

# PG

## SECTION

## POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

A  
B  
C  
D  
E

### CONTENTS

<b>PRECAUTION .....</b>	<b>2</b>	Fusible Link .....	30
<b>PRECAUTIONS .....</b>	<b>2</b>	<b>GROUND .....</b>	<b>31</b>
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" .....	2	Ground Distribution .....	31
Precaution Necessary for Steering Wheel Rotation After Battery Disconnect .....	2	<b>HARNESS .....</b>	<b>42</b>
Precaution for Power Generation Variable Voltage Control System .....	3	Harness Layout .....	42
<b>PREPARATION .....</b>	<b>4</b>	<b>ELECTRICAL UNITS LOCATION .....</b>	<b>64</b>
<b>PREPARATION .....</b>	<b>4</b>	Electrical Units Location .....	64
Special Service Tool .....	4	<b>HARNESS CONNECTOR .....</b>	<b>67</b>
Commercial Service Tool .....	4	Description .....	67
<b>BASIC INSPECTION .....</b>	<b>5</b>	<b>STANDARDIZED RELAY .....</b>	<b>70</b>
<b>BATTERY .....</b>	<b>5</b>	Description .....	70
How to Handle Battery .....	5	<b>FUSE BLOCK - JUNCTION BOX (J/B) .....</b>	<b>72</b>
Work Flow .....	7	Terminal Arrangement .....	72
<b>INSPECTION AND ADJUSTMENT .....</b>	<b>8</b>	<b>FUSE, FUSIBLE LINK AND RELAY BOX .....</b>	<b>73</b>
<b>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL .....</b>	<b>8</b>	Terminal Arrangement .....	73
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement .....	8	<b>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) .....</b>	<b>75</b>
		IPDM E/R Terminal Arrangement .....	75
<b>DTC/CIRCUIT DIAGNOSIS .....</b>	<b>9</b>	<b>REMOVAL AND INSTALLATION .....</b>	<b>76</b>
<b>POWER SUPPLY ROUTING CIRCUIT .....</b>	<b>9</b>	<b>BATTERY .....</b>	<b>76</b>
Wiring Diagram — Battery Power Supply — .....	9	Removal and Installation .....	76
Wiring Diagram — Accessory Power Supply — .....	18	<b>SERVICE DATA AND SPECIFICATIONS (SDS) .....</b>	<b>77</b>
Wiring Diagram — Ignition Power Supply — .....	22	<b>SERVICE DATA AND SPECIFICATIONS (SDS) .....</b>	<b>77</b>
Fuse .....	30	Battery .....	77

PG

N

O

P

## PRECAUTIONS

< PRECAUTION >

# PRECAUTION

## PRECAUTIONS

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

INFOID:0000000006146280

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 SR 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 SR 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.

### PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

#### **WARNING:**

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

### Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000006146281

#### **NOTE:**

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYSTEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the "LOCK" position.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.

For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.

If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

### OPERATION PROCEDURE

1. Connect both battery cables.

#### **NOTE:**

Supply power using jumper cables if battery is discharged.

2. Use the Intelligent Key or mechanical key to turn the ignition switch to the "ACC" position. At this time, the steering lock will be released.
3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
4. Perform the necessary repair operation.

## PRECAUTIONS

### < PRECAUTION >

5. When the repair work is completed, return the ignition switch to the "LOCK" position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
6. Perform a self-diagnosis check of all control units using CONSULT-III.

### Precaution for Power Generation Variable Voltage Control System

INFOID:0000000006146282

#### **CAUTION:**

For this model, the battery current sensor that is installed to the negative battery cable measures the charging/discharging current of the battery and performs various engine controls. If an electrical component is connected directly to the negative battery terminal, the current flowing through that component will not be measured by the battery current sensor. This condition may cause a malfunction of the engine control system and battery discharge may occur. Do not connect an electrical component or ground wire directly to the battery terminal.

A

B

C

D

E

F

G

H

I

J

K

L

PG

N

O

P

## PREPARATION

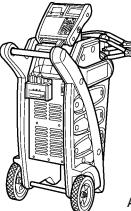
< PREPARATION >

# PREPARATION

## PREPARATION

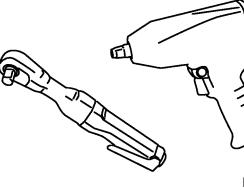
### Special Service Tool

INFOID:0000000006146283

Tool number (Kent-Moore No.) Tool name	Description
— (—) Model GR-8 Multitasking Battery Diagnostic Station	 AWIIA1239ZZ Tests batteries, starting and charging systems. For operating instructions, refer to diagnostic station instruction manual.

### Commercial Service Tool

INFOID:0000000006146284

Tool name	Description
Power tool	 PBIC0190E Loosening bolts and nuts

&lt; BASIC INSPECTION &gt;

**BASIC INSPECTION****BATTERY**

## How to Handle Battery

INFOID:000000006146285

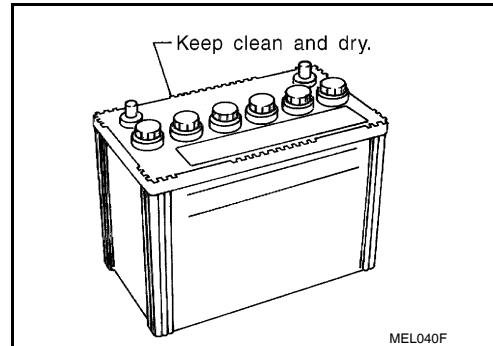
**CAUTION:**

- If it becomes necessary to start the engine with a booster battery and jumper cables, use a 12-volt booster battery.
- After connecting battery cables, ensure that they are tightly clamped to battery terminals for good contact.
- Never add distilled water through the hole used to check specific gravity.

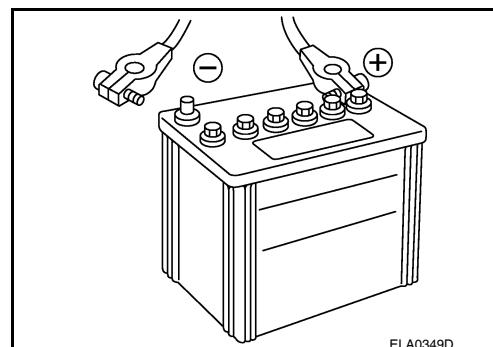
## METHODS OF PREVENTING OVER-DISCHARGE

The following precautions must be taken to prevent over-discharging a battery.

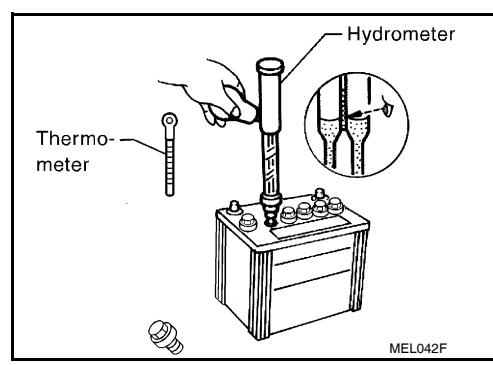
- The battery surface (particularly its top) should always be kept clean and dry.
- The terminal connections should be clean and tight.
- At every routine maintenance, check the electrolyte level. This also applies to batteries designated as "low maintenance" and "maintenance-free".



- When the vehicle is not going to be used over a long period of time, disconnect the battery cable from the negative terminal. (If the vehicle has an extended storage switch, turn it off.)



- Check the charge condition of the battery. Periodically check the specific gravity of the electrolyte. Keep a close check on charge condition to prevent over-discharge.



## CHECKING ELECTROLYTE LEVEL

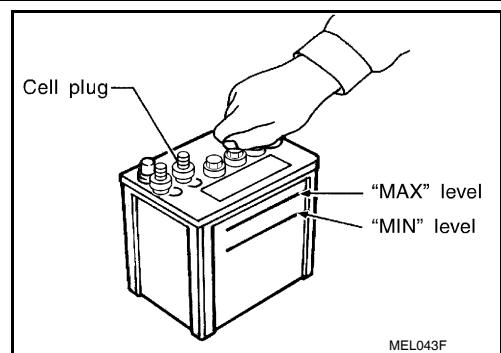
**WARNING:**

Never allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, never touch or rub your eyes until you have thoroughly washed your hands. If acid contacts eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical attention.

# BATTERY

## < BASIC INSPECTION >

- Remove the cell plug using a suitable tool.
- Add distilled water up to the MAX level.

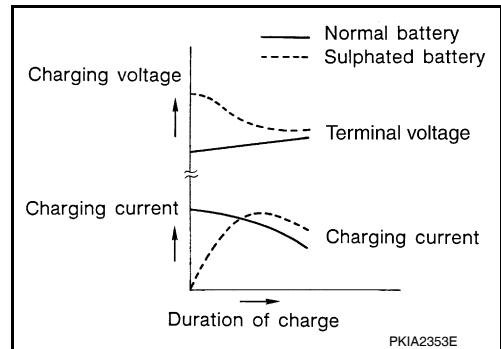


## Sulphation

**A battery will be completely discharged if it is left unattended for a long time and the specific gravity will become less than 1.100. This may result in sulphation on the cell plates.**

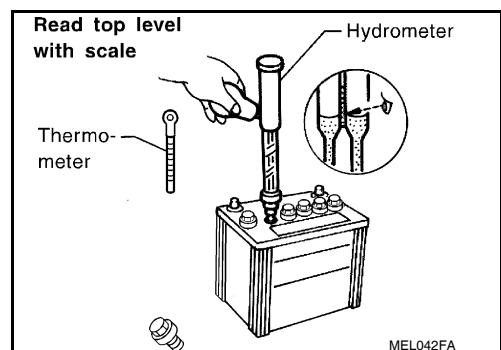
To determine if a battery has been "sulphated", note its voltage and current when charging it. As shown in the figure, less current and higher voltage are observed in the initial stage of charging sulphated batteries.

A sulphated battery may sometimes be brought back into service by means of a long, slow charge, 12 hours or more, followed by a battery capacity test.



## SPECIFIC GRAVITY CHECK

1. Read hydrometer and thermometer indications at eye level.
2. Use the chart below to correct your hydrometer reading according to electrolyte temperature.



## Hydrometer Temperature Correction

Battery electrolyte temperature [°C (°F)]	Add to specific gravity reading
71 (160)	0.032
66 (150)	0.028
60 (140)	0.024
54 (130)	0.020
49 (120)	0.016
43 (110)	0.012
38 (100)	0.008
32 (90)	0.004
27 (80)	0
21 (70)	-0.004
16 (60)	-0.008
10 (50)	-0.012
4 (40)	-0.016
-1 (30)	-0.020
-7 (20)	-0.024

# BATTERY

## < BASIC INSPECTION >

Battery electrolyte temperature [°C (°F)]	Add to specific gravity reading
-12 (10)	-0.028
-18 (0)	-0.032

Corrected specific gravity	Approximate charge condition
1.260 - 1.280	Fully charged
1.230 - 1.250	3/4 charged
1.200 - 1.220	1/2 charged
1.170 - 1.190	1/4 charged
1.140 - 1.160	Almost discharged
1.110 - 1.130	Completely discharged

## CHARGING THE BATTERY

### CAUTION:

- Never “quick charge” a fully discharged battery.
- Keep the battery away from open flame while it is being charged.
- When connecting the charger, connect the leads first, then turn on the charger. Never turn on the charger first, as this may cause a spark.
- If battery electrolyte temperature rises above 55 °C (131 °F), stop charging. Always charge battery at a temperature below 55 °C (131 °F).

### Charging Rates

Amps	Time
50	1 hour
25	2 hours
10	5 hours
5	10 hours

Do not charge at more than 50 ampere rate.

### NOTE:

The ammeter reading on your battery charger will automatically decrease as the battery charges. This indicates that the voltage of the battery is increasing normally as the state of charge improves. The charging amps indicated above refer to initial charge rate.

- If, after charging, the specific gravity of any two cells varies more than 0.050, the battery should be replaced.

## Work Flow

INFOID:000000006146286

## TROUBLE DIAGNOSIS WITH MULTITASKING BATTERY DIAGNOSTIC STATION

Refer to diagnostic station instruction manual.

A

B

C

D

E

F

G

H

I

J

K

L

PG

N

O

P

# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

## INSPECTION AND ADJUSTMENT

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

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

INFOID:000000006146287

Required Procedure After Battery Disconnection

System	Item	Reference
Engine Control System	Idle Air Volume Learning	<a href="#">EC-122</a>
Brake Control System	Steering Angle Sensor Neutral Position	<a href="#">BRC-8</a>
Door & Lock	Automatic Back Door Initialization	<a href="#">DLK-11</a> (with Intelligent Key) <a href="#">DLK-247</a> (without Intelligent Key)
Roof	Sunroof Memory Reset/Initialization	<a href="#">RF-5</a>
Automatic Drive Positioner	Automatic Drive Positioner System Initialization	Refer to Owner's Manual.
Audio, Visual and Navigation System	Audio (Radio Preset)	Refer to Owner's Manual.
	Navigation System	Refer to Owner's Manual.

# POWER SUPPLY ROUTING CIRCUIT

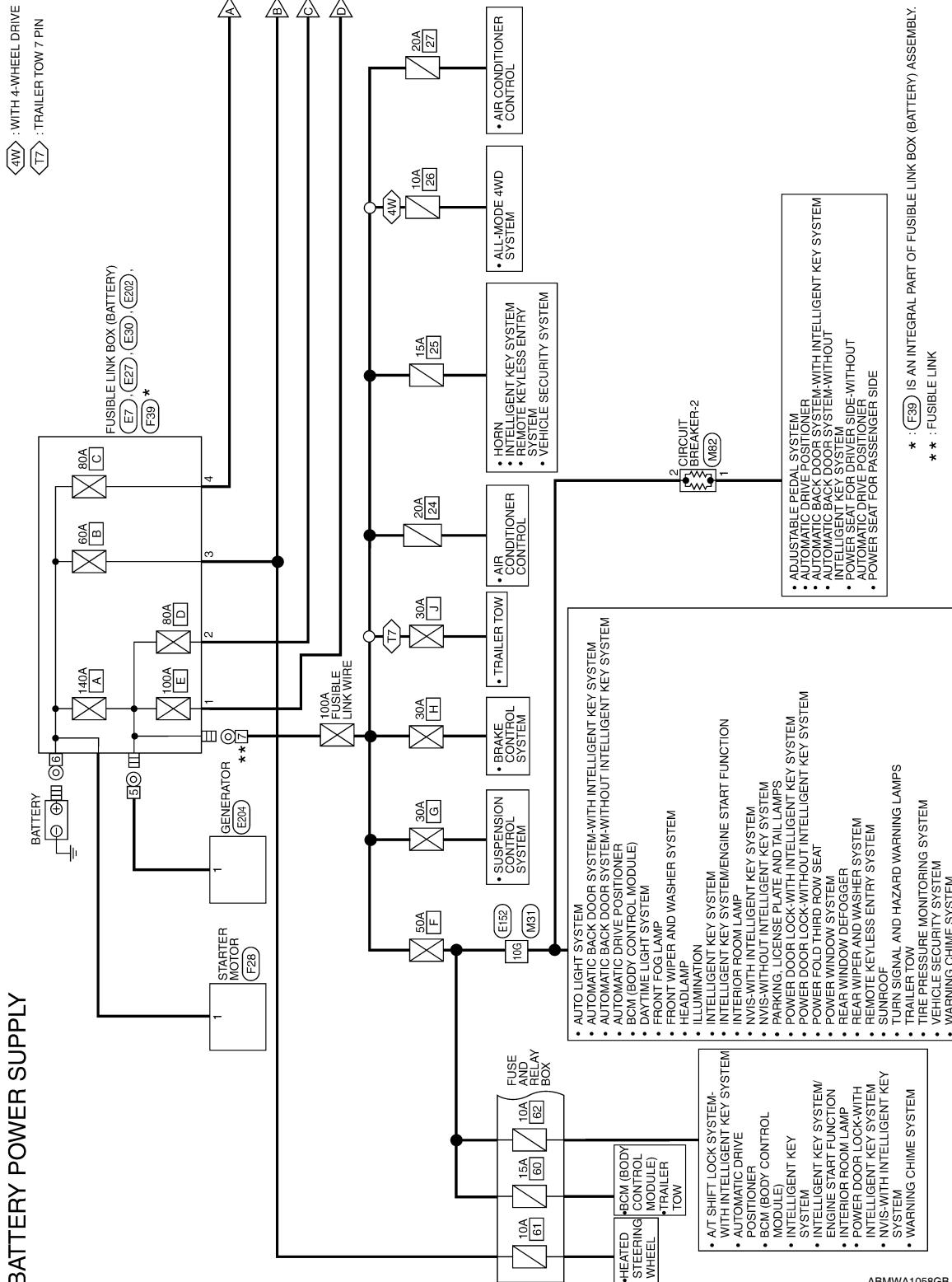
< DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

### POWER SUPPLY ROUTING CIRCUIT

#### Wiring Diagram —Battery Power Supply—

INFOID:0000000006146288

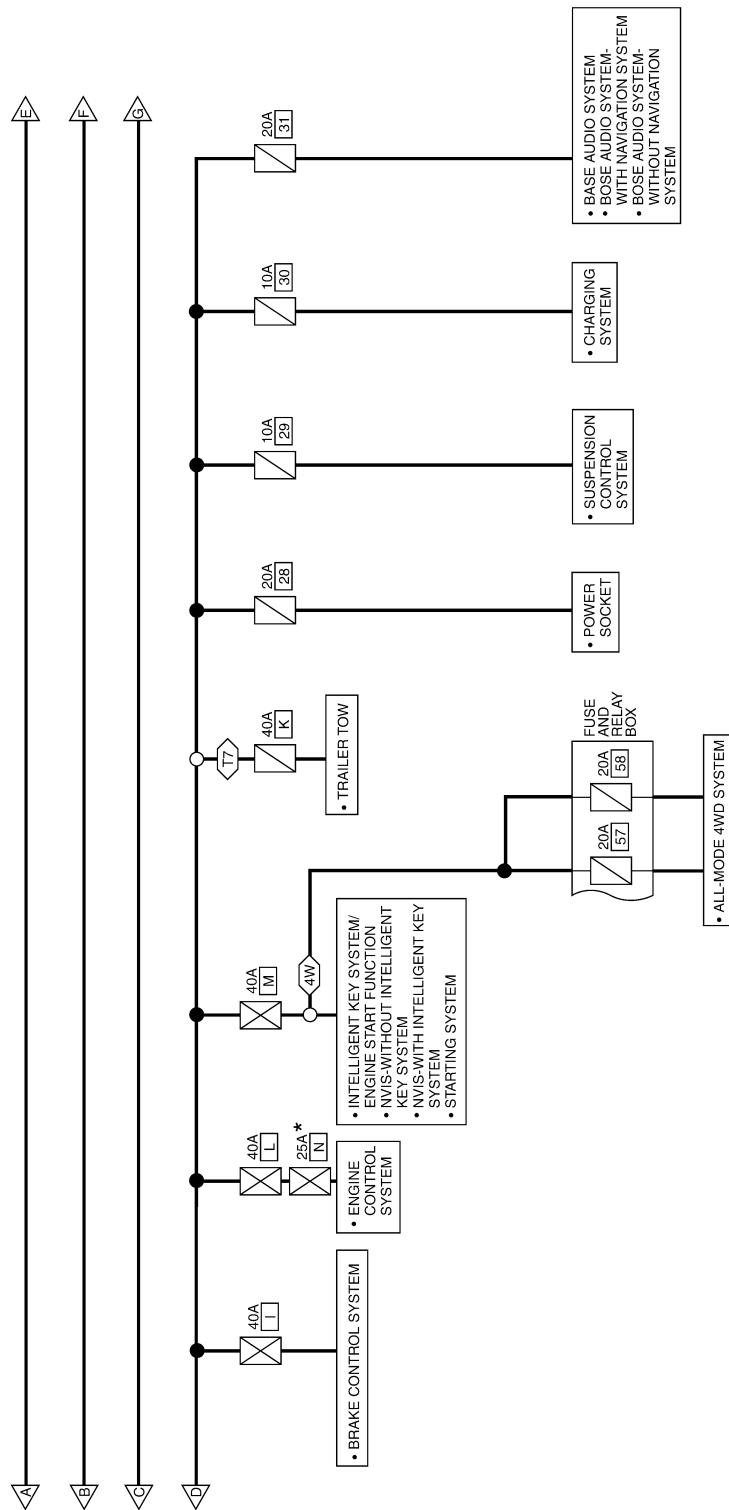


ABMWA1058GB

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

 : WITH 4-WHEEL DRIVE  
 : TRAILER TOW 7 PIN

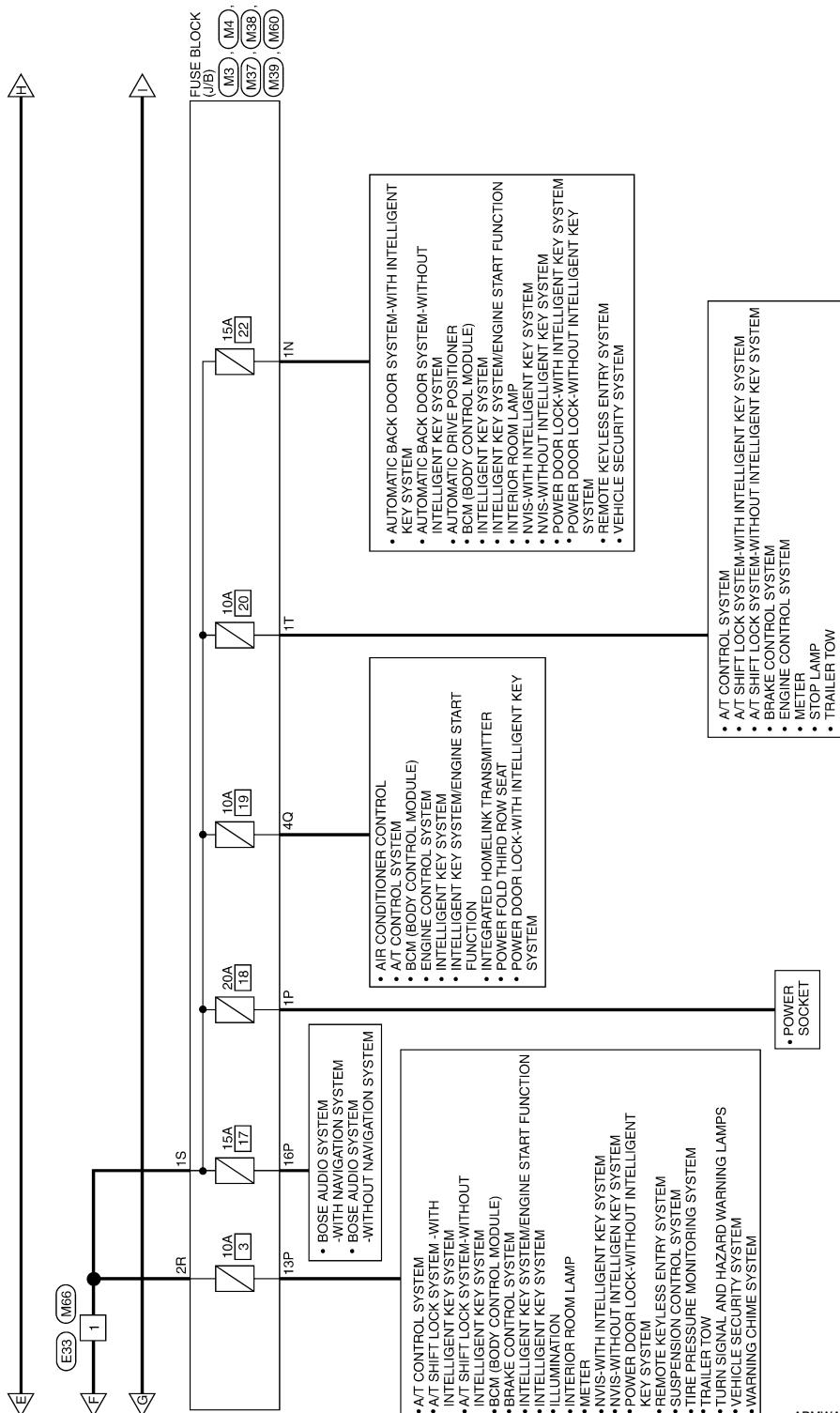


\* : THIS FUSE IS LOCATED IN THE IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) BOX.

