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SECTION PG

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS C

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PRECAUTIONS

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PRECAUTION

PRECAUTIONS

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

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The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. 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.

PREPARATION

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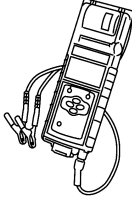
PREPARATION

PREPARATION

Special Service Tool


INFOID:000000007848856

The actual shapes of Kent-Moore tools may differ from those of special 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:000000006737596

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

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BATTERY

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BASIC INSPECTION

BATTERY

How to Handle Battery

INFOID:000000006737597

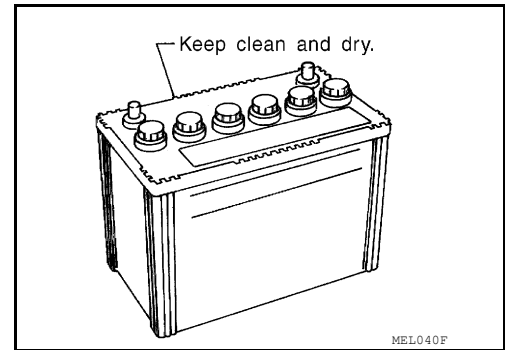
CAUTION:

- 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.
- Do not add distilled water through the hole used to check specific gravity.

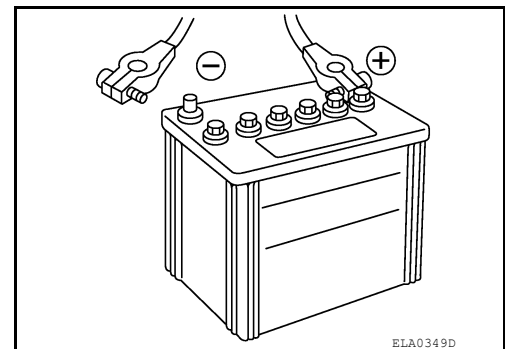
METHODS OF PREVENTING OVER-DISCHARGE

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:000000006737598

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

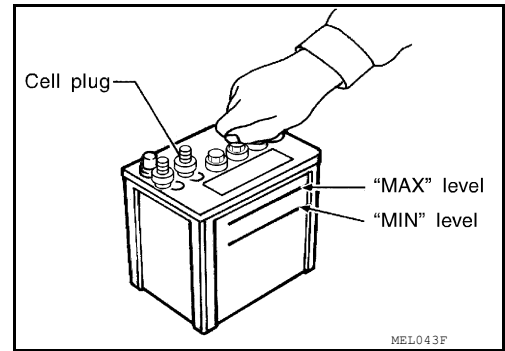
WARNING:

Do not allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, Do not 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

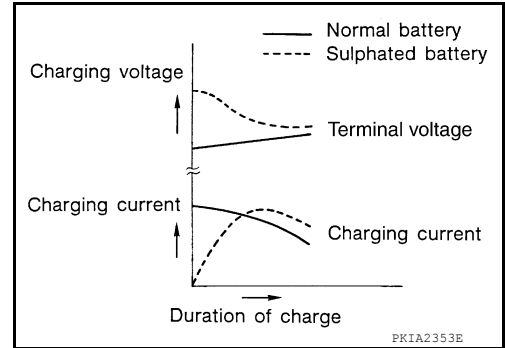
< BASIC INSPECTION >

- 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.**



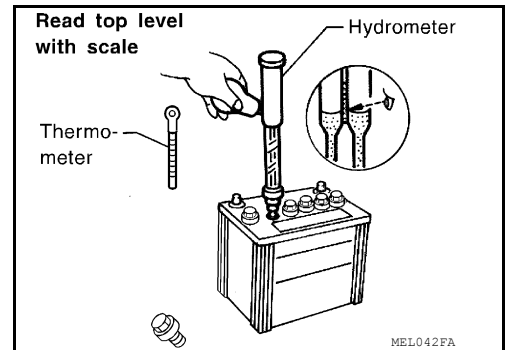
Specific Gravity Check

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:

- Do not “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. Do not 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-135 (VQ40DE) EC-572 (VK56DE)
Brake Control System	Steering Angle Sensor Neutral Position	BRC-55
Heater & Air Conditioning Control System	Foot Position Setting Trimmer	HAC-55 (Automatic Air Conditioner) HAC-167 (Manual Air Conditioner)
	Temperature Setting Trimmer (Front)	HAC-55 (Automatic Air Conditioner)
	Inlet Port Memory Function (FRE)	HAC-55 (Automatic Air Conditioner)
	Inlet Port Memory Function (REC)	HAC-56 (Automatic Air Conditioner)
Audio, Visual and Navigation System	Audio (Radio Preset)	Refer to Owner's Manual.
	Navigation System	Refer to Owner's Manual.

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POWER SUPPLY ROUTING CIRCUIT

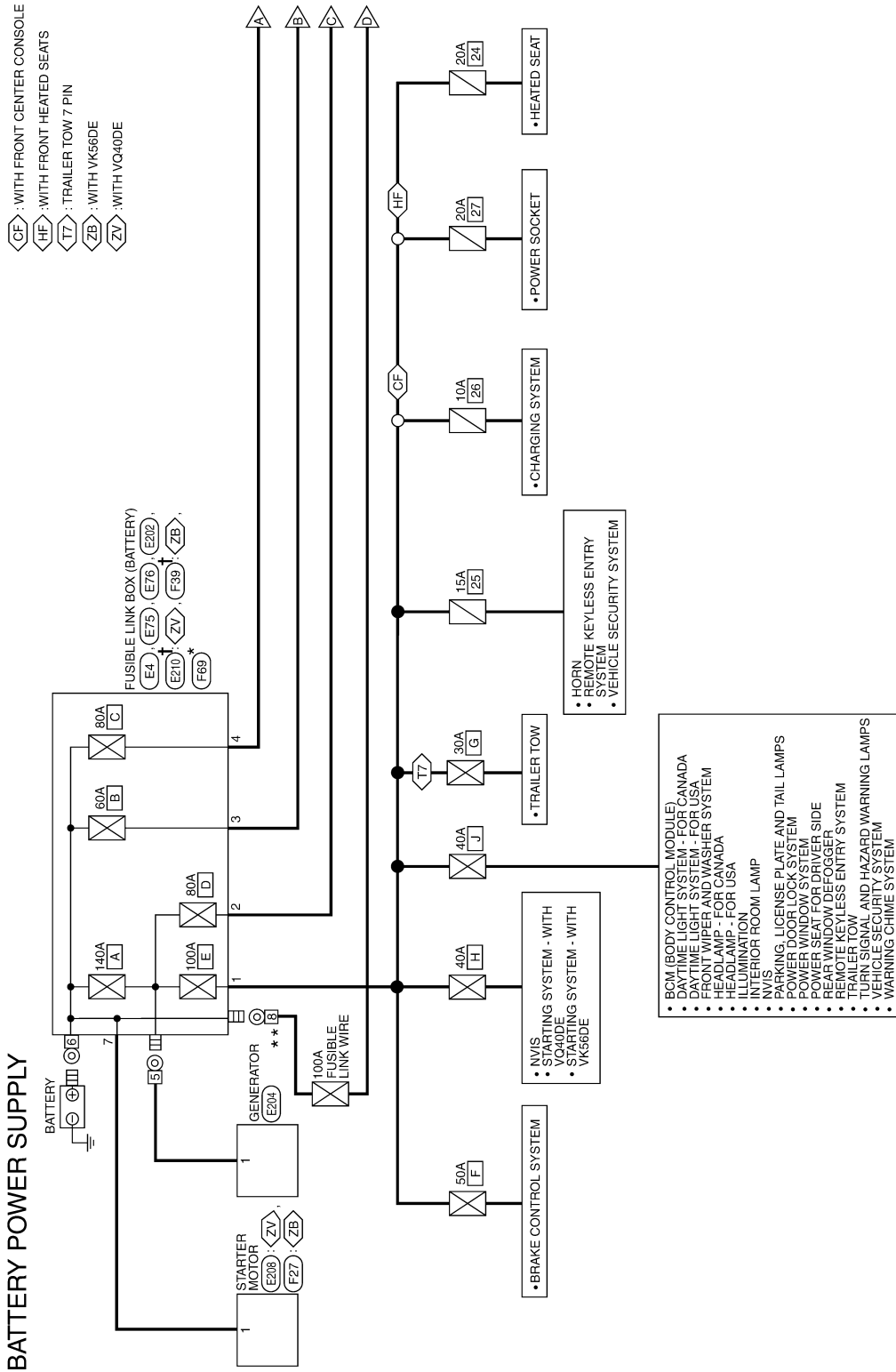
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DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY ROUTING CIRCUIT

Wiring Diagram —Battery Power Supply—

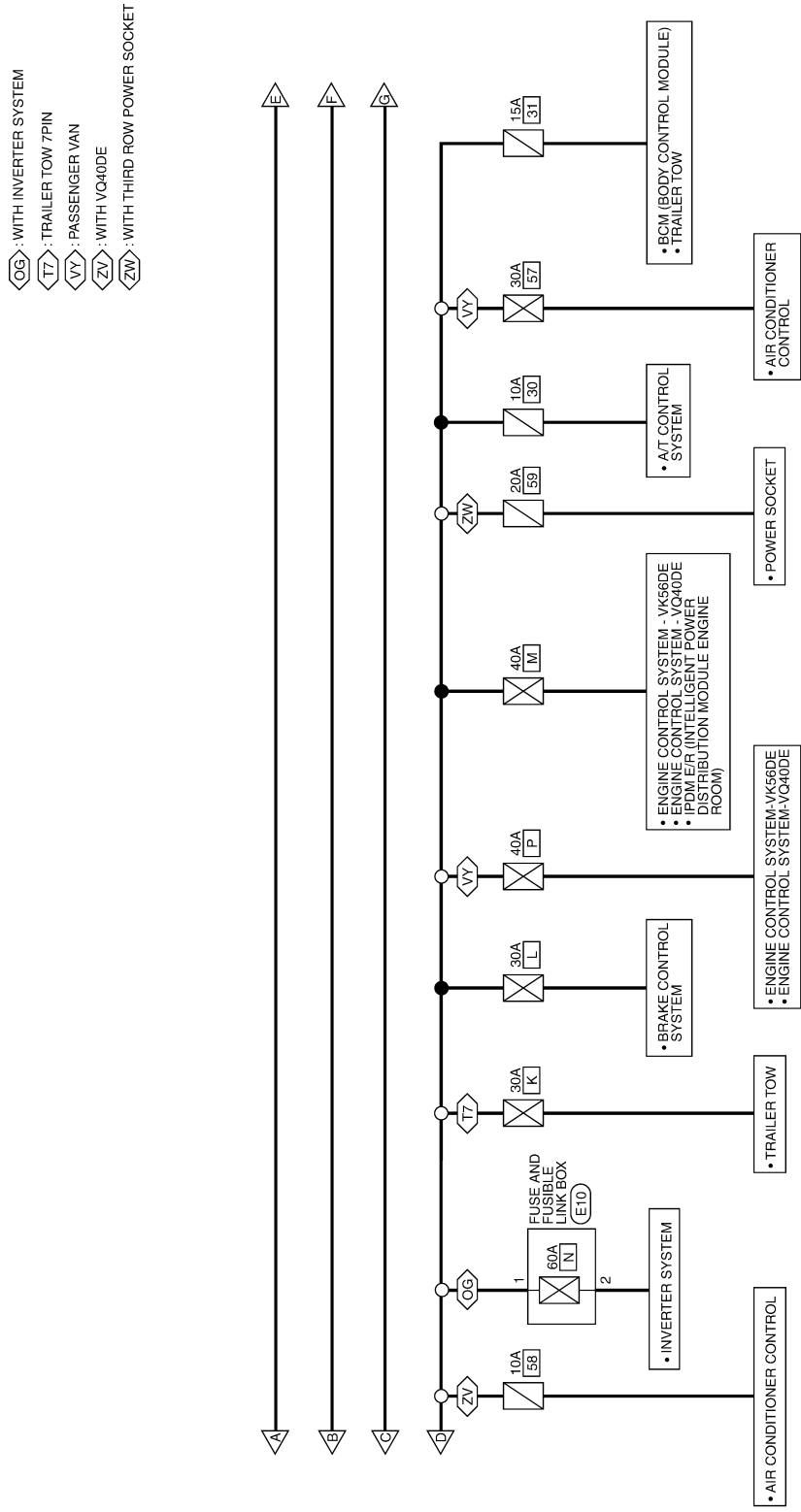
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POWER SUPPLY ROUTING CIRCUIT

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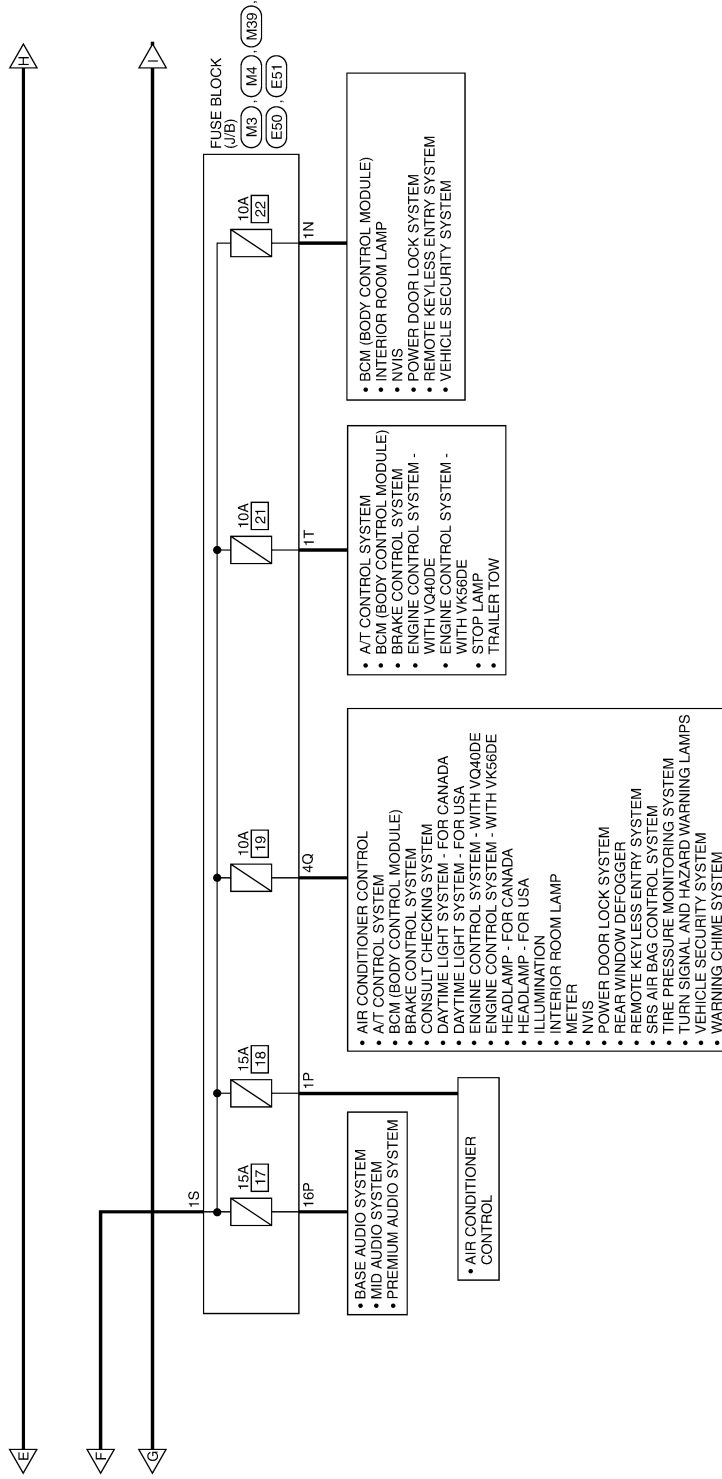


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POWER SUPPLY ROUTING CIRCUIT

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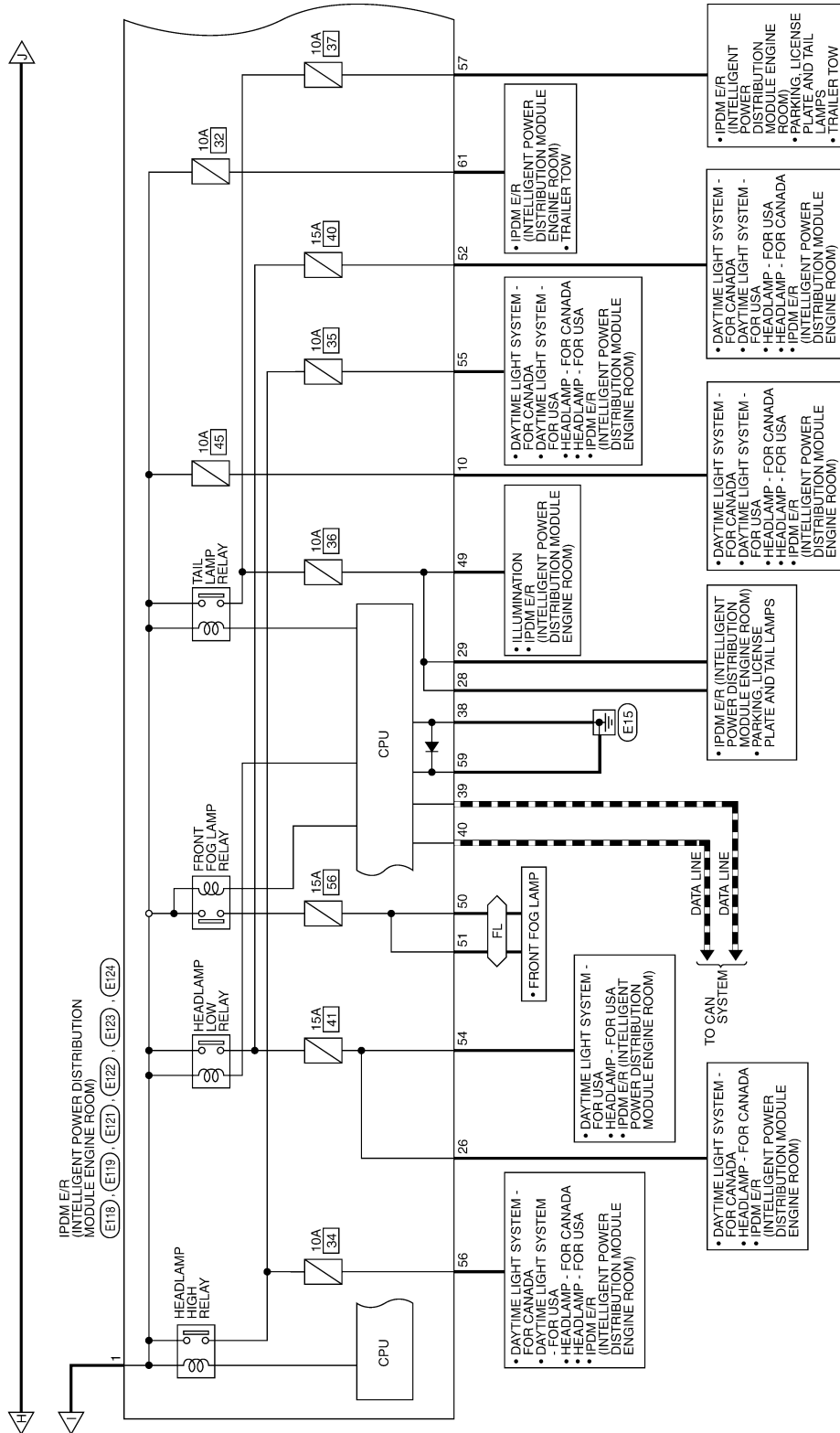


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POWER SUPPLY ROUTING CIRCUIT

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◀ FL ▶ : WITH FRONT FOG LAMPS

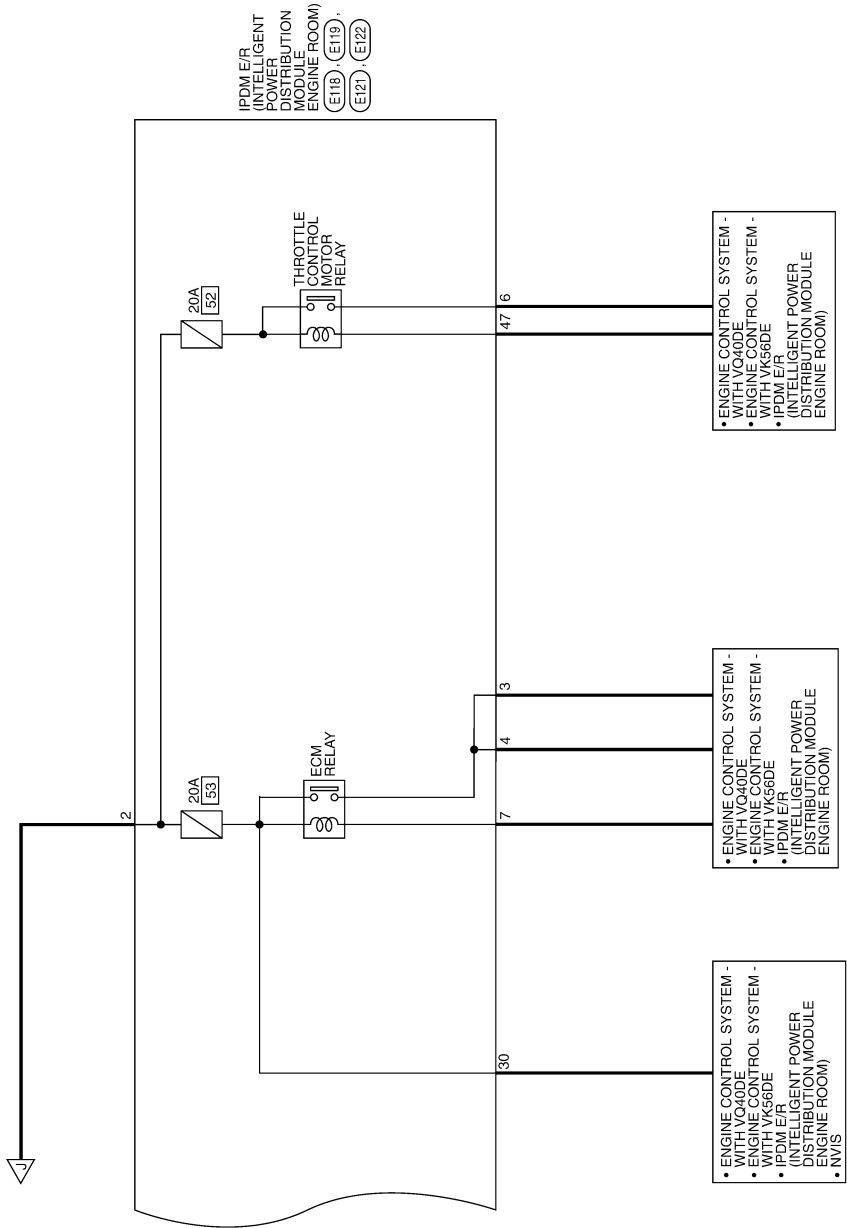


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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



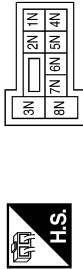
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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

BATTERY POWER SUPPLY CONNECTORS

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



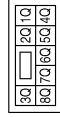
Terminal No.	1N	Color of Wire	LG	Signal Name	-
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Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	1P	Color of Wire	L	Signal Name	-
	16P	Color of Wire	Y	Signal Name	-

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



Terminal No.	4Q	Color of Wire	Y	Signal Name	-
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Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN



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

Connector No.	E10
Connector Name	FUSE AND FUSIBLE LINK BOX
Connector Color	BLACK



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

Connector No.	E50
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 >

Connector No.	E76
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



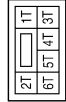
Terminal No.	Color of Wire	Signal Name
3	W	-
4	R	-

Connector No.	E75
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	Color of Wire	Signal Name
8	W	-

Connector No.	E51
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



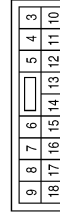
Terminal No.	Color of Wire	Signal Name
1T	O	-

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



Terminal No.	Color of Wire	Signal Name
26	R	LEVELIZER
28	O	CLEARANCE/L RH
29	R	CLEARANCE/L LH
30	R	ECM BAT

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	O	IGN COIL
4	BR	ECM VB
6	L	ETC
7	W	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	W/R	F/L USM

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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

59	58	57
62	61	60



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

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	V	ILLUMINATION
50	L	FR FOG LAMP LH
51	Y	FR FOG LAMP RH
52	L	HEAD/L LO LH
54	V	HEAD/L LO RH
55	R	HEAD/L HI LH
56	Y	HEAD/L 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	GND (SIGNAL)
39	L	CAN-H
40	P	CAN-L
47	O	ETC RLY CONT

Connector No.	E208
Connector Name	STARTER MOTOR
Connector Color	-



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

Connector No.	E204
Connector Name	GENERATOR
Connector Color	-



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

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.	F39
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	7	Color of Wire	B/R	Signal Name	-
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Connector No.	F27
Connector Name	STARTER MOTOR
Connector Color	-



Terminal No.	1	Color of Wire	B/R	Signal Name	-
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Connector No.	E210
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	7	Color of Wire	B/R	Signal Name	-
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Connector No.	F69
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



