

SECTION **PG**

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

CONTENTS

PRECAUTION	3	FUSE, FUSIBLE LINK AND RELAY BOX	74
PRECAUTIONS	3	Terminal Arrangement	74
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	3	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	76
Precaution for Power Generation Voltage Variable Control System	3	IPDM E/R Terminal Arrangement	76
PREPARATION	4	BASIC INSPECTION	77
PREPARATION	4	BATTERY	77
Special Service Tools	4	How to Handle Battery	77
Commercial Service Tool	4	Work Flow	77
SYSTEM DESCRIPTION	5	INSPECTION AND ADJUSTMENT	80
ELECTRICAL UNITS LOCATION	5	ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL	80
Electrical Units Location	5	ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement	80
COMPONENT PARTS	10	FUSE INSPECTION	81
Circuit Breaker (Built Into BCM)	10	How To Check	81
Circuit Breaker (External to BCM)	10	FUSIBLE LINK INSPECTION	85
Harness Connector	10	Fusible Link	85
Standardized Relay	13	REMOVAL AND INSTALLATION	86
WIRING DIAGRAM	16	BATTERY	86
POWER SUPPLY ROUTING CIRCUIT	16	Exploded View	86
Wiring Diagram - BATTERY POWER SUPPLY -	16	Removal and Installation	86
Wiring Diagram - ACCESSORY POWER SUPPLY -	25	BATTERY TRAY	88
Wiring Diagram - IGNITION POWER SUPPLY -	29	Exploded View	88
GROUND	39	Removal and Installation	88
Ground Distribution	39	BATTERY TERMINAL WITH FUSIBLE LINK ...	89
HARNESS	50	Exploded View	89
Harness Layout	50	Removal and Installation	89
FUSE BLOCK - JUNCTION BOX (J/B)	73	BATTERY CURRENT SENSOR	90
Terminal Arrangement	73	Exploded View	90

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

Removal and Installation 90

SERVICE DATA AND SPECIFICATIONS
(SDS) 91

SERVICE DATA AND SPECIFICATIONS
(SDS) 91

Battery 91

PRECAUTIONS

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PRECAUTION

PRECAUTIONS

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

INFOID:000000011573880

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 three minutes before performing any service.

Precaution for Power Generation Voltage Variable Control System

INFOID:000000011217591

CAUTION:

For this model, the battery current sensor that is installed to the battery cable at the negative terminal measures the charging/discharging current of the battery, and performs various controls. If the electrical component or the ground wire is connected directly to the battery terminal, the current other than that being measured with the battery current sensor is charging to or discharging from the battery. This condition causes the malfunction of the control, and then the battery discharge may occur. Do not connect the electrical component or the ground wire directly to the battery terminal.

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PREPARATION

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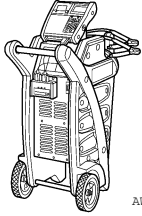
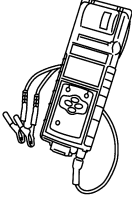
PREPARATION

PREPARATION

Special Service Tools


INFOID:000000011217592

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
<p>— (165-GR8-1200KIT-NI) Nissan battery and electronics tester</p>  <p style="text-align: right; font-size: small;">AWIIA12392Z</p>	<p>Tests batteries, starting and charging systems and charges batteries. For operating instructions, refer to diagnostic station instruction manual.</p>
<p>— (165-EXP-800-NI) Midtronic hand-held battery tester</p>  <p style="text-align: right; font-size: small;">JSMIA08062Z</p>	<p>Tests batteries and charging systems. For operating instructions, refer to diagnostic analyzer instruction manual.</p>

Commercial Service Tool

INFOID:000000011217593

Tool name	Description
<p>Power tool</p>  <p style="text-align: right; font-size: small;">PIIB1407E</p>	<p>Loosening nuts, screws and bolts</p>

ELECTRICAL UNITS LOCATION

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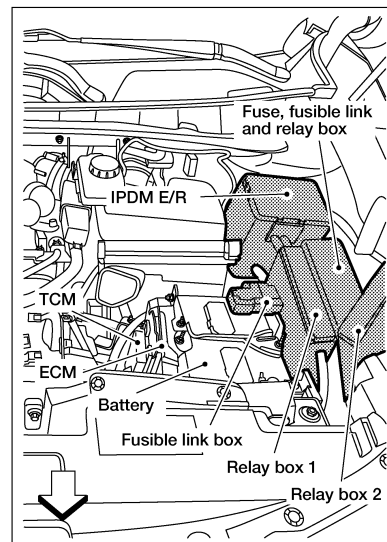
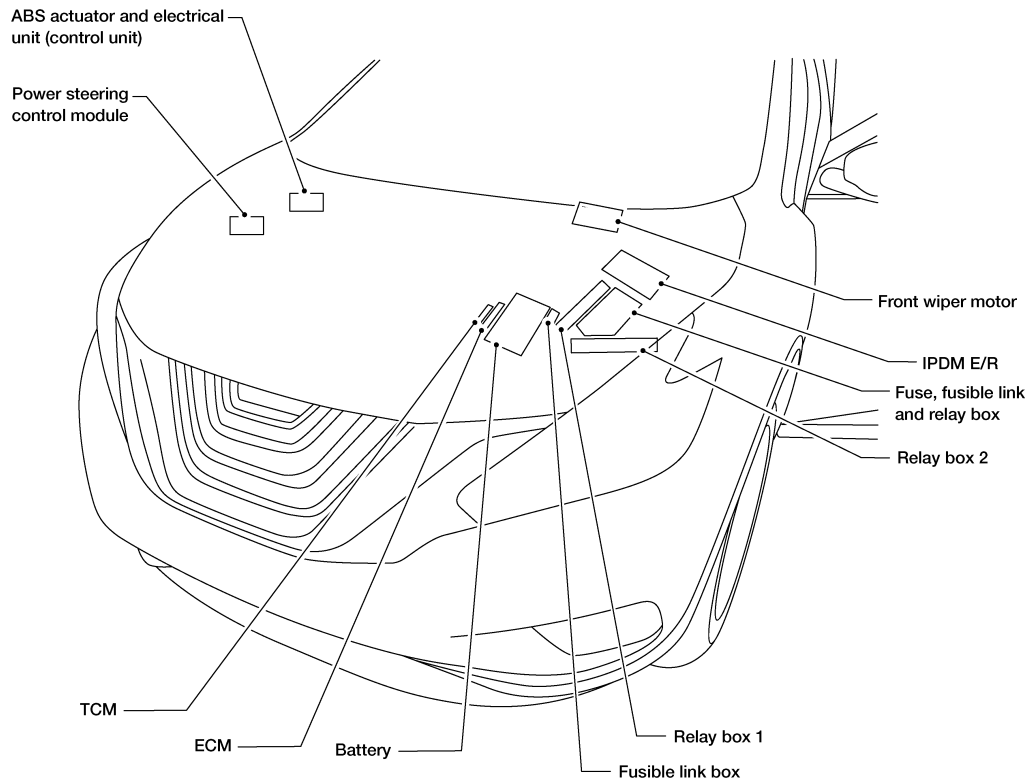
SYSTEM DESCRIPTION

ELECTRICAL UNITS LOCATION

Electrical Units Location

INFOID:000000011217605

ENGINE COMPARTMENT

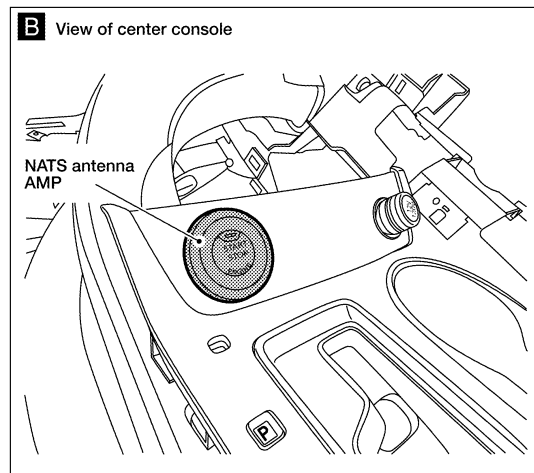
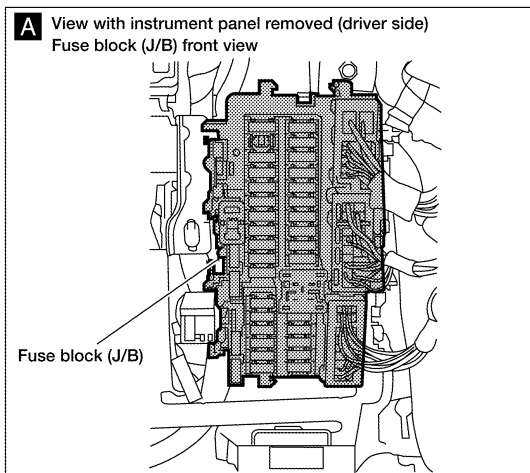
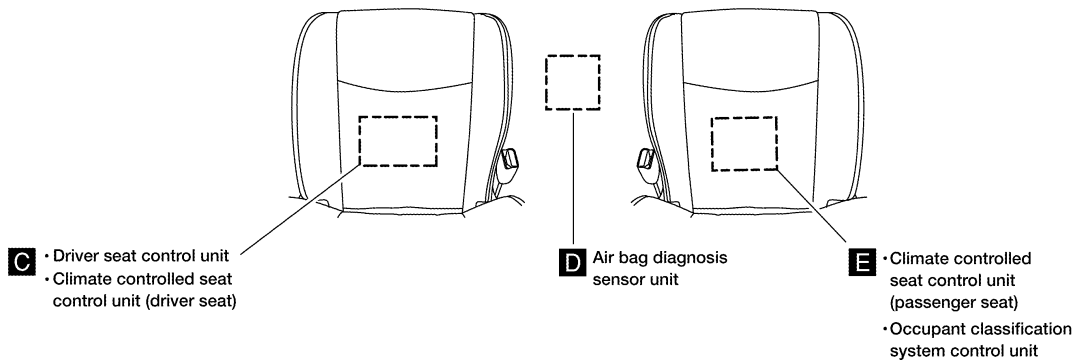
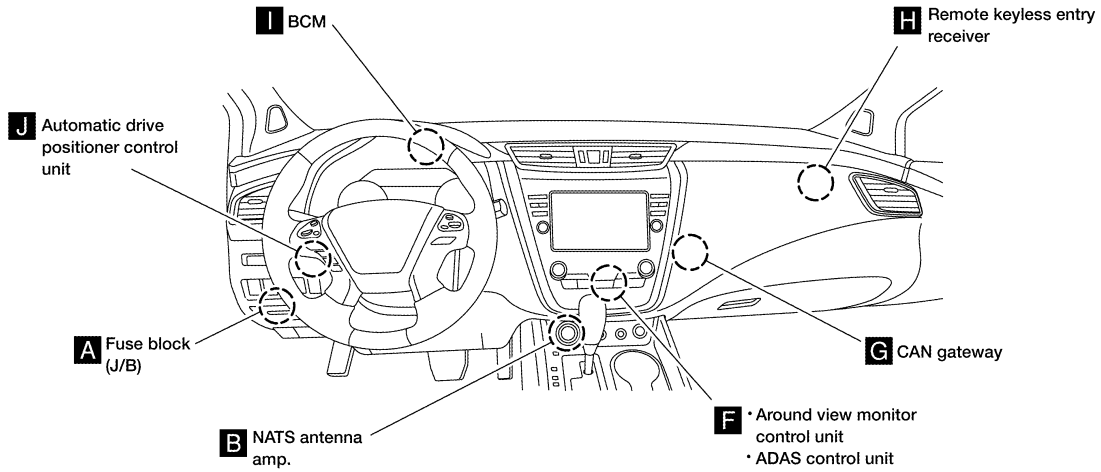


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ELECTRICAL UNITS LOCATION

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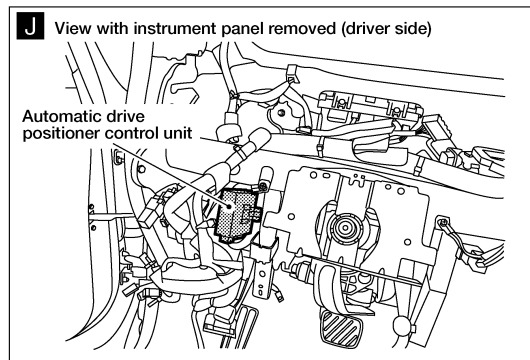
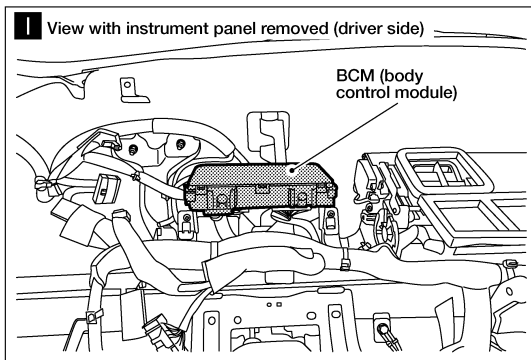
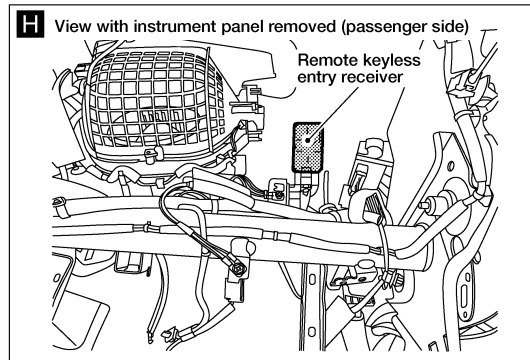
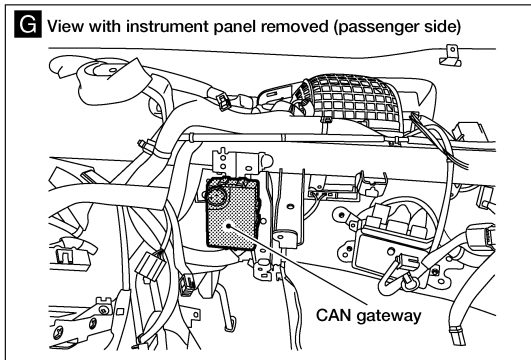
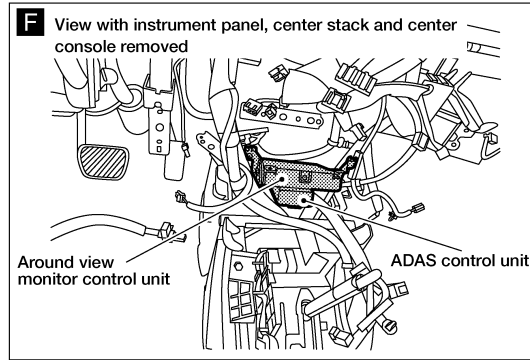
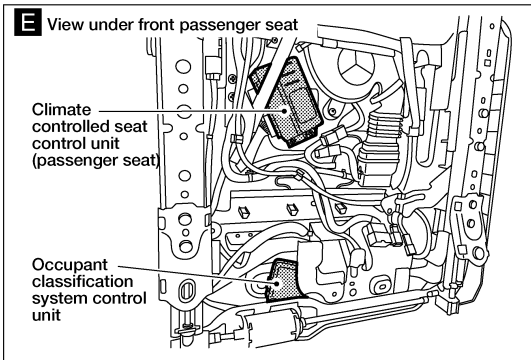
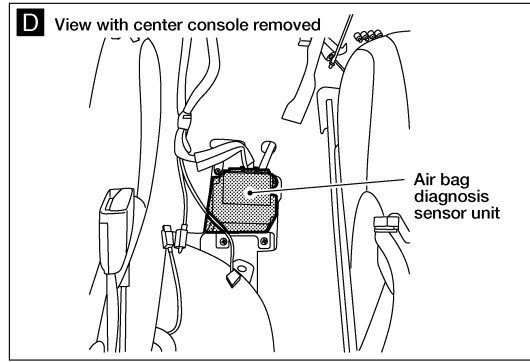
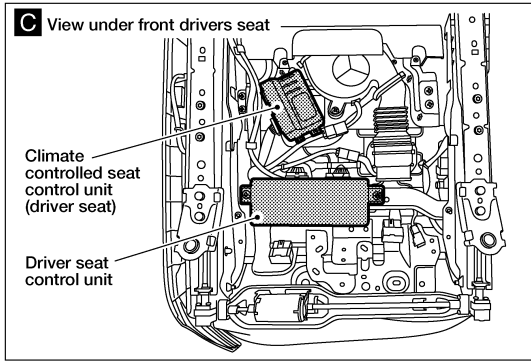
PASSENGER COMPARTMENT



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ELECTRICAL UNITS LOCATION

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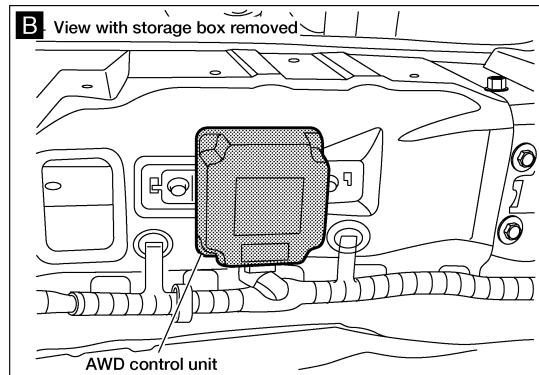
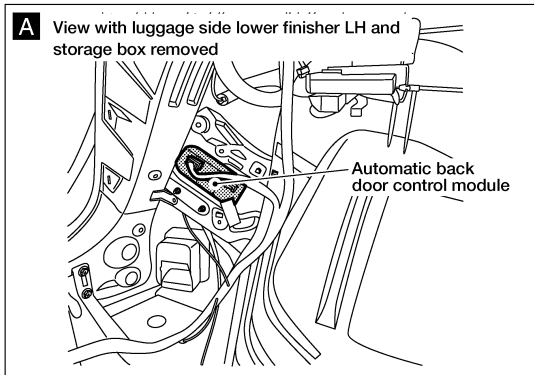
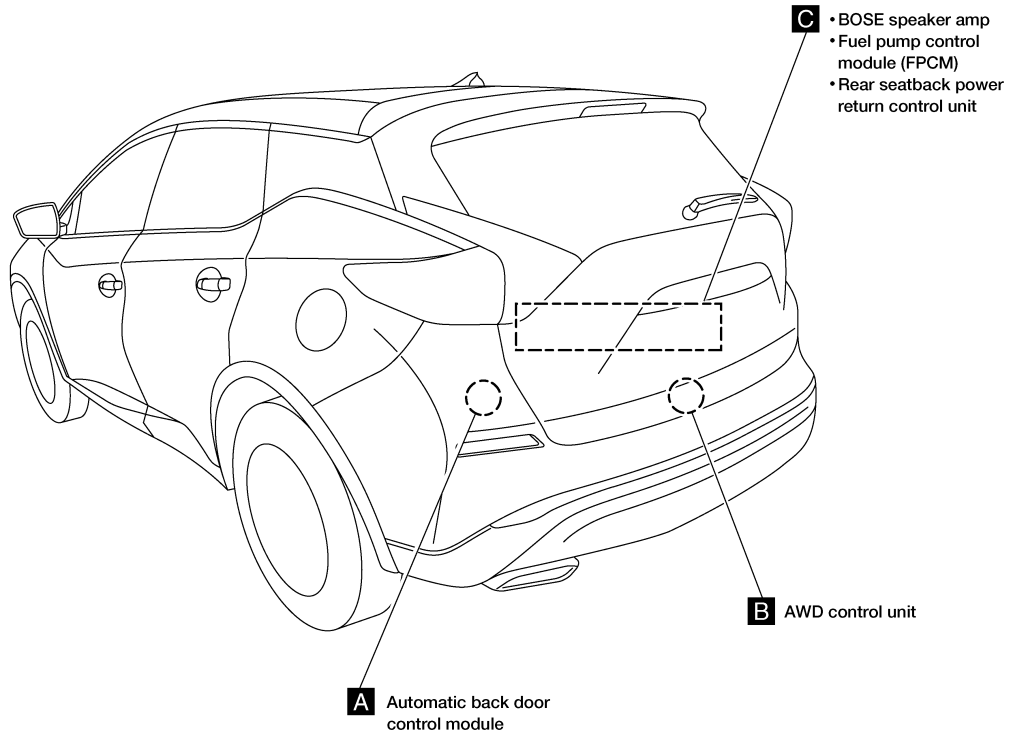
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ELECTRICAL UNITS LOCATION

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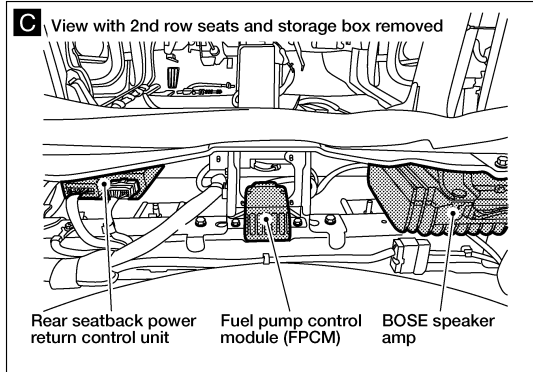
LUGGAGE COMPARTMENT



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ELECTRICAL UNITS LOCATION

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

COMPONENT PARTS

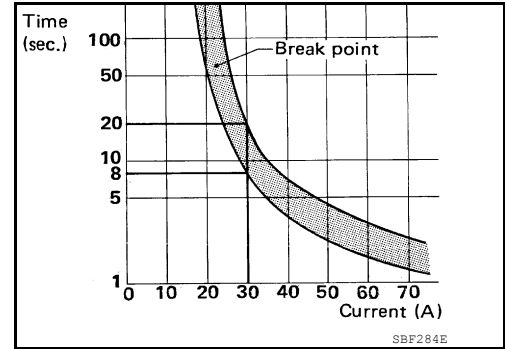
Circuit Breaker (Built Into BCM)

INFOID:000000011380218

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

This circuit breaker is used for the following systems:

- Power windows
- Power moonroof
- Power seat
- Power lumbar
- Power sunshade



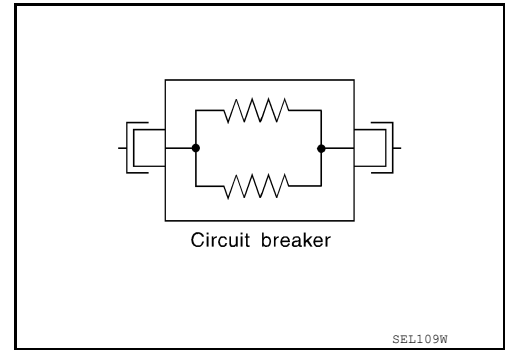
Circuit Breaker (External to BCM)

INFOID:000000011380219

The PTC thermistor generates heat in response to current flow. The temperature (and resistance) of the thermistor element varies with current flow. Excessive current flow will cause the element's temperature to rise. When the temperature reaches a specified level, the electrical resistance will rise sharply to control the circuit current. Reduced current flow will cause the element to cool. Resistance falls accordingly and normal circuit current flow is allowed to resume.

This circuit breaker is used for the following systems:

- Power memory seat
- Power back door



Harness Connector

INFOID:000000011217606

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.

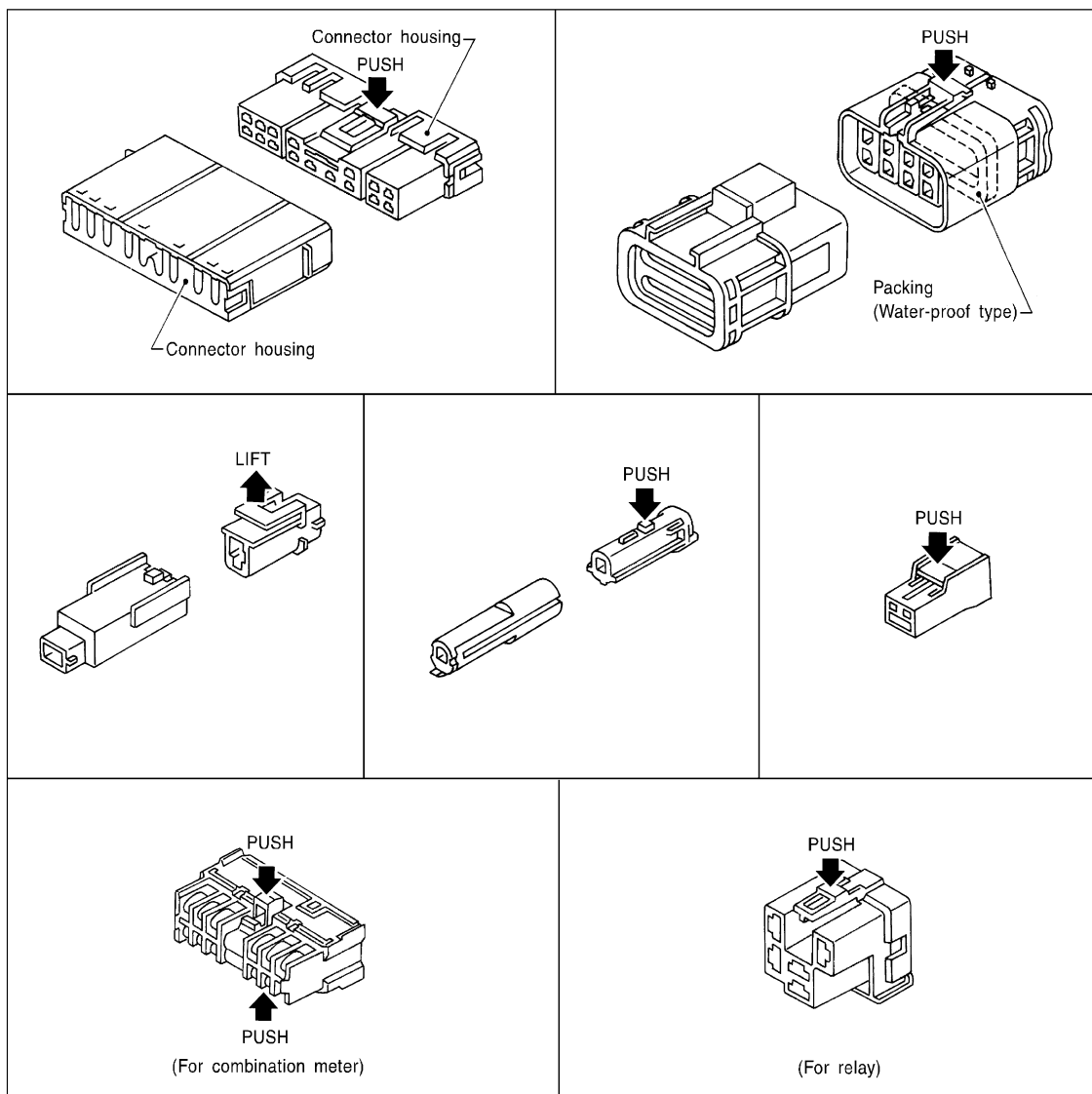
CAUTION:

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

COMPONENT PARTS

< SYSTEM DESCRIPTION >

[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.
- The slide-locking type connectors are disconnected by pushing or pulling the slider. Refer to the figure below.

