

PG

SECTION

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

CONTENTS

PRECAUTIONS	3
Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER"	3
POWER SUPPLY ROUTING CIRCUIT	4
Schematic	4
Wiring Diagram — POWER —	6
BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION	6
ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON	11
IGNITION POWER SUPPLY — IGNITION SW. IN ON	12
IGNITION POWER SUPPLY — IGNITION SW. IN ON AND/OR START	13
Fuse	17
Fusible Link	17
Circuit Breaker (Built Into BCM)	17
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	18
System Description	18
SYSTEMS CONTROLLED BY IPDM E/R	18
CAN COMMUNICATION LINE CONTROL	18
IPDM E/R STATUS CONTROL	19
CAN Communication System Description	19
Function of Detecting Ignition Relay Malfunction ...	19
CONSULT-II Function IPDM E/R	20
CONSULT-II BASIC OPERATION	20
SELF-DIAGNOSTIC RESULTS	21
DATA MONITOR	21
ACTIVE TEST	23
Auto Active Test	24
DESCRIPTION	24
OPERATION PROCEDURE	24
INSPECTION IN AUTO ACTIVE TEST MODE... <td style="text-align: right;">24</td>	24
Schematic	26
IPDM E/R Terminal Arrangement	27
IPDM E/R Power/Ground Circuit Inspection	28
Inspection with CONSULT-II (Self-Diagnosis)	29
Removal and Installation of IPDM E/R	30
REMOVAL	30
INSTALLATION	30
GROUND CIRCUIT	31
Ground Distribution	31
MAIN HARNESS	31
ENGINE ROOM HARNESS	34
ENGINE CONTROL HARNESS	37
BODY HARNESS	38
BODY NO. 2 HARNESS	39
BACK DOOR NO. 2 RH HARNESS	40
HARNESS	41
Harness Layout	41
HOW TO READ HARNESS LAYOUT	41
OUTLINE	42
MAIN HARNESS	43
ENGINE ROOM HARNESS (LH VIEW)	45
ENGINE ROOM HARNESS (RH VIEW)	48
ENGINE CONTROL HARNESS	50
CHASSIS HARNESS	52
BODY HARNESS	54
BODY NO. 2 HARNESS	56
ROOM LAMP HARNESS	58
FRONT DOOR LH HARNESS	59
FRONT DOOR RH HARNESS	59
REAR DOOR LH HARNESS	60
REAR DOOR RH HARNESS	60
BACK DOOR HARNESS	61
Wiring Diagram Codes (Cell Codes)	62
ELECTRICAL UNITS LOCATION	65
Electrical Units Location	65
ENGINE COMPARTMENT	65
PASSENGER COMPARTMENT	66
HARNESS CONNECTOR	68
Description	68
HARNESS CONNECTOR (TAB-LOCKING TYPE)	68
HARNESS CONNECTOR (SLIDE-LOCKING	

A
 B
 C
 D
 E
 F
 G
 H
 I
 J
 PG
 L
 M

TYPE)	69	SUPER MULTIPLE JUNCTION (SMJ)	74
HARNESS CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)	70	Terminal Arrangement	74
ELECTRICAL UNITS	71	FUSE BLOCK-JUNCTION BOX (J/B)	76
Terminal Arrangement	71	Terminal Arrangement	76
STANDARDIZED RELAY	72	FUSE AND FUSIBLE LINK BOX	77
Description	72	Terminal Arrangement	77
NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS	72	FUSE AND RELAY BOX	78
TYPE OF STANDARDIZED RELAYS	72	Terminal Arrangement	78

PRECAUTIONS

PFP:00011

PRECAUTIONS

Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

EKS00BMY

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 and SB section 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 section.
- 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.

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POWER SUPPLY ROUTING CIRCUIT

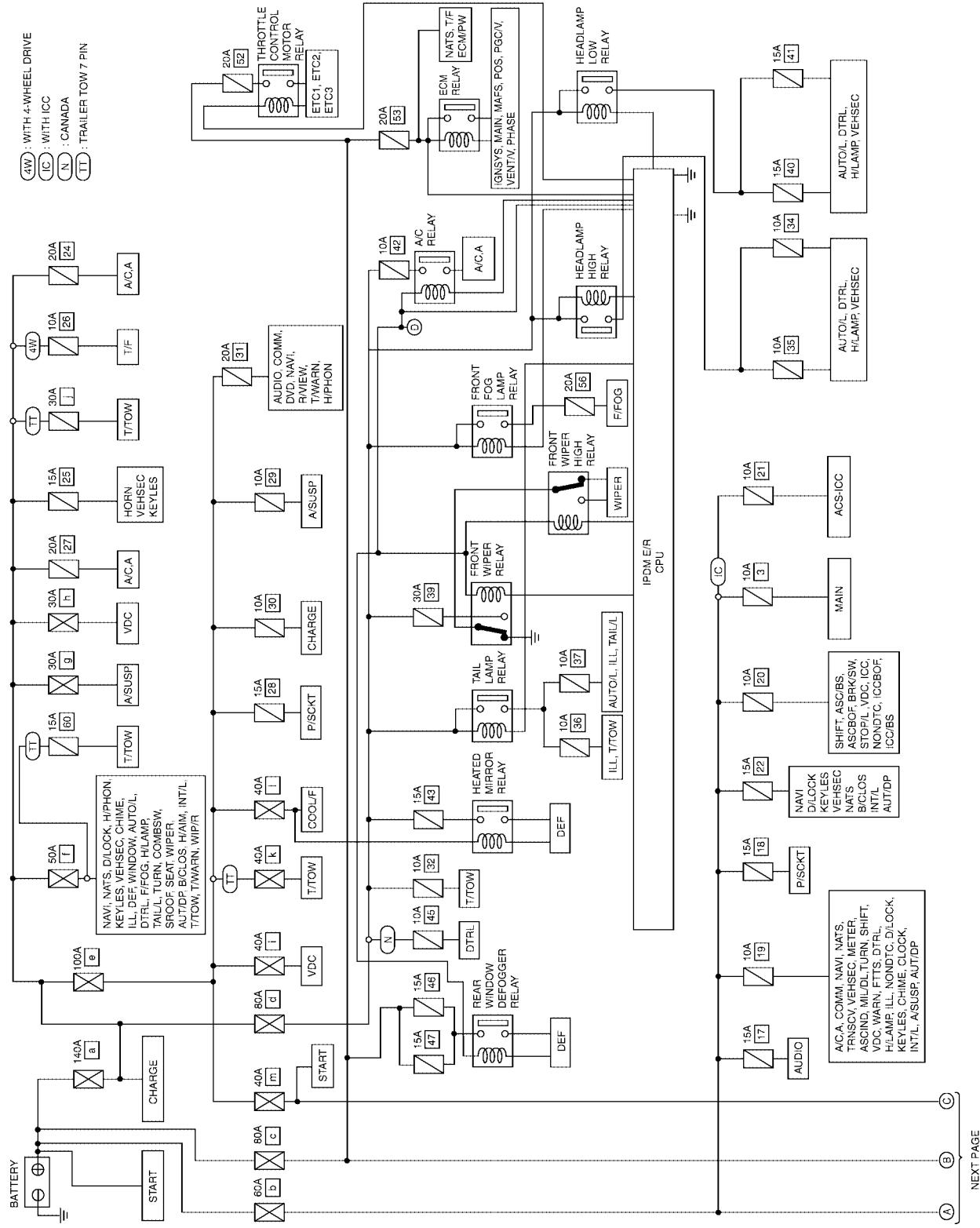
POWER SUPPLY ROUTING CIRCUIT

PFP:24110

Schematic

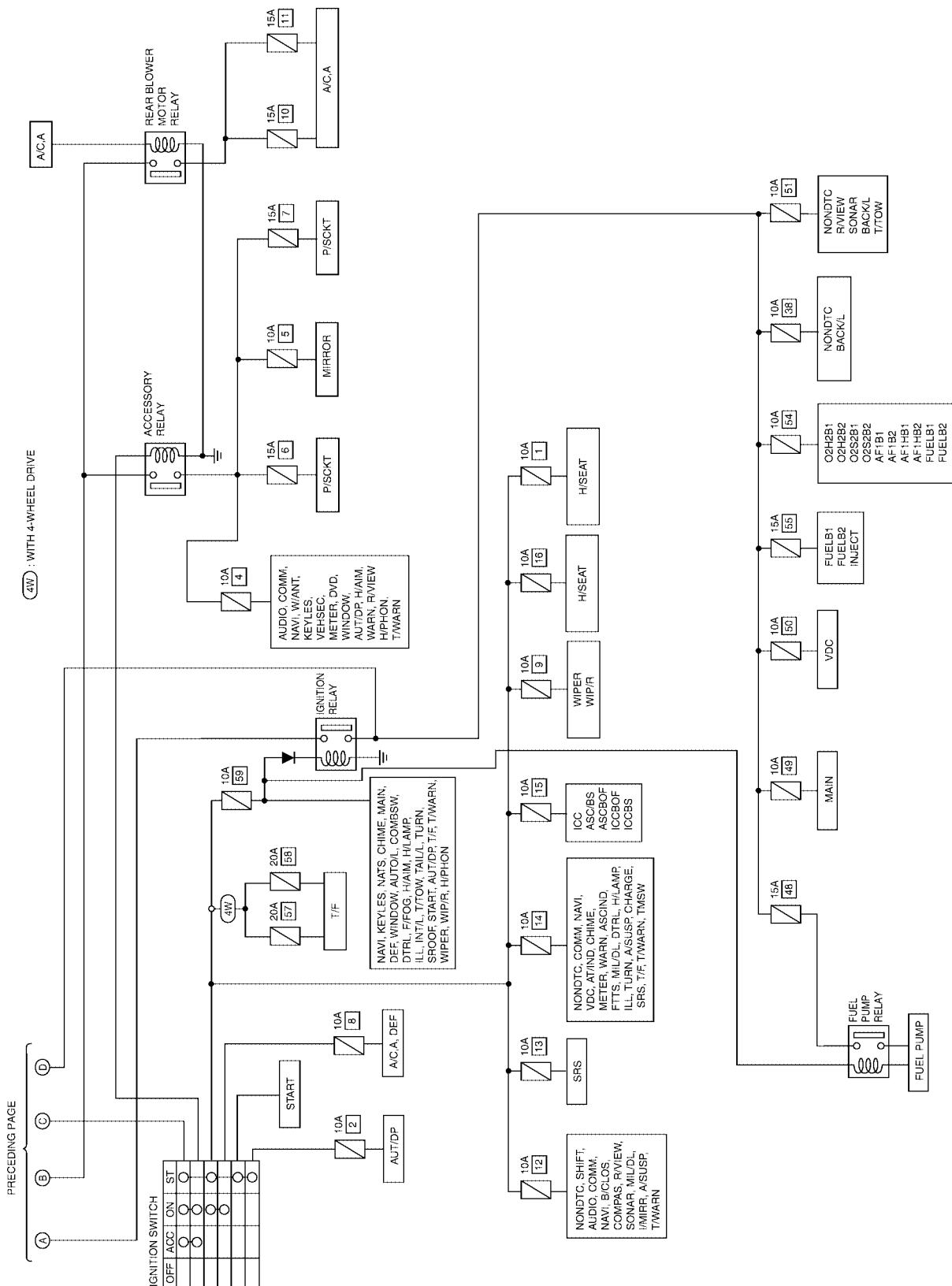
EKS00BN0

For detailed ground distribution, refer to [PG-31, "Ground Distribution"](#).



WKWA3818E

POWER SUPPLY ROUTING CIRCUIT



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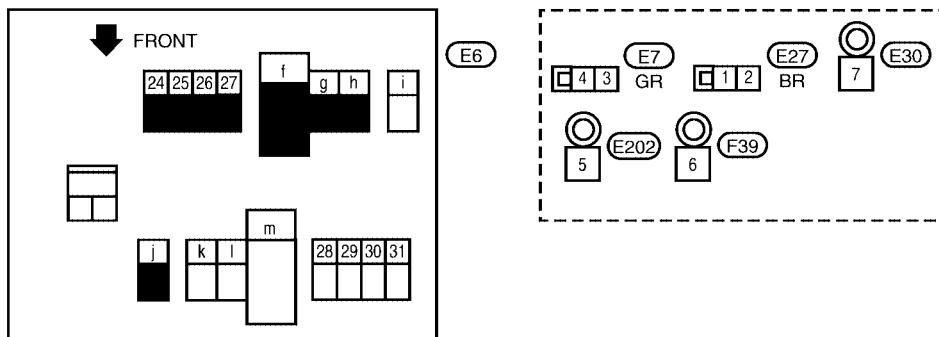
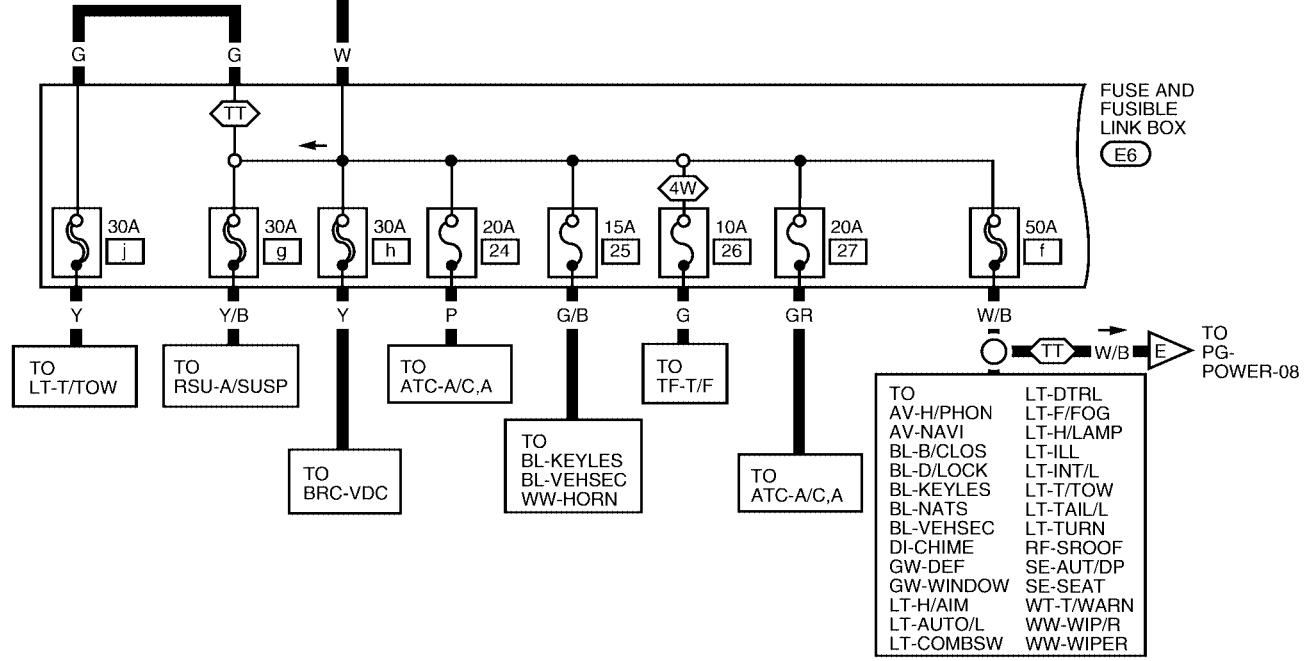
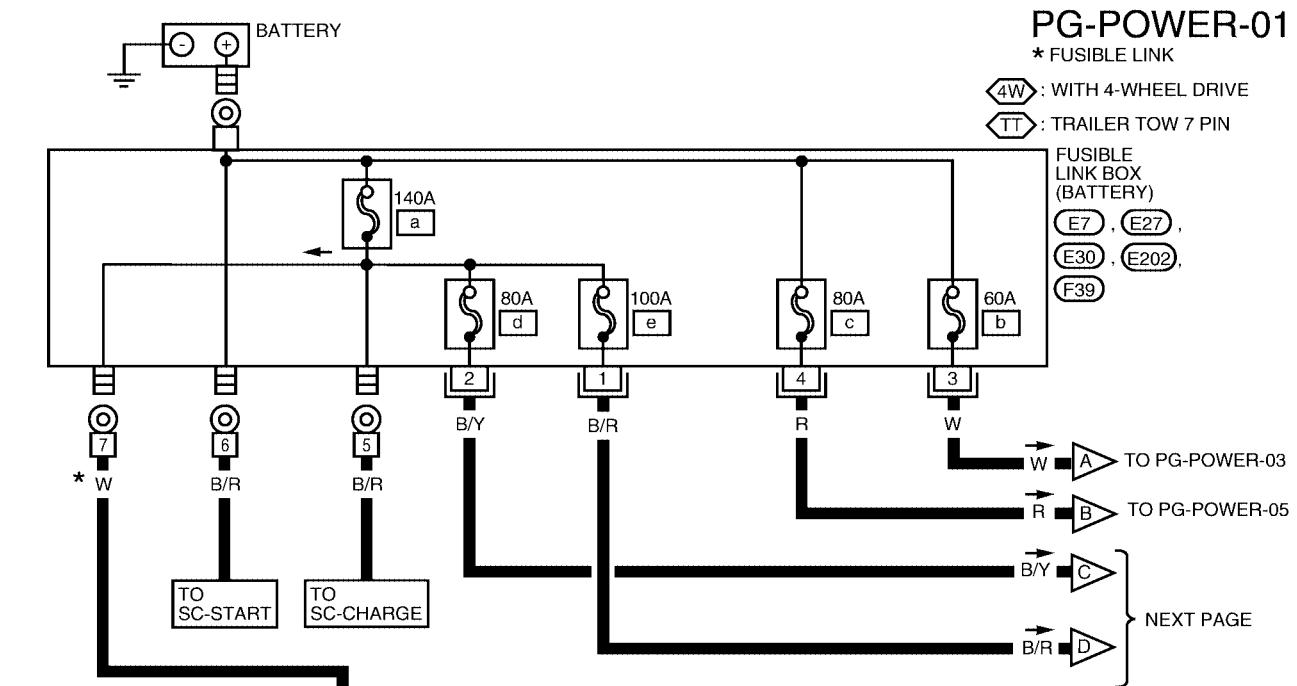
M

WKWA3819E

POWER SUPPLY ROUTING CIRCUIT

Wiring Diagram — POWER — BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION

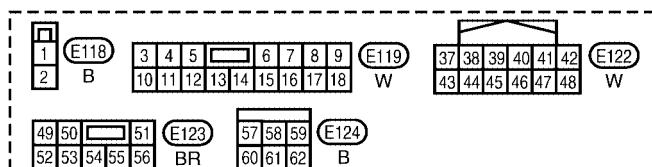
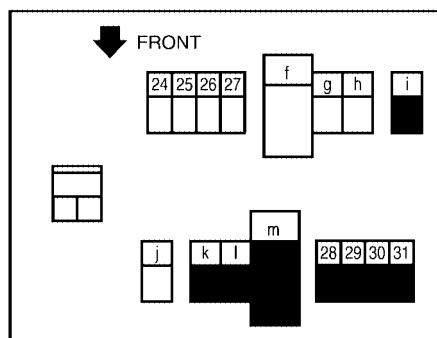
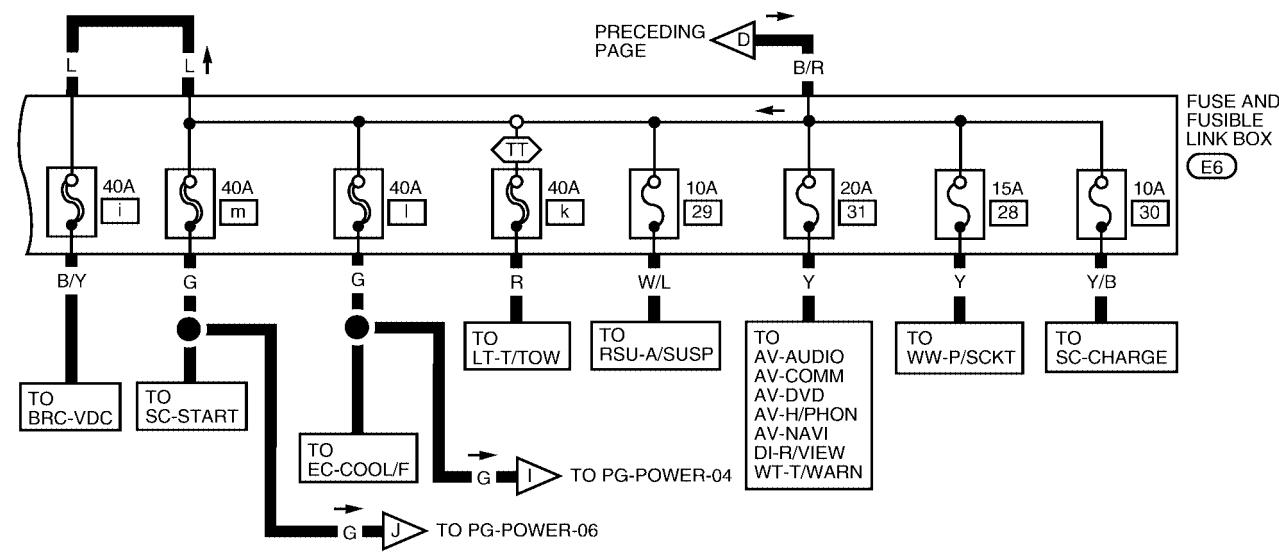
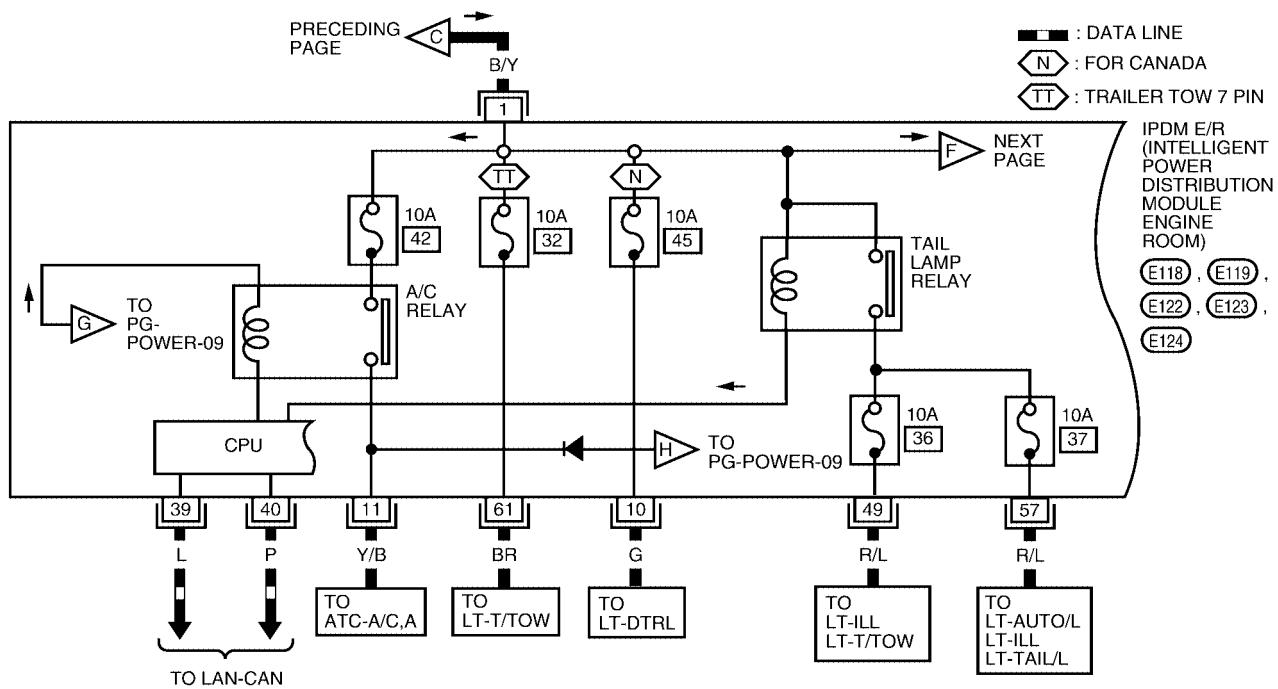
EKS00BN1



WKWA3820E

POWER SUPPLY ROUTING CIRCUIT

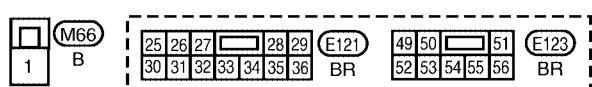
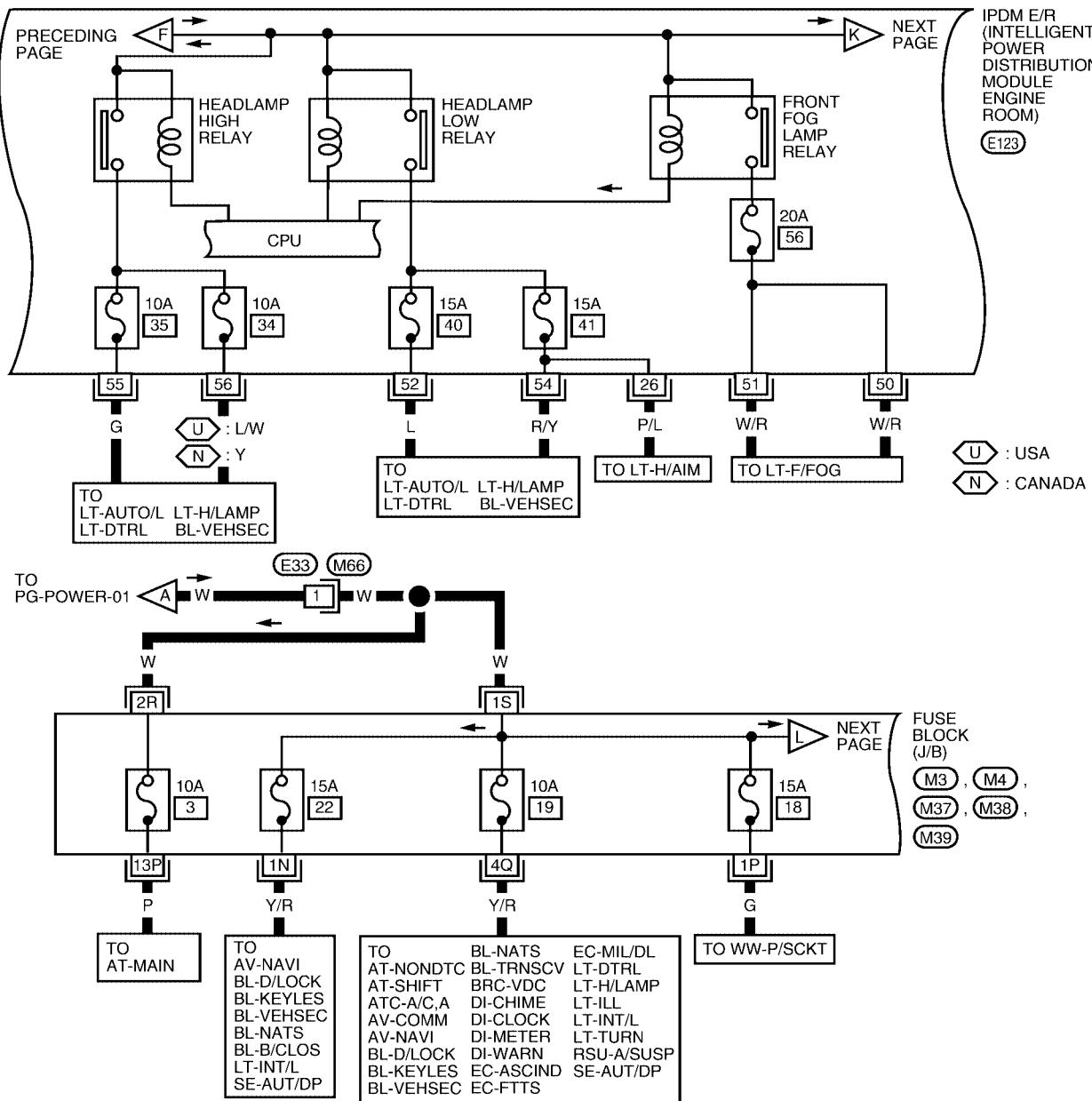
PG-POWER-02



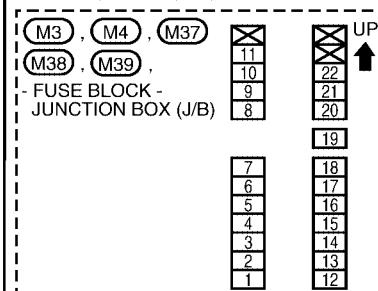
WKWA3821E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-03



REFER TO THE FOLLOWING.

