

SECTION **PG**

**POWER SUPPLY, GROUND & CIRCUIT ELEMENTS**

**CONTENTS**

<b>PRECAUTION</b> .....	2	<b>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</b> .....	70
<b>PRECAUTIONS</b> .....	2	IPDM E/R Terminal Arrangement .....	70
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" .....	2	<b>BASIC INSPECTION</b> .....	71
<b>PREPARATION</b> .....	3	<b>BATTERY</b> .....	71
<b>PREPARATION</b> .....	3	How to Handle Battery .....	71
Special Service Tool .....	3	Work Flow .....	71
Commercial Service Tool .....	3	<b>INSPECTION AND ADJUSTMENT</b> .....	74
<b>SYSTEM DESCRIPTION</b> .....	4	<b>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</b> .....	74
<b>ELECTRICAL UNITS LOCATION</b> .....	4	ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement .....	74
Electrical Units Location .....	4	<b>FUSE INSPECTION</b> .....	75
<b>COMPONENT PARTS</b> .....	8	How To Check .....	75
Circuit Breaker (External to BCM) .....	8	<b>FUSIBLE LINK INSPECTION</b> .....	79
Harness Connector .....	8	Fusible Link .....	79
Standardized Relay .....	11	<b>REMOVAL AND INSTALLATION</b> .....	80
<b>WIRING DIAGRAM</b> .....	14	<b>BATTERY</b> .....	80
<b>POWER SUPPLY ROUTING CIRCUIT</b> .....	14	Exploded View .....	80
Wiring Diagram — Battery Power Supply — .....	14	Removal and Installation (Battery) .....	80
Wiring Diagram — Accessory Power Supply — .....	22	Removal and Installation (Battery Tray) .....	81
Wiring Diagram — Ignition Power Supply — .....	25	<b>BATTERY TERMINAL WITH FUSIBLE LINK</b> ...	82
<b>GROUND</b> .....	35	Exploded View .....	82
Ground Distribution .....	35	Removal and Installation .....	82
<b>HARNESS</b> .....	43	<b>SERVICE DATA AND SPECIFICATIONS (SDS)</b> .....	83
Harness Layout .....	43	<b>SERVICE DATA AND SPECIFICATIONS (SDS)</b> .....	83
<b>FUSE BLOCK - JUNCTION BOX (J/B)</b> .....	66	Battery .....	83
Terminal Arrangement .....	66		
<b>FUSE, FUSIBLE LINK AND RELAY BOX</b> .....	67		
Terminal Arrangement .....	67		

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

# PRECAUTIONS

< PRECAUTION >

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000012422874

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.

# PREPARATION

< PREPARATION >


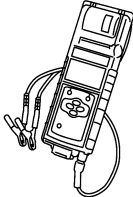
## PREPARATION

### PREPARATION

#### Special Service Tool


INFOID:0000000012422875

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>AWI1A1239ZZ</p>	<p>Testing 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>JSMIA0806ZZ</p>	<p>Testing batteries and charging systems. For operating instructions, refer to diagnostic analyzer instruction manual.</p>

#### Commercial Service Tool

INFOID:0000000012422876

Tool name	Description
<p>Power tool</p>  <p>PIIB1407E</p>	<p>Loosening nuts, screws and bolts</p>

A

B

C

D

E

F

G

H

I

J

K

L

PG

N

O

P

# ELECTRICAL UNITS LOCATION

< SYSTEM DESCRIPTION >

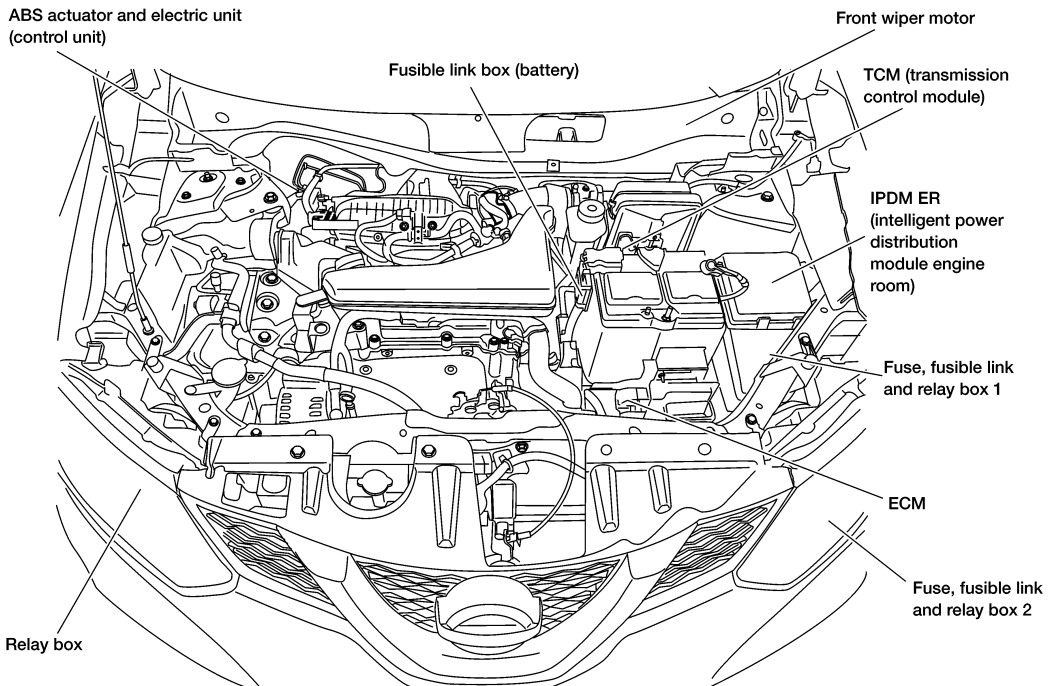
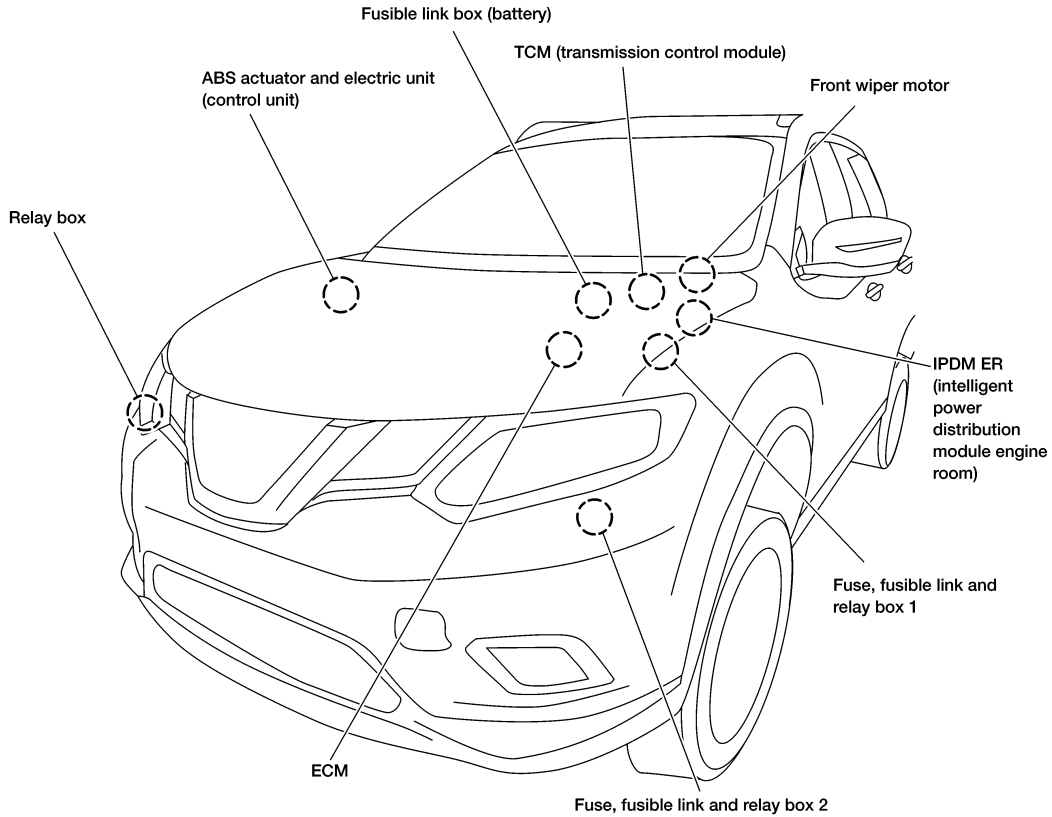
## SYSTEM DESCRIPTION

### ELECTRICAL UNITS LOCATION

#### Electrical Units Location

INFOID:000000012547539

#### ENGINE COMPARTMENT

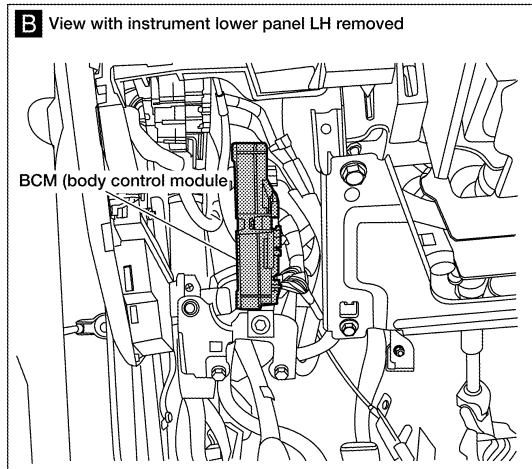
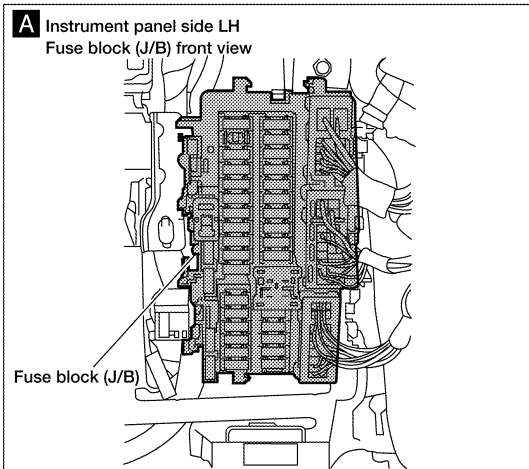
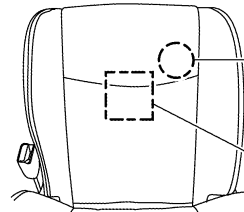
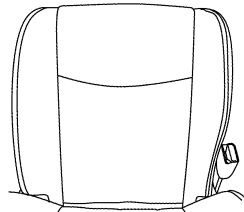
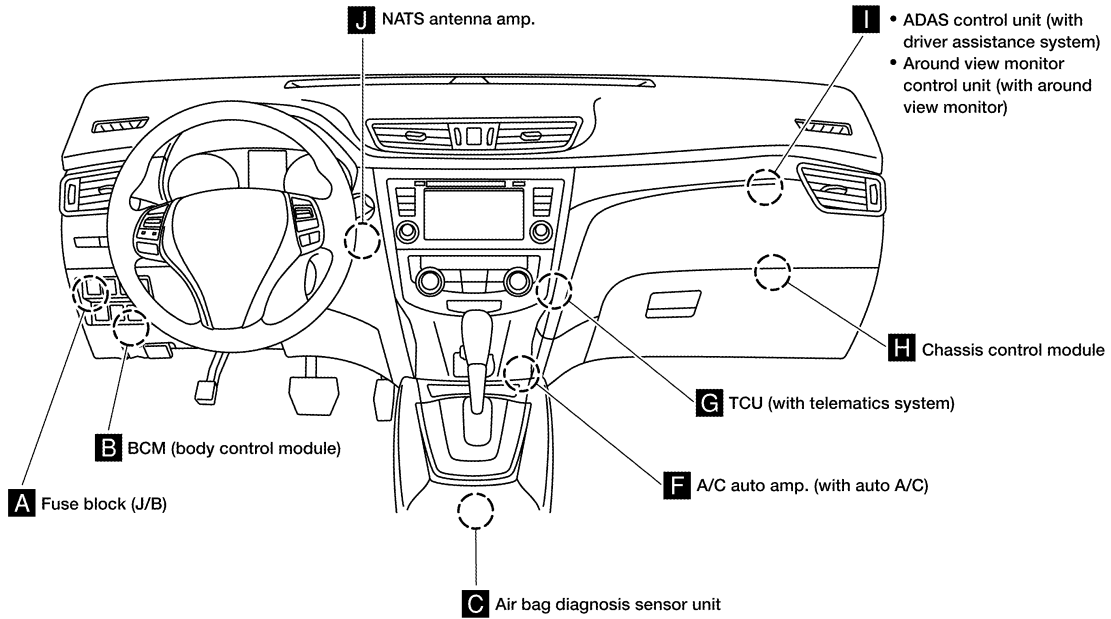


AAMIA3623GB

# ELECTRICAL UNITS LOCATION

< SYSTEM DESCRIPTION >

## PASSENGER COMPARTMENT

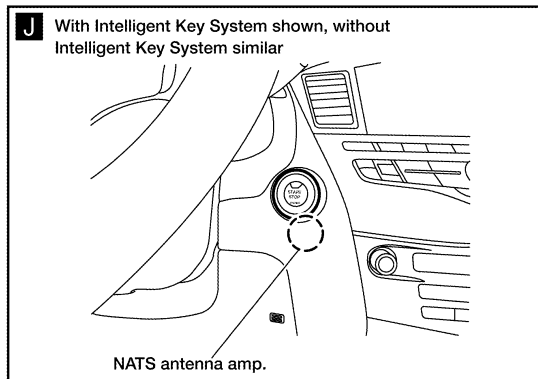
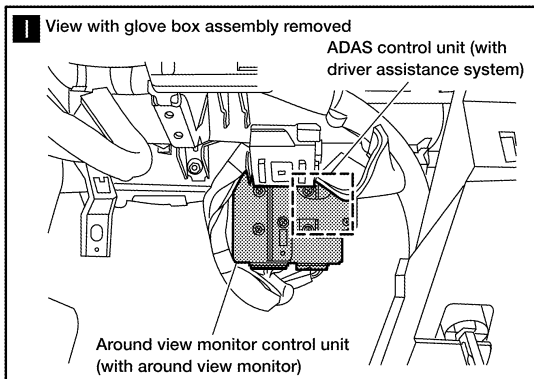
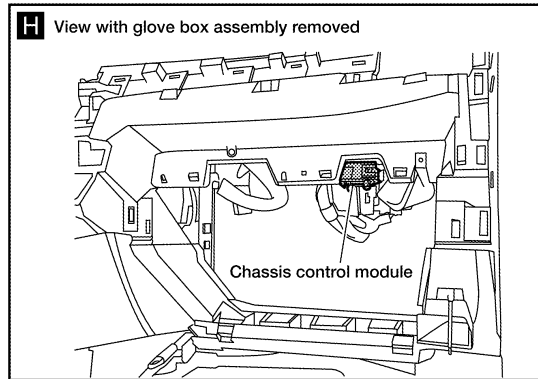
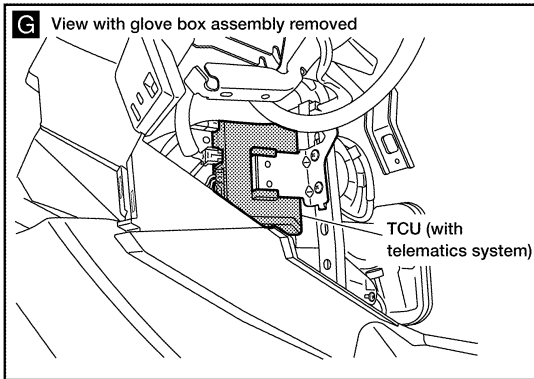
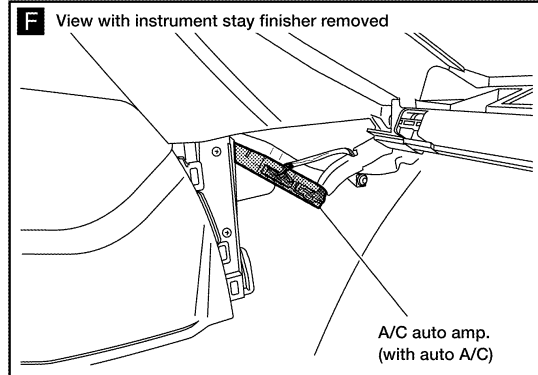
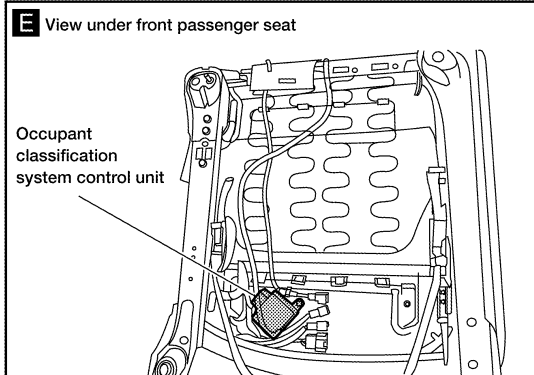
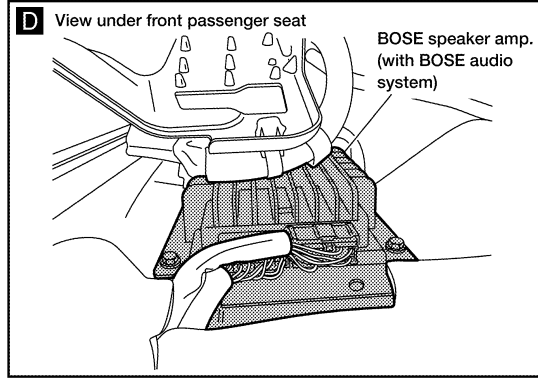
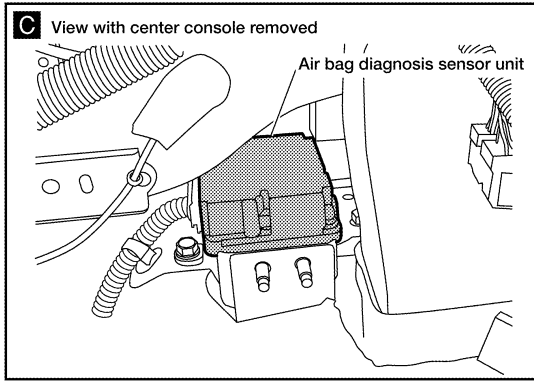


AAMIA3619GB

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

# ELECTRICAL UNITS LOCATION

< SYSTEM DESCRIPTION >

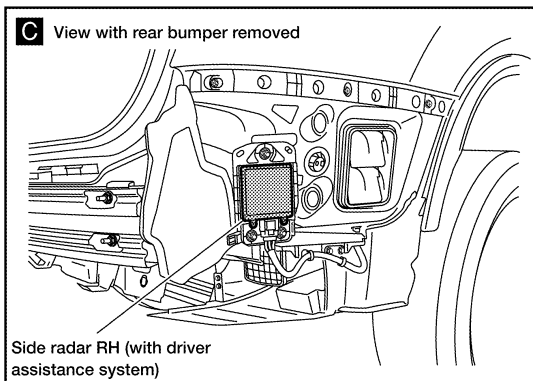
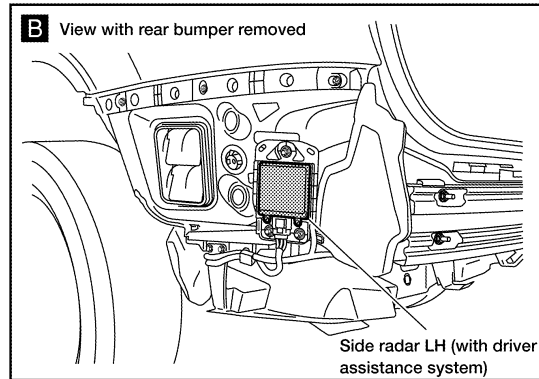
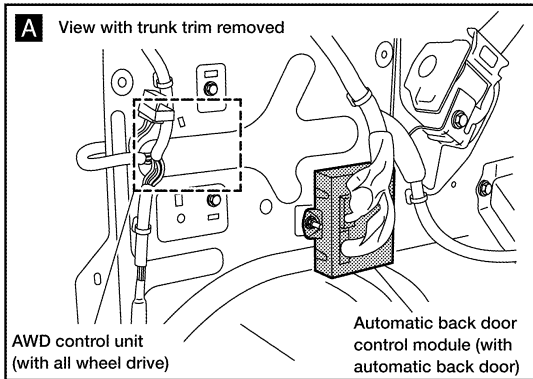
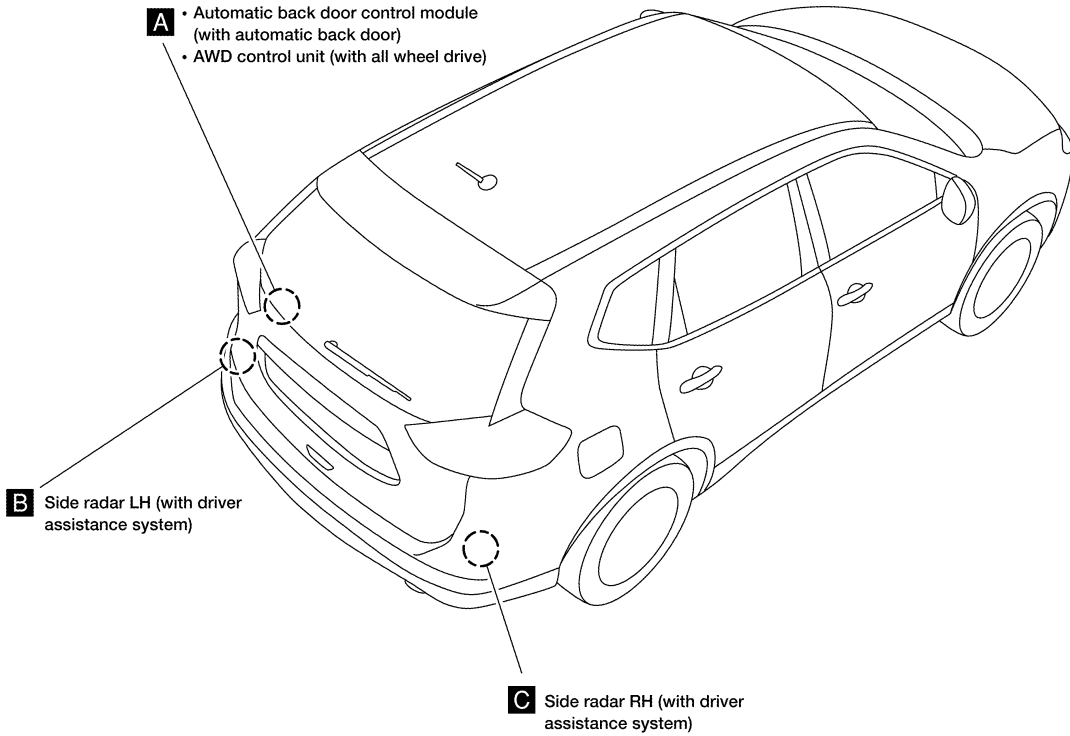


AAMIA3620GB

# ELECTRICAL UNITS LOCATION

< SYSTEM DESCRIPTION >

## LUGGAGE COMPARTMENT



AAMIA3621GB

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

# COMPONENT PARTS

< SYSTEM DESCRIPTION >

## COMPONENT PARTS

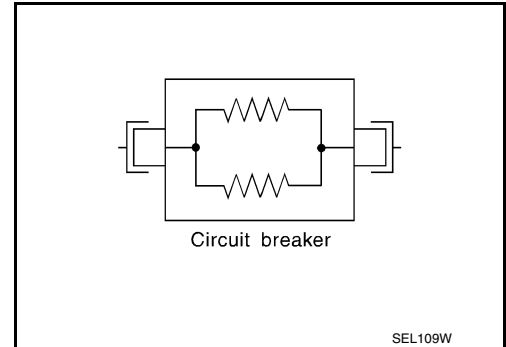
### Circuit Breaker (External to BCM)

INFOID:000000012422878

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 seats
- Power moonroof
- Power windows
- Power lumbar
- Power back door



### Harness Connector

INFOID:000000012422879

#### 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:**

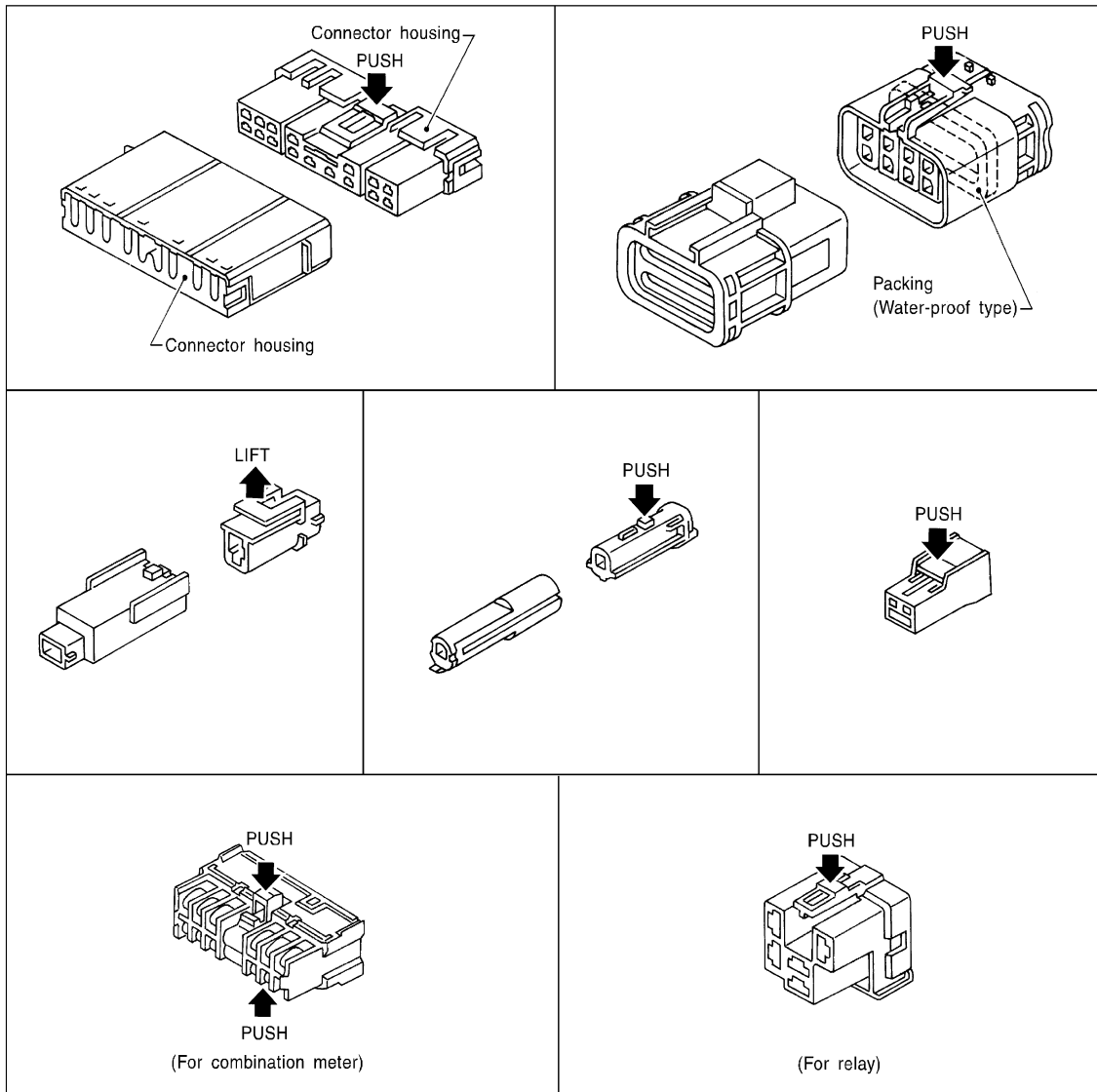
**Do not pull the harness or wires when disconnecting the connector.**



# COMPONENT PARTS

## < SYSTEM DESCRIPTION >

[Example]



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

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.**

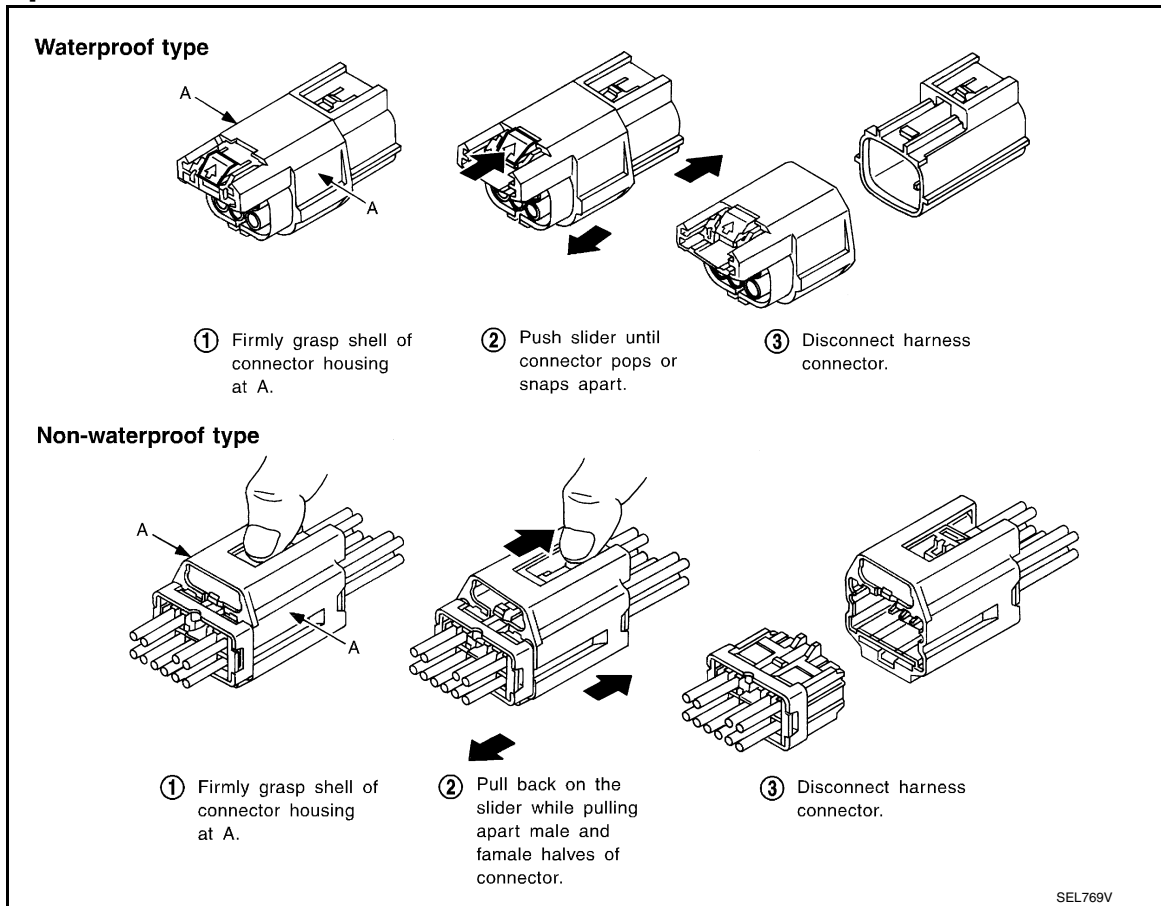
PG

N  
O  
P

## COMPONENT PARTS

### < SYSTEM DESCRIPTION >

[Example]