CAUTION:

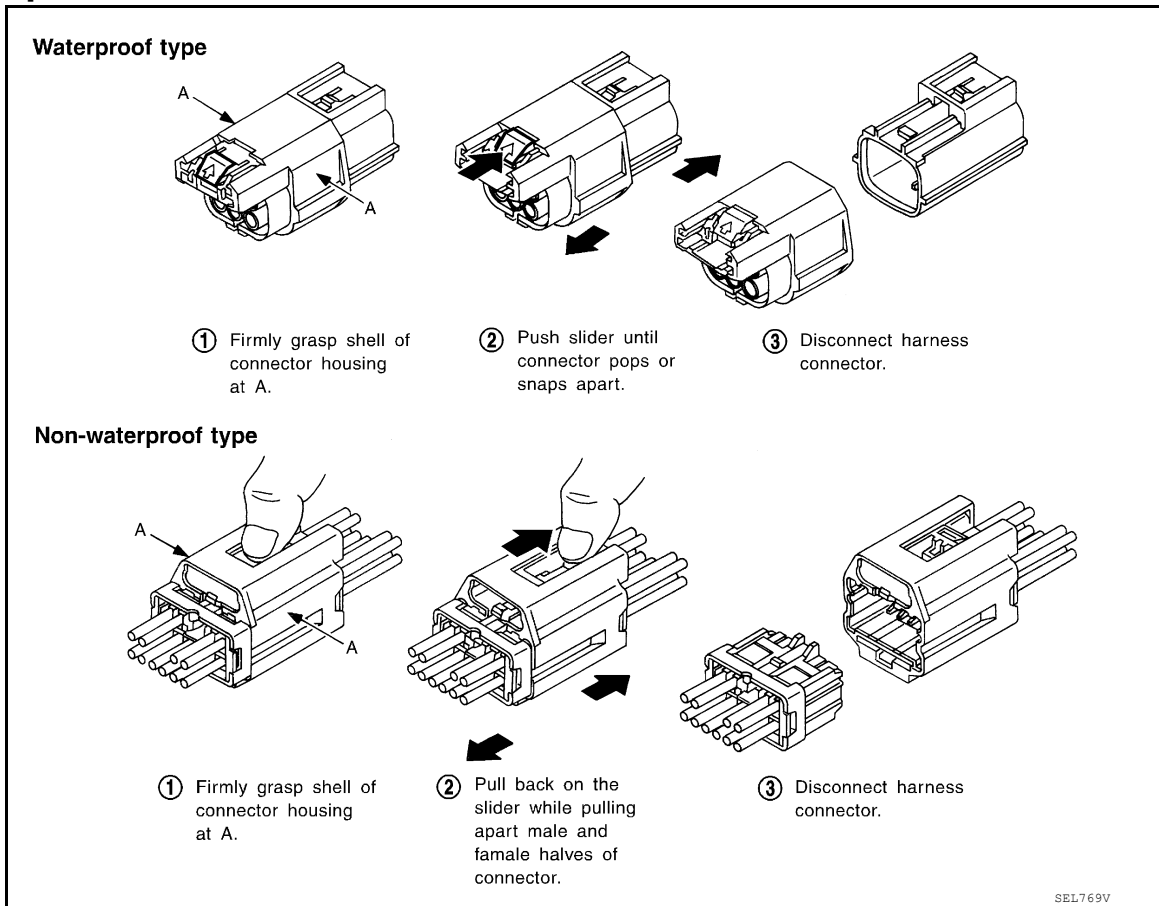
- **Do not pull the harness or wires when disconnecting the connector.**
- **Be careful not to damage the connector support bracket when disconnecting the connector.**

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

[Example]



HARNESS CONNECTOR (LEVER LOCKING TYPE)

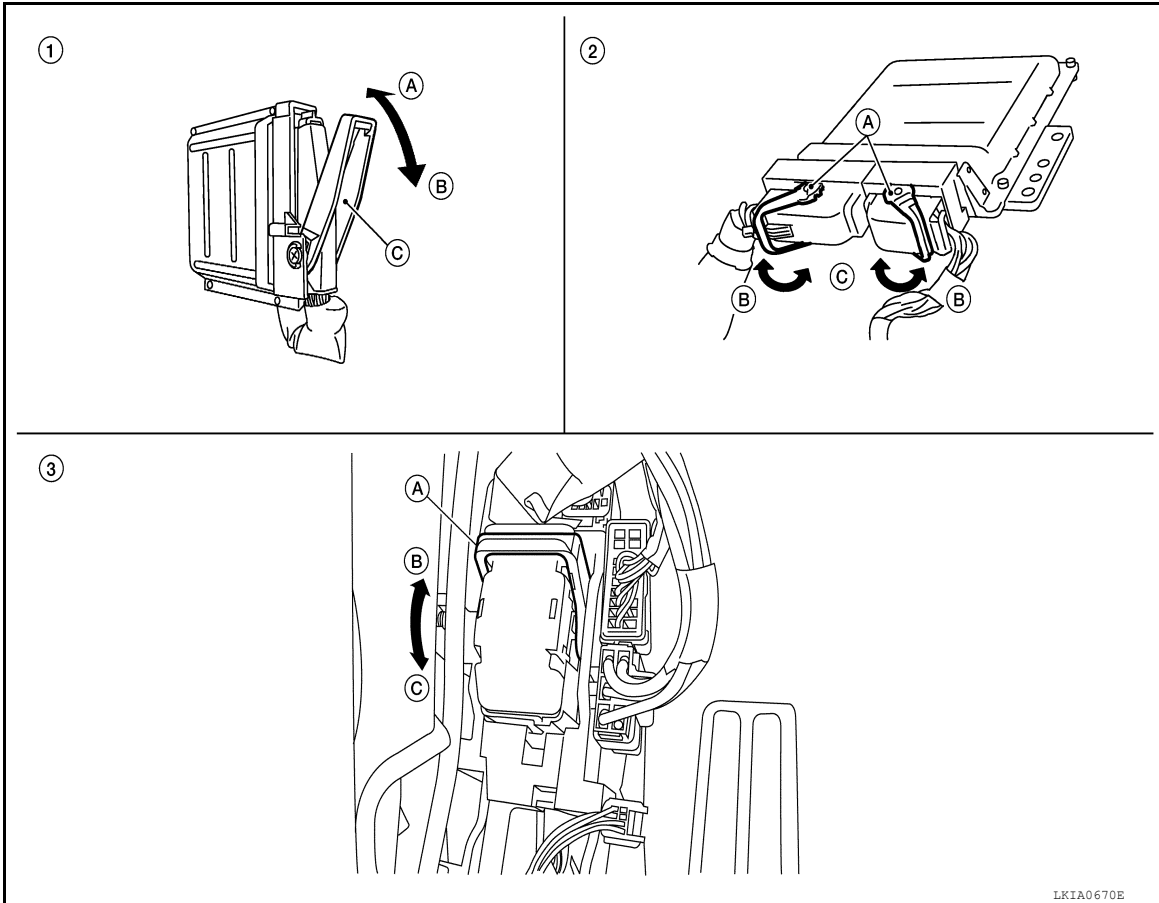
- Lever locking type harness connectors are used on certain control units and control modules such as ECM, ABS actuator and electric unit (control unit), etc.
- Lever locking type harness connectors are also used on super multiple junction (SMJ) connectors.
- Always confirm the lever is fully locked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

CAUTION:

COMPONENT PARTS

< SYSTEM DESCRIPTION >

- 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.



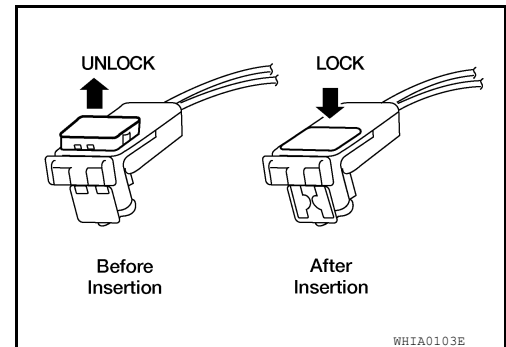
- | | | |
|-----------------------------------|---------------------------------|------------------|
| 1. Control unit with single lever | 2. Control unit with dual lever | 3. SMJ connector |
| A. Fasten | A. Lever | A. Lever |
| B. Loosen | B. Fasten | B. Fasten |
| C. Lever | C. Loosen | C. Loosen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

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.



Standardized Relay

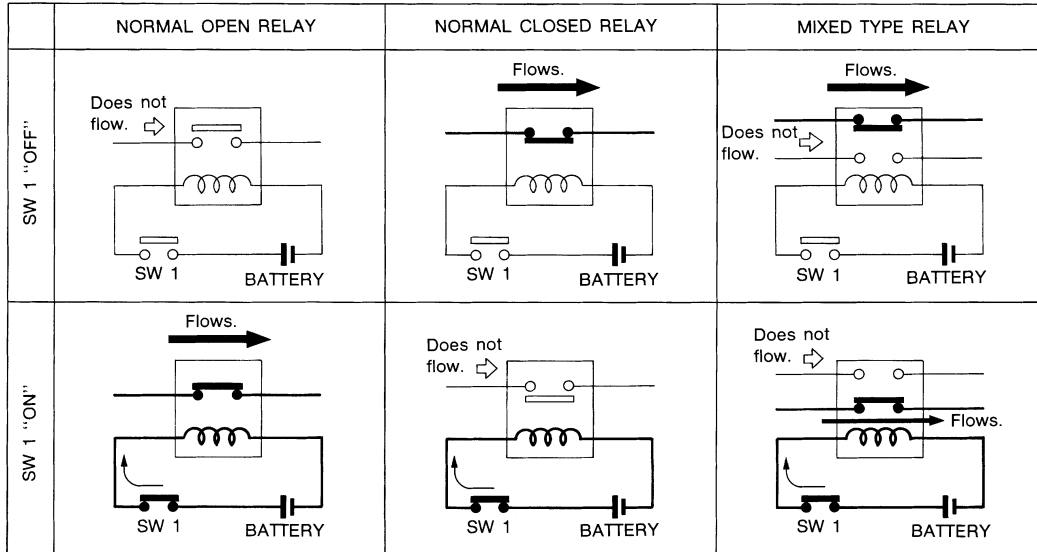
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NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

COMPONENT PARTS

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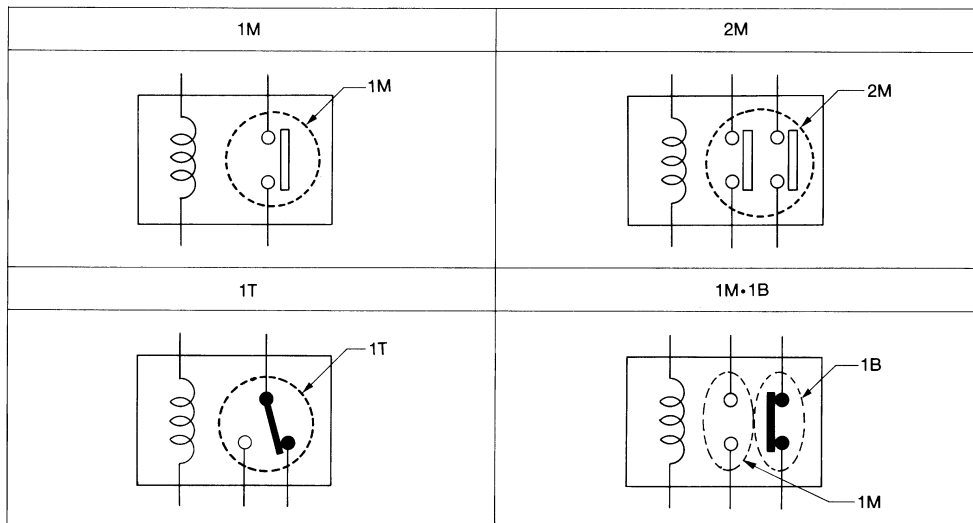
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



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TYPE OF STANDARDIZED RELAYS

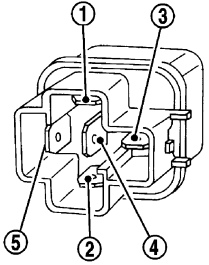
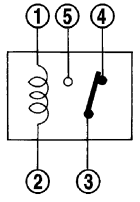
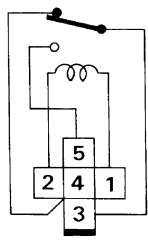
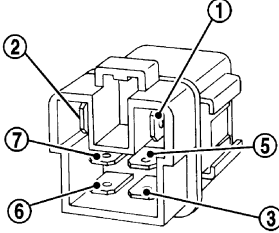
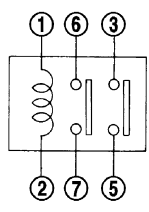
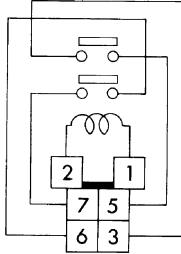
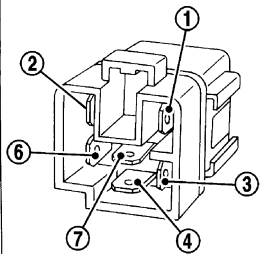
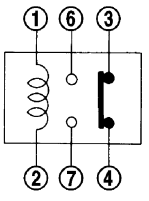
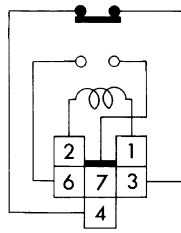
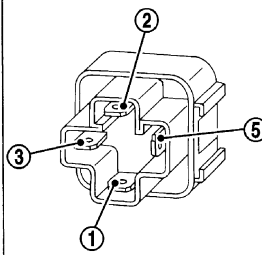
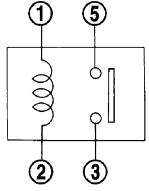
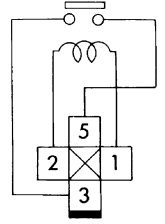
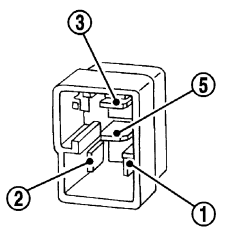
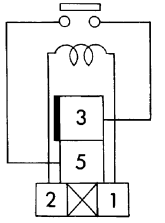
- 1M 1 Make
- 1T 1 Transfer
- 2M 2 Make
- 1M·1B 1 Make 1 Break



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COMPONENT PARTS

< SYSTEM DESCRIPTION >

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

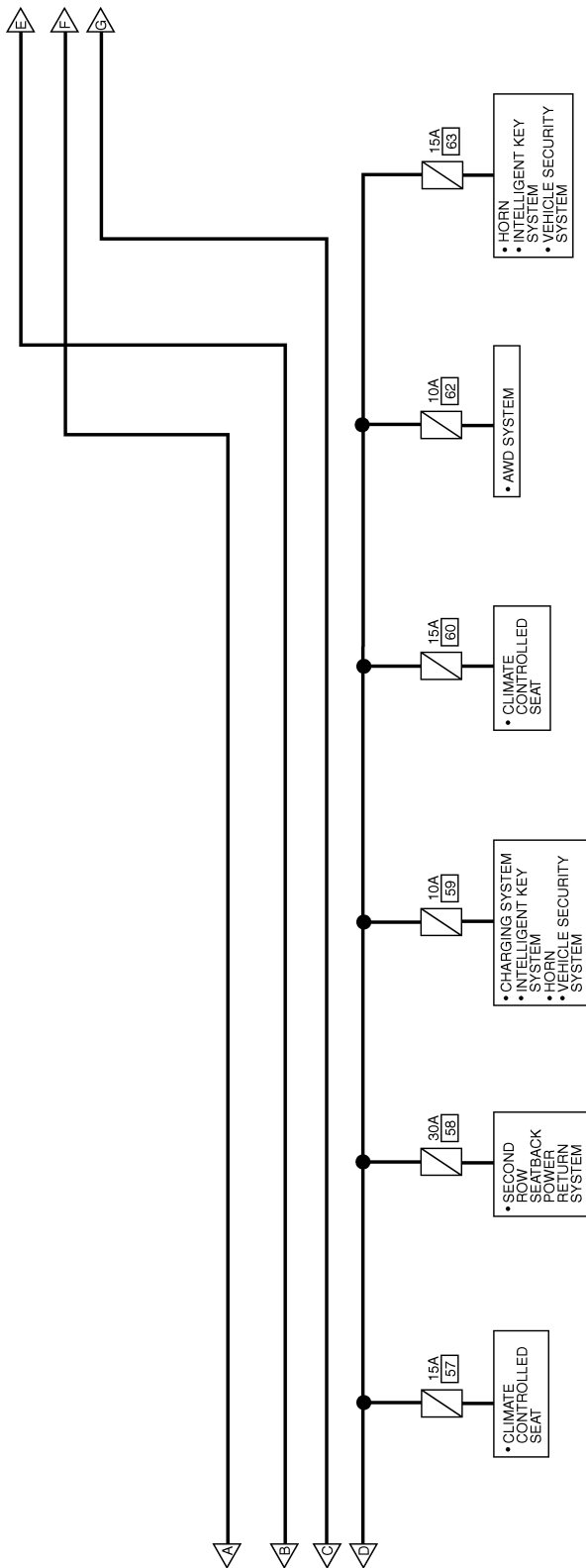
The arrangement of terminal numbers on the actual relays may differ from those shown above.

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POWER SUPPLY ROUTING CIRCUIT

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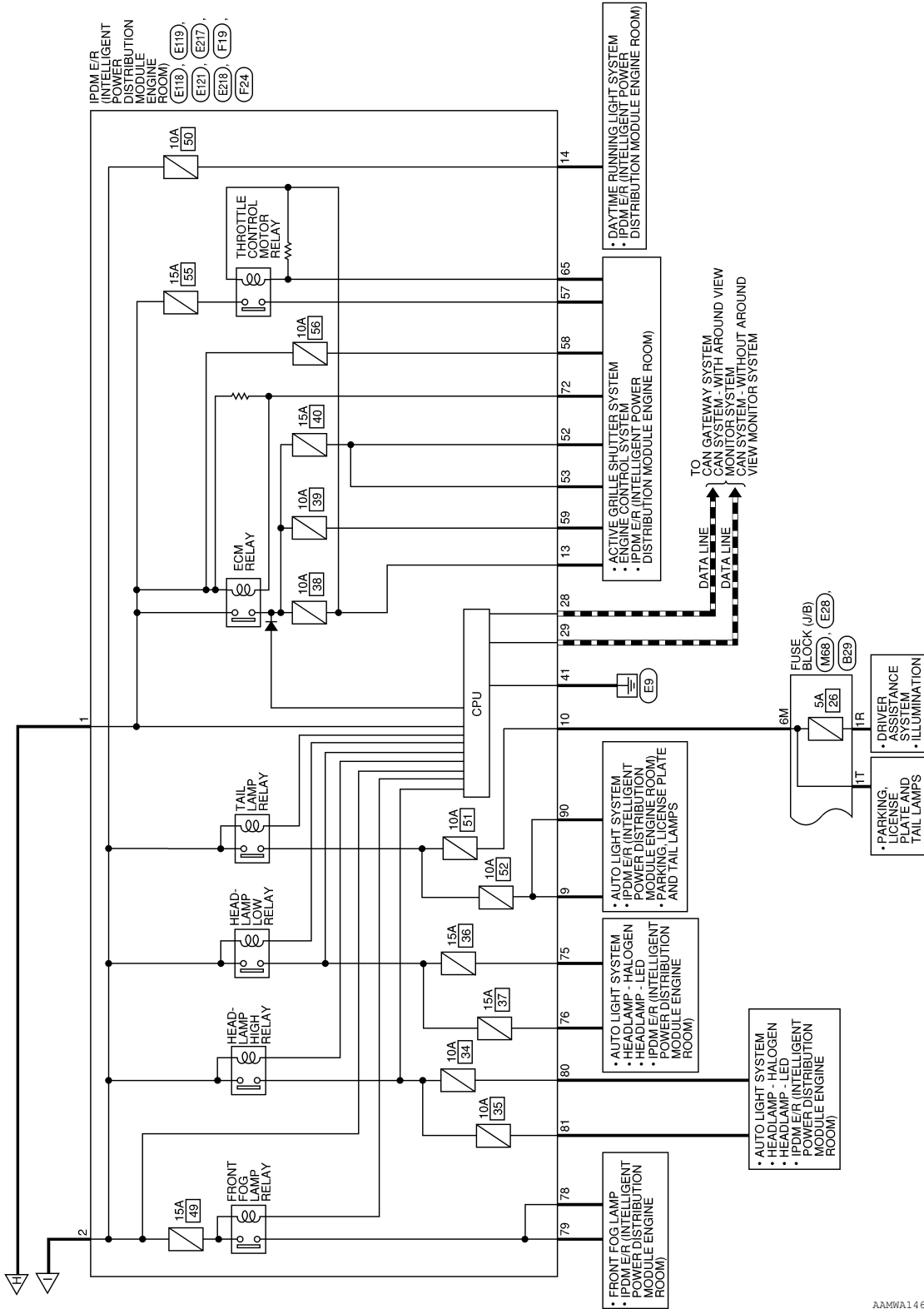


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POWER SUPPLY ROUTING CIRCUIT

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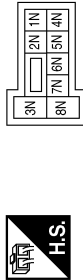


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BATTERY POWER SUPPLY CONNECTORS

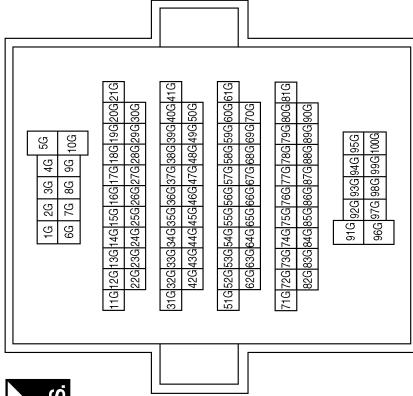
Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



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



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



Terminal No.	Color of Wire	Signal Name
2N	BG	-
4N	V	-
5N	Y	-
6N	W	-

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

Terminal No.	Color of Wire	Signal Name
5G	L	-
93G	B	-

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1R	R	-
3R	G	-
5R	G	-
7R	L	-
10R	W	-
12R	V	-
15R	LG	-

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



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

Connector No.	M187
Connector Name	CIRCUIT BREAKER-1
Connector Color	WHITE



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

POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

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



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

Connector No.	E13
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



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

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.	E63
Connector Name	POWER STEERING CONTROL MODULE
Connector Color	BLACK



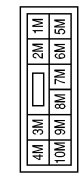
Terminal No.	Color of Wire	Signal Name
1	W	+B

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



Terminal No.	Color of Wire	Signal Name
5	R	-

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



Terminal No.	Color of Wire	Signal Name
5M	W	-
6M	L	-

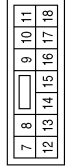
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POWER SUPPLY ROUTING CIRCUIT

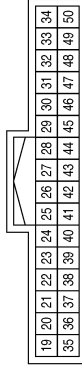
< WIRING DIAGRAM >

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



Terminal No.	Color of Wire	Signal Name
9	G	TAIL RH
10	L	TAIL LH
13	L	ECM VB
14	LG	DTRL

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



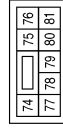
Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	GND (SIGNAL)

Connector No.	E118
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

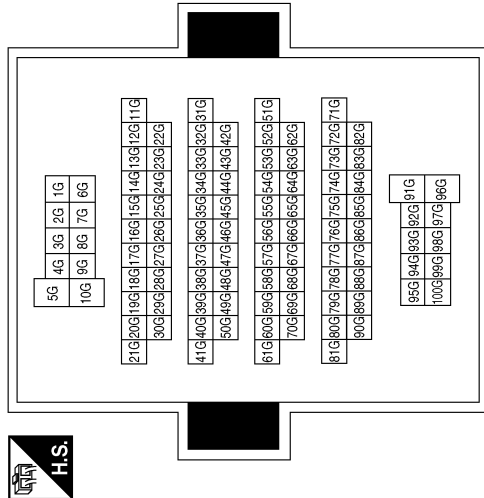
Connector No.	E217
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
75	SB	HEADLAMP LO RH (WITH LED)
75	LW	HEADLAMP HI RH (WITH HALOGEN)
76	L	HEADLAMP LO LH
78	W	FR FOG LAMP RH
79	L	FR FOG LAMP LH
80	LG	HEADLAMP HI RH (WITH LED)
80	G/W	HEADLAMP HI RH (WITH HALOGEN)
81	G	HEADLAMP HI/LH

Terminal No.	Color of Wire	Signal Name
5G	P	-
93G	SB	-

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

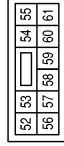


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POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

Connector No.	F19
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



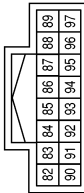
Terminal No.	Color of Wire	Signal Name
52	W	OZSENS #2
53	W	OZSENS #1
57	R	ETC
58	GR	ECM BAT
59	L	ENG SOL

Connector No.	F6
Connector Name	GENERATOR
Connector Color	-



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

Connector No.	E218
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
90	GR	CLEARANCE

Connector No.	F39
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



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

Connector No.	F27
Connector Name	STARTER MOTOR
Connector Color	-



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

Connector No.	F24
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
65	G	MOTRLY
72	V	SSOFF

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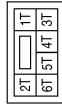
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POWER SUPPLY ROUTING CIRCUIT

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Connector No.	B29
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	1T	Color of Wire	O	Signal Name	-
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Connector No.	F69
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	7	Color of Wire	R	Signal Name	-
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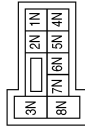
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POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

ACCESSORY POWER SUPPLY CONNECTORS

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



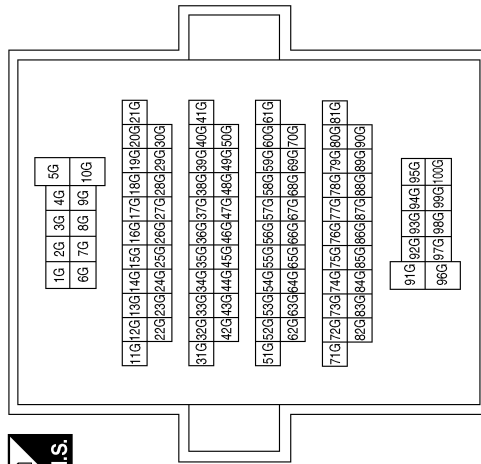
Terminal No.	Color of Wire	Signal Name
1N	LG	-
7N	L	-

Connector No.	M6
Connector Name	ACCESSORY RELAY-2
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	L	-
2	B	-
3	R	-
5	P	-

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



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

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
6R	L	-
13R	B	-
14R	R	-
16R	Y	-

POWER SUPPLY ROUTING CIRCUIT

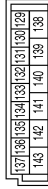
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Connector No.	E13
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



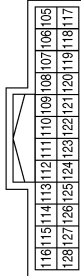
Terminal No.	1S	Color of Wire	R	Signal Name	-
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Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



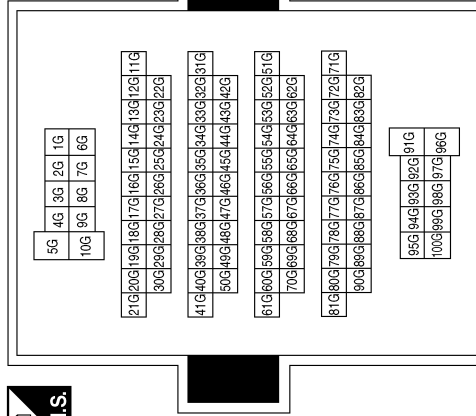
Terminal No.	139	Color of Wire	L	Signal Name	BAT POWER/F/L
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Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	113	Color of Wire	L	Signal Name	ACC RELAY OUT
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Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	5G	Color of Wire	P	Signal Name	-
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Connector No.	E30
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BLACK



Terminal No.	5	Color of Wire	R	Signal Name	-
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Connector No.	E27
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN



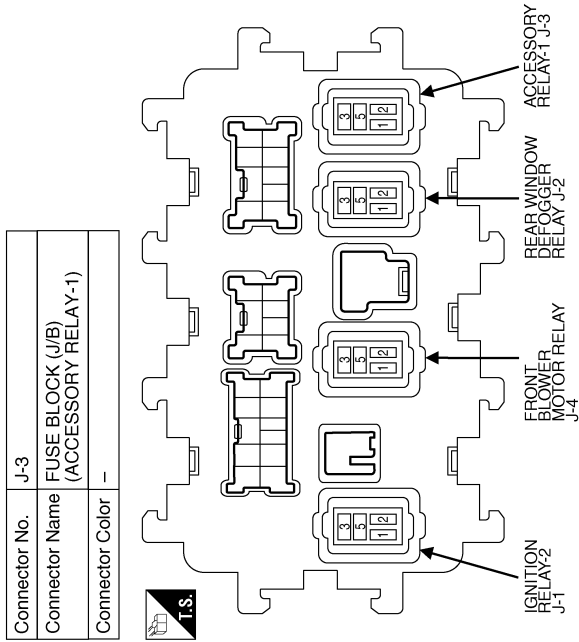
Terminal No.	1	Color of Wire	W	Signal Name	-
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POWER SUPPLY ROUTING CIRCUIT

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Connector No.	B30
Connector Name	FUSE BLOCK J/B
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
8Q	L	-

