

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:000000007362020

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 for Power Generation Variable Voltage Control System

INFOID:000000007362021

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.

PREPARATION

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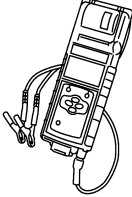
PREPARATION

PREPARATION

Special Service Tool


INFOID:000000007362022

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>— (—) Model GR8-1200 NI Multitasking battery and electrical diagnostic station</p>  <p style="text-align: right; font-size: small;">AWI1A12392Z</p>	<p>Tests batteries, starting and charging systems and charges batteries. For operating instructions, refer to diagnostic station instruction manual.</p>
<p>— (—) Model EXP-800 NI Battery and electrical diagnostic analyzer</p>  <p style="text-align: right; font-size: small;">JSMIA08062Z</p>	<p>Tests batteries and charging systems. For operating instructions, refer to diagnostic analyzer instruction manual.</p>

Commercial Service Tool

INFOID:000000007362023

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

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BATTERY

< BASIC INSPECTION >

BASIC INSPECTION

BATTERY

How to Handle Battery

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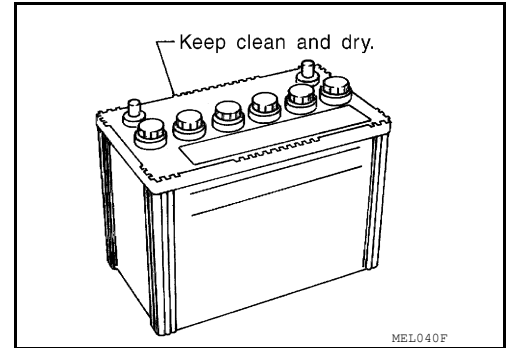
CAUTION:

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

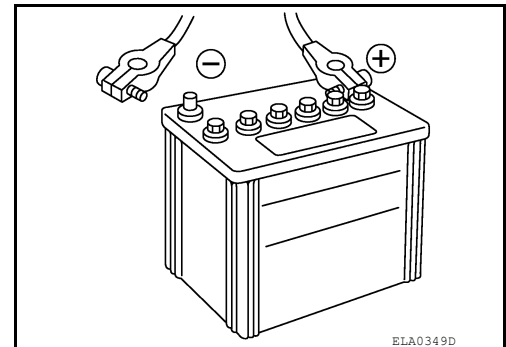
METHODS OF PREVENTING OVER-DISCHARGE

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

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



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



Work Flow

INFOID:000000007362025

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

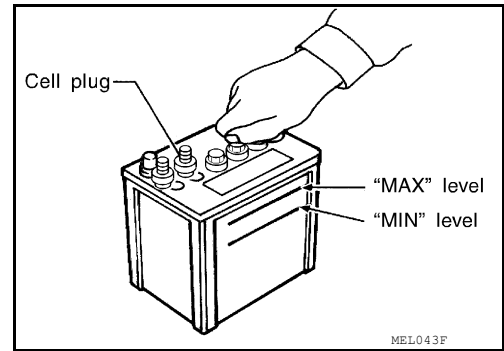
WARNING:

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.

BATTERY

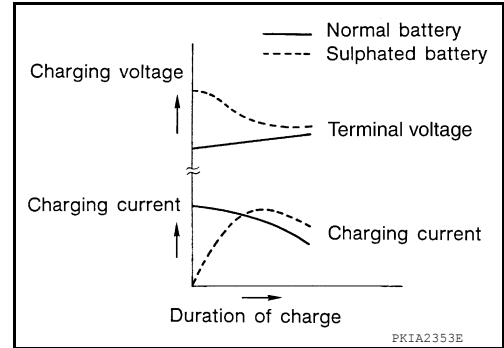
< BASIC INSPECTION >

- 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.**



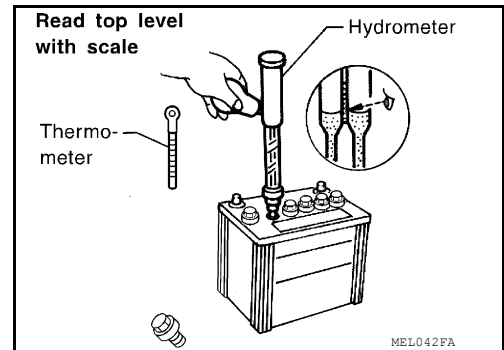
Specific Gravity Check

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

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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.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

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Required Procedure After Battery Disconnection

System	Item	Reference
Engine Control System	Idle Air Volume Learning	EC-117
Brake Control System	Steering Angle Sensor Neutral Position	BRC-12 (Type 1) BRC-122 (Type 2)
Audio, Visual & Navigation System	Audio (Radio Preset)	Refer to Owner's Manual.

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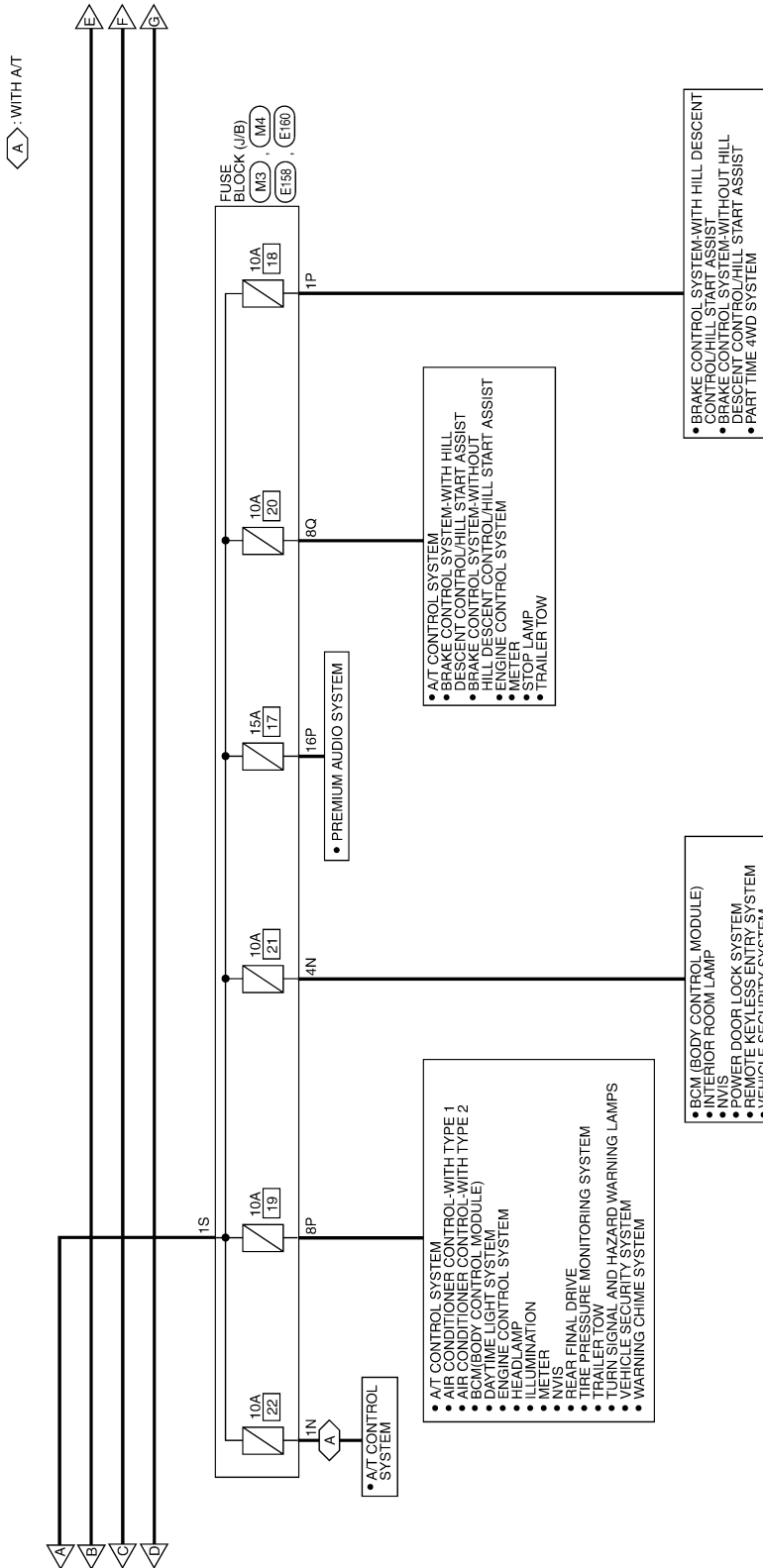
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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

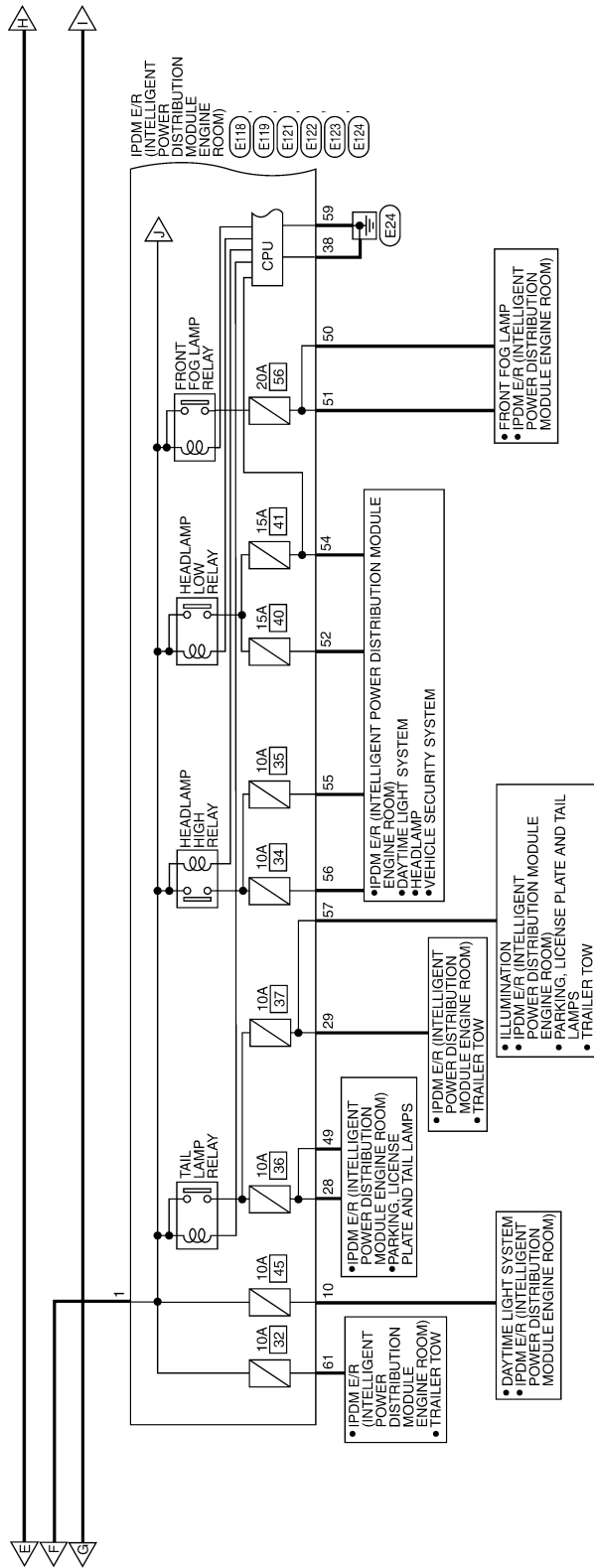


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POWER SUPPLY ROUTING CIRCUIT

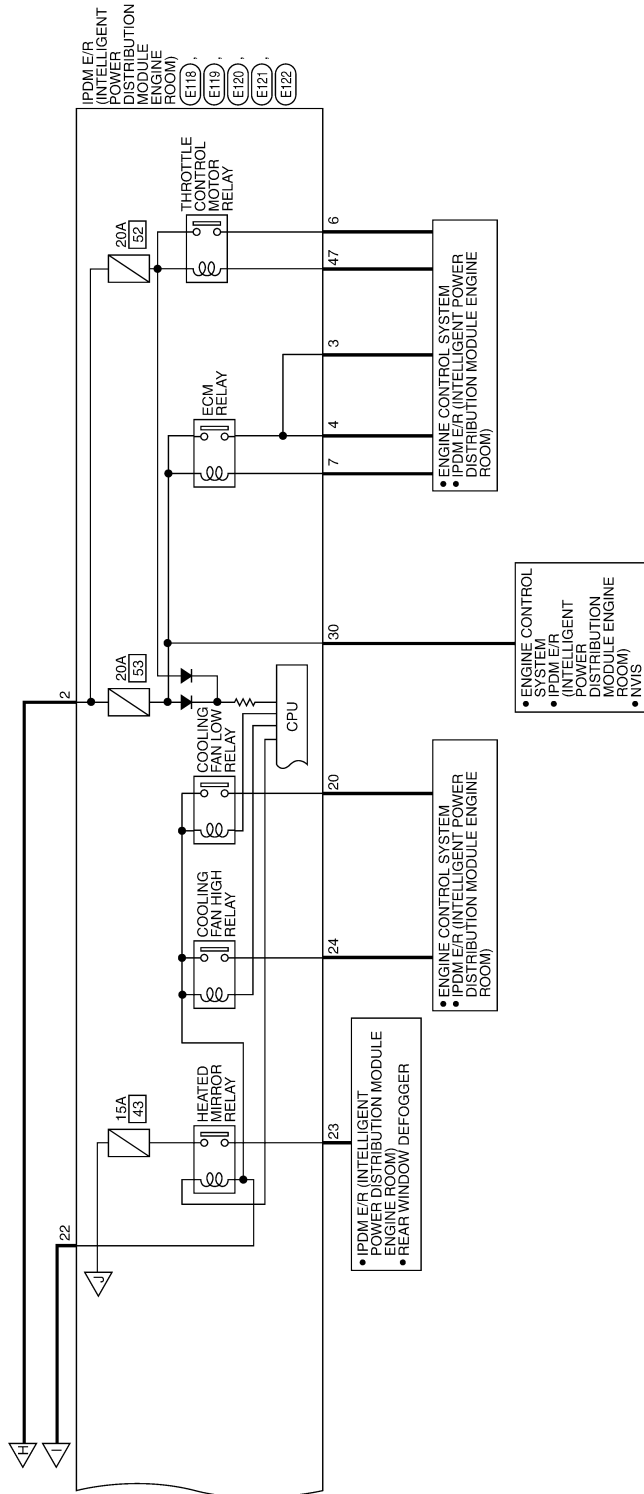
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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



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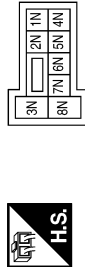
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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

BATTERY POWER SUPPLY CONNECTORS

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



Terminal No.	Color of Wire	Signal Name
1N	R/B	-
4N	R/Y	-

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



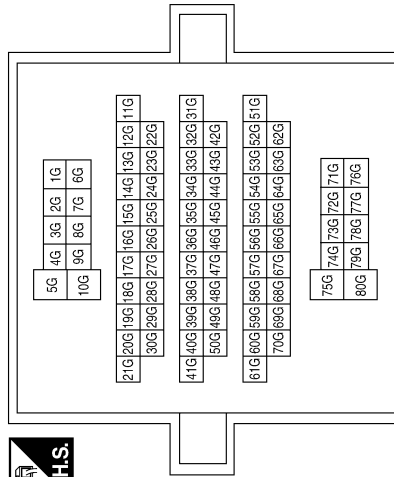
Terminal No.	Color of Wire	Signal Name
1P	R/B	-
8P	R/Y	-
16P	R/B	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



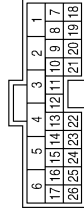
Terminal No.	Color of Wire	Signal Name
2	W/G	-

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



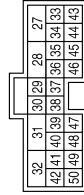
Terminal No.	Color of Wire	Signal Name
21G	V	-

Connector No.	M152
Connector Name	TRANSFER CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
25	W/G	IGN SW

Connector No.	M153
Connector Name	TRANSFER CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
40	V	SSOF

POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3
4	5	6

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

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



3

Terminal No.	Color of Wire	Signal Name
3	R	-

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



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


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



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

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


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
20	BR	MOTOR FAN 1
22	G	F/L MOTOR FAN
23	LG	HEATED MIRROR
24	P	MOTOR FAN 2

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
28	R	ILLUMINATION
29	G	TRAILER RLY CONT
30	R/B	ECM BAT

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POWER SUPPLY ROUTING CIRCUIT

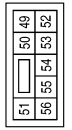
< DTC/CIRCUIT DIAGNOSIS >

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



Terminal No.	Color of Wire	Signal Name
57	GR	TAIL LAMP
59	B	GND (POWER)
61	R/B	TRAIL RLY SUPPLY

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



Terminal No.	Color of Wire	Signal Name
49	GR	ILLUMINATION
50	W	FR FOG LAMP LH
51	V	FR FOG LAMP RH
52	P	H/LAMP LO LH
54	R	H/LAMP LO RH
55	G	H/LAMP HI LH
56	L	H/LAMP HI RH

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



Terminal No.	Color of Wire	Signal Name
38	B	GND (SIGNAL)
47	O	ETC RLY CONT

Connector No.	E129
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BLACK



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

Connector No.	E128
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



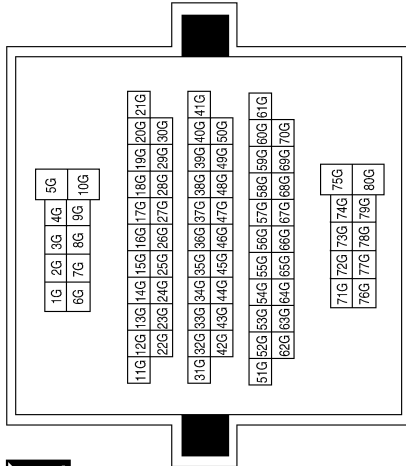
Terminal No.	Color of Wire	Signal Name
4	W	-
7	W	-

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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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



Terminal No.	Color of Wire	Signal Name
21G	V	-

Connector No.	E156
Connector Name	TRANSFER SHUT OFF RELAY 1
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	W/G	-
2	B	-
3	B	-
5	W	-

Connector No.	E157
Connector Name	TRANSFER SHUT OFF RELAY 2
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	G	-
2	V	-
3	B	-
5	W	-

Connector No.	E158
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



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

Connector No.	E160
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
8Q	R/B	-

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



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

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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector No.	E210
Connector Name	STARTER MOTOR
Connector Color	-



Terminal No.	2	Color of Wire	B/R	Signal Name	-
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Connector No.	E206
Connector Name	GENERATOR
Connector Color	-



Terminal No.	1	Color of Wire	B/R	Signal Name	B
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Connector No.	E204
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	6	Color of Wire	B/R	Signal Name	-
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POWER SUPPLY ROUTING CIRCUIT

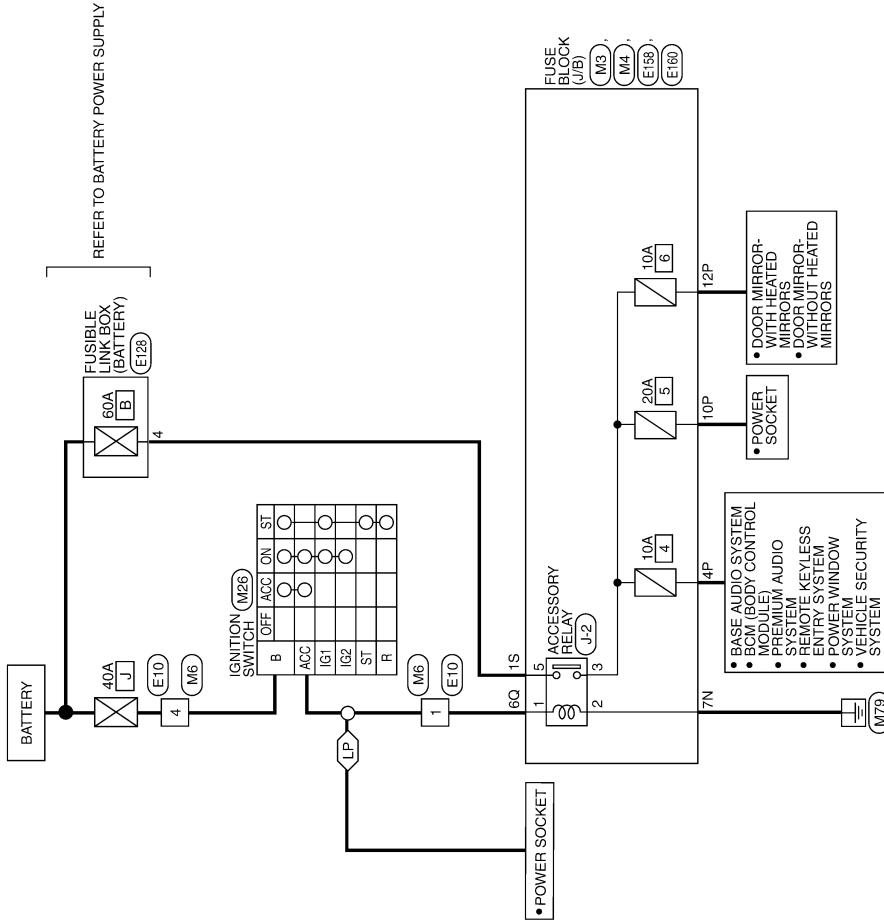
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Wiring Diagram—Accessory Power Supply

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ACCESSORY POWER SUPPLY



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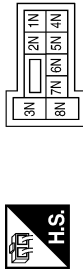
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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

ACCESSORY POWER SUPPLY CONNECTORS

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



Terminal No.	7N	Color of Wire	B	Signal Name	-
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Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	4P	Color of Wire	G/B	Signal Name	-
10P	G/Y	-	-		
12P	G/Y	-	-		

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	1	Color of Wire	G/Y	Signal Name	-
4	G	-	-		

Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE



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

Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	1	Color of Wire	G/Y	Signal Name	-
4	G	-	-		

Connector No.	E128
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



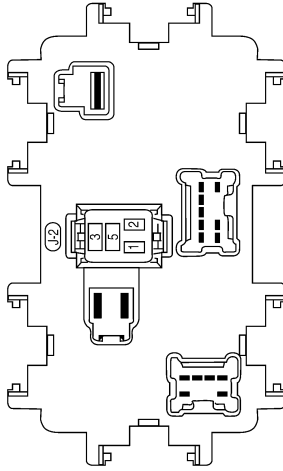
Terminal No.	4	Color of Wire	W	Signal Name	-
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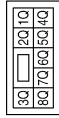
POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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