ABMWIA1059GB

# POWER SUPPLY ROUTING CIRCUIT

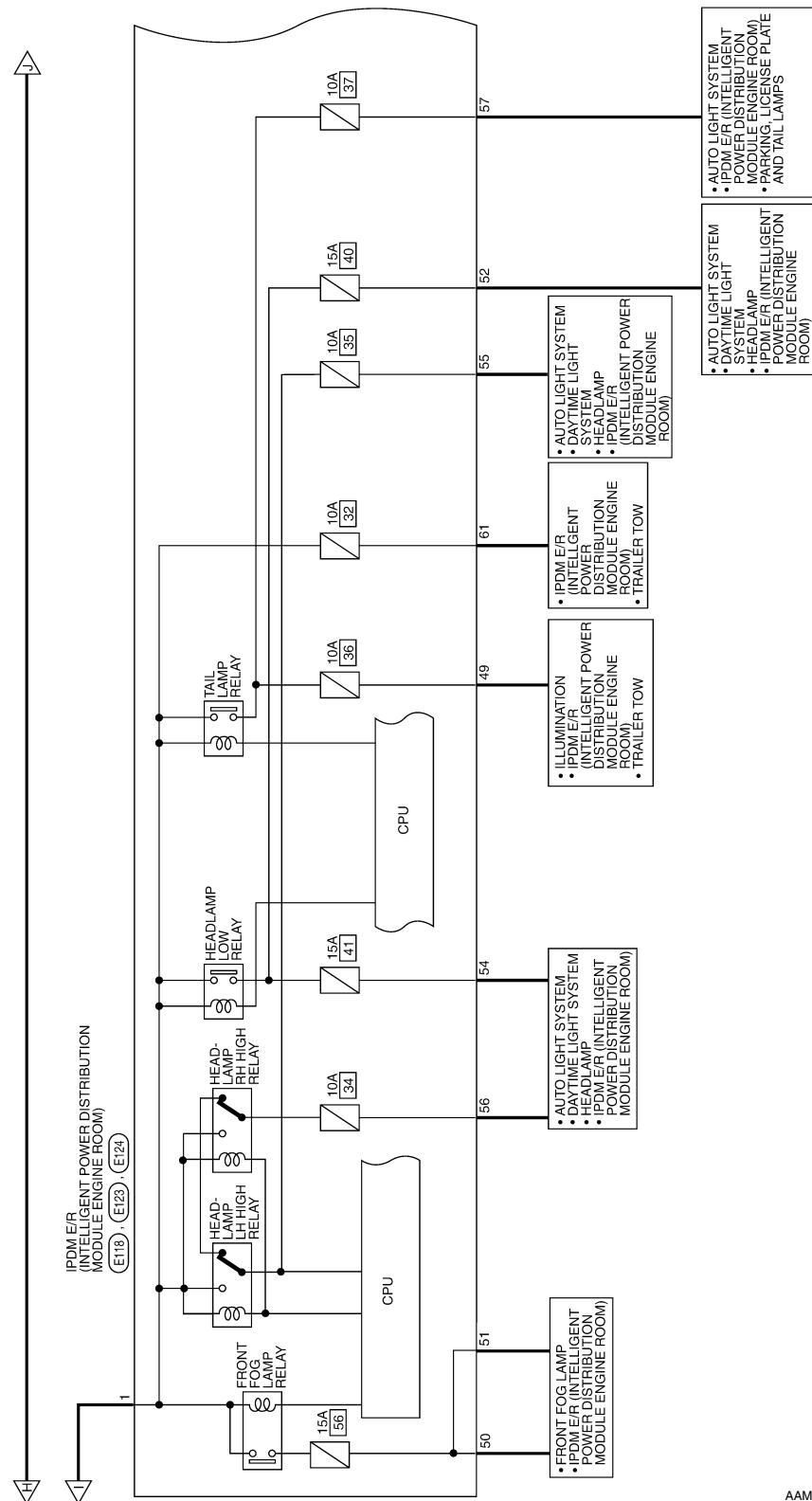
< DTC/CIRCUIT DIAGNOSIS >



ABMWA1060GB

# POWER SUPPLY ROUTING CIRCUIT

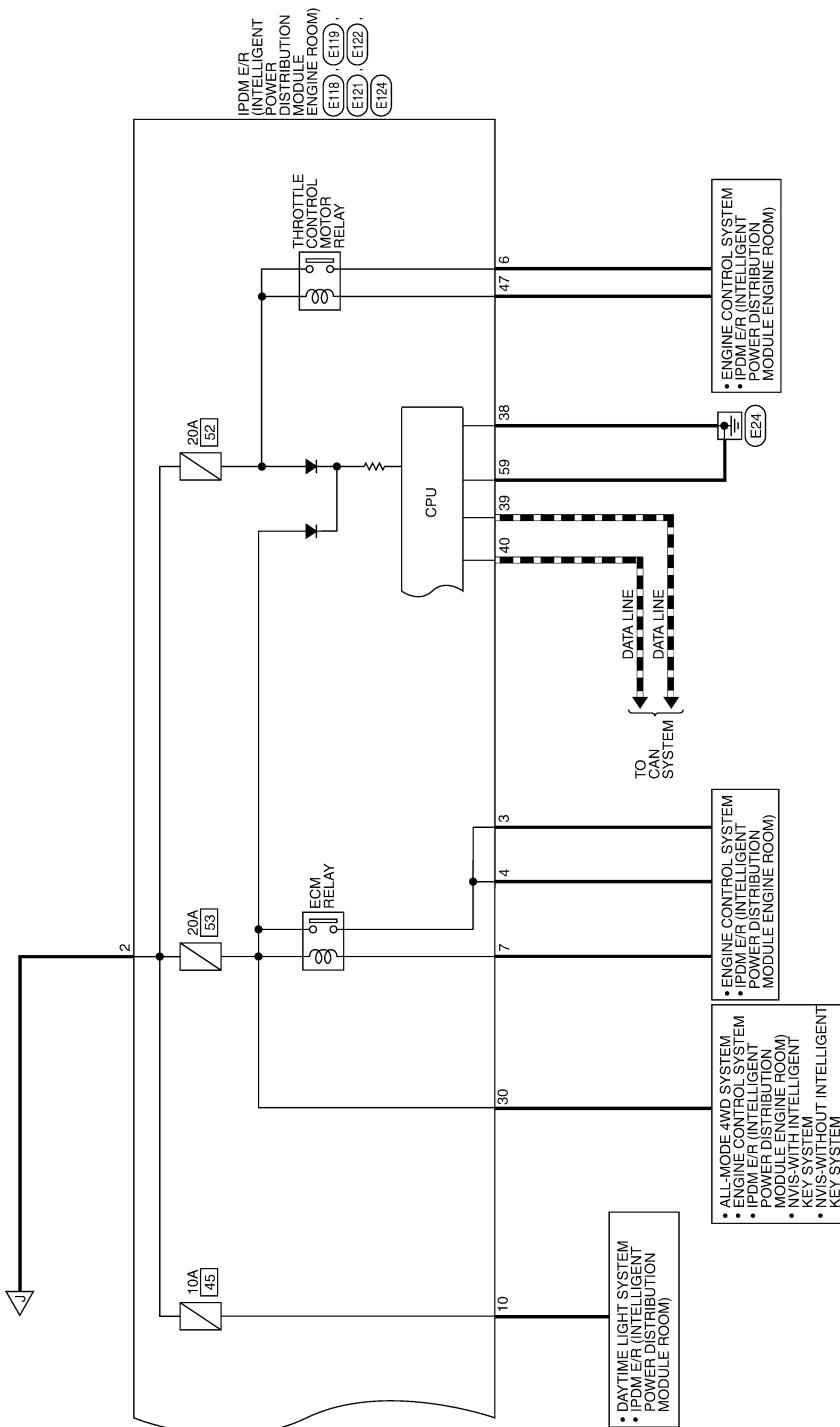
< DTC/CIRCUIT DIAGNOSIS >



AAMWA0272GB

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



ABMW0420GB

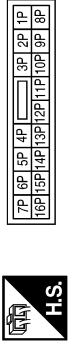
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P  
PG

# POWER SUPPLY ROUTING CIRCUIT

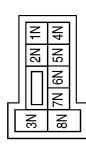
**< DTC/CIRCUIT DIAGNOSIS >**

## BATTERY POWER SUPPLY CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

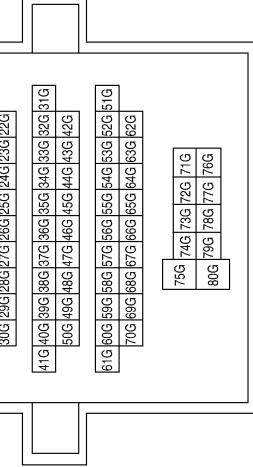


Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

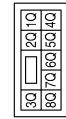


Terminal No.	Color of Wire	Signal Name
1N	Y/R	—

Terminal No.	Color of Wire	Signal Name
1P	G	—
13P	P	—
16P	R	—



Terminal No.	Color of Wire	Signal Name
10G	W/B	—



Terminal No.	Color of Wire	Signal Name
10G	W/B	—



Terminal No.	Color of Wire	Signal Name
10G	W/B	—



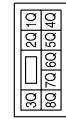
Terminal No.	Color of Wire	Signal Name
10G	W/B	—



Terminal No.	Color of Wire	Signal Name
10G	W/B	—



Terminal No.	Color of Wire	Signal Name
4Q	Y/R	—



Terminal No.	Color of Wire	Signal Name
4Q	Y/R	—



# POWER SUPPLY ROUTING CIRCUIT

**< DTC/CIRCUIT DIAGNOSIS >**

Connector No.	M66
Connector Name	WIRE TO WIRE
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1T	R/Y	-



Connector No.	M66
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1T	R/Y	-



Connector No.	M60
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1T	R/Y	-



Connector No.	M82
Connector Name	CIRCUIT BREAKER-2
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L/B	-
2	W/B	-



Connector No.	E30
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Connector No.	E27
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN



Connector No.	E7
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B/R	-
2	B/Y	-



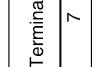
Connector No.	E7
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



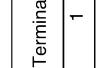
Terminal No.	Color of Wire	Signal Name
3	W	-
4	R	-



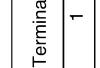
Connector No.	E30
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Connector No.	E27
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN



Connector No.	E7
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



A

B

C

D

E

F

G

H

I

K

L

PG

N

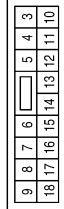
O

P

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector No.	E118
Connector Name	WIRE TO WIRE
Connector Color	BLACK



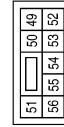
Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



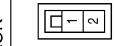
Terminal No.	Color of Wire	Signal Name
1	B/Y	F/L_USM
2	R	F/L_MAIN

Terminal No.	Color of Wire	Signal Name
3	BR	IGN COIL
4	W/L	ECM
6	L	ETC
7	W/B	ECM RLY CONT
10	G	DTRL RLY SUPPLY

Connector No.	E123
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BROWN



Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Connector No.	E122
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
38	W	ECM BAT
39	L	GND (SIGNAL)
40	P	CAN-H
41	O	CAN-L
47		ETC RLY CONT

Terminal No.	Color of Wire	Signal Name
49	R/L	ILLUMINATION
50	W/R	FR FOG LAMP LH
51	W/R	FR FOG LAMP RH
52	L	H/LAMP LO LH
54	R/Y	H/LAMP LO RH
55	G	H/LAMP HI LH
56	L/W	(WITHOUT DAYTIME LIGHT SYSTEM)
56	Y	H/LAMP HI RH (WITH DAYTIME LIGHT SYSTEM)

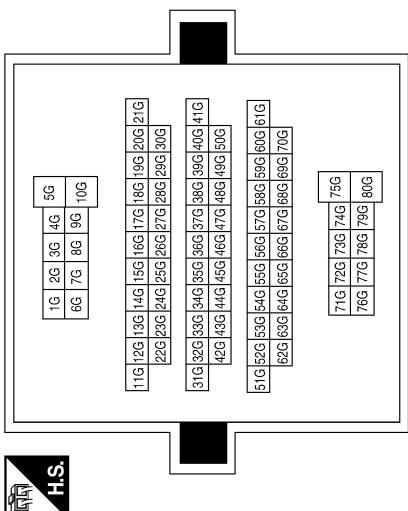
ABMIA2494GB

# POWER SUPPLY ROUTING CIRCUIT

**< DTC/CIRCUIT DIAGNOSIS >**

Terminal No.	Color of Wire	Signal Name
10G	W/B	-

Connector No.	E124
Connector Name	IPDM ER (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE
Connector Color	BLACK



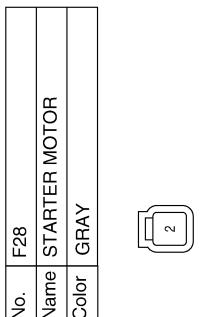
Terminal No.	Color of Wire	Signal Name
57	R/L	TAIL_LAMP
59	B	GND(POWER)
61	BR	TRAILER RLY SUPPLY

Terminal No.	Color of Wire	Signal Name
57	R/L	TAIL_LAMP
59	B	GND(POWER)
61	BR	TRAILER RLY SUPPLY

Terminal No.	Color of Wire	Signal Name
10G	W/B	-

Connector No.	E204
Connector Name	GENERATOR
Connector Color	-

Connector No.	E202
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	Color of Wire	Signal Name
2	B/R	-

Connector No.	F228
Connector Name	STARTER MOTOR
Connector Color	GRAY

Connector No.	F228
Connector Name	STARTER MOTOR
Connector Color	GRAY

Terminal No.	Color of Wire	Signal Name
2	B/R	-

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P  
PG  
Z  
K  
L  
N  
O  
P

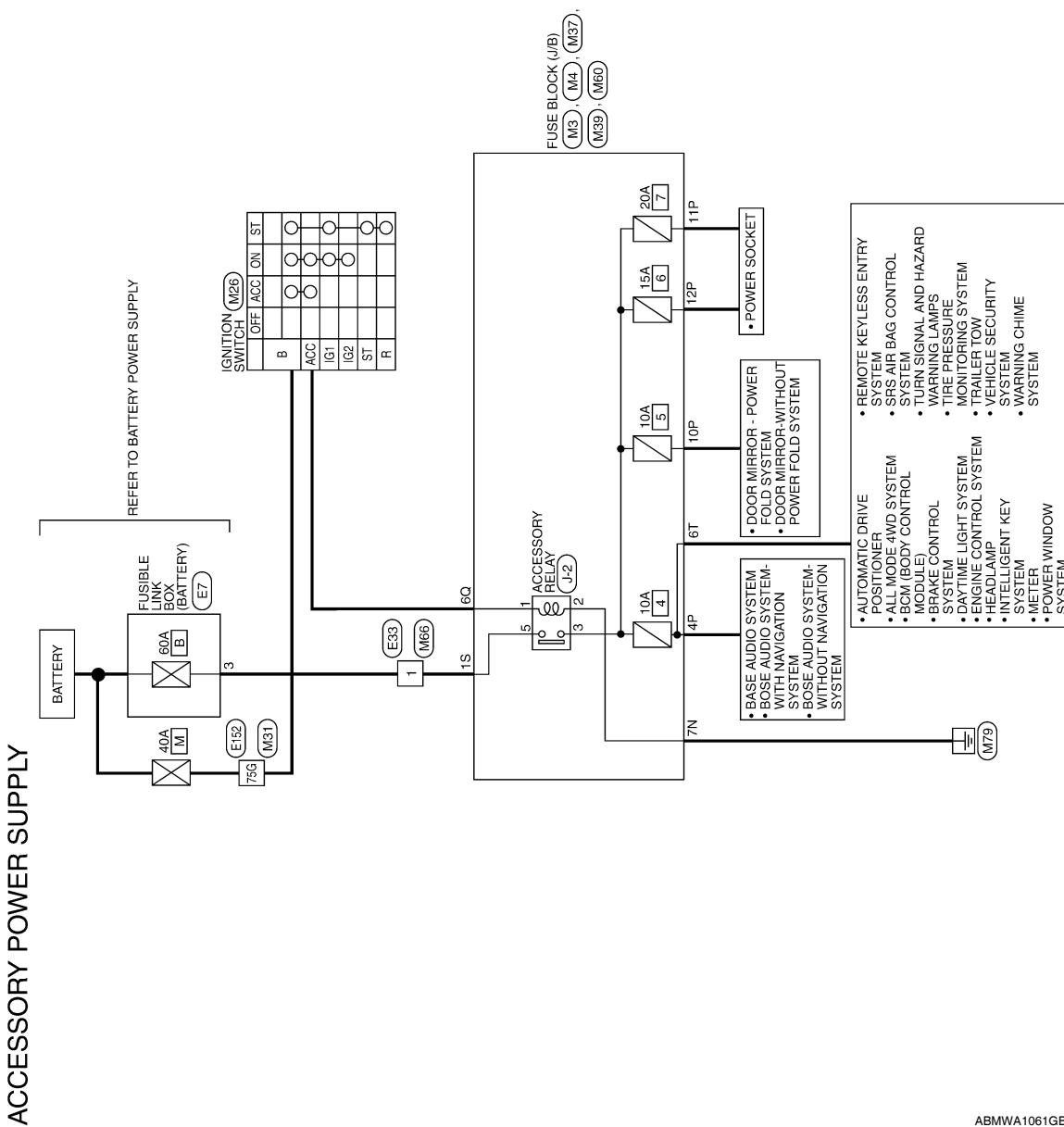
ABMIA2495GB

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## Wiring Diagram —Accessory Power Supply —

INFOID:0000000006146289

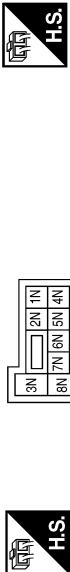


# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## ACCESSORY POWER SUPPLY CONNECTORS

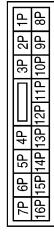
Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7N	B	-
4P	V	-
10P	O	-
11P	G/W	-
12P	L/W	-

Terminal No.	Color of Wire	Signal Name
7N	B	-
4P	V	-
10P	O	-
11P	G/W	-
12P	L/W	-

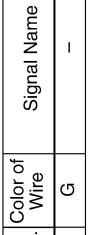
Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
B	G	-
ACC	V	-

Terminal No.	Color of Wire	Signal Name
75G	G	-

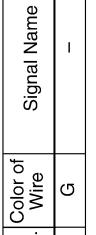
Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE



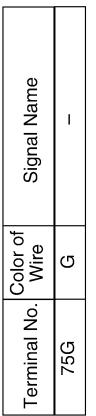
Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



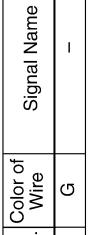
Connector No.	M37
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



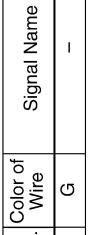
Terminal No.	Color of Wire	Signal Name
1S	W	-



Terminal No.	Color of Wire	Signal Name
1S	W	-



Terminal No.	Color of Wire	Signal Name
1S	W	-



A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P  
PG  
Z

ABMIA1122GB

# POWER SUPPLY ROUTING CIRCUIT

**< DTC/CIRCUIT DIAGNOSIS >**

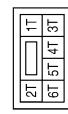
---

Connector No.	M66
Connector Name	WIRE TO WIRE
Connector Color	BLACK



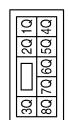
Terminal No.	Color of Wire	Signal Name
1	W	-

Connector No.	M60
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6T	O	-

Connector No.	M39
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6Q	V	-

Terminal No.	Color of Wire	Signal Name
1	W	-



Connector No.	E7
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
3	W	-

ABMIA1123GB

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

A

B

C

D

E

F

G

H

I

J

K

L

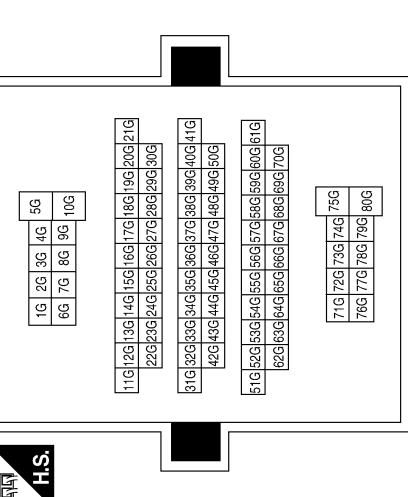
PG

N

O

P

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
75G	G	-

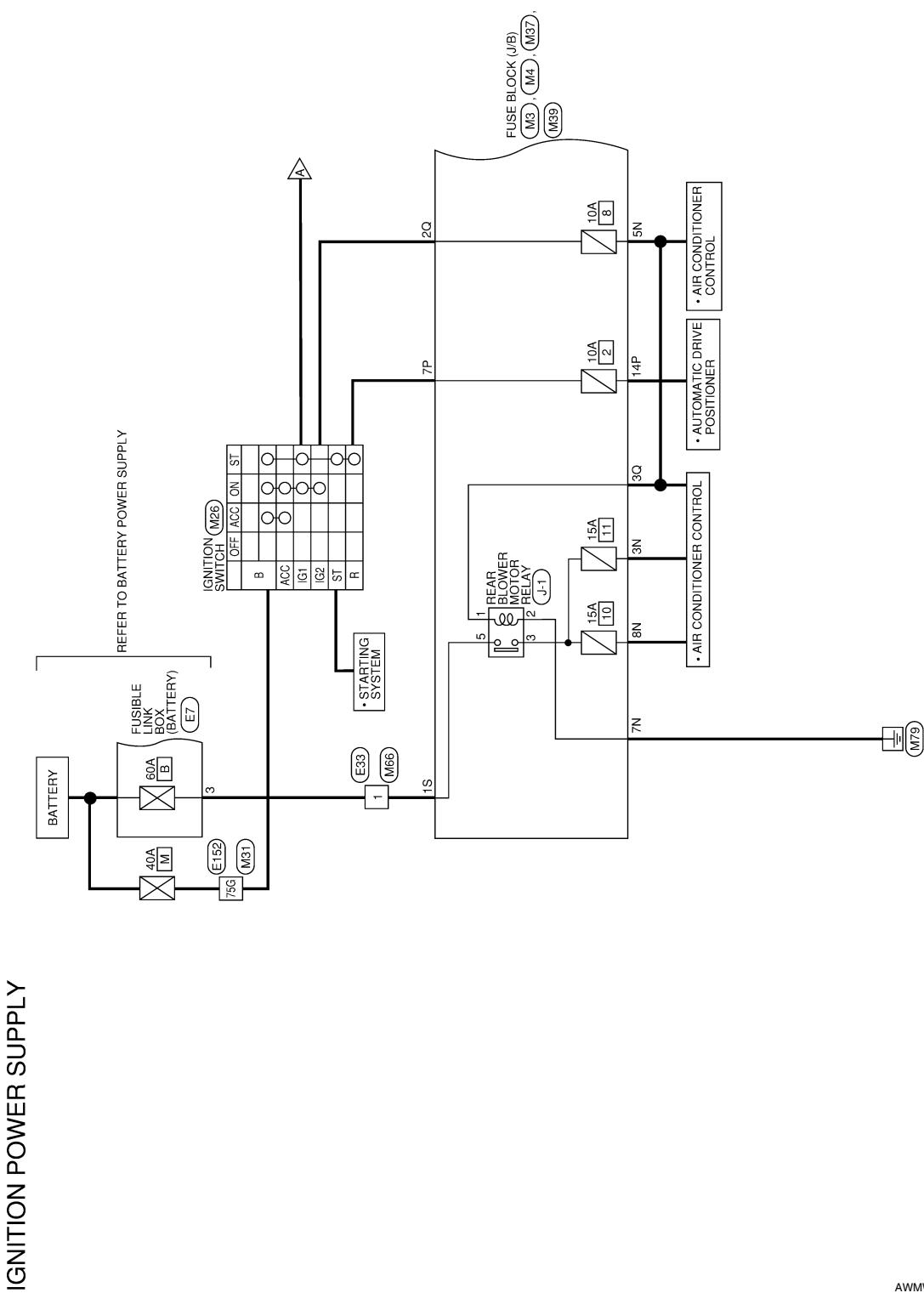
ABMIA1124GB

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

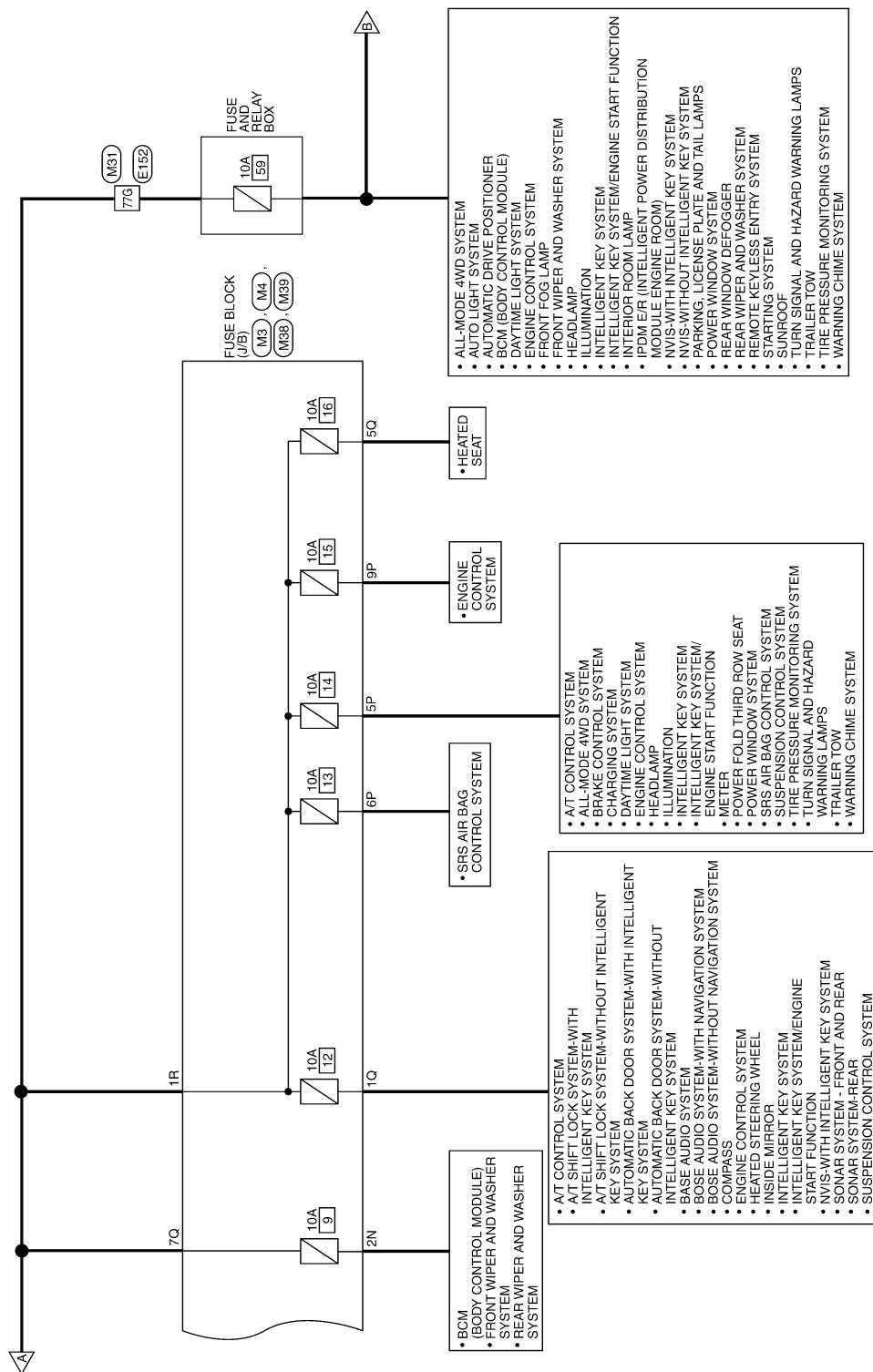
## Wiring Diagram —Ignition Power Supply —

