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POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

CONTENTS

<b>PRECAUTION</b> .....	2	<b>GROUND</b> .....	28
<b>PRECAUTIONS</b> .....	2	Ground Distribution .....	28
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" .....	2	<b>HARNES</b> .....	38
<b>PREPARATION</b> .....	3	Harness Layout .....	38
<b>PREPARATION</b> .....	3	<b>ELECTRICAL UNITS LOCATION</b> .....	60
Special Service Tool .....	3	Electrical Units Location .....	60
Commercial Service Tool .....	3	<b>HARNES CONNECTOR</b> .....	64
<b>BASIC INSPECTION</b> .....	4	Description .....	64
<b>BATTERY</b> .....	4	<b>STANDARDIZED RELAY</b> .....	67
How to Handle Battery .....	4	Description .....	67
Work Flow .....	4	<b>FUSE BLOCK - JUNCTION BOX (J/B)</b> .....	69
<b>INSPECTION AND ADJUSTMENT</b> .....	7	Terminal Arrangement .....	69
<b>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</b> .....	7	<b>FUSE, FUSIBLE LINK AND RELAY BOX</b> .....	70
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement .....	7	Terminal Arrangement .....	70
<b>DTC/CIRCUIT DIAGNOSIS</b> .....	8	<b>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</b> .....	71
<b>POWER SUPPLY ROUTING CIRCUIT</b> .....	8	Fuse, Connector and Terminal Arrangement .....	71
Wiring Diagram — Battery Power Supply — .....	8	<b>REMOVAL AND INSTALLATION</b> .....	72
Wiring Diagram — Accessory Power Supply — .....	15	<b>BATTERY</b> .....	72
Wiring Diagram — Ignition Power Supply — .....	19	Exploded View .....	72
Fuse .....	27	Removal and Installation (Battery) .....	72
Fusible Link .....	27	Removal and Installation (Battery Tray) .....	73
		<b>SERVICE DATA AND SPECIFICATIONS (SDS)</b> .....	74
		<b>BATTERY</b> .....	74
		Battery .....	74

# PRECAUTIONS

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## PRECAUTION

### PRECAUTIONS

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

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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. 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.

# PREPARATION

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## PREPARATION

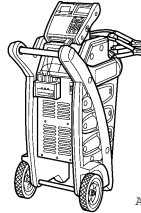
### PREPARATION

#### Special Service Tool

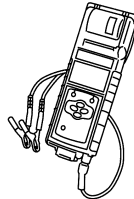
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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
— (—) Model GR8-1200 NI Multitasking battery and electrical diagnostic station	Tests batteries, starting and charging systems and charges batteries. For operating instructions, refer to diagnostic station instruction manual.
— (—) Model EXP-800 NI Battery and electrical diagnostic analyzer	Tests batteries and charging systems. For operations instructions, refer to diagnostic analyzer instruction manual.



AWI1A12392Z



JSMIA08062Z

#### Commercial Service Tool

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Tool name	Description
Power tool	Loosening nuts, screws and bolts



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# BATTERY

< BASIC INSPECTION >

## BASIC INSPECTION

### BATTERY

#### How to Handle Battery

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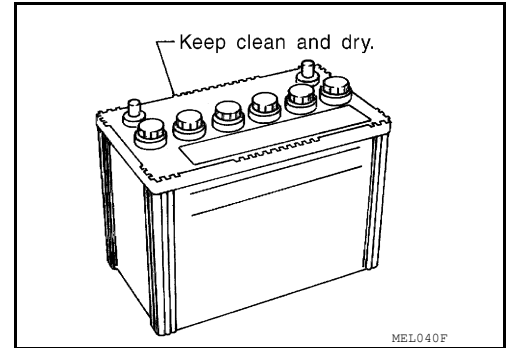
#### CAUTION:

- 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.

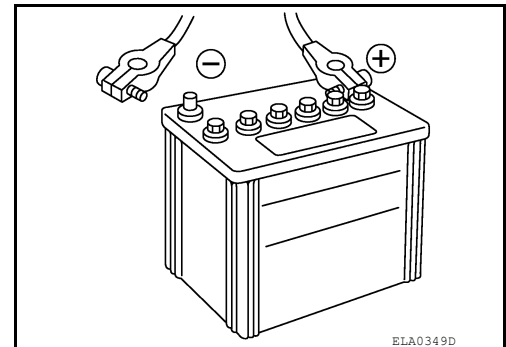
#### METHODS OF PREVENTING OVER-DISCHARGE

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.)



#### Work Flow

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#### BATTERY DIAGNOSIS WITH EXP-800 NI OR GR8-1200 NI

To diagnose and confirm the condition of the battery, use the following special service tools:

- EXP-800 NI Battery and electrical diagnostic analyzer
- GR8-1200 NI Multitasking battery and electrical diagnostic station

#### NOTE:

Refer to the applicable instruction manual for proper battery diagnosis procedures.

#### BATTERY DIAGNOSIS WITHOUT EXP-800 NI OR GR8-1200 NI

Check Electrolyte Level

#### WARNING:

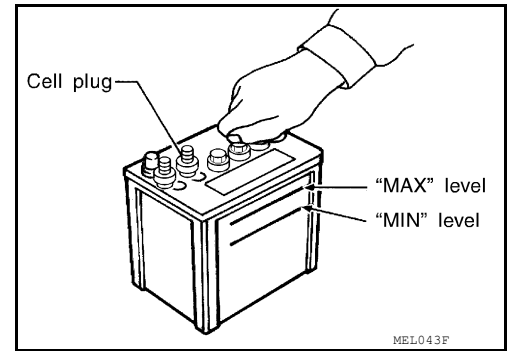
Never allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, never touch or rub your eyes until you have thoroughly washed your hands. If acid contacts eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical attention.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



# BATTERY

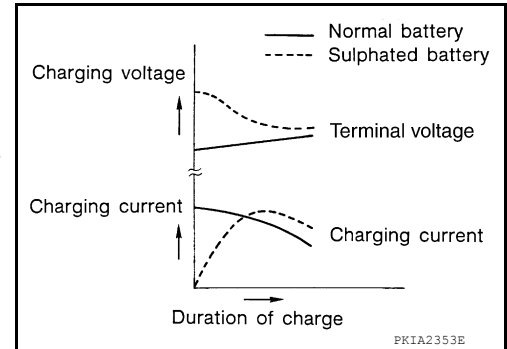
## < BASIC INSPECTION >

- 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.



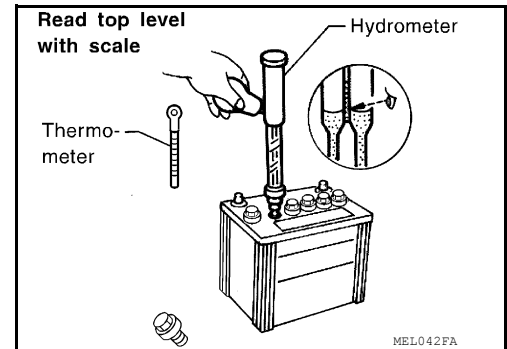
## Specific Gravity Check

### NOTE:

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.

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

# BATTERY

## < BASIC INSPECTION >

Battery electrolyte temperature [°C (°F)]	Add to specific gravity reading
4 (40)	-0.016
-1 (30)	-0.020
-7 (20)	-0.024
-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 (Standard Charge)

Approximate charge condition	Charge current (A)	Charge time (h)
Fully charged	5	3
3/4 charged	10	2
1/2 charged		3.5
1/4 charged		5
Almost discharged		6
Completely discharged		7

#### Charging Rates (Quick Charge)

Approximate charge condition	Charge current (A)	Charge time (h)
Fully charged	—	—
3/4 charged	20	0.5
1/2 charged	25	1
1/4 charged	35	
Almost discharged	45	
Completely discharged	—	—

#### **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.

# 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

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Required Procedure After Battery Disconnection

System	Item	Reference
Engine Control System	Idle Air Volume Learning	<a href="#">EC-180</a> (QR25DE) <a href="#">EC-681</a> (VQ35DE)
Power Window Control System	Power Window System Initialization	<a href="#">PWC-27</a> (LH Only Anti-Pinch) <a href="#">PWC-94</a> (LH & RH Front Anti-Pinch)
Roof	Moonroof Memory Reset/Initialization	<a href="#">RF-19</a>
Heater & Air Conditioning Control System	Temperature Setting Trimmer	<a href="#">HAC-50</a> (Automatic Air Conditioner)
	Foot Position Setting Trimmer	<a href="#">HAC-50</a> (Automatic Air Conditioner)
	Inlet Port Memory Function (FRE)	<a href="#">HAC-50</a> (Automatic Air Conditioner)
	Inlet Port Memory Function (REC)	<a href="#">HAC-51</a> (Automatic Air Conditioner)
Audio, Visual & Navigation System	Target Evaporator Temp Upper Limit	<a href="#">HAC-51</a> (Automatic Air Conditioner)
	Audio (Radio Preset)	Refer to Owner's Manual.
	Navigation System	Refer to Owner's Manual.

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# POWER SUPPLY ROUTING CIRCUIT

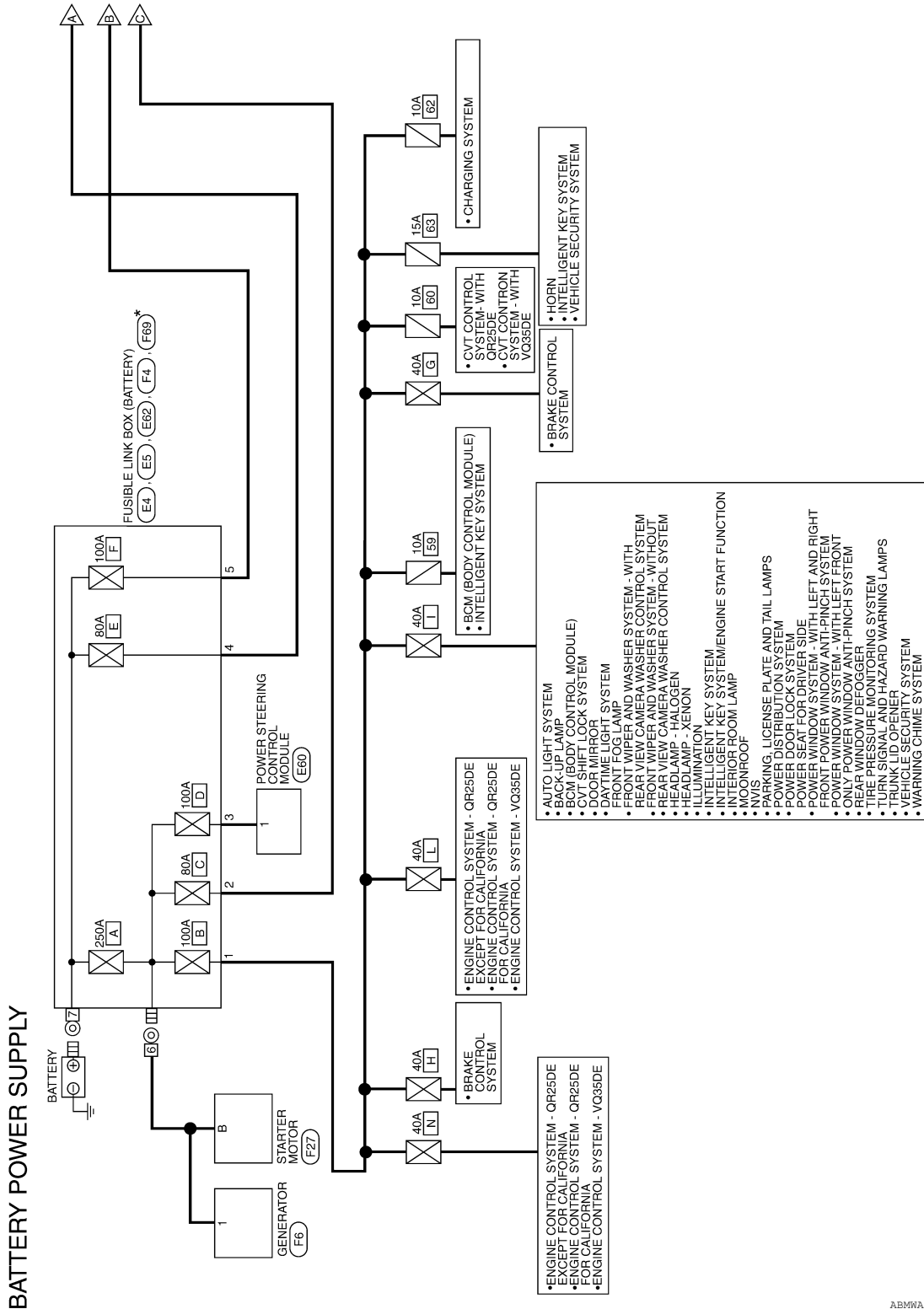
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## DTC/CIRCUIT DIAGNOSIS

### POWER SUPPLY ROUTING CIRCUIT

#### Wiring Diagram —Battery Power Supply—

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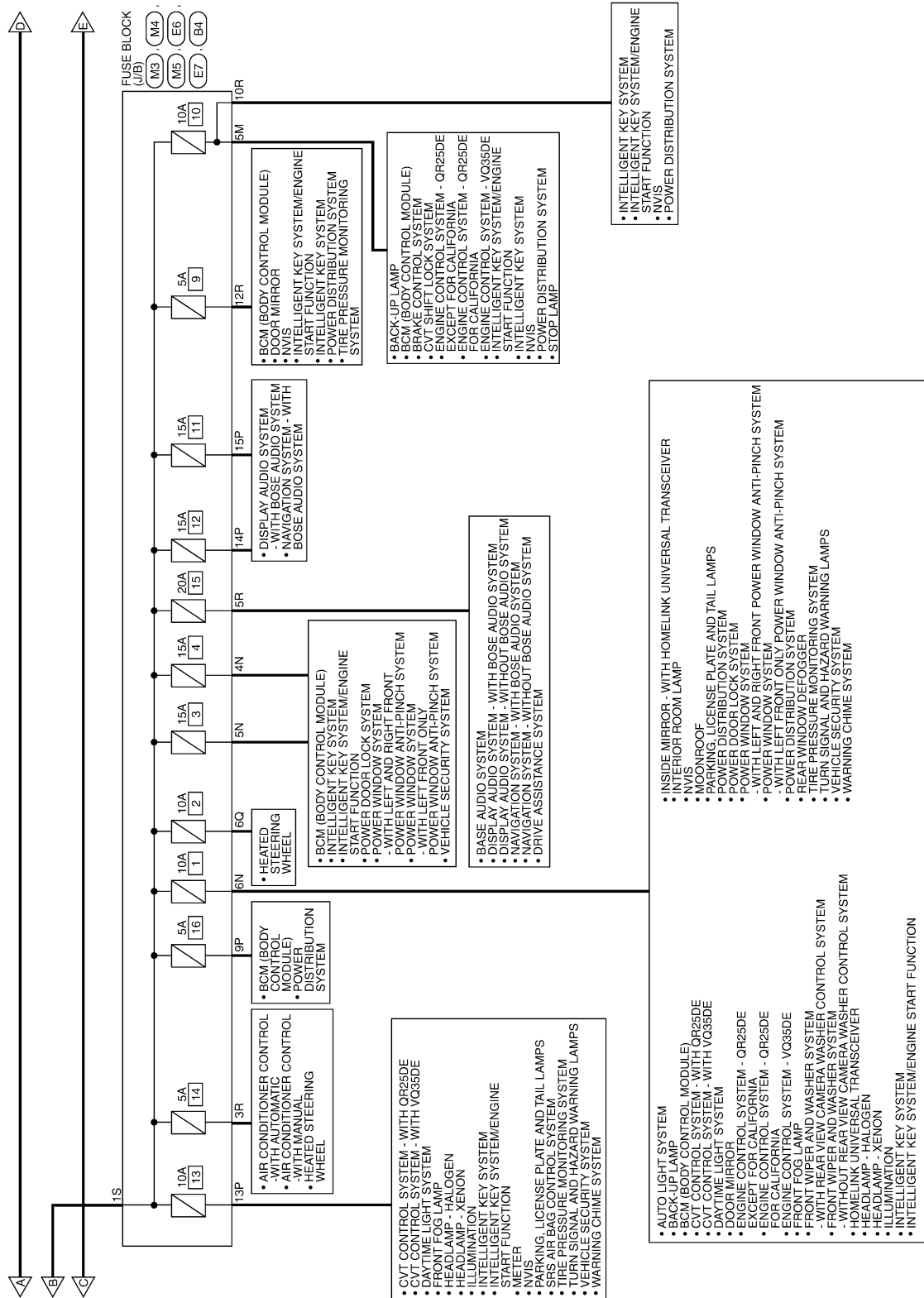


\* (F69) IS AN INTEGRAL PART OF FUSIBLE LINK BOX (BATTERY) ASSEMBLY.

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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



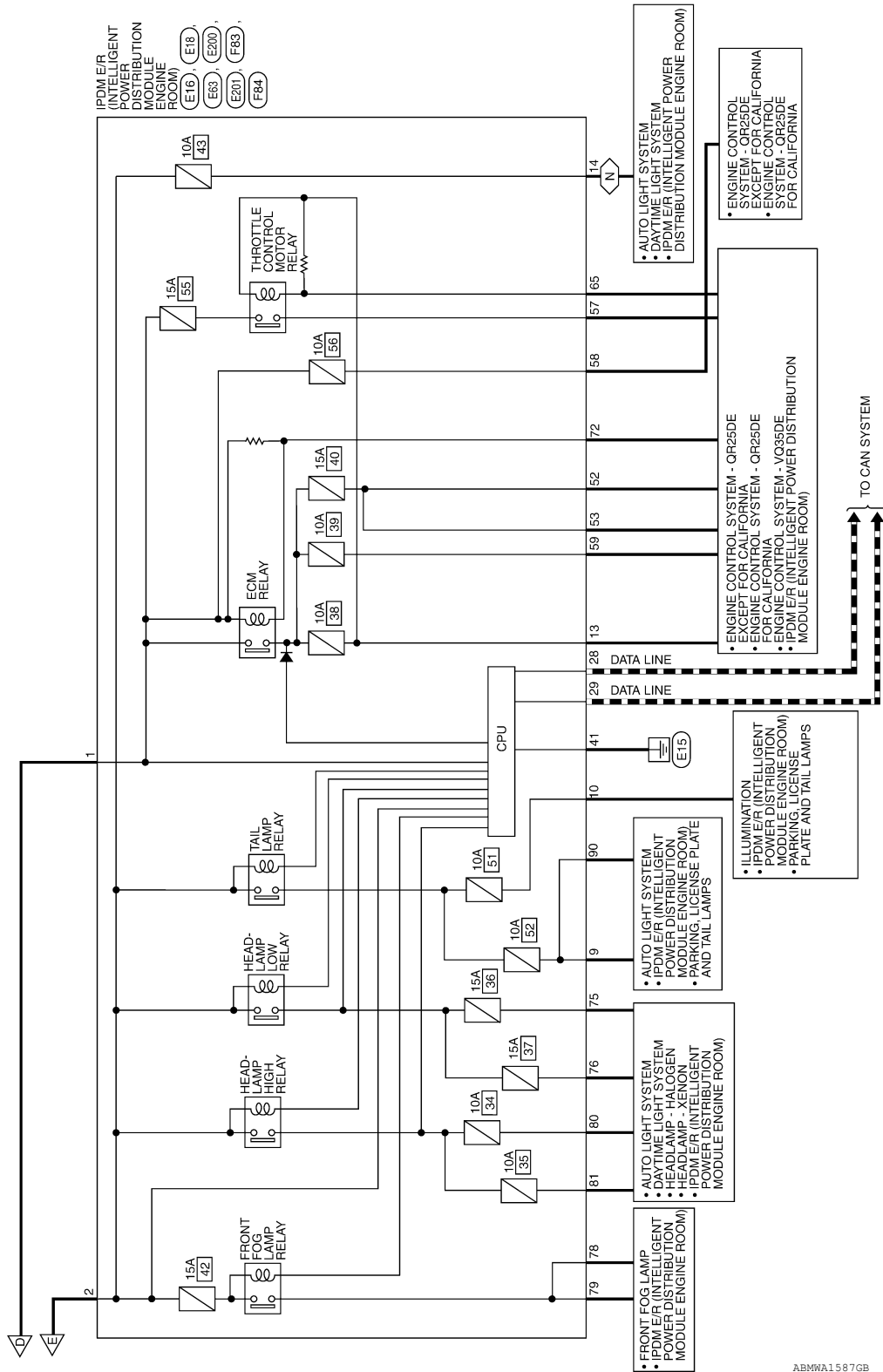
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# POWER SUPPLY ROUTING CIRCUIT

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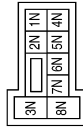


# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## BATTERY POWER SUPPLY CONNECTORS

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



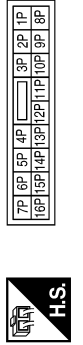
Terminal No.	Color of Wire	Signal Name
4N	V	-
5N	BR	-
6N	W	-

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



Terminal No.	Color of Wire	Signal Name
3R	SB	-
5R	G	-
10R	BG	-
12R	W	-

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9P	Y	-
13P	G	-
14P	G	-
15P	SB	-

Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BLACK



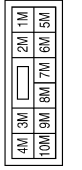
Terminal No.	Color of Wire	Signal Name
1	W	-
2	L	-

Connector No.	E5
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



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

Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5M	G	-

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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector No.	E7
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



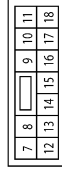
Terminal No.	Color of Wire	Signal Name
1S	W	-

Connector No.	E16
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R	F/L MAIN
2	L	F/L USM

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



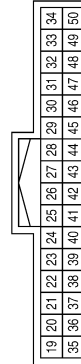
Terminal No.	Color of Wire	Signal Name
9	SB	TAIL RH
10	V	TAIL LH
13	LG	ECM VB
14	Y	DTRL

Connector No.	E62
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BLACK



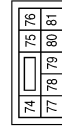
Terminal No.	Color of Wire	Signal Name
5	W	-

Connector No.	E63
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	GND (SIGNAL)

Connector No.	E200
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
75	R	HEADLAMP LO RH
76	P	HEADLAMP LO LH
78	W	FR FOG LAMP RH
79	G	FR FOG LAMP LH
80	L	HEADLAMP HI RH
81	Y	HEADLAMP HI LH

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# POWER SUPPLY ROUTING CIRCUIT

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Connector No.	F6
Connector Name	GENERATOR
Connector Color	-



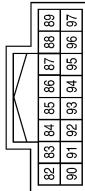
Terminal No.	1	Color of Wire	B/R	Signal Name	BATT
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Connector No.	F4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	6	Color of Wire	B/R	Signal Name	-
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Connector No.	E201
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	90	Color of Wire	LG	Signal Name	CLEARANCE
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Connector No.	F81
Connector Name	STARTER MOTOR (WITH VQ35DE)
Connector Color	GRAY



Terminal No.	S	Color of Wire	R	Signal Name	START
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Connector No.	F28
Connector Name	STARTER MOTOR (WITH QR25DE)
Connector Color	-



Terminal No.	S	Color of Wire	R	Signal Name	START
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Connector No.	F27
Connector Name	STARTER MOTOR
Connector Color	-



Terminal No.	B	Color of Wire	B/R	Signal Name	BAT
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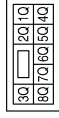
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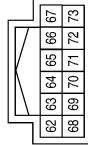
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Connector No.	B4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



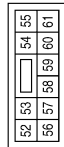
Terminal No.	Color of Wire	Signal Name
6Q	W	-

Connector No.	F84
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
65	BR	MOTRLY (WITH QR25DE)
66	L	MOTRLY (WITH VQ35DE)
72	V	SSOFF (WITH QR25DE)
73	Y	SSOFF (WITH VQ35DE)

Connector No.	F83
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
52	P	O2SENS #2 (WITH QR25DE)
53	W	O2SENS #1 (WITH QR25DE)
57	R	ETC
58	SB	ECM BAT
59	L	ENG SOL

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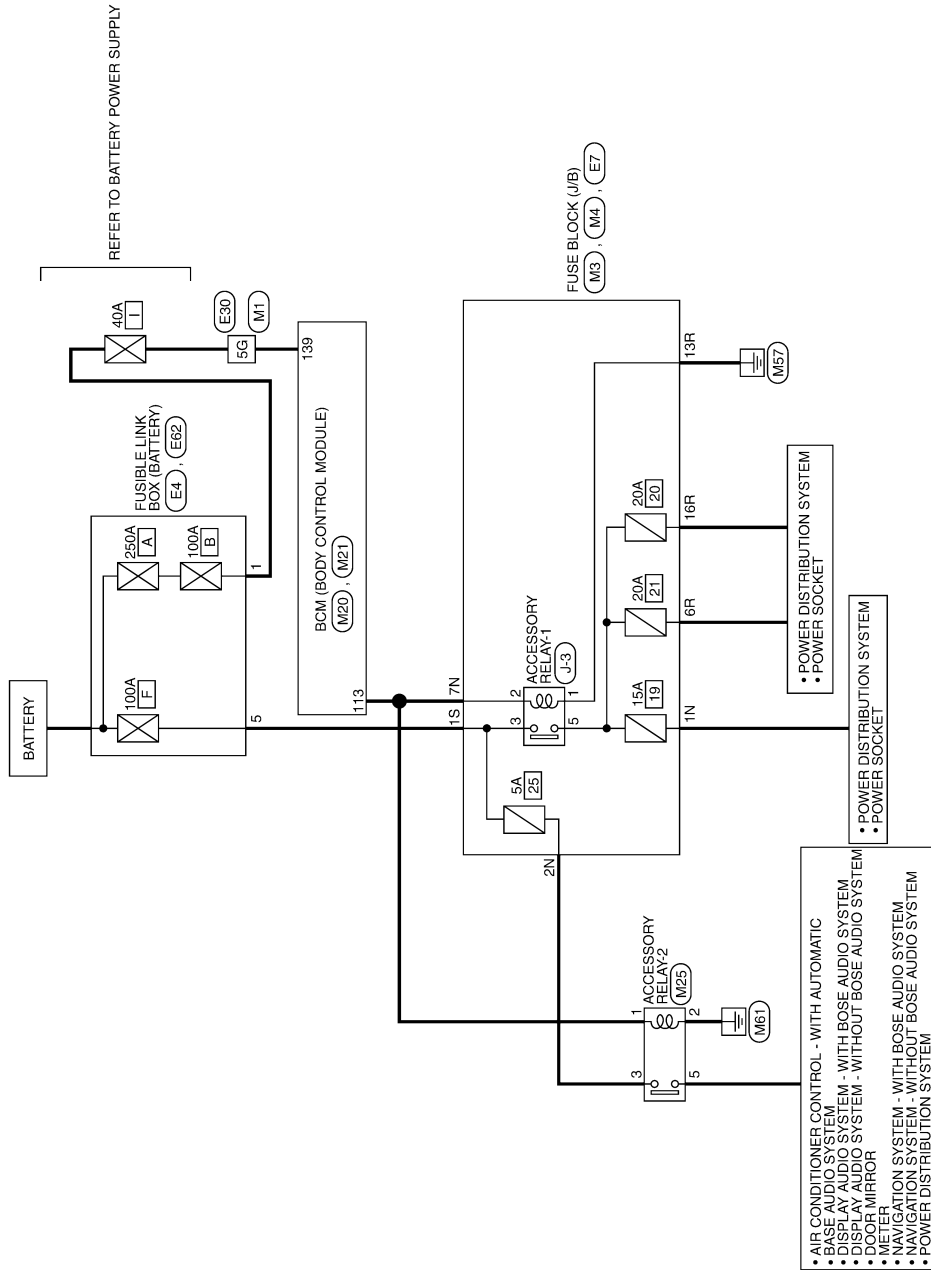
# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## Wiring Diagram —Accessory Power Supply—

