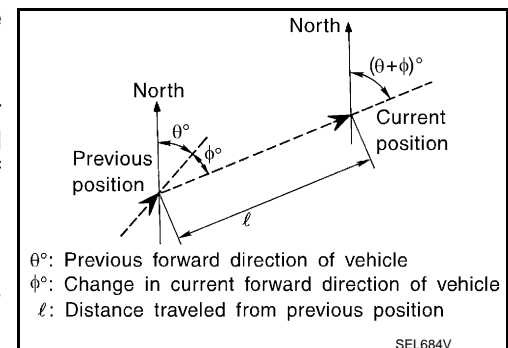
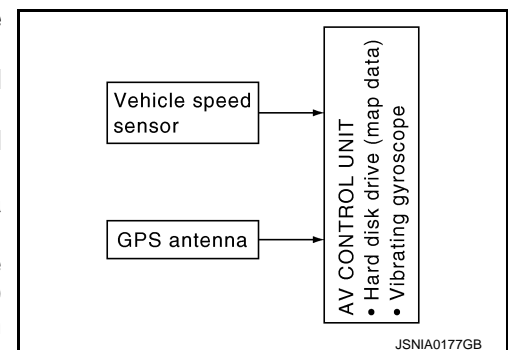
The current position is calculated by detecting the travel distance from the previous calculation point, and its direction change.

- Travel distance

The travel distance is generated from the vehicle speed sensor input signal. The automatic distance correction function is adopted for preventing a miss-detection of the travel distance because of tire wear etc.

- Travel direction

The gyroscope (angular velocity sensor) and GPS antenna (GPS information) detect a change in travel direction. Both have advantages and disadvantages as per the following descriptions.





# NAVIGATION SYSTEM

## < SYSTEM DESCRIPTION >

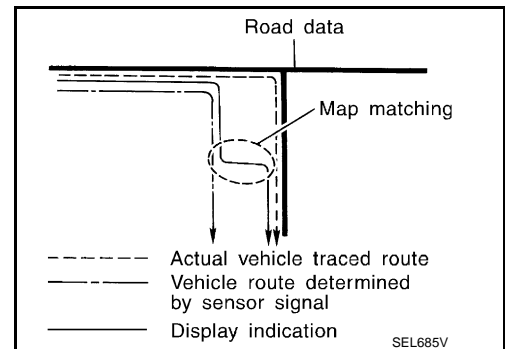
## [NAVIGATION (SINGLE MONITOR)]

Type	Advantage	Disadvantage
Gyroscope (angular velocity sensor)	The turning angle is precisely detected.	Errors are accumulated when driving a long distance without stopping.
GPS antenna (GPS information)	The travel direction (North/South/East/West) is detected.	The travel direction is not precisely detected when driving slowly.

Input signals are prioritized in each situation. However, this order of priority may change in accordance with more detailed travel conditions so that the travel direction is detected more accurately.

### MAP-MATCHING

Map-matching repositions the vehicle on the road map when a new location is judged to be more accurate. This is done by comparing the current vehicle position (calculated by the normal position detection method) from the map data stored in the HDD (Hard Disk Drive).

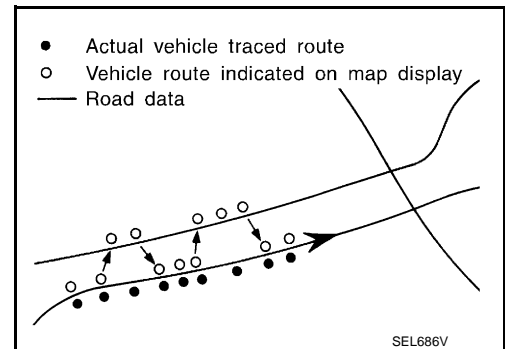


There is a possibility that the vehicle position may not be corrected in the following case, or when vehicle is driven over a certain distance or time in which GPS information is hard to receive. Manually correct the current location mark on the screen.

- In map-matching, several alternative routes are prepared and prioritized in addition to the road detected as currently being driven on.

Therefore, due to errors in the distance and/or direction, an incorrect road may be prioritized, and the current location mark may be repositioned to the incorrect road.

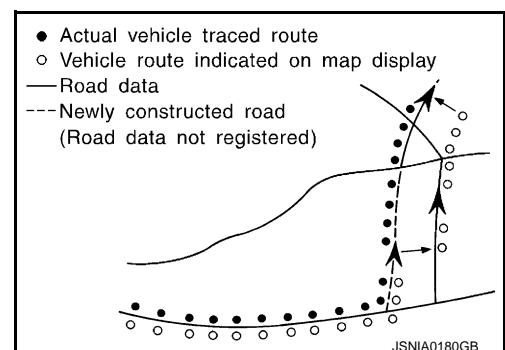
If two roads are running parallel, they are of the same priority. Therefore, the current location mark may appear on either of them alternately, depending on steering wheel movement and road configuration, etc.



- Map-matching does not function correctly when road that the vehicle is driving on new, etc, or not recorded in the map data. Also, map-matching does not function correctly when road patterns stored in the map data and the actual road pattern are different due to repair, etc.

Therefore, the map-matching function judges an other road as currently being driven on road if the road is not on the map, and displays the current location mark on it. Later, the current location mark may be repositioned if the correct road is detected.

- Effective range for comparing the vehicle position and travel direction calculated by the distance and direction with the road data is limited. Therefore, correction by map-matching is not possible when there is an excessive gap between current vehicle position and the position on the map.



### GPS (GLOBAL POSITIONING SYSTEM)



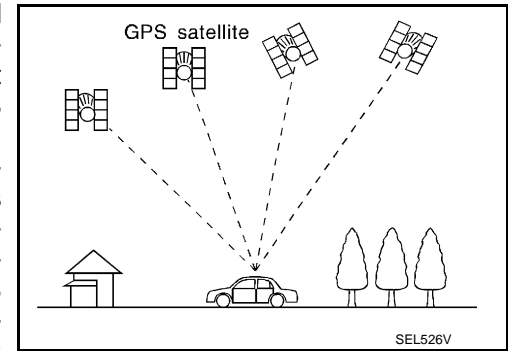
# NAVIGATION SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (SINGLE MONITOR)]

GPS (Global Positioning System) is developed for and is controlled by the US Department of Defense. The system utilizes GPS satellites (NAVSTAR), transmitting out radio waves while flying on an orbit around the earth at an altitude of approximately 21,000 km (13,048 mile).

The receiver calculates the travel position in three dimensions (latitude/longitude/altitude) according to the time lag of the radio waves that four or more GPS satellites transmit (three-dimensional positioning). The GPS receiver calculates the travel position in two dimensions (latitude/longitude) with the previous altitude data if the GPS receiver receives only three radio waves (two-dimensional positioning). GPS position correction is not performed while the vehicle is stopped.



Accuracy of the GPS will deteriorate under the following conditions:

- In two-dimensional positioning, GPS accuracy will deteriorate when altitude of the vehicle position changes.
- The position of GPS satellite affects GPS detection precision. The position detection may not be precisely performed.
- The position detection is not performed if GPS receiver does not receive radio waves from GPS satellites. (Inside a tunnel, parking in a building, under an elevated highway etc.) GPS receiver may not receive radio waves from GPS satellites if any object is placed on the GPS antenna.

### NOTE:

- The detection result has an error of approximately 10 m (32.8 ft) even with a high-precision three dimensional positioning.
- There may be cases when the accuracy is lowered and radio waves are stopped intentionally because the GPS satellite signal is controlled by the US trace control center.

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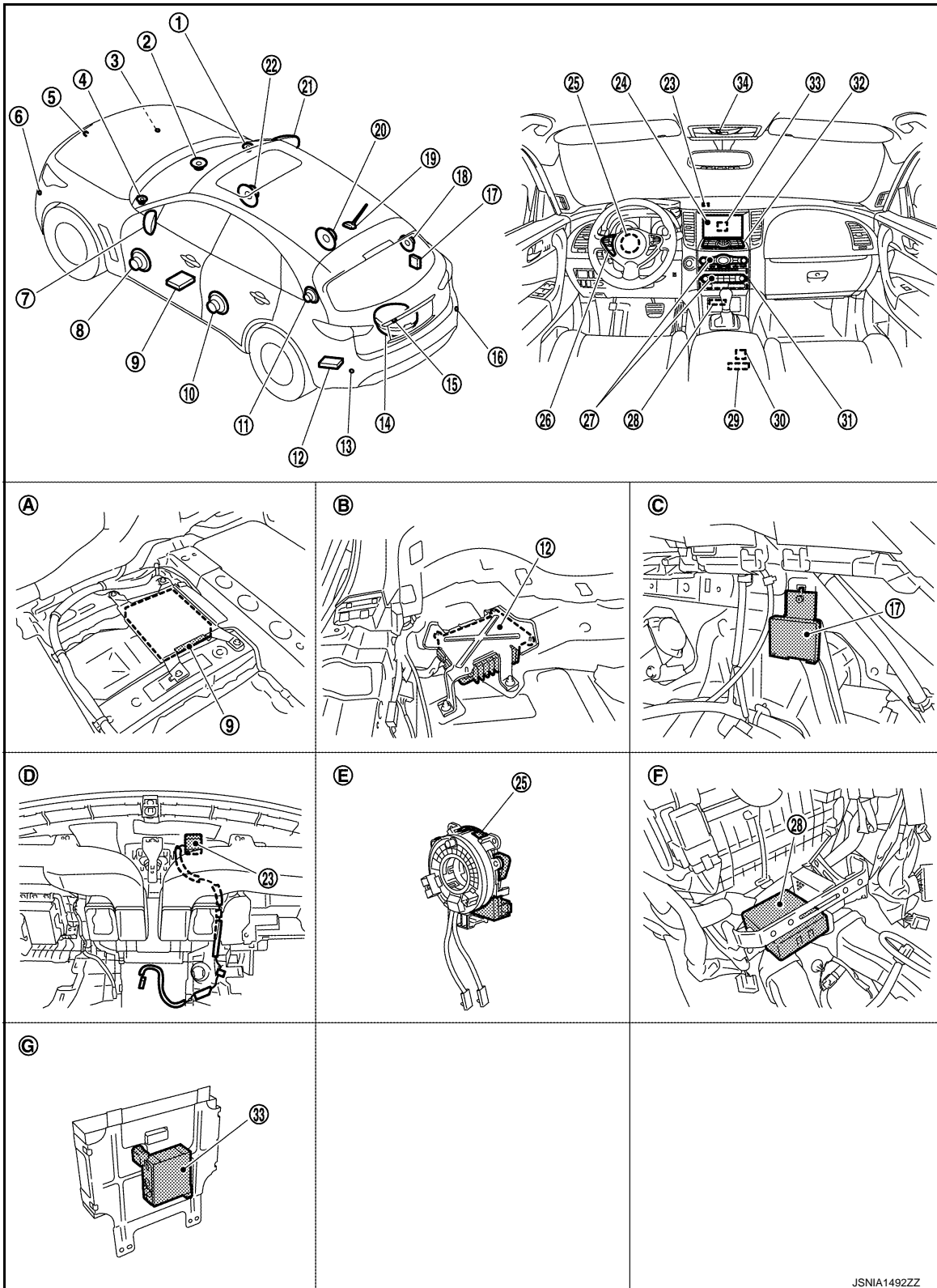
# NAVIGATION SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## Component Parts Location

INFOID:000000003931391



- |                          |                          |                                     |
|--------------------------|--------------------------|-------------------------------------|
| 1. Front squawker RH     | 2. Center speaker        | 3. Corner sensor front RH           |
| 4. Front squawker LH     | 5. Front camera          | 6. Corner sensor front LH           |
| 7. Side camera LH        | 8. Front door speaker LH | 9. Around view monitor control unit |
| 10. Rear door speaker LH | 11. Rear squawker LH     | 12. BOSE amp.                       |

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# NAVIGATION SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (SINGLE MONITOR)]

- |   |                            |  |
|---|----------------------------|--|
| 13. Corner sensor rear LH                             | 14. Woofer                 | 15. Rear camera  |
| 16. Corner sensor rear RH                             | 17. Buzzer                 | 18. Rear squawker RH                                     |
| 19. Antenna base (antenna amp. and satellite antenna) | 20. Rear door speaker RH   | 21. Side camera RH and infrared LED (auxiliary lighting) |
| 22. Front door speaker RH                             | 23. GPS antenna            | 24. Front display unit                                   |
| 25. Steering angle sensor                             | 26. Steering switch        | 27. Preset switch  |
| 28. Sonar control unit (with around view monitor)     | 29. Auxiliary input jacks  | 30. iPod connector                                       |
| 31. AV control unit                                   | 32. Multifunction switch   | 33. iPod adapter   |
| 34. Microphone  |                            |  |
| A. Under front seat (LH side)                         | B. Luggage floor (LH side) | C. Luggage side RH                                       |
| D. Instrument panel rear side                         | E. Spiral cable part       | F. Console pocket assembly removed condition             |
| G. Rear view of the front display unit                |                            |  |

## Component Description

INFOID:0000000003826553

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>It is the master unit that controls each operation of the Navigation system.</li> <li>The HDD (Hard Disk Drive) is built in, and the map data is stored in HDD.</li> <li>The RGB image signal (map information) is output to front display unit.</li> <li>The voice guidance signal is output to BOSE amp.</li> </ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> <li>RGB image signal (map information) is input from AV control unit, and it is indicated on front display unit.</li> <li>Each operation of navigation can be performed by the touch panel function.</li> </ul>
BOSE AMP.	Voice guidance signal is input from AV control unit, and it is output to front LH/RH speakers.
FRONT DOOR SPEAKER	Voice guidance signal from BOSE amp. is output.
FRONT SQUAWKER	
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"> <li>Each operation of navigation can be performed.</li> <li>Connected with preset switch via cables and operation signal is transmitted to AV control unit via AV communication.</li> </ul>
STEERING SWITCH	<ul style="list-style-type: none"> <li>Each operation of navigation, etc. can be performed.</li> <li>Switch operating signal is output to AV control unit.</li> </ul>
GPS ANTENNA	GPS signal is received and is output to AV control unit.

AV



# AROUND VIEW MONITOR SYSTEM

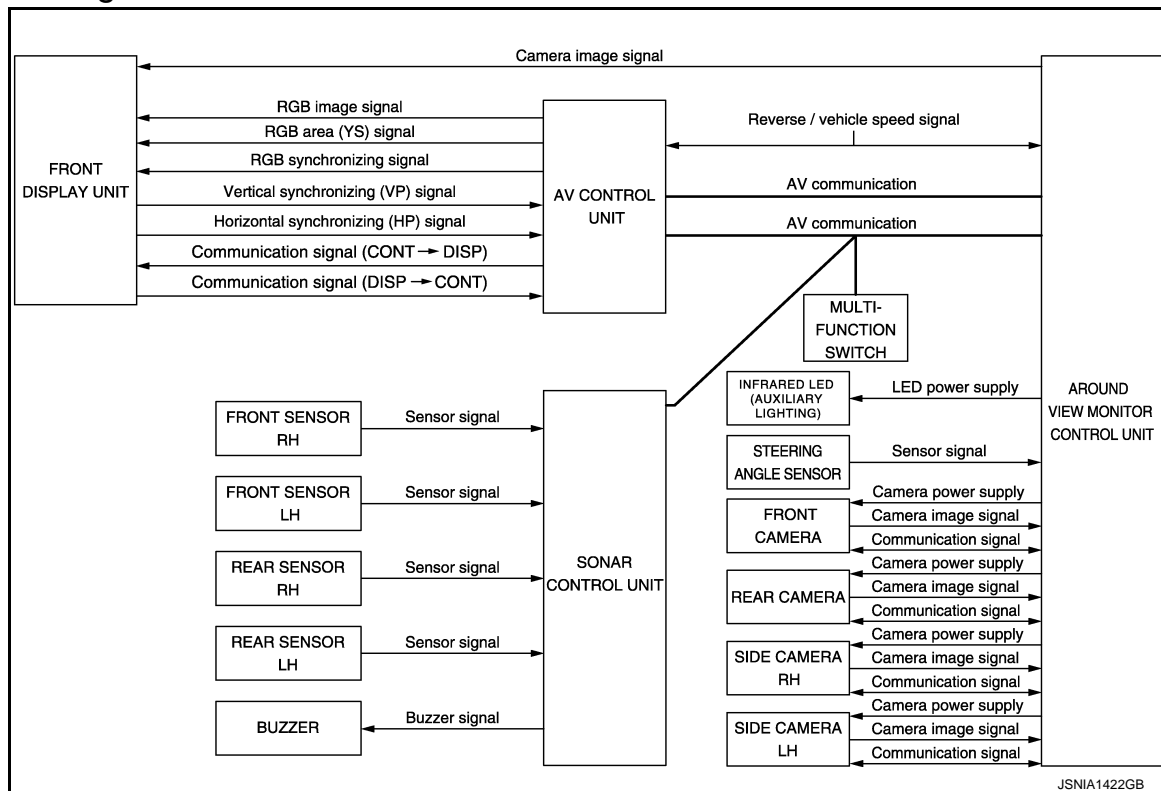
< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## AROUND VIEW MONITOR SYSTEM

### System Diagram

INFOID:000000003826562



JSNIA1422GB

### System Description

INFOID:000000003826563

- This system is equipped with wide-angle high-resolution cameras on the front and rear of the vehicle and on both right and left door mirrors. The images from front view, rear view, front-side view (RH side), and birds-eye view that shows the view from the top of the vehicle are displayed to monitor the vehicle surroundings.
- Around view monitor control unit cuts out and expands the image received from each camera to create each view.
- The sonar indicator is displayed on display (superimposed on the camera image) in combination with the camera assistance sonar system to warn of the approach of an obstacle.
- In front view and rear view, the vehicle width, distance lines and predicted course lines are superimposed and displayed. In front-side view, the vehicle distance guiding line and vehicle width guiding line are displayed.
- The Birds-Eye view converts the images from 4 cameras into the overhead view and displays the status of the vehicle on display. The vehicle icon and sonar indicator that are displayed on the Birds-Eye view display are rendered by around view monitor control unit.

### AROUND VIEW MONITOR SCREEN

- Around view monitor combines and displays the travel direction view and "Birds-Eye view", "Front-Side view", and then it displays the sonar indicator on the "Birds-Eye view", "Front-Side view".
- AV control unit renders the "Change View", "BEEP" switch, view icon, warning message on display.

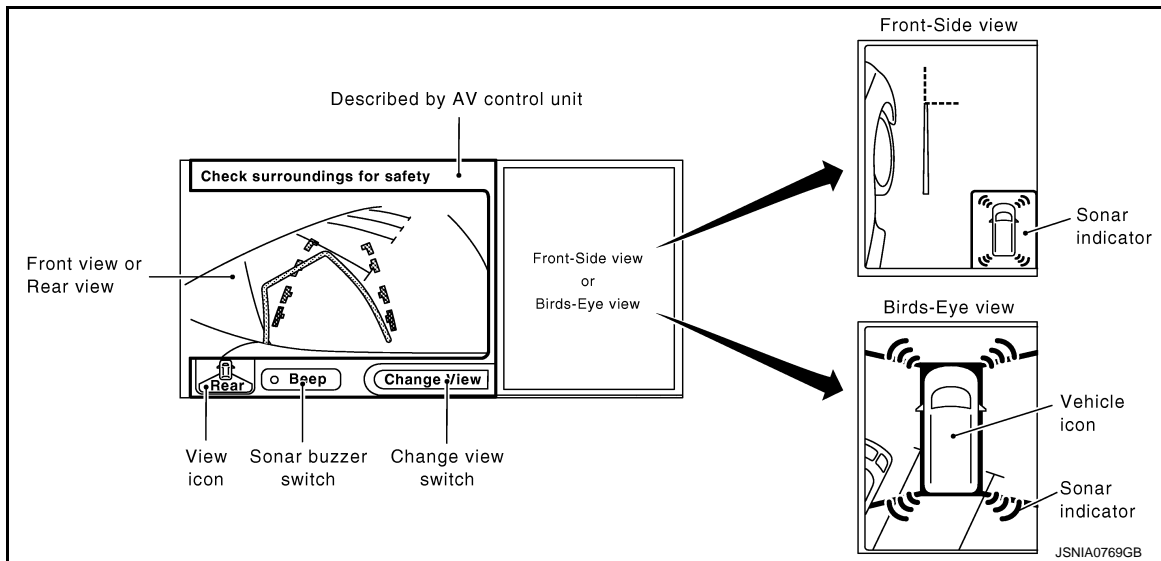


# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Screen constitution



## OPERATION DESCRIPTION

- Around view monitor operates by pressing the “CAMERA” switch of multifunction switch and shifting the selector switch to the reverse position.
- When the selector lever is in any position other than the reverse position, the screen is switched to the around view monitor by pressing the “CAMERA” switch.
- The screen is switched to the around view monitor by shifting the selector lever to the reverse position.
- In the around view monitor, Birds-Eye view and Front-side view can be switched by pressing the “CAMERA” switch or the touch switch of display.
- The “Front-Side and Front screen” are displayed as a priority when turning “Default to Front-Side View” ON.
- The around view monitor is cancelled 3 minutes after pressing the “CAMERA” switch, and then the screen returns to the screen before displaying the around view monitor when selector lever is in a position other than the “R” position.
- ON/OFF setting of sonar indicator display on the Front-Side view screen can be performed.
- In the Birds-Eye view, the invisible area is displayed on the image to specify the boundary of the 4 cameras. The invisible area is displayed in yellow in the Birds-Eye view after turning the ignition switch ON.
- The sonar (both of buzzer and indicator) operates only when the camera screen is displayed.

AV

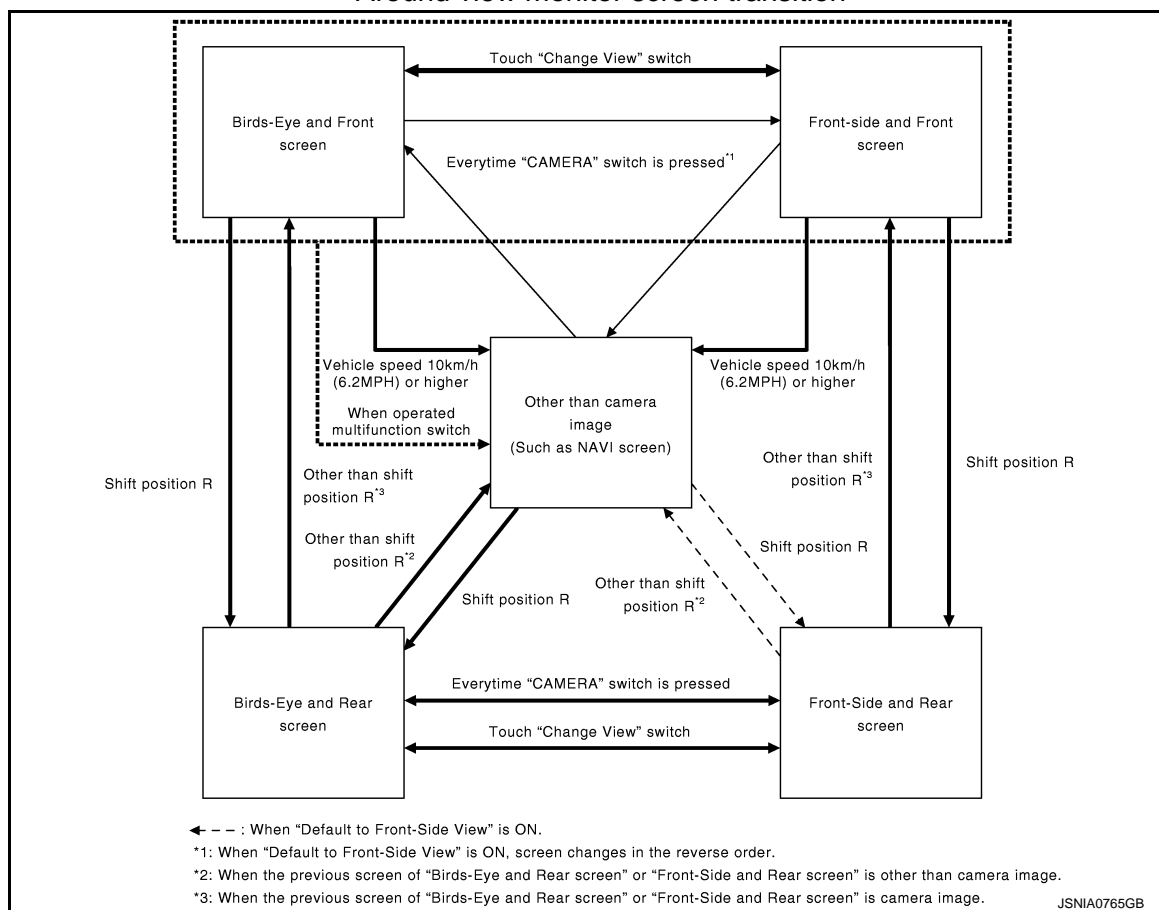


# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Around view monitor screen transition



## FRONT VIEW

- The front view image is from the front camera.
- When the selector lever is in any position other than the reverse position, the front view is displayed by pressing the "CAMERA" switch. It improves the visibility of obstacles in front of the vehicle and helps driving by the images displayed from Birds-Eye view and Front-Side view.
- Display the vehicle width guiding line and vehicle distance guiding line in front view and display the predicted course line according to the steering angle.
- If the steering angle is within approximately 90 degrees, the predicted course lines on the left/right side are displayed. If the steering angle is exceeding approximately 90 degrees, only the predicted course line on the outside (in the opposite side of steering direction) is displayed.
- Around view monitor control unit controls the direction and distance of the predicted course line according to the sensor signal from steering angle sensor.

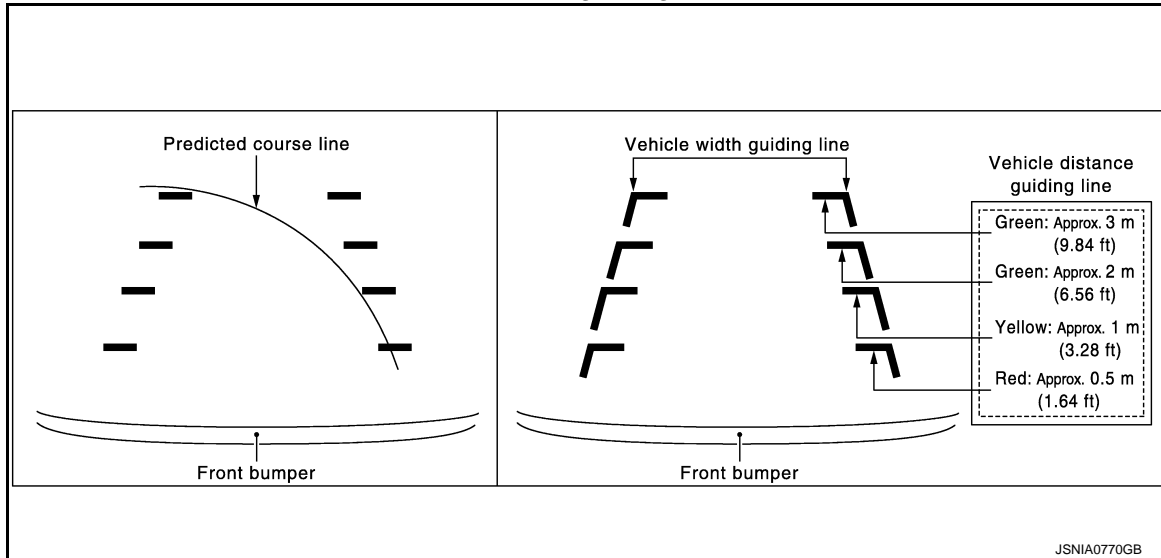


# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

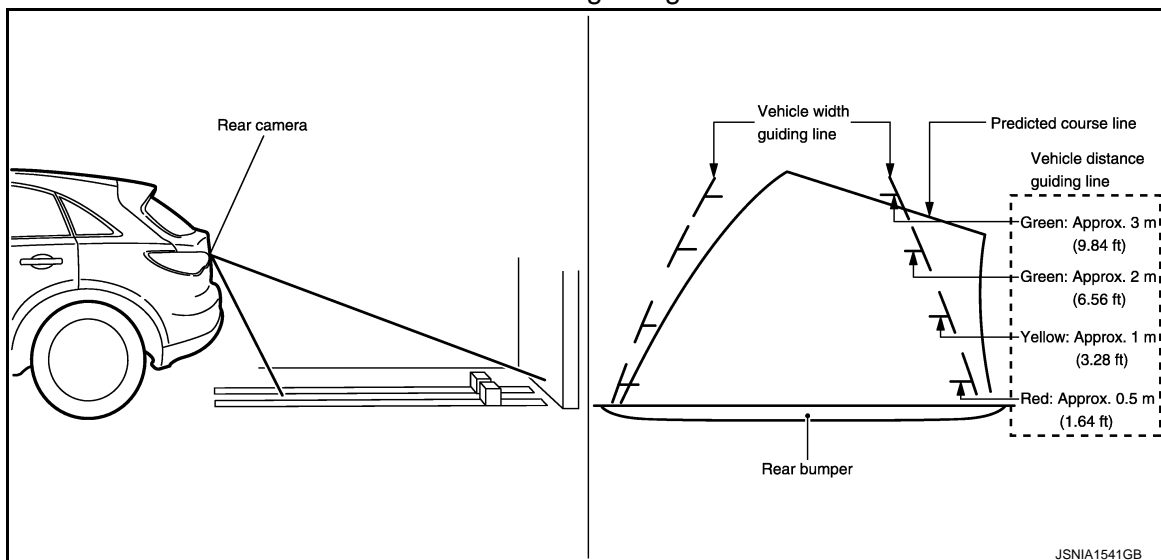
Front view guiding lines



## REAR VIEW

- The rear view image is from the rear camera.
- When the selector lever is in the reverse position, the rear view is displayed. Backing and parking are improved by the images from Birds-Eye view and Front-Side view.
- Display the vehicle width guiding line and vehicle distance guiding line in Rear view and display the predicted course line according to the steering angle.
- The predicted course line is not displayed at the steering neutral position. The predicted course line is displayed and the vehicle width guiding line is not displayed by turning the steering wheel.
- Around view monitor control unit controls the direction and distance of predicted course line according to the sensor signal from steering angle sensor.

Rear view guiding lines



## FRONT-SIDE VIEW

- The front-side view image is from the side camera RH.
- In Front-Side view, display the vehicle distance guiding line and vehicle width guiding line.
- The infrared LED illumination is installed on the door mirror RH to illuminate around the front wheels.

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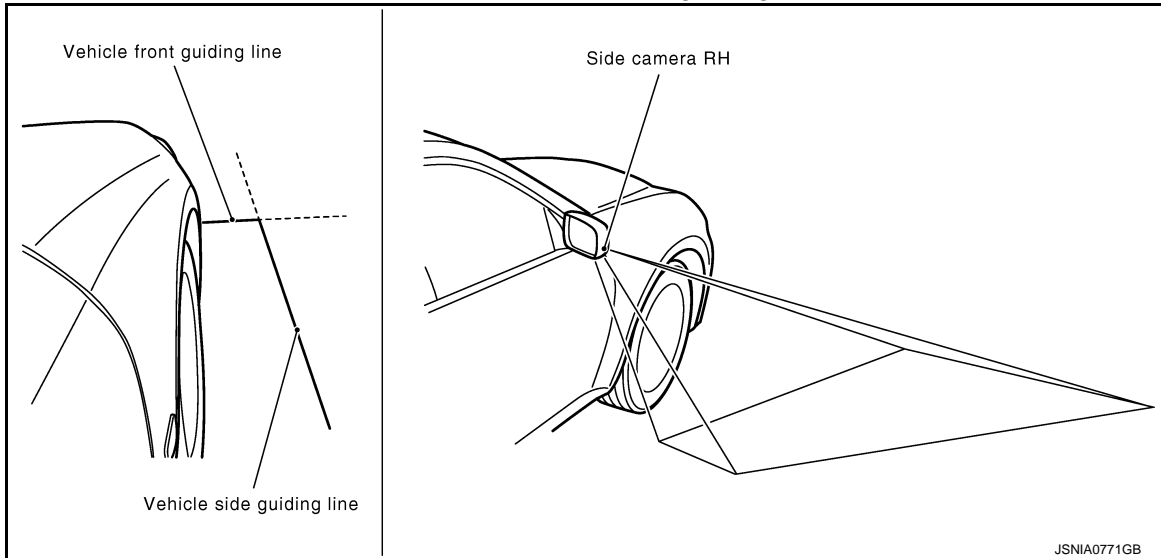


# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

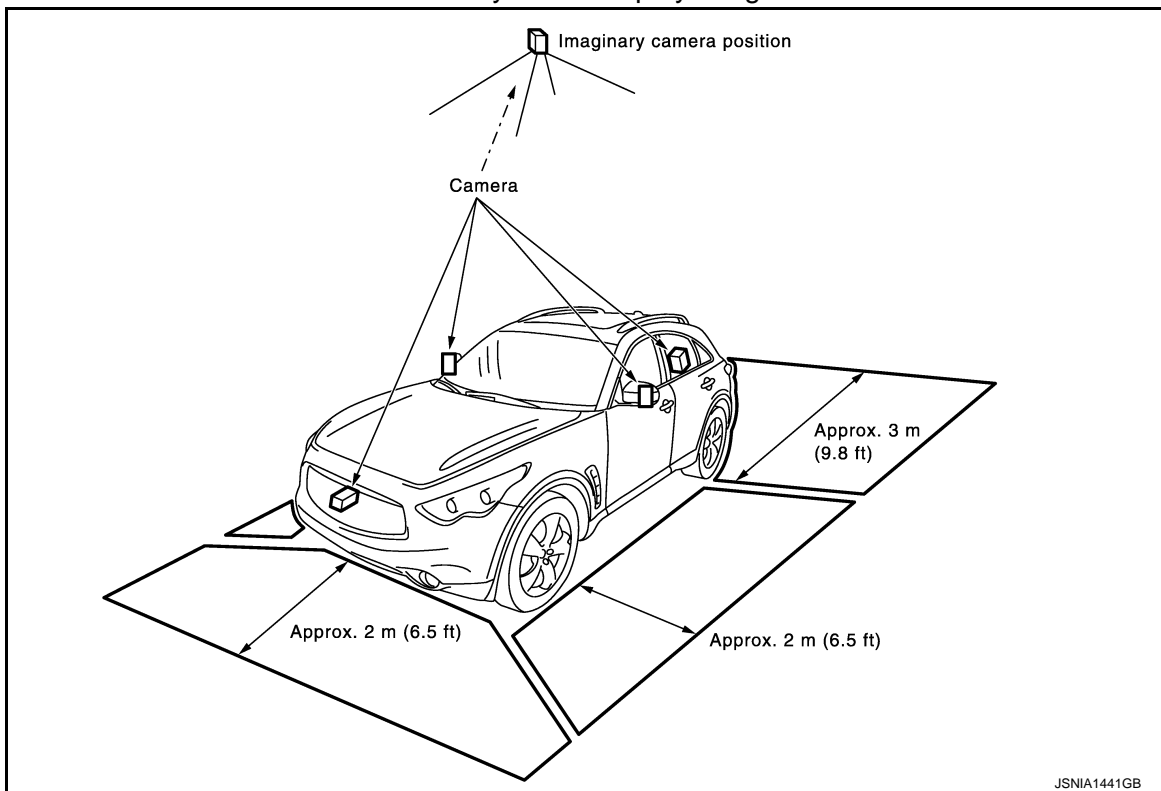
Front-side view area and guiding line



## BIRDS-EYE VIEW

- The image from the 4 cameras is cut out and converted into the overhead view, and the surroundings of the vehicle is displayed in birds-eye view.
- In Birds-Eye view, the invisible area is displayed on the image to specify the boundary of the 4 cameras.
- The invisible area is displayed in yellow in the Birds-Eye view after turning the ignition switch ON as an information for the user. (OFF setting can be performed)

Birds-Eye view display image

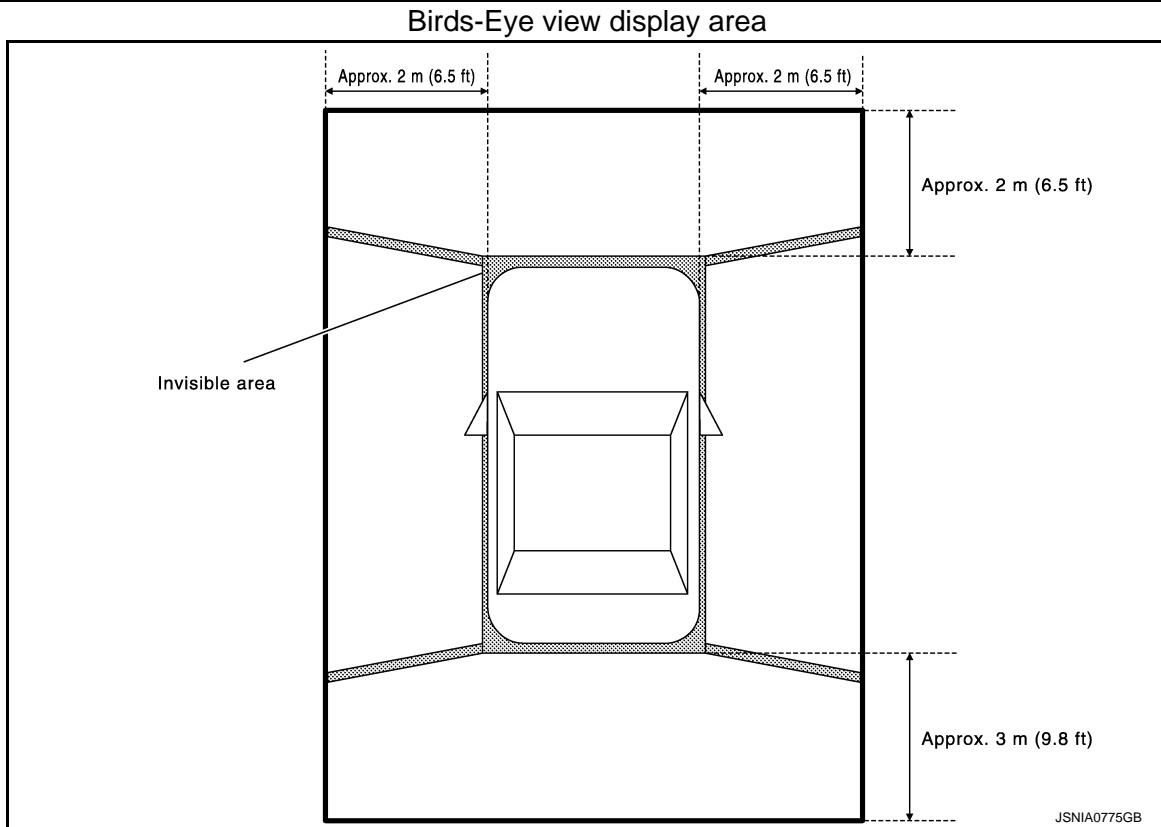




# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]



## CAMERA IMAGE OPERATION PRINCIPLE

- If the information writing to around view monitor control unit and the information from the camera are not matched, the applicable camera position is indicated as an error on the Birds-Eye view display. (Calibration operation is necessary when replacing each camera or when replacing around view monitor control unit.)
- Around view monitor control unit receives the camera switch signal from AV control unit via AV communication by pressing the "CAMERA" switch of multifunction switch.
- Around view monitor control unit that receives the camera switch signal supplies the power to each camera and inputs the camera image from each camera.
- When the selector lever is in the reverse position, around view monitor control unit receives the reverse signal from AV control unit via AV communication, supplies the power to each camera, and inputs the camera image from each camera.
- Around view monitor control unit that receives the camera image signal from each camera cuts out the required screen for each view, superimposes the camera image, vehicle icon, guiding lines, sonar indicator, and outputs them to the display unit.

## PREDICTED COURSE LINE OPERATION PRINCIPLE

Detection of steering rotation direction

Around view monitor control unit detects the rotation direction of steering according to the phase difference of two pairs of pulse signals (sensor signal 1 and sensor signal 2) input from steering angle sensor.

Detection of steering neutral position

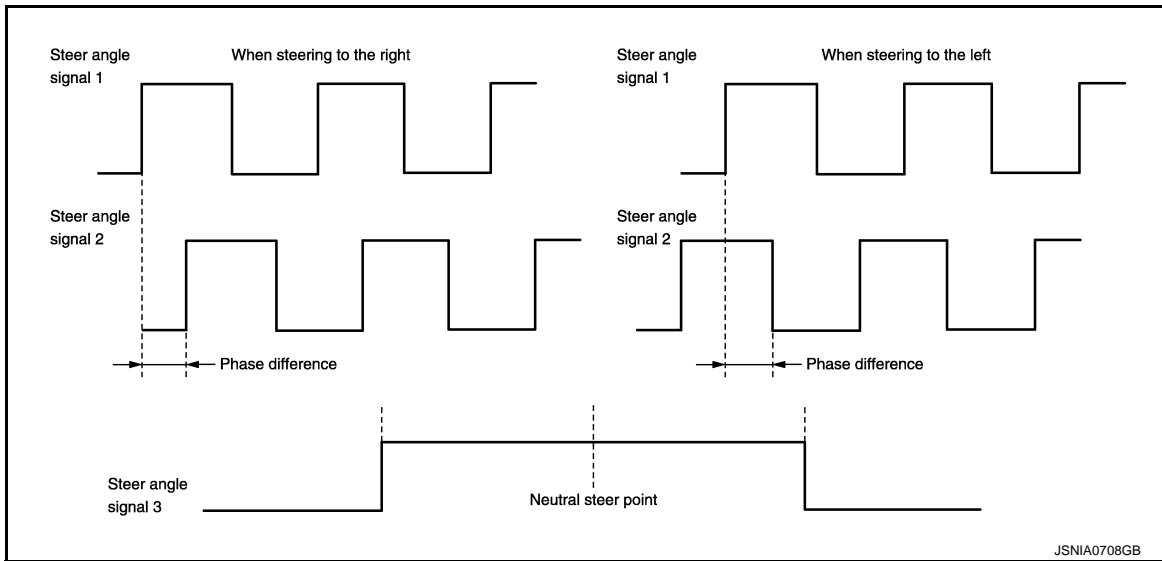
The sensor signal 3 input from the steering angle sensor is generated at 1 pulse per 1 rotation of the steering wheel. Around view monitor control unit detects the steering neutral position from this pulse.



# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]



## Correction of steering neutral position

Around view monitor control unit corrects the steering neutral position during driving according to the vehicle speed signal and steering angle sensor signal.



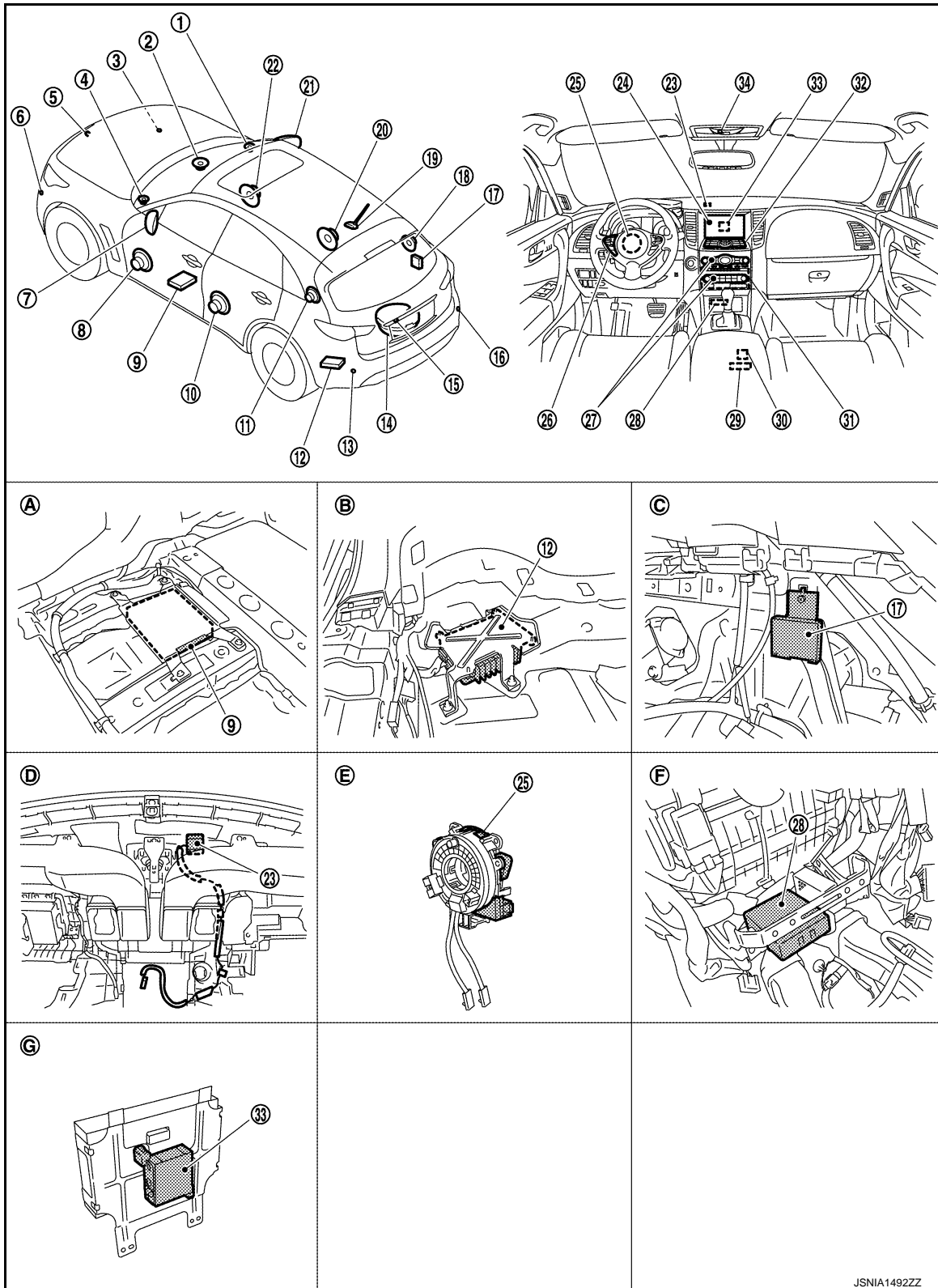
# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## Component Parts Location

INFOID:000000003931392



- |                          |                          |                                     |
|--------------------------|--------------------------|-------------------------------------|
| 1. Front squawker RH     | 2. Center speaker        | 3. Corner sensor front RH           |
| 4. Front squawker LH     | 5. Front camera          | 6. Corner sensor front LH           |
| 7. Side camera LH        | 8. Front door speaker LH | 9. Around view monitor control unit |
| 10. Rear door speaker LH | 11. Rear squawker LH     | 12. BOSE amp.                       |



# AROUND VIEW MONITOR SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (SINGLE MONITOR)]

- |   |                            |  |
|---|----------------------------|--|
| 13. Corner sensor rear LH                             | 14. Woofer                 | 15. Rear camera  |
| 16. Corner sensor rear RH                             | 17. Buzzer                 | 18. Rear squawker RH                                     |
| 19. Antenna base (antenna amp. and satellite antenna) | 20. Rear door speaker RH   | 21. Side camera RH and infrared LED (auxiliary lighting) |
| 22. Front door speaker RH                             | 23. GPS antenna            | 24. Front display unit                                   |
| 25. Steering angle sensor                             | 26. Steering switch        | 27. Preset switch  |
| 28. Sonar control unit (with around view monitor)     | 29. Auxiliary input jacks  | 30. iPod connector                                       |
| 31. AV control unit                                   | 32. Multifunction switch   | 33. iPod adapter   |
| 34. Microphone  |                            |  |
| A. Under front seat (LH side)                         | B. Luggage floor (LH side) | C. Luggage side RH                                       |
| D. Instrument panel rear side                         | E. Spiral cable part       | F. Console pocket assembly removed condition             |
| G. Rear view of the front display unit                |                            |  |

## Component Description

INFOID:000000003826565

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Image on display is switched to around view monitor by serial communication between AV control unit and front display unit.</li> <li>Warning displayed in around view monitor image is illustrated.</li> </ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> <li>Camera image signal is transmitted from around view monitor control unit, and RGB image signal for warning display is transmitted from AV control unit.</li> <li>Around view monitor image is switched by serial communication between AV control unit and front display unit.</li> </ul>
MULTIFUNCTION SWITCH	It transmits the CAMERA switch signal via AV communication to AV control unit.
AROUND VIEW MONITOR CONTROL UNIT	<ul style="list-style-type: none"> <li>It supplies power to front camera, rear camera, and side camera, superimposes the images from each camera, and then outputs them to front display unit.</li> <li>It receives the CAMERA switch signal and reverse signal from AV control unit via AV communication.</li> <li>Superimpose the guiding line, predicted course line and sonar indicator to the camera image that outputs to front display unit.</li> <li>It performs the reception/transmission of communication signal with each camera.</li> <li>Input the sensor signal from steering angle sensor, and then control the predicted course line.</li> <li>It transmits the information received/transmitted with sonar control unit via AV communication to AV control unit.</li> </ul>
FRONT CAMERA	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle front to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>
REAR CAMERA	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle rear to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>
SIDE CAMERA LH	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle LH to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>
SIDE CAMERA RH	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle RH to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>
INFRARED LED (AUXILIARY LIGHTING)	It illuminates around the front RH wheel by the power supply from around view monitor control unit to improve nighttime visibility of Front-Side view.



## AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Part name	Description
SONAR CONTROL UNIT	<ul style="list-style-type: none"><li>It is connected with around view monitor control unit via AV communication and receives the sonar operation signal from around view monitor control unit.</li><li>It transmits the sonar detection status to around view monitor control unit via AV communication.</li></ul>
STEERING ANGLE SENSOR	Steering signal necessary for predicted course line control is transmitted to around view monitor control unit.

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# CAMERA ASSISTANCE SONAR SYSTEM

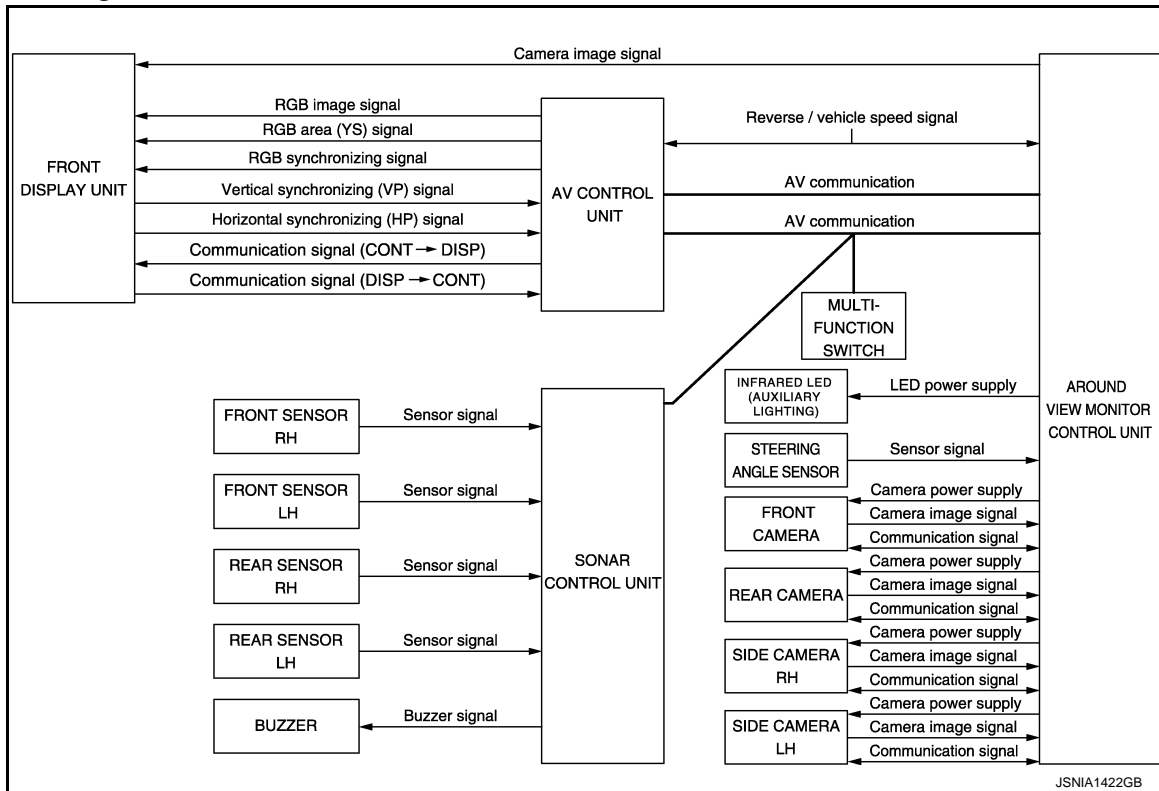
< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## CAMERA ASSISTANCE SONAR SYSTEM

### System Diagram

INFOID:000000003826566



### System Description

INFOID:000000003826567

#### DESCRIPTION

- Install the corner sensor on the front bumper and rear bumper. It detects the obstacles around the vehicle when the around view monitor is displayed. It warns of the approach to the obstacles with the buzzer and indicator in the display linked with the around view monitor system.
- It displays the distance between the bumper and obstacle with the color of sonar indicator in the display and the blinking cycle of indicator in 3 stages.
- The buzzer warns of the distance to the obstacles with the cycle in 3 stages.

#### SYSTEM OPERATION DESCRIPTION

- Around view monitor control unit transmits the sonar operation signal via AV communication to sonar control unit to control the operation of sonar indicator and sonar buzzer.
- Sonar control unit that receives the sonar operation signal from around view monitor control unit transmits the detection signal and detection distance signal according to the signal from corner sensor via AV communication to around view monitor control unit. around view monitor control unit operates the applicable sonar indicator.
- Sonar control unit that receives the sonar operation signal from around view monitor control unit outputs the buzzer signal to other buzzers based on the detection distance signal from corner sensor to operate the buzzer.
- Sonar control unit has the diagnosis function. It can detect the corner sensor malfunction or sensor harness open circuit. It transmits the diagnosis results to around view monitor control unit and always displays the sonar indicator in red to inform the user.

#### OBSTACLE DETECTION DISTANCE

- Sonar control unit changes the outputs of the sonar indicator and warning buzzer in 3 stages according to the obstacle detection distance from the corner sensor.
- The sonar control unit can change the setting of obstacle detection distance in 4 stages.

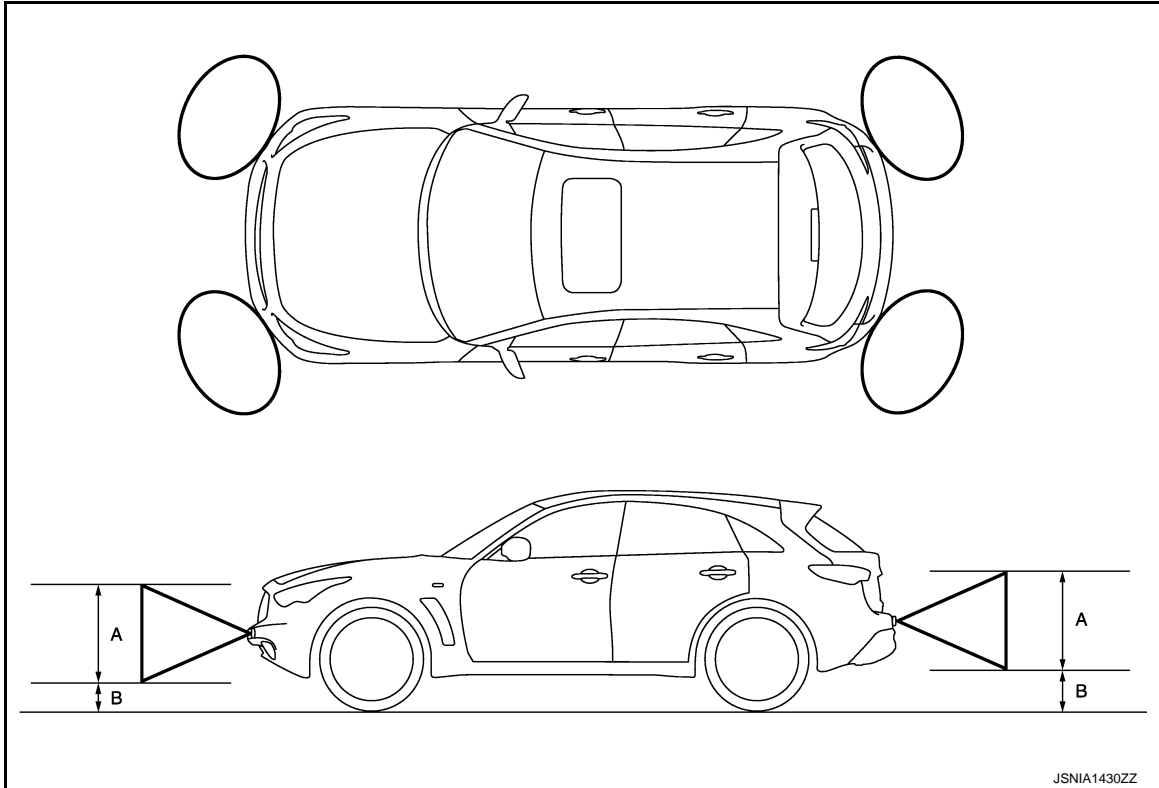


# CAMERA ASSISTANCE SONAR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Obstacle detection image



A. Approx. 50 cm (19.6 in)

B. Approx. 15 cm (5.9 in)

Detection distance

Warning item	Sensitivity level 1 (Faster warning)	Sensitivity level 2 (Default value)	Sensitivity level 3 (Slower warning)	Sensitivity level 4 (Slowest warning)
First stage warning	70 – 80 cm (27.5 – 31.4 in)	60 – 70 cm (23.6 – 27.5 in)	50 – 60 cm (29.6 – 23.6 in)	40 – 50 cm (15.7 – 19.6 in)
Second stage warning	50 – 70 cm (19.6 – 27.5 in)	40 – 60 cm (15.7 – 23.6 in)	30 – 50 cm (11.8 – 19.6 in)	30 – 40 cm (11.8 – 15.7 in)
Third stage warning	Less than 50 cm (19.6 in)	Less than 40 cm (15.7 in)	Less than 30 cm (11.8 in)	Less than 30 cm (11.8 in)

## SONAR INDICATOR DISPLAY

- Around view monitor control unit that receives the detection signal and detection distance signal from sonar control unit displays the sonar indicator on display.
- Around view monitor control unit changes the color or blinking cycle of the indicator according to the detection distance.

AV

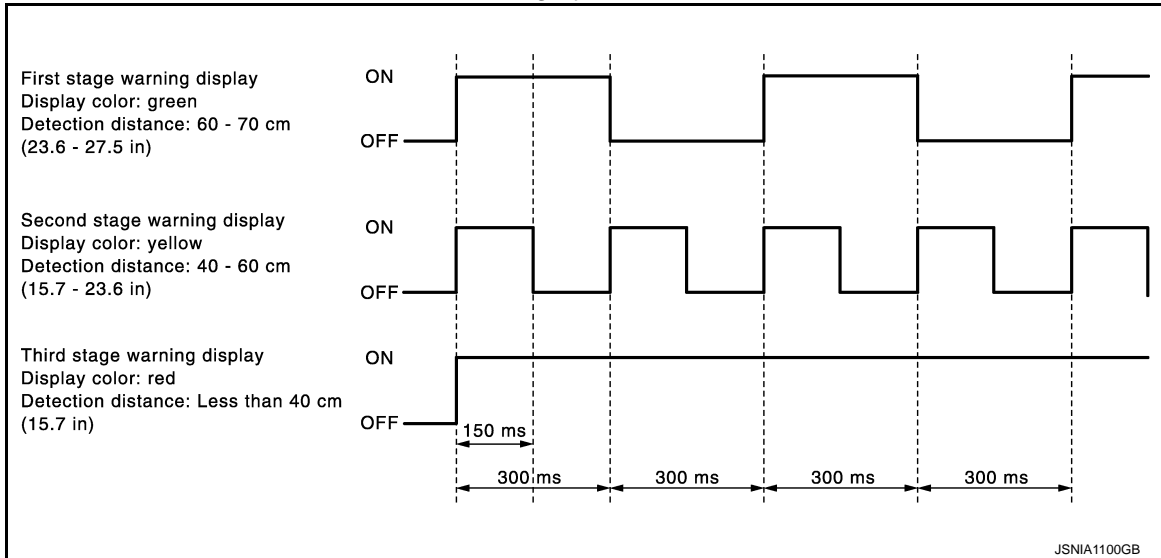


# CAMERA ASSISTANCE SONAR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

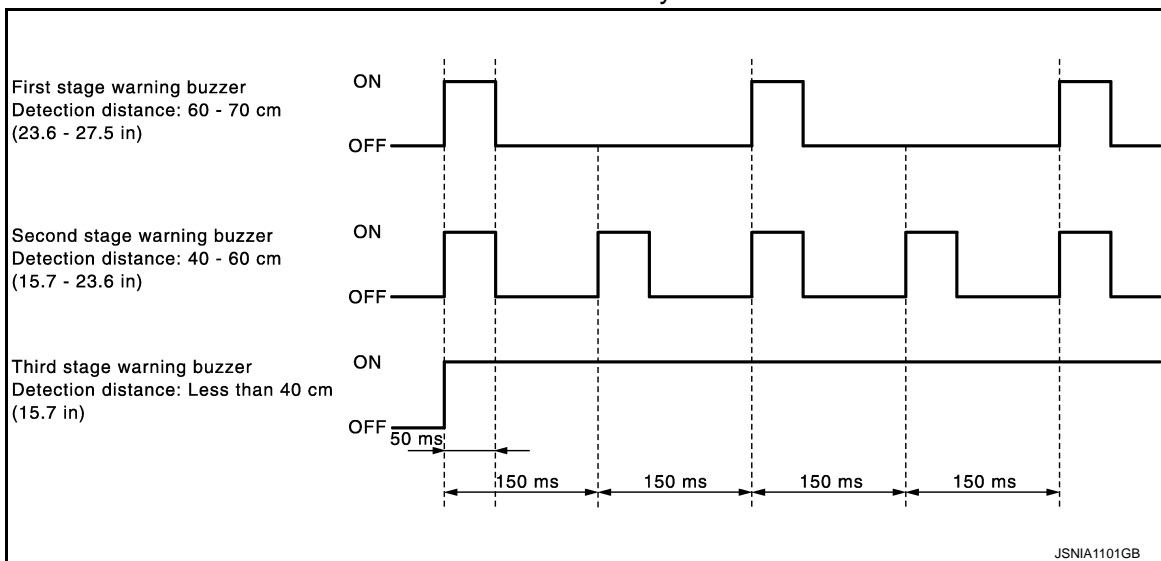
## Color and blinking cycle of sonar indicator



## SONAR BUZZER OPERATION

- Sonar control unit outputs the buzzer signal to other buzzers and operates the buzzer when the detection signal is input from the corner sensor.
- It changes the buzzer cycle in 3 stages according to the detection distance.

## Sonar buzzer cycle





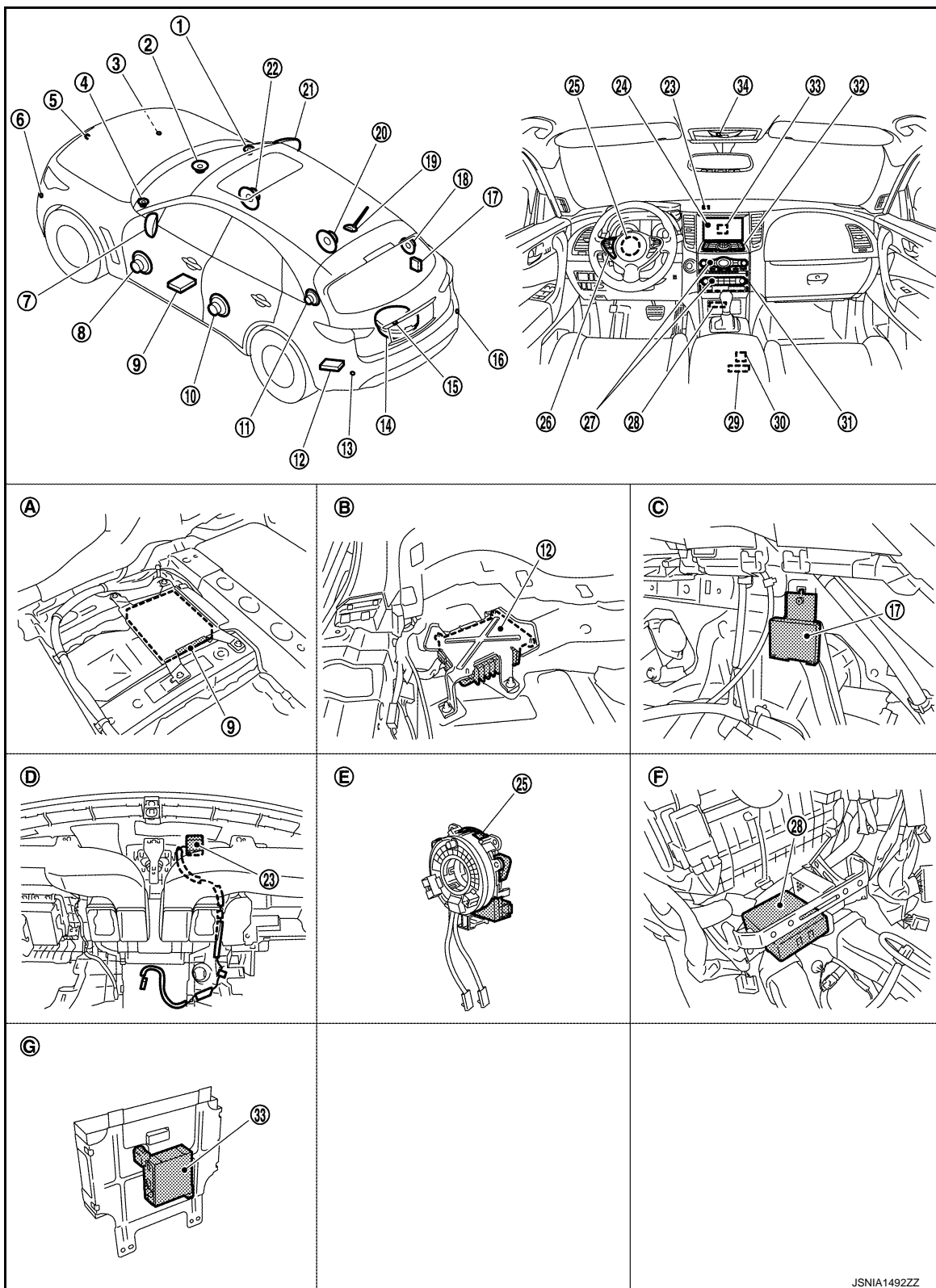
# CAMERA ASSISTANCE SONAR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## Component Parts Location

INFOID:000000003931404



1. Front squawker RH
4. Front squawker LH
7. Side camera LH
10. Rear door speaker LH

2. Center speaker
5. Front camera
8. Front door speaker LH
11. Rear squawker LH

3. Corner sensor front RH
6. Corner sensor front LH
9. Around view monitor control unit
12. BOSE amp.



# CAMERA ASSISTANCE SONAR SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (SINGLE MONITOR)]

- |   |                            |  |
|---|----------------------------|--|
| 13. Corner sensor rear LH                             | 14. Woofer                 | 15. Rear camera  |
| 16. Corner sensor rear RH                             | 17. Buzzer                 | 18. Rear squawker RH                                     |
| 19. Antenna base (antenna amp. and satellite antenna) | 20. Rear door speaker RH   | 21. Side camera RH and infrared LED (auxiliary lighting) |
| 22. Front door speaker RH                             | 23. GPS antenna            | 24. Front display unit                                   |
| 25. Steering angle sensor                             | 26. Steering switch        | 27. Preset switch  |
| 28. Sonar control unit (with around view monitor)     | 29. Auxiliary input jacks  | 30. iPod connector                                       |
| 31. AV control unit                                   | 32. Multifunction switch   | 33. iPod adapter   |
| 34. Microphone  |                            |  |
| A. Under front seat (LH side)                         | B. Luggage floor (LH side) | C. Luggage side RH                                       |
| D. Instrument panel rear side                         | E. Spiral cable part       | F. Console pocket assembly removed condition             |
| G. Rear view of the front display unit                |                            |  |

## Component Description

INFOID:0000000003826569

Part name	Description
AROUND VIEW MONITOR CONTROL UNIT	<ul style="list-style-type: none"> <li>It supplies power to front camera, rear camera, and side camera. And then it superimposes the images from each camera and outputs them to front display unit.</li> <li>Superimposes the guiding line, predicted course line and sonar indicator to the camera image that outputs to front display unit.</li> <li>It performs the reception/transmission of communication signal with each camera.</li> <li>Inputs the sensor signal from the steering angle sensor, and then controls the predicted course line.</li> <li>It transmits the sonar operation signal from sonar control unit and receives the sonar information from the sonar control unit via AV communication.</li> <li>It transmits the information received/transmitted with the sonar control unit via AV communication to AV control unit.</li> </ul>
SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)	<ul style="list-style-type: none"> <li>It is connected with around view monitor control unit via AV communication and receives the sonar operation signal from around view monitor control unit.</li> <li>It transmits the sonar detection status to around view monitor control unit via AV communication.</li> <li>It judges the warning level according to the signal from corner sensor and outputs the buzzer drive signal.</li> <li>Trouble diagnosis is supported with CONSULT-III (K-LINE).</li> </ul>
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to sonar control unit.
BUZZER	The warning buzzer outputs with the signal from sonar control unit.



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## DIAGNOSIS SYSTEM (AV CONTROL UNIT)

### Diagnosis Description

INFOID:000000003826570

#### MULTIFUNCTION SWITCH AND PRESET SWITCH SELF-DIAGNOSIS FUNCTION

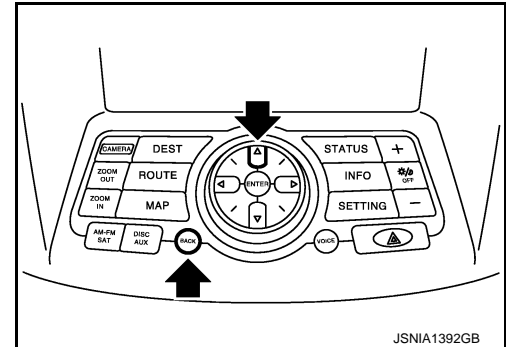
The ON/OFF operation (continuity) of each switch in multifunction switch and preset switch can be checked.

##### Self-diagnosis mode

- Press the "BACK" switch and the "UP" switch of the 8-direction switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more. Then the buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch in the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.

##### NOTE:

The hazard switch and disk eject switch cannot be checked.



##### Finishing Self-diagnosis Mode

Self-diagnosis mode is canceled when turning the ignition switch OFF.

#### MULTI AV SYSTEM ON BOARD DIAGNOSIS FUNCTION

- AV control unit diagnosis function starts up with multifunction switch operation and AV control unit performs a diagnosis for each unit in the system during the on board diagnosis.
- Perform a CONSULT-III diagnosis if the on board diagnosis does not start, e.g., the screen does not display anything, multifunction switch does not function, etc.

### ON BOARD DIAGNOSIS

##### Description

- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- The self-diagnosis mode performs diagnoses on AV control unit, connections between system components, AV control unit and GPS antenna and between AV control unit and satellite radio antenna. Then it displays the diagnosis results on display.
- The confirmation/adjustment mode allows the technician to check, modify or adjust the vehicle signals and set values, as well as to monitor the system error records and system communication status. The checking, modifying or adjusting generally require human intervention and judgment (the system cannot make a judgment automatically).

##### On Board Diagnosis Item

Mode	Description
Self Diagnosis	<ul style="list-style-type: none"><li>AV control unit diagnosis</li><li>Diagnoses the connections across system components, between AV control unit and GPS antenna and between AV control unit and satellite radio antenna.</li></ul>



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

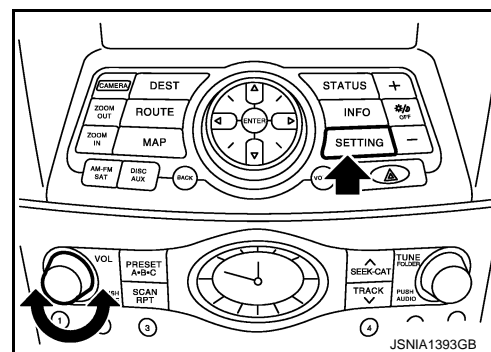
< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Mode		Description
Confirmation/ Adjustment	Display Diagnosis	The following check functions are available: color tone check by color bar display, light and shade check by gray scale display and touch panel calibration response check.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition switch, and reverse.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Climate Control	Start auto air conditioner system self-diagnosis.
	Navigation	Steering Angle Adjustment When there is a difference between the actual turning angle and the vehicle mark turning angle, it can be adjusted.
		Speed Calibration When there is a difference between the current location mark and the actual location, it can be adjusted.
		XM SAT Subscription Status The XM NavTraffic subscription status can be checked.
	Error History	The system malfunction and the frequency when occurring in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.
	Vehicle CAN Diagnosis	The transmitting/receiving of CAN communication can be monitored.
	AV COMM Diagnosis	The communication condition of each unit of Multi AV system can be monitored.
	Handsfree Phone	The received volume adjustment of hands-free phone, microphone speaker check, and erase memory can be performed.
	Camera Cont.	It can perform the confirmation of a signal connection to around view monitor control unit, the calibration of each camera, Correct Draw Line of Camera Image, and Fine Tuning of Birds-Eye View. Refer to <a href="#">AV-334, "Diagnosis Description"</a> .
	Bluetooth	The passkey and the device name can be checked and changed.
	SAT	Change Channel Any necessary channels required to receive traffic information from the satellite radio system can be set.
		Change Application ID Any application IDs required to receive traffic information from the satellite radio system can be set.
		Diag Not used.
	Delete Unit Connection Log	Erase the connection history of unit and error history.
	Initialize Settings	Initializes AV control unit memory.

## STARTING PROCEDURE

1. Start the engine.
2. Turn the audio system OFF.
3. While pressing the "SETTING" button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. (When the self-diagnosis mode is starts, a short beep will sound.)
  - Shifting from current screen to previous screen is performed by pressing the "BACK" button.



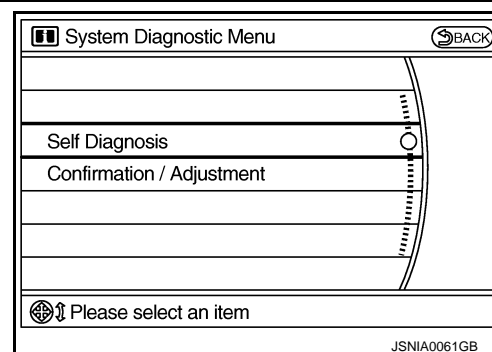


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

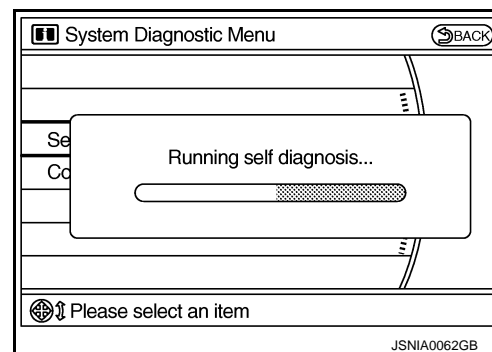
## [NAVIGATION (SINGLE MONITOR)]

- The trouble diagnosis initial screen is displayed, and then the items of "Self Diagnosis" and "Confirmation/Adjustment" can be selected.

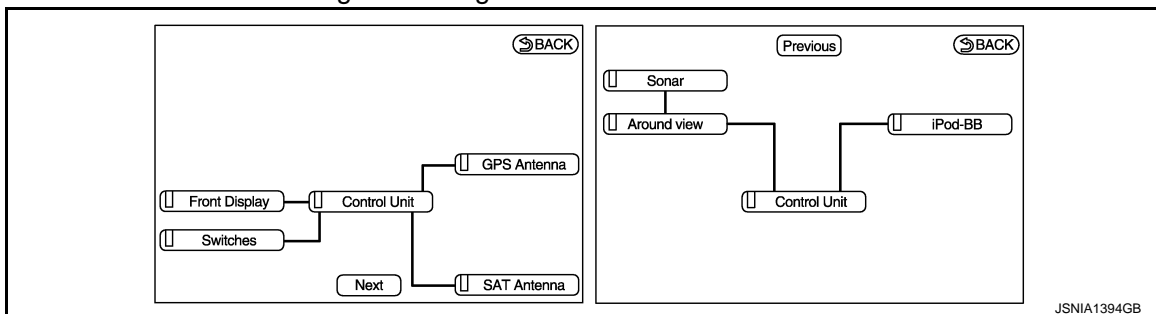


## SELF-DIAGNOSIS MODE

- Start the self-diagnosis function and select "Self Diagnosis".
  - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
  - The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.



- Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.



Diagnosis results	Unit	Con- nection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction <sup>Note</sup>	Red	Green

### NOTE:

- Only the control unit (AV control unit) is displayed in red.
- Replace AV control unit if "Self-Diagnosis did not run because of a control unit malfunction" is indicated. The symptom is an AV control unit internal error. Refer to [AV-579, "Exploded View"](#).
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.

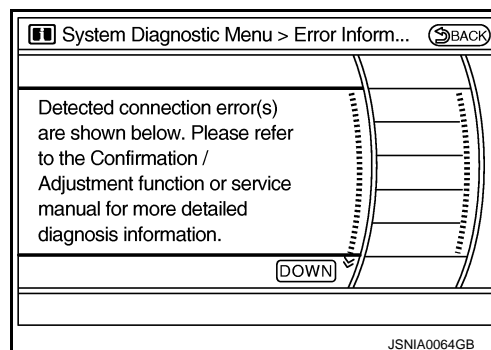


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

## [NAVIGATION (SINGLE MONITOR)]

- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.



### Detection Range of Self-diagnosis Mode

- The self-diagnosis mode allows the technician to diagnose the connection in the communication line between AV control unit and each unit and the internal operation of AV control unit.
- Because the start condition of diagnosis function is switch operated, the on board diagnosis function cannot be started up if any malfunction is detected in the communication circuit between AV control unit and multi-function switch.

### SELF-DIAGNOSIS RESULTS

Check the applicable display in the following table, and then repair the malfunctioning parts.

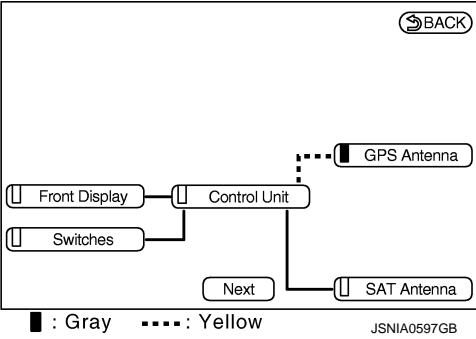
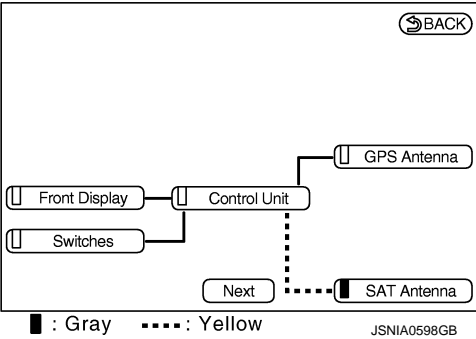
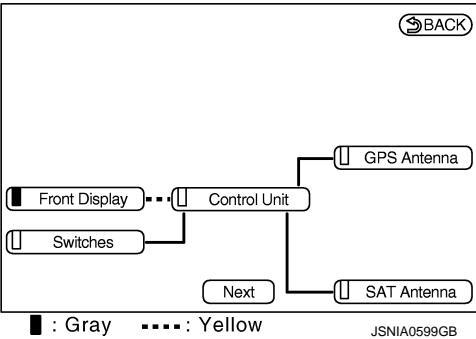
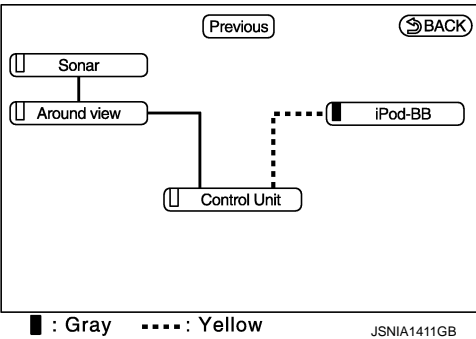
Area with yellow connection lines	Detection logic	Possible malfunction location / Action to take
<p>■ : Red</p> <p>JSNIA1410GB</p> <p><b>NOTE:</b> When a control unit malfunction is detected (red in unit display), connection malfunction with other connection unit may be displayed.</p> <p>“Self-Diagnosis did not run because of a control unit malfunction”</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>• AV control unit power supply and ground circuits malfunction are detected.</li> <li>• AV control unit malfunction is detected.</li> </ul>	<ul style="list-style-type: none"> <li>• AV control unit power supply and ground circuits.</li> <li>• When there is no malfunction, AV control unit is malfunctioning.</li> </ul>



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Area with yellow connection lines	Detection logic	Possible malfunction location / Action to take
 <p>■ : Gray    ---- : Yellow</p> <p>JSNIA0597GB</p>	GPS antenna connection malfunction is detected.	GPS antenna.
 <p>■ : Gray    ---- : Yellow</p> <p>JSNIA0598GB</p>	Poor connection is detected in satellite radio antenna.	<ul style="list-style-type: none"> <li>Satellite radio antenna feeder.</li> <li>Satellite radio antenna.</li> </ul>
 <p>■ : Gray    ---- : Yellow</p> <p>JSNIA0599GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>communication circuit between AV control unit and front display unit are malfunctioning.</li> <li>communication signal between AV control unit and front display unit are malfunctioning.</li> </ul>	Communication circuits between AV control unit and front display unit.
 <p>■ : Gray    ---- : Yellow</p> <p>JSNIA1411GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits malfunction are detected.</li> <li>AV communication circuits between AV control unit and iPod adapter are malfunctioning.</li> <li>AV communication signal between AV control unit and iPod adapter are malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and iPod adapter.</li> </ul>

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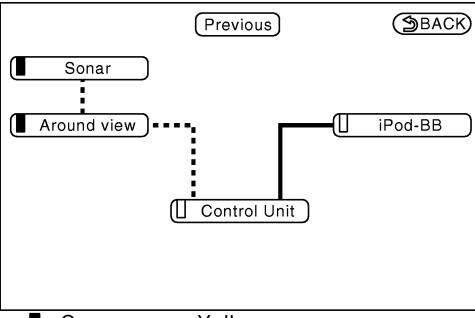
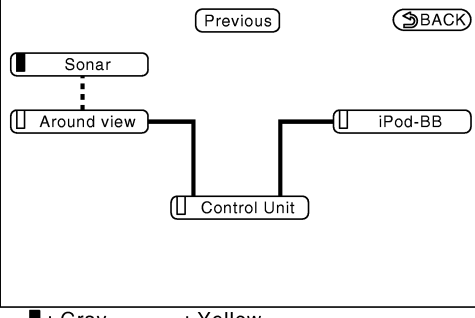
AV



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

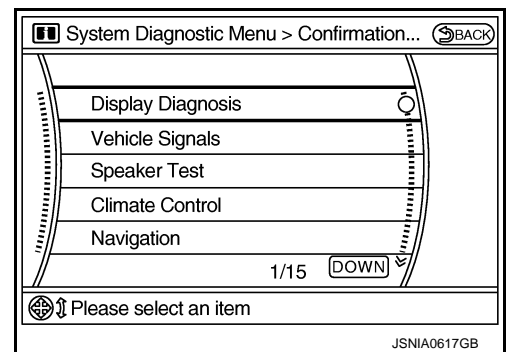
< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Area with yellow connection lines	Detection logic	Possible malfunction location / Action to take
 <p>■ : Gray    ---- : Yellow</p> <p>JSNIA1102GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>around view monitor control unit power supply and ground circuits are malfunctioning.</li> <li>AV communication circuits between AV control unit and around view monitor control unit are malfunctioning.</li> <li>AV communication signal between AV control unit and around view monitor control unit are malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>Around view monitor control unit power supply and ground circuits</li> <li>AV communication circuits between AV control unit and around view monitor control unit.</li> </ul>
 <p>■ : Gray    ---- : Yellow</p> <p>JSNIA1104GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>sonar control unit power supply and ground circuits malfunction are detected.</li> <li>AV communication circuits between around view monitor control unit and sonar control unit are malfunctioning.</li> <li>AV communication signal between around view monitor control unit and sonar control unit are malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>Sonar control unit power supply and ground circuits.</li> <li>AV communication circuits between around view monitor control unit and sonar control unit.</li> </ul>

## CONFIRMATION/ADJUSTMENT MODE

1. Start the diagnosis function and select "Confirmation/Adjustment". The confirmation/adjustment mode indicates where each item can be checked or adjusted.
2. Select each switch on the "Confirmation/Adjustment Mode" screen to display the relevant trouble diagnosis screen. Press the "BACK" switch to return to the initial Confirmation/Adjustment Mode screen.



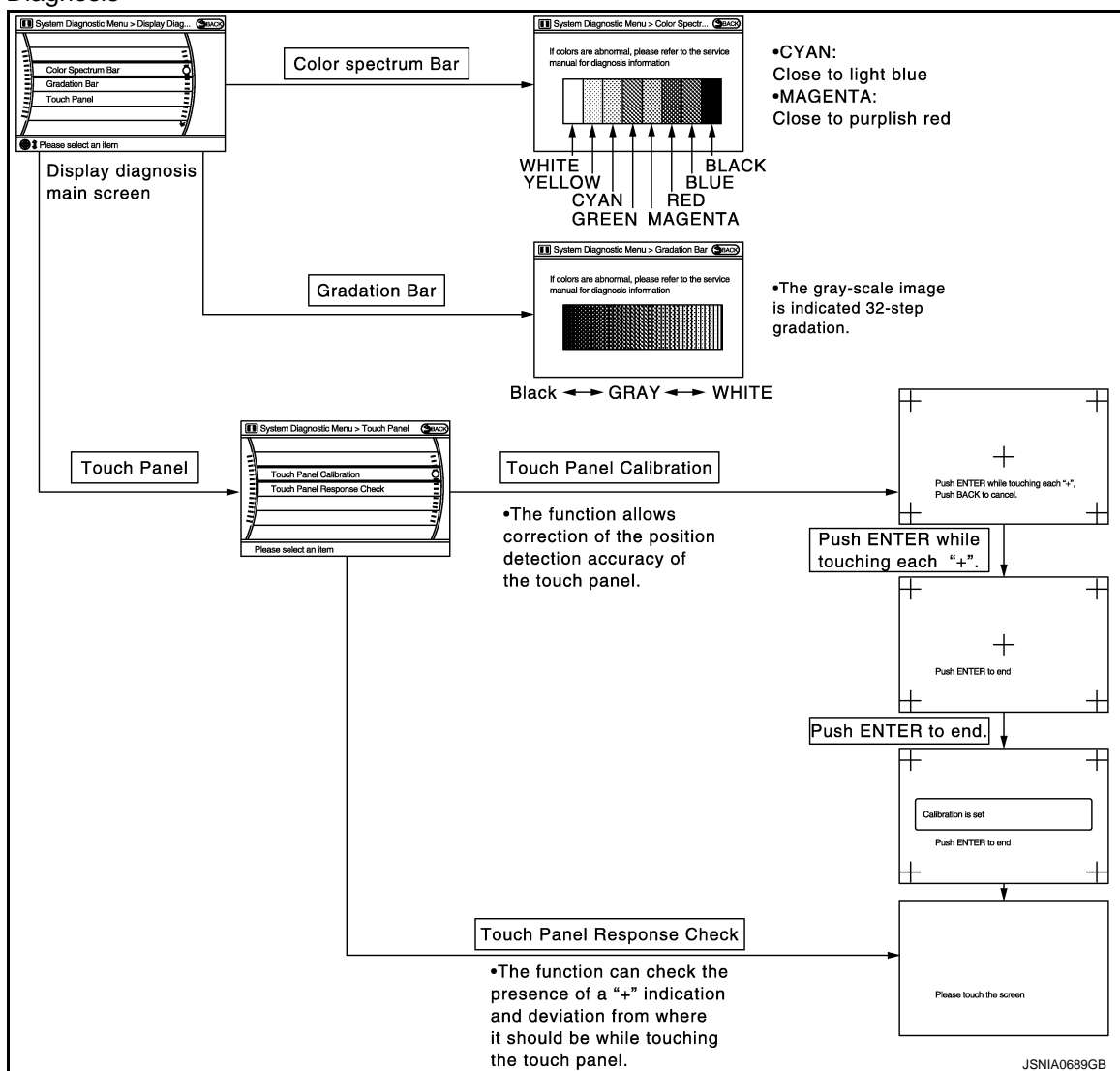


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## Display Diagnosis

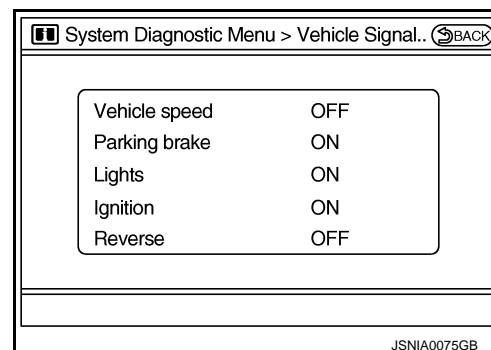


The tint of the color bar indication is as per the following list if a RGB signal error is detected.

**R (red) signal error** : Light blue (Cyan) tint  
**G (green) signal error** : Purple (Magenta) tint  
**B (blue) signal error** : Yellow tint

## Vehicle Signals

A comparison check can be made of each actual vehicle signal and the signals recognized by the system.





# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Diagnosis item	Display	Vehicle status	Remarks
Vehicle speed	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed = 0 km/h (0 MPH)	
Parking brake	ON	Parking brake is applied.	
	OFF	Parking brake is released.	
Lights	ON	Light switch ON	—
	OFF	Light switch OFF	
Ignition	ON	Ignition switch ON	—
	OFF	Ignition switch in THE ACC position	
Reverse	ON	Shift the selector lever to the "R" position	Changes in indication may be delayed. This is normal.
	OFF	Shift the selector lever to a position other than the "R" position	

## Speaker Test

Select "SPEAKER DIAGNOSIS" to display the Speaker Diagnosis screen. Press "START and NEXT" to generate a test tone in a speaker. Press "Start" to generate a test tone in the next speaker. Press "End" to stop the test tones.

### NOTE:

The frequency of test tone emitted from each speaker is as follows.

<b>Tweeter*</b>	<b>: 3 kHz</b>
<b>Front speaker</b>	<b>: 300 Hz</b>
<b>Rear speaker</b>	<b>: 1 kHz</b>

\*: Squawker

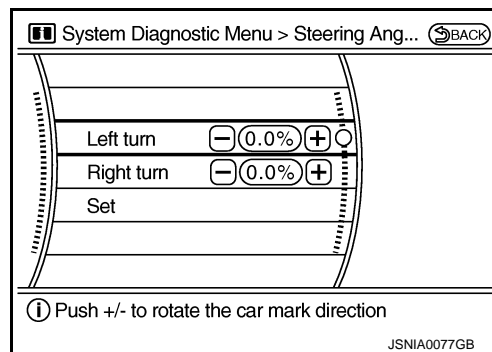
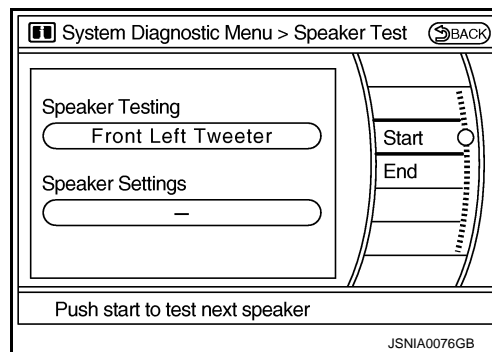
## Climate Control

Refer to "HEATER & AIR CONDITIONING CONTROL SYSTEM" for details.

## Navigation

### STEERING ANGLE ADJUSTMENT

The steering angle output value detected with the gyroscope is adjusted.



## SPEED CALIBRATION

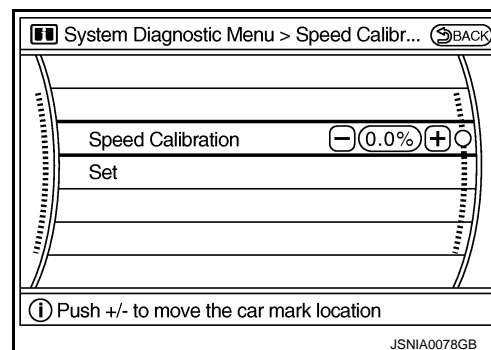


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

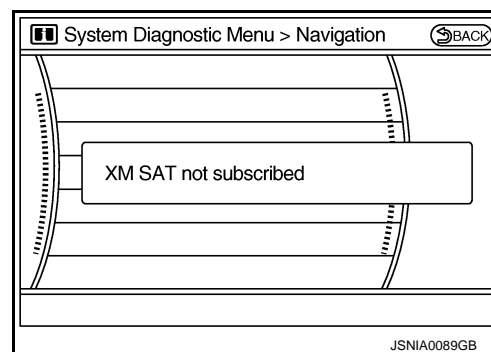
## [NAVIGATION (SINGLE MONITOR)]

During normal driving, distance error caused by tire wear and tire pressure change is automatically adjusted for by the automatic distance correction function. This function, on the other hand, is for immediate adjustment, in cases such as driving with tire chains fitted on tires.



### XM SAT SUBSCRIPTION STATUS

The XM NavTraffic subscription status can be checked.



### Error History

The self-diagnosis results are judged depending on whether any error occurs from when "Self-diagnosis" is selected until the self-diagnosis results are displayed.

However, the diagnosis results are judged normal if an error has occurred before the ignition SW is turned ON and then no error has occurred until the self-diagnosis start. Check the "Error Record" to detect any error that may have occurred before the self-diagnosis start because of this condition.

The error record displays the time and place of the most recent occurrence of that error. However, take note of the following points.

- If there is a malfunction with the GPS antenna circuit board in AV control unit, the correct date and time of occurrence may not be displayed.
- Place of the error occurrence is represented by the position of the current location mark at the time an error occurred. If current location mark has deviated from the correct position, then the place of the error occurrence cannot be located correctly.
- The frequency of occurrence is displayed in a count up manner. The actual count up method differs depending on the error item.

#### Count up method A

- The counter resets to 0 if an error occurs when IGN switch is turned ON. The counter increases by 1 if the condition is normal at a next IGN ON cycle.
- The counter upper limit is 39. Any counts exceeding 39 are ignored. The counter can be reset (no error record display) with the "Delete log" switch or CONSULT-III.

#### Count up method B

- The counter increases by 1 if an error occurs when IGN switch is ON. The counter will not decrease even if the condition is normal at the next IGN ON cycle.
- The counter upper limit is 50. Any counts exceeding 50 are ignored. The counter can be reset (no error record display) with the "Delete log" switch or CONSULT-III.

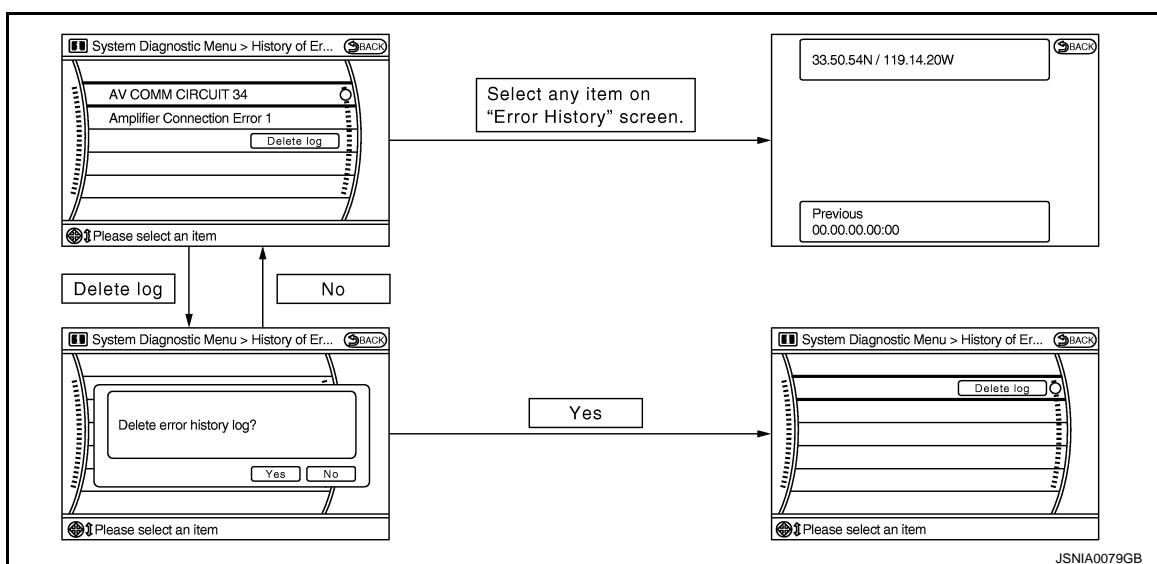
Display type of occurrence frequency	Error history display item
Count up method A	CAN communication line, control unit (CAN), AV communication line, control unit (AV communication)
Count up method B	Other than the above



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]



## Error item

Some error items may be displayed simultaneously according to the cause. If some error items are displayed simultaneously, the detection of the cause can be performed by the combination of display items.

Error item	Detection logic	Possible malfunction factor/Action to take
CAN COMM CIRCUIT	CAN communication malfunction is detected.	Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to <a href="#">AV-330, "CONSULT-III Function (MULTI AV)"</a> .
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected.	Replace AV control unit.
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	
FLASH-ROM Error Of Control Unit	AV control unit malfunction is detected.	
Connection Of Gyro		
XM SERIAL COMM Error		
CAN Controller Memory Error		
Bluetooth Module Connection Error		
HDD CONN Error		
HDD READ Error		
HDD WRITE Error		
HDD COMM Error		
HDD ACCESS Error		
DSP CONN Error		
DSP COMM Error		
Internal Communication Error	When either one of the following items are detected: <ul style="list-style-type: none"><li>malfunction is detected in AV control unit power supply and ground circuits.</li><li>AV control unit malfunction is detected.</li></ul>	<ul style="list-style-type: none"><li>AV control unit power supply and ground circuits.</li><li>When there is no malfunction, AV control unit is malfunctioning.</li></ul>
GPS Communication Error	GPS malfunction is detected.	An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace AV control unit if the malfunction occurs constantly.
GPS ROM Error		
GPS RAM Error		
GPS RTC Error		



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Error item	Detection logic	Possible malfunction factor/Action to take
Front Display Connection Error	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>front display unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the communication circuits between AV control unit and front display unit.</li> <li>malfunction is detected in the communication signal between AV control unit and front display unit.</li> </ul>	<ul style="list-style-type: none"> <li>Front display unit power supply and ground circuits.</li> <li>Communication circuits between AV control unit and front display unit.</li> </ul>
GPS Antenna Error	GPS antenna connection malfunction is detected.	GPS antenna.
XM Antenna Connection Error	Poor connection is detected in satellite radio antenna.	<ul style="list-style-type: none"> <li>Satellite radio antenna feeder.</li> <li>Satellite radio antenna.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>Internal Communication Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>AV control unit power supply and ground circuits malfunction are detected.</li> <li>AV control unit malfunction is detected.</li> </ul>	<ul style="list-style-type: none"> <li>AV control unit power supply and ground circuits.</li> <li>When there is no malfunction, AV control unit is malfunctioning.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>Switches Connection Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>multifunction switch power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and multifunction switch.</li> <li>malfunction is detected in the AV communication signal between AV control unit and multifunction switch.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and multifunction switch.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>iPod Connection Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and iPod adapter.</li> <li>malfunction is detected in the AV communication signal between AV control unit and iPod adapter.</li> </ul>	<ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and iPod adapter.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>AVM Connection Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>around view monitor control unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.</li> <li>malfunction is detected in the AV communication signal between AV control unit and around view monitor control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Around view monitor control unit power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and around view monitor control unit.</li> </ul>

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# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

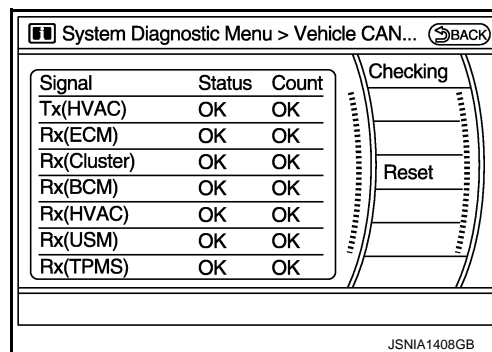
## [NAVIGATION (SINGLE MONITOR)]

Error item	Detection logic	Possible malfunction factor/Action to take
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>AVM Sonar Connection Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>sonar control unit power supply or ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between around view monitor control unit and sonar control unit.</li> <li>malfunction is detected in the AV communication signal between around view monitor control unit and sonar control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Sonar control unit power supply and ground circuits.</li> <li>AV communication circuits between around view monitor control unit and sonar control unit.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>Switches Connection Error</li> <li>iPod Connection Error</li> <li>AVM Connection Error</li> </ul>	<p>Malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.</p>	<p>AV communication circuits between AV control unit and around view monitor control unit.</p>

### Vehicle CAN Diagnosis

- CAN communication status and error counter is displayed.
- The error counter displays "OK" if any malfunction was not detected in the past and displays "0" if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if "Reset" is pressed.

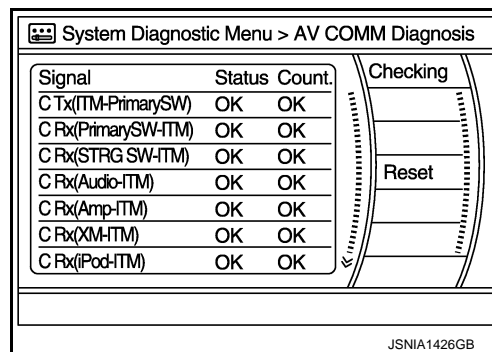
Items	Display (Current)	Malfunction counter (Past)
Tx(HVAC)	OK / UNKWN	OK / 0 – 39
Rx(ECM)	OK / UNKWN	OK / 0 – 39
Rx(Cluster)	OK / UNKWN	OK / 0 – 39
Rx(BCM)	OK / UNKWN	OK / 0 – 39
Rx(HVAC)	OK / UNKWN	OK / 0 – 39
Rx(USM)	OK / UNKWN	OK / 0 – 39
Rx(TPMS)	OK / UNKWN	OK / 0 – 39



### AV COMM Diagnosis

- Displays the communication status between AV control unit (master unit) and each unit.
- The error counter displays "OK" if any malfunction was not detected in the past and displays "0" if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if reset.

Items	Status (Current)	Counter (Past)
C Tx(ITM-PrimarySW)	OK / UNKWN	OK / 0 – 39
C Rx(PrimarySW-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(STRG SW-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(Audio-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(Amp-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(XM-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(iPod-ITM)	OK / UNKWN	OK / 0 – 39
C RX(AVM-ITM)	OK / UNKWN	OK / 0 – 39





# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

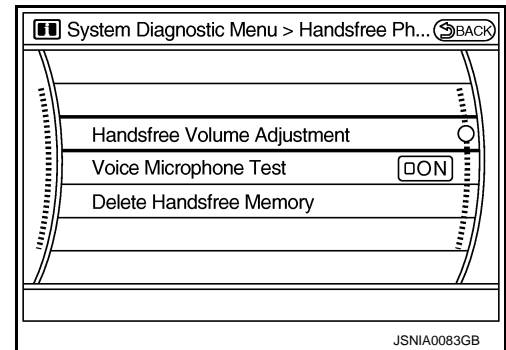
Items	Status (Current)	Counter (Past)
C Rx(Amp–Audio)	—	—
C Rx(iPod–Audio)	OK / UNKWN	OK / 0 – 39
C Rx(Sonar–AVM)	OK / UNKWN	OK / 0 – 39
C Tx(Audio–ITM)	OK / UNKWN	OK / 0 – 39

## NOTE:

- “Audio” and “Amp” indicate the same status because “Amp” indicates the status of the amplifier integrated in AV control unit.
- “STRG SW”, “Amp” and “XM” indicate the same status as “Audio”.

## Hands-Free Phone

The hands-free phone reception volume adjustment, microphone and speaker test, and memory erase functions are also available.



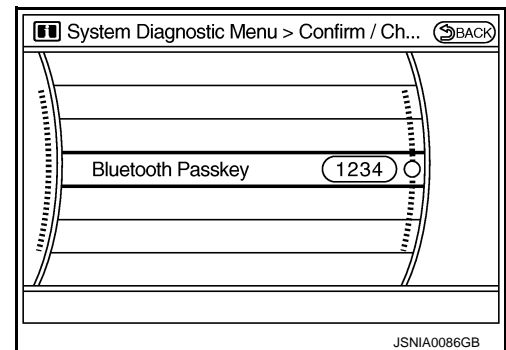
## Camera Cont.

Refer to [AV-334, "Diagnosis Description"](#).

## Bluetooth

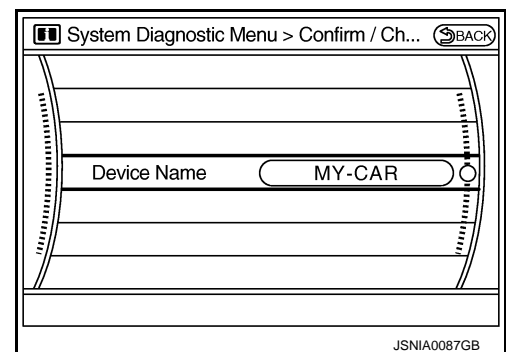
### Confirm / Change Passkey

- The passkey of Bluetooth can be confirmed and changed.
- The passkey can be changed by four digits within 0 to 9.



### Confirm / Change Device Name

- The device name of Bluetooth can be confirmed and changed.
- The device name can be changed by sixteen digits within A to Z (small character can be used) and - (hyphen).



## SAT

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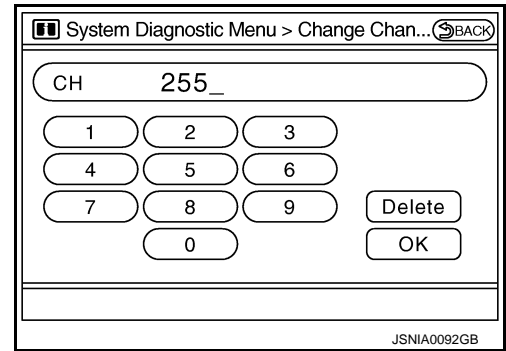


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

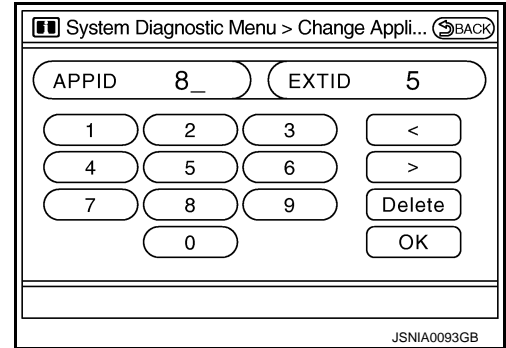
## < SYSTEM DESCRIPTION >

## [NAVIGATION (SINGLE MONITOR)]

- Change Channel
- Any necessary channels required to receive traffic information from the satellite radio system can be set.

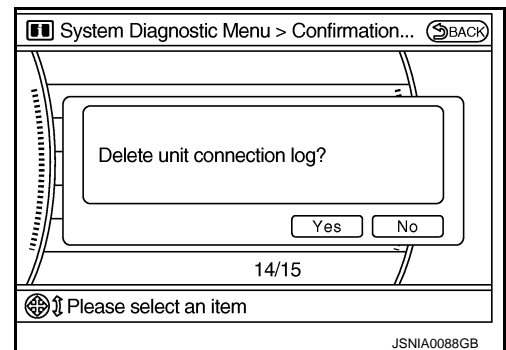


- Change Application ID
- Any application IDs required to receive traffic information from the satellite radio system can be set.



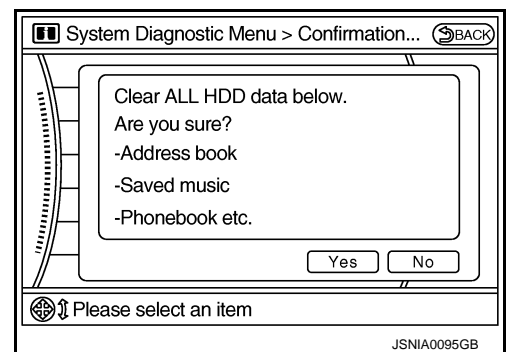
### Delete Unit Connection Log

Deletes any unit connection records and error records from AV control unit memory. (Clear the records of the unit that has been removed.)



### Initialize Settings

Deletes data stored in HDD.



## CONSULT-III Function (MULTI AV)

INFOID:000000003826571

### CONSULT-III FUNCTIONS

CONSULT-III performs the following functions via the communication with AV control unit.



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Diagnosis mode	Description
Ecu Identification	The part number of AV control unit can be checked.
Self Diagnostic Result	Performs a diagnosis on AV control unit, a connection diagnosis for the communication circuit of the Multi AV system, and displays the current and past malfunctions collectively.
Data Monitor	The diagnosis of vehicle signal that is input to AV control unit can be performed.

## AV COMMUNICATION

When "AV communication" of "CAN Diag Support Monitor" is selected, the following function will be performed.

AV communication	AV&NAVI C/U	Displays the communication status from AV control unit to each unit as well as the error counter.
	AUDIO	Displays AV control unit communication status and the error counter.

## ECU IDENTIFICATION

The part number of AV control unit is displayed.

## SELF DIAGNOSIS RESULT

- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed simultaneously.
- The timing is displayed as "0" if any of the error codes [U1000], [U1010], [U1300] or [U1310] are detected. The counter increases by 1 if the condition is normal at the next ignition switch ON cycle.

Self-diagnosis results display item

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT[U1000]	CAN communication malfunction is detected.	Refer to <a href="#">AV-339, "Diagnosis Procedure"</a> .
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	Replace AV control unit.
CONTROL UNIT (AV) [U1310]	AV communication circuit initial diagnosis malfunction is detected.	
Control Unit FLASH-ROM [U1200]	AV control unit malfunction is detected.	
Gyro NO CONN [U1201]		
CAN CONT [U1216]		
BLUETOOTH CONN [U1217]		
HDD CONN [U1218]		
HDD READ [U1219]		
XM SERIAL COMM [U1220]		
HDD WRITE [U121A]		
HDD COMM [U121B]		
HDD ACCESS [U121C]		
DSP CONN [U121D]		
DSP COMM [U121E]		
INTERNAL COMM [U121F]	When either one of the following items are detected: <ul style="list-style-type: none"><li>malfunction is detected in AV control unit supply and ground circuit.</li><li>AV control unit malfunction are detected.</li></ul>	<ul style="list-style-type: none"><li>AV control unit power supply and ground circuits.</li><li>When there is no malfunction, AV control unit is malfunctioning.</li></ul>
GPS COMM [U1204]	GPS malfunction is detected.	An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace AV control unit if the malfunction occurs constantly.
GPS ROM [U1205]		
GPS RAM [U1206]		
GPS RTC [U1207]		



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Error item	Description	Possible malfunction factor/Action to take
FRONT DISP CONN [U1243]	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>front display unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the communication circuits between AV control unit and front display unit.</li> <li>malfunction is detected in the communication signal between AV control unit and front display unit.</li> </ul>	<ul style="list-style-type: none"> <li>Front display unit power supply and ground circuits.</li> <li>Communication circuits between AV control unit and front display unit.</li> </ul>
GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected.	GPS antenna.
XM ANTENNA CONN [U1258]	Poor connection is detected in satellite radio antenna.	<ul style="list-style-type: none"> <li>Satellite radio antenna feeder.</li> <li>Satellite radio antenna.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>INTERNAL COMM [U121F]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>AV control unit power supply and ground circuits malfunction are detected.</li> <li>AV control unit malfunction are detected.</li> </ul>	<ul style="list-style-type: none"> <li>AV control unit power supply and ground circuits.</li> <li>When there is no malfunction, AV control unit is malfunctioning.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SWITCH CONN [U1240]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>multifunction switch power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and multifunction switch.</li> <li>malfunction is detected in the AV communication signal between AV control unit and multifunction switch.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and multifunction switch.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>iPod CONN [U1254]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and iPod adapter.</li> <li>malfunction is detected in the AV communication signal between AV control unit and iPod adapter.</li> </ul>	<ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and iPod adapter.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>AROUND CAMERA CONN [U125B]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>around view monitor control unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.</li> <li>malfunction is detected in the AV communication signal between AV control unit and around view monitor control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Around view monitor control unit power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and around view monitor control unit.</li> </ul>



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Error item	Description	Possible malfunction factor/Action to take
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SONAR CONN [U125C]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>sonar control unit power supply and ground circuit malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between around view monitor control unit and sonar control unit.</li> <li>malfunction is detected in the AV communication signal between around view monitor control unit and sonar control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Sonar control unit power supply and ground circuits.</li> <li>AV communication circuits between around view monitor control unit and sonar control unit.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SWITCH CONN [U1240]</li> <li>iPod CONN [U1254]</li> <li>AROUND CAMERA CONN [U125B]</li> </ul>	Malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.	AV communication circuits between AV control unit and around view monitor control unit.

## DATA MONITOR

### ALL SIGNALS

- Displays the status of the following vehicle signals inputted into AV control unit.
- For each signal, actual signal can be compared with the condition recognized on the system.

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	On	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	Off	Vehicle speed = 0 km/h (0 MPH)	
PKB SIG	On	Parking brake is applied.	
	Off	Parking brake is released.	
ILLUM SIG	On	Block the light beam from the auto light optical sensor when the light SW is ON.	—
	Off	Expose the auto light optical sensor to light when the light SW is OFF or ON.	
IGN SIG	On	Ignition switch ON	
	Off	Ignition switch in the ACC position	
REV SIG	On	Shift the selector lever to the "R" position	Changes in indication may be delayed. This is normal.
	Off	Shift the selector lever to a position other than the "R" position	

### SELECTION FROM MENU

Allows the technician to select which vehicle signals should be displayed and displays the status of the selected vehicle signals.

Item to be selected	Description
VHCL SPD SIG	The same as when "ALL SIGNALS" is selected.
PKB SIG	
ILLUM SIG	
IGN SIG	
REV SIG	



# DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

### Diagnosis Description

INFOID:000000003826572

The diagnosis function of around view monitor control unit is displayed when selecting "Camera Cont." of Confirmation/Adjustment mode in the multi AV system.

Around view monitor control unit diagnosis item

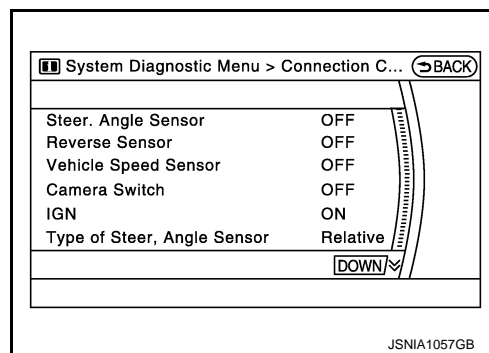
AV control unit Confirmation/Adjustment mode		Function
Camera Cont.	Connection Confirmation	The status of signals input to around view monitor control unit can be checked.
	Calibrating Camera Image	Rear Camera
		Pass-Side Camera
		Front Camera
		Dr-Side Camera
		Initialize Camera Image Calibration*
	Correct Draw Line of Camera Image	Rear View
		Front-Side View
		Front View
	Fine Tuning of Birds-Eye View	
		<ul style="list-style-type: none"> <li>The confirmation and adjustment of the difference between each camera can be performed.</li> <li>The system changes to the ZOOM function by the operation of shift and the ZOOM ratio of each camera can be changed.</li> </ul>

### CAUTION:

\*: Never perform other operations for approximately 10 seconds after performing "Initialize Camera Image Calibration".

### Connection Confirmation

The status of signals inputted to around view monitor control unit can be checked.



Connection Confirmation item list

Diagnosis item	Display	Description
Steer. Angle Sensor	ON/OFF	<ul style="list-style-type: none"> <li>Input status of steering angle sensor is displayed by ON/OFF.</li> <li>When all of steering signals 1, 2, and 3 are input, it is turned ON. It remains ON until connection confirmation mode is stopped.</li> </ul>
Reverse Sensor	ON/OFF	Input status of reverse signal inputted to around view monitor control unit is displayed by ON/OFF in real time.
Vehicle Speed Sensor	ON/OFF	<ul style="list-style-type: none"> <li>Input status of vehicle speed signal inputted to around view monitor control unit is displayed by ON/OFF.</li> <li>When the vehicle speed signal is input, it is turned ON. It remains ON until connection confirmation mode is stopped.</li> </ul>
Camera Switch	ON/OFF	<ul style="list-style-type: none"> <li>The status of camera switch signal received via AV communication from AV control unit is displayed by ON/OFF.</li> <li>When the camera switch signal is received once, it is turned ON. It remains ON until connection confirmation mode is stopped.</li> </ul>
IGN	ON/OFF	Input status of ignition signal inputted to around view monitor control unit is displayed by ON/OFF in real time.



# DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

## < SYSTEM DESCRIPTION >

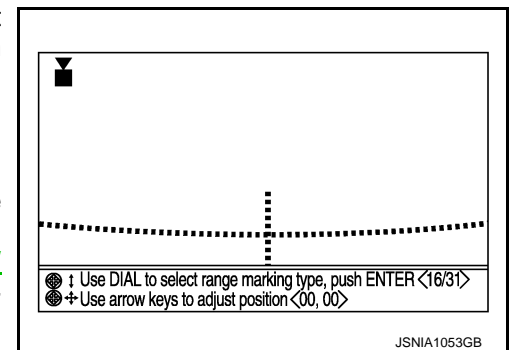
## [NAVIGATION (SINGLE MONITOR)]

Diagnosis item	Display	Description
Type of Steer. Angle Sensor	Relative	The input type of steering angle sensor is displayed. ("Relative" is displayed on this model.)
Type of Steer. Gear ratio	1	The type of steering gear ratio is displayed. ("1" is displayed on this model.)
Left or Right Steer.	Left	The steering position is displayed. ("Left" is displayed on this model.)
Rear Camera Image Output signal	OK / NG	The input status of rear camera image signal is displayed by OK/NG in real time.
Rear Camera COMM Status	OK / NG	The communication status with rear camera is displayed by OK/NG in real time.
Rear Camera COMM Line	OK / NG	The status of communication line with rear camera is displayed by OK/NG in real time.
Front Camera Image Output signal	OK / NG	The input status of front camera image signal is displayed by OK/NG in real time.
Front Camera COMM Status	OK / NG	The communication status with front camera is displayed by OK/NG in real time.
Front Camera COMM Line	OK / NG	The status of communication line with front camera is displayed by OK/NG in real time.
Pass-Side Camera Image Output signal	OK / NG	The input status of side camera RH image signal is displayed by OK/NG in real time.
Pass-Side Camera COMM Status	OK / NG	The communication status with side camera RH is displayed by OK/NG in real time.
Pass-Side Camera COMM Line	OK / NG	The status of communication line with side camera RH is displayed by OK/NG in real time.
Dr-Side Camera Image Output signal	OK / NG	The input status of side camera LH image signal is displayed by OK/NG in real time.
Dr-Side Camera COMM Status	OK / NG	The communication status with side camera LH is displayed by OK/NG in real time.
Dr-Side Camera COMM Line	OK / NG	The status of communication line with side camera LH is displayed by OK/NG in real time.

### Calibrating Camera Image

- Perform the calibration of camera image caused by the incorrect mounting position of each camera, etc. Always perform calibration after performing the following work.
  - When each camera or each camera mount (door mirror, front grille, etc.) is removed
  - When replacing around view monitor control unit
- When performing the calibration initialization, it can be set to the NISSAN factory shipment condition.

Refer to [AV-279, "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#) for the calibration procedure.



#### Adjustment range

**Rotating direction** : 31 patterns (16 on the center)

**Upper/lower direction** : -99 – 99

**Left/right direction** : -99 – 99

#### Calibrating Camera Image item

Items	Description
Rear Camera	Performs the calibration of rear camera.
Pass-Side Camera	Performs the calibration of side camera RH.
Front Camera	Performs the calibration of front camera.
Dr-Side Camera	Performs the calibration of side camera LH.
Initialize Camera Image Calibration*	The calibration can be initialized to the factory shipment setting.

#### CAUTION:

\*: Never perform other operations for approximately 10 seconds after performing "Initialize Camera Image Calibration".



# DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## Correct Draw Line of Camera Image

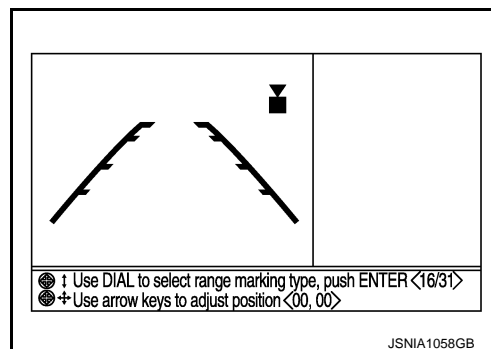
The display position of guiding lines when displayed on the rear view, front view, and front-side view can be changed.

### Adjustment range

Rotating direction : 31 patterns

Upper/lower direction : -25 - 25

Left/right direction : -25 - 25



## Correct Draw Line of Camera Image item

Items	Description
Rear View	The position of rear view guiding line can be changed.
Front-Side View	The position of Front-Side view guiding line can be changed.
Front View	The position of Front view guiding line can be changed.

## Fine Tuning of Birds-Eye View

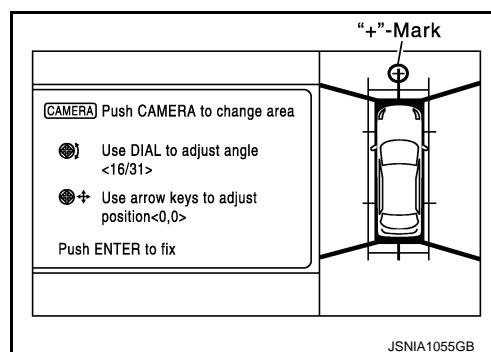
- The fine adjustment function of camera calibration can check and adjust the difference between each camera.
- Fine adjustments can be performed for each camera. Move the "+"-mark to select the camera by pressing the "CAMERA" switch.
- Perform the adjustment with the center dial and upper/lower/left/right switches.

### CAUTION:

Operate the center dial slowly because the changing of the screen takes approximately 1 second.

### NOTE:

- It can be initialized to the NISSAN factory shipment setting with "Initialize Camera Image Calibration" of "Calibrating Camera Image".
- The adjustment value is cancelled in this mode by performing "Initialize Camera Image Calibration".



### Adjustment range

Rotating direction : 31 patterns (16 on the center)

Upper/lower direction : -99 - 99

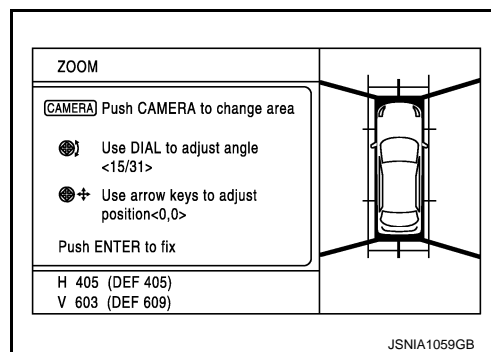
Left/right direction : -99 - 99

## ZOOM function

- The ZOOM ratio of camera can be changed when calibrating the camera.
- It shifts to ZOOM function mode by shifting the selector lever to a position other than the "R" position → "R" position → other than "R" position in the "Fine Tuning of Birds-Eye View" mode.
- The changing of ZOOM ratio can be performed for each camera. Move the "+"-mark to select the camera by pressing "CAMERA" switch and press the left/right switch to change the ZOOM ratio.

### NOTE:

- When the position is not correct in "Fine Tuning of Birds-Eye View" mode, use this "ZOOM" function to adjust it.
- If this function is used, always adjust the upper/lower/left/right position again on the "Fine Tuning of Birds-Eye View" screen.





# DIAGNOSIS SYSTEM [SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)]

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

## DIAGNOSIS SYSTEM [SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)]

### CONSULT-III Function (SONAR)

INFOID:000000003826573

#### DESCRIPTION

CONSULT-III can display each diagnostic item using the diagnostic test modes shown as follows:

Test mode	Function
Ecu Identification	Sonar control unit part number can be read.
Self Diagnostic Result	Sonar control unit checks the conditions and displays memorized error.
Data Monitor	Sonar control unit input/output data in real time.
Active Test	Gives a drive signal to a load to check the operation.
Work support	Changes setting of each function.

#### ECU IDENTIFICATION

Displays the part number of sonar control unit.

#### SELF-DIAGNOSTIC RESULTS

For details, refer to [AV-564, "DTC Index"](#).

#### DATA MONITOR

Monitor Item	Display	Description
SONAR OPE	On	Around view monitor is ON. (sonar system is ON)
	Off	Around view monitor is OFF. (sonar system is OFF)
BUZZER OUTPUT	On	Buzzer is output condition.
	Off	Buzzer is not output condition.
CR SEN [FL] CR SEN [FR] CR SEN [RL] CR SEN [RR]	ERROR	When a sensor is abnormal.
	LV.0	When a sensor is not detection.
	LV.2	The distance between the corner sensor and an obstacle is 60 cm (23.6 in) or more and less then 70 cm (27.5 in).
	LV.3	The distance between the corner sensor and an obstacle is 40 cm (15.7 in) or more and less then 60 cm (23.6 in).
	LV.4	The distance between corner sensor and an obstacle less than 40 cm (15.7 in).

#### ACTIVE TEST

Active test item	Function
BUZZER	This test is able to check buzzer operation.
SONAR SENSOR	This test is able to check each sonar sensor operation.

#### WORK SUPPORT

Work support item	Function
CORNER SEN DISTANCE SET	Corner sensor warning buzzer distance is adjustable to 4 phases.

#### CORNER SEN DISTANCE SET

Corner sensor warning buzzer distance can be set to 4 phases as follows.

Warning item	FARTHER	FAR	NORMAL	NEAR
Second warning	70 – 80 cm (27.5 – 31.4 in)	60 – 70 cm (23.6 – 27.5 in)	50 – 60 cm (19.6 – 23.6 in)	40 – 50 cm (15.7 – 19.6 in)



# DIAGNOSIS SYSTEM [SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)]

< SYSTEM DESCRIPTION >

[NAVIGATION (SINGLE MONITOR)]

Warning item	FARTHER	FAR	NORMAL	NEAR
Third warning	50 – 70 cm (19.6 – 27.5 in)	40 – 60 cm (15.7 – 23.6 in)	30 – 50 cm (11.8 – 19.6 in)	30 – 40 cm (11.8 – 15.7 in)
Fourth warning	Less than 50 cm (19.6 in)	Less than 40 cm (15.7 in)	Less than 30 cm (11.8 in)	Less than 30 cm (11.8 in)

The default of this model is "FAR".



## DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

#### Description

INFOID:000000003826574

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Signal Chart. Refer to [LAN-32, "CAN Communication Signal Chart"](#).

#### DTC Logic

INFOID:000000003826575

#### DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1000	CAN COMM CIRCUIT	When AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	CAN communication system

#### Diagnosis Procedure

INFOID:000000003826576

##### 1.PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check "Self Diagnostic Result" of "MULTI AV".

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to "LAN system". Refer to [LAN-22, "Trouble Diagnosis Flow Chart"](#).  
NO >> Refer to GI section. Refer to [GI-35, "Intermittent Incident"](#).

AV



## U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

### U1010 CONTROL UNIT (CAN)

#### Description

INFOID:0000000003826577

Initial diagnosis of AV control unit.

#### DTC Logic

INFOID:0000000003826578

#### DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1010	CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected	AV control unit

#### Diagnosis Procedure

INFOID:0000000003826579

#### 1. REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit.

>> INSPECTION END



# U1310 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1310 AV CONTROL UNIT

### Description

INFOID:000000003826580

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826581

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1310	CONTROL UNIT (AV) [U1310]	An initial diagnosis error is detected in AV communication circuit.	Replace AV control unit

AV



# U1200 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1200 AV CONTROL UNIT

### Description

INFOID:000000003826582

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826583

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1200	Cont Unit FLASH- ROM [U1200]	An internal malfunction is detected in AV control unit (FLASH-ROM).	Replace AV control unit



# U1201 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1201 AV CONTROL UNIT

### Description

INFOID:000000003826584

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826585

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1201	GYRO NO CONN [U1201]	Internal malfunction of AV control unit (gyrocompass disconnection) is detected.	Replace AV control unit

AV



# U1216 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1216 AV CONTROL UNIT

### Description

INFOID:000000003826586

Replace the AV control unit if this DTC is displayed. Refer to [AV-579. "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826587

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1216	CAN CONT [U1216]	Internal malfunction of AV control unit (CAN controller) is detected.	Replace AV control unit



# U1217 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1217 AV CONTROL UNIT

### Description

INFOID:000000003826588

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826589

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1217	BLUETOOTH MODULE CONN [U1217]	Internal malfunction of AV control unit (Bluetooth module connection malfunction) is detected.	Replace AV control unit

AV



# U1218 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1218 AV CONTROL UNIT

### Description

INFOID:000000003826590

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826591

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1218	HDD-CONN [U1218]	Internal malfunction of AV control unit (HDD connection malfunction) is detected.	Replace AV control unit



# U1219 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1219 AV CONTROL UNIT

### Description

INFOID:000000003826592

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826593

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1219	HDD-READ [U1219]	Internal malfunction of AV control unit (HDD read malfunction) is detected.	Replace AV control unit

AV



# U1220 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1220 AV CONTROL UNIT

### Description

INFOID:000000003826594

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826595

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1220	XM SERIAL COMM [U1220]	Internal malfunction of AV control unit (satellite radio tuner communication error) is detected.	Replace AV control unit



# U121A AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U121A AV CONTROL UNIT

### Description

INFOID:000000003826596

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826597

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121A	HDD-WRITE [U121A]	Internal malfunction of AV control unit (HDD write malfunction) is detected.	Replace AV control unit

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



# U121B AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U121B AV CONTROL UNIT

### Description

INFOID:000000003826598

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826599

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121B	HDD-COMM [U121B]	Internal malfunction of AV control unit (HDD communication error) is detected.	Replace AV control unit



# U121C AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U121C AV CONTROL UNIT

### Description

INFOID:000000003826600

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826601

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121C	HDD-ACCESS [U121C]	Internal malfunction of AV control unit (HDD access error) is detected.	Replace AV control unit

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



# U121D AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U121D AV CONTROL UNIT

### Description

INFOID:000000003826602

Replace the AV control unit if this DTC is displayed. Refer to [AV-579. "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826603

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121D	DSP CONN [U121D]	Internal malfunction of AV control unit (DSP connection error) is detected.	Replace AV control unit



# U121E AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U121E AV CONTROL UNIT

### Description

INFOID:000000003826604

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826605

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121E	DSP COMM [U121E]	Internal malfunction of AV control unit (DSP communication error) is detected.	Replace AV control unit

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



# U121F AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U121F AV CONTROL UNIT

### Description

INFOID:000000003826606

Replace the AV control unit if this DTC is displayed. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003826607

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121F	INTERNAL COMM [U121F]	Internal malfunction of AV control unit (internal communication error) is detected.	AV control unit power supply and ground circuit

### Diagnosis Procedure

INFOID:000000003826608

#### 1. CHECK AV CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check AV control unit power supply and ground circuit. Refer to [AV-372, "AV CONTROL UNIT : Diagnosis Procedure"](#).

Is inspection result normal?

YES >> INSPECTION END  
NO >> Repair malfunctioning parts.



## U1204 GPS

## Description

INFOID:000000003826609

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Update of map data is performed with the CONSULT-III and the applicable cable.</li> </ul>

## DTC Logic

INFOID:000000003826610

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1204	GPS CONN [U1204]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

## Diagnosis Procedure

INFOID:000000003826611

## 1.PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

- YES >> Replace AV control unit.
- NO >> The intermittent malfunction caused by strong radio interference can be detected.

AV



## U1205 GPS

## Description

INFOID:000000003826612

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Update of map data is performed with the CONSULT-III and the applicable cable.</li> </ul>

## DTC Logic

INFOID:000000003826613

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1205	GPS ROM [U1205]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

## Diagnosis Procedure

INFOID:000000003826614

## 1.PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

YES &gt;&gt; Replace AV control unit.

NO &gt;&gt; The intermittent malfunction caused by strong radio interference can be detected.



## U1206 GPS

## Description

INFOID:000000003826615

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Update of map data is performed with the CONSULT-III and the applicable cable.</li> </ul>

## DTC Logic

INFOID:000000003826616

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1206	GPS RAM [U1206]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

## Diagnosis Procedure

INFOID:000000003826617

## 1.PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

- YES >> Replace AV control unit.
- NO >> The intermittent malfunction caused by strong radio interference can be detected.

AV



## U1207 GPS

## Description

INFOID:000000003826618

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-579, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Update of map data is performed with the CONSULT-III and the applicable cable.</li> </ul>

## DTC Logic

INFOID:000000003826619

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1207	GPS RTC [U1207]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

## Diagnosis Procedure

INFOID:000000003826620

## 1.PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

YES &gt;&gt; Replace AV control unit.

NO &gt;&gt; The intermittent malfunction caused by strong radio interference can be detected.



# U1243 FRONT DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1243 FRONT DISPLAY UNIT

### Description

INFOID:000000003826621

Part name	Description
FRONT DISPLAY UNIT	<ul style="list-style-type: none"><li>• Front display image is controlled by the serial communication from AV control unit.</li><li>• RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing).</li><li>• Auxiliary image signal is input from the auxiliary input jacks.</li><li>• Camera image signal input to around view monitor control unit.</li><li>• Synchronize signal (HP, VP) is output to AV control unit.</li><li>• Touch panel function can be operated for each system by touching a display directly.</li></ul>

### DTC Logic

INFOID:000000003826622

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1243	FRONT DISP CONN [U1243]	<p>When either one of the following items is detected.</p> <ul style="list-style-type: none"><li>• front display unit power supply and ground circuit malfunction is detected.</li><li>• malfunction is detected in communication circuits between front display unit and AV control unit.</li><li>• malfunction is detected in communication signal between front display unit and AV control unit.</li></ul>	<ul style="list-style-type: none"><li>• Front display unit power supply and ground circuit.</li><li>• Communication circuits between front display unit and AV control unit.</li></ul>

### Diagnosis Procedure

INFOID:000000003826623

#### 1.CHECK FRONT DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUITS

Check front display unit power supply and ground circuits. Refer to [AV-372, "FRONT DISPLAY UNIT : Diagnosis Procedure"](#).

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

#### 2.CHECK CONTINUITY COMMUNICATION CIRCUITS

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
M75	11	M88	70	Existed
	22		71	

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminals		
M75	11		Not existed
	22		

Is inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.



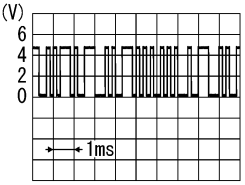
# U1243 FRONT DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## 3.CHECK COMMUNICATION SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	11	Ground	When adjusting display brightness.	 PKIB5039J

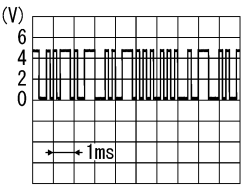
Is inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit.

## 4.CHECK COMMUNICATION SIGNAL

Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	22	Ground	When adjusting display brightness.	 PKIB5039J

Is inspection result normal?

YES >> INSPECTION END

NO >> Replace front display unit.



# U1244 GPS ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1244 GPS ANTENNA

### Description

INFOID:0000000003826624

Part name	Description
GPS ANTENNA	GPS signal is received and sent to AV control unit.

### DTC Logic

INFOID:0000000003826625

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1244	GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected.	GPS antenna disconnection

### Diagnosis Procedure

INFOID:0000000003826626

#### 1. GPS ANTENNA CHECK

Visually check GPS antenna and antenna feeder.

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

#### 2. CHECK AV CONTROL UNIT VOLTAGE

1. Disconnect GPS antenna connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit terminal and ground.

(+)	(-)	Voltage (Approx.)
AV control unit		
Terminal		
110	Ground	5.0 V

Is inspection result normal?

YES >> INSPECTION END

NO >> Replace AV control unit.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



# U1258 SATELLITE RADIO ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1258 SATELLITE RADIO ANTENNA

### Description

INFOID:000000003826633

Part name	Description
SATELLITE RADIO ANTENNA	Satellite radio signal is received and sent to AV control unit.

### DTC Logic

INFOID:000000003826634

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1258	XM ANTENNA CONN [U1258]	Satellite radio antenna connection malfunction is detected.	Satellite radio antenna disconnection

### Diagnosis Procedure

INFOID:000000003826635

#### 1.SATELLITE RADIO ANTENNA CHECK

Visually check satellite radio antenna and antenna feeder.

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

#### 2.CHECK AV CONTROL UNIT VOLTAGE

1. Disconnect satellite radio antenna connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit terminal and ground.

(+)	(-)	Voltage (Approx.)
AV control unit		
Terminal	Ground	5.0 V
108		

Is inspection result normal?

YES >> INSPECTION END

NO >> Replace AV control unit.



# U1300 AV COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## U1300 AV COMM CIRCUIT

### Description

INFOID:000000003826638

U1300 is indicated when malfunction occurs in communication signal of multi AV system. Indicated simultaneously, without fail, with the malfunction of control units connected to AV control unit with communication line. Determine the possible malfunction cause from the table below.

### Self-diagnosis results display item

DTC	Display contents of CONSULT-III	Description	Possible malfunction factor/Action to take
U1300 U121F	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>INTERNAL COMM [U121F]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>AV control unit power supply and ground circuits malfunction are detected.</li> <li>AV control unit malfunction are detected.</li> </ul>	<ul style="list-style-type: none"> <li>AV control unit power supply and ground circuits.</li> <li>When there is no malfunction, AV control unit is malfunctioning.</li> </ul>
U1300 U1240	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SWITCH CONN [U1240]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>multifunction switch power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and multifunction switch.</li> <li>malfunction is detected in the AV communication signal between AV control unit and multifunction switch.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and multifunction switch.</li> </ul>
U1300 U1254	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>IPOD CONN [U1254]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and iPod adapter.</li> <li>malfunction is detected in the AV communication signal between AV control unit and iPod adapter.</li> </ul>	<ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and iPod adapter.</li> </ul>
U1300 U125B	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>AROUND CAMERA CONN [U125B]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>around view monitor control unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.</li> <li>malfunction is detected in the AV communication signal between AV control unit and around view monitor control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Around view monitor control unit power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and around view monitor control unit.</li> </ul>
U1300 U125C	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SONAR CONN [U125C]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>sonar control unit power supply and ground circuit malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between around view monitor control unit and sonar control unit.</li> <li>malfunction is detected in the AV communication signal between around view monitor control unit and sonar control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Sonar control unit power supply and ground circuits.</li> <li>AV communication circuits between around view monitor control unit and sonar control unit.</li> </ul>
U1300 U1240 U1254 U125B	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SWITCH CONN [U1240]</li> <li>IPOD CONN [U1254]</li> <li>AROUND CAMERA CONN [U125B]</li> </ul>	Malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.	AV communication circuits between AV control unit and around view monitor control unit.

A

B

C

D

E

F

G

H

I

J

K

L

M

AV

O

P



## B2700 CORNER SENSOR [FL]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

### B2700 CORNER SENSOR [FL]

#### Description

INFOID:000000003826639

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

#### DTC Logic

INFOID:000000003826640

#### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2700	CORNER SENSOR [FL] [B2700]	Corner sensor front left is malfunctioning.	Replace corner sensor front LH



## B2701 SENSOR HARNESS OPEN [CR-FL]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

### B2701 SENSOR HARNESS OPEN [CR-FL]

#### Description

INFOID:000000003826641

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

#### DTC Logic

INFOID:000000003826642

#### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2701	SENSOR HARNESS OPEN [CR-FL] [B2701]	Corner sensor front LH harness circuit is open.	Check corner sensor front LH circuit

#### Diagnosis Procedure

INFOID:000000003826643

#### 1.CHECK HARNESS CORNER SENSOR FRONT LH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect sonar control unit connector and corner sensor connector.
3. Check continuity between sonar control unit harness connector and corner sensor (FL) harness connector.

Sonar control unit		Corner sensor (FL)		Continuity
Connector	Terminal	Connector	Terminal	
M44	3	E154	1	Existed

4. Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	3		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HARNESS CORNER SENSOR FRONT LH GROUND CIRCUIT

Check continuity between sonar control unit harness connector and corner sensor (FL) harness connector.

Sonar control unit		Corner sensor (FL)		Continuity
Connector	Terminal	Connector	Terminal	
M44	12	E154	2	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.



## B2702 CORNER SENSOR [FR]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

### B2702 CORNER SENSOR [FR]

#### Description

INFOID:000000003826644

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

#### DTC Logic

INFOID:000000003826645

#### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2702	CORNER SENSOR [FR] [B2702]	Corner sensor front right is malfunctioning.	Replace corner sensor front RH



## B2703 SENSOR HARNESS OPEN [CR-FR]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

### B2703 SENSOR HARNESS OPEN [CR-FR]

#### Description

INFOID:000000003826646

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

#### DTC Logic

INFOID:000000003826647

#### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2703	SENSOR HARNESS OPEN [CR-FR] [B2703]	Corner sensor front right harness circuit is open.	Check corner sensor front RH circuit

#### Diagnosis Procedure

INFOID:000000003826648

#### 1.CHECK HARNESS CORNER SENSOR FRONT RH SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect sonar control unit connector and corner sensor connector.
- Check continuity between sonar control unit harness connector and corner sensor (FR) harness connector.

Sonar control unit		Corner sensor (FR)		Continuity
Connector	Terminal	Connector	Terminal	
M44	4	E152	1	Existed

- Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	4		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HARNESS CORNER SENSOR FRONT RH GROUND CIRCUIT

Check continuity between sonar control unit harness connector and corner sensor (FR) harness connector.

Sonar control unit		Corner sensor (FR)		Continuity
Connector	Terminal	Connector	Terminal	
M44	12	E152	2	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.



## B2704 CORNER SENSOR [RL]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

### B2704 CORNER SENSOR [RL]

#### Description

INFOID:000000003826649

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

#### DTC Logic

INFOID:000000003826650

#### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2704	CORNER SENSOR [RL] [B2704]	Corner sensor rear left is malfunctioning.	Replace corner sensor rear LH



# B2705 SENSOR HARNESS OPEN [CR-RL]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## B2705 SENSOR HARNESS OPEN [CR-RL]

### Description

INFOID:000000003826651

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

### DTC Logic

INFOID:000000003826652

### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2705	SENSOR HARNESS OPEN [CR-RL] [B2705]	Corner sensor rear left harness circuit is open.	Check corner sensor rear LH circuit

### Diagnosis Procedure

INFOID:000000003826653

#### 1.CHECK HARNESS CORNER SENSOR REAR LH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect sonar control unit connector and corner sensor connector.
3. Check continuity between sonar control unit harness connector and corner sensor (RL) harness connector.

Sonar control unit		Corner sensor (RL)		Continuity
Connector	Terminal	Connector	Terminal	
M44	5	B259	1	Existed

4. Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	5		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HARNESS CORNER SENSOR REAR LH GROUND CIRCUIT

Check continuity between sonar control unit harness connector and corner sensor (RL) harness connector.

Sonar control unit		Corner sensor (RL)		Continuity
Connector	Terminal	Connector	Terminal	
M44	12	B259	2	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.



## B2706 CORNER SENSOR [RR]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

### B2706 CORNER SENSOR [RR]

#### Description

INFOID:000000003826654

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

#### DTC Logic

INFOID:000000003826655

#### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2706	CORNER SENSOR [RR] [B2706]	Corner sensor rear right is malfunctioning.	Replace corner sensor rear RH



# B2707 SENSOR HARNESS OPEN [CR-RR]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## B2707 SENSOR HARNESS OPEN [CR-RR]

### Description

INFOID:000000003826656

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

### DTC Logic

INFOID:000000003826657

### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2707	SENSOR HARNESS OPEN [CR-RR] [B2707]	Corner sensor rear right harness circuit is open.	Check corner sensor rear RH circuit

### Diagnosis Procedure

INFOID:000000003826658

#### 1.CHECK HARNESS CORNER SENSOR REAR RH SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect sonar control unit connector and corner sensor connector.
- Check continuity between sonar control unit harness connector and corner sensor (RR) harness connector.

Sonar control unit		Corner sensor (RR)		Continuity
Connector	Terminal	Connector	Terminal	
M44	6	B256	1	Existed

- Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	6		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HARNESS CORNER SENSOR REAR RH GROUND CIRCUIT

Check continuity between sonar control unit harness connector and corner sensor (RR) harness connector.

Sonar control unit		Corner sensor (RR)		Continuity
Connector	Terminal	Connector	Terminal	
M44	12	B256	2	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.



## POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

### POWER SUPPLY AND GROUND CIRCUIT

#### AV CONTROL UNIT

##### AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000003826659

### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19
Ignition switch ON or START	3

Is inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

### 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M80	19	OFF	Battery voltage
	M87	22		
		24		
ACC power supply	M80	7	ACC	Battery voltage
	M87	25		
Ignition signal	M87	35	ON	Battery voltage

Is inspection result normal?

YES >> GO TO 3.

NO >> Check harness between AV control unit and fuse.

### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors.
3. Check continuity between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M87	21	OFF	Existed
		23		

Is inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

#### FRONT DISPLAY UNIT

##### FRONT DISPLAY UNIT : Diagnosis Procedure

INFOID:000000003826660

### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Is inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

## 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between front display unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M75	2	OFF	Battery voltage
ACC power supply	M75	3	ACC	Battery voltage

Is inspection result normal?

YES >> GO TO 3.

NO >> Check harness between front display unit and fuse.

## 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector.
3. Check continuity between front display unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M75	1	OFF	Existed
		13		

Is inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## MULTIFUNCTION SWITCH

### MULTIFUNCTION SWITCH : Diagnosis Procedure

INFOID:000000003826663

## 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

## 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
ACC power supply	M72	3	ACC	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between multifunction switch and fuse.

## 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector.
3. Check continuity between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M72	1	OFF	Existed



## POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

### BOSE AMP.

#### BOSE AMP. : Diagnosis Procedure

INFOID:000000003826664

##### 1.CHECK FUSE

Check for blown fuse.

Power source	Fuse No.
Battery	8

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

##### 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between BOSE amp. harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B42	11	OFF	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between BOSE amp. and fuse.

##### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE amp. connector.
3. Check continuity between BOSE amp. harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B42	12	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

### iPod ADAPTER

#### iPod ADAPTER : Diagnosis Procedure

INFOID:000000003826666

##### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

##### 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between iPod adapter harness connector and ground.



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M111	5	OFF	Battery voltage
ACC power supply	M111	3	ACC	Battery voltage

Is the inspection result normal?

YES >> INSPECTION END

NO >> Check harness between iPod adapter and fuse.

## AROUND VIEW MONITOR CONTROL UNIT

### AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure

INFOID:000000003826668

#### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC	19
Ignition switch ON	4

Is inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

#### 2.CHECK POWER SUPPLY CIRCUITS

Check voltage between around view monitor control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B46	2	OFF	Battery voltage
ACC power supply	B46	4	ACC	Battery voltage
Ignition power supply	B46	3	ON	Battery voltage

Is inspection result normal?

YES >> GO TO 3.

NO >> Check harness between around view monitor control unit and fuse.

#### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector.
3. Check continuity between around view monitor control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B46	1	OFF	Existed

Is inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

### SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR) : Diagnosis Procedure

INFOID:000000003826669

#### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19



## POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

### 2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between sonar control unit harness connector and ground.

Sonar control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M44	13		Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace sonar control unit power supply harness.

### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect sonar control unit connector.
3. Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	24		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace sonar control unit ground harness.



# RGB (R: RED) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## RGB (R: RED) SIGNAL CIRCUIT

### Description

INFOID:000000003826670

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

### Diagnosis Procedure

INFOID:000000003826671

#### 1.CHECK CONTINUITY RGB (R: RED) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	17	M88	61	Existed

4. Check continuity between front display unit harness connector and ground.

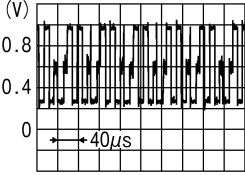
Front display unit		Ground	Continuity
Connector	Terminal		
M75	17		Not existed

Is inspection result normal?

- YES >> GO TO 2.  
NO >> Repair harness or connector.

#### 2.CHECK RGB (R: RED) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	17	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 JSNIA1029ZZ

Is inspection result normal?

- YES >> Replace front display unit.  
NO >> Replace AV control unit.



# RGB (G: GREEN) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## RGB (G: GREEN) SIGNAL CIRCUIT

### Description

INFOID:000000003826672

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

### Diagnosis Procedure

INFOID:000000003826673

#### 1.CHECK CONTINUITY RGB (G: GREEN) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	6	M88	62	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	6		Not existed

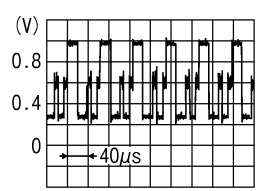
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB (G: GREEN) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	6	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	

Is inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# RGB (B: BLUE) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## RGB (B: BLUE) SIGNAL CIRCUIT

### Description

INFOID:000000003826674

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

### Diagnosis Procedure

INFOID:000000003826675

#### 1.CHECK CONTINUITY RGB (B: BLUE) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	18	M88	63	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	18		Not existed

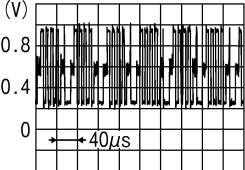
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB (B: BLUE) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	18	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 JSNIA1031ZZ

Is inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# RGB SYNCHRONIZING SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## RGB SYNCHRONIZING SIGNAL CIRCUIT

### Description

INFOID:000000003826676

Transmit the RGB synchronizing signal to the front display unit so as to synchronize the RGB image displayed with AV control unit.

### Diagnosis Procedure

INFOID:000000003826677

#### 1.CHECK CONTINUITY RGB SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	19	M88	65	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	19		Not existed

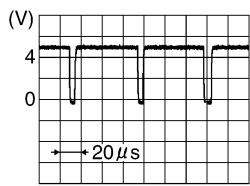
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB SYNCHRONIZING SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) (V)		(-)	Reference value
Connector	Terminal		
M75	19	Ground	

Is inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# RGB AREA (YS) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## RGB AREA (YS) SIGNAL CIRCUIT

### Description

INFOID:0000000003826678

Transmits the display area of RGB image displayed by AV control unit with RGB area (YS) signal to front display unit.

### Diagnosis Procedure

INFOID:0000000003826679

#### 1.CHECK CONTINUITY RGB AREA (YS) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	9	M88	67	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	9		Not existed

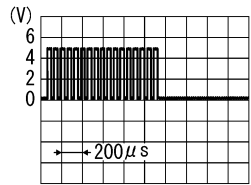
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB SYNCHRONIZING SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value (Approx.)
Connector	Terminal			
M75	9	Ground	At RGB image displayed	5.0 V
			At AUX image displayed	

Is inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

### Description

INFOID:000000003826680

In composite image (DVD image, AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from front display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

### Diagnosis Procedure

INFOID:000000003826681

#### 1.CHECK CONTINUITY HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	8	M88	68	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	8		Not existed

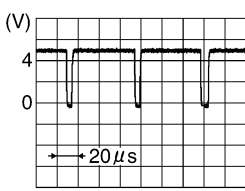
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Reference value
Connector	Terminal		
M75	8	Ground	

Is inspection result normal?

YES >> Replace AV control unit.

NO >> Replace front display unit.



# VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

### Description

INFOID:000000003826682

In composite image (DVD image, AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from front display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

### Diagnosis Procedure

INFOID:000000003826683

#### 1.CHECK CONTINUITY VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	20	M88	69	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	20		Not existed

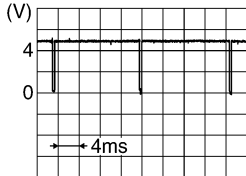
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) (V)		(-)	Reference value
Connector	Terminal		
M75	20	Ground	

Is inspection result normal?

YES >> Replace AV control unit.

NO >> Replace front display unit.



# AUX IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## AUX IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003826684

Transmits the image signal of external device from auxiliary input jacks to front display unit.

### Diagnosis Procedure

INFOID:000000003826685

#### 1.CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jacks connector and front display unit connector.
3. Check continuity between auxiliary input jacks harness connector and front display unit harness connector.

Auxiliary input jacks		Front display unit		Continuity
Connector	Terminal	Connector	Terminal	
M154	7	M75	15	Existed

4. Check continuity between auxiliary input jacks harness connector and ground.

Auxiliary input jacks		Ground	Continuity
Connector	Terminal		
M154	7		Not existed

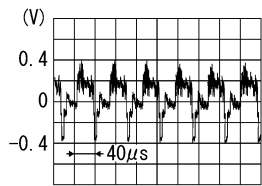
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK AUX IMAGE SIGNAL

1. Connect auxiliary input jacks connector and front display unit connector.
2. Turn ignition switch ON.
3. Check signal between auxiliary input jacks harness connector and ground.

(+) Auxiliary input jacks		(-)	Condition	Reference value
Connector	Terminal			
M154	7	Ground	At AUX image displayed	 SKIB2251J

Is inspection result normal?

YES >> Replace front display unit.

NO >> Check that there is no malfunction in the external device.



# MODE CHANGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## MODE CHANGE SIGNAL CIRCUIT

### Description

INFOID:000000003826686

- AV control unit transmits the mode change signal to BOSE amp.
- Driver's Audio Stage controls the speaker's output characteristic by BOSE amp. so that the driver's seat is to be the center of sounds.

### Diagnosis Procedure

INFOID:000000003826687

#### 1.CHECK CONTINUITY MODE CHANGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE amp. connector and AV control unit connector.
3. Check continuity between BOSE amp. harness connector and AV control unit harness connector.

BOSE amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B41	17	M87	44	Existed

4. Check continuity between BOSE amp. harness connector and ground.

BOSE amp.		Ground	Continuity
Connector	Terminal		
B41	17		Not existed

Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Repair harness or connector.

#### 2.CHECK MODE CHANGE SIGNAL

1. Connect BOSE amp. connector.
2. Turn ignition switch ON.
3. Check voltage between BOSE amp. harness connector and ground.

(+) BOSE amp.		(-)	Voltage (Approx.)
Connector	Terminal		
B41	17	Ground	8.5 V

Is the inspection result normal?

- YES >> Replace AV control unit.  
NO >> Replace BOSE amp.

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AV



# DISK EJECT SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## DISK EJECT SIGNAL CIRCUIT

### Description

INFOID:000000003826688

The eject signal is output to AV control unit when the eject switch of multifunction switch is pressed.

### Diagnosis Procedure

INFOID:000000003826689

#### 1.CHECK CONTINUITY CD EJECT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector and AV control unit connector.
3. Check continuity between multifunction switch harness connector and AV control unit harness connector.

Multifunction switch		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M72	14	M89	85	Existed

4. Check continuity between multifunction switch harness connector and ground.

Multifunction switch		Ground	Continuity
Connector	Terminal		
M72	14		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector and ground.

(+)AV control unit		(-)	Voltage (Approx.)
Connector	Terminal		
M89	85	Ground	3.3 V

Is inspection result normal?

YES >> Replace preset switch.

NO >> Replace AV control unit.



# MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## MICROPHONE SIGNAL CIRCUIT

### Description

INFOID:000000003826690

Supply power from AV control unit to microphone. The microphone transmits the sound voice to the AV control unit.

### Diagnosis Procedure

INFOID:000000003826691

#### 1.CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND MICROPHONE CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and microphone connector.
3. Check continuity between AV control unit harness connector and microphone harness connector.

AV control unit		Microphone		Continuity
Connector	Terminals	Connector	Terminals	
M87	26	R17	4	Existed
	27		2	
	28		1	

4. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminals		
M87	26		Not existed
	28		

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE MICROPHONE VCC

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector.

(+) (V)		(-)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M87	26	M87	27	5.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace AV control unit.

#### 3.CHECK MICROPHONE SIGNAL

1. Turn ignition switch OFF.
2. Connect microphone connector.
3. Turn ignition switch ON.
4. Check signal between AV control unit harness connector.

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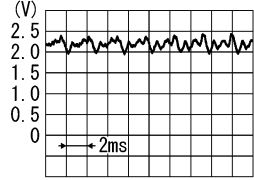
AV



# MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

(+)AV control unit		(-)AV control unit		Condition	Reference value
Connector	Terminal	Connector	Terminal		
M87	28	M87	27		
				Give a voice.	

PKIB5037J

Is inspection result normal?

- YES >> Replace AV control unit.  
 NO >> Replace microphone.



# CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## CAMERA IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003826696

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003826697

#### 1.CHECK CONTINUITY CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and front display unit connector.
3. Check continuity between around view monitor control unit harness connector and front display unit harness connector.

Around view monitor control unit		Front display unit		Continuity
Connector	Terminal	Connector	Terminal	
B46	27	M75	12	Existed

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B46	27		Not existed

#### Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector and front display unit connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector and ground.

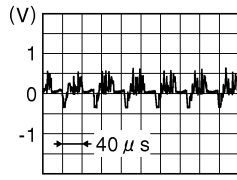
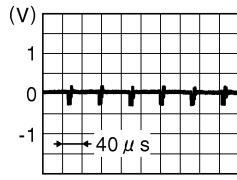
(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminal			



# CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

B46	27	Ground	At camera image display	 <p>JSNIA0834GB</p>
			Other than camera im- age display	 <p>JSNIA0835GB</p>

Is inspection result normal?

- YES    >> Replace front display unit.  
 NO     >> Replace around view monitor control unit.



# STEERING ANGLE SENSOR SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## STEERING ANGLE SENSOR SIGNAL CIRCUIT

### Description

INFOID:000000003826700

- Steering angle sensor signal 1, 2 detects the turning direction and quantity of the steering and transmits it to the around view monitor control unit.
- Steering angle sensor signal 3 detects the neutral position of the steering and transmits it to around view monitor control unit.
- Around view monitor control unit performs the correction of neutral position with sensor signal 1, 2, 3 and vehicle speed signal.

### Diagnosis Procedure

INFOID:000000003826701

#### 1.CHECK CONTINUITY STEERING ANGLE SENSOR SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect around view monitor control unit connector and steering angle sensor connector.
- Check continuity between around view monitor control unit harness connector and steering angle sensor harness connector.

Around view monitor control unit		Steering angle sensor		Continuity
Connector	Terminals	Connector	Terminals	
B46	14	M37	3	Existed
	15		4	
	16		5	

- Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminals		
B46	14		Not existed
	15		
	16		

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK SIGNAL SENSOR SIGNAL

- Connect around view monitor control unit connector.
- Turn ignition switch ON.
- Check voltage between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Voltage (Approx.)
Connector	Terminals		
B46	14	Ground	5.0 V
	15		
	16		

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace around view monitor control unit.



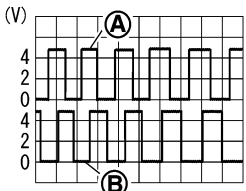
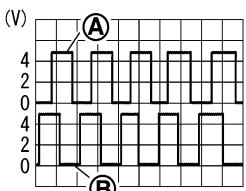
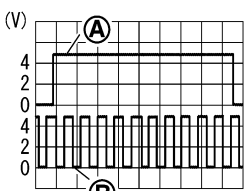
# STEERING ANGLE SENSOR SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## 3.CHECK SIGNAL SENSOR SIGNAL

1. Turn ignition switch OFF.
2. Connect steering angle sensor connector.
3. Turn ignition switch ON.
4. Check signal between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminals			
B46	14, 15	Ground	Turn the steering to the right	 <p>SKIB3827E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
			Turn the steering to the left	 <p>SKIB3828E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
	16	Ground	Turn the steering around the neutral position	 <p>SKIB3829E</p> <p>A: Sensor signal 3 B: Sensor signal 1</p>

Is inspection result normal?

- YES >> INSPECTION END  
 NO >> Replace steering angle sensor.



# STEERING SWITCH SIGNAL A CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## STEERING SWITCH SIGNAL A CIRCUIT

### Description

INFOID:000000003826702

Transmits the steering switch signal to AV control unit.