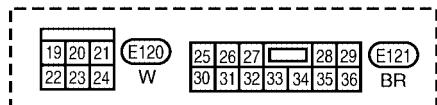
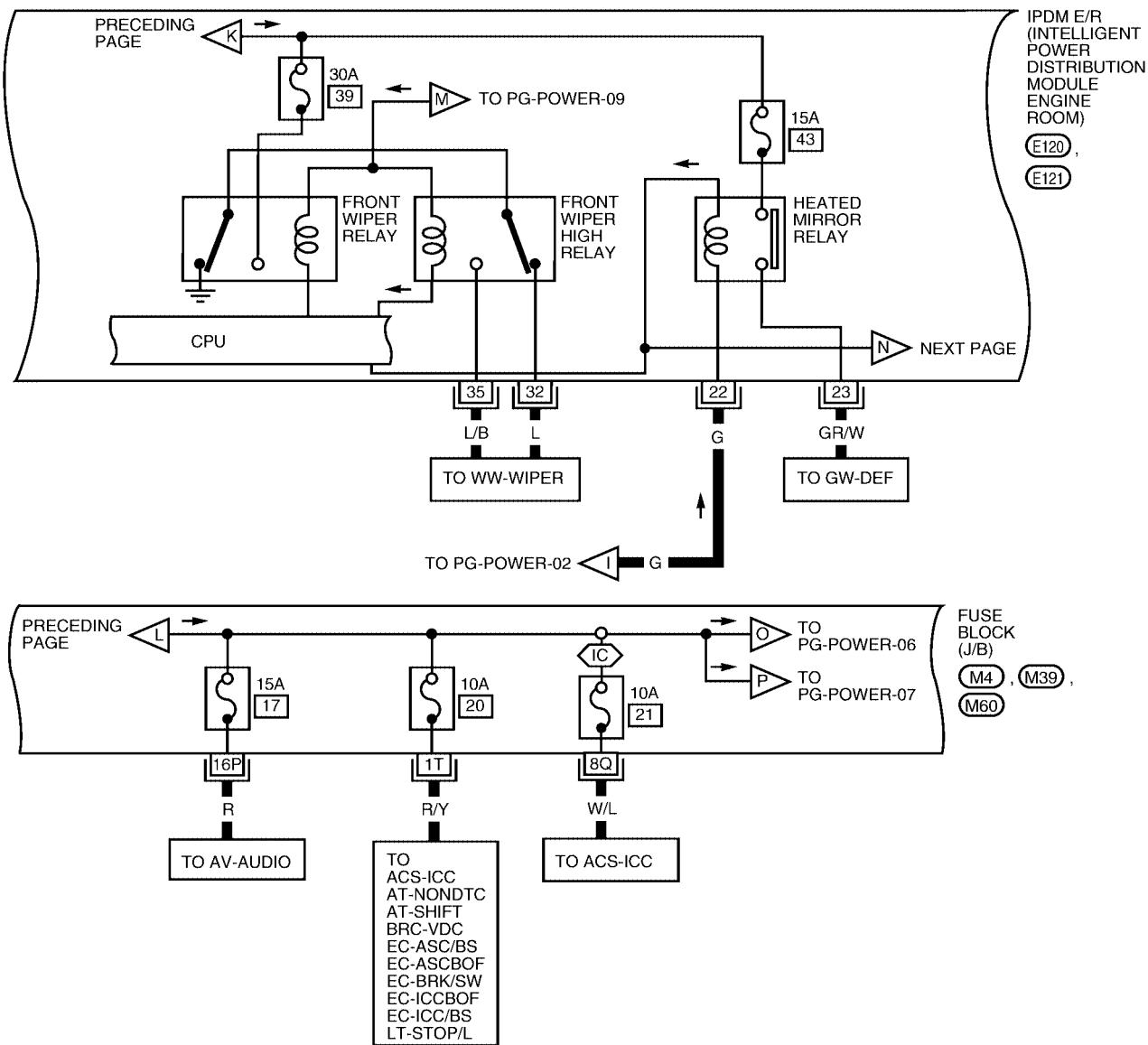


WKWA3822E

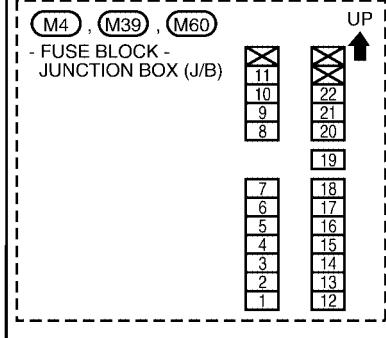
POWER SUPPLY ROUTING CIRCUIT

PG-POWER-04

◀(IC) : WITH ICC



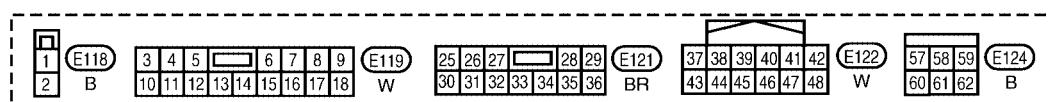
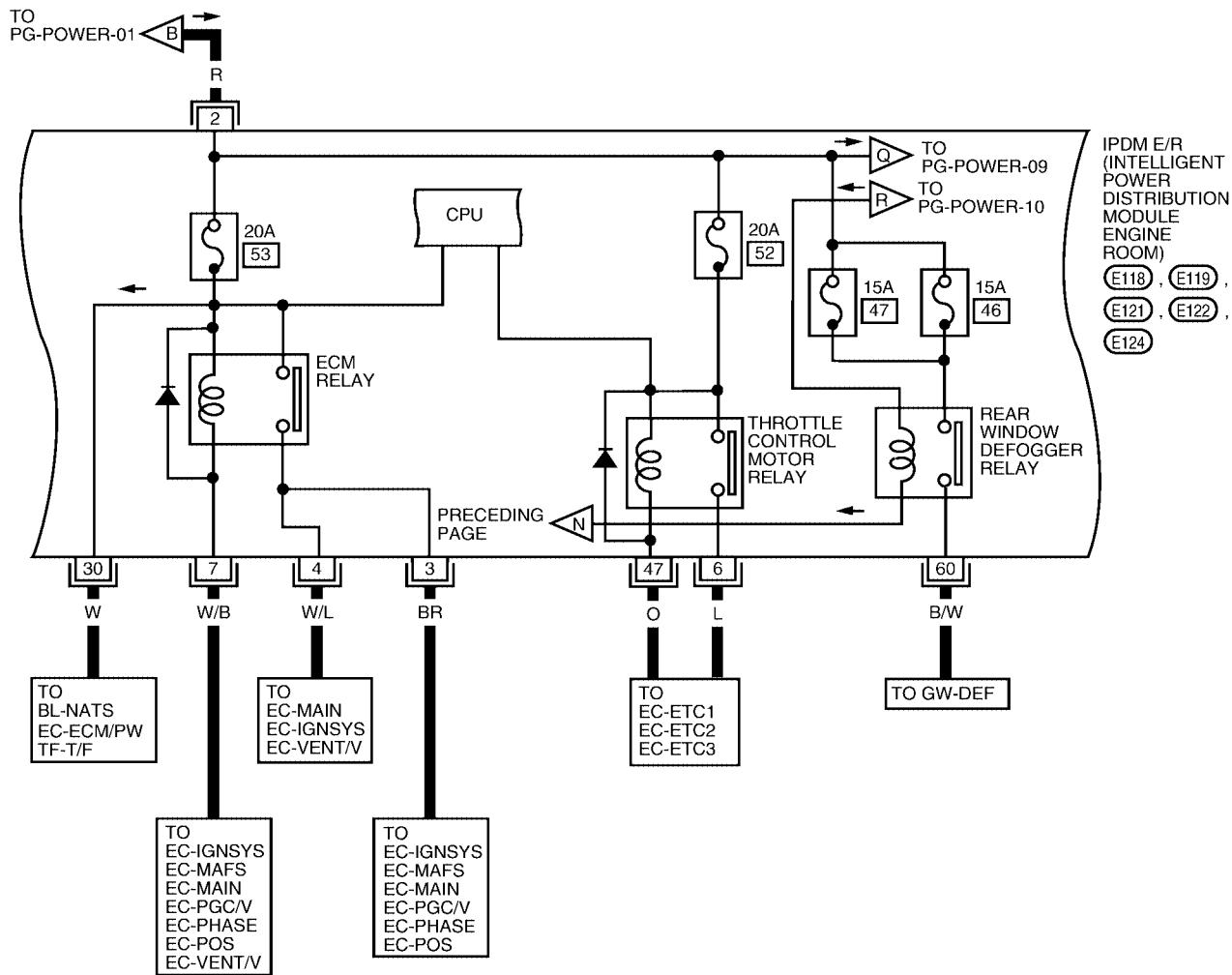
REFER TO THE FOLLOWING.



WKWA3823E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-05

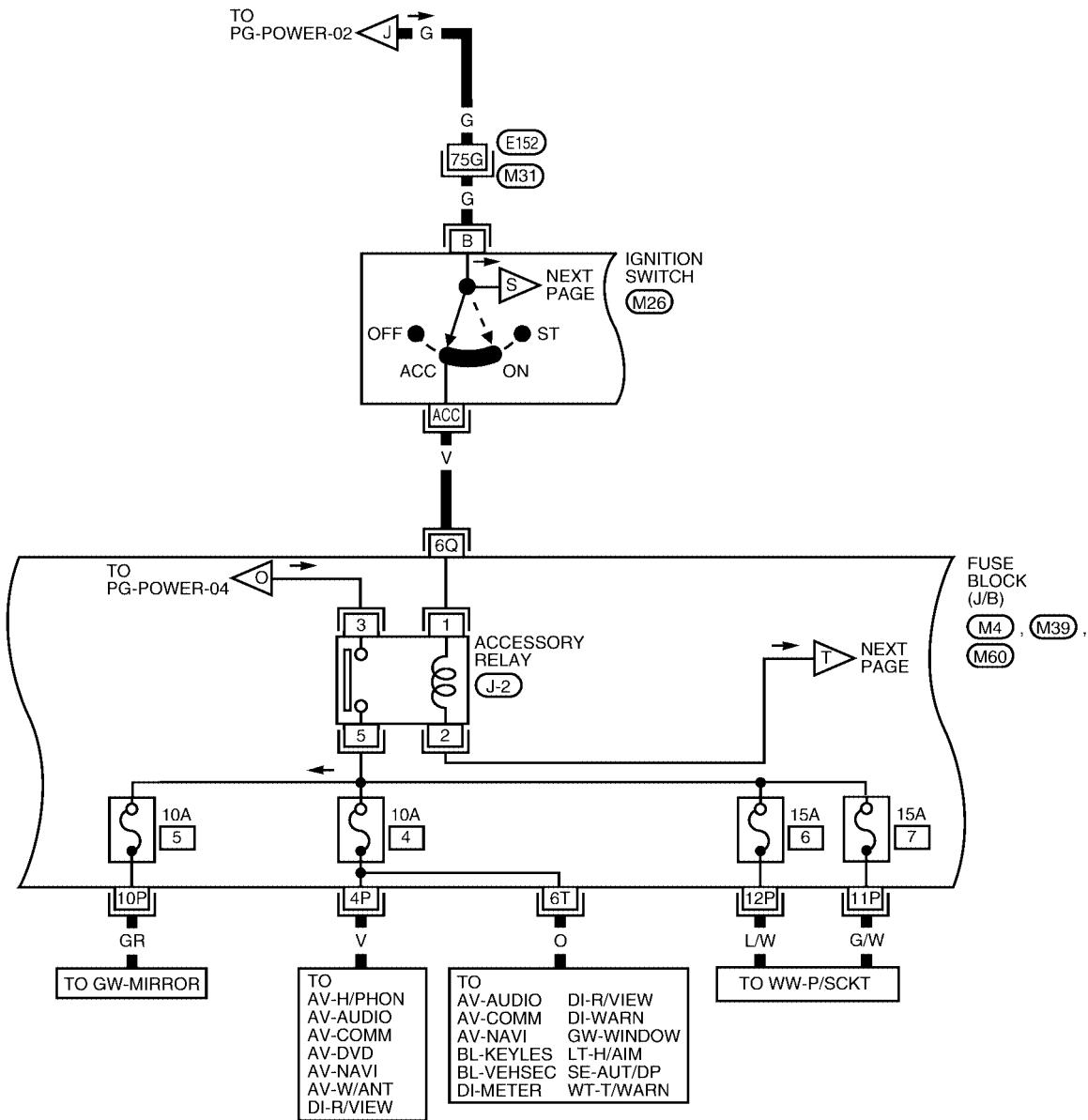


WKWA3824E

POWER SUPPLY ROUTING CIRCUIT

ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON

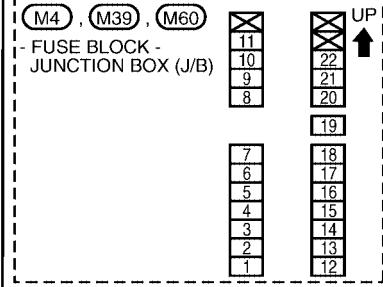
PG-POWER-06



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT".

M31 - SUPER MULTIPLE JUNCTION (SMJ)

MST 80 ELM MOUNTAIN JUNCTION (SMA)

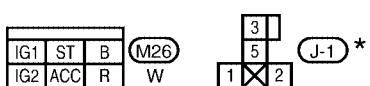
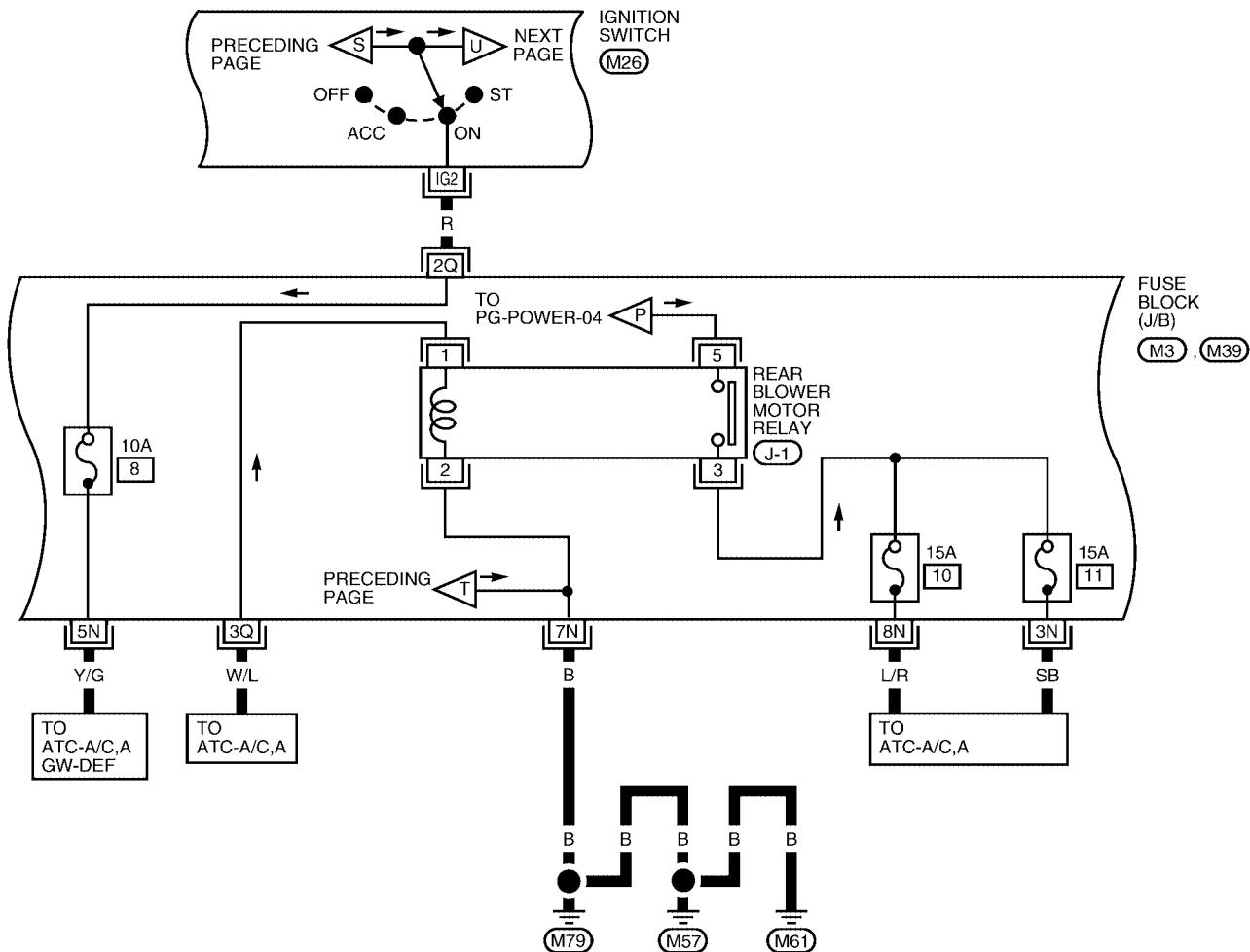


WKWA5521E

POWER SUPPLY ROUTING CIRCUIT

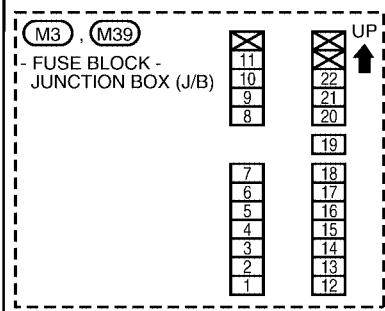
IGNITION POWER SUPPLY — IGNITION SW. IN ON

PG-POWER-07



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT".

I REFER TO THE FOLLOWING.



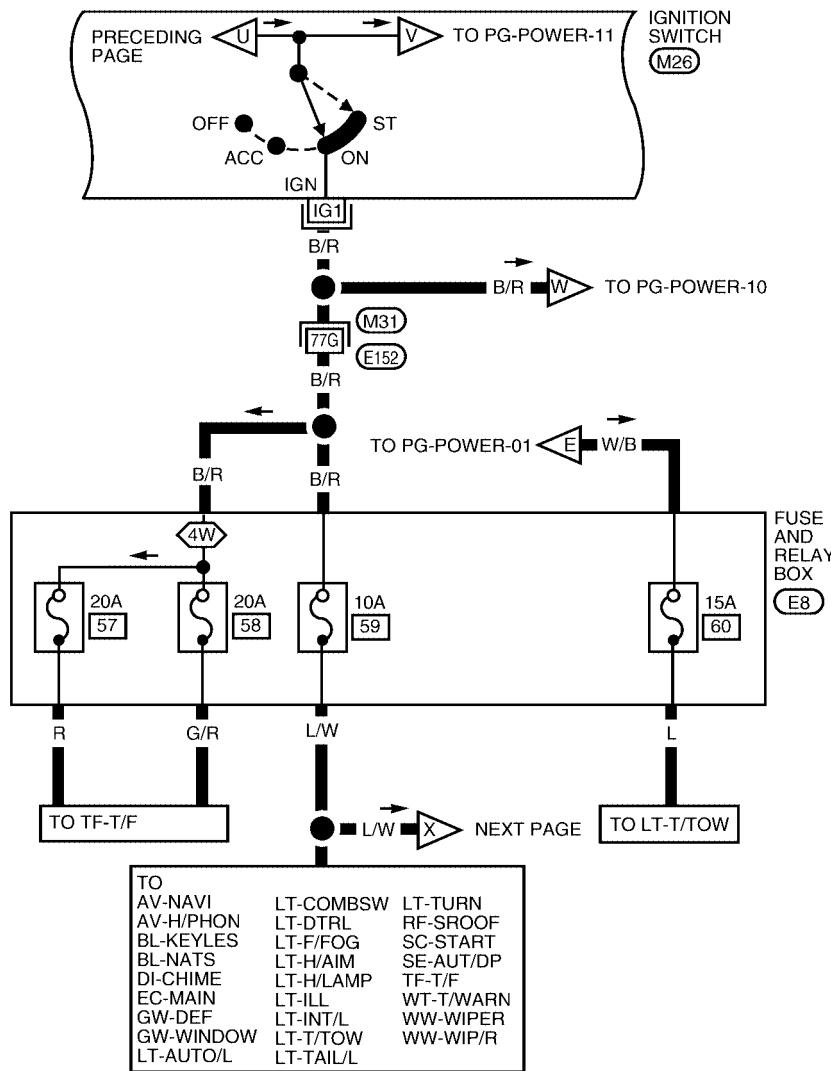
BKWA0755E

POWER SUPPLY ROUTING CIRCUIT

IGNITION POWER SUPPLY — IGNITION SW. IN ON AND/OR START

PG-POWER-08

: WITH 4-WHEEL DRIVE



IG1	ST	B	
IG2	ACC	R	

REFER TO THE FOLLOWING.

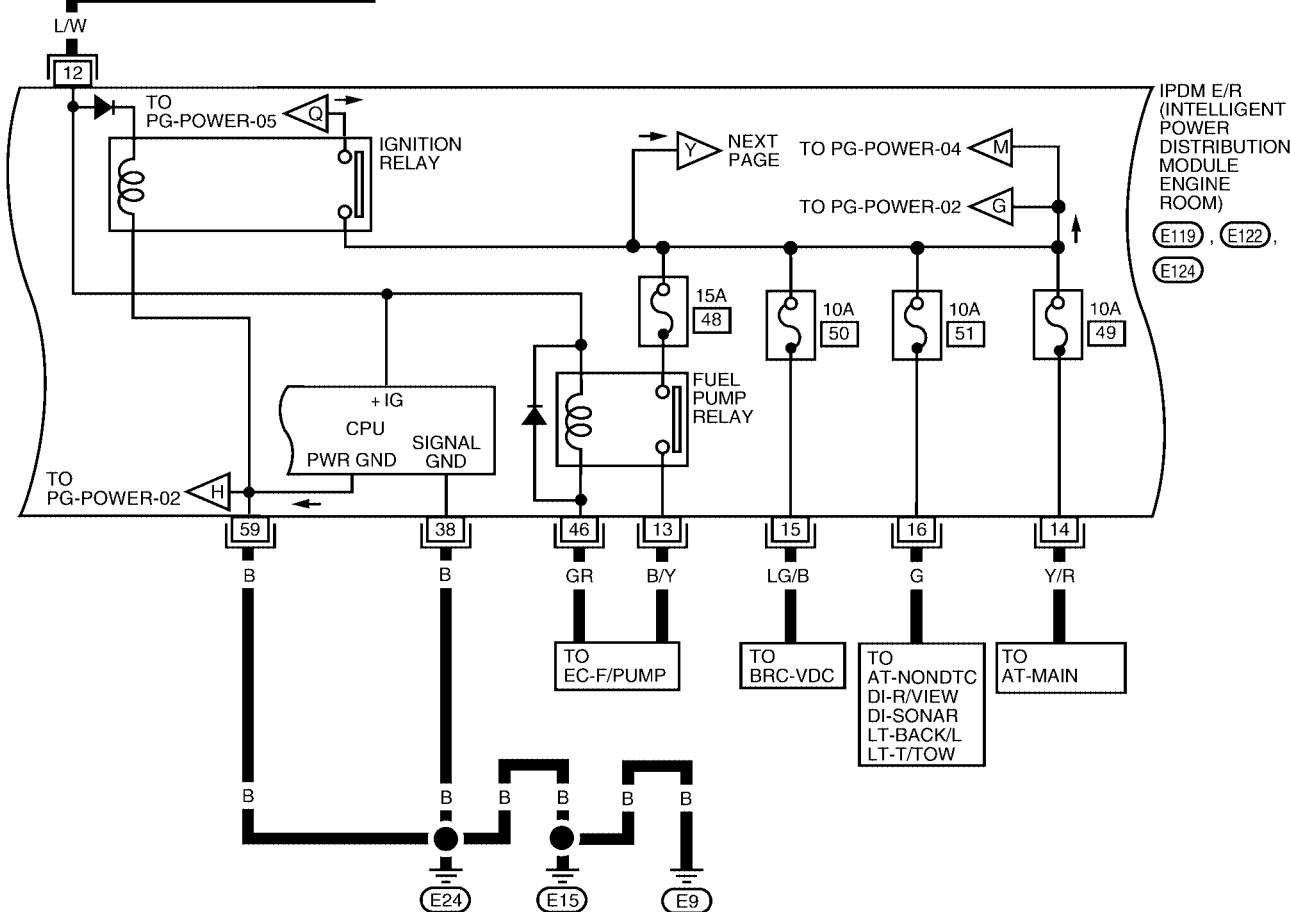
- SUPER MULTIPLE JUNCTION (SMJ)

WKWA3827E

POWER SUPPLY ROUTING CIRCUIT

PRECEDING PAGE L/W

PG-POWER-09



3	4	5		6	7	8	9	E119
10	11	12	13	14	15	16	17	18
W								
37	38	39	40	41	42			E122
43	44	45	46	47	48			
						57	58	59
						60	61	62
						B		E124

WKWA3828E

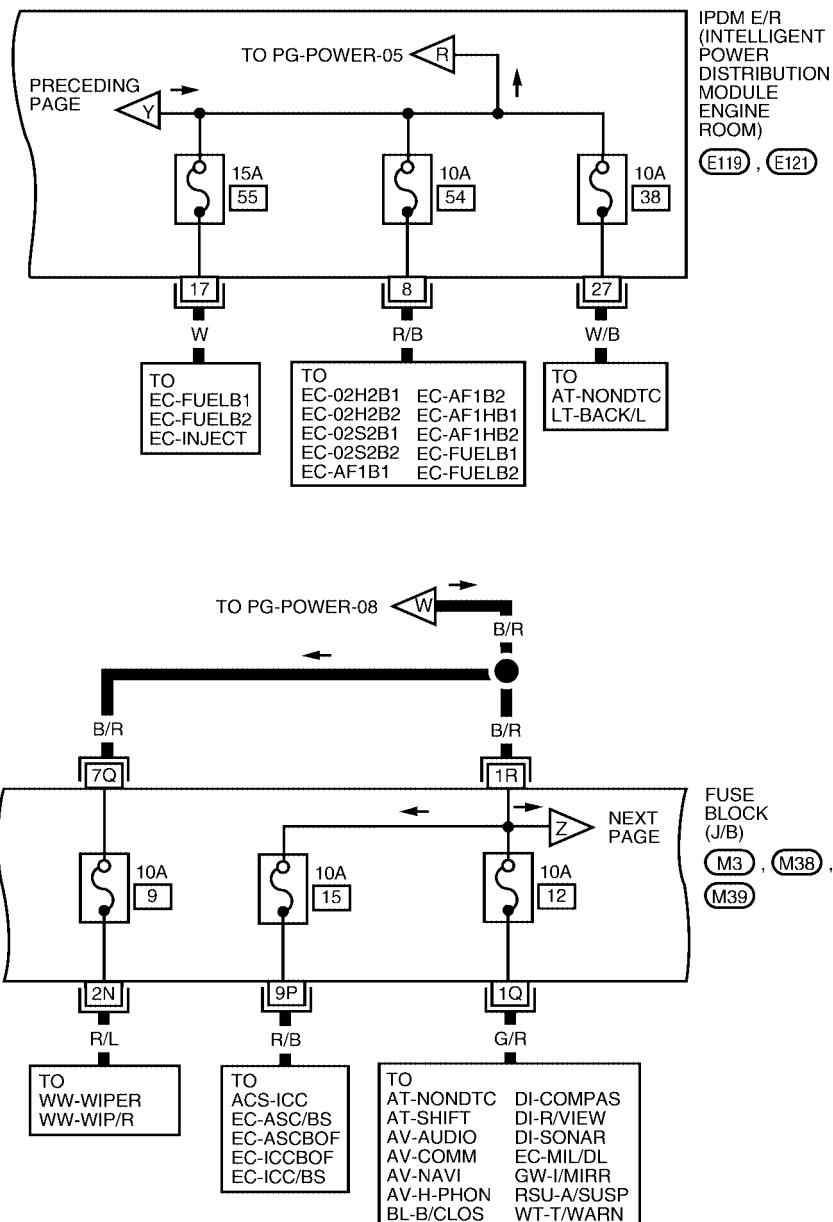
POWER SUPPLY ROUTING CIRCUIT

PG-POWER-10

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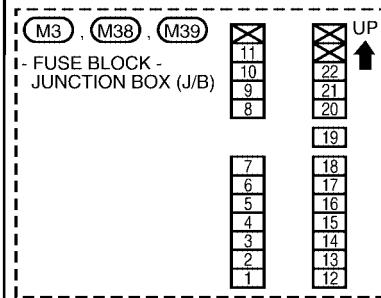
3	4	5		6	7	8	9	(E119)
10	11	12	13	14	15	16	17	18

W (E119)

25	26	27		28	29	(E121)
30	31	32	33	34	35	36

BR (E121)

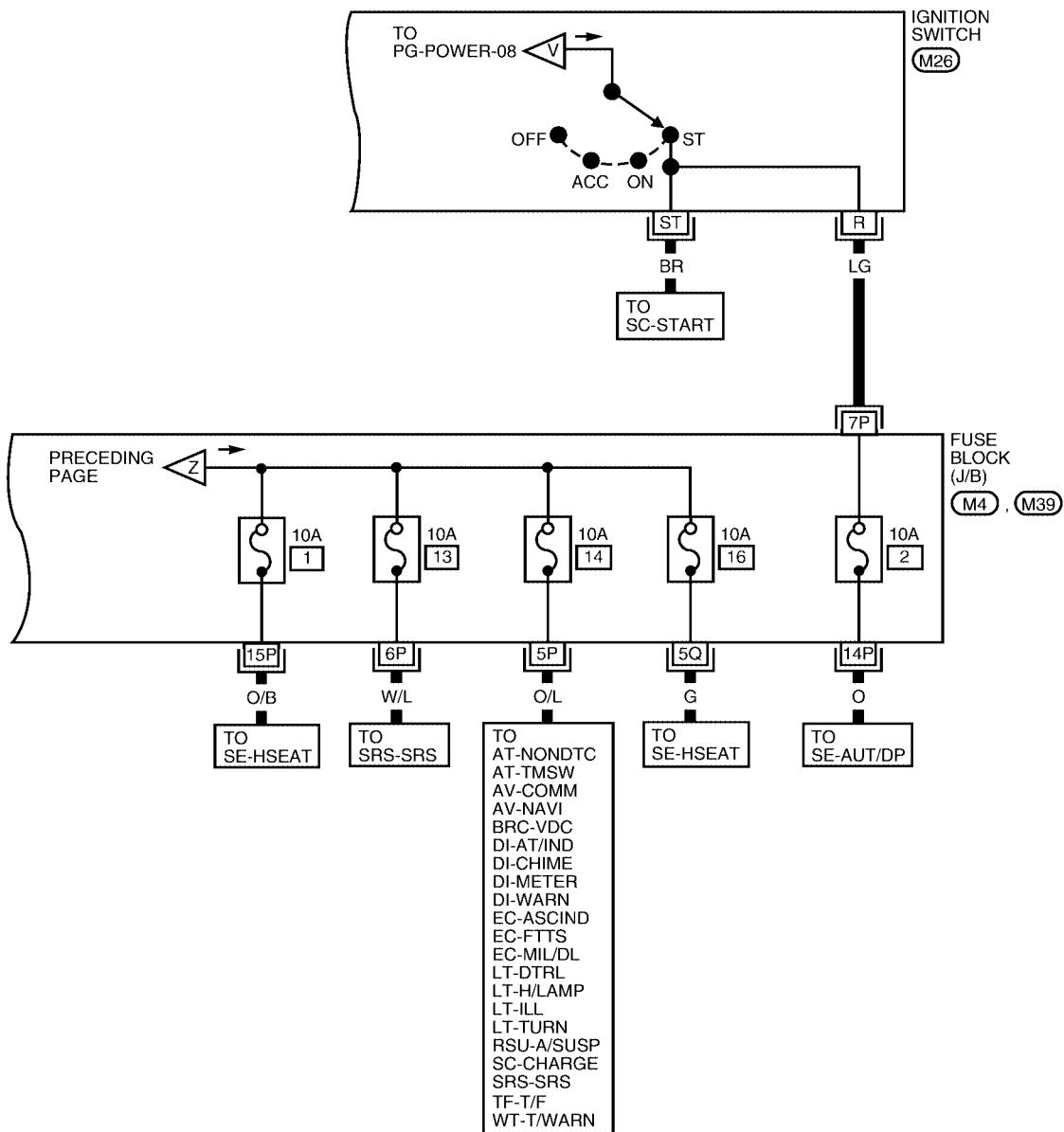
REFER TO THE FOLLOWING.



WKWA3829E

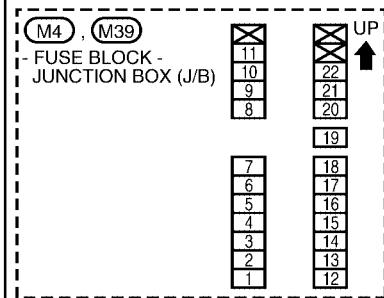
POWER SUPPLY ROUTING CIRCUIT

PG-POWER-11



IG1	ST	B	(M26)
IG2	ACC	R	W

REFER TO THE FOLLOWING.



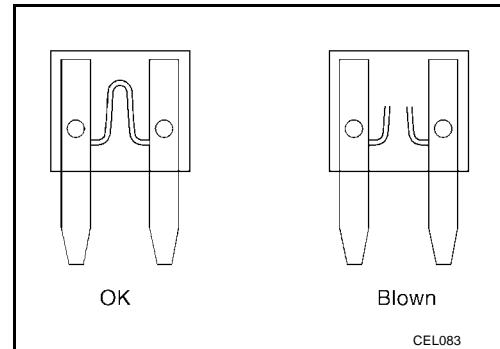
WKWA3830E

POWER SUPPLY ROUTING CIRCUIT

Fuse

EKS00GKH

- If fuse is blown, be sure to eliminate cause of incident before installing new fuse.
- Use fuse of specified rating. Never use fuse of more than specified rating.
- Do not partially install fuse; always insert it into fuse holder properly.
- Remove fuse for "ELECTRICAL PARTS (BAT)" if vehicle is not used for a long period of time.



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Fusible Link

EKS00GKI

A melted fusible link can be detected either by visual inspection or by feeling with finger tip. If its condition is questionable, use circuit tester or test lamp.

CAUTION:

- If fusible link should melt, it is possible that critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check and eliminate cause of incident.
- Never wrap outside of fusible link with vinyl tape.
- Never let fusible link touch any other wiring harness, vinyl or rubber parts.

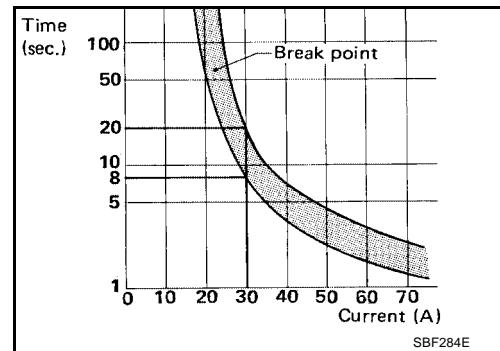
Circuit Breaker (Built Into BCM)

EKS00GKJ

For example, when current is 30A, the circuit is broken within 8 to 20 seconds.