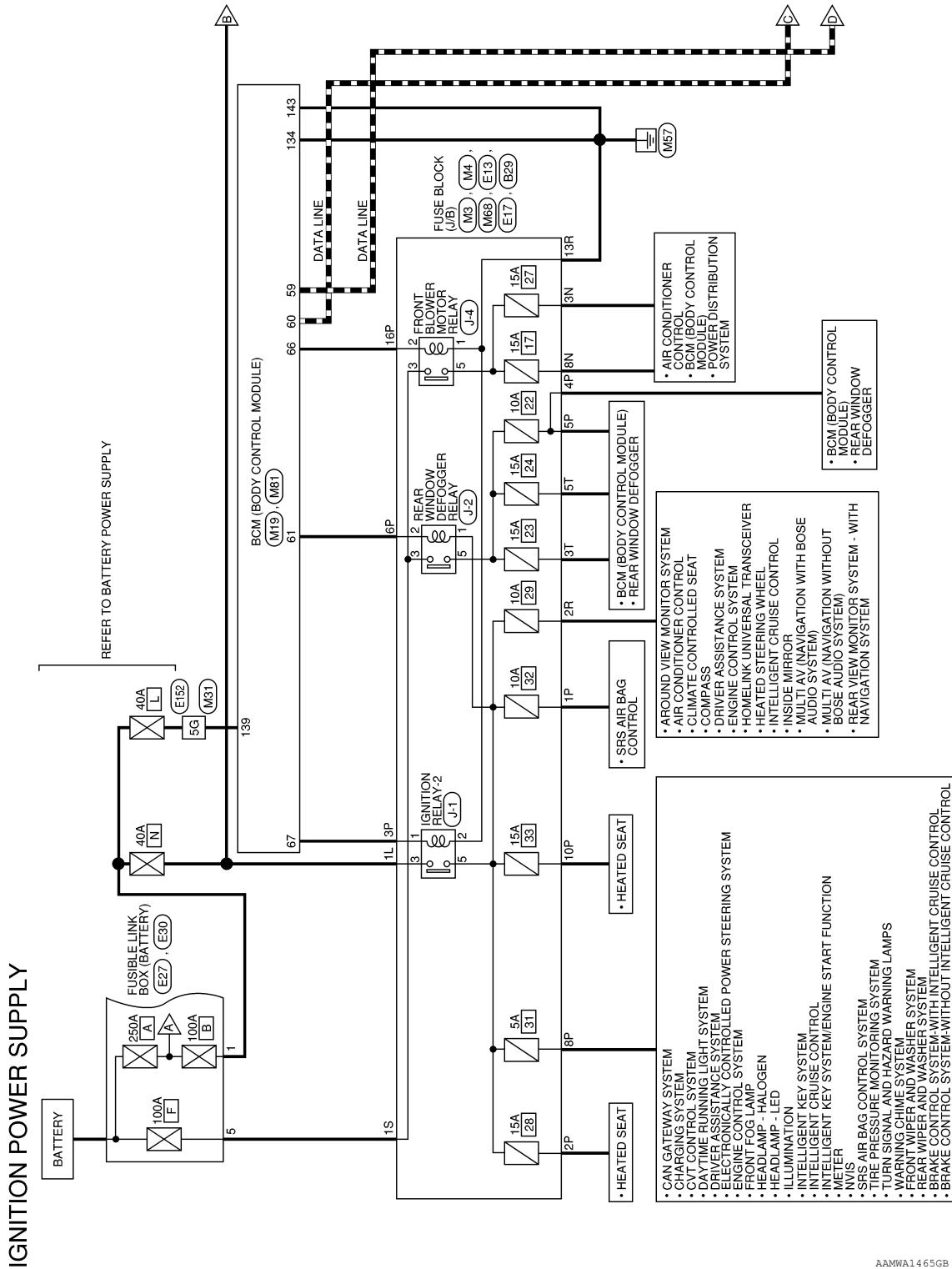
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POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

Wiring Diagram - IGNITION POWER SUPPLY -

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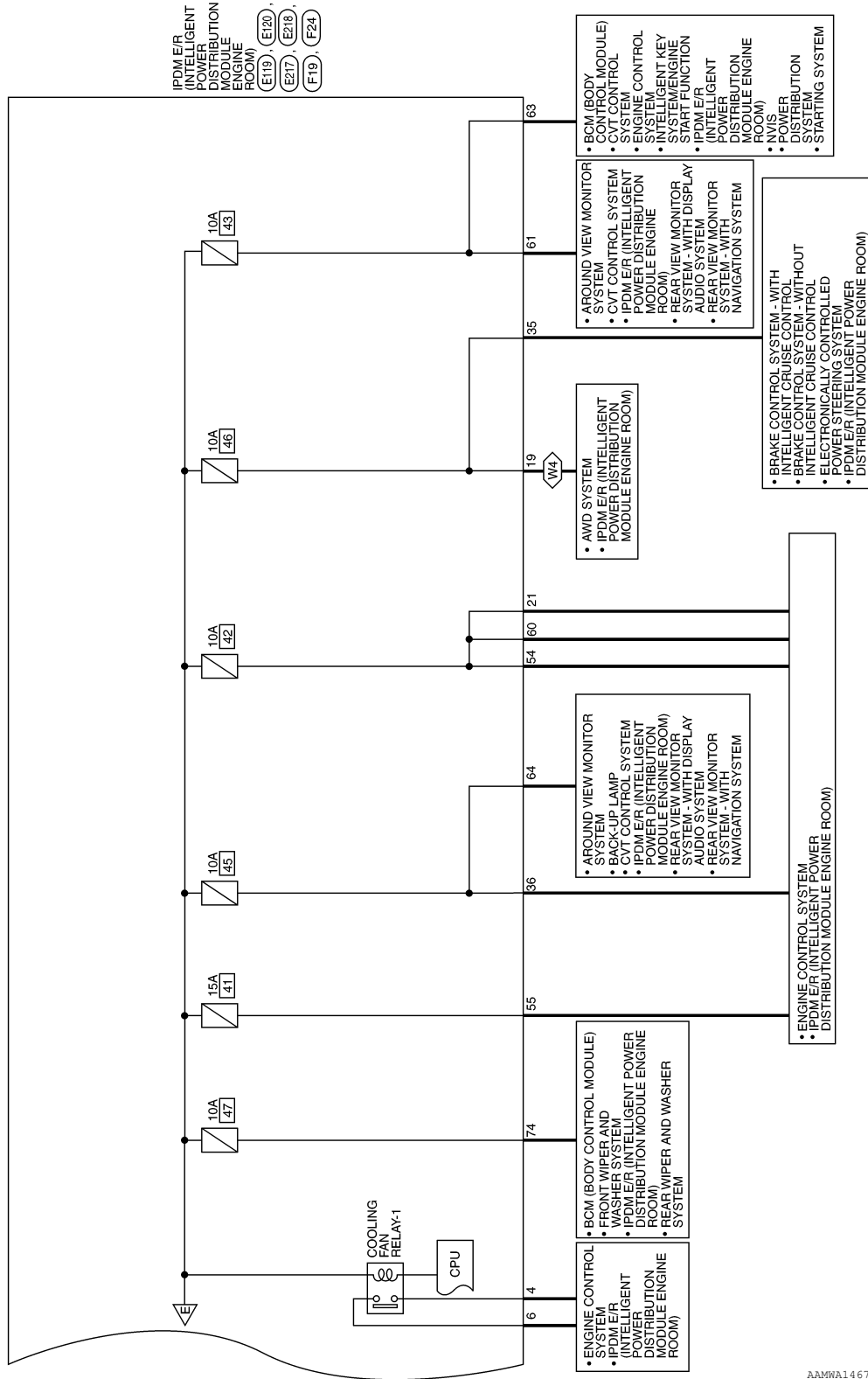
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POWER SUPPLY ROUTING CIRCUIT

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W4 : WITH ALL WHEEL DRIVE



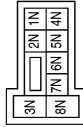
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IGNITION POWER SUPPLY CONNECTORS

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



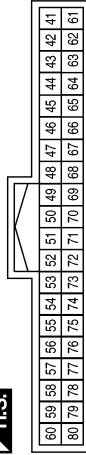
Terminal No.	Color of Wire	Signal Name
3N	L	-
8N	L	-

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



Terminal No.	Color of Wire	Signal Name
1P	R	-
2P	LG	-
3P	G	-
4P	P	-
5P	R	-
6P	BG	-
8P	BG	-
10P	V	-
16P	W	-

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK

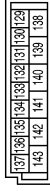


Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
61	BG	REAR DEFOGGER RELAY OUT
66	W	BLOWER FAN RELAY OUT
67	G	IGN ELEC RELAY OUT 2

POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



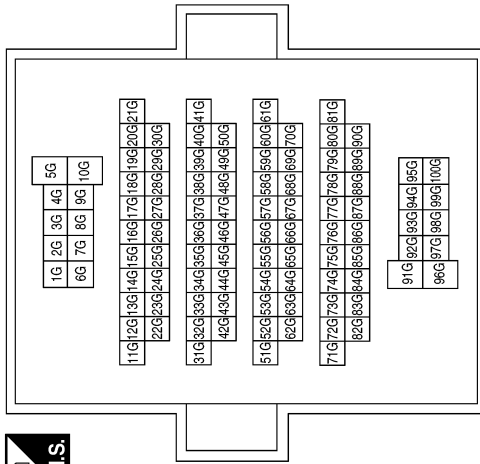
Terminal No.	Color of Wire	Signal Name
134	GR	GND 2
139	L	BAT POWER F/L
143	GR	GND 1

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN



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

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



Terminal No.	Color of Wire	Signal Name
5G	L	-
11G	P	-
12G	L	-

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POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

Connector No.	E13
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



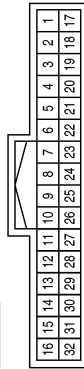
Terminal No.	Color of Wire	Signal Name
1S	R	-

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



Terminal No.	Color of Wire	Signal Name
4	R	-

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

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



Terminal No.	Color of Wire	Signal Name
5	R	-

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



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

Connector No.	E17
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



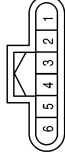
Terminal No.	Color of Wire	Signal Name
1L	G	-

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POWER SUPPLY ROUTING CIRCUIT

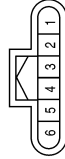
< WIRING DIAGRAM >

Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



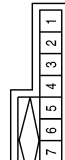
Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



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

Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

Terminal No.	Color of Wire	Signal Name
35	BR	ABS ECU
36	W	START (G-E/R)
37	W	CLUTCH I/L SW
41	B	GND (SIGNAL)
43	L	IGN SIGNAL

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



Terminal No.	Color of Wire	Signal Name
19	SB	SUB ECU
28	P	CAN-L
29	L	CAN-H
33	R	START CONT

Connector No.	E118
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

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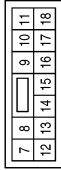
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POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

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



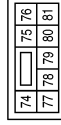
Terminal No.	Color of Wire	Signal Name
7	B	GND (POWER)
11	Y	FR WIPER LO
15	R	FUEL PUMP
18	L	FR WIPER HI

Connector No.	E120
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	G	F/L IGN SW
4	P	MOTOR FAN LO
6	R	F/L MOTOR FAN

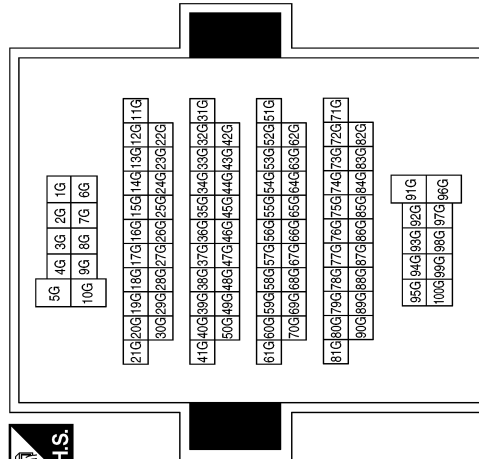
Connector No.	E217
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
5G	P	-
11G	P	-
12G	L	-

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



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POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

Connector No.	F24
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
63	L	INHIBIT SW
64	LG	START IG EGI
66	G	NP SW
69	W	FPR

Connector No.	F19
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



52	53	54	55
56	57	58	59
60	61		

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

Connector No.	F17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



51

Terminal No.	Color of Wire	Signal Name
51	W	STARTER

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
21	L	-
22	P	-
28	P	-
29	L	-

Connector No.	B29
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



2T	1T
6T	5T
4T	3T

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

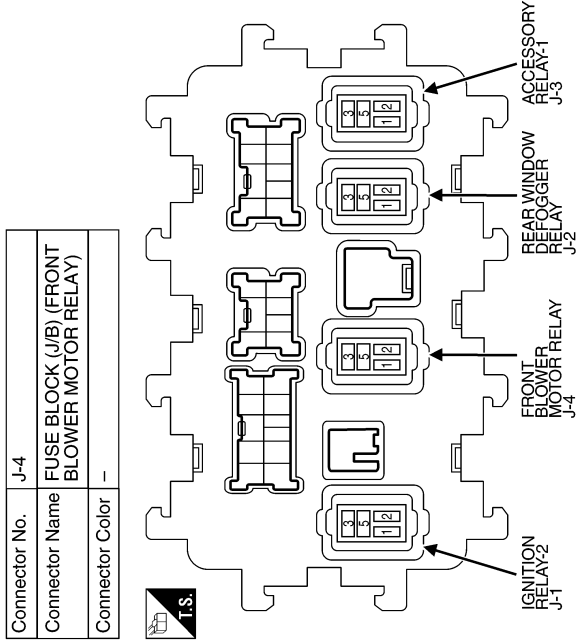
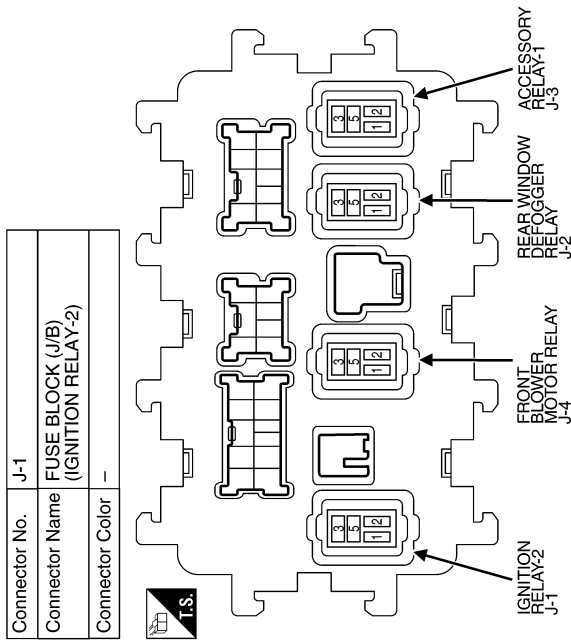
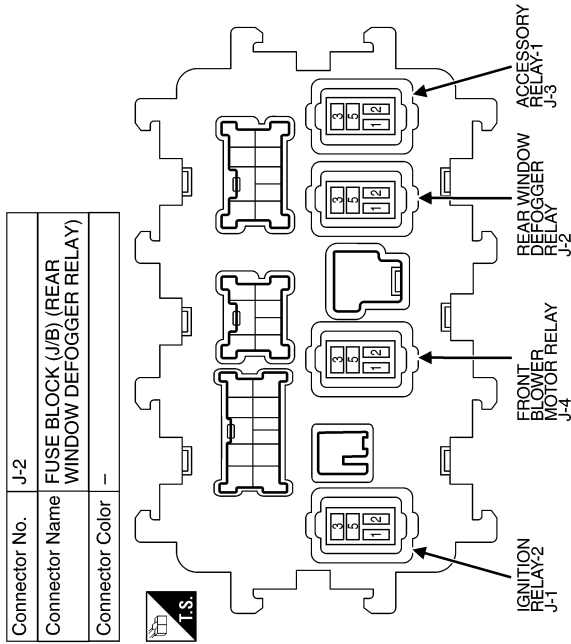
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POWER SUPPLY ROUTING CIRCUIT

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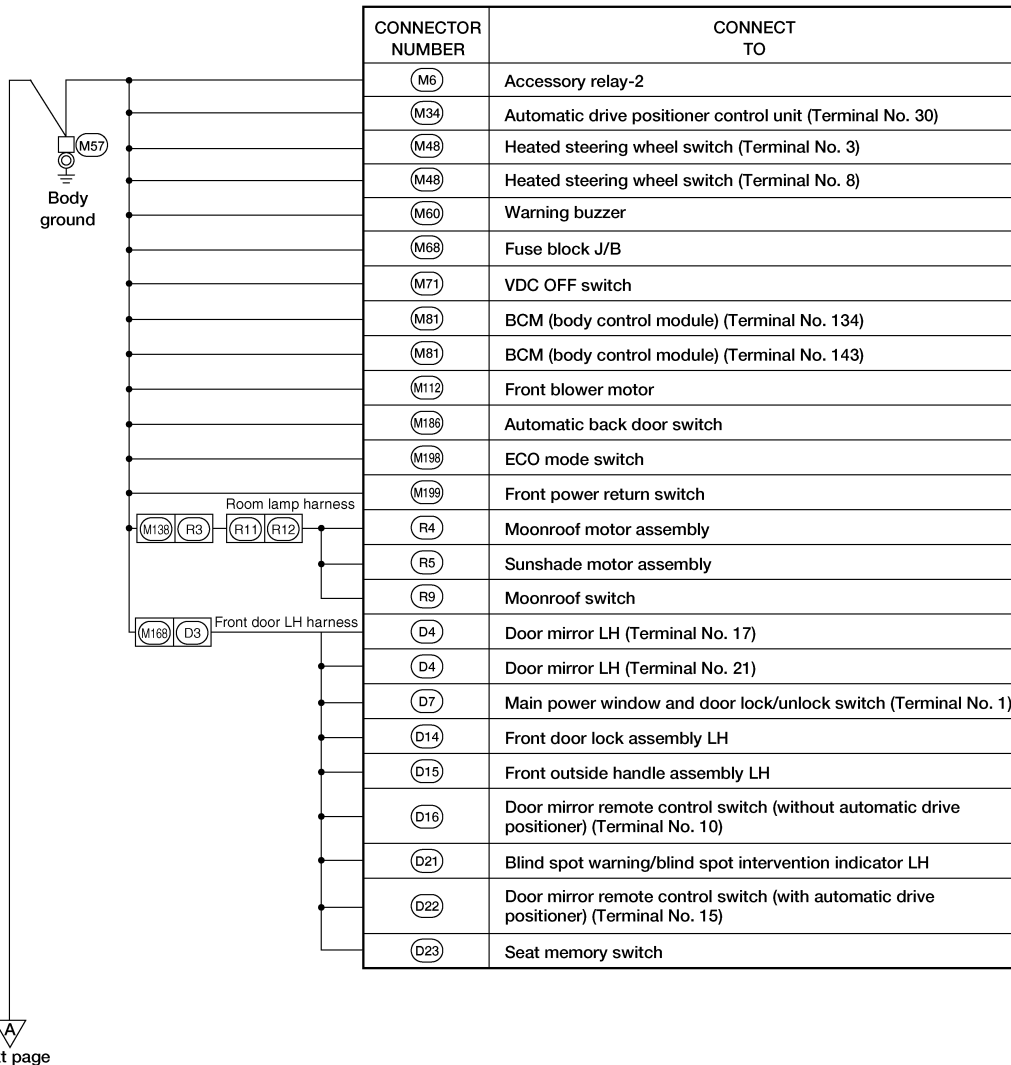
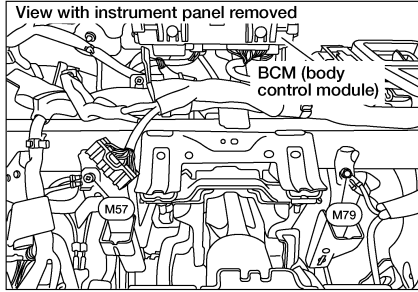
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GROUND

Ground Distribution

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MAIN HARNESS

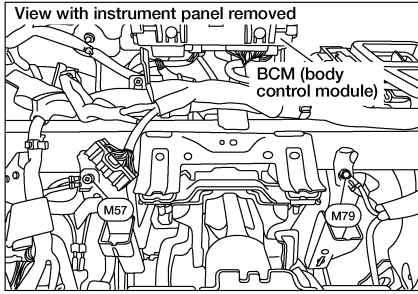


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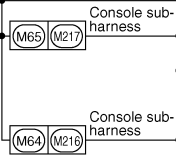
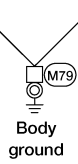
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GROUND

< WIRING DIAGRAM >



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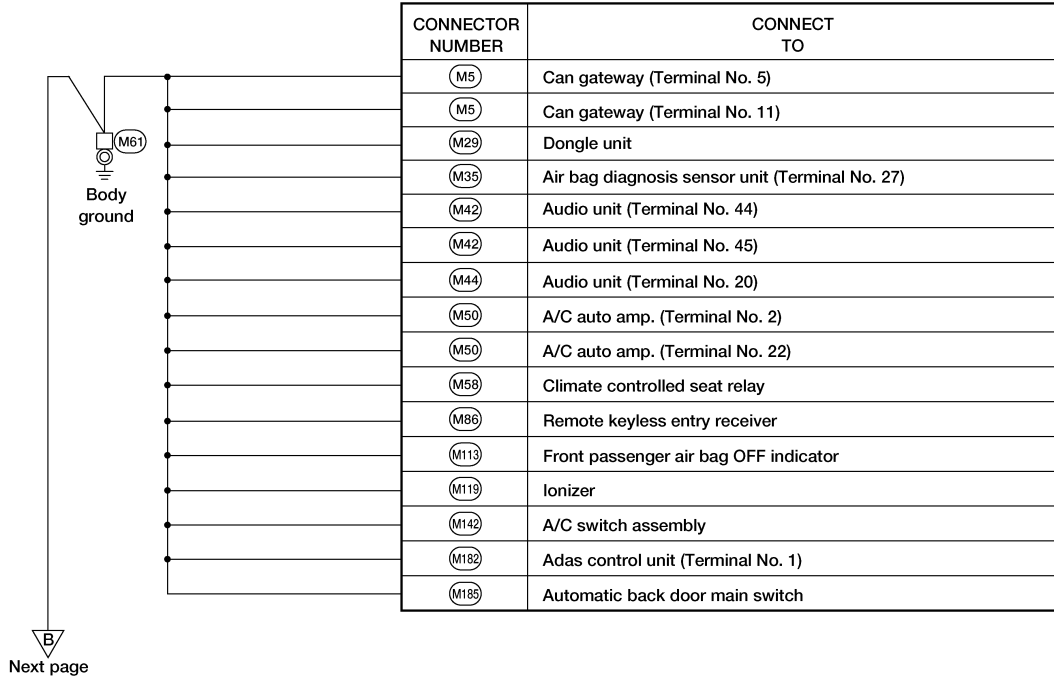
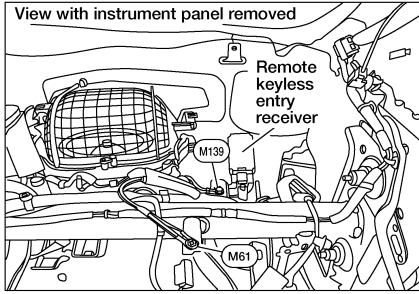


CONNECTOR NUMBER	CONNECT TO
(M78)	CVT shift selector (Terminal No. 4)
(M78)	CVT shift selector (Terminal No. 11)
(M83)	Hazard switch
(M145)	Console power socket
(M205)	Climate controlled seat switch (driver seat)
(M206)	Climate controlled seat switch (passenger seat)
(M208)	Push-button ignition switch
(M207)	Front power socket
(M212)	Front heated seat switch LH
(M213)	Front heated seat switch RH

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GROUND

< WIRING DIAGRAM >



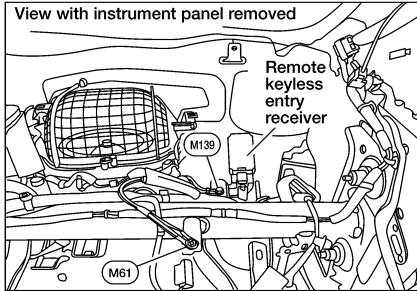
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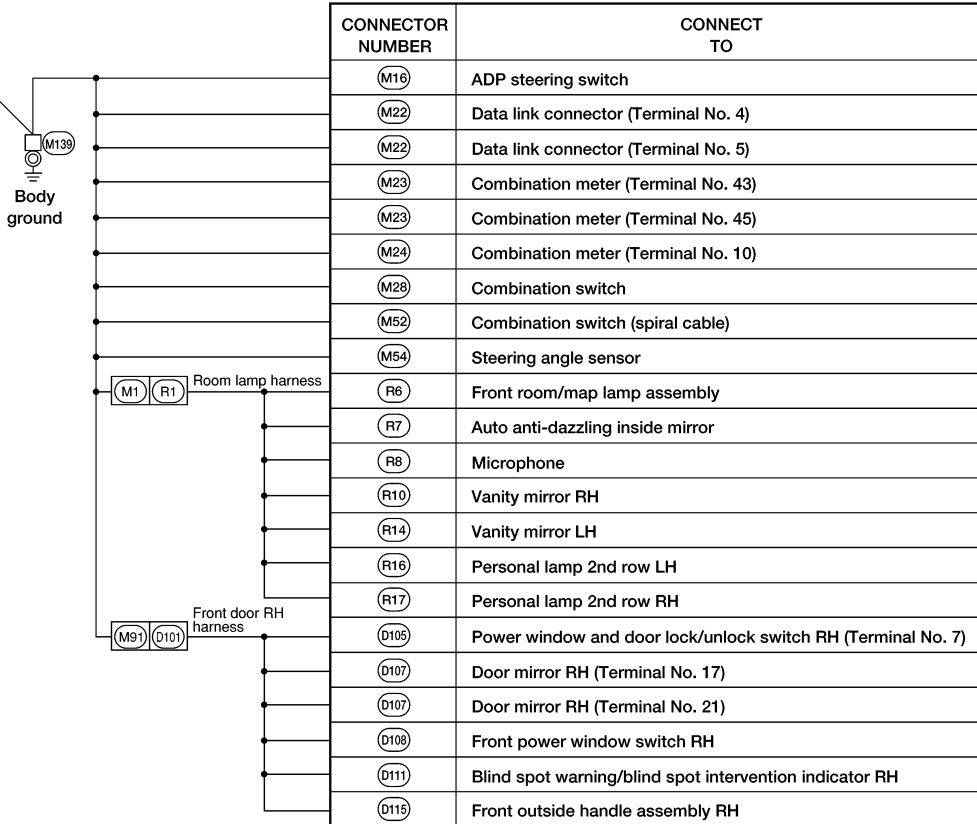
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GROUND

< WIRING DIAGRAM >



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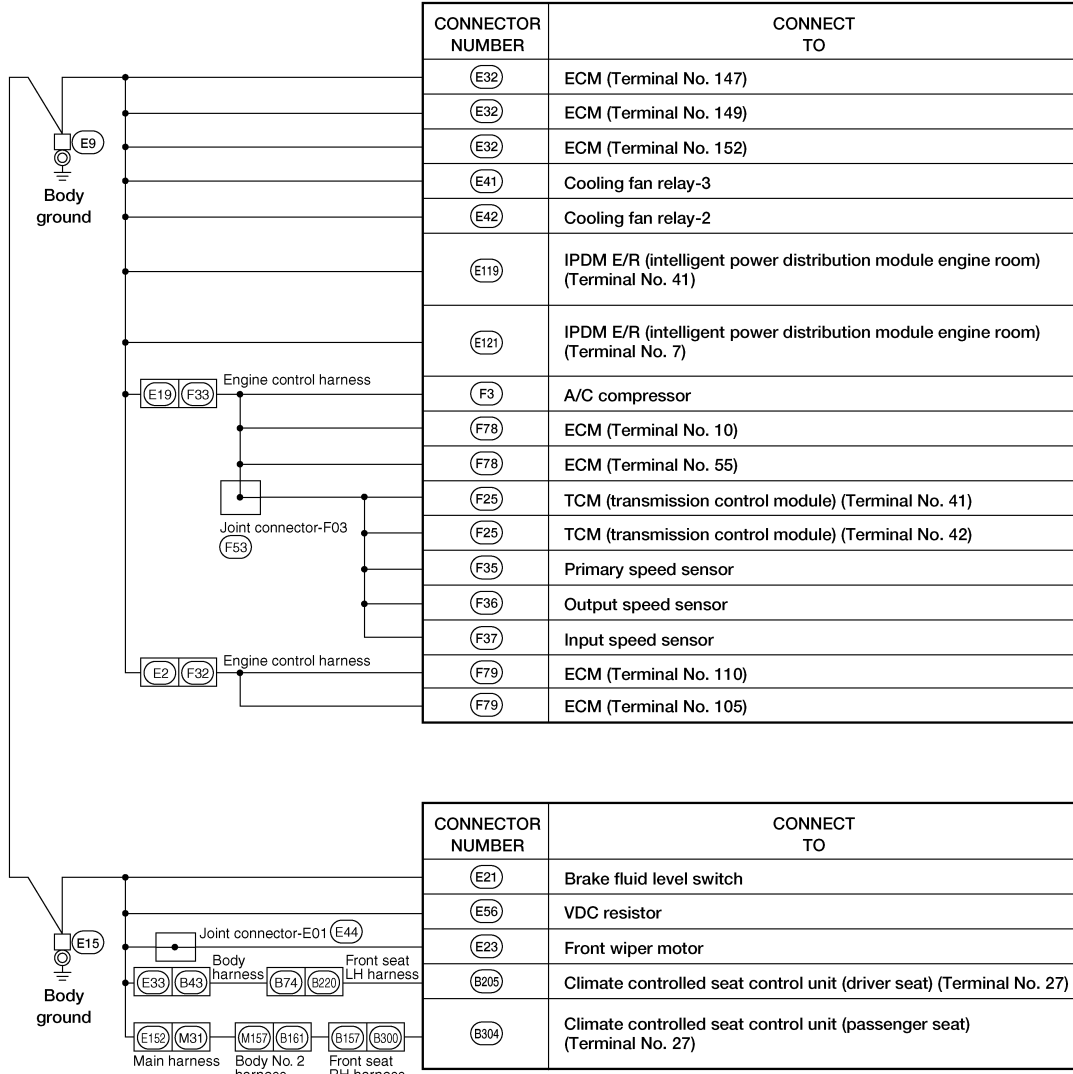
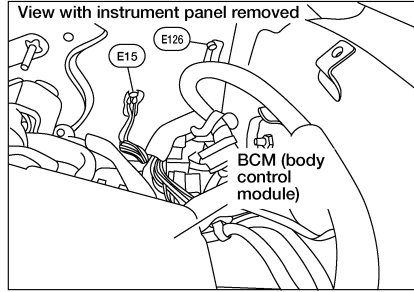
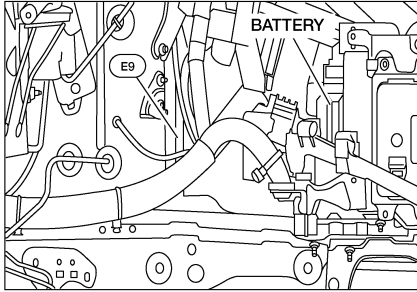