INFOID:0000000006146290



# POWER SUPPLY ROUTING CIRCUIT

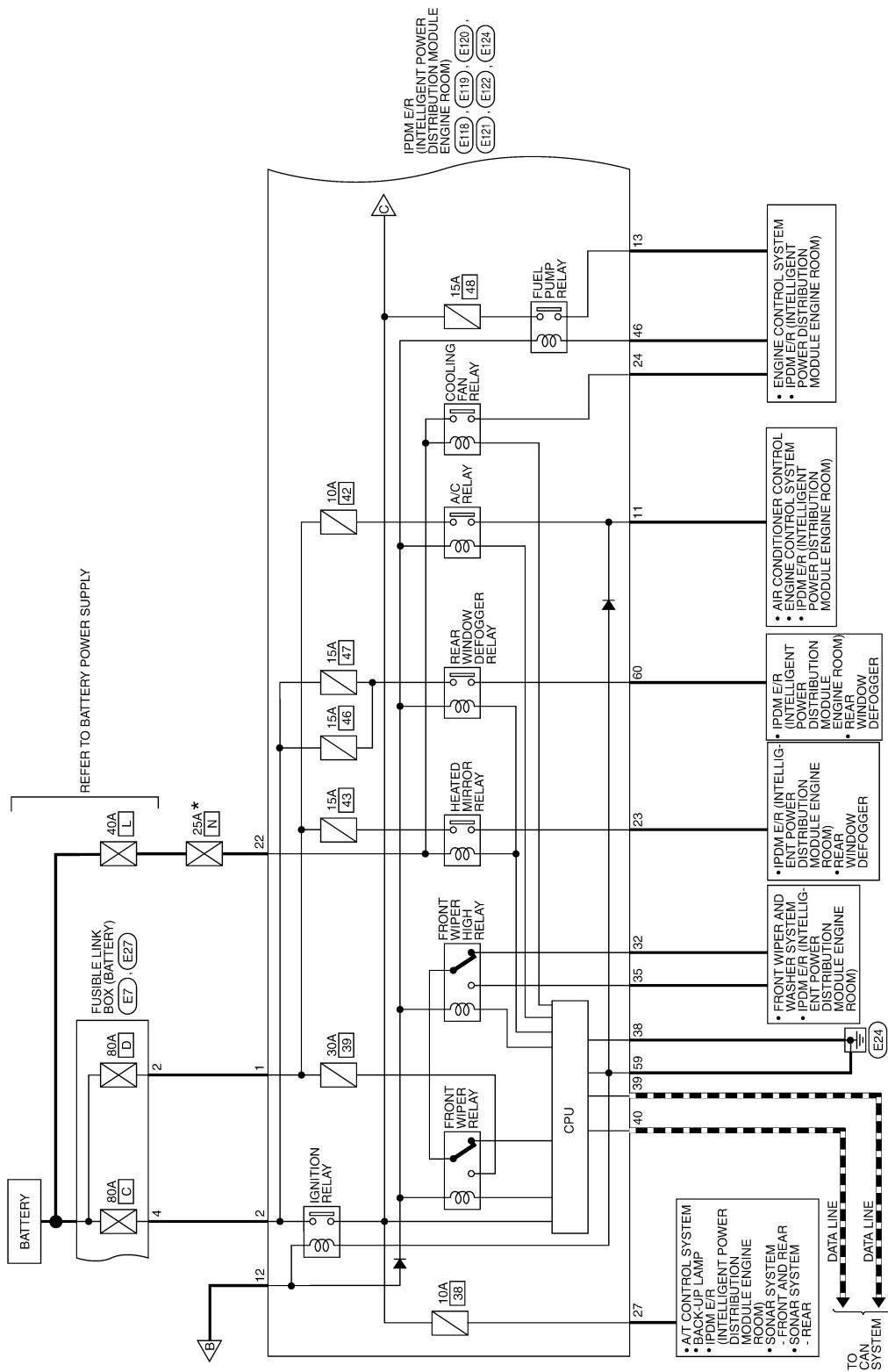
< DTC/CIRCUIT DIAGNOSIS >



ABMWIA1062GB

# POWER SUPPLY ROUTING CIRCUIT

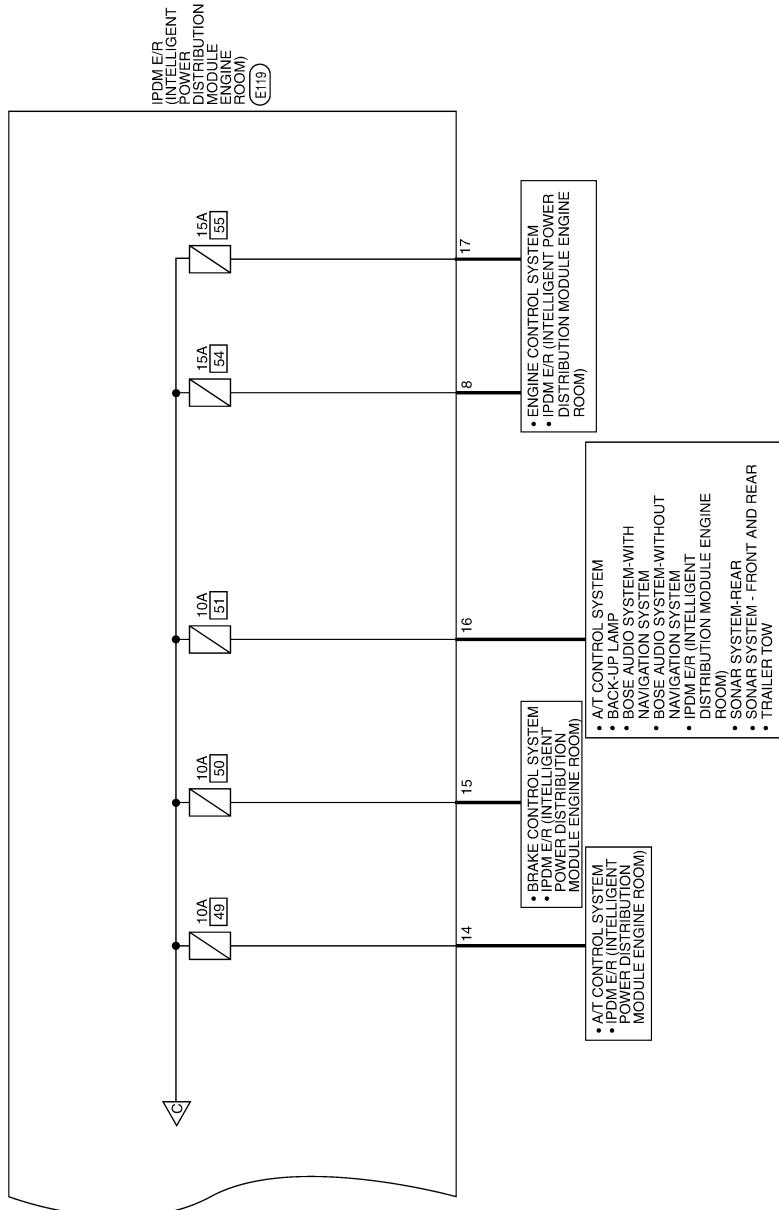
< DTC/CIRCUIT DIAGNOSIS >



ABMWAA1063GB

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



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

PG

ABMWIA0412GB

# POWER SUPPLY ROUTING CIRCUIT

**< DTC/CIRCUIT DIAGNOSIS >**

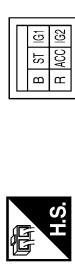
---

## IGNITION POWER SUPPLY CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5P	O/L	—
6P	W/L	—
7P	LG	—
9P	R/B	—
14P	O	—

Terminal No.	Color of Wire	Signal Name
2N	R/L	—
3N	SB	—
5N	Y/G	—
7N	B	—
8N	L/R	—

Terminal No.	Color of Wire	Signal Name
IG1	B/R	—
IG2	R	—
ST	BR	—
B	G	—
R	LG	—

Terminal No.	Color of Wire	Signal Name
75G	G	—
77G	B/R	—

Terminal No.	Color of Wire	Signal Name
IG1	B/R	—
IG2	R	—
ST	BR	—
B	G	—
R	LG	—

Terminal No.	Color of Wire	Signal Name
75G	G	—
77G	B/R	—

Terminal No.	Color of Wire	Signal Name
1S	W	—

# POWER SUPPLY ROUTING CIRCUIT

**< DTC/CIRCUIT DIAGNOSIS >**

Connector No.	M38
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1Q	G/R	-
2Q	R	-
3Q	Y/G	-
5Q	G	-
7Q	B/R	-

Connector No.	M39
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



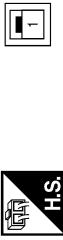
Terminal No.	Color of Wire	Signal Name
1R	B/R	-
2R	1R	-
3R	2R	-
4R	3R	-
5R	4R	-
6R	5R	-
7R	6R	-

Connector No.	E28
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1R	B/R	-
2R	1R	-

Connector No.	M66
Connector Name	WIRE TO WIRE
Connector Color	BLACK

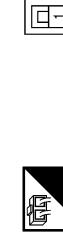


Connector No.	E33
Connector Name	WIRE TO WIRE
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	W	-
2	W	-

Connector No.	E27
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
3	W	-
4	R	-

Connector No.	E7
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



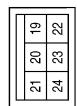
A      B      C      D      E      F      G      H      I      J      K      L      M      N      O      P      PG

ABMIA1126GB

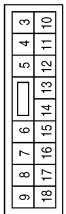
# POWER SUPPLY ROUTING CIRCUIT

**< DTC/CIRCUIT DIAGNOSIS >**

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Connector No.	E118
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



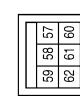
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name
8	R/B	O2 SENSOR	22	G	F/L MOTOR FAN
11	Y/B	A/C COMPRESSOR	23	GR/W	HEATED MIRROR
12	L/W	IGN SW (IG)	24	L	MOTOR FAN2
13	BY	FUEL PUMP			
14	Y/R	A/T CU IGN SUPPLY			
15	L/G/B	ABS IGN SUPPLY			
16	G	REVERSE LAMP			
17	W	INJECTOR			

Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name
1	B/Y	F/L_USM	8	R/B	O2 SENSOR
2	R	F/L_MAIN	11	Y/B	A/C COMPRESSOR
			12	L/W	IGN SW (IG)
			13	BY	FUEL PUMP
			14	Y/R	A/T CU IGN SUPPLY
			15	L/G/B	ABS IGN SUPPLY
			16	G	REVERSE LAMP
			17	W	INJECTOR

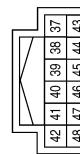
Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BROWN



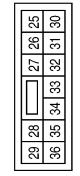
Connector No.	E124
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



Connector No.	E122
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Connector No.	E123
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



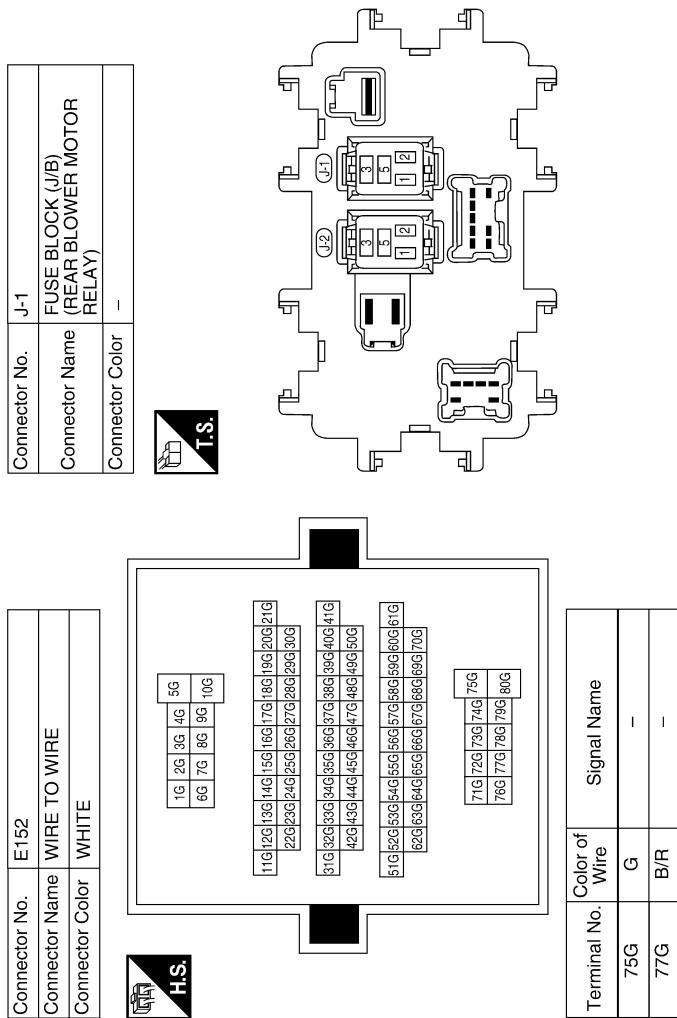
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name
38	B	GND (SIGNAL)	59	B	GND (POWER)
39	L	CAN-H	60	B/W	RR DEF
40	P	CAN-L			
46	GR	FUEL PUMP RLY CONT			

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

**PG**



ABMIA1165GB

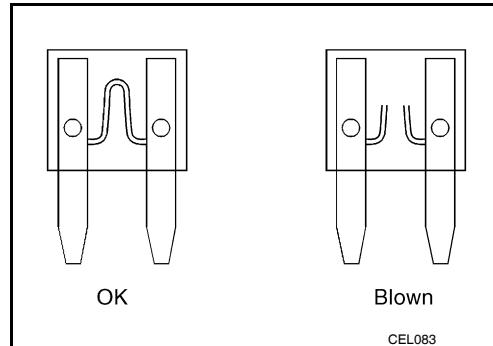
# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## Fuse

INFOID:0000000006146291

- If fuse is blown, be sure to eliminate cause of malfunction 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.



CEL083

## Fusible Link

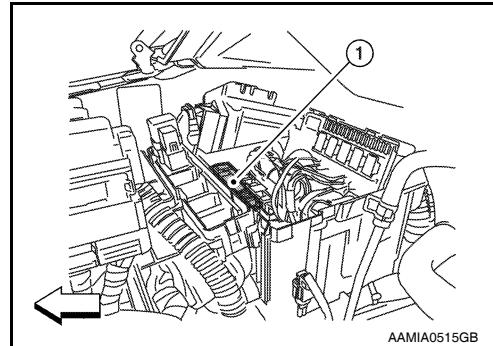
INFOID:0000000006146292

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.

1 : Fusible link

### 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 malfunction.
- Never wrap outside of fusible link with vinyl tape. Important: Never let fusible link touch any other wiring harness, vinyl or rubber parts.



AAMIA0515GB

# GROUND

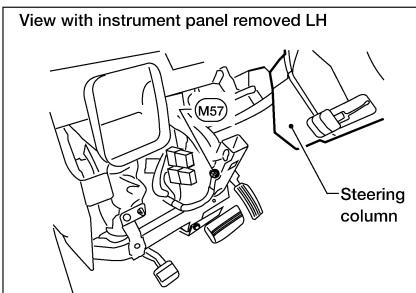
< DTC/CIRCUIT DIAGNOSIS >

## GROUND

### Ground Distribution

INFOID:0000000006146293

### MAIN HARNESS



CONNECTOR NUMBER	CONNECT TO
(M15)	Steering lock solenoid
(M32)	In-vehicle sensor
(M34)	Automatic drive positioner control unit (Terminal No. 40)
(M34)	Automatic drive positioner control unit (Terminal No. 48)
(M51)	Trailer tow relay 1
(M52)	Combination switch (spiral cable)
(M76)	Electric brake (pre-wiring)
(M83)	Pedal adjusting switch (Terminal No. 4) (without automatic drive positioner)
(M87)	Rear power vent window relay (open)
(M89)	Rear power vent window relay (close)
(M92)	Power liftgate switch
(M116)	Sonar system OFF switch (Terminal No. 2)
(M116)	Sonar system OFF switch (Terminal No. 6)
(M139)	Diode-1
(R108)	Rear air control (front)
(R209)	Rear air control (rear)

Next page

PG

N

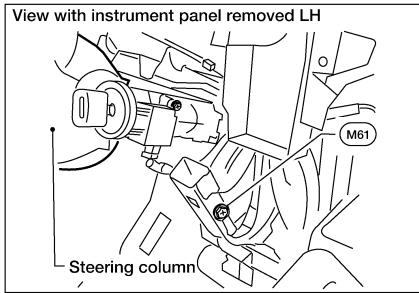
O

P

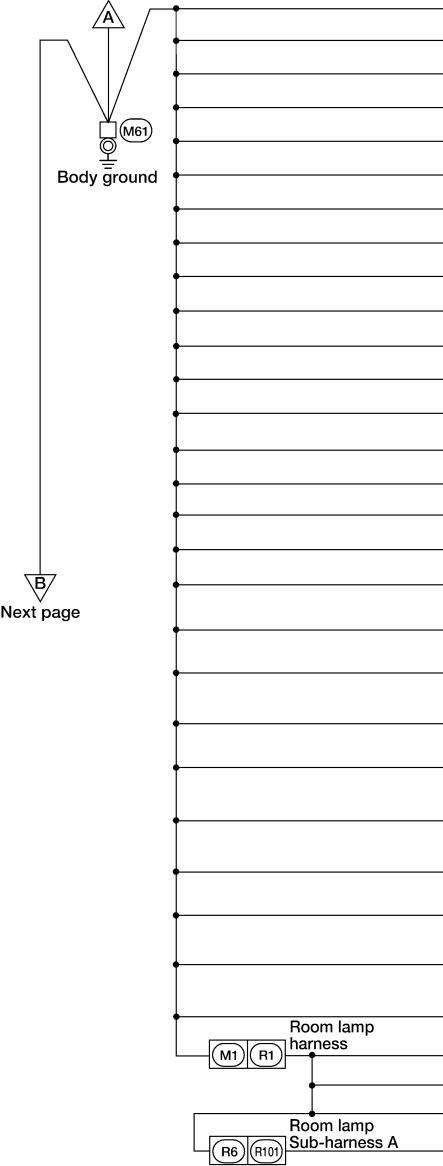
ABMIA2497GB

# GROUND

## < DTC/CIRCUIT DIAGNOSIS >



Preceding page

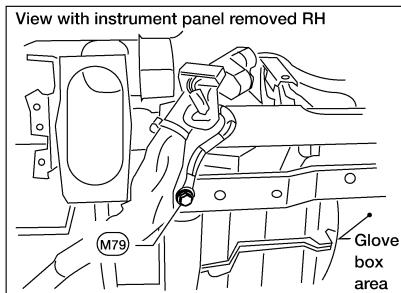


CONNECTOR NUMBER	CONNECT TO
(M17)	Steering angle sensor
(M20)	BCM (body control module) (Terminal No. 67)
(M21)	NATS antenna amp.
(M22)	Data link connector (Terminal No. 4)
(M22)	Data link connector (Terminal No. 5)
(M23)	Combination meter (Terminal No. 52)
(M24)	Combination meter (Terminal No. 9)
(M28)	Combination switch
(M35)	Air bag diagnosis sensor unit (Terminal No. 2)
(M42)	AV control unit (Terminal No. 20) (with base audio system)
(M44)	AV control unit (Terminal No. 54) (with base audio system)
(M46)	AV control unit (Terminal No. 85) (with base audio system)
(M50)	A/C auto amp. (Terminal No. 36)
(M70)	Intelligent key unit (Terminal No. 12)
(M95)	Rear power vent window switch
(M107)	Front blower relay
(M112)	BOSE speaker amp. (Terminal No. 12)
(M122)	Variable blower control (front)
(M160)	AV control unit (Terminal No. 20) (with BOSE audio system without NAVI)
(M164)	AV control unit (Terminal No. 68) (with BOSE audio system without NAVI)
(M165)	AV control unit (Terminal No. 84) (with BOSE audio system with NAVI)
(M165)	AV control unit (Terminal No. 65) (with BOSE audio system with NAVI)
(M165)	AV control unit (Terminal No. 67) (with BOSE audio system with NAVI)
(M165)	AV control unit (Terminal No. 86) (with BOSE audio system with NAVI)
(M166)	AV control unit (Terminal No. 87) (with BOSE audio system with NAVI)
(M166)	AV control unit (Terminal No. 85) (with BOSE audio system without NAVI)
(M171)	AV control unit (Terminal No. 54) (with BOSE audio system without NAVI)
(R3)	Vanity lamp LH
(R7)	Auto anti-dazzling inside mirror
(R8)	Vanity lamp RH
(R102)	Front room/map lamp assembly

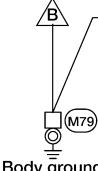
ABMIA2498GB

# GROUND

< DTC/CIRCUIT DIAGNOSIS >



Preceding page



CONNECTOR NUMBER	CONNECT TO
(M3)	Fuse block (J/B)
(M13)	Front passenger air bag off indicator
(M53)	Front power socket LH
(M54)	Front power socket RH
(M55)	Hazard switch
(M59)	Glove box lamp
(M81)	Shift lock control unit (Terminal No. 8)
(M93)	Display unit (Terminal No. 1)(without NAVI)
(M96)	Pedal adjusting switch (Terminal No. 1) (with automatic drive positioner)
(M98)	A/C and AV switch assembly
(M161)	AV control unit (Terminal No. 20) (with BOSE audio system with NAVI)
(M168)	Display unit (Terminal No. 13) (with NAVI)
(M168)	Display unit (Terminal No. 1) (with NAVI)
(M203)	A/T shift selector (Terminal No. 2) (with intelligent key system)
(M203)	A/T shift selector (Terminal No. 8) (with intelligent key system)
(M204)	A/T shift selector (Terminal No. 2) (without intelligent key system)
(M204)	A/T shift selector (Terminal No. 8) (without intelligent key system)
(M205)	DVD player (Terminal No. 5)
(M207)	Console power socket
(M252)	Front heated seat switch RH
(M253)	VDC off switch
(M256)	Front heated seat switch LH
(M258)	Tow mode switch (Terminal No.2)
(M258)	Tow mode switch (Terminal No.6)
(M260)	Heated steering wheel switch
(R4)	Sunroof motor assembly

Next page

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

PG

ABMIA2499GB

# GROUND

< DTC/CIRCUIT DIAGNOSIS >

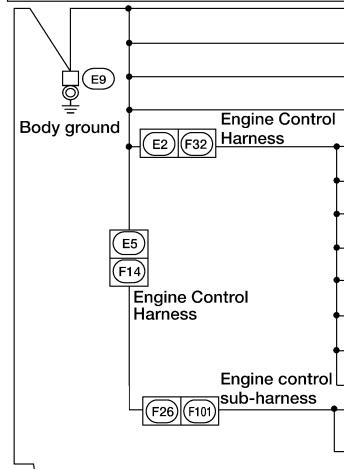
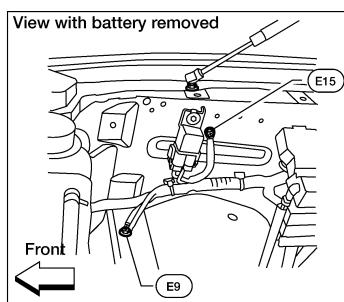
CONNECTOR NUMBER	CONNECT TO
(D4)	Door mirror LH (Terminal No. 11) (with automatic drive positioner)
(D5)	Seat memory switch
(D6)	Door mirror LH (Terminal No. 6) (without automatic drive positioner)
(D8)	Main power window and door lock/unlock switch (Terminal No. 17)
(D10)	Door mirror remote control switch (Terminal No. 7) (with automatic drive positioner)
(D13)	Door mirror remote control switch (Terminal No. 1) (without automatic drive positioner)
(D14)	Front door lock assembly LH
(D16)	Front door request switch LH
(D105)	Power window and door lock/unlock switch RH
(D106)	Door mirror RH (door mirror defogger) (Terminal No.6) (without automatic drive positioner)
(D107)	Door mirror RH (door mirror defogger) (Terminal No.11) (with automatic drive positioner)
(D116)	Front door request switch RH

ABMIA2538GB

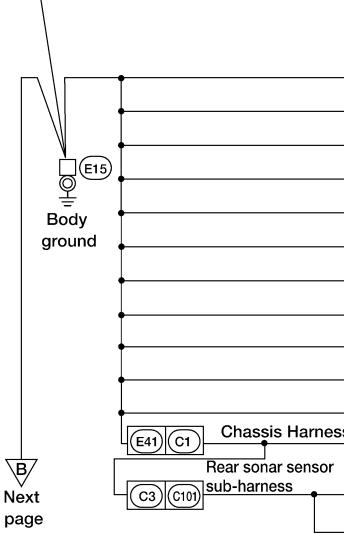
# GROUND

< DTC/CIRCUIT DIAGNOSIS >

## ENGINE ROOM HARNESS



CONNECTOR NUMBER	CONNECT TO
(E16)	ECM (Terminal No. 115)
(E16)	ECM (Terminal No. 116)
(E14)	Transfer control unit (Terminal No. 6)
(E14)	Transfer control unit (Terminal No. 45)
(F9)	A/T assembly (Terminal No. 10)
(F9)	A/T assembly (Terminal No. 5)
(F11)	Crankshaft position sensor (POS)
(F23)	Camshaft position sensor (PHASE)
(F54)	ECM (Terminal No. 1)
(F56)	Transfer terminal cord assembly
(F62)	Intake valve timing control position sensor (bank 1)
(F64)	Intake valve timing control position sensor (bank 2)
(F102)	Knock sensor (bank 1) (shield wire)
(F104)	Knock sensor (bank 2) (shield wire)



CONNECTOR NUMBER	CONNECT TO
(E3)	Horn
(E6)	Front combination lamp LH (Terminal No.4) (with daytime light system)
(E8)	Dropping resistor
(E11)	Front combination lamp LH (Terminal No. 3) (without daytime light system)
(E11)	Front combination lamp LH (Terminal No. 4) (without daytime light system)
(E17)	Fuel pump control module (FPCM) (Terminal No. 1)
(E21)	Brake fluid level switch
(E102)	Front fog lamp RH
(E103)	Daytime light relay
(E113)	Cooling fan motor
(E116)	Condenser-2
(C5)	Fuel level sensor unit and fuel pump (without flex fuel)
(C106)	License plate lamp LH
(C107)	License plate lamp RH

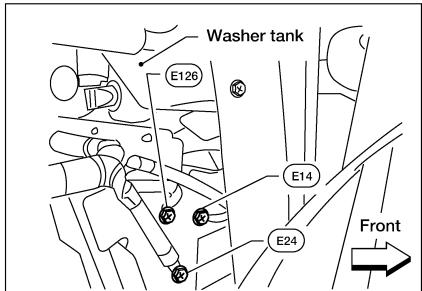
B  
Next page

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
PG  
N  
O  
P

ABMIA2512GB

# GROUND

## < DTC/CIRCUIT DIAGNOSIS >



Preceding page

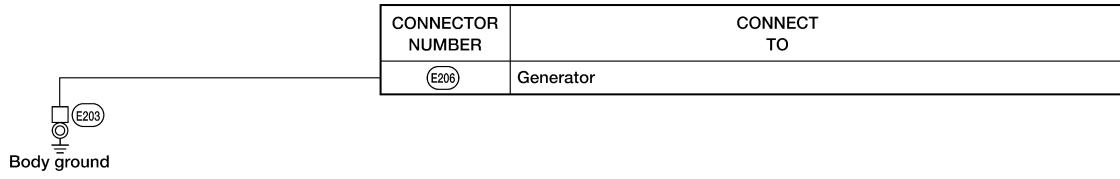
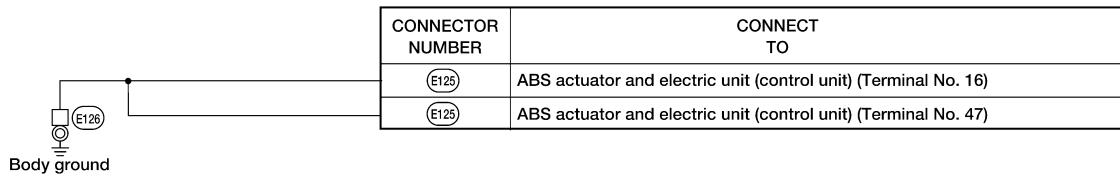
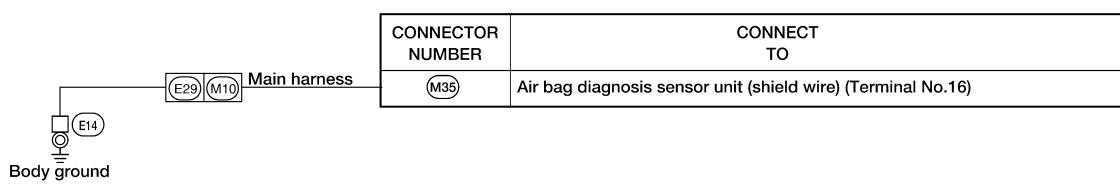
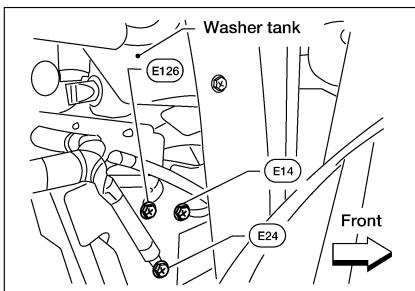
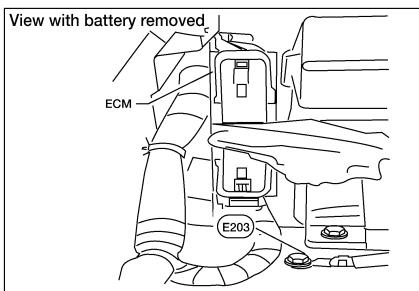
CONNECTOR NUMBER	CONNECT TO
(E46)	Transfer shift high relay (Terminal No. 2)
(E46)	Transfer shift high relay (Terminal No. 4)
(E47)	Transfer shift low relay (Terminal No. 2)
(E47)	Transfer shift low relay (Terminal No. 4)
(E130)	Compressor motor relay
(E140)	Trailer tow relay 2
(E142)	Transfer control unit (Terminal No. 3)
(E156)	Trailer turn relay LH
(E157)	Trailer turn relay RH
(E2) (F32)	Engine Control Harness
(F55)	ATP switch
(F57)	Transfer motor
(F58)	Transfer control device (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
(E23)	Front wiper motor
(E101)	Front fog lamp LH
(E106)	Washer fluid level switch
(E107)	Front combination lamp RH (headlamp) (Terminal No.3) (without daytime light system)
(E107)	Front combination lamp RH (headlamp) (Terminal No.4) (without daytime light system)
(E108)	Front combination lamp RH (headlamp) (Terminal No.3) (with daytime light system)
(E108)	Front combination lamp RH (headlamp) (Terminal No.4) (with daytime light system)
(E122)	IPDM E/R (intelligent power distribution module engine room) (Terminal No. 38)
(E124)	IPDM E/R (intelligent power distribution module engine room) (Terminal No. 59)