Connector No.	E160
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	6Q	Color of Wire	G/Y	Signal Name	-
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Connector No.	E158
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



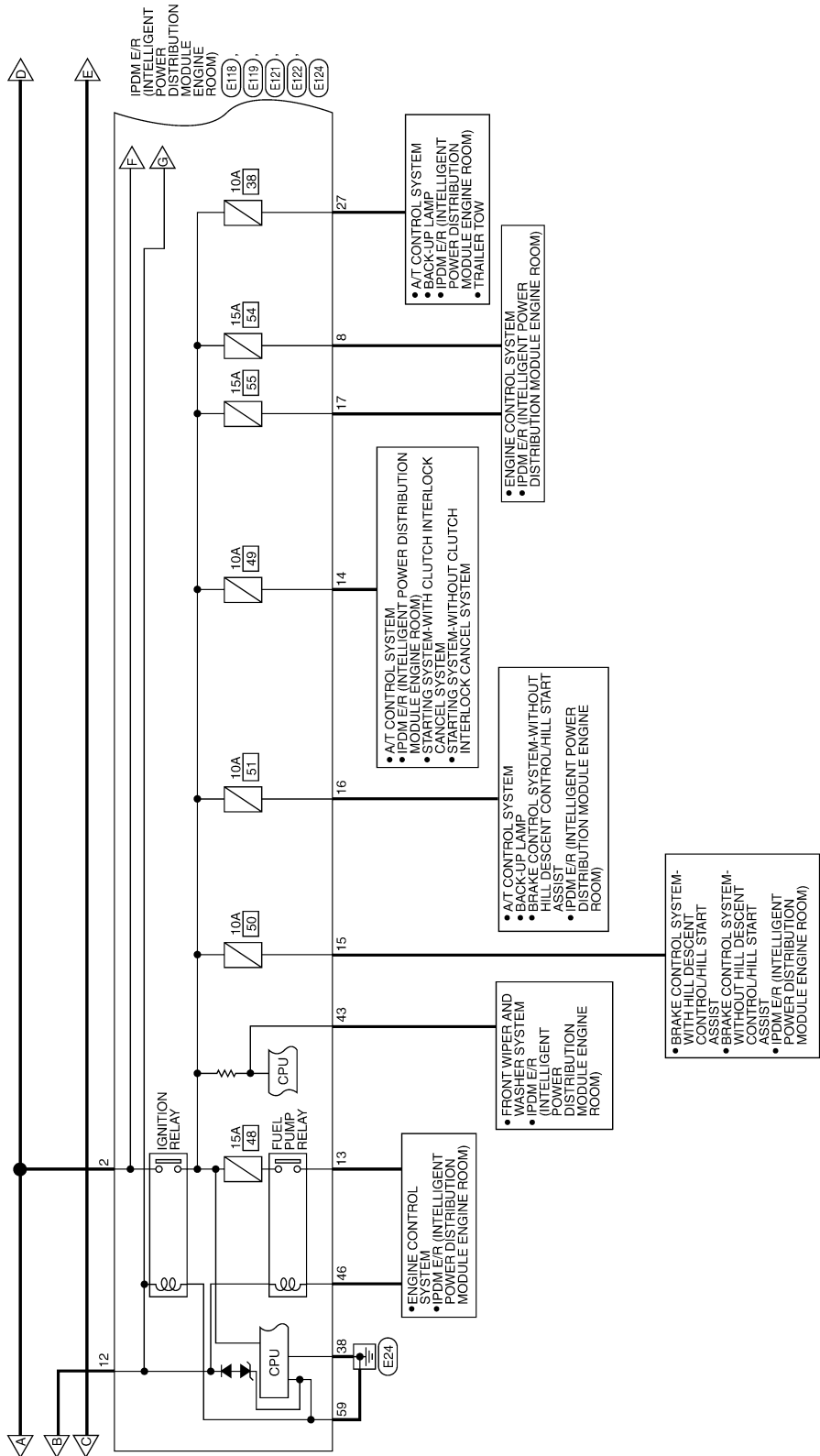
Terminal No.	1S	Color of Wire	W	Signal Name	-
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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

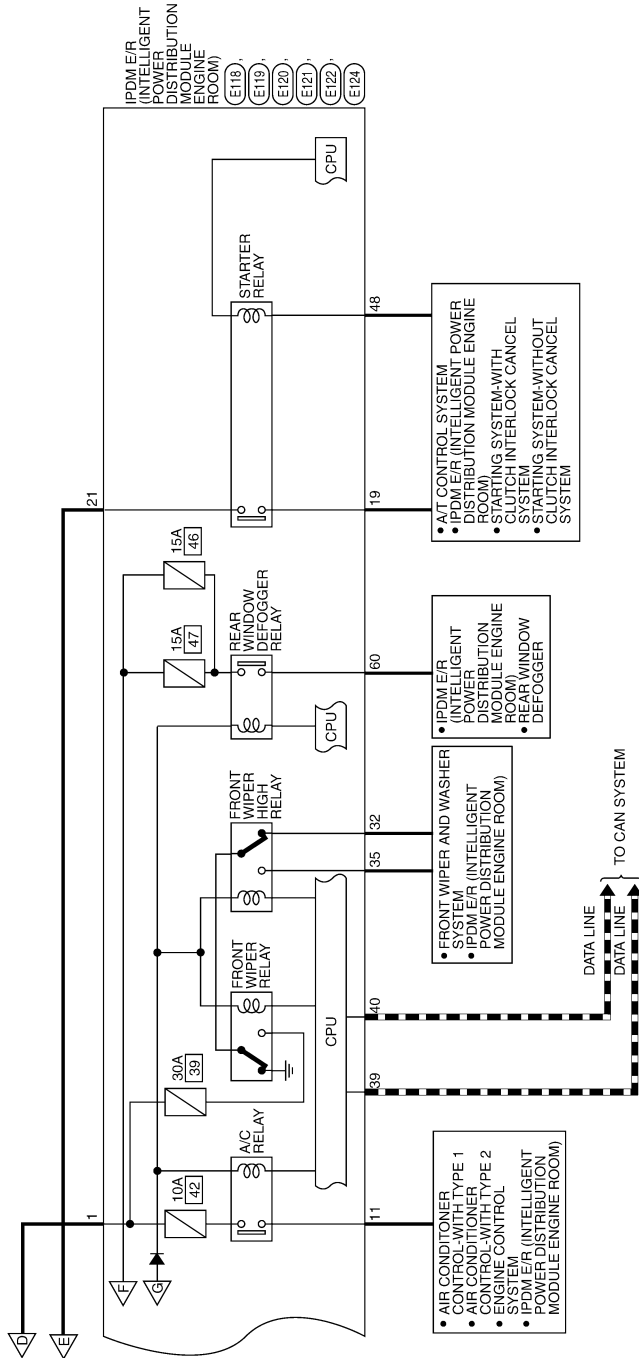


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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



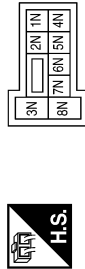
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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT 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	W/R	-
5N	W/G	-

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



Terminal No.	Color of Wire	Signal Name
2P	W/G	-
5P	W/G	-
6P	W/R	-
9P	W/G	-
13P	W/G	-
15P	W/R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W/G	-
3	GR	-
4	G	-
5	R	-

Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
B	G	-
ST	GR	-
IG1	W/G	-
IG2	R	-

Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W/G	-
3	GR	-
4	G	-
5	R	-

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	W	F/L MAIN
2	R	F/L USM

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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT 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
19	W	STARTER MTR
21	GR	IGN SW (ST)

Terminal No.	Color of Wire	Signal Name
15	W/R	ABS IGN SUPPLY
16	W/G	REVERSE LAMP
17	W/G	INJECTOR

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	W/R	O2 SENSOR
11	Y	A/C COMPRESSOR
12	W/G	IGN SW (IG)
13	R	FUEL PUMP
14	W/G	A/T ECU IGN SUPPLY

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	GR	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
43	G	AUTO STOP SW
46	V	FUEL PUMP RLY CONT
48	R	RANGE SW

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/G	TTOW REV LAMP
32	GR	FR WIPER LO
35	L	FR WIPER HI

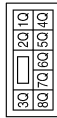
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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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Connector No.	E160
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1Q	W/G	-
2Q	R	-
7Q	W/G	-

Connector No.	E159
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



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

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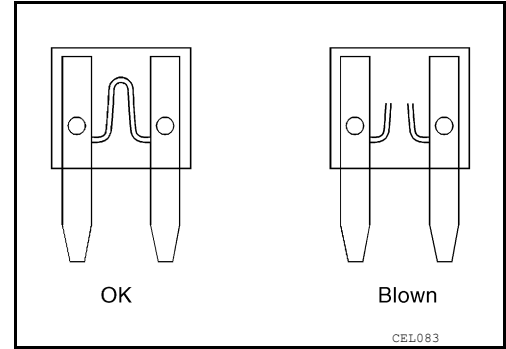
POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Fuse

INFOID:000000007362030

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



Fusible Link

INFOID:000000007362031

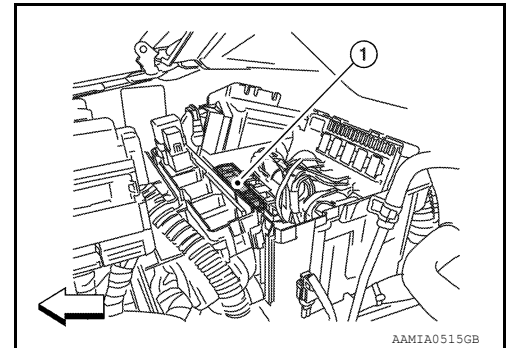
A melted fusible link can be detected either by visual inspection or by feeling with finger tip. If its condition is questionable, use circuit tester or test lamp.

1 : Fusible link

←: Vehicle front

CAUTION:

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



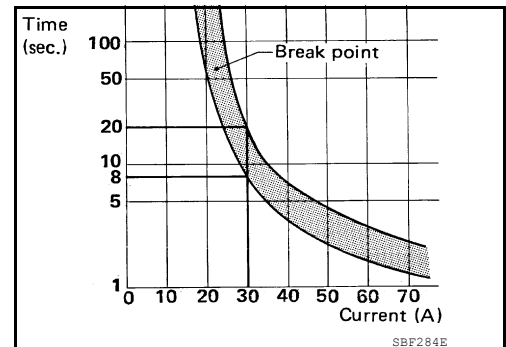
Circuit Breaker (Built Into BCM)

INFOID:000000007362032

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

A circuit breaker is used for the following system:

- Power windows



GROUND CIRCUIT

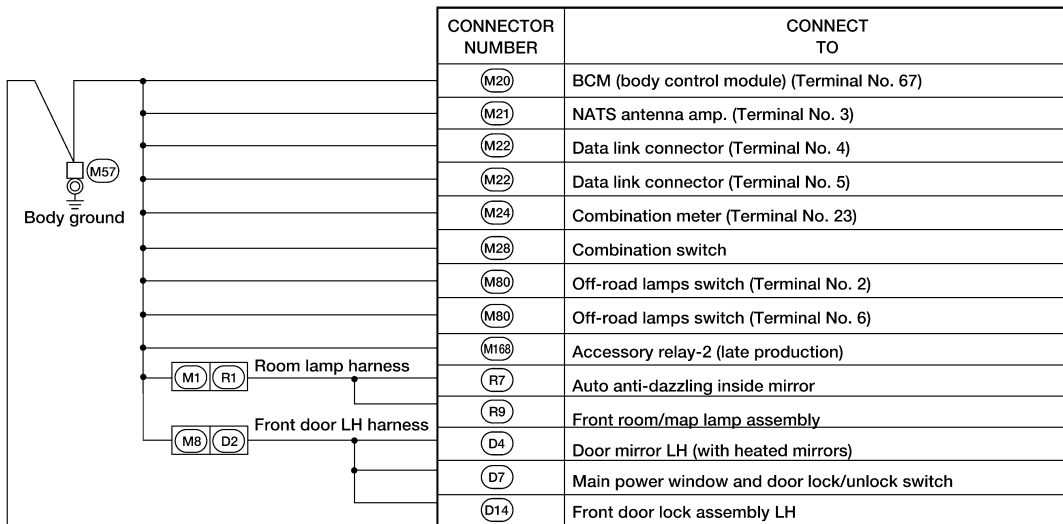
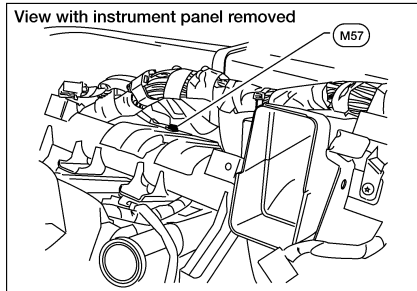
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GROUND CIRCUIT

Ground Distribution

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Main Harness

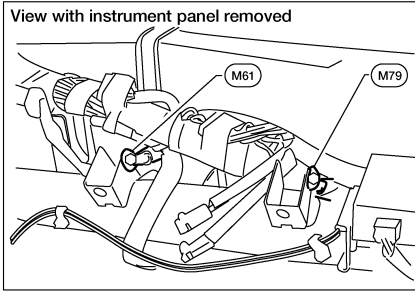


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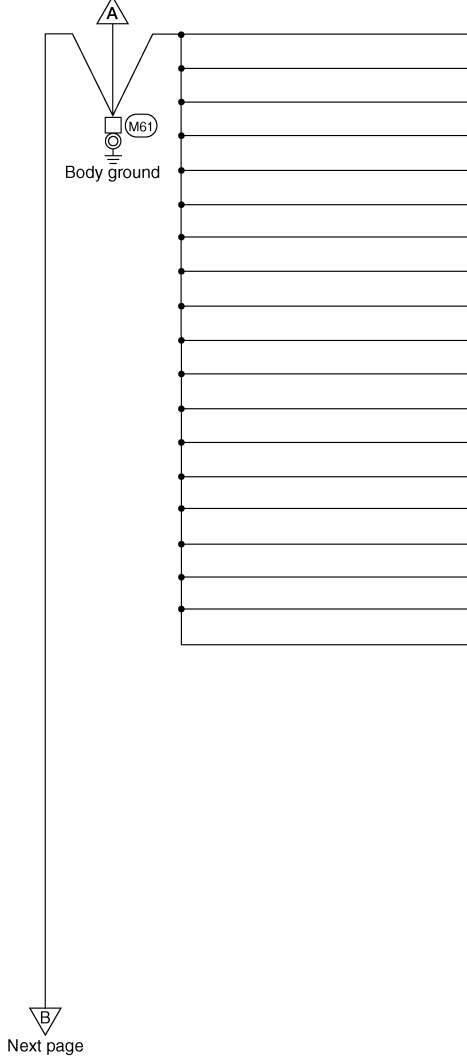
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GROUND CIRCUIT

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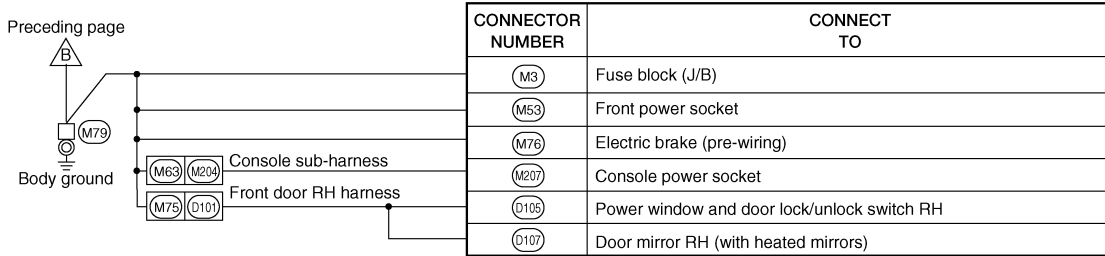
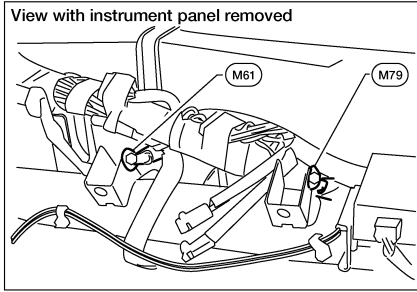


CONNECTOR NUMBER	CONNECT TO
M13	Front passenger air bag OFF indicator
M24	Combination meter (Terminal No. 13)
M35	Air bag diagnosis sensor unit (Terminal No. 2)
M47	Steering angle sensor
M49	Front air control (Terminal No. 20) (with type 2)
M50	Front air control (Terminal No. 13) (with type 1)
M51	Front blower switch
M55	Hazard switch
M121	Variable blower control (front)
M152	Transfer control unit (Terminal No. 6)
M152	Transfer control unit (Terminal No. 18)
M153	Transfer control unit (Terminal No. 32)
M154	VDC OFF switch
M155	Hill descent control switch
M156	A/T shift selector (Terminal No. 2)
M156	A/T shift selector (Terminal No. 8)
M156	A/T shift selector (Terminal No. 10)
M159	Door mirror remote control switch
M163	Clutch interlock cancel switch

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GROUND CIRCUIT

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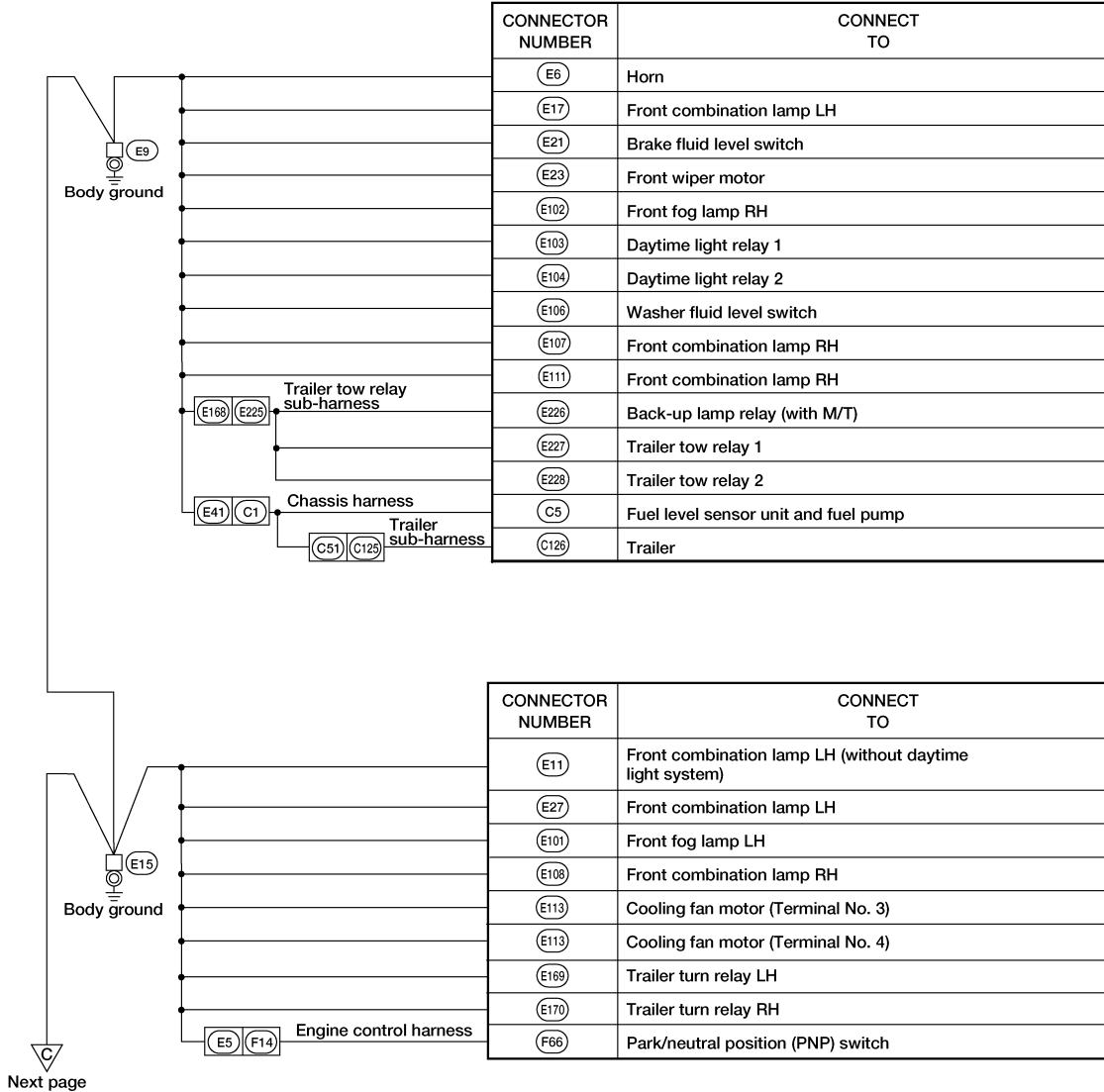
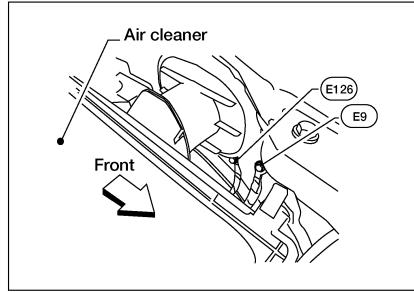
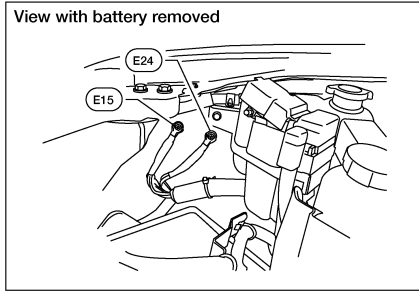


