

SECTION **PG**

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

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PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000004913900

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

WARNING:

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

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000004913899

NOTE:

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

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

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

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

OPERATION PROCEDURE

1. Connect both battery cables.

NOTE:

Supply power using jumper cables if battery is discharged.

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

PRECAUTIONS

< PRECAUTION >

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

Precaution for Power Generation Variable Voltage Control System

INFOID:000000001538888

CAUTION:

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

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PREPARATION

< PREPARATION >

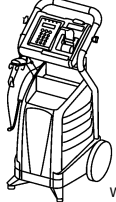
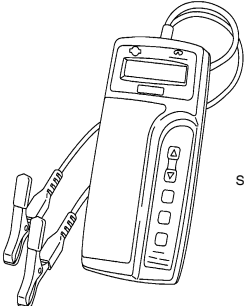
PREPARATION

PREPARATION

Special Service Tool

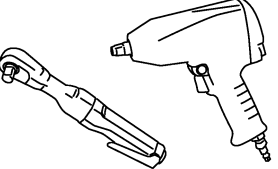
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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
<p>— (J-48087) Battery Service Center</p>  <p>WKIA5280E</p>	<p>Tests battery. For operating instructions, refer to Technical Service Bulletin and Battery Service Center User Guide.</p>
<p>— (J-44373) Model 620 Starting/Charging system tester</p>  <p>SEL403X</p>	<p>Tests starting and charging systems. For operating instructions, refer to Technical Service Bulletin.</p>

Commercial Service Tool

INFOID:000000001538890

Tool name	Description
<p>Power tool</p>  <p>PBIC0190E</p>	<p>Loosening bolts and nuts</p>

BATTERY

< BASIC INSPECTION >

BASIC INSPECTION

BATTERY

How to Handle Battery

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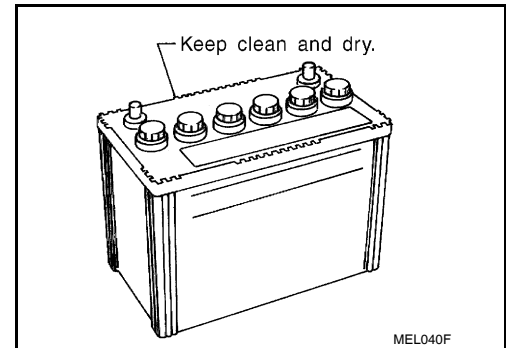
CAUTION:

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

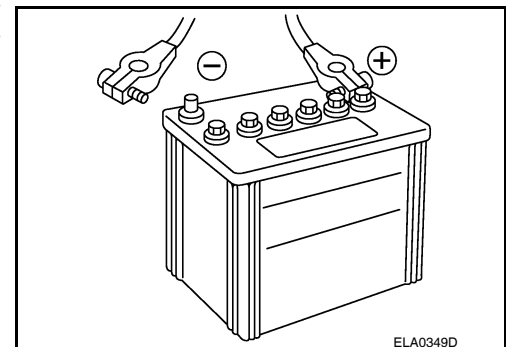
METHODS OF PREVENTING OVER-DISCHARGE

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

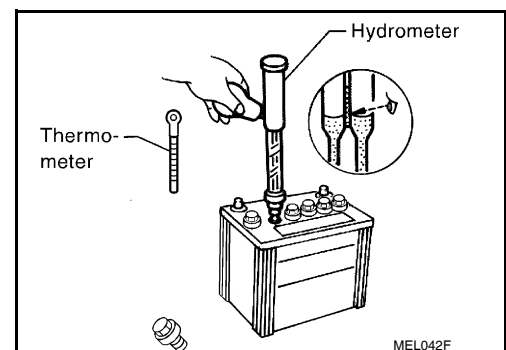
- The battery surface (particularly its top) should always be kept clean and dry.
- The terminal connections should be clean and tight.
- At every routine maintenance, check the electrolyte level. This also applies to batteries designated as "low maintenance" and "maintenance-free".



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



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



CHECKING ELECTROLYTE LEVEL

WARNING:

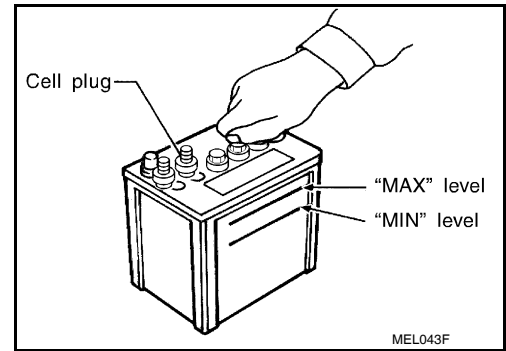
Never allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, never touch or rub your eyes until you have thoroughly washed your hands. If acid contacts eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical attention.

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BATTERY

< BASIC INSPECTION >

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

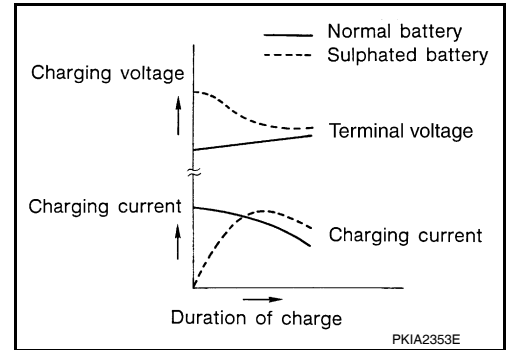


Sulphation

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

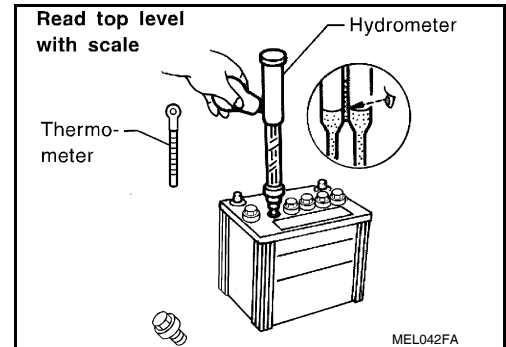
To determine if a battery has been “sulphated”, note its voltage and current when charging it. As shown in the figure, less current and higher voltage are observed in the initial stage of charging sulphated batteries.

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



SPECIFIC GRAVITY CHECK

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



Hydrometer Temperature Correction

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

BATTERY

< BASIC INSPECTION >

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

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

CHARGING THE BATTERY

CAUTION:

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

Charging Rates

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

Do not charge at more than 50 ampere rate.

NOTE:

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

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

Work Flow

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TROUBLE DIAGNOSIS WITH BATTERY SERVICE CENTER

For battery testing, use Battery Service Center (J-48087). For details and operating instructions, refer to Technical Service Bulletin and/or Battery Service Center User Guide.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

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Required Procedure After Battery Disconnection

System	Item	Reference
Engine Control	Idle Air Volume Learning	Refer to EC-18 .
Brake Control	Steering Angle Sensor Neutral Position	Refer to BRC-8 .
Power Window Control	Power Window System Initialization	Refer to TSB.
Body, Lock & Security	Automatic Back Door Initialization	Refer to DLK-9 .
Roof	Sunroof Memory Reset/Initialization	Refer to RF-5 .
Seats	Automatic Drive Positioner System Initialization	Refer to Owner's Manual.
Audio-Visual System	Audio (Radio Preset)	Refer to Owner's Manual.
	Navigation System	Refer to Owner's Manual.
	Rear View Monitor Guiding Line Adjustment	Refer to AV-7 .

POWER SUPPLY ROUTING CIRCUIT

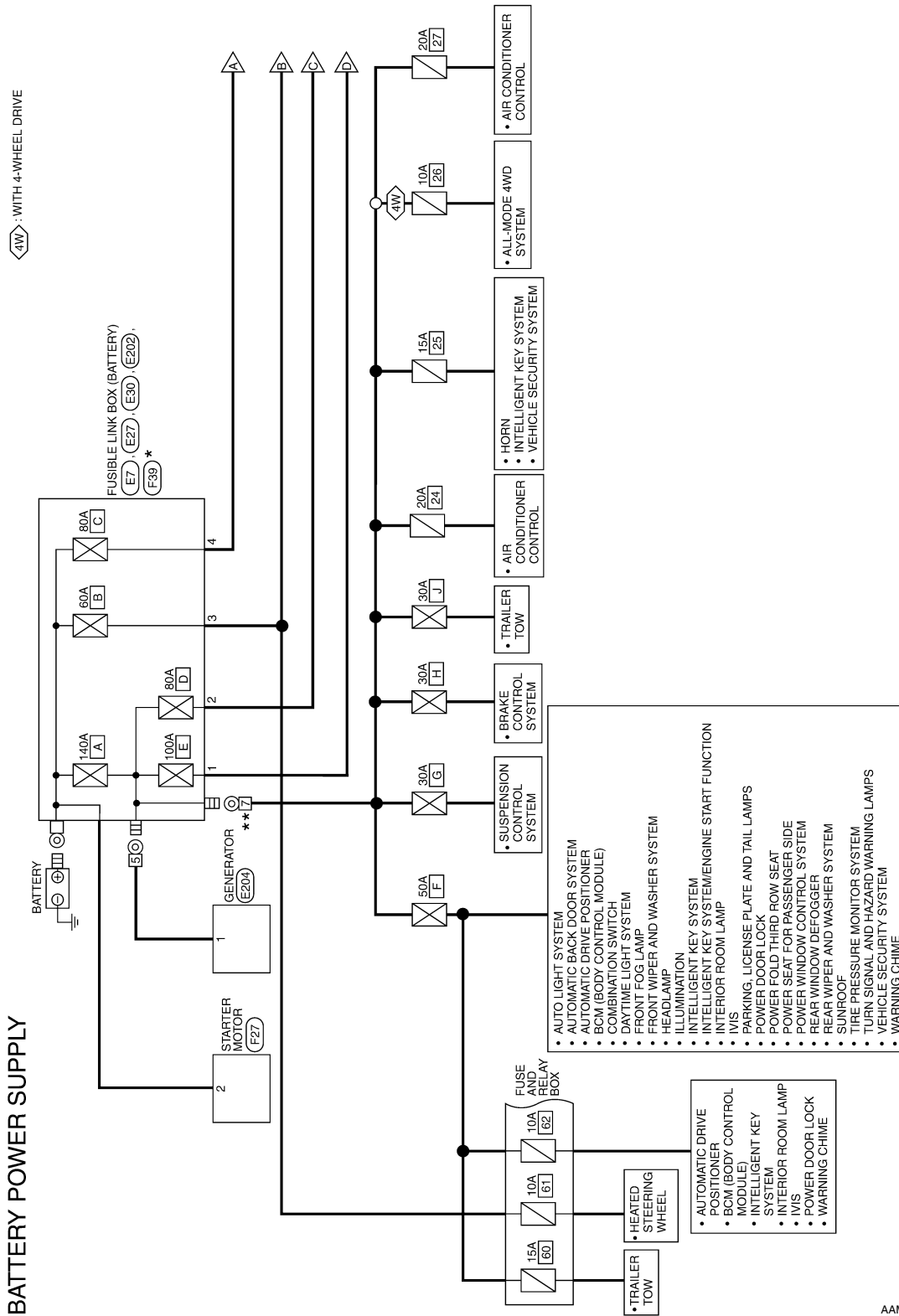
< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY ROUTING CIRCUIT

Wiring Diagram —Battery Power Supply—

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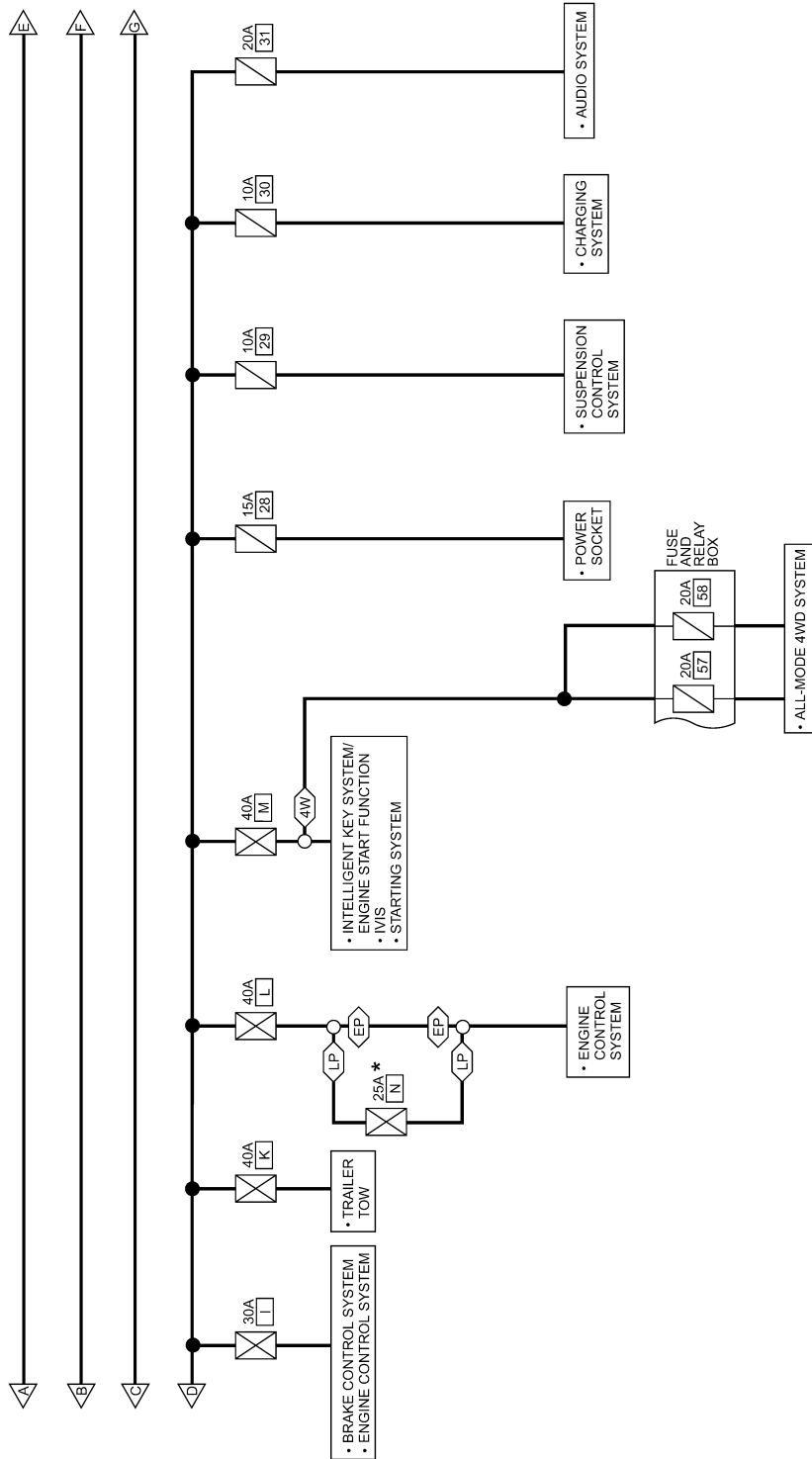
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

◊4W◊ : WITH 4-WHEEL DRIVE
 ◊EP◊ : EARLY PRODUCTION
 ◊LP◊ : LATE PRODUCTION



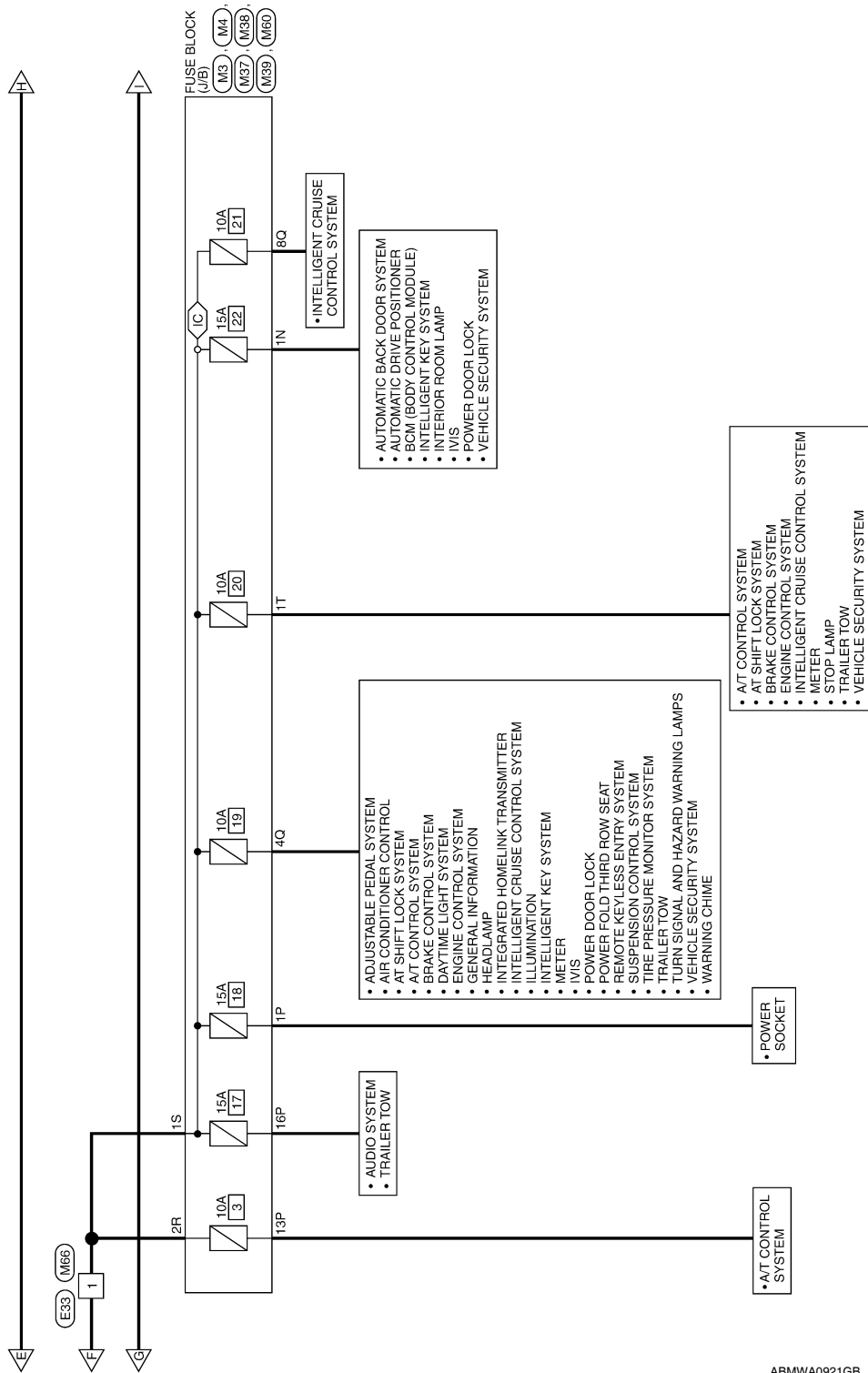
* : THIS FUSE IS LOCATED IN THE IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) BOX.

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

IC : INTELLIGENT CRUISE CONTROL



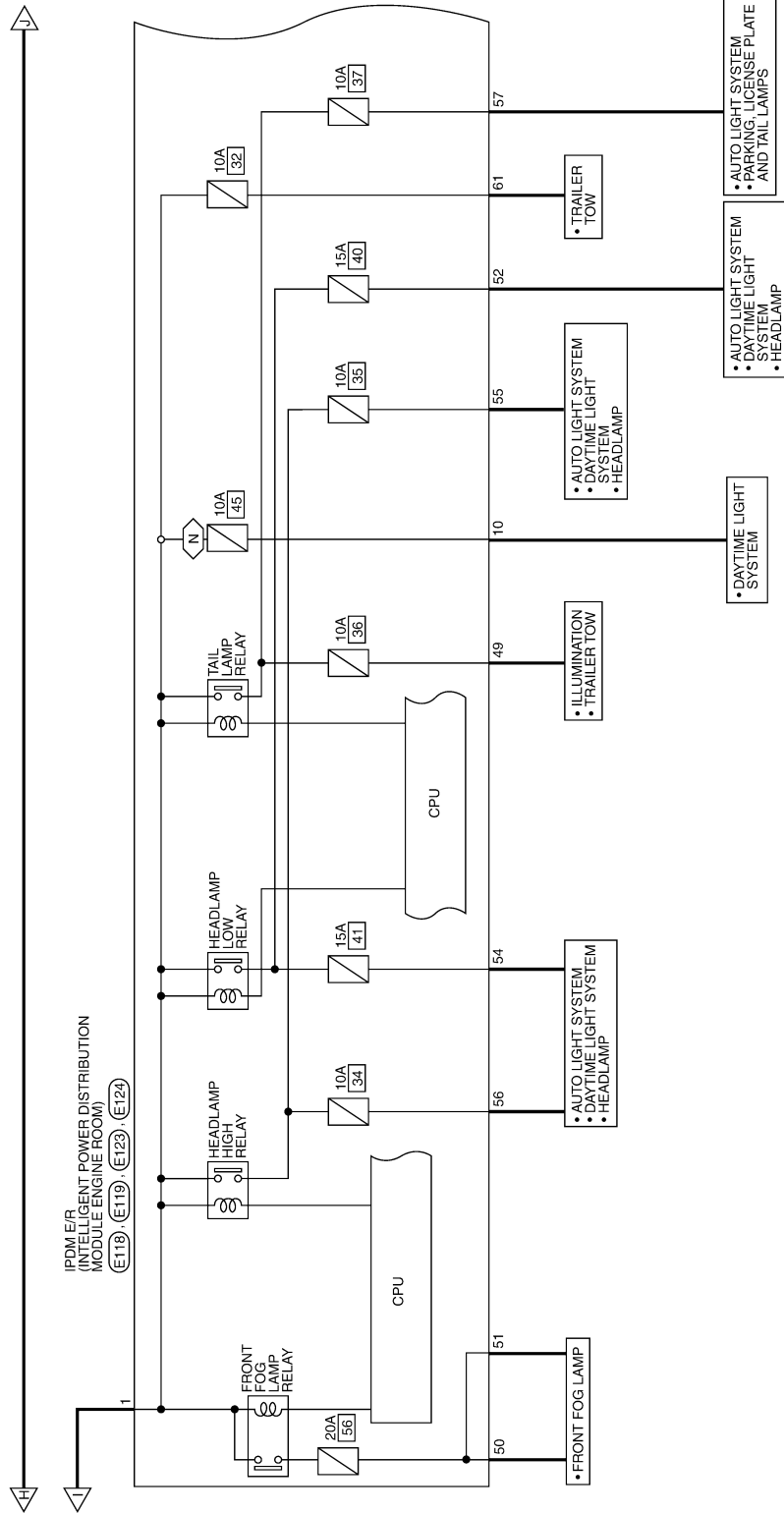
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POWER SUPPLY ROUTING CIRCUIT

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N CANADA

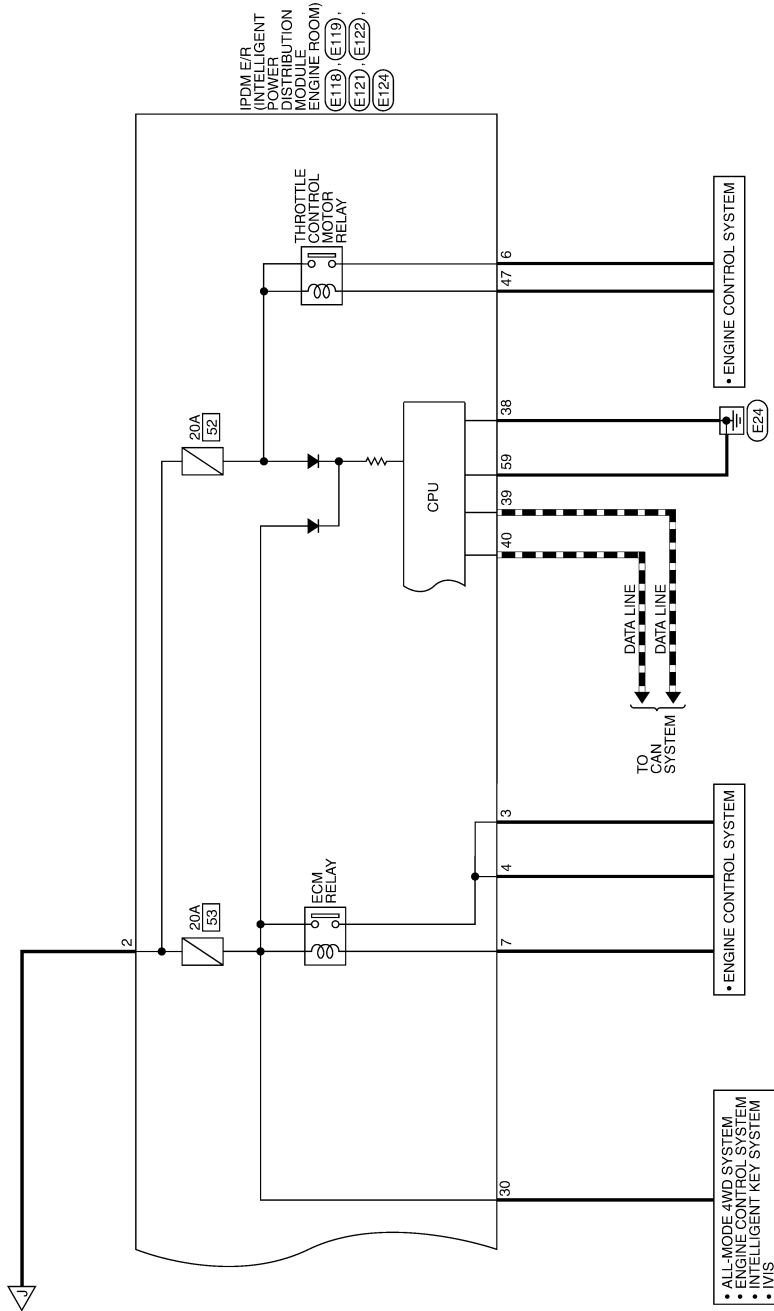


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POWER SUPPLY ROUTING CIRCUIT