ABMIA1132GB

# GROUND

< DTC/CIRCUIT DIAGNOSIS >



A  
B  
C  
D

E  
F  
G  
H

I  
J  
K  
L

PG

N

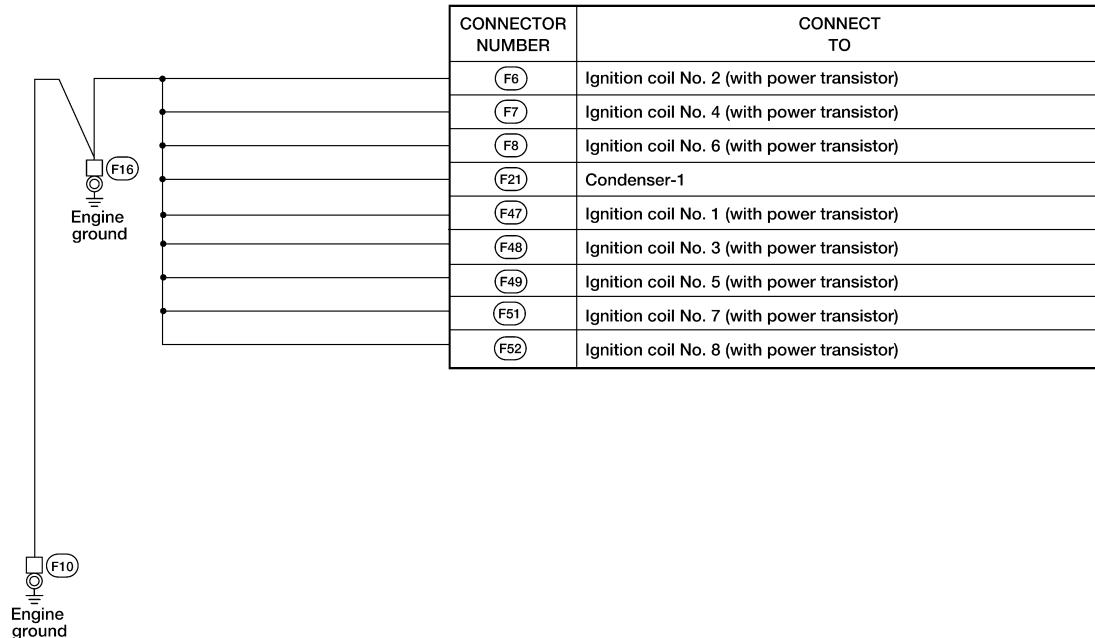
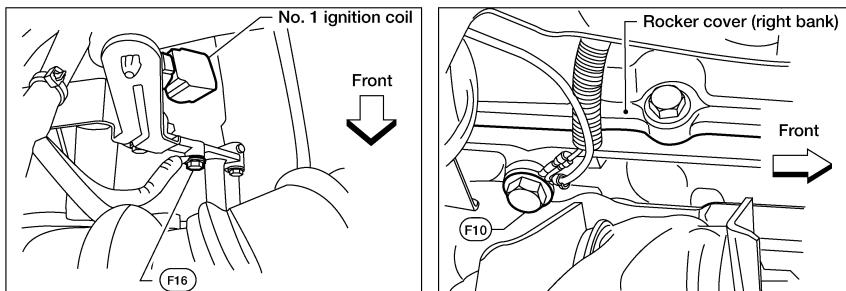
O

ABMIA2513GB

P

# GROUND

## < DTC/CIRCUIT DIAGNOSIS > ENGINE CONTROL HARNESS

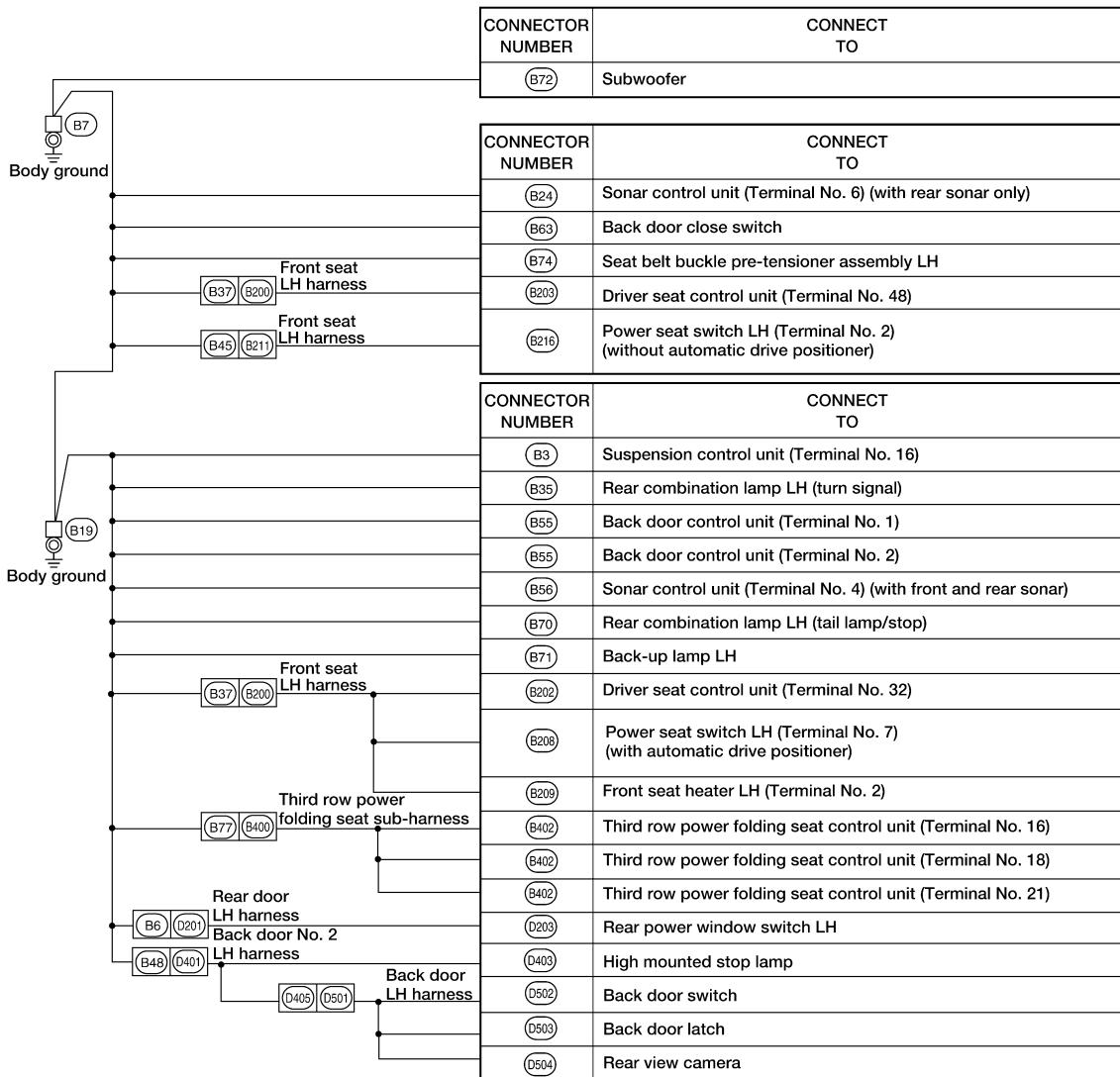
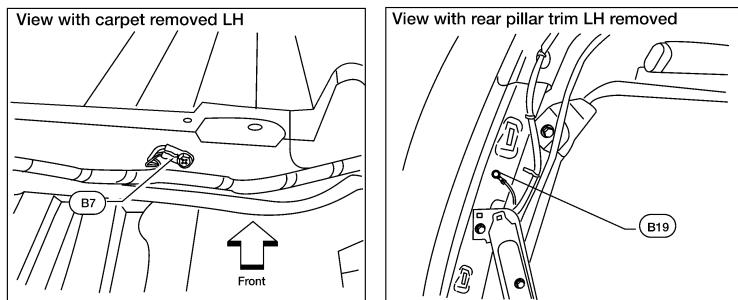


ABMIA1134GB

# GROUND

< DTC/CIRCUIT DIAGNOSIS >

## BODY HARNESS



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

PG

N

O

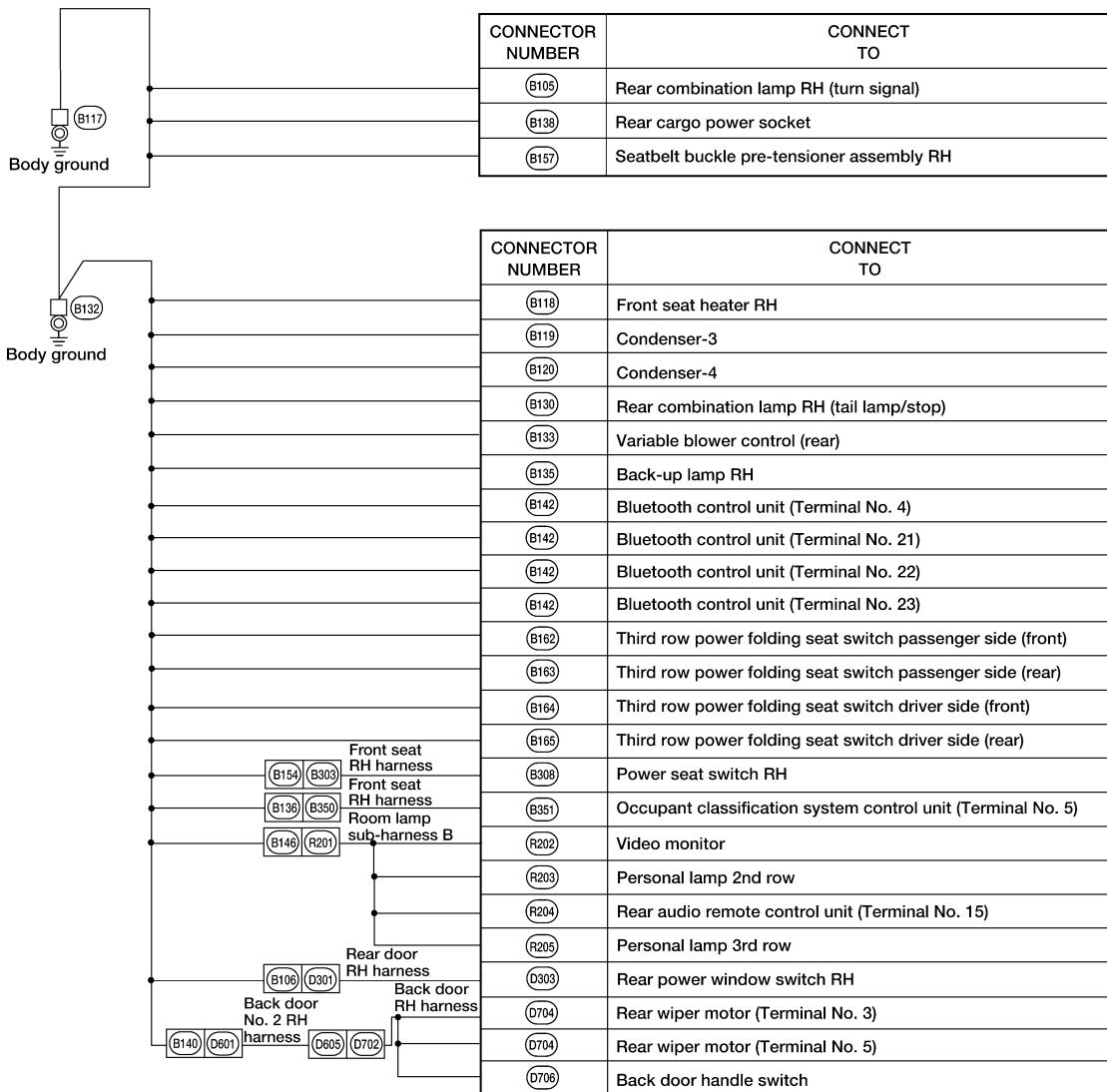
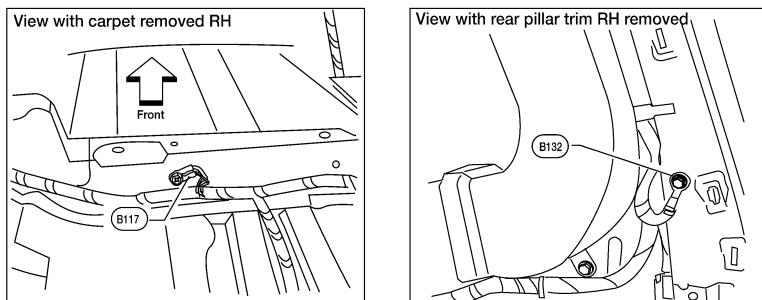
P

ABMIA2500GB

# GROUND

< DTC/CIRCUIT DIAGNOSIS >

BODY NO. 2 HARNESS

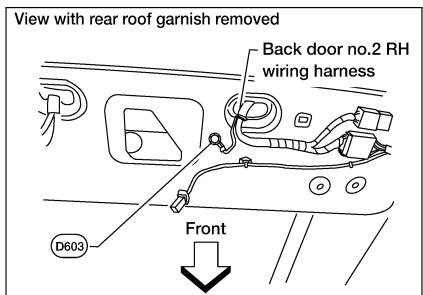


ABMIA2501GB

# GROUND

< DTC/CIRCUIT DIAGNOSIS >

BACK DOOR NO. 2 RH HARNESS



CONNECTOR NUMBER	CONNECT TO
(D604)	Rear window defogger

Body ground

(D603)

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

PG

N  
O  
P

ABMIA1137GB

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## HARNESS

### Harness Layout

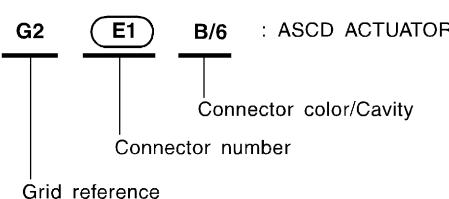
INFOID:0000000006146294

#### HOW TO READ HARNESS LAYOUT

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

- Main Harness, Console Sub-harness, Console Switch Sub-harness and Optical Sensor Sub-harness
- Engine Room Harness and Engine Room Sub-harness
- Engine Room Harness (Passenger Compartment)
- Engine Control Harness and Engine Control Sub-harness
- Chassis Harness and Rear Sonar Sensor Sub-harness
- Body Harness, Left Front Seat Harness and Third Row Power Folding Seat Sub-harness
- Body No. 2 Harness and Right Front Seat Harness
- Room Lamp Harness, Room Lamp Sub-harness A and Room Lamp Sub-harness B
- Back Door Harness, Back Door No. 2 Harness, Back Door RH Harness, Back Door LH Harness and Back Door No. 2 RH Harness

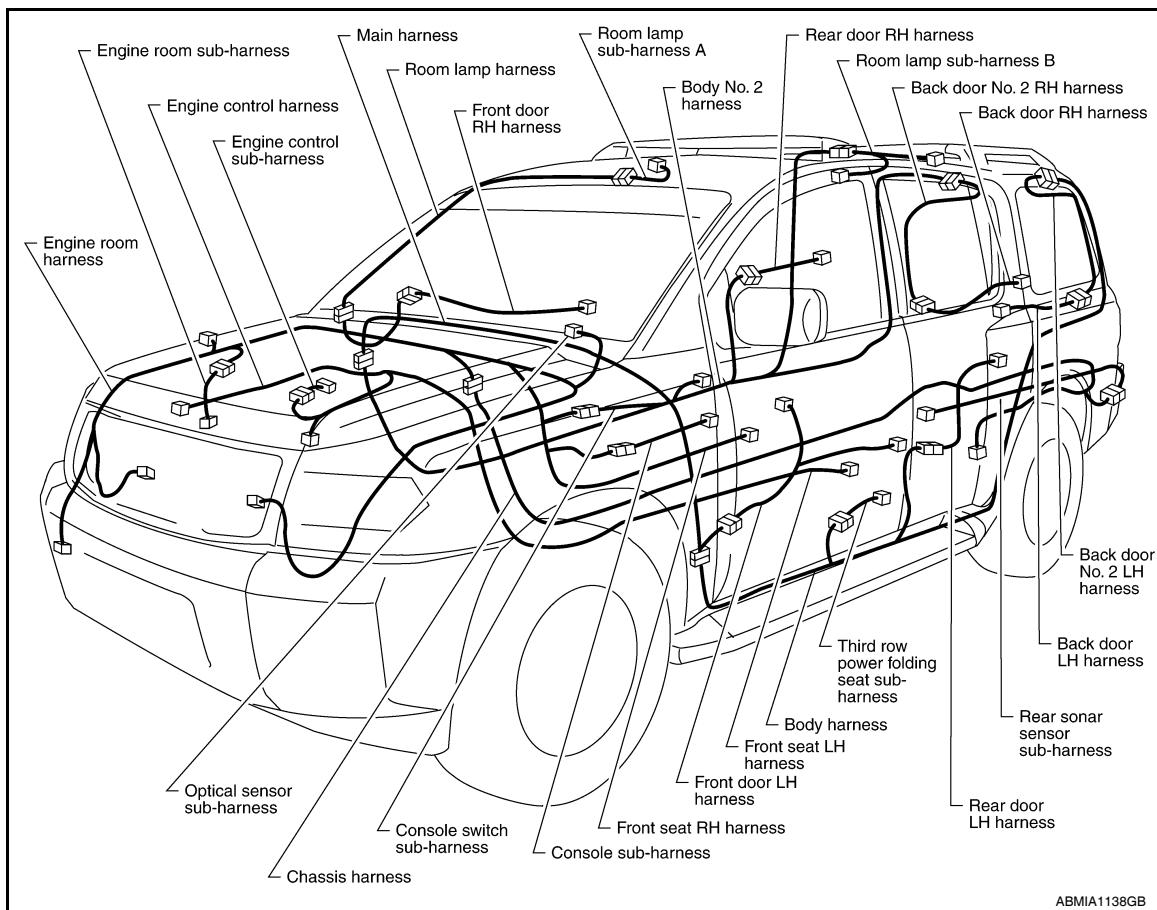
Example:



#### 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.

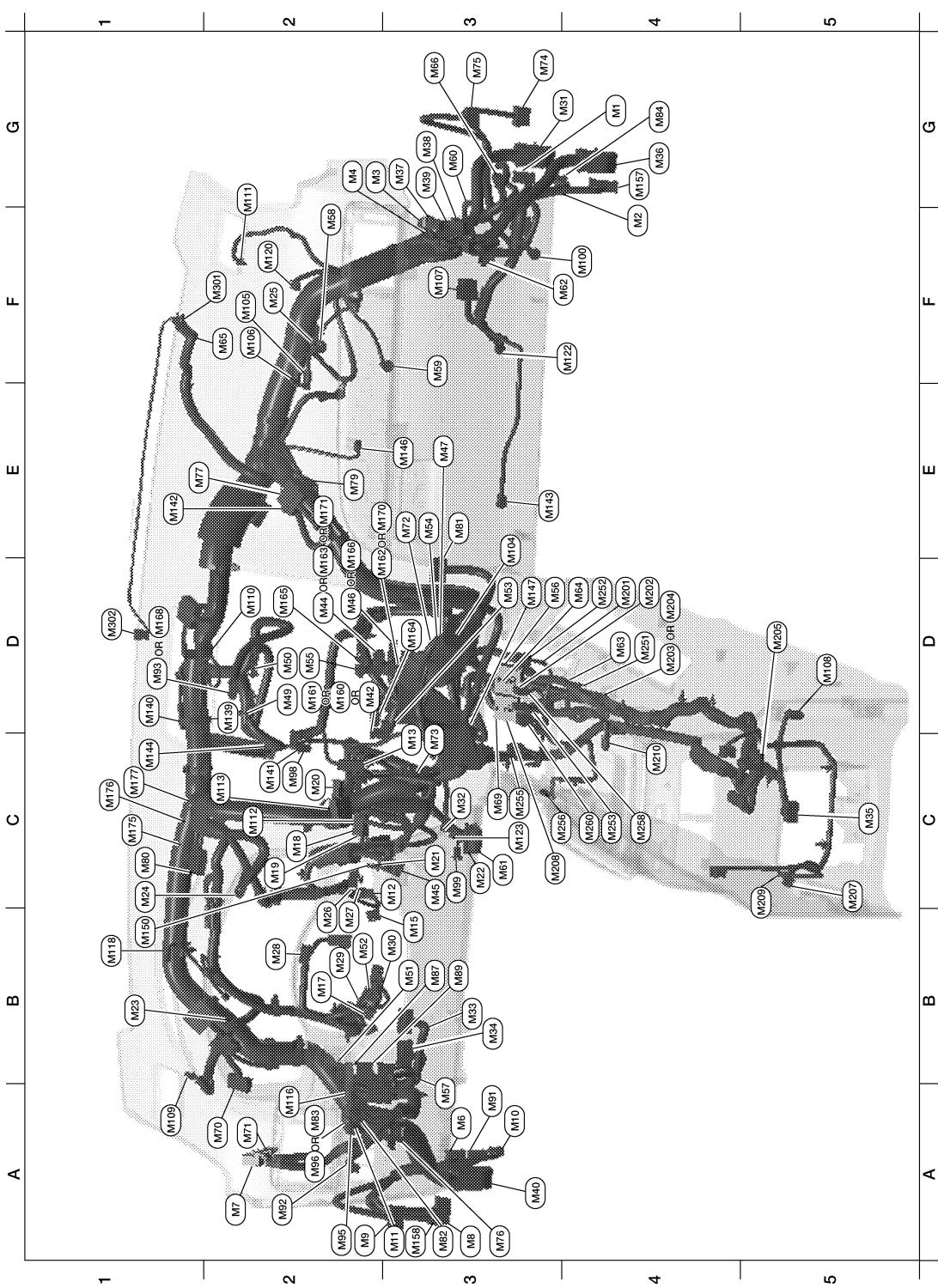
#### OUTLINE



# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## MAIN HARNESS



ABMIA2502GB

PG

G4	M1	W/16	: To R1	A2	M83	BR/6	: Pedal adjusting switch (without automatic drive positioner)
F4	M2	W/12	: To R2	G4	M84	W/16	: To B101
G2	M3	W/8	: Fuse block (J/B)	B3	M87	B/5	: Rear power vent window relay (open)
G2	M4	W/16	: Fuse block (J/B)	B3	M89	B/5	: Rear power vent window relay (close)

# HARNESS

## < DTC/CIRCUIT DIAGNOSIS >

A3	M6	W/10	: To E10	A3	M91	W/16	: To E26
A2	M7	B/5	: Passenger select unlock relay	A2	M92	GR/6	: Power liftgate switch
A3	M8	W/16	: To D2	D1	M93	W/24	: Display unit (without NAVI)
A2	M9	BR/24	: To D1	A2	M95	W/6	: Rear power vent window switch
A3	M10	Y/4	: To E29	A2	M96	BR/6	: Pedal adjusting switch (with automatic drive positioner)
A3	M11	B/1	: Parking brake switch	C2	M98	W/16	: A/C and AV switch assembly
C3	M12	GR/6	: Key switch and ignition knob switch	C3	M99	BR/2	: Foot lamp LH
D3	M13	BR/2	: Front passenger air bag OFF indicator	F4	M100	BR/2	: Foot lamp RH
B3	M15	W/4	: Steering lock solenoid	E3	M104	W/4	: Aux jack
B2	M17	W/8	: Steering angle sensor	F2	M105	Y/2	: Front passenger air bag module
C2	M18	W/40	: BCM (body control module)	F2	M106	O/2	: Front passenger air bag module
C2	M19	W/15	: BCM (body control module)	F3	M107	B/5	: Front blower relay
C2	M20	B/15	: BCM (body control module)	D5	M108	B/4	: Yaw rate/ side/ decel G sensor
C3	M21	W/4	: NATS antenna amp.	A1	M109	BR/2	: Front tweeter LH
C3	M22	W/16	: Data link connector	D2	M110	BR/2	: Center speaker
B1	M23	W/12	: Combination meter	F2	M111	BR/2	: Front tweeter RH
C1	M24	W/40	: Combination meter	C2	M112	BR/14	: BOSE speaker amp.
F2	M25	B/4	: Remote keyless entry receiver	C2	M113	BR/23	: BOSE speaker amp.
B2	M26	W/6	: Ignition switch	A2	M116	GR/8	: Sonar system OFF switch
B2	M27	W/4	: Key switch and key lock solenoid	B1	M118	B/2	: Front sonar buzzer
B2	M28	W/16	: Combination switch	F2	M120	W/4	: Remote keyless entry receiver
B2	M29	Y/6	: Combination switch	F4	M122	W/4	: Variable blower control (front)
B3	M30	GR/8	: Combination switch	C3	M123	W/2	: Tire pressure warning check connector
G4	M31	SMJ	: To E152	D2	M139	B/2	: Diode-1
C3	M32	W/4	: In-vehicle sensor	D1	M140	B/2	: Diode-2
B3	M33	W/32	: Automatic drive positioner control unit	C2	M141	GR/8	: 4WD shift switch
B3	M34	W/16	: Automatic drive positioner control unit	E1	M142	B/6	: Mode door motor (front)
C5	M35	Y/28	: Air bag diagnosis sensor unit	E3	M143	B/6	: Air mix door motor (passenger)
G4	M36	SMJ	: To B149	C1	M144	B/6	: Defroster door motor
G3	M37	B/1	: Fuse block (J/B)	E3	M146	GR/2	: Intake sensor
G3	M38	B/2	: Fuse block (J/B)	D3	M147	B/6	: Air mix door motor (driver)
G3	M39	W/8	: Fuse block (J/B)	B1	M150	W/2	: Ignition keyhole illumination
A3	M40	SMJ	: To B69	G4	M157	W/20	: To B161
C3	M45	W/16	: Satellite radio tuner	A3	M158	W/10	: To D3
D2	M42	W/20	: AV control unit (with base audio system)	D2	M160	W/20	: AV control unit (with BOSE audio system without NAVI)
D2	M44	W/24	: AV control unit (with base audio system)	D2	M161	W/20	: AV control unit (with BOSE audio system with NAVI)
D2	M46	W/32	: AV control unit (with base audio system)	D2	M162	W/12	: AV control unit (with BOSE audio system with NAVI)
E3	M47	B/2	: Sonar buzzer	D2	M163	W/32	: AV control unit (with BOSE audio system with NAVI)
D2	M49	B/26	: A/C auto amp.	D3	M164	W/16	: AV control unit (with BOSE audio system without NAVI)
D2	M50	L/26	: A/C auto amp.	D2	M165	W/40	: AV control unit (with BOSE audio system with NAVI)

