

**SECTION PG**

**POWER SUPPLY, GROUND & CIRCUIT ELEMENTS**

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PG

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# PRECAUTIONS

## PRECAUTIONS

PFP:00011

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

EKS00B6C

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.

A

B

C

D

E

F

G

H

I

J

PG

L

M

# POWER SUPPLY ROUTING CIRCUIT

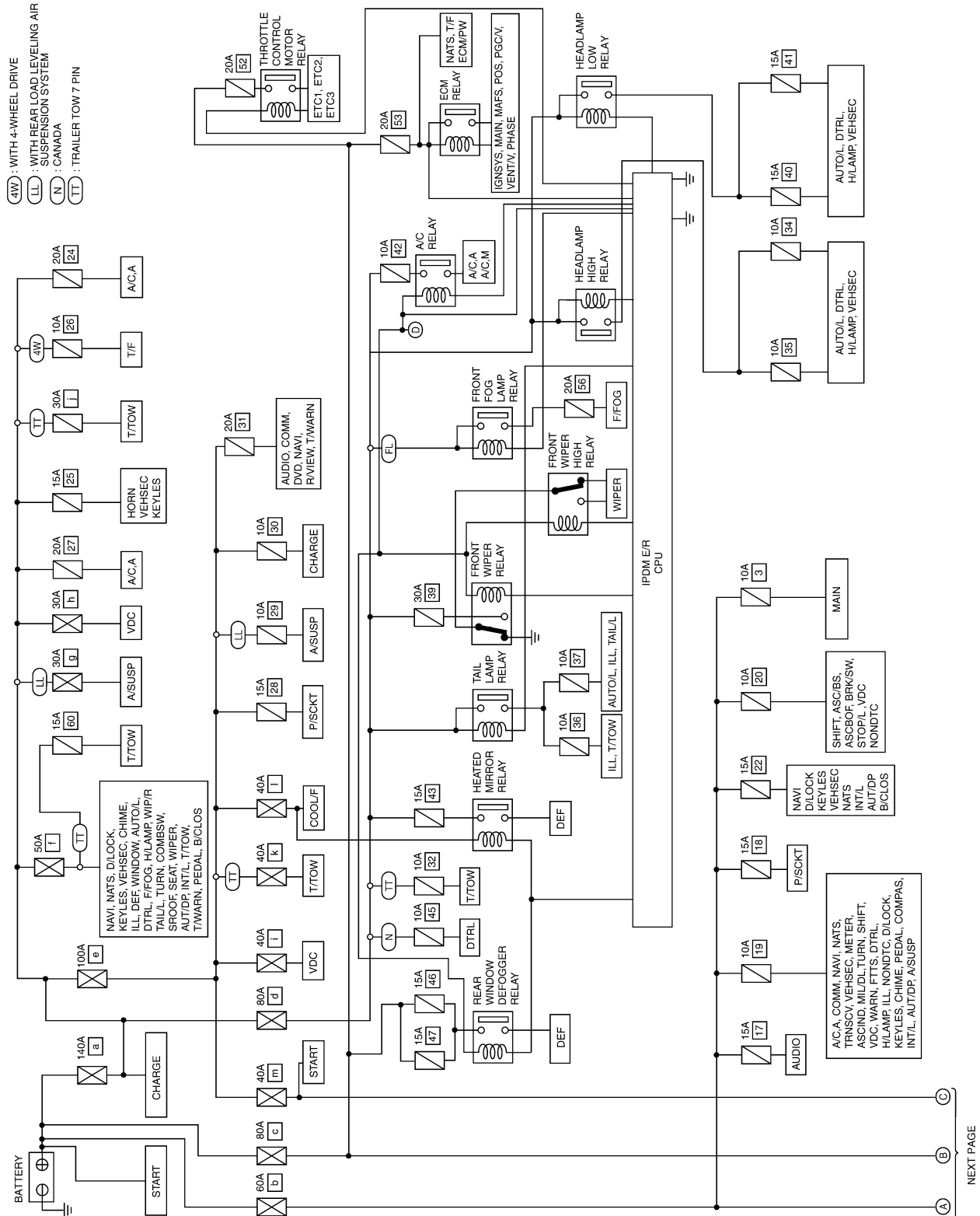
PF-P:24110

EKS00B6E

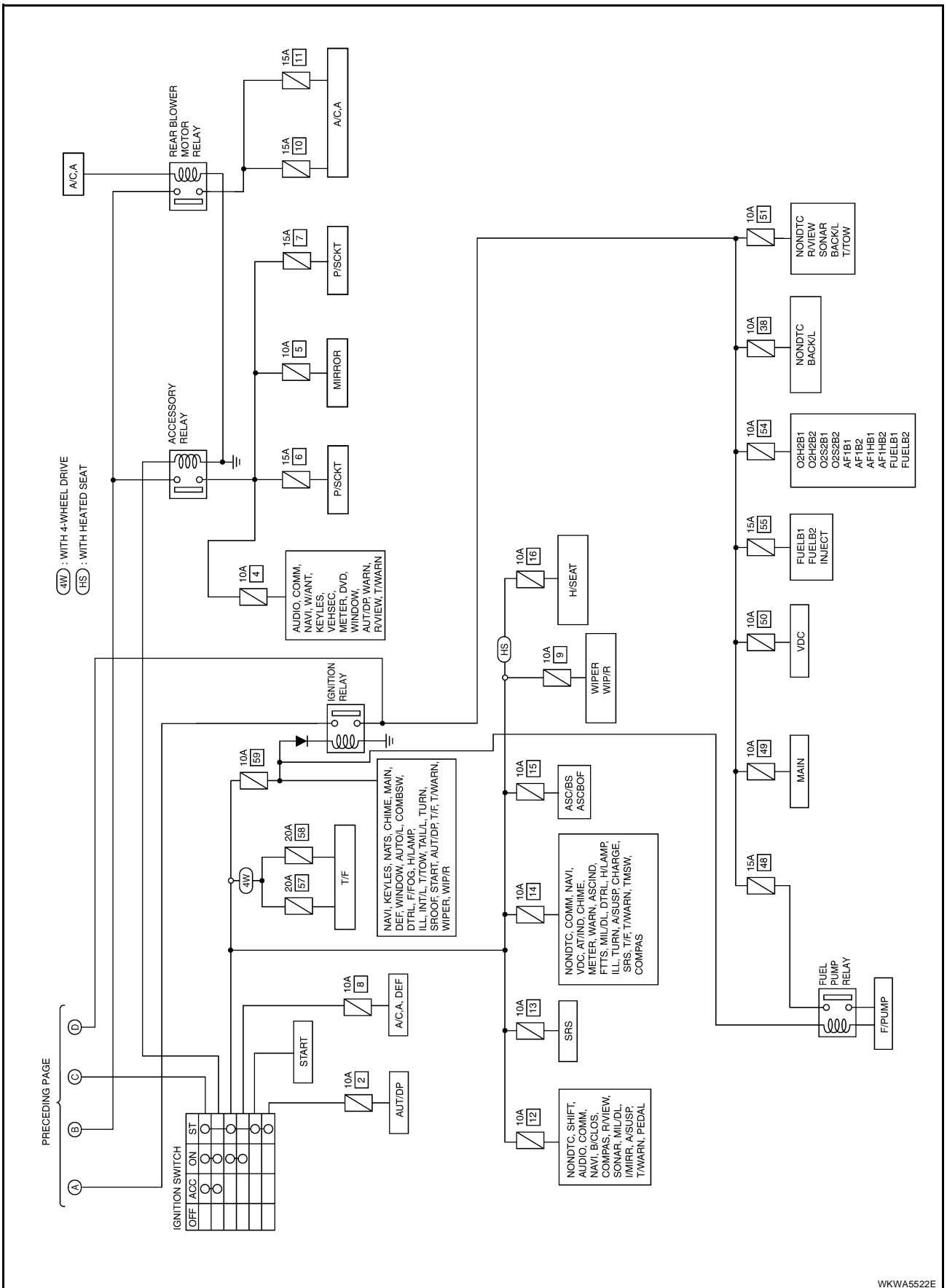
## POWER SUPPLY ROUTING CIRCUIT

### Schematic

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



# POWER SUPPLY ROUTING CIRCUIT



WKWA5522E

A  
B  
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PG

# POWER SUPPLY ROUTING CIRCUIT

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

EKS00B6F

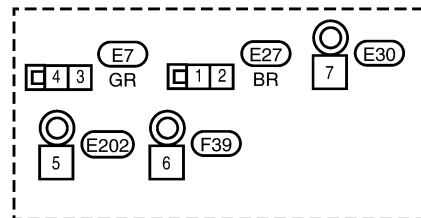
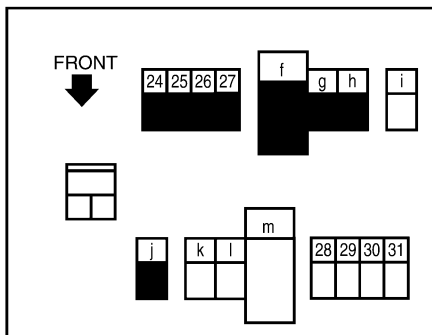
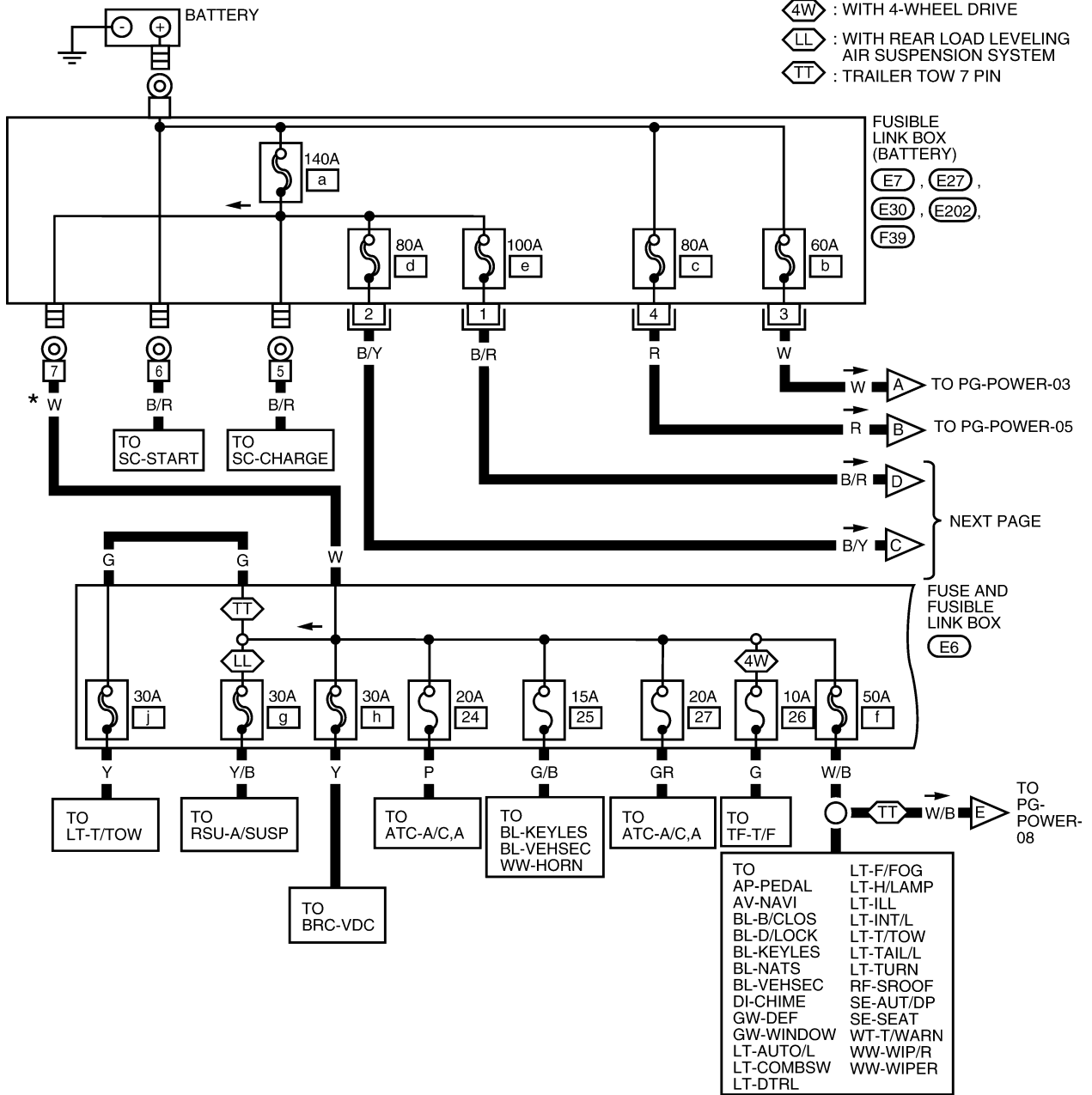
### PG-POWER-01

\* FUSIBLE LINK

**4W** : WITH 4-WHEEL DRIVE

**LL** : WITH REAR LOAD LEVELING  
AIR SUSPENSION SYSTEM

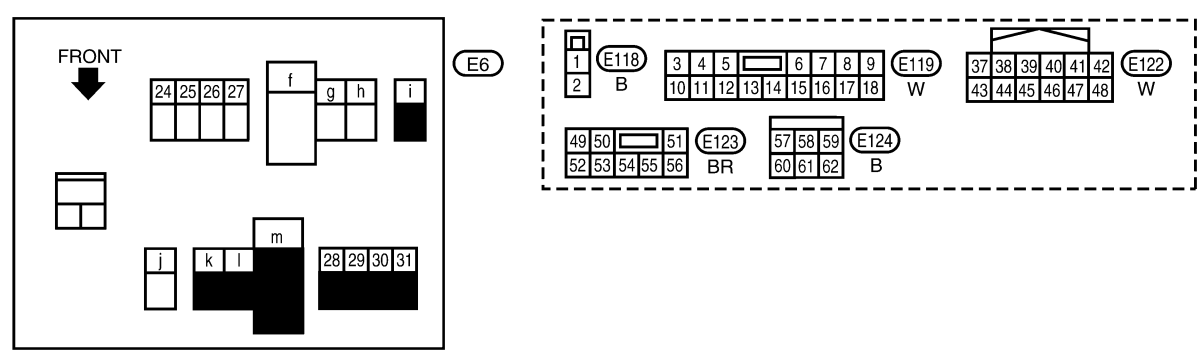
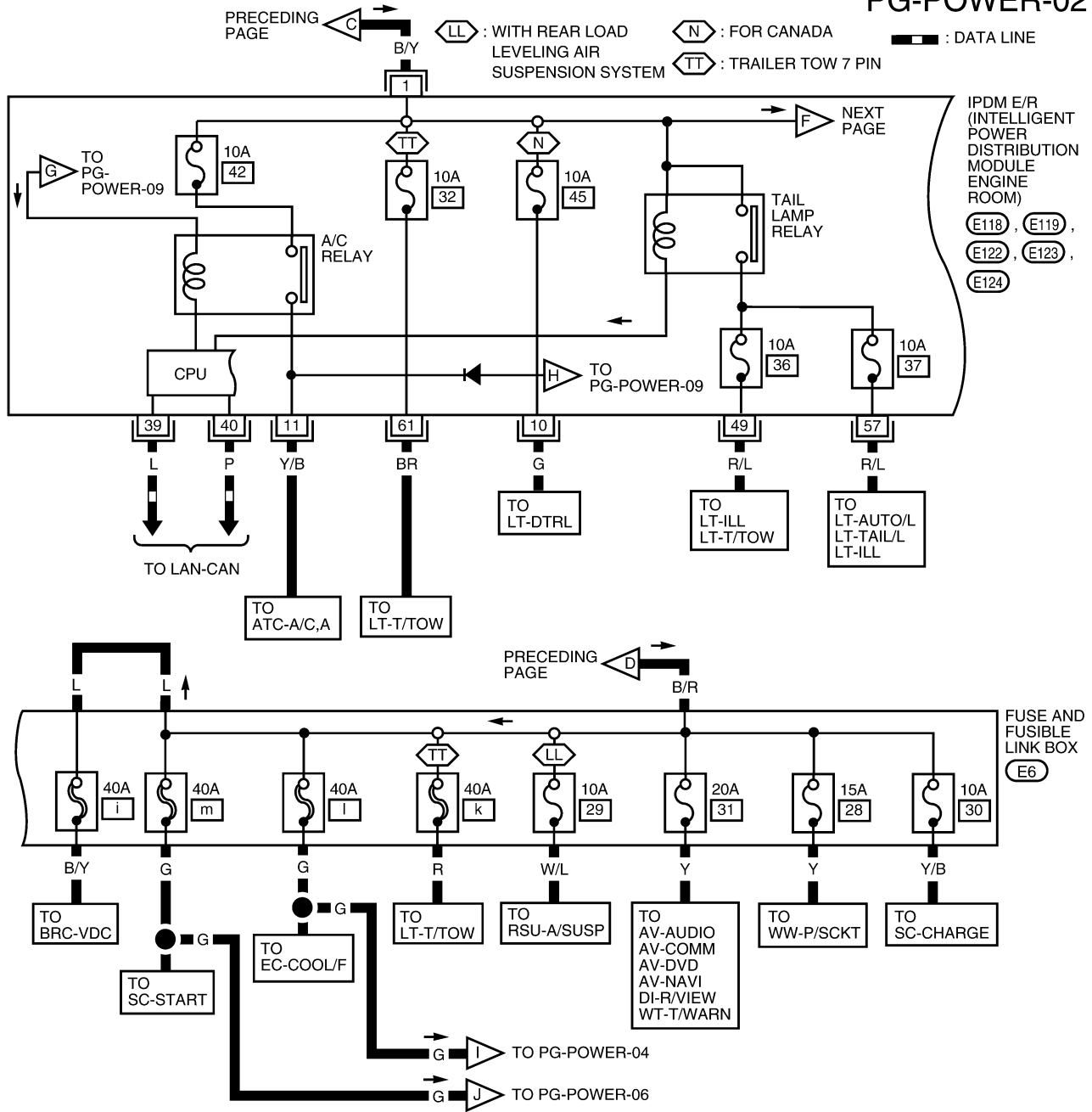
**TT** : TRAILER TOW 7 PIN



WKWA3855E

# POWER SUPPLY ROUTING CIRCUIT

## PG-POWER-02

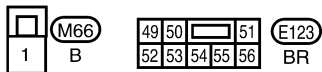
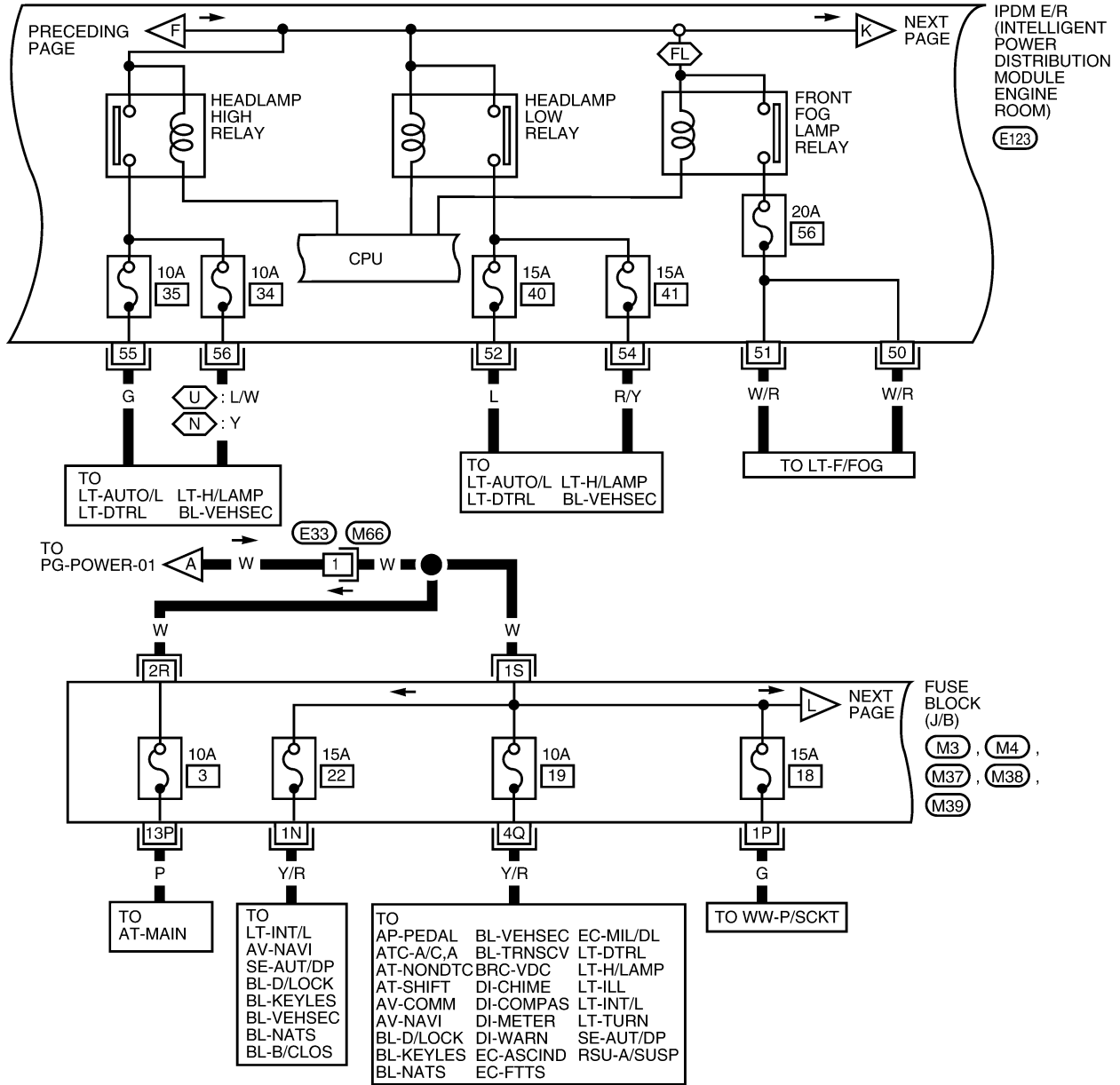


WKWA3856E

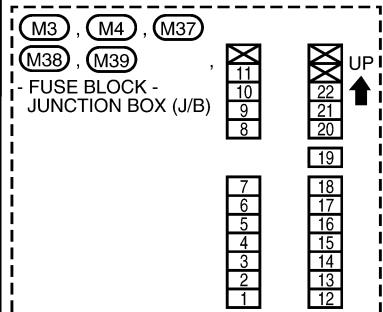
# POWER SUPPLY ROUTING CIRCUIT

PG-POWER-03

(FL) : WITH FRONT FOG LAMPS  
 (N) : CANADA  
 (U) : USA



REFER TO THE FOLLOWING.

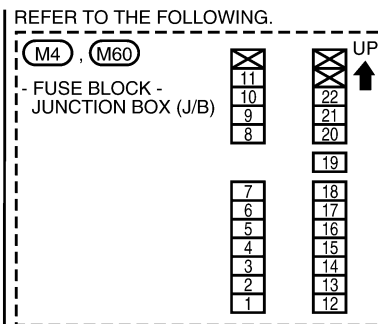
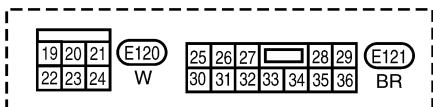
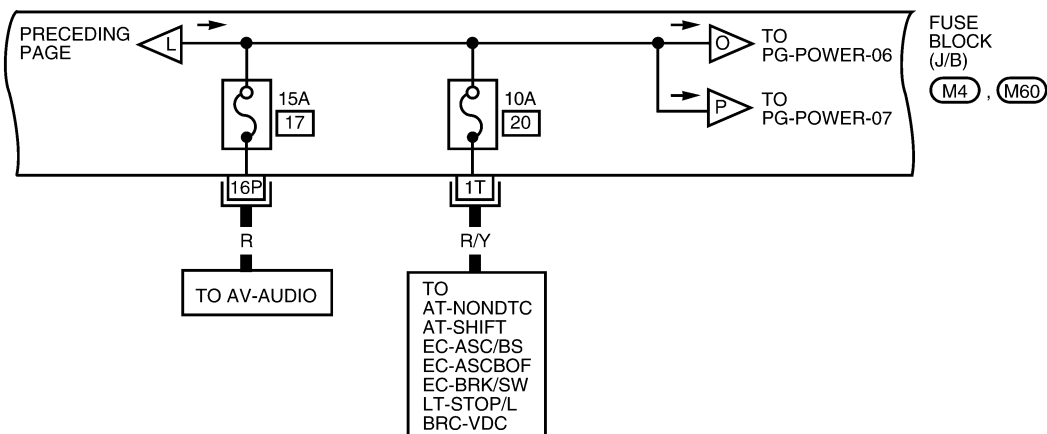
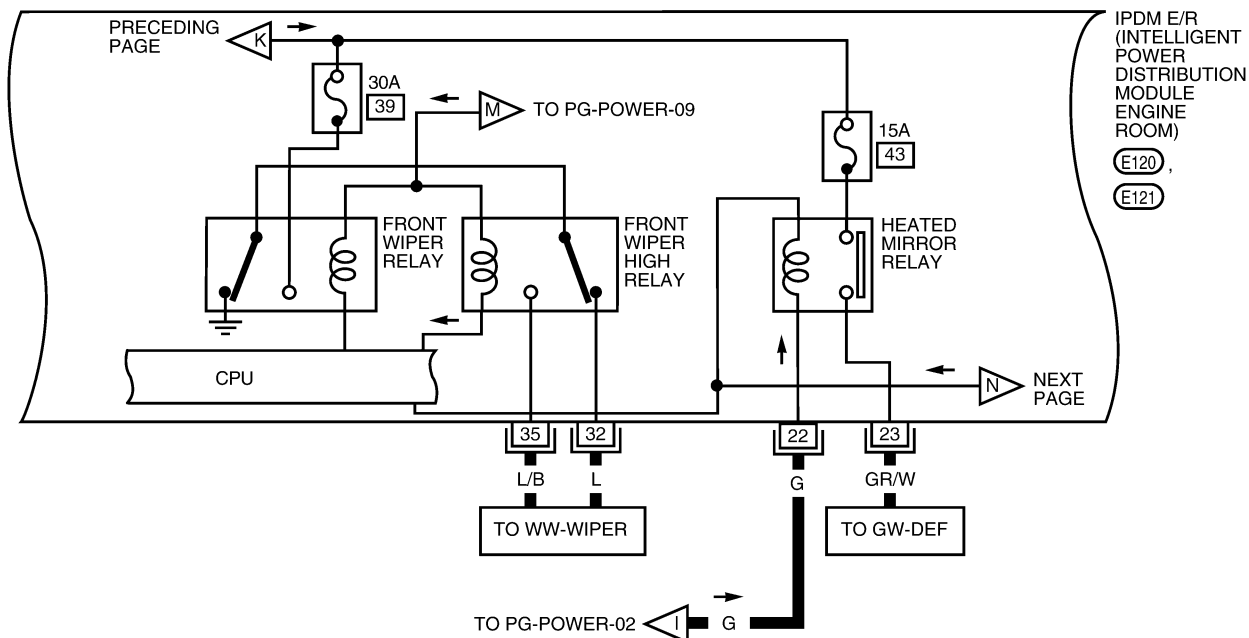


WKWA3857E



# POWER SUPPLY ROUTING CIRCUIT

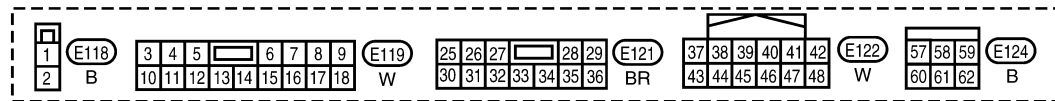
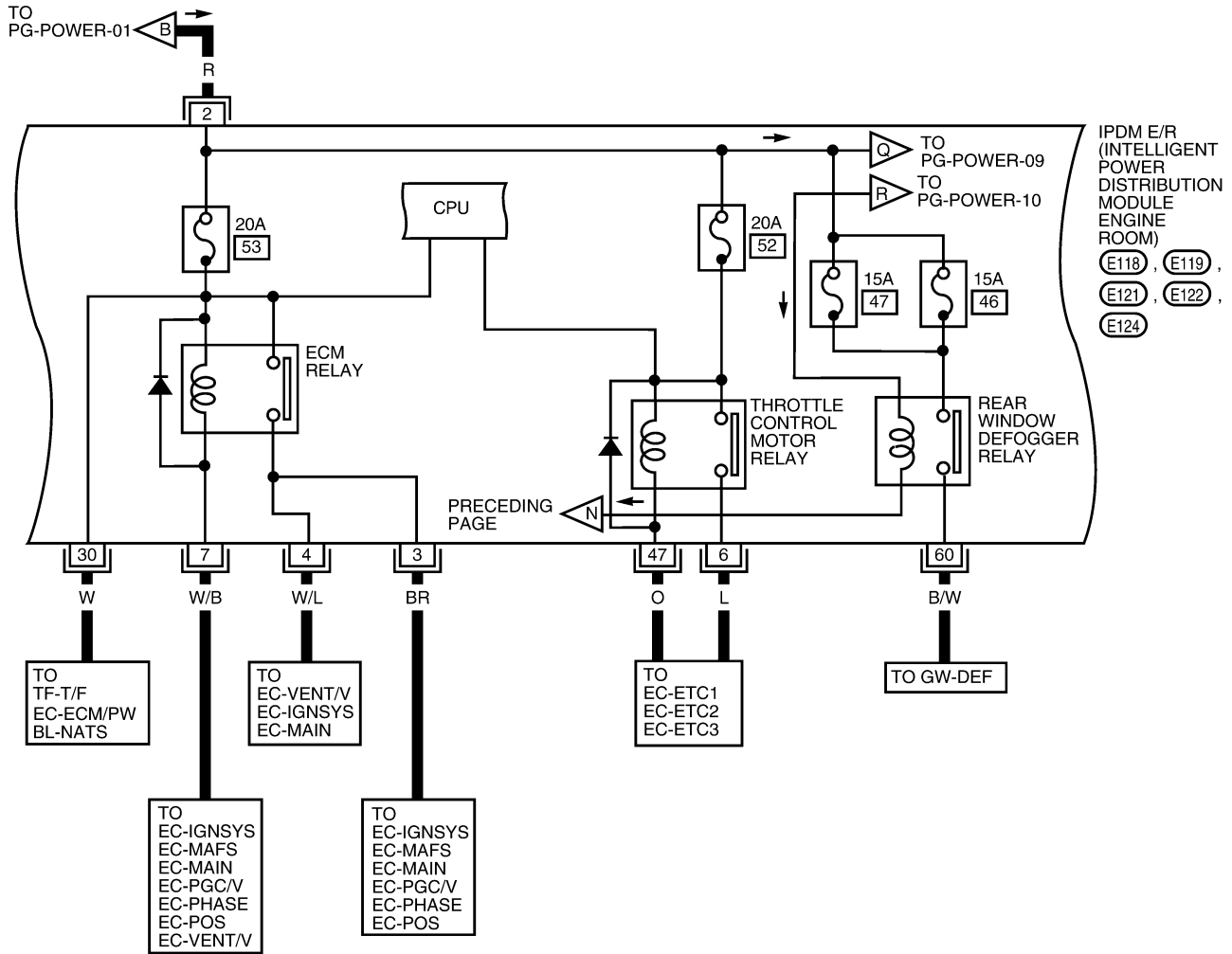
PG-POWER-04