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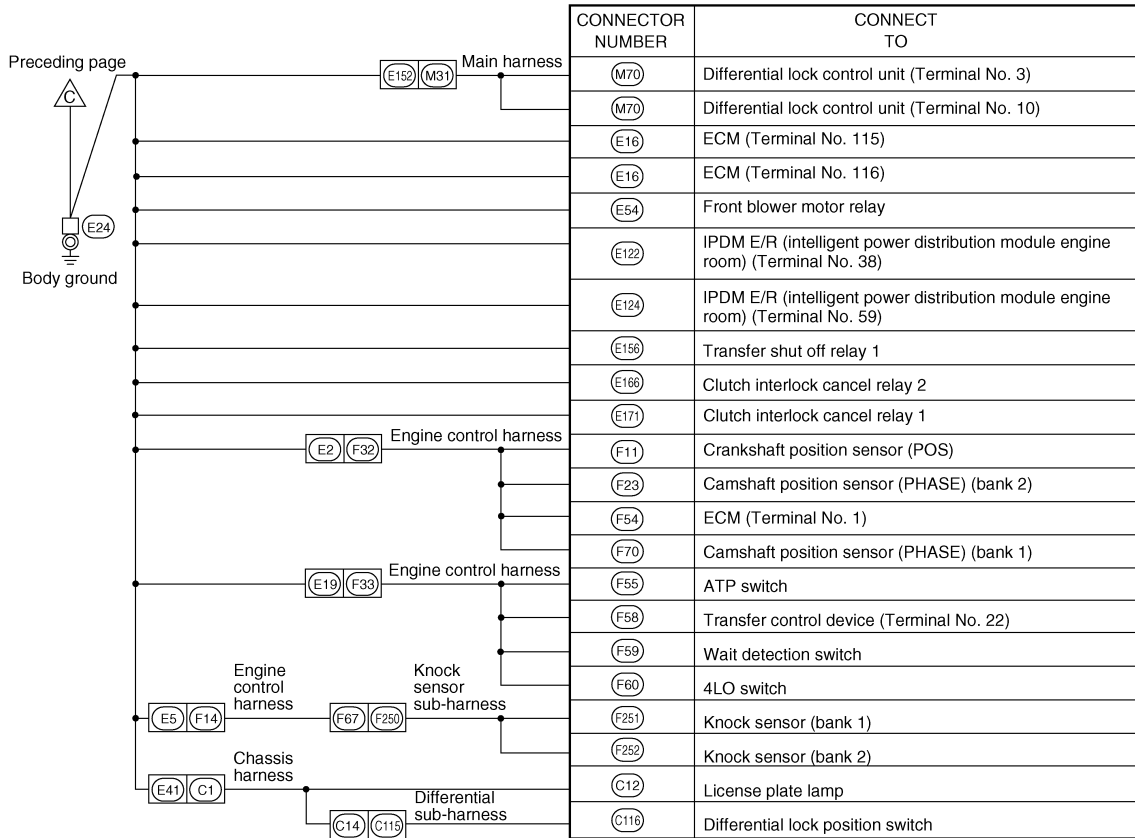
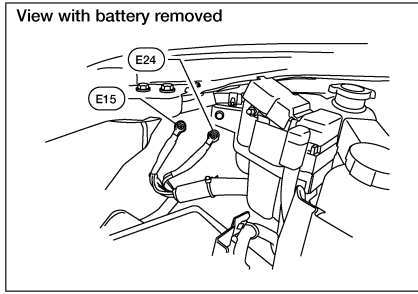
Engine Room Harness



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GROUND CIRCUIT

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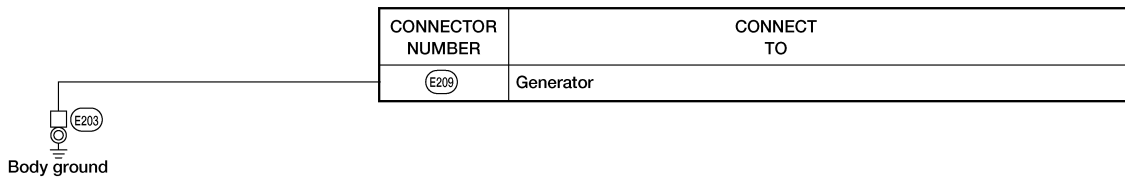
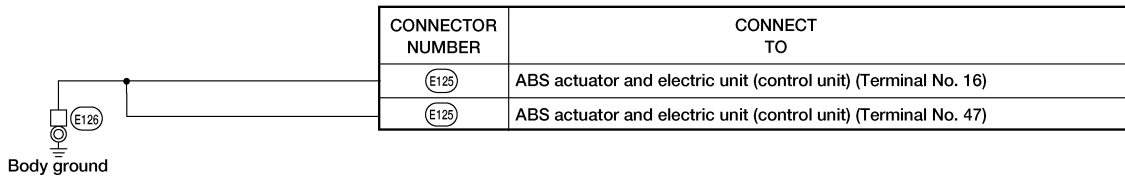
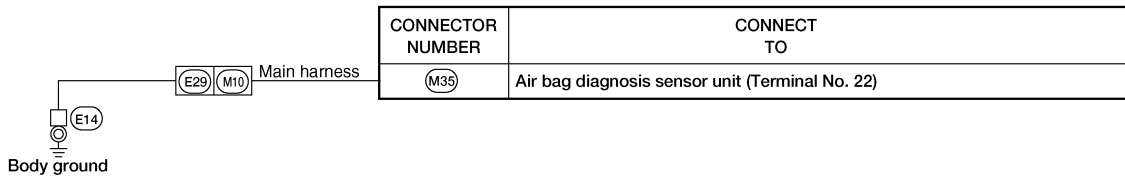
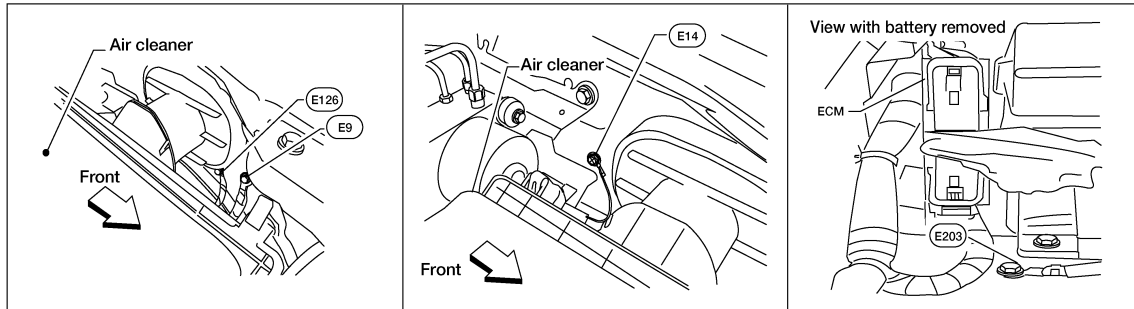
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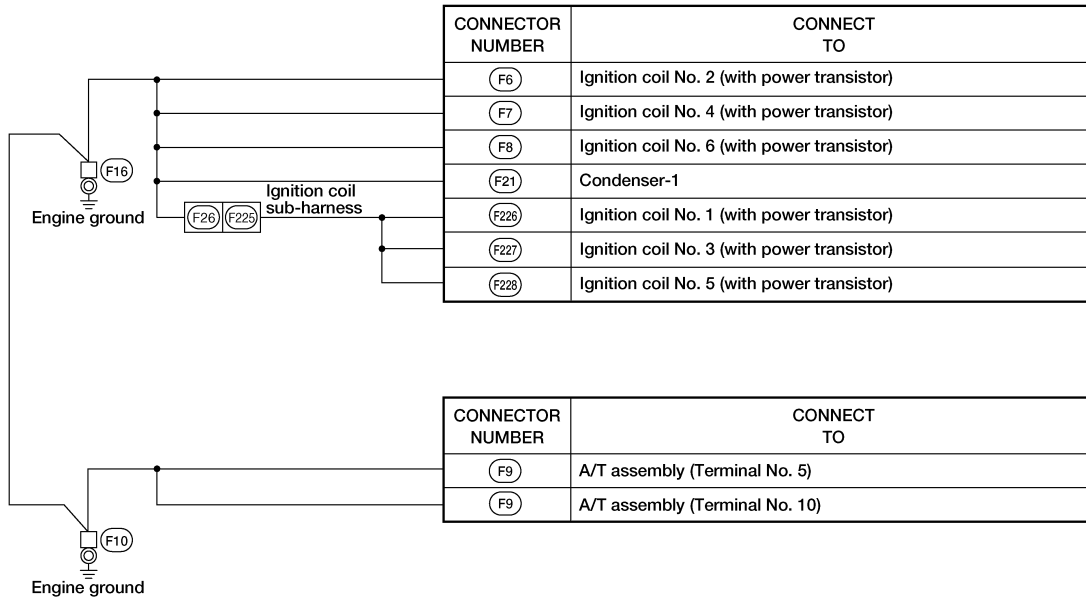
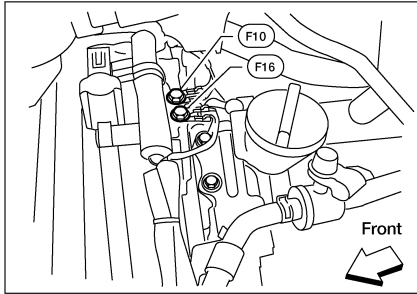


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GROUND CIRCUIT

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Engine Control Harness



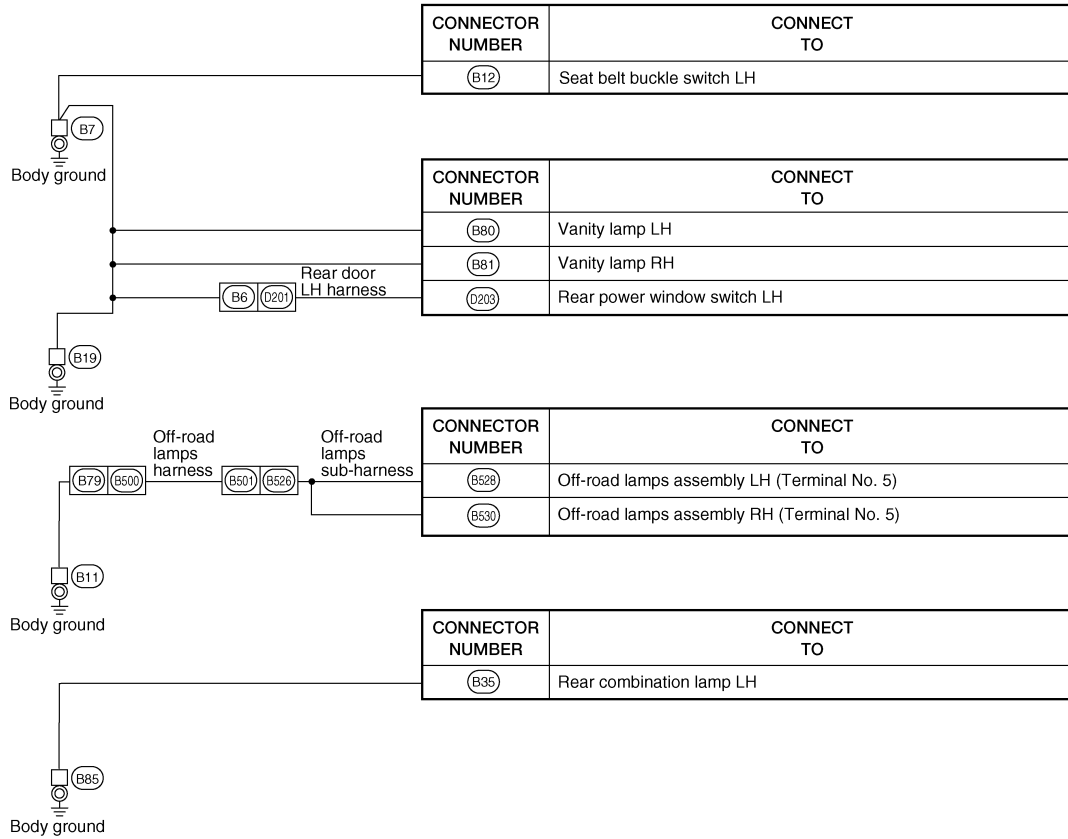
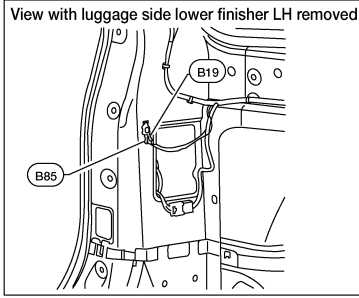
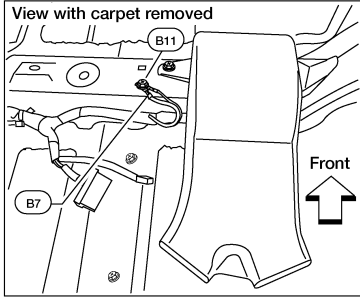
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GROUND CIRCUIT

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Body Harness

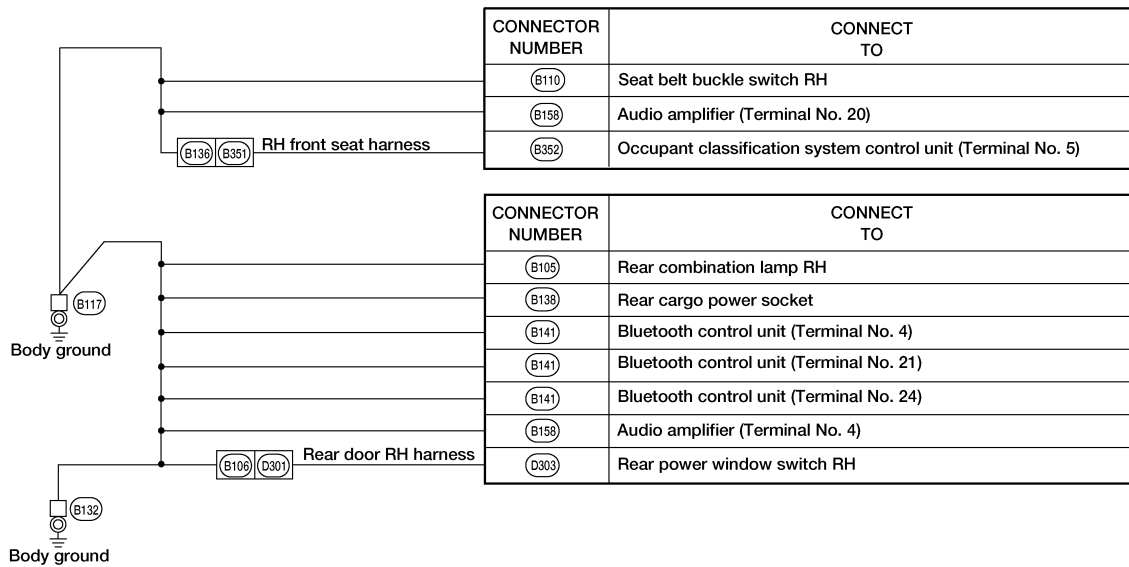
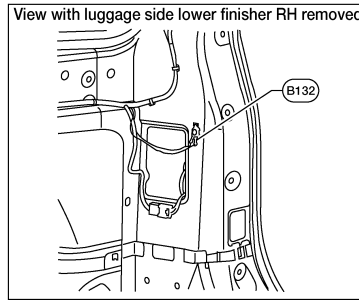
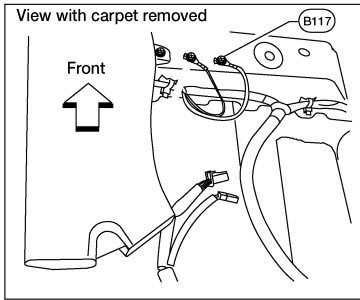


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GROUND CIRCUIT

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Body No. 2 Harness



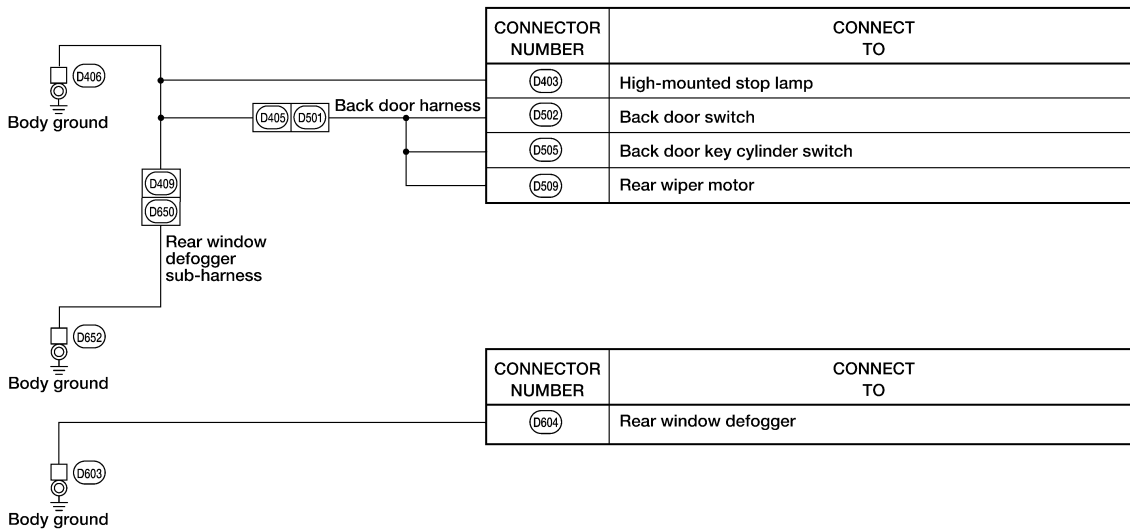
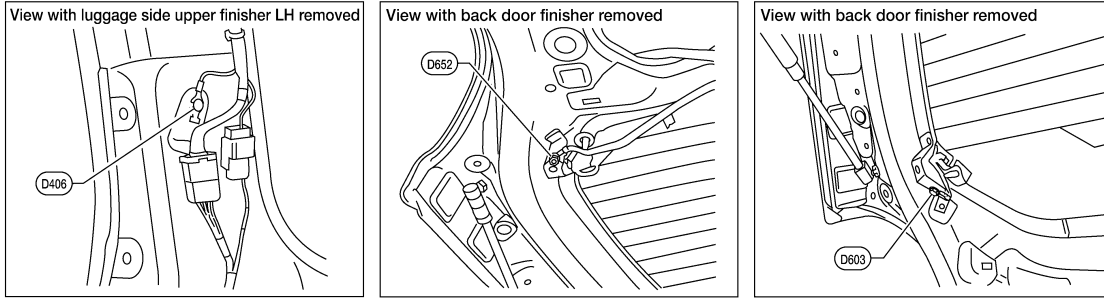
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GROUND CIRCUIT

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Back Door No. 2 and Back Door Harness



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HARNESS

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HARNESS

Harness Layout

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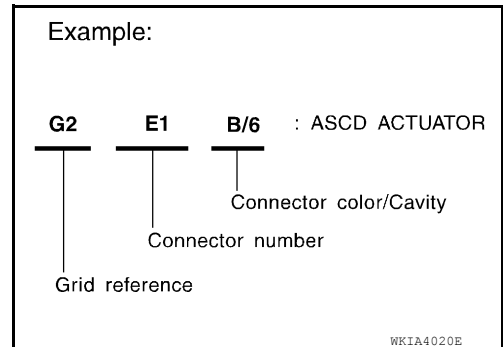
HOW TO READ HARNESS LAYOUT

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

- Main Harness and Console Sub-harness
- Engine Room Harness (RH View) Engine Compartment, Generator Sub-harness, and Trailer Tow Relay Sub-harness
- Engine Room Harness (Passenger Compartment)
- Engine Room Harness (LH View) Engine Compartment
- Engine Control Harness, Injector Sub-harness, Ignition Coil Sub-harness and Knock Sensor Sub-harness
- Chassis Harness, Differential Sub-harness and Trailer Sub-harness
- Body Harness and Off-road Lamps Sub-harness
- Body No. 2 Harness and RH Front Seat Harness
- Room Lamp Harness
- Back Door Harness, Back Door No. 2 Harness and Rear Window Defogger Sub-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.