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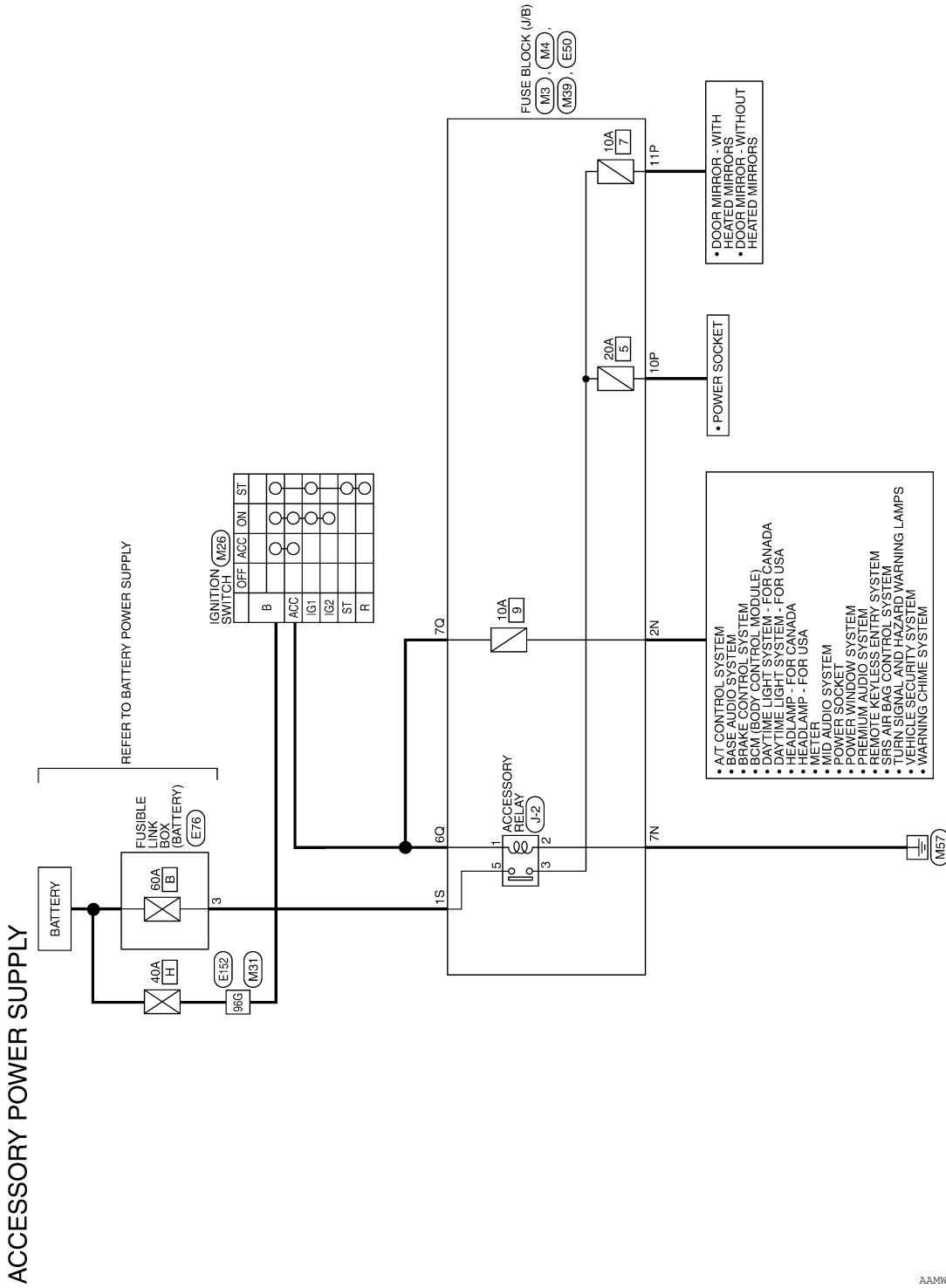
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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Wiring Diagram —Accessory Power Supply—

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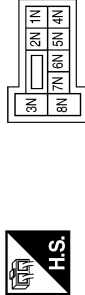
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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

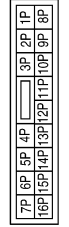
ACCESSORY POWER SUPPLY CONNECTORS

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



Terminal No.	Color of Wire	Signal Name
2N	O	-
7N	B	-

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



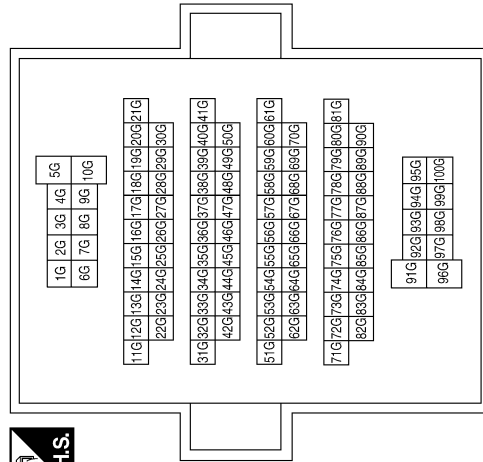
Terminal No.	Color of Wire	Signal Name
10P	G	-
11P	LG	-

Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE



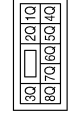
Terminal No.	Color of Wire	Signal Name
B	G	-
ACC	V	-

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



Terminal No.	96G
Color of Wire	G
Signal Name	-

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



Terminal No.	Color of Wire	Signal Name
6Q	V	-
7Q	V	-

POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector No.	E50
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



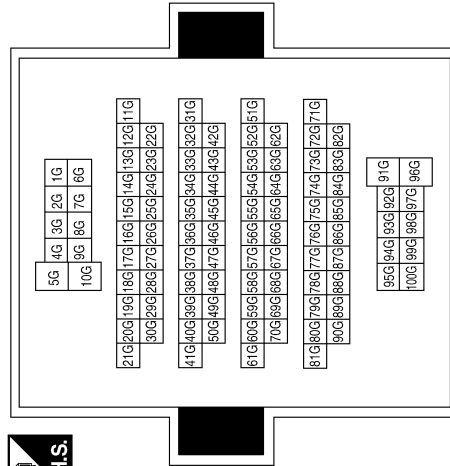
Terminal No.	1S	Color of Wire	W	Signal Name	-
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Connector No.	E76
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



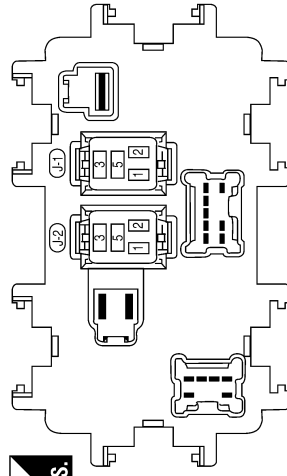
Terminal No.	3	Color of Wire	W	Signal Name	-
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Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	96G	Color of Wire	G	Signal Name	-
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Connector No.	J-2
Connector Name	FUSE BLOCK (J/B) (ACCESSORY RELAY)
Connector Color	-



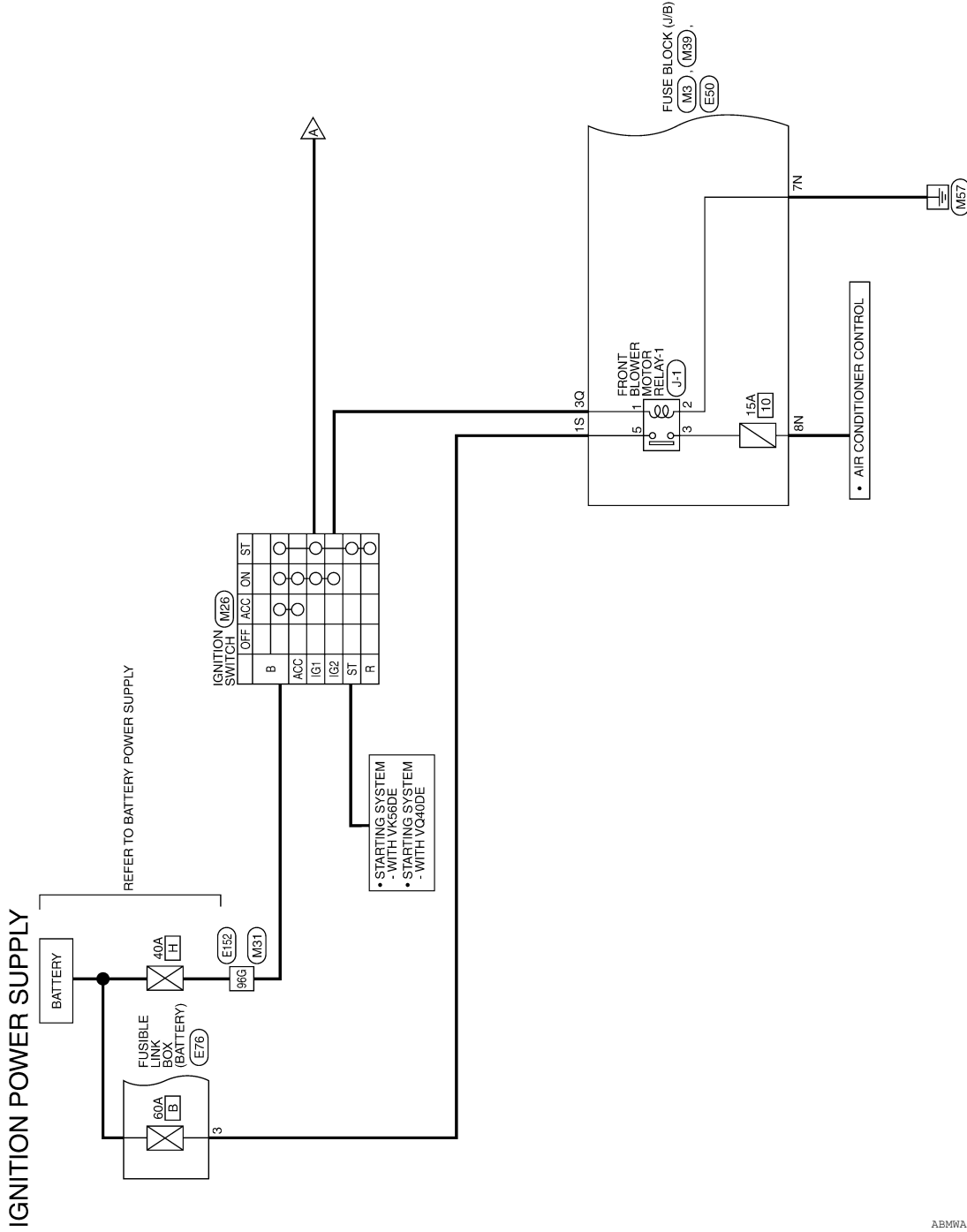
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POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

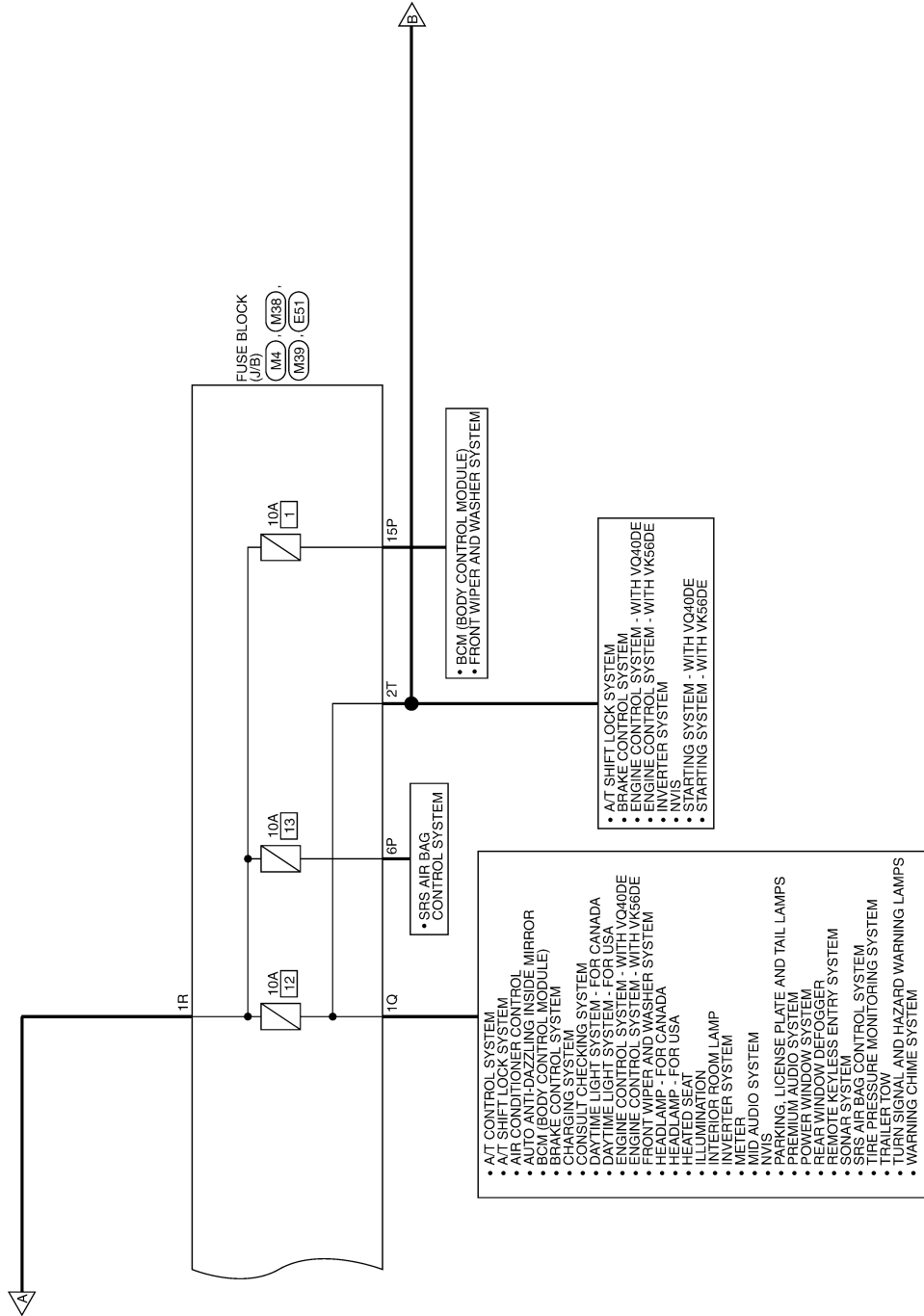
Wiring Diagram — Ignition Power Supply —

INFOID:000000006737602



POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

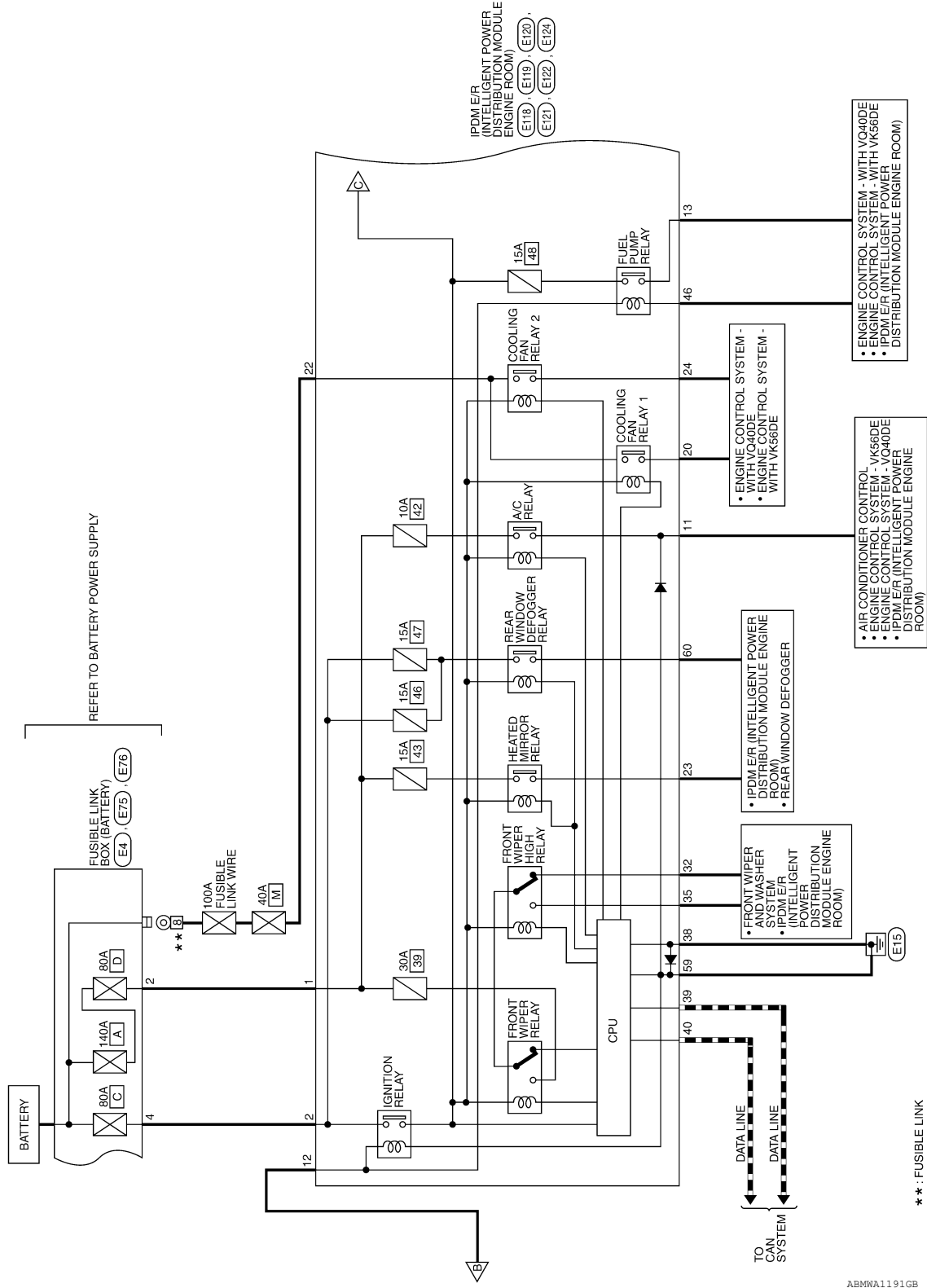


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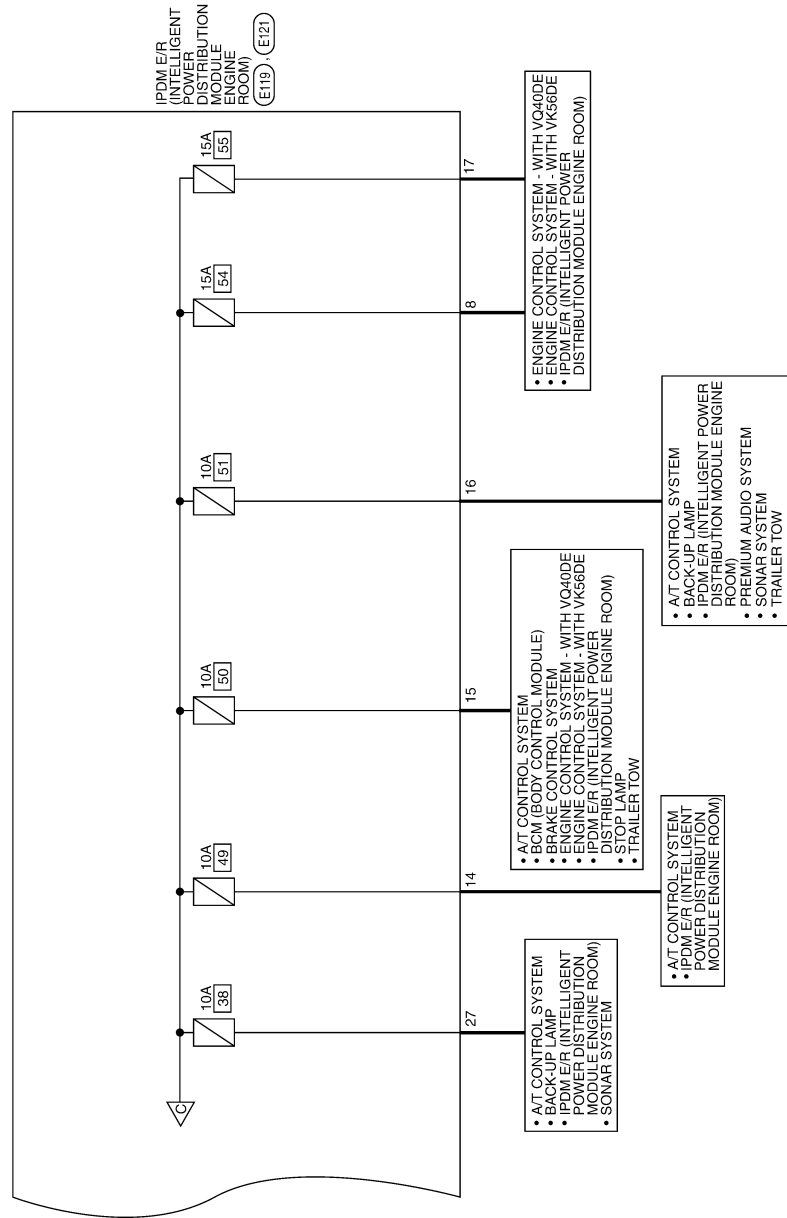
POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



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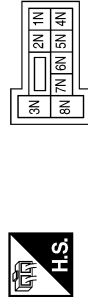
ABMWA1192GB

POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

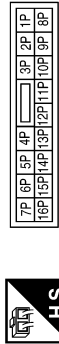
IGNITION POWER SUPPLY CONNECTORS

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



Terminal No.	Color of Wire	Signal Name
7N	B	-
8N	G	-

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



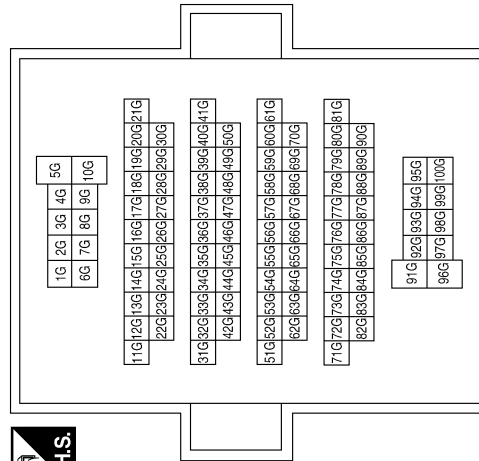
Terminal No.	Color of Wire	Signal Name
6P	W	-
15P	R	-

Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
B	G	-
ST	Y	-
IG1	L	-
IG2	R	-

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



Terminal No.	96G
Color of Wire	G
Signal Name	-

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



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

POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector No.	E50
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



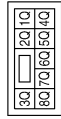
Terminal No.	1S	Color of Wire	W	Signal Name	-
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Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN



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



Terminal No.	1Q	Color of Wire	R	Signal Name	-
6Q	V				-

Connector No.	E76
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



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

Connector No.	E75
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	8	Color of Wire	W	Signal Name	-
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Connector No.	E51
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	2T	Color of Wire	W	Signal Name	-
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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
20	Y	MOTOR FAN 1
22	G	F/L MOTOR FAN
23	G	HEATED MIRROR
24	W	MOTOR FAN 2

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	V	O2 SENSOR IGN
11	W	A/C CLUTCH
12	W	IGN SW (G1)
13	R	FUEL PUMP MTR
14	Y	A/T ECU IGN
15	GR	ABS ECU IGN
16	G	REVERSE LAMP IGN
17	W	INJECTOR

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/R	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	R	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 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			

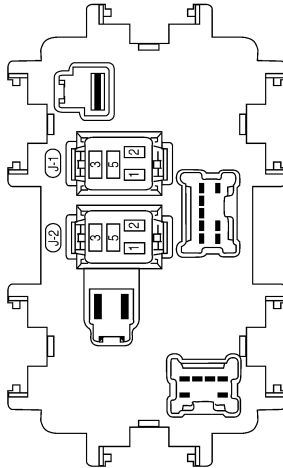
Terminal No.	Color of Wire	Signal Name
27	SB	TTOW REV LAMP
32	L	FR WIPER LO
35	SB	FR WIPER HI

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POWER SUPPLY ROUTING CIRCUIT

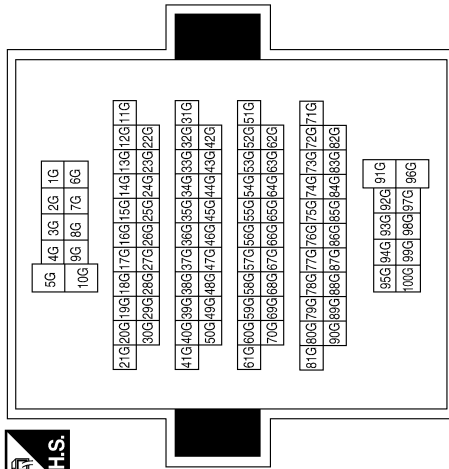
< DTC/CIRCUIT DIAGNOSIS >

Connector No.	J-1
Connector Name	FUSE BLOCK (J/B)(FRONT BLOWER RELAY-1)
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
96G	G	-

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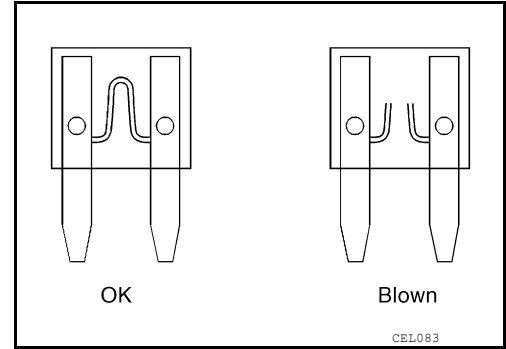
POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Fuse

INFOID:000000006737603

- If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.
- Use fuse of specified rating. Do not 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:000000006737604

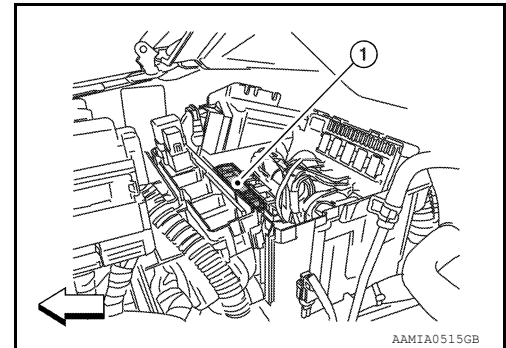
A melted fusible link can be detected either by visual inspection or by feeling with finger tip. If its condition is questionable, use circuit tester or test lamp.