### HARNESS CONNECTOR (LEVER LOCKING TYPE)

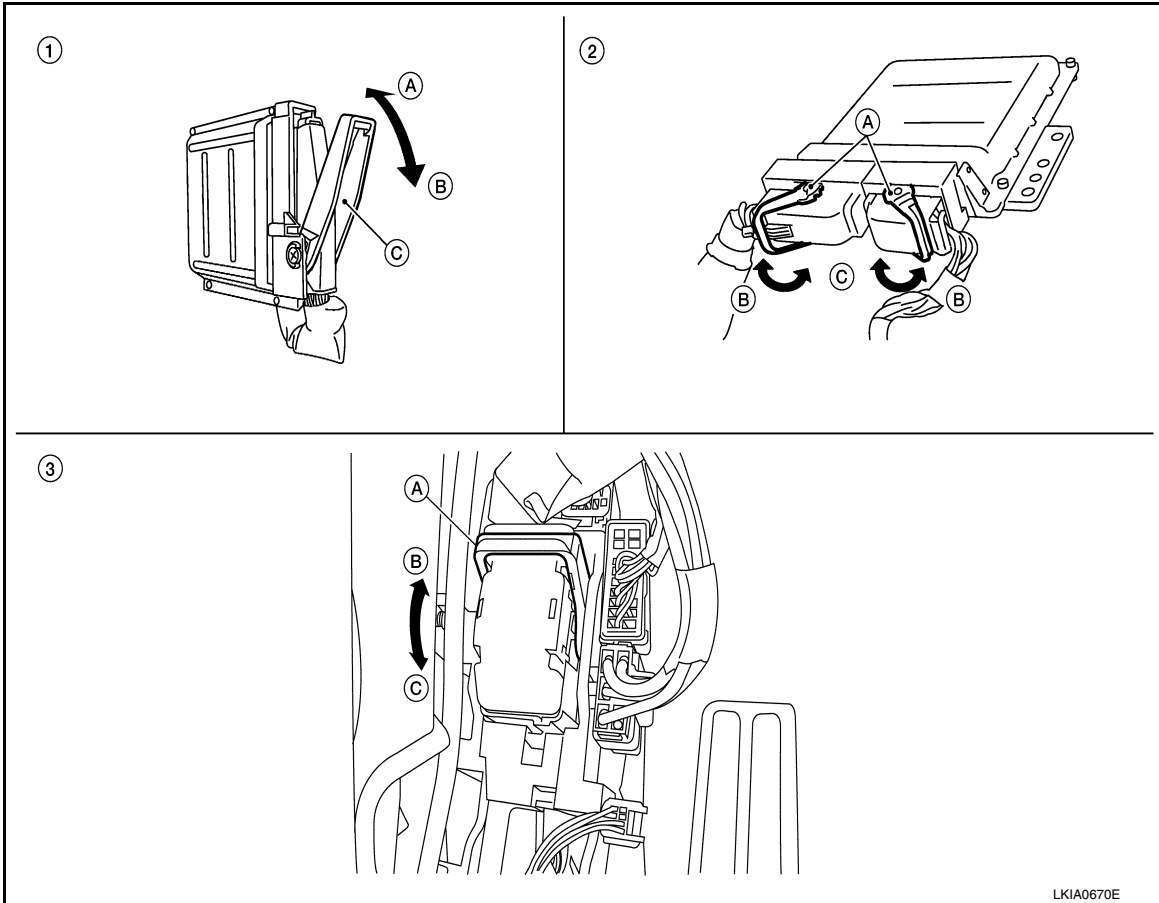
- Lever locking type harness connectors are used on certain control units and control modules such as ECM, ABS actuator and electric unit (control unit), etc.
- Lever locking type harness connectors are also used on super multiple junction (SMJ) connectors.
- Always confirm the lever is fully locked 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.



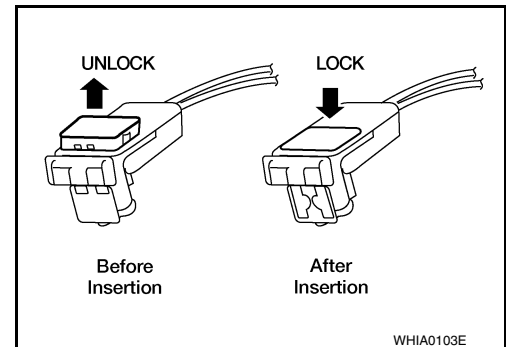
- |                                   |                                 |                  |
|-----------------------------------|---------------------------------|------------------|
| 1. Control unit with single lever | 2. Control unit with dual lever | 3. SMJ connector |
| A. Fasten              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

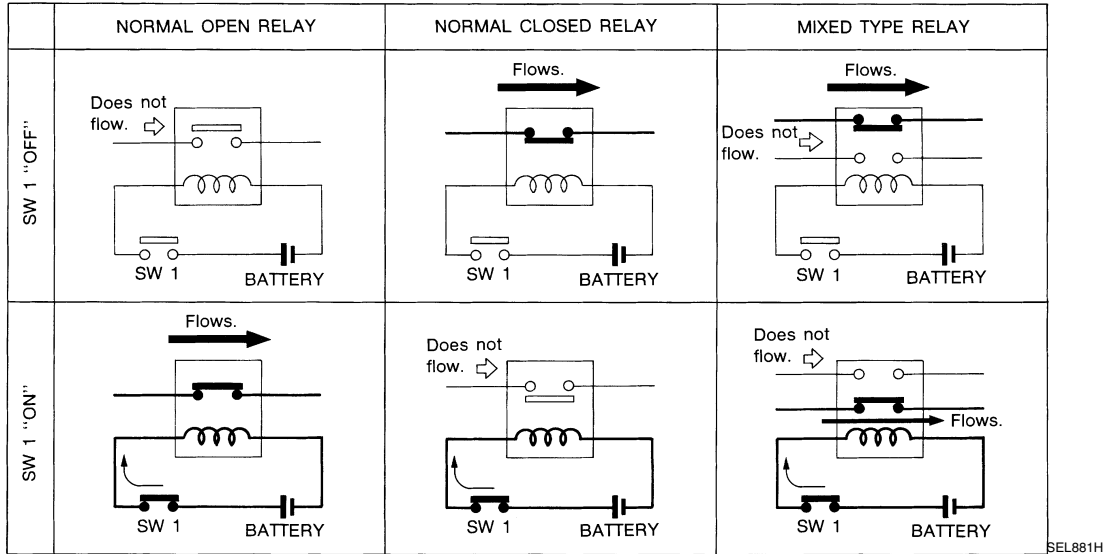
## NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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

# COMPONENT PARTS

## < SYSTEM DESCRIPTION >

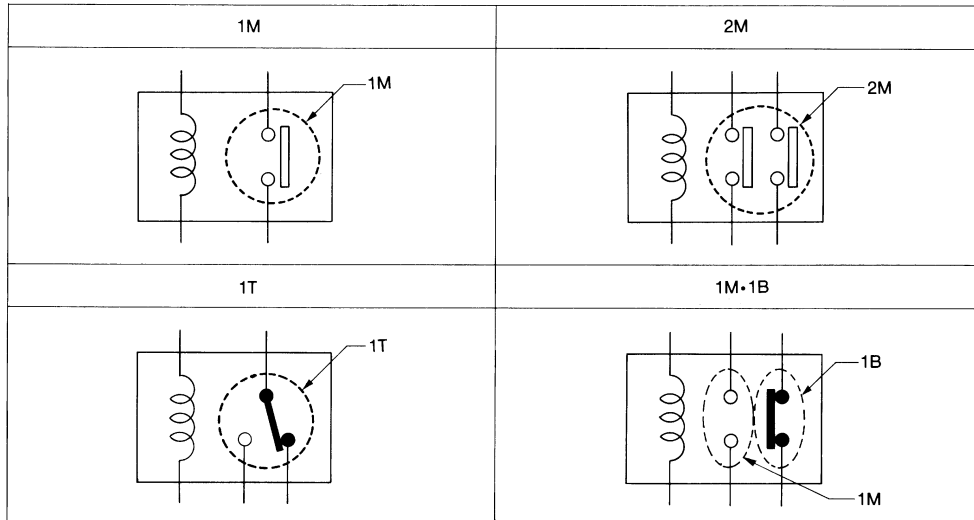
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



SEL881H

## TYPE OF STANDARDIZED RELAYS

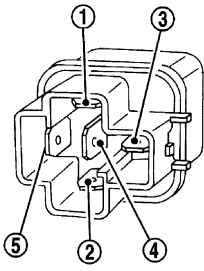
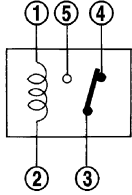
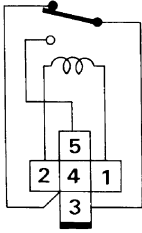
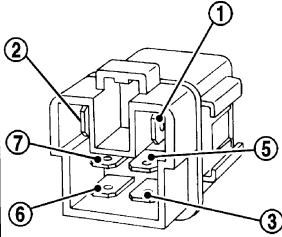
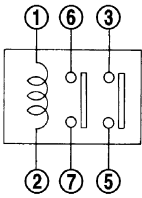
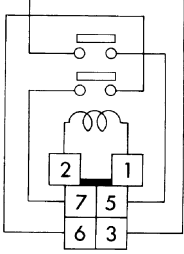
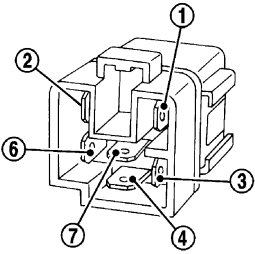
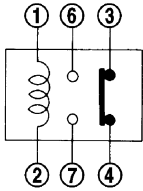
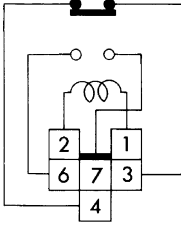
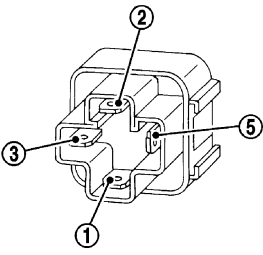
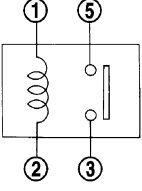
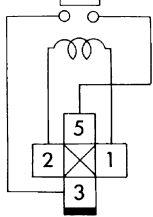
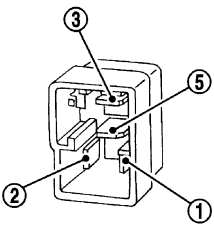
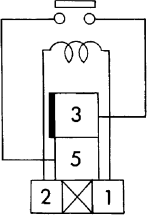
- 1M ..... 1 Make
- 1T ..... 1 Transfer
- 2M ..... 2 Make
- 1M·1B ..... 1 Make 1 Break



SEL882H

# 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.

SEL188W

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

# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

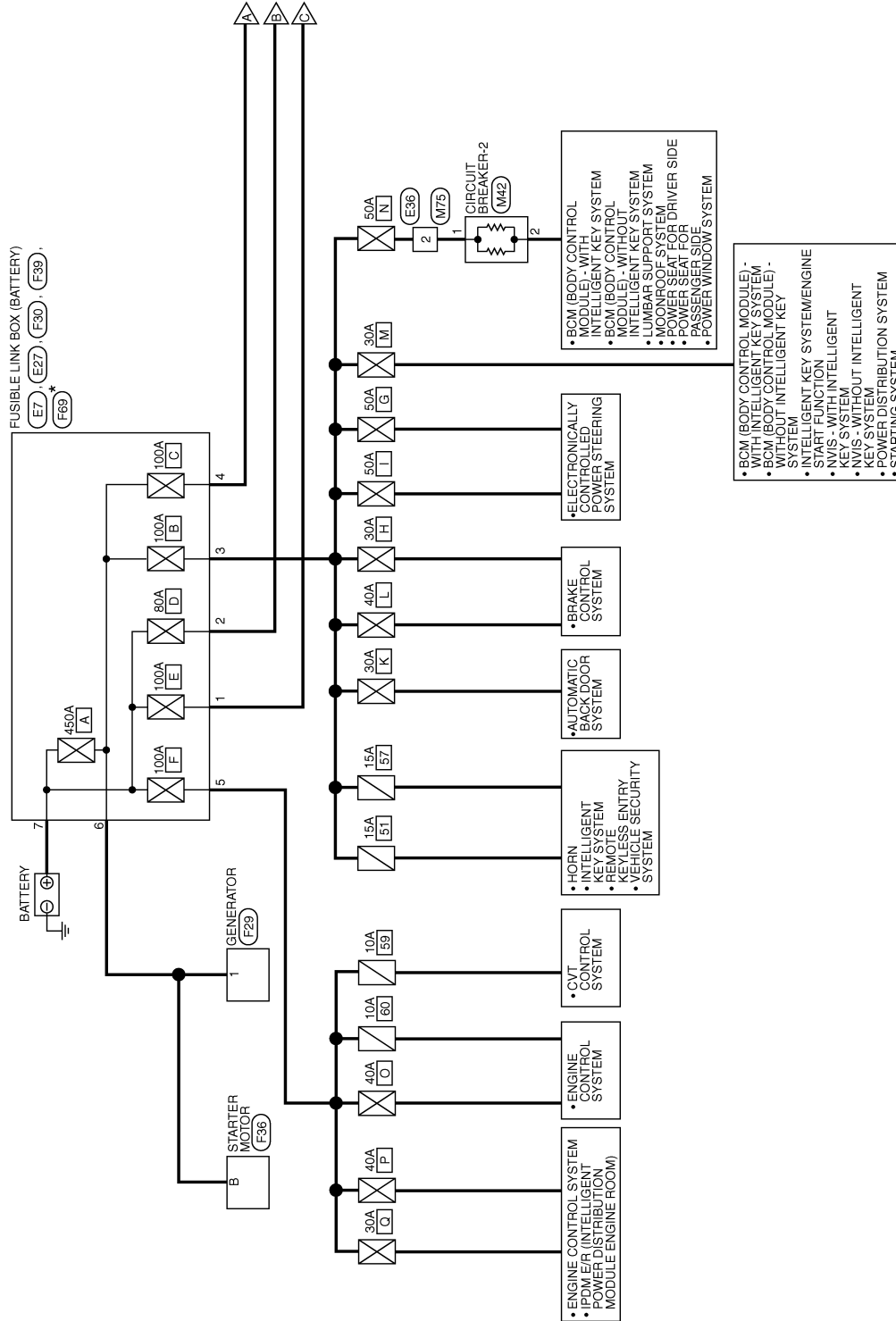
## WIRING DIAGRAM

### POWER SUPPLY ROUTING CIRCUIT

Wiring Diagram —Battery Power Supply —

INFOID:000000012422881

#### BATTERY POWER SUPPLY

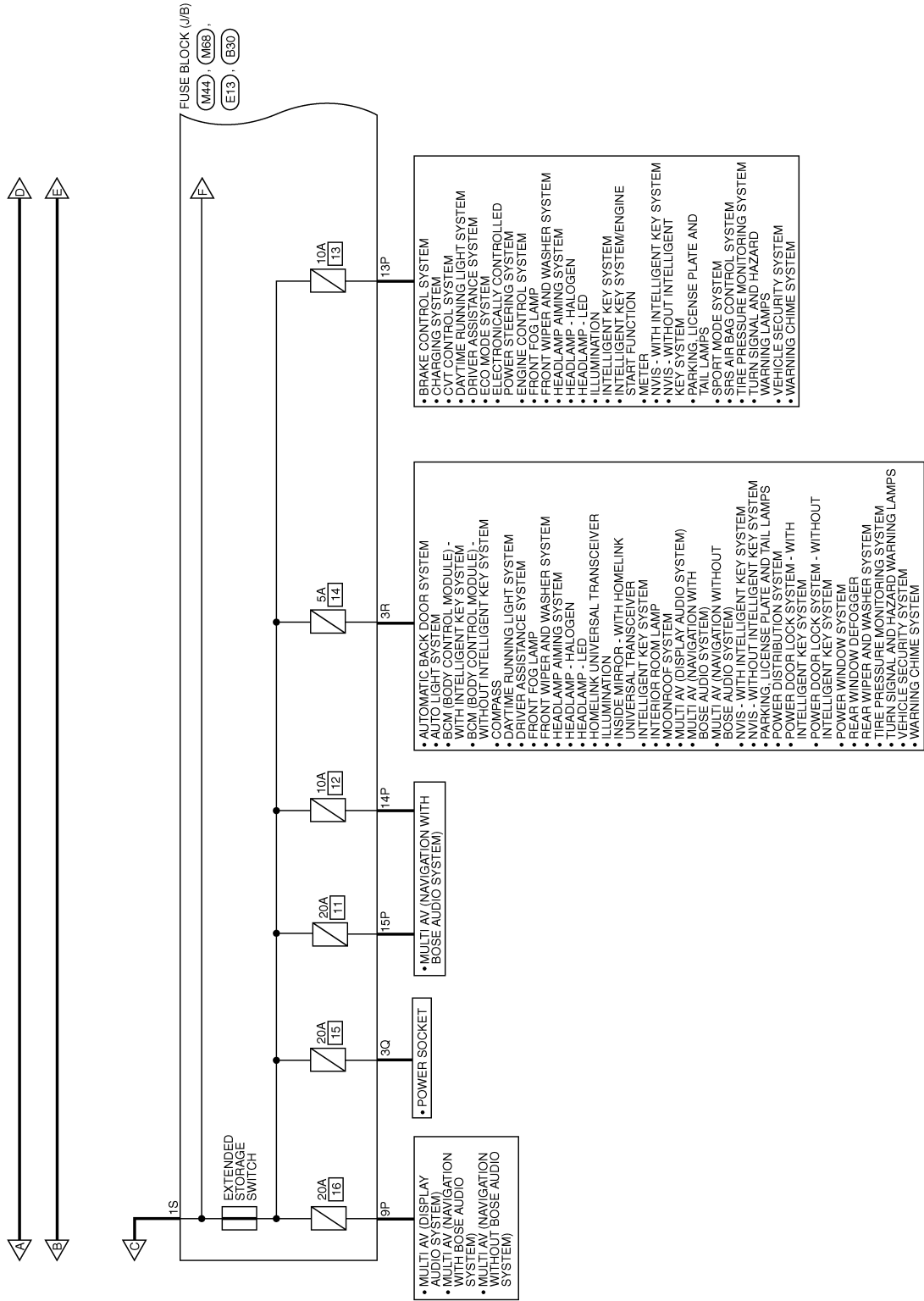


\* (F69) : IS AN INTEGRAL PART OF FUSIBLE LINK BOX (BATTERY) ASSEMBLY.

AAMWA1865GB

# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

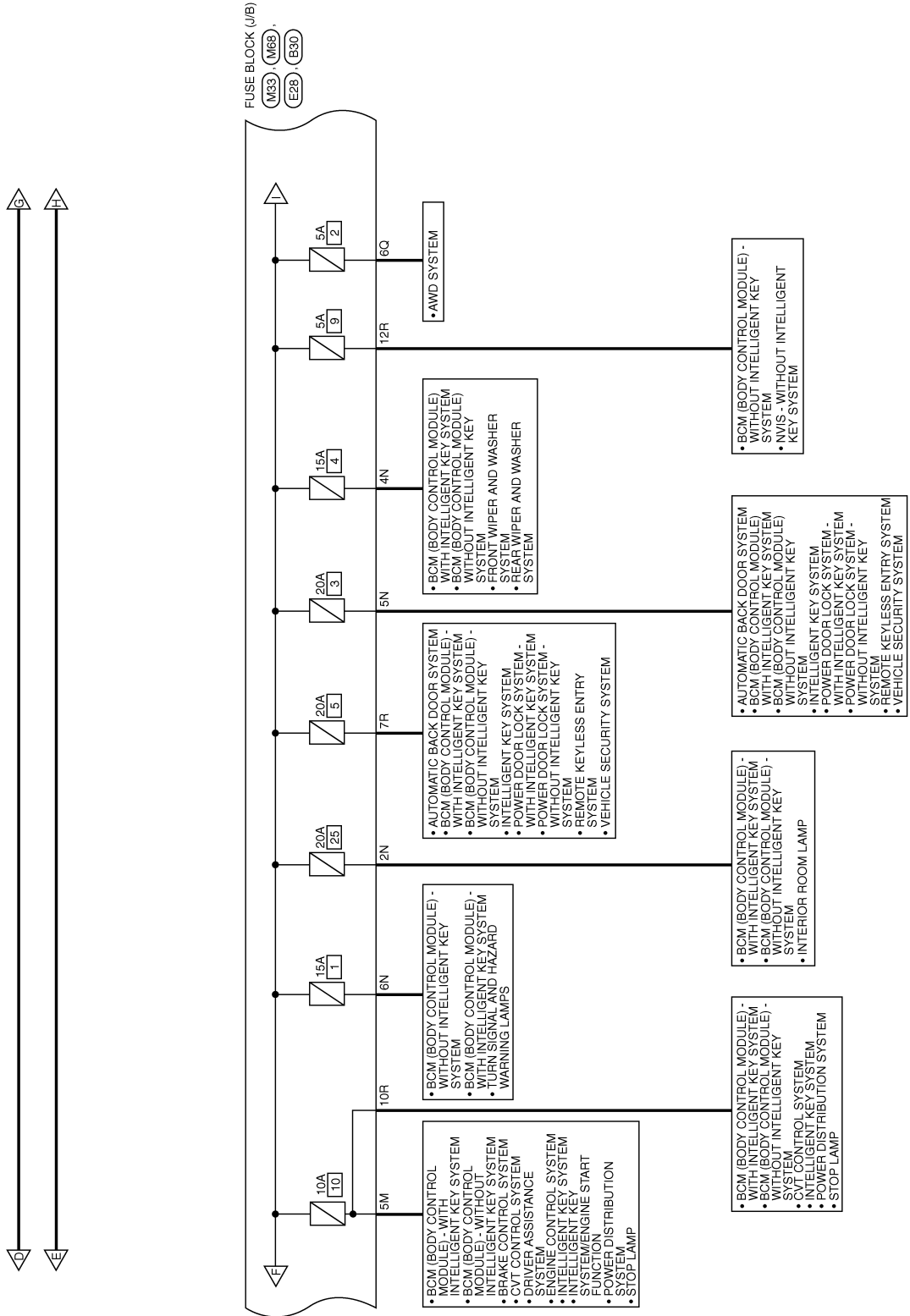


AAMWA1866GB

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

# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

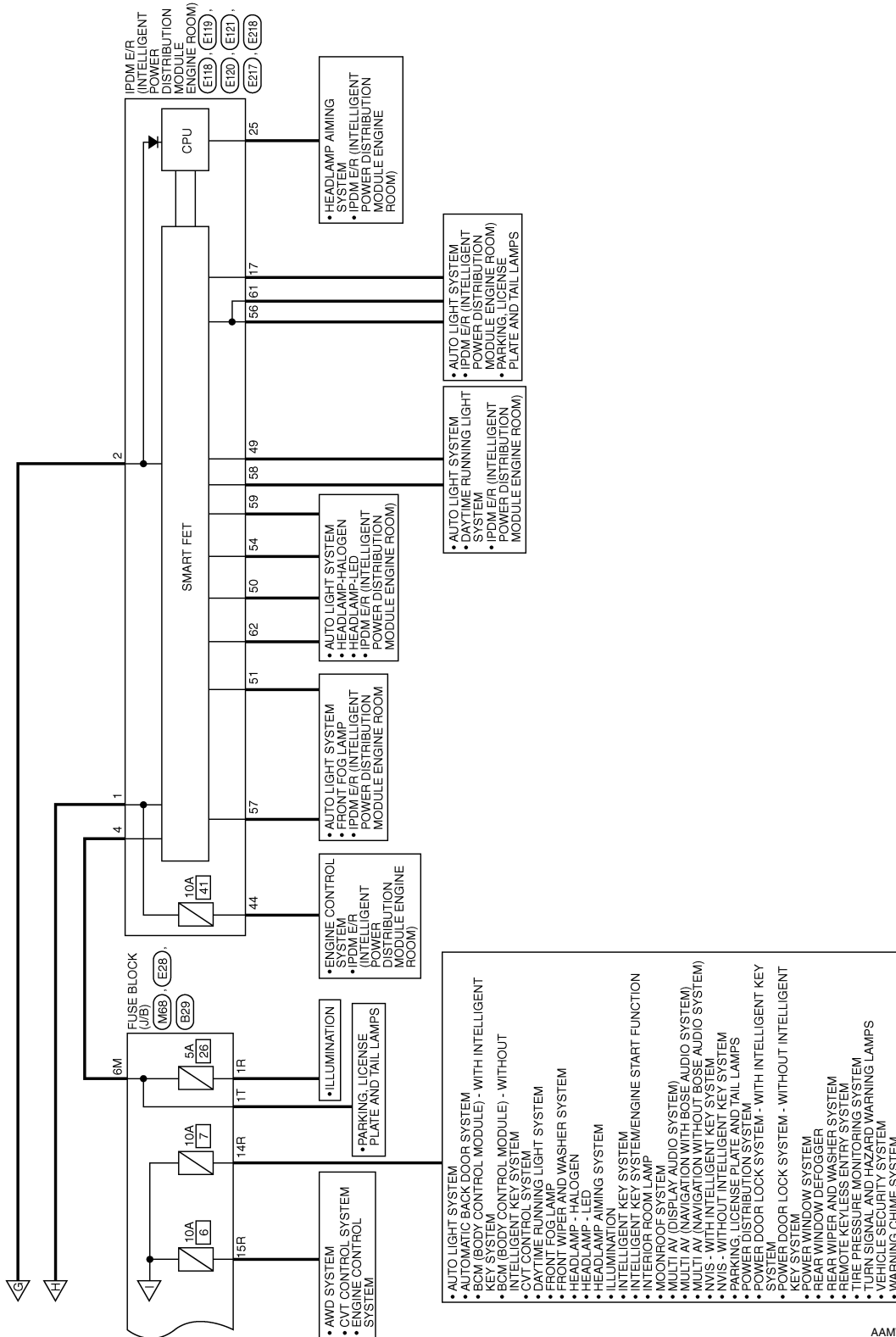


AAMWA1867GB



# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >



AAMWA1868GB

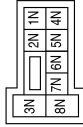
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
PG  
N  
O  
P

# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

## BATTERY POWER SUPPLY CONNECTORS

Connector No.	M33
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2N	LG	-
4N	LG	-
5N	R	-
6N	BG	-

Connector No.	M42
Connector Name	CIRCUIT BREAKER-2
Connector Color	WHITE



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

Connector No.	M44
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



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

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



Terminal No.	Color of Wire	Signal Name
1R	V	-
3R	V	-
7R	LAV	-
10R	GR	-
12R	BR	-
14R	W	-
15R	W	-

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
2	W	-

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

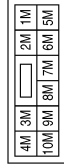


Terminal No.	Color of Wire	Signal Name
3	W	-
4	L	-

# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

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



Terminal No.	Color of Wire	Signal Name
5M	V	-
6M	Y	-

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



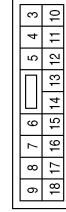
Terminal No.	Color of Wire	Signal Name
1	G	-
2	R	-

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



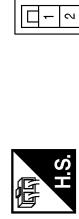
Terminal No.	Color of Wire	Signal Name
1S	G	-

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



Terminal No.	Color of Wire	Signal Name
4	Y	O LIGHT POSITION REAR LH
17	W	O LIGHT POSITION REAR RH

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	FL BAT 2
2	L	FL BAT 1

Connector No.	E36
Connector Name	WIRE TO WIRE
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
2	W	-


AAMIA2848GB

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

# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

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



51	50	49
56	55	54
53	52	

Terminal No.	Color of Wire	Signal Name
49	R	O LIGHT DTRL LH
50	L	O LIGHT LBEAM LH
51	V	O LIGHT FR FOG LAMPS LH
54	LG	O LIGHT HBEAM RH
56	BG	O LIGHT CLEARANCE FR LH

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



45	44	43
48	47	46

Terminal No.	Color of Wire	Signal Name
44	R	O BAT ABS VALVE

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



30	29	28	27	26	25	24	23	22	21	20	19
42	41	40	39	38	37	36	35	34	33	32	31

Terminal No.	Color of Wire	Signal Name
25	G	O HEIGHT SENSOR SUPPLY

Connector No.	F30
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BLACK



5
---

Terminal No.	Color of Wire	Signal Name
5	W	—

Connector No.	F29
Connector Name	GENERATOR
Connector Color	—



1
---

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



59	58	57
64	63	62
61	60	

Terminal No.	Color of Wire	Signal Name
57	W	O LIGHT FR FOG LAMPS RH
58	R	O LIGHT DTRL RH
59	G	O LIGHT HBEAM LH
61	GR	O LIGHT CLEARANCE FR RH
62	SB	O LIGHT LBEAM RH