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GROUND

< WIRING DIAGRAM >

ENGINE ROOM HARNESS

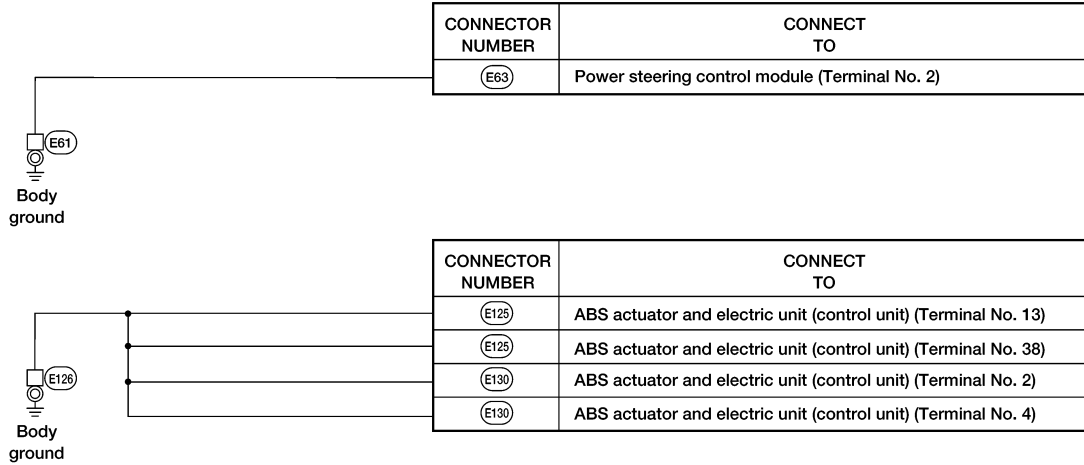
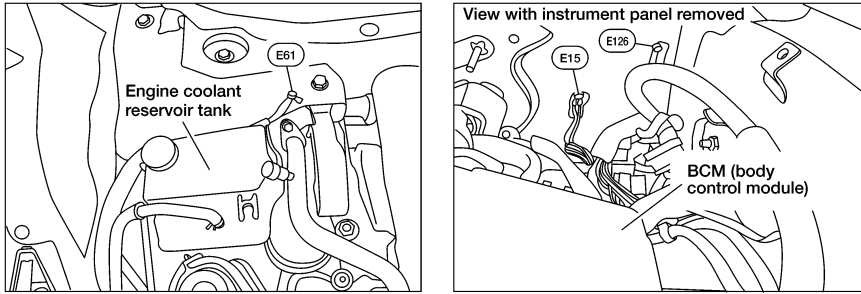


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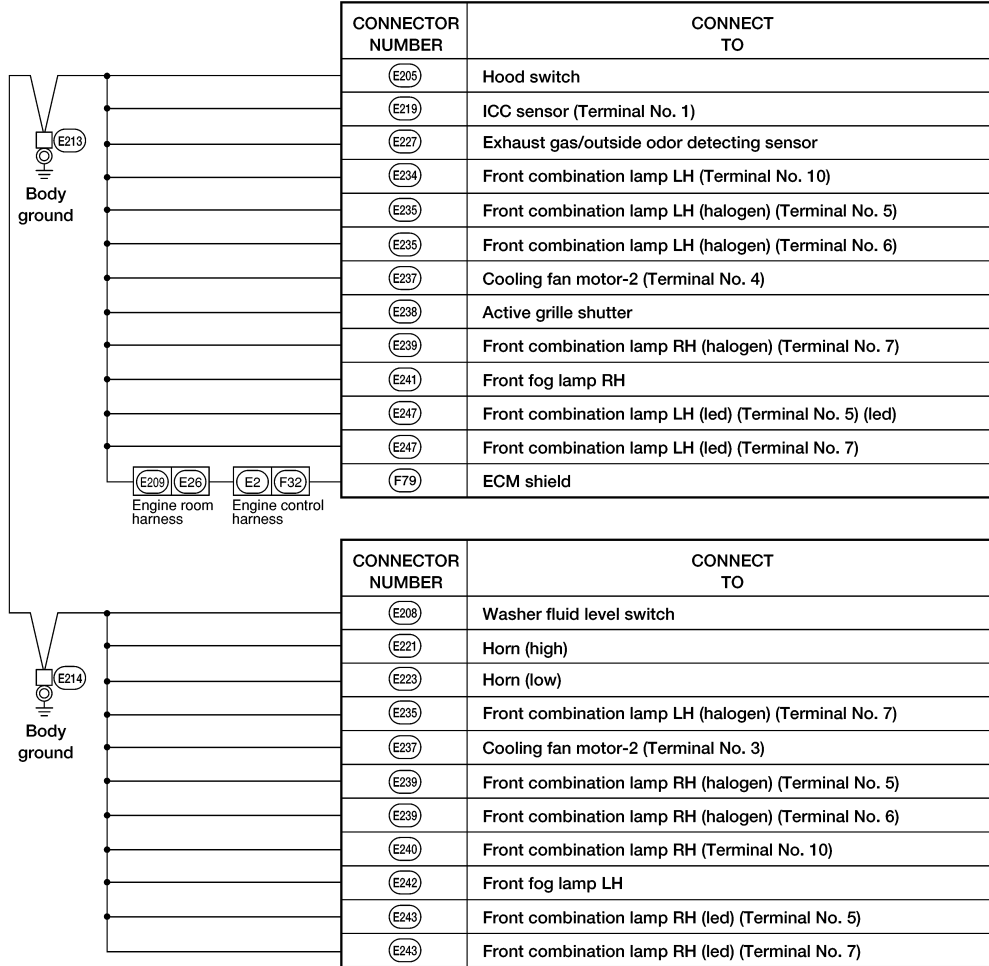
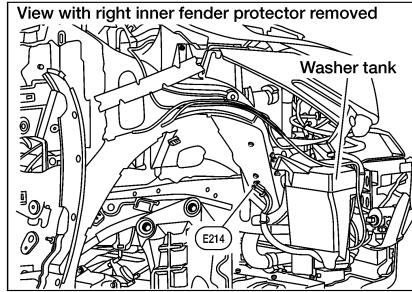
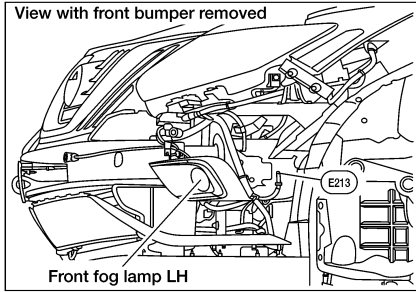


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GROUND

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FRONT END MODULE HARNESS

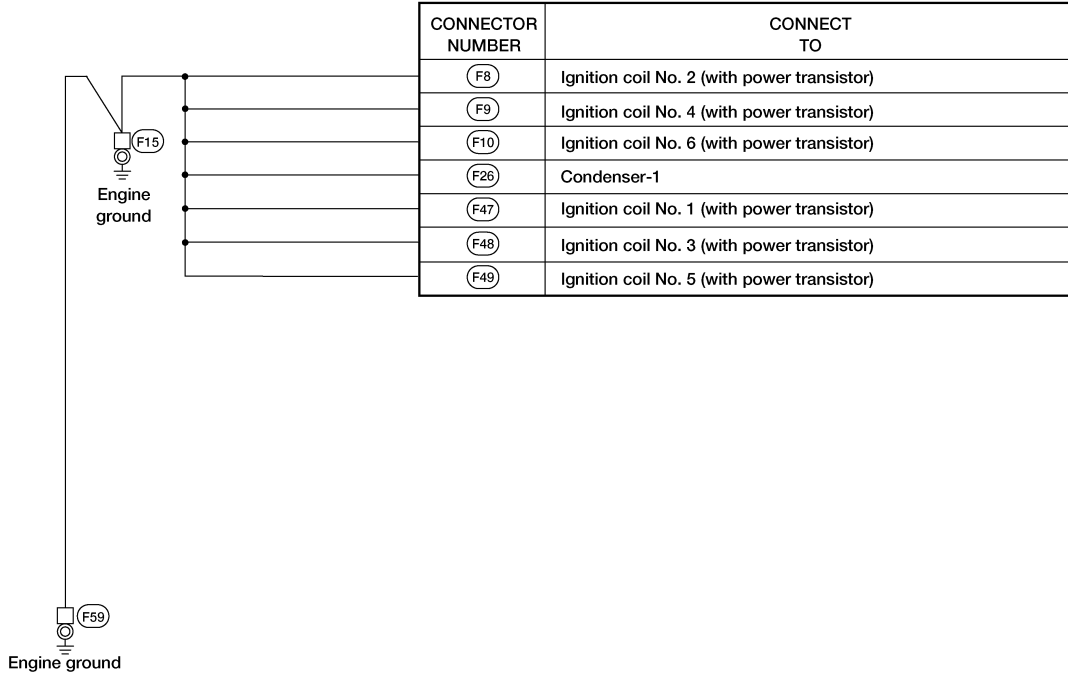
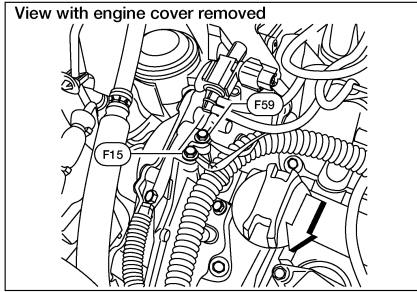


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ENGINE CONTROL HARNESS

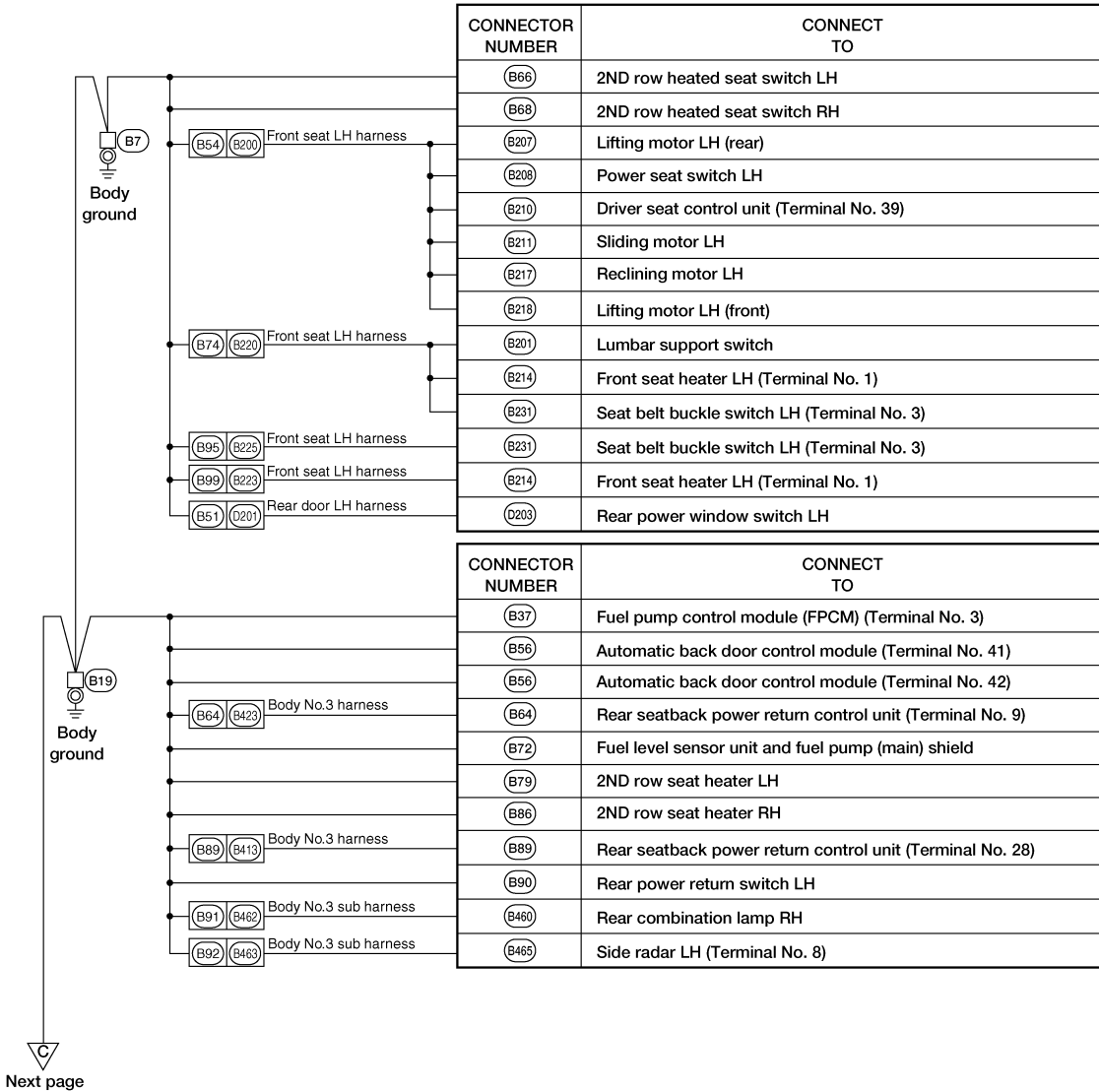
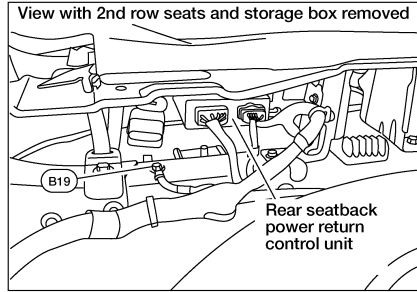
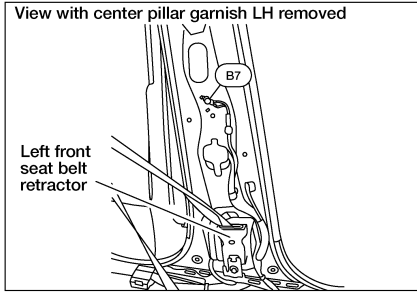


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GROUND

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BODY HARNESS



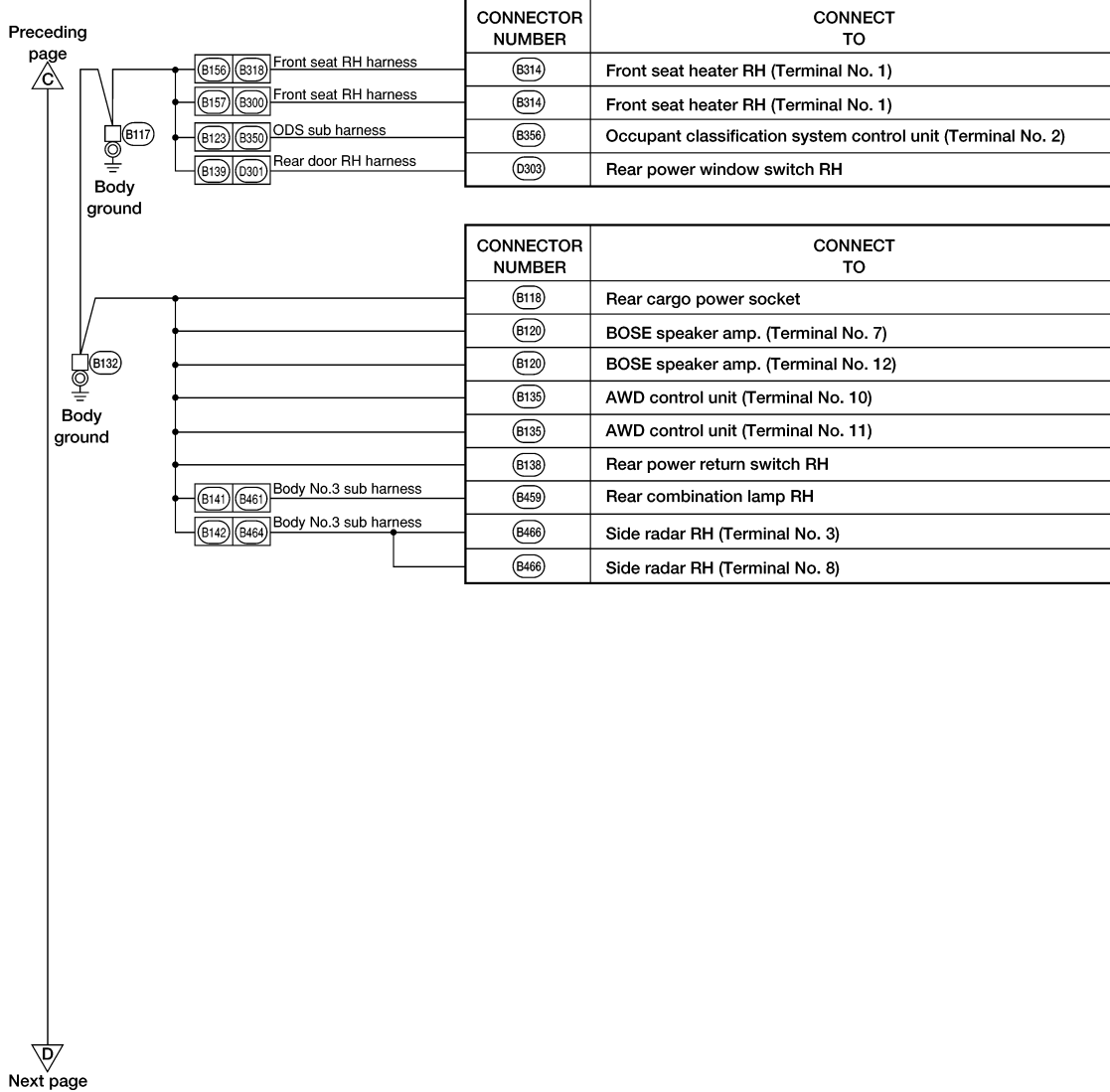
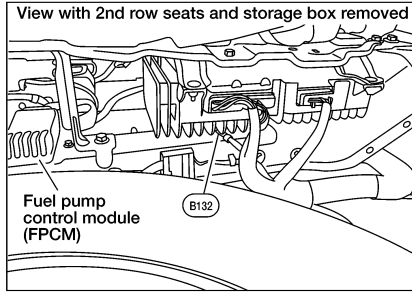
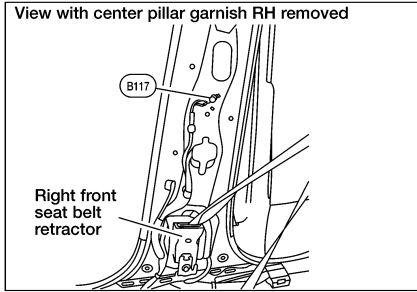
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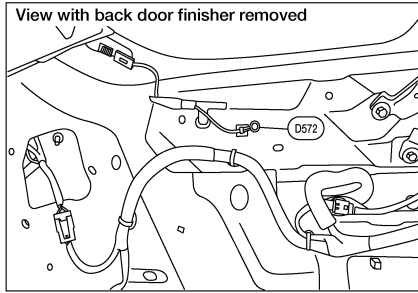
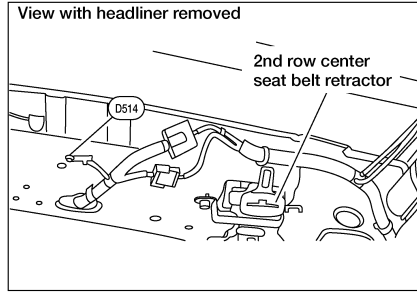
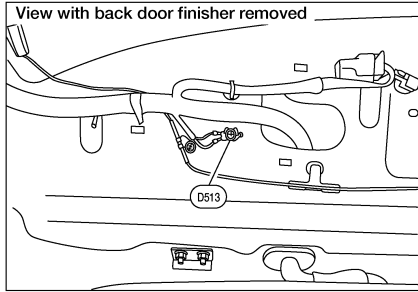
BODY NO. 2 HARNESS



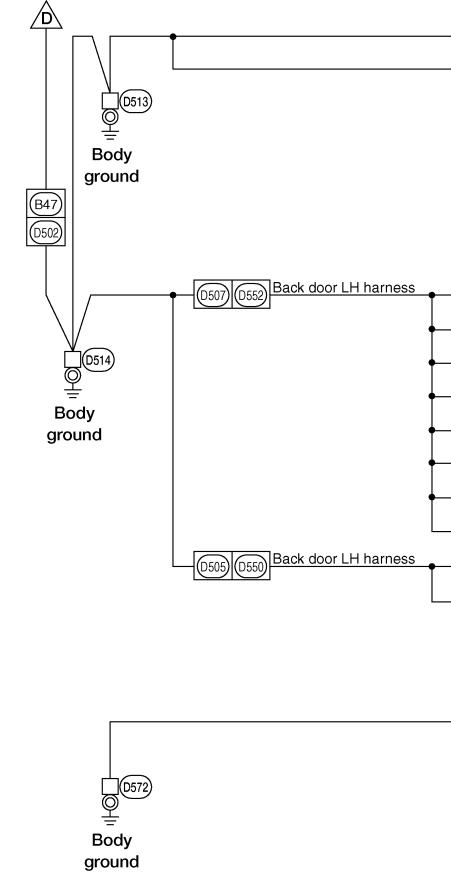
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GROUND

< WIRING DIAGRAM > BACK DOOR HARNESS



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CONNECTOR NUMBER	CONNECT TO
D503	High mounted stop lamp
D512	Condenser-2

CONNECTOR NUMBER	CONNECT TO
D559	Back door opener switch (Terminal No. 2)
D559	Back door opener switch (Terminal No. 4)
D560	Automatic back door close switch
D561	License plate lamp LH
D562	License plate lamp RH
D565	Rear combination lamp RH
D566	Rear combination lamp LH
D567	Back door lock assembly (Terminal No. 4)
D553	Rear wiper motor
D567	Back door lock assembly (Terminal No. 2)

CONNECTOR NUMBER	CONNECT TO
D570	Rear window defogger

AAMIA3022GB

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< WIRING DIAGRAM >

HARNESS

Harness Layout

INFOID:000000011217604

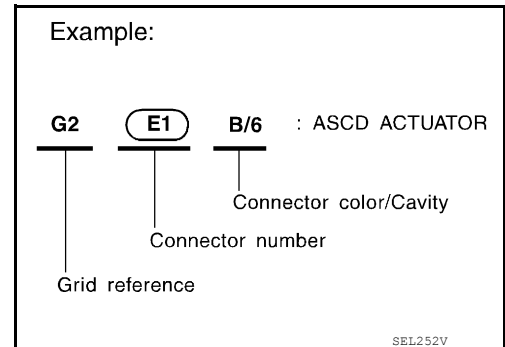
HOW TO READ HARNESS LAYOUT

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

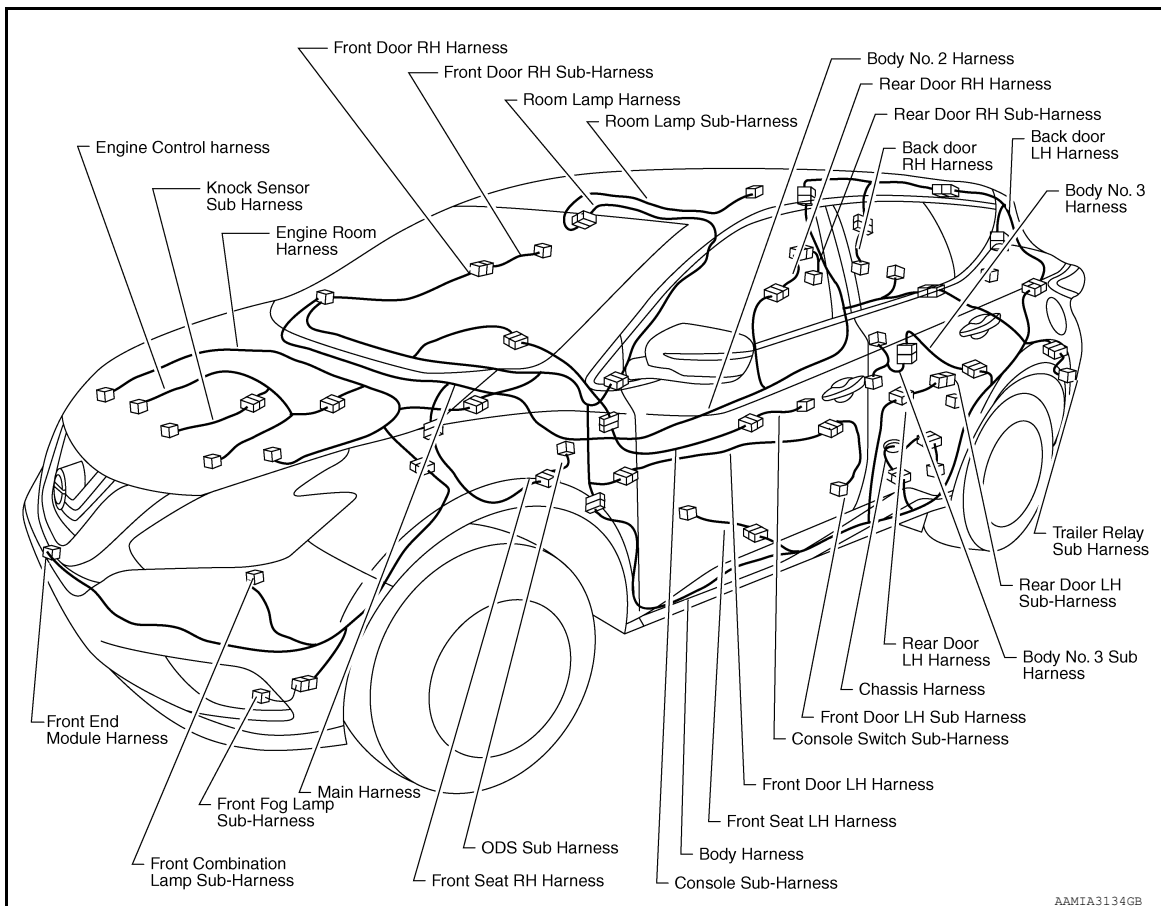
- Main Harness 1, Main Harness 2, Console Sub-harness and Console Switch Sub-harness
- Engine Room Harness
- Engine Room Harness (Passenger Compartment)
- Front End Module Harness, Front Fog Lamp Sub-harness and Front Combination Lamp Sub-harness
- Engine Control Harness and Knock Sensor Sub-harness
- Body Harness, Front Seat LH Harness, Body No.3 Harness, Body No.3 Sub-harness, Trailer Relay Sub Harness and Chassis Harness
- Body No. 2 Harness, Front Seat RH Harness and ODS Sub Harness
- Room Lamp Harness and Room Lamp Sub-harness
- Back Door LH Harness and Back 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.