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.
- Do not wrap outside of fusible link with vinyl tape. Important: Do not let fusible link touch any other wiring harness, vinyl or rubber parts.



GROUND

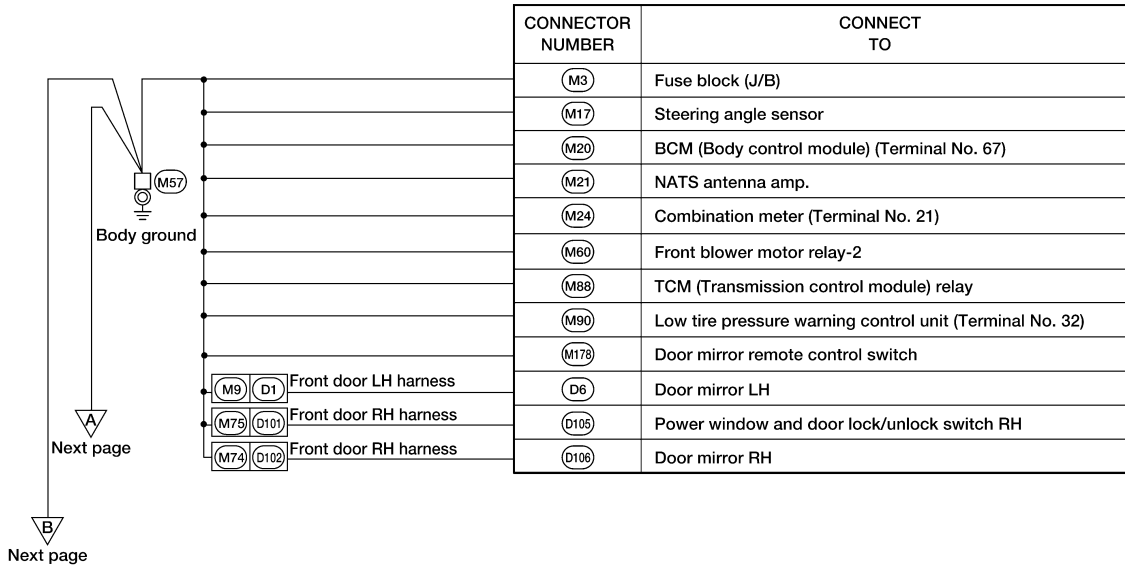
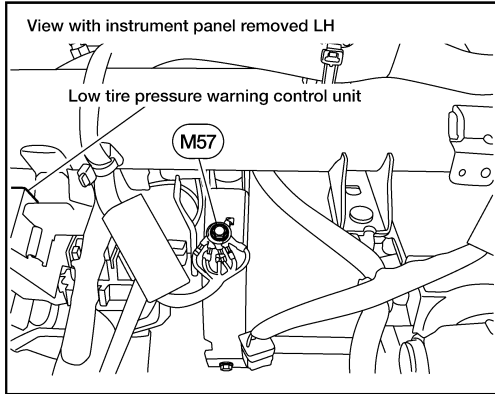
< DTC/CIRCUIT DIAGNOSIS >

GROUND

Ground Distribution

INFOID:000000006737605

MAIN HARNESS



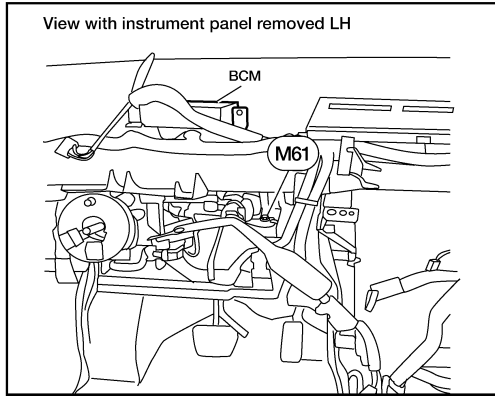
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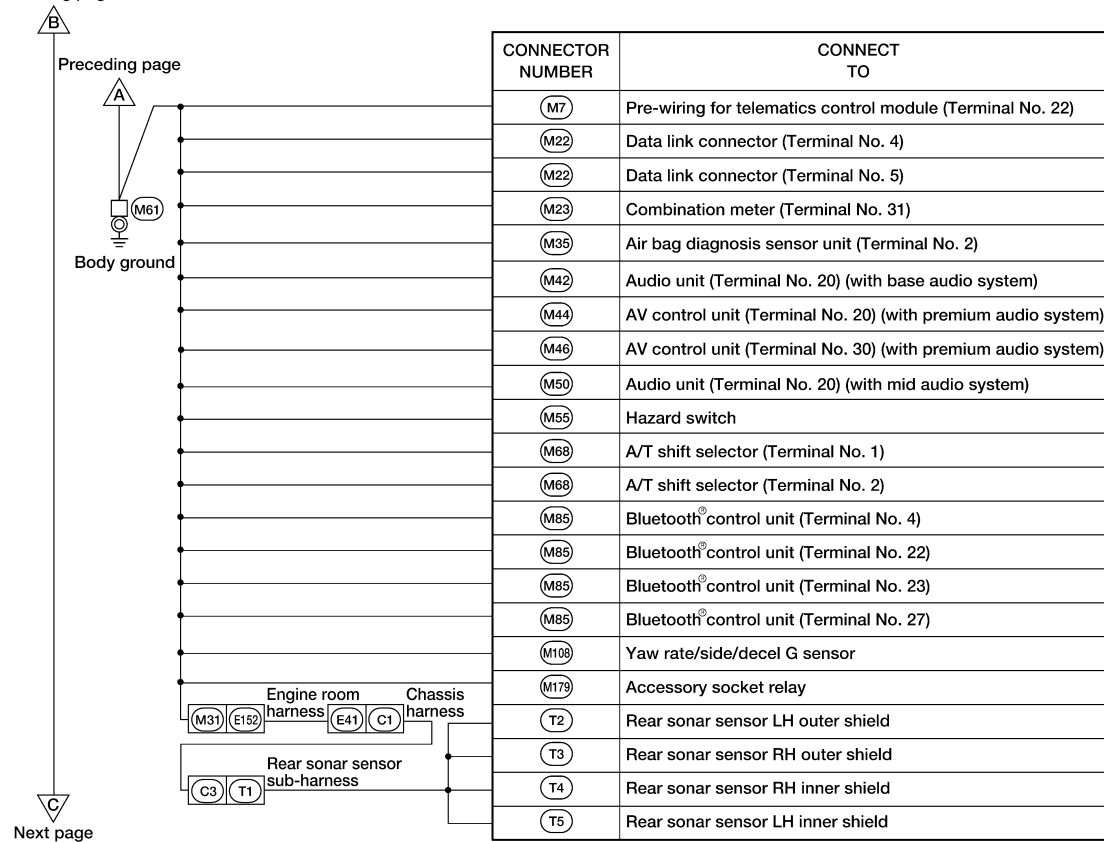
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GROUND

< DTC/CIRCUIT DIAGNOSIS >



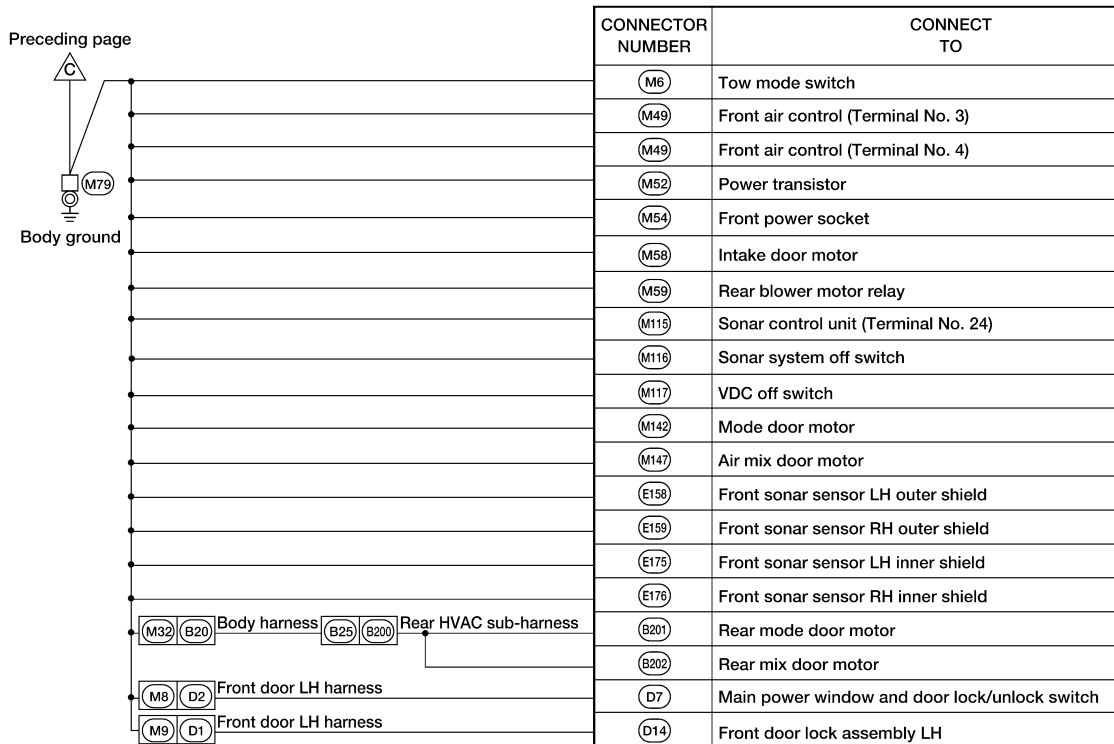
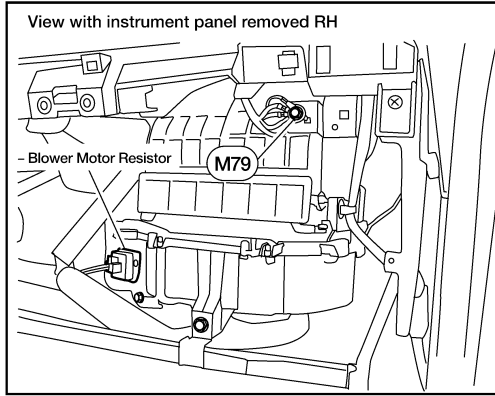
Preceding page



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GROUND

< DTC/CIRCUIT DIAGNOSIS >

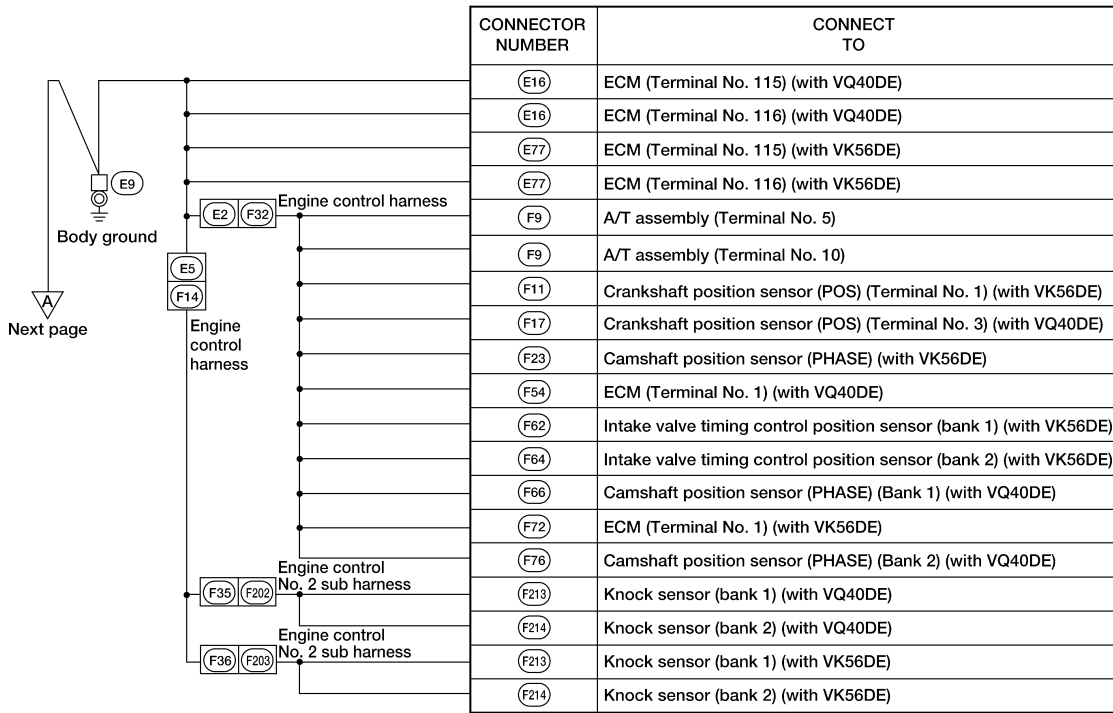
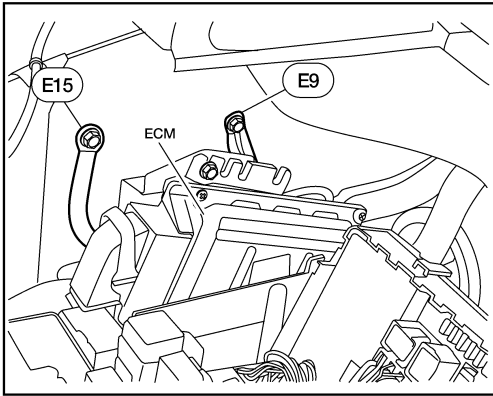


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< DTC/CIRCUIT DIAGNOSIS >

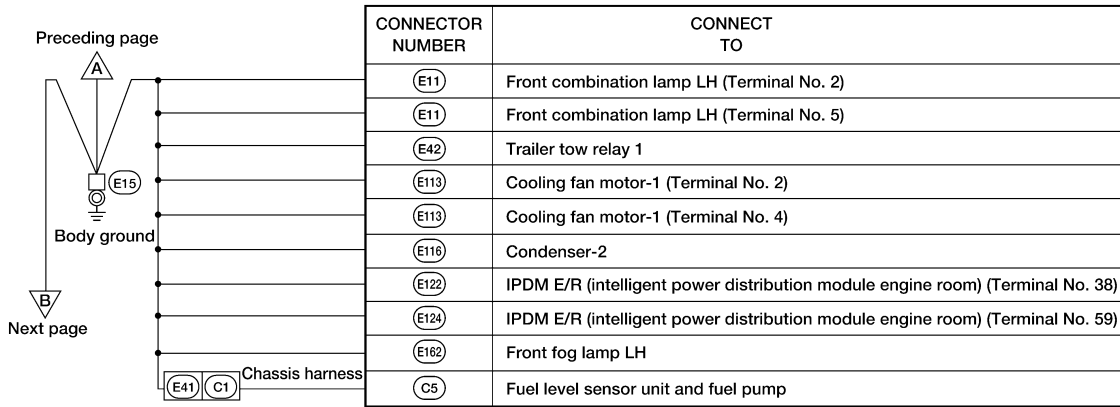
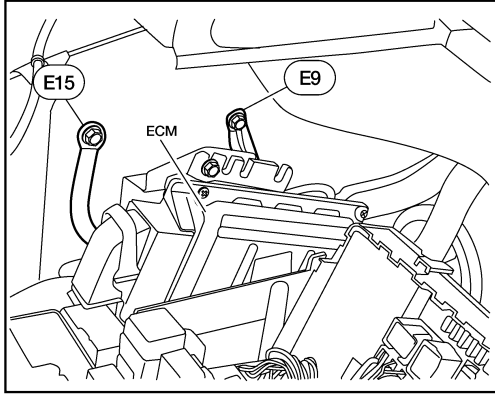
ENGINE ROOM HARNESS



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GROUND

< DTC/CIRCUIT DIAGNOSIS >

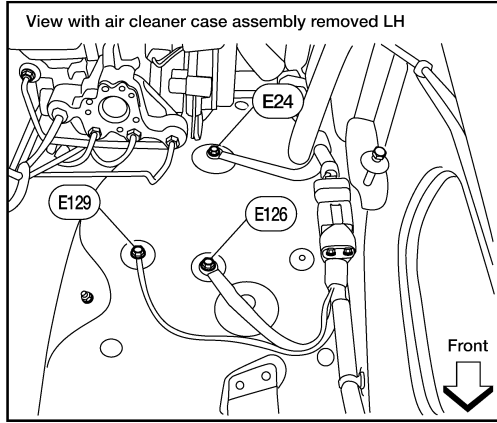


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GROUND

< DTC/CIRCUIT DIAGNOSIS >

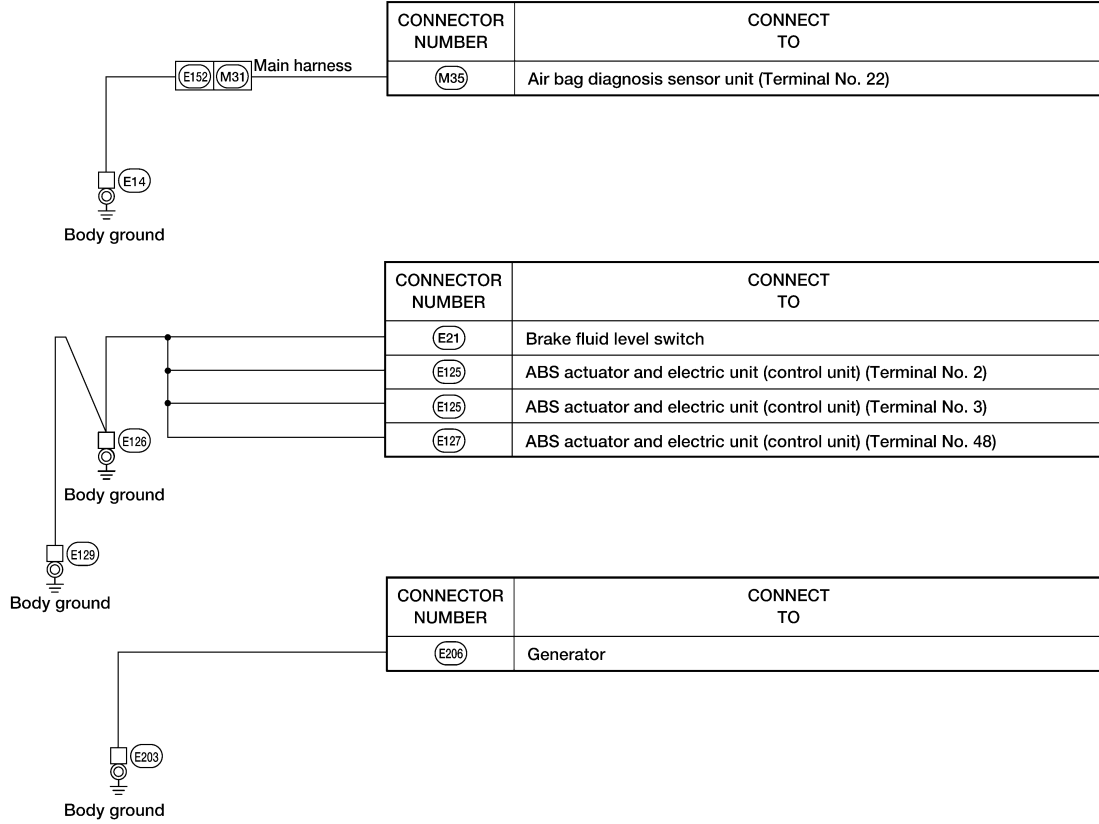
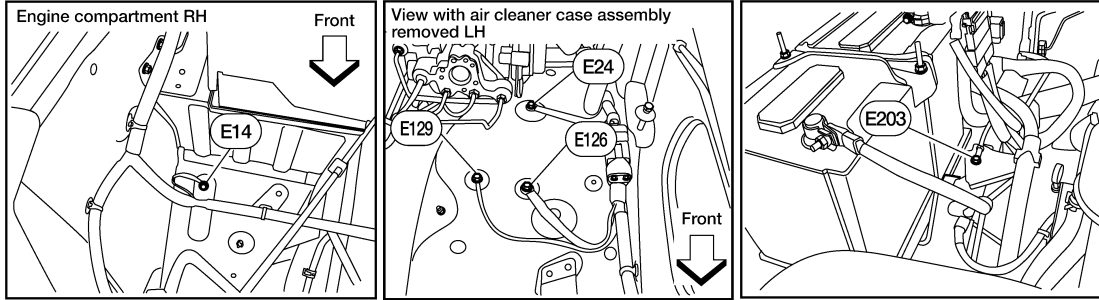


CONNECTION POINTS		CONNECTOR NUMBER	CONNECT TO		
Preceding page	B	(E13)	Horn (high)		
		(E23)	Front wiper motor		
Body ground	E24	(E26)	Heater Pump (with VQ40DE)		
		(E44)	Electric brake (pre-wiring)		
		(E72)	Horn (low)		
		(E102)	Daytime light relay 2 (for USA)		
		(E103)	Daytime light relay 1		
		(E104)	Daytime light relay 2 (for CANADA)		
		(E105)	Front washer motor		
		(E106)	Washer fluid level switch		
		(E107)	Front combination lamp RH (Terminal No. 2)		
		(E107)	Front combination lamp RH (Terminal No. 5)		
		(E110)	Cooling fan relay-3 (Terminal No. 1)		
		(E111)	Cooling fan relay-4 (Terminal No. 1)		
		(E114)	Cooling fan motor-2 (Terminal No. 2)		
		(E114)	Cooling fan motor-2 (Terminal No. 4)		
		(E140)	Trailer tow relay 2		
		(E156)	Trailer turn relay LH		
		(E157)	Trailer turn relay RH		
		(E163)	Front fog lamp RH		
		(E41) (C1)	Chassis harness	(C2)	Trailer

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GROUND

< DTC/CIRCUIT DIAGNOSIS >



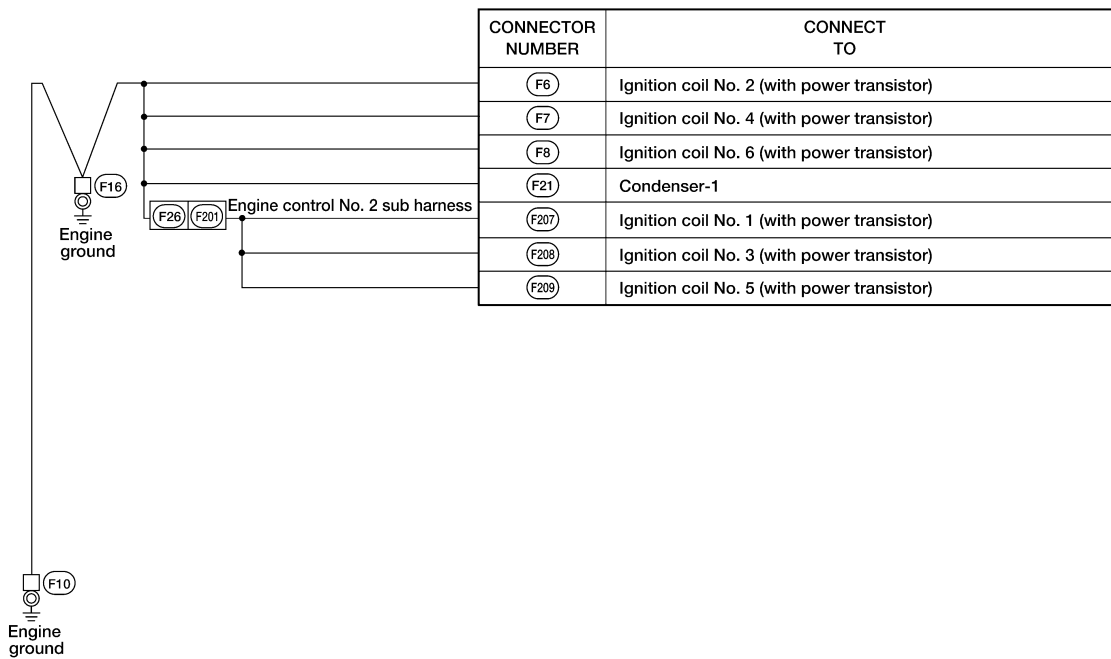
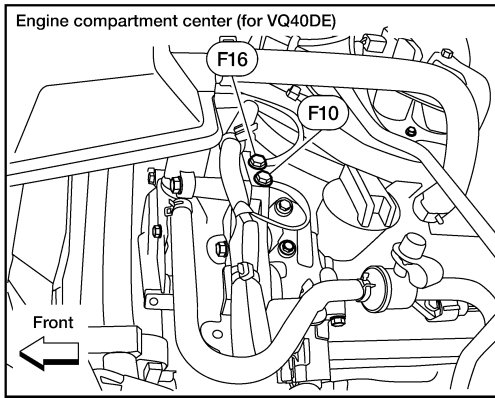
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GROUND

< DTC/CIRCUIT DIAGNOSIS >

ENGINE CONTROL HARNESS (VQ40DE)