AAMIA3617GB

# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

Connector No.	F69
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	7	Color of Wire	B	Signal Name	-
--------------	---	---------------	---	-------------	---

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



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

Connector No.	F36
Connector Name	STARTER MOTOR
Connector Color	-



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

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



Terminal No.	3Q 6Q	Color of Wire	R LAVL	Signal Name	- -
--------------	----------	---------------	-----------	-------------	--------

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



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

AAMIA3618GB

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

PG

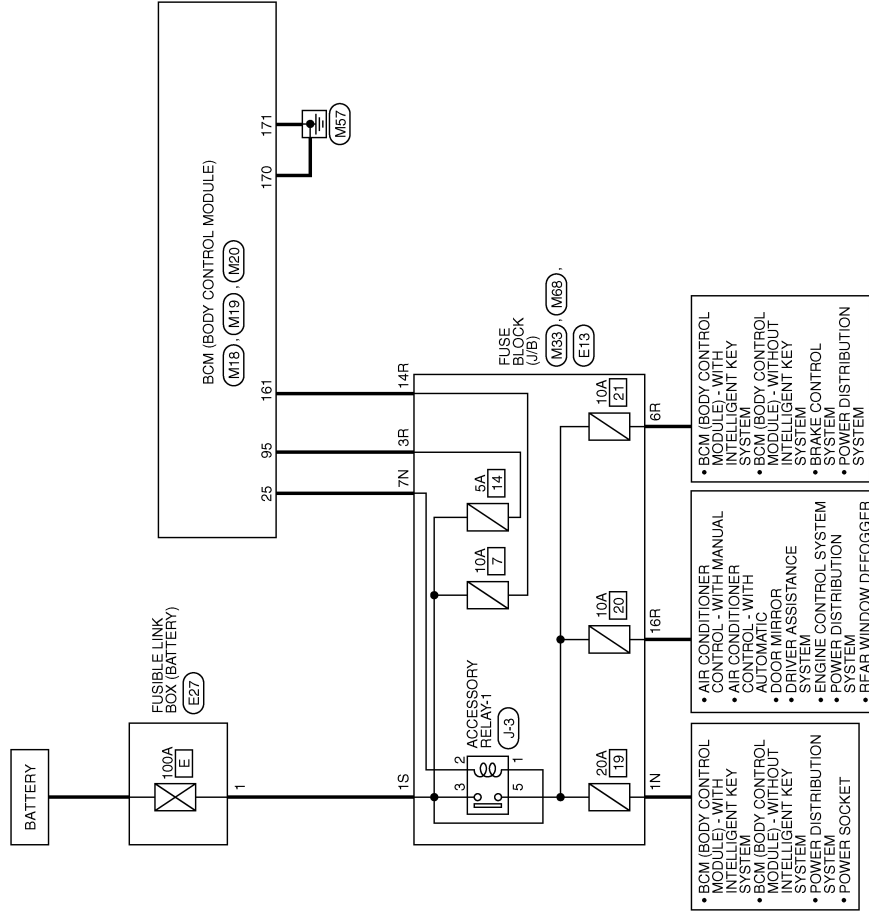
# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

Wiring Diagram —Accessory Power Supply —

INFOID:000000012422882

## ACCESSORY POWER SUPPLY



AAMWA1861GB

# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

## ACCESSORY POWER SUPPLY CONNECTORS

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



20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name
25	BR	O BAT TEMP1 RL

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



100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81
120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101

Terminal No.	Color of Wire	Signal Name
95	V	I SHORTING PIN

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



167	166	165	164	163	162	161		
176	175	174	173	172	171	170	169	168

Terminal No.	Color of Wire	Signal Name
161	W	I PWR ECU
170	B	I GND1
171	B	I GND2

Connector No.	M33
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



3N	2N	1N		
8N	7N	6N	5N	4N

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

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



7R	6R	5R	4R	3R	2R	1R		
16R	15R	14R	13R	12R	11R	10R	9R	8R

Terminal No.	Color of Wire	Signal Name
3R	V	-
6R	LA/L	-
14R	W	-
16R	GR	-

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



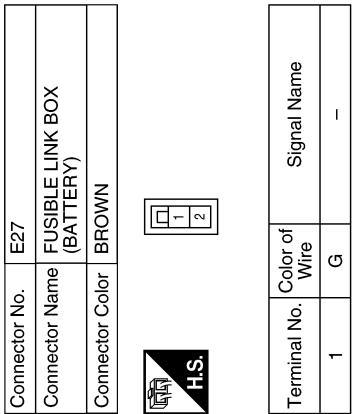
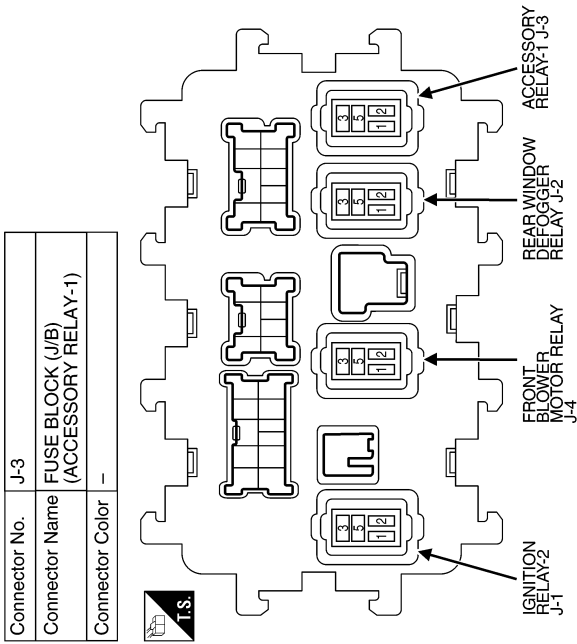
1S
----

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

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

# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >



AAMIA2852GB

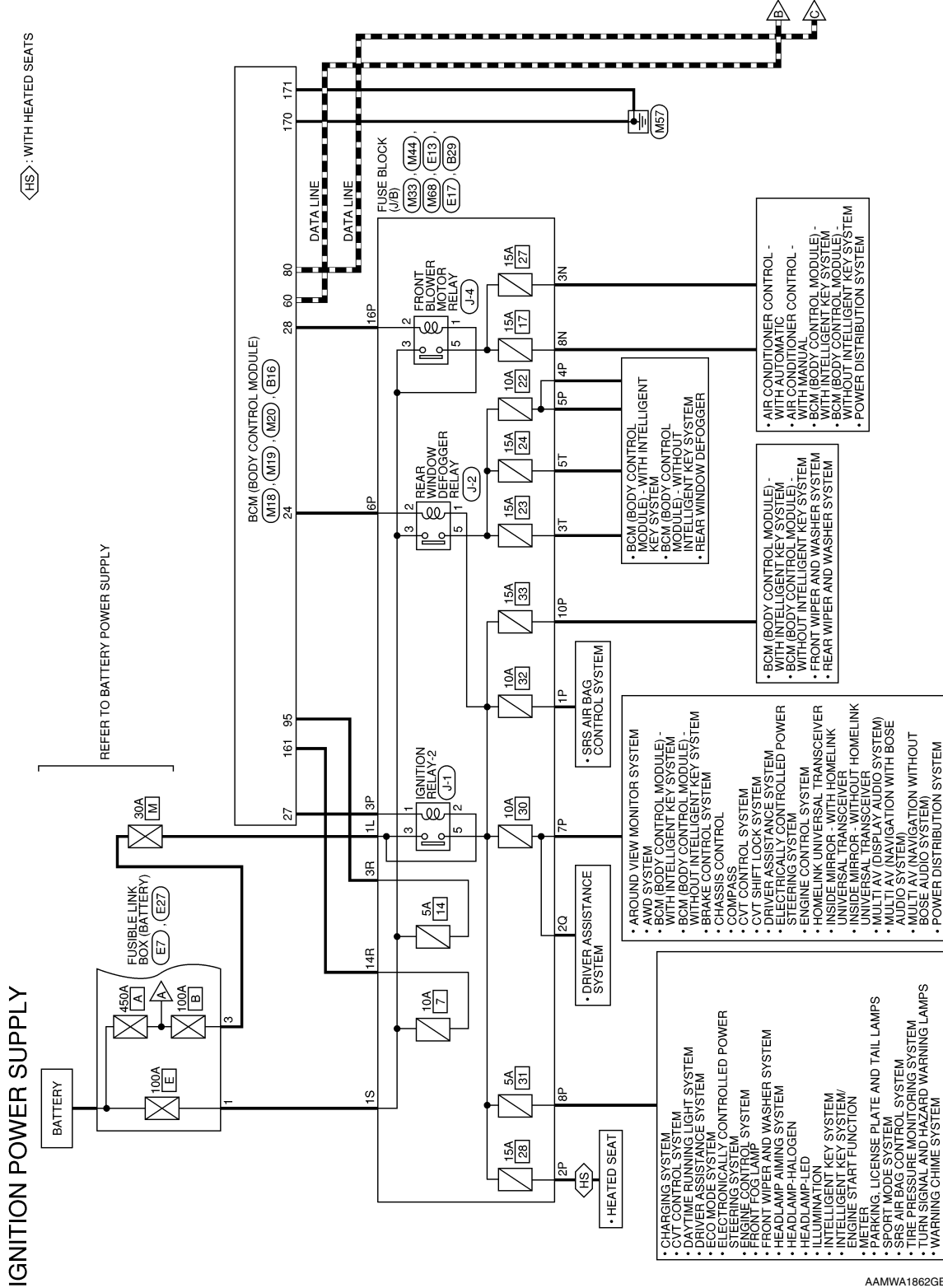


# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

## Wiring Diagram — Ignition Power Supply —

INFOID:000000012422883



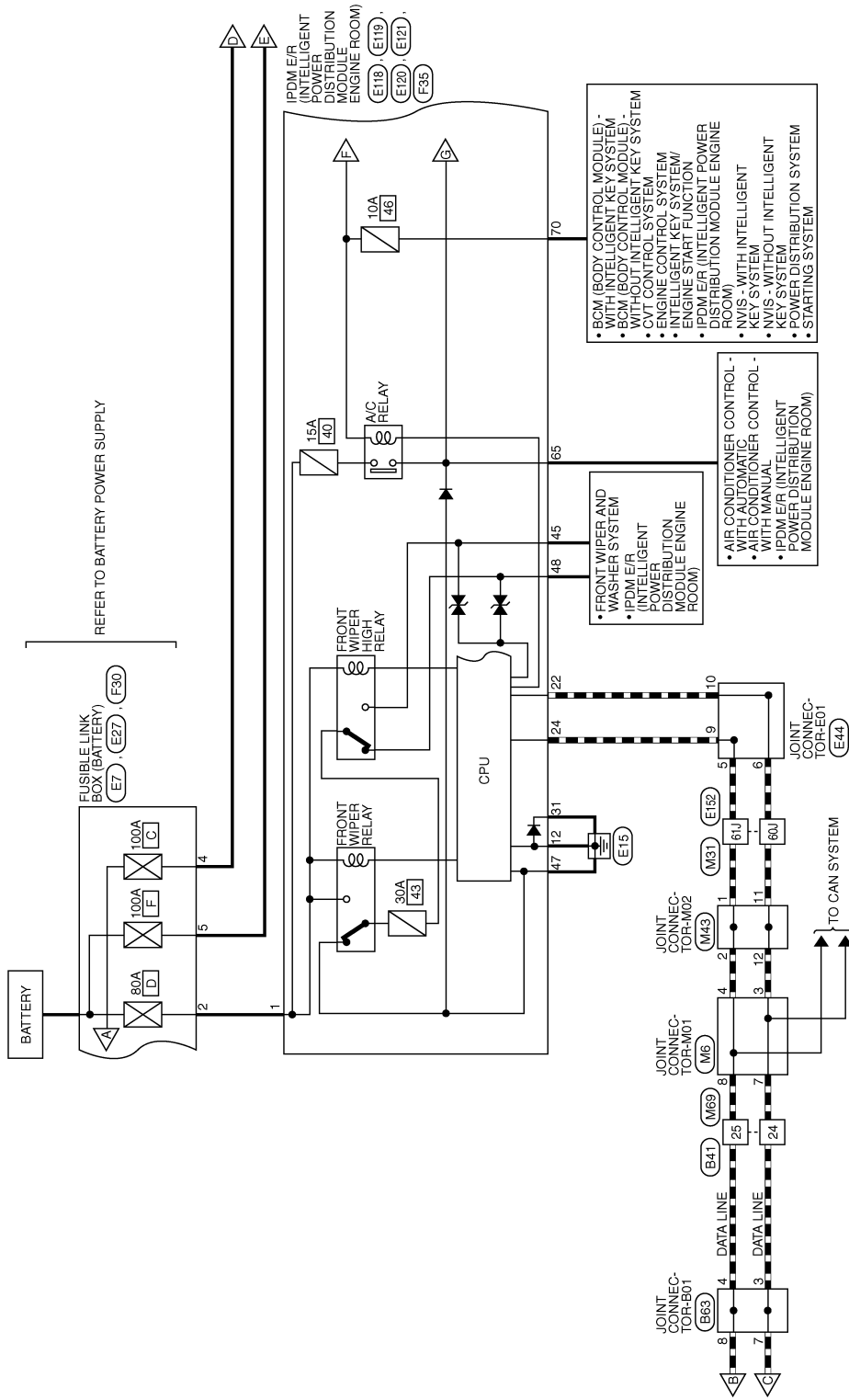
AAMWA1862BG

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

PG

# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >



AAMWA1863GB

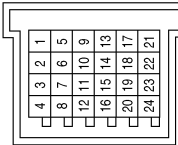


# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >

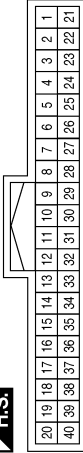
## IGNITION POWER SUPPLY CONNECTORS

Connector No.	M6
Connector Name	JOINT CONNECTOR-M01
Connector Color	GRAY



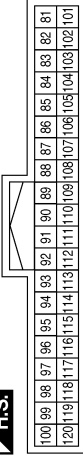
Terminal No.	Color of Wire	Signal Name
3	P	-
4	L	-
7	P	-
8	L	-

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



Terminal No.	Color of Wire	Signal Name
24	LA/R	O DEFROSTER RL D
27	Y	O IGN1 RL
28	LA/W	O IGN2 RL

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



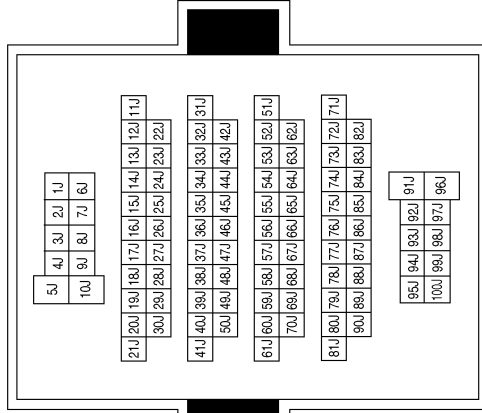
Terminal No.	Color of Wire	Signal Name
95	V	I SHORTING PIN

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



Terminal No.	Color of Wire	Signal Name
161	W	I PWR ECU
170	B	I GND1
171	B	I GND2

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



Terminal No.	Color of Wire	Signal Name
60J	P	-
61J	L	-

# POWER SUPPLY ROUTING CIRCUIT

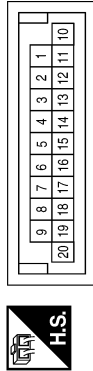
< WIRING DIAGRAM >

Connector No.	M44
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



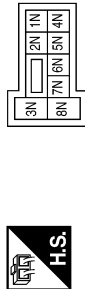
Terminal No.	Color of Wire	Signal Name
1P	R	-
2P	G	-
3P	Y	-
4P	LG	-
5P	GR	-
6P	LA/R	-
7P	Y	-
8P	LA/BR	-
10P	LG	-
16P	LA/W	-

Connector No.	M43
Connector Name	JOINT CONNECTOR-M02
Connector Color	BLUE



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

Connector No.	M33
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



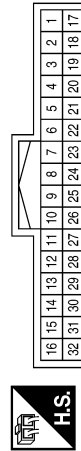
Terminal No.	Color of Wire	Signal Name
3N	Y	-
8N	SB	-

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



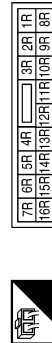
Terminal No.	Color of Wire	Signal Name
3	W	-
4	L	-

Connector No.	M69
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
24	P	-
25	L	-

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



Terminal No.	Color of Wire	Signal Name
3R	V	-
14R	W	-

AAMIA2343GB

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

# 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	G	-
2	R	-

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



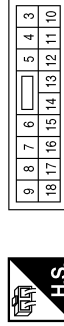
Terminal No.	Color of Wire	Signal Name
1L	L	-

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



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

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



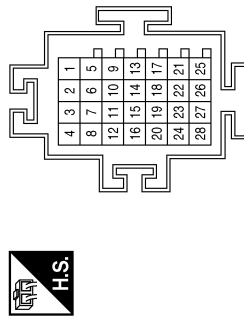
Terminal No.	Color of Wire	Signal Name
8	BG	O ACTUATOR4 CABIN (3FB4)
12	B	SIGNAL GROUND

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	FL BAT 2
2	L	FL BAT 1

Connector No.	E44
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



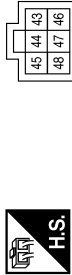
Terminal No.	Color of Wire	Signal Name
5	L	-
6	P	-
9	L	-
10	P	-

AAMIA3613GB

# POWER SUPPLY ROUTING CIRCUIT

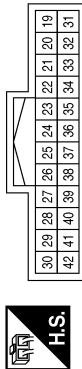
< WIRING DIAGRAM >

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



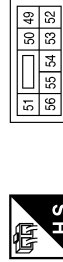
Terminal No.	Color of Wire	Signal Name
43	LG	O IGN LCS CABIN
45	V	O FR WIPER HI
46	W	O FUEL PUMP
47	B	POWER GROUND
48	Y	O FR WIPER LO

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



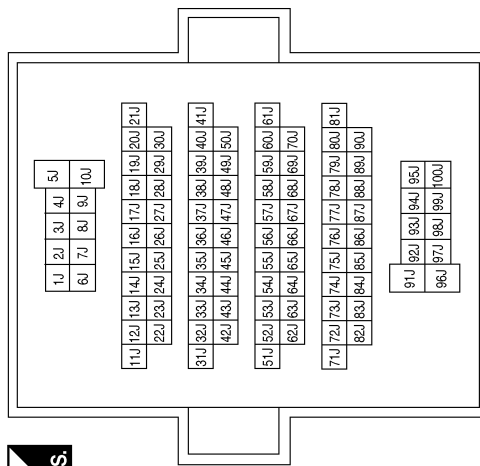
Terminal No.	Color of Wire	Signal Name
19	LG	O IGN ECM
22	P	CAN-L
24	L	CAN-H
31	B	2ND SIGNAL GROUND

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



Terminal No.	Color of Wire	Signal Name
60J	P	-
61J	L	-

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



AAMIA3614GB

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

PG

# POWER SUPPLY ROUTING CIRCUIT

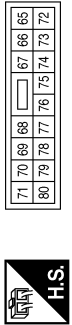
< WIRING DIAGRAM >

Connector No.	F41
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
81	L	FLECM USM SUPPLY
83	G	O STARTER
84	LG	I BATT MOTOR FAN LO
85	P	O MOTOR FAN LO
86	GR	FL STARTER

Connector No.	F35
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
65	P	O AC CLUTCH
66	R	O ACTUATOR1 1 (3FB1)
67	V	LI ECM ACT5 DRIVER
70	BG	O IGN AT LPG
71	SB	O IGN REVERSE SW AC VALVE
72	GR	O ACTUATOR5 (3FBA)
73	Y	O ACTUATOR1 2 (3FB)
75	BR	O ACTUATOR3 (3FB3)
76	P	LI FUEL PUMP DRIVER
78	L	O ACTUATOR2 (3FB2)

Connector No.	F30
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BLACK



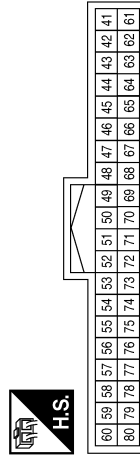
Terminal No.	Color of Wire	Signal Name
5	W	-

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



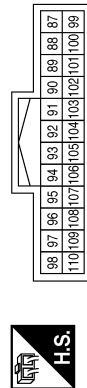
Terminal No.	Color of Wire	Signal Name
3T	G	-
5T	G	-

Connector No.	B16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
60	L	CAN-H
80	P	CAN-L

Connector No.	F42
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
92	GR	LI NP SW
93	P	LI ECM DRIVER

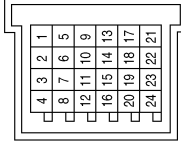
AAMIA2855GB



# POWER SUPPLY ROUTING CIRCUIT

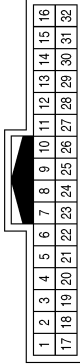
< WIRING DIAGRAM >

Connector No.	B63
Connector Name	JOINT CONNECTOR-B01
Connector Color	GRAY



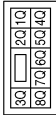
Terminal No.	Color of Wire	Signal Name
3	P	-
4	L	-
7	P	-
8	L	-

Connector No.	B41
Connector Name	WIRE TO WIRE
Connector Color	WHITE



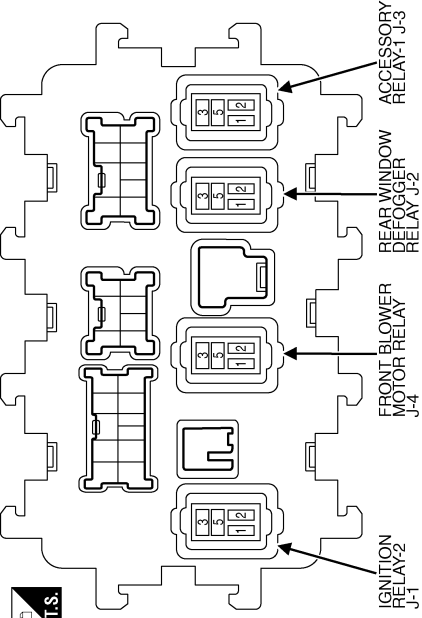
Terminal No.	Color of Wire	Signal Name
24	P	-
25	L	-

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

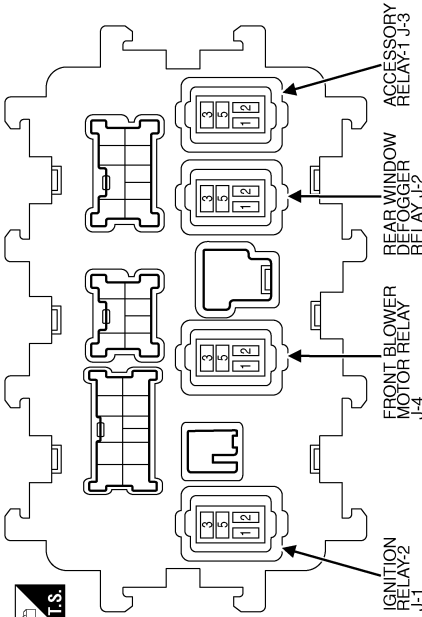


Terminal No.	Color of Wire	Signal Name
2Q	BR	-

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



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

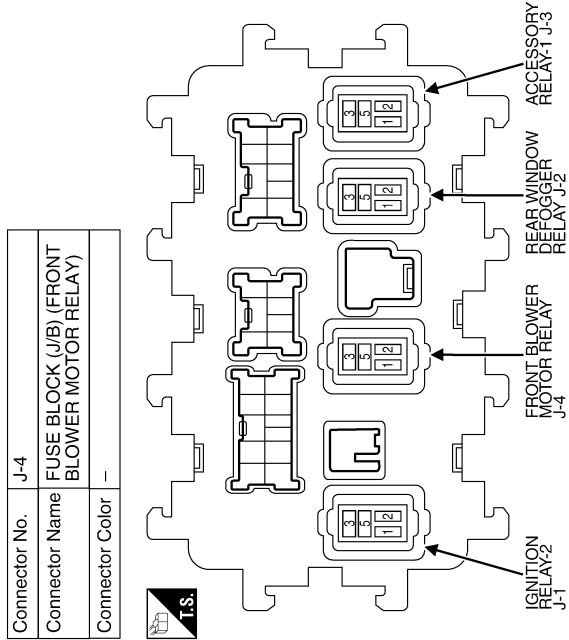


AAMIA3615GB

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

# POWER SUPPLY ROUTING CIRCUIT

< WIRING DIAGRAM >



AAMIA2348GB

# GROUND

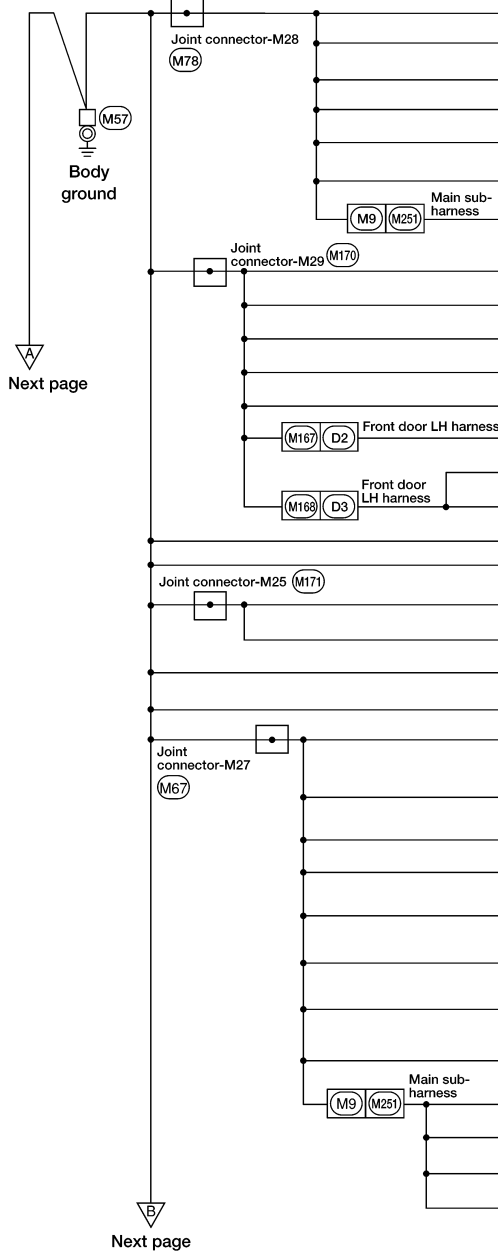
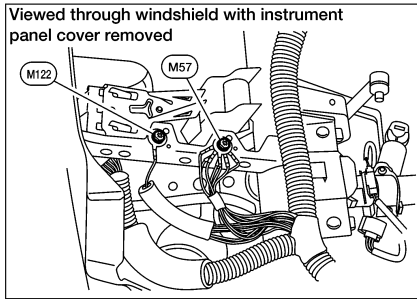
< WIRING DIAGRAM >

## GROUND

### Ground Distribution

INFOID:000000012422884

### MAIN HARNESS



CONNECTOR NUMBER	CONNECT TO
(M1)	ECO Mode switch (Terminal No. 4) (with ECO mode switch)
(M1)	ECO mode switch (Terminal No. 8) (with ECO mode switch)
(M2)	Sport mode switch (Terminal No. 4) (with sport mode switch)
(M2)	Sport mode switch (Terminal No. 8) (with sport mode switch)
(M26)	Hazard switch (Terminal No. 1)
(M26)	Hazard switch (Terminal No. 3)
(M256)	Warning system switch (Terminal No. 4) (with driver assistance system)
(M3)	Meter control switch
(M17)	Push-button ignition switch (Terminal No. 4)
(M17)	Push-button ignition switch (Terminal No. 7)
(M30)	Combination switch (spiral cable)
(M105)	Key switch
(D11)	Front outside handle assembly LH
(D14)	Door mirror LH (Terminal No. 14)
(D27)	Door mirror remote control switch
(M4)	NATS antenna amp. (without Intelligent Key system)
(M5)	Dongle unit
(M10)	Air bag diagnosis sensor unit (Terminal No. 27)
(M157)	Front passenger air bag off indicator
(M20)	BCM (body control module) (Terminal No. 170)
(M20)	BCM (body control module) (Terminal No. 171)
(M24)	Automatic back door switch (Terminal No. 2) (with automatic back door)
(M24)	Automatic back door switch (Terminal No. 4) (with automatic back door)
(M79)	VDC OFF switch (Terminal No. 4)
(M79)	VDC OFF switch (Terminal No. 8)
(M178)	Automatic back door main switch (Terminal No. 2) (with automatic back door)
(M178)	Automatic back door main switch (Terminal No. 3) (with automatic back door)
(M196)	Front heated seat switch RH (Terminal No. 2) (with front heated seat)
(M197)	Front heated seat switch LH (Terminal No. 2) (with front heated seat)
(M252)	AWD lock switch (Terminal No. 4) (with all wheel drive)
(M252)	AWD lock switch (Terminal No.6) (with all wheel drive)
(M254)	Hill descent switch (Terminal No. 4)
(M254)	Hill descent switch (Terminal No. 6)