# HARNESS

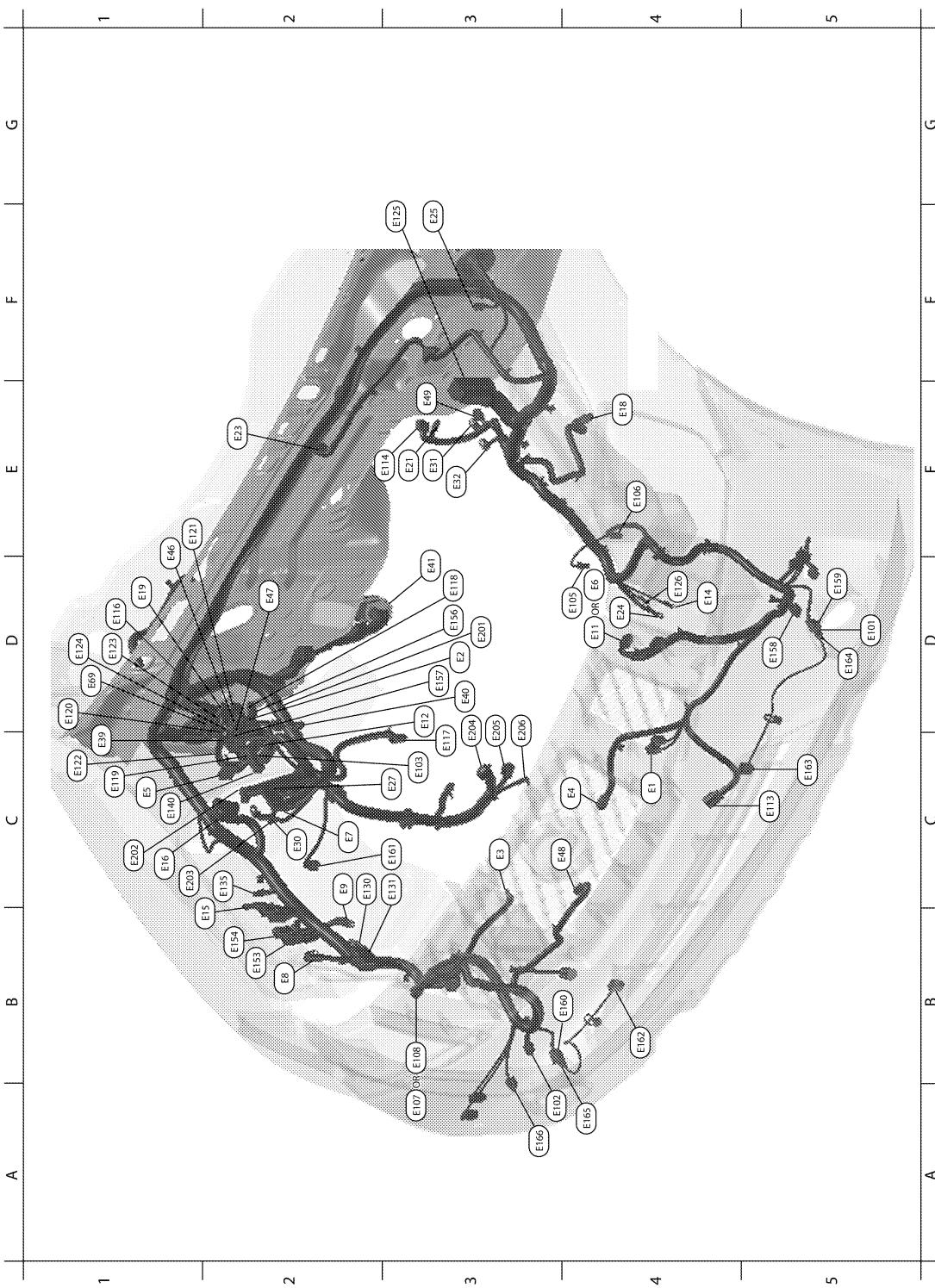
## < DTC/CIRCUIT DIAGNOSIS >

B3	M51	L/4	: Trailer tow relay 1	D2	M166	W/32	: AV control unit (with BOSE audio system without NAVI)	A
B2	M52	W/2	: Combination switch	D1	M168	W/24	: Display unit (with NAVI)	B
D3	M53	B/3	: Front power socket LH	D2	M170	W/12	: AV control unit (with BOSE audio system without NAVI)	C
E3	M54	B/3	: Front power socket RH	D2	M171	W/24	: AV control unit (with BOSE audio system without NAVI)	D
D2	M55	W/4	: Hazard switch	C1	M175	L/20	: Joint connector-M10	E
D4	M56	W/16	: To M201	C1	M176	L/20	: Joint connector-M11	F
A3	M57	—	: Body ground	D1	M177	G/20	: Joint connector-M09	G
F2	M58	B/6	: Intake door motor	Console sub-harness				
F3	M59	BR/2	: Glove box lamp	D4	M201	W/16	: To M56	H
G3	M60	W/6	: Fuse block (J/B)	D4	M202	BR/24	: To M64	I
C3	M61	—	: Body ground	D4	M203	W/12	: A/T shift selector (with intelligent key system)	J
F4	M62	B/2	: Front blower motor	D4	M204	W/12	: A/T shift selector (without intelligent key system)	K
D4	M63	BR/20	: To M251	D5	M205	W/32	: DVD player	L
D4	M64	BR/24	: To M202	C5	M207	B/3	: Console power socket	M
F2	M65	W/4	: To M301	C4	M208	BR/20	: To M69	N
G3	M66	B/1	: To E33	C5	M209	W/2	: Center console area antenna (rear)	O
C3	M69	BR/20	: To M208	C4	M210	GR/2	: Center console area antenna (front)	P
A2	M70	W/40	: Intelligent key unit	Console switch sub-harness				
A2	M71	L/4	: Heated steering relay	D4	M251	BR/20	: To M63	PG
E3	M72	W/12	: AV control unit (with BOSE audio system-without NAVI)	D4	M252	BR/6	: Front heated seat switch RH	
D3	M73	BR/6	: Back-up lamp relay	C4	M253	GR/6	: VDC OFF switch	
G3	M74	BR/20	: To D102	C3	M255	W/6	: Front heated seat switch LH	
G3	M75	W/10	: To D101	C4	M256	B/2	: A/T shift selector	
A3	M76	W/6	: Electric brake (pre-wiring)	C4	M258	GR/8	: Tow mode switch	
E2	M77	Y/4	: Front passenger air bag module (service replacement)	C4	M260	W/6	: Heated steering wheel switch	
E2	M79	—	: Body ground	Optical sensor sub-harness				
C1	M80	B/2	: Resistor	F2	M301	W/4	: To M65	
E3	M81	GR/10	: Shift lock control unit	F2	M302	W/4	: Optical sensor	
A3	M82	W/2	: Circuit breaker-2					

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

ENGINE ROOM HARNESS



ABMIA0076GB

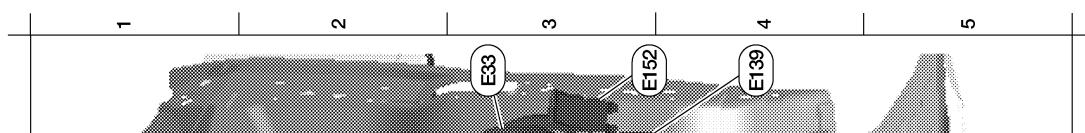
C4	E1	GR/2	: Ambient sensor	C5	E113	W/2	: Cooling fan motor
D3	E2	W/16	: To F32	E3	E114	B/6	: Delta stroke sensor
C3	E3	B/2	: Horn	D1	E116	W/2	: Condenser-2
C3	E4	Y/2	: Crash zone sensor	D3	E117	GR/2	: Front wheel sensor RH
C1	E5	W/24	: To F14	D3	E118	B/2	: IPDM E/R (intelligent power distribution module engine room)

# HARNESS

## < DTC/CIRCUIT DIAGNOSIS >

D4	E6	B/6	: Front combination lamp LH (with daytime light system)	C1	E119	W/16	: IPDM E/R (intelligent power distribution module engine room)	
C2	E7	GR/2	: Fusible link box (battery)	D1	E120	W/6	: IPDM E/R (intelligent power distribution module engine room)	
B2	E8	GR/2	: Dropping resistor	E1	E121	BR/12	: IPDM E/R (intelligent power distribution module engine room)	
C2	E9	—	: Body ground	C1	E122	W/12	: IPDM E/R (intelligent power distribution module engine room)	
D4	E11	B/6	: Front combination lamp LH (without daytime light system)	D1	E123	BR/8	: IPDM E/R (intelligent power distribution module engine room)	
D3	E12	B/5	: Stop lamp relay	D1	E124	B/6	: IPDM E/R (intelligent power distribution module engine room)	
D4	E14	—	: Body ground	F3	E125	B/47	: ABS actuator and electric unit (control unit)	
B2	E15	—	: Body ground	D4	E126	—	: Body ground	
C1	E16	B/40	: ECM	C2	E130	W/2	: Compressor motor relay	
E4	E18	GR/2	: Front wheel sensor LH	C3	E131	W/2	: Compressor motor relay	
D1	E19	W/16	: To F33	C2	E135	GR/2	: Transfer dropping resistor	
E3	E21	GR/2	: Brake fluid level switch	C1	E140	BR/6	: Trailer tow relay 2	
E2	E23	GR/6	: Front wiper motor	B2	E153	W/2	: Transfer motor relay	
D4	E24	—	: Body ground	B2	E154	W/2	: Transfer motor relay	
F3	E25	BR/3	: Intelligent key warning buzzer	D3	E156	L/4	: Trailer turn relay LH	
C3	E27	BR/2	: Fusible link box (battery)	D3	E157	L/4	: Trailer turn relay RH	
C2	E30	/1	: Fusible link box (battery)	D5	E158	B/3	: Front sonar sensor LH outer	
E3	E31	GR/3	: Front pressure sensor	D5	E159	GR/3	: To E164	
E3	E32	GR/3	: Rear pressure sensor	B4	E160	GR/3	: To E165	
C1	E39	W/2	: To F34	C3	E161	B/3	: Battery current sensor	
D3	E40	B/3	: To E201	B4	E162	B/3	: Front sonar sensor LH inner	
D3	E41	SMJ	: To C1	C5	E163	B/3	: Front sonar sensor RH inner	
E1	E46	B/5	: Transfer shift high relay	D5	E164	GR/3	: To E159	
D2	E47	B/5	: Transfer shift low relay	A4	E165	GR/3	: To E160	
C3	E48	B/3	: Refrigerant pressure sensor	A3	E166	B/3	: Front sonar sensor RH outer	
E3	E49	B/6	: Active booster	Engine room sub-harness				
D1	E69	L/4	: Transfer shut off relay	D3	E201	B/3	: To E40	
D5	E101	B/2	: Front fog lamp LH	C1	E202	/1	: Fusible link box (battery)	
A3	E102	B/2	: Front fog lamp RH	C1	E203	—	: Body ground	
C3	E103	B/5	: Daytime light relay	C3	E204	/1	: Generator	
D4	E105	BR/2	: Front and rear washer motor	C3	E205	B/3	: Generator	
E4	E106	BR/2	: Washer fluid level switch	C3	E206	/1	: Generator	
B3	E107	B/6	: Front combination lamp RH (without daytime light system)					
B3	E108	B/6	: Front combination lamp RH (with daytime light system)					

## ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)



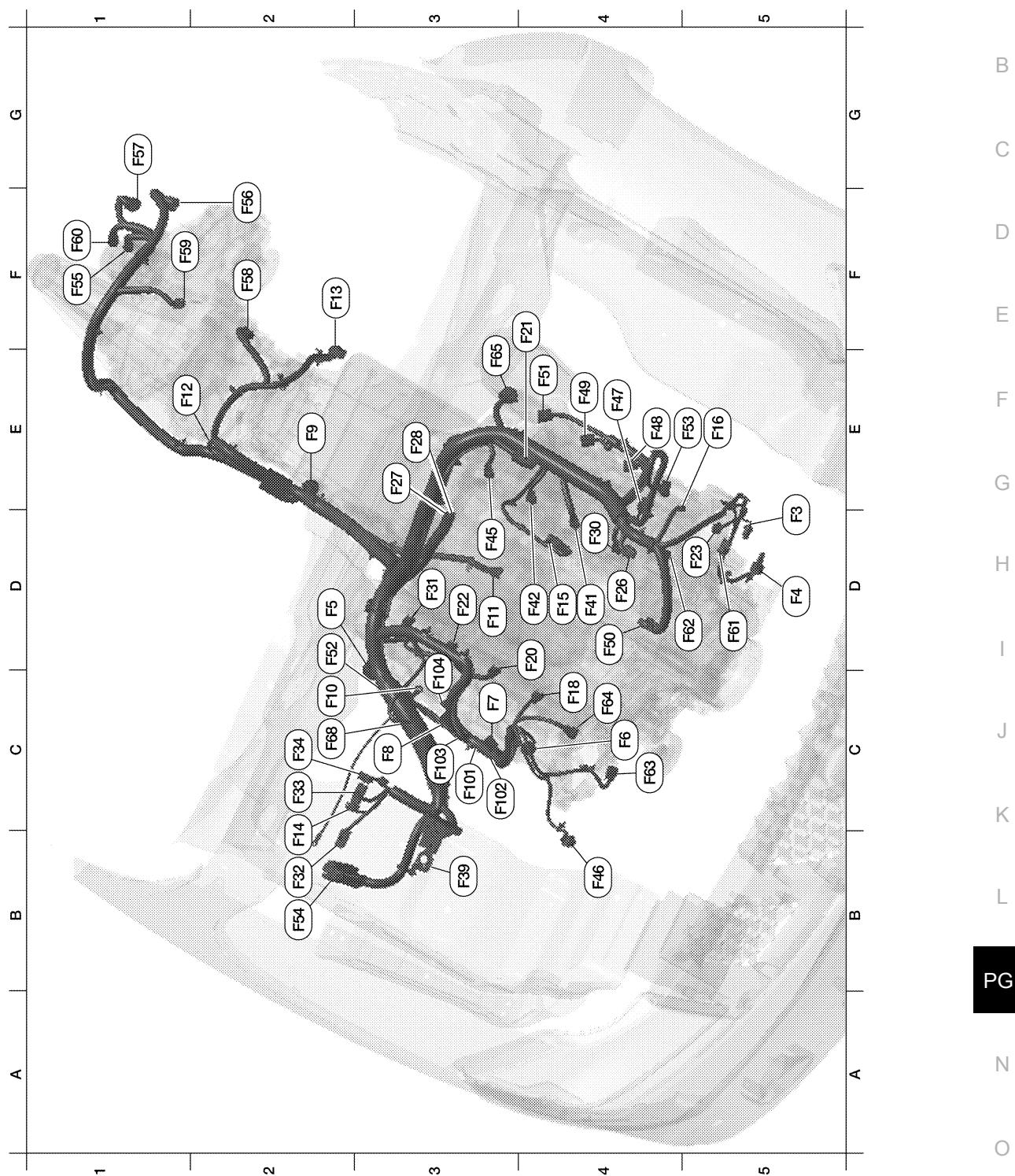
# HARNESS

## < DTC/CIRCUIT DIAGNOSIS >

A3	E10	W/10	: To M6	B3	E38	B/2	: Stop lamp switch
G3	E17	W/4	: Fuel pump control module (FPCM)	A3	E50	BR/2	: To B75
C4	E20	B/8	: Accelerator pedal position (APP) sensor	B3	E109	GR/2	: Pedal adjusting motor assembly (with automatic drive positioner)
A3	E26	W/16	: To M91	C4	E110	GR/3	: Pedal adjusting motor assembly
A3	E29	Y/4	: To M10	G4	E139	W/8	: To B107
G3	E33	B/1	: To M66	F3	E142	W/24	: Transfer control unit
A3	E34	W/24	: To B40	F3	E143	GR/24	: Transfer control unit
A4	E35	W/12	: To B41	G3	E152	SMJ	: To M31
A4	E36	W/2	: To B42	B3	E167	GR/2	: Pedal adjusting motor (without automatic drive positioner)
B3	E37	BR/2	: ASCD brake switch				

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >  
ENGINE CONTROL HARNESS



ABMIA1142GB

D5	F3	B/1	: A/C Compressor	D4	F42	GR/2	: Fuel injector No. 5
D5	F4	GR/1	: Oil pressure switch	D3	F45	GR/2	: Fuel injector No. 7
D2	F5	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 2)	B4	F46	B/3	: Power steering pressure sensor
C4	F6	GR/3	: Ignition coil No. 2 (with power transistor)	E4	F47	GR/3	: Ignition coil No. 1 (with power transistor)
C3	F7	GR/3	: Ignition coil No. 4 (with power transistor)	E4	F48	GR/3	: Ignition coil No. 3 (with power transistor)

# HARNESS

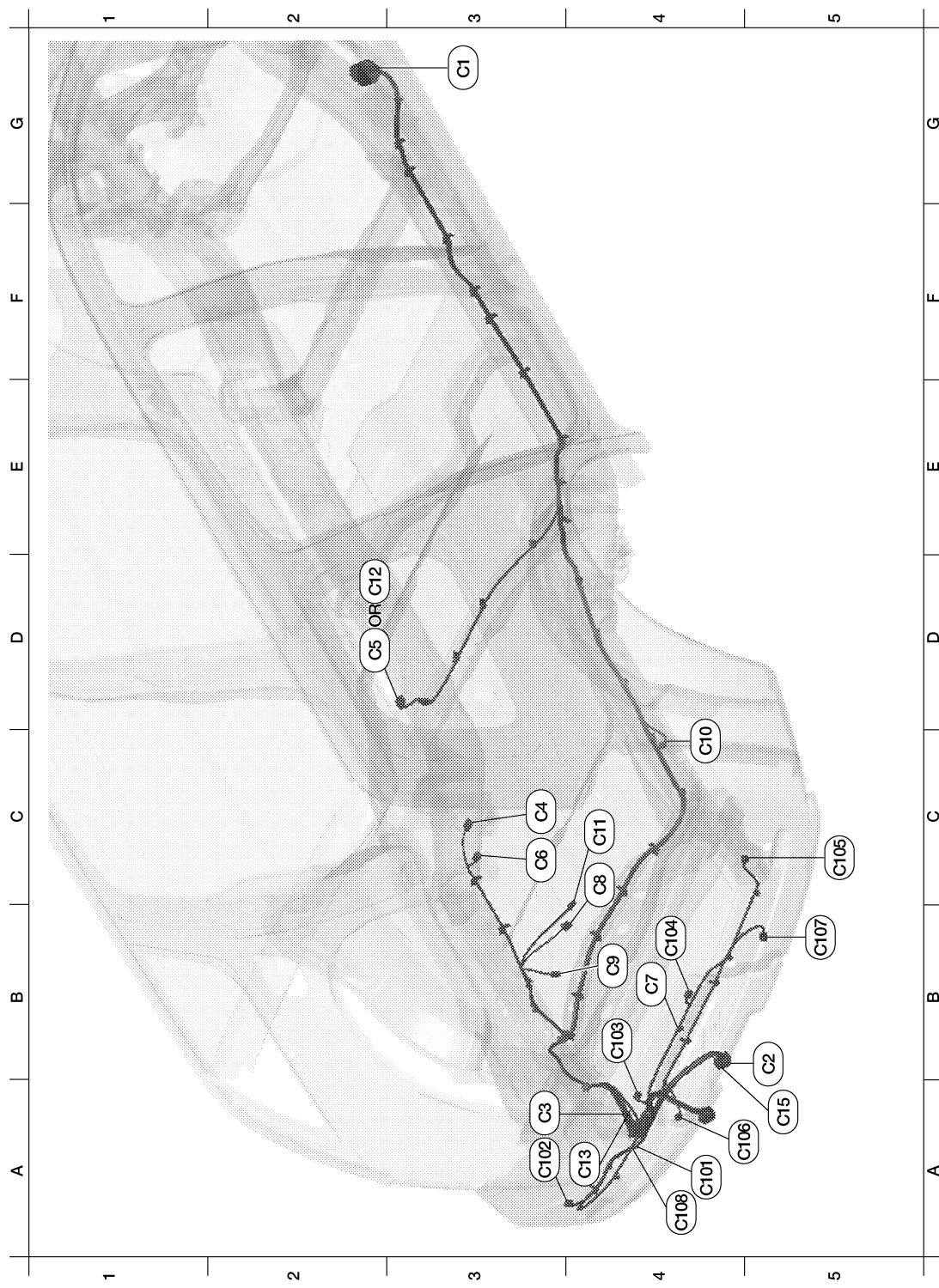
## < DTC/CIRCUIT DIAGNOSIS >

C3	F8	GR/3	: Ignition coil No. 6 (with power transistor)	E4	F49	GR/3	: Ignition coil No. 5 (with power transistor)
E2	F9	G/10	: A/T assembly	D4	F50	W/6	: Electric throttle control actuator
C2	F10	—	: Engine ground	E4	F51	GR/3	: Ignition coil No. 7 (with power transistor)
D3	F11	B/3	: Crankshaft position sensor (POS)	D2	F52	GR/3	: Ignition coil No. 8 (with power transistor)
E1	F12	G/4	: Heated oxygen sensor 2 (bank 2)	E5	F53	B/6	: Mass air flow sensor
F2	F13	G/4	: Heated oxygen sensor 2 (bank 1)	B2	F54	B/81	: ECM
B2	F14	W/24	: To E5	F1	F55	B/2	: ATP switch
D4	F15	GR/2	: EVAP canister purge volume control solenoid valve	F2	F56	B/8	: Transfer terminal cord assembly
E5	F16	—	: Engine ground	G1	F57	B/2	: Transfer motor
C4	F18	GR/2	: Fuel injector No. 2	F2	F58	GR/6	: Transfer control device
D4	F20	GR/2	: Fuel injector No. 4	F1	F59	B/2	: Wait detection switch
F4	F21	GR/2	: Condenser-1	F1	F60	GR/2	: Neutral-4LO switch
D3	F22	GR/2	: Fuel injector No. 6	D5	F61	G/2	: Intake valve timing control solenoid valve (bank 1)
D5	F23	B/3	: Camshaft position sensor (PHASE)	D5	F62	B/3	: Intake valve timing control position sensor (bank 1)
D4	F26	B/6	: To F101	C4	F63	G/2	: Intake valve timing control solenoid valve (bank 2)
E3	F27	/1	: Starter motor	C4	F64	B/3	: Intake valve timing control position sensor (bank 2)
E3	F28	GR/1	: Starter motor	E3	F65	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 1)
D4	F30	GR/2	: Fuel injector No. 1	C2	F68	GR/2	: Water valve
D3	F31	GR/2	: Fuel injector No. 8	Engine control sub-harness			
B2	F32	W/16	: To E2	C3	F101	B/6	: To F26
C2	F33	W/16	: To E19	C3	F102	B/2	: Knock sensor (bank 1)
C2	F34	W/2	: To E39	C3	F103	GR/2	: Engine coolant temperature sensor
B3	F39	—	: Fusible link (battery)	C3	F104	B/2	: Knock sensor (bank 2)
D4	F41	GR/2	: Fuel injector No. 3				

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

CHASSIS HARNESS



ABMIA2505GB

G2	C1	SMJ	: To E41	A4	C13	GR/6	: To C108		
B5	C2	B/7	: Trailer	A5	C15	B/7	: Trailer receptacle		
A3	C3	GR/8	: To C101	Rear sonar sensor sub-harness					
C3	C4	GR/3	: Evap control system pressure sensor	A4	C101	GR/8	: To C3		

# HARNESS

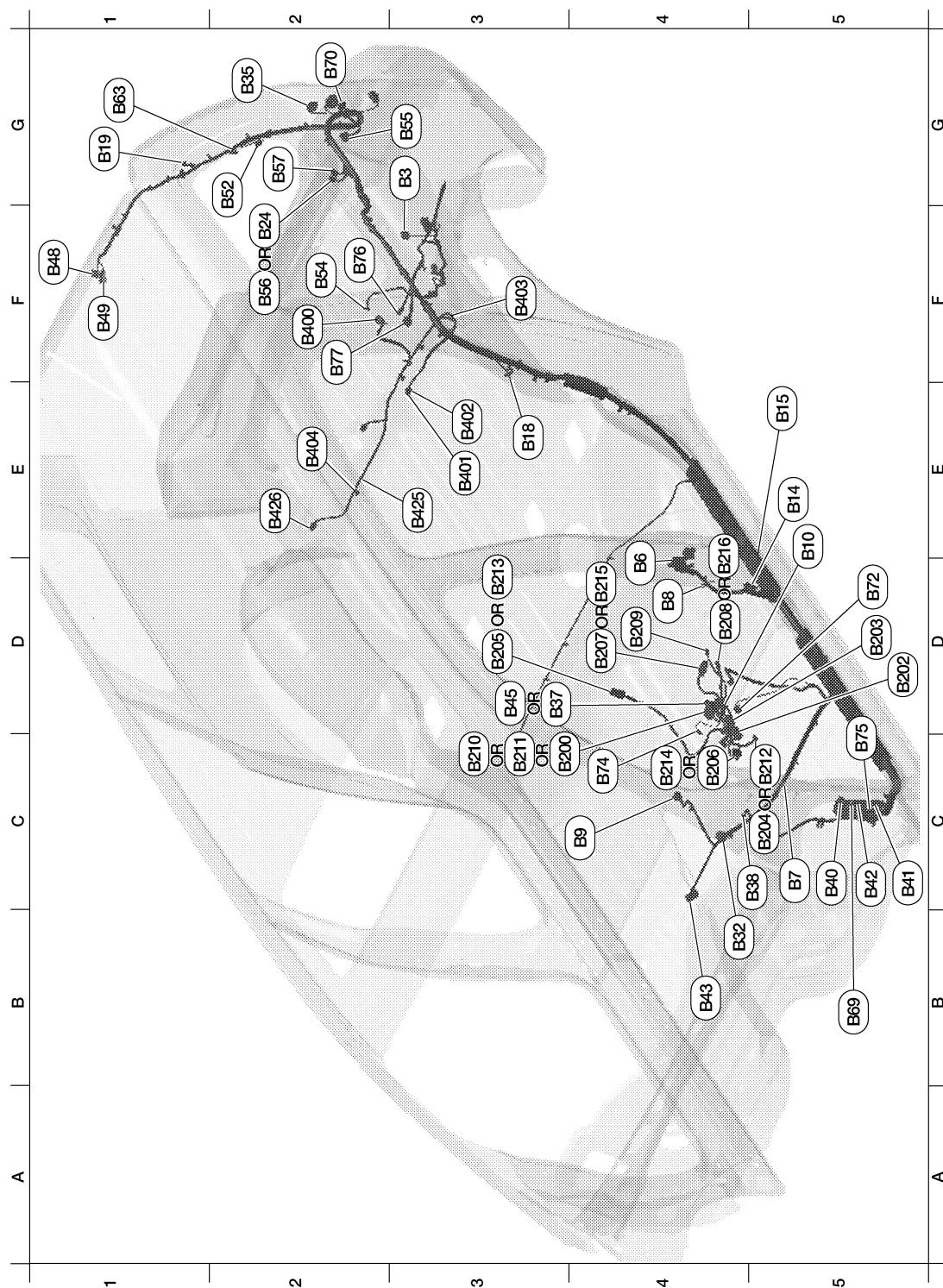
## < DTC/CIRCUIT DIAGNOSIS >

D2	C5	GR/5	: Fuel level sensor unit and fuel pump (without flex fuel)	A3	C102	B/3	: Rear sonar sensor LH outer
C3	C6	B/2	: Evap canister vent control valve	B4	C103	B/3	: Rear sonar sensor LH inner
B4	C7	GR/2	: Rear bumper antenna	B4	C104	B/3	: Rear sonar sensor RH inner
C4	C8	B/3	: Height sensor	C5	C105	B/3	: Rear sonar sensor RH outer
B4	C9	B/4	: Suspension air compressor	A5	C106	GR/2	: License plate lamp LH
C4	C10	BR/2	: Rear wheel sensor RH	B5	C107	GR/2	: License plate lamp RH
C4	C11	BR/2	: Rear wheel sensor LH	A4	C108	GR/6	: To C13
D2	C12	GR/5	: Fuel level sensor unit and fuel pump (with flex fuel)				