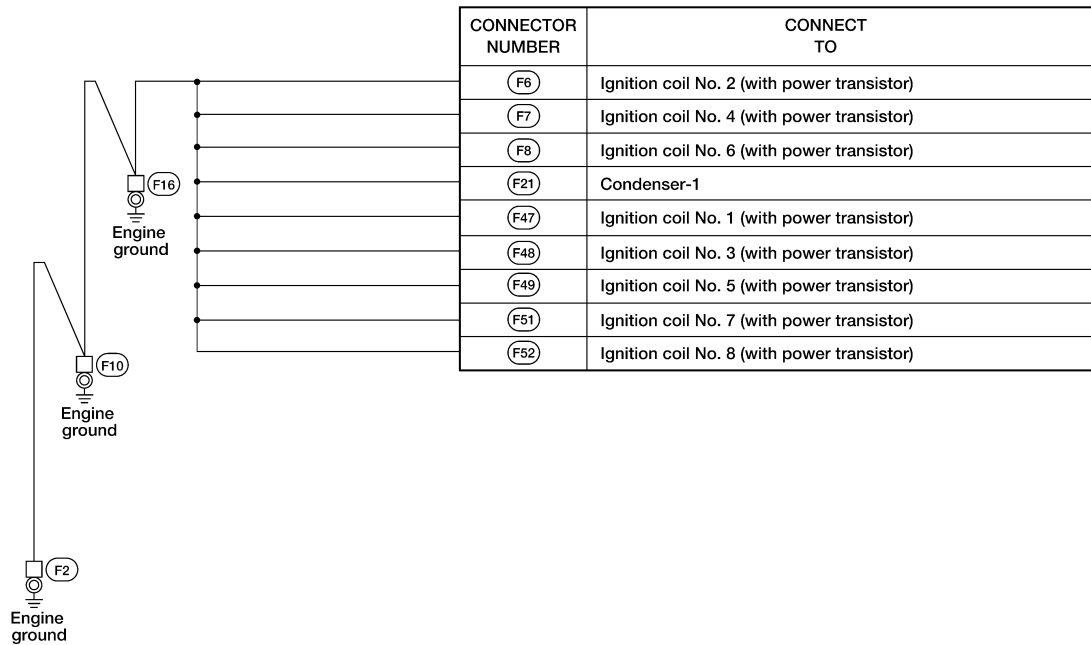
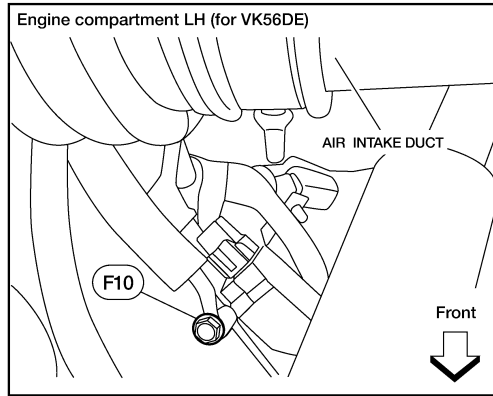
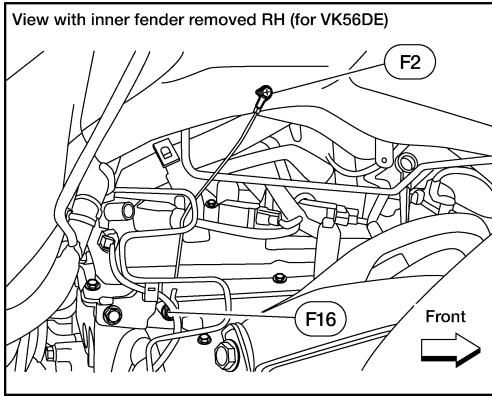


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GROUND

< DTC/CIRCUIT DIAGNOSIS >

ENGINE CONTROL HARNESS (VK56DE)

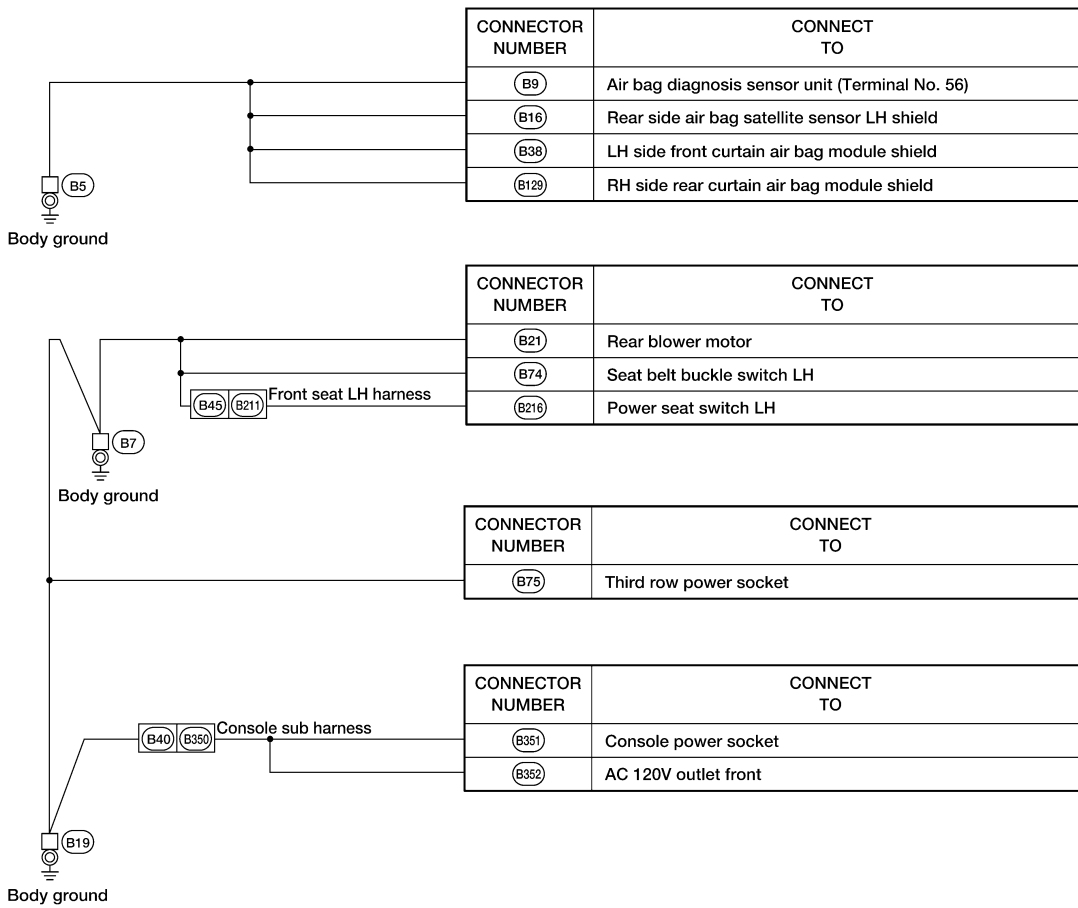
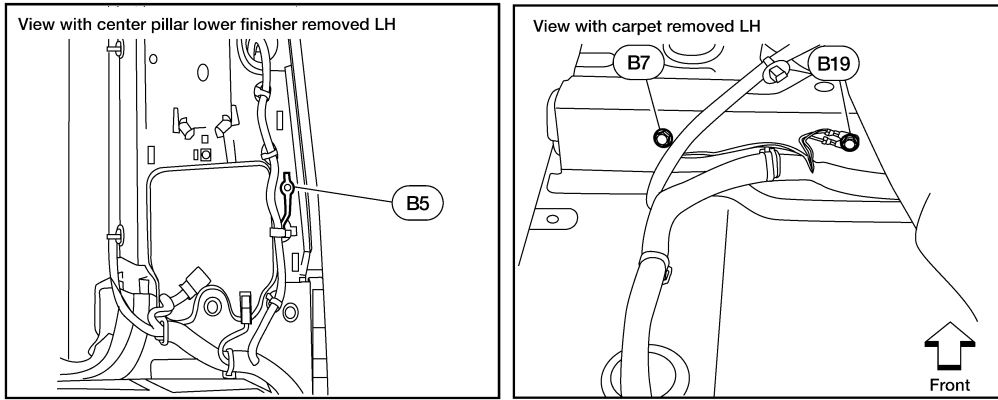


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< DTC/CIRCUIT DIAGNOSIS >

BODY HARNESS

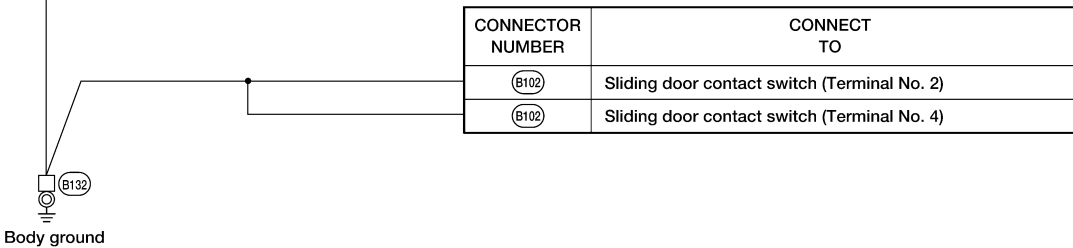
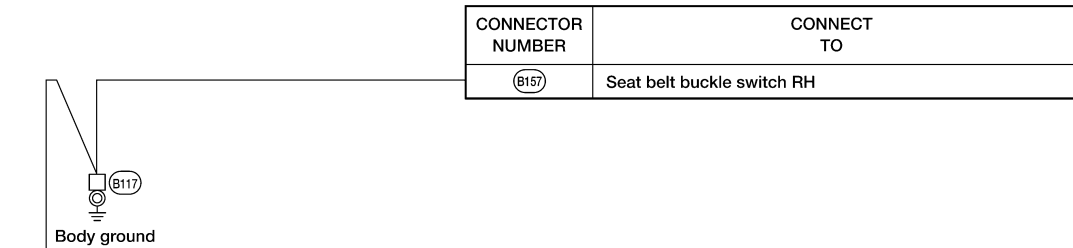
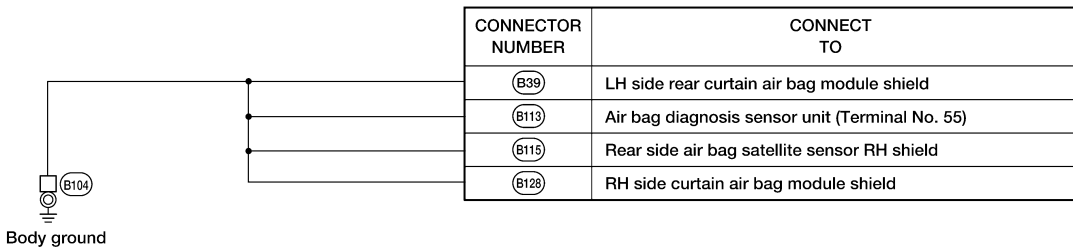
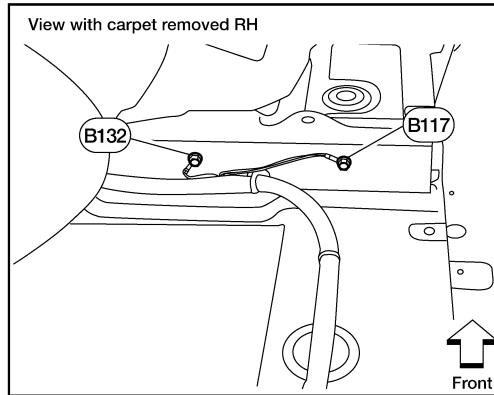
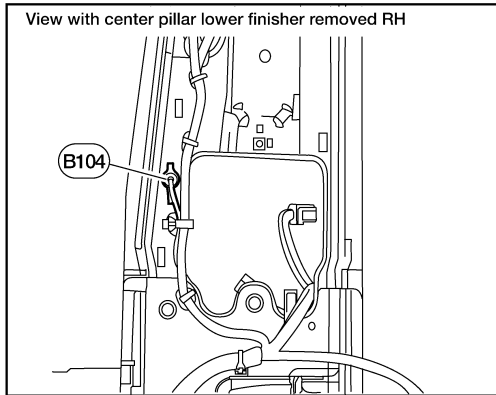


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GROUND

< DTC/CIRCUIT DIAGNOSIS >

BODY NO. 2 HARNESS



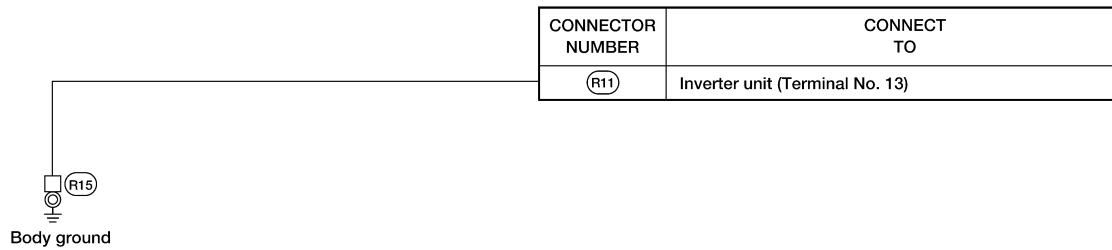
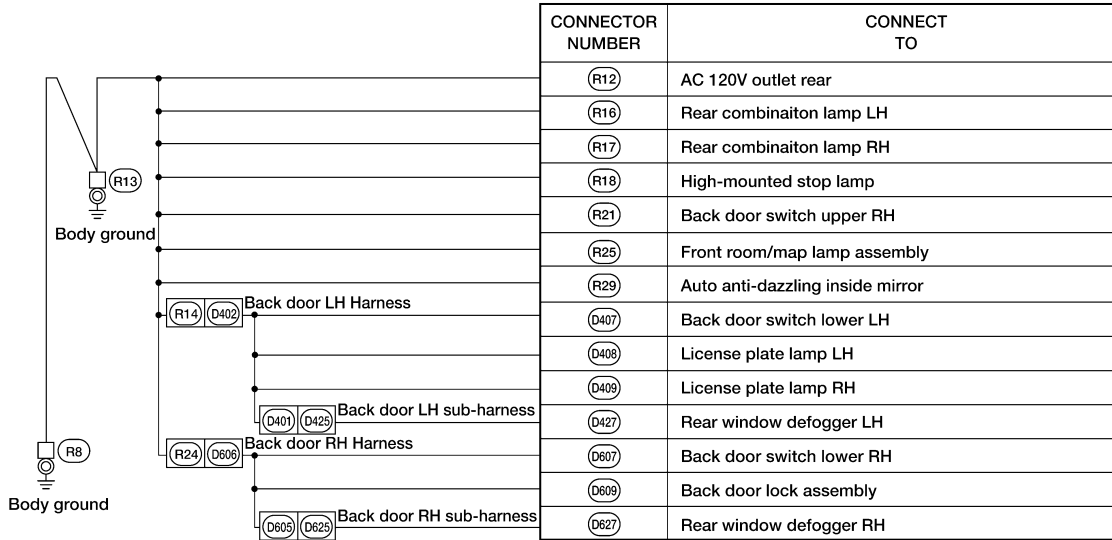
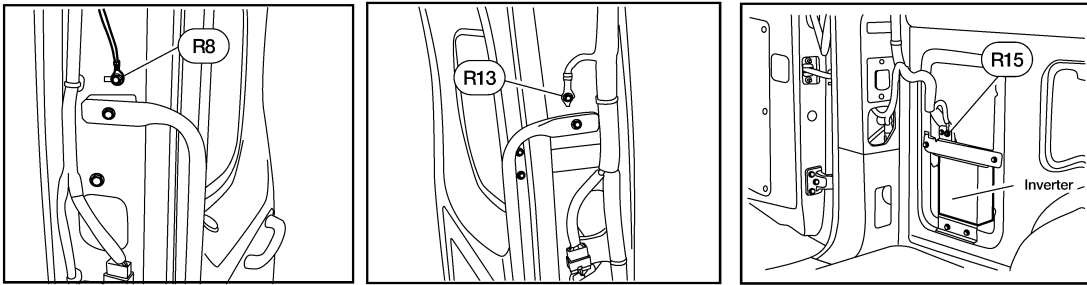
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GROUND

< DTC/CIRCUIT DIAGNOSIS >

ROOM LAMP HARNESS



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HARNESS

< DTC/CIRCUIT DIAGNOSIS >

HARNESS

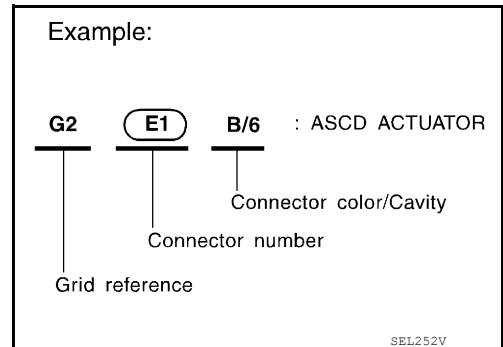
Harness Layout

INFOID:000000006737606

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 Sub-harness, Corner Sensor Sub-harness, and Generator Sub-harness
- Engine Room Harness (Passenger Compartment)
- Engine Control Harness (VK56DE) and Engine Control Sub-harness
- Engine Control Harness (VQ40DE) and Engine Control Sub-harness
- Chassis Harness, Tire Pressure Monitor Sub-harness, and Rear Sonar Sensor Sub-harness
- Body Harness (High Roof), Front Seat LH Harness and Front Seat LH Recliner Sub-harness
- Body Harness (Standard Roof) Passenger Van, Console Sub-harness, Front Seat LH Harness, and Front Seat LH Recliner Sub-harness
- Body Harness (Standard Roof) Cargo Van, Console Sub-harness, Front Seat LH Harness, and Front Seat LH Recliner Sub-harness
- Body No. 2 Harness (High Roof)
- Body No. 2 Harness (Standard Roof) Passenger Van and Front seat RH harness
- Body No. 2 Harness (Standard Roof) Cargo Van
- Room Lamp Harness (High Roof)
- Room Lamp Harness (Standard Roof) Passenger Van and Room Lamp Sub-harness
- Room Lamp Harness (Standard Roof) Cargo Van



To use the grid reference

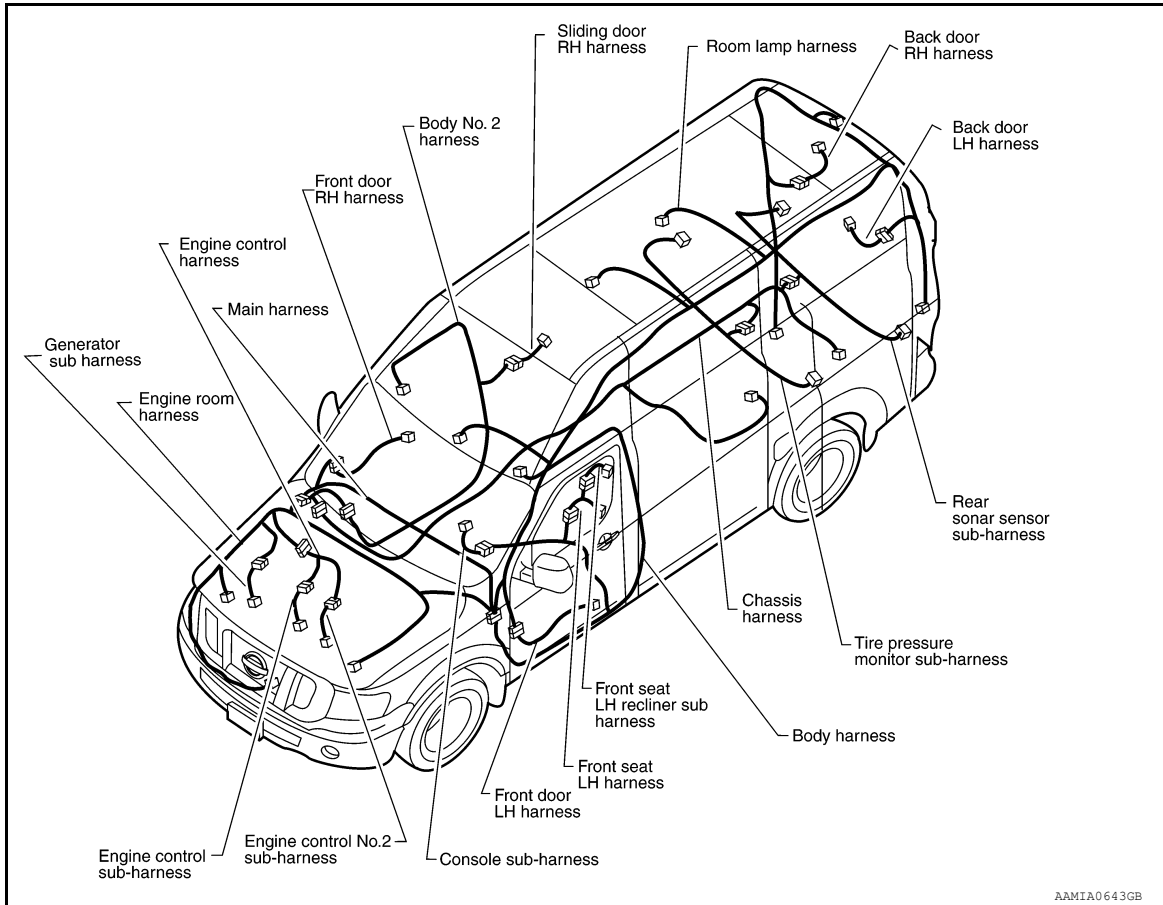
1. Find the desired connector number on the connector list.
2. Find the grid reference.
3. On the drawing, find the crossing of the grid reference letter column and number row.
4. Find the connector number in the crossing zone.
5. Follow the line (if used) to the connector.

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HARNESS

< DTC/CIRCUIT DIAGNOSIS >

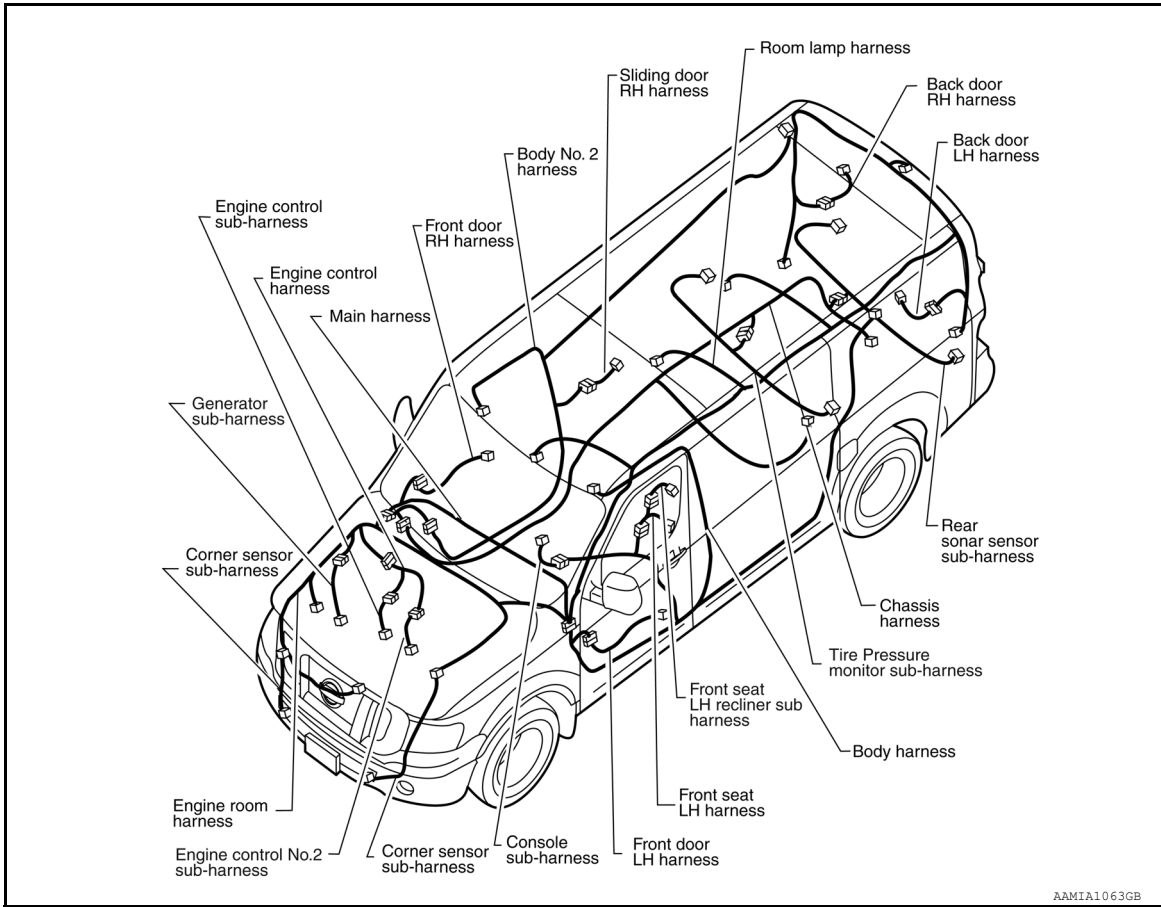
OUTLINE (HIGH ROOF)



HARNESSES

< DTC/CIRCUIT DIAGNOSIS >

OUTLINE (STANDARD ROOF)