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### ACCESSORY POWER SUPPLY



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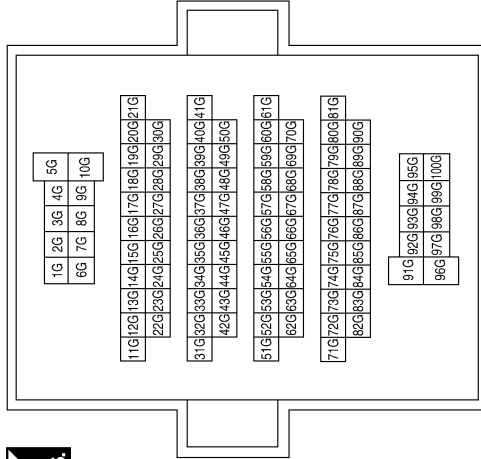
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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

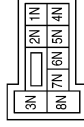
## ACCESSORY POWER SUPPLY CONNECTORS

Connector No.	M1
Connector Name	WIRES TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	W	-

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

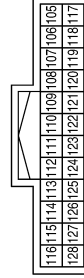


Terminal No.	Color of Wire	Signal Name
1N	V	-
2N	LG	-
7N	P	-

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

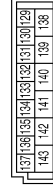


Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
6R	LG	-
13R	B	-
16R	LG	-

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
139	W	BAT POWER F/L

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector No.	E7
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



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

Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	W	-

Connector No.	M25
Connector Name	ACCESSORY RELAY-2
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	W	-
2	B	-
3	LG	-
5	P	-

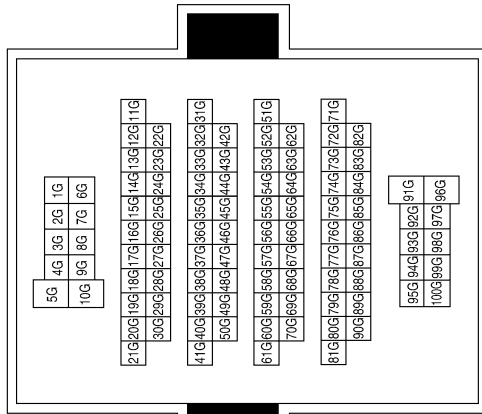
Connector No.	E62
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
5	W	-

Terminal No.	5G
Color of Wire	P
Signal Name	-

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



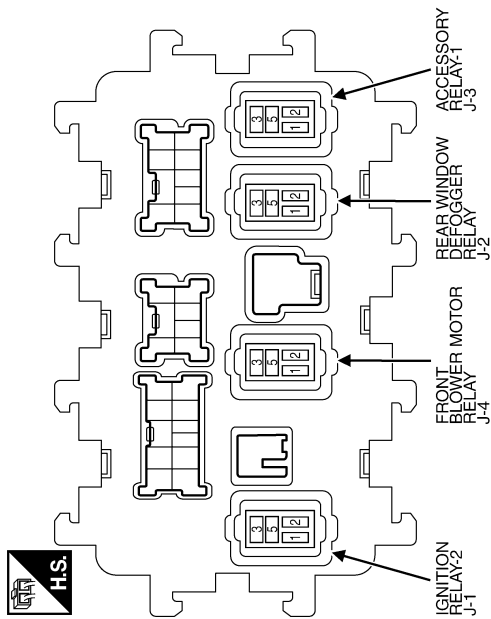
ABMIA3817GB

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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector No.	J-3
Connector Name	FUSE BLOCK (J/B) (ACCESSORY RELAY-1)
Connector Color	-

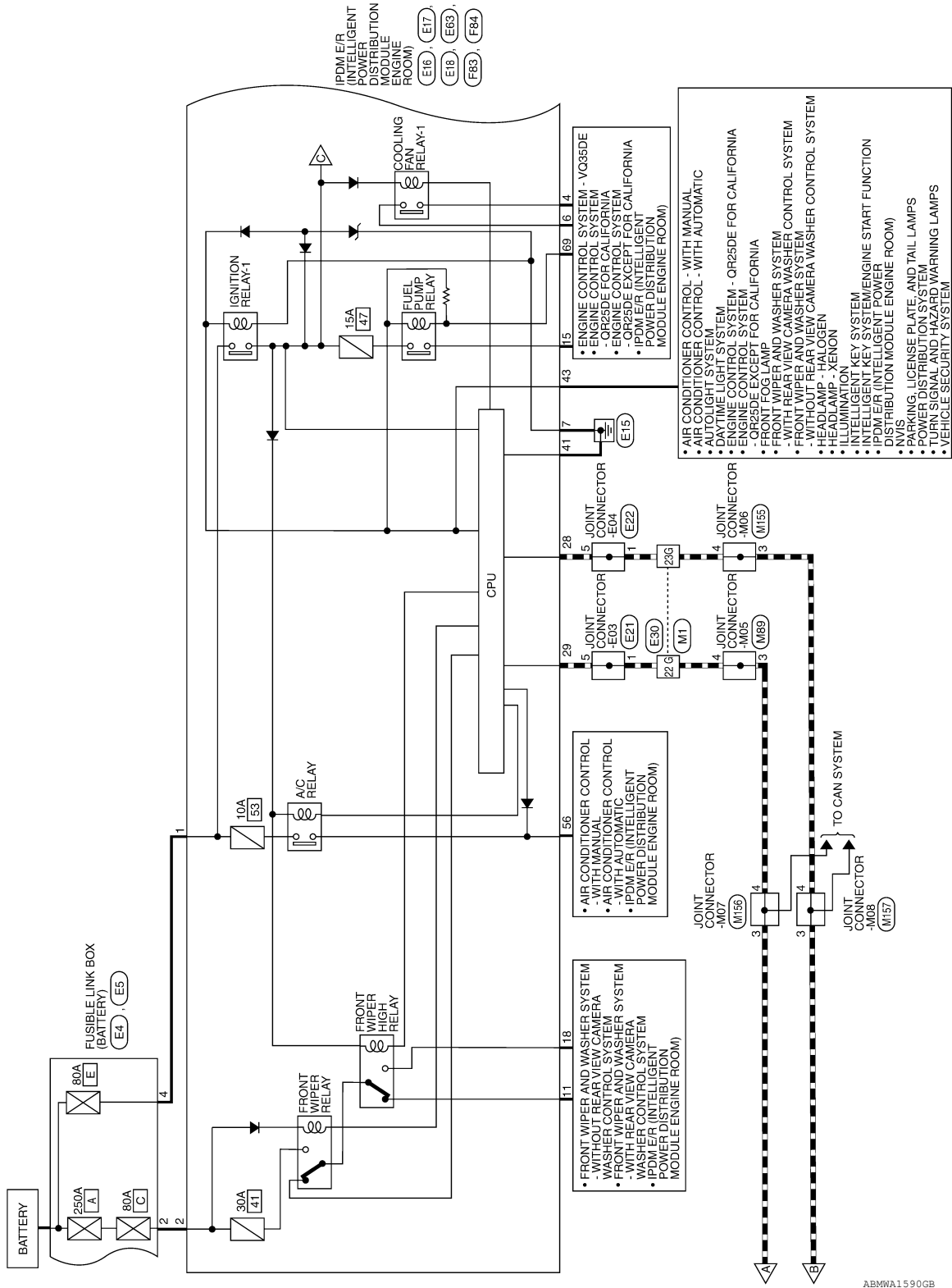


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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

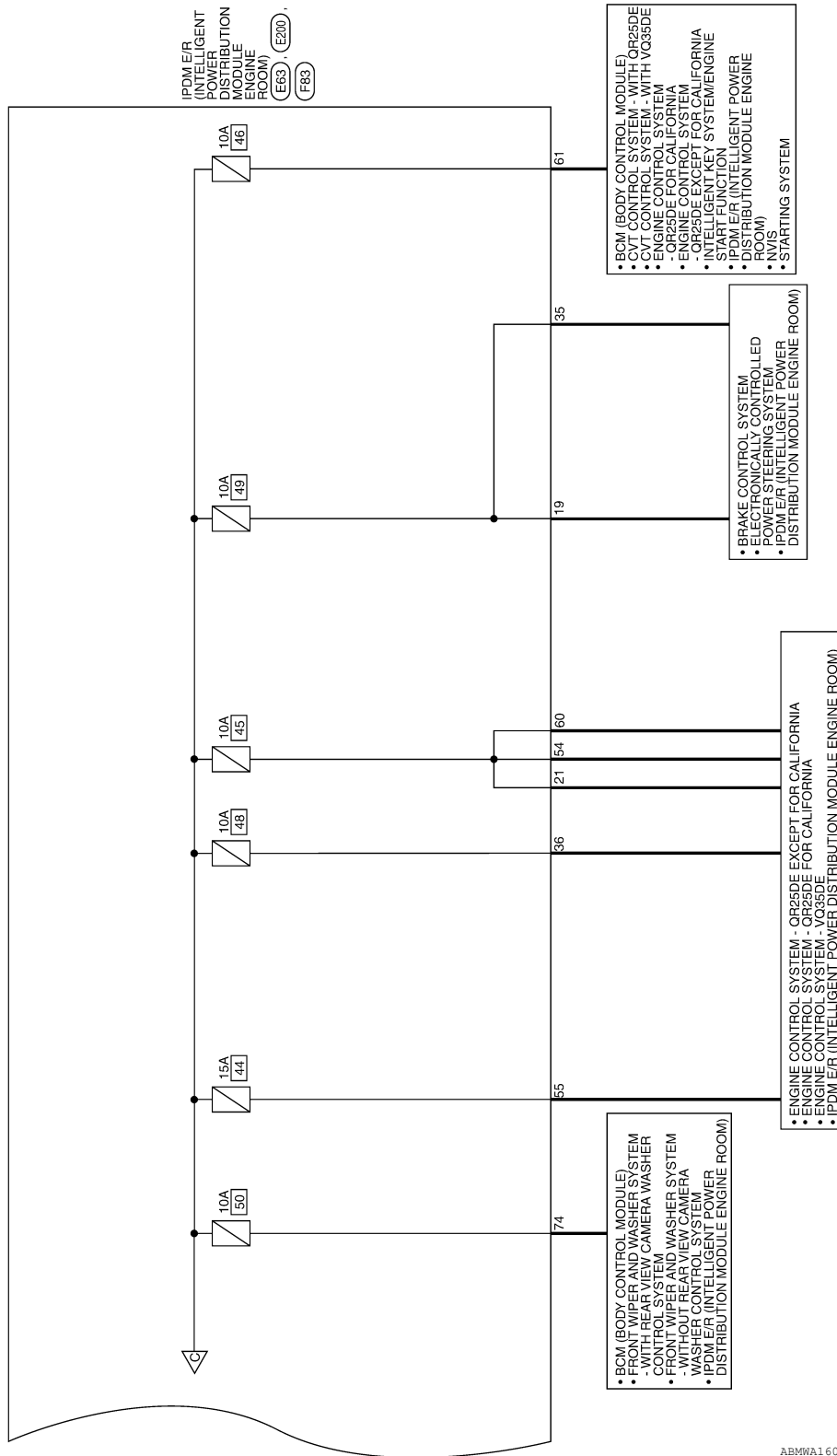


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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



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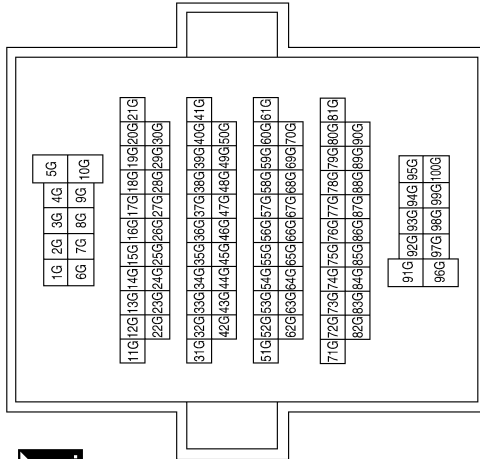
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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

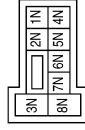
## IGNITION POWER SUPPLY CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	W	-

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



Terminal No.	Color of Wire	Signal Name
3N	W	-
8N	W	-

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



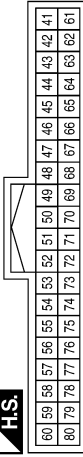
Terminal No.	Color of Wire	Signal Name
2R	BG	-
13R	B	-

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1P	P	-
2P	V	-
3P	G	-
4P	P	-
5P	BG	-
6P	R	-
7P	G	-
8P	BR	-
16P	W	-

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
61	R	REAR DEFOGGER RELAY OUT
66	W	BLOWER FAN RELAY OUT
67	W	IGN ELEC RELAY OUT 2

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector No.	E5
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



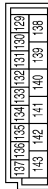
Terminal No.	Color of Wire	Signal Name
4	R	-

Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BLACK



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

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
134	B	GND2
139	W	BAT POWER F/L
143	B	GND1

Connector No.	E8
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1L	G	-

Connector No.	E7
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



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

Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1M	BG	-

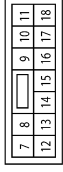
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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	B	GND (POWER)
11	Y	FR WIPER LO
15	R	FUEL PUMP
18	L	FR WIPER HI

Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4	P	MOTOR FAN 1
6	GR	F/L MOTOR FAN

Connector No.	E16
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R	F/L MAIN
2	L	F/L USM

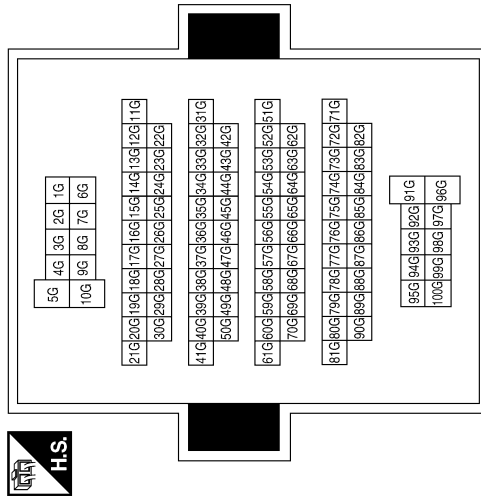
Connector No.	E62
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
5	W	-

Terminal No.	5G	Color of Wire	P	Signal Name	-
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Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE

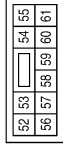


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# POWER SUPPLY ROUTING CIRCUIT

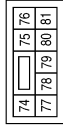
< DTC/CIRCUIT DIAGNOSIS >

Connector No.	F83
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



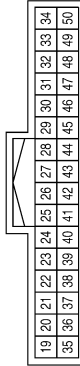
Terminal No.	Color of Wire	Signal Name
54	LG	INJECTOR #1
55	W	IGN COIL
56	SB	A/C COMP
60	V	INJECTOR #2
61	Y	AT ECU

Connector No.	E200
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
74	V	WASH MTR

Connector No.	E63
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
19	BR	SUB ECU
21	L	BCM IGNSW
28	P	CAN-L
29	L	CAN-H
35	BR	ABS ECU
36	W	START IG-E/R
41	B	GND (SIGNAL)
43	LG	IGN (SIGNAL)

Connector No.	B13
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3T	Y	-
5T	Y	-

Connector No.	F84
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
69	V	FPR

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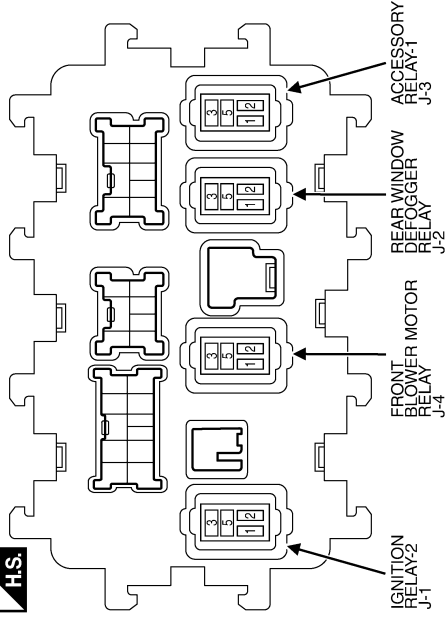
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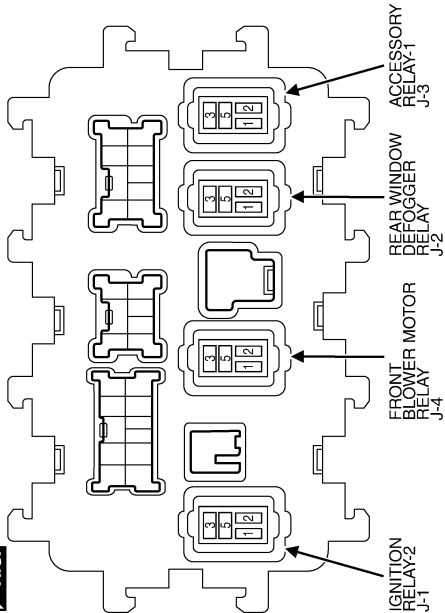
# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

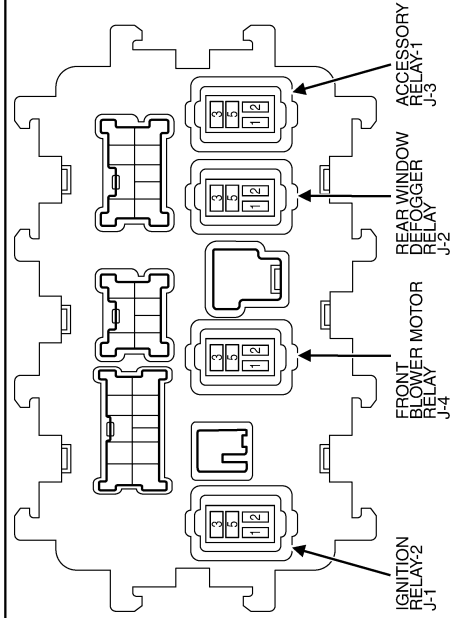
Connector No.	J-2
Connector Name	FUSE BLOCK (J/B) (REAR WINDOW DEFOGGER RELAY)
Connector Color	-



Connector No.	J-1
Connector Name	FUSE BLOCK (J/B) (IGNITION RELAY-2)
Connector Color	-



Connector No.	J-4
Connector Name	FUSE BLOCK (J/B) (FRONT BLOWER MOTOR RELAY)
Connector Color	-



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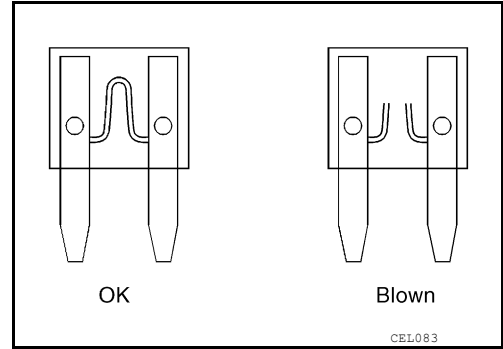
# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## Fuse

INFOID:000000008671005

- 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.



## Fusible Link

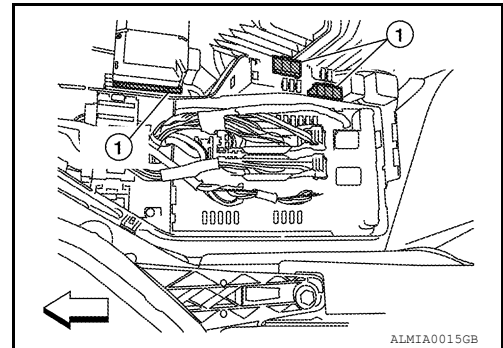
INFOID:000000008671006

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.



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# GROUND

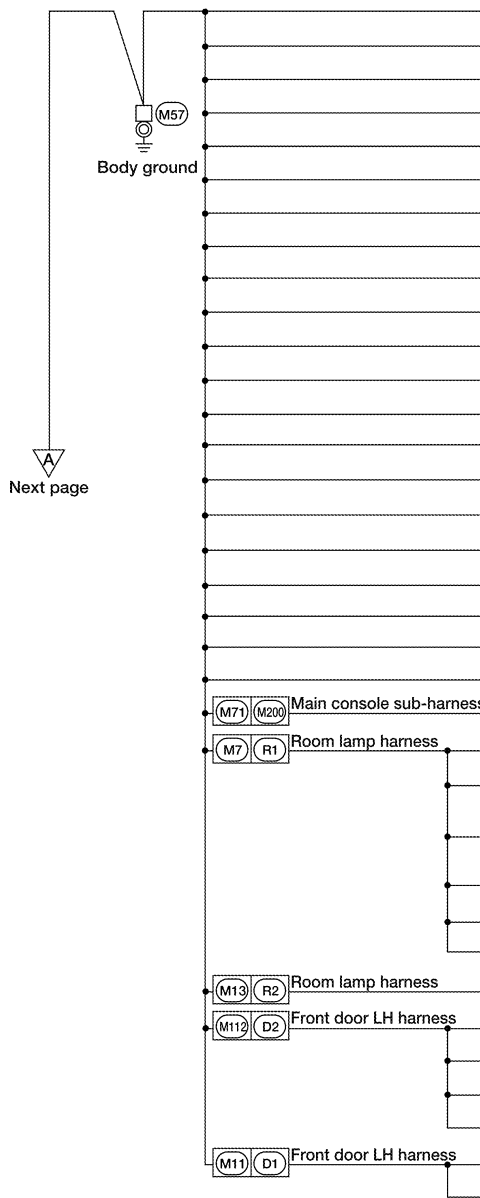
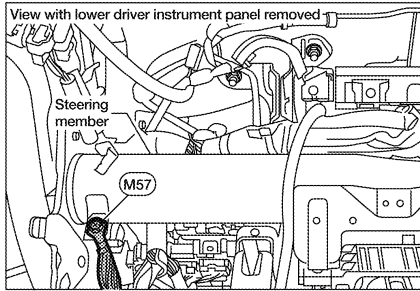
< DTC/CIRCUIT DIAGNOSIS >

## GROUND

### Ground Distribution

INFOID:000000008671007

### MAIN HARNESS



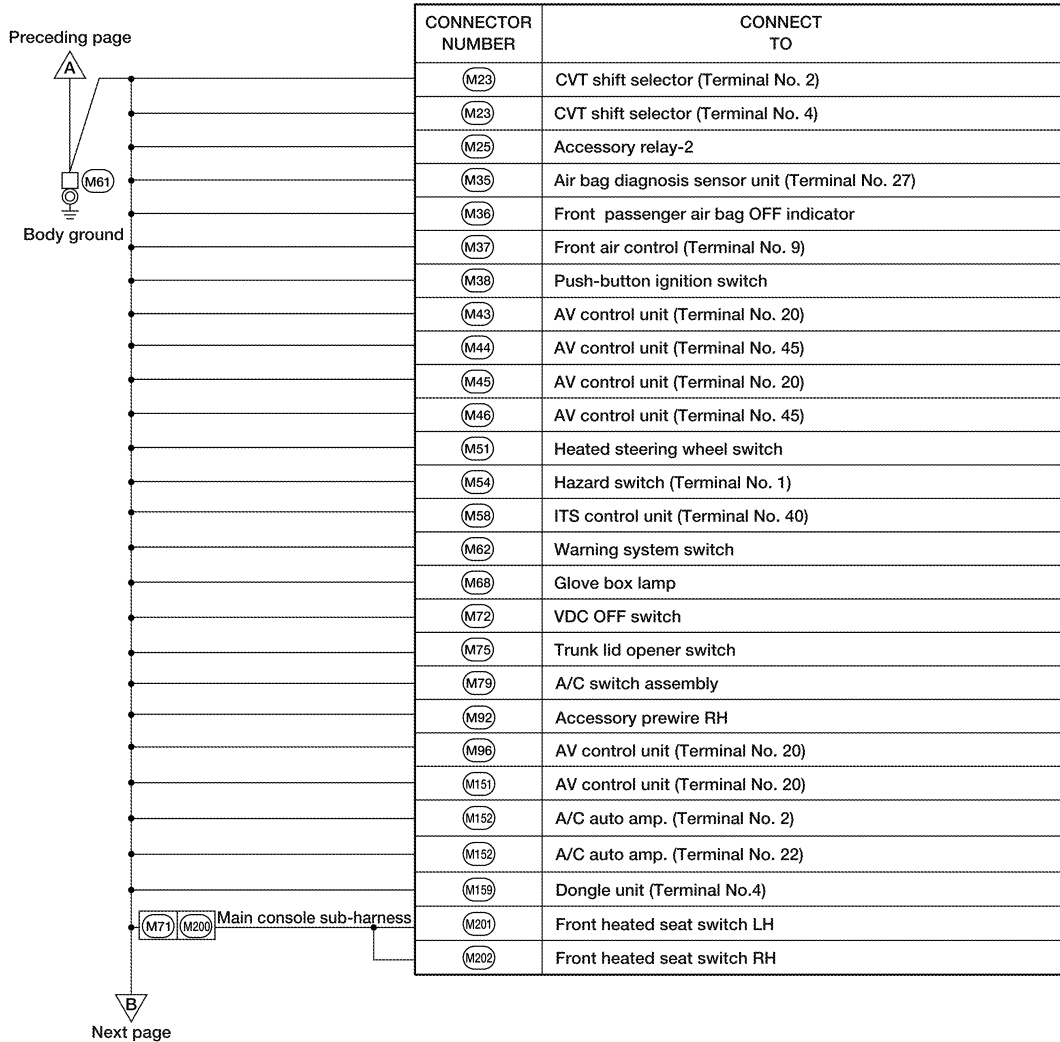
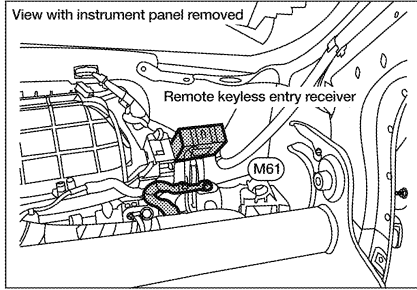
CONNECTOR NUMBER	CONNECT TO
M4	Fuse block (J/B)
M21	BCM (body control module) (Terminal No. 134)
M21	BCM (body control module) (Terminal No. 143)
M22	Data link connector (Terminal No. 4)
M22	Data link connector (Terminal No. 5)
M24	Combination meter (Terminal No. 1)
M24	Combination meter (Terminal No. 2)
M28	Combination switch (Terminal No. 6)
M31	Blower motor
M51	Heated steering wheel switch (Terminal No. 2)
M51	Heated steering wheel switch (Terminal No. 6)
M52	Combination switch (Terminal No. 2)
M53	Steering angle sensor
M62	Warning system switch
M72	VDC OFF switch
M74	Trunk lid opener cancel switch
M75	Trunk lid opener switch
M76	Front power socket
M91	Accessory prewire LH
M94	Paddle shifter (shift up)
M95	Paddle shifter (shift up)
M209	Front console power socket
R3	Vanity mirror lamp LH
R4	Auto anti-dazzling inside mirror (with homelink universal transceiver)
R8	Auto anti-dazzling inside mirror (without homelink universal transceiver)
R9	Vanity mirror lamp RH
R50	Personal lamp rear
R51	Front room/map lamp assembly
R5	Moonroof motor assembly
D3	Blind spot warning indicator LH
D4	Door mirror LH
D6	Front outside handle LH
D14	Front door lock assembly LH
D7	Main power window and door lock/unlock switch (Terminal No. 1)
D12	Main power window and door lock/unlock switch (Terminal No. 1)