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## BODY HARNESS



ABMIA2506GB

G3	B3	W/16	: Suspension control unit	G5	B71	B/2	: Back-up lamp LH
D4	B6	W/18	: To D201	D5	B72	BR/6	: Subwoofer
C5	B7	—	: Body ground	C4	B74	Y/4	: Seat belt buckle pre-tensioner assembly LH
D4	B8	W/3	: Front door switch LH	C5	B75	BR/2	: To E50
C4	B9	Y/12	: Air bag diagnosis sensor unit	F2	B76	GR/2	: Luggage area antenna

# HARNESS

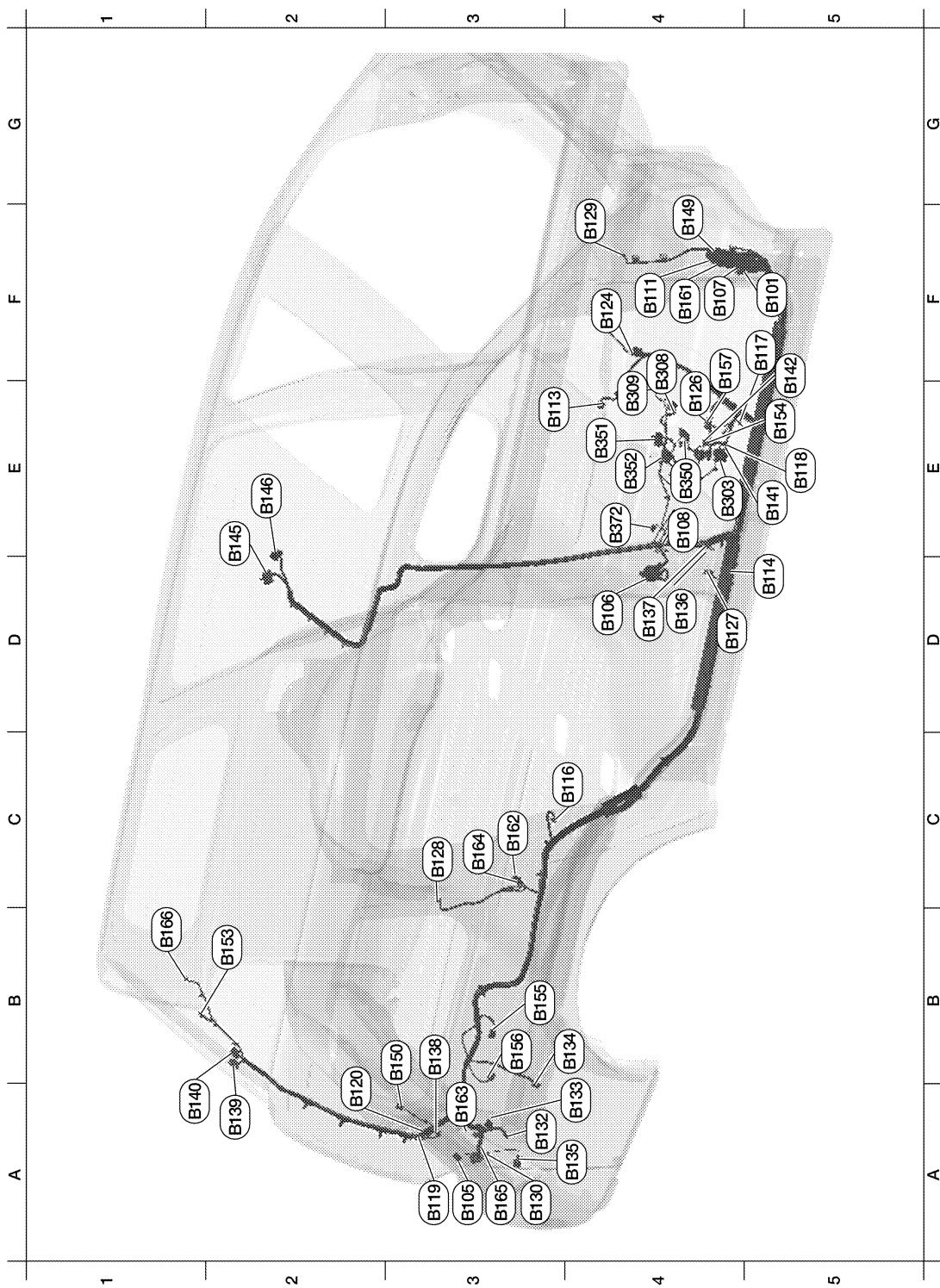
## < DTC/CIRCUIT DIAGNOSIS >

E5	B10	Y/2	: Front LH side air bag module	F2	B77	W/10	: To B400
E5	B14	Y/2	: Front LH seat belt pre-tensioner	Front seat LH harness			
E5	B15	Y/2	: LH side air bag (satellite) sensor	C3	B200	W/16	: To B37 (with automatic drive positioner)
E3	B18	W/3	: Rear door switch LH	D5	B202	W/32	: Driver seat control unit
G1	B19	—	: Body ground	D5	B203	W/16	: Driver seat control unit
F2	B24	W/16	: Sonar control unit (with rear sonar system)	C4	B204	GR/5	: Sliding motor LH (with automatic drive positioner)
B4	B32	W/6	: To B124	D3	B205	W/4	: Reclining motor LH (with automatic drive positioner)
G2	B35	B/3	: Rear combination lamp LH	C4	B206	GR/5	: Lifting motor (front) (with automatic drive positioner)
D3	B37	W/16	: To B200 (with automatic drive positioner)	D4	B207	GR/5	: Lifting motor (rear) (with automatic drive positioner)
C4	B38	Y/2	: LH side front curtain air bag module	D4	B208	W/10	: Power seat switch LH (with automatic drive positioner)
C5	B40	W/24	: To E34	D4	B209	W/3	: Front seat heater LH
C5	B41	W/12	: To E35	D3	B211	W/2	: To B45 (without automatic drive positioner)
C5	B42	W/2	: To E36	C5	B212	GR/2	: Sliding motor LH (without automatic drive positioner)
B4	B43	W/16	: To B111	D3	B213	W/2	: Reclining motor LH (without automatic drive positioner)
D3	B45	W/2	: To B211 (without automatic drive positioner)	C4	B214	GR/2	: Lifting motor (front) (without automatic drive positioner)
F1	B48	W/18	: To D401	D4	B215	GR/2	: Lifting motor (rear) (without automatic drive positioner)
F1	B49	W/2	: To D402	D4	B216	W/10	: Power seat switch LH (without automatic drive positioner)
G2	B52	W/2	: Rear power vent window motor LH	Third row power folding seat sub-harness			
F2	B54	Y/2	: LH side rear curtain air bag module	F2	B400	W/10	: To B77
G3	B55	W/26	: Back door control unit	E3	B401	GR/12	: Third row power folding seat control unit
F2	B56	GR/16	: Sonar control unit (with front and rear sonar system)	E3	B402	W/10	: Third row power folding seat control unit
G2	B57	GR/10	: Sonar control unit (with front and rear sonar system)	E3	B403	GR/4	: Third row power folding seat motor LH
G1	B63	W/6	: Back door close switch	E2	B404	W/4	: To B425
B5	B69	SMJ	: To M40	E2	B425	W/4	: To B404
G2	B70	B/3	: Rear combination lamp LH	E3	B426	GR/4	: Third row power folding seat motor RH

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

BODY NO. 2 HARNESS



ABMIA0081GB

F5	B101	W/16	: To M84	A1	B140	W/6	: To D601
A3	B105	B/3	: Rear combination lamp RH	E5	B141	W/8	: Bluetooth control unit
D4	B106	W/18	: To D301	E5	B142	W/32	: Bluetooth control unit
F4	B107	W/8	: To E139	E2	B145	W/16	: To R200
E4	B108	W/3	: Front door switch RH	E2	B146	BR/24	: To R201

# HARNESS

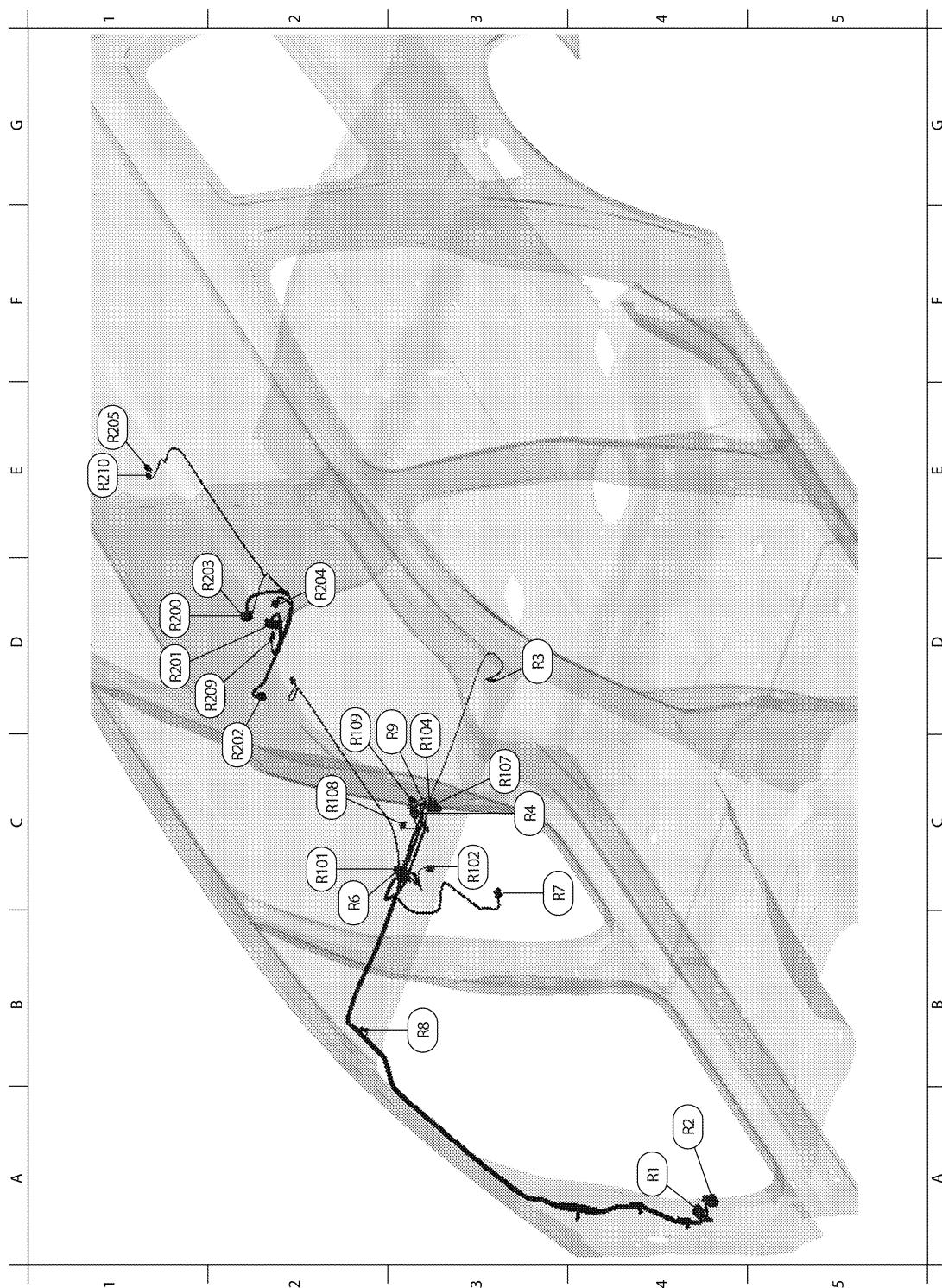
## < DTC/CIRCUIT DIAGNOSIS >

F4	B111	W/16	: To B43	F4	B149	SMJ	: To M36
E3	B113	Y/12	: Air bag diagnosis sensor unit	B3	B150	W/2	: Rear power vent window motor RH
D5	B114	Y/2	: RH side air bag (satellite) sensor	B2	B153	W/2	: Cargo lamp
C4	B116	W/3	: Rear door switch RH	E5	B154	W/2	: To B303
F5	B117	—	: Body ground	B3	B155	B/6	: Air mix door motor (rear)
E5	B118	W/3	: Front seat heater RH	B3	B156	B/6	: Mode door motor (rear)
A3	B119	W/2	: Condenser-3	E4	B157	Y/4	: Seat belt buckle pre-tensioner assembly RH
A2	B120	W/2	: Condenser-4	F4	B161	W/20	: To M157
F4	B124	W/6	: To B32	C3	B162	BR/6	: Third row power folding seat switch passenger side (front)
E4	B126	Y/2	: Front RH side air bag module	A3	B163	W/6	: Third row power folding seat switch passenger side (rear)
D4	B127	Y/2	: Front RH seat belt pre-tensioner	C3	B164	W/6	: Third row power folding seat switch driver side (front)
C3	B128	Y/2	: RH side rear curtain air bag module	A3	B165	BR/6	: Third row power folding seat switch driver side (rear)
F4	B129	Y/2	: RH side front curtain air bag module	B2	B166	B/2	: Rear sonar buzzer
A3	B130	B/3	: Rear combination lamp RH	Front seat RH harness			
A3	B132	—	: Body ground	E4	B303	W/2	: To B154
A4	B133	W/4	: Variable blower control (rear)	F4	B308	W/6	: Power seat switch RH
B4	B134	W/2	: Rear blower motor	E4	B309	GR/2	: Sliding motor RH
A4	B135	B/2	: Back-up lamp RH	E4	B350	Y/8	: To B136
D4	B136	W/8	: To B350	E4	B351	B/18	: Occupant classification system control unit
D4	B137	W/3	: Belt tension sensor	E4	B352	B/3	: Occupant classification system sensor
B3	B138	B/3	: Rear cargo power socket	E4	B372	W/2	: Reclining motor RH
A2	B139	W/16	: To D602				

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

ROOM LAMP HARNESS



ABMIA0082GB

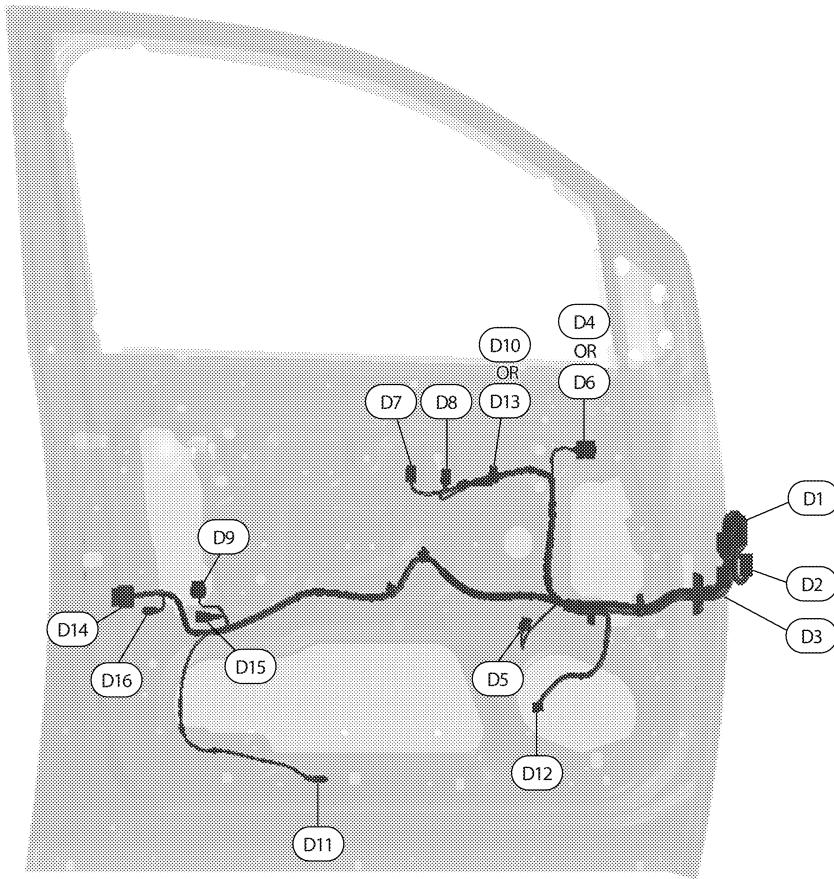
A4	R1	W/16	: To M1	C3	R107	W/8	: To R9
A4	R2	W/12	: To M2	C2	R108	B/6	: Rear air control (front)
D3	R3	W/2	: Vanity lamp LH	D2	R109	W/4	: Microphone
C3	R4	W/10	: Sunroof motor assembly	Room lamp sub-harness B			
C2	R6	W/16	: To R101	D1	R200	W/16	: To B145

# HARNESS

## < DTC/CIRCUIT DIAGNOSIS >

C3	R7	GR/10	: Auto anti-dazzling inside mirror	D1	R201	BR/24	: To B146
B3	R8	W/2	: Vanity lamp RH	C2	R202	W/12	: Video monitor
D3	R9	W/8	: To R107	D1	R203	W/3	: Personal lamp 2ND row
Room lamp sub-harness A				D2	R204	W/16	: Rear audio remote control unit
C2	R101	W/16	: To R6	E1	R205	W/3	: Personal lamp 3RD row
C3	R102	GR/8	: Front room/map lamp assembly	D2	R209	B/6	: Rear air control (rear)
D3	R104	GR/6	: Sunroof switch	E1	R210	W/2	: Over head console area antenna

## FRONT DOOR LH HARNESS



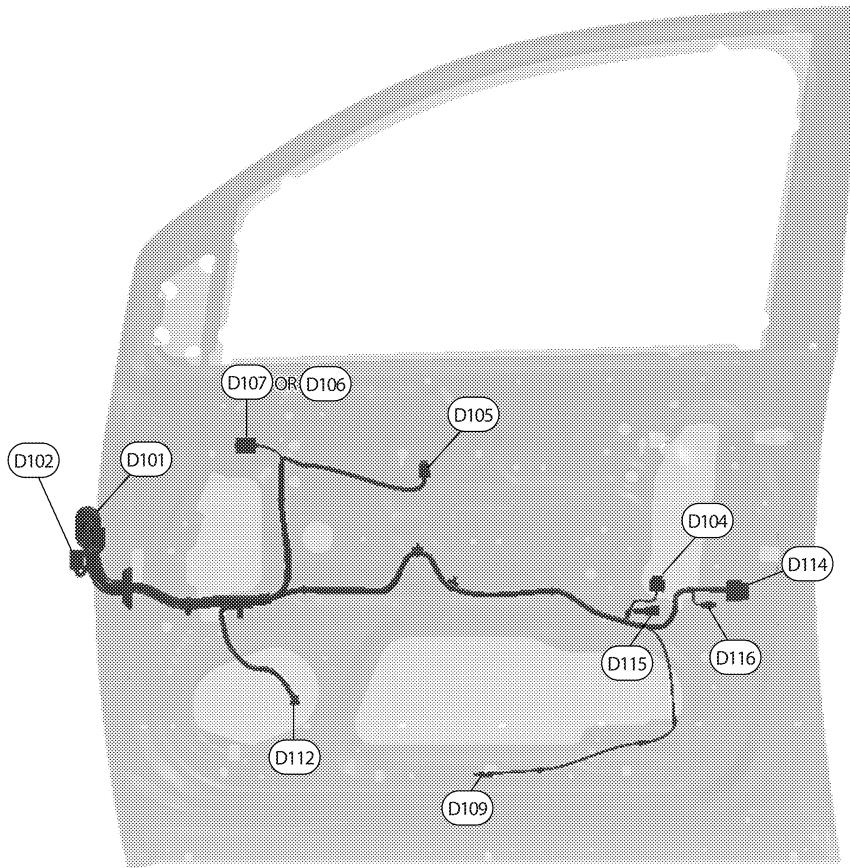
ABMIA0083GB

D1	BR/24	: To M9	D9	GR/6	: Front power window motor LH
D2	W/16	: To M8	D10	BR/16	: Door mirror remote control switch (with automatic drive positioner)
D3	W/10	: To M158	D11	W/2	: Front step lamp LH
D4	W/16	: Door mirror LH (with automatic drive positioner)	D12	W/2	: Front door speaker LH
D5	W/8	: Seat memory switch	D13	W/16	: Door mirror remote control switch (without automatic drive positioner)
D6	W/6	: Door mirror LH (without automatic drive positioner)	D14	B/6	: Front door lock assembly LH
D7	W/16	: Main power window and door lock/unlock switch	D15	GR/2	: Front outside antenna LH
D8	W/3	: Main power window and door lock/unlock switch	D16	GR/2	: Front door request switch LH

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

FRONT DOOR RH HARNESS



ABMIA0084GB

D101	W/10	: To M75	D109	W/2	: Front step lamp RH
D102	BR/20	: To M74	D112	W/2	: Front door speaker RH
D104	GR/6	: Front power window motor RH	D114	B/6	: Front door lock actuator RH
D105	W/16	: Power window and door lock/unlock switch RH	D115	GR/2	: Front outside antenna RH
D106	W/6	: Door mirror RH (without automatic drive positioner)	D116	GR/2	: Front door request switch RH
D107	W/16	: Door mirror RH (with automatic drive positioner)			

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

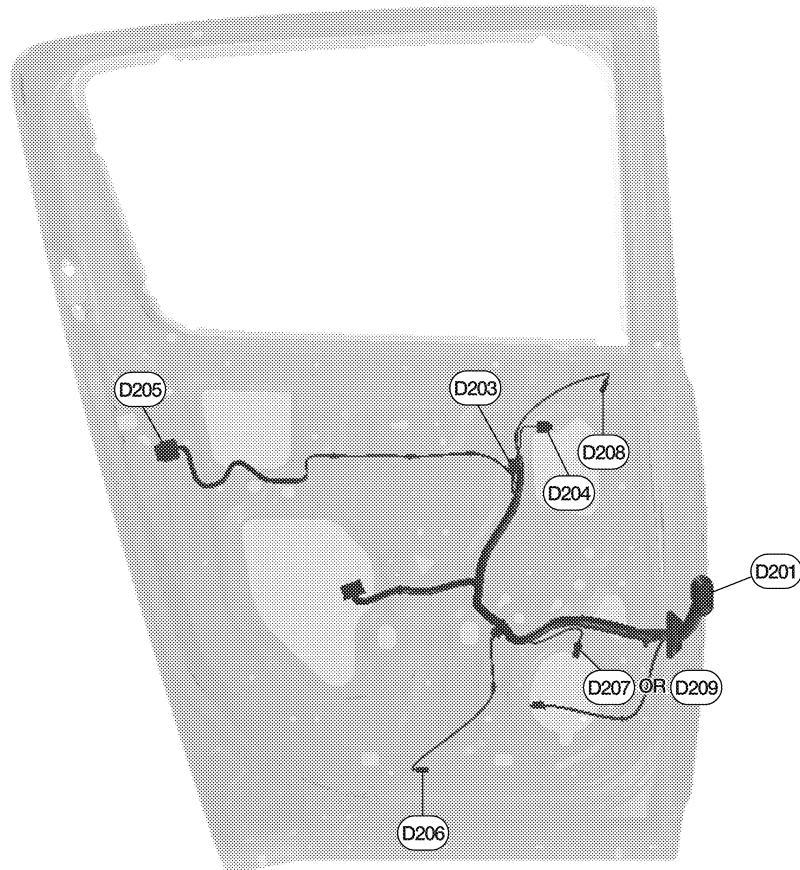
PG

N  
O  
P

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

REAR DOOR LH HARNESS



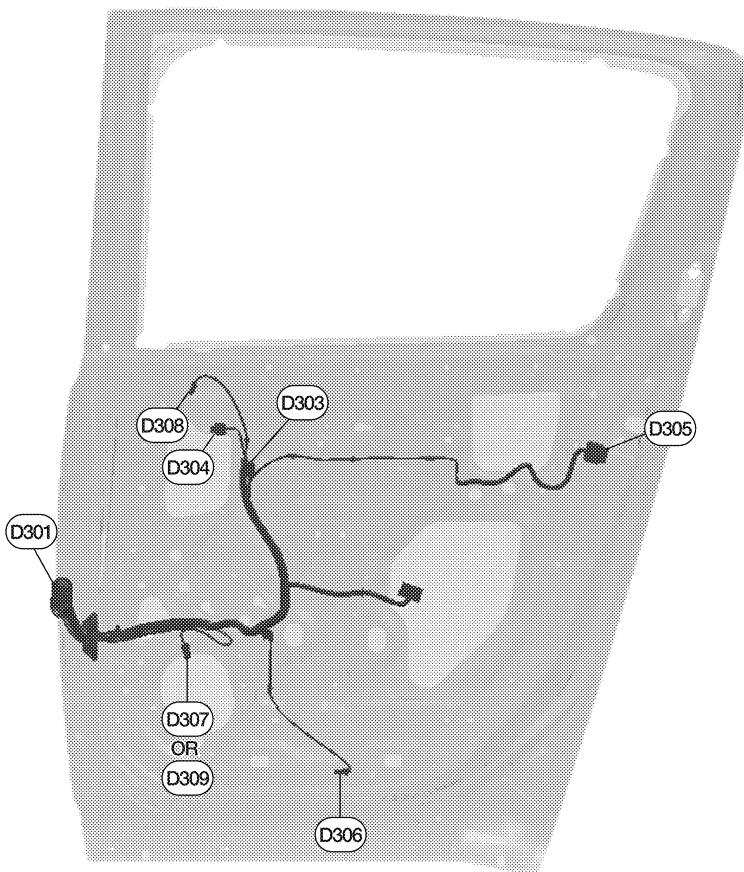
ABMIA1144GB

D201	W/18	: To B6			
D203	W/8	: Rear power window switch LH			
D204	GR/2	: Rear power window motor LH			
D205	B/6	: Rear door lock actuator LH			
D206	W/2	: Rear step lamp LH			
D207	BR/2	: Rear door speaker LH (with BOSE audio system)			
D208	BR/2	: Rear door tweeter LH			
D209	W/2	: Rear door speaker LH (with base audio system)			