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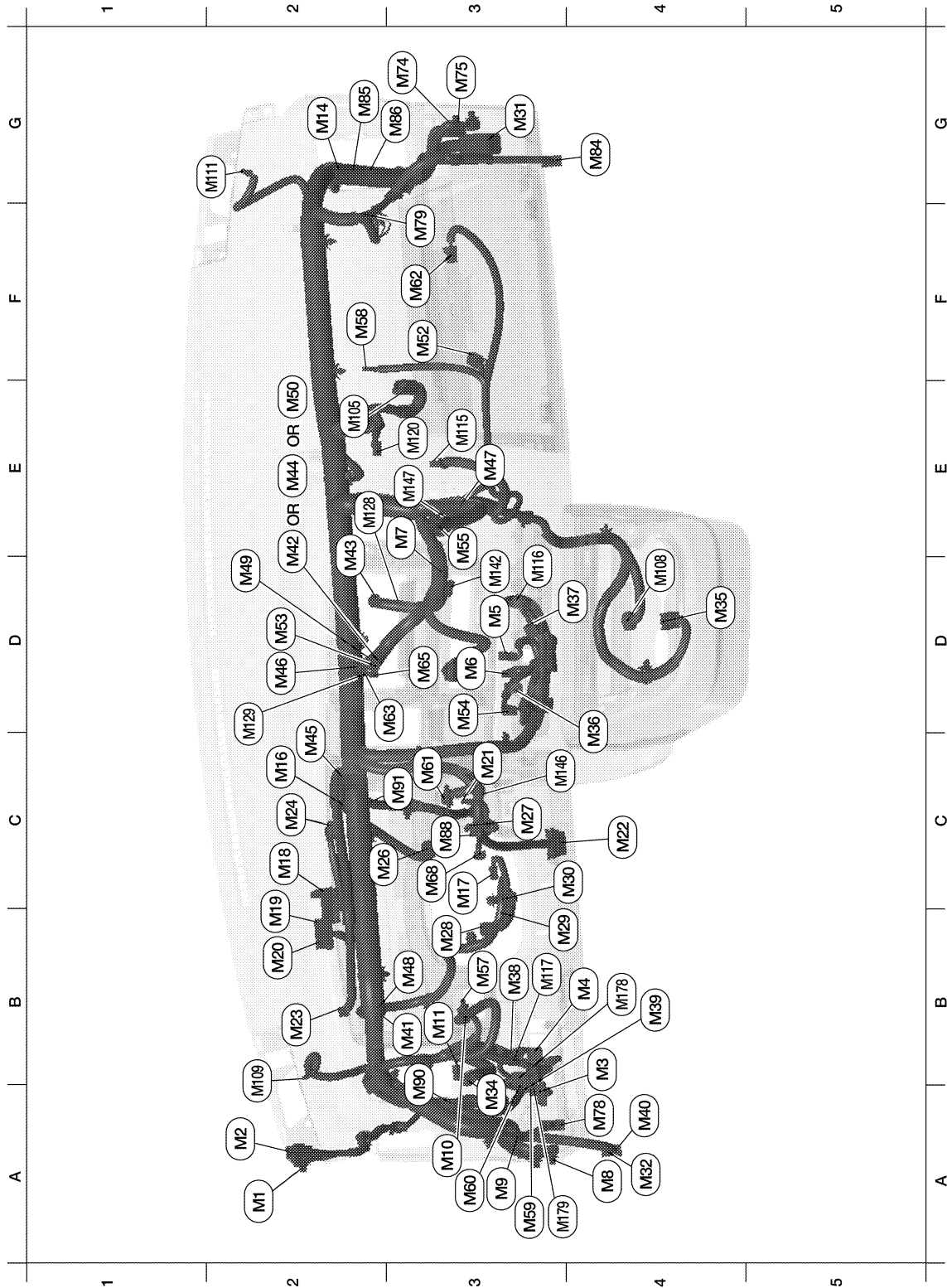
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HARNESS

< DTC/CIRCUIT DIAGNOSIS >

MAIN HARNESS



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A2	M1	W/32	: To R1	B3	M48	W/2	: Diode-2
A2	M2	W/8	: To R2	D2	M49	W/24	: Front air control
B4	M3	W/8	: Fuse block (J/B)	E2	M50	W/20	: Audio unit (with MID audio system)
B4	M4	W/16	: Fuse block (J/B)	F3	M52	W/4	: Power transistor

HARNESS

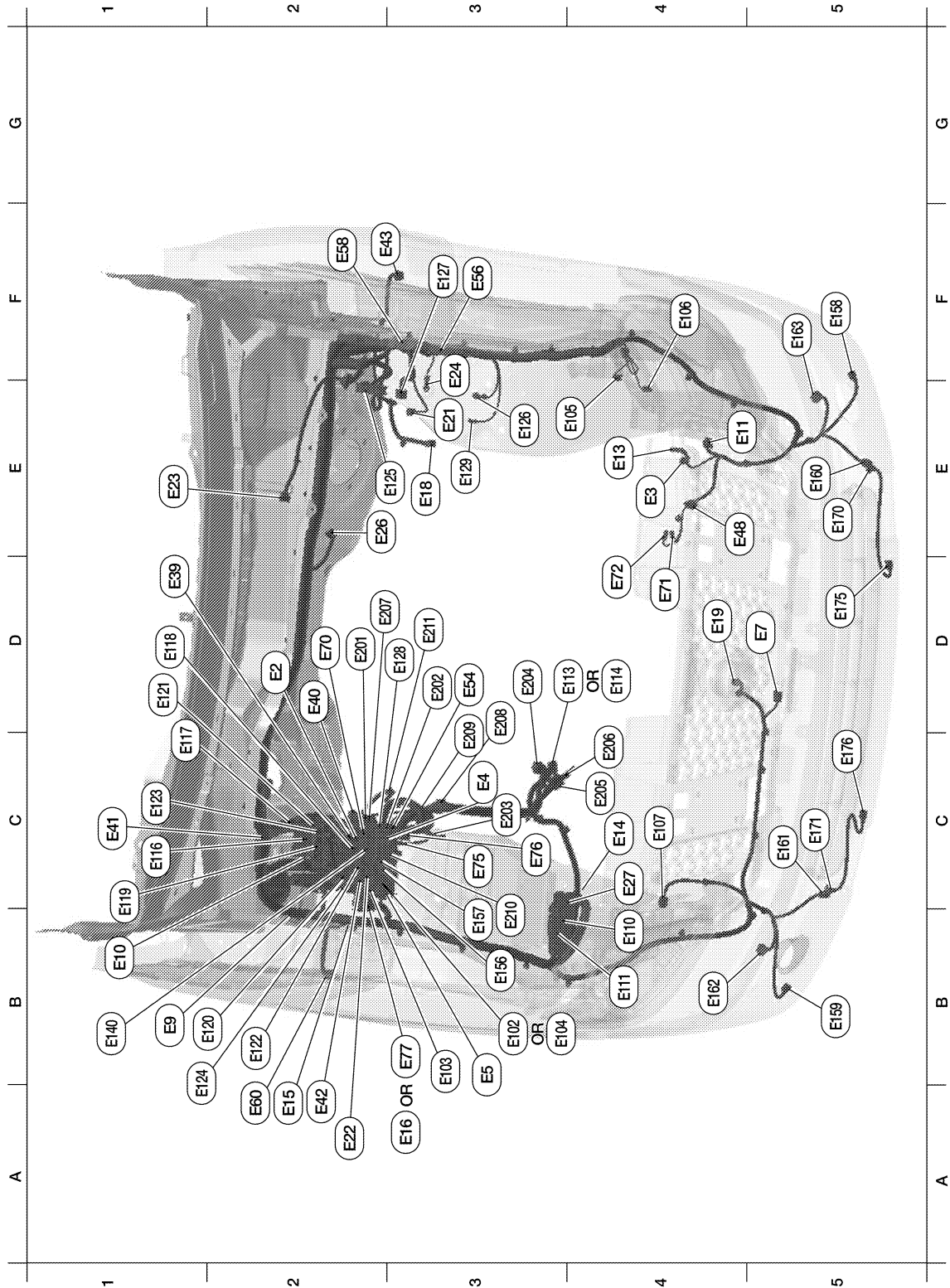
< DTC/CIRCUIT DIAGNOSIS >

D3	M5	W/12	: A/C 120V outlet main switch	D2	M53	W/24	: Front air control	A
D3	M6	GR/8	: Tow mode switch	D3	M54	GR/3	: Front power socket	A
E3	M7	W/24	: Pre-wiring for telematics control module	E3	M55	W/4	: Hazard switch	B
A4	M8	W/12	: To D2	B3	M57	—	: Body ground	B
A3	M9	W/12	: To D1	F2	M58	W/3	: Intake door motor	C
A3	M10	W/8	: Front fog lamp switch	A3	M59	BR/6	: Rear blower relay	C
B3	M11	B/1	: Parking brake switch	A3	M60	L/4	: Front blower motor relay-2	C
G2	M14	L/20	: Joint connector-M04	C3	M61	—	: Body ground	D
C2	M16	L/20	: Joint connector-M03	F3	M62	W/2	: Front blower motor	D
C3	M17	W/8	: Steering angle sensor	D2	M63	GR/9	: AV control unit (with premium audio system)	E
C2	M18	W/40	: BCM (body control module)	D3	M65	L/2	: AV control unit (with premium audio system)	E
B2	M19	W/15	: BCM (body control module)	C3	M68	W/8	: A/T shift selector	F
B2	M20	B/15	: BCM (body control module)	G3	M74	W/12	: To D102	F
C3	M21	W/4	: NATS antenna amp.	G3	M75	W/8	: To D101	G
C4	M22	W/16	: Data link connector	A4	M78	W/16	: To E55	G
B2	M23	W/12	: Combination meter	F3	M79	—	: Body ground	G
C2	M24	W/24	: Combination meter	G4	M84	W/12	: To B101	H
C2	M26	W/6	: Ignition switch	G2	M85	W/32	: Bluetooth® control unit	H
C3	M27	W/2	: Key switch	G3	M86	W/8	: Bluetooth® control unit	H
B3	M28	W/16	: Combination switch	C3	M88	L/4	: TCM (transmission control module) relay	I
B3	M29	Y/6	: Spiral cable	A3	M90	W/32	: Low tire pressure warning control unit	I
C4	M30	GR/8	: Spiral cable	C3	M91	W/2	: Diode-3	J
G3	M31	SMJ	: To E152	E2	M105	Y/2	: Front passenger air bag module	J
A4	M32	SMJ	: To B20 (passenger van)	D4	M108	B/6	: Yaw rate/ side/ decel G sensor	K
A3	M34	W/8	: Lighting switch	B2	M109	BR/2	: Tweeter LH	K
D4	M35	Y/28	: Air bag diagnosis sensor unit	G2	M111	BR/2	: Tweeter RH	L
C4	M36	W/6	: Front heated seat switch LH	E3	M115	W/24	: Sonar control unit	L
D4	M37	BR/6	: Front heated seat switch RH	D3	M116	W/8	: Sonar system OFF switch	L
B3	M38	B/2	: Fuse block (J/B)	B3	M117	GR/6	: VDC OFF switch	PG
B4	M39	W/8	: Fuse block (J/B)	E3	M120	W/4	: Remote keyless entry receiver	PG
A4	M40	W/12	: To B69	E2	M128	GR/9	: USB interface and AUX jack	PG
B3	M41	W/2	: Diode-1	D2	M129	B/1	: AV control unit (with premium audio system)	N
E2	M42	W/20	: Audio unit (with base audio system)	D3	M142	W/3	: Mode door actuator	N
E2	M43	W/16	: Audio unit (with MID audio system)	C3	M146	W/2	: Intake sensor	O
E2	M44	W/20	: AV control unit (with premium audio system)	E3	M147	W/3	: Air mix door motor	O
C2	M45	L/20	: Joint connector-M01	B4	M178	W/16	: Door mirror remote control switch	P
D2	M46	W/24	: AV control unit (with premium audio system)	A3	M179	L/4	: Accessory socket relay	P
E3	M47	G/20	: Joint connector-M02					

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

ENGINE ROOM HARNESS



AAM1A1036GB

D2	E2	W/10	: To F32	B4	E111	L/4	: Cooling fan relay-4 (passenger van)
E4	E3	B/1	: Horn (high)	D4	E113	GR/4	: Cooling fan motor
C3	E4	BR/2	: Fusible link box (battery)	D4	E114	GR/4	: Cooling fan motor-2 (passenger van)
B3	E5	W/24	: To F14	C1	E116	W/2	: Condenser-2
D5	E7	Y/2	: Crash zone sensor	C1	E117	B/2	: Front wheel sensor RH

HARNESS

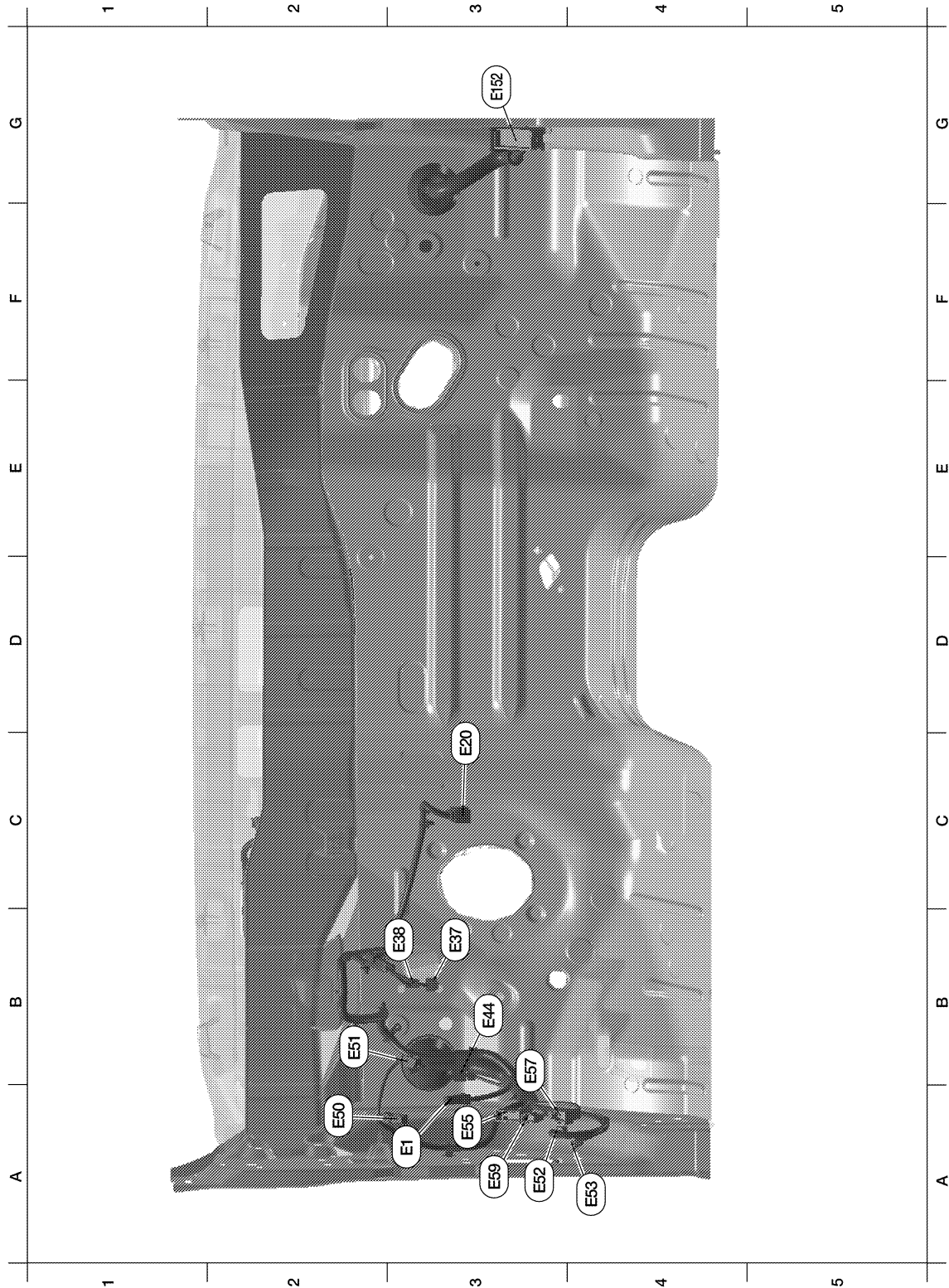
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B1	E9	—	: Body ground	D1	E118	B/2	: IPDM E/R (intelligent power distribution module engine room)	A	
B1	E10	B/2	: Fuse and fusible link box	C1	E119	W/16	: IPDM E/R (intelligent power distribution module engine room)	B	
E4	E11	GR/6	: Front combination lamp LH	B1	E120	W/6	: IPDM E/R (intelligent power distribution module engine room)	C	
E4	E13	B/1	: Horn (high)	D1	E121	BR/12	: IPDM E/R (intelligent power distribution module engine room)	D	
C4	E14	—	: Body ground	B2	E122	W/12	: IPDM E/R (intelligent power distribution module engine room)	E	
A2	E15	—	: Body ground	C1	E123	BR/8	: IPDM E/R (intelligent power distribution module engine room)	F	
A3	E16	B/40	: ECM (with VQ40DE)	A1	E124	B/6	: IPDM E/R (intelligent power distribution module engine room)	G	
E3	E18	B/2	: Front wheel sensor LH	E3	E125	B/46	: ABS actuator and electric unit (control unit)	H	
D4	E19	B/2	: Ambient sensor	E3	E126	—	: Body ground	I	
E3	E21	B/2	: Brake fluid level switch	F3	E127	B/4	: ABS actuator and electric unit (control unit)	J	
A2	E22	L/5	: Inverter relay	D3	E128	L/4	: Stop lamp relay	K	
E1	E23	GR/5	: Front wiper motor	E3	E129	—	: Body ground	L	
E3	E24	—	: Body ground	B1	E140	BR/6	: Trailer tow relay 2	PG	
E3	E26	B/2	: Heater pump (with VQ40DE)	B3	E156	L/4	: Trailer turn relay LH	N	
B4	E27	L/4	: Heater pump relay (with VQ40DE)	B3	E157	L/4	: Trailer turn relay RH	O	
D1	E39	W/2	: To F34	F5	E158	B/2	: Front sonar sensor LH outer	P	
D2	E40	BR/3	: To E201	B5	E159	B/2	: Front sonar sensor RH outer		
C1	E41	SMJ	: To C1	E5	E160	B/4	: To E170		
A2	E42	L/4	: Trailer tow relay 1	C5	E161	B/4	: To E171		
F2	E43	B/4	: Tire pressure receiver front LH	B4	E162	B/2	: Front fog lamp LH		
E4	E48	B/3	: Refrigerant pressure sensor	F5	E163	B/2	: Front fog lamp RH		
D3	E54	BR/6	: Back-up lamp relay	Corner sensor sub-harness					
F3	E56	GR/2	: Upfitter 1	E5	E170	B/4	: To E160		
F2	E58	G/4	: Upfitter 3	C5	E171	B/4	: To E161		
A2	E60	B/4	: Tire pressure receiver front RH	D4	E175	B/2	: Front sonar sensor LH inner		
D2	E70	GR/9	: To E207	C5	E176	B/2	: Front sonar sensor RH inner		
D4	E71	B/1	: Horn (low)	Generator sub-harness					
D4	E72	B/1	: Horn (low)	D2	E201	BR/3	: To E40		
C3	E75	/1	: Fusible link box (battery)	D3	E202	/1	: Fusible link box (battery)		
C3	E76	GR/2	: Fusible link box (battery)	C3	E203	—	: Body ground		
B3	E77	B/40	: ECM (with VK56DE)	D3	E204	/1	: Generator		
B3	E102	L/4	: Daytime light relay 2 (for USA)	C4	E205	B/3	: Generator		
B3	E103	B/5	: Daytime light relay 1	C4	E206	/1	: Generator		
B3	E104	L/4	: Daytime light relay 2 (for Canada)	D3	E207	GR/9	: To E70		
E4	E105	B/2	: Front washer motor	C3	E208	/1	: Starter motor		
F4	E106	BR/2	: Washer fluid level switch	C3	E209	GR/1	: Starter motor		
C4	E107	GR/6	: Front combination lamp RH	B3	E210	/1	: Fusible link box (battery)		
C4	E110	L/4	: Cooling fan relay-3 (passenger van)	D3	E211	B/1	: Oil pressure switch (with VQ40DE)		

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)



ABMIA2760GB

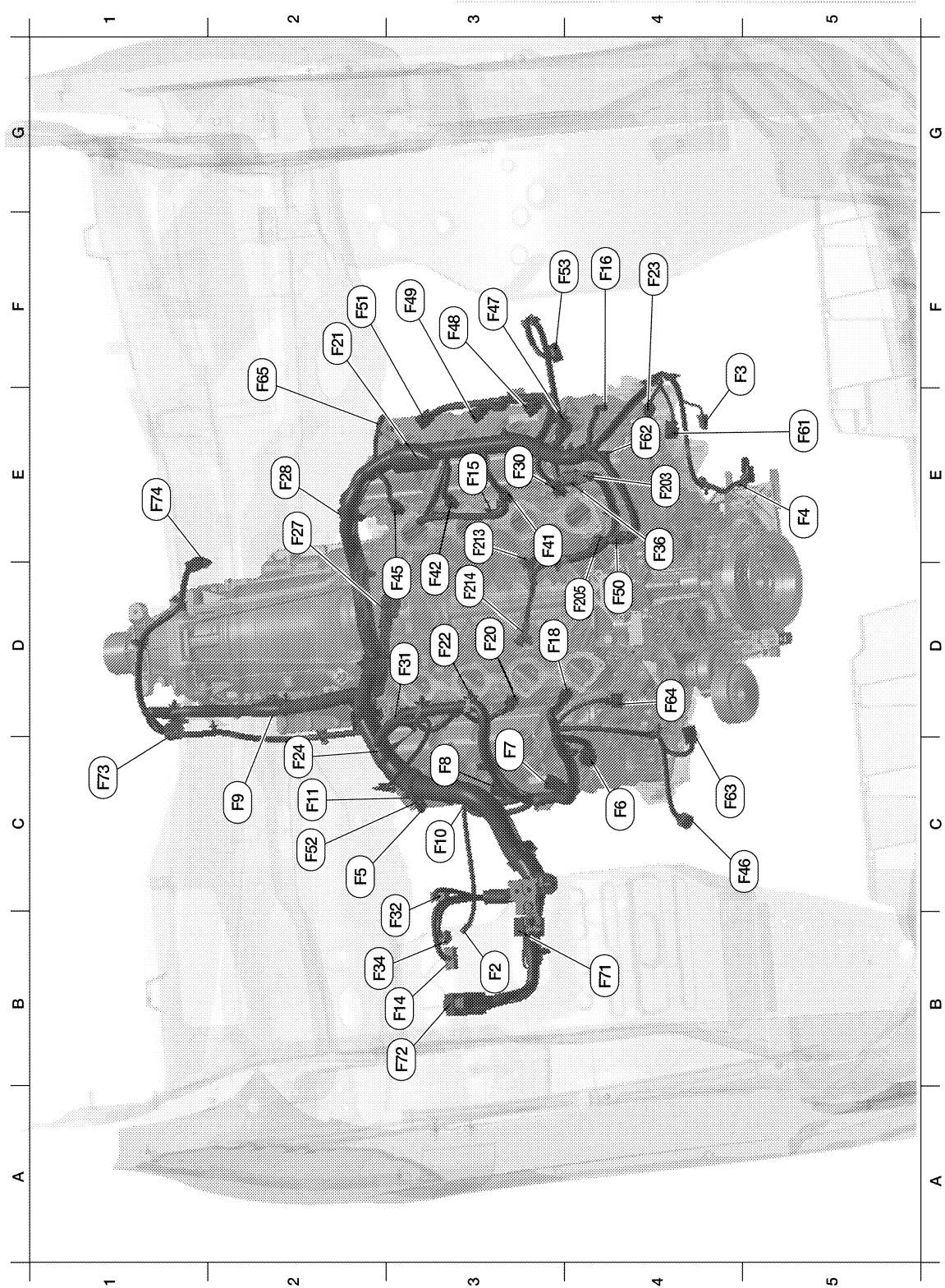
A3	E1	B/1	: To R5	A3	E52	BR/1	: To R23
C3	E20	B/6	: Accelerator pedal position (APP) sensor	A4	E53	W/4	: To R9
B3	E37	BR/2	: ASCD brake switch	A3	E55	W/16	: To M78
B3	E38	W/4	: Stop lamp switch	B3	E57	B/2	: Upfitter 2
B3	E44	W/6	: Electric brake pre-wiring	A3	E59	W/4	: Upfitter 4

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

A2	E50	B/1	: Fuse block J/B	G3	E152	SMJ	: To M31
B2	E51	W/6	: Fuse block J/B				

ENGINE CONTROL HARNESS (VK56DE)



AAMIA1050GB

B3	F2	—	: Body ground	E3	F41	GR/2	: Fuel injector No. 3
F5	F3	B/1	: A/C Compressor	D3	F42	GR/2	: Fuel injector No. 5
E5	F4	GR/1	: Oil pressure switch	D3	F45	GR/2	: Fuel injector No. 7