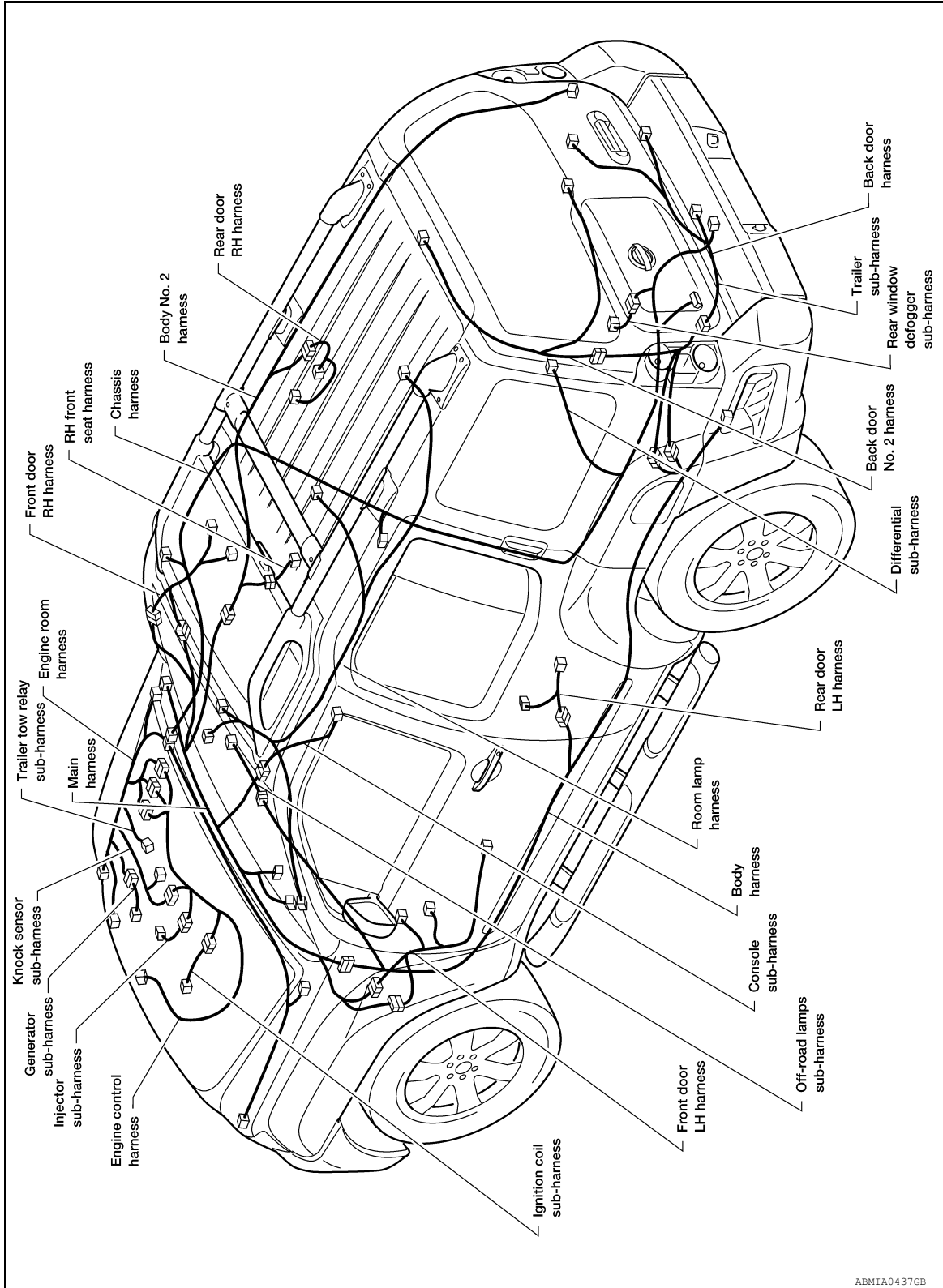


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HARNESS

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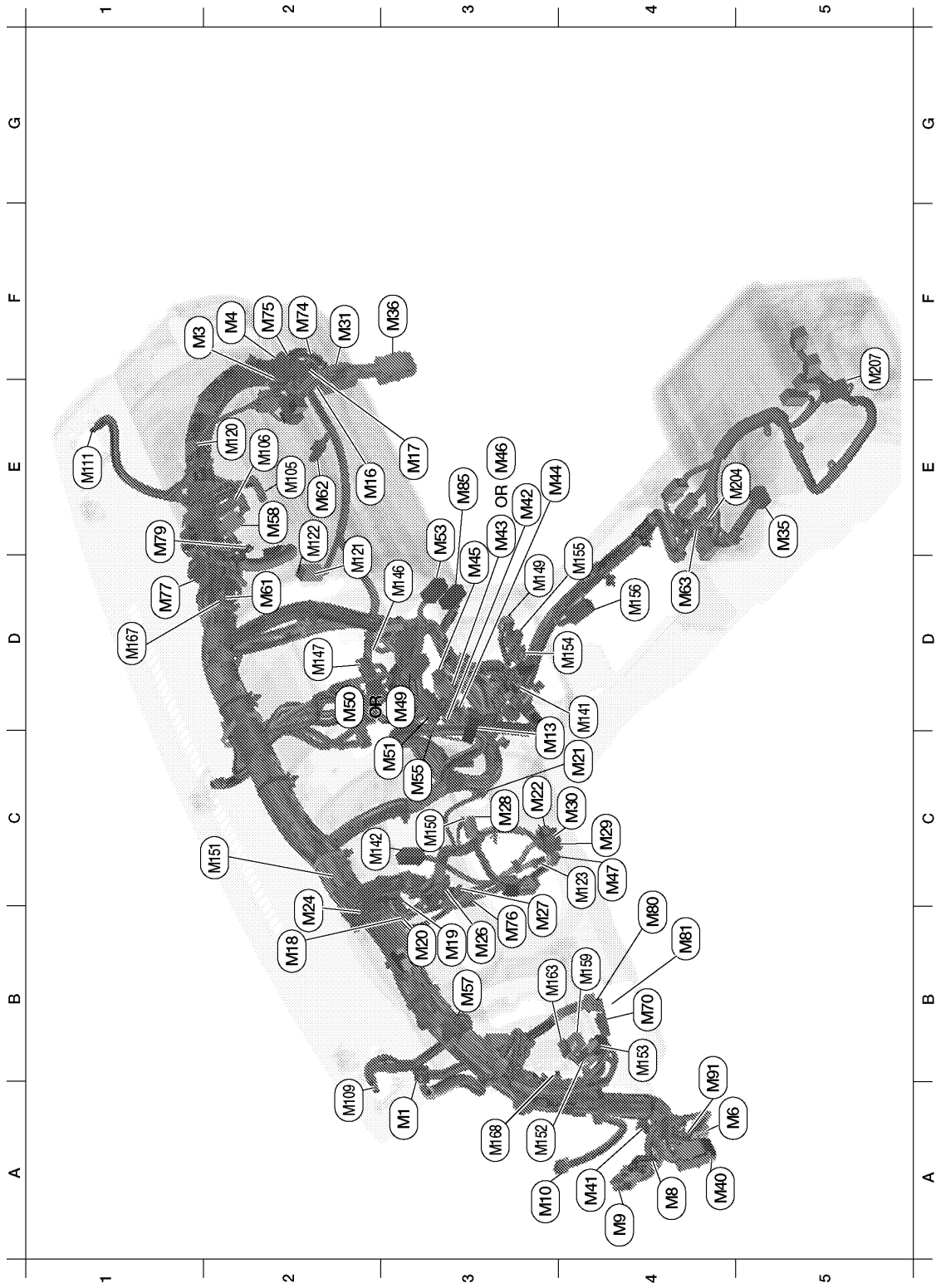
OUTLINE



HARNESS

< DTC/CIRCUIT DIAGNOSIS >

MAIN HARNESS



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A3	M1	W/24	: To R1	E2	M62	B/2	: Front blower motor
F1	M3	W/8	: Fuse block (J/B)	D4	M63	W/6	: To M204
F2	M4	W/16	: Fuse block (J/B)	B4	M70	W/26	: Differential lock control unit
A4	M6	W/6	: To E10	F2	M74	W/16	: To D102

HARNESSES

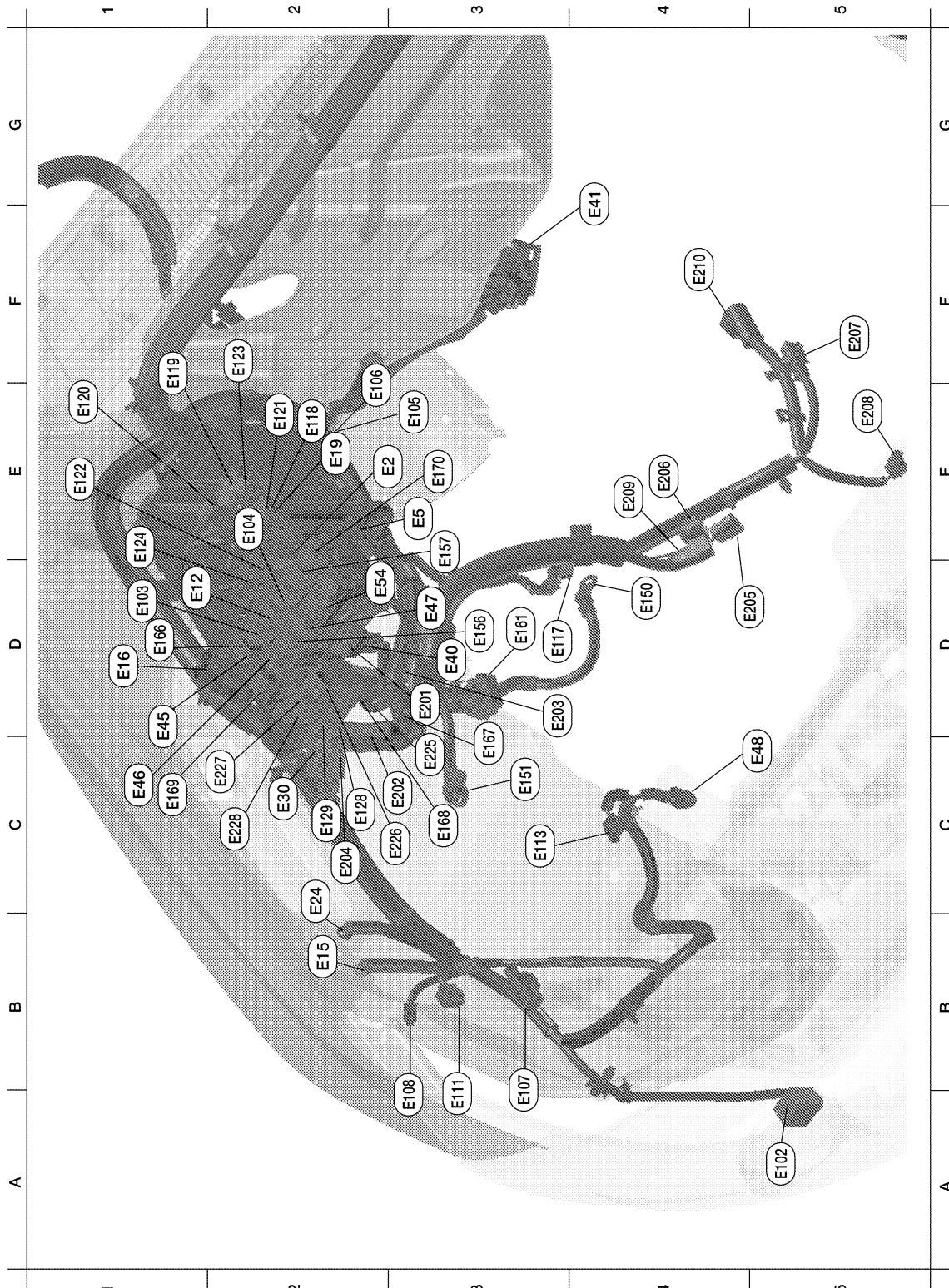
< DTC/CIRCUIT DIAGNOSIS >

A4	M8	BR/12	: To D2	F2	M75	W/12	: To D101
A4	M9	W/16	: To D1	B3	M76	W/6	: Electric brake (pre-wiring)
A3	M10	Y/4	: To E29	D1	M77	Y/4	: Front passenger air bag module (service replacement)
C3	M13	BR/3	: Front passenger air bag OFF indicator	E1	M79	—	: Body ground
E3	M16	W/12	: To B162	B4	M80	GR/8	: Off-road lamps switch
E3	M17	W/16	: To B163	B4	M81	L/4	: Off-road lamps relay
B2	M18	W/40	: BCM (body control module)	E3	M85	W/4	: Aux in jack
B3	M19	W/15	: BCM (body control module)	B4	M91	W/16	: To E26
B3	M20	B/15	: BCM (body control module)	E2	M105	Y/2	: Front passenger air bag module
C4	M21	W/4	: NATS antenna amp.	E2	M106	O/2	: Front passenger air bag module
C3	M22	W/16	: Data link connector	A2	M109	BR/2	: Front tweeter LH
B2	M24	W/40	: Combination meter	E1	M111	BR/2	: Front tweeter RH
B3	M26	W/6	: Ignition switch	E2	M120	W/4	: Remote keyless entry receiver
B3	M27	W/2	: Key switch	E2	M121	W/4	: Variable blower control (front)
C3	M28	W/16	: Combination switch	E2	M122	W/4	: Front blower motor resistor
C4	M29	Y/6	: Combination switch	C4	M123	W/2	: Tire pressure warning check connector
C4	M30	GR/8	: Combination switch	D4	M141	GR/8	: 4WD shift switch
F2	M31	SMJ	: To E152	C2	M142	B/6	: Mode door motor
E5	M35	Y/28	: Air bag diagnosis sensor unit	D3	M146	GR/2	: Intake sensor
F3	M36	SMJ	: To B149	D2	M147	B/6	: Air mix door motor
A4	M40	SMJ	: To B69	D3	M149	W/6	: Differential lock mode switch
A4	M41	W/16	: Satellite radio tuner	C3	M150	W/2	: Ignition keyhole illumination
E3	M42	W/12	: Audio unit (with premium audio system)	C2	M151	L/20	: Joint connector-M01
E3	M43	W/20	: Audio unit (with base audio system)	A3	M152	W/26	: Transfer control unit
E2	M44	W/6	: Audio unit (with premium audio system)	B4	M153	W/24	: Transfer control unit
D3	M45	W/16	: Audio unit (with premium audio system)	D4	M154	GR/6	: VDC OFF switch
E3	M46	W/10	: Audio unit (with premium audio system)	D4	M155	W/8	: Hill descent control switch
C4	M47	W/8	: Steering angle sensor	D4	M156	W/10	: A/T shift selector
D3	M49	B/26	: Front air control (with type 2)	B4	M159	W/16	: Door mirror remote control switch
D2	M50	B/26	: Front air control (with type 1)	B3	M163	W/8	: Clutch interlock cancel switch
C3	M51	W/8	: Front blower switch	D1	M167	L/20	: Joint connector-M02
E3	M53	B/3	: Front power socket	A3	M168	L/4	: Accessory relay-2 (late production)
C3	M55	W/4	: Hazard switch	Console sub-harness			
B3	M57	—	: Body ground	E4	M204	W/6	: To M63
E2	M58	B/6	: Intake door motor	F5	M207	B/3	: Console power socket
D2	M61	—	: Body ground				

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

ENGINE ROOM HARNESS (RH VIEW)



Refer to "ENGINE ROOM HARNESS (LH VIEW)" for continuation of engine room harness.

E3	E2	W/16	: To F32	F2	E123	BR/8	: IPDM E/R (intelligent power distribution module engine room)
E3	E5	W/24	: To F14	E1	E124	B/6	: IPDM E/R (intelligent power distribution module engine room)

HARNESSES

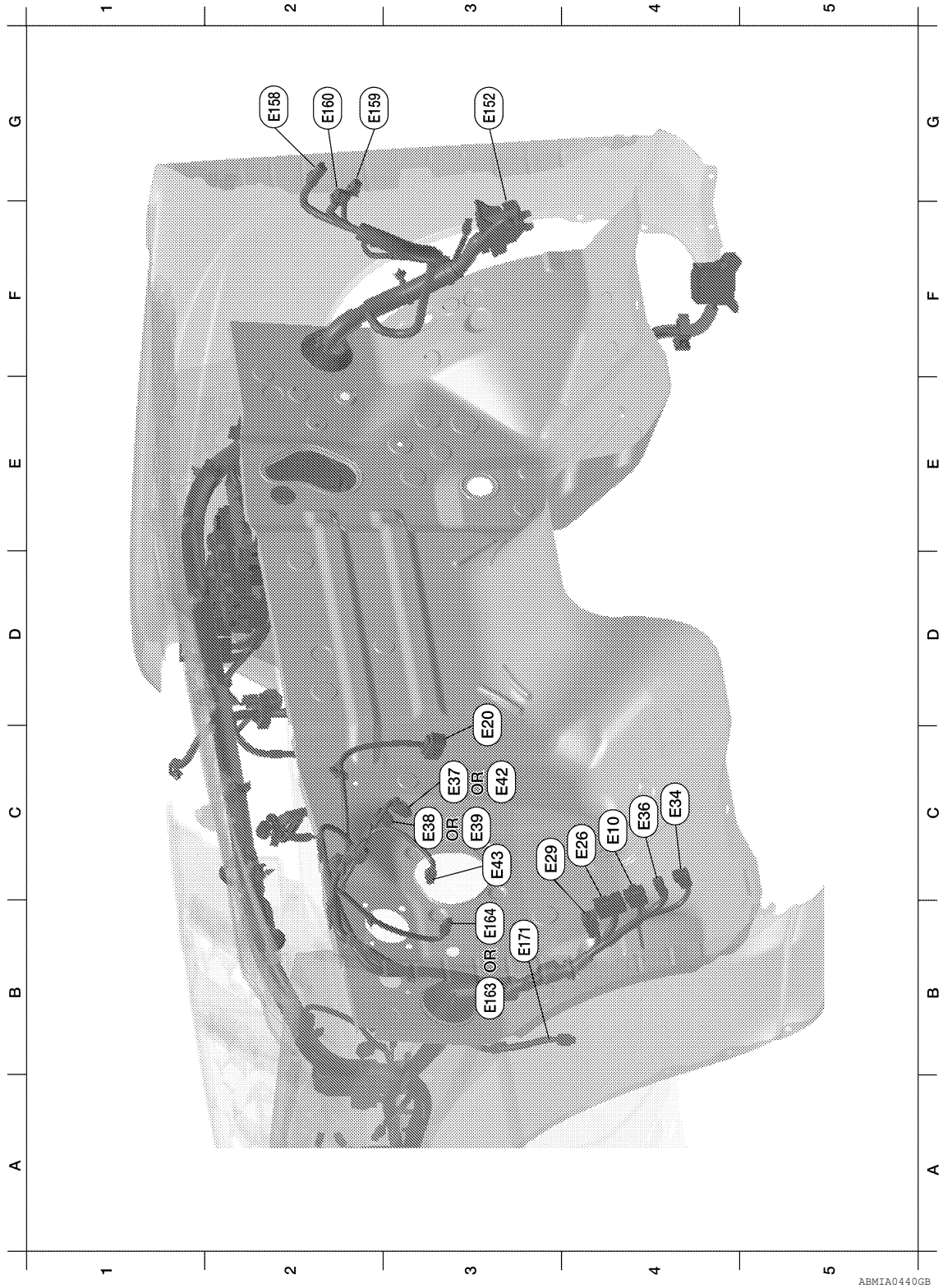
< DTC/CIRCUIT DIAGNOSIS >

D1	E12	L/4	: Stop lamp relay	C2	E128	GR/2	: Fusible link box (battery)
B2	E15	—	: Body ground	C2	E129	B/2	: Fusible link box (battery)
D1	E16	B/40	: ECM	D4	E150	—	: Battery ground
E2	E19	W/16	: To F33	C3	E151	—	: Negative battery cable
C2	E24	—	: Body ground	D3	E156	L/4	: Transfer shut off relay 1
C2	E30	—	: Fusible link box (battery)	D3	E157	L/4	: Transfer shut off relay 2
D3	E40	GR/9	: To E201	D3	E161	B/3	: Battery current sensor
G4	E41	SMJ	: To C1	D1	E166	BR/6	: Clutch interlock cancel relay 2
D1	E45	BR/6	: Back-up lamp relay (with A/T)	C3	E167	B/2	: Diode-3
C1	E46	B/5	: Transfer shift high relay	C3	E168	W/12	: To E225
D3	E47	B/5	: Transfer shift low relay	C1	E169	L/4	: Trailer turn relay LH
C5	E48	B/3	: Refrigerant pressure sensor	E3	E170	L/4	: Trailer turn relay RH
D2	E54	BR/6	: Front blower motor relay	Generator sub-harness			
A5	E102	B/2	: Front fog lamp RH	D3	E201	GR/9	: To E40
D1	E103	B/5	: Daytime light relay 1	C3	E202	—	: Fusible link box (battery)
E2	E104	L/5	: Daytime light relay 2	C3	E203	—	: Body ground
E3	E105	B/2	: Front and rear washer motor	C2	E204	—	: Fusible link box (battery)
F2	E106	BR/2	: Washer fluid level switch	D5	E205	B/3	: Generator
A3	E107	B/3	: Front combination lamp RH	E4	E206	—	: Generator
A3	E108	GR/2	: Front combination lamp RH	F5	E207	GR/1	: Starter motor
A3	E111	GR/3	: Front combination lamp RH	E5	E208	GR/1	: Oil pressure switch
C3	E113	GR/4	: Cooling fan motor	E4	E209	—	: Generator
D3	E117	GR/2	: Front wheel sensor RH	F4	E210	B/1	: Starter motor
E2	E118	B/2	: IPDM E/R (intelligent power distribution module engine room)	Trailer tow relay sub-harness			
F1	E119	W/16	: IPDM E/R (intelligent power distribution module engine room)	C3	E225	W/12	: To E168
E1	E120	W/6	: IPDM E/R (intelligent power distribution module engine room)	C3	E226	L/4	: Back-up lamp relay (with M/T)
E2	E121	BR/12	: IPDM E/R (intelligent power distribution module engine room)	C2	E227	L/4	: Trailer tow relay 1
E1	E122	W/12	: IPDM E/R (intelligent power distribution module engine room)	C2	E228	BR/6	: Trailer tow relay 2

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)



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C4	E10	W/6	: To M6	C3	E42	BR/2	: ASCD brake switch (with A/T)
D3	E20	B/6	: Accelerator pedal position (APP) sensor	C3	E43	L/2	: ASCD clutch switch
C4	E26	W/16	: To M91	G3	E152	SMJ	: To M31
C3	E29	Y/4	: To M10	G2	E158	B/1	: Fuse block (J/B)

HARNESS

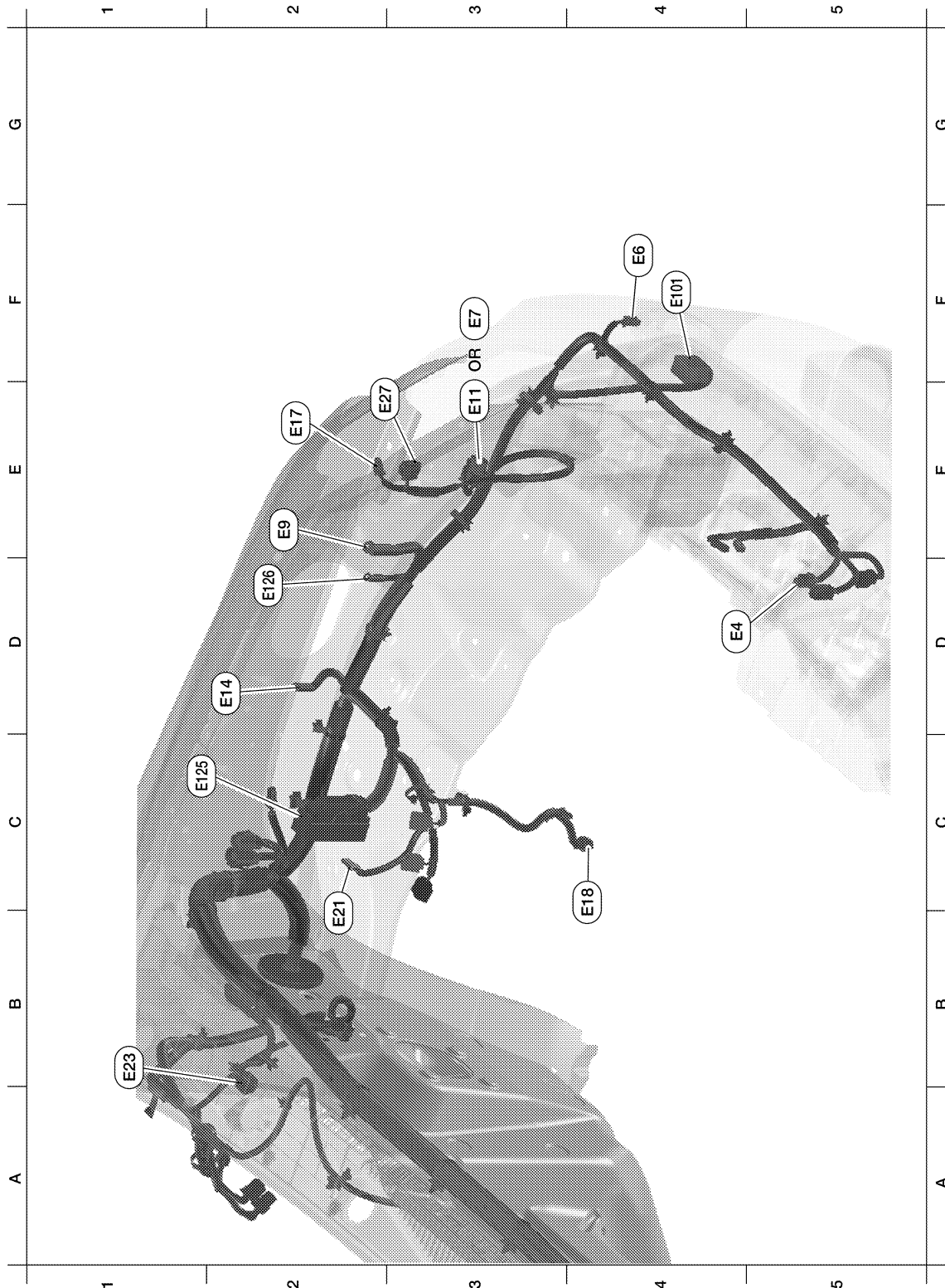
< DTC/CIRCUIT DIAGNOSIS >

C4	E34	W/8	: To B40	G2	E159	B/2	: Fuse block (J/B)
C4	E36	W/2	: To B42	G2	E160	W/8	: Fuse block (J/B)
C3	E37	BR/2	: ASCD brake switch (with M/T)	B3	E163	L/2	: Clutch interlock switch (with clutch interlock cancel system)
C3	E38	B/2	: Stop lamp switch (with M/T)	B3	E164	L/2	: Clutch interlock switch (without clutch interlock cancel system)
C3	E39	W/4	: Stop lamp switch (with A/T)	B3	E171	B/5	: Clutch interlock cancel relay 1

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

ENGINE ROOM HARNESS (LH VIEW)



Refer to "ENGINE ROOM HARNESS (RH VIEW)" for continuation of engine room harness.