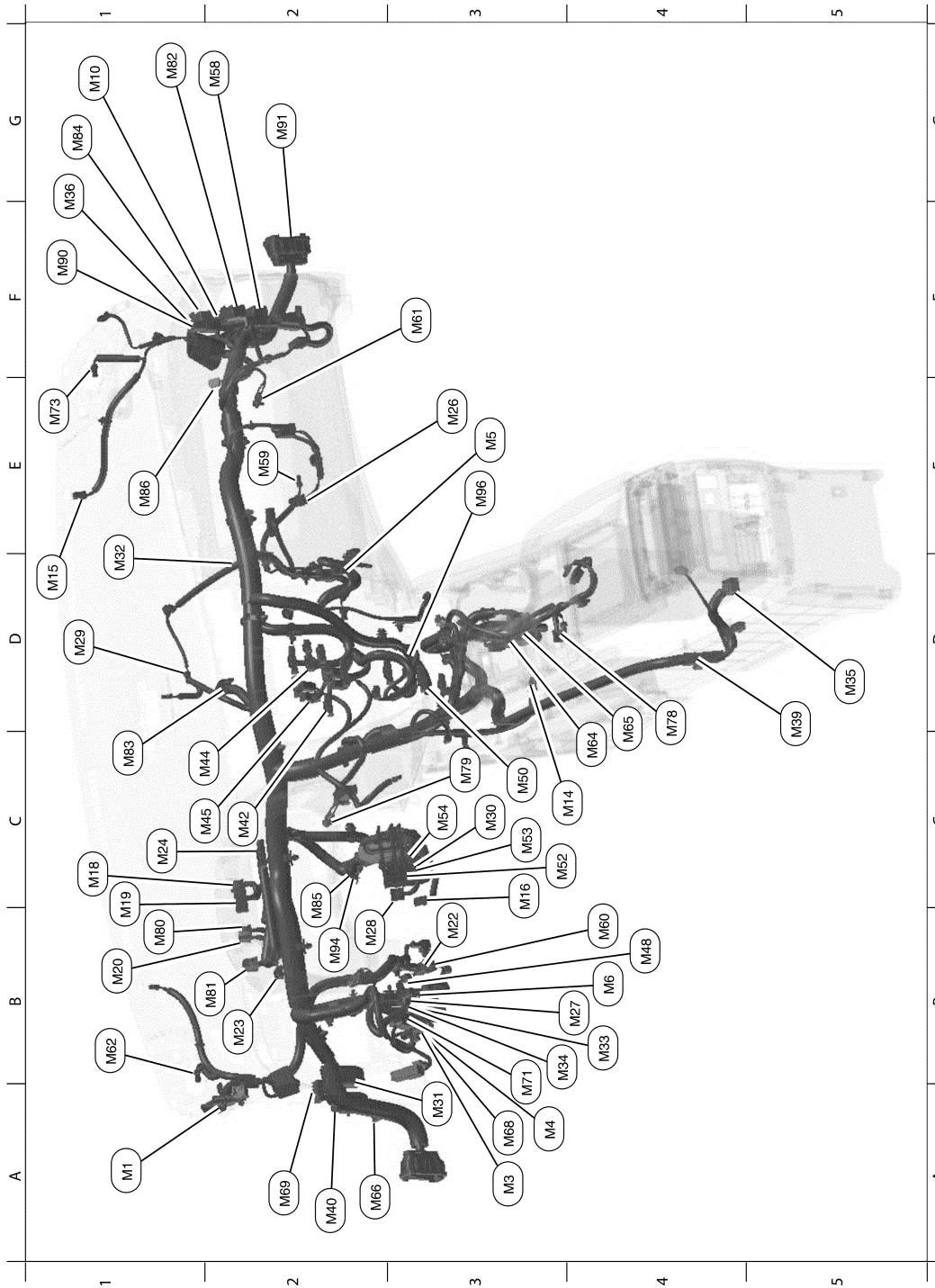
OUTLINE



HARNESS

< WIRING DIAGRAM >

MAIN HARNESS 1



AAMIA04252Z

A1	M1	W/32	: To R1	C3	M50	W/40	: A/C auto amp.
A3	M3	W/8	: Fuse block (J/B)	C3	M52	W/2	: Combination switch (Spiral cable)
A3	M4	W/16	: Fuse block (J/B)	C3	M53	Y/6	: Combination switch (Spiral cable)
E3	M5	W/12	: Can gateway	C3	M54	W/8	: Steering angle sensor
B4	M6	B/4	: Accessory relay-2	C2	M57	—	: Body ground

HARNESS

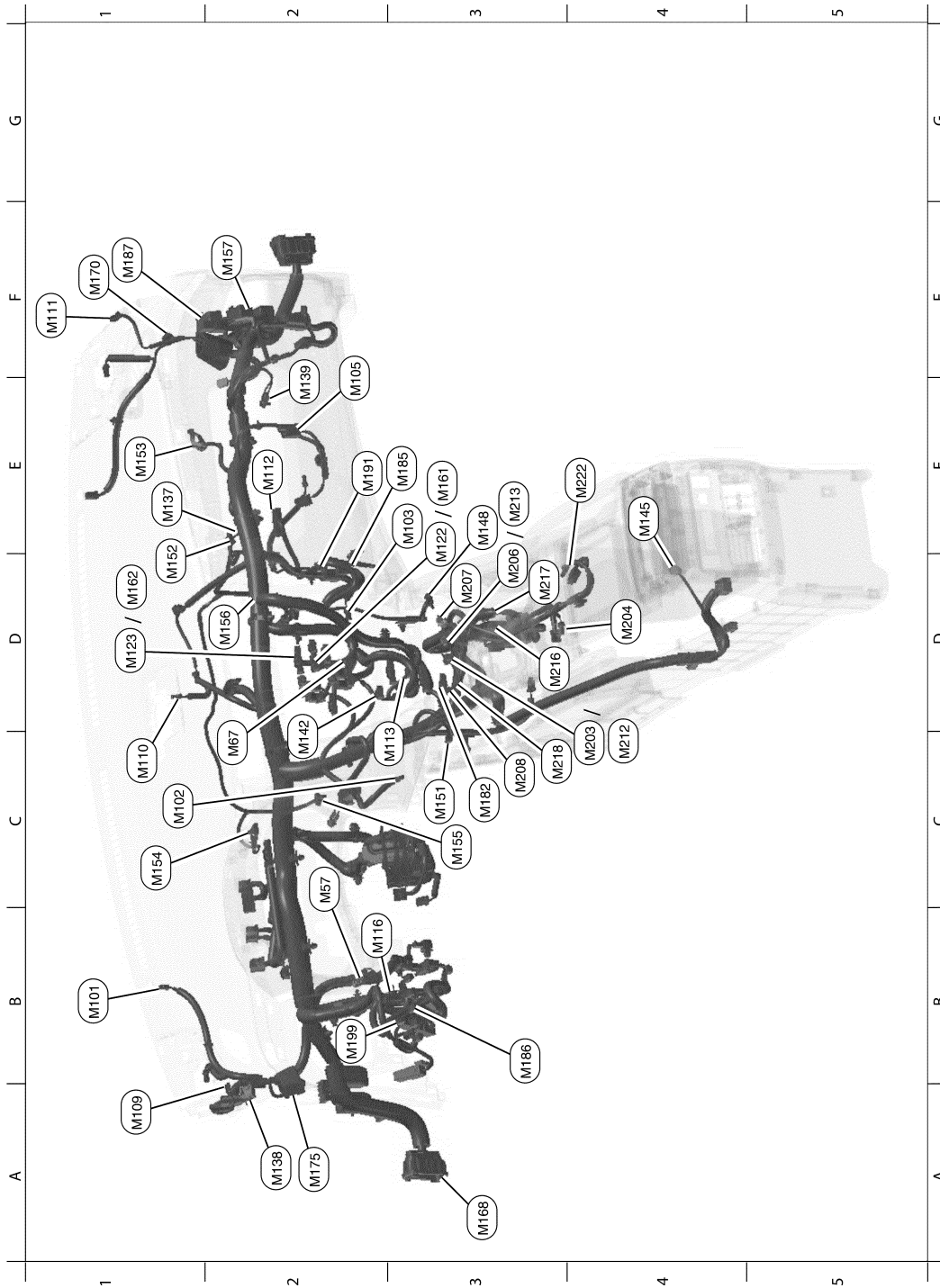
< WIRING DIAGRAM >

G1	M10	BR/16	: To B111	G2	M58	BR/6	: Climate controlled seat relay
C4	M14	GR/2	: Inside key antenna (Instrument center)	E2	M59	W/2	: Glove box lamp
D1	M15	W/3	: Optical sensor	B4	M60	BR/4	: Warning buzzer
C3	M16	GR/6	: ADP steering switch	F3	M61	—	: Body ground
C1	M18	G/40	: BCM (Body control module)	B1	M62	BR/2	: Instrument panel tweeter LH
C1	M19	B/40	: BCM (Body control module)	C4	M64	W/16	: To M216
B1	M20	GR/24	: BCM (Body control module)	D4	M65	W/40	: To M217
B3	M22	W/16	: Data link connector	A2	M66	W/24	: To B6
B2	M23	W/16	: Combination meter	C2	M67	W/4	: Joint connector-M04
C1	M24	W/40	: Combination meter	A3	M68	BR/16	: Fuse block (J/B)
E3	M26	Y/2	: Front passenger air bag module	A2	M69	W/32	: To B41
B4	M27	W/8	: Meter control switch	B3	M71	B/8	: VDC off switch
B2	M28	W/14	: Combination switch	E1	M73	BR/2	: Instrument panel tweeter RH
D1	M29	W/4	: Dongle unit	D4	M78	W/12	: CVT shift selector
C3	M30	GR/8	: Combination switch (Spiral cable)	C3	M79	—	: Body ground
A3	M31	W/100	: To E152	B1	M80	B/24	: BCM (Body control module)
D1	M32	B/2	: Diode-1	B2	M81	W/15	: BCM (Body control module)
B4	M33	W/24	: Automatic drive positioner control unit	G1	M82	W/2	: Circuit breaker-2
B3	M34	W/6	: Automatic drive positioner control unit	C1	M83	W/4	: Hazard switch
D5	M35	Y/21	: Air bag diagnosis sensor unit	G1	M84	W/32	: To B101
G1	M36	W/40	: To B136	C2	M85	W/6	: Tilt motor
D5	M39	W/4	: Joint connector-M06	E1	M86	B/4	: Remote keyless entry receiver
A2	M40	GR/100	: To B69	F1	M90	B/4	: Heated steering relay
C2	M42	W/32	: Audio unit	G2	M91	W/55	: To D101
C1	M44	W/20	: Audio unit	B2	M94	BR/6	: Telescopic motor
C1	M45	W/8	: Audio unit	E3	M96	W/40	: Around view monitor control unit
B4	M48	B/8	: Heated steering wheel switch				

HARNESS

< WIRING DIAGRAM >

MAIN HARNESS 2



AAMIA04262Z

B1	M101	B/2	: Sunload sensor	D1	M162	W/40	: AV control unit (With BOSE audio system)
C1	M102	W/2	: In-vehicle sensor	B3	M166	W/8	: Calibration control
E3	M103	W/2	: Intake sensor	A3	M168	W/55	: To D3
E2	M105	Y/4	: Front passenger air bag module	F1	M170	W/33	: Joint connector-M09
A1	M109	BR/2	: Front tweeter LH	E1	M171	W/4	: Joint connector-M10

HARNES

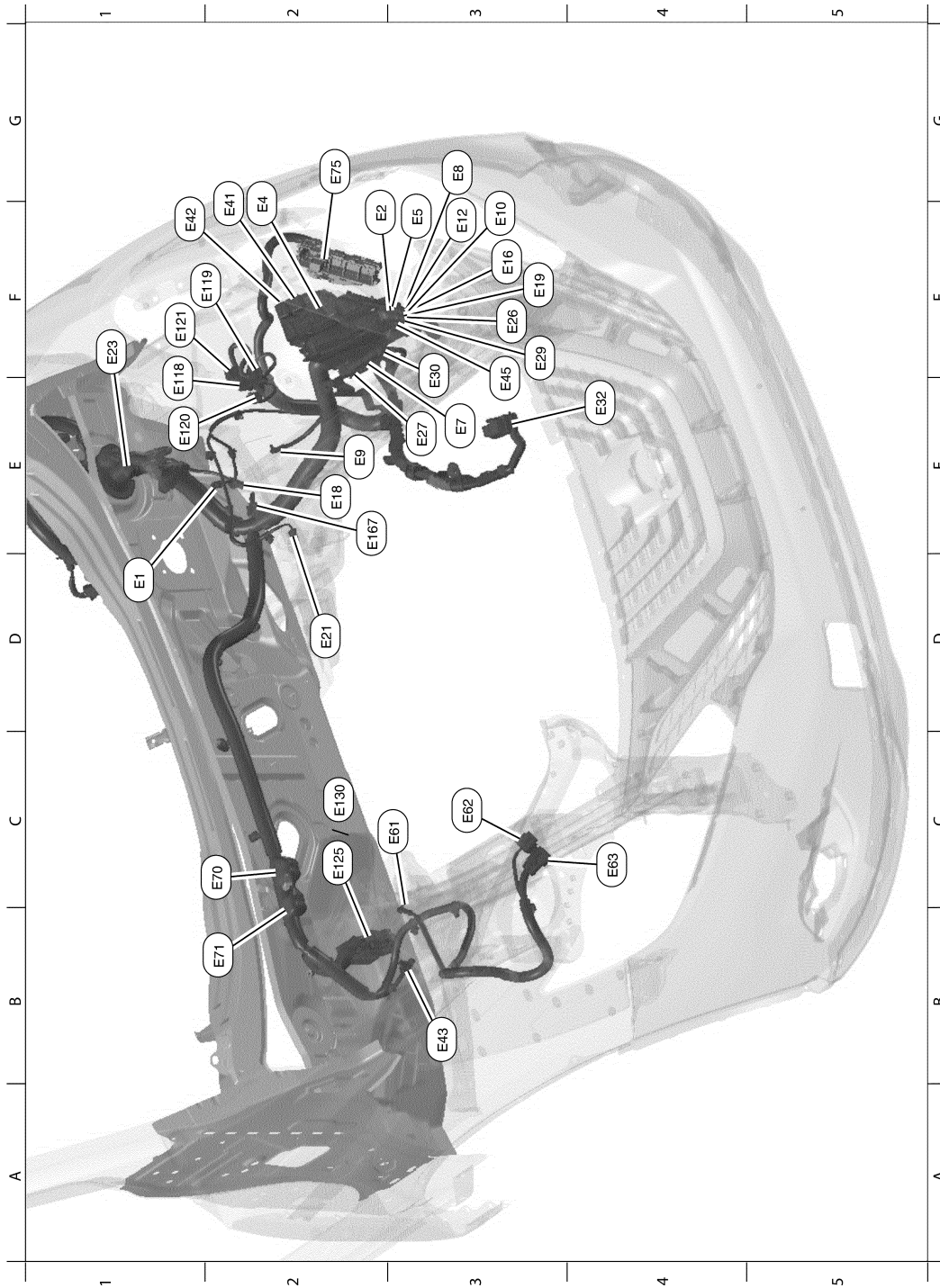
< WIRING DIAGRAM >

C1	M110	W/2	: Center speaker	E3	M161	W/20	: AV control unit (With BOSE audio system)
F1	M111	BR/2	: Front tweeter RH	A2	M175	W/33	: Joint connector-M22
E2	M112	W/6	: Front blower motor	C3	M182	W/24	: ADAS control unit
C3	M113	B/5	: Front passenger air bag off indicator	E3	M185	W/10	: Automatic back door main switch
B2	M116	Y/2	: Knee air bag module	B3	M186	G/8	: Automatic back door switch
E3	M122	W/20	: AV control unit (Without BOSE audio system)	F1	M187	W/2	: Circuit breaker-1
D1	M123	W/40	: AV control unit (Without BOSE audio system)	E2	M191	W/12	: Accessory prewire RH
E1	M137	W/3	: To M152	B2	M199	W/8	: Front power return switch
A2	M138	W/6	: To R3	Console sub harness			
E2	M139	—	: Body ground	C4	M203	W/10	: Climate controlled seat switch (Driver seat)
C2	M142	W/16	: A/C switch assembly	D4	M204	BR/2	: CVT shift selector
E4	M145	B/3	: Console power socket	D3	M206	BR/8	: Climate controlled seat switch (Passenger seat)
E3	M148	W/4	: Mood lamp (Front console RH)	D3	M207	B/2	: Front power socket
C3	M151	W/4	: Mood lamp (Front console LH)	C3	M208	W/6	: Push-button ignition switch
D1	M152	W/3	: To M137	C4	M212	W/6	: Front heated seat switch LH
E1	M153	W/3	: Intake door motor	E3	M213	BR/6	: Front heated seat switch RH
C1	M154	W/3	: Mode door motor	D3	M216	W/16	: To M64
C3	M155	W/3	: Mode door motor	D3	M217	W/40	: To M65
D2	M156	W/3	: Mode door motor	C3	M218	W/3	: NATS antenna amp.
F2	M157	W/16	: To B161	E4	M222	W/4	: Aux in jack
E3	M161	W/20	: AV control unit (With BOSE audio system)				

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< WIRING DIAGRAM >

ENGINE ROOM HARNESS



AAMIA04272Z

D1	E1	BR/3	: Intelligent Key warning buzzer	E4	E32	B/32	: ECM
F2	E2	W/16	: To F32	F2	E41	BR/6	: Cooling fan relay-3
F2	E4	BR/6	: Daytime light relay	F1	E42	BR/6	: Cooling fan relay-2
F3	E5	W/24	: To E207	B3	E43	B/2	: Front wheel sensor RH
E3	E7	GR/2	: Fusible link box (Battery)	E3	E45	B/12	: Joint connector-E12

HARNES

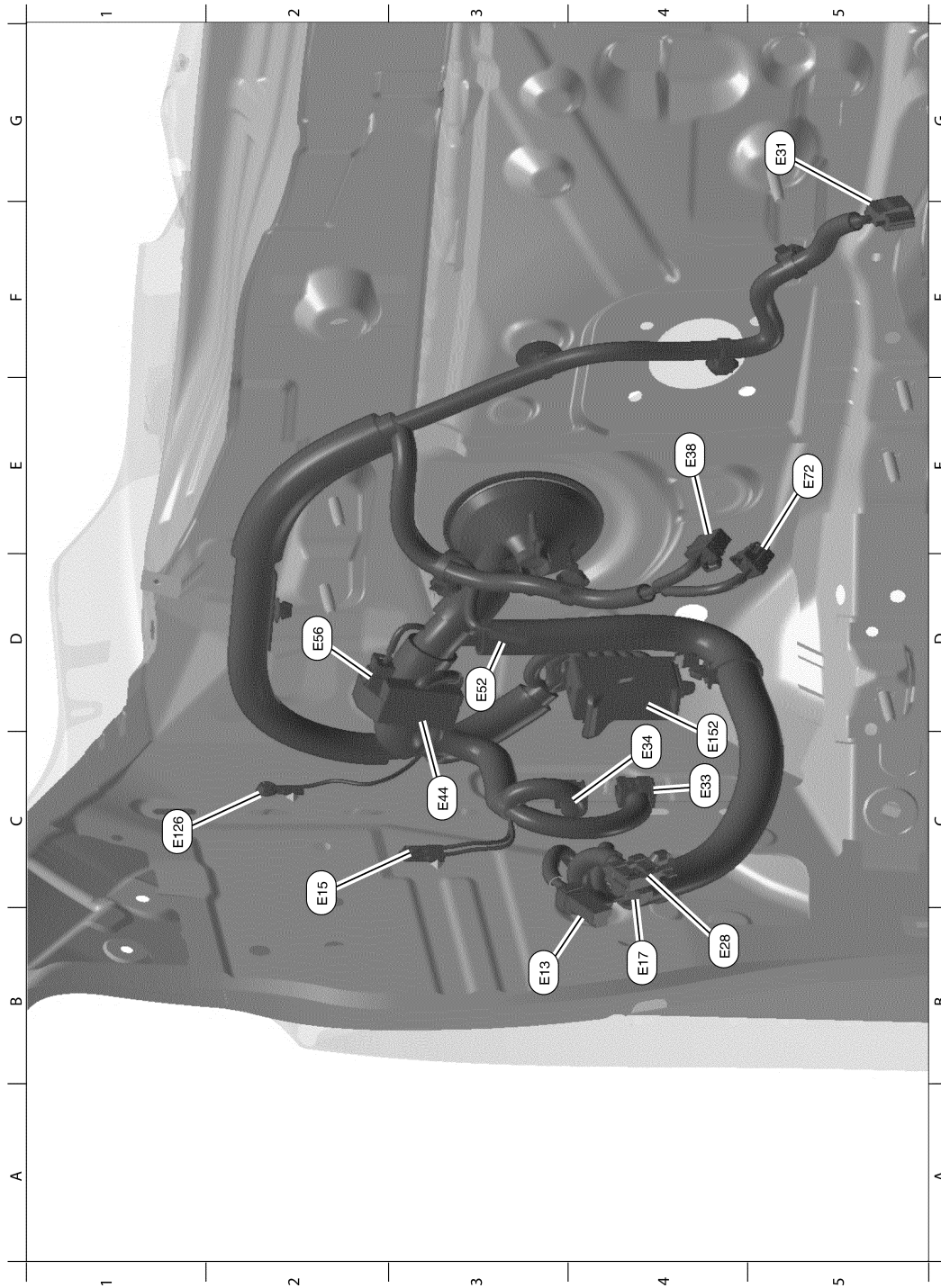
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G3	E8	W/3	: Anti theft horn relay	C3	E61	—	: Body ground
E2	E9	—	: Engine ground	C3	E62	B/6	: Power steering control module
F3	E10	W/12	: To E230	C4	E63	B/2	: Power steering control module
F3	E12	W/6	: To E202	C2	E70	B/6	: Joint connector-E14
F3	E16	W/4	: Joint connector-E21	B2	E71	B/6	: Joint connector-E15
E2	E18	B/2	: Front wheel sensor LH	G2	E75	B/4	: ICC brake hold relay
F3	E19	BR/8	: To F33	E1	E118	B/2	: IPDM E/R (Intelligent power distribution module engine room)
D2	E21	GR/2	: Brake fluid level switch	F2	E119	W/32	: IPDM E/R (Intelligent power distribution module engine room)
F1	E23	GR/5	: Front wiper motor	E1	E120	W/4	: IPDM E/R (Intelligent power distribution module engine room)
F3	E26	W/16	: To E209	F1	E121	W/12	: IPDM E/R (Intelligent power distribution module engine room)
E3	E27	BR/2	: Fusible link box (Battery)	C2	E125	B/38	: ABS actuator and electric unit (Control unit) (Without ICC)
F3	E29	Y/4	: To E210	C2	E130	B/38	: ABS actuator and electric unit (Control unit) (With ICC)
F3	E30	B/1	: Fusible link box (Battery)	E2	E167	B/3	: Vacuum sensor

HARNESS

< WIRING DIAGRAM >

ENGINE ROOM HARNESS (PASSENGER VIEW)



AAMIA04282Z

B3	E13	W/1	: Fuse block (J/B)	E4	E38	W/4	: Stop lamp switch
C2	E15	—	: Engine ground	C3	E44	W/33	: Joint connector-E01
B4	E17	W/1	: Fuse block (J/B)	D3	E52	B/1	: Parking brake switch
B4	E28	W/10	: Fuse block (J/B)	D2	E56	BR/2	: VDC resistor
G5	E31	B/6	: Accelerator pedal position sensor	E5	E72	BR/2	: Brake pedal position switch (With intelligent cruise control)

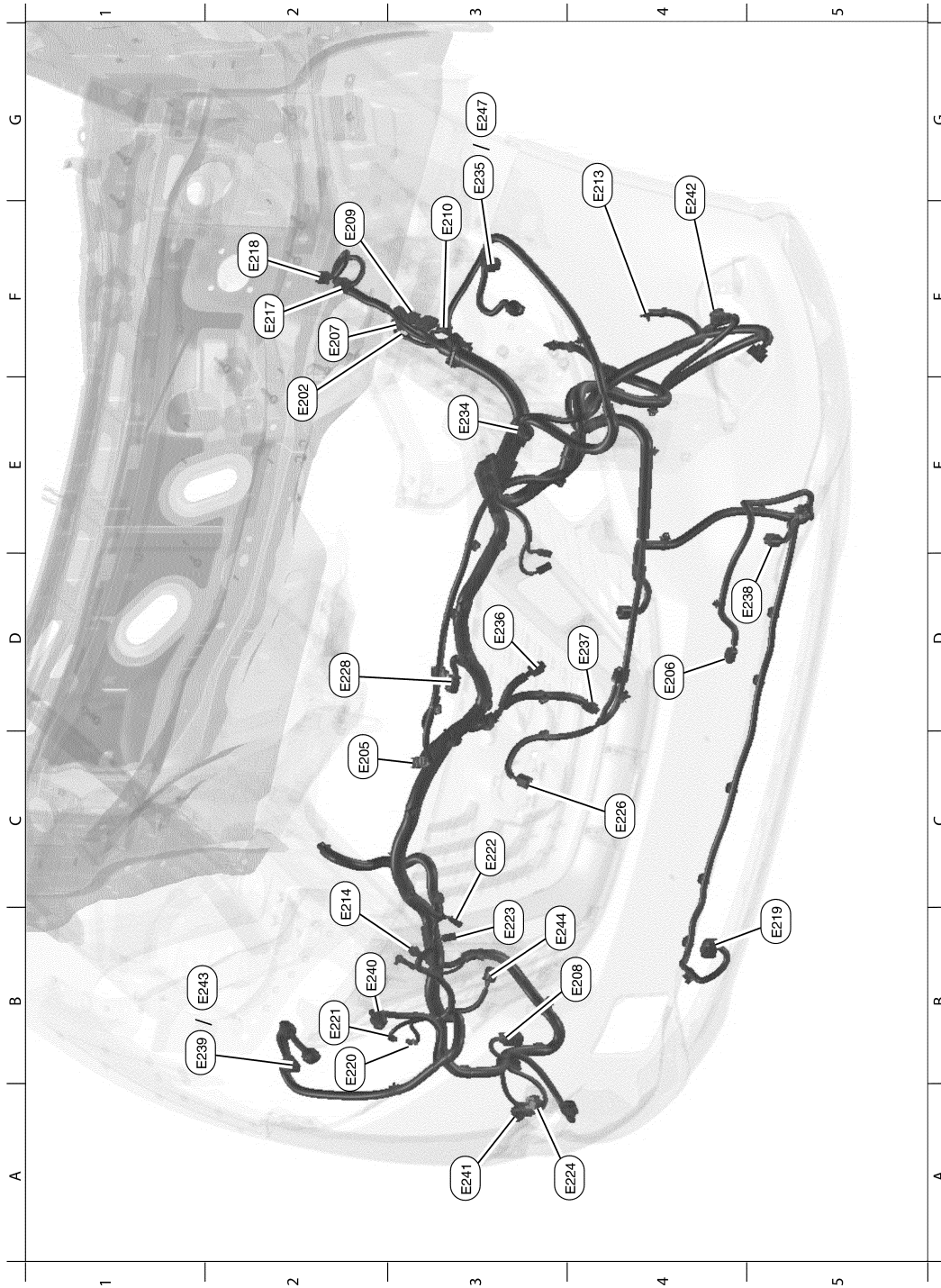
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C4	E33	W/8	: To B43	C1	E126	—	: Engine ground
C4	E34	W/16	: To B40	C4	E152	W/100	: To M31

FRONT END MODULE HARNESS



AAMIA04292Z

E2	E202	W/6	: To E12	A4	E224	GR/2	: Front and rear washer motor
C2	E205	BR/3	: Hood switch	C4	E226	B/6	: Front camera
D4	E206	B/2	: Ambient sensor	D2	E228	Y/2	: Crash zone sensor

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< WIRING DIAGRAM >

F2	E207	W/24	: To E5	E3	E234	GR/3	: Front combination lamp LH turn signal
B4	E208	GR/2	: Washer fluid level switch	G3	E235	B/8	: Front combination lamp LH
F2	E209	W/16	: To E26	D3	E236	GR/4	: Cooling fan motor-1
F3	E210	Y/4	: To E29	D4	E237	GR/4	: Cooling fan motor-2
G4	E213	—	: Body ground	D5	E238	B/4	: Active grille shutter
C2	E214	—	: Body ground	B1	E239	B/8	: Front combination lamp RH
F2	E217	W/8	: IPDM E/R (Intelligent power distribution module engine room)	B2	E240	GR/3	: Front combination lamp RH turn signal
F2	E218	W/16	: IPDM E/R (Intelligent power distribution module engine room)	A3	E241	B/2	: Front fog lamp RH
B5	E219	B/8	: ICC sensor	G4	E242	B/2	: Front fog lamp LH
B2	E220	BR/1	: Horn (High)	B1	E243	B/8	: Front combination lamp RH
B2	E221	B/1	: Horn (High)	B3	E244	B/3	: Refrigerant pressure sensor
C3	E222	BR/1	: Horn (Low)	G3	E247	B/8	: Front combination lamp LH
B3	E223	B/1	: Horn (Low)				

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ENGINE CONTROL HARNESS



AAMIA04302Z

B5	F3	B/2	: A/C compressor	F4	F43	GR/22	: CVT unit
B5	F4	GR/2	: A/C compressor	C2	F47	GR/3	: Ignition coil no.1 (With power transistor)
F5	F5	GR/4	: Battery current sensor	C2	F48	GR/3	: Ignition coil no. 3 (With power transistor)