A circuit breaker is used for the following systems:

- Power windows
- Power door locks
- Remote keyless entry system
- Power sunroof
- Rear window wiper



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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

PPF:284B7

System Description

EKS00BN2

- IPDM E/R (Intelligent Power Distribution Module Engine Room) integrates the relay box and fuse block which were originally placed in engine compartment. It controls integrated relays via IPDM E/R control circuits.
- IPDM E/R-integrated control circuits perform ON-OFF operation of relays, CAN communication control, etc.
- It controls operation of each electrical component via ECM, BCM and CAN communication lines.

CAUTION:

None of the IPDM E/R integrated relays can be removed.

SYSTEMS CONTROLLED BY IPDM E/R

1. Lamp control

Using CAN communication lines, it receives signals from the BCM and controls the following lamps:

- Headlamps (Hi, Lo)
- Parking lamps
- Tail and license lamps
- Front fog lamps

2. Wiper control

Using CAN communication lines, it receives signals from the BCM and controls the front wipers.

3. Rear window defogger relay control

Using CAN communication lines, it receives signals from the BCM and controls the rear window defogger relay.

4. A/C compressor control

Using CAN communication lines, it receives signals from the ECM and controls the A/C compressor (magnetic clutch).

5. Starter control

Using CAN communication lines, it receives signals from the BCM and controls the starter relay.

6. Cooling fan control

Using CAN communication lines, it receives signals from the ECM and controls the cooling fan relays.

7. Horn control

Using CAN communication lines, it receives signals from the BCM and controls the horn relay.

CAN COMMUNICATION LINE CONTROL

With CAN communication, by connecting each control unit using two communication lines (CAN L-line, CAN H-line), it is possible to transmit a maximum amount of information with minimum wiring. Each control unit can transmit and receive data, and reads necessary information only.

1. Fail-safe control

- When CAN communication with other control units is impossible, IPDM E/R performs fail-safe control. After CAN communication returns to normal operation, it also returns to normal control.
- Operation of control parts by IPDM E/R during fail-safe mode is as follows:

Controlled system	Fail-safe mode
Headlamp	<ul style="list-style-type: none">• With the ignition switch ON, the headlamp (low) is ON.• With the ignition switch OFF, the headlamp (low) is OFF.
Tail and parking lamps	<ul style="list-style-type: none">• With the ignition switch ON, the tail and parking lamps are ON.• With the ignition switch OFF, the tail and parking lamps are OFF.
Cooling fan	<ul style="list-style-type: none">• With the ignition switch ON, the cooling fan HI operates.• With the ignition switch OFF, the cooling fan stops.
Front wiper	Until the ignition switch is turned off, the front wiper LO and HI remains in the same status it was in just before fail-safe control was initiated.
Rear window defogger	Rear window defogger relay OFF

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Controlled system	Fail-safe mode
A/C compressor	A/C compressor OFF
Front fog lamps	Front fog lamp relay OFF

IPDM E/R STATUS CONTROL

In order to save power, IPDM E/R switches status automatically based on each operating condition.

1. CAN communication status
 - CAN communication is normally performed with other control units.
 - Individual unit control by IPDM E/R is normally performed.
 - When sleep request signal is received from BCM, mode is switched to sleep waiting status.
2. Sleep waiting status
 - Process to stop CAN communication is activated.
 - All systems controlled by IPDM E/R are stopped. When 1 second has elapsed after CAN communication with other control units is stopped, mode switches to sleep status.
3. Sleep status
 - IPDM E/R operates in low current-consumption mode.
 - CAN communication is stopped.
 - When a change in CAN communication signal is detected, mode switches to CAN communication status.
 - When a change in ignition switch signal is detected, mode switches to CAN communication status.

CAN Communication System Description

EKS00BN3

Refer to [LAN-26, "CAN COMMUNICATION"](#).

Function of Detecting Ignition Relay Malfunction

EKS00BN4

- When the integrated ignition relay is stuck in a "closed contact" position and cannot be turned OFF, IPDM E/R turns ON tail and parking lamps for 10 minutes to indicate IPDM E/R malfunction.
- When the state of the integrated ignition relay does not agree with the state of the ignition switch signal received via CAN communication, the IPDM E/R activates the tail lamp relay.

Ignition switch signal	Ignition relay status	Tail lamp relay
ON	ON	—
OFF	OFF	—
ON	OFF	—
OFF	ON	ON (10 minutes)

NOTE:

When the ignition switch is turned ON, the tail lamps are OFF.

CONSULT-II Function IPDM E/R

EKS00BN5

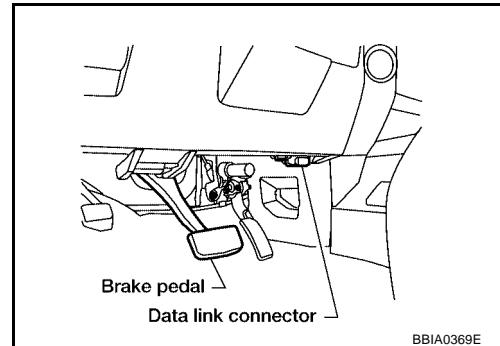
CONSULT-II can display each diagnostic item using the diagnostic test modes shown following.

IPDM E/R diagnostic Mode	Description
SELF-DIAG RESULTS	Displays IPDM E/R self-diagnosis results.
DATA MONITOR	Displays IPDM E/R input/output data in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.

CONSULT-II BASIC OPERATION**CAUTION:**

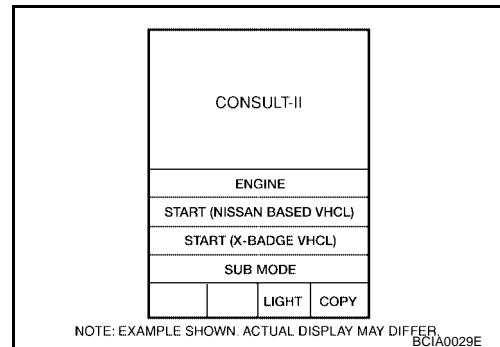
If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carries out CAN communication.

- With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn ignition switch ON.



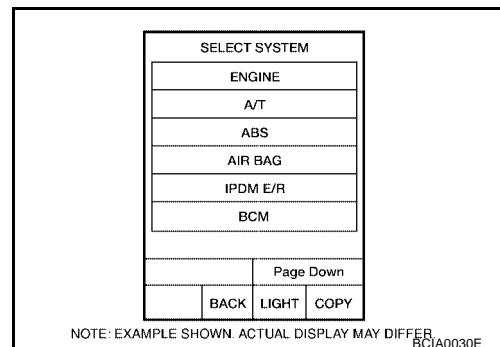
BBIA0369E

- Touch "START (NISSAN BASED VHCL)".



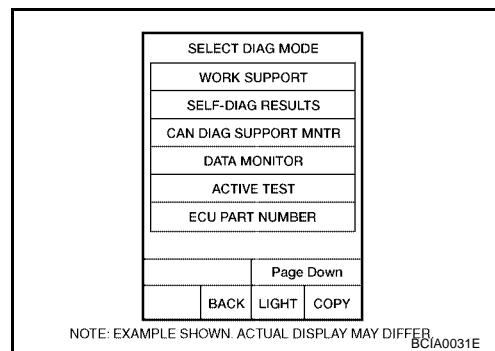
- Touch "IPDM E/R" on "SELECT SYSTEM" screen.

- If "IPDM E/R" is not displayed refer to [GI-40, "CONSULT-II Data Link Connector \(DLC\) Circuit"](#).



IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

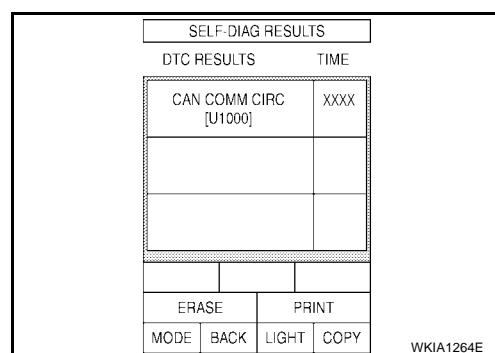
4. Select the desired part to be diagnosed on the "SELECT DIAG MODE" screen.



SELF-DIAGNOSTIC RESULTS

Operation Procedure

1. Touch "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
2. Self-diagnosis results are displayed.



Display Item List

Display items	CONSULT-II display code	Malfunction detection	TIME		Possible causes
			CRNT	PAST	
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.	—	—	—	—	—
CAN COMM CIRC	U1000	<ul style="list-style-type: none"> If CAN communication reception/transmission data has a malfunction, or if any of the control units fail, data reception/transmission cannot be confirmed. When the data in CAN communication is not received before the specified time. 	X	X	Any of items listed below have errors: <ul style="list-style-type: none"> • TRANSMIT DIAG • ECM • BCM/SEC

NOTE:

The details for display of the period are as follows:

- CRNT: Error currently detected with IPDM E/R.
- PAST: Error detected in the past and placed in IPDM E/R memory.

DATA MONITOR

Operation Procedure

1. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Touch "ALL SIGNALS", "MAIN SIGNALS" or "SELECTION FROM MENU" on the "DATA MONITOR" screen.

ALL SIGNALS	All signals will be monitored.
MAIN SIGNALS	Monitors the predetermined item(s).
SELECTION FROM MENU	Selects and monitors individual signal(s).

3. Touch "START".
4. When "SELECTION FROM MENU" is selected, touch items to be monitored. When "ALL SIGNALS" is selected, all the items will be monitored. When "MAIN SIGNALS" is selected, predetermined items are monitored.

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

-
5. Touch “RECORD” while monitoring to record the status of the item being monitored. To stop recording, touch “STOP”.

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

All Signals, Main Signals, Selection From Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECTION FROM MENU	
Motor fan request	MOTOR FAN REQ	1/2/3/4	X	X	X	Signal status input from ECM
Compressor request	AC COMP REQ	ON/OFF	X	X	X	Signal status input from ECM
Parking, license, and tail lamp request	TAIL & CLR REQ	ON/OFF	X	X	X	Signal status input from BCM
Headlamp low beam request	HL LO REQ	ON/OFF	X	X	X	Signal status input from BCM
Headlamp high beam request	HL HI REQ	ON/OFF	X	X	X	Signal status input from BCM
Front fog request	FR FOG REQ	ON/OFF	X	X	X	Signal status input from BCM
Front wiper request	FR WIP REQ	STOP/1LOW/LOW/HI	X	X	X	Signal status input from BCM
Wiper auto stop	WIP AUTO STOP	ACT P/STOP P	X	X	X	Output status of IPDM E/R
Wiper protection	WIP PROT	OFF/Block	X	X	X	Control status of IPDM E/R
Starter request	ST RLY REQ	ON/OFF	X		X	Status of input signal <small>NOTE</small>
Ignition relay status	IGN RLY	ON/OFF	X	X	X	Ignition relay status monitored with IPDM E/R
Rear defogger request	RR DEF REQ	ON/OFF	X	X	X	Signal status input from BCM
Oil pressure switch	OIL P SW (*1)	OPEN/CLOSE	X		X	Signal status input from IPDM E/R
Hood switch	HOOD SW	OFF	X			Signal status input from IPDM E/R
Theft warning horn request	THFT HRN REQ	ON/OFF	X		X	Signal status input from BCM
Horn chirp	HORN CHIRP	ON/OFF	X		X	Output status of IPDM E/R
Daytime running lamp request	DTRL REQ	ON/OFF	X		X	Signal status input from BCM

NOTE:

- Perform monitoring of IPDM E/R data with the ignition switch ON. When the ignition switch is in ACC position, display may not be correct.
- (*1) This item is displayed, but does not function.

ACTIVE TEST

Operation Procedure

1. Touch "ACTIVE TEST" on "SELECT DIAG-MODE" screen.
2. Touch item to be tested, and check operation.
3. Touch "START".
4. Touch "STOP" while testing to stop the operation.

Test name	CONSULT-II screen display	Description
Rear defogger output	REAR DEFOGGER	With a certain ON-OFF operation, the rear defogger relay can be operated.
Front wiper (HI, LO) output	FRONT WIPER	With a certain operation (OFF, HI ON, LO ON), the front wiper relay (Lo, Hi) can be operated.
Cooling fan output	MOTOR FAN	With a certain operation (1, 2, 3, 4), the cooling fan can be operated.

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Test name	CONSULT-II screen display	Description
Lamp (HI, LO, TAIL, FOG) output	EXTERNAL LAMPS	With a certain operation (OFF, HI ON, LO ON, TAIL ON, FOG ON), the lamp relay (Low, High, Tail, Fog) can be operated.
Cornering lamp output	CORNERING LAMP	—
Horn output	HORN	With a certain ON-OFF operation, the horn relay can be operated.

Auto Active Test

DESCRIPTION

EKS00BN6

- In auto active test mode, operation inspection can be performed when IPDM E/R sends a drive signal to the following systems:
 - Rear window defogger
 - Front wipers
 - Tail and parking lamps
 - Front fog lamps
 - Headlamps (Hi, Lo)
 - A/C compressor (magnet clutch)
 - Cooling fan

OPERATION PROCEDURE

- Close hood and front door RH, and lift wiper arms away from windshield (to prevent glass damage by wiper operation).

NOTE:

When auto active test is performed with hood opened, sprinkle water on windshield beforehand.

- Turn ignition switch OFF.
- Turn ignition switch ON and, within 20 seconds, press front door switch LH 10 times. Then turn ignition switch OFF.
- Turn ignition switch ON within 10 seconds after ignition switch OFF.
- When auto active test mode is actuated, horn chirps once.
- After a series of operations is repeated three times, auto active test is completed.

NOTE:

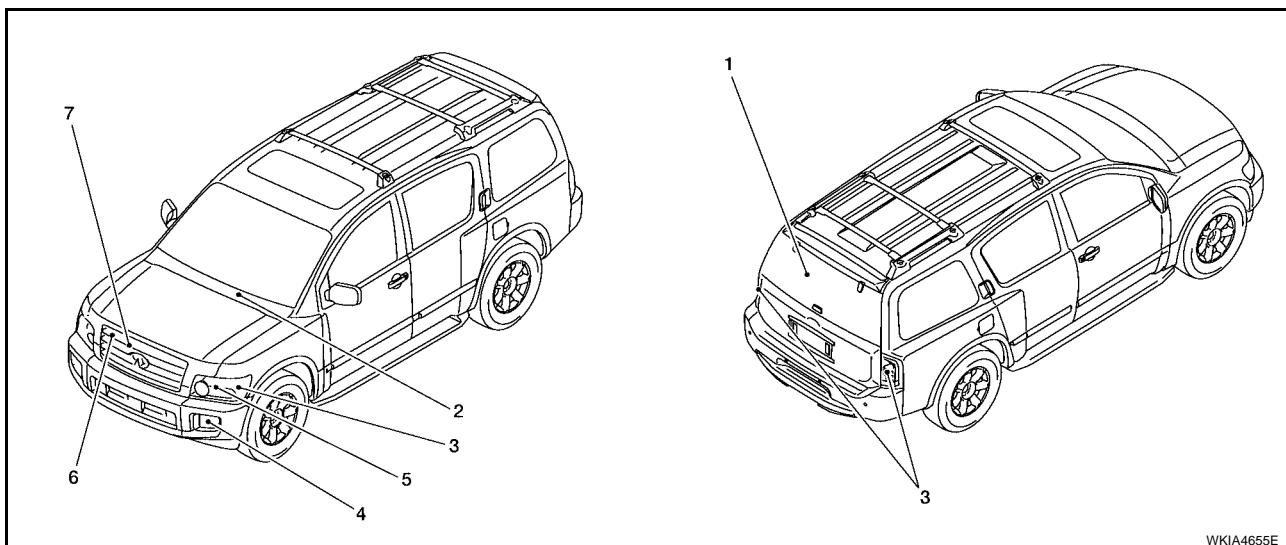
When auto active test mode has to be cancelled halfway, turn ignition switch OFF.

CAUTION:

Be sure to perform BL-92, "Door Switch Check" when the auto active test cannot be performed.

INSPECTION IN AUTO ACTIVE TEST MODE

- When auto active test mode is actuated, the following seven steps are repeated three times.



IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Item Number	Test Item	Operation Time/Frequency
1	Rear window defogger	10 seconds
2	Front wipers	LOW 5 seconds then HIGH 5 seconds
3	Tail, license, and parking lamps	10 seconds
4	Front fog lamps	10 seconds
5	Headlamps	Low on for 10 seconds. High on-off five times.
6	A/C compressor (magnetic clutch)	ON-OFF 5 times
7	Cooling fan	10 seconds

Concept of Auto Active Test

- IPDM E/R actuates auto active test mode when it receives door switch signal from BCM via CAN communication line. Therefore, when auto active test mode is activated successfully, CAN communication between IPDM E/R and BCM is normal.
- If any of the systems controlled by IPDM E/R cannot be operated, possible cause can be easily diagnosed using auto active test.

Diagnosis chart in auto active test mode

Symptom	Inspection contents	Possible cause	
Rear window defogger does not operate.	Perform auto active test. Does rear window defogger operate?	YES	<ul style="list-style-type: none"> BCM signal input circuit
		NO	<ul style="list-style-type: none"> Rear window defogger relay Open circuit of rear window defogger IPDM E/R malfunction Harness or connector malfunction between IPDM E/R and rear window defogger
Any of front wipers, tail and parking lamps, front fog lamps, and headlamps (Hi, Lo) do not operate.	Perform auto active test. Does system in question operate?	YES	<ul style="list-style-type: none"> BCM signal input system
		NO	<ul style="list-style-type: none"> Lamp/wiper motor malfunction Lamp/wiper motor ground circuit malfunction Harness/connector malfunction between IPDM E/R and system in question IPDM E/R (integrated relay) malfunction
A/C compressor does not operate.	Perform auto active test. Does magnet clutch operate?	YES	<ul style="list-style-type: none"> BCM signal input circuit CAN communication signal between BCM and ECM CAN communication signal between ECM and IPDM E/R
		NO	<ul style="list-style-type: none"> Magnet clutch malfunction Harness/connector malfunction between IPDM E/R and magnet clutch IPDM E/R (integrated relay) malfunction
Cooling fan does not operate.	Perform auto active test. Does cooling fan operate?	YES	<ul style="list-style-type: none"> ECM signal input circuit CAN communication signal between ECM and IPDM E/R
		NO	<ul style="list-style-type: none"> Cooling fan motor malfunction Harness/connector malfunction between IPDM E/R and cooling fan motor IPDM E/R (integrated relay) malfunction

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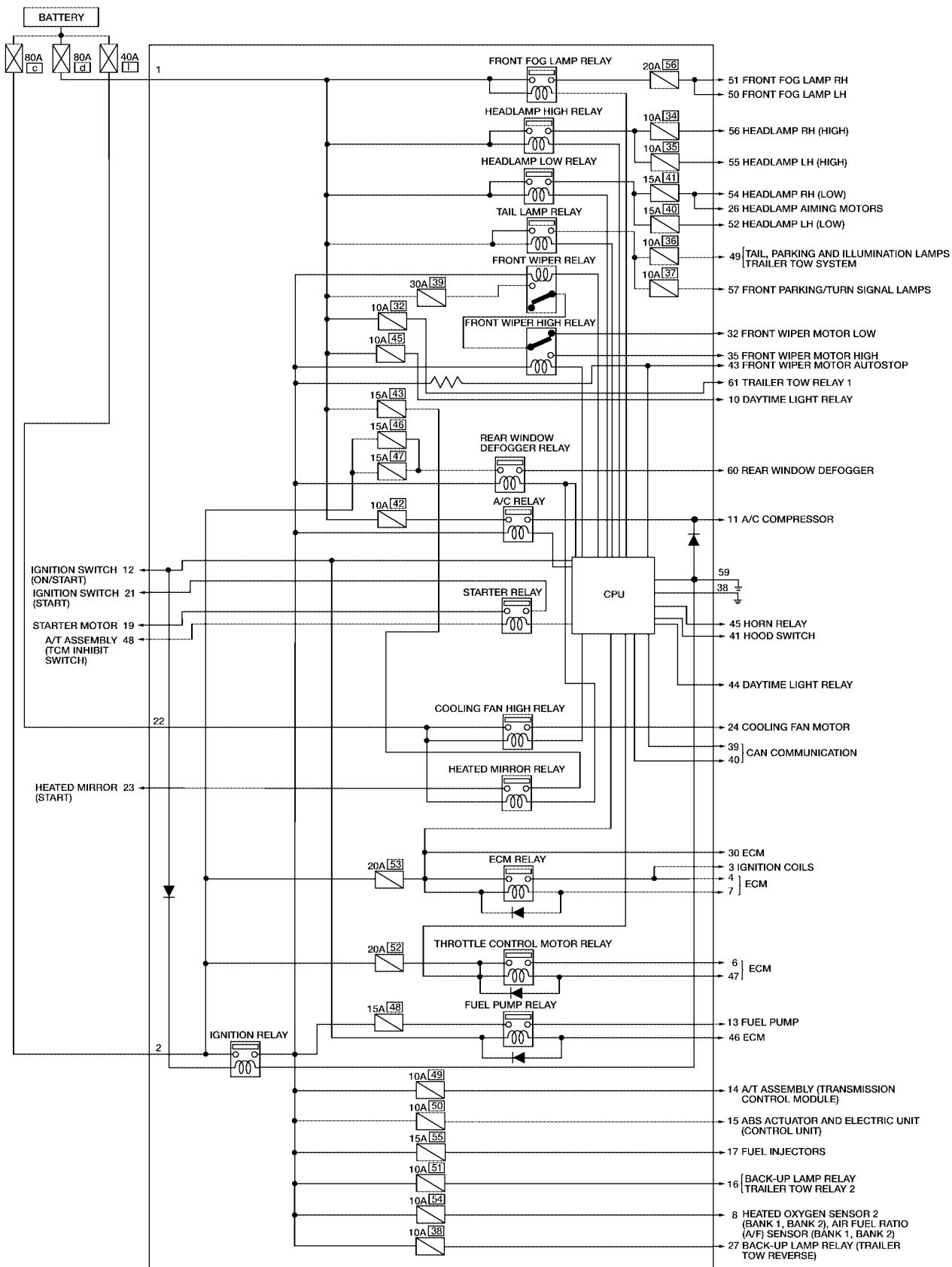
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Schematic

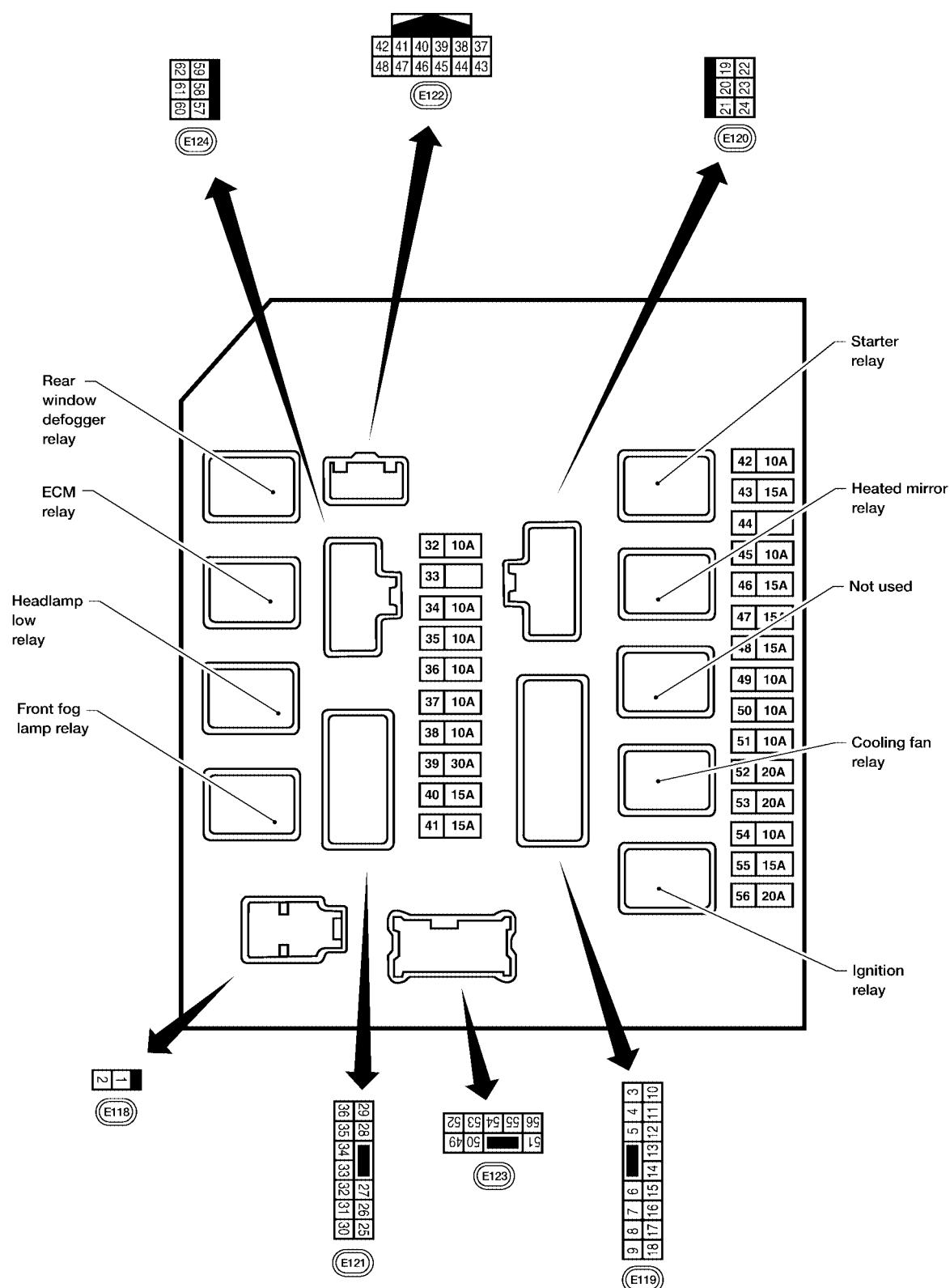
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IPDM E/R Terminal Arrangement

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

IPDM E/R Power/Ground Circuit Inspection

EKS00BN9

1. FUSE AND FUSIBLE LINK INSPECTION

Check that the following fusible links or IPDM E/R fuses are not blown.

Terminal No.	Signal name	Fuse, fusible link No.
1, 2	Battery power	a, c, d

OK or NG

OK >> GO TO 2.

NG >> Replace fuse or fusible link.

2. POWER CIRCUIT INSPECTION

1. Disconnect IPDM E/R harness connector E118.

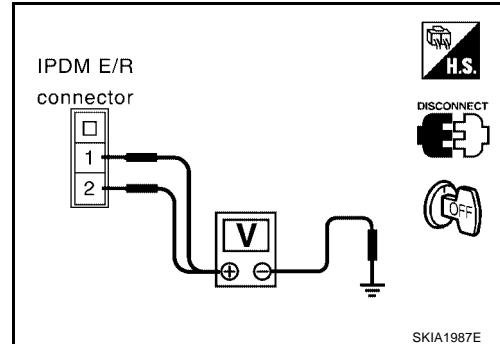
2. Check voltage between IPDM E/R harness connector E118 terminals 1, 2 and ground.

Battery voltage should exist.

OK or NG

OK >> GO TO 3.

NG >> Repair or replace IPDM E/R power circuit harness.



3. GROUND CIRCUIT INSPECTION

1. Disconnect IPDM E/R harness connectors E122 and E124.

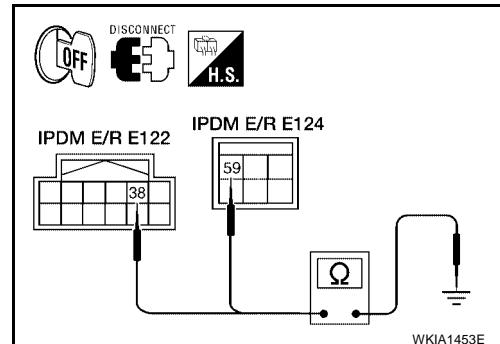
2. Check continuity between IPDM E/R harness connector E122 terminal 38, and E124 terminal 59 and ground.

Continuity should exist.

OK or NG

OK >> Inspection End.

NG >> Repair or replace IPDM E/R ground circuit harness.



Inspection with CONSULT-II (Self-Diagnosis)

A

CAUTION:

B

If a CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on which control unit(s) carry out CAN communication.

C

1. SELF-DIAGNOSIS RESULT CHECK

D

1. Connect CONSULT-II and select "IPDM E/R" on the Diagnosis System Selection screen.
2. Select "SELF-DIAG RESULTS" on the diagnosis mode selection screen.
3. Check display content in self-diagnosis results.

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CONSULT-II Display	CONSULT-II display code	TIME		Details of diagnosis result
		CRNT	PAST	
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.	—	—	—	No malfunction
CAN COMM CIRC	U1000	X	X	Any of items listed below have errors: <ul style="list-style-type: none"> TRANSMIT DIAG ECM BCM/SEC

NOTE:

The Details for Display for the Period are as follows:

- CRNT: Error currently detected by IPDM E/R.
- PAST: Error detected in the past and stored in IPDM E/R memory.

Contents displayed

NO DTC DETECTED. FURTHER TESTING MAY BE REQUIRED.>>Inspection End.

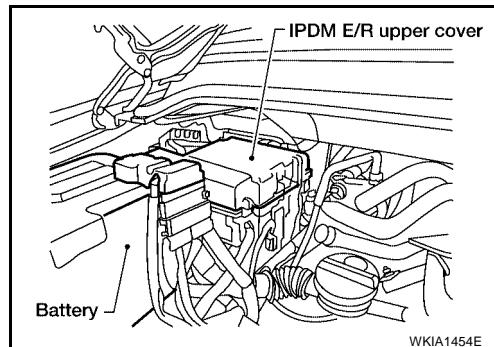
CAN COMM CIRC>>Print out the self-diagnosis result and refer to [LAN-26, "CAN COMMUNICATION"](#).

Removal and Installation of IPDM E/R

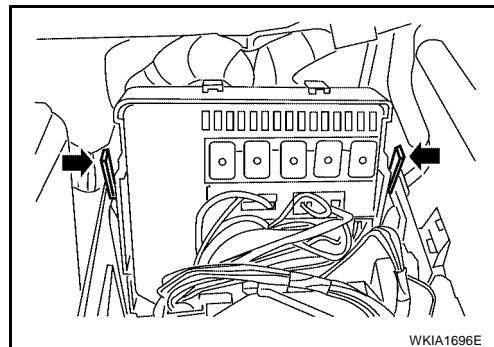
EKS00BNB

REMOVAL

1. Disconnect negative battery cable.
2. Remove IPDM E/R upper cover.



3. Release 2 clips and pull IPDM E/R up from case.
4. Disconnect IPDM E/R connectors and remove the IPDM E/R.



INSTALLATION

Installation is in the reverse order of removal.