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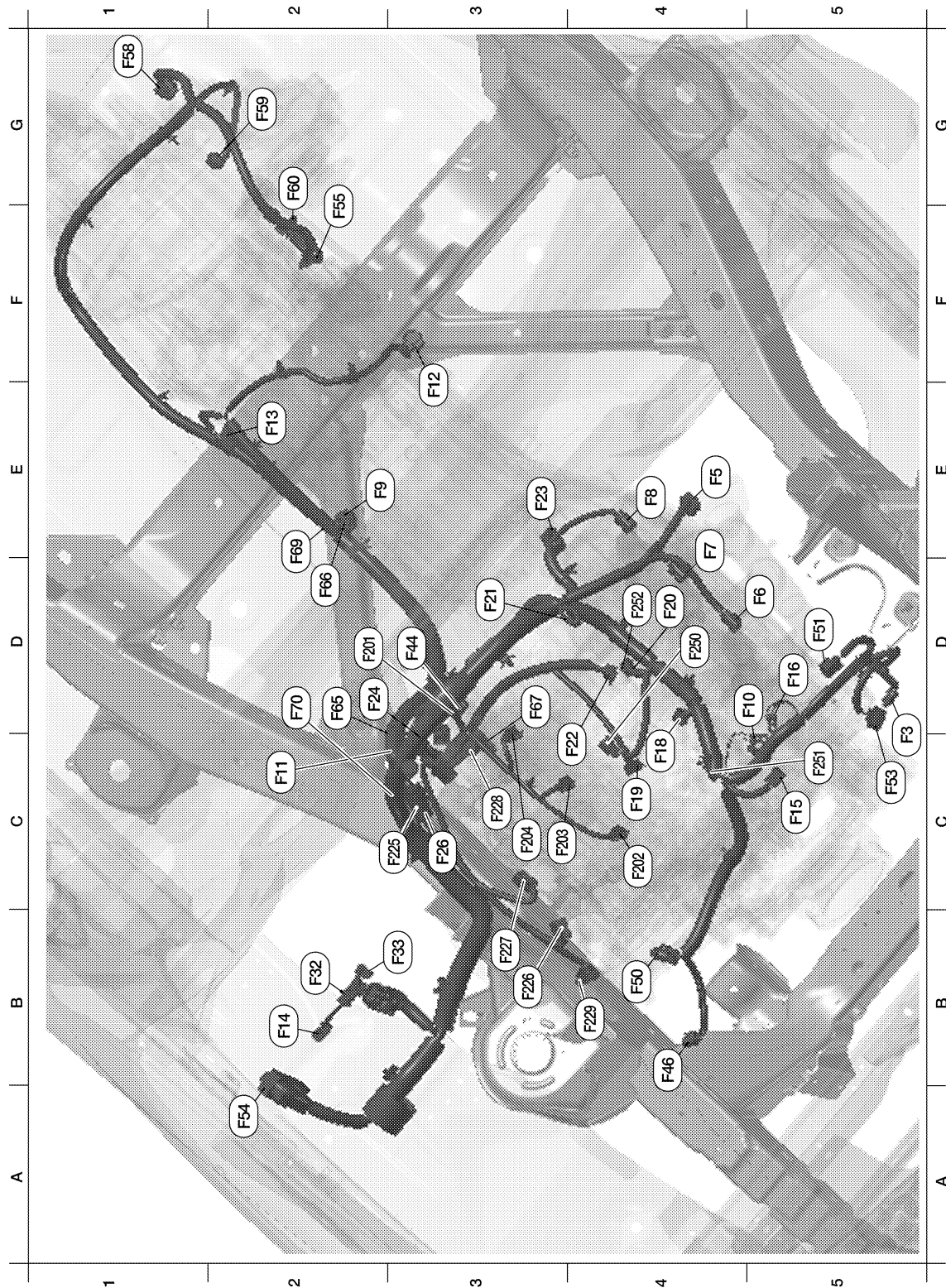
D4	E4	Y/2	: Crash zone sensor	C4	E18	GR/2	: Front wheel sensor LH
F4	E6	B/2	: Horn	B2	E21	GR/2	: Brake fluid level switch
F3	E7	B/3	: Front combination lamp LH (with daytime light system)	B1	E23	GR/5	: Front wiper motor

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

E2	E9	—	: Body ground	E2	E27	GR/3	: Front combination lamp LH
E3	E11	B/3	: Front combination lamp LH (without daytime light system)	F4	E101	B/2	: Front fog lamp LH
D2	E14	—	: Body ground	C1	E125	B/47	: ABS actuator and electric unit (control unit)
E2	E17	GR/2	: Front combination lamp LH	D2	E126	—	: Body ground

ENGINE CONTROL HARNESS



HARNESS

< DTC/CIRCUIT DIAGNOSIS >

C5	F3	B/1	: A/C Compressor	C5	F53	B/6	: Mass air flow sensor	A	
E4	F5	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 2)	A2	F54	B/81	: ECM		
D5	F6	GR/3	: Ignition coil No. 2 (with power transistor)	F2	F55	B/2	: ATP switch	B	
E4	F7	GR/3	: Ignition coil No. 4 (with power transistor)	G1	F58	B/8	: Transfer control device		
E4	F8	GR/3	: Ignition coil No. 6 (with power transistor)	G2	F59	GR/2	: Wait detection switch	C	
E2	F9	G/10	: A/T assembly	G2	F60	GR/2	: 4LO switch		
D5	F10	—	: Engine ground	D2	F65	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 1)	D	
C2	F11	B/3	: Crankshaft position sensor (POS)	D2	F66	B/2	: Park/neutral position (PNP) switch		
F3	F12	G/4	: Heated oxygen sensor 2 (bank 2)	D3	F67	L/4	: To F250	E	
E2	F13	L/4	: Heated oxygen sensor 2 (bank 1)	E2	F69	W/2	: Back-up lamp switch		
B2	F14	W/24	: To E5	D2	F70	G/3	: Camshaft position sensor (PHASE) (bank 1)	F	
C5	F15	GR/2	: EVAP canister purge volume control solenoid valve	Injector sub-harness					G
D5	F16	—	: Engine ground	D2	F201	G/4	: To F44		
C4	F18	GR/2	: Fuel injector No. 2	C4	F202	GR/2	: Fuel injector No.1	H	
C4	F19	B/2	: VIAS control solenoid valve	C3	F203	GR/2	: Fuel injector No.3		
D4	F20	GR/2	: Fuel injector No. 4	C3	F204	GR/2	: Fuel injector No.5	I	
D3	F21	W/2	: Condenser-1	Ignition coil sub-harness					J
D4	F22	GR/2	: Fuel injector No. 6	C3	F225	G/8	: To F26		
E3	F23	B/3	: Camshaft position sensor (PHASE) (bank 2)	B3	F226	GR/3	: Ignition coil No.1 (with power transistor)	K	
D2	F24	GR/2	: Engine coolant temperature sensor	B3	F227	GR/3	: Ignition coil No.3 (with power transistor)		
C3	F26	G/8	: To F225	C3	F228	GR/3	: Ignition coil No.5 (with power transistor)	L	
B2	F32	W/16	: To E2	B4	F229	G/2	: Intake valve timing control solenoid valve (bank 1)		
B3	F33	W/16	: To E19	Knock sensor sub-harness					
D3	F44	G/4	: To F201	D4	F250	L/4	: To F67		
B4	F46	B/3	: Power steering pressure sensor	C5	F251	GR/2	: Knock sensor (bank 1)		
B4	F50	W/6	: Electric throttle control actuator	D4	F252	GR/2	: Knock sensor (bank 2)		
D5	F51	G/2	: Intake valve timing control solenoid valve (bank 2)						

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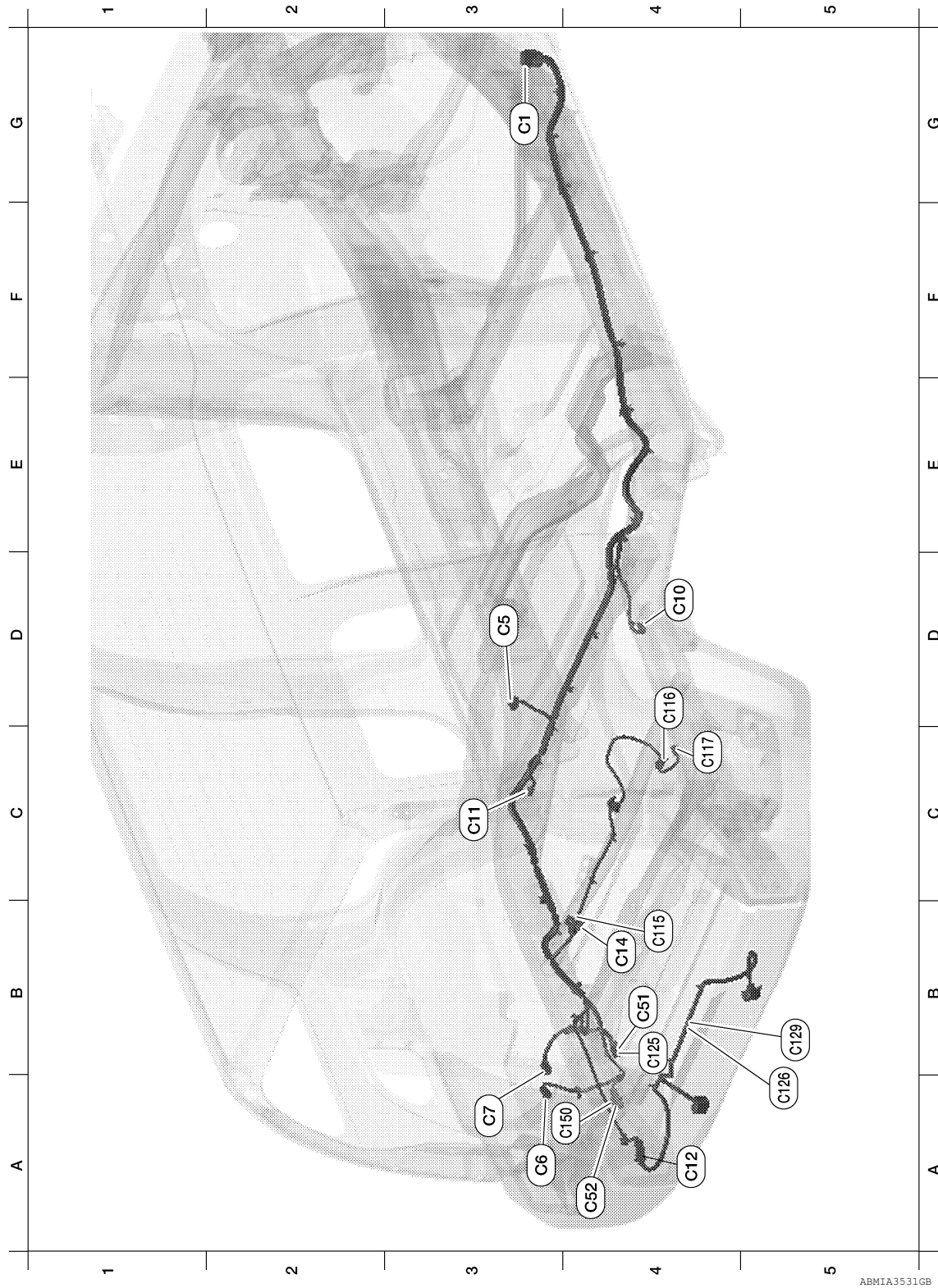
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HARNESS

< DTC/CIRCUIT DIAGNOSIS >

CHASSIS HARNESS



ABMIA3531GB

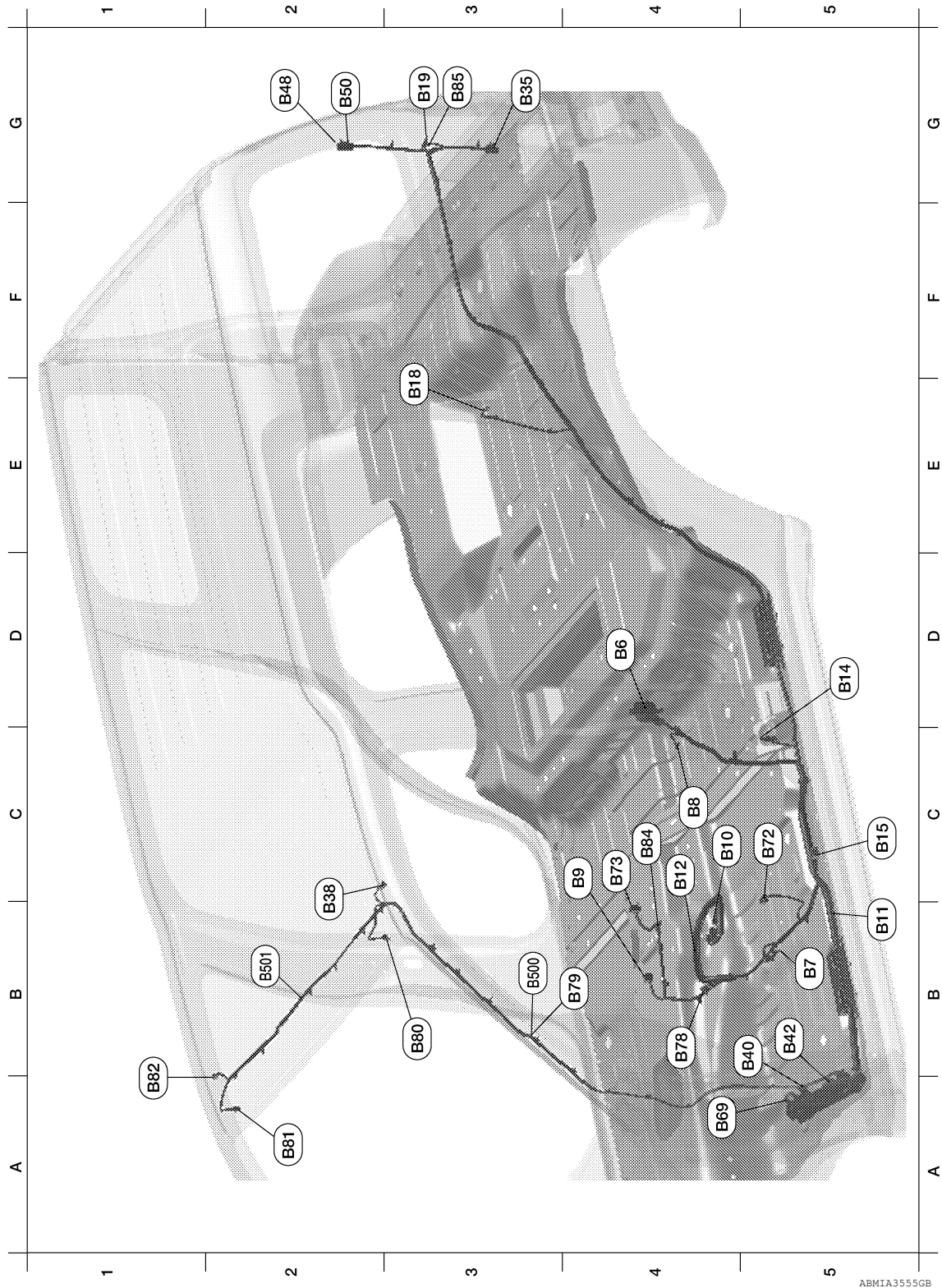
G3	C1	SMJ	: To E41	Differential sub-harness			
D3	C5	GR/5	: Fuel level sensor unit and fuel pump	B4	C115	GR/4	: To C14
A3	C6	B/2	: EVAP canister vent control valve	C4	C116	GR/2	: Differential lock position switch
A3	C7	GR/3	: EVAP control system pressure sensor	C4	C117	B/2	: Differential lock solenoid
D4	C10	GR/2	: Rear wheel sensor RH	Trailer sub-harness			

HARNESSES

< DTC/CIRCUIT DIAGNOSIS >

C3	C11	BR/2	: Rear wheel sensor LH	B4	C125	GR/6	: To C51
A4	C12	W/2	: License plate lamp	A5	C126	B/7	: Trailer
B4	C14	GR/4	: To C115	B5	C129	B/7	: Trailer receptacle
B4	C51	GR/6	: To C125	A4	C150	B/2	: To C52
A4	C52	B/2	: To C150	A4	C150	B/2	: To C52

BODY HARNESS



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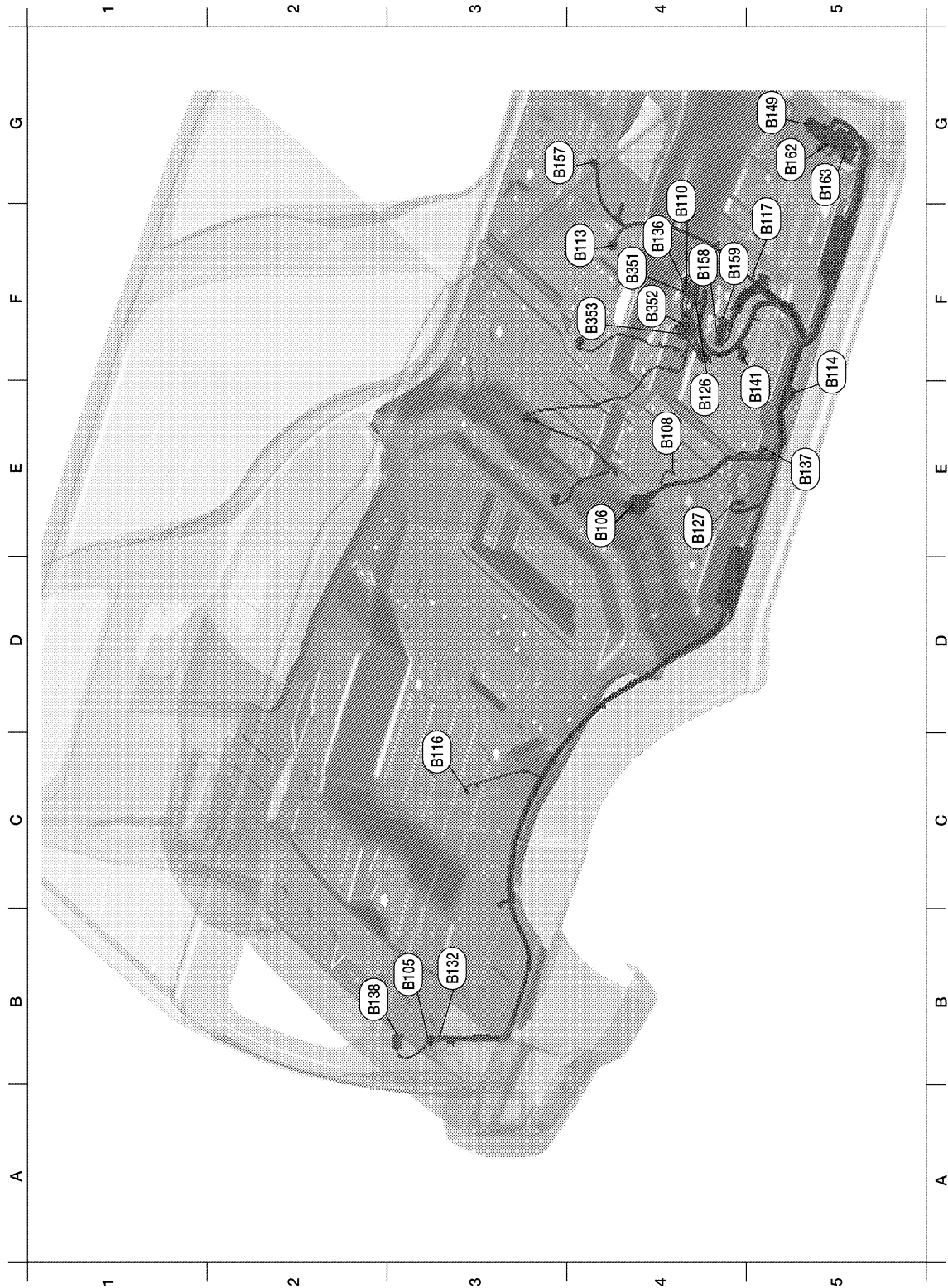
< DTC/CIRCUIT DIAGNOSIS >