WKWA3858E

# POWER SUPPLY ROUTING CIRCUIT

PG-POWER-05

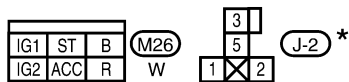
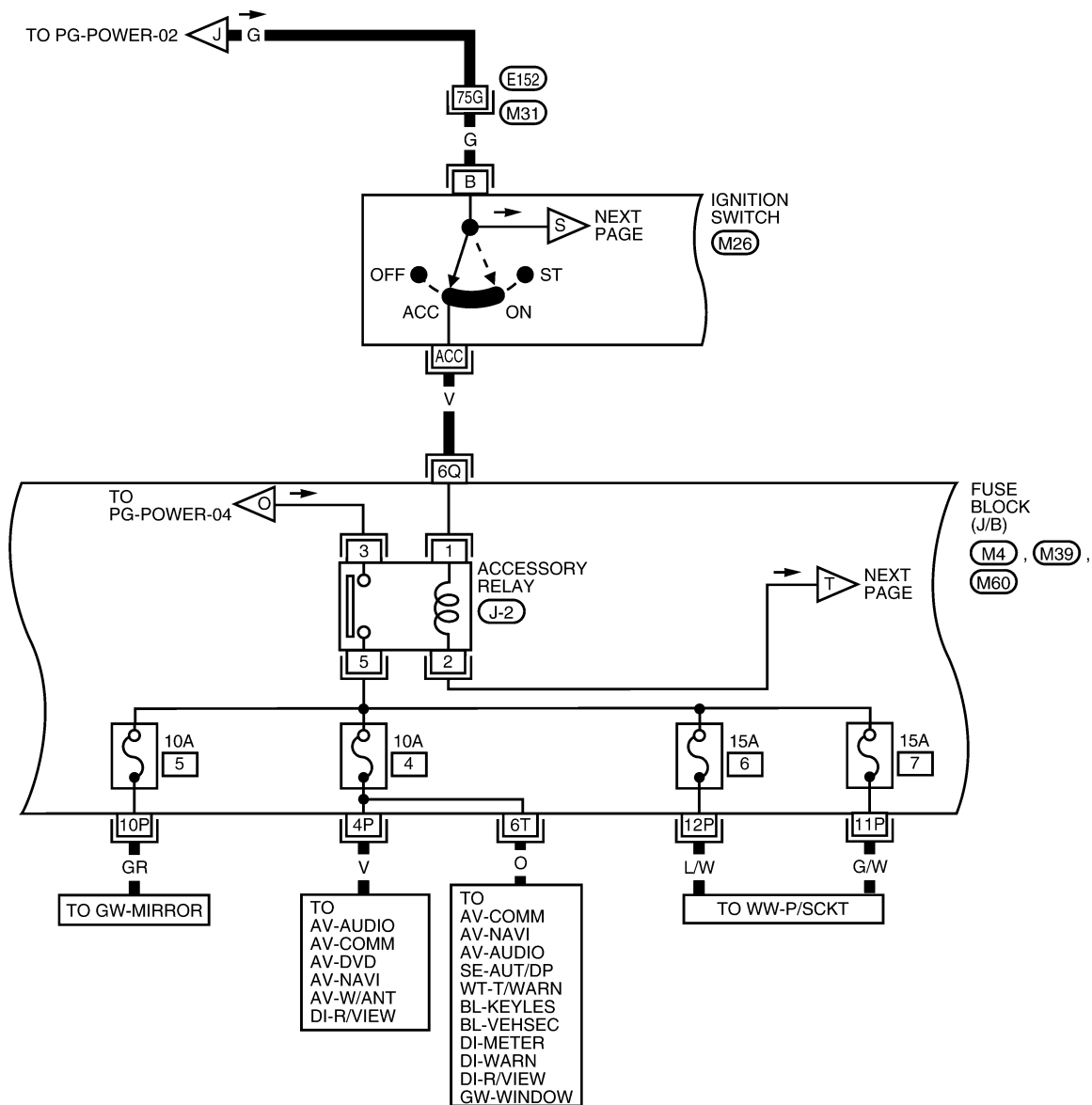


WKWA3859E

# POWER SUPPLY ROUTING CIRCUIT

## ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON

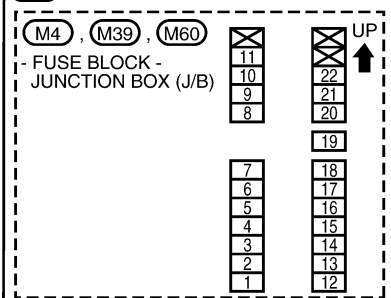
PG-POWER-06



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

REFER TO THE FOLLOWING.

(M31) - SUPER MULTIPLE JUNCTION (SMJ)

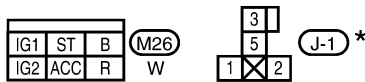
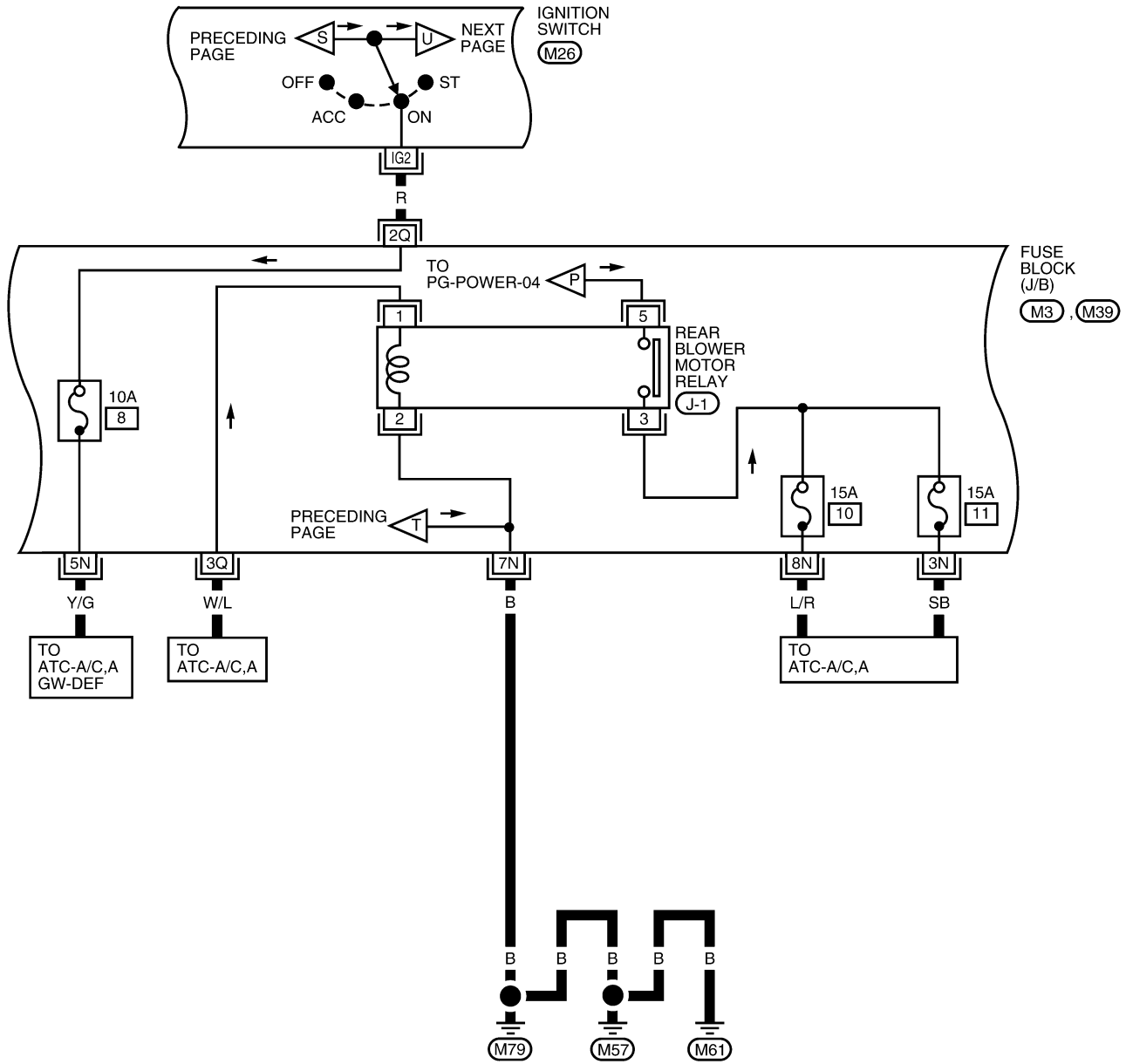


WKWA3860E

# POWER SUPPLY ROUTING CIRCUIT

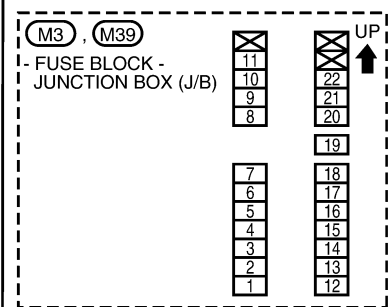
IGNITION POWER SUPPLY — IGNITION SW. IN ON

PG-POWER-07



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

REFER TO THE FOLLOWING.




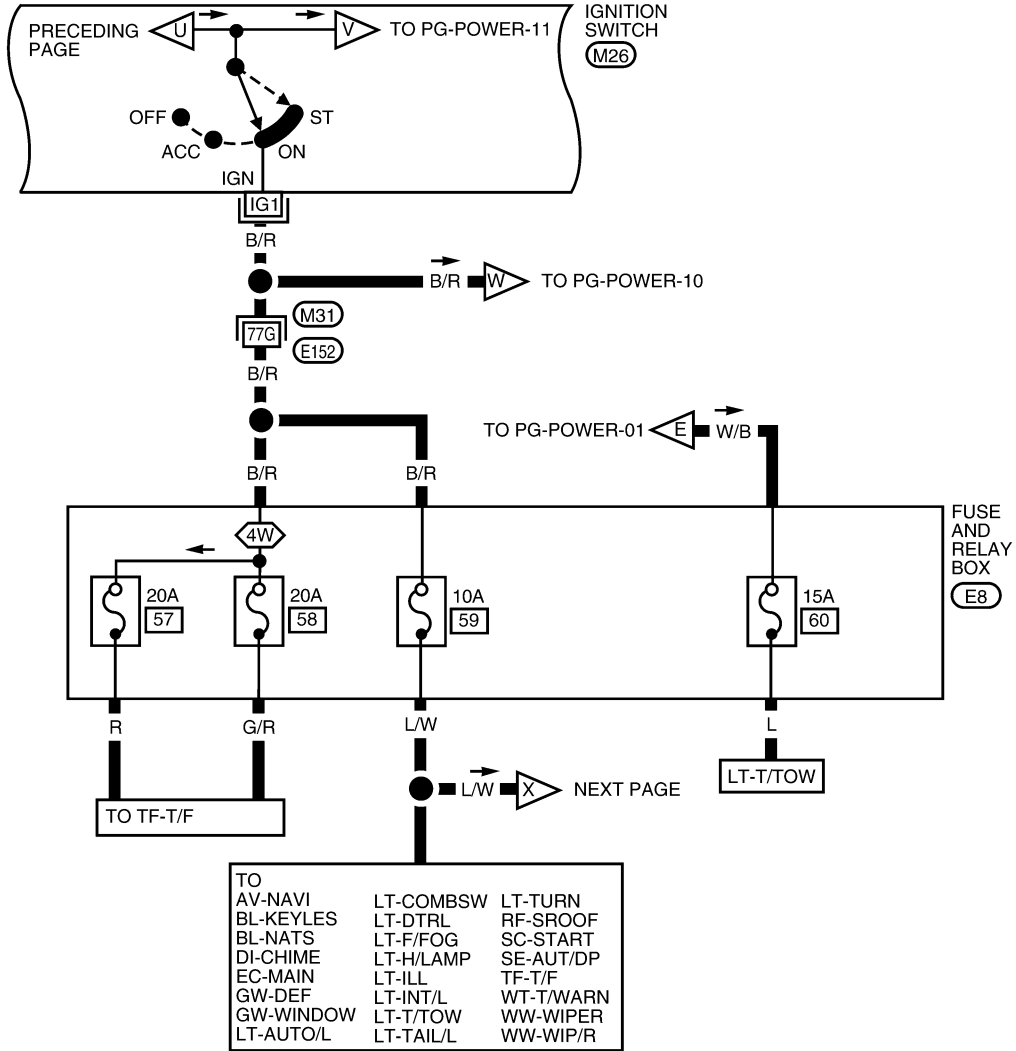
WKWA3861E

# POWER SUPPLY ROUTING CIRCUIT

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

PG-POWER-08

 : WITH 4-WHEEL DRIVE



IG1	ST	B	(M26)
IG2	ACC	R	

W

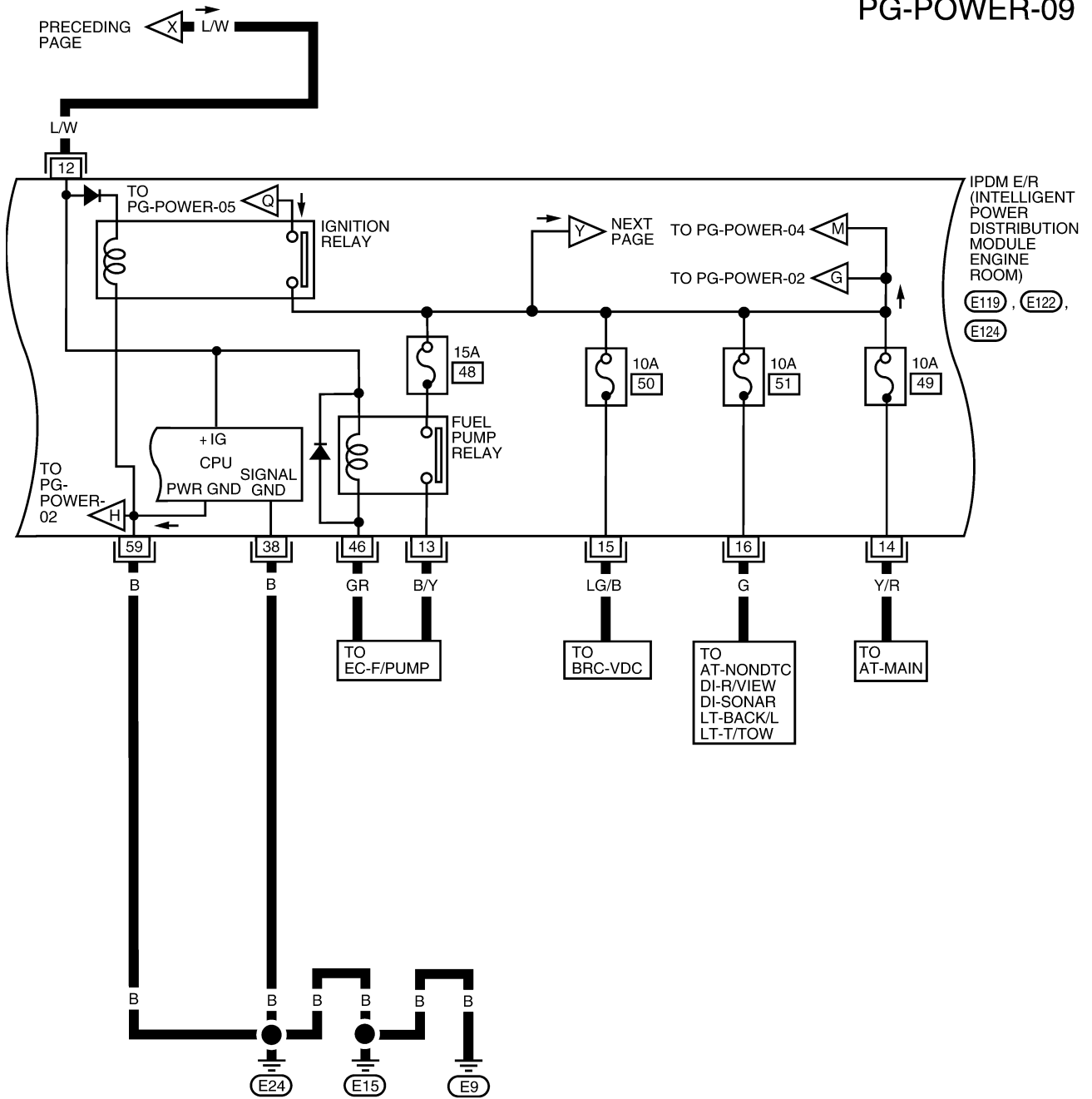
REFER TO THE FOLLOWING.

(M31) - SUPER MULTIPLE JUNCTION (SMJ)

WKWA3862E

# POWER SUPPLY ROUTING CIRCUIT

PG-POWER-09



IPDM E/R  
(INTELLIGENT  
POWER  
DISTRIBUTION  
MODULE  
ENGINE  
ROOM)  
E119, E122,  
E124

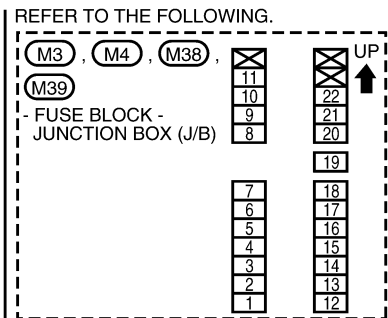
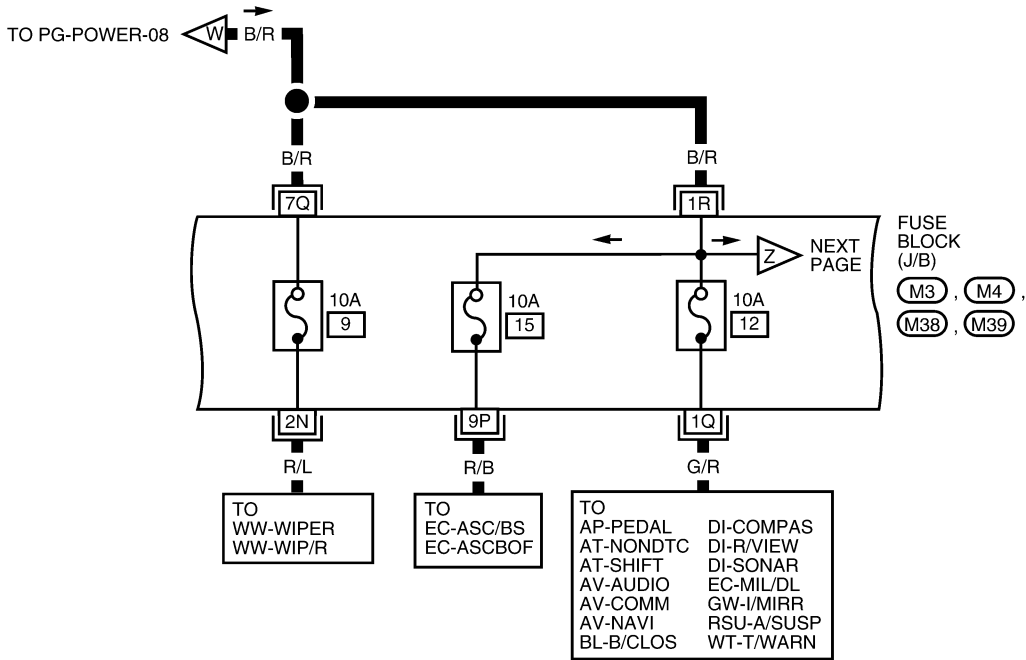
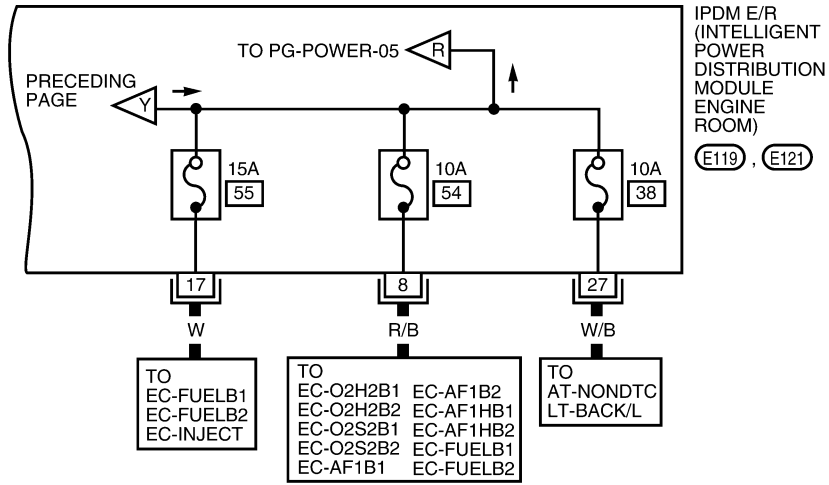
3	4	5	6	7	8	9	E119	37	38	39	40	41	42	E122	57	58	59	E124		
10	11	12	13	14	15	16	17	18	W	43	44	45	46	47	48	W	60	61	62	B

WKWA3863E

# POWER SUPPLY ROUTING CIRCUIT

PG-POWER-10

A  
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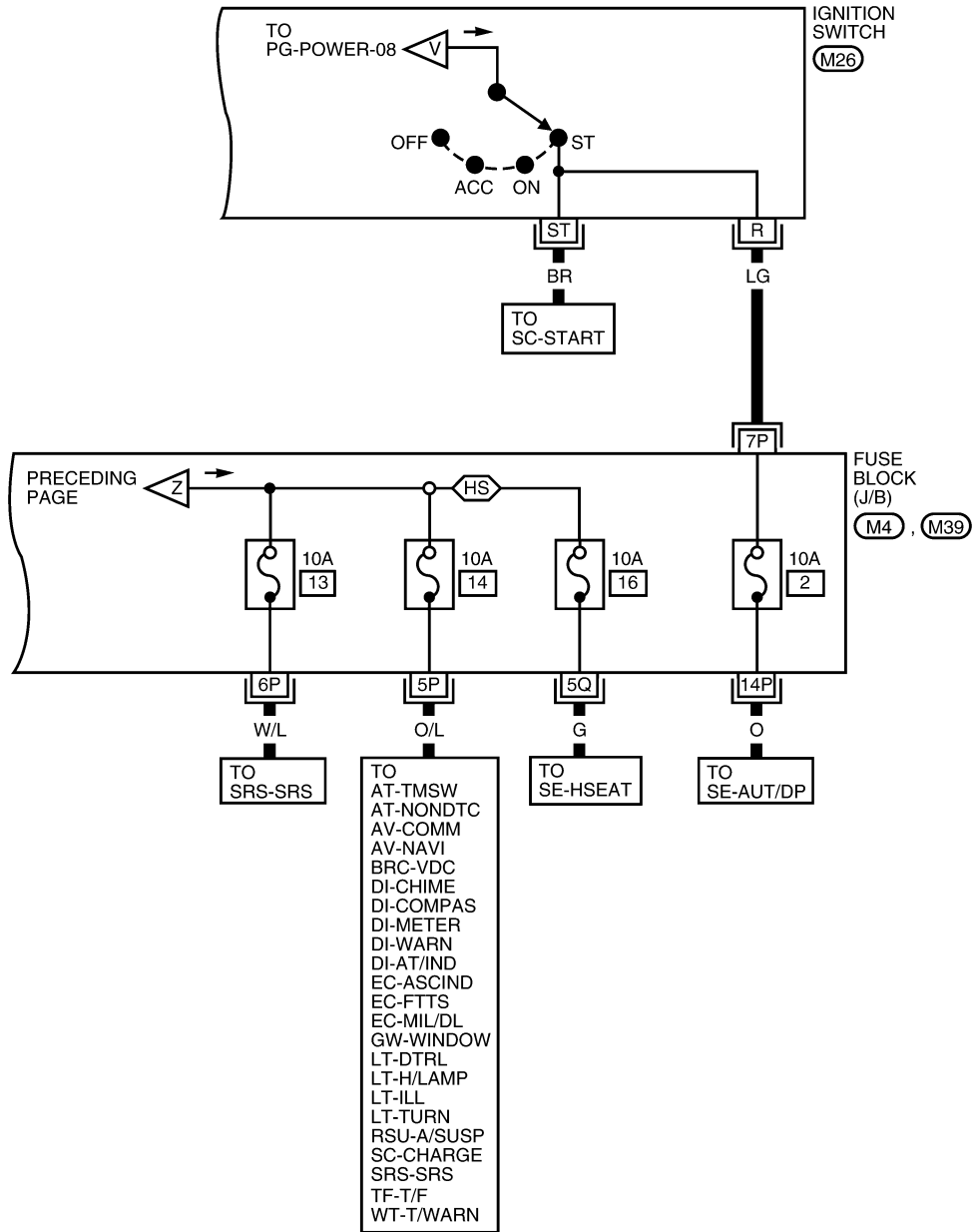


WKWA3864E

# POWER SUPPLY ROUTING CIRCUIT

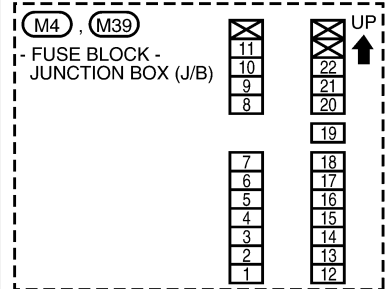
## PG-POWER-11

(HS) : WITH HEATED SEAT



IG1	ST	B	(M26)
IG2	ACC	R	W

REFER TO THE FOLLOWING.



WKWA3865E

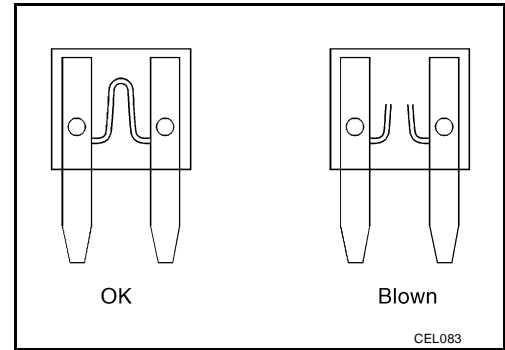


# POWER SUPPLY ROUTING CIRCUIT

## Fuse

EKS00GMH

- 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.



## Fusible Link

EKS00GMI

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.

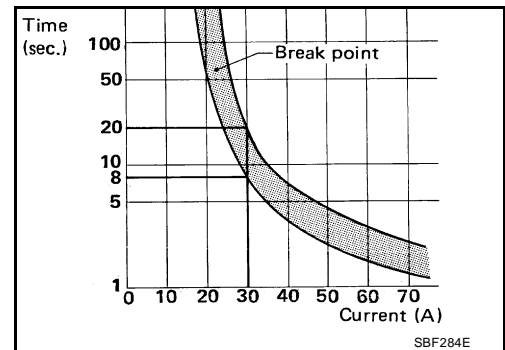
## Circuit Breaker (Built Into BCM)

EKS00GMJ

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)

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

PFM:284B7

### System Description

EKS00B6G

- 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"><li>● With the ignition switch ON, the headlamp (low) is ON.</li><li>● With the ignition switch OFF, the headlamp (low) is OFF.</li></ul>
Tail and parking lamps	<ul style="list-style-type: none"><li>● With the ignition switch ON, the tail and parking lamps are ON.</li><li>● With the ignition switch OFF, the tail and parking lamps are OFF.</li></ul>
Cooling fan	<ul style="list-style-type: none"><li>● With the ignition switch ON, the cooling fan HI operates.</li><li>● With the ignition switch OFF, the cooling fan stops.</li></ul>
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 by itself 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

EKS00B6H

Refer to [LAN-25, "CAN COMMUNICATION"](#).

## Function of Detecting Ignition Relay Malfunction

EKS00B6I

- 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.

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

## CONSULT-II Function IPDM E/R

EKS00B6J

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

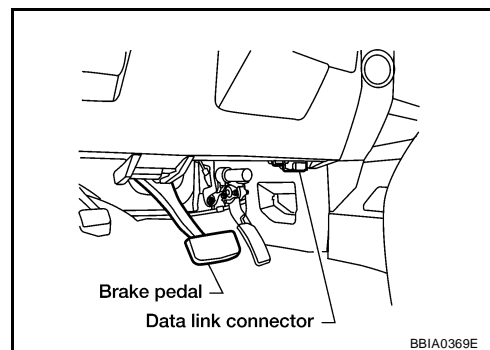
IPDM E/R diagnostic Mode	Description
SELF-DIAG RESULTS	Displays IPDM E/R self-diagnosis results.
DATA MONITOR	Displays IPDM E/R input/output data in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	Operation of electrical loads can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

## CONSULT-II BASIC OPERATION

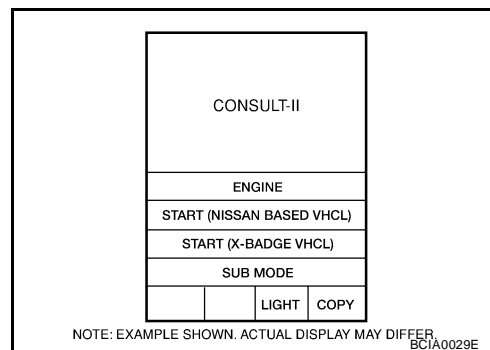
### CAUTION:

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.

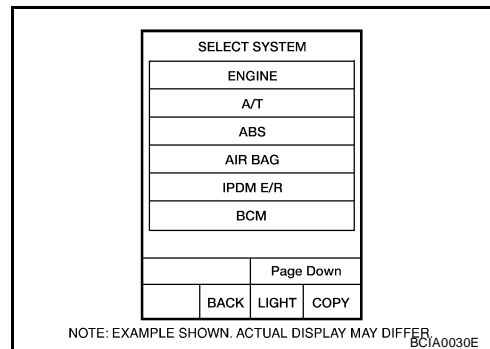
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn ignition switch ON.