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--- : DATA LINE



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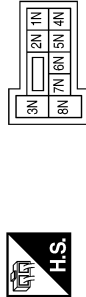
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

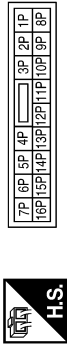
BATTERY POWER SUPPLY CONNECTORS

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



Terminal No.	1N	Color of Wire	Y/R	Signal Name	-
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Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	1P	Color of Wire	G	Signal Name	CPM_SOCKET
	13P		P		-
	16P		R		WOOFER

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



Terminal No.	1S	Color of Wire	W	Signal Name	B
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Connector No.	M38
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



Terminal No.	2R	Color of Wire	W	Signal Name	B
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Connector No.	M39
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	4Q	Color of Wire	Y/R	Signal Name	-
	8Q		W/L		ACC

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



Terminal No.	1T	Color of Wire	R/Y	Signal Name	-
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

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



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

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



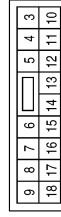
Terminal No.	Color of Wire	Signal Name
3	W	-
4	R	-

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



Terminal No.	Color of Wire	Signal Name
1	W	-

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



Terminal No.	Color of Wire	Signal Name
3	BR	IGN_COIL
4	W/L	ECU (VB)
6	L	ETC
7	W/B	ECM RLY CONT
10	G	DTRL RLY SUPPLY

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	B/Y	FL_USM
2	R	FL_MAIN

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



Terminal No.	Color of Wire	Signal Name
1	W	-


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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >


Connector No.	E123
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/L	ILLUMINATION
50	W/R	FR FOG LAMP LH
51	W/R	FR FOG LAMP RH
52	L	H/LAMP LO LH
54	R/Y	H/LAMP LO RH
55	G	H/LAMP HI LH
56	Y	H/LAMP HI RH


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



42	41	40	39	38	37
48	47	46	45	44	43

Terminal No.	Color of Wire	Signal Name
38	B	SIGNAL GND
39	L	CAN-H
40	P	CAN-L
47	O	ETC RLY CONT

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



29	28	27	26	25
36	35	34	33	32
31	30			

Terminal No.	Color of Wire	Signal Name
30	W	ECM BAT

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



59	58	57
62	61	60

Terminal No.	Color of Wire	Signal Name
57	R/L	TAIL_LAMP
59	B	POWER GND
61	BR	TRAILER RLY 1

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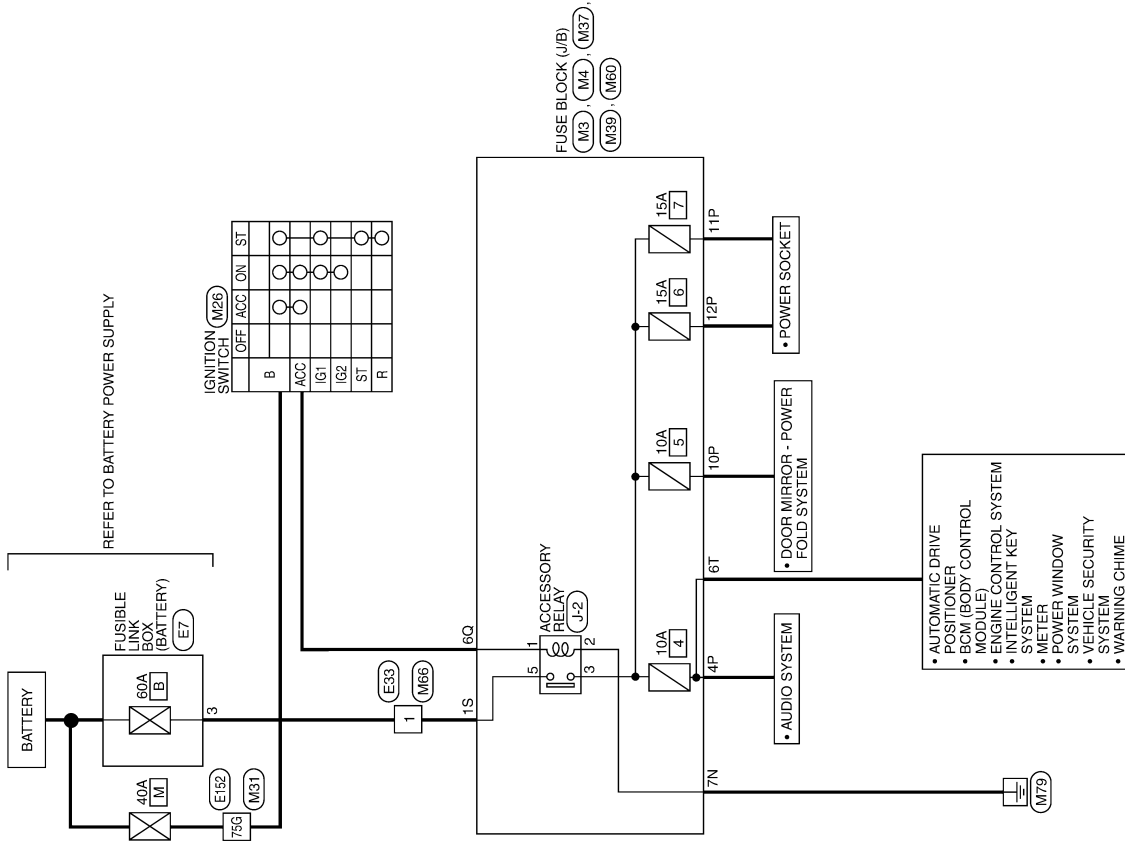
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Wiring Diagram —Accessory Power Supply—

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ACCESSORY POWER SUPPLY



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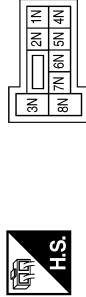
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

ACCESSORY POWER SUPPLY CONNECTORS

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



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



Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE

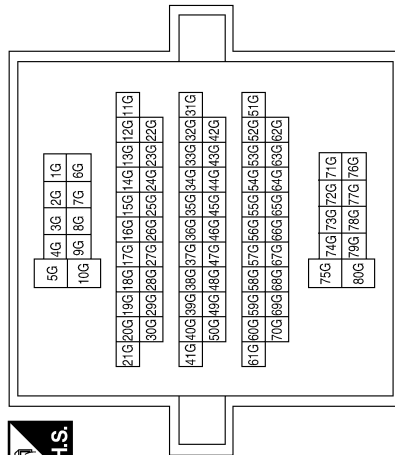


Terminal No.	Color of Wire	Signal Name
7N	B	-

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

Terminal No.	Color of Wire	Signal Name
IG1	-	-
IG2	-	-
ST	-	-
B	G	-
ACC	V	-
R	-	-

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



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

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



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

POWER SUPPLY ROUTING CIRCUIT

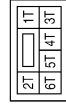
< COMPONENT DIAGNOSIS >

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



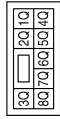
Terminal No.	1	Color of Wire	W	Signal Name	-
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Connector No.	M60
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	6T	Color of Wire	O	Signal Name	-
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Connector No.	M39
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	6Q	Color of Wire	V	Signal Name	ACC
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Connector No.	E33
Connector Name	WIRE TO WIRE
Connector Color	BLACK



Terminal No.	1	Color of Wire	W	Signal Name	-
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Connector No.	E7
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



Terminal No.	3	Color of Wire	W	Signal Name	-
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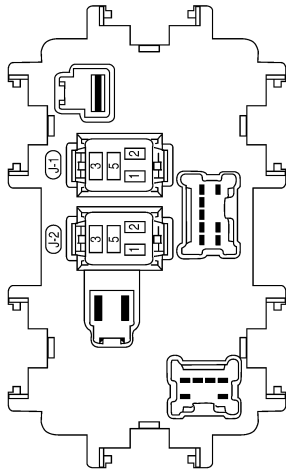
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POWER SUPPLY ROUTING CIRCUIT

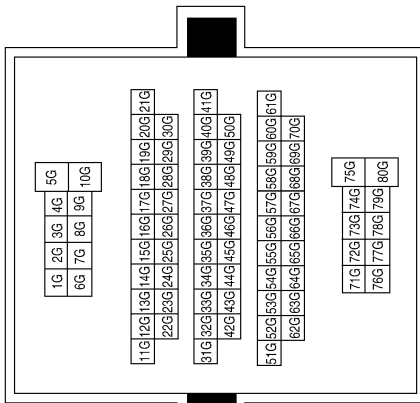
< COMPONENT DIAGNOSIS >

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



Terminal No.	Color of Wire	Signal Name
1	-	-
2	-	-
3	-	-
5	-	-

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



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

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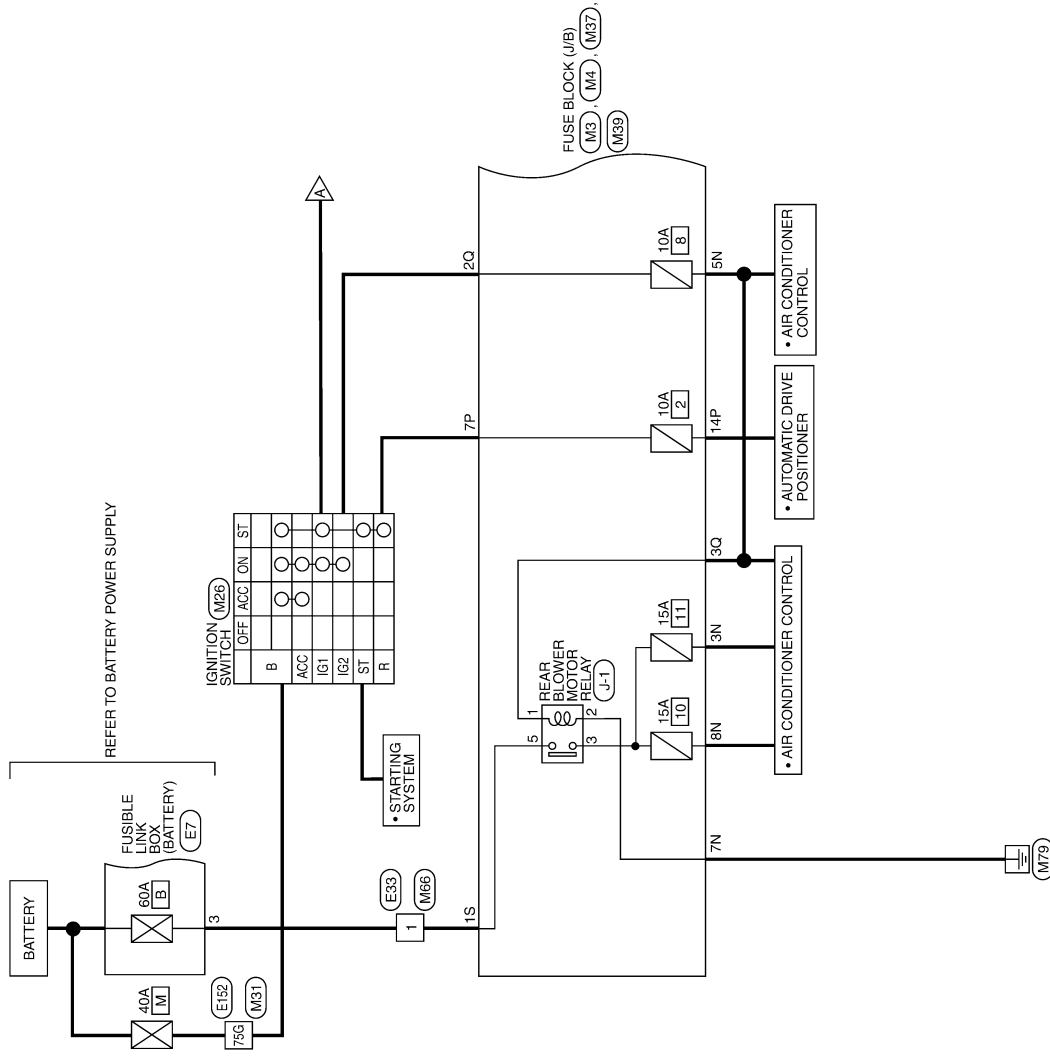
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Wiring Diagram —Ignition Power Supply —

INFOID:000000004807909

IGNITION POWER SUPPLY

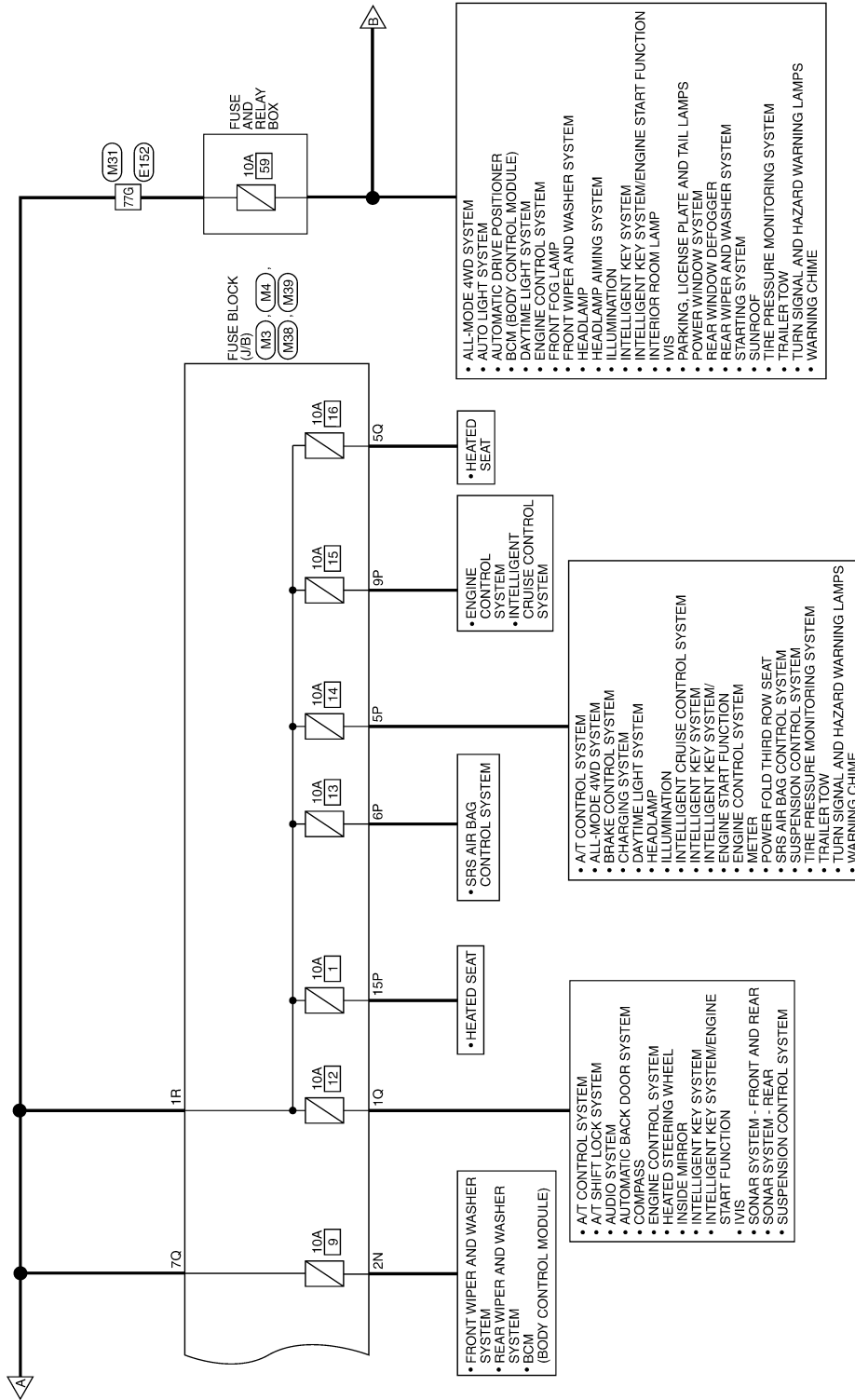


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POWER SUPPLY ROUTING CIRCUIT

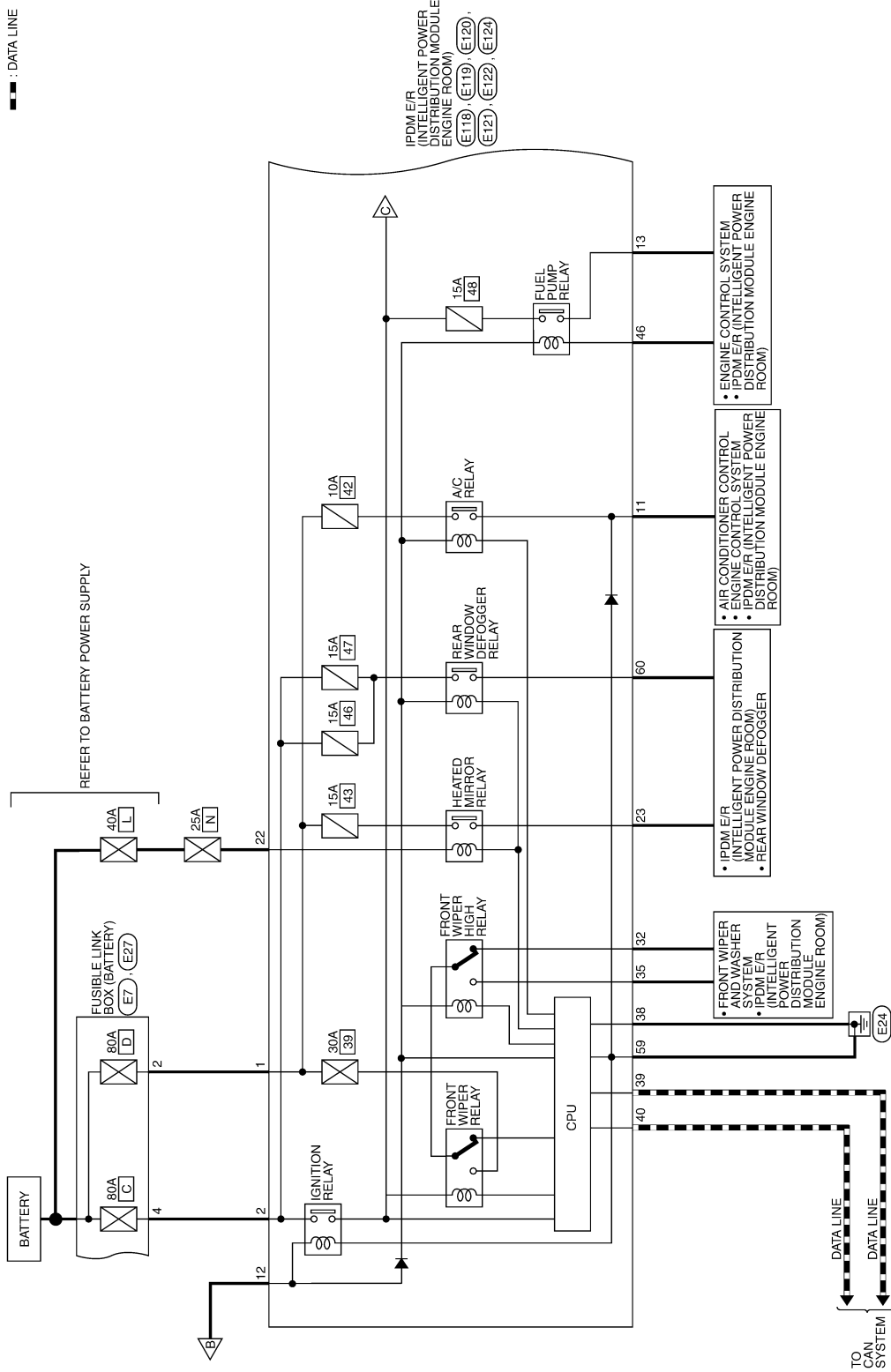
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POWER SUPPLY ROUTING CIRCUIT

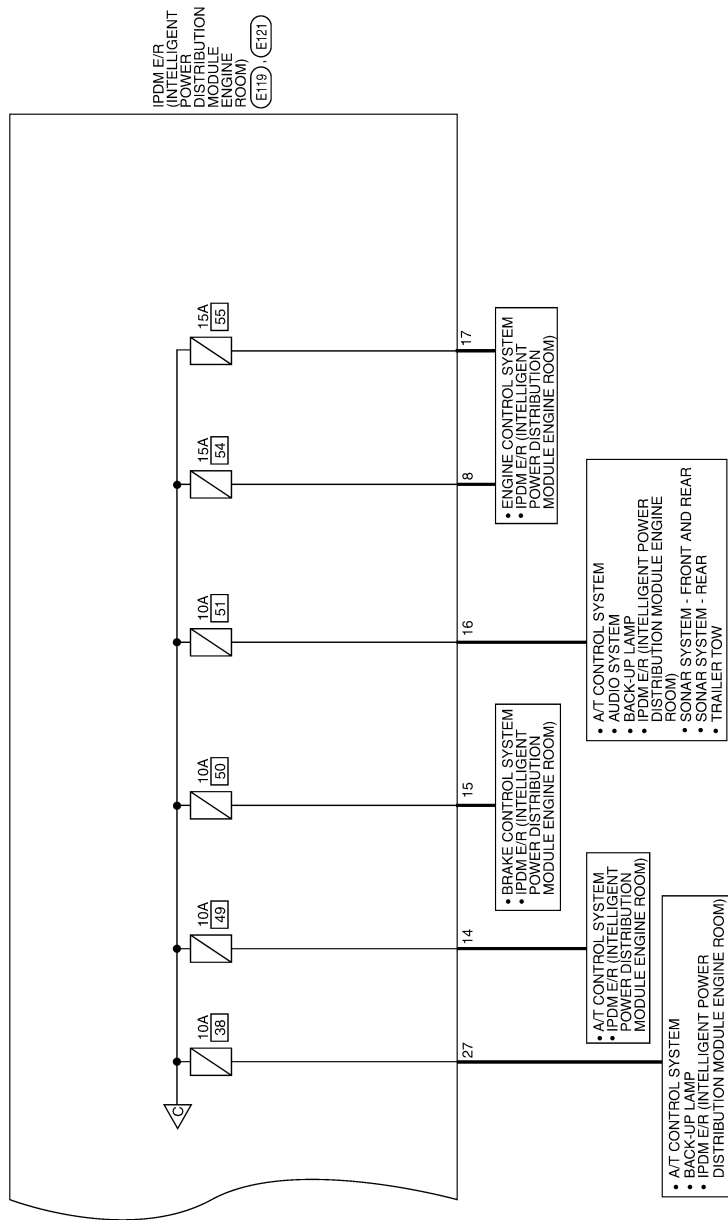
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >



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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

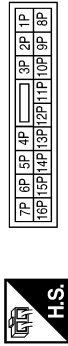
IGNITION POWER SUPPLY CONNECTORS

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



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

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



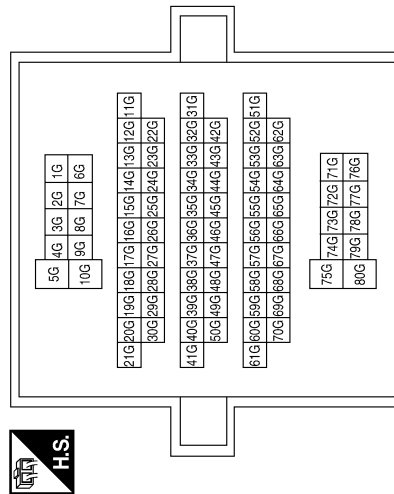
Terminal No.	Color of Wire	Signal Name
5P	O/L	-
6P	W/L	-
7P	LG	ST-R
9P	R/B	-
14P	O	AUTO DRFO
15P	O/B	-

Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE



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

Connector No.	M31
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



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

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



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

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

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



Terminal No.	Color of Wire	Signal Name
1	W	-

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



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

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



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

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



Terminal No.	Color of Wire	Signal Name
1	W	-

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



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

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



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

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

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



21	20	19
24	23	22

Terminal No.	Color of Wire	Signal Name
22	G	F/L MOTOR FAN
23	GR/W	HEATED MIRROR

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



9	8	7	6	5	4	3		
18	17	16	15	14	13	12	11	10

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

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



1	2
---	---

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

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



59	58	57
62	61	60

Terminal No.	Color of Wire	Signal Name
59	B	GND (POWER)
60	B/W	RR DEF

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



42	41	40	39	38	37
48	47	46	45	44	43

Terminal No.	Color of Wire	Signal Name
38	B	GND (SIGNAL)
39	L	CAN-H
40	P	CAN-L
46	GR	FUEL PUMP RLY CONT

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



29	28	27	26	25		
36	35	34	33	32	31	30

Terminal No.	Color of Wire	Signal Name
27	W/B	T TOW REV LAMP
32	L	FR WIPER LO
35	L/B	FR WIPER HI

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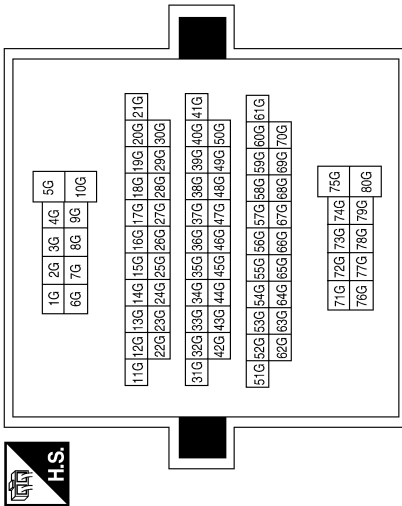
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

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

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



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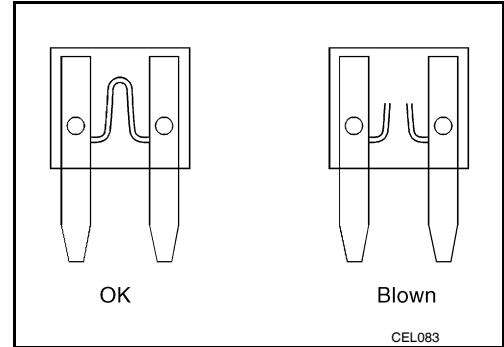
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Fuse

INFOID:000000001744671

- If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.
- Use fuse of specified rating. Never use fuse of more than specified rating.
- Do not partially install fuse; always insert it into fuse holder properly.
- Remove fuse for "ELECTRICAL PARTS (BAT)" if vehicle is not used for a long period of time.