D4	B6	W/12	: To D201	G2	B48	W/8	: To D402
B5	B7	—	: Body ground	G2	B50	W/2	: To D410
C4	B8	W/3	: Front door switch LH	A4	B69	SMJ	: To M40
C4	B9	Y/22	: Air bag diagnosis sensor unit	C5	B72	W/4	: Subwoofer
C4	B10	Y/2	: Front LH side air bag module	C4	B73	B/4	: Yaw rate/side/decel G sensor
B5	B11	—	: Body ground	B4	B78	Y/2	: To B157
C4	B12	W/4	: Seat belt buckle switch LH	B4	B79	W/6	: To B500
D5	B14	Y/2	: Front LH seat belt pre-tensioner	B3	B80	W/2	: Vanity lamp LH
C5	B15	Y/2	: LH side air bag (satellite) sensor	A2	B81	W/2	: Vanity lamp RH
E3	B18	W/3	: Rear door switch LH	A1	B82	Y/2	: RH side curtain air bag module
G3	B19	—	: Body ground	C4	B84	B/1	: Parking brake switch
G3	B35	W/6	: Rear combination lamp LH	G3	B85	—	: Body ground
C2	B38	Y/2	: LH side curtain air bag module	Off-road lamps sub-harness			
B5	B40	W/8	: To E34	B3	B500	W/6	: To B79
B5	B42	W/2	: To E36	B2	B501	GR/6	: To B526

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

BODY NO. 2 HARNESS



ABMIA0445GB

B3	B105	W/6	: Rear combination lamp RH	B2	B138	B/3	: Rear cargo power socket
E4	B106	W/12	: To D301	E5	B141	W/32	: Bluetooth control unit
E4	B108	W/3	: Front door switch RH	G5	B149	SMJ	: To M36
F4	B110	W/4	: Seat belt buckle switch RH	G4	B157	Y/2	: To B78
F4	B113	Y/22	: Air bag diagnosis sensor unit	F4	B158	W/8	: Audio amplifier

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HARNESSES

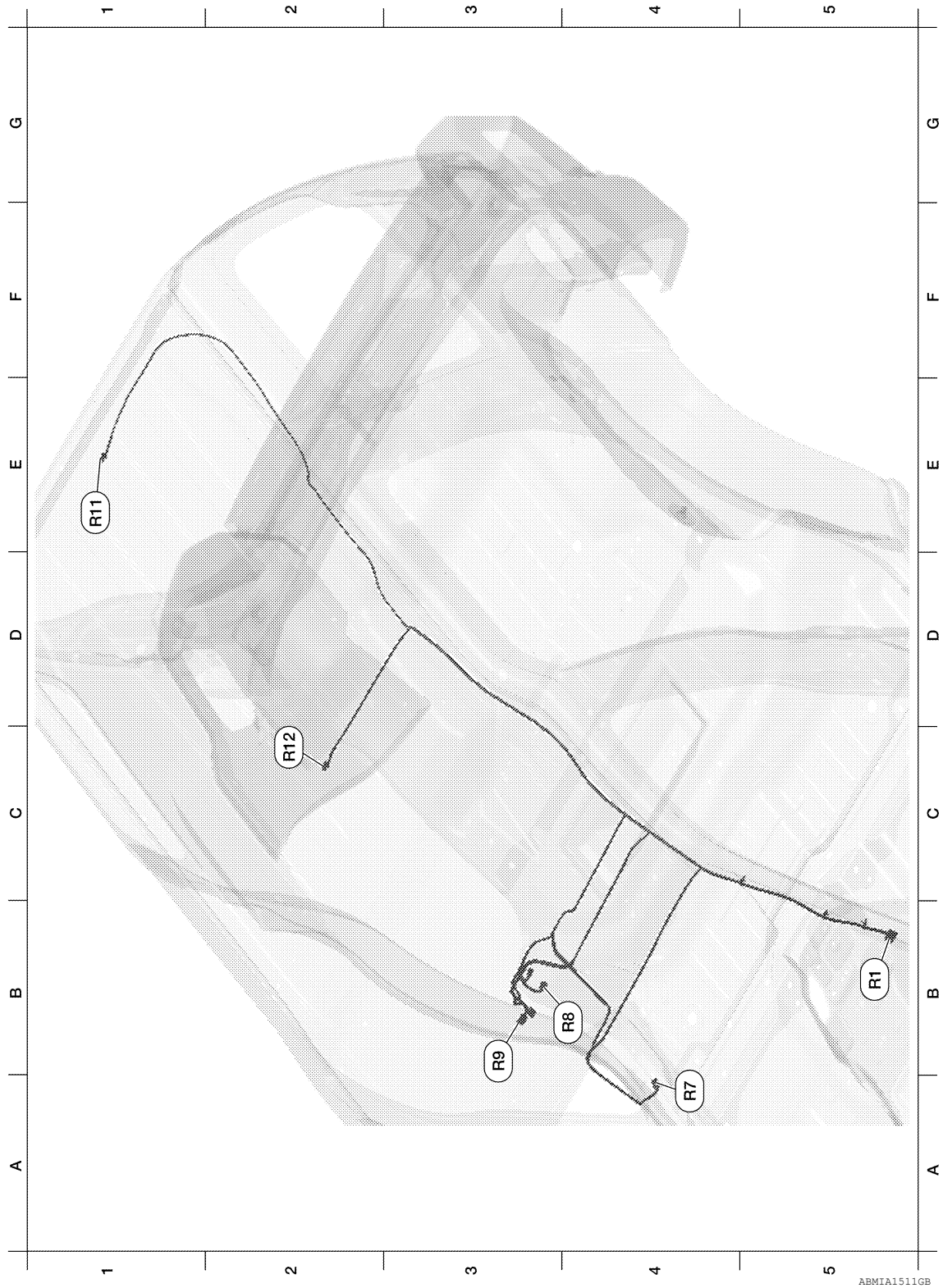
< DTC/CIRCUIT DIAGNOSIS >

E5	B114	Y/2	: RH side air bag (satellite) sensor	F4	B159	W/24	: Audio amplifier
C3	B116	W/3	: Rear door switch RH	G5	B162	W/12	: To M16
F5	B117	—	: Body ground	G5	B163	W/16	: To M17
E4	B126	Y/2	: Front RH side air bag module	RH front seat harness			
E4	B127	Y/2	: Front RH seat belt pre-tensioner	F4	B351	W/8	: To B136
B3	B132	—	: Body ground	F4	B352	B/18	: Occupant classification system control unit
F4	B136	W/8	: To B351	F4	B353	B/3	: Occupant classification system sensor
E5	B137	W/3	: Belt tension sensor				

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

ROOM LAMP HARNESS

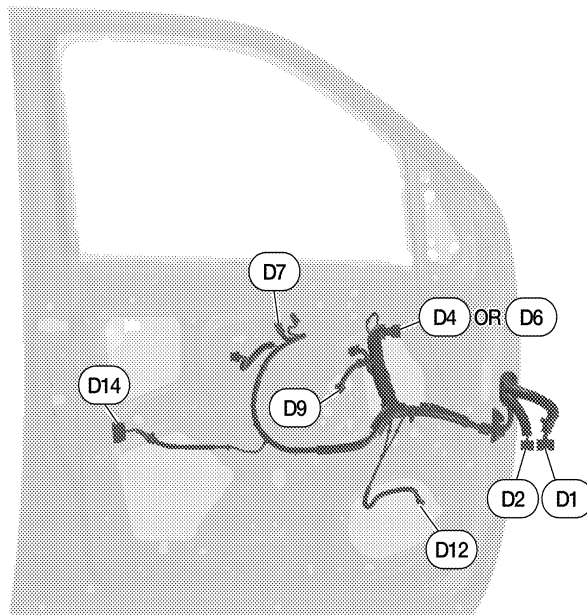


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B5	R1	W/24	: To M1	B3	R9	W/3	: Front room/map lamp assembly
A4	R7	W/7	: Auto anti-dazzling inside mirror	E1	R11	W/2	: Cargo lamp
B4	R8	W/4	: Microphone	C2	R12	W/2	: Room lamp 2nd row

HARNESS

< DTC/CIRCUIT DIAGNOSIS > FRONT DOOR LH HARNESS

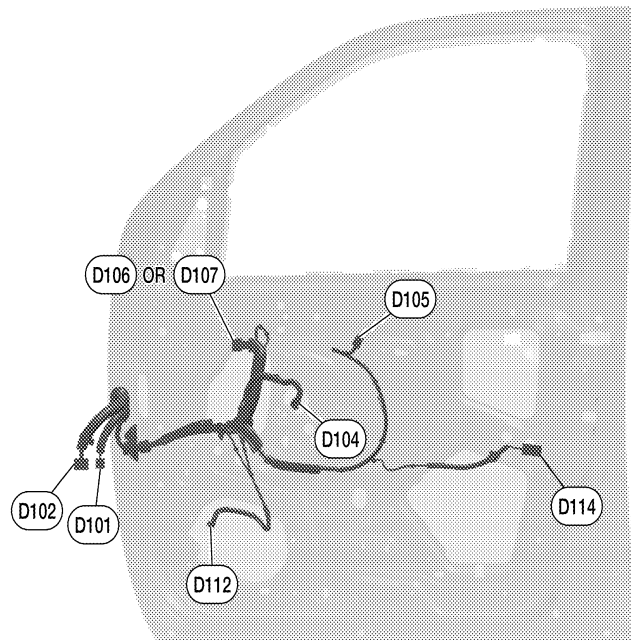


ABMIA2610GB

D1	W/16	: To M9	D7	W/16	: Main power window and door lock/unlock switch
D2	BR/12	: To M8	D9	BR/2	: Front power window motor LH
D4	B/10	: Door mirror LH (with heated mirrors)	D12	W/2	: Front door speaker LH
D6	B/3	: Door mirror LH (without heated mirrors)	D14	GR/6	: Front door lock assembly LH

HARNESS

< DTC/CIRCUIT DIAGNOSIS > FRONT DOOR RH HARNESS



ABMIA2611GB

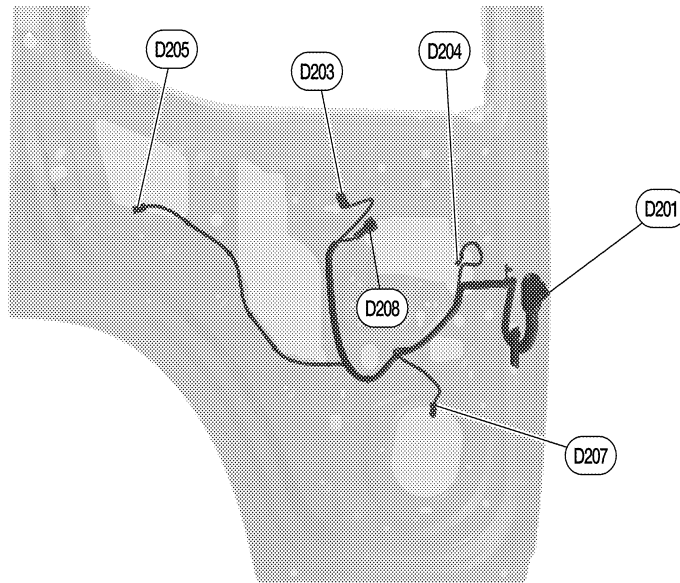
D101	W/12	: To M75	D106	B/3	: Door mirror RH (without heated mirrors)
D102	W/16	: To M74	D107	B/10	: Door mirror RH (with heated mirrors)
D104	BR/2	: Front power window motor RH	D112	W/2	: Front door speaker RH
D105	W/12	: Power window and door lock/unlock switch RH	D114	W/2	: Front door lock actuator RH

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HARNESSES

< DTC/CIRCUIT DIAGNOSIS >

REAR DOOR LH HARNESSES



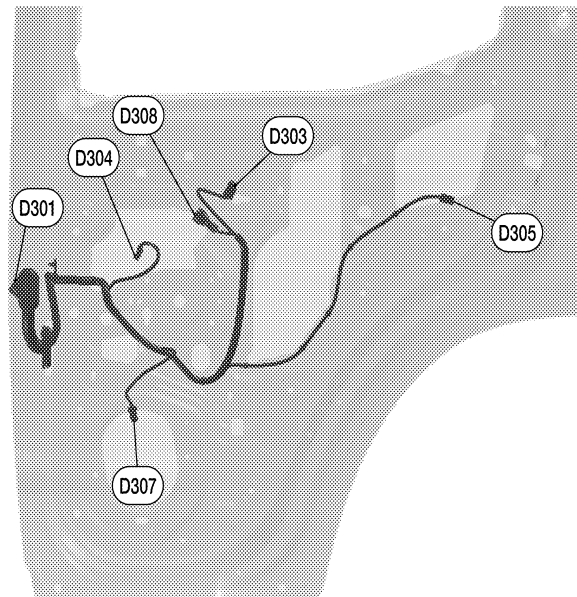
ABMIA2612GB

D201	W/12	: To B6	D205	W/2	: Rear door lock actuator LH
D203	W/8	: Rear power window switch LH	D207	W/2	: Rear door speaker LH
D204	B/2	: Rear power window motor LH	D208	BR/2	: Rear tweeter LH

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

REAR DOOR RH HARNESS



ABMIA2613GB

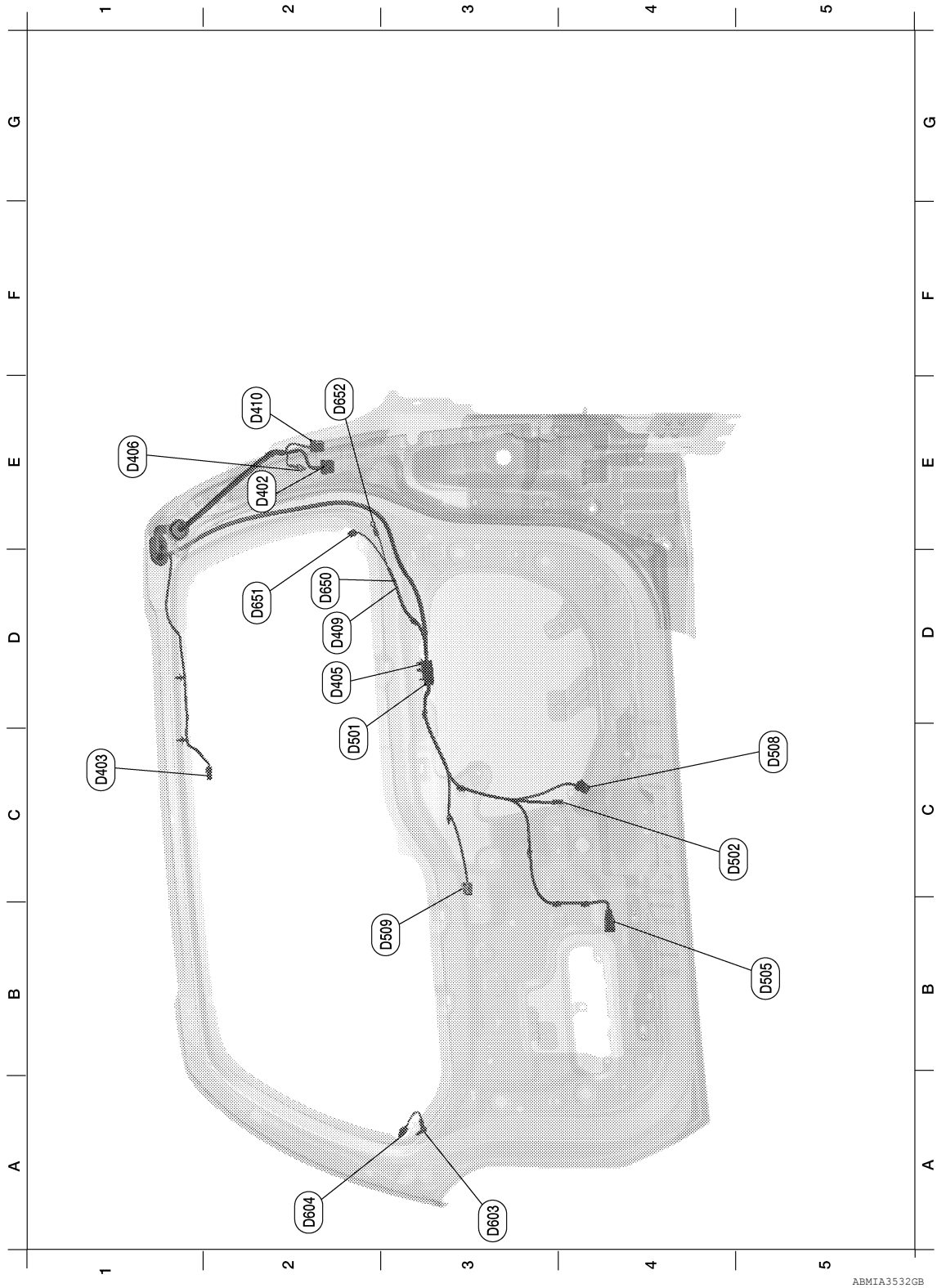
D301	W/12	: To B106	D305	W/2	: Rear door lock actuator RH
D303	W/8	: Rear power window switch RH	D307	W/2	: Rear door speaker RH
D304	B/2	: Rear power window motor RH	D308	BR/2	: Rear tweeter RH

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HARNES

< DTC/CIRCUIT DIAGNOSIS >

BACK DOOR HARNES



ABMIA3532GB

Back door No. 2 harness				B5	D505	BR/3	: Back door key cylinder switch
E2	D402	W/8	: To B48	C5	D508	W/4	: Back door lock actuator
C1	D403	W/2	: High-mounted stop lamp	B3	D509	W/4	: Rear wiper motor
D2	D405	W/8	: To D501	Rear window defogger sub-harness			
E1	D406	—	: Body ground	A3	D603	—	: Body ground

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

D2	D409	W/2	: To D650	A2	D604	B/1	: Rear window defogger
E2	D410	W/2	: To B50	D2	D650	W/2	: To D409
Back door harness				D2	D651	B/1	: Rear window defogger
C2	D501	W/8	: To D405	E2	D652	—	: Body ground
C5	D502	W/3	: Back door switch				

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ELECTRICAL UNITS LOCATION

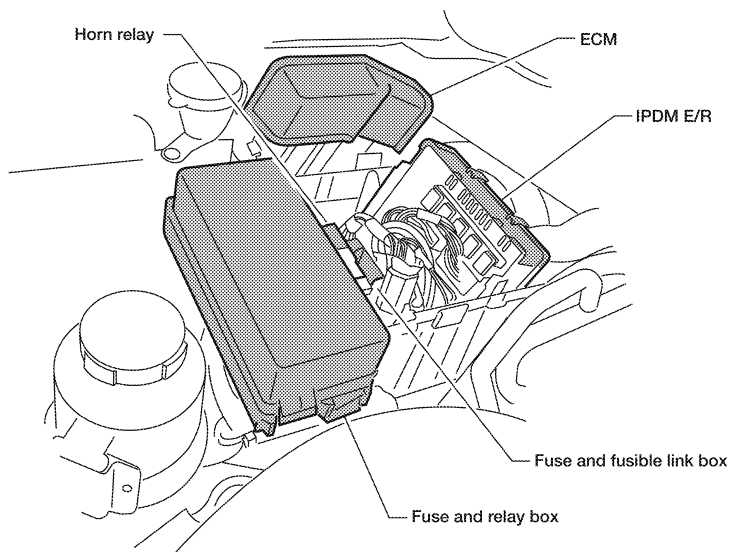
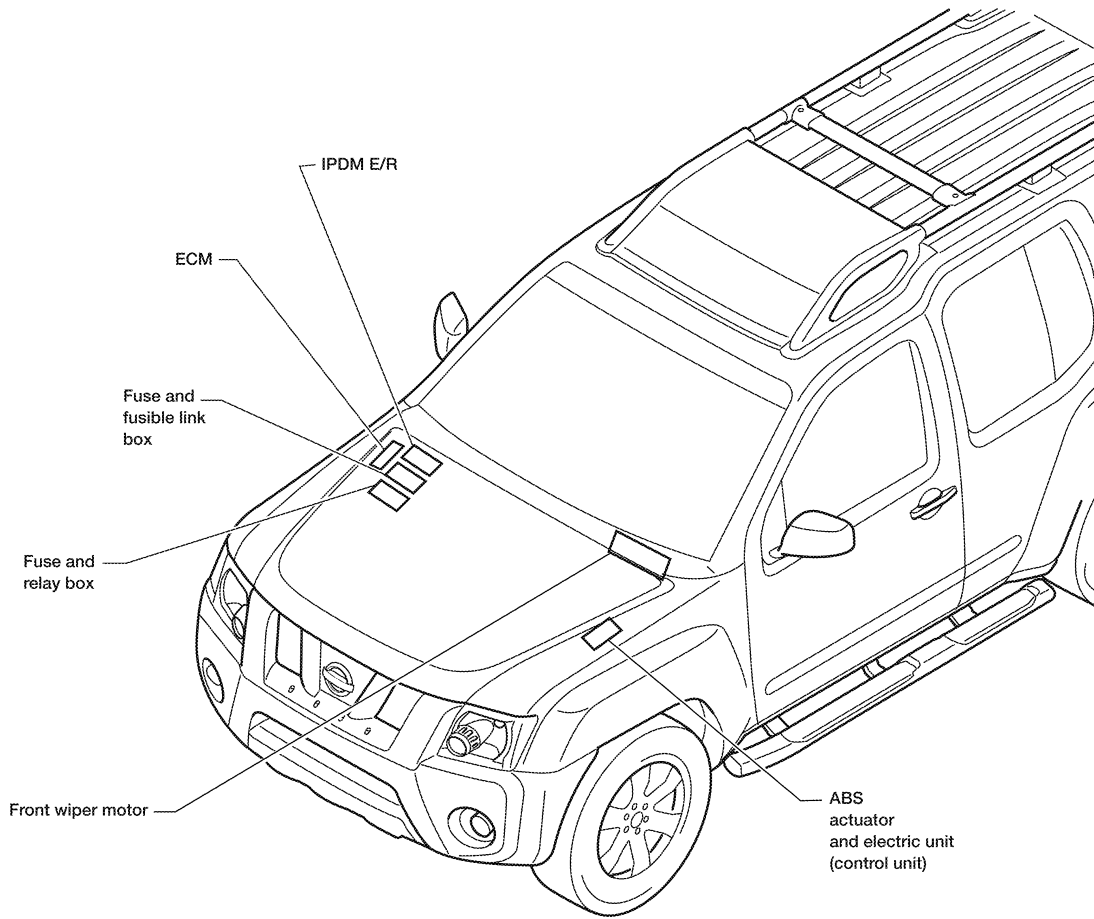
< DTC/CIRCUIT DIAGNOSIS >