Next page

Next page

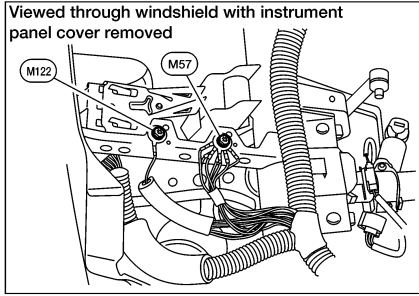
AAMIA3624GB

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

PG

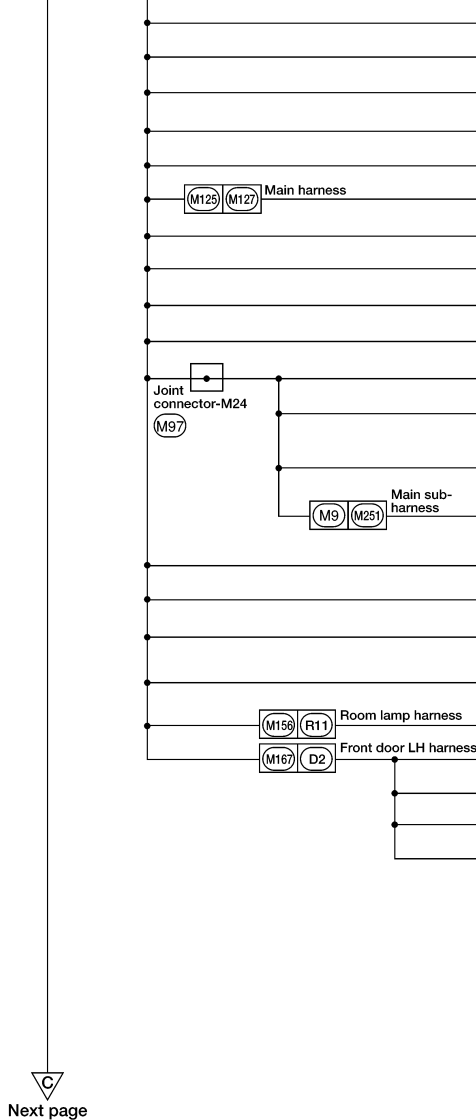
# GROUND

< WIRING DIAGRAM >



Preceding page **A**

Preceding page **B**



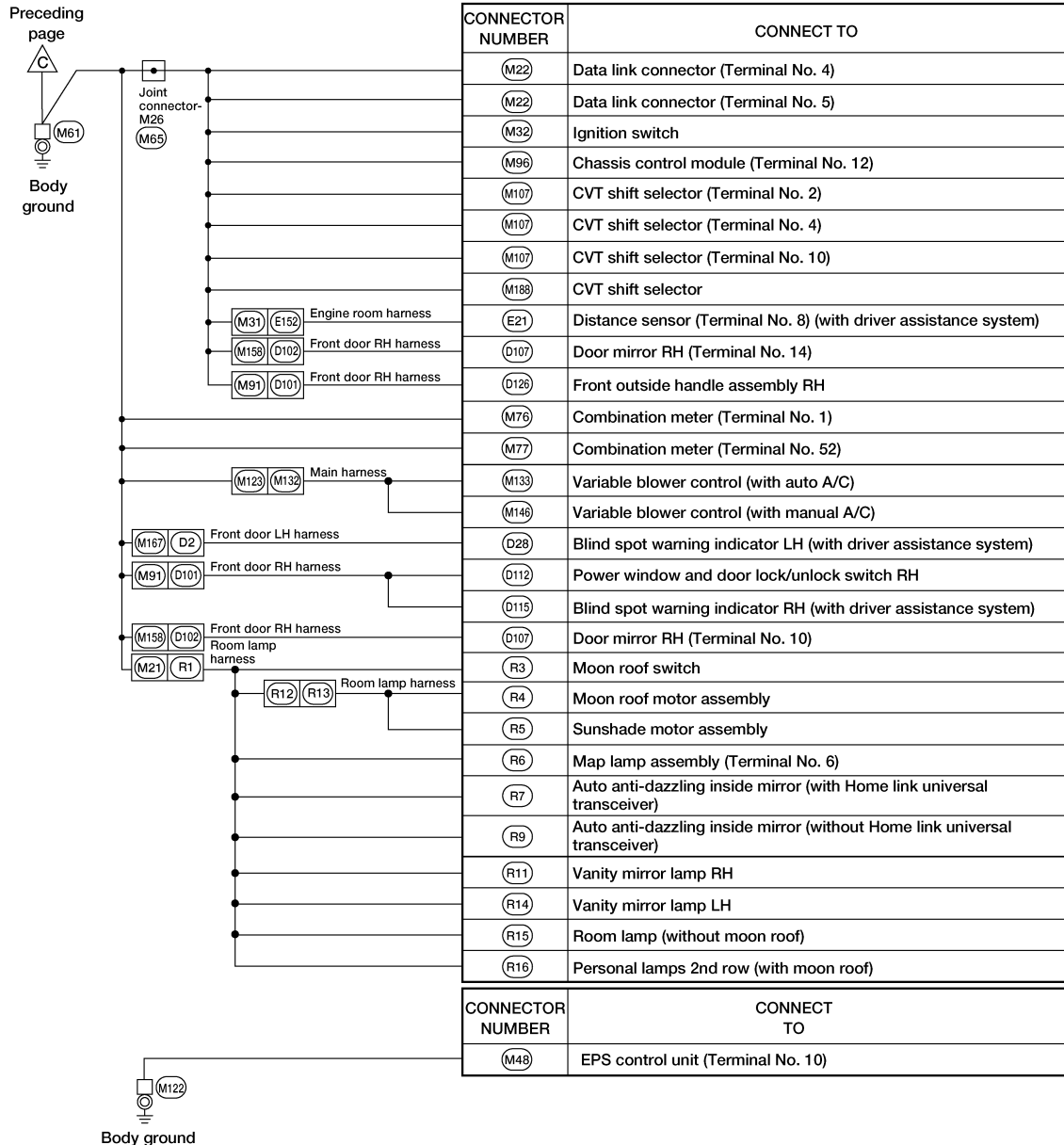
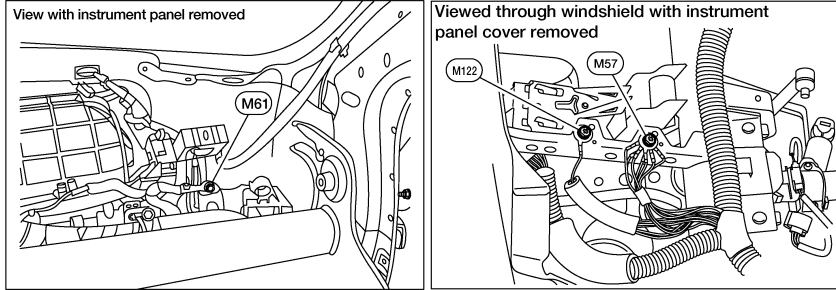
CONNECTOR NUMBER	CONNECT TO
(M28)	Combination switch
(M35)	TCU (Terminal No. 28) (with telematics system)
(M35)	TCU (Terminal No. 29) (with telematics system)
(M50)	Front air control (Terminal No. 19) (without auto A/C)
(M51)	A/C switch (with auto A/C)
(M54)	A/C auto amp. (Terminal No. 3) (with auto A/C)
(M56)	Steering angle sensor (Terminal No. 1)
(M62)	Front power socket
(M63)	Console power socket
(M83)	Audio unit (Terminal No. 20)
(M87)	Audio unit (Terminal No. 52)
(M112)	Around view monitor control unit (Terminal No. 39) (with driver assistance system)
(M148)	ADAS control unit (Terminal No. 1) (with driver assistance system)
(M255)	Warning system switch (Terminal No. 2) (with driver assistance system)
(M101)	AV control unit (Terminal No. 20) (without BOSE audio system)
(M108)	AV control unit (Terminal No. 20) (with BOSE audio system)
(M199)	Front heated seat switch RH (Terminal No. 3) (with front heated seat)
(M197)	Front heated seat switch LH (Terminal No. 3) (with front heated seat)
(R6)	Map lamp assembly (Terminal No. 7)
(D6)	Main power window and door lock/unlock switch (Terminal No. 1)
(D14)	Door mirror LH (Terminal No. 10)
(D23)	Front door lock assembly LH
(D27)	Door mirror remote control switch (Terminal No. 10)

Next page **C**

AAMIA3625GB

# GROUND

< WIRING DIAGRAM >



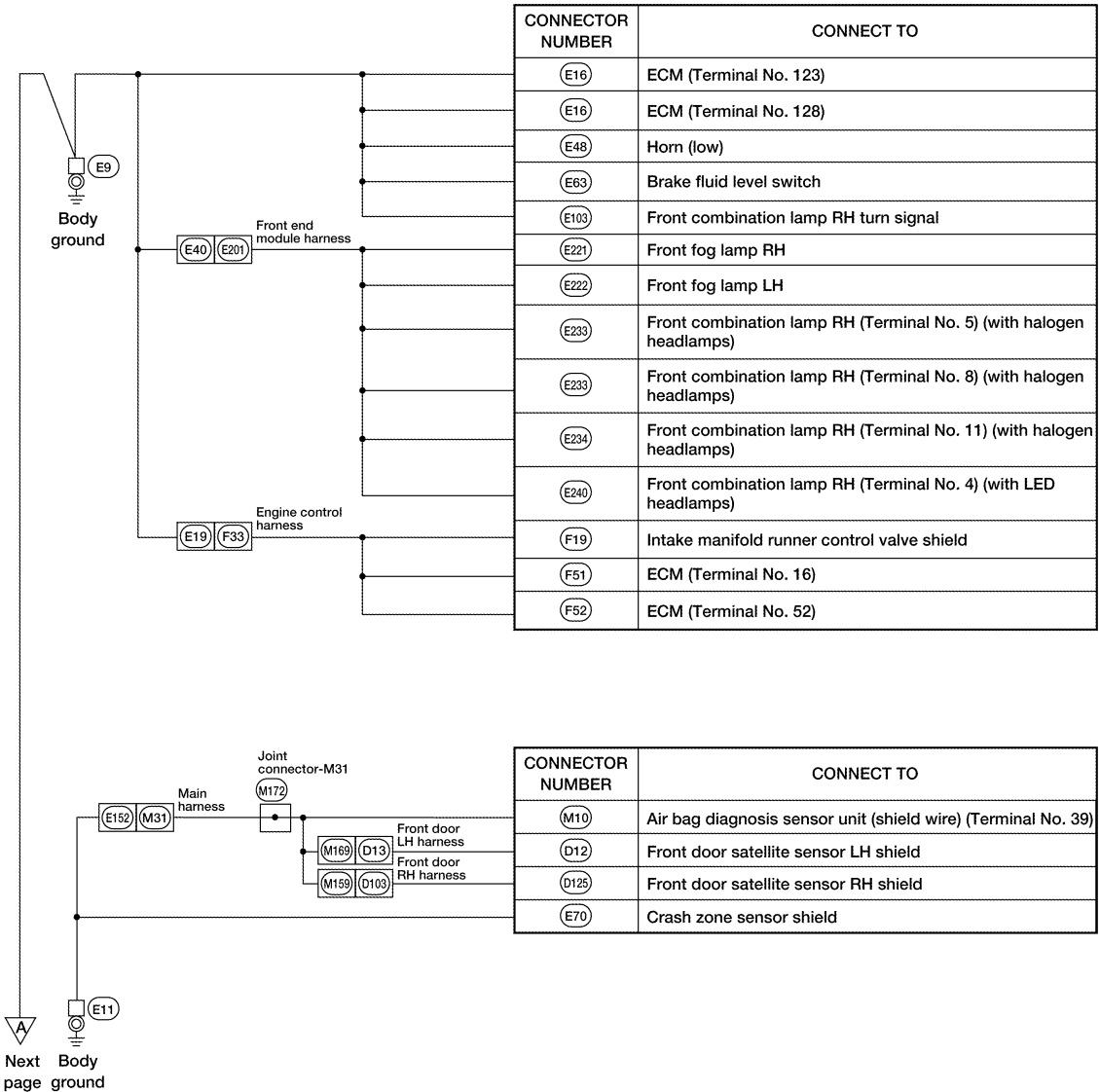
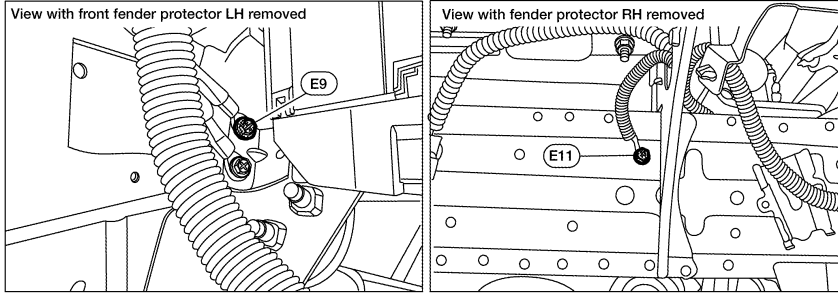
AAMIA3626GB

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

# GROUND

< WIRING DIAGRAM >

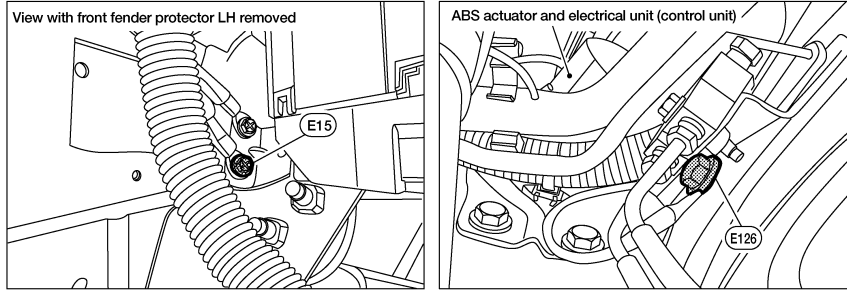
## ENGINE ROOM HARNESS



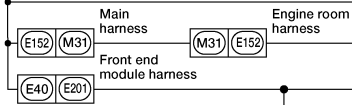
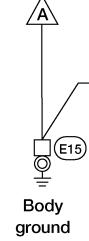
AAMIA3627GB

# GROUND

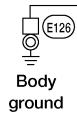
< WIRING DIAGRAM >



Preceding page



CONNECTOR NUMBER	CONNECT TO
E20	Front wiper motor
E46	Horn
E82	Washer fluid level switch
E105	Front combination lamp LH turn signal
E119	IPDM E/R (intelligent power distribution module engine room) (Terminal No. 12)
E120	IPDM E/R (intelligent power distribution module engine room) (Terminal No. 31)
E121	IPDM E/R (intelligent power distribution module engine room) (Terminal No. 47)
E24	Intelligent Key warning buzzer
E234	Front combination lamp RH (Terminal No. 14) (with halogen headlamps)
E235	Front combination lamp LH (Terminal No. 5) (with halogen headlamps)
E235	Front combination lamp LH (Terminal No. 8) (with halogen headlamps)
E236	Front combination lamp LH (Terminal No. 11) (with halogen headlamps)
E236	Front combination lamp LH (Terminal No. 14) (with halogen headlamps)
E239	Front combination lamp LH (Terminal No. 4) (with LED headlamps)
E239	Front combination lamp LH (Terminal No. 11) (with LED headlamps)
E240	Front combination lamp RH (Terminal No. 11) (with LED headlamps)



CONNECTOR NUMBER	CONNECT TO
E125	ABS actuator and electric unit (control unit) (Terminal No. 13)
E125	ABS actuator and electric unit (control unit) (Terminal No. 38)

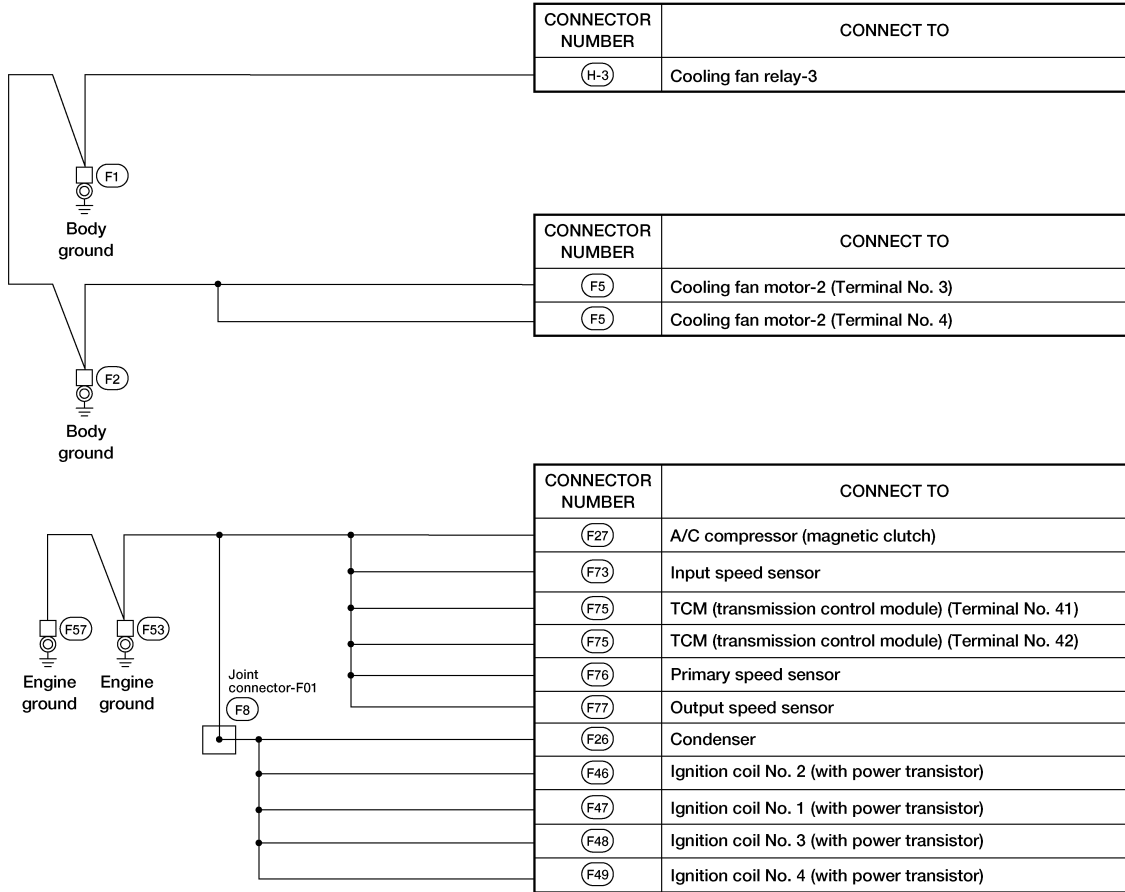
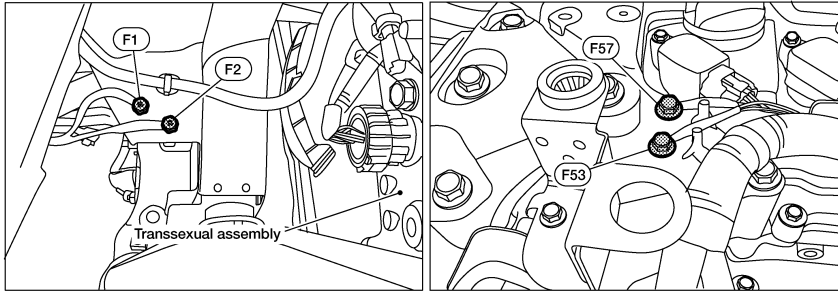
AAMIA3628GB

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

# GROUND

< WIRING DIAGRAM >

## ENGINE CONTROL HARNESS



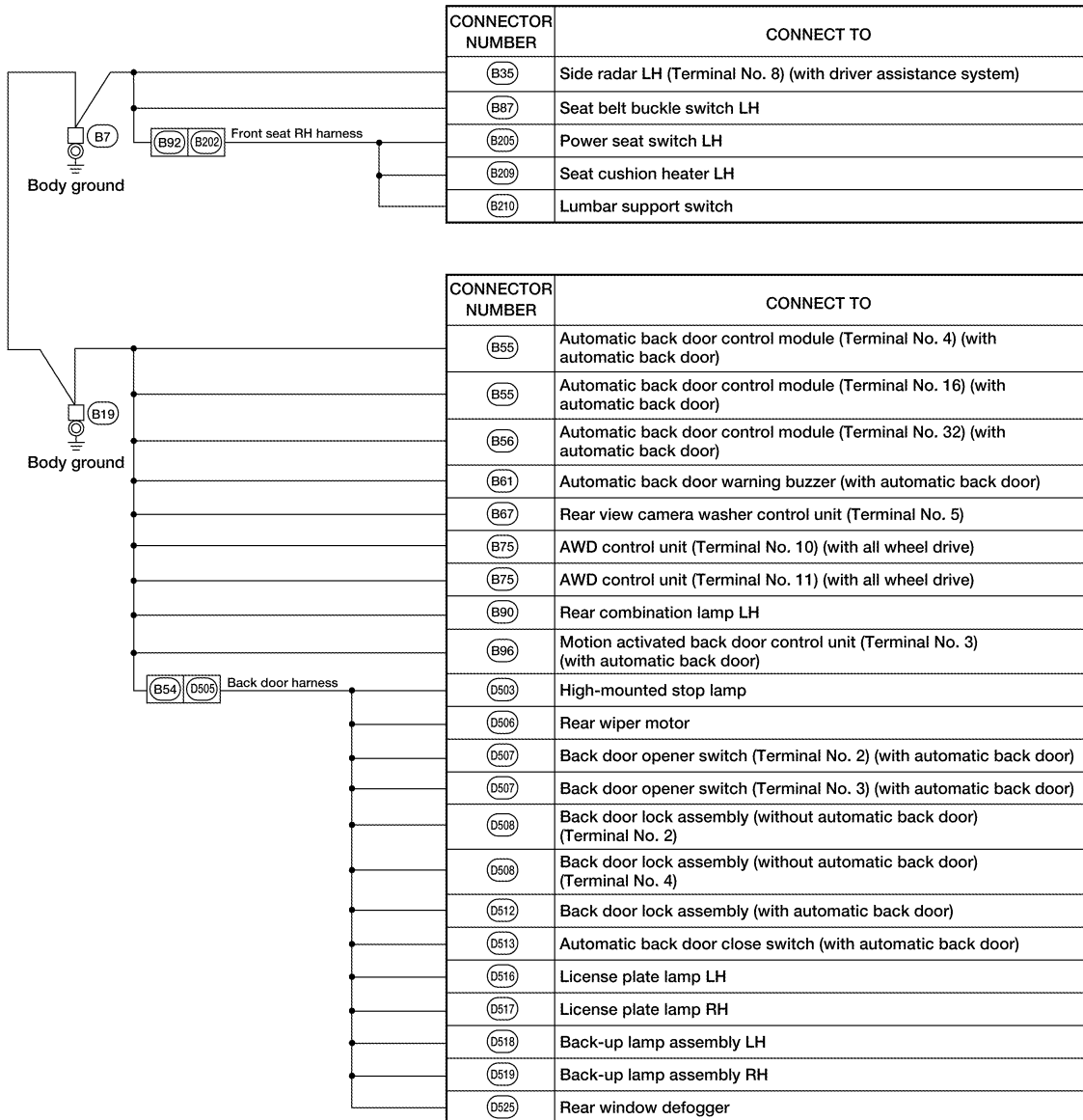
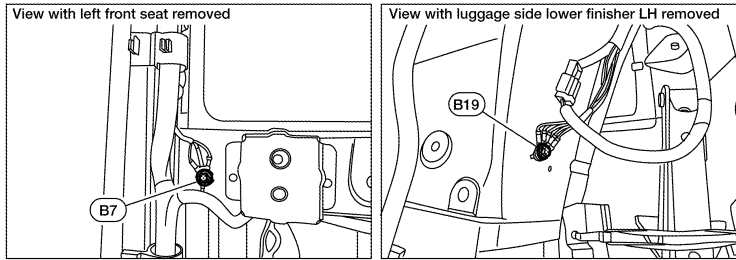
AAMIA3629GB



# GROUND

< WIRING DIAGRAM >

## BODY HARNESS



AAMIA3630GB

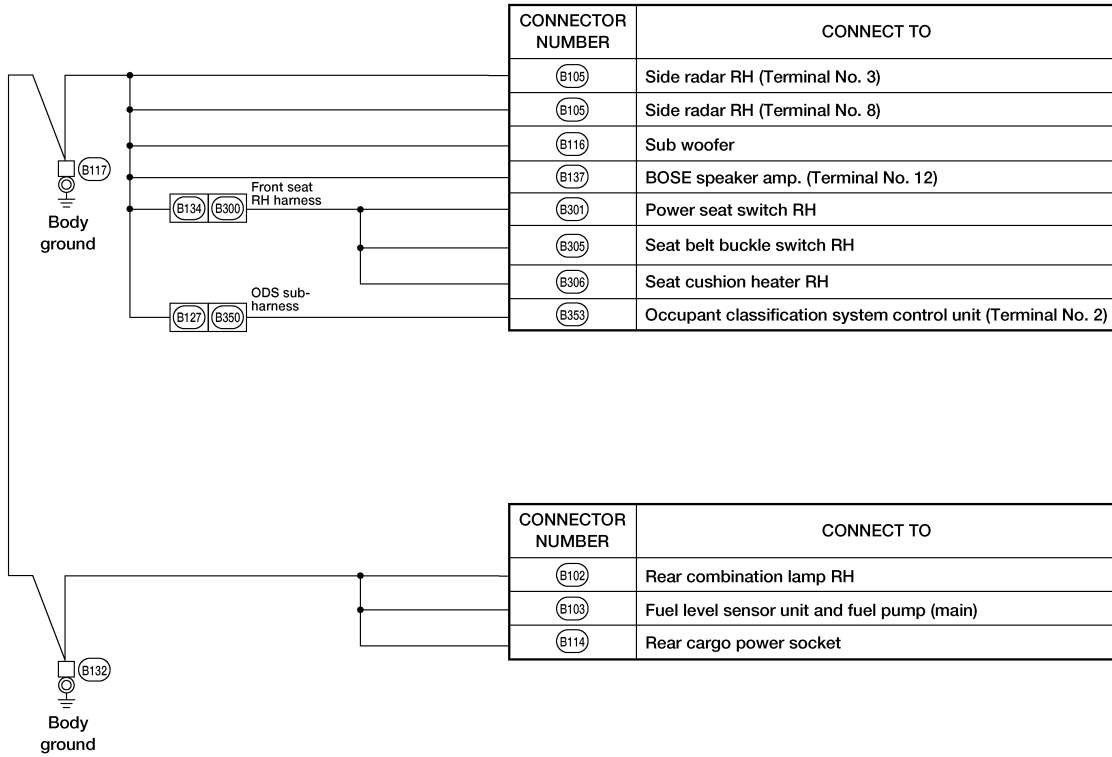
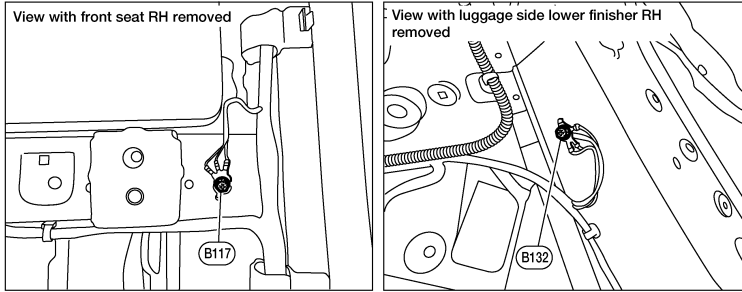
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
N  
O  
P

PG

# GROUND

< WIRING DIAGRAM >

## BODY NO. 2 HARNESS



AAMIA3631GB

# HARNESS

< WIRING DIAGRAM >

## HARNESS

### Harness Layout

INFOID:000000012422885

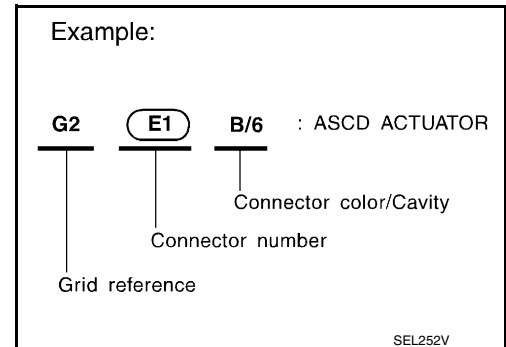
#### HOW TO READ HARNESS LAYOUT

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

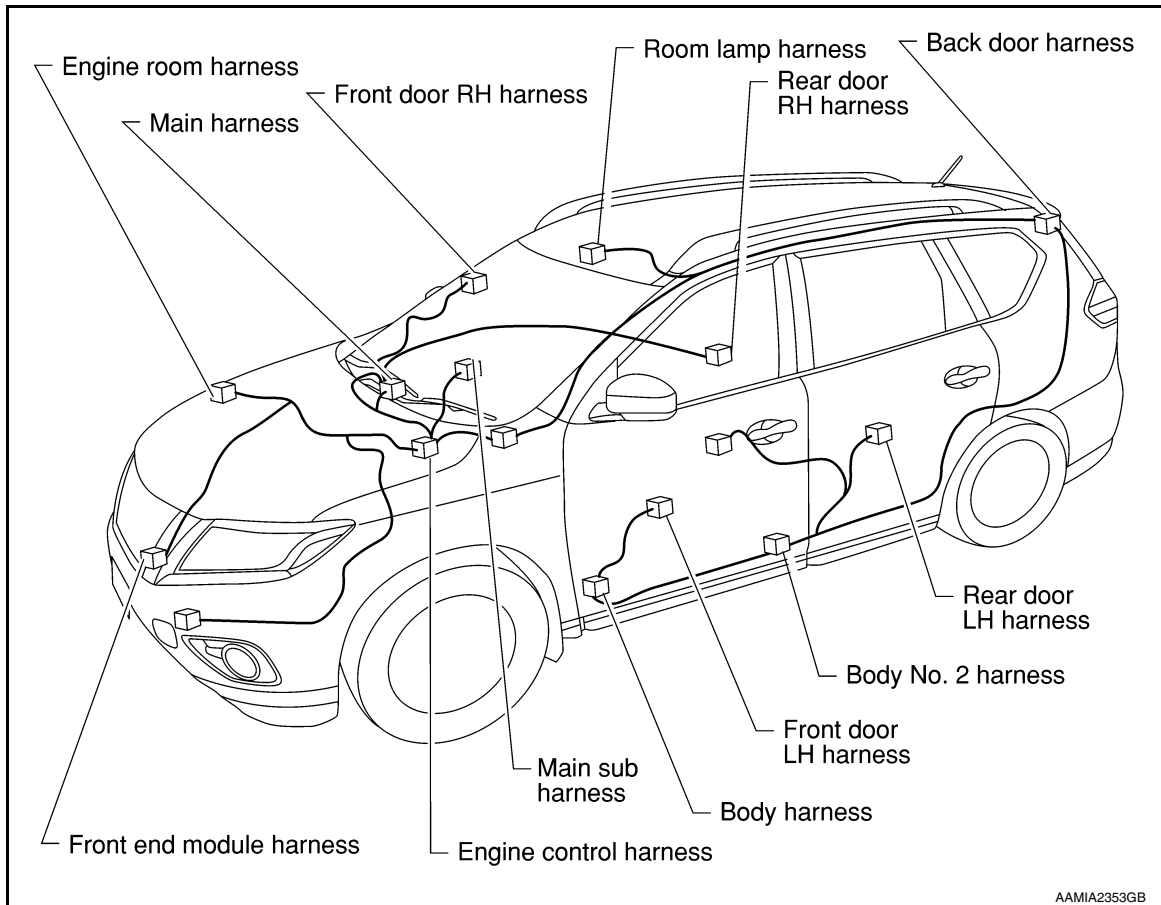
- Main Harness and Main Sub Harness
- Engine Room Harness
- Engine Room Harness (Passenger Compartment)
- Front End Module Harness
- Engine Control Harness
- Body Harness
- Body No. 2 Harness
- Room Lamp Harness