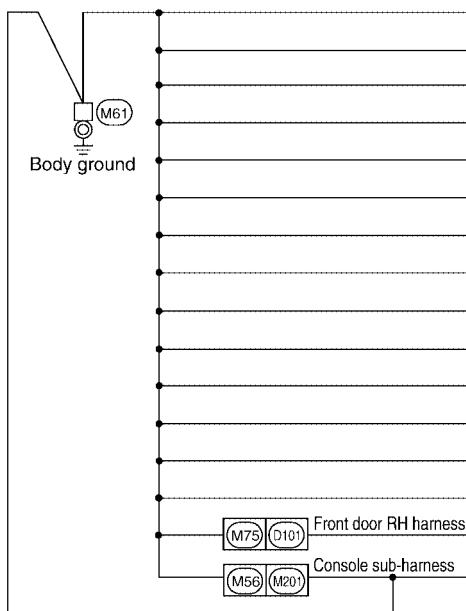
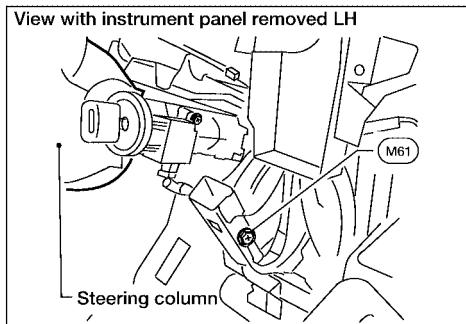
GROUND CIRCUIT

GROUND CIRCUIT

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Ground Distribution MAIN HARNESS



Next page

CONNECTOR NUMBER	CONNECT TO
(M5)	Illumination control switch
(M16)	ADP Steering switch
(M20)	BCM (Terminal No. 67)
(M21)	NATS antenna amp
(M22)	Data link connector (Terminal No. 4)
(M22)	Data link connector (Terminal No. 5)
(M24)	Combination meter (Terminal No. 17)
(M28)	Combination switch (Terminal No. 12)
(M35)	Air bag diagnosis sensor
(M47)	Steering angle sensor
(M112)	BOSE speaker amp (Terminal No. 17)
(M122)	Variable blower control
(M139)	Diode-1
(M148)	Headlamp aiming switch
(D107)	Door mirror RH (door mirror defogger)
(M203)	A/T device (Terminal No. 2)
(M203)	A/T device (Terminal No. 8)

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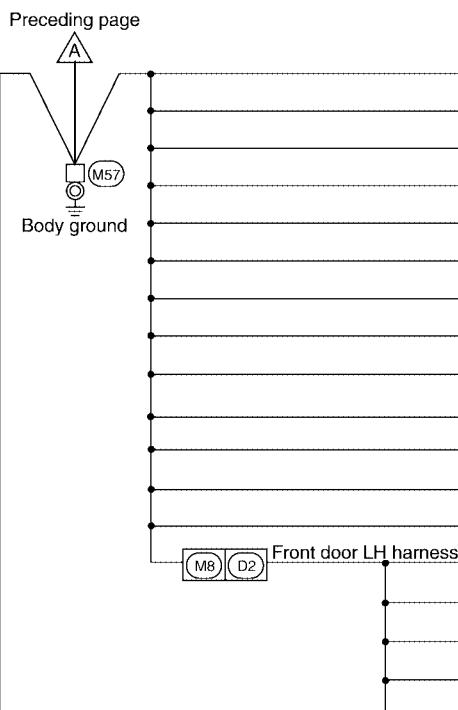
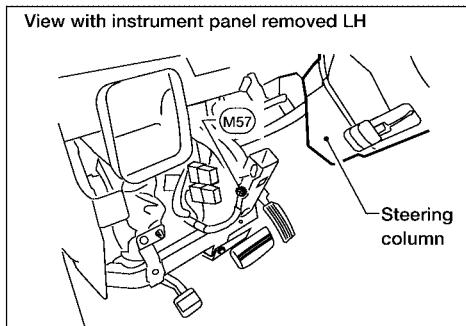
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GROUND CIRCUIT

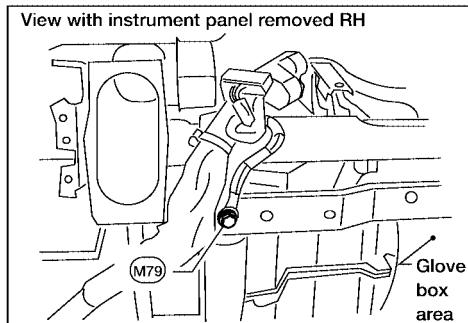


CONNECTOR NUMBER	CONNECT TO
(M34)	Automatic drive positioner control unit (Terminal No. 40)
(M34)	Automatic drive positioner control unit (Terminal No. 48)
(M51)	Trailer tow relay 1
(M76)	Electric brake (pre-wiring)
(M87)	Rear power vent window relay (open)
(M89)	Rear power vent window relay (close)
(M92)	Power liftgate switch
(M93)	Display unit (Terminal No. 1)
(M94)	Display control unit (Terminal No. 3)
(M94)	Display control unit (Terminal No. 13)
(M96)	Pedal adjusting switch
(M116)	Rear sonar system OFF switch (Terminal No. 6)
(M116)	Rear sonar system OFF switch (Terminal No. 2)
(D4)	Door mirror LH (door mirror defogger)
(D5)	Seat memory switch
(D8)	Main power window and door lock/unlock switch (Terminal No. 17)
(D10)	Door mirror remote control switch
(D14)	Front door lock assembly LH

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Next page

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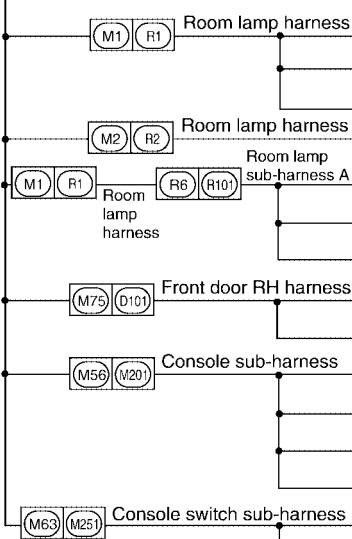
GROUND CIRCUIT



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B

Body ground



CONNECTOR NUMBER	CONNECT TO
(M3)	Fuse block J/B (Terminal No. 7N)
(M13)	Front passenger air bag off indicator
(M49)	Front air control (Terminal No. 1)
(M52)	Rear blower switch (front)
(M53)	Front power socket LH
(M54)	Front power socket RH (for cigarette lighter)
(M55)	Hazard switch
(M59)	Glove box lamp
(M67)	Tow mode switch (Terminal No. 2)
(M67)	Tow mode switch (Terminal No. 6)
(M81)	Shift lock control unit
(M98)	AV switch
(M149)	Clock
(R3)	Vanity lamp LH
(R7)	Auto anti-dazzling inside mirror
(R8)	Vanity lamp RH
(R4)	Sunroof motor
(R102)	Front room/map lamp assembly
(R103)	Rear power vent window switch
(R106)	HOMELINK universal transceiver
(D105)	Power window and door lock/unlock switch RH
(D107)	Door mirror RH (door mirror defogger)
(M206)	DVD player (Terminal No. 22)
(M207)	Console power socket
(M208)	Rear heated seat switch LH
(M209)	Rear heated seat switch RH
(M252)	Front heated seat switch RH
(M253)	VDC OFF switch
(M254)	Tow mode switch (Terminal No. 2)
(M254)	Tow mode switch (Terminal No. 6)
(M255)	Front heated seat switch LH

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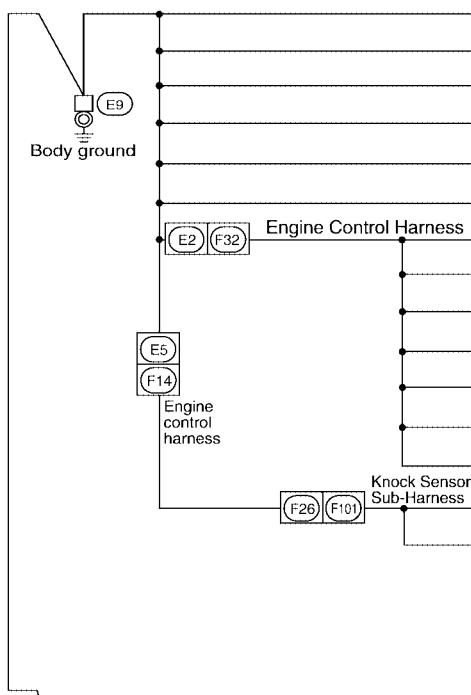
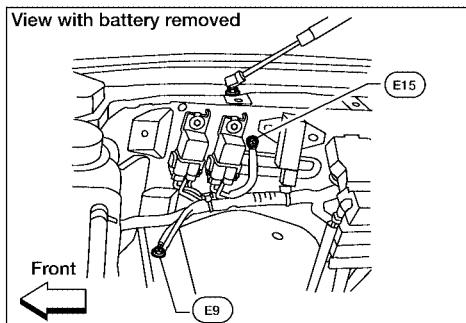
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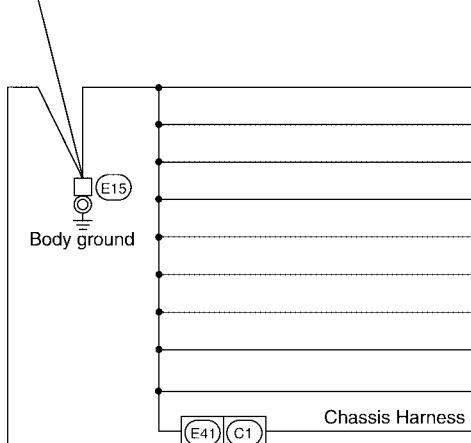
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GROUND CIRCUIT

ENGINE ROOM HARNESS



CONNECTOR NUMBER	CONNECT TO
(E16)	ECM (Terminal No. 115)
(E16)	ECM (Terminal No. 116)
(E142)	Transfer control unit
(E143)	Transfer control unit
(E158)	Trailer turn relay LH
(E157)	Trailer turn relay RH
(F9)	A/T assembly (TCM) (Terminal No. 10)
(F9)	A/T assembly (TCM) (Terminal No. 5)
(F11)	Crankshaft position sensor (POS)
(F23)	Camshaft position sensor (PHASE)
(F50)	Electric throttle control actuator (throttle position sensor shield)
(F54)	ECM (Terminal No. 1)
(F56)	Transfer terminal cord assembly
(F102)	Knock sensor (bank 1) shield
(F104)	Knock sensor (bank 2) shield

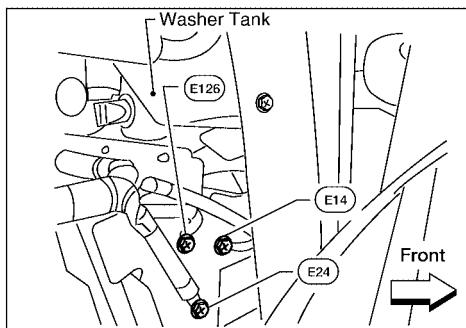


CONNECTOR NUMBER	CONNECT TO
(E3)	Horn
(E21)	Brake fluid level switch
(E102)	Front fog lamp RH
(E106)	Washer fluid level switch
(E107)	Front combination lamp RH (headlamp) (Terminal No. 1)
(E107)	Front combination lamp RH (headlamp) (Terminal No. 2)
(E107)	Front combination lamp RH (headlamp aiming motor) (Terminal No. 4)
(E113)	Cooling fan motor
(E116)	Condenser-2
(C5)	Fuel level sensor unit and fuel pump (fuel pump)

Next page

WKIA4660E

GROUND CIRCUIT



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CONNECTOR NUMBER	CONNECT TO
(E46)	Transfer shift high relay (Terminal No. 2)
(E46)	Transfer shift high relay (Terminal No. 4)
(E47)	Transfer shift low relay (Terminal No. 2)
(E47)	Transfer shift low relay (Terminal No. 4)
(E130)	Compressor motor relay
(E140)	Trailer tow relay 2
(E142)	Transfer control unit
(F55)	ATP switch
(F57)	Transfer motor
(F58)	Transfer control device (actuator position switch) (Terminal No. 22)
(F59)	Wait detection switch
(F60)	Neutral-4LO switch
(C2)	Trailer
(C9)	Suspension air compressor (Terminal No. 1)
(C9)	Suspension air compressor (Terminal No. 2)

CONNECTOR NUMBER	CONNECT TO
(E6)	Hood switch
(E11)	Front combination lamp LH (headlamp) (Terminal No. 1)
(E11)	Front combination lamp LH (headlamp) (Terminal No. 2)
(E11)	Front combination lamp LH (headlamp aiming motor) (Terminal No. 4)
(E23)	Front wiper motor
(E42)	ICC sensor
(E101)	Front fog lamp LH
(E103)	Daytime light relay
(E122)	IPDM E/R
(E124)	IPDM E/R
(E134)	ICC brake hold relay

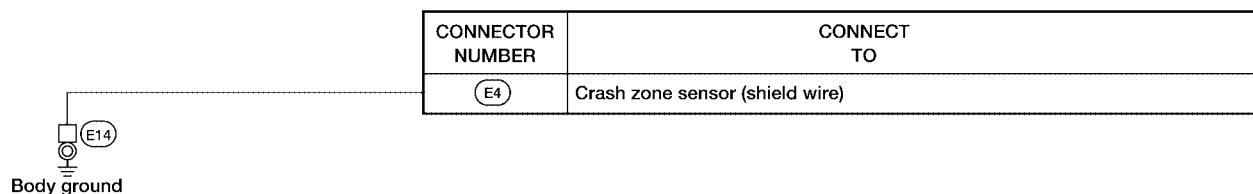
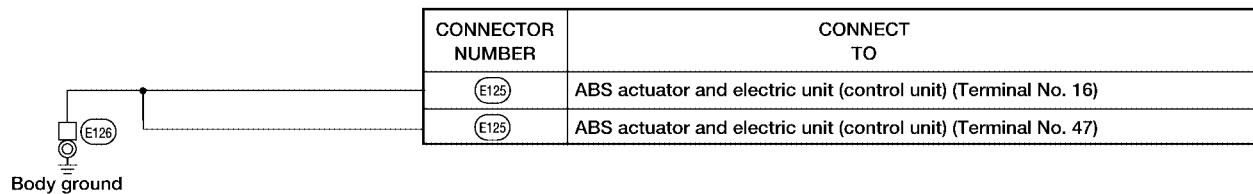
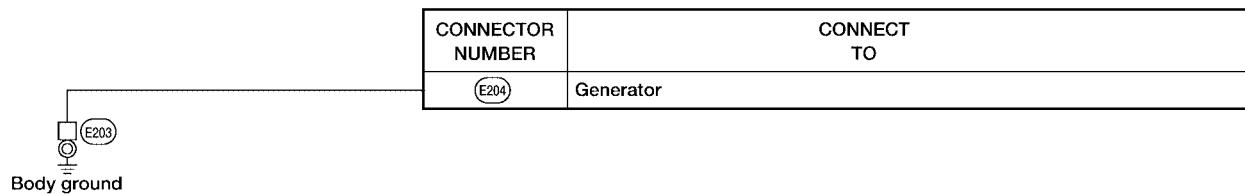
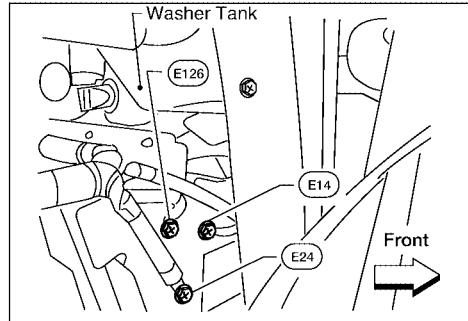
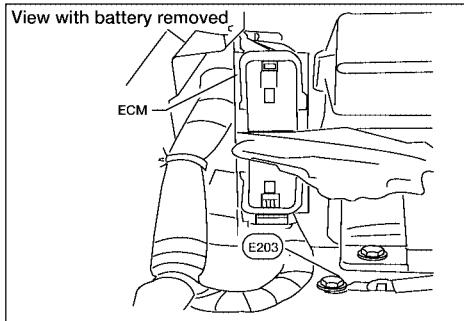
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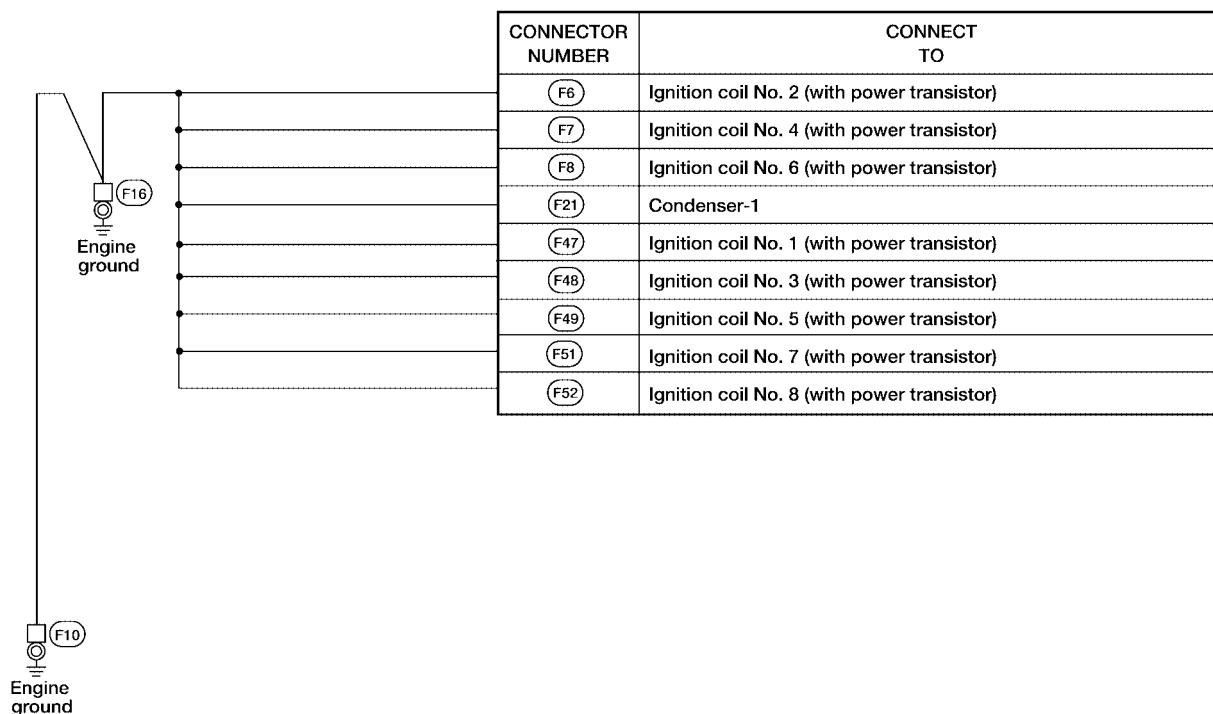
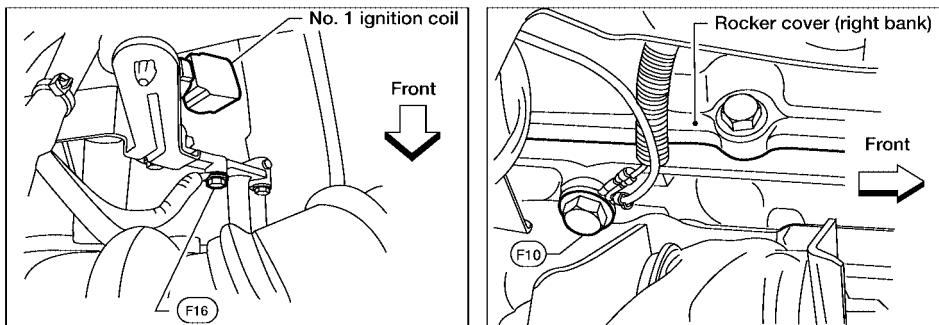
GROUND CIRCUIT



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GROUND CIRCUIT

ENGINE CONTROL HARNESS



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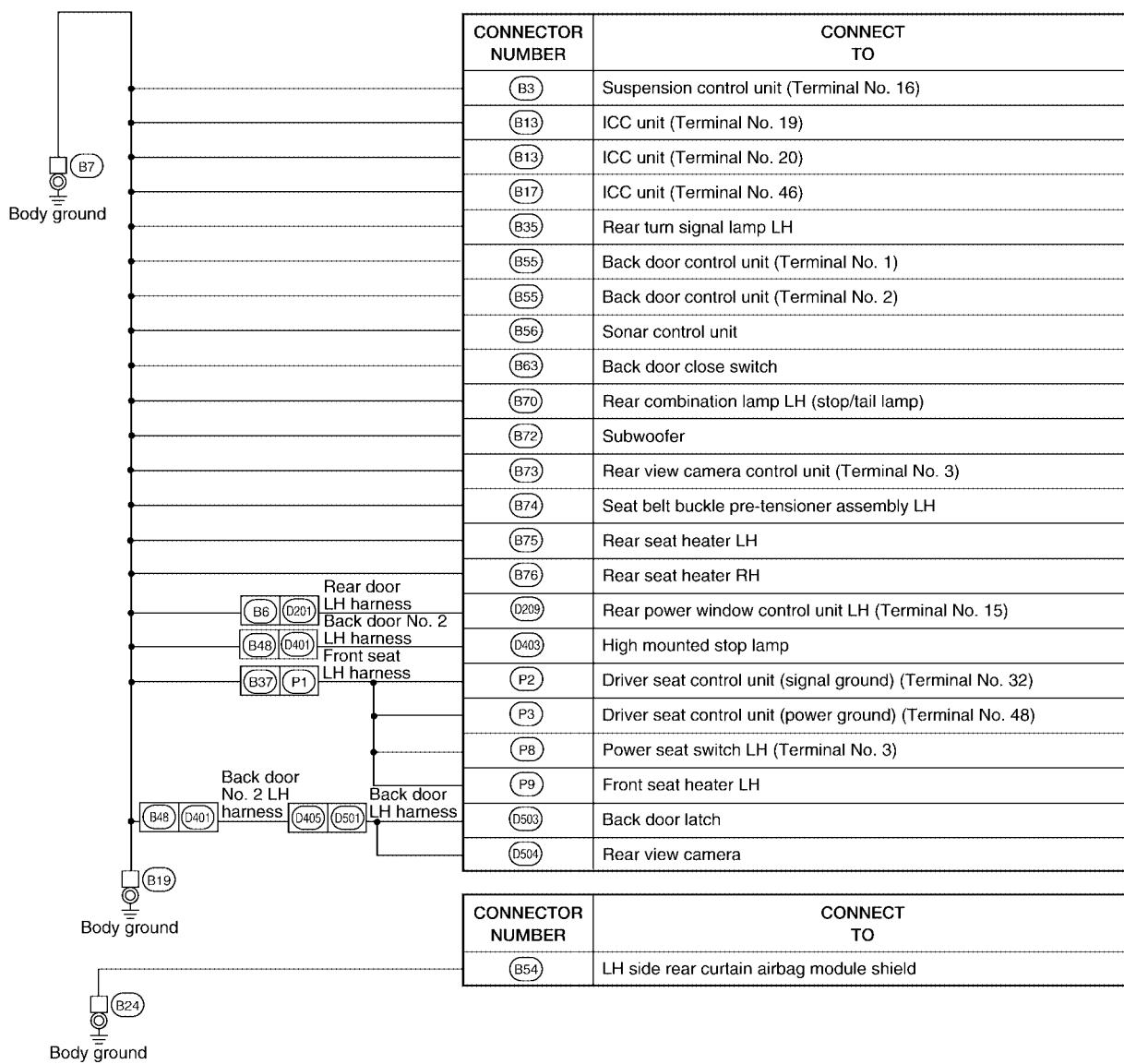
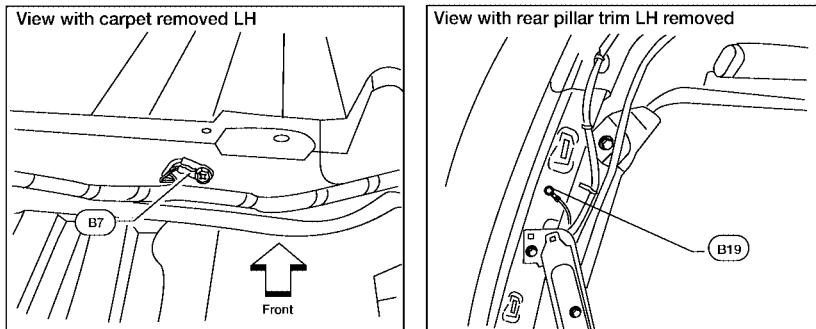
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GROUND CIRCUIT

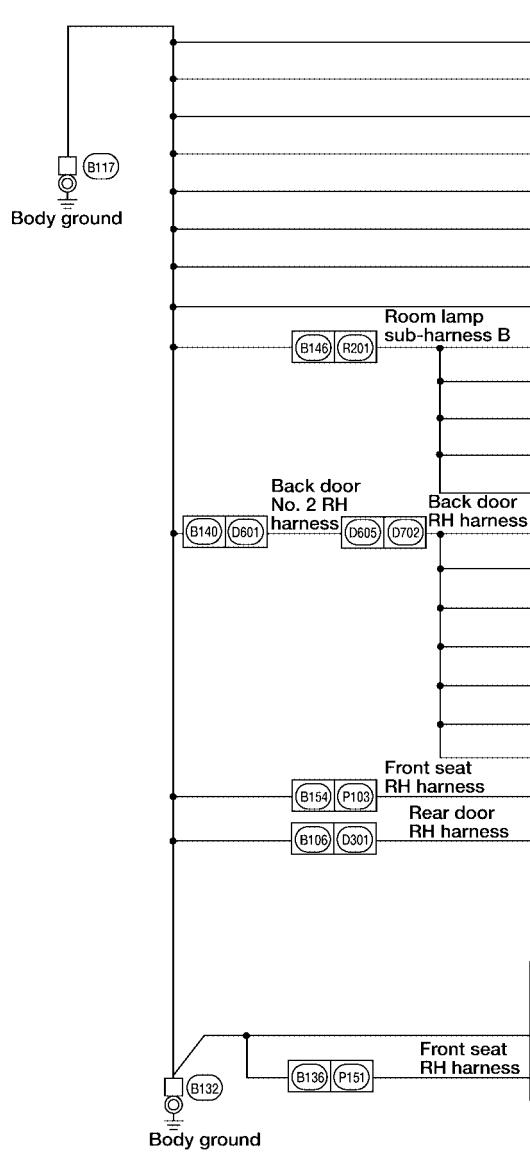
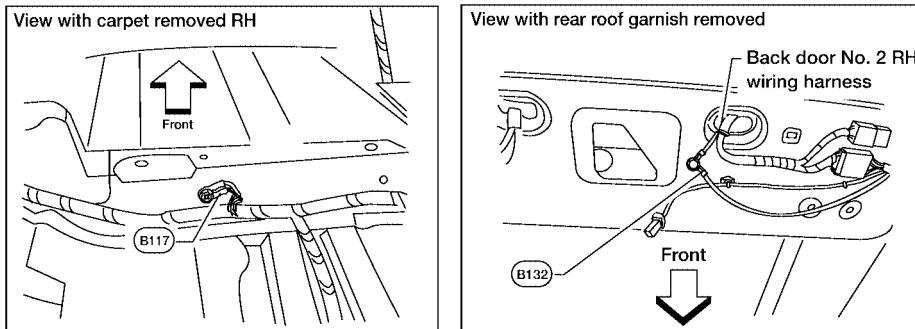
BODY HARNESS



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GROUND CIRCUIT

BODY NO. 2 HARNESS



CONNECTOR NUMBER	CONNECT TO
(B105)	Rear turn signal lamp RH
(B118)	Front seat heater (RH)
(B119)	Condenser-3
(B120)	Condenser-4
(B130)	Rear combination lamp RH (stop/tail lamp)
(B138)	Rear cargo power socket
(B151)	NAVI control unit (Terminal No. 1)
(B157)	Seat belt buckle pre-tensioner assembly RH
(R202)	Video monitor
(R203)	Personal lamp 2nd row
(R204)	Rear audio remote control unit (Terminal No. 15)
(R205)	Personal lamp 3rd row
(R209)	Rear air control
(D703)	License plate lamps
(D704)	Rear wiper motor (Terminal No. 3)
(D704)	Rear wiper motor (Terminal No. 5)
(D705)	Back-up lamp LH
(D706)	Back door handle switch
(D709)	Back-up lamp RH
(D711)	Glass hatch lock actuator
(P108)	Power seat switch RH
(D309)	Rear power window control unit RH (Terminal No. 15)

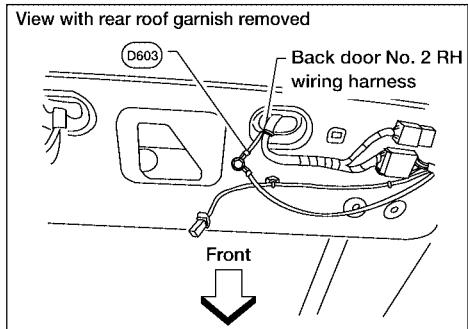
CONNECTOR NUMBER	CONNECT TO
(B141)	Occupant classification system control unit
(P152)	Bluetooth control unit

WKIA4665E

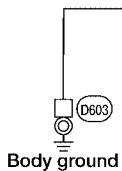
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GROUND CIRCUIT

BACK DOOR NO. 2 RH HARNESS



CONNECTOR NUMBER	CONNECT TO
D604	Rear window defogger



WKIA4666E

HARNESS

PFP:24010

EKS00BND

HARNESS

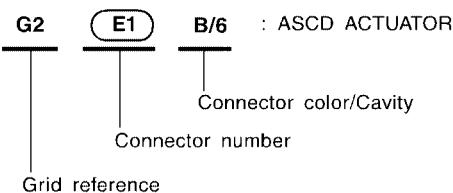
Harness Layout

HOW TO READ HARNESS LAYOUT

The following Harness Layouts use a map style grid to help locate connectors on the drawings:

- Main Harness
- Engine Room Harness LH View (Engine Compartment)
- Engine Room Harness RH View (Engine Compartment)
- Engine Control Harness
- Chassis Harness and Rear Sonar Sensor Sub-harness
- Body Harness
- Body No. 2 Harness

Example:



SEL252V

To use the grid reference

1. Find the desired connector number on the connector list.
2. Find the grid reference.
3. On the drawing, find the crossing of the grid reference letter column and number row.
4. Find the connector number in the crossing zone.
5. Follow the line (if used) to the connector.

CONNECTOR SYMBOL

Main symbols of connector (in Harness Layout) are indicated below.