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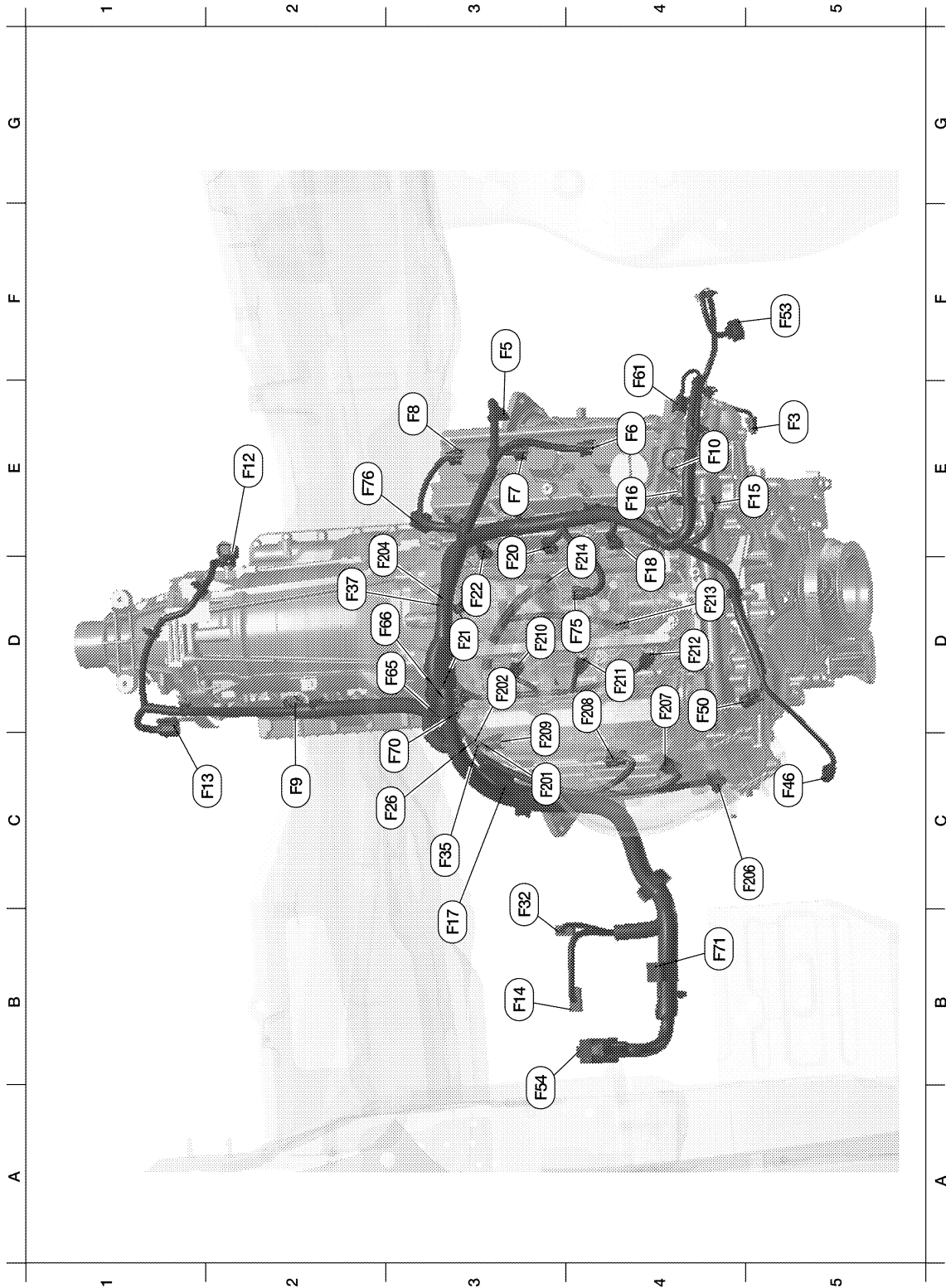
< DTC/CIRCUIT DIAGNOSIS >

C2	F5	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 2)	C4	F46	B/3	: Power steering pressure sensor
C4	F6	GR/3	: Ignition coil No. 2 (with power transistor)	F3	F47	GR/3	: Ignition coil No. 1 (with power transistor)
C3	F7	GR/3	: Ignition coil No. 4 (with power transistor)	F3	F48	GR/3	: Ignition coil No. 3 (with power transistor)
C3	F8	GR/3	: Ignition coil No. 6 (with power transistor)	F3	F49	GR/3	: Ignition coil No. 5 (with power transistor)
C2	F9	G/10	: A/T assembly	D4	F50	B/6	: Electric throttle control actuator
C3	F10	—	: Engine ground	F2	F51	GR/3	: Ignition coil No. 7 (with power transistor)
C2	F11	B/3	: Crankshaft position sensor (POS) (with VK56DE)	C2	F52	GR/3	: Ignition coil No. 8 (with power transistor)
B3	F14	W/24	: To E5	F3	F53	B/6	: Mass air flow sensor
E3	F15	GR/2	: EVAP canister purge volume control solenoid valve	E5	F61	G/2	: Intake valve timing control solenoid valve (bank 1)
F4	F16	—	: Engine ground	E4	F62	B/3	: Intake valve timing control position sensor (bank 1)
D3	F18	GR/2	: Fuel injector No. 2	C4	F63	G/2	: Intake valve timing control solenoid valve (bank 2)
D3	F20	GR/2	: Fuel injector No. 4	D4	F64	B/3	: Intake valve timing control position sensor (bank 2)
F2	F21	W/2	: Condenser-1	F2	F65	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 1)
D3	F22	GR/2	: Fuel injector No. 6	B4	F71	GR/10	: Joint connector-F01
F4	F23	B/3	: Camshaft position sensor (PHASE)	B3	F72	B/81	: ECM
C2	F24	GR/2	: Water valve	C1	F73	B/4	: Heated oxygen sensor 2 (bank 2)
E2	F27	/1	: Starter motor	E1	F74	B/4	: Heated oxygen sensor 2 (bank 1)
E2	F28	GR/1	: Starter motor	Engine control sub-harness			
E3	F30	GR/2	: Fuel injector No. 1	E4	F203	B/6	: To F36
D3	F31	GR/2	: Fuel injector No. 8	D4	F205	GR/2	: Engine coolant temperature sensor
B3	F32	W/10	: To E2	E3	F213	GR/2	: Knock sensor (bank 1)
B2	F34	W/2	: To E39	D3	F214	GR/2	: Knock sensor (bank 2)
E4	F36	B/6	: To F203				

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

ENGINE CONTROL HARNESS (VQ40DE)



ABMIA2761GB

E5	F3	B/1	: A/C Compressor	F5	F53	B/6	: Mass air flow sensor
F3	F5	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 2)	A3	F54	B/81	: ECM
E4	F6	GR/3	: Ignition coil No. 2 (with power transistor)	F4	F61	G/2	: Intake valve timing control solenoid valve (bank 1)
E3	F7	GR/3	: Ignition coil No. 4 (with power transistor)	D3	F65	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 1)

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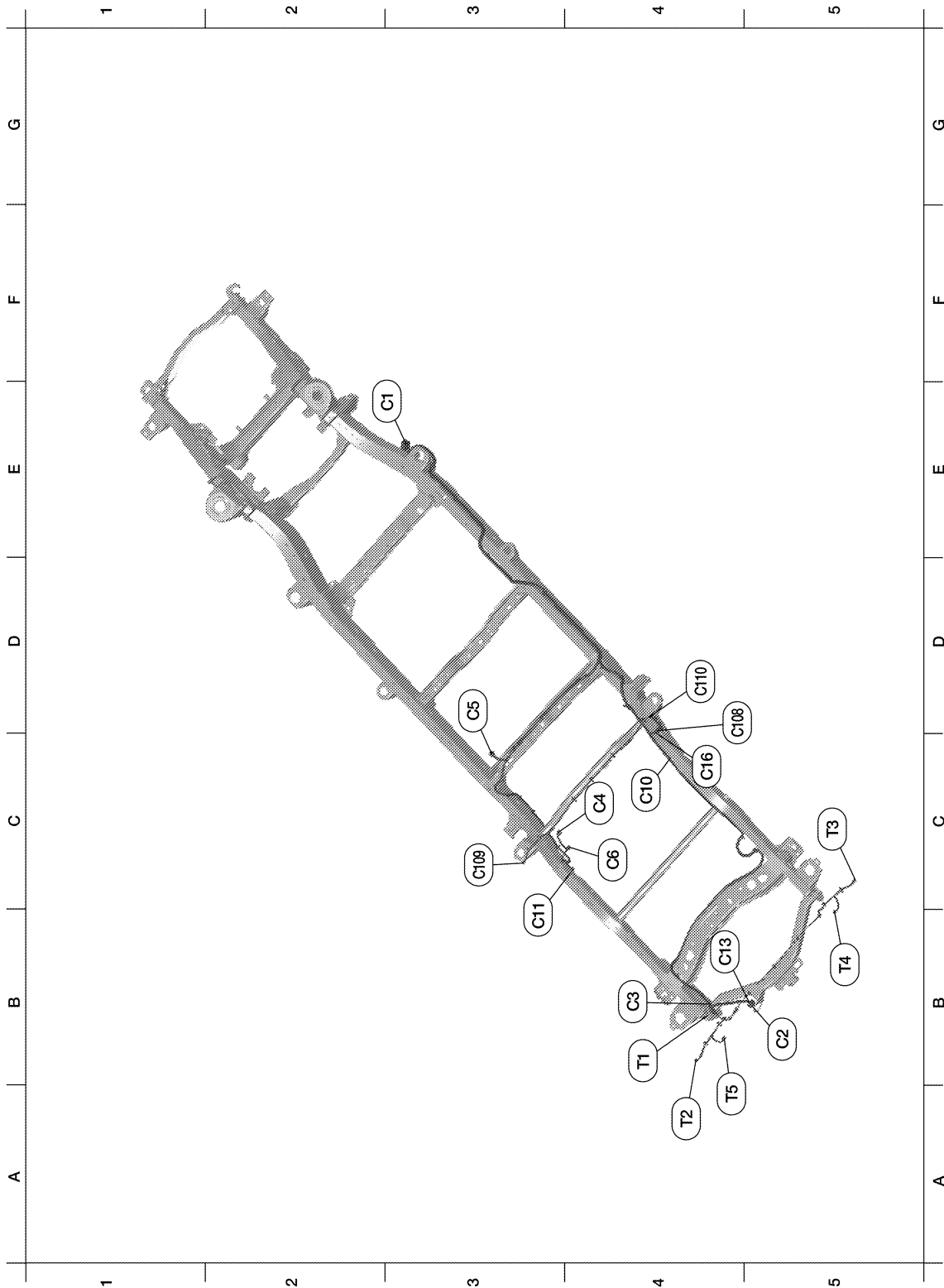
< DTC/CIRCUIT DIAGNOSIS >

E3	F8	GR/3	: Ignition coil No. 6 (with power transistor)	D3	F66	B/3	: Camshaft position sensor (PHASE) (bank 1)
C2	F9	G/10	: A/T assembly	C3	F70	GR/2	: Engine coolant temperature sensor
E4	F10	—	: Engine ground	B4	F71	GR/10	: Joint connector-F01
E2	F12	L/4	: Heated oxygen sensor 2 (bank 2)	D4	F75	B/2	: Vias control solenoid valve
C2	F13	G/4	: Heated oxygen sensor 2 (bank 1)	E2	F76	B/3	: Camshaft position sensor (PHASE) (bank 2)
B3	F14	W/24	: To E5	Engine control sub-harness			
E5	F15	GR/2	: EVAP canister purge volume control solenoid valve	C3	F201	G/8	: To F26
E4	F16	—	: Engine ground	D3	F202	L/4	: To F35
B3	F17	B/3	: Crankshaft position sensor (POS) (with VQ40DE)	D2	F204	G/4	: To F37
D4	F18	GR/2	: Fuel injector No. 2	C5	F206	G/2	: Intake valve timing control solenoid valve (bank 2)
D3	F20	GR/2	: Fuel injector No. 4	D4	F207	GR/3	: Ignition coil No. 1 (with power transistor)
D3	F21	W/2	: Condenser-1	D4	F208	GR/3	: Ignition coil No. 3 (with power transistor)
D3	F22	GR/2	: Fuel injector No. 6	C3	F209	GR/3	: Ignition coil No. 5 (with power transistor)
C3	F26	G/8	: To F201	D3	F210	GR/2	: Fuel injector No. 5
B3	F32	W/10	: To E2	D4	F211	GR/2	: Fuel injector No. 3
C3	F35	L/4	: To F202	D4	F212	GR/2	: Fuel injector No. 1
D2	F37	G/4	: To F204	D4	F213	GR/2	: Knock sensor (bank 1)
C5	F46	B/3	: Power steering pressure sensor	E4	F214	GR/2	: Knock sensor (bank 2)
D4	F50	B/6	: Electric throttle control actuator				

HARNESSES

< DTC/CIRCUIT DIAGNOSIS >

CHASSIS HARNESS



ABMIA2763GB

E3	C1	SMJ	: To E41	Tire pressure monitor sub-harness		
B5	C2	B/7	: Trailer	D4	C108	B/8 : To C16
B4	C3	GR/6	: To T1	C3	C109	B/4 : Tire pressure receiver rear LH
C4	C4	GR/3	: Evap control system pressure sensor	D4	C110	B/4 : Tire pressure receiver rear RH
D3	C5	GR/5	: Fuel level sensor unit and fuel pump	Rear sonar sensor sub-harness		

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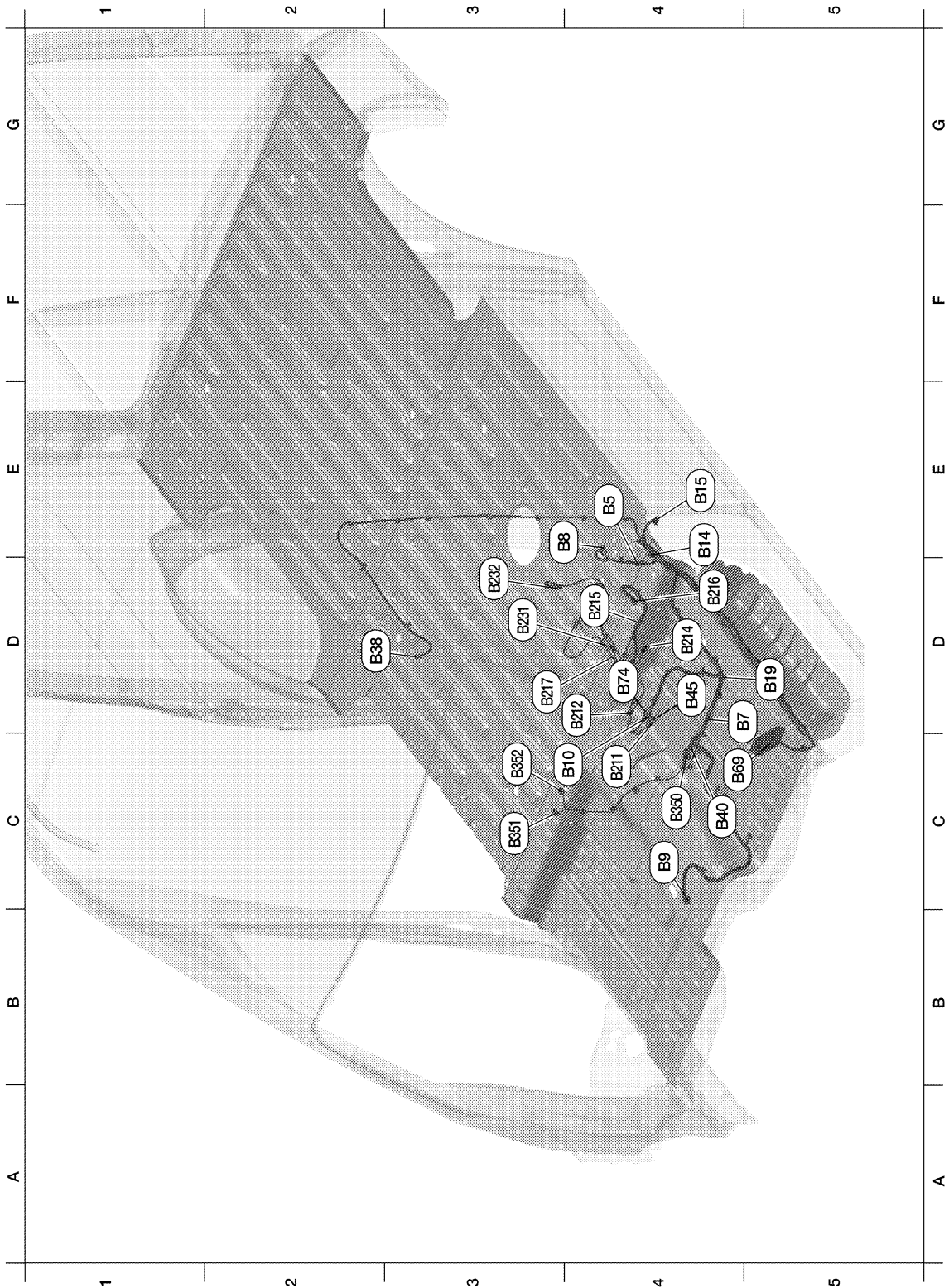
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HARNESS

< DTC/CIRCUIT DIAGNOSIS >

C4	C6	B/2	: Evap canister vent control valve	B4	T1	GR/6	: To C3
C4	C10	GR/2	: Rear wheel sensor RH	A4	T2	B/2	: Rear sonar sensor LH outer
B3	C11	B/2	: Rear wheel sensor LH	C5	T3	B/2	: Rear sonar sensor RH outer
B4	C13	B/7	: Trailer receptacle	B5	T4	B/2	: Rear sonar sensor RH inner
C4	C16	B/8	: To C108	A4	T5	B/2	: Rear sonar sensor LH inner

BODY HARNESS (HIGH ROOF)



ABMIA2764GB

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

E4	B5	—	: Body ground	D4	B212	W/6	: Sliding motor LH	A
D4	B7	—	: Body ground	D4	B214	W/6	: Lifting motor (front)	
E4	B8	W/3	: Front door switch LH	D4	B215	W/6	: Lifting motor (rear)	B
C4	B9	Y/22	: Air bag diagnosis sensor unit	D4	B216	GR/10	: Power seat switch LH	
C3	B10	Y/2	: Front LH side air bag module	D3	B217	W/2	: To B231	
E4	B14	Y/2	: Front LH seat belt pre-tensioner	Front seat LH recliner sub-harness				C
E4	B15	Y/2	: Front side air bag satellite sensor LH	D3	B231	W/2	: To B217	
D5	B19	—	: Body ground	D3	B232	W/2	: Reclining motor LH	D
D2	B38	Y/2	: LH side front curtain air bag module	Console sub-harness				
C4	B40	GR/4	: To B350	C4	B350	GR/4	: To B40	
D4	B45	W/2	: To B211	C3	B351	GR/3	: Console power socket	E
C4	B69	W/12	: To M40	C3	B352	W/4	: AC 120V outlet front	
D4	B74	W/4	: Seat belt buckle switch LH					
Front seat LH harness								F
C4	B211	W/2	: To B45					

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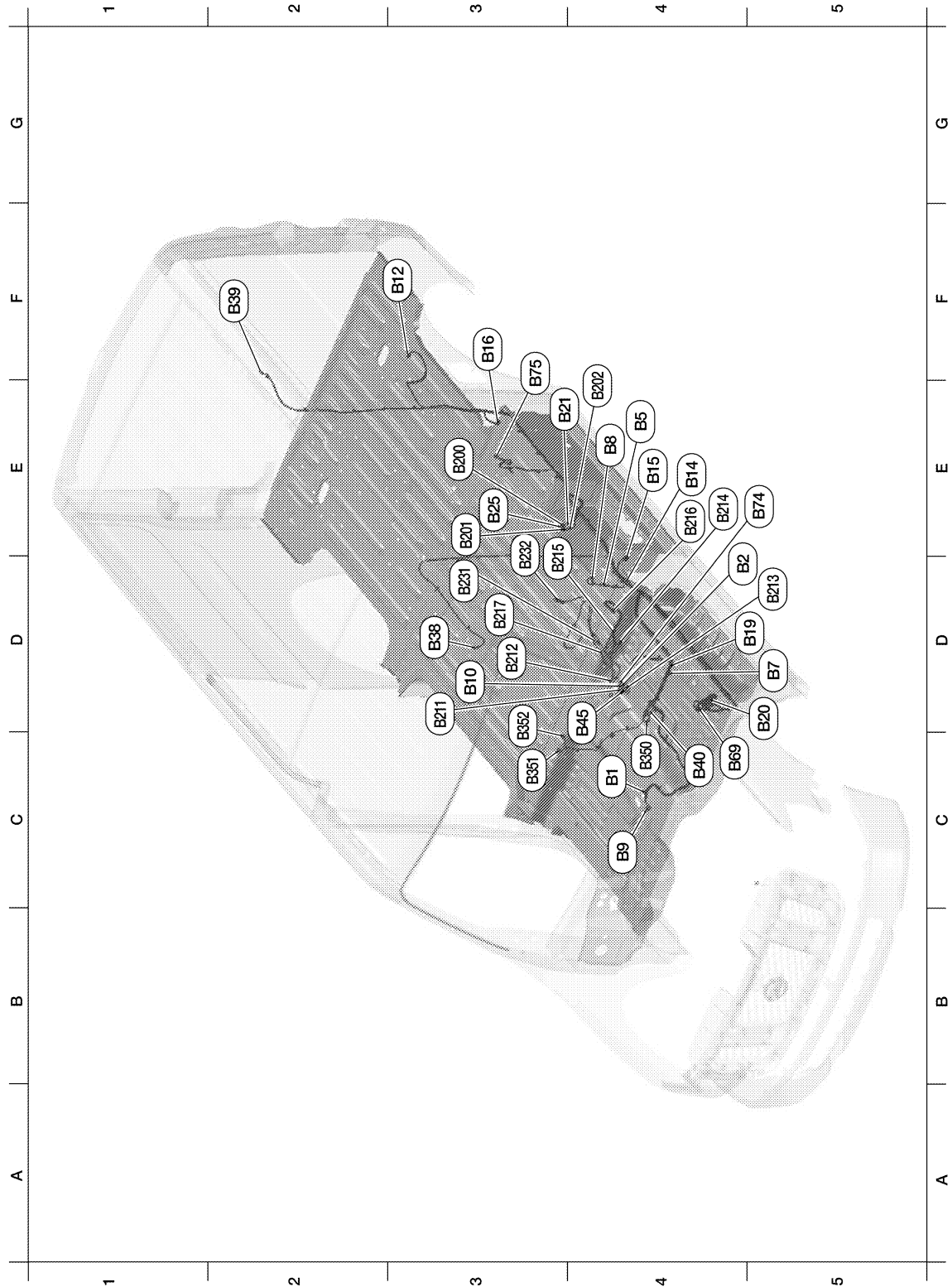
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< DTC/CIRCUIT DIAGNOSIS >

BODY HARNESS (STANDARD ROOF) PASSENGER VAN



AAM1A1012GB

C4	B1	W/4	: Joint connector-B01	F3	B75	GR/3	: Third row power socket
D4	B2	W/4	: To B213	Rear HVAC sub-harness			
E4	B5	—	: Body ground	E3	B200	W/3	: To B25
D4	B7	—	: Body ground	E3	B201	W/3	: Rear mode door motor
E4	B8	W/3	: Front door switch LH	F4	B202	W/3	: Rear air mix door motor

HARNESSES

< DTC/CIRCUIT DIAGNOSIS >

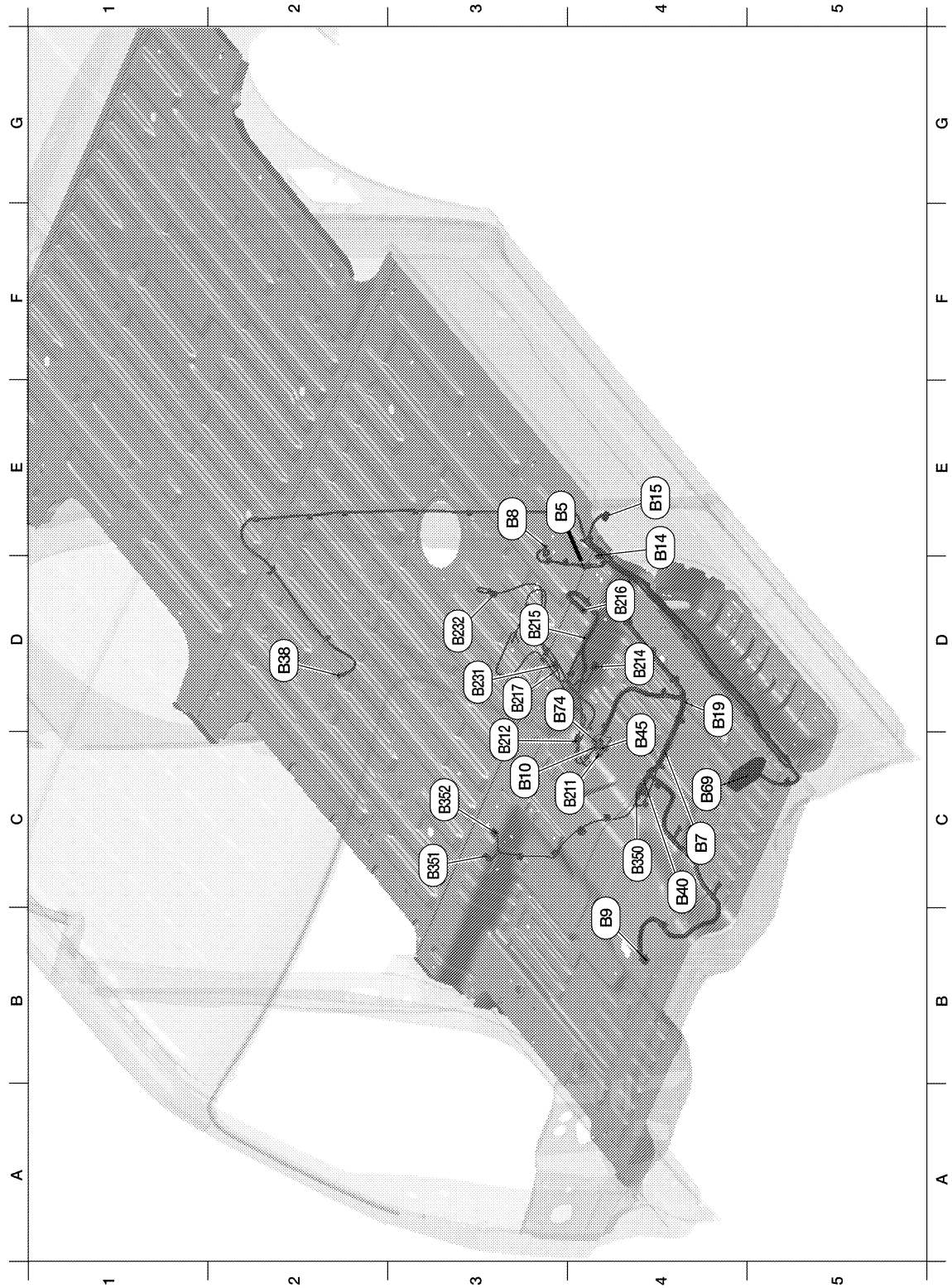
C4	B9	Y/22	: Air bag diagnosis sensor unit	Front seat LH harness			
D3	B10	Y/2	: Front LH side air bag module	D3	B211	W/2	: To B45
F2	B12	W/2	: Rear speaker LH	D3	B212	W/6	: Sliding door motor LH
E4	B14	Y/2	: Front LH seat belt pre-tensioner	D5	B213	W/4	: To B2
E4	B15	Y/2	: Front side air bag satellite sensor LH	E4	B214	W/6	: Lifting motor (front)
F3	B16	Y/2	: Rear side air bag satellite sensor LH	D3	B215	W/6	: Lifting motor (rear)
D4	B19	—	: Body ground	E4	B216	GR/10	: Power seat switch LH
D4	B20	SMJ	: To M32	D3	B217	W/2	: To B231
E3	B21	W/6	: Rear blower motor	Front seat LH recliner sub-harness			
E3	B25	W/3	: To B200	D3	B231	W/2	: To B217
D3	B38	Y/2	: LH side front curtain air bag module	D3	B232	W/2	: Reclining motor LH
F2	B39	Y/2	: LH side rear curtain air bag module	Consol sub-harness			
C4	B40	GR/4	: To B350	C4	B350	GR/4	: To B40
C4	B45	W/2	: B211	C3	B351	GR/3	: Console power socket
C5	B69	W/12	: To M40	D3	B352	W/4	: AC 120V outlet front
E4	B74	W/4	: Seat belt buckle switch				