#### 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

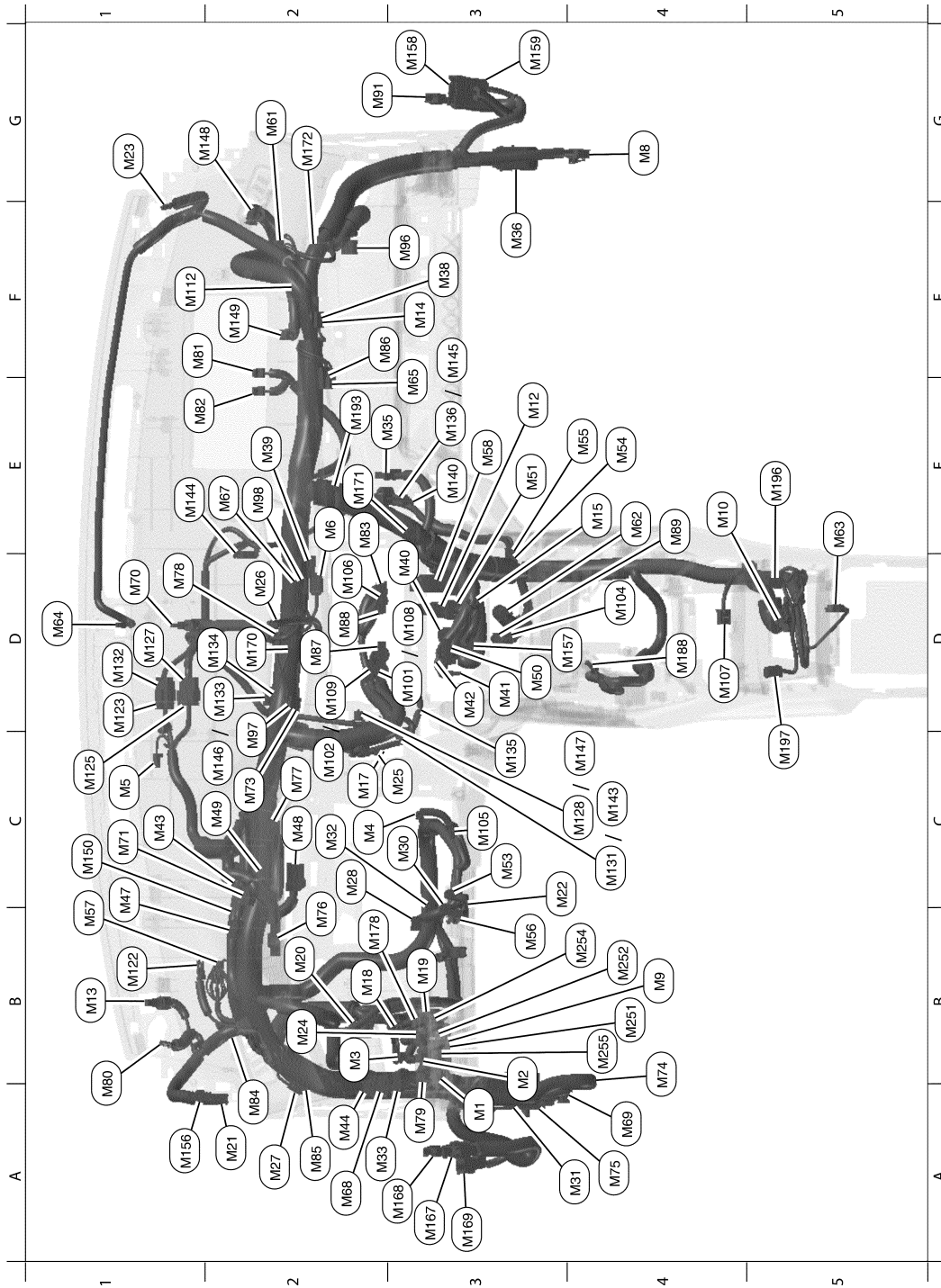


A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
PG  
N  
O  
P

# HARNESS

< WIRING DIAGRAM >

## MAIN HARNESS



AAMIA0555ZZ

A3	M1	GR/4	: Eco mode switch	A3	M79	B/8	: VDC off switch
B3	M2	B/8	: Sport mode switch	B1	M80	W/2	: Front tweeter LH
B2	M3	W/8	: Meter control switch	F1	M81	O/2	: Front passenger air bag module
C2	M4	W/4	: NATS antenna amp. (With Intelligent Key system)	E1	M82	B/2	: Front passenger air bag module
C1	M5	W/4	: Dongle unit	E2	M83	W/20	: Audio unit

# HARNESS

## < WIRING DIAGRAM >

E2	M6	GR/24	: Joint connector-M01	A2	M84	W/4	: Joint connector-M32	A
G4	M8	W/6	: To B106	A2	M85	W/8	: Joint connector-M33	
B4	M9	W/16	: To M251	F2	M86	W/8	: Joint connector-M34	
E4	M10	Y/28	: Air bag diagnosis sensor unit	D2	M87	W/32	: Audio unit	B
E3	M12	B/4	: Room lamp relay	D2	M88	W/8	: Audio unit	
B1	M13	W/3	: Optical sensor	E4	M89	B/6	: USB interface	
F3	M14	W/4	: Joint connector- M30	G2	M91	W/24	: To D101	C
E4	M15	GR/2	: Inside key antenna (Instrument center)	F3	M96	W/24	: Chassis control module	
C2	M17	W/8	: Push-button ignition switch	C2	M97	W/8	: Joint connector-M24	D
B2	M18	GR/40	: BCM (Body control module)	E2	M98	W/8	: Joint connector-M22	
B3	M19	B/40	: BCM (Body control module)	D3	M101	W/20	: AV control unit (Without BOSE audio system)	E
B2	M20	BR/16	: BCM (Body control module)	C2	M102	W/24	: AV control unit (Without BOSE audio system)	
A2	M21	W/8	: To R1	D4	M104	W/4	: Aux in jack	F
C3	M22	W/16	: Data link connector	C3	M105	W/2	: Key switch	
G1	M23	W/2	: Front tweeter RH	D2	M106	W/8	: AV control unit (With BOSE audio system)	G
B2	M24	G/8	: Automatic back door switch	D4	M107	W/16	: CVT shift selector	
C3	M25	W/3	: NATS antenna amp. (With Intelligent Key system)	D3	M108	W/20	: AV control unit (With BOSE audio system)	H
D2	M26	W/4	: Hazard switch	D2	M109	W/24	: AV control unit (With BOSE audio system)	
A2	M27	W/8	: Joint connector-M13	F1	M112	W/40	: Around view monitor control unit	I
C2	M28	W/16	: Combination switch	B1	M122	—	: Body ground	
C3	M30	W/12	: Combination switch (Spiral cable)	D1	M123	W/6	: To M132	J
A4	M31	SMJ	: To E152	C1	M125	W/32	: To M127	
C2	M32	W/4	: Ignition switch	D1	M127	W/32	: To M125	J
A2	M33	W/8	: Fuse block (J/B)	C4	M128	B/6	: Intake door motor	K
E2	M35	B/40	: TCU	C4	M131	B/6	: Mode door motor	
F3	M36	SMJ	: To B136	D1	M132	W/6	: To M123	K
F3	M38	W/6	: Joint connector-M05	D2	M133	GR/4	: Variable blower control (With auto A/C)	L
E2	M39	W/6	: Joint connector-M06	D2	M134	GR/2	: Variable blower control (With auto A/C)	
D3	M40	W/2	: Circuit breaker-1	C3	M135	GR/2	: Intake sensor	L
D3	M41	W/2	: In-vehicle sensor	E3	M136	B/6	: Air mix door motor	PG
D3	M42	W/2	: Circuit breaker-2	E3	M140	B/6	: Air mix door motor RH	
C1	M43	B/20	: Joint connector-M02	C4	M143	B/6	: Mode door motor	N
A2	M44	W/16	: Fuse block (J/B)	E1	M144	W/2	: Front blower motor	
C1	M47	B/20	: Joint connector-M04	F3	M145	B/6	: Air mix door motor LH	N
C2	M48	B/2	: EPS control unit	C2	M146	W/4	: Variable blower control (With manual A/C)	O
C2	M49	W/8	: EPS control unit	C4	M147	B/6	: Intake door motor	
D3	M50	W/32	: Front air control	G1	M148	W/24	: ADAS control unit	P
E3	M51	B/8	: A/C switch	F2	M149	W/2	: Warning system buzzer	
C3	M53	GR/4	: Combination switch (Spiral cable)	C1	M150	G/8	: Joint connector-M07	
E4	M54	B/40	: A/C auto amp.	A1	M156	W/24	: To R11	
E4	M55	GR/40	: A/C auto amp.	D4	M157	B/4	: Front passenger air bag off indicator	
B3	M56	GR/8	: Steering angle sensor	G3	M158	W/16	: To D102	
B1	M57	—	: Body ground	G3	M159	Y/4	: To D103	

# HARNES

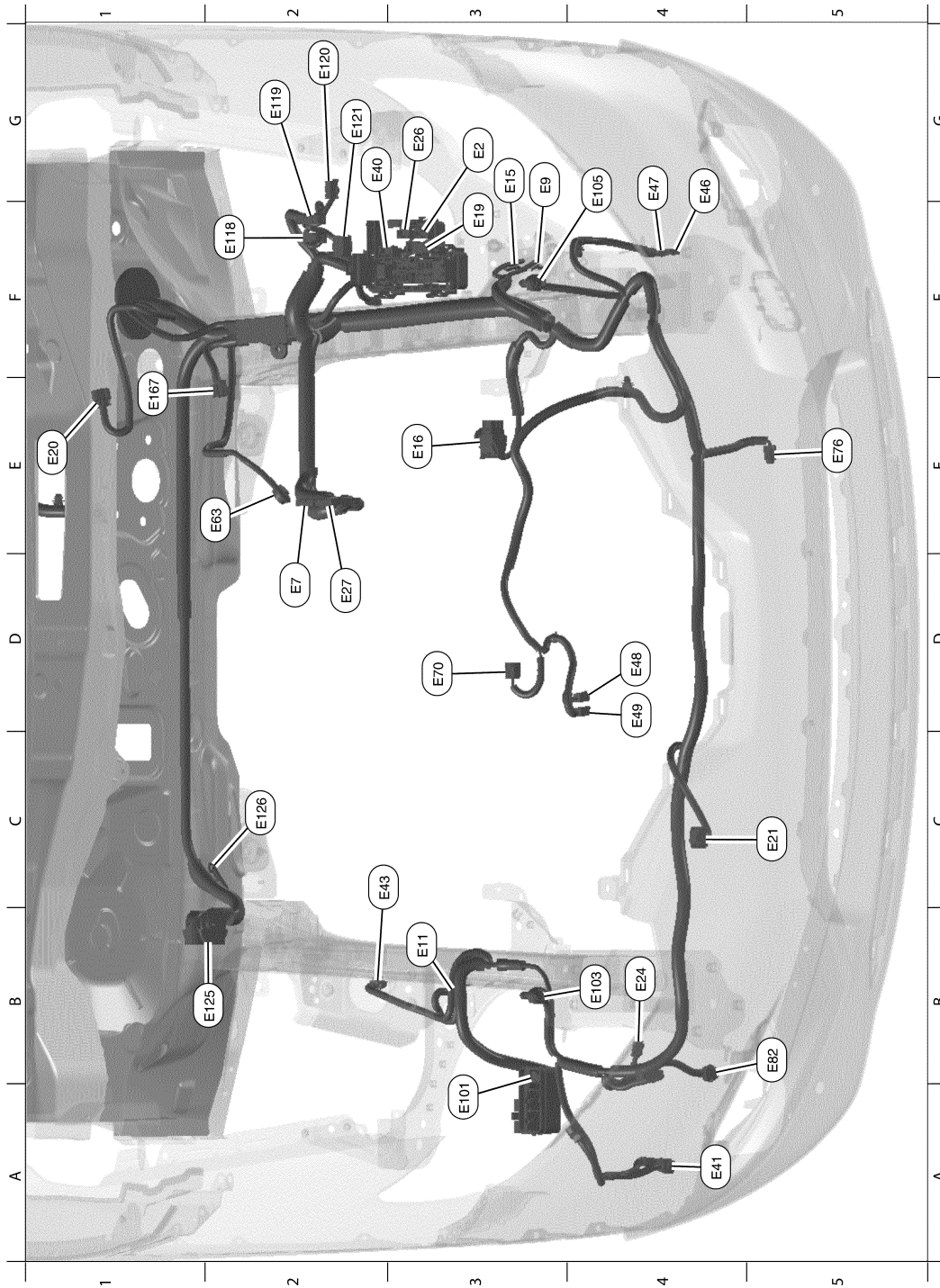
## < WIRING DIAGRAM >

E3	M58	B/4	: Power window relay	A3	M167	W/16	: To D2
G2	M61	—	: Body ground	A3	M168	W/24	: To D3
E4	M62	B/3	: Front power socket	A3	M169	Y/4	: To D13
E5	M63	B/3	: Console power socket	D2	M170	W/8	: Joint connector-M29
D1	M64	B/2	: Sunload sensor	E2	M171	W/4	: Joint connector-M25
E3	M65	W/8	: Joint connector-M26	G2	M172	W/4	: Joint connector-M31
E2	M67	W/8	: Joint connector-M27	B2	M178	B/8	: Automatic back door main switch
A2	M68	BR/16	: Fuse block (J/B)	D4	M188	BR/2	: CVT shift selector
A4	M69	W/32	: To B41	E2	M193	W/8	: Joint connector-M18
D1	M70	BR/2	: Center speaker	E5	M196	BR/6	: Front heated seat switch RH
C1	M71	B/20	: Joint connector-M03	C5	M197	W/6	: Front heated seat switch LH
C2	M73	W/8	: Joint connector-M23	Main sub harness			
B4	M74	W/16	: To B42	B4	M251	W/16	: To M9
A4	M75	B/2	: To E36	B4	M252	W/10	: AWD lock switch
B2	M76	W/40	: Combination meter	B4	M254	GR/10	: Hill descent control switch
C2	M77	W/12	: Combination meter	B4	M255	W/8	: Warning system switch
D1	M78	W/8	: Joint connector-M28				

# HARNESS

< WIRING DIAGRAM >

## ENGINE ROOM HARNESS



AAMIA0556ZZ

G3	E2	W/2	: To F32	G4	E47	BR/1	: Horn
D2	E7	GR/2	: Fusible link box (Battery)	D4	E48	B/1	: Horn (Low)
G3	E9	—	: Body ground	D4	E49	BR/1	: Horn (Low)
B3	E11	—	: Body ground	E2	E63	B/2	: Brake fluid level switch
G3	E15	—	: Body ground	D3	E70	Y/2	: Crash zone sensor

# HARNESS

## < WIRING DIAGRAM >

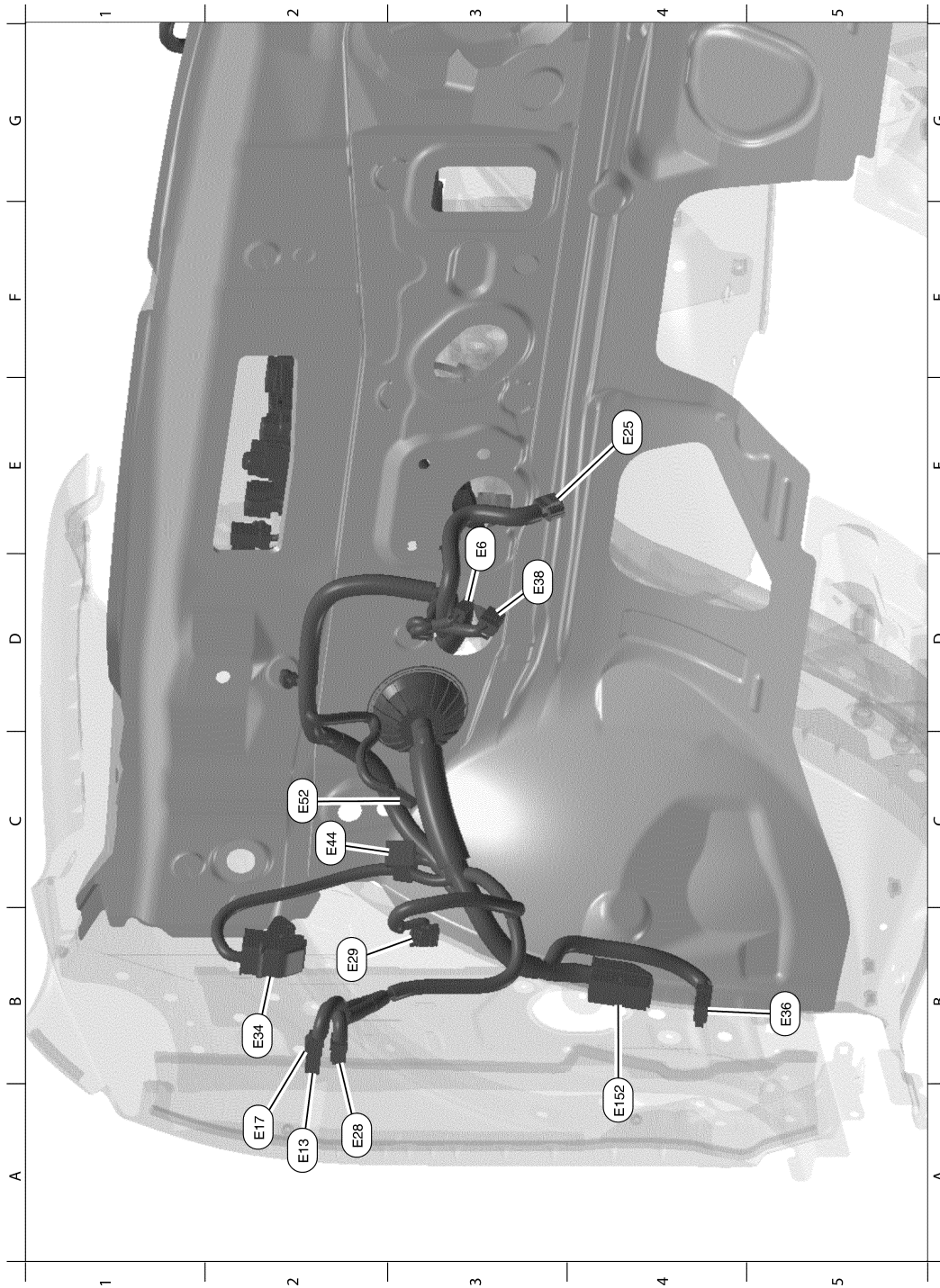
E3	E16	B/32	: ECM	E5	E76	B/2	: Ambient sensor
E2	E18	GR/2	: Front wheel sensor LH	B5	E82	W/2	: Washer fluid level switch
F3	E19	BR/16	: To F33	A3	E101	W/3	: Anti-theft horn relay
E1	E20	GR/5	: Front wiper motor	B4	E103	GR/3	: Front combination lamp RH
C5	E21	B/8	: Distance sensor	G4	E105	GR/3	: Front combination lamp LH
B4	E24	BR/3	: Intelligent Key warning buzzer	F2	E118	B/2	: IPDM E/R (Intelligent power distribution module engine room)
G3	E26	W/24	: To E209	G2	E119	GR/16	: IPDM E/R (Intelligent power distribution module engine room)
D2	E27	BR/2	: Fusible link box (Battery)	G2	E120	GR/24	: IPDM E/R (Intelligent power distribution module engine room)
G2	E40	W/4	: To E201	G2	E121	R/6	: IPDM E/R (Intelligent power distribution module engine room)
A4	E41	B/2	: Front and rear washer motor	B2	E125	B/37	: ABS actuator and electric unit (Control unit)
C2	E43	GR/2	: Front wheel sensor RH	C2	E126	—	: Body ground
G4	E46	B/1	: Horn	E1	E167	B/3	: Vacuum sensor



# HARNESS

< WIRING DIAGRAM >

## ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)



AAMIA0557ZZ

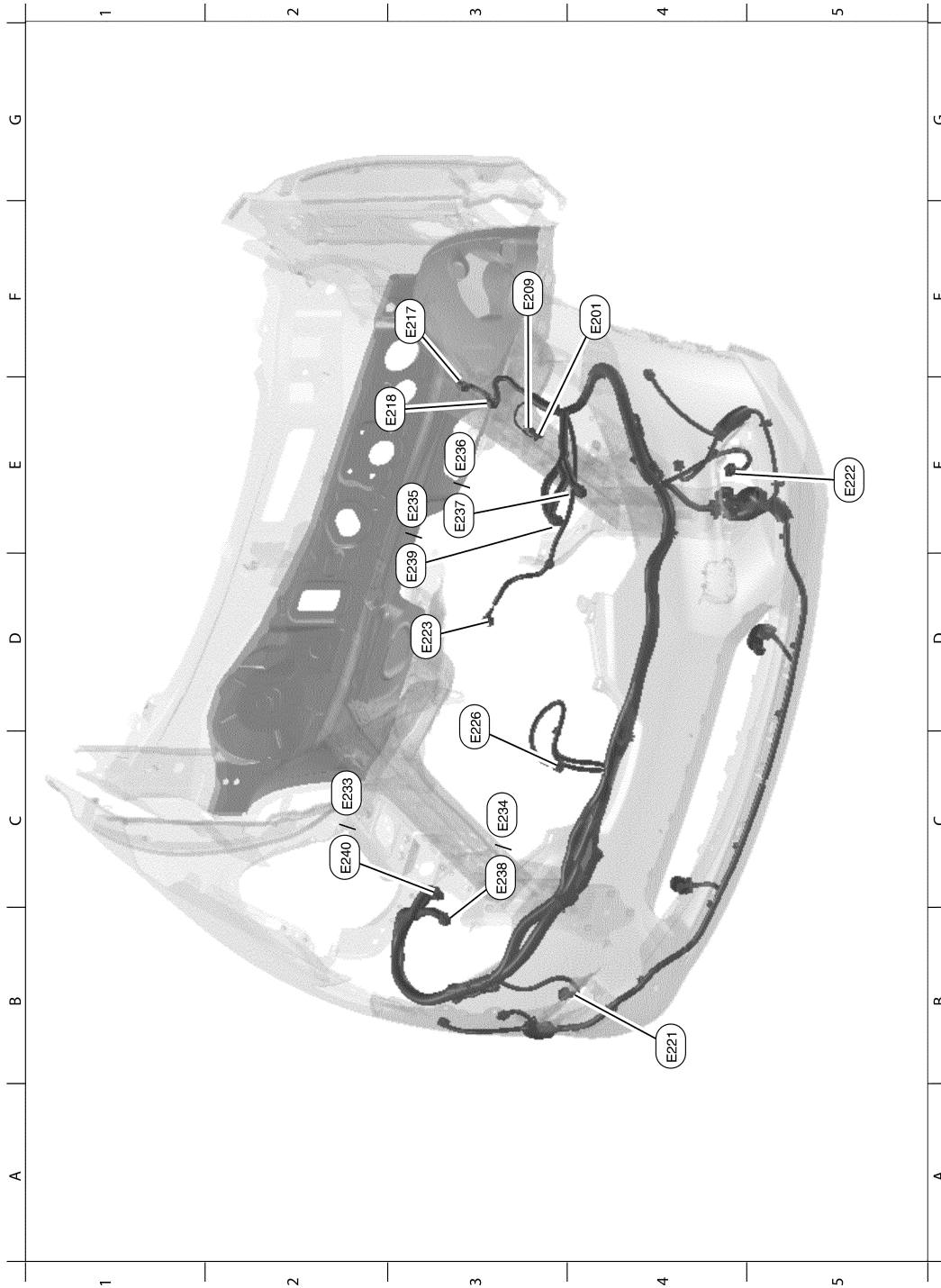
E3	E6	BR/2	: Brake pedal position switch	B2	E34	SMJ	: To B40
A2	E13	W/1	: Fuse block (J/B)	B5	E36	B/2	: To M75
A2	E17	W/1	: Fuse block (J/B)	D3	E38	W/4	: Stop lamp switch
E4	E25	B/6	: Accelerator pedal position sensor	C2	E44	W/28	: Joint connector-E01

# HARNESS

## < WIRING DIAGRAM >

A2	E28	W/10	: Fuse block (J/B)	C2	E52	B/1	: Parking brake switch
B2	E29	B/24	: BCM (Body control module)	A4	E152	SMJ	: To M31

## FRONT END MODULE HARNESS



AAMIA0416ZZ

F4	E201	W/4	: To E40	C2	E233	B/6	: Front combination lamp RH (With halogen headlamps)
F3	E209	W/24	: To E26	C3	E234	GR/6	: Front combination lamp RH (With halogen headlamps)

# HARNES

## < WIRING DIAGRAM >

F3	E217	BR/8	: IPDM E/R (Intelligent power distribution module engine room)	E3	E235	B/6	: Front combination lamp LH (With halogen headlamps)	A
E3	E218	W/8	: IPDM E/R (Intelligent power distribution module engine room)	E3	E236	GR/6	: Front combination lamp LH (With halogen headlamps)	B
B4	E221	B/2	: Front fog lamp RH	E3	E237	B/3	: Front combination lamp LH (Head lamp aiming motor)	B
E5	E222	B/2	: Front fog lamp LH	C3	E238	B/3	: Front combination lamp RH (Head lamp aiming motor)	C
D3	E223	GR/2	: Hood switch	C3	E239	B/8	: Front combination lamp LH (With LED headlamps)	D
D3	E226	B/6	: Front camera	C2	E240	B/8	: Front combination lamp RH (With LED headlamps)	D

E

F

G

H

I

J

K

L

PG

N

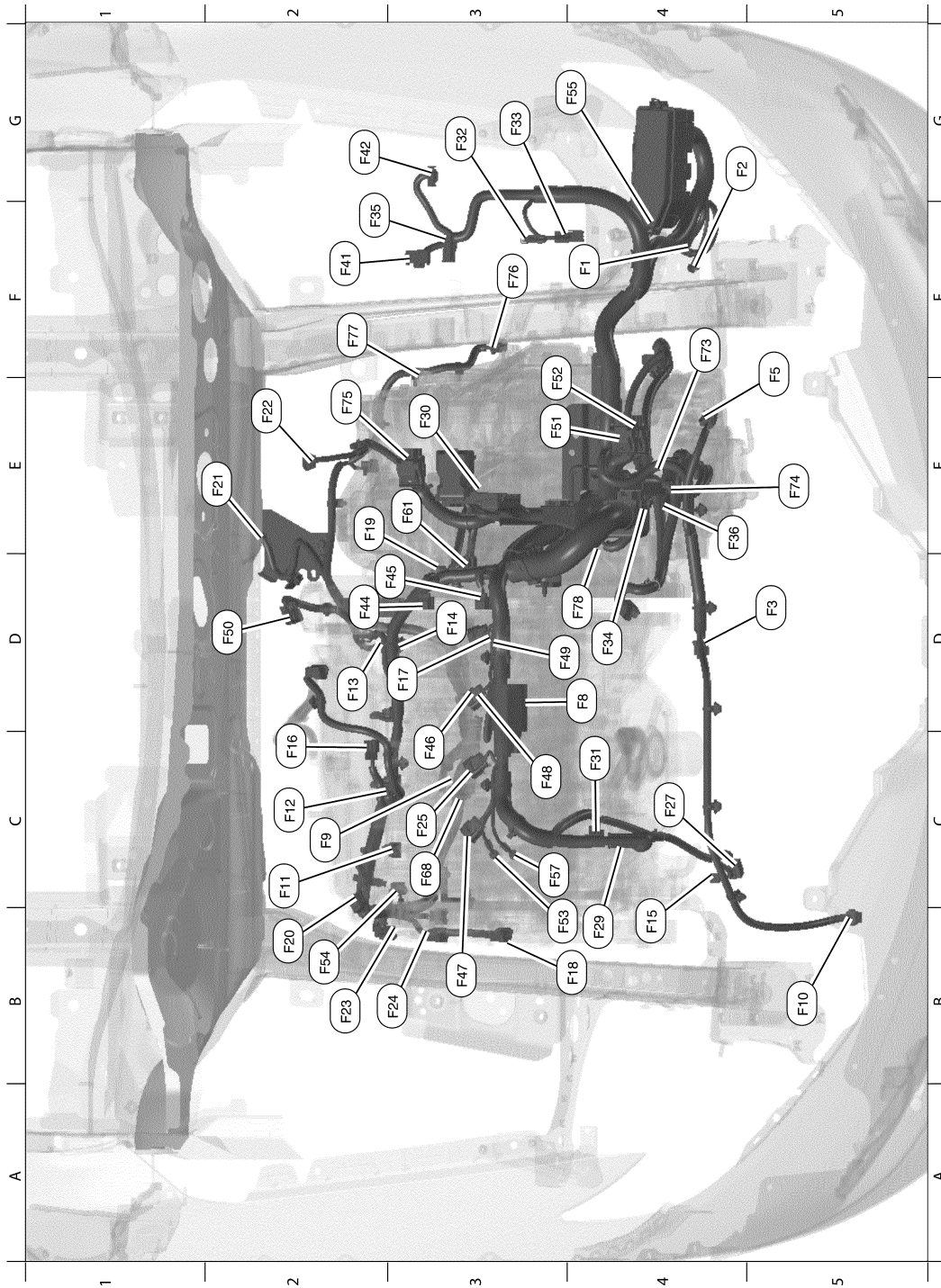
O

P

# HARNESS

< WIRING DIAGRAM >

## ENGINE CONTROL HARNESS



AAMIA0400ZZ

F4	F1	—	: Engine ground	D4	F34	—	: Starter motor
G4	F2	—	: Engine ground	F2	F35	W/16	: IPDM E/R (Intelligent power distribution module engine room)
D5	F3	GR/4	: Cooling fan motor-1	E4	F36	—	: Starter motor
F5	F5	GR/4	: Cooling fan motor-2	G4	F39	—	: Fusible link box (Battery)