Connector type	Water proof type		Standard type	
	Male	Female	Male	Female
● Cavity: 4 or Less				
● Relay connector				
● Cavity: From 5 to 8				
● Cavity: 9 or More				
● Ground terminal etc.	—			

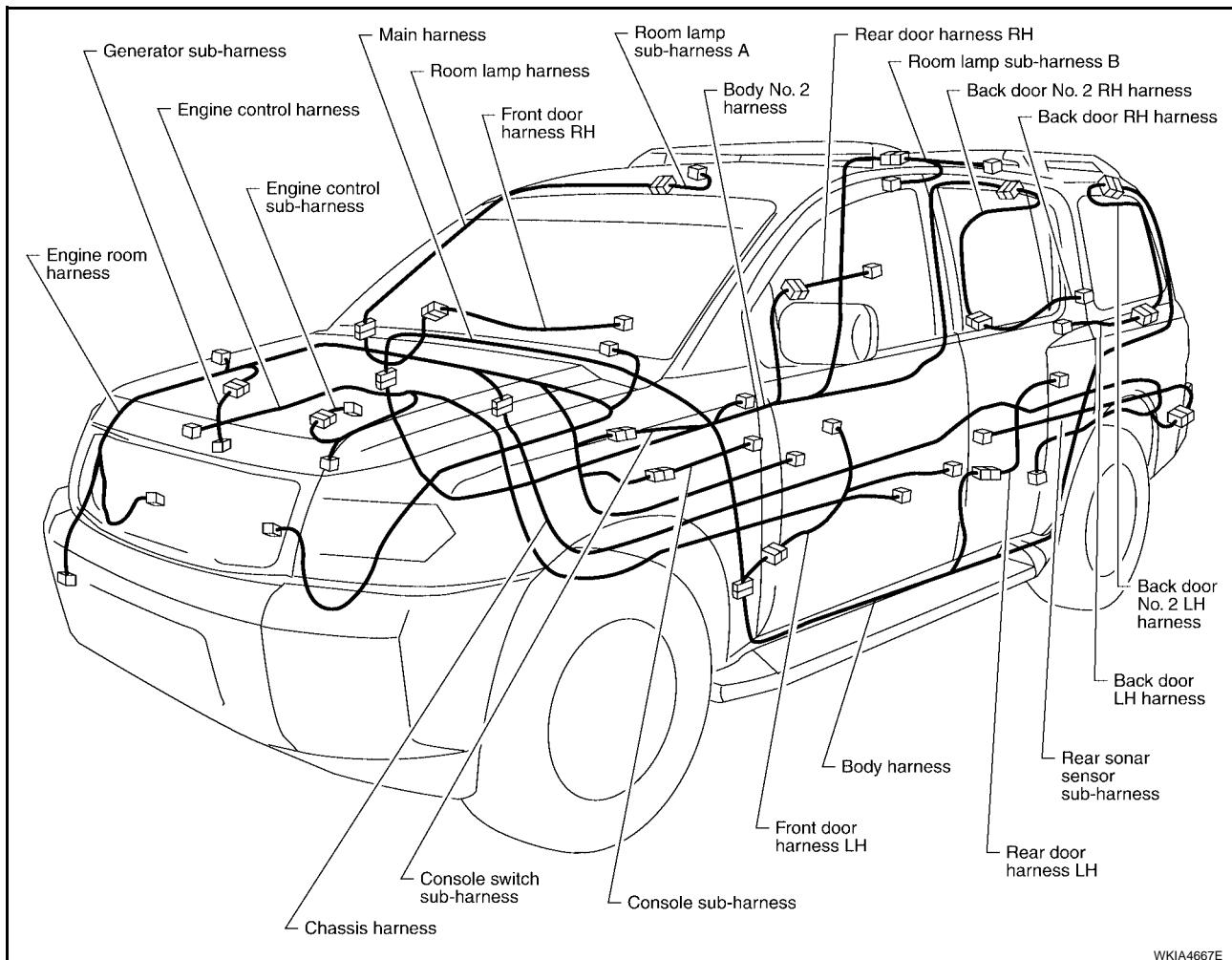
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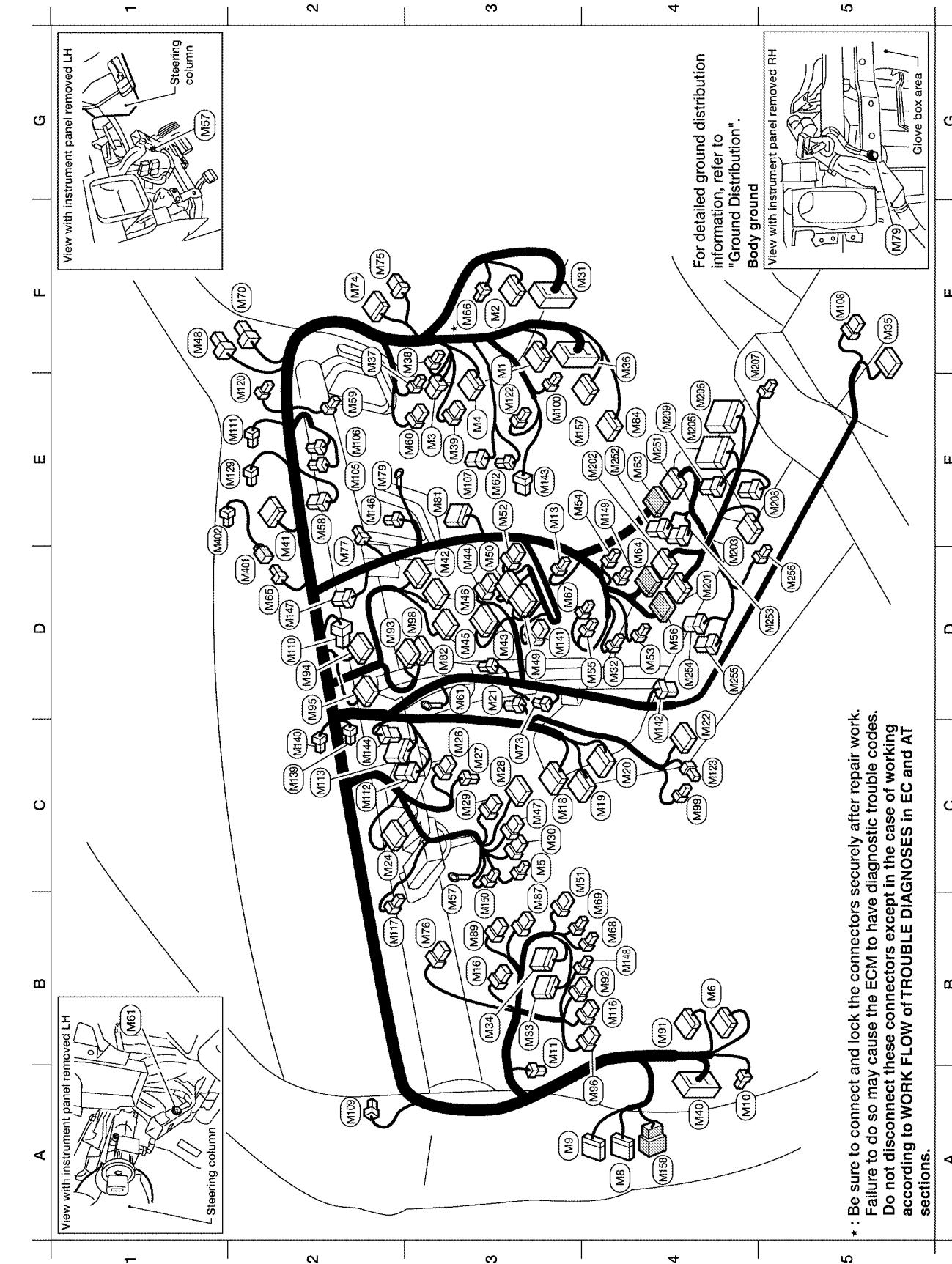
HARNESS

OUTLINE



Harness

MAIN HARNESS



- Be sure to connect and lock the connectors securely after repair work.
Failure to do so may cause the ECM to have diagnostic trouble codes.
Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

HARNESS

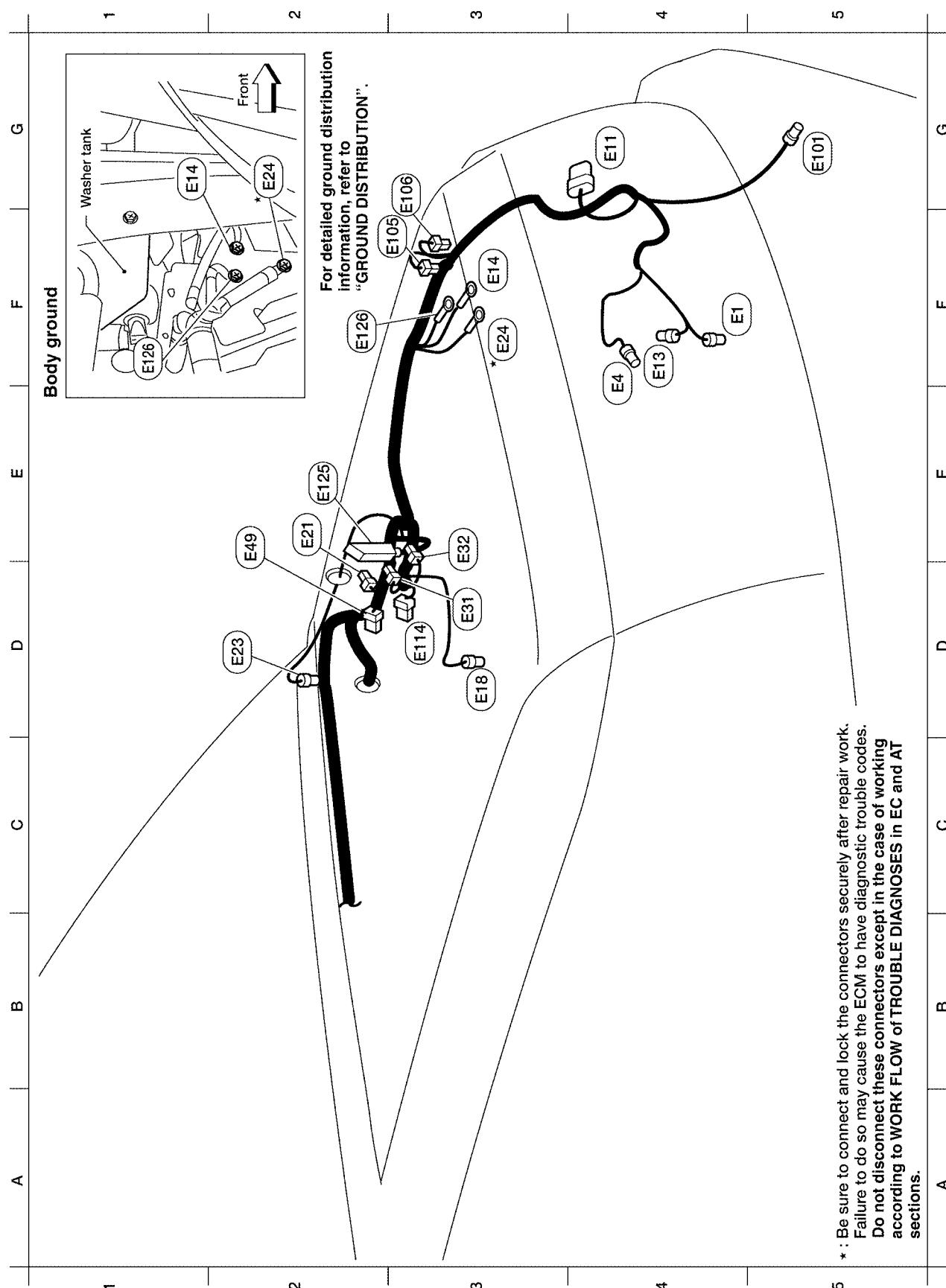
F3 (M1) W/16	To (R1)	E3 (N52)	Rear blower switch (front)
F3 (M2) W/12	To (R2)	D4 (N53) B/2	Front power socket LH
E3 (M3) W/8	Fuse block (JB)	E3 (N54) B/2	Front power socket RH (for cigarette lighter)
E3 (M4) W/16	Fuse block (JB)	D4 (N55) W/4	Hazard switch
C3 (M5) W/3	Illumination control switch	D4 (N56) W/16	To (E10)
B4 (M6) W/10	To (E10)	B3 (N57) -	Body ground
A4 (M8) W/16	To (D2)	E2 (N58) B/6	Intake door motor
A3 (M9) BR/24	To (D1)	E2 (N59) BR/2	Glove box lamp
A4 (M10) Y/4	To (E29)	E3 (N60) W/6	Fuse block (JB)
B3 (M11) B/1	Parking brake switch	D3 (N61) -	Body ground
E3 (M13) W/3	Front passenger air bag off indicator	E3 (N62) B/2	Front blower motor
B3 (M16) GR/6	ADP steering switch	E4 (N63) BR/20	To (E25)
C3 (M18) W/40	BCM (body control module)	D4 (N64) BR/24	To (N22)
C4 (M19) W/15	BCM (body control module)	D2 (N65) W/4	To (M40)
C4 (M20) B/15	BCM (body control module)	F3 (N66) B/1	To (E33)
D3 (M21) W/4	NATS antenna amp.	D4 (N67) GR/8	Tow mode switch
C4 (M22) W/16	Data link connector	B4 (N68) W/2	Tilt motor
C2 (M24) W/40	Combination meter	B4 (N69) W/3	Tilt motor
C3 (M26) W/6	Ignition switch	F2 (N70) BR/1	To (E35) (with Sirius satellite radio)
C3 (M27) W/4	Key switch and key lock solenoid	F2 (N70) V/1	To (E35) (with XM satellite radio)
C3 (M28) W/16	Combination switch	C3 (N73) BR/6	Back-up lamp relay
C3 (M29) Y/6	Combination switch (spiral cable)	F2 (N74) BR/20	To (E12)
C3 (M30) GR/8	Combination switch (spiral cable)	F2 (N75) W/8	To (E11)
F3 (M31) SMJ	To (E32)	B3 (N76) W/6	Electric brake (pre-wiring)
D4 (M32) W/4	In-vehicle sensor	D2 (N77) Y/4	Front passenger air bag module (service replacement)
B3 (M33) W/32	Automatic drive positioner control unit	E2 (N79) -	Body ground
B3 (M34) W/16	Automatic drive positioner control unit	E3 (N80) GR/10	Shift lock control unit
F5 (M35) Y/28	Air bag diagnosis sensor unit	D3 (N82) GR/2	Circuit breaker-2
F4 (M36) SMJ	To (E49)	E3 (N84) W/16	To (E60)
F2 (M37) B/1	Fuse block (JB)	B3 (N87) B/5	Rear power vent window relay (open)
F2 (M38) B/2	Fuse block (JB)	B3 (N89) B/5	Rear power vent window relay (close)
E3 (M39) W/8	Fuse block (JB)	B4 (N91) W/16	To (E35)
A4 (M40) SMJ	To (E49)	B4 (N92) GR/6	Power liftgate switch
E2 (M41) W/16	Satellite radio tuner (or pre-wiring for satellite radio)	D2 (N93) W/24	Display unit
D3 (M42) W/16	Audio unit	D2 (N94) W/24	Display control unit
D3 (M43) W/10	Audio unit	C2 (N95) W/32	Display control unit
D3 (M44) W/6	Audio unit	A4 (N96) BR/6	Pedal adjusting switch
D3 (M45) W/16	Audio unit	D3 (N98) W/24	AV switch
D3 (M46) W/20	Audio unit	C4 (N99) BR/2	Foot lamp LH
C3 (M47) W/8	Steering angle sensor	E3 (N100) BR/2	Foot lamp RH
F1 (M48) BR/2	To (E35)	D3 (N101) BR/20	Rear heated seat switch RH
D3 (M49) B/26	Front air control	E4 (N102) BR/6	Front heated seat switch RH
D3 (M50) W/18	Front air control	D5 (N103) GR/6	VDC OFF switch
B3 (M51) L4	Trailer tow relay 1	D4 (N104) GR/8	Tow mode switch
		D4 (N105) BR/6	Front heated seat switch LH
		D5 (N106) B/2	A/T device illumination
		E4 (N107) BR/20	Console switch sub-harness
		E4 (N108) BR/6	Front heated seat switch RH
		D5 (N109) BR/6	Optical sensor sub-harness
		D2 (N110) W/4	To (E65)
		E2 (N111) B/4	Optical sensor

* : Refer to previous page

HARNESS

ENGINE ROOM HARNESS (LH VIEW)

Engine Compartment



Refer to PG-48, "ENGINE ROOM HARNESS (RH VIEW)" for continuation of engine room harness.

HARNESS

F4	(E1)	GR/2	: Ambient sensor
E4	(E4)	Y/2	: Crash zone sensor
G4	(E1)	B/8	: Front combination lamp LH
F4	(E13)	GR/2	: Ambient sensor-2
F3	(E14)	-	: Body ground
D3	(E18)	GR/2	: Front wheel sensor LH
E2	(E21)	GR/2	: Brake fluid level switch
D2	(E23)	GR/6	: Front wiper motor
F3	* (E24)	-	: Body ground
D3	(E31)	B/3	: Front pressure sensor
E3	(E32)	B/3	: Rear pressure sensor
E2	(E49)	B/6	: Active booster
G5	(E01)	B/3	: Front turn/fog lamp LH
F3	(E05)	BR/2	: Front and rear washer motor
G3	(E06)	BR/2	: Washer fluid level switch
D3	(E14)	B/6	: Delta stroke sensor
E2	(E15)	B/47	: ABS actuator and electric unit (control unit)
F2	(E126)	-	: Body ground

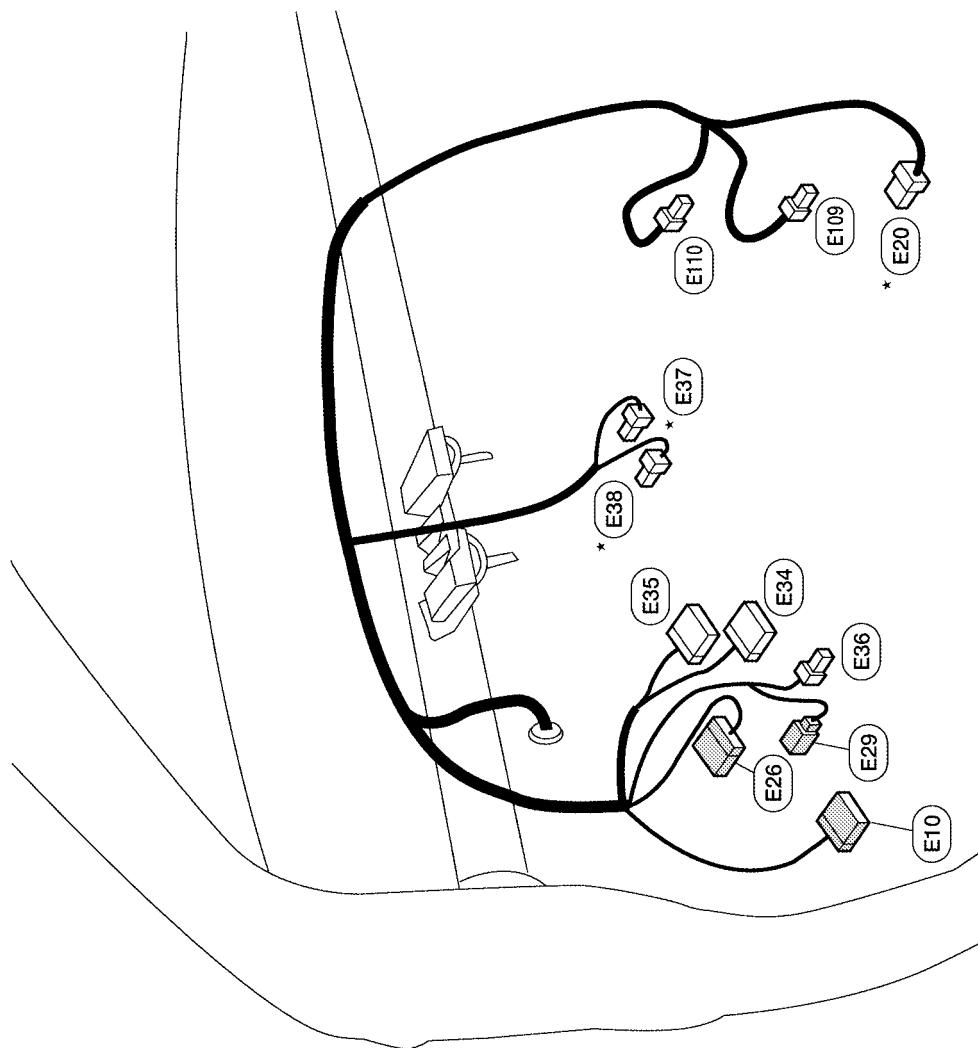
* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

WKIA3688E

HARNESS

Passenger Compartment

(E10) W/10	: To (N6)
* (E20) B/8	: Accelerator pedal position (APP) sensor
(E26) W/16	: To (M9)
(E29) Y/4	: To (M10)
(E34) W/24	: To (B40)
(E35) W/12	: To (B41)
(E36) W/2	: To (B42)
* (E37) BR/2	: ASCD brake switch (with ASCD)
* (E37) BR/2	: ICC brake switch (with ICC)
* (E38) W/4	: Stop lamp switch
(E109) W/2	: Pedal adjusting motor
(E110) W/3	: Pedal adjusting motor



* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

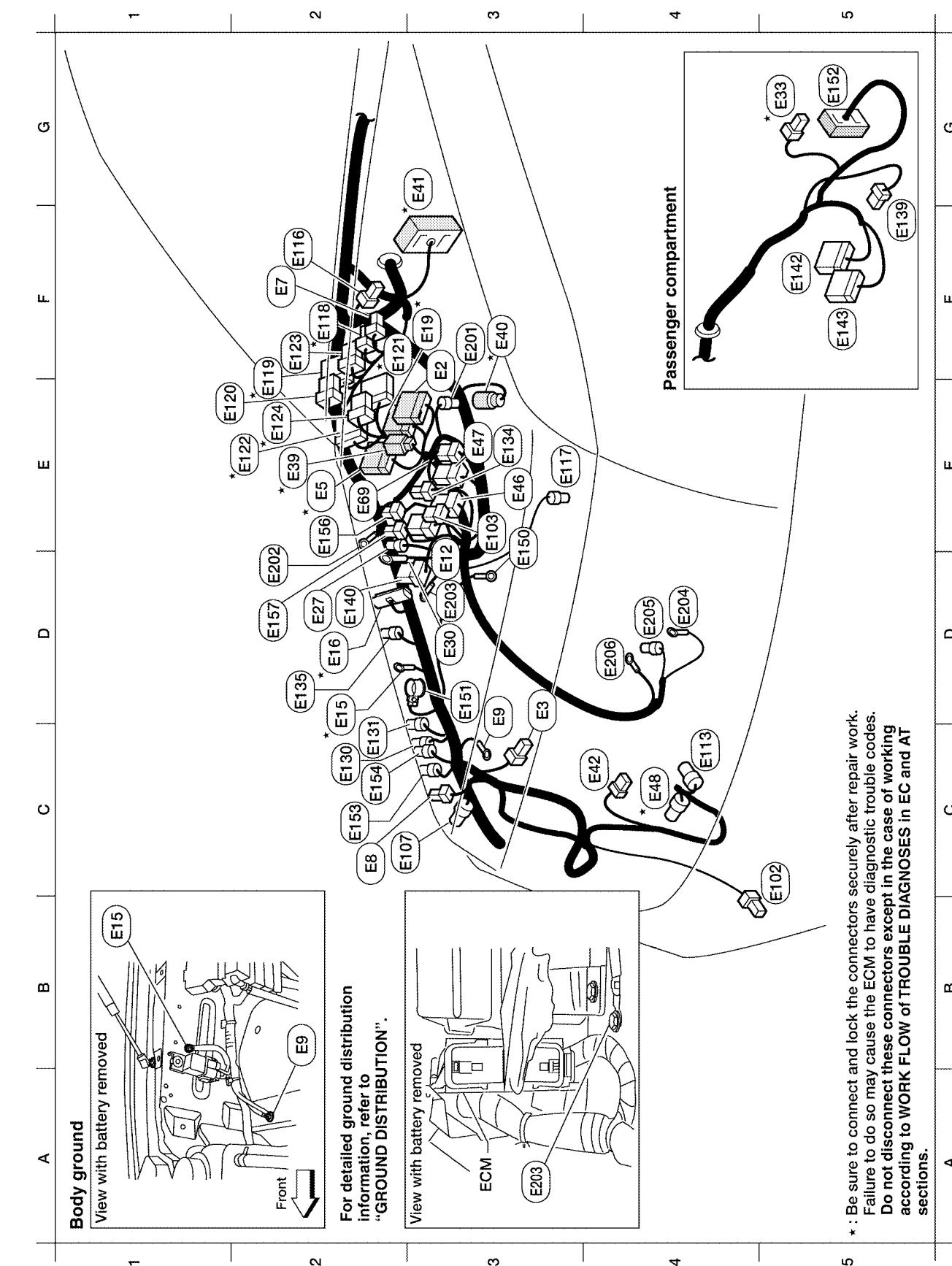
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PG

WKIA4671E

HARNESS

ENGINE ROOM HARNESS (RH VIEW)

Engine Compartment



Refer to [PG-45, "ENGINE ROOM HARNESS \(LH VIEW\)"](#) for continuation of engine room harness.

HARNESS

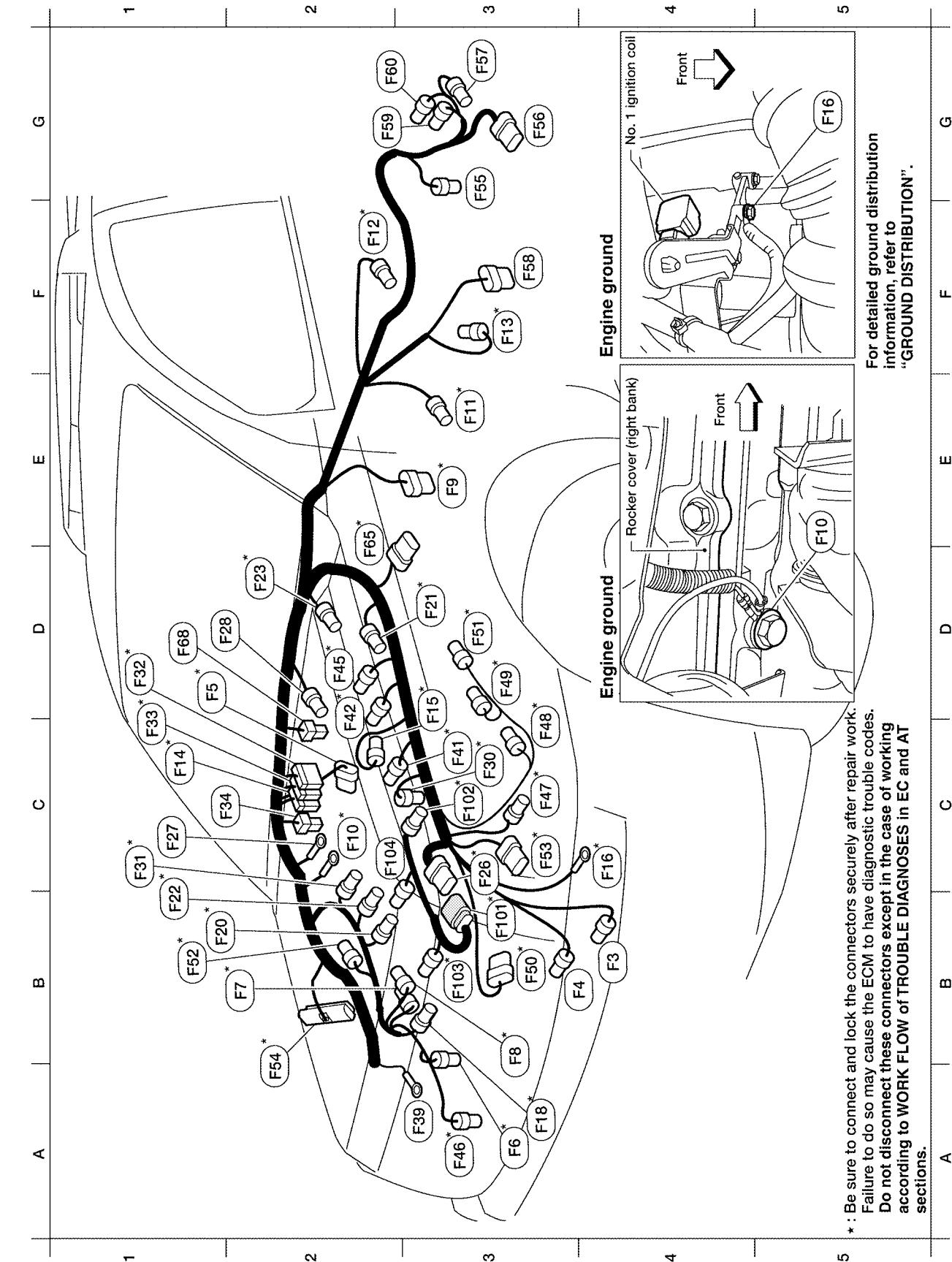
E3	(E2) W/16	: To (F32)	F2	(E23) BR/8	: IPDM E/R (intelligent power distribution module engine room)
D3	(E3) B/2	: Horn	E2	* (E24) B/6	: IPDM E/R (intelligent power distribution module engine room)
E2 *	(E5) W/24	: To (F14)	C2	(E130) W/2	: Compressor motor relay
F2	(E7) GR/2	: Fusible link box (battery)	C2	(E131) W/2	: Compressor motor relay
C2	(E8) W/2	: Hood switch	E3	(E134) GR/7	: ICC brake hold relay
C3 *	(E9) -	: Body ground	D2	(E135) GR/2	: Transfer dropping resistor
D3	(E12) B/5	: Stop lamp relay	F5	(E139) W/8	: To (F17)
C2 *	(E15) -	: Body ground	D2	(E140) BR/6	: Trailer tow relay 2
D2 *	(E16) B/32	: ECM	F5	(E142) L/24	: Transfer control unit
D2	(E27) BR/2	: Fusible link box (battery)	F5	(E143) G/24	: Transfer control unit
D2	(E30) -	: Fusible link box (battery)	D3	(E150) -	: Engine ground
G5 *	(E33) B/1	: To (M66)	D3	(E151) -	: Negative battery cable
E2 *	(E39) W/2	: To (F34)	G5	(E162) SMJ	: To (M31)
F3 *	(E40) GR/2	: To (E201)	C2	(E153) GR/2	: Transfer motor relay
G3 *	(E41) SMJ	: To (C1) (located RH rear of engine compartment)	C2	(E154) GR/2	: Transfer motor relay
C4	(E42) B/6	: ICC sensor	E2	(E156) L/4	: Trailer turn relay LH
E3	(E46) B/5	: Transfer shift high relay	D2	(E157) L/4	: Trailer turn relay RH
E3	(E47) B/5	: Transfer shift low relay	Generator sub-harness		
C4 *	(E48) B/3	: Refrigerant pressure sensor	F3	(E201) GR/2	: To (E40)
E2	(E68) L/4	: Transfer shutoff relay	D2	(E202) -	: Fusible link box (battery)
C5	(E102) B/3	: Front turn/fog lamp RH	D3	(E203) -	: Body ground
E3	(E103) B/5	: Daytime light relay	D4	(E204) -	: Generator
C2	(E107) B/8	: Front combination lamp RH	D4	(E205) GR/2	: Generator
C4	(E113) W/2	: Cooling fan motor	D4	(E206) -	: Generator
F2 *	(E116) W/2	: Condenser-2			
E3	(E117) GR/2	: Front wheel sensor RH			
F2	(E118) B/2	: IPDM E/R (intelligent power distribution module engine room)			
E2 *	(E119) W/16	: IPDM E/R (intelligent power distribution module engine room)			
E2	(E200) W/6	: IPDM E/R (intelligent power distribution module engine room)			
F3 *	(E121) BR/12	: IPDM E/R (intelligent power distribution module engine room)			
E2 *	(E122) W/12	: IPDM E/R (intelligent power distribution module engine room)			

* : Be sure to connect and lock the connectors securely after repair work.
Failure to do so may cause the ECM to have diagnostic trouble codes.
Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