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

REAR DOOR RH HARNESS



ABMIA1145GB

D301	W/18	: To B106			
D303	W/8	: Rear power window switch RH			
D304	GR/2	: Rear power window motor RH			
D305	B/6	: Rear door lock actuator RH			
D306	W/2	: Rear step lamp RH			
D307	BR/2	: Rear door speaker RH (with BOSE audio system)			
D308	BR/2	: Rear door tweeter RH			
D309	W/2	: Rear door speaker RH (with base audio system)			

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

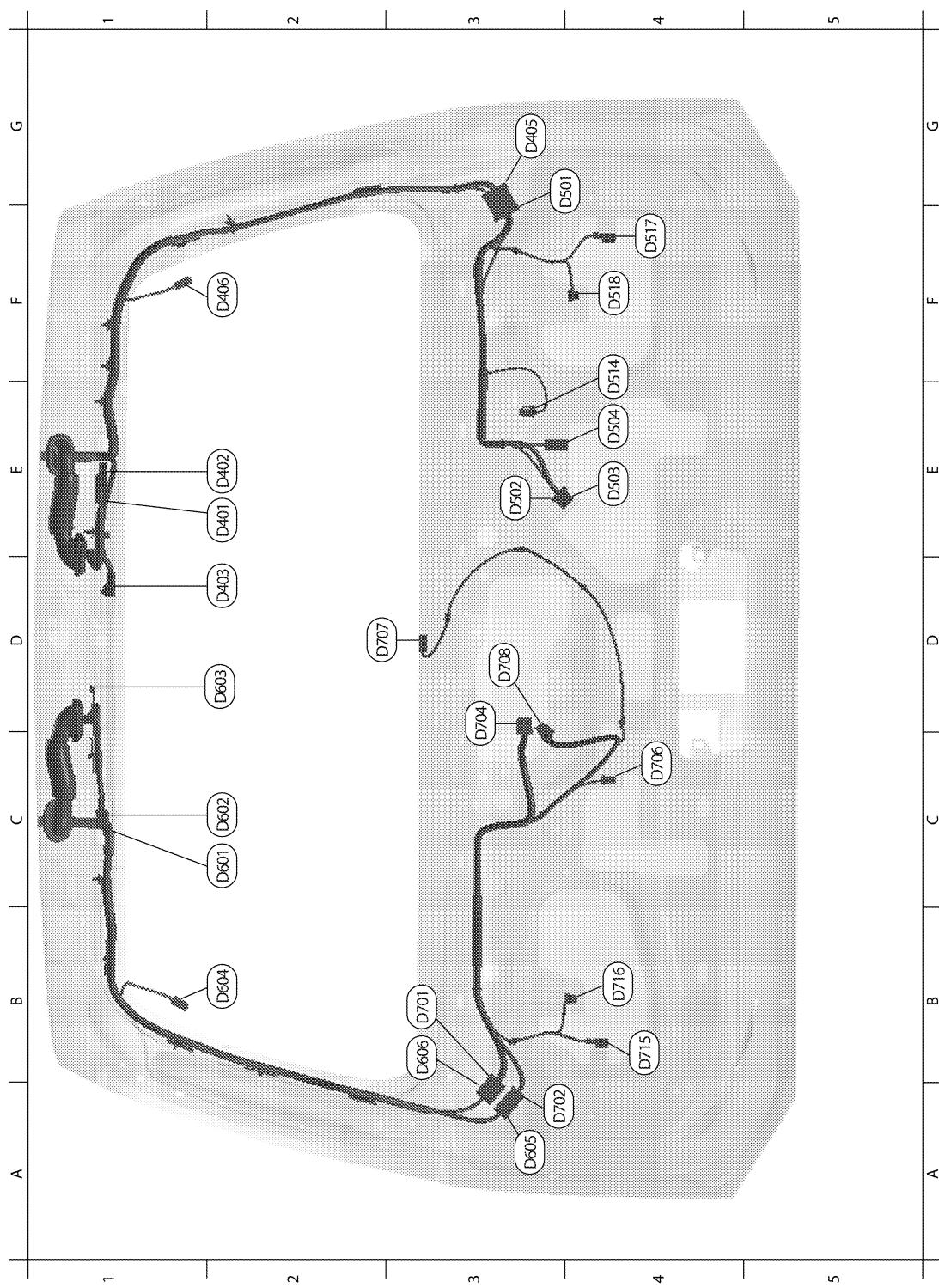
PG

N  
O  
P

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

BACK DOOR HARNESS



ABMIA0085GB

Back door No. 2 LH harness				Back door RH harness			
E2	D401	W/18	: To B48	B3	D701	W/16	: To D606
E2	D402	W/2	: To B49	A3	D702	W/6	: To D605
D2	D403	GR/2	: High-mounted stop lamp	D3	D704	W/6	: Rear wiper motor
G3	D405	W/18	: To D501	C4	D706	GR/2	: Back door handle switch

# HARNESS

## < DTC/CIRCUIT DIAGNOSIS >

F2	D406	B/1	: Rear window defogger	D2	D707	B/1	: Glass hatch ajar switch
Back door LH harness				D3	D708	W/4	: Back door lock actuator
G3	D501	W/18	: To D405	B4	D715	BR/2	: Pinch strip RH
E3	D502	W/3	: Back door switch	B4	D716	BR/2	: Back door speaker RH
E4	D503	W/8	: Back door latch				
E4	D504	W/8	: Rear view camera				
F4	D514	BR/2	: Back door warning chime				
F4	D517	BR/2	: Pinch strip LH				
F4	D518	BR/2	: Back door speaker LH				
Back door No. 2 RH harness							
C2	D601	W/6	: To B140				
C2	D602	W/16	: To B139				
D2	D603	—	: Body ground				
B2	D604	B/1	: Rear window defogger				
A3	D605	W/6	: To D702				
B3	D606	W/16	: To D701				

A

B

C

D

E

F

G

H

I

J

K

L

PG

N

O

P

# ELECTRICAL UNITS LOCATION

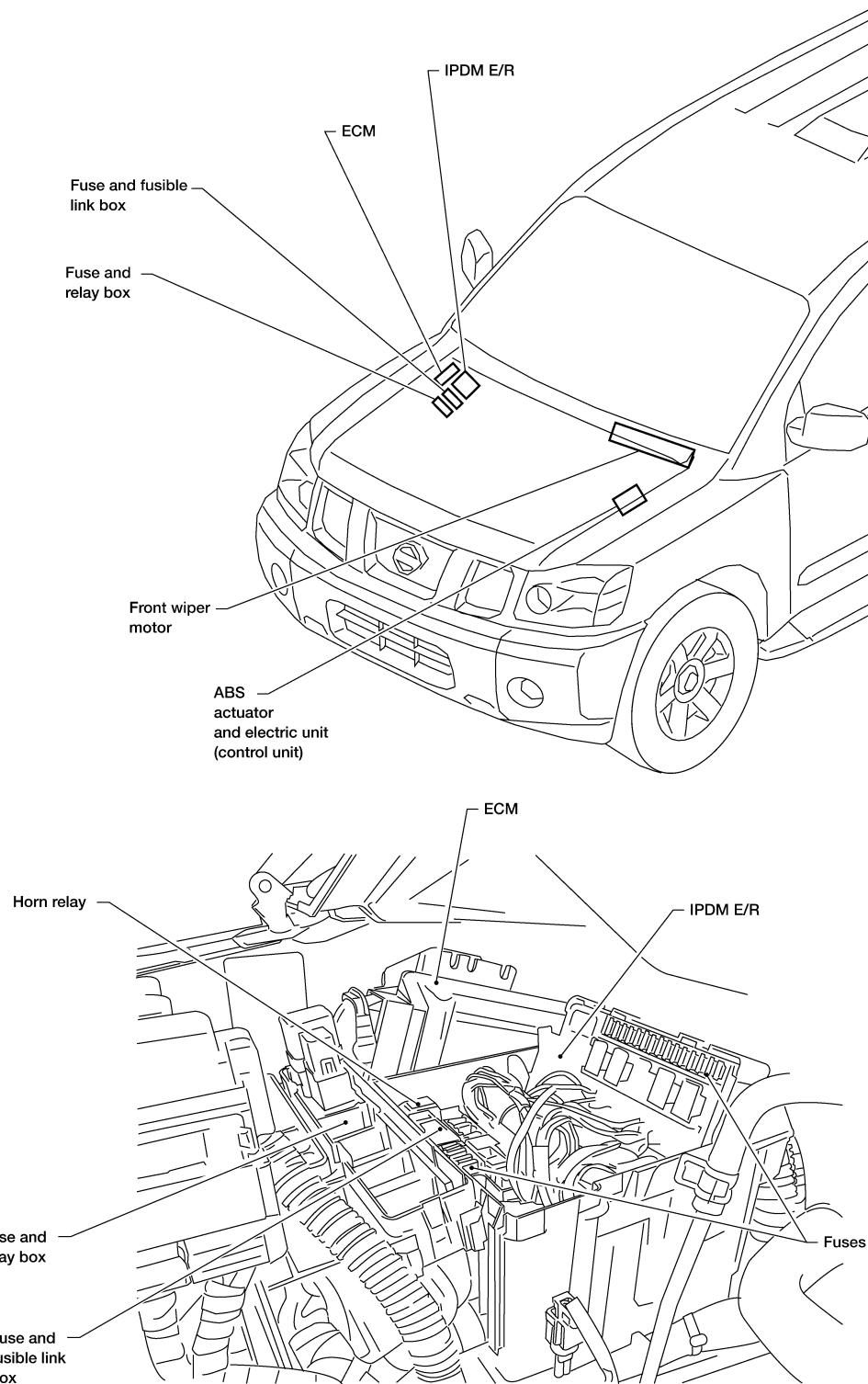
< DTC/CIRCUIT DIAGNOSIS >

## ELECTRICAL UNITS LOCATION

### Electrical Units Location

INFOID:0000000006146295

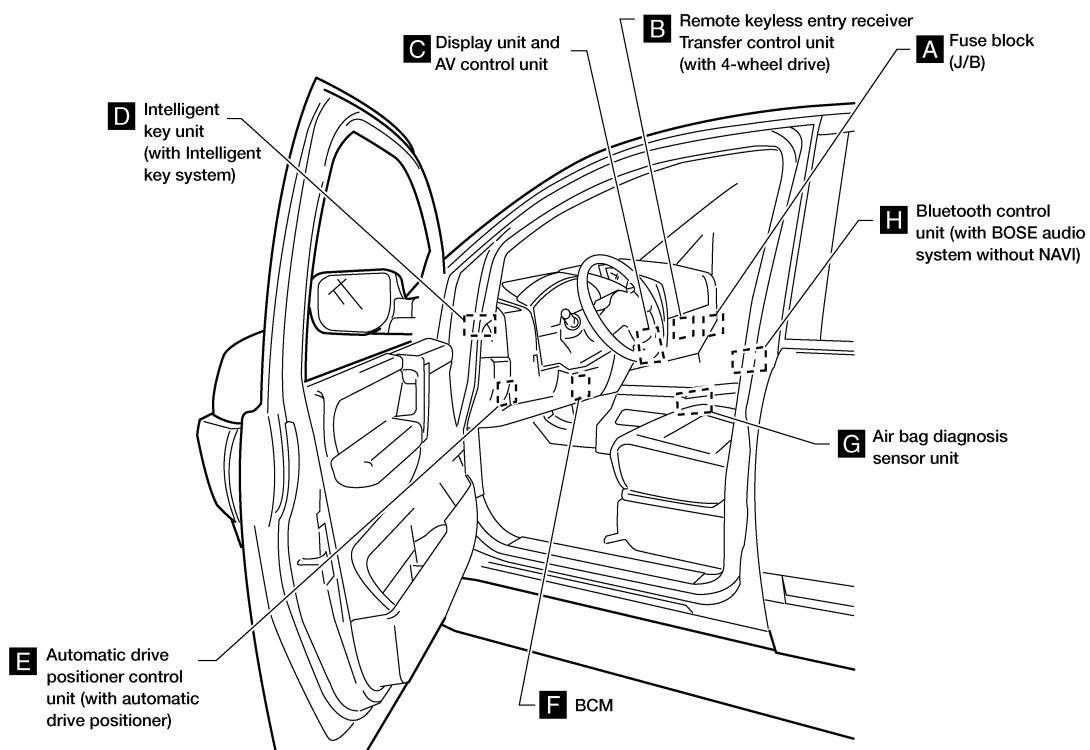
### ENGINE COMPARTMENT



ABMIA1146GB

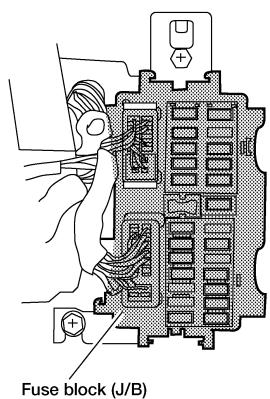
# ELECTRICAL UNITS LOCATION

< DTC/CIRCUIT DIAGNOSIS >  
PASSENGER COMPARTMENT

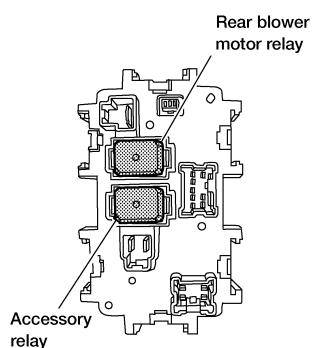


**A** Instrument panel side RH

Fuse block (J/B) front view



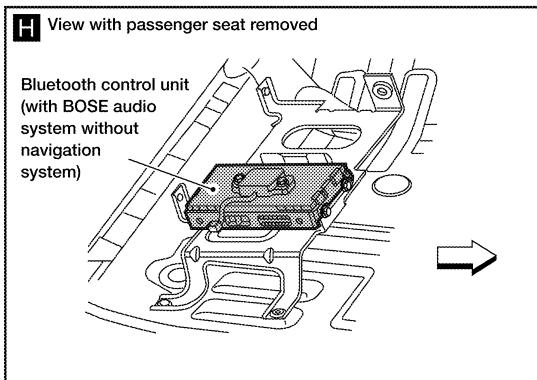
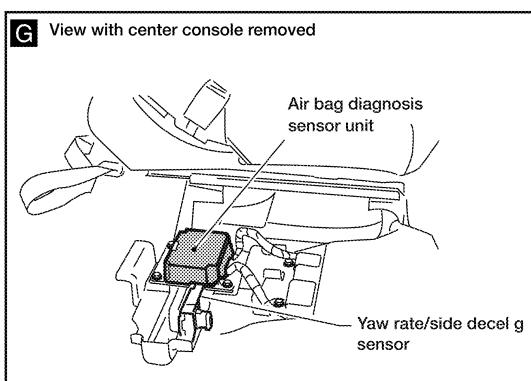
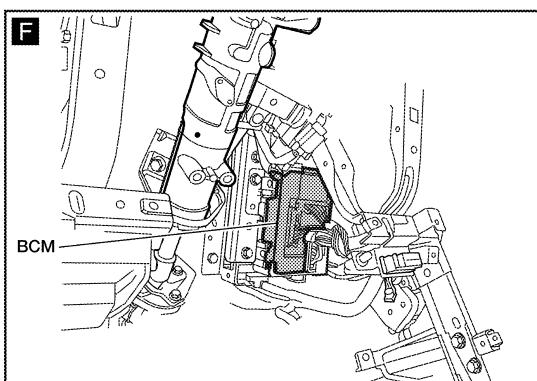
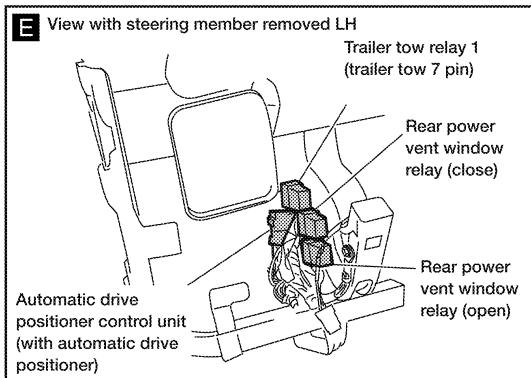
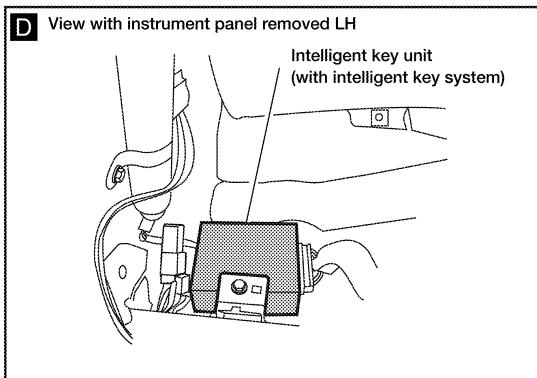
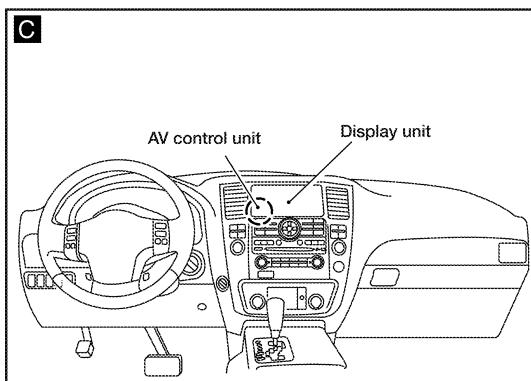
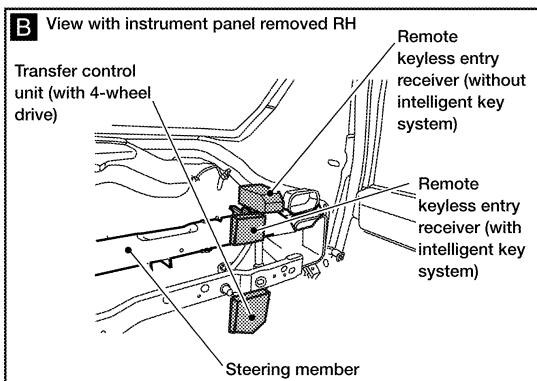
Fuse block (J/B) rear view



ABMIA2507GB

# ELECTRICAL UNITS LOCATION

## < DTC/CIRCUIT DIAGNOSIS >



ABMIA1148GB

# HARNESS CONNECTOR

< DTC/CIRCUIT DIAGNOSIS >

## HARNESS CONNECTOR

### Description

INFOID:0000000006146296

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

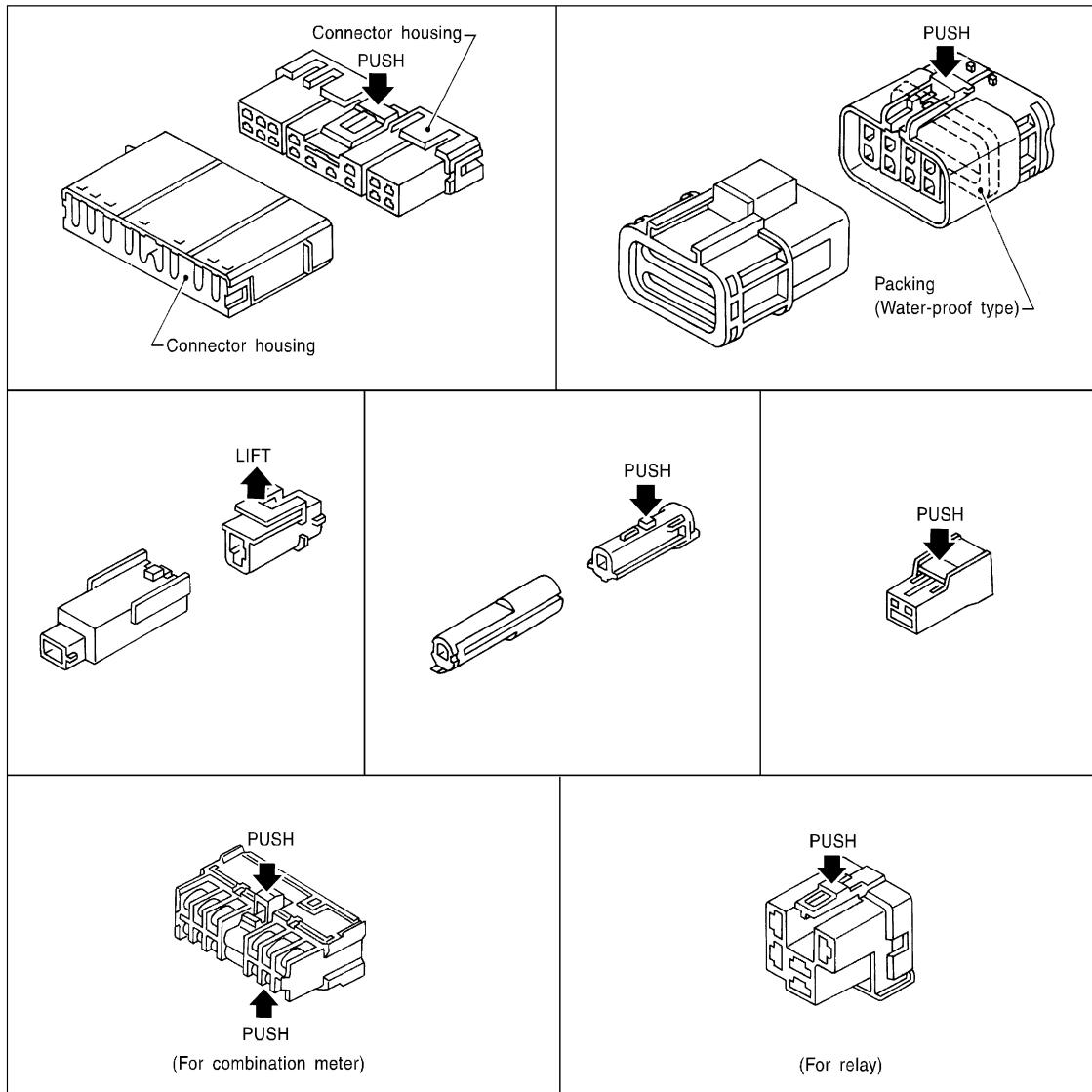
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the figure below.

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 (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.

## HARNESS CONNECTOR

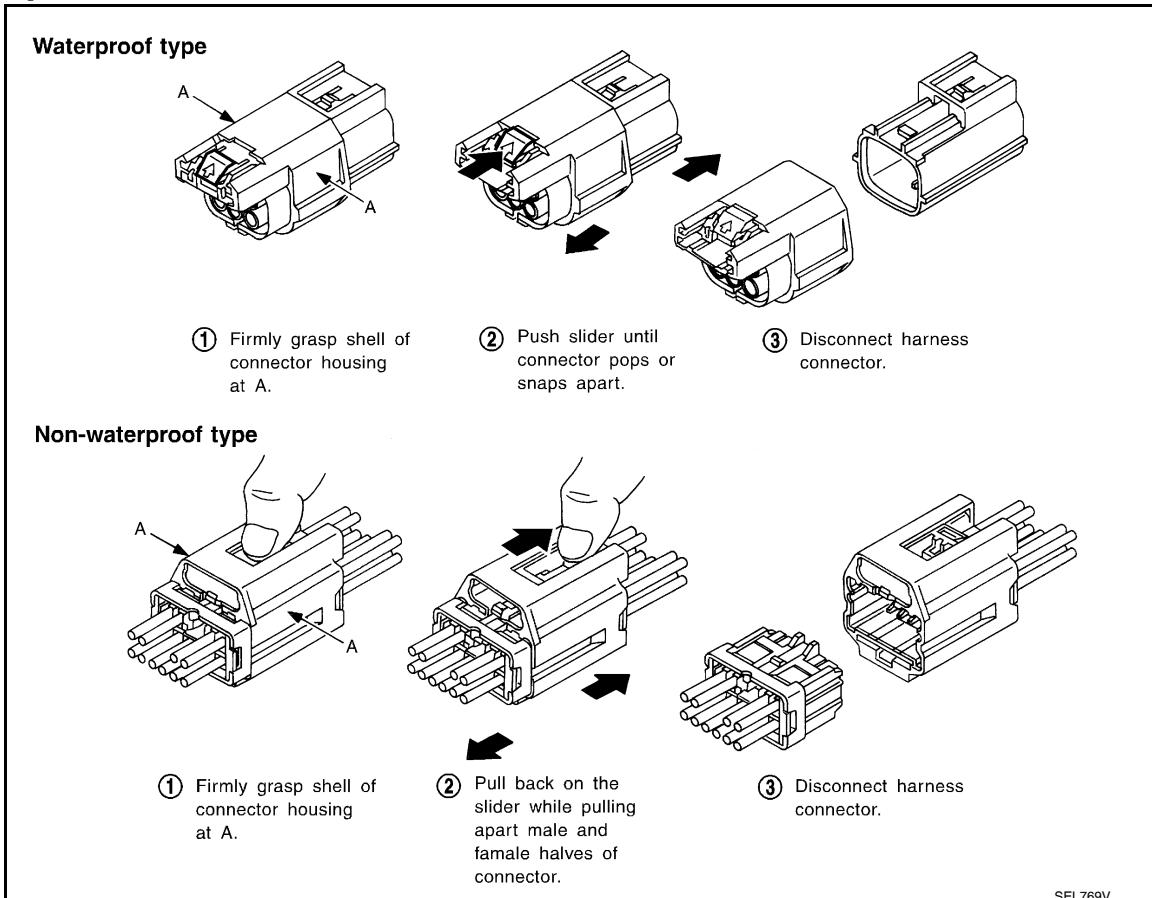
### < DTC/CIRCUIT DIAGNOSIS >

- The slide-locking type connectors are disconnected by pushing or pulling the slider. Refer to the figure 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 (LEVER LOCKING TYPE)

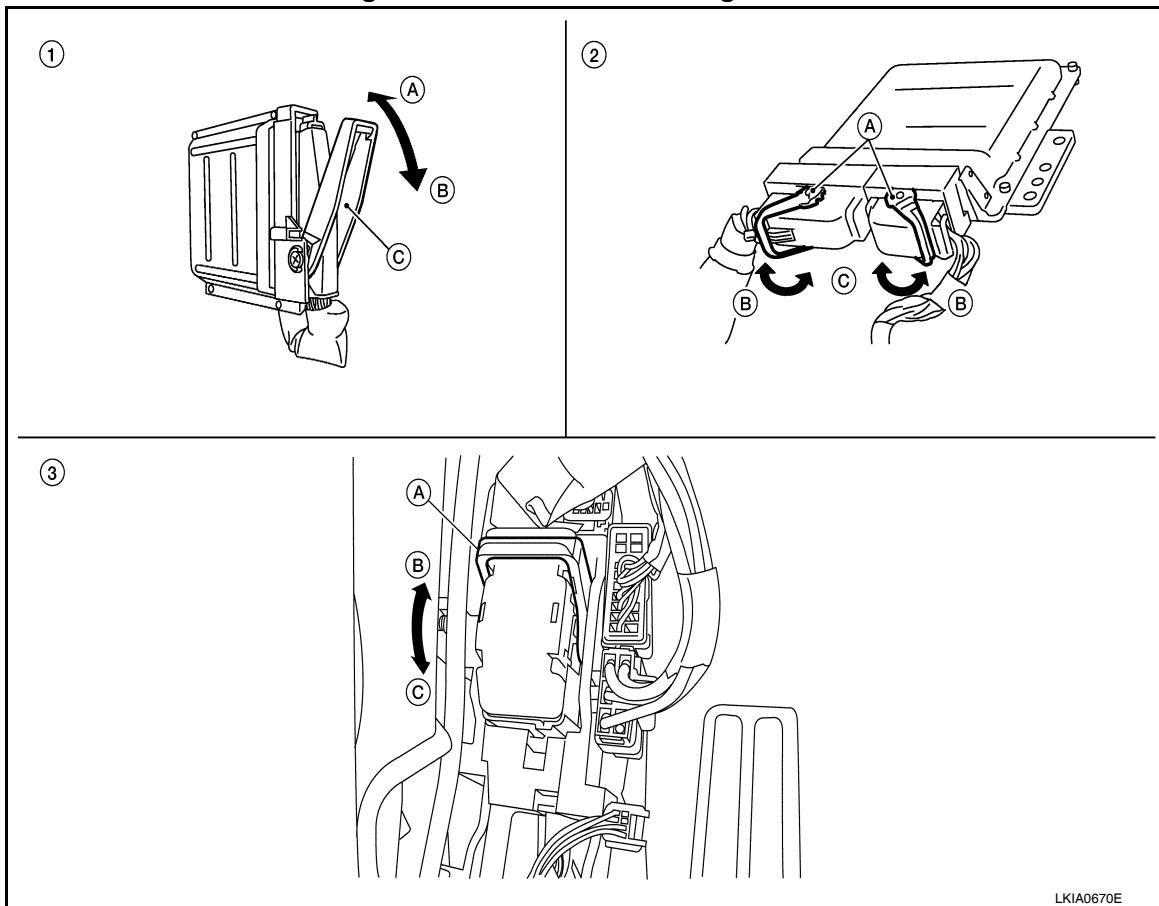
- Lever locking type harness connectors are used on certain control units and control modules such as ECM, ABS actuator and electric unit (control unit), etc.
- Lever locking type harness connectors are also used on super multiple junction (SMJ) connectors.
- Always confirm the lever is fully locked in place by moving the lever as far as it will go to ensure full connection.