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< DTC/CIRCUIT DIAGNOSIS >

BODY HARNESS (STANDARD ROOF) CARGO VAN



ABMIA2765GB

E3	B5	—	: Body ground	C3	B212	W/6	: Sliding motor LH
C4	B7	—	: Body ground	D4	B214	W/6	: Lifting motor (front)
E3	B8	W/3	: Front door switch LH	D3	B215	W/6	: Lifting motor (rear)
B4	B9	Y/22	: Air bag diagnosis sensor unit	D4	B216	GR/10	: Power seat switch LH
C3	B10	Y/2	: Front LH side air bag module	D3	B217	W/2	: To B231

HARNESS

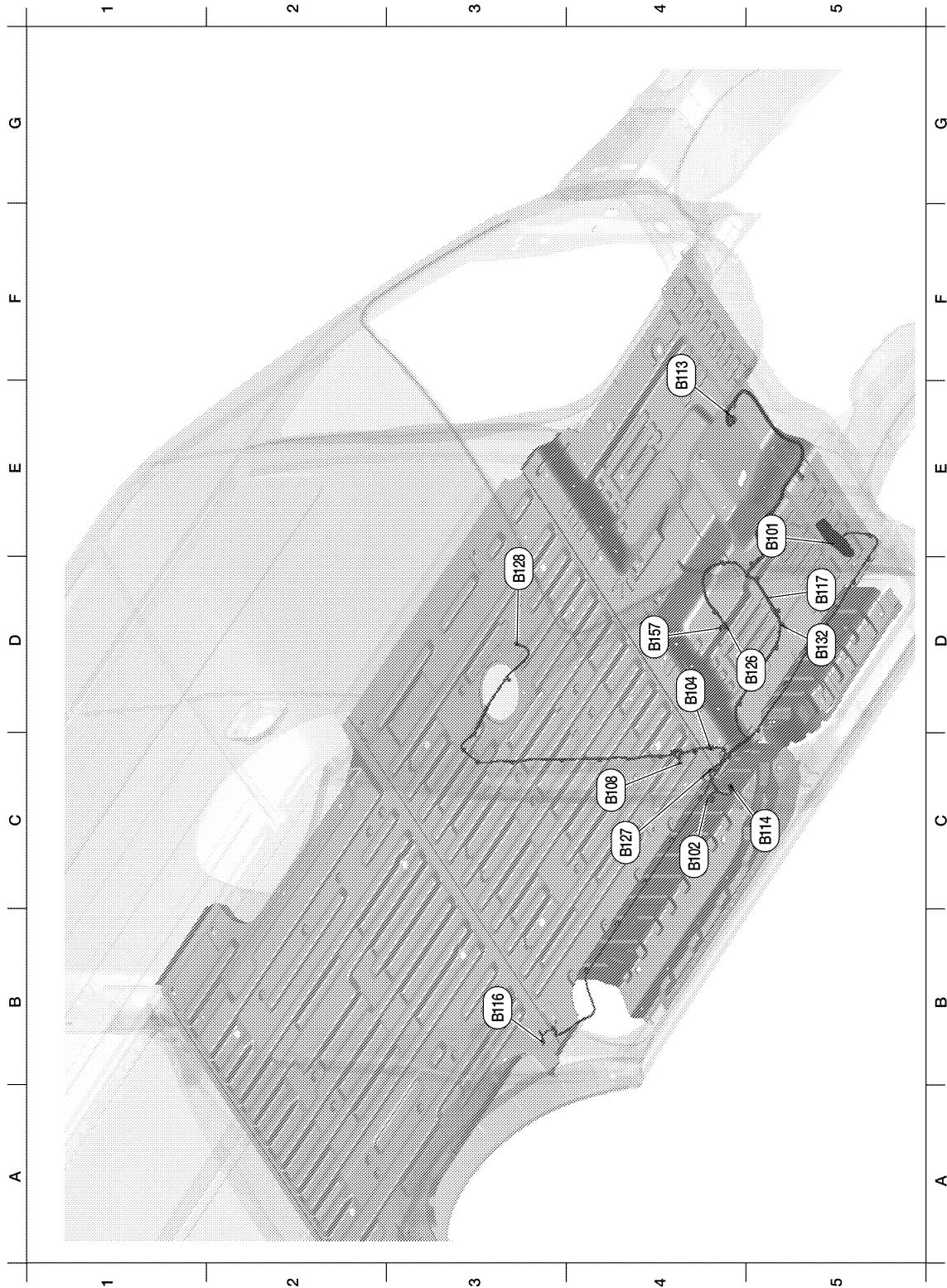
< DTC/CIRCUIT DIAGNOSIS >

E4	B14	Y/2	: Front LH seat belt pre-tensioner	Front seat LH recliner sub-harness				A
E4	B15	Y/2	: Front side air bag satellite sensor LH	D3	B231	W/2	: To B217	
D4	B19	—	: Body ground	D3	B232	W/2	: Reclining motor LH	
D2	B38	Y/2	: LH side curtain air bag module	Console sub-harness				B
C4	B40	GR/4	: To B350	C4	B350	GR/4	: To B40	
C4	B45	W/2	: To B211	C3	B351	GR/3	: Console power socket	
C4	B69	W/12	: To M40	D3	B352	W/4	: AC 120V outlet front	C
D3	B74	W/4	: Seat belt buckle switch LH					
Front seat LH harness								D
C4	B211	W/2	: To B45					E
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HARNESS

< DTC/CIRCUIT DIAGNOSIS >

BODY NO. 2 HARNESS (HIGH ROOF)



ABMIA2766GB

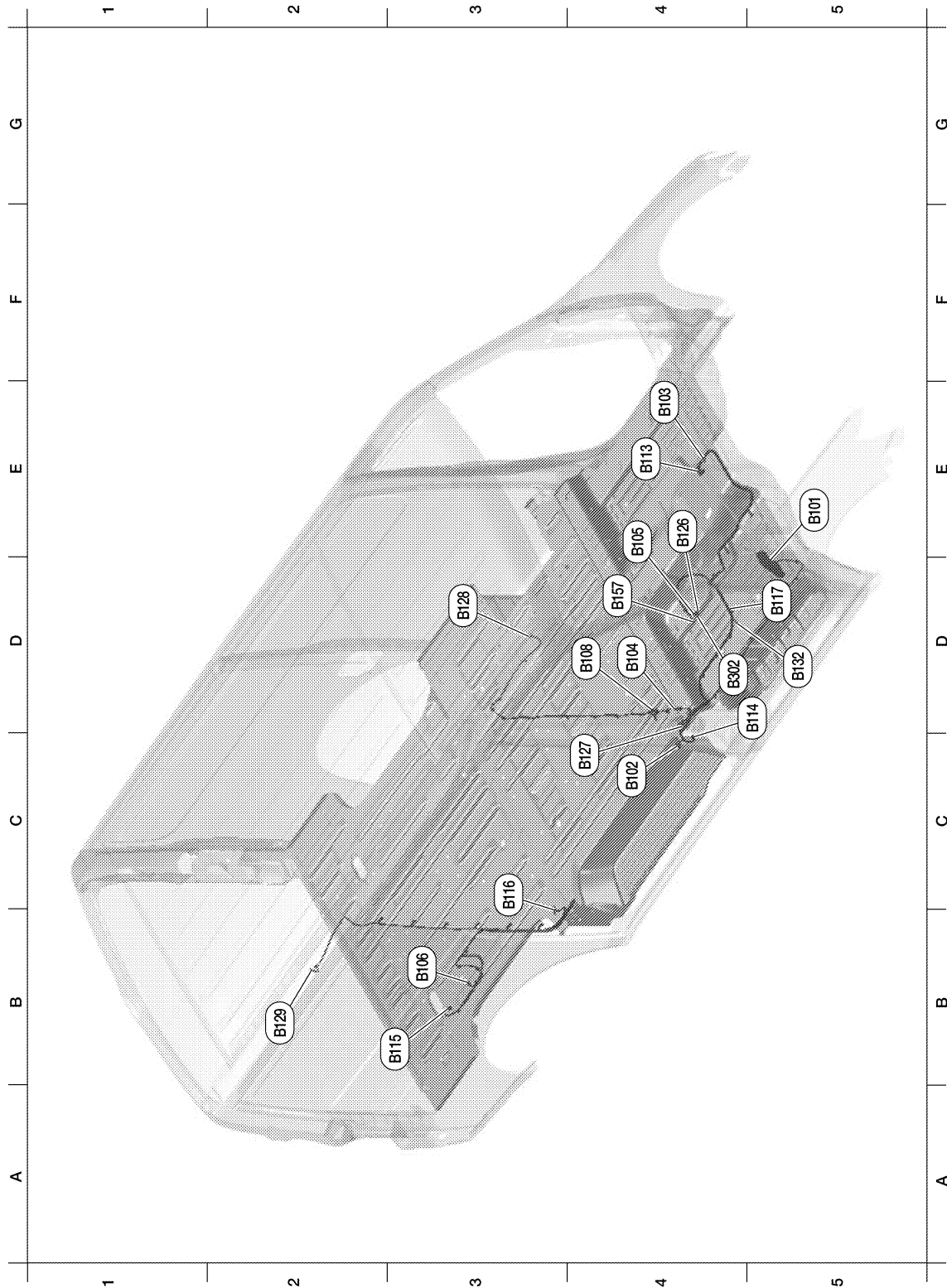
E5	B101	W/12	: To M84	D5	B117	—	: Body ground
C4	B102	W/8	: Sliding door contact switch	D4	B126	Y/2	: Front RH side air bag module
D4	B104	—	: Body ground	C4	B127	Y/2	: Front RH seat belt pre-tensioner
C4	B108	W/3	: Front door switch RH	D3	B128	Y/2	: RH side curtain air bag module
F4	B113	Y/22	: Air bag diagnosis sensor unit	D5	B132	—	: Body ground

HARNES

< DTC/CIRCUIT DIAGNOSIS >

C4	B114	Y/2	: Front side air bag satellite sensor RH	D4	B157	W/4	: Seat belt buckle switch RH
B3	B116	W/3	: Sliding door switch				

BODY NO. 2 HARNES (STANDARD ROOF) PASSENGER VAN



AAMIA1013GB

E5	B101	W/12	: To M84	B3	B116	W/3	: Sliding door switch
C4	B102	W/8	: Sliding door contact switch	D5	B117	—	: Body ground
E4	B103	W/4	: Joint connector-B02	E4	B126	Y/2	: Front RH side air bag module

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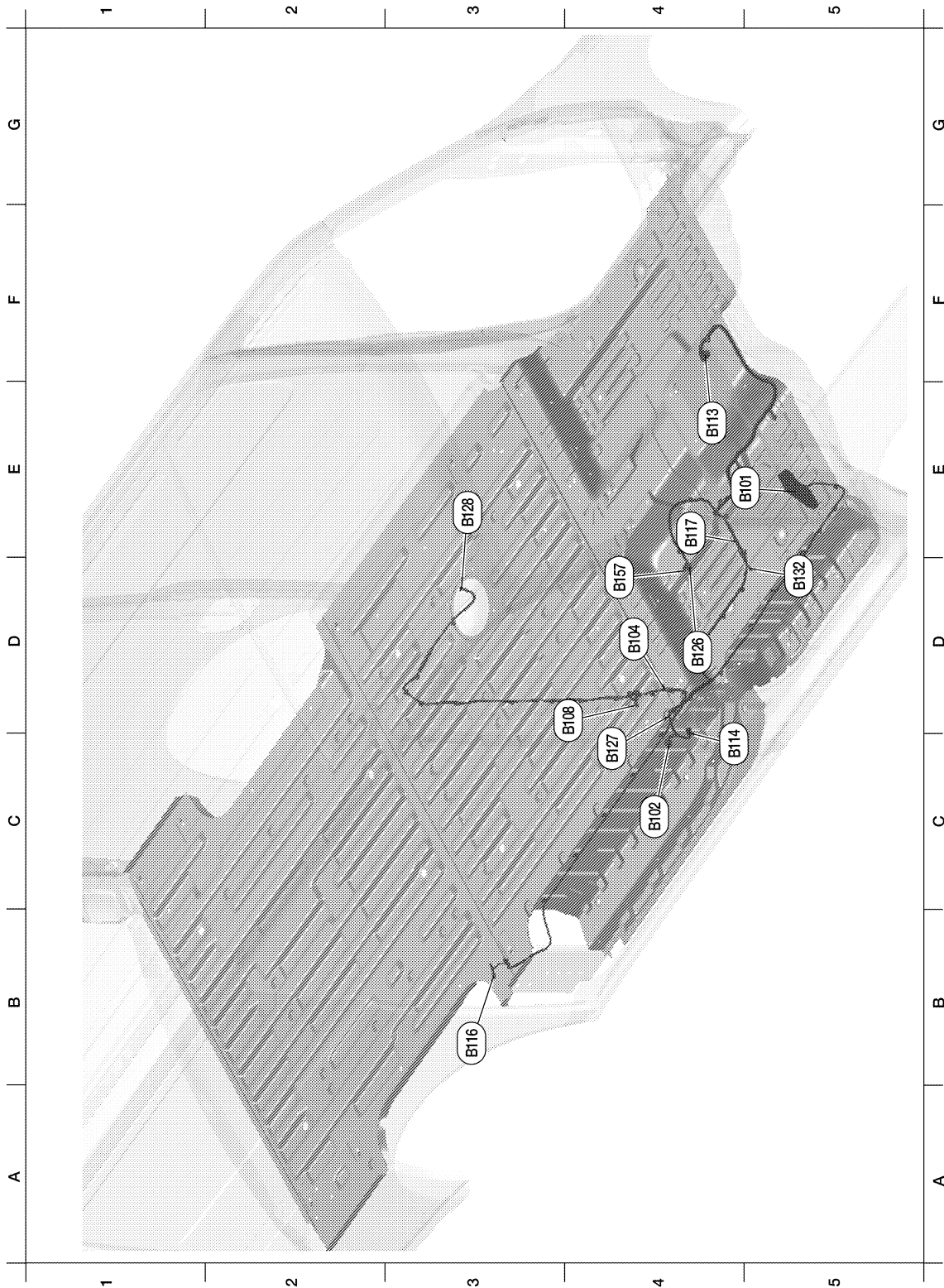
< DTC/CIRCUIT DIAGNOSIS >

D4	B104	—	: Body ground	C4	B127	Y/2	: Front RH seat belt pre-tensioner
E4	B105	W/4	: To B302	D3	B128	Y/2	: RH side curtain air bag module
B3	B106	W/2	: Rear speaker RH	B2	B129	Y/2	: RH side rear curtain air bag module
D3	B108	W/3	: Front door switch RH	D5	B132	—	: Body ground
E4	B113	Y/22	: Air bag diagnosis sensor unit	D4	B157	W/4	: Seat belt buckle switch
D5	B114	Y/2	: Front side air bag satellite sensor RH	Front seat RH harness			
B3	B115	Y/2	: Rear side air bag satellite sensor RH	D4	B302	W/4	: To B105

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

BODY NO. 2 HARNESS (STANDARD ROOF) CARGO VAN



ABMIA2767GB

E4	B101	W/12	: To M84	E4	B117	—	: Body ground
C4	B102	W/8	: Sliding door contact switch	D4	B126	Y/2	: Front RH side air bag module
D4	B104	—	: Body ground	C4	B127	Y/2	: Front RH seat belt pre-tensioner
D3	B108	W/3	: Front door switch RH	E3	B128	Y/2	: RH side curtain air bag module
E4	B113	Y/22	: Air bag diagnosis sensor unit	D5	B132	—	: Body ground

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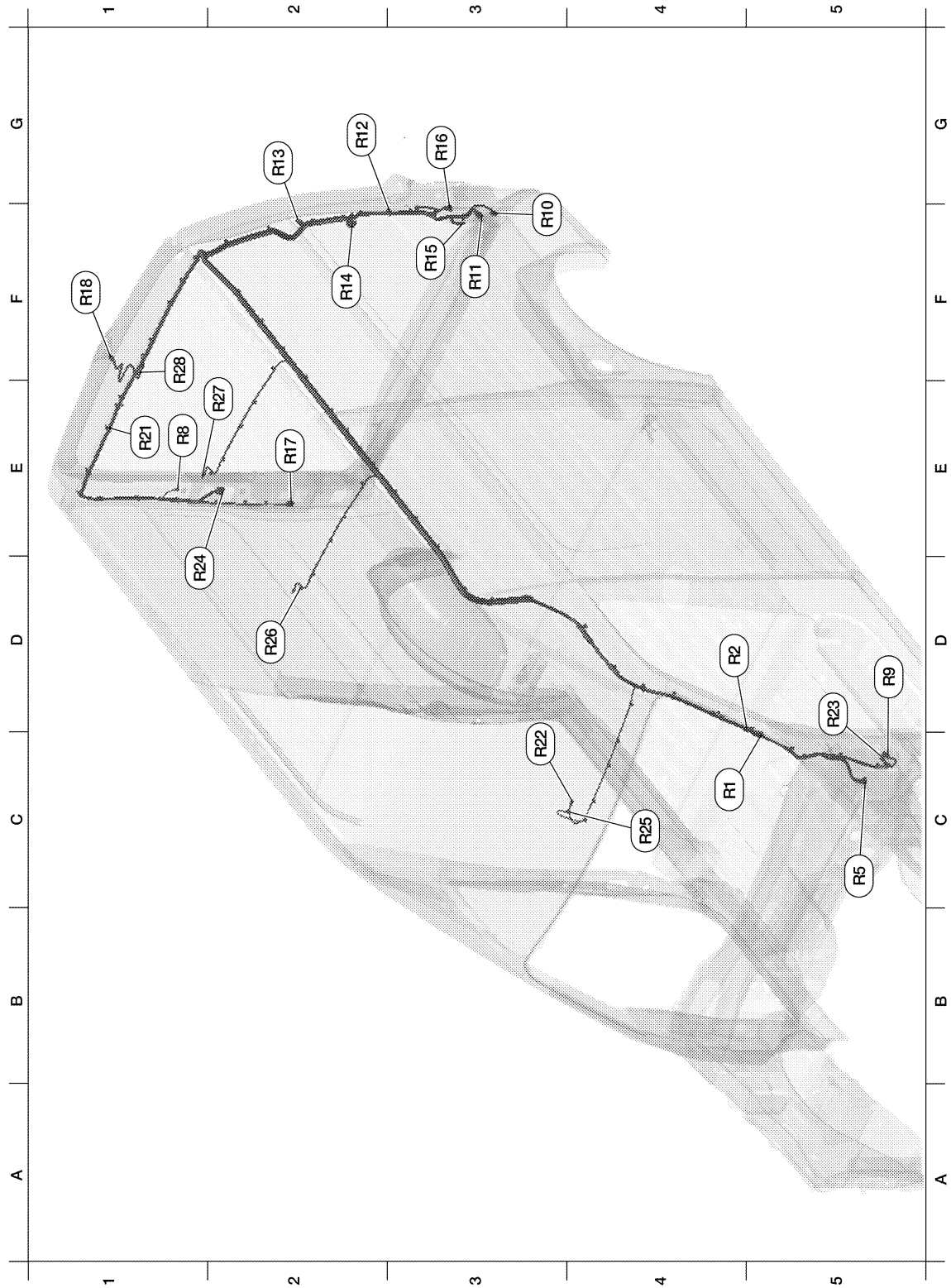
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HARNESS

< DTC/CIRCUIT DIAGNOSIS >

C4	B114	Y/2	: Front side air bag satellite sensor RH	D4	B157	W/4	: Seat belt buckle switch RH
B3	B116	W/3	: Sliding door switch				

ROOM LAMP HARNESS (HIGH ROOF)



ABMIA2768GB

C4	R1	W/32	: To M1	G3	R16	W/6	: Rear combination lamp LH
D4	R2	W/8	: To M2	E2	R17	W/6	: Rear combination lamp RH
C5	R5	B/1	: To E1	F1	R18	B/2	: High-mounted stop lamp

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

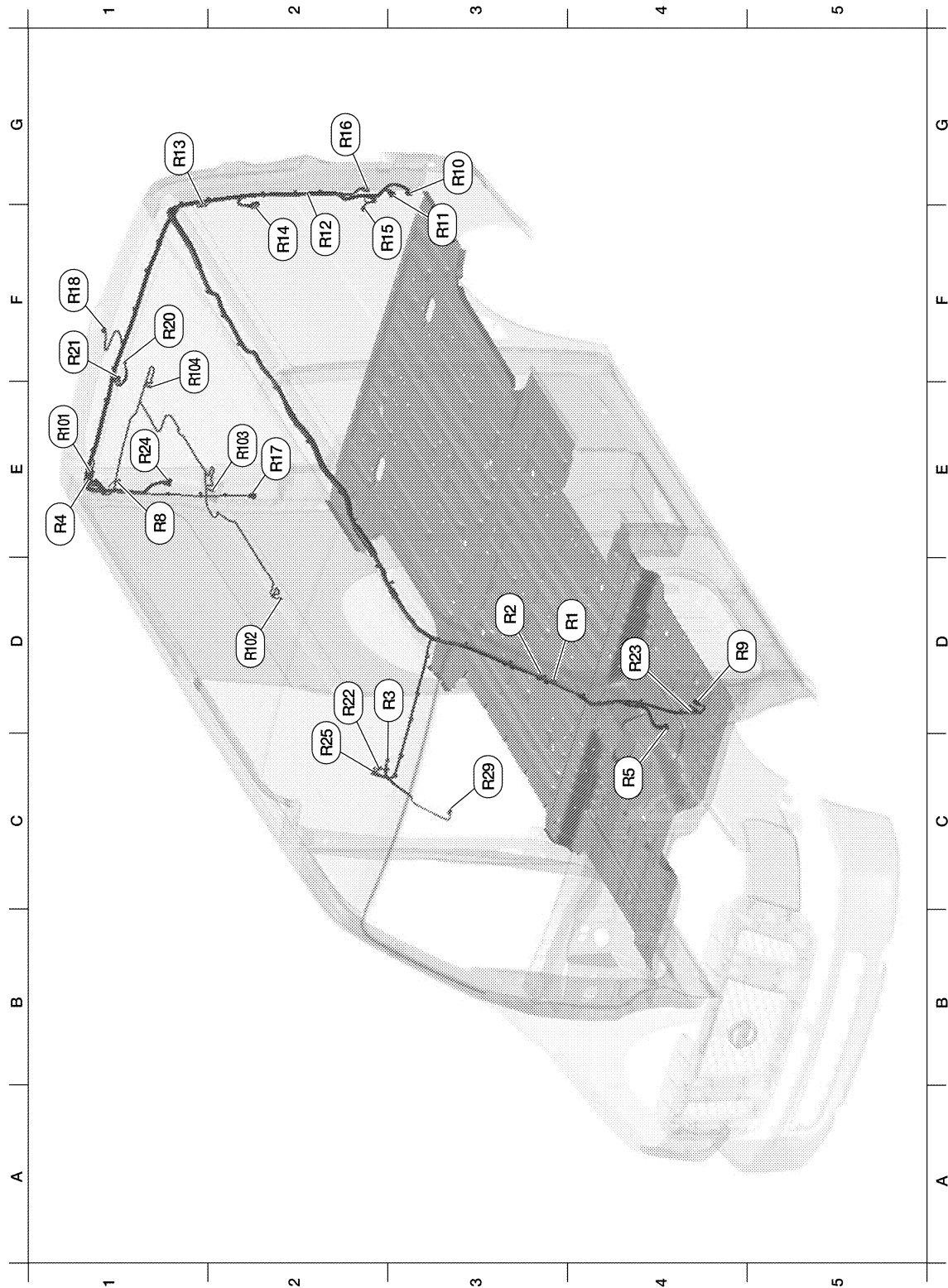
E1	R8	—	: Body ground	E1	R21	W/2	: Back door switch upper RH
D5	R9	W/4	: To E53	C3	R22	W/4	: Microphone
F3	R10	W/12	: Inverter unit	D5	R23	BR/1	: To E52
F3	R11	W/2	: Inverter unit	D2	R24	W/12	: To D606
G2	R12	W/4	: AC 120V outlet rear	C4	R25	W/3	: Front room/map lamp assembly
G2	R13	—	: Body ground	D2	R26	W/2	: Front cargo lamp
F2	R14	W/12	: To D402	E2	R27	W/2	: Center cargo lamp
F3	R15	—	: Body ground	F1	R28	W/2	: Rear cargo lamp

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HARNESS

< DTC/CIRCUIT DIAGNOSIS >

ROOM LAMP HARNESS (STANDARD ROOF) PASSENGER VAN



AAMIA1066GB

D3	R1	W/32	: To M1	E2	R17	W/6	: Rear combination lamp RH
D3	R2	W/8	: To M2	F1	R18	B/2	: High-mounted stop lamp
D3	R3	W/12	: Rear air control	F1	R20	W/3	: Cargo lamp
E1	R4	W/4	: To R101	F1	R21	W/2	: Back door switch upper RH
C4	R5	B/1	: To E1	D2	R22	W/4	: Microphone