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# GROUND

## < DTC/CIRCUIT DIAGNOSIS >



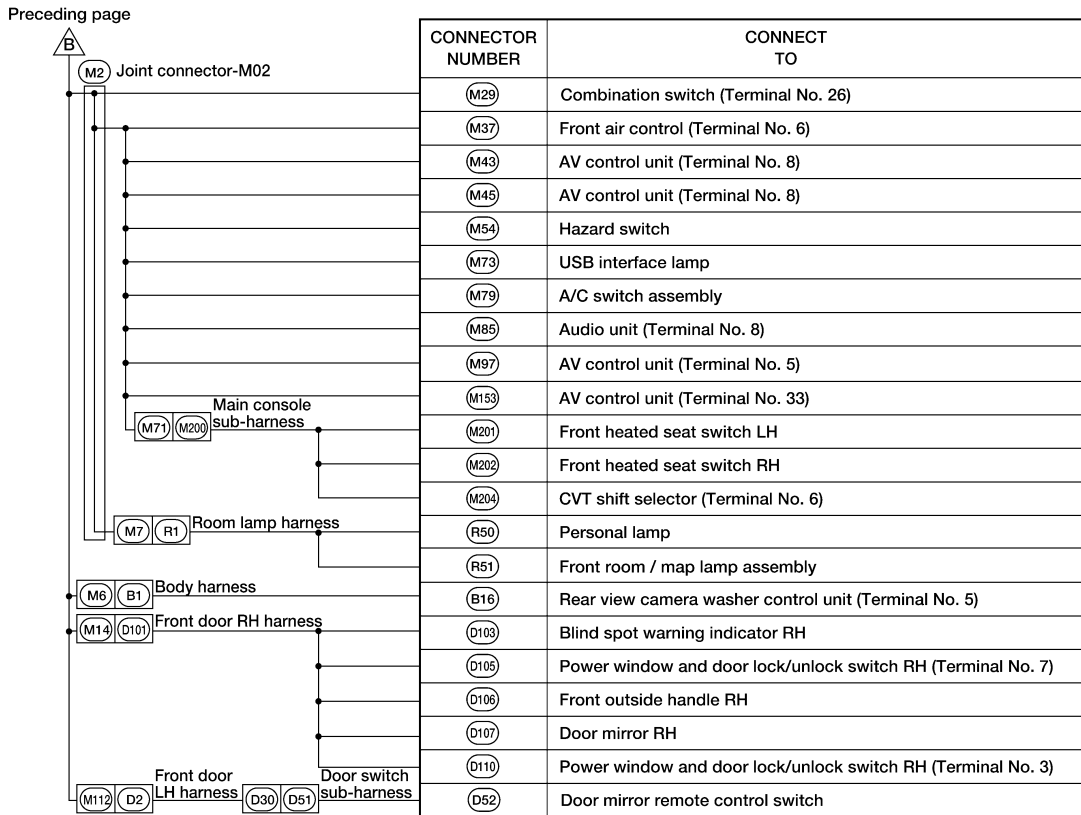
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# GROUND

## < DTC/CIRCUIT DIAGNOSIS >

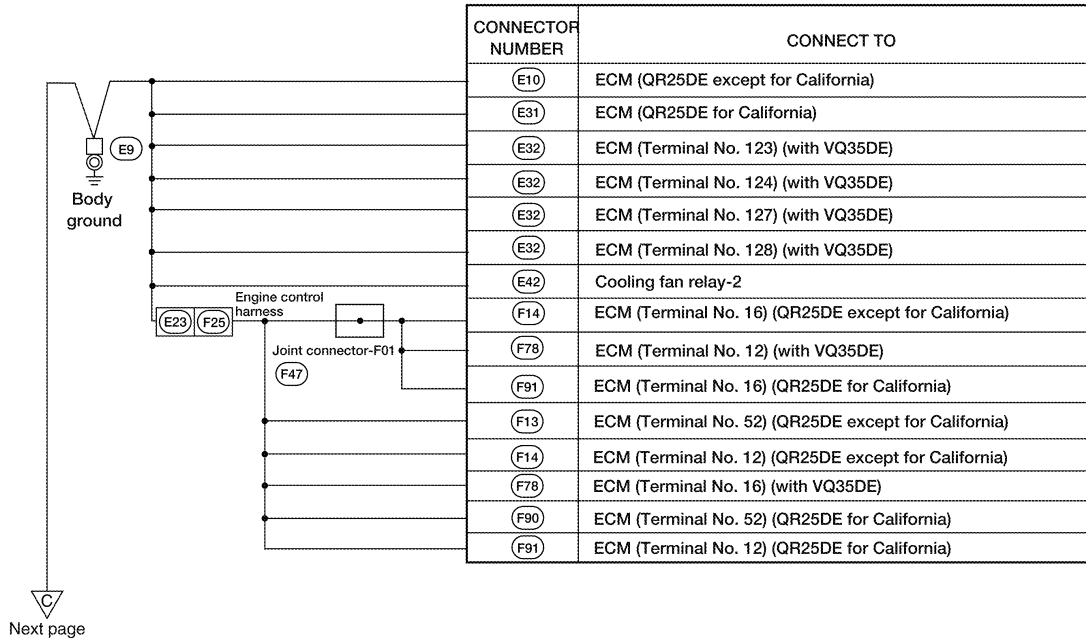
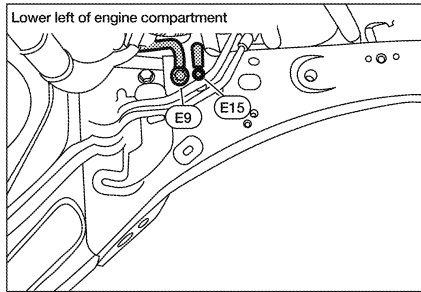


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# GROUND

< DTC/CIRCUIT DIAGNOSIS >

## ENGINE ROOM HARNESS



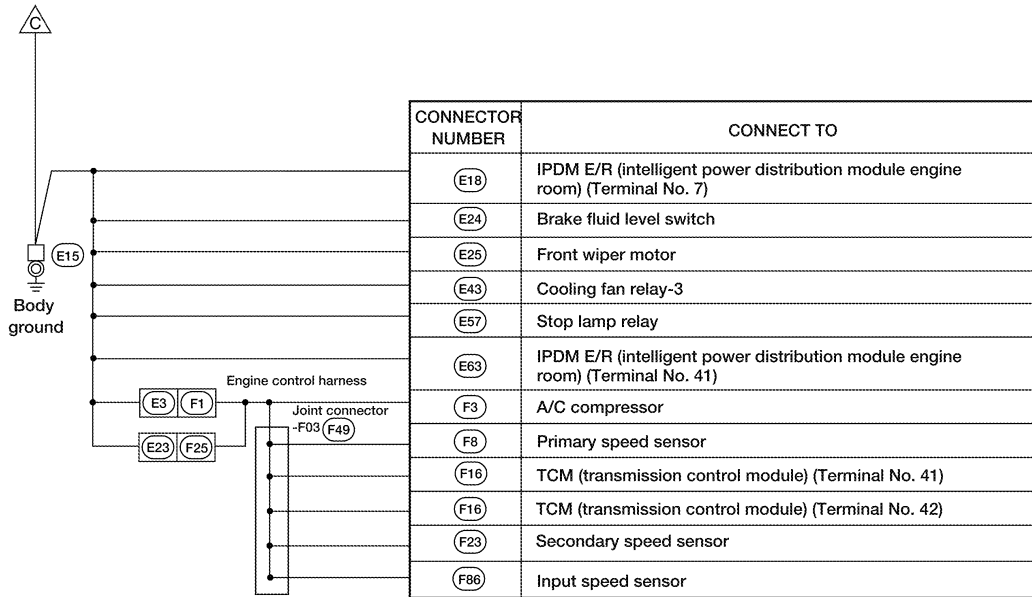
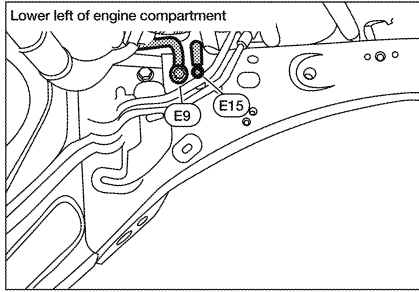
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# GROUND

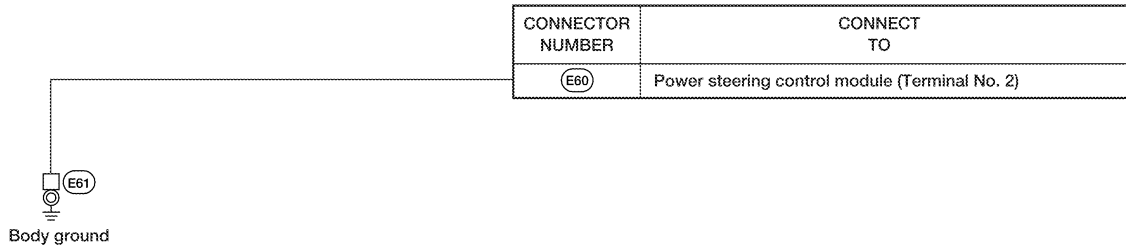
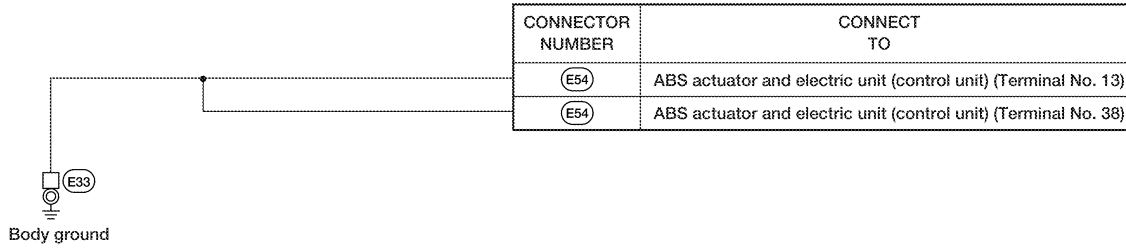
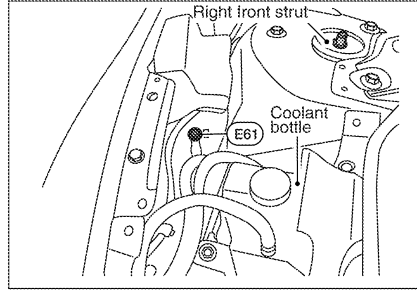
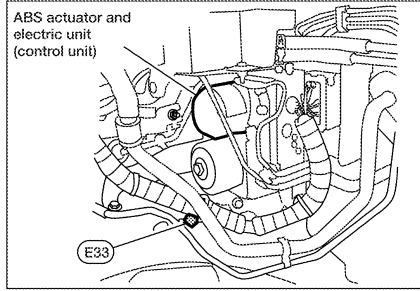
## < DTC/CIRCUIT DIAGNOSIS >



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# GROUND

## < DTC/CIRCUIT DIAGNOSIS >



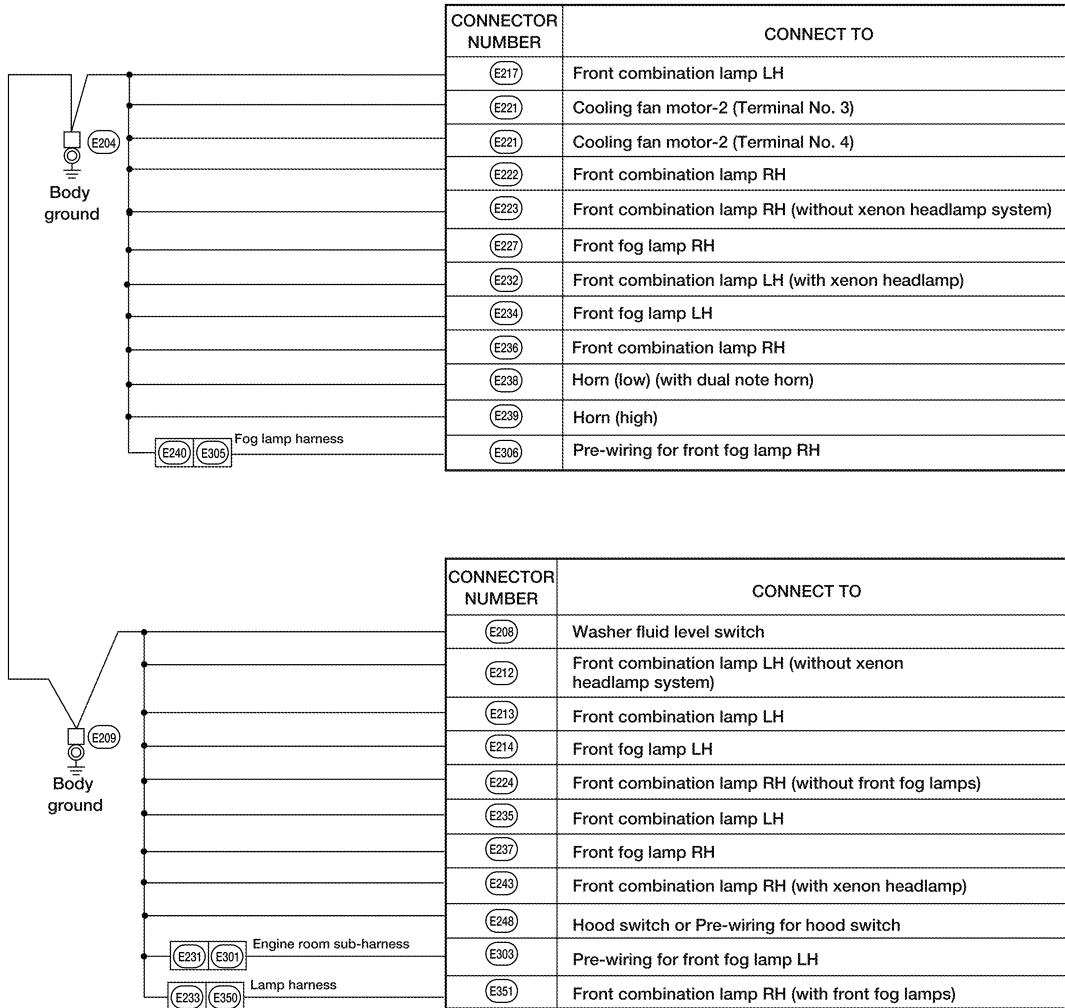
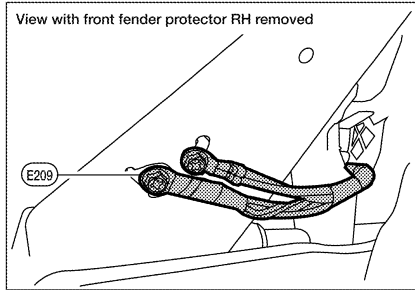
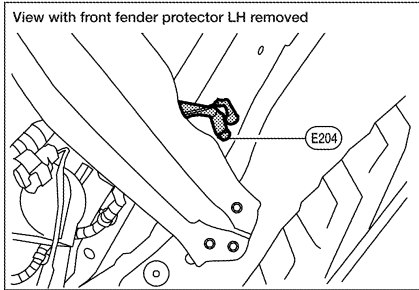
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# GROUND

< DTC/CIRCUIT DIAGNOSIS >

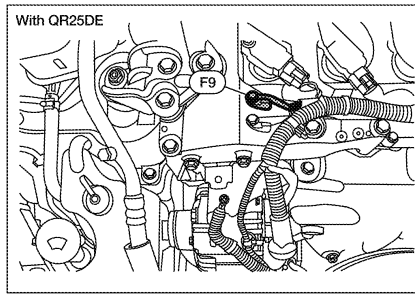
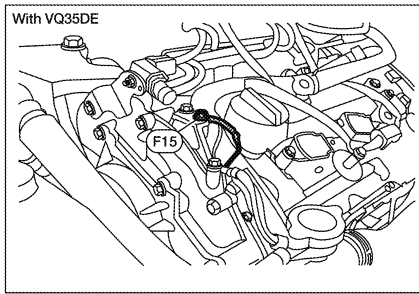
## FRONT END MODULE HARNESS



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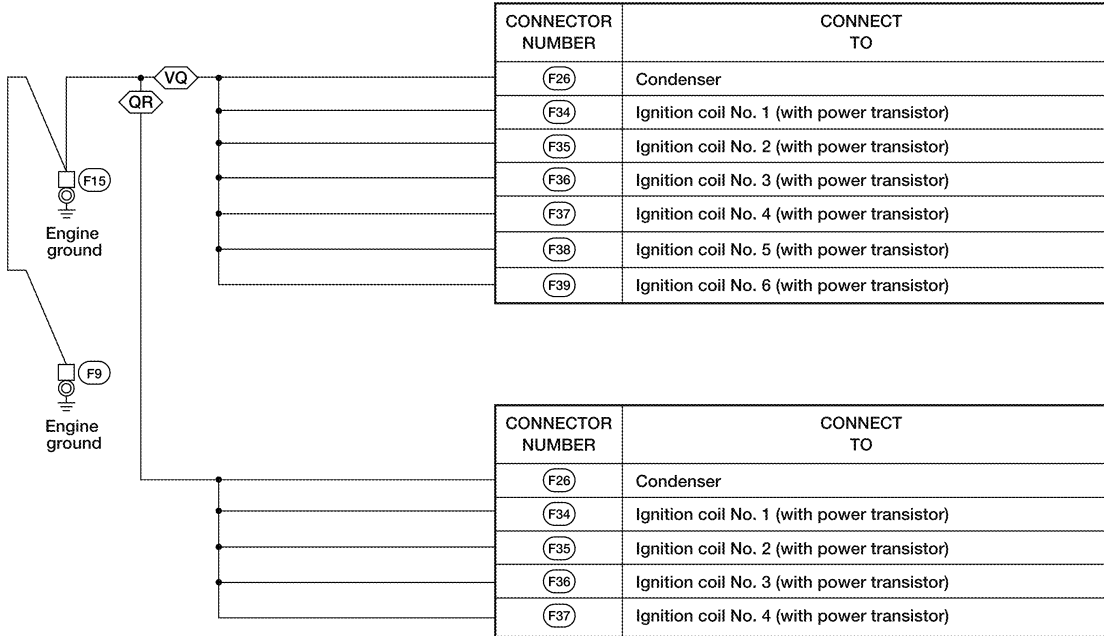
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## < DTC/CIRCUIT DIAGNOSIS > ENGINE CONTROL HARNESS



QR : With QR25DE

VQ : With VQ35DE



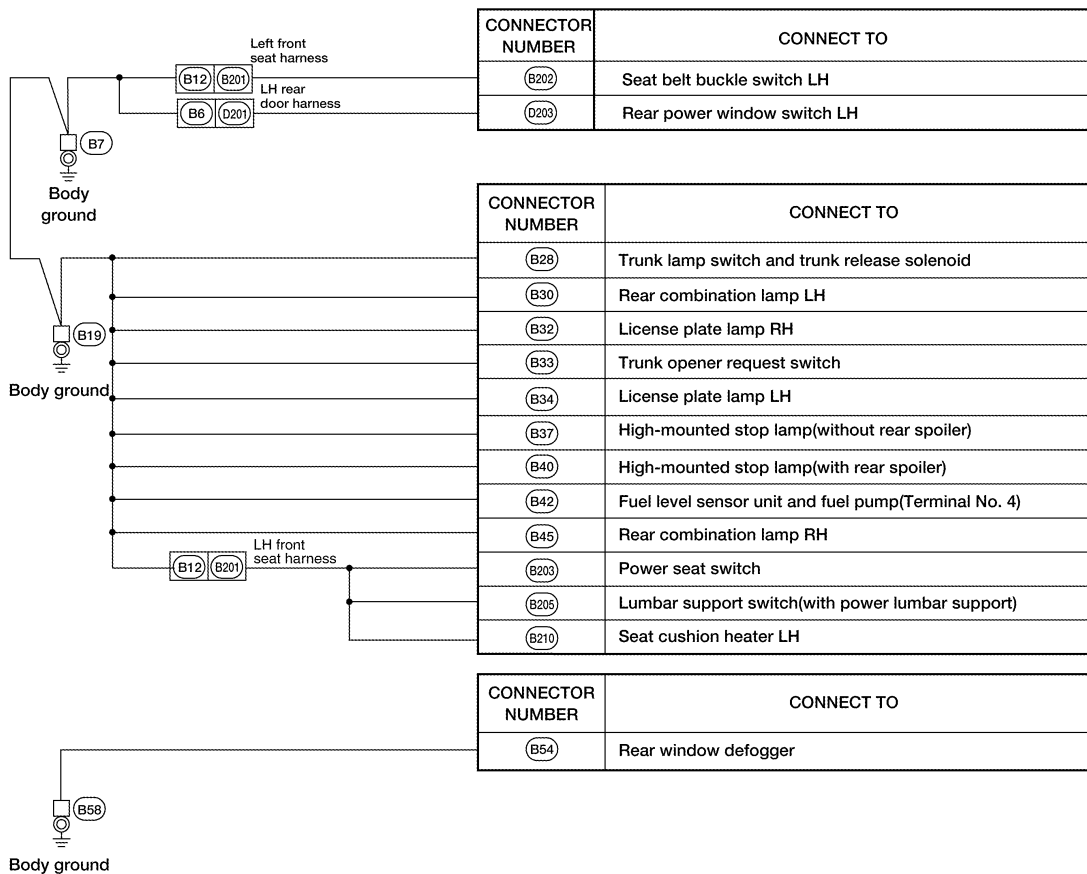
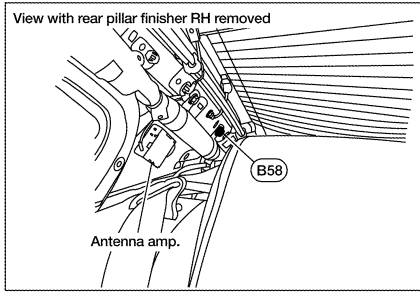
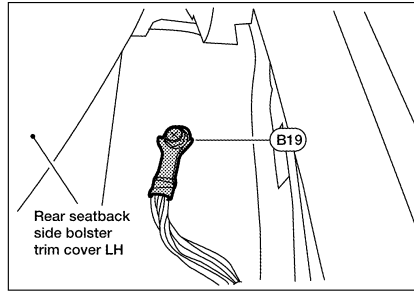
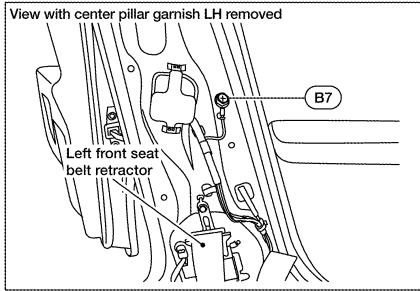
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# GROUND