### Diagnosis Procedure

INFOID:000000003826703

#### 1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M80	6	M36	24	Existed

3. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M80	6		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace spiral cable.

#### 3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector.

(+)AV control unit		(-)AV control unit		Voltage (Approx.)
Connector	Terminal	Connector	Terminal	
M80	6	M80	15	5.0 V

Is inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit.

#### 4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-394, "Component Inspection"](#).

Is inspection result normal?

YES >> INSPECTION END

NO >> Replace steering switch.

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# STEERING SWITCH SIGNAL A CIRCUIT

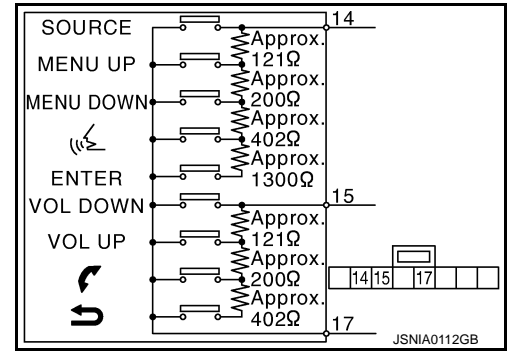
< DTC/CIRCUIT DIAGNOSIS >




[NAVIGATION (SINGLE MONITOR)]

## Component Inspection

INFOID:000000003826704

Measure the resistance between the steering switch connector.



Steering switch		Steering switch		Condition	Resistance value (Ω)
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	ENTER switch ON	2003 – 2043
				 switch ON	716 – 730
				MENU DOWN switch ON	318 – 324
				MENU UP switch ON	120 – 122
				SOURCE switch ON	0
	15			 switch ON	716 – 730
				 switch ON	318 – 324
				VOL UP switch ON	120 – 122
				VOL DOWN switch ON	0



# STEERING SWITCH SIGNAL B CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## STEERING SWITCH SIGNAL B CIRCUIT

### Description

INFOID:000000003826705

Transmits the steering switch signal to AV control unit.

### Diagnosis Procedure

INFOID:000000003826706

#### 1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M80	16	M36	31	Existed

3. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M80	16		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace spiral cable.

#### 3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector.

(+)		(-)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M80	16	M80	15	5.0 V

Is inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit.

#### 4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-396. "Component Inspection"](#).

Is inspection result normal?

YES >> INSPECTION END

NO >> Replace steering switch.

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# STEERING SWITCH SIGNAL B CIRCUIT

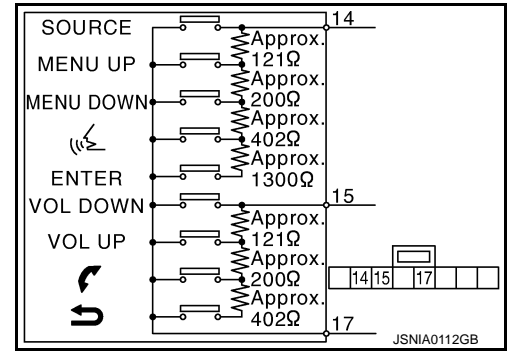
< DTC/CIRCUIT DIAGNOSIS >




[NAVIGATION (SINGLE MONITOR)]

## Component Inspection

INFOID:000000003826707

Measure the resistance between the steering switch connector.



Steering switch		Steering switch		Condition	Resistance value (Ω)
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	ENTER switch ON	2003 – 2043
				 switch ON	716 – 730
				MENU DOWN switch ON	318 – 324
				MENU UP switch ON	120 – 122
				SOURCE switch ON	0
	15			 switch ON	716 – 730
				 switch ON	318 – 324
				VOL UP switch ON	120 – 122
				VOL DOWN switch ON	0



# STEERING SWITCH SIGNAL GND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## STEERING SWITCH SIGNAL GND CIRCUIT

### Description

INFOID:000000003826708

Transmits the steering switch signal to AV control unit.

### Diagnosis Procedure

INFOID:000000003826709

#### 1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M80	15	M36	33	Existed

Is inspection result normal?

- YES >> GO TO 2.  
NO >> Repair harness or connector.

#### 2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

- YES >> GO TO 3.  
NO >> Replace spiral cable.

#### 3.CHECK GROUND CIRCUIT

1. Connect AV control unit connector.
2. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M80	15		Not existed

Is inspection result normal?

- YES >> GO TO 4.  
NO >> Replace AV control unit.

#### 4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-397. "Component Inspection"](#).

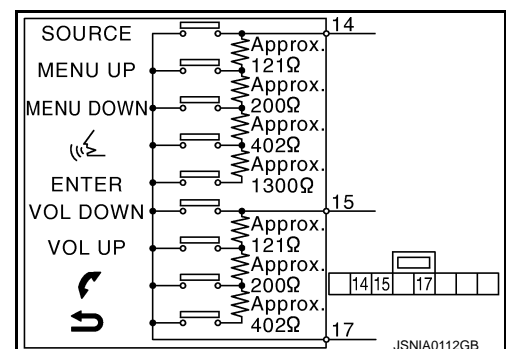
Is inspection result normal?

- YES >> INSPECTION END  
NO >> Replace steering switch.

### Component Inspection

INFOID:000000003826710

Measure the resistance between the steering switch connector.








# STEERING SWITCH SIGNAL GND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Steering switch		Steering switch		Condition	Resistance value (Ω)
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	ENTER switch ON	2003 – 2043
				 switch ON	716 – 730
				MENU DOWN switch ON	318 – 324
				MENU UP switch ON	120 – 122
				SOURCE switch ON	0
	15			 switch ON	716 – 730
				 switch ON	318 – 324
				VOL UP switch ON	120 – 122
				VOL DOWN switch ON	0



# FRONT CAMERA COMMUNICATION SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## FRONT CAMERA COMMUNICATION SIGNAL CIRCUIT

### Description

INFOID:000000003826711

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003826712

#### 1.CHECK CONTINUITY COMMUNICATION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and front camera connector.
3. Check continuity between around view monitor control unit harness connector and front camera harness connector.

Around view monitor control unit		Front camera		Continuity
Connector	Terminal	Connector	Terminal	
B45	45	E155	6	Existed

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B45	45		Not existed

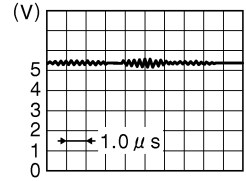
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMMUNICATION SIGNAL

1. Connect around view monitor control unit connector and front camera connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminal			
B45	45	Ground	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace front camera.



# FRONT CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## FRONT CAMERA IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003826713

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003826714

#### 1.CHECK CONTINUITY FRONT CAMERA POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and front camera connector.
3. Check continuity between around view monitor control unit harness connector and front camera harness connector.

Around view monitor control unit		Front camera		Continuity
Connector	Terminals	Connector	Terminals	
B45	44	E155	2	Existed
	46		1	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B45	46		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE FRONT CAMERA POWER SUPPLY

1. Connect around view monitor control unit connector and front camera connector.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit harness connector.

(+) Around view monitor control unit		(-)	Condition	Voltage (Approx.)
Connector	Terminal			
B45	46	Ground	"CAMERA" switch is ON or shift position is "R".	6.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace around view monitor control unit.

#### 3.CHECK CONTINUITY FRONT CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and front camera connector.
3. Check continuity between around view monitor control unit harness connector and front camera harness connector.



# FRONT CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Around view monitor control unit		Front camera		Continuity
Connector	Terminals	Connector	Terminals	
B45	41	E155	3	Existed
	42		4	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminals		
B45	41, 42		Not existed

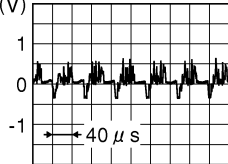
Is inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

## 4.CHECK FRONT CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector and front camera connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector.

(+)		(-)		Condition	Reference value
Around view monitor control unit		Around view monitor control unit			
Connector	Terminal	Connector	Terminal		
B45	41	B45	42	“CAMERA” switch is ON or shift position is “R”.	<div><div>(V)</div><div></div><div>40 μs</div></div> <div>JSNIA0834GB</div>

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace front camera.

AV



# REAR CAMERA COMMUNICATION SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## REAR CAMERA COMMUNICATION SIGNAL CIRCUIT

### Description

INFOID:000000003826715

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003826716

#### 1.CHECK CONTINUITY COMMUNICATION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and rear camera connector.
3. Check continuity between around view monitor control unit harness connector and rear camera harness connector.

Around view monitor control unit		Rear camera		Continuity
Connector	Terminal	Connector	Terminal	
B46	35	D111	4	Existed

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B46	35		Not existed

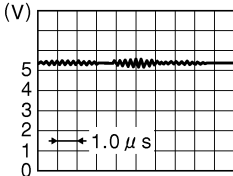
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMMUNICATION SIGNAL

1. Connect around view monitor control unit connector and rear camera connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminal			
B46	35	Ground	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace rear camera.



# REAR CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## REAR CAMERA IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003826717

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003826718

#### 1.CHECK CONTINUITY REAR CAMERA POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and rear camera connector.
3. Check continuity between around view monitor control unit harness connector terminals 36, 38 and rear camera harness connector terminals 8, 7.

Around view monitor control unit		Rear camera		Continuity
Connector	Terminals	Connector	Terminals	
B46	36	D111	8	Existed
	38		7	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B46	36		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE REAR CAMERA POWER SUPPLY

1. Connect around view monitor control unit connector and rear camera connector.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit harness connector and ground.

(+)		(-)	Condition	Voltage (Approx.)
Around view monitor control unit				
Connector	Terminal			
B46	36	Ground	“CAMERA” switch is ON or shift position is “R”.	6.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace around view monitor control unit.

#### 3.CHECK CONTINUITY REAR CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and rear camera connector.
3. Check continuity between around view monitor control unit harness connector and rear camera harness connector.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



# REAR CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Around view monitor control unit		Rear camera		Continuity
Connector	Terminals	Connector	Terminals	
B46	39	D111	5	Existed
	40		1	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminals		
B46	39, 40		Not existed

Is inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

## 4.CHECK REAR CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector and rear camera connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector.

(+)		(-)		Condition	Reference value
Around view monitor control unit		Around view monitor control unit			
Connector	Terminal	Connector	Terminal		
B46	39	B46	40	“CAMERA” switch is ON or shift position is “R”.	<div><div><div>(V)</div><div><div><div>1</div><div>0</div><div>-1</div></div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></d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Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace rear camera.



# SIDE CAMERA LH COMMUNICATION SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## SIDE CAMERA LH COMMUNICATION SIGNAL CIRCUIT

### Description

INFOID:000000003826719

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003826720

#### 1.CHECK CONTINUITY COMMUNICATION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and door mirror (driver side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (driver side) harness connector.

Around view monitor control unit		Door mirror (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
B45	47	D3	3	Existed

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B45	47		Not existed

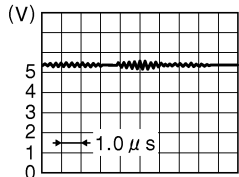
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMMUNICATION SIGNAL

1. Connect around view monitor control unit connector and door mirror (driver side) connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminal			
B45	47	Ground	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace side camera LH.



# SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003826721

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003826722

#### 1.CHECK CONTINUITY SIDE CAMERA LH POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and door mirror (driver side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (driver side) harness connector.

Around view monitor control unit		Door mirror (driver side)		Continuity
Connector	Terminals	Connector	Terminals	
B45	48	D3	6	Existed
	50		18	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B45	48		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE SIDE CAMERA LH POWER SUPPLY

1. Connect around view monitor control unit connector and door mirror (driver side) connector.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Voltage (Approx.)
Connector	Terminal			
B45	48	Ground	"CAMERA" switch is ON or shift position is "R".	6.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace around view monitor control unit.

#### 3.CHECK CONTINUITY SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and door mirror (driver side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (driver side) harness connector.



# SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Around view monitor control unit		Door mirror (driver side)		Continuity
Connector	Terminals	Connector	Terminals	
B45	51	D3	5	Existed
	52		17	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminals		
B45	51, 52		Not existed

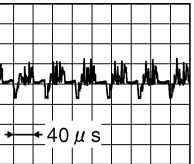
Is inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

## 4.CHECK SIDE CAMERA LH IMAGE SIGNAL

1. Connect around view monitor control unit connector and door mirror (driver side) connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector.

(+) (+)		(−) (−)		Condition	Reference value
Around view monitor control unit		Around view monitor control unit			
Connector	Terminal	Connector	Terminal		
B45	51	B45	52	“CAMERA” switch is ON or shift position is “R”.	<div><div>(V)</div><div></div><div>JSNIA0834GB</div></div>

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace side camera LH.

AV



# SIDE CAMERA RH COMMUNICATION SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## SIDE CAMERA RH COMMUNICATION SIGNAL CIRCUIT

### Description

INFOID:000000003826723

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003826724

#### 1.CHECK CONTINUITY COMMUNICATION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and door mirror (passenger side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (passenger side) harness connector.

Around view monitor control unit		Door mirror (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
B46	33	D33	3	Existed

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B46	33		Not existed

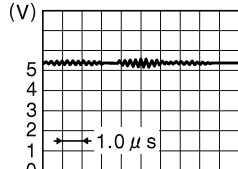
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMMUNICATION SIGNAL

1. Connect around view monitor control unit connector and door mirror (passenger side) connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminal			
B46	33	Ground	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace side camera RH.



# SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003826725

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003826726

#### 1.CHECK CONTINUITY SIDE CAMERA RH POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect control unit connector and door mirror (passenger side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (passenger side) harness connector.

Around view monitor control unit		Door mirror (passenger side)		Continuity
Connector	Terminals	Connector	Terminals	
B46	32	D33	18	Existed
	34		6	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B46	34		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE SIDE CAMERA RH POWER SUPPLY

1. Connect around view monitor control unit connector and door mirror (passenger side) connector.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit harness connector and ground.

(+)		(-)	Condition	Voltage (Approx.)
Around view monitor control unit				
Connector	Terminal			
B46	34	Ground	“CAMERA” switch is ON or shift position is “R”.	6.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace around view monitor control unit.

#### 3.CHECK CONTINUITY SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and door mirror (passenger side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (passenger side) harness connector.

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# SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Around view monitor control unit		Door mirror (passenger side)		Continuity
Connector	Terminals	Connector	Terminals	
B46	29	D33	5	Existed
	30		17	

4. Check continuity between around view monitor control unit harness connector and ground.

around view monitor control unit		Ground	Continuity
Connector	Terminals		
B46	29, 30		Not existed

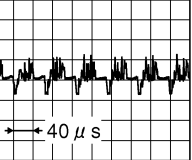
Is inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

## 4.CHECK SIDE CAMERA RH IMAGE SIGNAL

1. Connect around view monitor control unit connector and door mirror (passenger side) connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector.

(+)		(-)		Condition	Reference value
Around view monitor control unit		Around view monitor control unit			
Connector	Terminal	Connector	Terminal		
B46	29	B46	30	“CAMERA” switch is ON or shift position is “R”.	<div><div>(V)</div><div></div><div>JSNIA0834GB</div></div>

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace side camera RH.



## BUZZER CIRCUIT

## Description

INFOID:000000003826727

The sonar control unit outputs the buzzer signal when the rear sonar detects the obstacle.

## Component Function Check

INFOID:000000003826728

## 1. SONAR CONTROL UNIT ACTIVE TEST

1. Select "BUZZER" of sonar control unit active test item.
2. Check the buzzer operation.

BUZZER

Test item	Condition
On	: Buzzer is operation.
Off	: Buzzer is not operation.

&gt;&gt; INSPECTION END

## Diagnosis Procedure

INFOID:000000003826729

## 1. CHECK BUZZER POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between buzzer harness connector and ground.

(+)		(-)	Voltage (Approx.)
Buzzer			
Connector	Terminal		
B231	1	Ground	Battery voltage

Is the inspection result normal?

YES &gt;&gt; GO TO 2.

NO &gt;&gt; Repair harness or connector.

## 2. CHECK HARNESS BUZZER SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect sonar control unit connector and buzzer connector.
3. Check continuity between sonar control unit harness connector and buzzer harness connector.

Sonar control unit		Buzzer		Continuity
Connector	Terminal	Connector	Terminal	
M44	23	B231	2	Existed

4. Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	23		Not existed

Is the inspection result normal?

YES &gt;&gt; GO TO 3.

NO &gt;&gt; Repair harness or connector.

## 3. CHECK SIGNAL SONAR CONTROL UNIT

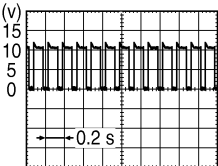
1. Connect sonar control unit connector and buzzer connector.
2. Check signal between sonar control unit harness connector and ground.



# BUZZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

(+)		(-)	Condition	Reference value
Sonar control unit				
Connector	Terminal			
M44	23	Ground	When buzzer operation	<div><b>NOTE:</b> Waveform period changes due to the distance to an obstacle.</div> <div></div> <div>SKIB8943E</div>

Is the inspection result normal?

YES >> INSPECTION END  
 NO >> Replace sonar control unit.



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## ECU DIAGNOSIS INFORMATION

### AV CONTROL UNIT

#### Reference Value

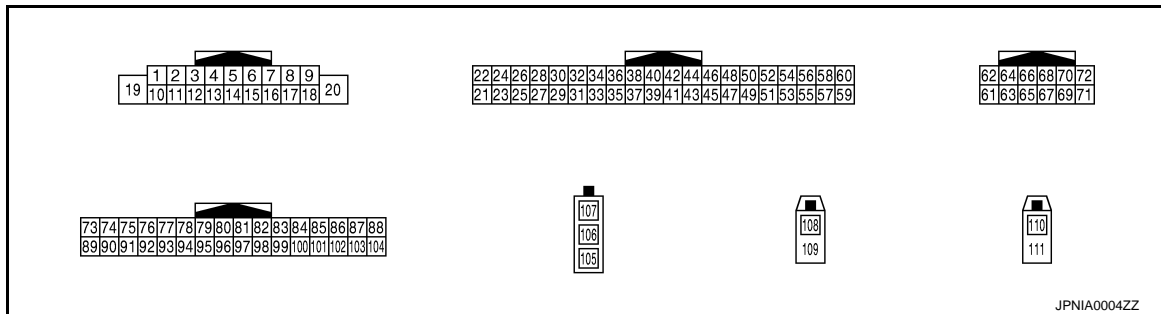
INFOID:000000003826730

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition		Value/Status
VHCL SPD SIG	Ignition switch ON	Vehicle speed > 0 km/h (0 MPH)	On
		Vehicle speed = 0 km/h (0 MPH)	Off
PKB SIG	Ignition switch ON	Parking brake is applied.	On
		Parking brake is released.	Off
ILLUM SIG	Ignition switch ON	Light switch ON	On
		Light switch OFF	Off
IGN SIG	Ignition switch ON	—	On
	Ignition switch ACC	—	Off
REV SIG	Ignition switch ON	Selector lever in R position	On
		Selector lever in any position other than R	Off

#### TERMINAL LAYOUT



#### PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (V)	Ground	Amp. ON signal	Output	Ignition switch ON	—	12.0 V
2 (P)	3 (L)	Sound signal front LH	Output	Ignition switch ON	Audio output	

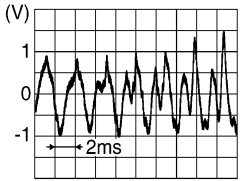

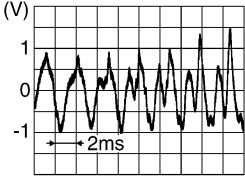
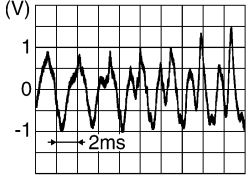


SKIB3609E



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

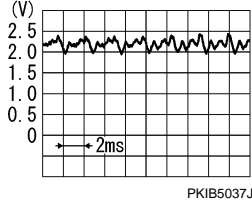
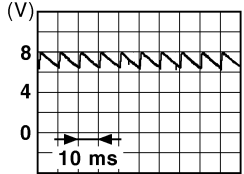
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
4 (V)	5 (LG)	Sound signal rear LH	Output	Ignition switch ON	Audio output	 SKIB3609E
6 (P)	15 (B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing MENU UP switch.	1.0 V
					Keep pressing MENU DOWN switch.	2.0 V
					Keep pressing  switch	3.0 V
					Keep pressing ENTER switch.	4.0 V
					Except for above.	5.0 V
7 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R)	Ground	Illumination signal	Input	OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V
10	—	Shield	—	—	—	—
11 (R)	12 (G)	Sound signal front RH	Output	Ignition switch ON	Audio output	 SKIB3609E
13 (BR)	14 (Y)	Sound signal rear RH	Output	Ignition switch ON	Audio output	 SKIB3609E
15 (B)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
16 (L)	15 (B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch.	0 V
					Keep pressing VOL UP switch.	1.0 V
					Keep pressing  switch.	2.0 V
					Keep pressing  switch.	3.0 V
					Except for above.	5.0 V



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
21 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
22 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
23 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
24 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
25 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
26 (G)	27	Microphone VCC	Output	Ignition switch ON	—	5.0 V
27	Ground	Microphone ground	—	ON	—	0 V
28 (R)	27	Microphone signal	Input	Ignition switch ON	Give a voice	
35 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
36 (V)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON	0 V
					Parking brake OFF	
37 (O)	Ground	Reverse signal	Input	Ignition switch ON	R position	12.0 V
					Other than R position	0 V

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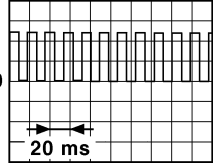
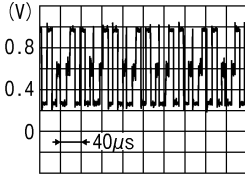
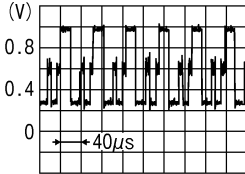
AV



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

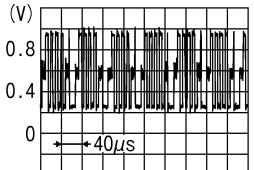
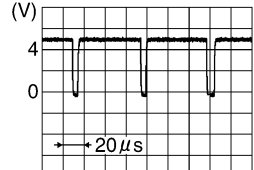
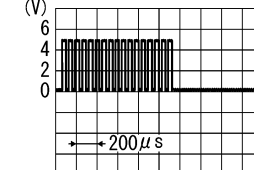
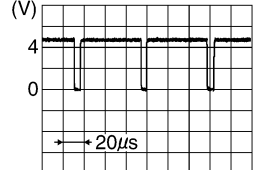
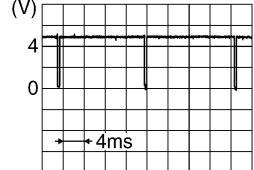
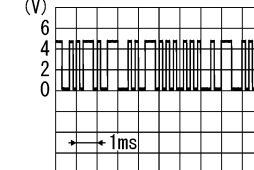
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
38 (R)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25MPH)	<b>NOTE:</b> The maximum voltage varies de- pending on the specification (destination unit).  <small>JSNIA0012GB</small>
41 (B)	Ground	Control signal 1	—	Ignition switch ON	—	0 V
42 (B)	Ground	Control signal 2	—	Ignition switch ON	—	0 V
43 (B)	Ground	Control signal 3	—	Ignition switch ON	—	0 V
44 (SB)	Ground	Mode change signal	Output	Ignition switch ON	Driver's Audio Stage ON	0 V
					Driver's Audio Stage OFF	8.5 V
48 (G)	—	AV communication signal (H)	Input/ Output	—	—	—
49 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
50 (LG)	—	AV communication signal (H)	Input/ Output	—	—	—
51 (V)	—	AV communication signal (L)	Input/ Output	—	—	—
52 (L)	—	CAN-H	Input/ Output	—	—	—
53 (P)	—	CAN-L	Input/ Output	—	—	—
61 (B)	Ground	RGB signal (R: red)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <small>JSNIA1029ZZ</small>
62 (W)	Ground	RGB signal (G: green)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <small>JSNIA1030ZZ</small>



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
63 (R)	Ground	RGB signal (B: blue)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 JSNIA1031ZZ
64	—	Shield	—	—	—	—
65 (G)	Ground	RGB synchronizing signal	Output	Ignition switch ON	—	 SKIB3603E
66	—	Shield	—	—	—	—
67 (B)	Ground	RGB area (YS) signal	Output	Ignition switch ON	At RGB image display	5.0 V
					At camera image or AUX image display.	 PKIB4948J
68 (R)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON	—	 SKIB3601E
69 (W)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON	—	 SKIB3598E
70 (BR)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J

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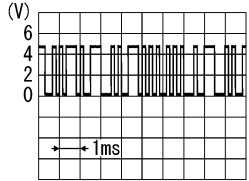
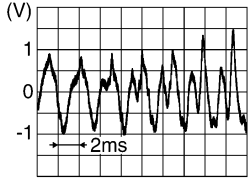
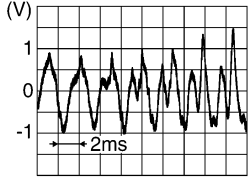
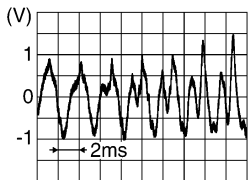
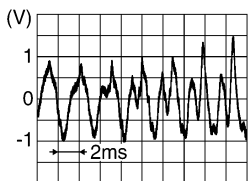
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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
71 (Y)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
72	—	Shield	—	—	—	—
79 (R)	95 (G)	iPod sound signal LH	Input	Ignition switch ON	When iPod mode is select- ed.	 SKIB3609E
80 (BR)	96 (Y)	iPod sound signal RH	Input	Ignition switch ON	When iPod mode is select- ed.	 SKIB3609E
81	—	Shield	—	—	—	—
85 (SB)	Ground	Disk eject signal	Input	—	Pressing the eject switch	0 V
86	—	Shield	—	—	Except for above	3.3 V
87 (R)	88 (W)	AUX sound signal LH	Input	Ignition switch ON	When AUX mode is select- ed.	 SKIB3609E
102 (BR)	Ground	SW ground	—	Ignition switch ON	—	0 V
103 (B)	88 (W)	AUX sound signal RH	Input	Ignition switch ON	When AUX mode is select- ed.	 SKIB3609E
105	—	FM sub	Input	—	—	—
106	—	AM-FM main	Input	—	—	—
107	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12.0 V



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
108	Ground	Satellite antenna signal	Input	Ignition switch ACC	Not connected to satellite antenna connector.	5.0 V
109	—	Shield	—	—	—	—
110	Ground	GPS antenna signal	Input	Ignition switch ACC	Not connected to GPS an- tenna connector.	5.0 V
111	—	Shield	—	—	—	—

Wiring Diagram - BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR) -

INFOID:0000000003826733

**NOTE:**

A  
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AV

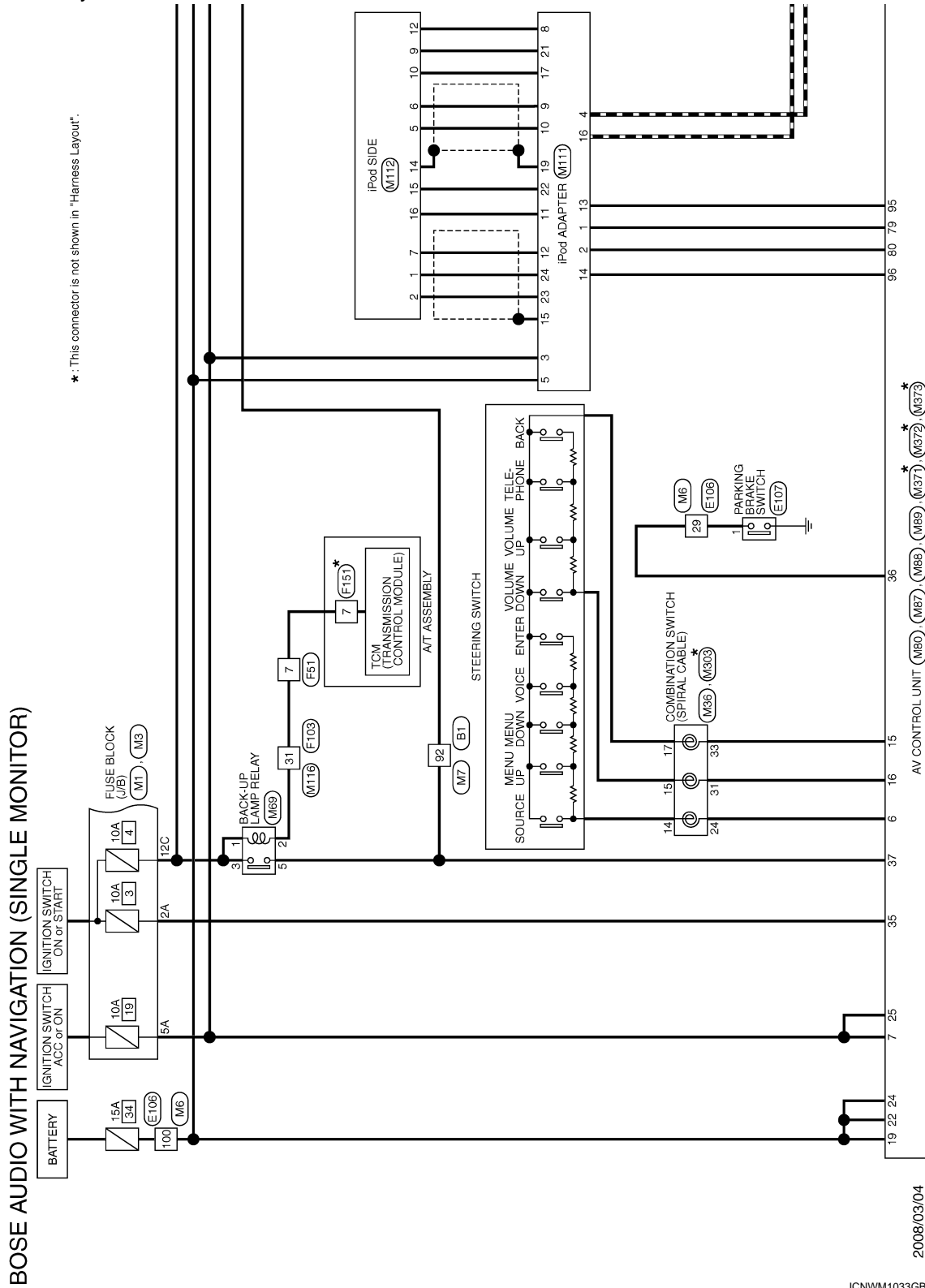


# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



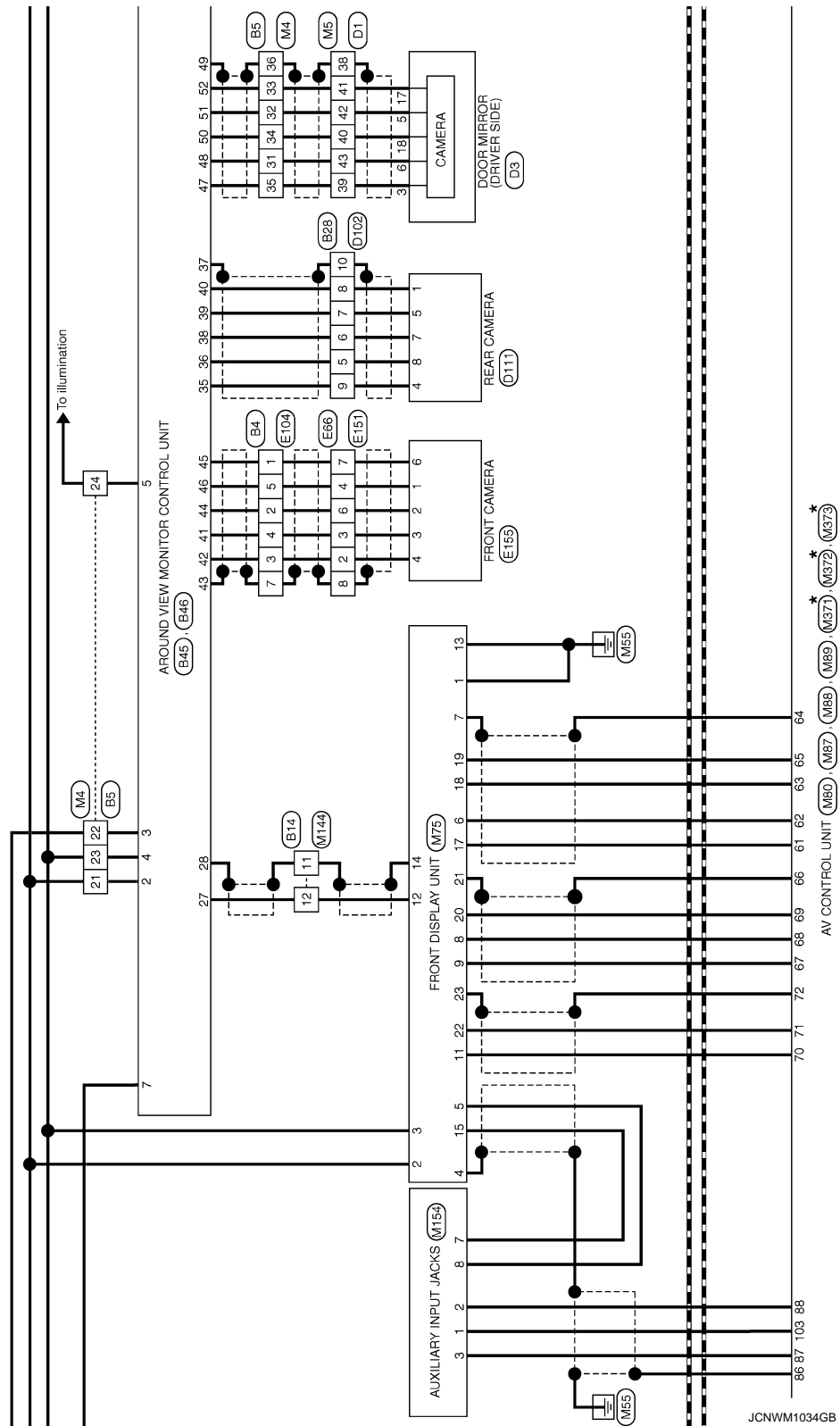


# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

\*: This connector is not shown in "Harness Layout".



JCNWM1034GB

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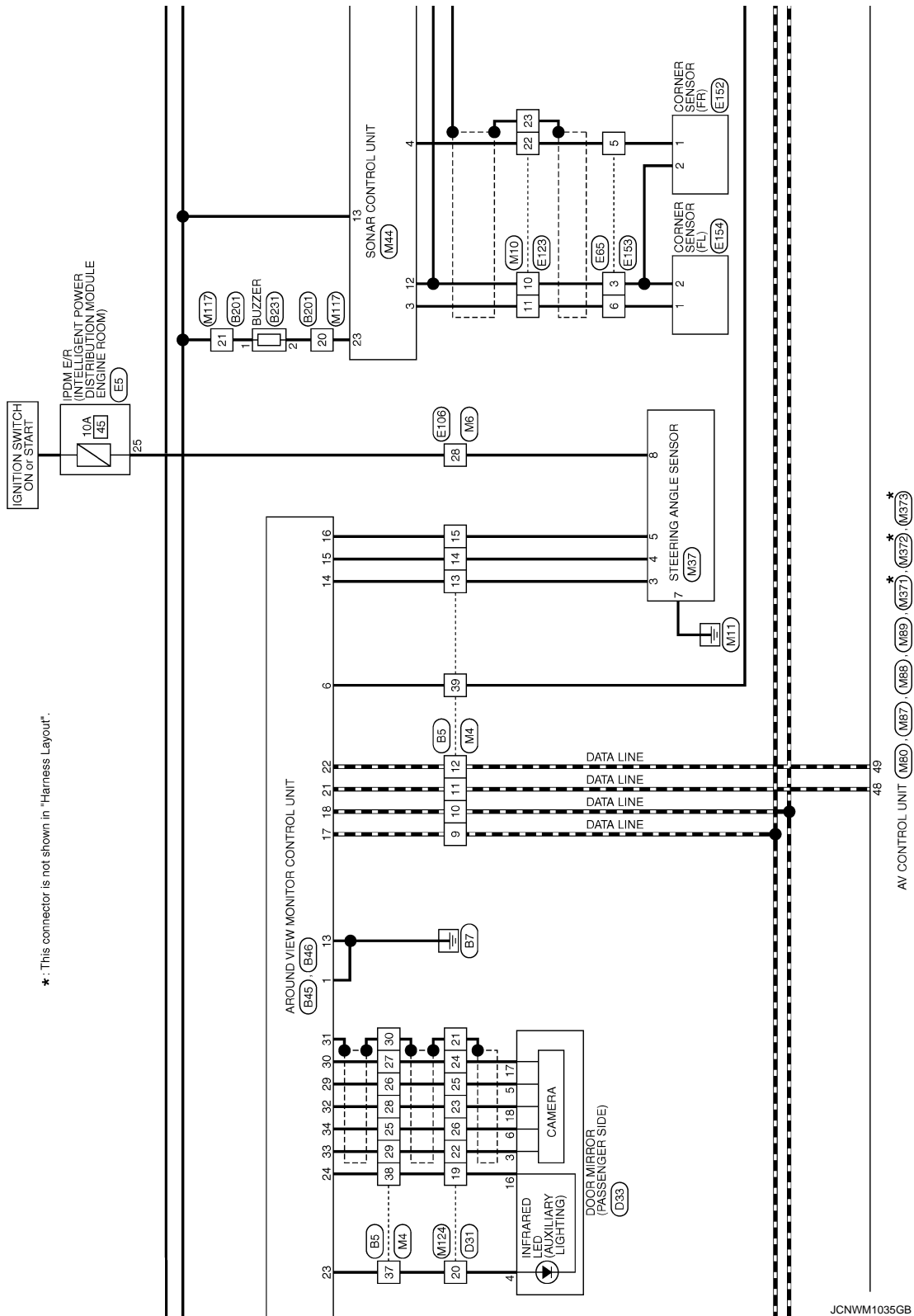
AV



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]



JCNWM1035GB



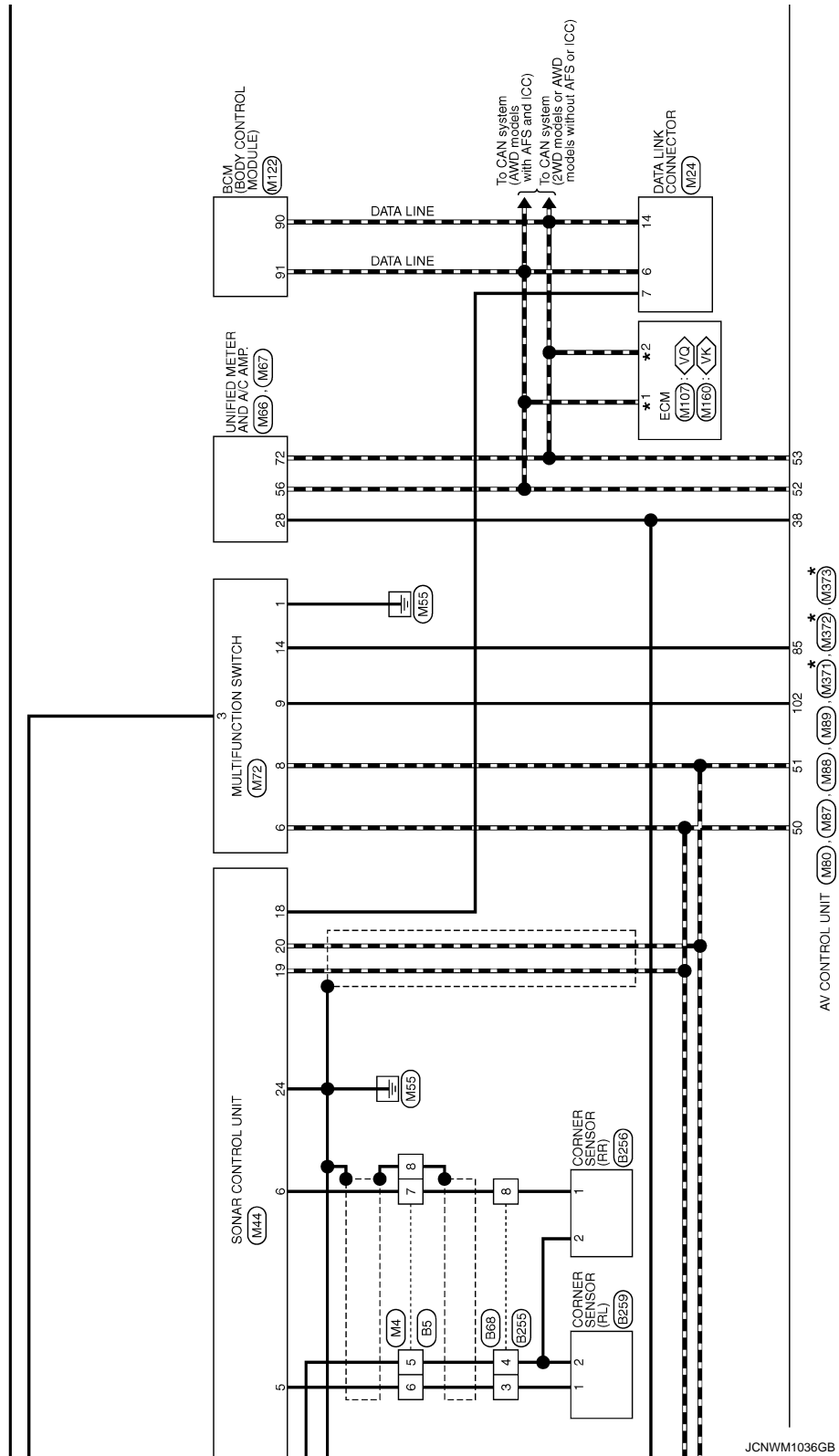
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

VQ : With VQ engine  
 VK : With VK engine  
 \*1 114 : VQ  
 105 : VK  
 \*2 113 : VQ  
 101 : VK

\* : This connector is not shown in "Harness Layout".



JCNWM1036GB

A  
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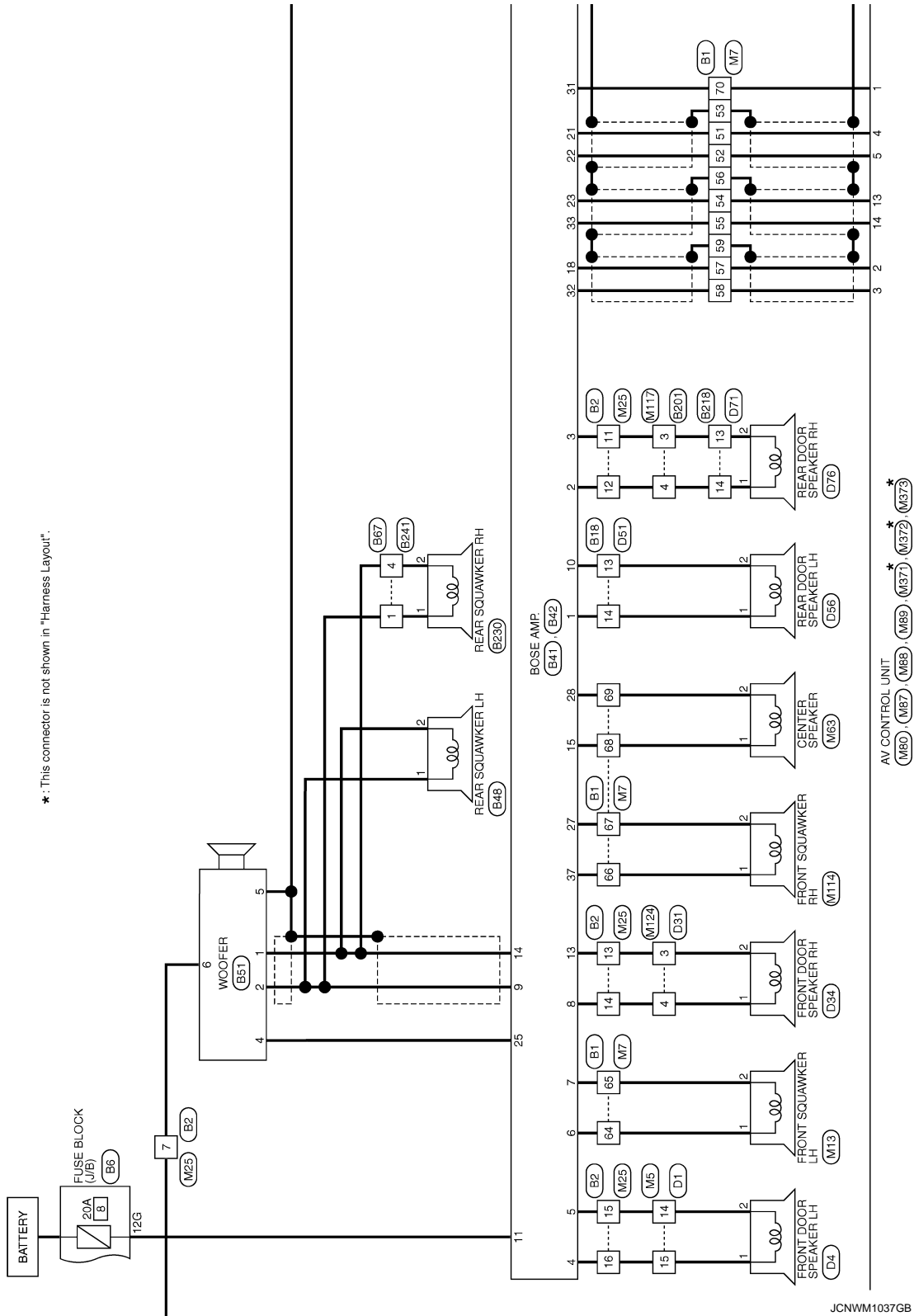
AV



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]



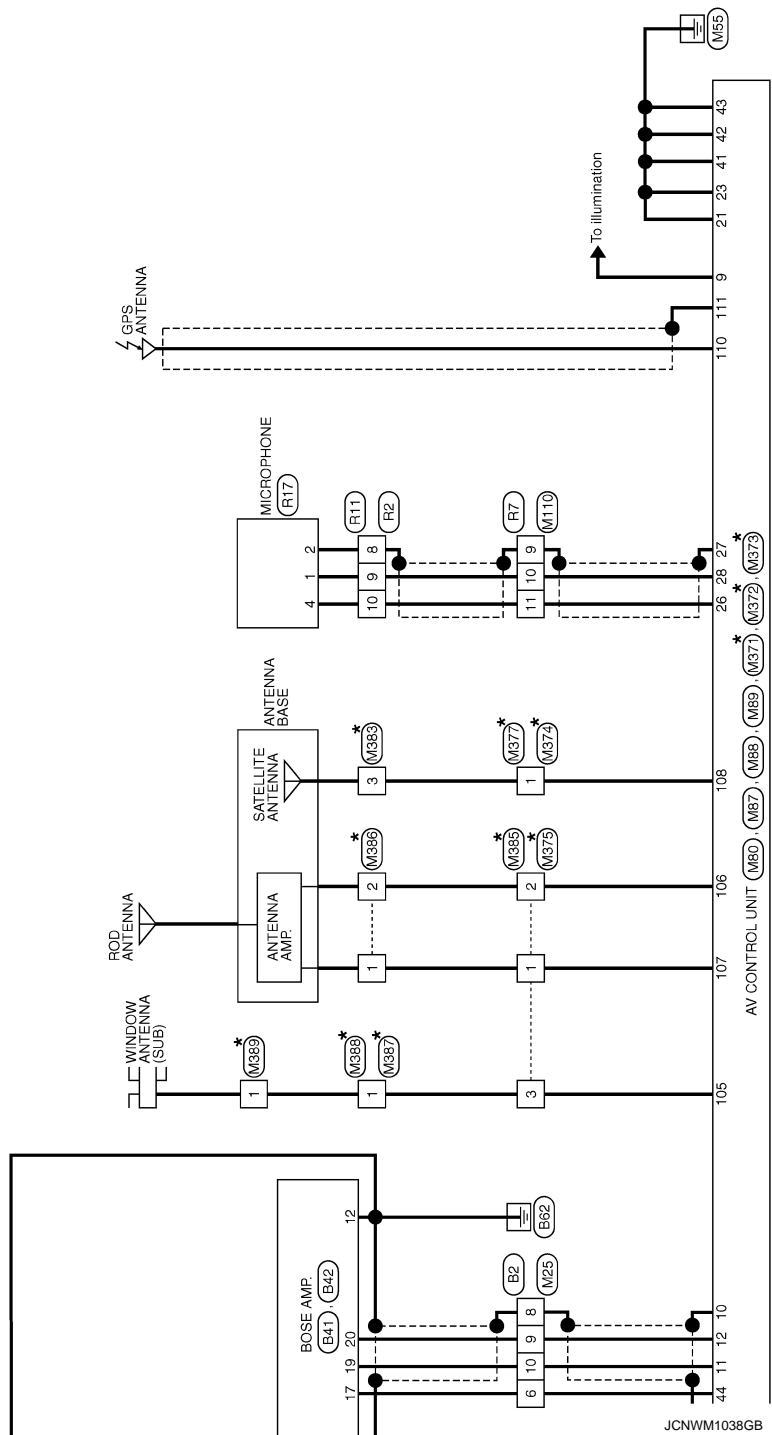


# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

★: This connector is not shown in "Harness Layout".





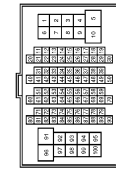
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

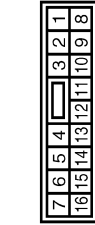
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

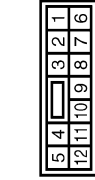


66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

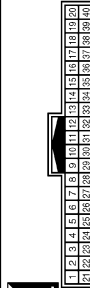


Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

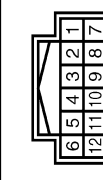


21	Y	-
22	G	-
23	LG	-
24	R	-
25	L	-
26	R	-
27	Y	-
28	W	-
29	BR	-
30	SHIELD	-
31	L	-
32	R	-
33	Y	-
34	W	-
35	BR	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	B6
Connector Name	FUSE BLOCK (U/B)
Connector Type	NS12FBR-CS



Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1039GB



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

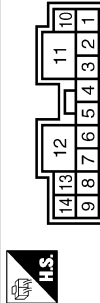
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TKUPW-NS8



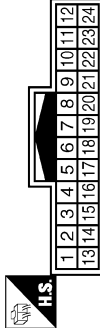
Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FER-SJA2



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOVER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

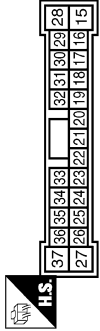
Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MP-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Terminal No.	12
Color of Wire	B
Signal Name [Specification]	GND
Terminal No.	13
Color of Wire	Y
Signal Name [Specification]	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
Terminal No.	14
Color of Wire	R
Signal Name [Specification]	SOUND SIGNAL WOOVER AND REAR SQUAWKER (-)

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA15FER-SGA4



Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOVER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Terminal No.	31
Color of Wire	GR
Signal Name [Specification]	AMP. ON SIGNAL
Terminal No.	32
Color of Wire	L
Signal Name [Specification]	SOUND SIGNAL FRONT LH (-)
Terminal No.	33
Color of Wire	Y
Signal Name [Specification]	SOUND SIGNAL REAR RH (-)
Terminal No.	37
Color of Wire	V
Signal Name [Specification]	SOUND SIGNAL FRONT SQUAWKER RH (+)

Terminal No.	52
Color of Wire	Y
Signal Name [Specification]	SIDE CAMERA LH IMAGE GND

JCNWM1040GB

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AV



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (R-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3



1	2	3	4	5	6	7	8
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Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (C)
24	G	LED (C)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH GND
33	BR	SIDE CAMERA RH COMM
34	L	SIDE CAMERA RH POWER SUPPLY
35	W	REAR CAMERA COMM
36	G	REAR CAMERA POWER SUPPLY
37	SHIELD	SHIELD
38	L	REAR CAMERA GND
39	Y	REAR CAMERA IMAGE SIGNAL
40	BR	REAR CAMERA IMAGE GND



1	2	3	4	5	6	7	8
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Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS08MGY

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH03FW-CS16-TM4

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY



1	2	3	4	5	6
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Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP. ON SIGNAL
5	B	GND
6	W	BATTERY

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	GR	- [With NAVI]
21	L	- [With NAVI]

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

JCNWM1041GB



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FER-DGY



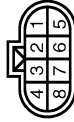
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	GR	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RS08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

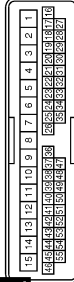
Connector No.	B256
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH4UFW-CS15



Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	BR	-
41	L	-
42	Y	-
43	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
5	Y	-
6	R	-
17	L	-
18	BR	-

JCNWM1042GB

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D  
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M  
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P

AV



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

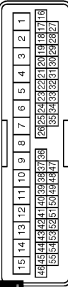
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
18	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

JCNWM1043GB



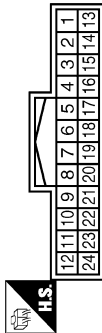
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

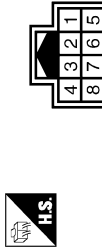
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



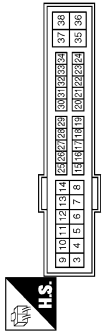
Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH68MH-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

Connector No.	E5
Connector Name	SPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



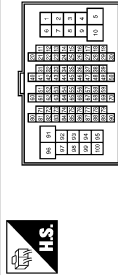
Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



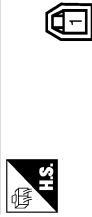
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

JCNWM1044GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS06MB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

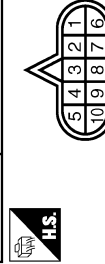
Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



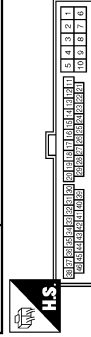
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

JCNWM1045GB



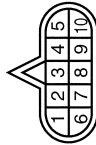
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



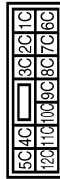
Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSGFW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

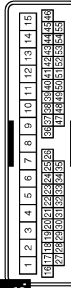
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

JCNWM1046GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

AV



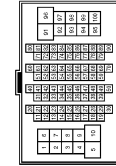
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

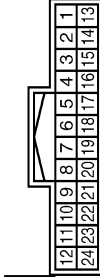
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

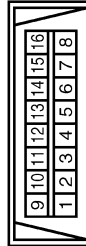
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

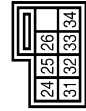
Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



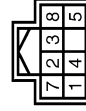
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

JCNWM1047GB



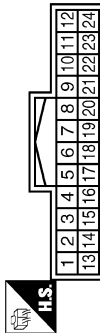
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

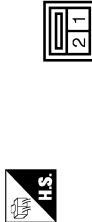
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M44
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



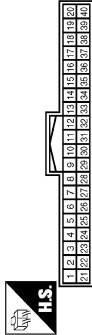
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
16	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FER



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH22FW-NH

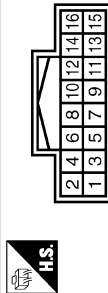


Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

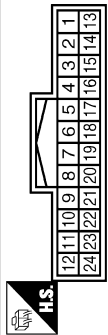
Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
13	B	GND
14	SHIELD	SHIELD
15	R	AUX IMAGE SIGNAL (With entertainment system)
17	B	RGB (R RED) SIGNAL
18	R	RGB (B BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT)
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	R	AUX IMAGE GND (Without entertainment system)
6	W	RGB (G GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

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A B C D E F G H I J K L M N O P

AV



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-GSZ

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20							

13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH40FW-NH

21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38
39	40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65
66	67	68	69	70	71	72	73	74
75	76	77	78	79	80	81	82	83
84	85	86	87	88	89	90	91	92
93	94	95	96	97	98	99	100	101
102	103	104						

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP. ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
9	R	ILLUMINATION
10	B	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	V	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH

62	64	66	68	70	72
61	63	65	67	69	71

72	SHIELD	SHIELD
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Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH

73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104

Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R RED) SIGNAL
62	W	RGB (G GREEN) SIGNAL
63	R	RGB (B BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (VS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Terminal No.	Color of Wire	Signal Name [Specification]
79	R	IPod SOUND SIGNAL LH (+) (Without entertainment system)
80	BR	IPod SOUND SIGNAL RH (+) (Without entertainment system)
85	SB	DISK EJECT SIGNAL
86	SHIELD	SHIELD
87	R	AUX SOUND SIGNAL LH (+)
88	W	AUX SOUND SIGNAL GND
95	G	IPod SOUND SIGNAL LH (-) (Without entertainment system)
96	Y	IPod SOUND SIGNAL RH (-) (Without entertainment system)
102	BR	SW GND
103	B	AUX SOUND SIGNAL RH (+)

38	R	VEHICLE SPEED (8-PULSE)
41	B	CONTROL SIGNAL 1
42	B	CONTROL SIGNAL 2
43	B	CONTROL SIGNAL 3
44	SB	MODE CHANGE SIGNAL
48	G	AV COMM (H)
49	R	AV COMM (L)
50	LG	AV COMM (H)
51	V	AV COMM (L)
52	L	GM-H
53	P	GM-L

Connector No.	MI07
Connector Name	ECM (WITH VQ ENGINE)
Connector Type	RH24FGY-RZ8-R-LH-Z

128	129	130	131	132	133	134	135	136	137
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1018	1019	1020	1021	1022	1023	1024	1025	1026	1027
1028	1029	1030	1031	1032	1033	1034	1035	1036	1037
1038	1039	1040	1041	1042	1043	1044	1045	1046	1047
1048	1049	1050	1051	1052	1053	1054	1055	1056	1057
1058	1059	1060	1061	1062	1063	1064	1065	1066	1067
1068	1069	1070	1071	1072	1073	1074	1075	1076	1077



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M110
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	- [With NAVI]
11	G	- [With NAVI]

Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (+)
2	BR	IPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	IPod BATTERY CHARGE
9	Y	COMM (IPod ADAPTER->IPod)
10	BR	COMM (IPod->IPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (-)

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



2	1
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

14	Y	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	IPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	IPod SOUND SIGNAL GND
24	B	IPod SOUND SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	IPod SOUND SIGNAL LH (+)
2	W	IPod SOUND SIGNAL GND
5	BR	COMM (IPod->IPod ADAPTER)
6	Y	COMM (IPod ADAPTER->IPod)
7	R	IPod SOUND SIGNAL RH (+)
9	SB	IPod CONNECTION RECOGNITION
10	B	GND
12	W	IPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	GR	- [With NAVI]
21	V	-

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

JCNWM1050GB

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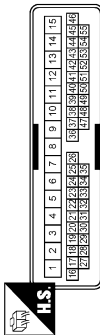
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-BH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



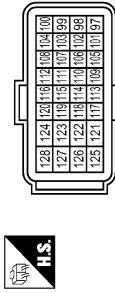
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M372
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	FAMRA JACK



Terminal No.	Color of Wire	Signal Name [Specification]
108	-	SAETTLITE ANTENNA

Connector No.	M160
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH24FGY-225-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA
111	SHIELD	SHIELD

JCNWM1051GB



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M373
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



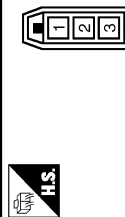
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M383
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



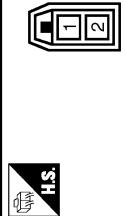
Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCH-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	JASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1052GB

A  
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I  
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K  
L  
M  
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P

AV



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

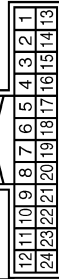
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01EF-A



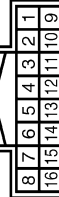
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	RT1
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	RT7
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

JCNWM1053GB

INFOID:0000000003826734

## Fail-Safe

When the ambient temperature becomes extremely low or extremely high, or when HDD is malfunctioning, AV control unit displays the message and limits the AV control unit function.

### FAIL-SAFE CONDITIONS

- When the ambient temperature is  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) or lower, or when it is  $70^{\circ}\text{C}$  ( $158^{\circ}\text{F}$ ) or higher
- when HDD is malfunctioning



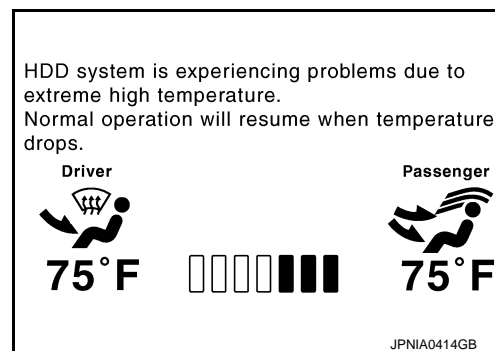
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## Display

The messages displayed on fail-safe conditions are as shown below:



Fail-safe mode	Display (display of the fail-safe condition)
When HDD temperature is low	HDD system is experiencing problems due to extreme low temperature. Normal operation will resume when temperature rises.
When HDD temperature is high	HDD system is experiencing problems due to extreme high temperature. Normal operation will resume when temperature drops.
When HDD is malfunctioning	HDD system is not functioning. Please contact your dealer for assistance.

## DESCRIPTION OF CONTROLS

Function		When Fail-safe Function is activated
Air conditioner	Operation	Only multifunction switch (preset switch) can be operated.
	Display	<ul style="list-style-type: none"><li>• LED of multifunction switch (preset switch) illuminates.</li><li>• Aimed temperature, blow angle, and flow rate are displayed in simplified mode.</li></ul>
Audio	Operation	Only ON/OFF and volume control operations by multifunction switch (preset switch) are possible.
	Display	No display ("Fail-safe mode" is displayed)
Camera	Operation	Image tone cannot be controlled.
	Display	Cannot be superimposed. (warning display, tone control display)
Hands-free phone	Operation	Cannot be operated.
Navigation	Operation	Cannot be operated.
Self diagnosis		The display in simplified mode of fail-safe condition
CONSULT-III diagnosis		Cannot be operated.

## Ability Operation Mode

There is an ability operation mode for Fail-safes due to low or high ambience temperature.

If HDD data can be read, fail-safe is shown, then normal displays are displayed only for functions which can be operated.

## RELEASE CONDITIONS OF FAIL-SAFE

Fail-safe is released on following conditions and normal mode is restored.

When the temperature of HDD is low or high

If the ambient temperature becomes out of fail-safe condition range, normal mode is restored.

When HDD is malfunctioning

If the malfunction disappears, normal mode is restored.

### NOTE:

- If fail-safe mode due to HDD malfunction is seen continuously, replace AV control unit.
- If fail-safe mode due to HDD malfunction is seen temporarily, check the "Error History" of Confirmation/Adjustment mode. If this is normal, then continue the normal operation, observing the function. (It might be a temporary malfunction of HDD.)



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## DTC Index

INFOID:000000003826735

Self-diagnosis results display item

DTC	Display item	Refer to
U1000	CAN COMM CIRCUIT [U1000]	<a href="#">AV-339, "Diagnosis Procedure"</a>
U1010	CONTROL UNIT (CAN) [U1010]	<a href="#">AV-340, "Diagnosis Procedure"</a>
U1310	CONTROL UNIT (AV) [U1310]	<a href="#">AV-341, "DTC Logic"</a>
U1200	Control Unit FLASH-ROM [U1200]	<a href="#">AV-342, "DTC Logic"</a>
U1201	Gyro NO CONN [U1201]	<a href="#">AV-343, "DTC Logic"</a>
U1216	CAN CONT [U1216]	<a href="#">AV-344, "DTC Logic"</a>
U1217	BLUETOOTH CONN [U1217]	<a href="#">AV-345, "DTC Logic"</a>
U1218	HDD CONN [U1218]	<a href="#">AV-346, "DTC Logic"</a>
U1219	HDD READ [U1219]	<a href="#">AV-347, "DTC Logic"</a>
U1220	XM SERIAL COMM [U1220]	<a href="#">AV-348, "DTC Logic"</a>
U121A	HDD WRITE [U121A]	<a href="#">AV-349, "DTC Logic"</a>
U121B	HDD COMM [U121B]	<a href="#">AV-350, "DTC Logic"</a>
U121C	HDD ACCESS [U121C]	<a href="#">AV-351, "DTC Logic"</a>
U121D	DSP CONN [U121D]	<a href="#">AV-352, "DTC Logic"</a>
U121E	DSP COMM [U121E]	<a href="#">AV-353, "DTC Logic"</a>
U121F	INTERNAL COMM [U121F]	<a href="#">AV-354, "Diagnosis Procedure"</a>
U1204	GPS COMM [U1204]	<a href="#">AV-355, "Diagnosis Procedure"</a>
U1205	GPS ROM [U1205]	<a href="#">AV-356, "Diagnosis Procedure"</a>
U1206	GPS RAM [U1206]	<a href="#">AV-357, "Diagnosis Procedure"</a>
U1207	GPS RTC [U1207]	<a href="#">AV-358, "Diagnosis Procedure"</a>
U1243	FRONT DISP CONN [U1243]	<a href="#">AV-359, "Diagnosis Procedure"</a>
U1244	GPS ANTENNA CONN [U1244]	<a href="#">AV-361, "Diagnosis Procedure"</a>
U1258	XM ANTENNA CONN [U1258]	<a href="#">AV-362, "Diagnosis Procedure"</a>
U1300 U121F	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• INTERNAL COMM [U121F]</li> </ul>	<a href="#">AV-363, "Description"</a>
U1300 U1240	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• SWITCH CONN [U1240]</li> </ul>	<a href="#">AV-363, "Description"</a>
U1300 U1254	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• IPod CONN [U1254]</li> </ul>	<a href="#">AV-363, "Description"</a>
U1300 U125B	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• AROUND CAMERA CONN [U125B]</li> </ul>	<a href="#">AV-363, "Description"</a>
U1300 U125C	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• SONAR CONN [U125C]</li> </ul>	<a href="#">AV-363, "Description"</a>
U1300 U1240 U1254 U125B	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• SWITCH CONN [U1240]</li> <li>• IPod CONN [U1254]</li> <li>• AROUND CAMERA CONN [U125B]</li> </ul>	<a href="#">AV-363, "Description"</a>



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

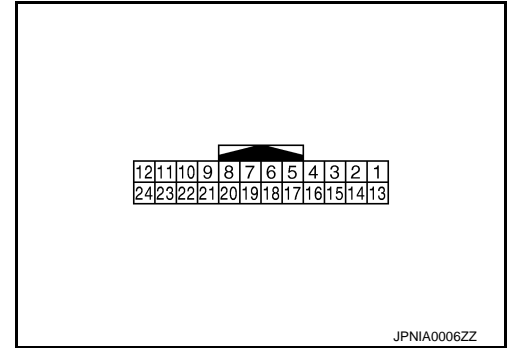
[NAVIGATION (SINGLE MONITOR)]

## FRONT DISPLAY UNIT

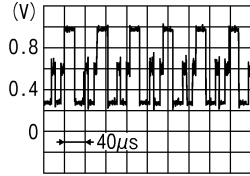
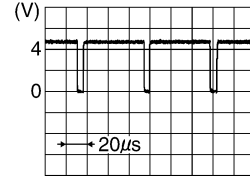
### Reference Value

INFOID:000000003826736

### TERMINAL LAYOUT



### PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (P)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
3 (L)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
4	—	Shield	—	—	—	—
5 (R)	Ground	AUX image ground	—	Ignition switch ON	—	0 V
6 (W)	Ground	RGB signal (G: green)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 JSNIA1030ZZ
7	—	Shield	—	—	—	—
8 (R)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	 SKIB3601E

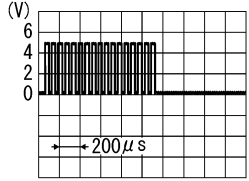
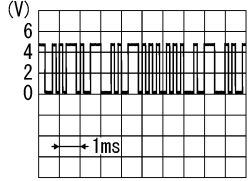
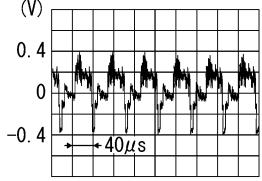
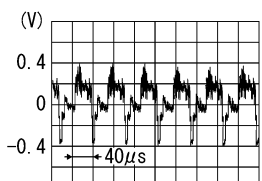
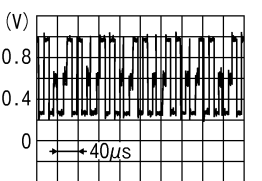
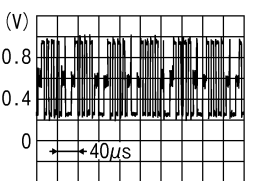
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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

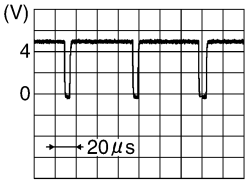
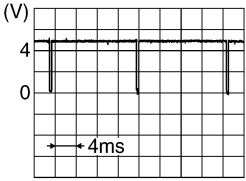
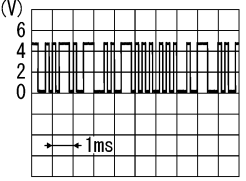
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (B)	Ground	RGB area (YS) signal	Input	Ignition switch ON	At RGB image display	5.0 V
					At camera image display	 <p>PKIB4948J</p>
11 (BR)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display brightness.	 <p>PKIB5039J</p>
12 (W)	Ground	Camera image signal	Input	Ignition switch ON	At rear view camera image display	 <p>SKIB2251J</p>
13 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
14	—	Shield	—	—	—	—
15 (G)	Ground	AUX image signal	Input	Ignition switch ON	AUX image display	 <p>SKIB2251J</p>
17 (B)	Ground	RGB signal (R: red)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 <p>JSNIA1029ZZ</p>
18 (R)	Ground	RGB signal (B: blue)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 <p>JSNIA1031ZZ</p>



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
19 (G)	Ground	RGB synchronizing signal	Input	Ignition switch ON	—	 SKIB3603E
20 (W)	Ground	Vertical synchronizing (VP) signal	Output	Ignition switch ON	—	 SKIB3598E
21	—	Shield	—	—	—	—
22 (Y)	Ground	Communication signal (DISP→CONT)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
23	—	Shield	—	—	—	—

## Wiring Diagram - BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR) -

INFOID:0000000003826880

**NOTE:**

AV

O

P

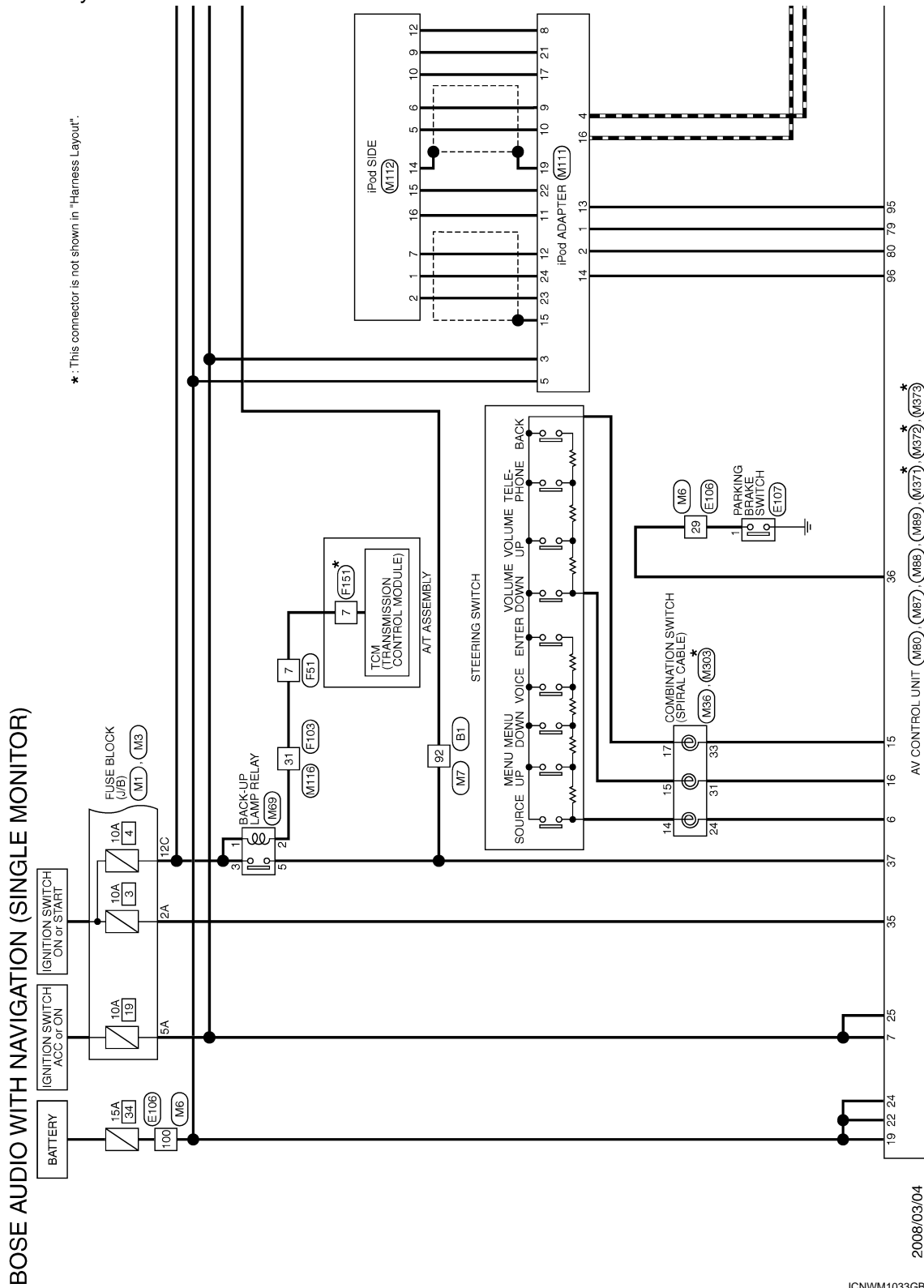


# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

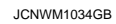
[NAVIGATION (SINGLE MONITOR)]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.





## [NAVIGATION (SINGLE MONITOR)]



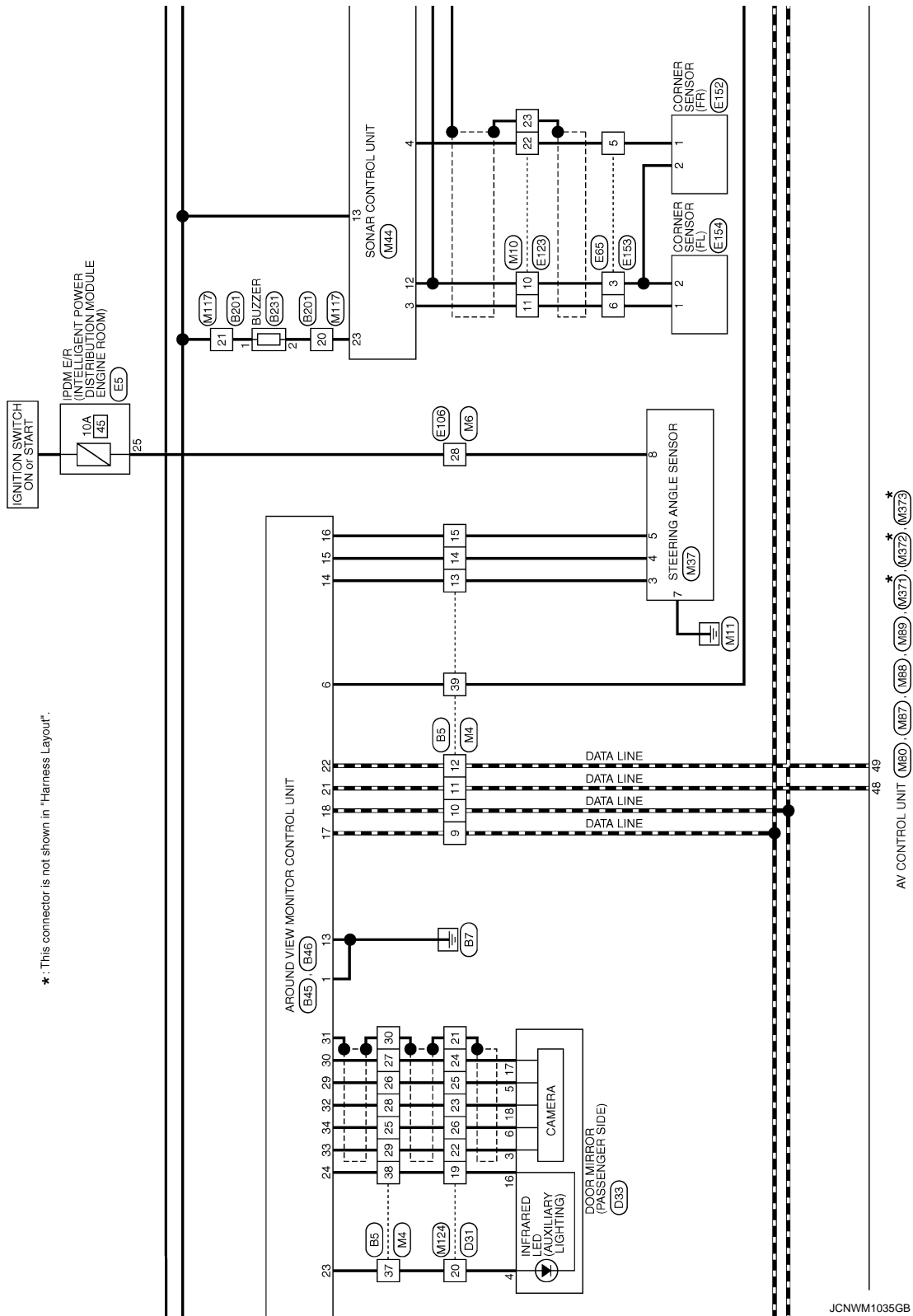
AV



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]



JCNWM1035GB



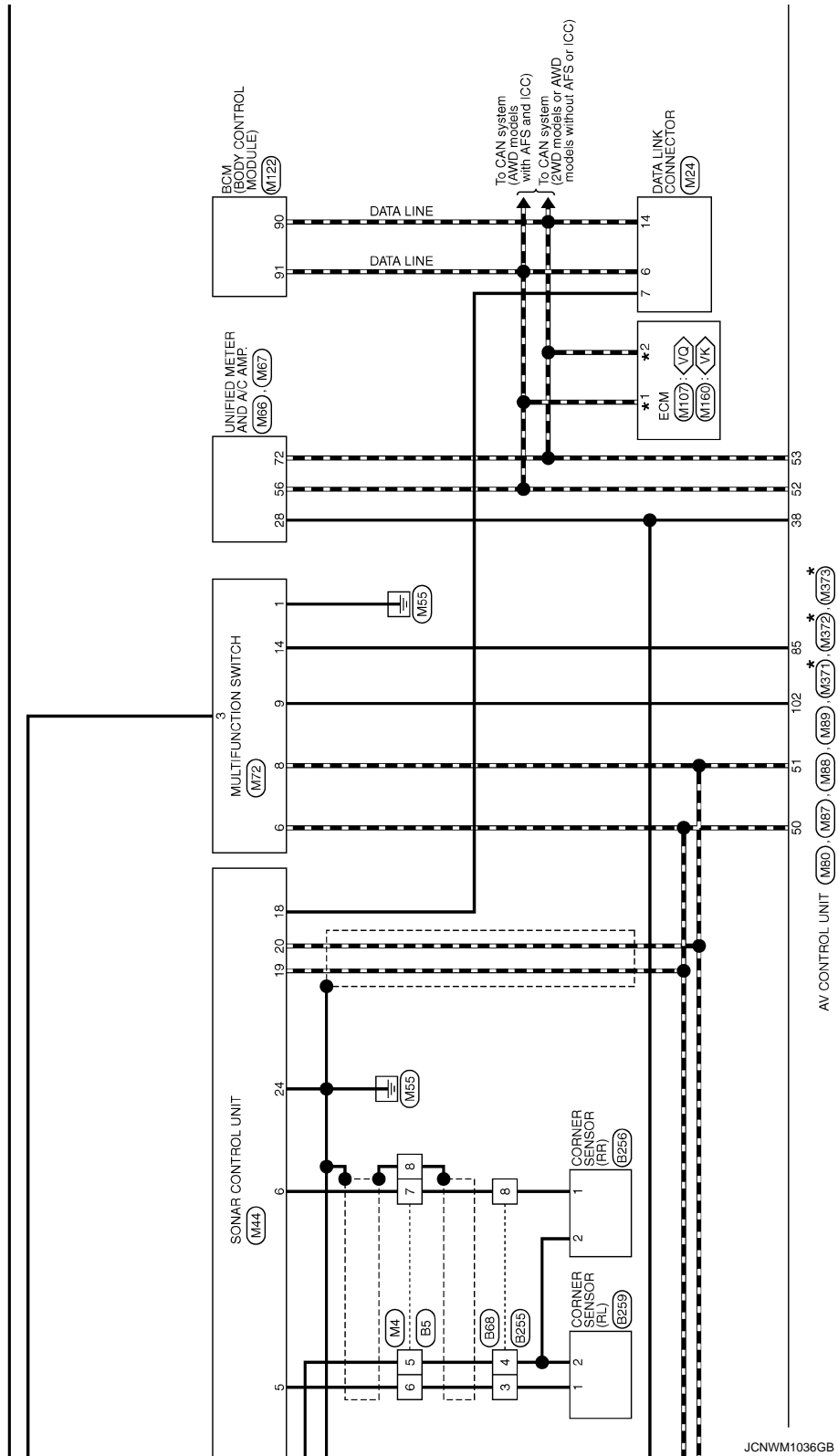
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

VQ : With VQ engine  
 VK : With VK engine  
 \*1 114 : VQ  
 105 : VK  
 \*2 113 : VQ  
 101 : VK

\* : This connector is not shown in "Harness Layout".



JCNWM1036GB

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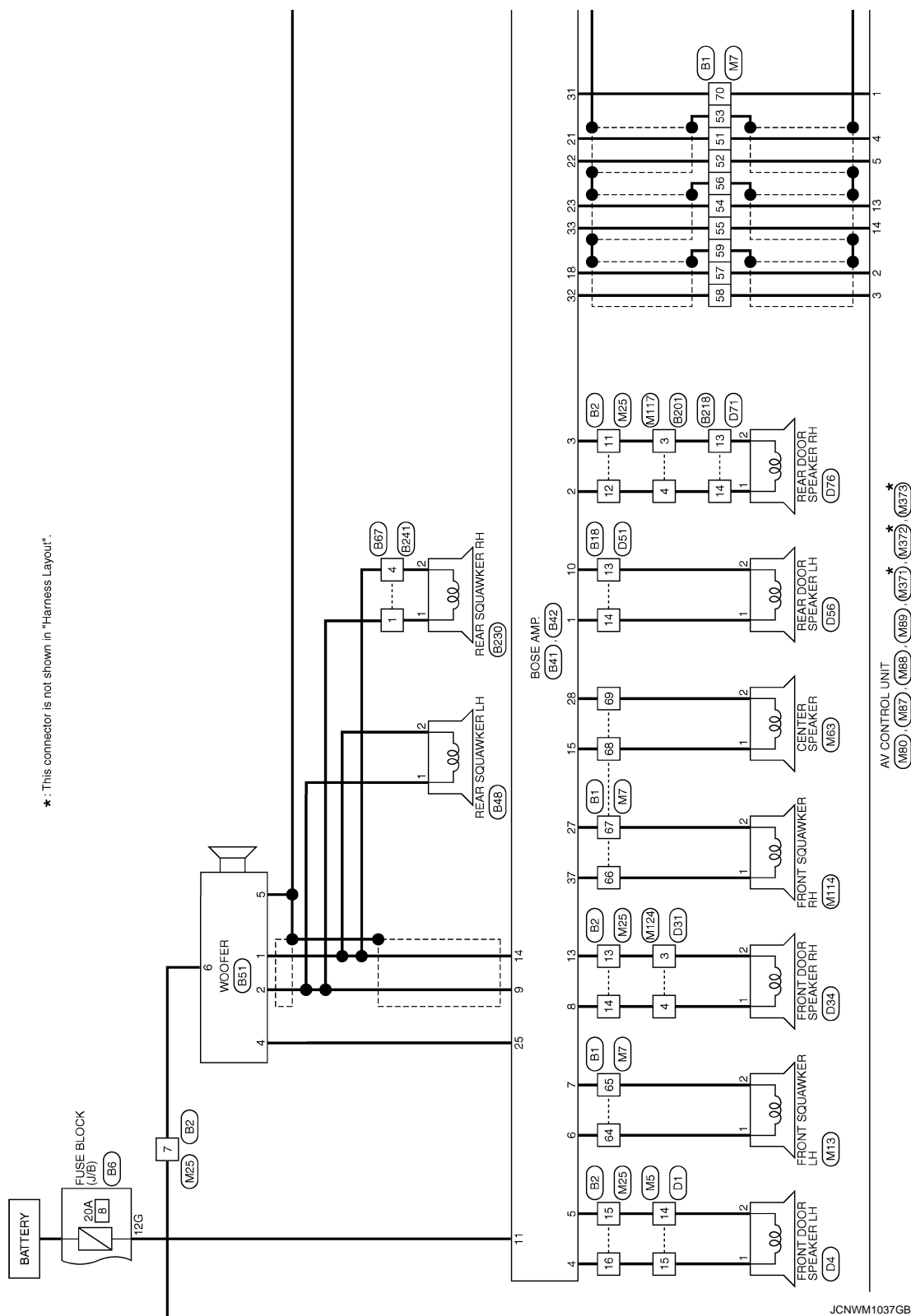
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< ECU DIAGNOSIS INFORMATION >

Revision: 2009 March

2009 FX35/FX50



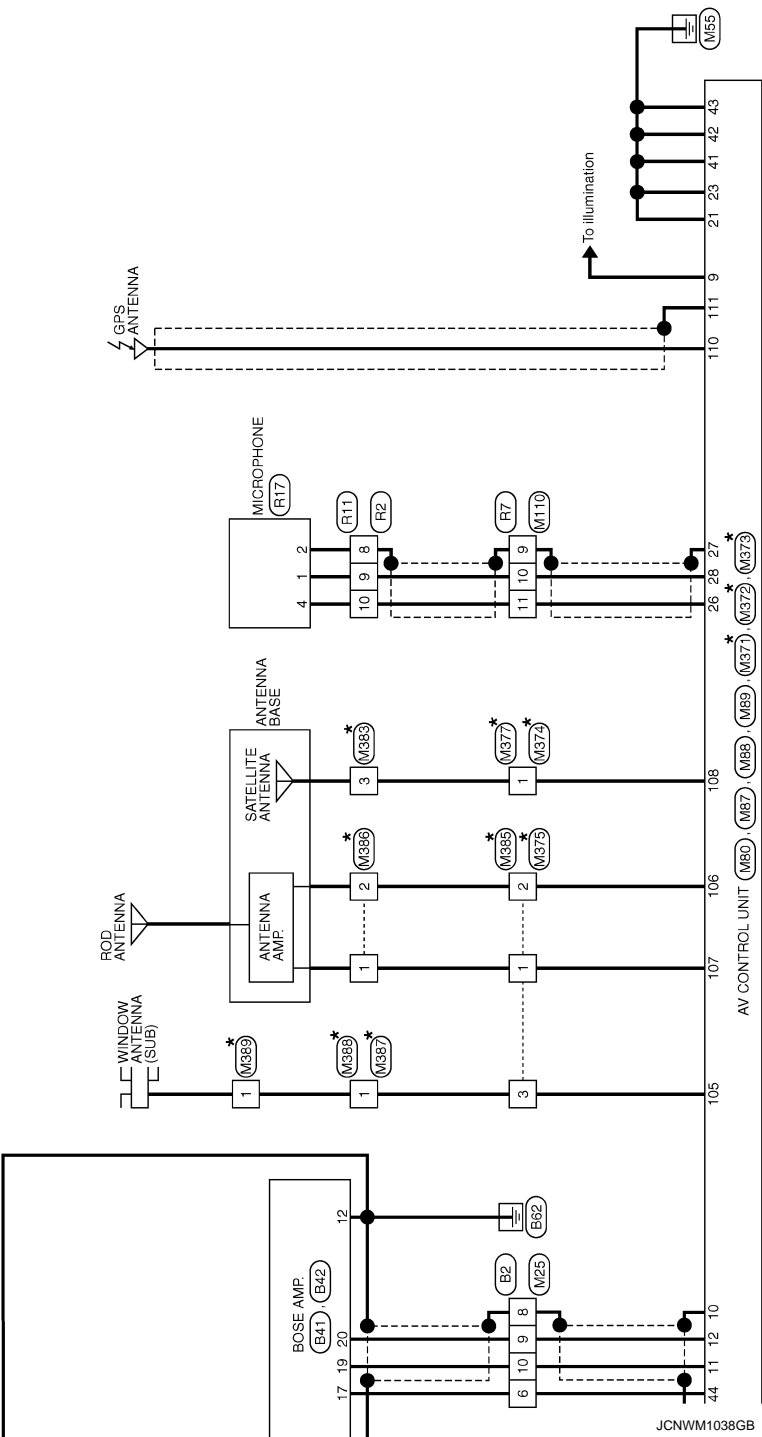


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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

★: This connector is not shown in "Harness Layout".





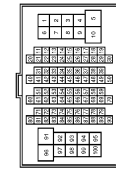
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM44



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



7	6	5	4	3	2	1		
16	15	14	13	12	11	10	9	8

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B6
Connector Name	FUSE BLOCK (L/B)
Connector Type	NS12FBR-CS



5G	4G		3G	2G	1G	
12G	11G	10G	9G	8G	7G	6G

Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



5	4	<div></div>	3	2	1	
12	11	10	9	8	7	6

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



6	5	4	3	2	1
12	11	10	9	8	7

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

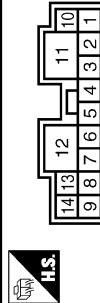
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TKUPW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FER-SJA2



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MPV-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Terminal No.	12
Color of Wire	B
Signal Name [Specification]	GND
Terminal No.	13
Color of Wire	Y
Signal Name [Specification]	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
Terminal No.	14
Color of Wire	R
Signal Name [Specification]	SOUND SIGNAL WOOFER AND REAR SQUAWKER (-)

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA15FER-SGA4



Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Terminal No.	31
Color of Wire	GR
Signal Name [Specification]	AMP. ON SIGNAL
Terminal No.	32
Color of Wire	L
Signal Name [Specification]	SOUND SIGNAL FRONT LH (-)
Terminal No.	33
Color of Wire	Y
Signal Name [Specification]	SOUND SIGNAL REAR RH (-)
Terminal No.	37
Color of Wire	V
Signal Name [Specification]	SOUND SIGNAL FRONT SQUAWKER RH (+)

Terminal No.	52
Color of Wire	Y
Signal Name [Specification]	SIDE CAMERA LH IMAGE GND

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (R-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3



1	2	3	4	5	6	7	8
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Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (C)
24	G	LED (C)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH GND
33	BR	SIDE CAMERA RH COMM
34	L	SIDE CAMERA RH POWER SUPPLY
35	W	REAR CAMERA COMM
36	G	REAR CAMERA POWER SUPPLY
37	SHIELD	SHIELD
38	L	REAR CAMERA GND
39	Y	REAR CAMERA IMAGE SIGNAL
40	BR	REAR CAMERA IMAGE GND



1	2	3	4	5	6	7	8
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Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS08MGY

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH03FW-CS16-TM4

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY



1	2	3	4	5	6
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Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP. ON SIGNAL
5	B	GND
6	W	BATTERY

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	GR	- [With NAVI]
21	L	- [With NAVI]

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

JCNWM1041GB



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FER-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

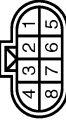
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	GR	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RS08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

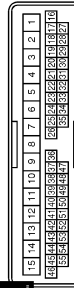
Connector No.	B256
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH4UFW-CS15



Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	BR	-
41	L	-
42	Y	-
43	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
5	Y	-
6	R	-
17	L	-
18	BR	-

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[NAVIGATION (SINGLE MONITOR)]

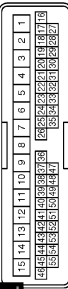
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
18	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

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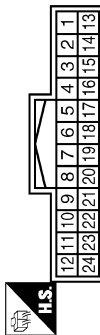
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH68MH-NH



Connector No.	E5
Connector Name	SPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

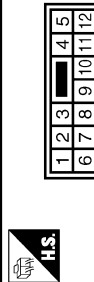
Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

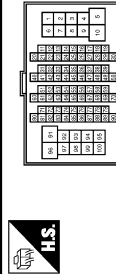
Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS08MB-FR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

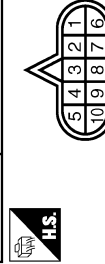
Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



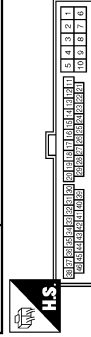
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

JCNWM1045GB



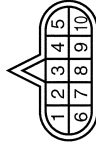
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



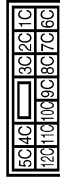
Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSGFW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

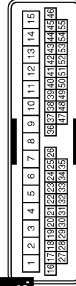
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

JCNWM1046GB

A  
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P

AV



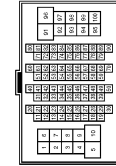
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

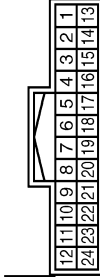
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



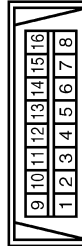
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-IV



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN



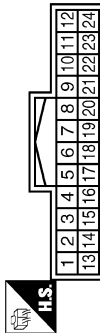
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

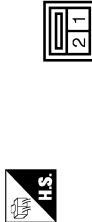
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M44
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



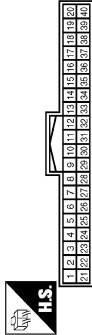
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
16	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FER



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH46FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH42FW-NH

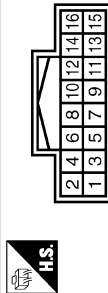


Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

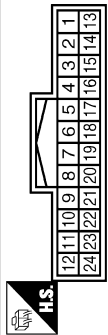
Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
13	B	GND
14	SHIELD	SHIELD
15	R	AUX IMAGE SIGNAL (With entertainment system)
17	B	RGB (R RED) SIGNAL
18	R	RGB (B BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DSP->CONT)
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	R	AUX IMAGE GND (Without entertainment system)
6	W	RGB (G GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	BR	COMM (CONT->DSP)
12	W	CAMERA IMAGE SIGNAL

JCNWM1048GB

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AV



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-GSZ

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP. ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
9	R	ILLUMINATION
10	B	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)



13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY



Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	V	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP. ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
9	R	ILLUMINATION
10	B	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R, RED) SIGNAL
62	W	RGB (G, GREEN) SIGNAL
63	R	RGB (B, BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (V/S) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)



72	SHIELD	SHIELD
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Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
79	R	IPod SOUND SIGNAL LH (+) (Without entertainment system)
80	BR	IPod SOUND SIGNAL RH (+) (Without entertainment system)
85	SB	DISK EJECT SIGNAL
86	SHIELD	SHIELD
87	R	AUX SOUND SIGNAL LH (+)
88	W	AUX SOUND SIGNAL GND
95	G	IPod SOUND SIGNAL LH (-) (Without entertainment system)
96	Y	IPod SOUND SIGNAL RH (-) (Without entertainment system)
102	BR	SW GND
103	B	AUX SOUND SIGNAL RH (+)



Connector No.	M107
Connector Name	ECM (WITH VQ ENGINE)
Connector Type	RH24FGY-RZ8-R-LH-Z

Terminal No.	Color of Wire	Signal Name [Specification]					
128	124	123	126	125	127	129	130
121	123	119	115	111	107	103	99
126	122	118	114	110	106	102	98
125	121	117	113	109	105	101	97



Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R, RED) SIGNAL
62	W	RGB (G, GREEN) SIGNAL
63	R	RGB (B, BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (V/S) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Terminal No.	Color of Wire	Signal Name [Specification]
79	R	IPod SOUND SIGNAL LH (+) (Without entertainment system)
80	BR	IPod SOUND SIGNAL RH (+) (Without entertainment system)
85	SB	DISK EJECT SIGNAL
86	SHIELD	SHIELD
87	R	AUX SOUND SIGNAL LH (+)
88	W	AUX SOUND SIGNAL GND
95	G	IPod SOUND SIGNAL LH (-) (Without entertainment system)
96	Y	IPod SOUND SIGNAL RH (-) (Without entertainment system)
102	BR	SW GND
103	B	AUX SOUND SIGNAL RH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

JCNWM1049GB



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M110
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	—
10	R	— [With NAVI]
11	G	— [With NAVI]

Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (+)
2	BR	IPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	IPod BATTERY CHARGE
9	Y	COMM (IPod ADAPTER->IPod)
10	BR	COMM (IPod->IPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (-)

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR

2	1
---	---



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	—
2	LG	—

14	Y	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	IPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	IPod SOUND SIGNAL GND
24	B	IPod SOUND SIGNAL LH (+)



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16		

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	IPod SOUND SIGNAL LH (+)
2	W	IPod SOUND SIGNAL GND
5	BR	COMM (IPod->IPod ADAPTER)
6	Y	COMM (IPod ADAPTER->IPod)
7	R	IPod SOUND SIGNAL RH (+)
9	SB	IPod CONNECTION RECOGNITION
10	B	GND
12	W	IPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
3	V	—
4	SB	—
20	GR	— [With NAVI]
21	V	—

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

JCNWM1050GB

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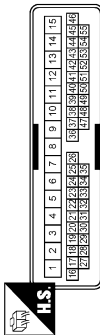
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

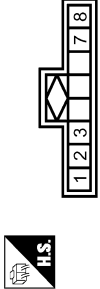
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Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



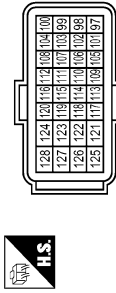
Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-BH



Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Connector No.	M160
Connector Name	ECM (WITH VK ENGINE)
Connector Type	FR24FGY-R25-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/IS-HU



Connector No.	M372
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	FAMRA JACK



Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
108	-	SAETLITE ANTENNA

Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA
111	SHIELD	SHIELD

JCNWM1051GB



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



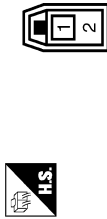
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M373
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



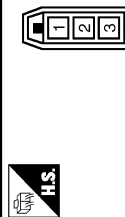
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M383
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



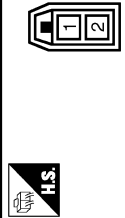
Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCH-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	JASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1052GB

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

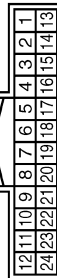
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01EF-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



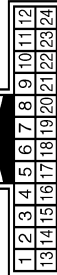
Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	RT1
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

JCNWM1053GB



# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

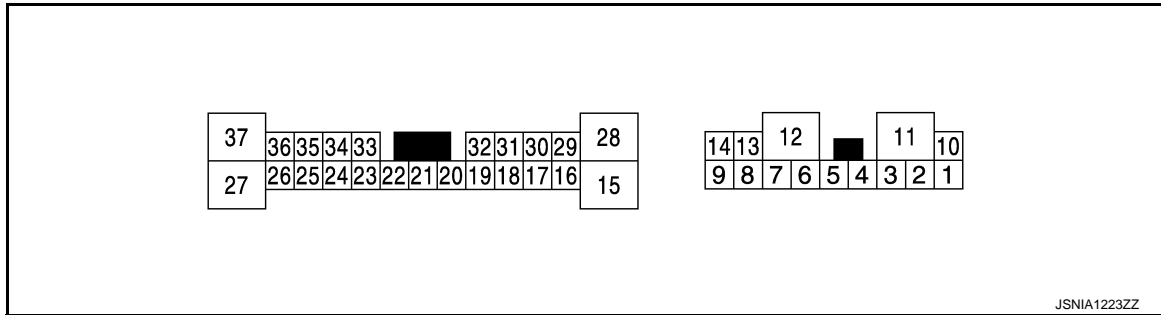
[NAVIGATION (SINGLE MONITOR)]

## BOSE AMP.

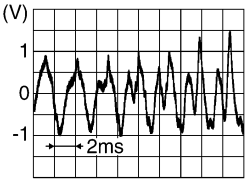
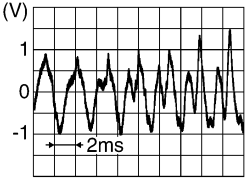
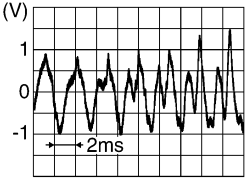
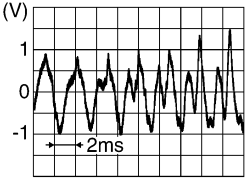
### Reference Value

INFOID:000000003826750

### TERMINAL LAYOUT



### PHYSICAL VALUES

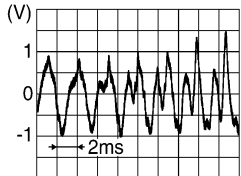
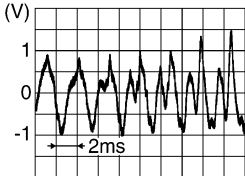
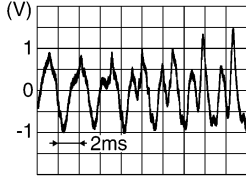
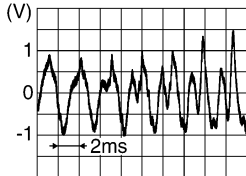
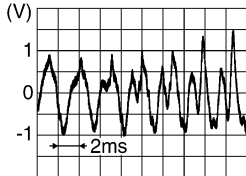
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (Y)	10 (G)	Sound signal rear door speaker LH	Output	Ignition switch ON	Audio output	 SKIB3609E
2 (SB)	3 (V)	Sound signal rear door speaker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
4 (L)	5 (P)	Sound signal front door speaker LH	Output	Ignition switch ON	Audio output	 SKIB3609E
6 (O)	7 (W)	Sound signal front squawk- er LH	Output	Ignition switch ON	Audio output	 SKIB3609E



# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

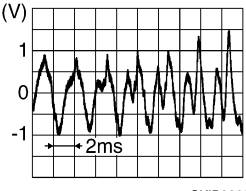
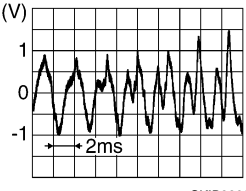
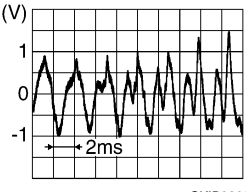
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
8 (LG)	13 (Y)	Sound signal front door speaker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
9 (G)	14 (R)	Sound signal woofer and rear squawker (LH and RH)	Output	Ignition switch ON	Audio output	 SKIB3609E
11 (GR)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
12 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
15 (Y)	28 (G)	Sound signal center speak- er	Output	Ignition switch ON	Audio output	 SKIB3609E
17 (O)	Ground	Mode change signal	Input	Ignition switch ON	Driver's Audio Stage ON	0 V
					Driver's Audio Stage OFF	8.5 V
18 (P)	32 (L)	Sound signal front LH	Input	Ignition switch ON	Audio output	 SKIB3609E
19 (R)	20 (G)	Sound signal front RH	Input	Ignition switch ON	Audio output	 SKIB3609E



# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
21 (V)	22 (SB)	Sound signal rear LH	Input	Ignition switch ON	Audio output	
23 (BR)	33 (Y)	Sound signal rear RH	Input	Ignition switch ON	Audio output	
25 (L)	Ground	Woofer amp. ON signal	Output	Ignition switch ACC	—	12.0 V
37 (V)	27 (LG)	Sound signal front squawker RH	Output	Ignition switch ON	Audio output	
31 (GR)	Ground	Amp. ON signal	Input	Ignition switch ACC	—	12.0 V

## Wiring Diagram - BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR) -

INFOID:000000003826887

**NOTE:**

AV

O

P

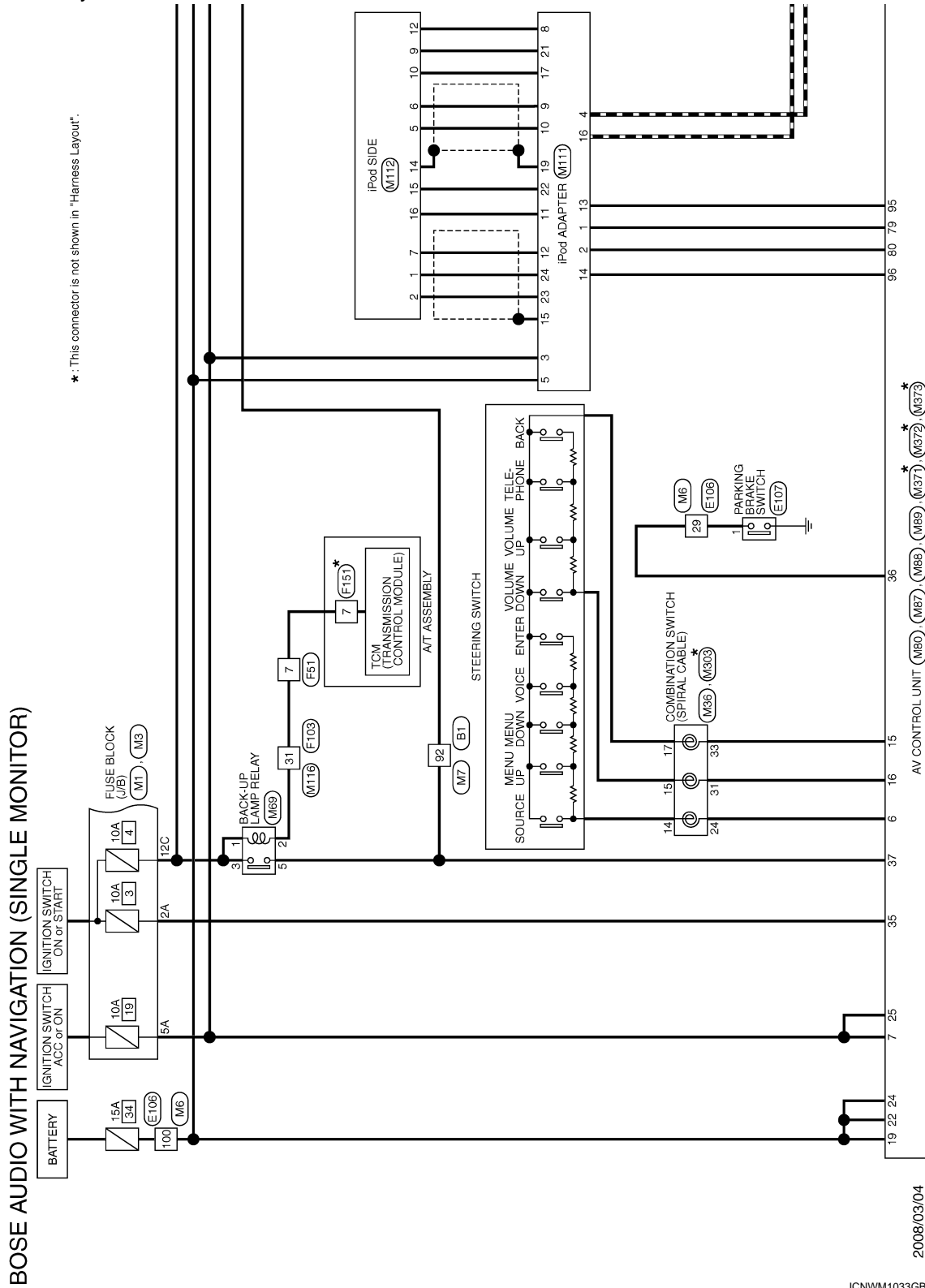


# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

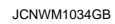




## BOSE AMP.

## < ECU DIAGNOSIS INFORMATION >

## [NAVIGATION (SINGLE MONITOR)]



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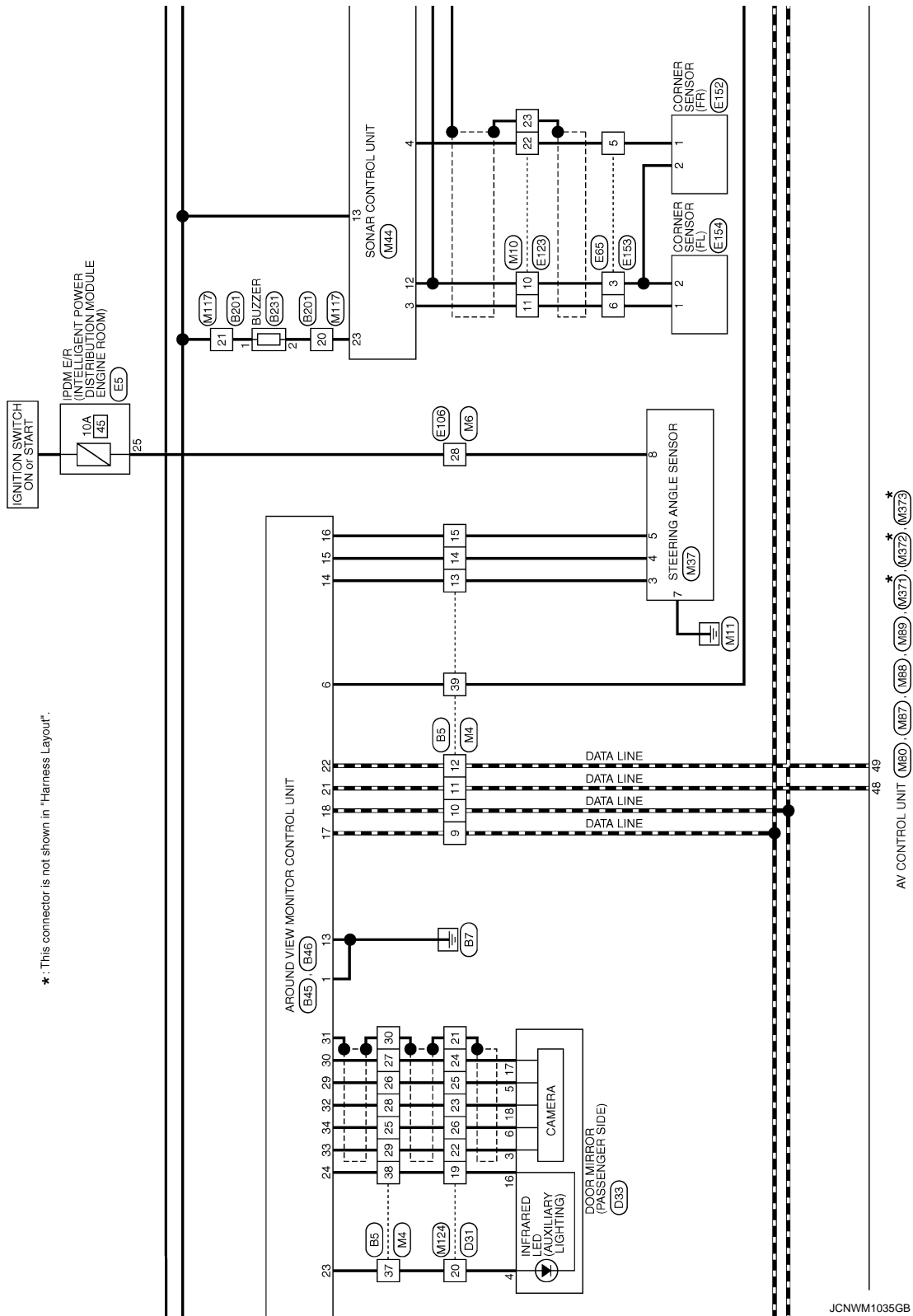
AV



# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

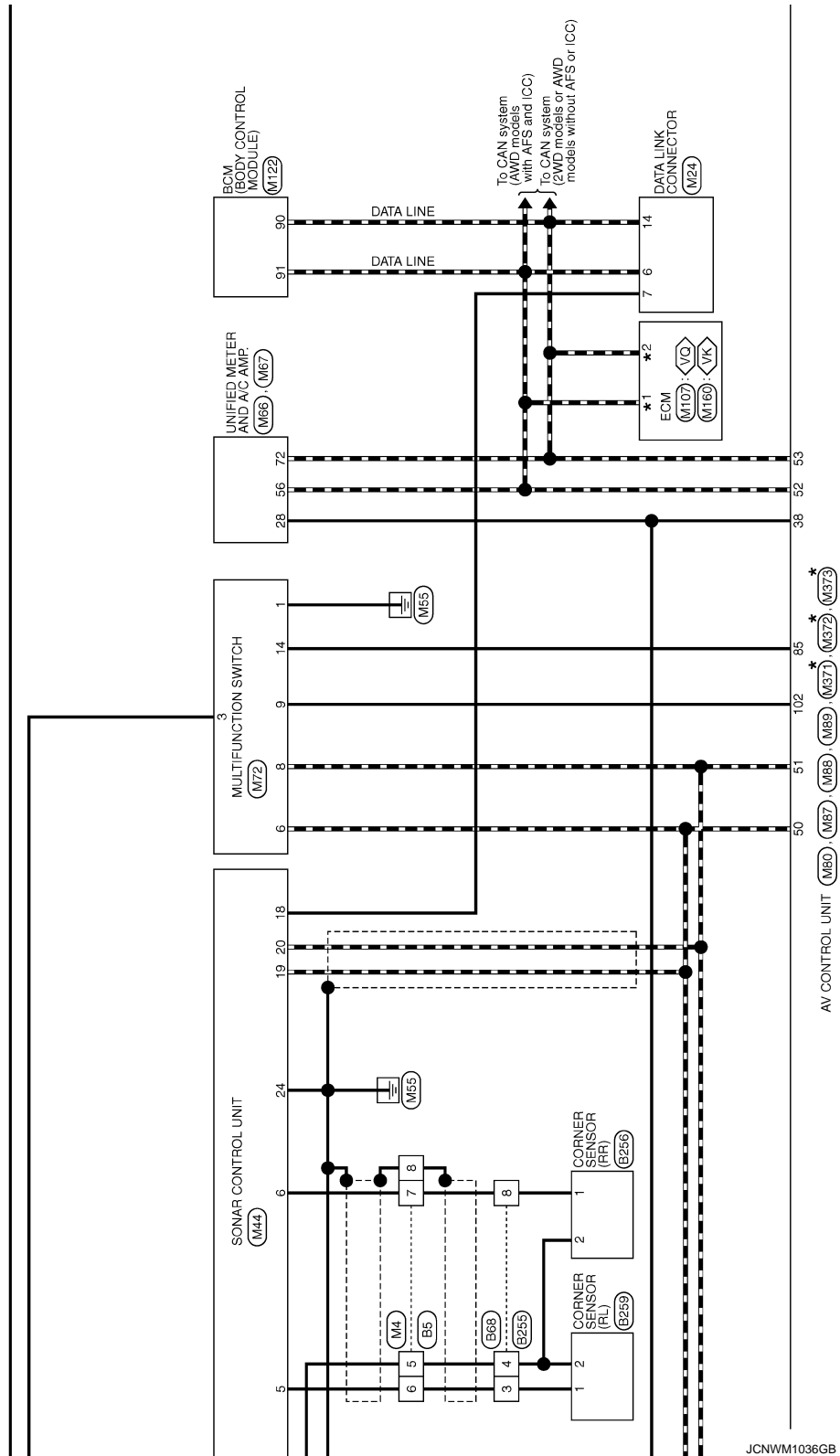


JCNWM1035GB



VQ : With VQ engine  
 VK : With VK engine  
 \*1 114 : VQ  
 105 : VK  
 \*2 113 : VQ  
 101 : VK

\* : This connector is not shown in "Harness Layout".

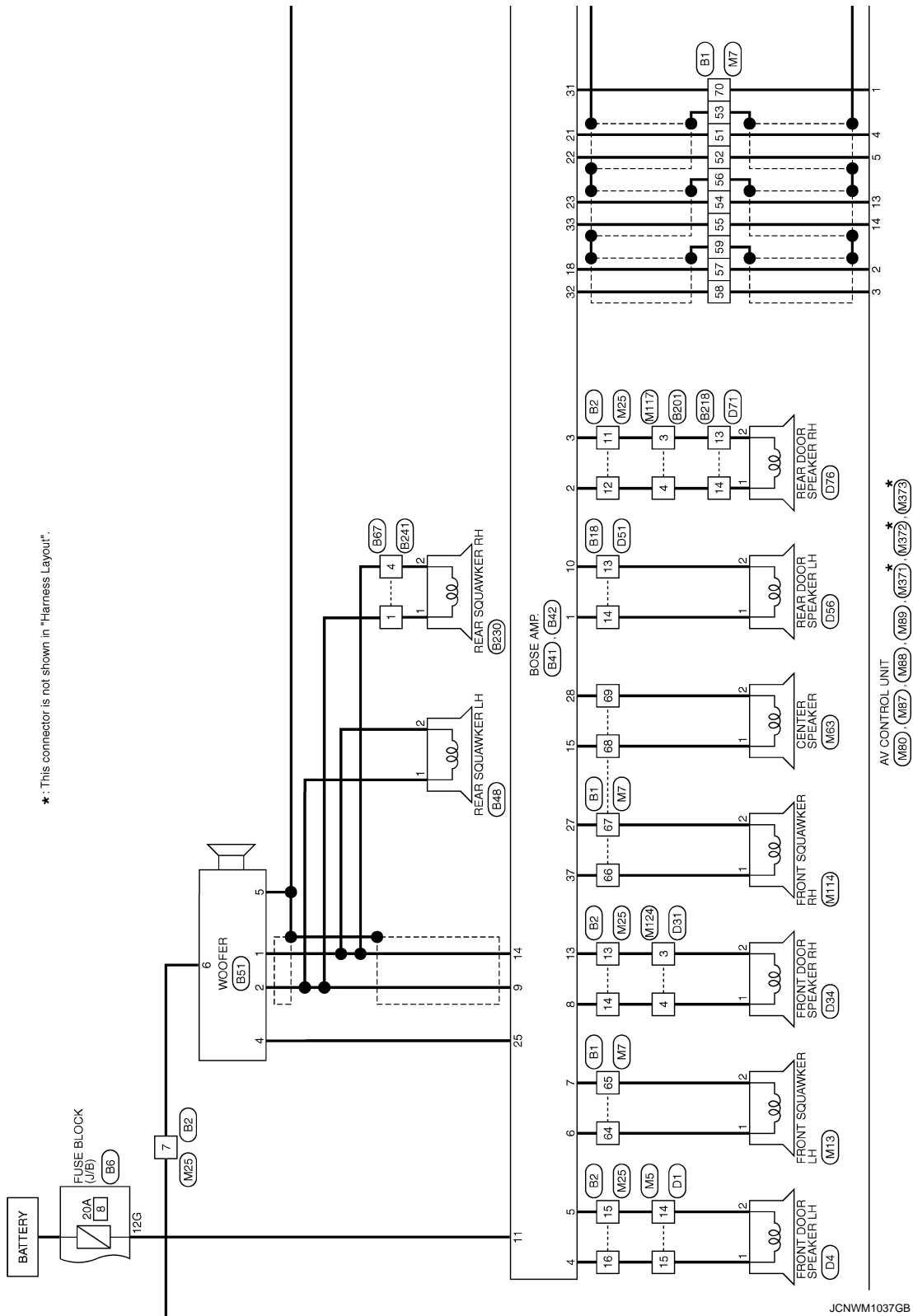


JCNWM1036GB

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P

AV

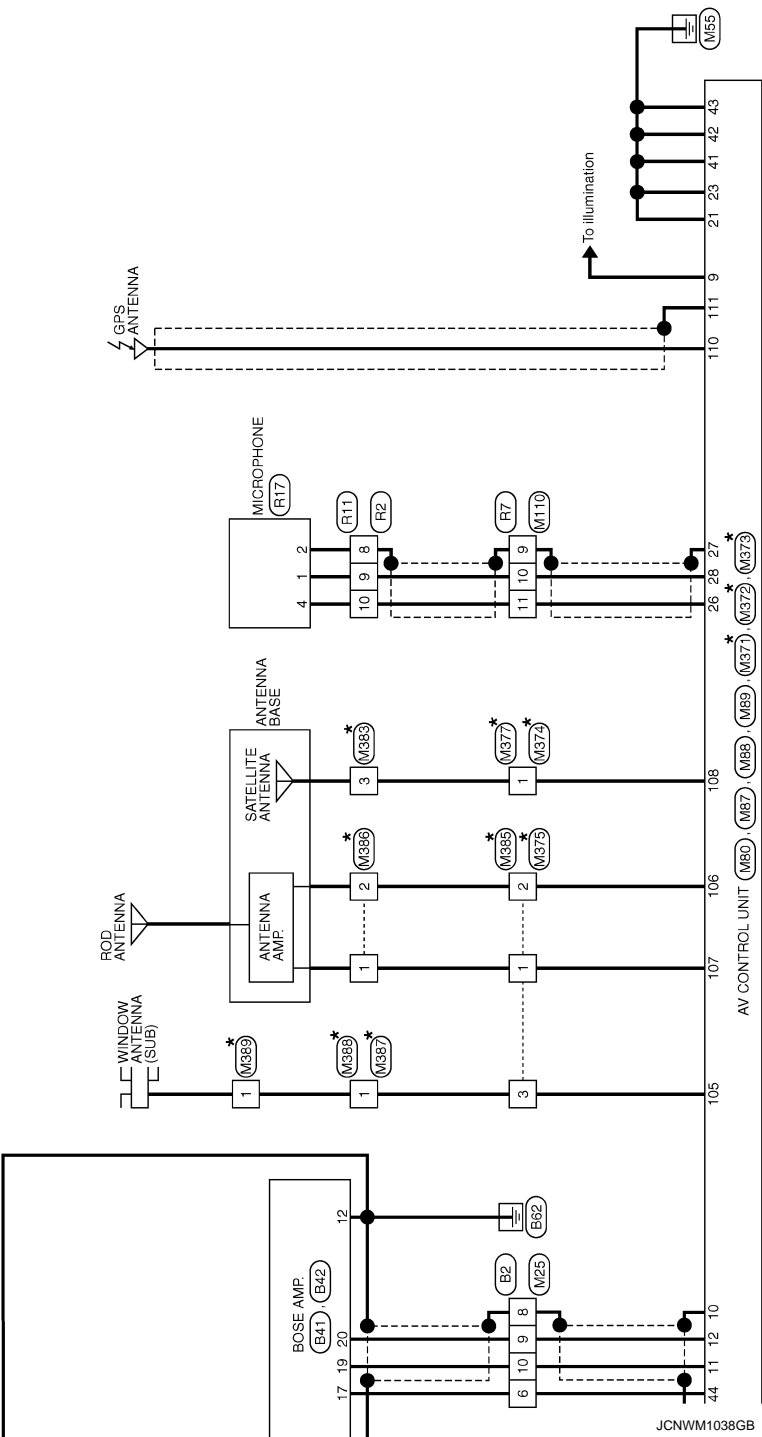




JCNWM1037GB



★: This connector is not shown in "Harness Layout".



AV



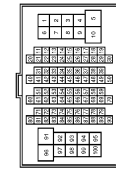
# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



7	6	5	4	3	2	1		
16	15	14	13	12	11	10	9	8

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B6
Connector Name	FUSE BLOCK (U/B)
Connector Type	NS12FBR-CS



5G	4G		3G	2G	1G	
12G	11G	10G	9G	8G	7G	6G

Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



5	4	<div></div>	3	2	1	
12	11	10	9	8	7	6

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



6	5	4	3	2	1
12	11	10	9	8	7

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-



																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

12	B	GND
13	Y	
14	R	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
6	O	SOUND SIGNAL FRONT SPEAKER LH (+)
7	W	SOUND SIGNAL FRONT SPEAKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WHEELS AND REAR SPEAKER (L)
10	G	SOUND SIGNAL REAR DOOR LH (+)
11	SB	SOUND SIGNAL REAR DOOR RH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	FRONT CAMERA IMAGE GND SHIELD
44	Y	FRONT CAMERA COMM
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SIDE CAMERA LH COMM SHIELD
50	W	SIDE CAMERA LH GND
51	W	FRONT CAMERA LH GND
52	W	FRONT CAMERA LH GND
53	W	FRONT CAMERA LH GND
54	W	FRONT CAMERA LH GND
55	W	FRONT CAMERA LH GND
56	W	FRONT CAMERA LH GND
57	W	FRONT CAMERA LH GND
58	W	FRONT CAMERA LH GND
59	W	FRONT CAMERA LH GND
60	W	FRONT CAMERA LH GND
61	W	FRONT CAMERA LH GND
62	W	FRONT CAMERA LH GND
63	W	FRONT CAMERA LH GND
64	W	FRONT CAMERA LH GND
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67	W	FRONT CAMERA LH GND
68	W	FRONT CAMERA LH GND
69	W	FRONT CAMERA LH GND
70	W	FRONT CAMERA LH GND
71	W	FRONT CAMERA LH GND
72	W	FRONT CAMERA LH GND
73	W	FRONT CAMERA LH GND
74	W	FRONT CAMERA LH GND
75	W	FRONT CAMERA LH GND
76	W	FRONT CAMERA LH GND
77	W	FRONT CAMERA LH GND
78	W	FRONT CAMERA LH GND
79	W	FRONT CAMERA LH GND
80	W	FRONT CAMERA LH GND
81	W	FRONT CAMERA LH GND
82	W	FRONT CAMERA LH GND
83	W	FRONT CAMERA LH GND
84	W	FRONT CAMERA LH GND
85	W	FRONT CAMERA LH GND
86	W	FRONT CAMERA LH GND
87	W	FRONT CAMERA LH GND
88	W	FRONT CAMERA LH GND
89	W	FRONT CAMERA LH GND
90	W	FRONT CAMERA LH GND
91	W	FRONT CAMERA LH GND
92	W	FRONT CAMERA LH GND
93	W	FRONT CAMERA LH GND
94	W	FRONT CAMERA LH GND
95	W	FRONT CAMERA LH GND
96	W	FRONT CAMERA LH GND
97	W	FRONT CAMERA LH GND
98	W	FRONT CAMERA LH GND
99	W	FRONT CAMERA LH GND
100	W	FRONT CAMERA LH GND

31	GR	AMP. ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)
37	V	SOUND SIGNAL FRONT SQUAWKER RH (+)

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA19FER-SGA4

Terminal No.	Color of Wires	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (+)
28	G	SOUND SIGNAL CENTER (-)

52	Y	SIDE CAMERA LH IMAGE GND
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# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (R-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3



1	2	3	4	5	6	7	8
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Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (-)
24	G	LED (+)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH GND
33	BR	SIDE CAMERA RH COMM
34	L	SIDE CAMERA RH POWER SUPPLY
35	W	REAR CAMERA COMM
36	G	REAR CAMERA POWER SUPPLY
37	SHIELD	SHIELD
38	L	REAR CAMERA GND
39	Y	REAR CAMERA IMAGE SIGNAL
40	BR	REAR CAMERA IMAGE GND



1	2	3	4	5	6	7	8
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Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS08MGY

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH03FW-CS16-TM4

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY



1	2	3	4	5	6
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Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP. ON SIGNAL
5	B	GND
6	W	BATTERY

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	GR	- [With NAVI]
21	L	- [With NAVI]

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

JCNWM1041GB



## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FB



Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FER-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

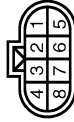
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	GR	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RS08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

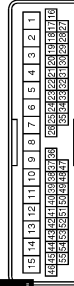
Connector No.	B256
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH4UFW-CS15



Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	BR	-
41	L	-
42	Y	-
43	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
5	Y	-
6	R	-
17	L	-
18	BR	-

JCNWM1042GB

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# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

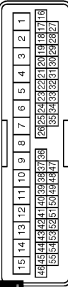
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
18	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



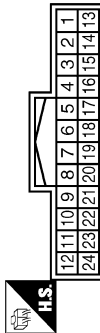
Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

JCNWM1043GB



## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

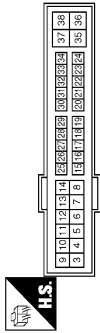
Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH68MH-NH



Connector No.	E5
Connector Name	SPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

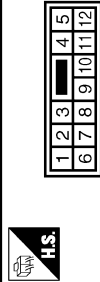
Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

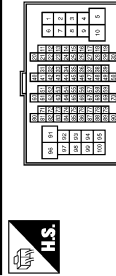
Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

JCNWM1044GB

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# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS06MB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

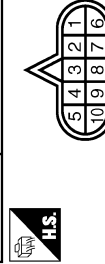
Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



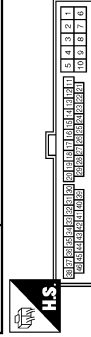
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

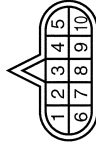
Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

JCNWM1045GB



## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSGFW-M2



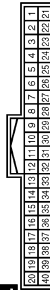
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

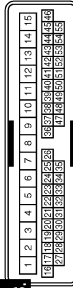
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

JCNWM1046GB

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P



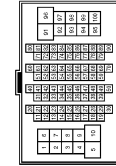
# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

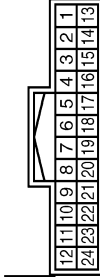
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



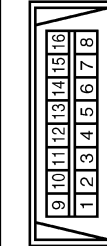
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

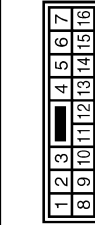


Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

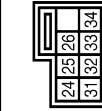
Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



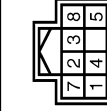
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-IV



Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

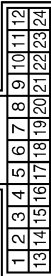
Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN



## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M44
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
16	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FER



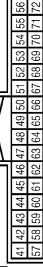
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH22FW-NH

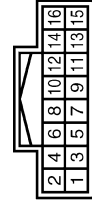


Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC

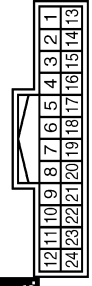


Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	R	AUX IMAGE GND [Without entertainment system]
6	W	RGB (G: GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
13	B	GND
14	SHIELD	SHIELD
15	R	AUX IMAGE SIGNAL [With entertainment system]
17	B	RGB (R: RED) SIGNAL
18	R	RGB (B: BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT)
23	SHIELD	SHIELD

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AV



## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-GSZ

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20							

13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH40FW-NH

21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38
39	40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65
66	67	68	69	70	71	72	73	74
75	76	77	78	79	80	81	82	83
84	85	86	87	88	89	90	91	92
93	94	95	96	97	98	99	100	101
102	103	104						

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
8	R	ILLUMINATION
10	B	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	V	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH

62	64	66	68	70	72
61	63	65	67	69	71

72	SHIELD	SHIELD
----	--------	--------

Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH

73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104

Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R RED) SIGNAL
62	W	RGB (G GREEN) SIGNAL
63	R	RGB (B BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (VS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Terminal No.	Color of Wire	Signal Name [Specification]
79	R	IPod SOUND SIGNAL LH (+) (Without entertainment system)
80	BR	IPod SOUND SIGNAL RH (+) (Without entertainment system)
85	SB	DISK EJECT SIGNAL
86	SHIELD	SHIELD
87	R	AUX SOUND SIGNAL LH (+)
88	W	AUX SOUND SIGNAL GND
95	G	IPod SOUND SIGNAL LH (-) (Without entertainment system)
96	Y	IPod SOUND SIGNAL RH (-) (Without entertainment system)
102	BR	SW GND
103	B	AUX SOUND SIGNAL RH (+)

38	R	VEHICLE SPEED (8-PULSE)
41	B	CONTROL SIGNAL 1
42	B	CONTROL SIGNAL 2
43	B	CONTROL SIGNAL 3
44	SB	MODE CHANGE SIGNAL
48	G	AV COMM (H)
49	R	AV COMM (L)
50	LG	AV COMM (H)
51	V	AV COMM (L)
52	L	GM-H
53	P	GM-L

Connector No.	MI07
Connector Name	ECM (WITH VQ ENGINE)
Connector Type	RH24FGY-RZ8-R-LH-Z

128	124	120	116	112	108	104	100
127	123	119	115	111	107	103	99
126	122	118	114	110	106	102	98
125	121	117	113	109	105	101	97



# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M110
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	- [With NAVI]
11	G	- [With NAVI]

Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (+)
2	BR	IPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	IPod BATTERY CHARGE
9	Y	COMM (IPod ADAPTER->IPod)
10	BR	COMM (IPod->IPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (-)

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR

2	1
---	---



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

14	Y	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	IPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	IPod SOUND SIGNAL GND
24	B	IPod SOUND SIGNAL LH (+)



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16		

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	IPod SOUND SIGNAL LH (+)
2	W	IPod SOUND SIGNAL GND
5	BR	COMM (IPod->IPod ADAPTER)
6	Y	COMM (IPod ADAPTER->IPod)
7	R	IPod SOUND SIGNAL RH (+)
9	SB	IPod CONNECTION RECOGNITION
10	B	GND
12	W	IPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72
111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92



Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

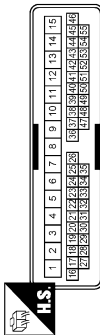


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281
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## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

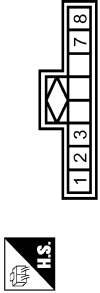
Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



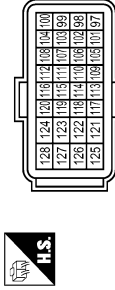
Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-HH



Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Connector No.	M160
Connector Name	ECM (WITH VK ENGINE)
Connector Type	FR24FGY-R25-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/IS-HU



Connector No.	M372
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	FAMRA JACK



Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

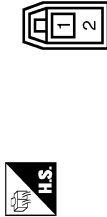
Terminal No.	Color of Wire	Signal Name [Specification]
108	-	SAETTLITE ANTENNA

Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA
111	SHIELD	SHIELD



## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M373
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



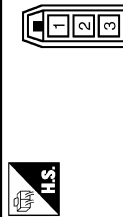
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M383
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCH-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	JASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1052GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



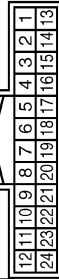
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01EF-A



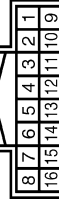
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



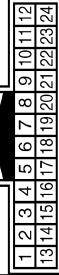
Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	RT1
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

JCNWM1053GB



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

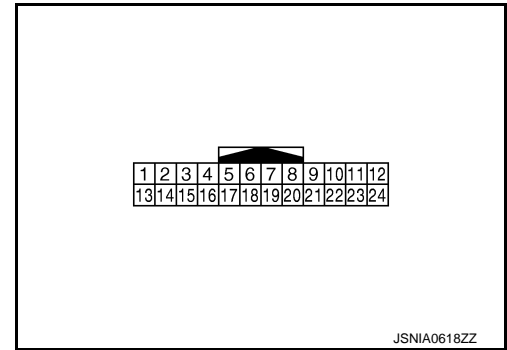
[NAVIGATION (SINGLE MONITOR)]

## IPOD ADAPTER

### Reference Value

INFOID:000000003826754

### TERMINAL LAYOUT



### PHYSICAL VALUES

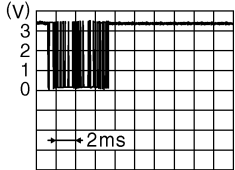
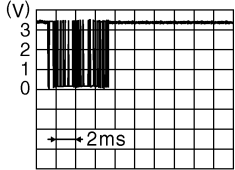
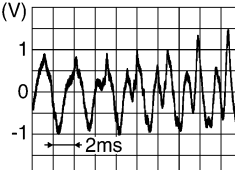
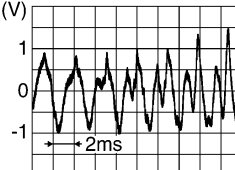
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (R)	13 (G)	iPod sound signal LH	Output	Ignition switch ON	When iPod mode is select- ed.	<p>SKIB3609E</p>
2 (BR)	14 (Y)	iPod sound signal RH	Output	Ignition switch ON	When iPod mode is select- ed.	<p>SKIB3609E</p>
3 (O)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
4 (V)	—	AV communication signal (L)	Input/ Output	—	—	—
5 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
8 (W)	Ground	iPod battery charge	Output	Ignition switch ON	Connected to iPod®	12.0 V



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (Y)	Ground	Communication signal (iPod adapter→iPod®)	Output	Ignition switch ON	The wave pattern is displayed just after iPod connection.	 <p>JPNIA0462GB</p> <p><b>NOTE:</b> After the wave pattern display, the value continues Approx 3.3 V</p>
10 (BR)	Ground	Communication signal (iPod®→iPod adapter)	Input	Ignition switch ON	Connected to iPod®	 <p>JPNIA0462GB</p>
11 (L)	Ground	ACCESSORY-IDENTIFY	—	Ignition switch ON	Connected to iPod®	0 V
12 (R)	23 (W)	iPod sound signal RH	Input	Ignition switch ON	When iPod mode is selected.	 <p>SKIB3609E</p>
15	—	Shield	—	—	—	—
16 (LG)	—	AV communication signal (H)	Input/ Output	—	—	—
17 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
19	—	Shield	—	—	—	—
21 (SB)	Ground	iPod connection recognition signal	Input	Ignition switch ON	Not connected to iPod®	4.0 V
					Connected to iPod®	0 V
22 (W)	Ground	ACCESSORY-DETECT	—	Ignition switch ON	Connected to iPod®	0 V
24 (B)	23 (W)	iPod sound signal LH	Input	Ignition switch ON	When iPod mode is selected.	 <p>SKIB3609E</p>



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

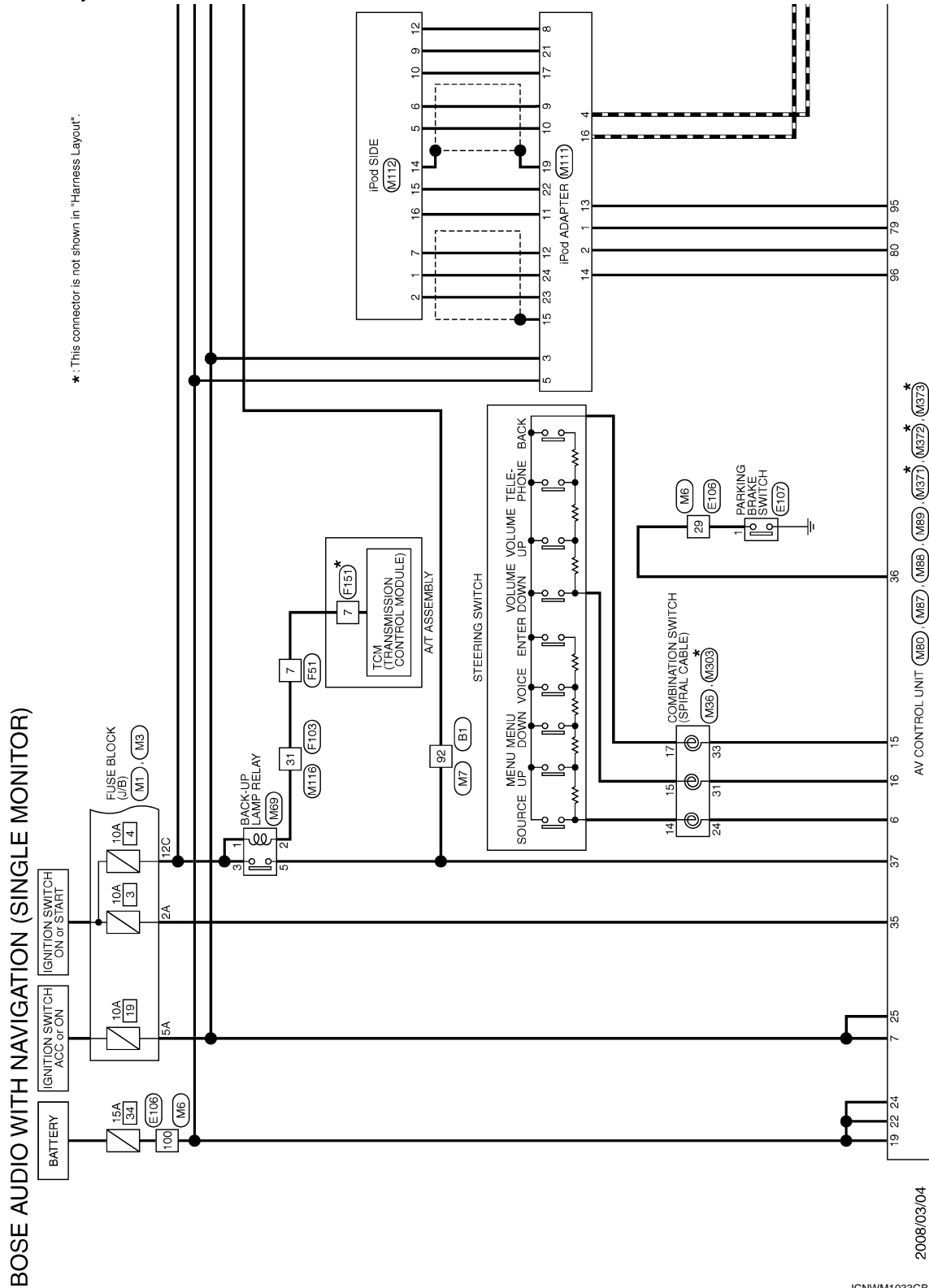
[NAVIGATION (SINGLE MONITOR)]

## Wiring Diagram - BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR) -

INFOID:000000003826889

### NOTE:

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



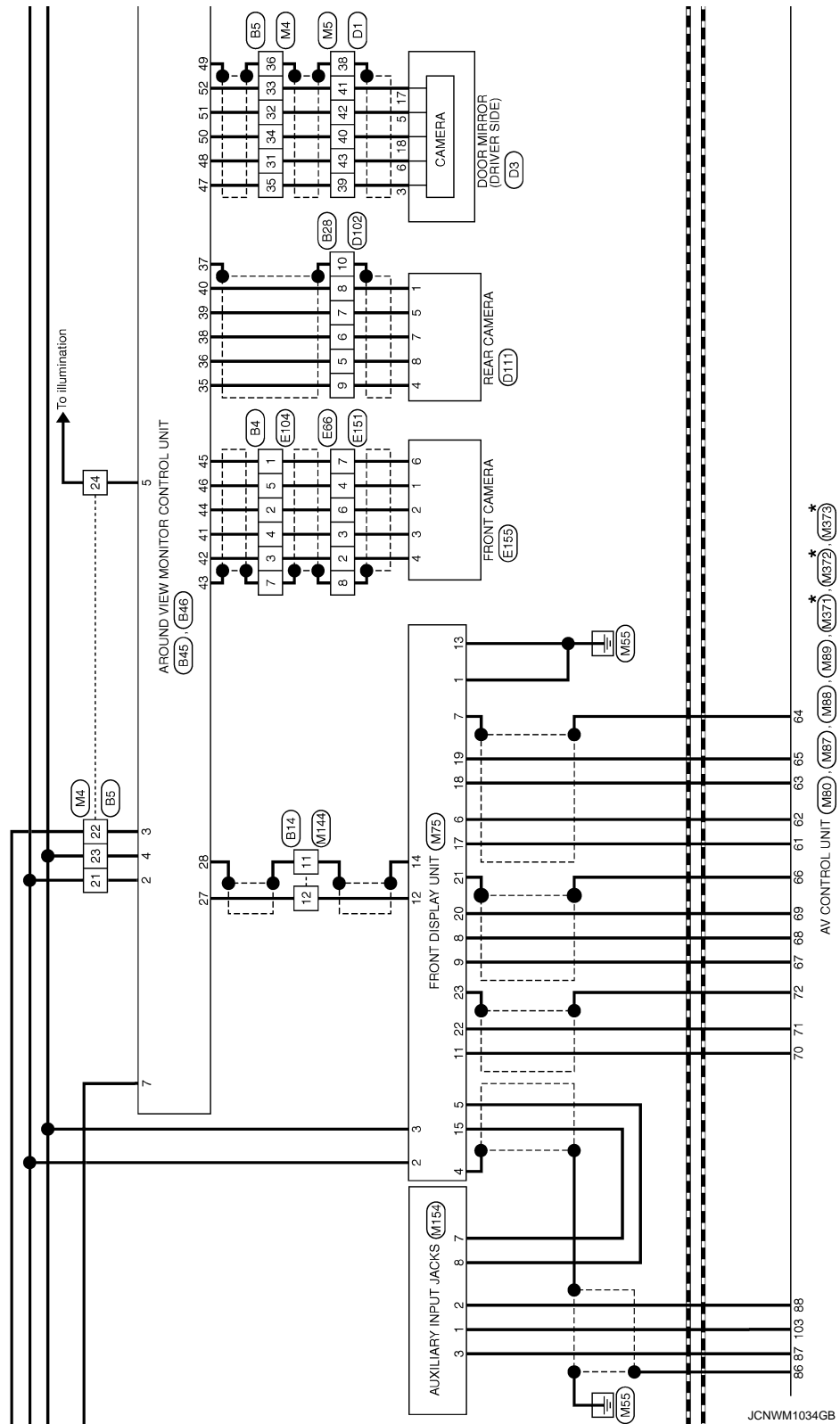
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

AV



< ECU DIAGNOSIS INFORMATION >

★: This connector is not shown in "Harness Layout".

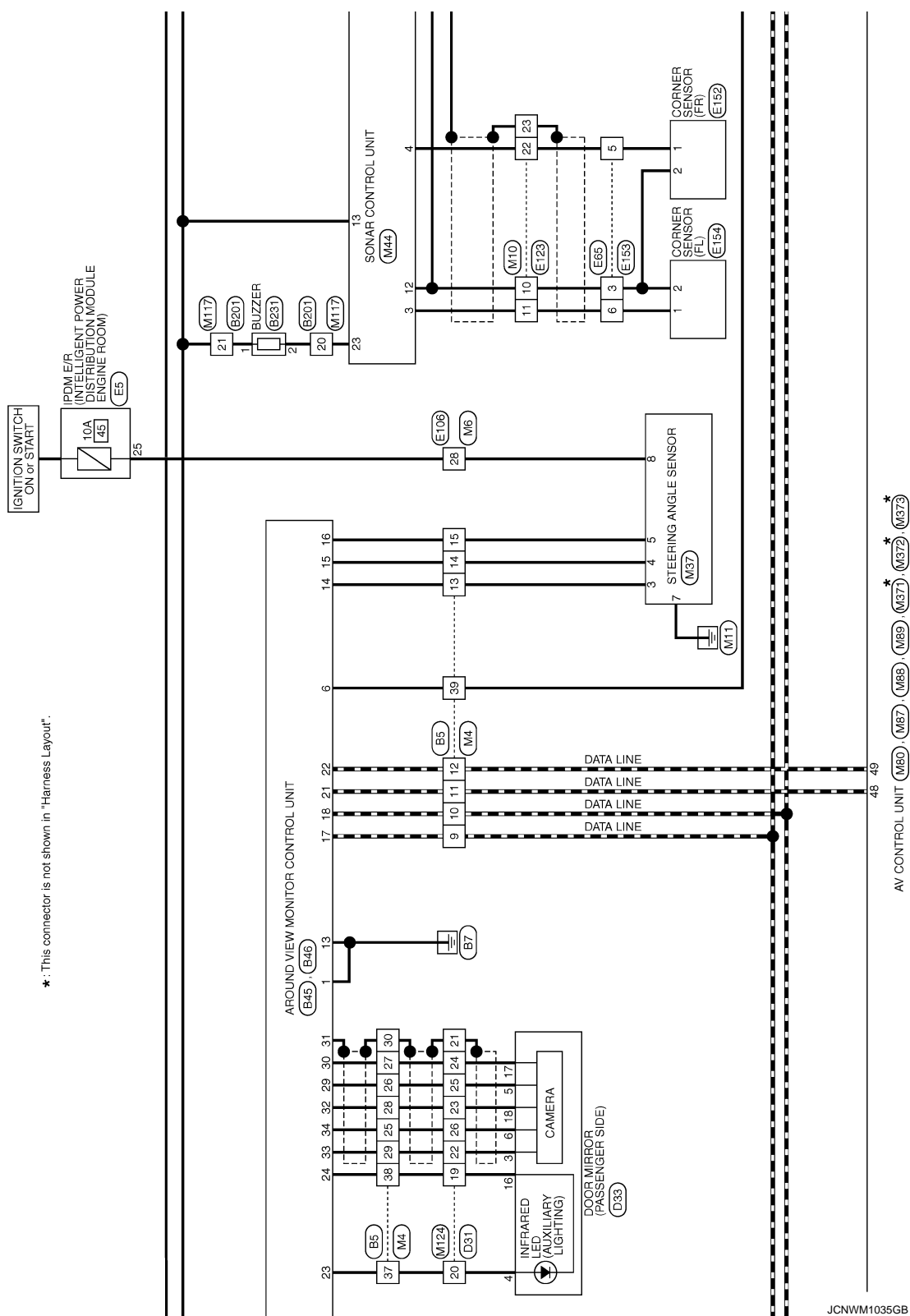




## IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

## [NAVIGATION (SINGLE MONITOR)]



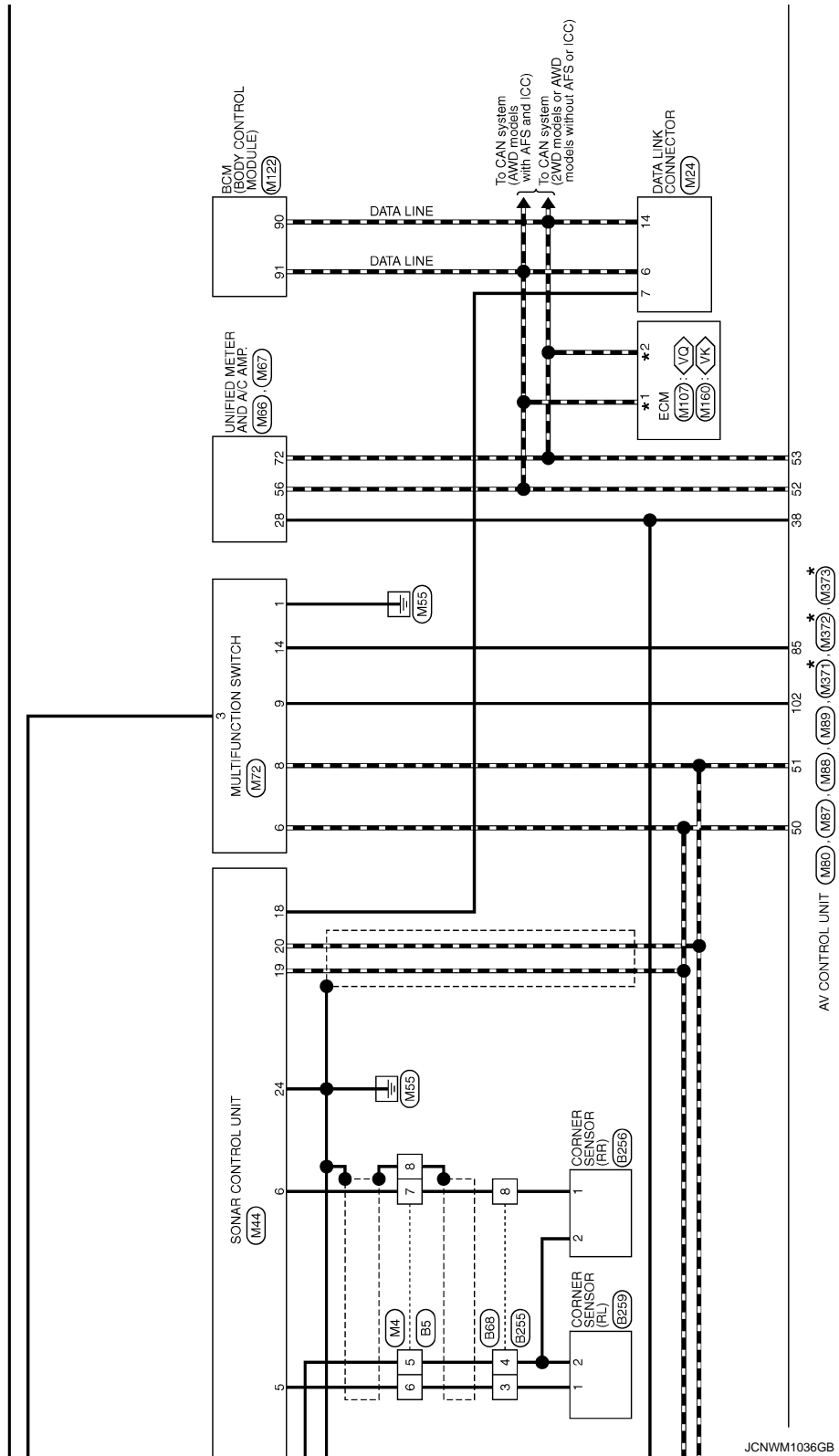
JC NWM1035GB

AV



VQ : With VQ engine  
 VK : With VK engine  
 \*1 114: VQ  
 105: VK  
 \*2 113: VQ  
 101: VK

\*: This connector is not shown in "Harness Layout".



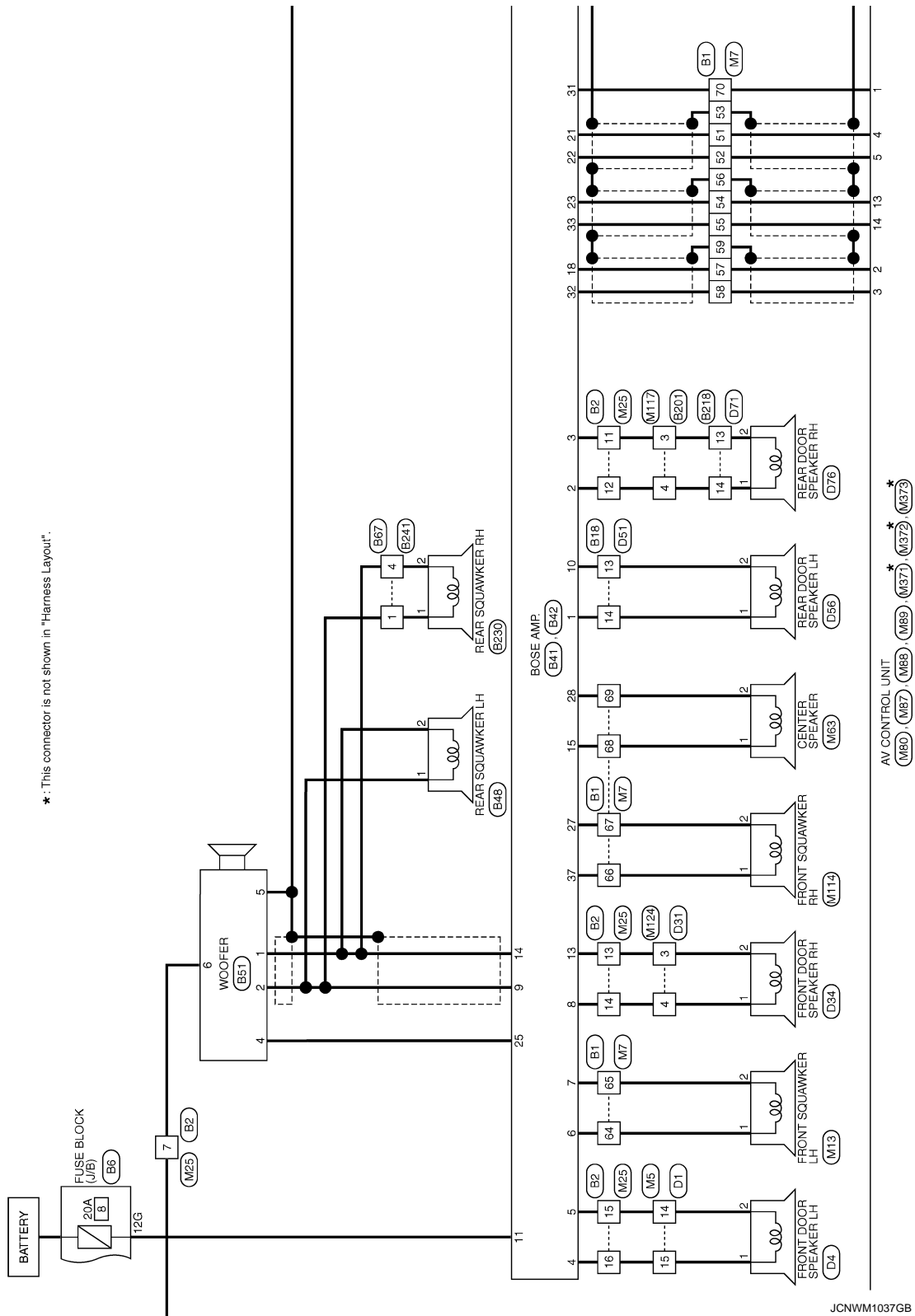
JCNWM1036GB



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

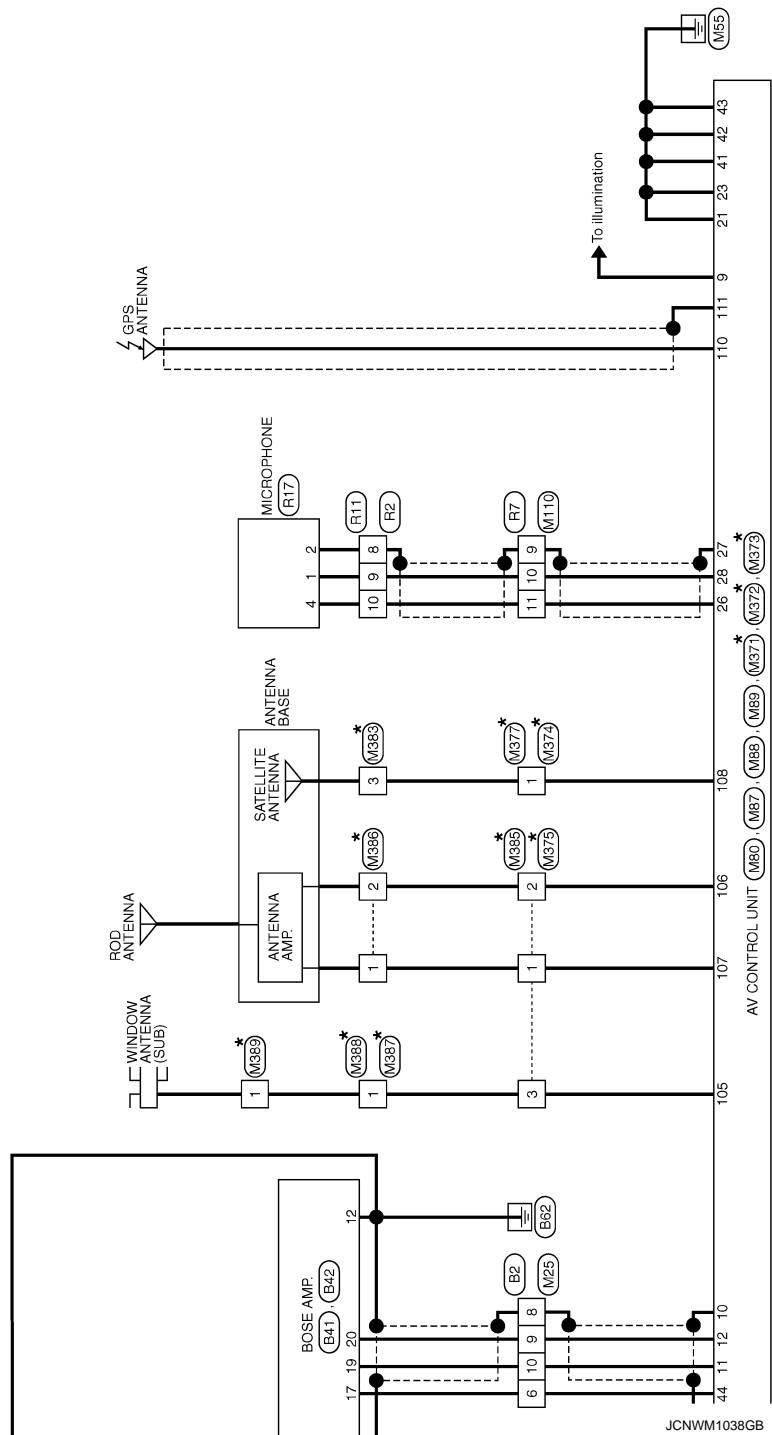


A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

AV



★: This connector is not shown in "Harness Layout".