Fusible Link

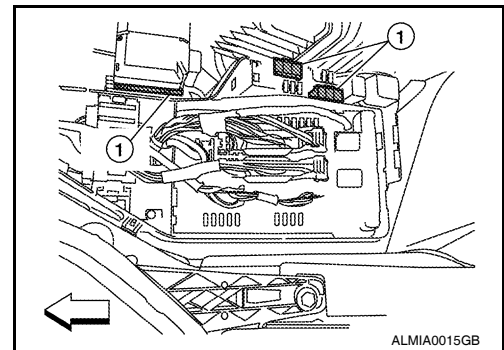
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A melted fusible link can be detected either by visual inspection or by feeling with finger tip. If its condition is questionable, use circuit tester or test lamp.

1 : Fusible link

CAUTION:

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



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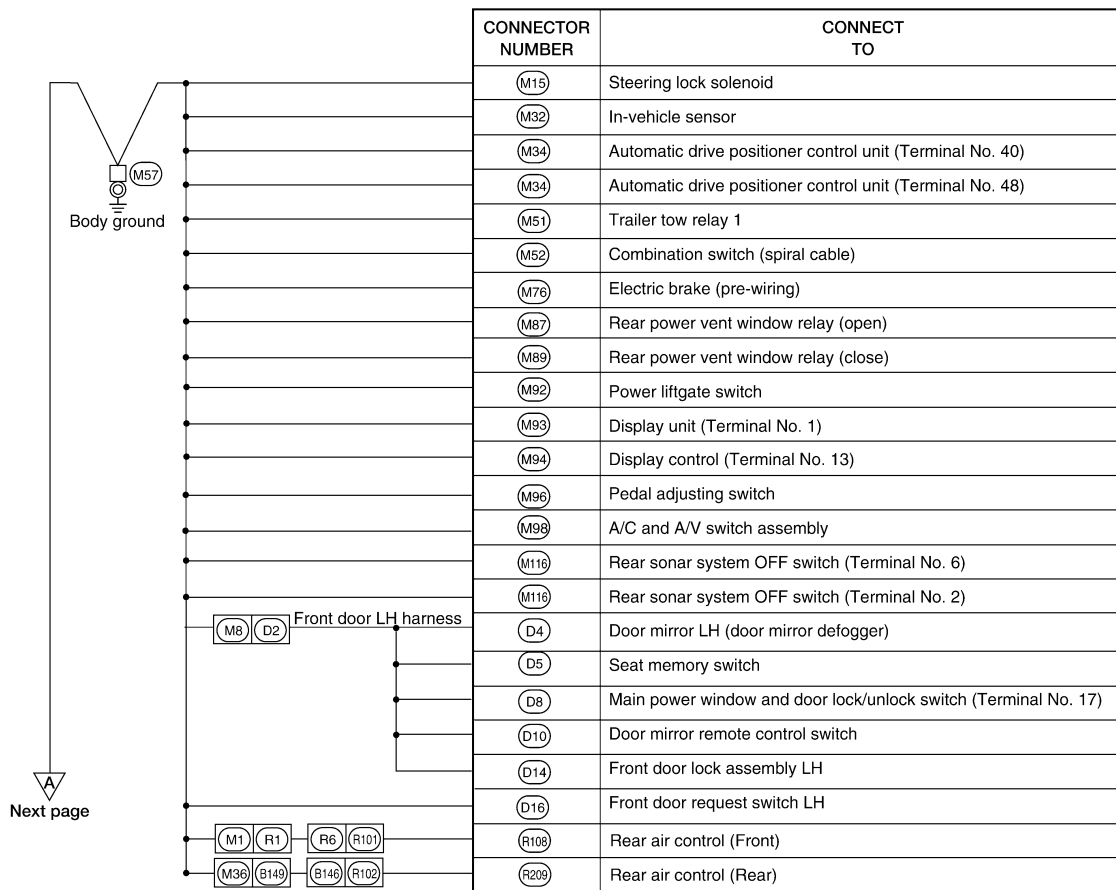
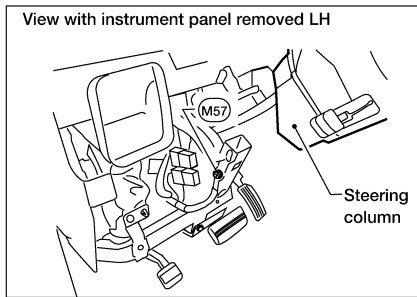
< COMPONENT DIAGNOSIS >

GROUND

Ground Distribution

INFOID:000000001744673

MAIN HARNESS

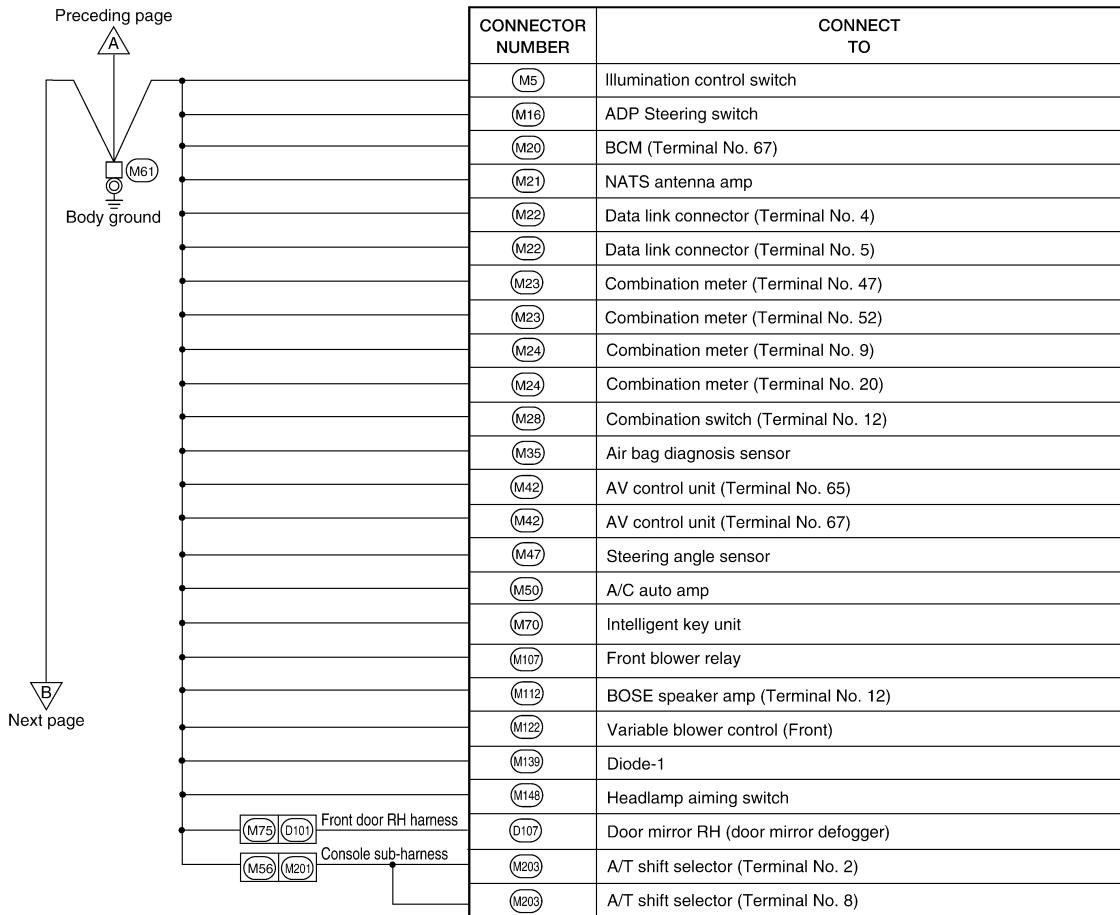
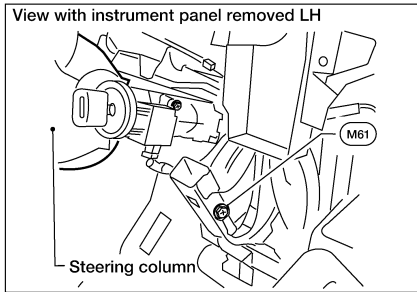


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GROUND

< COMPONENT DIAGNOSIS >



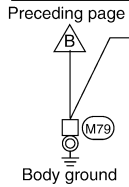
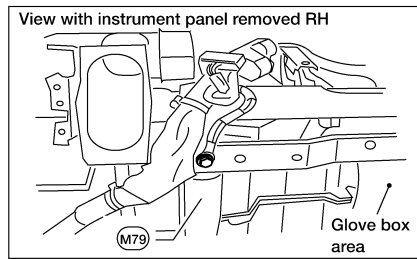
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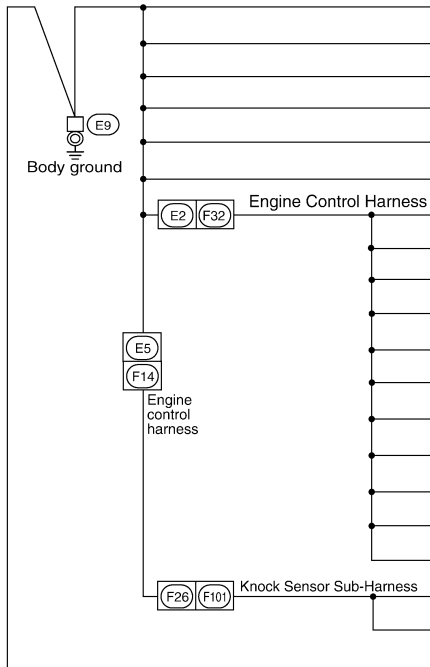
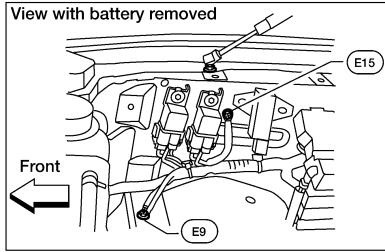
CONNECTOR NUMBER	CONNECT TO
(M3)	Fuse block J/B (Terminal No. 7N)
(M13)	Front passenger air bag off indicator
(M49)	Front air control (Terminal No. 1)
(M52)	Rear blower switch (front)
(M53)	Front power socket LH
(M54)	Front power socket RH (for cigarette lighter)
(M55)	Hazard switch
(M59)	Glove box lamp
(M67)	Tow mode switch (Terminal No. 2)
(M67)	Tow mode switch (Terminal No. 6)
(M81)	Shift lock control unit
(M93)	Display unit (Terminal no.1)
(M93)	Display unit (Terminal no.13)
(M95)	Rear power vent window switch
(M98)	AV switch
(M149)	Clock
(R3)	Vanity lamp LH
(R7)	Auto anti-dazzling inside mirror
(R8)	Vanity lamp RH
(R4)	Sunroof motor assembly
(R102)	Front room/map lamp assembly
(R106)	HOMELINK universal transceiver
(D105)	Power window and door lock/unlock switch RH
(D107)	Door mirror RH (door mirror defogger)
(D116)	Front door request switch RH
(M203)	A/T shift selector (Terminal No. 2)
(M203)	A/T shift selector (Terminal No. 8)
(M206)	DVD player (Terminal No. 5)
(M207)	Console power socket
(M212)	Rear heated seat switch LH
(M213)	Rear heated seat switch RH
(M232)	Front heated seat switch RH
(M253)	VDC OFF switch
(M254)	Tow mode switch (Terminal No. 2)
(M254)	Tow mode switch (Terminal No. 6)
(M255)	Front heated seat switch LH
(M260)	Heated steering wheel switch

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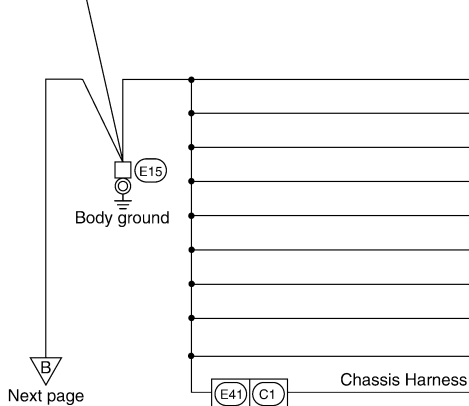
GROUND

< COMPONENT DIAGNOSIS >

ENGINE ROOM HARNESS



CONNECTOR NUMBER	CONNECT TO
(E16)	ECM (Terminal No. 115)
(E16)	ECM (Terminal No. 116)
(E142)	Transfer control unit (Terminal No. 6)
(E143)	Transfer control unit (Terminal No. 45)
(E156)	Trailer turn relay LH
(E157)	Trailer turn relay RH
(F5)	Air fuel ratio (A/F) sensor 1 (bank 1) shield
(F9)	A/T assembly (TCM) (Terminal No. 10)
(F9)	A/T assembly (TCM) (Terminal No. 5)
(F11)	Crankshaft position sensor (POS)
(F23)	Camshaft position sensor (PHASE)
(F50)	Electric throttle control actuator (throttle position sensor shield)
(F54)	ECM (Terminal No. 1)
(F56)	Transfer terminal cord assembly (clutch pressure solenoid valve)
(F62)	Intake valve timing control position sensor (bank 1)
(F64)	Intake valve timing control position sensor (bank 2)
(F65)	Air fuel ratio (A/F) sensor 1 (bank 1) shield
(F102)	Knock sensor (bank 1) shield
(F104)	Knock sensor (bank 2) shield



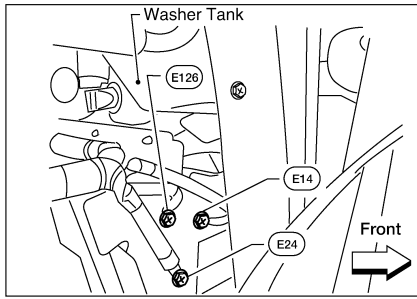
CONNECTOR NUMBER	CONNECT TO
(E3)	Horn
(E21)	Brake fluid level switch
(E102)	Front fog lamp RH
(E106)	Washer fluid level switch
(E107)	Front combination lamp RH (headlamp) (Terminal No. 1)
(E107)	Front combination lamp RH (headlamp) (Terminal No. 2)
(E107)	Front combination lamp RH (headlamp aiming motor) (Terminal No. 4)
(E113)	Cooling fan motor
(E116)	Condenser-2
(C5)	Fuel level sensor unit and fuel pump (fuel pump)

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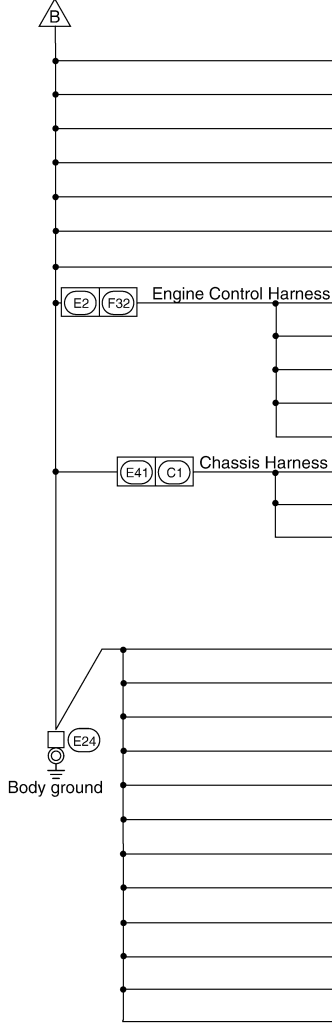
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< COMPONENT DIAGNOSIS >



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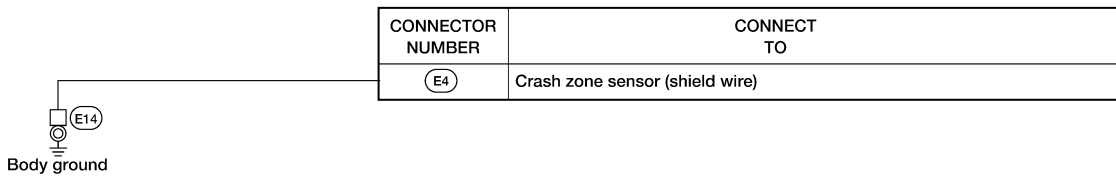
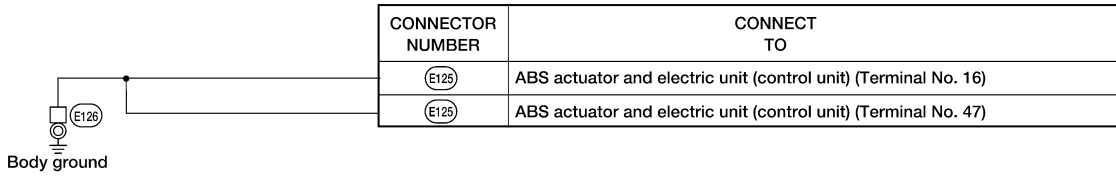
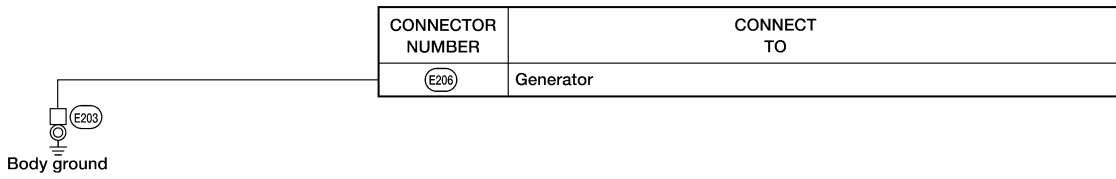
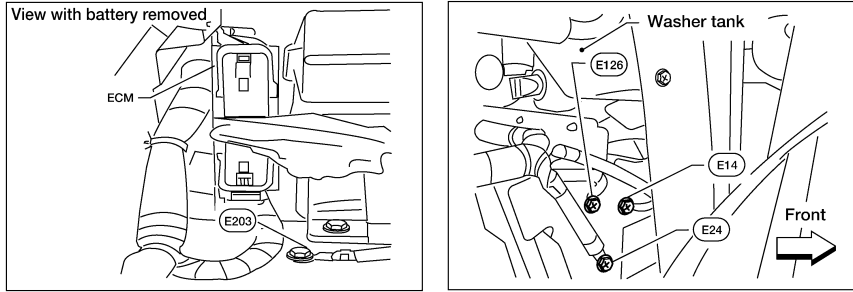
CONNECTOR NUMBER	CONNECT TO
(E46)	Transfer shift high relay (Terminal No. 2)
(E46)	Transfer shift high relay (Terminal No. 4)
(E47)	Transfer shift low relay (Terminal No. 2)
(E47)	Transfer shift low relay (Terminal No. 4)
(E130)	Compressor motor relay
(E140)	Trailer tow relay 2
(E142)	Transfer control unit
(F55)	ATP switch
(F57)	Transfer motor
(F58)	Transfer control device (actuator position switch) (Terminal No. 22)
(F59)	Wait detection switch
(F60)	Neutral-4LO switch
(C2)	Trailer
(C9)	Suspension air compressor (Terminal No. 1)
(C9)	Suspension air compressor (Terminal No. 2)

CONNECTOR NUMBER	CONNECT TO
(E6)	Hood switch
(E11)	Front combination lamp LH (headlamp) (Terminal No. 1)
(E11)	Front combination lamp LH (headlamp) (Terminal No. 2)
(E11)	Front combination lamp LH (headlamp aiming motor) (Terminal No. 4)
(E23)	Front wiper motor
(E42)	ICC sensor
(E101)	Front fog lamp LH
(E103)	Daytime light relay
(E106)	Washer fluid level switch
(E122)	IPDM E/R (Terminal No. 38)
(E124)	IPDM E/R (Terminal No. 59)
(E134)	ICC brake hold relay

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GROUND

< COMPONENT DIAGNOSIS >

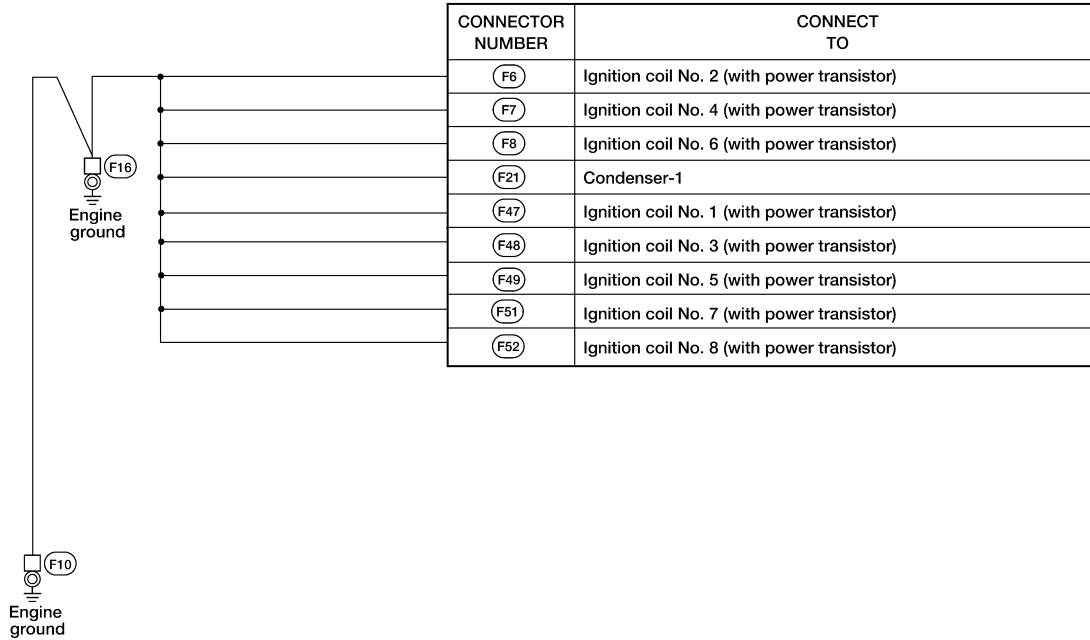
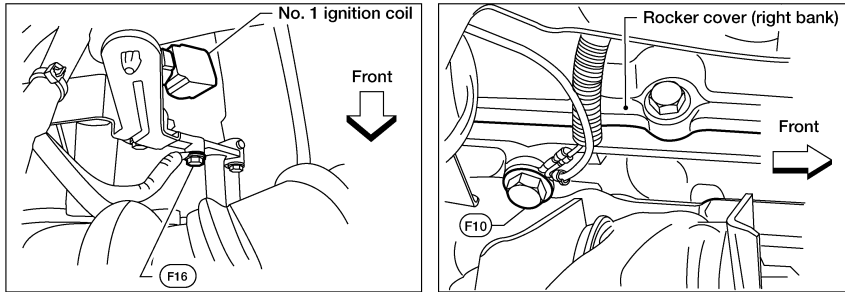