WKIA4673E

Harness

ENGINE CONTROL HARNESS



Revision: November 2009

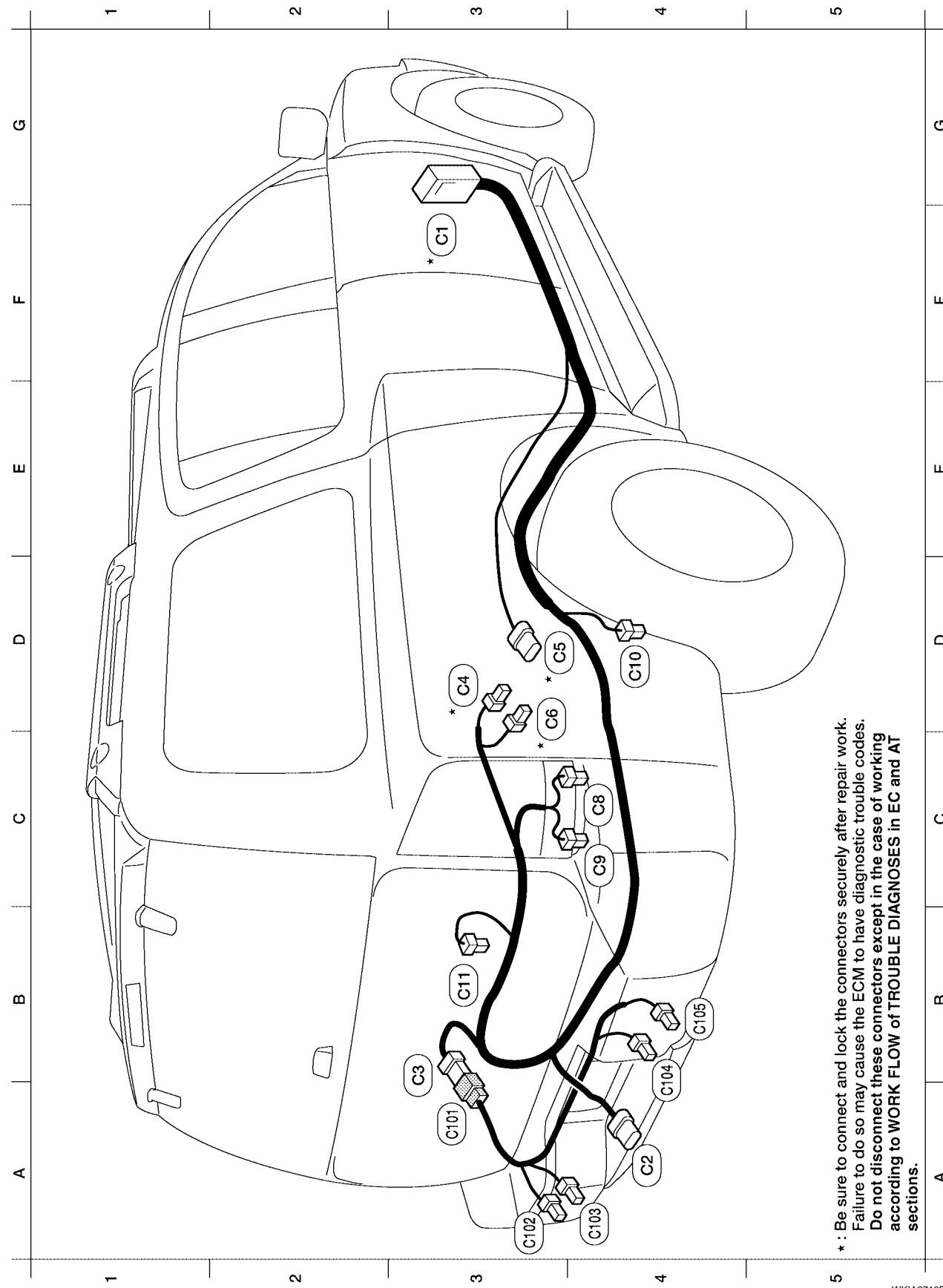
HARNESS

B4	(F3) B/1	: A/C compressor	C3 * (F48)	GR/3	: Ignition coil No. 3 (with power transistor)
B4	(F4) B/3	: Oil pressure sensor	D3 * (F49)	GR/3	: Ignition coil No. 5 (with power transistor)
D1 *	(F6) B/6	: Air fuel ratio (A/F) sensor 1 (bank 2)	B3 * (F50)	B/6	: Electric throttle control actuator
A3 *	(F6) GR/3	: Ignition coil No. 2 (with power transistor)	D3 * (F51)	GR/3	: Ignition coil No. 7 (with power transistor)
B2 *	(F7) GR/3	: Ignition coil No. 4 (with power transistor)	B1 * (F52)	GR/3	: Ignition coil No. 8 (with power transistor)
A3 *	(F8) GR/3	: Ignition coil No. 6 (with power transistor)	C3 * (F53)	B/6	: Mass air flow sensor
E3 *	(F9) G/10	: A/T assembly	A2 * (F54)	B/81	: ECM
C2 *	(F10) -	: Engine ground	G3	B/2	: ATP switch (4WD only)
E3 *	(F11) B/3	: Crankshaft position sensor (POS)	G3	(F56)	: Transfer terminal cord assembly (4WD only)
F2 *	(F12) G/4	: Heated oxygen sensor 2 (bank 2)	G3	(F57)	: Transfer motor (4WD only)
F3	(F13) G/4	: Heated oxygen sensor 2 (bank 1)	F3	(F58)	: Transfer control device (4WD only)
C1	(F14) W/24	: To (E5)	G2	(F59)	: Wait detection switch (4WD only)
C3 *	(F15) L/2	: EVAP canister purge volume control solenoid valve	G2	(F60)	: Neutral-4LO switch (4WD only)
C4 *	(F16) -	: Engine ground	D2 * (F65)	B/6	: Air fuel ratio (A/F) sensor 1 (bank 1)
A3 *	(F18) GR/2	: Fuel injector No. 2	D1	(F68)	: Water valve
B1 *	(F20) GR/2	: Fuel injector No. 4			
D3 *	(F21) GR/2	: Condenser-1	B3 * (F10)	B/6	: To (F26)
B1 *	(F22) GR/2	: Fuel injector No. 6	C3 * (F102)	B/2	: Knock sensor (bank 1)
D2 *	(F23) B/3	: Camshaft position sensor (PHASE)	B3 * (F103)	GR/2	: Engine coolant temperature sensor
C3 *	(F26) B/6	: To (E10)	C2	(F104)	: Knock sensor (bank 2)
C1	(F27) B/1	: Starter motor			
D1	(F28) GR/1	: Starter motor			
C3 *	(F30) GR/2	: Fuel injector No. 1			
C1 *	(F31) GR/2	: Fuel injector No. 8			
D1 *	(F32) W/16	: To (E2)			
C1 *	(F33) W/16	: To (E19)			
C1 *	(F34) W/2	: To (E39)			
A3	(F39) -	: Fusible link box (battery)			
C3 *	(F41) GR/2	: Fuel injector No. 3			
C2 *	(F42) GR/2	: Fuel injector No. 5			
D2 *	(F45) GR/2	: Fuel injector No. 7			
A3 *	(F46) B/3	: Power steering pressure sensor			* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
C3 *	(F47) GR/3	: Ignition coil No. 1 (with power transistor)			Do not disconnect these connectors except in the case of working according to WORK FLOW or TROUBLE DIAGNOSES in EC and AT sections.

WKIA5403E

HARNESS

CHASSIS HARNESS



5 * : Be sure to connect and lock the connectors securely after repair work.
Failure to do so may cause the ECM to have diagnostic trouble codes.
Do not disconnect these connectors except in the case of working
according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT
sections.

WKIA2710E

HARNESS

F3 * (C1)	SMJ	: To (E4) (located RH rear of engine compartment)
A4 (C2)	B/7	: Trailer
B3 (C3)	GR/6	: To (C10)
D3 * (C4)	GR/3	: EVAP control system pressure sensor
D4 * (C5)	GR/5	: Fuel level sensor unit and fuel pump
C3 * (C6)	B/2	: EVAP canister vent control valve
C4 (C8)	B/3	: Height sensor
C4 (C9)	B/4	: Suspension air compressor
D4 (C10)	BR/2	: Rear wheel sensor RH
B3 (C11)	BR/2	: Rear wheel sensor LH

Rear sonar sensor sub-harness

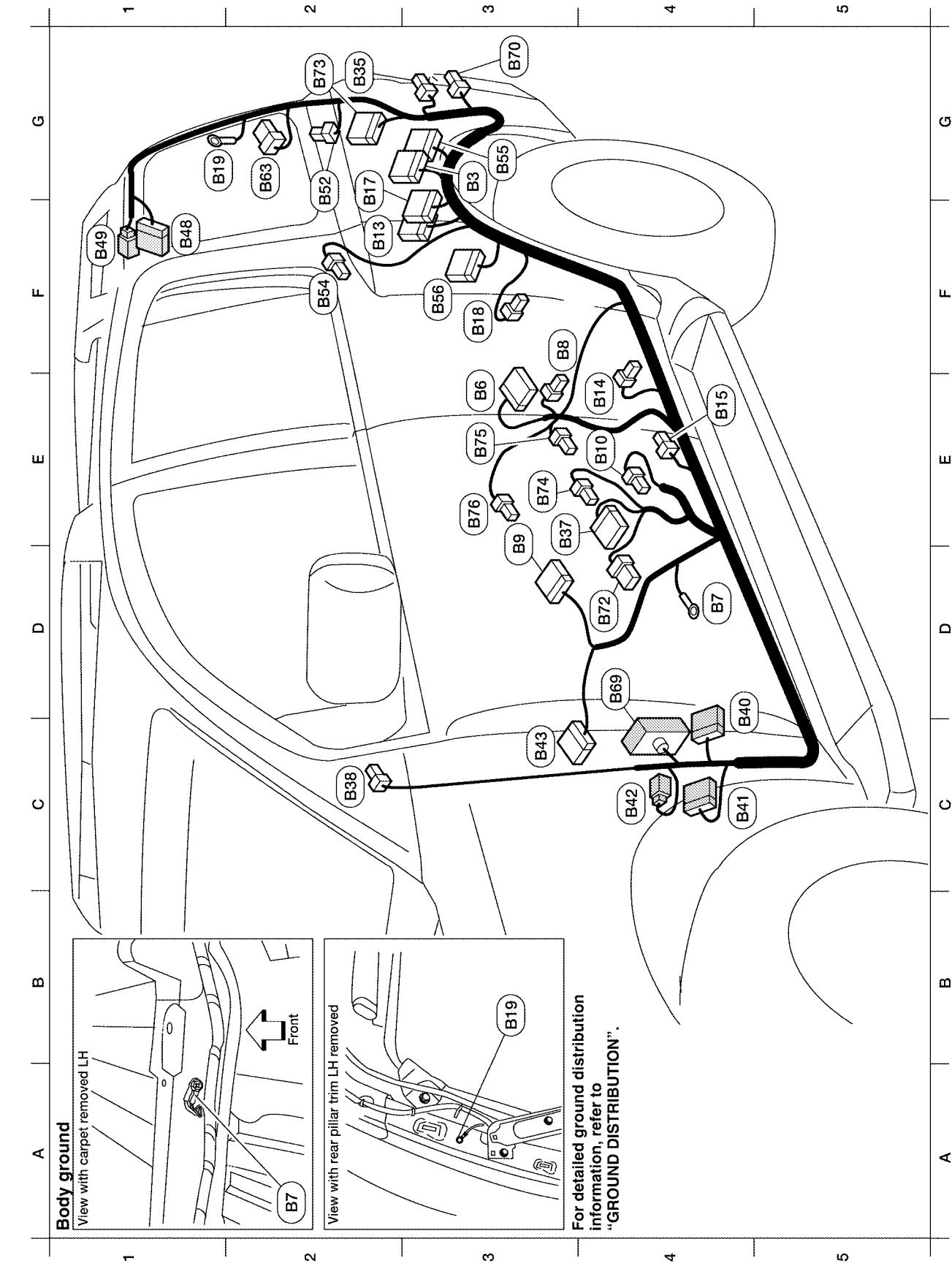
A3 (C10)	GR/6	: To (C3)
A3 (C102)	B/3	: Rear sonar sensor LH outer
A4 (C103)	B/3	: Rear sonar sensor LH inner
B4 (C104)	B/3	: Rear sonar sensor RH inner
B4 (C105)	B/3	: Rear sonar sensor RH outer

* : Be sure to connect and lock the connectors securely after repair work.
Failure to do so may cause the ECM to have diagnostic trouble codes.
Do not disconnect these connectors except in the case of working
according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT
sections.

WKIA4676E

HARNESS

BODY HARNESS



WKIA4677E

HARNESS

G3 (B3) W/16	: Suspension control unit	G2 (B73) W/16	: Rear view camera control unit
E3 (B6) W/18	: To (B20)	E3 (B74) Y/4	: Seat belt buckle pre-tensioner assembly LH
D4 (B7) -	: Body ground	E3 (B75) W/3	: Rear seat heater LH
F3 (B8) W/3	: Front door switch LH	E3 (B76) W/3	: Rear seat heater RH
D3 (B9) Y/12	: Air bag diagnosis sensor unit		
E4 (B10) Y/2	: Front LH side air bag module		
F2 (B13) W/24	: ICC unit		
E4 (B14) Y/2	: Front LH seat belt pre-tensioner		
E4 (B15) Y/2	: LH side air bag (satellite) sensor		
G2 (B17) GR/24	: ICC unit		
F3 (B18) W/3	: Rear door switch LH		
G1 (B19) -	: Body ground		
G2 (B25) B/3	: Rear combination lamp LH		
E4 (B27) W/16	: To (P1)		
C2 (B28) Y/2	: LH side front curtain air bag module		
C4 (B40) W/24	: To (E34)		
C4 (B41) W/12	: To (E35)		
C4 (B42) W/2	: To (E36)		
C3 (B43) W/12	: To (B11)		
F1 (B48) W/16	: To (D10)		
F1 (B49) W/2	: To (D102)		
G2 (B52) W/2	: Rear power vent window motor LH		
F2 (B54) Y/2	: LH side rear curtain air bag module		
G3 (B55) W/26	: Back door control unit		
F3 (B56) W/16	: Sonar control unit		
G2 (B53) W/6	: Back door close switch		
D4 (B59) SMJ	: To (M40)		
G3 (B70) GR/3	: Rear combination lamp LH (stop/tail)		
D4 (B72) BR/6	: Subwoofer		

WKIA4678E

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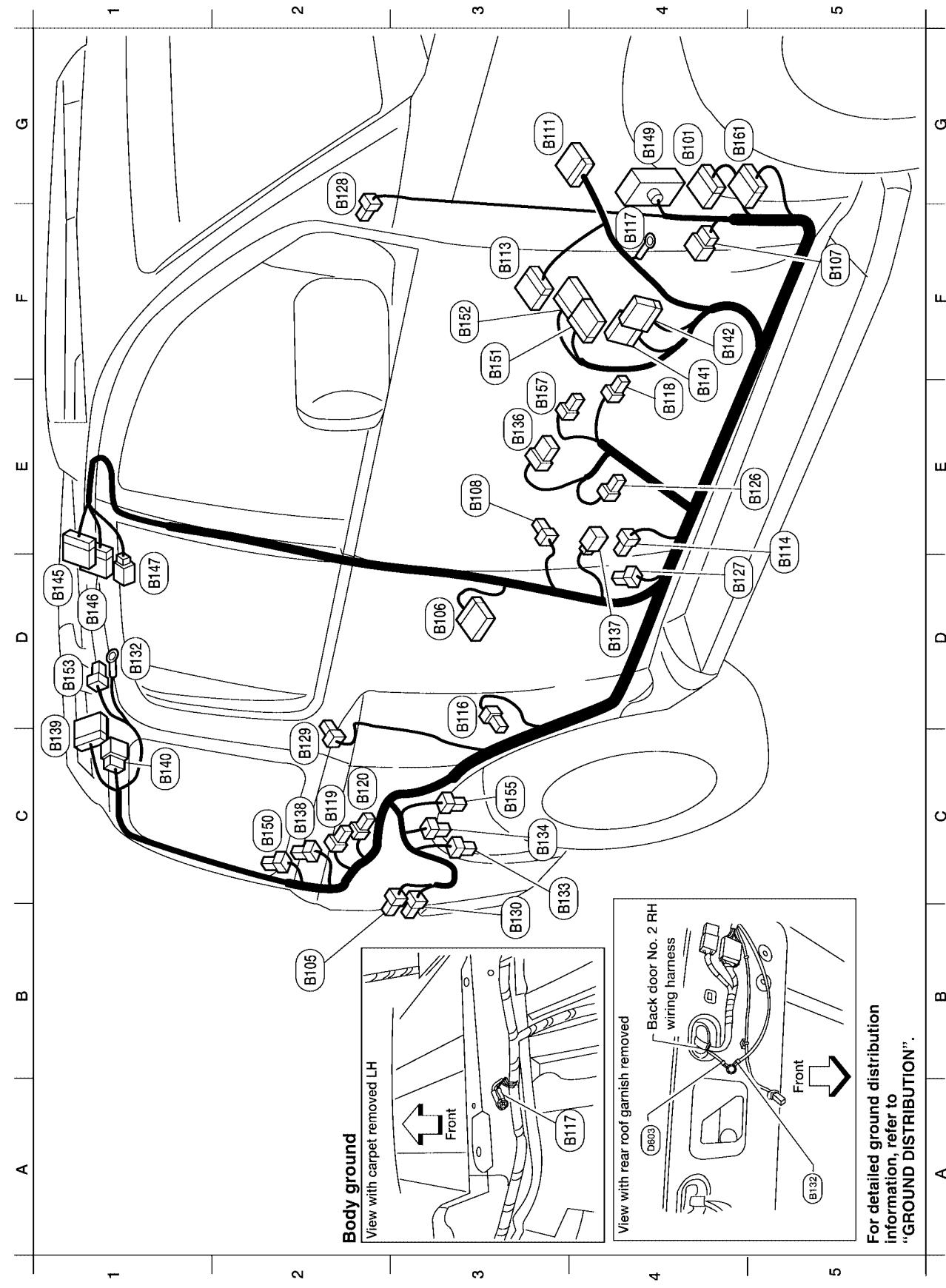
PG

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Harness

BODY NO. 2 HARNESS



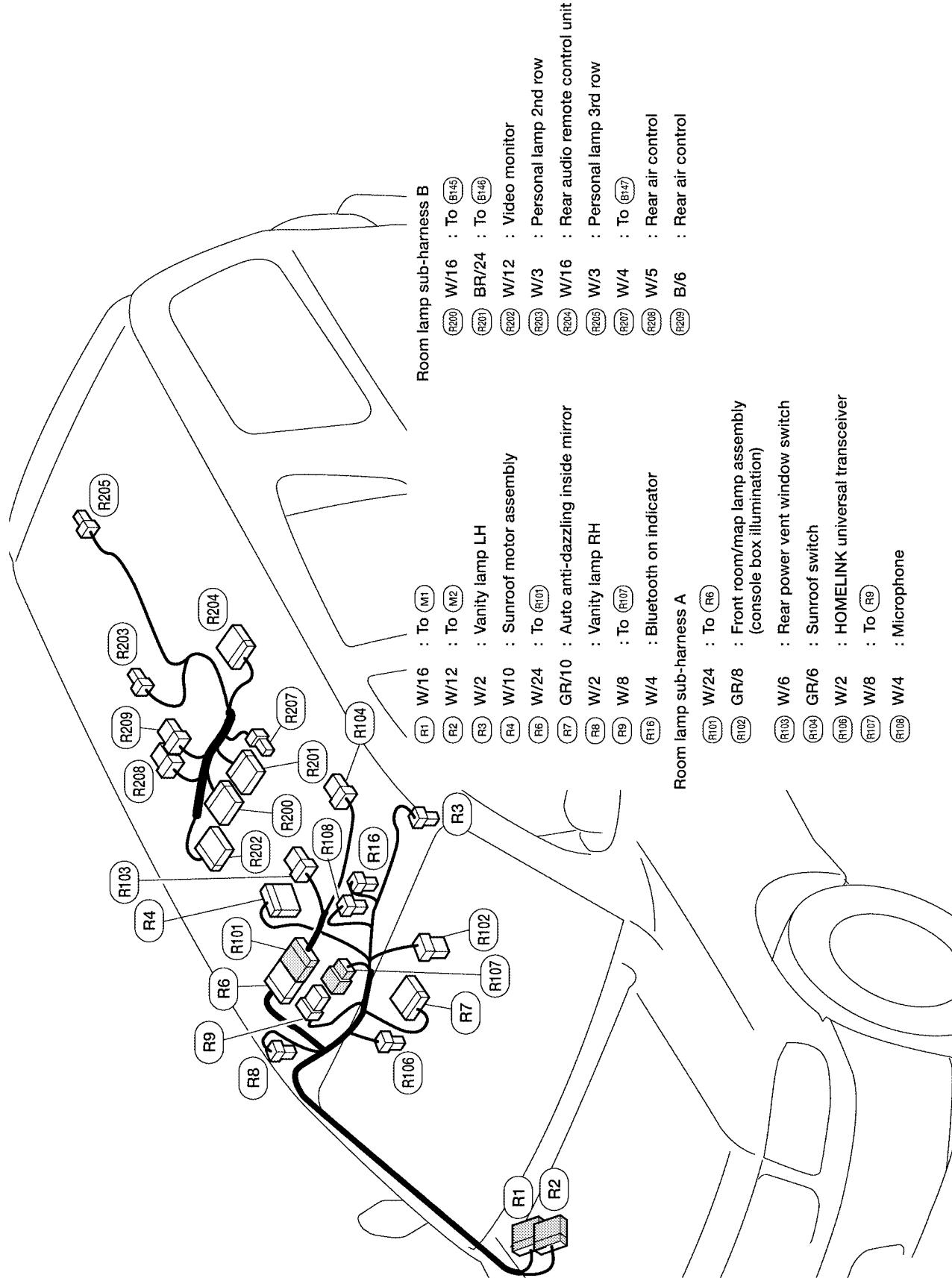
For detailed ground distribution information, refer to "GROUND DISTRIBUTION".

HARNESS

G4	(B149)	SMJ	: To (M36)
C2	(B156)	W/2	: Rear power vent window motor RH
F5	(B151)	W/40	: NAVI control unit
F5	(B152)	W/32	: NAVI control unit
D1	(B153)	W/2	: Cargo lamp
C3	(B155)	B/6	: Air mix door motor (rear)
E3	(B157)	Y/4	: Seat belt buckle pre-tensioner assembly RH
G5	(B161)	W/20	: To (M157)
G4	(B149)	W/16	: To (M34)
B2	(B105)	B/3	: Rear combination lamp RH
D3	(B106)	W/18	: To (D30)
F5	(B107)	W/8	: To (E38)
E3	(B108)	W/3	: Front door switch RH
G3	(B111)	W/12	: To (B3)
F3	(B113)	Y/12	: Air bag diagnosis sensor unit
E5	(B114)	Y/2	: RH side air bag (satellite) sensor
C3	(B116)	W/3	: Rear door switch RH
F4	(B117)	-	: Body ground
F4	(B118)	W/3	: Front seat heater RH
C2	(B119)	W/2	: Condenser-3
C2	(B120)	W/2	: Condenser-4
E5	(B126)	Y/2	: Front RH side air bag module
D5	(B127)	Y/2	: Front RH seat belt pre-tensioner
G2	(B128)	Y/2	: RH side rear curtain air bag module
C2	(B129)	Y/2	: RH side front curtain air bag module
B3	(B130)	GR/3	: Rear combination lamp RH (stop/tail)
D1	(B132)	-	: Body ground
C3	(B133)	W/4	: Rear blower motor resistor
C3	(B134)	W/2	: Rear blower motor
E3	(B136)	W/8	: To (P15)
D4	(B137)	W/3	: Belt tension sensor
C2	(B138)	B/2	: Rear cargo power socket
C1	(B139)	W/16	: To (B602)
C1	(B140)	W/6	: To (B601)
F4	(B141)	W/32	: Blue tooth control unit
F4	(B142)	GR/1	: Blue tooth control unit
D1	(B145)	W/16	: To (B20)
D1	(B146)	BR/24	: To (B21)
D1	(B147)	W/4	: To (B20)

HARNESS

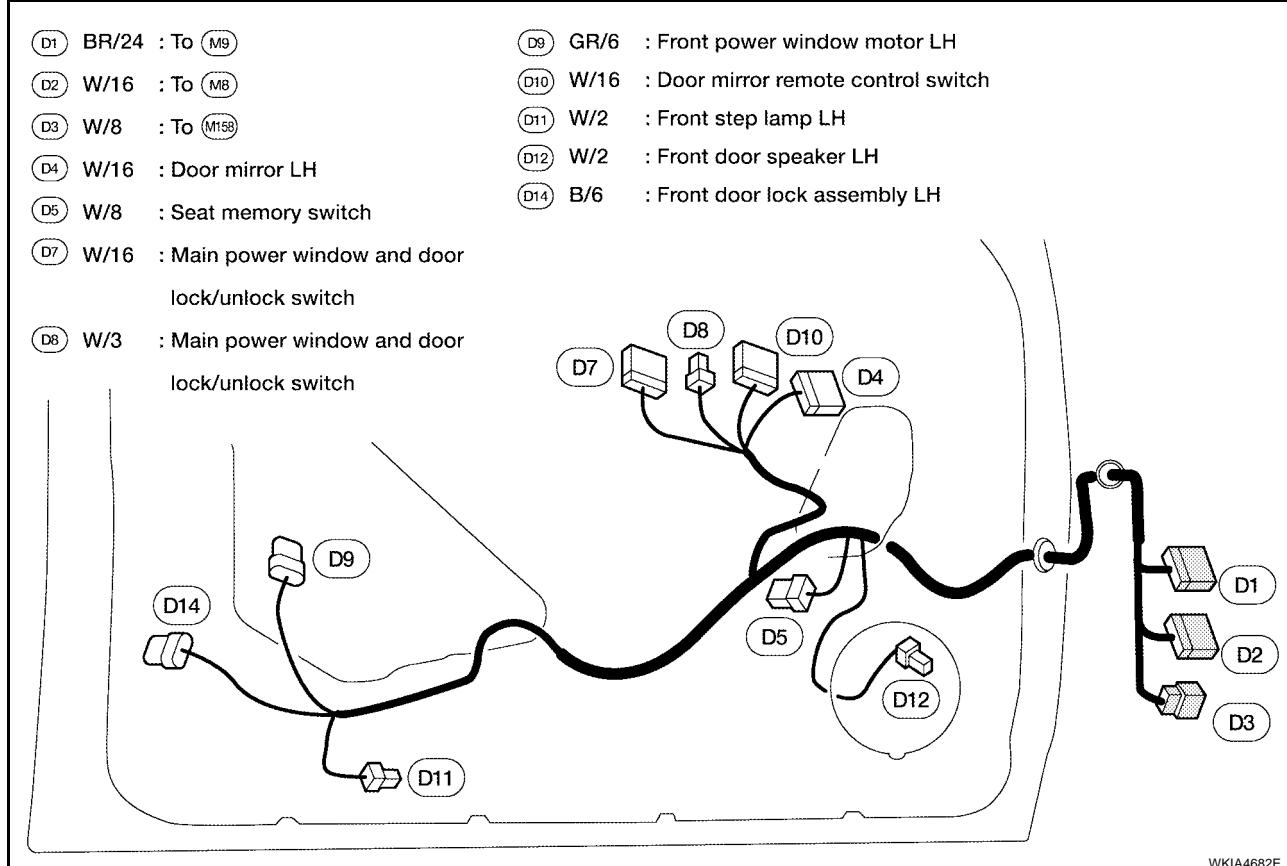
ROOM LAMP HARNESS



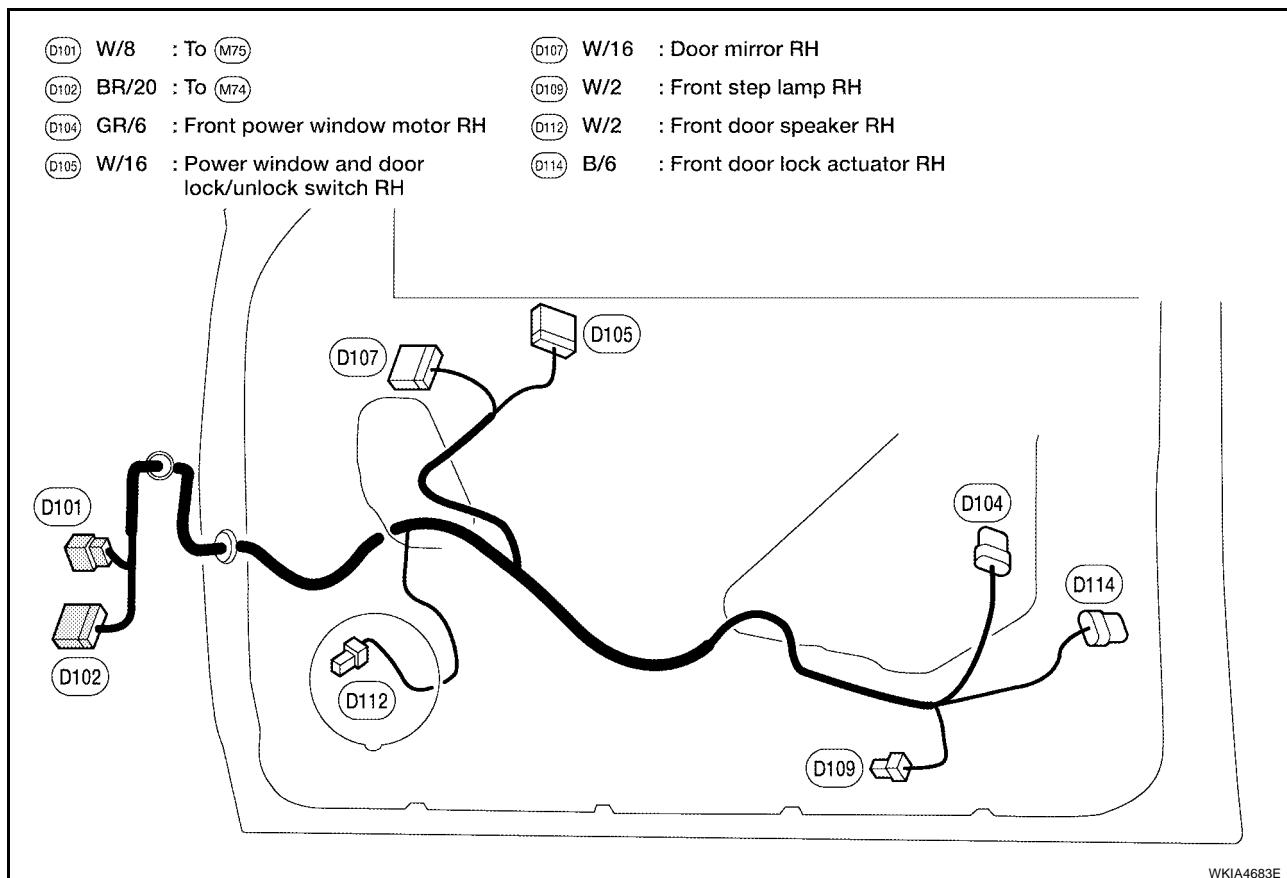
WKIA4681E

HARNESS

FRONT DOOR LH HARNESS



FRONT DOOR RH HARNESS



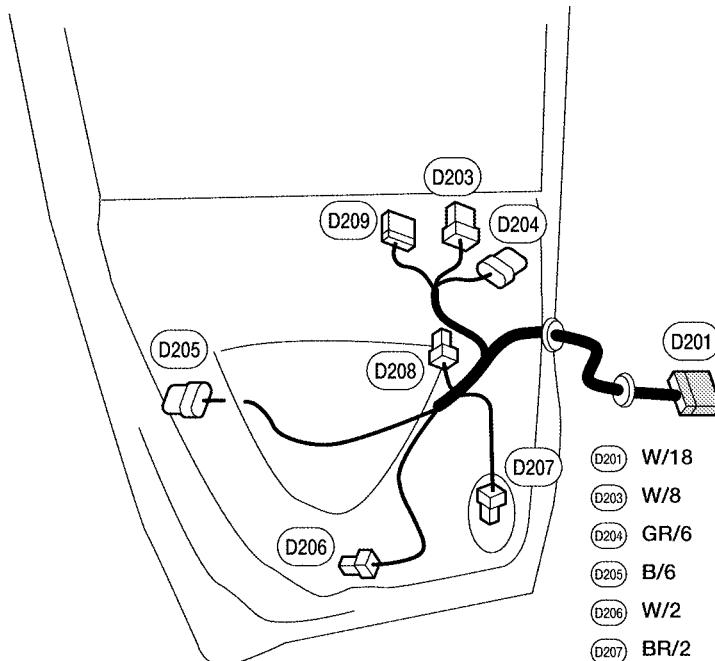
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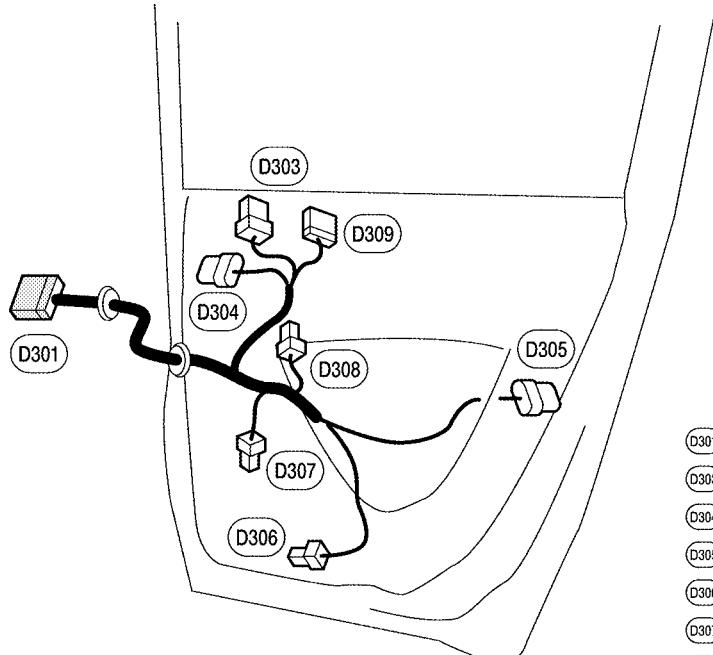
HARNESS