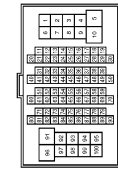
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



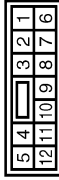
Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B8
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1039GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

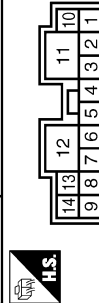
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FER-SJAZ



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

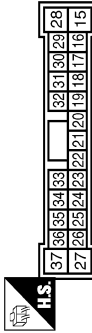
Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

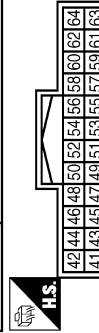
Terminal No.	12
Color of Wire	B
Signal Name [Specification]	GND
Terminal No.	13
Color of Wire	Y
Signal Name [Specification]	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
Terminal No.	14
Color of Wire	R
Signal Name [Specification]	SOUND SIGNAL WOOFER AND REAR SQUAWKER (-)

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA15FER-SG44



Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Terminal No.	31
Color of Wire	GR
Signal Name [Specification]	AMP. ON SIGNAL
Terminal No.	32
Color of Wire	L
Signal Name [Specification]	SOUND SIGNAL FRONT LH (-)
Terminal No.	33
Color of Wire	Y
Signal Name [Specification]	SOUND SIGNAL REAR RH (-)
Terminal No.	37
Color of Wire	V
Signal Name [Specification]	SOUND SIGNAL FRONT SQUAWKER RH (+)

Terminal No.	52
Color of Wire	Y
Signal Name [Specification]	SIDE CAMERA LH IMAGE GND



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (8-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (+)
24	G	LED (-)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH GND
33	BR	SIDE CAMERA RH COMM
34	L	SIDE CAMERA RH POWER SUPPLY
35	W	REAR CAMERA COMM
36	G	REAR CAMERA POWER SUPPLY
37	SHIELD	SHIELD
38	L	REAR CAMERA GND
39	Y	REAR CAMERA IMAGE SIGNAL
40	BR	REAR CAMERA IMAGE GND



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS08MGY

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	GR	- [With NAVI]
21	L	- [With NAVI]

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP. ON SIGNAL
5	B	GND
6	W	BATTERY

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



10	9	8	7	6	5	4	3	2	1	18	17	16	15	14	13	12	11
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Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



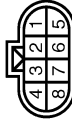
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	GR	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RS08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

Connector No.	B256
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



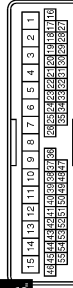
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH0JFW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	BR	-
41	L	-
42	Y	-
43	R	-

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
5	Y	-
6	R	-
17	L	-
18	BR	-

JCNWM1042GB



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
16	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

JCNWM1043GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



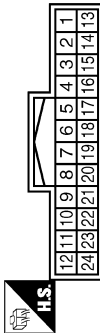
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

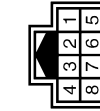
[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



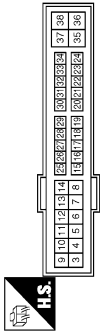
Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH08MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

Connector No.	E5
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



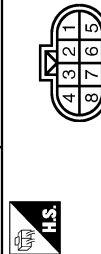
Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR

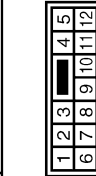


Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



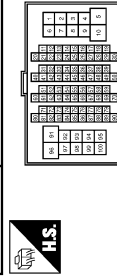
Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

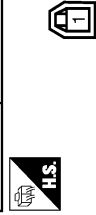
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH03FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

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# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS06MB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



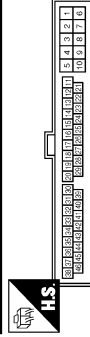
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

JCNWM1045GB

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L  
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P

AV



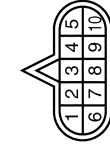
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

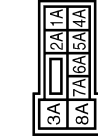
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	F151
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SPT0FG



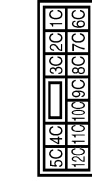
Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSG6FW-M2



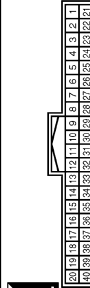
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

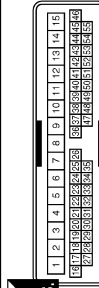
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS1F-TM4

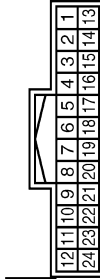


66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



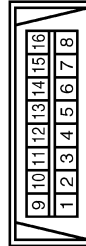
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

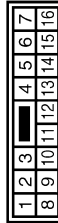


Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW

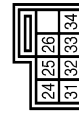


Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



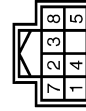
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

JCNWM1047GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



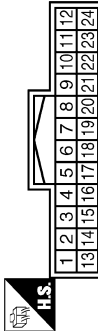
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

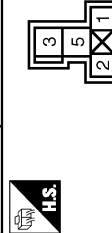
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M44
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
18	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



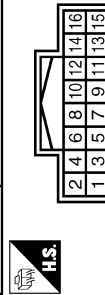
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



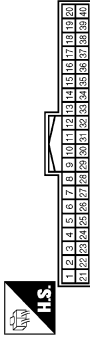
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



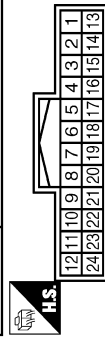
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



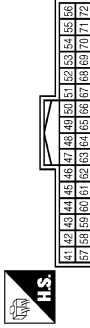
Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	R	AUX IMAGE GND [Without entertainment system]
6	W	RGB (G, GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

13	B	GND
14	SHIELD	SHIELD
15	R	AUX IMAGE SIGNAL [With entertainment system]
17	B	RGB (R, RED) SIGNAL
18	R	RGB (B, BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT)
23	SHIELD	SHIELD

JCNWM1048GB



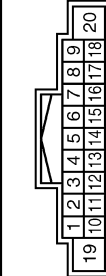
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

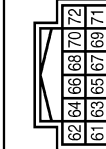
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-CSZ



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
8	R	ILLUMINATION
9	B	SHIELD
10	B	SOUND SIGNAL FRONT RH (+)
11	R	SOUND SIGNAL FRONT RH (-)
12	G	SOUND SIGNAL FRONT RH (+)

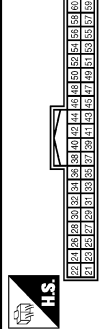
Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R RED) SIGNAL
62	W	RGB (G GREEN) SIGNAL
63	R	RGB (B BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (VS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT-JDSP)
71	Y	COMM (DSP->CONT)

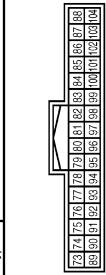
13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH42FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
30	G	IGNITION
32	V	PARKING BRAKE
37	O	REVERSE

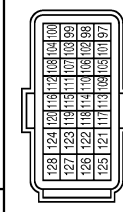
Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
79	R	IPod SOUND SIGNAL LH (+) (Without entertainment system)
80	BR	IPod SOUND SIGNAL RH (+) (Without entertainment system)
85	SB	DISK EJECT SIGNAL
86	SHIELD	SHIELD
87	R	AUX SOUND SIGNAL LH (+)
88	W	AUX SOUND SIGNAL LH (-)
95	G	AUX SOUND SIGNAL GND
96	Y	IPod SOUND SIGNAL LH (-) (Without entertainment system)
97	Y	IPod SOUND SIGNAL RH (-) (Without entertainment system)
102	BR	SW GND
103	B	AUX SOUND SIGNAL RH (+)

38	R	VEHICLE SPEED (8-PULSE)
41	B	CONTROL SIGNAL 1
42	B	CONTROL SIGNAL 2
43	B	CONTROL SIGNAL 3
44	SB	MODE CHANGE SIGNAL
48	G	AV COMM (H)
49	R	AV COMM (L)
50	LG	AV COMM (H)
51	V	AV COMM (L)
52	L	CAN-H
53	P	CAN-L

Connector No.	M107
Connector Name	ECM (WITH V6 ENGINE)
Connector Type	RH24FGY-RZ8-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

AV



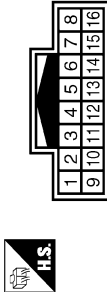
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

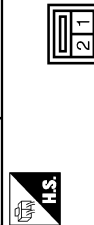
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M110
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



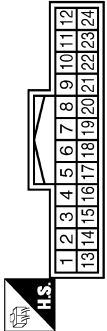
Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	- [With NAVI]
11	G	- [With NAVI]

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



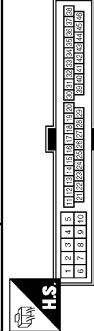
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M111
Connector Name	IPOD ADAPTER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPOD SOUND SIGNAL LH (+)
2	BR	IPOD SOUND SIGNAL RH (+)
3	O	AGC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	IPOD BATTERY CHARGE
9	Y	COMM (IPOD ADAPTER->IPOD)
10	BR	COMM (IPOD->IPOD ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	IPOD SOUND SIGNAL RH (+)
13	G	IPOD SOUND SIGNAL LH (-)

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3MW-NS10

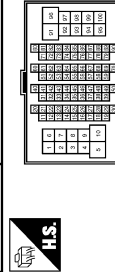


Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

14	Y	IPOD SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
18	SHIELD	SHIELD
21	SB	IPOD CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	IPOD SOUND SIGNAL GND
24	B	IPOD SOUND SIGNAL LH (+)

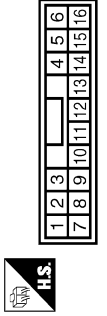
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	IPOD SOUND SIGNAL LH (+)
2	W	IPOD SOUND SIGNAL GND
5	BR	COMM (IPOD->IPOD ADAPTER)
6	Y	COMM (IPOD ADAPTER->IPOD)
7	R	IPOD SOUND SIGNAL RH (+)
9	SB	IPOD CONNECTION RECOGNITION
10	B	GND
12	W	IPOD BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH30MW-CS16-TM4

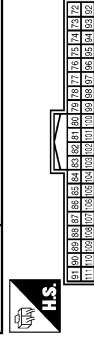


Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	GR	- [With NAVI]
21	V	-

Connector No.	M112
Connector Name	IPOD SIDE
Connector Type	JP16GY



Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H



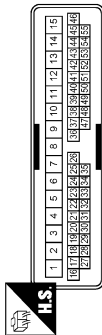
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



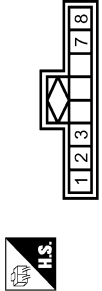
Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU



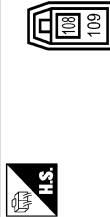
Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



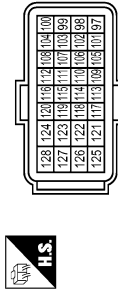
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M372
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	FARFA JACK



Terminal No.	Color of Wire	Signal Name [Specification]
108	-	SAETTLITE ANTENNA

Connector No.	M160
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH24FGY-R25-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA
111	SHIELD	SHIELD

JCNWM1051GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

AV



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



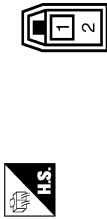
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



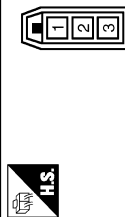
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M383
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



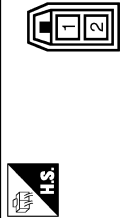
Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCH-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	JASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1052GB



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	IK389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	POFEP-A



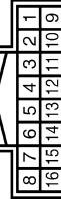
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	RT1
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	RT7
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

JCNWM1053GB

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# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

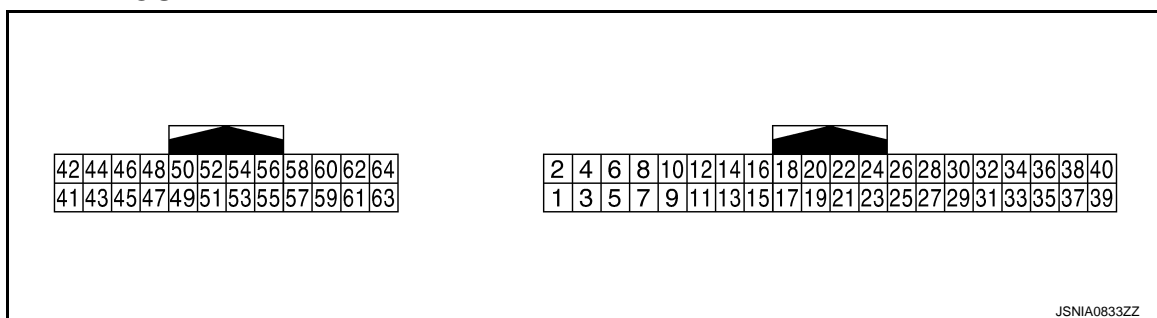
[NAVIGATION (SINGLE MONITOR)]

## AROUND VIEW MONITOR CONTROL UNIT

### Reference Value

INFOID:000000003826765

### TERMINAL LAYOUT



### PHYSICAL VALUES

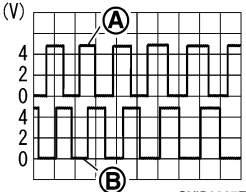
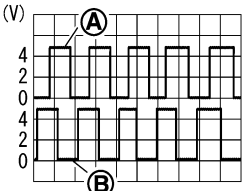
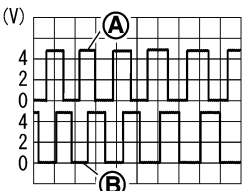
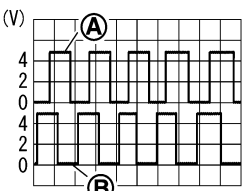
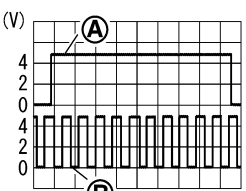
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
3 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
4 (LG)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
5 (R)	Ground	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V
6 (V)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25 MPH)	<b>NOTE:</b> The maximum voltage varies de- pending on the specification (destination unit). 
7 (O)	Ground	Reverse signal	Input	Ignition switch ON	R position	12.0 V
					Other than R position	0 V
13 (B)	Ground	Control signal	—	Ignition switch ON	—	0 V



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
14 (GR)	Ground	Sensor signal 1	Input	Ignition switch ON	Turn the steering to the right	 <p>SKIB3827E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
					Turn the steering to the left	 <p>SKIB3828E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
15 (SB)	Ground	Sensor signal 2	Input	Ignition switch ON	Turn the steering to the right	 <p>SKIB3827E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
					Turn the steering to the left	 <p>SKIB3828E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
16 (L)	Ground	Sensor signal 3	Input	Ignition switch ON	Turn the steering around the neutral position	 <p>SKIB3829E</p> <p>A: Sensor signal 3 B: Sensor signal 1</p>
17 (W)	—	AV communication signal (H)	Input/ Output	—	—	—
18 (P)	—	AV communication signal (L)	Input/ Output	—	—	—

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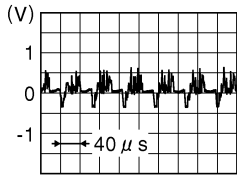
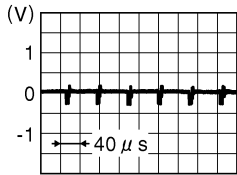
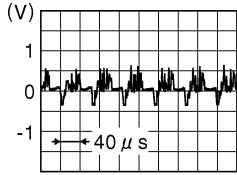
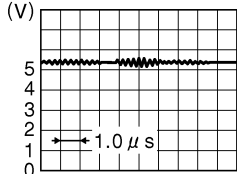
P



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

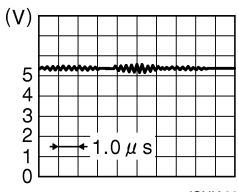
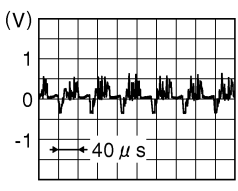
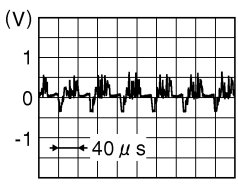
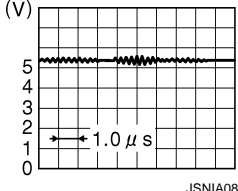
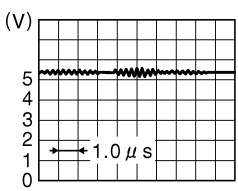
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
21 (O)	—	AV communication signal (H)	Input/ Output	—	—	—
22 (V)	—	AV communication signal (L)	Input/ Output	—	—	—
23 (LG)	24 (G)	Auxiliary infrared LED power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	5.5 V
27 (W)	Ground	Camera image signal	Output	Ignition switch ON	At camera image display	 JSNIA0834GB
					Other than camera image display	 JSNIA0835GB
28	—	Shield	—	—	—	—
29 (R)	30 (Y)	Side camera passenger side image signal	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0834GB
31	—	Shield	—	—	—	—
32 (W)	Ground	Side camera passenger side ground	—	Ignition switch ON	—	0 V
33 (BR)	Ground	Side camera passenger side communication signal	Input/ Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB
34 (L)	Ground	Side camera passenger side power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	6.0 V



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
35 (W)	Ground	Rear camera communication signal	Input/ Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB
36 (G)	Ground	Rear camera power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	6.0 V
37	—	Shield	—	—	—	—
38 (L)	Ground	Rear camera ground	—	Ignition switch ON	—	0 V
39 (Y)	40 (BR)	Rear camera image signal	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0834GB
41 (L)	42 (BR)	Front camera image signal	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0834GB
43	—	Shield	—	—	—	—
44 (Y)	Ground	Front camera ground	—	Ignition switch ON	—	0 V
45 (W)	Ground	Front camera communication signal	Input/ Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB
46 (G)	Ground	Front camera power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	6.0 V
47 (BR)	Ground	Side camera driver side com- munication signal	Input/ Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB

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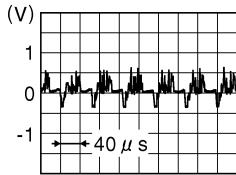
P



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
48 (L)	Ground	Side camera driver side power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	6.0 V
49	—	Shield	—	—	—	—
50 (W)	Ground	Side camera driver side ground	—	Ignition switch ON	—	0 V
51 (R)	52 (Y)	Side camera driver side image signal	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 <p>JSNIA0834GB</p>

## Wiring Diagram - BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR) -

INFOID:0000000003826897

**NOTE:**



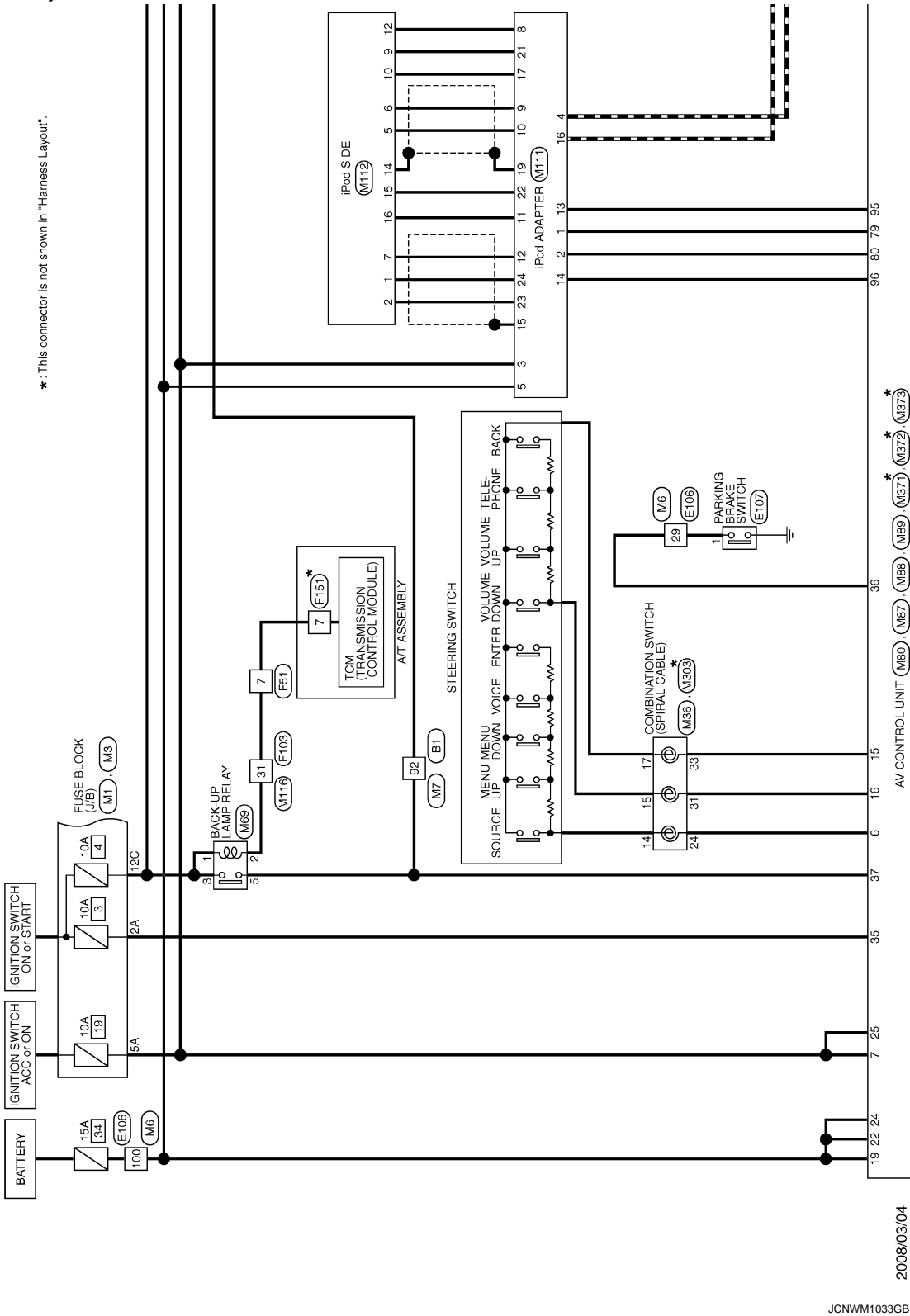
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)



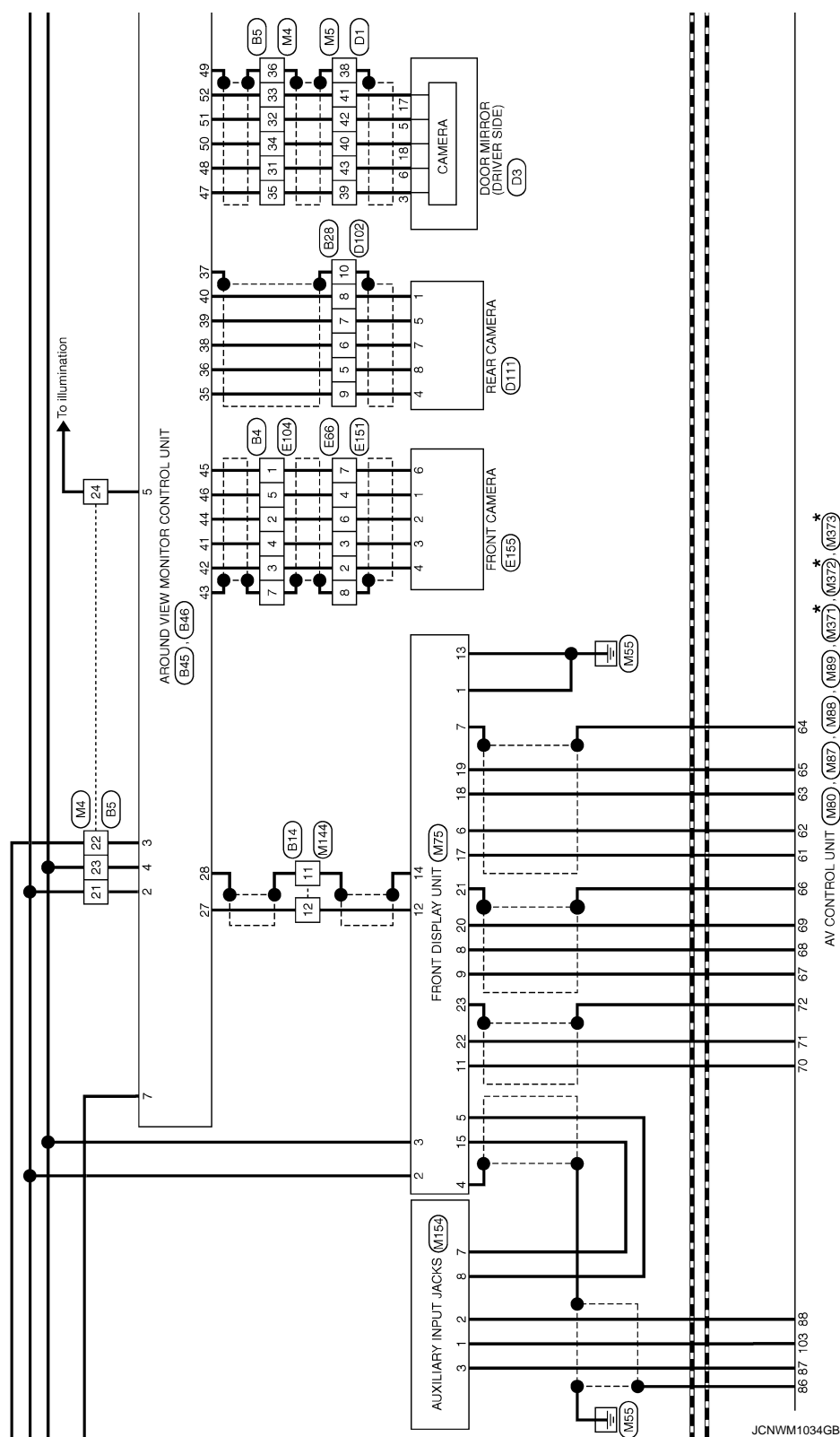
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< ECU DIAGNOSIS INFORMATION >

★: This connector is not shown in "Harness Layout".





< ECU DIAGNOSIS INFORMATION >

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2009 FX35/FX50



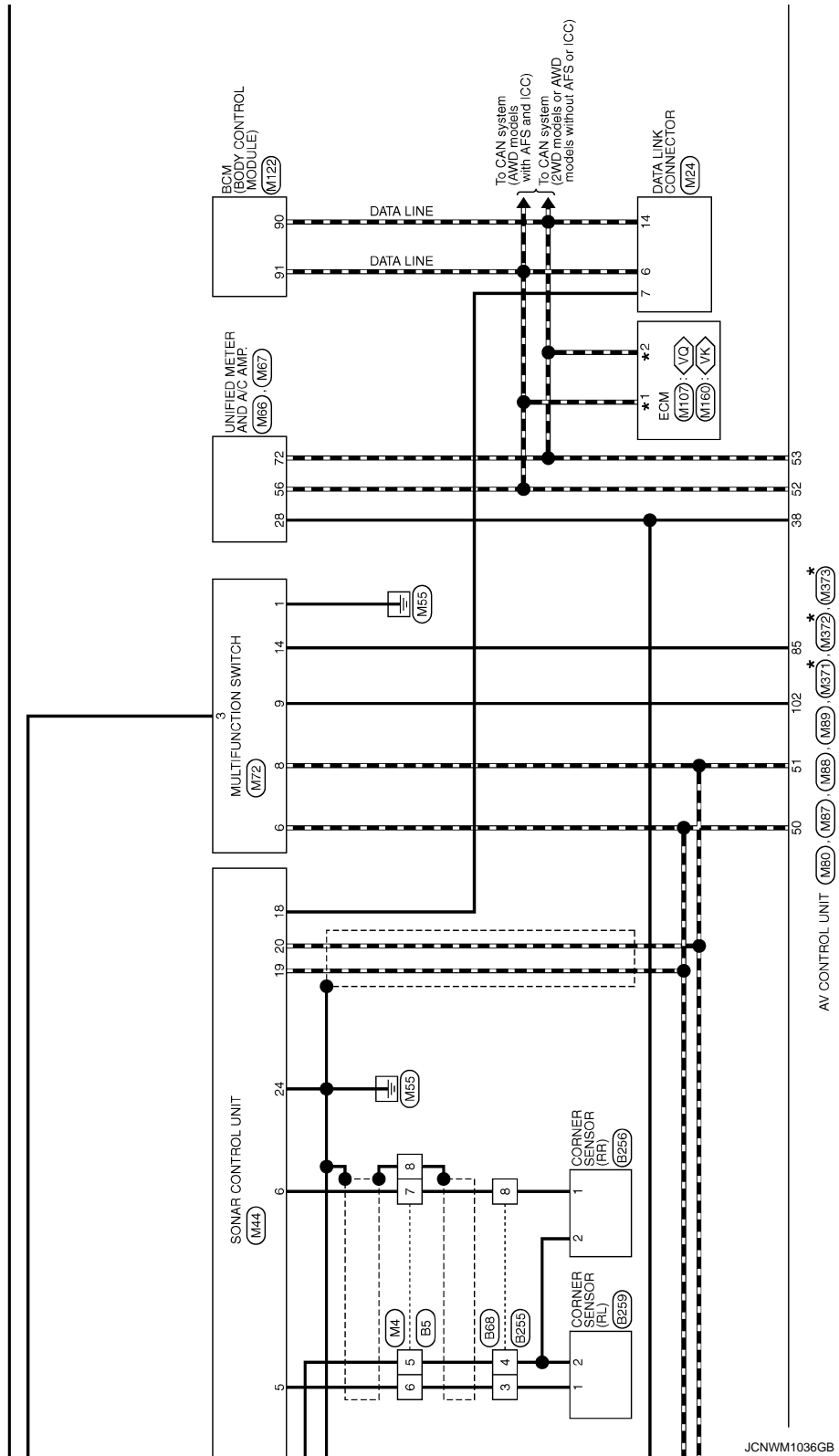
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

VQ : With VQ engine  
 VK : With VK engine  
 \*1 114: VQ  
 105: VK  
 \*2 113: VQ  
 101: VK

\*: This connector is not shown in "Harness Layout".

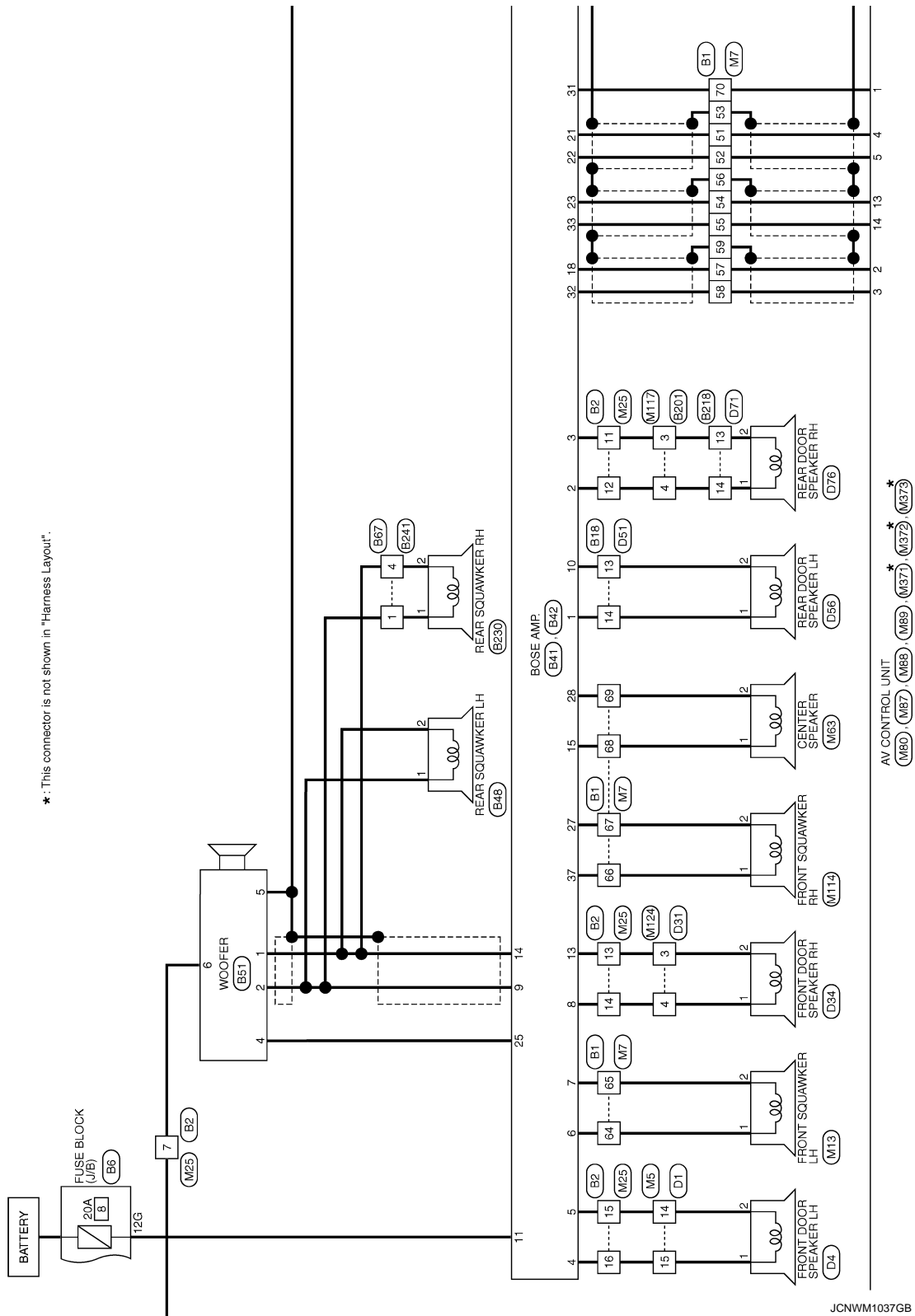




# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]



JCNWM1037GB

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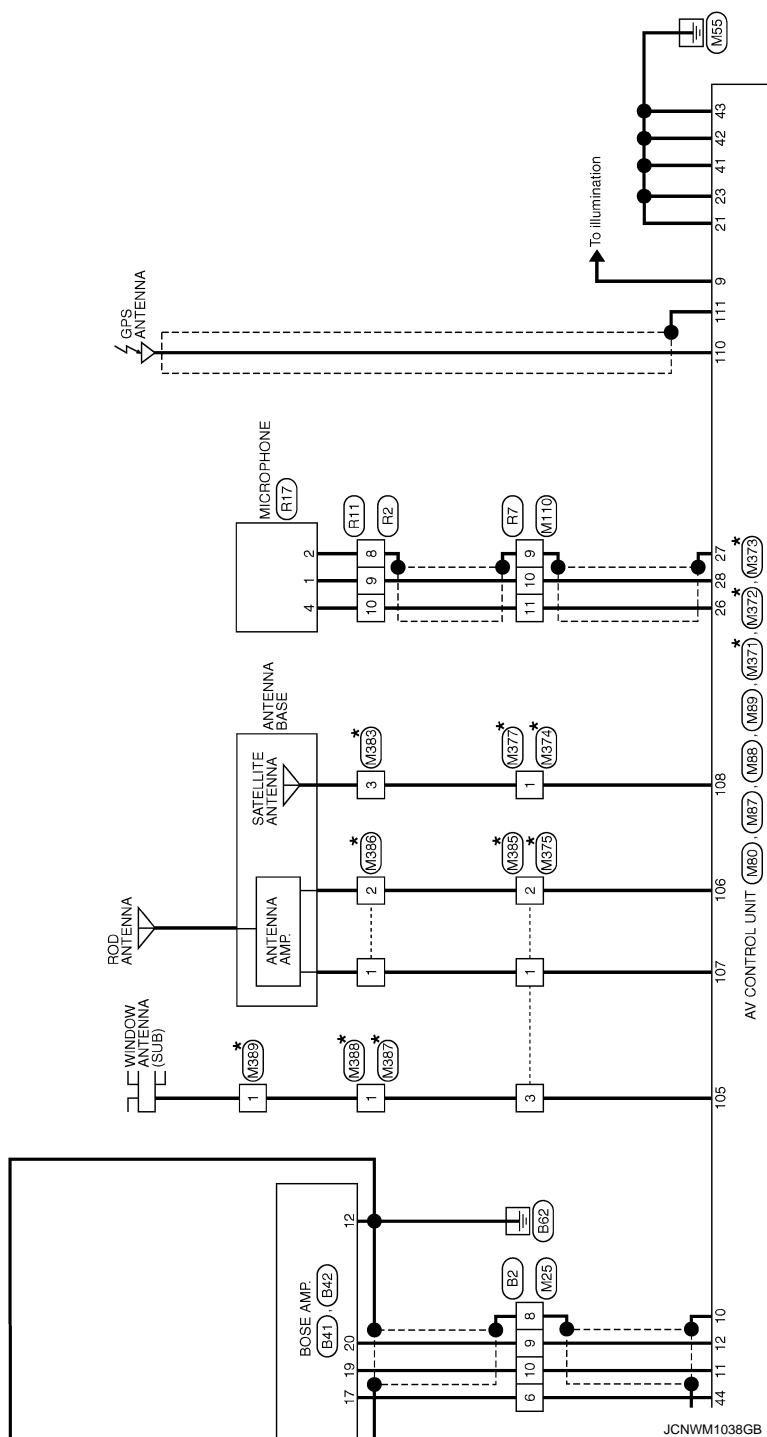


# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

★: This connector is not shown in "Harness Layout".





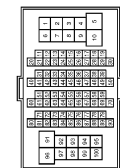
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

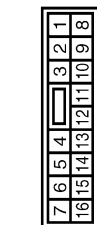
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

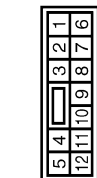


66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

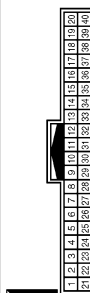


Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

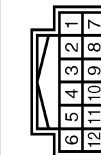


21	Y	-
22	G	-
23	LG	-
24	R	-
25	L	-
26	R	-
27	Y	-
28	W	-
29	BR	-
30	SHIELD	-
31	L	-
32	R	-
33	Y	-
34	W	-
35	BR	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1039GB

AV



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		

Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FER-SJAZ



14	13	12	11	10				
9	8	7	6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SGA18FER-SG44



36	35	34	33		32	31	30	29	28		
26	25	24	23	22	21	20	19	18	17	16	15

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



42	44	46	48	50	52	54	56	58	60	62	64
41	43	45	47	49	51	53	55	57	59	61	63

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

52	Y	SIDE CAMERA LH IMAGE GND
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JCNWM1040GB



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (8-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (-)
24	G	LED (+)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH GND
33	BR	SIDE CAMERA RH COMM
34	L	SIDE CAMERA RH POWER SUPPLY
35	W	REAR CAMERA COMM
36	G	REAR CAMERA POWER SUPPLY
37	SHIELD	SHIELD
38	L	REAR CAMERA GND
39	Y	REAR CAMERA IMAGE SIGNAL
40	BR	REAR CAMERA IMAGE GND



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS08MGY

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	GR	- [With NAVI]
21	L	- [With NAVI]

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP. ON SIGNAL
5	B	GND
6	W	BATTERY

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

JCNWM1041GB



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	GR	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RS08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

Connector No.	B256
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



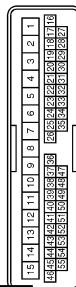
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH0JFW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	BR	-
41	L	-
42	Y	-
43	R	-

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
5	Y	-
6	R	-
17	L	-
18	BR	-

JCNWM1042GB



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

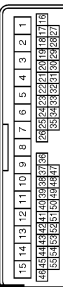
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
16	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

JCNWM1043GB



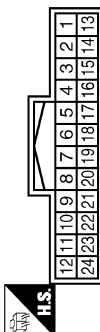
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

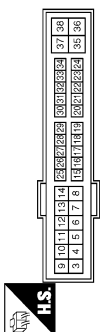
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Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH08MW-NH

Connector No.	E5
Connector Name	PDIM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

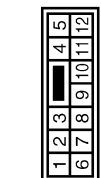
Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

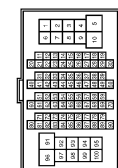
Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH03FW-CS16-TM4



Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

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# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS06MB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



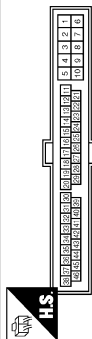
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

JCNWM1045GB



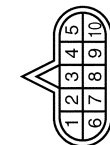
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

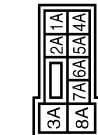
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	F151
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SPT0FG



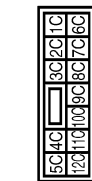
Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSG6FW-M2



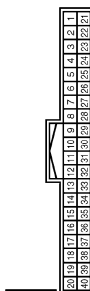
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



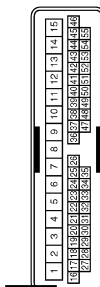
Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



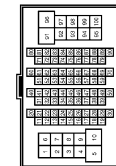
Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

JCNWM1046GB



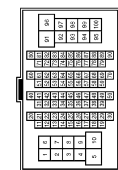
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS1F-TM4

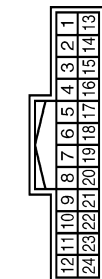


66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



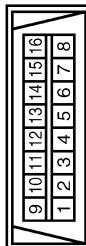
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW

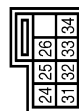


Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



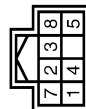
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

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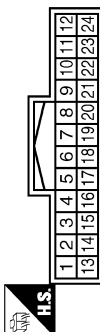
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M64
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
18	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



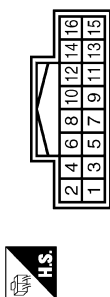
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



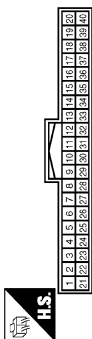
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



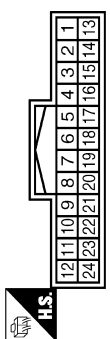
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



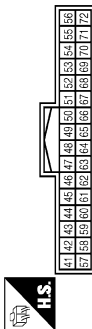
Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	R	AUX IMAGE GND [Without entertainment system]
6	W	RGB (G, GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

13	B	GND
14	SHIELD	SHIELD
15	R	AUX IMAGE SIGNAL [With entertainment system]
17	B	RGB (R, RED) SIGNAL
18	R	RGB (B, BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT)
23	SHIELD	SHIELD

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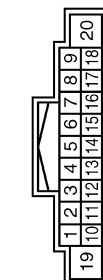
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

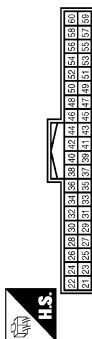
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-CSZ



13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

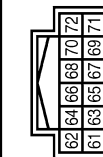
Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH42FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
8	P	STRG SW A
9	SB	ACC
10	R	ILLUMINATION
11	B	SHIELD
12	G	SOUND SIGNAL FRONT RH (+)

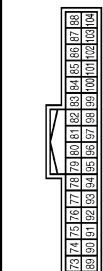
Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH

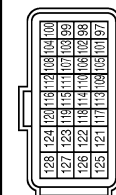


72	SHIELD	SHIELD
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Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH



Connector No.	M107
Connector Name	ECM (WITH V6 ENGINE)
Connector Type	RH42FGY-RZ8-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R RED) SIGNAL
62	W	RGB (G GREEN) SIGNAL
63	R	RGB (B BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (V/S) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT-JDISP)
71	Y	COMM (DISP->CONT)

Terminal No.	Color of Wire	Signal Name [Specification]
79	R	IPod SOUND SIGNAL LH (+) (Without entertainment system)
80	BR	IPod SOUND SIGNAL RH (+) (Without entertainment system)
85	SB	DISK EJECT SIGNAL
86	SHIELD	SHIELD
87	R	AUX SOUND SIGNAL LH (+)
88	W	AUX SOUND SIGNAL GND
95	G	IPod SOUND SIGNAL LH (-) (Without entertainment system)
96	Y	IPod SOUND SIGNAL RH (-) (Without entertainment system)
102	BR	SW GND
103	B	AUX SOUND SIGNAL RH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

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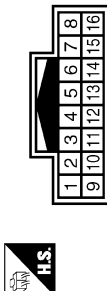
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M110
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



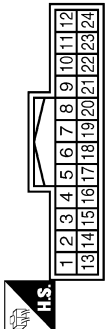
Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	- [With NAVI]
11	G	- [With NAVI]

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (+)
2	BR	IPod SOUND SIGNAL RH (+)
3	O	AGC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	IPod BATTERY CHARGE
9	Y	COMM (IPod->IPod Adapter)
10	BR	COMM (IPod->IPod Adapter)
11	L	ACCESSORY IDENTIFY
12	R	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (-)

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3MW-NS10

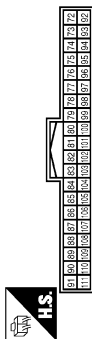


Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

14	Y	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	AV COMM (H)
18	SHIELD	SHIELD
19	SB	IPod CONNECTION RECOGNITION
21	W	ACCESSORY DETECT
22	W	IPod SOUND SIGNAL GND
23	W	IPod SOUND SIGNAL LH (+)
24	B	IPod SOUND SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	IPod SOUND SIGNAL LH (+)
2	W	IPod SOUND SIGNAL GND
5	BR	COMM (IPod->IPod Adapter)
6	Y	COMM (IPod->IPod Adapter)
7	R	IPod SOUND SIGNAL RH (+)
9	SB	IPod CONNECTION RECOGNITION
10	B	GND
12	W	IPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

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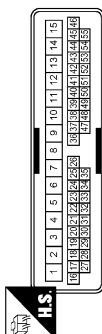
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



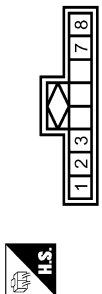
Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



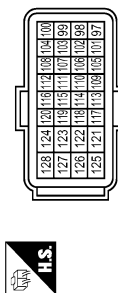
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M372
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	FARFA JACK



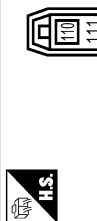
Terminal No.	Color of Wire	Signal Name [Specification]
108	-	SAETLLITE ANTENNA

Connector No.	M160
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH24FGY-R25-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA
111	SHIELD	SHIELD

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AV



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



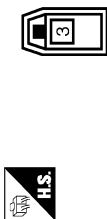
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M383
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCH-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	JASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

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# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

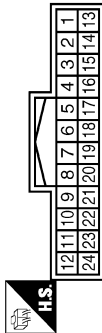
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01EF-A



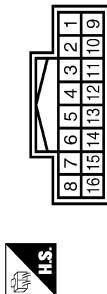
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	RT1
Connector Name	WIRE TO WIRE
Connector Type	TH24MF-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	RT7
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

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# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

### Reference Value

INFOID:000000003826767

### VALUES ON THE DIAGNOSIS TOOL

#### CONSULT-III MONITOR ITEM

Monitor Item	Condition		Value/Status
SONAR OPE	Ignition switch ON	Around view monitor operating (sonar operating).	On
		Around view monitor non-operating (sonar non-operating).	Off
BUZZER OUTPUT	Ignition switch ON	Buzzer is output condition.	On
		Buzzer is not output condition.	Off
CR SEN [FL]	Ignition switch ON	When a sensor is abnormal.	ERROR
		When a sensor is not detection.	LV.0
		The distance between the corner sensor and an obstacle is 50 cm (19.6 in) or more and less then 60 cm (23.6 in).	LV.2
		The distance between the corner sensor and an obstacle is 30 cm (11.8 in) or more and less then 50 cm (19.6 in).	LV.3
		The distance between corner sensor and an obstacle less than 30 cm (11.8 in).	LV.4
CR SEN [FR]	Ignition switch ON	When a sensor is abnormal.	ERROR
		When a sensor is not detection.	LV.0
		The distance between the corner sensor and an obstacle is 50 cm (19.6 in) or more and less then 60 cm (23.6 in).	LV.2
		The distance between the corner sensor and an obstacle is 30 cm (11.8 in) or more and less then 50 cm (19.6 in).	LV.3
		The distance between corner sensor and an obstacle less than 30 cm (11.8 in).	LV.4
CR SEN [RL]	Ignition switch ON	When a sensor is abnormal.	ERROR
		When a sensor is not detection.	LV.0
		The distance between the corner sensor and an obstacle is 50 cm (19.6 in) or more and less then 60 cm (23.6 in).	LV.2
		The distance between the corner sensor and an obstacle is 30 cm (11.8 in) or more and less then 50 cm (19.6 in).	LV.3
		The distance between corner sensor and an obstacle less than 30 cm (11.8 in).	LV.4
CR SEN [RR]	Ignition switch ON	When a sensor is abnormal.	ERROR
		When a sensor is not detection.	LV.0
		The distance between the corner sensor and an obstacle is 50 cm (19.6 in) or more and less then 60 cm (23.6 in).	LV.2
		The distance between the corner sensor and an obstacle is 30 cm (11.8 in) or more and less then 50 cm (19.6 in).	LV.3
		The distance between corner sensor and an obstacle less than 30 cm (11.8 in).	LV.4

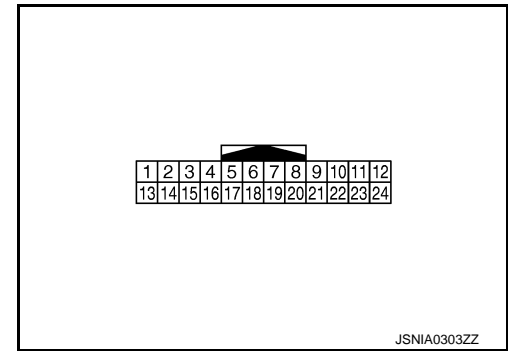


# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## TERMINAL LAYOUT



## PHYSICAL VALUES

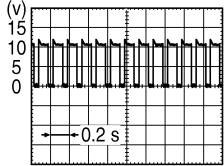
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
3 (W)	12 (B)	Corner sensor signal front LH	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	<p>JSNIA0837GB</p>
4 (R)	12 (B)	Corner sensor signal front RH	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	<p>JSNIA0837GB</p>
5 (L)	12 (B)	Corner sensor signal rear LH	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	<p>JSNIA0837GB</p>
6 (Y)	12 (B)	Corner sensor signal rear RH	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	<p>JSNIA0837GB</p>
12 (B)	Ground	Sensor ground	—	Ignition switch ON	—	0 V
13 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	12.0 V
18 (P)	—	K-line (CONSULT-III)	—	—	—	—



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
19 (G)	—	AV communication (H)	Input/ Output	—	—	—
20 (R)	—	AV communication (L)	Input/ Output	—	—	—
23 (GR)	Ground	Buzzer drive signal	Output	Ignition switch ON	When buzzer operation	<b>NOTE:</b> Waveform period changes due to the distance to an obstacle. 
24 (B)	Ground	Ground	—	Ignition switch ON	—	0 V

## Wiring Diagram - BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR) -

INFOID:000000003826898

**NOTE:**



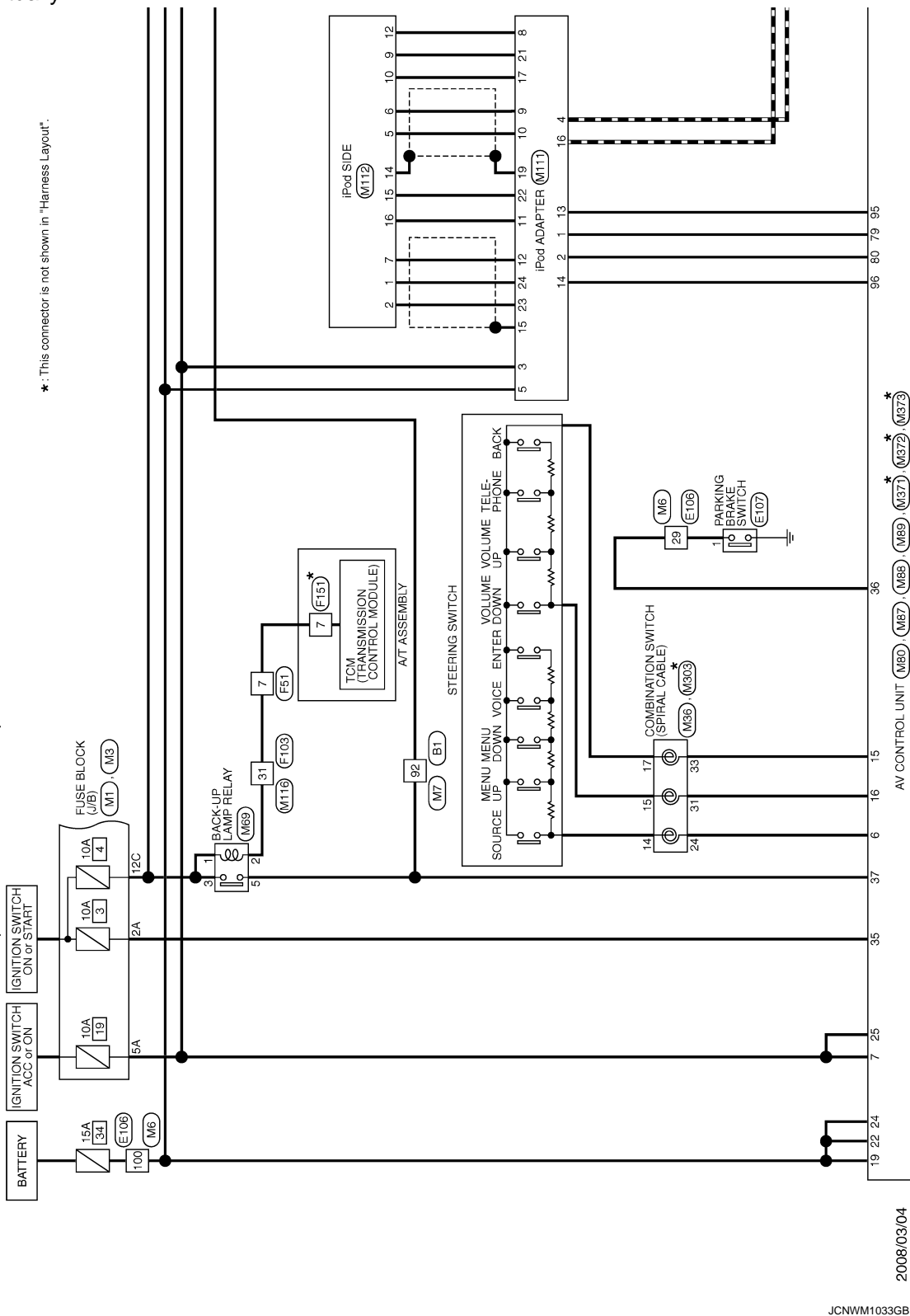
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

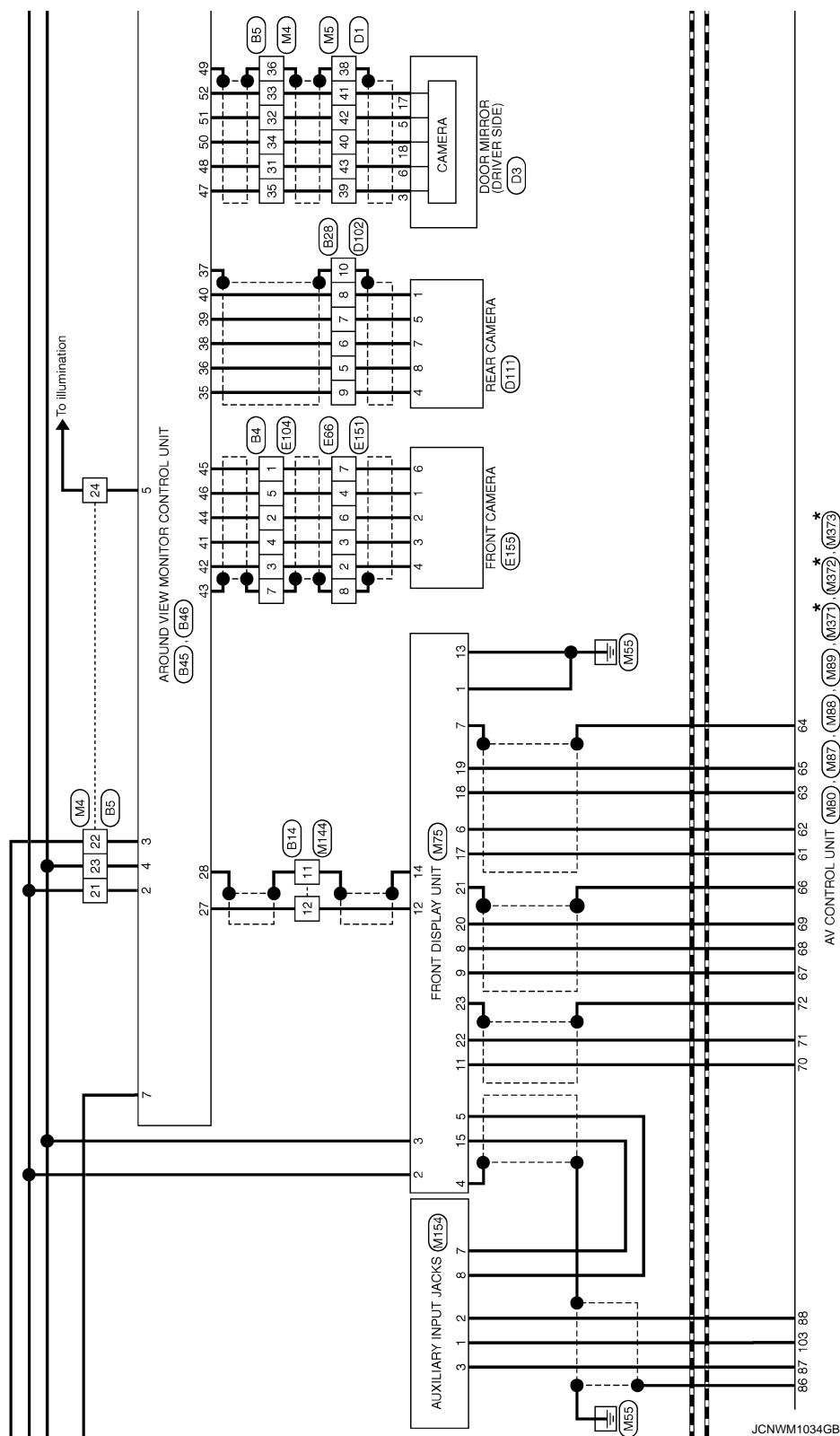


AV



< ECU DIAGNOSIS INFORMATION >

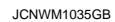
★: This connector is not shown in "Harness Layout".





< ECU DIAGNOSIS INFORMATION >

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P



AV



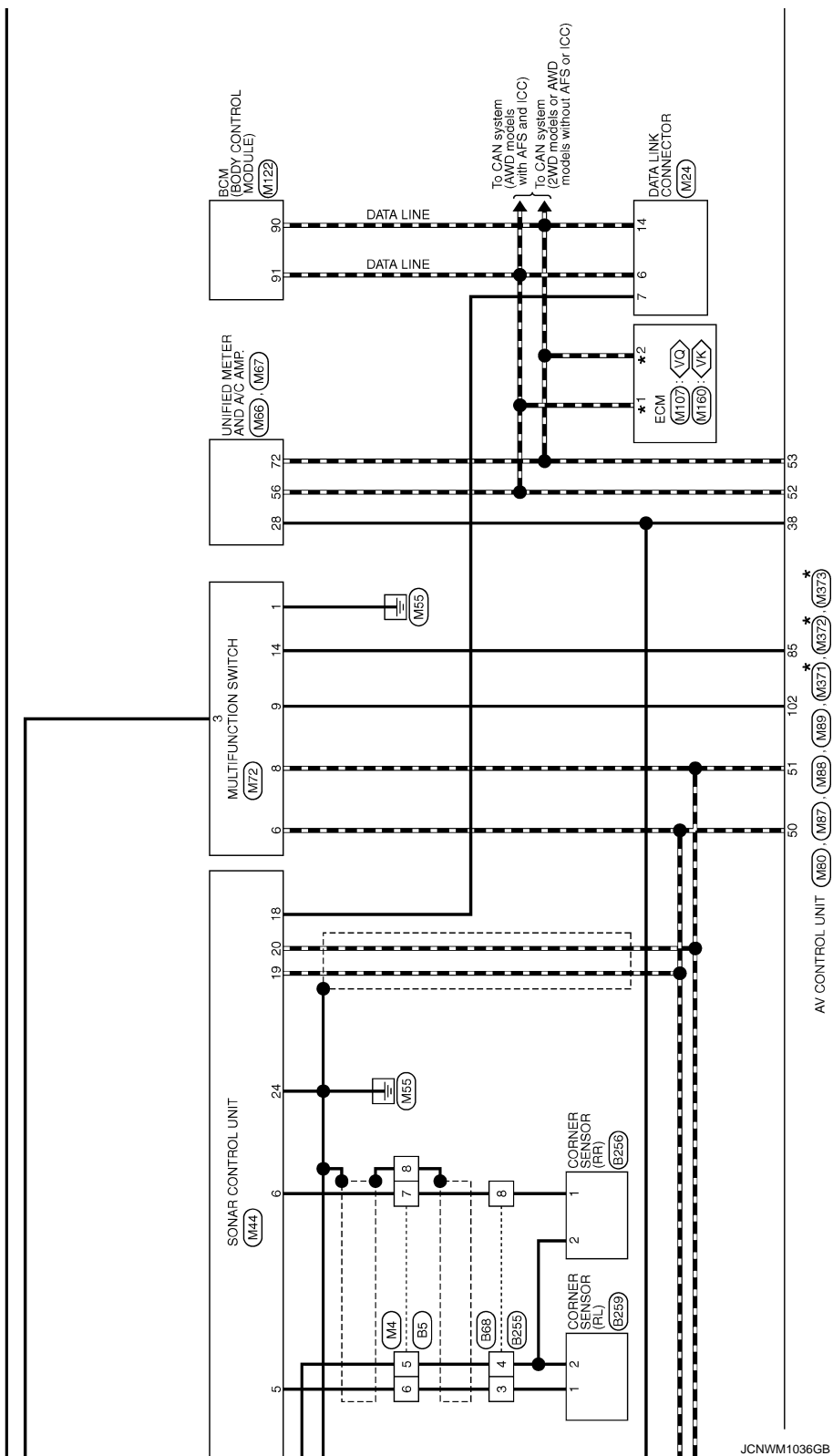
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

VQ : With VQ engine  
 VK : With VK engine  
 \*1 114: VQ  
 105: VK  
 \*2 113: VQ  
 101: VK

\*: This connector is not shown in "Harness Layout".



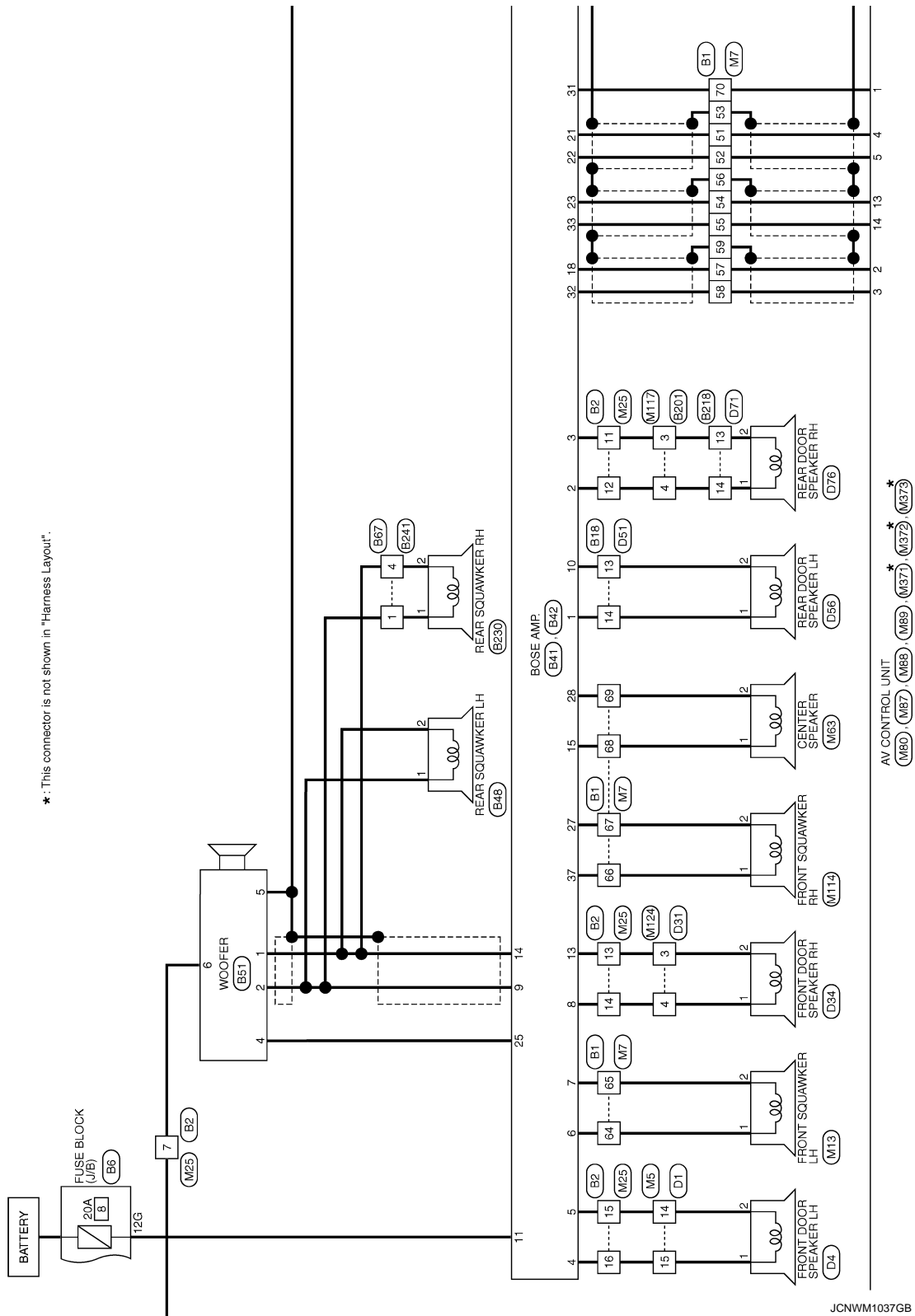
JCNWM1036GB



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]



A  
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AV

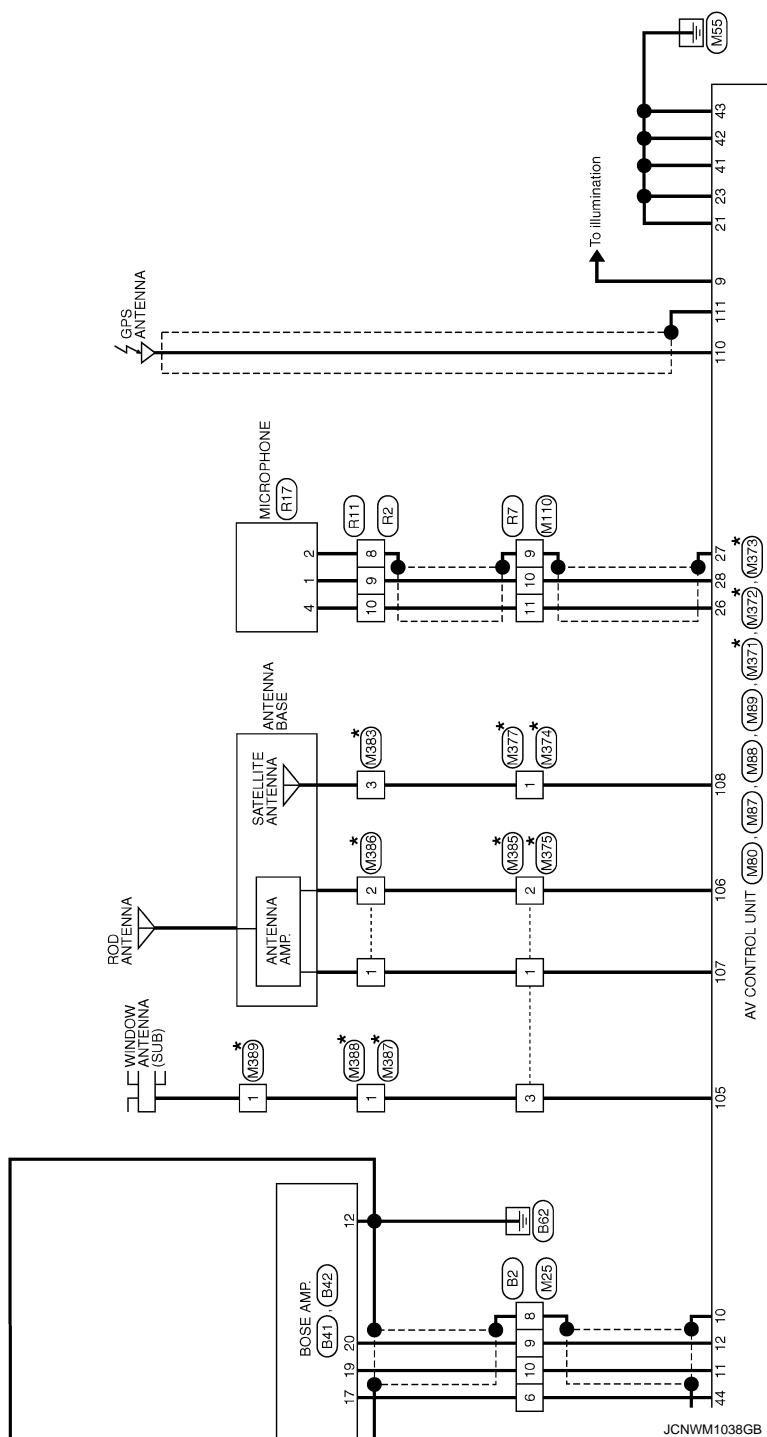


# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

★: This connector is not shown in "Harness Layout".





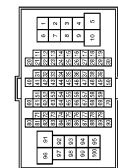
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

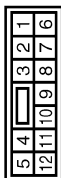


66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

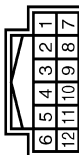


21	Y	-
22	G	-
23	LG	-
24	R	-
25	L	-
26	R	-
27	Y	-
28	W	-
29	BR	-
30	SHIELD	-
31	L	-
32	R	-
33	Y	-
34	W	-
35	BR	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1039GB

AV



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		

Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FER-SJAZ



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Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SGA18FER-SG44



37	36	35	34	33		32	31	30	29	28		
27	26	25	24	23	22	21	20	19	18	17	16	15

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



42	44	46	48	50	52	54	56	58	60	62	64
41	43	45	47	49	51	53	55	57	59	61	63

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

52	Y	SIDE CAMERA LH IMAGE GND
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JCNWM1040GB



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (8-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (-)
24	G	LED (+)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH GND
33	BR	SIDE CAMERA RH COMM
34	L	SIDE CAMERA RH POWER SUPPLY
35	W	REAR CAMERA COMM
36	G	REAR CAMERA POWER SUPPLY
37	SHIELD	SHIELD
38	L	REAR CAMERA GND
39	Y	REAR CAMERA IMAGE SIGNAL
40	BR	REAR CAMERA IMAGE GND



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS08MGY

Connector No.	B48
Connector Name	REAR SQUAWKER LH
Connector Type	TK02FBR



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	GR	- [With NAVI]
21	L	- [With NAVI]

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS08FGY



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP. ON SIGNAL
5	B	GND
6	W	BATTERY

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



10	9	8	7	6	5	4	3	2	1	18	17	16	15	14	13	12	11
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Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	GR	-

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RS08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

Connector No.	B256
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



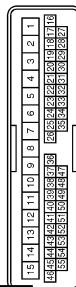
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH0JFW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	BR	-
41	L	-
42	Y	-
43	R	-

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MY-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
5	Y	-
6	R	-
17	L	-
18	BR	-

JCNWM1042GB



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

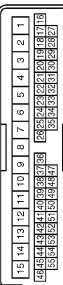
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
16	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

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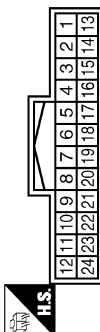
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH08MW-NH



Connector No.	E5
Connector Name	PDIM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

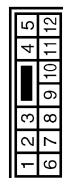


Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR

Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-CS16-TM4



Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

JCNWM1044GB



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS06MB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB

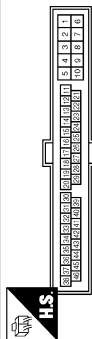


Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

JCNWM1045GB

AV



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	F151
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SPT0FG



Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSG6FW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

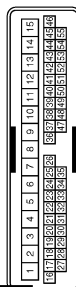
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

JCNWM1046GB



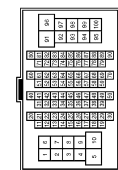
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

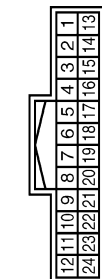
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS1F-TM4



66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

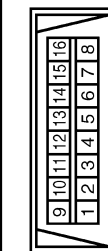


Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

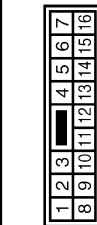
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

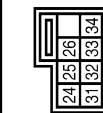
Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



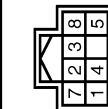
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

JCNWM1047GB



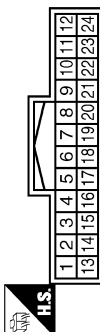
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M44
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



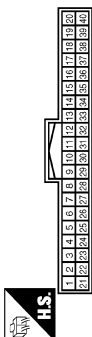
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
18	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



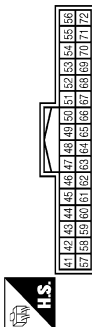
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH

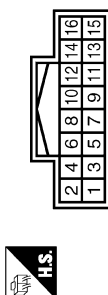


Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

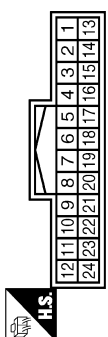
Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
13	B	GND
14	SHIELD	SHIELD
15	R	AUX IMAGE SIGNAL (With entertainment system)
17	B	RGB (R: RED) SIGNAL
18	R	RGB (B: BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DSP->CONT)
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	R	AUX IMAGE GND (Without entertainment system)
6	W	RGB (G: GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

JCNWM1048GB



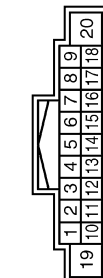
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

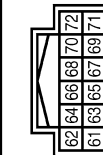
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-CSZ



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
8	R	ILLUMINATION
9	B	SHIELD
10	R	SOUND SIGNAL FRONT RH (+)
11	R	SOUND SIGNAL FRONT RH (-)
12	G	SOUND SIGNAL FRONT RH (-)

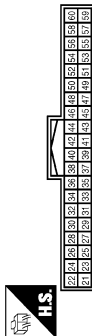
Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
51	B	RGB (R: RED) SIGNAL
52	W	RGB (G: GREEN) SIGNAL
53	R	RGB (B: BLUE) SIGNAL
54	SHIELD	SHIELD
55	G	RGB SYNC
56	SHIELD	SHIELD
57	B	RGB AREA (V/S) SIGNAL
58	R	HP
59	W	VP
60	BR	COMM (CONT->DISP)
61	Y	COMM (DISP->CONT)

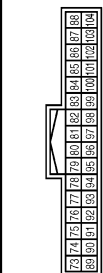
13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH42FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
29	G	IGNITION
30	V	PARKING BRAKE
31	O	REVERSE

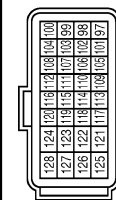
Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
73	R	iPod SOUND SIGNAL LH (+) (Without entertainment system)
74	BR	iPod SOUND SIGNAL LH (-) (Without entertainment system)
75	SB	iPod SOUND SIGNAL RH (+) (Without entertainment system)
76	SHIELD	iPod SOUND SIGNAL RH (-) (Without entertainment system)
77	R	DISK EJECT SIGNAL
78	SHIELD	SHIELD
79	R	AUX SOUND SIGNAL LH (+)
80	W	AUX SOUND SIGNAL LH (-)
81	G	AUX SOUND SIGNAL GND
82	Y	SW GND
83	BR	AUX SOUND SIGNAL RH (+)
84	B	AUX SOUND SIGNAL RH (-)
85	SHIELD	SHIELD
86	SHIELD	SHIELD
87	SHIELD	SHIELD
88	SHIELD	SHIELD
89	SHIELD	SHIELD
90	SHIELD	SHIELD
91	SHIELD	SHIELD
92	SHIELD	SHIELD
93	SHIELD	SHIELD
94	SHIELD	SHIELD
95	SHIELD	SHIELD
96	SHIELD	SHIELD
97	SHIELD	SHIELD
98	SHIELD	SHIELD
99	SHIELD	SHIELD
100	SHIELD	SHIELD
101	SHIELD	SHIELD
102	SHIELD	SHIELD
103	SHIELD	SHIELD

38	R	VEHICLE SPEED (8-PULSE)
41	B	CONTROL SIGNAL 1
42	B	CONTROL SIGNAL 2
43	B	CONTROL SIGNAL 3
44	SB	MODE CHANGE SIGNAL
48	G	AV COMM (H)
49	R	AV COMM (L)
50	LG	AV COMM (H)
51	V	AV COMM (L)
52	L	CAN-H
53	P	CAN-L

Connector No.	M107
Connector Name	ECM (WITH V6 ENGINE)
Connector Type	RH24FGY-RZ8-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHICLE-HI
114	L	VEHICLE-HI



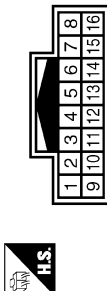
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

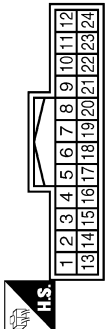
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M110
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	- [With NAVI]
11	G	- [With NAVI]

Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (+)
2	BR	IPod SOUND SIGNAL RH (+)
3	O	AGC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	IPod BATTERY CHARGE
9	Y	COMM (IPod->IPod Adapter)
10	BR	COMM (IPod->IPod Adapter)
11	L	ACCESSORY IDENTIFY
12	R	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (-)

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR

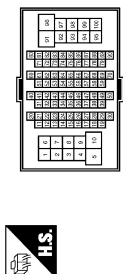


Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

14	Y	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	AV COMM (H)
18	SHIELD	SHIELD
19	SB	IPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	IPod SOUND SIGNAL GND
24	B	IPod SOUND SIGNAL LH (+)

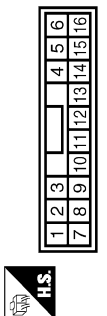
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	IPod SOUND SIGNAL LH (+)
2	W	IPod SOUND SIGNAL GND
5	BR	COMM (IPod->IPod Adapter)
6	Y	COMM (IPod->IPod Adapter)
7	R	IPod SOUND SIGNAL RH (+)
9	SB	IPod CONNECTION RECOGNITION
10	B	GND
12	W	IPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

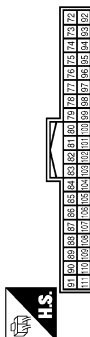


Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
20	GR	- [With NAVI]
21	V	-

Connector No.	M112
Connector Name	IPod SIDE
Connector Type	IP16GY



Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

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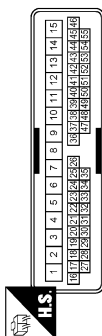
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



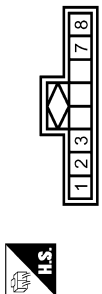
Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



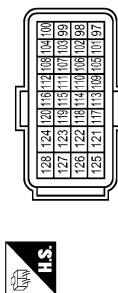
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	AUX SOUND SIGNAL RH (+)
2	W	AUX SOUND SIGNAL GND
3	R	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M372
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	FARFA JACK



Terminal No.	Color of Wire	Signal Name [Specification]
108	-	SAETLLITE ANTENNA

Connector No.	M160
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH24FGY-RZ5-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA
111	SHIELD	SHIELD

JCNWM1051GB

AV



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



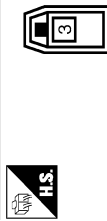
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



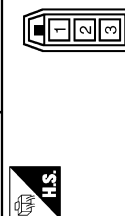
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M383
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



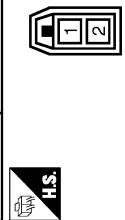
Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCH-2/1PP-HU



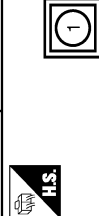
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



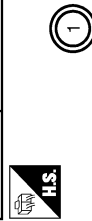
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	JASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1052GB



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

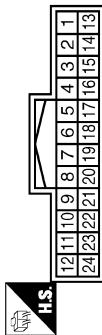
## BOSE AUDIO WITH NAVIGATION (SINGLE MONITOR)

Connector No.	W389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01EF-A



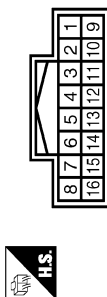
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FV-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	RT1
Connector Name	WIRE TO WIRE
Connector Type	TH24MF-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	RT7
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

JCNWM1053GB

INFOID:0000000003826769

## Fail-Safe

- Sonar control unit has diagnosis function which can detect corner sensor malfunction and sensor harness disconnection.
- It transmits the malfunction status to around view monitor control unit and informs the malfunction to the user by displaying continuously red sonar indicator.



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (SINGLE MONITOR)]

## DTC Index

INFOID:000000003826770

DTC	Display item	Malfunction is detected when...	Reference
B2700	CORNER SENSOR [FL] [B2700]	Corner sensor front left is malfunctioning.	<a href="#">AV-364, "DTC Logic"</a>
B2701	SENSOR HARNESS OPEN [CR-FL] [B2701]	Corner sensor front left harness circuit is open.	<a href="#">AV-365, "Diagnosis Procedure"</a>
B2702	CORNER SENSOR [FR] [B2072]	Corner sensor front right is malfunctioning.	<a href="#">AV-366, "DTC Logic"</a>
B2703	SENSOR HARNESS OPEN [CR-FR] [B2703]	Corner sensor front right harness circuit is open.	<a href="#">AV-367, "Diagnosis Procedure"</a>
B2704	CORNER SENSOR [RL] [B2704]	Corner sensor rear left is malfunctioning.	<a href="#">AV-368, "DTC Logic"</a>
B2705	SENSOR HARNESS OPEN [CR-RL] [B2705]	Corner sensor rear left harness circuit is open.	<a href="#">AV-369, "Diagnosis Procedure"</a>
B2706	CORNER SENSOR [RR] [B2706]	Corner sensor rear right is malfunctioning.	<a href="#">AV-370, "DTC Logic"</a>
B2707	SENSOR HARNESS OPEN [CR-RR] [B2707]	Corner sensor rear right harness circuit is open.	<a href="#">AV-371, "Diagnosis Procedure"</a>

### NOTE:

"TIME" means the following.

- 0: Means detected malfunction at present. (From malfunction detection to turning ignition switch OFF)
- 1–39: Means detected malfunction in past.



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## SYMPTOM DIAGNOSIS

### MULTI AV SYSTEM SYMPTOMS

#### Symptom Table

INFOID:000000003826771

#### RELATED TO NAVIGATION

Symptoms	Check items	Possible malfunction location / Action to take
Multifunction switch and preset switch operation does not work.	<ul style="list-style-type: none"> <li>All switches cannot be operated.</li> <li>"MULTI AV" is displayed on system selection screen when the CONSULT-III is started.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuit.</li> <li>AV communication circuit between AV control unit and multifunction switch.</li> </ul> Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-330, "CONSULT-III Function (MULTI AV)"</a> .
	<ul style="list-style-type: none"> <li>All switches cannot be operated.</li> <li>"MULTI AV" is not displayed on system selection screen when the CONSULT-III is initialized.</li> </ul>	AV control unit power supply and ground circuit malfunction. Refer to <a href="#">AV-372, "AV CONTROL UNIT : Diagnosis Procedure"</a> .
	Only specified switch cannot be operated.	Multifunction switch or preset switch malfunction. Perform multifunction switch and preset switch self-diagnosis function. Refer to <a href="#">AV-317, "Diagnosis Description"</a> .
Fuel economy display, vehicle setting operation is abnormal.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform detected DTC self-diagnosis. Refer to <a href="#">AV-330, "CONSULT-III Function (MULTI AV)"</a> .
	There is no malfunction in the self-diagnosis results.	Ignition signal circuit malfunction (AV control unit). Refer to <a href="#">AV-372, "AV CONTROL UNIT : Diagnosis Procedure"</a> .
Guide sound is not heard.	On the setting display select "system sound (guide sound volume, etc.)," and confirm that guide sound is ON.	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-579, "Exploded View"</a> .

#### RELATED TO HANDS-FREE PHONE

- Check that the cellular phone is corresponding type (Bluetooth™ correspond) when the hands-free related malfunction vehicle is in service before performing a diagnosis.
- There is a case that malfunction occurs due to the version change of the phone type, etc. even though it is a corresponding type. Therefore, confirm it by changing the cellular phone to another corresponding type phone, and check that it operates normally. It is necessary to distinguish whether the cause is the vehicle or cellular phone.

#### Simple Check for Bluetooth™ Communication

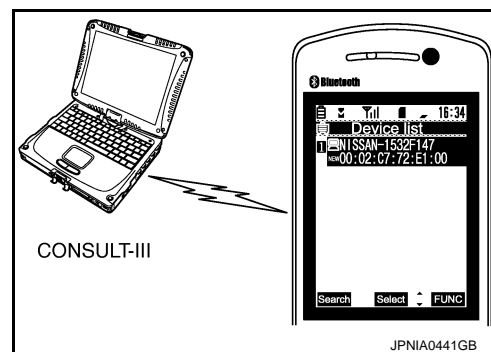
If cellular phone and AV control unit cannot be connected with Bluetooth™ communication, following procedure allows the technician to judge which device has malfunction.

- Turn on a cellular phone, not connecting Bluetooth™ communication.
- Start CONSULT-III, then start Windows®.
- Set CONSULT-III near a cellular phone.
- When operated Bluetooth™ registration by cellular phone, check if CONSULT-III\* would be displayed on the device name.  
(If other Bluetooth™ device is located near cellular phone, a name of the device would be displayed also.)

#### NOTE:

\*:Displayed device name is "NISSAN-\*\*\*\*\*".

- If no device name is displayed, cellular phone is malfunctioning. Repair the cellular phone first, then perform diagnosis.
- If CONSULT-III is displayed on device name, cellular phone is normal. Perform diagnosis as per the following table.



#### Trouble Diagnosis Chart by Symptom



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Symptoms	Check items	Probable malfunction location
Does not recognize cellular phone connection. (no connection is displayed on the display at the guide.)	Repeat the registration of cellular phone.	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-579, "Exploded View"</a> .
Hands-free phone cannot be established.	<ul style="list-style-type: none"> <li>Hands-free phone operation can be made, but the communication cannot be established.</li> <li>Hands-free phone operation can be performed, however, voice between each other cannot be heard during the conversation.</li> </ul>	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-579, "Exploded View"</a> .
The other party's voice cannot be heard by hands-free phone.	—	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-579, "Exploded View"</a> .
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-579, "Exploded View"</a> .
	Sound operation function does not work.	Microphone signal circuit malfunction. Refer to <a href="#">AV-387, "Diagnosis Procedure"</a> .

## RELATED TO AROUND VIEW MONITOR

Symptoms	Check items	Probable malfunction location / Action to take
It does not switch to camera image even when the "CAMERA" switch is pressed or the selector lever is in the reverse position.	"Camera Cont." of "Confirmation/Adjustment" can be selected.	Ignition signal circuit (around view monitor control unit). Refer to <a href="#">AV-375, "AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure"</a> .
	"Camera Cont." of "Confirmation/Adjustment" cannot be selected.	<ul style="list-style-type: none"> <li>Around view monitor control unit power supply and ground circuits. Refer to <a href="#">AV-375, "AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure"</a>.</li> <li>AV communication circuits. Refer to <a href="#">AV-330, "CONSULT-III Function (MULTI AV)"</a>.</li> </ul>
The screen switches when pressing the "CAMERA" switch or shifting the selector lever to the reverse position, however, all views are not displayed.	Only superimposing is displayed. (Only the image displayed by AV control unit is displayed)	<ul style="list-style-type: none"> <li>Camera image signal circuit. Refer to <a href="#">AV-389, "Diagnosis Procedure"</a>.</li> <li>RGB (YS) area signal circuit. Refer to <a href="#">AV-381, "Diagnosis Procedure"</a>.</li> </ul>
	Superimposing is not displayed.	<ul style="list-style-type: none"> <li>Communication circuit between AV control unit and front display unit. Refer to <a href="#">AV-330, "CONSULT-III Function (MULTI AV)"</a>.</li> <li>Horizontal synchronizing (HP) signal circuit malfunction. Refer to <a href="#">AV-382, "Diagnosis Procedure"</a>.</li> </ul>
Camera image is rolling.	AUX image is rolling	Vertical synchronizing (VP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-383, "Diagnosis Procedure"</a> .
It cannot be switched to rear view monitor even when the selector lever is in the reverse position.	The front view is displayed normally.	Reverse signal circuit. (AV control unit)
The predicted course line display in front view and rear view is malfunctioning.	The "Steer. Angle Sensor" is not turned ON at "Connection Confirmation" of "Camera Cont."	Steering angle sensor signal circuits. Refer to <a href="#">AV-391, "Diagnosis Procedure"</a> .



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Symptoms	Check items		Probable malfunction location / Action to take
<ul style="list-style-type: none"> <li>The front view screen is not displayed.</li> <li>The front of Birds-Eye view screen is not displayed.</li> </ul>	Check the item Front Camera in "Connection Confirmation" mode of "Camera Cont."	<ul style="list-style-type: none"> <li>Image Output Signal: NG</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	<ul style="list-style-type: none"> <li>Front camera image signal circuit.</li> <li>Front camera power supply and ground circuits.</li> </ul> Refer to <a href="#">AV-400, "Diagnosis Procedure"</a>
		<ul style="list-style-type: none"> <li>Image Output Signal: OK</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	Front camera communication signal circuit. Refer to <a href="#">AV-399, "Diagnosis Procedure"</a> .
<ul style="list-style-type: none"> <li>The rear view screen is not displayed.</li> <li>The rear of Birds-Eye view screen is not displayed.</li> </ul>	Check the item Rear Camera in "Connection Confirmation" mode of "Camera Cont."	<ul style="list-style-type: none"> <li>Image Output Signal: NG</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	<ul style="list-style-type: none"> <li>Rear camera image signal circuit.</li> <li>Rear camera power supply and ground circuits.</li> </ul> Refer to <a href="#">AV-403, "Diagnosis Procedure"</a> .
		<ul style="list-style-type: none"> <li>Image Output Signal: OK</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	Rear camera communication signal circuits. Refer to <a href="#">AV-402, "Diagnosis Procedure"</a> .
<ul style="list-style-type: none"> <li>The front-side screen is not displayed.</li> <li>The side RH of Birds-Eye view screen is not displayed.</li> </ul>	Check the item Pass-Side Camera in "Connection Confirmation" mode of "Camera Cont."	<ul style="list-style-type: none"> <li>Image Output Signal: NG</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	<ul style="list-style-type: none"> <li>Side camera RH image signal circuit.</li> <li>Side camera RH power supply and ground circuits.</li> </ul> Refer to <a href="#">AV-409, "Diagnosis Procedure"</a> .
		<ul style="list-style-type: none"> <li>Image Output Signal: OK</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	Side camera RH communication circuit. Refer to <a href="#">AV-408, "Diagnosis Procedure"</a> .
The side LH of Birds-eye view screen is not displayed.	Check the item Dr-Side Camera at "Connection Confirmation" mode of "Camera Cont."	<ul style="list-style-type: none"> <li>Image Output Signal: NG</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	<ul style="list-style-type: none"> <li>Side camera LH image signal circuit.</li> <li>Side camera LH power supply and ground circuits.</li> </ul> Refer to <a href="#">AV-406, "Diagnosis Procedure"</a> .
		<ul style="list-style-type: none"> <li>Image Output Signal: OK</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	Side camera LH communication circuit. Refer to <a href="#">AV-405, "Diagnosis Procedure"</a> .
When shift position is other than "R" the front-side and front screen or the Birds-Eye view and front screen remain displaying even if the vehicle speed increases.	—	—	Vehicle speed signal (around view monitor control unit).
Around view monitor does not start other than shift position "R"	—	—	Certain States restrict the operation so that around view monitor does not start other than at shift position "R".

## RELATED TO CAMERA ASSISTANCE SONAR

Symptoms	Check items	Probable malfunction location / Action to take
The malfunction is detected in the sonar indicator (Always displayed in red)	The malfunction is detected in only 1 indicator (Always displayed in red)	<ul style="list-style-type: none"> <li>Corner sensor malfunction in corresponding area</li> <li>Corner sensor harness circuit in corresponding area</li> </ul> Perform CONSULT-III self-diagnosis of sonar system. Refer to <a href="#">AV-337, "CONSULT-III Function (SONAR)"</a> .
	The malfunction is detected in all 4 indicators (Always displayed in red)	<ul style="list-style-type: none"> <li>Corner sensor ground circuit.</li> </ul> Perform CONSULT-III self-diagnosis of sonar system. Refer to <a href="#">AV-337, "CONSULT-III Function (SONAR)"</a> . <ul style="list-style-type: none"> <li>Sonar control unit power supply and ground circuits.</li> <li>AV communication circuits.</li> </ul> Perform CONSULT-III self-diagnosis of multi AV system. Refer to <a href="#">AV-330, "CONSULT-III Function (MULTI AV)"</a> .
The sonar indicator is normal, but the buzzer does not sound	The buzzer is turned ON when performing "Buzzer" in "Active test" of "Sonar".	Replace sonar control unit. Refer to <a href="#">AV-603, "Exploded View"</a> .
	The buzzer is not turned ON when performing "Buzzer" in "Active test" of "Sonar".	Replace buzzer. Refer to <a href="#">AV-606, "Exploded View"</a> .



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

## RELATED TO RGB IMAGE

Symptoms	Check items	Possible malfunction location / Action to take
RGB image is not shown.	<ul style="list-style-type: none"> <li>All RGB images are not shown.</li> <li>"MULTI AV" is displayed on system selection screen when the CONSULT-III is started.</li> </ul>	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-330, "CONSULT-III Function (MULTI AV)"</a> .
	<ul style="list-style-type: none"> <li>All RGB images are not shown.</li> <li>"MULTI AV" is not displayed on system selection screen when the CONSULT-III is started.</li> </ul>	AV control unit power supply and ground circuit. Refer to <a href="#">AV-372, "AV CONTROL UNIT : Diagnosis Procedure"</a> .
Color of RGB image is not proper.	Light blue (Cyan) tint.	RGB signal (R: red) circuit malfunction. Refer to <a href="#">AV-377, "Diagnosis Procedure"</a> .
	Purple (Magenta) tint.	RGB signal (G: green) circuit malfunction. Refer to <a href="#">AV-378, "Diagnosis Procedure"</a> .
	Screen looks yellowish.	RGB signal (B: blue) circuit malfunction. Refer to <a href="#">AV-379, "Diagnosis Procedure"</a> .
RGB screen is rolling.	—	RGB synchronizing signal circuit malfunction. Refer to <a href="#">AV-380, "Diagnosis Procedure"</a> .

## RELATED TO VOICE CONTROL

Symptoms	Check items	Probable malfunction location
The voice cannot be controlled even if the voice control screen is displayed.	Voice sounds at "Voice Microphone Test" of Confirmation/Adjustment mode.	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-579, "Exploded View"</a> .
	Voice does not sound at "Voice Microphone Test" of Confirmation/Adjustment mode.	Microphone circuit malfunction. Refer to <a href="#">AV-387, "Diagnosis Procedure"</a> .
The voice cannot be controlled (Voice control screen is not displayed).	Steering switch "SOURCE", "MENU UP", "MENU DOWN" operates, but "↖" does not operate.	Steering switch malfunction. Replace steering switch.
	Steering switch's "SOURCE", "MENU UP", "MENU DOWN", "↖" does not operate.	Steering switch signal A circuit malfunction. Refer to <a href="#">AV-393, "Diagnosis Procedure"</a> .
	All steering switches do not work.	Steering switch signal GND circuit malfunction. Refer to <a href="#">AV-397, "Diagnosis Procedure"</a> .

## RELATED TO AUDIO

Symptoms	Check items	Possible malfunction location / Action to take
The disk cannot be removed.	—	Disk eject signal circuit malfunction. Refer to <a href="#">AV-386, "Diagnosis Procedure"</a> .
Audio sound is not heard.	No sound from all speakers.	<ul style="list-style-type: none"> <li>Amp. ON signal circuit.</li> <li>BOSE amp. power supply and ground circuits.</li> </ul> Refer to <a href="#">AV-374, "BOSE AMP. : Diagnosis Procedure"</a> .
	Sound is not heard from woofer.	<ul style="list-style-type: none"> <li>Woofer power supply and ground circuits.</li> <li>Sound signal (woofer) circuits.</li> <li>Woofer amp. ON signal circuit.</li> </ul>
	Sound is not heard from center speaker.	Sound signals center speaker circuit.
	Sound is heard only from specific places.	Sound signal circuits of suspect system.
It does not change to "Driver's Audio Stage" mode.	—	Mode change signal circuit. Refer to <a href="#">AV-385, "Diagnosis Procedure"</a> .



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Symptoms	Check items	Possible malfunction location / Action to take
Satellite radio is not received.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-330, "CONSULT-III Function (MULTI AV)"</a> .
	There is no malfunction in the CONSULT-III self-diagnosis result.	Perform the following inspection procedure. 1. Check satellite radio antenna (antenna base) mounting nut for looseness. <b>NOTE:</b> Tightening torque: 6.5 N·m (0.66 kg-m, 58 in-lb) 2. Visually check for satellite radio antenna feeder. 3. Replace the satellite radio antenna (antenna base). Refer to <a href="#">AV-588, "Exploded View"</a> . 4. Replace the AV control unit. Refer to <a href="#">AV-579, "Exploded View"</a> .
AM/FM radio is not received.	Other audio sounds are normal.	<ul style="list-style-type: none"> <li>Antenna amp. ON signal circuit.</li> <li>Antenna feeder.</li> </ul>

## RELATED TO iPod®

Connect another iPod® and check if the symptom is reproduced or not. If the symptom is reproduced, diagnose the vehicle. If no malfunction is detected, replace the iPod harness.

### NOTE:

It is unable to check that between iPod® and iPod harness.

Symptoms	Check items	Possible malfunction location / Action to take
The sound of iPod® is not heard.	Other audio sounds are normal.	<ul style="list-style-type: none"> <li>iPod sound signal circuits between AV control unit and iPod adapter.</li> <li>iPod sound signal circuits between iPod® and iPod adapter.</li> </ul>
It does not change to iPod mode.	There is malfunction in the CONSULT-III self-diagnosis.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-330, "CONSULT-III Function (MULTI AV)"</a> .
"iPod is not connected" is displayed when it comes to iPod mode.	Connected to iPod®.	iPod connection recognition signal circuit.
iPod® cannot charge the battery.	—	iPod battery charge circuit between iPod® and iPod adapter.
The title of music file in the iPod® is not indicated.	—	Communication circuit between iPod® and iPod adapter.
Accessing the iPod® is unavailable from the vehicle.		

## RELATED TO STEERING SWITCH

Symptoms	Probable malfunction location
None of the steering switch operations work.	Steering switch signal GND circuit malfunction. Refer to <a href="#">AV-397, "Diagnosis Procedure"</a> .
Only specified switch cannot be operated.	Steering switch malfunction. Replace steering switch.
Steering switch's "SOURCE", "MENU UP", "MENU DOWN" and "⏮" switches do not work.	Steering switch signal A circuit malfunction. Refer to <a href="#">AV-393, "Diagnosis Procedure"</a> .
Steering switch's "VOL UP", "VOL DOWN", "⏮" and "⏭" switches do not work.	Steering switch signal B circuit malfunction. Refer to <a href="#">AV-395, "Diagnosis Procedure"</a> .

## RELATED TO AUXILIARY INPUT

### NOTE:

Check that there is no malfunction of AUX equipment main body before performing a diagnosis.



## MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Symptoms	Check items	Probable malfunction location
No vocal sound is heard when AUX mode is selected.	Vocal sound is heard when other modes are selected.	AUX sound signal circuit malfunction between auxiliary input jacks and AV control unit.
Image is not displayed when AUX mode is selected.	Camera image is displayed.	AUX image signal circuit malfunction. Refer to <a href="#">AV-384, "Diagnosis Procedure"</a> .



## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

### NORMAL OPERATING CONDITION

#### Description

INFOID:000000003826772

- For Navigation system operation information, refer to Navigation system Owner's Manual.
- Vehicle operation information, refer to Owner's Manual.

#### BASIC OPERATIONS




Symptom	Possible cause	Possible solution
No image is displayed.	The brightness is at the lowest setting.	Adjust the brightness of the display.
	The system in the video mode.	Press <b>&lt;DISC-AUX&gt;</b> to change the mode.
	The display is turned off.	Press <b>&lt;Day/Night&gt;</b> to turn on the display.
No voice guidance is available. Or The volume is too high or too low.	The volume is not set correctly, or it is turned off.	Adjust the volume of voice guidance.
	Voice guidance is not provided for certain streets (roads displayed in gray).	This is not a malfunction.
No map is displayed on the screen.	A screen other than map screen is displayed.	Press <b>&lt;MAP&gt;</b> .
The screen is too dim. The movement is slow.	The temperature in the interior of the vehicle is low.	Wait until the interior of the vehicle has warmed up.
Some pixels in the display are darker or brighter than others.	This condition is an inherent characteristic of liquid crystal displays.	This is not a malfunction.
Some menu items cannot be selected.	Some menu items become unavailable while the vehicle is driven.	Park the vehicle in a safe location, and then operate the navigation system.

#### NOTE:

Locations stored in the Address Book and other memory functions may be lost if the vehicle's battery is disconnected or becomes discharged. If this occurs, service the vehicle's battery as necessary and re-enter the information in the Address Book.

#### RELATED TO VOICE RECOGNITION

Related to basic operation

Symptom	Possible cause	Possible solution
The system does not recognize your command. or The system recognizes your command incorrectly	The interior of the vehicle is too noisy.	Close the windows or have other occupants quiet.
	The volume of your voice is too low.	Speak louder
	The volume if your voice is too loud.	Speak softer
	Your pronunciation is unclear	Speak clearly
	You are speaking before the voice recognition made is ready	Press and release “  ” switch on the steering switch, and speak a command after the tone sounds
	8 seconds or more have passed after you pressed and released “  ” switch on the steering switch.	Make sure to speak a command within 8 seconds after you press and release “  ” switch on the steering switch.
	Only a limited range of voice commands is usable for each screen.	Use a correct voice command appropriate for the current screen
	The sound of the fan of the air conditioner is too loud.	If the air conditioner is set to “Auto”, the fan speed is automatically lowered and voice commands can be recognized more easily. Lower the fan speed as necessary or set the air conditioner to “Auto”.

Related to item choice

The system should respond correctly to all voice commands without difficulty. If problems are encountered, follow the solutions given in this guide for the appropriate error.

Where the solutions are listed by number, try each solution in turn, starting with number one, until the problem is resolved.



## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Symptom/ error message	Solution
Displays "COMMAND NOT RECOGNIZED" or the system fails to interpret the command correctly.	1. Ensure that the command format is valid.
	2. Speak clearly without pausing between words and at a level appropriate to the ambient noise level.
	3. Ensure that the ambient noise level is not excessive, for example, windows open or defrost on. <b>NOTE:</b> If it is too noisy to use the phone, it is likely that voice commands will not be recognized.
	4. If optional words of the command have been omitted, then command should be tried with these in place.
The system consistently selects the wrong voicetag	1. Ensure that the voicetag requested matches what was originally stored. This can be confirmed by giving the Addressbook Directory or Phone Directory command.
	2. Replace one of the voicetags being confused with a different voicetag.

### Related to telephone

The system should respond correctly to all voice commands without difficulty. If problems are encountered, try the following solutions.

Where the solutions are listed by number, try each solution in turn, starting with number 1, until the problem is resolves.

Symptom	Solution
System fails to interpret the command correctly.	1. Ensure that the command is valid.
	2. Ensure that the command is spoken after the tone.
	3. Speak clearly without pausing between words and at level appropriate to the ambient noise level in the vehicle.
	4. Ensure that the ambient noise level is not excessive (for example, windows open or defroster on), <b>NOTE:</b> If it is too noisy to use the phone, it is likely that the voice commands will be recognized.
	5. If more than one command was said at a time, try saying the commands separately.
	6. If the system consistently fails to recognize commands, the voice training procedure should be carried out to improve the recognition response for the speaker. See "Speaker adaptation (SA) mode" earlier in this section. Refer to "OWNER'S MANUAL".
The system consistently selects the wrong voicetag	1. Ensure that the phone book entry name requested matches what was originally stored. This can be confirmed by using the "List Names" command.
	2. Replace one of the names being confused with a new name.

### RELATED TO AUDIO

- The majority of the audio malfunctions are the result of outside causes (bad CD/cassette, electromagnetic interference, etc.). Check the symptoms below to diagnose the malfunction.
- The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and then determine the cause.

#### **NOTE:**

- CD-R is not guaranteed to play because they can contain compressed audio (MP3, WMA) or could be incorrectly mastered by the customer on a computer.
- Check if the CDs carry the Compact Disc Logo. If not, the disc is not mastered to the "red book" Compact Disc Standard and may not play.



## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Symptom	Cause and Counter measure
Cannot play	Check if the CD/CF was inserted correctly.
	Check if the CD/CF is scratched or dirty.
	Check if there is condensation inside the player, and if there is, wait until the condensation is gone (about 1 hour) before using the player.
	If there is a temperature increase error, the player will play correctly after it returns to the normal temperature.
	If there is a mixture of music CD files (CD-DA data) and MP3/WMA files on a CD, only the music CD files (CD-DA data) will be played.
	Files with extensions other than ".MP3", ".WMA", ".mp3", or ".wma" cannot be played. In addition, the character codes and number of characters for folder names and file names should be in compliance with the specifications.
	Check if the disc or the file is generated in an irregular format, This may occur depending on the variation or the setting of MP3/WMA writing applications or other text editing applications.
	Check if the finalization process, such as session close and disc close, is done for the disc.
Poor sound quality	Check if the CD/CF is scratched or dirty.
It takes a relatively long time before the music starts playing.	If there are many folder or file levels on the MP3/WMA CD/CF, or if it is a multi session disc, some time may be required before the music starts playing.
Music cuts off or skips	The writing software and hardware combination might not match, or the writing speed, writing depth, writing width might not match the specifications. Try using the slowest writing speed.
Skipping with high bit rate files	Skipping may occur with large quantities if data such as for high bit rate data.
Move immediately to the next song when playing	When a non-MP3/WMA file has been given an extension of ".MP3", ".WMA", ".mp3", or ".wma", or when play is prohibited by copyright protection, the player will skip to the next song.
The songs do not play back in the desired order.	The playback order is the order in which the files were written by the software, so the files might not play in the desired order.

Noise resulting from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources, is not a malfunction.

### NOTE:

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from a time difference between the broadcast waves directly from the station arriving at the antenna and the waves reflected by mountains or buildings.

## RELATED TO VEHICLE ICON

Symptom	Possible cause	Possible solution
Names of roads differ between Plan View and Birdview™.	This is because the quantity of the displayed information is reduced so that the screen does not become too crowded. There is also a chance that names of the roads may be displayed multiple times, and the names appearing on the screen may be different because of a processing procedure.	This is not a malfunction.
The vehicle icon is not displayed in the correct position.	The vehicle was transported after the ignition switch was pressed off, for example, by a ferry or car transporter.	Drive the vehicle for a while on a road where GPS signals can be received.
	The position and direction of the vehicle icon may be incorrect depending on the driving environments and the levels of positioning accuracy of the navigation system.	This is not a malfunction. Drive the vehicle for a while to automatically correct the position and direction of the vehicle icon.
When the vehicle is traveling on a new road, the vehicle icon is located on another road nearby.	Because the new road is not stored in the map data, the system automatically places the vehicle icon on the nearest road available.	Updated road information will be included in the next version of the map data.



# NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Symptom	Possible cause	Possible solution
The screen does not switch to the night screen even after turning on the headlights.	The daytime screen was set the last time the headlights were turned on.	Set the screen to the night screen mode using <Day/Night> when you turn on the headlights.
The map does not scroll even when the vehicle is moving.	The current location map screen is not displayed.	Press <MAP>.
The vehicle icon is not displayed.	The current location map screen is not displayed.	Press <MAP>.
The location of the vehicle icon is misaligned from the actual position.	When using tire chains or replacing the tires, speed calculations based on the speed sensor may be incorrect.	Drive the vehicle for a while (at approximately 19 MPH for about 30 minutes) to automatically correct the vehicle icon position. If this does not correct the vehicle icon position, contact an INFINITI dealer.
	The map data has a mistake or is incomplete (the vehicle icon position is always misaligned in the same area).	Updated road information will be included in the next version of the map data.

## RELATED TO ROUTE CALCULATION AND VISUAL GUIDANCE

Symptom	Possible cause	Possible solution
Waypoints are not included in the auto reroute calculation.	Waypoints that you have already passed are not included in the auto reroute calculation.	If you want to go to that waypoint again, you need to edit the route.
Route information is not displayed.	Route calculation has not yet been performed.	Set the destination and perform route calculation.
	You are not driving on the suggested route.	Drive on the suggested route.
	Route guidance is set to off.	Turn on route guidance.
	Route information is not provided for certain types of roads (roads displayed in gray).	This is not a malfunction.
The auto reroute calculation (or detour calculation) suggests the same route as the one previously suggested.	Route calculations took priority conditions into consideration, but the same route was calculated.	This is not a malfunction.
A waypoint cannot be added.	Five waypoints are already set on the route, including ones that you have already passed.	A maximum of 5 waypoints can be set on the route. If you want to go to 6 or more waypoints, perform route calculations multiple times as necessary.
The suggested route is not displayed.	Roads near the destination cannot be calculated.	Reset the destination to a main or ordinary road, and recalculate the route.
	The starting point and destination are too close.	Set a more distant destination.
	The starting point and destination are too far away.	Divide your trip by selecting one or two intermediate destinations, and perform route calculations multiple times.
	There are time restricted roads (by the day of the week, by time) near the current vehicle location or destination.	Set [Use Time Restricted Roads] to off.
The part of the route that you have already passed is deleted.	A route is managed by sections between waypoints. If you passed the first waypoint, the section between the starting point and the waypoint is deleted. (It may not be deleted depending on the area.)	This is not a malfunction.
An indirect route is suggested.	If there are restrictions (such as one-way streets) on roads close to the starting point or destination, the system may suggest an indirect route.	Adjust the location of the starting of the starting point or destination.
	The system may suggest an indirect route because route calculation does not take into consideration some areas such as narrow streets (gray roads.)	Reset the destination to a main or ordinary road, and recalculate the route.



## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[NAVIGATION (SINGLE MONITOR)]

Symptom	Possible cause	Possible solution
The landmark information does not correspond to the actual information.	This may be caused by insufficient or incorrect map data.	Updated information will be included in the next version of the data.
The suggested route does not exactly connect to the starting point, waypoints, or destination.	There is no data for route calculation closes to these locations.	Set the starting point, waypoints and destination on a main road, and perform route calculation.

### RELATED TO VOICE GUIDANCE

Symptom	Possible cause	Possible solution
Voice guidance is not available	Voice guidance is only available at certain intersections marked with? In some case, voice guidance is not available even when the vehicle should make a turn.	This is not a malfunction.
	The vehicle has deviated from the suggested route.	Go back to the suggested route or request route calculation again
	Voice guide is set to off.	Turn on voice guidance.
	Route guidance is set to off.	Turn on voice guidance.
The guidance contact does not correspond to the actual condition.	The contact of voice guidance may vary, depending on the types of intersections at which turn are made.	Follow all traffic rules and regulations.

### RELATED TO TRAFFIC INFORMATION

Symptom	Possible cause	Possible solution
The traffic information is not displayed	The traffic information is not set to on.	Set the traffic information to on.
	You are in an area where traffic information is not available	Scroll to an area where traffic information is available
	You have not subscribed to XM NavTraffic or, your subscription to XM NavTraffic has expired.	Check your subscription status of XM NavTraffic.
	The map scale is set at a level where the display of icons is impossible.	Check that the map scale is set at a level in which the display of icons is possible.
With the automatic detour route search ON, no detour route is set to avoid congested areas.	There is no faster route compared to the current route, based on the road network and traffic information.	The automatic detour search is not intended for avoiding traffic jams. It searches for the fastest route taking into consideration such things as traffic jams.
The route does not avoid road section with traffic information stating it is closed due to road construction.	The navigation system is designed not to avoid this event because the actual period of closure may differ from the declared roadwork period.	Observe the actual road condition and follow the instructions on road for detour when necessary. If the road closure is for certain, use detour function and set the detour distance to avoid the closed road section.
Traffic information displayed differs from information from other media (e.g. radio).	Other media may use different information sources.	Observe the actual road conditions and regulations. Always observe safe driving practices and follow all traffic regulations.



## PRECAUTION

### PRECAUTIONS

#### Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000004024555

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### **WARNING:**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

#### PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

#### **WARNING:**

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

#### Precaution for Trouble Diagnosis

INFOID:000000003826774

#### AV COMMUNICATION SYSTEM

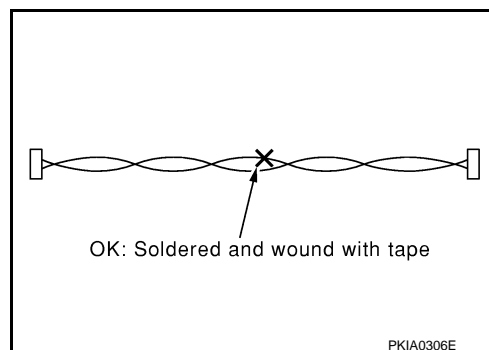
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

#### Precaution for Harness Repair

INFOID:000000003826775

#### AV COMMUNICATION SYSTEM

- Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in).]



PKIA0306E

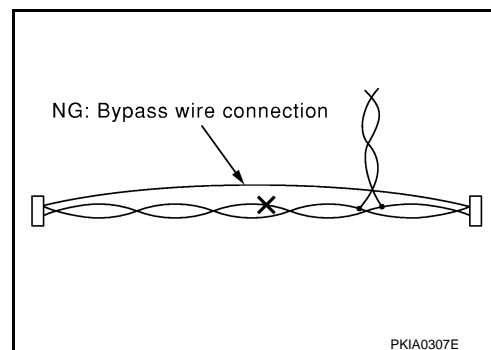


## PRECAUTIONS

### < PRECAUTION >

### [NAVIGATION (SINGLE MONITOR)]

- Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)



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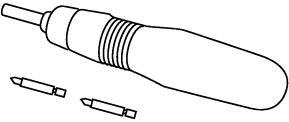


## PREPARATION

### PREPARATION

#### Commercial Service Tools

INFOID:000000003826776

Tool name	Description
<p>Power tool</p>  <p>PBIC0191E</p>	<p>Loosening screws</p>



# AV CONTROL UNIT

< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

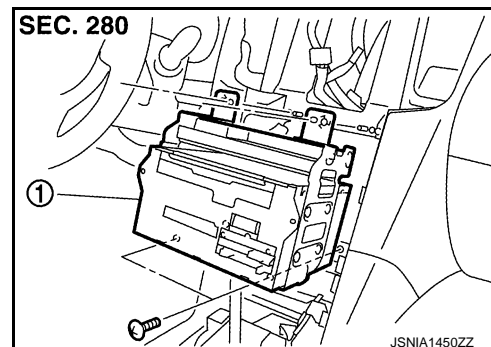
## REMOVAL AND INSTALLATION

### AV CONTROL UNIT

#### Exploded View

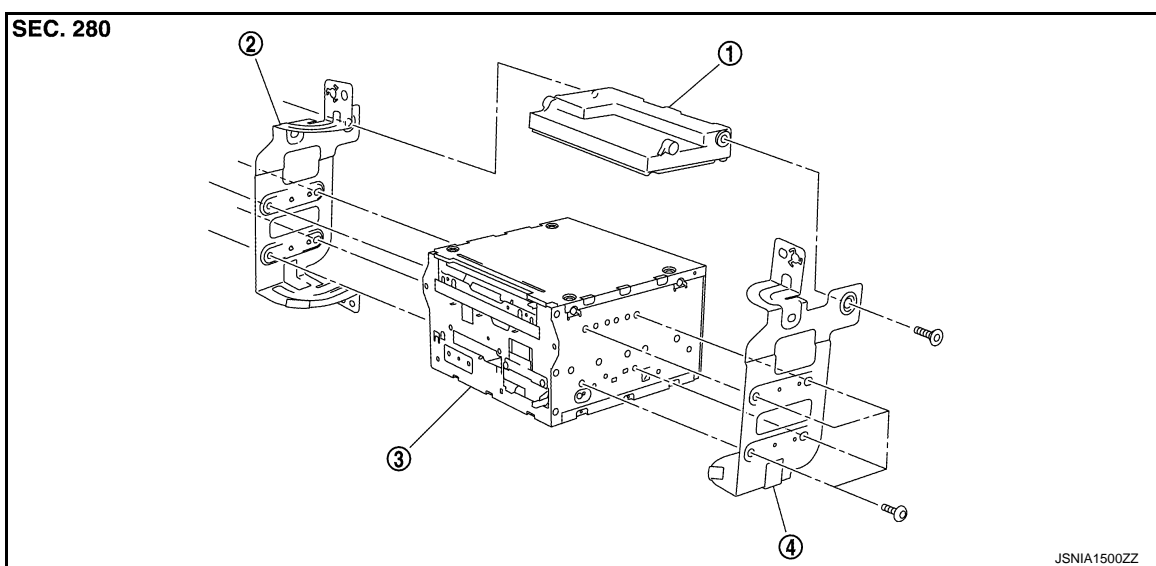
#### REMOVAL

INFOID:000000003928744



1: AV control unit

#### DISASSEMBLY



1. Unified meter and A/C amp.
2. Bracket LH
3. AV control unit
4. Bracket RH

### Removal and Installation

INFOID:000000003928745

AV

#### REMOVAL

1. Remove front display unit. Refer to [AV-580. "Removal and Installation"](#).
2. Remove AV control unit with a unified meter and A/C amp. as a single unit from the body.
3. Remove bracket screws, and then remove AV control unit.

#### INSTALLATION

Installation is the reverse order of removal.

#### CAUTION:

Since AV control unit connector and unified meter and A/C amp. connector have the same form, be careful not to insert them wrongly.



## FRONT DISPLAY UNIT

< REMOVAL AND INSTALLATION >

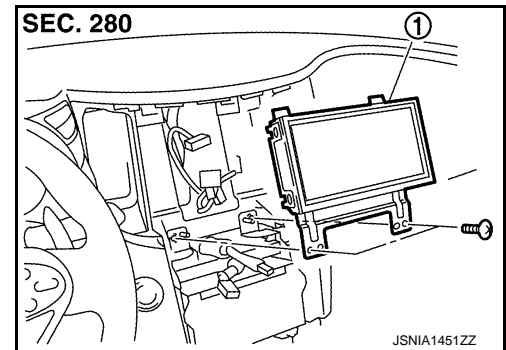
[NAVIGATION (SINGLE MONITOR)]

### FRONT DISPLAY UNIT

#### Exploded View

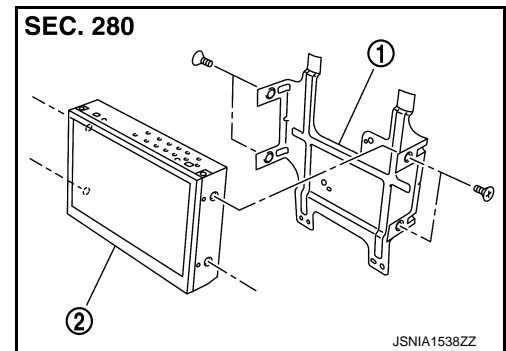
INFOID:000000003928746

#### REMOVAL



1. Front display unit

#### DISASSEMBLY



1. Bracket
2. Front display unit

#### Removal and Installation

INFOID:000000003928747

#### REMOVAL

1. Remove cluster lid D. Refer to [IP-12, "Removal and Installation"](#).
2. Remove front display unit mounting screws.
3. Disconnect connector, and remove front display unit.

#### INSTALLATION

Installation is the reverse order of removal.



## FRONT DOOR SPEAKER

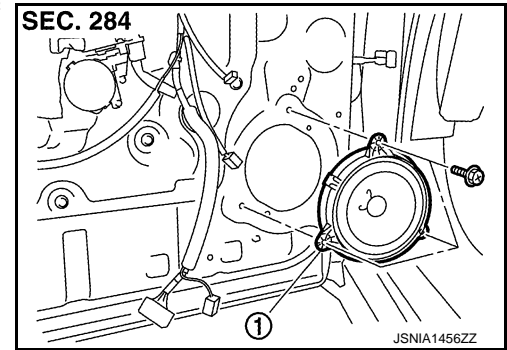
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

### FRONT DOOR SPEAKER

#### Exploded View

INFOID:0000000003928754



1. Front door speaker

#### Removal and Installation

INFOID:0000000003928755

##### REMOVAL

1. Remove front door finisher. Refer to [INT-11. "Removal and Installation"](#).
2. Remove front door speaker mounting bolts.
3. Disconnect connector and remove front door speaker.

##### INSTALLATION

Installation is the reverse order of removal.

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AV



## REAR DOOR SPEAKER

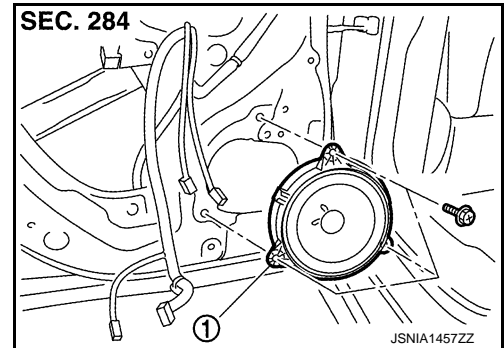
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

### REAR DOOR SPEAKER

#### Exploded View

INFOID:0000000003928756



1. Rear door speaker

#### Removal and Installation

INFOID:0000000003928757

##### REMOVAL

1. Remove rear door finisher. Refer to [INT-14, "Removal and Installation"](#).
2. Remove rear door speaker mounting bolts.
3. Disconnect connector and remove rear door speaker.

##### INSTALLATION

Installation is the reverse order of removal.



# FRONT SQUAWKER

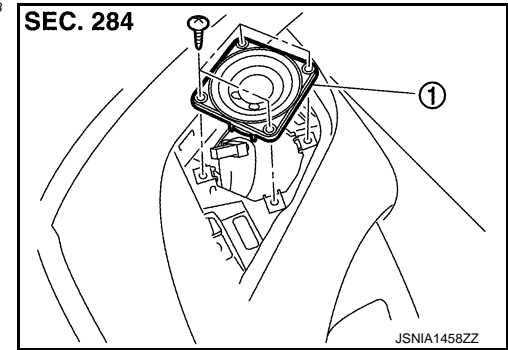
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

## FRONT SQUAWKER

Exploded View

INFOID:0000000003928758



1. Front squawker

## Removal and Installation

INFOID:0000000003928759

### REMOVAL

1. Remove speaker grille. Refer to [IP-12. "Removal and Installation"](#).
2. Remove front squawker mounting screws.
3. Disconnect connector and remove front squawker.

### INSTALLATION

Installation is the reverse order of removal.

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## REAR SQUAWKER

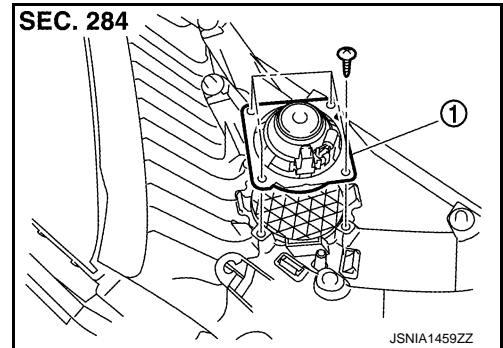
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

### REAR SQUAWKER

#### Exploded View

INFOID:000000003928760



1. Rear squawker

#### Removal and Installation

INFOID:000000003928761

##### REMOVAL

1. Remove luggage side finisher upper. Refer to [INT-28, "Exploded View"](#).
2. Remove rear squawker mounting screws.
3. Remove rear squawker.

##### INSTALLATION

Installation is the reverse order of removal.



## CENTER SPEAKER

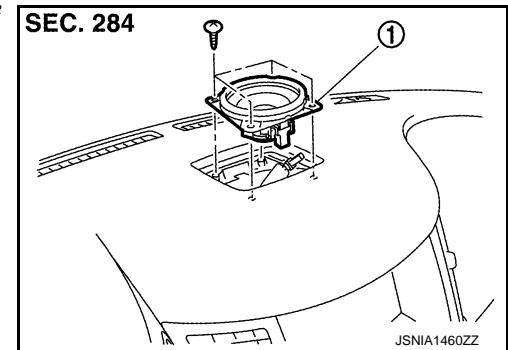
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

### CENTER SPEAKER

#### Exploded View

INFOID:000000003928762



1. Center speaker

#### Removal and Installation

INFOID:000000003928763

##### REMOVAL

1. Remove center speaker grille. Refer to [IP-11, "Exploded View"](#).
2. Remove center speaker mounting screws, lift up the center speaker and disconnect connector.
3. Remove center speaker.

##### INSTALLATION

Installation is the reverse order of removal.

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AV



# WOOFER

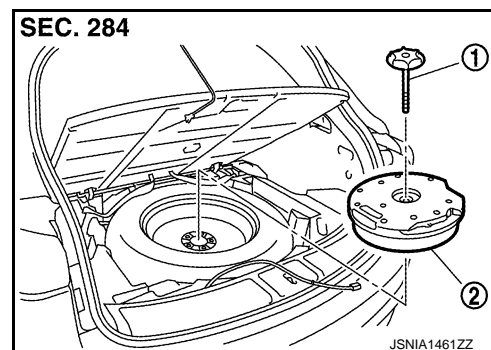
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

## WOOFER

### Exploded View

INFOID:000000003928764



1. Woofer clamp
2. Woofer

### Removal and Installation

INFOID:000000003928765

#### REMOVAL

1. Pull up luggage finisher cover and hang the strap to upper body.
2. Remove woofer clamp.
3. Remove harness clip and connector.
4. Remove woofer.

#### INSTALLATION

Installation is the reverse order of removal.



## BOSE AMP.

< REMOVAL AND INSTALLATION >

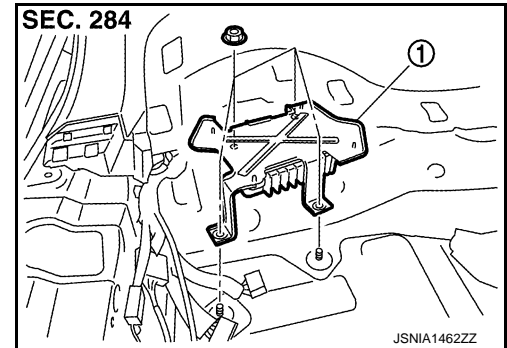
[NAVIGATION (SINGLE MONITOR)]

### BOSE AMP.

#### Exploded View

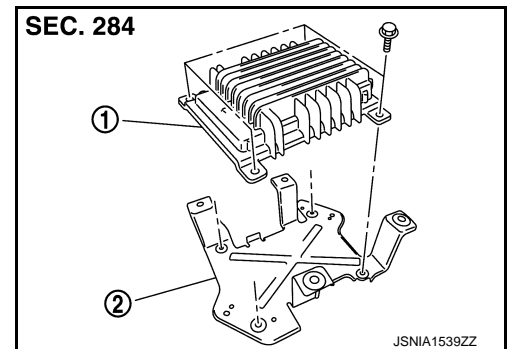
INFOID:000000003928766

#### REMOVAL



1. BOSE amp.

#### DISASSEMBLY



1. BOSE amp.
2. Bracket

### Removal and Installation

INFOID:000000003928767

#### REMOVAL

1. Remove luggage floor spacer (LH). Refer to [INT-28, "Exploded View"](#).
2. Remove BOSE amp. mounting nuts.
3. Disconnect connector and remove BOSE amp.

#### INSTALLATION

Installation is the reverse order of removal.

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## ANTENNA BASE

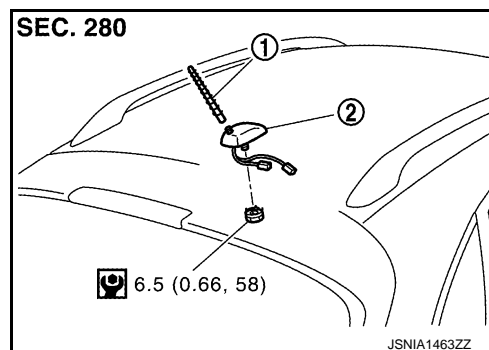
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

### ANTENNA BASE

#### Exploded View

INFOID:000000003928768



1. Antenna rod
2. Antenna base

Refer to [GI-4, "Components"](#) for symbols in the figure.

#### Removal and Installation

INFOID:000000003928769

##### REMOVAL

1. Remove headlining (rear). Keep a service area. Refer to [INT-23, "Exploded View"](#).
2. Remove antenna base mounting nut.
3. Disconnect connector and remove antenna base.

##### INSTALLATION

Installation is the reverse order of removal.

**Antenna base mounting nut** : 6.5 N-m (0.66 kg-m, 58 in-lb)

##### CAUTION:

Be careful about tightening torque. Antenna sensitivity becomes poor, and when it is excessive, roof panel may be deformed, when roof antenna mounting nut tightening torque is loose.



# MULTIFUNCTION SWITCH

< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

## MULTIFUNCTION SWITCH

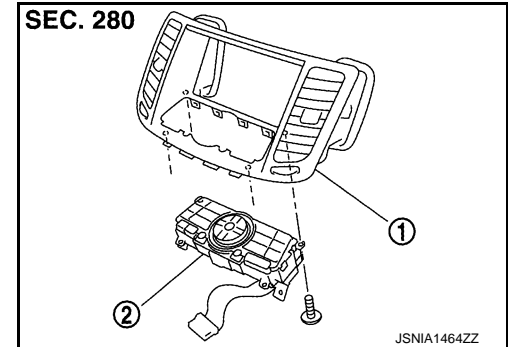
### Exploded View

INFOID:000000003928770

#### REMOVAL

Refer to [IP-11, "Exploded View"](#).

#### DISASSEMBLY



1. Cluster lid D
2. Multifunction switch

### Removal and Installation

INFOID:000000003928771

#### REMOVAL

1. Remove cluster lid D. Refer to [IP-11, "Exploded View"](#).
2. Remove multifunction switch mounting screws.
3. Disconnect connector and remove multifunction switch.

#### INSTALLATION

Installation is the reverse order of removal.

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# PRESET SWITCH

< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

## PRESET SWITCH

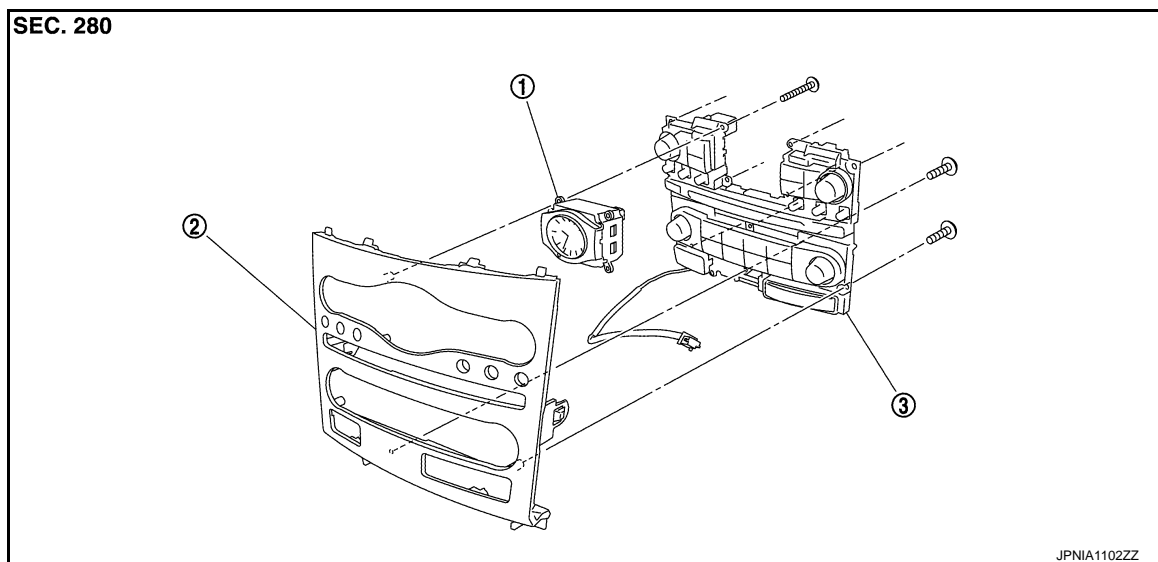
### Exploded View

INFOID:000000003928772

#### REMOVAL

Refer to [IP-11, "Exploded View"](#).

#### DISASSEMBLY



1. Clock

2. Cluster lid C

3. Preset switch

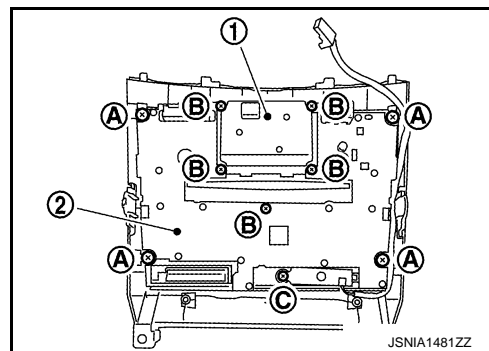
### Removal and Installation

INFOID:000000003928773

#### REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove preset switch mounting screws.
3. Disconnect connector and remove preset switch.

- 1. Clock
- 2. Preset switch
- A. Screw
- B. Screw
- C. Screw



#### INSTALLATION

Installation is the reverse order of removal.

#### NOTE:

When installing preset switch, do not allow the print wire that connects preset switch and multifunction switch to get caught in between AV control unit and preset switch.



# IPOD ADAPTER

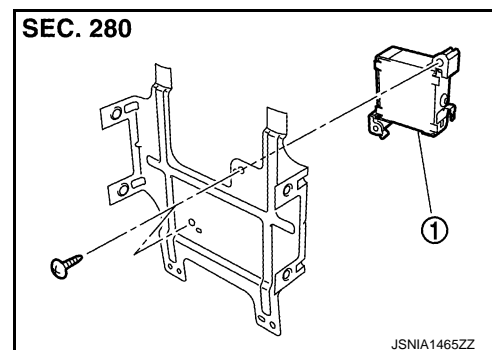
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

## IPOD ADAPTER

### Exploded View

INFOID:000000003928774



1. iPod adapter

### Removal and Installation

INFOID:000000003928775

#### REMOVAL

1. Remove front display unit with bracket. Refer to [AV-580, "Removal and Installation"](#).
2. Remove front display from display bracket.
3. Remove iPod adapter mounting screws.
4. Disconnect connector and remove iPod adapter.

#### INSTALLATION

Install in the reverse order of removal.

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## IPOD CONNECTOR

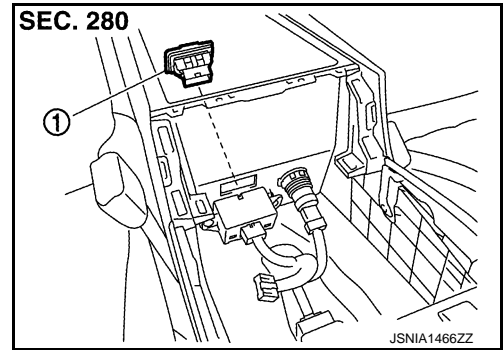
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

### IPOD CONNECTOR

#### Exploded View

INFOID:000000003928776



1. iPod connector

#### Removal and Installation

INFOID:000000003928777

##### REMOVAL

1. Remove console box assembly. Refer to [IP-22, "Exploded View"](#).
2. Press pawl from the back of console finisher to remove iPod connector.

##### INSTALLATION

Install in the reverse order of removal.



## AUXILIARY INPUT JACKS

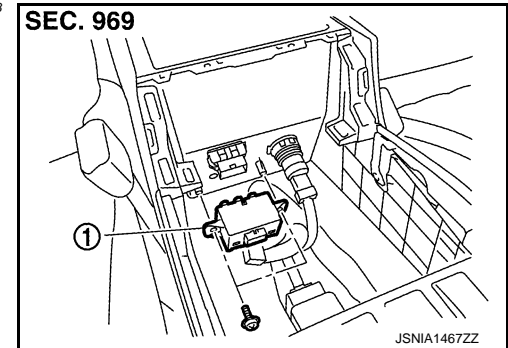
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

### AUXILIARY INPUT JACKS

#### Exploded View

INFOID:000000003928778



1. Auxiliary input jacks

#### Removal and Installation

INFOID:000000003928779

##### REMOVAL

1. Remove console box assembly. Refer to [JP-22, "Exploded View"](#).
2. Remove auxiliary mounting screws.
3. Disconnect connector and remove auxiliary input jacks.

##### INSTALLATION

Installation is the reverse order of removal.

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## MICROPHONE

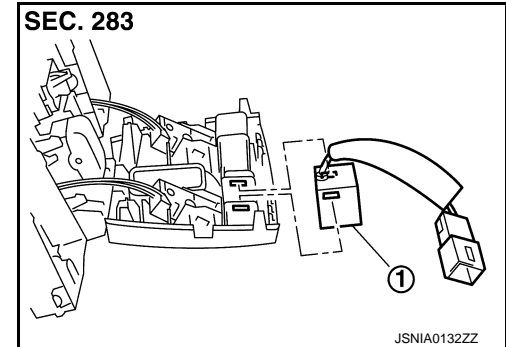
### Exploded View

INFOID:000000003928780

### REMOVAL

Refer to [INT-23, "Exploded View"](#).

### DISASSEMBLY



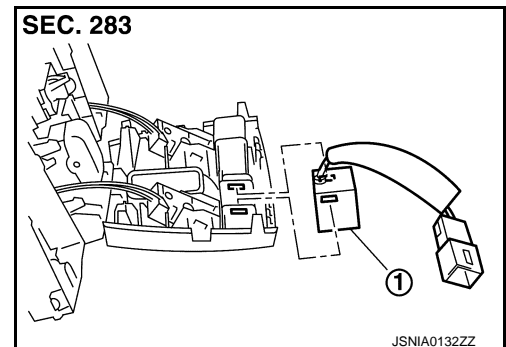
1. Microphone

### Removal and Installation

INFOID:000000003928781

### REMOVAL

1. Remove map lamp assembly. Refer to [INT-23, "Exploded View"](#).
2. Remove microphone (1), stretching pawls of map lamp assembly.



### INSTALLATION

Installation is the reverse order of removal.



## GPS ANTENNA

## < REMOVAL AND INSTALLATION >

## [NAVIGATION (SINGLE MONITOR)]

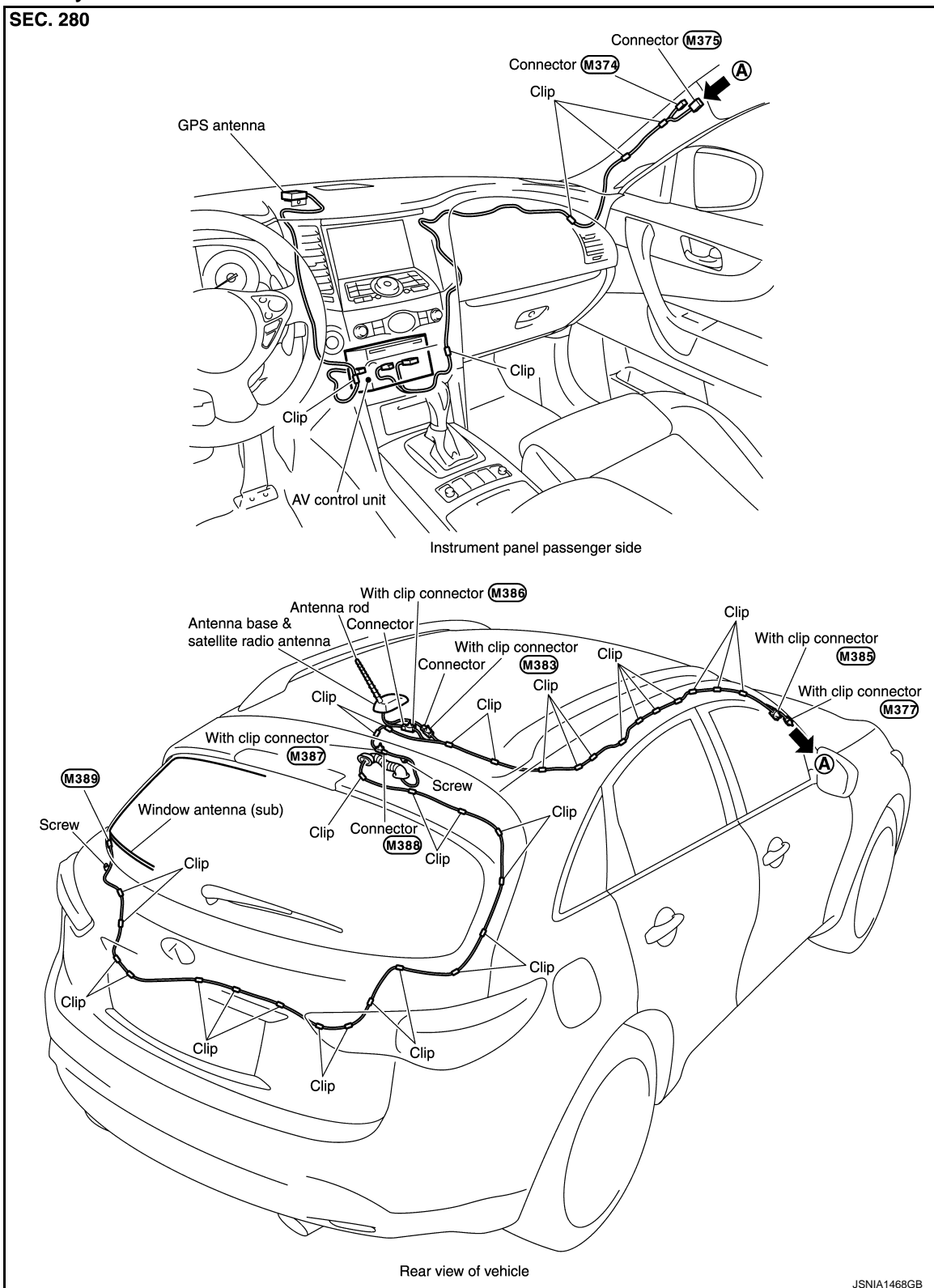
## GPS ANTENNA

## Exploded View

INFOID:0000000003928782

## Harness Layout

INFOID:0000000003928783



JSNIA1468GB



# GPS ANTENNA

< REMOVAL AND INSTALLATION >

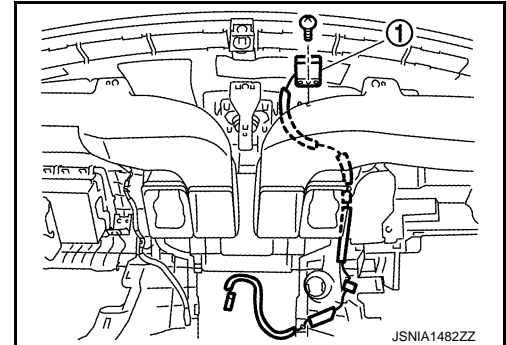
[NAVIGATION (SINGLE MONITOR)]

## Removal and Installation

INFOID:000000003928784

### REMOVAL

1. Remove instrument panel. Refer to [IP-11, "Exploded View"](#).
2. Remove GPS antenna mounting screw.
3. Remove GPS antenna (1).



### INSTALLATION

Installation is the reverse order of removal.



# AROUND VIEW MONITOR CONTROL UNIT

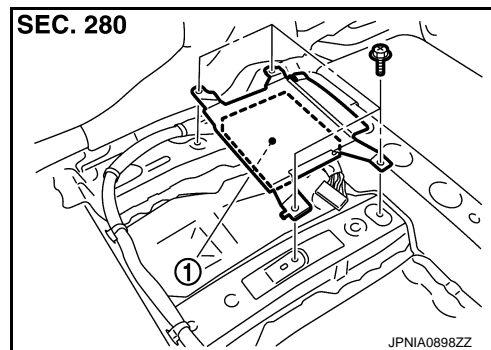
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

## AROUND VIEW MONITOR CONTROL UNIT

### Exploded View

INFOID:0000000003928785



1. Around view monitor control unit

### Removal and Installation

INFOID:0000000003928786

#### REMOVAL

1. Remove front seat (LH side). Refer to [MIR-91, "DOOR MIRROR ASSEMBLY : Exploded View"](#).
2. Remove floor carpet. Keep a service area.
3. Remove around view monitor control unit mounting screws.
4. Disconnect connector and remove around view monitor control unit.

#### INSTALLATION

1. Installation is the reverse order of removal.
2. Perform camera image calibration. Refer to [AV-279, "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#).
3. Perform predicted course line center position adjustment. Refer to [AV-278, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement"](#).

#### CAUTION:

Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.

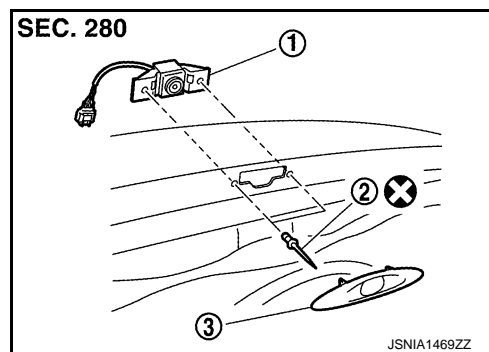
AV



## FRONT CAMERA

### Exploded View

INFOID:000000003928787



1. Front camera
2. Rivet
3. Front camera finisher

Refer to [GI-3, "Contents"](#) for symbols in the figure.

### Removal and Installation

INFOID:000000003928788

#### REMOVAL

1. Remove front camera finisher.
2. Remove front camera mounting rivet.
3. Remove front camera.

#### INSTALLATION

1. Installation is the reverse order of removal.
2. Perform camera image calibration. Refer to [AV-279, "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#).

#### CAUTION:

Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.



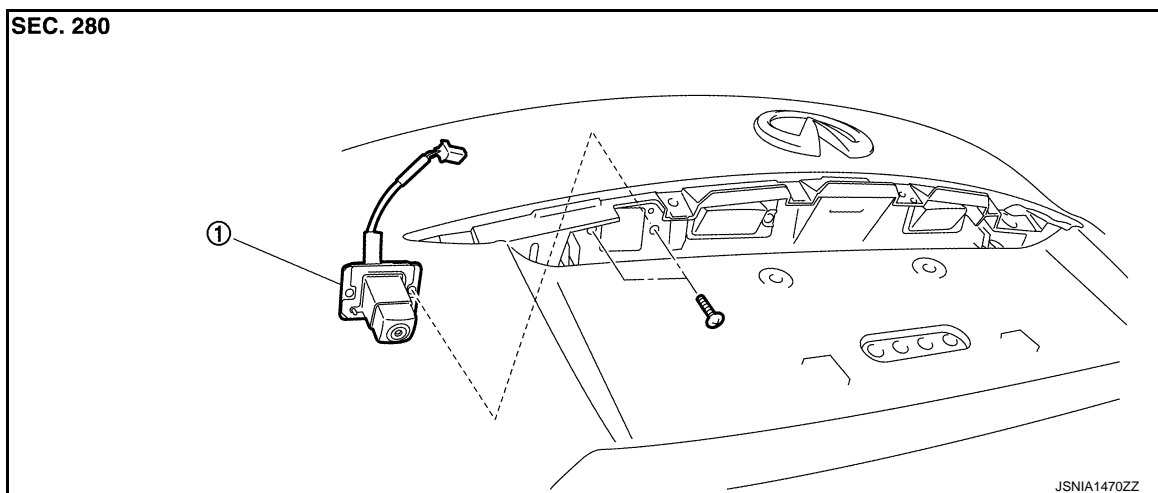
## REAR CAMERA

< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

### REAR CAMERA

#### Exploded View



#### Removal and Installation

INFOID:000000003928790

##### REMOVAL

1. Remove back door outside finisher upper. Refer to [EXT-49, "Exploded View"](#).
2. Remove door handle cover. Refer to [EXT-49, "Exploded View"](#).
3. Remove rear camera mounting screws and rear camera harness connector.
4. Remove rear camera.

##### INSTALLATION

1. Installation is the reverse order of removal.
2. Perform camera image calibration. Refer to [AV-279, "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#).

##### **CAUTION:**

Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.

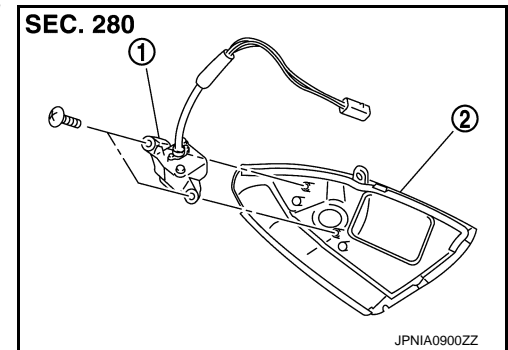
AV



## SIDE CAMERA LH

### Exploded View

INFOID:000000003928791



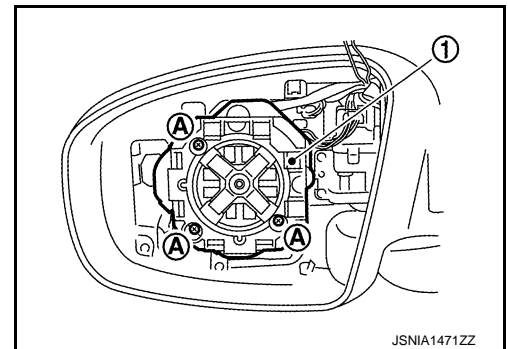
1. Side camera (LH)
2. Side camera finisher assembly

### Removal and Installation

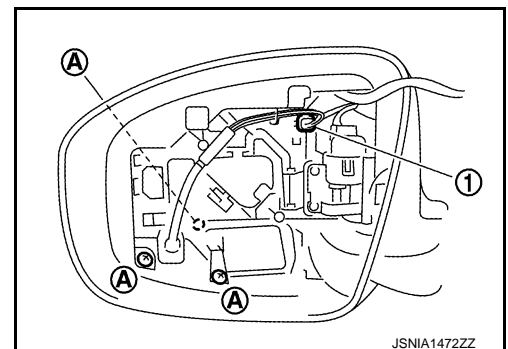
INFOID:000000003928792

#### REMOVAL

1. Remove glass mirror (driver side). Refer to [MIR-91, "DOOR MIRROR ASSEMBLY : Exploded View"](#).
2. Remove screws (A), and actuator connector, and then actuator (1).



3. Remove door mirror cover. Refer to [MIR-91, "DOOR MIRROR ASSEMBLY : Exploded View"](#).
4. Remove screws (A) and connector (1), and then remove side camera finisher assembly (LH).



5. Remove side camera (LH) mounting screws
6. Remove side camera (LH).

#### INSTALLATION

1. Installation is the reverse order of removal.
2. Perform camera image calibration. Refer to [AV-279, "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#).

#### CAUTION:

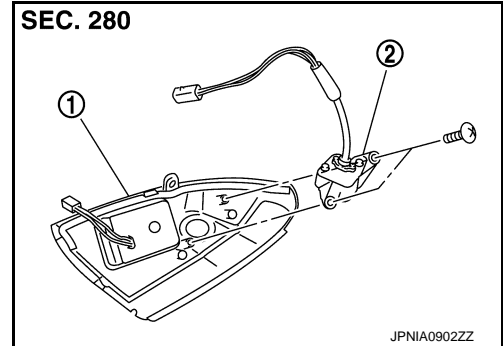
Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.



## SIDE CAMERA RH

## Exploded View

INFOID:000000003928793



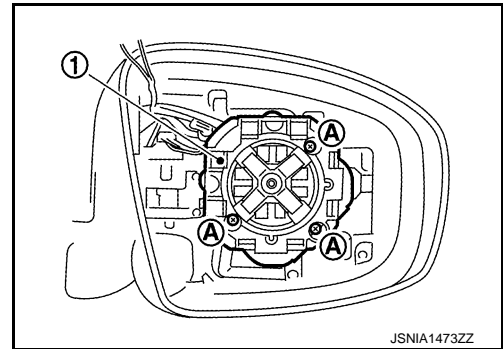
1. Side camera finisher assembly  
[infrared LED (auxiliary lighting)]
2. Side camera (RH)

## Removal and Installation

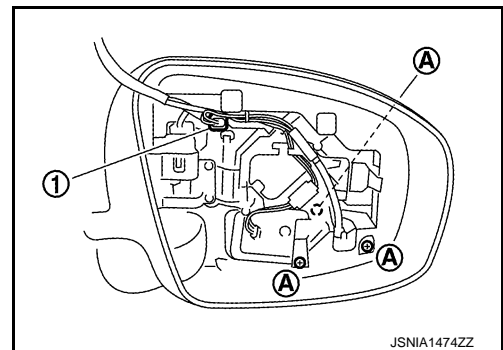
INFOID:000000003928794

## REMOVAL

1. Remove glass mirror (passenger side). Refer to [MIR-91, "DOOR MIRROR ASSEMBLY : Exploded View"](#).
2. Remove screws (A) and actuator connector, and then actuator (1).



3. Remove door mirror cover. Refer to [MIR-91, "DOOR MIRROR ASSEMBLY : Exploded View"](#).
4. Remove screws (A) and connector (1), and then remove Side camera finisher assembly (RH).



5. Remove side camera (RH) screws.
6. Remove side camera (RH).

## INSTALLATION

1. Installation is the reverse order of removal.
2. Perform camera image calibration. Refer to [AV-279, "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#).

**CAUTION:**



## **SIDE CAMERA RH**

< REMOVAL AND INSTALLATION >

**[NAVIGATION (SINGLE MONITOR)]**

**Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.**



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

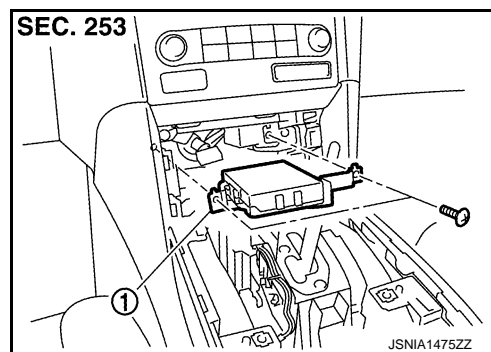
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

## SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

Exploded View

INFOID:0000000003928795



1. Sonar control unit

### Removal and Installation

INFOID:0000000003928796

#### REMOVAL

1. Remove AV control unit. Refer to [AV-579. "Removal and Installation"](#).
2. Remove screws and connector, and then sonar control unit.

#### INSTALLATION

Install in the reverse order of removal.

AV

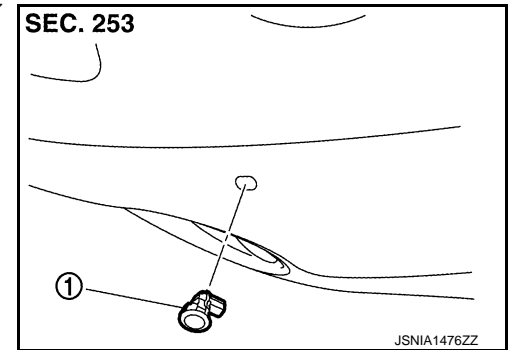


## SONAR SENSOR

### FRONT

#### FRONT : Exploded View

INFOID:000000003928797



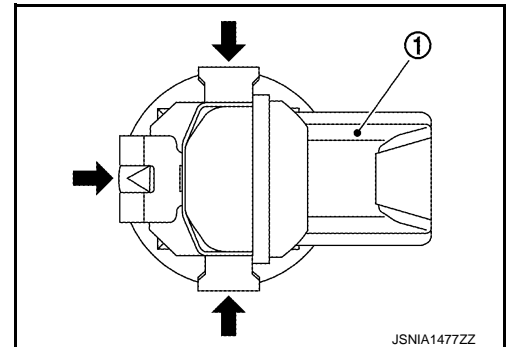
1. Sonar sensor (front)

#### FRONT : Removal and Installation

INFOID:000000003928798

##### REMOVAL

1. Remove fender protector. Keep a service area. Refer to [EXT-25, "FENDER PROTECTOR : Exploded View"](#).
2. Remove sonar sensor connector.
3. Press the sonar sensor (1) outside the front bumper, pressing the metal clips on the back to the direction of black arrows.



##### INSTALLATION

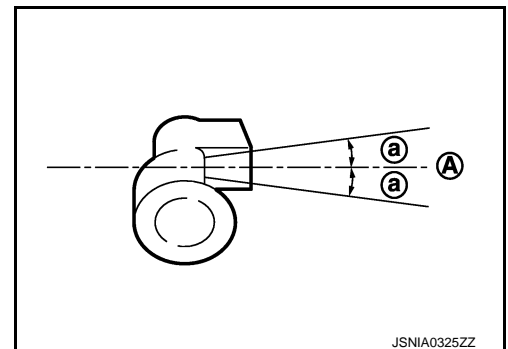
Install the bumper when the pawl engages.

##### CAUTION:

The connector direction is within  $\pm 10^\circ$  from the horizontal position when assembling the bumper.

**A** : Horizontal position

**a** :  $10^\circ$



### REAR



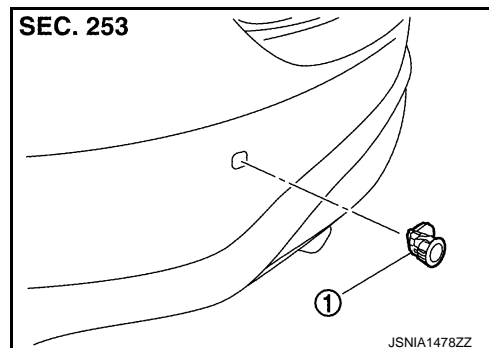
# SONAR SENSOR

< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

## REAR : Exploded View

INFOID:0000000003928799



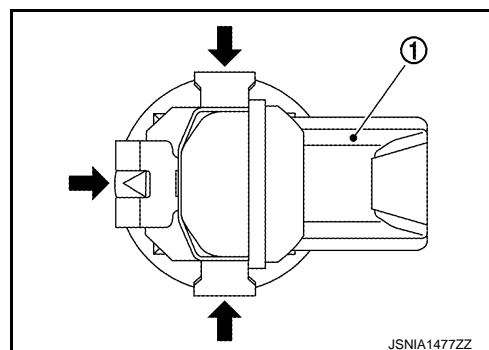
1. Sonar sensor (rear)

## REAR : Removal and Installation

INFOID:0000000003928800

### REMOVAL

1. Remove sonar sensor connector.
2. Press the sonar sensor (1) outside the front bumper, pressing the metal clips on the back to the direction of black arrows.



### INSTALLATION

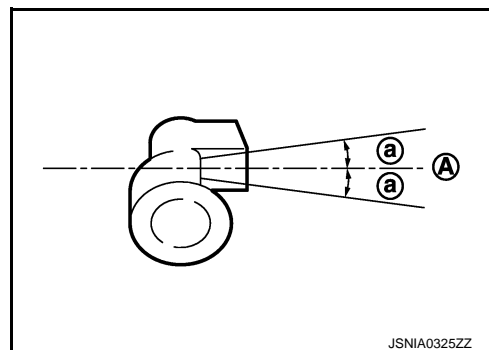
Install the bumper when the pawl engages.

#### CAUTION:

The connector direction is within  $\pm 10^\circ$  from the horizontal position when assembling the bumper.

**A** : Horizontal position

**a** :  $10^\circ$





# BUZZER

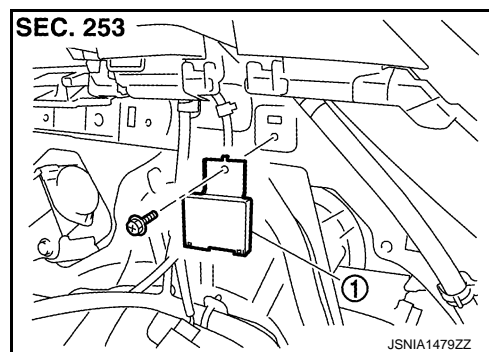
< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

## BUZZER

### Exploded View

INFOID:000000003928801



1. Buzzer

### Removal and Installation

INFOID:000000003928802

#### REMOVAL

1. Remove luggage side lower finisher (RH). Refer to [INT-28, "Exploded View"](#).
2. Remove buzzer mounting bolt.
3. Disconnect connector and remove buzzer.

#### INSTALLATION

Install in the reverse order of removal.



# STEERING ANGLE SENSOR

< REMOVAL AND INSTALLATION >

[NAVIGATION (SINGLE MONITOR)]

## STEERING ANGLE SENSOR

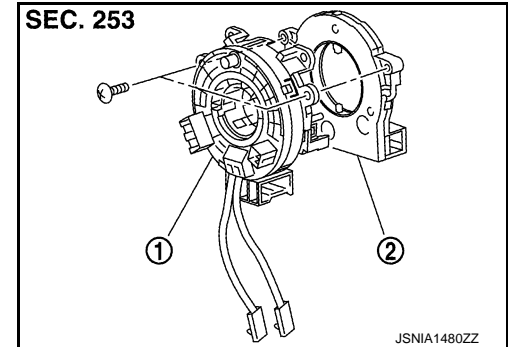
### Exploded View

INFOID:0000000003928803

#### REMOVAL

Refer to [SR-8, "Exploded View"](#).

#### DISASSEMBLY



1. Spiral cable
2. Steering angle sensor

### Removal and Installation

INFOID:0000000003928804

#### REMOVAL

1. Remove spiral cable. Refer to [SR-8, "Exploded View"](#).
2. Remove steering angle sensor mounting screws.
3. Remove steering angle sensor.