HARNESSES

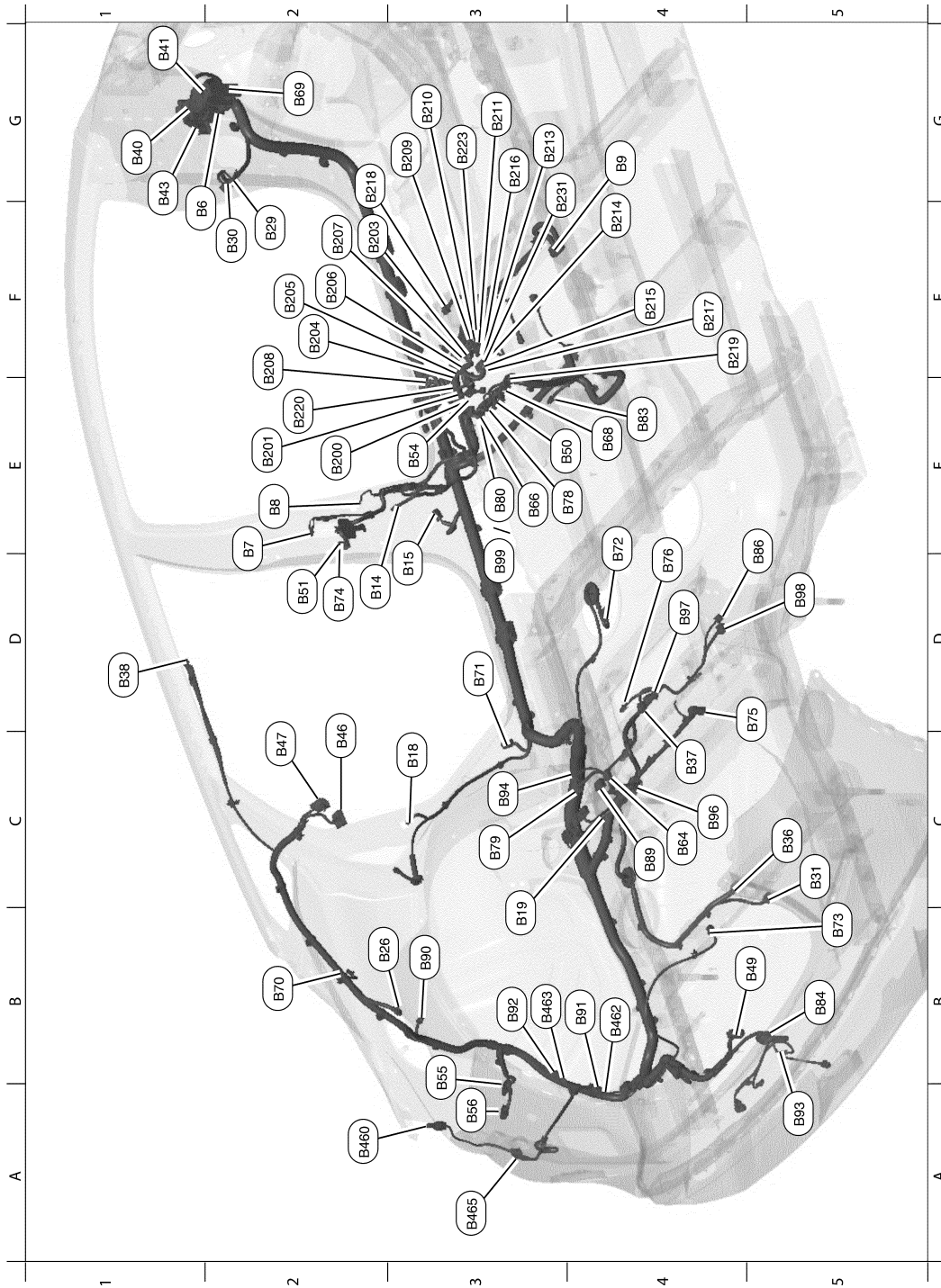
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C4	F6	—	: Generator	D2	F49	GR/3	: Ignition coil no. 5 (With power transistor)	A	
C4	F7	B/3	: Generator	E2	F50	B/6	: Electric throttle control actuator		
C5	F8	GR/3	: Ignition coil no. 2 (With power transistor)	E5	F53	B/10	: Joint connector-F03	B	
C5	F9	GR/3	: Ignition coil no. 4 (With power transistor)	E5	F54	GR/4	: Heated oxygen sensor 2 (Bank 2)		
D5	F10	GR/3	: Ignition coil no. 6 (With power transistor)	F5	F55	B/10	: Joint connector-F04	C	
E3	F11	GR/2	: Engine coolant temperature sensor	G4	F56	W/4	: Joint connector-F07	D	
C2	F12	GR/4	: Air fuel ratio (A/F) sensor (Bank 1)	G4	F57	W/4	: Joint connector-F08		
F5	F14	B/10	: Joint connector-F01	B4	F59	—	: Engine ground		
B4	F15	—	: Engine ground	D4	F60	B/3	: Intake camshaft position sensor (PHASE) (Bank 2)	E	
D4	F16	B/2	: Evap canister purge volume control solenoid valve	C5	F61	GR/4	: Air fuel ratio (A/F) sensor (Bank 2)	F	
F3	F17	B/1	: IPDM E/R (Intelligent power distribution module engine room)	A2	F62	GR/4	: Heated oxygen sensor 2 (Bank 1)		
C3	F18	GR/2	: Fuel injector no. 2	C3	F63	B/2	: VIAS control solenoid valve 2	G	
G3	F19	W/10	: IPDM E/R (Intelligent power distribution module engine room)	B3	F64	BR/2	: Electronic controlled engine mount control solenoid valve		
C4	F20	GR/2	: Fuel injector no. 4	C3	F65	B/2	: VIAS control solenoid valve 2	H	
D3	F21	GR/2	: Fuel injector no. 5	A4	F66	GR/2	: Intake valve timing control solenoid valve (Bank 2)		
D3	F22	GR/2	: Fuel injector no. 6	A3	F67	GR/2	: Intake valve timing control solenoid valve (Bank 1)	I	
F3	F24	W/12	: IPDM E/R (Intelligent power distribution module engine room)	B3	F68	GR/2	: Engine oil temperature sensor	J	
E5	F25	B/48	: TCM (Transmission control module)	F4	F69	—	: Fusible link box (Battery)		
C4	F26	W/2	: Condenser-1	D5	F70	B/3	: Exhaust camshaft position sensor (PHASE) (Bank 2)	K	
F4	F27	—	: Starter motor	A3	F72	GR/2	: Exhaust valve timing control solenoid valve (Bank 1)		
F4	F28	GR/1	: Starter motor	B4	F73	GR/2	: Exhaust valve timing control solenoid valve (Bank 2)	L	
E4	F29	B/10	: Transmission range switch	A2	F74	GR/2	: Intake valve timing intermediate lock control solenoid valve (Bank 1)	PG	
D5	F30	B/3	: Crankshaft position sensor (POS)	A4	F75	GR/2	: Intake valve timing intermediate lock control solenoid valve (Bank 2)		
D2	F31	B/3	: Exhaust camshaft position sensor (PHASE) (Bank 1)	D3	F76	B/4	: To F201	N	
F4	F32	W/16	: To E2	D2	F77	B/3	: Intake camshaft position sensor (PHASE) (Bank 1)	O	
G4	F33	BR/8	: To E19	E5	F78	B/55	: ECM		
F3	F35	B/3	: Primary speed sensor	E5	F79	B/65	: ECM		
F2	F36	B/3	: Output speed sensor	A3	F87	B/3	: Engine oil pressure sensor	P	
E4	F37	B/3	: Input speed sensor	E3	F93	B/4	: Mass air flow sensor		
G5	F38	B/10	: Joint connector-f02	Knock sensor sub harness					
F4	F39	—	: Fusible link box (Battery)	D3	F201	B/4	: To F76		
C3	F41	GR/2	: Fuel injector no. 3	C3	F202	GR/2	: Knock sensor (Bank 1)		
B3	F42	GR/2	: Fuel injector no. 1	C3	F203	GR/2	: Knock sensor (Bank 2)		

HARNESS

< WIRING DIAGRAM >

BODY HARNESS



AAMIA04312Z

F1	B6	W/24	: To M66	E4	B83	GR/2	: Inside key antenna (Console)
E2	B7	—	: Body ground	B5	B84	GR/2	: Outside key antenna (Rear bumper)
E2	B8	W/4	: Front door switch LH	E5	B86	W/3	: 2nd row seat heater RH
G4	B9	Y/14	: Air bag diagnosis sensor unit	C4	B89	W/16	: Rear seatback power return control unit
D2	B14	Y/2	: Front LH seat belt pre-tensioner	B3	B90	W/4	: Rear power return switch LH

HARNESS

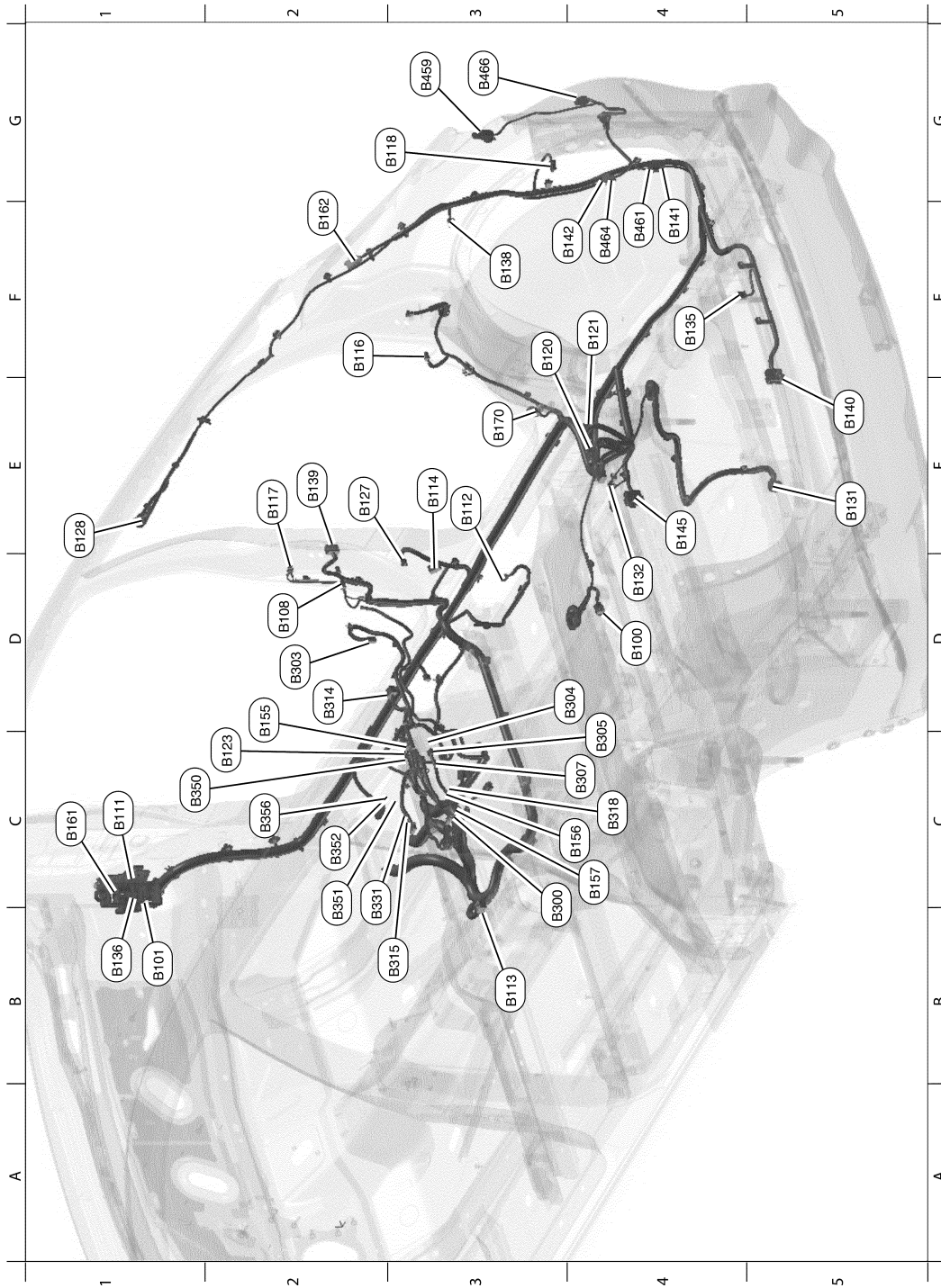
< WIRING DIAGRAM >

D3	B15	Y/2	: Front side air bag satellite sensor LH	B4	B91	W/4	: To B462	A
C3	B18	W/4	: Rear door switch LH	B3	B92	W/8	: To B463	B
B2	B26	W/2	: Luggage room lamp	A5	B93	BR/2	: Back door warning chime	C
F2	B29	W/6	: Fuse block (J/B)	C3	B94	W/8	: To B402	D
F2	B30	W/8	: Fuse block (J/B)	C4	B96	B/2	: Diode-2	E
C5	B31	B/2	: Evap canister vent control valve	D4	B97	B/2	: Diode-3	F
C5	B36	GR/3	: Evap control system pressure sensor system pressure sensor	D5	B98	W/8	: To B424	G
C4	B37	B/6	: Fuel pump control module (FPCM)	D3	B99	W/6	: To B223	H
D1	B38	Y/2	: LH side curtain air bag module	Front seat LH harness				I
G1	B40	W/16	: To E34	E2	B200	BR/12	: To B54	J
G1	B41	W/32	: To M69	E2	B201	BR/4	: Lumbar support switch	K
G1	B43	W/8	: To E33	F2	B203	B/16	: Climate controlled seat control unit (Driver seat)	L
C2	B46	W/32	: To D501	F2	B204	B/8	: Climate controlled seat control unit (Driver seat)	M
C2	B47	GR/8	: To D502	F2	B205	B/6	: Climate controlled seat control unit (Driver seat)	N
B5	B49	W/16	: To B140	F2	B206	W/4	: Seat cushion thermal electric device	O
E3	B50	W/4	: Mood lamp (Rear console RH)	F2	B207	W/6	: Lifting motor LH (Rear)	P
D2	B51	W/12	: To D201	F2	B208	W/10	: Power seat switch LH	PG
E3	B54	BR/12	: To B200	G3	B209	W/32	: Driver seat control unit	
B3	B55	W/32	: Automatic back door control module	G3	B210	W/12	: Driver seat control unit	
A3	B56	W/12	: Automatic back door control module	G3	B211	GR/5	: Sliding motor LH	
C4	B64	W/16	: Rear seatback power return control unit	G3	B213	W/5	: Climate controlled seat blower motor (Driver seat)	
E3	B66	W/6	: 2nd row heated seat switch LH	F4	B214	W/3	: Front seat heater LH	
E4	B68	BR/6	: 2nd row heated seat switch RH	F4	B215	W/2	: Seat heater (Cushion) LH	
G2	B69	GR/100	: To M40	G3	B216	B/2	: Lumbar support motor	
B2	B70	B/10	: Spindle unit LH	F4	B217	W/6	: Reclining motor LH	
D3	B71	Y/2	: Rear side air bag satellite sensor LH	G2	B218	W/6	: Lifting motor LH (Front)	
E4	B72	GR/6	: Fuel level sensor unit and fuel pump (Main)	F4	B219	Y/2	: To B80	
B5	B73	GR/4	: Subwoofer	E2	B220	W/12	: To B74	
D2	B74	W/12	: To B220	G3	B223	W/6	: To B99	
D5	B75	GR/16	: To B145	Body no.3 sub harness				
D4	B76	GR/2	: Inside key antenna (Luggage room)	A2	B460	GR/4	: Rear combination lamp LH	
E4	B78	W/4	: Mood lamp (Rear console LH)	B4	B462	W/4	: To B91	
C3	B79	W/3	: 2nd row seat heater LH	B3	B463	W/8	: To B92	
E3	B80	Y/2	: To B219	A3	B465	B/8	: Side radar LH	

HARNESS

< WIRING DIAGRAM >

BODY NO. 2 HARNESS



AAMIA04322Z

D4	B100	GR/2	: Fuel level sensor unit	C4	B156	W/6	: To B318
B1	B101	W/32	:To M84	C4	B157	W/12	: To B300
D2	B108	W/4	: Front door switch RH	C1	B161	W/16	: To M157
C1	B111	BR/16	: To M10	F2	B162	B/10	: Spindle unit RH
E3	B112	O/2	: Front RH seat belt pre-tensioner	E3	B170	Y/2	: Rear side air bag satellite sensor RH

HARNESS

< WIRING DIAGRAM >

B3	B113	Y/16	: Air bag diagnosis sensor unit	Front seat RH harness			
E3	B114	Y/2	: Front side air bag satellite sensor RH	C3	B300	W/12	: To B157
F2	B116	W/4	: Rear door switch RH	D2	B303	Y/12	: Right side air bag module
E2	B117	—	: Body ground	D4	B304	B/6	: Climate controlled seat control unit (Passenger seat)
G3	B118	B/2	: Rear cargo power socket	C4	B305	B/8	: Climate controlled seat control unit (Passenger seat)
F3	B120	BR/14	: BOSE speaker amp.	C4	B307	W/2	: To B155
F4	B121	BR/23	: BOSE speaker amp.	D2	B314	W/3	: Front seat heater RH
C2	B123	W/4	: To B350	B3	B315	W/2	: Seat heater (Cushion) RH
E2	B127	Y/2	: Front RH seat belt pre-tensioner	C4	B318	W/6	: To B156
E1	B128	Y/2	: RH side curtain air bag module	C2	B331	W/4	: Seat belt buckle switch passenger seat
E5	B131	B/12	: To C13	ODS sub harness			
D4	B132	—	: Body ground	C1	B350	W/4	: To B123
F4	B135	W/16	: Awd control unit	C2	B351	B/3	: Occupant classification system sensor FI
B1	B136	W/40	: To M36	C2	B352	B/3	: Occupant classification system sensor RI
F3	B138	W/4	: Rear power return switch RH	C2	B356	B/20	: Occupant classification system control unit
E2	B139	W/12	: To D301	Body No.3 sub harness			
E5	B140	W/16	: To B49	G3	B459	GR/4	: Rear combination lamp RH
F4	B141	W/4	: To B461	F4	B461	W/4	: To B141
F4	B142	W/8	: To B464	F4	B464	W/8	: To B142
E4	B145	GR/16	: To B75	G3	B466	B/8	: Side radar RH
D2	B155	W/2	: To B307				

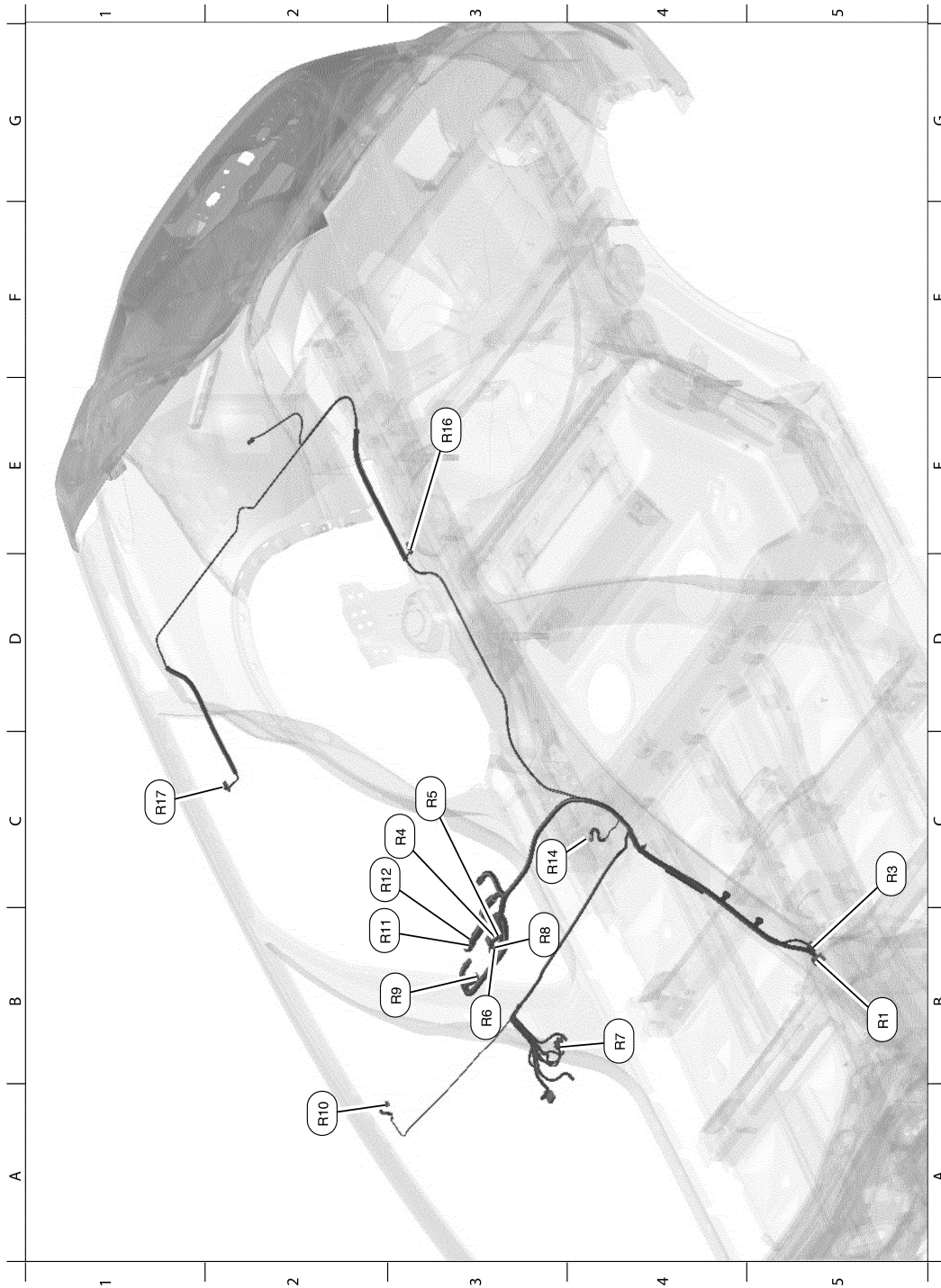
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< WIRING DIAGRAM >

ROOM LAMP HARNESS



AAMIA04332Z

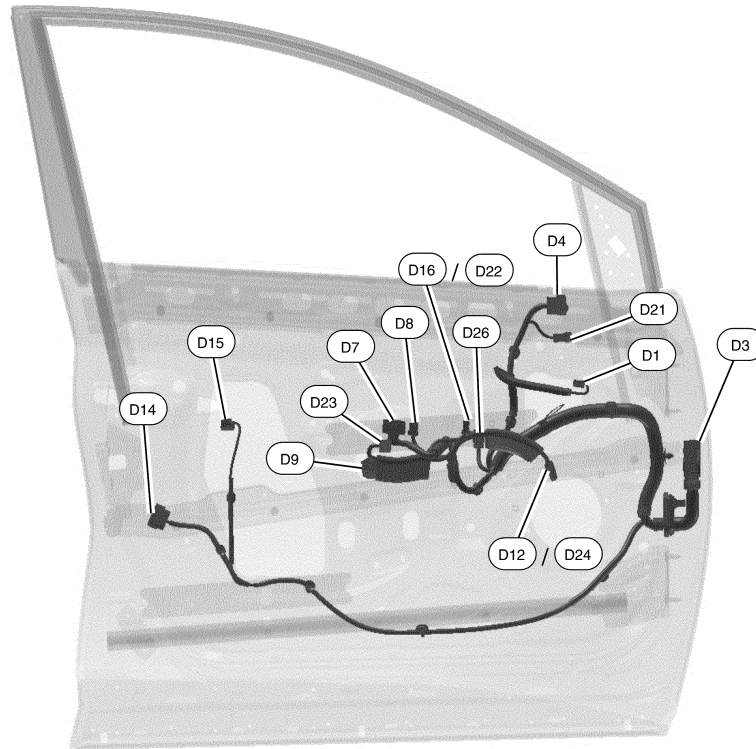
B5	R1	W/32	: To M1	B3	R9	W/12	: Moonroof switch
C5	R3	W/6	: To M138	A2	R10	W/2	: Vanity lamp RH
C3	R4	GR/10	: Moonroof motor assembly	B2	R11	GR/10	: To R12
C3	R5	GR/10	: Sunshade motor assembly	C2	R12	GR/10	: To R10
B3	R6	W/8	: Front room/map lamp assembly	C3	R14	W/2	: Vanity lamp LH

HARNESS

< WIRING DIAGRAM >

B4	R7	B/10	: Auto anti-dazzling inside mirror	E3	R16	W/4	: Personal lamp second row LH
B3	R8	W/6	: Microphone	C1	R17	W/4	: Personal lamp second row RH

FRONT DOOR LH HARNESS



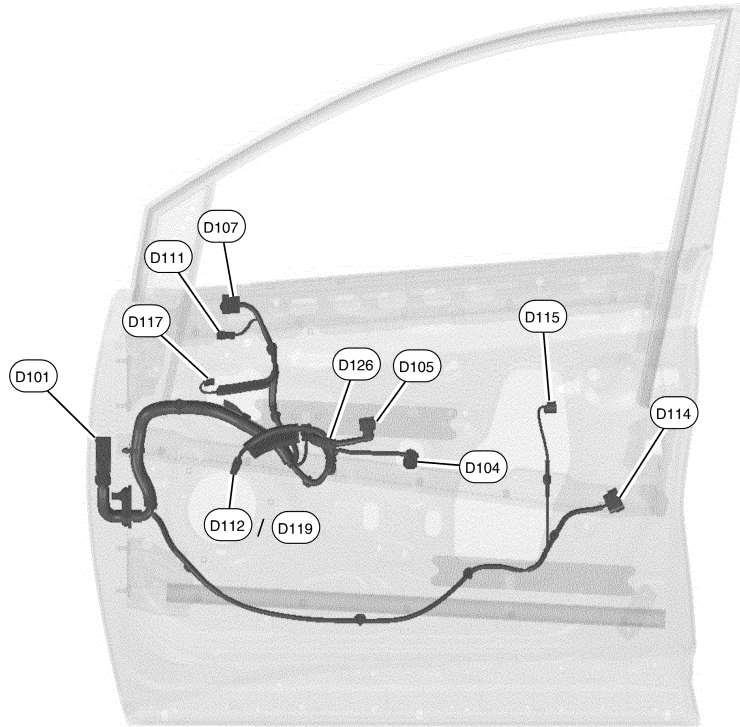
AAMIA04342Z

D1	W/4	: Mood lamp (Front door armrest LH)	D15	B/4	: Front outside handle assembly LH
D3	W/55	: To M168	D16	B/16	: Door mirror remote control switch (Without automatic drive positioner)
D4	W/24	: Door mirror LH	D21	W/4	: Blind spot warning/blind spot intervention indicator LH
D7	W/16	: Main power window and door lock/unlock switch	D22	GR/16	: Door mirror remote control switch (With automatic drive positioner)
D8	W/3	: Main power window and door lock/unlock switch	D23	W/16	: Seat memory switch
D9	G/6	: Front power window motor LH	D24	BR/2	: Front door speaker LH (With BOSE audio system)
D12	W/2	: Front door speaker LH (Without BOSE audio system)	D26	Y/2	: Front door satellite sensor LH
D14	GR/6	: Front door lock assembly LH			

HARNESS

< WIRING DIAGRAM >

FRONT DOOR RH HARNESS



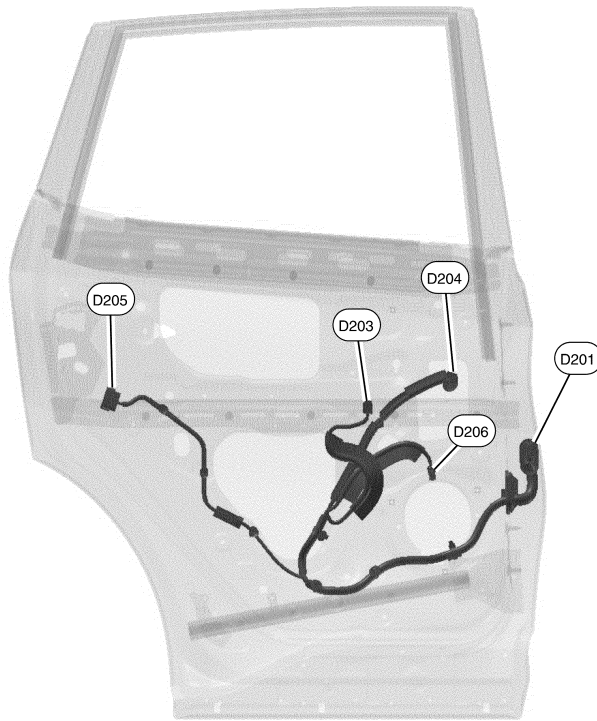
AAMIA043522

D101	W/40	: To M91	D114	GR/6	: Front door lock actuator RH
D104	G/6	: Front power window motor RH	D115	B/4	: Front outside handle assembly RH
D105	W/12	: Power window and door lock/unlock switch RH	D117	W/4	: Mood lamp (Front door armrest RH)
D107	W/24	: Door mirror RH	D119	BR/2	: Front door speaker RH (With BOSE audio system)
D111	W/4	: Blind spot warning/blind spot intervention indicator RH	D126	Y/2	: Front door satellite sensor RH
D112	W/2	: Front door speaker RH (Without BOSE audio system)			