# HARNESS

## < WIRING DIAGRAM >

D4	F8	B/10	: Joint connector-F01	F2	F41	GR/6	: IPDM E/R (Intelligent power distribution module engine room)	A
C2	F9	GR/2	: Knock sensor	G2	F42	B/24	: IPDM E/R (Intelligent power distribution module engine room)	B
B5	F10	B/3	: Refrigerant pressure sensor	D2	F44	B/3	: Camshaft position sensor	C
C2	F11	GR/2	: Fuel injector no.1	D3	F45	B/3	: Exhaust valve timing control position sensor	D
C2	F12	GR/2	: Fuel injector no.2	C3	F46	GR/3	: Ignition coil no.2 (With power transistor)	E
D2	F13	GR/2	: Fuel injector no.4	B3	F47	GR/3	: Ignition coil no.2 (With power transistor)	F
D3	F14	GR/2	: Fuel injector no.3	C3	F48	GR/3	: Ignition coil no.2 (With power transistor)	G
B4	F15	GR/2	: A/C compressor (Electrical control valve)	D3	F49	GR/3	: Ignition coil no.2 (With power transistor)	H
C2	F16	L/2	: EVAP canister purge volume control solenoid valve	D2	F50	B/6	: Electric throttle control actuator	I
D3	F17	B/3	: Crankshaft position sensor	E3	F51	B/48	: ECM	J
B4	F18	GR/4	: Air fuel ratio (A/F) sensor 1	F3	F52	BR/48	: ECM	K
E2	F19	B/2	: Intake manifold runner control valve	B3	F53	—	: Engine ground	L
B2	F20	B/3	: Intake manifold runner control valve position sensor	B2	F54	B/3	: Engine oil pressure sensor	
E2	F21	B/4	: Heated oxygen sensor 2	G4	F55	L/4	: Starter cut relay	
E2	F22	B/4	: Mass air flow sensor	C3	F57	—	: Engine ground	
B2	F23	GR/2	: Intake valve intermediate lock timing control solenoid valve	E3	F61	GR/2	: Engine coolant temperature sensor	
B3	F24	GR/2	: Exhaust valve timing control solenoid valve	C3	F68	GR/2	: Engine oil temperature sensor	
C3	F25	GR/2	: Intake valve timing control solenoid valve	F4	F73	B/3	: Input speed sensor	
C4	F27	B/2	: A/C compressor (Magnet clutch)	E5	F74	GR/22	: CVT unit	
B4	F29	—	: Generator	E2	F75	B/48	: TCM (Transmission control module)	
E3	F30	B/1	: Fusible link box (Battery)	F3	F76	B/3	: Primary speed sensor	
C4	F31	B/2	: Generator	F2	F77	B/3	: Output speed sensor	
G3	F32	W/2	: To E2	D4	F78	B/10	: Transmission range switch	
G3	F33	BR/16	: To E19					

PG

N

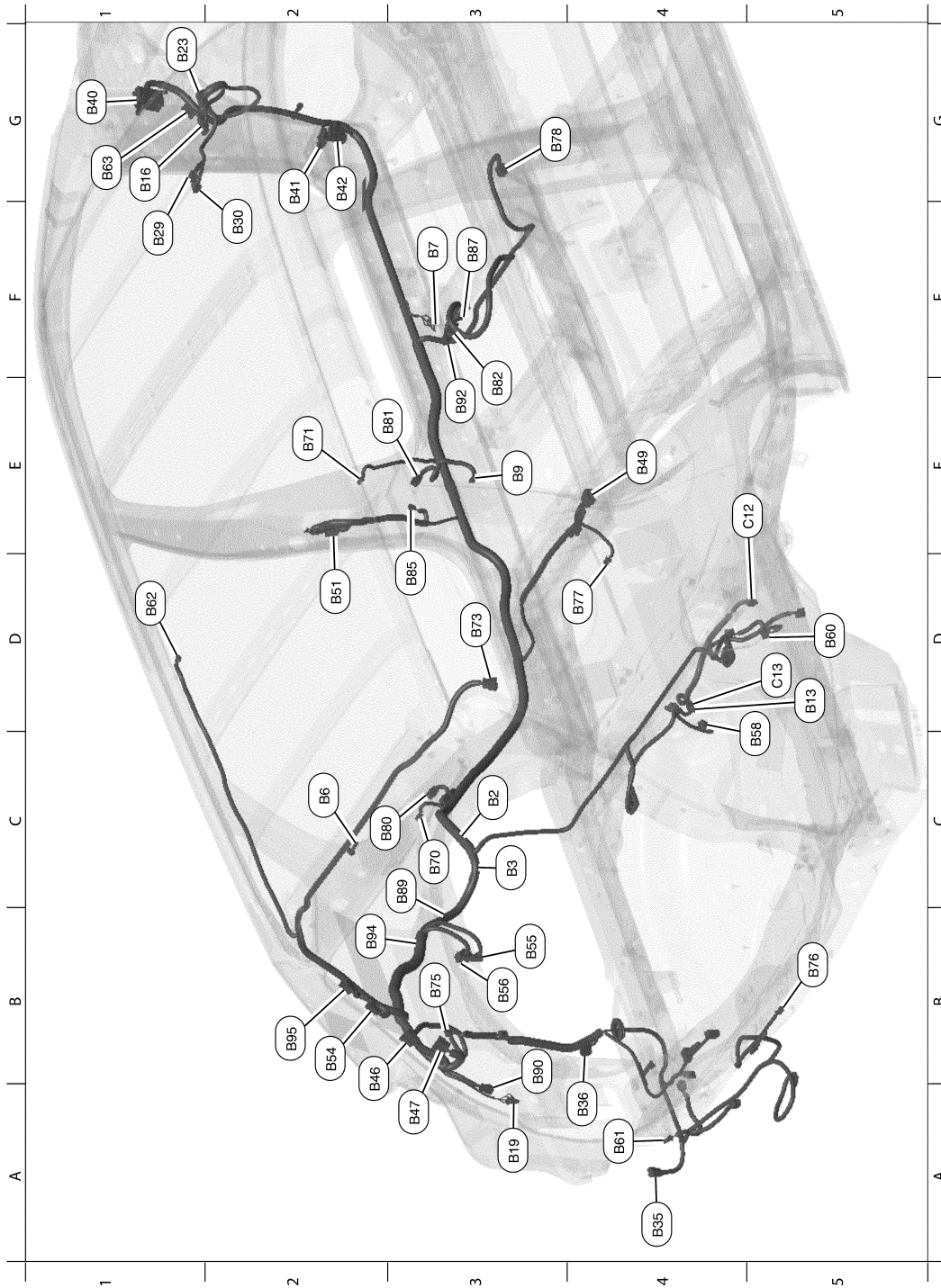
O

P

# HARNESS

< WIRING DIAGRAM >

## BODY HARNESS



AAMIA0558ZZ

C3	B2	W/4	: Joint connector-B27	D5	B60	B/2	: Rear wheel sensor RH
C3	B3	W/4	: Joint connector-B03	A4	B61	GR/2	: Automatic back door warning buzzer
C2	B6	B/1	: Rear window defogger condenser	D1	B62	Y/2	: Side curtain air bag module LH
F3	B7	—	: Body ground	G1	B63	GR/24	: Joint connector-B01
E3	B9	O/2	: Front LH seat belt pre-tensioner (Lap belt)	C3	B70	W/4	: Rear door switch LH

# HARNESSES

## < WIRING DIAGRAM >

D5	B13	B/2	: To C13	E2	B71	W/4	: Front door switch LH	A	
G1	B16	G/40	: BCM (Body control module)	D3	B73	W/8	: Spindle unit RH	B	
A3	B19	—	: Body ground	B3	B75	W/16	: AWD control module	B	
G1	B23	GR/16	: BCM (Body control module)	B5	B76	GR/2	: Outside key antenna (Rear bumper)	B	
F1	B29	W/6	: Fuse block (J/B)	D4	B77	GR/2	: Inside key antenna (Console)	C	
F2	B30	W/8	: Fuse block (J/B)	G3	B78	Y/22	: Air bag diagnosis sensor unit	C	
A4	B35	B/8	: Side radar LH	C2	B80	Y/2	: Rear side satellite sensor LH	C	
A4	B36	B/6	: Joint connector-B06	E2	B81	Y/2	: Front side air bag satellite sensor LH	D	
G1	B40	SMJ	: To E34	E3	B82	Y/2	: Side air bag module LH	D	
G2	B41	W/32	: To M69	D3	B85	Y/2	: Front LH seat belt pre-tensioner (Shoulder belt)	E	
G2	B42	W/16	: To M74	F3	B87	W/4	: Seat belt buckle switch (Driver seat)	E	
B2	B46	W/32	: To D501	C3	B89	W/4	: Joint connector-B25	F	
A3	B47	W/16	: To D502	B3	B90	W/4	: Rear combination lamp LH	F	
E4	B49	W/12	: To B140	E3	B92	W/6	: To B202	F	
D2	B51	W/12	: To D201	B2	B94	W/4	: Joint connector-B24	G	
B2	B54	W/2	: To D505	B2	B95	W/8	: Spindle unit LH	G	
B3	B55	B/24	: Automatic back door control module	Chassis harness					
B3	B56	GR/14	: Automatic back door control module	E5	C12	GR/2	: AWD solenoid	H	
C5	B58	B/2	: Rear wheel sensor LH	D5	C13	B/2	: To B13	H	

PG

N

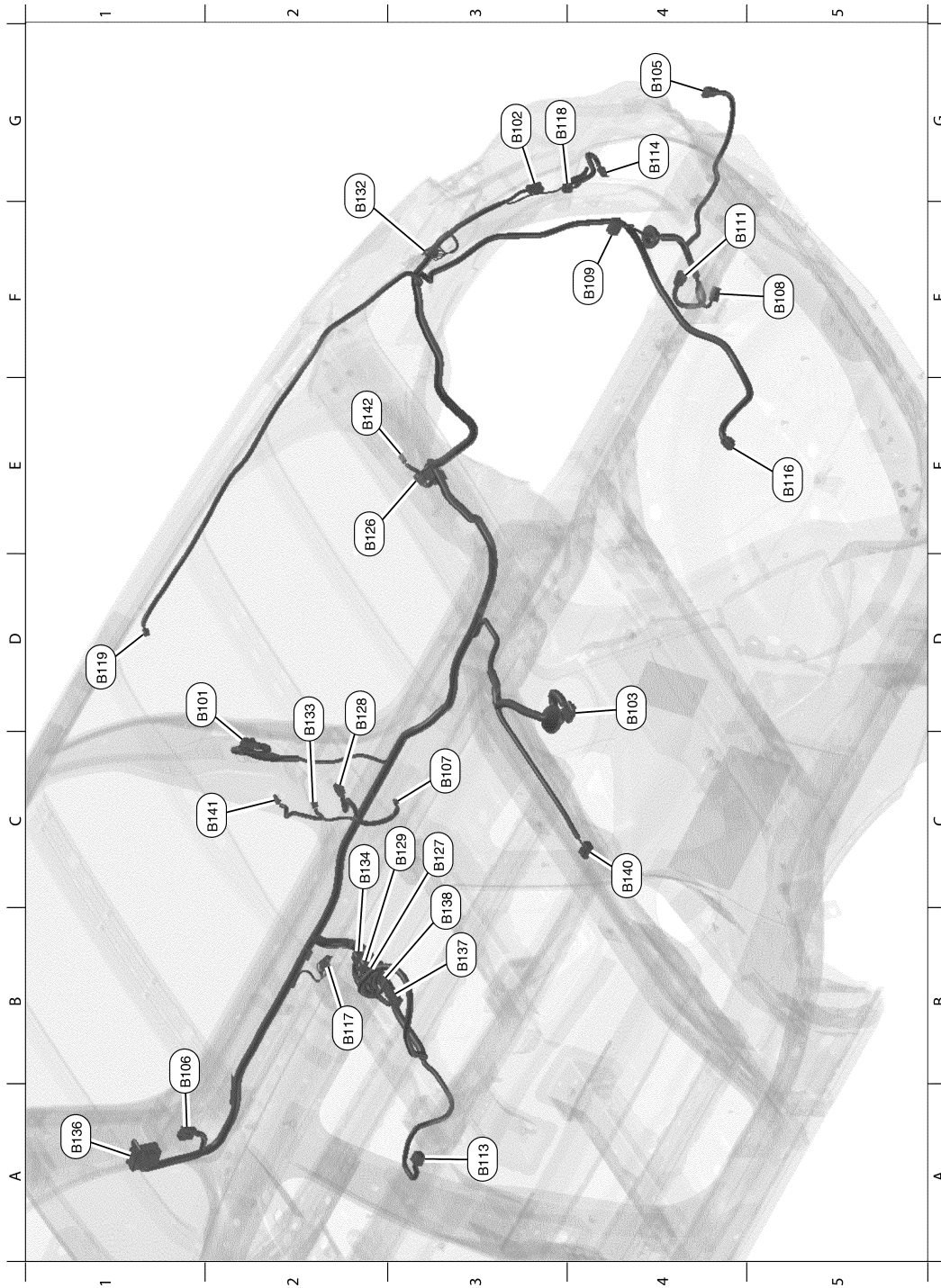
O

P

# HARNESS

< WIRING DIAGRAM >

## BODY NO. 2 HARNESS



AAMIA0559ZZ

D1	B101	W/12	: To D301	D1	B119	Y/2	: Curtain air bag module RH
G3	B102	W/4	: Rear combination lamp RH	E2	B126	Y/2	: Rear side satellite sensor RH
D4	B103	GR/6	: Fuel level sensor unit and fuel pump (Main)	C3	B127	W/4	: To B350
G4	B105	B/8	: Side radar RH	D2	B128	Y/2	: Front side air bag satellite sensor RH
B1	B106	W/6	: To M8	C3	B129	Y/2	: Side air bag module RH

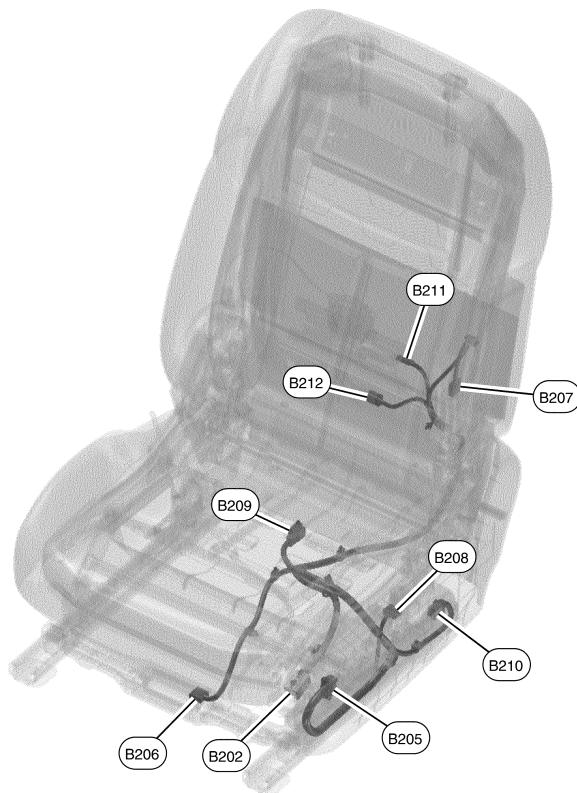


# HARNESS

## < WIRING DIAGRAM >

C3	B107	O/2	: Front RH seat belt pre-tensioner (Lap belt)	G2	B132	—	: Body ground
F5	B108	B/2	: EVAP canister vent control valve	D2	B133	Y/2	: Front RH seat belt pre-tensioner (Shoulder belt)
F4	B109	B/20	: Joint connector-B05	C2	B134	W/6	: To B300
F4	B111	GR/3	: EVAP control system pressure sensor	A1	B136	SMJ	: To M36
A3	B113	Y/22	: Air bag diagnosis sensor unit	B3	B137	BR/14	: BOSE speaker amp.
G4	B114	B/3	: Rear cargo power socket	C3	B138	BR/23	: BOSE speaker amp.
E5	B116	GR/6	: Sub woofer	C4	B140	W/12	: To B49
B2	B117	—	: Body ground	C2	B141	W/4	: Front door switch RH
G3	B118	W/2	: Luggage room lamp	E2	B142	W/4	: Rear door switch RH

## FRONT SEAT LH HARNESS



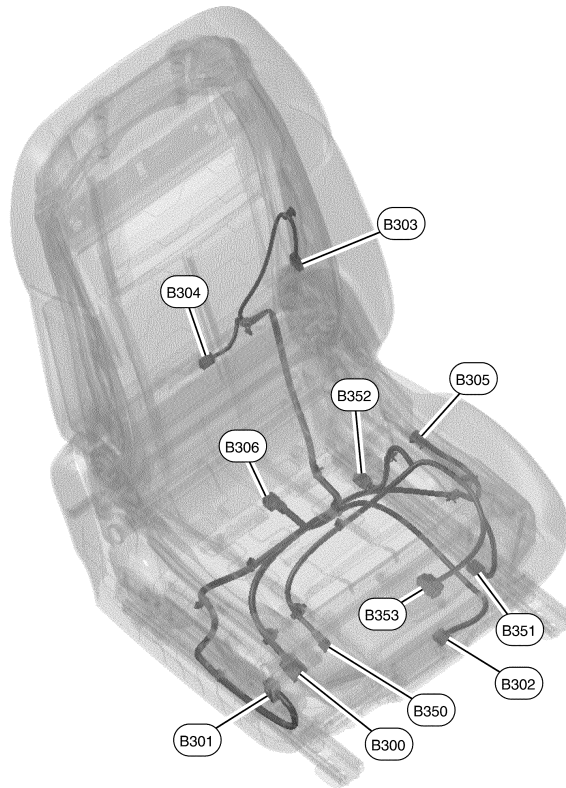
AAMIA0560ZZ

B202	W/6	: To B92	B209	B/3	: Front seat heater LH
B205	W/10	: Power seat switch LH	B210	BR/4	: Power lumbar switch
B206	B/5	: Sliding motor LH	B211	B/2	: Lumbar motor
B207	B/5	: Reclining motor LH	B212	B/2	: Seat cushion heater LH
B208	B/5	: Tilt motor LH			

# HARNESS

< WIRING DIAGRAM >

## FRONT SEAT RH HARNESS



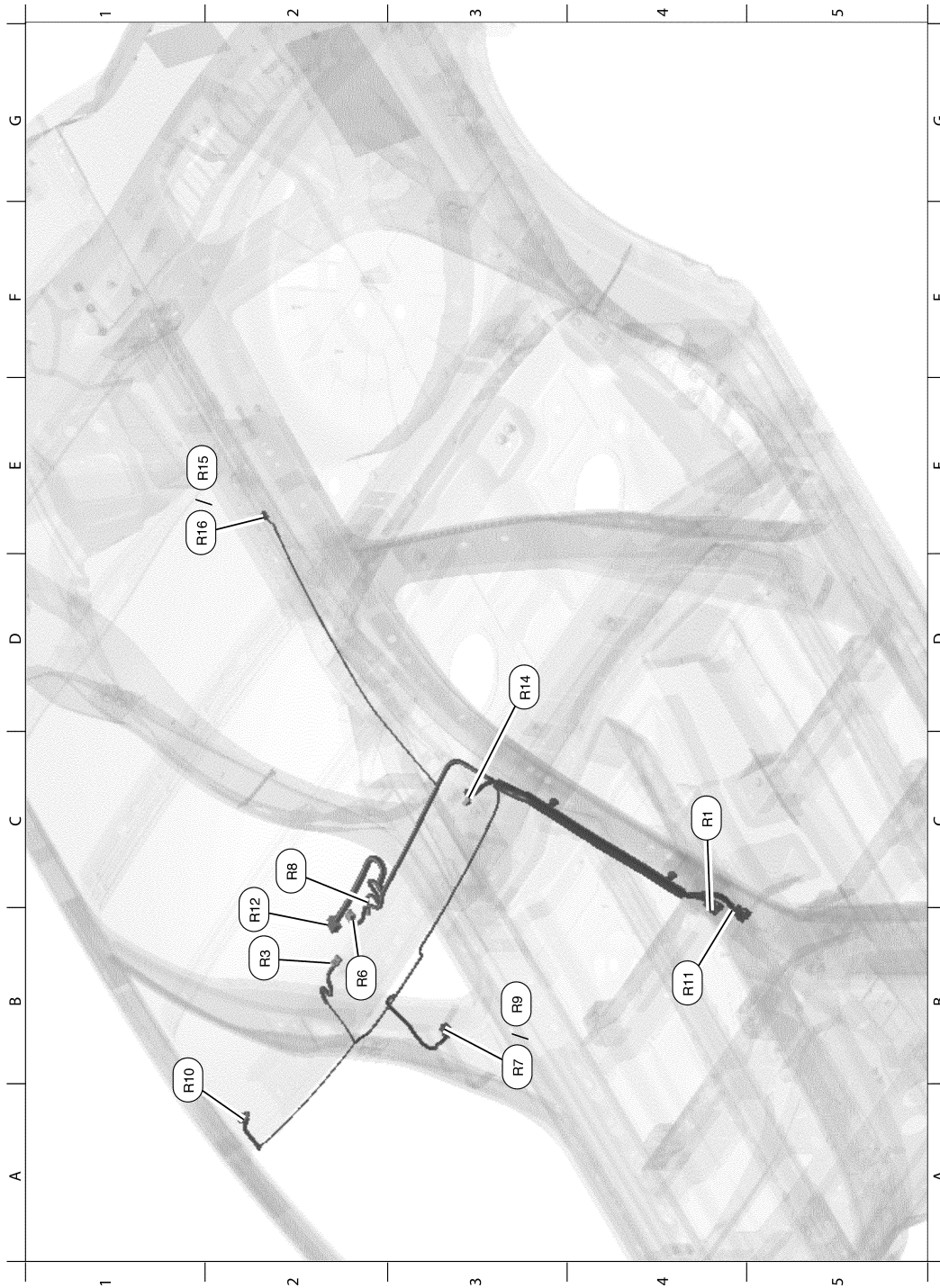
AAMIA0561ZZ

B300	W/6	: To B134	B306	B/3	: Front seat heater RH
B301	W/10	: Power seat switch RH	B350	W/4	: To B127
B302	B/5	: Sliding motor RH	B351	B/3	: Occupant classification system sensor FI
B303	B/5	: Reclining motor RH	B352	B/3	: Occupant classification system sensor RI
B304	B/2	: Seat cushion heater RH	B353	B/20	: Occupant classification system control unit
B305	W/2	: Seat belt buckle switch (Passenger seat)			

# HARNESS

< WIRING DIAGRAM >

## ROOM LAMP HARNESS



AAMIA0259ZZ

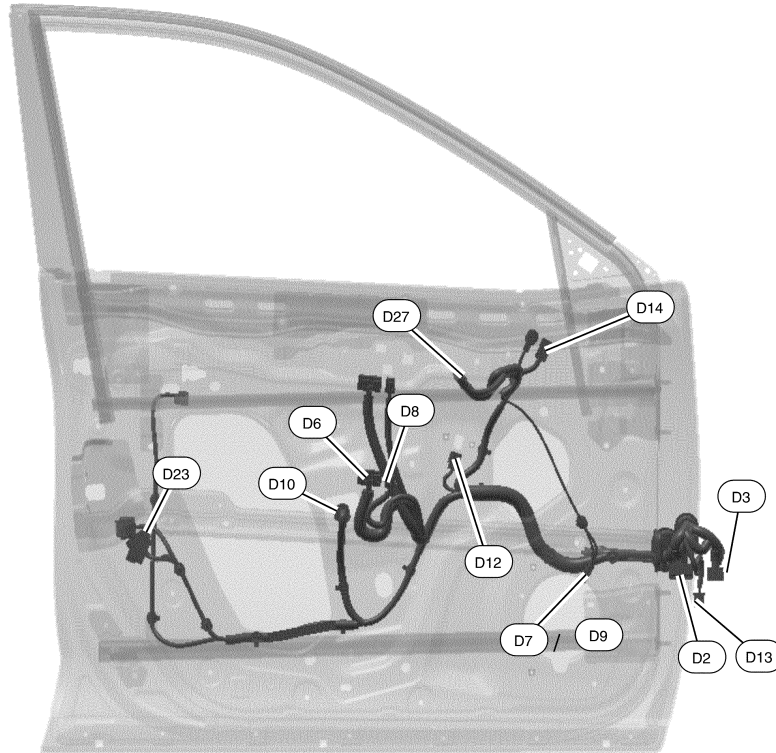
C4	R1	W/8	: To M21	B1	R10	W/2	: Vanity lamp RH
B2	R3	W/12	: Moonroof switch	B4	R11	W/24	: To M156
B2	R6	W/8	: Map lamp	C2	R12	W/12	: To R13
B3	R7	B/10	: Auto anti-dazzling inside mirror (With homelink universal transceiver)	D3	R14	W/2	: Vanity lamp LH

# HARNESS

## < WIRING DIAGRAM >

C2	R8	W/6	: Microphone	E1	R15	W/3	: Room lamp
B3	R9	B/7	: Auto anti-dazzling inside mirror (Without universal transceiver)	E1	R16	W/4	: Personal lamp 2nd row

## FRONT DOOR LH HARNESS



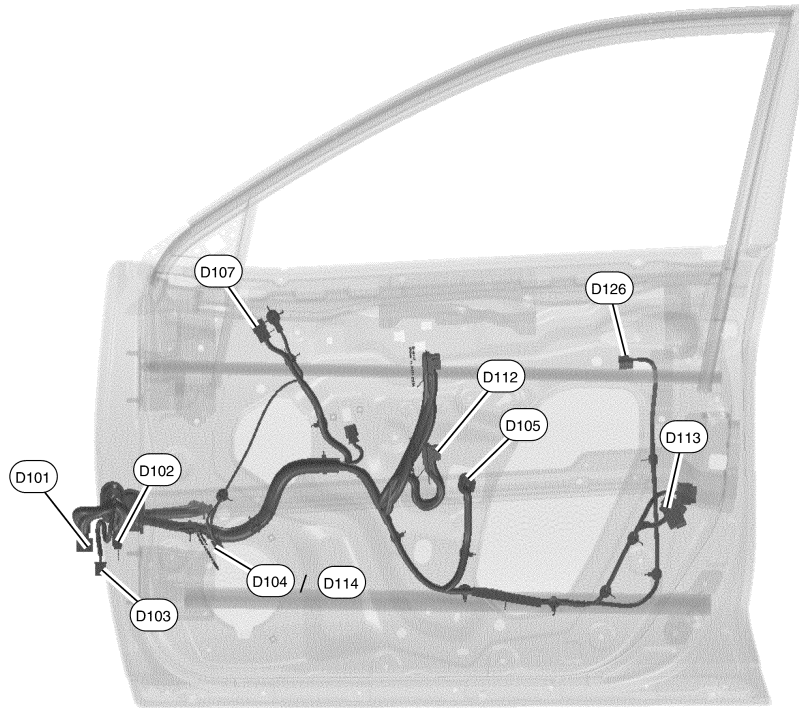
AAMIA0260ZZ

D2	W/16	: To M167	D10	G/6	: Front power window motor LH
D3	W/24	: To M168	D11	B/4	: Front outside handle assembly LH
D5	W/4	: Blind spot warning indicator LH	D12	Y/2	: Front door satellite sensor LH
D6	W/16	: Main power window and door lock/unlock switch	D13	Y/4	: To M169
D7	W/2	: Front door speaker LH (Without BOSE audio system)	D14	W/16	: Door mirror LH
D8	W/3	: Main power window and door lock/unlock switch	D23	GR/6	: Front door lock assembly LH
D9	BR/2	: Front door speaker LH (With BOSE audio system)	D27	B/16	: Door mirror remote control switch