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< COMPONENT DIAGNOSIS > ENGINE CONTROL HARNESS

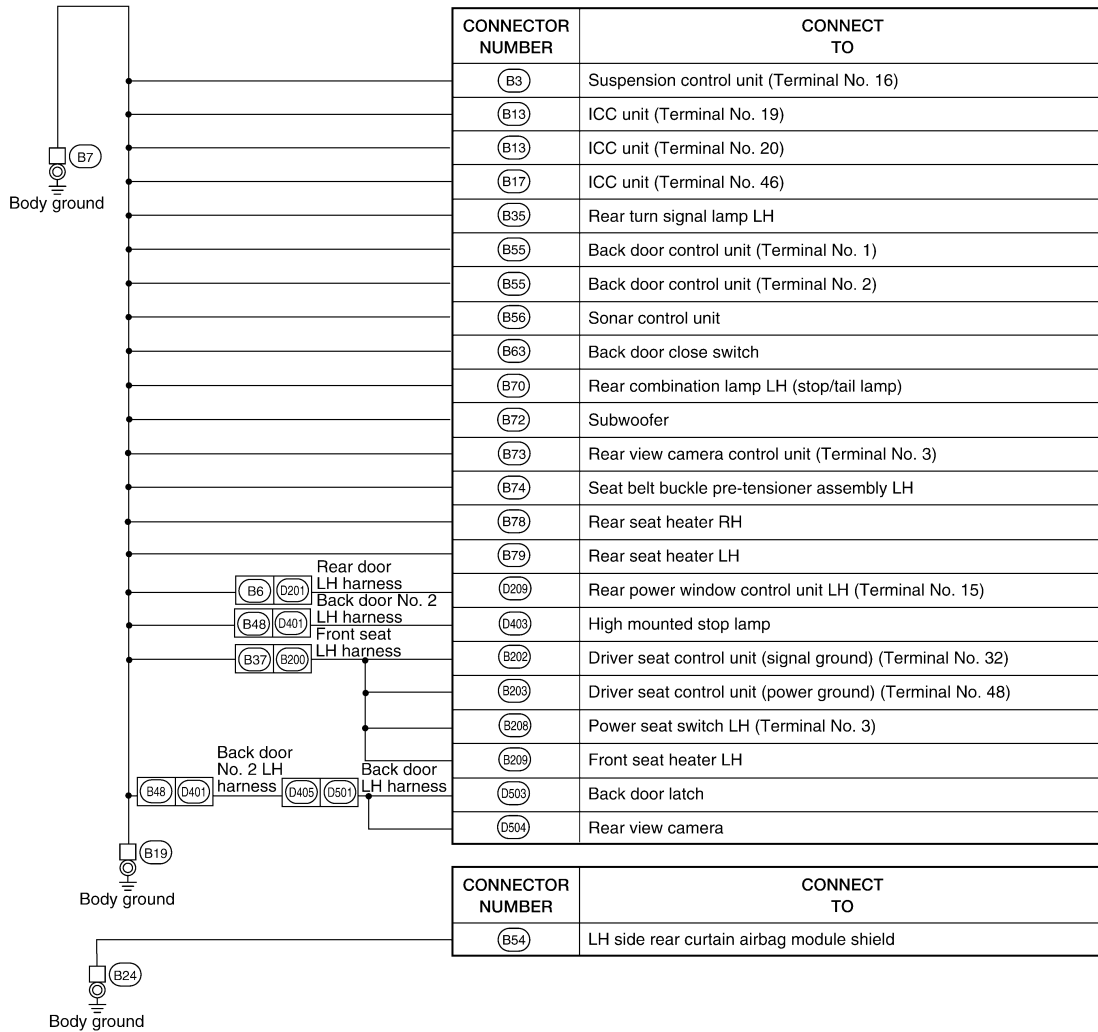
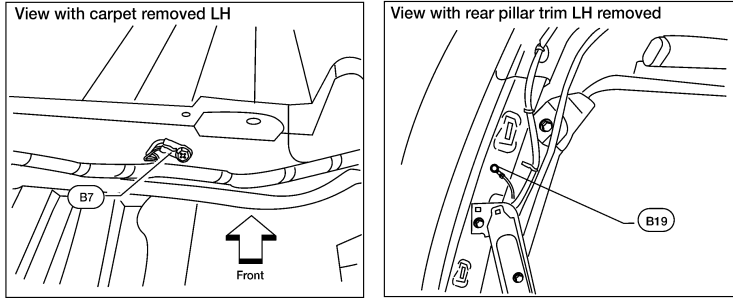


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GROUND

< COMPONENT DIAGNOSIS >

BODY HARNESS



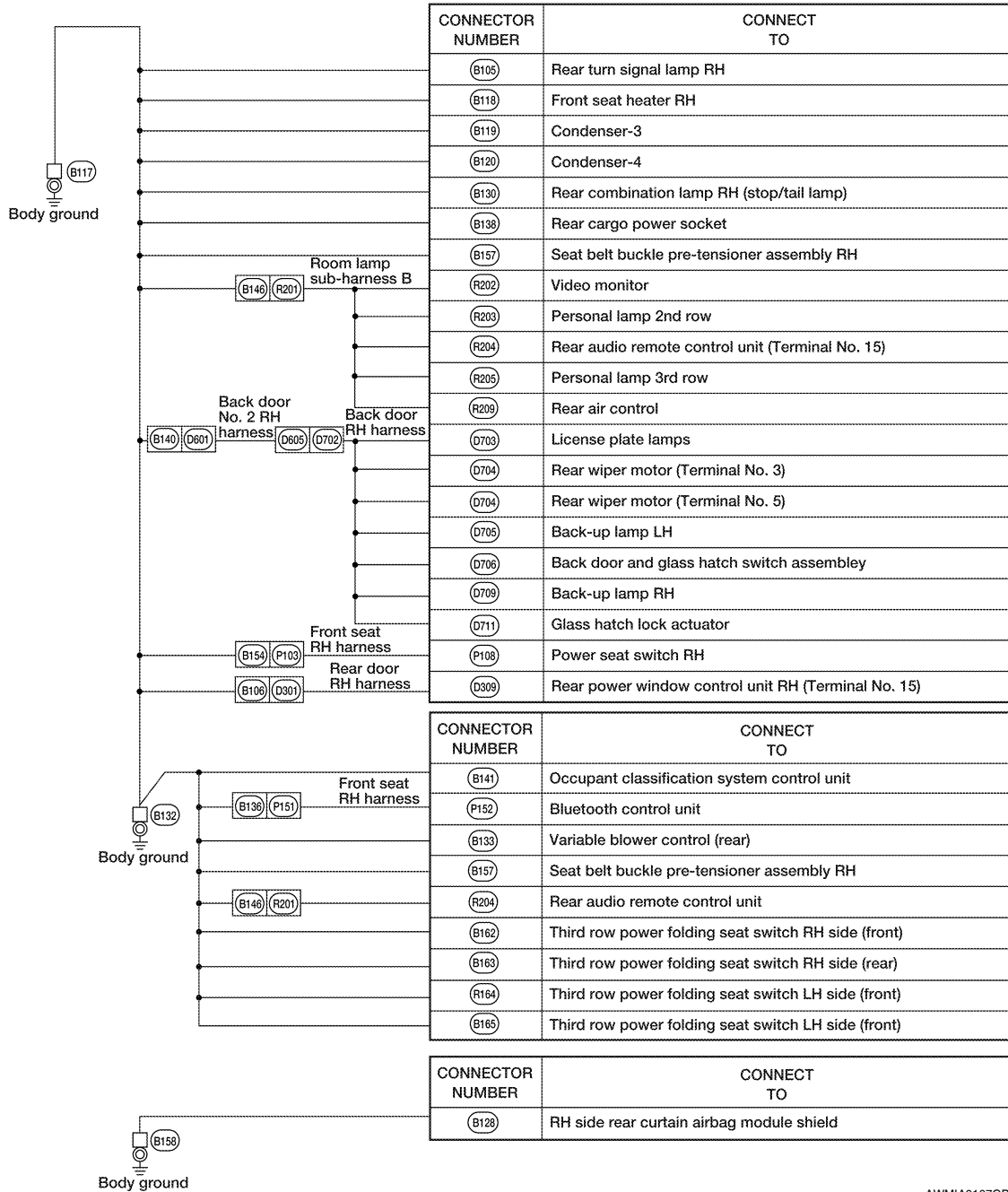
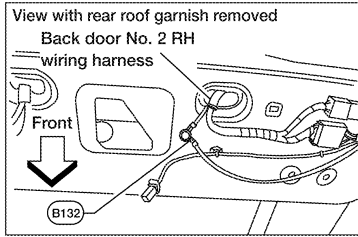
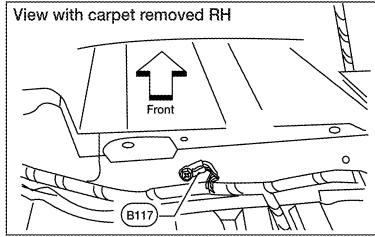
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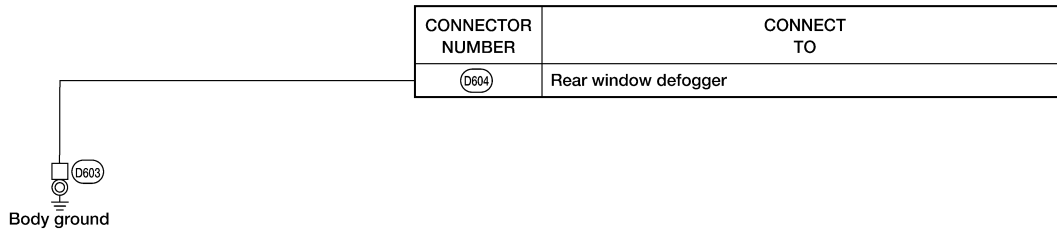
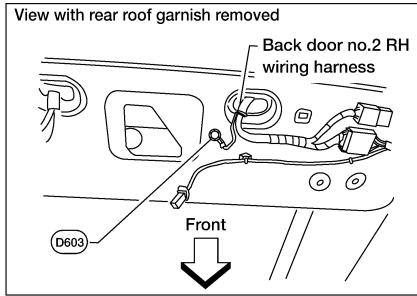
BODY NO. 2 HARNESS



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GROUND

< COMPONENT DIAGNOSIS > BACK DOOR NO. 2 RH HARNESS



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HARNESS

< COMPONENT DIAGNOSIS >

HARNESS

Harness Layout

INFOID:000000001744674

HOW TO READ HARNESS LAYOUT

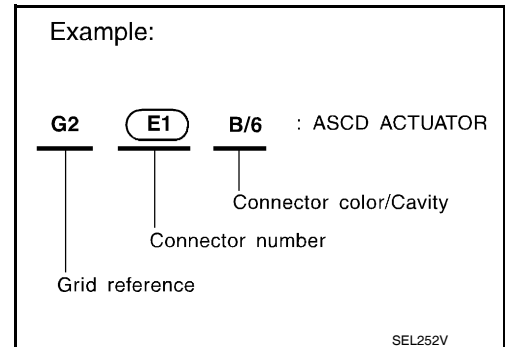
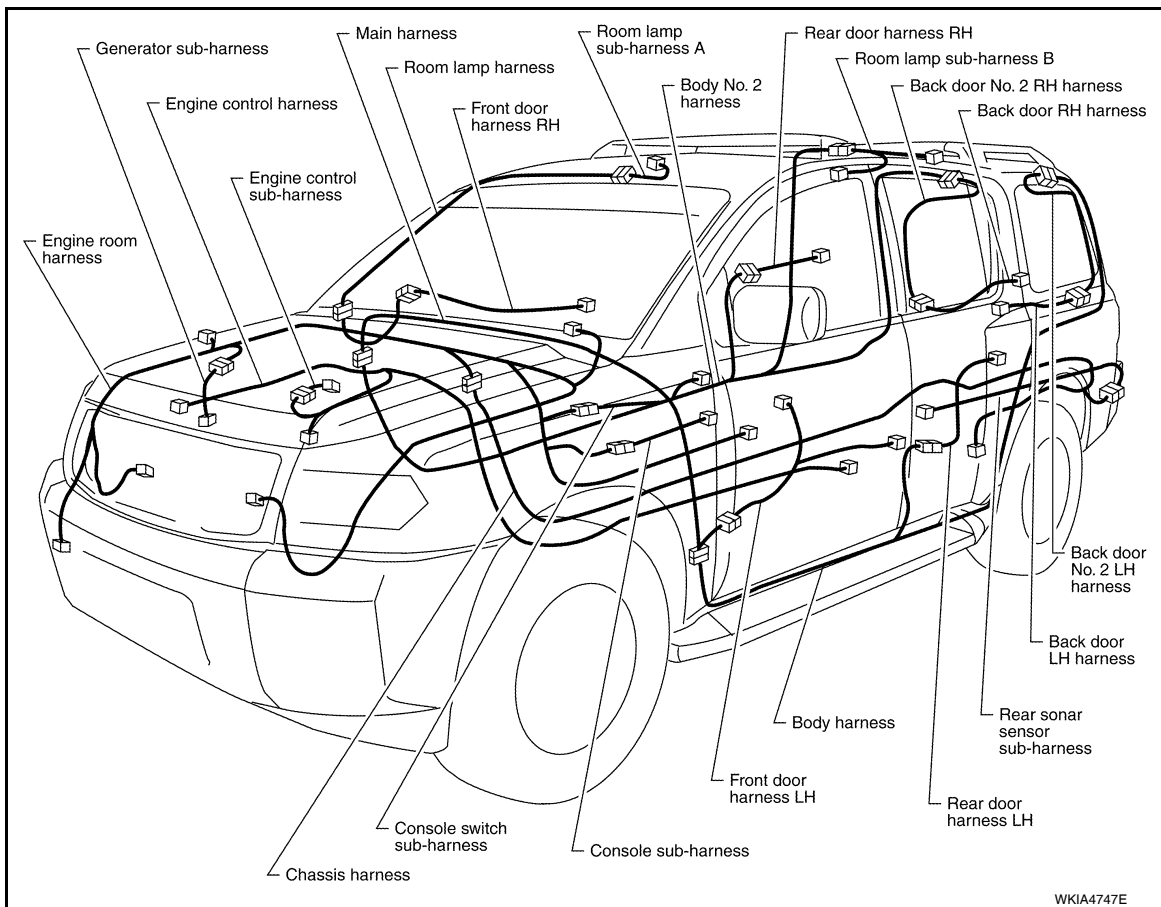
The following Harness Layouts use a map style grid to help locate connectors on the drawings:

- Main Harness
- Engine Room Harness
- Engine Room Harness (Passenger Compartment)
- Engine Control Harness
- Chassis Harness
- Body Harness
- Body No. 2 Harness
- Room Lamp Harness
- Back Door Harness

To use the grid reference

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

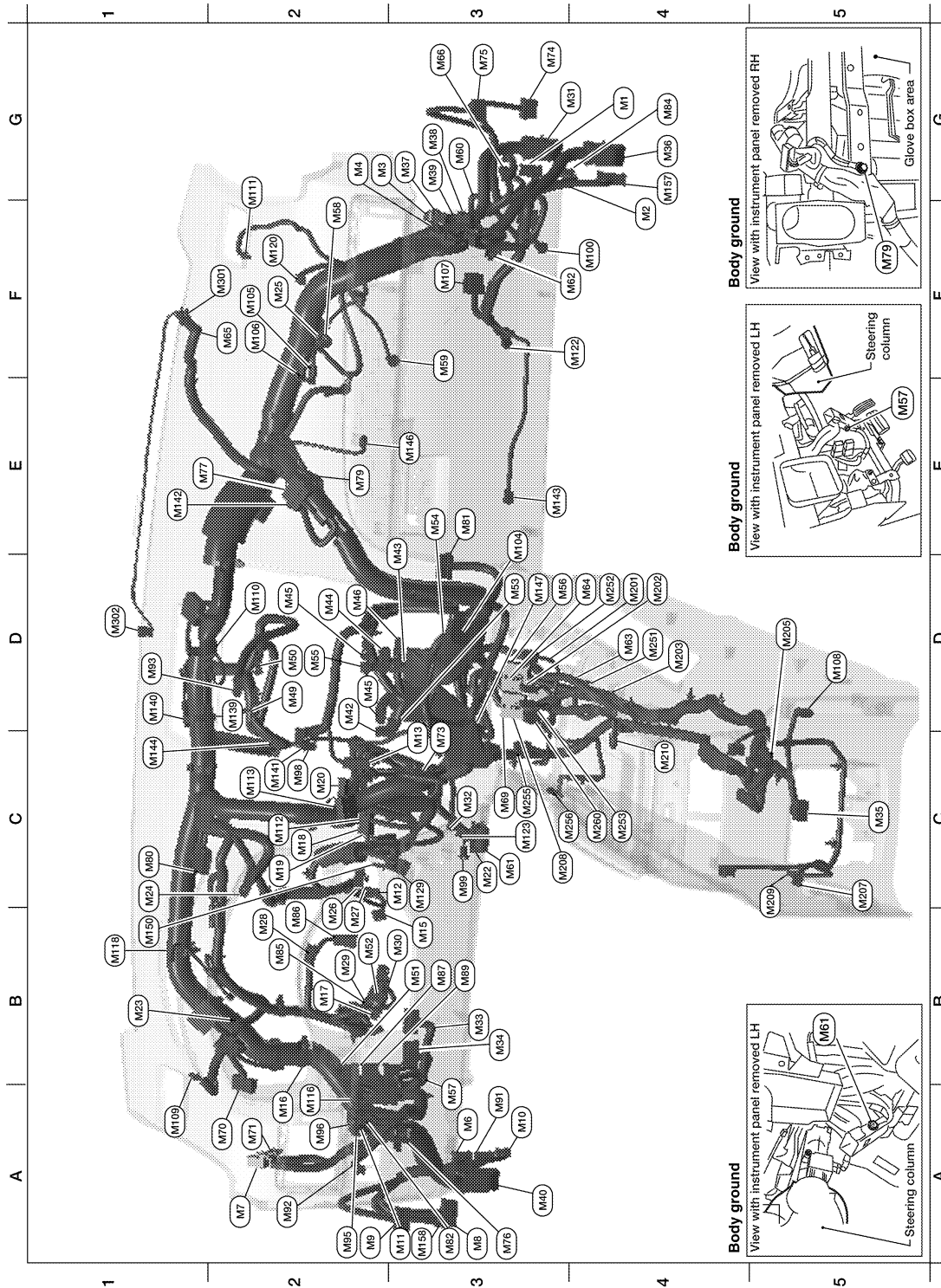
OUTLINE



HARNESS

< COMPONENT DIAGNOSIS >

MAIN HARNESS



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G4	M1	W/16	: To R1	G4	M84	W/16	: To B101
F4	M2	W/12	: To R2	B3	M87	B/5	: Rear power vent window relay (open)
G2	M3	W/8	: Fuse block (J/B)	B3	M89	B/5	: Rear power vent window relay (close)
G2	M4	W/16	: Fuse block (J/B)	B3	M91	W/16	: To E26

HARNESSES

< COMPONENT DIAGNOSIS >

A3	M6	W/10	: To E10	A2	M92	B/6	: Power liftgate switch
A2	M7	B/5	: Passenger select unlock relay	D1	M93	W/24	: Display unit
A3	M8	W/16	: To D2	A2	M95	W/6	: Rear power vent window switch
A2	M9	BR/24	: To D1	A2	M96	BR/6	: Pedal adjusting switch
A3	M10	Y/4	: To E29	C2	M98	W/16	: A/C and AV switch assembly
A3	M11	B/1	: Parking brake switch	C3	M99	BR/2	: Foot lamp LH
C3	M12	GR/6	: Key switch and ignition knob switch	F4	M100	BR/2	: Foot lamp RH
D3	M13	BR/2	: Front passenger air bag OFF indicator	F4	M101	Y/2	: Driver air bag module
B3	M15	W/4	: Steering lock solenoid	F4	M102	GR/8	: Combination switch (spiral cable)
A2	M16	GR/6	: ADP steering switch	F4	M103	Y/2	: Driver air bag module
B2	M17	W/8	: Steering angle sensor	E3	M104	W/4	: Aux jack
C2	M18	W/40	: BCM (body control module)	F2	M105	Y/2	: Front passenger air bag module
C2	M19	W/15	: BCM (body control module)	F2	M106	O/2	: Front passenger air bag module
C2	M20	B/15	: BCM (body control module)	F3	M107	B/5	: Front blower relay
C3	M22	W/16	: Data link connector	D5	M108	B/6	: Yaw rate/ side/ decel G sensor
B1	M23	W/12	: Combination meter	A1	M109	BR/2	: Front tweeter LH
C1	M24	W/40	: Combination meter	D2	M110	BR/2	: Center speaker
F2	M25	B/4	: Remote keyless entry receiver	F2	M111	BR/2	: Front tweeter LH
B2	M26	W/6	: Ignition switch	C2	M112	BR/14	: BOSE speaker amp.
A2	M27	B/2	: Diode-3	C2	M113	BR/23	: BOSE speaker amp.
B2	M28	W/16	: Combination switch	B3	M114	W/2	: Heated steering wheel
B2	M29	Y/6	: Combination switch (spiral cable)	A2	M116	GR/8	: Sonar system OFF switch
B3	M30	GR/8	: Combination switch (spiral cable)	B1	M118	BR/2	: Front sonar buzzer
G4	M31	SMJ	: To E152	F2	M120	W/4	: Remote keyless entry receiver
C3	M32	W/4	: In-vehicle sensor	F4	M122	W/4	: Variable blower control (front)
B3	M33	W/32	: Automatic drive position control unit	C3	M123	W/2	: Tire pressure warning check connector
B3	M34	W/16	: Automatic drive position control unit	D2	M124	GR/3	: AV control unit
C5	M35	Y/28	: Air bag diagnosis sensor unit	D2	M125	B/1	: Satellite radio antenna
G4	M36	SMJ	: To B149	C3	M129	V/1	: Satellite radio tuner
G3	M37	B/1	: Fuse block (J/B)	D2	M139	B/2	: Diode-1
G3	M38	B/2	: Fuse block (J/B)	D1	M140	B/2	: Diode-2
D3	M39	W/8	: Fuse block (J/B)	C2	M141	GR/8	: 4WD shift switch
A3	M40	SMJ	: To B69	E1	M142	B/6	: Mode door motor (front)
D2	M42	W/20	: AV control unit	E3	M143	B/6	: Air mix door motor (passenger)
D2	M43	W/12	: AV control unit	C1	M144	B/6	: Defroster door motor
D2	M44	W/32	: AV control unit	E3	M146	GR/2	: Intake sensor
D3	M45	W/40	: AV control unit	D3	M147	B/6	: Air mix door motor (driver)
D2	M46	W/32	: AV control unit	D2	M148	W/4	: Headlamp aiming switch
D2	M49	L/26	: A/C auto AMP	D3	M149	W/4	: Clock
D2	M50	B/26	: A/C auto AMP	B1	M150	W/2	: Ignition keyhole illumination
B3	M51	L/4	: Trailer tow relay 1	G4	M157	W/20	: To B161
B2	M52	W/2	: Combination switch (spiral cable)	A3	M158	W/10	: To D3
D3	M53	B/3	: Front power socket LH	Console sub-harness			
E3	M54	B/3	: Front power socket RH (for cigarette lighter)	D4	M201	W/16	: To M56
D2	M55	W/4	: Hazard switch	D4	M202	BR/24	: To M64