< DTC/CIRCUIT DIAGNOSIS >

## BODY HARNESS



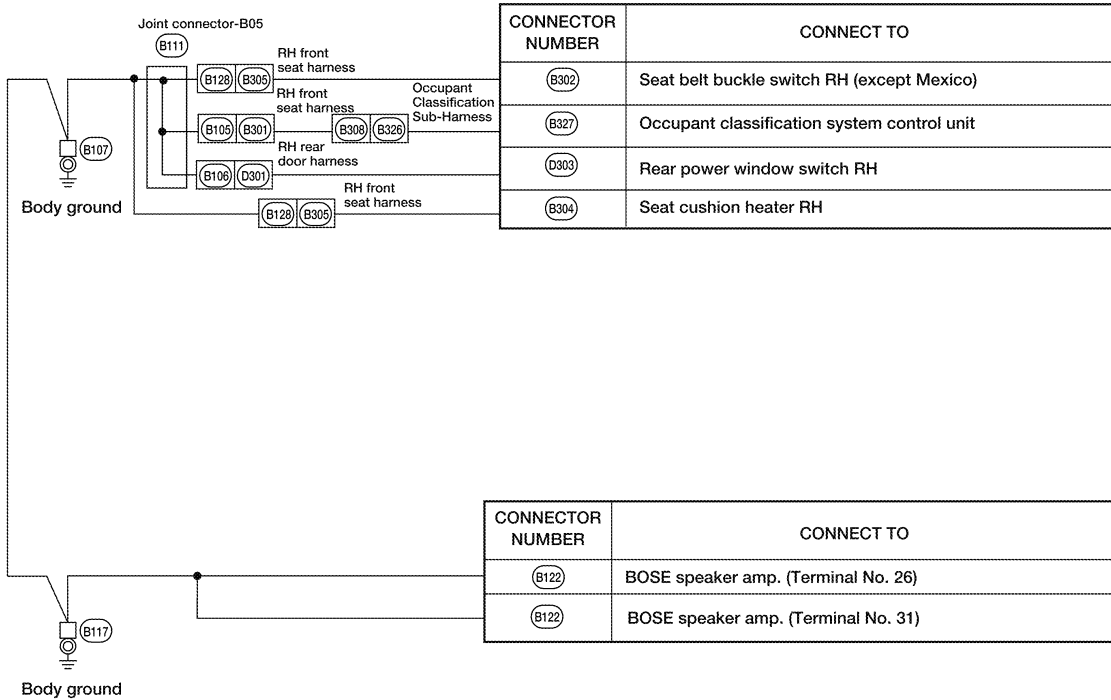
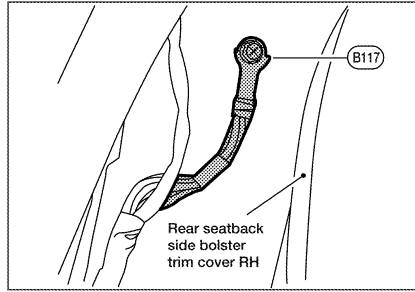
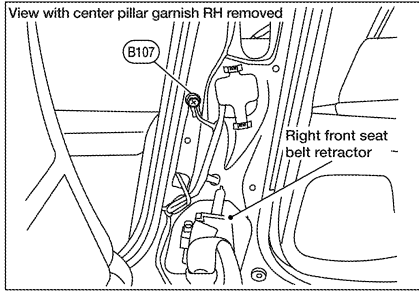
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# GROUND

< DTC/CIRCUIT DIAGNOSIS >

## BODY NO. 2 HARNESS



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# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## HARNESS

### Harness Layout

INFOID:000000008671008

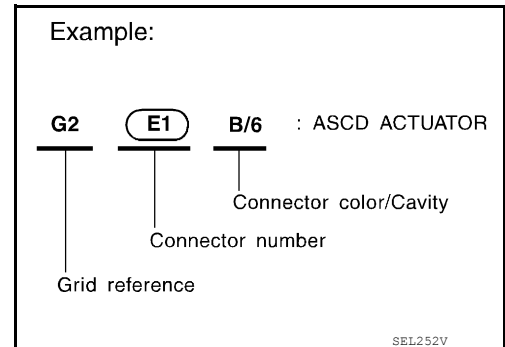
#### HOW TO READ HARNESS LAYOUT

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

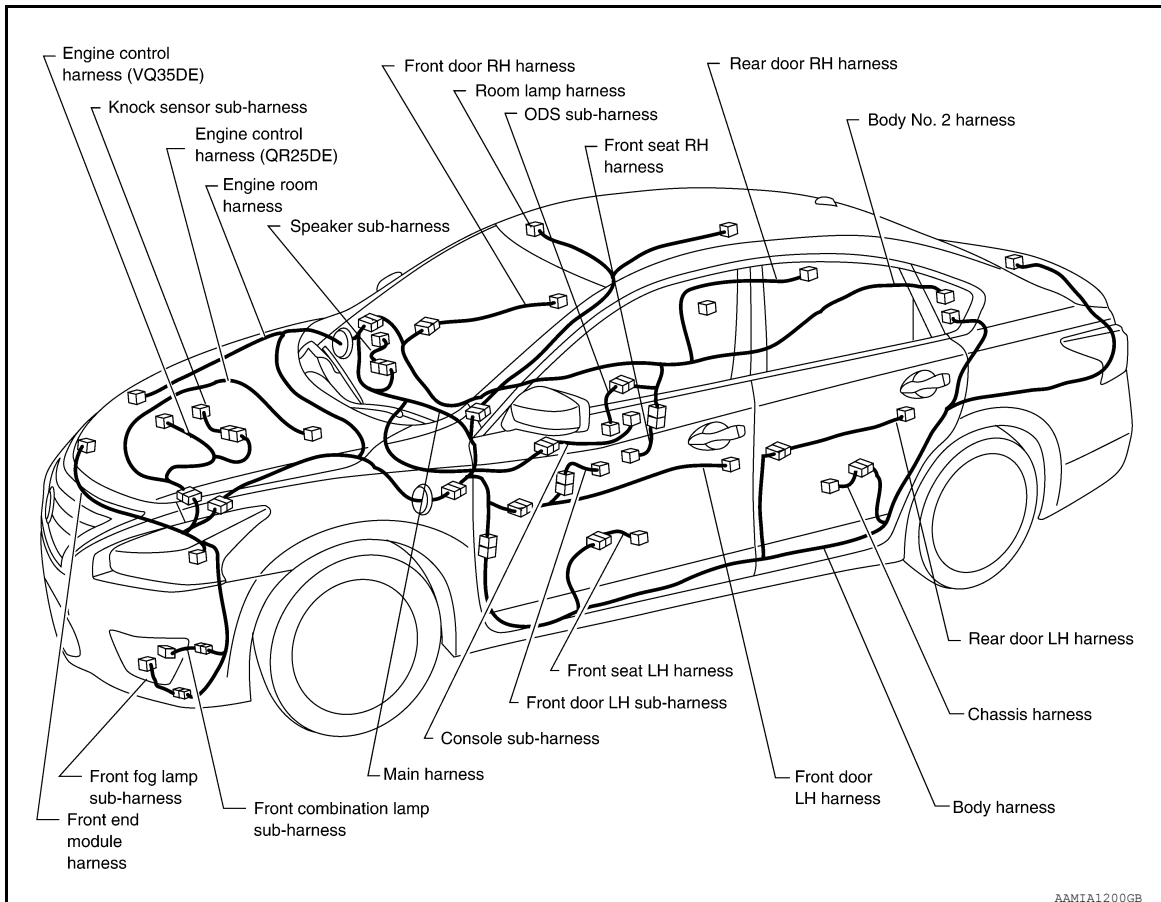
- Main Harness, Console Sub-harness, Speaker Sub-harness
- Engine Room Harness
- Engine Room Harness (Passenger Compartment)
- Front End Module Harness, Front Combination Lamp Sub-harness, Front Fog Lamp Sub-harness
- Engine Control Harness (QR25DE)
- Engine Control Harness (VQ35DE), Knock Sensor Sub-harness
- Body Harness, Front Seat LH Harness, Chassis Harness
- Body No. 2 Harness, Front Seat RH Harness, ODS Sub-harness
- Room Lamp Harness
- Front Door LH Harness, Front Door LH Sub-harness
- Front Door RH Harness
- Rear Door LH Harness
- Rear Door RH Harness

#### To use the grid reference

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



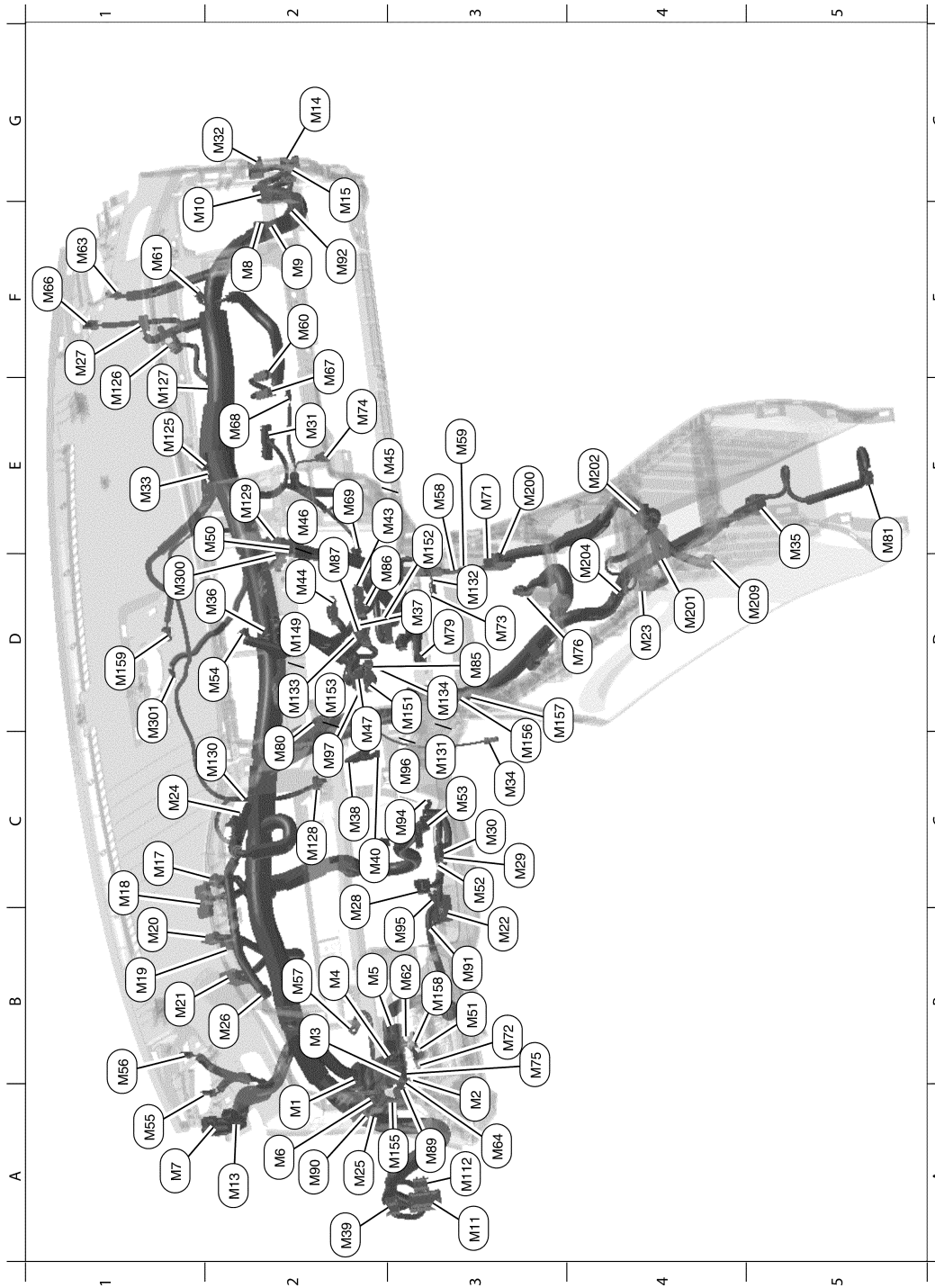
#### OUTLINE



# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## MAIN HARNESS



AAMIA00222Z

A2	M1	SMJ	: To E30	B3	M62	W/8	: Warning system switch
A3	M2	W/4	: Joint connector-M02	F1	M63	BR/2	: Front speaker RH
B2	M3	W/8	: Fuse block (J/B)	A3	M64	W/4	: Joint connector-M01
B2	M4	BR/16	: Fuse block (J/B)	F1	M66	W/3	: Optical sensor
B2	M5	W/16	: Fuse block (J/B)	F2	M67	B/2	: Front passenger air bag module

# HARNES

## < DTC/CIRCUIT DIAGNOSIS >

A2	M6	SMJ	: To B1	E2	M68	W/2	: Glove box lamp
A1	M7	W/12	: To R1	E2	M69	W/2	: Intake sensor
F2	M8	W/12	: To B102	E3	M71	W/12	: To M200
F2	M9	W/16	: To B103	B3	M72	B/8	: VDC off switch
F1	M10	BR/16	: To B104	D3	M73	W/2	: USB interface lamp
A3	M11	W/16	: To D1	E2	M74	W/2	: Trunk lid opener cancel switch
A2	M13	W/4	: To R2	B3	M75	G/4	: Trunk lid opener switch
G2	M14	W/8	: To D101	D4	M76	GR/2	: Front power socket
G2	M15	W/16	: To D102	D3	M79	W/12	: A/C switch assembly
C1	M17	G/40	: BCM (Body control module)	C2	M80	B/2	: Diode-3
C1	M18	B/40	: BCM (Body control module)	E5	M81	GR/2	: Front console antenna
B1	M19	GR/24	: BCM (Body control module)	D3	M85	W/20	: Audio unit (With base audio system)
B1	M20	B/24	: BCM (Body control module)	D2	M86	W/16	: Audio unit (With base audio system)
B1	M21	W/15	: BCM (Body control module)	D2	M87	W/8	: Audio unit (With base audio system)
B3	M22	W/16	: Data link connector	A3	M89	W/4	: Joint connector-M05
D4	M23	W/12	: CVT shift selector	A2	M90	B/4	: Heated steering relay
C1	M24	W/40	: Combination meter	B3	M91	W/12	: Accessory prewire LH
A2	M25	B/4	: Accessory relay-2	F2	M92	W/12	: Accessory prewire RH
B2	M26	W/12	: Combination meter	C3	M94	W/4	: Paddle shifter (Shift up)
F1	M27	B/4	: Remote keyless entry receiver	B3	M95	W/3	: Paddle shifter (Shift down)
C2	M28	W/12	: Combination switch	C3	M96	W/20	: AV control unit (With navigation system without BOSE audio system)
C3	M29	Y/6	: Combination switch (Spiral cable)	C2	M97	W/24	: AV control unit (With navigation system without BOSE audio system)
C3	M30	GR/8	: Combination switch (Spiral cable)	A3	M112	W/24	: To D2
E2	M31	W/3	: Blower motor	E1	M125	W/3	: To M33
G2	M32	Y/4	: To D123	E1	M126	W/3	: Intake door motor
E1	M33	W/3	: To M125	E1	M127	W/3	: Mode door motor
C3	M34	W/2	: In-vehicle sensor	C2	M128	W/3	: Air mix door motor LH
E5	M35	Y/28	: Air bag diagnosis sensor unit	E2	M129	W/3	: Air mix door motor RH
D2	M36	BR/2	: Front passenger air bag off indicator	C2	M130	W/3	: Air mix door motor
D3	M37	W/16	: Front air control (Without auto A/C)	C3	M131	B/5	: AV control unit (With navigation with BOSE audio system)
C2	M38	W/8	: Push-button ignition switch	D3	M132	B/5	: USB interface
A2	M39	Y/4	: To D29	D3	M134	B/5	: AV control unit (With navigation system without BOSE audio system)
C2	M40	W/3	: NATS antenna amp.	D2	M149	B/5	: Audio unit (With display audio system)
E2	M43	W/20	: Audio unit (With display audio with BOSE audio system)	D3	M151	W/20	: AV control unit (With navigation with BOSE audio system)
D2	M44	W/32	: Audio unit (With display audio with BOSE audio system)	E3	M152	W/40	: A/C auto amp.(With auto A/C)
E3	M45	W/20	: Audio unit (With display audio system with BOSE audio system)	D2	M153	W/24	: AV control unit (With navigation with BOSE audio system)
E2	M46	W/32	: Audio unit (With display audio system with BOSE audio system)	A3	M155	W/4	: Joint connector-M06
D2	M47	W/4	: Joint connector-M04	C3	M156	W/4	: Joint connector-M07
E2	M50	W/2	: To M300	D3	M157	W/4	: Joint connector-M08
B3	M51	B/8	: Heated steering wheel switch	B3	M158	W/7	: Meter control switch

# HARNESSES

## < DTC/CIRCUIT DIAGNOSIS >

C3	M52	W/2	: Combination switch	D1	M159	W/4	: Dongle unit	
C3	M53	W/8	: Steering angle sensor	Console sub-harness				A
D2	M54	W/4	: Hazard switch	E3	M200	W/12	: To M71	
A1	M55	BR/2	: Front speaker LH	D4	M201	W/6	: Front heated seat switch LH	B
B1	M56	B/2	: Sunload sensor	E4	M202	BR/6	: Front heated seat switch RH	
B2	M57	—	: Body ground	D4	M204	BR/2	: CVT shift selector	
E3	M58	W/40	: ITS control unit	D5	M209	GR/2	: Front console power socket	C
E3	M59	W/32	: ITS control unit	Speaker sub-harness				
F2	M60	O/2	: Front passenger air bag module	D1	M300	W/2	: To M50	D
F1	M61	—	: Body ground	D1	M301	BR/2	: Center speaker	

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

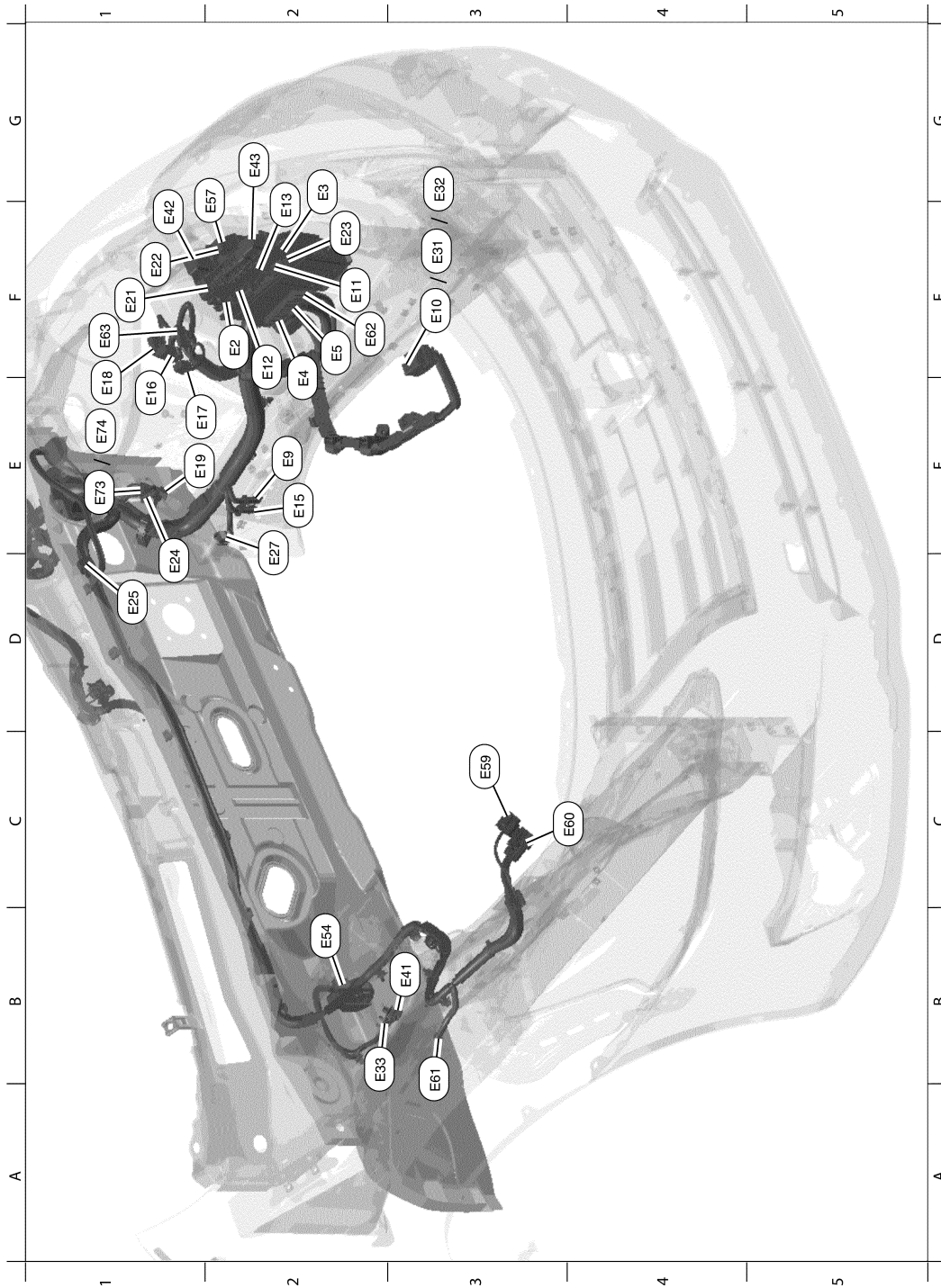
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# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## ENGINE ROOM HARNESS



AAMIA00232Z

F2	E2	W/8	: To E202	D1	E25	GR/5	: Front wiper motor
G2	E3	W/10	: To F1	E2	E27	B/3	: Vacuum sensor
F2	E4	B/2	: Fusible link box (Battery)	F3	E31	GR/32	: ECM (QR25DE for California)
F2	E5	GR/2	: Fusible link box (Battery)	G3	E32	GR/32	: ECM (With VQ35DE)
E2	E9	—	: Body ground	B2	E33	—	: Body ground

# HARNES

## < DTC/CIRCUIT DIAGNOSIS >

F3	E10	GR/32	: ECM (QR25DE except for California)	B3	E41	GR/2	: Front wheel sensor RH	A
F2	E11	W/16	: To F2	F1	E42	BR/6	: Cooling fan relay-2	B
F2	E12	W/6	: To E203	G2	E43	BR/6	: Cooling fan relay-3	C
F2	E13	Y/4	: To E205	B2	E54	B/38	: ABS actuator and electric unit (Control unit)	D
E2	E15	—	: Body ground	G2	E57	B/4	: Stop lamp relay	E
E1	E16	B/2	: IPDM E/R (Intelligent power distribution module engine room)	C3	E59	B/6	: Power steering control module	F
E1	E17	W/4	: IPDM E/R (Intelligent power distribution module engine room)	C4	E60	B/2	: Power steering control unit	G
E1	E18	W/12	: IPDM E/R (Intelligent power distribution module engine room)	B3	E61	—	: Body ground	H
E1	E19	GR/2	: Front wheel sensor LH	F2	E62	B/1	: Fusible link box (Battery)	I
F1	E21	GR/6	: Joint connector-E03	F1	E63	W/32	: IPDM E/R (Intelligent power distribution module engine room)	J
F1	E22	GR/6	: Joint connector-E04	E1	E73	BR/3	: Outside warning buzzer	K
F2	E23	BR/8	: To F25	E1	E74	BR/3	: Intelligent Key warning buzzer	L
D1	E24	GR/2	: Brake fluid level switch					M

PG

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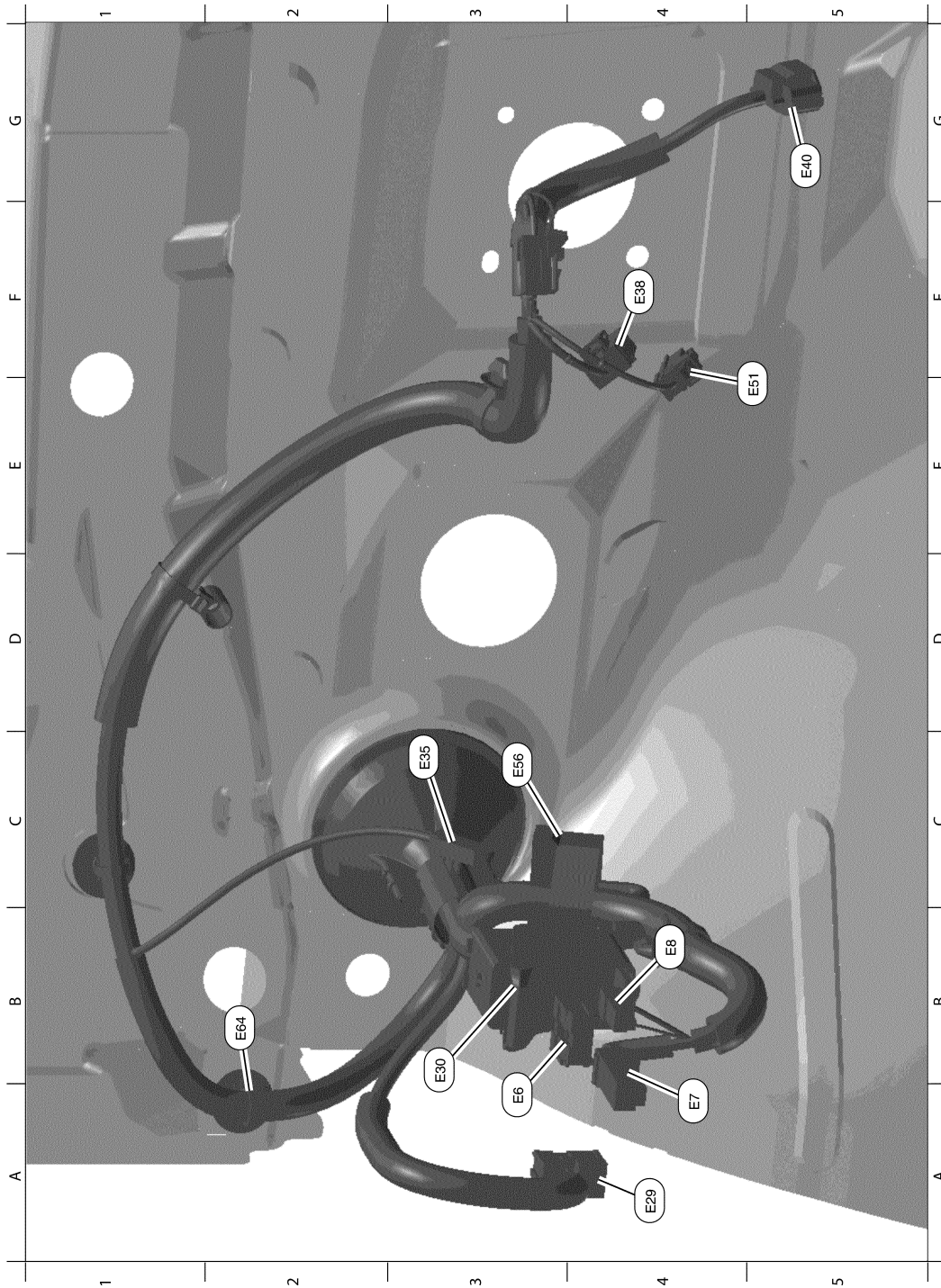
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# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)