2. Touch "START (NISSAN BASED VHCL)".

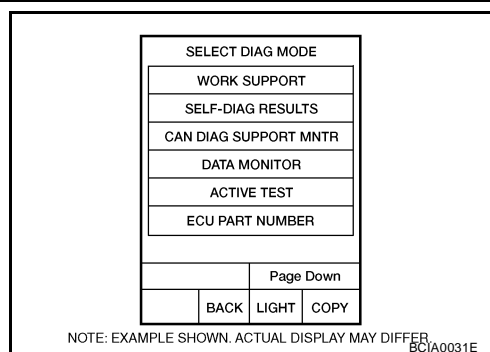


3. Touch "IPDM E/R" on "SELECT SYSTEM" screen.
  - If "IPDM E/R" is not displayed refer to [GI-39, "CONSULT-II Data Link Connector \(DLC\) Circuit"](#).



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

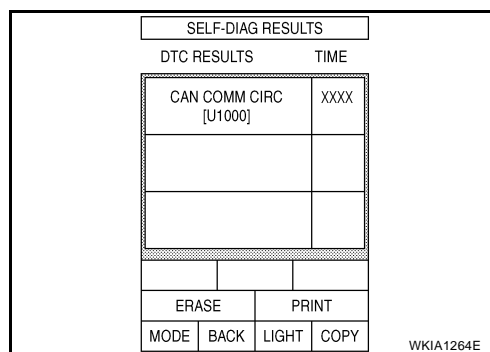
- Select the desired part to be diagnosed on the "SELECT DIAG MODE" screen.



## SELF-DIAGNOSTIC RESULTS

### Operation Procedure

- Touch "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
- 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"> <li>If CAN communication reception/transmission data has a malfunction, or if any of the control units fail, data reception/transmission cannot be confirmed.</li> <li>When the data in CAN communication is not received before the specified time.</li> </ul>	X	X	Any of items listed below have errors: <ul style="list-style-type: none"> <li>TRANSMIT DIAG</li> <li>ECM</li> <li>BCM/SEC</li> </ul>

### 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

- Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
- 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).

- Touch "START".

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

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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.
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 <sup>NOTE</sup>
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 (*1)	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.

# 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

EKS00B6K

- 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, license and parking lamps
  - Front fog lamps
  - Headlamps (Hi, Lo)
  - A/C compressor (magnetic clutch)
  - Cooling fan

## OPERATION PROCEDURE

1. 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.

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

### NOTE:

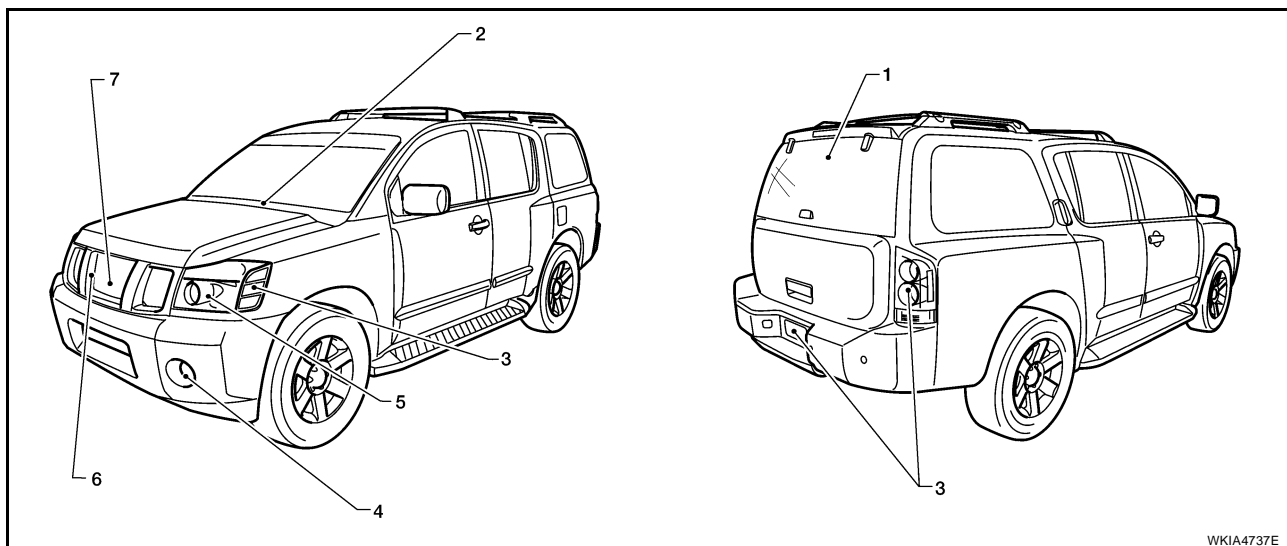
When auto active test mode has to be cancelled halfway, turn ignition switch OFF.

### CAUTION:

Be sure to perform [BL-28, "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.



WKIA4737E



# 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.

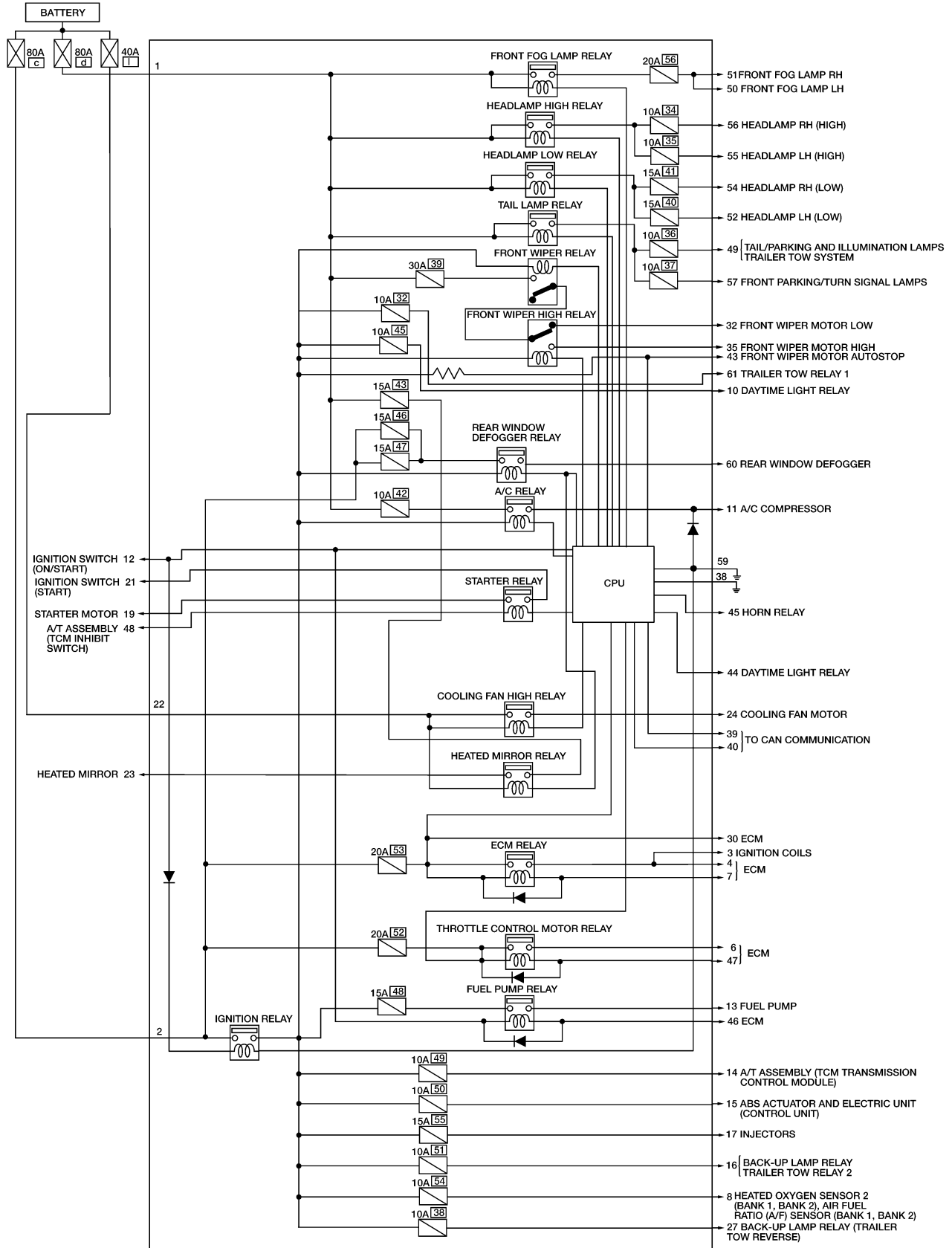
Diagnosis chart in auto active test mode

Symptom	Inspection contents	Possible cause
Rear window defogger does not operate.	YES	● BCM signal input circuit
	NO	● 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.	YES	● BCM signal input system
	NO	● 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.	YES	● BCM signal input circuit ● CAN communication signal between BCM and ECM ● CAN communication signal between ECM and IPDM E/R
	NO	● Magnetic clutch malfunction ● Harness/connector malfunction between IPDM E/R and magnetic clutch ● IPDM E/R (integrated relay) malfunction
Cooling fan does not operate.	YES	● ECM signal input circuit ● CAN communication signal between ECM and IPDM E/R
	NO	● Cooling fan motor malfunction ● Harness/connector malfunction between IPDM E/R and cooling fan motor ● IPDM E/R (integrated relay) malfunction
Oil pressure warning lamp does not operate.	YES	● Harness/connector malfunction between IPDM E/R and oil pressure switch ● Oil pressure switch malfunction ● IPDM E/R
	NO	● CAN communication signal between BCM and combination meter ● Combination meter

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

EKS00B6L

## Schematic

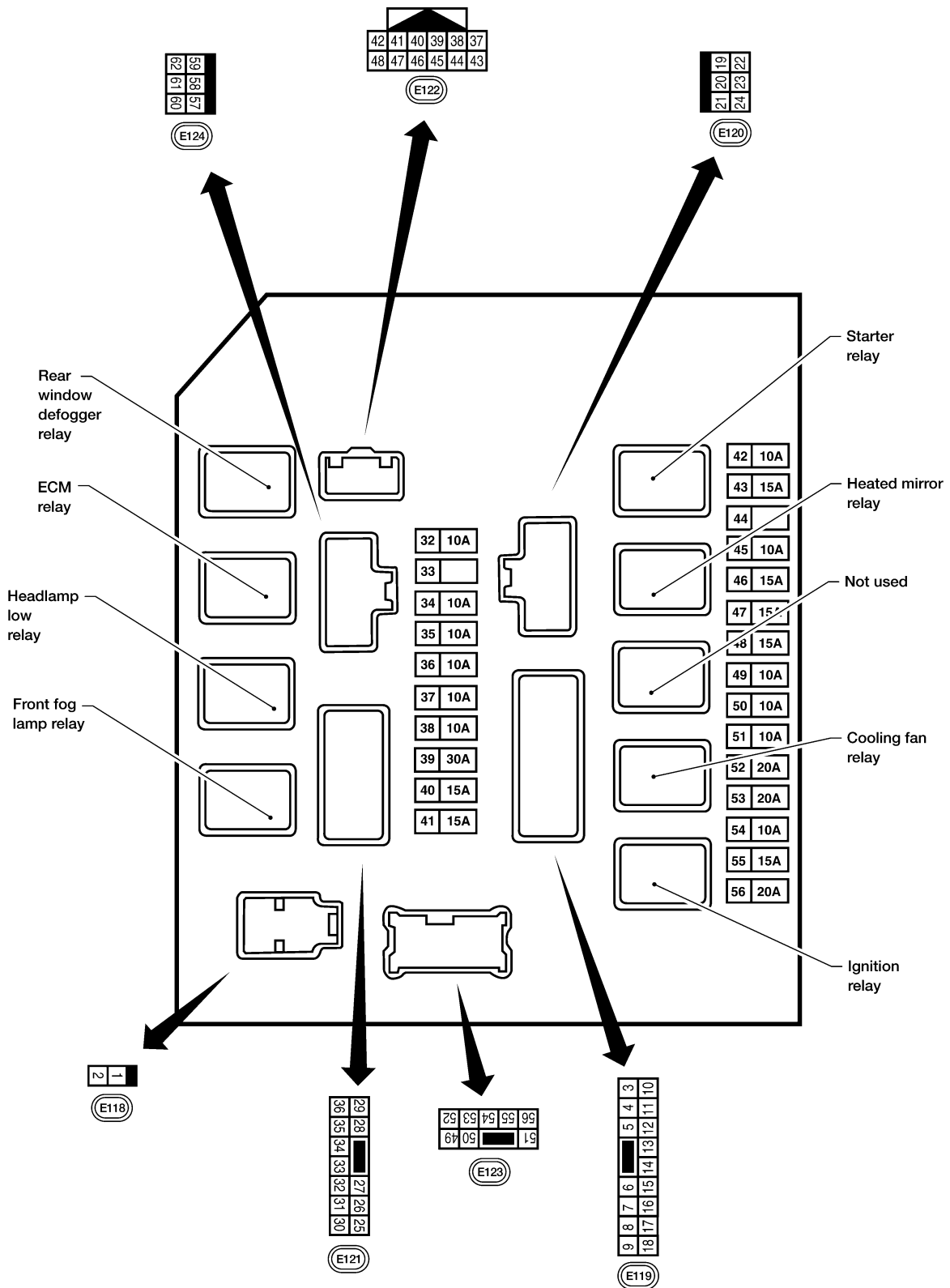


WKWA3866E

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

## IPDM E/R Terminal Arrangement

EKS00B6M



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WKIA4738E

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

EKS00B6N

## IPDM E/R Power/Ground Circuit Inspection

### 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.

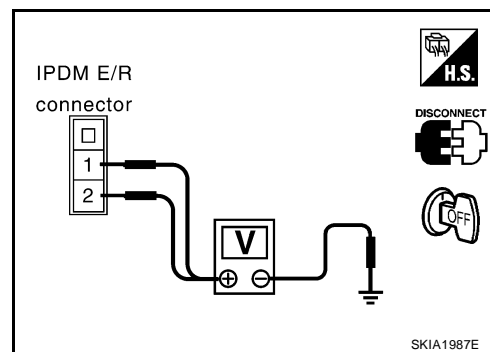
### 2. POWER CIRCUIT INSPECTION

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.



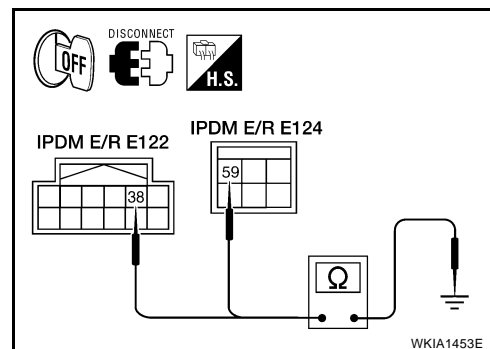
### 3. GROUND CIRCUIT INSPECTION

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)

**CAUTION:**

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.

### 1. SELF-DIAGNOSIS RESULT CHECK

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.

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"> <li>● TRANSMIT DIAG</li> <li>● ECM</li> <li>● BCM/SEC</li> </ul>

**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-25, "CAN COMMUNICATION"](#) .

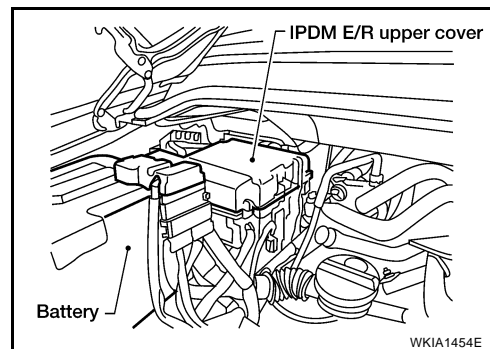
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

EKS00B6P

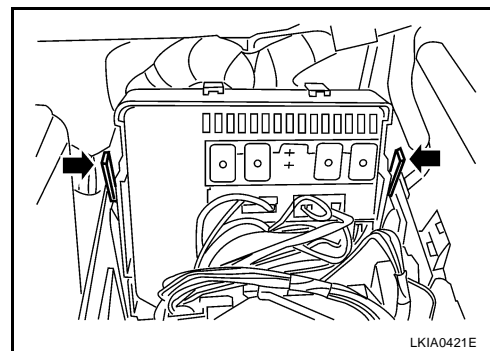
## Removal and Installation of IPDM E/R

### 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.

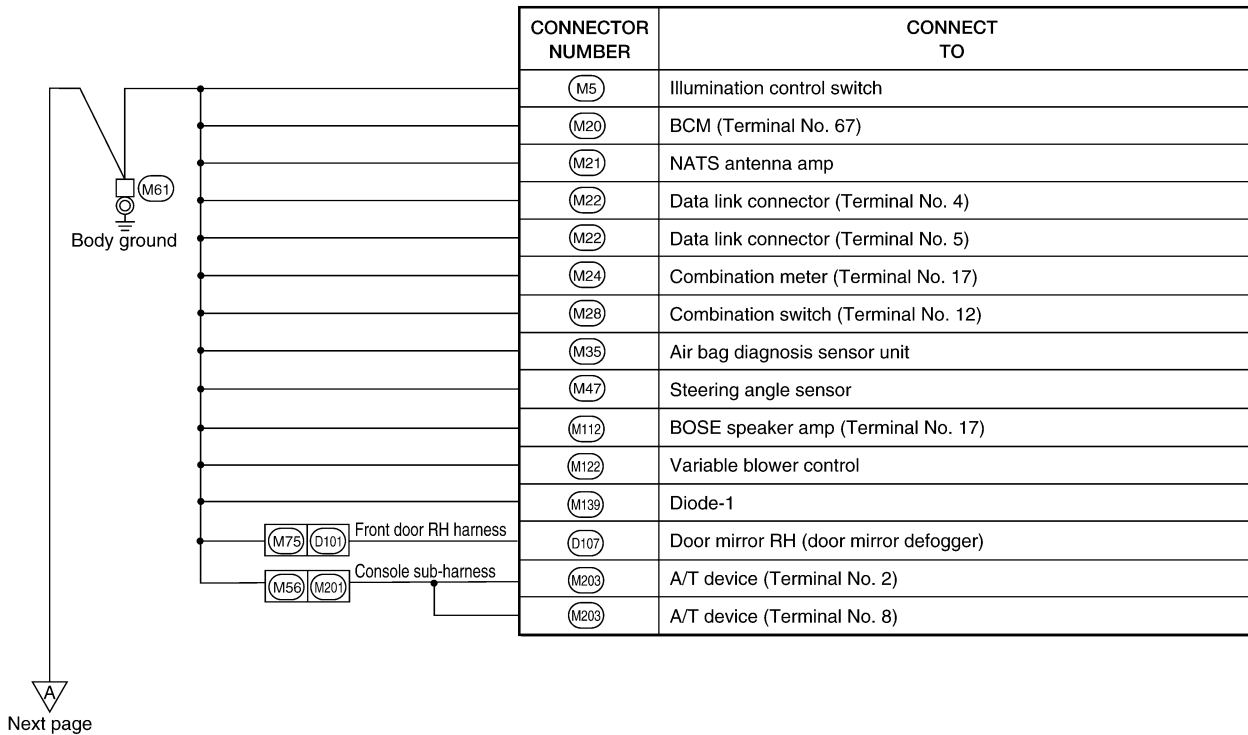
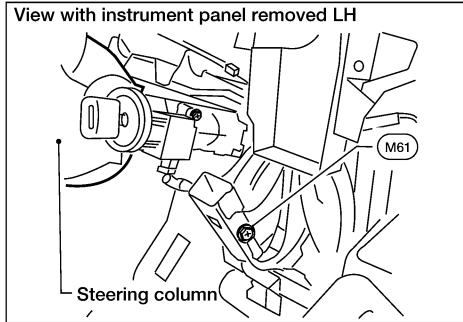
# GROUND CIRCUIT

PFP:24080

EKS00B6Q

## GROUND CIRCUIT

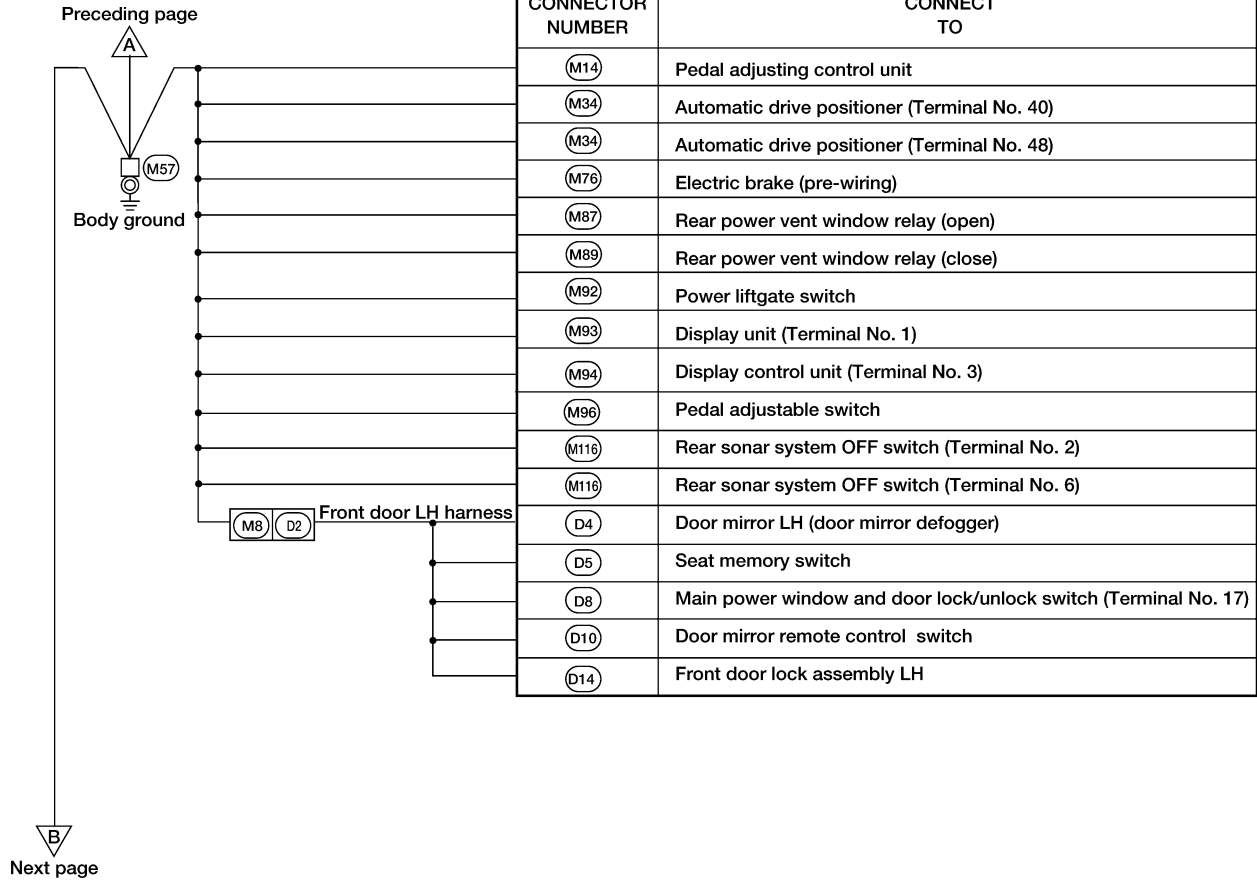
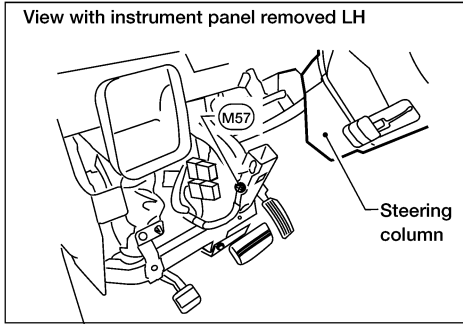
### Ground Distribution MAIN HARNESS



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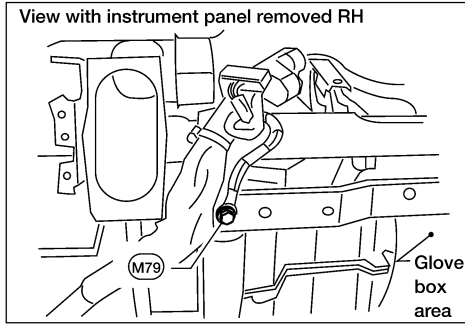
# GROUND CIRCUIT



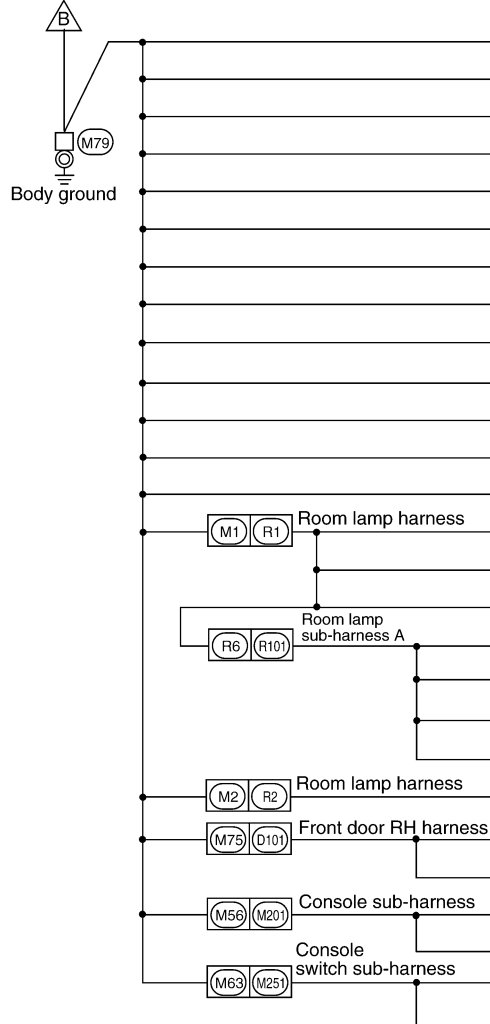
WKIA4740E



# GROUND CIRCUIT



Preceding page



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
M148	VDC OFF switch
R3	Vanity lamp LH
R7	Auto anti-dazzling inside mirror
R8	Vanity lamp RH
R102	Compass and thermometer
R103	Front room/map lamp assembly
R105	Rear power vent window switch
R106	Homelink universal transceiver
R4	Sunroof motor
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
M252	Front heated seat switch RH
M255	Front heated seat switch LH

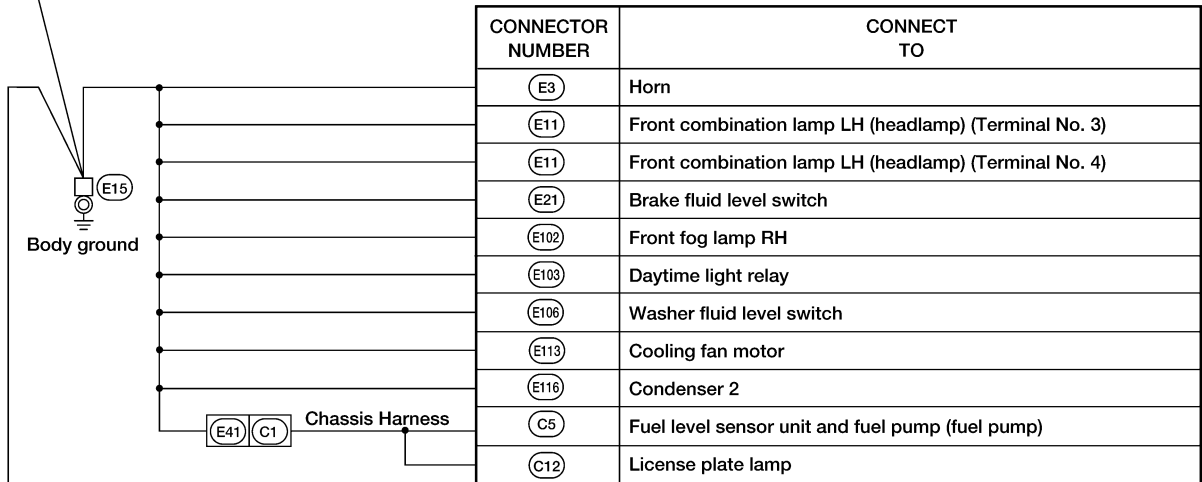
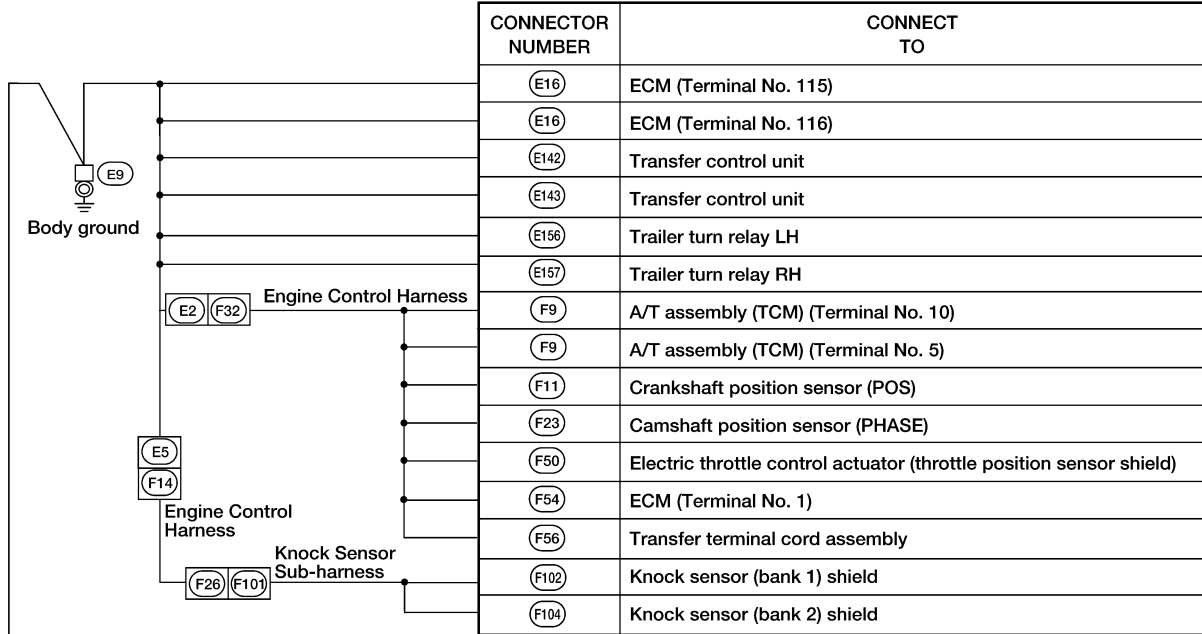
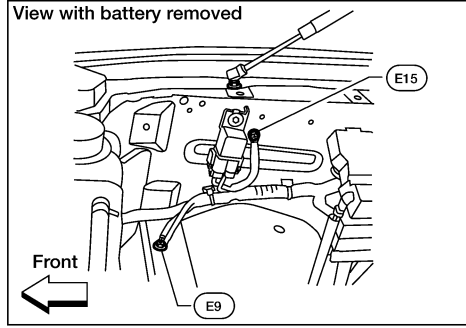
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WKIA4741E