#### CAUTION:

## HARNESS CONNECTOR

### < DTC/CIRCUIT DIAGNOSIS >

- Always confirm the lever is fully released (loosened) before attempting to disconnect or connect these connectors to avoid damage to the connector housing or terminals.



1. Control unit with single lever

- A. Fasten
- B. Loosen
- C. Lever

2. Control unit with dual lever

- A. Fasten
- B. Loosen
- C. Lever

3. SMJ connector

- A. Fasten
- B. Loosen
- C. Lever

### HARNESS CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

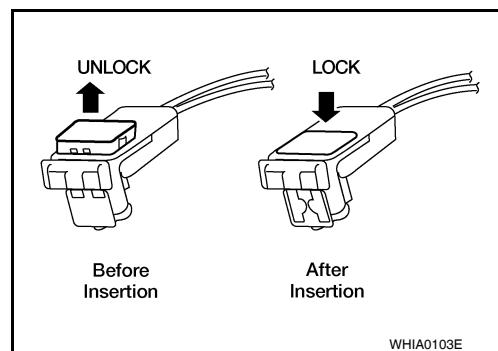
- SRS direct-connect type harness connectors are used on certain SRS components such as air bag modules and seat belt pre-tensioners.
- Always pull up to release black locking tab prior to removing connector from SRS components.
- Always push down to lock black locking tab after installing connector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

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

PG



# STANDARDIZED RELAY

< DTC/CIRCUIT DIAGNOSIS >

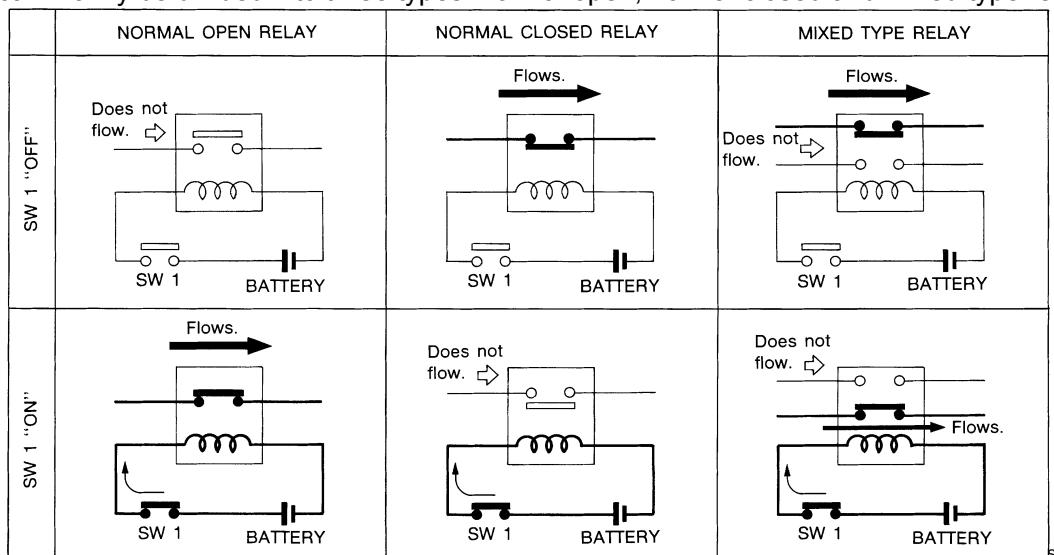
## STANDARDIZED RELAY

### Description

INFOID:0000000006146297

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

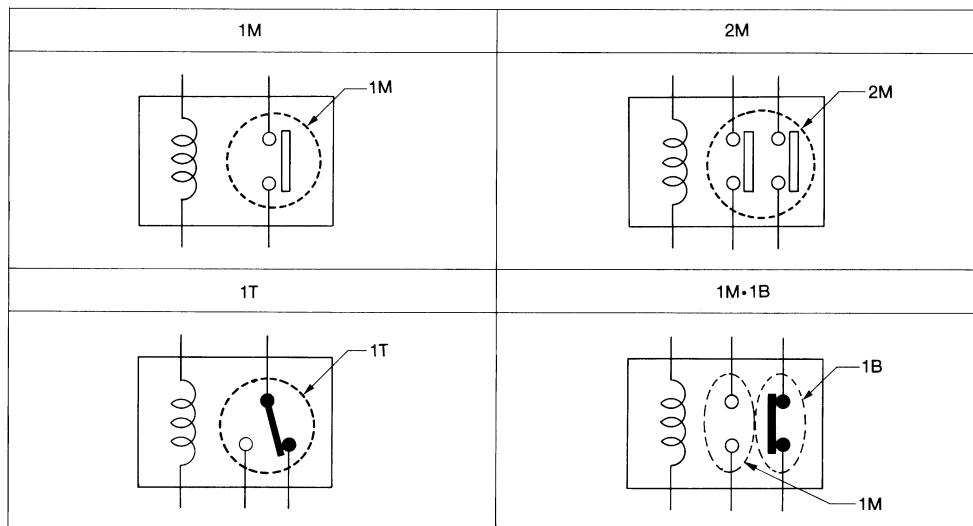
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



SEL881H

### TYPE OF STANDARDIZED RELAYS

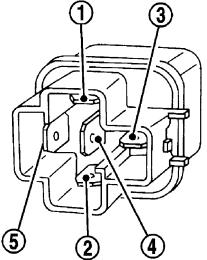
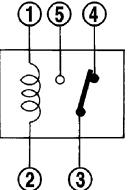
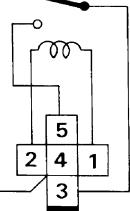
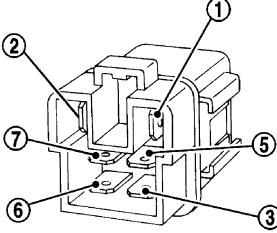
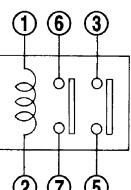
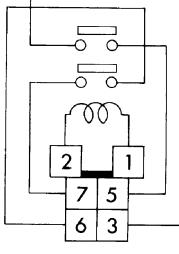
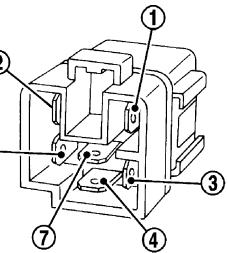
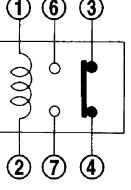
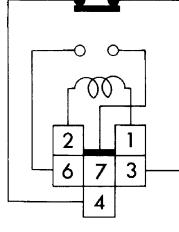
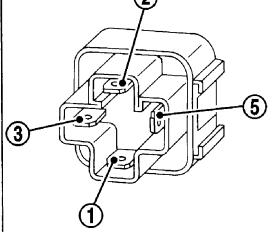
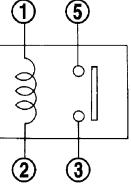
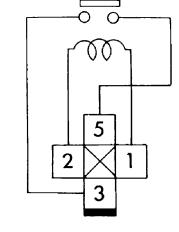
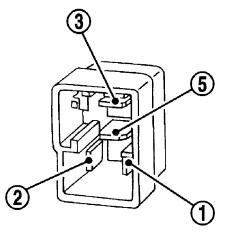
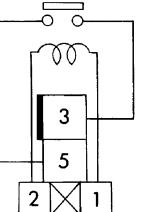
- |          |            |             |                |
|----------|------------|-------------|----------------|
| 1M ..... | 1 Make     | 2M .....    | 2 Make         |
| 1T ..... | 1 Transfer | 1M·1B ..... | 1 Make 1 Break |



SEL882H

# STANDARDIZED RELAY

< DTC/CIRCUIT DIAGNOSIS >

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

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

SEL188W

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
**PG**  
N  
O  
P

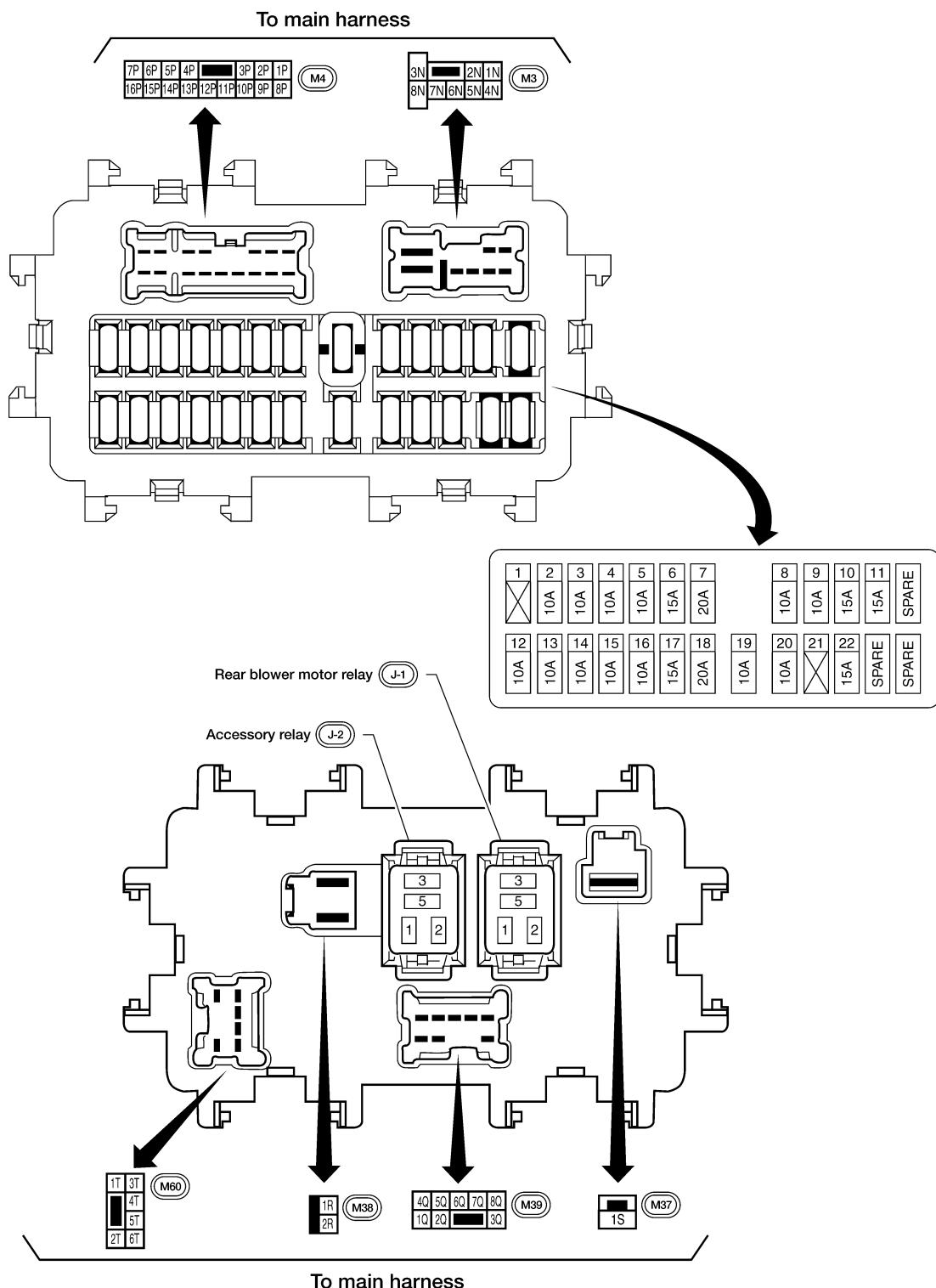
# FUSE BLOCK - JUNCTION BOX (J/B)

< DTC/CIRCUIT DIAGNOSIS >

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

### Terminal Arrangement

INFO ID: 0000000006146298



ABMIA2508GB

# FUSE, FUSIBLE LINK AND RELAY BOX

< DTC/CIRCUIT DIAGNOSIS >

## FUSE, FUSIBLE LINK AND RELAY BOX

### Terminal Arrangement

INFOID:0000000006146299

### FUSE AND FUSIBLE LINK BOX

A

B

C

D

E

F

G

H

I

J

K

L

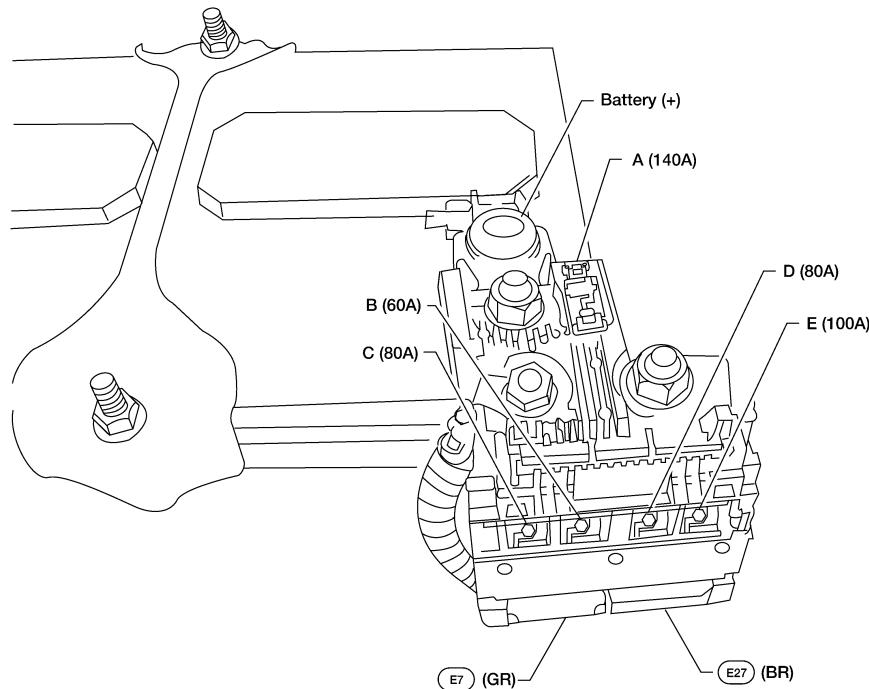
PG

N

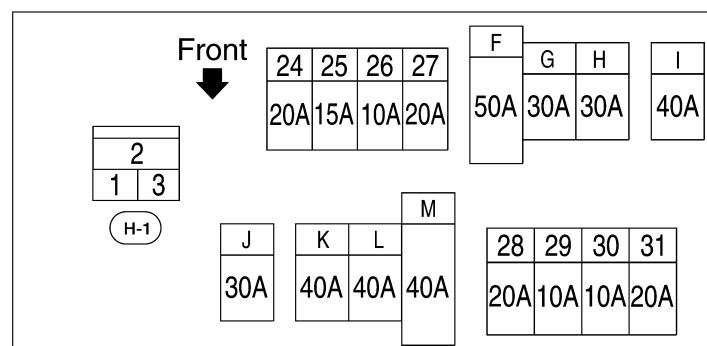
O

P

FUSIBLE LINK BOX (BATTERY)



FUSE AND FUSIBLE LINK BOX

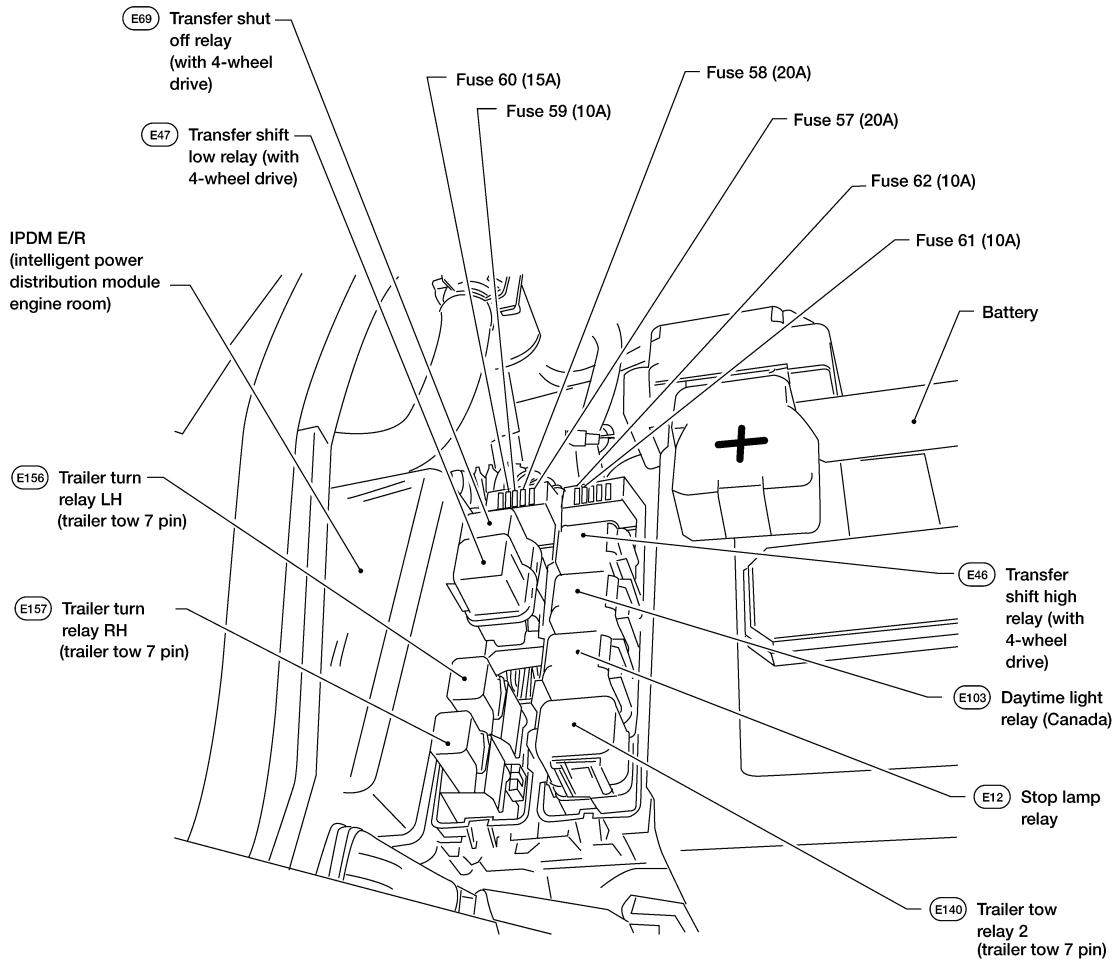


ABMIA2509GB

# FUSE, FUSIBLE LINK AND RELAY BOX

< DTC/CIRCUIT DIAGNOSIS >

## FUSE AND RELAY BOX



ABMIA1150GB

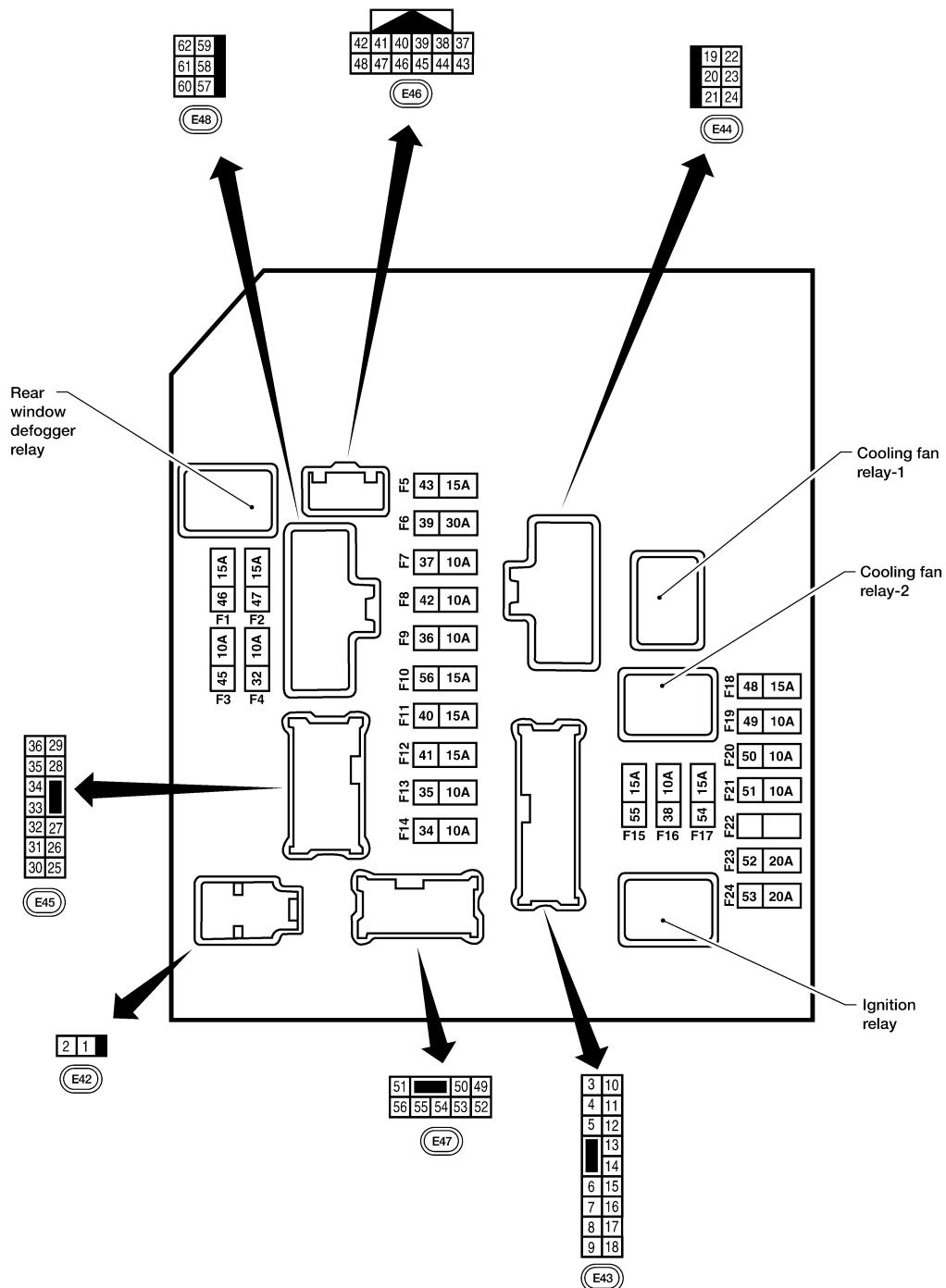
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< DTC/CIRCUIT DIAGNOSIS >

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

### IPDM E/R Terminal Arrangement

INFOID:000000006146301



#### NOTE:

Numbers preceded by an "F" represent the fuse numbers imprinted on the IPDM E/R. The other numbers represent the fuse numbers as they appear in the wiring diagrams.

ABMIA2511GB

< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

### BATTERY

#### Removal and Installation

INFOID:0000000006146302

##### REMOVAL

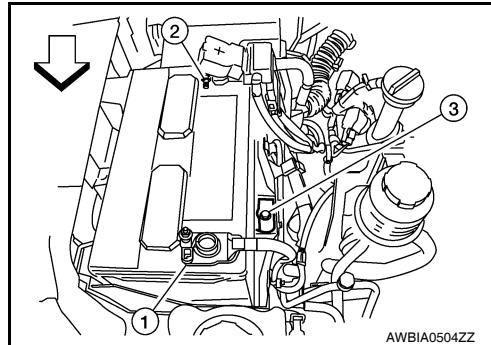
1. Disconnect the negative battery terminal (1) and positive battery terminal (2).

**CAUTION:**

Remove negative battery terminal first.

◀ : Front

2. Remove the battery cover.
3. Remove the battery clamp bolt (3) and battery clamp.
4. Remove the battery.



##### INSTALLATION

Installation is in the reverse order of removal.

**CAUTION:**

When installing, install the positive battery terminal first.

**Battery clamp bolt** : 14.7 N·m (1.5 kg·m, 11 ft-lb)

**Battery terminal nut** : 3.5 N·m (0.36 kg·m, 31 in-lb)

Reset electronic systems as necessary. Refer to [PG-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

## **SERVICE DATA AND SPECIFICATIONS (SDS)**

< SERVICE DATA AND SPECIFICATIONS (SDS)

# **SERVICE DATA AND SPECIFICATIONS (SDS)**

## **SERVICE DATA AND SPECIFICATIONS (SDS)**

Battery

INFOID:000000006146303

Application	United States SV (Non FFV) and Mexico	United States SV (FFV) LE and Canada
Type	Gr. 24F	Gr. 27F
Capacity (20 HR) minimum V-AH	12 - 70	12 - 80
Cold cranking current A (For reference value)	650	710

A

B

C

D

E

F

G

H

I

J

K

L

PG

N

O

P