AAMIA00242Z

A3	E6	W/10	: Fuse block (J/B)	F4	E38	W/4	: Stop lamp switch
A4	E7	W/1	: Fuse block (J/B)	G5	E40	B/6	: Accelerator pedal position sensor
B4	E8	W/1	: Fuse block (J/B)	E5	E51	BR/2	: Brake pedal position switch
A4	E29	W/12	: To B10	C3	E56	W/33	: Joint connector-E08

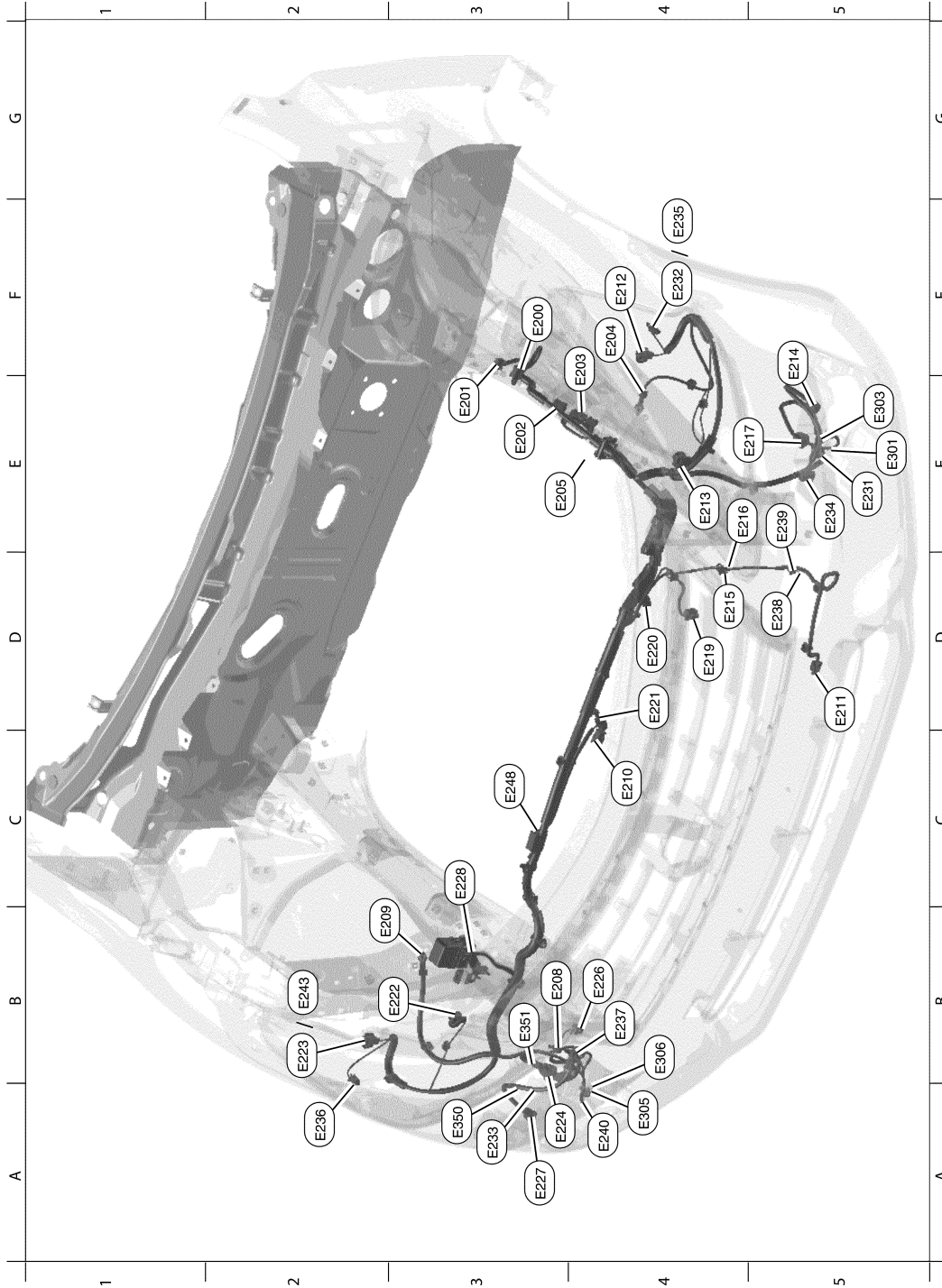


# HARNESS

## < DTC/CIRCUIT DIAGNOSIS >

B3	E30	SMJ	: To M1	B2	E64	W/4	: Joint connector-E10
C3	E35	B/1	: Parking brake switch				

### FRONT END MODULE HARNESS



AAMIA002522

F3	E200	W/8	: IPDM E/R (Intelligent power distribution module engine room)	A3	E227	B/2	: Front fog lamp RH
E3	E201	W/16	: IPDM E/R (Intelligent power distribution module engine room)	C3	E228	B/4	: Daytime light relay

# HARNES

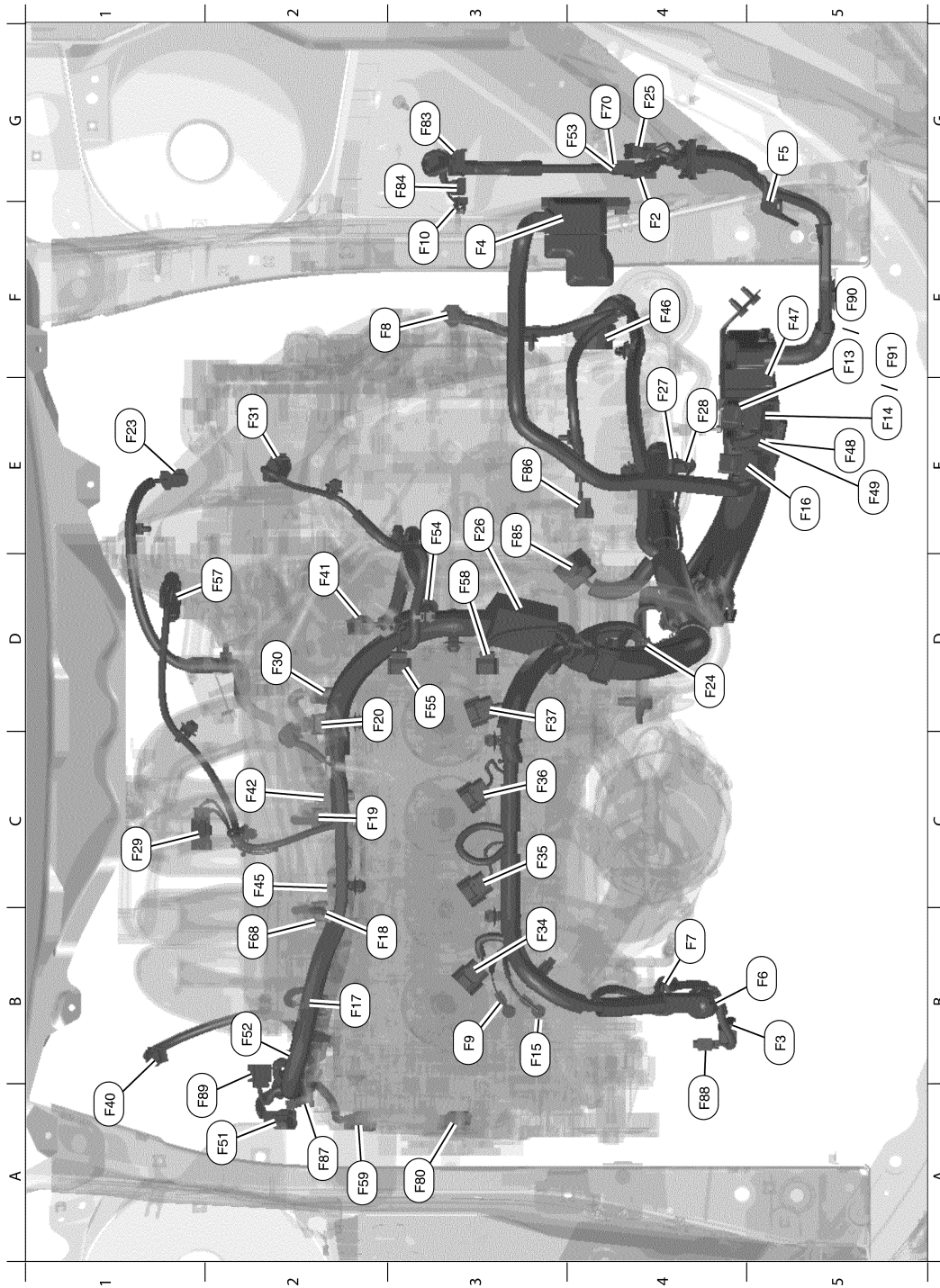
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E3	E202	W/8	: To E2	E5	E231	GR/4	: To E301
F4	E203	W/6	: To E12	F4	E232	GR/2	: Front combination lamp LH (With xenon headlamp system)
F4	E204	—	: Body ground	A3	E233	B/6	: To E350
E3	E205	Y/4	: To E13	E5	E234	B/2	: Front fog lamp LH
B3	E208	B/2	: Washer level switch	F4	E235	GR/2	: Front combination lamp LH
B2	E209	—	: Body ground	A2	E236	GR/2	: Front combination lamp RH
C4	E210	Y/2	: Crash zone sensor	B4	E237	B/2	: Front fog lamp RH
D5	E211	B/2	: Ambient sensor	D5	E238	B/1	: Horn (Low)
F4	E212	B/2	: Front combination lamp LH (Without xenon headlamp system)	E5	E239	B/1	: Horn (High)
E4	E213	B/2	: Front combination lamp LH	A4	E240	GR/4	: To E305
F5	E214	B/2	: Front fog lamp LH	B2	E243	GR/2	: Front combination lamp RH (With xenon headlamp system)
D4	E215	B/1	: Horn (Low)	C3	E248	B/3	: Hood switch or pre-wiring for hood switch
E4	E216	B/1	: Horn (High)	Front fog lamp sub-harness			
E5	E217	GR/3	: Front combination lamp LH	E5	E301	GR/4	: To E231
D4	E219	B/3	: Refrigerant pressure sensor	E5	E303	B/2	: Pre-wiring for front fog lamp LH
D4	E220	GR/4	: Cooling fan motor-1	A4	E305	GR/4	: To E240
D4	E221	GR/4	: Cooling fan motor-2	B4	E306	B/2	: Pre-wiring for front fog lamp RH
B3	E222	B/2	: Front combination lamp RH	Front combination lamp sub-harness			
B2	E223	B/2	: Front combination lamp RH (Without xenon headlamp system)	A3	E350	B/6	: To E233
A3	E224	GR/3	: Front combination lamp RH (Without front fog lamps)	B3	E351	GR/3	: Front combination lamp RH (With front fog lamps)
B4	E226	B/2	: Front washer motor				

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## ENGINE CONTROL HARNESS (QR25DE)



AAMIA00262Z

F4	F2	W/16	: To E11	D3	F37	GR/3	: Ignition coil no. 4 (With power transistor)
B5	F3	B/2	: A/C compressor	A1	F40	B/2	: Intake manifold tuning valve motor
F3	F4	—	: Fusible link box (Battery)	D2	F41	B/2	: Intake manifold runner control valve motor
G5	F5	GR/4	: Battery current sensor	C2	F42	B/4	: Heated oxygen sensor 2

# HARNESS

## < DTC/CIRCUIT DIAGNOSIS >

B5	F6	—	: Generator	C2	F45	GR/2	: Knock sensor
B4	F7	B/3	: Generator	F4	F46	B/22	: CVT unit
F2	F8	B/3	: Primary speed sensor	F5	F47	B/6	: Joint connector-F01
B3	F9	—	: Engine ground	E5	F48	B/10	: Joint connector-F02
F3	F10	B/1	: IPDM E/R (Intelligent power distribution module engine room)	E5	F49	B/10	: Joint connector-F03
F5	F13	BR/48	: ECM (QR25DE except for California)	A2	F51	G/2	: Intake valve timing intermediate lock control solenoid valve
E5	F14	B/48	: ECM (QR25DE except for California)	B2	F52	B/3	: Intake manifold runner control valve position sensor
B3	F15	—	: Engine ground	G4	F53	W/4	: Joint connector-F07
E5	F16	B/48	: TCM (Transmission control module)	E3	F54	GR/2	: Engine coolant temperature sensor (With QR25DE)
B2	F17	GR/2	: Fuel injector no. 1	D3	F55	B/3	: Intake camshaft position sensor (PHASE)
B2	F18	GR/2	: Fuel injector no. 2	D2	F57	B/6	: Electric throttle control actuator
C2	F19	GR/2	: Fuel injector no. 3	D3	F58	B/3	: Exhaust valve timing control position sensor
D2	F20	GR/2	: Fuel injector no. 4	A2	F59	G/2	: Intake valve timing control solenoid valve
E1	F23	B/3	: Secondary speed sensor	B2	F68	GR/2	: Engine oil temperature sensor
D4	F24	GR/4	: Air fuel ratio (A/F) sensor 1	G4	F70	W/4	: Joint connector-F08
G4	F25	BR/8	: To E23	A3	F80	G/2	: Exhaust valve timing control solenoid valve
E3	F26	W/2	: Condenser	G3	F83	W/10	: IPDM E/R (Intelligent power distribution module engine room)
E4	F27	—	: Starter motor	G3	F84	W/12	: IPDM E/R (Intelligent power distribution module engine room)
E4	F28	—	: Starter motor (With QR25DE)	E3	F85	B/8	: Transmission range switch
C1	F29	B/2	: EVAP canister purge volume control solenoid valve	E3	F86	B/3	: Input speed sensor
D2	F30	B/3	: Crankshaft position sensor (POS)	A2	F87	B/3	: Engine oil pressure sensor
E2	F31	GR/6	: Mass air flow sensor	A4	F88	GR/2	: Electrical control valve
B3	F34	GR/3	: Ignition coil no. 1 (With power transistor)	A1	F89	B/3	: Manifold absolute pressure (Map) sensor
C3	F35	GR/3	: Ignition coil no. 2 (With power transistor)	F5	F90	BR/48	: ECM (QR25DE for California)
C3	F36	GR/3	: Ignition coil no. 3 (With power transistor)	F5	F91	B/48	: ECM (QR25DE for California)

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## ENGINE CONTROL HARNESS (QR35DE)



AAMIA00272Z

G4	F1	W/10	: To E3	F5	F47	B/6	: Joint connector-F01
F4	F2	W/16	: To E11	E5	F48	B/10	: Joint connector-F02
A4	F3	B/2	: A/C compressor	G5	F49	B/10	: Joint connector-F03
F3	F4	—	: Fusible link box (Battery)	F5	F50	B/10	: Joint connector-F04
G5	F5	GR/4	: Battery current sensor	G3	F53	W/4	: Joint connector-F07

# HARNESS

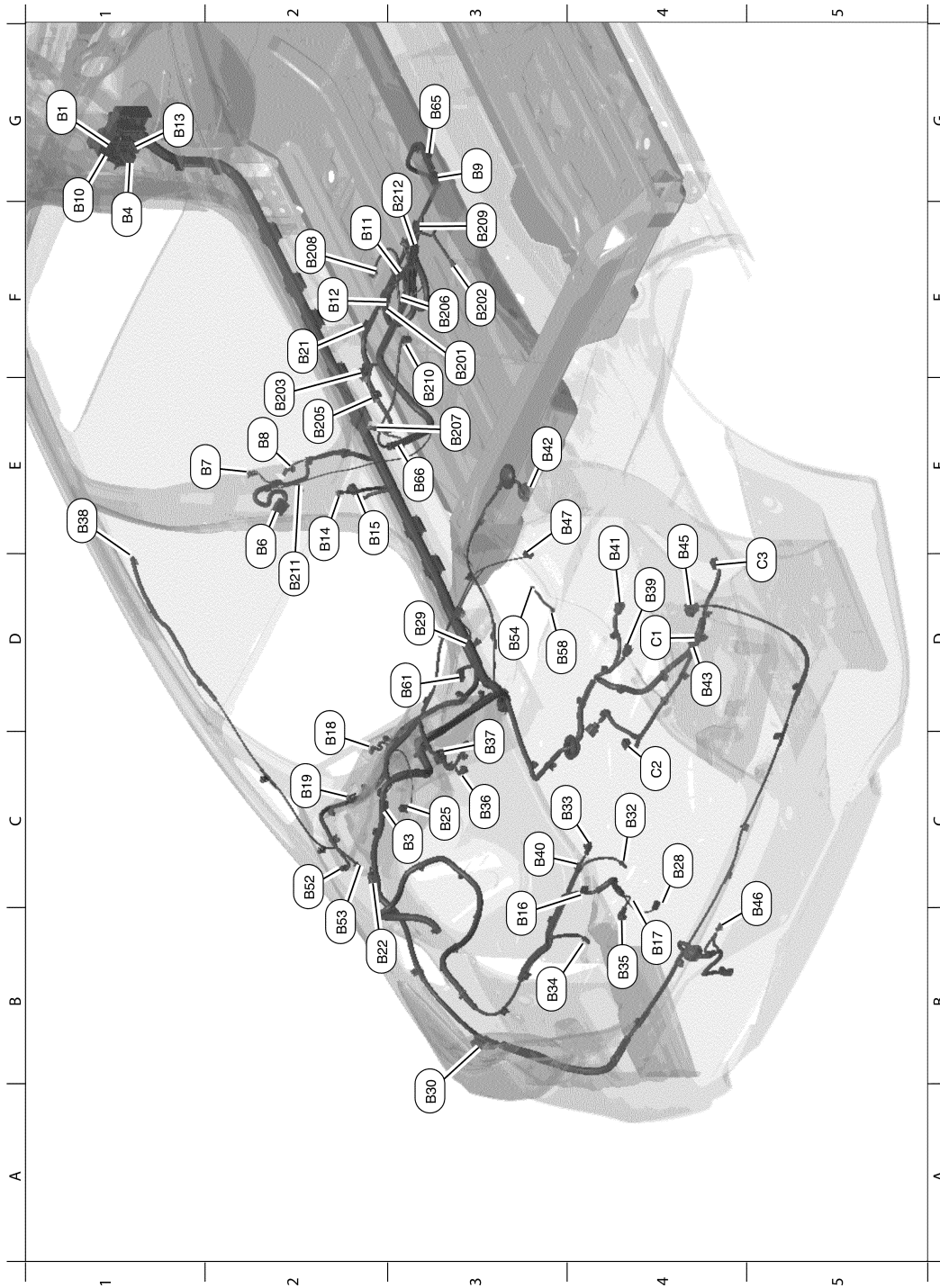
## < DTC/CIRCUIT DIAGNOSIS >

B5	F6	—	: Generator	D4	F56	B/4	: Heated oxygen sensor 2 (Bank 2)
B4	F7	B/3	: Generator	E2	F57	B/6	: Electric throttle control actuator
F2	F8	B/3	: Primary speed sensor	D4	F60	B/3	: Camshaft position sensor (PHASE) (Bank 2) (With VQ35DE)
B4	F9	—	: Engine ground	C4	F61	GR/4	: Air fuel ratio (A/F) sensor (Bank 2)
F3	F10	B/1	: IPDM E/R (Intelligent power distribution module engine room)	B1	F62	B/4	: Heated oxygen sensor 2 (Bank 1)
E3	F11	GR/2	: Engine coolant temperature sensor (With VQ35DE)	B3	F63	B/2	: VIAS control solenoid valve 1
C1	F12	GR/4	: Air fuel ratio (A/F) sensor (Bank 1)	B3	F64	BR/2	: Electronic controlled engine mount control solenoid valve
B3	F15	—	: Engine ground	C3	F65	B/2	: VIAS control solenoid valve 2
E5	F16	B/48	: TCM (Transmission control module)	A3	F66	G/2	: Intake valve timing control solenoid valve (Bank 2)
B3	F17	GR/2	: Fuel injector no. 1	B2	F67	G/2	: Intake valve timing control solenoid valve (Bank 1)
B3	F18	GR/2	: Fuel injector no. 2	A2	F68	GR/2	: Engine oil temperature sensor
C2	F19	GR/2	: Fuel injector no. 3	F4	F70	W/4	: Joint connector-F08
C3	F20	GR/2	: Fuel injector no. 4	B2	F71	G/6	: Joint connector-F09
D3	F21	GR/2	: Fuel injector no. 5	E3	F76	B/4	: To F201
C3	F22	GR/2	: Fuel injector no. 6	D2	F77	B/3	: Camshaft position sensor (PHASE) (Bank 1) (With VQ35DE)
E1	F23	B/3	: Secondary speed sensor	F5	F78	B/48	: ECM (With VQ35DE)
D3	F26	W/2	: Condenser	E5	F79	BR/48	: ECM (With VQ35DE)
F4	F27	—	: Starter motor	F4	F81	GR/1	: Starter motor (With VQ35DE)
D3	F29	B/2	: EVAP canister purge volume control solenoid valve	G3	F83	W/10	: IPDM E/R (Intelligent power distribution module engine room)
D5	F30	B/3	: Crankshaft position sensor (POS)	G3	F84	W/12	: IPDM E/R (Intelligent power distribution module engine room)
E1	F31	GR/6	: Mass air flow sensor	E3	F85	B/8	: Transmission range switch
C2	F34	GR/3	: Ignition coil no. 1 (With power transistor)	E3	F86	B/3	: Input speed sensor
C4	F35	GR/3	: Ignition coil no. 2 (With power transistor)	A2	F87	B/3	: Engine oil pressure sensor
C2	F36	GR/3	: Ignition coil no. 3 (With power transistor)	A4	F88	GR/2	: Electrical control valve
C4	F37	GR/3	: Ignition coil no. 4 (With power transistor)	Knock sensor sub-harness			
D2	F38	GR/3	: Ignition coil no. 5 (With power transistor)	D3	F201	B/4	: To F76
D4	F39	GR/3	: Ignition coil no. 6 (With power transistor)	C3	F202	GR/2	: Knock sensor (Bank 1)
F3	F46	B/22	: CVT unit	C3	F203	GR/2	: Knock sensor (Bank 2)

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## BODY HARNESS



AAMIA00282Z

G1	B1	SMJ	: To M6	C3	B40	BR/2	: High-mounted stop lamp (With rear spoiler)
C3	B3	W/3	: Joint connector-B05	E4	B41	GR/3	: EVAP control system pressure sensor
F1	B4	W/8	: Fuse block (J/B)	E3	B42	GR/6	: Fuel level sensor unit and fuel pump
E2	B6	W/8	: To D201	D4	B43	B/4	: To C1
E2	B7	—	: Body ground	E4	B45	W/6	: Rear combination lamp RH

# HARNESSES

## < DTC/CIRCUIT DIAGNOSIS >

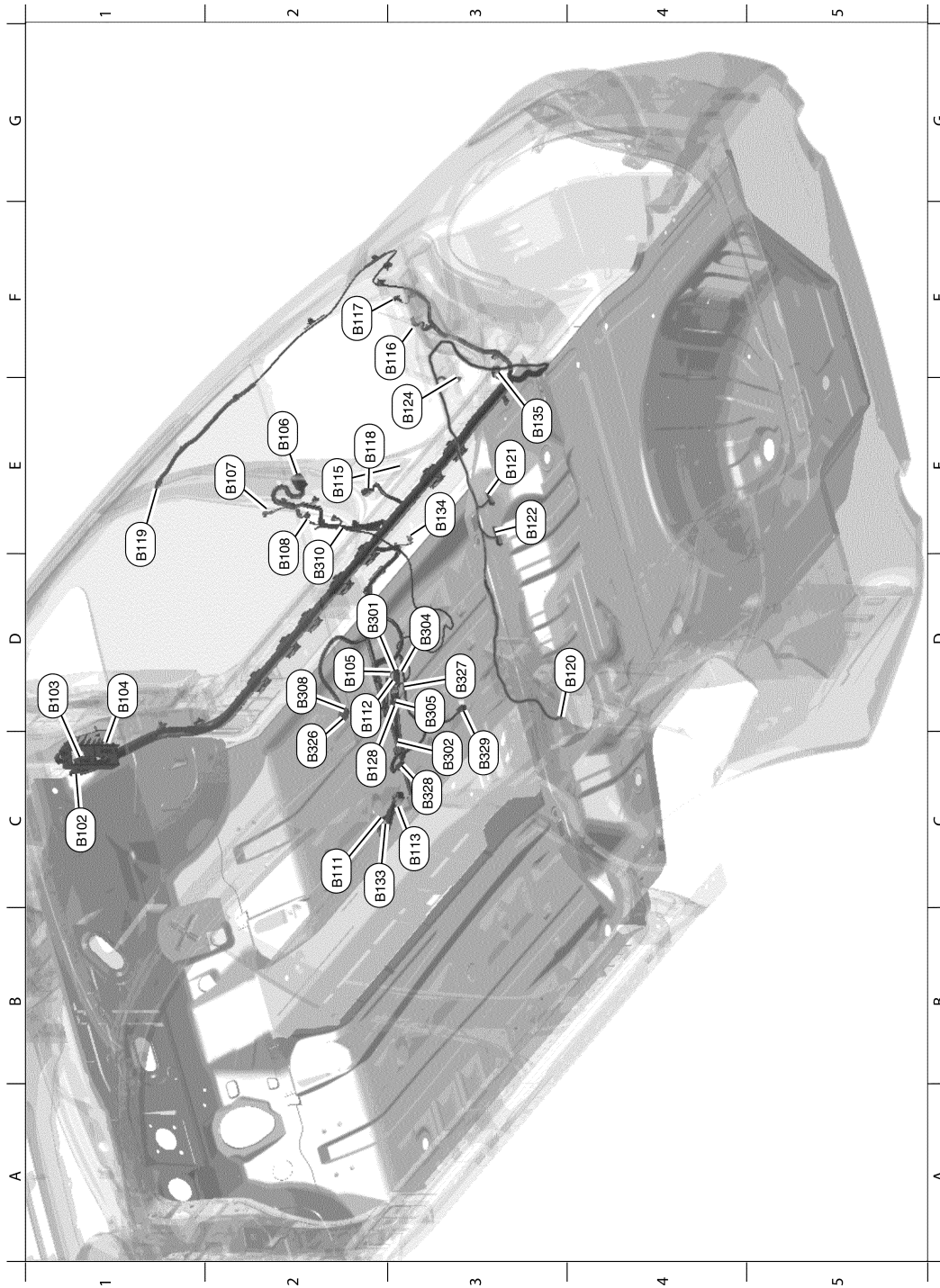
E2	B8	W/4	: Front door switch LH	C5	B46	GR/2	: Rear bumper antenna
G3	B9	Y/22	: Air bag diagnosis sensor unit	E4	B47	W/2	: Rear speaker RH (Without BOSE audio system)
G1	B10	W/12	: To E29	C2	B52	W/1	: Condenser
F2	B11	Y/2	: Front LH side air bag module	B2	B53	B/1	: Rear window defogger
F2	B12	W/6	: To B201	D3	B54	B/1	: Rear window defogger
G1	B13	W/6	: Fuse block (J/B)	D3	B58	—	: Body ground
E2	B14	Y/2	: Front LH seat belt pre-tensioner	D3	B61	Y/2	: Rear side air bag satellite sensor LH
E2	B15	Y/2	: Front side air bag satellite sensor LH	G3	B65	W/4	: Joint connector-B04
B3	B16	W/12	: Rear view camera washer control unit	E3	B66	O/2	: Front LH seat belt pre-tensioner (Lap belt)
B4	B17	W/2	: Rear view camera air pump motor	Chassis harness			
D2	B18	W/4	: Rear door switch LH	D4	C1	B/4	: To B43
C2	B19	—	: Body ground	C4	C2	B/2	: Rear wheel sensor LH
F2	B21	W/4	: Joint connector-B06	D5	C3	B/2	: Rear wheel sensor RH
B2	B22	B/12	: Joint connector-B07	Front seat LH harness			
C3	B25	W/2	: Rear speaker LH (Without BOSE audio system)	F3	B201	W/6	: To B12
C4	B28	W/3	: Trunk lamp switch and trunk release solenoid	F3	B202	W/2	: Seat belt buckle switch LH
D3	B29	GR/2	: Rear parcel shelf antenna	E2	B203	W/10	: Power seat switch
A3	B30	W/6	: Rear combination lamp LH	E2	B205	BR/4	: Lumbar support switch
C4	B32	BR/2	: License plate lamp RH	F3	B206	GR/5	: Sliding motor
C4	B33	BR/2	: Trunk opener request switch	E3	B207	W/6	: Reclining motor
B3	B34	BR/2	: License plate lamp LH	F2	B208	W/6	: Front lifting motor
B4	B35	W/8	: Rear view camera	F3	B209	W/6	: Rear lifting motor
C3	B36	W/2	: Trunk room lamp	E3	B210	W/3	: Seat cushion heater LH
C3	B37	B/2	: High-mounted stop lamp (Without rear spoiler)	D2	B211	W/2	: Seat back heater LH
E1	B38	Y/2	: LH side curtain air bag module	G3	B212	B/2	: Lumbar support motor
D4	B39	B/2	: EVAP canister vent control valve				



# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

BODY NO. 2 HARNESS



AAMIA00292Z

C1	B102	W/12	: To M8	E3	B124	W/2	: Rear speaker RH (With BOSE audio system)
D1	B103	W/16	: To M9	C2	B128	W/6	: To B305
D1	B104	BR/19	: To M10	C2	B133	W/4	: Joint connector-B01
D2	B105	W/4	: To B301	E3	B134	O/2	: Front RH seat belt pre-tensioner (Lap belt)

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# HARNESSES

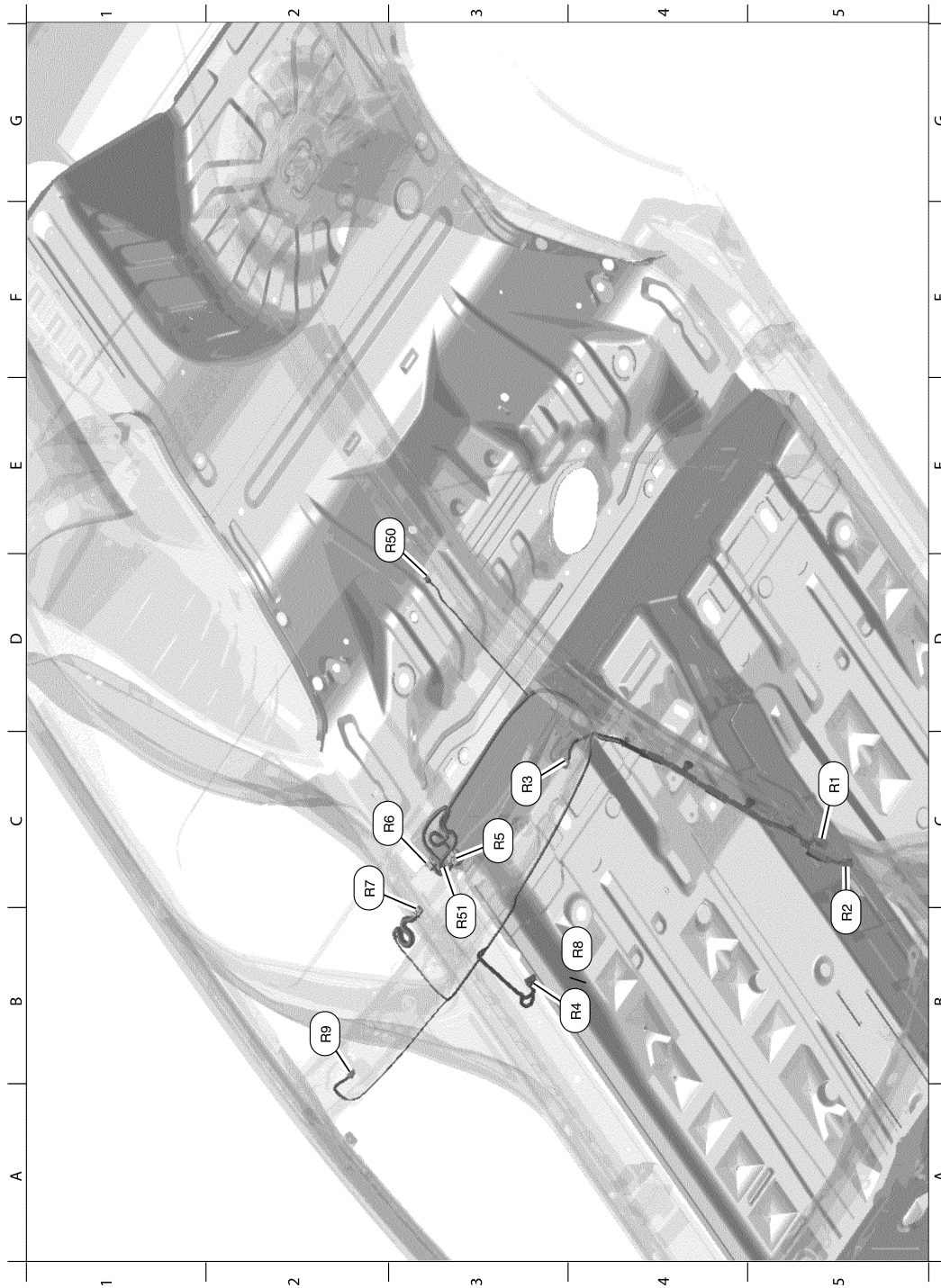
## < DTC/CIRCUIT DIAGNOSIS >

E2	B106	W/8	: To D301	E3	B135	Y/2	: Rear side air bag satellite sensor RH
E2	B107	—	: Body ground	ODS sub-harness			
E2	B108	W/4	: Front door switch RH	C2	B326	W/4	: To B308
C2	B111	W/4	: Joint connector-B02	D3	B327	B/20	: Occupant classification system control unit
D2	B112	Y/2	: Front RH side air bag module	C3	B328	P/3	: Occupant classification system sensor FL
C3	B113	Y/22	: Air bag diagnosis sensor unit	C3	B329	P/3	: Occupant classification system sensor RL
E2	B115	Y/2	: Front RH seat belt pre-tensioner (Shoulder belt)	Front seat RH harness			
F3	B116	W/4	: Rear door switch RH	D2	B301	W/4	: To B106
F2	B117	—	: Body ground	C3	B302	W/4	: Seat belt buckle switch RH
E2	B118	Y/2	: Front side air bag satellite sensor RH	D3	B304	W/3	: Seat cushion heater RH
E1	B119	Y/2	: RH side curtain air bag module	D3	B305	W/6	: To B128
D4	B120	W/2	: Rear speaker LH (With BOSE audio system)	D2	B308	W/4	: To B326
E3	B121	BR/23	: BOSE speaker amp.	D2	B310	W/2	: Seat back heater RH
E3	B122	BR/14	: BOSE speaker amp.				

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## ROOM LAMP HARNESS



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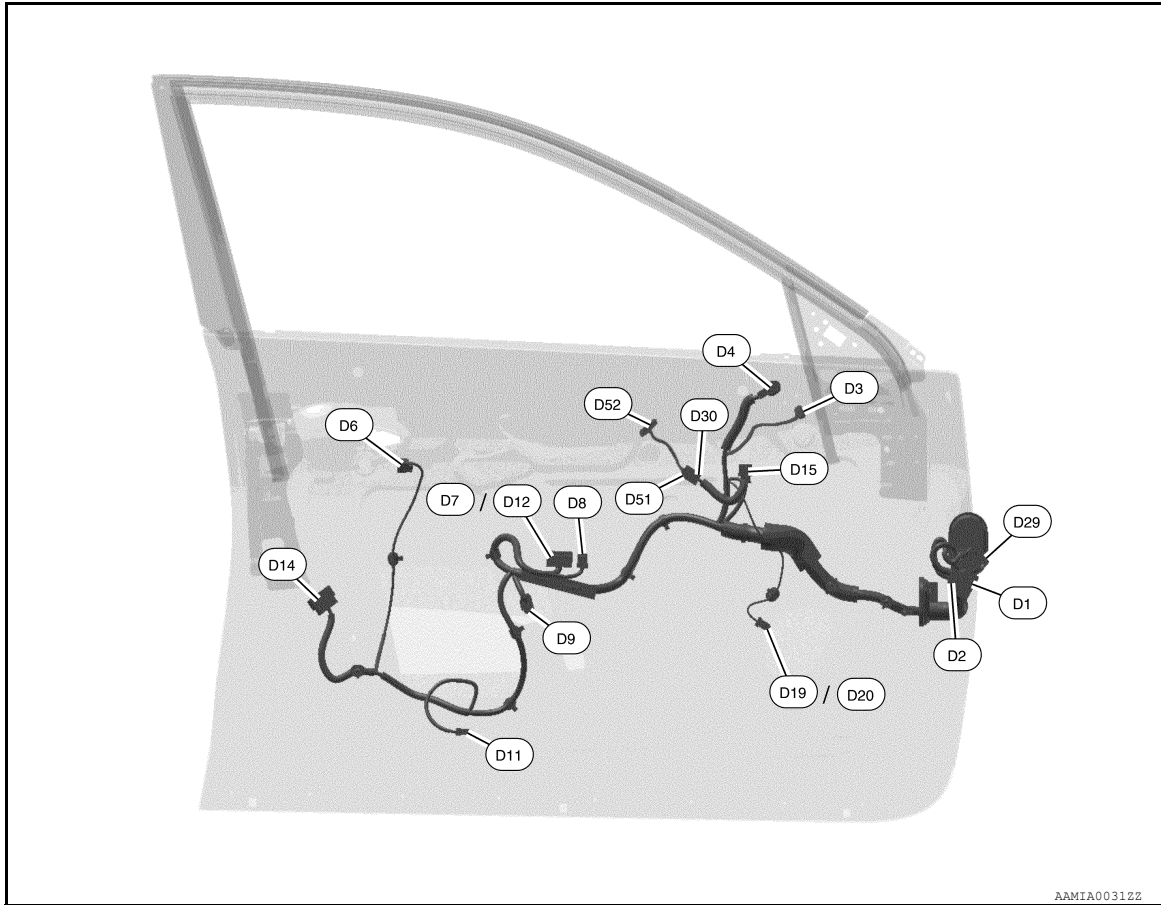
C5	R1	W/16	: To M7	C2	R7	W/4	: Microphone
B5	R2	W/4	: To M13	B4	R8	B/7	: Auto anti-dazzling inside mirror (Without homelink universal transceiver)
C3	R3	W/2	: Vanity mirror lamp LH	B2	R9	W/2	: Vanity mirror lamp RH
B4	R4	B/10	: Auto anti-dazzling inside mirror (With homelink universal transceiver)	E3	R50	W/8	: Personal lamp rear

# HARNESS

## < DTC/CIRCUIT DIAGNOSIS >

C3	R5	GR/10	: Moonroof motor assembly	B3	R51	GR/8	: Front room/map lamp assembly
C2	R6	W/3	: Moonroof switch				

### FRONT DOOR LH HARNESS

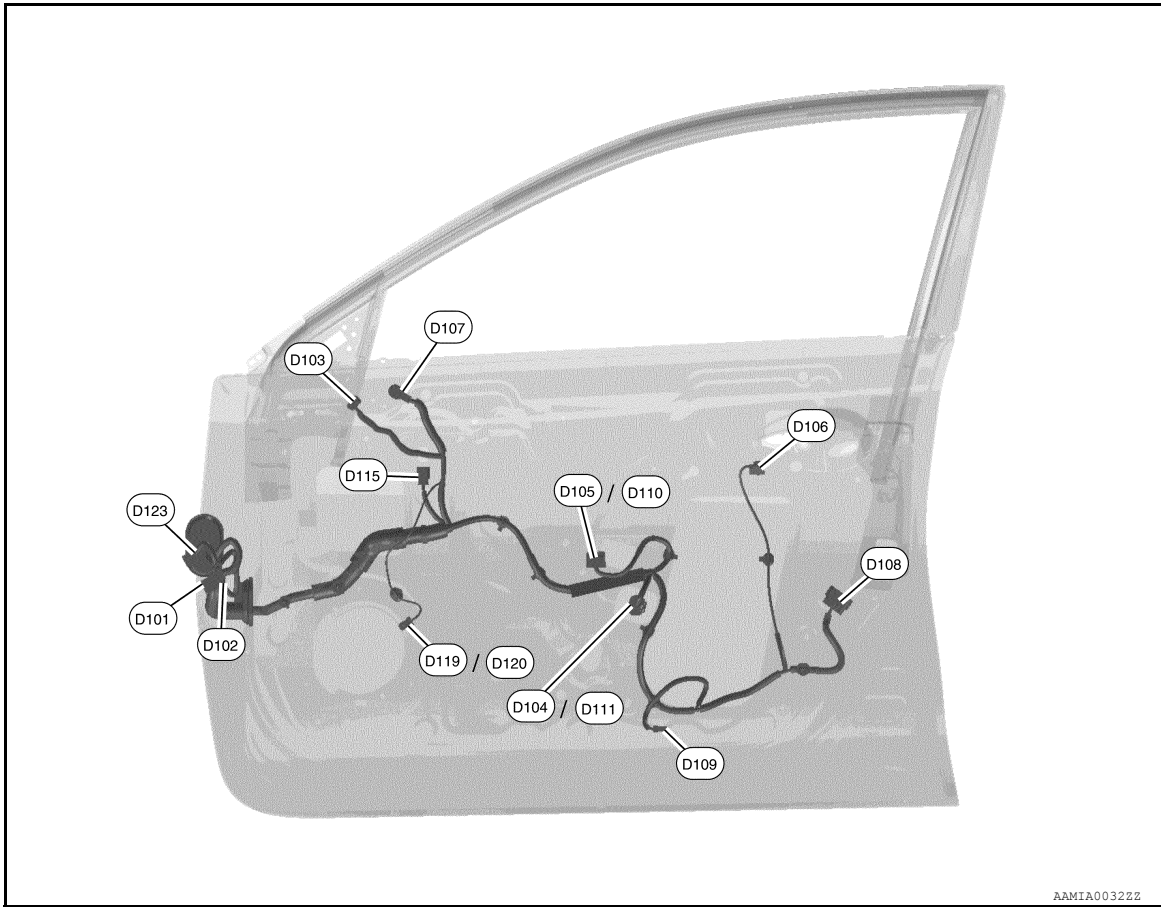


D1	W/16	: To M11	D14	GR/6	: Front door lock assembly LH
D2	W/24	: To M112	D15	Y/2	: Front door satellite sensor LH
D3	W/4	: Blind spot warning indicator LH	D19	W/2	: Front door speaker LH (Without BOSE audio system)
D4	W/8	: Door mirror LH	D20	BR/2	: Front door speaker LH (With BOSE audio system)
D6	B/4	: Front outside handle LH	D29	Y/4	: To M39
D7	W/16	: Main power window and door lock/unlock switch (With left and right front power window anti-pinch system)	D30	W/16	: To D51
D8	W/3	: Main power window and door lock/unlock switch	Front door LH sub-harness		
D9	G/6	: Front power window motor LH	D51	W/16	: To D30
D11	W/2	: Front step lamp LH	D52	W/15	: Door mirror remote control switch
D12	W/16	: Main power window and door lock/unlock switch (With left front only power window anti-pinch system)			

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## FRONT DOOR RH HARNESS



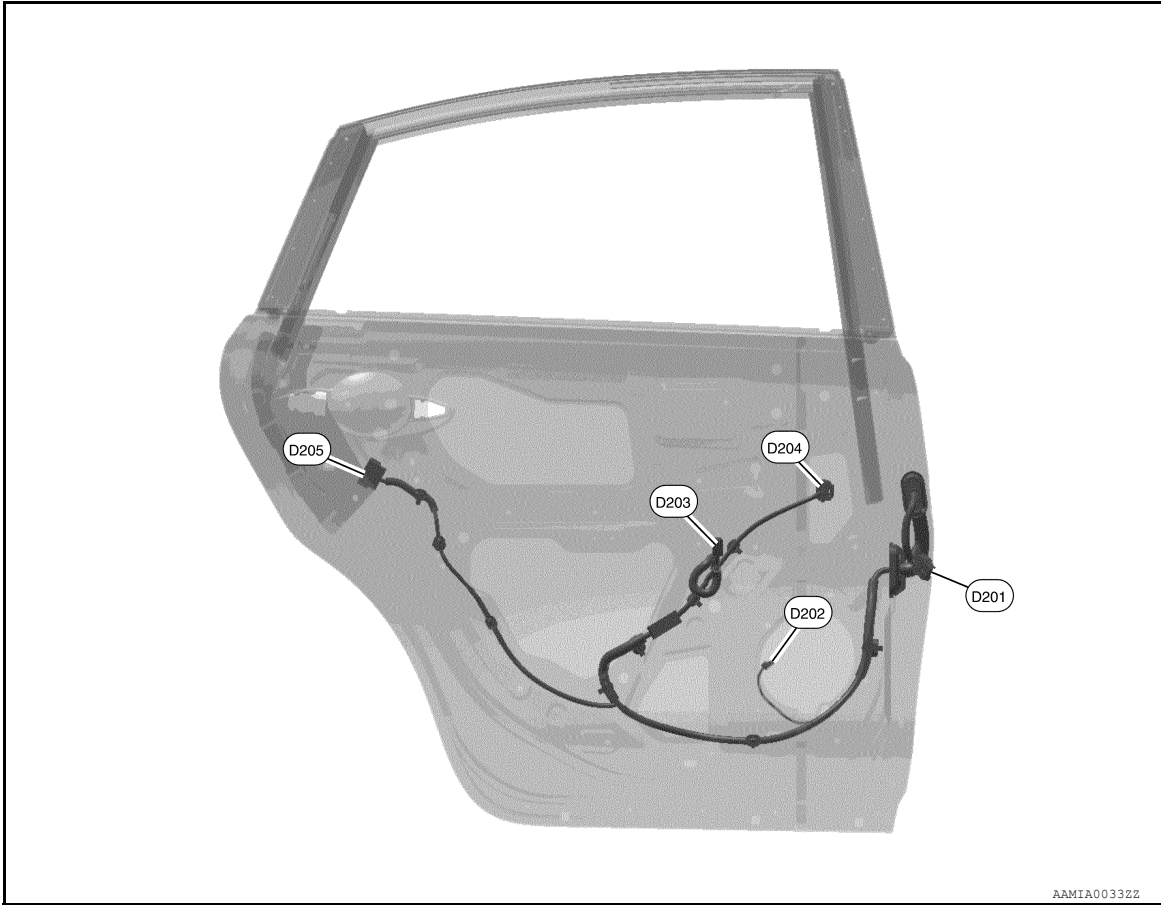
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D101	W/8	: To M14	D109	W/2	: Front step lamp RH
D102	W/16	: To M15	D110	W/12	: Power window and door lock/unlock switch RH (With left power window anti-pinch system)
D103	W/4	: Blind spot warning indicator RH	D111	G/6	: Front power window motor RH (With left power window anti-pinch system)
D104	G/6	: Front power window motor RH (With left and right power window anti-pinch system)	D115	Y/2	: Front door satellite sensor RH
D105	W/12	: Power window and door lock/unlock switch RH (With left and right power window anti-pinch system)	D119	W/2	: Front door speaker RH (Without BOSE audio system)
D106	B/4	: Front outside handle RH	D120	BR/2	: Front door speaker RH (Without BOSE audio system)
D107	W/8	: Door mirror RH	D123	Y/4	: To M32
D108	GR/6	: Front door lock actuator RH			

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## REAR DOOR LH HARNESS

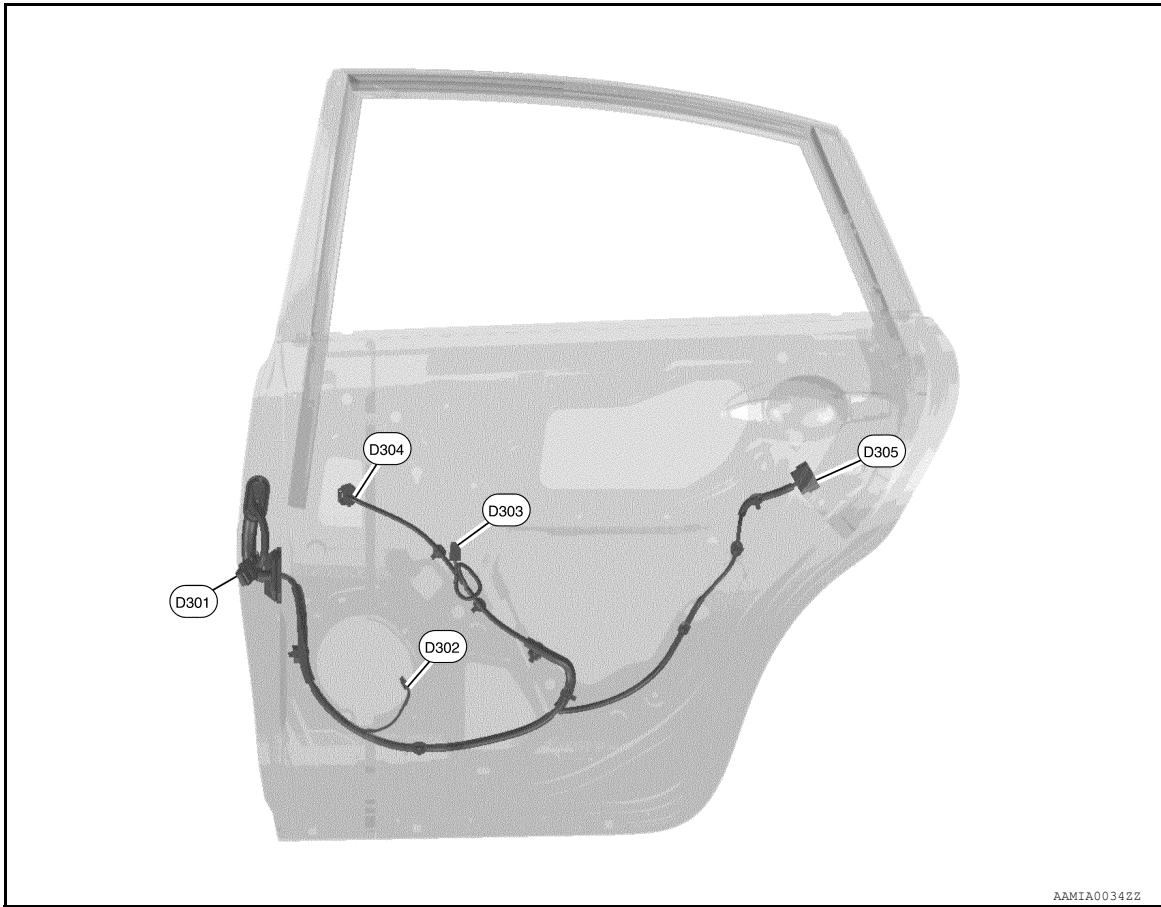


D201	W/8	: To B6	D204	G/6	: Rear power window motor LH
D202	BR/2	: Rear door speaker LH	D205	GR/6	: Rear door lock actuator LH
D203	W/8	: Rear power window switch LH			

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## REAR DOOR RH HARNESS



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D301	W/8	: To B106	D304	G/6	: Rear power window motor RH
D302	BR/2	: Rear door speaker RH	D305	GR/6	: Rear door lock actuator RH
D303	W/8	: Rear power window switch RH			