# GROUND CIRCUIT

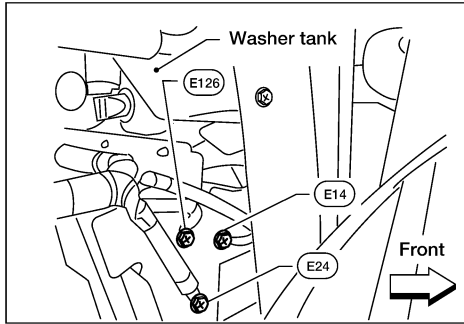
## ENGINE ROOM HARNESS



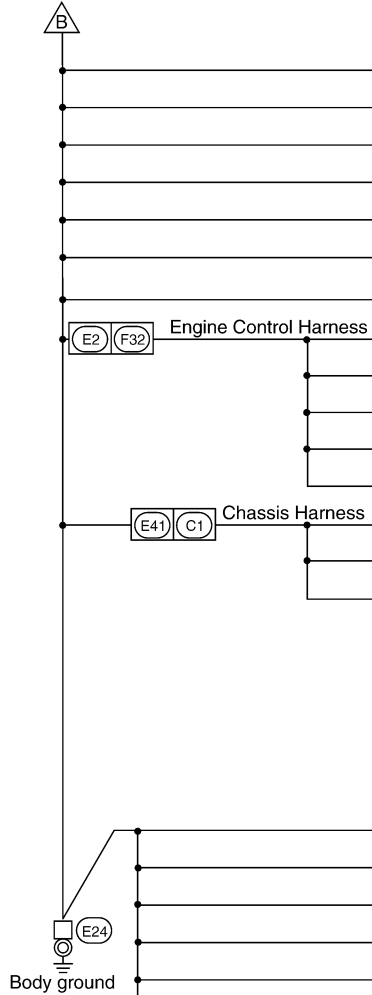
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Next page

WKIA4742E

# GROUND CIRCUIT



Preceding page



CONNECTOR NUMBER	CONNECT TO
(E46)	Transfer shift high relay (Terminal No. 1)
(E46)	Transfer shift high relay (Terminal No. 4)
(E47)	Transfer shift low relay (Terminal No. 1)
(E47)	Transfer shift low relay (Terminal No. 4)
(E130)	Compressor motor relay
(E140)	Trailer tow relay 2
(E142)	Transfer control unit (Terminal No. 3)
(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. 3)

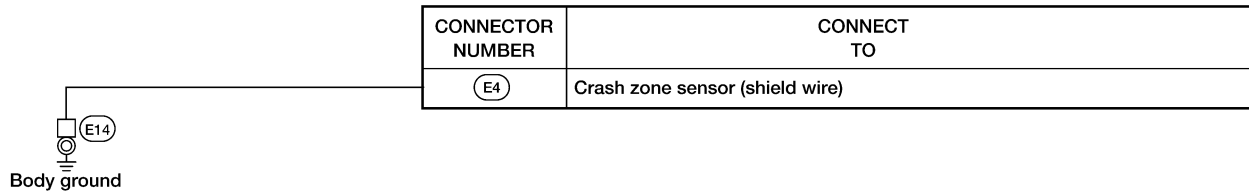
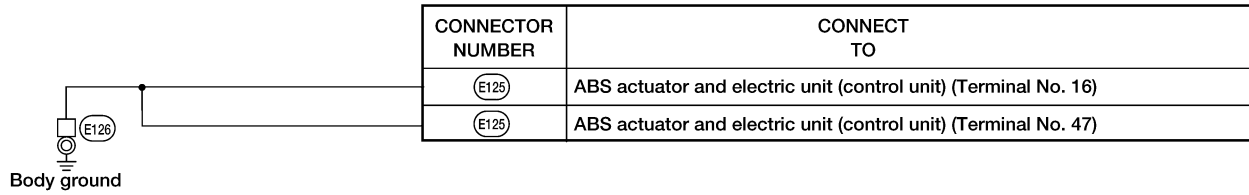
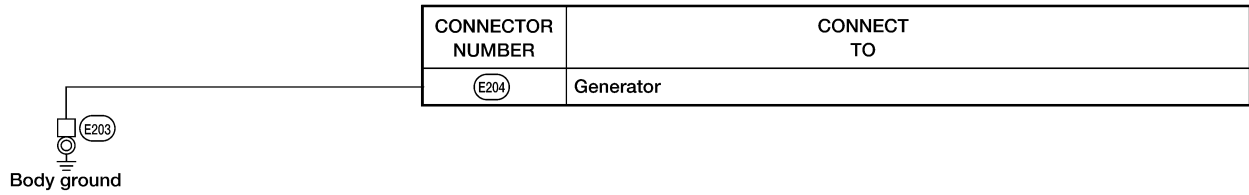
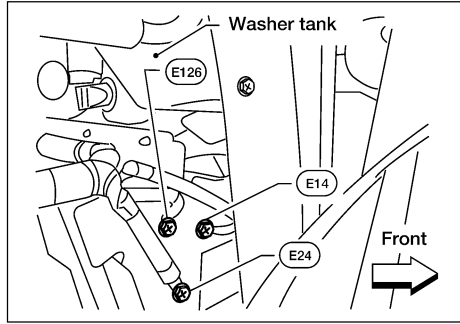
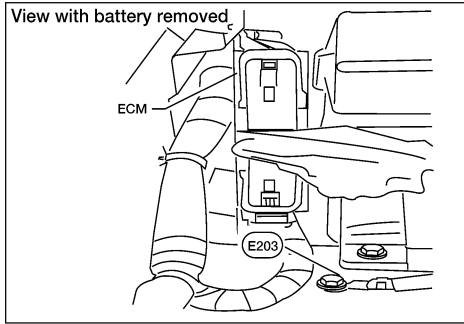
CONNECTOR NUMBER	CONNECT TO
(E107)	Front combination lamp RH (headlamp) (Terminal No. 3)
(E107)	Front combination lamp RH (headlamp) (Terminal No. 4)
(E23)	Front wiper motor
(E101)	Front fog lamp LH
(E122)	IPDM E/R
(E124)	IPDM E/R

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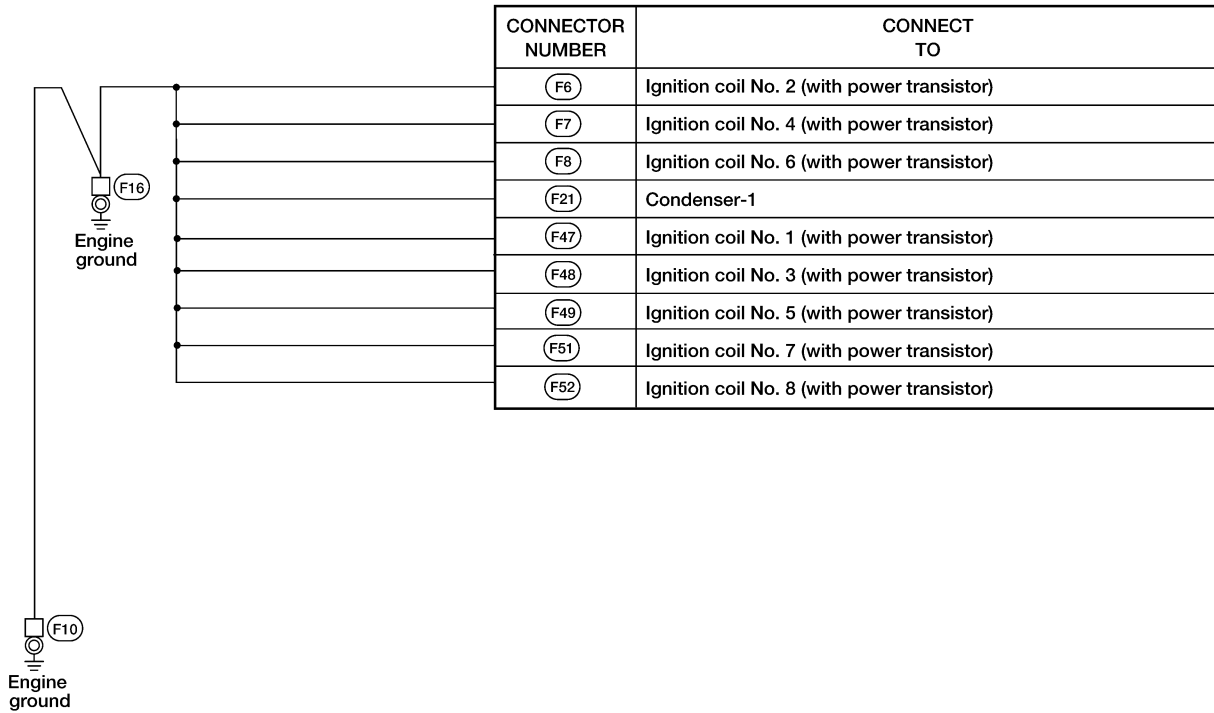
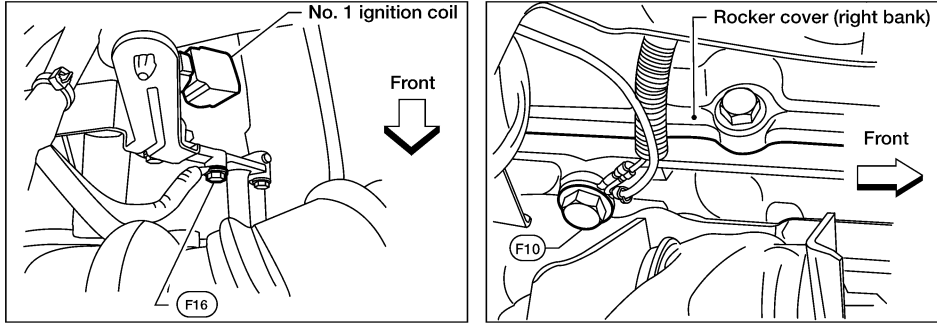
# GROUND CIRCUIT



WKIA4744E

# GROUND CIRCUIT

## ENGINE CONTROL HARNESS



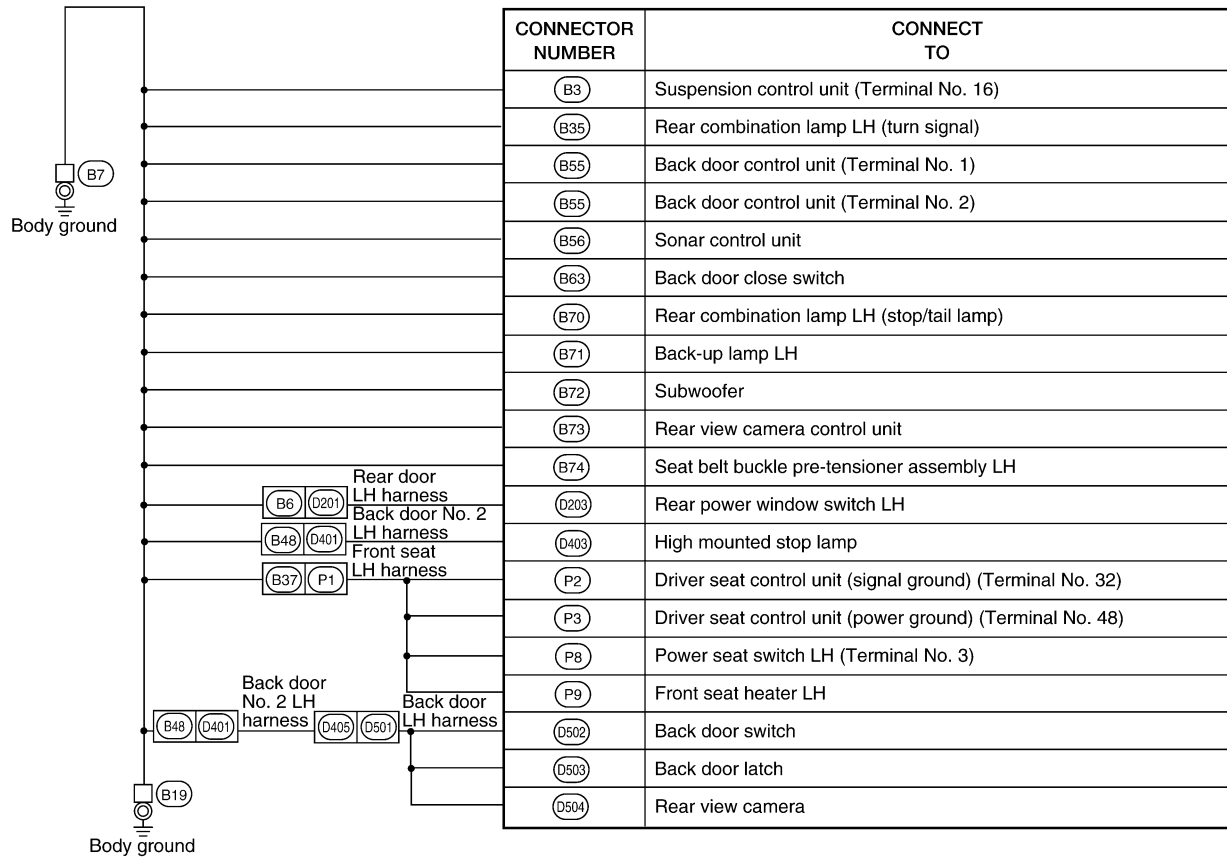
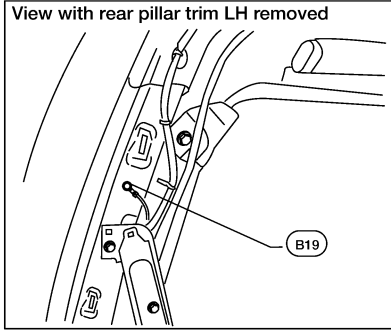
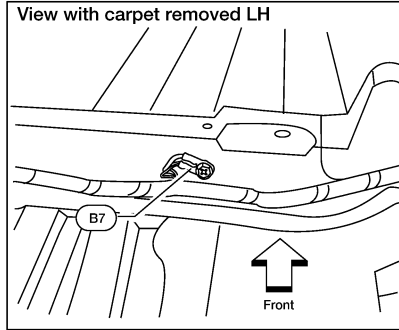
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WKIA4663E

# GROUND CIRCUIT

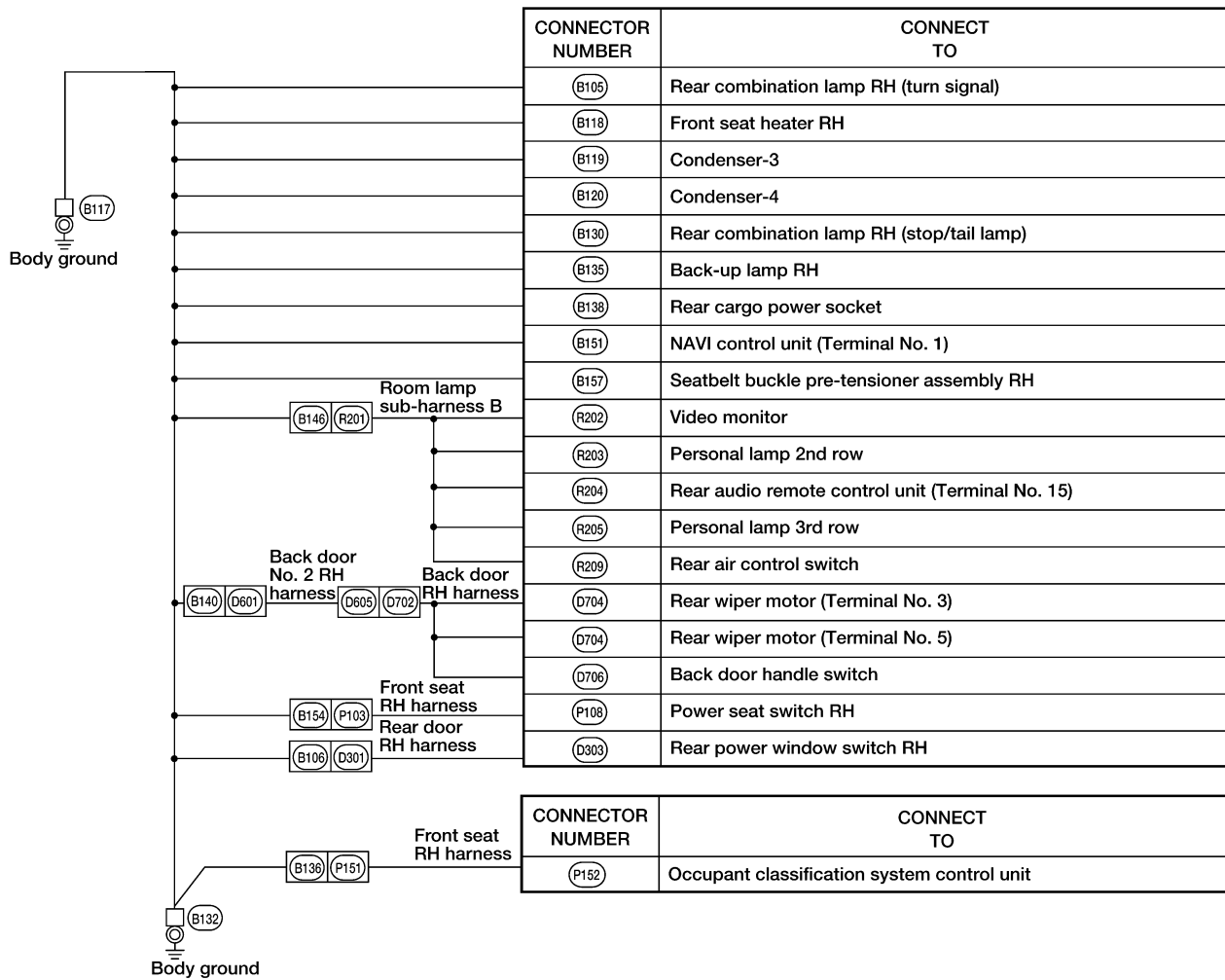
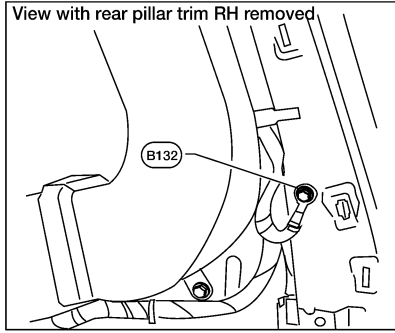
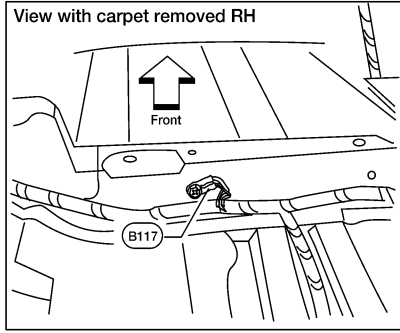
## BODY HARNESS



WKIA4745E

# GROUND CIRCUIT

## BODY NO. 2 HARNESS



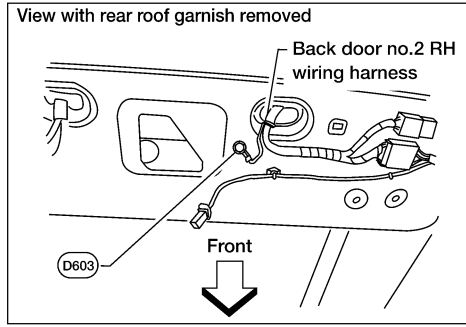
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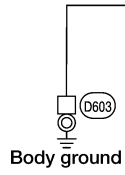
WKIA4746E

# GROUND CIRCUIT

## BACK DOOR NO. 2 RH HARNESS



CONNECTOR NUMBER	CONNECT TO
D604	Rear window defogger





# HARNESS

PFP:24010

EKS00B6R

## HARNESS

### Harness Layout

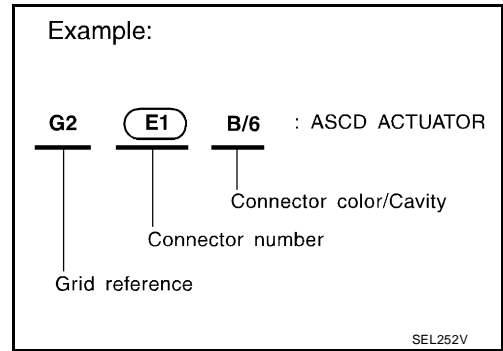
#### HOW TO READ HARNESS LAYOUT

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

#### 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.



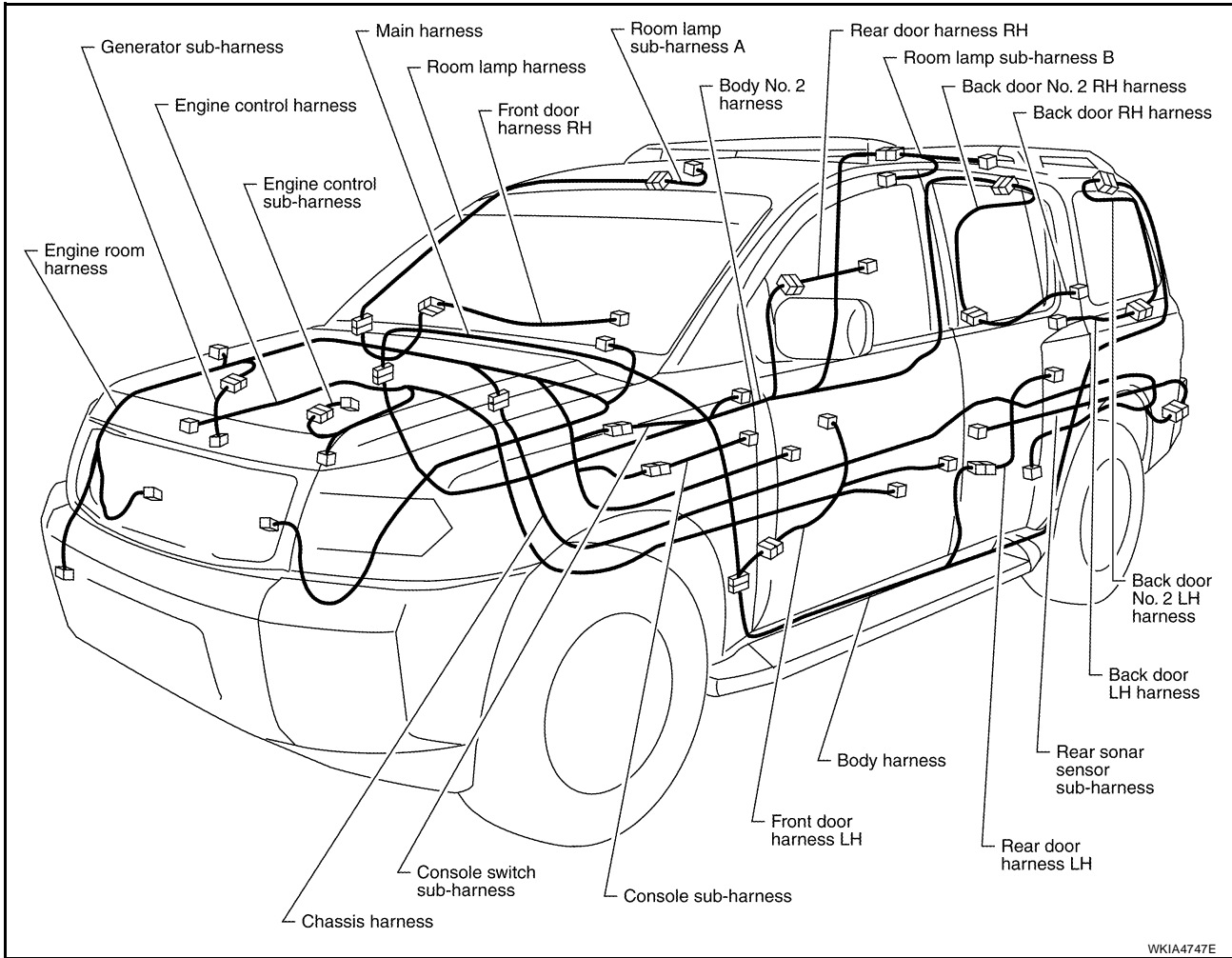
#### CONNECTOR SYMBOL

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

Connector type	Water proof type		Standard type	
	Male	Female	Male	Female
<ul style="list-style-type: none"> <li>● Cavity: 4 or Less</li> <li>● Relay connector</li> </ul>				
<ul style="list-style-type: none"> <li>● Cavity: From 5 to 8</li> </ul>				
<ul style="list-style-type: none"> <li>● Cavity: 9 or More</li> </ul>				
<ul style="list-style-type: none"> <li>● Ground terminal etc.</li> </ul>	—			