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< COMPONENT DIAGNOSIS >

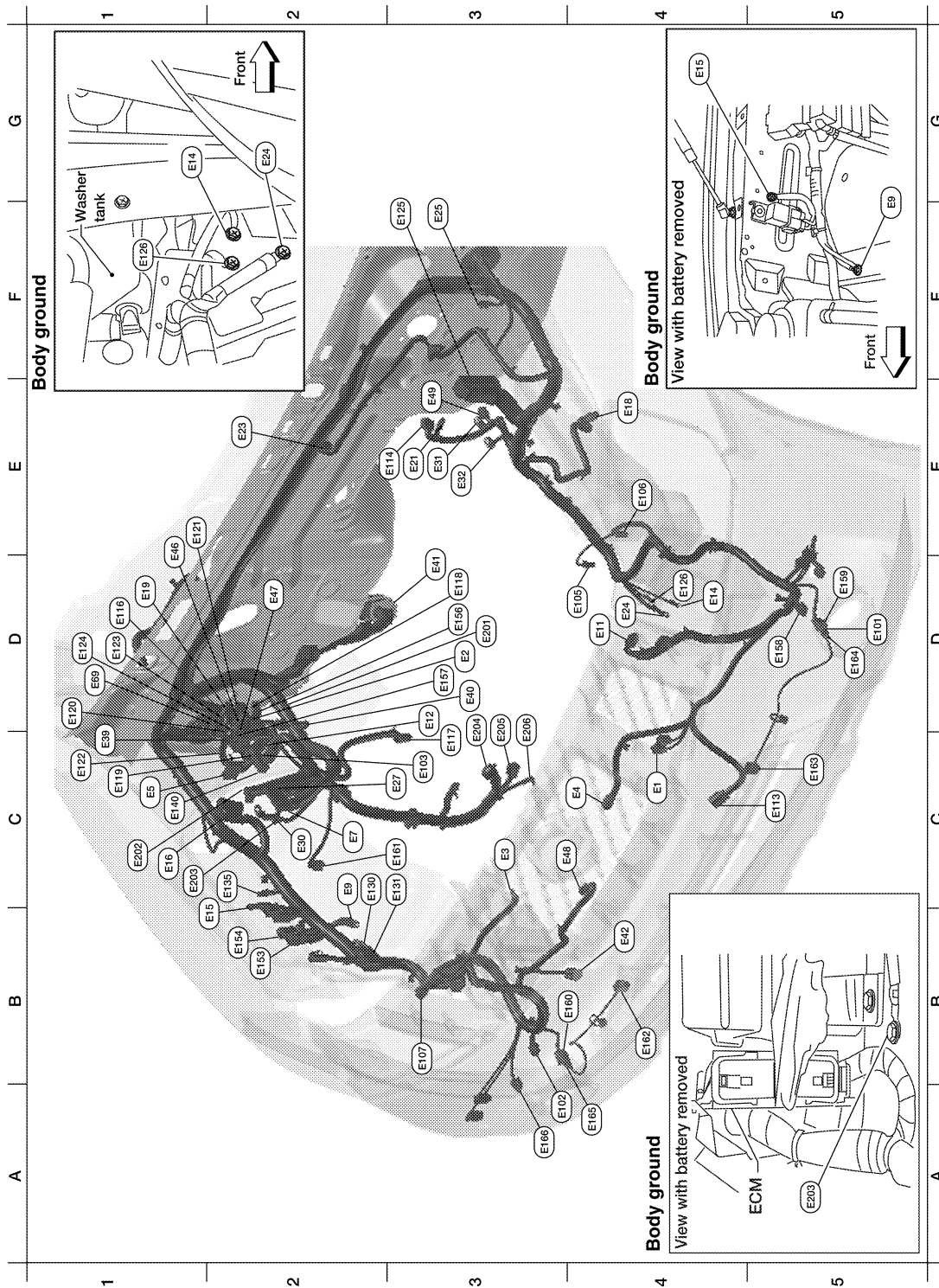
D4	M56	W/16	: To M201	D4	M203	W/12	: A/T shift selector
A3	M57	—	: Body ground	D5	M205	W/32	: DVD player
F2	M58	B/6	: Intake door motor	D5	M207	BR/20	: Console power socket
F3	M59	BR/2	: Glove box lamp	C4	M208	BR/20	: To M69
G3	M60	W/6	: Fuse block (J/B)	C5	M209	W/2	: Inside key antenna 2 (rear of center console)
C3	M61	—	: Body ground	C4	M210	GR/2	: Inside key antenna 3 (front of center console)
F4	M62	B/2	: Front blower motor	C4	M212	W/6	: Rear heated seat switch LH
D4	M63	BR/20	: To M251	C4	M213	BR/6	: Rear heated seat switch RH
D4	M64	BR/24	: To M202	Console switch sub-harness			
F2	M65	W/4	: To M301	D4	M251	BR/20	: To M63
G3	M66	BR/1	: To E33	D4	M252	BR/6	: Front heated seat switch RH
C3	M69	BR/20	: To M208	C4	M253	GR/6	: VDC OFF switch
A2	M70	W/40	: Intelligent key unit	C3	M255	W/6	: Front heated seat switch LH
A2	M71	L/4	: Heated steering relay	C4	M256	B/2	: A/T shift selector
D3	M73	BR/6	: Back-up lamp relay	C4	M260	W/6	: Heated steering wheel switch
G3	M74	BR/24	: To D102	Optical sensor sub-harness			
G3	M75	W/10	: To D101	F1	M301	W/4	: To M65
A3	M76	W/6	: Electric brake (pre-wiring)	D1	M302	B/4	: Optical sensor
E2	M77	Y/4	: Front passenger air bag module (service replacement)	Antenna amp. sub-harness			
G3	M78	BR/2	: To M550	D3	M550	BR/2	: To M78
E2	M79	—	: Body ground	D3	M551	BR/3	: To M601
C1	M80	B/2	: Resistor	D3	M601	GR/3	: To M551
E3	M81	GR/10	: Shift lock control unit	D3	M602	W/2	: Antenna amp.
A3	M82	GR/2	: Circuit breaker-2				

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< COMPONENT DIAGNOSIS >

ENGINE ROOM HARNESS



AWMIA0112GB

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

HARNESS

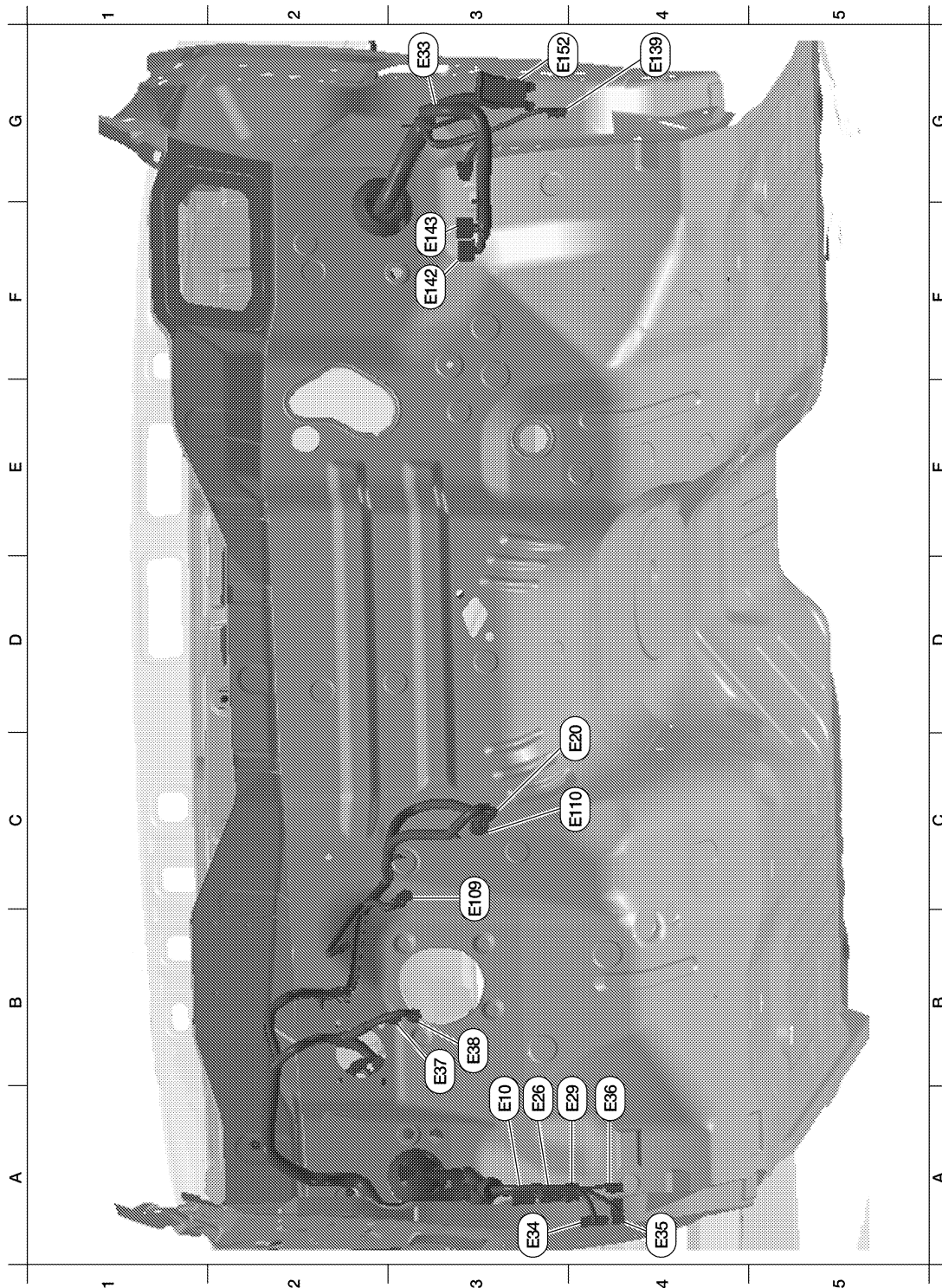
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C1	E5	W/24	: To F14	C1	E119	W/16	: IPDM E/R (intelligent power distribution module engine room)	A	
C2	E7	GR/2	: Fusible link box (battery)	D1	E120	W/6	: IPDM E/R (intelligent power distribution module engine room)	B	
C2	E9	—	: Body ground	E1	E121	BR/12	: IPDM E/R (intelligent power distribution module engine room)	C	
D4	E11	B/8	: Front combination lamp LH (without daytime running lights)	C1	E122	W/12	: IPDM E/R (intelligent power distribution module engine room)	D	
D4	E11	B/8	: Front combination lamp LH (with daytime running lights)	C1	E123	BR/8	: IPDM E/R (intelligent power distribution module engine room)	E	
D3	E12	B/5	: Stop lamp relay	D1	E124	W/6	: IPDM E/R (intelligent power distribution module engine room)	F	
D4	E14	—	: Body ground	F3	E125	B/47	: ABS actuator and electric unit (control unit)	G	
C2	E15	—	: Body ground	D4	E126	—	: Body ground	H	
C1	E16	B/40	: ECM	C2	E130	W/2	: Compressor motor relay	I	
E4	E18	GR/2	: Front wheel sensor LH	C3	E131	W/2	: Compressor motor relay	J	
D1	E19	W/16	: To F33	C3	E134	GR/6	: ICC brake hold relay	K	
E3	E21	GR/2	: Brake fluid level switch	C2	E135	GR/2	: Transfer dropping resistor	L	
E2	E23	GR/6	: Front wiper motor	C1	E140	BR/6	: Trailer tow relay-2		
D4	E24	—	: Body ground	B2	E153	W/2	: Transfer motor relay		
F3	E25	BR/3	: Intelligent key warning buzzer	B2	E154	W/2	: Transfer motor relay		
C3	E27	BR/2	: Fusible link box (battery)	D3	E156	L/4	: Trailer turn relay LH		
C2	E30	/1	: Fusible link box (battery)	D3	E157	L/4	: Trailer turn relay RH		
E3	E31	B/3	: Front pressure sensor	D5	E158	B/3	: Front sonar sensor LH outer		
E3	E32	B/3	: Rear pressure sensor	D5	E159	GR/3	: To E164		
E1	E39	W/2	: To F34	B4	E160	GR/3	: To E165		
D3	E40	B/3	: To E201	C3	E161	B/3	: Battery current sensor		
D3	E41	SMJ	: To C1	B4	E162	B/3	: Front sonar sensor LH inner		
D3	E42	B/6	: ICC sensor	C5	E163	B/3	: Front sonar sensor RH inner		
E1	E46	B/5	: Transfer shift high relay	D5	E164	GR/3	: To E159		
D2	E47	B/5	: Transfer shift low relay	A4	E165	GR/3	: To E160		
C4	E48	B/3	: Refrigerant pressure sensor	A3	E166	B/3	: Front sonar sensor RH outer		
E3	E49	B/6	: Active booster	Engine room sub-harness					PG
D1	E69	L/4	: Transfer shut off relay	D3	E201	B/3	: To E40		
D5	E101	B/3	: Front turn-fog lamp LH	C1	E202	/1	: Fusible link box (battery)		
A4	E102	B/3	: Front turn-fog lamp RH	C2	E203	—	: Engine ground	N	
C3	E103	B/5	: Daytime light relay	C3	E204	/1	: Generator	O	
D4	E105	BR/2	: Front and rear washer motor	C3	E205	B/3	: Generator		
E4	E106	BR/2	: Washer fluid level switch	C3	E206	/1	: Generator		
B3	E107	B/8	: Front combination lamp LH						
C5	E113	W/2	: Cooling fan motor					P	

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< COMPONENT DIAGNOSIS >

ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)



AAMWA0102GB

A3	E10	W/10	: To M6			
C4	E20	B/8	: Accelerator pedal position sensor			
C4	E26	W/16	: To M91			
B4	E29	Y/4	: To M10			
G3	E33	B/1	: To M66			

HARNESS

< COMPONENT DIAGNOSIS >

A3	E34	W/24	: To B40				
A4	E35	W/12	: To B41				
A4	E36	W/2	: To B42				
B3	E37	BR/2	: ICC brake switch				
B3	E38	W/4	: Stop lamp switch				
B3	E109	GR/2	: Pedal adjusting motor				
G4	E139	W/8	: To B107				
F3	E142	W/24	: Transfer control unit				
F3	E143	GR/24	: Transfer control unit				
G3	E152	SMJ	: To M31				

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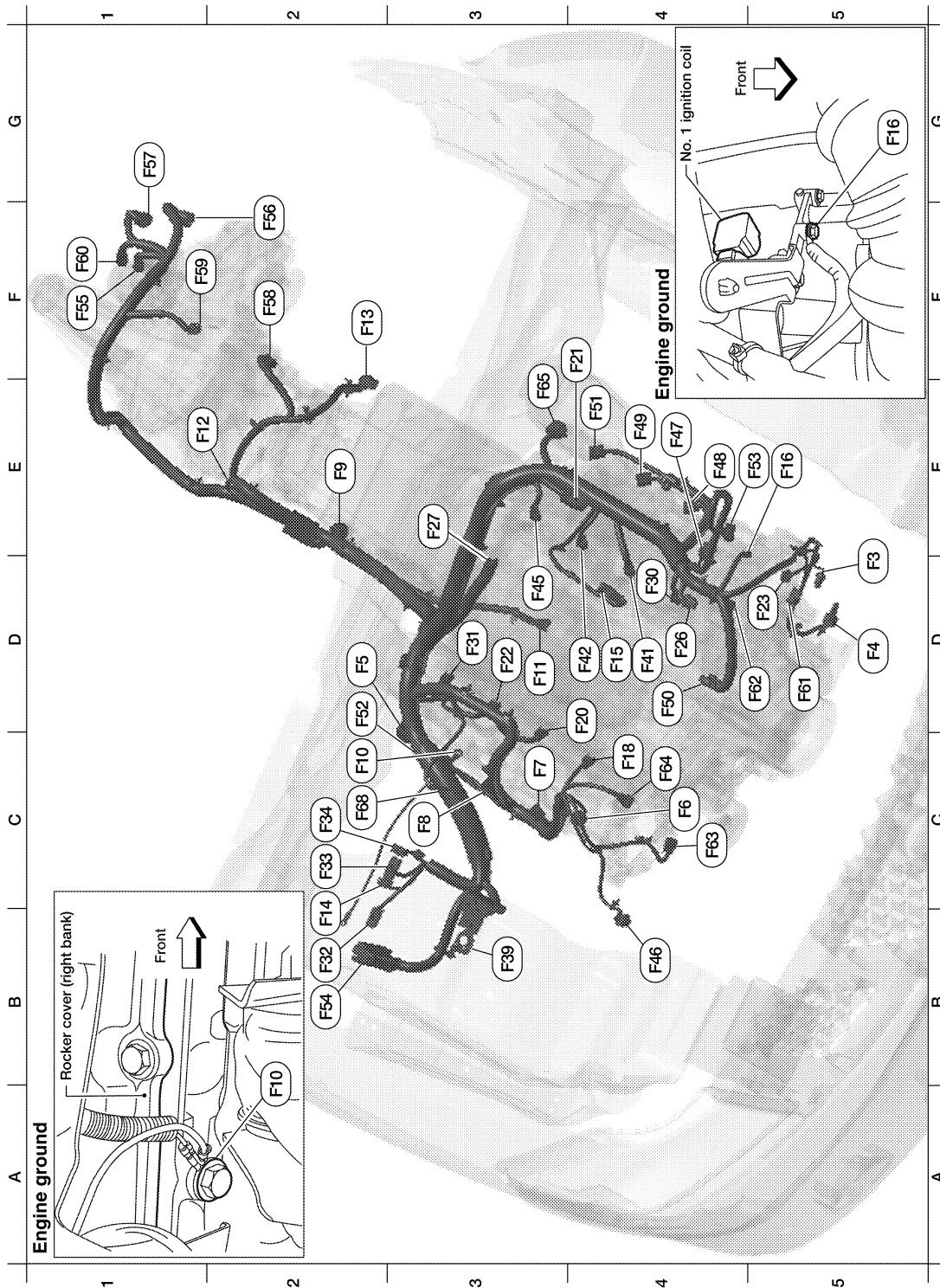
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< COMPONENT DIAGNOSIS > ENGINE CONTROL HARNESS



ALMIA0227GB

D5	F3	B/1	: A/C Compressor	F2	F56	B/8	: Transfer terminal cord assembly
D5	F4	GR/1	: Oil pressure switch	G1	F57	B/2	: Transfer motor
D2	F5	GR/4	: Air fuel ratio (A/F) sensor 1 (bank2)	F2	F58	GR/6	: Transfer control device (actuator, position switch)
C4	F6	GR/3	: Ignition coil No. 2 (with power transistor)	F2	F59	B/2	: Wait detection switch

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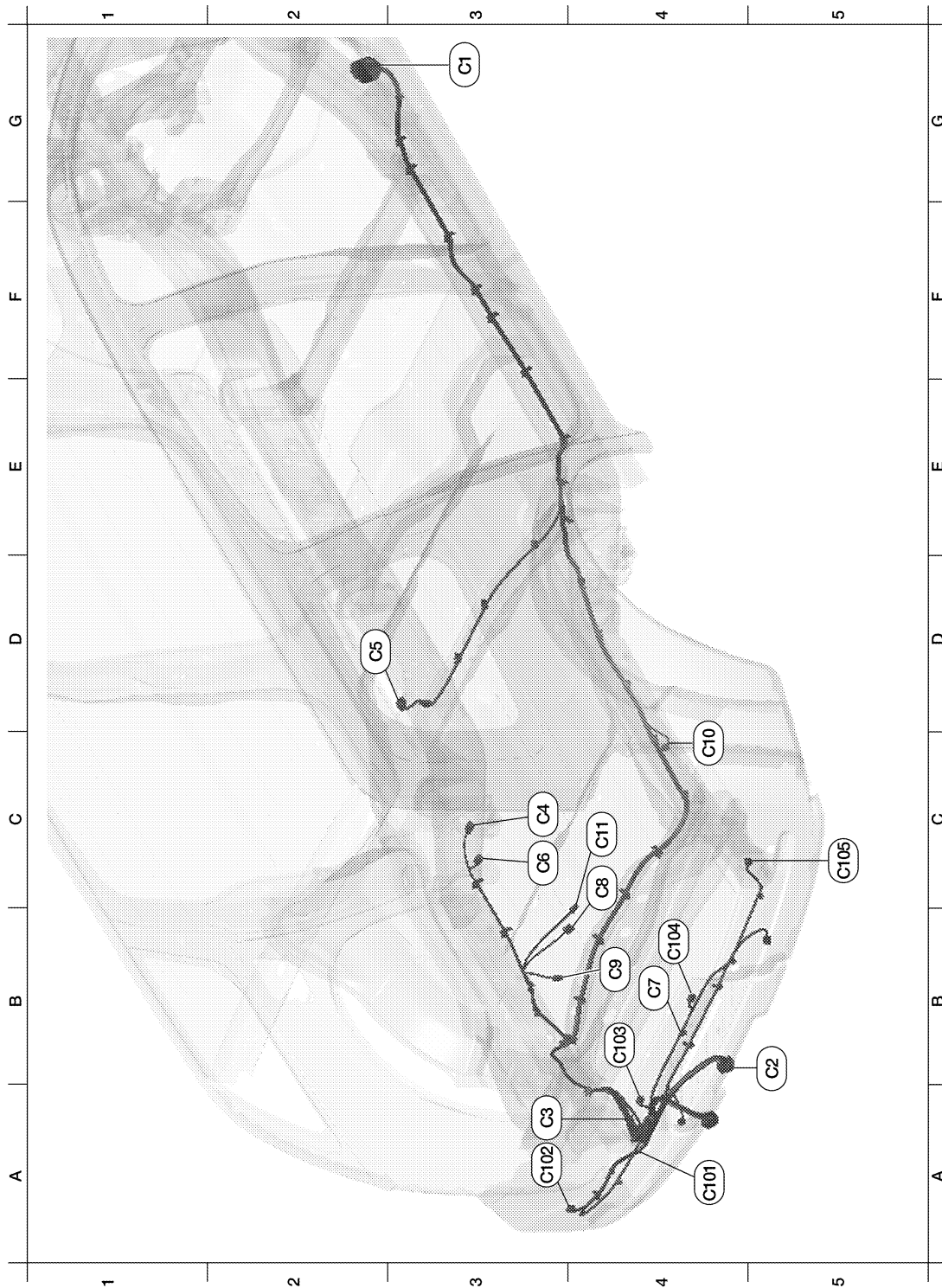
< COMPONENT DIAGNOSIS >

C3	F7	GR/3	: Ignition coil No. 4 (with power transistor)	F1	F60	GR/2	: Neutral-4LO switch	A
C3	F8	GR/3	: Ignition coil No. 6 (with power transistor)	D5	F61	G/2	: Intake valve timing control solenoid valve (bank 1)	B
E2	F9	G/10	: A/T assembly	D5	F62	G/2	: Intake valve timing control position sensor (bank 1)	B
C3	F10	—	: Engine ground	C4	F63	G/2	: Intake valve timing control solenoid valve (bank 2)	C
D3	F11	B/3	: Crankshaft position sensor (POS)	C4	F64	G/2	: Intake valve timing control position sensor (bank 2)	C
E1	F12	G/4	: Heated oxygen sensor 2 (bank2)	E3	F65	GR/4	: Air fuel ratio (A/F) sensor 1 (bank1)	D
F2	F13	G/4	: Heated oxygen sensor 2 (bank1)	C2	F68	B/2	: Water valve	D
B2	F14	W/24	: To E5	C3	F101	B/6	: To F26	E
D4	F15	L/2	: EVAP canister purge volume control solenoid valve	C3	F102	B/2	: Knock sensor (bank 1)	E
E5	F16	—	: Engine ground	C3	F103	GR/2	: Engine coolant temperature sensor	F
C4	F18	GR/2	: Fuel injector No. 2	C3	F104	B/2	: Knock sensor (bank 2)	F
D4	F20	GR/2	: Fuel injector No. 4					G
F4	F21	W/2	: Condenser-1					G
D3	F22	GR/2	: Fuel injector No. 6					H
D4	F23	B/3	: Camshaft position sensor (phase)					H
D4	F26	B/6	: To F101					I
E3	F27	B/1	: Starter motor					I
D4	F30	GR/2	: Fuel injector No. 1					J
D3	F31	GR/2	: Fuel injector No. 8					J
B2	F32	W/16	: To E2					K
C2	F33	W/16	: To E19					K
C2	F34	W/2	: To E39					L
B3	F39	—	: Fusible link (battery)					L
D4	F41	GR/2	: Fuel injector No. 3					M
D4	F42	GR/2	: Fuel injector No. 5					M
D3	F45	GR/2	: Fuel injector No. 7					N
B4	F46	B/3	: Power steering pressure sensor					N
E4	F47	GR/3	: Ignition coil No. 1 (with power transistor)					PG
E4	F48	GR/3	: Ignition coil No. 3 (with power transistor)					PG
E4	F49	GR/3	: Ignition coil No. 5 (with power transistor)					O
D4	F50	B/6	: Electric throttle control actuator					O
E4	F51	GR/3	: Ignition coil No. 7 (with power transistor)					P
D2	F52	GR/3	: Ignition coil No. 8 (with power transistor)					P
E5	F53	B/6	: Mass air flow sensor					Q
B2	F54	B/81	: ECM					Q
F1	F55	B/2	: ATP switch					R

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< COMPONENT DIAGNOSIS >

CHASSIS HARNESS



AWMIA0113GB

G2	C1	SMJ	: To E41			
B5	C2	B/7	: Trailer			
A3	C3	GR/8	: To C101			
C3	C4	GR/3	: Evap control system pressure sensor			
D2	C5	GR/5	: Fuel level sensor unit and fuel pump			

HARNESS

< COMPONENT DIAGNOSIS >

C3	C6	B/2	: Evap canister vent control valve							
B4	C7	GR/2	: Rear bumper antenna							
C4	C8	B/3	: Height sensor							
B4	C9	B/4	: Suspension air compressor							
C4	C10	BR/2	: Rear wheel sensor RH							
C4	C11	BR/2	: Rear wheel sensor LH							
Rear sonar sensor sub-harness										
A4	C101	GR/8	: To C3							
A3	C102	B/3	: Rear sonar sensor LH outer							
B4	C103	B/3	: Rear sonar sensor LH inner							
B4	C104	B/3	: Rear sonar sensor RH inner							
C5	C105	B/3	: Rear sonar sensor RH outer							