# HARNESS

< WIRING DIAGRAM >

## FRONT DOOR RH HARNESS



AAMIA0261ZZ

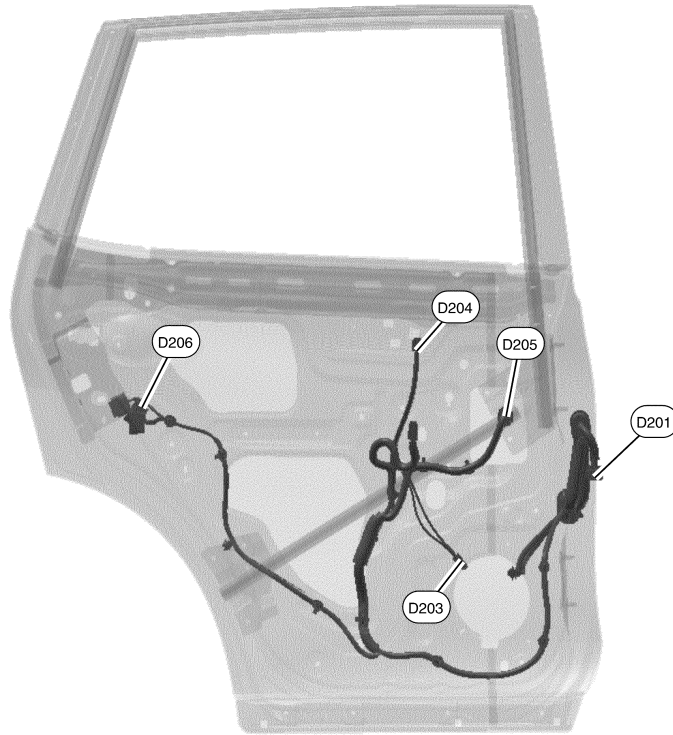
D101	W/24	: To M91	D108	W/4	: Blind spot warning indicator RH
D102	W/16	: To M158	D112	W/12	: Power window and door lock/unlock switch RH
D103	Y/4	: To M159	D113	GR/6	: Front door lock actuator RH
D104	W/2	: Front door speaker RH (Without BOSE audio system)	D114	BR/2	: Front door speaker RH (With BOSE audio system)
D105	G/6	: Front power window motor RH	D125	Y/2	: Front door satellite sensor RH
D107	W/16	: Door mirror RH	D126	B/4	: Front outside handle assembly RH

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

# HARNESS

< WIRING DIAGRAM >

## REAR DOOR LH HARNESS



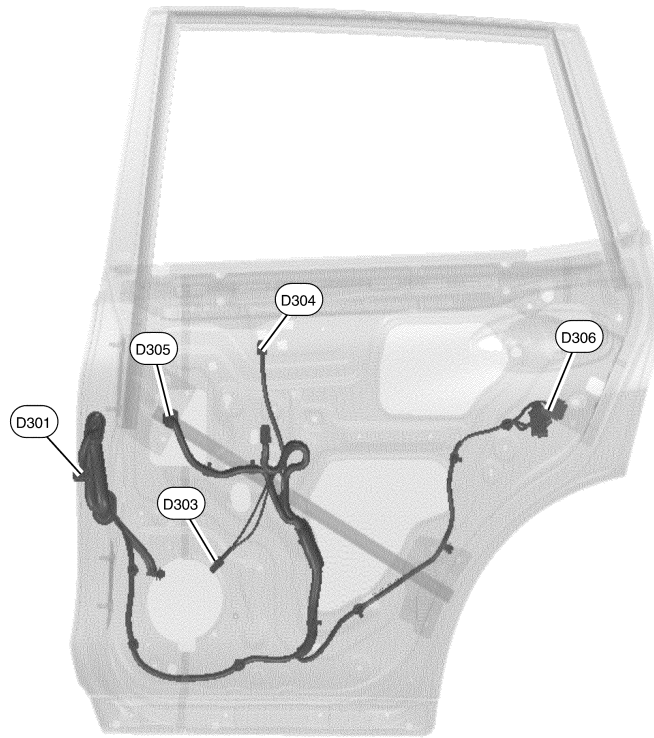
AAMIA0262ZZ

D201	W/12	: To B51	D205	G/5	: Rear power window motor LH
D203	W/2	: Rear door speaker LH	D206	GR/6	: Rear door lock actuator LH
D204	W/8	: Rear power window switch LH			

# HARNESS

< WIRING DIAGRAM >

## REAR DOOR RH HARNESS



AAMIA0263ZZ

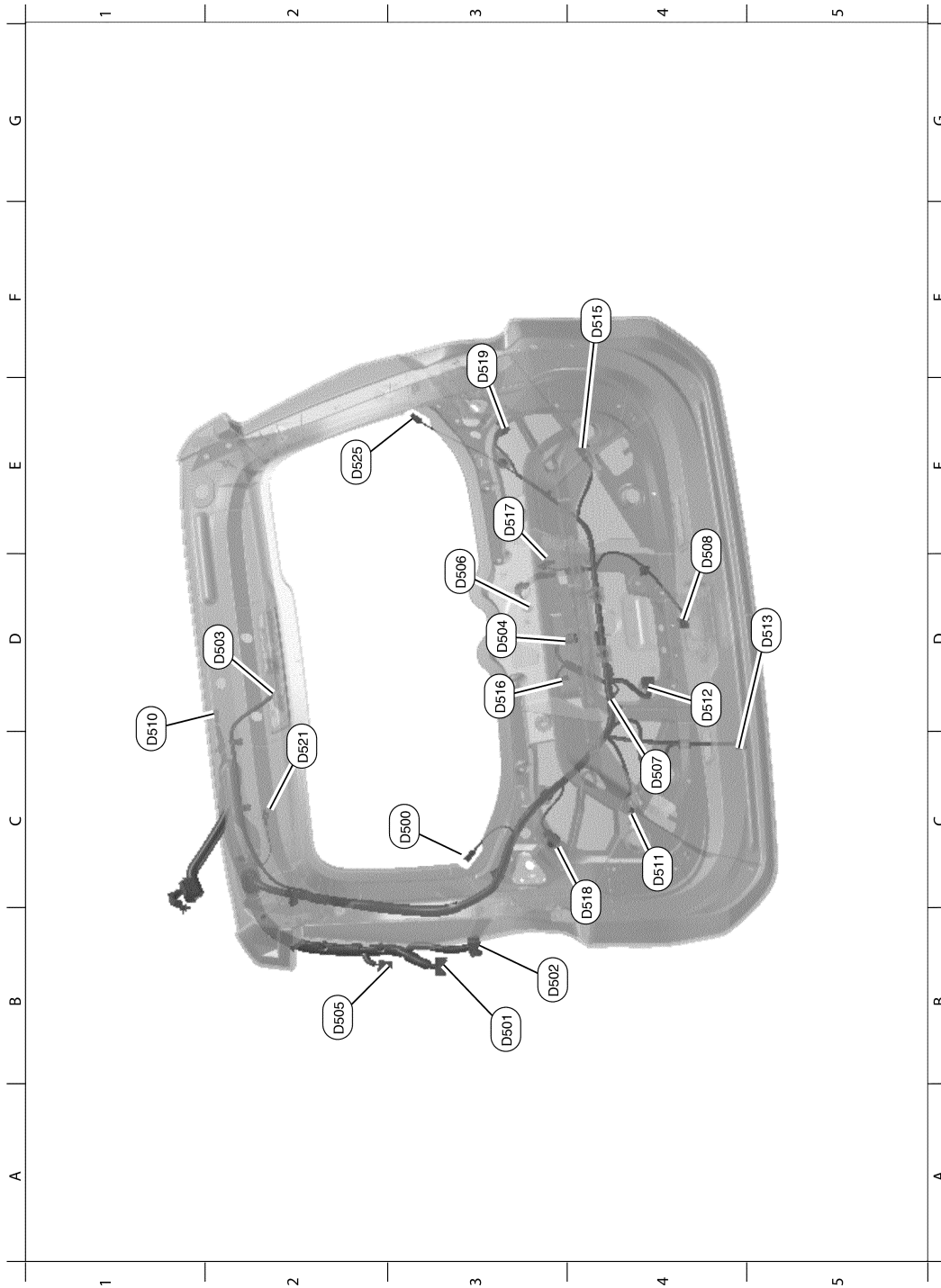
D301	W/12	: To B101	D305	G/6	: Rear power window motor RH
D303	W/2	: Rear door speaker RH	D306	GR/6	: Rear door lock actuator RH
D304	W/8	: Rear power window switch RH			

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

# HARNESS

< WIRING DIAGRAM >

## BACK DOOR HARNESS



AAMIA0264ZZ

C3	D500	B/1	: Rear window defogger condenser	D4	D512	W/8	: Back door lock assembly (With power back door system)
B3	D501	W/32	: To B46	D5	D513	GR/6	: Automatic back door close switch
B3	D502	W/16	: To B47	D4	D514	W/8	: Rear view camera (With driver assistance system)
D2	D503	W/2	: High-Mounted stop lamp	F4	D515	W/2	: Touch sensor RH



# HARNESS

## < WIRING DIAGRAM >

D3	D504	B/6	: Rear view camera (Without driver assistance system)	D3	D516	BR/2	: License plate lamp LH	A
B2	D505	W/2	: To B54	E3	D517	BR/2	: License plate lamp RH	
D3	D506	W/3	: Rear wiper motor	C4	D518	W/3	: Back-up lamp assembly LH	B
C4	D507	W/4	: Back door opener switch	F3	D519	W/3	: Back-up lamp assembly RH	
E4	D508	W/4	: Back door lock assembly (Without power back door system)	C2	D521	—	: Body ground	C
D1	D510	B/1	: Rear window defogger	E2	D525	B/1	: Rear window defogger	
C4	D511	W/2	: Touch sensor LH					D

D

E

F

G

H

I

J

K

L

PG

N

O

P

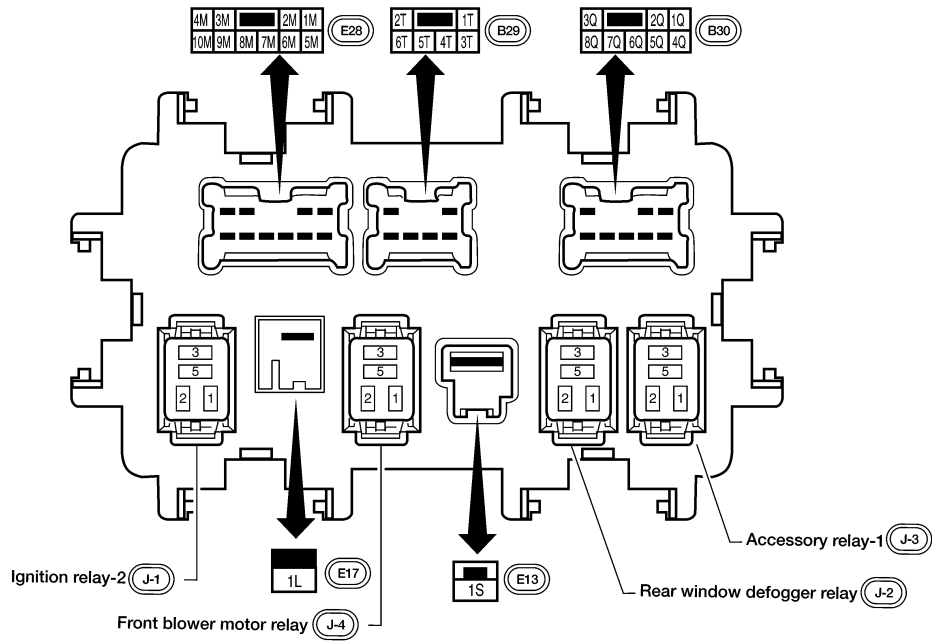
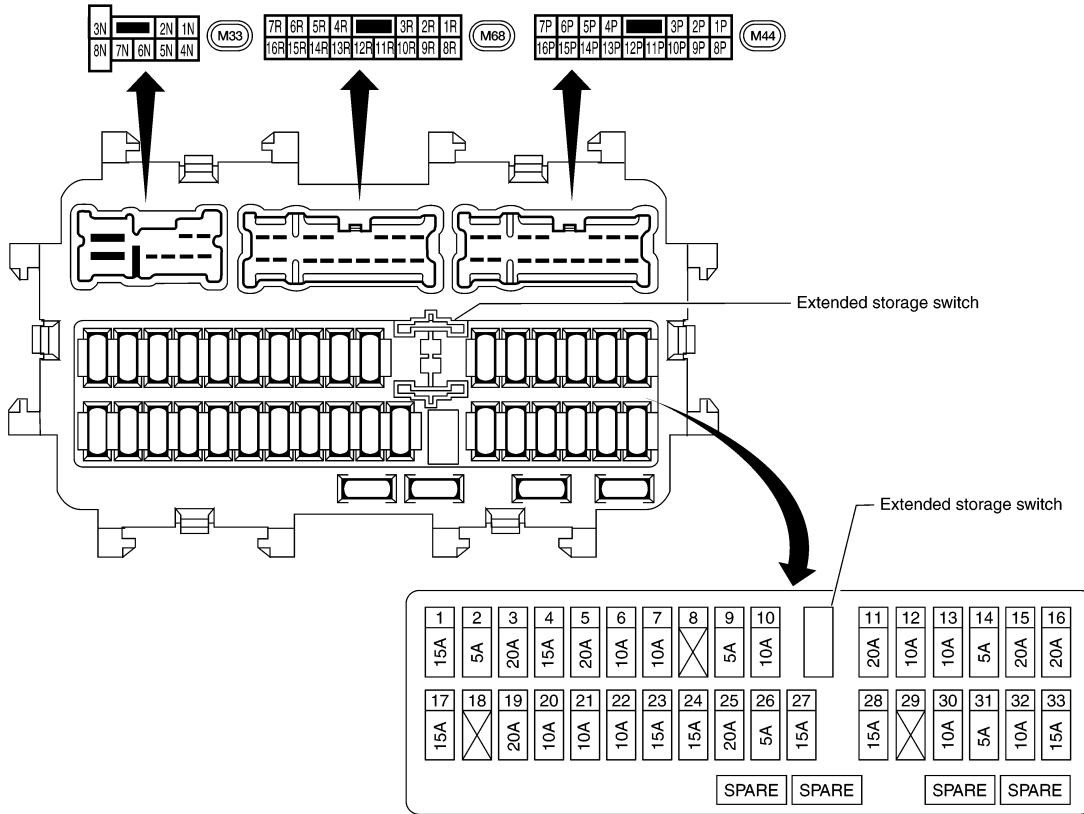
# FUSE BLOCK - JUNCTION BOX (J/B)

< WIRING DIAGRAM >

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

### Terminal Arrangement

INFOID:000000012422886



AAMIA2858GB

# FUSE, FUSIBLE LINK AND RELAY BOX

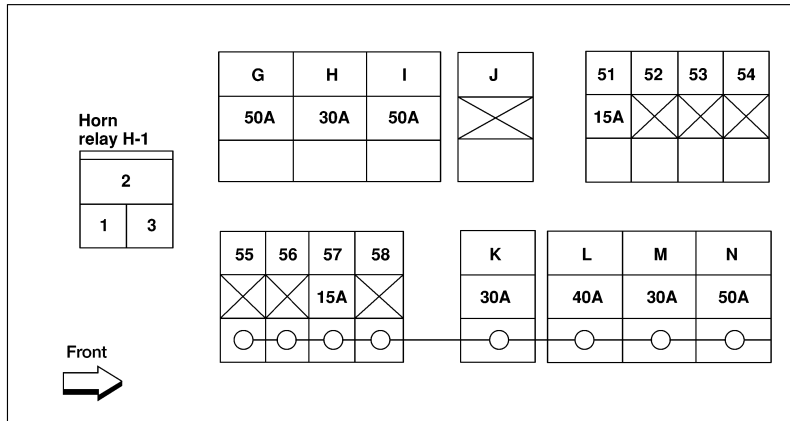
< WIRING DIAGRAM >

## FUSE, FUSIBLE LINK AND RELAY BOX

### Terminal Arrangement

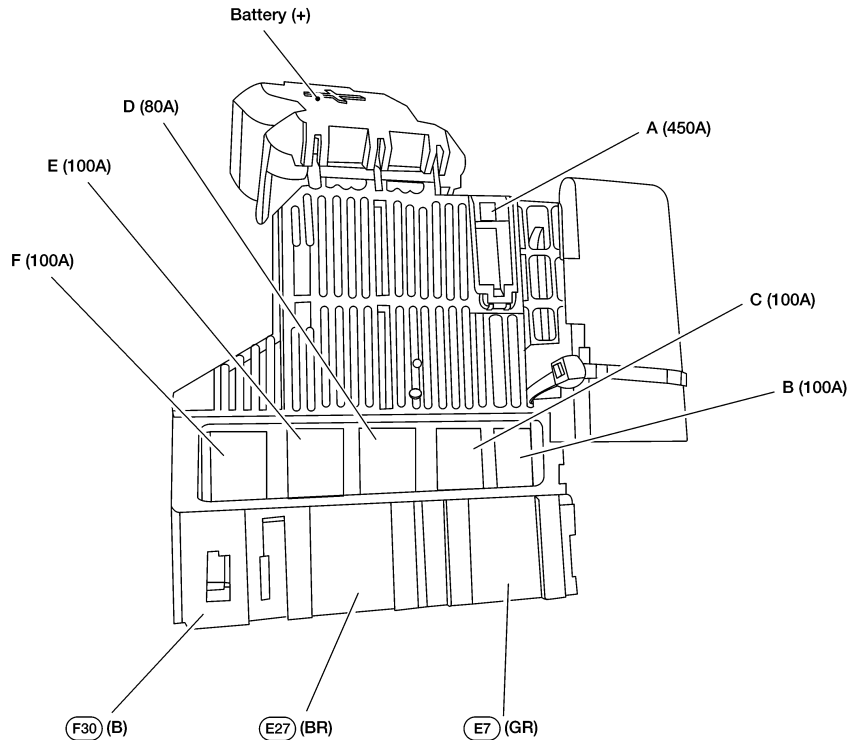
INFOID:000000012422887

### FUSE, FUSIBLE LINK AND RELAY BOX 1



NO. 51 - 58 : FUSE G - N : FUSIBLE LINK

### FUSIBLE LINK BOX (BATTERY)

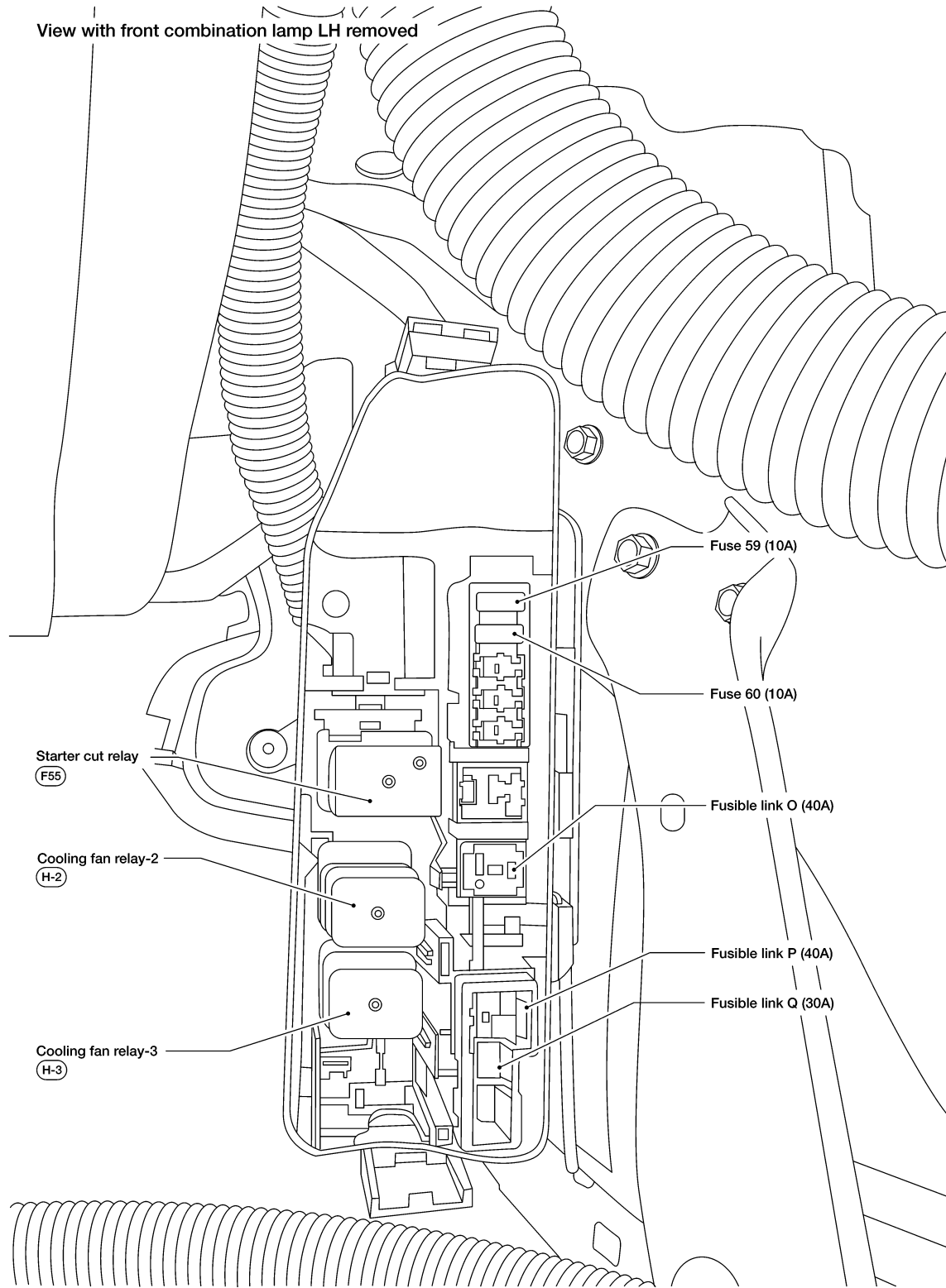


AAMIA3622GB

# FUSE, FUSIBLE LINK AND RELAY BOX

< WIRING DIAGRAM >

## FUSE, FUSIBLE LINK AND RELAY BOX 2

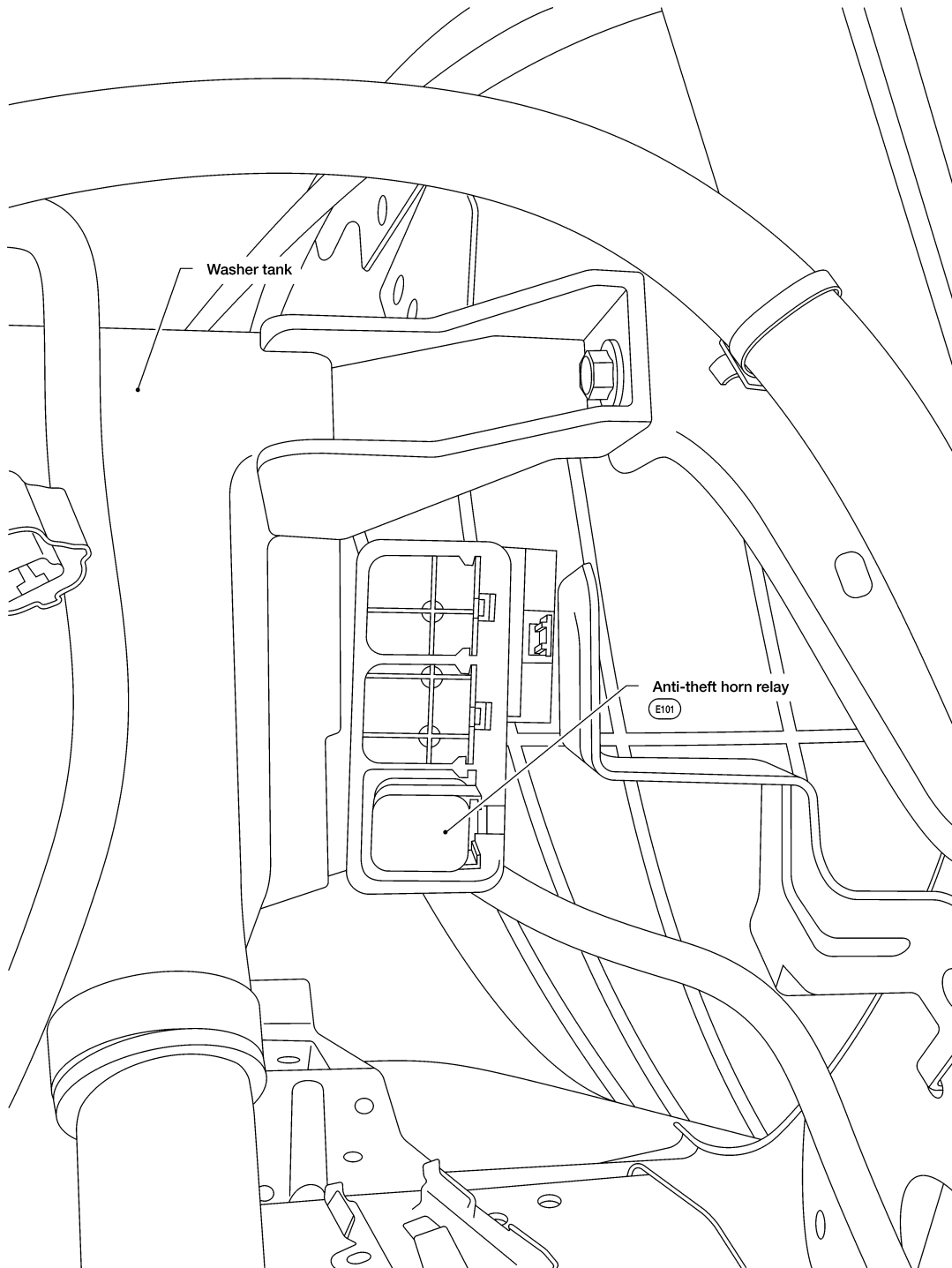


# FUSE, FUSIBLE LINK AND RELAY BOX

< WIRING DIAGRAM >

## RELAY BOX

View with front combination lamp RH removed



AAMIA2352GB

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

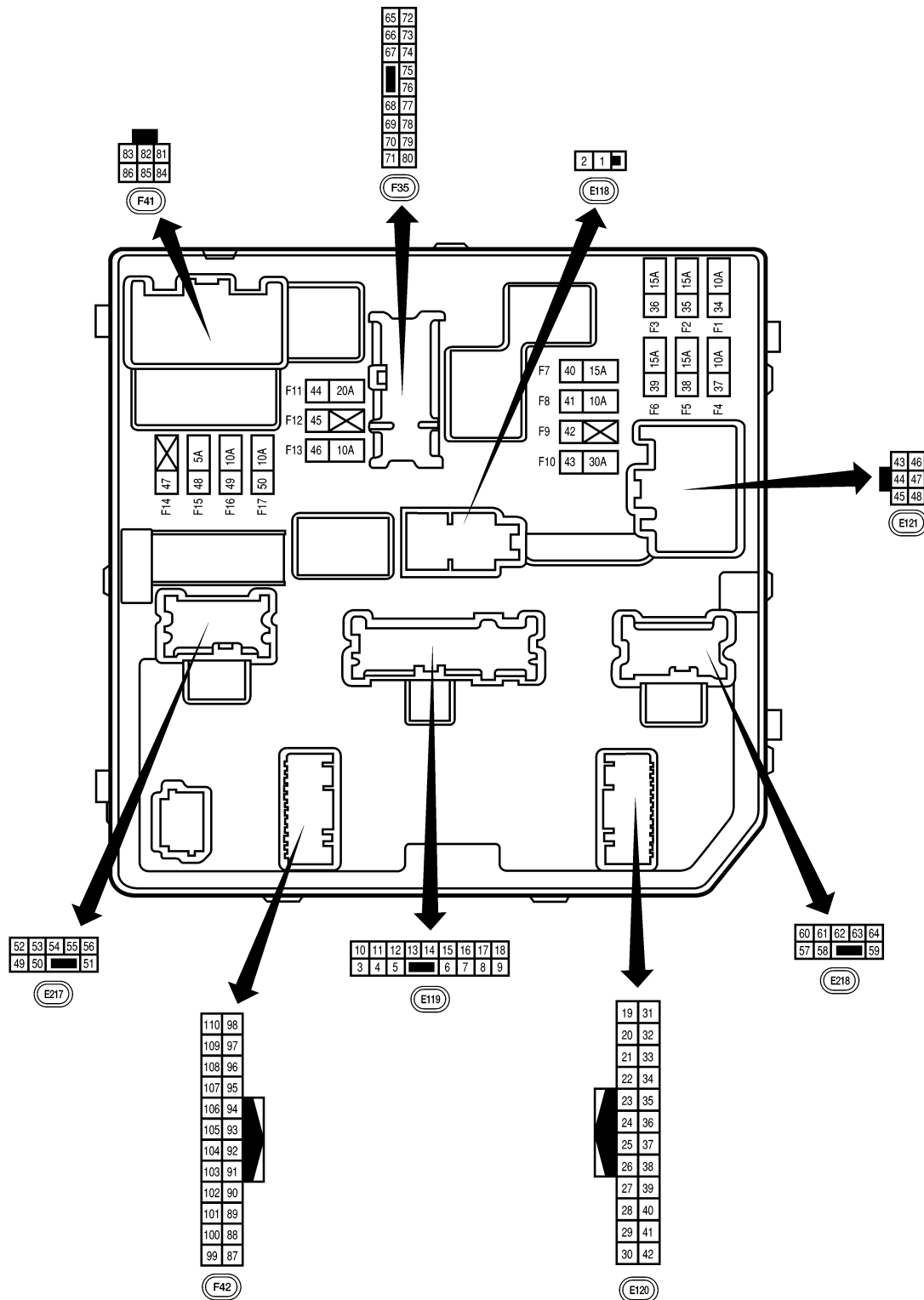
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< WIRING DIAGRAM >

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

### IPDM E/R Terminal Arrangement

INFOID:000000012422888



**NOTE:**

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

AAMIA0552ZZ

# BATTERY

< BASIC INSPECTION >

## BASIC INSPECTION

### BATTERY

#### How to Handle Battery

INFOID:000000012422889

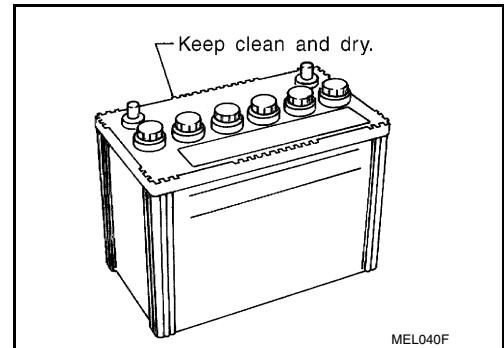
#### CAUTION:

- 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.