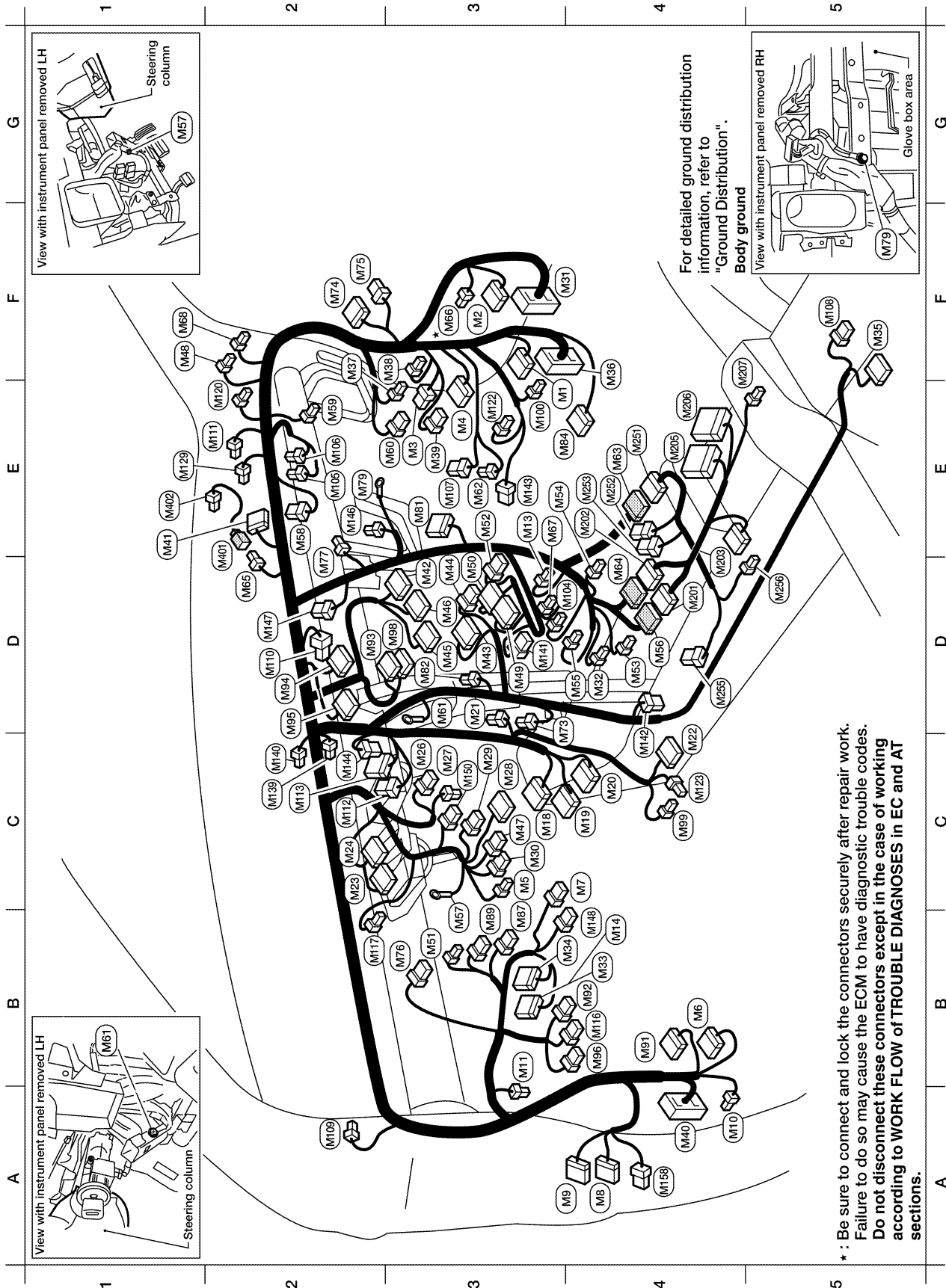
# HARNESS

## OUTLINE



# HARNESS

## MAIN HARNESS



WKIA4748E

# HARNESS

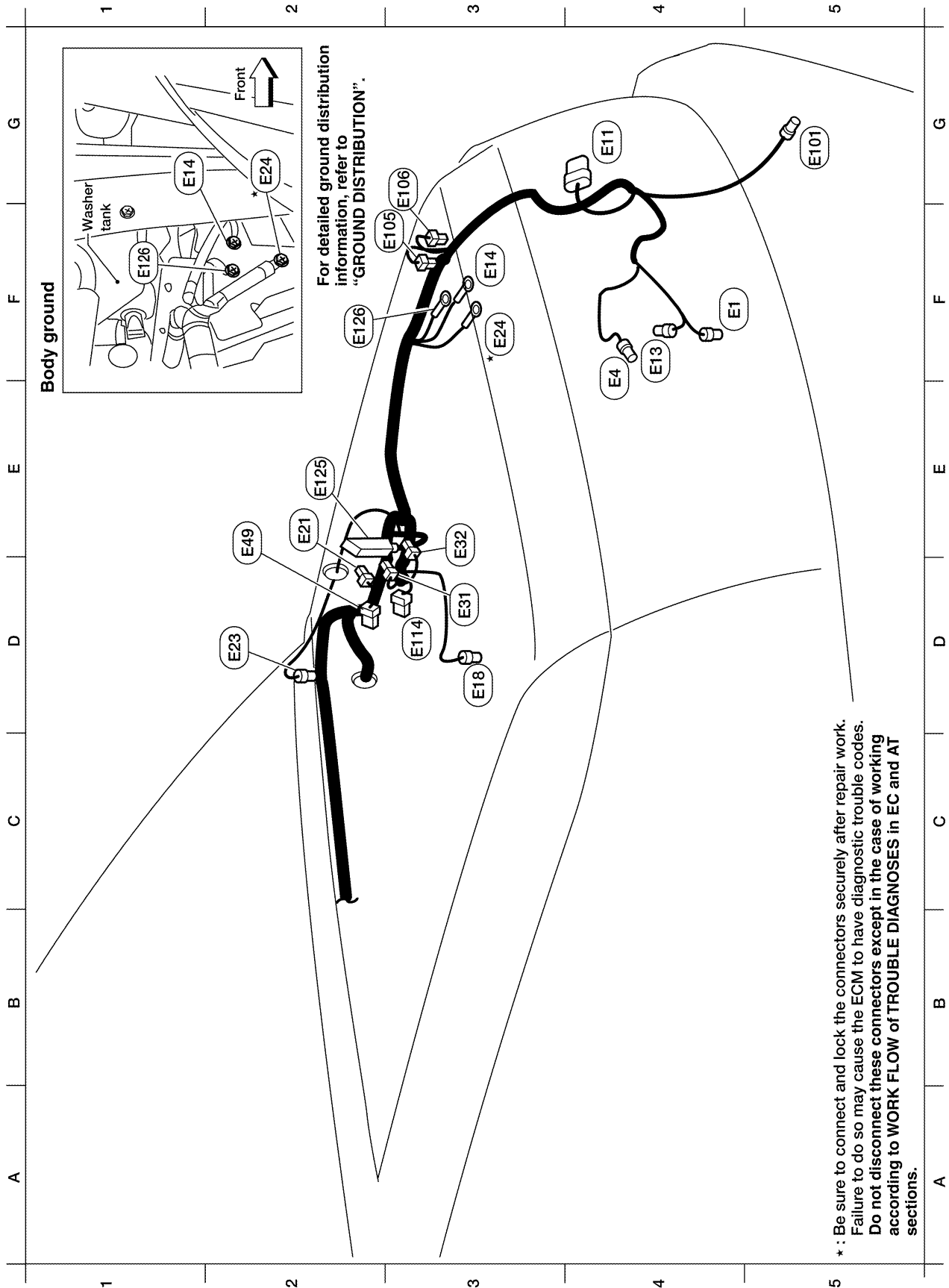
E4 (M1)	W/16	To (R1)	Front air control	(M59)	W/18	D3	Front air control	(M105)	Y/2	E2	Front passenger air bag module
F3 (M2)	W/12	To (R2)	Trailer tow relay 1	(M55)	L/4	B3	Trailer tow relay 1	(M106)	O/2	E2	Front passenger air bag module
E3 (M3)	W/8	Fuse block (J/B)	Rear blower switch (front)	(M52)	W/8	E3	Rear blower switch (front)	(M107)	BR/6	E3	Front blower motor relay
E3 (M4)	W/16	Fuse block (J/B)	Front power socket LH	(M53)	B/2	D4	Front power socket LH	(M108)	B/6	F5	Yaw rate/side decel G-sensor
C3 (M5)	W/3	Illumination control switch	Front power socket RH	(M54)	B/2	E3	Front power socket RH	(M109)	BR/2	A2	Front tweeter LH
B4 (M6)	W/10	To (E10)	(for cigarette lighter)				(for cigarette lighter)	(M110)	BR/2	D2	Center speaker (with BOSE)
A4 (M8)	W/16	To (D2)	Hazard switch	(M55)	W/8	D4	Hazard switch	(M111)	BR/2	E2	Front tweeter RH
A3 (M9)	BR/24	To (D1)	To (M20)	(M56)	W/16	D4	To (M20)	(M112)	W/8	C2	BOSE speaker amp.
A4 (M10)	Y/4	To (E29)	Body ground	(M57)	-	B3	Body ground	(M113)	L/24	C2	BOSE speaker amp.
B3 (M11)	B/1	Parking brake switch	Intake door motor	(M58)	B/6	E2	Intake door motor	(M116)	GR/8	B4	Rear sonar system OFF switch
E3 (M13)	W/3	Front passenger air bag off indicator	Glove box lamp	(M59)	BR/2	E2	Glove box lamp	(M117)	B/2	B2	Sonar buzzer
B4 (M14)	W/16	Pedal adjusting control unit	Fuse block (J/B)	(M60)	W/6	E3	Fuse block (J/B)	(M120)	W/4	E2	Remote keyless entry receiver
C3 (M18)	W/40	BCM (body control module)	Body ground	(M61)	-	D3	Body ground	(M122)	W/4	E3	Variable blower control (with ATC)
C4 (M19)	W/15	BCM (body control module)	Front blower motor	(M62)	B/2	E3	Front blower motor	(M123)	W/2	C4	Tire pressure warning check connector
C4 (M20)	B/15	BCM (body control module)	To (M25)	(M63)	BR/20	E4	To (M25)	(M129)	BR/1	E1	Satellite radio tuner (with Sirius satellite radio)
D3 (M21)	W/4	NATS antenna amplifier	To (M20)	(M64)	BR/24	D4	To (M20)	(M128)	V/1	E1	Satellite radio tuner (with XM satellite radio)
C4 (M22)	W/16	Data link connector	To (M40)	(M65)	W/4	D2	To (M40)	(M139)	B/2	C2	Diode-1
B3 (M23)	W/12	Combination meter	To (E33)	(M66)	B/1	F3	To (E33)	(M140)	B/2	C2	Diode-2
C2 (M24)	W/40	Combination meter	Tow mode switch	(M67)	GR/8	E3	Tow mode switch	(M141)	W/8	D3	4WD shift switch
C3 (M26)	W/6	Ignition switch	To (M39) (with Sirius satellite radio)	(M68)	BR/1	F2	To (M39) (with Sirius satellite radio)	(M142)	B/6	C4	Mode door motor
C3 (M27)	W/4	Key switch and key lock solenoid	To (M39) (with XM satellite radio)	(M68)	V/1	F2	To (M39) (with XM satellite radio)	(M149)	B/6	E3	Air mix door motor (passenger)
C3 (M28)	W/16	Combination switch	Back-up lamp relay	(M79)	BR/6	D3	Back-up lamp relay	(M144)	B/6	C2	Defroster door motor
C3 (M29)	Y/6	Combination switch (spiral cable)	To (E102)	(M74)	BR/20	F2	To (E102)	(M146)	GR/2	E2	Intake sensor
C3 (M30)	GR/8	Combination switch (spiral cable)	To (E101)	(M75)	W/8	F2	To (E101)	(M147)	B/6	D2	Air mix door motor (driver) (with ATC)
F4 (M31)	SMJ	To (E32)	Electric brake (pre-wiring)	(M76)	W/6	B3	Electric brake (pre-wiring)	(M147)	B/6	D2	Air mix door motor (front) (with MTC)
D4 (M32)	W/4	In-vehicle sensor	Front passenger air bag module	(M77)	Y/4	E2	Front passenger air bag module	(M148)	GR/6	B4	VDC off switch
B4 (M33)	W/32	Automatic drive positioner control unit	(service replacement)	(M79)	-	E2	(service replacement)	(M159)	W/2	C3	Ignition key hole illumination
B4 (M34)	W/16	Automatic drive positioner control unit	Body ground	(M81)	GR/10	E3	Shift lock control unit	(M158)	W/8	A4	To (D3)
F5 (M35)	Y/28	Air bag diagnosis sensor unit	Shift lock control unit	(M82)	GR/2	E3	Circuit breaker-2	(M201)	W/16	D4	To (M56)
F4 (M36)	SMJ	To (E19)	Circuit breaker-2	(M82)	GR/2	D3	Circuit breaker-2	(M202)	BR/24	E4	To (M64)
F2 (M37)	B/1	Fuse block (J/B)	To (E101)	(M84)	W/16	E4	To (E101)	(M203)	W/12	D4	A/T device
F2 (M38)	B/2	Fuse block (J/B)	Rear power vent window relay (open)	(M87)	B/5	B3	Rear power vent window relay (open)	(M205)	GR/16	E4	DVD player
E3 (M39)	W/8	Fuse block (J/B)	Rear power vent window relay (close)	(M89)	B/5	B3	Rear power vent window relay (close)	(M206)	L/16	E4	DVD player
A4 (M40)	SMJ	To (E89)	To (E26)	(M91)	W/16	B4	To (E26)	(M207)	B/2	E5	Console power socket
E1 (M41)	W/16	Satellite radio tuner or pre-wiring for satellite radio	Power liftgate switch	(M92)	GR/6	B4	Power liftgate switch	(M251)	BR/20	E4	To (M63)
D3 (M42)	W/16	Audio unit	Display unit	(M93)	W/24	D2	Display unit	(M252)	BR/6	E4	Front heated seat switch RH
D3 (M43)	W/10	Audio unit	Display control unit (with NAVI)	(M94)	W/24	D2	Display control unit (with NAVI)	(M253)	GR/6	E4	VDC OFF switch
D3 (M44)	W/6	Audio unit	Display control unit (with NAVI)	(M95)	W/32	C2	Display control unit (with NAVI)	(M255)	BR/6	D4	Front heated seat switch LH
D3 (M45)	W/16	Audio unit	Pedal adjusting switch	(M96)	BR/6	B4	Pedal adjusting switch	(M256)	B/2	D5	A/T device illumination
D3 (M46)	W/20	Audio unit	AV switch	(M98)	W/24	D3	AV switch	(M401)	W/4	D2	To (M65)
C3 (M47)	W/8	Steering angle sensor	Foot lamp LH	(M99)	BR/2	C4	Foot lamp LH	(M402)	B/4	E2	Optical sensor
F1 (M48)	BR/2	To (M301)	Foot lamp RH	(M100)	BR/2	E3	Foot lamp RH				
D3 (M49)	B/26	Front air control	Auxiliary in jack (audio)	(M104)	W/4	D4	Auxiliary in jack (audio)				

WKIA4749E

# HARNESS

## ENGINE ROOM HARNESS (LH VIEW)

### Engine Compartment



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

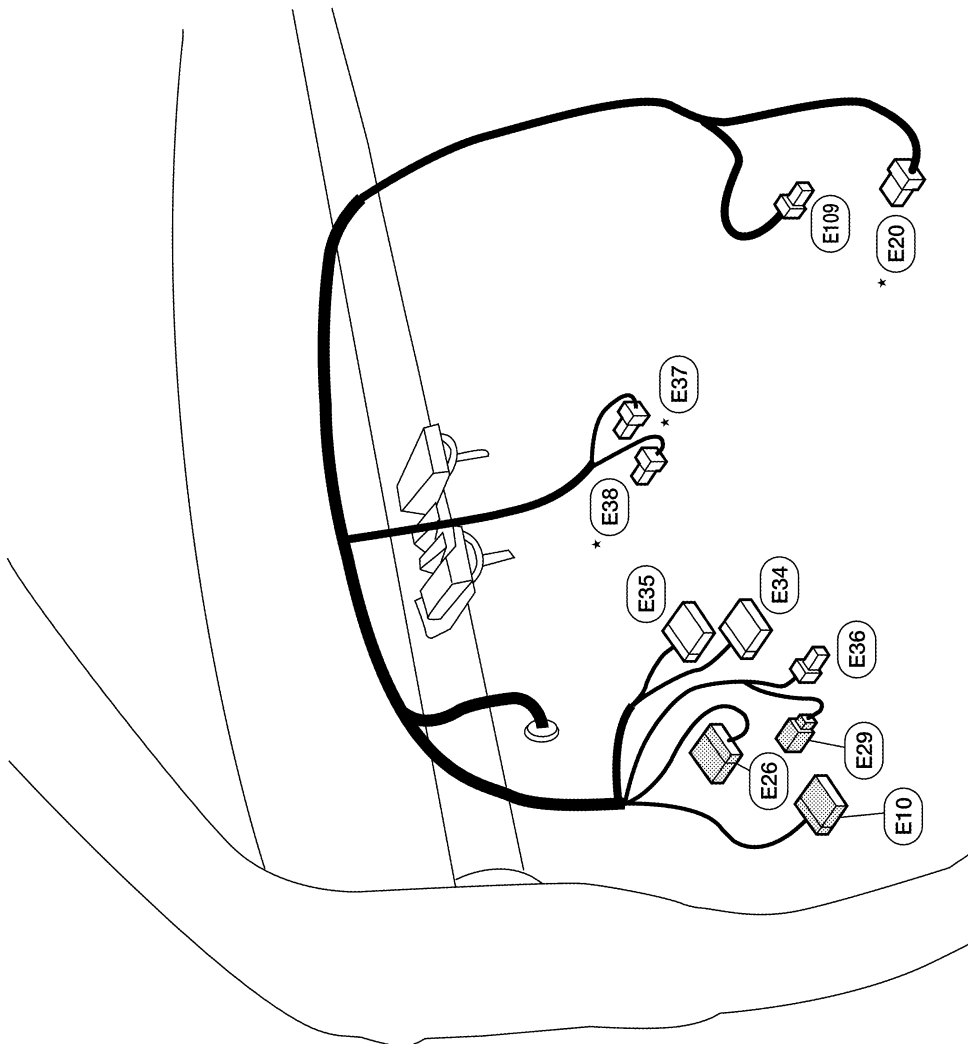
F4	(E1)	GR/2	: Ambient sensor
E4	(E4)	Y/2	: Crash zone sensor
G4	(E11)	B/6	: Front combination lamp LH
F4	(E13)	GR/2	: Ambient sensor 2
F3	(E14)	-	: Body ground
D3	(E18)	GR/2	: Front wheel sensor LH
E2	(E21)	GR/2	: Brake fluid level switch
D2	(E23)	GR/6	: Front wiper motor
F3	*(E24)	-	: Body ground
D3	(E31)	GR/3	: Front pressure sensor
E3	(E32)	GR/3	: Rear pressure sensor
E2	(E49)	B/6	: Active booster
G5	(E10)	B/2	: Front fog lamp LH
F3	(E105)	BR/2	: Front and rear washer motor
G3	(E106)	BR/2	: Washer fluid level switch
D3	(E114)	B/6	: Delta stroke sensor
E2	(E125)	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.**

# HARNESS

## Passenger Compartment

- (E10) W/10 : To (M6)
- \* (E20) B/8 : Accelerator pedal position (APP) sensor
- (E26) W/16 : To (M91)
- (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
- \* (E38) B/2 : Stop lamp switch
- (E109) GR/2 : Pedal adjusting motor



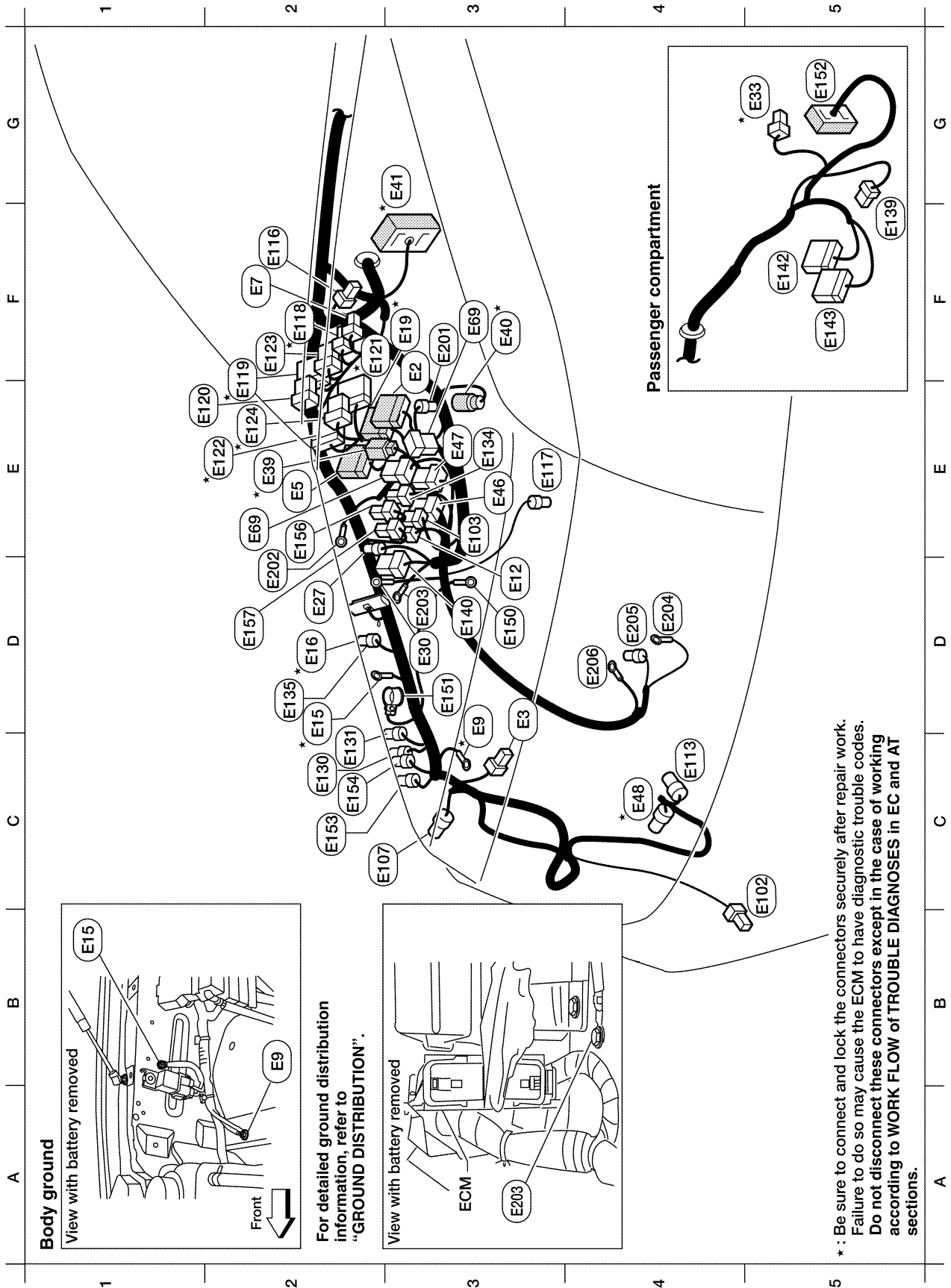
\* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.  
 Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

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

# HARNESS

## ENGINE ROOM HARNESS (RH VIEW)

### Engine Compartment



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

WKIA5325E



C2 (E130) W/2 : Compressor motor relay  
 C2 (E131) W/2 : Compressor motor relay  
 D2 (E135) GR/2 : Transfer dropping resistor  
 F5 (E139) W/8 : To (E107)  
 D3 (E140) BR/6 : Trailer tow relay 2  
 F5 (E142) L/24 : Transfer control unit  
 F5 (E143) G/24 : Transfer control unit  
 D3 (E150) - : Engine ground  
 D3 (E151) - : Negative battery cable  
 G5 (E152) SMJ : To (M31)  
 C2 (E153) GR/2 : Transfer motor relay  
 C2 (E154) GR/2 : Transfer motor relay  
 E2 (E156) L/4 : Trailer turn relay LH  
 D2 (E157) L/4 : Trailer turn relay RH

## Generator sub-harness

F3 (E201) GR/2 : To (E40)  
 D2 (E202) - : Fusible link box (battery)  
 D3 (E203) - : Body ground  
 D4 (E204) - : Generator  
 D4 (E205) GR/2 : Generator  
 D4 (E206) - : Generator

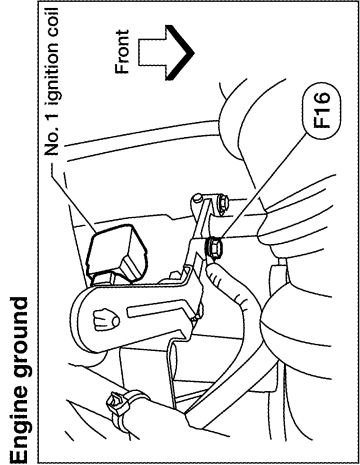
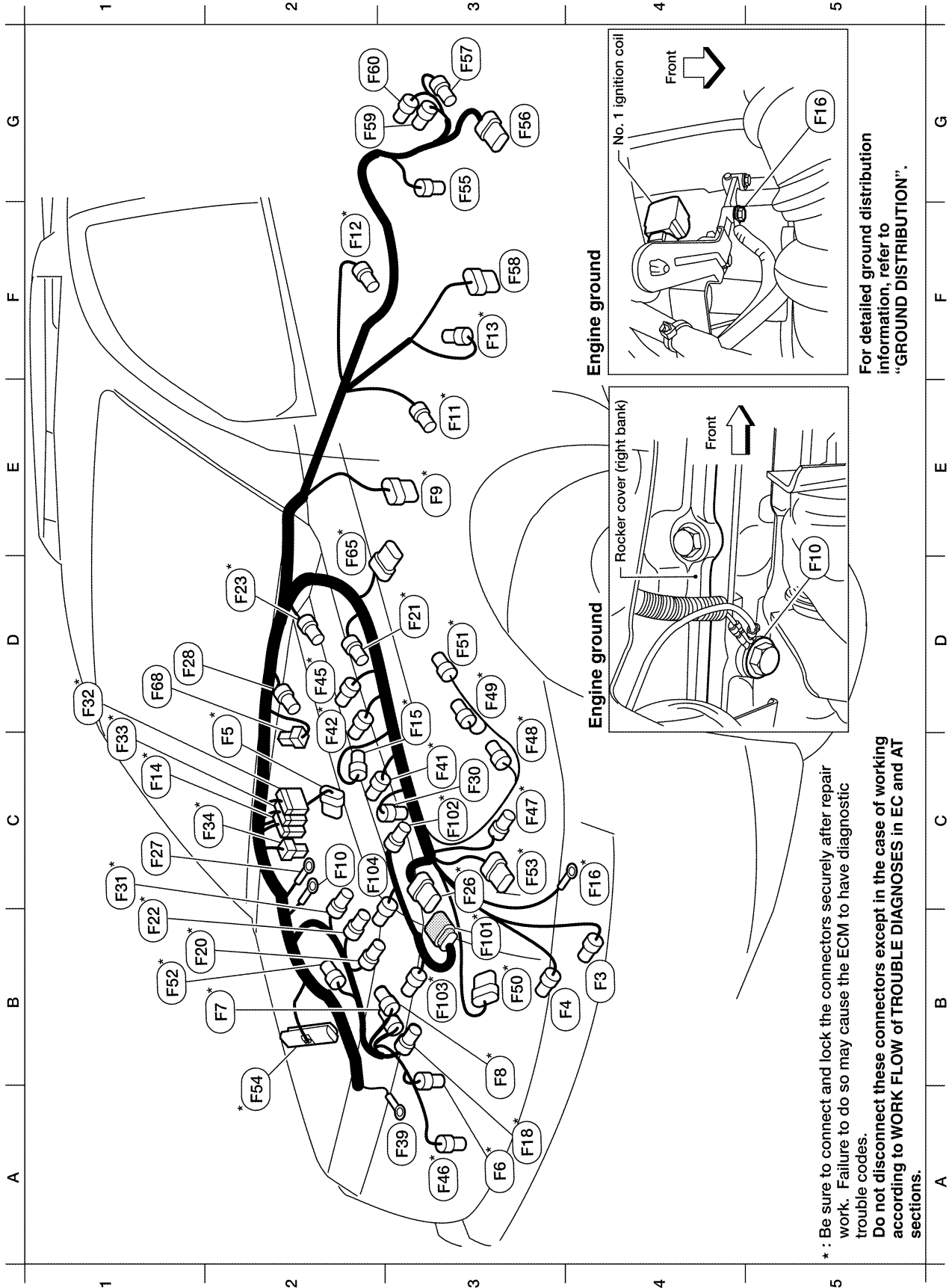
F3 (E2) W/16 : To (F32)  
 D3 (E3) B/2 : Horn  
 E2\* (E5) W/24 : To (F14)  
 F2 (E7) GR/2 : Fuse and fusible link box  
 C3\* (E9) - : Body ground  
 D3 (E12) B/5 : Stop lamp relay  
 C2\* (E15) - : Body ground  
 D2\* (E16) B/32 : ECM  
 F3\* (E19) W/16 : To (F33)  
 D2 (E27) BR/2 : Fusible link box (battery)  
 D3 (E30) - : Fusible link box (battery)  
 G5\* (E33) B/1 : To (M66)  
 E2\* (E39) W/2 : To (F34)  
 F3\* (E40) GR/2 : To (E201)  
 F3\* (E41) SMJ : To (C1) (located RH rear of engine compartment)  
 E3 (E46) B/5 : Transfer shift high relay  
 E3 (E47) B/5 : Transfer shift low relay  
 C4\* (E49) B/3 : Refrigerant pressure sensor  
 E3 (E69) L/4 : Transfer shut off relay  
 C5 (E102) B/2 : Front fog lamp RH  
 E3 (E103) B/5 : Daytime light relay  
 C2 (E107) B/6 : Front combination lamp RH  
 C4 (E113) GR/2 : Cooling fan motor  
 F2 (E116) W/2 : Condenser 2  
 E3 (E117) GY/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 (E120) 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)  
 F2 (E123) BR/8 : IPDM E/R (intelligent power distribution module engine room)  
 E2\* (E124) B/6 : 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.

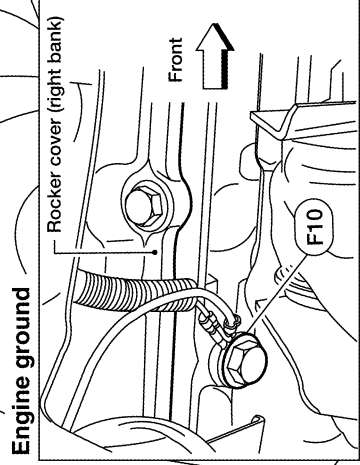
WK1A4754E

# HARNESS

## ENGINE CONTROL HARNESS



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



\* : 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.

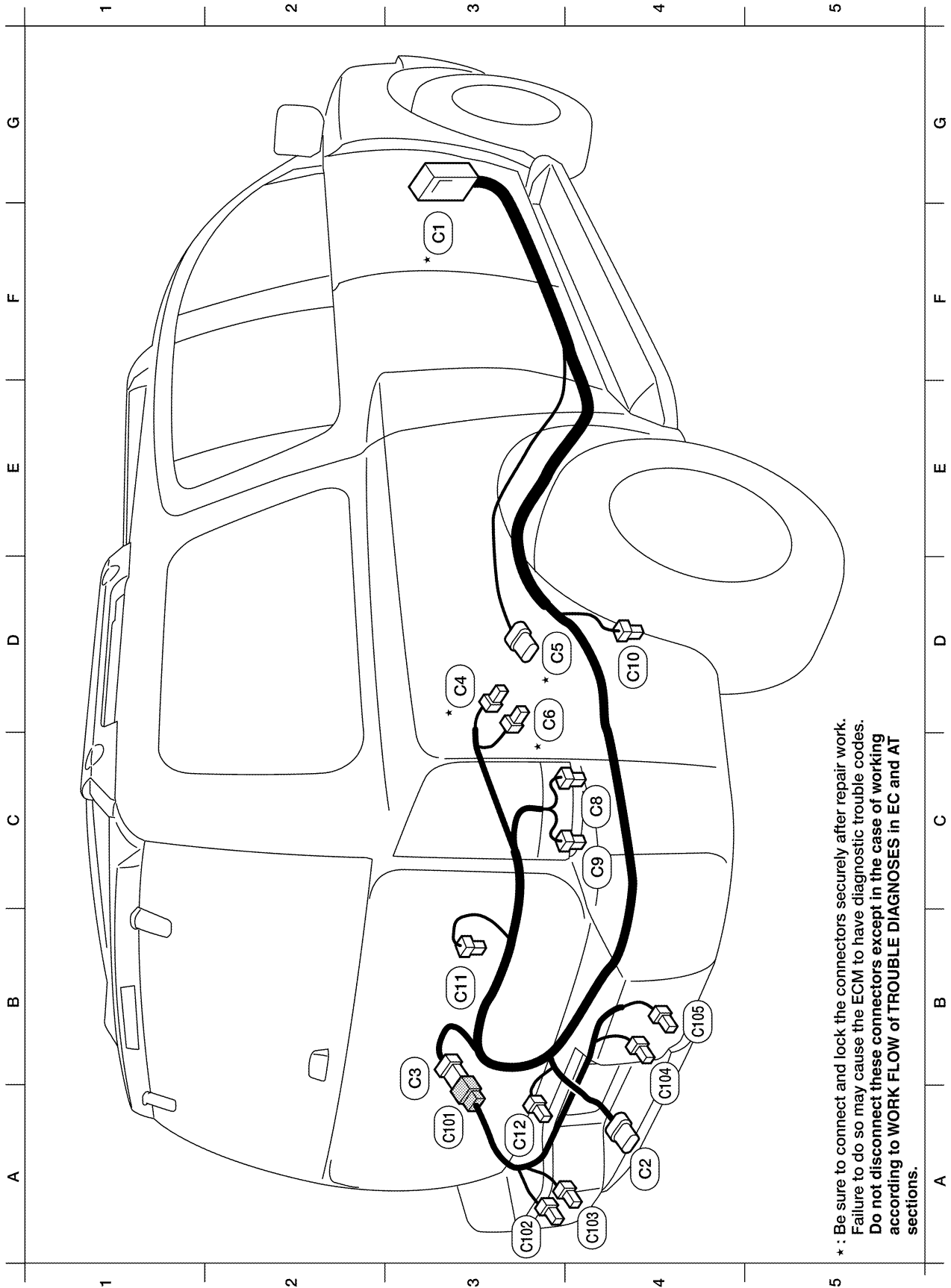
WKIA5326E

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)
C2 * (F5) 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
C1 * (F10) -	: Engine ground	G3 (F55) B/2	: ATP switch (4WD only)
E3 * (F11) B/3	: Crankshaft position sensor (POS)	G3 (F56) B/8	: Transfer terminal cord assembly (4WD only)
F2 * (F12) G/4	: Heated oxygen sensor 2 (bank 2)	G3 (F57) B/2	: Transfer motor (4WD only)
F3 * (F13) G/4	: Heated oxygen sensor 2 (bank 1)	F3 (F58) GR/6	: Transfer control device (4WD only)
C1 (F14) W/24	: To (E5)	G2 (F59) B/2	: Wait detection switch (4WD only)
C3 * (F15) L/2	: EVAP canister purge volume control solenoid valve	G2 (F60) GR/2	: 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) B/2	: Water valve
B1 * (F20) GR/2	: Fuel injector No. 4	<b>Engine control sub-harness</b>	
D3 * (F21) GR/2	: Condenser-1	B3 * (F101) 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 (F101)	C2 (F104) B/2	: 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		
C3 * (F47) GR/3	: Ignition coil No. 1 (with power transistor)		

\* : 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

## CHASSIS 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.

WKIA4757E

F3 \* (C1) SMJ : To (E41) (located RH rear of engine compartment)  
 A4 (C2) B/7 : Trailer  
 B3 (C3) GR/6 : To (C101)  
 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  
 A3 (C12) W/2 : License plate lamps

## Rear sonar sensor sub-harness

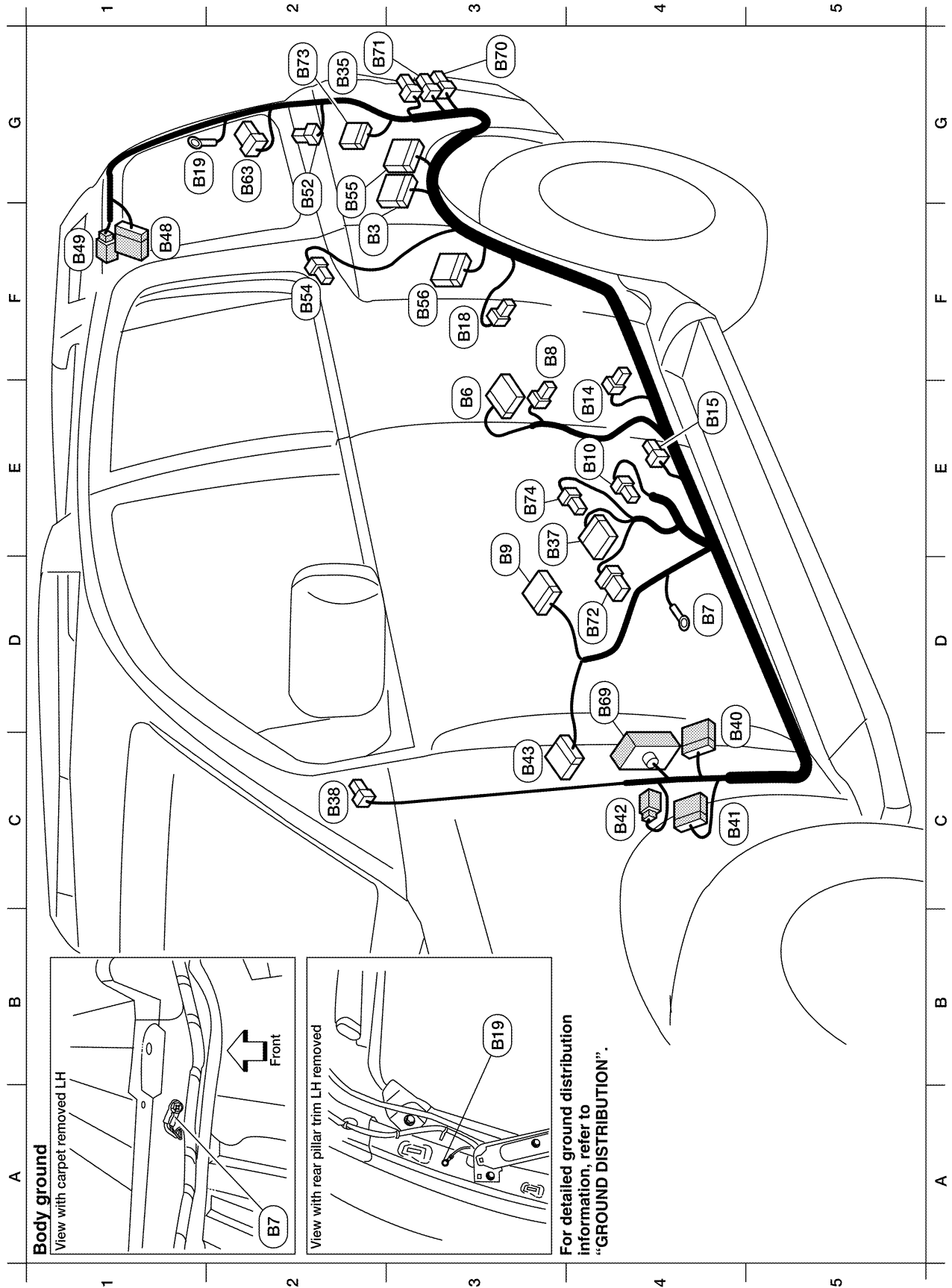
A3 (C101) GR/6 : To (C3)  
 A3 (C102) B/3 : Rear sonar sensor LH outer  
 A4 (C103) B/3 : Rear sonar sensor LH inner  
 B4 (C104) B/3 : Rear sonar sensor RH inner  
 B4 (C105) B/3 : Rear sonar sensor RH outer

\* : 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.