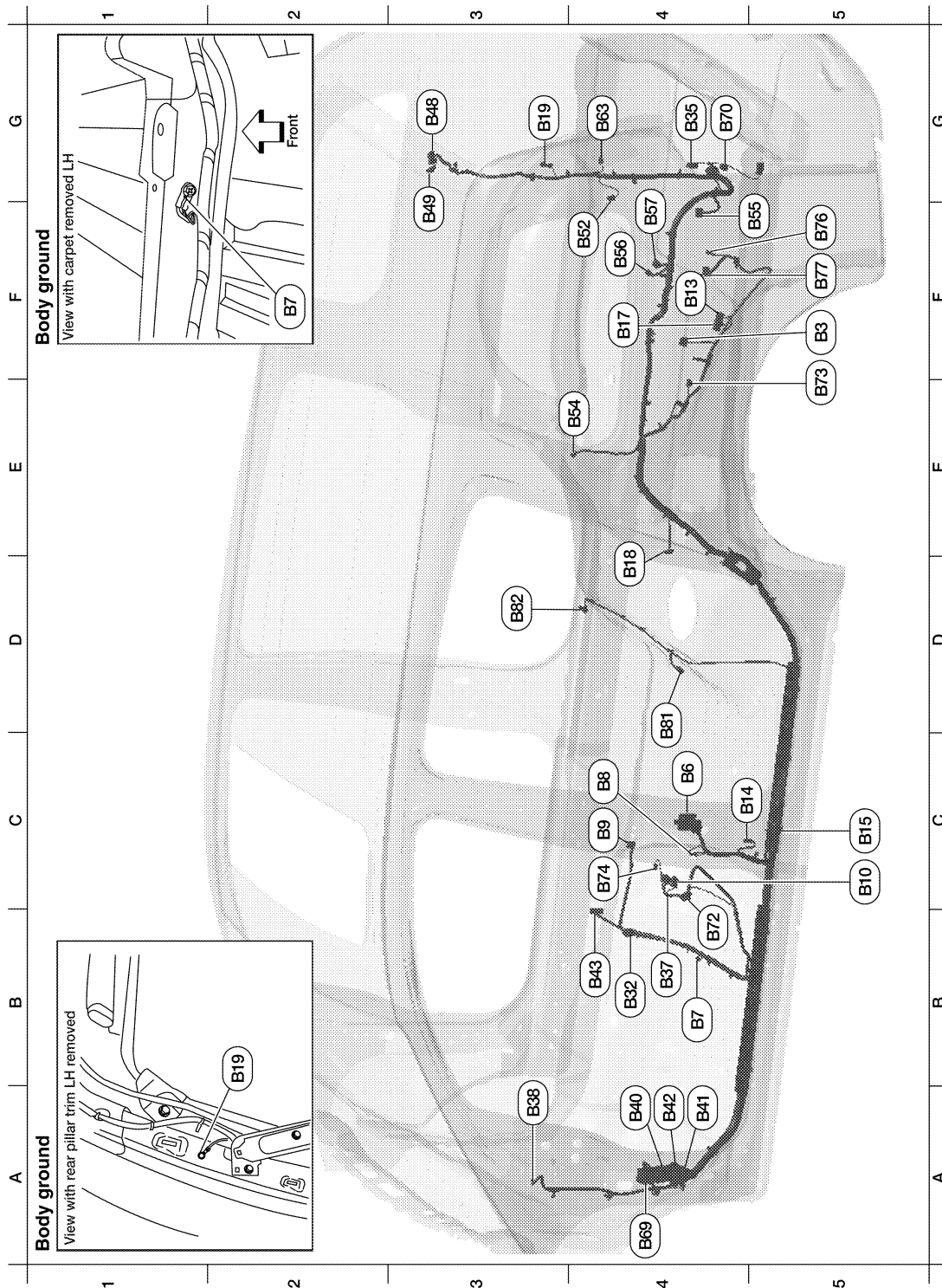
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< COMPONENT DIAGNOSIS >

BODY HARNESS



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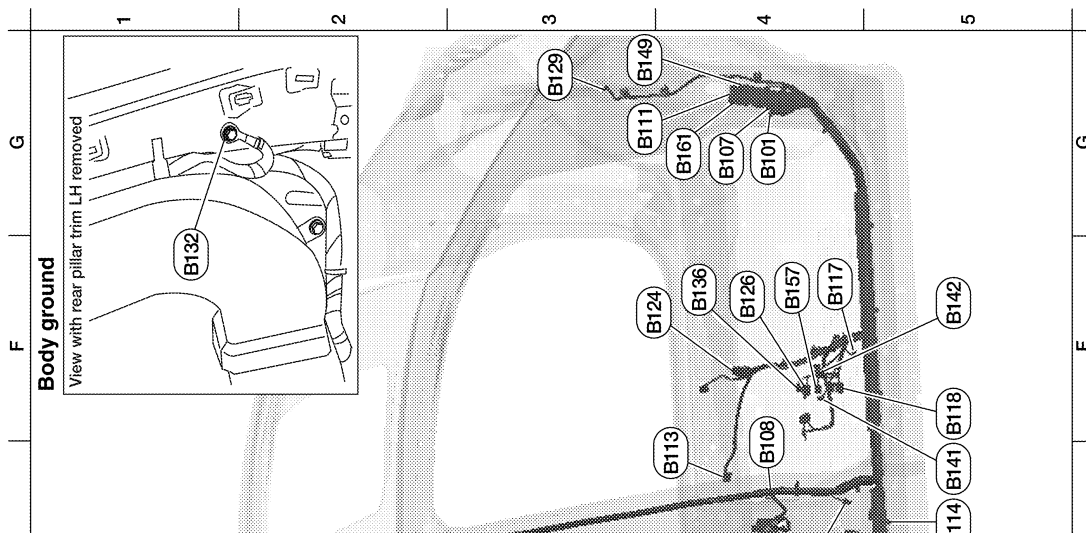
F5	B3	W/16	: Suspension control unit			
C4	B6	W/18	: To D201			
B4	B7	—	: Body ground			
C4	B8	W/3	: Front door switch LH			
C4	B9	Y/12	: Air bag diagnosis sensor unit			

HARNESS

< COMPONENT DIAGNOSIS >

C5	B10	Y/2	: Front LH side air bag module				
C5	B13	W/24	: ICC unit				
C4	B14	Y/2	: Front LH seat belt pre-tensioner				
C5	B15	Y/2	: LH side air bag (satellite) sensor				
C5	B17	GR/24	: ICC unit				
D4	B18	W/3	: Rear door switch LH				
G3	B19	—	: Body ground				
B4	B32	W/6	: To B124				
G5	B35	B/3	: Rear combination lamp LH				
B4	B37	W/16	: To B200				
A3	B38	Y/2	: LH side front curtain air bag module				
A4	B40	W/24	: To E34				
A4	B41	W/12	: To E35				
A4	B42	W/2	: To E36				
B4	B43	W/16	: To B111				
G3	B48	W/18	: To D401				
F3	B49	W/2	: To D402				
F4	B52	W/2	: Rear power vent window motor LH				
E4	B54	Y/2	: LH side rear curtain air bag module				
F5	B55	W/26	: Back door control unit				
F4	B56	GR/16	: Sonar control unit				
G4	B63	W/6	: Back door close switch				
A4	B69	SMJ	: To M40				
G4	B70	B/3	: Rear combination lamp LH				
B4	B72	BR/6	: Subwoofer				
E5	B73	W/16	: Rear view camera control unit				
C4	B74	Y/4	: Seat belt buckle pretensioner assembly LH (seatbelt buckle switch)				
F5	B75	W/10	: To B400				
F5	B76	GR/2	: Inside key antenna 2 (luggage compartment)				

BODY NO. 2 HARNESS



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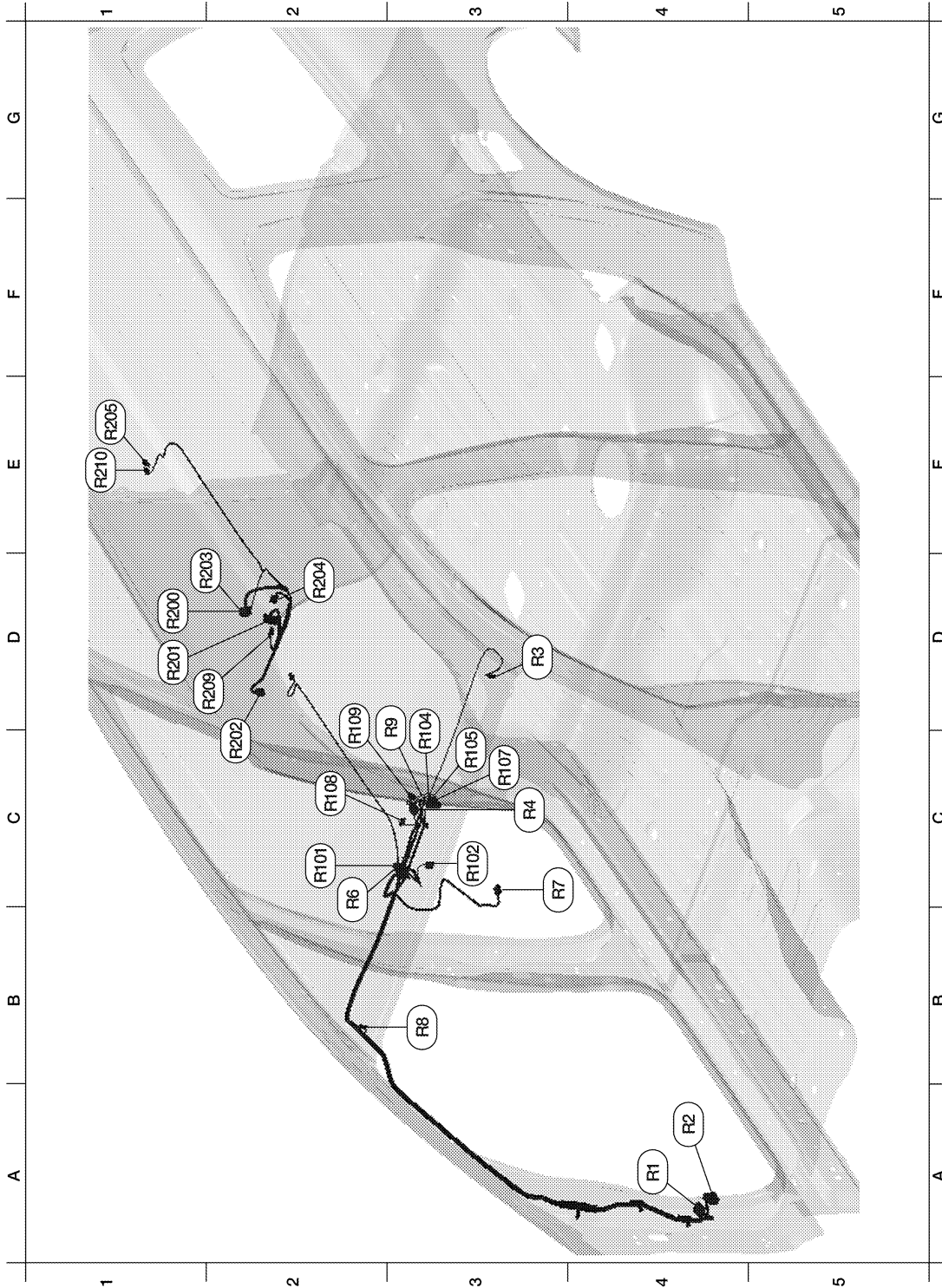
G4	B101	W/16	: To M84				
A4	B105	B/3	: Rear combination lamp RH				
E4	B106	W/18	: To D301				
G4	B107	W/8	: To E139				
E4	B108	W/3	: Front door switch RH				
G3	B111	W/16	: To B43				
E4	B113	Y/12	: Air bag diagnosis sensor unit				
E5	B114	Y/2	: RH side air bag (satellite) sensor				
D4	B116	W/3	: Rear door switch RH				
F4	B117	—	: Body ground				
F4	B118	W/3	: Front seat heater RH				
A4	B119	W/2	: Condenser-3				
A3	B120	W/2	: Condenser-4				
F4	B124	W/6	: To B32				
F4	B126	Y/2	: Front RH side air bag module				
E5	B127	Y/2	: Front RH seat belt pre-tensioner				
C3	B128	Y/2	: RH side rear curtain air bag module				
G3	B129	Y/2	: RH side front curtain air bag module				
A4	B130	B/3	: Rear combination lamp RH				
A5	B132	—	: Body ground				
A5	B133	W/4	: Variable blower control (rear)				
B5	B134	W/2	: Rear blower motor				
E4	B136	W/8	: To B350				
E4	B137	W/3	: Belt tension sensor				
B3	B138	B/3	: Rear cargo power socket				
A3	B139	W/16	: To D602				
A2	B140	W/6	: To D601				
D2	B145	W/16	: To R200				
E2	B146	BR/24	: To R201				
G3	B149	SMJ	: To M36				
B3	B150	W/2	: Rear power vent window motor RH				
B2	B153	W/2	: Cargo lamp				
F5	B154	W/2	: To B303				
B4	B155	B/6	: Air mix door motor (rear)				
B4	B156	B/6	: Mode door motor (rear)				
F4	B157	Y/4	: Seat belt buckle pre-tensioner assembly RH (seat belt buckle switch)				
G4	B161	W/20	: To M157				
C4	B162	W/6	: Third row power folding seat switch RH side (front)				
B4	B163	BR/6	: Third row power folding seat switch RH side (rear)				
C4	B164	BR/6	: Third row power folding seat switch LH side (front)				

HARNESS

< COMPONENT DIAGNOSIS >

A4	B165	BR/6	: Third row power folding seat switch LH side (rear)				
B2	B166	B/2	: Rear sonar buzzer				

ROOM LAMP HARNESS



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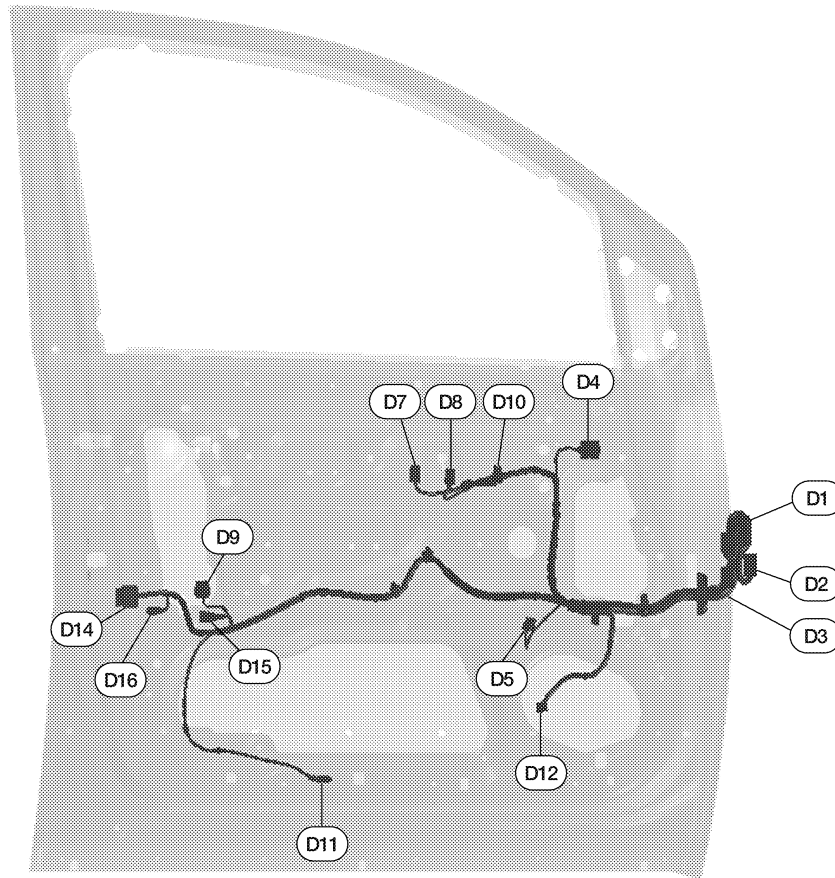
A4	R1	W/16	: To M1	C3	R107	W/8	: To R9
A4	R2	W/12	: To M2	C2	R108	B/6	: Rear air control (front)

HARNESS

< COMPONENT DIAGNOSIS >

D3	R3	W/2	: Vanity lamp LH	D2	R109	W/4	: Microphone
C3	R4	GR/10	: Sunroof motor assembly	Room lamp sub-harness B			
C2	R6	W/16	: To R101	D1	R200	W/16	: To B145
C3	R7	GR/10	: Auto anti-dazzling inside mirror	D1	R201	BR/24	: To B146
B3	R8	W/2	: Vanity lamp RH	C2	R202	W/12	: Video monitor
D3	R9	W/8	: To R107	D1	R203	W/3	: Personal lamp 2ND row
Room lamp sub-harness A				D2	R204	W/16	: Rear audio remote control unit
C2	R101	W/16	: To R6	E1	R205	W/3	: Personal lamp 3RD row
C3	R102	GR/8	: Front room/map lamp assembly	D2	R209	B/6	: Rear air control (rear)
D3	R104	GR/6	: Sunroof switch	E1	R210	W/2	: Inside key antenna 4 (over head console area)

FRONT DOOR LH HARNESS

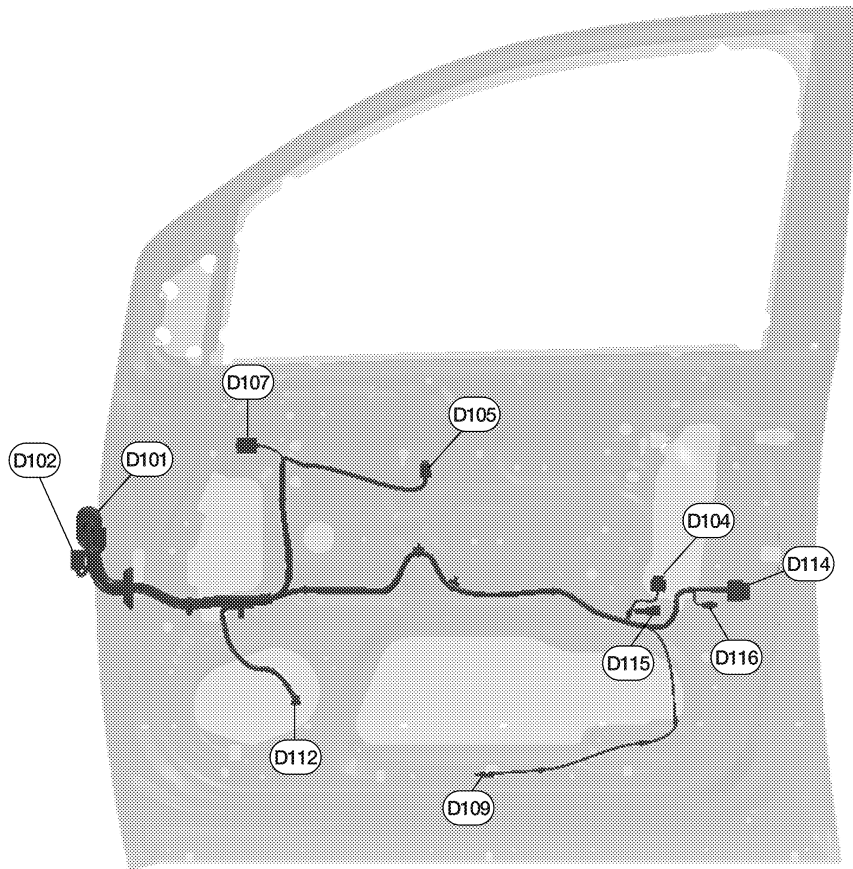


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D1	W/24	: To M9	D9	GR/6	: Front power window motor LH
D2	W/16	: To M8	D10	W/16	: Door mirror remote control switch
D3	W/10	: To M158	D11	W/2	: Front step lamp LH
D4	W/16	: Door mirror LH	D12	W/2	: Front door speaker LH
D5	W/8	: Seat memory switch	D14	B/6	: Front door lock assembly LH
D7	W/16	: Main power window and door lock/unlock switch	D15	B/6	: Front outside antenna
D8	W/3	: Main power window and door lock/unlock switch	D16	GR/2	: Front door request switch LH

HARNESS

< COMPONENT DIAGNOSIS > FRONT DOOR RH HARNESS



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D101	W/10	: To M75	D109	W/2	: Front step lamp RH
D102	BR/20	: To M74	D112	W/2	: Front door speaker RH
D104	GR/6	: Front power window motor RH	D114	B/6	: Front door lock actuator RH
D105	W/16	: Power window and door lock/unlock switch RH	D115	GR/2	: Front outside antenna RH
D107	W/16	: Door mirror RH	D116	GR/2	: Front door request switch RH

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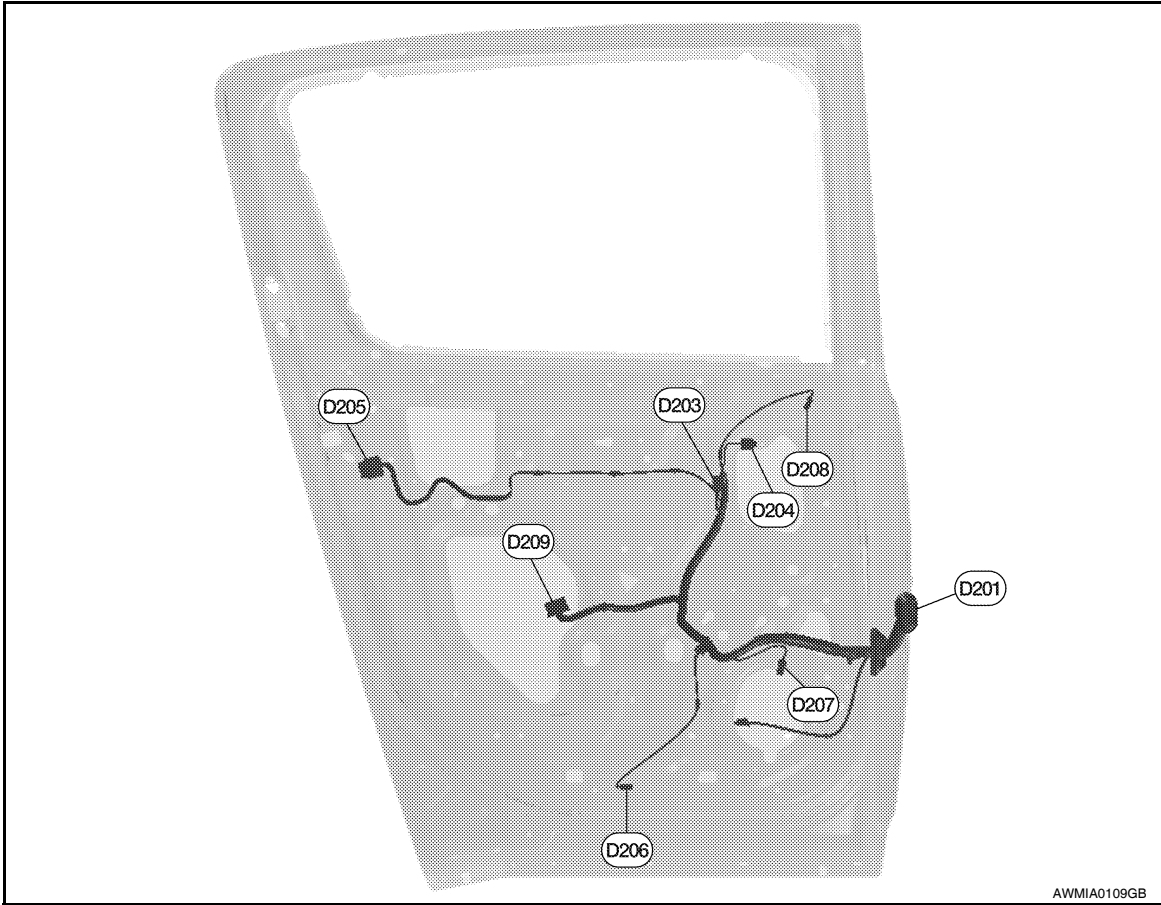
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HARNESS

< COMPONENT DIAGNOSIS >

REAR DOOR LH HARNESS

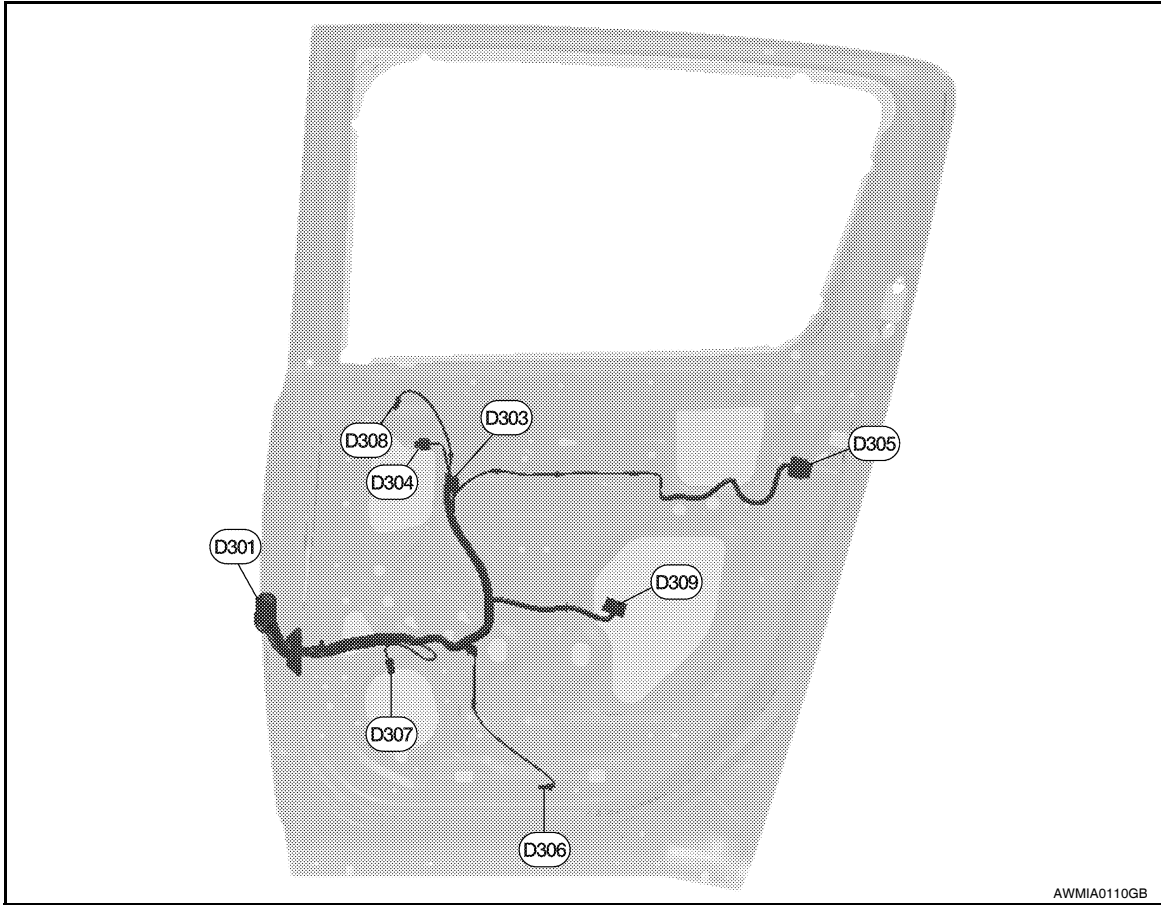


D201	W/18	: To B6	D206	W/2	: Rear step lamp LH
D203	W/8	: Rear power window switch LH	D207	W/2	: Rear door speaker LH
D204	GR/6	: Rear power window motor LH	D208	BR/2	: Rear door tweeter LH
D205	B/6	: Rear door lock actuator LH	D209	W/18	: Rear power window control unit LH