#### INSTALLATION

Installation is the reverse order of removal.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



## ANTENNA FEEDER

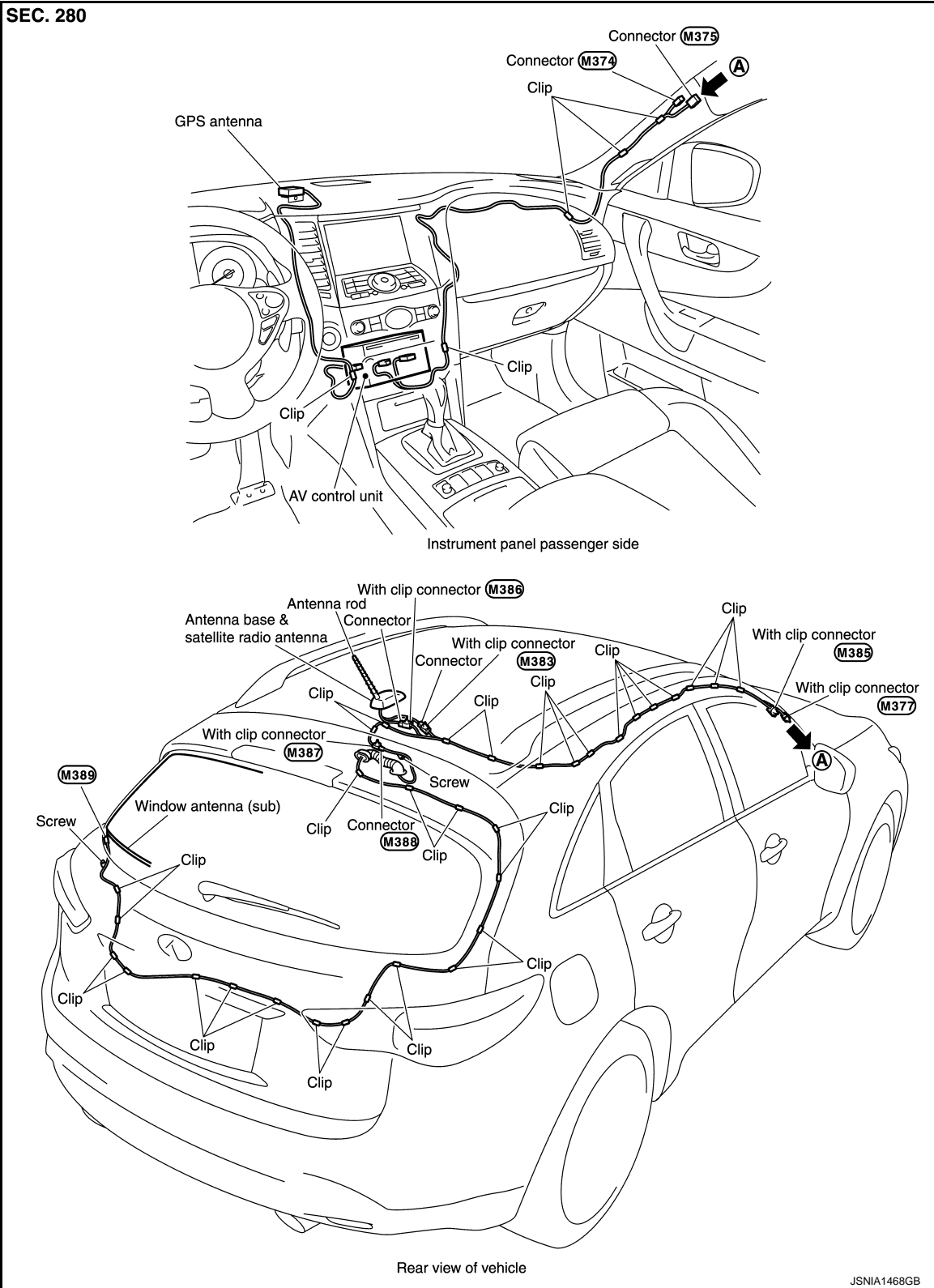
## < REMOVAL AND INSTALLATION >

## [NAVIGATION (SINGLE MONITOR)]

## ANTENNA FEEDER

## Harness Layout

INFOID:0000000003928805

**SEC. 280**



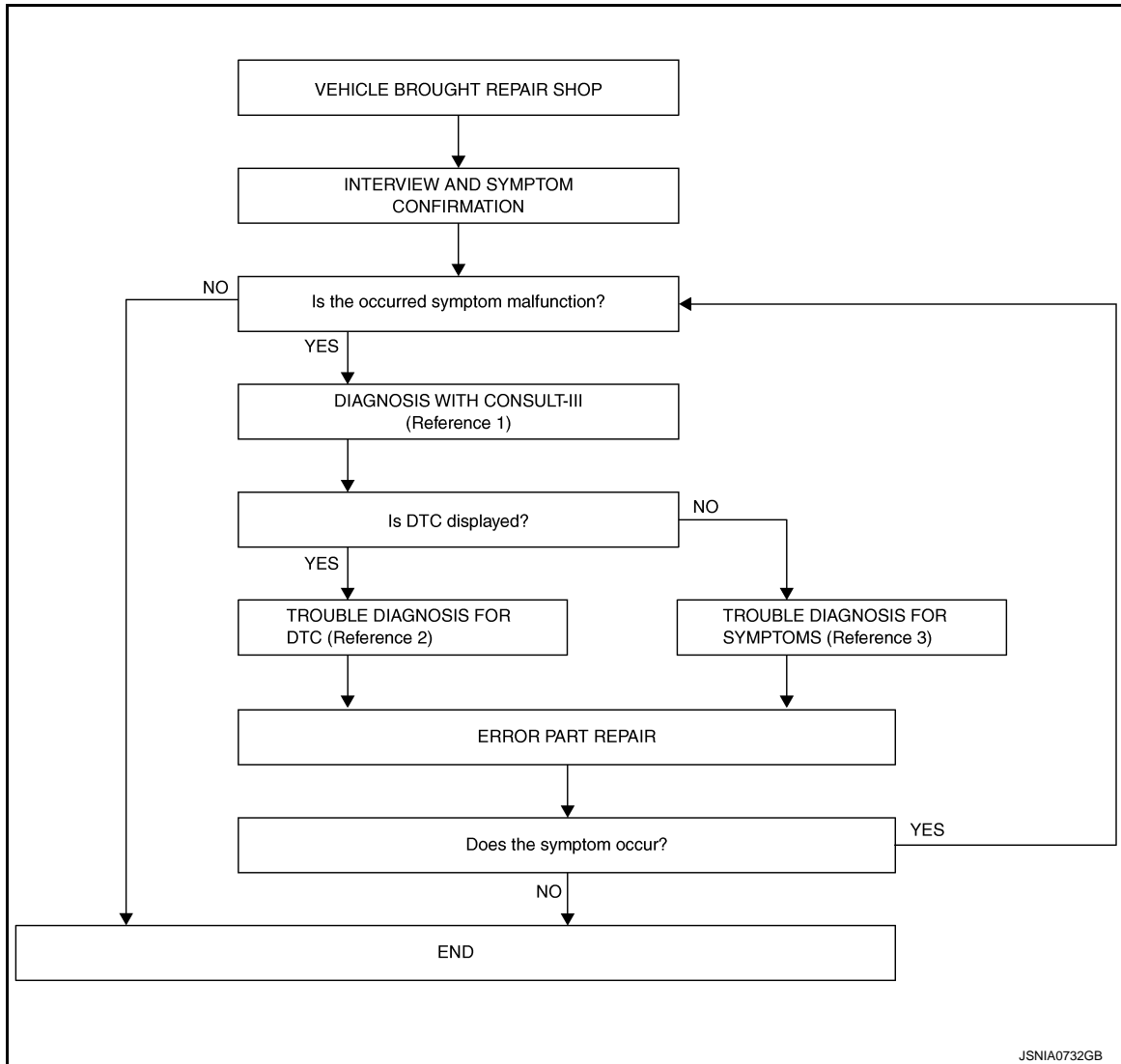
## BASIC INSPECTION

## DIAGNOSIS AND REPAIR WORKFLOW

Work Flow (Multi AV)

INFOID:000000003940607

## OVERALL SEQUENCE



- Reference 1... Refer to [AV-671, "CONSULT-III Function \(MULTI AV\)"](#).
- Reference 2... Refer to [AV-801, "DTC Index"](#).
- Reference 3... Refer to [AV-1028, "Symptom Table"](#).

## DETAILED FLOW

## 1. INTERVIEW AND SYMPTOM CONFIRMATION

Check the malfunction symptoms by performing the following items.

- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

Is the occurred symptom malfunction?

YES >> GO TO 2.

NO >> INSPECTION END

## 2. DIAGNOSIS WITH CONSULT-III



## DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[NAVIGATION (TWIN MONITOR)]

1. Connect CONSULT-III and perform a self-diagnosis for "MULTI AV". Refer to [AV-671, "CONSULT-III Function \(MULTI AV\)"](#).

**NOTE:**

Skip to step 4 of the diagnosis procedure if "MULTI AV" is not displayed.

2. Check if any DTC is displayed in the self-diagnosis results.

Is DTC displayed?

YES >> GO TO 3.

NO >> GO TO 4.

### 3. TROUBLE DIAGNOSIS FOR DTC

---

1. Check the DTC indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to [AV-801, "DTC Index"](#).

>> GO TO 5.

### 4. TROUBLE DIAGNOSIS FOR SYMPTOMS

---

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-1028, "Symptom Table"](#).

>> GO TO 5.

### 5. ERROR PART REPAIR

---

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for "MULTI AV" with CONSULT-III.

**NOTE:**

Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC has been indicated in the self-diagnosis results.

3. Check that the symptom does not occur.

Does the symptom occur?

YES >> GO TO 1.

NO >> INSPECTION END



# DIAGNOSIS AND REPAIR WORKFLOW

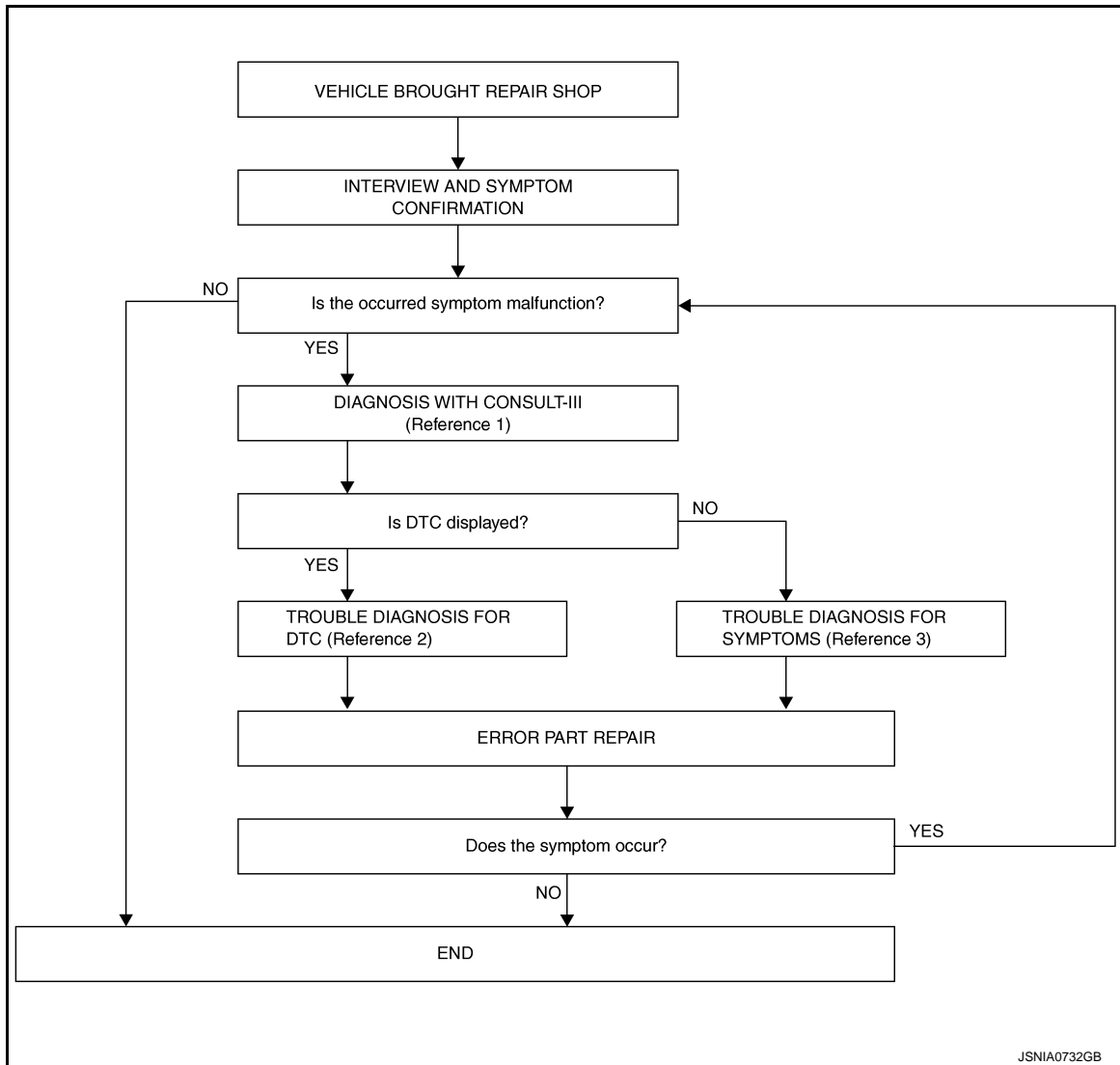
< BASIC INSPECTION >

[NAVIGATION (TWIN MONITOR)]

## Work Flow (Sonar)

INFOID:000000003940608

### OVERALL SEQUENCE



- Reference 1... Refer to [AV-678, "CONSULT-III Function \(SONAR\)"](#).
- Reference 2... Refer to [AV-1027, "DTC Index"](#).
- Reference 3... Refer to [AV-1028, "Symptom Table"](#).

### DETAILED FLOW

#### 1. INTERVIEW AND SYMPTOM CONFIRMATION

Check the malfunction symptoms by performing the following items.

- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

Is the occurred symptom malfunction?

YES >> GO TO 2.

NO >> INSPECTION END

#### 2. DIAGNOSIS WITH CONSULT-III

1. Connect CONSULT-III and perform a self-diagnosis for "SONAR". Refer to [AV-678, "CONSULT-III Function \(SONAR\)"](#).

#### NOTE:

Skip to step 4 of the diagnosis procedure if "SONAR" is not displayed.



## DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[NAVIGATION (TWIN MONITOR)]

- 
2. Check if any DTC is displayed in the self-diagnosis results.

Is DTC displayed?

- YES    >> GO TO 3.  
NO     >> GO TO 4.

### 3. TROUBLE DIAGNOSIS FOR DTC

---

1. Check the DTC indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to [AV-1027. "DTC Index"](#).

>> GO TO 5.

### 4. TROUBLE DIAGNOSIS FOR SYMPTOMS

---

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-1028. "Symptom Table"](#).

>> GO TO 5.

### 5. ERROR PART REPAIR

---

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for "SONAR" with CONSULT-III.

**NOTE:**

Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC has been indicated in the self-diagnosis results.

3. Check that the symptom does not occur.

Does the symptom occur?

- YES    >> GO TO 1.  
NO     >> INSPECTION END



# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[NAVIGATION (TWIN MONITOR)]

## INSPECTION AND ADJUSTMENT

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

#### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000003825407

Always correct the center position of the predicted course line after disconnecting the battery negative terminal.

#### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000003825408

#### 1.CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to [AV-613. "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement"](#).

### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000003825409

When around view monitor control unit is replaced, the center position of predicted course line shall be corrected.

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000003825410

#### 1.CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to [AV-613. "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement"](#).

### PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT

#### PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Description

INFOID:0000000003825411

Adjust the center position of the predicted course line of the around view monitor if it is shifted.

#### PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement

INFOID:0000000003825412

#### 1.STEERING OPERATION

Steer the steering wheel to the leftmost and rightmost ends.

>> GO TO 2.

#### 2.DRIVING

Drive the vehicle straight ahead 100 m (328.1 ft) or more at a speed of 30 km/h (18.6 MPH) or more.

>> END

### CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR)

A

B

C

D

E

F

G

H

I

J

K

L

M

AV

O

P



## CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description

INFOID:000000003825413

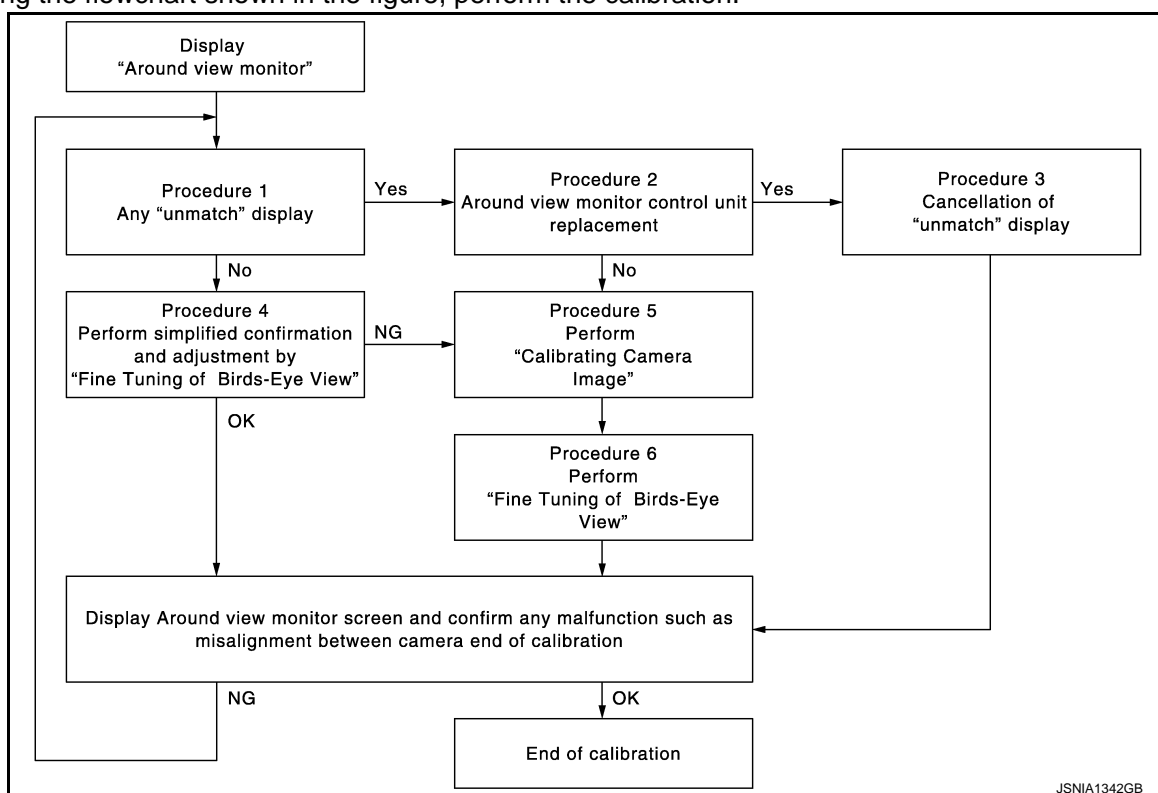
- Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.
- Align the white lines on the road near the vehicle at the boundary of each camera image by this camera calibration. The white lines far from the vehicle may not be aligned at the boundary of each camera image. The farther the line, the greater the difference is.

## CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Special Repair Requirement

INFOID:000000003825414

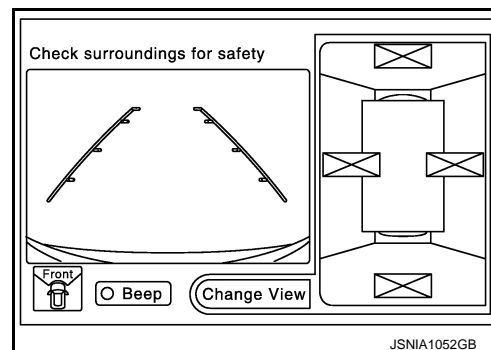
### Calibration flowchart

Following the flowchart shown in the figure, perform the calibration.



### NOTE:

In the un-match display, the un-match camera position is indicated as "⊠" on the birds-eye view.



### Calibration procedure

#### 1. AROUND VIEW MONITOR SCREEN CONFIRMATION



# INSPECTION AND ADJUSTMENT

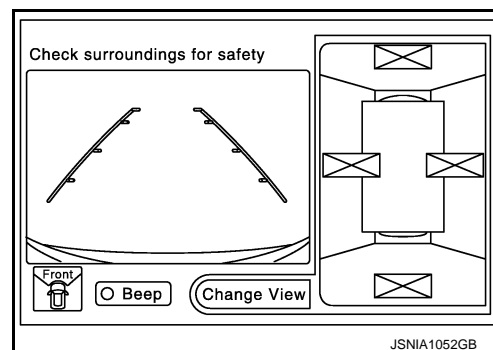
## < BASIC INSPECTION >

## [NAVIGATION (TWIN MONITOR)]

Check that there is the un-match display in any camera.

Is the un-match display visible?

- YES >> GO TO 2.  
NO >> GO TO 4.



## 2.CHECK THAT AROUND VIEW MONITOR CONTROL UNIT IS REPLACED

Check that the around view monitor control unit is replaced.

Is the around view monitor control unit replaced?

- YES >> GO TO 3.  
NO >> GO TO 5.

## 3.RELEASE UN-MATCH DISPLAY (PERFORM ONLY WHEN THE AROUND VIEW MONITOR CONTROL UNIT IS REPLACED)

1. Select "Camera Cont." of Confirmation/ Adjustment mode, and then set to "Calibrating Camera Image" mode.
2. Press the "ENTER" switch of the multifunction switch on each screen of "Rear Camera", "Front Camera", "Dr-Side Camera", "Pass-Side Camera".

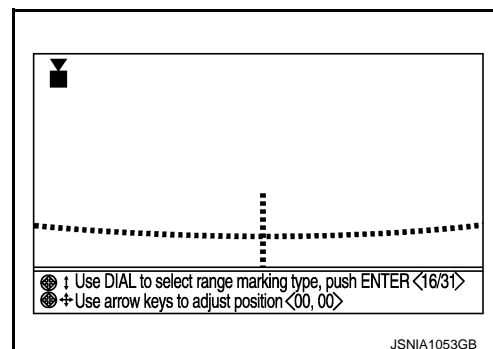
### CAUTION:

- Do never operate the center dial and up/down/left/right switches. Only press the "ENTER" switch.
- Never perform "Initialize Camera Image Calibration".

3. Display the around view monitor screen, and check that there is no malfunction such as a difference between each camera image.

Is there a malfunction?

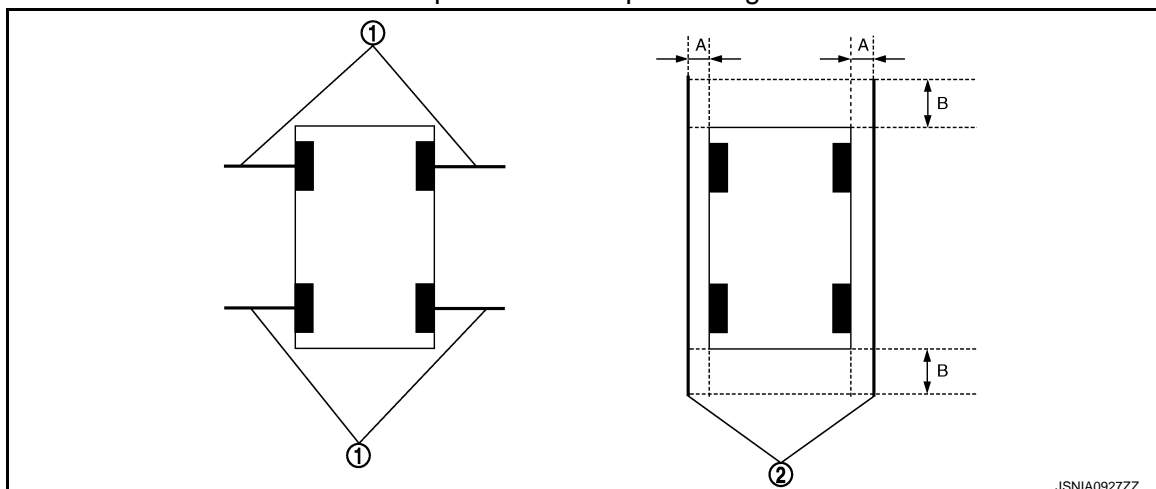
- YES >> Calibration end  
NO >> GO TO 1.



## 4.PERFORM SIMPLIFIED CONFIRMATION/ADJUSTMENT BY "FINE TUNING OF BIRDS-EYE VIEW"

1. Put target line 1 on the ground beside each axle using packing tape, etc.
2. Put target lines 2 equal to the vehicle total length + approximately 1.0 m (39.3 in) from the vehicle side (right and left) at approximately 30 cm (11.8 in) away from the vehicle (make the line as parallel with the vehicle as possible).

Preparation of simplified target line





# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

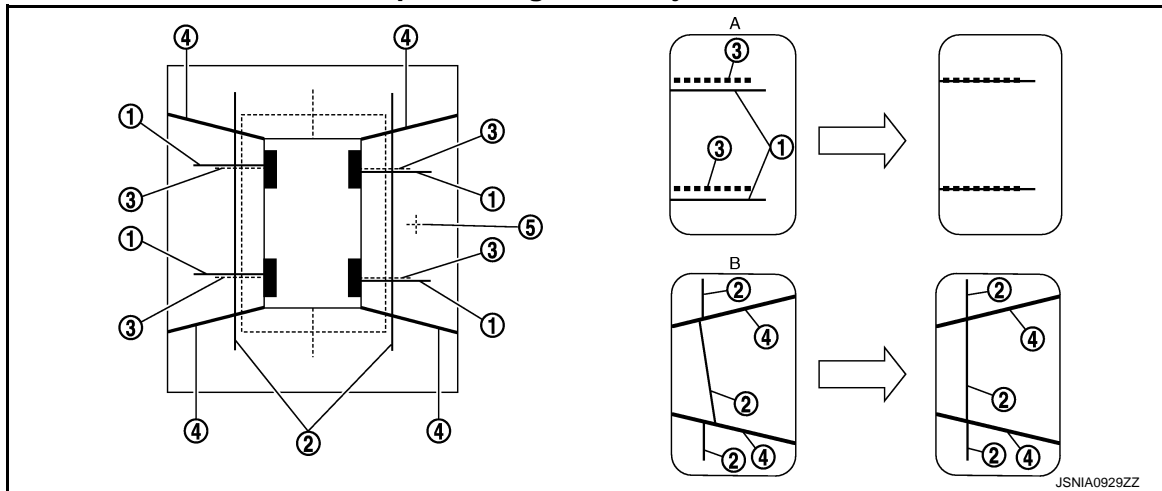
[NAVIGATION (TWIN MONITOR)]

1. Target lines 1
2. Target lines 2
- A. Approx. 30 cm (11.8in)
- B. Approx. 1.0 m (39.3 in)
3. Select "Camera Cont." of Confirmation/ Adjustment mode, and then set to "Fine Tuning of Birds-Eye View-mode."
4. Select left and right cameras by pressing the "CAMERA" switch, and perform the following confirmation.
  - Check that target line 1 is aligned with the marker on the screen. Overlap the line aligned to the marker with the upper/lower switches if necessary.
  - Check if there is a difference between target lines 2 between cameras. Adjust target lines 2 to be straight lines by operating the center dial and left/right switches if necessary.

## CAUTION:

- Never adjust the front camera and rear camera. Only adjust the right and left cameras.
- Operate the center dial slowly because the changing of the screen takes approximately 1 second.

### Simplified target line adjustment method



1. Target lines 1
2. Target lines 2
3. Marker for target line 1
4. Boundary between cameras
5. Crosshairs cursor (mark indicated the selected camera)
- A. Adjustment method for target lines 1 (right)
- B. Adjustment method for target lines 2 (right)
5. Adjust left and right cameras. Check that the difference between target line 1 and the marker on the screen, and between target lines 2 is solved.

## NOTE:

- It can be initialized to the NISSAN factory default condition with "Initialize Camera Image Calibration" of "Calibrating Camera Image".
- The adjustment value is cancelled on this mode by performing "Initialize Camera Image Calibration".

## Is the difference corrected?

- YES >> Finish the writing to around view monitor control unit by pressing "ENTER" switch.
- NO >> GO TO 5.

## 5.PERFORM "CALIBRATING CAMERA IMAGE"

### Preparation of target line

1. Hang a string with a weight as shown in the figure. Put the points FM0, RM0 (mark) on the ground at the center of the vehicle front end and rear end with white packing tape or a pen.
2. Route the vinyl string under the vehicle, and then pull and fix it on the point approximately 1.0 m (39.9 in) to the front and rear of the vehicle through the points FM0 and RM0 using packing tape.

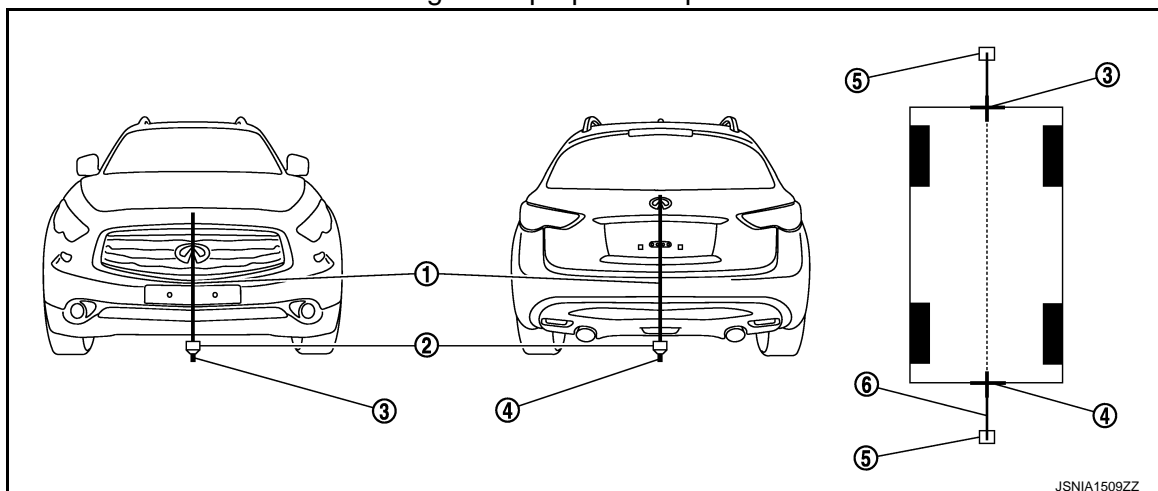


# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[NAVIGATION (TWIN MONITOR)]

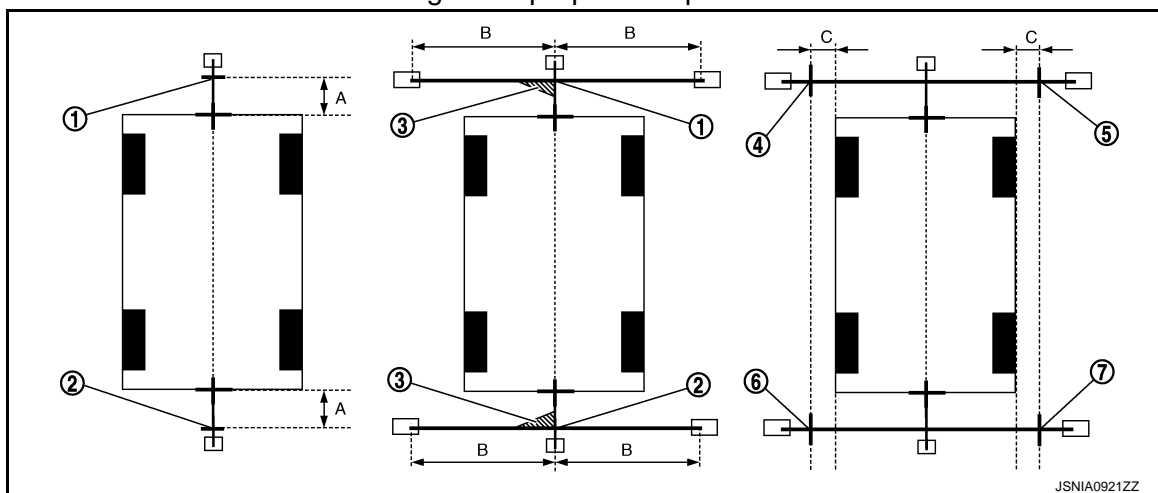
## Target line preparation procedure 1



1. Thread
2. Weight
3. Point FM0 (mark)
4. Point RM0 (mark)
5. Packing tape (to fix the vinyl string)
6. Vinyl string

3. Put the points FM and RM (mark) 75 cm (29.5 in) from the points FM0 and RM0 individually.
4. Route the vinyl string through the points FM and RM using a triangle scale, and then fix it at approximately 1.5 m (59 in) on both sides with packing tape.
5. Put the points FL, FR, RL, and RR (mark) to both right and left [vehicle width / 2 + 30 cm (11.8 in)] from the points FM and RM.

## Target line preparation procedure 2



1. Point FM
2. Point RM
3. Triangle scale
4. Point FL (mark)
5. Point FR (mark)
6. Point RL (mark)
7. Point RR (mark)

- A. 75 cm (29.5 in)
- B. Approx. 1.5 m (59 in)
- C. 30 cm (11.8 in)  
[Vehicle width / 2 + 30 cm (11.8 in) from the points FM and RM]

6. Draw the lines of the points FL – RL and FR – RR with vinyl string, and fix it with packing tape.
7. Put a mark on the center of each axle, draw vertical lines to the lines of the points FL – RL and FR – RR from the marks on the center of the axle using a triangle scale, and then fix the lines using packing tape.

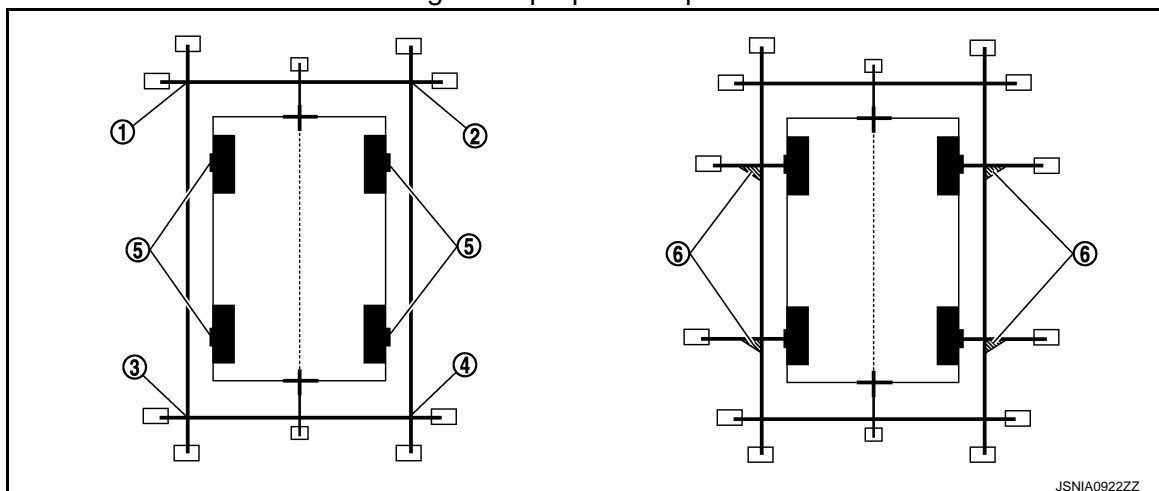


# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[NAVIGATION (TWIN MONITOR)]

## Target line preparation procedure 3



- |             |                            |                   |
|-------------|----------------------------|-------------------|
| 1. Point FL | 2. Point FR                | 3. Point RL       |
| 4. Point RR | 5. Center position of axle | 6. Triangle scale |

### Perform "Calibrating Camera Image"

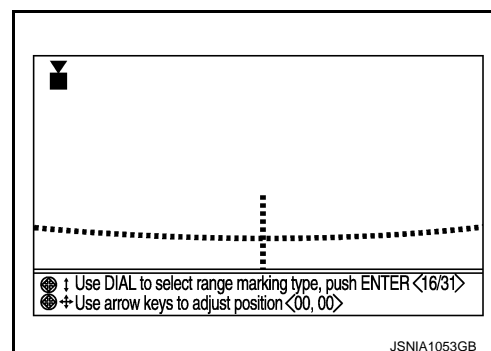
1. Select "Camera Cont." of "Confirmation/ Adjustment" mode, and then set to "Calibrating Camera Image" mode.
2. Overlap the target lines drawn on the ground with the calibration marker on the screen by operating the center dial and upper/lower/left/right switches of multifunction switch on each screen of "Rear Camera", "Pass-Side Camera", "Front Camera", "Dr-Side Camera".

#### Adjustment range

Rotation direction (Center dial) : 31 patterns (16 on the center)

Upper/lower direction (upper/lower switch) : -99 - 99

Left/right direction (left/right switch) : -99 - 99



3. "Writing..." is displayed by pressing the "ENTER" switch, and then the adjustment result is written to the around view monitor control unit.

#### CAUTION:

Check that "Writing..." is displayed. Do never perform other operations while "Writing..." is displayed.

>> GO TO 6.

## 6.PERFORM "FINE TUNING OF BIRDS-EYE VIEW"

This mode is designed to align the boundary between each camera image that could not be aligned in the "Calibrating Camera Image" mode.

1. Select "Camera Cont." of "Confirmation/ Adjustment" mode, and then set to "Fine Tuning of Birds-Eye View" mode.



## INSPECTION AND ADJUSTMENT

### < BASIC INSPECTION >

### [NAVIGATION (TWIN MONITOR)]

2. Operate the center dial and upper/lower/left/right switch to overlap the marker on the screen and the target lines on the ground.

**NOTE:**

Move the “+”- mark on the camera position to adjustment by pressing the “CAMERA” switch.

3. When the target line is overlapped on the marker, press the “ENTER” switch to write the adjustment result to the around view monitor control unit.

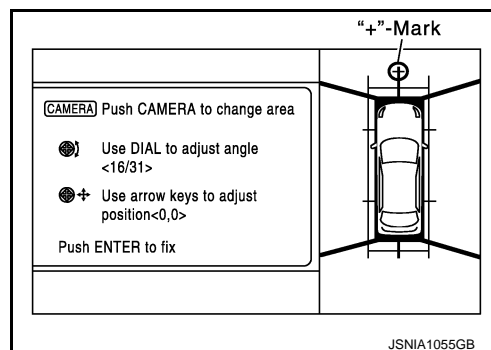
**CAUTION:**

**Check that “Writing...” is displayed. Do never perform other operations while “Writing...” is displayed.**

**NOTE:**

- It can be initialized to the NISSAN factory default condition with “Initialize Camera Image Calibration” of “Calibrating Camera Image”.
- The adjustment value is cancelled on this mode by performing “Initialize Camera Image Calibration”.

>> Calibration end



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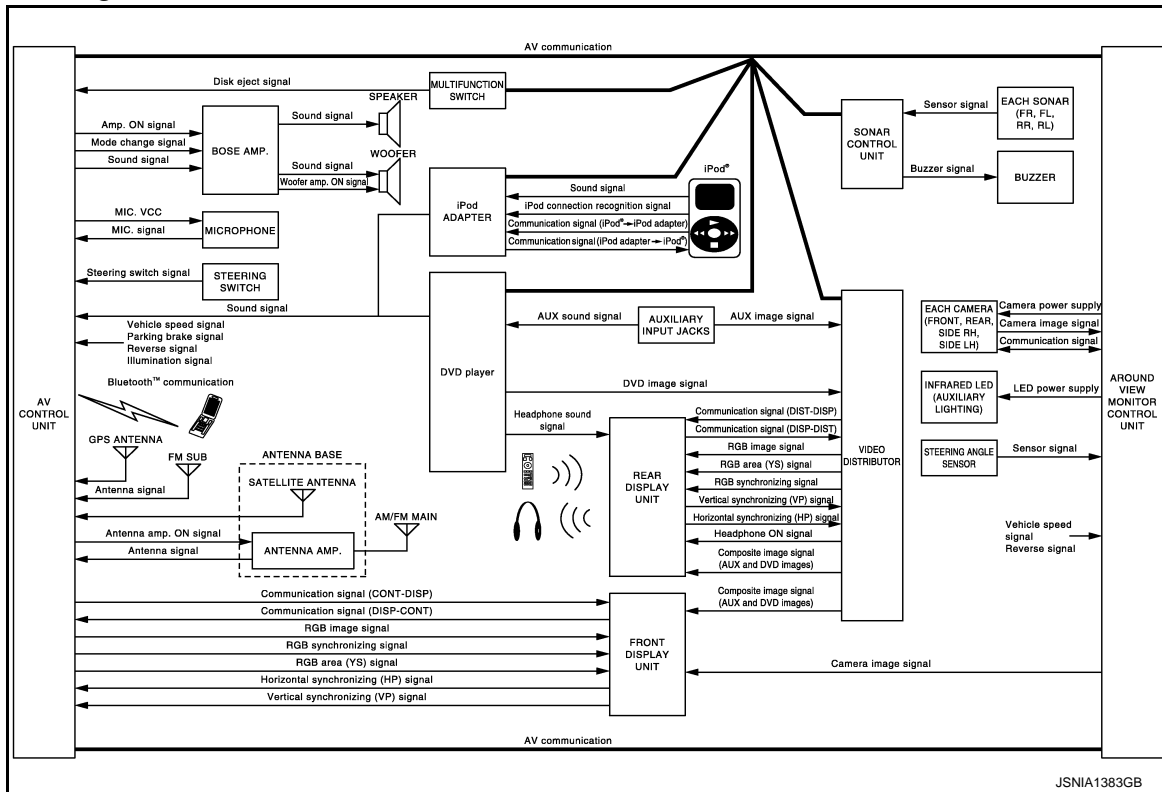


## SYSTEM DESCRIPTION

### MULTI AV SYSTEM

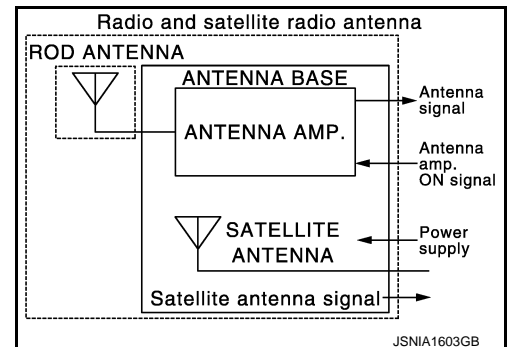
#### System Diagram

INFOID:000000003825415



#### NOTE:

- The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.
- A radio antenna base integrated with radio antenna and satellite radio antenna is adopted.



#### System Description

INFOID:000000003825416

Multi AV system means that the following systems are integrated.

System name	System explanation
AUDIO SYSTEM	<a href="#">AV-627. "System Description"</a>
NAVIGATION SYSTEM	<a href="#">AV-632. "System Description"</a>
MOBILE ENTERTAINMENT SYSTEM	<a href="#">AV-637. "System Description"</a>
AROUND VIEW MONITOR SYSTEM	<a href="#">AV-641. "System Description"</a>
CAMERA ASSISTANCE SONAR SYSTEM	<a href="#">AV-651. "System Description"</a>



# MULTI AV SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

System name	System explanation
VEHICLE INFORMATION SYSTEM	<ul style="list-style-type: none"> <li>Status of audio, climate control system, fuel economy, maintenance and navigation are displayed.</li> <li>AV control unit displays the fuel consumption status while receiving data signal through CAN communication from ECM, unified meter and A/C amp.</li> <li>AV control unit is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> </ul>
HANDS-FREE PHONE SYSTEM	Refer to the following "HANDS-FREE PHONE SYSTEM".
AUXILIARY INPUT SYSTEM	Refer to the following "AUXILIARY INPUT SYSTEM".
VOICE RECOGNITION SYSTEM	Refer to the following "VOICE RECOGNITION SYSTEM".
TOUCH PANEL SYSTEM	Refer to the following "TOUCH PANEL SYSTEM".

- AV control unit function by transmitting/receiving data one by one with each unit (slave unit) that configures them completely as a master unit by connecting between units that configure MULTI AV system with two AV communication lines (H, L).
- Around view monitor control unit transmits/receives the data signal with sonar control unit and controls sonar control unit. Around view monitor control unit transmits the information received from sonar control unit to AV control unit.
- Two AV communication lines (H, L) adopt a twisted pair line that is resistant to noise.
- AV control unit is connected by CAN communication, and it receives data signals from ECM, unified meter and A/C amp. It computes and displays fuel economy information value with the obtained information. The transmitting/receiving of data signal is performed by BCM. In addition, it transmits the required signal of vehicle setting and receives the response signal.
- AV control unit is connected with front display unit and serial communication, and it transmits the required signal of display and display control and receives the response signal from front display unit.

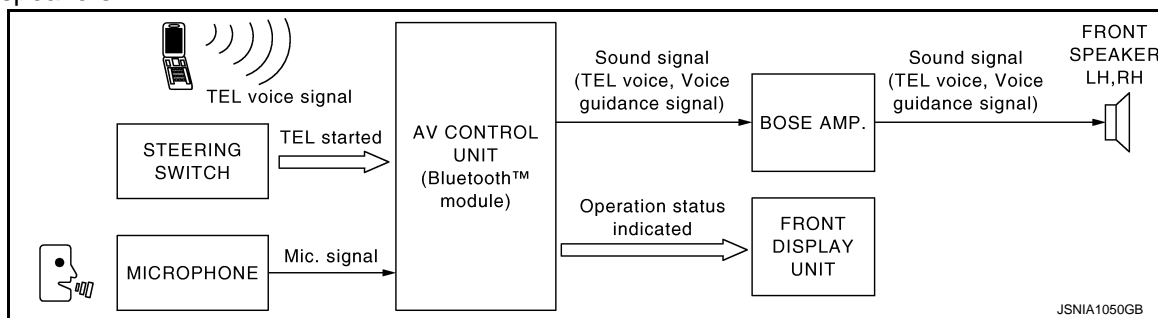
### NOTE:

AV control unit can perform CONSULT-III self-operating function and on board self-diagnosis.

- CONSULT-III self diagnosis: Refer to [AV-671, "CONSULT-III Function \(MULTI AV\)"](#).
- On board self diagnosis: Refer to [AV-656, "Diagnosis Description"](#).

## HANDS-FREE PHONE SYSTEM

- Hands-free communication can be operated by connecting using Bluetooth™ with cellular phone.
- Operation is performed by steering switch, and operating condition is indicated on display.
- Guide sound that is heard during operation is input from AV control unit to BOSE amp. and is output from front speakers.



### When a Call is Originated

Spoken voice sound output from the microphone (Mic. Signal) is input into AV control unit. AV control unit outputs to cellular phone with Bluetooth™ communication as a TEL voice signal. Voice sound is then heard by the other party.

### When Receiving a Call

Voice sound is input to one's own cellular phone from the other party. TEL voice signal is output to front speakers, and the signal is input to BOSE amp. via AV control unit by establishing Bluetooth™ communication from cellular phone.

## AUXILIARY INPUT SYSTEM

- Image and sound can be output from an external device by connecting a device with auxiliary input jacks.

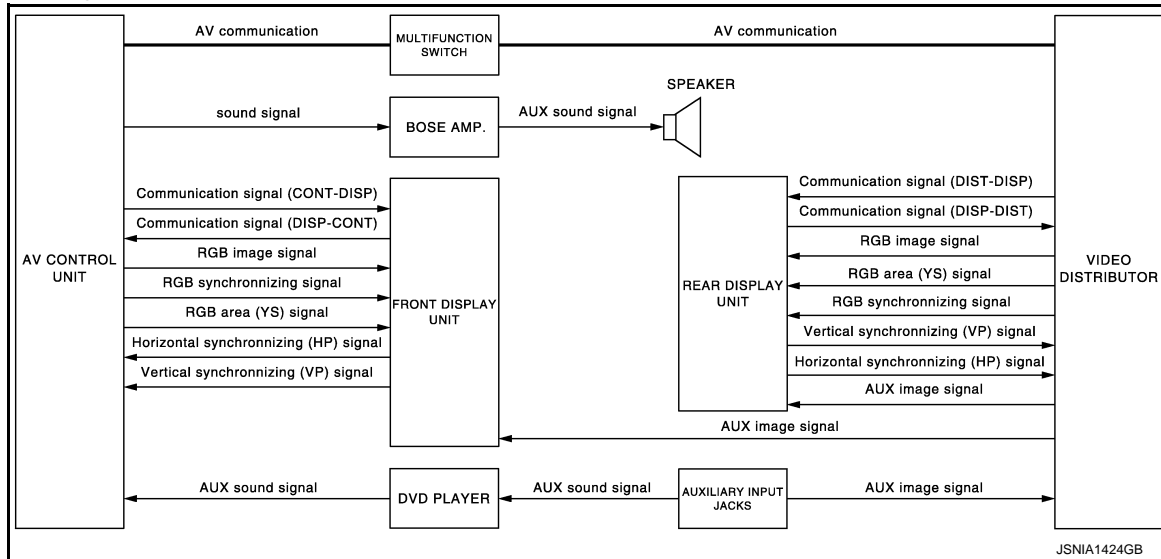


## MULTI AV SYSTEM

## < SYSTEM DESCRIPTION >

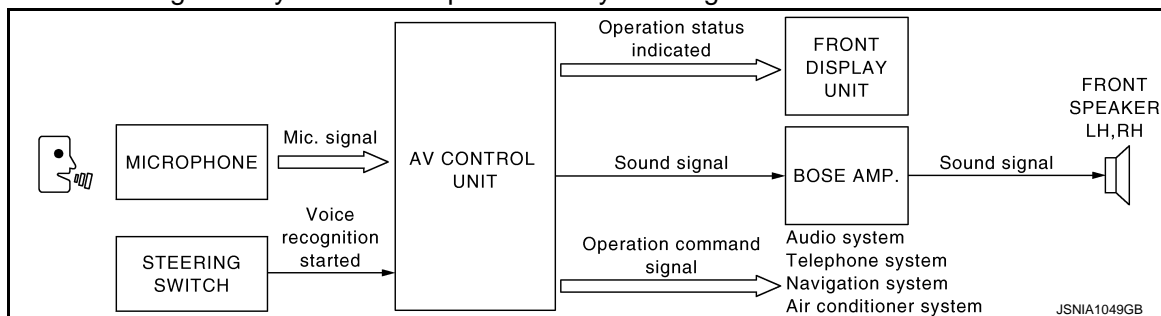
**[NAVIGATION (TWIN MONITOR)]**

- Operation can be performed with multifunction switch and steering switch. Multifunction switch transmits operation signal to AV control unit by AV communication.



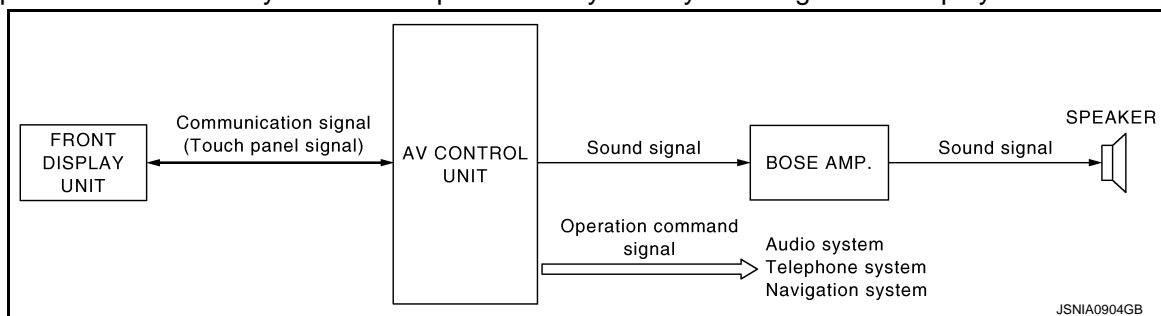
# VOICE RECOGNITION SYSTEM

- Each operation of multi AV system can be performed by inputting sound to microphone.
- Start of sound recognition system can be performed by steering switch.



## TOUCH PANEL SYSTEM

Each operation of multi AV system can be performed by directly touching a front display unit.





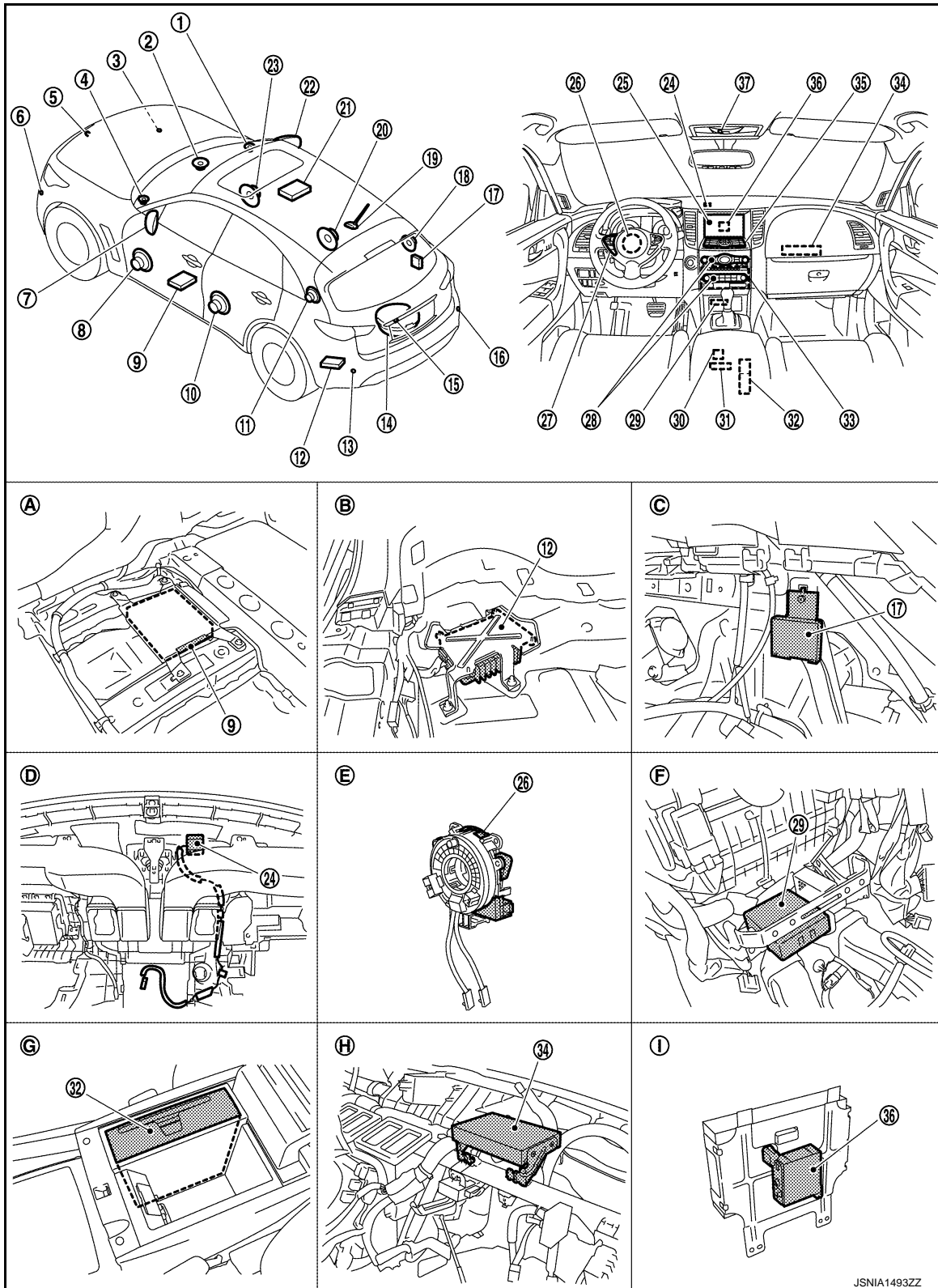
# MULTI AV SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## Component Parts Location

INFOID:000000003825417



- |                          |                          |                                     |
|--------------------------|--------------------------|-------------------------------------|
| 1. Front squawker RH     | 2. Center speaker        | 3. Corner sensor front RH           |
| 4. Front squawker LH     | 5. Front camera          | 6. Corner sensor front LH           |
| 7. Side camera LH        | 8. Front door speaker LH | 9. Around view monitor control unit |
| 10. Rear door speaker LH | 11. Rear squawker LH     | 12. BOSE amp.                       |

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# MULTI AV SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

13. Corner sensor rear LH	14. Woofer	15. Rear camera
16. Corner sensor rear RH	17. Buzzer	18. Rear squawker RH
19. Antenna base (antenna amp. and satellite antenna)	20. Rear door speaker RH	21. Rear display unit
22. Side camera RH and infrared LED (auxiliary lighting)	23. Front door speaker RH	24. GPS antenna
25. Front display unit	26. Steering angle sensor	27. Steering switch
28. Preset switch	29. Sonar control unit (with around view monitor)	30. iPod connector
31. Auxiliary input jacks	32. DVD player	33. AV control unit
34. Video distributor	35. Multifunction switch	36. iPod adapter
37. Microphone		
A. Under front seat (LH side)	B. Luggage floor (LH side)	C. Luggage side RH
D. Instrument panel rear side	E. Spiral cable part	F. Console pocket assembly removed condition
G. In center console	H. Instrument panel assembly removed condition	I. Rear view of the front display unit

## Component Description

INFOID:000000003825418

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Update of map data is performed with the CONSULT-III and the applicable cable.</li> </ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> <li>Front display image is controlled by the serial communication from AV control unit.</li> <li>RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing).</li> <li>Composite image signal (DVD and auxiliary images) is input from the video distributor.</li> <li>Camera image signal input to around view monitor control unit.</li> <li>Synchronize signal (HP, VP) is output to AV control unit.</li> <li>Touch panel function can be operated for each system by touching a display directly.</li> </ul>
REAR DISPLAY UNIT	<ul style="list-style-type: none"> <li>Rear display image is controlled by the serial communication from video distributor.</li> <li>RGB image signal is input from video distributor (RGB image and RGB area).</li> <li>Composite image signal (DVD and auxiliary images) is input from the video distributor.</li> <li>Synchronize signal (HP, VP) is output to video distributor.</li> <li>It receives the DVD/AUX sound signal from the DVD player, and then transmits it to the headphones.</li> <li>It operates by receiving the headphone ON signal from the video distributor.</li> </ul>
VIDEO DISTRIBUTOR	<ul style="list-style-type: none"> <li>It receives the image signal from the DVD player, and auxiliary input jack, and then transmits it to the front display unit and rear display unit.</li> <li>It transmits headphone ON signal to rear display unit.</li> </ul>



# MULTI AV SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

Part name	Description	
DVD PLAYER	<ul style="list-style-type: none"> <li>It transmits the playback DVD image signal to the video distributor. It also transmits the input AUX sound signal to the AV control unit.</li> </ul>	A
BOSE AMP.	<ul style="list-style-type: none"> <li>Inputs power (amp. ON) and sound signal from AV control unit, and outputs sound signal to woofer and each speaker.</li> <li>Input "Driver's Audio Stage" mode change signal from AV control unit.</li> <li>Woofer amp. ON signal is transmitted to woofer.</li> </ul>	B
FRONT DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>	C
REAR DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>	D
FRONT SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>	
REAR SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>	E
CENTER SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>	F
WOOFER	<ul style="list-style-type: none"> <li>Inputs power (amp. ON) and sound signal from BOSE amp.</li> <li>Outputs low-frequency sound.</li> </ul>	
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"> <li>Operation panel is equipped with the centralized switch where audio, auxiliary input and navigation operations are integrated.</li> <li>Connected with preset switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li> </ul>	G
PRESET SWITCH	<ul style="list-style-type: none"> <li>Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated.</li> <li>Connected with multifunction switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li> <li>The disk ejection operating signal is performed by hardwire.</li> </ul>	H
AROUND VIEW MONITOR CONTROL UNIT	<ul style="list-style-type: none"> <li>It supplies power to front camera, rear camera, and side camera. And then it superimposes the images from each camera and outputs them to front display unit.</li> <li>Superimpose the guiding line, predicted course line and sonar indicator to the camera image that outputs to front display unit.</li> <li>It performs the reception/transmission of communication signal with each camera.</li> <li>Inputs the sensor signal from steering angle sensor, and then controls the predicted course line.</li> <li>It transmits the sonar operation signal from sonar control unit and receives the sonar information from sonar control unit via AV communication.</li> <li>It transmits the information received/transmitted with sonar control unit via AV communication to AV control unit.</li> </ul>	I J K L
FRONT CAMERA	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle front to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>	M AV
REAR CAMERA	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle rear to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>	O
SIDE CAMERA LH	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle LH to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>	P
SIDE CAMERA RH	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle RH to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>	



# MULTI AV SYSTEM

## < SYSTEM DESCRIPTION >

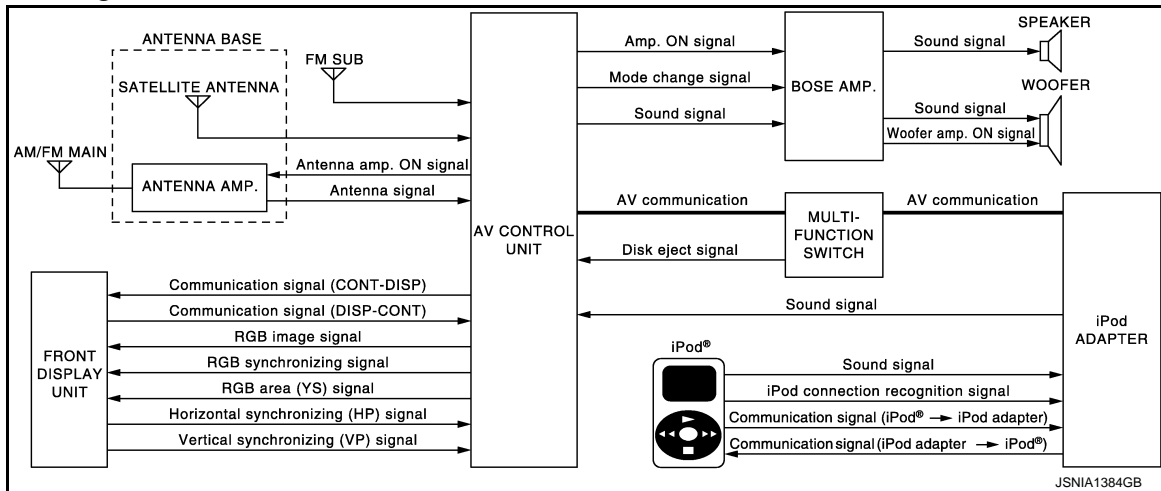
## [NAVIGATION (TWIN MONITOR)]

Part name	Description
INFRARED LED (AUXILIARY LIGHTING)	<ul style="list-style-type: none"><li>It illuminates around the front RH wheel by the power supply from around view monitor control unit to improve nighttime visibility of Front-Side view.</li><li>The infrared LED is an invisible light ray.</li></ul>
STEERING SWITCH	<ul style="list-style-type: none"><li>Operations for audio, hands-free phone, audio response and navigation, etc. are possible.</li><li>Steering switch signal (operation signal) is output to AV control unit.</li></ul>
STEERING ANGLE SENSOR	Steering signal necessary for predicted course line control is transmitted to camera control unit or around view monitor control unit.
MICROPHONE	<ul style="list-style-type: none"><li>Used for hands-free phone operation and voice recognition.</li><li>Mic signal is transmitted to AV control unit.</li><li>Power (Mic VCC) is supplied from AV control unit.</li></ul>
AUXILIARY INPUT JACKS	Image signal of auxiliary input is output to video distributor, and sound signal is output to DVD player.
GPS ANTENNA	GPS signal is received and transmitted to AV control unit.
ANTENNA BASE	<p>A radio antenna base integrated with radio antenna amp. and satellite radio antenna is adopted.</p> <p>ANTENNA AMP.</p> <ul style="list-style-type: none"><li>Radio signal received by rod antenna is amplified and transmitted to AV control unit.</li><li>Power (antenna amp. ON signal) is supplied from AV control unit.</li></ul> <p>SATELLITE RADIO ANTENNA</p> <ul style="list-style-type: none"><li>Receives satellite radio waves and outputs it to AV control unit.</li></ul>
iPod ADAPTER	<ul style="list-style-type: none"><li>Inputs iPod sound signal from iPod®, and outputs iPod sound signal to AV control unit.</li><li>Receiving/transmitting of iPod® operation signals are performed as follows:<ul style="list-style-type: none"><li>between AV control unit and iPod adapter: AV communication.</li><li>between iPod® and iPod adapter: serial communication.</li></ul></li></ul>
SONAR CONTROL UNIT	<ul style="list-style-type: none"><li>It is connected with around view monitor control unit via AV communication and receives the sonar operation signal from around view monitor control unit.</li><li>It transmits the sonar detection status to around view monitor control unit via AV communication.</li><li>It judges the warning level according to the signal from corner sensor and outputs the buzzer drive signal.</li><li>Trouble diagnosis is supported with CONSULT-III (K-LINE).</li></ul>
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to sonar control unit.
BUZZER	The warning buzzer outputs with the signal from sonar control unit.



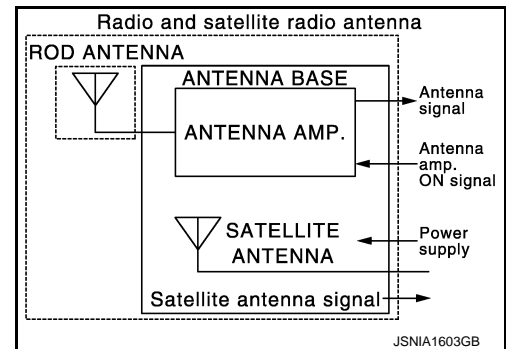
## AUDIO SYSTEM

### System Diagram



#### NOTE:

A radio antenna base integrated with radio antenna and satellite radio antenna is adopted.



### System Description

The audio system is equipped with the following functions. Each function is operated by multifunction switch, preset switch, touch panel, steering switch or audio recognition. Operation status of AUDIO is indicated at display.

Function
AM/FM radio
Satellite radio
CD
Music Box (Hard Disk Drive)
CF (Compact Flash)
iPod connection
Driver's Audio Stage

### FUNCTION DESCRIPTION

#### Operating Signal

Audio system operation can be performed with multifunction switch, preset switch, steering switch, touch panel function or voice recognition function.

- Operating signal is transmitted to AV control unit with AV communication when it is operated by multifunction switch or preset switch. The disk ejection operating signal is performed by hardware.
- Operating signal is transmitted to AV control unit with steering switch signal when it is operated by steering switch.
- Refer to [AV-620, "System Description"](#) for explanation of voice recognition function and touch panel function.

#### Screen Display



- The display is switched by communication signal between front display unit and AV control unit.
- The image signal that displays operating status is performed by the RGB image signal, RGB area signal and RGB synchronizing signal.

### AM/FM Radio Mode

- AM/FM radio tuner is built into AV control unit.
- Audio signal is received by rod antenna, next it is amplified by antenna amp., and finally it is input into AV control unit. The FM sub antenna is installed on the back door window glass and AV control unit receives audio signal.
- Audio signal is input to BOSE amp. and BOSE amp. outputs to woofer and each speaker for AV control unit.

### Satellite Radio Mode

- Satellite radio tuner is built into AV control unit.
- Audio signal (satellite radio) is received by satellite antenna, and it is input to AV control unit. AV control unit outputs audio signal to BOSE amp. The signal is also outputted from BOSE amp. to both woofer and each speaker.

### CD Mode

- CD function is built into AV control unit.
- AV control unit outputs audio signals to BOSE amp. and BOSE amp. outputs to woofer and each speaker when CD is inserted to AV control unit.

### Music Box Mode

- Music CD data is stored on HDD that is built into AV control unit, and it can be played.
- AV control unit outputs music (audio signal) that is stored on HDD to BOSE amp., and BOSE amp. outputs to woofer and each speaker.

### CF Mode

- AV control unit has built in CF replay function.
- Music (audio signal) that is stored in CF outputs to BOSE amp. and BOSE amp. outputs to woofer and each speaker when CF is inserted into AV control unit.

### iPod Connection

- Connect iPod® and iPod adapter with wire harness and iPod adapter inputs iPod sound signal from iPod®. When iPod mode is selected, iPod adapter outputs iPod sound signal to AV control unit. AV control unit outputs sound signal to BOSE amp., and BOSE amp. output sound signal to woofer and each speaker.
- Receiving/transmitting of iPod® operation signals are performed as follows:
  - between AV control unit and iPod adapter: AV communication.
  - between iPod® and iPod adapter: serial communication.
- The iPod® connection status can be recognized whether iPod adapter receives iPod connection recognition signal.
- The iPod adapter can charge iPod®.

### Driver's Audio Stage Mode

- Driver's Audio Stage controls the speaker's output characteristics by BOSE amp. so that the driver seat is the center of sound.
- ON/OFF signals of Driver's Audio Stage are transmitted from AV control unit to BOSE amp. using mode change signal.



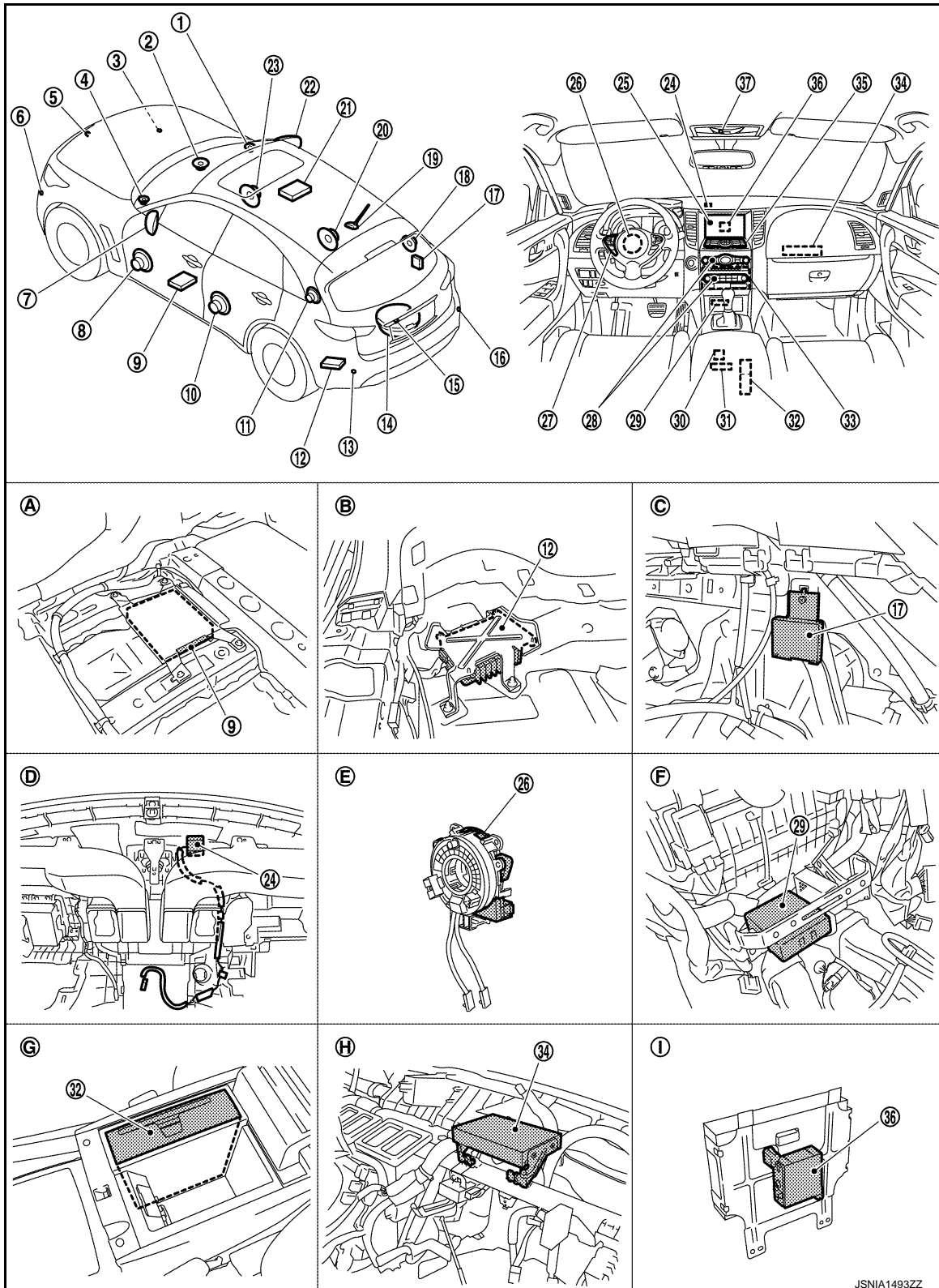
# AUDIO SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## Component Parts Location

INFOID:000000003931411



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|--------------------------|--------------------------|-------------------------------------|
| 1. Front squawker RH     | 2. Center speaker        | 3. Corner sensor front RH           |
| 4. Front squawker LH     | 5. Front camera          | 6. Corner sensor front LH           |
| 7. Side camera LH        | 8. Front door speaker LH | 9. Around view monitor control unit |
| 10. Rear door speaker LH | 11. Rear squawker LH     | 12. BOSE amp.                       |

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# AUDIO SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

13. Corner sensor rear LH	14. Woofer	15. Rear camera
16. Corner sensor rear RH	17. Buzzer	18. Rear squawker RH
19. Antenna base (antenna amp. and satellite antenna)	20. Rear door speaker RH	21. Rear display unit
22. Side camera RH and infrared LED (auxiliary lighting)	23. Front door speaker RH	24. GPS antenna
25. Front display unit	26. Steering angle sensor	27. Steering switch
28. Preset switch	29. Sonar control unit (with around view monitor)	30. iPod connector
31. Auxiliary input jacks	32. DVD player	33. AV control unit
34. Video distributor	35. Multifunction switch	36. iPod adapter
37. Microphone		
A. Under front seat (LH side)	B. Luggage floor (LH side)	C. Luggage side RH
D. Instrument panel rear side	E. Spiral cable part	F. Console pocket assembly removed condition
G. In center console	H. Instrument panel assembly removed condition	I. Rear view of the front display unit

## Component Description

INFOID:000000003825422

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Receiving function of AM/FM/satellite radio, replaying function of CD, replaying/saving functions of music box (HDD), replaying function of CF and voice recognition function are integrated.</li> <li>Audio signal is output to BOSE amp. from each function.</li> </ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> <li>Front display image is controlled by the serial communication from AV control unit.</li> <li>RGB image signal (audio operation condition) is input from AV control unit.</li> <li>Touch panel function can be operated for each system by touching the display directly.</li> </ul>
iPod ADAPTER	<ul style="list-style-type: none"> <li>Inputs iPod sound signal from iPod®, and outputs iPod sound signal to AV control unit.</li> <li>Receiving/transmitting of iPod® operation signals are performed as follows: <ul style="list-style-type: none"> <li>between AV control unit and iPod adapter: AV communication.</li> <li>between iPod® and iPod adapter: serial communication.</li> </ul> </li> </ul>
BOSE AMP.	<ul style="list-style-type: none"> <li>Inputs power (amp. ON) and sound signal from AV control unit, and outputs sound signal to woofer and each speaker.</li> <li>Input "Driver's Audio Stage" mode change signal from AV control unit.</li> <li>Woofer amp. ON signal is transmitted to woofer.</li> </ul>
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"> <li>Each audio operation can be operated.</li> <li>Connected with preset switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li> </ul>
PRESET SWITCH	<ul style="list-style-type: none"> <li>Each audio operation can be operated.</li> <li>Connected with multifunction switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li> <li>The disk ejection operating signal is performed by hardwire.</li> </ul>
STEERING SWITCH	<ul style="list-style-type: none"> <li>Each audio operation can be operated.</li> <li>Steering switch signal (operation signal) is output to AV control unit.</li> </ul>
FRONT DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>
REAR DOOR SPEAKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (mid and low range).</li> </ul>
FRONT SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>
REAR SQUAWKER	<ul style="list-style-type: none"> <li>Outputs sound signal from BOSE amp.</li> <li>Outputs sound (high and mid range).</li> </ul>



## AUDIO SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Part name	Description
CENTER SPEAKER	<ul style="list-style-type: none"><li>• Outputs sound signal from BOSE amp.</li><li>• Outputs sound (high and mid range).</li></ul>
WOOFER	<ul style="list-style-type: none"><li>• Inputs power (amp. ON) and sound signals from BOSE amp.</li><li>• Outputs low-frequency sound.</li></ul>
ANTENNA BASE	<p>A radio antenna base integrated with radio antenna amp. and satellite radio antenna is adopted.</p> <p>ANTENNA AMP.</p> <ul style="list-style-type: none"><li>• Radio signal received by rod antenna is amplified and transmitted to AV control unit.</li><li>• Power (antenna amp. ON signal) is supplied from AV control unit.</li></ul> <p>SATELLITE RADIO ANTENNA</p> <ul style="list-style-type: none"><li>• Receives satellite radio waves and outputs it to AV control unit.</li></ul>

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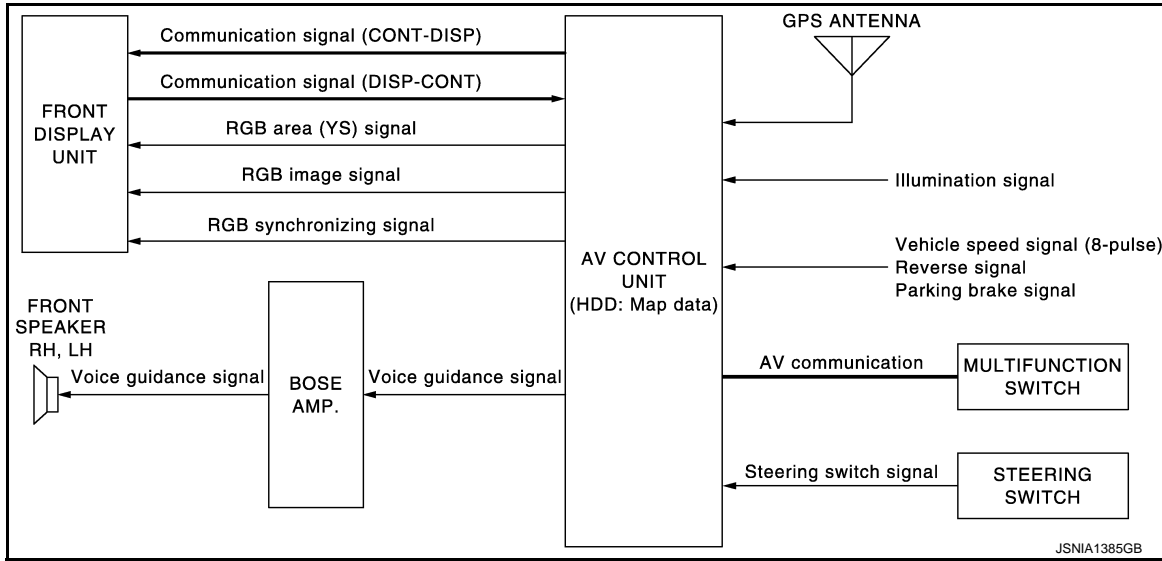
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## NAVIGATION SYSTEM

### System Diagram



### System Description

INFOID:000000003825424

#### DESCRIPTION

- AV control unit controls navigation function while GPS tuner has built-in map data, GYRO (angle speed sensor), on the HDD (Hard Disk Drive).
- AV control unit inputs operation signals with communication signals, through display (touch panel), multi-function switch and steering switch.
- Guide sound is output to front speaker through BOSE amp. from AV control unit when operating navigation system.
- The vehicle position is calculated through the GYRO (angle speed sensor), vehicle sensor, signal from GPS satellite and map data stored on HDD (Hard Disk Drive), and transmits the map image signal (RGB image, RGB area, RGB synchronizing) to display.

#### POSITION DETECTION PRINCIPLE

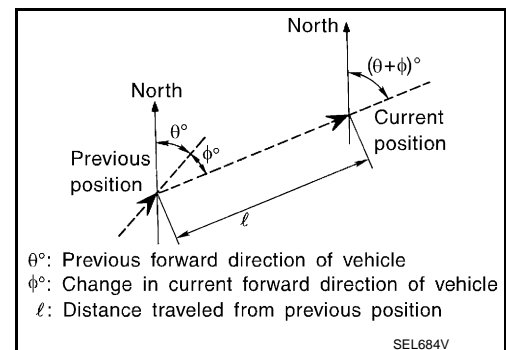
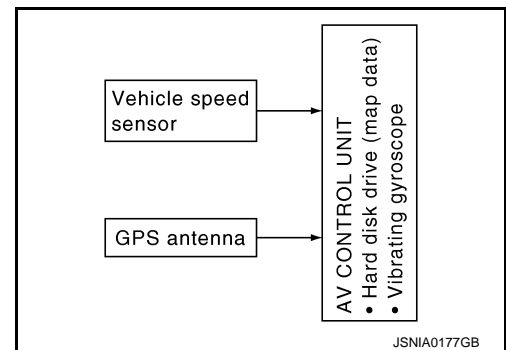
The navigation system periodically calculates the current vehicle position according to the following three types of signals.

- Travel distance of the vehicle as determined by the vehicle speed sensor
- Vehicle turning angle determined by the gyroscope (angular speed sensor)
- The travel direction of the vehicle determined by the GPS antenna (GPS information)

The current position of the vehicle is then identified by comparing the calculated vehicle position with map data, which is stored in the HDD (Hard Disk Drive) (map-matching), and indicated on the screen with the current location mark. More accurate data is used by comparing position detection results from GPS to map-matching.

The current position is calculated by detecting the travel distance from the previous calculation point, and its direction change.

- **Travel distance**  
The travel distance is generated from the vehicle speed sensor input signal. The automatic distance correction function is adopted for preventing a miss-detection of the travel distance because of tire wear etc.
- **Travel direction**  
The gyroscope (angular velocity sensor) and GPS antenna (GPS information) detect a change in travel direction. Both have advantages and disadvantages as per the following descriptions.





# NAVIGATION SYSTEM

## < SYSTEM DESCRIPTION >

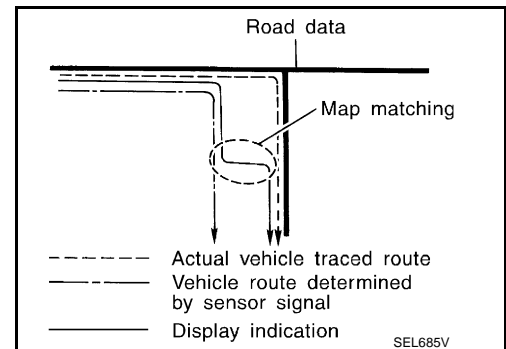
## [NAVIGATION (TWIN MONITOR)]

Type	Advantage	Disadvantage
Gyroscope (angular velocity sensor)	The turning angle is precisely detected.	Errors are accumulated when driving a long distance without stopping.
GPS antenna (GPS information)	The travel direction (North/South/East/West) is detected.	The travel direction is not precisely detected when driving slowly.

Input signals are prioritized in each situation. However, this order of priority may change in accordance with more detailed travel conditions so that the travel direction is detected more accurately.

### MAP-MATCHING

Map-matching repositions the vehicle on the road map when a new location is judged to be more accurate. This is done by comparing the current vehicle position (calculated by the normal position detection method) from the map data stored in the HDD (Hard Disk Drive).

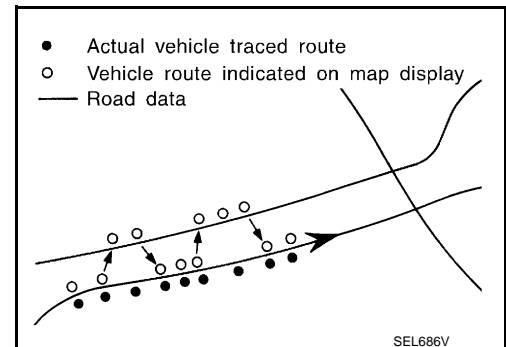


There is a possibility that the vehicle position may not be corrected in the following case, or when vehicle is driven over a certain distance or time in which GPS information is hard to receive. Manually correct the current location mark on the screen.

- In map-matching, several alternative routes are prepared and prioritized in addition to the road detected as currently being driven on.

Therefore, due to errors in the distance and/or direction, an incorrect road may be prioritized, and the current location mark may be repositioned to the incorrect road.

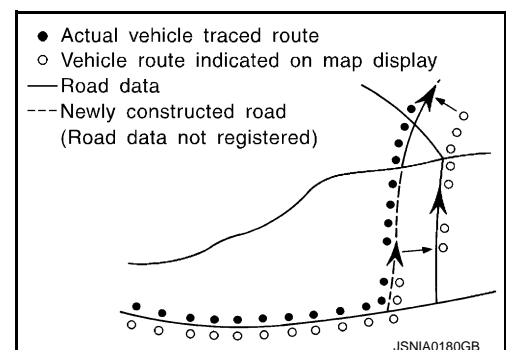
If two roads are running parallel, they are of the same priority. Therefore, the current location mark may appear on either of them alternately, depending on steering wheel movement and road configuration, etc.



- Map-matching does not function correctly when road that the vehicle is driving on new, etc, or not recorded in the map data. Also, map-matching does not function correctly when road patterns stored in the map data and the actual road pattern are different due to repair, etc.

Therefore, the map-matching function judges an other road as currently being driven on road if the road is not on the map, and displays the current location mark on it. Later, the current location mark may be repositioned if the correct road is detected.

- Effective range for comparing the vehicle position and travel direction calculated by the distance and direction with the road data is limited. Therefore, correction by map-matching is not possible when there is an excessive gap between current vehicle position and the position on the map.



### GPS (GLOBAL POSITIONING SYSTEM)



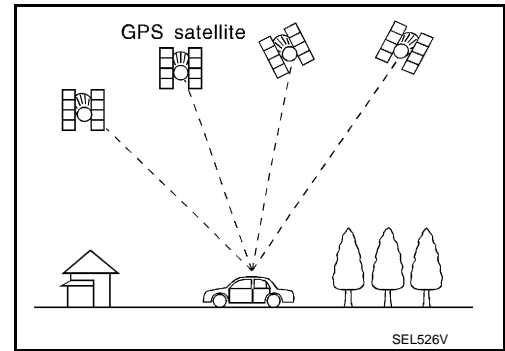
# NAVIGATION SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

GPS (Global Positioning System) is developed for and is controlled by the US Department of Defense. The system utilizes GPS satellites (NAVSTAR), transmitting out radio waves while flying on an orbit around the earth at an altitude of approximately 21,000 km (13,048 mile).

The receiver calculates the travel position in three dimensions (latitude/longitude/altitude) according to the time lag of the radio waves that four or more GPS satellites transmit (three-dimensional positioning). The GPS receiver calculates the travel position in two dimensions (latitude/longitude) with the previous altitude data if the GPS receiver receives only three radio waves (two-dimensional positioning). GPS position correction is not performed while the vehicle is stopped.



Accuracy of the GPS will deteriorate under the following conditions:

- In two-dimensional positioning, GPS accuracy will deteriorate when altitude of the vehicle position changes.
- The position of GPS satellite affects GPS detection precision. The position detection may not be precisely performed.
- The position detection is not performed if GPS receiver does not receive radio waves from GPS satellites. (Inside a tunnel, parking in a building, under an elevated highway etc.) GPS receiver may not receive radio waves from GPS satellites if any object is placed on the GPS antenna.

### NOTE:

- The detection result has an error of approximately 10 m (32.8 ft) even with a high-precision three dimensional positioning.
- There may be cases when the accuracy is lowered and radio waves are stopped intentionally because the GPS satellite signal is controlled by the US trace control center.



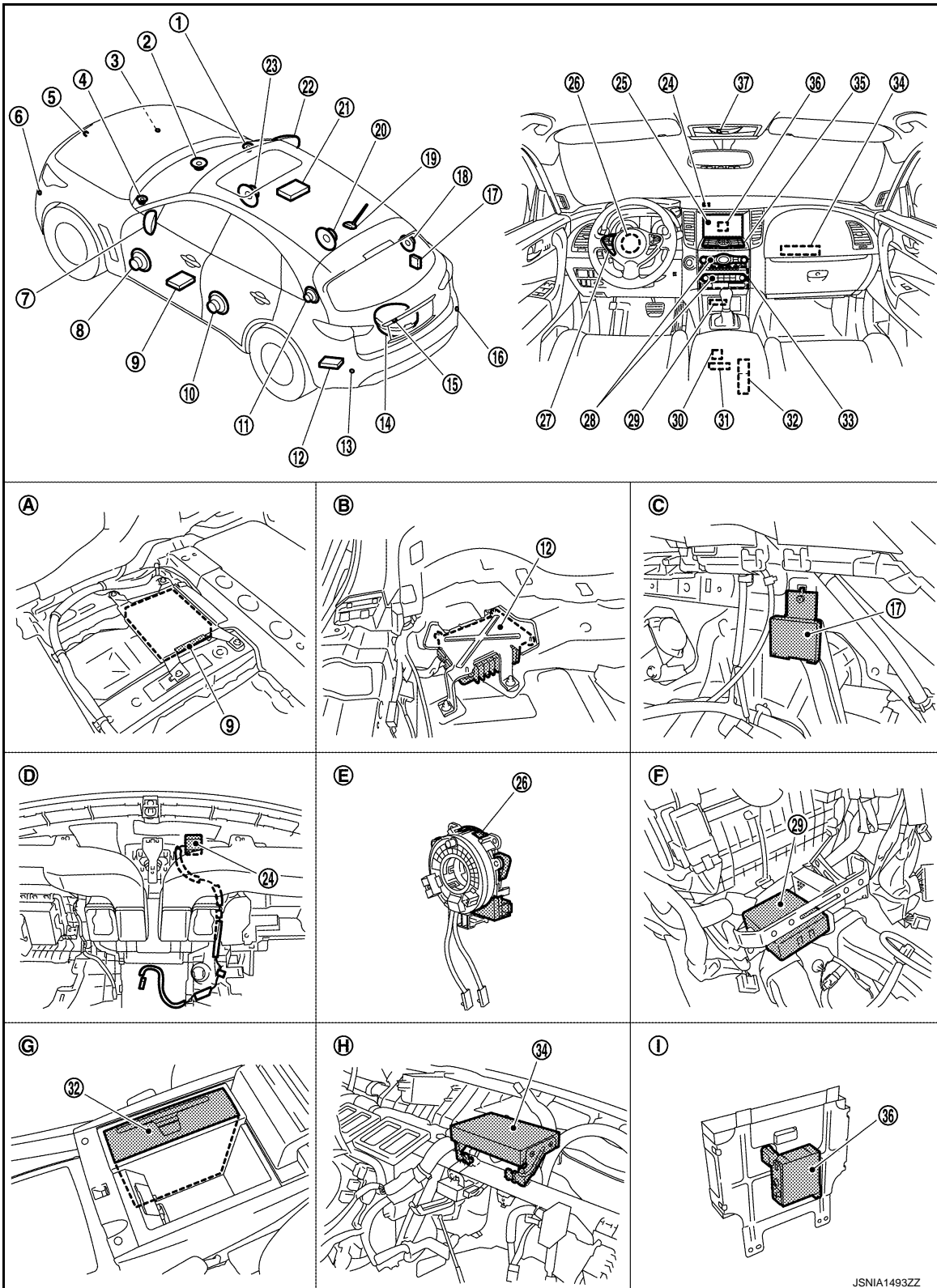
# NAVIGATION SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## Component Parts Location

INFOID:000000003931412



- |                          |                          |                                     |
|--------------------------|--------------------------|-------------------------------------|
| 1. Front squawker RH     | 2. Center speaker        | 3. Corner sensor front RH           |
| 4. Front squawker LH     | 5. Front camera          | 6. Corner sensor front LH           |
| 7. Side camera LH        | 8. Front door speaker LH | 9. Around view monitor control unit |
| 10. Rear door speaker LH | 11. Rear squawker LH     | 12. BOSE amp.                       |

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# NAVIGATION SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

13. Corner sensor rear LH	14. Woofer	15. Rear camera
16. Corner sensor rear RH	17. Buzzer	18. Rear squawker RH
19. Antenna base (antenna amp. and satellite antenna)	20. Rear door speaker RH	21. Rear display unit
22. Side camera RH and infrared LED (auxiliary lighting)	23. Front door speaker RH	24. GPS antenna
25. Front display unit	26. Steering angle sensor	27. Steering switch
28. Preset switch	29. Sonar control unit (with around view monitor)	30. iPod connector
31. Auxiliary input jacks	32. DVD player	33. AV control unit
34. Video distributor	35. Multifunction switch	36. iPod adapter
37. Microphone		
A. Under front seat (LH side)	B. Luggage floor (LH side)	C. Luggage side RH
D. Instrument panel rear side	E. Spiral cable part	F. Console pocket assembly removed condition
G. In center console	H. Instrument panel assembly removed condition	I. Rear view of the front display unit

## Component Description

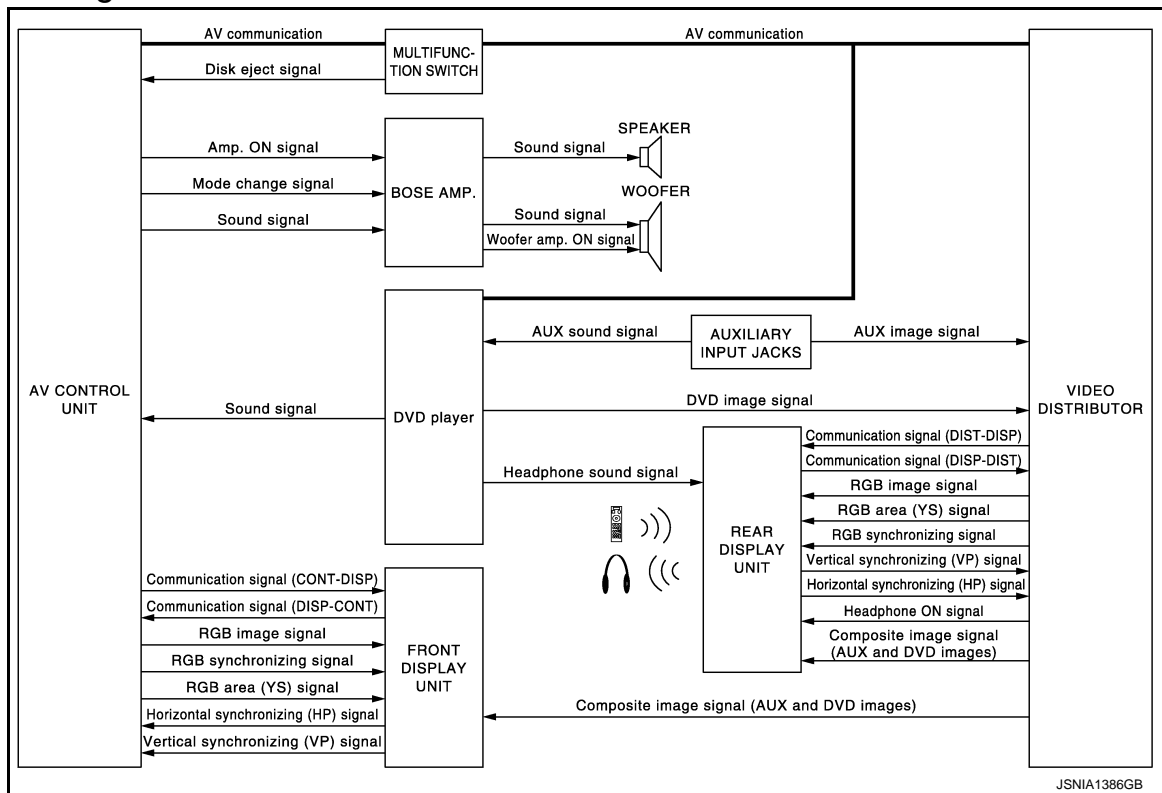
INFOID:000000003825426

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>It is the master unit that controls each operation of the Navigation system.</li> <li>The HDD (Hard Disk Drive) is built in, and the map data is stored in HDD.</li> <li>The RGB image signal (map information) is output to front display unit.</li> <li>The voice guidance signal is output to BOSE amp.</li> </ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> <li>RGB image signal (map information) is input from AV control unit, and it is indicated on front display unit.</li> <li>Each operation of navigation can be performed by the touch panel function.</li> </ul>
BOSE AMP.	Voice guidance signal is input from AV control unit, and it is output to front LH/RH speakers.
FRONT DOOR SPEAKER	Voice guidance signal from BOSE amp. is output.
FRONT SQUAWKER	
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"> <li>Each operation of navigation can be performed.</li> <li>Connected with preset switch via cables and operation signal is transmitted to AV control unit via AV communication.</li> </ul>
STEERING SWITCH	<ul style="list-style-type: none"> <li>Each operation of navigation, etc. can be performed.</li> <li>Switch operating signal is output to AV control unit.</li> </ul>
GPS ANTENNA	GPS signal is received and is output to AV control unit.



## MOBILE ENTERTAINMENT SYSTEM

## System Diagram



## System Description

The passengers can enjoy watching DVD in the rear seat with the rear display unit. They can also listen to a DVD and AUX in the rear seat independently by cordless headphones.

## FUNCTION DESCRIPTION

## Operating Signal

The mobile entertainment system can be controlled by the rear seat remote controller.

It receives the operation signal of the rear seat remote controller by the remote control receiver and rear display unit, and then transmits it to the video distributor.

## Screen Rear Display

- Switching of display is performed with serial communication between rear display unit and video distributor.
- The rear display unit receives the DVD/AUX image signal and RGB image signal from the video distributor.

## Screen Front Display

- Switching of display is performed with serial communication between front display unit and AV control unit.
- The front display unit receives the DVD/AUX image signal from the video distributor.
- The front display unit receives the RGB image signal from the AV control unit.

## DVD Mode

- The DVD player is connected to the AV control unit via AV communication and controlled by the AV control unit.
- The DVD player sound signal is output to the AV control unit. The AV control unit outputs DVD player sound signal to BOSE amp. The BOSE amp. outputs it to each speaker.
- The DVD image signal is output to the video distributor. The video distributor outputs it to front display unit and rear display unit.

## AUX Mode

Refer to [AV-620, "System Description"](#).



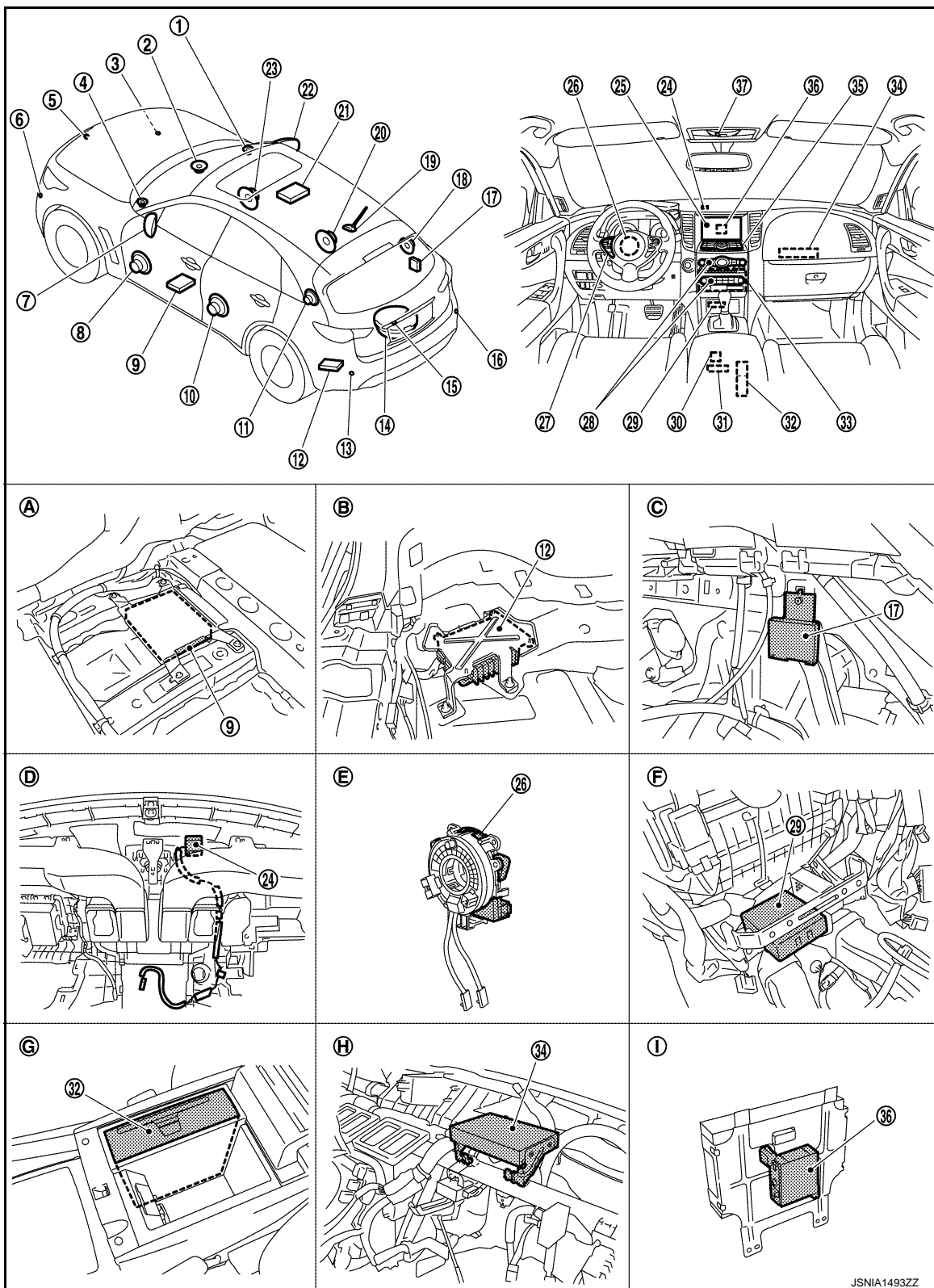
# MOBILE ENTERTAINMENT SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## Component Parts Location

INFOID:000000003931413



- |                          |                          |                                     |
|--------------------------|--------------------------|-------------------------------------|
| 1. Front squawker RH     | 2. Center speaker        | 3. Corner sensor front RH           |
| 4. Front squawker LH     | 5. Front camera          | 6. Corner sensor front LH           |
| 7. Side camera LH        | 8. Front door speaker LH | 9. Around view monitor control unit |
| 10. Rear door speaker LH | 11. Rear squawker LH     | 12. BOSE amp.                       |

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# MOBILE ENTERTAINMENT SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

13. Corner sensor rear LH	14. Woofer	15. Rear camera	
16. Corner sensor rear RH	17. Buzzer	18. Rear squawker RH	A
19. Antenna base (antenna amp. and satellite antenna)	20. Rear door speaker RH	21. Rear display unit	
22. Side camera RH and infrared LED (auxiliary lighting)	23. Front door speaker RH	24. GPS antenna	B
25. Front display unit	26. Steering angle sensor	27. Steering switch	
28. Preset switch	29. Sonar control unit (with around view monitor)	30. iPod connector	C
31. Auxiliary input jacks	32. DVD player	33. AV control unit	
34. Video distributor	35. Multifunction switch	36. iPod adapter	D
37. Microphone			
A. Under front seat (LH side)	B. Luggage floor (LH side)	C. Luggage side RH	
D. Instrument panel rear side	E. Spiral cable part	F. Console pocket assembly removed condition	E
G. In center console	H. Instrument panel assembly removed condition	I. Rear view of the front display unit	F

## Component Description

INFOID:000000004057620

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Update of map data is performed with the CONSULT-III and the applicable cable.</li> </ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> <li>Front display image is controlled by the serial communication from AV control unit.</li> <li>RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing).</li> <li>Composite image signal (DVD and auxiliary images) is input from the video distributor.</li> <li>Camera image signal input to around view monitor control unit.</li> <li>Synchronize signal (HP, VP) is output to AV control unit.</li> <li>Touch panel function can be operated for each system by touching a display directly.</li> </ul>
REAR DISPLAY UNIT	<ul style="list-style-type: none"> <li>Rear display image is controlled by the serial communication from video distributor.</li> <li>RGB image signal is input from video distributor (RGB image and RGB area).</li> <li>Composite image signal (DVD and auxiliary images) is input from the video distributor.</li> <li>Synchronize signal (HP, VP) is output to video distributor.</li> <li>It receives the DVD/AUX sound signal from the DVD player, and then transmits it to the headphones.</li> <li>It operates by receiving the headphone ON signal from the video distributor.</li> </ul>
VIDEO DISTRIBUTOR	<ul style="list-style-type: none"> <li>It receives the image signal from the DVD player, and auxiliary input jack, and then transmits it to the front display unit and rear display unit.</li> <li>It transmits headphone ON signal to rear display unit.</li> </ul>



# MOBILE ENTERTAINMENT SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Part name	Description
DVD PLAYER	<ul style="list-style-type: none"><li>• It transmits the playback DVD image signal to the video distributor. It also transmits the input AUX sound signal to the AV control unit.</li></ul>
BOSE AMP.	<ul style="list-style-type: none"><li>• Inputs power (amp. ON) and sound signal from AV control unit, and outputs sound signal to woofer and each speaker.</li><li>• Input "Driver's Audio Stage" mode change signal from AV control unit.</li><li>• Woofer amp. ON signal is transmitted to woofer.</li></ul>
FRONT DOOR SPEAKER	<ul style="list-style-type: none"><li>• Outputs sound signal from BOSE amp.</li><li>• Outputs sound (mid and low range).</li></ul>
REAR DOOR SPEAKER	<ul style="list-style-type: none"><li>• Outputs sound signal from BOSE amp.</li><li>• Outputs sound (mid and low range).</li></ul>
FRONT SQUAWKER	<ul style="list-style-type: none"><li>• Outputs sound signal from BOSE amp.</li><li>• Outputs sound (high and mid range).</li></ul>
REAR SQUAWKER	<ul style="list-style-type: none"><li>• Outputs sound signal from BOSE amp.</li><li>• Outputs sound (high and mid range).</li></ul>
CENTER SPEAKER	<ul style="list-style-type: none"><li>• Outputs sound signal from BOSE amp.</li><li>• Outputs sound (high and mid range).</li></ul>
WOOFER	<ul style="list-style-type: none"><li>• Inputs power (amp. ON) and sound signal from BOSE amp.</li><li>• Outputs low-frequency sound.</li></ul>
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"><li>• Operation panel is equipped with the centralized switch where audio, auxiliary input and navigation operations are integrated.</li><li>• Connected with preset switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li></ul>
PRESET SWITCH	<ul style="list-style-type: none"><li>• Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated.</li><li>• Connected with multifunction switch via cable, and operation signal is transmitted to AV control unit via AV communication.</li><li>• The disk ejection operating signal is performed by hardwire.</li></ul>
AUXILIARY INPUT JACKS	Image signal of auxiliary input is output to video distributor, and sound signal is output to DVD player.



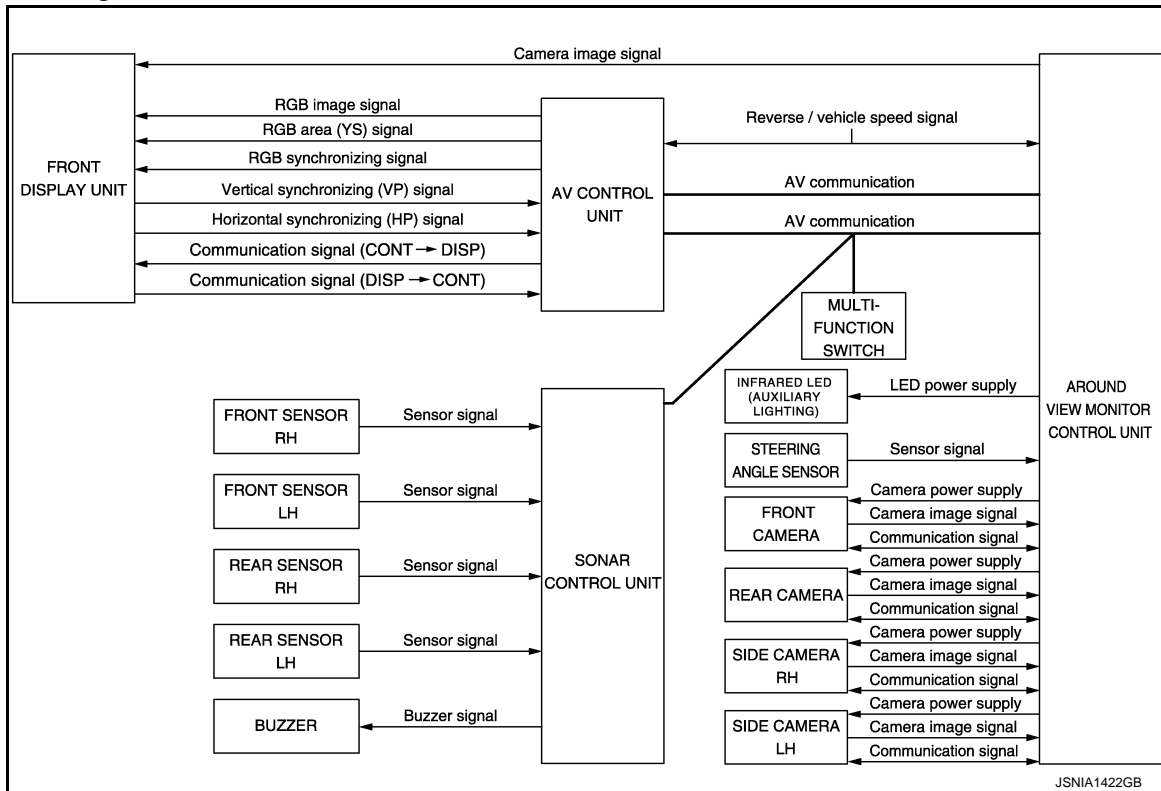
# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## AROUND VIEW MONITOR SYSTEM

### System Diagram



### System Description

INFOID:0000000003825432

- This system is equipped with wide-angle high-resolution cameras on the front and rear of the vehicle and on both right and left door mirrors. The images from front view, rear view, front-side view (RH side), and birds-eye view that shows the view from the top of the vehicle are displayed to monitor the vehicle surroundings.
- Around view monitor control unit cuts out and expands the image received from each camera to create each view.
- The sonar indicator is displayed on display (superimposed on the camera image) in combination with the camera assistance sonar system to warn of the approach of an obstacle.
- In front view and rear view, the vehicle width, distance lines and predicted course lines are superimposed and displayed. In front-side view, the vehicle distance guiding line and vehicle width guiding line are displayed.
- The Birds-Eye view converts the images from 4 cameras into the overhead view and displays the status of the vehicle on display. The vehicle icon and sonar indicator that are displayed on the Birds-Eye view display are rendered by around view monitor control unit.

### AROUND VIEW MONITOR SCREEN

- Around view monitor combines and displays the travel direction view and “Birds-Eye view”, “Front-Side view”, and then it displays the sonar indicator on the “Birds-Eye view”, “Front-Side view”.
- AV control unit renders the “Change View”, “BEEP” switch, view icon, warning message on display.

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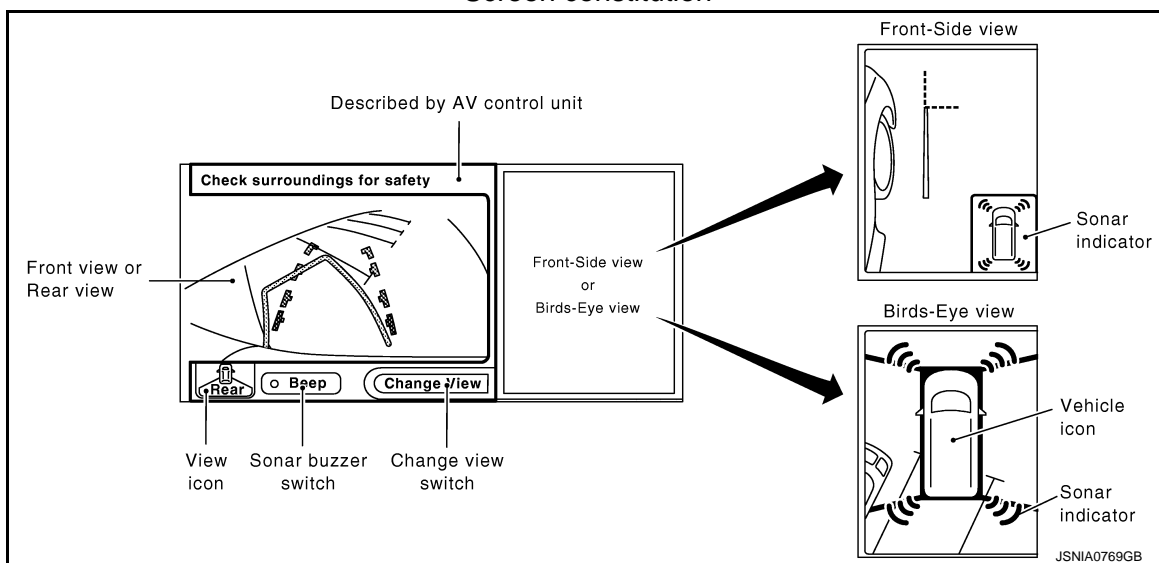


# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## Screen constitution



## OPERATION DESCRIPTION

- Around view monitor operates by pressing the “CAMERA” switch of multifunction switch and shifting the selector switch to the reverse position.
- When the selector lever is in any position other than the reverse position, the screen is switched to the around view monitor by pressing the “CAMERA” switch.
- The screen is switched to the around view monitor by shifting the selector lever to the reverse position.
- In the around view monitor, Birds-Eye view and Front-side view can be switched by pressing the “CAMERA” switch or the touch switch of display.
- The “Front-Side and Front screen” are displayed as a priority when turning “Default to Front-Side View” ON.
- The around view monitor is cancelled 3 minutes after pressing the “CAMERA” switch, and then the screen returns to the screen before displaying the around view monitor when selector lever is in a position other than the “R” position.
- ON/OFF setting of sonar indicator display on the Front-Side view screen can be performed.
- In the Birds-Eye view, the invisible area is displayed on the image to specify the boundary of the 4 cameras. The invisible area is displayed in yellow in the Birds-Eye view after turning the ignition switch ON.
- The sonar (both of buzzer and indicator) operates only when the camera screen is displayed.

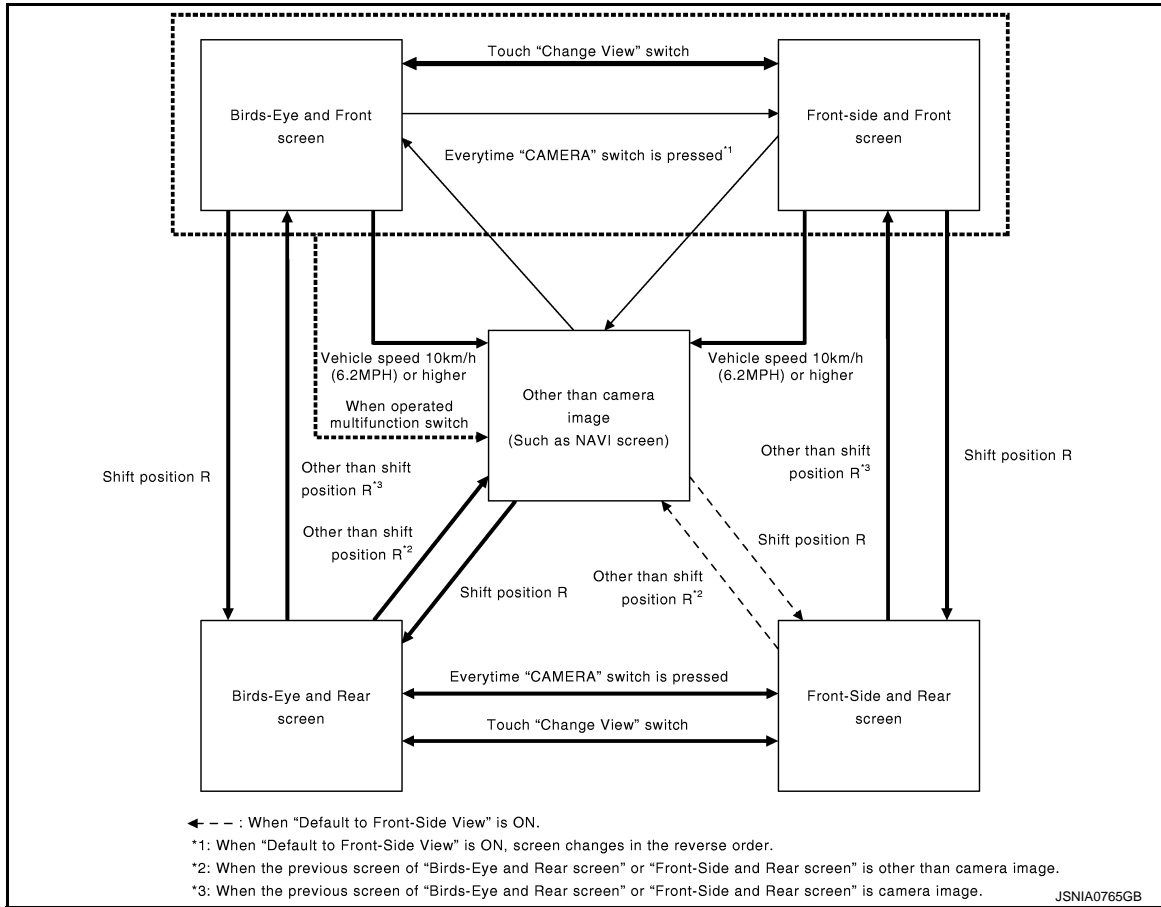


# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Around view monitor screen transition



## FRONT VIEW

- The front view image is from the front camera.
- When the selector lever is in any position other than the reverse position, the front view is displayed by pressing the "CAMERA" switch. It improves the visibility of obstacles in front of the vehicle and helps driving by the images displayed from Birds-Eye view and Front-Side view.
- Display the vehicle width guiding line and vehicle distance guiding line in front view and display the predicted course line according to the steering angle.
- If the steering angle is within approximately 90 degrees, the predicted course lines on the left/right side are displayed. If the steering angle is exceeding approximately 90 degrees, only the predicted course line on the outside (in the opposite side of steering direction) is displayed.
- Around view monitor control unit controls the direction and distance of the predicted course line according to the sensor signal from steering angle sensor.

AV

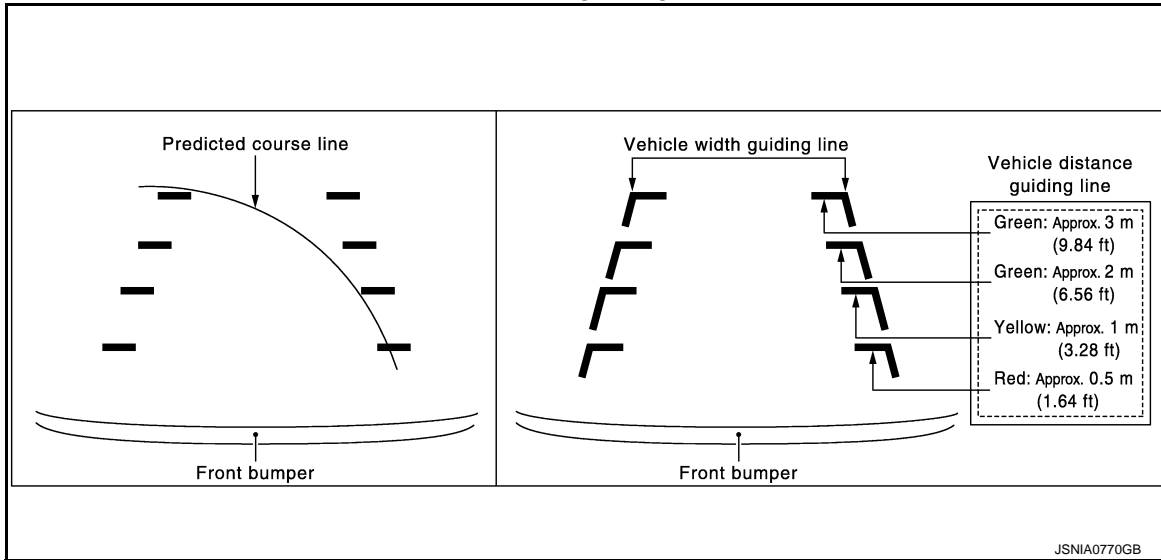


# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

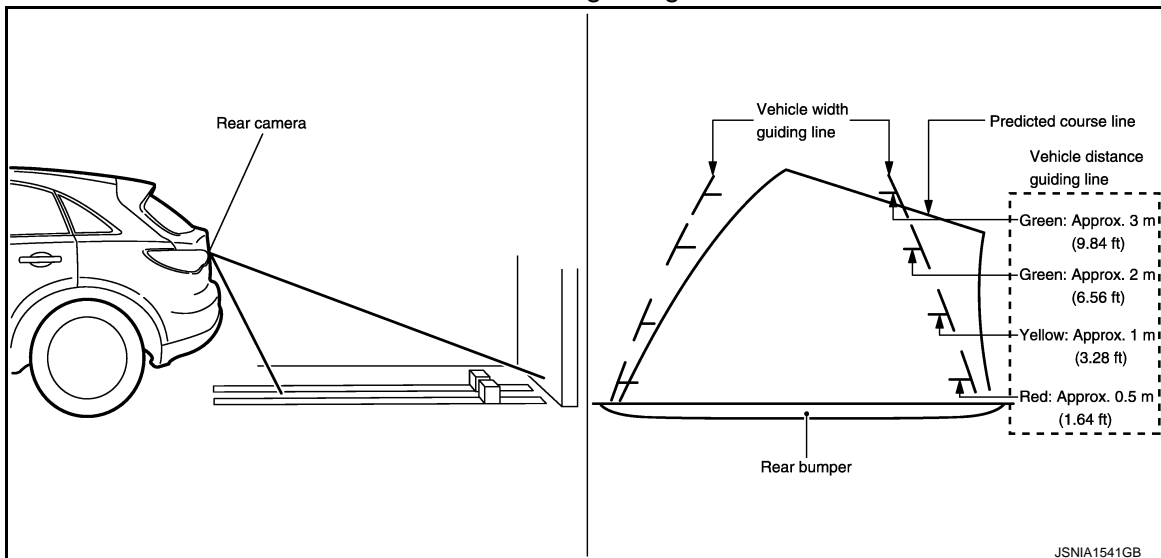
Front view guiding lines



## REAR VIEW

- The rear view image is from the rear camera.
- When the selector lever is in the reverse position, the rear view is displayed. Backing and parking are improved by the images from Birds-Eye view and Front-Side view.
- Display the vehicle width guiding line and vehicle distance guiding line in Rear view and display the predicted course line according to the steering angle.
- The predicted course line is not displayed at the steering neutral position. The predicted course line is displayed and the vehicle width guiding line is not displayed by turning the steering wheel.
- Around view monitor control unit controls the direction and distance of predicted course line according to the sensor signal from steering angle sensor.

Rear view guiding lines



## FRONT-SIDE VIEW

- The front-side view image is from the side camera RH.
- In Front-Side view, display the vehicle distance guiding line and vehicle width guiding line.
- The infrared LED illumination is installed on the door mirror RH to illuminate around the front wheels.

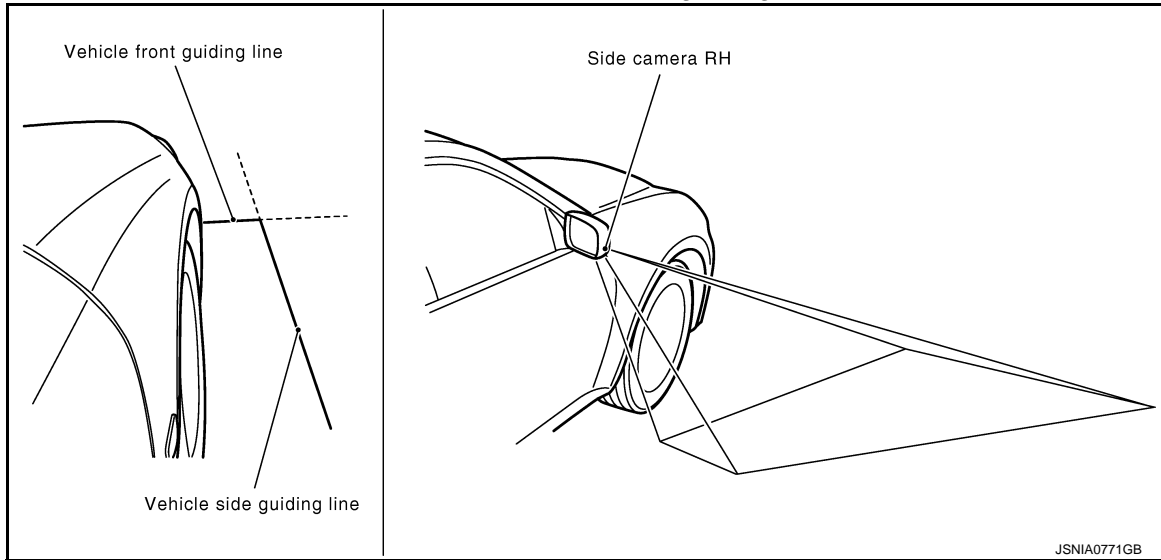


# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

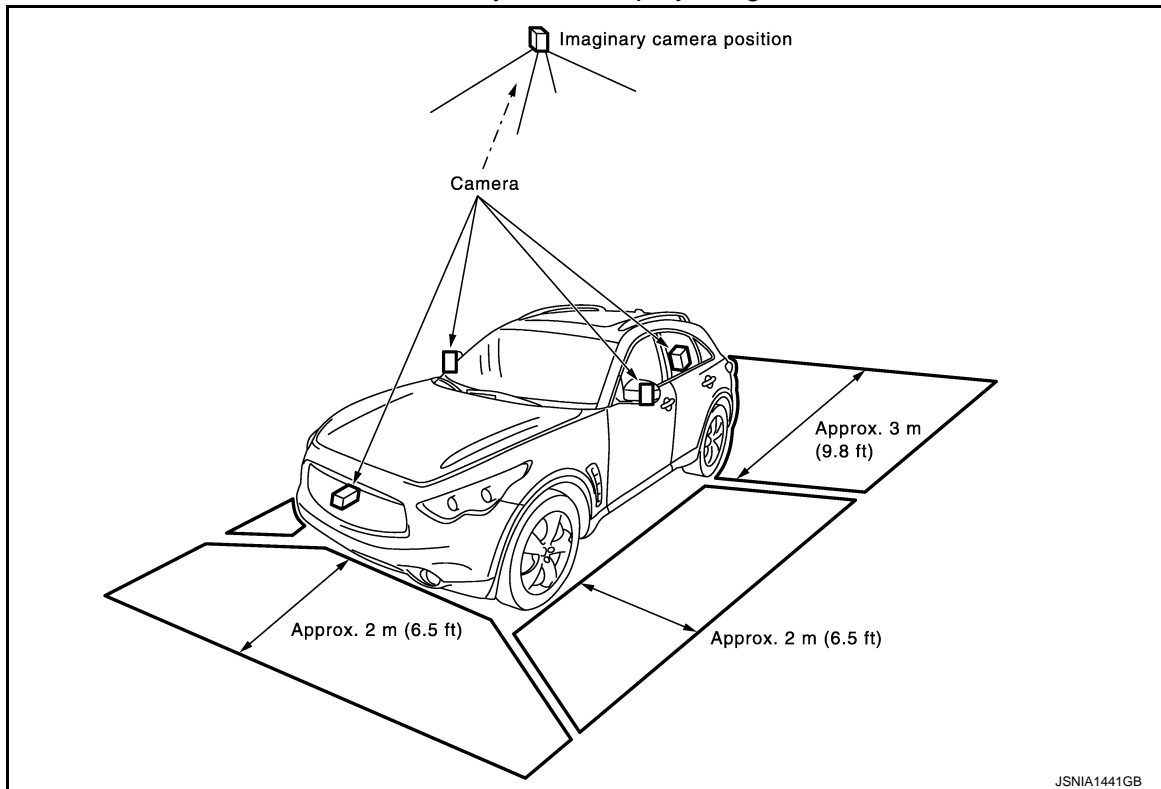
Front-side view area and guiding line



## BIRDS-EYE VIEW

- The image from the 4 cameras is cut out and converted into the overhead view, and the surroundings of the vehicle is displayed in birds-eye view.
- In Birds-Eye view, the invisible area is displayed on the image to specify the boundary of the 4 cameras.
- The invisible area is displayed in yellow in the Birds-Eye view after turning the ignition switch ON as an information for the user. (OFF setting can be performed)

Birds-Eye view display image



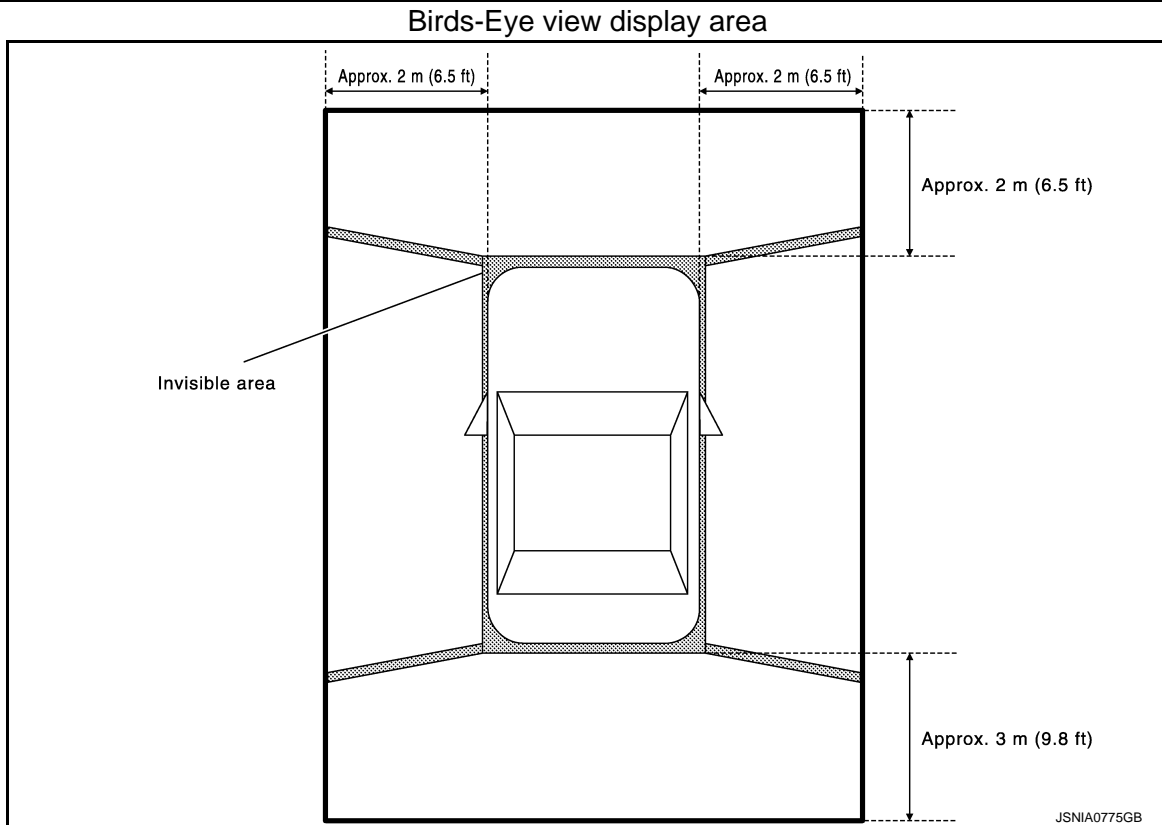
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# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]



## CAMERA IMAGE OPERATION PRINCIPLE

- If the information writing to around view monitor control unit and the information from the camera are not matched, the applicable camera position is indicated as an error on the Birds-Eye view display. (Calibration operation is necessary when replacing each camera or when replacing around view monitor control unit.)
- Around view monitor control unit receives the camera switch signal from AV control unit via AV communication by pressing the "CAMERA" switch of multifunction switch.
- Around view monitor control unit that receives the camera switch signal supplies the power to each camera and inputs the camera image from each camera.
- When the selector lever is in the reverse position, around view monitor control unit receives the reverse signal from AV control unit via AV communication, supplies the power to each camera, and inputs the camera image from each camera.
- Around view monitor control unit that receives the camera image signal from each camera cuts out the required screen for each view, superimposes the camera image, vehicle icon, guiding lines, sonar indicator, and outputs them to the display unit.

## PREDICTED COURSE LINE OPERATION PRINCIPLE

Detection of steering rotation direction

Around view monitor control unit detects the rotation direction of steering according to the phase difference of two pairs of pulse signals (sensor signal 1 and sensor signal 2) input from steering angle sensor.

Detection of steering neutral position

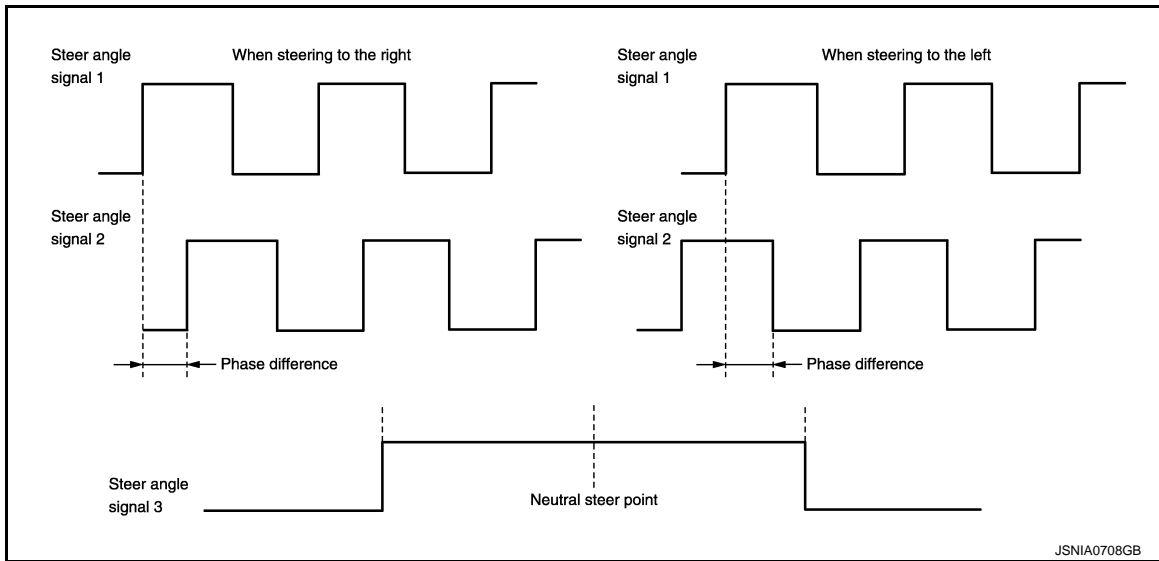
The sensor signal 3 input from the steering angle sensor is generated at 1 pulse per 1 rotation of the steering wheel. Around view monitor control unit detects the steering neutral position from this pulse.



# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]



## Correction of steering neutral position

Around view monitor control unit corrects the steering neutral position during driving according to the vehicle speed signal and steering angle sensor signal.

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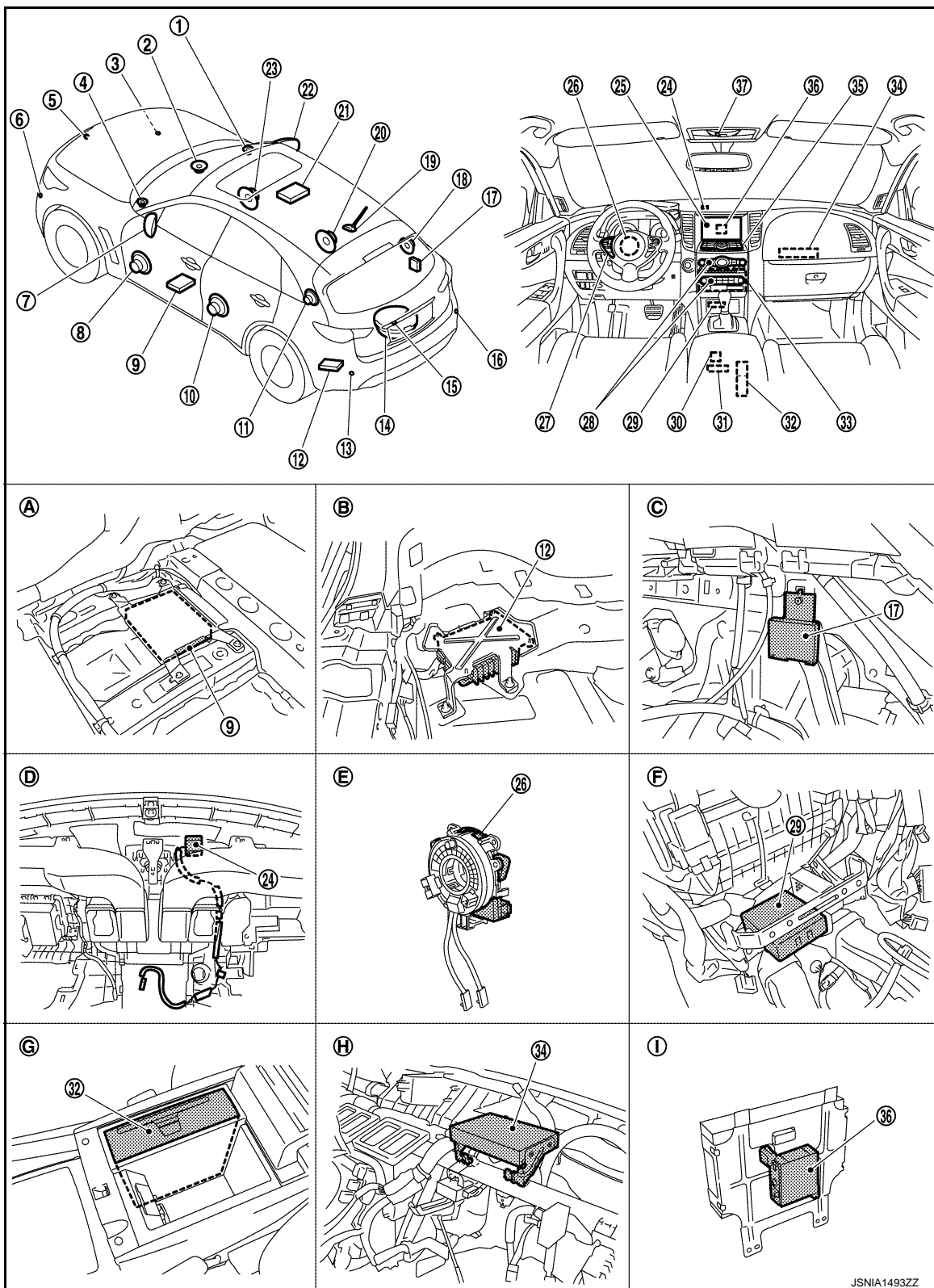
# AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## Component Parts Location

INFOID:000000003931414



1. Front squawker RH
4. Front squawker LH
7. Side camera LH
10. Rear door speaker LH

2. Center speaker
5. Front camera
8. Front door speaker LH
11. Rear squawker LH

3. Corner sensor front RH
6. Corner sensor front LH
9. Around view monitor control unit
12. BOSE amp.

JSNIA1493ZZ



# AROUND VIEW MONITOR SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

- |  |   |  |   |
|--|---|--|---|
| 13. Corner sensor rear LH                                | 14. Woofer  | 15. Rear camera                              | A |
| 16. Corner sensor rear RH                                | 17. Buzzer  | 18. Rear squawker RH                         |   |
| 19. Antenna base (antenna amp. and satellite antenna)    | 20. Rear door speaker RH                          | 21. Rear display unit                        |   |
| 22. Side camera RH and infrared LED (auxiliary lighting) | 23. Front door speaker RH                         | 24. GPS antenna                              | B |
| 25. Front display unit                                   | 26. Steering angle sensor                         | 27. Steering switch                          | C |
| 28. Preset switch  | 29. Sonar control unit (with around view monitor) | 30. iPod connector                           |   |
| 31. Auxiliary input jacks                                | 32. DVD player                                    | 33. AV control unit                          |   |
| 34. Video distributor                                    | 35. Multifunction switch                          | 36. iPod adapter                             | D |
| 37. Microphone   |   |  | E |
| A. Under front seat (LH side)                            | B. Luggage floor (LH side)                        | C. Luggage side RH                           |   |
| D. Instrument panel rear side                            | E. Spiral cable part                              | F. Console pocket assembly removed condition |   |
| G. In center console                                     | H. Instrument panel assembly removed condition    | I. Rear view of the front display unit       | F |

## Component Description

INFOID:000000003825434

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Image on display is switched to around view monitor by serial communication between AV control unit and front display unit.</li> <li>Warning displayed in around view monitor image is illustrated.</li> </ul>
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> <li>Camera image signal is transmitted from around view monitor control unit, and RGB image signal for warning display is transmitted from AV control unit.</li> <li>Around view monitor image is switched by serial communication between AV control unit and front display unit.</li> </ul>
MULTIFUNCTION SWITCH	It transmits the CAMERA switch signal via AV communication to AV control unit.
AROUND VIEW MONITOR CONTROL UNIT	<ul style="list-style-type: none"> <li>It supplies power to front camera, rear camera, and side camera, superimposes the images from each camera, and then outputs them to front display unit.</li> <li>It receives the CAMERA switch signal and reverse signal from AV control unit via AV communication.</li> <li>Superimpose the guiding line, predicted course line and sonar indicator to the camera image that outputs to front display unit.</li> <li>It performs the reception/transmission of communication signal with each camera.</li> <li>Input the sensor signal from steering angle sensor, and then control the predicted course line.</li> <li>It transmits the information received/transmitted with sonar control unit via AV communication to AV control unit.</li> </ul>
FRONT CAMERA	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle front to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>
REAR CAMERA	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle rear to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>
SIDE CAMERA LH	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle LH to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>
SIDE CAMERA RH	<ul style="list-style-type: none"> <li>It inputs the power supply from around view monitor control unit and outputs the image of the vehicle RH to around view monitor control unit.</li> <li>It performs the reception/transmission of the communication signal with around view monitor control unit.</li> </ul>

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## AROUND VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Part name	Description
INFRARED LED (AUXILIARY LIGHTING)	It illuminates around the front RH wheel by the power supply from around view monitor control unit to improve nighttime visibility of Front-Side view.
SONAR CONTROL UNIT	<ul style="list-style-type: none"><li>• It is connected with around view monitor control unit via AV communication and receives the sonar operation signal from around view monitor control unit.</li><li>• It transmits the sonar detection status to around view monitor control unit via AV communication.</li></ul>
STEERING ANGLE SENSOR	Steering signal necessary for predicted course line control is transmitted to around view monitor control unit.



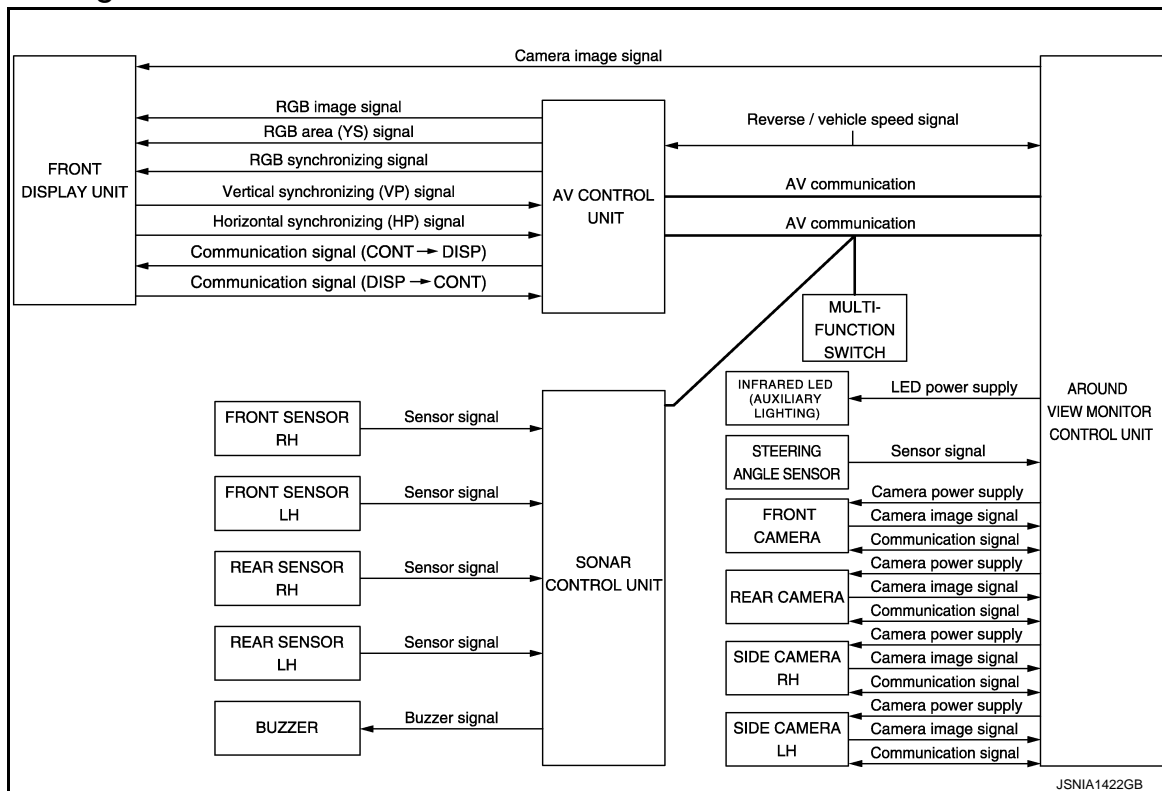
# CAMERA ASSISTANCE SONAR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## CAMERA ASSISTANCE SONAR SYSTEM

### System Diagram



### System Description

INFOID:0000000003825436

#### DESCRIPTION

- Install the corner sensor on the front bumper and rear bumper. It detects the obstacles around the vehicle when the around view monitor is displayed. It warns of the approach to the obstacles with the buzzer and indicator in the display linked with the around view monitor system.
- It displays the distance between the bumper and obstacle with the color of sonar indicator in the display and the blinking cycle of indicator in 3 stages.
- The buzzer warns of the distance to the obstacles with the cycle in 3 stages.

#### SYSTEM OPERATION DESCRIPTION

- Around view monitor control unit transmits the sonar operation signal via AV communication to sonar control unit to control the operation of sonar indicator and sonar buzzer.
- Sonar control unit that receives the sonar operation signal from around view monitor control unit transmits the detection signal and detection distance signal according to the signal from corner sensor via AV communication to around view monitor control unit. around view monitor control unit operates the applicable sonar indicator.
- Sonar control unit that receives the sonar operation signal from around view monitor control unit outputs the buzzer signal to other buzzers based on the detection distance signal from corner sensor to operate the buzzer.
- Sonar control unit has the diagnosis function. It can detect the corner sensor malfunction or sensor harness open circuit. It transmits the diagnosis results to around view monitor control unit and always displays the sonar indicator in red to inform the user.

#### OBSTACLE DETECTION DISTANCE

- Sonar control unit changes the outputs of the sonar indicator and warning buzzer in 3 stages according to the obstacle detection distance from the corner sensor.
- The sonar control unit can change the setting of obstacle detection distance in 4 stages.

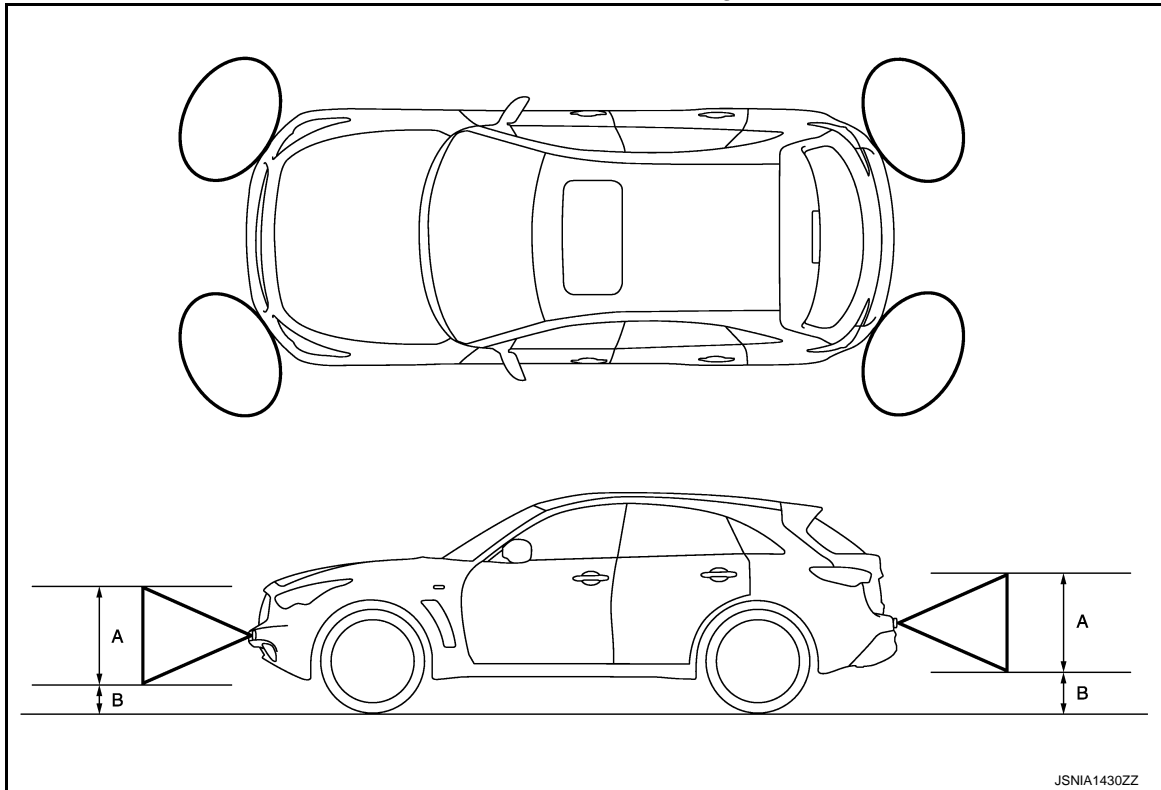


# CAMERA ASSISTANCE SONAR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Obstacle detection image



A. Approx. 50 cm (19.6 in)

B. Approx. 15 cm (5.9 in)

Detection distance

Warning item	Sensitivity level 1 (Faster warning)	Sensitivity level 2 (Default value)	Sensitivity level 3 (Slower warning)	Sensitivity level 4 (Slowest warning)
First stage warning	70 – 80 cm (27.5 – 31.4 in)	60 – 70 cm (23.6 – 27.5 in)	50 – 60 cm (29.6 – 23.6 in)	40 – 50 cm (15.7 – 19.6 in)
Second stage warning	50 – 70 cm (19.6 – 27.5 in)	40 – 60 cm (15.7 – 23.6 in)	30 – 50 cm (11.8 – 19.6 in)	30 – 40 cm (11.8 – 15.7 in)
Third stage warning	Less than 50 cm (19.6 in)	Less than 40 cm (15.7 in)	Less than 30 cm (11.8 in)	Less than 30 cm (11.8 in)

## SONAR INDICATOR DISPLAY

- Around view monitor control unit that receives the detection signal and detection distance signal from sonar control unit displays the sonar indicator on display.
- Around view monitor control unit changes the color or blinking cycle of the indicator according to the detection distance.

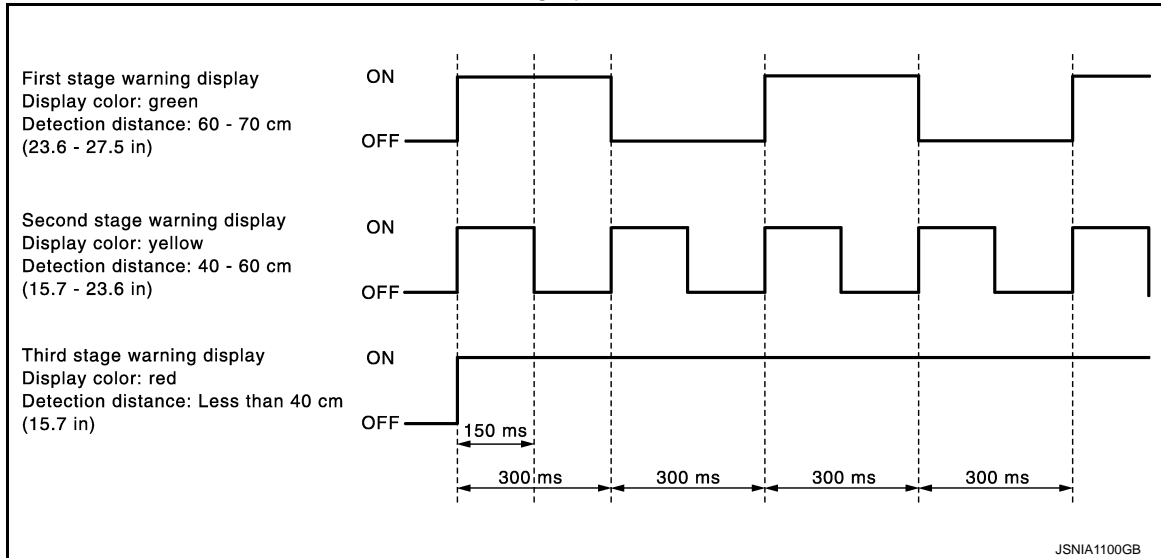


# CAMERA ASSISTANCE SONAR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

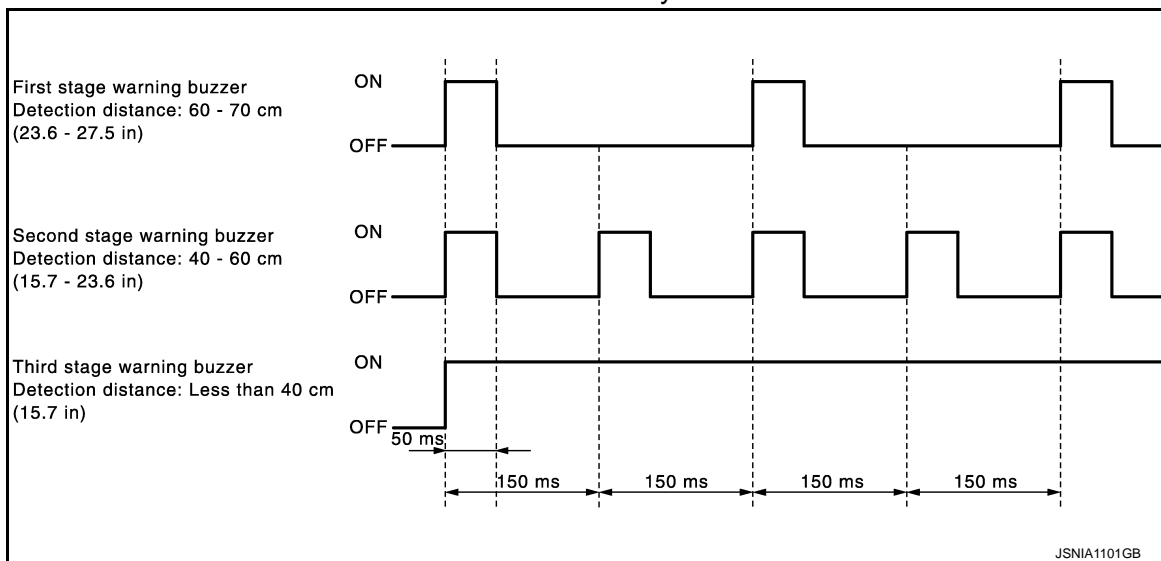
Color and blinking cycle of sonar indicator



## SONAR BUZZER OPERATION

- Sonar control unit outputs the buzzer signal to other buzzers and operates the buzzer when the detection signal is input from the corner sensor.
- It changes the buzzer cycle in 3 stages according to the detection distance.

Sonar buzzer cycle



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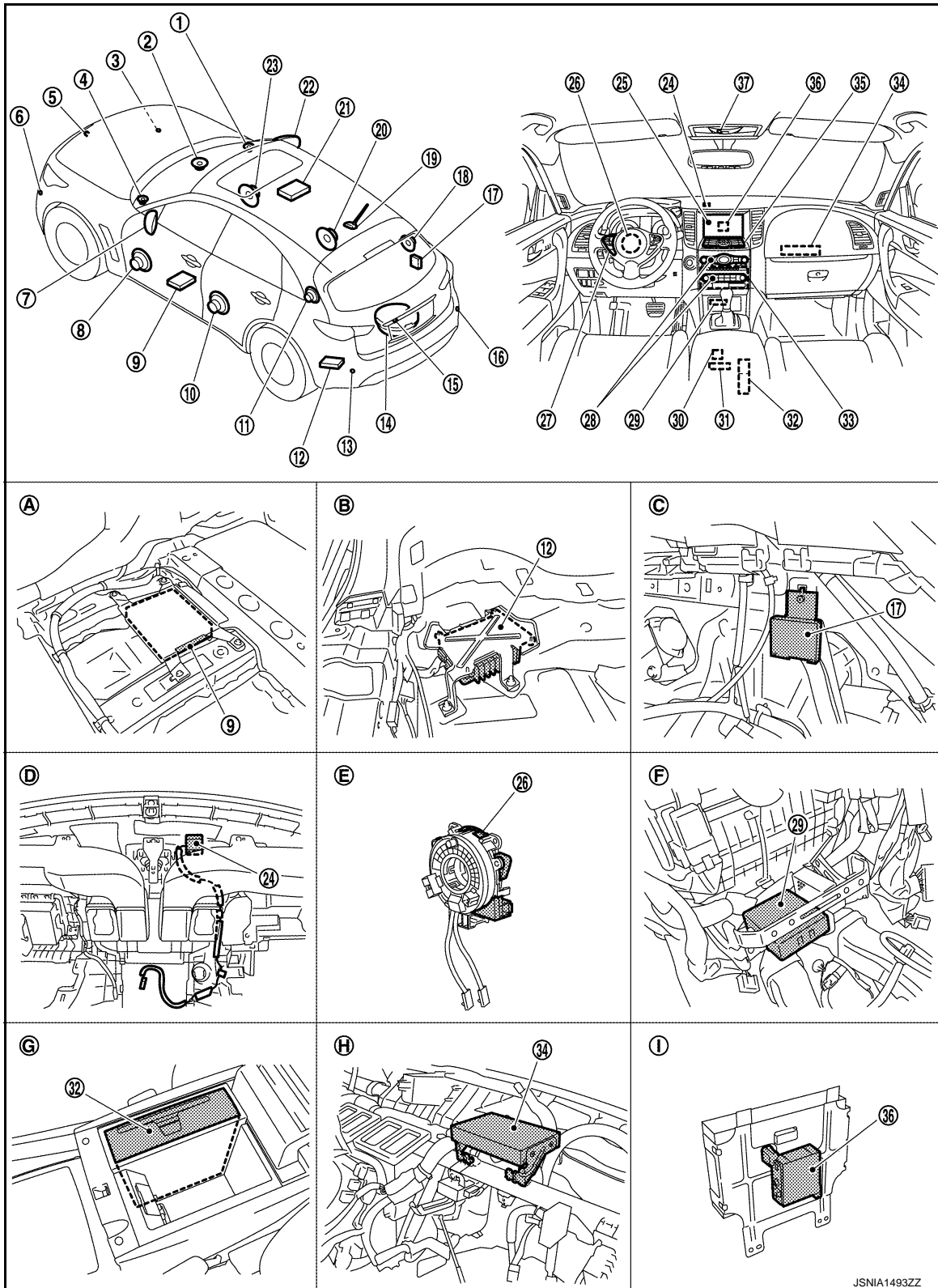
# CAMERA ASSISTANCE SONAR SYSTEM

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## Component Parts Location

INFOID:000000003931415



- |                          |                          |                                     |
|--------------------------|--------------------------|-------------------------------------|
| 1. Front squawker RH     | 2. Center speaker        | 3. Corner sensor front RH           |
| 4. Front squawker LH     | 5. Front camera          | 6. Corner sensor front LH           |
| 7. Side camera LH        | 8. Front door speaker LH | 9. Around view monitor control unit |
| 10. Rear door speaker LH | 11. Rear squawker LH     | 12. BOSE amp.                       |

JSNIA1493ZZ



# CAMERA ASSISTANCE SONAR SYSTEM

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

- |  |   |  |
|--|---|--|
| 13. Corner sensor rear LH                                | 14. Woofer  | 15. Rear camera                              |
| 16. Corner sensor rear RH                                | 17. Buzzer  | 18. Rear squawker RH                         |
| 19. Antenna base (antenna amp. and satellite antenna)    | 20. Rear door speaker RH                          | 21. Rear display unit                        |
| 22. Side camera RH and infrared LED (auxiliary lighting) | 23. Front door speaker RH                         | 24. GPS antenna                              |
| 25. Front display unit                                   | 26. Steering angle sensor                         | 27. Steering switch                          |
| 28. Preset switch  | 29. Sonar control unit (with around view monitor) | 30. iPod connector                           |
| 31. Auxiliary input jacks                                | 32. DVD player                                    | 33. AV control unit                          |
| 34. Video distributor                                    | 35. Multifunction switch                          | 36. iPod adapter                             |
| 37. Microphone   |   |  |
| A. Under front seat (LH side)                            | B. Luggage floor (LH side)                        | C. Luggage side RH                           |
| D. Instrument panel rear side                            | E. Spiral cable part                              | F. Console pocket assembly removed condition |
| G. In center console                                     | H. Instrument panel assembly removed condition    | I. Rear view of the front display unit       |

## Component Description

INFOID:000000003825438

Part name	Description
AROUND VIEW MONITOR CONTROL UNIT	<ul style="list-style-type: none"> <li>It supplies power to front camera, rear camera, and side camera. And then it superimposes the images from each camera and outputs them to front display unit.</li> <li>Superimposes the guiding line, predicted course line and sonar indicator to the camera image that outputs to front display unit.</li> <li>It performs the reception/transmission of communication signal with each camera.</li> <li>Inputs the sensor signal from the steering angle sensor, and then controls the predicted course line.</li> <li>It transmits the sonar operation signal from sonar control unit and receives the sonar information from the sonar control unit via AV communication.</li> <li>It transmits the information received/transmitted with the sonar control unit via AV communication to AV control unit.</li> </ul>
SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)	<ul style="list-style-type: none"> <li>It is connected with around view monitor control unit via AV communication and receives the sonar operation signal from around view monitor control unit.</li> <li>It transmits the sonar detection status to around view monitor control unit via AV communication.</li> <li>It judges the warning level according to the signal from corner sensor and outputs the buzzer drive signal.</li> <li>Trouble diagnosis is supported with CONSULT-III (K-LINE).</li> </ul>
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to sonar control unit.
BUZZER	The warning buzzer outputs with the signal from sonar control unit.