REAR DOOR LH HARNESS



WKIA3697E

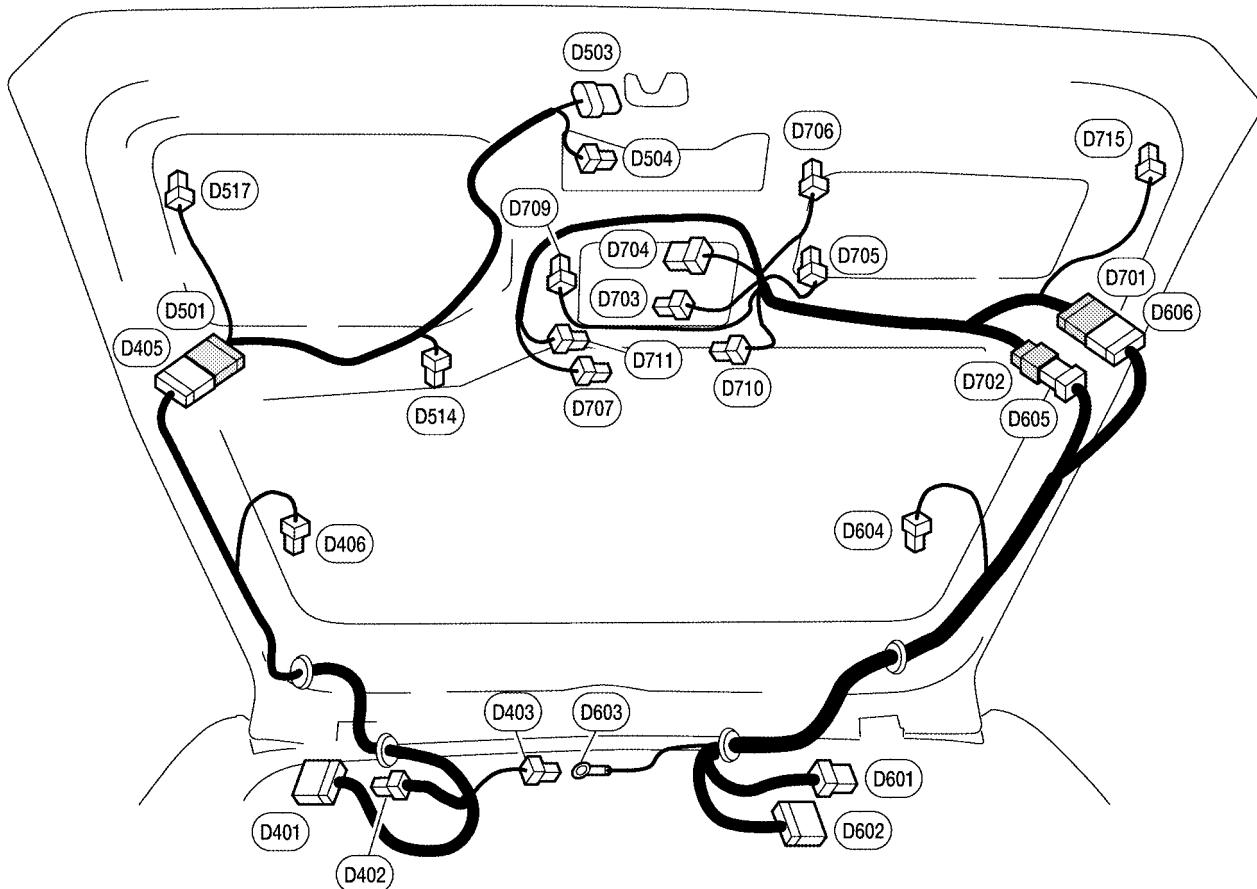
REAR DOOR RH HARNESS



WKIA4684E

Harness

BACK DOOR HARNESS



Back door No. 2 LH harness

- (D401) W/16 : To (B48)
 - (D402) W/2 : To (B49)
 - (D403) GR/2 : High-mounted stop lamp
 - (D405) W/16 : To (D501)
 - (D406) B/1 : Rear window defogger

Back door RH harness

- (D701) W/16 : To (D606)
 - (D702) W/6 : To (D605)
 - (D703) W/2 : License plate lamps
 - (D704) W/6 : Rear wiper motor
 - (D705) B/2 : Back-up lamp LH
 - (D706) W/4 : Back door handle switch
 - (D707) B/1 : Glass hatch ajar switch
 - (D709) B/2 : Back-up lamp RH
 - (D710) W/4 : Glass hatch switch
 - (D711) W/4 : Glass hatch lock actuator
 - (D715) BR/2 : Pinch strip RH

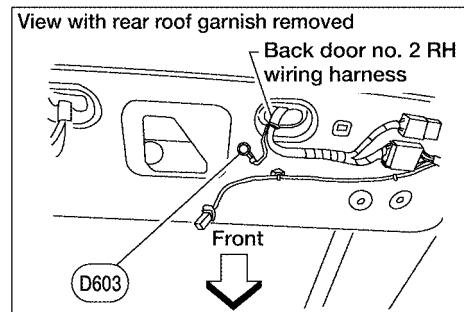
Back door LH harness

- (D501) W/16 : To (D405)
 - (D503) W/8 : Back door latch (door ajar switch)
 - (D504) W/4 : Rear view camera
 - (D514) BR/2 : Back door warning chime
 - (D517) BR/2 : Pinch strip LH

Back door No. 2 RH harness

- (D601) W/6 : To (B140)
 - (D602) W/16 : To (B139)
 - (D603) - : Body ground
 - (D604) B/1 : Rear window defogger (ground)
 - (D605) W/6 : To (D702)
 - (D606) W/16 : To (D701)

For detailed ground distribution information, refer to "GROUND DISTRIBUTION".



WKIA4685E

HARNESS

Wiring Diagram Codes (Cell Codes)

EKS00BNE

Use the chart below to find out what each wiring diagram code stands for.

Refer to the wiring diagram code in the alphabetical index to find the location (page number) of each wiring diagram.

Code	Section	Wiring Diagram Name
A/C,A	ATC	Auto Air Conditioner
A/SUSP	RSU	Rear Air Suspension
AF1B1	EC	Air Fuel Ratio (A/F) Sensor 1 (Bank 1)
AF1B2	EC	Air Fuel Ratio (A/F) Sensor 1 (Bank 2)
AF1HB1	EC	Air Fuel Ratio (A/F) Sensor 1 (Bank 1)
AF1HB2	EC	Air Fuel Ratio (A/F) Sensor 1 (Bank 2)
APPS1	EC	Accelerator Pedal Position Sensor
APPS2	EC	Accelerator Pedal Position Sensor
APPS3	EC	Accelerator Pedal Position Sensor
ASC/BS	EC	ASCD Brake Switch
ASC/SW	EC	ASCD Steering Switch
ASCBOF	EC	ASCD Brake Switch
ASCIND	EC	ASCD Indicator
A/T	AT	A/T Assembly
AT/IND	DI	A/T Indicator Lamp
AUDIO	AV	Audio
AUT/DP	SE	Automatic Drive Positioner
AUTO/L	LT	Auto Light Control
B/CLOS	BL	Back Door Auto Closure System
BACK/L	LT	Back-up Lamp
BRK/SW	EC	Brake Switch
CAN	EC	CAN Communication Line
CAN	LAN	CAN System
CHARGE	SC	Charging System
CHIME	DI	Warning Chime
CLOCK	DI	Clock
COOL/F	EC	Cooling Fan Control
COMBSW	LT	Combination Switch
COMM	AV	Audio Visual Communication System
COMPAS	DI	Compass and Thermometer
D/LOCK	BL	Power Door Lock
DEF	GW	Rear Window Defogger
DTRL	LT	Headlamp - With Daytime Light System
DVD	AV	DVD Entertainment System
ECM/PW	EC	ECM Power Supply for Back-Up
ECTS	EC	Engine Coolant Temperature Sensor
ETC1	EC	Electric Throttle Control Function
ETC2	EC	Throttle Control Motor Relay
ETC3	EC	Throttle Control Motor
F/FOG	LT	Front Fog Lamp
F/PUMP	EC	Fuel Pump
FTTS	EC	Fuel Tank Temperature Sensor
FUELB1	EC	Fuel Injection System Bank 1
FUELB2	EC	Fuel Injection System Bank 2
H/AIM	LT	Headlamp Aiming Control
H/PHON	AV	Hands Free Telephone
H/LAMP	LT	Headlamp

HARNESS

HORN	WW	Horn
HSEAT	SE	Heated Seat
ICC	ACS	Intelligent Cruise Control
ICCBDF	EC	ICC Brake Switch
ICC/BS	EC	ICC Steering Switch
ICC/SW	EC	ICC Brake Switch
I/MIRR	GW	Inside Mirror (Auto Anti-Dazzling Mirror)
IATS	EC	Intake Air Temperature Sensor
IGNSYS	EC	Ignition System
ILL	LT	Illumination
INJECT	EC	Injector
INT/L	LT	Room/Map, Vanity, Cargo, Personal, Foot, Step, and Puddle Lamps
KEYLES	BL	Remote Keyless Entry System
KS	EC	Knock Sensor
MAFS	EC	Mass Air Flow Sensor
MAIN	EC	Main Power Supply and Ground Circuit
METER	DI	Speedometer, Tachometer, Temp. and Fuel Gauges
MIL/DL	EC	Malfunction Indicator Lamp
MIRROR	GW	Door Mirror
NATS	BL	Nissan Anti-Theft System
NAVI	AV	Navigation System
O2H2B1	EC	Rear Heated Oxygen Sensor 2 Heater Bank 1
O2H2B2	EC	Rear Heated Oxygen Sensor 2 Heater Bank 2
O2S2B1	EC	Heated Oxygen Sensor 2 Bank 1
O2S2B2	EC	Heated Oxygen Sensor 2 Bank 2
P/SCKT	WW	Power Socket
PGC/V	EC	EVAP Canister Purge Volume Control Solenoid Valve
PHASE	EC	Camshaft Position Sensor (PHASE) (Bank 1)
PNP/SW	EC	Park/Neutral Position Switch
POS	EC	Crankshaft Position Sensor (POS)
POWER	PG	Power Supply Routing
PRE/SE	EC	EVAP Control System Pressure Sensor
PS/SEN	EC	Power Steering Pressure Sensor
R/VIEW	DI	Rear View Monitor
RP/SEN	EC	Refrigerant Pressure Sensor
SEN/PW	EC	Sensor Power Supply
SHIFT	AT	A/T Shift Lock System
SONAR	DI	Rear Sonar System
SROOF	RF	Sunroof
SRS	SRS	Supplemental Restraint System
START	SC	Starting System
STOP/L	LT	Stop Lamp
T/TOW	LT	Trailer Tow
T/WARN	WT	Low Tire Pressure Warning System
TAIL/L	LT	Parking, License and Tail Lamps
T/F	TF	Transfer Case
TPS1	EC	Throttle Position Sensor
TPS2	EC	Throttle Position Sensor
TPS3	EC	Throttle Position Sensor
TRNSCV	BL	HOMELINK® Universal Transceiver
TURN	LT	Turn Signal and Hazard Warning Lamps
VDC	BRC	Vehicle Dynamic Control System

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HARNESS

VEHSEC	BL	Vehicle security (theft warning) system
VENT/V	EC	EVAP Canister Vent Control Valve
W/ANT	AV	Audio Antenna
WARN	DI	Warning Lamps
WINDOW	GW	Power Window
WIP/R	WW	Rear Wiper and Washer
WIPER	WW	Front Wiper and Washer

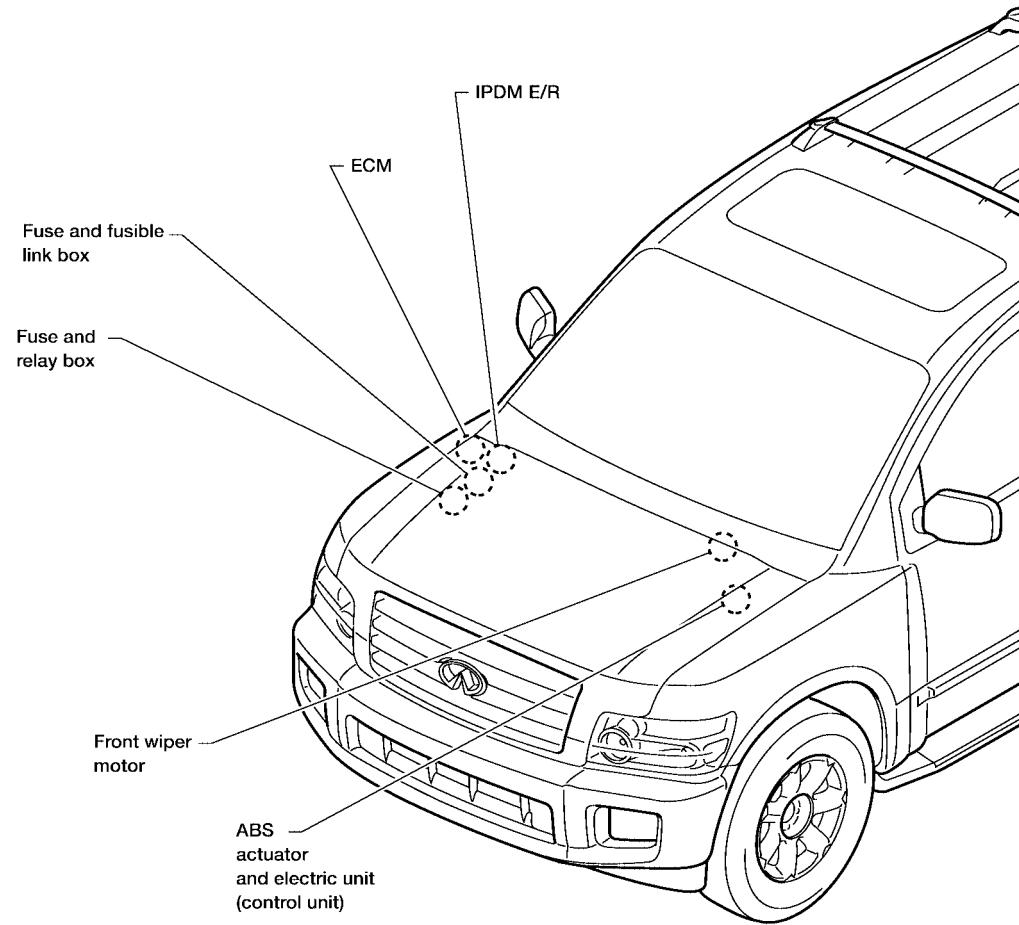
ELECTRICAL UNITS LOCATION

ELECTRICAL UNITS LOCATION

PFP:25230

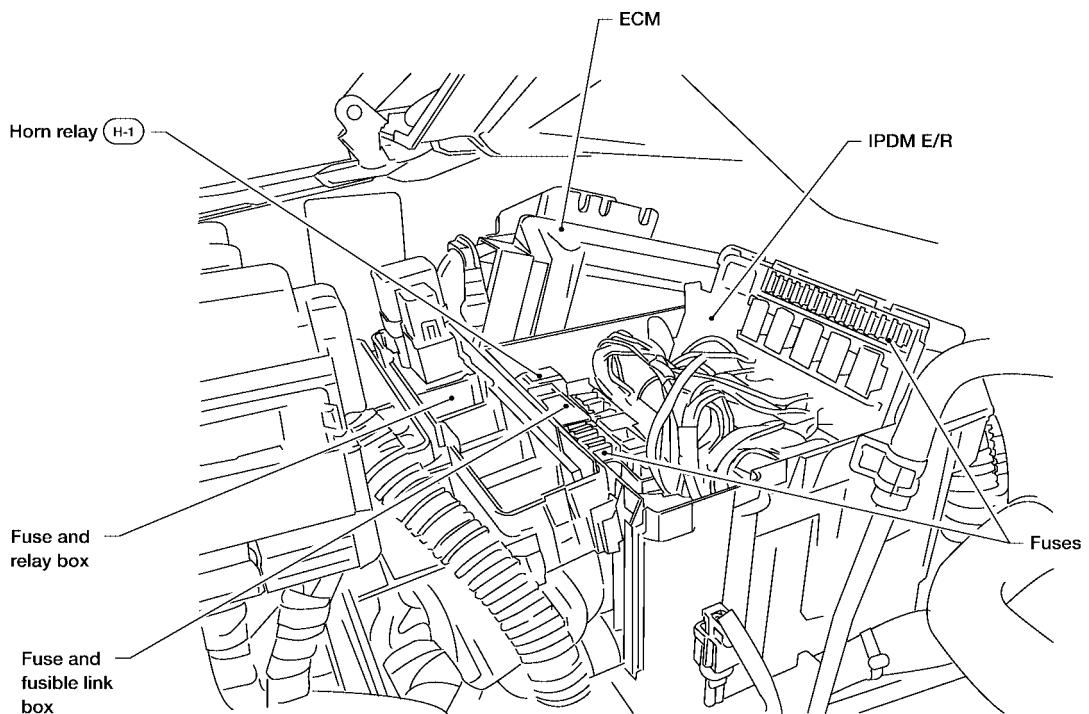
Electrical Units Location ENGINE COMPARTMENT

EKS00BNF



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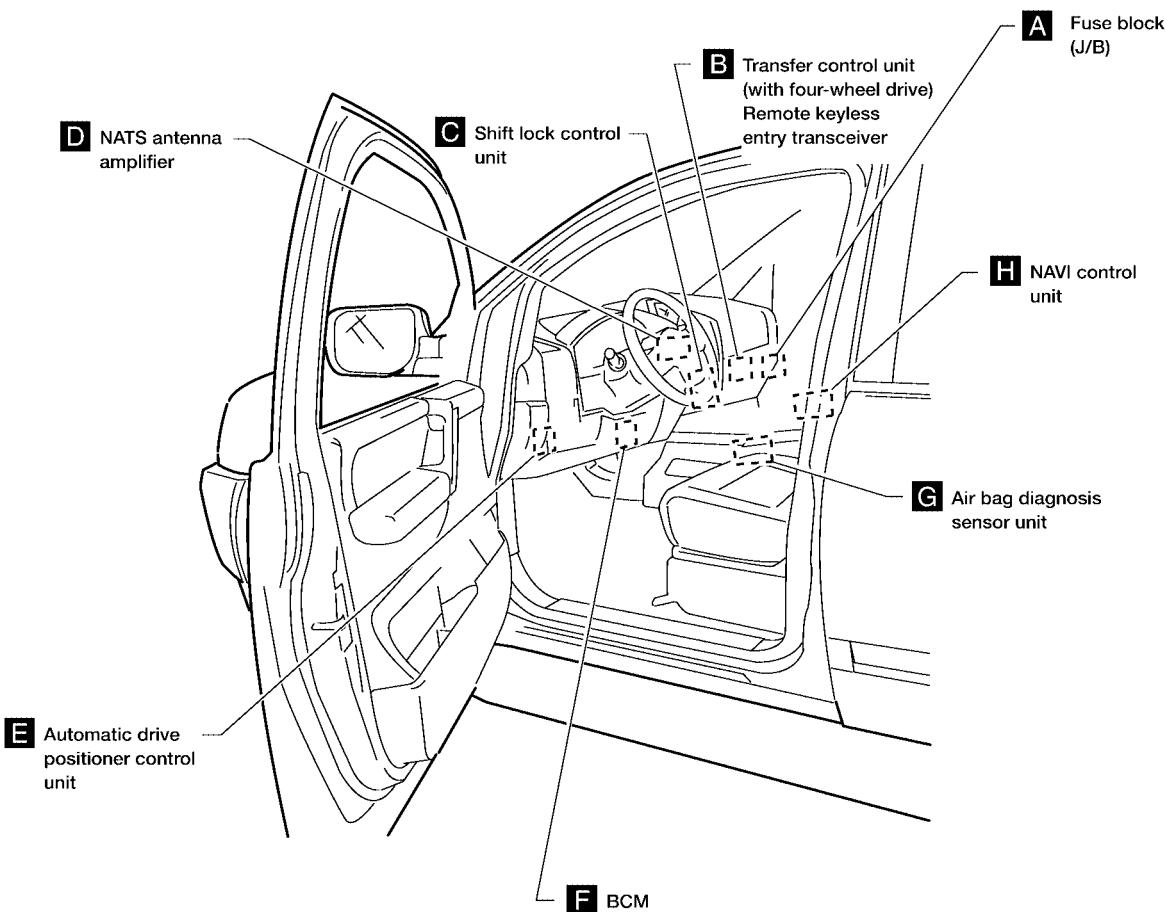


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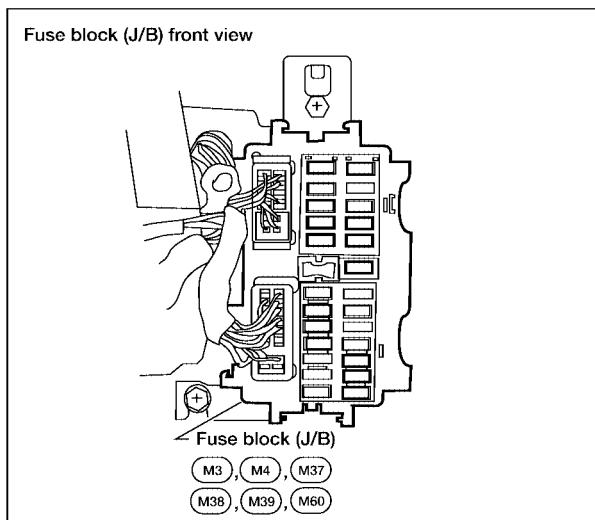
WKIA2014E

ELECTRICAL UNITS LOCATION

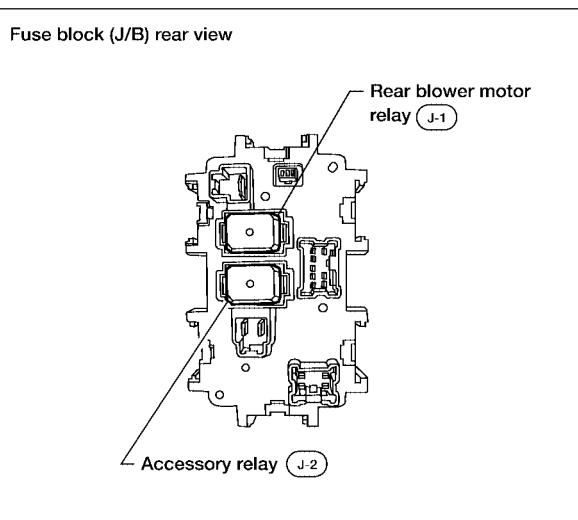
PASSENGER COMPARTMENT



A Instrument panel side RH



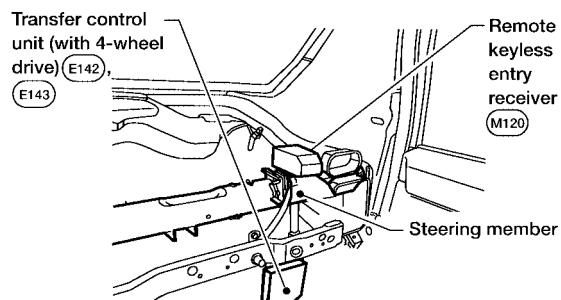
Fuse block (J/B) rear view



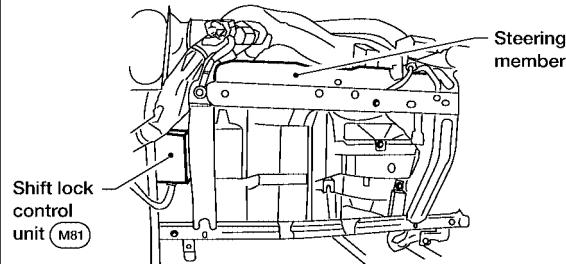
WKIA4687E

ELECTRICAL UNITS LOCATION

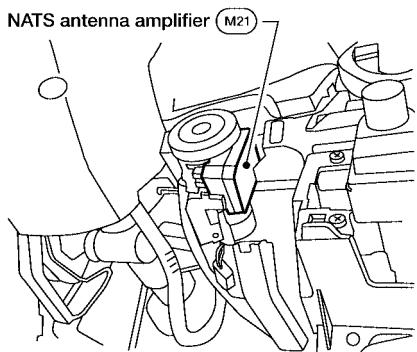
B View with instrument panel removed RH



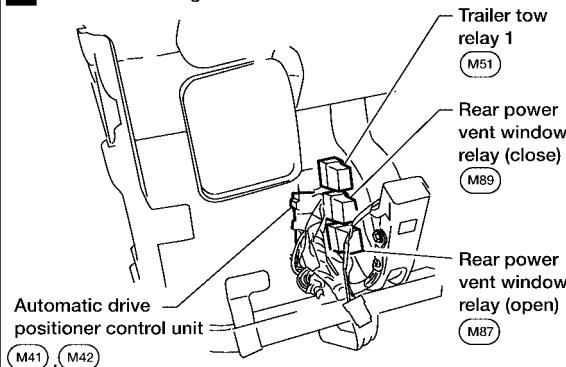
C View with instrument panel removed RH



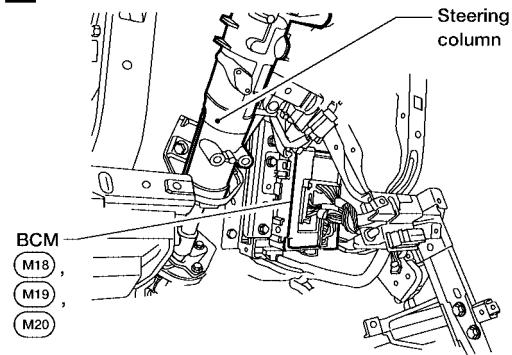
D View with lower driver instrument panel removed



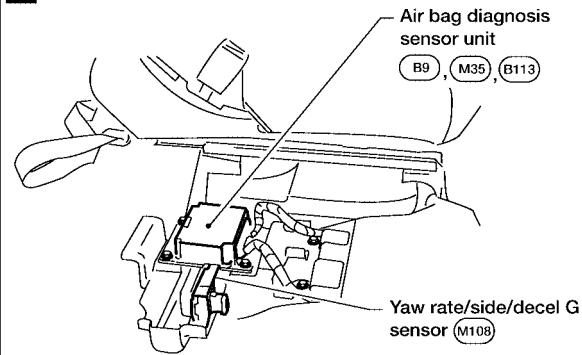
E View with steering member removed LH



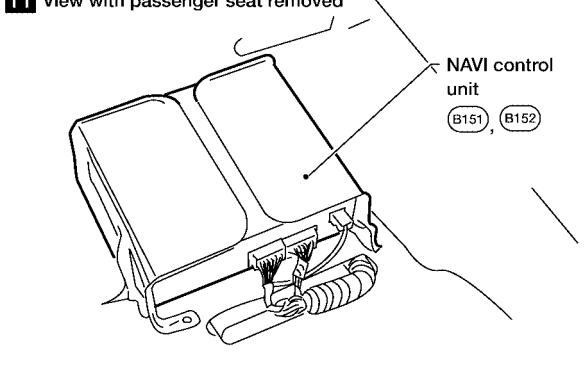
F View with instrument panel removed



G View with center console removed



H View with passenger seat removed



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WKIA4688E

HARNESS CONNECTOR

HARNESS CONNECTOR

PFP:B4341

EKS00BNJ

Description

HARNESS CONNECTOR (TAB-LOCKING TYPE)

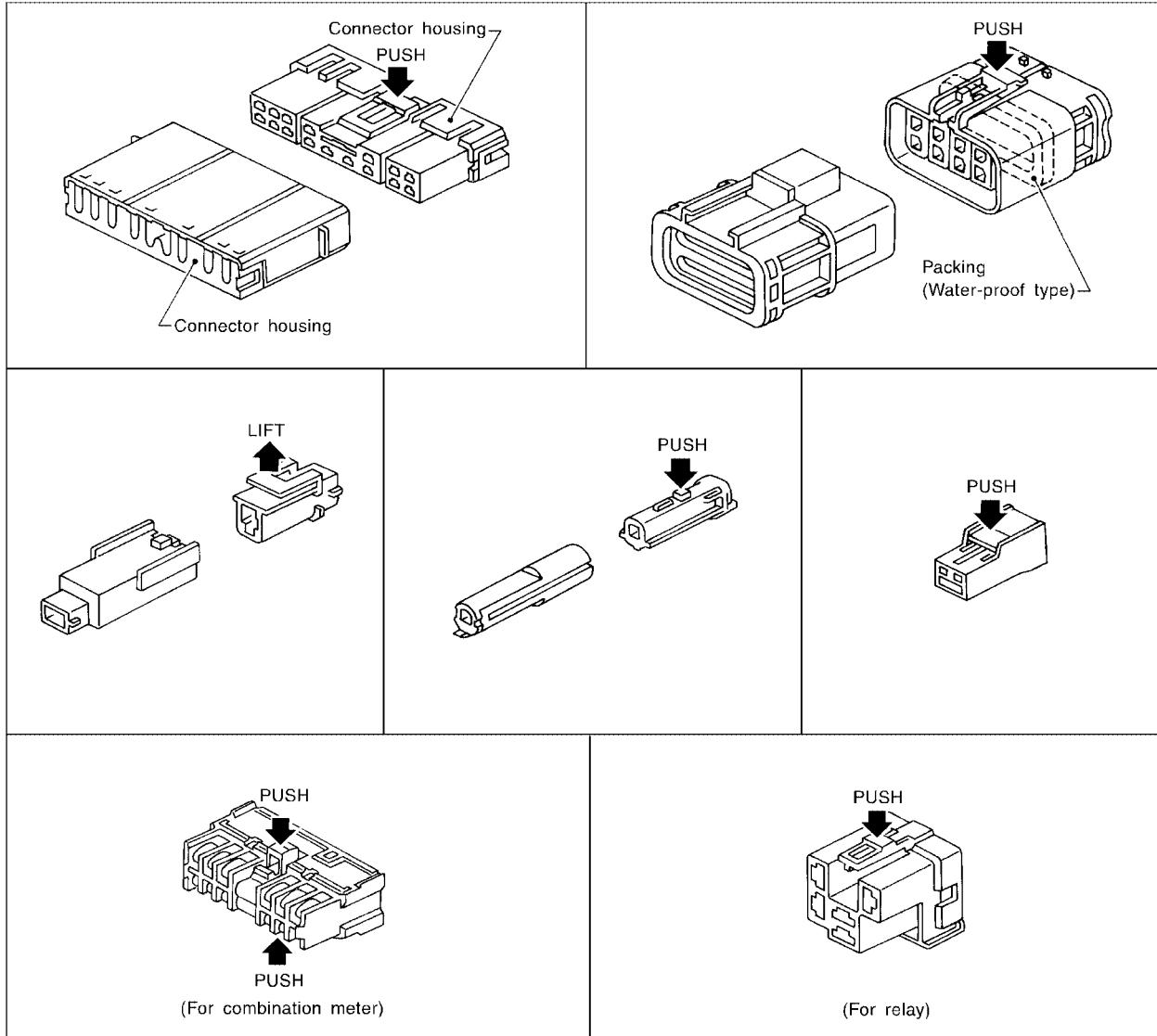
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

Refer to the next page for description of the slide-locking type connector.