WKIA4758E

# HARNESS

## BODY HARNESS



WKIA4759E

# HARNESS

F2 (E3) W/16 : Suspension control unit  
 E3 (E6) W/18 : To (D201)  
 D4 (E7) - : Body ground  
 F3 (E8) W/3 : Front door switch LH  
 E3 (E9) Y/12 : Air bag diagnosis sensor unit  
 E4 (E10) Y/2 : Front LH side air bag module  
 E4 (E14) Y/2 : Front LH seat belt pre-tensioner  
 E4 (E15) Y/2 : LH side air bag (satellite) sensor  
 F3 (E18) W/3 : Rear door switch LH  
 G1 (E19) - : Body ground  
 G2 (E35) B/3 : Rear combination lamp LH (turn signal)  
 D4 (E37) W/16 : To (F1)  
 C2 (E38) Y/2 : LH side front curtain air bag module  
 C4 (E40) W/24 : To (E34)  
 C4 (E41) W/12 : To (E35)  
 C4 (E42) W/2 : To (E36)  
 C3 (E43) W/12 : To (E11)  
 F1 (E48) W/16 : To (D401)  
 F1 (E49) W/2 : To (D402)  
 G2 (E52) W/2 : Rear power vent window motor LH  
 F2 (E54) Y/2 : LH side rear curtain air bag module  
 G2 (E55) W/26 : Back door control unit  
 F3 (E56) W/16 : Sonar control unit  
 G2 (E63) W/6 : Back door close switch  
 D4 (E69) SMJ : To (M40)  
 G3 (E70) B/3 : Rear combination lamp LH (stop/tail)  
 G2 (E71) B/2 : Back-up lamp LH  
 D4 (E72) BR/6 : Subwoofer (with BOSE audio system)  
 G2 (E73) W/16 : Rear view camera control unit  
 D4 (E74) Y/4 : Seat belt buckle pre-tensioner assembly LH

WK1A4760E

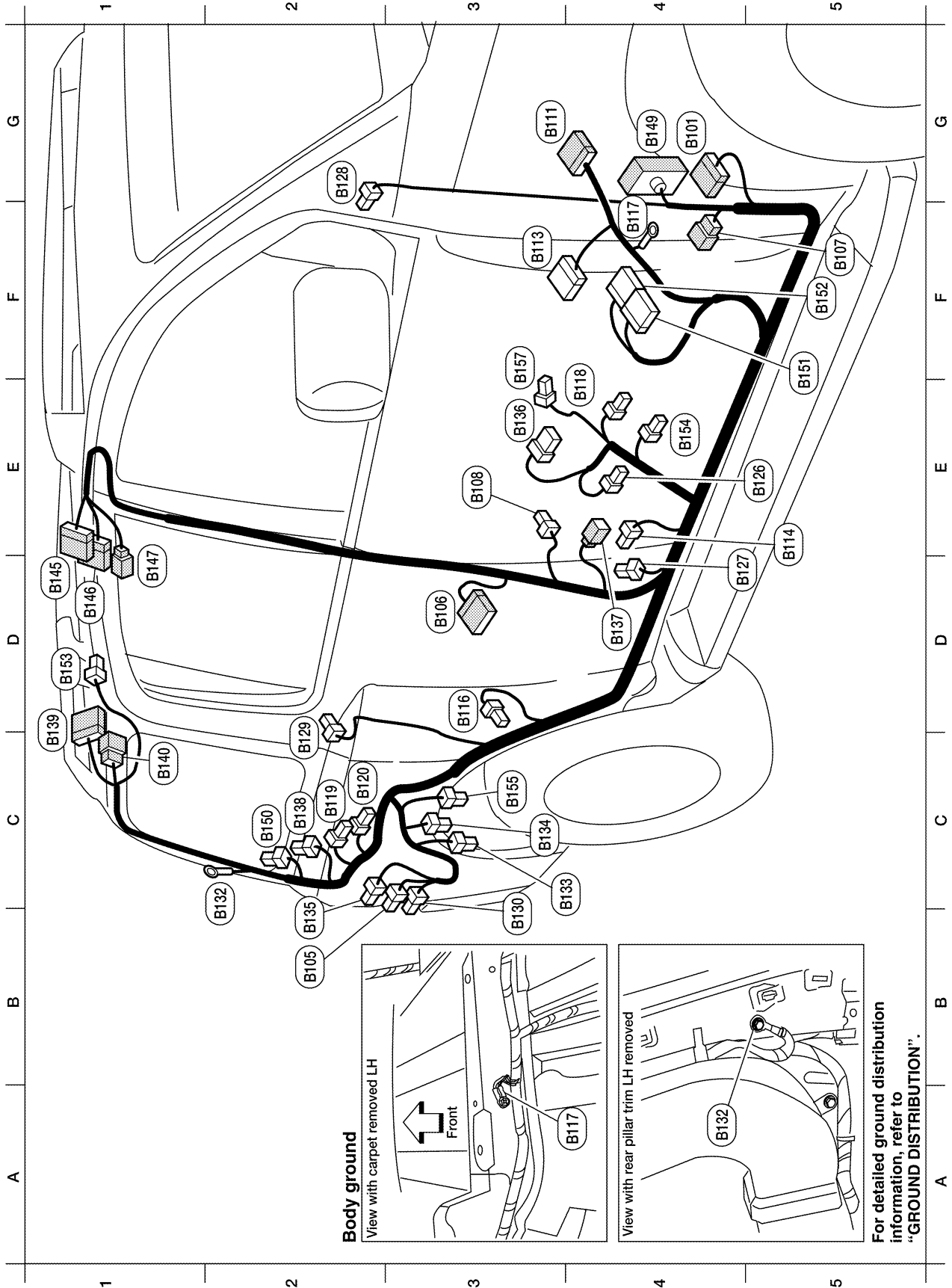
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# HARNESS

## BODY NO. 2 HARNESS



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

WKIA4761E



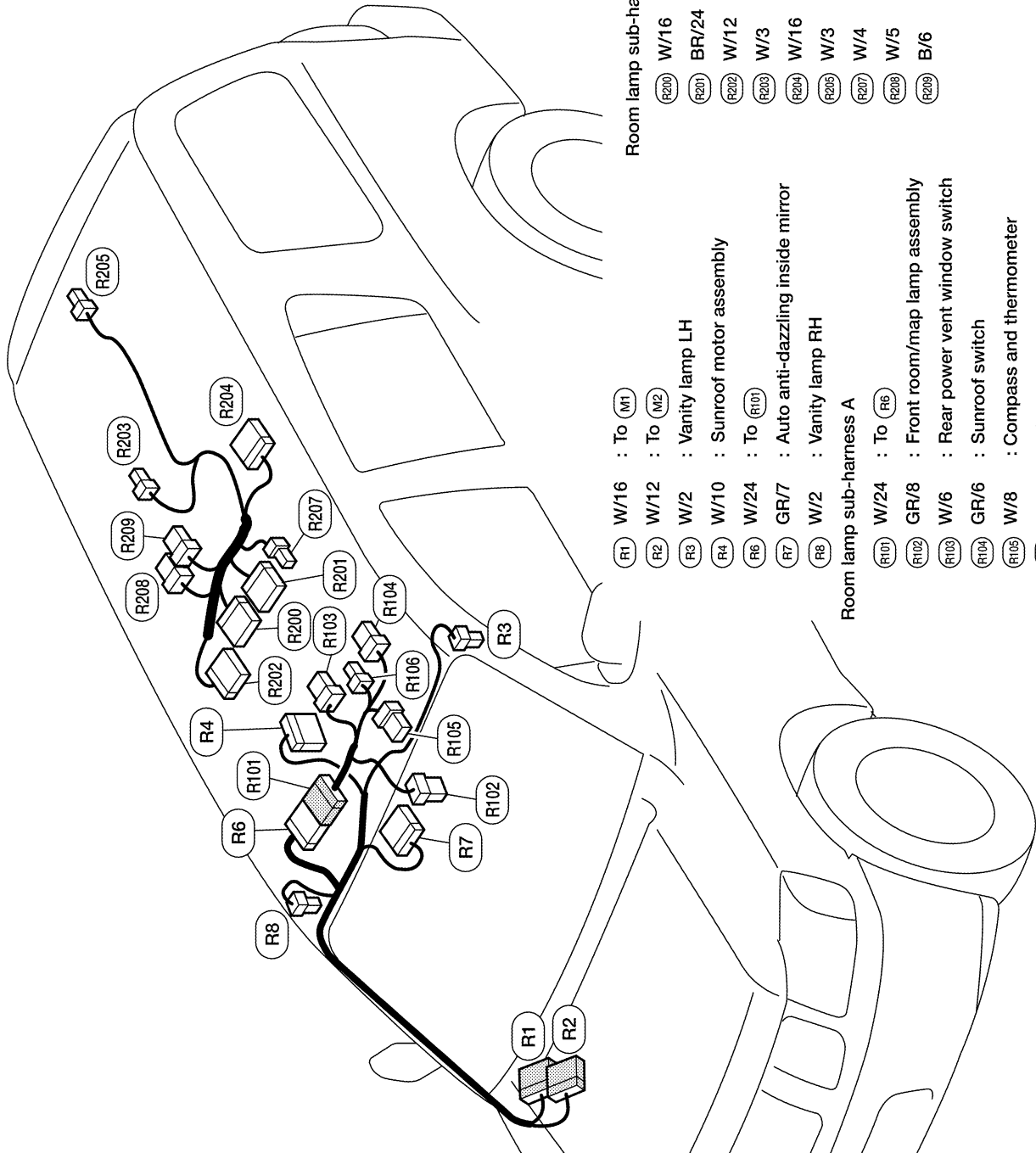
# HARNESSES

G4 (B101)	W/16	: To (M84)	G4 (B149)	SMJ	: To (M35)
B2 (B105)	B/3	: Rear combination lamp RH (turn signal)	C2 (B150)	W/2	: Rear power vent window motor RH
D3 (B106)	W/18	: To (C301)	F5 (B151)	W/40	: NAVI control unit
F5 (B107)	W/8	: To (E139)	F5 (B152)	W/32	: NAVI control unit
E3 (B108)	W/3	: Front door switch RH	D1 (B153)	W/2	: Cargo lamp
G3 (B111)	W/12	: To (B43)	E4 (B154)	W/2	: To (P103)
F3 (B113)	Y/12	: Air bag diagnosis sensor unit	C3 (B155)	B/6	: Air mix door motor (rear)
E5 (B114)	Y/2	: RH side air bag (satellite) sensor	F3 (B157)	Y/4	: Seat belt buckle pre-tensioner assembly RH
D3 (B116)	W/3	: Rear door switch RH			
F4 (B117)	-	: Body ground			
E4 (B118)	W/3	: Front seat heater RH			
C2 (B119)	W/2	: Condensor-3			
C2 (B120)	W/2	: Condensor-4			
E5 (B126)	Y/2	: Front RH side air bag module			
D4 (B127)	Y/2	: Front RH seat belt pre-tensioner			
F2 (B128)	Y/2	: RH side rear curtain air bag module			
C2 (B129)	Y/2	: RH side front curtain air bag module			
B3 (B130)	B/3	: Rear combination lamp RH (stop/tail)			
C2 (B132)	-	: Body ground			
C4 (B133)	W/4	: Rear blower motor resistor			
C3 (B134)	W/2	: Rear blower motor			
B2 (B135)	B/2	: Back-up lamp RH			
E3 (B136)	W/8	: To (P151)			
D4 (B137)	W/3	: Belt tension sensor			
C2 (B138)	B/2	: Rear cargo power socket			
C1 (B139)	W/16	: To (R602)			
C1 (B140)	W/6	: To (R601)			
D1 (B145)	W/16	: To (R200)			
D1 (B146)	BR/24	: To (R201)			
D1 (B147)	W/4	: To (R207)			

WKIA4762E

# HARNESS

## ROOM LAMP HARNESS

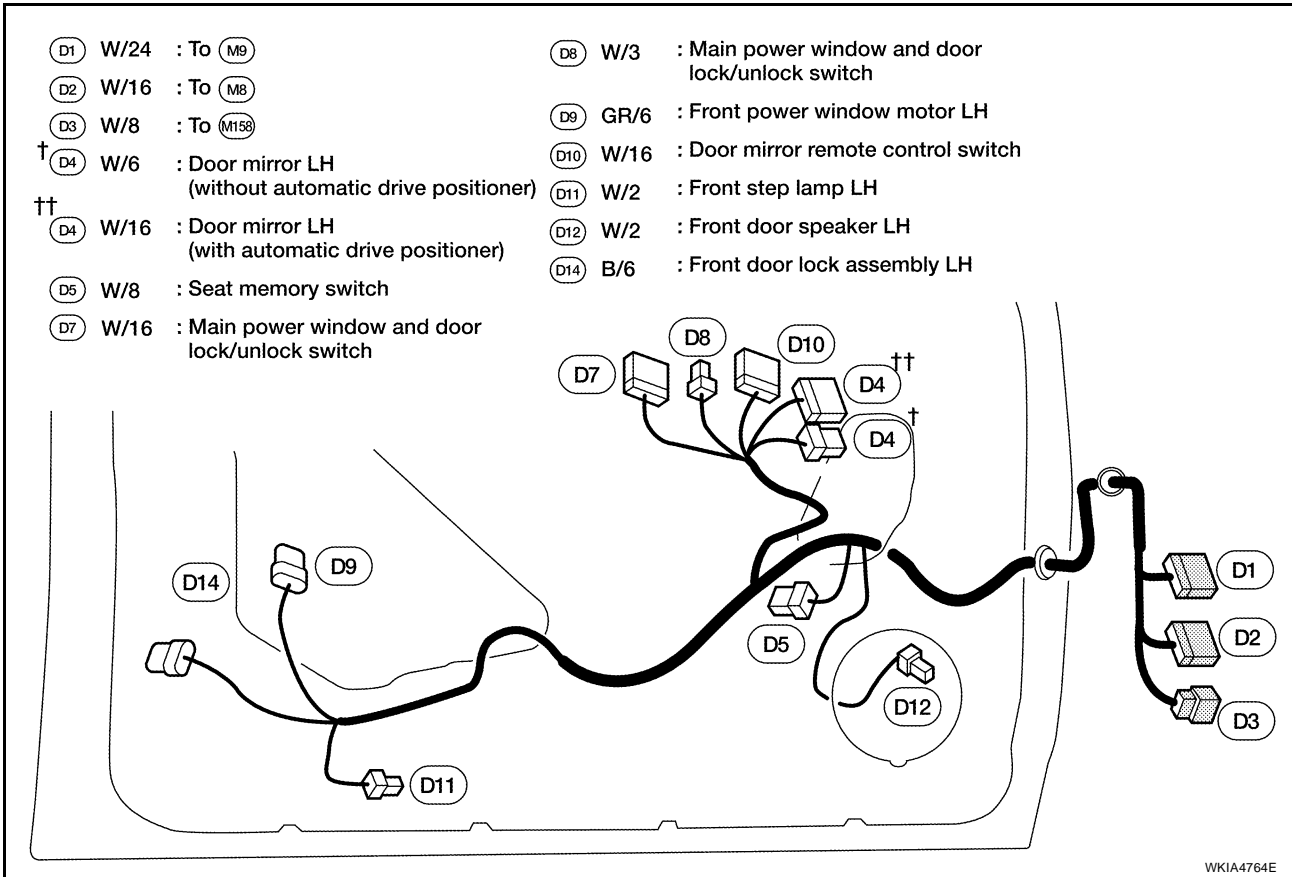


- Room lamp sub-harness B**
- (R200) W/16 : To (6145)
  - (R201) BR/24 : To (6146)
  - (R202) W/12 : Video monitor
  - (R203) W/3 : Personal lamp 2nd row
  - (R204) W/16 : Rear audio remote control unit
  - (R205) W/3 : Personal lamp 3rd row
  - (R207) W/4 : To (6147)
  - (R208) W/5 : Rear air control
  - (R209) B/6 : Rear air control

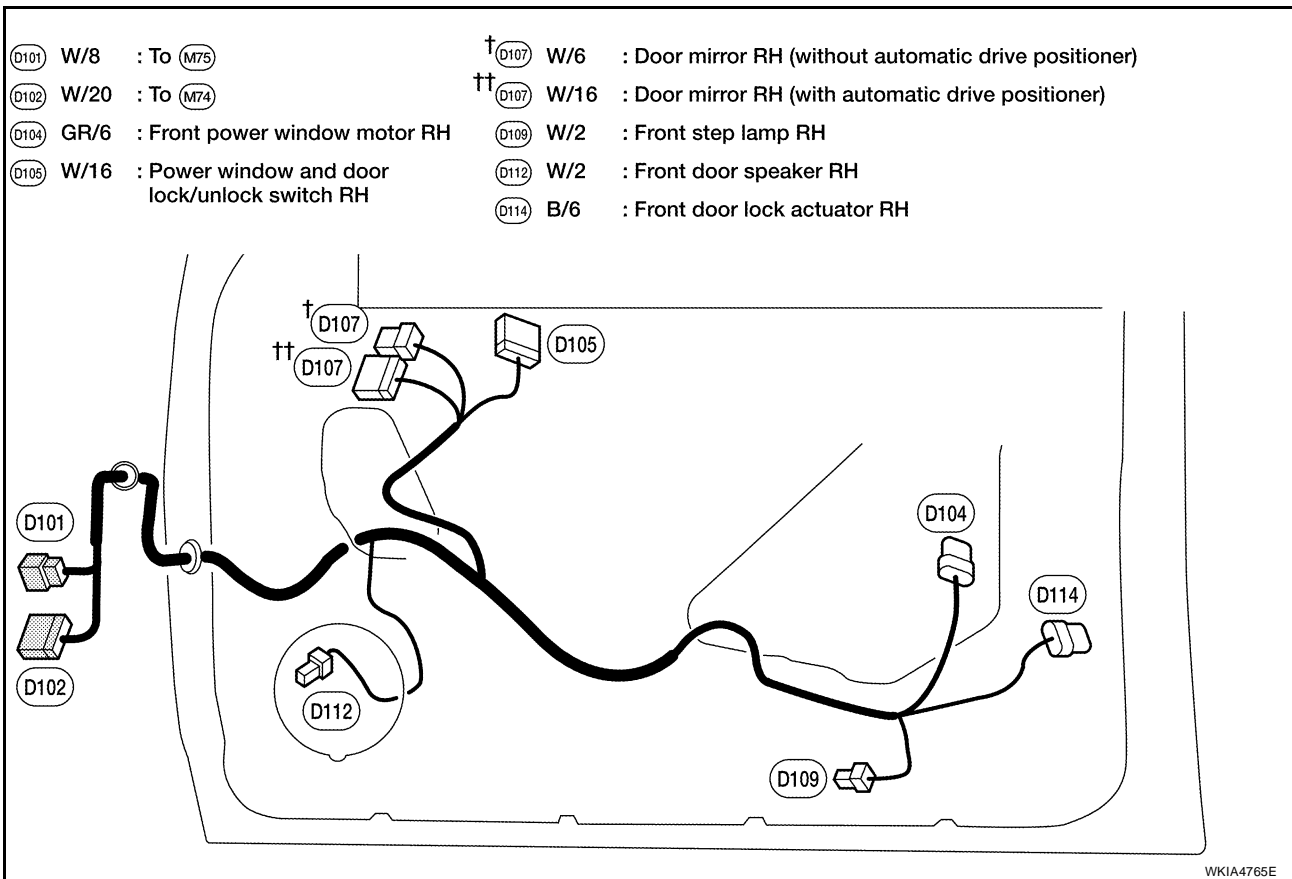
- Room lamp sub-harness A**
- (R1) W/16 : To (M1)
  - (R2) W/12 : To (M2)
  - (R3) W/2 : Vanity lamp LH
  - (R4) W/10 : Sunroof motor assembly
  - (R6) W/24 : To (6101)
  - (R7) GR/7 : Auto anti-dazzling inside mirror
  - (R8) W/2 : Vanity lamp RH
  - (R101) W/24 : To (R6)
  - (R102) GR/8 : Front room/map lamp assembly
  - (R103) W/6 : Rear power vent window switch
  - (R104) GR/6 : Sunroof switch
  - (R105) W/8 : Compass and thermometer
  - (R106) W/2 : HOMELINK universal transceiver

# HARNESS

## FRONT DOOR LH HARNESS



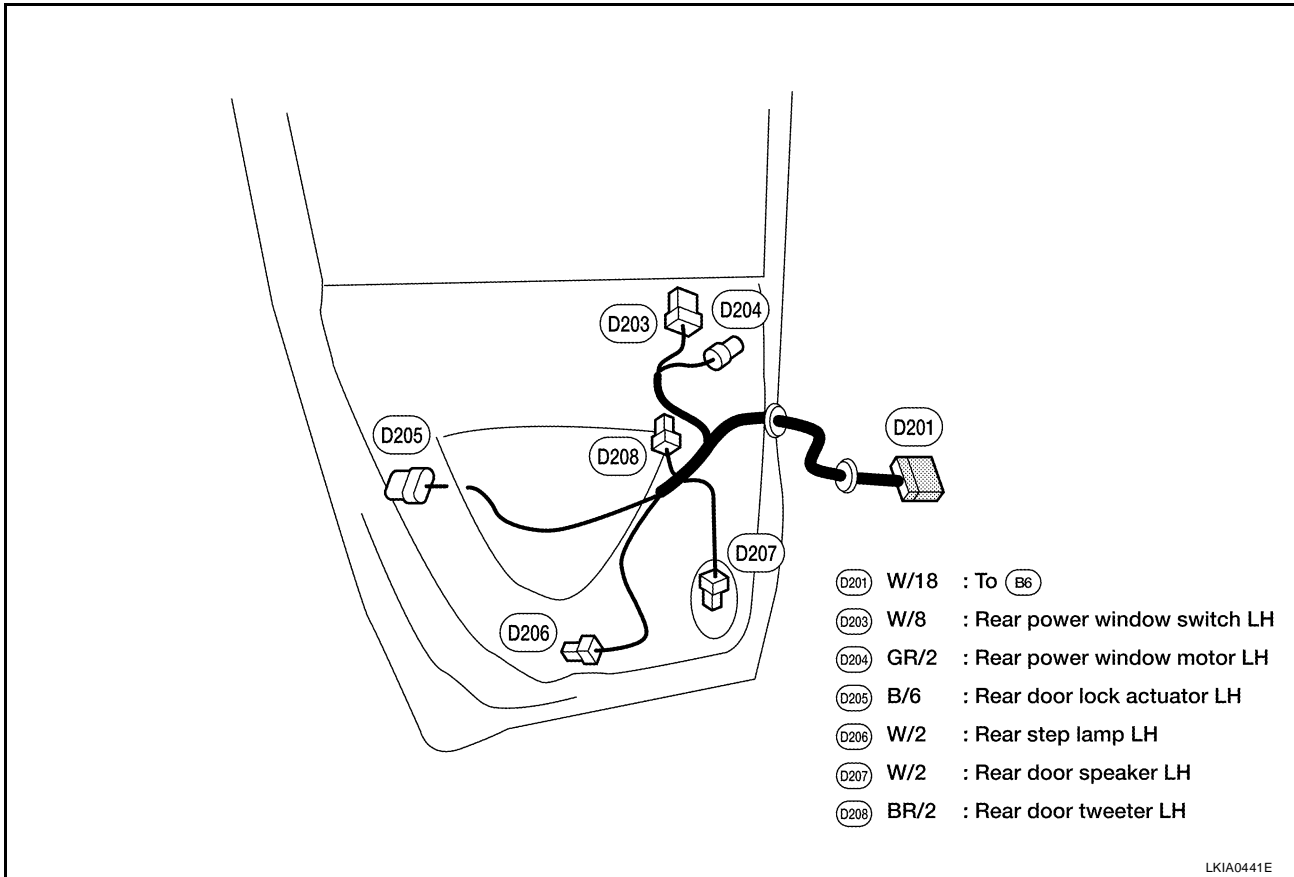
## FRONT DOOR RH HARNESS



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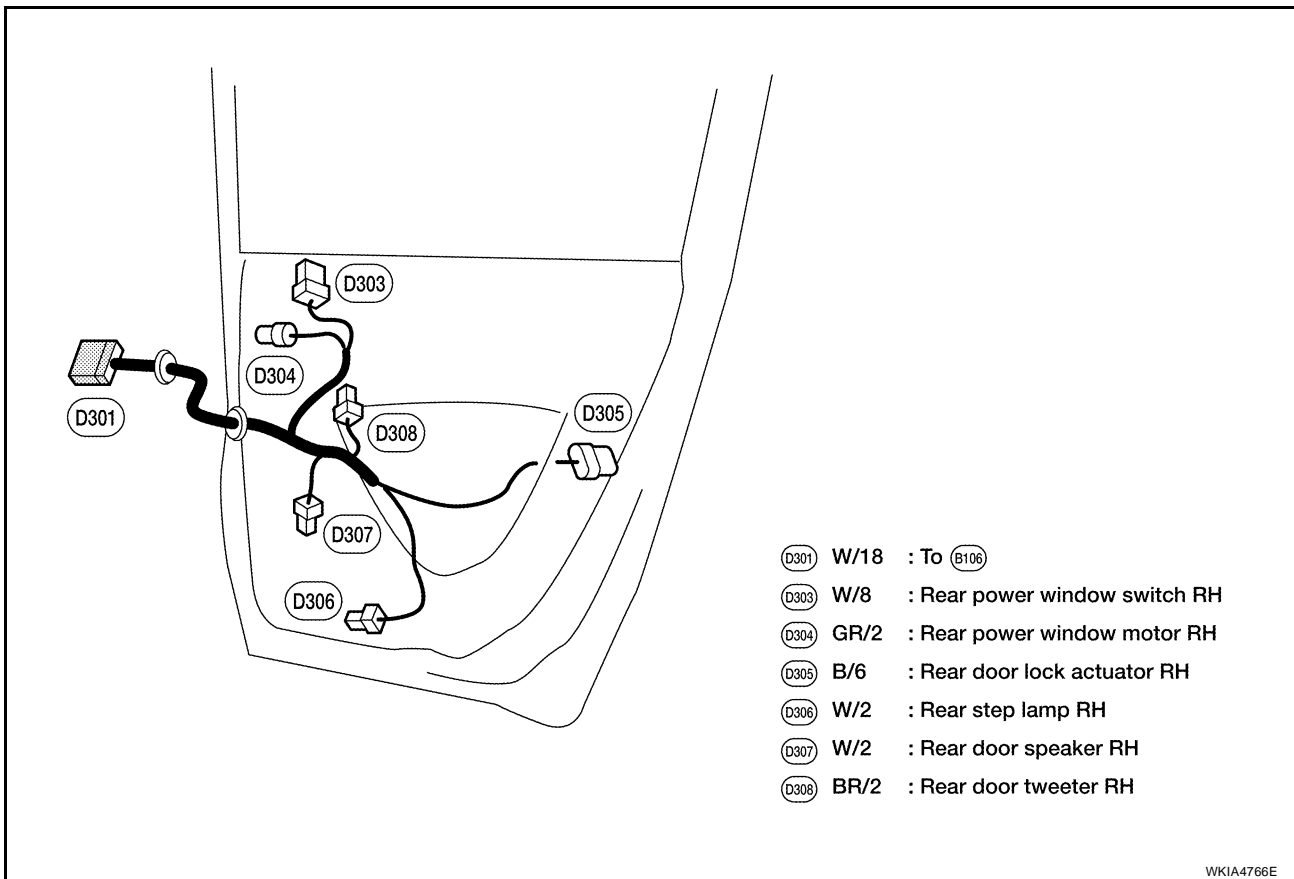
# HARNESS