AV



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## DIAGNOSIS SYSTEM (AV CONTROL UNIT)

### Diagnosis Description

INFOID:000000003825439

#### MULTIFUNCTION SWITCH AND PRESET SWITCH SELF-DIAGNOSIS FUNCTION

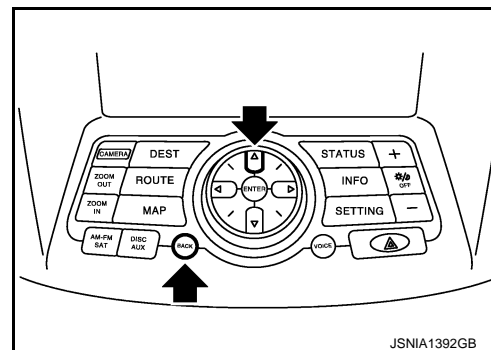
The ON/OFF operation (continuity) of each switch in multifunction switch and preset switch can be checked.

##### Self-diagnosis Mode

- Press the “BACK” switch and the “UP” switch of the 8-direction switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more. Then the buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch in the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.

##### NOTE:

The hazard switch and disk eject switch cannot be checked.



##### Finishing Self-diagnosis Mode

Self-diagnosis mode is canceled when turning the ignition switch OFF.

#### MULTI AV SYSTEM ON BOARD DIAGNOSIS FUNCTION

- AV control unit diagnosis function starts up with multifunction switch operation and AV control unit performs a diagnosis for each unit in the system during the on board diagnosis.
- Perform a CONSULT-III diagnosis if the on board diagnosis does not start, e.g., the screen does not display anything, multifunction switch does not function, etc.

### ON BOARD DIAGNOSIS

##### Description

- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- The self-diagnosis mode performs diagnoses on AV control unit, connections between system components, AV control unit and GPS antenna and between AV control unit and satellite radio antenna. Then it displays the diagnosis results on display.
- The confirmation/adjustment mode allows the technician to check, modify or adjust the vehicle signals and set values, as well as to monitor the system error records and system communication status. The checking, modifying or adjusting generally require human intervention and judgment (the system cannot make a judgment automatically).

##### On Board Diagnosis Item

Mode	Description
Self Diagnosis	<ul style="list-style-type: none"><li>AV control unit diagnosis</li><li>Diagnoses the connections across system components, between AV control unit and GPS antenna and between AV control unit and satellite radio antenna.</li></ul>



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

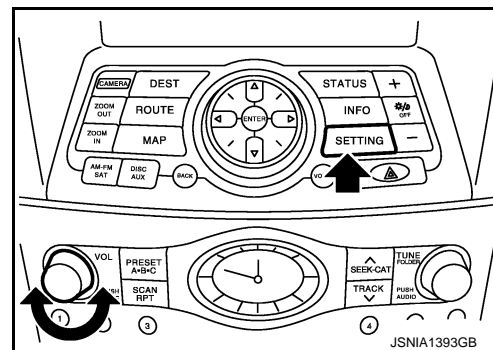
< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Mode		Description
Confirmation/ Adjustment	Display Diagnosis	The following check functions are available: color tone check by color bar display, light and shade check by gray scale display and touch panel calibration response check.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition switch, and reverse.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Climate Control	Start auto air conditioner system self-diagnosis.
	Navigation	Steering Angle Adjustment When there is a difference between the actual turning angle and the vehicle mark turning angle, it can be adjusted.
		Speed Calibration When there is a difference between the current location mark and the actual location, it can be adjusted.
		XM SAT Subscription Status The XM NavTraffic subscription status can be checked.
	Error History	The system malfunction and the frequency when occurring in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.
	Vehicle CAN Diagnosis	The transmitting/receiving of CAN communication can be monitored.
	AV COMM Diagnosis	The communication condition of each unit of Multi AV system can be monitored.
	Handsfree Phone	The received volume adjustment of hands-free phone, microphone speaker check, and erase memory can be performed.
	Camera Cont.	It can perform the confirmation of a signal connection to around view monitor control unit, the calibration of each camera, Correct Draw Line of Camera Image, and Fine Tuning of Birds-Eye View. Refer to <a href="#">AV-675</a> , "Diagnosis Description".
	Bluetooth	The passkey and the device name can be checked and changed.
	SAT	Change Channel Any necessary channels required to receive traffic information from the satellite radio system can be set.
		Change Application ID Any application IDs required to receive traffic information from the satellite radio system can be set.
		Diag Not used.
	Delete Unit Connection Log	Erase the connection history of unit and error history.
	Initialize Settings	Initializes AV control unit memory.

## STARTING PROCEDURE

1. Start the engine.
2. Turn the audio system OFF.
3. While pressing the "SETTING" button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. (When the self-diagnosis mode is starts, a short beep will sound.)
  - Shifting from current screen to previous screen is performed by pressing the "BACK" button.



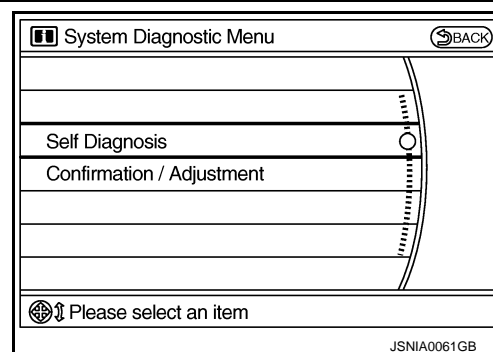


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

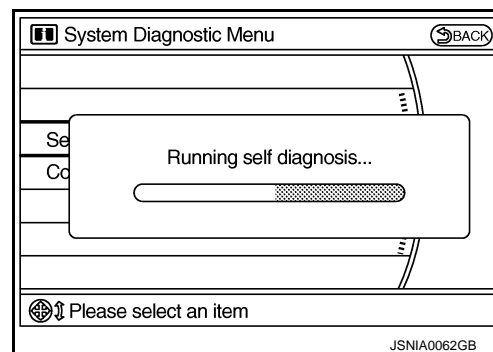
## [NAVIGATION (TWIN MONITOR)]

- The trouble diagnosis initial screen is displayed, and then the items of "Self Diagnosis" and "Confirmation/Adjustment" can be selected.

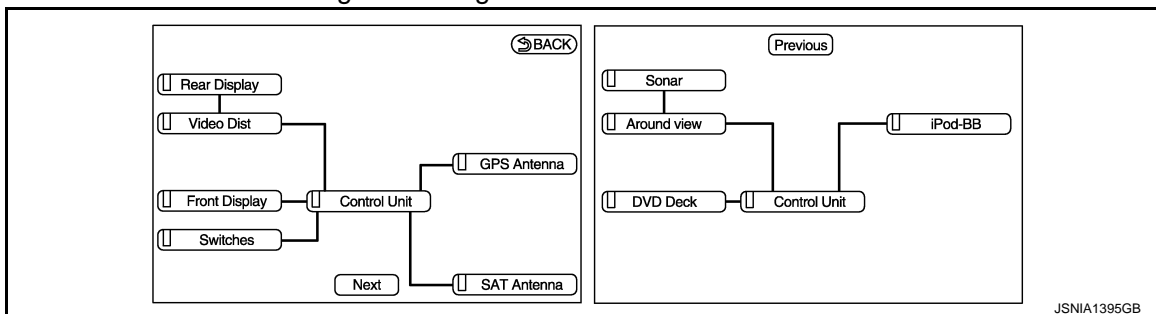


## SELF-DIAGNOSIS MODE

- Start the self-diagnosis function and select "Self Diagnosis".
  - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
  - The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.



- Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.



Diagnosis results	Unit	Con- nection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction <sup>Note</sup>	Red	Green

### NOTE:

- Only the control unit (AV control unit) is displayed in red.
- Replace AV control unit if "Self-Diagnosis did not run because of a control unit malfunction" is indicated. The symptom is an AV control unit internal error. Refer to [AV-1045, "Exploded View"](#).
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.

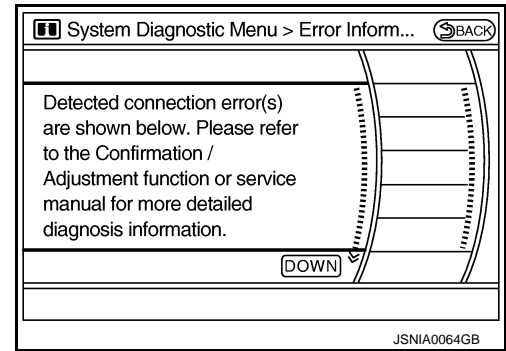


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.



### Detection Range Of Self-diagnosis Mode

- The self-diagnosis mode allows the technician to diagnose the connection in the communication line between AV control unit and each unit and the internal operation of AV control unit.
- Because the start condition of diagnosis function is switch operated, the on board diagnosis function cannot be started up if any malfunction is detected in the communication circuit between AV control unit and multi-function switch.

### SELF-DIAGNOSIS RESULTS

Check the applicable display in the following table, and then repair the malfunctioning parts.

Area with yellow connection lines	Detection logic	Possible malfunction location / Action to take
<p>JSNIA1396GB</p> <p><b>NOTE:</b> When a control unit malfunction is detected (red in unit display), connection malfunction with other connection unit may be displayed.</p> <p>"Self-Diagnosis did not run because of a control unit malfunction"</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>• AV control unit power supply or ground circuits malfunction are detected.</li> <li>• AV control unit malfunction is detected.</li> </ul>	<ul style="list-style-type: none"> <li>• AV control unit power supply and ground circuits.</li> <li>• When there is no malfunction, AV control unit is malfunctioning.</li> </ul>

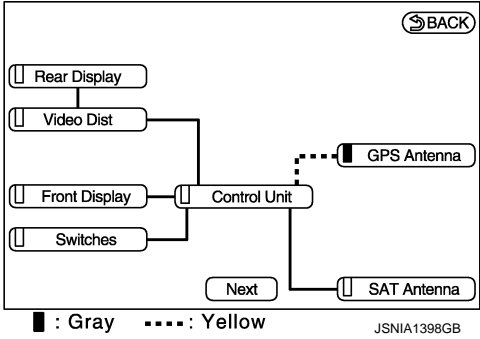
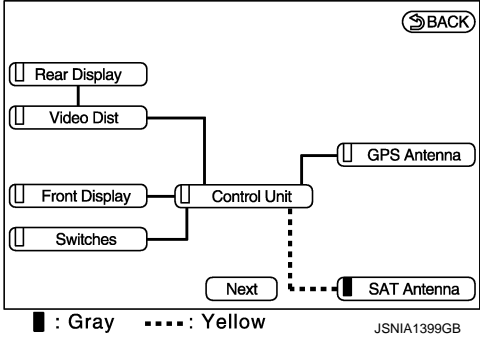
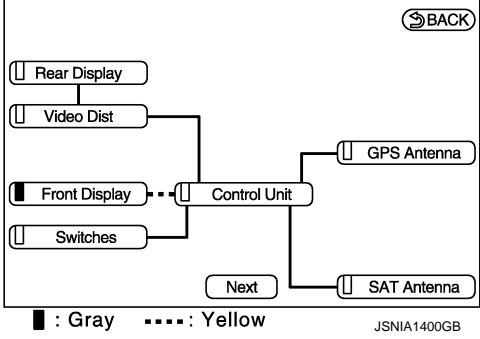
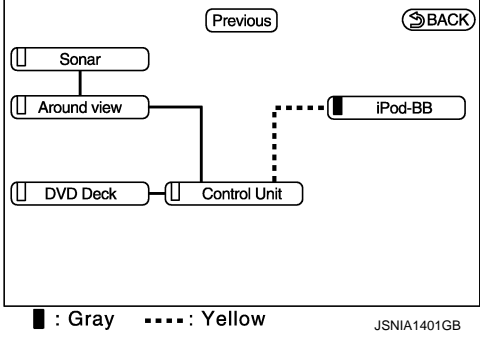
AV



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Area with yellow connection lines	Detection logic	Possible malfunction location / Action to take
 <p>■ : Gray    ---- : Yellow</p> <p>JSNIA1398GB</p>	<p>GPS antenna connection malfunction is detected.</p>	<p>GPS antenna.</p>
 <p>■ : Gray    ---- : Yellow</p> <p>JSNIA1399GB</p>	<p>Poor connection is detected in satellite radio antenna.</p>	<ul style="list-style-type: none"> <li>• Satellite radio antenna feeder.</li> <li>• Satellite radio antenna.</li> </ul>
 <p>■ : Gray    ---- : Yellow</p> <p>JSNIA1400GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>• communication circuit between AV control unit and front display unit are malfunctioning.</li> <li>• communication signal between AV control unit and front display unit are malfunctioning.</li> </ul>	<p>Communication circuits between AV control unit and front display unit.</p>
 <p>■ : Gray    ---- : Yellow</p> <p>JSNIA1401GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>• iPod adapter power supply and ground circuits are malfunctioning.</li> <li>• AV communication circuits between AV control unit and iPod adapter are malfunctioning.</li> <li>• AV communication signal between AV control unit and iPod adapter are malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>• iPod adapter power supply and ground circuits.</li> <li>• AV communication circuits between AV control unit and iPod adapter.</li> </ul>



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Area with yellow connection lines	Detection logic	Possible malfunction location / Action to take
<p>■ : Gray    ---- : Yellow</p> <p>JSNIA1403GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>around view monitor control unit power supply and ground circuits are malfunctioning.</li> <li>AV communication circuits between AV control unit and around view monitor control unit are malfunctioning.</li> <li>AV communication signal between AV control unit and around view monitor control unit are malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>Around view monitor control unit power supply and ground circuits</li> <li>AV communication circuits between AV control unit and around view monitor control unit.</li> </ul>
<p>■ : Gray    ---- : Yellow</p> <p>JSNIA1404GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>sonar control unit power supply and ground circuits are malfunctioning.</li> <li>AV communication circuits between around view monitor control unit and sonar control unit are malfunctioning.</li> <li>AV communication signal between around view monitor control unit and sonar control unit are malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>Sonar control unit power supply and ground circuits.</li> <li>AV communication circuits between around view monitor control unit and sonar control unit.</li> </ul>
<p>■ : Gray    ---- : Yellow</p> <p>JSNIA1405GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>rear display unit power supply and ground circuits are malfunctioning</li> <li>communication circuits between AV control unit and rear display unit are malfunctioning.</li> <li>communication signal between AV control unit and rear display unit are malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>Rear display unit power supply and ground circuits.</li> <li>Communication circuits between AV control unit and rear display unit.</li> </ul>

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AV



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

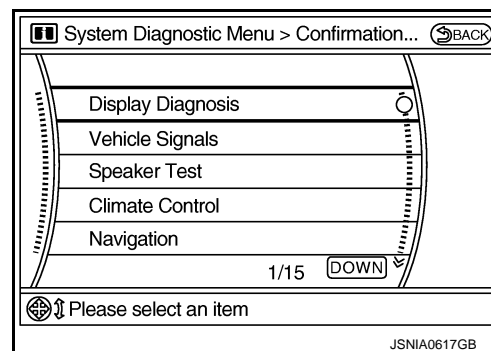
< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Area with yellow connection lines	Detection logic	Possible malfunction location / Action to take
<p>■ : Gray    ..... : Gray    ---- : Yellow</p> <p>JSNIA1406GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>• video distributor power supply and ground circuits are malfunctioning.</li> <li>• AV communication circuits between AV control unit and video distributor are malfunctioning.</li> <li>• AV communication signal between AV control unit and video distributor are malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>• Video distributor power supply and ground circuits</li> <li>• AV communication circuits between AV control unit.</li> </ul>
<p>■ : Gray    ---- : Yellow</p> <p>JSNIA1423GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>• DVD player power supply and ground circuits are malfunctioning.</li> <li>• AV communication circuits between AV control unit and DVD player are malfunctioning.</li> <li>• AV communication signal between AV control unit and DVD player are malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>• DVD player power supply and ground circuits.</li> <li>• AV communication circuits between AV control unit and DVD player.</li> </ul>

## CONFIRMATION/ADJUSTMENT MODE

1. Start the diagnosis function and select "Confirmation/Adjustment". The confirmation/adjustment mode indicates where each item can be checked or adjusted.
2. Select each switch on the "Confirmation/Adjustment Mode" screen to display the relevant trouble diagnosis screen. Press the "BACK" switch to return to the initial Confirmation/Adjustment Mode screen.



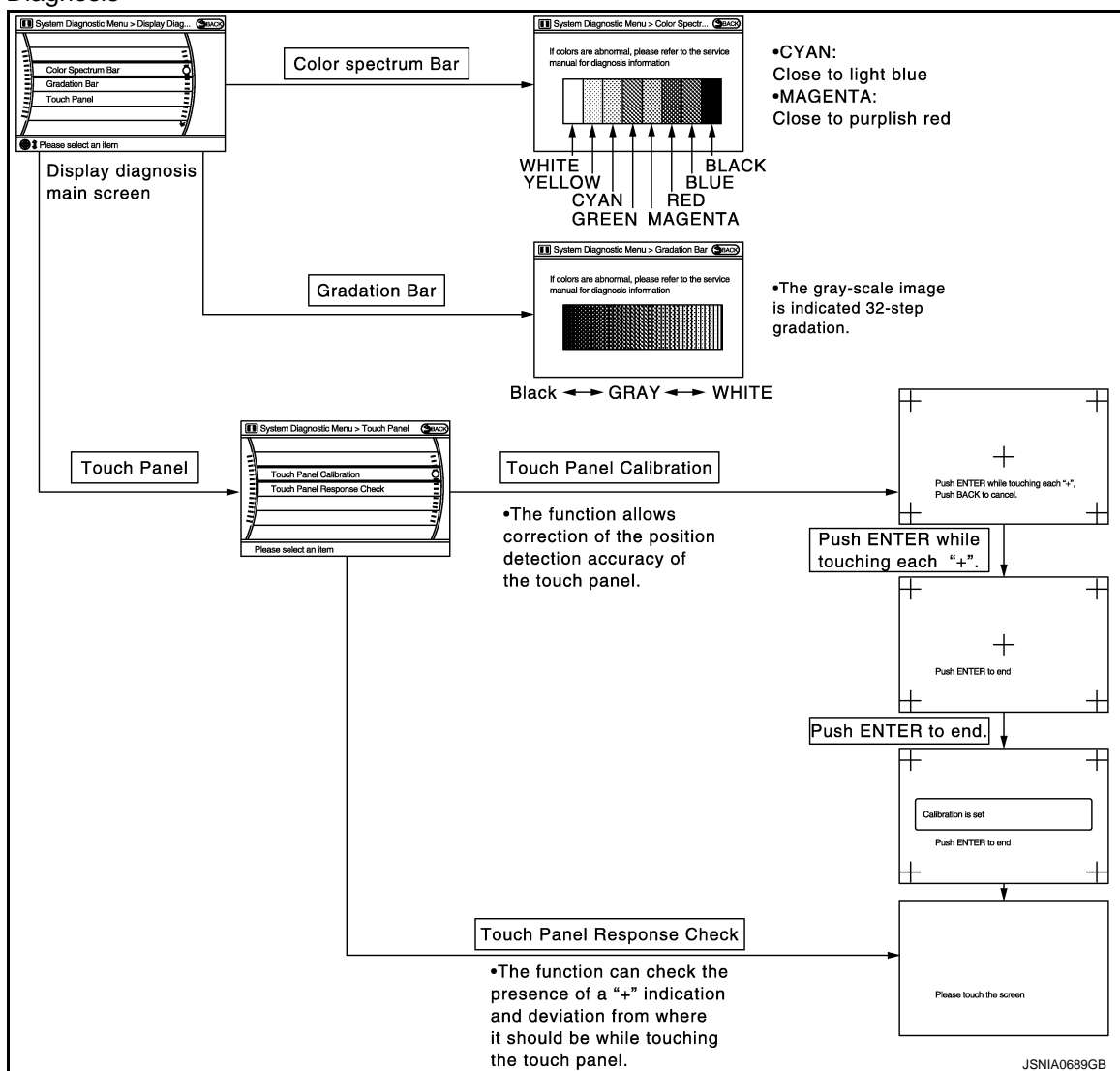


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## Display Diagnosis

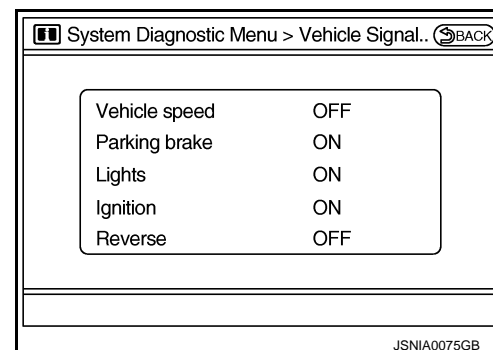


The tint of the color bar indication is as per the following list if a RGB signal error is detected.

**R (red) signal error** : Light blue (Cyan) tint  
**G (green) signal error** : Purple (Magenta) tint  
**B (blue) signal error** : Yellow tint

## Vehicle Signals

A comparison check can be made of each actual vehicle signal and the signals recognized by the system.





# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Diagnosis item	Display	Vehicle status	Remarks
Vehicle speed	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed = 0 km/h (0 MPH)	
Parking brake	ON	Parking brake is applied.	
	OFF	Parking brake is released.	
Lights	ON	Light switch ON	—
	OFF	Light switch OFF	
Ignition	ON	Ignition switch ON	—
	OFF	Ignition switch in THE ACC position	
Reverse	ON	Shift the selector lever to the "R" position	Changes in indication may be delayed. This is normal.
	OFF	Shift the selector lever to a position other than the "R" position	

## Speaker Test

Select "SPEAKER DIAGNOSIS" to display the Speaker Diagnosis screen. Press "START and NEXT" to generate a test tone in a speaker. Press "Start" to generate a test tone in the next speaker. Press "End" to stop the test tones.

### NOTE:

The frequency of test tone emitted from each speaker is as follows.

<b>Tweeter*</b>	<b>: 3 kHz</b>
<b>Front speaker</b>	<b>: 300 Hz</b>
<b>Rear speaker</b>	<b>: 1 kHz</b>

\*: Squawker

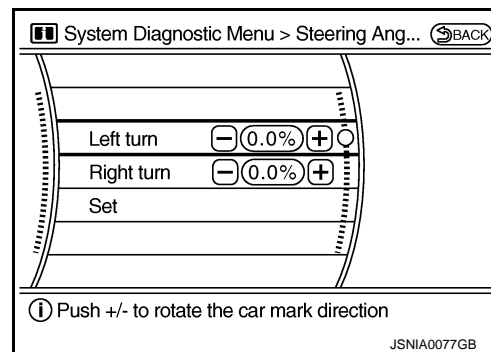
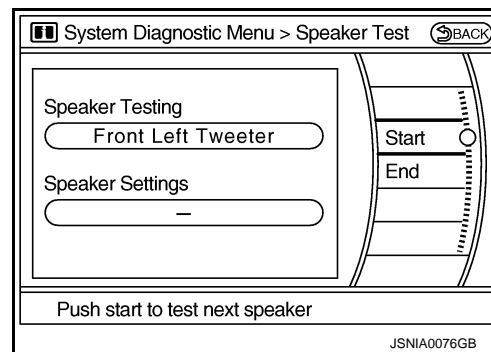
## Climate Control

Refer to "HEATER & AIR CONDITIONING CONTROL SYSTEM" for details.

## Navigation

### STEERING ANGLE ADJUSTMENT

The steering angle output value detected with the gyroscope is adjusted.



## SPEED CALIBRATION

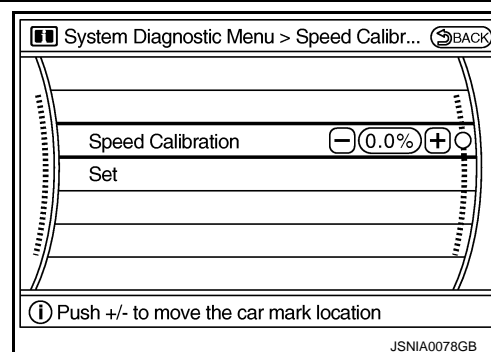


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

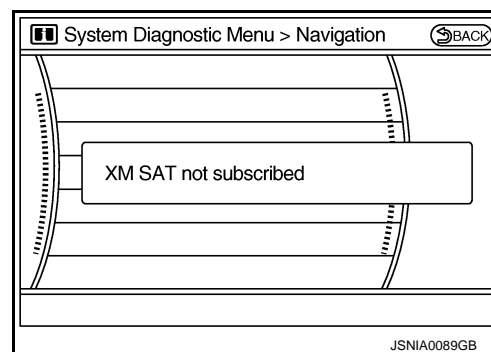
## [NAVIGATION (TWIN MONITOR)]

During normal driving, distance error caused by tire wear and tire pressure change is automatically adjusted for by the automatic distance correction function. This function, on the other hand, is for immediate adjustment, in cases such as driving with tire chains fitted on tires.



### XM SAT SUBSCRIPTION STATUS

The XM NavTraffic subscription status can be checked.



### Error History

The self-diagnosis results are judged depending on whether any error occurs from when "Self-diagnosis" is selected until the self-diagnosis results are displayed.

However, the diagnosis results are judged normal if an error has occurred before the ignition SW is turned ON and then no error has occurred until the self-diagnosis start. Check the "Error Record" to detect any error that may have occurred before the self-diagnosis start because of this condition.

The error record displays the time and place of the most recent occurrence of that error. However, take note of the following points.

- If there is a malfunction with the GPS antenna circuit board in AV control unit, the correct date and time of occurrence may not be displayed.
- Place of the error occurrence is represented by the position of the current location mark at the time an error occurred. If current location mark has deviated from the correct position, then the place of the error occurrence cannot be located correctly.
- The frequency of occurrence is displayed in a count up manner. The actual count up method differs depending on the error item.

#### Count up method A

- The counter resets to 0 if an error occurs when IGN switch is turned ON. The counter increases by 1 if the condition is normal at a next IGN ON cycle.
- The counter upper limit is 39. Any counts exceeding 39 are ignored. The counter can be reset (no error record display) with the "Delete log" switch or CONSULT-III.

#### Count up method B

- The counter increases by 1 if an error occurs when IGN switch is ON. The counter will not decrease even if the condition is normal at the next IGN ON cycle.
- The counter upper limit is 50. Any counts exceeding 50 are ignored. The counter can be reset (no error record display) with the "Delete log" switch or CONSULT-III.

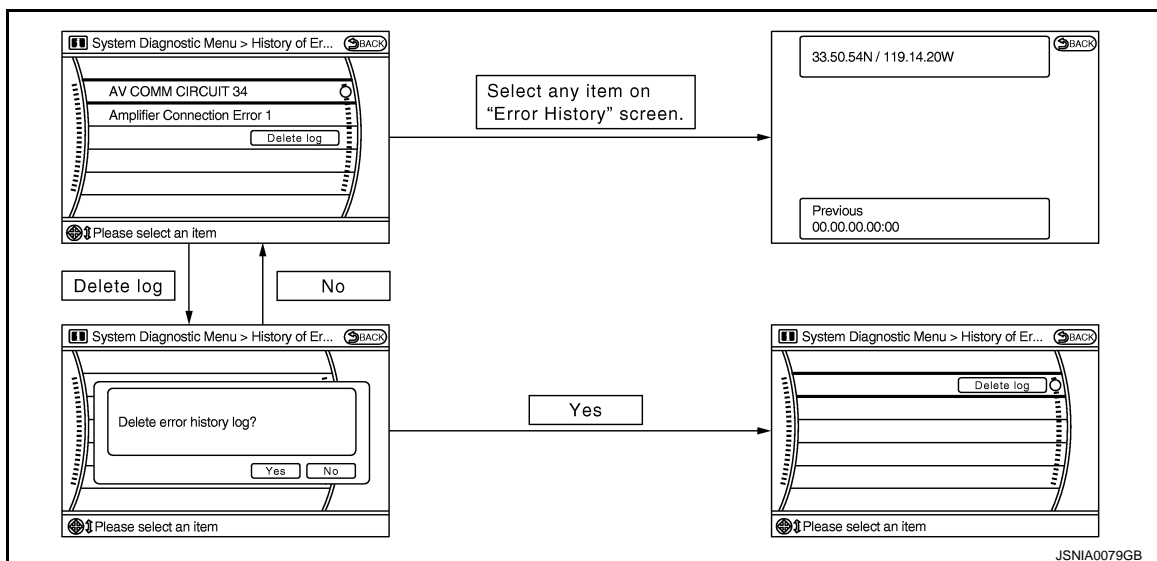
Display type of occurrence frequency	Error history display item
Count up method A	CAN communication line, control unit (CAN), AV communication line, control unit (AV communication)
Count up method B	Other than the above



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]



## Error item

Some error items may be displayed simultaneously according to the cause. If some error items are displayed simultaneously, the detection of the cause can be performed by the combination of display items.

Error item	Detection logic	Possible malfunction factor/Action to take
CAN COMM CIRCUIT	CAN communication malfunction is detected.	Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected.	Replace AV control unit.
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	
FLASH-ROM Error Of Control Unit	AV control unit malfunction is detected.	
Connection Of Gyro		
XM SERIAL COMM Error		
CAN Controller Memory Error		
Bluetooth Module Connection Error		
HDD CONN Error		
HDD READ Error		
HDD WRITE Error		
HDD COMM Error		
HDD ACCESS Error		
DSP CONN Error		
DSP COMM Error		
Internal Communication Error	When either one of the following items are detected: <ul style="list-style-type: none"><li>malfunction is detected in AV control unit power supply and ground circuits.</li><li>AV control unit malfunction is detected.</li></ul>	<ul style="list-style-type: none"><li>AV control unit power supply and ground circuits.</li><li>When there is no malfunction, AV control unit is malfunctioning.</li></ul>
GPS Communication Error	GPS malfunction is detected.	An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace AV control unit if the malfunction occurs constantly.
GPS ROM Error		
GPS RAM Error		
GPS RTC Error		



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Error item	Detection logic	Possible malfunction factor/Action to take
GPS Antenna Error	GPS antenna connection malfunction is detected.	GPS antenna
Front Display Connection Error	When either one of the following items are detected: <ul style="list-style-type: none"> <li>front display unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the communication circuits between AV control unit and front display unit.</li> <li>malfunction is detected in the communication signal between AV control unit and front display unit.</li> </ul>	<ul style="list-style-type: none"> <li>Front display unit power supply and ground circuits.</li> <li>Communication circuits between AV control unit and front display unit.</li> </ul>
Rear Display Connection Error	When either one of the following items are detected: <ul style="list-style-type: none"> <li>rear display unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the communication circuits between video distributor and rear display unit.</li> <li>malfunction is detected in the communication signal between video distributor and rear display unit.</li> </ul>	<ul style="list-style-type: none"> <li>Rear display unit power supply and ground circuits.</li> <li>Communication circuits between video distributor and rear display unit.</li> </ul>
XM Antenna Connection Error	Poor connection is detected in satellite radio antenna.	<ul style="list-style-type: none"> <li>Satellite radio antenna feeder.</li> <li>Satellite radio antenna.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>Internal Communication Error</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>AV control unit power supply or ground circuits malfunction are detected.</li> <li>AV control unit malfunction is detected.</li> </ul>	<ul style="list-style-type: none"> <li>AV control unit power supply and ground circuits.</li> <li>When there is no malfunction, AV control unit is malfunctioning.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>Switches Connection Error</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>multifunction switch power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and multifunction switch.</li> <li>malfunction is detected in the AV communication signal between AV control unit and multifunction switch.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and multifunction switch.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>iPod Connection Error</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and iPod adapter.</li> <li>malfunction is detected in the AV communication signal between AV control unit and iPod adapter.</li> </ul>	<ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and iPod adapter.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>Video Distributor Connection Error</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>video distributor power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and video distributor.</li> <li>malfunction is detected in the AV communication signal between AV control unit and video distributor.</li> </ul>	<ul style="list-style-type: none"> <li>Video distributor power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and video distributor.</li> </ul>

A

B

C

D

E

F

G

H

I

J

K

L

M

AV

O

P



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

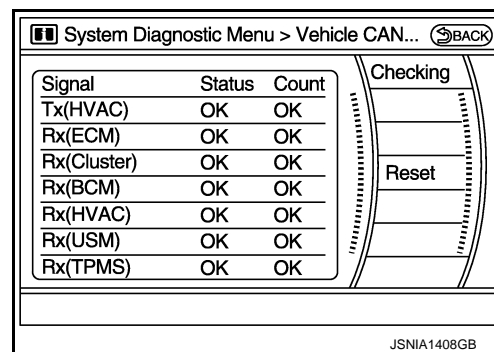
## [NAVIGATION (TWIN MONITOR)]

Error item	Detection logic	Possible malfunction factor/Action to take
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>DVD Deck Connection Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>DVD player power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and DVD player.</li> <li>malfunction is detected in the AV communication signal between AV control unit and DVD player.</li> </ul>	<ul style="list-style-type: none"> <li>DVD player power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and DVD player.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>AVM Connection Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>around view monitor control unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.</li> <li>malfunction is detected in the AV communication signal between AV control unit and around view monitor control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Around view monitor control unit power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and around view monitor control unit.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>AVM Sonar Connection Error</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>sonar control unit power supply or ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between around view monitor control unit and sonar control unit.</li> <li>malfunction is detected in the AV communication signal between around view monitor control unit and sonar control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Sonar control unit power supply and ground circuits.</li> <li>AV communication circuits between around view monitor control unit and sonar control unit.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT</li> <li>Switches Connection Error</li> <li>Video Distributor Connection Error</li> <li>iPod Connection Error</li> <li>DVD Deck Connection Error</li> <li>AVM Connection Error</li> </ul>	<p>Malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.</p>	<p>AV communication circuits between AV control unit and around view monitor control unit.</p>

### Vehicle CAN Diagnosis

- CAN communication status and error counter is displayed.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if “Reset” is pressed.

Items	Display (Current)	Malfunction counter (Past)
Tx(HVAC)	OK / UNKWN	OK / 0 – 39
Rx(ECM)	OK / UNKWN	OK / 0 – 39
Rx(Cluster)	OK / UNKWN	OK / 0 – 39
Rx(BCM)	OK / UNKWN	OK / 0 – 39
Rx(HVAC)	OK / UNKWN	OK / 0 – 39
Rx(USM)	OK / UNKWN	OK / 0 – 39
Rx(TPMS)	OK / UNKWN	OK / 0 – 39



### AV COMM Diagnosis



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## [NAVIGATION (TWIN MONITOR)]

### < SYSTEM DESCRIPTION >

- Displays the communication status between AV control unit (master unit) and each unit.
- The error counter displays "OK" if any malfunction was not detected in the past and displays "0" if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if reset.

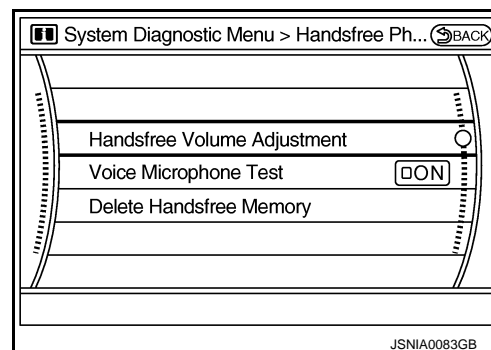
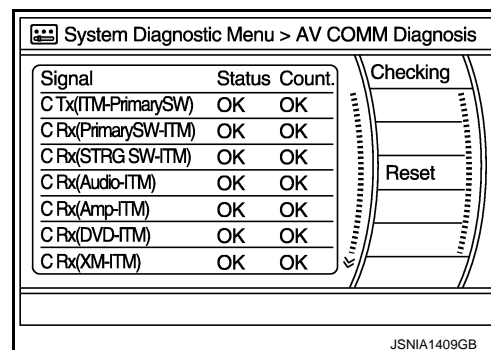
Items	Status (Current)	Counter (Past)
C Tx(ITM-PrimarySW)	OK / UNKWN	OK / 0 - 39
C Rx(PrimarySW-ITM)	OK / UNKWN	OK / 0 - 39
C Rx(STRG SW-ITM)	OK / UNKWN	OK / 0 - 39
C Rx(Audio-ITM)	OK / UNKWN	OK / 0 - 39
C Rx(Amp-ITM)	OK / UNKWN	OK / 0 - 39
C Rx(DVD-ITM)	OK / UNKWN	OK / 0 - 39
C Rx(XM-ITM)	OK / UNKWN	OK / 0 - 39
C Rx(iPod-ITM)	OK / UNKWN	OK / 0 - 39
C RX(AVM-ITM)	OK / UNKWN	OK / 0 - 39
C Rx(Video Dist-ITM)	OK / UNKWN	OK / 0 - 39
C Rx(Remote Cont-ITM)	OK / UNKWN	OK / 0 - 39
C Rx(Amp-Audio)	—	—
C Rx(DVD-Audio)	OK / UNKWN	OK / 0 - 39
C Rx(iPod-Audio)	OK / UNKWN	OK / 0 - 39
C Rx(Sonar-AVM)	OK / UNKWN	OK / 0 - 39
C Tx(Audio-ITM)	OK / UNKWN	OK / 0 - 39

#### NOTE:

- "Audio" and "Amp" indicate the same status because "Amp" indicates the status of the amplifier integrated in AV control unit.
- "STRG SW", "Amp" and "XM" indicate the same status as "Audio".

#### Hands-Free Phone

The hands-free phone reception volume adjustment, microphone and speaker test, and memory erase functions are also available.



#### Camera Cont.

Refer to [AV-675, "Diagnosis Description"](#).

#### Bluetooth

Confirm / Change Passkey

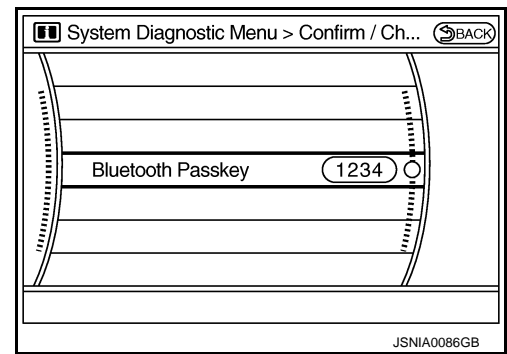


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

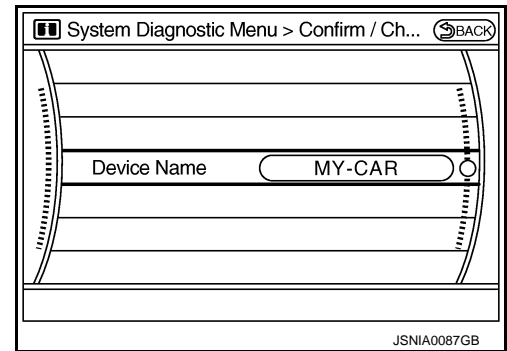
- The passkey of Bluetooth can be confirmed and changed.
- The passkey can be changed by four digits within 0 to 9.

## [NAVIGATION (TWIN MONITOR)]



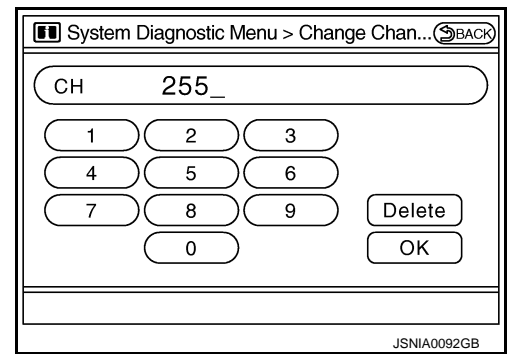
### Confirm / Change Device Name

- The device name of Bluetooth can be confirmed and changed.
- The device name can be changed by sixteen digits within A to Z (small character can be used) and - (hyphen).

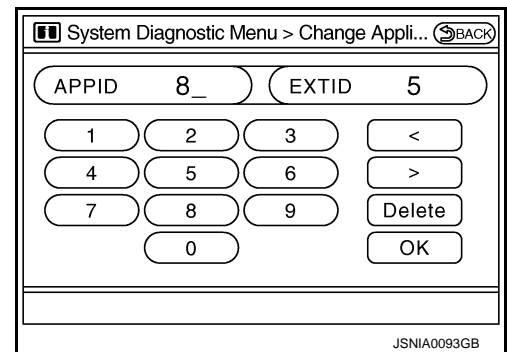


### SAT

- Change Channel
- Any necessary channels required to receive traffic information from the satellite radio system can be set.



- Change Application ID
- Any application IDs required to receive traffic information from the satellite radio system can be set.



### Delete Unit Connection Log

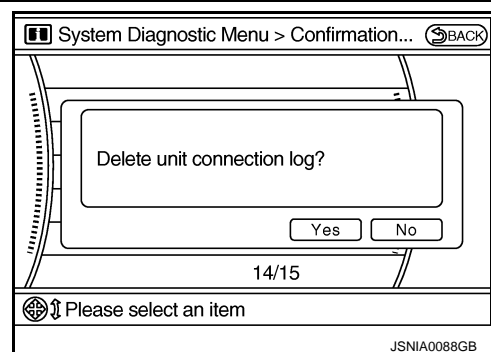


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

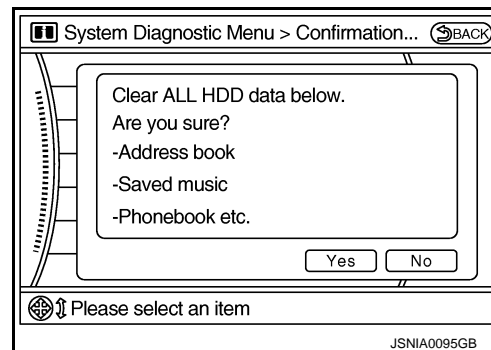
## [NAVIGATION (TWIN MONITOR)]

Deletes any unit connection records and error records from AV control unit memory. (Clear the records of the unit that has been removed.)



Initialize Settings

Deletes data stored in HDD.



## CONSULT-III Function (MULTI AV)

INFOID:000000003825440

## CONSULT-III FUNCTIONS

CONSULT-III performs the following functions via the communication with AV control unit.

Diagnosis mode	Description
Ecu Identification	The part number of AV control unit can be checked.
Self Diagnostic Result	Performs a diagnosis on AV control unit, a connection diagnosis for the communication circuit of the Multi AV system, and displays the current and past malfunctions collectively.
Data Monitor	The diagnosis of vehicle signal that is input to AV control unit can be performed.

## AV COMMUNICATION

When "AV communication" of "CAN Diag Support Monitor" is selected, the following function will be performed.

AV communication	AV&NAVI C/U	Displays the communication status from AV control unit to each unit as well as the error counter.
	AUDIO	Displays AV control unit communication status and the error counter.

## ECU IDENTIFICATION

The part number of AV control unit is displayed.

## SELF DIAGNOSIS RESULT

- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed simultaneously.
- The timing is displayed as "0" if any of the error codes [U1000], [U1010], [U1300] or [U1310] are detected. The counter increases by 1 if the condition is normal at the next ignition switch ON cycle.

Self-diagnosis results display item

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT[U1000]	CAN communication malfunction is detected.	Refer to <a href="#">AV-680, "Diagnosis Procedure"</a> .



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Error item	Description	Possible malfunction factor/Action to take
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	Replace AV control unit.
CONTROL UNIT (AV) [U1310]	AV communication circuit initial diagnosis malfunction is detected.	
Control Unit FLASH-ROM [U1200]	AV control unit malfunction is detected.	
Gyro NO CONN [U1201]		
CAN CONT [U1216]		
BLUETOOTH CONN [U1217]		
HDD CONN [U1218]		
HDD READ [U1219]		
XM SERIAL COMM [U1220]		
HDD WRITE [U121A]		
HDD COMM [U121B]		
HDD ACCESS [U121C]		
DSP CONN [U121D]		
DSP COMM [U121E]		
INTERNAL COMM [U121F]	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"><li>malfunction is detected in AV control unit supply or ground circuit.</li><li>AV control unit malfunction are detected.</li></ul>	<ul style="list-style-type: none"><li>AV control unit power supply and ground circuits.</li><li>When there is no malfunction, AV control unit is malfunctioning.</li></ul>
GPS COMM [U1204]	GPS malfunction is detected.	An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace AV control unit if the malfunction occurs constantly.
GPS ROM [U1205]		
GPS RAM [U1206]		
GPS RTC [U1207]		
FRONT DISP CONN [U1243]	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"><li>front display unit power supply and ground circuits malfunction are detected.</li><li>malfunction is detected in the communication circuits between AV control unit and front display unit.</li><li>malfunction is detected in the communication signal between AV control unit and front display unit.</li></ul>	<ul style="list-style-type: none"><li>Front display unit power supply and ground circuits.</li><li>Communication circuits between AV control unit and front display unit.</li></ul>
GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected.	GPS antenna.
REAR DISP CONN [U1247]	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"><li>rear display unit power supply and ground circuits malfunction are detected.</li><li>malfunction is detected in the communication circuits between AV control unit and rear display unit.</li><li>malfunction is detected in the communication signal between AV control unit and rear display unit.</li></ul>	<ul style="list-style-type: none"><li>Rear display unit power supply and ground circuits.</li><li>Communication circuits between AV control unit and rear display unit.</li></ul>
XM ANTENNA CONN [U1258]	Poor connection is detected in satellite radio antenna.	<ul style="list-style-type: none"><li>Satellite radio antenna feeder.</li><li>Satellite radio antenna.</li></ul>
<ul style="list-style-type: none"><li>AV COMM CIRCUIT [U1300]</li><li>INTERNAL COMM [U121F]</li></ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"><li>AV control unit power supply and ground circuits malfunction are detected.</li><li>AV control unit malfunction are detected.</li></ul>	<ul style="list-style-type: none"><li>AV control unit power supply and ground circuits.</li><li>When there is no malfunction, AV control unit is malfunctioning.</li></ul>



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Error item	Description	Possible malfunction factor/Action to take
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SWITCH CONN [U1240]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>multifunction switch power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and multifunction switch.</li> <li>malfunction is detected in the AV communication signal between AV control unit and multifunction switch.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and multifunction switch.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>VIDEO DIST CONN [U1246]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>video distributor power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and video distributor.</li> <li>malfunction is detected in the AV communication signal between AV control unit and video distributor.</li> </ul>	<ul style="list-style-type: none"> <li>Video distributor power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and video distributor.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>DVD DECK CONN [U1248]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>DVD player power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and DVD player.</li> <li>malfunction is detected in the AV communication signal between AV control unit and DVD player.</li> </ul>	<ul style="list-style-type: none"> <li>DVD player power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and DVD player.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>iPod CONN [U1254]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and iPod adapter.</li> <li>malfunction is detected in the AV communication signal between AV control unit and iPod adapter.</li> </ul>	<ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and iPod adapter.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>AROUND CAMERA CONN [U125B]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>around view monitor control unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.</li> <li>malfunction is detected in the AV communication signal between AV control unit and around view monitor control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Around view monitor control unit power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and around view monitor control unit.</li> </ul>

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# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

Error item	Description	Possible malfunction factor/Action to take
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SONAR CONN [U125C]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>sonar control unit power supply or ground circuit malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between around view monitor control unit and sonar control unit.</li> <li>malfunction is detected in the AV communication signal between around view monitor control unit and sonar control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Sonar control unit power supply and ground circuits.</li> <li>AV communication circuits between around view monitor control unit and sonar control unit.</li> </ul>
<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SWITCH CONN [U1240]</li> <li>IPod CONN [U1254]</li> <li>DVD DECK CONN [U1248]</li> <li>VIDEO DIST CONN [U1246]</li> <li>AROUND CAMERA CONN [U125B]</li> </ul>	Malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.	AV communication circuits between AV control unit and around view monitor control unit.

## DATA MONITOR

### ALL SIGNALS

- Displays the status of the following vehicle signals inputted into AV control unit.
- For each signal, actual signal can be compared with the condition recognized on the system.

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	On	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	Off	Vehicle speed = 0 km/h (0 MPH)	
PKB SIG	On	Parking brake is applied.	
	Off	Parking brake is released.	
ILLUM SIG	On	Block the light beam from the auto light optical sensor when the light SW is ON.	—
	Off	Expose the auto light optical sensor to light when the light SW is OFF or ON.	
IGN SIG	On	Ignition switch ON	
	Off	Ignition switch in the ACC position	
REV SIG	On	Shift the selector lever to the "R" position	Changes in indication may be delayed. This is normal.
	Off	Shift the selector lever to a position other than the "R" position	

### SELECTION FROM MENU

Allows the technician to select which vehicle signals should be displayed and displays the status of the selected vehicle signals.

Item to be selected	Description
VHCL SPD SIG	The same as when "ALL SIGNALS" is selected.
PKB SIG	
ILLUM SIG	
IGN SIG	
REV SIG	



# DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

### Diagnosis Description

INFOID:000000003825441

The diagnosis function of around view monitor control unit is displayed when selecting "Camera Cont." of Confirmation/Adjustment mode in the multi AV system.

Around view monitor control unit diagnosis item

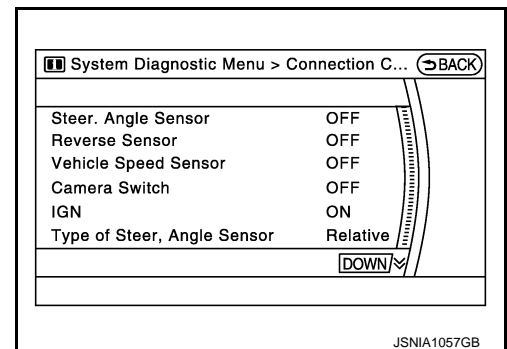
AV control unit Confirmation/Adjustment mode			Function
Camera Cont.	Connection Confirmation		The status of signals input to around view monitor control unit can be checked.
	Calibrating Camera Image	Rear Camera	Performs the calibration of rear camera.
		Pass-Side Camera	Performs the calibration of side camera LH.
		Front Camera	Performs the calibration of front camera.
		Dr-Side Camera	Performs the calibration of side camera.
		Initialize Camera Image Calibration*	The calibration can be initialized to NISSAN factory shipment condition.
	Correct Draw Line of Camera Image	Rear View	The position of rear view guiding line can be changed.
		Front-Side View	The position of Front-Side view guiding line can be changed.
		Front View	The position of front view guiding line can be changed.
	Fine Tuning of Birds-Eye View		<ul style="list-style-type: none"><li>The confirmation and adjustment of the difference between each camera can be performed.</li><li>The system changes to the ZOOM function by the operation of shift and the ZOOM ratio of each camera can be changed.</li></ul>

#### CAUTION:

\*: Never perform other operations for approximately 10 seconds after performing "Initialize Camera Image Calibration".

### Connection Confirmation

The status of signals inputted to around view monitor control unit can be checked.



Connection Confirmation item list

Diagnosis item	Display	Description
Steer. Angle Sensor	ON/OFF	<ul style="list-style-type: none"><li>Input status of steering angle sensor is displayed by ON/OFF.</li><li>When all of steering signals 1, 2, and 3 are input, it is turned ON. It remains ON until connection confirmation mode is stopped.</li></ul>
Reverse Sensor	ON/OFF	Input status of reverse signal inputted to around view monitor control unit is displayed by ON/OFF in real time.
Vehicle Speed Sensor	ON/OFF	<ul style="list-style-type: none"><li>Input status of vehicle speed signal inputted to around view monitor control unit is displayed by ON/OFF.</li><li>When the vehicle speed signal is input, it is turned ON. It remains ON until connection confirmation mode is stopped.</li></ul>
Camera Switch	ON/OFF	<ul style="list-style-type: none"><li>The status of camera switch signal received via AV communication from AV control unit is displayed by ON/OFF.</li><li>When the camera switch signal is received once, it is turned ON. It remains ON until connection confirmation mode is stopped.</li></ul>
IGN	ON/OFF	Input status of ignition signal inputted to around view monitor control unit is displayed by ON/OFF in real time.



# DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

< SYSTEM DESCRIPTION >

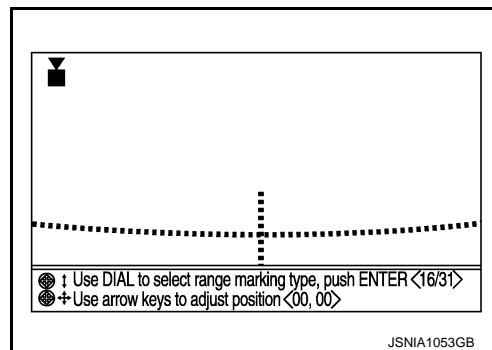
[NAVIGATION (TWIN MONITOR)]

Diagnosis item	Display	Description
Type of Steer. Angle Sensor	Relative	The input type of steering angle sensor is displayed. ("Relative" is displayed on this model.)
Type of Steer. Gear ratio	1	The type of steering gear ratio is displayed. ("1" is displayed on this model.)
Left or Right Steer.	Left	The steering position is displayed. ("Left" is displayed on this model.)
Rear Camera Image Output signal	OK / NG	The input status of rear camera image signal is displayed by OK/NG in real time.
Rear Camera COMM Status	OK / NG	The communication status with rear camera is displayed by OK/NG in real time.
Rear Camera COMM Line	OK / NG	The status of communication line with rear camera is displayed by OK/NG in real time.
Front Camera Image Output signal	OK / NG	The input status of front camera image signal is displayed by OK/NG in real time.
Front Camera COMM Status	OK / NG	The communication status with front camera is displayed by OK/NG in real time.
Front Camera COMM Line	OK / NG	The status of communication line with front camera is displayed by OK/NG in real time.
Pass-Side Camera Image Output signal	OK / NG	The input status of side camera RH image signal is displayed by OK/NG in real time.
Pass-Side Camera COMM Status	OK / NG	The communication status with side camera RH is displayed by OK/NG in real time.
Pass-Side Camera COMM Line	OK / NG	The status of communication line with side camera RH is displayed by OK/NG in real time.
Dr-Side Camera Image Output signal	OK / NG	The input status of side camera LH image signal is displayed by OK/NG in real time.
Dr-Side Camera COMM Status	OK / NG	The communication status with side camera LH is displayed by OK/NG in real time.
Dr-Side Camera COMM Line	OK / NG	The status of communication line with side camera LH is displayed by OK/NG in real time.

## Calibrating Camera Image

- Perform the calibration of camera image caused by the incorrect mounting position of each camera, etc. Always perform calibration after performing the following work.
  - When each camera or each camera mount (door mirror, front grille, etc.) is removed
  - When replacing around view monitor control unit
- When performing the calibration initialization, it can be set to the NISSAN factory shipment condition.

Refer to [AV-614. "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#) for the calibration procedure.



**Adjustment range**

**Rotating direction : 31 patterns (16 on the center)**

**Upper/lower direction : -99 – 99**

**Left/right direction : -99 – 99**

## Calibrating Camera Image item

Items	Description
Rear Camera	Performs the calibration of rear camera.
Pass-Side Camera	Performs the calibration of side camera RH.
Front Camera	Performs the calibration of front camera.
Dr-Side Camera	Performs the calibration of side camera LH.
Initialize Camera Image Calibration*	The calibration can be initialized to the factory shipment setting.

## CAUTION:

\*: Never perform other operations for approximately 10 seconds after performing "Initialize Camera Image Calibration".



# DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

## < SYSTEM DESCRIPTION >

## [NAVIGATION (TWIN MONITOR)]

### Correct Draw Line of Camera Image

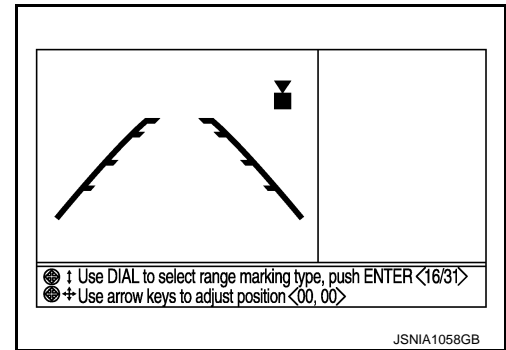
The display position of guiding lines when displayed on the rear view, front view, and front-side view can be changed.

#### Adjustment range

Rotating direction : 31 patterns

Upper/lower direction : -25 - 25

Left/right direction : -25 - 25



### Correct Draw Line of Camera Image item

Items	Description
Rear View	The position of rear view guiding line can be changed.
Front-Side View	The position of Front-Side view guiding line can be changed.
Front View	The position of Front view guiding line can be changed.

### Fine Tuning of Birds-Eye View

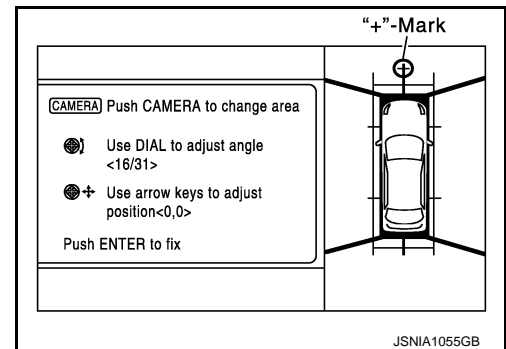
- The fine adjustment function of camera calibration can check and adjust the difference between each camera.
- Fine adjustments can be performed for each camera. Move the "+"-mark to select the camera by pressing the "CAMERA" switch.
- Perform the adjustment with the center dial and upper/lower/left/right switches.

#### CAUTION:

Operate the center dial slowly because the changing of the screen takes approximately 1 second.

#### NOTE:

- It can be initialized to the NISSAN factory shipment setting with "Initialize Camera Image Calibration" of "Calibrating Camera Image".
- The adjustment value is cancelled in this mode by performing "Initialize Camera Image Calibration".



#### Adjustment range

Rotating direction : 31 patterns (16 on the center)

Upper/lower direction : -99 - 99

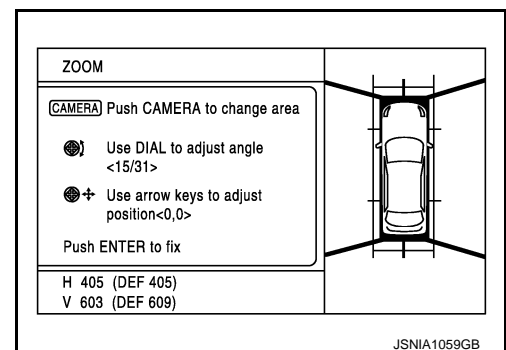
Left/right direction : -99 - 99

### ZOOM function

- The ZOOM ratio of camera can be changed when calibrating the camera.
- It shifts to ZOOM function mode by shifting the selector lever to a position other than the "R" position → "R" position → other than "R" position in the "Fine Tuning of Birds-Eye View" mode.
- The changing of ZOOM ratio can be performed for each camera. Move the "+"-mark to select the camera by pressing "CAMERA" switch and press the left/right switch to change the ZOOM ratio.

#### NOTE:

- When the position is not correct in "Fine Tuning of Birds-Eye View" mode, use this "ZOOM" function to adjust it.
- If this function is used, always adjust the upper/lower/left/right position again on the "Fine Tuning of Birds-Eye View" screen.





# DIAGNOSIS SYSTEM [SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)]

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

## DIAGNOSIS SYSTEM [SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)]

### CONSULT-III Function (SONAR)

INFOID:000000003825442

#### DESCRIPTION

CONSULT-III can display each diagnostic item using the diagnostic test modes shown as follows:

Test mode	Function
Ecu Identification	Sonar control unit part number can be read.
Self Diagnostic Result	Sonar control unit checks the conditions and displays memorized error.
Data Monitor	Sonar control unit input/output data in real time.
Active Test	Gives a drive signal to a load to check the operation.
Work support	Changes setting of each function.

#### ECU IDENTIFICATION

Displays the part number of sonar control unit.

#### SELF-DIAGNOSTIC RESULTS

For details, refer to [AV-1027, "DTC Index"](#).

#### DATA MONITOR

Monitor Item	Display	Description
SONAR OPE	On	Around view monitor is ON. (sonar system is ON)
	Off	Around view monitor is OFF. (sonar system is OFF)
BUZZER OUTPUT	On	Buzzer is output condition.
	Off	Buzzer is not output condition.
CR SEN [FL] CR SEN [FR] CR SEN [RL] CR SEN [RR]	ERROR	When a sensor is abnormal.
	LV.0	When a sensor is not detection.
	LV.2	The distance between the corner sensor and an obstacle is 60 cm (23.6 in) or more and less then 70 cm (27.5 in).
	LV.3	The distance between the corner sensor and an obstacle is 40 cm (15.7 in) or more and less then 60 cm (23.6 in).
	LV.4	The distance between corner sensor and an obstacle less than 40 cm (15.7 in).

#### ACTIVE TEST

Active test item	Function
BUZZER	This test is able to check buzzer operation.
SONAR SENSOR	This test is able to check each sonar sensor operation.

#### WORK SUPPORT

Work support item	Function
CORNER SEN DISTANCE SET	Corner sensor warning buzzer distance is adjustable to 4 phases.

#### CORNER SEN DISTANCE SET

Corner sensor warning buzzer distance can be set to 4 phases as follows.

Warning item	FARTHER	FAR	NORMAL	NEAR
Second warning	70 – 80 cm (27.5 – 31.4 in)	60 – 70 cm (23.6 – 27.5 in)	50 – 60 cm (19.6 – 23.6 in)	40 – 50 cm (15.7 – 19.6 in)



# DIAGNOSIS SYSTEM [SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)]

< SYSTEM DESCRIPTION >

[NAVIGATION (TWIN MONITOR)]

Warning item	FARTHER	FAR	NORMAL	NEAR
Third warning	50 – 70 cm (19.6 – 27.5 in)	40 – 60 cm (15.7 – 23.6 in)	30 – 50 cm (11.8 – 19.6 in)	30 – 40 cm (11.8 – 15.7 in)
Fourth warning	Less than 50 cm (19.6 in)	Less than 40 cm (15.7 in)	Less than 30 cm (11.8 in)	Less than 30 cm (11.8 in)

The default of this model is “FAR”.

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**DTC/CIRCUIT DIAGNOSIS****U1000 CAN COMM CIRCUIT****Description**

INFOID:000000003825735

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Signal Chart. Refer to [LAN-32, "CAN Communication Signal Chart"](#).

**DTC Logic**

INFOID:000000003825736

**DTC DETECTION LOGIC**

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1000	CAN COMM CIRCUIT	When AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	CAN communication system

**Diagnosis Procedure**

INFOID:000000003825737

**1.PERFORM SELF DIAGNOSTIC**

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check "Self Diagnostic Result" of "MULTI AV".

**Is "CAN COMM CIRCUIT" displayed?**

- YES >> Refer to "LAN system". Refer to [LAN-22, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to GI section. Refer to [GI-35, "Intermittent Incident"](#).



## U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

### U1010 CONTROL UNIT (CAN)

#### Description

INFOID:0000000003825738

Initial diagnosis of AV control unit.

#### DTC Logic

INFOID:0000000003825739

#### DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1010	CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected	AV control unit

#### Diagnosis Procedure

INFOID:0000000003825740

#### 1. REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit.

>> INSPECTION END

AV



# U1310 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1310 AV CONTROL UNIT

### Description

INFOID:000000003825741

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825742

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1310	CONTROL UNIT (AV) [U1310]	An initial diagnosis error is detected in AV communication circuit.	Replace AV control unit



# U1200 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1200 AV CONTROL UNIT

### Description

INFOID:000000003825743

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825744

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1200	Cont Unit FLASH- ROM [U1200]	An internal malfunction is detected in AV control unit (FLASH-ROM).	Replace AV control unit

AV



# U1201 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1201 AV CONTROL UNIT

### Description

INFOID:000000003825745

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825746

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1201	GYRO NO CONN [U1201]	Internal malfunction of AV control unit (gyrocompass disconnection) is detected.	Replace AV control unit



# U1216 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1216 AV CONTROL UNIT

### Description

INFOID:000000003825747

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825748

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1216	CAN CONT [U1216]	Internal malfunction of AV control unit (CAN controller) is detected.	Replace AV control unit

AV



# U1217 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1217 AV CONTROL UNIT

### Description

INFOID:000000003825749

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045. "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825750

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1217	BLUETOOTH MODULE CONN [U1217]	Internal malfunction of AV control unit (Bluetooth module connection malfunction) is detected.	Replace AV control unit



# U1218 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1218 AV CONTROL UNIT

### Description

INFOID:000000003825751

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825752

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1218	HDD-CONN [U1218]	Internal malfunction of AV control unit (HDD connection malfunction) is detected.	Replace AV control unit

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# U1219 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1219 AV CONTROL UNIT

### Description

INFOID:000000003825753

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825754

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1219	HDD-READ [U1219]	Internal malfunction of AV control unit (HDD read malfunction) is detected.	Replace AV control unit



# U1220 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1220 AV CONTROL UNIT

### Description

INFOID:000000003825755

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825756

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1220	XM SERIAL COMM [U1220]	Internal malfunction of AV control unit (satellite radio tuner communication error) is detected.	Replace AV control unit

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



# U121A AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U121A AV CONTROL UNIT

### Description

INFOID:000000003825757

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825758

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121A	HDD-WRITE [U121A]	Internal malfunction of AV control unit (HDD write malfunction) is detected.	Replace AV control unit



# U121B AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U121B AV CONTROL UNIT

### Description

INFOID:000000003825759

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825760

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121B	HDD-COMM [U121B]	Internal malfunction of AV control unit (HDD communication error) is detected.	Replace AV control unit

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



# U121C AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U121C AV CONTROL UNIT

### Description

INFOID:000000003825761

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825762

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121C	HDD-ACCESS [U121C]	Internal malfunction of AV control unit (HDD access error) is detected.	Replace AV control unit



# U121D AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U121D AV CONTROL UNIT

### Description

INFOID:000000003825763

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825764

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121D	DSP CONN [U121D]	Internal malfunction of AV control unit (DSP connection error) is detected.	Replace AV control unit

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



# U121E AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U121E AV CONTROL UNIT

### Description

INFOID:000000003825765

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825766

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121E	DSP COMM [U121E]	Internal malfunction of AV control unit (DSP communication error) is detected.	Replace AV control unit



# U121F AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U121F AV CONTROL UNIT

### Description

INFOID:000000003825767

Replace the AV control unit if this DTC is displayed. Refer to [AV-1045. "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"><li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li><li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li><li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li><li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li><li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li><li>It inputs the illumination signals that are required for the display dimming control.</li><li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li><li>Update of map data is performed with the CONSULT-III and the applicable cable.</li></ul>

### DTC Logic

INFOID:000000003825768

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121F	INTERNAL COMM [U121F]	Internal malfunction of AV control unit (internal communication error) is detected.	AV control unit power supply and ground circuit

### Diagnosis Procedure

INFOID:000000003825769

#### 1. CHECK AV CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check AV control unit power supply and ground circuit. Refer to [AV-716. "AV CONTROL UNIT : Diagnosis Procedure"](#).

Is inspection result normal?

- YES >> INSPECTION END  
NO >> Repair malfunctioning parts.

AV



## U1204 GPS

## Description

INFOID:000000003825770

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Update of map data is performed with the CONSULT-III and the applicable cable.</li> </ul>

## DTC Logic

INFOID:000000003825771

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1204	GPS CONN [U1204]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

## Diagnosis Procedure

INFOID:000000003825772

## 1.PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

YES &gt;&gt; Replace AV control unit.

NO &gt;&gt; The intermittent malfunction caused by strong radio interference can be detected.



## U1205 GPS

## Description

INFOID:000000003825773

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Update of map data is performed with the CONSULT-III and the applicable cable.</li> </ul>

## DTC Logic

INFOID:000000003825774

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1205	GPS ROM [U1205]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

## Diagnosis Procedure

INFOID:000000003825775

## 1. PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

- YES >> Replace AV control unit.
- NO >> The intermittent malfunction caused by strong radio interference can be detected.

AV



## U1206 GPS

## Description

INFOID:000000003825776

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Update of map data is performed with the CONSULT-III and the applicable cable.</li> </ul>

## DTC Logic

INFOID:000000003825777

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1206	GPS RAM [U1206]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

## Diagnosis Procedure

INFOID:000000003825778

## 1.PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

YES &gt;&gt; Replace AV control unit.

NO &gt;&gt; The intermittent malfunction caused by strong radio interference can be detected.



## U1207 GPS

## Description

INFOID:000000003825779

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-1045, "Removal and Installation"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> <li>Integrates hard disk drive (HDD) allowing map data and music data to be stored.</li> <li>It is the master unit of the MULTI AV system, and is connected to each control unit by communication. It operates each system according to communication signals from AV control unit.</li> <li>AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.</li> <li>It is connected to ECM, unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function.</li> <li>It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.</li> <li>It inputs the illumination signals that are required for the display dimming control.</li> <li>It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</li> <li>Update of map data is performed with the CONSULT-III and the applicable cable.</li> </ul>

## DTC Logic

INFOID:000000003825780

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1207	GPS RTC [U1207]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

## Diagnosis Procedure

INFOID:000000003825781

## 1.PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

- YES >> Replace AV control unit.
- NO >> The intermittent malfunction caused by strong radio interference can be detected.

AV



# U1243 FRONT DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1243 FRONT DISPLAY UNIT

### Description

INFOID:000000003825782

Part name	Description
FRONT DISPLAY UNIT	<ul style="list-style-type: none"><li>• Front display image is controlled by the serial communication from AV control unit.</li><li>• RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing).</li><li>• Composite image signal (DVD and auxiliary images) is input from the video distributor.</li><li>• Camera image signal input to around view monitor control unit.</li><li>• Synchronize signal (HP, VP) is output to AV control unit.</li><li>• Touch panel function can be operated for each system by touching a display directly.</li></ul>

### DTC Logic

INFOID:000000003825783

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1243	FRONT DISP CONN [U1243]	<p>When either one of the following items is detected.</p> <ul style="list-style-type: none"><li>• front display unit power supply and ground circuit malfunction is detected.</li><li>• malfunction is detected in communication circuits between front display unit and AV control unit.</li><li>• malfunction is detected in communication signal between front display unit and AV control unit.</li></ul>	<ul style="list-style-type: none"><li>• Front display unit power supply and ground circuit.</li><li>• Communication circuits between front display unit and AV control unit.</li></ul>

### Diagnosis Procedure

INFOID:000000003825784

#### 1.CHECK FRONT DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUITS

Check front display unit power supply and ground circuits. Refer to [AV-716, "FRONT DISPLAY UNIT : Diagnosis Procedure"](#).

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

#### 2.CHECK CONTINUITY COMMUNICATION CIRCUITS

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
M75	11	M88	70	Existed
	22		71	

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminals		
M75	11		Not existed
	22		

Is inspection result normal?

YES >> GO TO 3.



# U1243 FRONT DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

NO >> Repair harness or connector.

## 3.CHECK COMMUNICATION SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+)		(-)	Condition	Reference value
Front display unit				
Connector	Terminal			
M75	11	Ground	When adjusting display brightness.	<div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></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Is inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit.

## 4.CHECK COMMUNICATION SIGNAL

Check signal between front display unit harness connector and ground.

(+)		(-)	Condition	Reference value
Front display unit				
Connector	Terminal			
M75	22	Ground	When adjusting display brightness.	<div><div><div>(V)</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></di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Is inspection result normal?

YES >> INSPECTION END

NO >> Replace front display unit.

AV



# U1244 GPS ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1244 GPS ANTENNA

### Description

INFOID:000000003825785

Part name	Description
GPS ANTENNA	GPS signal is received and sent to AV control unit.

### DTC Logic

INFOID:000000003825786

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1244	GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected.	GPS antenna disconnection

### Diagnosis Procedure

INFOID:000000003825787

#### 1. GPS ANTENNA CHECK

Visually check GPS antenna and antenna feeder.

Is inspection result normal?

- YES >> GO TO 2.  
NO >> Repair malfunctioning parts.

#### 2. CHECK AV CONTROL UNIT VOLTAGE

1. Disconnect GPS antenna connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit terminal and ground.

(+)	(-)	Voltage (Approx.)
AV control unit		
Terminal		
110	Ground	5.0 V

Is inspection result normal?

- YES >> INSPECTION END  
NO >> Replace AV control unit.



# U1247 REAR DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1247 REAR DISPLAY UNIT

### Description

INFOID:0000000003825898

Part name	Description
REAR DISPLAY UNIT	<ul style="list-style-type: none"><li>• Rear display image is controlled by the serial communication from video distributor.</li><li>• RGB image signal is input from video distributor (RGB and RGB area). Composite image signal (DVD and AUX images) is input from the video distributor.</li><li>• Synchronize signal (HP, VP) is output to video distributor.</li></ul>

### DTC Logic

INFOID:0000000003825899

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1247	REAR DISP CONN [U1247]	When either one of the following items is detected: <ul style="list-style-type: none"><li>• rear display unit power supply and ground circuits are malfunctioning.</li><li>• serial communication circuits between video distributor and rear display unit are malfunctioning.</li><li>• serial communication signal between video distributor and rear display unit is malfunctioning.</li></ul>	<ul style="list-style-type: none"><li>• Rear display unit power supply and ground circuits.</li><li>• Serial communication circuits between AV control unit and rear display unit.</li></ul>

### Diagnosis Procedure

INFOID:0000000003825900

#### 1.CHECK REAR DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check rear display unit power supply and ground circuits. Refer to [AV-717, "REAR DISPLAY UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

#### 2.CHECK CONTINUITY SERIAL COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear display unit connector and video distributor connector.
3. Check continuity between rear display unit harness connector and video distributor harness connector.

Rear display unit		Video distributor		Continuity
Connector	Terminals	Connector	Terminals	
B26	9	M97	39	Existed
	10		40	

4. Check continuity between rear display unit harness connector and ground.

Rear display unit		Ground	Continuity
Connector	Terminals		
B26	9		Not existed
	10		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

#### 3.CHECK SERIAL COMMUNICATION SIGNAL

1. Connect rear display unit connector and video distributor connector.
2. Turn ignition switch ON.



## U1247 REAR DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

3. Check signal between rear display unit harness connector and ground.

(+)		(-)	Condition		Reference value
Rear display unit					
Connector	Terminal				
B26	9	Ground	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear displayed.	<div><div><div>(V)</div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div>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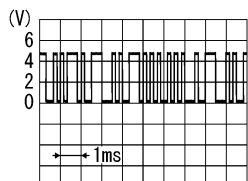
Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear display unit.

### 4.CHECK SERIAL COMMUNICATION SIGNAL

Check signal between rear display unit harness connector and ground.

(+)		(-)	Condition		Reference value
Rear display unit					
Connector	Terminal				
B26	10	Ground	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear displayed.	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace video distributor.



# U1258 SATELLITE RADIO ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1258 SATELLITE RADIO ANTENNA

### Description

INFOID:0000000003825791

Part name	Description
SATELLITE RADIO ANTENNA	Satellite radio signal is received and sent to AV control unit.

### DTC Logic

INFOID:0000000003825792

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1258	XM ANTENNA CONN [U1258]	Satellite radio antenna connection malfunction is detected.	Satellite radio antenna disconnection

### Diagnosis Procedure

INFOID:0000000003825793

#### 1.SATELLITE RADIO ANTENNA CHECK

Visually check satellite radio antenna and antenna feeder.

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

#### 2.CHECK AV CONTROL UNIT VOLTAGE

1. Disconnect satellite radio antenna connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit terminal and ground.

(+)	(-)	Voltage (Approx.)
AV control unit		
Terminal		
108	Ground	5.0 V

Is inspection result normal?

YES >> INSPECTION END

NO >> Replace AV control unit.

AV



# U1300 AV COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## U1300 AV COMM CIRCUIT

### Description

INFOID:000000003825796

U1300 is indicated when malfunction occurs in communication signal of multi AV system. Indicated simultaneously, without fail, with the malfunction of control units connected to AV control unit with communication line. Determine the possible malfunction cause from the table below.

### SELF-DIAGNOSIS RESULTS DISPLAY ITEM

DTC	Display contents of CONSULT-III	Description	Possible malfunction factor/Action to take
U1300 U121F	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>INTERNAL COMM [U121F]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>AV control unit power supply and ground circuits malfunction are detected.</li> <li>AV control unit malfunction are detected.</li> </ul>	<ul style="list-style-type: none"> <li>AV control unit power supply and ground circuits.</li> <li>When there is no malfunction, AV control unit is malfunctioning.</li> </ul>
U1300 U1240	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>SWITCH CONN [U1240]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>multifunction switch power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and multifunction switch.</li> <li>malfunction is detected in the AV communication signal between AV control unit and multifunction switch.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and multifunction switch.</li> </ul>
U1300 U1254	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>iPod CONN [U1254]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and iPod adapter.</li> <li>malfunction is detected in the AV communication signal between AV control unit and iPod adapter.</li> </ul>	<ul style="list-style-type: none"> <li>iPod adapter power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and iPod adapter.</li> </ul>
U1300 U1246	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>VIDEO DIST CONN [U1246]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>video distributor power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and video distributor.</li> <li>malfunction is detected in the AV communication signal between AV control unit and video distributor.</li> </ul>	<ul style="list-style-type: none"> <li>Video distributor power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and video distributor.</li> </ul>
U1300 U1248	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>DVD DECK CONN [U1248]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>DVD player power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and DVD player.</li> <li>malfunction is detected in the AV communication signal between AV control unit and DVD player.</li> </ul>	<ul style="list-style-type: none"> <li>DVD player power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and DVD player.</li> </ul>
U1300 U125B	<ul style="list-style-type: none"> <li>AV COMM CIRCUIT [U1300]</li> <li>AROUND CAMERA CONN [U125B]</li> </ul>	When either one of the following items are detected: <ul style="list-style-type: none"> <li>around view monitor control unit power supply and ground circuits malfunction are detected.</li> <li>malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.</li> <li>malfunction is detected in the AV communication signal between AV control unit and around view monitor control unit.</li> </ul>	<ul style="list-style-type: none"> <li>Around view monitor control unit power supply and ground circuits.</li> <li>AV communication circuits between AV control unit and around view monitor control unit.</li> </ul>



# U1300 AV COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

DTC	Display contents of CONSULT-III	Description	Possible malfunction factor/Action to take
U1300 U125C	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• SONAR CONN [U125C]</li> </ul>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> <li>• sonar control unit power supply or ground circuit malfunction are detected.</li> <li>• malfunction is detected in the AV communication circuits between around view monitor control unit and sonar control unit.</li> <li>• malfunction is detected in the AV communication signal between around view monitor control unit and sonar control unit.</li> </ul>	<ul style="list-style-type: none"> <li>• Sonar control unit power supply and ground circuits.</li> <li>• AV communication circuits between around view monitor control unit and sonar control unit.</li> </ul>
U1300 U1240 U1248 U1246 U1254 U125B	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• SWITCH CONN [U1240]</li> <li>• DVD DECK CONN [U1248]</li> <li>• VIDEO DIST CONN [U1246]</li> <li>• IPod CONN [U1254]</li> <li>• AROUND CAMERA CONN [U125B]</li> </ul>	<p>Malfunction is detected in the AV communication circuits between AV control unit and around view monitor control unit.</p>	<p>AV communication circuits between AV control unit and around view monitor control unit.</p>

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## B2700 CORNER SENSOR [FL]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

### B2700 CORNER SENSOR [FL]

#### Description

INFOID:000000003825797

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

#### DTC Logic

INFOID:000000003825798

#### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2700	CORNER SENSOR [FL] [B2700]	Corner sensor front left is malfunctioning.	Replace corner sensor front LH



## B2701 SENSOR HARNESS OPEN [CR-FL]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

### B2701 SENSOR HARNESS OPEN [CR-FL]

#### Description

INFOID:000000003825799

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

#### DTC Logic

INFOID:000000003825800

#### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2701	SENSOR HARNESS OPEN [CR-FL] [B2701]	Corner sensor front LH harness circuit is open.	Check corner sensor front LH circuit

#### Diagnosis Procedure

INFOID:000000003825801

#### 1.CHECK HARNESS CORNER SENSOR FRONT LH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect sonar control unit connector and corner sensor connector.
3. Check continuity between sonar control unit harness connector and corner sensor (FL) harness connector.

Sonar control unit		Corner sensor (FL)		Continuity
Connector	Terminal	Connector	Terminal	
M44	3	E154	1	Existed

4. Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	3		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HARNESS CORNER SENSOR FRONT LH GROUND CIRCUIT

Check continuity between sonar control unit harness connector and corner sensor (FL) harness connector.

Sonar control unit		Corner sensor (FL)		Continuity
Connector	Terminal	Connector	Terminal	
M44	12	E154	2	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.



## B2702 CORNER SENSOR [FR]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

### B2702 CORNER SENSOR [FR]

#### Description

INFOID:000000003825802

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

#### DTC Logic

INFOID:000000003825803

#### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2702	CORNER SENSOR [FR] [B2702]	Corner sensor front right is malfunctioning.	Replace corner sensor front RH



# B2703 SENSOR HARNESS OPEN [CR-FR]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## B2703 SENSOR HARNESS OPEN [CR-FR]

### Description

INFOID:000000003825804

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

### DTC Logic

INFOID:000000003825805

### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2703	SENSOR HARNESS OPEN [CR-FR] [B2703]	Corner sensor front right harness circuit is open.	Check corner sensor front RH circuit

### Diagnosis Procedure

INFOID:000000003825806

#### 1.CHECK HARNESS CORNER SENSOR FRONT RH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect sonar control unit connector and corner sensor connector.
3. Check continuity between sonar control unit harness connector and corner sensor (FR) harness connector.

Sonar control unit		Corner sensor (FR)		Continuity
Connector	Terminal	Connector	Terminal	
M44	4	E152	1	Existed

4. Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	4		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HARNESS CORNER SENSOR FRONT RH GROUND CIRCUIT

Check continuity between sonar control unit harness connector and corner sensor (FR) harness connector.

Sonar control unit		Corner sensor (FR)		Continuity
Connector	Terminal	Connector	Terminal	
M44	12	E152	2	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.



## B2704 CORNER SENSOR [RL]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

### B2704 CORNER SENSOR [RL]

#### Description

INFOID:000000003825807

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

#### DTC Logic

INFOID:000000003825808

#### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2704	CORNER SENSOR [RL] [B2704]	Corner sensor rear left is malfunctioning.	Replace corner sensor rear LH



# B2705 SENSOR HARNESS OPEN [CR-RL]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## B2705 SENSOR HARNESS OPEN [CR-RL]

### Description

INFOID:000000003825809

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

### DTC Logic

INFOID:000000003825810

### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2705	SENSOR HARNESS OPEN [CR-RL] [B2705]	Corner sensor rear left harness circuit is open.	Check corner sensor rear LH circuit

### Diagnosis Procedure

INFOID:000000003825811

#### 1.CHECK HARNESS CORNER SENSOR REAR LH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect sonar control unit connector and corner sensor connector.
3. Check continuity between sonar control unit harness connector and corner sensor (RL) harness connector.

Sonar control unit		Corner sensor (RL)		Continuity
Connector	Terminal	Connector	Terminal	
M44	5	B259	1	Existed

4. Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	5		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HARNESS CORNER SENSOR REAR LH GROUND CIRCUIT

Check continuity between sonar control unit harness connector and corner sensor (RL) harness connector.

Sonar control unit		Corner sensor (RL)		Continuity
Connector	Terminal	Connector	Terminal	
M44	12	B259	2	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.



## B2706 CORNER SENSOR [RR]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

### B2706 CORNER SENSOR [RR]

#### Description

INFOID:000000003825812

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

#### DTC Logic

INFOID:000000003825813

#### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2706	CORNER SENSOR [RR] [B2706]	Corner sensor rear right is malfunctioning.	Replace corner sensor rear RH



# B2707 SENSOR HARNESS OPEN [CR-RR]

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## B2707 SENSOR HARNESS OPEN [CR-RR]

### Description

INFOID:000000003825814

Component	Description
CORNER SENSOR	The obstacle distance is detected. The signal is transmitted to the sonar control unit.

### DTC Logic

INFOID:000000003825815

### DTC DETECTION LOGIC

DTC No.	CONSULT-III indication	DTC detection condition	Troubleshooting
B2707	SENSOR HARNESS OPEN [CR-RR] [B2707]	Corner sensor rear right harness circuit is open.	Check corner sensor rear RH circuit

### Diagnosis Procedure

INFOID:000000003825816

#### 1.CHECK HARNESS CORNER SENSOR REAR RH SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect sonar control unit connector and corner sensor connector.
- Check continuity between sonar control unit harness connector and corner sensor (RR) harness connector.

Sonar control unit		Corner sensor (RR)		Continuity
Connector	Terminal	Connector	Terminal	
M44	6	B256	1	Existed

- Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	6		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HARNESS CORNER SENSOR REAR RH GROUND CIRCUIT

Check continuity between sonar control unit harness connector and corner sensor (RR) harness connector.

Sonar control unit		Corner sensor (RR)		Continuity
Connector	Terminal	Connector	Terminal	
M44	12	B256	2	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.



## POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

### POWER SUPPLY AND GROUND CIRCUIT

#### AV CONTROL UNIT

##### AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000003825817

### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19
Ignition switch ON or START	3

Is inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

### 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M80	19	OFF	Battery voltage
	M87	22		
		24		
ACC power supply	M80	7	ACC	Battery voltage
	M87	25		
Ignition signal	M87	35	ON	Battery voltage

Is inspection result normal?

YES >> GO TO 3.

NO >> Check harness between AV control unit and fuse.

### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors.
3. Check continuity between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M87	21	OFF	Existed
		23		

Is inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

#### FRONT DISPLAY UNIT

##### FRONT DISPLAY UNIT : Diagnosis Procedure

INFOID:000000003825818

### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Is inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

## 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between front display unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M75	2	OFF	Battery voltage
ACC power supply	M75	3	ACC	Battery voltage

Is inspection result normal?

YES >> GO TO 3.

NO >> Check harness between front display unit and fuse.

## 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector.
3. Check continuity between front display unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M75	1	OFF	Existed
		13		

Is inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## REAR DISPLAY UNIT

### REAR DISPLAY UNIT : Diagnosis Procedure

INFOID:000000003825901

## 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

## 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between rear display unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B26	3	OFF	Battery voltage
		4		
ACC power supply	B26	6	ACC	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between rear display unit and fuse.

## 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear display unit connector.
3. Check continuity between rear display unit harness connector and ground.



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B26	1	OFF	Existed
		2		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## VIDEO DISTRIBUTOR

### VIDEO DISTRIBUTOR : Diagnosis Procedure

INFOID:000000003825902

#### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19
Ignition switch ON or START	3

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

#### 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between video distributor harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M99	54	OFF	Battery voltage
ACC power supply	M99	55	ACC	Battery voltage
Ignition signal	M99	56	ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between video distributor and fuse.

#### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect video distributor connector.
3. Check continuity between video distributor harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M99	53	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## MULTIFUNCTION SWITCH

### MULTIFUNCTION SWITCH : Diagnosis Procedure

INFOID:000000003825819

#### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

## 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
ACC power supply	M72	3	ACC	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between multifunction switch and fuse.

## 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector.
3. Check continuity between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M72	1	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## BOSE AMP.

### BOSE AMP. : Diagnosis Procedure

INFOID:000000003825820

## 1.CHECK FUSE

Check for blown fuse.

Power source	Fuse No.
Battery	8

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

## 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between BOSE amp. harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B42	11	OFF	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between BOSE amp. and fuse.

## 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE amp. connector.
3. Check continuity between BOSE amp. harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B42	12	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

NO >> Repair harness or connector.

## DVD PLAYER

### DVD PLAYER : Diagnosis Procedure

INFOID:000000003825903

#### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

#### 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between DVD player harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M182	2	OFF	Battery voltage
ACC power supply	M182	4	ACC	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between DVD player and fuse.

#### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect DVD player connector.
3. Check continuity between DVD player harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M182	1	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## iPod ADAPTER

### iPod ADAPTER : Diagnosis Procedure

INFOID:000000003825821

#### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

#### 2.CHECK POWER SUPPLY CIRCUIT

Check voltage between iPod adapter harness connector and ground.



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M111	5	OFF	Battery voltage
ACC power supply	M111	3	ACC	Battery voltage

Is the inspection result normal?

YES >> INSPECTION END

NO >> Check harness between iPod adapter and fuse.

## AROUND VIEW MONITOR CONTROL UNIT

### AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure

INFOID:000000003825823

#### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC	19
Ignition switch ON	4

Is inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

#### 2.CHECK POWER SUPPLY CIRCUITS

Check voltage between around view monitor control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B46	2	OFF	Battery voltage
ACC power supply	B46	4	ACC	Battery voltage
Ignition power supply	B46	3	ON	Battery voltage

Is inspection result normal?

YES >> GO TO 3.

NO >> Check harness between around view monitor control unit and fuse.

#### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector.
3. Check continuity between around view monitor control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B46	1	OFF	Existed

Is inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

## SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

### SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR) : Diagnosis Procedure

INFOID:000000003825824

#### 1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19



## POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

### 2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between sonar control unit harness connector and ground.

Sonar control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M44	13		Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace sonar control unit power supply harness.

### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect sonar control unit connector.
3. Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	24		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace sonar control unit ground harness.



# RGB (R: RED) SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## RGB (R: RED) SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

### Description

INFOID:000000003825825

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

### Diagnosis Procedure

INFOID:000000003825826

#### 1.CHECK CONTINUITY RGB (R: RED) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	17	M88	61	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	17		Not existed

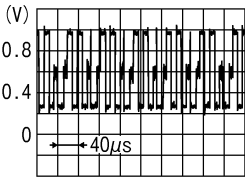
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB (R: RED) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	17	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 JSNIA1029ZZ

Is inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# RGB (G: GREEN) SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## RGB (G: GREEN) SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

### Description

INFOID:000000003825827

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

### Diagnosis Procedure

INFOID:000000003825828

#### 1.CHECK CONTINUITY RGB (G: GREEN) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	6	M88	62	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	6		Not existed

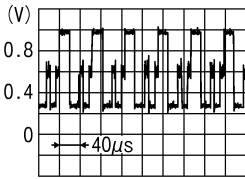
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB (G: GREEN) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	6	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 JSNIA1030ZZ

Is inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# RGB (B: BLUE) SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## RGB (B: BLUE) SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

### Description

INFOID:000000003825829

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

### Diagnosis Procedure

INFOID:000000003825830

#### 1.CHECK CONTINUITY RGB (B: BLUE) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	18	M88	63	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	18		Not existed

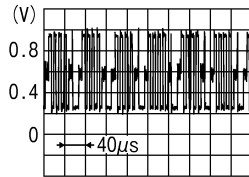
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB (B: BLUE) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	18	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 JSNIA1031ZZ

Is inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# RGB SYNCHRONIZING SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## RGB SYNCHRONIZING SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

### Description

INFOID:000000003825831

Transmit the RGB synchronizing signal to the front display unit so as to synchronize the RGB image displayed with AV control unit.

### Diagnosis Procedure

INFOID:000000003825832

#### 1.CHECK CONTINUITY RGB SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	19	M88	65	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	19		Not existed

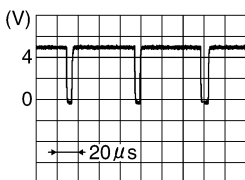
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB SYNCHRONIZING SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) (V)		(-)	Reference value
Connector	Terminal		
M75	19	Ground	

Is inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# RGB AREA (YS) SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## RGB AREA (YS) SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

### Description

INFOID:000000003825833

Transmits the display area of RGB image displayed by AV control unit with RGB area (YS) signal to front display unit.

### Diagnosis Procedure

INFOID:000000003825834

#### 1.CHECK CONTINUITY RGB AREA (YS) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	9	M88	67	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	9		Not existed

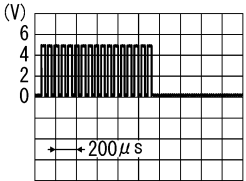
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB SYNCHRONIZING SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Condition	Reference value (Approx.)
Connector	Terminal			
M75	9	Ground	At RGB image displayed	5.0 V
			At AUX image displayed	

Is inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.



# HORIZONTAL SYNCHRONIZING SIGNAL CIRCUIT (FRONT DISPLAY UNIT TO AV CONTROL UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## HORIZONTAL SYNCHRONIZING SIGNAL CIRCUIT (FRONT DISPLAY UNIT TO AV CONTROL UNIT)

### Description

INFOID:000000003825835

In composite image (DVD image, AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from front display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

### Diagnosis Procedure

INFOID:000000003825836

#### 1.CHECK CONTINUITY HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	8	M88	68	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	8		Not existed

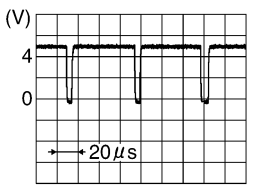
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Reference value
Connector	Terminal		
M75	8	Ground	

Is inspection result normal?

YES >> Replace AV control unit.

NO >> Replace front display unit.



# VERTICAL SYNCHRONIZING SIGNAL CIRCUIT (FRONT DISPLAY UNIT TO AV CONTROL UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## VERTICAL SYNCHRONIZING SIGNAL CIRCUIT (FRONT DISPLAY UNIT TO AV CONTROL UNIT)

### Description

INFOID:0000000003825837

In composite image (DVD image, AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from front display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

### Diagnosis Procedure

INFOID:0000000003825838

#### 1.CHECK CONTINUITY VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	20	M88	69	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	20		Not existed

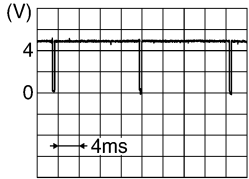
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground.

(+) Front display unit		(-)	Reference value
Connector	Terminal		
M75	20	Ground	

Is inspection result normal?

YES >> Replace AV control unit.

NO >> Replace front display unit.



# COMPOSITE IMAGE SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO FRONT DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## COMPOSITE IMAGE SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO FRONT DISPLAY UNIT)

### Description

INFOID:000000003867751

Video distributor receives the image signal from the DVD player and auxiliary input jack and then transmits it to the front display unit and rear display unit.

### Diagnosis Procedure

INFOID:000000003867752

#### 1.CHECK CONTINUITY COMPOSITE IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect video distributor connector and front display unit connector.
3. Check continuity between video distributor harness connector and front display unit harness connector.

Video distributor		Front display unit		Continuity
Connector	Terminals	Connector	Terminals	
M98	8	M75	15	Existed
	6		5	

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	15		Not existed

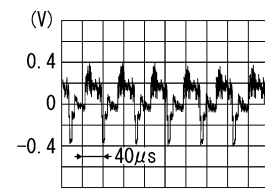
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMPOSITE IMAGE SIGNAL

1. Connect video distributor connector and front display unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector using an oscilloscope.

(+)		(-)		Condition	Reference value
Front display unit		Front display unit			
Connector	Terminal	Connector	Terminal		
M75	15	M75	5	When AUX, DVD or camera image is displayed on front display unit.	

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace video distributor.



# RGB (R: RED) SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO REAR DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## RGB (R: RED) SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO REAR DISPLAY UNIT)

### Description

INFOID:000000003867223

Transmit the image displayed with video distributor with RGB signal to the rear display unit.

### Diagnosis Procedure

INFOID:000000003867224

#### 1.CHECK CONTINUITY RGB (R: RED) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear display unit connector and video distributor connector.
3. Check continuity between rear display unit harness connector and video distributor harness connector.

Rear display unit		Video distributor		Continuity
Connector	Terminal	Connector	Terminal	
B26	22	M97	25	Existed

4. Check continuity between rear display unit harness connector and ground.

Rear display unit		Ground	Continuity
Connector	Terminal		
B26	22		Not existed

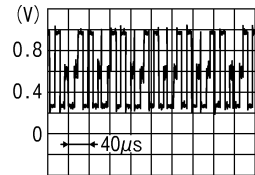
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB (R: RED) SIGNAL

1. Connect rear display unit connector and video distributor connector.
2. Turn ignition switch ON.
3. Check signal between rear display unit harness connector and ground using an oscilloscope.

(+) Rear display unit		(-)	Condition	Reference value
Connector	Terminal			
B26	22	Ground	Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	 JSNIA1029ZZ

Is the inspection result normal?

YES >> Replace rear display unit.

NO >> Replace video distributor.



# RGB (G: GREEN) SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO REAR DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## RGB (G: GREEN) SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO REAR DISPLAY UNIT)

### Description

INFOID:000000003867225

Transmit the image displayed with video distributor with RGB signal to the rear display unit.

### Diagnosis Procedure

INFOID:000000003867226

#### 1.CHECK CONTINUITY RGB (G: GREEN) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear display unit connector and video distributor connector.
3. Check continuity between rear display unit harness connector and video distributor harness connector.

Rear display unit		Video distributor		Continuity
Connector	Terminal	Connector	Terminal	
B26	21	M97	26	Existed

4. Check continuity between rear display unit harness connector and ground.

Rear display unit		Ground	Continuity
Connector	Terminal		
B26	21		Not existed

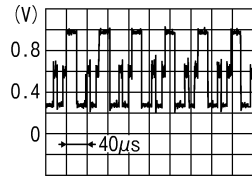
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB (G: GREEN) SIGNAL

1. Connect rear display unit connector and video distributor connector.
2. Turn ignition switch ON.
3. Check signal between rear display unit harness connector and ground using an oscilloscope.

(+) (V)		(-)	Condition	Reference value
Connector	Terminal			
B26	21	Ground	Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	

JSNIA1030ZZ

Is the inspection result normal?

YES >> Replace rear display unit.

NO >> Replace video distributor.



# RGB (B: BLUE) SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO REAR DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## RGB (B: BLUE) SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO REAR DISPLAY UNIT)

### Description

INFOID:000000003867227

Transmit the image displayed with video distributor with RGB signal to the rear display unit.

### Diagnosis Procedure

INFOID:000000003867228

#### 1.CHECK CONTINUITY RGB (B: BLUE) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear display unit connector and video distributor connector.
3. Check continuity between rear display unit harness connector and video distributor harness connector.

Rear display unit		Video distributor		Continuity
Connector	Terminal	Connector	Terminal	
B26	20	M97	28	Existed

4. Check continuity between rear display unit harness connector and ground.

Rear display unit		Ground	Continuity
Connector	Terminal		
B26	20		Not existed

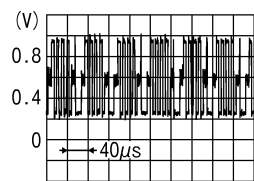
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB (B: BLUE) SIGNAL

1. Connect rear display unit connector and video distributor connector.
2. Turn ignition switch ON.
3. Check signal between rear display unit harness connector and ground using an oscilloscope.

(+) (V)		(-)	Condition	Reference value
Connector	Terminal			
B26	20	Ground	Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	

JSNIA1031ZZ

Is the inspection result normal?

YES >> Replace rear display unit.

NO >> Replace video distributor.



# RGB AREA (YS) SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO REAR DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## RGB AREA (YS) SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO REAR DISPLAY UNIT)

### Description

INFOID:000000003867614

Transmits the display area of RGB image displayed by video distributor with RGB area (YS) signal to rear display unit.

### Diagnosis Procedure

INFOID:000000003867615

#### 1.CHECK CONTINUITY RGB AREA (YS) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear display unit connector and video distributor connector.
3. Check continuity between rear display unit harness connector and video distributor harness connector.

Rear display unit		Video distributor		Continuity
Connector	Terminal	Connector	Terminal	
B26	15	M97	32	Existed

4. Check continuity between rear display unit harness connector and ground.

Rear display unit		Ground	Continuity
Connector	Terminal		
B26	15		Not existed

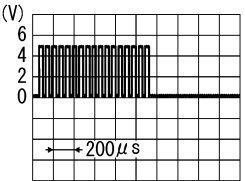
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK RGB AREA (YS) SIGNAL

1. Connect rear display unit connector and video distributor connector.
2. Turn ignition switch ON.
3. Check signal between rear display unit harness connector and ground using an oscilloscope.

(+) (V)		(-)	Condition	Reference value
Connector	Terminal			
B26	15	Ground	When AUX or DVD image is displayed on rear display unit.	0 V
			Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	

PKIB4948J

Is the inspection result normal?

YES >> Replace rear display unit.

NO >> Replace video distributor.



# VERTICAL SYNCHRONIZING SIGNAL CIRCUIT (REAR DISPLAY UNIT TO VIDEO DISTRIBUTOR)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## VERTICAL SYNCHRONIZING SIGNAL CIRCUIT (REAR DISPLAY UNIT TO VIDEO DISTRIBUTOR)

### Description

INFOID:000000003867616

In composite image (DVD and AUX images), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from rear display unit to video distributor so as to synchronize the RGB images displayed with video distributor such as the image quality adjusting menu, etc.

### Diagnosis Procedure

INFOID:000000003867617

#### 1.CHECK CONTINUITY VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear display unit connector and video distributor connector.
3. Check continuity between rear display unit harness connector and video distributor harness connector.

Rear display unit		Video distributor		Continuity
Connector	Terminal	Connector	Terminal	
B26	17	M97	29	Existed

4. Check continuity between rear display unit harness connector and ground.

Rear display unit		Ground	Continuity
Connector	Terminal		
B26	17		Not existed

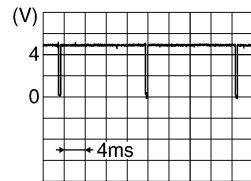
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL

1. Connect rear display unit connector and video distributor connector.
2. Turn ignition switch ON.
3. Check signal between rear display unit harness connector and ground using an oscilloscope.

(+) Rear display unit		(-)	Condition	Reference value
Connector	Terminal			
B26	17	Ground	—	

Is the inspection result normal?

YES >> Replace video distributor.

NO >> Replace rear display unit.



# HORIZONTAL SYNCHRONIZING SIGNAL CIRCUIT (REAR DISPLAY UNIT TO VIDEO DISTRIBUTOR)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## HORIZONTAL SYNCHRONIZING SIGNAL CIRCUIT (REAR DISPLAY UNIT TO VIDEO DISTRIBUTOR)

### Description

INFOID:000000003867618

In composite image (DVD and AUX images), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from rear display unit to video distributor so as to synchronize the RGB images displayed with video distributor such as the image quality adjusting menu, etc.

### Diagnosis Procedure

INFOID:000000003867619

#### 1.CHECK CONTINUITY HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear display unit connector and video distributor connector.
3. Check continuity between rear display unit harness connector and video distributor harness connector.

Rear display unit		Video distributor		Continuity
Connector	Terminal	Connector	Terminal	
B26	18	M97	30	Existed

4. Check continuity between rear display unit harness connector and ground.

Rear display unit		Ground	Continuity
Connector	Terminal		
B26	18		Not existed

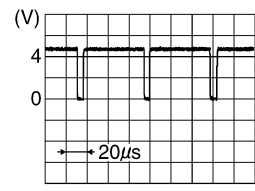
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

1. Connect rear display unit connector and video distributor connector.
2. Turn ignition switch ON.
3. Check signal between rear display unit harness connector and ground using an oscilloscope.

(+) (V)		(-)	Condition	Reference value
Connector	Terminal			
B26	18	Ground	—	 SKIB3601E

Is the inspection result normal?

YES >> Replace video distributor.

NO >> Replace rear display unit.



# COMPOSITE IMAGE SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO REAR DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## COMPOSITE IMAGE SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO REAR DISPLAY UNIT)

### Description

INFOID:000000003867749

Video distributor receives the image signal from the DVD player and auxiliary input jack and then transmits it to the front display unit and rear display unit.

### Diagnosis Procedure

INFOID:000000003867750

#### 1.CHECK CONTINUITY COMPOSITE IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect video distributor connector and rear display unit connector.
3. Check continuity between video distributor harness connector and rear display unit harness connector.

Video distributor		Rear display unit		Continuity
Connector	Terminal	Connector	Terminal	
M97	34	B26	14	Existed

4. Check continuity between rear display unit harness connector and ground.

Rear display unit		Ground	Continuity
Connector	Terminal		
B26	14		Not existed

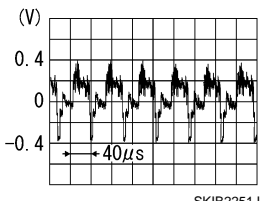
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMPOSITE IMAGE SIGNAL

1. Connect video distributor connector and rear display unit connector.
2. Turn ignition switch ON.
3. Check signal between rear display unit harness connector using an oscilloscope.

(+) Rear display unit		(-)	Condition	Reference value
Connector	Terminal			
B26	14	Ground	When AUX or DVD image is displayed on rear display unit.	

Is the inspection result normal?

YES >> Replace rear display unit.

NO >> Replace video distributor.



# AUX IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## AUX IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003825839

Transmits the image signal of external device from auxiliary input jacks to video distributor.

### Diagnosis Procedure

INFOID:000000003825840

#### 1.CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jacks connector and video distributor connector.
3. Check continuity between auxiliary input jacks harness connector and video distributor harness connector.

Auxiliary input jacks		Video distributor		Continuity
Connector	Terminal	Connector	Terminal	
M183	7	M98	19	Existed

4. Check continuity between auxiliary input jacks harness connector and ground.

Auxiliary input jacks		Ground	Continuity
Connector	Terminal		
M183	7		Not existed

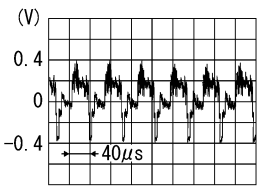
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK AUX IMAGE SIGNAL

1. Connect auxiliary input jacks connector and video distributor connector.
2. Turn ignition switch ON.
3. Check signal between auxiliary input jacks harness connector and ground.

(+) Auxiliary input jacks		(-)	Condition	Reference value
Connector	Terminal			
M183	7	Ground	At AUX image displayed	 SKIB2251J

Is inspection result normal?

YES >> Replace video distributor.

NO >> Check that there is no malfunction in the external device.



# DVD IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## DVD IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003867918

The DVD player transmits the playback DVD image signal to the video distributor. The video distributor receives the image signal from the DVD player, and auxiliary input jack, and then transmits it to the front display unit and rear display.

### Diagnosis Procedure

INFOID:000000003867919

#### 1.CHECK CONTINUITY DVD IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect DVD player connector and video distributor connector.
3. Check continuity between DVD player harness connector and video distributor harness connector.

DVD player		Video distributor		Continuity
Connector	Terminals	Connector	Terminals	
M182	7	M98	23	Existed
	5		22	

4. Check continuity between video distributor harness connector and ground.

Video distributor		Ground	Continuity
Connector	Terminal		
M98	23		Not existed

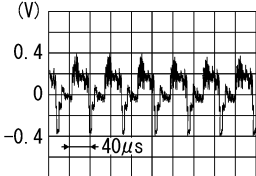
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK DVD IMAGE SIGNAL

1. Connect DVD player connector and video distributor connector.
2. Turn ignition switch ON.
3. Check signal between video distributor harness connector and ground using an oscilloscope.

(+)		(-)		Condition	Reference value
Video distributor		Video distributor			
Connector	Terminal	Connector	Terminal		
M98	23	M98	22	When DVD image is displayed.	 SKIB2251J

Is the inspection result normal?

YES >> Replace video distributor.

NO >> Replace DVD player.



# MODE CHANGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## MODE CHANGE SIGNAL CIRCUIT

### Description

INFOID:000000003825841

- AV control unit transmits the mode change signal to BOSE amp.
- Driver's Audio Stage controls the speaker's output characteristic by BOSE amp. so that the driver's seat is to be the center of sounds.

### Diagnosis Procedure

INFOID:000000003825842

#### 1.CHECK CONTINUITY MODE CHANGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE amp. connector and AV control unit connector.
3. Check continuity between BOSE amp. harness connector and AV control unit harness connector.

BOSE amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B41	17	M87	44	Existed

4. Check continuity between BOSE amp. harness connector and ground.

BOSE amp.		Ground	Continuity
Connector	Terminal		
B41	17		Not existed

Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Repair harness or connector.

#### 2.CHECK MODE CHANGE SIGNAL

1. Connect BOSE amp. connector.
2. Turn ignition switch ON.
3. Check voltage between BOSE amp. harness connector and ground.

(+) BOSE amp.		(-)	Voltage (Approx.)
Connector	Terminal		
B41	17	Ground	8.5 V

Is the inspection result normal?

- YES >> Replace AV control unit.  
NO >> Replace BOSE amp.



# DISK EJECT SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## DISK EJECT SIGNAL CIRCUIT

### Description

INFOID:000000003825843

The eject signal is output to AV control unit when the eject switch of multifunction switch is pressed.

### Diagnosis Procedure

INFOID:000000003825844

#### 1.CHECK CONTINUITY CD EJECT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector and AV control unit connector.
3. Check continuity between multifunction switch harness connector and AV control unit harness connector.

Multifunction switch		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M72	14	M89	85	Existed

4. Check continuity between multifunction switch harness connector and ground.

Multifunction switch		Ground	Continuity
Connector	Terminal		
M72	14		Not existed

Is inspection result normal?

- YES >> GO TO 2.  
NO >> Repair harness or connector.

#### 2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector and ground.

(+) AV control unit		(-)	Voltage (Approx.)
Connector	Terminal		
M89	85	Ground	3.3 V

Is inspection result normal?

- YES >> Replace preset switch.  
NO >> Replace AV control unit.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



# MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## MICROPHONE SIGNAL CIRCUIT

### Description

INFOID:000000003825845

Supply power from AV control unit to microphone. The microphone transmits the sound voice to the AV control unit.

### Diagnosis Procedure

INFOID:000000003825846

#### 1.CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND MICROPHONE CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and microphone connector.
3. Check continuity between AV control unit harness connector and microphone harness connector.

AV control unit		Microphone		Continuity
Connector	Terminals	Connector	Terminals	
M87	26	R17	4	Existed
	27		2	
	28		1	

4. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminals		
M87	26		Not existed
	28		

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE MICROPHONE VCC

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector.

(+)		(-)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M87	26	M87	27	5.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace AV control unit.

#### 3.CHECK MICROPHONE SIGNAL

1. Turn ignition switch OFF.
2. Connect microphone connector.
3. Turn ignition switch ON.
4. Check signal between AV control unit harness connector.



## MICROPHONE SIGNAL CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

**[NAVIGATION (TWIN MONITOR)]**

(+)AV control unit		(-)AV control unit		Condition	Reference value
Connector	Terminal	Connector	Terminal		
M87	28	M87	27	Give a voice.	<p>(V)</p> <p>2.5 2.0 1.5 1.0 0.5 0</p> <p>← 2ms →</p>

PKIB5037J

Is inspection result normal?

YES >> Replace AV control unit.  
NO >> Replace microphone.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P

AV



# CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## CAMERA IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003825851

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003825852

#### 1.CHECK CONTINUITY CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and front display unit connector.
3. Check continuity between around view monitor control unit harness connector and front display unit harness connector.

Around view monitor control unit		Front display unit		Continuity
Connector	Terminal	Connector	Terminal	
B46	27	M75	12	Existed

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B46	27		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector and front display unit connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector and ground.

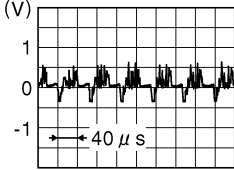
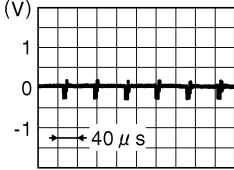
(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminal			



## CAMERA IMAGE SIGNAL CIRCUIT

&lt; DTC/CIRCUIT DIAGNOSIS &gt;

[NAVIGATION (TWIN MONITOR)]

B46	27	Ground	At camera image display	
			Other than camera im- age display	

Is inspection result normal?

YES &gt;&gt; Replace front display unit.

NO &gt;&gt; Replace around view monitor control unit.

A

B

C

D

E

F

G

H

I

J

K

L

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AV

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# STEERING ANGLE SENSOR SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## STEERING ANGLE SENSOR SIGNAL CIRCUIT

### Description

INFOID:000000003825855

- Steering angle sensor signal 1, 2 detects the turning direction and quantity of the steering and transmits it to the around view monitor control unit.
- Steering angle sensor signal 3 detects the neutral position of the steering and transmits it to around view monitor control unit.
- Around view monitor control unit performs the correction of neutral position with sensor signal 1, 2, 3 and vehicle speed signal.

### Diagnosis Procedure

INFOID:000000003825856

#### 1.CHECK CONTINUITY STEERING ANGLE SENSOR SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect around view monitor control unit connector and steering angle sensor connector.
- Check continuity between around view monitor control unit harness connector and steering angle sensor harness connector.

Around view monitor control unit		Steering angle sensor		Continuity
Connector	Terminals	Connector	Terminals	
B46	14	M37	3	Existed
	15		4	
	16		5	

- Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminals		
B46	14		Not existed
	15		
	16		

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK SIGNAL SENSOR SIGNAL

- Connect around view monitor control unit connector.
- Turn ignition switch ON.
- Check voltage between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Voltage (Approx.)
Connector	Terminals		
B46	14	Ground	5.0 V
	15		
	16		

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace around view monitor control unit.



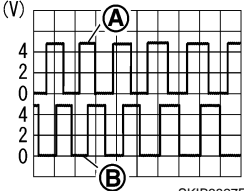
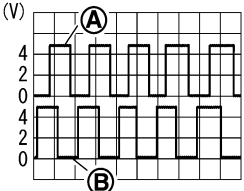
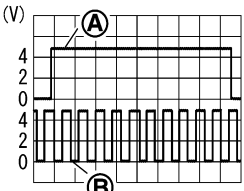
# STEERING ANGLE SENSOR SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## 3.CHECK SIGNAL SENSOR SIGNAL

1. Turn ignition switch OFF.
2. Connect steering angle sensor connector.
3. Turn ignition switch ON.
4. Check signal between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminals			
B46	14, 15	Ground	Turn the steering to the right	 <p>SKIB3827E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
			Turn the steering to the left	 <p>SKIB3828E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
	16	Ground	Turn the steering around the neutral position	 <p>SKIB3829E</p> <p>A: Sensor signal 3 B: Sensor signal 1</p>

Is inspection result normal?

YES >> INSPECTION END

NO >> Replace steering angle sensor.

AV



# STEERING SWITCH SIGNAL A CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## STEERING SWITCH SIGNAL A CIRCUIT

### Description

INFOID:000000003825857

Transmits the steering switch signal to AV control unit.

### Diagnosis Procedure

INFOID:000000003825858

#### 1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M80	6	M36	24	Existed

3. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M80	6		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace spiral cable.

#### 3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector.

(+)		(-)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M80	6	M80	15	5.0 V

Is inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit.

#### 4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-749, "Component Inspection"](#).

Is inspection result normal?

YES >> INSPECTION END

NO >> Replace steering switch.



STEERING SWITCH SIGNAL A CIRCUIT

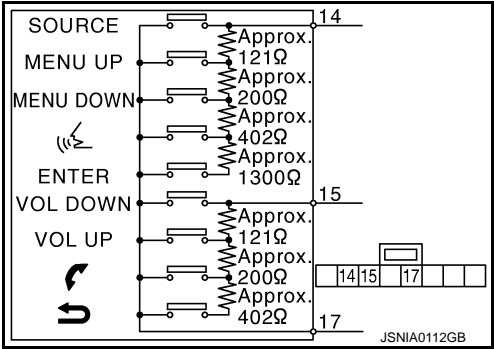
< DTC/CIRCUIT DIAGNOSIS >




[NAVIGATION (TWIN MONITOR)]

Component Inspection

INFOID:000000003825859

Measure the resistance between the steering switch connector.



Steering switch		Steering switch		Condition	Resistance value (Ω)
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	ENTER switch ON	2003 – 2043
				 switch ON	716 – 730
				MENU DOWN switch ON	318 – 324
				MENU UP switch ON	120 – 122
				SOURCE switch ON	0
	15			 switch ON	716 – 730
				 switch ON	318 – 324
				VOL UP switch ON	120 – 122
				VOL DOWN switch ON	0



# STEERING SWITCH SIGNAL B CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## STEERING SWITCH SIGNAL B CIRCUIT

### Description

INFOID:000000003825860

Transmits the steering switch signal to AV control unit.

### Diagnosis Procedure

INFOID:000000003825861

#### 1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M80	16	M36	31	Existed

3. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M80	16		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace spiral cable.

#### 3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector.

(+)		(-)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M80	16	M80	15	5.0 V

Is inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit.

#### 4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-751, "Component Inspection"](#).

Is inspection result normal?

YES >> INSPECTION END

NO >> Replace steering switch.



# STEERING SWITCH SIGNAL B CIRCUIT

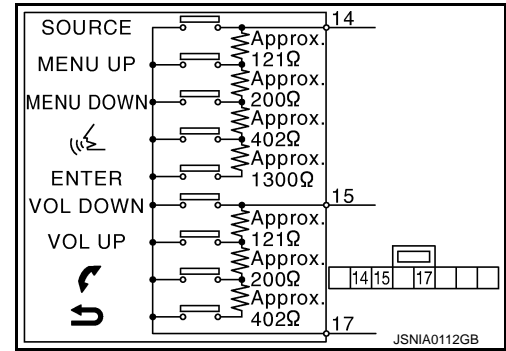
< DTC/CIRCUIT DIAGNOSIS >




[NAVIGATION (TWIN MONITOR)]

## Component Inspection

INFOID:000000003825862

Measure the resistance between the steering switch connector.



Steering switch		Steering switch		Condition	Resistance value (Ω)
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	ENTER switch ON	2003 – 2043
				 switch ON	716 – 730
				MENU DOWN switch ON	318 – 324
				MENU UP switch ON	120 – 122
				SOURCE switch ON	0
	15			 switch ON	716 – 730
				 switch ON	318 – 324
				VOL UP switch ON	120 – 122
				VOL DOWN switch ON	0



# STEERING SWITCH SIGNAL GND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## STEERING SWITCH SIGNAL GND CIRCUIT

### Description

INFOID:000000003825863

Transmits the steering switch signal to AV control unit.

### Diagnosis Procedure

INFOID:000000003825864

#### 1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M80	15	M36	33	Existed

Is inspection result normal?

- YES >> GO TO 2.  
NO >> Repair harness or connector.

#### 2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

- YES >> GO TO 3.  
NO >> Replace spiral cable.

#### 3.CHECK GROUND CIRCUIT

1. Connect AV control unit connector.
2. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M80	15		Not existed

Is inspection result normal?

- YES >> GO TO 4.  
NO >> Replace AV control unit.

#### 4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-752. "Component Inspection"](#).

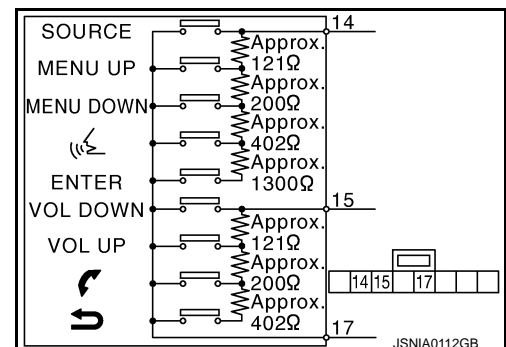
Is inspection result normal?

- YES >> INSPECTION END  
NO >> Replace steering switch.

### Component Inspection

INFOID:000000003825865

Measure the resistance between the steering switch connector.








# STEERING SWITCH SIGNAL GND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Steering switch		Steering switch		Condition	Resistance value (Ω)
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	ENTER switch ON	2003 – 2043
				 switch ON	716 – 730
				MENU DOWN switch ON	318 – 324
				MENU UP switch ON	120 – 122
				SOURCE switch ON	0
	15			 switch ON	716 – 730
				 switch ON	318 – 324
				VOL UP switch ON	120 – 122
				VOL DOWN switch ON	0

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AV



# FRONT CAMERA COMMUNICATION SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## FRONT CAMERA COMMUNICATION SIGNAL CIRCUIT

### Description

INFOID:000000003825866

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003825867

#### 1.CHECK CONTINUITY COMMUNICATION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and front camera connector.
3. Check continuity between around view monitor control unit harness connector and front camera harness connector.

Around view monitor control unit		Front camera		Continuity
Connector	Terminal	Connector	Terminal	
B45	45	E155	6	Existed

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B45	45		Not existed

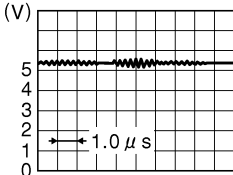
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMMUNICATION SIGNAL

1. Connect around view monitor control unit connector and front camera connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminal			
B45	45	Ground	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace front camera.



# FRONT CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## FRONT CAMERA IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003825868

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003825869

#### 1.CHECK CONTINUITY FRONT CAMERA POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and front camera connector.
3. Check continuity between around view monitor control unit harness connector and front camera harness connector.

Around view monitor control unit		Front camera		Continuity
Connector	Terminals	Connector	Terminals	
B45	44	E155	2	Existed
	46		1	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B45	46		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE FRONT CAMERA POWER SUPPLY

1. Connect around view monitor control unit connector and front camera connector.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit harness connector.

(+) Around view monitor control unit		(-)	Condition	Voltage (Approx.)
Connector	Terminal			
B45	46	Ground	"CAMERA" switch is ON or shift position is "R".	6.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace around view monitor control unit.

#### 3.CHECK CONTINUITY FRONT CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and front camera connector.
3. Check continuity between around view monitor control unit harness connector and front camera harness connector.



# FRONT CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Around view monitor control unit		Front camera		Continuity
Connector	Terminals	Connector	Terminals	
B45	41	E155	3	Existed
	42		4	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminals		
B45	41, 42		Not existed

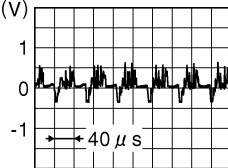
Is inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

## 4.CHECK FRONT CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector and front camera connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector.

(+)		(-)		Condition	Reference value
Around view monitor control unit		Around view monitor control unit			
Connector	Terminal	Connector	Terminal		
B45	41	B45	42	“CAMERA” switch is ON or shift position is “R”.	<div><div>(V)</div><div></div><div>JSNIA0834GB</div></div>

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace front camera.



# REAR CAMERA COMMUNICATION SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## REAR CAMERA COMMUNICATION SIGNAL CIRCUIT

### Description

INFOID:000000003825870

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003825871

#### 1.CHECK CONTINUITY COMMUNICATION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and rear camera connector.
3. Check continuity between around view monitor control unit harness connector and rear camera harness connector.

Around view monitor control unit		Rear camera		Continuity
Connector	Terminal	Connector	Terminal	
B46	35	D111	4	Existed

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B46	35		Not existed

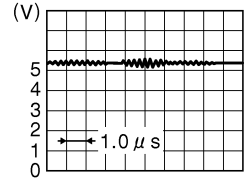
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMMUNICATION SIGNAL

1. Connect around view monitor control unit connector and rear camera connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminal			
B46	35	Ground	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace rear camera.



# REAR CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## REAR CAMERA IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003825872

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003825873

#### 1.CHECK CONTINUITY REAR CAMERA POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and rear camera connector.
3. Check continuity between around view monitor control unit harness connector terminals 36, 38 and rear camera harness connector terminals 8, 7.

Around view monitor control unit		Rear camera		Continuity
Connector	Terminals	Connector	Terminals	
B46	36	D111	8	Existed
	38		7	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B46	36		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE REAR CAMERA POWER SUPPLY

1. Connect around view monitor control unit connector and rear camera connector.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Voltage (Approx.)
Connector	Terminal			
B46	36	Ground	"CAMERA" switch is ON or shift position is "R".	6.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace around view monitor control unit.

#### 3.CHECK CONTINUITY REAR CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and rear camera connector.
3. Check continuity between around view monitor control unit harness connector and rear camera harness connector.



# REAR CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Around view monitor control unit		Rear camera		Continuity
Connector	Terminals	Connector	Terminals	
B46	39	D111	5	Existed
	40		1	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminals		
B46	39, 40		Not existed

Is inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

## 4.CHECK REAR CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector and rear camera connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector.

(+)		(-)		Condition	Reference value
Around view monitor control unit		Around view monitor control unit			
Connector	Terminal	Connector	Terminal		
B46	39	B46	40	“CAMERA” switch is ON or shift position is “R”.	<div><div><div>(V)</div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div>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Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace rear camera.

AV



# SIDE CAMERA LH COMMUNICATION SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## SIDE CAMERA LH COMMUNICATION SIGNAL CIRCUIT

### Description

INFOID:000000003825874

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003825875

#### 1.CHECK CONTINUITY COMMUNICATION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and door mirror (driver side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (driver side) harness connector.

Around view monitor control unit		Door mirror (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
B45	47	D3	3	Existed

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B45	47		Not existed

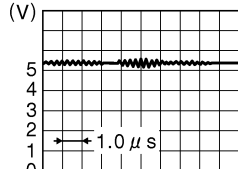
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMMUNICATION SIGNAL

1. Connect around view monitor control unit connector and door mirror (driver side) connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminal			
B45	47	Ground	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace side camera LH.



# SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003825876

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003825877

#### 1.CHECK CONTINUITY SIDE CAMERA LH POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and door mirror (driver side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (driver side) harness connector.

Around view monitor control unit		Door mirror (driver side)		Continuity
Connector	Terminals	Connector	Terminals	
B45	48	D3	6	Existed
	50		18	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B45	48		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE SIDE CAMERA LH POWER SUPPLY

1. Connect around view monitor control unit connector and door mirror (driver side) connector.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Voltage (Approx.)
Connector	Terminal			
B45	48	Ground	"CAMERA" switch is ON or shift position is "R".	6.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace around view monitor control unit.

#### 3.CHECK CONTINUITY SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and door mirror (driver side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (driver side) harness connector.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



# SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Around view monitor control unit		Door mirror (driver side)		Continuity
Connector	Terminals	Connector	Terminals	
B45	51	D3	5	Existed
	52		17	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminals		
B45	51, 52		Not existed

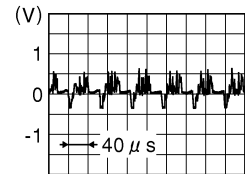
Is inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

## 4.CHECK SIDE CAMERA LH IMAGE SIGNAL

1. Connect around view monitor control unit connector and door mirror (driver side) connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector.

(+)		(-)		Condition	Reference value
Around view monitor control unit		Around view monitor control unit			
Connector	Terminal	Connector	Terminal		
B45	51	B45	52	“CAMERA” switch is ON or shift position is “R”.	<div><div>(V)</div><div></div><div>JSNIA0834GB</div></div>

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace side camera LH.



# SIDE CAMERA RH COMMUNICATION SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## SIDE CAMERA RH COMMUNICATION SIGNAL CIRCUIT

### Description

INFOID:000000003825878

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003825879

#### 1.CHECK CONTINUITY COMMUNICATION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and door mirror (passenger side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (passenger side) harness connector.

Around view monitor control unit		Door mirror (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
B46	33	D33	3	Existed

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B46	33		Not existed

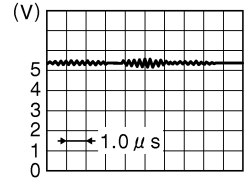
#### Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK COMMUNICATION SIGNAL

1. Connect around view monitor control unit connector and door mirror (passenger side) connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector and ground.

(+) Around view monitor control unit		(-)	Condition	Reference value
Connector	Terminal			
B46	33	Ground	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB

#### Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace side camera RH.



# SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

## SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000003825880

- Around view monitor control unit supplies to the front camera, rear camera and side camera. And then it superimpose the images from each camera and outputs then to the front display unit.
- Superimpose the guiding lines, predicted course line and sonar indicator to the camera image that outputs to the front display unit.
- Around view monitor control unit performs the reception/transmission of communication signal with each camera.

### Diagnosis Procedure

INFOID:000000003825881

#### 1.CHECK CONTINUITY SIDE CAMERA RH POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect control unit connector and door mirror (passenger side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (passenger side) harness connector.

Around view monitor control unit		Door mirror (passenger side)		Continuity
Connector	Terminals	Connector	Terminals	
B46	32	D33	18	Existed
	34		6	

4. Check continuity between around view monitor control unit harness connector and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B46	34		Not existed

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

#### 2.CHECK VOLTAGE SIDE CAMERA RH POWER SUPPLY

1. Connect around view monitor control unit connector and door mirror (passenger side) connector.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit harness connector and ground.

(+)		(-)	Condition	Voltage (Approx.)
Around view monitor control unit				
Connector	Terminal			
B46	34	Ground	“CAMERA” switch is ON or shift position is “R”.	6.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace around view monitor control unit.

#### 3.CHECK CONTINUITY SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector and door mirror (passenger side) connector.
3. Check continuity between around view monitor control unit harness connector and door mirror (passenger side) harness connector.



# SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Around view monitor control unit		Door mirror (passenger side)		Continuity
Connector	Terminals	Connector	Terminals	
B46	29	D33	5	Existed
	30		17	

4. Check continuity between around view monitor control unit harness connector and ground.

around view monitor control unit		Ground	Continuity
Connector	Terminals		
B46	29, 30		Not existed

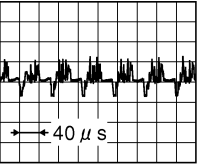
Is inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

## 4.CHECK SIDE CAMERA RH IMAGE SIGNAL

1. Connect around view monitor control unit connector and door mirror (passenger side) connector.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit harness connector.

(+)		(-)		Condition	Reference value
Around view monitor control unit		Around view monitor control unit			
Connector	Terminal	Connector	Terminal		
B46	29	B46	30	“CAMERA” switch is ON or shift position is “R”.	<div><div>(V)</div><div></div><div>JSNIA0834GB</div></div>

Is inspection result normal?

YES >> Replace around view monitor control unit.

NO >> Replace side camera RH.

AV



## BUZZER SIGNAL CIRCUIT

## Description

INFOID:000000003825882

The sonar control unit outputs the buzzer signal when the rear sonar detects the obstacle.

## Component Function Check

INFOID:000000003825883

## 1. SONAR CONTROL UNIT ACTIVE TEST

1. Select "BUZZER" of sonar control unit active test item.
2. Check the buzzer operation.

BUZZER

Test item	Condition
On	: Buzzer is operation.
Off	: Buzzer is not operation.

&gt;&gt; INSPECTION END

## Diagnosis Procedure

INFOID:000000003825884

## 1. CHECK BUZZER POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between buzzer harness connector and ground.

(+)		(-)	Voltage (Approx.)
Buzzer			
Connector	Terminal		
B231	1	Ground	Battery voltage

Is the inspection result normal?

YES &gt;&gt; GO TO 2.

NO &gt;&gt; Repair harness or connector.

## 2. CHECK HARNESS BUZZER SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect sonar control unit connector and buzzer connector.
3. Check continuity between sonar control unit harness connector and buzzer harness connector.

Sonar control unit		Buzzer		Continuity
Connector	Terminal	Connector	Terminal	
M44	23	B231	2	Existed

4. Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
M44	23		Not existed

Is the inspection result normal?

YES &gt;&gt; GO TO 3.

NO &gt;&gt; Repair harness or connector.

## 3. CHECK SIGNAL SONAR CONTROL UNIT

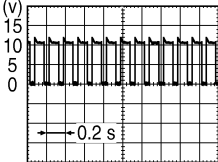
1. Connect sonar control unit connector and buzzer connector.
2. Check signal between sonar control unit harness connector and ground.



BUZZER SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

(+)		(-)	Condition	Reference value
Sonar control unit				
Connector	Terminal			
M44	23	Ground	When buzzer operation	<div><b>NOTE:</b> Waveform period changes due to the distance to an obstacle.</div> <div></div> <div>SKIB8943E</div>

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Replace sonar control unit.



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## ECU DIAGNOSIS INFORMATION

### AV CONTROL UNIT

#### Reference Value

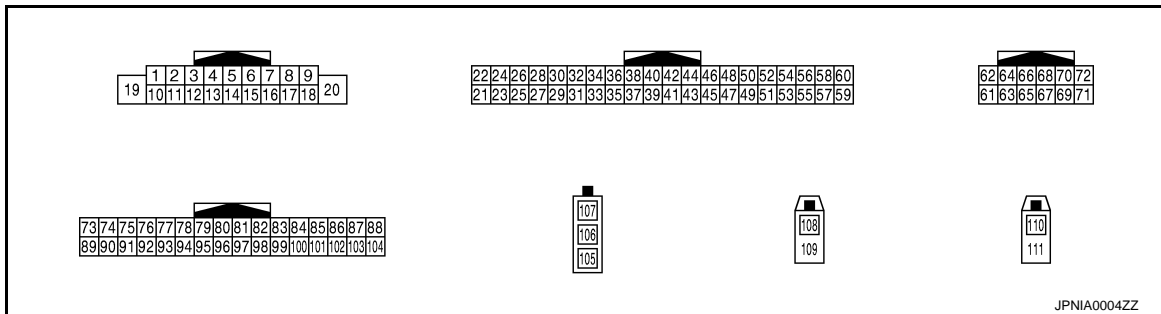
INFOID:000000003825606

#### VALUES ON THE DIAGNOSIS TOOL

##### CONSULT-III MONITOR ITEM

Monitor Item	Condition		Value/Status
VHCL SPD SIG	Ignition switch ON	Vehicle speed > 0 km/h (0 MPH)	On
		Vehicle speed = 0 km/h (0 MPH)	Off
PKB SIG	Ignition switch ON	Parking brake is applied.	On
		Parking brake is released.	Off
ILLUM SIG	Ignition switch ON	Light switch ON	On
		Light switch OFF	Off
IGN SIG	Ignition switch ON	—	On
	Ignition switch ACC	—	Off
REV SIG	Ignition switch ON	Selector lever in R position	On
		Selector lever in any position other than R	Off

#### TERMINAL LAYOUT



#### PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (V)	Ground	Amp. ON signal	Output	Ignition switch ON	—	12.0 V
2 (P)	3 (L)	Sound signal front LH	Output	Ignition switch ON	Audio output	

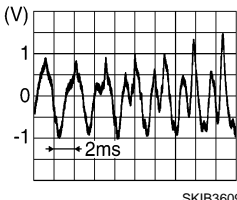

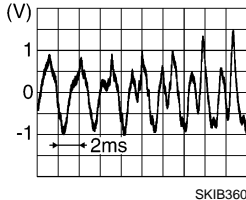
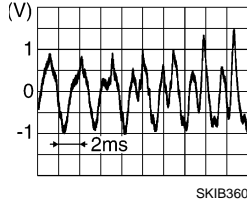


SKIB3609E



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
4 (V)	5 (LG)	Sound signal rear LH	Output	Ignition switch ON	Audio output	
6 (P)	15 (B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing MENU UP switch.	1.0 V
					Keep pressing MENU DOWN switch.	2.0 V
					Keep pressing  switch	3.0 V
					Keep pressing ENTER switch.	4.0 V
					Except for above.	5.0 V
7 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R)	Ground	Illumination signal	Input	OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V
10	—	Shield	—	—	—	—
11 (R)	12 (G)	Sound signal front RH	Output	Ignition switch ON	Audio output	
13 (BR)	14 (Y)	Sound signal rear RH	Output	Ignition switch ON	Audio output	
15 (B)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
16 (L)	15 (B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch.	0 V
					Keep pressing VOL UP switch.	1.0 V
					Keep pressing  switch.	2.0 V
					Keep pressing  switch.	3.0 V
					Except for above.	5.0 V

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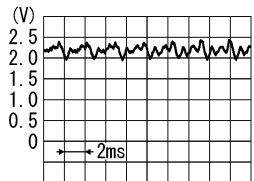
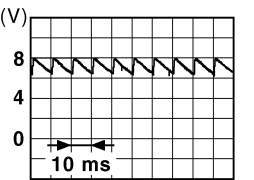
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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

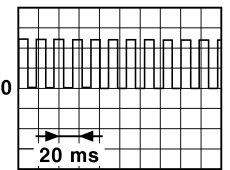
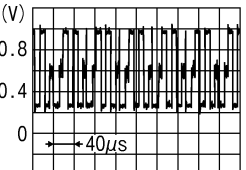
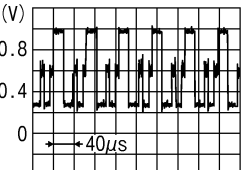
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
21 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
22 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
23 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
24 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
25 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
26 (G)	27	Microphone VCC	Output	Ignition switch ON	—	5.0 V
27	Ground	Microphone ground	—	ON	—	0 V
28 (R)	27	Microphone signal	Input	Ignition switch ON	Give a voice	 PKIB5037J
35 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
36 (V)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON	0 V
					Parking brake OFF	 JSNIA0007GB
37 (O)	Ground	Reverse signal	Input	Ignition switch ON	R position	12.0 V
					Other than R position	0 V



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
38 (R)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25MPH)	<b>NOTE:</b> The maximum voltage varies de- pending on the specification (destination unit).  <small>JSNIA0012GB</small>
41 (B)	Ground	Control signal 1	—	Ignition switch ON	—	0 V
42 (B)	Ground	Control signal 2	—	Ignition switch ON	—	0 V
43 (B)	Ground	Control signal 3	—	Ignition switch ON	—	0 V
44 (SB)	Ground	Mode change signal	Output	Ignition switch ON	Driver's Audio Stage ON	0 V
					Driver's Audio Stage OFF	8.5 V
48 (G)	—	AV communication signal (H)	Input/ Output	—	—	—
49 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
50 (LG)	—	AV communication signal (H)	Input/ Output	—	—	—
51 (V)	—	AV communication signal (L)	Input/ Output	—	—	—
52 (L)	—	CAN-H	Input/ Output	—	—	—
53 (P)	—	CAN-L	Input/ Output	—	—	—
61 (B)	Ground	RGB signal (R: red)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <small>JSNIA1029ZZ</small>
62 (W)	Ground	RGB signal (G: green)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <small>JSNIA1030ZZ</small>

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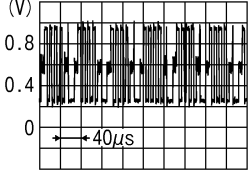
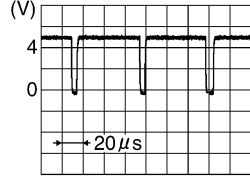
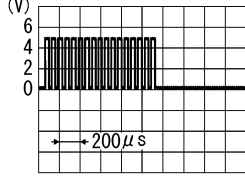
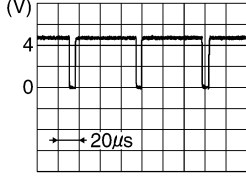
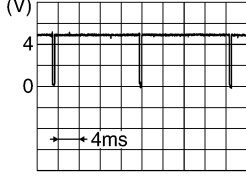
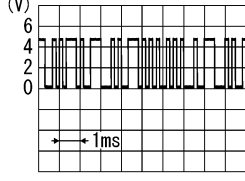
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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

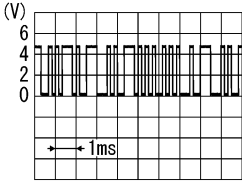
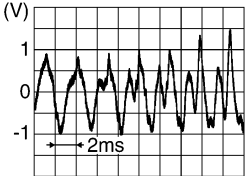
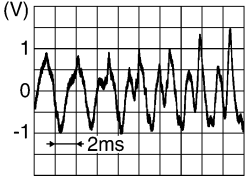
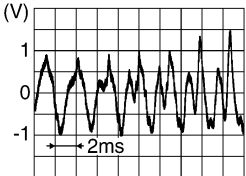
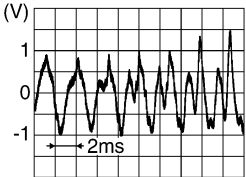
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
63 (R)	Ground	RGB signal (B: blue)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 JSNIA1031ZZ
64	—	Shield	—	—	—	—
65 (G)	Ground	RGB synchronizing signal	Output	Ignition switch ON	—	 SKIB3603E
66	—	Shield	—	—	—	—
67 (B)	Ground	RGB area (YS) signal	Output	Ignition switch ON	At RGB image display	5.0 V
					At camera image or AUX image display.	 PKIB4948J
68 (R)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON	—	 SKIB3601E
69 (W)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON	—	 SKIB3598E
70 (BR)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
71 (Y)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
72	—	Shield	—	—	—	—
79 (Y)	95 (BR)	iPod sound signal LH	Input	Ignition switch ON	When iPod mode is select- ed.	 SKIB3609E
80 (R)	96 (G)	iPod sound signal RH	Input	Ignition switch ON	When iPod mode is select- ed.	 SKIB3609E
81	—	Shield	—	—	—	—
85 (SB)	Ground	Disk eject signal	Input	—	Pressing the eject switch	0 V
					Except for above	3.3 V
86	—	Shield	—	—	—	—
87 (R)	88 (W)	AUX sound signal LH	Input	Ignition switch ON	When AUX mode is select- ed.	 SKIB3609E
102 (BR)	Ground	SW ground	—	Ignition switch ON	—	0 V
103 (B)	88 (W)	AUX sound signal RH	Input	Ignition switch ON	When AUX mode is select- ed.	 SKIB3609E
105	—	FM sub	Input	—	—	—
106	—	AM-FM main	Input	—	—	—
107	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12.0 V

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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
108	Ground	Satellite antenna signal	Input	Ignition switch ACC	Not connected to satellite antenna connector.	5.0 V
109	—	Shield	—	—	—	—
110	Ground	GPS antenna signal	Input	Ignition switch ACC	Not connected to GPS an- tenna connector.	5.0 V
111	—	Shield	—	—	—	—

Wiring Diagram - BOSE AUDIO WITH NAVIGATION (TWIN MONITOR) - INFOID:0000000003825609

**NOTE:**



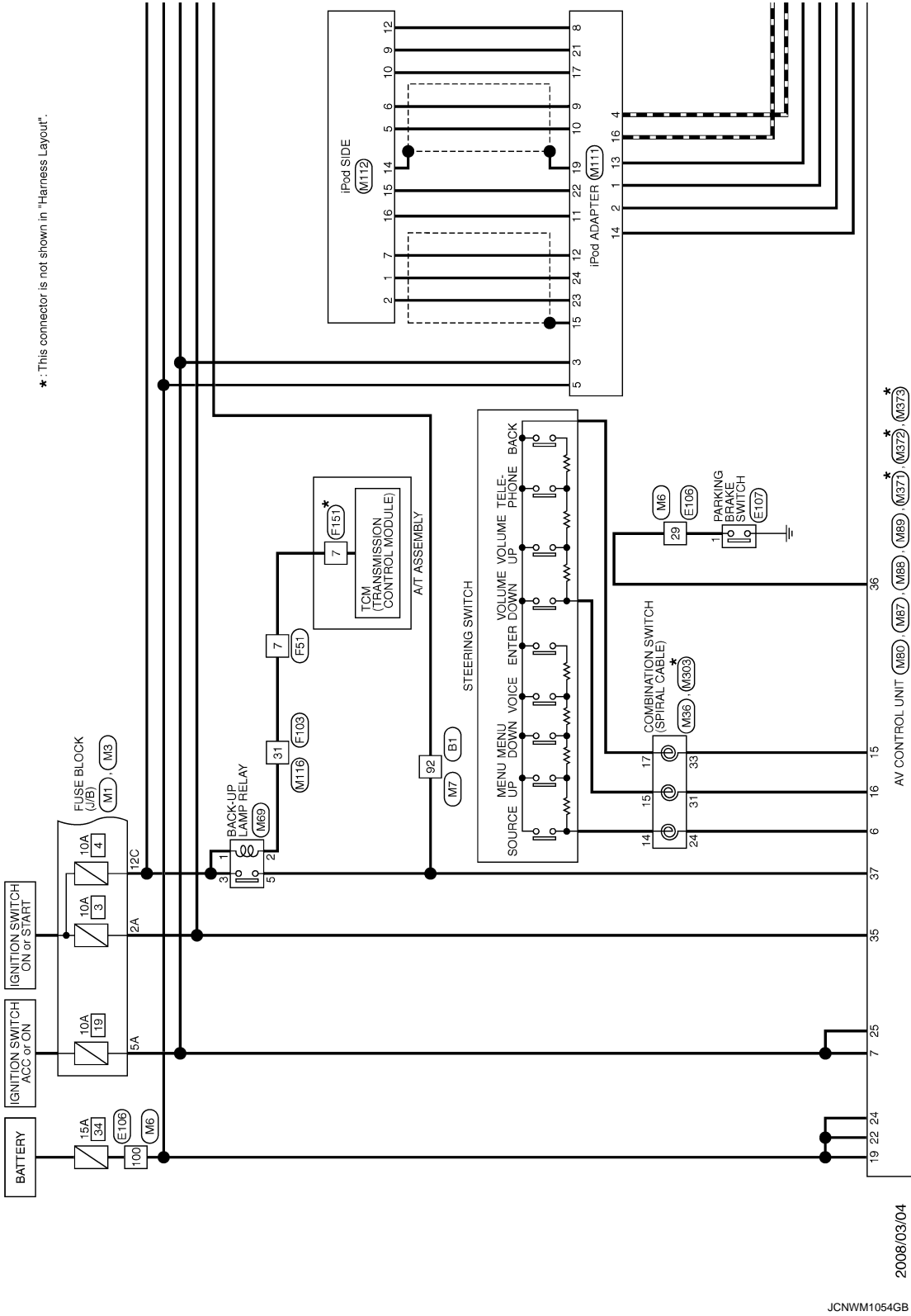
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

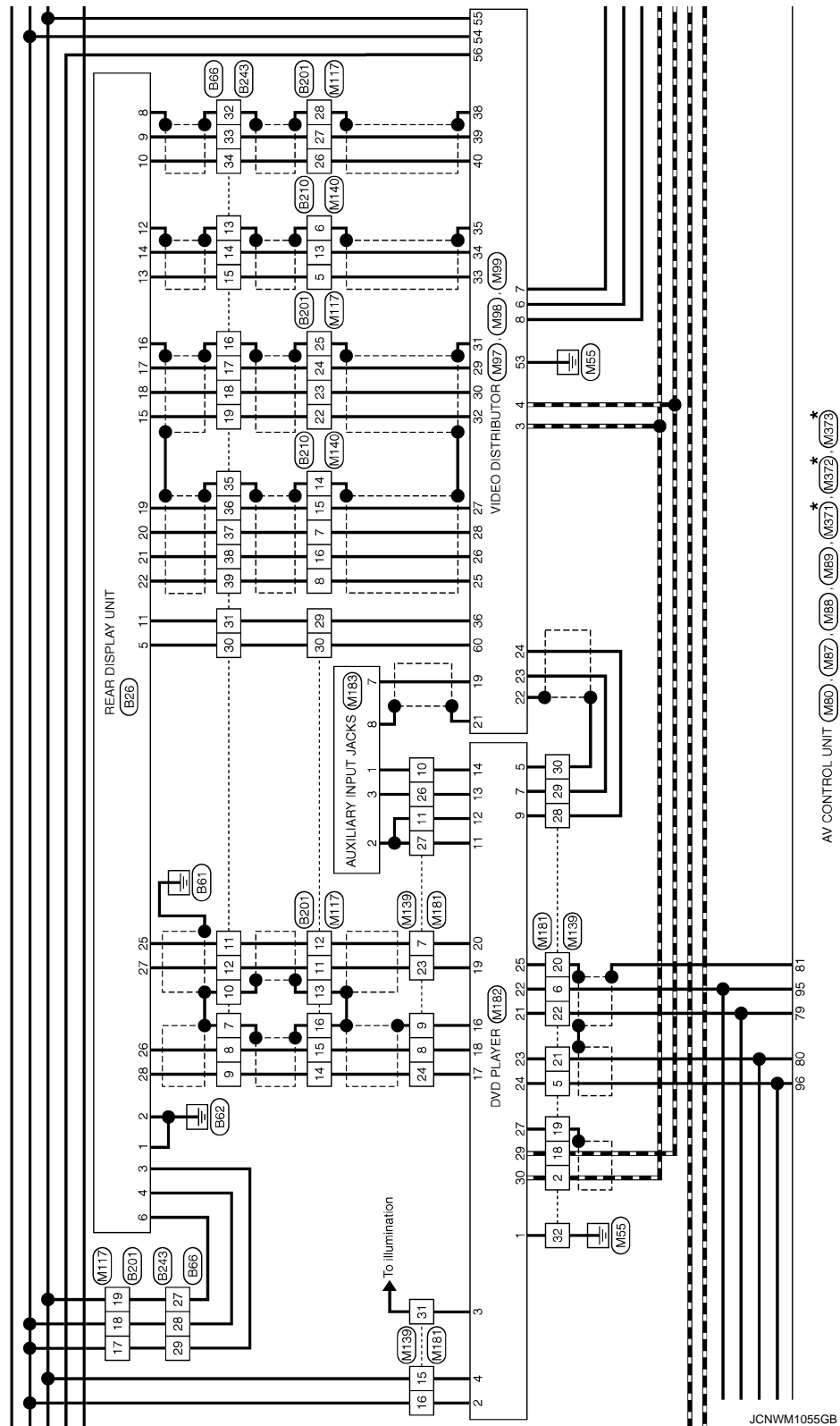


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**[NAVIGATION (TWIN MONITOR)]**



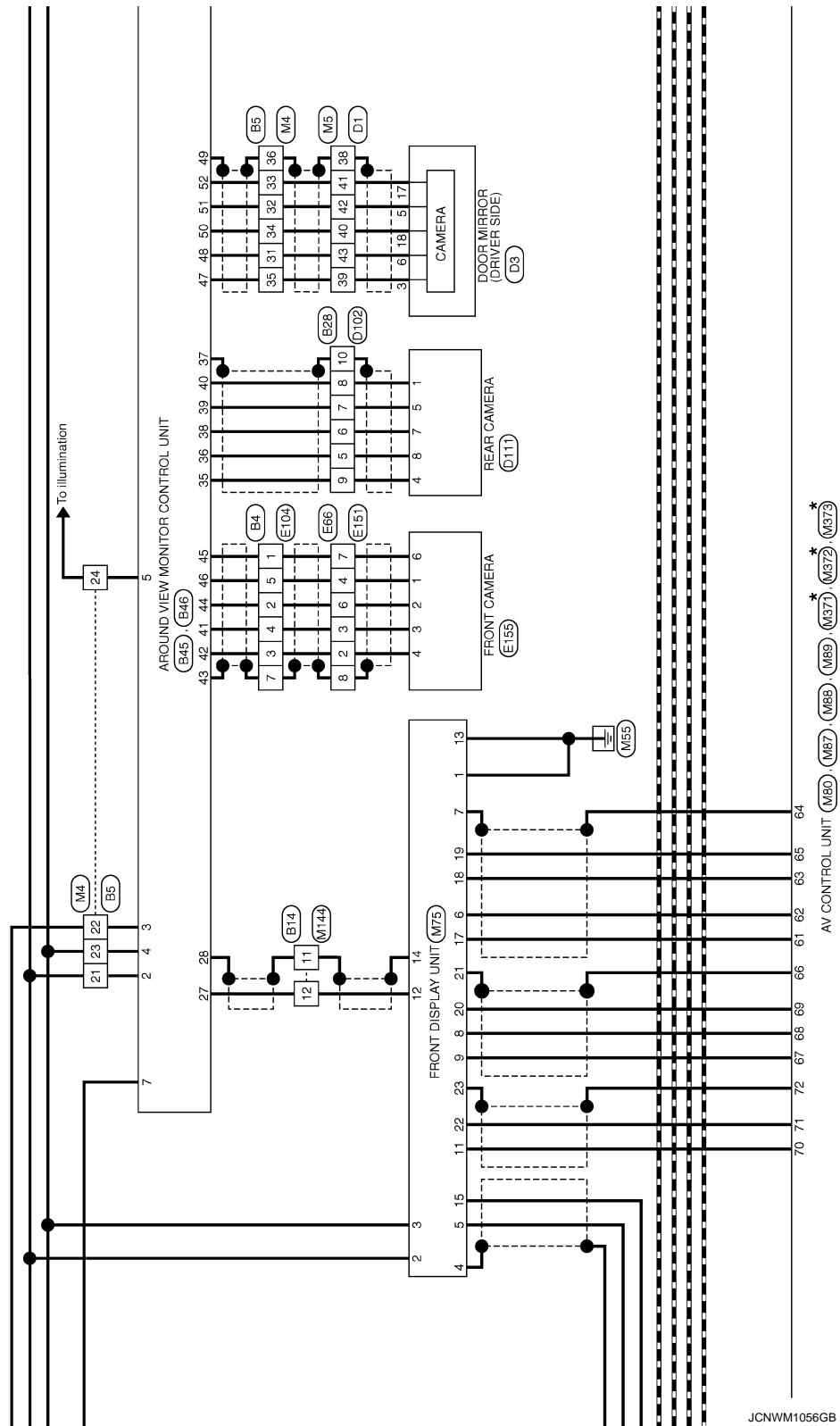


# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

\*: This connector is not shown in "Harness Layout".



JCNWM1056GB

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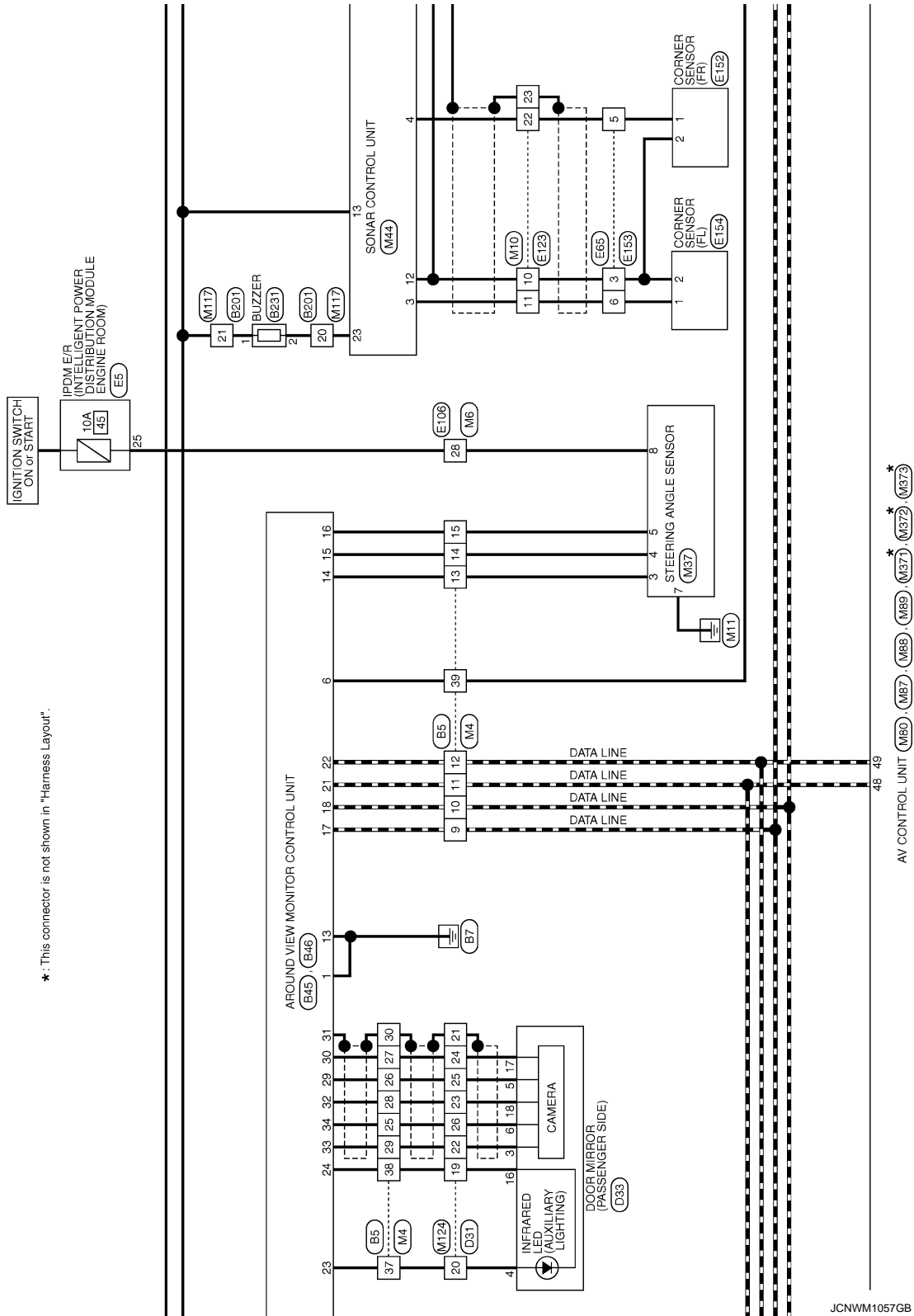
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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]



JCNWM1057GB



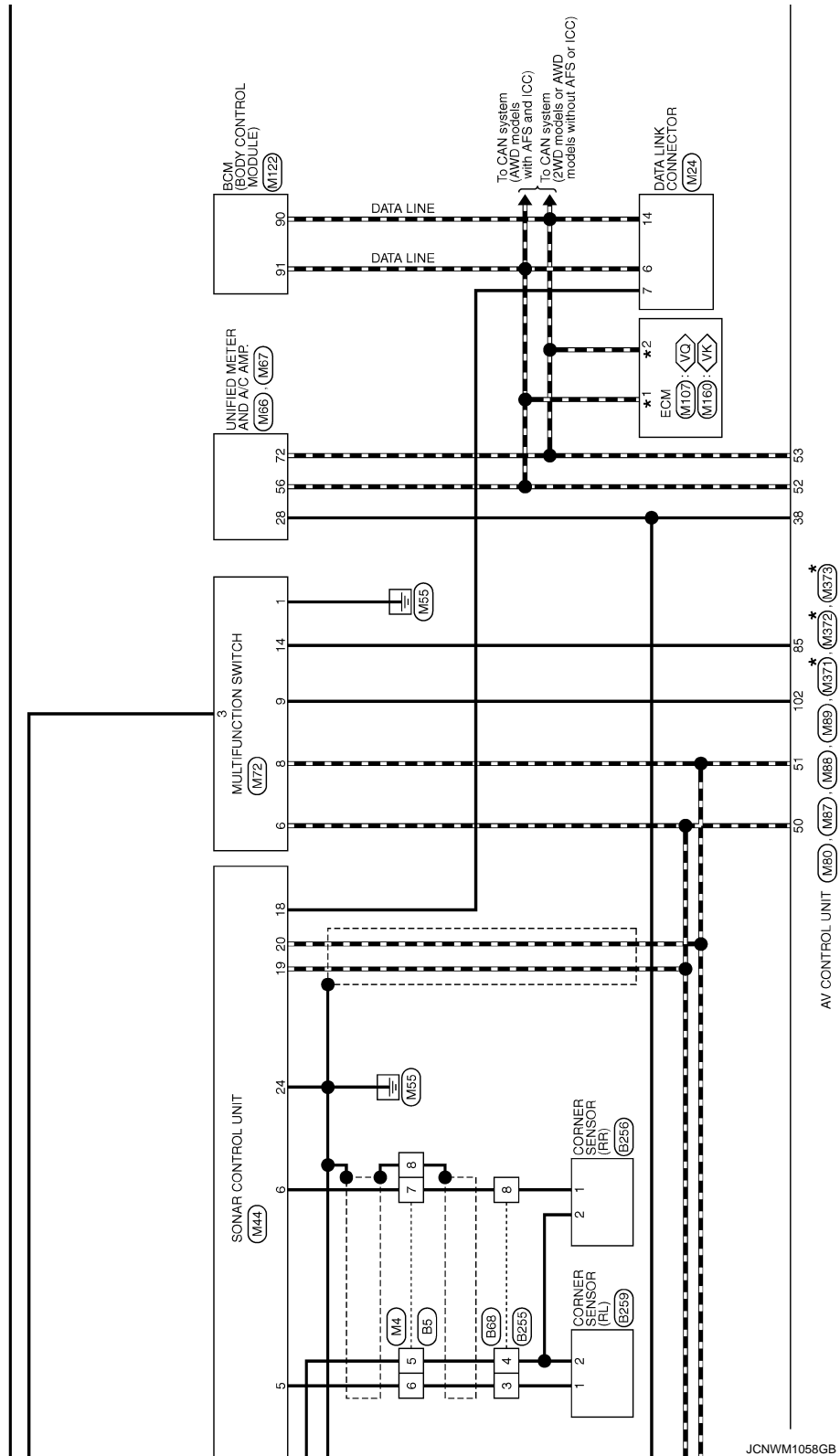
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

VQ : With VQ engine  
 VK : With VK engine  
 ★1 114 : VQ  
 105 : VK  
 ★2 113 : VQ  
 101 : VK

★: This connector is not shown in "Harness Layout".