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# ELECTRICAL UNITS LOCATION

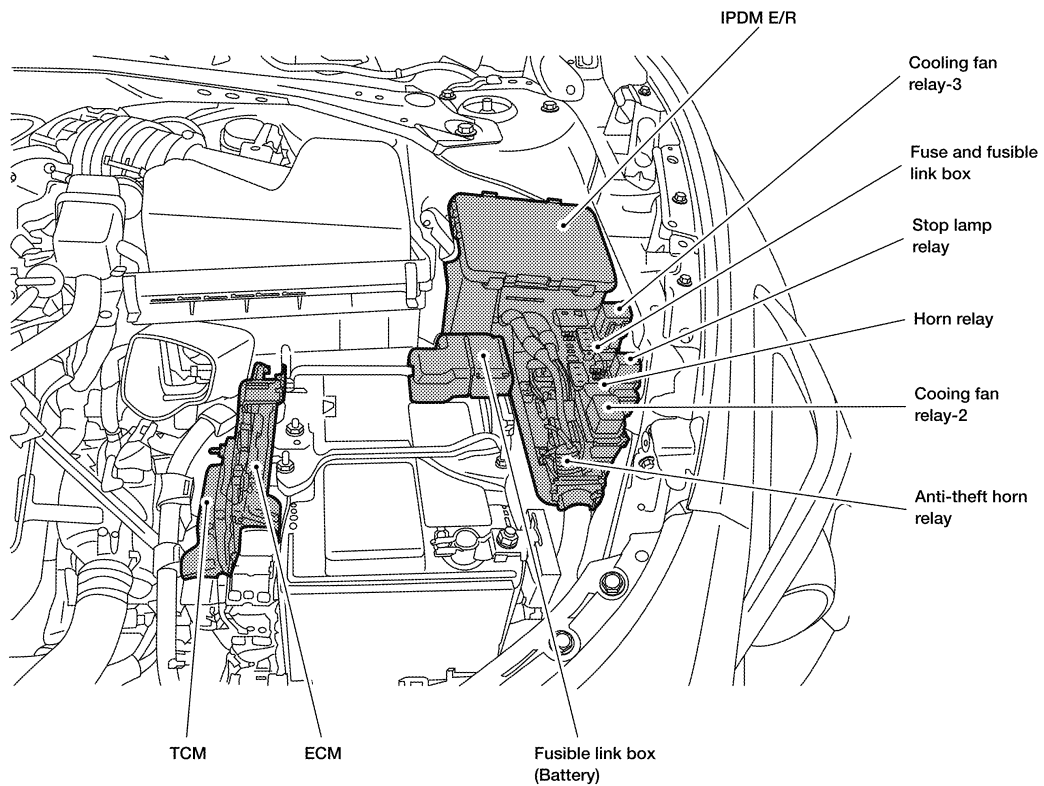
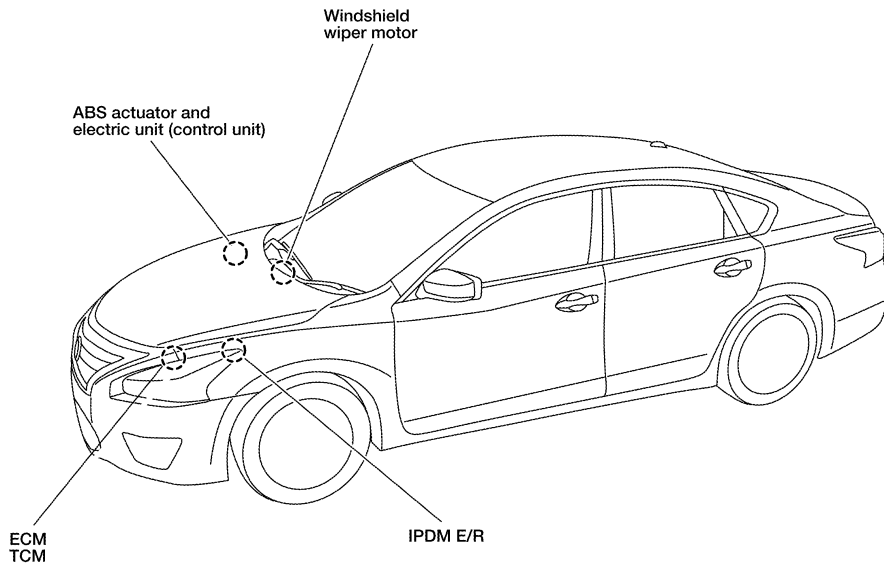
< DTC/CIRCUIT DIAGNOSIS >

## ELECTRICAL UNITS LOCATION

### Electrical Units Location

INFOID:000000008671009

### ENGINE COMPARTMENT

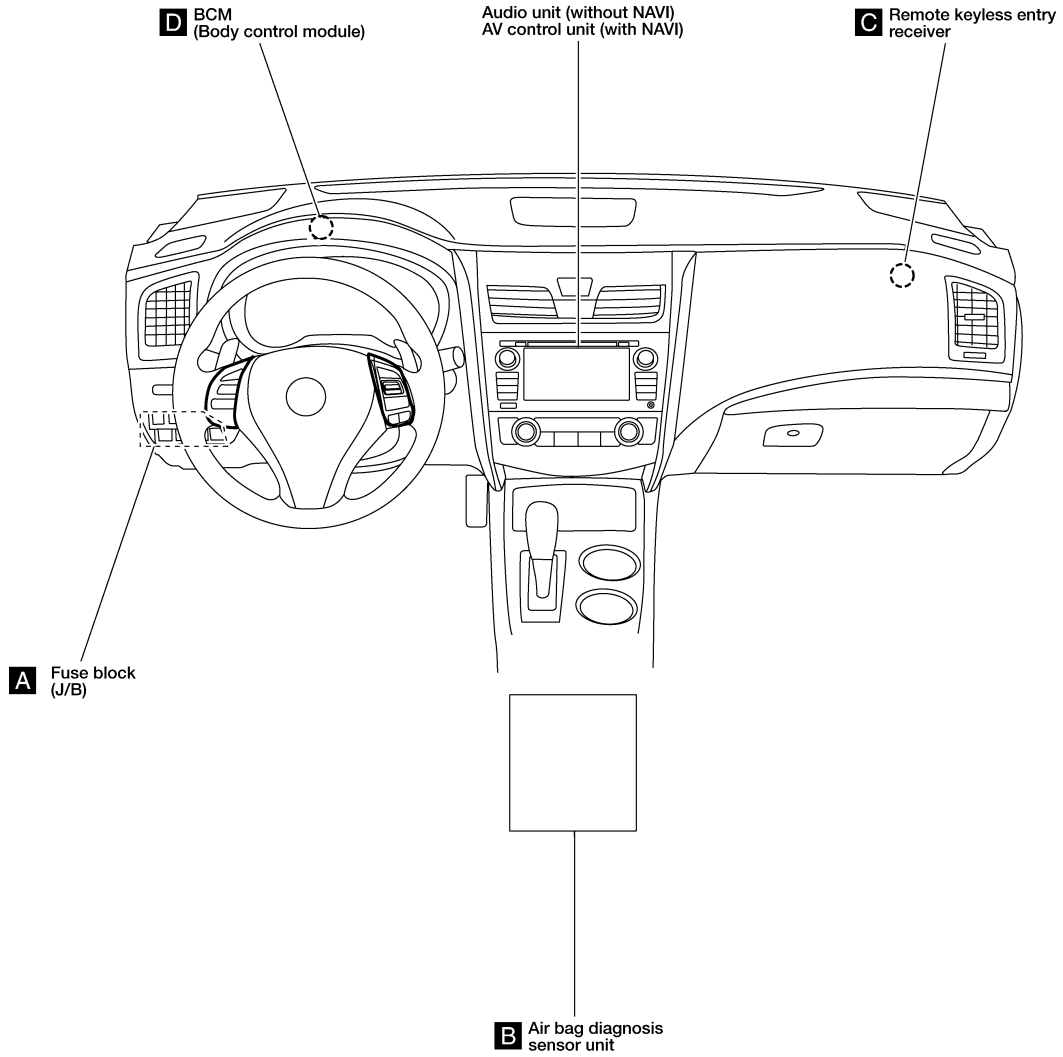


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# ELECTRICAL UNITS LOCATION

< DTC/CIRCUIT DIAGNOSIS >  
PASSENGER COMPARTMENT

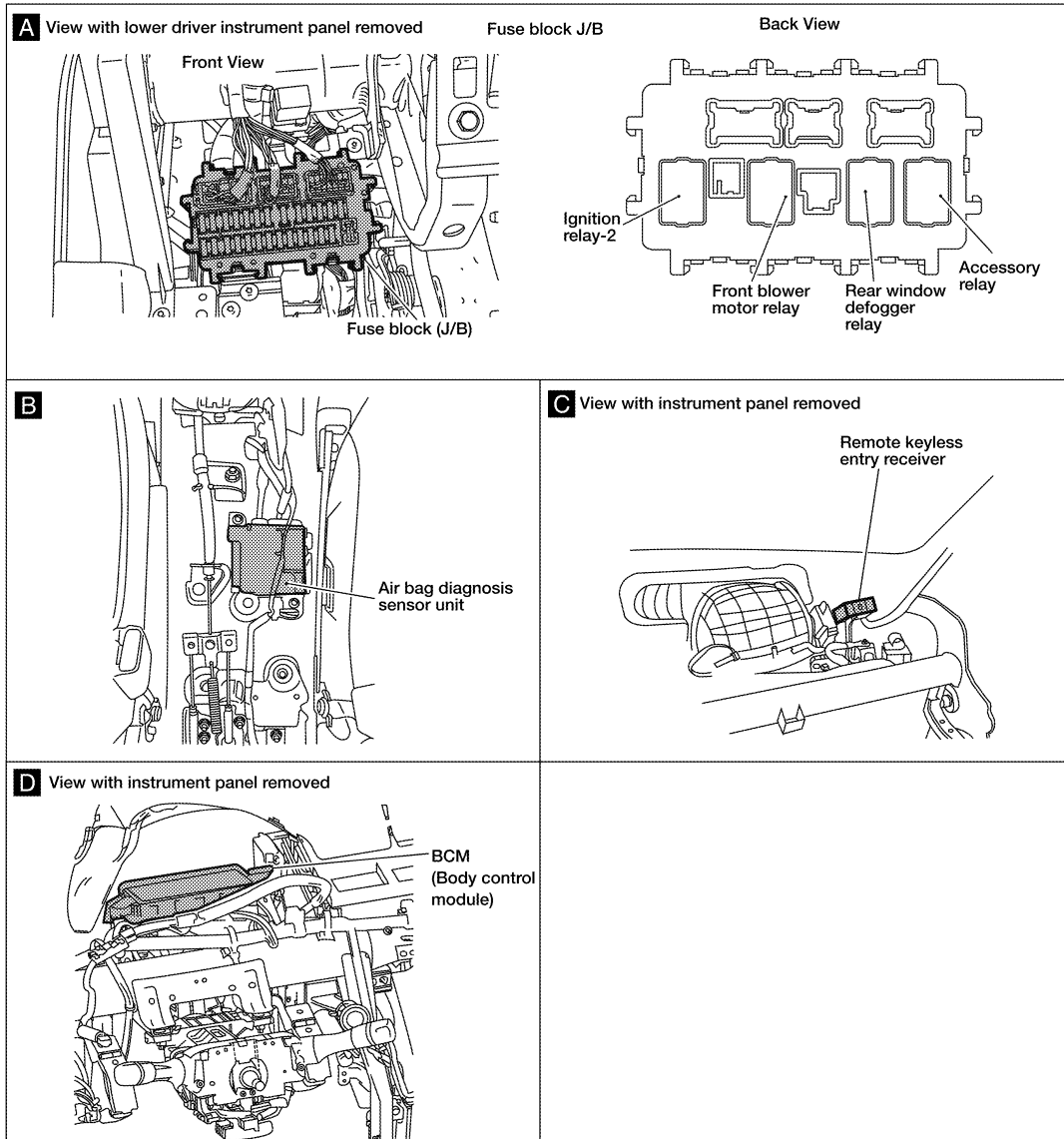


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# ELECTRICAL UNITS LOCATION

< DTC/CIRCUIT DIAGNOSIS >

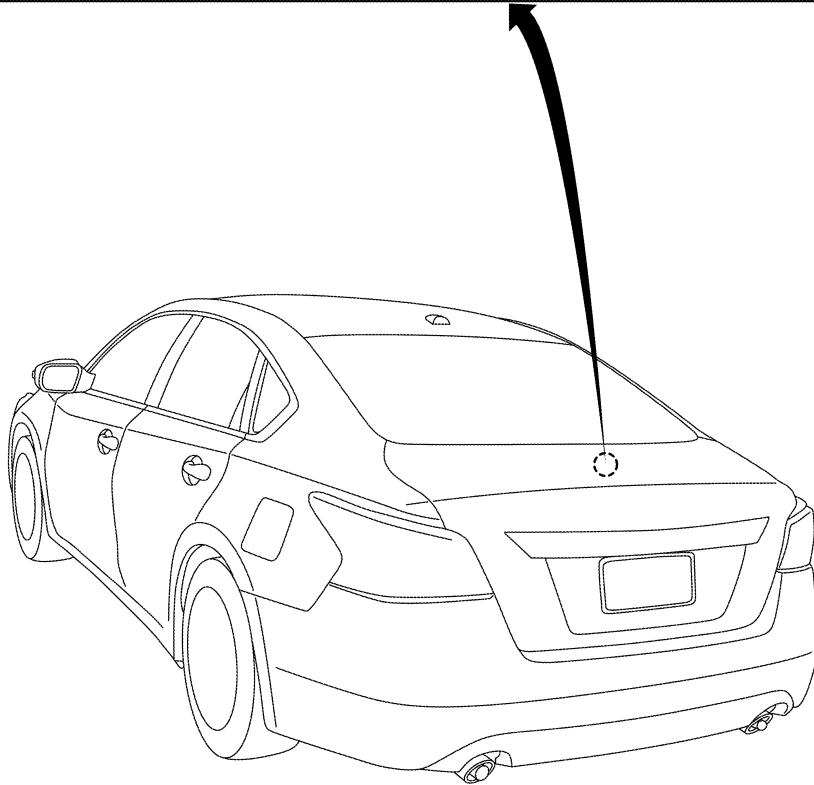
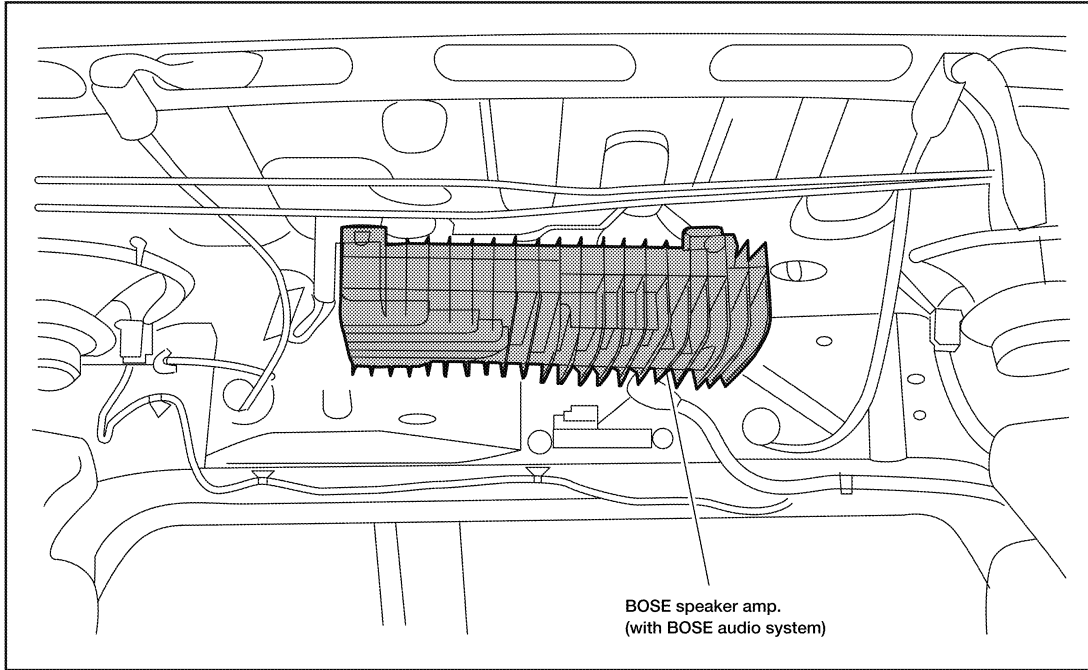


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# ELECTRICAL UNITS LOCATION

< DTC/CIRCUIT DIAGNOSIS >

LUGGAGE COMPARTMENT



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# HARNESS CONNECTOR

< DTC/CIRCUIT DIAGNOSIS >

## HARNESS CONNECTOR

### Description

INFOID:000000008671010

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

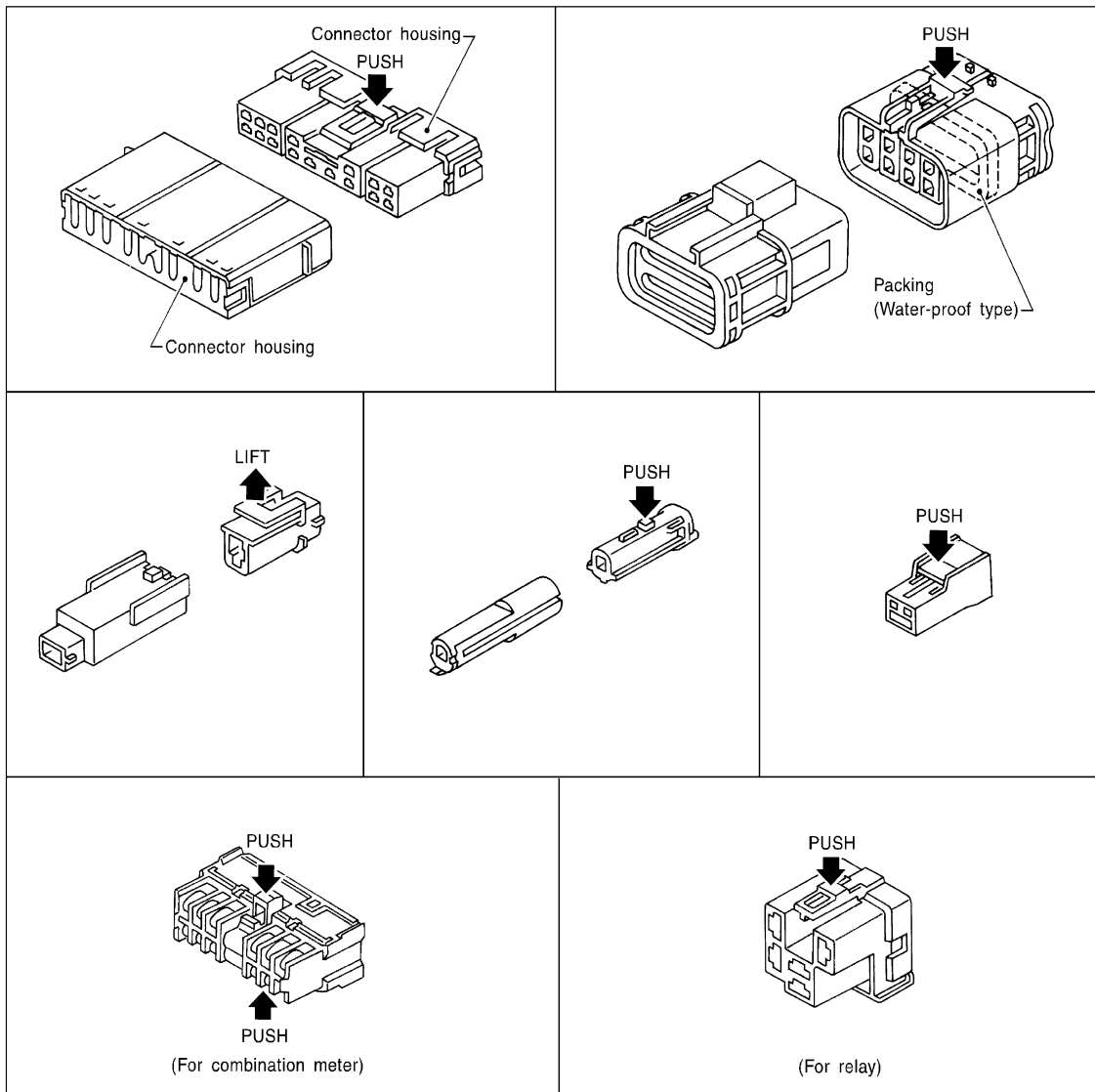
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the figure below.

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

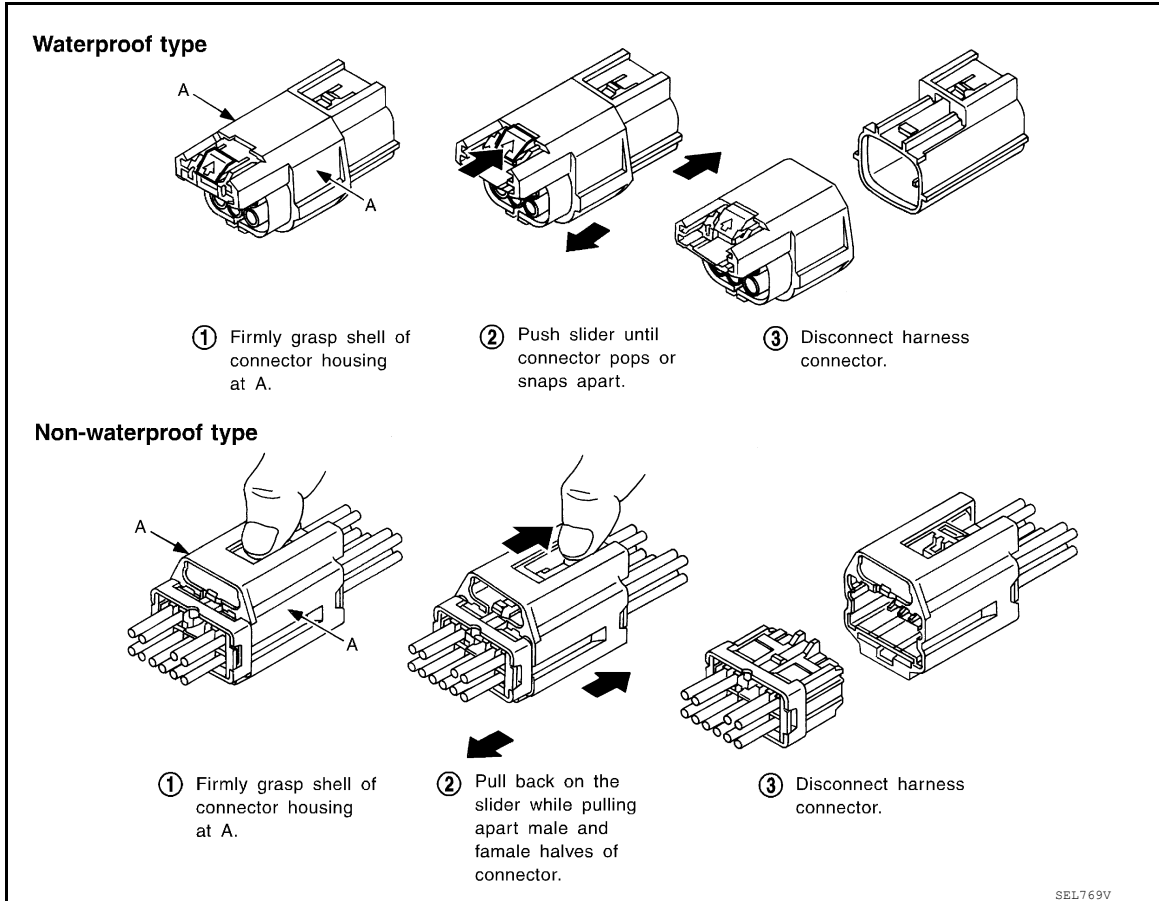
## < DTC/CIRCUIT DIAGNOSIS >

- 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.

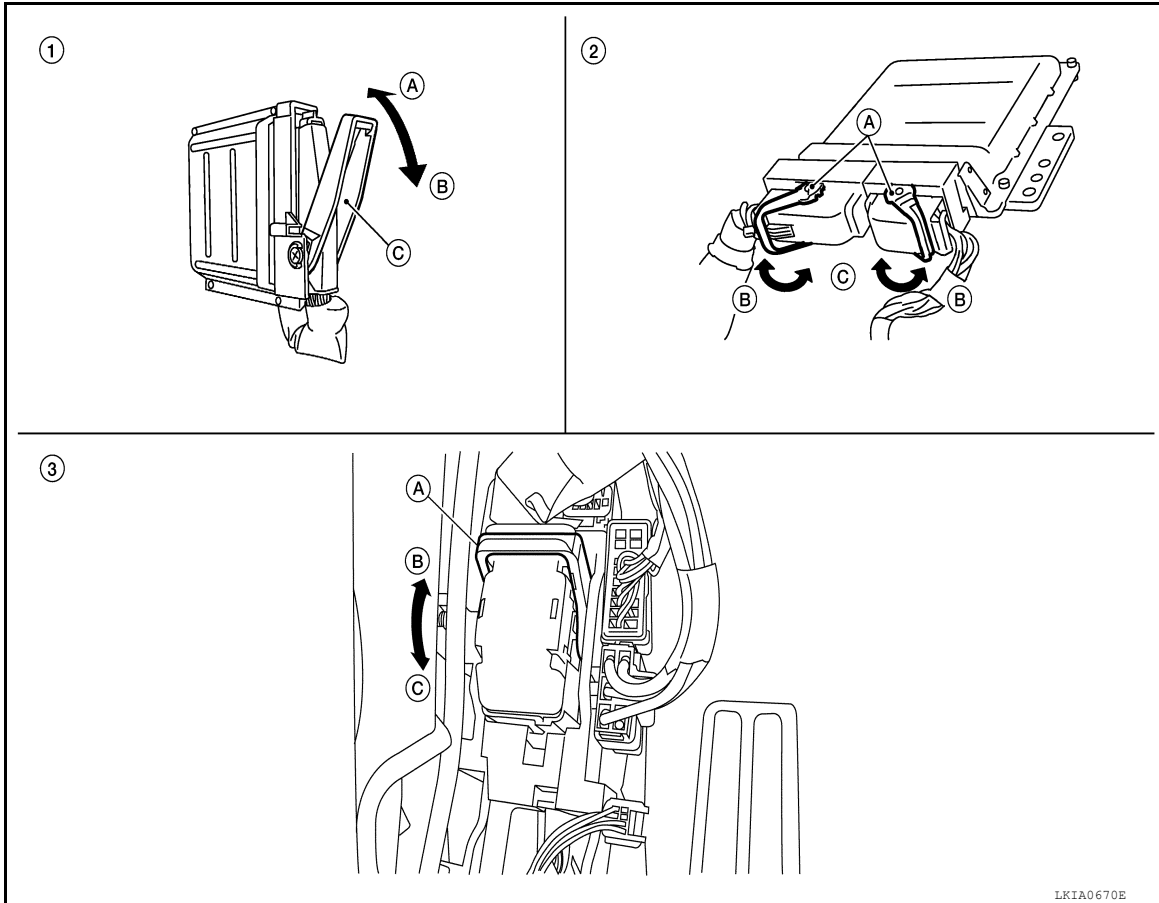
### CAUTION:

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# HARNES 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.