## REAR DOOR LH HARNESS



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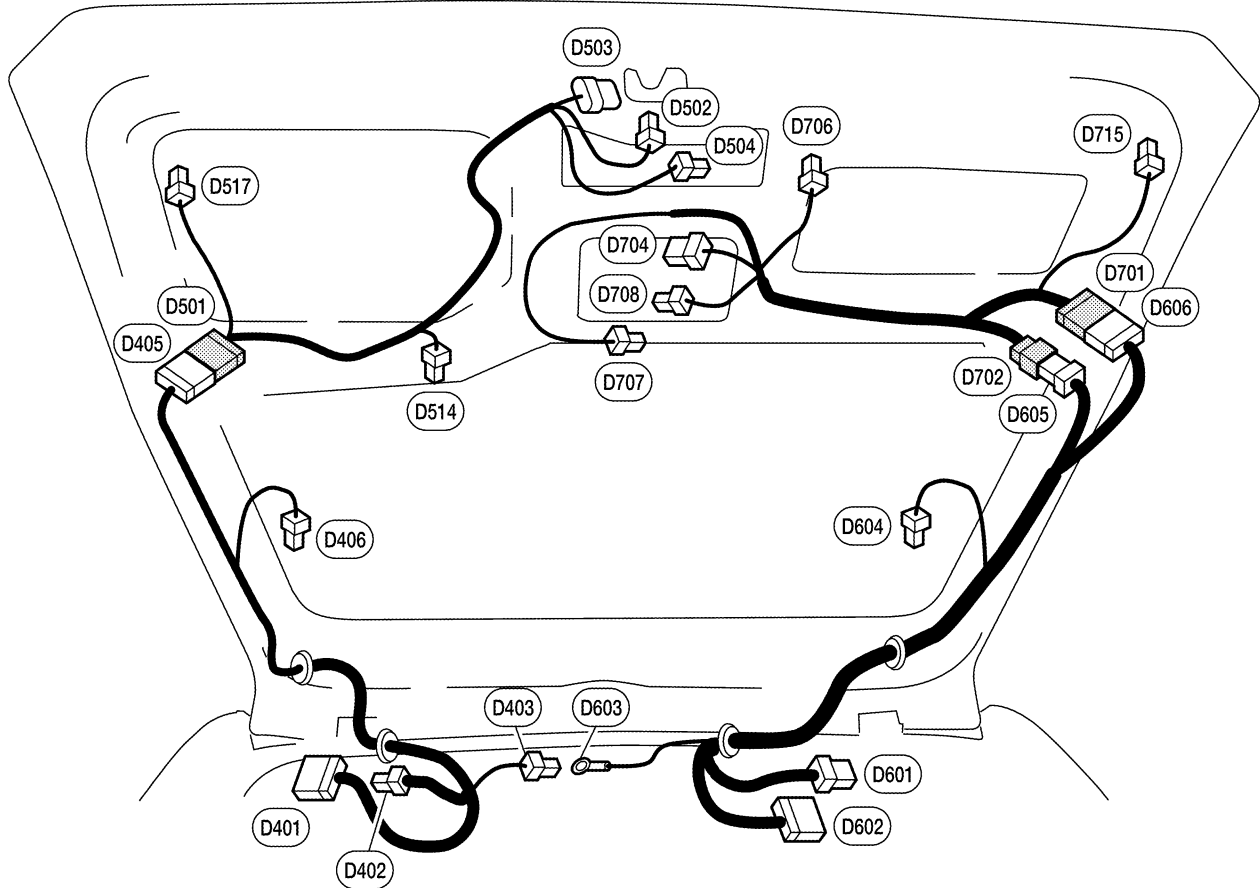
## REAR DOOR RH HARNESS



WKIA4766E

# 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 LH harness

- (D501) W/16 : To (D405)
- (D502) W/3 : Back door switch
- (D503) W/8 : Back door latch
- (D504) W/4 : Rear view camera
- (D514) BR/2 : Back door warning chime
- (D517) BR/2 : Pinch strip LH

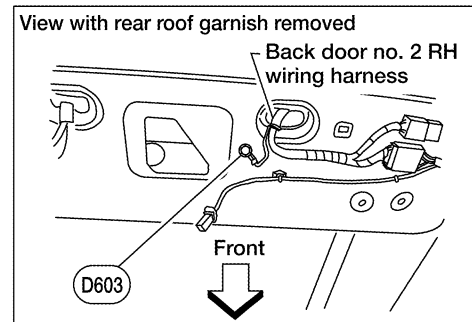
### Back door No. 2 RH harness

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

### Back door RH harness

- (D701) W/16 : To (D606)
- (D702) W/6 : To (D605)
- (D704) W/6 : Rear wiper motor
- (D706) W/2 : Back door handle switch
- (D707) B/1 : Glass hatch ajar switch
- (D708) W/4 : Back door lock actuator
- (D715) BR/2 : Pinch strip RH

### Body ground



For detailed ground distribution information, refer to "Ground Distribution".

WKIA4767E

# HARNESS

EKS00B6S

## Wiring Diagram Codes (Cell Codes)

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
AUTO/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
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/LAMP	LT	Headlamp
HORN	WW	Horn
HSEAT	SE	Heated Seat
I/MIRR	GW	Inside Mirror (Auto Anti-Dazzling Mirror)

# HARNESSES

IATS	EC	Intake Air Temperature Sensor	A
IGNSYS	EC	Ignition System	
ILL	LT	Illumination	
INJECT	EC	Injectors	B
INT/L	LT	Room/Map, Vanity, Cargo, Personal, Foot, Step, and Puddle Lamps	
KEYLES	BL	Remote Keyless Entry System	
KS	EC	Knock Sensor	C
MAFS	EC	Mass Air Flow Sensor	
MAIN	EC	Main Power Supply and Ground Circuit	
METER	DI	Speedometer, Tachometer, Temp. and Fuel Gauges	D
MIL/DL	EC	Malfunction Indicator Lamp	
MIRROR	GW	Door Mirror	
NATS	BL	Nissan Anti-Theft System	E
NAVI	AV	Navigation System	
NONDTC	AT	Non Detective Item	
O2H2B1	EC	Rear Heated Oxygen Sensor 2 Heater Bank 1	F
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	G
P/SCKT	WW	Power Socket	
PEDAL	AP	Adjustable Pedal System	
PGC/V	EC	EVAP Canister Purge Volume Control Solenoid Valve	H
PHASE	EC	Camshaft Position Sensor (PHASE) (Bank 1)	
PNP/SW	EC	Park/Neutral Position Switch	
POS	EC	Crankshaft Position Sensor (POS)	I
POWER	PG	Power Supply Routing	
PRE/SE	EC	EVAP Control System Pressure Sensor	
PS/SEN	EC	Power Steering Pressure Sensor	J
R/VIEW	DI	Rear View Camera	
RP/SEN	EC	Refrigerant Pressure Sensor	
SEAT	SE	Power Seat	PG
SEN/PW	EC	Sensor Power Supply	
SHIFT	AT	A/T Shift Lock System	
SONAR	DI	Rear Sonar System	L
SROOF	RF	Sunroof	
SRS	SRS	Supplemental Restraint System	
START	SC	Starting System	M
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	
TMSW	AT	Tow Mode Switch	
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	
VEHSEC	BL	Vehicle security (theft warning) system	
VENT/V	EC	EVAP Canister Vent Control Valve	
W/ANT	AV	Audio Antenna	

# HARNESSES

WARN	DI	Warning Lamps
WINDOW	GW	Power Window
WIP/R	WW	Rear Wiper and Washer
WIPER	WW	Front Wiper and Washer



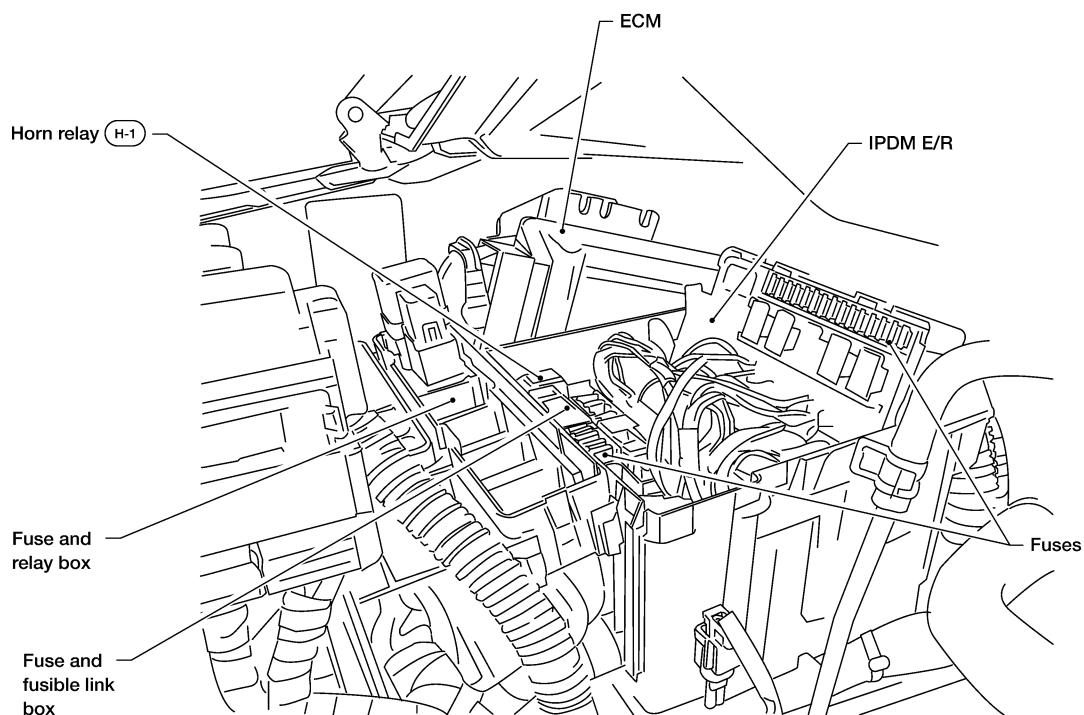
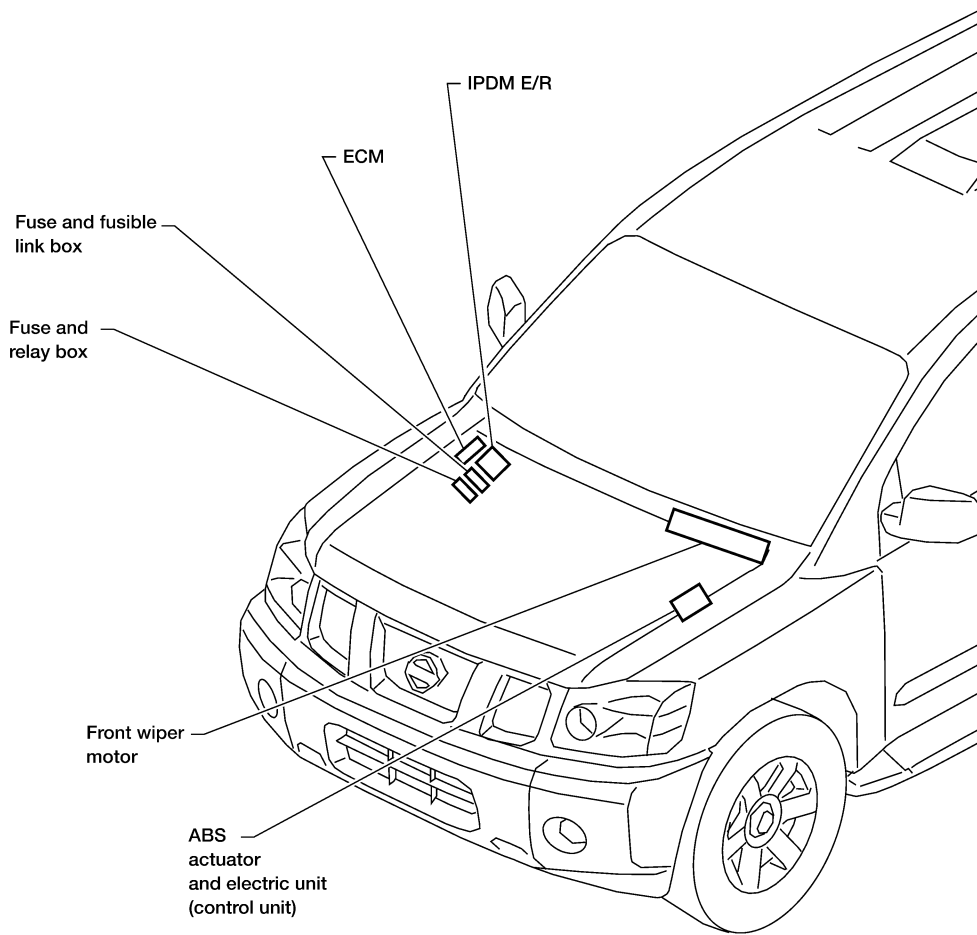
# ELECTRICAL UNITS LOCATION

## ELECTRICAL UNITS LOCATION

### Electrical Units Location ENGINE COMPARTMENT

PFP:25230

EKS00B6T

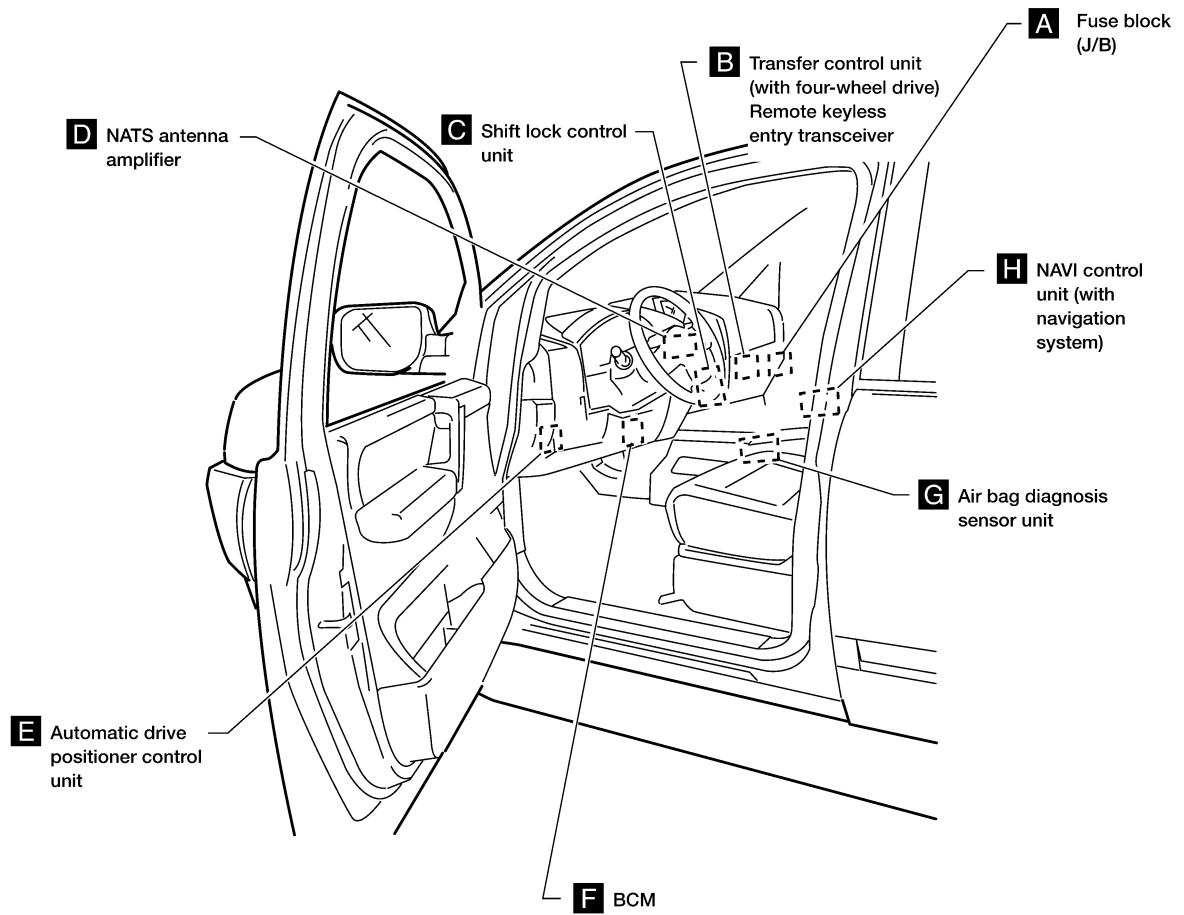


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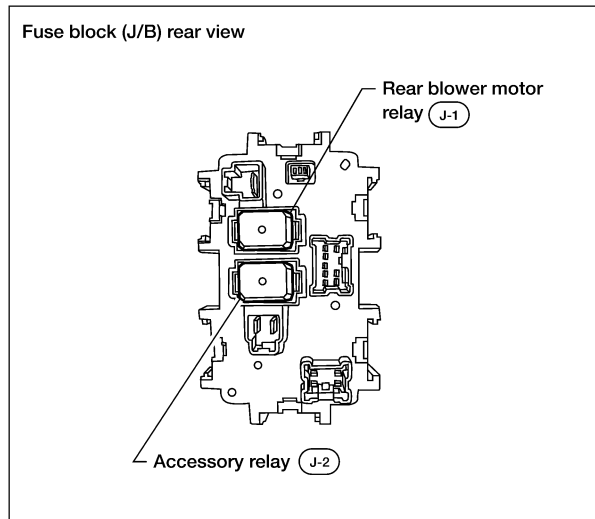
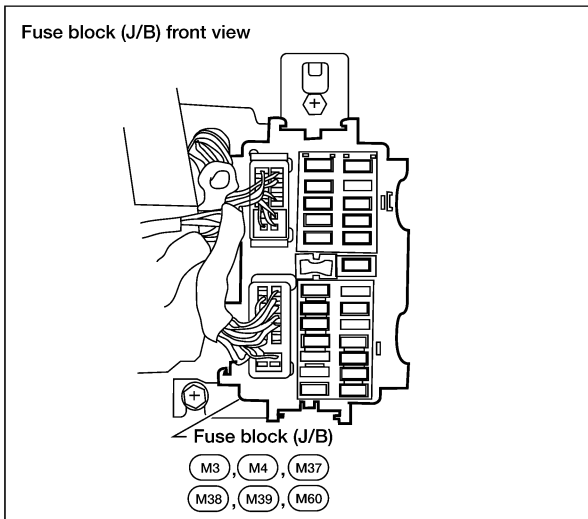
LKIA0444E

# ELECTRICAL UNITS LOCATION

## PASSENGER COMPARTMENT

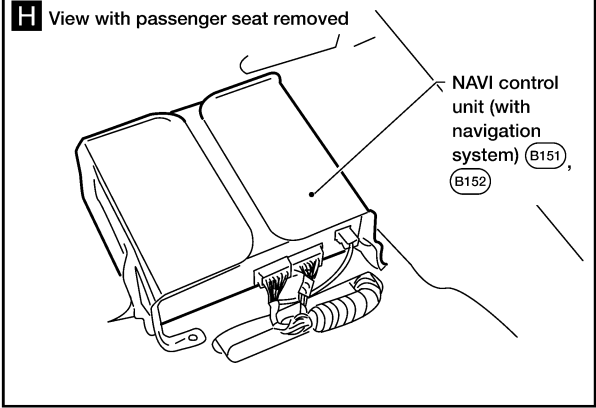
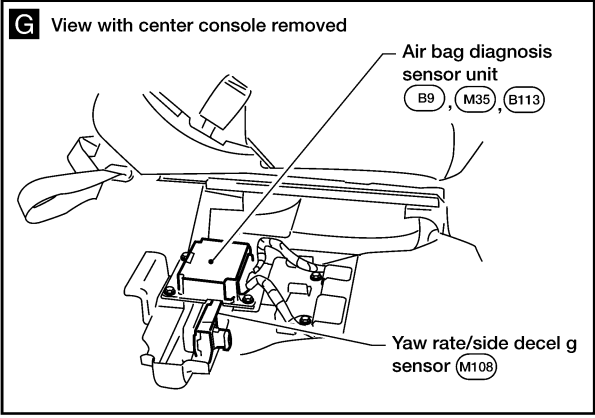
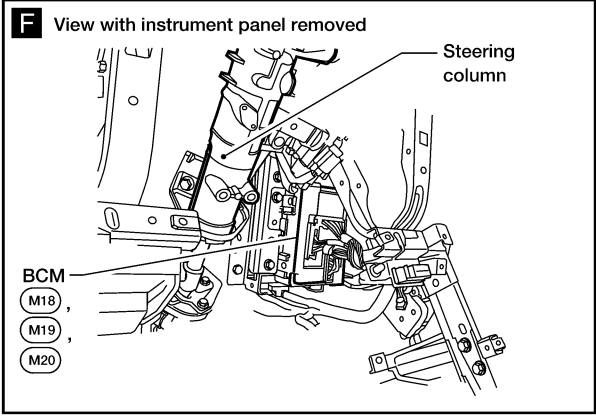
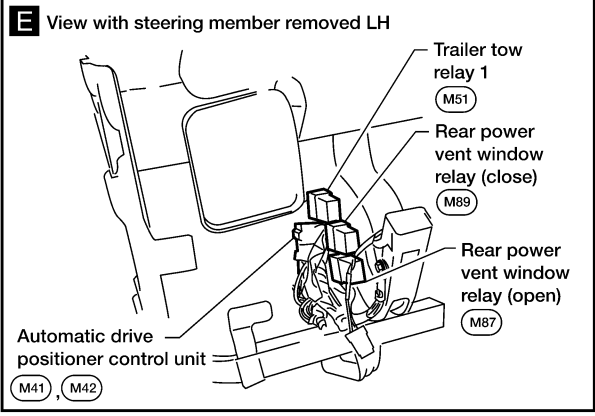
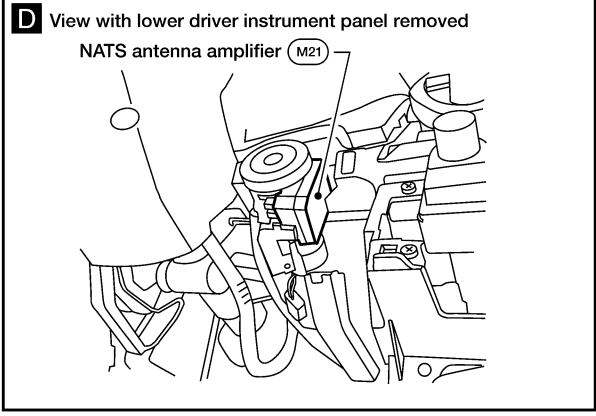
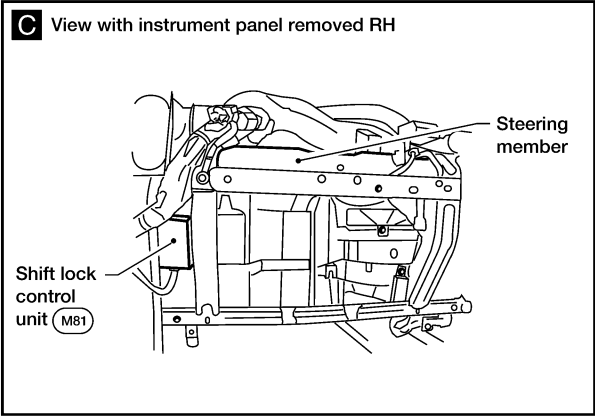
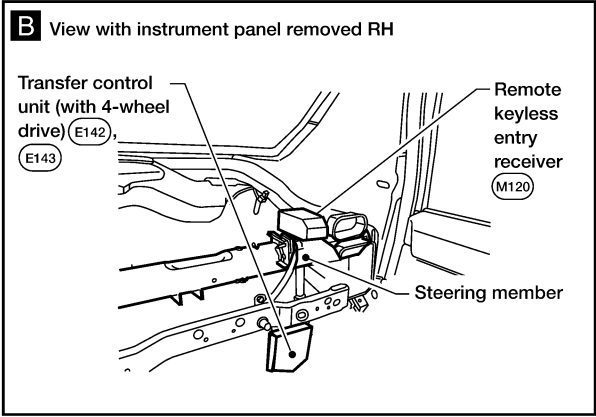


### **A** Instrument panel side RH



WKIA4768E

# ELECTRICAL UNITS LOCATION



A  
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WKIA4769E

# HARNESS CONNECTOR

## HARNESS CONNECTOR

PFP:B4341

### Description

#### HARNESS CONNECTOR (TAB-LOCKING TYPE)

EKS00B6X

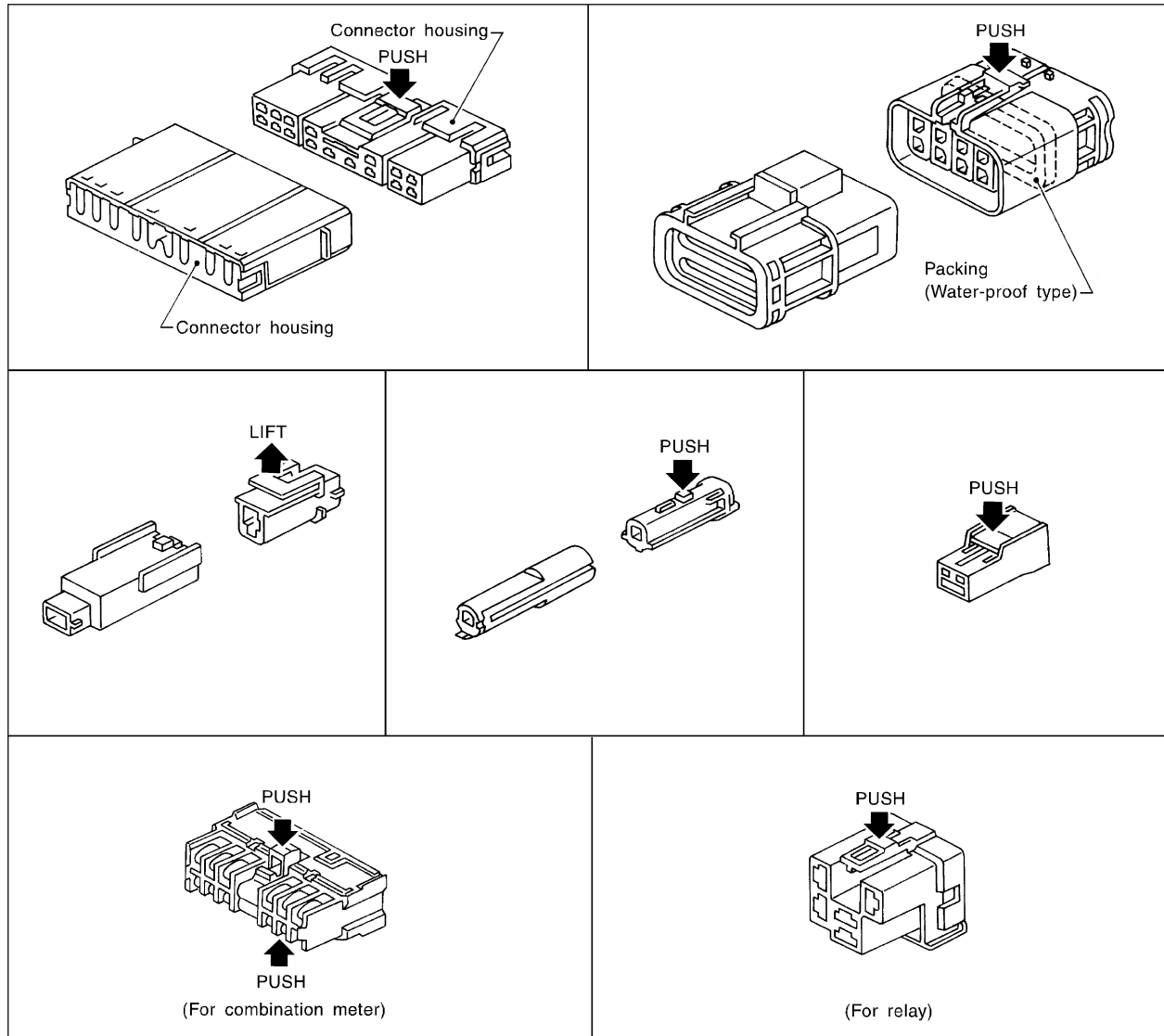
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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