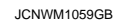
JCNWM1058GB

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**[NAVIGATION (TWIN MONITOR)]**



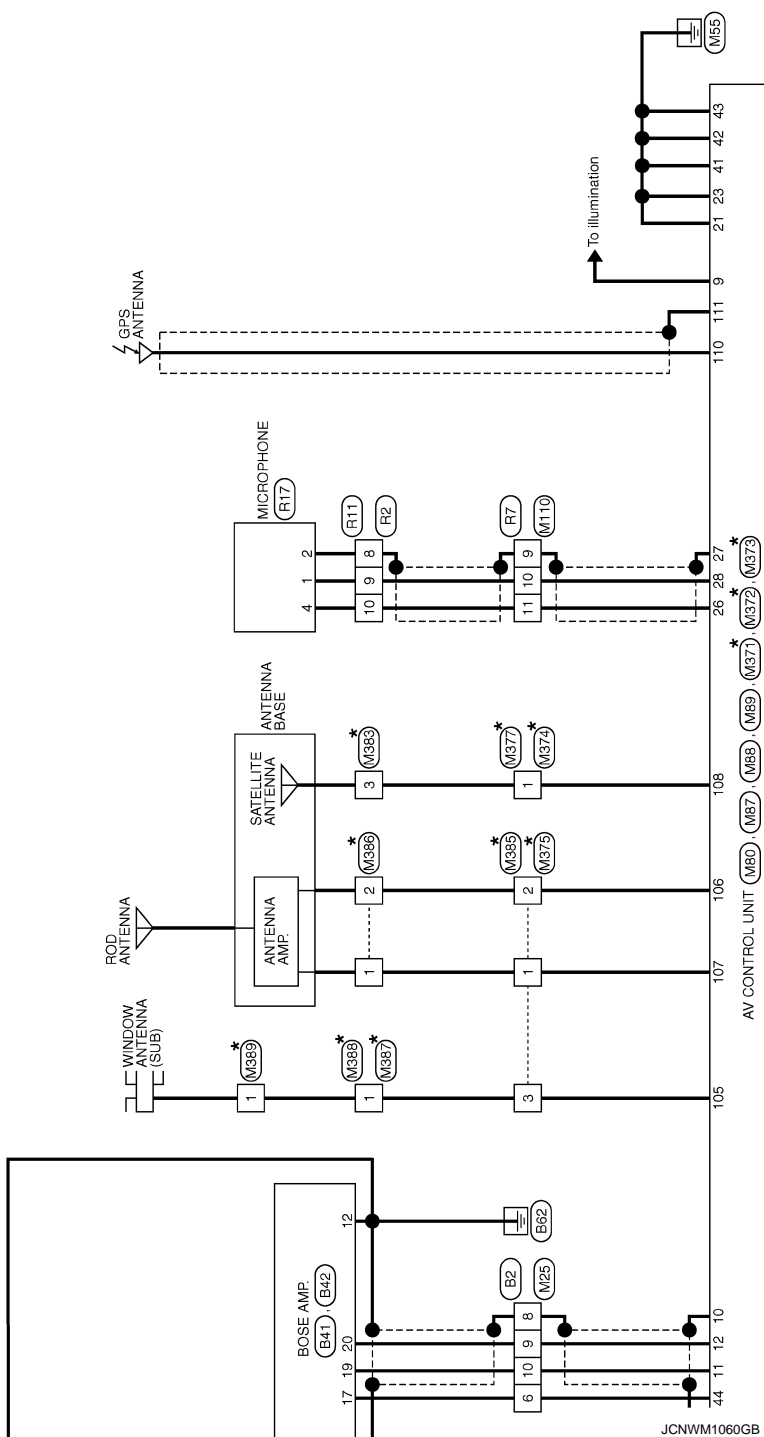


## AV CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

**[NAVIGATION (TWIN MONITOR)]**

★: This connector is not shown in "Harness Layout".



AV



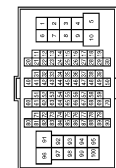
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

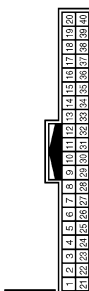
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

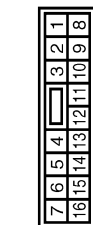
Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



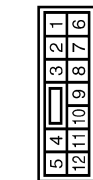
Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B6
Connector Name	FUSE BLOCK (U/B)
Connector Type	NS12FBR-CS



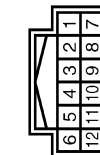
Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1061GB



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TKUPW-NS8

10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		

Connector No.	B26
Connector Name	REAR DISPLAY UNIT
Connector Type	TH43FPIV-HH

2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	Y	BATTERY
4	LG	BATTERY
5	P	HEADPHONE ON SIGNAL
6	GR	ACC
8	GR	SHIELD
9	V	COMM (DISP->DIST)
10	SB	COMM (DIST->DISP)
11	O	IGNITION
12	SHIELD	SHIELD

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1DPR-SGA4

37	36	35	34	33	32	31	30	29	28
27	26	25	24	23	22	21	20	19	18
17	16	15							

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL FRONT RH (-)
22	SB	SOUND SIGNAL REAR LH (+)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

13	G	-
14	R	COMPOSITE IMAGE SIGNAL
15	BR	RGB AREA (VS) SIGNAL
16	B	GND
17	Y	VP
18	O	HP
19	B	RGB GND
20	G	RGB (B BLUE) SIGNAL
21	R	RGB (G GREEN) SIGNAL
22	W	RGB (R RED) SIGNAL
25	Y	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
26	P	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
27	BR	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
28	L	HEADPHONE SOUND SIGNAL SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

14	13	12	11	10
9	8	7	6	5
4	3	2	1	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (-)
3	V	SOUND SIGNAL REAR DOOR RH (+)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

12	B	GND
13	Y	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
14	R	SOUND SIGNAL WOOFER AND REAR SQUAWKER (-)

JCNWM1062GB

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AV



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24PW-NH



42	44	46	48	50	52	54	56	58	60	62	64
41	43	45	47	49	51	53	55	57	59	61	63

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Connector No.	B48
Connector Name	REAR SQUARE LH
Connector Type	TK02FBR



2	1
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

52	Y	SIDE CAMERA LH IMAGE GND
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Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (9-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	P	-
9	L	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	R	-
15	G	-
16	SHIELD	-
17	Y	-

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (+)
24	G	LED (-)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH GND
33	BR	SIDE CAMERA RH COMM
34	L	SIDE CAMERA RH POWER SUPPLY
35	W	REAR CAMERA COMM
36	G	REAR CAMERA POWER SUPPLY
37	SHIELD	SHIELD
38	L	REAR CAMERA GND
39	Y	REAR CAMERA IMAGE SIGNAL
40	BR	REAR CAMERA IMAGE GND

18	O	-
19	BR	-
27	GR	-
28	LG	-
29	Y	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

JCNWM1063GB



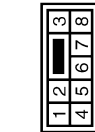
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS08MGY



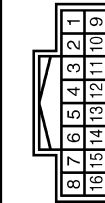
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	
4	B	
8	R	

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH06FW-CS16-TM4



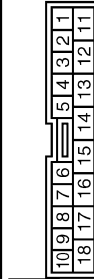
Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
11	BR	
12	Y	
13	SHIELD	
14	G	
15	R	
16	SHIELD	
17	LG	
18	GR	
19	V	

Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	P	
6	SHIELD	
7	G	
8	W	
13	L	
14	SHIELD	
15	B	
16	R	

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
2	R	

Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	
2	GR	

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P



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	HS08FW-CS



3	2	1
8	7	6
5	4	

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	
8	R	
9	G	
10	SHIELD	
11	Y	
12	BR	
13	SHIELD	
14	L	
15	P	
16	SHIELD	
17	R	

18	W	-
19	B	-
27	V	-
28	GR	-
29	LG	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	HS08FGY



4	3	2	1
8	7	6	5

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	
4	B	
8	R	

Connector No.	B256
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	45	44	43	42	41	40	39	38	37	36	35	34	33	32
55	54	53	52	51	50	49	48	47						



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

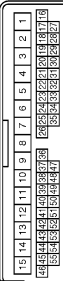
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
16	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

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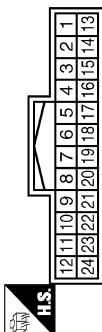
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< ECU DIAGNOSIS INFORMATION >

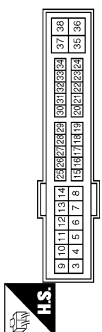
[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Connector No.	E5
Connector Name	PDIM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

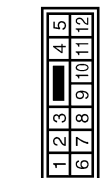
Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

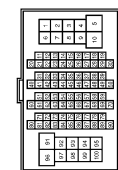
Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH03FW-CS16-TM4



Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS06MB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



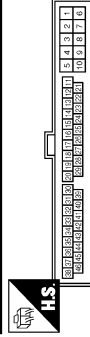
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

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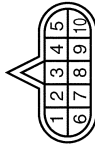
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	F151
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SPT0FG



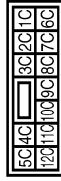
Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSG6FW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

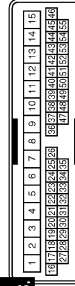
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS1F-TM4

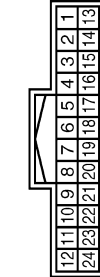


66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



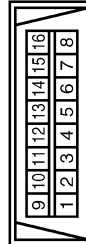
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

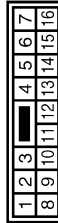


Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



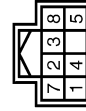
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

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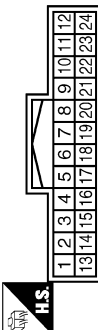
# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M44
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



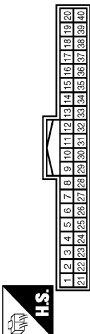
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
18	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



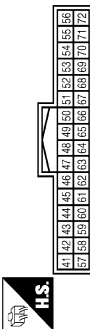
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH

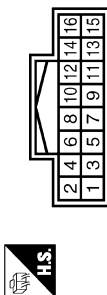


Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

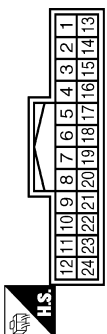
Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
13	B	GND
14	SHIELD	SHIELD
15	G	AUX IMAGE SIGNAL (Without entertainment system)
17	B	RGB (R-RED) SIGNAL
18	R	RGB (B-BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DSP->CONT)
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	G	AUX IMAGE GND (With entertainment system)
6	W	RGB (G-GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DSP)
12	W	CAMERA IMAGE SIGNAL

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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-CSZ



1	2	3	4	5	6	7	8	9	
10	11	12	13	14	15	16	17	18	
19									20

13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH



21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
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Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
8	P	STRG SW A
9	SB	ACC
10	R	ILLUMINATION
11	B	SHIELD
12	G	SOUND SIGNAL FRONT RH (+)
		SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH



62	64	66	68	70	72
61	63	65	67	69	71

Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R RED) SIGNAL
62	W	RGB (G GREEN) SIGNAL
63	R	RGB (B BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (VS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

72	SHIELD	SHIELD
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Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH



73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104

Terminal No.	Color of Wire	Signal Name [Specification]
79	Y	Pin4 SOUND SIGNAL LH (+) (With entertainment system)
80	R	Pin4 SOUND SIGNAL RH (+) (With entertainment system)
81	B	SHIELD
85	SB	DISK EJECT SIGNAL
95	BR	Pin4 SOUND SIGNAL LH (-) (With entertainment system)
96	G	Pin4 SOUND SIGNAL RH (-) (With entertainment system)
102	BR	SW GND

38	R	VEHICLE SPEED (8-PULSE)
41	B	CONTROL SIGNAL 1
42	B	CONTROL SIGNAL 2
43	B	CONTROL SIGNAL 3
44	SB	MODE CHANGE SIGNAL
48	G	AV COMM (H)
49	R	AV COMM (H)
50	LG	AV COMM (L)
51	V	AV COMM (L)
52	L	CAN-H
53	P	CAN-L

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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M97
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH16FW-NH

26	28	30	32	34	36	38	40
25	27	29	31	33	35	37	39

36	O	IGNITION
38	SHIELD	
39	V	COMM (DISP→DIST)
40	SB	COMM (DIST→DISP)

36	O	IGNITION
38	SHIELD	
39	V	COMM (DISP→DIST)
40	SB	COMM (DIST→DISP)

Terminal No.	Color of Wire	Signal Name [Specification]
25	W	RGB (R: RED) SIGNAL
26	R	RGB (G: GREEN) SIGNAL
27	B	RGB GND
28	G	RGB (B: BLUE) SIGNAL
29	R	VP
30	W	HP
31	B	SHIELD
32	B	RGB AREA (YS) SIGNAL
33	G	—
34	R	COMPOSITE IMAGE SIGNAL
35	SHIELD	SHIELD

128	124	120	116	112	108	104	100
127	123	119	115	111	107	103	99
126	122	118	114	110	106	102	98
125	121	117	113	109	105	101	97

Connector No.	M107
Connector Name	ECM (WITH VO ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z

Connector No.	M110
Connector Name	WIPE TO WIRE
Connector Type	TH16MW-NH

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	—
10	R	— [With NAVI]
11	G	— [With NAVI]

Connector No.	M98
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH24FW-NH

2	4	6	8	10	12	14	16	18	20	22	24
1	3	5	7	9	11	13	15	17	19	21	23

Connector No.	M99
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH08FW-NH

54	56	60
53	55	

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	AV COMM (H)
4	R	AV COMM (L)
6	G	COMPOSITE IMAGE GND
7	SHIELD	SHIELD
8	R	COMPOSITE IMAGE SIGNAL
19	W	AUX IMAGE SIGNAL
21	SHIELD	SHIELD
22	SHIELD	SHIELD
23	P	DVD IMAGE SIGNAL
24	L	—

Terminal No.	Color of Wire	Signal Name [Specification]
53	B	GND
54	O	BATTERY
55	SB	ACC
56	G	IGNITION
60	P	HEADPHONE ON SIGNAL

Connector No.	M111
Connector Name	iPod ADAPTER
Connector Type	TH24FW-NH

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

14	Y	iPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	iPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	iPod SOUND SIGNAL GND
24	B	iPod SOUND SIGNAL LH (-)

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	iPod SOUND SIGNAL LH (+)
2	BR	iPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	iPod BATTERY CHARGE
9	Y	COMM (iPod ADAPTER→iPod)
10	BR	COMM (iPod→iPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	iPod SOUND SIGNAL RH (+)
13	G	iPod SOUND SIGNAL LH (+)

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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M112
Connector Name	iPod SIDE
Connector Type	IP16GY



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16		

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	iPod SOUND SIGNAL LH (+)
2	W	iPod SOUND SIGNAL GND
5	BR	COMM (iPod->iPod ADAPTER)
6	Y	COMM (iPod ADAPTER->iPod)
7	R	iPod SOUND SIGNAL RH (+)
9	SB	iPod CONNECTION RECOGNITION
10	B	GND
12	W	iPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3BMW-NS10



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16P-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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20	GR	- [With NAVI]
21	V	-
22	B	- [With entertainment system]
23	W	- [With entertainment system]
24	R	- [With entertainment system]
25	SHIELD	-
26	SB	-
27	V	-
28	SHIELD	-
29	O	-
30	P	-

Connector No.	M122
Connector Name	BCM BODY CONTROL MODULE
Connector Type	TH4JFB-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
11	BR	-
12	Y	-
13	SHIELD	-
14	G	-
15	R	-
16	SHIELD	-
17	Y	-
18	Y	-
19	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M139
Connector Name	WIRE TO WIRE
Connector Type	TH22FW-NH



16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

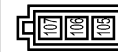
Connector No.	M182
Connector Name	DVD PLAYER
Connector Type	TH2PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ILLUMINATION
4	V	ACC
5	B	SHIELD
7	P	DVD IMAGE SIGNAL
9	L	
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)

Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

16	B	SHIELD
17	G	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
18	R	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
19	BR	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
20	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
21	Y	SOUND SIGNAL LH (+)
22	BR	SOUND SIGNAL LH (-)
23	R	SOUND SIGNAL RH (+)
24	G	SOUND SIGNAL RH (-)
25	B	SHIELD
27	B	AV COMM (L)
29	R	AV COMM (H)
30	G	

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	SB	AUX SOUND SIGNAL GND
3	B	AUX SOUND SIGNAL LH (+)
7	W	AUX IMAGE SIGNAL
8	SHIELD	SHIELD

Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA
111	SHIELD	SHIELD

Connector No.	M183
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A38FW



1	2	3	7	8
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Terminal No.	Color of Wire	Signal Name [Specification]
14	W	
15	L	
17	BR	

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16G-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



20	19	18	7	16	15	14	13
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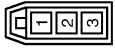








# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M375	Connector No.	M377	Connector No.	M383	Connector No.	M385
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	ANTENNA BASE	Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU	Connector Type	GT16C-1PP-HU	Connector Type	GT16C-1PP-HU	Connector Type	GT13SCN-2/1PP-HU
 				 			
Terminal No.	1	Color of Wire	—	Terminal No.	3	Color of Wire	—
2	—	Signal Name [Specification]	—	Signal Name [Specification]	SATELLITE ANTENNA	1	—
3	—	—	—	—	—	2	—
						3	—

Connector No.	M386	Connector No.	M387	Connector No.	M388	Connector No.	M389
Connector Name	ANTENNA BASE	Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	WINDOW ANTENNA (SUB)
Connector Type	GT13SSN-1/1PP-HU	Connector Type	JASO JACK	Connector Type	JASO PLUG	Connector Type	PO1FB-A
 				 			
Terminal No.	1	Color of Wire	—	Terminal No.	1	Color of Wire	—
2	—	Signal Name [Specification]	—	Signal Name [Specification]	—	1	—
		ANTENNA AMP ON SIGNAL AM-FM MAIN					

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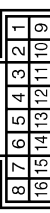




# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No. R2		Connector No. R7		Connector No. R11		Connector No. R17		
Connector Name WIRE TO WIRE		Connector Name WIRE TO WIRE		Connector Name WIRE TO WIRE		Connector Name MICROPHONE		
Connector Type TH24FW-NH		Connector Type TH15FW-NH		Connector Type TH24MW-NH		Connector Type TK04FW		
								
								
Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-	9	SHIELD	-	1	R	MICROPHONE SIGNAL
9	R	-	10	R	-	2	SHIELD	MICROPHONE GND
10	G	-	11	G	-	4	L	MICROPHONE VCC

JCNWM1078GB

## Fail-Safe

INFOID:0000000003825610

When the ambient temperature becomes extremely low or extremely high, or when HDD is malfunctioning, AV control unit displays the message and limits the AV control unit function.

## FAIL-SAFE CONDITIONS

- When the ambient temperature is  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) or lower, or when it is  $70^{\circ}\text{C}$  ( $158^{\circ}\text{F}$ ) or higher
- when HDD is malfunctioning

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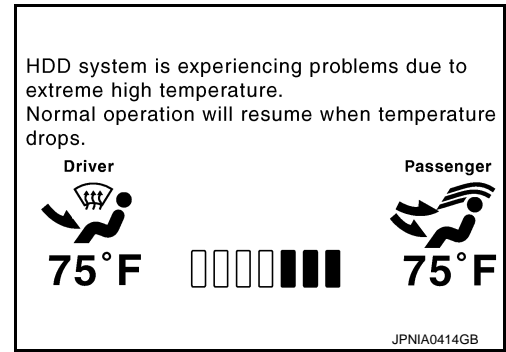
# AV CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

## [NAVIGATION (TWIN MONITOR)]

### Display

The messages displayed on fail-safe conditions are as shown below:



Fail-safe mode	Display (display of the fail-safe condition)
When HDD temperature is low	HDD system is experiencing problems due to extreme low temperature. Normal operation will resume when temperature rises.
When HDD temperature is high	HDD system is experiencing problems due to extreme high temperature. Normal operation will resume when temperature drops.
When HDD is malfunctioning	HDD system is not functioning. Please contact your dealer for assistance.

## DESCRIPTION OF CONTROLS

Function		When Fail-safe Function is activated
Air conditioner	Operation	Only multifunction switch (preset switch) can be operated.
	Display	<ul style="list-style-type: none"> <li>• LED of multifunction switch (preset switch) illuminates.</li> <li>• Aimed temperature, blow angle, and flow rate are displayed in simplified mode.</li> </ul>
Audio	Operation	Only ON/OFF and volume control operations by multifunction switch (preset switch) are possible.
	Display	No display ("Fail-safe mode" is displayed)
Camera	Operation	Image tone cannot be controlled.
	Display	Cannot be superimposed. (warning display, tone control display)
Hands-free phone	Operation	Cannot be operated.
Navigation	Operation	Cannot be operated.
Self diagnosis		The display in simplified mode of fail-safe condition
CONSULT-III diagnosis		Cannot be operated.

### Ability Operation Mode

There is an ability operation mode for Fail-saves due to low or high ambiance temperature.

If HDD data can be read, fail-safe is shown, then normal displays are displayed only for functions which can be operated.

## RELEASE CONDITIONS OF FAIL-SAFE

Fail-safe is released on following conditions and normal mode is restored.

When the temperature of HDD is low or high

If the ambient temperature becomes out of fail-safe condition range, normal mode is restored.

When HDD is malfunctioning

If the malfunction disappears, normal mode is restored.

### NOTE:

- If fail-safe mode due to HDD malfunction is seen continuously, replace AV control unit.
- If fail-safe mode due to HDD malfunction is seen temporarily, check the "Error History" of Confirmation/ Adjustment mode. If this is normal, then continue the normal operation, observing the function. (It might be a temporary malfunction of HDD.)



# AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## DTC Index

INFOID:000000003825611

### Self-diagnosis results display item

DTC	Display item	Refer to
U1000	CAN COMM CIRCUIT [U1000]	<a href="#">AV-680, "Diagnosis Procedure"</a>
U1010	CONTROL UNIT (CAN) [U1010]	<a href="#">AV-681, "Diagnosis Procedure"</a>
U1310	CONTROL UNIT (AV) [U1310]	<a href="#">AV-682, "DTC Logic"</a>
U1200	Control Unit FLASH-ROM [U1200]	<a href="#">AV-683, "DTC Logic"</a>
U1201	Gyro NO CONN [U1201]	<a href="#">AV-684, "DTC Logic"</a>
U1216	CAN CONT [U1216]	<a href="#">AV-685, "DTC Logic"</a>
U1217	BLUETOOTH CONN [U1217]	<a href="#">AV-686, "DTC Logic"</a>
U1218	HDD CONN [U1218]	<a href="#">AV-687, "DTC Logic"</a>
U1219	HDD READ [U1219]	<a href="#">AV-688, "DTC Logic"</a>
U1220	XM SERIAL COMM [U1220]	<a href="#">AV-689, "DTC Logic"</a>
U121A	HDD WRITE [U121A]	<a href="#">AV-690, "DTC Logic"</a>
U121B	HDD COMM [U121B]	<a href="#">AV-691, "DTC Logic"</a>
U121C	HDD ACCESS [U121C]	<a href="#">AV-692, "DTC Logic"</a>
U121D	DSP CONN [U121D]	<a href="#">AV-693, "DTC Logic"</a>
U121E	DSP COMM [U121E]	<a href="#">AV-694, "DTC Logic"</a>
U121F	INTERNAL COMM [U121F]	<a href="#">AV-695, "Diagnosis Procedure"</a>
U1204	GPS COMM [U1204]	<a href="#">AV-696, "Diagnosis Procedure"</a>
U1205	GPS ROM [U1205]	<a href="#">AV-697, "Diagnosis Procedure"</a>
U1206	GPS RAM [U1206]	<a href="#">AV-698, "Diagnosis Procedure"</a>
U1207	GPS RTC [U1207]	<a href="#">AV-699, "Diagnosis Procedure"</a>
U1243	FRONT DISP CONN [U1243]	<a href="#">AV-700, "Diagnosis Procedure"</a>
U1244	GPS ANTENNA CONN [U1244]	<a href="#">AV-702, "Diagnosis Procedure"</a>
U1247	REAR DISP CONN [U1247]	<a href="#">AV-703, "Diagnosis Procedure"</a>
U1258	XM ANTENNA CONN [U1258]	<a href="#">AV-705, "Diagnosis Procedure"</a>
U1300 U121F	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• INTERNAL COMM [U121F]</li> </ul>	<a href="#">AV-706, "Description"</a>
U1300 U1240	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• SWITCH CONN [U1240]</li> </ul>	<a href="#">AV-706, "Description"</a>
U1300 U1246	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• VIDEO DIST CONN [U1246]</li> </ul>	<a href="#">AV-706, "Description"</a>
U1300 U1248	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• DVD DECK CONN [U1248]</li> </ul>	<a href="#">AV-706, "Description"</a>
U1300 U1254	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• IPod CONN [U1254]</li> </ul>	<a href="#">AV-706, "Description"</a>
U1300 U125B	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• AROUND CAMERA CONN [U125B]</li> </ul>	<a href="#">AV-706, "Description"</a>
U1300 U125C	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• SONAR CONN [U125C]</li> </ul>	<a href="#">AV-706, "Description"</a>
U1300 U1240 U1254 U1248 U1246 U125B	<ul style="list-style-type: none"> <li>• AV COMM CIRCUIT [U1300]</li> <li>• SWITCH CONN [U1240]</li> <li>• IPod CONN [U1254]</li> <li>• DVD DECK CONN [U1248]</li> <li>• VIDEO DIST CONN [U1246]</li> <li>• AROUND CAMERA CONN [U125B]</li> </ul>	<a href="#">AV-706, "Description"</a>



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

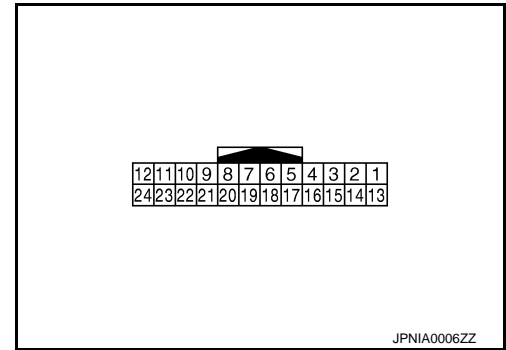
[NAVIGATION (TWIN MONITOR)]

## FRONT DISPLAY UNIT

### Reference Value

INFOID:000000003825612

### TERMINAL LAYOUT



### PHYSICAL VALUES

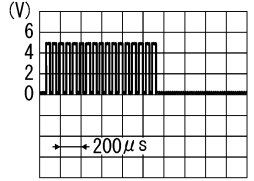
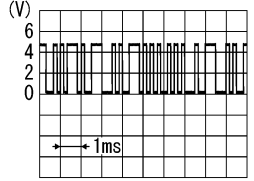
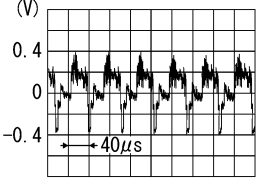
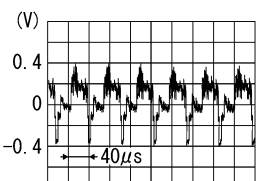
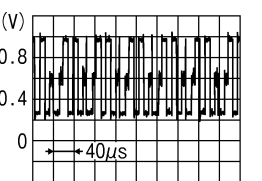
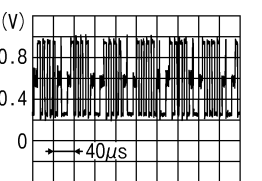
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (P)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
3 (L)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
4	—	Shield	—	—	—	—
5 (G)	Ground	AUX image ground	—	Ignition switch ON	—	0 V
6 (W)	Ground	RGB signal (G: green)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	<p>JSNIA1030ZZ</p>
7	—	Shield	—	—	—	—
8 (R)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	<p>SKIB3601E</p>



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (B)	Ground	RGB area (YS) signal	Input	Ignition switch ON	At RGB image display	5.0 V
				Ignition switch ON	At camera image display	 PKIB4948J
11 (BR)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
12 (W)	Ground	Camera image signal	Input	Ignition switch ON	At rear view camera image display	 SKIB2251J
13 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
14	—	Shield	—	—	—	—
15 (R)	Ground	AUX image signal	Input	Ignition switch ON	AUX image display	 SKIB2251J
17 (B)	Ground	RGB signal (R: red)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 JSNIA1029ZZ
18 (R)	Ground	RGB signal (B: blue)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 JSNIA1031ZZ

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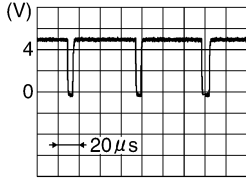
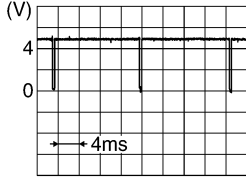
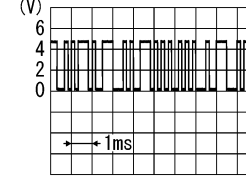
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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
19 (G)	Ground	RGB synchronizing signal	Input	Ignition switch ON	—	 SKIB3603E
20 (W)	Ground	Vertical synchronizing (VP) signal	Output	Ignition switch ON	—	 SKIB3598E
21	—	Shield	—	—	—	—
22 (Y)	Ground	Communication signal (DISP→CONT)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
23	—	Shield	—	—	—	—

Wiring Diagram - BOSE AUDIO WITH NAVIGATION (TWIN MONITOR) - INFOID:0000000003826901

**NOTE:**



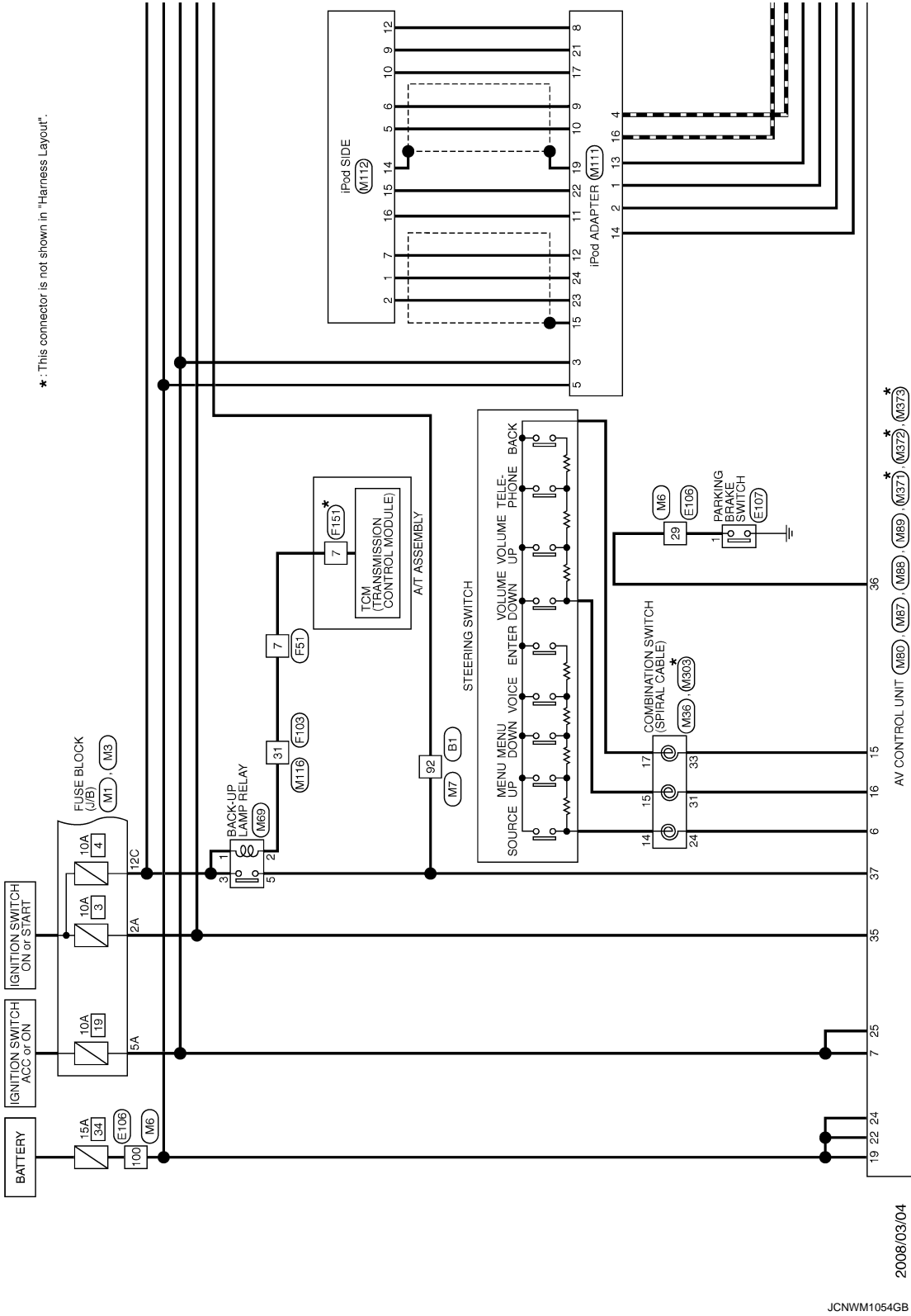
# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)



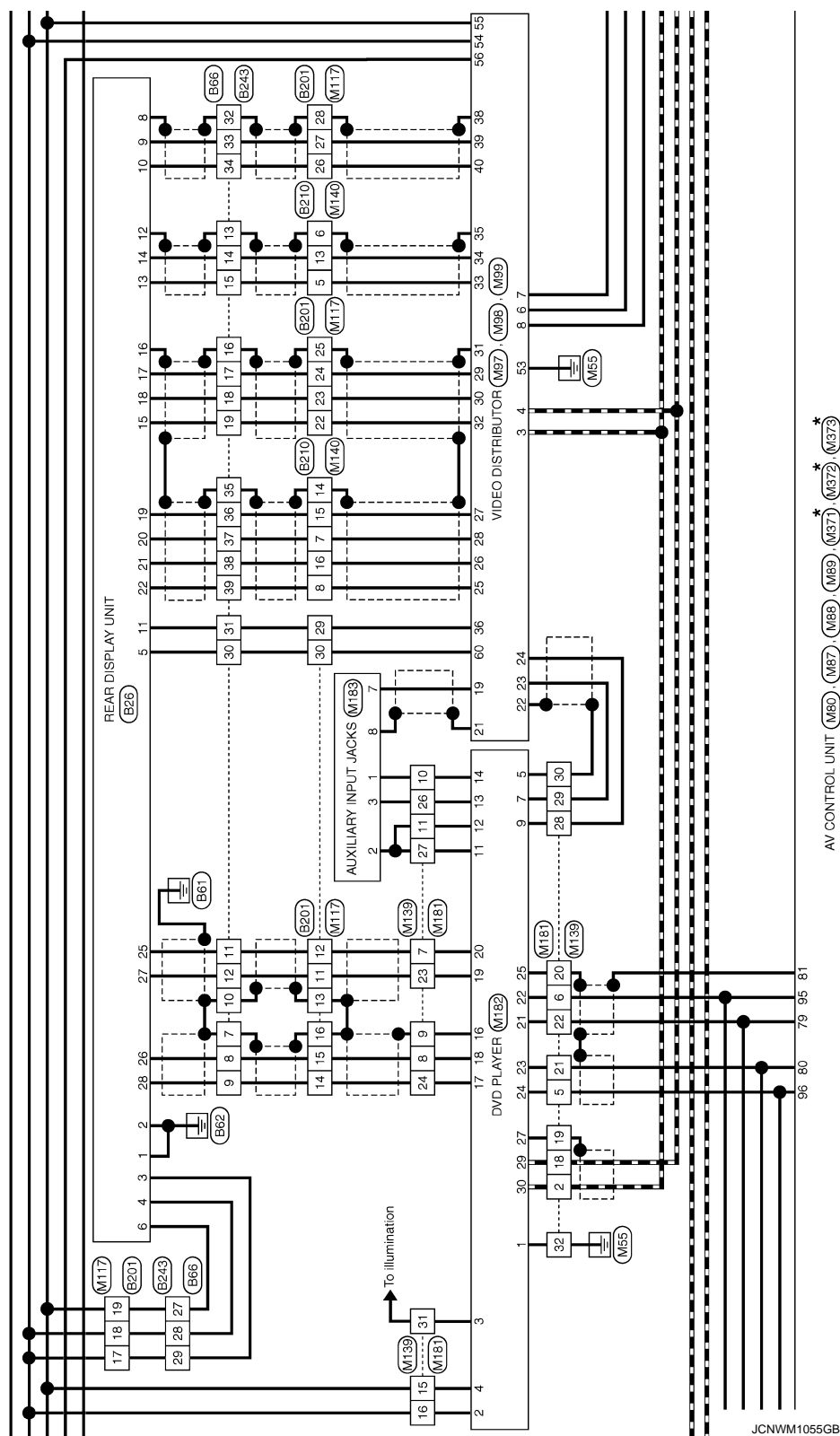
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**[NAVIGATION (TWIN MONITOR)]**

★: This connector is not shown in "Harness Layout".



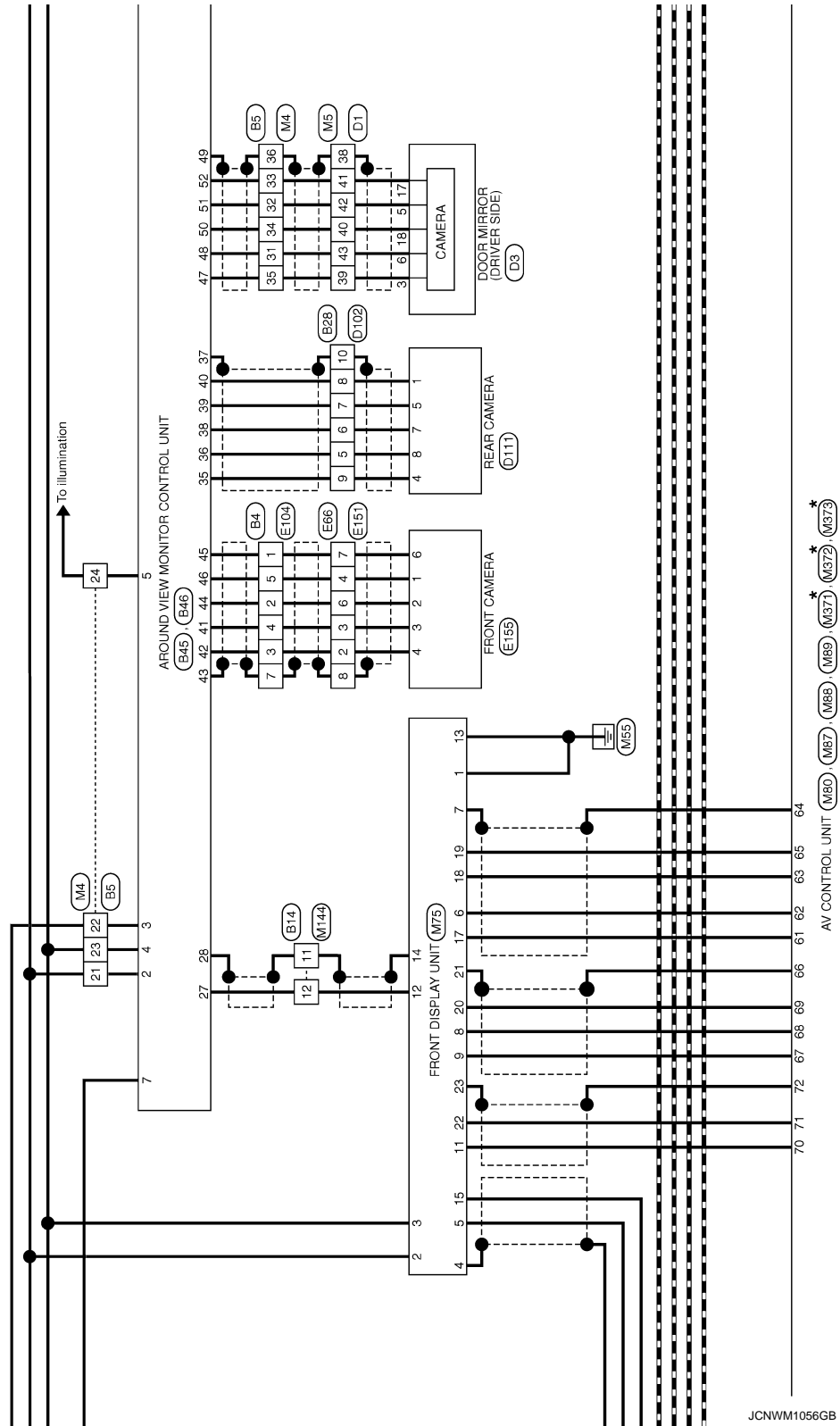


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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

\*: This connector is not shown in "Harness Layout".



JCNWM1056GB

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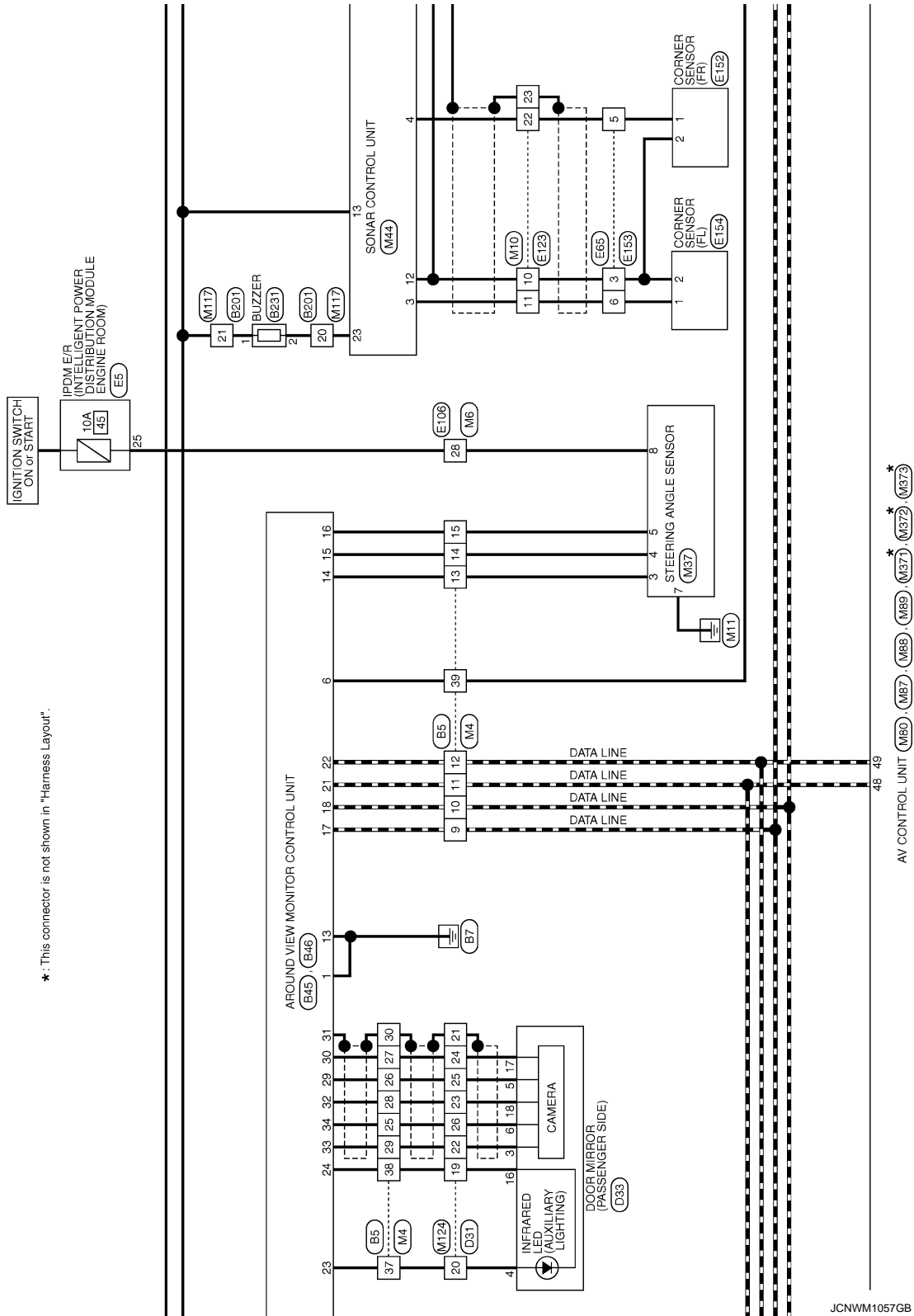
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]



JCNWM1057GB



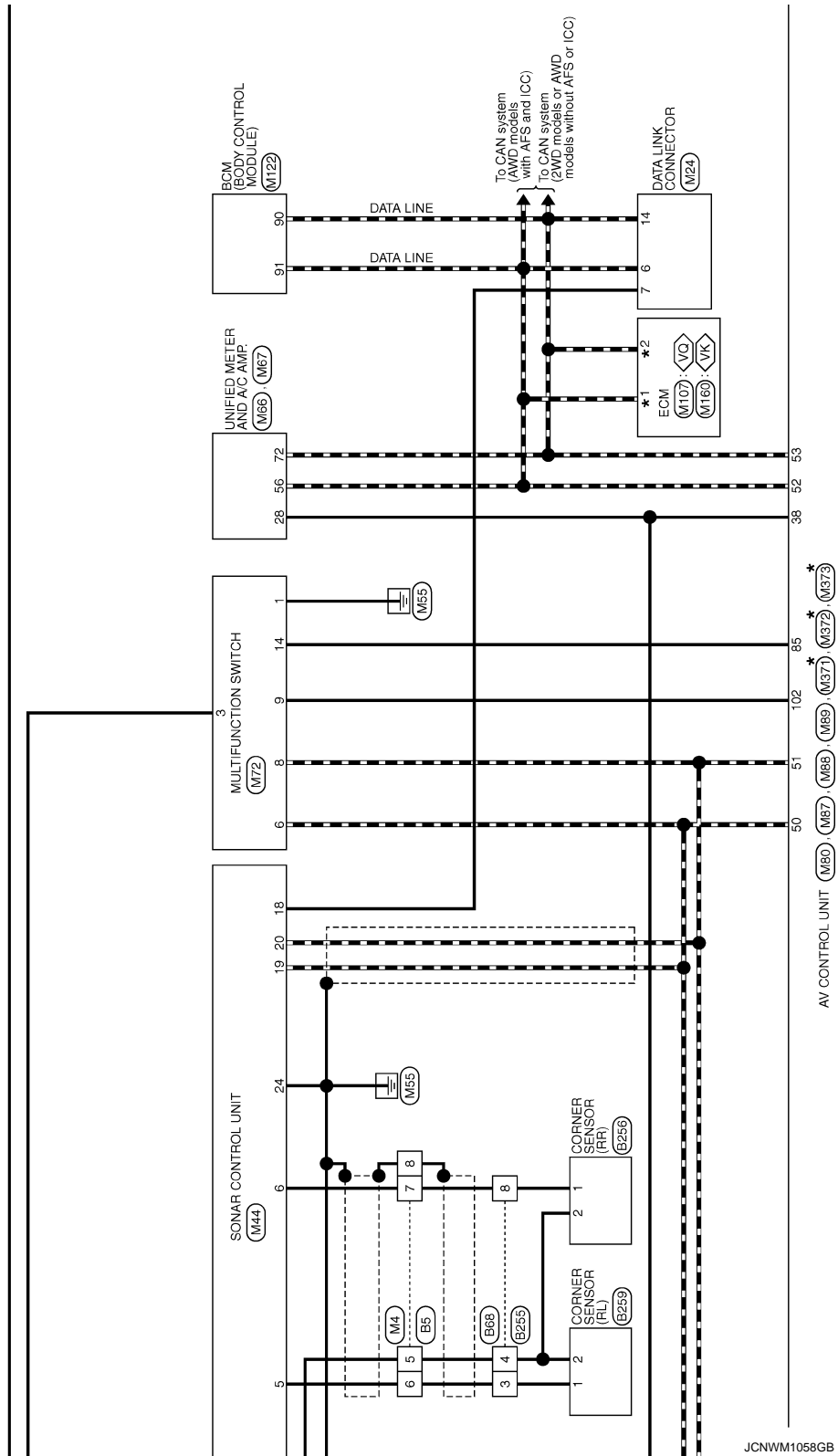
# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

VQ : With VQ engine  
 VK : With VK engine  
 ★1 114 : VQ  
 105 : VK  
 ★2 113 : VQ  
 101 : VK

★: This connector is not shown in "Harness Layout".



JCNWM1058GB

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**[NAVIGATION (TWIN MONITOR)]**

**[NAVIGATION (TWIN MONITOR)]**



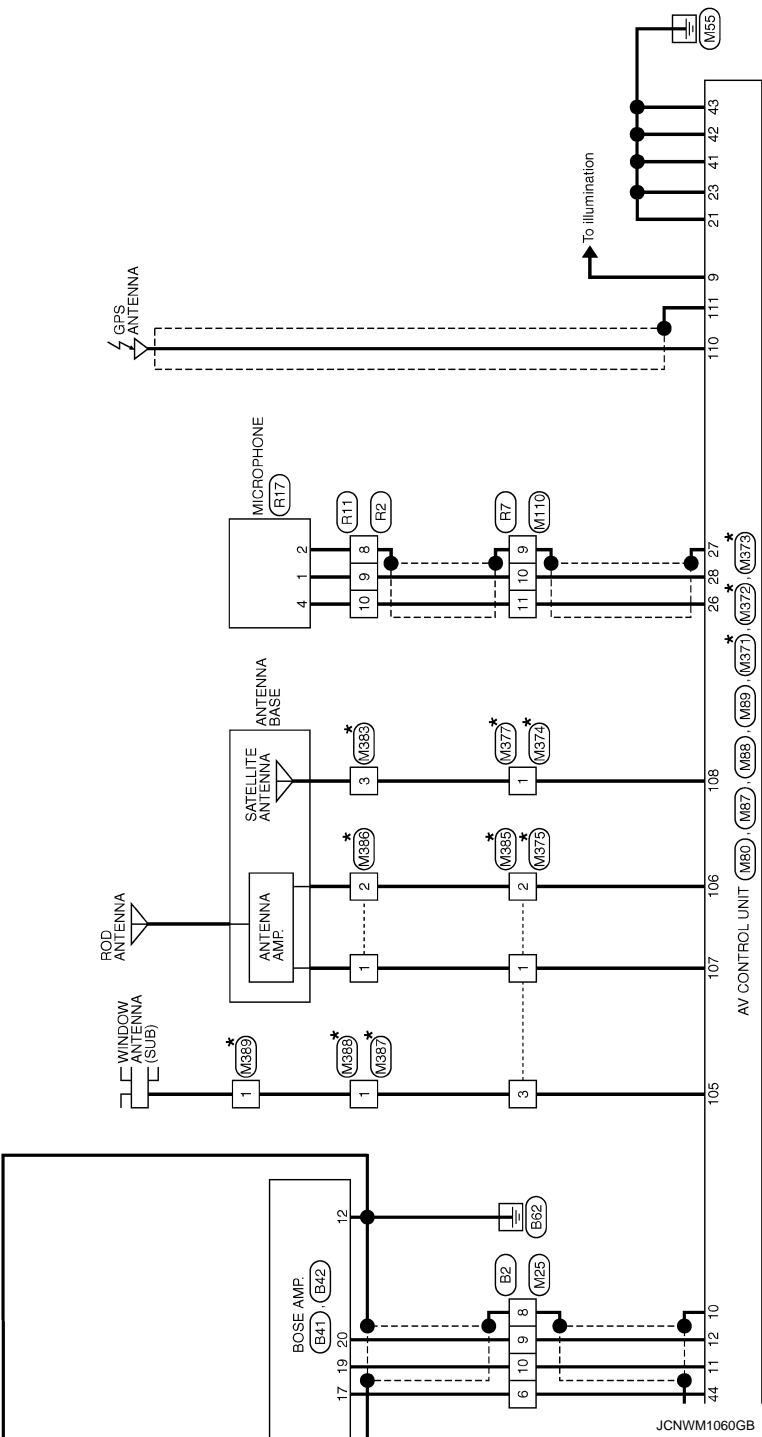


FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

★: This connector is not shown in "Harness Layout".



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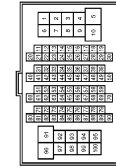
# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



7	6	5	4	3	2	1		
16	15	14	13	12	11	10	9	8

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



5	4	3	2	1		
12	11	10	9	8	7	6

Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

21	Y	-
22	G	-
23	LG	-
24	R	-
25	L	-
26	R	-
27	Y	-
28	W	-
29	BR	-
30	SHIELD	-
31	L	-
32	R	-
33	Y	-
34	W	-
35	BR	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	B6
Connector Name	FUSE BLOCK (U/B)
Connector Type	NS12FBR-CS



5G	4G		3G	2G	1G	
12G	11G	10G	9G	8G	7G	6G

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



6	5	4	3	2	1
12	11	10	9	8	7

Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1061GB



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

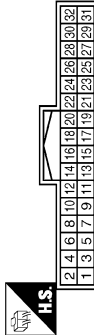
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TKUPW-NS8



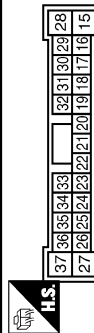
Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Connector No.	B26
Connector Name	REAR DISPLAY UNIT
Connector Type	TH43FPIV-HH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	Y	BATTERY
4	LG	BATTERY
5	P	HEADPHONE ON SIGNAL
8	GR	ACC
9	SHIELD	SHIELD
9	V	COMM (DISP->DIST)
10	SB	COMM (DIST->DISP)
11	O	IGNITION
12	SHIELD	SHIELD

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1DPR-SGA4

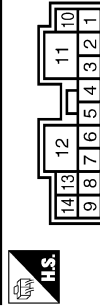


Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

13	G	-
14	R	COMPOSITE IMAGE SIGNAL
15	BR	RGB AREA (VS) SIGNAL
16	B	GND
17	Y	VP
18	O	HP
19	B	RGB GND
20	G	RGB (B BLUE) SIGNAL
21	R	RGB (G GREEN) SIGNAL
22	W	RGB (R RED) SIGNAL
25	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
26	P	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
27	BR	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
28	L	HEADPHONE SOUND SIGNAL SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA1ZFBR-SJA2



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (-)
3	V	SOUND SIGNAL REAR DOOR RH (+)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

JCNWM1062GB

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



42	44	46	48	50	52	54	56	58	60	62	64
41	43	45	47	49	51	53	55	57	59	61	63

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Connector No.	B48
Connector Name	REAR SQUARE LH
Connector Type	TK02FBR



2	1
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

52	Y	SIDE CAMERA LH IMAGE GND
----	---	--------------------------

Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (9-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	P	-
9	L	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	R	-
15	G	-
16	SHIELD	-
17	Y	-

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (+)
24	G	LED (-)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH GND
33	BR	SIDE CAMERA RH COMM
34	L	SIDE CAMERA RH POWER SUPPLY
35	W	REAR CAMERA COMM
36	G	REAR CAMERA POWER SUPPLY
37	SHIELD	SHIELD
38	L	REAR CAMERA GND
39	Y	REAR CAMERA IMAGE SIGNAL
40	BR	REAR CAMERA IMAGE GND

18	O	-
19	BR	-
27	GR	-
28	LG	-
29	Y	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

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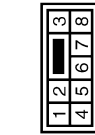
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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS08MGY



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	
4	B	
8	R	

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH06FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
11	BR	
12	Y	
13	SHIELD	
14	G	
15	R	
16	SHIELD	
17	LG	
18	GR	
19	V	

20	GR	- [With NAVI]
21	L	- [With NAVI]
22	B	- [With entertainment system]
23	W	- [With entertainment system]
24	R	- [With entertainment system]
25	SHIELD	- [With entertainment system]
26	SB	-
27	V	-
28	SHIELD	-
29	O	-
30	P	-

Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
5	P	
6	SHIELD	
7	G	
8	W	
13	L	
14	SHIELD	
15	B	
16	R	

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
2	R	

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	
2	GR	

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A  
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K  
L  
M  
AV  
O  
P



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	HS08FW-CS



3	2	1
8	7	6
5	4	

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	
8	R	
9	G	
10	SHIELD	
11	Y	
12	BR	
13	SHIELD	
14	L	
15	P	
16	SHIELD	
17	R	

Connector No.	B256
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



18	W	-
19	B	-
27	V	-
28	GR	-
29	LG	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	
4	B	
8	R	

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RS08FGY



4	3	2	1
8	7	6	5

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
17	16	15	14	13	12	11	10	9	8	7	6	5	4	3

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MY-NH



12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	
2	B	

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	
2	B	

14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	BR	-
41	L	-
42	Y	-
43	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	
5	Y	
6	R	
17	L	
18	BR	

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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
16	G	-
17	L	-
18	BR	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

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L  
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AV  
O  
P



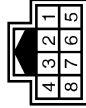
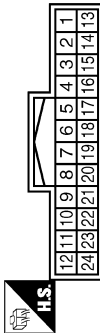
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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

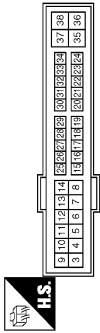


Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH08MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

Connector No.	E5
Connector Name	PDIM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



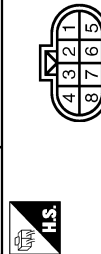
Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

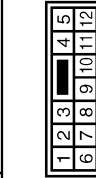


Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR

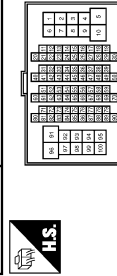
Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



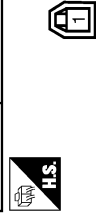
Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH03FW-CS16-TM4



Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS06MB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

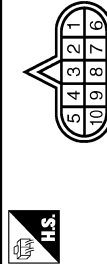
Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



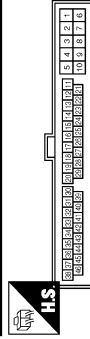
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

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AV



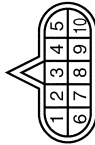
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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	F151
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SPT0FG



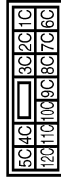
Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSG6FW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

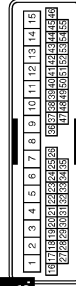
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

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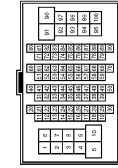
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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS1F-TM4

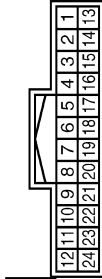


66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



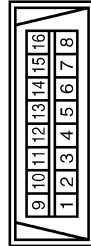
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

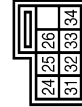
Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



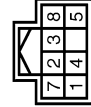
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

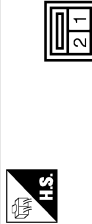
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M44
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



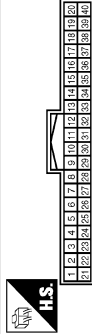
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
18	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



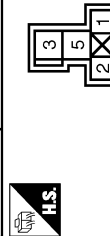
Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH

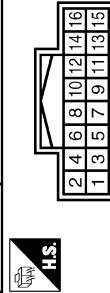


Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

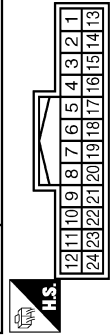
Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
13	B	GND
14	SHIELD	SHIELD
15	G	AUX IMAGE SIGNAL (Without entertainment system)
17	B	RGB (R-RED) SIGNAL
18	R	RGB (B-BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DSP->CONT)
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	G	AUX IMAGE GND (With entertainment system)
6	W	RGB (G-GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-CSZ



1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20							

13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH



21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
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Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
9	R	ILLUMINATION
10	B	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH



62	64	66	68	70	72
61	63	65	67	69	71

Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R RED) SIGNAL
62	W	RGB (G GREEN) SIGNAL
63	R	RGB (B BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (VS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

72	SHIELD	SHIELD
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Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH



73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104

Terminal No.	Color of Wire	Signal Name [Specification]
79	Y	Pin4 SOUND SIGNAL LH (+) (With entertainment system)
80	R	Pin4 SOUND SIGNAL RH (+) (With entertainment system)
81	B	SHIELD
85	SB	DISK EJECT SIGNAL
95	BR	Pin4 SOUND SIGNAL LH (-) (With entertainment system)
96	G	Pin4 SOUND SIGNAL RH (-) (With entertainment system)
102	BR	SW GND

38	R	VEHICLE SPEED (8-PULSE)
41	B	CONTROL SIGNAL 1
42	B	CONTROL SIGNAL 2
43	B	CONTROL SIGNAL 3
44	SB	MODE CHANGE SIGNAL
48	G	AV COMM (H)
49	R	AV COMM (H)
50	LG	AV COMM (L)
51	V	AV COMM (L)
52	L	CAN-H
53	P	CAN-L

JCNWM1072GB

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M97
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH16FW-NH

25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

36	O	IGNITION
38	SHIELD	
39	V	COMM (DSP->DIST)
40	SB	COMM (DIST->DSP)

36	O	IGNITION
38	SHIELD	
39	V	COMM (DSP->DIST)
40	SB	COMM (DIST->DSP)

Connector No.	M98
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH24FW-NH

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Connector No.	M99
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH08FW-NH


54	55	56	60
54	55	56	60

Terminal No.	Color of Wire	Signal Name [Specification]
25	W	RGB (R: RED) SIGNAL
26	R	RGB (G: GREEN) SIGNAL
27	B	RGB GND
28	G	RGB (B: BLUE) SIGNAL
29	R	VP
30	W	HP
31	B	SHIELD
32	B	RGB AREA (YS) SIGNAL
33	G	-
34	R	COMPOSITE IMAGE SIGNAL
35	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	AV COMM (H)
4	R	AV COMM (L)
6	G	COMPOSITE IMAGE GND
7	SHIELD	SHIELD
8	R	COMPOSITE IMAGE SIGNAL
19	W	AUX IMAGE SIGNAL
21	SHIELD	SHIELD
22	SHIELD	SHIELD
23	P	DVD IMAGE SIGNAL
24	L	-


Terminal No.	Color of Wire	Signal Name [Specification]
53	B	GND
54	O	BATTERY
55	SB	ACC
56	G	IGNITION
60	P	HEADPHONE ON SIGNAL


Connector No.	M107
Connector Name	ECM (WITH VQ ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z








































Connector No.	M110
Connector Name	WIPE TO WIRE
Connector Type	TH16MW-NH

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Connector No.	M111
Connector Name	iPod ADAPTER
Connector Type	TH24FW-NH

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

14	Y	iPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	iPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	iPod SOUND SIGNAL GND
24	B	iPod SOUND SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	- [With NAVI]
11	G	- [With NAVI]

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	iPod SOUND SIGNAL LH (+)
2	BR	iPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	iPod BATTERY CHARGE
9	Y	COMM (iPod ADAPTER->iPod)
10	BR	COMM (iPod->iPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	iPod SOUND SIGNAL RH (+)
13	G	iPod SOUND SIGNAL LH (+)

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M112
Connector Name	IPod SIDE
Connector Type	IP16GY



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16		

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



2	1
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Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3BMW-NS10



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31					

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	IPod SOUND SIGNAL LH (+)
2	W	IPod SOUND SIGNAL GND
5	BR	COMM (Pod->Pod ADAPTER)
6	Y	COMM (Pod ADAPTER->Pod)
7	R	IPod SOUND SIGNAL RH (+)
9	SB	IPod CONNECTION RECOGNITION
10	B	GND
12	W	IPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16P-TM4



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100		

20	GR	- [With NAVI]
21	V	-
22	B	- [With entertainment system]
23	W	- [With entertainment system]
24	R	- [With entertainment system]
25	SHIELD	- [With entertainment system]
26	SB	-
27	V	-
28	SHIELD	-
29	O	-
30	P	-

Connector No.	M122
Connector Name	BCM BODY CONTROL MODULE
Connector Type	TH40JFB-NH



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100		

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100		

Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
11	BR	-
12	Y	-
13	SHIELD	-
14	G	-
15	R	-
16	SHIELD	-
17	Y	-
18	Y	-
19	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M139
Connector Name	WIRE TO WIRE
Connector Type	TH22FW-NH



16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17



# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

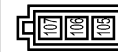
Connector No.	M182
Connector Name	DVD PLAYER
Connector Type	TH2PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ILLUMINATION
4	V	ACC
5	B	SHIELD
7	P	DVD IMAGE SIGNAL
9	L	
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)

Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

16	B	SHIELD
17	G	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
18	R	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
19	BR	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
20	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
21	Y	SOUND SIGNAL LH (+)
22	BR	SOUND SIGNAL LH (-)
23	R	SOUND SIGNAL RH (+)
24	G	SOUND SIGNAL RH (-)
25	B	SHIELD
27	B	AV COMM (L)
29	R	AV COMM (H)
30	G	

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	SB	AUX SOUND SIGNAL GND
3	B	AUX SOUND SIGNAL LH (+)
7	W	AUX IMAGE SIGNAL
8	SHIELD	SHIELD

Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA
111	SHIELD	SHIELD

Connector No.	M183
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A38FW



1	2	3	7	8
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Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16G-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



20	19	18	7	16	15	14	13
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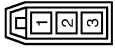








# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M375	Connector No.	M377	Connector No.	M383	Connector No.	M385
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	ANTENNA BASE	Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU	Connector Type	GT16C-1PP-HU	Connector Type	GT16C-1PP-HU	Connector Type	GT13SCN-2/1PP-HU
 				 			
Terminal No.	1	Color of Wire	—	Terminal No.	3	Color of Wire	—
2	—	Signal Name [Specification]	—	Signal Name [Specification]	SATELLITE ANTENNA	1	—
3	—	—	—	—	—	2	—
						3	—

Connector No.	M386	Connector No.	M387	Connector No.	M388	Connector No.	M389
Connector Name	ANTENNA BASE	Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	WINDOW ANTENNA (SUB)
Connector Type	GT13SSN-1/1PP-HU	Connector Type	JASO JACK	Connector Type	JASO PLUG	Connector Type	PO1FB-A
 				 			
Terminal No.	1	Color of Wire	—	Terminal No.	1	Color of Wire	—
2	—	Signal Name [Specification]	—	Signal Name [Specification]	—	1	—

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# FRONT DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

JCNWM1078GB

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# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

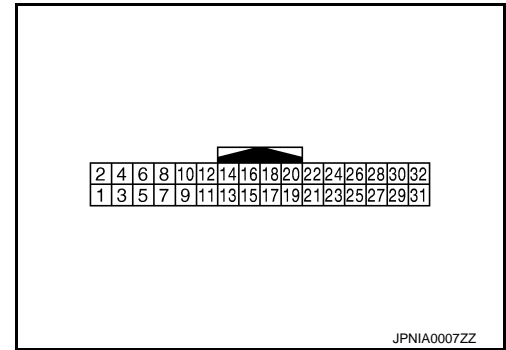
[NAVIGATION (TWIN MONITOR)]

## REAR DISPLAY UNIT

Reference Value

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TERMINAL LAYOUT



PHYSICAL VALUES

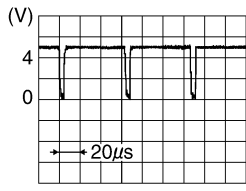
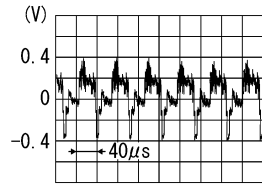
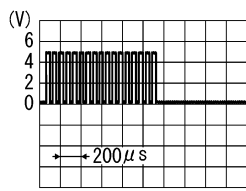
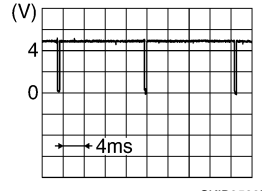
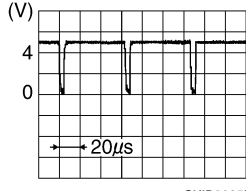
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
3 (Y)	Ground	Battery power supply	Input	Ignition switch ON	—	Battery voltage
4 (LG)	Ground	Battery power supply	Input	Ignition switch ON	—	Battery voltage
5 (P)	Ground	Headphone ON signal	Input	Ignition switch ON	Headphone mode is ON.	4.0 V
					Headphone mode is OFF.	0 V
6 (GR)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
8	—	Shield	—	—	—	—
9 (V)	Ground	Communication signal (DISP→DIST)	Output	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear displayed.	<p>PKIB5039J</p>
10 (SB)	Ground	Communication signal (DIST→DISP)	Input	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear displayed.	<p>PKIB5039J</p>



# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
11 (O)	Ground	Ignition signal	Input	Ignition switch ON	—	0 V
				Ignition switch ACC	—	5.0 V
12	—	Shield	—	—	—	—
13* (G)	—	—	—	—	—	—
13 (G)	Ground	Composite image synchronizing signal	Input	Ignition switch ON	When AUX or DVD image is displayed on rear display unit.	
14 (R)	Ground	Composite image signal	Input	Ignition switch ON	When AUX or DVD image is displayed on rear display unit.	
15 (BR)	Ground	RGB area (YS) signal	Input	Ignition switch ON	When AUX or DVD image is displayed.	0 V
				Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear display.	
16 (B)	—	Ground	—	Ignition switch ON	—	0 V
17 (Y)	Ground	Vertical synchronizing (VP) signal	Output	Ignition switch ON	—	
18 (O)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	

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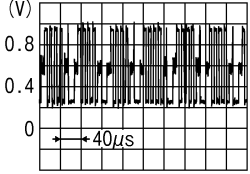
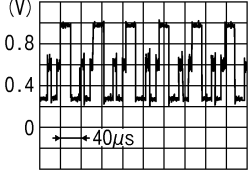
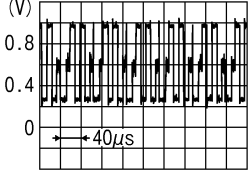
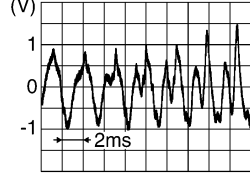
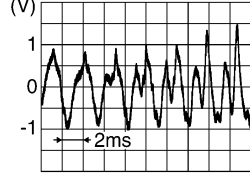
P



# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
19 (B)	Ground	RGB ground	—	Ignition switch ON	—	0 V
20 (G)	Ground	RGB signal (B: blue) for rear display unit	Input	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	 JSNIA1031ZZ
21 (R)	Ground	RGB signal (G: green)	Input	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	 JSNIA1030ZZ
22 (W)	Ground	RGB signal (R: red)	Input	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	 JSNIA1029ZZ
27 (BR)	25 (Y)	Headphone sound signal RH	Input	Ignition switch ON	Headphone sound output	 SKIB3609E
28 (L)	26 (P)	Headphone sound signal LH	Input	Ignition switch ON	Headphone sound output	 SKIB3609E

**NOTE:**

\*: This harness is not used.

## Wiring Diagram - BOSE AUDIO WITH NAVIGATION (TWIN MONITOR) -

INFOID:000000003826926

**NOTE:**

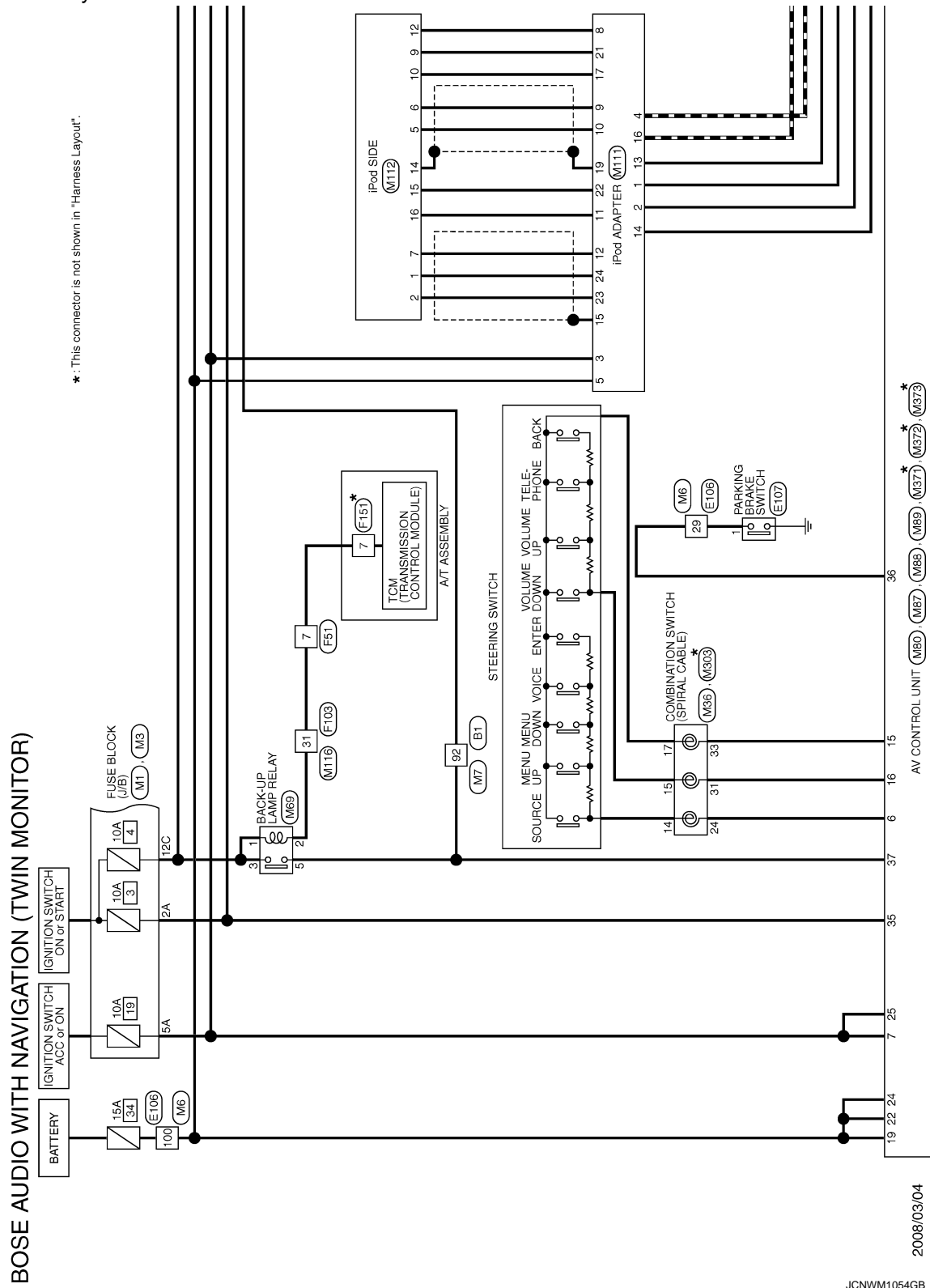


## REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

**[NAVIGATION (TWIN MONITOR)]**

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

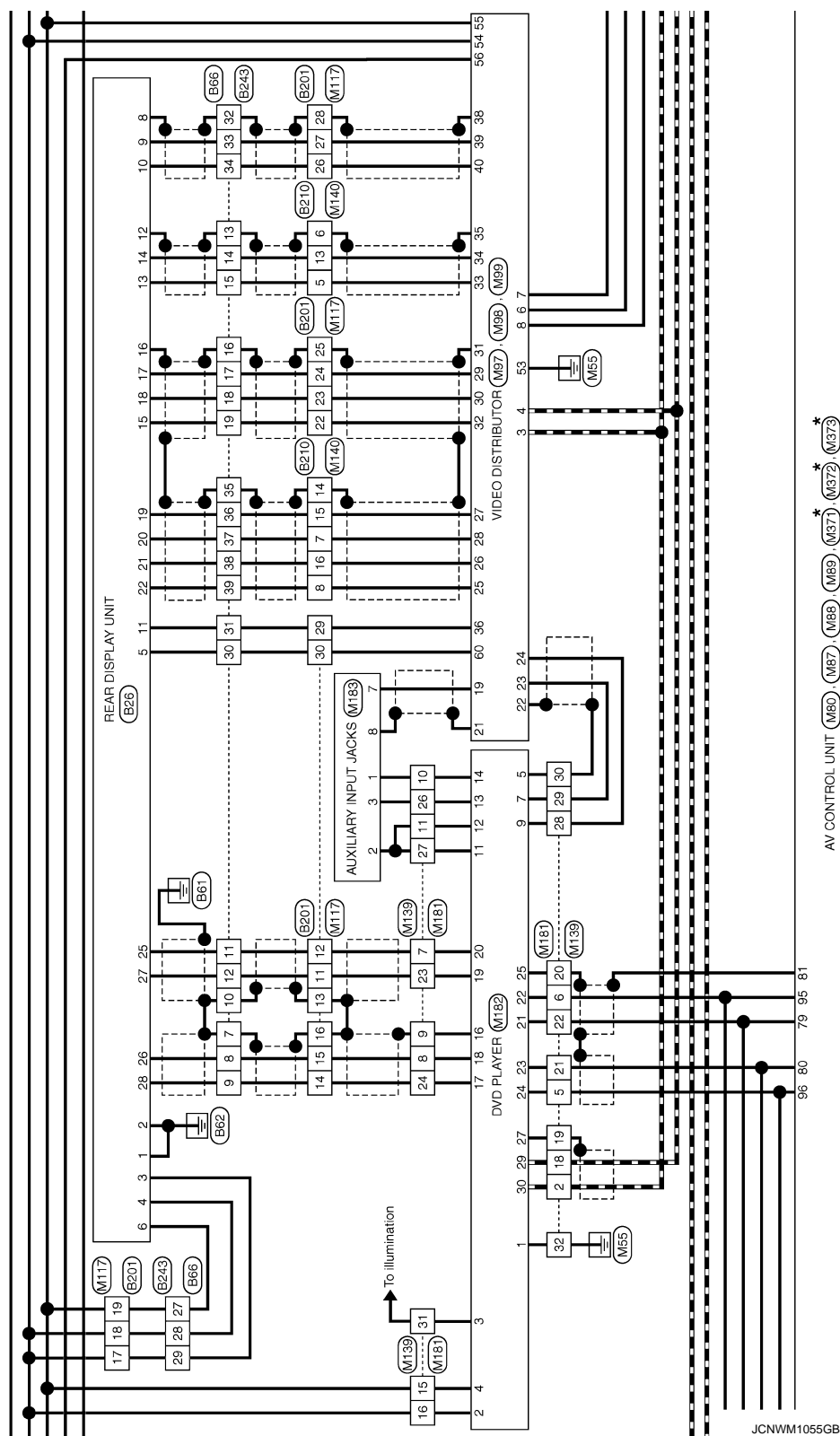


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**[NAVIGATION (TWIN MONITOR)]**



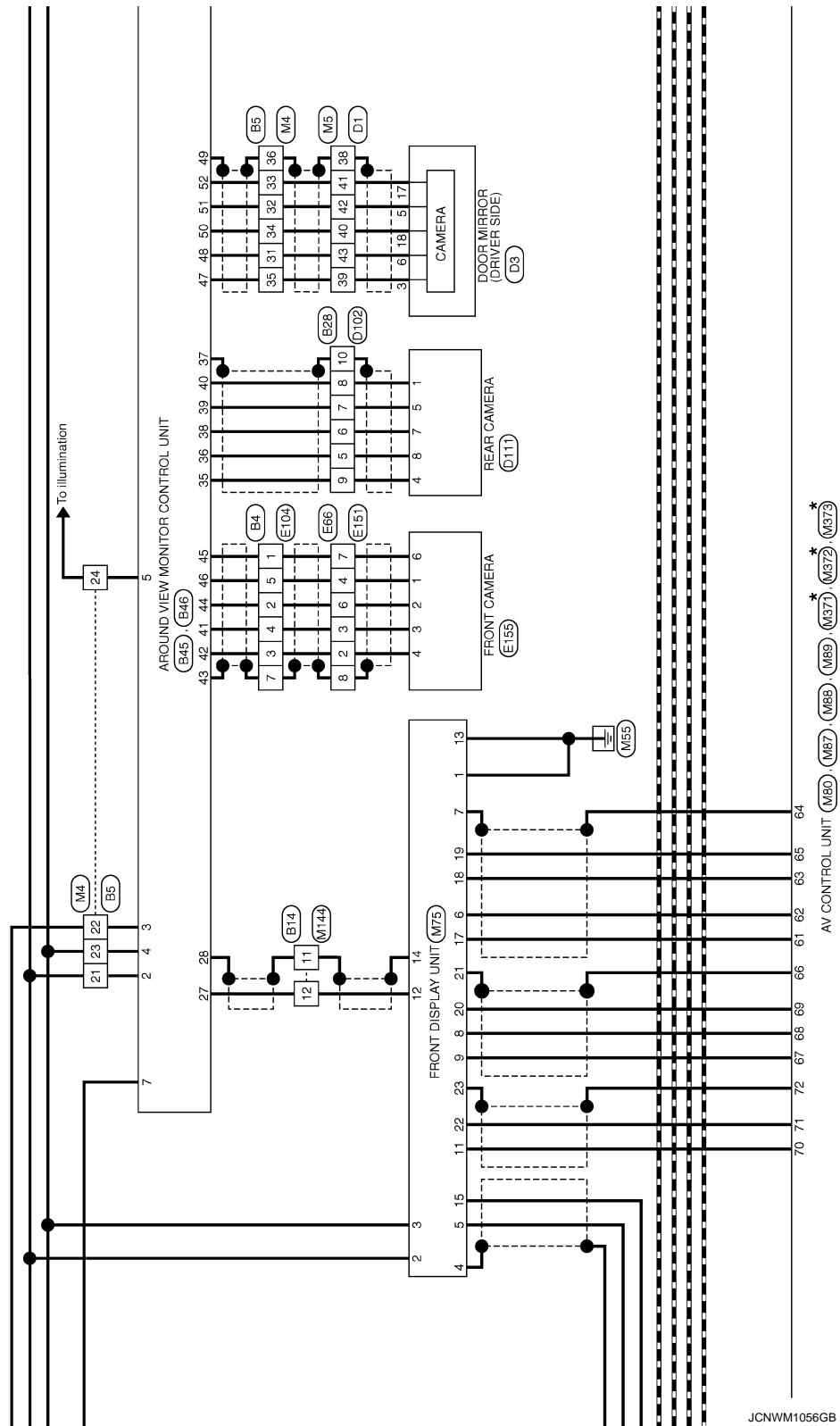


# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

\*: This connector is not shown in "Harness Layout".



JCNWM1056GB

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**[NAVIGATION (TWIN MONITOR)]**

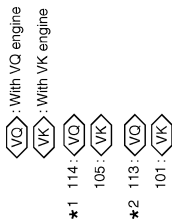




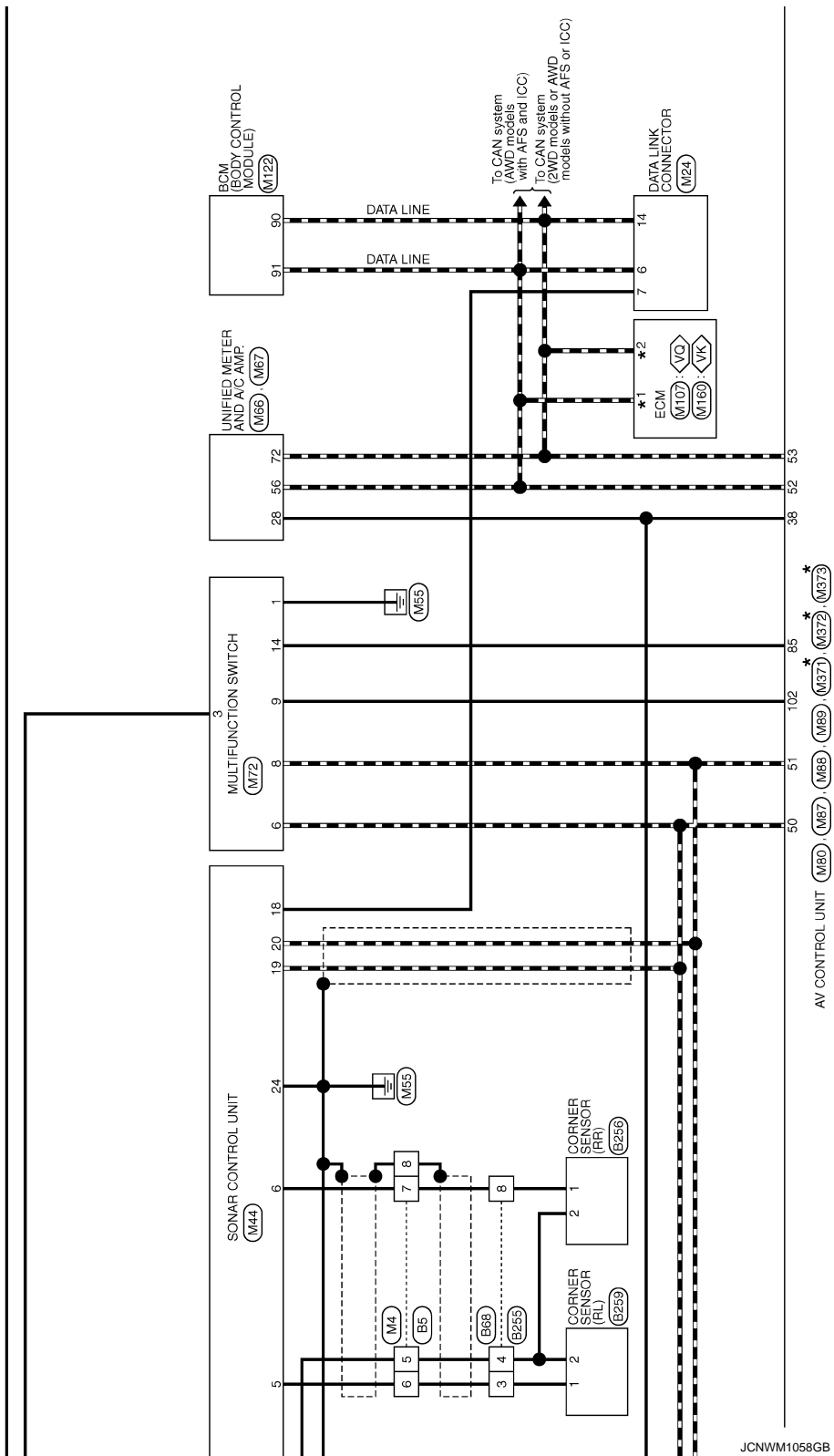
## REAR DISPLAY UNIT

## < ECU DIAGNOSIS INFORMATION >

**[NAVIGATION (TWIN MONITOR)]**



**\*\***: This connector is not shown in "Harness Layout".



JCNWM1058GB

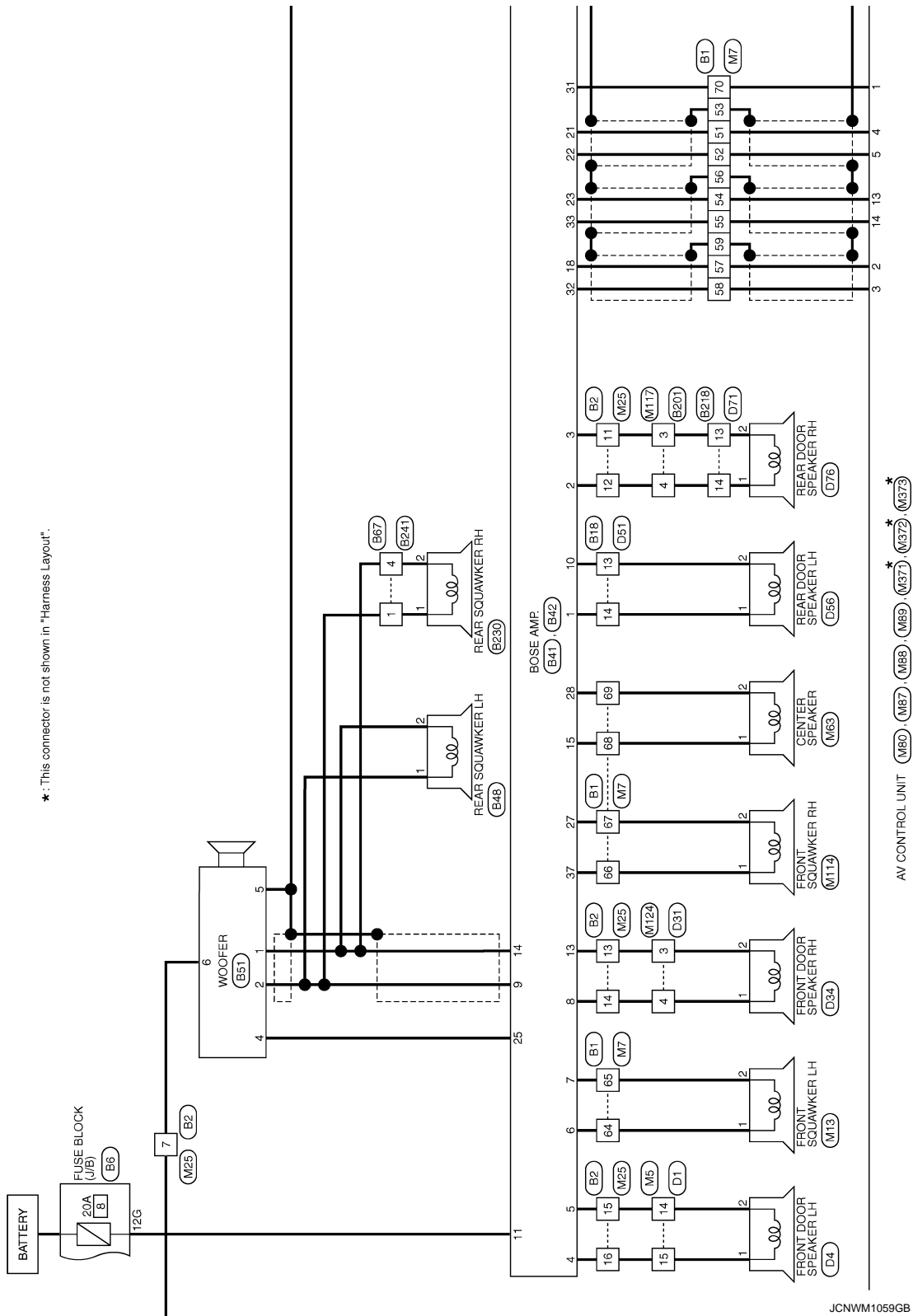
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# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]



JCNWM1059GB

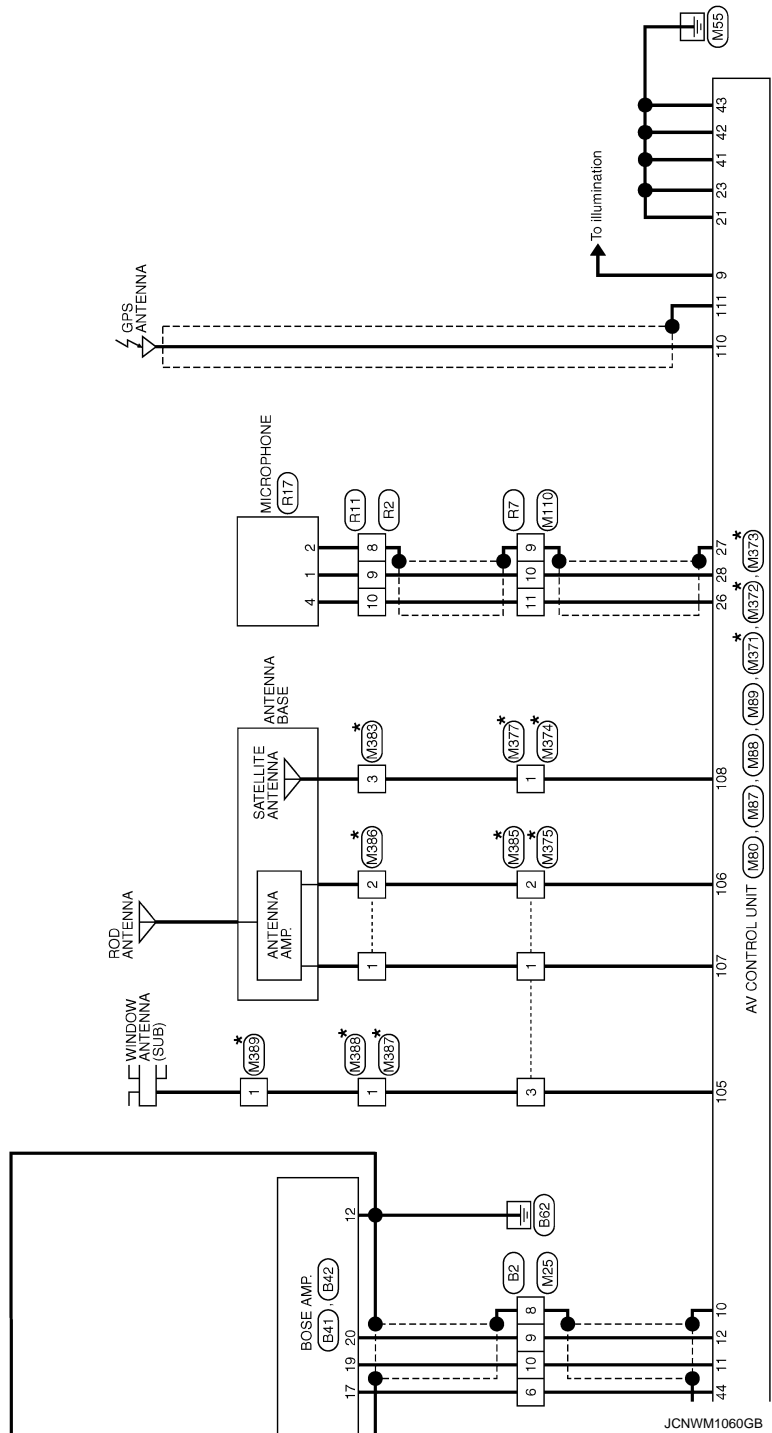


# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

★: This connector is not shown in "Harness Layout".



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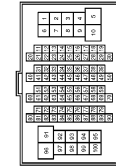
# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



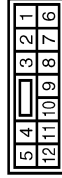
Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B6
Connector Name	FUSE BLOCK (U/B)
Connector Type	NS12FBR-CS



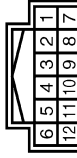
Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

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# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TKUPW-NS8

10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		

Connector No.	B26
Connector Name	REAR DISPLAY UNIT
Connector Type	TH43FPH-4H

2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	Y	BATTERY
4	LG	BATTERY
5	P	HEADPHONE ON SIGNAL
6	GR	ACC
8	SHIELD	SHIELD
9	V	COMM (DISP->DIST)
10	SB	COMM (DIST->DISP)
11	O	IGNITION
12	SHIELD	SHIELD

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1DPR-SGA4

37	36	35	34	33	32	31	30	29	28
27	26	25	24	23	22	21	20	19	18
17	16	15	14	13	12	11	10	9	8

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL FRONT RH (-)
22	SB	SOUND SIGNAL REAR LH (+)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

13	G	-
14	R	COMPOSITE IMAGE SIGNAL
15	BR	RGB AREA (VS) SIGNAL
16	B	GND
17	Y	VP
18	O	HP
19	B	RGB GND
20	G	RGB (B BLUE) SIGNAL
21	R	RGB (G GREEN) SIGNAL
22	W	RGB (R RED) SIGNAL
25	Y	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
26	P	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
27	BR	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
28	L	HEADPHONE SOUND SIGNAL SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

14	13	12	11	10
9	8	7	6	5
4	3	2	1	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (-)
3	V	SOUND SIGNAL REAR DOOR RH (+)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

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# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24PW-NH



42	44	46	48	50	52	54	56	58	60	62	64
41	43	45	47	49	51	53	55	57	59	61	63

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Connector No.	B48
Connector Name	REAR SQUARE LH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

52	Y	SIDE CAMERA LH IMAGE GND
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Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (9-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	P	-
9	L	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	R	-
15	G	-
16	SHIELD	-
17	Y	-

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (+)
24	G	LED (-)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH GND
33	BR	SIDE CAMERA RH COMM
34	L	SIDE CAMERA RH POWER SUPPLY
35	W	REAR CAMERA COMM
36	G	REAR CAMERA POWER SUPPLY
37	SHIELD	SHIELD
38	L	REAR CAMERA GND
39	Y	REAR CAMERA IMAGE SIGNAL
40	BR	REAR CAMERA IMAGE GND

18	O	-
19	BR	-
27	GR	-
28	LG	-
29	Y	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

JCNWM1063GB



# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS



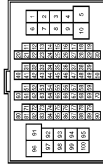
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS08MGY



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	
4	B	
8	R	

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH06FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
11	BR	
12	Y	
13	SHIELD	
14	G	
15	R	
16	SHIELD	
17	LG	
18	GR	
19	V	

Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
5	P	
6	SHIELD	
7	G	
8	W	
13	L	
14	SHIELD	
15	B	
16	R	

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
2	R	

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	
2	GR	

JCNWM1064GB

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# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	RS08FW-CS



3	2	1
8	7	6
5	4	

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	
8	R	
9	G	
10	SHIELD	
11	Y	
12	BR	
13	SHIELD	
14	L	
15	P	
16	SHIELD	
17	R	

18	W	-
19	B	-
27	V	-
28	GR	-
29	LG	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RS08FGY



4	3	2	1
8	7	6	5

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	
4	B	
8	R	

Connector No.	B256
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	45	44	43	42	41	40	39	38	37	36	26	25	24	23
55	54	53	52	51	50	49	48	47	35	34	33	32	31	30
														29
														28
														27



# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

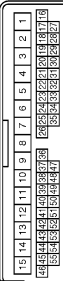
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
16	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

JCNWM1066GB

A  
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AV  
O  
P



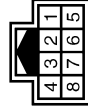
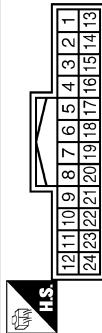
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



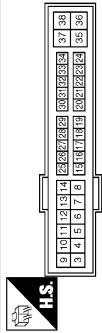
Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH08MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

Connector No.	E5
Connector Name	PDIM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



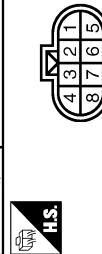
Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR

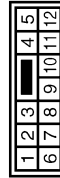


Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH03FW-CS16-TM4



Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

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# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS06MB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



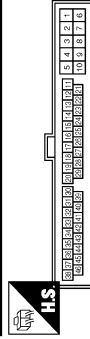
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

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A  
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G  
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J  
K  
L  
M  
N  
O  
P

AV



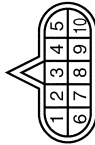
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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	F151
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SPT0FG



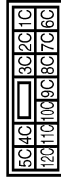
Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSG6FW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

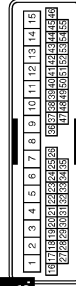
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-



# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS1F-TM4

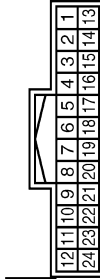


66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



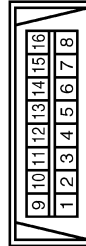
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



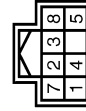
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

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A  
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K  
L  
M  
AV  
O  
P



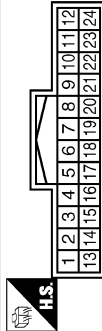
# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

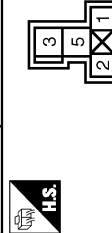
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M64
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



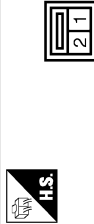
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
18	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



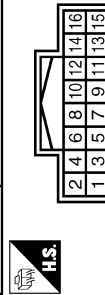
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



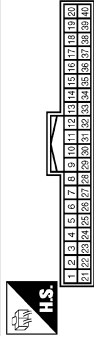
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



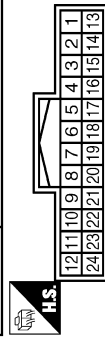
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



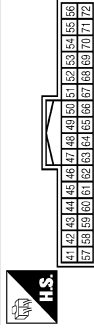
Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	G	AUX IMAGE GND (With entertainment system)
6	W	RGB (G: GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

13	B	GND
14	SHIELD	SHIELD
15	G	AUX IMAGE SIGNAL (Without entertainment system)
17	B	RGB (R: RED) SIGNAL
18	R	RGB (B: BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT)
23	SHIELD	SHIELD

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**[NAVIGATION (TWIN MONITOR)]**



# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M97
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH16FW-NH

25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

36	O	IGNITION
38	SHIELD	
39	V	COMM (DSP->DIST)
40	SB	COMM (DIST->DSP)

36	O	IGNITION
38	SHIELD	
39	V	COMM (DSP->DIST)
40	SB	COMM (DIST->DSP)

Connector No.	M98
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH24FW-NH

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Connector No.	M99
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH08FW-NH

54	55	56	60
54	55	56	60

Terminal No.	Color of Wire	Signal Name [Specification]
25	W	RGB (R: RED) SIGNAL
26	R	RGB (G: GREEN) SIGNAL
27	B	RGB GND
28	G	RGB (B: BLUE) SIGNAL
29	R	VP
30	W	HP
31	B	SHIELD
32	B	RGB AREA (YS) SIGNAL
33	G	-
34	R	COMPOSITE IMAGE SIGNAL
35	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	AV COMM (H)
4	R	AV COMM (L)
6	G	COMPOSITE IMAGE GND
7	SHIELD	SHIELD
8	R	COMPOSITE IMAGE SIGNAL
19	W	AUX IMAGE SIGNAL
21	SHIELD	SHIELD
22	SHIELD	SHIELD
23	P	DVD IMAGE SIGNAL
24	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
53	B	GND
54	O	BATTERY
55	SB	ACC
56	G	IGNITION
60	P	HEADPHONE ON SIGNAL

Connector No.	M107
Connector Name	ECM (WITH VQ ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z

Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

14	Y	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	IPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	IPod SOUND SIGNAL GND
24	B	IPod SOUND SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	- [With NAVI]
11	G	- [With NAVI]

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (+)
2	BR	IPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	IPod BATTERY CHARGE
9	Y	COMM (IPod ADAPTER->IPod)
10	BR	COMM (IPod->IPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (+)

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# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M112
Connector Name	iPod SIDE
Connector Type	IP16GY



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16		

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



2	1
---	---

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3BMW-NS10



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31					

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	iPod SOUND SIGNAL LH (+)
2	W	iPod SOUND SIGNAL GND
5	BR	COMM (iPod->iPod ADAPTER)
6	Y	COMM (iPod ADAPTER->iPod)
7	R	iPod SOUND SIGNAL RH (+)
9	SB	iPod CONNECTION RECOGNITION
10	B	GND
12	W	iPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16P-TM4



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100		

20	GR	- [With NAVI]
21	V	-
22	B	- [With entertainment system]
23	W	- [With entertainment system]
24	R	- [With entertainment system]
25	SHIELD	- [With entertainment system]
26	SB	-
27	V	-
28	SHIELD	-
29	O	-
30	P	-

Connector No.	M122
Connector Name	BCM BODY CONTROL MODULE
Connector Type	TH40JFB-NH



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100		

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MMV-CS15



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100		

Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
11	BR	-
12	Y	-
13	SHIELD	-
14	G	-
15	R	-
16	SHIELD	-
17	Y	-
18	Y	-
19	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-

JCNWM1074GB

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# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M139
Connector Name	WIRE TO WIRE
Connector Type	TH22FW-NH



16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17



# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

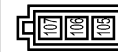
Connector No.	M182
Connector Name	DVD PLAYER
Connector Type	TH2PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ILLUMINATION
4	V	ACC
5	B	SHIELD
7	P	DVD IMAGE SIGNAL
9	L	
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)

Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

16	B	SHIELD
17	G	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
18	R	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
19	BR	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
20	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
21	Y	SOUND SIGNAL LH (+)
22	BR	SOUND SIGNAL LH (-)
23	R	SOUND SIGNAL RH (+)
24	G	SOUND SIGNAL RH (-)
25	B	SHIELD
27	B	AV COMM (L)
29	R	AV COMM (H)
30	G	

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	SB	AUX SOUND SIGNAL GND
3	B	AUX SOUND SIGNAL LH (+)
7	W	AUX IMAGE SIGNAL
8	SHIELD	SHIELD

Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA
111	SHIELD	SHIELD

Connector No.	M183
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A8FW



1	2	3	7	8
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Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16G-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



20	19	18	7	16	15	14	13
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JCNWM1076GB

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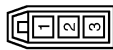
# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



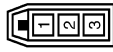
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M383
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	JASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	PO1FB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1077GB



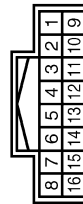
# REAR DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	R2	Connector No.	R7	Connector No.	R11	Connector No.	RT7
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	MICROPHONE
Connector Type	TH24FW-NH	Connector Type	TH15FW-NH	Connector Type	TH24MW-NH	Connector Type	TK34FW



Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-	8	-	-	1	R	MICROPHONE SIGNAL	1	R	MICROPHONE SIGNAL
9	R	-	9	L	-	2	SHIELD	MICROPHONE GND	2	SHIELD	MICROPHONE GND
10	G	-	10	R	-	4	L	MICROPHONE VCC	4	L	MICROPHONE VCC

JCNWM1078GB

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# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

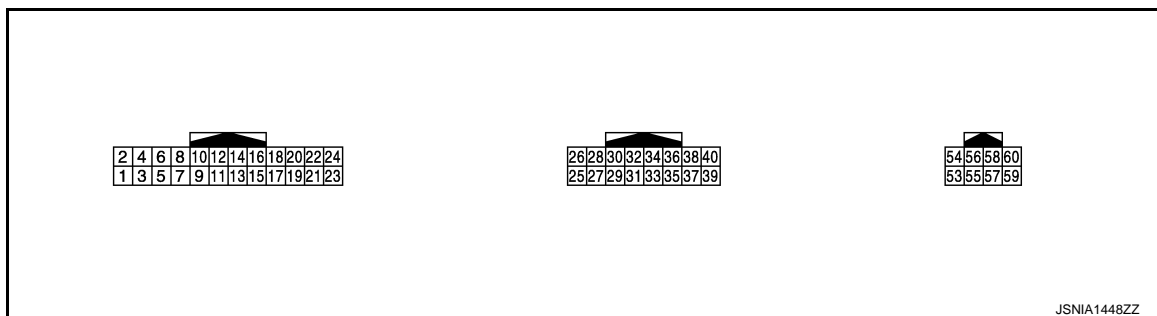
[NAVIGATION (TWIN MONITOR)]

## VIDEO DISTRIBUTOR

### Reference Value

INFOID:000000003825975

### TERMINAL LAYOUT



### PHYSICAL VALUES

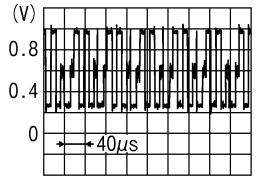
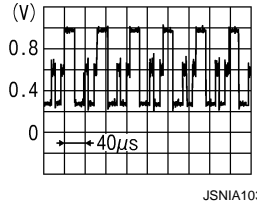
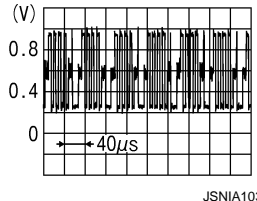
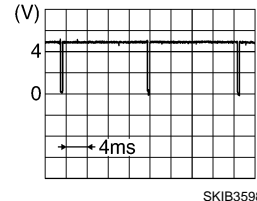
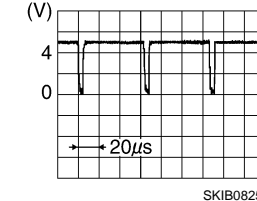
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
3 (G)	—	AV communication signal (H)	Input/ Output	—	—	—
4 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
7	—	Shield	—	—	—	—
8 (R)	6 (G)	Composite image signal for front display unit	Output	Ignition switch ON	When AUX or DVD image is displayed on front display unit.	 SKIB2251J
19 (W)	21	AUX image signal	Input	Ignition switch ON	When AUX image is dis- played.	 SKIB2251J
21	—	Shield	—	—	—	—
22	—	Shield	—	—	—	—
23 (P)	22	DVD image signal	Input	Ignition switch ON	When DVD image is dis- played.	 SKIB2251J
24* (L)	—	—	—	—	—	—



# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
25 (W)	Ground	RGB signal (R: red) for rear display unit	Output	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	
26 (R)	Ground	RGB signal (G: green) for rear display unit	Output	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	
27 (B)	Ground	RGB ground for rear display unit	—	Ignition switch ON	—	0 V
28 (G)	Ground	RGB signal (B: blue) for rear display unit	Output	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	
29 (R)	Ground	Vertical synchronizing (VP) signal for rear display unit	Input	Ignition switch ON	—	
30 (W)	Ground	Horizontal synchronizing (HP) signal for rear display	Input	Ignition switch ON	—	
31 (B)	—	Shield	—	—	—	—

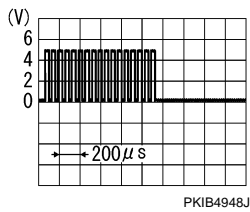
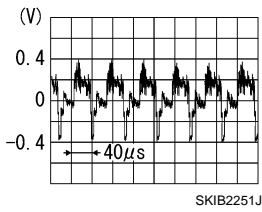
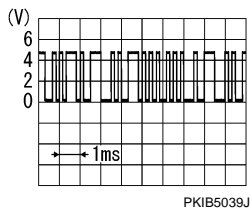
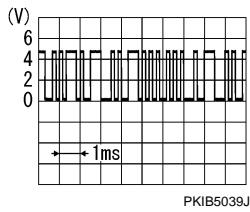
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# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
32 (B)	Ground	RGB area (YS) signal for rear display	Output	Ignition switch ON	When AUX or DVD image is displayed on rear display unit.	0 V
					Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	
33* (G)	—	—	—	—	—	—
34 (R)	Ground	Composite image signal for rear display unit	Output	Ignition switch ON	When AUX or DVD image is displayed on rear display unit.	
35	—	Shield	—	—	—	—
36 (O)	Ground	Ignition signal	Output	Ignition switch ON	—	0 V
				Ignition switch ACC	—	5.0 V
38	—	Shield	—	—	—	—
39 (V)	Ground	Communication signal (DISP→DIST)	Input	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	
40 (SB)	Ground	Communication signal (DIST→DISP)	Output	Ignition switch ON	Rear seat remote controller operation when AUX or DVD image is displayed on rear display unit.	
53 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
54 (O)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage



# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
55 (SB)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
56 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
60 (P)	Ground	Headphone ON signal	Output	Ignition switch ON	Headphone mode is ON.	4.0 V
					Headphone mode is OFF.	0 V

## NOTE:

\*: This harness is not used.

Wiring Diagram - BOSE AUDIO WITH NAVIGATION (TWIN MONITOR) - INFOID:0000000003826928

## NOTE:

AV

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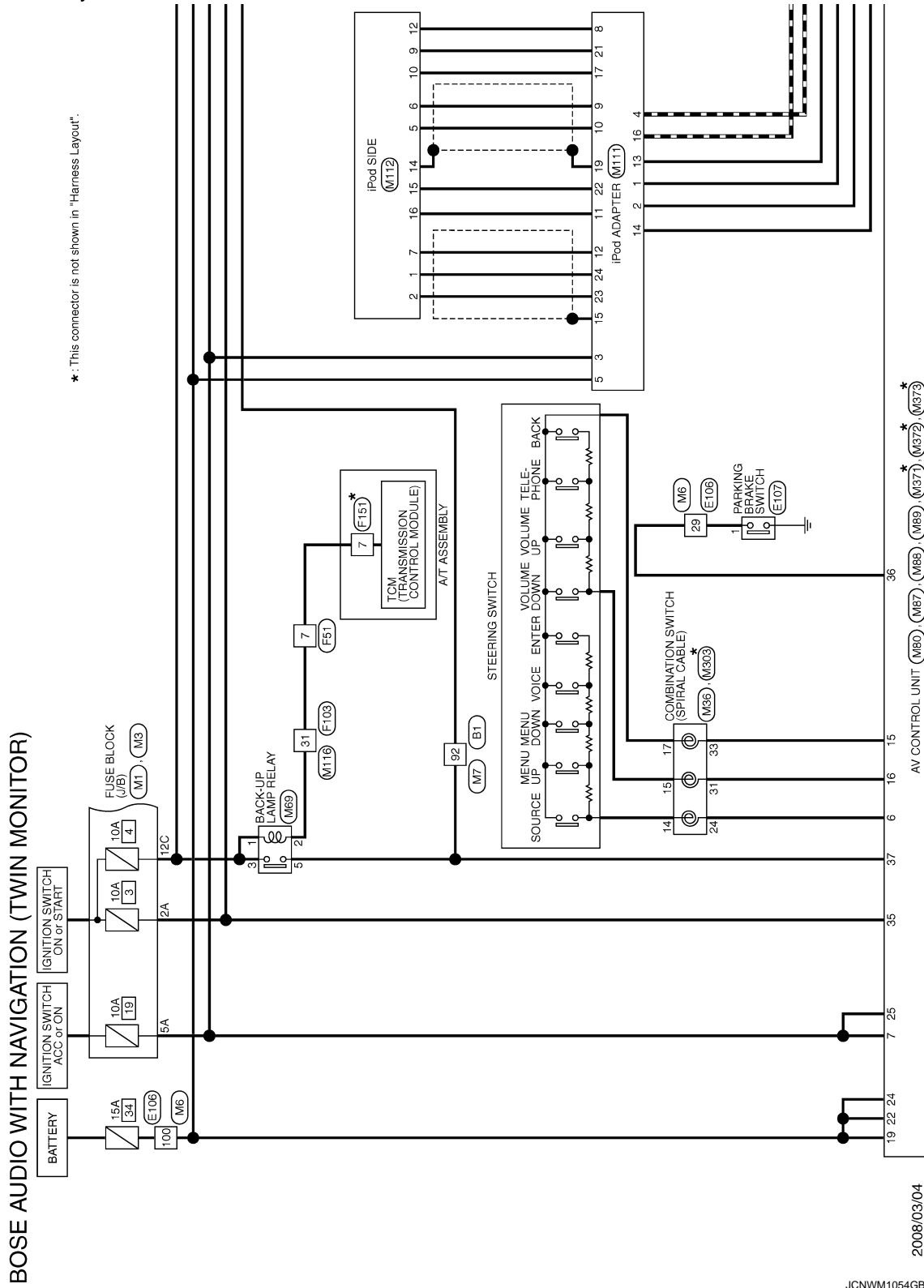


# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



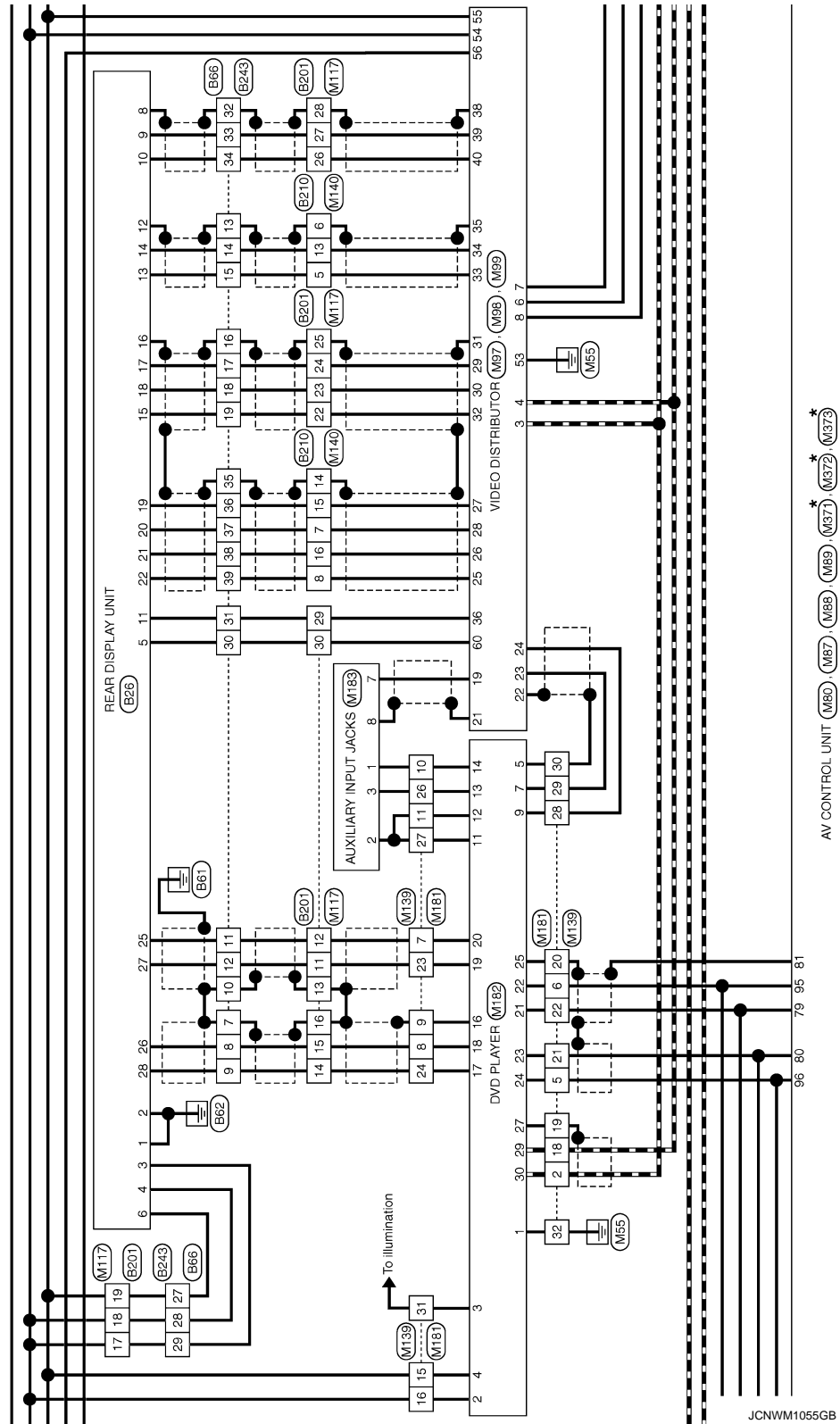


# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

\*: This connector is not shown in "Harness Layout".



JCNWM1055GB

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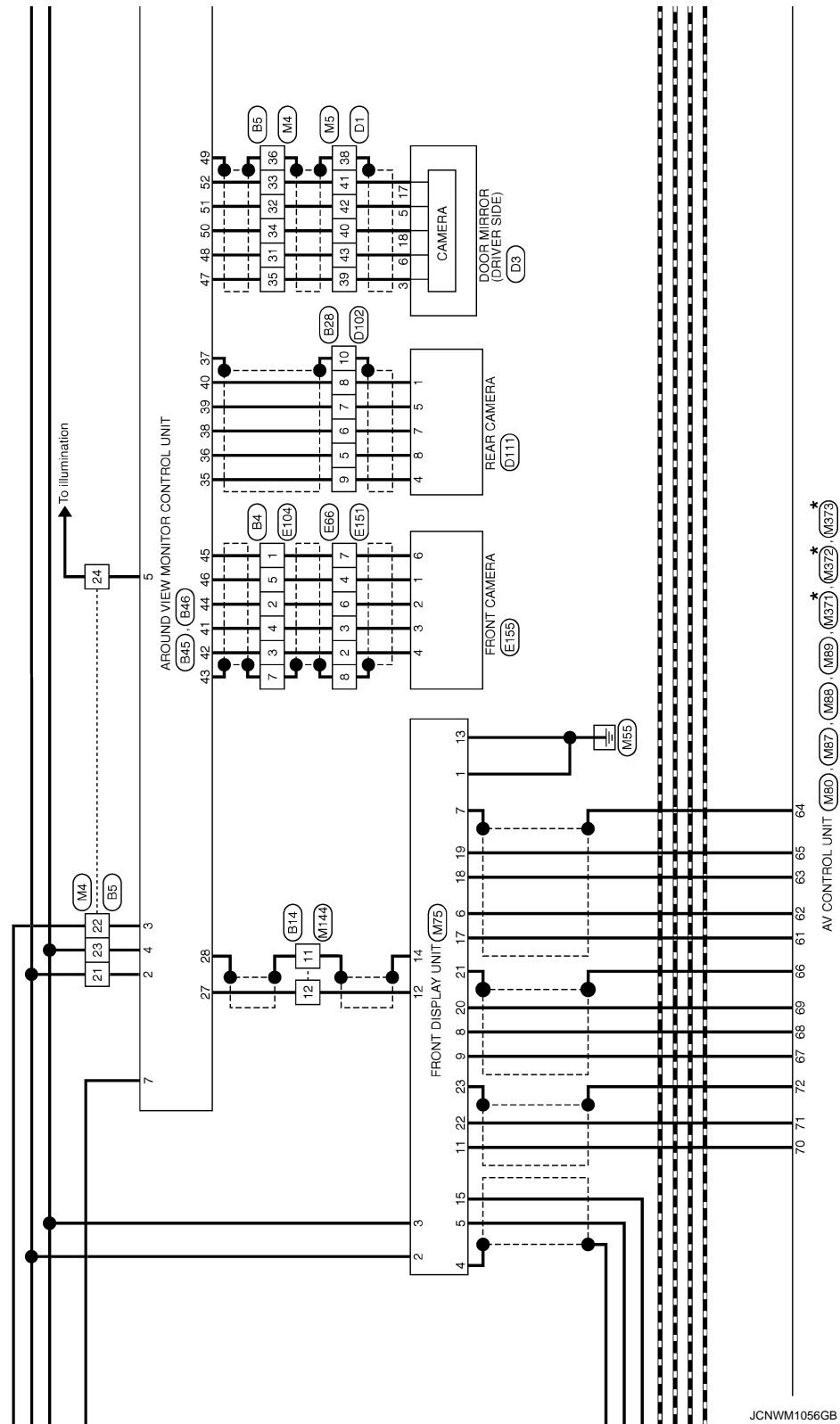


# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

\* : This connector is not shown in "Harness Layout".



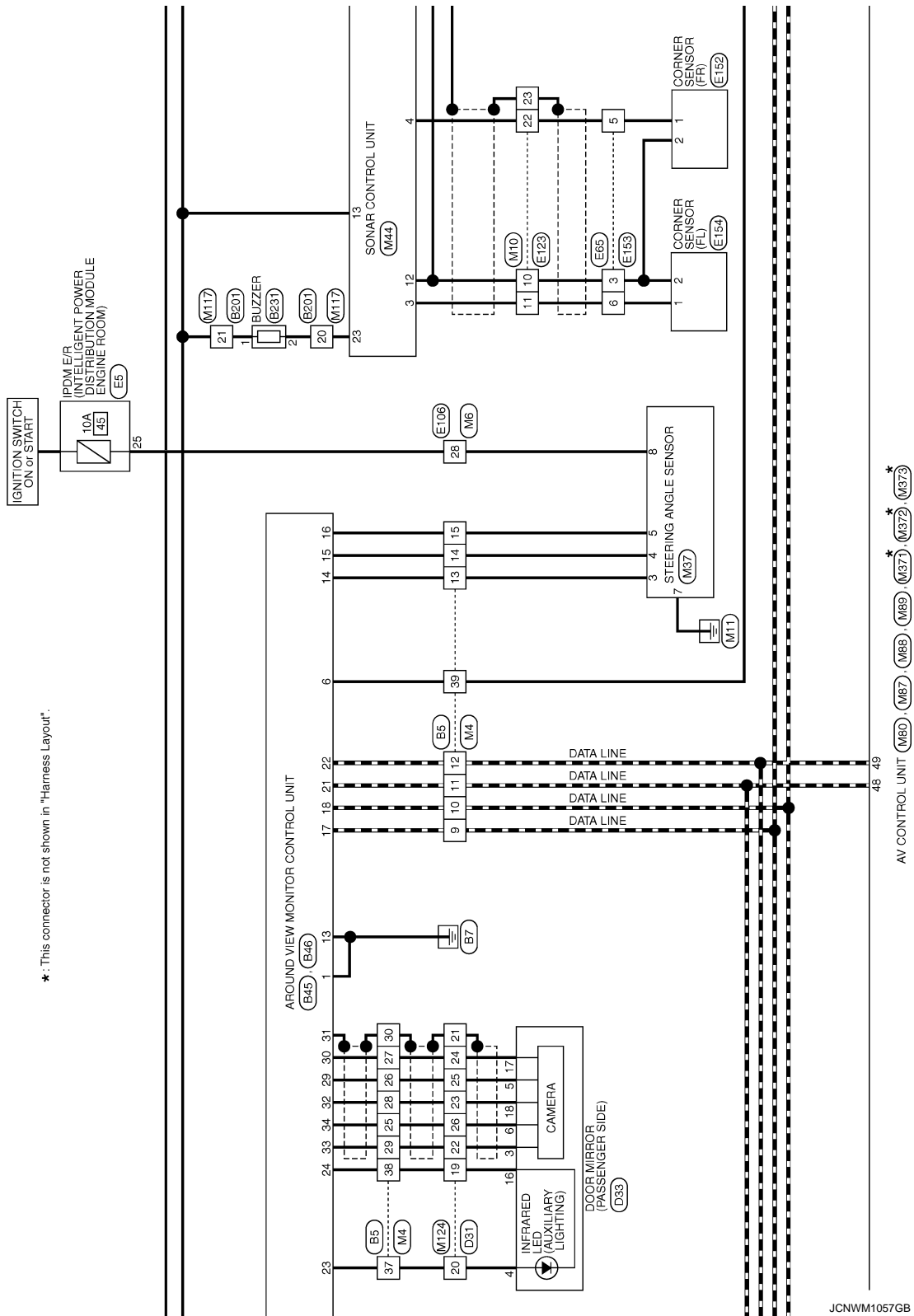
JCNWM1056GB



# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]



JCNWM1057GB

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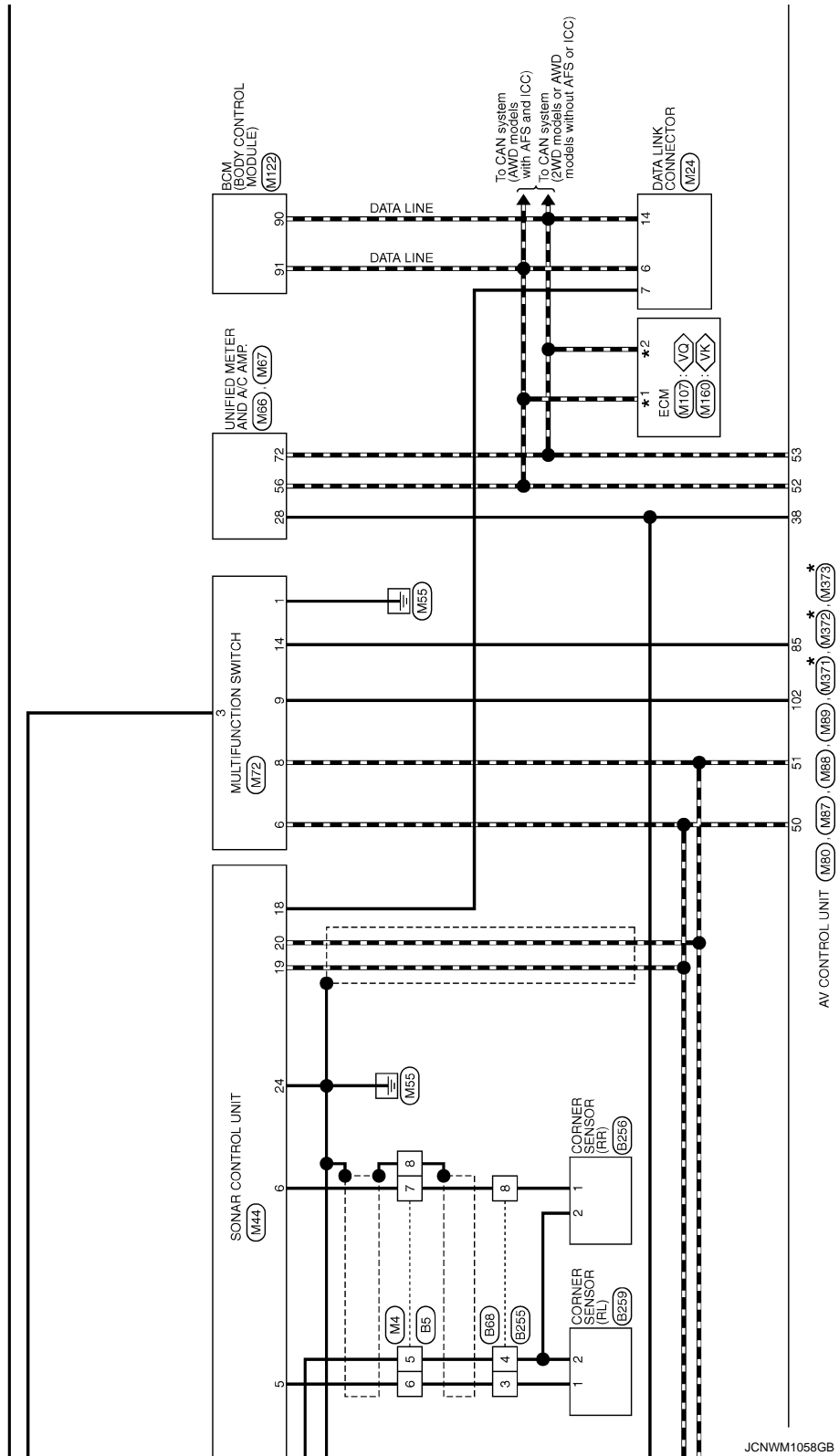
# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

VQ : With VQ engine  
 VK : With VK engine  
 \*1 114 : VQ  
 105 : VK  
 \*2 113 : VQ  
 101 : VK

\* : This connector is not shown in "Harness Layout".



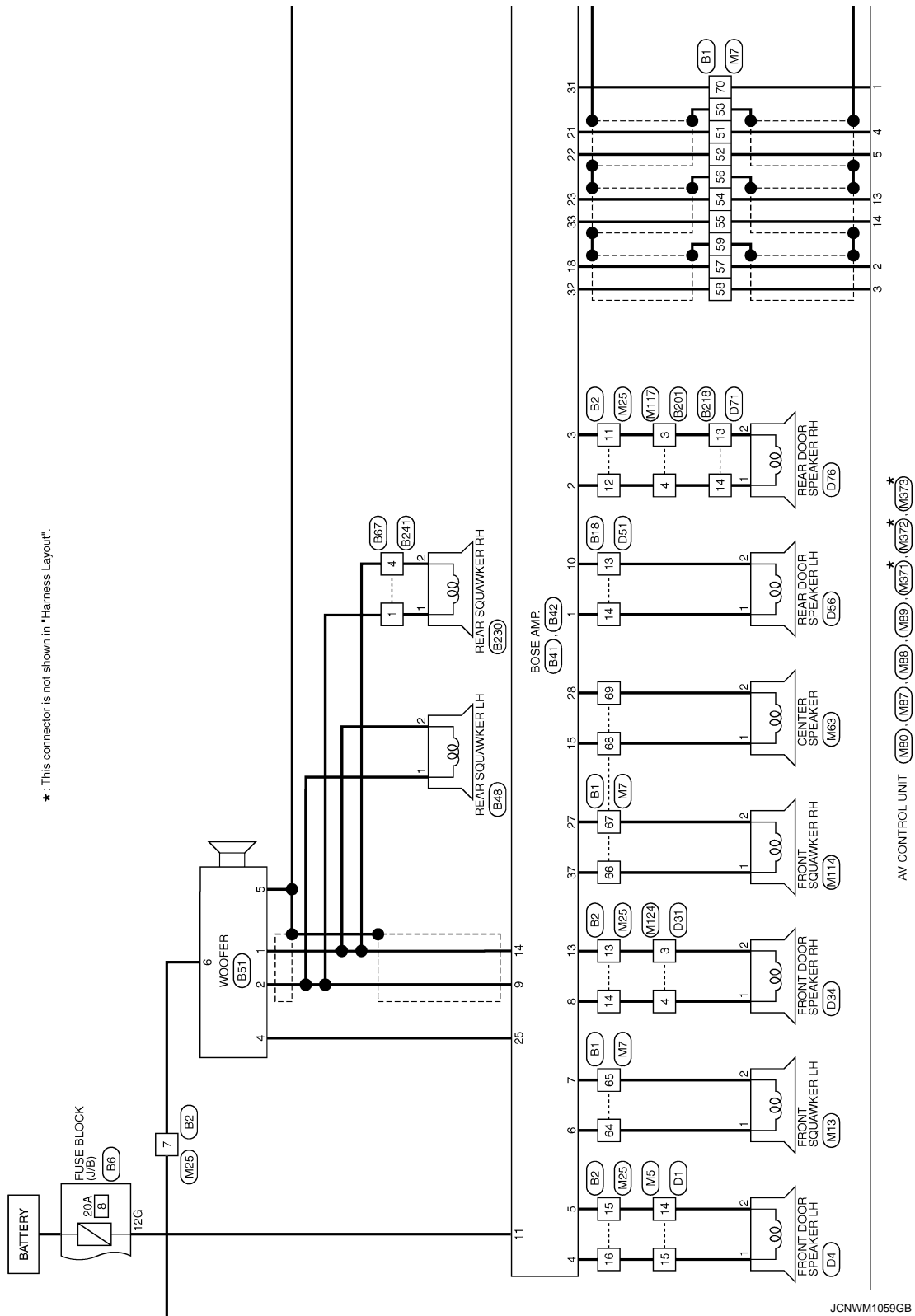
JCNWM1058GB



# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]



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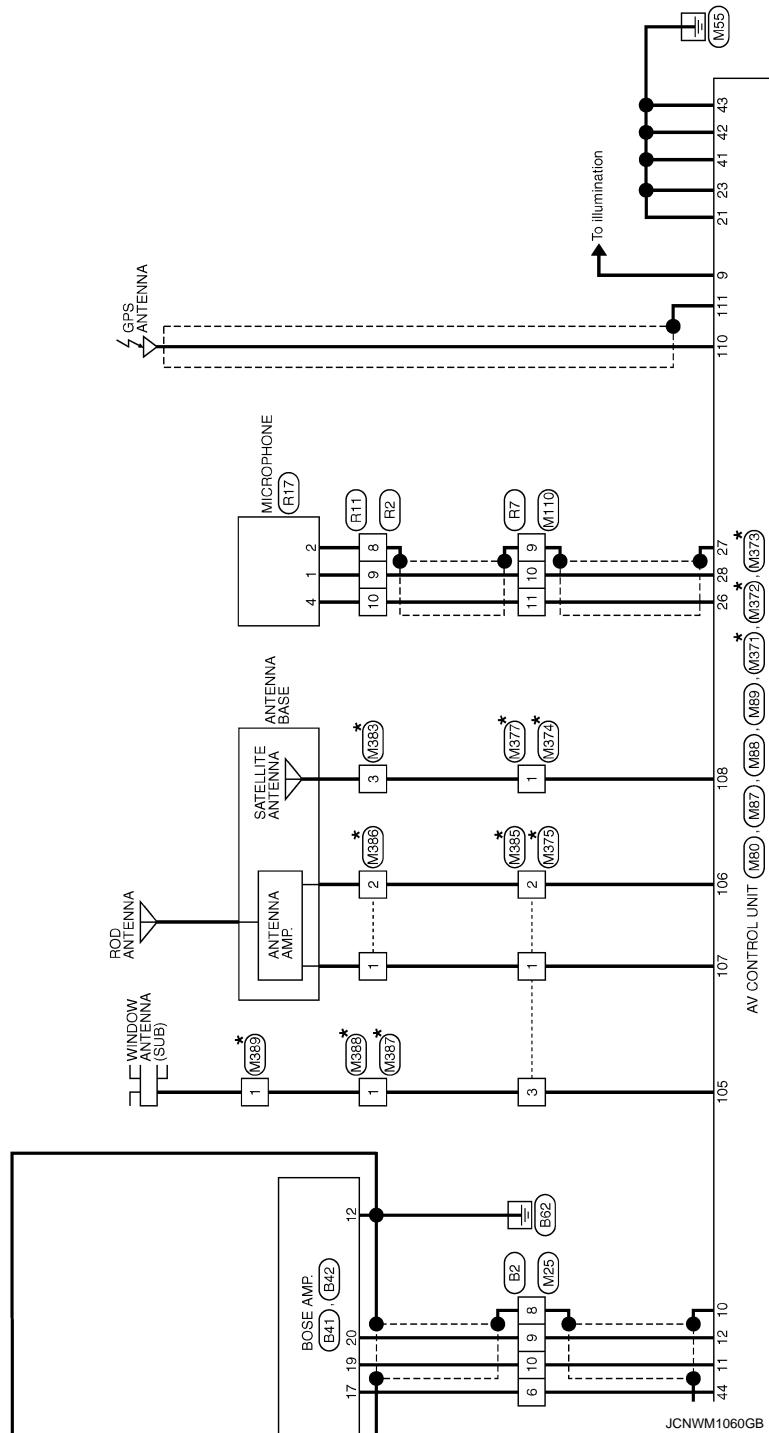


# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

★: This connector is not shown in "Harness Layout".





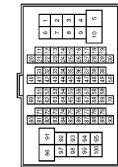
# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



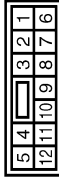
Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1061GB

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# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		


Connector No.	B26
Connector Name	REAR DISPLAY UNIT
Connector Type	TH32FW-NH

2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	Y	BATTERY
4	LG	BATTERY
5	P	HEADPHONE ON SIGNAL
6	GR	ACC
8	SHIELD	SHIELD
9	V	COMM (DISP->DIST)
10	SB	COMM (DISP->DISP)
11	O	IGNITION
12	SHIELD	SHIELD

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA19FR-SQA4

	H.S.												
	37	36	35	34	33		32	31	30	29	28		
	27	26	25	24	23	22	21	20	19	18	17	16	15


Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL FRONT RH (-)
22	SB	SOUND SIGNAL REAR LH (+)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

13	G	-
14	R	COMPOSITE IMAGE SIGNAL
15	BR	RGB AREA (YS) SIGNAL
16	B	GND
17	Y	YP
18	O	HP
19	B	RGB GND
20	G	RGB (B BLUE) SIGNAL
21	R	RGB (G GREEN) SIGNAL
22	W	RGB (R RED) SIGNAL
25	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
26	P	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
27	BR	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
28	L	HEADPHONE SOUND SIGNAL SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

14	13	12	11	10				
9	8	7	6	5	4	3	2	1

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER RH (+)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (+)
11	GR	BATTERY



# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



42	44	46	48	50	52	54	56	58	60	62	64
41	43	45	47	49	51	53	55	57	59	61	63

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Connector No.	B48
Connector Name	REAR SQUARE LH
Connector Type	TK02FBR



2	1
---	---



2	4	6
1	3	5

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS00FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



5	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (8-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	P	-
9	L	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	R	-
15	G	-
16	SHIELD	-
17	Y	-

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (+)
24	G	LED (-)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH COMM
33	BR	SIDE CAMERA RH POWER SUPPLY
34	L	REAR CAMERA COMM
35	W	REAR CAMERA POWER SUPPLY
36	G	SHIELD
37	SHIELD	SHIELD
38	L	REAR CAMERA IMAGE SIGNAL
39	Y	-
40	BR	REAR CAMERA IMAGE GND

18	O	-
19	BR	-
27	GR	-
28	LG	-
29	Y	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

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# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS38MW-CS



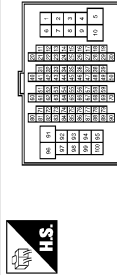
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS38MGY



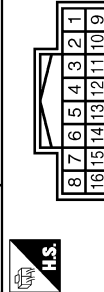
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH30FW-CS16-TM4

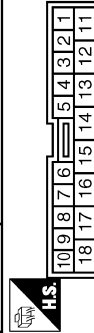


Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
11	BR	-
12	Y	-
13	SHIELD	-
14	G	-
15	R	-
16	SHIELD	-
17	LG	-
18	GR	-
19	V	-

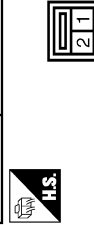
Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
5	P	-
6	SHIELD	-
7	G	-
8	W	-
13	L	-
14	SHIELD	-
15	B	-
16	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	GR	-

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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



3	2	1
8	7	6
5	4	

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21



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[NAVIGATION (TWIN MONITOR)]

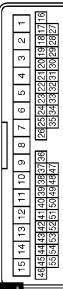
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
18	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

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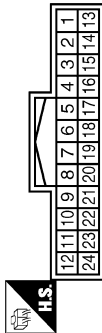
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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

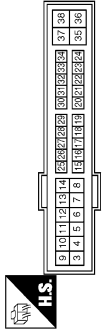
Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH68MW-NH



Connector No.	E5
Connector Name	SPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

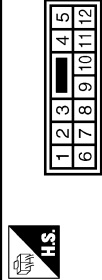
Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

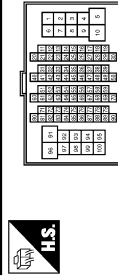
Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

JCNWM1067GB

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# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS06MB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

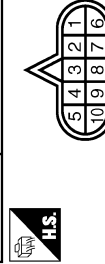
Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



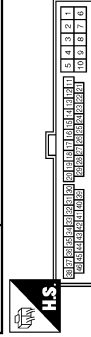
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

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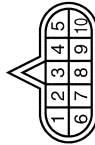
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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



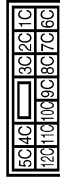
Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSGFW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

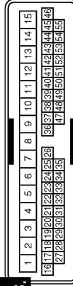
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH4QFW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH4QMW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH8DMW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

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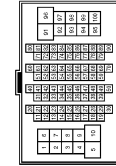
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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

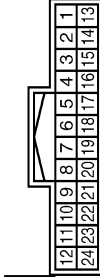
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



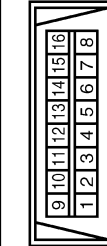
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

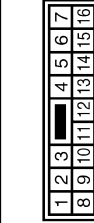


Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

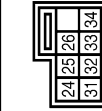
Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



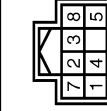
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-IV



Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

JCNWM1070GB



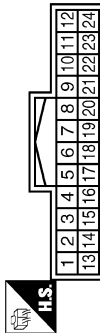
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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M44
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



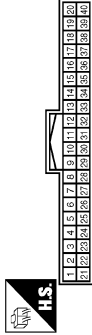
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
16	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FER



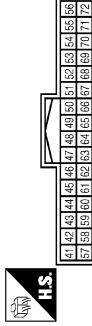
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH22FW-NH

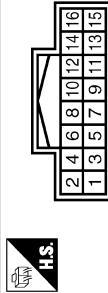


Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

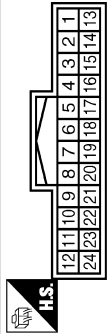
Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
13	B	GND
14	SHIELD	SHIELD
15	G	AUX IMAGE SIGNAL (Without entertainment system)
17	B	RGB (R RED) SIGNAL
18	R	RGB (B BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT)
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	G	AUX IMAGE GND (With entertainment system)
6	W	RGB (G GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

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# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-GS2

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20							

13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH40FW-NH

21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38
39	40	41	42	43	44	45	46	47
48	49	50	51	52	53			

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP. ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
9	R	ILLUMINATION
10	B	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	V	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH

62	64	66	68	70	72
61	63	65	67	69	71

72	SHIELD	SHIELD
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Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH

73	74	75	76	77	78	79	80	81
82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99
100	101	102	103	104				

Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R RED) SIGNAL
62	W	RGB (G GREEN) SIGNAL
63	R	RGB (B BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (YS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Terminal No.	Color of Wire	Signal Name [Specification]
79	Y	Pin4 SOUND SIGNAL LH (+) (With entertainment system)
80	R	Pin4 SOUND SIGNAL RH (+) (With entertainment system)
81	B	SHIELD
85	SB	DISK EJECT SIGNAL
95	BR	Pin4 SOUND SIGNAL LH (-) (With entertainment system)
96	G	Pin4 SOUND SIGNAL RH (-) (With entertainment system)
102	BR	SW GND

38	R	VEHICLE SPEED (8-PULSE)
41	B	CONTROL SIGNAL 1
42	B	CONTROL SIGNAL 2
43	B	CONTROL SIGNAL 3
44	SB	MODE CHANGE SIGNAL
48	G	AV COMM (H)
49	R	AV COMM (L)
50	LG	AV COMM (H)
51	V	AV COMM (L)
52	L	CAN-H
53	P	CAN-L



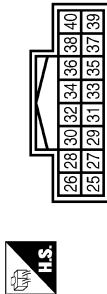
# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

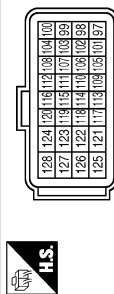
Connector No.	M97
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH16FW-NH



36	O	IGNITION
38	SHIELD	
39	V	COMM (DISP→DST)
40	SB	COMM (DST→DISP)

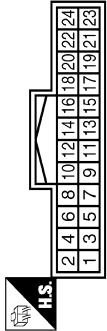
Terminal No.	Color of Wire	Signal Name [Specification]
25	W	RGB (R RED) SIGNAL
26	R	RGB (G GREEN) SIGNAL
27	B	RGB GND
28	G	RGB (B BLUE) SIGNAL
29	R	VP
30	W	HP
31	B	SHIELD
32	B	RGB AREA (YS) SIGNAL
33	G	-
34	R	COMPOSITE IMAGE SIGNAL
35	SHIELD	SHIELD

Connector No.	M107
Connector Name	ECM (WITH VO ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-LI
114	L	VEHCAN-HI

Connector No.	M98
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	AV COMM (H)
4	R	AV COMM (L)
6	G	COMPOSITE IMAGE GND
7	SHIELD	SHIELD
8	R	COMPOSITE IMAGE SIGNAL
10	W	AUX IMAGE SIGNAL
21	SHIELD	SHIELD
22	SHIELD	SHIELD
23	P	DVD IMAGE SIGNAL
24	L	-

Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (+)
2	BR	IPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	IPod BATTERY CHARGE
9	Y	COMM (IPod ADAPTER→IPod)
10	BR	COMM (IPod→IPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (+)

Connector No.	M99
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
53	B	GND
54	O	BATTERY
55	SB	ACC
56	G	IGNITION
60	P	HEADPHONE ON SIGNAL

14	Y	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	IPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	IPod SOUND SIGNAL GND
24	B	IPod SOUND SIGNAL LH (+)

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# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M112
Connector Name	iPod SIDE
Connector Type	IP16GY



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16		

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	iPod SOUND SIGNAL LH (+)
2	W	iPod SOUND SIGNAL GND
5	BR	COMM (iPod->iPod ADAPTER)
6	Y	COMM (iPod ADAPTER->iPod)
7	R	iPod SOUND SIGNAL RH (+)
9	SB	iPod CONNECTION RECOGNITION
10	B	GND
12	W	iPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
11	BR	-
12	Y	-
13	SHIELD	-
14	G	-
15	R	-
16	SHIELD	-
17	Y	-
18	Y	-
19	LG	-

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



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Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

20	GR	- [With NAVI]
21	V	-
22	B	- [With entertainment system]
23	W	- [With entertainment system]
24	R	- [With entertainment system]
25	SHIELD	-
26	SB	-
27	V	-
28	SHIELD	-
29	O	-
30	P	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M122
Connector Name	BCM BODY CONTROL MODULE
Connector Type	TH40FB-NH



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-



# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M139
Connector Name	WIRE TO WIRE
Connector Type	TH2FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-
5	G	-
6	BR	-
7	Y	-
8	R	-
9	B	-
10	W	-
11	SB	-
15	BR	-
16	LG	-
18	R	-

Connector No.	M180
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z



128	124	123	118	112	108	104	101
127	123	119	115	111	107	103	99
126	122	118	114	110	106	102	98
125	121	117	113	109	105	101	97

Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

19	SHIELD	-
20	SHIELD	-
21	R	-
22	Y	-
23	BR	-
24	G	-
26	B	-
27	SB	-
28	L	-
29	P	-
30	SHIELD	-
31	L	-
32	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	SHIELD	-
7	G	-
8	W	-
12	R	-
14	SHIELD	-
15	B	-
16	R	-

19	B	-
20	B	-
21	R	-
22	Y	-
23	BR	-
24	G	-
26	B	-
27	G	-
28	L	-
29	P	-
30	B	-
31	L	-
32	B	-

Connector No.	M140
Connector Name	WIRE TO WIRE
Connector Type	TH1BMW-NH



1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MK-NH



1	2	3	4	5	6
7	8	9	10	11	12

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# VIDEO DISTRIBUTOR

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[NAVIGATION (TWIN MONITOR)]

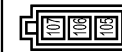
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M182
Connector Name	DVD PLAYER
Connector Type	TH22PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ILLUMINATION
4	V	ACC
5	B	SHIELD
7	P	DVD IMAGE SIGNAL
9	L	—
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)



Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU

16	B	SHIELD
17	G	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
18	R	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
19	BR	—
20	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
21	Y	SOUND SIGNAL LH (+)
22	BR	—
23	R	SOUND SIGNAL LH (-)
24	G	SOUND SIGNAL RH (-)
25	B	SHIELD
27	B	—
29	R	AV COMM (L)
30	G	AV COMM (H)



Connector No.	M372
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	FAKRA JACK

Connector No.	M183
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



1	2	3	7	8
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Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	SB	AUX SOUND SIGNAL GND
3	B	AUX SOUND SIGNAL LH (+)
7	W	AUX IMAGE SIGNAL
8	SHIELD	SHIELD



Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



20	19	18	17	16	15	14	13
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Terminal No.	Color of Wire	Signal Name [Specification]
14	W	—
15	L	—
17	BR	—



Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	—	—

Terminal No.	Color of Wire	Signal Name [Specification]
110	—	GPS ANTENNA
111	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
108	—	SAETLITE ANTENNA

Terminal No.	Color of Wire	Signal Name [Specification]
105	—	FM SUB
106	—	AM-FM MAIN
107	—	ANTENNA AMP. ON SIGNAL

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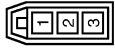
















# VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M375	Connector No.	M377	Connector No.	M383	Connector No.	M385
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	ANTENNA BASE	Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU	Connector Type	GT16C-1PP-HU	Connector Type	GT16C-1PP-HU	Connector Type	GT13SON-2/PP-HU
							
Terminal No.	1	Terminal No.	1	Terminal No.	3	Terminal No.	1
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	SATELLITE ANTENNA	Signal Name [Specification]	-
Terminal No.	2	Terminal No.	-	Terminal No.	-	Terminal No.	2
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-
Terminal No.	3	Terminal No.	-	Terminal No.	-	Terminal No.	3
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-

Connector No.	M386	Connector No.	M387	Connector No.	M388	Connector No.	M389
Connector Name	ANTENNA BASE	Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	WINDOW ANTENNA (SUB)
Connector Type	GT13SSN-1/1PP-HU	Connector Type	JASO JACK	Connector Type	JASO PLUG	Connector Type	P01FB-A
							
Terminal No.	1	Terminal No.	1	Terminal No.	1	Terminal No.	1
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	ANTENNA AMP. ON SIGNAL	Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-
Terminal No.	2	Terminal No.	-	Terminal No.	-	Terminal No.	-
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	AM-FM MAIN	Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-

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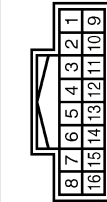
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### BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	R2	Connector No.	R7
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH	Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-	1	R	MICROPHONE SIGNAL
9	R	-	2	SHIELD	MICROPHONE GND
10	G	-	4	L	MICROPHONE VCC

Connector No.	R11	Connector No.	RT7
Connector Name	WIRE TO WIRE	Connector Name	MICROPHONE
Connector Type	TH24MW-NH	Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-



# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

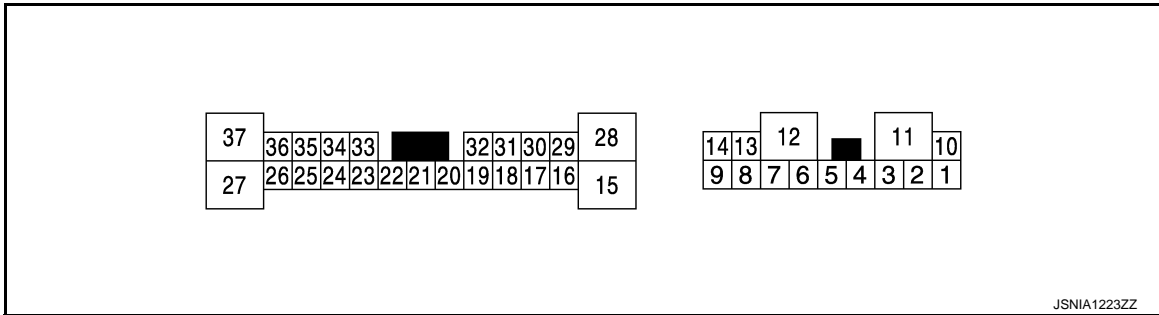
[NAVIGATION (TWIN MONITOR)]

## BOSE AMP.

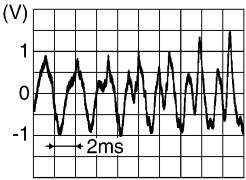
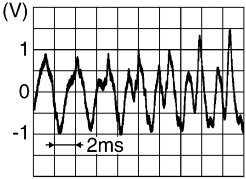
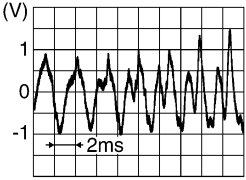
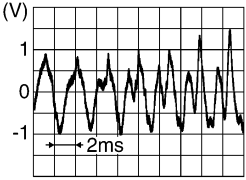
### Reference Value

INFOID:000000003825616

### TERMINAL LAYOUT



### PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (Y)	10 (G)	Sound signal rear door speaker LH	Output	Ignition switch ON	Audio output	 SKIB3609E
2 (SB)	3 (V)	Sound signal rear door speaker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
4 (L)	5 (P)	Sound signal front door speaker LH	Output	Ignition switch ON	Audio output	 SKIB3609E
6 (O)	7 (W)	Sound signal front squawk- er LH	Output	Ignition switch ON	Audio output	 SKIB3609E

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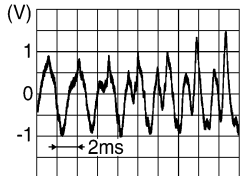
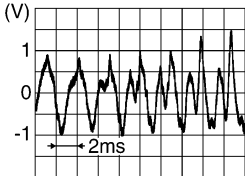
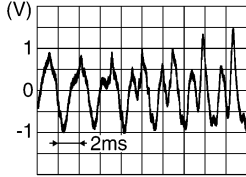
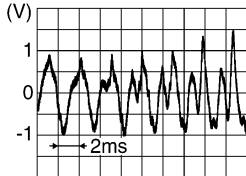
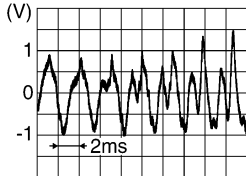
AV



# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

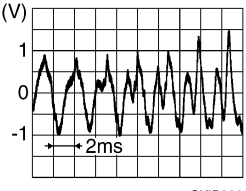
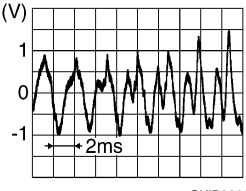
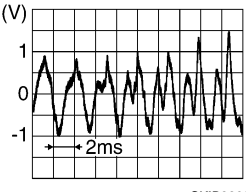
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
8 (LG)	13 (Y)	Sound signal front door speaker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
9 (G)	14 (R)	Sound signal woofer and rear squawker (LH and RH)	Output	Ignition switch ON	Audio output	 SKIB3609E
11 (GR)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
12 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
15 (Y)	28 (G)	Sound signal center speak- er	Output	Ignition switch ON	Audio output	 SKIB3609E
17 (O)	Ground	Mode change signal	Input	Ignition switch ON	Driver's Audio Stage ON	0 V
					Driver's Audio Stage OFF	8.5 V
18 (P)	32 (L)	Sound signal front LH	Input	Ignition switch ON	Audio output	 SKIB3609E
19 (R)	20 (G)	Sound signal front RH	Input	Ignition switch ON	Audio output	 SKIB3609E



# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
21 (V)	22 (SB)	Sound signal rear LH	Input	Ignition switch ON	Audio output	
23 (BR)	33 (Y)	Sound signal rear RH	Input	Ignition switch ON	Audio output	
25 (L)	Ground	Woofer amp. ON signal	Output	Ignition switch ACC	—	12.0 V
37 (V)	27 (LG)	Sound signal front squaw- er RH	Output	Ignition switch ON	Audio output	
31 (GR)	Ground	Amp. ON signal	Input	Ignition switch ACC	—	12.0 V

Wiring Diagram - BOSE AUDIO WITH NAVIGATION (TWIN MONITOR) - INFOID:0000000003826946

**NOTE:**



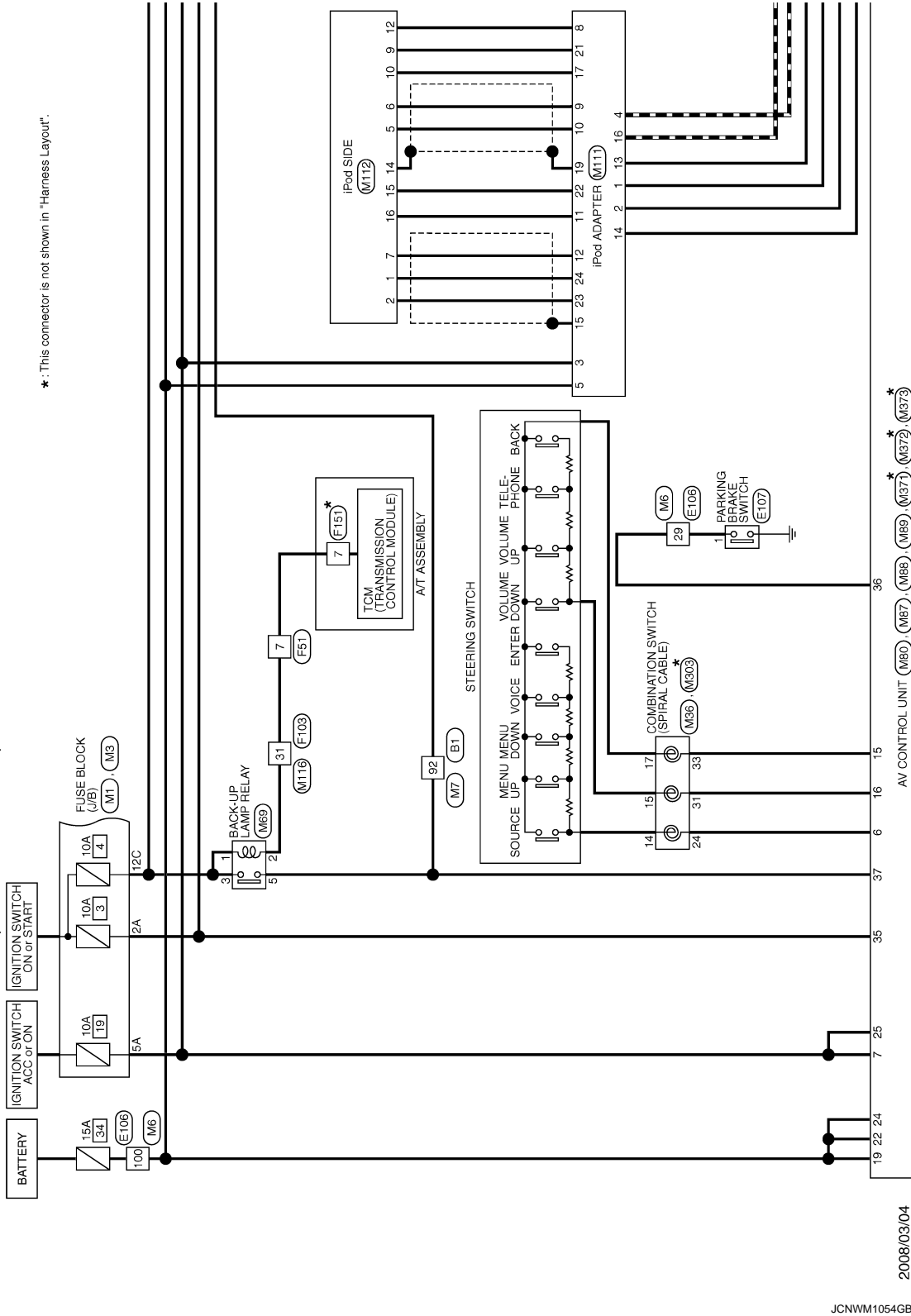
# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)



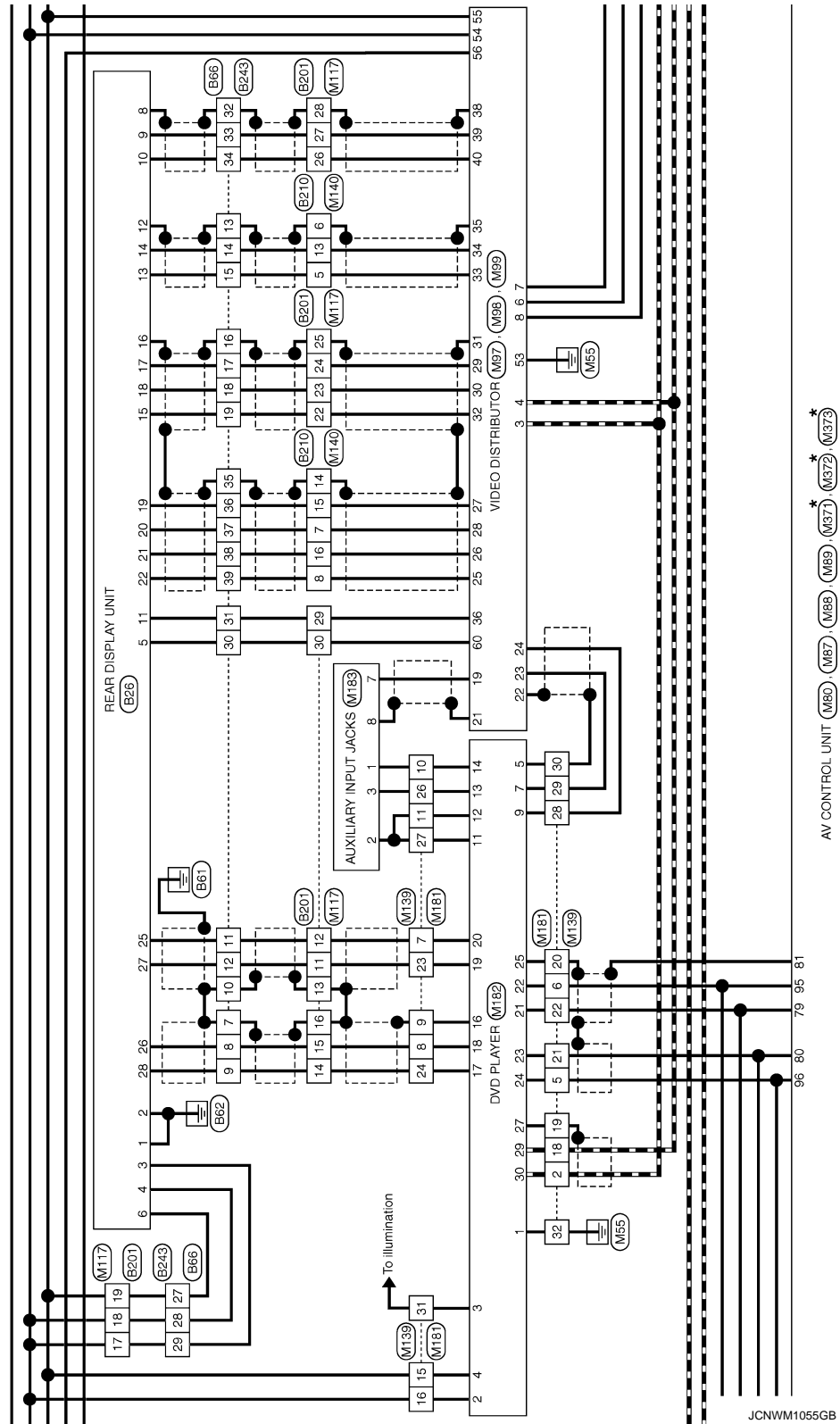


# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

\*: This connector is not shown in "Harness Layout".