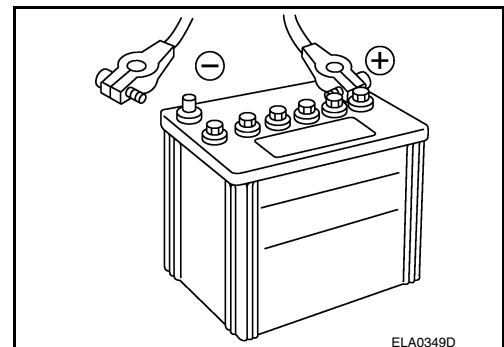
#### METHODS OF PREVENTING OVER-DISCHARGE

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:000000012422890

#### 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.

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

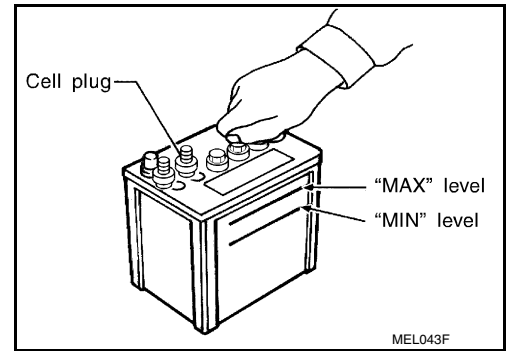
PG

N  
O  
P

# BATTERY

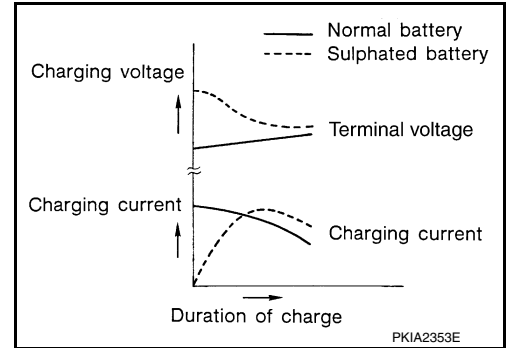
## < BASIC INSPECTION >

- 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.**



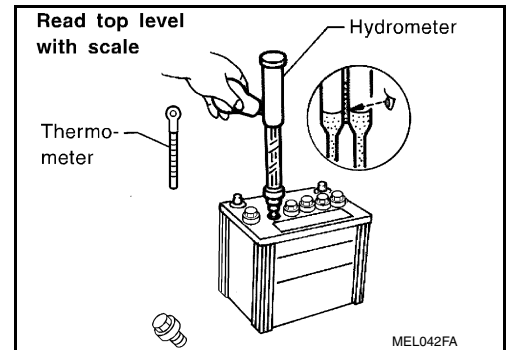
## Specific Gravity Check

### 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.

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

PG

# 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:000000012422891

Required Procedure After Battery Disconnection

System	Item	Reference
Engine Control System	Idle Air Volume Learning	<a href="#">EC-144</a>
Door & Lock	Calibration Of Automatic Back Door Position Information	<a href="#">DLK-111</a>
Power Window Control System	Power Window System Initialization	<a href="#">PWC-28</a>
Roof	Moonroof Memory Reset/Initialization Sunshade Memory Reset/Initialization	<a href="#">RF-25</a>
Heater & Air Conditioning Control System	Temperature Setting Trimmer	<a href="#">HAC-54</a> (Automatic air conditioning)
	Foot Position Setting Trimmer	<a href="#">HAC-54</a> (Automatic air conditioning)
	Inlet Port Memory Function (FRE)	<a href="#">HAC-54</a> (Automatic air conditioning)
	Inlet Port Memory Function (REC)	<a href="#">HAC-55</a> (Automatic air conditioning)
	Target Evaporator Temp Upper Limit	<a href="#">HAC-55</a> (Automatic air conditioning) <a href="#">HAC-159</a> (Manual air conditioning)
Audio, Visual and Navigation System	Audio (Radio Preset)	Refer to Owner's Manual.
	Navigation System	Refer to Owner's Manual.

# FUSE INSPECTION

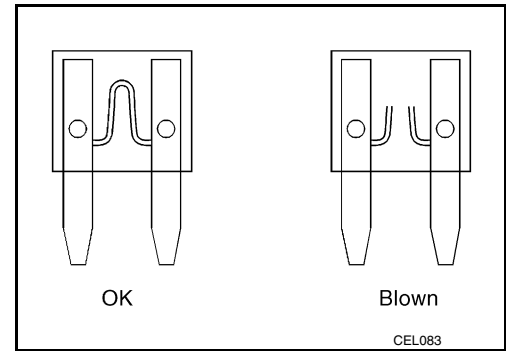
< BASIC INSPECTION >

## FUSE INSPECTION

### How To Check

INFOID:000000012422892

- 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.

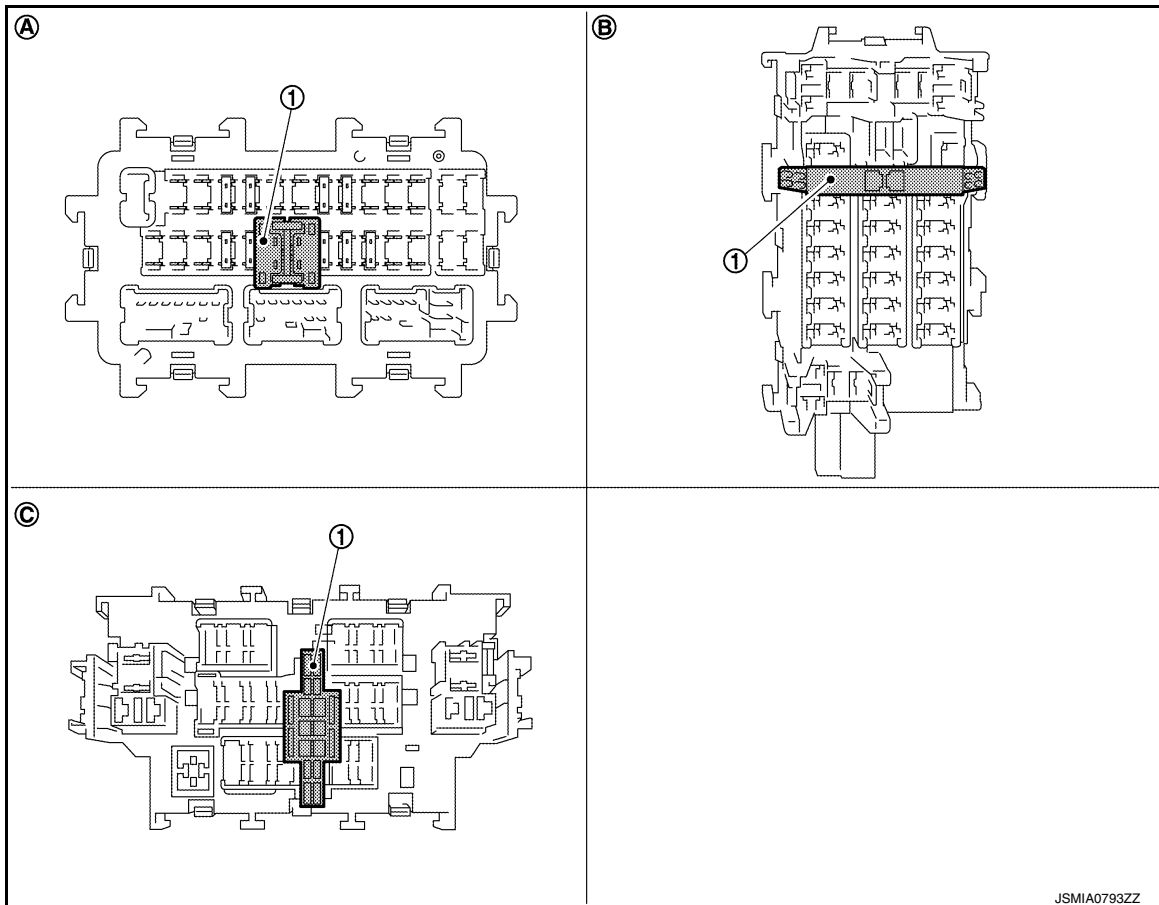


### EXTENDED STORAGE SWITCH (IF EQUIPPED)

#### NOTE:

- When extended storage switch is pulled out, a message may be shown in the meter or display. To turn message/display off, push extended storage switch in.
- The following information is related to extended storage switch (shipping mode). For information related to BCM transit mode, refer to [BCS-8, "BODY CONTROL SYSTEM : System Description"](#) [BCS-81, "BODY CONTROL SYSTEM : System Description"](#).

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



① Extended storage switch

A Type A

B Type B

C Type C

Remove the extended storage switch if it interferes when checking fuses.

How/When to turn Extended Storage Switch ON/OFF

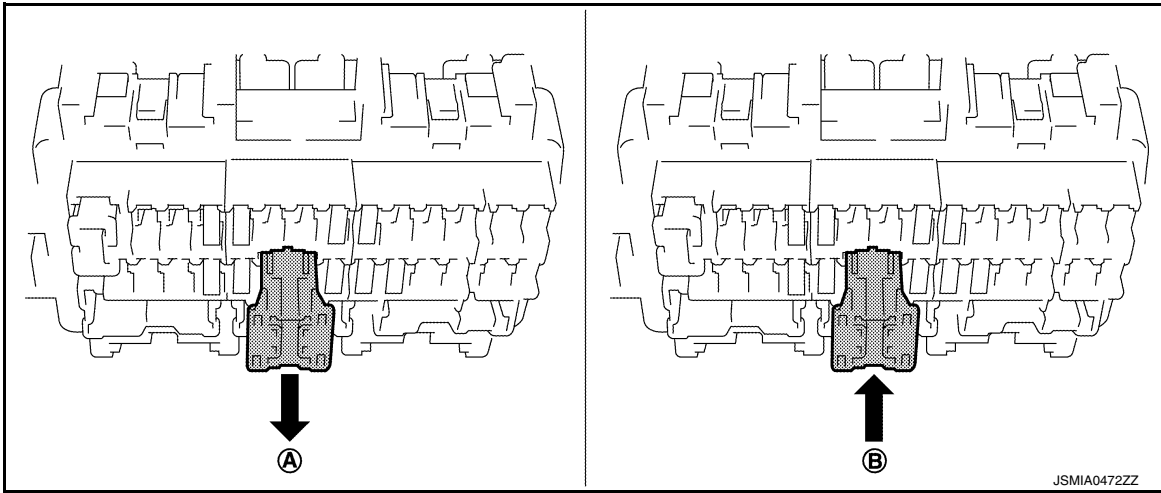
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
PG  
N  
O  
P

# FUSE INSPECTION

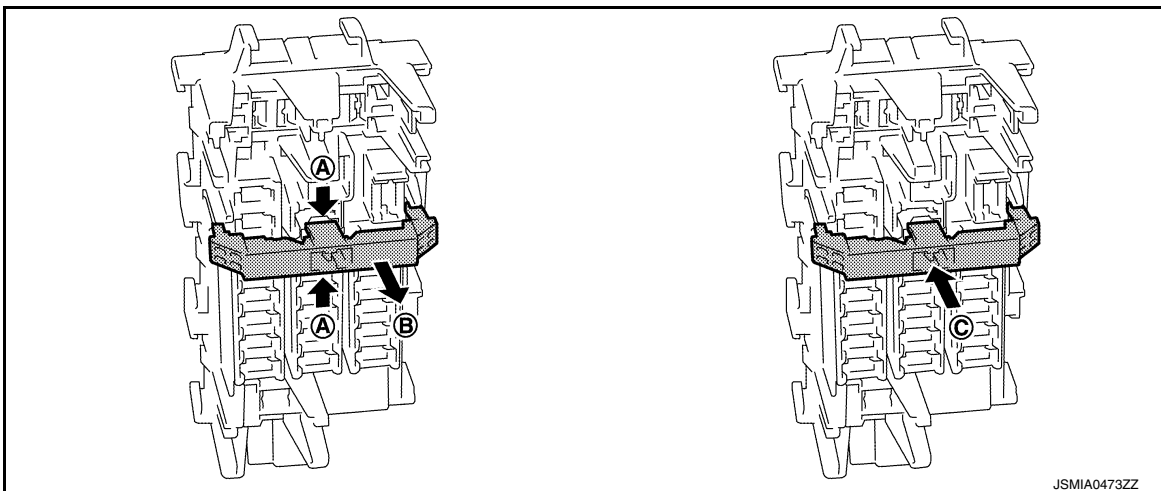
## < BASIC INSPECTION >

### CAUTION:

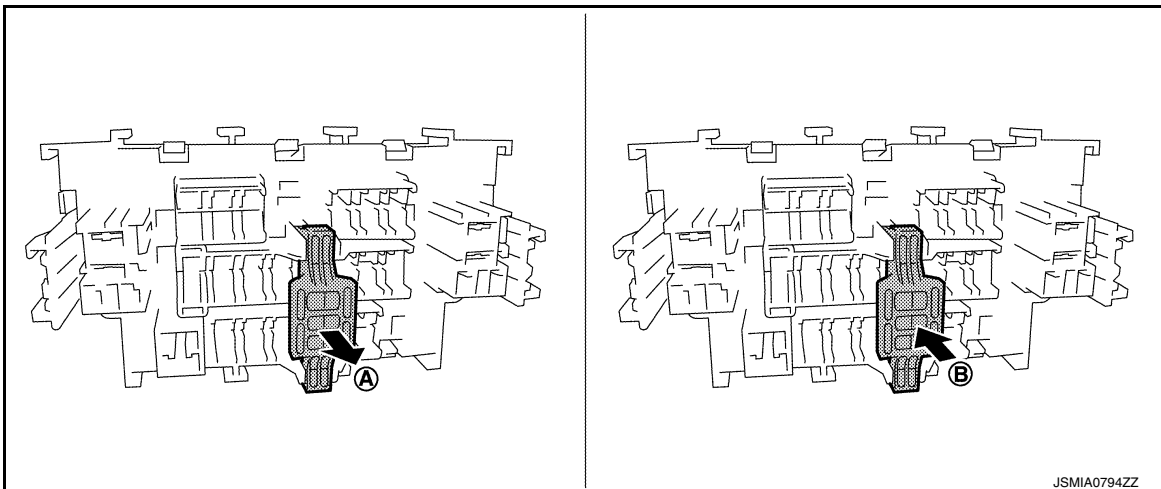
- Turn the ignition switch OFF when operating the extended storage switch.
- Under normal conditions, keep the extended storage switch in ON state. Never operate the extended storage switch except when necessary.
- Type A



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



- To turn the extended storage switch OFF, pinch tabs (A) of the switch and pull out in (B) direction as shown in the figure.
- To turn the extended storage switch ON, press in (C) direction as shown in the figure.
- Type C



- To turn the extended storage switch OFF, pull out in (A) direction as shown in the figure.

# FUSE INSPECTION

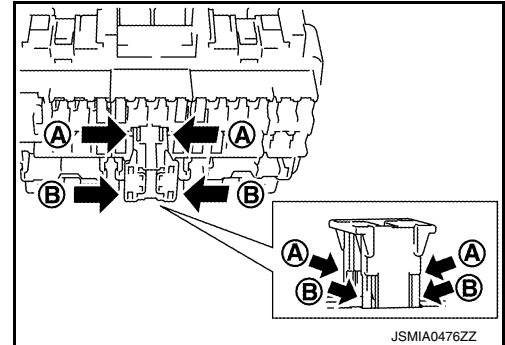
## < BASIC INSPECTION >

- To turn the extended storage switch ON, press in ② direction as shown in the figure.

### How To Remove Extended Storage Switch

#### Type A

1. Turn the ignition switch OFF.
2. Turn the extended storage switch OFF.
3. Pinch tabs ① and tilt to disengage the extended storage switch. Pinch tabs ② to remove the extended storage switch.



#### CAUTION:

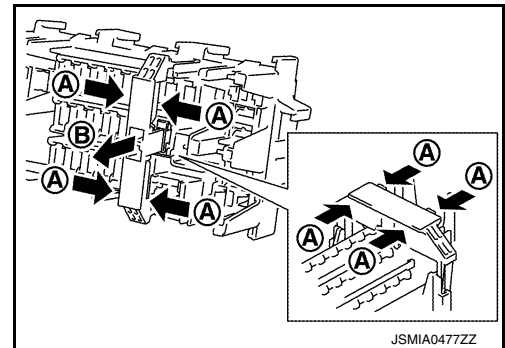
For bus bar type extended storage switch, never replace bus bar with a fuse, or fuse may continually open.

#### NOTE:

- Extended storage switch and fuse (or bus bar) are removed together. Remove fuse (or bus bar) from extended storage switch, if necessary.
- Install removed fuse (or bus bar) to fuse block.
- Extended storage switch is for transportation and storage. Reinstallation of switch is not required after removal, but fuse (or bus bar) must be reinstalled/pushed back in to activate all electrical systems and turn message off (which may be shown in meter/display).

#### Type B

1. Turn the ignition switch OFF.
2. Turn the extended storage switch OFF.
3. Pinch tabs ① and firmly pull out the extended storage switch in ② direction.



#### CAUTION:

For bus bar type extended storage switch, never replace bus bar with a fuse, or fuse may continually open.

#### NOTE:

- Extended storage switch and fuse (or bus bar) may be removed together. Remove fuse (or bus bar) from extended storage switch, if necessary.
- Install removed fuse (or bus bar) to fuse block.
- Extended storage switch is for transportation and storage. Reinstallation of switch is not required after removal, but fuse (or bus bar) must be reinstalled/pushed back in to activate all electrical systems and turn message off (which may be shown in meter/display).

#### Type C

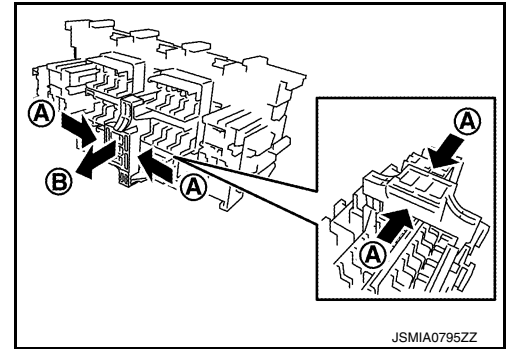
1. Turn the ignition switch OFF.
2. Turn the extended storage switch OFF.

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

## FUSE INSPECTION

### < BASIC INSPECTION >

3. Pinch tabs (A) and firmly pull out the extended storage switch in (B) direction.



#### **CAUTION:**

**For bus bar type extended storage switch, never replace bus bar with a fuse, or fuse may continually open.**

#### **NOTE:**

- Extended storage switch and fuse (or bus bar) are removed together. Remove fuse (or bus bar) from extended storage switch, if necessary.
- Install removed fuse (or bus bar) to fuse block.
- Extended storage switch is for transportation and storage. Reinstallation of switch is not required after removal, but fuse (or bus bar) must be reinstalled/pushed back in to activate all electrical systems and turn message off (which may be shown in meter/display).

# FUSIBLE LINK INSPECTION

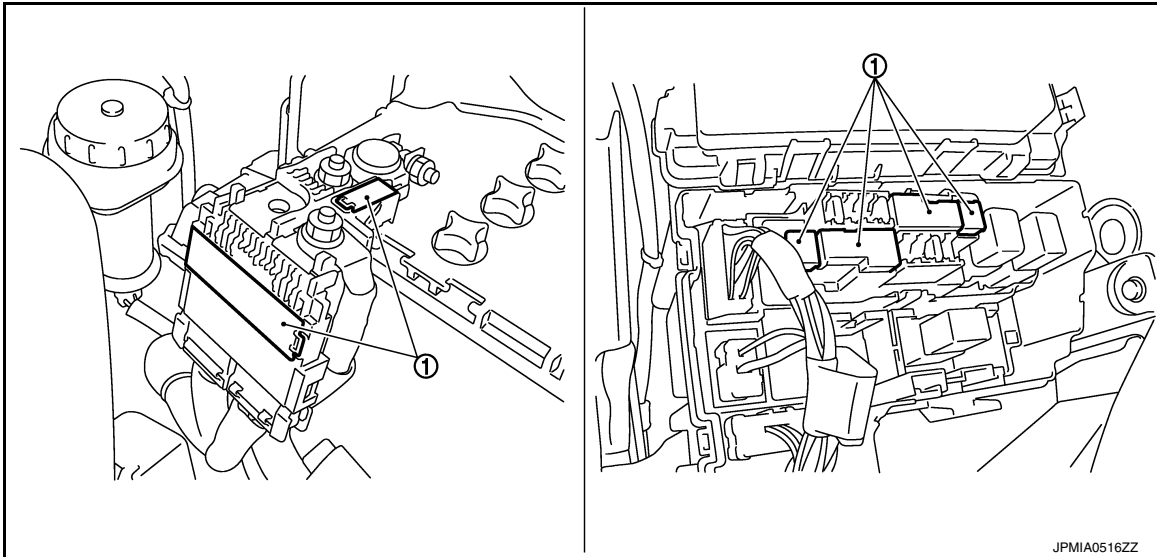
< BASIC INSPECTION >

## FUSIBLE LINK INSPECTION

### Fusible Link

INFOID:000000012422893

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



1 : Fusible link

#### CAUTION:

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

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

# BATTERY

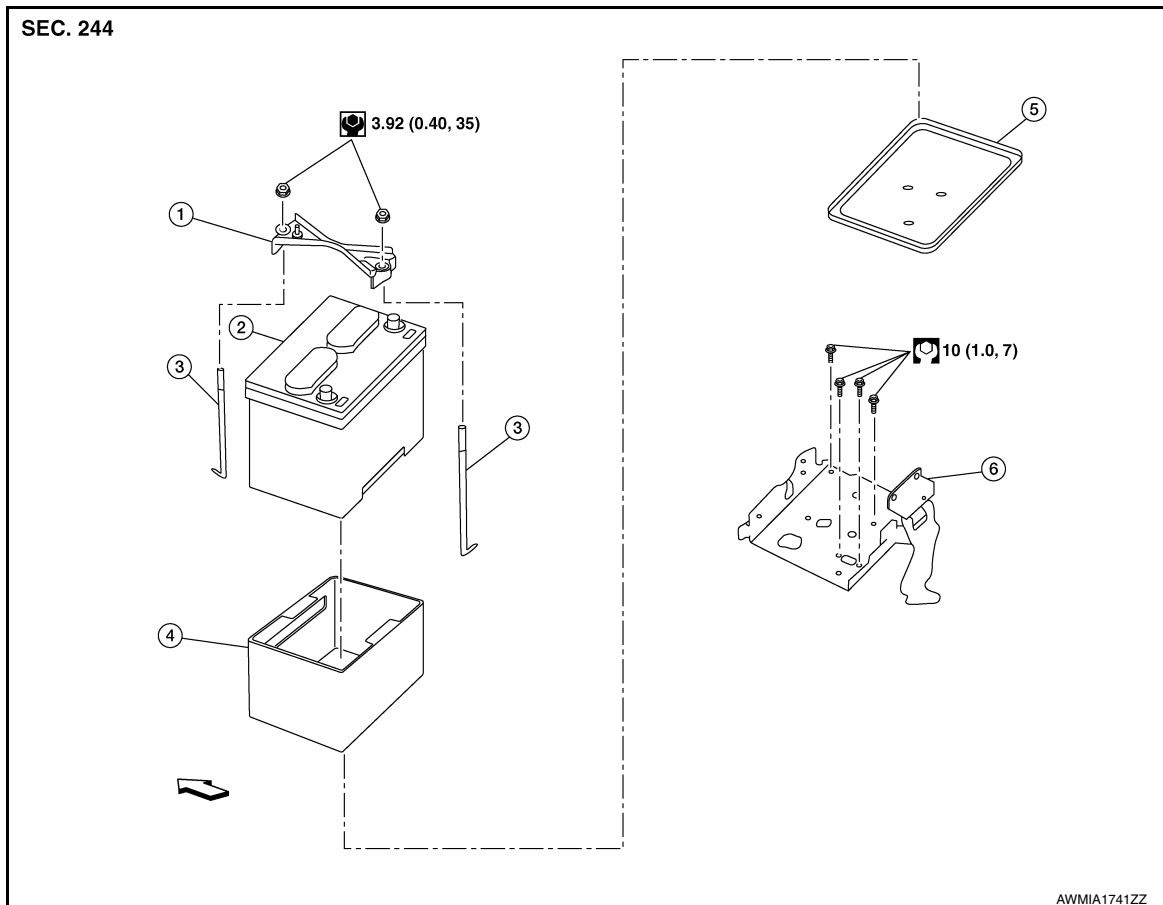
< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

### BATTERY

Exploded View

INFOID:000000012422894



- |                  |                       |                 |
|------------------|-----------------------|-----------------|
| 1. Battery frame | 2. Battery            | 3. Battery rod  |
| 4. Battery cover | 5. Battery tray liner | 6. Battery tray |
- ⇐ Front

### Removal and Installation (Battery)

INFOID:000000012422895

#### REMOVAL

1. Pull back cover of battery positive terminal.
2. Loosen the battery terminal nuts and disconnect the battery negative and positive terminals.  
**CAUTION:**  
**To prevent damage to the parts, disconnect the battery negative terminal first.**
3. Remove battery frame nuts, battery frame and battery rods.
4. Remove battery cover and battery.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **WARNING:**

**Do not allow battery fluid to come into contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, never touch or rub your eyes until you have thoroughly washed your hands. If acid contacts eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical attention. Failure to do this may cause personal injury or damage to clothing or the painted surfaces.**



# BATTERY

## < REMOVAL AND INSTALLATION >

### CAUTION:

- Make sure battery tray liner is clean prior to installing new battery.
- To prevent damage to the parts, connect the battery positive terminal first.
- Make sure battery cables are tightly clamped to battery terminals for good contact.
- Check battery terminal for poor connection caused by corrosion.

**Battery terminal nut : 5.39 N-m (0.55 kg-m, 48 in-lb)**

Reset electronic systems as necessary. Refer to [.PG-74, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#)

## Removal and Installation (Battery Tray)

INFOID:000000012422896

### REMOVAL

1. Remove battery. Refer to [PG-80, "Removal and Installation \(Battery\)"](#).
2. Remove air duct assembly. Refer to [EM-26, "Exploded View"](#).
3. Disconnect harness connector from TCM.
4. Remove wiring harness retainers.
5. Disconnect harness connectors from ECM.
6. Remove battery tray.
7. Remove TCM bracket from battery tray (if necessary).
8. Remove ECM bracket from battery tray (if necessary).

### INSTALLATION

Installation is in the reverse order of removal.

- Reset electronic systems as necessary. Refer to [PG-74, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).
- Perform the "Throttle Valve Closed Position Learning". Refer to [EC-143, "Description"](#).

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

PG

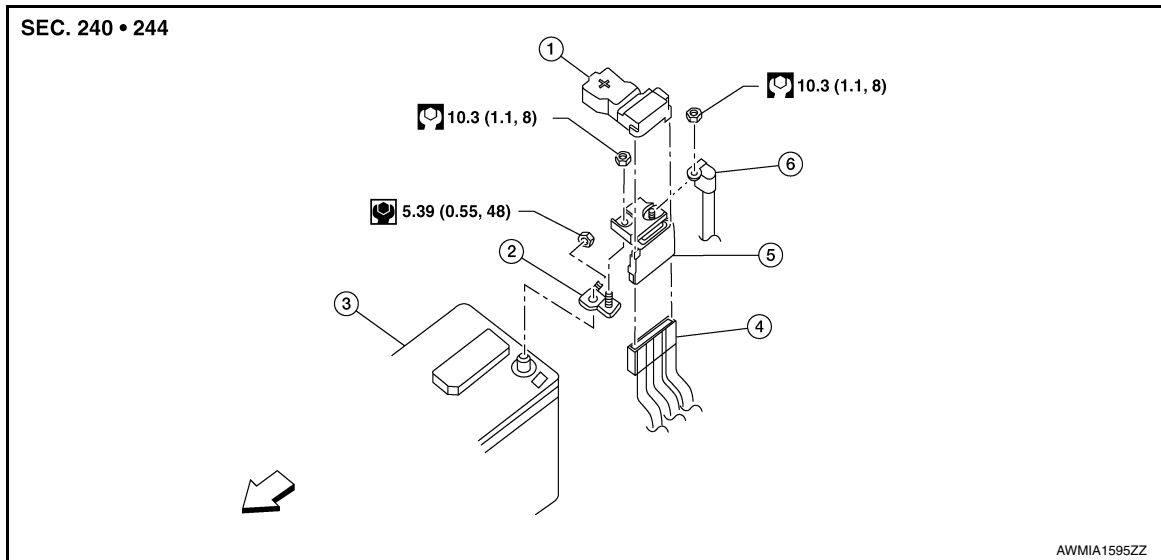
# BATTERY TERMINAL WITH FUSIBLE LINK

< REMOVAL AND INSTALLATION >

## BATTERY TERMINAL WITH FUSIBLE LINK

Exploded View

INFOID:000000012422897



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

## Removal and Installation

INFOID:000000012422898

### REMOVAL

- Loosen battery terminal nuts and disconnect both negative and positive terminals from the battery.  
**CAUTION:**  
**To prevent damage to the parts, disconnect the battery negative terminal first.**
- Disconnect positive cable from fusible link box (battery).
- Disconnect harness connectors from fusible link box (battery) and remove fusible link box (battery).

### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

**Replace the fusible link box battery if it has been dropped or sustained and impact.**

**To install the battery, carefully read the following instructions:**

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

Reset electronic systems as necessary. Refer to [PG-74, "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:0000000012422899

Type*	GR35	GR35
Capacity (20HR) minimum V-AH	12-60	12-63
Cold cranking current A @ -18°C (0°F)	550	550

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

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

PG