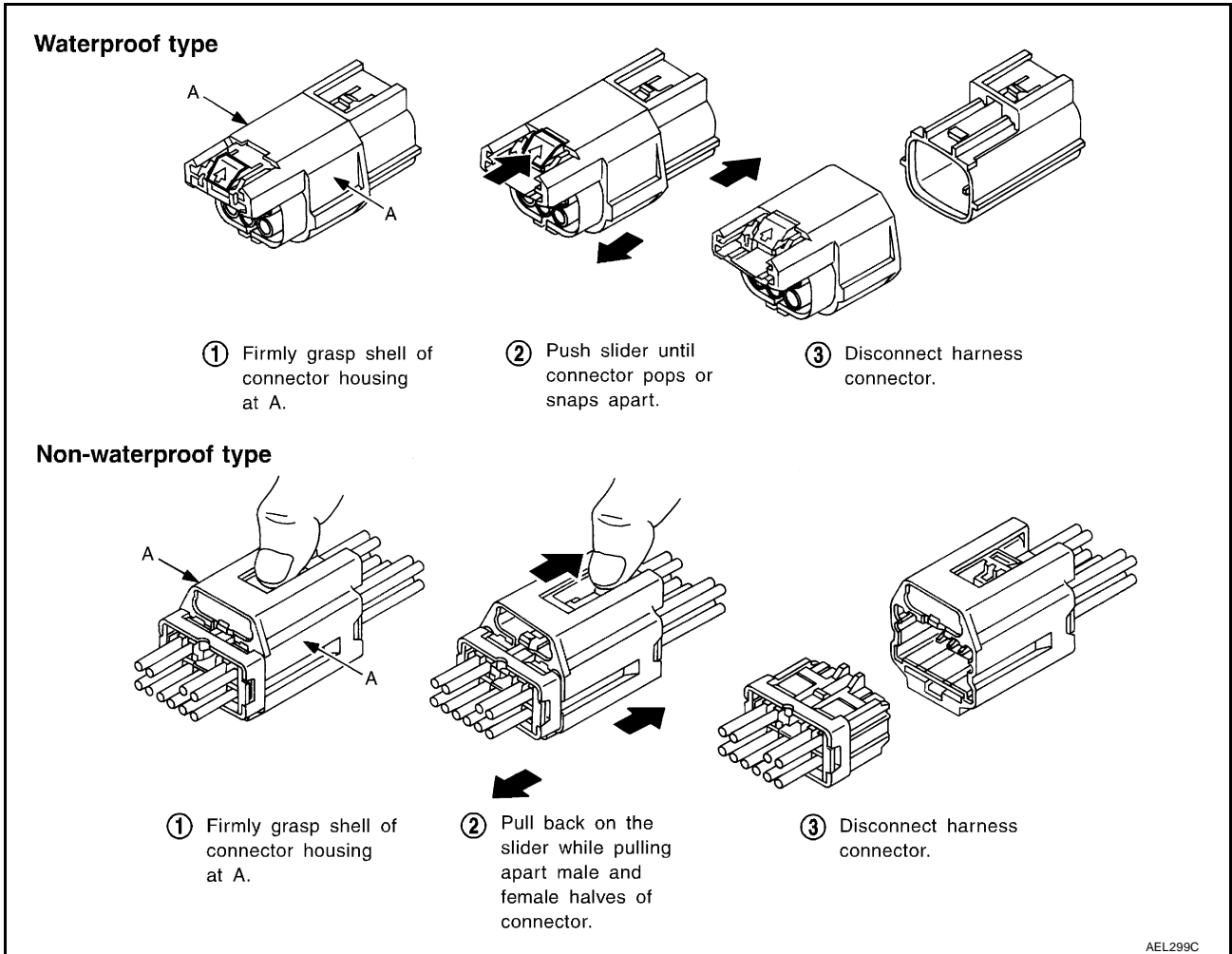
## HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- 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]



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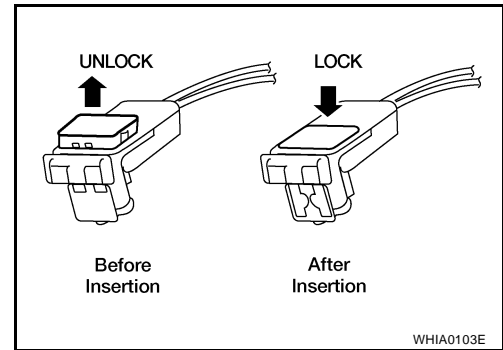
# HARNESS CONNECTOR

## 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.**



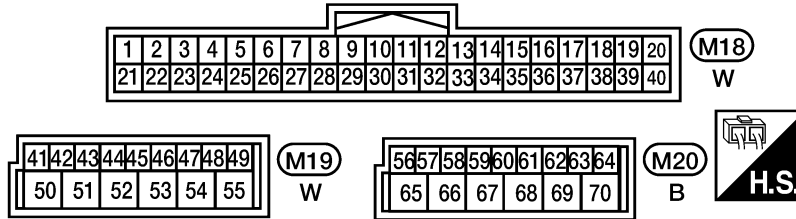
# ELECTRICAL UNITS

## ELECTRICAL UNITS Terminal Arrangement

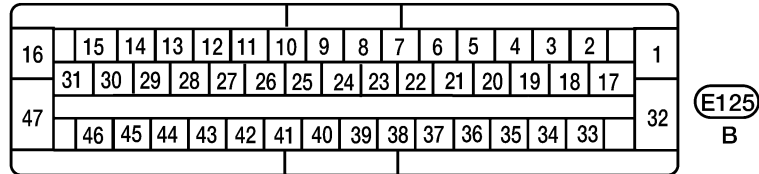
PFP:23710

EKS00B6Y

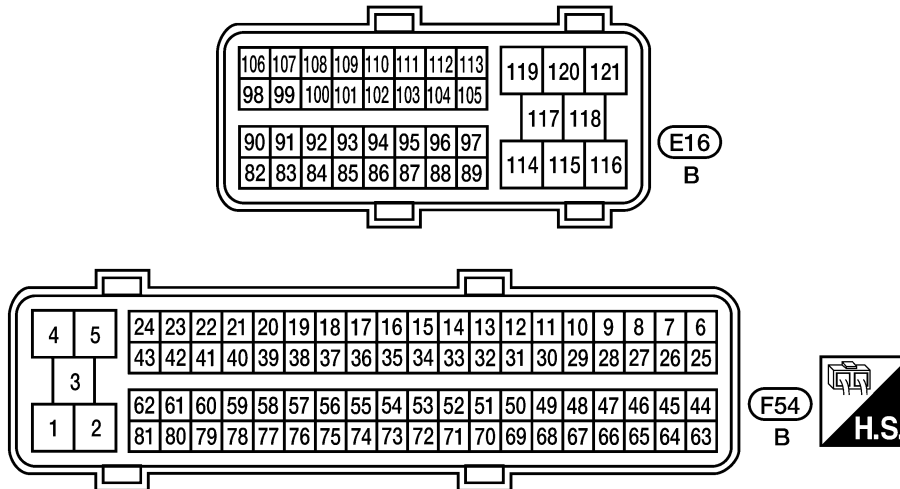
BCM (BODY CONTROL MODULE)



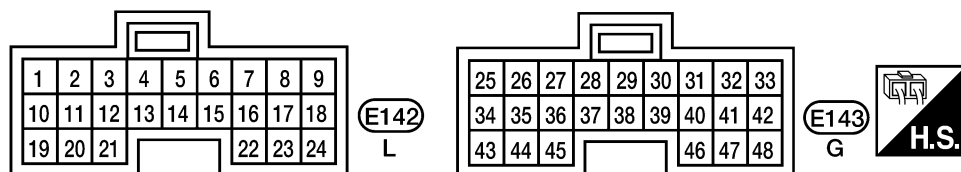
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



ECM



TRANSFER CONTROL UNIT



WKIA4770E

# STANDARDIZED RELAY

PFP:25230

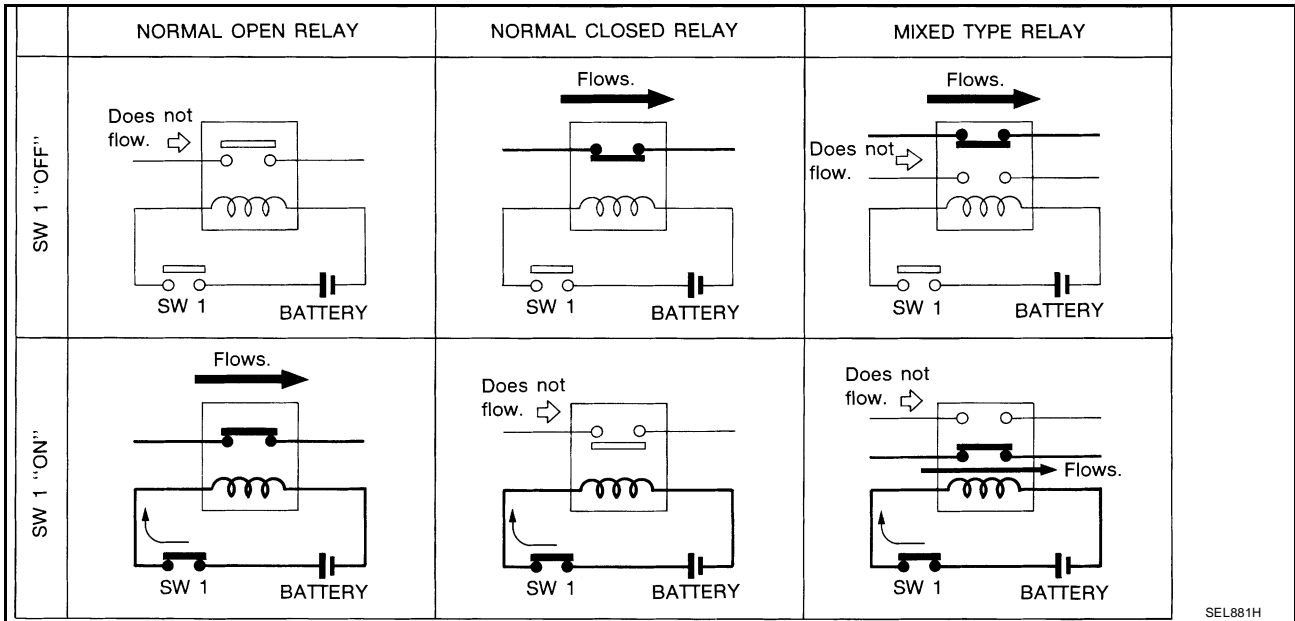
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## STANDARDIZED RELAY

### Description

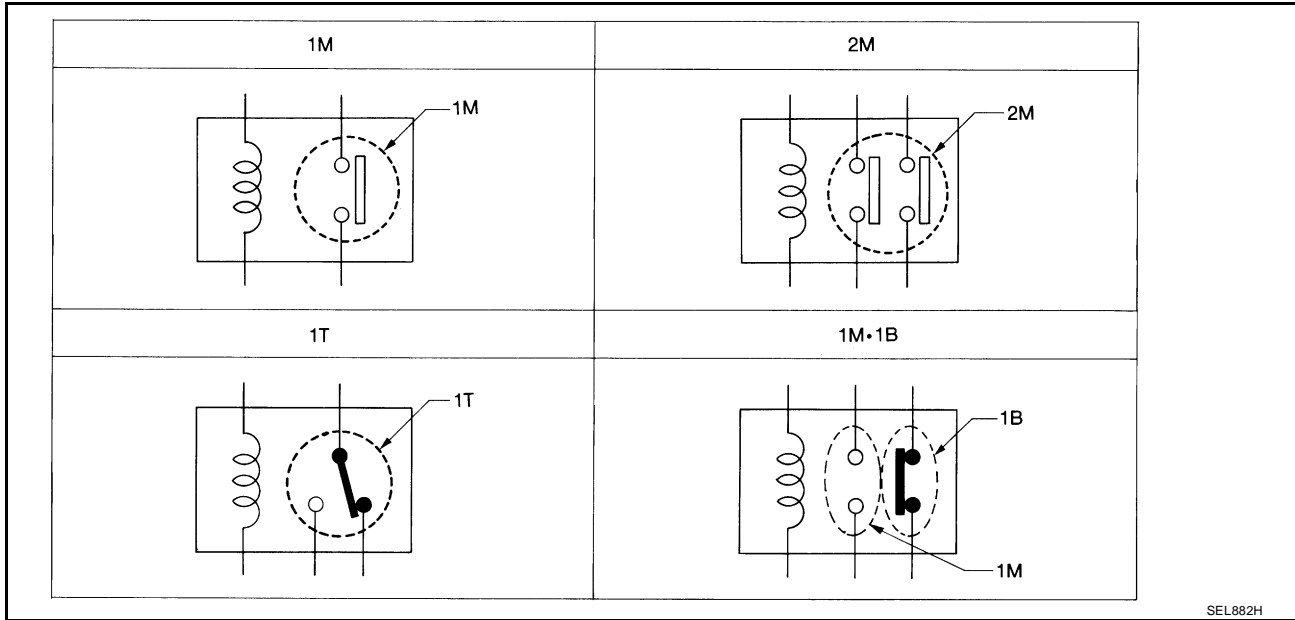
### NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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



SEL881H

### TYPE OF STANDARDIZED RELAYS

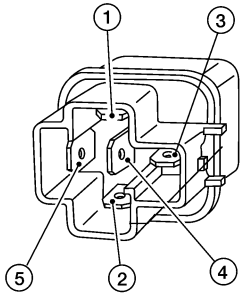
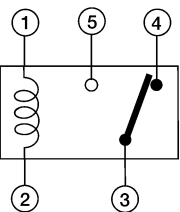
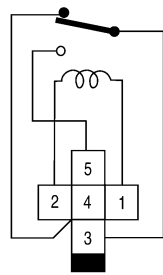
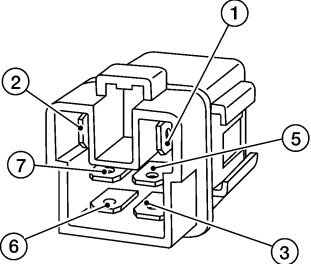
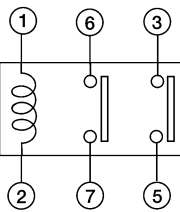
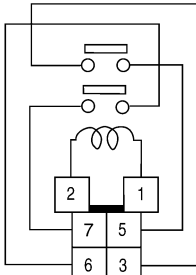
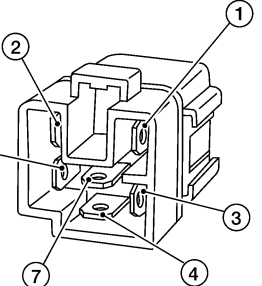
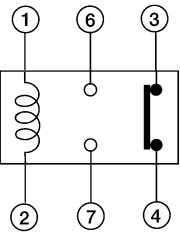
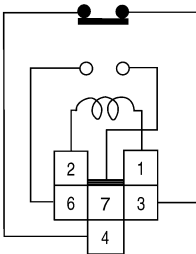
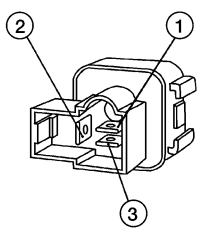
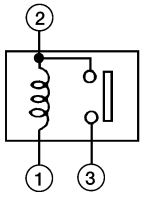
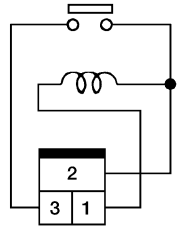
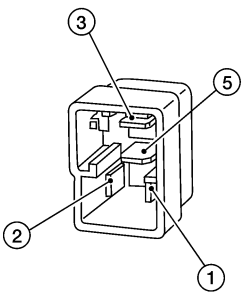
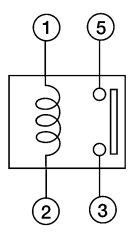
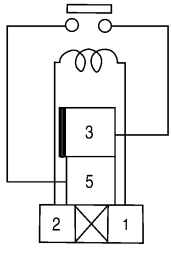


SEL882H

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

A  
B  
C  
D  
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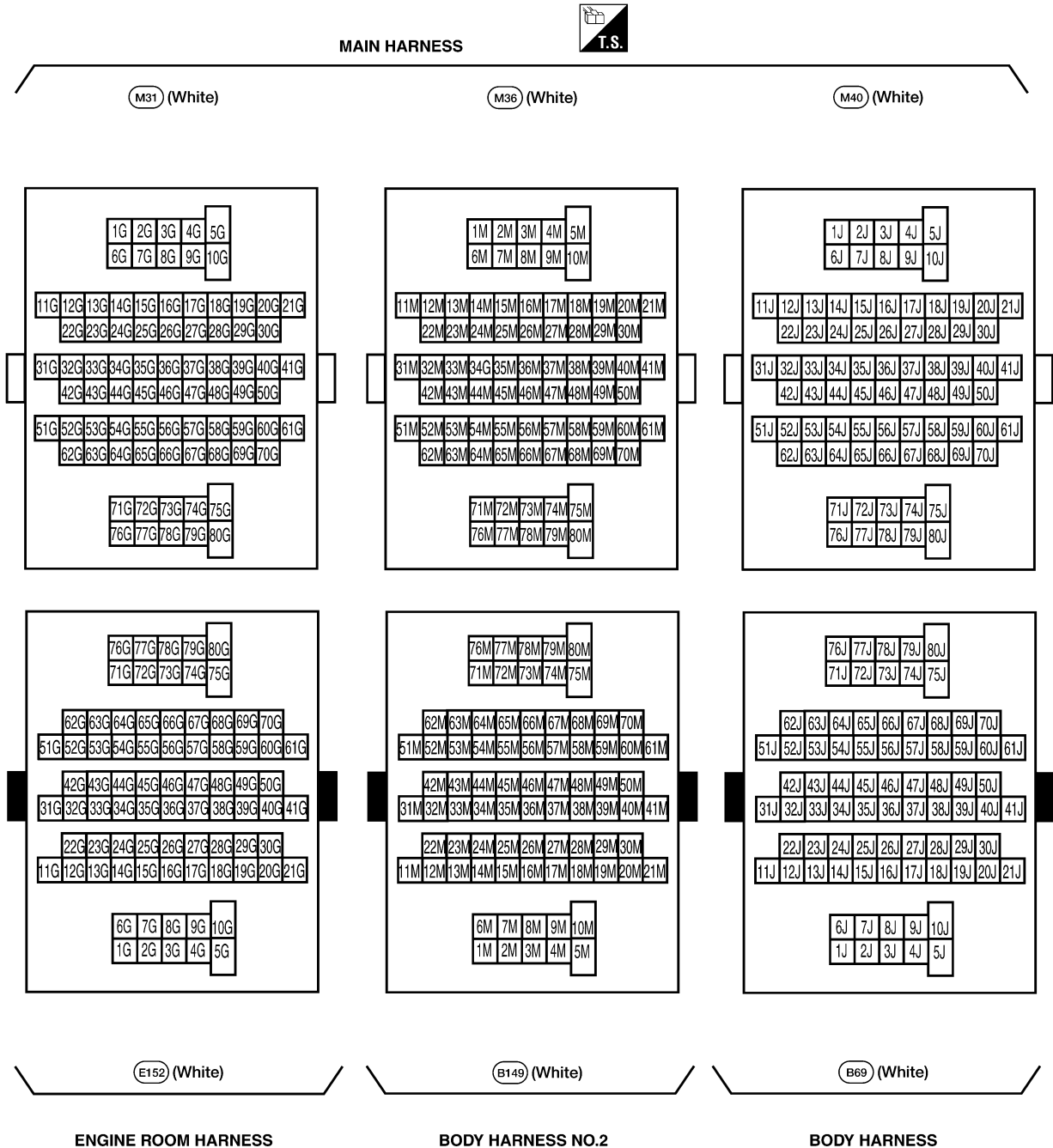
# SUPER MULTIPLE JUNCTION (SMJ)

## SUPER MULTIPLE JUNCTION (SMJ)

PFJ:84341

### Terminal Arrangement

EKS00B70



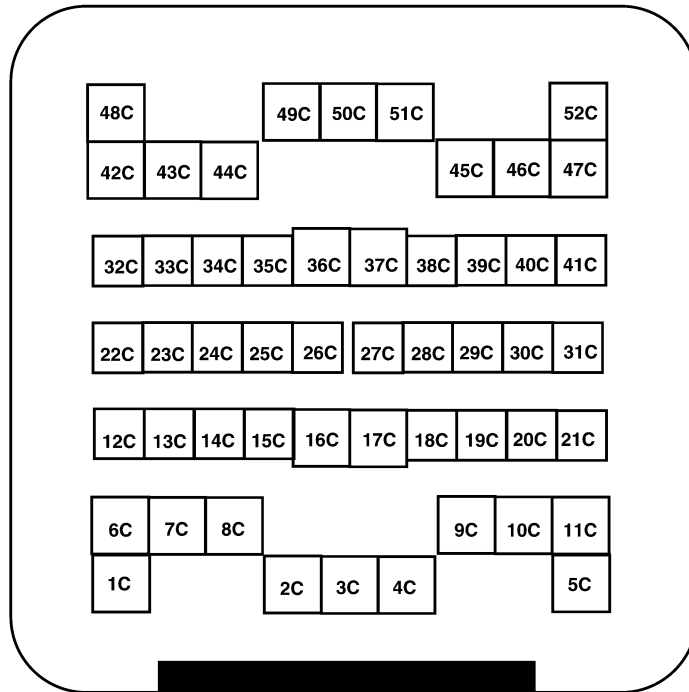
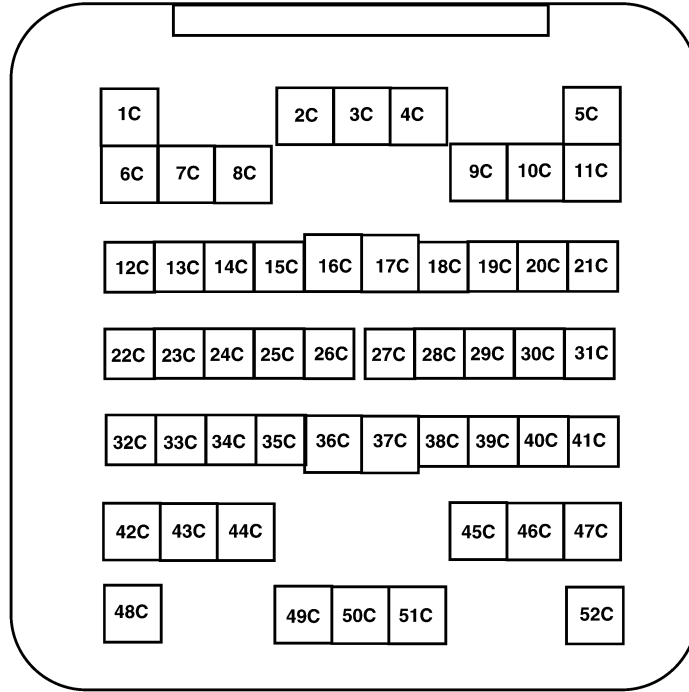
LKIA0385E

# SUPER MULTIPLE JUNCTION (SMJ)

CHASSIS HARNESS



(C1) (Gray)



(E41) (Gray)

ENGINE ROOM HARNESS

WKIA1845E

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

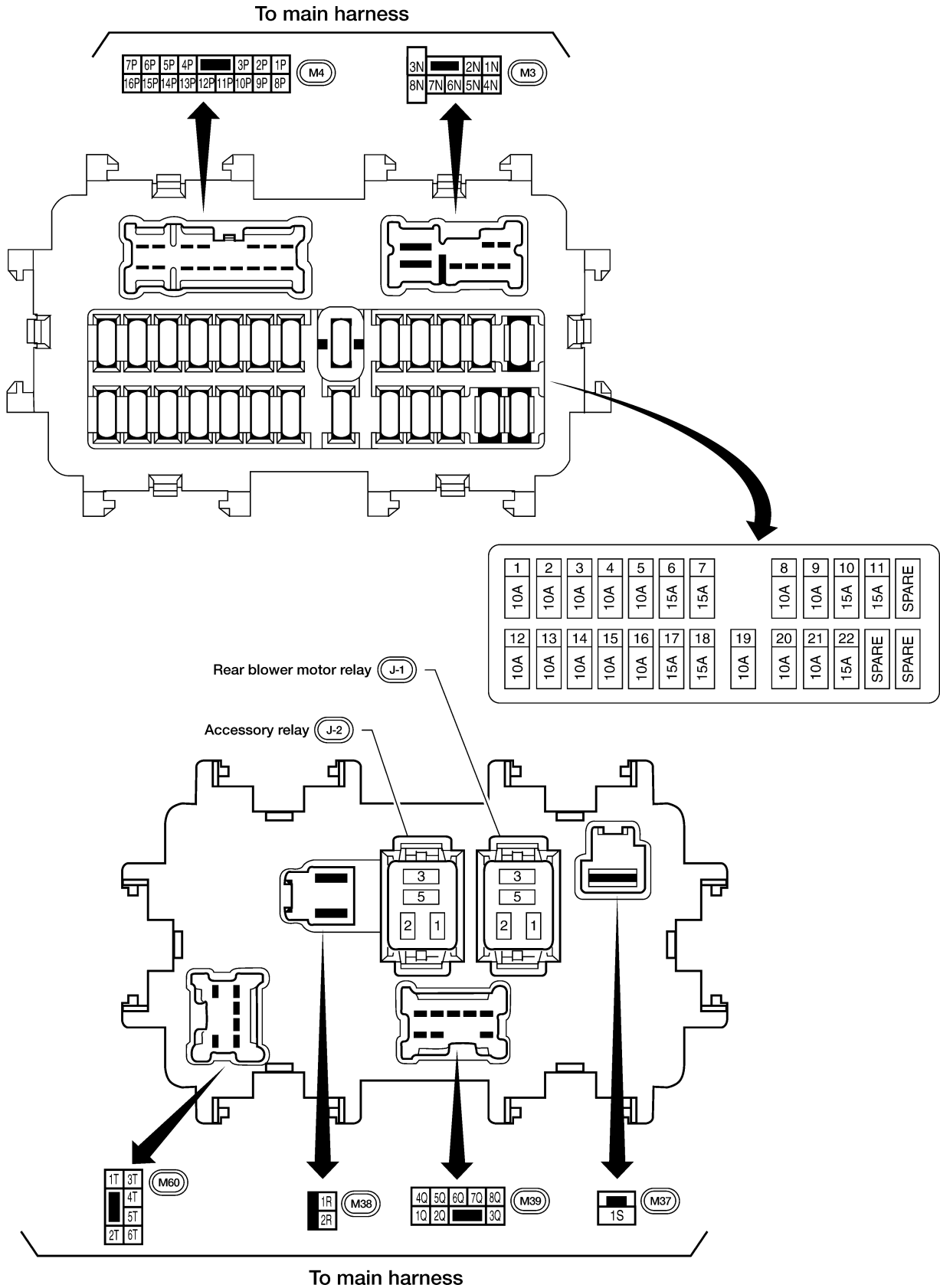
# FUSE BLOCK-JUNCTION BOX (J/B)

PF24350

EKS00B71

## FUSE BLOCK-JUNCTION BOX (J/B)

### Terminal Arrangement



WKIA4771E

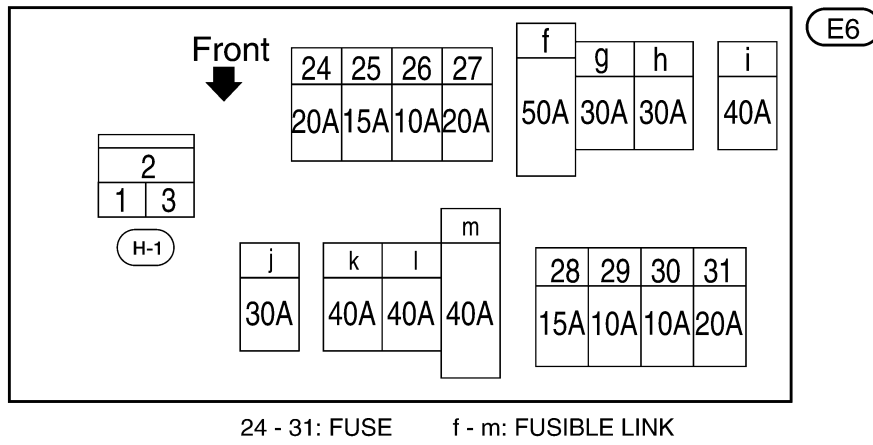
# FUSE AND FUSIBLE LINK BOX

## FUSE AND FUSIBLE LINK BOX

### Terminal Arrangement

PFP:24381

EKS00B72



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

PG

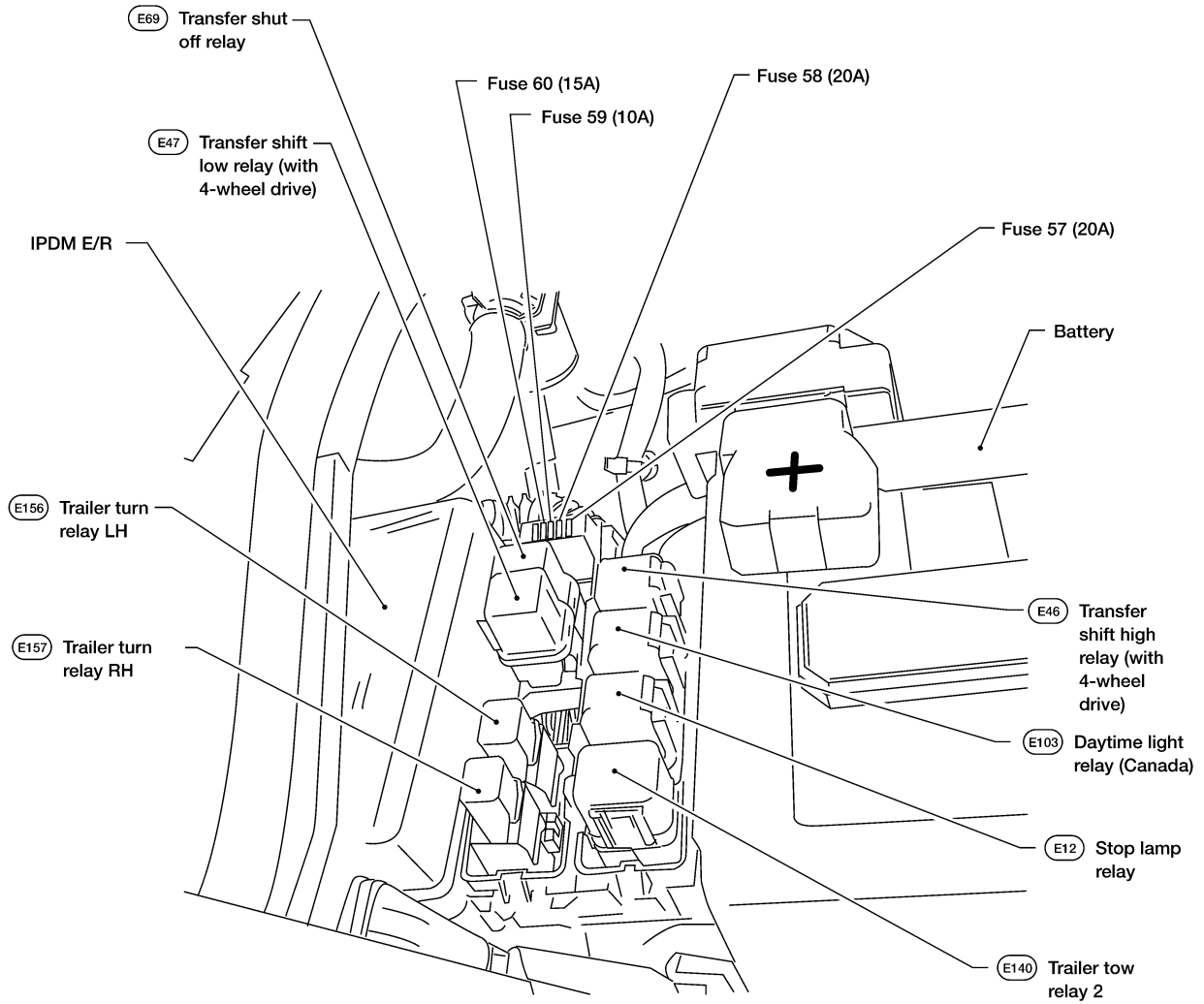
WKIA4772E

# FUSE AND RELAY BOX

PFP:24012

EKS00B73

## FUSE AND RELAY BOX Terminal Arrangement



WKIA4773E