HARNESS

< COMPONENT DIAGNOSIS >

REAR DOOR RH HARNESS



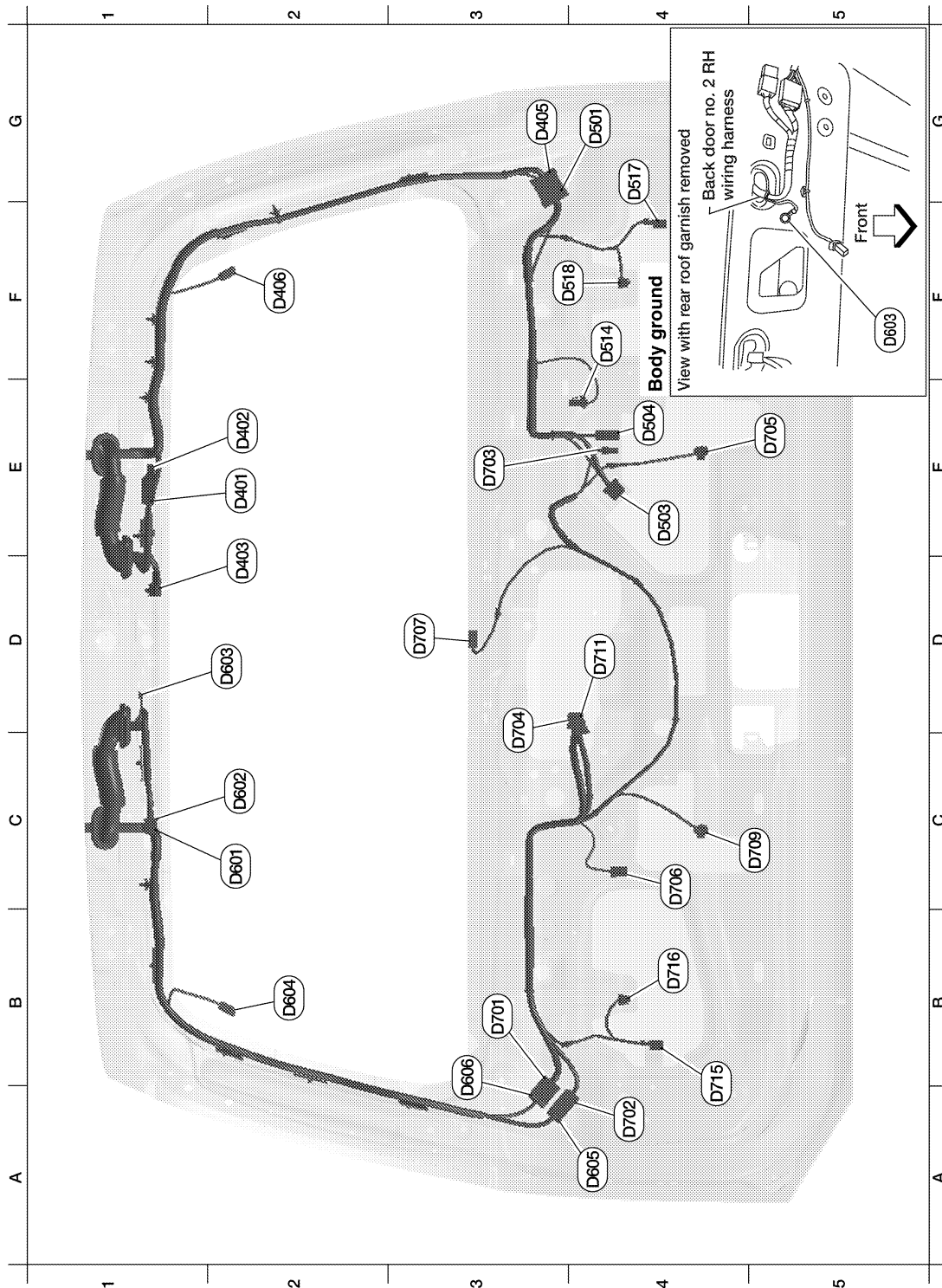
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D301	W/18	: To B106	D306	W/2	: Rear step lamp RH
D303	W/8	: Rear power window switch RH	D307	W/2	: Rear door speaker RH
D304	GR/6	: Rear power window motor RH	D308	BR/2	: Rear door tweeter RH
D305	B/6	: Rear door lock actuator RH	D309	W/18	: Rear power window control unit RH

HARNESS

< COMPONENT DIAGNOSIS >

BACK DOOR HARNESS



AWMIA0108GB

Back door No. 2 harness				Back door RH harness			
E2	D401	W/18	: To B48	B3	D701	W/16	: To D606
E2	D402	W/2	: To B49	A3	D702	W/6	: To D605
D2	D403	GR/2	: High mounted stop lamp	D2	D703	W/2	: License plate lamps
G3	D405	W/18	: To D501	D3	D704	W/6	: Rear wiper motor

HARNESS

< COMPONENT DIAGNOSIS >

F2	D406	B/1	: Rear window defogger	D2	D705	GR/8	: Back-up lamp LH
Back door LH harness				C4	D706	W/4	: Back door and glass hatch switch assembly
G3	D501	W/18	: To D405	D2	D707	B/1	: Glass hatch ajar switch
E4	D503	W/8	: Back door latch	D3	D708	W/4	: Back door lock actuator
E4	D504	W/4	: Rear view camera	B4	D709	GR/8	: Back-up lamp RH
F4	D514	BR/2	: Back door warning chime	B4	D710	W/4	: Glass hatch switch
F4	D517	BR/2	: Pinch strip LH	B4	D711	W/4	: Glass hatch lock actuator
F4	D518	BR/2	: Back door speaker LH	B4	D715	BR/2	: Pinch strip RH
Back door No. 2 RH harness				B4	D716	BR/2	: Back door speaker RH
C2	D601	W/6	: To B140				
C2	D602	W/16	: To B139				
D2	D603	—	: Body ground				
B2	D604	B/1	: Rear window defogger				
A3	D605	W/6	: To D702				
B3	D606	W/16	: To D701				

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ELECTRICAL UNITS LOCATION

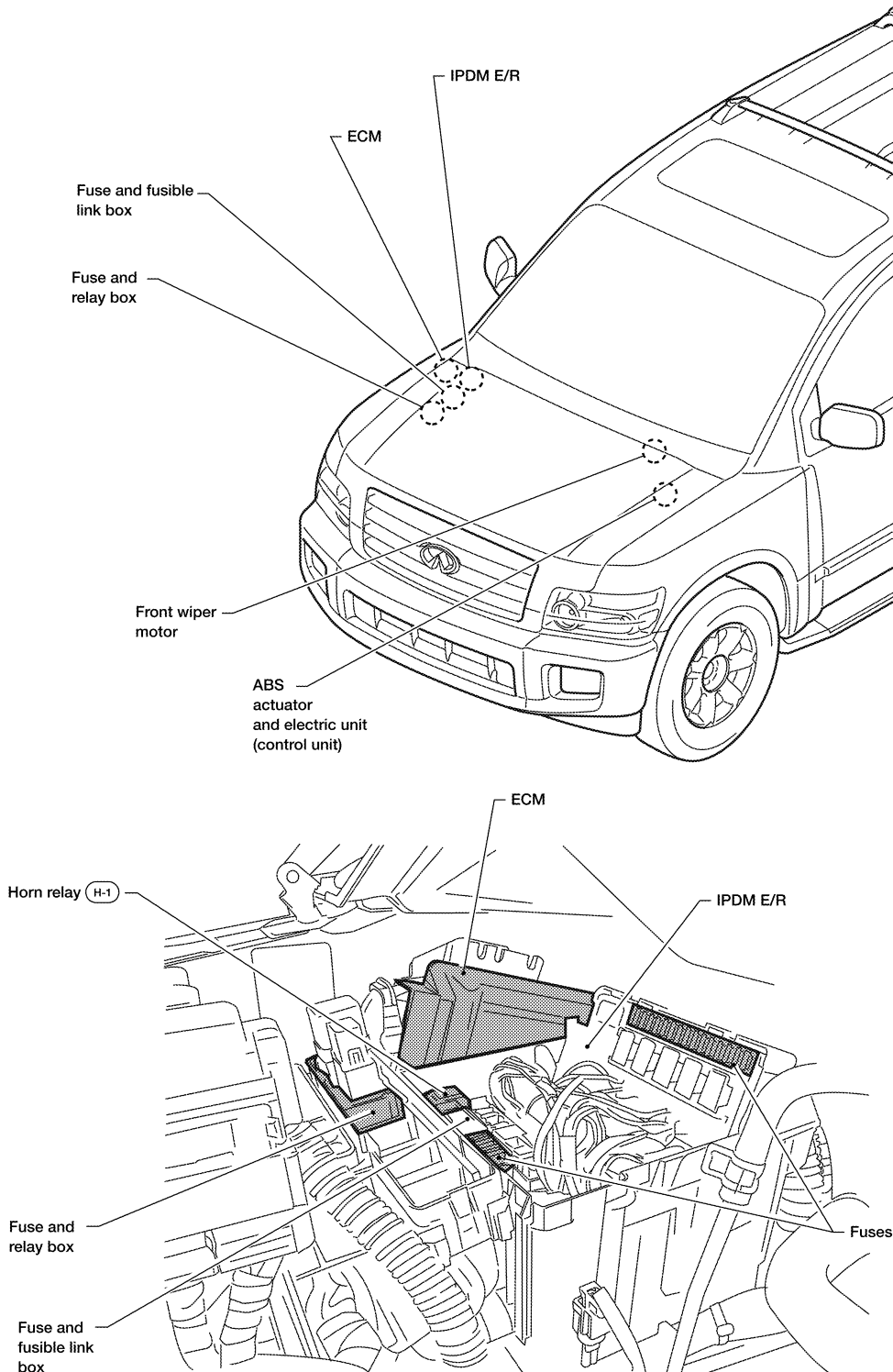
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ELECTRICAL UNITS LOCATION

Electrical Units Location

INFOID:000000001744675

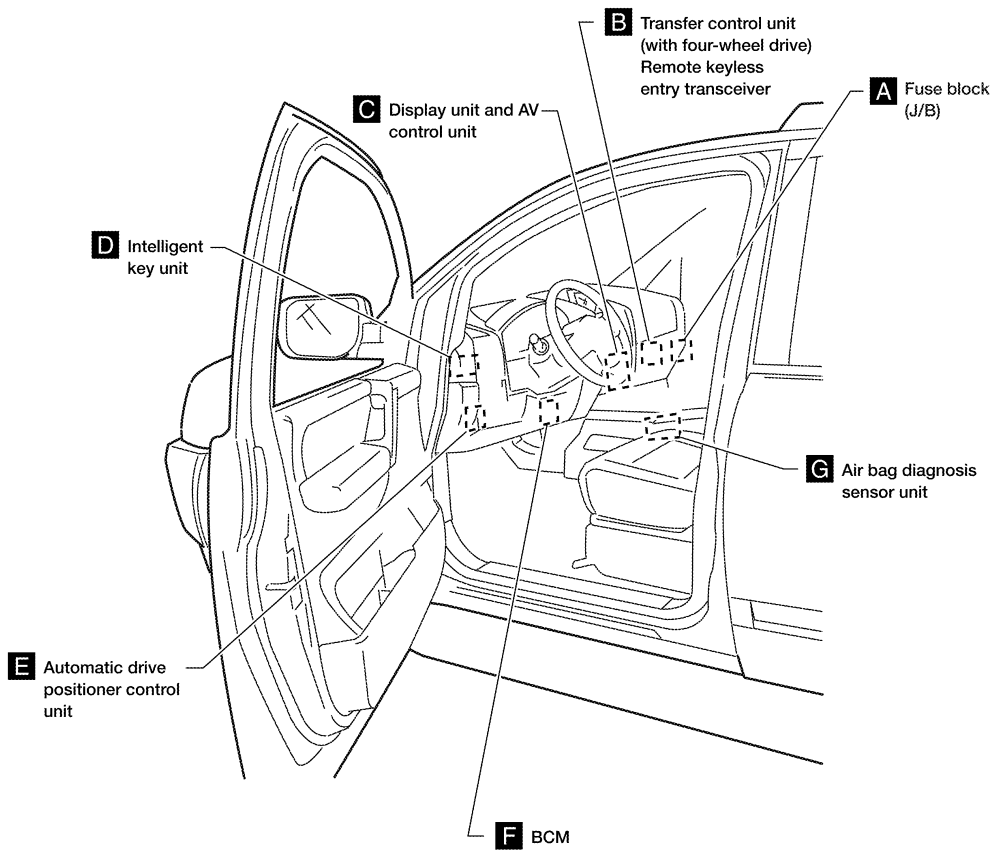
ENGINE COMPARTMENT



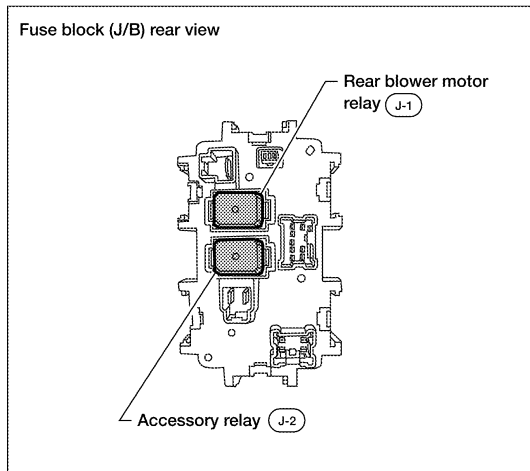
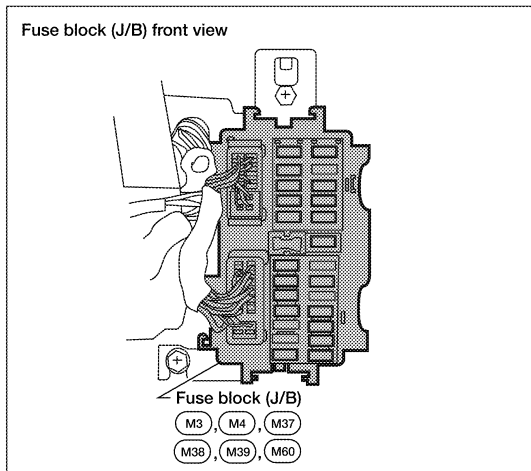
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ELECTRICAL UNITS LOCATION

< COMPONENT DIAGNOSIS >
PASSENGER COMPARTMENT



A Instrument panel side RH

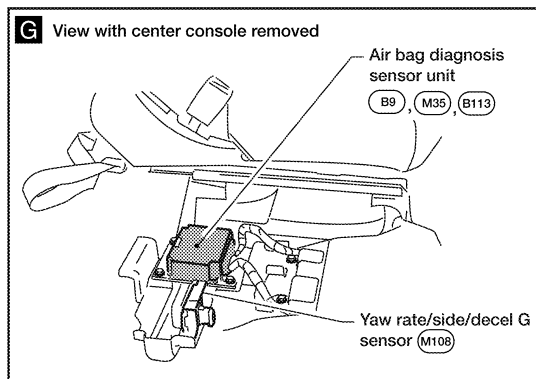
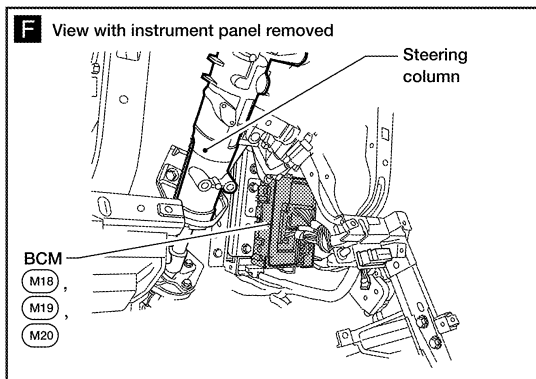
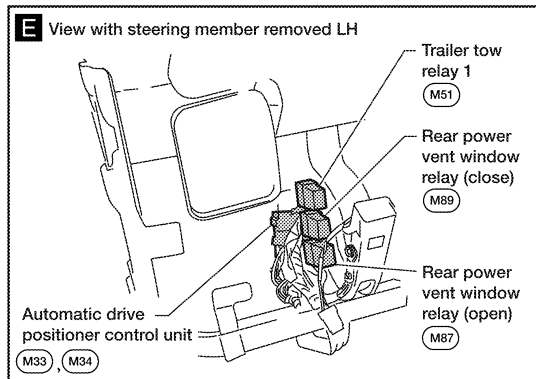
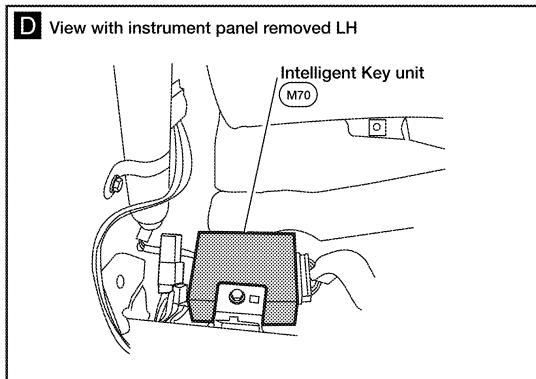
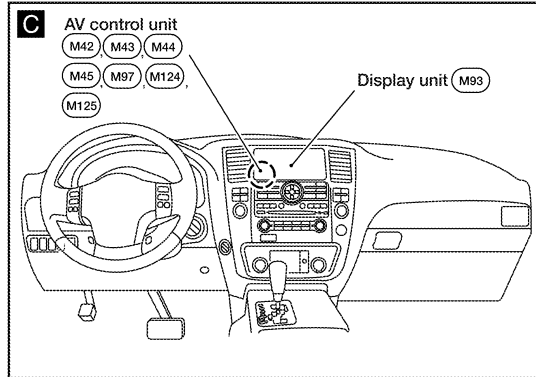
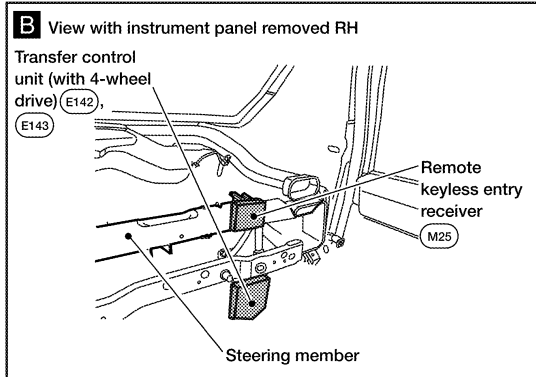


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ELECTRICAL UNITS LOCATION

< COMPONENT DIAGNOSIS > PASSENGER COMPARTMENT



AAMIA0227GB

HARNESS CONNECTOR

< COMPONENT DIAGNOSIS >

HARNESS CONNECTOR

Description

INFOID:000000001744676

HARNESS CONNECTOR (TAB-LOCKING TYPE)

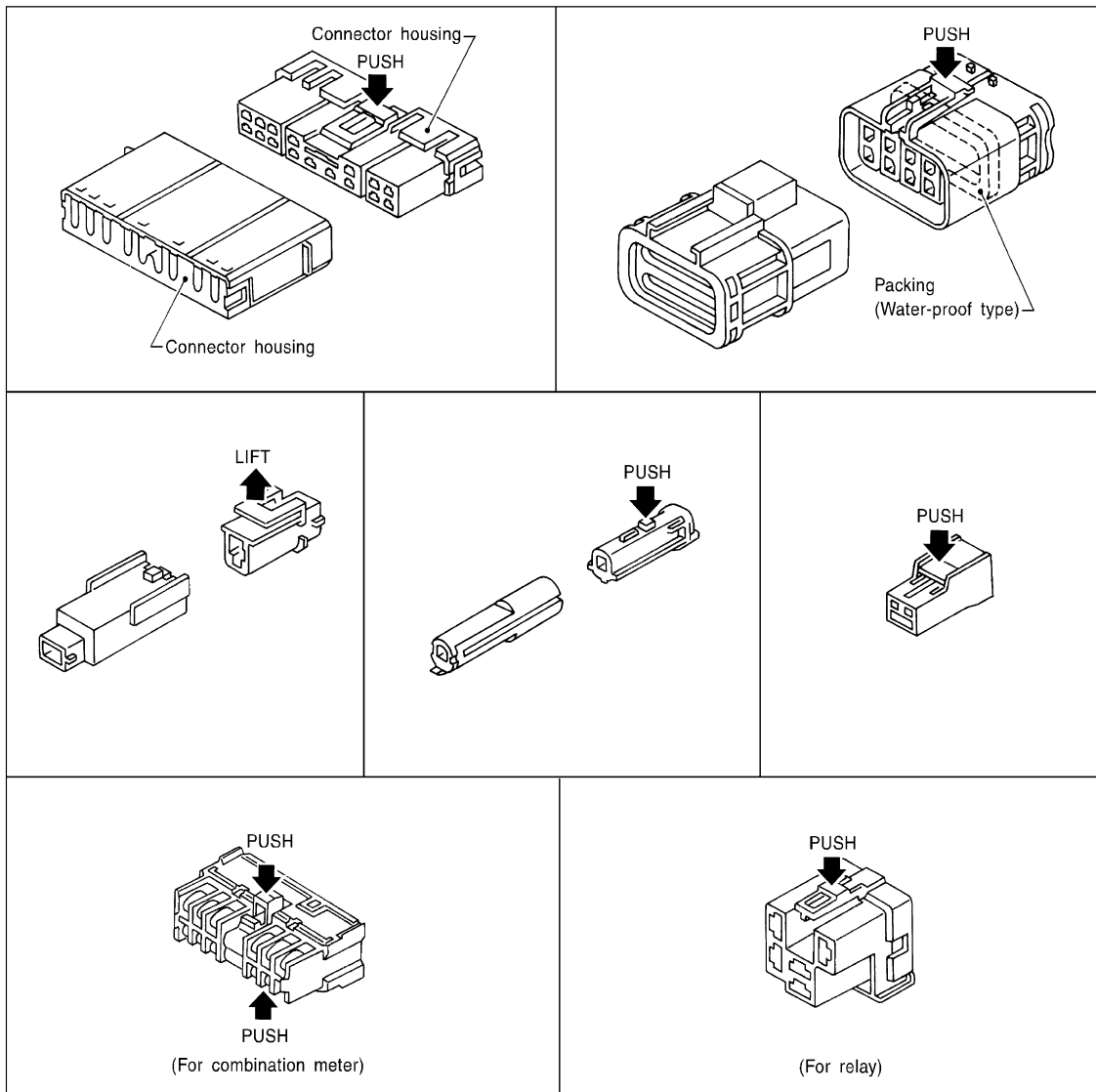
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the figure below.

Refer to the next page for description of the slide-locking type connector.

CAUTION:

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

[Example]



SEL769DA

HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- A new style slide-locking type connector is used on certain systems and components, especially those related to OBD.
- The slide-locking type connectors help prevent incomplete locking and accidental looseness or disconnection.