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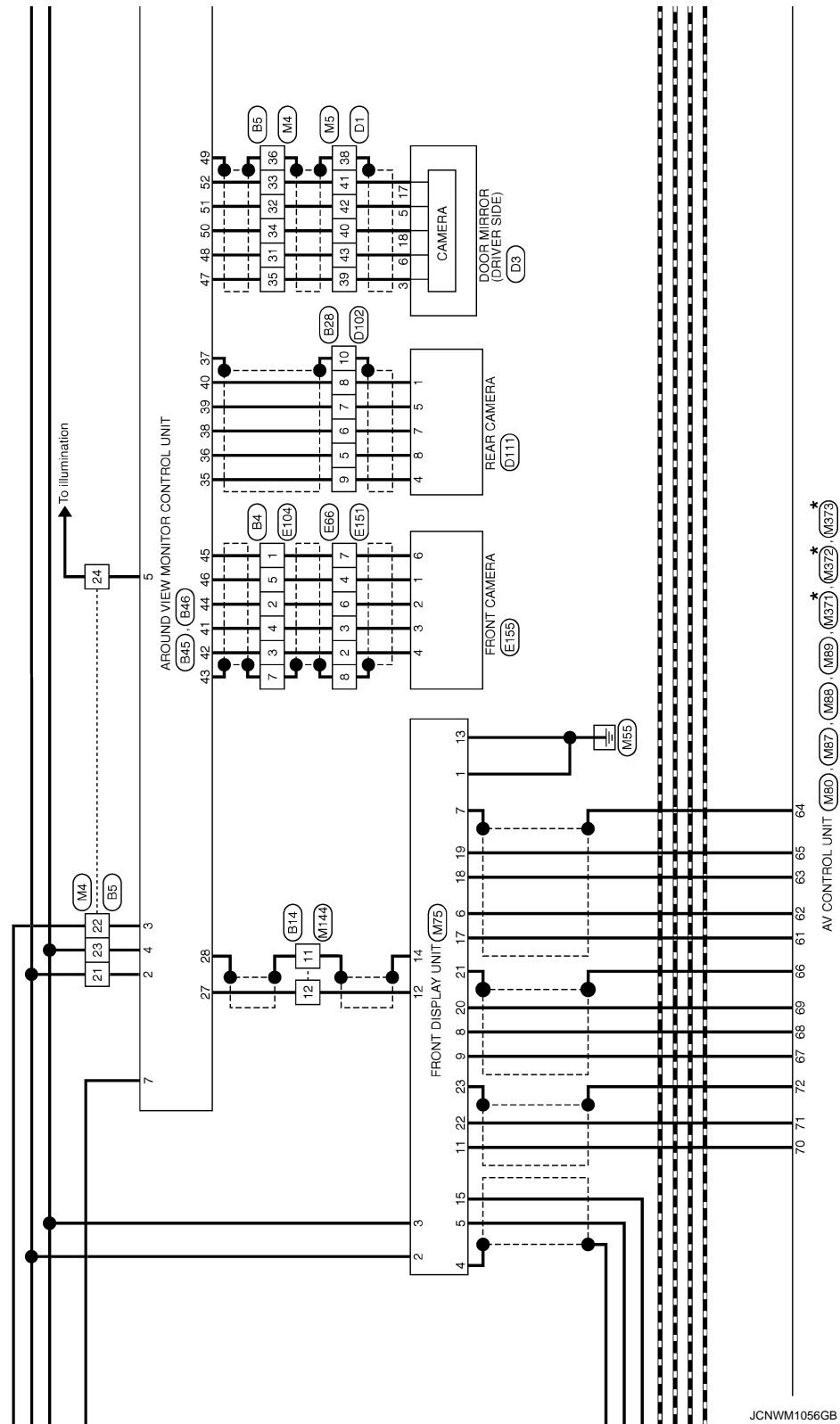


# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

\* : This connector is not shown in "Harness Layout".



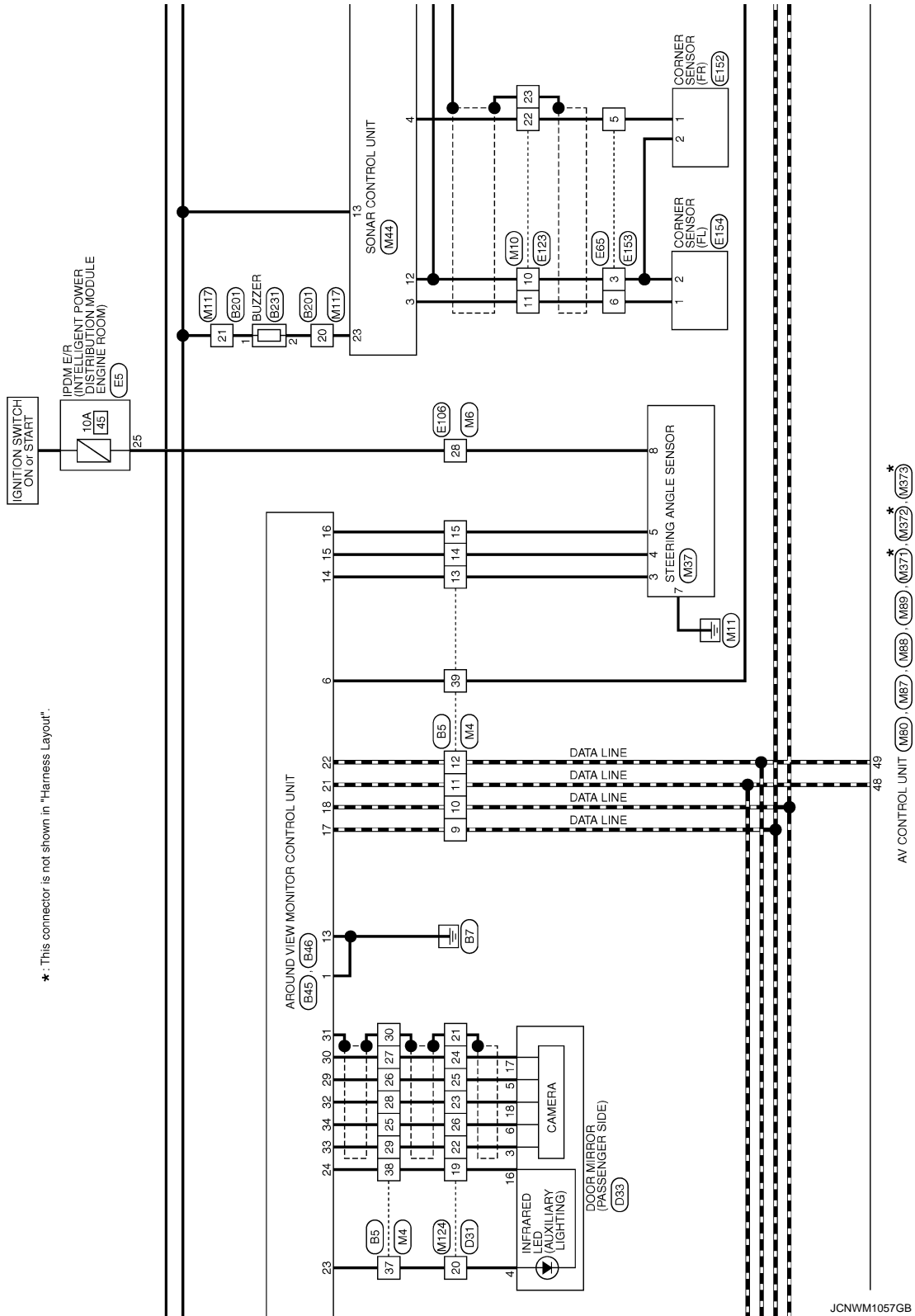
JCNWM1056GB



# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]



★: This connector is not shown in "Harness Layout".

JCNWM1057GB

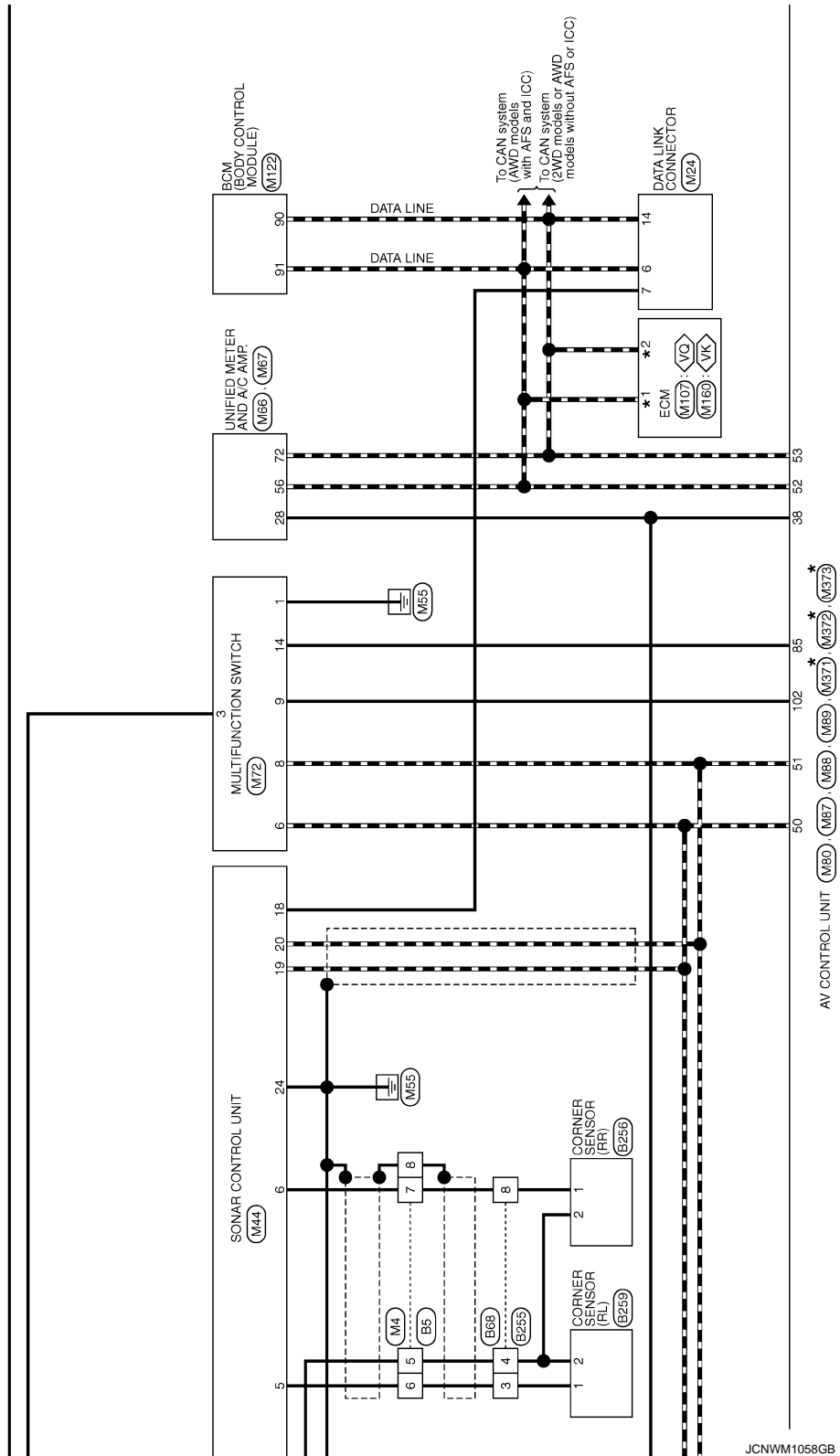
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AV



VQ : With VQ engine  
 VK : With VK engine  
 \*1 114 : VQ  
 105 : VK  
 \*2 113 : VQ  
 101 : VK

\* : This connector is not shown in "Harness Layout".



JCNWM1058GB



JCNWM1059GB

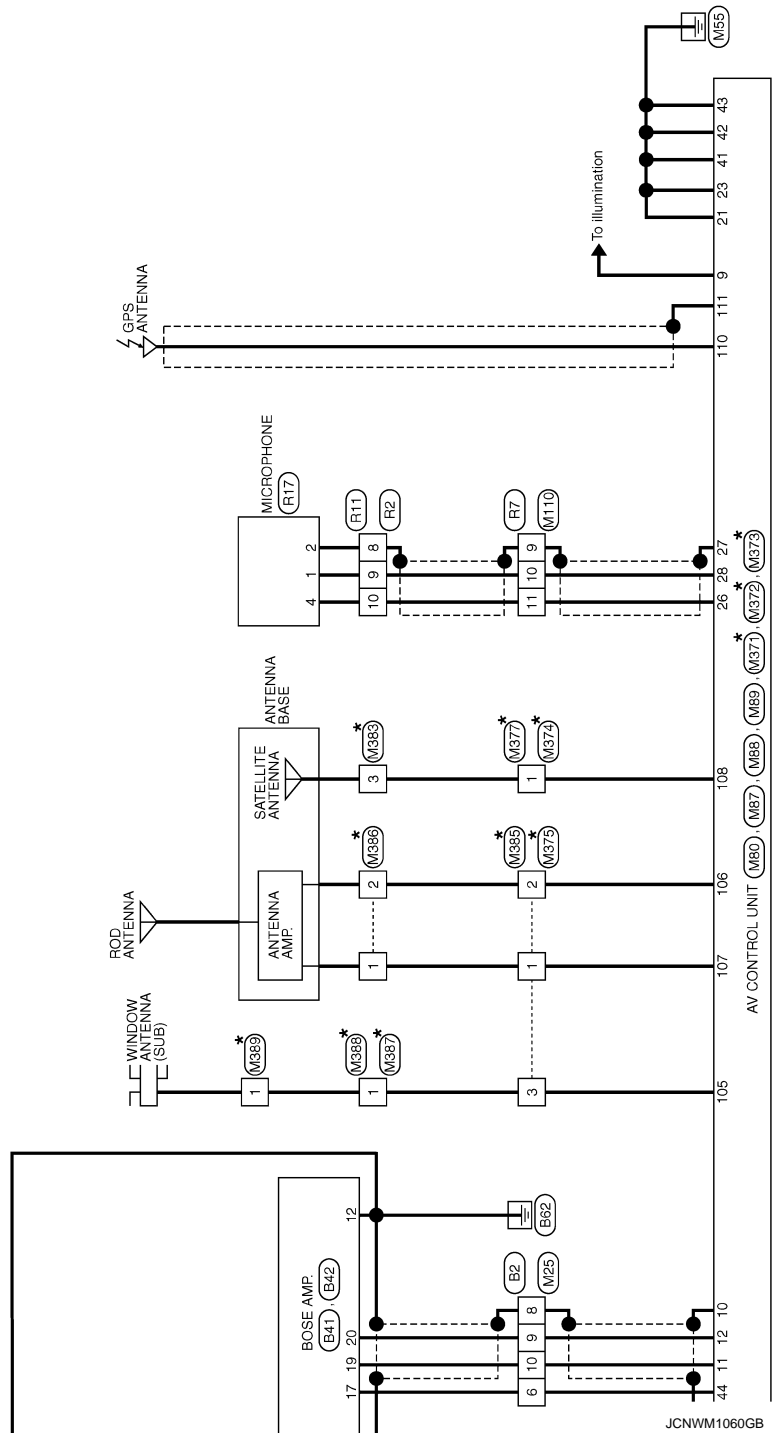


# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

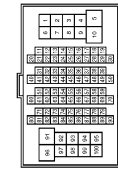
★: This connector is not shown in "Harness Layout".





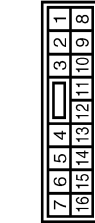
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

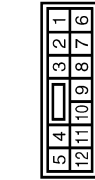


66	V
67	LG
68	Y
69	G
70	GR
92	O

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

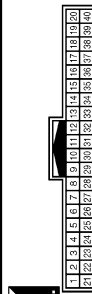


Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

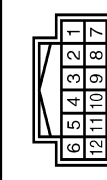


21	Y
22	G
23	LG
24	R
25	L
26	R
27	Y
28	W
29	BR
30	SHIELD
31	L
32	R
33	Y
34	W
35	BR
36	SHIELD
37	LG
38	G
39	V

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1061GB

A  
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O  
P



BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		


Connector No.	B26
Connector Name	REAR DISPLAY UNIT
Connector Type	TH32FW-NH

2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	Y	BATTERY
4	LG	BATTERY
5	P	HEADPHONE ON SIGNAL
6	GR	ACC
8	SHIELD	SHIELD
9	V	COMM (DISP->DIST)
10	SB	COMM (DISP->DISP)
11	O	IGNITION
12	SHIELD	SHIELD

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA19FR-SQA4


	H.S.												
	37	36	35	34	33			32	31	30	29	28	
	27	26	25	24	23	22	21	20	19	18	17	16	15

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL FRONT RH (-)
22	SB	SOUND SIGNAL REAR LH (+)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

13	G	-
14	R	COMPOSITE IMAGE SIGNAL
15	BR	RGB AREA (YS) SIGNAL
16	B	GND
17	Y	YP
18	O	HP
19	B	RGB GND
20	G	RGB (B BLUE) SIGNAL
21	R	RGB (G GREEN) SIGNAL
22	W	RGB (R RED) SIGNAL
25	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
26	P	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
27	BR	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
28	L	HEADPHONE SOUND SIGNAL SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

										
	14	13	12			11		10		
	9	8	7	6	5	4	3	2	1	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER RH (+)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER RH (+)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (+)
11	GR	BATTERY

JCNWM1062GB



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



42	44	46	48	50	52	54	56	58	60	62	64
41	43	45	47	49	51	53	55	57	59	61	63

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Connector No.	B48
Connector Name	REAR SOUNDWAKER LH
Connector Type	TK02FBR



2	1
---	---



2	4	6
1	3	5

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS00FGY



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP. ON SIGNAL
5	B	GND
6	W	BATTERY

Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



5	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	3	7	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
8	V	VEHICLE SPEED (8-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	P	-
9	L	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	R	-
15	G	-
16	SHIELD	-
17	Y	-

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (+)
24	G	LED (-)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH COMM
33	BR	SIDE CAMERA RH POWER SUPPLY
34	L	REAR CAMERA COMM
35	W	REAR CAMERA POWER SUPPLY
36	G	SHIELD
37	SHIELD	SHIELD
38	L	REAR CAMERA IMAGE SIGNAL
39	Y	REAR CAMERA IMAGE GND
40	BR	REAR CAMERA IMAGE GND

18	O	-
19	BR	-
27	GR	-
28	LG	-
29	Y	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

JCNWM1063GB

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# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS38MW-CS



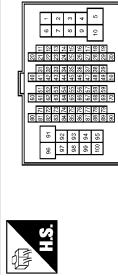
Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS38MGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

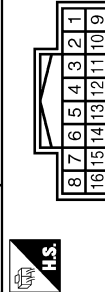
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	
4	B	
8	R	

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH30FW-CS16-TM4

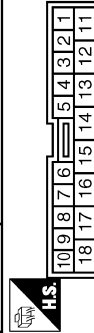


Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
11	BR	
12	Y	
13	SHIELD	
14	G	
15	R	
16	SHIELD	
17	LG	
18	GR	
19	V	

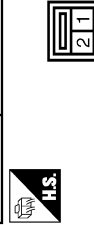
Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS3



Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
5	P	
6	SHIELD	
7	G	
8	W	
13	L	
14	SHIELD	
15	B	
16	R	

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
2	R	

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	
2	GR	

JCNWM1064GB



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



3	2	1
8	7	6
5	4	

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-HH



23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	R	-
9	G	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	L	-
15	P	-
16	SHIELD	-
17	R	-

18	W	-
19	B	-
27	V	-
28	GR	-
29	LG	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RS08FGY



4	3	2	1
8	7	6	5

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

Connector No.	B256
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	45	44	43	42	41	40	38	37	36	26	25	24	23	22
55	54	53	52	51	50	49	48	47	35	34	33	32	31	30



# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

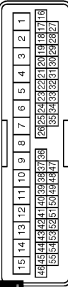
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
18	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



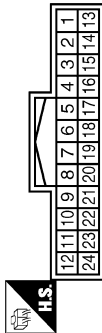
Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

JCNWM1066GB



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

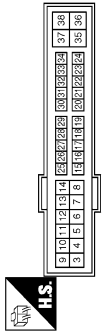
Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH68MH-NH



Connector No.	E5
Connector Name	SPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

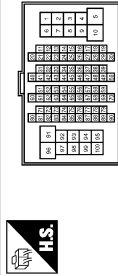
Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



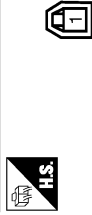
Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

JCNWM1067GB

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# BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS06MB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

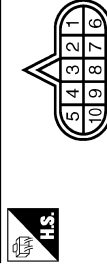
Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



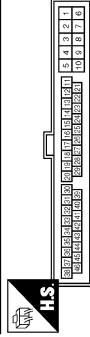
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK0FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

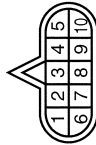
Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSGFW-M2



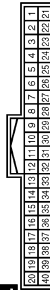
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

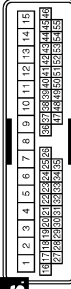
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH4QFW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH4QMW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH8DMW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

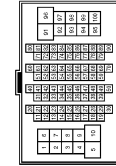
JCNWM1069GB

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K  
L  
M  
AV  
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P



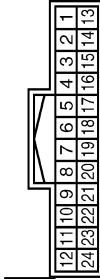
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

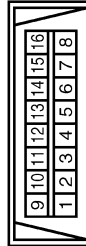
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

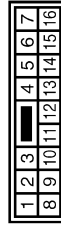


Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



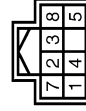
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

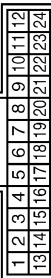
Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

JCNWM1070GB



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M44
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
16	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FER



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH22FW-NH

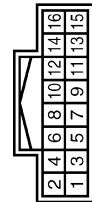


Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC

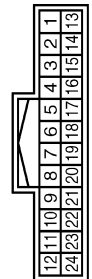


Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	G	AUX IMAGE GND (With entertainment system)
6	W	RGB (G: GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
13	B	GND
14	SHIELD	SHIELD
15	G	AUX IMAGE SIGNAL (Without entertainment system)
17	B	RGB (R: RED) SIGNAL
18	R	RGB (B: BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT)
23	SHIELD	SHIELD

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AV



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-GS2



1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20							

13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH40FW-NH



21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38
39	40	41	42	43	44	45	46	47

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP. ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
9	R	ILLUMINATION
10	B	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH



62	64	66	68	70	72
61	63	65	67	69	71

Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R RED) SIGNAL
62	W	RGB (G GREEN) SIGNAL
63	R	RGB (B BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (YS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	V	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH



73	74	75	76	77	78	79	80	81
82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99

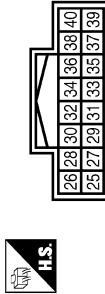
Terminal No.	Color of Wire	Signal Name [Specification]
79	Y	Pin4 SOUND SIGNAL LH (+) (With entertainment system)
80	R	Pin4 SOUND SIGNAL RH (+) (With entertainment system)
81	B	SHIELD
85	SB	DISK EJECT SIGNAL
95	BR	Pin4 SOUND SIGNAL LH (-) (With entertainment system)
96	G	Pin4 SOUND SIGNAL RH (-) (With entertainment system)
102	BR	SW GND

38	R	VEHICLE SPEED (8-PULSE)
41	B	CONTROL SIGNAL 1
42	B	CONTROL SIGNAL 2
43	B	CONTROL SIGNAL 3
44	SB	MODE CHANGE SIGNAL
48	G	AV COMM (H)
49	R	AV COMM (L)
50	LG	AV COMM (H)
51	V	AV COMM (L)
52	L	CAN-H
53	P	CAN-L



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M97
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH16FW-NH



36	O	IGNITION
38	SHIELD	
39	V	COMM (DISP→DST)
40	SB	COMM (DST→DSP)

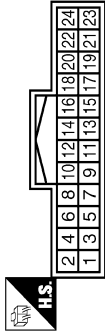
Terminal No.	Color of Wire	Signal Name [Specification]
25	W	RGB (R RED) SIGNAL
26	R	RGB (G GREEN) SIGNAL
27	B	RGB GND
28	G	RGB (B BLUE) SIGNAL
29	R	VP
30	W	MP
31	B	SHIELD
32	B	RGB AREA (YS) SIGNAL
33	G	-
34	R	COMPOSITE IMAGE SIGNAL
35	SHIELD	SHIELD

Connector No.	M107
Connector Name	ECM (WITH VQ ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z



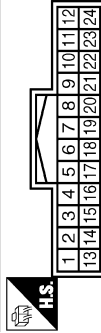
Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-LI
114	L	VEHCAN-HI

Connector No.	M98
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	AV COMM (H)
4	R	AV COMM (L)
6	G	COMPOSITE IMAGE GND
7	SHIELD	SHIELD
8	R	COMPOSITE IMAGE SIGNAL
10	W	AUX IMAGE SIGNAL
21	SHIELD	SHIELD
22	SHIELD	SHIELD
23	P	DVD IMAGE SIGNAL
24	L	-

Connector No.	M111
Connector Name	iPod ADAPTER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	iPod SOUND SIGNAL LH (+)
2	BR	iPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	iPod BATTERY CHARGE
9	Y	COMM (iPod ADAPTER→iPod)
10	BR	COMM (iPod→iPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	iPod SOUND SIGNAL RH (+)
13	G	iPod SOUND SIGNAL LH (-)

Connector No.	M99
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
53	B	GND
54	O	BATTERY
55	SB	ACC
56	G	IGNITION
60	P	HEADPHONE ON SIGNAL

14	Y	iPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	iPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	iPod SOUND SIGNAL GND
24	B	iPod SOUND SIGNAL LH (+)

JCNWM1073GB

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## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M112
Connector Name	iPod SIDE
Connector Type	IP16GY



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16		

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



2	1
---	---

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31					

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	iPod SOUND SIGNAL LH (+)
2	W	iPod SOUND SIGNAL GND
5	BR	COMM (iPod->iPod ADAPTER)
6	Y	COMM (iPod ADAPTER->iPod)
7	R	iPod SOUND SIGNAL RH (+)
9	SB	iPod CONNECTION RECOGNITION
10	B	GND
12	W	iPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16P-TM4



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

20	GR	- [With NAVI]
21	V	-
22	B	- [With entertainment system]
23	W	- [With entertainment system]
24	R	- [With entertainment system]
25	SHIELD	- [With entertainment system]
26	SB	-
27	V	-
28	SHIELD	-
29	O	-
30	P	-

Connector No.	M122
Connector Name	BCM BODY CONTROL MODULE
Connector Type	TH40FB-NH



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31					

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31					

Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
11	BR	-
12	Y	-
13	SHIELD	-
14	G	-
15	R	-
16	SHIELD	-
17	Y	-
18	Y	-
19	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-

JCNWM1074GB



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M139
Connector Name	WIRE TO WIRE
Connector Type	TH2FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-
5	G	-
6	BR	-
7	Y	-
8	R	-
9	B	-
10	W	-
11	SB	-
15	BR	-
16	LG	-
18	R	-

Connector No.	M180
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z



128	124	123	118	112	108	104	101
127	123	118	113	111	107	103	99
126	122	118	114	110	106	102	98
125	121	117	113	109	105	101	97

Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

19	SHIELD	-
20	SHIELD	-
21	R	-
22	Y	-
23	BR	-
24	G	-
26	B	-
27	SB	-
28	L	-
29	P	-
30	SHIELD	-
31	L	-
32	B	-



1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	SHIELD	-
7	G	-
8	W	-
12	R	-
14	SHIELD	-
15	B	-
16	R	-

19	B	-
20	B	-
21	R	-
22	Y	-
23	BR	-
24	G	-
26	B	-
27	G	-
28	L	-
29	P	-
30	B	-
31	L	-
32	B	-

Connector No.	M181
Connector Name	WIRE TO WIRE
Connector Type	TH43MMW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-
5	G	-
6	BR	-
7	Y	-
8	R	-
9	B	-
10	W	-
11	R	-
15	V	-
16	Y	-
18	R	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MMF-NH



1	2	3	4	5	6
7	8	9	10	11	12

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1075GB

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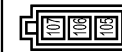
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M182
Connector Name	DVD PLAYER
Connector Type	TH22PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ILLUMINATION
4	V	ACC
5	B	SHIELD
7	P	DVD IMAGE SIGNAL
9	L	—
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)



Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU

16	B	SHIELD
17	G	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
18	R	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
19	BR	—
20	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
21	Y	SOUND SIGNAL LH (+)
22	BR	—
23	R	SOUND SIGNAL LH (-)
24	G	SOUND SIGNAL RH (-)
25	B	SHIELD
27	B	—
29	R	AV COMM (L)
30	G	AV COMM (H)



Connector No.	M372
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	FAKRA JACK

Connector No.	M183
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



1	2	3	7	8
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Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	SB	AUX SOUND SIGNAL GND
3	B	AUX SOUND SIGNAL LH (+)
7	W	AUX IMAGE SIGNAL
8	SHIELD	SHIELD



Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



20	19	18	17	16	15	14	13
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Terminal No.	Color of Wire	Signal Name [Specification]
14	W	—
15	L	—
17	BR	—

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



Terminal No.	1
Color of Wire	—
Signal Name [Specification]	—

Terminal No.	110
Color of Wire	—
Signal Name [Specification]	GPS ANTENNA

Terminal No.	108
Color of Wire	—
Signal Name [Specification]	SAETLITE ANTENNA


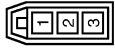






Terminal No.	105
Color of Wire	—
Signal Name [Specification]	FM SUB









Terminal No.	106
Color of Wire	—
Signal Name [Specification]	AM-FM MAIN

Terminal No.	107
Color of Wire	—
Signal Name [Specification]	ANTENNA AMP. ON SIGNAL



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M375	Connector No.	M377	Connector No.	M383	Connector No.	M385
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	ANTENNA BASE	Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU	Connector Type	GT16C-1PP-HU	Connector Type	GT16C-1PP-HU	Connector Type	GT13SCN-2/PP-HU
							
Terminal No.	1	Terminal No.	1	Terminal No.	3	Terminal No.	1
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	SATELLITE ANTENNA	Signal Name [Specification]	-
Terminal No.	2	Terminal No.	-	Terminal No.	-	Terminal No.	2
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-
Terminal No.	3	Terminal No.	-	Terminal No.	-	Terminal No.	3
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-

Connector No.	M386	Connector No.	M387	Connector No.	M388	Connector No.	M389
Connector Name	ANTENNA BASE	Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	WINDOW ANTENNA (SUB)
Connector Type	GT13SSN-1/1PP-HU	Connector Type	JASO JACK	Connector Type	JASO PLUG	Connector Type	P01FB-A
							
Terminal No.	1	Terminal No.	1	Terminal No.	1	Terminal No.	1
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	ANTENNA AMP. ON SIGNAL	Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-
Terminal No.	2	Terminal No.	-	Terminal No.	-	Terminal No.	-
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	AM-FM MAIN	Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-

JCNWM1077GB

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## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



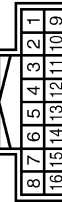
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

JCNWM1078GB



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

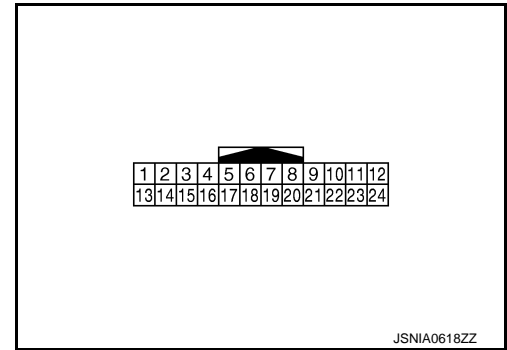
[NAVIGATION (TWIN MONITOR)]

## IPOD ADAPTER

### Reference Value

INFOID:000000003825620

### TERMINAL LAYOUT



### PHYSICAL VALUES

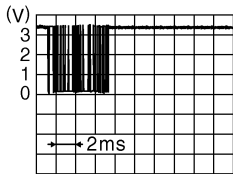
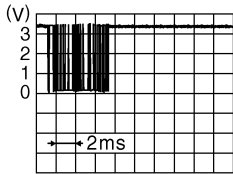
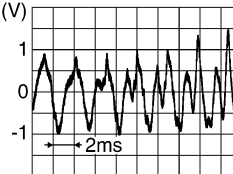
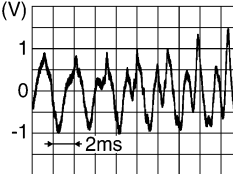
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (R)	13 (G)	iPod sound signal LH	Output	Ignition switch ON	When iPod mode is select- ed.	<p>SKIB3609E</p>
2 (BR)	14 (Y)	iPod sound signal RH	Output	Ignition switch ON	When iPod mode is select- ed.	<p>SKIB3609E</p>
3 (O)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
4 (V)	—	AV communication signal (L)	Input/ Output	—	—	—
5 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
8 (W)	Ground	iPod battery charge	Output	Ignition switch ON	Connected to iPod®	12.0 V



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (Y)	Ground	Communication signal (iPod adapter→iPod®)	Output	Ignition switch ON	The wave pattern is displayed just after iPod connection.	 <p>JPNIA0462GB</p> <p><b>NOTE:</b> After the wave pattern display, the value continues Approx 3.3 V</p>
10 (BR)	Ground	Communication signal (iPod®→iPod adapter)	Input	Ignition switch ON	Connected to iPod®	 <p>JPNIA0462GB</p>
11 (L)	Ground	ACCESSORY-IDENTIFY	—	Ignition switch ON	Connected to iPod®	0 V
12 (R)	23 (W)	iPod sound signal RH	Input	Ignition switch ON	When iPod mode is selected.	 <p>SKIB3609E</p>
15	—	Shield	—	—	—	—
16 (LG)	—	AV communication signal (H)	Input/ Output	—	—	—
17 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
19	—	Shield	—	—	—	—
21 (SB)	Ground	iPod connection recognition signal	Input	Ignition switch ON	Not connected to iPod®	4.0 V
					Connected to iPod®	0 V
22 (W)	Ground	ACCESSORY-DETECT	—	Ignition switch ON	Connected to iPod®	0 V
24 (B)	23 (W)	iPod sound signal LH	Input	Ignition switch ON	When iPod mode is selected.	 <p>SKIB3609E</p>



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

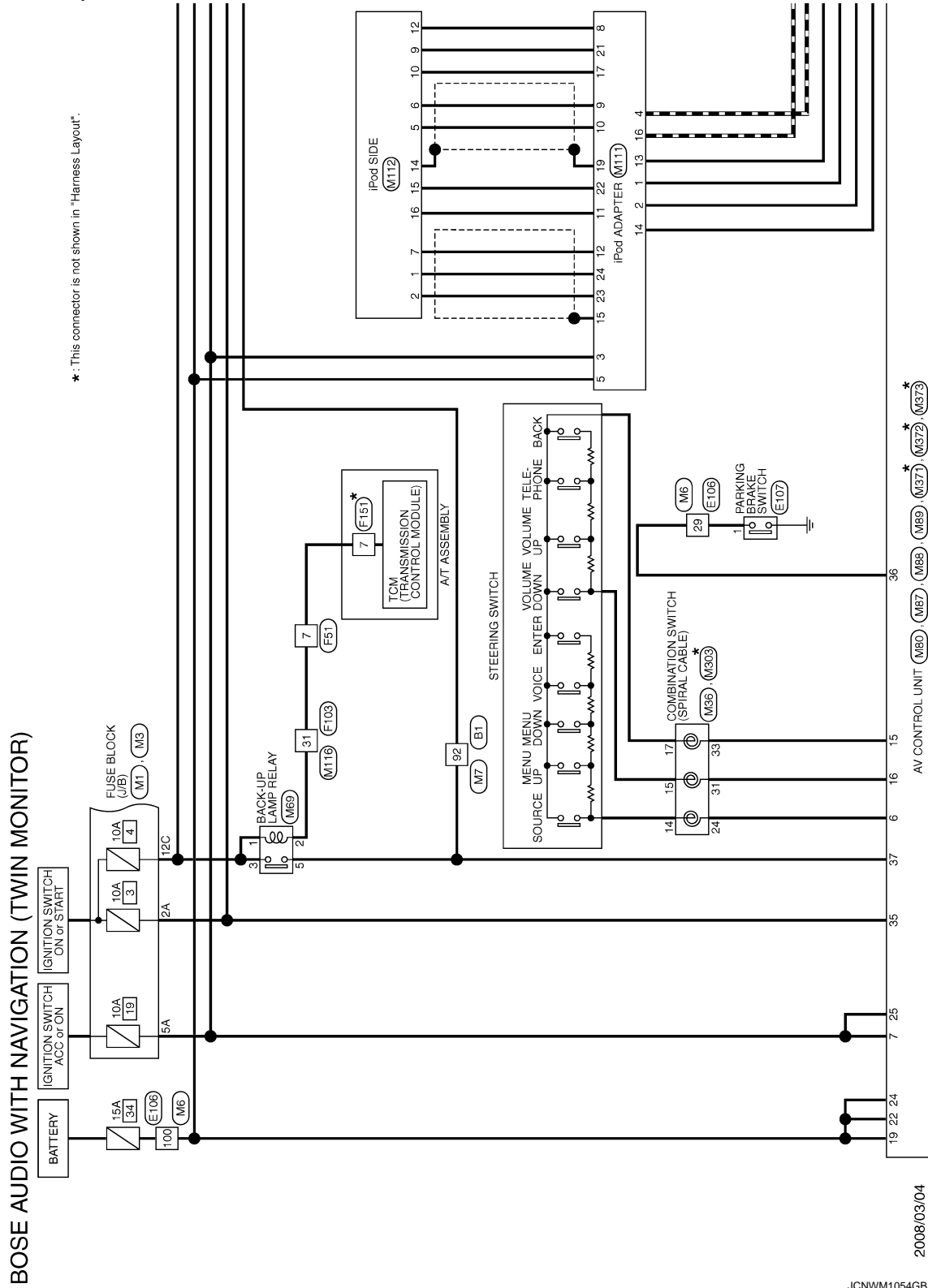
[NAVIGATION (TWIN MONITOR)]

## Wiring Diagram - BOSE AUDIO WITH NAVIGATION (TWIN MONITOR) -

INFOID:000000003826976

### NOTE:

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



2008/03/04

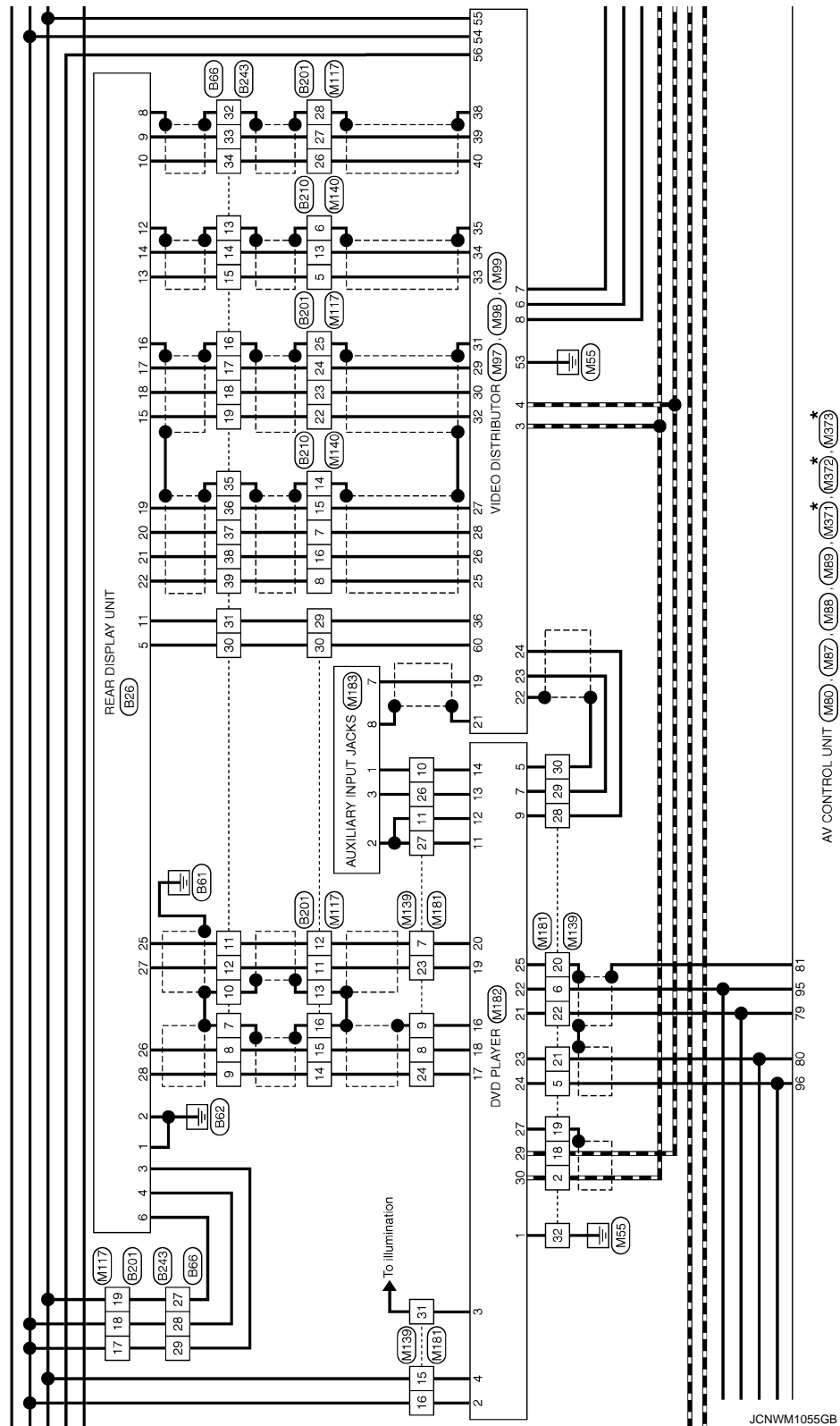
JCNWM1054GB

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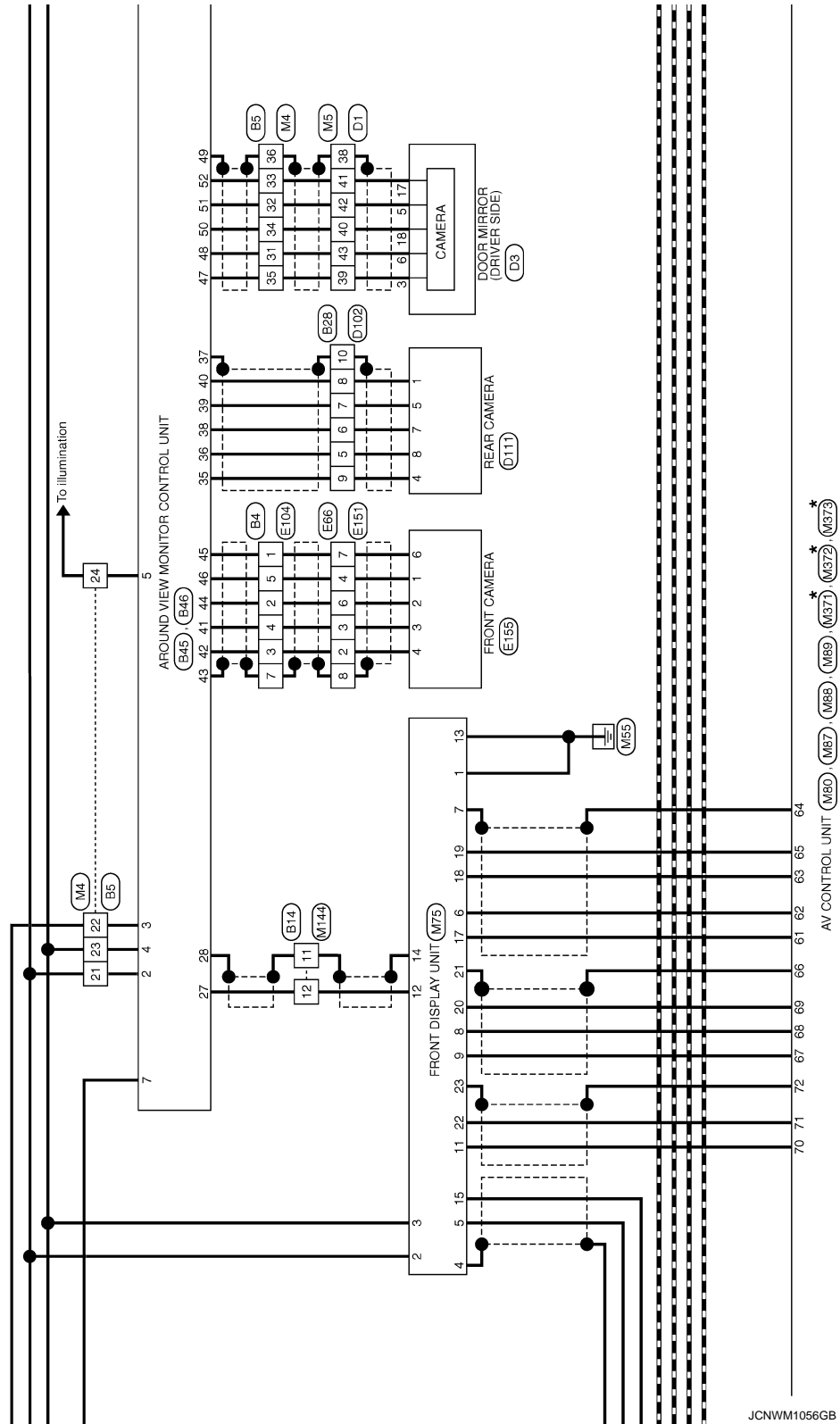


**[NAVIGATION (TWIN MONITOR)]**





\*: This connector is not shown in "Harness Layout".



JCNWM1056GB

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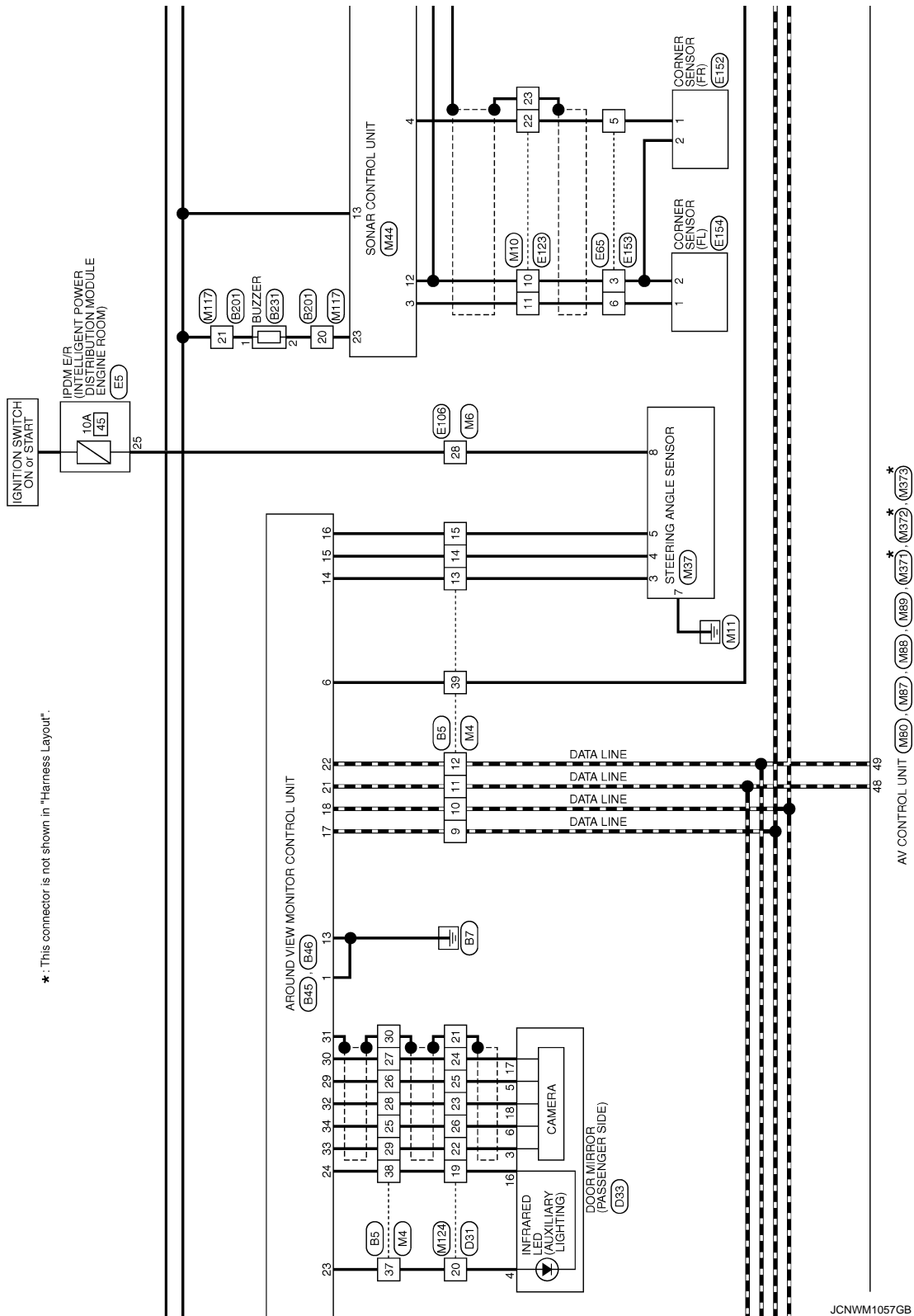
AV



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

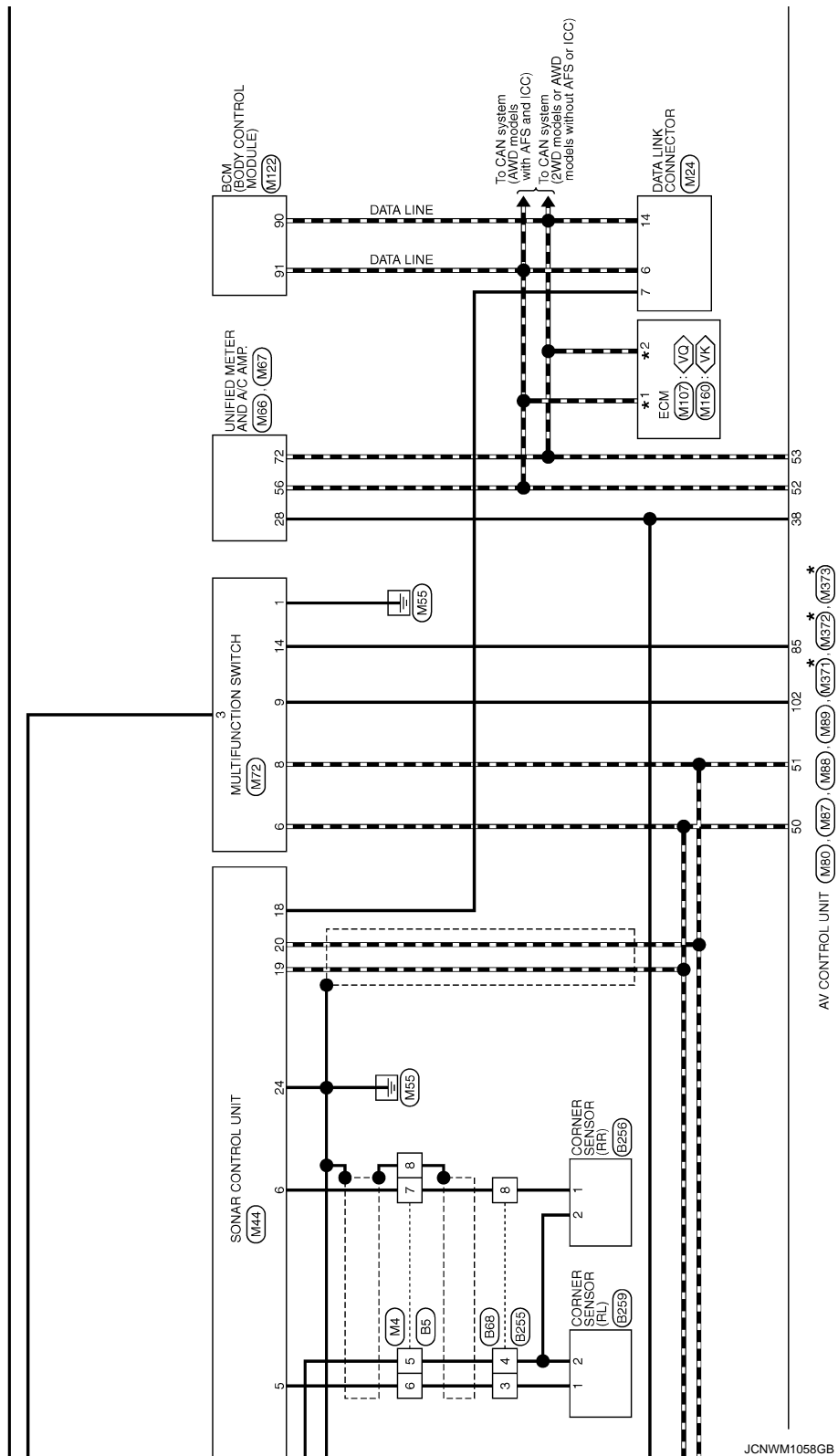


JCNWM1057GB



◇VQ : With VQ engine  
 ◇VK : With VK engine  
 ★1 114 : ◇VQ  
 105 : ◇VK  
 ★2 113 : ◇VQ  
 101 : ◇VK

★: This connector is not shown in "Harness Layout".



JCNWM1058GB

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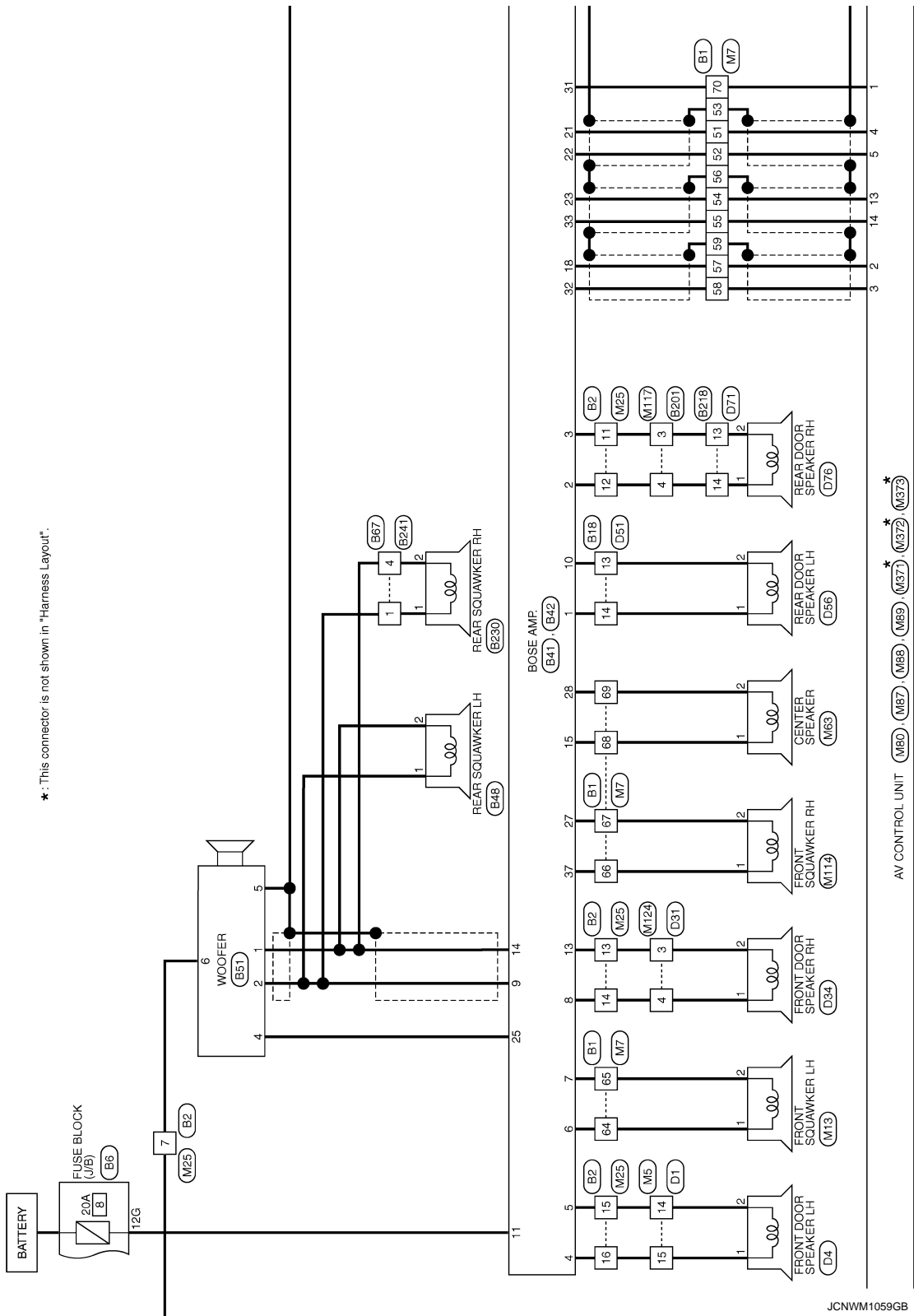
AV



## IPOD ADAPTER

## < ECU DIAGNOSIS INFORMATION >

## [NAVIGATION (TWIN MONITOR)]



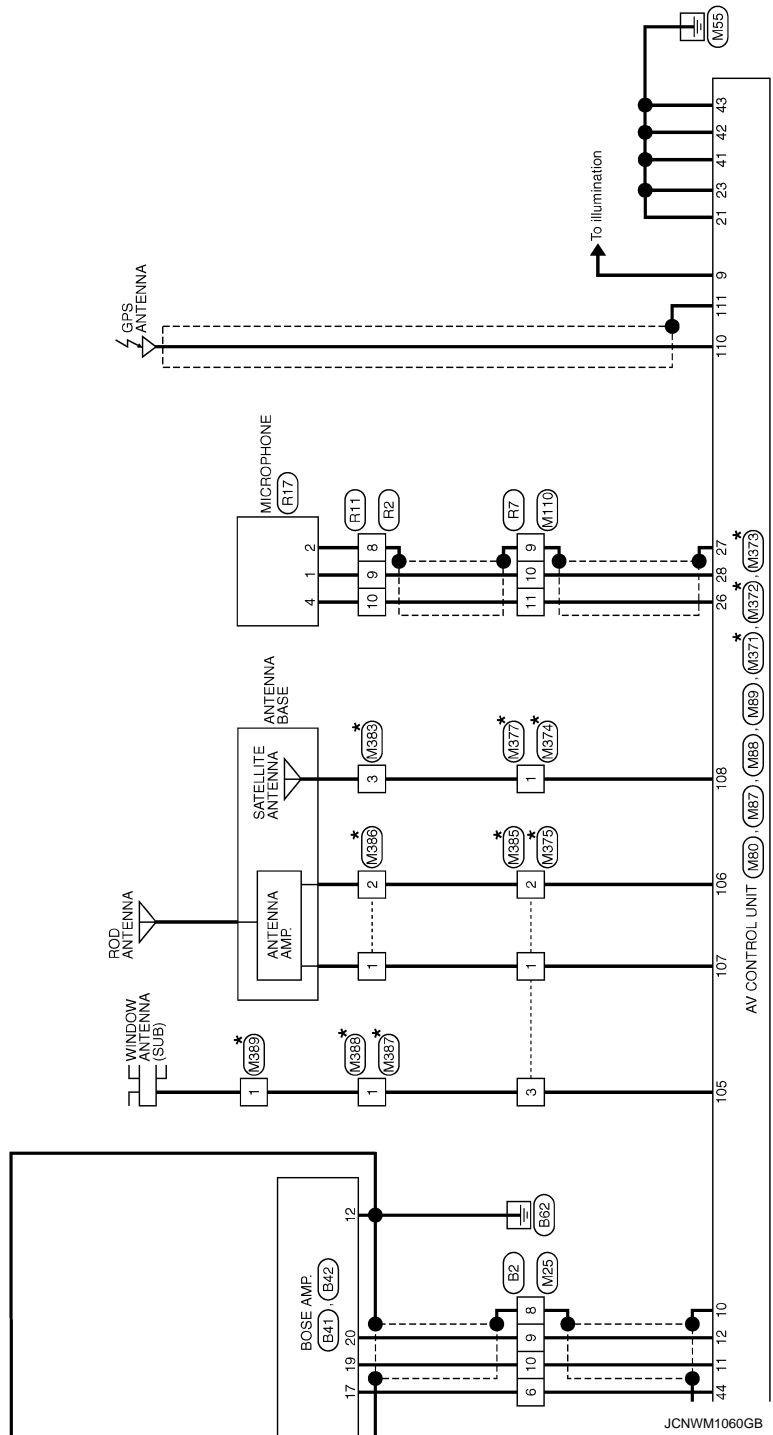


## IPOD ADAPTER

## < ECU DIAGNOSIS INFORMATION >

**[NAVIGATION (TWIN MONITOR)]**

★: This connector is not shown in "Harness Layout".



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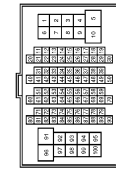
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM44



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



7	6	5	4	3	2	1		
16	15	14	13	12	11	10	9	8

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	B6
Connector Name	FUSE BLOCK (U/B)
Connector Type	NS12FBR-CS



5G	4G		3G	2G	1G	
12G	11G	10G	9G	8G	7G	6G

Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



5	4	<div></div>	3	2	1	
12	11	10	9	8	7	6

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



6	5	4	3	2	1
12	11	10	9	8	7

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TKUPW-NS8

10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		

Connector No.	B26
Connector Name	REAR DISPLAY UNIT
Connector Type	TH43FPIV-HH

2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	Y	BATTERY
4	LG	BATTERY
5	P	HEADPHONE ON SIGNAL
6	GR	ACC
8	GR	SHIELD
9	V	COMM (DISP->DIST)
10	SB	COMM (DIST->DISP)
11	O	IGNITION
12	SHIELD	SHIELD

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1DPER-SGA4

37	36	35	34	33	32	31	30	29	28
27	26	25	24	23	22	21	20	19	18
17	16	15	14	13	12	11	10	9	8

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL FRONT RH (-)
22	SB	SOUND SIGNAL REAR LH (+)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

13	G	-
14	R	COMPOSITE IMAGE SIGNAL
15	BR	RGB AREA (VS) SIGNAL
16	B	GND
17	Y	VP
18	O	HP
19	B	RGB GND
20	G	RGB (B: BLUE) SIGNAL
21	R	RGB (G: GREEN) SIGNAL
22	W	RGB (R: RED) SIGNAL
25	Y	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
26	P	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
27	BR	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
28	L	HEADPHONE SOUND SIGNAL SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA1ZFBR-SJA2

14	13	12	11	10
9	8	7	6	5
4	3	2	1	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (-)
3	V	SOUND SIGNAL REAR DOOR RH (+)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (-)
11	GR	BATTERY

12	B	GND
13	Y	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
14	R	SOUND SIGNAL WOOFER AND REAR SQUAWKER (-)

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## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



42	44	46	48	50	52	54	56	58	60	62	64
41	43	45	47	49	51	53	55	57	59	61	63

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Connector No.	B48
Connector Name	REAR SQUARE LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

52	Y	SIDE CAMERA LH IMAGE GND
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Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (9-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	P	-
9	L	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	R	-
15	G	-
16	SHIELD	-
17	Y	-

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (+)
24	G	LED (-)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH GND
33	BR	SIDE CAMERA RH COMM
34	L	SIDE CAMERA RH POWER SUPPLY
35	W	REAR CAMERA COMM
36	G	REAR CAMERA POWER SUPPLY
37	SHIELD	SHIELD
38	L	REAR CAMERA GND
39	Y	REAR CAMERA IMAGE SIGNAL
40	BR	REAR CAMERA IMAGE GND

18	O	-
19	BR	-
27	GR	-
28	LG	-
29	Y	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

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## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS



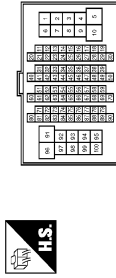
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS08MGY



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	
4	B	
8	R	

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH06FW-CS16-TM4



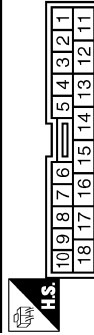
Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
11	BR	
12	Y	
13	SHIELD	
14	G	
15	R	
16	SHIELD	
17	LG	
18	GR	
19	V	

20	GR	- [With NAVI]
21	L	- [With NAVI]
22	B	- [With entertainment system]
23	W	- [With entertainment system]
24	R	- [With entertainment system]
25	SHIELD	- [With entertainment system]
26	SB	-
27	V	-
28	SHIELD	-
29	O	-
30	P	-

Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
5	P	
6	SHIELD	
7	G	
8	W	
13	L	
14	SHIELD	
15	B	
16	R	

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
2	R	

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	
2	GR	

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# IPOD ADAPTER

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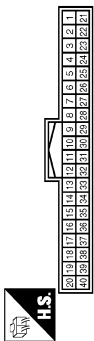
[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	HS08FW-CS



Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



18	W	-
19	B	-
27	V	-
28	GR	-
29	LG	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	R	-
9	G	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	L	-
15	P	-
16	SHIELD	-
17	R	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	HS08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

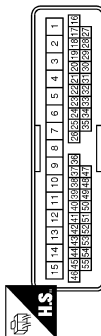
Connector No.	B256
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MY-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	BR	-
41	L	-
42	Y	-
43	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
5	Y	-
6	R	-
17	L	-
18	BR	-

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< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
16	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

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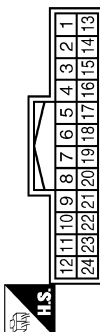
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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

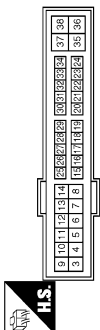


Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH08MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

Connector No.	E5
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR

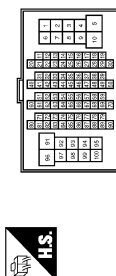


Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH03FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS06MB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



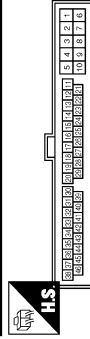
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

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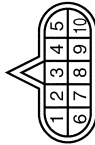
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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	F151
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SPT0FG



Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSG6FW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

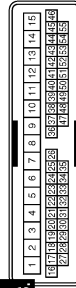
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

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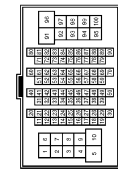
# IPOD ADAPTER

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[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS1F-TM4

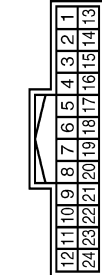


66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



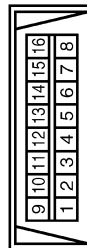
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



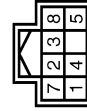
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

JCNWM1070GB

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# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

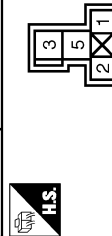
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M64
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



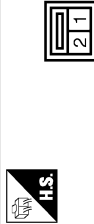
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
18	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



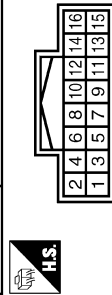
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



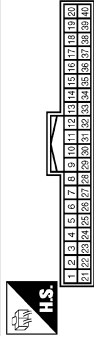
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



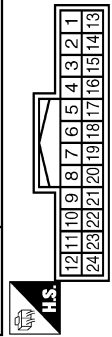
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



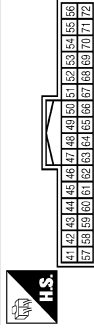
Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	G	AUX IMAGE GND (With entertainment system)
6	W	RGB (G: GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

13	B	GND
14	SHIELD	SHIELD
15	G	AUX IMAGE SIGNAL (Without entertainment system)
17	B	RGB (R: RED) SIGNAL
18	R	RGB (B: BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT)
23	SHIELD	SHIELD

JCNWM1071GB







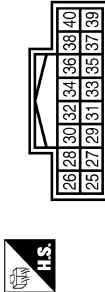
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M97
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH16FW-NH



36	O	IGNITION
38	SHIELD	
39	V	COMM (DISP→DIST)
40	SB	COMM (DIST→DISP)



Terminal No.	Color of Wire	Signal Name [Specification]
25	W	RGB (R: RED) SIGNAL
26	R	RGB (G: GREEN) SIGNAL
27	B	RGB GND
28	G	RGB (B: BLUE) SIGNAL
29	R	VP
30	W	HP
31	B	SHIELD
32	B	RGB AREA (YS) SIGNAL
33	G	—
34	R	COMPOSITE IMAGE SIGNAL
35	SHIELD	SHIELD



Connector No.	M107
Connector Name	ECM (WITH VO ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z



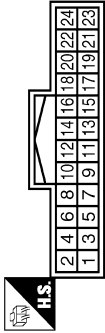
Connector No.	M110
Connector Name	WIPE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

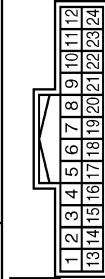
Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	—
10	R	— [With NAVI]
11	G	— [With NAVI]

Connector No.	M98
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	AV COMM (H)
4	R	AV COMM (L)
6	G	COMPOSITE IMAGE GND
7	SHIELD	SHIELD
8	R	COMPOSITE IMAGE SIGNAL
19	W	AUX IMAGE SIGNAL
21	SHIELD	SHIELD
22	SHIELD	SHIELD
23	P	DVD IMAGE SIGNAL
24	L	—

Connector No.	M111
Connector Name	IPOD ADAPTER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	I-Pod SOUND SIGNAL LH (+)
2	BR	I-Pod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	I-Pod BATTERY CHARGE
9	Y	COMM (I-Pod ADAPTER→I-Pod)
10	BR	COMM (I-Pod→I-Pod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	I-Pod SOUND SIGNAL RH (+)
13	G	I-Pod SOUND SIGNAL LH (+)

Connector No.	M99
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
53	B	GND
54	O	BATTERY
55	SB	ACC
56	G	IGNITION
60	P	HEADPHONE ON SIGNAL

14	Y	I-Pod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	I-Pod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	I-Pod SOUND SIGNAL GND
24	B	I-Pod SOUND SIGNAL LH (+)

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# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M112
Connector Name	IPod SIDE
Connector Type	IP16GY



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16		

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	IPod SOUND SIGNAL LH (+)
2	W	IPod SOUND SIGNAL GND
5	BR	COMM (IPod->IPod ADAPTER)
6	Y	COMM (IPod ADAPTER->IPod)
7	R	IPod SOUND SIGNAL RH (+)
9	SB	IPod CONNECTION RECOGNITION
10	B	GND
12	W	IPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK3BMW-NS10



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16P-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
11	BR	-
12	Y	-
13	SHIELD	-
14	G	-
15	R	-
16	SHIELD	-
17	Y	-
18	LG	-

20	GR	- [With NAVI]
21	V	-
22	B	- [With entertainment system]
23	W	- [With entertainment system]
24	R	- [With entertainment system]
25	SHIELD	-
26	SB	-
27	V	-
28	SHIELD	-
29	O	-
30	P	-

Connector No.	M122
Connector Name	BCM BODY CONTROL MODULE
Connector Type	TH4JFB-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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Terminal No.	Color of Wire	Signal Name [Specification]
91	L	CAN-L
92	P	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-

JCNWM1074GB

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AV



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M139
Connector Name	WIRE TO WIRE
Connector Type	TH22FW-NH



16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17



# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

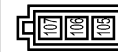
Connector No.	M182
Connector Name	DVD PLAYER
Connector Type	TH2PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ILLUMINATION
4	V	ACC
5	B	SHIELD
7	P	DVD IMAGE SIGNAL
9	L	
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)

Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

16	B	SHIELD
17	G	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
18	R	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
19	BR	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
20	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
21	Y	SOUND SIGNAL LH (+)
22	BR	SOUND SIGNAL LH (-)
23	R	SOUND SIGNAL RH (+)
24	G	SOUND SIGNAL RH (-)
25	B	SHIELD
27	B	SHIELD
29	R	AV COMM (L)
30	G	AV COMM (H)

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	SB	AUX SOUND SIGNAL GND
3	B	AUX SOUND SIGNAL LH (+)
7	W	AUX IMAGE SIGNAL
8	SHIELD	SHIELD

Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA
111	SHIELD	SHIELD

Connector No.	M183
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A8FW



1	2	3	7	8
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Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16G-1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



20	19	18	7	16	15	14	13
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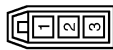
# IPOD ADAPTER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



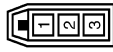
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M383
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	JASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A

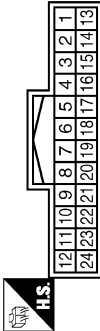
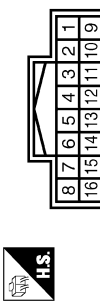




Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1077GB



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No. R2		Connector No. R7		Connector No. R11		Connector No. R17		
Connector Name WIRE TO WIRE		Connector Name WIRE TO WIRE		Connector Name WIRE TO WIRE		Connector Name MICROPHONE		
Connector Type TH24FW-NH		Connector Type TH15FW-NH		Connector Type TH24MW-NH		Connector Type TK04FW		
								
Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-	9	SHIELD	-	1	R	MICROPHONE SIGNAL
9	R	-	10	R	-	2	SHIELD	MICROPHONE GND
10	G	-	11	G	-	4	L	MICROPHONE VCC

JCNWM1078GB

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# DVD PLAYER

< ECU DIAGNOSIS INFORMATION >

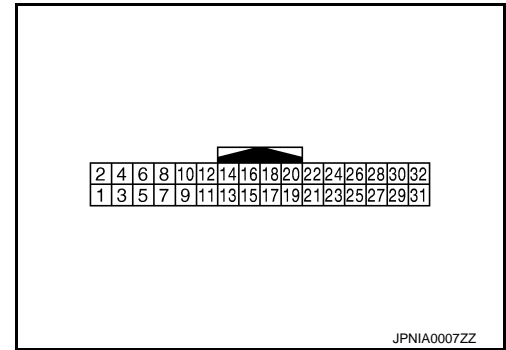
[NAVIGATION (TWIN MONITOR)]

## DVD PLAYER

### Reference Value

INFOID:000000003825980

### TERMINAL LAYOUT



### PHYSICAL VALUES

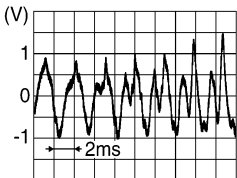
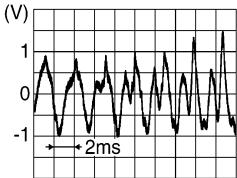
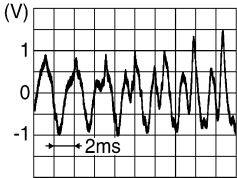
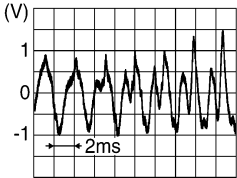
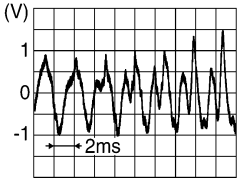
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
3 (L)	Ground	Illumination signal	Input	Ignition switch ON	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V
4 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
5 (B)	—	Shield	—	—	—	—
7 (P)	5 (B)	DVD image signal	Output	Ignition switch ON	When DVD image is displayed.	
9* (L)	—	—	—	—	—	—
13 (B)	11 (G)	AUX sound signal LH	Input	Ignition switch ON	AUX sound output.	



# DVD PLAYER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
14 (W)	12 (R)	AUX sound signal RH	Input	Ignition switch ON	AUX sound output.	 SKIB3609E
16	—	Shield	—	—	—	—
17 (G)	18 (R)	Headphone sound signal LH	Output	Ignition switch ON	Headphone sound output.	 SKIB3609E
19 (BR)	20 (Y)	Headphone sound signal RH	Output	Ignition switch ON	Headphone sound output.	 SKIB3609E
21 (Y)	22 (BR)	Sound signal LH (DVD and AUX sound)	Output	Ignition switch ON	AUX or DVD sound output.	 SKIB3609E
23 (R)	24 (G)	Sound signal RH (DVD and AUX sound)	Output	Ignition switch ON	AUX or DVD sound output.	 SKIB3609E
25 (B)	—	Shield	—	—	—	—
27 (B)	—	Shield	—	—	—	—
29 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
30 (G)	—	AV communication signal (H)	Input/ Output	—	—	—

## NOTE:

\*: This harness is not used.

A  
B  
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# DVD PLAYER

< ECU DIAGNOSIS INFORMATION >

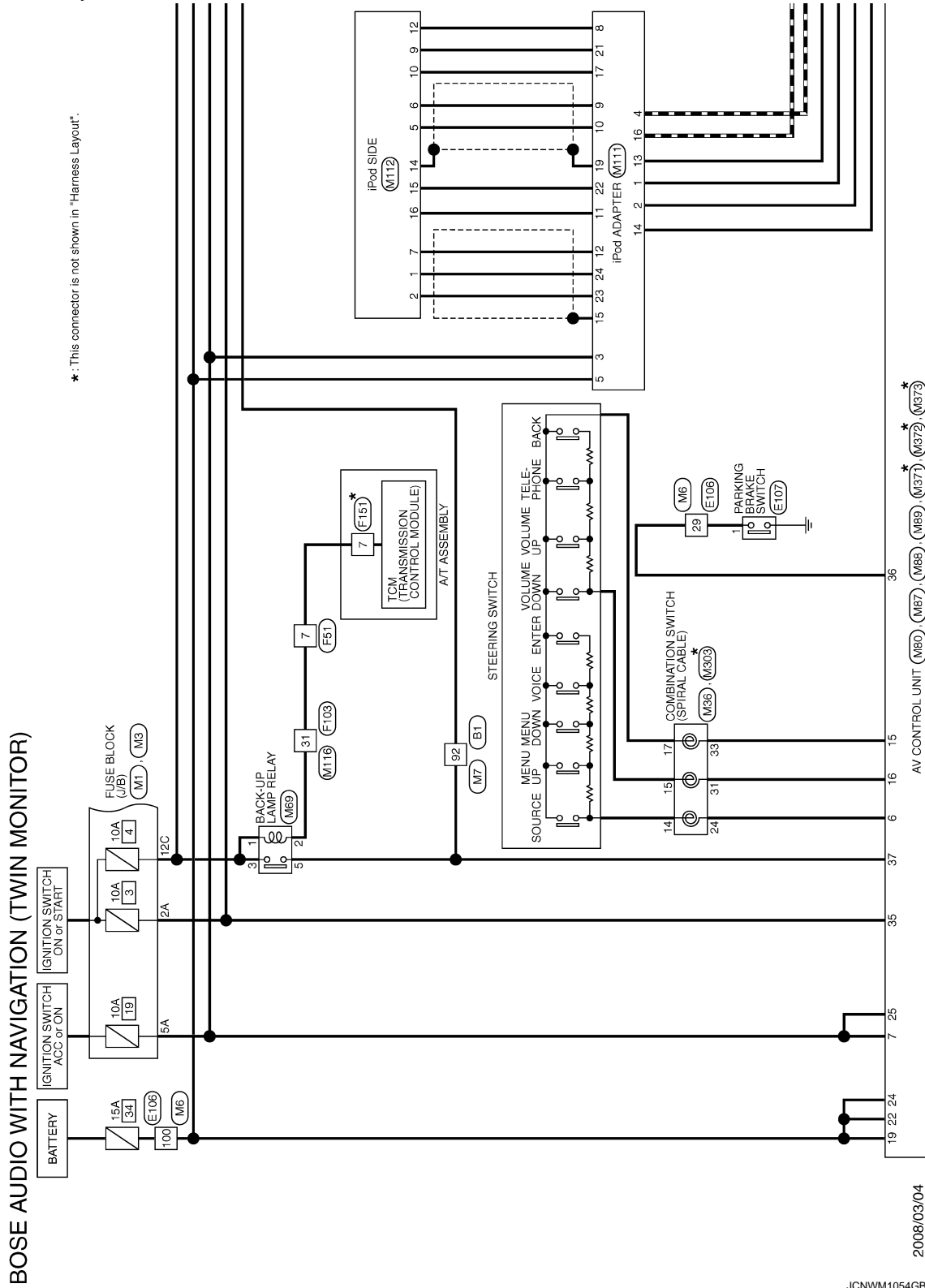
[NAVIGATION (TWIN MONITOR)]

## Wiring Diagram - BOSE AUDIO WITH NAVIGATION (TWIN MONITOR) -

INFOID:000000003826978

### NOTE:

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



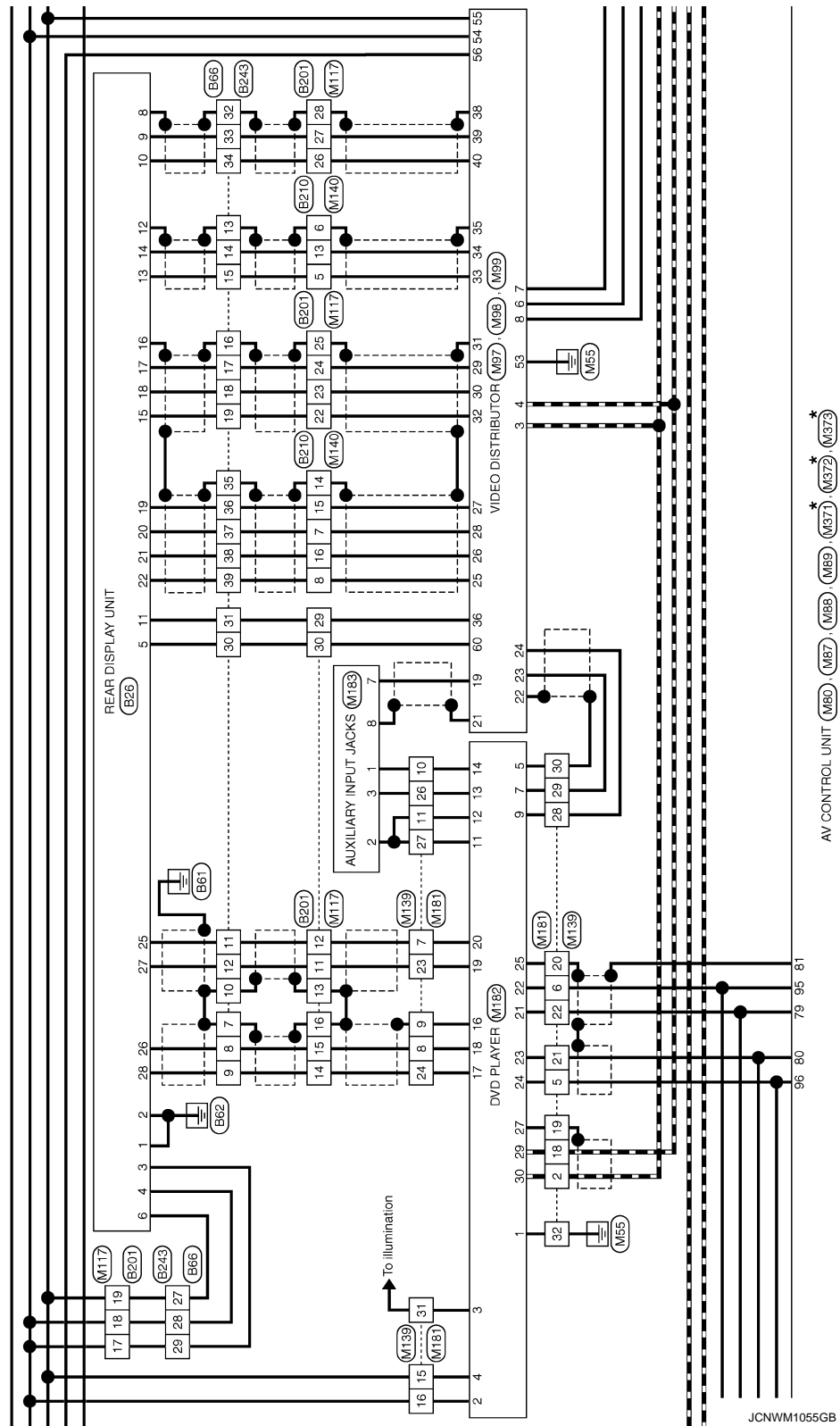


# DVD PLAYER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

\*: This connector is not shown in "Harness Layout".



JCNWM1055GB

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AV

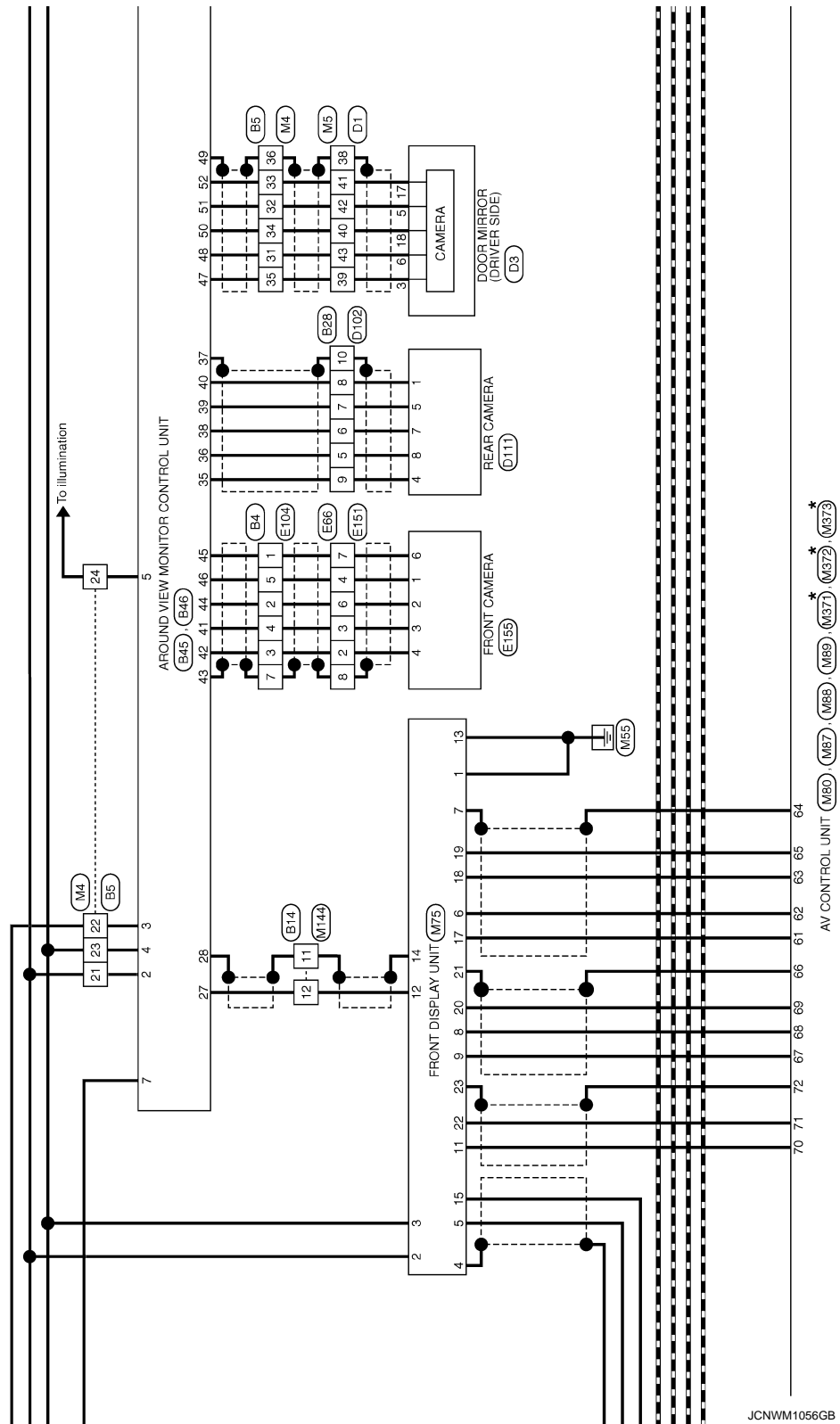


# DVD PLAYER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

\*: This connector is not shown in "Harness Layout".



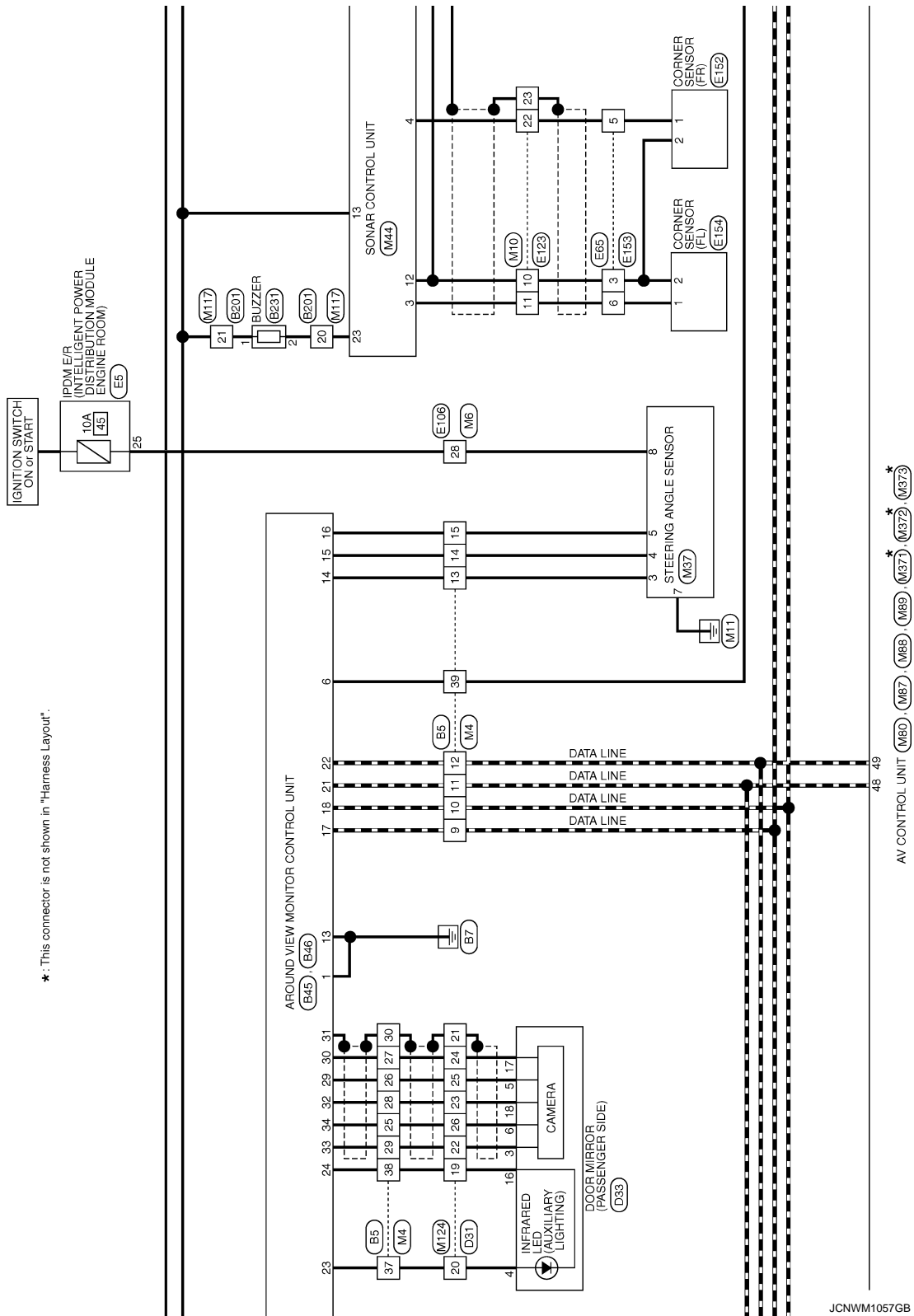
JCNWM1056GB



# DVD PLAYER

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]



\*: This connector is not shown in "Harness Layout".

JCNWM1057GB

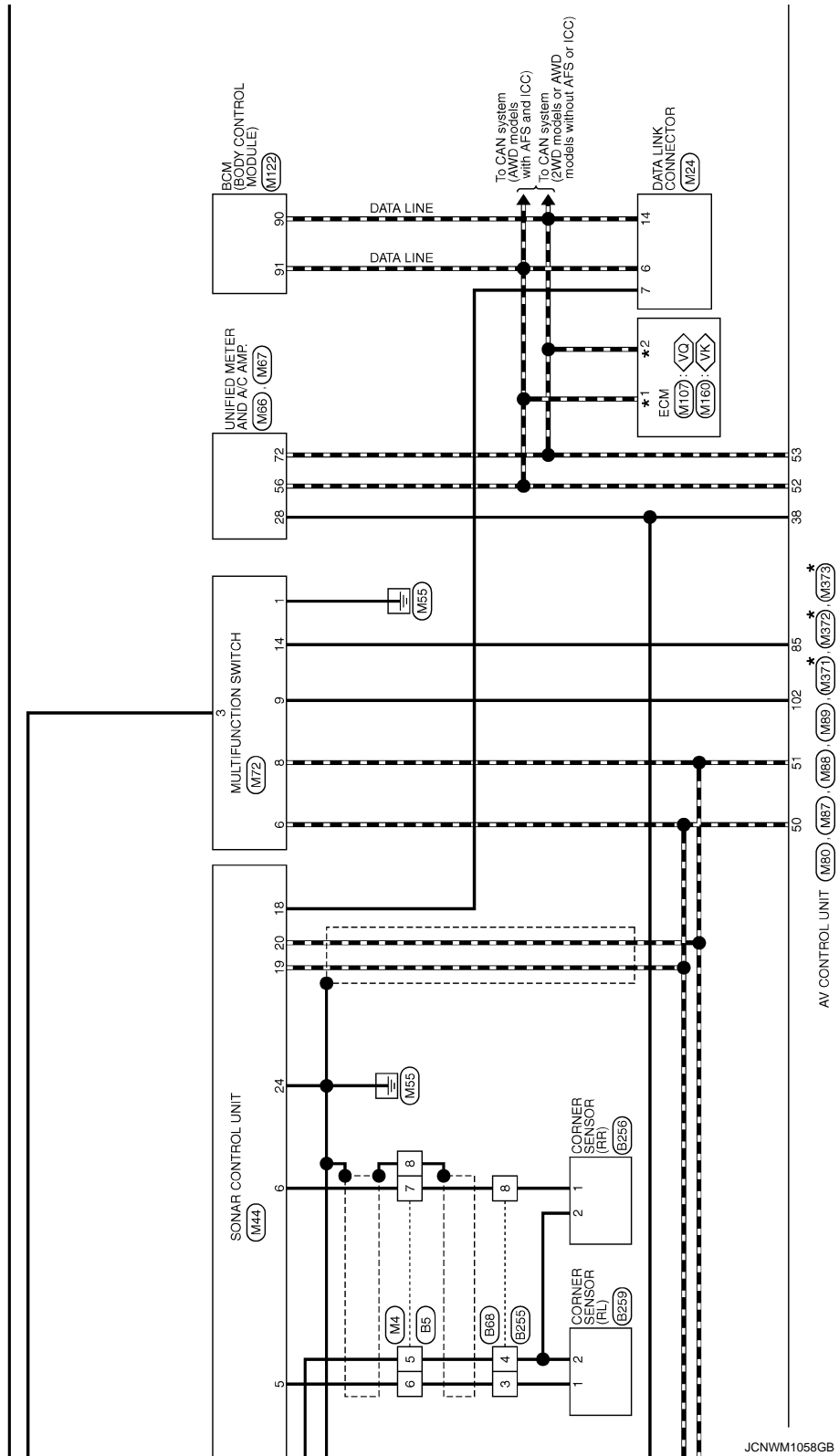
A  
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L  
M  
O  
P

AV



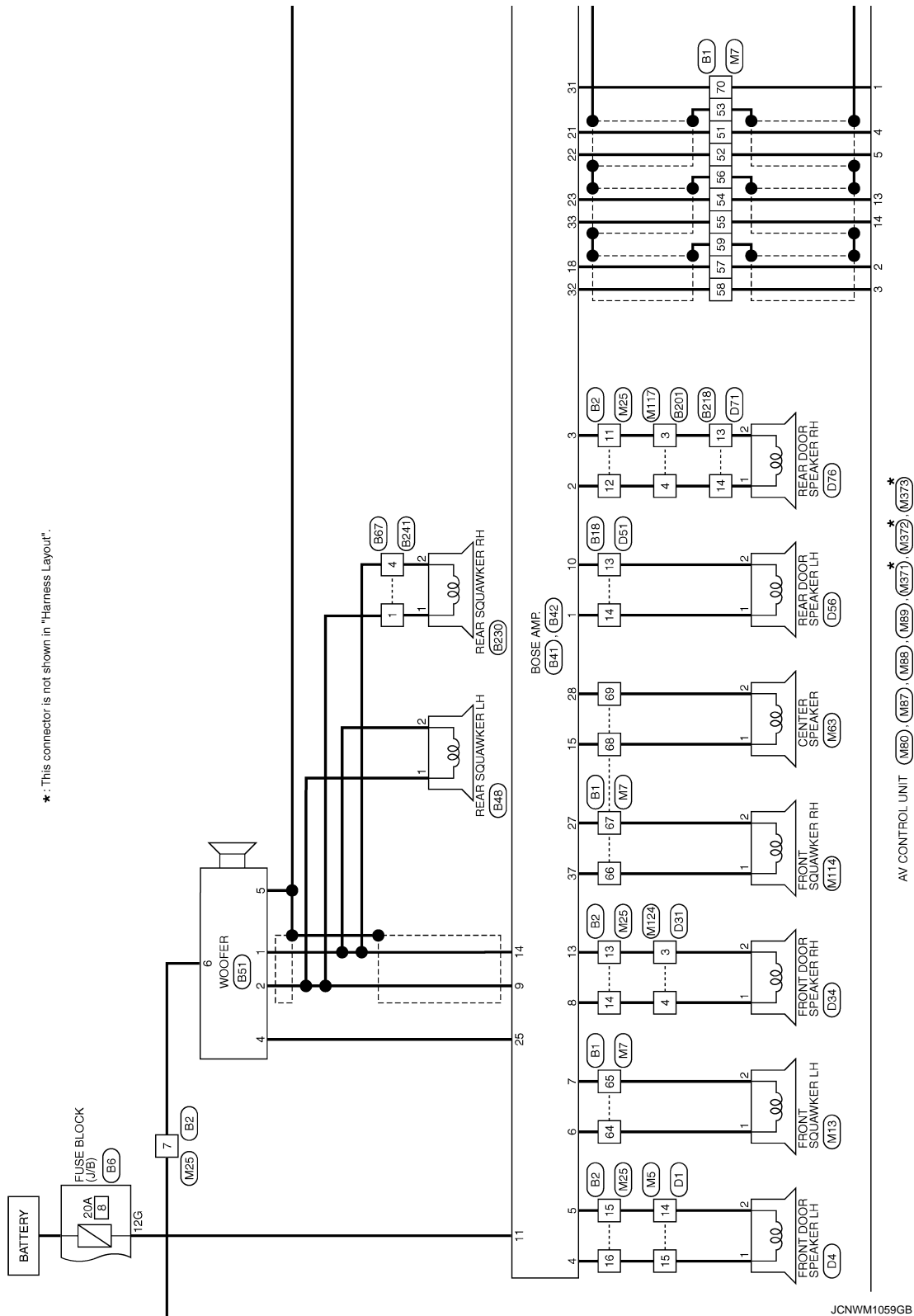
VQ : With VQ engine  
 VK : With VK engine  
 \*1 114 : VQ  
 105 : VK  
 \*2 113 : VQ  
 101 : VK

\* : This connector is not shown in "Harness Layout".



JCNWM1058GB

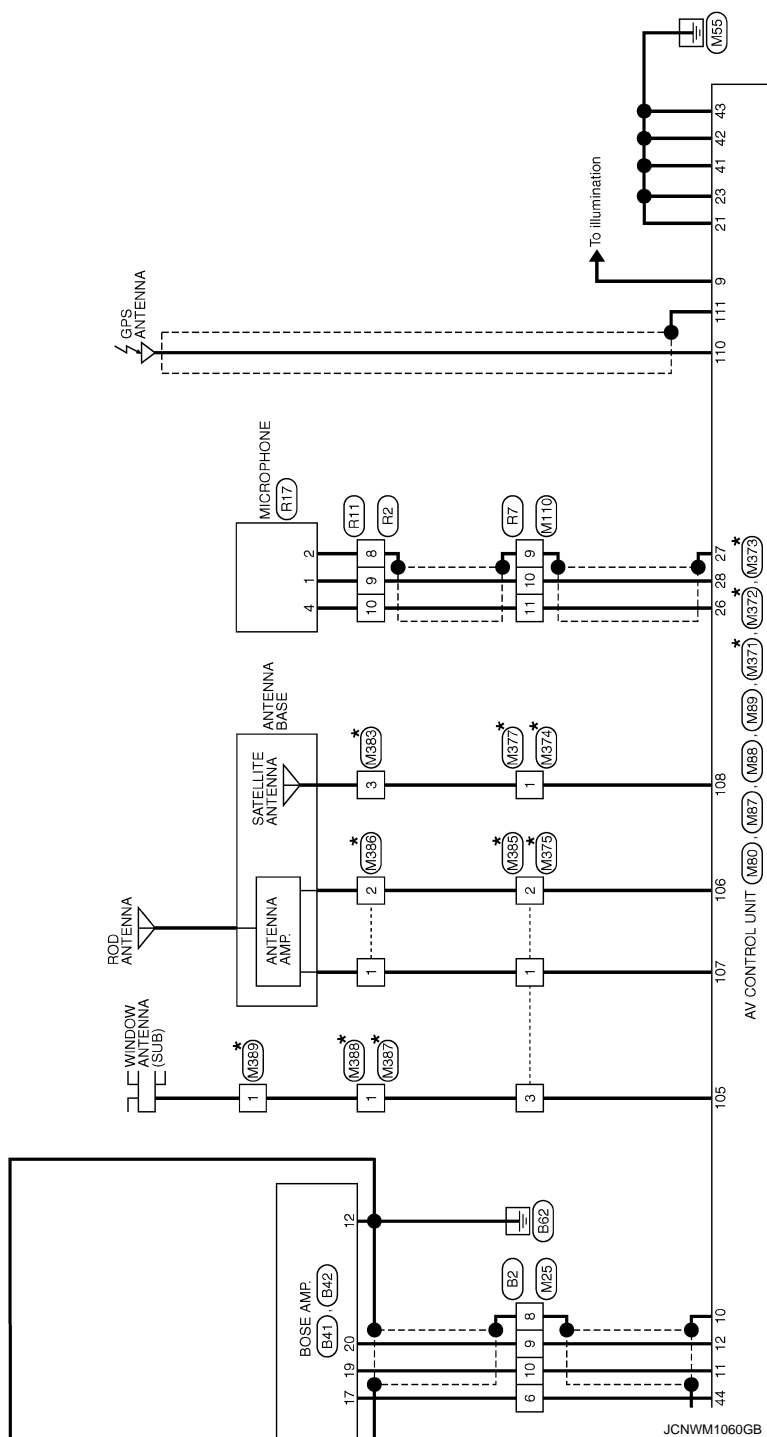




A  
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AV

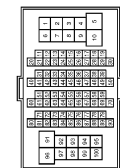






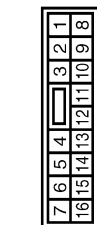
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

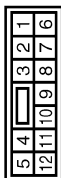


66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



21	Y	-
22	G	-
23	LG	-
24	R	-
25	L	-
26	R	-
27	Y	-
28	W	-
29	BR	-
30	SHIELD	-
31	L	-
32	R	-
33	Y	-
34	W	-
35	BR	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

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### BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		

Connector No.	B25
Connector Name	REAR DISPLAY UNIT
Connector Type	TH32FW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	Y	BATTERY
4	LG	BATTERY
5	P	HEADPHONE ON SIGNAL
6	GR	ACC
8	SHIELD	SHIELD
9	V	COMM (DISP->DIST)
10	SB	COMM (DISP->DISP)
11	O	IGNITION
12	SHIELD	SHIELD

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA19FR-SQA4



37	36	35	34	33		32	31	30	29	28		
27	26	25	24	23	22	21	20	19	18	17	16	15

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL FRONT RH (-)
22	SB	SOUND SIGNAL REAR LH (+)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

13	G	-
14	R	COMPOSITE IMAGE SIGNAL
15	BR	RGB AREA (YS) SIGNAL
16	B	GND
17	Y	YP
18	O	HP
19	B	RGB GND
20	G	RGB (B BLUE) SIGNAL
21	R	RGB (G GREEN) SIGNAL
22	W	RGB (R RED) SIGNAL
25	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
26	P	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
27	BR	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
28	L	HEADPHONE SOUND SIGNAL SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



14	13	12	11	10				
9	8	7	6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (+)
11	GR	BATTERY

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## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



42	44	46	48	50	52	54	56	58	60	62	64
41	43	45	47	49	51	53	55	57	59	61	63

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Connector No.	B48
Connector Name	REAR SOUNDWAKER LH
Connector Type	TK02FBR



Connector No.	B51
Connector Name	WOOFER
Connector Type	RS00FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP. ON SIGNAL
5	B	GND
6	W	BATTERY

Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



5	14	15	16	17	18	19	20	21	22	23	24
1	3	7	11	13	15	17	19	21	23	25	27

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
8	V	VEHICLE SPEED (8-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	P	-
9	L	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	R	-
15	G	-
16	SHIELD	-
17	Y	-

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (+)
24	G	LED (-)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH COMM
33	BR	SIDE CAMERA RH POWER SUPPLY
34	L	REAR CAMERA COMM
35	W	REAR CAMERA POWER SUPPLY
36	G	SHIELD
37	SHIELD	SHIELD
38	L	REAR CAMERA IMAGE SIGNAL
39	Y	REAR CAMERA IMAGE GND
40	BR	REAR CAMERA IMAGE GND

18	O	-
19	BR	-
27	GR	-
28	LG	-
29	Y	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

JCNWM1063GB



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS38MW-CS



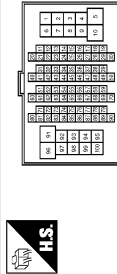
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS38MGY



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	
4	B	
8	R	

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH09FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
11	BR	
12	Y	
13	SHIELD	
14	G	
15	R	
16	SHIELD	
17	LG	
18	GR	
19	V	

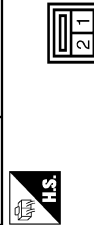
Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
5	P	
6	SHIELD	
7	G	
8	W	
13	L	
14	SHIELD	
15	B	
16	R	

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
2	R	

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	
2	GR	

JCNWM1064GB



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



3	2	1
8	7	6
5	4	

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-HH



23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

18	W	-
19	B	-
27	V	-
28	GR	-
29	LG	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	R	-
9	G	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	L	-
15	P	-
16	SHIELD	-
17	R	-

Connector No.	B255
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
17	16	15	14	13	12	11	10	9	8	7	6	5	4	3
18	17	16	15	14	13	12	11	10	9	8	7	6	5	4
19	18	17	16	15	14	13	12	11	10	9	8	7	6	5
20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
21	20	19	18	17	16	15	14	13	12	11	10	9	8	7
22	21	20	19	18	17	16	15	14	13	12	11	10	9	8
23	22	21	20	19	18	17	16	15	14	13	12	11	10	9
24	23	22	21	20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RS08FGY



4	3	2	1
8	7	6	5

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MW-NH



12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
5	Y	-
6	R	-
17	L	-
18	BR	-

JCNWM1065GB

A  
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K  
L  
M  
AV  
O  
P



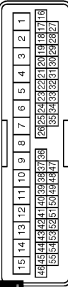
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
18	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



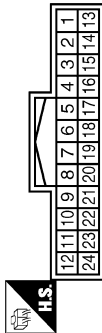
Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

JCNWM1066GB



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

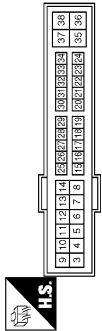
Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH6BMH-NH



Connector No.	E5
Connector Name	SPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

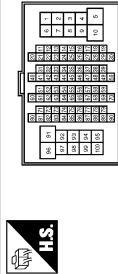
Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



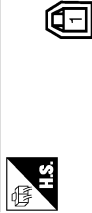
Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

JCNWM1067GB

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### BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS08MB-FR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

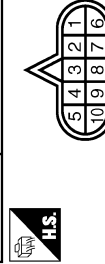
Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



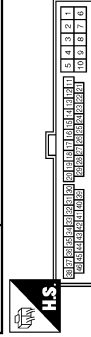
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

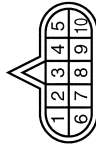
Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

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## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



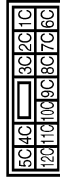
Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSGFW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

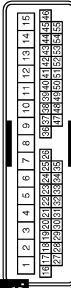
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH4QFW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH4QMW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH8DMW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

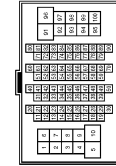
JCNWM1069GB

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## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

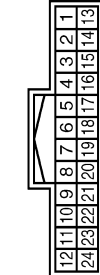
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-



Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

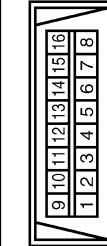


Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

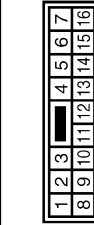
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

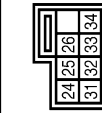
Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



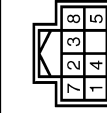
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-IV



Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

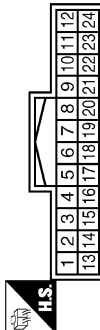
Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

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## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

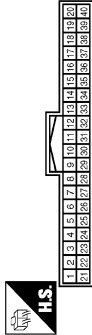
Connector No.	M44
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



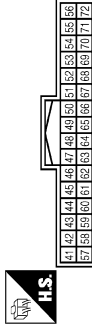
Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FER



Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH24FW-NH



Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH22FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
16	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

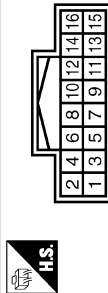
Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

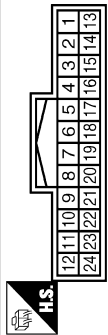
Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
13	B	GND
14	SHIELD	SHIELD
15	G	AUX IMAGE SIGNAL (Without entertainment system)
17	B	RGB (R RED) SIGNAL
18	R	RGB (B BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT)
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	G	AUX IMAGE GND (With entertainment system)
6	W	RGB (G GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

JCNWM1071GB

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AV



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-GS2



1	2	3	4	5	6	7	8	9		
19	10	11	12	13	14	15	16	17	18	20

13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH40FW-NH



21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP. ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
9	R	ILLUMINATION
10	B	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	V	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH



62	64	66	68	70	72
61	63	65	67	69	71

72	SHIELD	SHIELD
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Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH



73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104

Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R RED) SIGNAL
62	W	RGB (G GREEN) SIGNAL
63	R	RGB (B BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (YS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

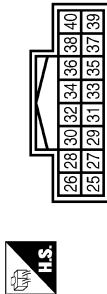
Terminal No.	Color of Wire	Signal Name [Specification]
79	Y	Pin4 SOUND SIGNAL LH (+) (With entertainment system)
80	R	Pin4 SOUND SIGNAL RH (+) (With entertainment system)
81	B	SHIELD
85	SB	DISK EJECT SIGNAL
95	BR	Pin4 SOUND SIGNAL LH (-) (With entertainment system)
96	G	Pin4 SOUND SIGNAL RH (-) (With entertainment system)
102	BR	SW GND

JCNWM1072GB



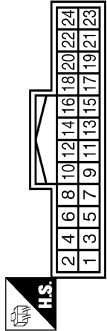
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M97
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH16FW-NH



36	O	IGNITION
38	SHIELD	
39	V	COMM (DISP→DST)
40	SB	COMM (DST→DSP)

Connector No.	M98
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH24FW-NH



Connector No.	M99
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
25	W	RGB (R-RED) SIGNAL
26	R	RGB (G-GREEN) SIGNAL
27	B	RGB GND
28	G	RGB (B-BLUE) SIGNAL
29	R	VP
30	W	HP
31	B	SHIELD
32	B	RGB AREA (YS) SIGNAL
33	G	-
34	R	COMPOSITE IMAGE SIGNAL
35	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	AV COMM (H)
4	R	AV COMM (L)
6	G	COMPOSITE IMAGE GND
7	SHIELD	SHIELD
8	R	COMPOSITE IMAGE SIGNAL
10	W	AUX IMAGE SIGNAL
21	SHIELD	SHIELD
22	SHIELD	SHIELD
23	P	DVD IMAGE SIGNAL
24	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
53	B	GND
54	O	BATTERY
55	SB	ACC
56	G	IGNITION
60	P	HEADPHONE ON SIGNAL

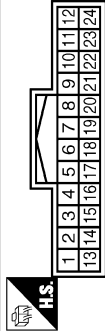
Connector No.	M107
Connector Name	ECM (WITH VO ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z



Connector No.	M110
Connector Name	WIRE TO WIRE
Connector Type	TH18BW-NH



Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH



14	Y	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	IPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	IPod SOUND SIGNAL GND
24	B	IPod SOUND SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	- [With NAV]
11	G	- [With NAV]

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (+)
2	BR	IPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	IPod BATTERY CHARGE
9	Y	COMM (IPod ADAPTER→IPod)
10	BR	COMM (IPod→IPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (-)

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## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M112
Connector Name	iPod SIDE
Connector Type	IP16GY



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16		

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	iPod SOUND SIGNAL LH (+)
2	W	iPod SOUND SIGNAL GND
5	BR	COMM (iPod->iPod ADAPTER)
6	Y	COMM (iPod ADAPTER->iPod)
7	R	iPod SOUND SIGNAL RH (+)
9	SB	iPod CONNECTION RECOGNITION
10	B	GND
12	W	iPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16P-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
11	BR	-
12	Y	-
13	SHIELD	-
14	G	-
15	R	-
16	SHIELD	-
17	Y	-
18	Y	-
19	LG	-

20	GR	- [With NAVI]
21	V	-
22	B	- [With entertainment system]
23	W	- [With entertainment system]
24	R	- [With entertainment system]
25	SHIELD	-
26	SB	-
27	V	-
28	SHIELD	-
29	O	-
30	P	-

Connector No.	M122
Connector Name	BCM BODY CONTROL MODULE
Connector Type	TH40FB-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M139
Connector Name	WIRE TO WIRE
Connector Type	TH2FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-
5	G	-
6	BR	-
7	Y	-
8	R	-
9	B	-
10	W	-
11	SB	-
15	BR	-
16	LG	-
18	R	-

Connector No.	M180
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z



128	124	123	118	112	108	104	101
127	123	118	113	111	107	103	99
126	122	118	114	110	106	102	98
125	121	117	113	109	105	101	97

Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

19	SHIELD	-
20	SHIELD	-
21	R	-
22	Y	-
23	BR	-
24	G	-
26	B	-
27	SB	-
28	L	-
29	P	-
30	SHIELD	-
31	L	-
32	B	-



1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	SHIELD	-
7	G	-
8	W	-
12	R	-
14	SHIELD	-
15	B	-
16	R	-

19	B	-
20	B	-
21	R	-
22	Y	-
23	BR	-
24	G	-
26	B	-
27	G	-
28	L	-
29	P	-
30	B	-
31	L	-
32	B	-

Connector No.	M181
Connector Name	WIRE TO WIRE
Connector Type	TH432MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-
5	G	-
6	BR	-
7	Y	-
8	R	-
9	B	-
10	W	-
11	R	-
15	V	-
16	Y	-
18	R	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MNF-NH



1	2	3	4	5	6
7	8	9	10	11	12

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1075GB

A  
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## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M182
Connector Name	DVD PLAYER
Connector Type	TH22PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ILLUMINATION
4	V	ACC
5	B	SHIELD
7	P	DVD IMAGE SIGNAL
9	L	—
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)



Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU

16	B	SHIELD
17	G	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
18	R	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
19	BR	—
20	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
21	Y	SOUND SIGNAL LH (+)
22	BR	—
23	R	SOUND SIGNAL RH (-)
24	G	SOUND SIGNAL RH (+)
25	B	SHIELD
27	B	—
29	R	AV COMM (L)
30	G	AV COMM (H)



Connector No.	M372
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	FAKRA JACK

Connector No.	M183
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



1	2	3	7	8
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Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	SB	AUX SOUND SIGNAL GND
3	B	AUX SOUND SIGNAL LH (+)
7	W	AUX IMAGE SIGNAL
8	SHIELD	SHIELD



Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



20	19	18	17	16	15	14	13
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Terminal No.	Color of Wire	Signal Name [Specification]
14	W	—
15	L	—
17	BR	—

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



Terminal No.	1
Color of Wire	—
Signal Name [Specification]	—

Terminal No.	110
Color of Wire	—
Signal Name [Specification]	GPS ANTENNA

Terminal No.	108
Color of Wire	—
Signal Name [Specification]	SAETLITE ANTENNA


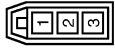






Terminal No.	105
Color of Wire	—
Signal Name [Specification]	FM SUB









Terminal No.	106
Color of Wire	—
Signal Name [Specification]	AM-FM MAIN

Terminal No.	107
Color of Wire	—
Signal Name [Specification]	ANTENNA AMP. ON SIGNAL



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M375	Connector No.	M377	Connector No.	M383	Connector No.	M385
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	ANTENNA BASE	Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU	Connector Type	GT16C-1PP-HU	Connector Type	GT16C-1PP-HU	Connector Type	GT13SCN-2/1PP-HU
							
Terminal No.	1	Terminal No.	1	Terminal No.	3	Terminal No.	1
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	SATELLITE ANTENNA	Signal Name [Specification]	-
2	-					2	-
3	-					3	-

Connector No.	M386	Connector No.	M387	Connector No.	M388	Connector No.	M389
Connector Name	ANTENNA BASE	Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	WINDOW ANTENNA (SUB)
Connector Type	GT13SSN-1/1PP-HU	Connector Type	JASO JACK	Connector Type	JASO PLUG	Connector Type	P01FB-A
							
Terminal No.	1	Terminal No.	1	Terminal No.	1	Terminal No.	1
Color of Wire	-	Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name [Specification]	ANTENNA AMP. ON SIGNAL	Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-
2	-						

JCNWM1077GB

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AV



## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

JCNWM1078GB



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

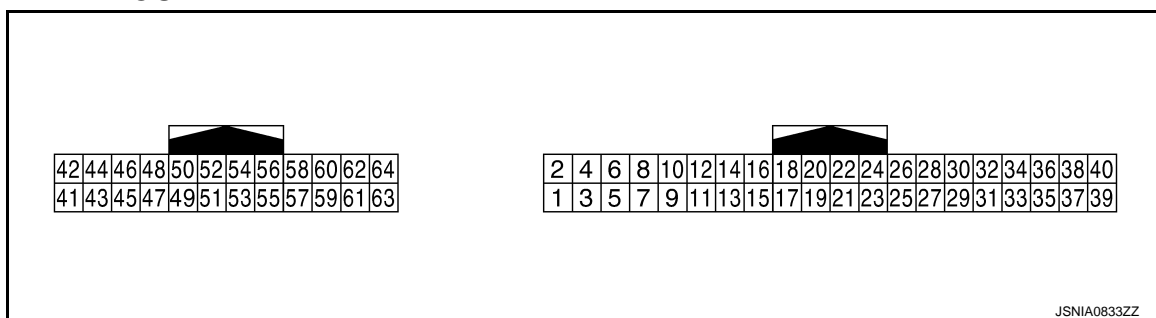
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## AROUND VIEW MONITOR CONTROL UNIT

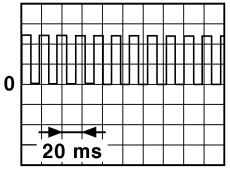
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### TERMINAL LAYOUT



### PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
3 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
4 (LG)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
5 (R)	Ground	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V
6 (V)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25 MPH)	<b>NOTE:</b> The maximum voltage varies depending on the specification (destination unit). 
7 (O)	Ground	Reverse signal	Input	Ignition switch ON	R position	12.0 V
					Other than R position	0 V
13 (B)	Ground	Control signal	—	Ignition switch ON	—	0 V

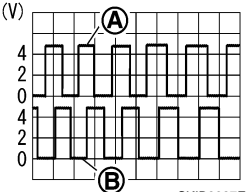
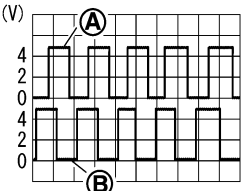
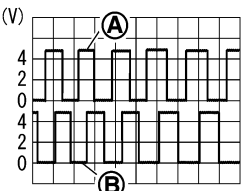
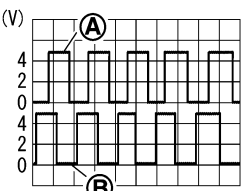
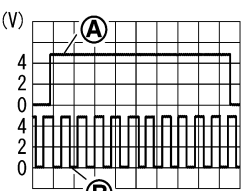
JSNIA0012GB



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

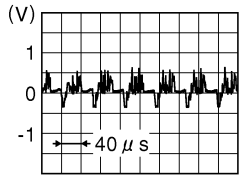
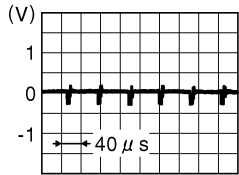
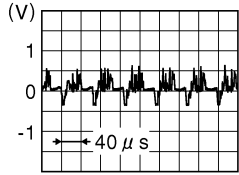
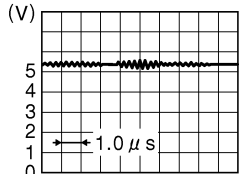
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
14 (GR)	Ground	Sensor signal 1	Input	Ignition switch ON	Turn the steering to the right	 <p>SKIB3827E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
					Turn the steering to the left	 <p>SKIB3828E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
15 (SB)	Ground	Sensor signal 2	Input	Ignition switch ON	Turn the steering to the right	 <p>SKIB3827E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
					Turn the steering to the left	 <p>SKIB3828E</p> <p>A: Sensor signal 1 B: Sensor signal 2</p>
16 (L)	Ground	Sensor signal 3	Input	Ignition switch ON	Turn the steering around the neutral position	 <p>SKIB3829E</p> <p>A: Sensor signal 3 B: Sensor signal 1</p>
17 (W)	—	AV communication signal (H)	Input/ Output	—	—	—
18 (P)	—	AV communication signal (L)	Input/ Output	—	—	—



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
21 (O)	—	AV communication signal (H)	Input/ Output	—	—	—
22 (V)	—	AV communication signal (L)	Input/ Output	—	—	—
23 (LG)	24 (G)	Auxiliary infrared LED power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	5.5 V
27 (W)	Ground	Camera image signal	Output	Ignition switch ON	At camera image display	 JSNIA0834GB
					Other than camera image display	 JSNIA0835GB
28	—	Shield	—	—	—	—
29 (R)	30 (Y)	Side camera passenger side image signal	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0834GB
31	—	Shield	—	—	—	—
32 (W)	Ground	Side camera passenger side ground	—	Ignition switch ON	—	0 V
33 (BR)	Ground	Side camera passenger side communication signal	Input/ Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB
34 (L)	Ground	Side camera passenger side power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	6.0 V

A

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D

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H

I

J

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L

M

AV

O

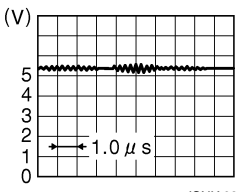
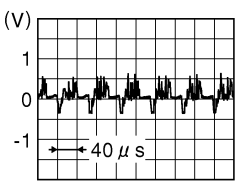
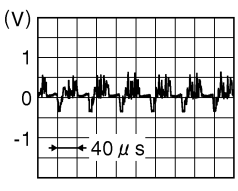
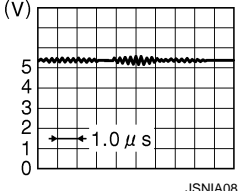
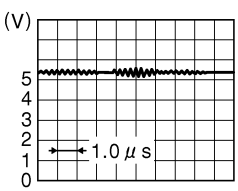
P



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

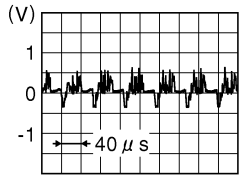
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
35 (W)	Ground	Rear camera communication signal	Input/ Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB
36 (G)	Ground	Rear camera power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	6.0 V
37	—	Shield	—	—	—	—
38 (L)	Ground	Rear camera ground	—	Ignition switch ON	—	0 V
39 (Y)	40 (BR)	Rear camera image signal	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0834GB
41 (L)	42 (BR)	Front camera image signal	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0834GB
43	—	Shield	—	—	—	—
44 (Y)	Ground	Front camera ground	—	Ignition switch ON	—	0 V
45 (W)	Ground	Front camera communication signal	Input/ Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB
46 (G)	Ground	Front camera power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	6.0 V
47 (BR)	Ground	Side camera driver side com- munication signal	Input/ Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0836GB



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
48 (L)	Ground	Side camera driver side power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	6.0 V
49	—	Shield	—	—	—	—
50 (W)	Ground	Side camera driver side ground	—	Ignition switch ON	—	0 V
51 (R)	52 (Y)	Side camera driver side image signal	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 <p>JSNIA0834GB</p>

## Wiring Diagram - BOSE AUDIO WITH NAVIGATION (TWIN MONITOR) -

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**NOTE:**

AV



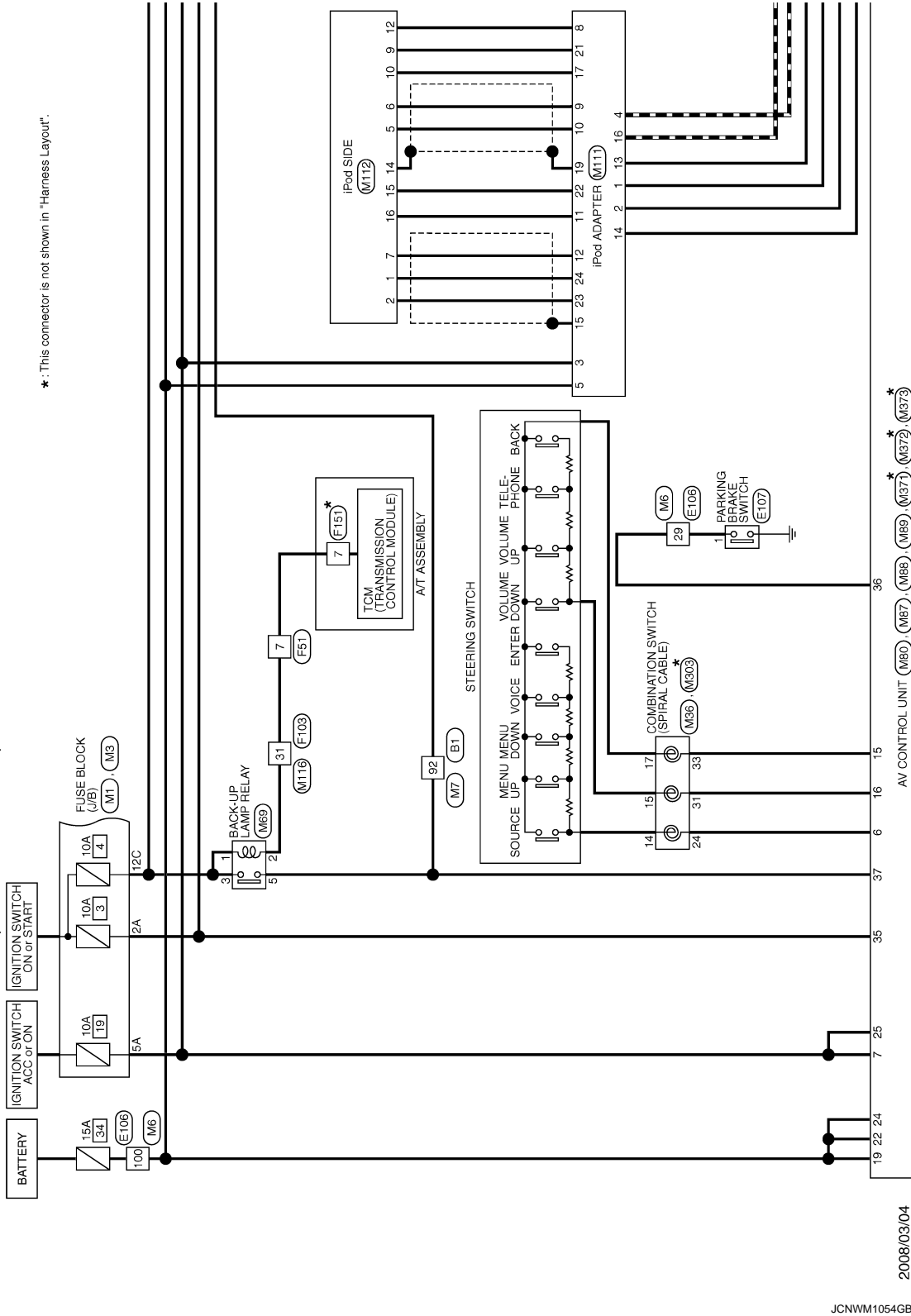
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)



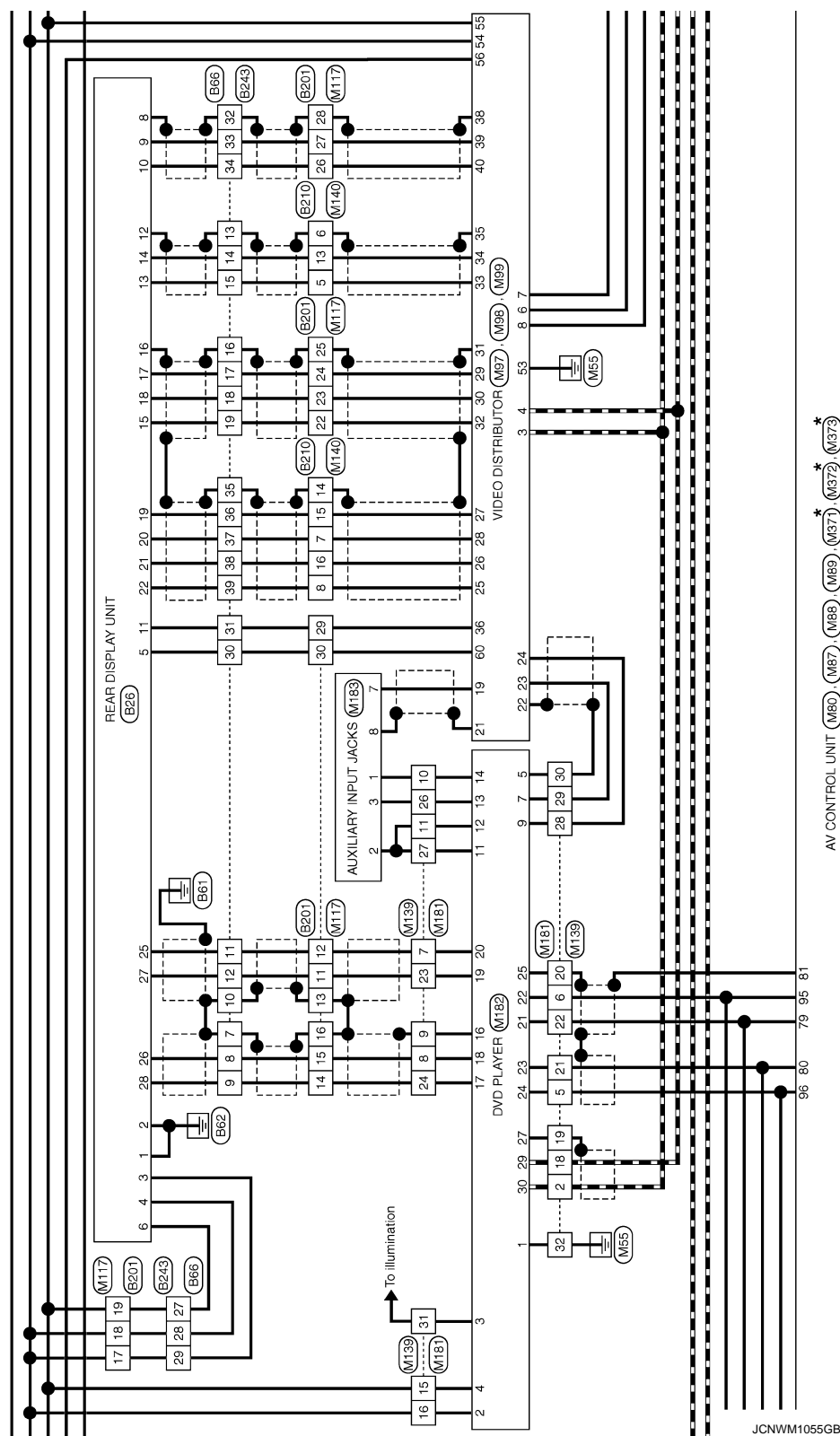


# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

\*: This connector is not shown in "Harness Layout".



JCNWM1055GB

AV

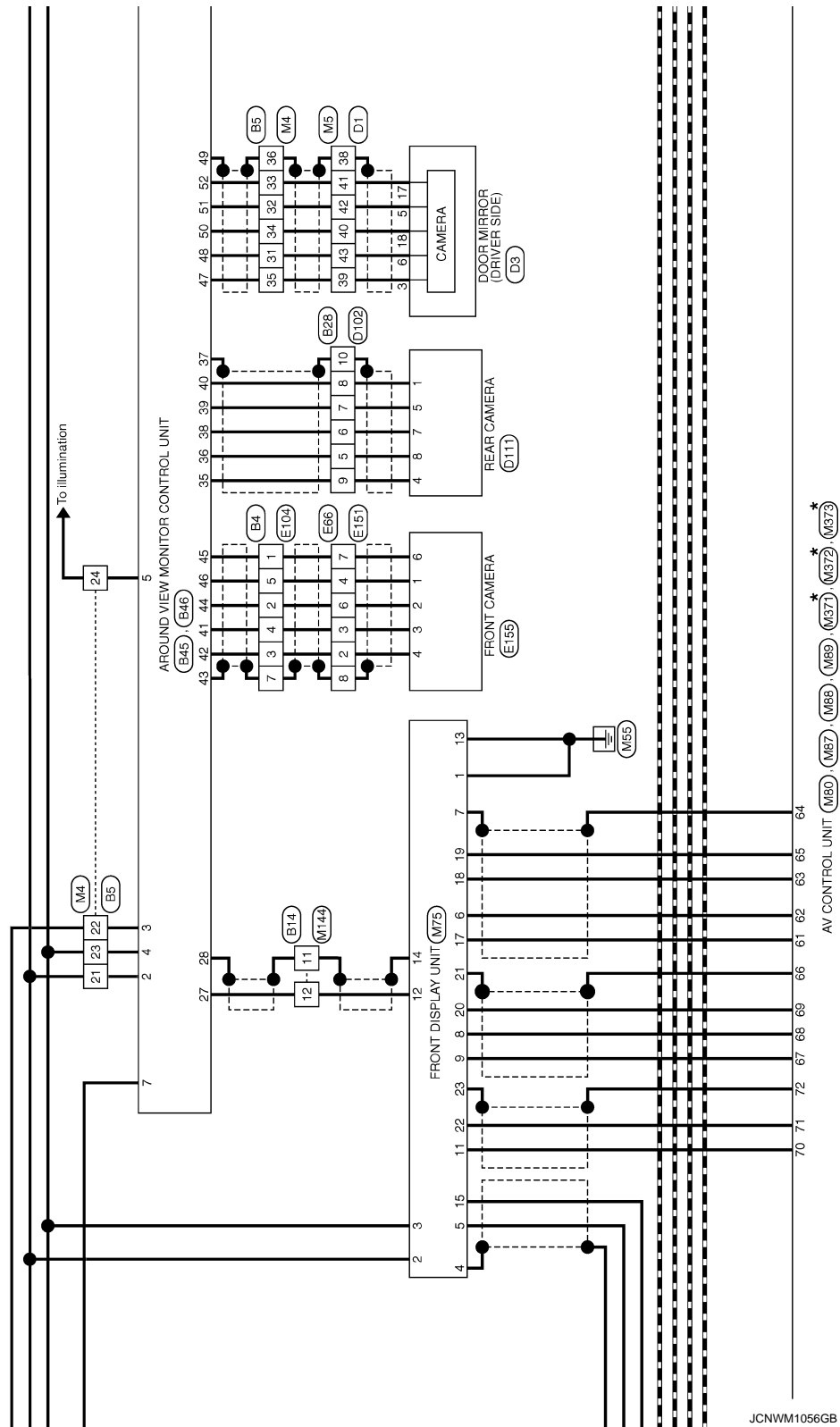


# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

\* : This connector is not shown in "Harness Layout".



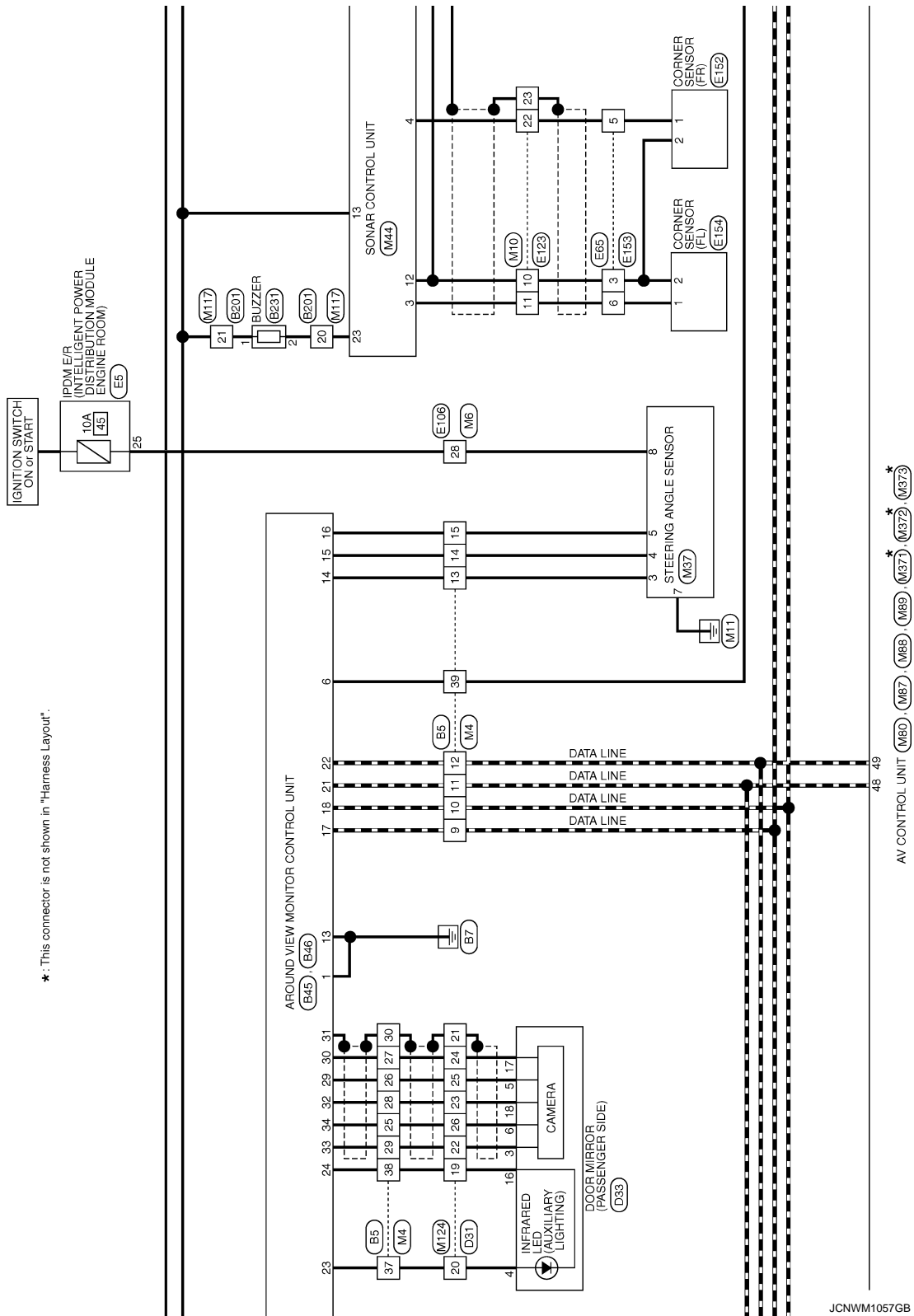
JCNWM1056GB



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]



\*: This connector is not shown in "Harness Layout".

JCNWM1057GB

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O  
P

AV



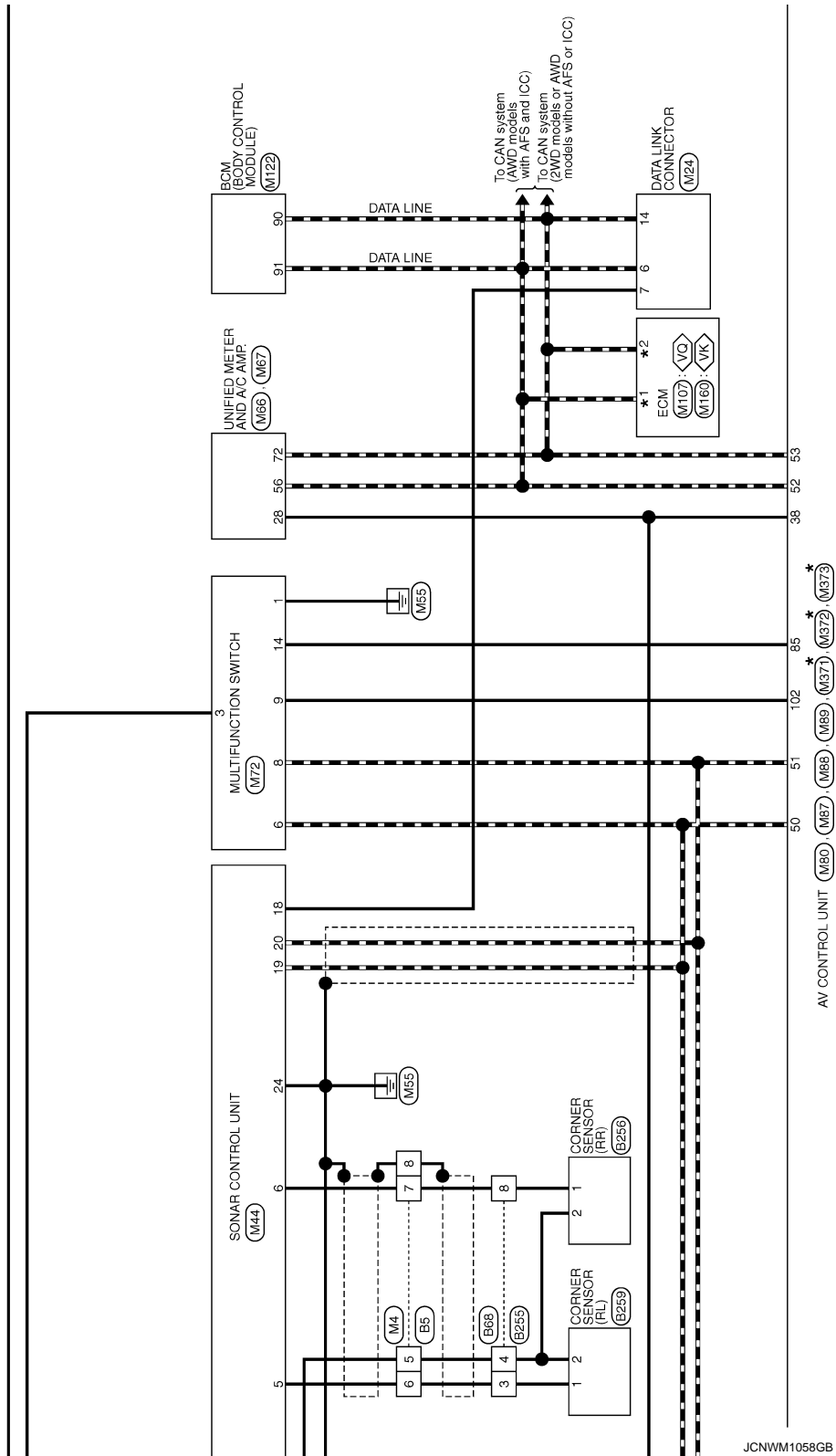
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

VQ : With VQ engine  
 VK : With VK engine  
 \*1 114 : VQ  
 105 : VK  
 \*2 113 : VQ  
 101 : VK

\* : This connector is not shown in "Harness Layout".





< ECU DIAGNOSIS INFORMATION >

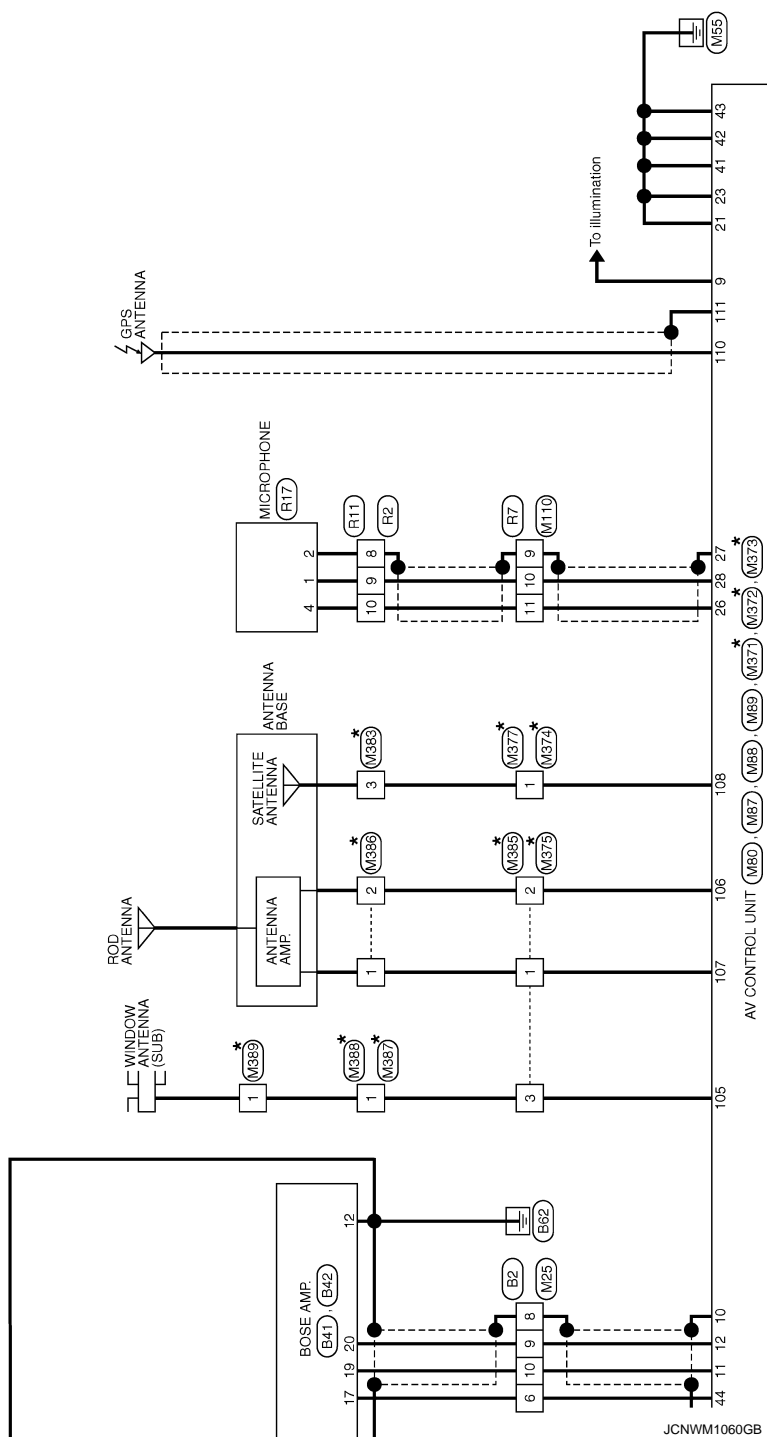
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P





< ECU DIAGNOSIS INFORMATION >

★: This connector is not shown in "Harness Layout".