ELECTRICAL UNITS LOCATION

Electrical Units Location

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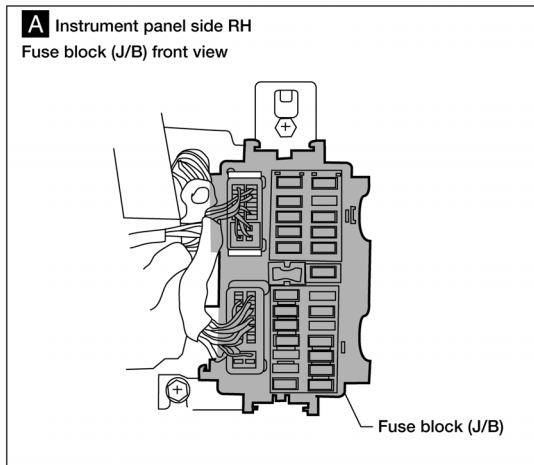
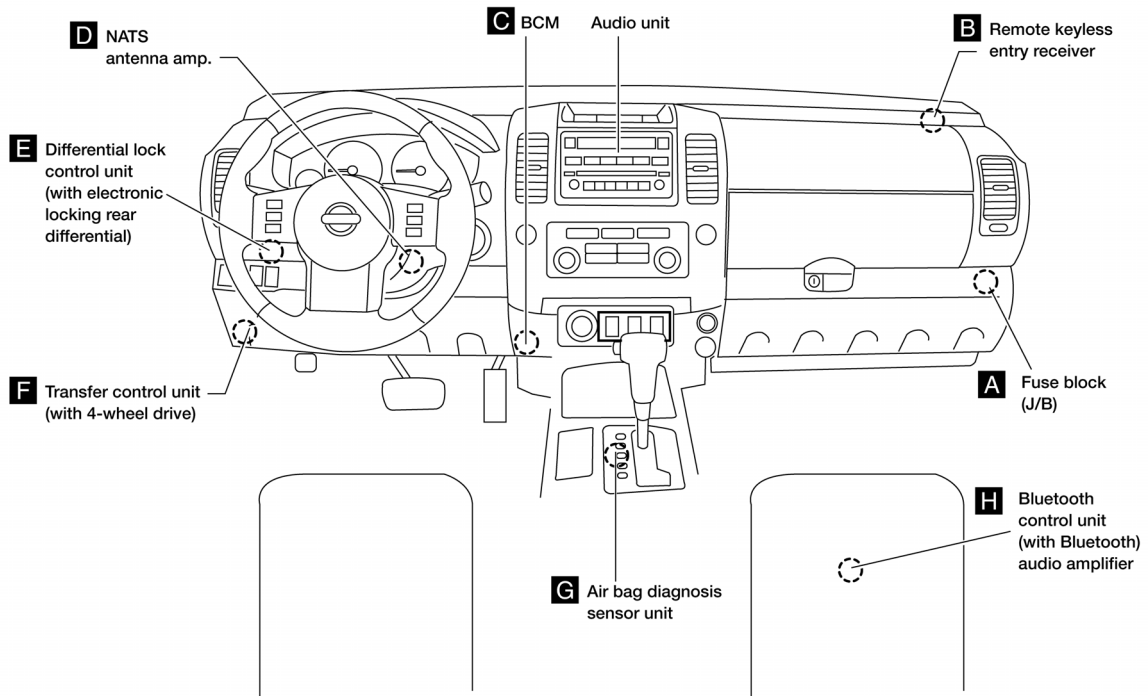
ENGINE COMPARTMENT



ABMIA0412GB

ELECTRICAL UNITS LOCATION

< DTC/CIRCUIT DIAGNOSIS > PASSENGER COMPARTMENT

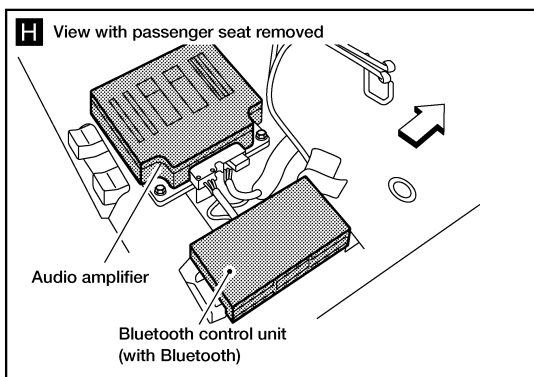
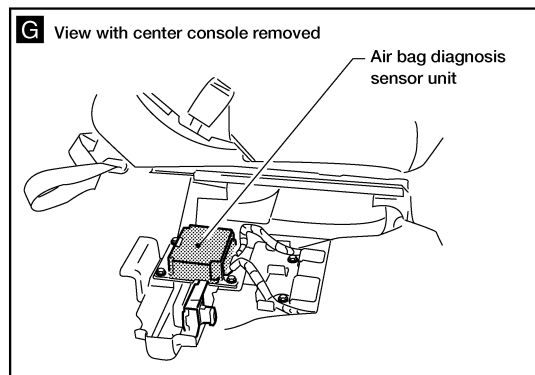
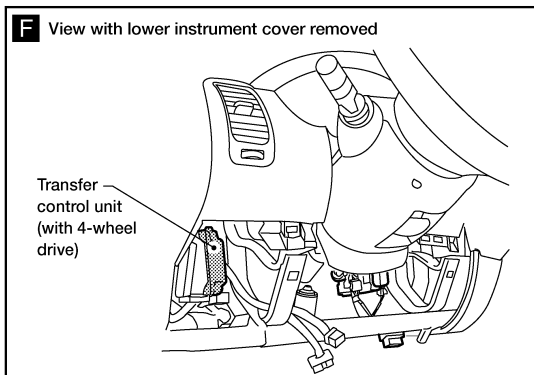
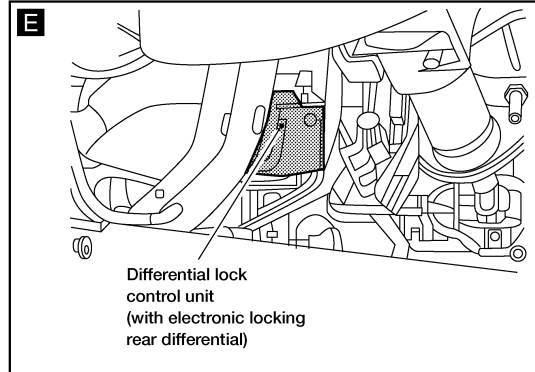
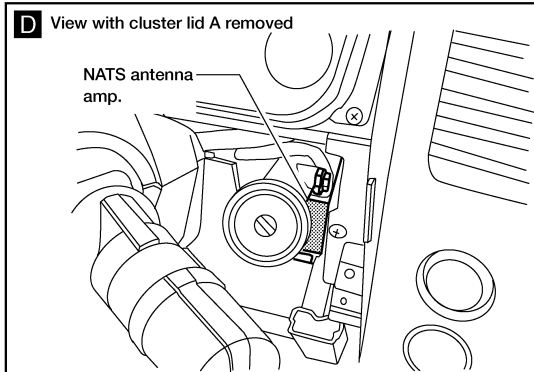
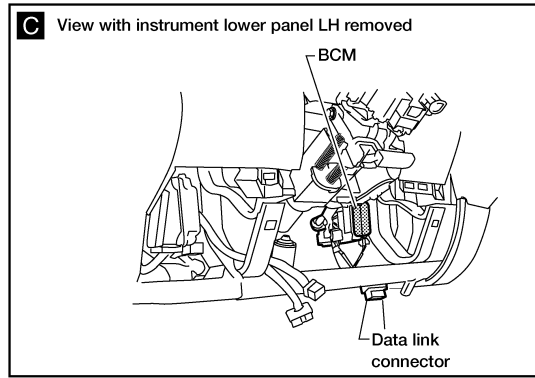
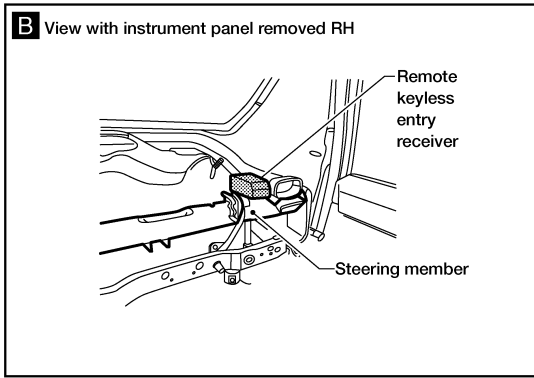


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ELECTRICAL UNITS LOCATION

< DTC/CIRCUIT DIAGNOSIS >



ABMIA3546GB

HARNESS CONNECTOR

< DTC/CIRCUIT DIAGNOSIS >

HARNESS CONNECTOR

Description

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HARNESS CONNECTOR (TAB-LOCKING TYPE)

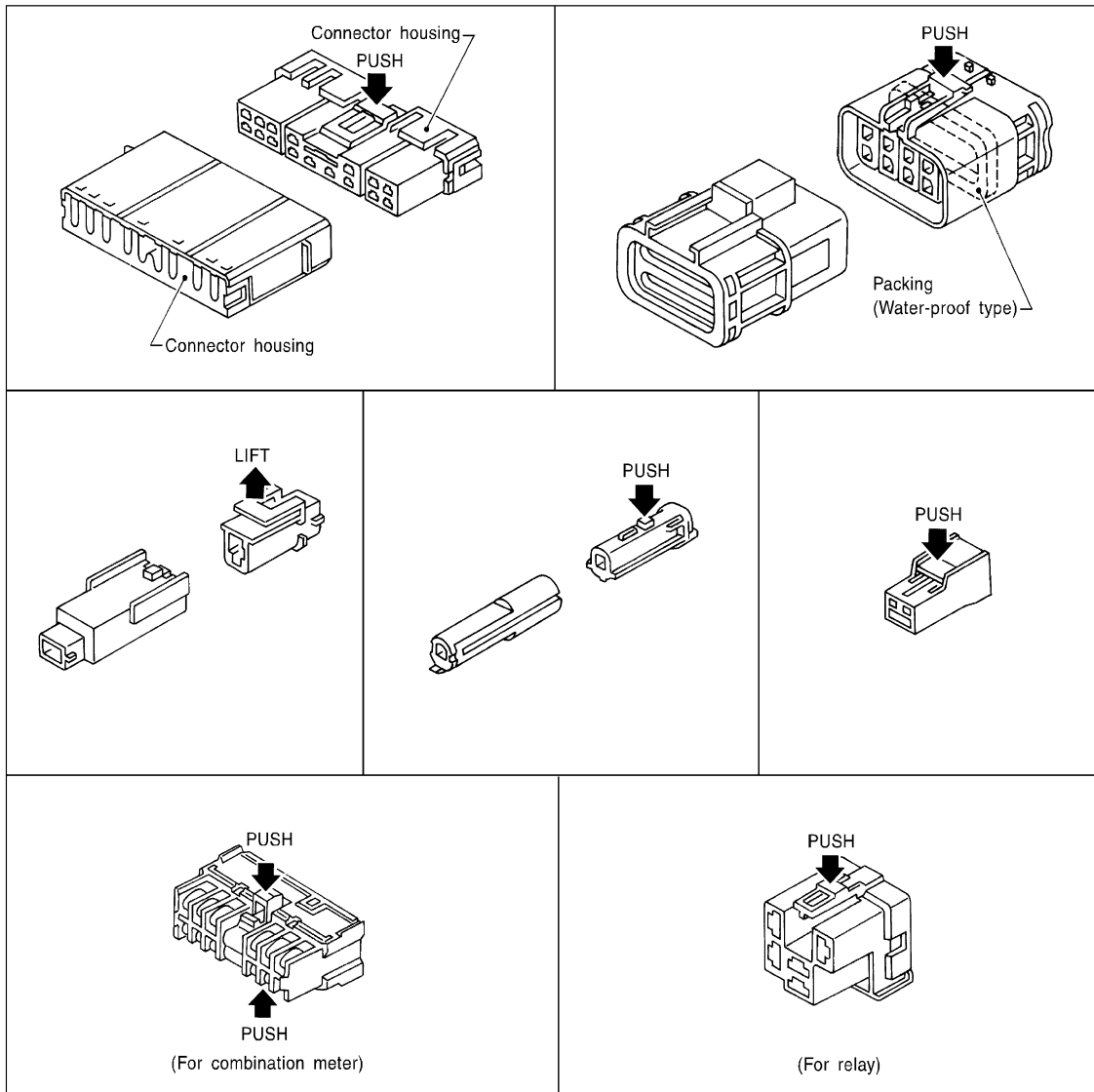
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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

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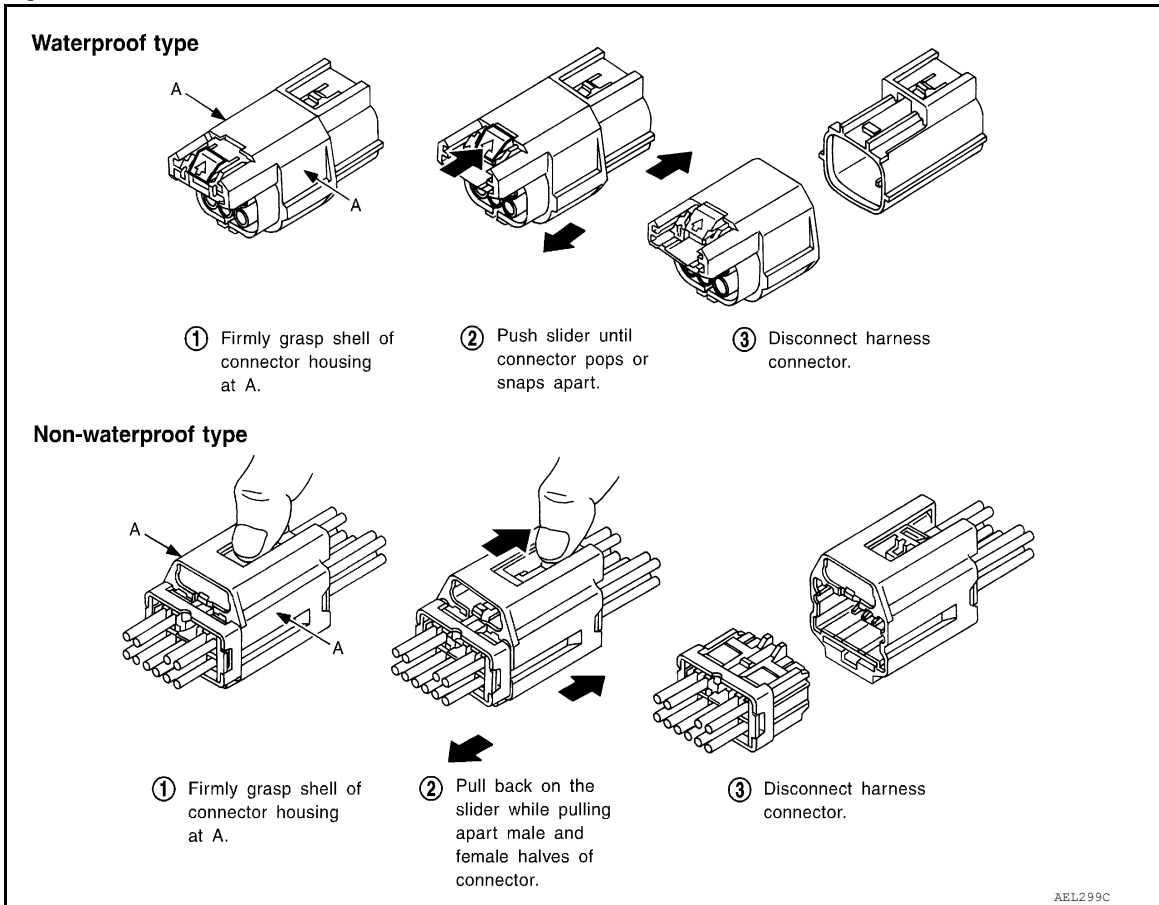
HARNESS CONNECTOR

< DTC/CIRCUIT DIAGNOSIS >

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)

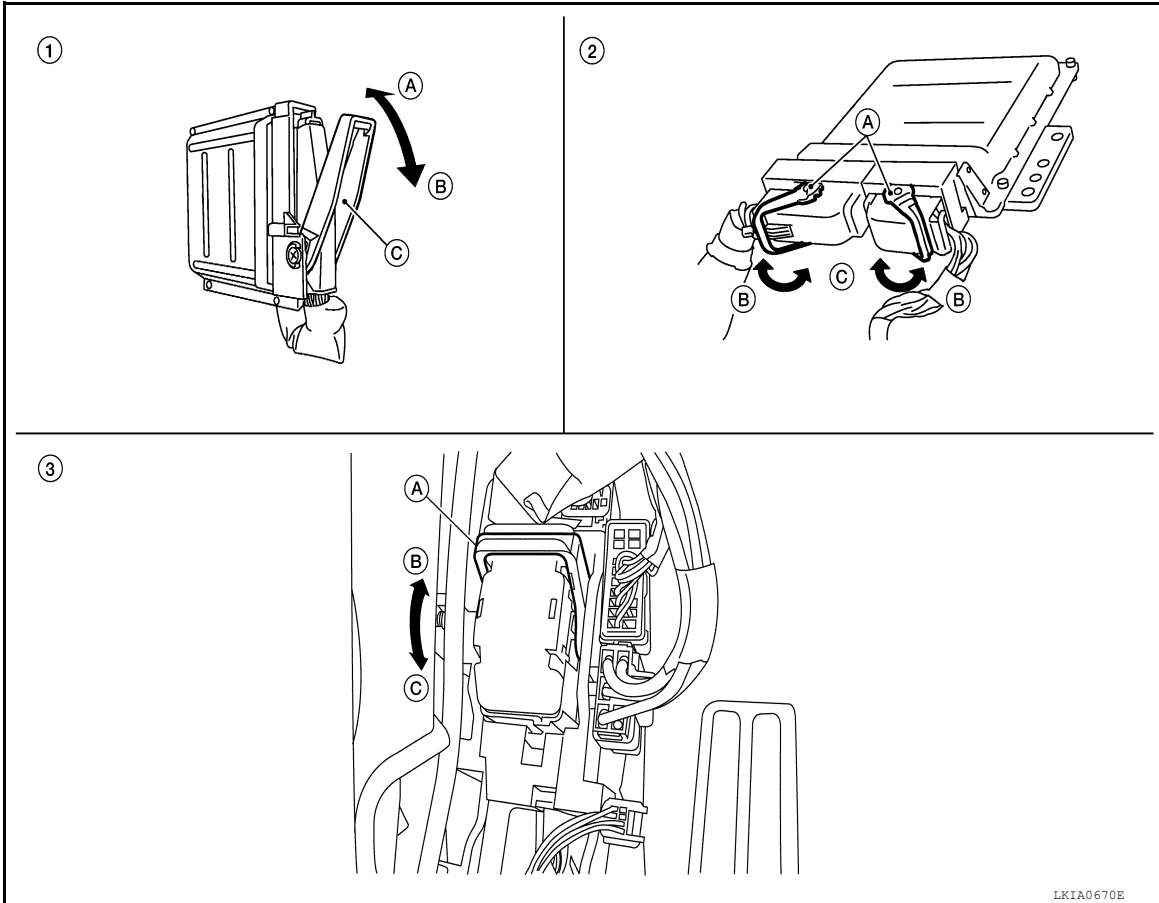
- Lever locking type harness connectors are used on certain control units and control modules such as ECM, ABS actuator and electric unit (control unit), etc.
- Lever locking type harness connectors are also used on super multiple junction (SMJ) connectors.
- Always confirm the lever is fully locked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

CAUTION:

HARNES CONNECTOR

< DTC/CIRCUIT DIAGNOSIS >

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



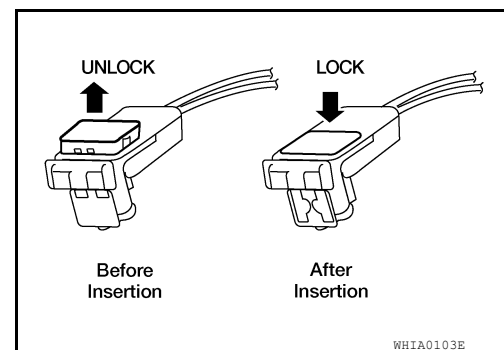
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|--|--|---|
| <p>1. Control unit with single lever</p> <p>A. Fasten</p> <p>B. Loosen</p> <p>C. Lever</p> | <p>2. Control unit with dual levers</p> <p>A. Levers</p> <p>B. Fasten</p> <p>C. Loosen</p> | <p>3. SMJ connector</p> <p>A. Lever</p> <p>B. Fasten</p> <p>C. Loosen</p> |
|--|--|---|

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 component.
- Always push down to lock black locking tab after installing connector to SRS component. When locked, the black locking tab is level with the connector housing.