HARNESS

< WIRING DIAGRAM >

REAR DOOR LH HARNESS



AAMIA04362Z

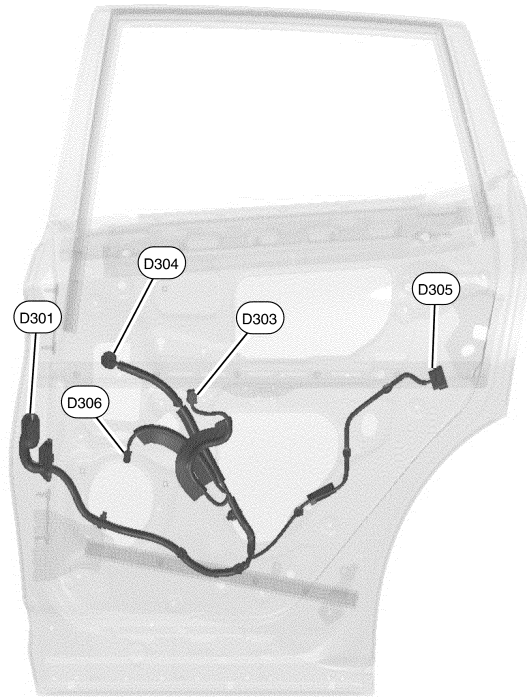
D201	W/12	: To B51	D205	GR/6	: Rear door lock actuator LH
D203	W/8	: Rear power window switch LH	D206	W/2	: Rear door speaker LH
D204	G/6	: Rear power window motor LH			

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HARNESS

< WIRING DIAGRAM >

REAR DOOR RH HARNESS



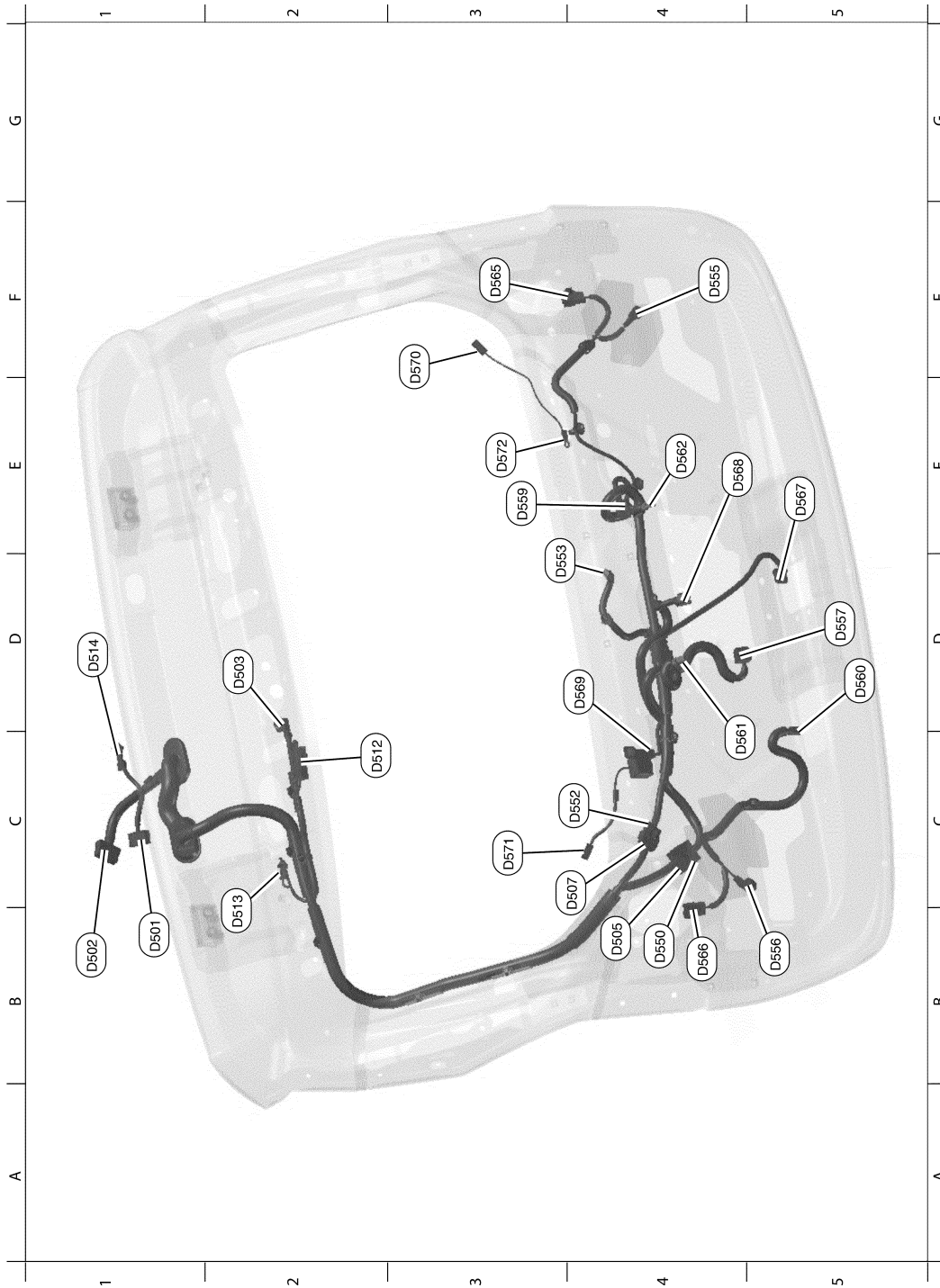
AAMIA0437ZZ

D301	W/12	: To B139	D305	GR/6	: Rear door lock actuator RH
D303	W/8	: Rear power window switch RH	D306	W/2	: Rear door speaker RH
D304	G/6	: Rear power window motor RH			

HARNESS

< WIRING DIAGRAM >

BACK DOOR



AAMIA04382Z

B1	D501	W/32	: To B46	D5	D557	W/8	: Back door lock assembly
B1	D502	GR/8	: To B47	E3	D559	W/4	: Back door opener switch
D2	D503	BR/2	: High-mounted stop lamp	D5	D560	G/8	: Automatic back door close switch
B4	D505	GR/8	: To D550	C4	D561	BR/2	: License plate lamp LH
C4	D507	W/24	: To D552	E4	D562	BR/2	: License plate lamp RH

HARNESS

< WIRING DIAGRAM >

C2	D512	GR/2	: Condenser-2	F3	D565	W/4	: Rear combination lamp RH
B2	D513	—	: Body ground	B4	D566	W/4	: Rear combination lamp LH
D1	D514	—	: Body ground	E5	D567	W/4	: Back door lock assembly
B4	D550	GR/8	: To D505	E4	D568	B/6	: Rear view camera
C4	D552	W/24	: To D507	D4	D569	GR/1	: Rear window defogger condenser
D3	D553	W/3	: Rear wiper motor	F3	D570	B/1	: Rear window defogger
F4	D555	GR/2	: Touch sensor RH	C3	D571	B/1	: Rear window defogger
B5	D556	W/2	: Touch sensor LH	E3	D572	—	: Body ground

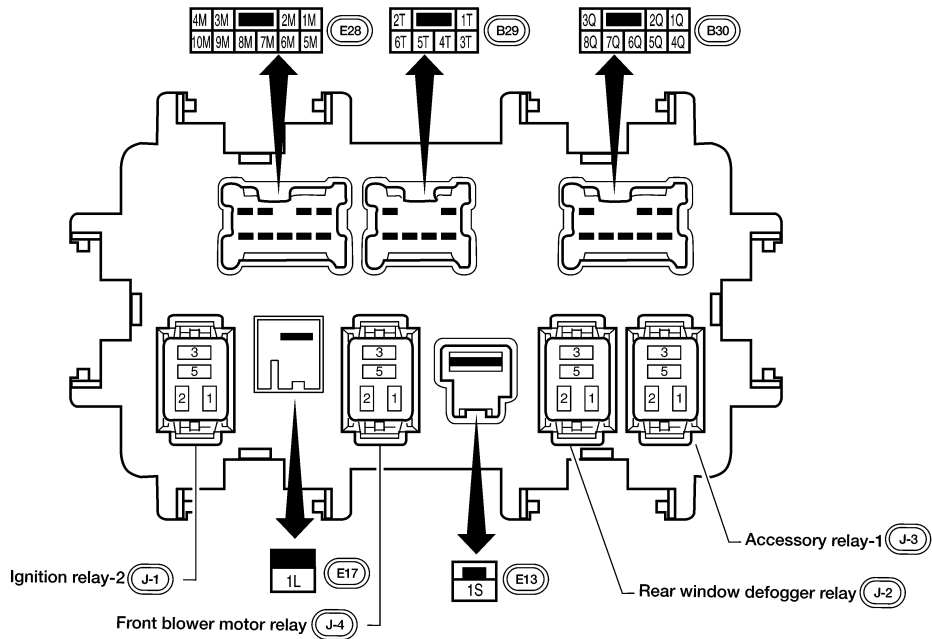
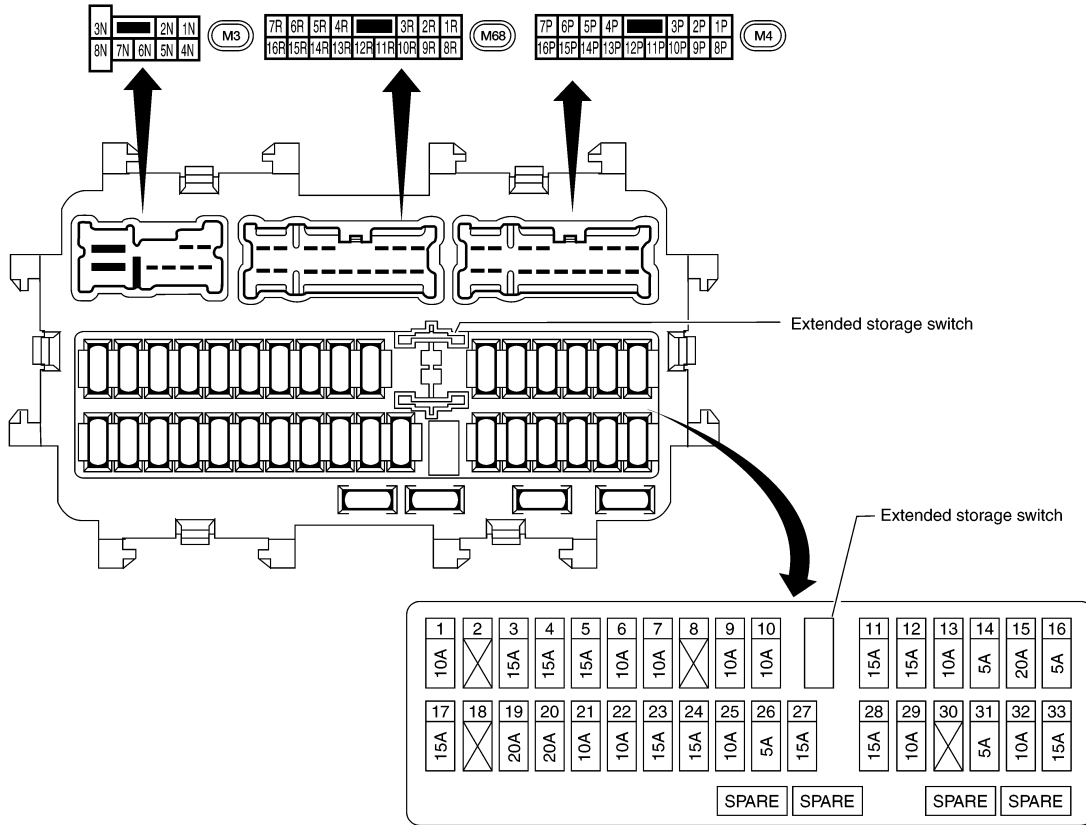
FUSE BLOCK - JUNCTION BOX (J/B)

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FUSE BLOCK - JUNCTION BOX (J/B)

Terminal Arrangement

INFOID:000000011217608



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FUSE, FUSIBLE LINK AND RELAY BOX

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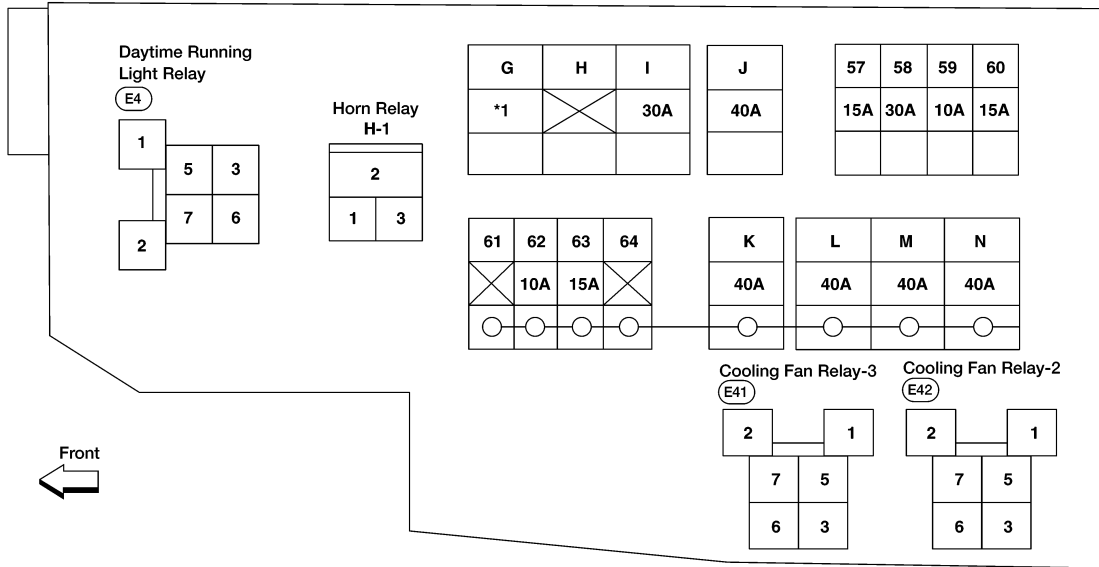
FUSE, FUSIBLE LINK AND RELAY BOX

Terminal Arrangement

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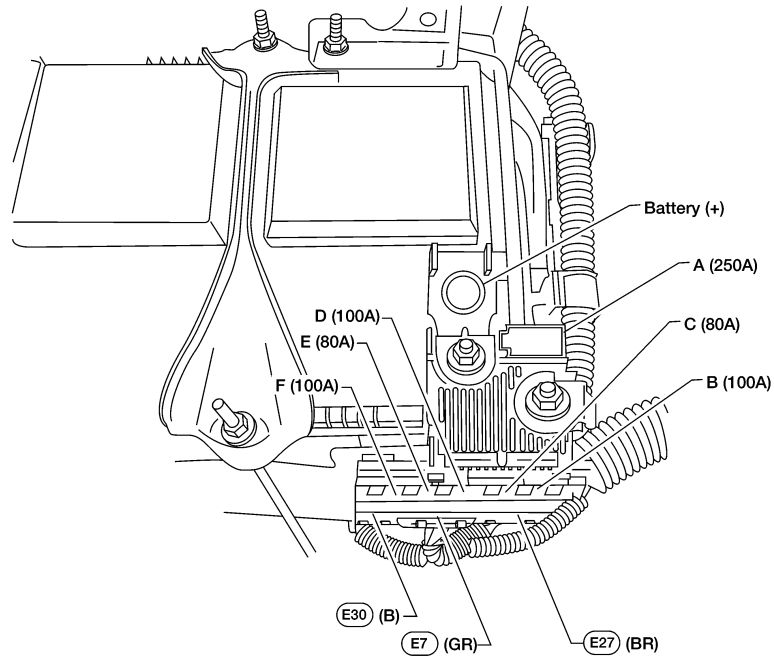
FUSE AND FUSIBLE LINK AND RELAY BOX

IB : WITHOUT INTELLIGENT CRUISE CONTROL *1 IB : 40A
IC : WITH INTELLIGENT CRUISE CONTROL IC : 50A



NO. 57 - 64 : FUSE G - N : FUSIBLE LINK

FUSIBLE LINK BOX (BATTERY)

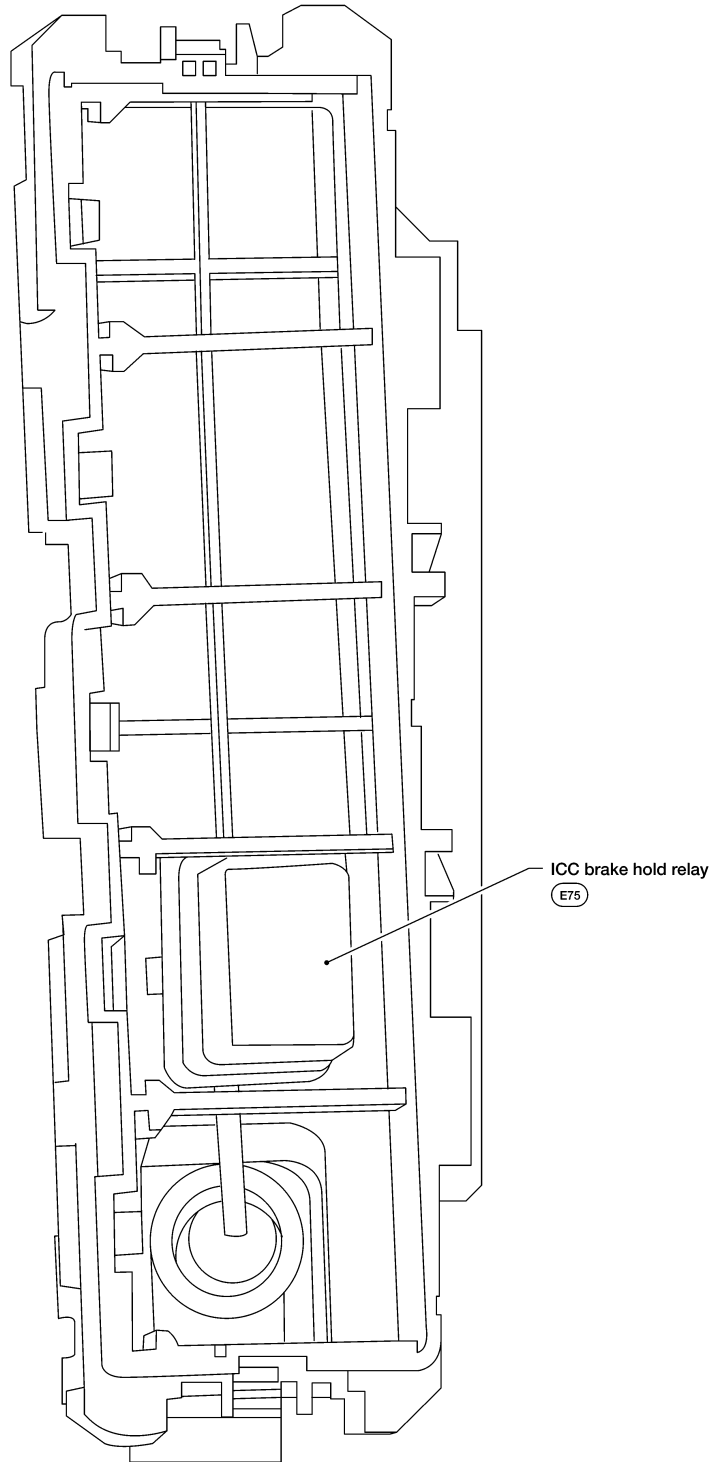


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FUSE, FUSIBLE LINK AND RELAY BOX

< WIRING DIAGRAM >

RELAY BOX



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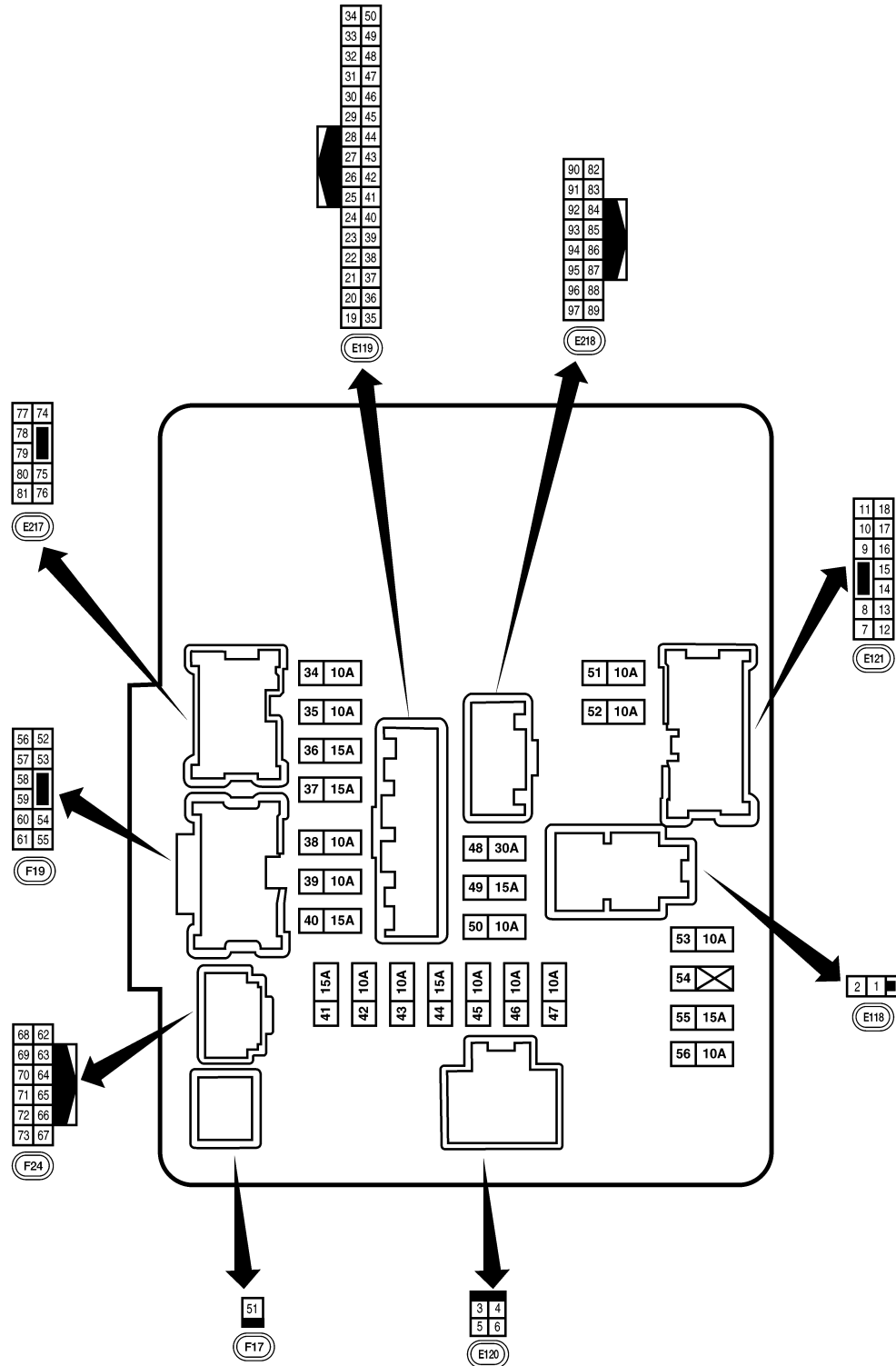
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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

IPDM E/R Terminal Arrangement

INFOID:000000011217610



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BATTERY

< BASIC INSPECTION >

BASIC INSPECTION

BATTERY

How to Handle Battery

INFOID:000000011217611

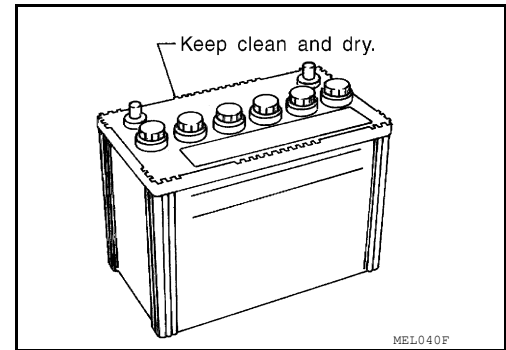
CAUTION:

- 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.

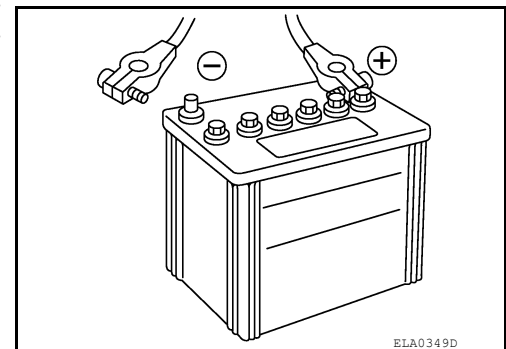
METHODS OF PREVENTING OVER-DISCHARGE

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

INFOID:000000011217612

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

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. Failure to do this may cause personal injury or damage to clothing or the painted surfaces.

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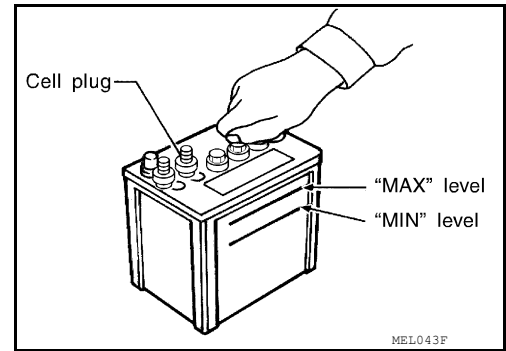
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BATTERY

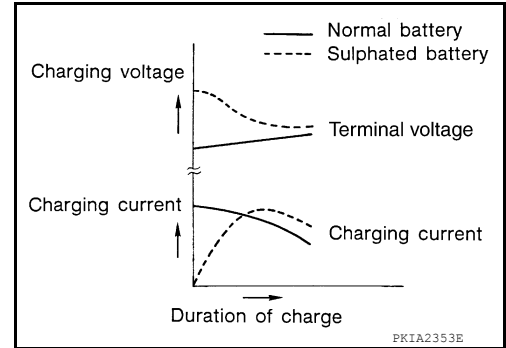
< BASIC INSPECTION >

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



SULFATION

- **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 sulfation on the cell plates.**
- **To determine if a battery has been “sulfated”, 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 sulfated batteries.**
- **A sulfated 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.**



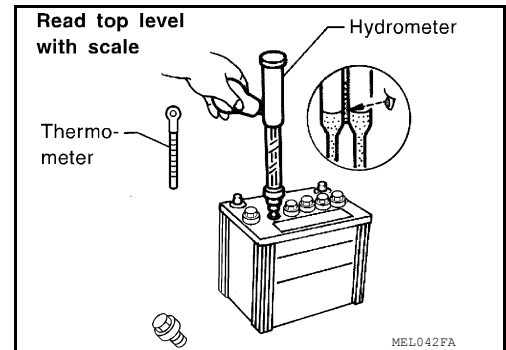
Specific Gravity Check

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	7	2
3/4 charged		2.5
1/2 charged		5
1/4 charged		7.5
Almost discharged		9
Completely discharged		10

Charging Rates (Quick Charge)

Approximate charge condition	Charge current (A)	Charge time (h)
Fully charged	—	—
3/4 charged	16	0.5
1/2 charged	33	
1/4 charged		
Almost discharged	—	—
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.

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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:000000011217613

Required Procedure After Battery Disconnection

System	Item	Reference
Engine Control System	Idle Air Volume Learning	EC-158
Door & Lock	Automatic Back Door Initialization	DLK-112
Power Window Control System	Power Window System Initialization	PWC-32
Roof	Moonroof Memory Reset/Initialization Sunshade Memory Reset/Initialization	RF-24
Automatic Drive Positioner	Automatic Drive Positioner System Initialization	Refer to Owner's Manual.
Heater & Air Conditioning Control System	Temperature Setting Trimmer (front)	HAC-46
	Foot Position Setting Trimmer	HAC-46
	Inlet Port Memory Function (FRE)	HAC-47
	Inlet Port Memory Function (REC)	HAC-47
Audio, Visual & Navigation System	Audio (Radio Preset)	Refer to Owner's Manual.
	Navigation System	Refer to Owner's Manual.