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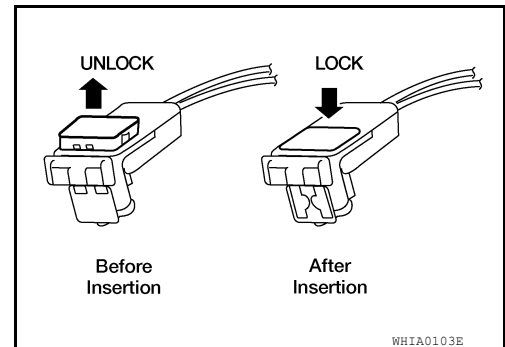
- |                                   |                                 |                  |
|-----------------------------------|---------------------------------|------------------|
| 1. Control unit with single lever | 2. Control unit with dual lever | 3. SMJ connector |
| A. Fasten                         | A. Fasten                       | A. Fasten        |
| B. Loosen                         | B. Loosen                       | B. Loosen        |
| C. Lever                          | C. Lever                        | C. Lever         |

## HARNES 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.



WHIA0103E

# STANDARDIZED RELAY

< DTC/CIRCUIT DIAGNOSIS >

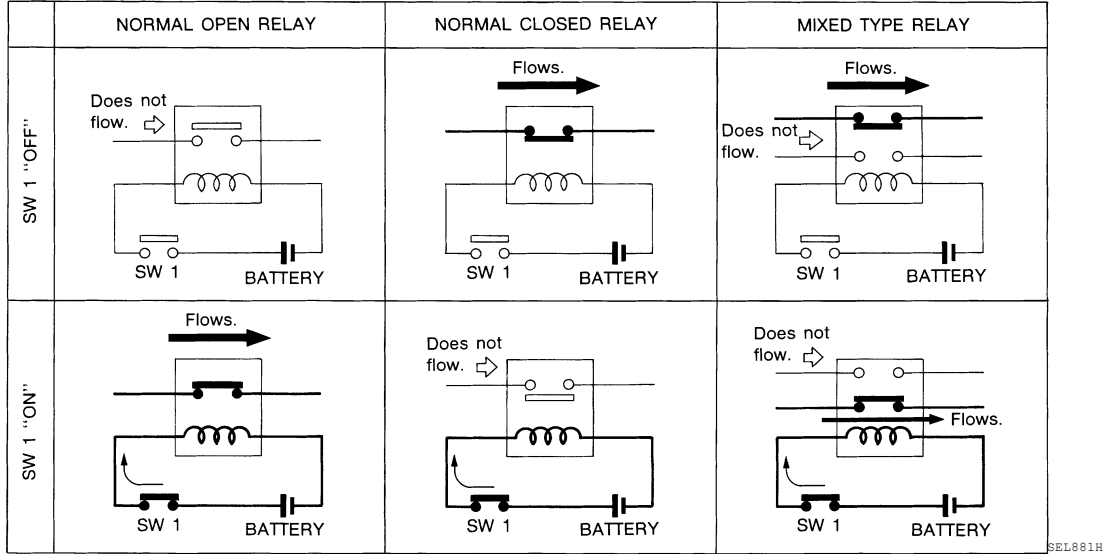
## STANDARDIZED RELAY

### Description

INFOID:000000008671011

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

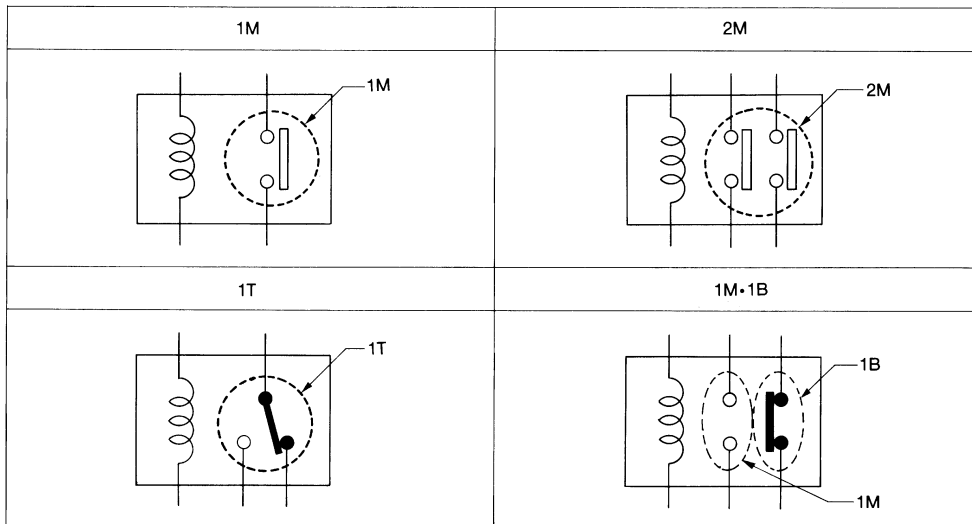
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



SEL881H

### TYPE OF STANDARDIZED RELAYS

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

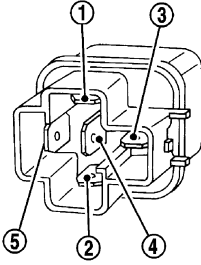
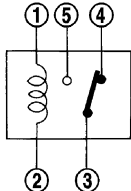
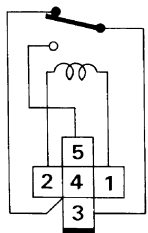
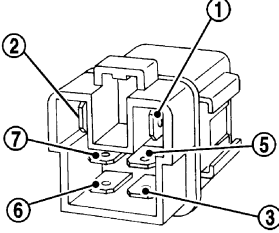
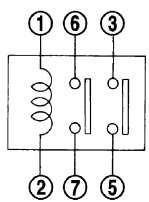
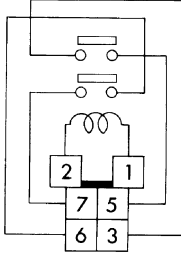
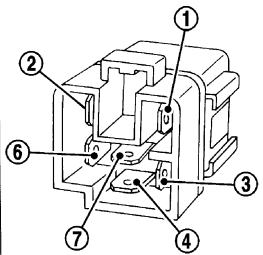
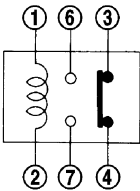
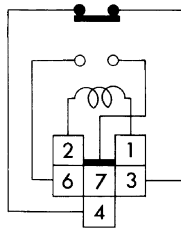
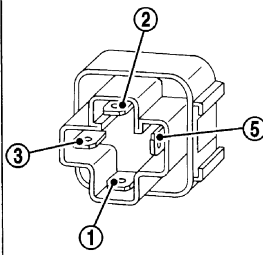
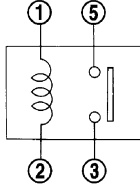
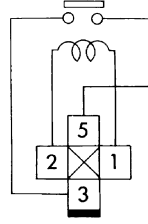
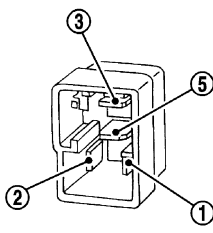
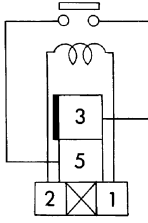


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# STANDARDIZED RELAY

< 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



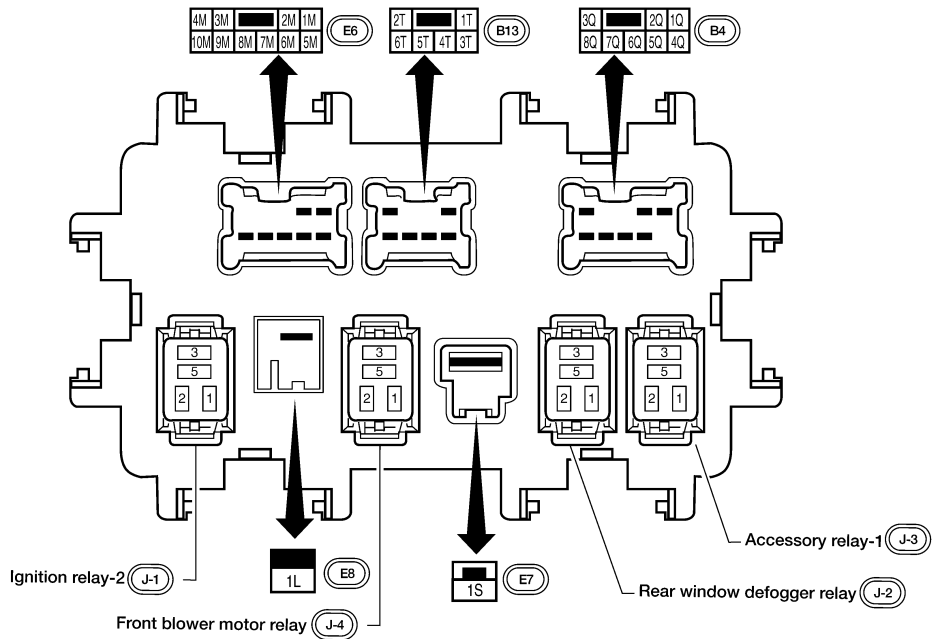
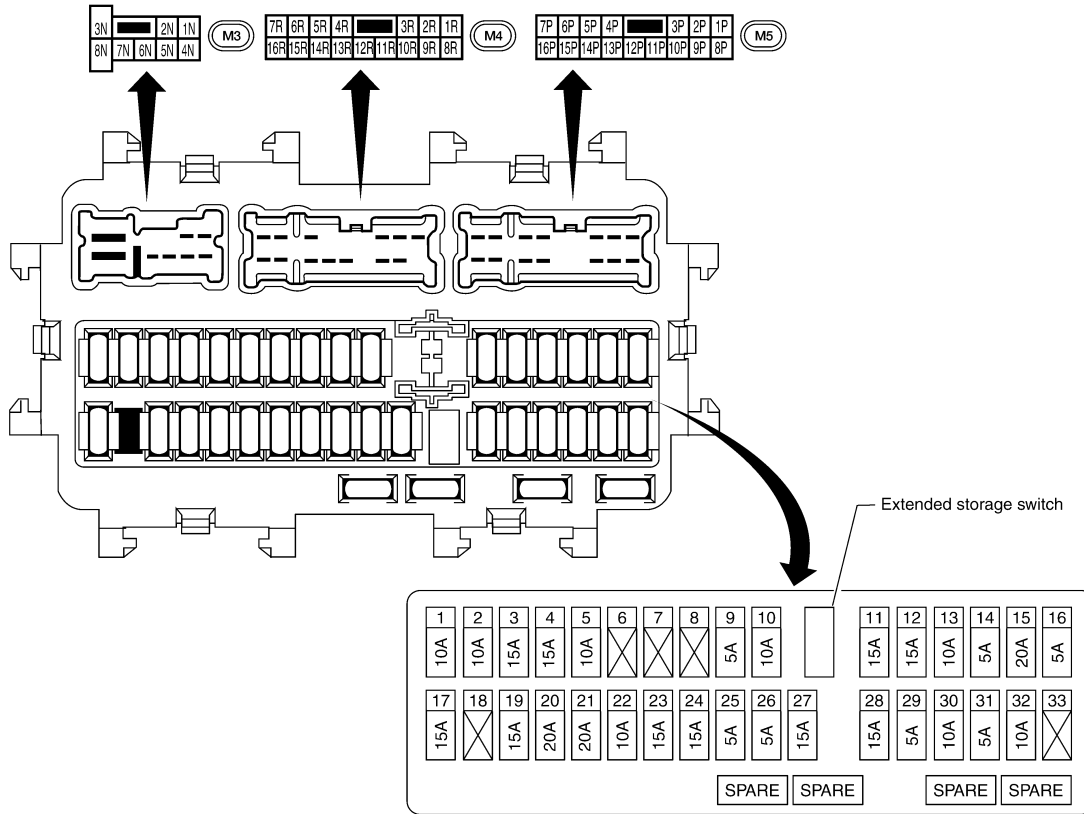
# FUSE BLOCK - JUNCTION BOX (J/B)

< DTC/CIRCUIT DIAGNOSIS >

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

### Terminal Arrangement

INFOID:000000008671012



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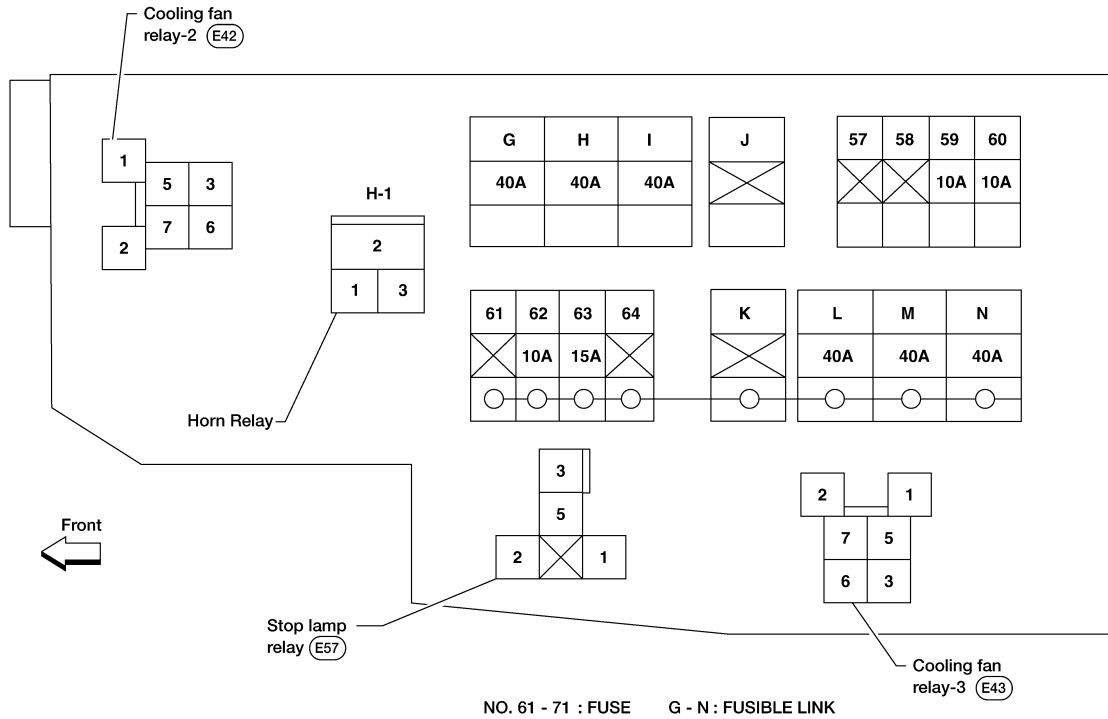
# FUSE, FUSIBLE LINK AND RELAY BOX

< DTC/CIRCUIT DIAGNOSIS >

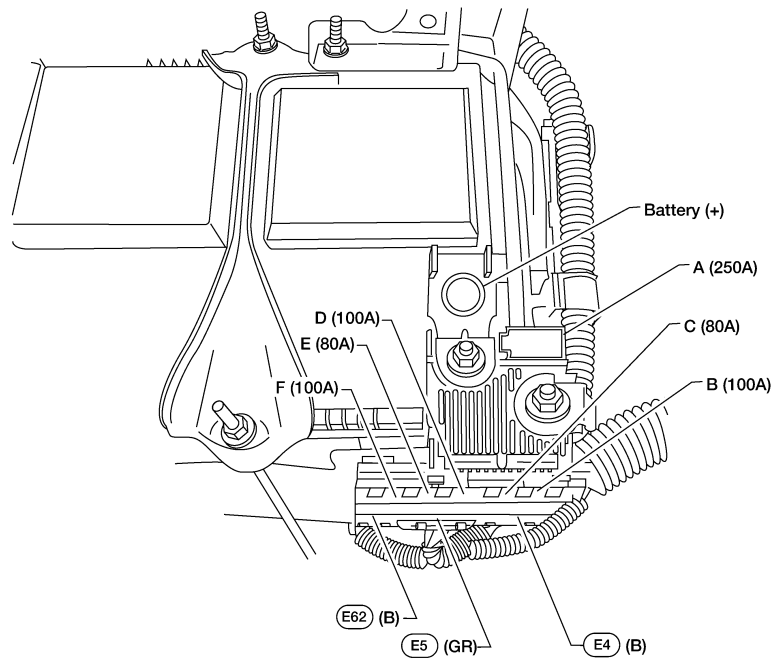
## FUSE, FUSIBLE LINK AND RELAY BOX

### Terminal Arrangement

INFOID:000000008671013



### FUSIBLE LINK BOX (BATTERY)



AAMIA1193GB

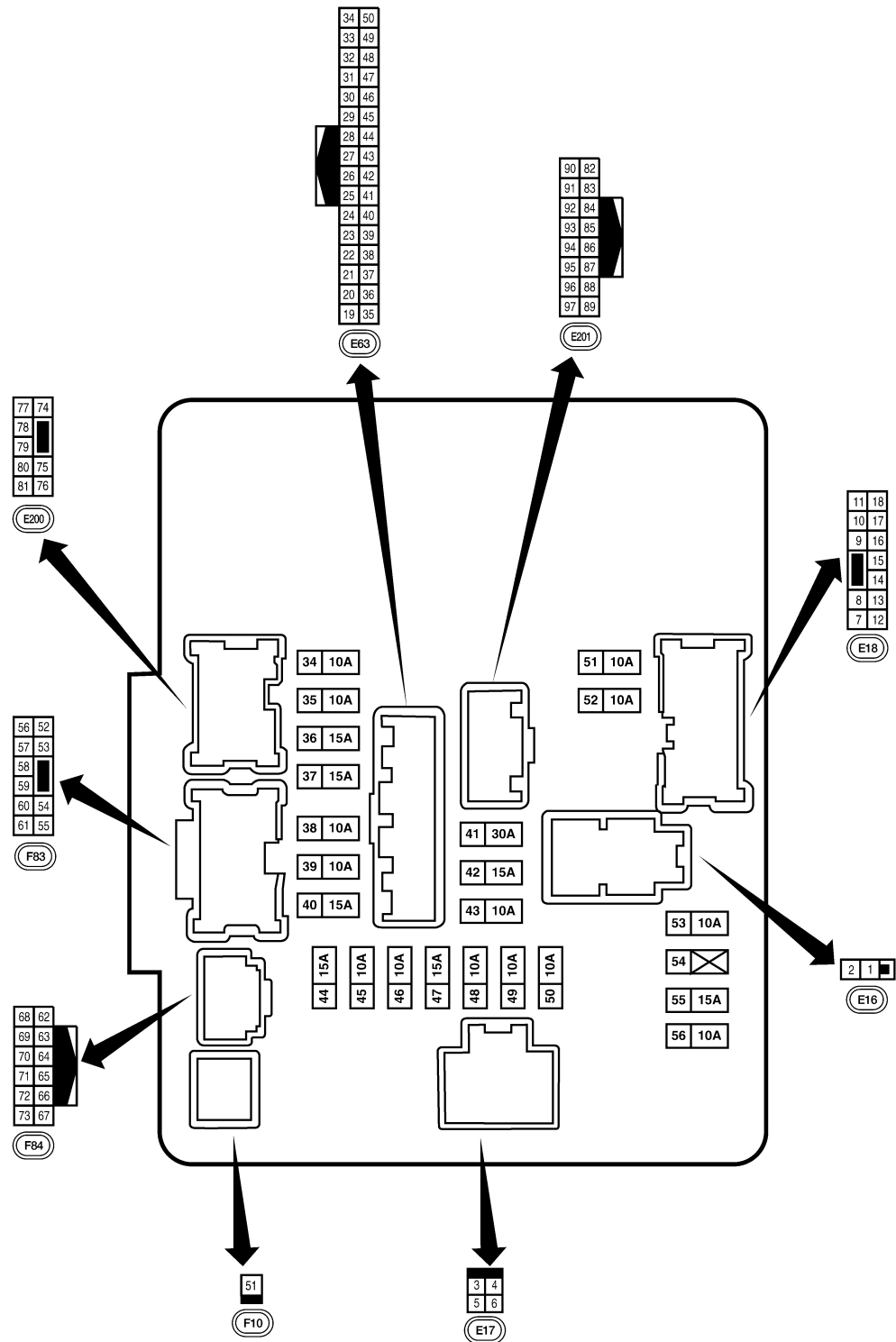
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< DTC/CIRCUIT DIAGNOSIS >

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

### Fuse, Connector and Terminal Arrangement

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# BATTERY

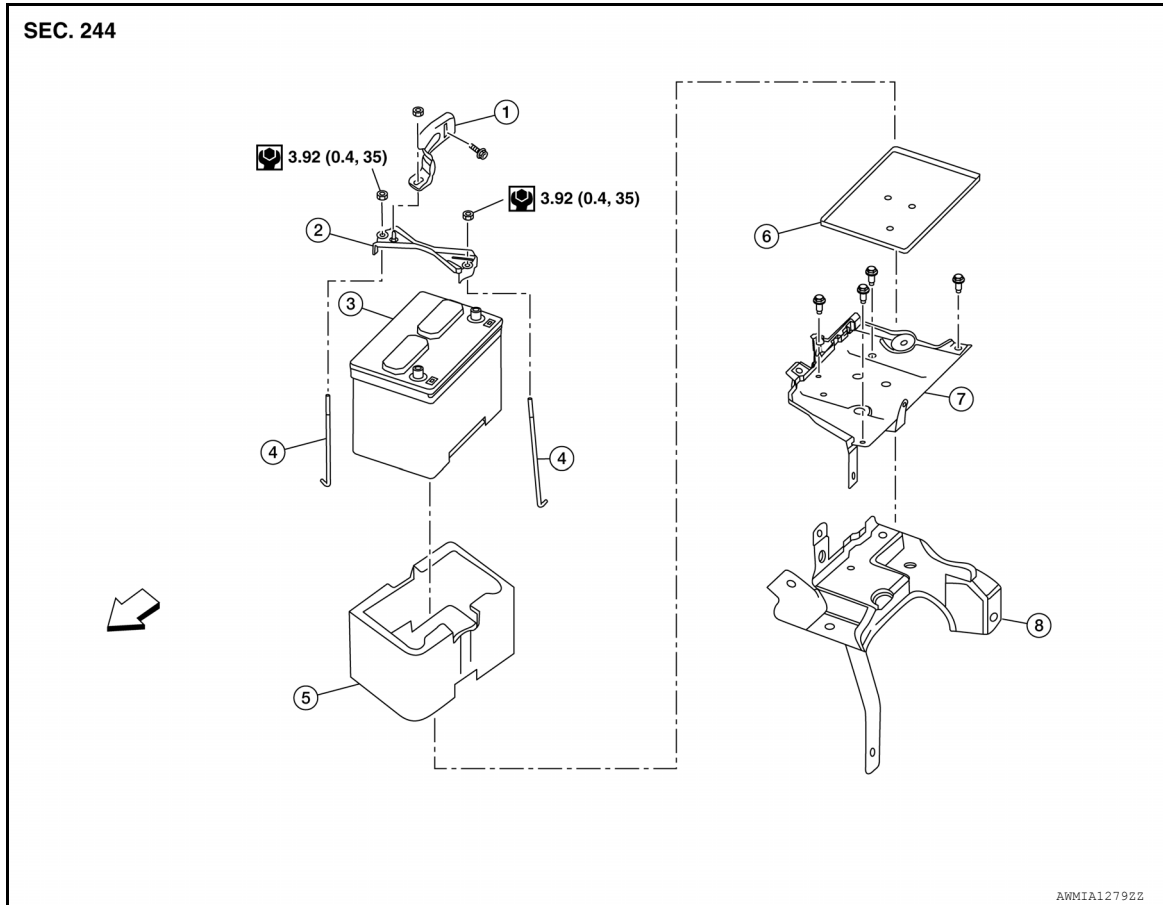
< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

### BATTERY

Exploded View

INFOID:000000008671018



- |                      |                         |                       |
|----------------------|-------------------------|-----------------------|
| 1. Upper ECM bracket | 2. Battery frame        | 3. Battery            |
| 4. Battery rods      | 5. Battery tray cover   | 6. Battery tray liner |
| 7. Battery tray      | 8. Battery tray support | ⇐ Front               |

### Removal and Installation (Battery)

INFOID:000000008671019

#### REMOVAL

1. Remove cover of battery positive terminal.
2. Loosen battery terminal nuts and disconnect both positive and negative battery terminals.  
**CAUTION:**  
**Disconnect the negative battery terminal first.**
3. Remove battery frame nuts, battery frame and battery rods.
4. Remove battery cover.
5. Remove battery.

#### INSTALLATION

Installation is in the reverse order of removal.

**CAUTION:**  
**Connect the positive battery terminal first.**

**Battery terminal nut : 5.4 N·m (0.55 kg-m, 48 in-lb)**

# BATTERY

## < REMOVAL AND INSTALLATION >

Reset electronic systems as necessary. Refer to [PG-7. "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

### Removal and Installation (Battery Tray)

INFOID:000000008671020

#### REMOVAL

1. Remove battery and battery tray liner. Refer to [PG-72. "Removal and Installation \(Battery\)"](#).
2. Remove front air duct and air cleaner case assembly. Refer to [EM-29. "Removal and Installation"](#) (QR25DE models) or [EM-144. "Removal and Installation"](#) (VQ35DE models).
3. Disconnect transmission control module (TCM). Refer to [TM-182. "Exploded View"](#) (RE0F10D) [TM-384. "Exploded View"](#) or (RE0F10E).
4. Remove the ECM bracket.
5. Remove the battery tray bolts and battery tray.
6. Remove the battery tray support bolts and battery tray support.

#### INSTALLATION

Installation is in the reverse order of removal.

Reset electronic systems as necessary. Refer to [PG-7. "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

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# BATTERY

< SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

### BATTERY

#### Battery

INFOID:000000008671021

Type*	GR35
Capacity (20HR) minimum V-AH	12-60
Cold cranking current A @ -18°C (0°F)	550

\*: Always check with the Parts Department for the latest parts information