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HARNESS CONNECTOR

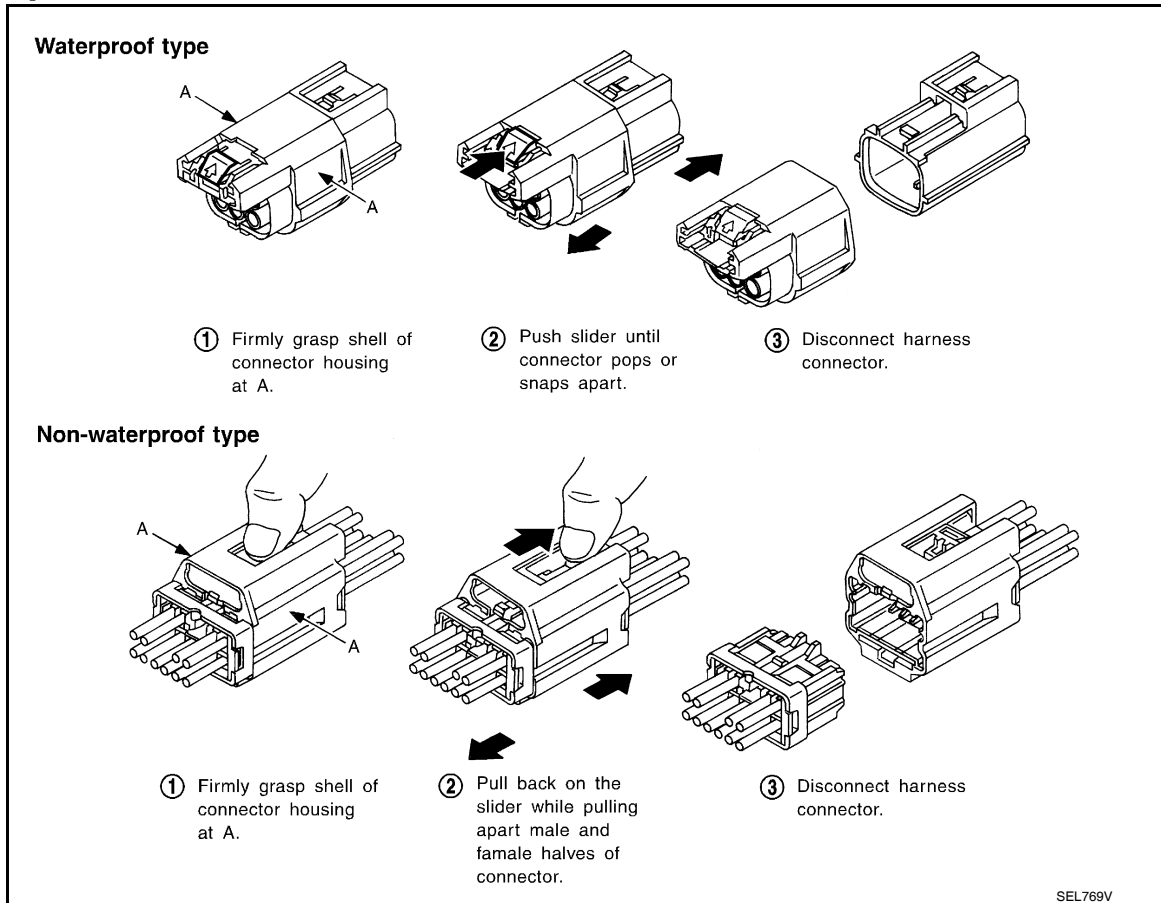
< COMPONENT DIAGNOSIS >

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

CAUTION:

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

[Example]



HARNESS CONNECTOR (LEVER LOCKING TYPE)

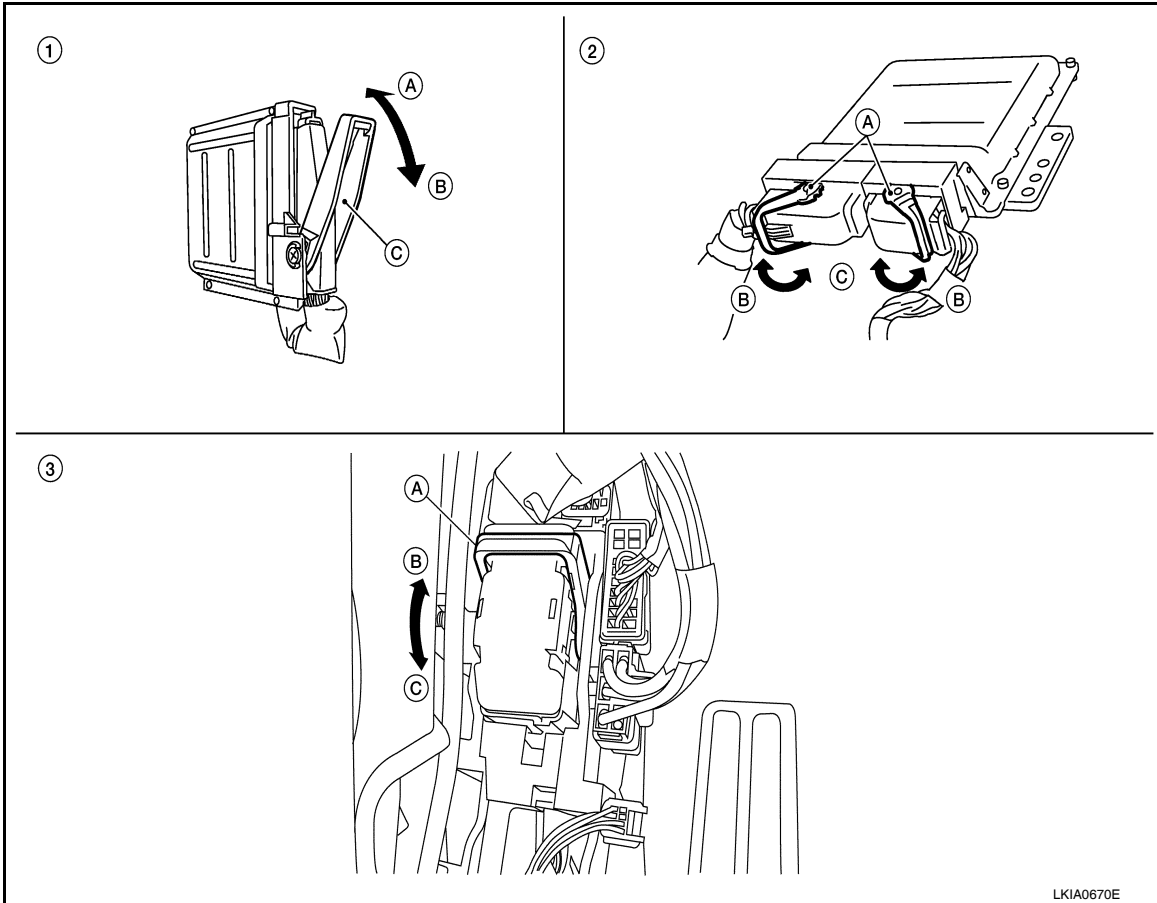
- Lever locking type harness connectors are used on certain control units and control modules such as ECM, ABS actuator and electric unit (control unit), etc.
- Lever locking type harness connectors are also used on super multiple junction (SMJ) connectors.
- Always confirm the lever is fully locked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

CAUTION:

HARNES CONNECTOR

< COMPONENT DIAGNOSIS >

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



1. Control unit with single lever

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

2. Control unit with dual lever

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

3. SMJ connector

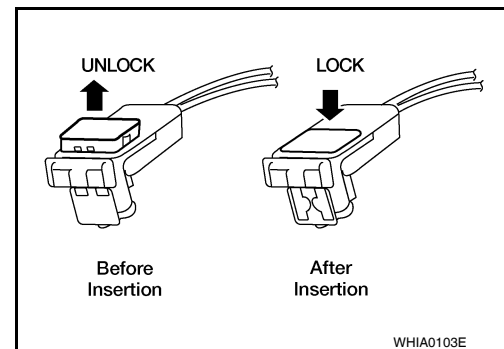
- A. Fasten
- B. Loosen
- C. Lever

HARNES CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

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

CAUTION:

- Do not pull the harness or wires when removing connectors from SRS components.



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STANDARDIZED RELAY

< COMPONENT DIAGNOSIS >

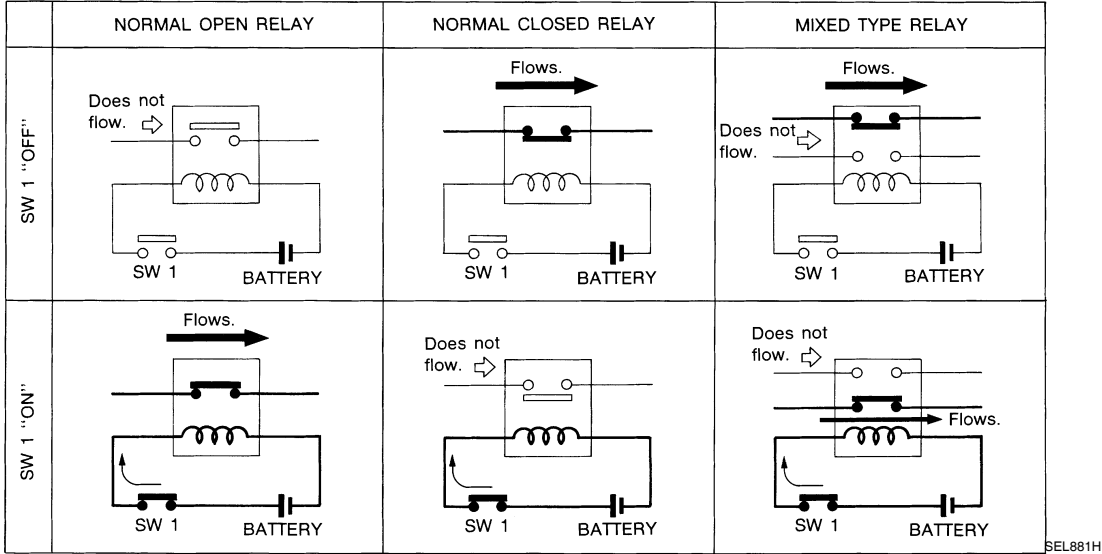
STANDARDIZED RELAY

Description

INFOID:000000001744677

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

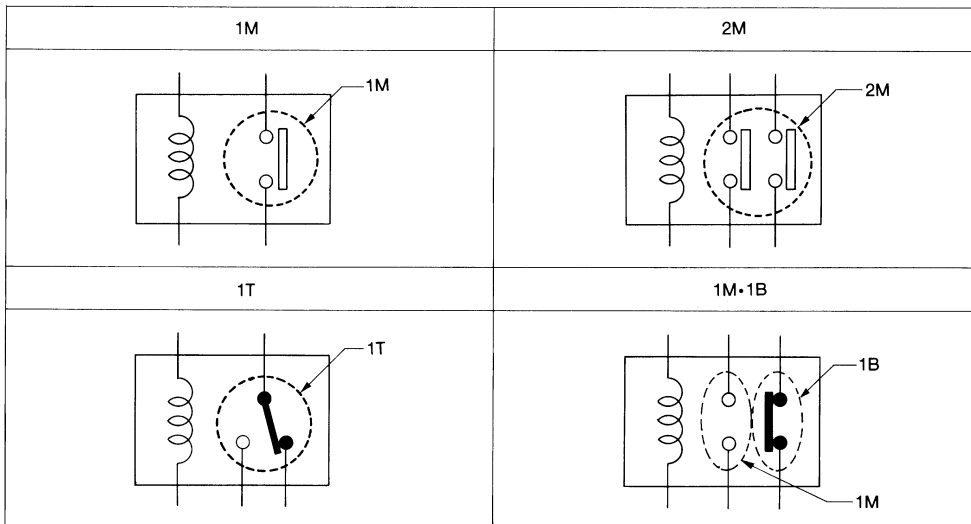
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



SEL881H

TYPE OF STANDARDIZED RELAYS

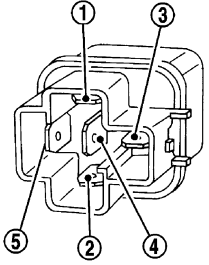
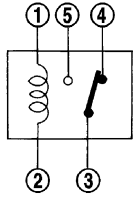
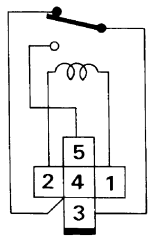
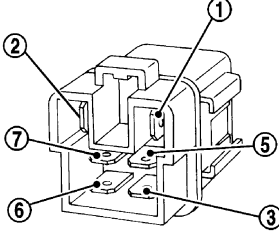
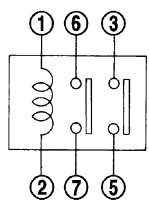
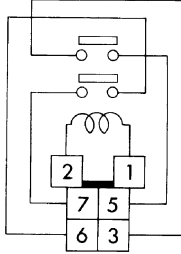
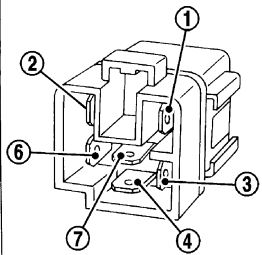
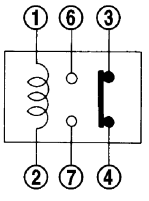
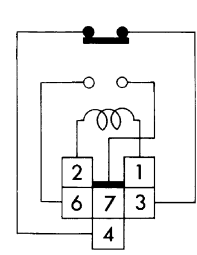
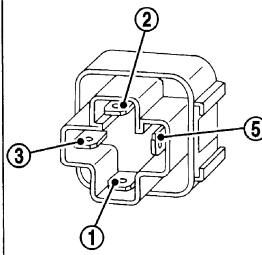
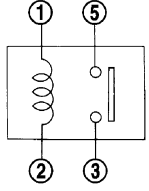
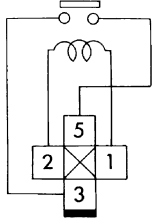
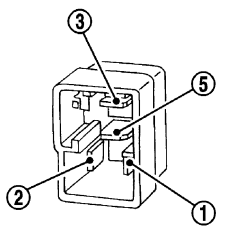
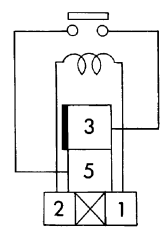
- 1M 1 Make
- 2M 2 Make
- 1T 1 Transfer
- 1M·1B 1 Make 1 Break



SEL882H

STANDARDIZED RELAY

< COMPONENT DIAGNOSIS >

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

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

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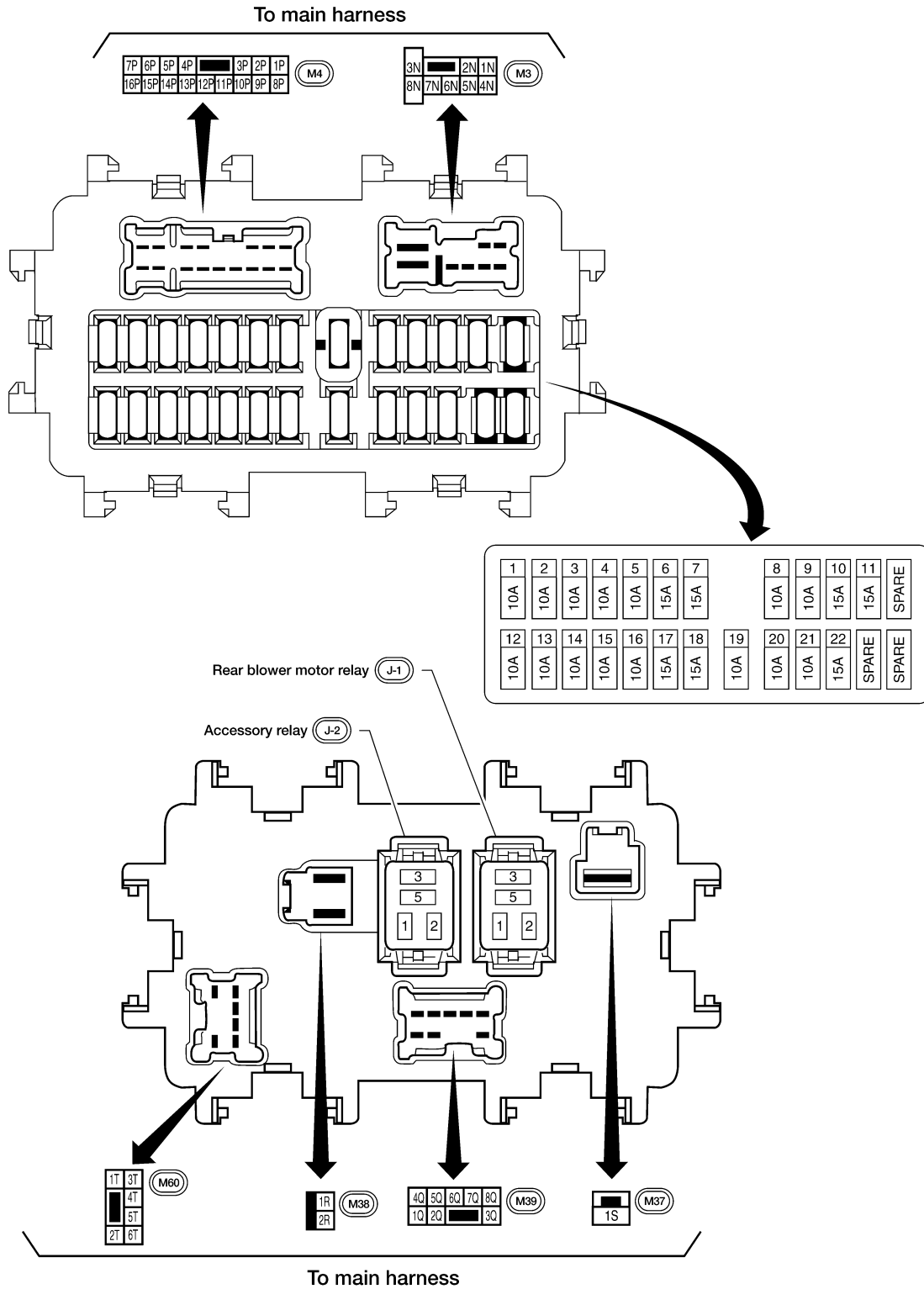
FUSE BLOCK - JUNCTION BOX (J/B)

< COMPONENT DIAGNOSIS >

FUSE BLOCK - JUNCTION BOX (J/B)

Terminal Arrangement

INFOID:000000001744678



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FUSE, FUSIBLE LINK AND RELAY BOX

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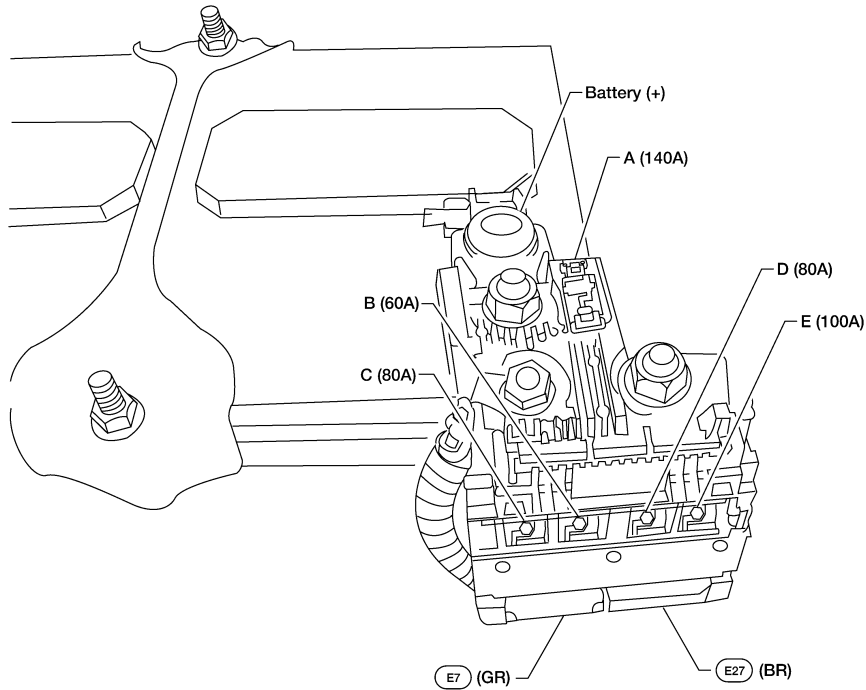
FUSE, FUSIBLE LINK AND RELAY BOX

Terminal Arrangement

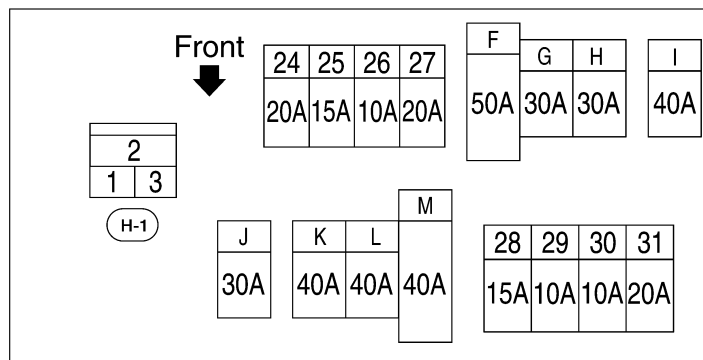
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FUSE AND FUSIBLE LINK BOX

FUSIBLE LINK BOX (BATTERY)



FUSE AND FUSIBLE LINK BOX



24 - 31 : FUSE F - M : FUSIBLE LINK

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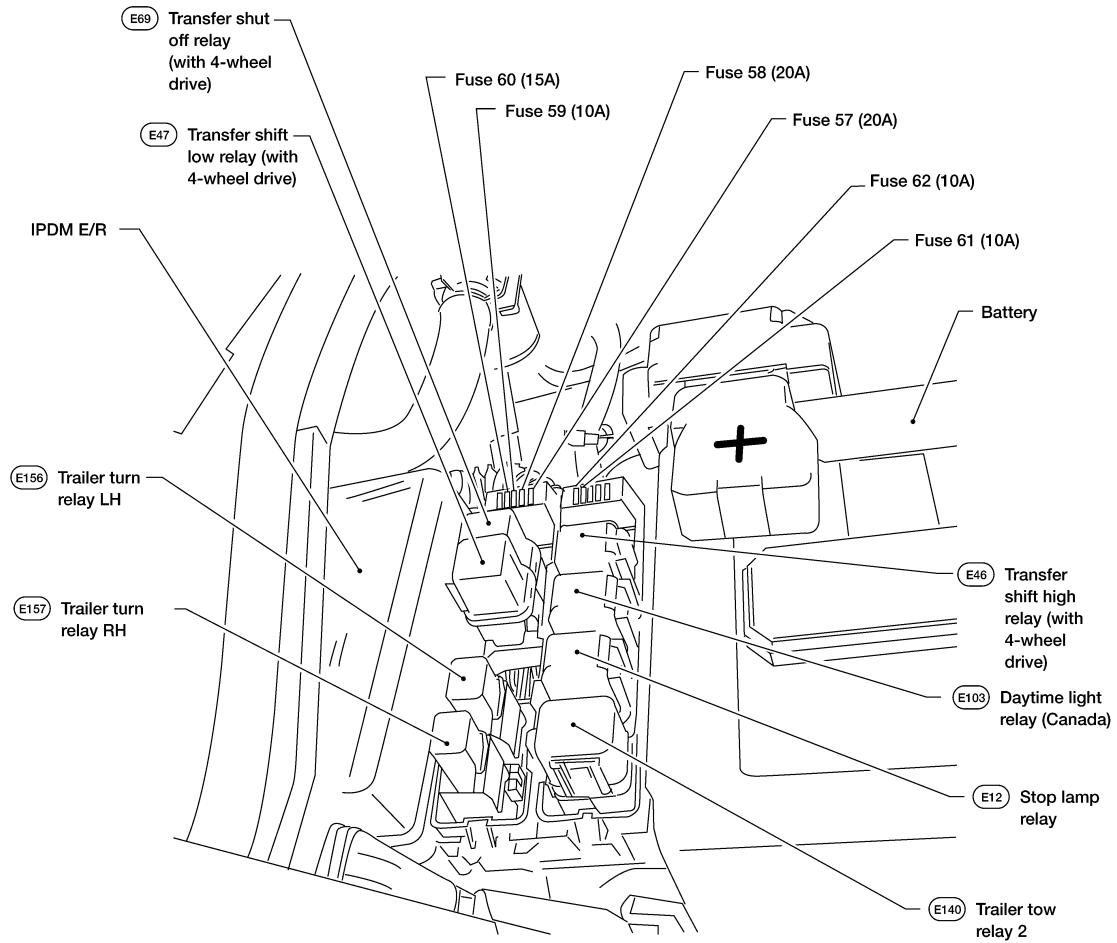
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FUSE, FUSIBLE LINK AND RELAY BOX

< COMPONENT DIAGNOSIS >

FUSE AND RELAY BOX



ALMIA0223GB

BATTERY

< ON-VEHICLE REPAIR >

ON-VEHICLE REPAIR

BATTERY

Removal and Installation

INFOID:000000001538891

REMOVAL

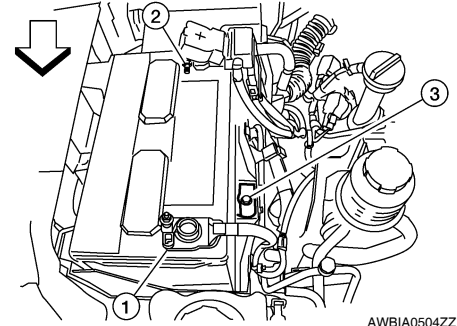
1. Disconnect the negative battery terminal (1) and positive battery terminal (2).

CAUTION:

Remove negative battery terminal first.

⇐ : Front

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



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

When installing, install the positive battery terminal first.

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

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

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

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SERVICE DATA AND SPECIFICATIONS (SDS)

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SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Battery

INFOID:000000001538892

	Standard battery
Type	Gr. 27
Capacity (20 HR) minimum V-AH	80
Cold cranking current A (For reference value)	710