CAUTION:

Do not pull the harness or wires when disconnecting the connector.

[Example]



SEL769DA

HARNESS CONNECTOR

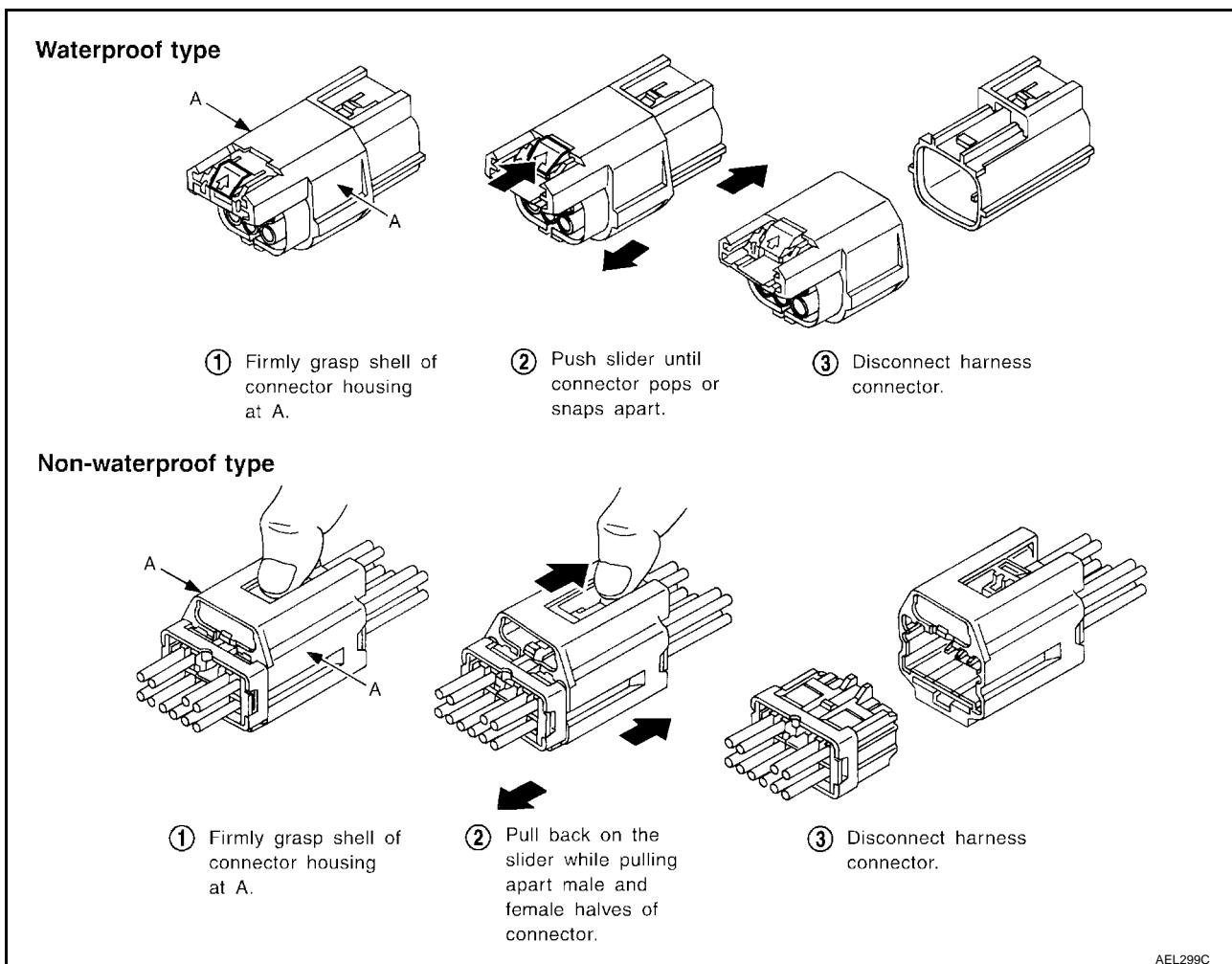
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- A new style slide-locking type connector is used on certain systems and components, especially those related to OBD.
- The slide-locking type connectors help prevent incomplete locking and accidental looseness or disconnection.
- The slide-locking type connectors are disconnected by pushing or pulling the slider. Refer to the illustration below.

CAUTION:

- **Do not pull the harness or wires when disconnecting the connector.**
- **Be careful not to damage the connector support bracket when disconnecting the connector.**

[Example]



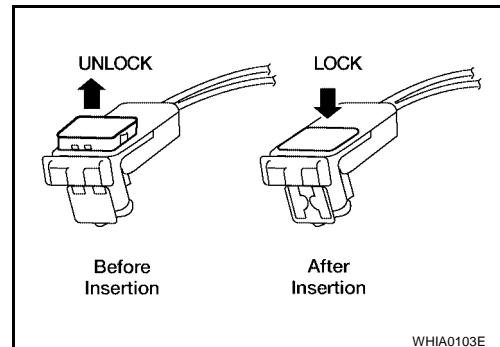
HARNESS CONNECTOR

HARNESS CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

- SRS direct-connect type harness connectors are used on certain SRS components such as air bag modules and seat belt pre-tensioners.
- Always pull up to release black locking tab prior to removing connector from SRS component.
- Always push down to lock black locking tab after installing connector to SRS component. When locked, the black locking tab is level with the connector housing.

CAUTION:

- **Do not pull the harness or wires when removing connectors from SRS components.**



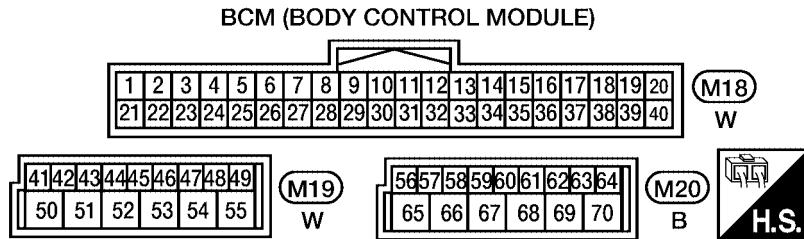
ELECTRICAL UNITS

ELECTRICAL UNITS

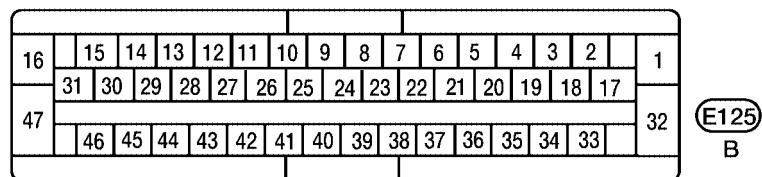
PFP:23710

Terminal Arrangement

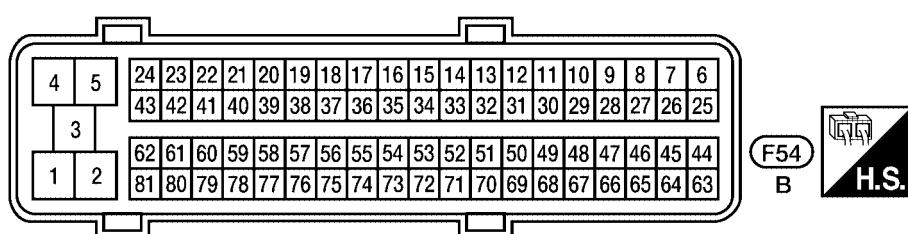
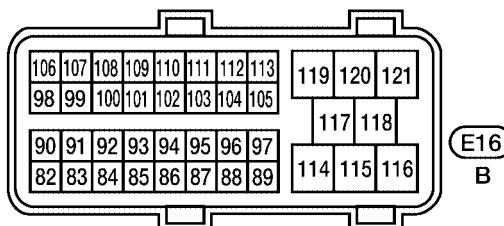
EKS00BNK



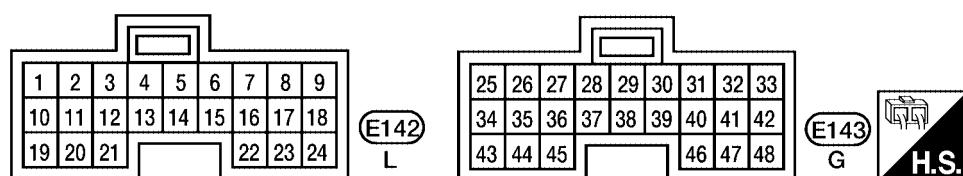
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



ECM



TRANSFER CONTROL UNIT



WKIA4689E

STANDARDIZED RELAY

STANDARDIZED RELAY

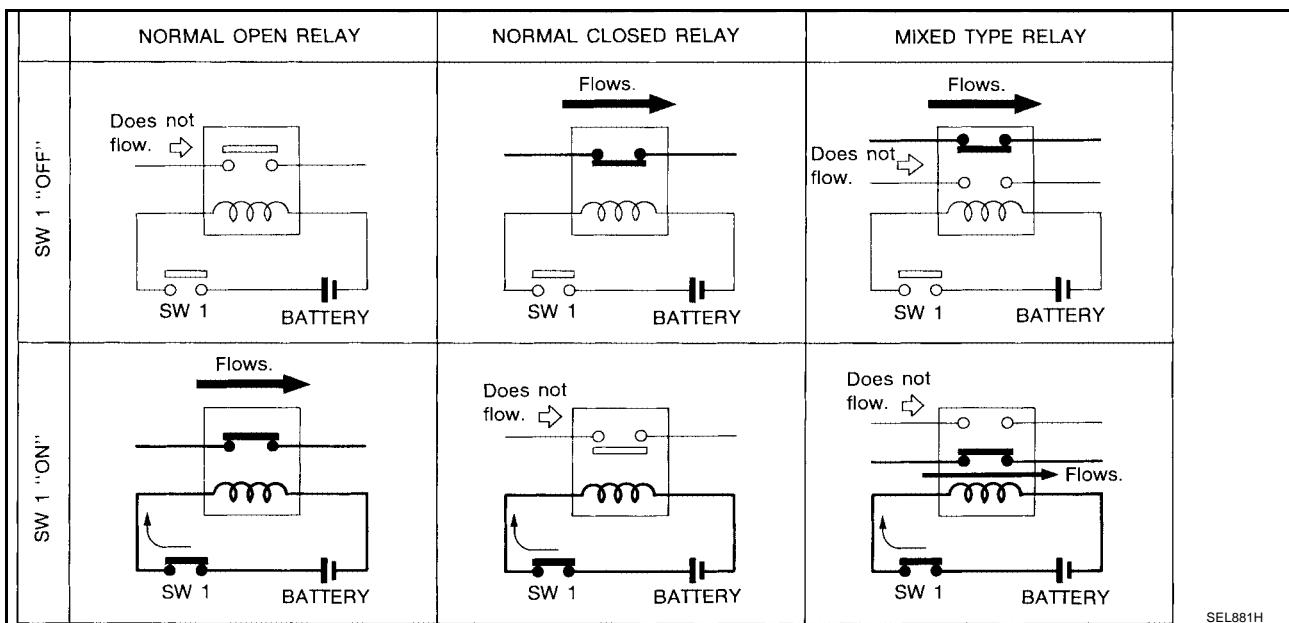
PFP:25230

Description

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

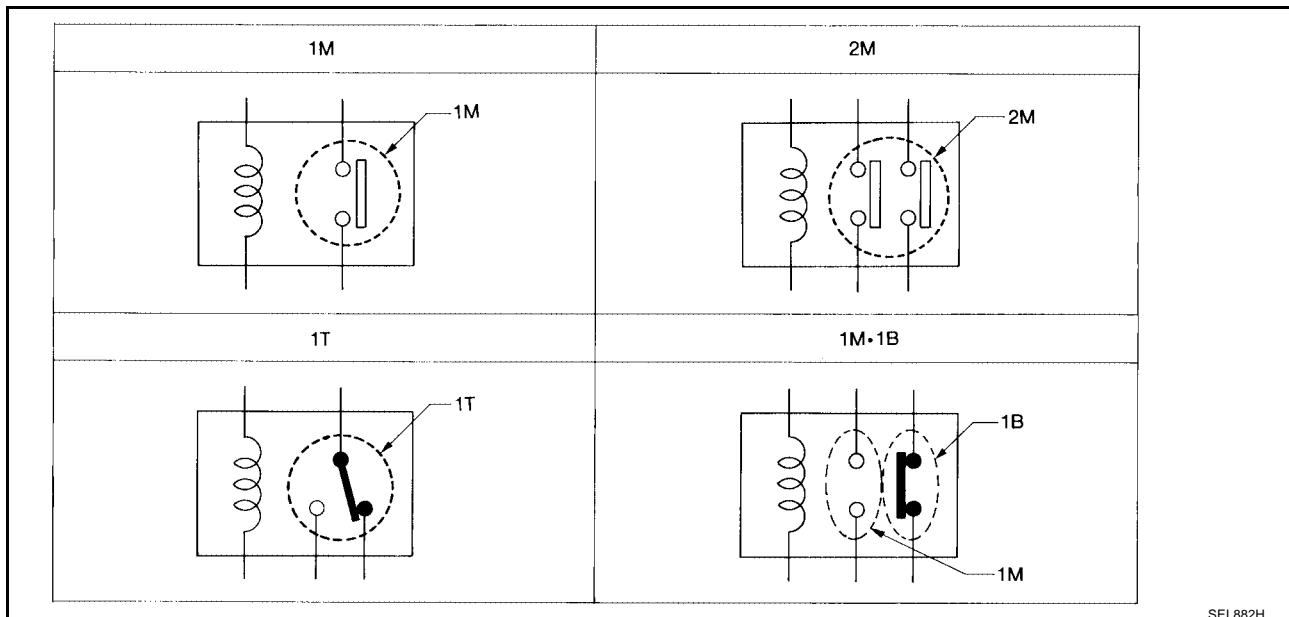
EKS00BNL

Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



SEL881H

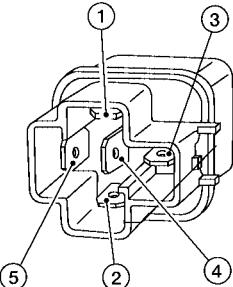
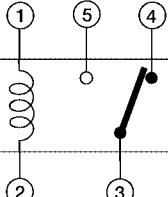
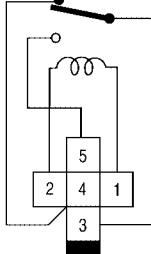
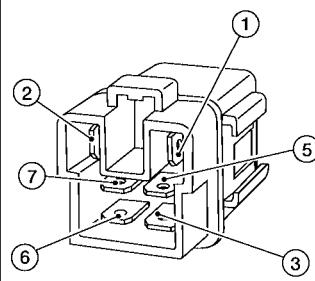
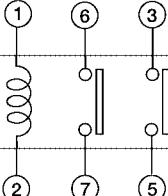
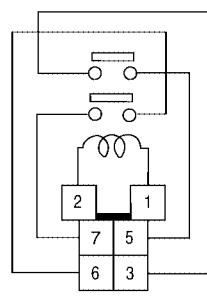
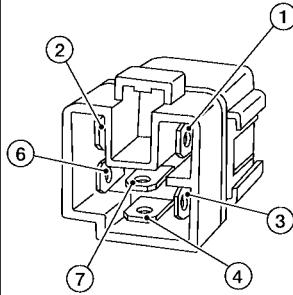
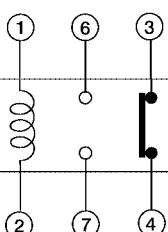
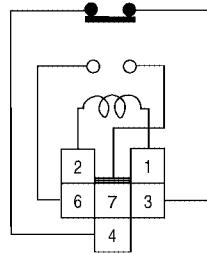
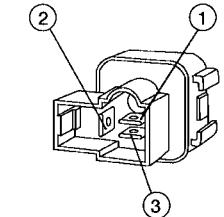
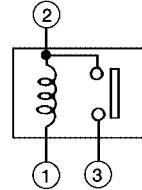
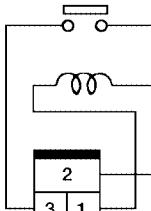
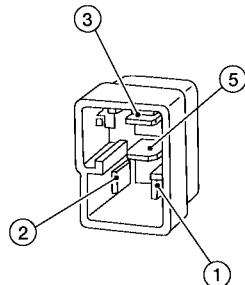
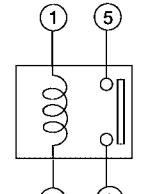
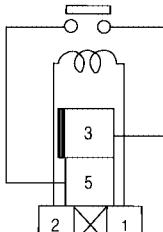
TYPE OF STANDARDIZED RELAYS



SEL882H

1M	1 Make	2M	2 Make
1T	1 Transfer	1M•1B	1 Make 1 Break

STANDARDIZED RELAY

Type	Outer view	Circuit	Connector Symbol and connection	Case color
1T				BLACK
2M				BROWN
1M-1B				GRAY
1M				BLACK
				BLUE

The arrangement of terminal numbers on the actual relays may differ from those shown above.

WKIA0253E

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SUPER MULTIPLE JUNCTION (SMJ)

SUPER MULTIPLE JUNCTION (SMJ)

Terminal Arrangement

PFP:84341

EKS00BNM

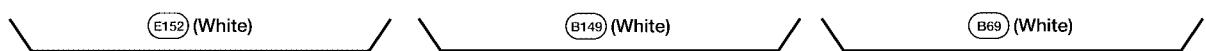
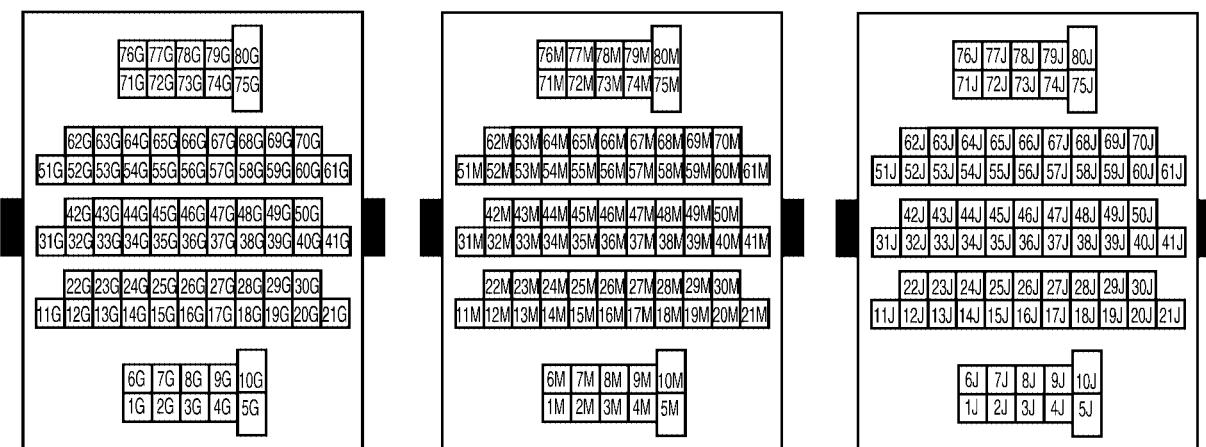
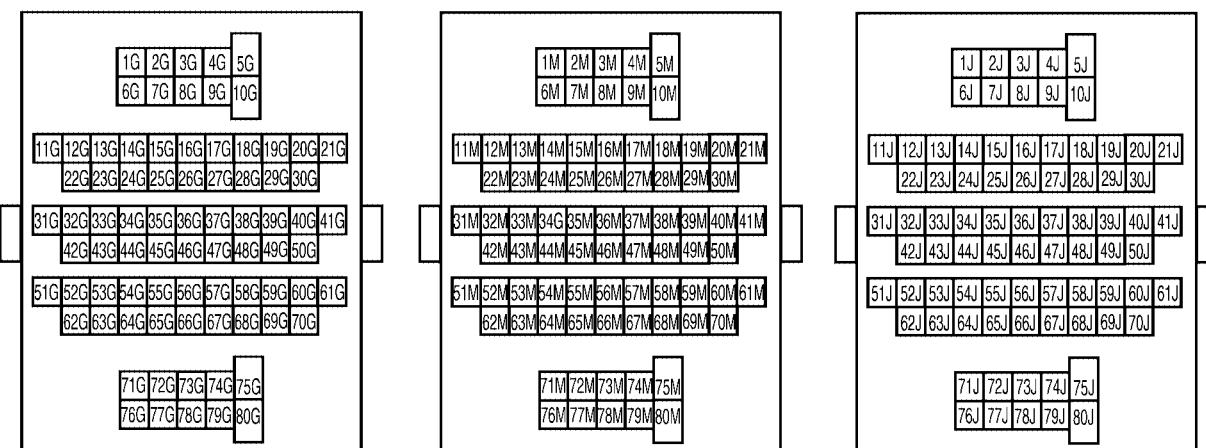
MAIN HARNESS



(M31) (White)

(M36) (White)

(M40) (White)



ENGINE ROOM HARNESS

BODY HARNESS NO.2

BODY HARNESS

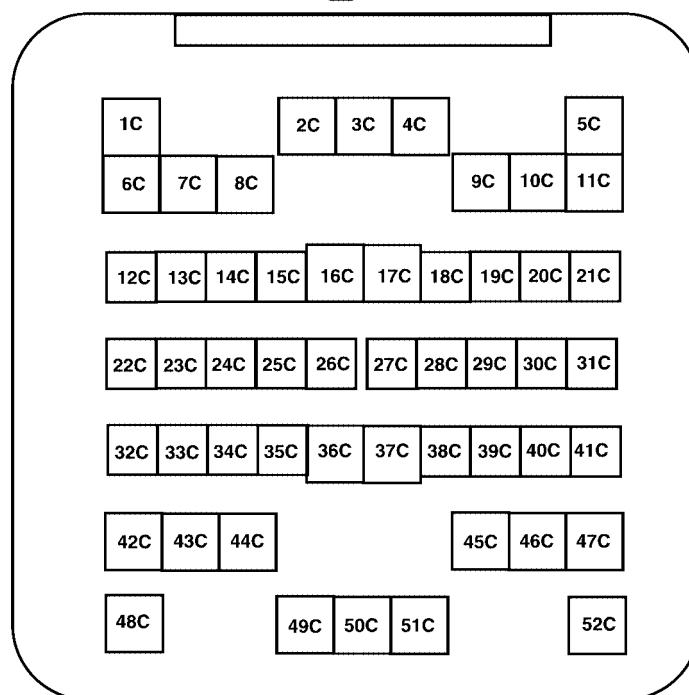
LKIA0385E

SUPER MULTIPLE JUNCTION (SMJ)

CHASSIS HARNESS



(C1) (Gray)



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ENGINE ROOM HARNESS

WKIA1845E

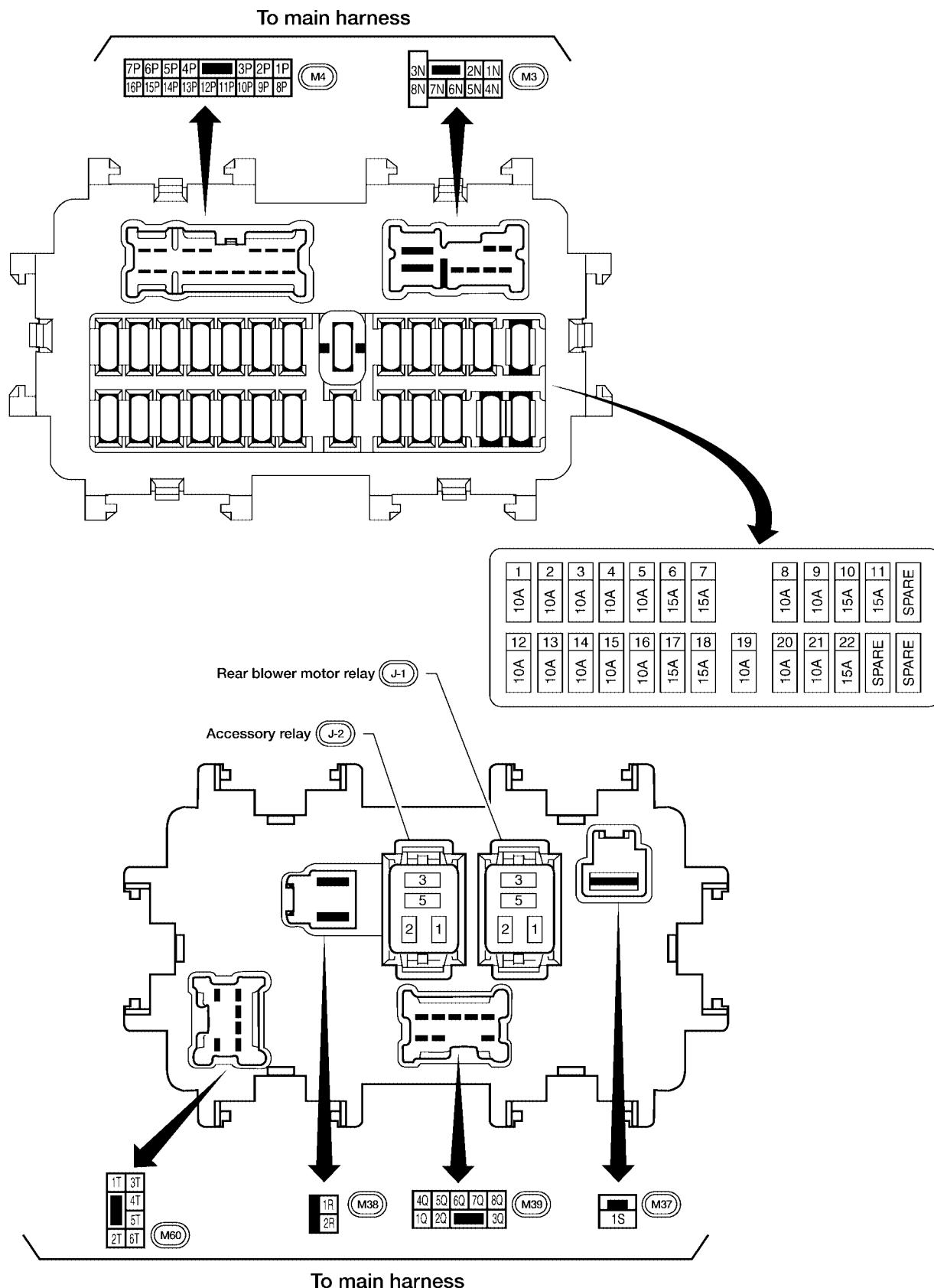
FUSE BLOCK-JUNCTION BOX (J/B)

FUSE BLOCK-JUNCTION BOX (J/B)

PFP:24350

Terminal Arrangement

EKS00BNN



WKIA4690E

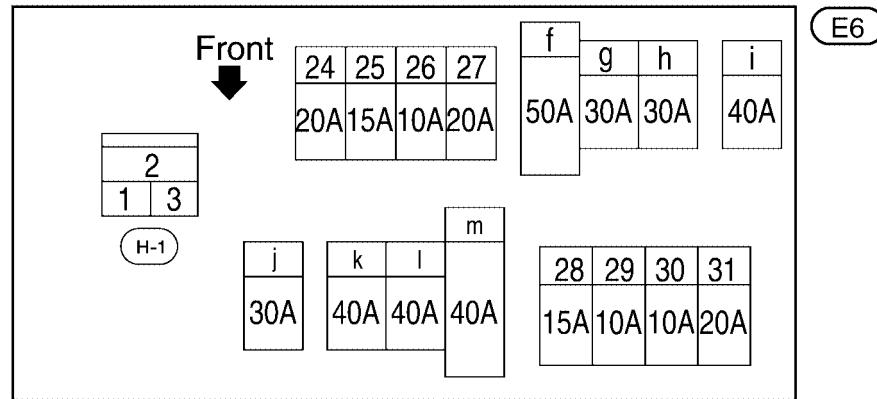
FUSE AND FUSIBLE LINK BOX

FUSE AND FUSIBLE LINK BOX

PFP:24381

Terminal Arrangement

EKS00BNO



24 - 31: FUSE f - m: FUSIBLE LINK

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WKIA4691E

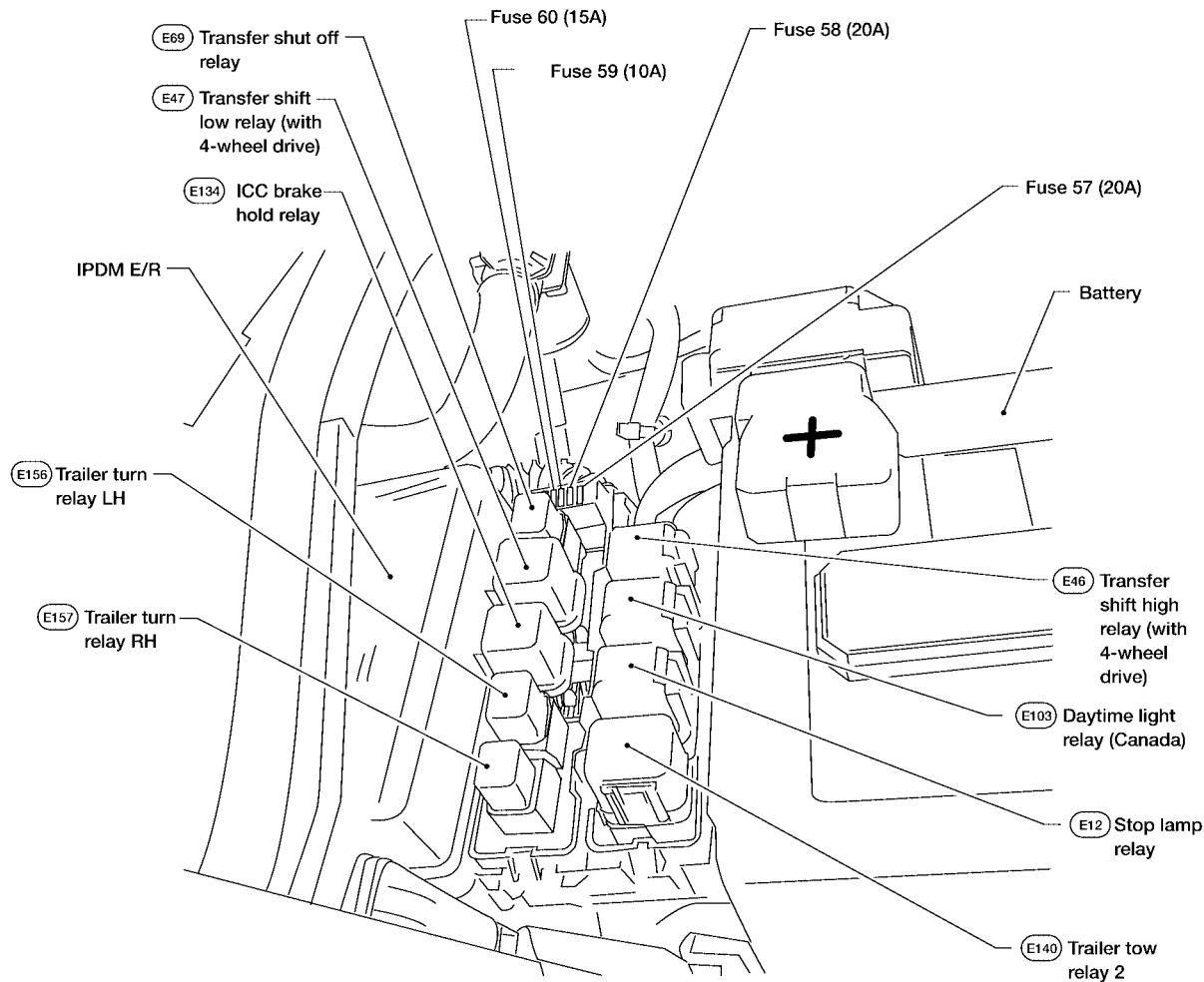
FUSE AND RELAY BOX

FUSE AND RELAY BOX

PFP:24012

Terminal Arrangement

EKS00BNP



WKIA4692E