FUSE INSPECTION

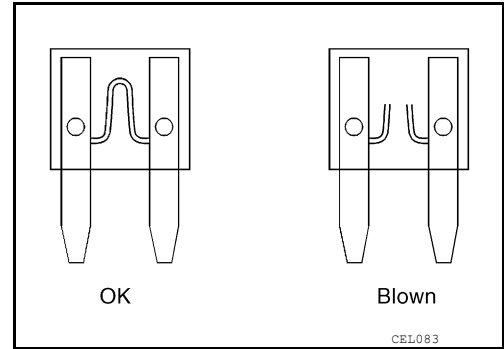
< BASIC INSPECTION >

FUSE INSPECTION

How To Check

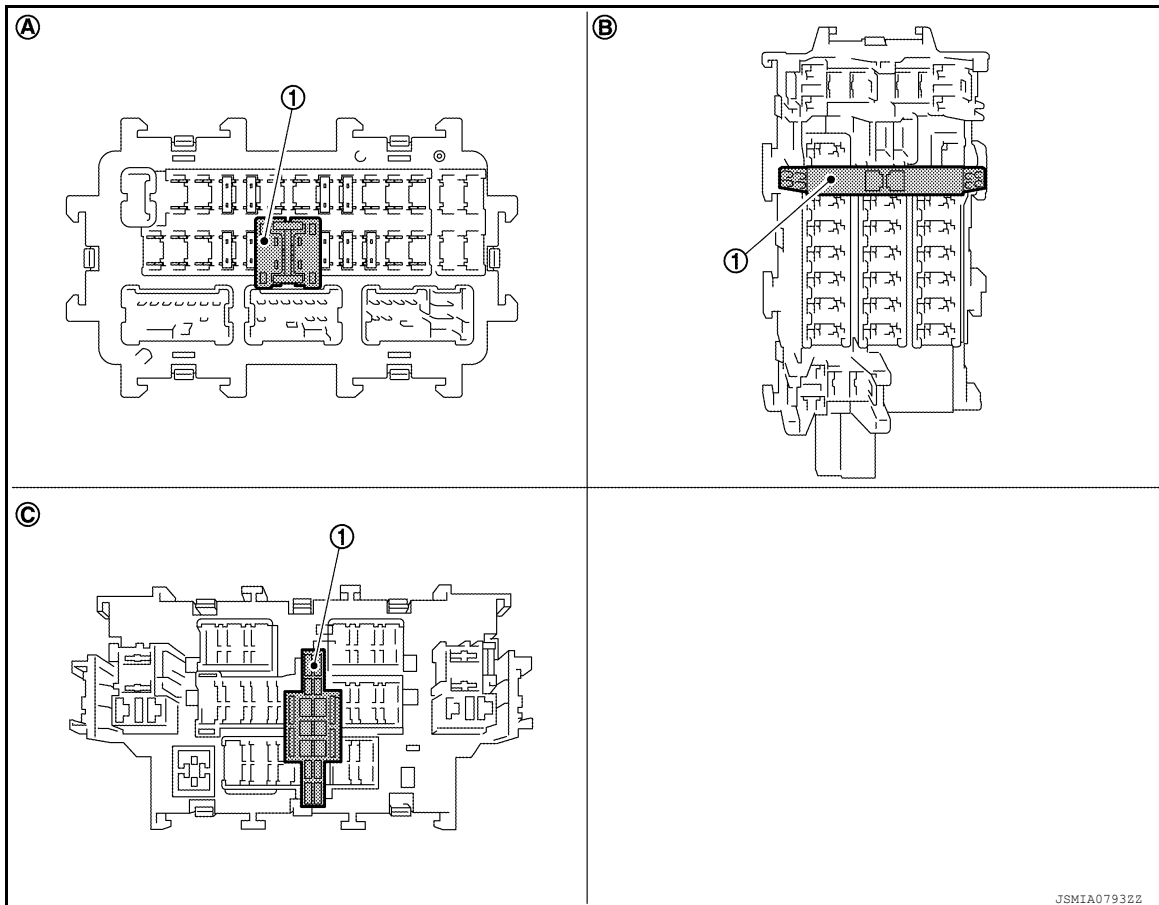
INFOID:000000011379869

- 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.



EXTENDED STORAGE FUSE SWITCH (IF EQUIPPED)

The following switch may be mounted on the fuse block (Junction Box) for transportation and storage.



① Extended storage fuse switch

Ⓐ Type A

Ⓑ Type B

Ⓒ Type C

Remove the extended storage fuse switch if it causes the interference when checking fuses.

How To Extended Storage Fuse Switch ON/OFF

CAUTION:

- Turn the ignition switch OFF when operating the extended storage fuse switch.
- Under normal conditions, keep the extended storage fuse switch in ON state. Never operate the extended storage fuse switch except when necessary.

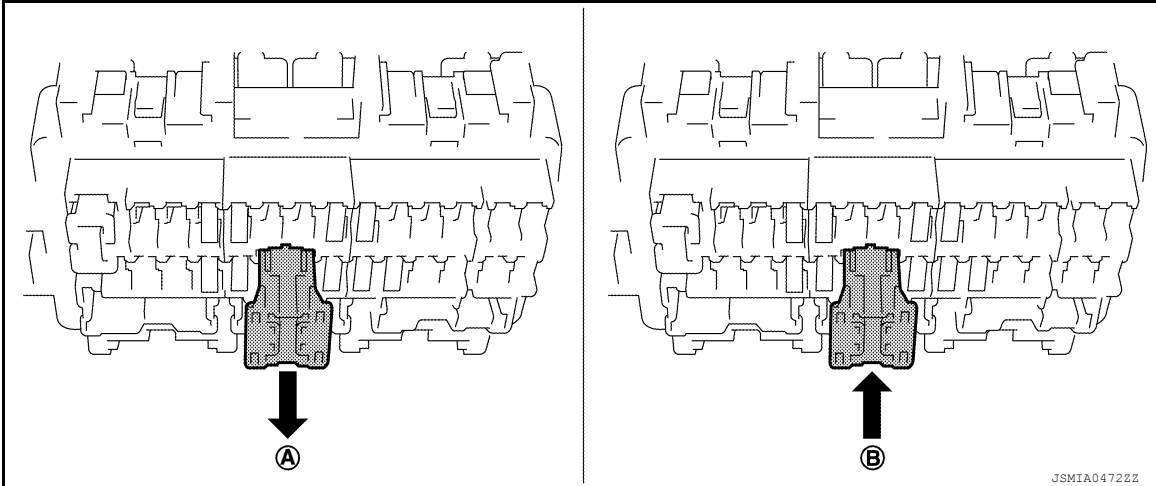
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FUSE INSPECTION

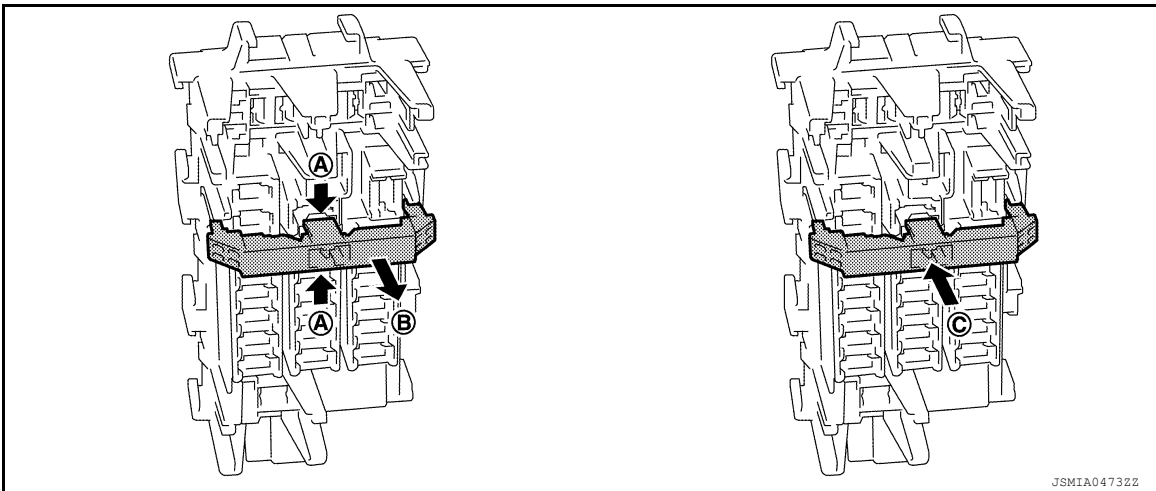
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• Type A



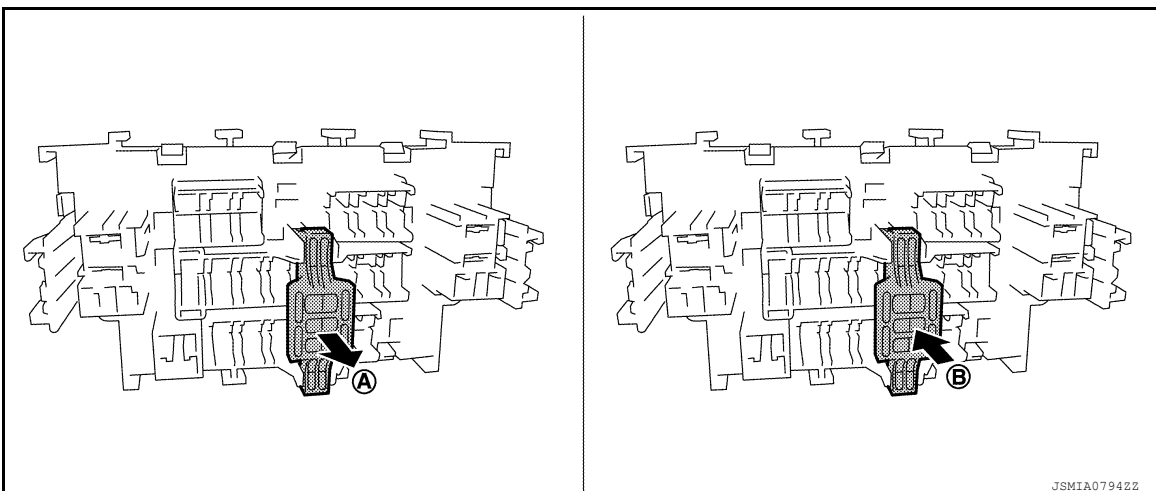
- To turn the extended storage fuse switch OFF, pull it up in (A) direction as shown in the figure.
- To turn the extended storage fuse switch ON, press it in (B) direction as shown in the figure.

• Type B



- To turn the extended storage fuse switch OFF, hold (A) of the switch and pull up in (B) direction as shown in the figure.
- To turn the extended storage fuse switch ON, press it in (C) direction as shown in the figure.

• Type C



- To turn the extended storage fuse switch OFF, pull it up in (A) direction as shown in the figure.
- To turn the extended storage fuse switch ON, press it in (B) direction as shown in the figure.

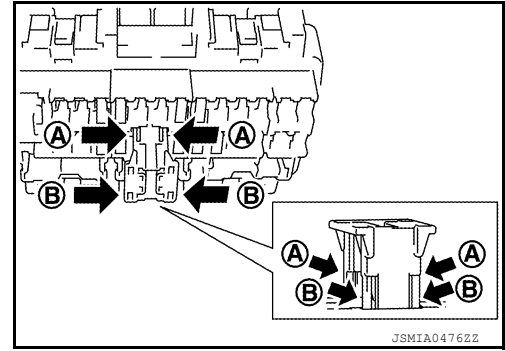
How To Remove Extended Storage Fuse Switch

Type A

FUSE INSPECTION

< BASIC INSPECTION >

1. Turn the ignition switch OFF.
2. Turn the extended storage fuse switch OFF.
3. Press pawl (A) and tilt to disengage the extended storage fuse switch. Press pawl (B) and tilt to remove the extended storage fuse switch.



CAUTION:

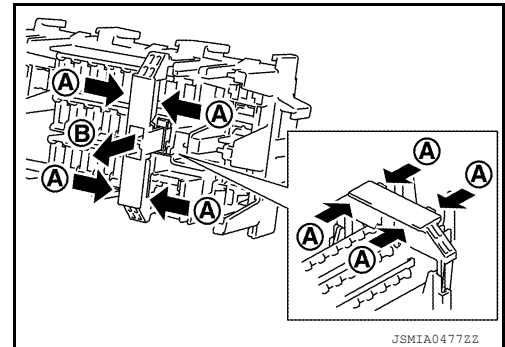
Never use fuse for bus bar.

NOTE:

- Extended storage fuse switch and bus bar are removed together. Remove bus bar from extended storage fuse switch, if necessary.
- Install removed bus bar to fuse block.
- Extended storage fuse switch is for transportation and storage. Reinstallation is not required after the removal.

Type B

1. Turn the ignition switch OFF.
2. Turn the extended storage fuse switch OFF.
3. Hold (A) and pull up the extended storage fuse switch hard in (B) direction.



CAUTION:

Never use fuse for bus bar.

NOTE:

- Extended storage fuse switch and bus bar may be removed together. Remove bus bar from extended storage fuse switch, if necessary.
- Install removed bus bar to fuse block.
- Extended storage fuse switch is for transportation and storage. Reinstallation is not required after the removal.

Type C

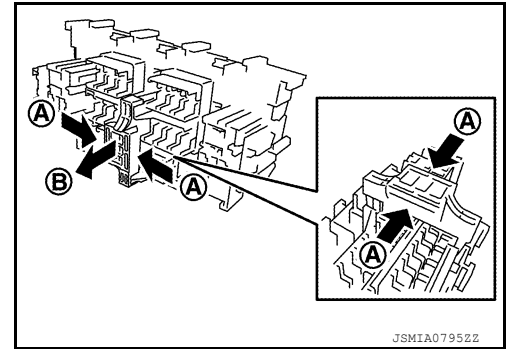
1. Turn the ignition switch OFF.
2. Turn the extended storage fuse switch OFF.

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FUSE INSPECTION

< BASIC INSPECTION >

3. Hold (A) and pull up the extended storage fuse switch hard in (B) direction.



CAUTION:

Never use fuse for bus bar.

NOTE:

- Extended storage fuse switch and bus bar are removed together. Remove bus bar from extended storage fuse switch, if necessary.
- Install removed bus bar to fuse block.
- Extended storage fuse switch is for transportation and storage. Reinstallation is not required after the removal.

FUSIBLE LINK INSPECTION

< BASIC INSPECTION >

FUSIBLE LINK INSPECTION

Fusible Link

INFOID:000000011541460

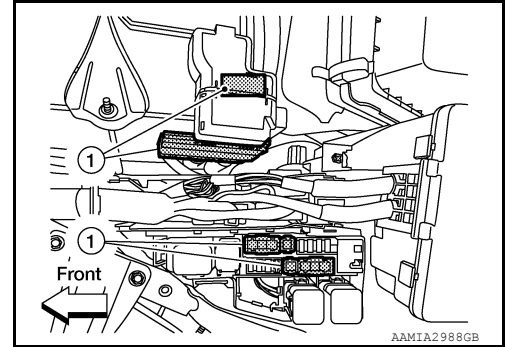
A melted fusible link can be detected either by visual inspection or by feeling with finger tip. If its condition is questionable, use circuit tester or test lamp.

1 : Fusible link

↔: Vehicle front

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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BATTERY

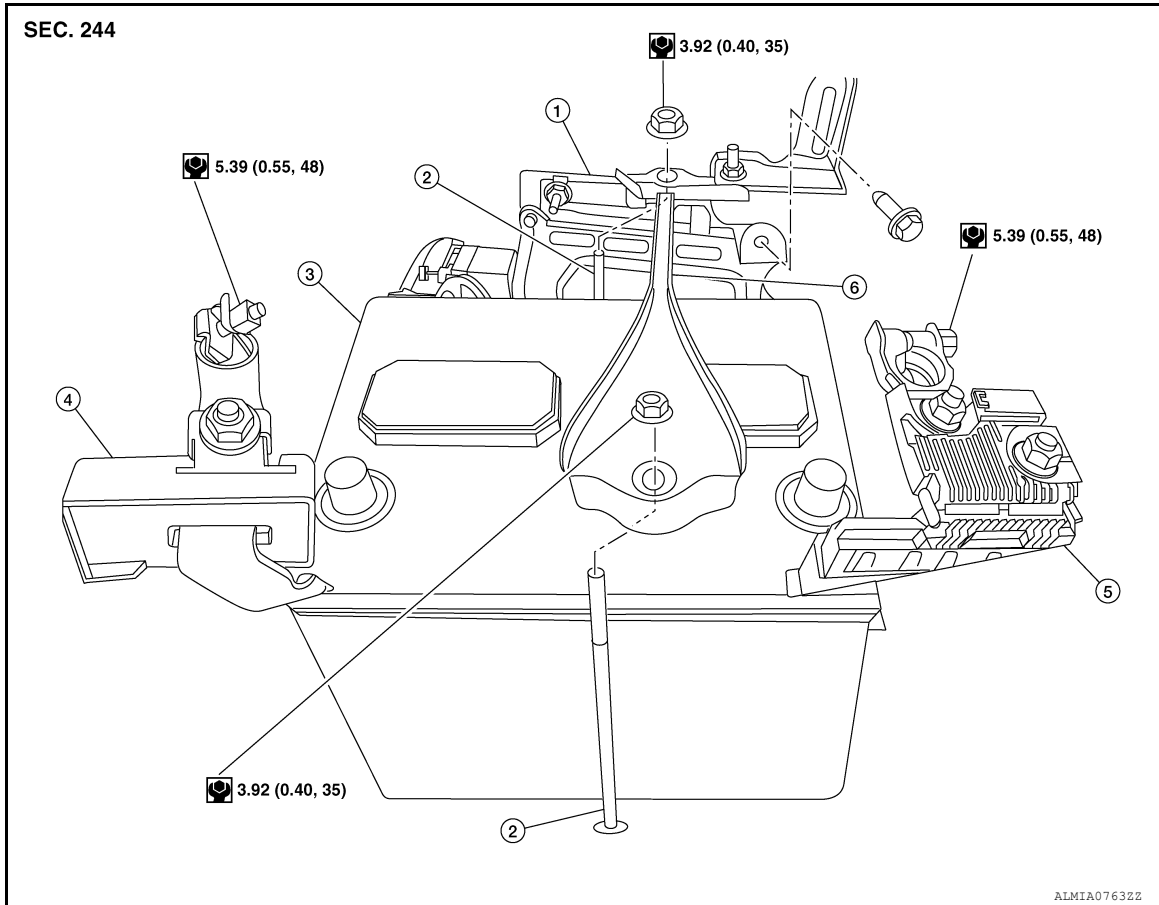
< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

BATTERY

Exploded View

INFOID:000000011217614



- | | | |
|-------------------|-------------------------------|------------------|
| 1. ECM | 2. Battery rods | 3. Battery |
| 4. Current sensor | 5. Fusible link box (battery) | 6. Battery frame |

Removal and Installation

INFOID:000000011217615

REMOVAL

1. Disconnect the negative battery terminal.
CAUTION:
To prevent damage to the parts, disconnect the negative terminal from the battery negative post first.
2. Remove the cover of the battery positive terminal and disconnect the positive battery terminal.
3. Remove battery frame nuts, battery frame and battery rods.
4. Remove battery cover. Refer to [PG-88. "Exploded View"](#).
5. Remove battery.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- To prevent damage to the parts, connect the positive terminal to the battery positive post first.
- After connecting the positive and negative terminals to securely supply battery voltage, ensure that the positive and negative terminals are tightly clamped to battery positive and negative posts for good contact.

BATTERY

< REMOVAL AND INSTALLATION >

- To securely supply battery voltage, check the positive and negative terminals for poor connection caused by corrosion.

Reset electronic systems as necessary. Refer to [PG-80. "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

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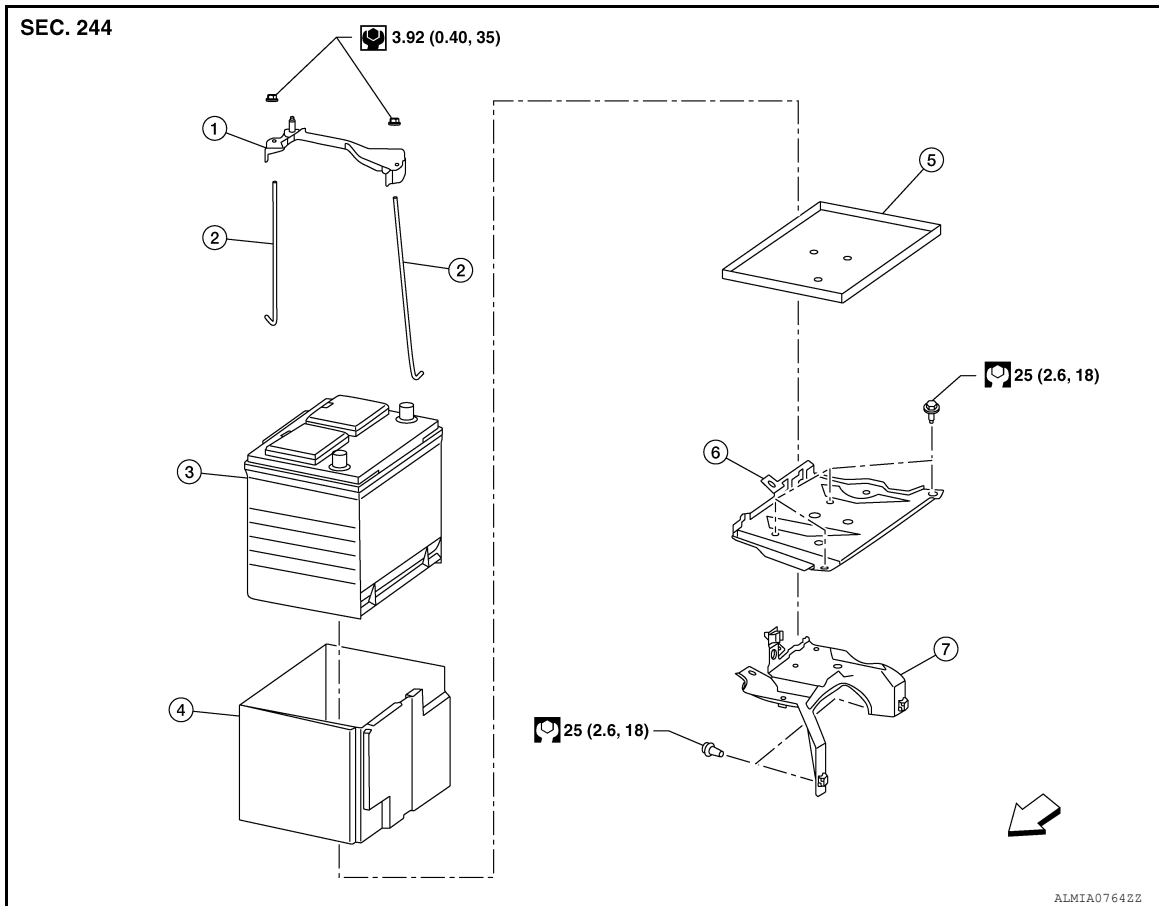
BATTERY TRAY

< REMOVAL AND INSTALLATION >

BATTERY TRAY

Exploded View

INFOID:000000011568064



- | | | |
|-------------------------|-----------------------|-----------------|
| 1. Battery frame | 2. Battery rods | 3. Battery |
| 4. Battery cover | 5. Battery tray liner | 6. Battery tray |
| 7. Battery tray support | ↩ Front | |

Removal and Installation

INFOID:000000011217616

REMOVAL

1. Remove the battery. Refer to [PG-86, "Removal and Installation"](#).
2. Remove the air cleaner and air duct. Refer to [EM-26, "Removal and Installation"](#).
3. Disconnect the transmission control module (TCM). Refer to [TM-198, "Exploded View"](#).
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-80, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

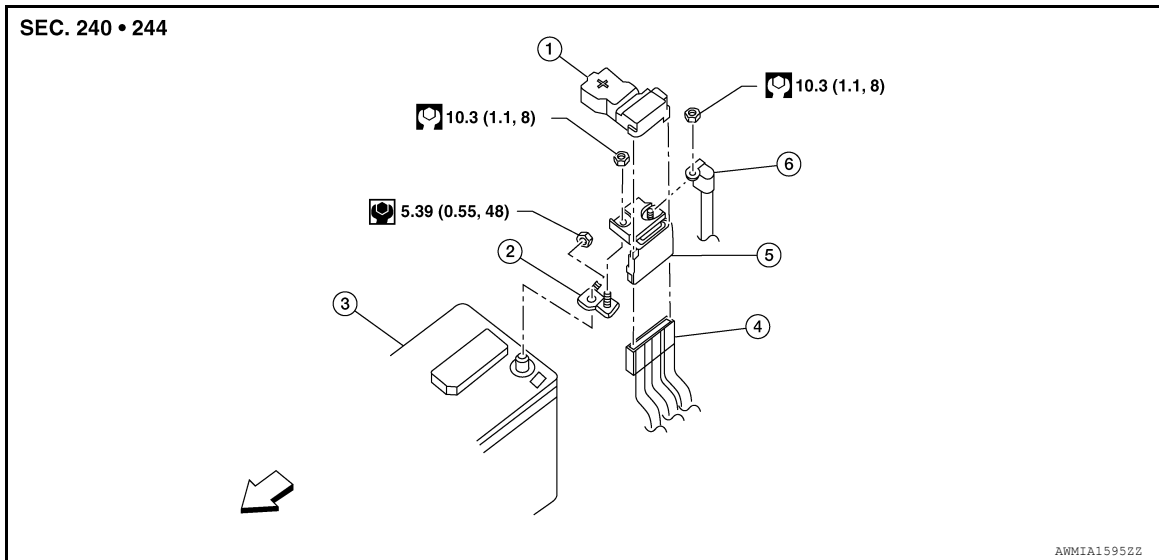
BATTERY TERMINAL WITH FUSIBLE LINK

< REMOVAL AND INSTALLATION >

BATTERY TERMINAL WITH FUSIBLE LINK

Exploded View

INFOID:000000011217617



- | | | |
|-----------------------|-------------------------------|-------------------|
| 1. Cover | 2. Positive terminal | 3. Battery |
| 4. Harness connectors | 5. Fusible link box (battery) | 6. Positive cable |
- ⇐ Front

Removal and Installation

INFOID:000000011217618

REMOVAL

1. Disconnect negative battery terminal.
CAUTION:
To prevent damage to the parts, disconnect the negative terminal from the battery negative post first.
2. Remove the cover of the battery positive terminal and disconnect the positive battery terminal.
3. Disconnect the positive cable from the fusible link box (battery).
4. Disconnect harness connectors from the fusible link box (battery).
5. Separate positive terminal from fusible link box (battery) and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- To prevent damage to the parts, connect the positive terminal to the battery positive post first.
- After connecting the positive and negative terminals to securely supply battery voltage, ensure that the positive and negative terminals are tightly clamped to battery positive and negative posts for good contact.
- To securely supply battery voltage, check the positive and negative terminals for poor connection caused by corrosion.

Reset electronic systems as necessary. Refer to [PG-80. "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

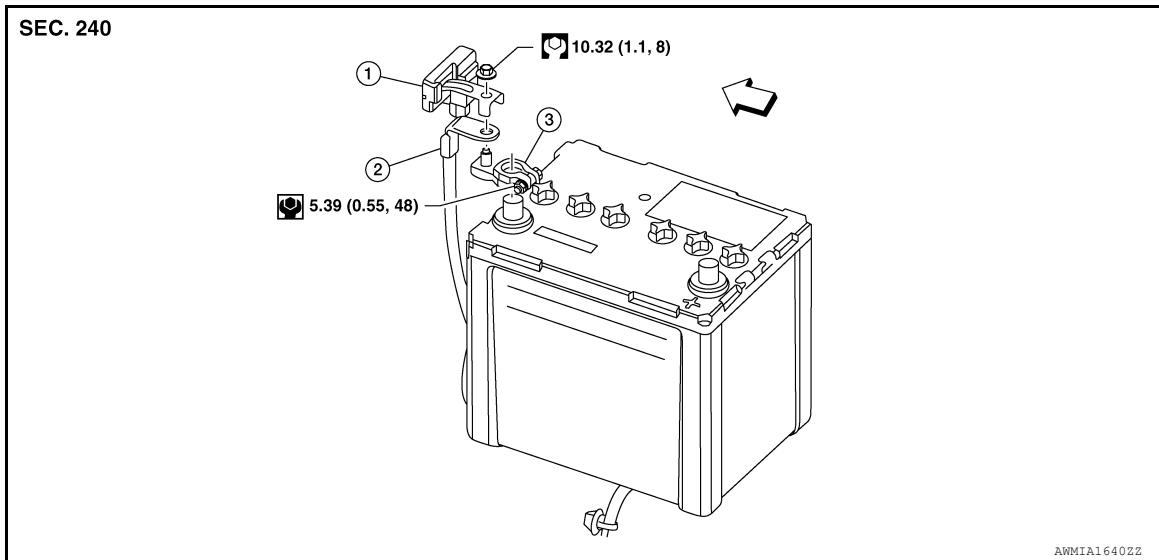
BATTERY CURRENT SENSOR

< REMOVAL AND INSTALLATION >

BATTERY CURRENT SENSOR

Exploded View

INFOID:000000011217619



1. Current sensor

2. Negative cable

3. Negative terminal

⇐ : Front

Removal and Installation

INFOID:000000011217620

REMOVAL

1. Disconnect negative terminal from the battery.
2. Disconnect harness connector from current sensor.
3. Remove nut and separate negative cable from the current sensor and remove the current sensor.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- To prevent damage to the parts, connect the positive terminal to the battery positive post first.
- After connecting the positive and negative terminals to securely supply battery voltage, ensure that the positive and negative terminals are tightly clamped to battery positive and negative posts for good contact.
- To securely supply battery voltage, check the positive and negative terminals for poor connection caused by corrosion.

Reset electronic systems as necessary. Refer to [PG-80, "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:0000000011217621

Type*	GR35
Capacity (20HR) minimum V-AH	12 - 63
Cold cranking current A @ -18°C (0°F)	550

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

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