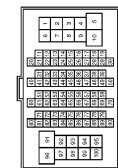
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

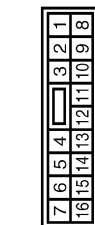
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

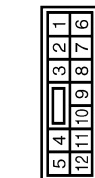


66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

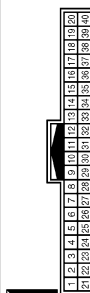


Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

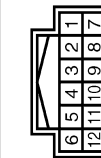


21	Y	-
22	G	-
23	LG	-
24	R	-
25	L	-
26	R	-
27	Y	-
28	W	-
29	BR	-
30	SHIELD	-
31	L	-
32	R	-
33	Y	-
34	W	-
35	BR	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1061GB

AV



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

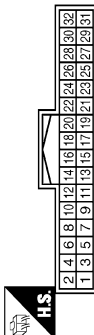
[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



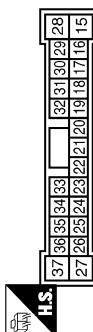
Connector No.	B26
Connector Name	REAR DISPLAY UNIT
Connector Type	TH432FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	Y	BATTERY
4	LG	BATTERY
5	P	HEADPHONE ON SIGNAL
6	GR	ACC
8	SHIELD	SHIELD
9	V	COMM (DISP->DIST)
10	SB	COMM (DISP->DISP)
11	O	IGNITION
12	SHIELD	SHIELD

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1DFBR-SQA4



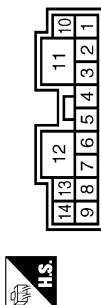
Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



13	G	-
14	R	COMPOSITE IMAGE SIGNAL
15	BR	RGB AREA (YS) SIGNAL
16	B	GND
17	Y	YP
18	O	HP
19	B	RGB GND
20	G	RGB (B BLUE) SIGNAL
21	R	RGB (G GREEN) SIGNAL
22	W	RGB (R RED) SIGNAL
25	Y	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
26	P	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
27	BR	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
28	L	HEADPHONE SOUND SIGNAL SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL FRONT RH (-)
22	SB	SOUND SIGNAL REAR LH (+)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (+)
11	GR	BATTERY



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



42	44	46	48	50	52	54	56	58	60	62	64
41	43	45	47	49	51	53	55	57	59	61	63

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Connector No.	B48
Connector Name	REAR SQUARE LH
Connector Type	TK02FBR



2	1
---	---



2	4	6
1	3	5

Connector No.	B51
Connector Name	WOOFER
Connector Type	RS00FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL WOOFER (-)
2	G	SOUND SIGNAL WOOFER (+)
4	L	WOOFER AMP. ON SIGNAL
5	B	GND
6	W	BATTERY

Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



5	14	15	16	17	18	19	20	21	22	23	24
1	3	7	11	13	17	19	21	23	25	27	29

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
8	V	VEHICLE SPEED (8-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	P	-
9	L	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	R	-
15	G	-
16	SHIELD	-
17	Y	-

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (+)
24	G	LED (-)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH COMM
33	BR	SIDE CAMERA RH POWER SUPPLY
34	L	REAR CAMERA COMM
35	W	REAR CAMERA POWER SUPPLY
36	G	SHIELD
37	SHIELD	SHIELD
38	L	REAR CAMERA IMAGE SIGNAL
39	Y	REAR CAMERA IMAGE GND
40	BR	REAR CAMERA IMAGE GND

18	O	-
19	BR	-
27	GR	-
28	LG	-
29	Y	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

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# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

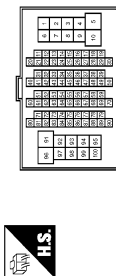
Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS38MW-CS



Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS38MGY



Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH30FW-CS16-TM4



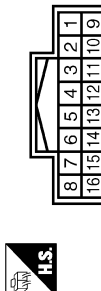
20	GR	-	[With NAV]
21	L	-	[With NAV]
22	B	-	[With entertainment system]
23	W	-	[With entertainment system]
24	R	-	[With entertainment system]
25	SHIELD	-	[With entertainment system]
26	SB	-	-
27	V	-	-
28	SHIELD	-	-
29	O	-	-
30	P	-	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
11	BR	-
12	V	-
13	SHIELD	-
14	G	-
15	R	-
16	SHIELD	-
17	LG	-
18	GR	-
19	V	-

Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
5	P	-
6	SHIELD	-
7	G	-
8	W	-
13	L	-
14	SHIELD	-
15	B	-
16	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	GR	-

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# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



3	2	1
8	7	6
5	4	

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-HH



20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

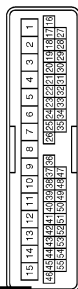
[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
18	G	-
17	L	-
18	BR	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

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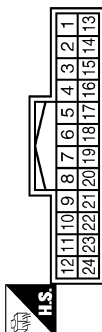
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

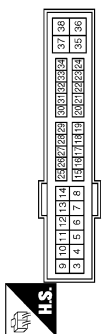
Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH68MW-NH



Connector No.	E5
Connector Name	SPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

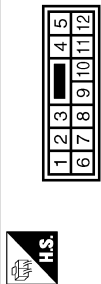
Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

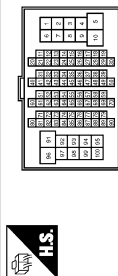
Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



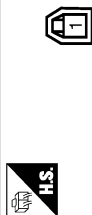
Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE801FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

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# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS08MB-FR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



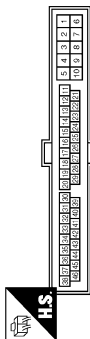
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

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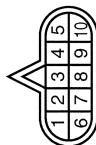
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSGFW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

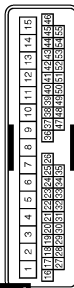
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

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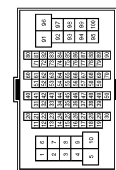
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

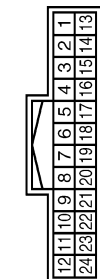
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



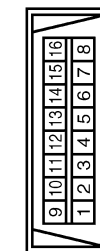
Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

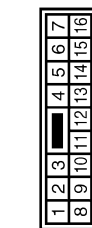


Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

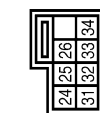
Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



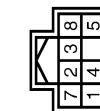
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-IV



Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

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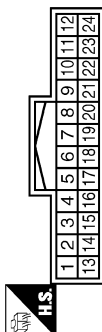
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M44
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



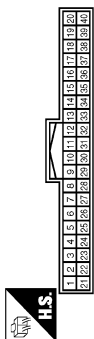
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
16	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FER



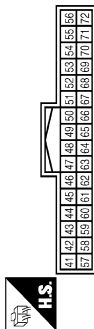
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH22FW-NH

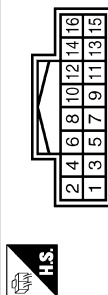


Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

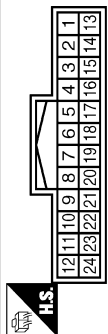
Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
13	B	GND
14	SHIELD	SHIELD
15	G	AUX IMAGE SIGNAL (Without entertainment system)
17	B	RGB (R RED) SIGNAL
18	R	RGB (B BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT)
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	G	AUX IMAGE GND (With entertainment system)
6	W	RGB (G GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

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# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-GS2



1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20							

13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP. ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
9	R	ILLUMINATION
10	B	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH



62	64	66	68	70	72
61	63	65	67	69	71

Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R RED) SIGNAL
62	W	RGB (G GREEN) SIGNAL
63	R	RGB (B BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (YS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH40FW-NH



27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104
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Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	V	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH



73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104

Terminal No.	Color of Wire	Signal Name [Specification]
79	Y	Pin4 SOUND SIGNAL LH (+) (With entertainment system)
80	R	Pin4 SOUND SIGNAL RH (+) (With entertainment system)
81	B	SHIELD
85	SB	DISK EJECT SIGNAL
95	BR	Pin4 SOUND SIGNAL LH (-) (With entertainment system)
96	G	Pin4 SOUND SIGNAL RH (-) (With entertainment system)
102	BR	SW GND

38	R	VEHICLE SPEED (8-PULSE)
41	B	CONTROL SIGNAL 1
42	B	CONTROL SIGNAL 2
43	B	CONTROL SIGNAL 3
44	SB	MODE CHANGE SIGNAL
48	G	AV COMM (H)
49	R	AV COMM (L)
50	LG	AV COMM (H)
51	V	AV COMM (L)
52	L	CAN-H
53	P	CAN-L



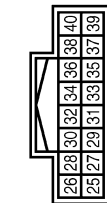
# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

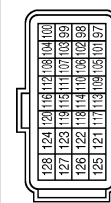
Connector No.	M97
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH16FW-NH



36	O	IGNITION
38	SHIELD	
39	V	COMM (DISP→DST)
40	SB	COMM (DST→DISP)



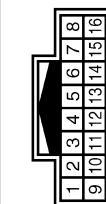
Terminal No.	Color of Wire	Signal Name [Specification]
25	W	RGB (R RED) SIGNAL
26	R	RGB (G GREEN) SIGNAL
27	B	RGB GND
28	G	RGB (B BLUE) SIGNAL
29	R	VP
30	W	HP
31	B	SHIELD
32	B	RGB AREA (YS) SIGNAL
33	G	-
34	R	COMPOSITE IMAGE SIGNAL
35	SHIELD	SHIELD



Connector No.	M107
Connector Name	ECM (WITH VQ ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z



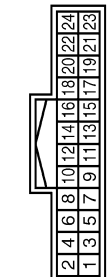
Connector No.	M110
Connector Name	WIRE TO WIRE
Connector Type	TH18MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-LI
114	L	VEHCAN-HI

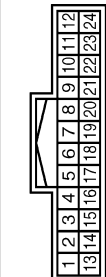
Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	- [With NAV]
11	G	- [With NAV]

Connector No.	M98
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH24FW-NH



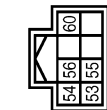
Terminal No.	Color of Wire	Signal Name [Specification]
3	G	AV COMM (H)
4	R	AV COMM (L)
6	G	COMPOSITE IMAGE GND
7	SHIELD	SHIELD
8	R	COMPOSITE IMAGE SIGNAL
19	W	AUX IMAGE SIGNAL
21	SHIELD	SHIELD
22	SHIELD	SHIELD
23	P	DVD IMAGE SIGNAL
24	L	-

Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (+)
2	BR	IPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	IPod BATTERY CHARGE
9	Y	COMM (IPod ADAPTER→IPod)
10	BR	COMM (IPod→IPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (+)

Connector No.	M99
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
53	B	GND
54	O	BATTERY
55	SB	ACC
56	G	IGNITION
60	P	HEADPHONE ON SIGNAL

14	Y	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	IPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	IPod SOUND SIGNAL GND
24	B	IPod SOUND SIGNAL LH (+)

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# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M112
Connector Name	iPod SIDE
Connector Type	IP16GY



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16		

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	iPod SOUND SIGNAL LH (+)
2	W	iPod SOUND SIGNAL GND
5	BR	COMM (iPod->iPod ADAPTER)
6	Y	COMM (iPod ADAPTER->iPod)
7	R	iPod SOUND SIGNAL RH (+)
9	SB	iPod CONNECTION RECOGNITION
10	B	GND
12	W	iPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16P-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
11	BR	-
12	Y	-
13	SHIELD	-
14	G	-
15	R	-
16	SHIELD	-
17	Y	-
18	Y	-
19	LG	-

20	GR	- [With NAVI]
21	V	-
22	B	- [With entertainment system]
23	W	- [With entertainment system]
24	R	- [With entertainment system]
25	SHIELD	- [With entertainment system]
26	SB	-
27	V	-
28	SHIELD	-
29	O	-
30	P	-

Connector No.	M122
Connector Name	BCM BODY CONTROL MODULE
Connector Type	TH40FB-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M139
Connector Name	WIRE TO WIRE
Connector Type	TH2FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-
5	G	-
6	BR	-
7	Y	-
8	R	-
9	B	-
10	W	-
11	SB	-
15	BR	-
16	LG	-
18	R	-

Connector No.	M180
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z



128	124	123	118	112	108	104	101
127	123	118	113	111	107	103	99
126	122	118	114	110	106	102	98
125	121	117	113	109	105	101	97

Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

19	SHIELD	-
20	SHIELD	-
21	R	-
22	Y	-
23	BR	-
24	G	-
26	B	-
27	SB	-
28	L	-
29	P	-
30	SHIELD	-
31	L	-
32	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	SHIELD	-
7	G	-
8	W	-
12	R	-
14	SHIELD	-
15	B	-
16	R	-

19	B	-
20	B	-
21	R	-
22	Y	-
23	BR	-
24	G	-
26	B	-
27	G	-
28	L	-
29	P	-
30	B	-
31	L	-
32	B	-

Connector No.	M140
Connector Name	WIRE TO WIRE
Connector Type	TH1BMW-NH



1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MNF-NH



1	2	3	4	5	6
7	8	9	10	11	12

JCNWM1075GB



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M182
Connector Name	DVD PLAYER
Connector Type	TH22PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ILLUMINATION
4	V	ACC
5	B	SHIELD
7	P	DVD IMAGE SIGNAL
9	L	—
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)



Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU

16	B	SHIELD
17	G	HEADPHONE SOUND SIGNAL LH (+)
18	R	HEADPHONE SOUND SIGNAL LH (-)
19	BR	HEADPHONE SOUND SIGNAL RH (+)
20	Y	HEADPHONE SOUND SIGNAL RH (-)
21	Y	SOUND SIGNAL LH (+)
22	BR	SOUND SIGNAL LH (-)
23	R	SOUND SIGNAL RH (+)
24	G	SOUND SIGNAL RH (-)
25	B	SHIELD
27	B	—
29	R	AV COMM (L)
30	G	AV COMM (H)



Connector No.	M372
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	FAKRA JACK

Terminal No.	Color of Wire	Signal Name [Specification]
108	—	SAETLITE ANTENNA

Connector No.	M183
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



1	2	3	7	8
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Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	SB	AUX SOUND SIGNAL GND
3	B	AUX SOUND SIGNAL LH (+)
7	W	AUX IMAGE SIGNAL
8	SHIELD	SHIELD



Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
110	—	GPS ANTENNA
111	SHIELD	SHIELD

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



20	19	18	17	16	15	14	13
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Terminal No.	Color of Wire	Signal Name [Specification]
14	W	—
15	L	—
17	BR	—



Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	—	—

JCNWM1076GB



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M383
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	JASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1077GB

AV



# AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	MICROPHONE SIGNAL
2	SHIELD	MICROPHONE GND
4	L	MICROPHONE VCC

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	-	-
9	L	-
10	R	-

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	-
11	G	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
8	SHIELD	-
9	R	-
10	G	-

JCNWM1078GB



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

### Reference Value

INFOID:000000003825628

### VALUES ON THE DIAGNOSIS TOOL

#### CONSULT-III MONITOR ITEM

Monitor Item	Condition		Value/Status
SONAR OPE	Ignition switch ON	Around view monitor operating (sonar operating).	On
		Around view monitor non-operating (sonar non-operating).	Off
BUZZER OUTPUT	Ignition switch ON	Buzzer is output condition.	On
		Buzzer is not output condition.	Off
CR SEN [FL]	Ignition switch ON	When a sensor is abnormal.	ERROR
		When a sensor is not detection.	LV.0
		The distance between the corner sensor and an obstacle is 50 cm (19.6 in) or more and less then 60 cm (23.6 in).	LV.2
		The distance between the corner sensor and an obstacle is 30 cm (11.8 in) or more and less then 50 cm (19.6 in).	LV.3
		The distance between corner sensor and an obstacle less than 30 cm (11.8 in).	LV.4
CR SEN [FR]	Ignition switch ON	When a sensor is abnormal.	ERROR
		When a sensor is not detection.	LV.0
		The distance between the corner sensor and an obstacle is 50 cm (19.6 in) or more and less then 60 cm (23.6 in).	LV.2
		The distance between the corner sensor and an obstacle is 30 cm (11.8 in) or more and less then 50 cm (19.6 in).	LV.3
		The distance between corner sensor and an obstacle less than 30 cm (11.8 in).	LV.4
CR SEN [RL]	Ignition switch ON	When a sensor is abnormal.	ERROR
		When a sensor is not detection.	LV.0
		The distance between the corner sensor and an obstacle is 50 cm (19.6 in) or more and less then 60 cm (23.6 in).	LV.2
		The distance between the corner sensor and an obstacle is 30 cm (11.8 in) or more and less then 50 cm (19.6 in).	LV.3
		The distance between corner sensor and an obstacle less than 30 cm (11.8 in).	LV.4
CR SEN [RR]	Ignition switch ON	When a sensor is abnormal.	ERROR
		When a sensor is not detection.	LV.0
		The distance between the corner sensor and an obstacle is 50 cm (19.6 in) or more and less then 60 cm (23.6 in).	LV.2
		The distance between the corner sensor and an obstacle is 30 cm (11.8 in) or more and less then 50 cm (19.6 in).	LV.3
		The distance between corner sensor and an obstacle less than 30 cm (11.8 in).	LV.4

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AV

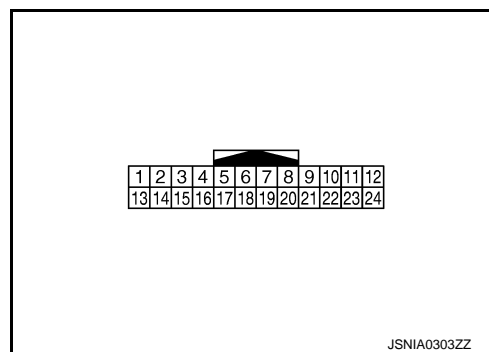


# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

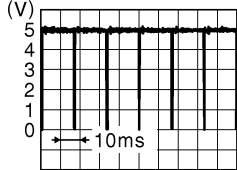
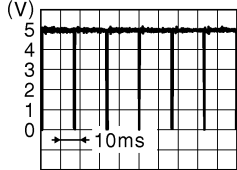
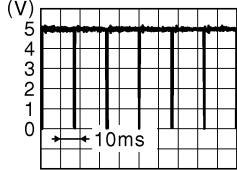
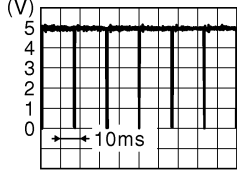
< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## TERMINAL LAYOUT



## PHYSICAL VALUES

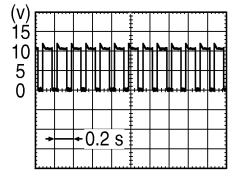
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
3 (W)	12 (B)	Corner sensor signal front LH	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0837GB
4 (R)	12 (B)	Corner sensor signal front RH	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0837GB
5 (L)	12 (B)	Corner sensor signal rear LH	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0837GB
6 (Y)	12 (B)	Corner sensor signal rear RH	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	 JSNIA0837GB
12 (B)	Ground	Sensor ground	—	Ignition switch ON	—	0 V
13 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	12.0 V
18 (P)	—	K-line (CONSULT-III)	—	—	—	—



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
19 (G)	—	AV communication (H)	Input/ Output	—	—	—
20 (R)	—	AV communication (L)	Input/ Output	—	—	—
23 (GR)	Ground	Buzzer drive signal	Output	Ignition switch ON	When buzzer operation	<b>NOTE:</b> Waveform period changes due to the distance to an obstacle. 
24 (B)	Ground	Ground	—	Ignition switch ON	—	0 V

## Wiring Diagram - BOSE AUDIO WITH NAVIGATION (TWIN MONITOR) -

INFOID:0000000003827017

**NOTE:**

AV

O

P

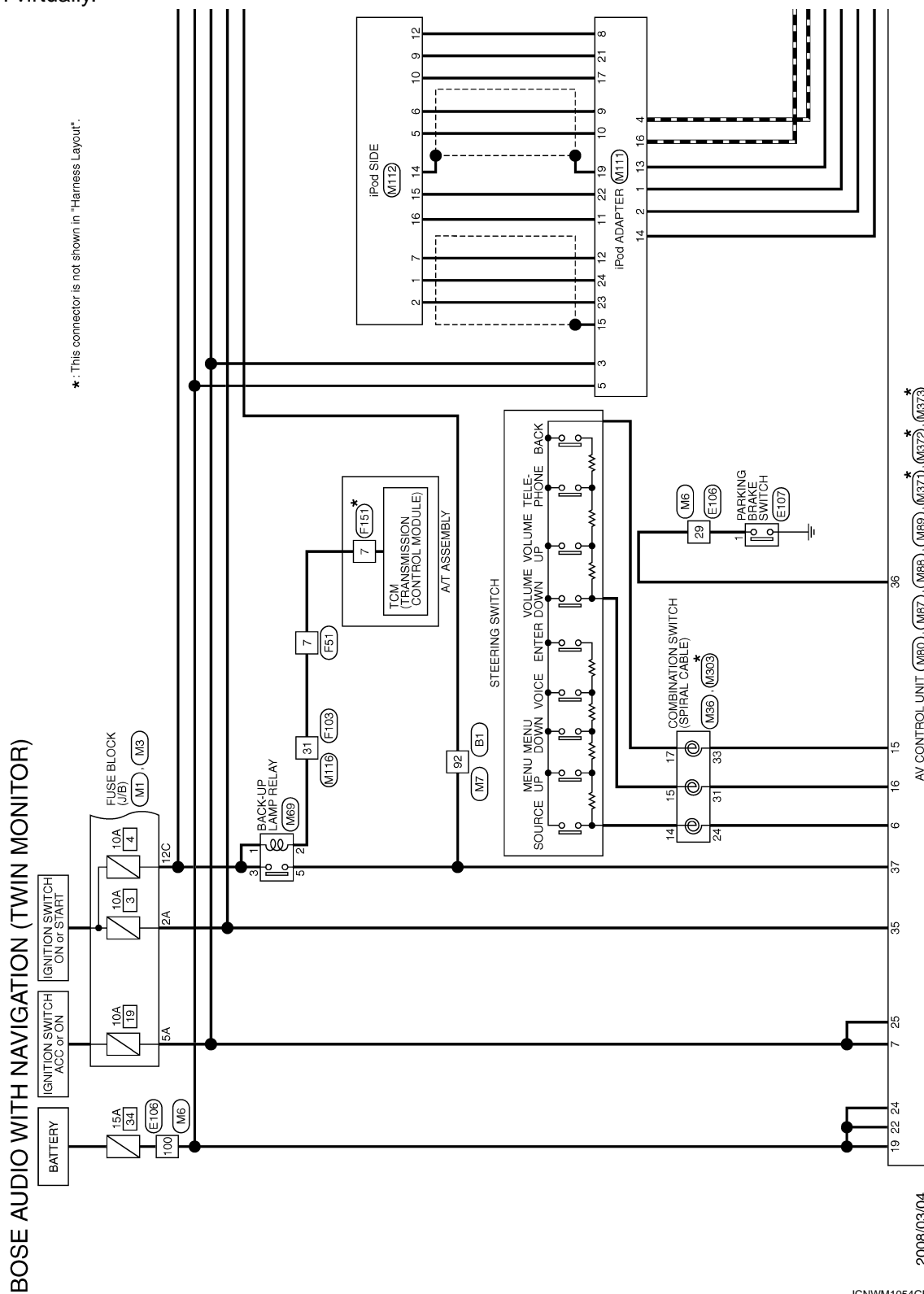


# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.





< ECU DIAGNOSIS INFORMATION >

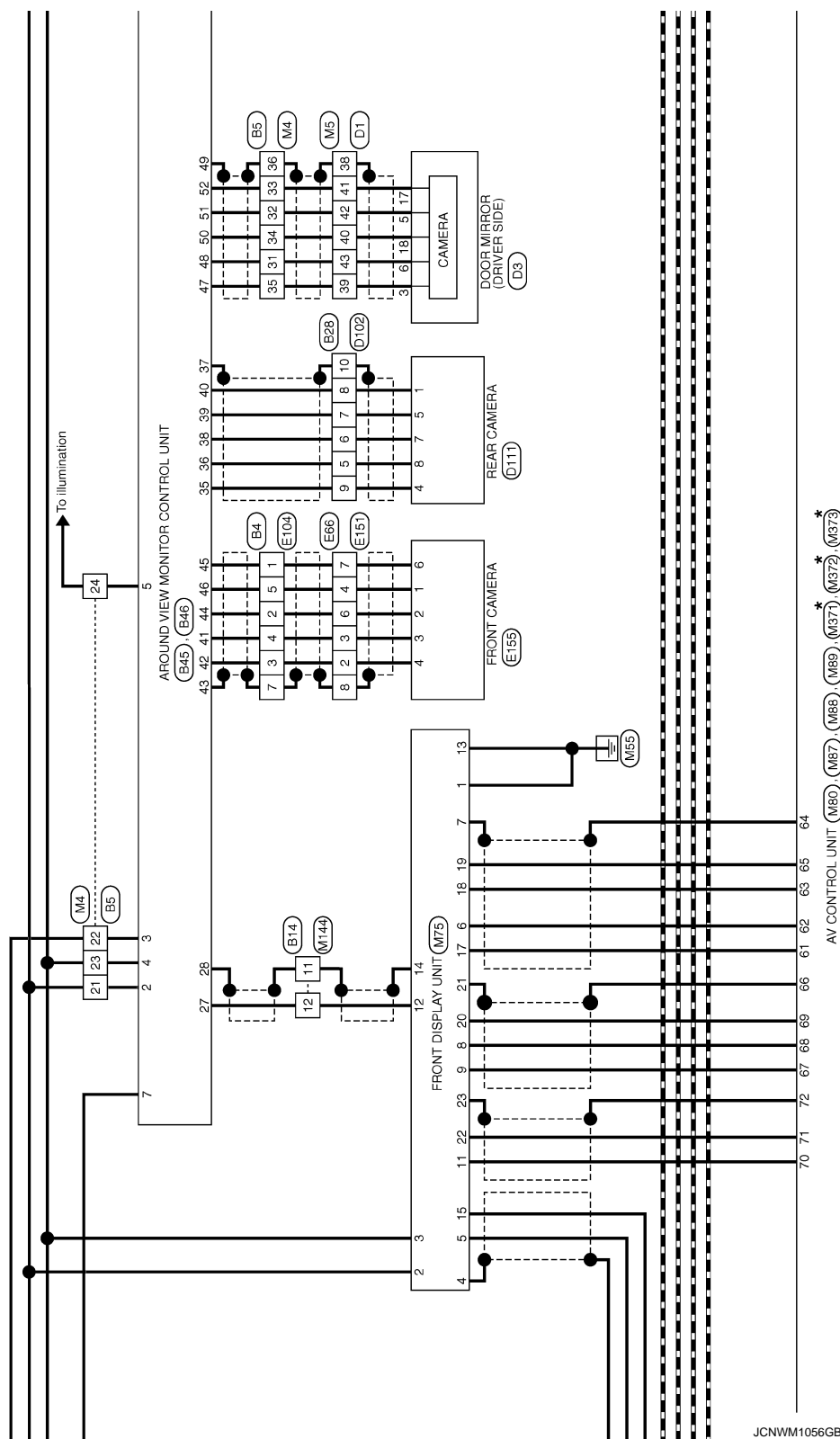
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The diagram illustrates the wiring for the rear display unit (B26) and its associated components. The rear display unit (B26) is connected to the DVD player (M182) via pins 1 through 32. The DVD player (M182) is connected to the auxiliary input jacks (M183) via pins 1 through 32. The auxiliary input jacks (M183) are connected to the AV control unit (M80) via pins 1 through 32. The AV control unit (M80) is connected to the video distributor (M97, M98, M99) via pins 1 through 32. The video distributor (M97, M98, M99) is connected to the rear display unit (B26) via pins 1 through 32. The diagram also shows connections to various other components, including M117, B66, B243, B62, M139, M181, M188, M137, M372, and M373. A 'To illumination' label points to a specific connection point.



< ECU DIAGNOSIS INFORMATION >

★: This connector is not shown in "Harness Layout".

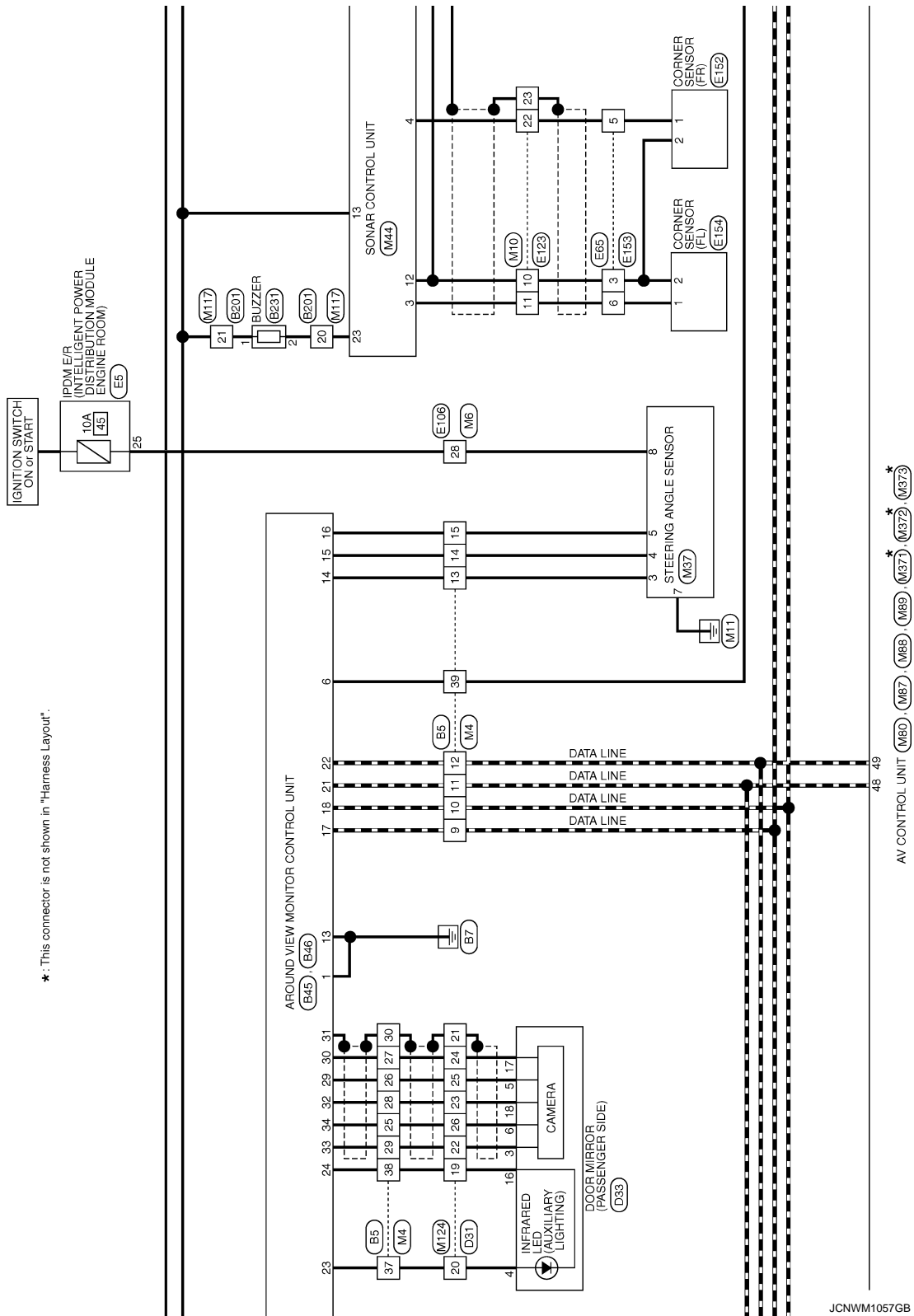




# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]



JCNWM1057GB

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AV



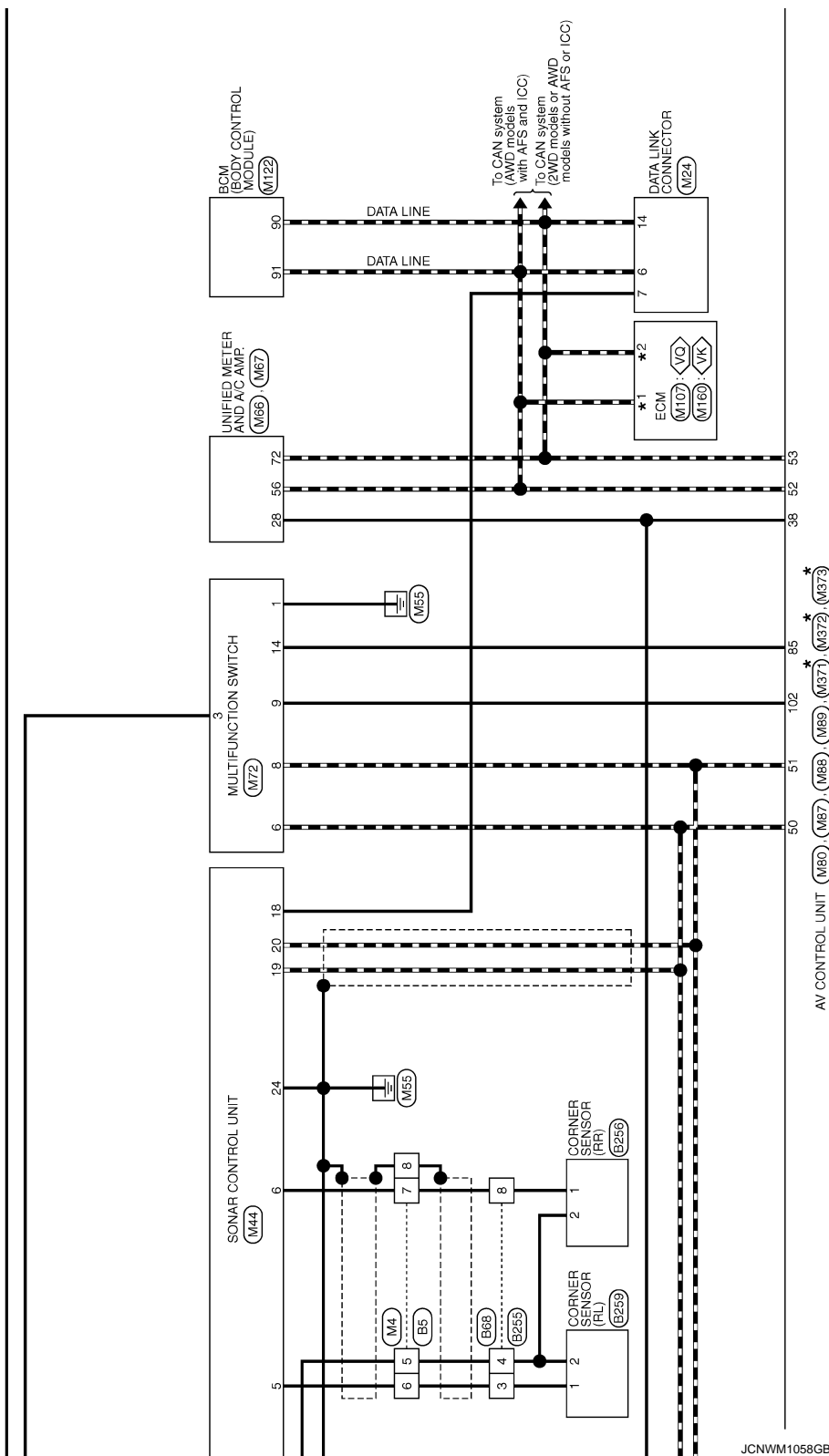
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

◇ : With VQ engine  
 ◇ : With VK engine  
 \*1 114 : ◇  
 105 : ◇  
 \*2 113 : ◇  
 101 : ◇

\* : This connector is not shown in "Harness Layout".



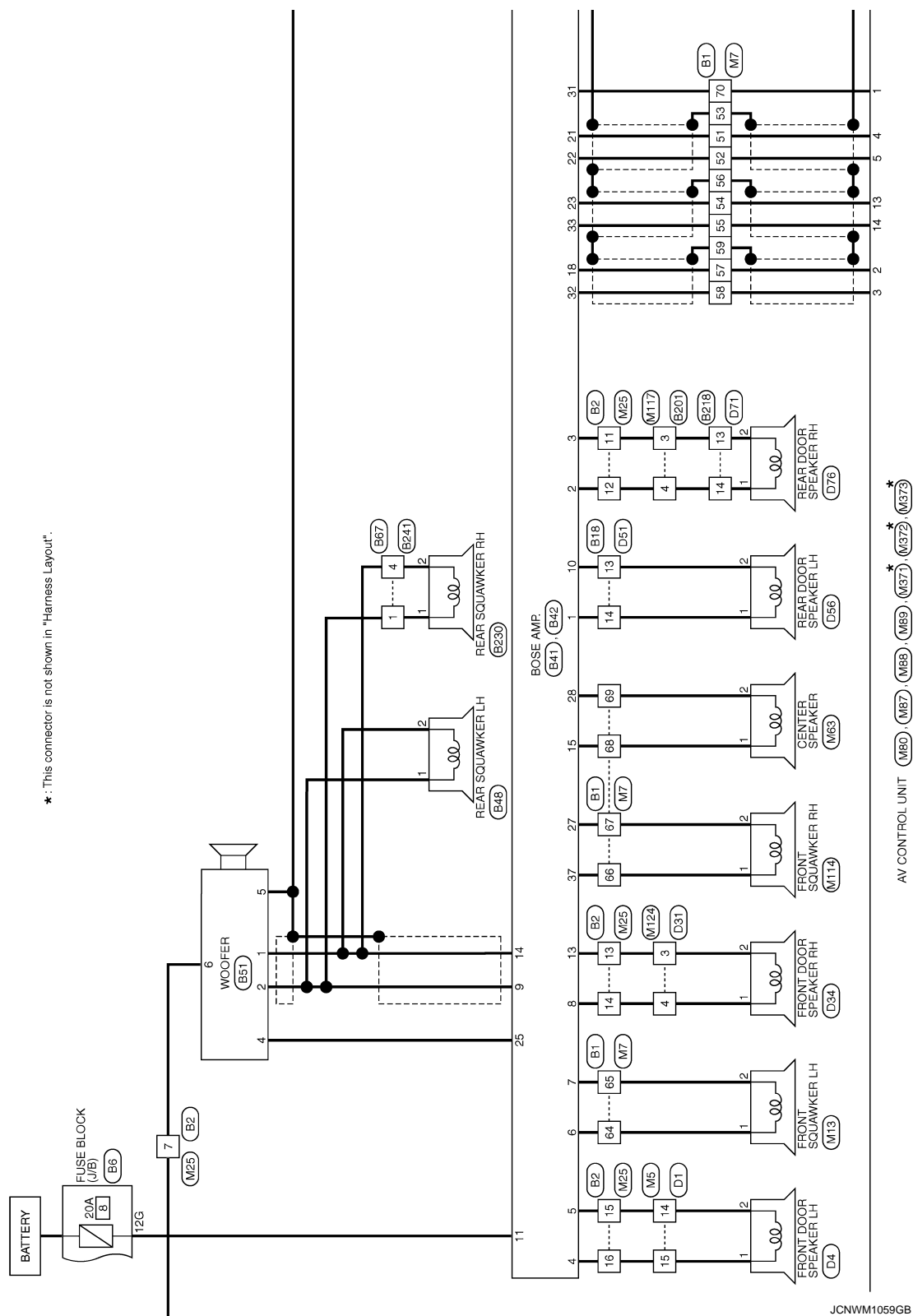
JCNWM1058GB



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]



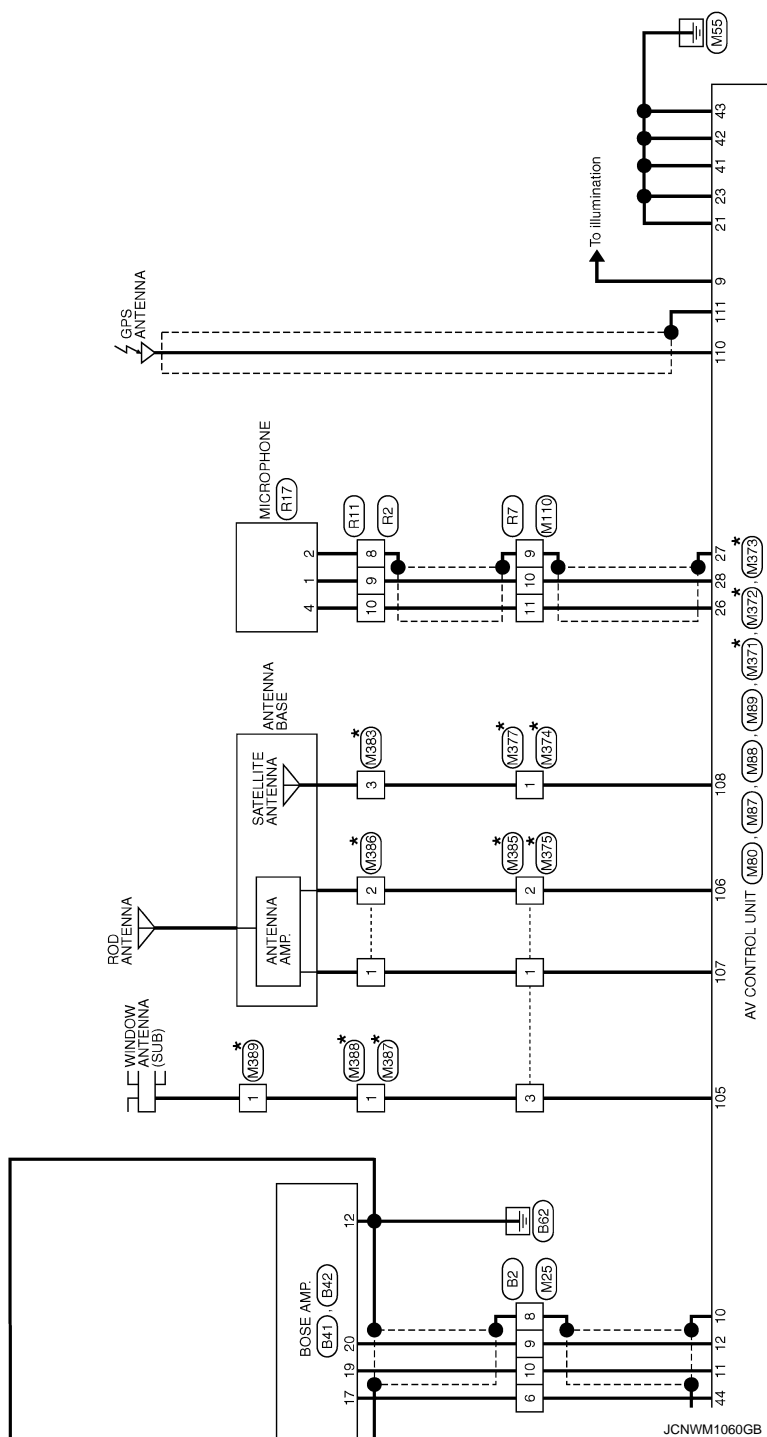


# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

★: This connector is not shown in "Harness Layout".





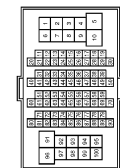
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

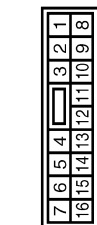
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

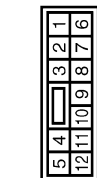


66	V	-
67	LG	-
68	Y	-
69	G	-
70	GR	-
92	O	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

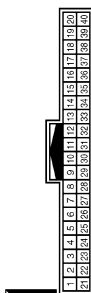


Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	SB	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	O	-
65	W	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	O	-
7	W	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	BR	-
4	L	-
5	G	-
7	SHIELD	-

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

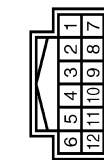


21	Y	-
22	G	-
23	LG	-
24	R	-
25	L	-
26	R	-
27	Y	-
28	W	-
29	BR	-
30	SHIELD	-
31	L	-
32	R	-
33	Y	-
34	W	-
35	BR	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Connector No.	B14
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	W	-
7	R	-
8	SHIELD	-
9	W	-
10	P	-
11	O	-
12	V	-
13	GR	-
14	SB	-
15	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
12G	GR	-

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

JCNWM1061GB

AV



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

10	9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11		


Connector No.	B26
Connector Name	REAR DISPLAY UNIT
Connector Type	TH32FW-NH

2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	Y	BATTERY
4	LG	BATTERY
5	P	HEADPHONE ON SIGNAL
6	GR	ACC
8	SHIELD	SHIELD
9	V	COMM (DISP->DIST)
10	SB	COMM (DIST->DISP)
11	O	IGNITION
12	SHIELD	SHIELD

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA19FR-SQA4

 <b>H.S.</b>	37	36	35	34	33		32	31	30	29	28	
	27	26	25	24	23	22	21	20	19	18	17	16

Terminal No.	Color of Wire	Signal Name [Specification]
15	Y	SOUND SIGNAL CENTER (+)
17	O	MODE CHANGE SIGNAL
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL FRONT RH (-)
22	SB	SOUND SIGNAL REAR LH (+)
23	BR	SOUND SIGNAL REAR RH (+)
25	L	WOOFER AMP. ON SIGNAL
27	LG	SOUND SIGNAL FRONT SQUAWKER RH (-)
28	G	SOUND SIGNAL CENTER (-)

13	G	-
14	R	COMPOSITE IMAGE SIGNAL
15	BR	RGB AREA (YS) SIGNAL
16	B	GND
17	Y	VP
18	O	HP
19	B	RGB GND
20	G	RGB (B BLUE) SIGNAL
21	R	RGB (G GREEN) SIGNAL
22	W	RGB (R RED) SIGNAL
25	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
26	P	HEADPHONE SOUND SIGNAL SIGNAL LH (-)
27	BR	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
28	L	HEADPHONE SOUND SIGNAL SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	BR	-
9	W	-
10	SHIELD	-

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

14	13	12	11	10				
9	8	7	6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	SOUND SIGNAL REAR DOOR LH (+)
2	SB	SOUND SIGNAL REAR DOOR RH (+)
3	V	SOUND SIGNAL REAR DOOR RH (-)
4	L	SOUND SIGNAL FRONT DOOR SPEAKER LH (-)
5	P	SOUND SIGNAL FRONT DOOR SPEAKER LH (+)
6	O	SOUND SIGNAL FRONT SQUAWKER LH (+)
7	W	SOUND SIGNAL FRONT SQUAWKER LH (-)
8	LG	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
9	G	SOUND SIGNAL WOOFER AND REAR SQUAWKER (+)
10	G	SOUND SIGNAL REAR DOOR LH (+)
11	GR	BATTERY

12	B	GND
13	Y	SOUND SIGNAL FRONT DOOR SPEAKER RH (-)
14	R	SOUND SIGNAL WOOFER AND REAR SQUAWKER (-)

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# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B45
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



42	44	46	48	50	52	54	56	58	60	62	64
41	43	45	47	49	51	53	55	57	59	61	63

Terminal No.	Color of Wire	Signal Name [Specification]
41	L	FRONT CAMERA IMAGE SIGNAL
42	BR	FRONT CAMERA IMAGE GND
43	SHIELD	SHIELD
44	Y	FRONT CAMERA GND
45	W	FRONT CAMERA COMM
46	G	FRONT CAMERA POWER SUPPLY
47	BR	SIDE CAMERA LH COMM
48	L	SIDE CAMERA LH POWER SUPPLY
49	SHIELD	SHIELD
50	W	SIDE CAMERA LH GND
51	R	SIDE CAMERA LH IMAGE SIGNAL

Connector No.	B48
Connector Name	REAR SQUARE LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

52	Y	SIDE CAMERA LH IMAGE GND
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Connector No.	B46
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH24FW-NH



5	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	G	IGNITION
4	LG	ACC
5	R	ILLUMINATION
6	V	VEHICLE SPEED (8-PULSE)
7	O	REVERSE
13	B	CONTROL SIGNAL
14	GR	SENSOR SIGNAL 1
15	SB	SENSOR SIGNAL 2
16	L	SENSOR SIGNAL 3

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	P	-
9	L	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	R	-
15	G	-
16	SHIELD	-
17	Y	-

17	W	AV COMM (H)
18	P	AV COMM (L)
21	O	AV COMM (H)
22	V	AV COMM (L)
23	LG	LED (+)
24	G	LED (-)
27	W	CAMERA IMAGE SIGNAL
28	SHIELD	SHIELD
29	R	SIDE CAMERA RH IMAGE SIGNAL
30	Y	SIDE CAMERA RH IMAGE GND
31	SHIELD	SHIELD
32	W	SIDE CAMERA RH COMM
33	BR	SIDE CAMERA RH POWER SUPPLY
34	L	REAR CAMERA COMM
35	W	REAR CAMERA POWER SUPPLY
36	G	SHIELD
37	SHIELD	SHIELD
38	L	REAR CAMERA IMAGE SIGNAL
39	Y	REAR CAMERA IMAGE GND
40	BR	REAR CAMERA IMAGE GND

18	O	-
19	BR	-
27	GR	-
28	LG	-
29	Y	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

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# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS38MW-CS



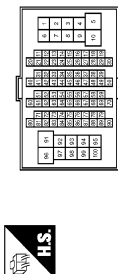
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
4	R	

Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RS38MGY



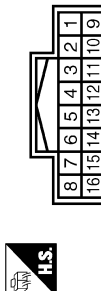
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	
4	B	
8	R	

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH30FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
3	V	
4	SB	
11	BR	
12	Y	
13	SHIELD	
14	G	
15	R	
16	SHIELD	
17	LG	
18	GR	
19	V	

Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Connector No.	B230
Connector Name	REAR SQUAWKER RH
Connector Type	TK02FBR



Connector No.	B231
Connector Name	BUZZER
Connector Type	RK02FBR-DGY



Terminal No.	Color of Wire	Signal Name [Specification]
5	P	
6	SHIELD	
7	G	
8	W	
13	L	
14	SHIELD	
15	B	
16	R	

Terminal No.	Color of Wire	Signal Name [Specification]
13	V	
14	SB	

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
2	R	

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	
2	GR	

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# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



3	2	1
8	7	6
5	4	

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-HH



23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
4	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	-
8	R	-
9	G	-
10	SHIELD	-
11	Y	-
12	BR	-
13	SHIELD	-
14	L	-
15	P	-
16	SHIELD	-
17	R	-

18	W	-
19	B	-
27	V	-
28	GR	-
29	LG	-
30	P	-
31	O	-
32	SHIELD	-
33	V	-
34	SB	-
35	SHIELD	-
36	B	-
37	G	-
38	R	-
39	W	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RS08FGY



4	3	2	1
8	7	6	5

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	B	-
8	R	-

Connector No.	B256
Connector Name	CORNER SENSOR (RR)
Connector Type	YDX02FB



Connector No.	B259
Connector Name	CORNER SENSOR (RL)
Connector Type	YDX02FB



Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
17	16	15	14	13	12	11	10	9	8	7	6	5	4	3
18	17	16	15	14	13	12	11	10	9	8	7	6	5	4
19	18	17	16	15	14	13	12	11	10	9	8	7	6	5
20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
21	20	19	18	17	16	15	14	13	12	11	10	9	8	7
22	21	20	19	18	17	16	15	14	13	12	11	10	9	8
23	22	21	20	19	18	17	16	15	14	13	12	11	10	9
24	23	22	21	20	19	18	17	16	15	14	13	12	11	10
25	24	23	22	21	20	19	18	17	16	15	14	13	12	11
26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
28	27	26	25	24	23	22	21	20	19	18	17	16	15	14
29	28	27	26	25	24	23	22	21	20	19	18	17	16	15
30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18
33	32	31	30	29	28	27	26	25	24	23	22	21	20	19
34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
36	35	34	33	32	31	30	29	28	27	26	25	24	23	22
37	36	35	34	33	32	31	30	29	28	27	26	25	24	23
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39	38	37	36	35	34	33	32	31	30	29	28	27	26	25
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26
41	40	39	38	37	36	35	34	33	32	31	30	29	28	27
42	41	40	39	38	37	36	35	34	33	32	31	30	29	28
43	42	41	40	39	38	37	36	35	34	33	32	31	30	29
44	43	42	41	40	39	38	37	36	35	34	33	32	31	30
45	44	43	42	41	40	39	38	37	36	35	34	33	32	31
46	45	44	43	42	41	40	39	38	37	36	35	34	33	32
47	46	45	44	43	42	41	40	39	38	37	36	35	34	33
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34
49	48	47	46	45	44	43	42	41	40	39	38	37	36	35
50	49	48	47	46	45	44	43	42	41	40	39	38	37	36
51	50	49	48	47	46	45	44	43	42	41	40	39	38	37
52	51	50	49	48	47	46	45	44	43	42	41	40	39	38
53	52	51	50	49	48	47	46	45	44	43	42	41	40	39
54	53	52	51	50	49	48	47	46	45	44	43	42	41	40
55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
56	55	54	53	52	51	50	49	48	47	46	45	44	43	42
57	56	55	54	53	52	51	50	49	48	47	46	45	44	43
58	57	56	55	54	53	52	51	50	49	48	47	46	45	44
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
60	59	58	57	56	55	54	53	52	51	50	49	48	47	46
61	60	59	58	57	56	55	54	53	52	51	50	49	48	47
62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
63	62	61	60	59	58	57	56	55	54	53	52	51	50	49
64	63	62	61	60	59	58	57	56	55	54	53	52	51	50
65	64	63	62	61	60	59	58	57	56	55	54	53	52	51
66	65	64	63	62	61	60	59	58	57	56	55	54	53	52
67	66	65	64	63	62	61	60	59	58	57	56	55	54	53
68	67	66	65	64	63	62	61	60	59	58	57	56	55	54
69	68	67	66	65	64	63	62	61	60	59	58	57	56	55
70	69	68	67	66	65	64	63	62	61	60	59	58	57	56
71	70	69	68	67	66	65	64	63	62	61	60	59	58	57
72	71	70	69	68	67	66	65	64	63	62	61	60	59	58
73	72	71	70	69	68	67	66	65	64	63	62	61	60	59
74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
75	74	73	72	71	70	69	68	67	66	65	64	63	62	61
76	75	74	73	72	71	70	69	68	67	66	65	64	63	62
77	76	75	74	73	72	71	70	69	68	67	66	65	64	63
78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
79	78	77	76	75	74	73	72	71	70	69	68	67	66	65
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66
81	80	79	78	77	76	75	74	73	72	71	70	69	68	67
82	81	80	79	78	77	76	75	74	73	72	71	70	69	68
83	82	81	80	79	78	77	76	75	74	73	72	71	70	69
84	83	82	81	80	79	78	77	76	75	74	73	72	71	70
85	84	83	82	81	80	79	78	77	76	75	74	73	72	71
86	85	84	83	82	81	80	79	78	77	76	75	74	73	72
87	86	85	84	83	82	81	80	79	78	77	76	75	74	73
88	87	86	85	84	83	82	81	80	79	78	77	76	75	74
89	88	87	86	85	84	83	82	81	80	79	78	77	76	75
90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
91	90	89	88	87	86	85	84	83	82	81	80	79	78	76
92	91	90	89	88	87	86	85	84	83	82	81	80	79	76
93	92	91	90	89	88	87	86	85	84	83	82	81	80	76
94	93	92	91	90	89	88	87	86	85	84	83	82	81	76
95	94	93	92	91	90	89	88	87	86	85	84	83	82	76
96	95	94	93	92	91	90	89	88	87	86	85	84	83	76
97	96	95	94	93	92	91	90	89	88	87	86	85	84	76
98	97	96	95	94	93	92	91	90	89	88	87	86	85	76
99	98	97	96	95	94	93	92	91	90	89	88	87	86	76
100	99	98	97	96	95	94	93	92	91	90	89	88	87	76
101	100	99	98	97	96	95	94	93	92	91	90	89	88	76
102	101	100	99	98	97	96	95	94	93	92	91	90	89	76
103	102	101	100	99	98	97	96	95	94	93	92	91	90	76



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

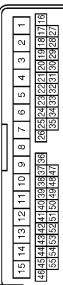
## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
4	L	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	BR	-
24	L	-
25	Y	-
26	R	-

Connector No.	D33
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	LG	-
5	Y	-
6	R	-
18	G	-
17	L	-
18	BR	-

Connector No.	D34
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D55
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
13	V	-
14	SB	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	V	-

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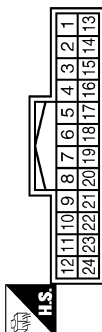
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

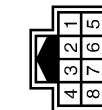
[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



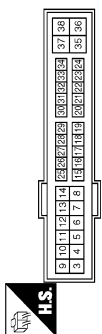
Connector No.	D111
Connector Name	REAR CAMERA
Connector Type	TH68MH-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-
6	G	-
7	Y	-
8	L	-
9	W	-
10	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	REAR CAMERA IMAGE GND
4	W	REAR CAMERA COMM
5	Y	REAR CAMERA IMAGE SIGNAL
7	G	REAR CAMERA GND
8	R	REAR CAMERA POWER SUPPLY

Connector No.	E5
Connector Name	SPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-IV



Terminal No.	Color of Wire	Signal Name [Specification]
25	G	-

Connector No.	E65
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR

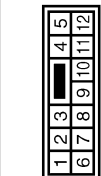


Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-
5	Y	-
6	L	-

Connector No.	E66
Connector Name	WIRE TO WIRE
Connector Type	RS08FB-PR



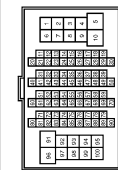
Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	L	-
4	Y	-
5	R	-
7	SHIELD	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	G	-
29	LG	-
100	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH
Connector Type	TE801FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

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# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	E123
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	G	-
11	L	-
22	Y	-
23	SHIELD	-

Connector No.	E151
Connector Name	WIRE TO WIRE
Connector Type	RS08MB-FR



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	-
3	Y	-
4	R	-
6	BR	-
7	W	-
8	SHIELD	-

Connector No.	E152
Connector Name	CORNER SENSOR (FR)
Connector Type	YDX02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E153
Connector Name	WIRE TO WIRE
Connector Type	RS06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
5	R	-
6	W	-

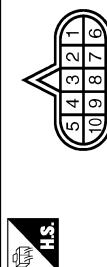
Connector No.	E154
Connector Name	CORNER SENSOR (FL)
Connector Type	YDX02FB



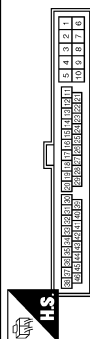
Connector No.	E155
Connector Name	FRONT CAMERA
Connector Type	RH06FB



Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	FRONT CAMERA POWER SUPPLY
2	BR	FRONT CAMERA GND
3	Y	FRONT CAMERA IMAGE SIGNAL
4	L	FRONT CAMERA IMAGE GND
6	W	FRONT CAMERA COMM

Terminal No.	Color of Wire	Signal Name [Specification]
7	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	-

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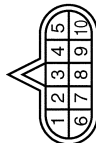
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



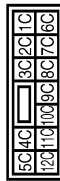
Terminal No.	Color of Wire	Signal Name [Specification]
7	L	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSGFW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12C	R	-

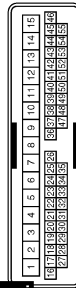
Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	TH4QFW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	L	-
7	Y	-
8	SHIELD	-
9	LG	-
10	V	-
11	G	-
12	R	-
13	L	-
14	BR	-
15	R	-

21	Y	-
22	R	-
23	V	-
24	P	-
25	R	-
26	Y	-
27	G	-
28	B	-
29	W	-
30	SHIELD	-
31	R	-
32	Y	-
33	G	-
34	B	-
35	W	-
36	SHIELD	-
37	LG	-
38	G	-
39	V	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH4QMW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
14	P	-
15	L	-
38	SHIELD	-
39	W	-
40	B	-
41	G	-
42	Y	-
43	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH8DMW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
28	GR	-
29	V	-
100	Y	-

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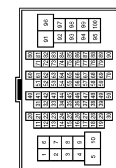
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

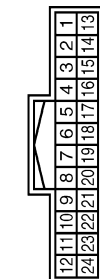


66	V	-
67	LG	-
68	Y	-
69	G	-
70	V	-
92	O	-



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
52	LG	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	P	-
58	L	-
59	SHIELD	-
64	L	-
65	W	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	B	-
11	W	-
22	R	-
23	SHIELD	-

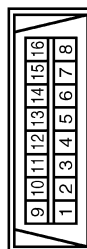
Connector No.	M13
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-



Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
7	GR	-
14	P	-

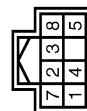
Terminal No.	Color of Wire	Signal Name [Specification]
6	SB	-
7	Y	-
8	SHIELD	-
9	G	-
10	R	-
11	V	-
12	SB	-
13	Y	-
14	LG	-
15	P	-
16	L	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-IV



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	L	SENSOR1
4	BR	SENSOR2
5	R	SENSOR3
7	B	GND
8	GR	IGN

JCNWM1070GB



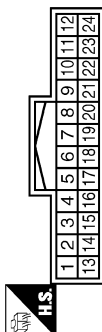
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M64
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-NH



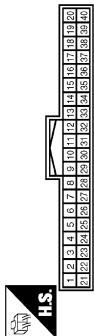
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	CORNER SENSOR FRONT LH
4	R	CORNER SENSOR FRONT RH
5	L	CORNER SENSOR REAR LH
6	Y	CORNER SENSOR REAR RH
12	B	SENSOR GND
13	V	ACC
16	P	K LINE
19	G	AV COMM (H)
20	R	AV COMM (L)
23	GR	BUZZER
24	B	GND

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FER



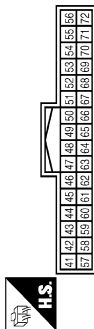
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	G	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH22FW-NH

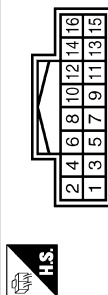


Terminal No.	Color of Wire	Signal Name [Specification]
56	L	CAN-H
72	P	CAN-L

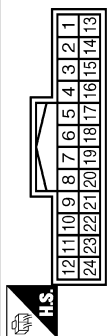
Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Connector No.	M75
Connector Name	FRONT DISPLAY UNIT (WITH NAVI)
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
13	B	GND
14	SHIELD	SHIELD
15	G	AUX IMAGE SIGNAL (Without entertainment system)
17	B	RGB (R: RED) SIGNAL
18	R	RGB (B: BLUE) SIGNAL
19	G	RGB SYNC
20	W	VP
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT)
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	R	-
5	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	DISK EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	P	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	G	AUX IMAGE GND (With entertainment system)
6	W	RGB (G: GREEN) SIGNAL
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	BR	COMM (CONT->DISP)
12	W	CAMERA IMAGE SIGNAL

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# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M80
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH18FW-GS2



1	2	3	4	5	6	7	8	9		
19	10	11	12	13	14	15	16	17	18	20

13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	AMP. ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	SB	ACC
9	R	ILLUMINATION
10	B	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH



62	64	66	68	70	72
61	63	65	67	69	71

Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R RED) SIGNAL
62	W	RGB (G GREEN) SIGNAL
63	R	RGB (B BLUE) SIGNAL
64	SHIELD	SHIELD
65	G	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (YS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH40FW-NH



2	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
1	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59

Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	V	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M89
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH32FW-NH



73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104

Terminal No.	Color of Wire	Signal Name [Specification]
79	Y	Pin4 SOUND SIGNAL LH (+) (With entertainment system)
80	R	Pin4 SOUND SIGNAL RH (+) (With entertainment system)
81	B	SHIELD
85	SB	DISK EJECT SIGNAL
95	BR	Pin4 SOUND SIGNAL LH (-) (With entertainment system)
96	G	Pin4 SOUND SIGNAL RH (-) (With entertainment system)
102	BR	SW GND

38	R	VEHICLE SPEED (8-PULSE)
41	B	CONTROL SIGNAL 1
42	B	CONTROL SIGNAL 2
43	B	CONTROL SIGNAL 3
44	SB	MODE CHANGE SIGNAL
48	G	AV COMM (H)
49	R	AV COMM (L)
50	LG	AV COMM (H)
51	V	AV COMM (L)
52	L	CAN-H
53	P	CAN-L

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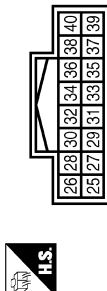
# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

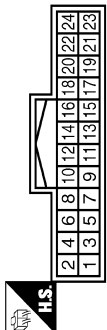
Connector No.	M97
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH16FW-NH



36	O	IGNITION
38	SHIELD	
39	V	COMM (DISP→DST)
40	SB	COMM (DST→DSP)



Connector No.	M98
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH24FW-NH



Connector No.	M99
Connector Name	VIDEO DISTRIBUTOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
25	W	RGB (R RED) SIGNAL
26	R	RGB (G GREEN) SIGNAL
27	B	RGB GND
28	G	RGB (B BLUE) SIGNAL
29	R	VP
30	W	HP
31	B	SHIELD
32	B	RGB AREA (YS) SIGNAL
33	G	-
34	R	COMPOSITE IMAGE SIGNAL
35	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	AV COMM (H)
4	R	AV COMM (L)
6	G	COMPOSITE IMAGE GND
7	SHIELD	SHIELD
8	R	COMPOSITE IMAGE SIGNAL
10	W	AUX IMAGE SIGNAL
21	SHIELD	SHIELD
22	SHIELD	SHIELD
23	P	DVD IMAGE SIGNAL
24	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
53	B	GND
54	O	BATTERY
55	SB	ACC
56	G	IGNITION
60	P	HEADPHONE ON SIGNAL

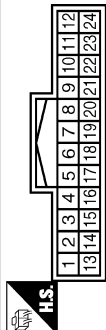
Connector No.	M107
Connector Name	ECM (WITH VO ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z



Connector No.	M110
Connector Name	WIRE TO WIRE
Connector Type	TH18BW-NH



Connector No.	M111
Connector Name	iPod ADAPTER
Connector Type	TH24FW-NH



14	Y	iPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	LG	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	iPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	W	iPod SOUND SIGNAL GND
24	B	iPod SOUND SIGNAL LH (+)

Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

Terminal No.	Color of Wire	Signal Name [Specification]
9	SHIELD	-
10	R	- [With NAV]
11	G	- [With NAV]

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	iPod SOUND SIGNAL LH (+)
2	BR	iPod SOUND SIGNAL RH (+)
3	O	ACC
4	V	AV COMM (L)
5	Y	BATTERY
8	W	iPod BATTERY CHARGE
9	Y	COMM (iPod ADAPTER→iPod)
10	BR	COMM (iPod→iPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	R	iPod SOUND SIGNAL RH (+)
13	G	iPod SOUND SIGNAL LH (-)

JCNWM1073GB



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M112
Connector Name	iPod SIDE
Connector Type	IP16GY



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16		

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	iPod SOUND SIGNAL LH (+)
2	W	iPod SOUND SIGNAL GND
5	BR	COMM (iPod->iPod ADAPTER)
6	Y	COMM (iPod ADAPTER->iPod)
7	R	iPod SOUND SIGNAL RH (+)
9	SB	iPod CONNECTION RECOGNITION
10	B	GND
12	W	iPod BATTERY CHARGE
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16P-TM4



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-
4	SB	-
11	BR	-
12	Y	-
13	SHIELD	-
14	G	-
15	R	-
16	SHIELD	-
17	Y	-
18	Y	-
19	LG	-

Connector No.	M114
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



1	2
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	LG	-

20	GR	- [With NAVI]
21	V	-
22	B	- [With entertainment system]
23	W	- [With entertainment system]
24	R	- [With entertainment system]
25	SHIELD	- [With entertainment system]
26	SB	-
27	V	-
28	SHIELD	-
29	O	-
30	P	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

Terminal No.	Color of Wire	Signal Name [Specification]
31	W	-

Connector No.	M122
Connector Name	BCM BODY CONTROL MODULE
Connector Type	TH40FB-NH



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
19	G	-
20	LG	-
21	SHIELD	-
22	W	-
23	B	-
24	G	-
25	Y	-
26	R	-



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M139
Connector Name	WIRE TO WIRE
Connector Type	TH22FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-
5	G	-
6	BR	-
7	Y	-
8	R	-
9	B	-
10	W	-
11	SB	-
15	BR	-
16	LG	-
18	R	-

Connector No.	M180
Connector Name	ECM (WITH VK ENGINE)
Connector Type	RH24FGY-R28-R-LH-Z



128	124	123	118	112	108	104	101
127	123	119	113	107	103	99	
126	122	118	114	110	106	102	98
125	121	117	113	109	105	101	97

Terminal No.	Color of Wire	Signal Name [Specification]
101	P	VEHCAN-L
105	L	VEHCAN-H

19	SHIELD	-
20	SHIELD	-
21	R	-
22	Y	-
23	BR	-
24	G	-
26	B	-
27	SB	-
28	L	-
29	P	-
30	SHIELD	-
31	L	-
32	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-
6	SHIELD	-
7	G	-
8	W	-
12	R	-
14	SHIELD	-
15	B	-
16	R	-

19	B	-
20	B	-
21	R	-
22	Y	-
23	BR	-
24	G	-
26	B	-
27	G	-
28	L	-
29	P	-
30	B	-
31	L	-
32	B	-

Connector No.	M140
Connector Name	WIRE TO WIRE
Connector Type	TH18MW-NH



1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
11	SHIELD	-
12	W	-

Connector No.	M144
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



1	2	3	4	5	6
7	8	9	10	11	12

JCNWM1075GB



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M182
Connector Name	DVD PLAYER
Connector Type	TH22PW-NH



2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ILLUMINATION
4	V	ACC
5	B	SHIELD
7	P	DVD IMAGE SIGNAL
9	L	—
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)



Connector No.	M371
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT13SH-2/1S-HU

16	B	SHIELD
17	G	HEADPHONE SOUND SIGNAL SIGNAL LH (+)
18	R	HEADPHONE SOUND SIGNAL SIGNAL RH (+)
19	BR	—
20	Y	HEADPHONE SOUND SIGNAL SIGNAL RH (-)
21	Y	SOUND SIGNAL LH (+)
22	BR	—
23	R	SOUND SIGNAL RH (-)
24	G	SOUND SIGNAL RH (+)
25	B	SHIELD
27	B	—
29	R	AV COMM (L)
30	G	AV COMM (H)



Connector No.	M372
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	FAKRA JACK

Connector No.	M183
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



1	2	3	7	8
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Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	SB	AUX SOUND SIGNAL GND
3	B	AUX SOUND SIGNAL LH (+)
7	W	AUX IMAGE SIGNAL
8	SHIELD	SHIELD



Connector No.	M373
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	GT5-1S-HU

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



20	19	18	17	16	15	14	13
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Terminal No.	Color of Wire	Signal Name [Specification]
14	W	—
15	L	—
17	BR	—



Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
108	—	SAETLITE ANTENNA

Terminal No.	Color of Wire	Signal Name [Specification]
110	—	GPS ANTENNA
111	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
1	—	—

JCNWM1076GB



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M383
Connector Name	ANTENNA BASE
Connector Type	GT16C-1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
3	-	SATELLITE ANTENNA

Connector No.	M385
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M386
Connector Name	ANTENNA BASE
Connector Type	GT13SSN-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	M387
Connector Name	WIRE TO WIRE
Connector Type	JASO JACK



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M388
Connector Name	WIRE TO WIRE
Connector Type	JASO PLUG



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

Connector No.	M389
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-

JCNWM1077GB

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AV



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## BOSE AUDIO WITH NAVIGATION (TWIN MONITOR)

Connector No.	R2	Connector No.	R7	Connector No.	R11	Connector No.	RT7
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	MICROPHONE
Connector Type	TH24FW-NH	Connector Type	TH16FW-NH	Connector Type	TH24MW-NH	Connector Type	TC04FW

Terminal No.	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Color of Wire	SHIELD	SHIELD	R	G	-	-	-	-	-	-	-	-	-	-	-	-	-
Signal Name [Specification]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Terminal No.	1	2	4
Color of Wire	R	SHIELD	L
Signal Name [Specification]	MICROPHONE SIGNAL	MICROPHONE GND	MICROPHONE VCC

JCNWM1078GB

INFOID:000000003825630

## Fail-Safe

- Sonar control unit has diagnosis function which can detect corner sensor malfunction and sensor harness disconnection.
- It transmits the malfunction status to around view monitor control unit and informs the malfunction to the user by displaying continuously red sonar indicator.



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

< ECU DIAGNOSIS INFORMATION >

[NAVIGATION (TWIN MONITOR)]

## DTC Index

INFOID:000000003825631

DTC	Display item	Malfunction is detected when...	Reference
B2700	CORNER SENSOR [FL] [B2700]	Corner sensor front left is malfunctioning.	<a href="#">AV-708, "DTC Logic"</a>
B2701	SENSOR HARNESS OPEN [CR-FL] [B2701]	Corner sensor front left harness circuit is open.	<a href="#">AV-709, "Diagnosis Procedure"</a>
B2702	CORNER SENSOR [FR] [B2702]	Corner sensor front right is malfunctioning.	<a href="#">AV-710, "DTC Logic"</a>
B2703	SENSOR HARNESS OPEN [CR-FR] [B2703]	Corner sensor front right harness circuit is open.	<a href="#">AV-711, "Diagnosis Procedure"</a>
B2704	CORNER SENSOR [RL] [B2704]	Corner sensor rear left is malfunctioning.	<a href="#">AV-712, "DTC Logic"</a>
B2705	SENSOR HARNESS OPEN [CR-RL] [B2705]	Corner sensor rear left harness circuit is open.	<a href="#">AV-713, "Diagnosis Procedure"</a>
B2706	CORNER SENSOR [RR] [B2706]	Corner sensor rear right is malfunctioning.	<a href="#">AV-714, "DTC Logic"</a>
B2707	SENSOR HARNESS OPEN [CR-RR] [B2707]	Corner sensor rear right harness circuit is open.	<a href="#">AV-715, "Diagnosis Procedure"</a>

### NOTE:

"TIME" means the following.

- 0: Means detected malfunction at present. (From malfunction detection to turning ignition switch OFF)
- 1–39: Means detected malfunction in past.

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AV



## SYMPTOM DIAGNOSIS

### MULTI AV SYSTEM SYMPTOMS

#### Symptom Table

INFOID:000000003825632

#### RELATED TO NAVIGATION

Symptoms	Check items	Possible malfunction location / Action to take
Multifunction switch and preset switch operation does not work.	<ul style="list-style-type: none"> <li>All switches cannot be operated.</li> <li>"MULTI AV" is displayed on system selection screen when the CONSULT-III is started.</li> </ul>	<ul style="list-style-type: none"> <li>Multifunction switch power supply and ground circuit.</li> <li>AV communication circuit between AV control unit and multifunction switch.</li> </ul> Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .
	<ul style="list-style-type: none"> <li>All switches cannot be operated.</li> <li>"MULTI AV" is not displayed on system selection screen when the CONSULT-III is initialized.</li> </ul>	AV control unit power supply and ground circuit malfunction. Refer to <a href="#">AV-716, "AV CONTROL UNIT : Diagnosis Procedure"</a> .
	Only specified switch cannot be operated.	Multifunction switch or preset switch malfunction. Perform multifunction switch and preset switch self-diagnosis function. Refer to <a href="#">AV-656, "Diagnosis Description"</a> .
Fuel economy display, vehicle setting operation is abnormal.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform detected DTC self-diagnosis. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .
	There is no malfunction in the self-diagnosis results.	Ignition signal circuit malfunction (AV control unit). Refer to <a href="#">AV-716, "AV CONTROL UNIT : Diagnosis Procedure"</a> .
Guide sound is not heard.	On the setting display select "system sound (guide sound volume, etc.)," and confirm that guide sound is ON.	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-1045, "Exploded View"</a> .

#### RELATED TO HANDS-FREE PHONE

- Check that the cellular phone is corresponding type (Bluetooth™ correspond) when the hands-free related malfunction vehicle is in service before performing a diagnosis.
- There is a case that malfunction occurs due to the version change of the phone type, etc. even though it is a corresponding type. Therefore, confirm it by changing the cellular phone to another corresponding type phone, and check that it operates normally. It is necessary to distinguish whether the cause is the vehicle or cellular phone.

#### Simple Check for Bluetooth™ Communication

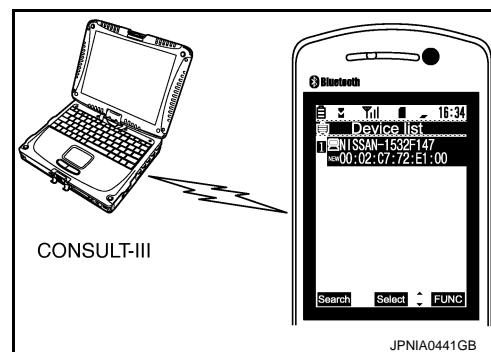
If cellular phone and AV control unit cannot be connected with Bluetooth™ communication, following procedure allows the technician to judge which device has malfunction.

- Turn on a cellular phone, not connecting Bluetooth™ communication.
- Start CONSULT-III, then start Windows®.
- Set CONSULT-III near a cellular phone.
- When operated Bluetooth™ registration by cellular phone, check if CONSULT-III\* would be displayed on the device name.  
(If other Bluetooth™ device is located near cellular phone, a name of the device would be displayed also.)

#### NOTE:

\*:Displayed device name is "NISSAN-\*\*\*\*\*".

- If no device name is displayed, cellular phone is malfunctioning. Repair the cellular phone first, then perform diagnosis.
- If CONSULT-III is displayed on device name, cellular phone is normal. Perform diagnosis as per the following table.



#### Trouble Diagnosis Chart by Symptom



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Symptoms	Check items	Probable malfunction location
Does not recognize cellular phone connection. (no connection is displayed on the display at the guide.)	Repeat the registration of cellular phone.	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-1045, "Exploded View"</a> .
Hands-free phone cannot be established.	<ul style="list-style-type: none"> <li>Hands-free phone operation can be made, but the communication cannot be established.</li> <li>Hands-free phone operation can be performed, however, voice between each other cannot be heard during the conversation.</li> </ul>	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-1045, "Exploded View"</a> .
The other party's voice cannot be heard by hands-free phone.	—	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-1045, "Exploded View"</a> .
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-1045, "Exploded View"</a> .
	Sound operation function does not work.	Microphone signal circuit malfunction. Refer to <a href="#">AV-742, "Diagnosis Procedure"</a> .

## RELATED TO AROUND VIEW MONITOR

Symptoms	Check items	Probable malfunction location / Action to take
It does not switch to camera image even when the "CAMERA" switch is pressed or the selector lever is in the reverse position.	"Camera Cont." of "Confirmation/Adjustment" can be selected.	Ignition signal circuit (around view monitor control unit). Refer to <a href="#">AV-721, "AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure"</a> .
	"Camera Cont." of "Confirmation/Adjustment" cannot be selected.	<ul style="list-style-type: none"> <li>Around view monitor control unit power supply and ground circuits. Refer to <a href="#">AV-721, "AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure"</a>.</li> <li>AV communication circuits. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a>.</li> </ul>
The screen switches when pressing the "CAMERA" switch or shifting the selector lever to the reverse position, however, all views are not displayed.	Only superimposing is displayed. (Only the image displayed by AV control unit is displayed)	<ul style="list-style-type: none"> <li>Camera image signal circuit between around view monitor control unit and front display unit. Refer to <a href="#">AV-744, "Diagnosis Procedure"</a>.</li> <li>RGB (YS) area signal circuit between AV control unit and front display unit. Refer to <a href="#">AV-727, "Diagnosis Procedure"</a> <a href="#">AV-727, "Diagnosis Procedure"</a>.</li> </ul>
	Superimposing is not displayed.	<ul style="list-style-type: none"> <li>Communication circuit between AV control unit and front display unit. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a>.</li> <li>Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-728, "Diagnosis Procedure"</a>.</li> </ul>
Camera image is rolling.	AUX image is rolling	Vertical synchronizing (VP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-729, "Diagnosis Procedure"</a> .

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# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Symptoms	Check items		Probable malfunction location / Action to take
It cannot be switched to rear view monitor even when the selector lever is in the reverse position.	The front view is displayed normally.		Reverse signal circuit. (AV control unit)
The predicted course line display in front view and rear view is malfunctioning.	The "Steer. Angle Sensor" is not turned ON at "Connection Confirmation" of "Camera Cont."		Steering angle sensor signal circuits. Refer to <a href="#">AV-746, "Diagnosis Procedure"</a> .
<ul style="list-style-type: none"> <li>The front view screen is not displayed.</li> <li>The front of Birds-Eye view screen is not displayed.</li> </ul>	Check the item Front Camera in "Connection Confirmation" mode of "Camera Cont."	<ul style="list-style-type: none"> <li>Image Output Signal: NG</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	<ul style="list-style-type: none"> <li>Front camera image signal circuit.</li> <li>Front camera power supply and ground circuits.</li> </ul> Refer to <a href="#">AV-755, "Diagnosis Procedure"</a>
		<ul style="list-style-type: none"> <li>Image Output Signal: OK</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	Front camera communication signal circuit. Refer to <a href="#">AV-754, "Diagnosis Procedure"</a> .
<ul style="list-style-type: none"> <li>The rear view screen is not displayed.</li> <li>The rear of Birds-Eye view screen is not displayed.</li> </ul>	Check the item Rear Camera in "Connection Confirmation" mode of "Camera Cont."	<ul style="list-style-type: none"> <li>Image Output Signal: NG</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	<ul style="list-style-type: none"> <li>Rear camera image signal circuit.</li> <li>Rear camera power supply and ground circuits.</li> </ul> Refer to <a href="#">AV-758, "Diagnosis Procedure"</a> .
		<ul style="list-style-type: none"> <li>Image Output Signal: OK</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	Rear camera communication signal circuits. Refer to <a href="#">AV-757, "Diagnosis Procedure"</a> .
<ul style="list-style-type: none"> <li>The front-side screen is not displayed.</li> <li>The side RH of Birds-Eye view screen is not displayed.</li> </ul>	Check the item Pass-Side Camera in "Connection Confirmation" mode of "Camera Cont."	<ul style="list-style-type: none"> <li>Image Output Signal: NG</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	<ul style="list-style-type: none"> <li>Side camera RH image signal circuit.</li> <li>Side camera RH power supply and ground circuits.</li> </ul> Refer to <a href="#">AV-764, "Diagnosis Procedure"</a> .
		<ul style="list-style-type: none"> <li>Image Output Signal: OK</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	Side camera RH communication circuit. Refer to <a href="#">AV-763, "Diagnosis Procedure"</a> .
The side LH of Birds-eye view screen is not displayed.	Check the item Dr-Side Camera at "Connection Confirmation" mode of "Camera Cont."	<ul style="list-style-type: none"> <li>Image Output Signal: NG</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	<ul style="list-style-type: none"> <li>Side camera LH image signal circuit.</li> <li>Side camera LH power supply and ground circuits.</li> </ul> Refer to <a href="#">AV-761, "Diagnosis Procedure"</a> .
		<ul style="list-style-type: none"> <li>Image Output Signal: OK</li> <li>COMM Status: NG</li> <li>COMM Line: NG</li> </ul>	Side camera LH communication circuit. Refer to <a href="#">AV-760, "Diagnosis Procedure"</a> .
When shift position is other than "R" the front-side and front screen or the Birds-Eye view and front screen remain displaying even if the vehicle speed increases.	—		Vehicle speed signal (around view monitor control unit).
Around view monitor does not start other than shift position "R"	—		Certain States restrict the operation so that around view monitor does not start other than at shift position "R".

## RELATED TO CAMERA ASSISTANCE SONAR



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Symptoms	Check items	Probable malfunction location / Action to take
The malfunction is detected in the sonar indicator (Always displayed in red)	The malfunction is detected in only 1 indicator (Always displayed in red)	<ul style="list-style-type: none"> <li>• Corner sensor malfunction in corresponding area</li> <li>• Corner sensor harness circuit in corresponding area</li> </ul> Perform CONSULT-III self-diagnosis of sonar system. Refer to <a href="#">AV-678, "CONSULT-III Function (SONAR)"</a> .
	The malfunction is detected in all 4 indicators (Always displayed in red)	<ul style="list-style-type: none"> <li>• Corner sensor ground circuit.</li> <li>• Sonar control unit power supply and ground circuits.</li> <li>• AV communication circuits.</li> </ul> Perform CONSULT-III self-diagnosis of multi AV system. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .
The sonar indicator is normal, but the buzzer does not sound	The buzzer is turned ON when performing "Buzzer" in "Active test" of "Sonar".	Replace sonar control unit. Refer to <a href="#">AV-1072, "Exploded View"</a>
	The buzzer is not turned ON when performing "Buzzer" in "Active test" of "Sonar".	Replace buzzer. Refer to <a href="#">AV-1075, "Exploded View"</a> .

## RELATED TO RGB IMAGE

### Front Display Unit

Symptoms	Check items	Possible malfunction location / Action to take
RGB image is not shown.	<ul style="list-style-type: none"> <li>• All RGB images are not shown.</li> <li>• "MULTI AV" is displayed on system selection screen when the CONSULT-III is started.</li> </ul>	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .
	<ul style="list-style-type: none"> <li>• All RGB images are not shown.</li> <li>• "MULTI AV" is not displayed on system selection screen when the CONSULT-III is started.</li> </ul>	AV control unit power supply and ground circuit. Refer to <a href="#">AV-716, "AV CONTROL UNIT : Diagnosis Procedure"</a> .
Color of RGB image is not proper.	Light blue (Cyan) tint.	RGB signal (R: red) circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-723, "Diagnosis Procedure"</a> .
	Purple (Magenta) tint.	RGB signal (G: green) circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-724, "Diagnosis Procedure"</a> .
	Screen looks yellowish.	RGB signal (B: blue) circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-725, "Diagnosis Procedure"</a> .
RGB screen is rolling.	—	RGB synchronizing signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-726, "Diagnosis Procedure"</a> .

### Rear Display Unit

Symptoms	Check items	Possible malfunction location / Action to take
The menu screen is not displayed.	For rear display unit, AUX and DVD image are normal.	<ul style="list-style-type: none"> <li>• Vertical synchronizing (VP) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-735, "Diagnosis Procedure"</a>.</li> <li>• Horizontal synchronizing (HP) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-736, "Diagnosis Procedure"</a>.</li> <li>• RGB area (YS) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-734, "Diagnosis Procedure"</a>.</li> </ul>



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Symptoms	Check items	Possible malfunction location / Action to take
Color of RGB image (menu display screen) is not proper.	Light blue (Cyan) tint.	RGB signal (R: red) circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-731, "Diagnosis Procedure"</a> .
	Purple (Magenta) tint.	RGB signal (G: green) circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-732, "Diagnosis Procedure"</a> .
	Screen looks yellowish.	RGB signal (B: blue) circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-733, "Diagnosis Procedure"</a> .

## RELATED TO VOICE CONTROL

Symptoms	Check items	Probable malfunction location
The voice cannot be controlled even if the voice control screen is displayed.	Voice sounds at "Voice Microphone Test" of Confirmation/Adjustment mode.	AV control unit malfunction. Replace AV control unit. Refer to <a href="#">AV-1045, "Exploded View"</a> .
	Voice does not sound at "Voice Microphone Test" of Confirmation/Adjustment mode.	Microphone circuit malfunction. Refer to <a href="#">AV-742, "Diagnosis Procedure"</a> .
The voice cannot be controlled (Voice control screen is not displayed).	Steering switch "SOURCE", "MENU UP", "MENU DOWN" operates, but "↖" does not operate.	Steering switch malfunction. Replace steering switch.
	Steering switch's "SOURCE", "MENU UP", "MENU DOWN", "↖" does not operate.	Steering switch signal A circuit malfunction. Refer to <a href="#">AV-748, "Diagnosis Procedure"</a> .
	All steering switches do not work.	Steering switch signal GND circuit malfunction. Refer to <a href="#">AV-752, "Diagnosis Procedure"</a> .

## RELATED TO AUDIO

Symptoms	Check items	Possible malfunction location / Action to take
The disk cannot be removed.	—	Disk eject signal circuit malfunction. Refer to <a href="#">AV-741, "Diagnosis Procedure"</a> .
Audio sound is not heard.	No sound from all speakers.	<ul style="list-style-type: none"> <li>Amp. ON signal circuit.</li> <li>BOSE amp. power supply and ground circuits.</li> </ul> Refer to <a href="#">AV-719, "BOSE AMP. : Diagnosis Procedure"</a> .
	Sound is not heard from woofer.	<ul style="list-style-type: none"> <li>Woofer power supply and ground circuits.</li> <li>Sound signal (woofer) circuits.</li> <li>Woofer amp. ON signal circuit.</li> </ul>
	Sound is not heard from center speaker.	Sound signals center speaker circuit.
	Sound is heard only from specific places.	Sound signal circuits of suspect system.
It does not change to "Driver's Audio Stage" mode.	—	Mode change signal circuit. Refer to <a href="#">AV-740, "Diagnosis Procedure"</a> .



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Symptoms	Check items	Possible malfunction location / Action to take
Satellite radio is not received.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .
	There is no malfunction in the CONSULT-III self-diagnosis result.	Perform the following inspection procedure. 1. Check satellite radio antenna (antenna base) mounting nut for looseness. <b>NOTE:</b> Tightening torque: 6.5 N·m (0.66 kg·m, 58 in·lb) 2. Visually check for satellite radio antenna feeder. 3. Replace the satellite radio antenna (antenna base). Refer to <a href="#">AV-1057, "Exploded View"</a> . 4. Replace the AV control unit. Refer to <a href="#">AV-1045, "Exploded View"</a> .
AM/FM radio is not received.	Other audio sounds are normal.	<ul style="list-style-type: none"> <li>Antenna amp. ON signal circuit.</li> <li>Antenna feeder.</li> </ul>

## RELATED TO iPod®

Connect another iPod® and check if the symptom is reproduced or not. If the symptom is reproduced, diagnose the vehicle. If no malfunction is detected, replace the iPod harness.

### NOTE:

It is unable to check that between iPod® and iPod harness.

Symptoms	Check items	Possible malfunction location / Action to take
The sound of iPod® is not heard.	Other audio sounds are normal.	<ul style="list-style-type: none"> <li>iPod sound signal circuits between AV control unit and iPod adapter.</li> <li>iPod sound signal circuits between iPod® and iPod adapter.</li> </ul>
It does not change to iPod mode.	There is malfunction in the CONSULT-III self-diagnosis.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .
"iPod is not connected" is displayed when it comes to iPod mode.	Connected to iPod®.	iPod connection recognition signal circuit between iPod® and iPod adapter.
iPod® cannot charge the battery.	—	iPod battery charge circuit between iPod® and iPod adapter.
The title of music file in the iPod® is not indicated.	—	Communication circuit between iPod® and iPod adapter.
Accessing the iPod® is unavailable from the vehicle.		

## RELATED TO STEERING SWITCH

Symptoms	Probable malfunction location
None of the steering switch operations work.	Steering switch signal GND circuit malfunction. Refer to <a href="#">AV-752, "Diagnosis Procedure"</a> .
Only specified switch cannot be operated.	Steering switch malfunction. Replace steering switch.
Steering switch's "SOURCE", "MENU UP", "MENU DOWN" and "⏮" switches do not work.	Steering switch signal A circuit malfunction. Refer to <a href="#">AV-748, "Diagnosis Procedure"</a> .
Steering switch's "VOL UP", "VOL DOWN", "⏮" and "⏭" switches do not work.	Steering switch signal B circuit malfunction. Refer to <a href="#">AV-750, "Diagnosis Procedure"</a> .

## RELATED TO AUXILIARY INPUT

### NOTE:

Check that there is no malfunction of AUX equipment main body before performing a diagnosis.



# MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Symptoms	Check items	Probable malfunction location
Front display unit and rear display unit, AUX image is not displayed.	DVD image is normal.	AUX image signal circuit malfunction between auxiliary input jacks and video distributor. Refer to <a href="#">AV-738, "Diagnosis Procedure"</a> .
	DVD image is not displayed.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .
For front display unit, AUX image is not displayed (Menu display is normal).	DVD image is normal.	AUX image signal circuit malfunction between auxiliary input jacks and video distributor. Refer to <a href="#">AV-738, "Diagnosis Procedure"</a> .
	DVD image is not displayed (Menu display is normal).	<ul style="list-style-type: none"> <li>Composite image signal circuits malfunction between video distributor and front display unit. Refer to <a href="#">AV-730, "Diagnosis Procedure"</a>.</li> <li>RGB area (YS) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-727, "Diagnosis Procedure"</a>.</li> </ul>
For front display unit, AUX image is not displayed (Menu display is not displayed, too).	DVD image is not displayed (Also, menu display is not displayed).	Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-728, "Diagnosis Procedure"</a> .
For front display unit, AUX image is rolling.	DVD image is rolling.	Vertical synchronizing (VP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-729, "Diagnosis Procedure"</a> .
For rear display unit, AUX image is not displayed (Menu display is normal).	DVD image is not displayed (Menu display is normal).	Composite image signal circuits malfunction between video distributor and rear display unit. Refer to <a href="#">AV-737, "Diagnosis Procedure"</a> .
At AUX of rear display, menu display is not displayed.	AUX image is normal.	<ul style="list-style-type: none"> <li>Vertical synchronizing (VP) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-735, "Diagnosis Procedure"</a>.</li> <li>Horizontal synchronizing (HP) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-736, "Diagnosis Procedure"</a>.</li> <li>RGB area (YS) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-734, "Diagnosis Procedure"</a>.</li> </ul>
There is no AUX sound.	DVD sound is not normal, neither.	Sound signal circuit between DVD player and AV control unit.
	The sound other than AUX sound is normal.	AUX sound signal circuit between auxiliary input jacks and DVD player.
There is no AUX sound from speaker on the right or left side.	DVD sound is normal.	Sound signal circuit between auxiliary input jacks and DVD player.
	DVD sound is not normal, neither.	Sound signal circuit between DVD player and AV control unit.
It does not change to AUX mode.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .

## RELATED TO DVD MODE

Symptoms	Check items	Probable malfunction location
Front display unit and rear display unit, DVD image is not displayed.	AUX image is normal.	DVD image signal circuit. Refer to <a href="#">AV-739, "Diagnosis Procedure"</a> .
	AUX image is not displayed.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .
For front display unit, DVD image is not displayed (Menu display is normal).	AUX image is not displayed (Menu display is normal).	<ul style="list-style-type: none"> <li>Composite image signal circuits malfunction between video distributor and front display unit. Refer to <a href="#">AV-730, "Diagnosis Procedure"</a>.</li> <li>RGB area (YS) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-727, "Diagnosis Procedure"</a>.</li> </ul>



# MULTI AV SYSTEM SYMPTOMS

## < SYMPTOM DIAGNOSIS >

## [NAVIGATION (TWIN MONITOR)]

Symptoms	Check items	Probable malfunction location
For front display unit, DVD image is not displayed (Also, menu display is not displayed).	AUX image is not displayed (Also, menu display is not displayed).	Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-728, "Diagnosis Procedure"</a> .
For front display, DVD image is rolling.	AUX image is rolling.	Vertical synchronizing (VP) signal circuit malfunction between AV control unit and front display unit. Refer to <a href="#">AV-729, "Diagnosis Procedure"</a> .
For rear display, DVD image is not displayed (Menu display is normal).	AUX image is not displayed (Menu display is normal).	Composite image signal circuits malfunction between video distributor and rear display unit. Refer to <a href="#">AV-737, "Diagnosis Procedure"</a> .
At DVD of rear display unit, menu display is not displayed.	DVD image is normal.	<ul style="list-style-type: none"> <li>Vertical synchronizing (VP) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-735, "Diagnosis Procedure"</a>.</li> <li>Horizontal synchronizing (HP) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-736, "Diagnosis Procedure"</a>.</li> <li>RGB area (YS) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-734, "Diagnosis Procedure"</a>.</li> </ul>
There is no DVD sound.	—	Sound signal circuit between DVD player and AV control unit.
There is no DVD sound from speaker on the right or left side.	—	Sound signal circuit between DVD player and AV control unit.
It does not change to DVD mode.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .

## RELATED TO HEADPHONE

Symptoms	Check items	Probable malfunction location
No sound is heard from headphones.	The LED for headphones sound transmission is illuminated.	Headphones sound signal circuit.
	The LED for headphones sound transmission is not illuminated.	Headphones ON signal circuit.
No sound is heard from headphones only for RH (LH).	—	Headphones sound signal circuit RH (LH).

## RELATED TO REAR DISPLAY UNIT

Symptoms	Check items	Possible malfunction location / Action to take
The menu screen is not displayed.	For rear display unit, AUX and DVD image are normal.	<ul style="list-style-type: none"> <li>Vertical synchronizing (VP) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-735, "Diagnosis Procedure"</a>.</li> <li>Horizontal synchronizing (HP) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-736, "Diagnosis Procedure"</a>.</li> <li>RGB area (YS) signal circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-734, "Diagnosis Procedure"</a>.</li> </ul>
Color of RGB image (menu display screen) is not proper.	Light blue (Cyan) tint.	RGB signal (R: red) circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-731, "Diagnosis Procedure"</a> .
	Purple (Magenta) tint.	RGB signal (G: green) circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-732, "Diagnosis Procedure"</a> .
	Screen looks yellowish.	RGB signal (B: blue) circuit malfunction between video distributor and rear display unit. Refer to <a href="#">AV-733, "Diagnosis Procedure"</a> .



## MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Symptoms	Check items	Possible malfunction location / Action to take
AUX and DVD image are not displayed.	Front display unit is not displayed.	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .
	Front display unit is normal.	Composite image signal circuit between video distributor and rear display unit. Refer to <a href="#">AV-737, "Diagnosis Procedure"</a> .
Rear display unit does not open.	—	Perform CONSULT-III self-diagnosis. Refer to <a href="#">AV-671, "CONSULT-III Function (MULTI AV)"</a> .



## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

### NORMAL OPERATING CONDITION

#### Description

INFOID:000000003825633

- For Navigation system operation information, refer to Navigation system Owner's Manual.
- Vehicle operation information, refer to Owner's Manual.

#### BASIC OPERATIONS




Symptom	Possible cause	Possible solution
No image is displayed.	The brightness is at the lowest setting.	Adjust the brightness of the display.
	The system in the video mode.	Press <DISC-AUX> to change the mode.
	The display is turned off.	Press <Day/Night> to turn on the display.
No voice guidance is available. Or The volume is too high or too low.	The volume is not set correctly, or it is turned off.	Adjust the volume of voice guidance.
	Voice guidance is not provided for certain streets (roads displayed in gray).	This is not a malfunction.
No map is displayed on the screen.	A screen other than map screen is displayed.	Press <MAP>.
The screen is too dim. The movement is slow.	The temperature in the interior of the vehicle is low.	Wait until the interior of the vehicle has warmed up.
Some pixels in the display are darker or brighter than others.	This condition is an inherent characteristic of liquid crystal displays.	This is not a malfunction.
Some menu items cannot be selected.	Some menu items become unavailable while the vehicle is driven.	Park the vehicle in a safe location, and then operate the navigation system.

#### NOTE:

Locations stored in the Address Book and other memory functions may be lost if the vehicle's battery is disconnected or becomes discharged. If this occurs, service the vehicle's battery as necessary and re-enter the information in the Address Book.

#### RELATED TO VOICE RECOGNITION

Related to basic operation

Symptom	Possible cause	Possible solution
The system does not recognize your command. or The system recognizes your command incorrectly	The interior of the vehicle is too noisy.	Close the windows or have other occupants quiet.
	The volume of your voice is too low.	Speak louder
	The volume if your voice is too loud.	Speak softer
	Your pronunciation is unclear	Speak clearly
	You are speaking before the voice recognition made is ready	Press and release “  ” switch on the steering switch, and speak a command after the tone sounds
	8 seconds or more have passed after you pressed and released “  ” switch on the steering switch.	Make sure to speak a command within 8 seconds after you press and release “  ” switch on the steering switch.
	Only a limited range of voice commands is usable for each screen.	Use a correct voice command appropriate for the current screen
	The sound of the fan of the air conditioner is too loud.	If the air conditioner is set to “Auto”, the fan speed is automatically lowered and voice commands can be recognized more easily. Lower the fan speed as necessary or set the air conditioner to “Auto”.

Related to item choice

The system should respond correctly to all voice commands without difficulty. If problems are encountered, follow the solutions given in this guide for the appropriate error.

Where the solutions are listed by number, try each solution in turn, starting with number one, until the problem is resolved.



## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Symptom/ error message	Solution
Displays "COMMAND NOT RECOGNIZED" or the system fails to interpret the command correctly.	1. Ensure that the command format is valid.
	2. Speak clearly without pausing between words and at a level appropriate to the ambient noise level.
	3. Ensure that the ambient noise level is not excessive, for example, windows open or defrost on. <b>NOTE:</b> If it is too noisy to use the phone, it is likely that voice commands will not be recognized.
	4. If optional words of the command have been omitted, then command should be tried with these in place.
The system consistently selects the wrong voicetag	1. Ensure that the voicetag requested matches what was originally stored. This can be confirmed by giving the Addressbook Directory or Phone Directory command.
	2. Replace one of the voicetags being confused with a different voicetag.

### Related to telephone

The system should respond correctly to all voice commands without difficulty. If problems are encountered, try the following solutions.

Where the solutions are listed by number, try each solution in turn, starting with number 1, until the problem is resolves.

Symptom	Solution
System fails to interpret the command correctly.	1. Ensure that the command is valid.
	2. Ensure that the command is spoken after the tone.
	3. Speak clearly without pausing between words and at level appropriate to the ambient noise level in the vehicle.
	4. Ensure that the ambient noise level is not excessive (for example, windows open or defroster on), <b>NOTE:</b> If it is too noisy to use the phone, it is likely that the voice commands will be recognized.
	5. If more than one command was said at a time, try saying the commands separately.
	6. If the system consistently fails to recognize commands, the voice training procedure should be carried out to improve the recognition response for the speaker. See "Speaker adaptation (SA) mode" earlier in this section. Refer to "OWNER'S MANUAL".
The system consistently selects the wrong voicetag	1. Ensure that the phone book entry name requested matches what was originally stored. This can be confirmed by using the "List Names" command.
	2. Replace one of the names being confused with a new name.

### RELATED TO AUDIO

- The majority of the audio malfunctions are the result of outside causes (bad CD/cassette, electromagnetic interference, etc.). Check the symptoms below to diagnose the malfunction.
- The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and then determine the cause.

#### NOTE:

- CD-R is not guaranteed to play because they can contain compressed audio (MP3, WMA) or could be incorrectly mastered by the customer on a computer.
- Check if the CDs carry the Compact Disc Logo. If not, the disc is not mastered to the "red book" Compact Disc Standard and may not play.



## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Symptom	Cause and Counter measure
Cannot play	Check if the CD/CF was inserted correctly.
	Check if the CD/CF is scratched or dirty.
	Check if there is condensation inside the player, and if there is, wait until the condensation is gone (about 1 hour) before using the player.
	If there is a temperature increase error, the player will play correctly after it returns to the normal temperature.
	If there is a mixture of music CD files (CD-DA data) and MP3/WMA files on a CD, only the music CD files (CD-DA data) will be played.
	Files with extensions other than ".MP3", ".WMA", ".mp3", or ".wma" cannot be played. In addition, the character codes and number of characters for folder names and file names should be in compliance with the specifications.
	Check if the disc or the file is generated in an irregular format, This may occur depending on the variation or the setting of MP3/WMA writing applications or other text editing applications.
	Check if the finalization process, such as session close and disc close, is done for the disc.
Poor sound quality	Check if the CD/CF is scratched or dirty.
It takes a relatively long time before the music starts playing.	If there are many folder or file levels on the MP3/WMA CD/CF, or if it is a multi session disc, some time may be required before the music starts playing.
Music cuts off or skips	The writing software and hardware combination might not match, or the writing speed, writing depth, writing width might not match the specifications. Try using the slowest writing speed.
Skipping with high bit rate files	Skipping may occur with large quantities if data such as for high bit rate data.
Move immediately to the next song when playing	When a non-MP3/WMA file has been given an extension of ".MP3", ".WMA", ".mp3", or ".wma", or when play is prohibited by copyright protection, the player will skip to the next song.
The songs do not play back in the desired order.	The playback order is the order in which the files were written by the software, so the files might not play in the desired order.

Noise resulting from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources, is not a malfunction.

### NOTE:

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from a time difference between the broadcast waves directly from the station arriving at the antenna and the waves reflected by mountains or buildings.

## RELATED TO VEHICLE ICON

Symptom	Possible cause	Possible solution
Names of roads differ between Plan View and Birdview™.	This is because the quantity of the displayed information is reduced so that the screen does not become too crowded. There is also a chance that names of the roads may be displayed multiple times, and the names appearing on the screen may be different because of a processing procedure.	This is not a malfunction.
The vehicle icon is not displayed in the correct position.	The vehicle was transported after the ignition switch was pressed off, for example, by a ferry or car transporter.	Drive the vehicle for a while on a road where GPS signals can be received.
	The position and direction of the vehicle icon may be incorrect depending on the driving environments and the levels of positioning accuracy of the navigation system.	This is not a malfunction. Drive the vehicle for a while to automatically correct the position and direction of the vehicle icon.
When the vehicle is traveling on a new road, the vehicle icon is located on another road nearby.	Because the new road is not stored in the map data, the system automatically places the vehicle icon on the nearest road available.	Updated road information will be included in the next version of the map data.



# NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Symptom	Possible cause	Possible solution
The screen does not switch to the night screen even after turning on the headlights.	The daytime screen was set the last time the headlights were turned on.	Set the screen to the night screen mode using <Day/Night> when you turn on the headlights.
The map does not scroll even when the vehicle is moving.	The current location map screen is not displayed.	Press <MAP>.
The vehicle icon is not displayed.	The current location map screen is not displayed.	Press <MAP>.
The location of the vehicle icon is misaligned from the actual position.	When using tire chains or replacing the tires, speed calculations based on the speed sensor may be incorrect.	Drive the vehicle for a while (at approximately 19 MPH for about 30 minutes) to automatically correct the vehicle icon position. If this does not correct the vehicle icon position, contact an INFINITI dealer.
	The map data has a mistake or is incomplete (the vehicle icon position is always misaligned in the same area).	Updated road information will be included in the next version of the map data.

## RELATED TO ROUTE CALCULATION AND VISUAL GUIDANCE

Symptom	Possible cause	Possible solution
Waypoints are not included in the auto reroute calculation.	Waypoints that you have already passed are not included in the auto reroute calculation.	If you want to go to that waypoint again, you need to edit the route.
Route information is not displayed.	Route calculation has not yet been performed.	Set the destination and perform route calculation.
	You are not driving on the suggested route.	Drive on the suggested route.
	Route guidance is set to off.	Turn on route guidance.
	Route information is not provided for certain types of roads (roads displayed in gray).	This is not a malfunction.
The auto reroute calculation (or detour calculation) suggests the same route as the one previously suggested.	Route calculations took priority conditions into consideration, but the same route was calculated.	This is not a malfunction.
A waypoint cannot be added.	Five waypoints are already set on the route, including ones that you have already passed.	A maximum of 5 waypoints can be set on the route. If you want to go to 6 or more waypoints, perform route calculations multiple times as necessary.
The suggested route is not displayed.	Roads near the destination cannot be calculated.	Reset the destination to a main or ordinary road, and recalculate the route.
	The starting point and destination are too close.	Set a more distant destination.
	The starting point and destination are too far away.	Divide your trip by selecting one or two intermediate destinations, and perform route calculations multiple times.
	There are time restricted roads (by the day of the week, by time) near the current vehicle location or destination.	Set [Use Time Restricted Roads] to off.
The part of the route that you have already passed is deleted.	A route is managed by sections between waypoints. If you passed the first waypoint, the section between the starting point and the waypoint is deleted. (It may not be deleted depending on the area.)	This is not a malfunction.
An indirect route is suggested.	If there are restrictions (such as one-way streets) on roads close to the starting point or destination, the system may suggest an indirect route.	Adjust the location of the starting of the starting point or destination.
	The system may suggest an indirect route because route calculation does not take into consideration some areas such as narrow streets (gray roads.)	Reset the destination to a main or ordinary road, and recalculate the route.



## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[NAVIGATION (TWIN MONITOR)]

Symptom	Possible cause	Possible solution
The landmark information does not correspond to the actual information.	This may be caused by insufficient or incorrect map data.	Updated information will be included in the next version of the data.
The suggested route does not exactly connect to the starting point, waypoints, or destination.	There is no data for route calculation closes to these locations.	Set the starting point, waypoints and destination on a main road, and perform route calculation.

### RELATED TO VOICE GUIDANCE

Symptom	Possible cause	Possible solution
Voice guidance is not available	Voice guidance is only available at certain intersections marked with? In some case, voice guidance is not available even when the vehicle should make a turn.	This is not a malfunction.
	The vehicle has deviated from the suggested route.	Go back to the suggested route or request route calculation again
	Voice guide is set to off.	Turn on voice guidance.
	Route guidance is set to off.	Turn on voice guidance.
The guidance contact does not correspond to the actual condition.	The contact of voice guidance may vary, depending on the types of intersections at which turn are made.	Follow all traffic rules and regulations.

### RELATED TO TRAFFIC INFORMATION

Symptom	Possible cause	Possible solution
The traffic information is not displayed	The traffic information is not set to on.	Set the traffic information to on.
	You are in an area where traffic information is not available	Scroll to an area where traffic information is available
	You have not subscribed to XM NavTraffic or, your subscription to XM NavTraffic has expired.	Check your subscription status of XM NavTraffic.
	The map scale is set at a level where the display of icons is impossible.	Check that the map scale is set at a level in which the display of icons is possible.
With the automatic detour route search ON, no detour route is set to avoid congested areas.	There is no faster route compared to the current route, based on the road network and traffic information.	The automatic detour search is not intended for avoiding traffic jams. It searches for the fastest route taking into consideration such things as traffic jams.
The route does not avoid road section with traffic information stating it is closed due to road construction.	The navigation system is designed not to avoid this event because the actual period of closure may differ from the declared roadwork period.	Observe the actual road condition and follow the instructions on road for detour when necessary. If the road closure is for certain, use detour function and set the detour distance to avoid the closed road section.
Traffic information displayed differs from information from other media (e.g. radio).	Other media may use different information sources.	Observe the actual road conditions and regulations. Always observe safe driving practices and follow all traffic regulations.



## PRECAUTION

### PRECAUTIONS

#### Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000004024556

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### **WARNING:**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

#### PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

#### **WARNING:**

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

#### Precaution for Trouble Diagnosis

INFOID:000000003825635

#### AV COMMUNICATION SYSTEM

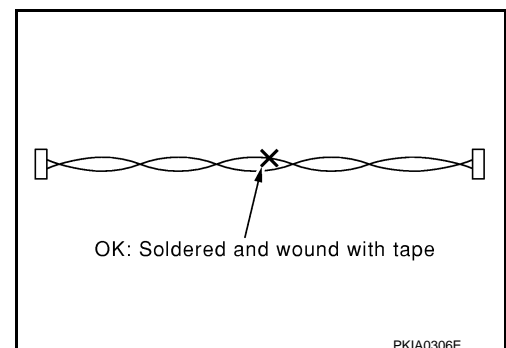
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

#### Precaution for Harness Repair

INFOID:000000003825636

#### AV COMMUNICATION SYSTEM

- Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in).]



PKIA0306E

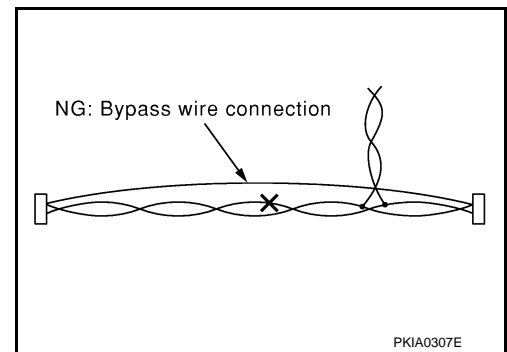


## PRECAUTIONS

### < PRECAUTION >

- Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)

### [NAVIGATION (TWIN MONITOR)]



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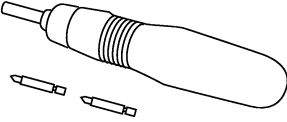


## PREPARATION

### PREPARATION

#### Commercial Service Tools

INFOID:000000003825637

Tool name	Description
<p>Power tool</p>  <p>PBIC0191E</p>	<p>Loosening screws</p>



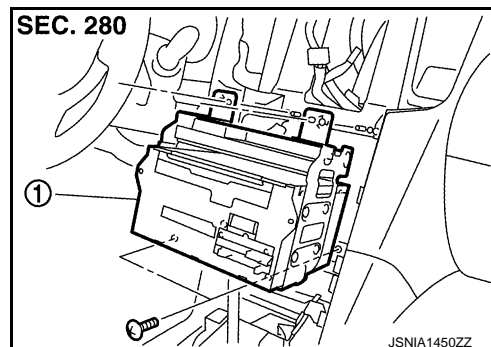
## REMOVAL AND INSTALLATION

### AV CONTROL UNIT

#### Exploded View

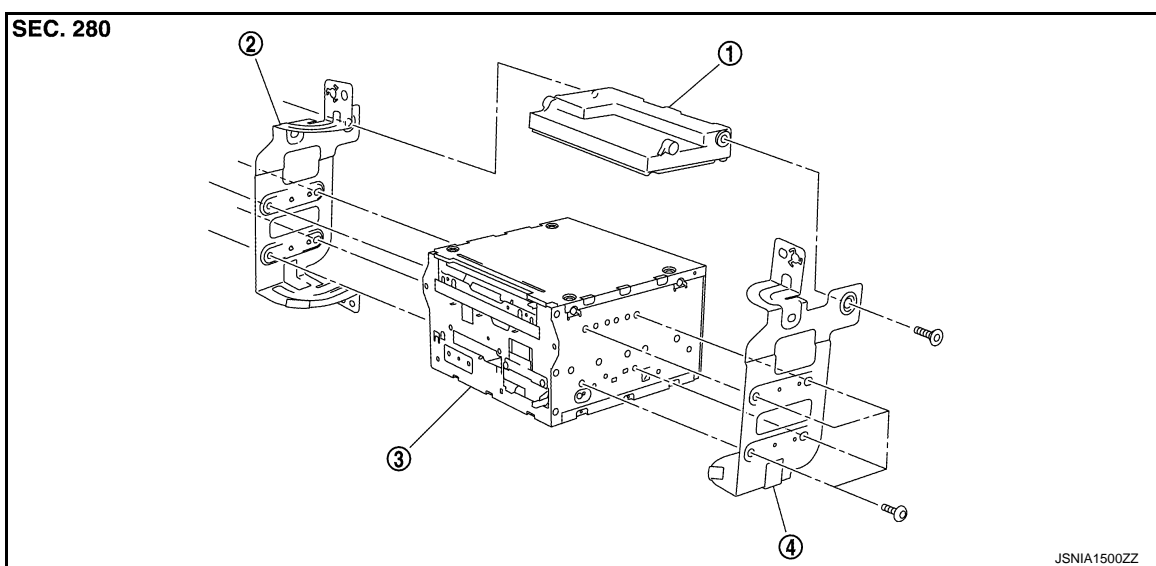
#### REMOVAL

INFOID:000000003926467



1: AV control unit

#### DISASSEMBLY



- |                               |               |                    |
|-------------------------------|---------------|--------------------|
| 1. Unified meter and A/C amp. | 2. Bracket LH | 3. AV control unit |
| 4. Bracket RH                 |               |                    |

### Removal and Installation

INFOID:000000003926468

#### REMOVAL

1. Remove front display unit. Refer to [AV-1046. "Removal and Installation"](#).
2. Remove AV control unit with a unified meter and A/C amp. as a single unit from the body.
3. Remove bracket screws, and then remove AV control unit.

#### INSTALLATION

Installation is the reverse order of removal.

#### CAUTION:

Since AV control unit connector and unified meter and A/C amp. connector have the same form, be careful not to insert them wrongly.



# FRONT DISPLAY UNIT

< REMOVAL AND INSTALLATION >

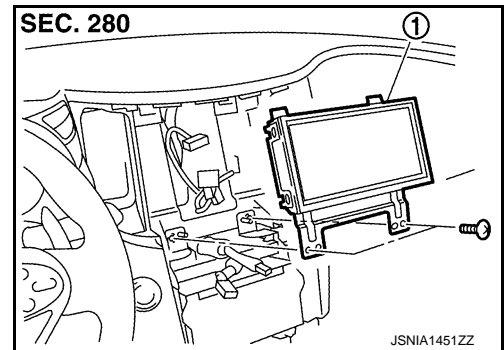
[NAVIGATION (TWIN MONITOR)]

## FRONT DISPLAY UNIT

### Exploded View

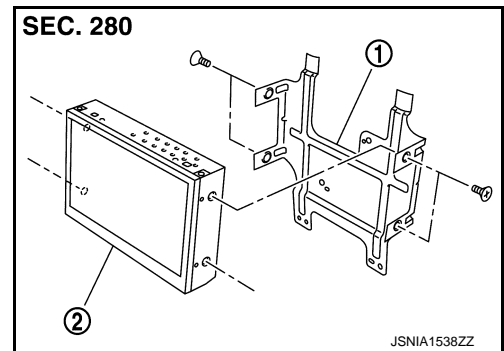
INFOID:000000003926469

### REMOVAL



1. Front display unit

### DISASSEMBLY



1. Bracket
2. Front display unit

## Removal and Installation

INFOID:000000003926470

### REMOVAL

1. Remove cluster lid D. Refer to [IP-12, "Removal and Installation"](#).
2. Remove front display unit mounting screws.
3. Disconnect connector, and remove front display unit.

### INSTALLATION

Installation is the reverse order of removal.



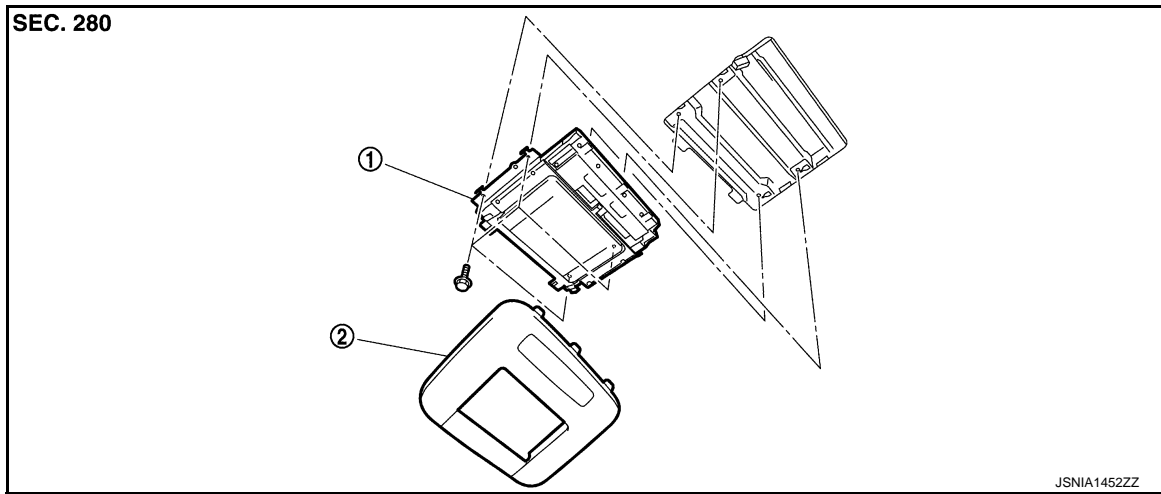
## REAR DISPLAY UNIT

< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

### REAR DISPLAY UNIT

#### Exploded View



1. Rear display unit

2. Rear display cover

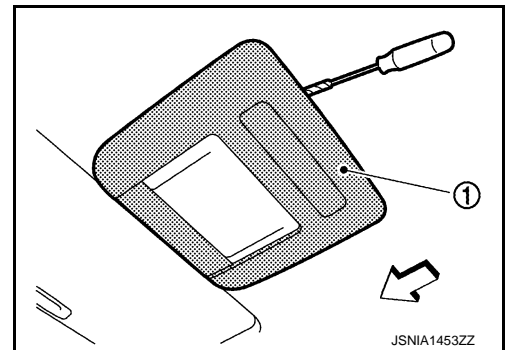
#### Removal and Installation

INFOID:000000003926472

##### REMOVAL

1. Insert cloth-covered driver into gaps between rear display cover (1) and headlining, and remove rear display cover.

← Vehicle front



2. Remove rear display unit mounting bolts.
3. Disconnect connector, and remove rear display unit.

##### INSTALLATION

Install in the reverse order of removal.

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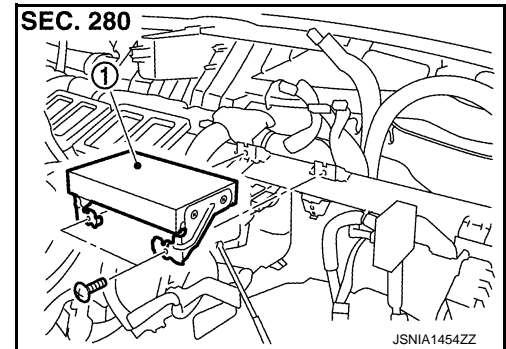


## VIDEO DISTRIBUTOR

### Exploded View

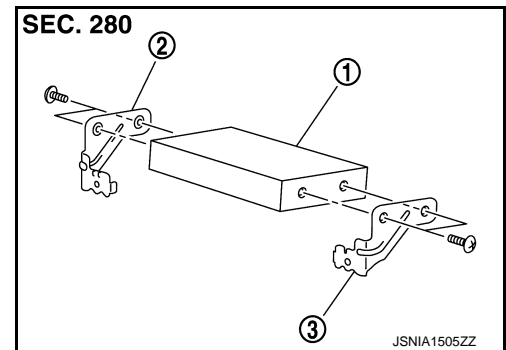
INFOID:000000003926473

#### REMOVAL



- 1: Video distributor

#### DISASSEMBLY



1. Video distributor player
2. Bracket LH
3. Bracket RH

### Removal and Installation

INFOID:000000003926474

#### REMOVAL

1. Remove instrument panel. Refer to [IP-12, "Removal and Installation"](#).
2. Remove video distributor mounting screws.
3. Disconnect connector and remove video distributor.

#### INSTALLATION

Install in the reverse order of removal.



## DVD PLAYER

### Exploded View

INFOID:000000003926475

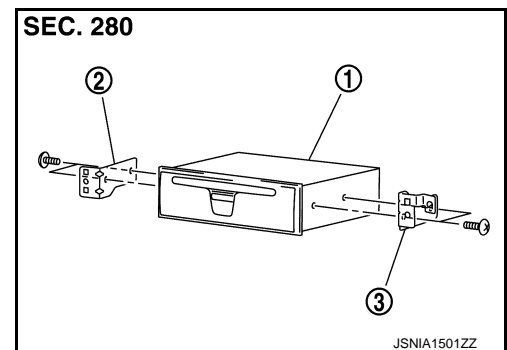
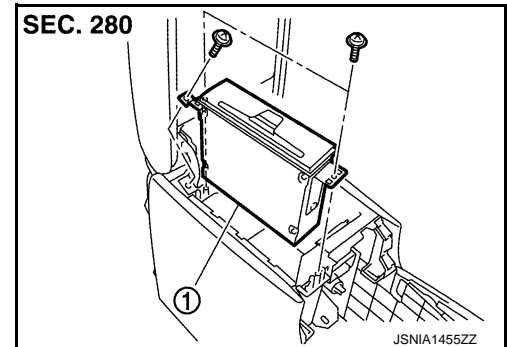
### Exploded View

### REMOVAL

1. DVD player

### DISASSEMBLY

1. DVD player
2. Bracket LH
3. Bracket RH



## Removal and Installation

INFOID:000000003926476

### REMOVAL

1. Remove DVD finisher. Refer to [IP-24, "Disassembly and Assembly"](#).
2. Remove DVD player mounting screws.
3. Remove connector and remove DVD player.

### INSTALLATION

Install in the reverse order of removal.

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## FRONT DOOR SPEAKER

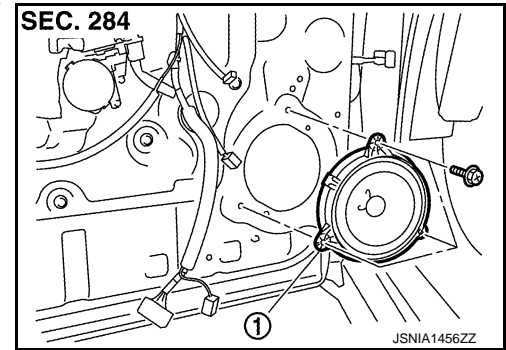
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

### FRONT DOOR SPEAKER

#### Exploded View

INFOID:000000003926477



1. Front door speaker

#### Removal and Installation

INFOID:000000003926478

##### REMOVAL

1. Remove front door finisher. Refer to [INT-11, "Removal and Installation"](#).
2. Remove front door speaker mounting bolts.
3. Disconnect connector and remove front door speaker.

##### INSTALLATION

Installation is the reverse order of removal.



## REAR DOOR SPEAKER

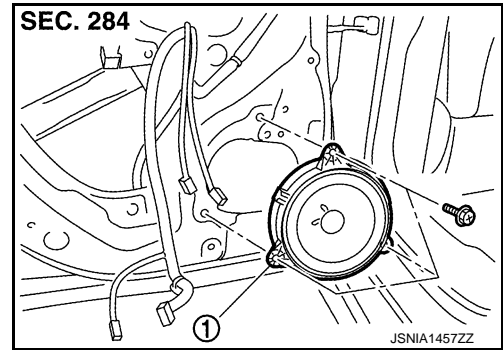
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

### REAR DOOR SPEAKER

#### Exploded View

INFOID:0000000003926479



1. Rear door speaker

#### Removal and Installation

INFOID:0000000003926480

##### REMOVAL

1. Remove rear door finisher. Refer to [INT-14. "Removal and Installation"](#).
2. Remove rear door speaker mounting bolts.
3. Disconnect connector and remove rear door speaker.

##### INSTALLATION

Installation is the reverse order of removal.

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## FRONT SQUAWKER

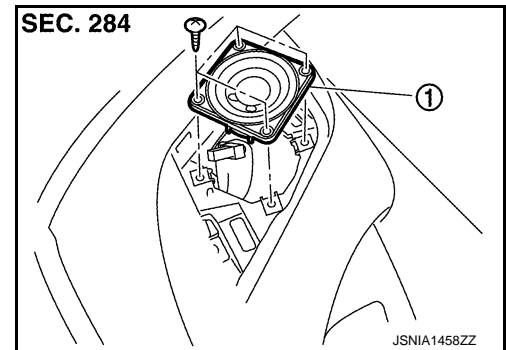
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

### FRONT SQUAWKER

#### Exploded View

INFOID:000000003926481



1. Front squawker

#### Removal and Installation

INFOID:000000003926482

##### REMOVAL

1. Remove speaker grille. Refer to [IP-12. "Removal and Installation"](#).
2. Remove front squawker mounting screws.
3. Disconnect connector and remove front squawker.

##### INSTALLATION

Installation is the reverse order of removal.



# REAR SQUAWKER

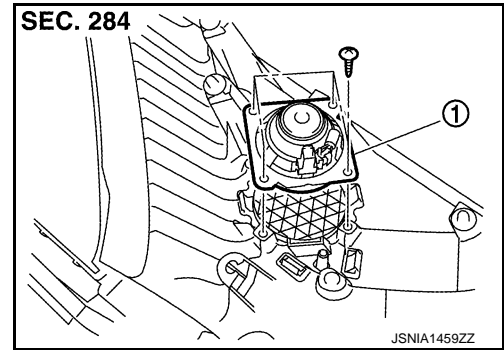
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## REAR SQUAWKER

### Exploded View

INFOID:000000003926483



1. Rear squawker

### Removal and Installation

INFOID:000000003926484

#### REMOVAL

1. Remove luggage side finisher upper. Refer to [INT-28, "Exploded View"](#).
2. Remove rear squawker mounting screws.
3. Remove rear squawker.

#### INSTALLATION

Installation is the reverse order of removal.

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## CENTER SPEAKER

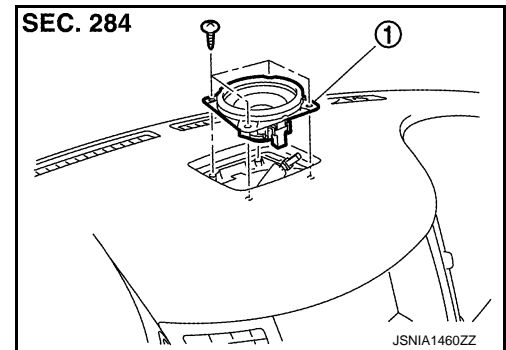
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

### CENTER SPEAKER

#### Exploded View

INFOID:000000003926485



1. Center speaker

#### Removal and Installation

INFOID:000000003926486

##### REMOVAL

1. Remove center speaker grille. Refer to [JP-11, "Exploded View"](#).
2. Remove center speaker mounting screws, lift up the center speaker and disconnect connector.
3. Remove center speaker.

##### INSTALLATION

Installation is the reverse order of removal.



# WOOFER

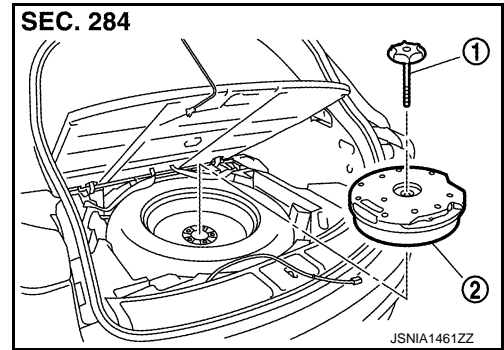
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## WOOFER

### Exploded View

INFOID:0000000003926487



1. Woofer clamp
2. Woofer

### Removal and Installation

INFOID:0000000003926488

#### REMOVAL

1. Pull up luggage finisher cover and hang the strap to upper body.
2. Remove woofer clamp.
3. Remove harness clip and connector.
4. Remove woofer.

#### INSTALLATION

Installation is the reverse order of removal.

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## BOSE AMP.

< REMOVAL AND INSTALLATION >

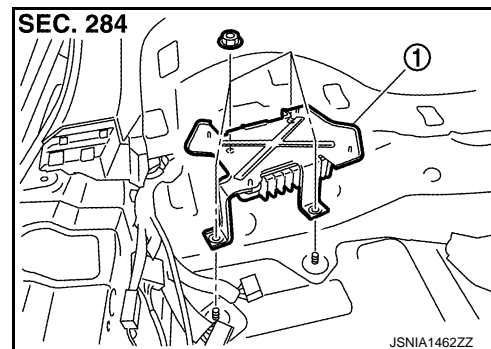
[NAVIGATION (TWIN MONITOR)]

### BOSE AMP.

#### Exploded View

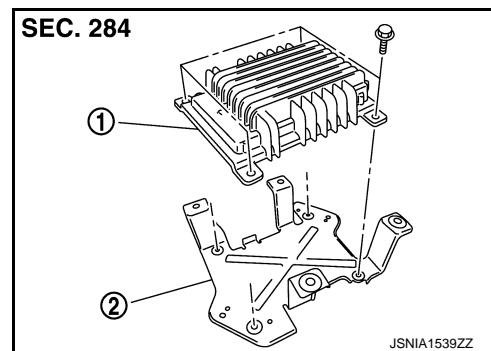
INFOID:000000003926489

#### REMOVAL



1. BOSE amp.

#### DISASSEMBLY



1. BOSE amp.
2. Bracket

### Removal and Installation

INFOID:000000003926490

#### REMOVAL

1. Remove luggage floor spacer (LH). Refer to [INT-28, "Exploded View"](#).
2. Remove BOSE amp. mounting nuts.
3. Disconnect connector and remove BOSE amp.

#### INSTALLATION

Installation is the reverse order of removal.



# ANTENNA BASE

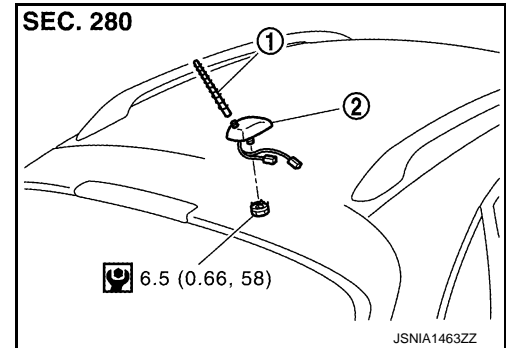
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## ANTENNA BASE

### Exploded View

INFOID:0000000003926491



1. Antenna rod
2. Antenna base

Refer to [GI-4, "Components"](#) for symbols in the figure.

### Removal and Installation

INFOID:0000000003926492

#### REMOVAL

1. Remove headlining (rear). Keep a service area. Refer to [INT-23, "Exploded View"](#).
2. Remove antenna base mounting nut.
3. Disconnect connector and remove antenna base.

#### INSTALLATION

Installation is the reverse order of removal.

**Antenna base mounting nut** : 6.5 N·m (0.66 kg-m, 58 in-lb)

#### CAUTION:

Be careful about tightening torque. Antenna sensitivity becomes poor, and when it is excessive, roof panel may be deformed, when roof antenna mounting nut tightening torque is loose.

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# MULTIFUNCTION SWITCH

< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## MULTIFUNCTION SWITCH

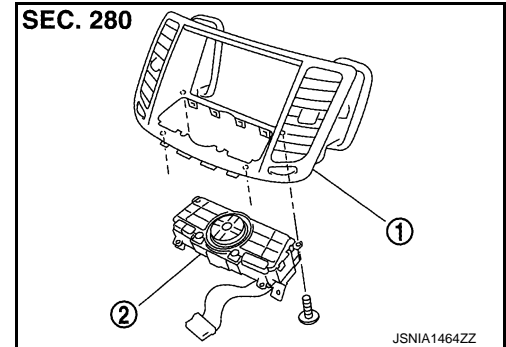
### Exploded View

INFOID:000000003926493

#### REMOVAL

Refer to [IP-11, "Exploded View"](#).

#### DISASSEMBLY



1. Cluster lid D
2. Multifunction switch

### Removal and Installation

INFOID:000000003926494

#### REMOVAL

1. Remove cluster lid D. Refer to [IP-11, "Exploded View"](#).
2. Remove multifunction switch mounting screws.
3. Disconnect connector and remove multifunction switch.

#### INSTALLATION

Installation is the reverse order of removal.



# PRESET SWITCH

< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## PRESET SWITCH

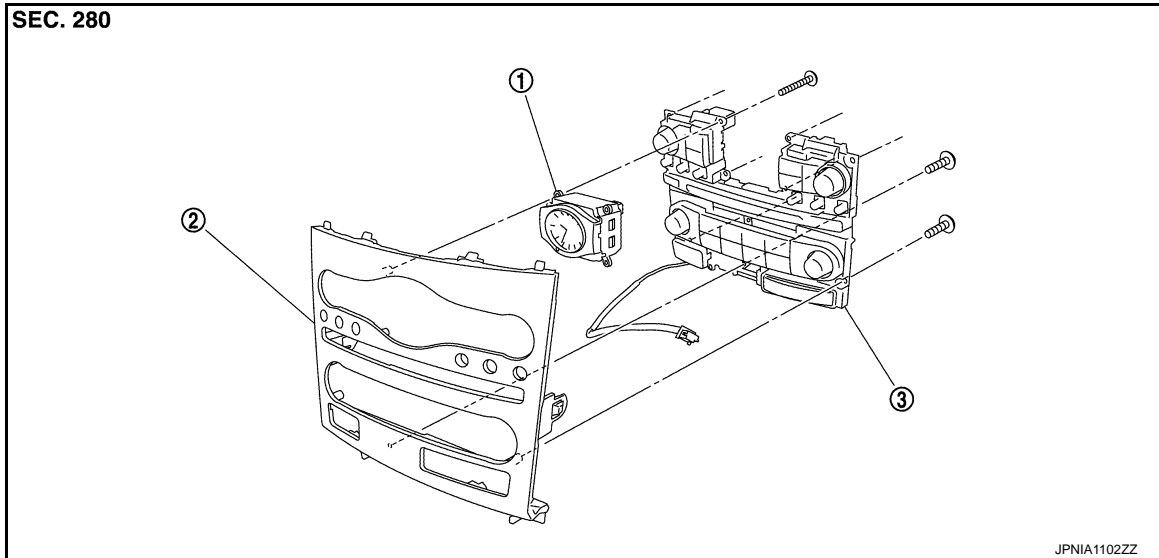
### Exploded View

INFOID:000000003926495

#### REMOVAL

Refer to [IP-11, "Exploded View"](#).

#### DISASSEMBLY



1. Clock

2. Cluster lid C

3. Preset switch

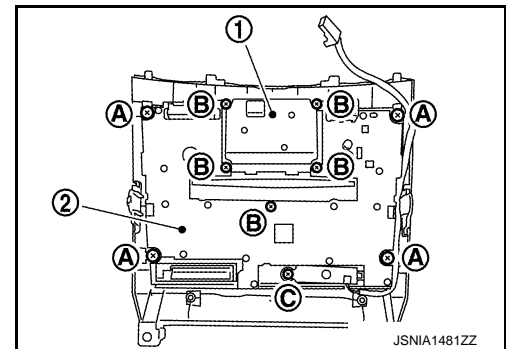
### Removal and Installation

INFOID:000000003926496

#### REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove preset switch mounting screws.
3. Disconnect connector and remove preset switch.

- 1. Clock
- 2. Preset switch
- A. Screw
- B. Screw
- C. Screw



#### INSTALLATION

Installation is the reverse order of removal.

#### NOTE:

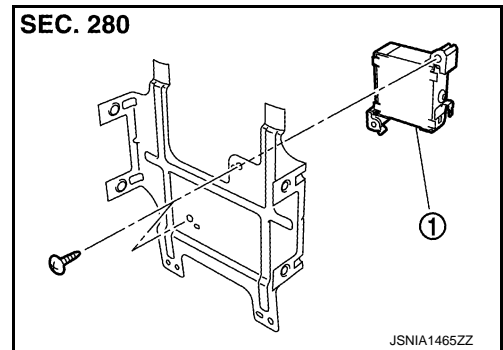
When installing preset switch, do not allow the print wire that connects preset switch and multifunction switch to get caught in between AV control unit and preset switch.



## IPOD ADAPTER

### Exploded View

INFOID:000000003926497



1. iPod adapter

### Removal and Installation

INFOID:000000003926498

#### REMOVAL

1. Remove front display unit with bracket. Refer to [AV-1046, "Removal and Installation"](#).
2. Remove front display from display bracket.
3. Remove iPod adapter mounting screws.
4. Disconnect connector and remove iPod adapter.

#### INSTALLATION

Install in the reverse order of removal.



# IPOD CONNECTOR

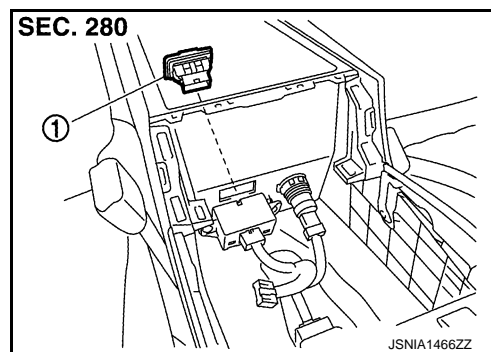
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## IPOD CONNECTOR

### Exploded View

INFOID:0000000003926499



1. iPod connector

### Removal and Installation

INFOID:0000000003926500

#### REMOVAL

1. Remove console box assembly. Refer to [IP-22, "Exploded View"](#).
2. Press pawl from the back of console finisher to remove iPod connector.

#### INSTALLATION

Install in the reverse order of removal.

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## AUXILIARY INPUT JACKS

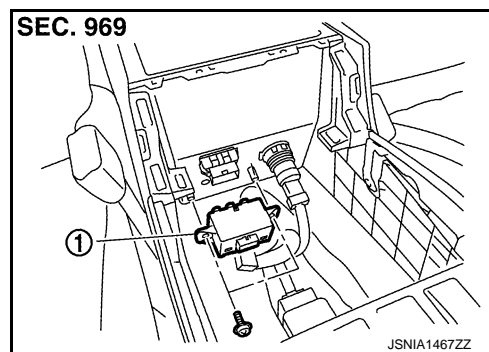
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

### AUXILIARY INPUT JACKS

#### Exploded View

INFOID:000000003926501



1. Auxiliary input jacks

#### Removal and Installation

INFOID:000000003926502

##### REMOVAL

1. Remove console box assembly. Refer to [JP-22, "Exploded View"](#).
2. Remove auxiliary mounting screws.
3. Disconnect connector and remove auxiliary input jacks.

##### INSTALLATION

Installation is the reverse order of removal.



# MICROPHONE

< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## MICROPHONE

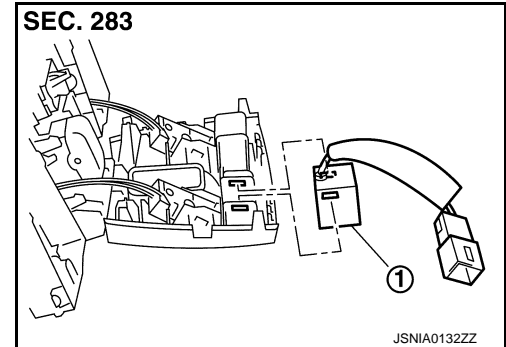
### Exploded View

INFOID:000000003926503

#### REMOVAL

Refer to [INT-23. "Exploded View"](#).

#### DISASSEMBLY



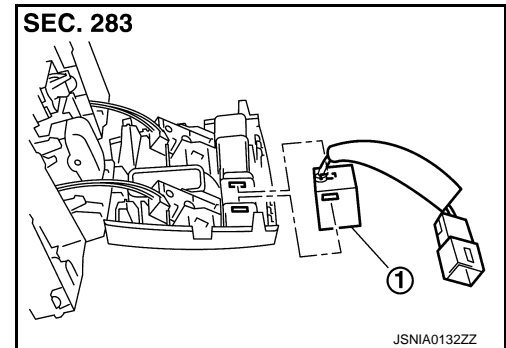
1. Microphone

### Removal and Installation

INFOID:000000003926504

#### REMOVAL

1. Remove map lamp assembly. Refer to [INT-23. "Exploded View"](#).
2. Remove microphone (1), stretching pawls of map lamp assembly.



#### INSTALLATION

Installation is the reverse order of removal.

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# GPS ANTENNA

< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## GPS ANTENNA

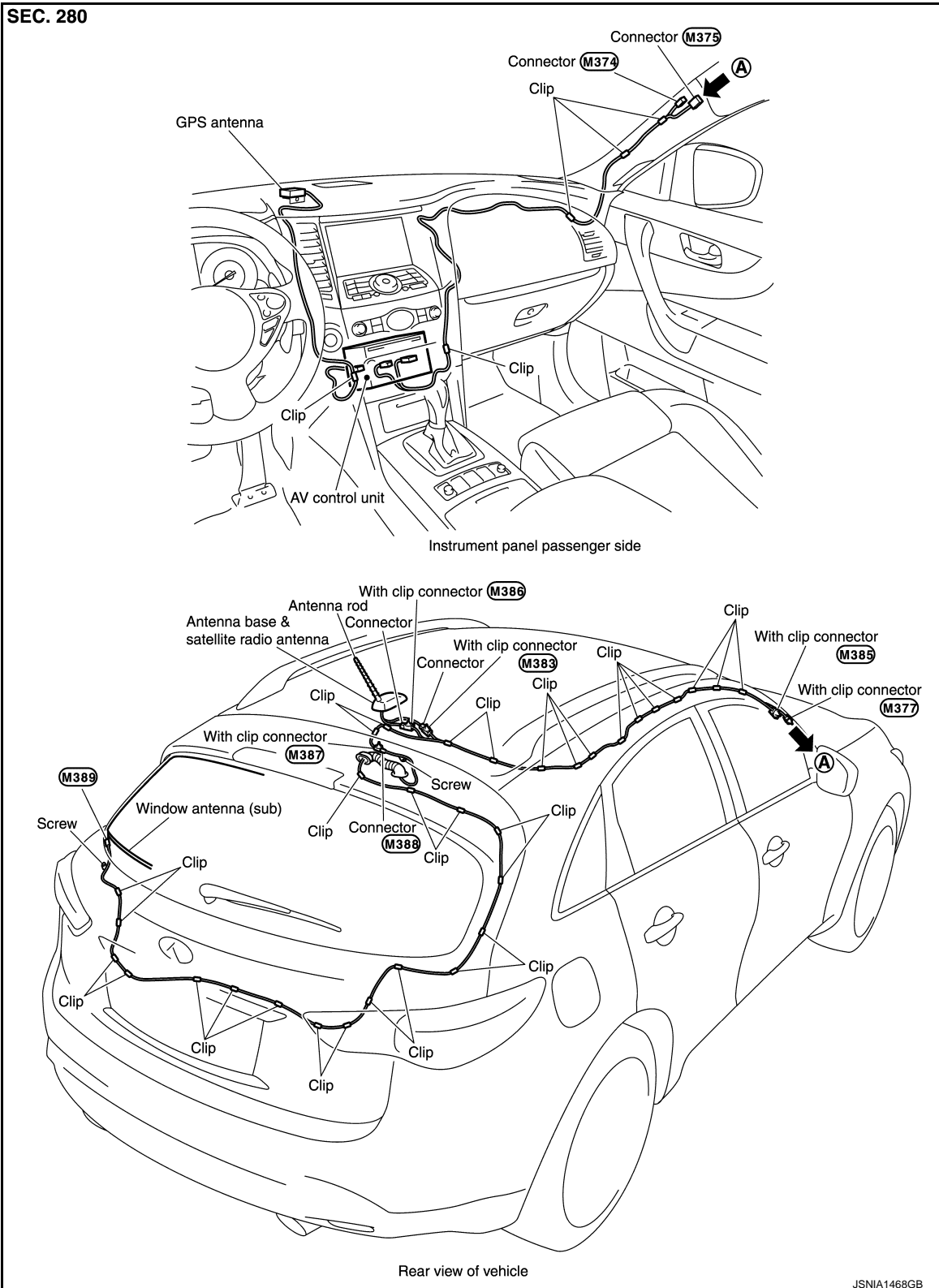
Exploded View

INFOID:000000003926505

Harness Layout

INFOID:000000003926506

SEC. 280





# GPS ANTENNA

< REMOVAL AND INSTALLATION >

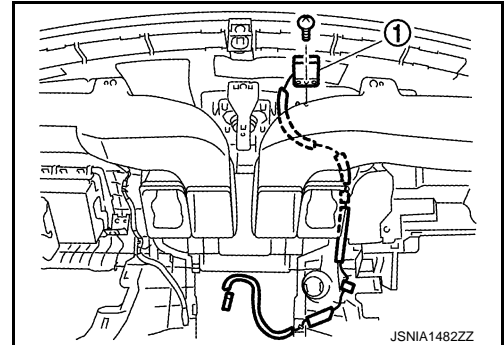
[NAVIGATION (TWIN MONITOR)]

## Removal and Installation

INFOID:000000003926507

### REMOVAL

1. Remove instrument panel. Refer to [IP-11. "Exploded View"](#).
2. Remove GPS antenna mounting screw.
3. Remove GPS antenna (1).



### INSTALLATION

Installation is the reverse order of removal.

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# AROUND VIEW MONITOR CONTROL UNIT

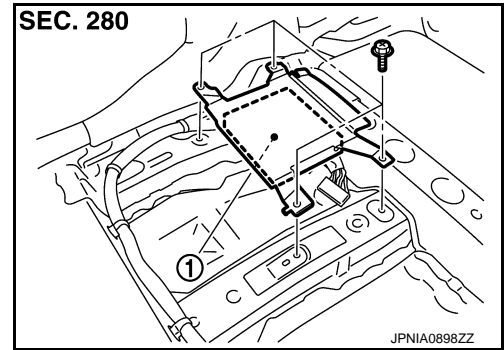
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## AROUND VIEW MONITOR CONTROL UNIT

### Exploded View

INFOID:000000003926508



1. Around view monitor control unit

### Removal and Installation

INFOID:000000003926509

#### REMOVAL

1. Remove front seat (LH side). Refer to [SE-70, "Exploded View"](#).
2. Remove floor carpet. Keep a service area.
3. Remove around view monitor control unit mounting screws.
4. Disconnect connector and remove around view monitor control unit.

#### INSTALLATION

1. Installation is the reverse order of removal.
2. Perform camera image calibration. Refer to [AV-614, "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#).
3. Perform predicted course line center position adjustment. Refer to [AV-613, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement"](#).

#### CAUTION:

Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.



# FRONT CAMERA

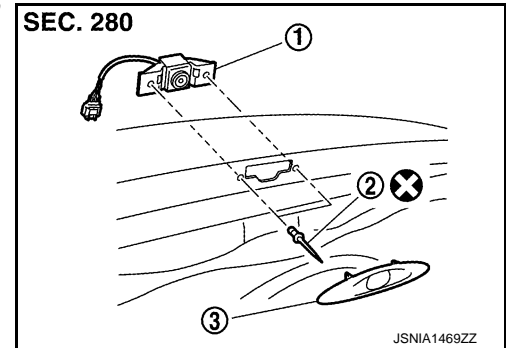
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## FRONT CAMERA

### Exploded View

INFOID:0000000003926510



1. Front camera
2. Rivet
3. Front camera finisher

Refer to [GI-3, "Contents"](#) for symbols in the figure.

### Removal and Installation

INFOID:0000000003926511

#### REMOVAL

1. Remove front camera finisher.
2. Remove front camera mounting rivet.
3. Remove front camera.

#### INSTALLATION

1. Installation is the reverse order of removal.
2. Perform camera image calibration. Refer to [AV-614, "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#).

#### CAUTION:

Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.

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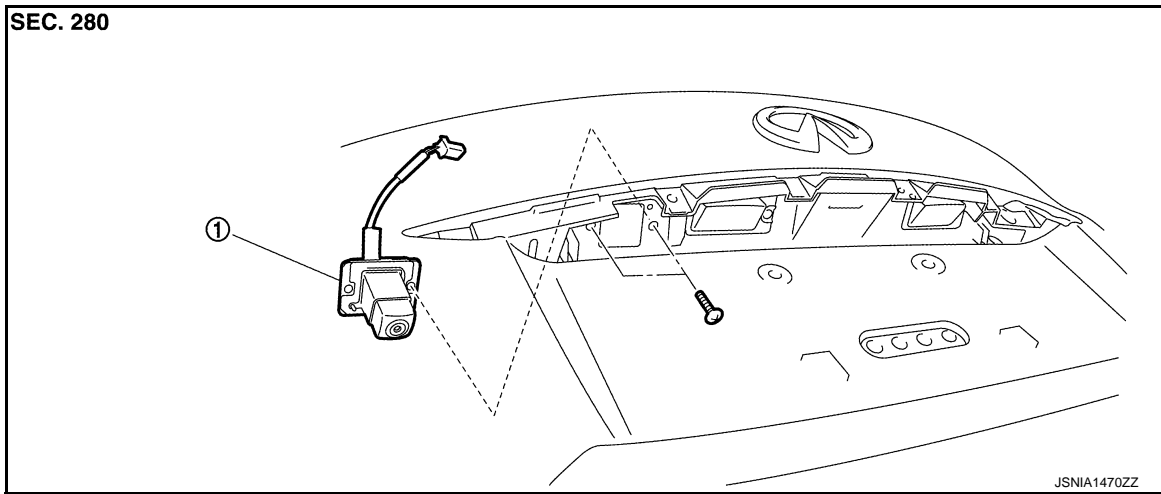
AV



## REAR CAMERA

### Exploded View

INFOID:000000003926512



1. Rear camera

### Removal and Installation

INFOID:000000003926513

#### REMOVAL

1. Remove back door outside finisher upper. Refer to [EXT-49, "Exploded View"](#).
2. Remove door handle cover. Refer to [EXT-49, "Exploded View"](#).
3. Remove rear camera mounting screws and rear camera harness connector.
4. Remove rear camera.

#### INSTALLATION

1. Installation is the reverse order of removal.
2. Perform camera image calibration. Refer to [AV-614, "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#).

#### CAUTION:

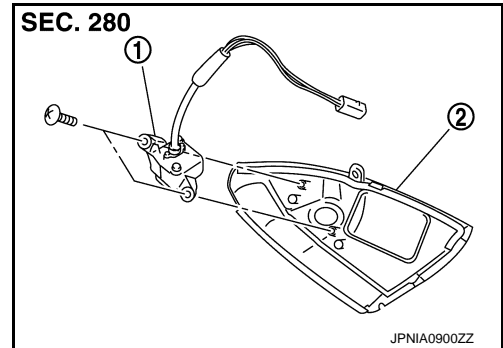
Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.



## SIDE CAMERA LH

## Exploded View

INFOID:000000003926514



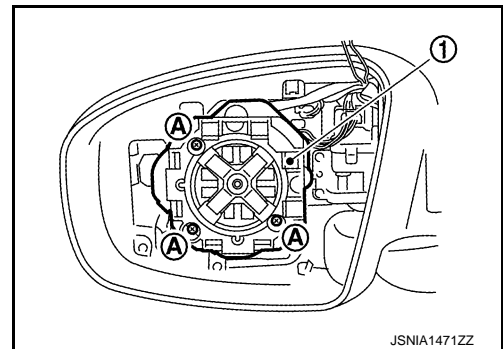
1. Side camera (LH)
2. Side camera finisher assembly

## Removal and Installation

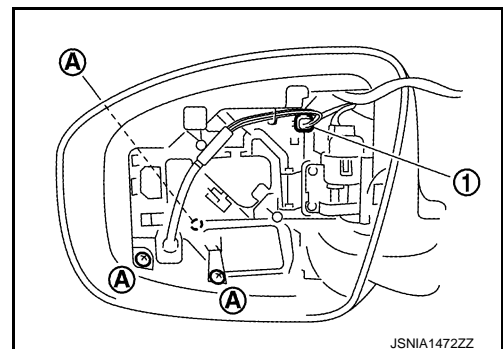
INFOID:000000003926515

## REMOVAL

1. Remove glass mirror (driver side). Refer to [MIR-91, "DOOR MIRROR ASSEMBLY : Exploded View"](#).
2. Remove screws (A), and actuator connector, and then actuator (1).



3. Remove door mirror cover. Refer to [MIR-91, "DOOR MIRROR ASSEMBLY : Exploded View"](#).
4. Remove screws (A) and connector (1), and then remove side camera finisher assembly (LH).



5. Remove side camera (LH) mounting screws
6. Remove side camera (LH).

## INSTALLATION

1. Installation is the reverse order of removal.
2. Perform camera image calibration. Refer to [AV-614, "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#).

**CAUTION:**

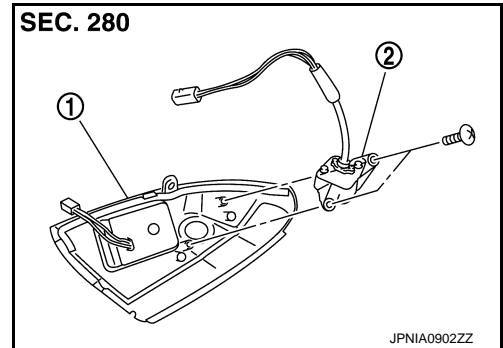
Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.



## SIDE CAMERA RH

### Exploded View

INFOID:000000003926516



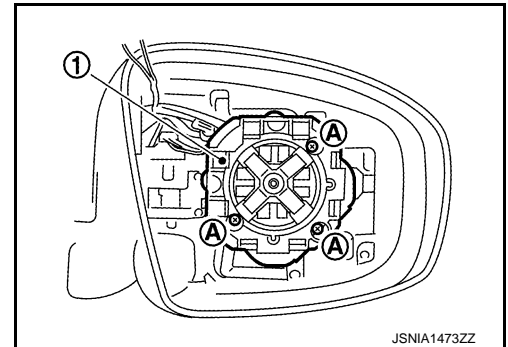
1. Side camera finisher assembly  
[infrared LED (auxiliary lighting)]
2. Side camera (RH)

### Removal and Installation

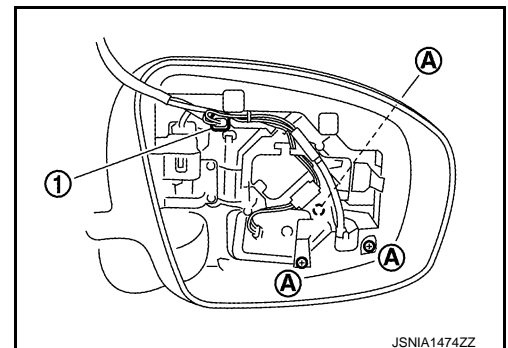
INFOID:000000003926517

#### REMOVAL

1. Remove glass mirror (passenger side). Refer to [MIR-91, "DOOR MIRROR ASSEMBLY : Exploded View"](#).
2. Remove screws (A) and actuator connector, and then actuator (1).



3. Remove door mirror cover. Refer to [MIR-91, "DOOR MIRROR ASSEMBLY : Exploded View"](#).
4. Remove screws (A) and connector (1), and then remove Side camera finisher assembly (RH).



5. Remove side camera (RH) screws.
6. Remove side camera (RH).

#### INSTALLATION

1. Installation is the reverse order of removal.
2. Perform camera image calibration. Refer to [AV-614, "CALIBRATING CAMERA IMAGE \(AROUND VIEW MONITOR\) : Special Repair Requirement"](#).

**CAUTION:**



SIDE CAMERA RH

< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P



# SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

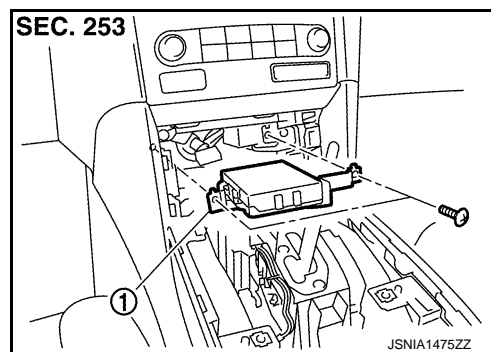
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## SONAR CONTROL UNIT (WITH AROUND VIEW MONITOR)

Exploded View

INFOID:0000000003926518



1. Sonar control unit

### Removal and Installation

INFOID:0000000003926519

#### REMOVAL

1. Remove AV control unit. Refer to [AV-1045. "Removal and Installation"](#).
2. Remove screws and connector, and then sonar control unit.

#### INSTALLATION

Install in the reverse order of removal.



# SONAR SENSOR

< REMOVAL AND INSTALLATION >

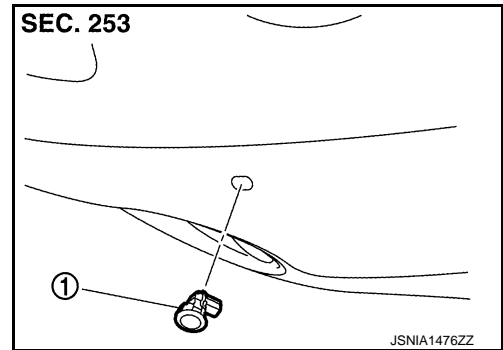
[NAVIGATION (TWIN MONITOR)]

## SONAR SENSOR

### FRONT

#### FRONT : Exploded View

INFOID:0000000003926520



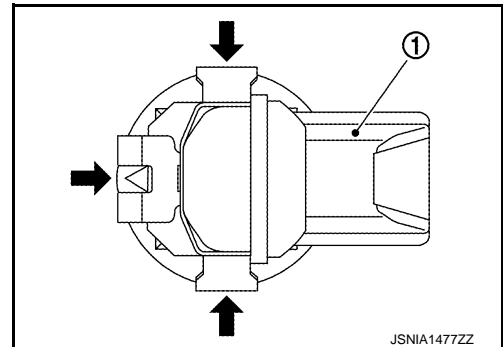
1. Sonar sensor (front)

#### FRONT : Removal and Installation

INFOID:0000000003926521

##### REMOVAL

1. Remove fender protector. Keep a service area. Refer to [EXT-25, "FENDER PROTECTOR : Exploded View"](#).
2. Remove sonar sensor connector.
3. Press the sonar sensor (1) outside the front bumper, pressing the metal clips on the back to the direction of black arrows.



##### INSTALLATION

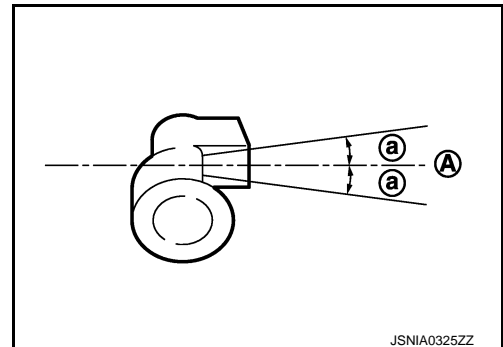
Install the bumper when the pawl engages.

##### CAUTION:

The connector direction is within  $\pm 10^\circ$  from the horizontal position when assembling the bumper.

**A** : Horizontal position

**a** :  $10^\circ$



### REAR



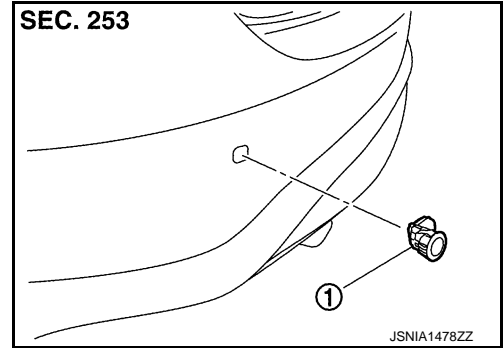
# SONAR SENSOR

< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## REAR : Exploded View

INFOID:000000003926522



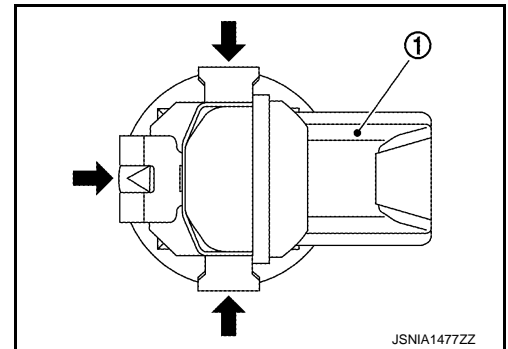
1. Sonar sensor (rear)

## REAR : Removal and Installation

INFOID:000000003926523

### REMOVAL

1. Remove sonar sensor connector.
2. Press the sonar sensor (1) outside the front bumper, pressing the metal clips on the back to the direction of black arrows.



### INSTALLATION

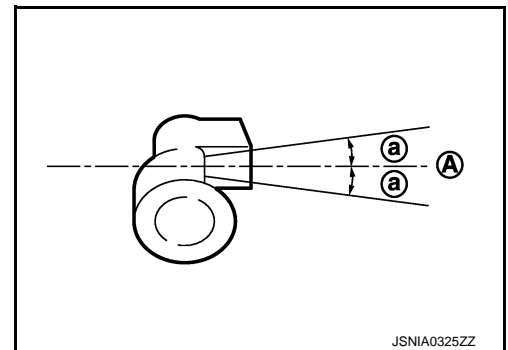
Install the bumper when the pawl engages.

#### CAUTION:

The connector direction is within  $\pm 10^\circ$  from the horizontal position when assembling the bumper.

**A** : Horizontal position

**a** :  $10^\circ$





# BUZZER

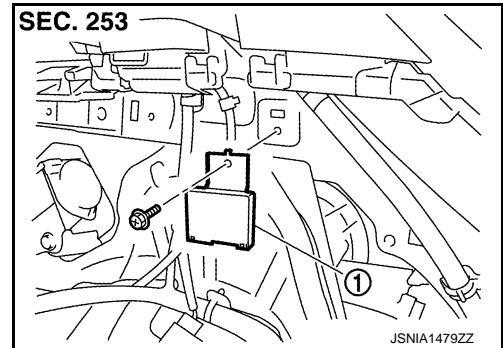
< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## BUZZER

### Exploded View

INFOID:0000000003926524



1. Buzzer

### Removal and Installation

INFOID:0000000003926525

#### REMOVAL

1. Remove luggage side lower finisher (RH). Refer to [INT-28, "Exploded View"](#).
2. Remove buzzer mounting bolt.
3. Disconnect connector and remove buzzer.

#### INSTALLATION

Install in the reverse order of removal.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV



# STEERING ANGLE SENSOR

< REMOVAL AND INSTALLATION >

[NAVIGATION (TWIN MONITOR)]

## STEERING ANGLE SENSOR

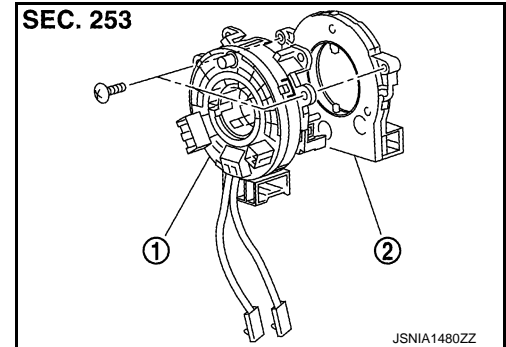
### Exploded View

INFOID:000000003926526

#### REMOVAL

Refer to [SR-8, "Exploded View"](#).

#### DISASSEMBLY



1. Spiral cable
2. Steering angle sensor

### Removal and Installation

INFOID:000000003926527

#### REMOVAL

1. Remove spiral cable. Refer to [SR-8, "Exploded View"](#).
2. Remove steering angle sensor mounting screws.
3. Remove steering angle sensor.

#### INSTALLATION

Installation is the reverse order of removal.



# ANTENNA FEEDER

< REMOVAL AND INSTALLATION >

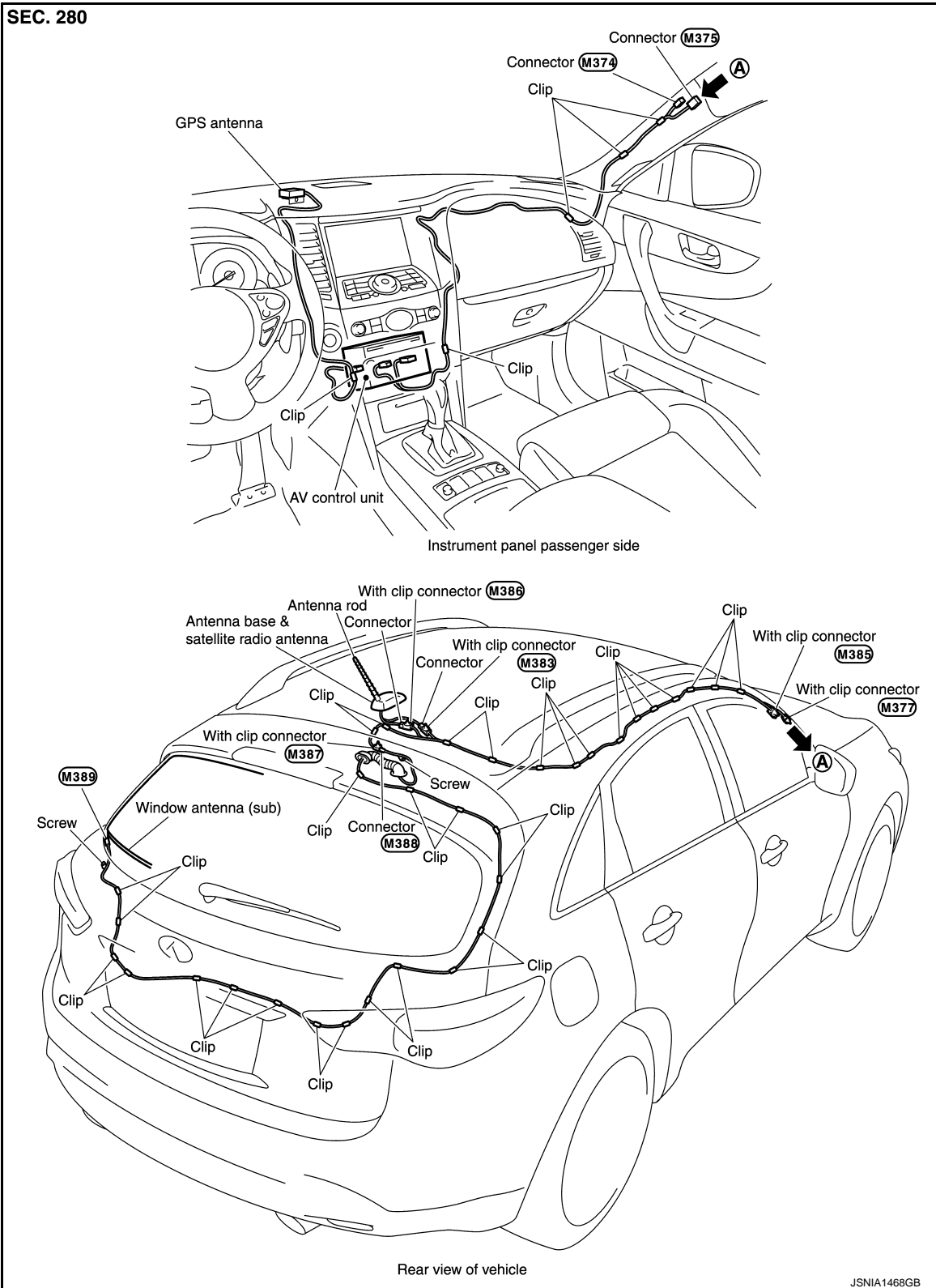
[NAVIGATION (TWIN MONITOR)]

## ANTENNA FEEDER

### Harness Layout

INFOID:000000003926528

SEC. 280



A  
B  
C  
D  
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I  
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L  
M  
N  
O  
P

AV