CAUTION:

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



WHIA0103E

STANDARDIZED RELAY

< DTC/CIRCUIT DIAGNOSIS >

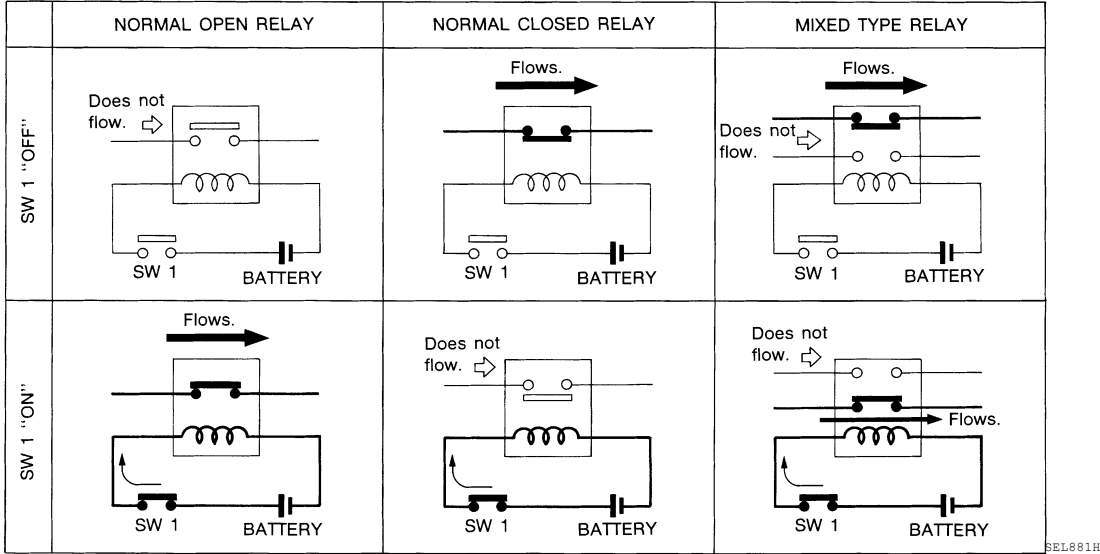
STANDARDIZED RELAY

Description

INFOID:000000007362037

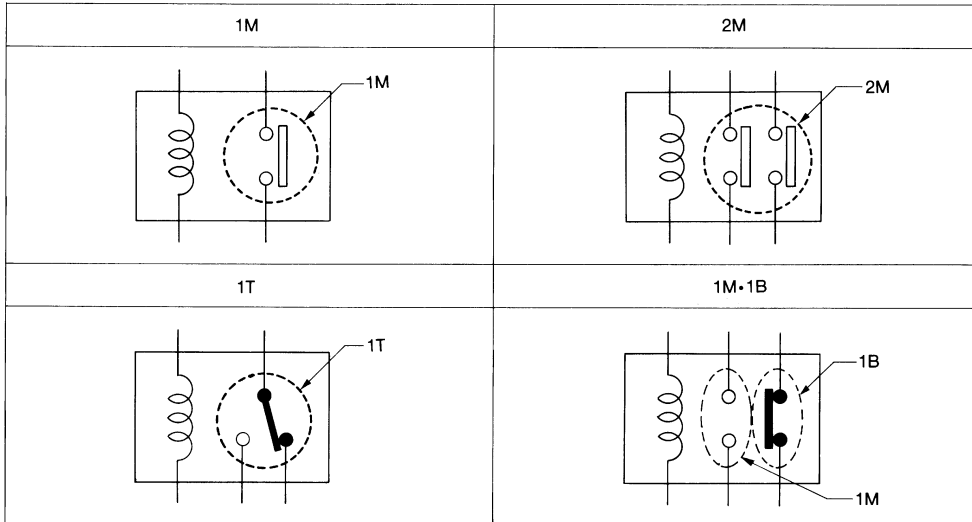
NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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



SEL881H

TYPE OF STANDARDIZED RELAYS

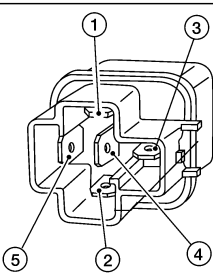
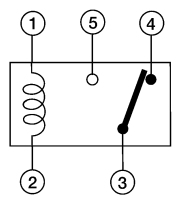
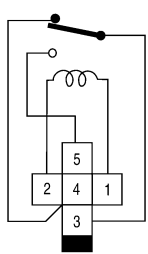
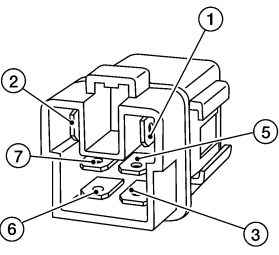
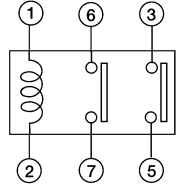
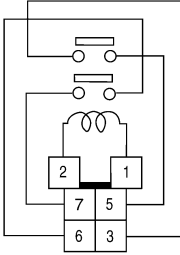
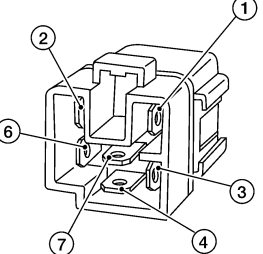
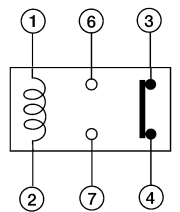
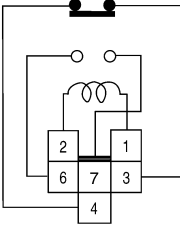
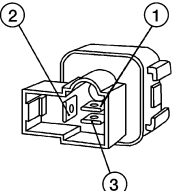
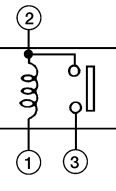
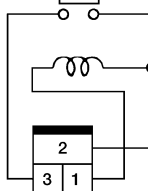
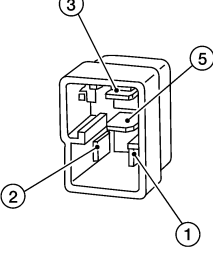
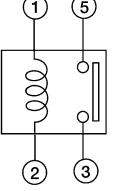
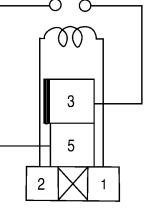


SEL882H

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

STANDARDIZED RELAY

< DTC/CIRCUIT DIAGNOSIS >

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

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

WKIA0253E

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

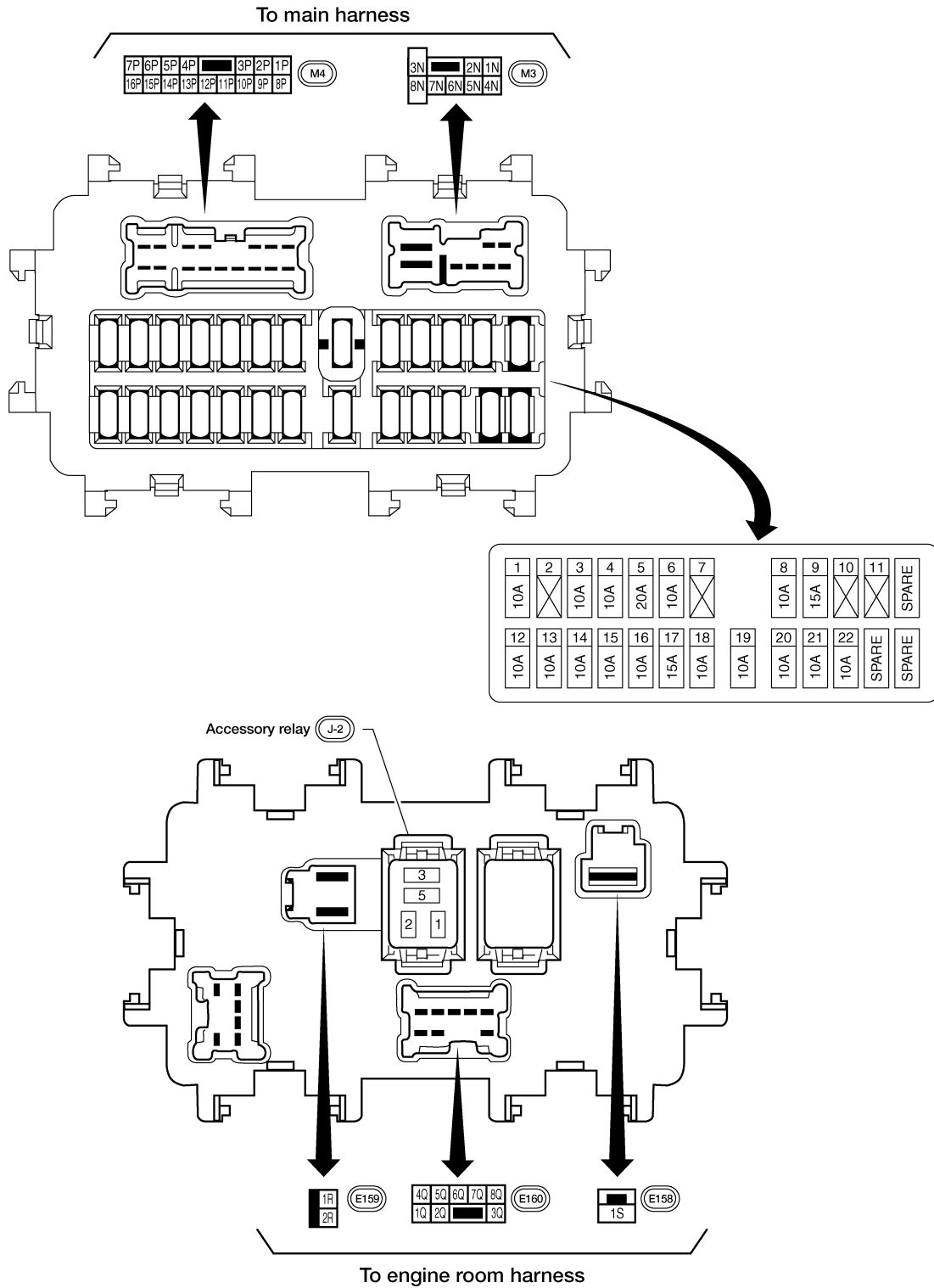
FUSE BLOCK-JUNCTION BOX (J/B)

< DTC/CIRCUIT DIAGNOSIS >

FUSE BLOCK-JUNCTION BOX (J/B)

Terminal Arrangement

INFOID:000000007362038



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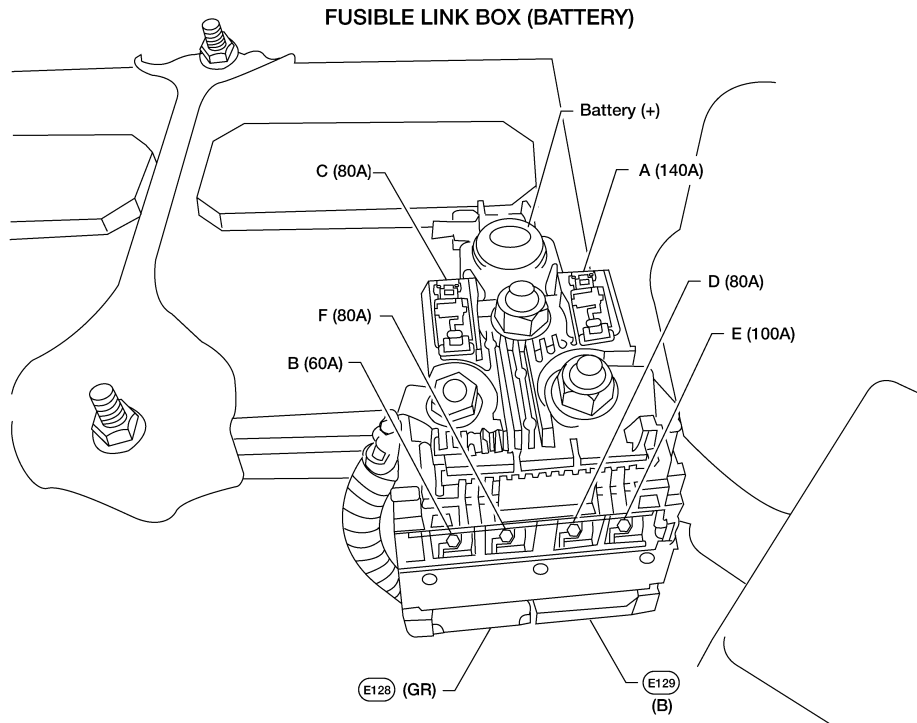
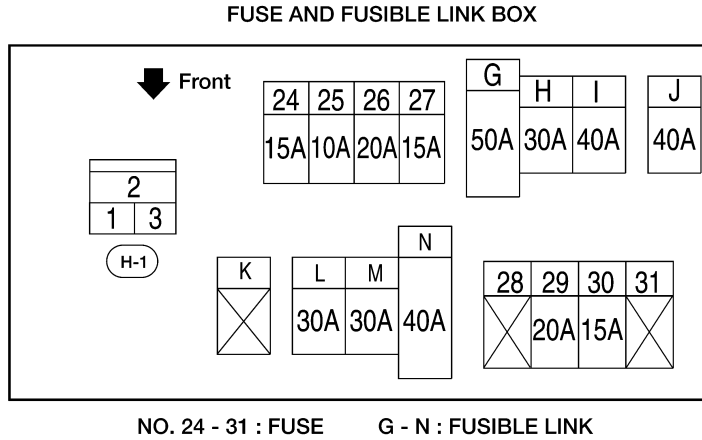
FUSE AND FUSIBLE LINK BOX

< DTC/CIRCUIT DIAGNOSIS >

FUSE AND FUSIBLE LINK BOX

Terminal Arrangement

INFOID:000000007362039



ABMIA1517GB

A
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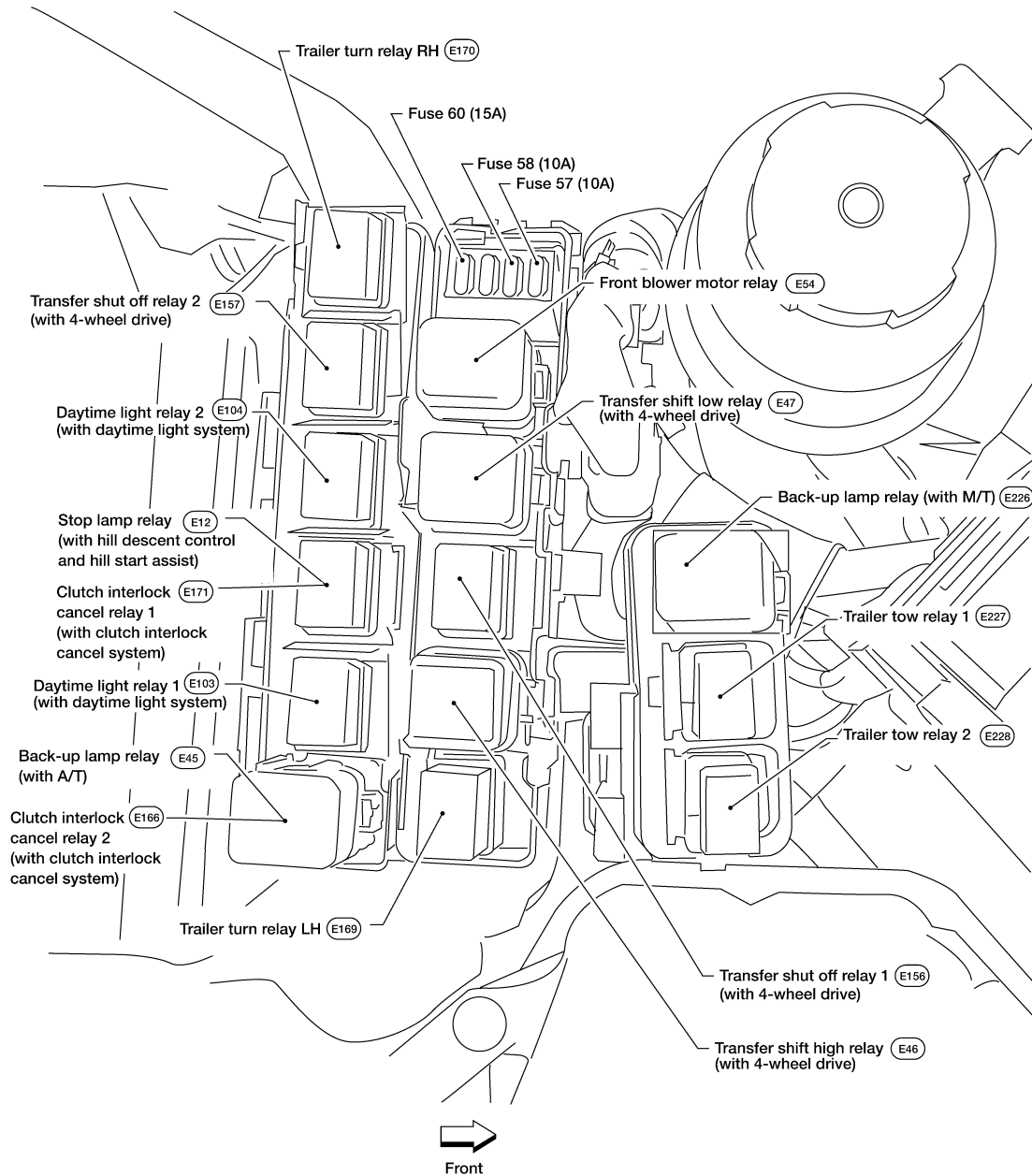
FUSE AND RELAY BOX

< DTC/CIRCUIT DIAGNOSIS >

FUSE AND RELAY BOX

Terminal Arrangement

INFOID:000000007362040



ABMIA2614GB

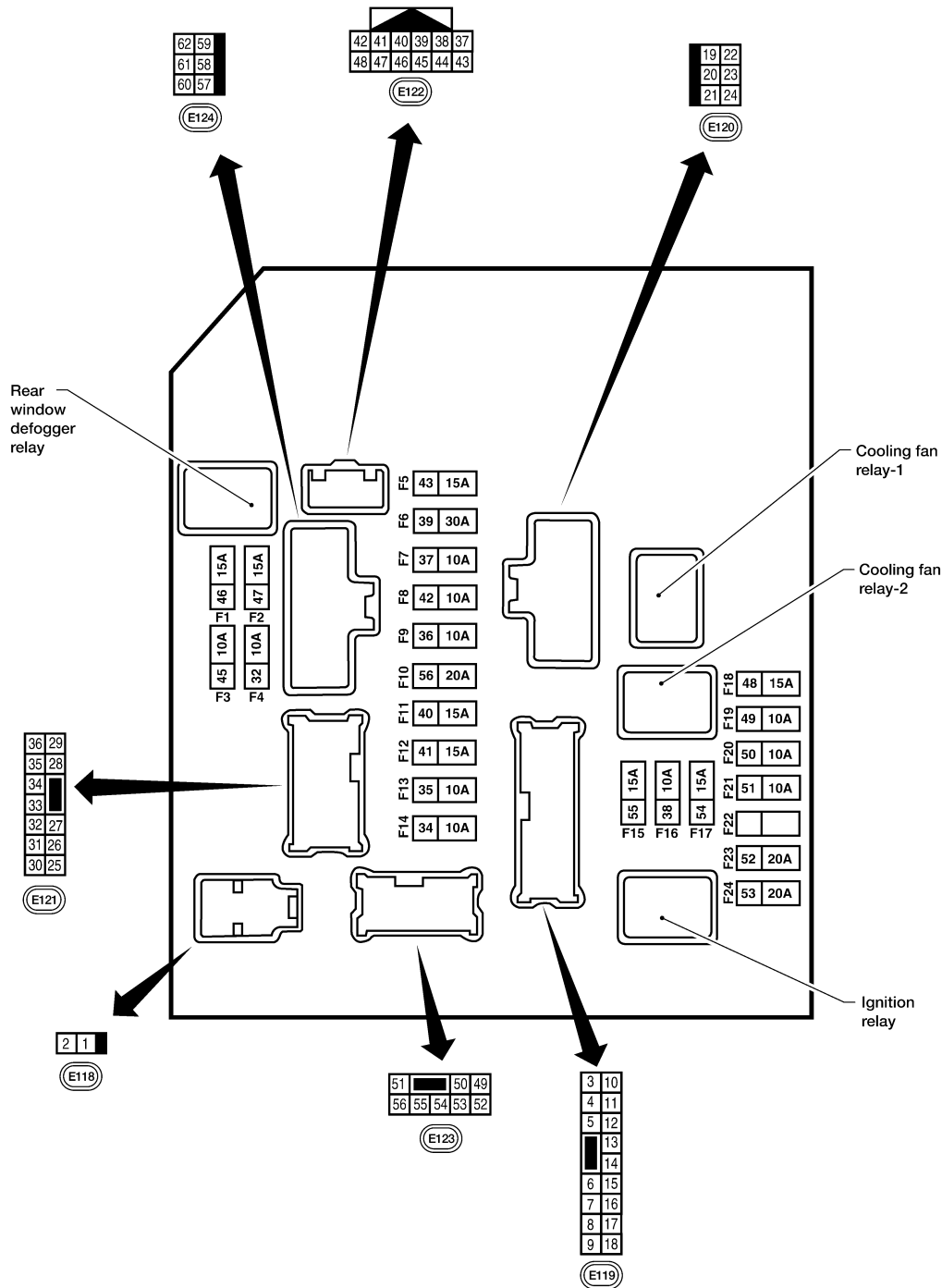
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< DTC/CIRCUIT DIAGNOSIS >

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

IPDM E/R Terminal Arrangement

INFOID:000000007362041



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.

ABMIA2615GB

BATTERY

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

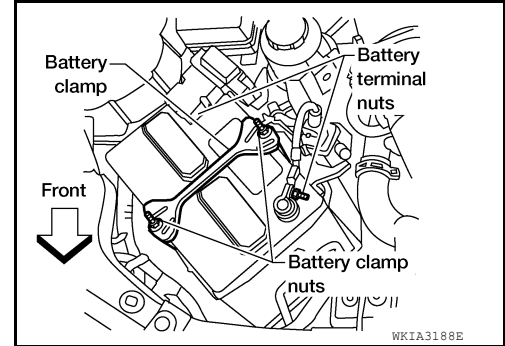
BATTERY

Removal and Installation

INFOID:000000007362042

REMOVAL

1. Disconnect both negative and positive battery terminals.
CAUTION:
Disconnect negative battery terminal first.
2. Remove battery clamp nuts and battery clamp.
3. Remove battery cover.
4. Remove battery.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

When connecting battery terminals, connect the positive battery terminal first.

Battery clamp nuts : 3.92 N·m (0.40 kg-m, 35 in-lb)

Battery terminal nut : 3.4 N·m (0.35 kg-m, 30 in-lb)

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

BATTERY

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

BATTERY

Battery

INFOID:000000007362043

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

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

A

B

C

D

E

F

G

H

I

J

K

L

PG

N

O

P