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

E1	R8	—	: Body ground	D4	R23	BR/1	: To E52	A
D5	R9	W/4	: To E53	E1	R24	W/12	: To D606	B
G3	R10	W/12	: Inverter unit	C2	R25	W/3	: Front room/map lamp assembly	B
F3	R11	W/2	: Inverter unit	C3	R29	B/7	: Auto anti-dazzling inside mirror	B
F2	R12	W/4	: AC 120V outlet rear	Room lamp sub-harness				
G1	R13	—	: Body ground	E1	R101	W/4	: To R4	C
F2	R14	W/12	: To D402	D2	R102	W/3	: Personal lamp 2nd row	C
F3	R15	—	: Body ground	E2	R103	W/3	: Personal lamp 3rd row	D
G2	R16	W/6	: Rear combination lamp LH	F1	R104	W/3	: Personal lamp 4th row	D

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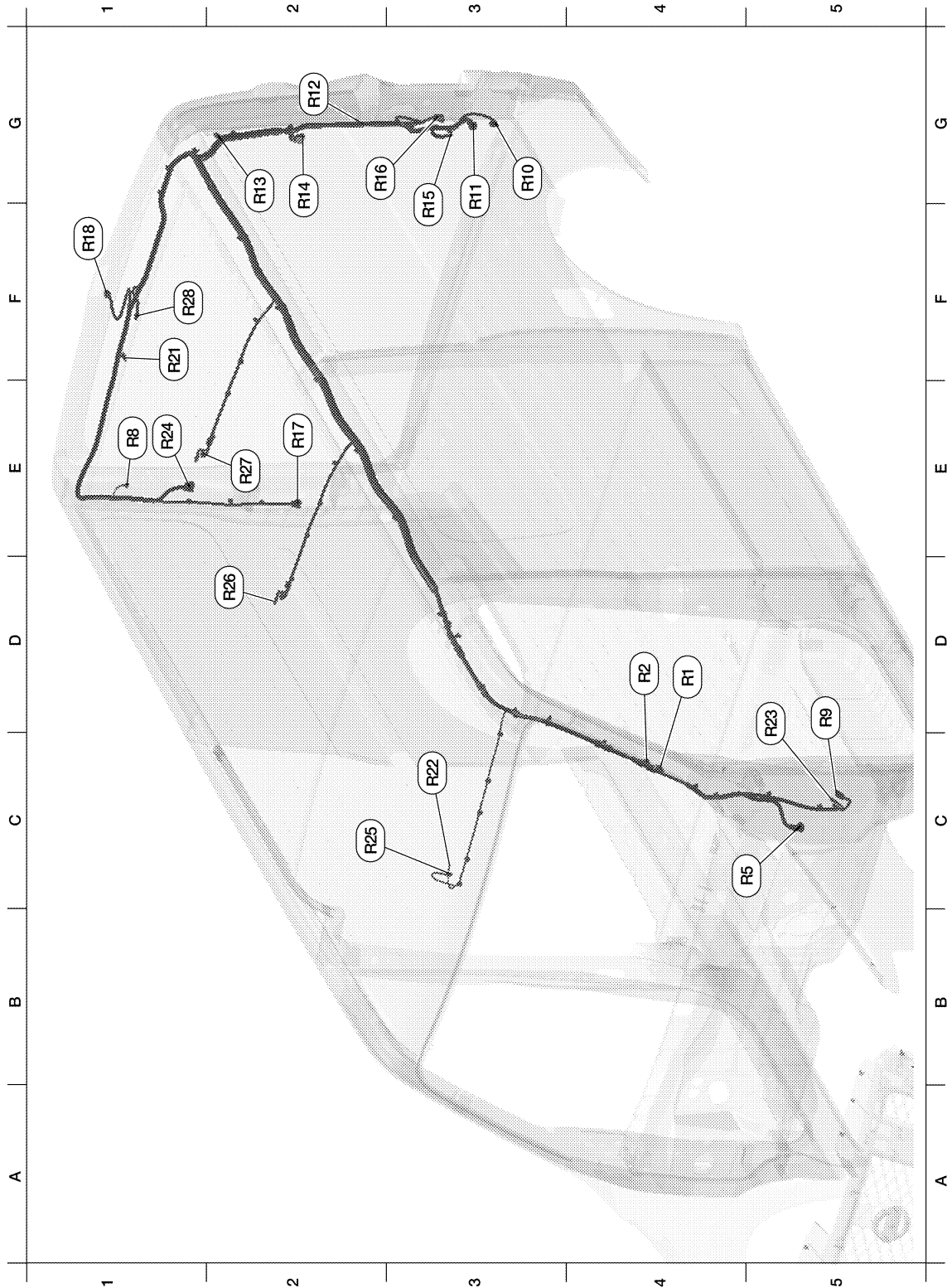
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< DTC/CIRCUIT DIAGNOSIS >

ROOM LAMP HARNESS (STANDARD ROOF) CARGO VAN



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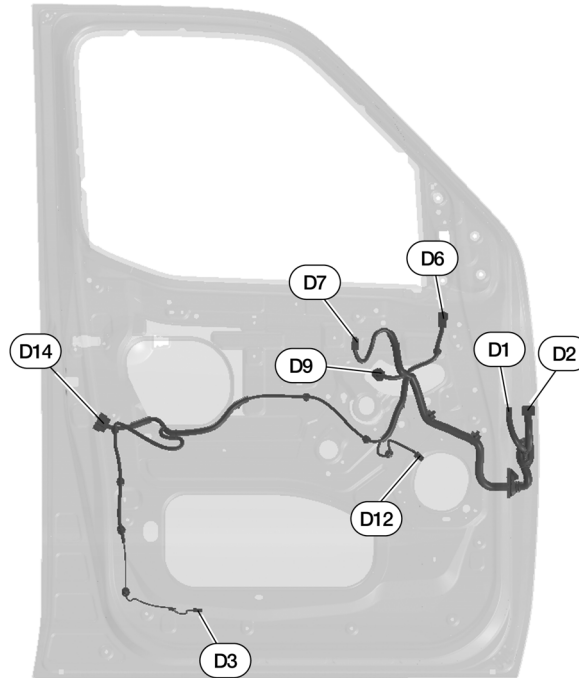
D4	R1	W/32	: To M1	G2	R16	W/6	: Rear combination lamp LH
D4	R2	W/8	: To M2	E2	R17	W/6	: Rear combination lamp RH
C4	R5	B/1	: To E1	F1	R18	B/2	: High-mounted stop lamp
E1	R8	—	: Body ground	F1	R21	W/2	: Back door switch upper RH
D5	R9	W/4	: To E53	C3	R22	W/4	: Microphone

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

G3	R10	W/12	: Inverter unit	D5	R23	BR/1	: To E52
G3	R11	W/2	: Inverter unit	E1	R24	W/12	: To D606
G2	R12	W/4	: AC 120V outlet rear	C2	R25	W/3	: Front room/map lamp assembly
G2	R13	—	: Body ground	D2	R26	W/2	: Front cargo lamp
G2	R14	W/12	: To D402	E2	R27	W/2	: Center cargo lamp
G3	R15	—	: Body ground	F1	R28	W/2	: Rear cargo lamp

FRONT DOOR LH HARNESS

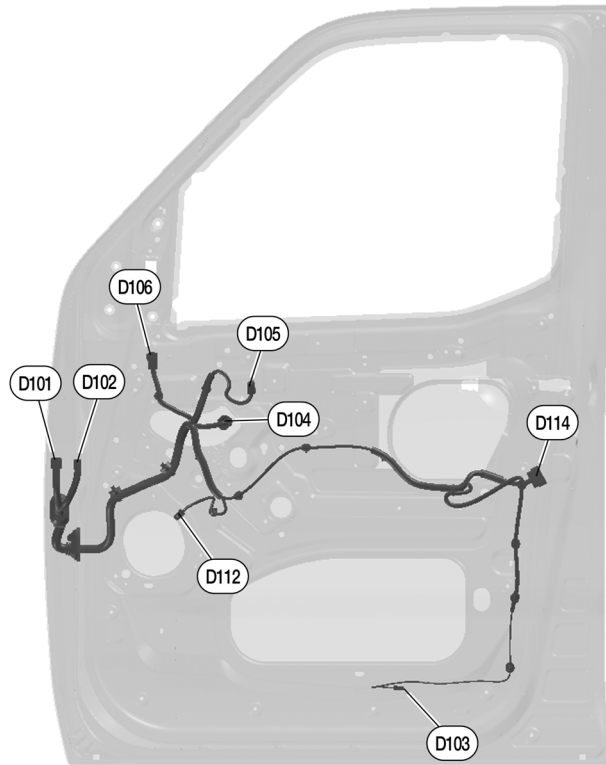


AAMIA1064GB

D1	W/12	: To M9	D7	W/16	: Main power window and door lock/unlock switch
D2	W/12	: To M8	D9	G/6	: Front power window motor LH
D3	W/2	: Front step lamp LH (passenger van)	D12	W/2	: Front door speaker LH
D6	W/16	: Door mirror LH	D14	GR/6	: Front door lock assembly LH

HARNESS

< DTC/CIRCUIT DIAGNOSIS > FRONT DOOR RH HARNESS



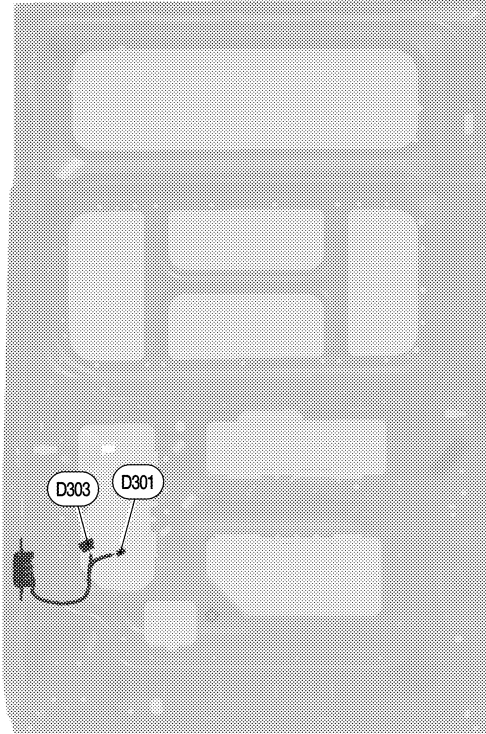
AAMIA1065GB

D101	W/8	: To M75	D105	W/12	: Power window and door lock/unlock switch RH
D102	W/12	: To M74	D106	W/16	: Door mirror RH
D103	W/2	: Front step lamp RH (passenger van)	D112	W/2	: Front door speaker RH
D104	G/6	: Front power window motor RH	D114	GR/6	: Front door lock actuator RH

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

SLIDING DOOR RH HARNESS (HIGH ROOF)



ABMIA2772GB

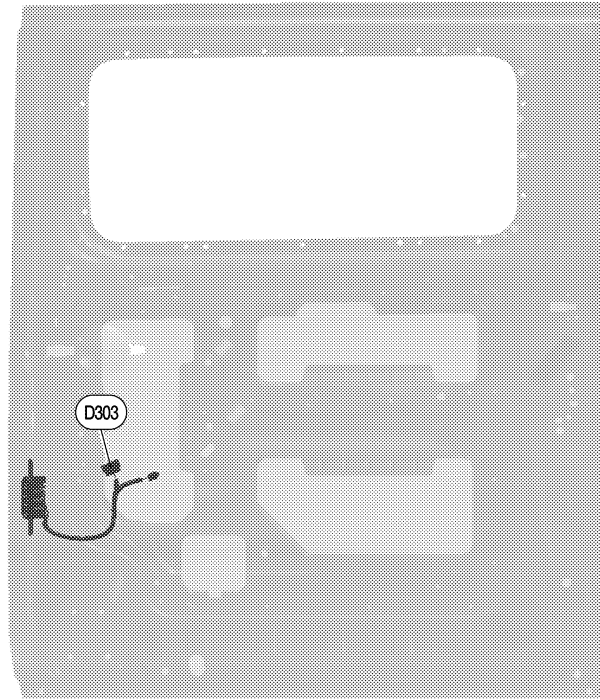
D301	B/2	: Secondary sliding door switch			
D303	GR/6	: Sliding door lock assembly			

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HARNESS

< DTC/CIRCUIT DIAGNOSIS >

SLIDING DOOR RH HARNESS (STANDARD ROOF)



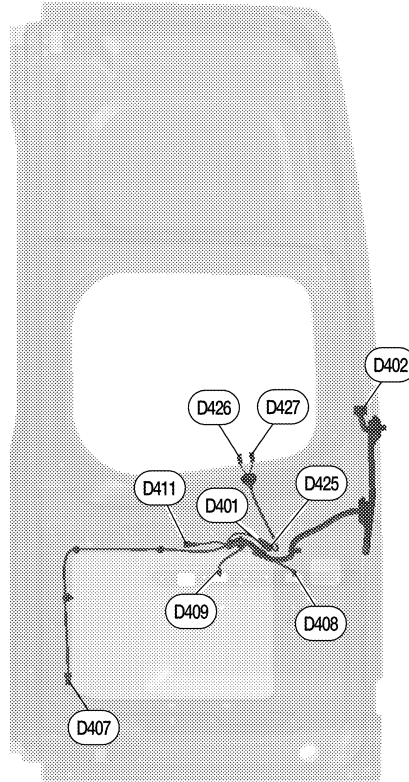
ABMIA2773GB

D303	GR/6	: Sliding door lock assembly			

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

BACK DOOR LH HARNESS (HIGH ROOF)



ABMIA2774GB

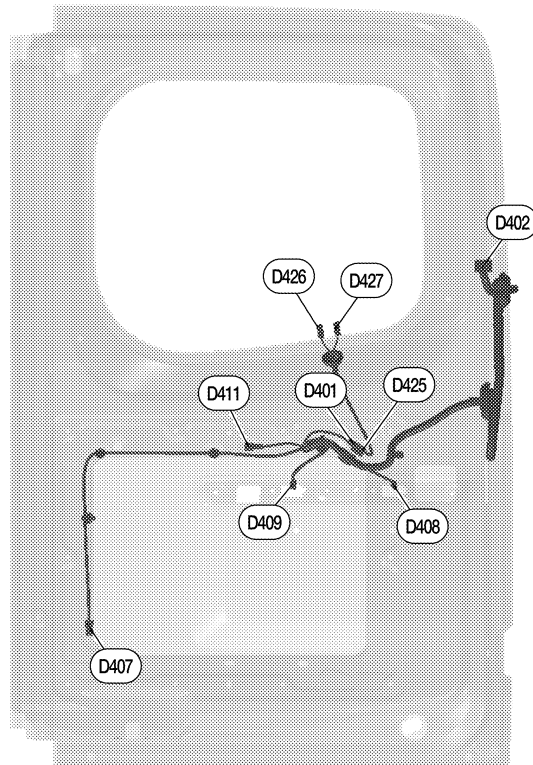
D401	W/2	: To D425	D411	W/4	: Rear view camera
D402	W/12	: To R14	Rear window defogger LH sub-harness		
D407	B/2	: Back door switch lower LH	D425	W/2	: To D401
D408	BR/2	: License plate lamp LH	D426	B/1	: Rear window defogger LH
D409	BR/2	: License plate lamp RH	D427	B/1	: Rear window defogger LH

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BACK DOOR LH HARNESS (STANDARD ROOF)



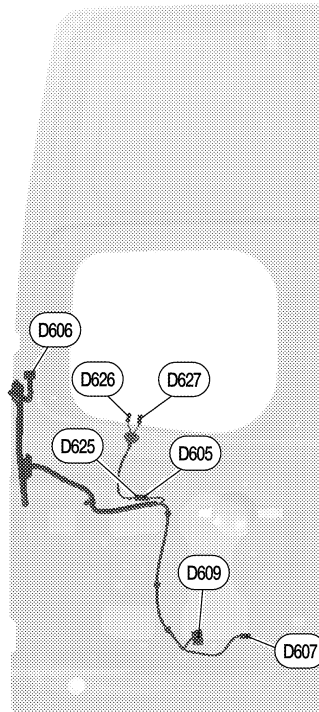
ABMIA2775GB

D401	W/2	: To D425	D411	W/4	: Rear view camera
D402	W/12	: To R14	Rear window defogger LH sub-harness		
D407	B/2	: Back door switch lower LH	D425	W/2	: To D401
D408	BR/2	: License plate lamp LH	D426	B/1	: Rear window defogger LH
D409	BR/2	: License plate lamp RH	D427	B/1	: Rear window defogger LH

HARNESS

< DTC/CIRCUIT DIAGNOSIS >

BACK DOOR RH HARNESS (HIGH ROOF)



ABMIA2776GB

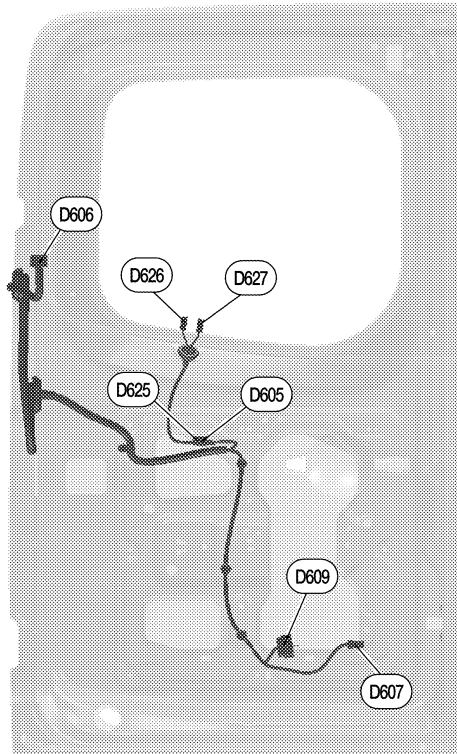
D605	W/2	: To D625	Rear window defogger LH sub-harness		
D606	W/12	: To R24	D625	W/2	: To D605
D607	B/2	: Back door switch lower RH	D626	B/1	: Rear window defogger RH
D609	GR/6	: Back door lock assembly	D627	B/1	: Rear window defogger RH

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HARNESS

< DTC/CIRCUIT DIAGNOSIS >

BACK DOOR RH HARNESS (STANDARD ROOF)



ABMIA2777GB

D605	W/2	: To D625	Rear window defogger LH sub-harness		
D606	W/12	: To R24	D625	W/2	: To D605
D607	B/2	: Back door switch lower RH	D626	B/1	: Rear window defogger RH
D609	GR/6	: Back door lock assembly	D627	B/1	: Rear window defogger RH

ELECTRICAL UNITS LOCATION

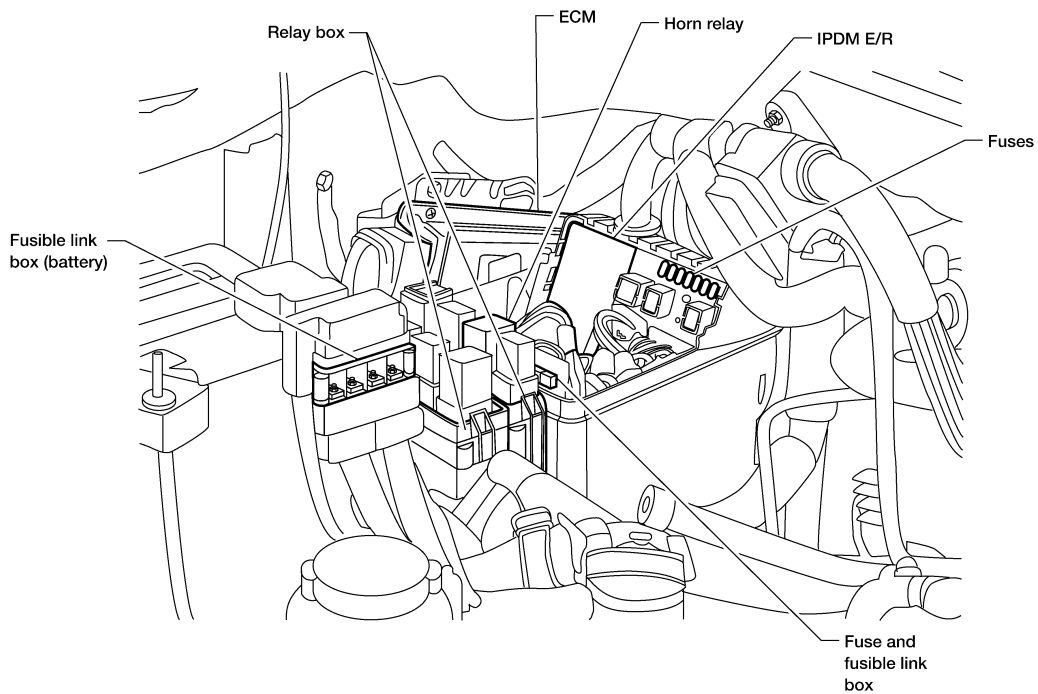
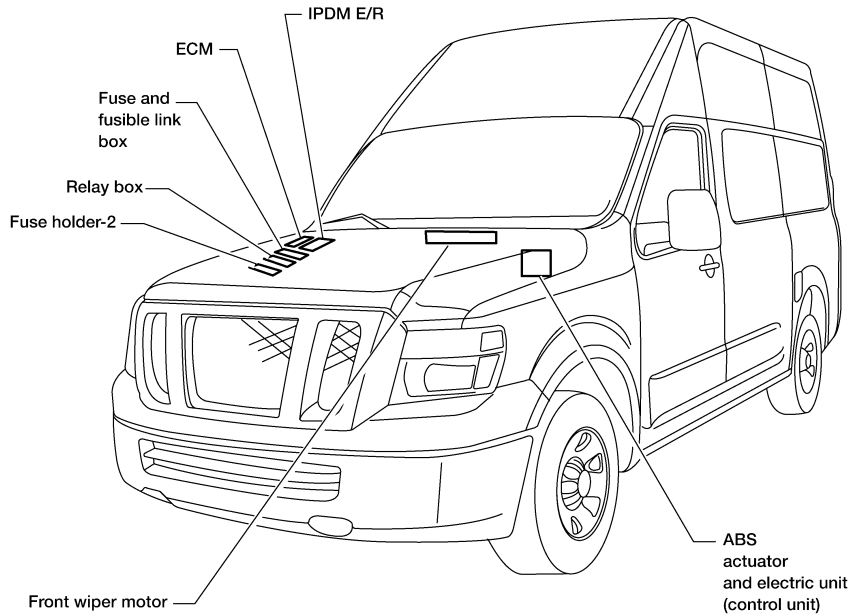
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ELECTRICAL UNITS LOCATION

Electrical Units Location

INFOID:000000006737607

ENGINE COMPARTMENT

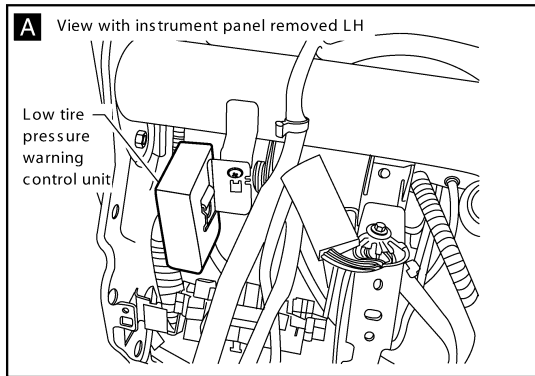
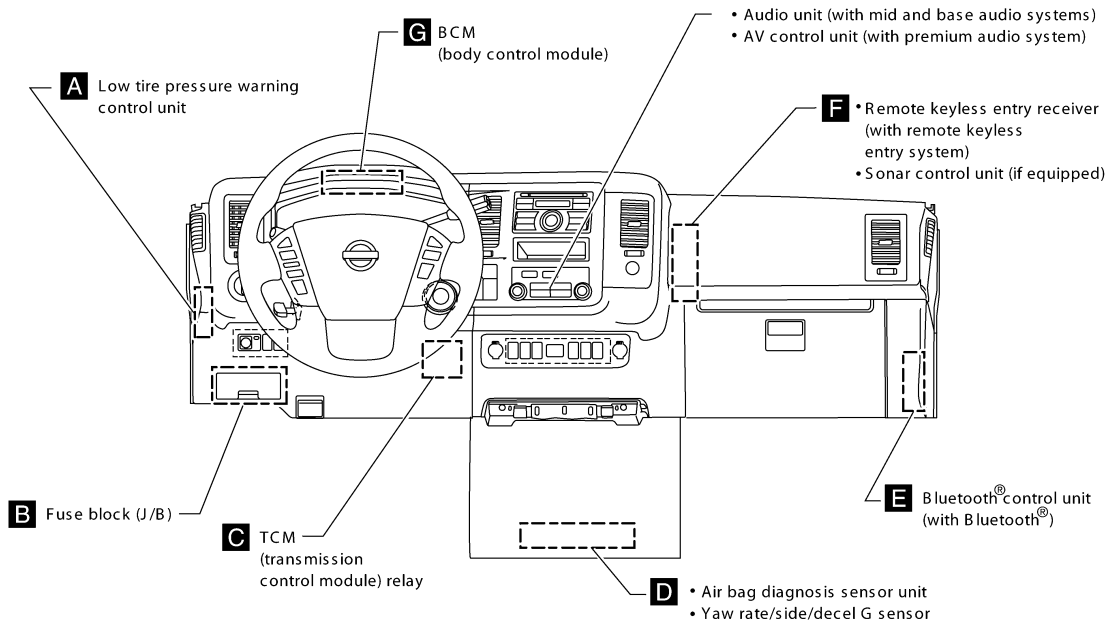


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ELECTRICAL UNITS LOCATION

< DTC/CIRCUIT DIAGNOSIS > PASSENGER COMPARTMENT

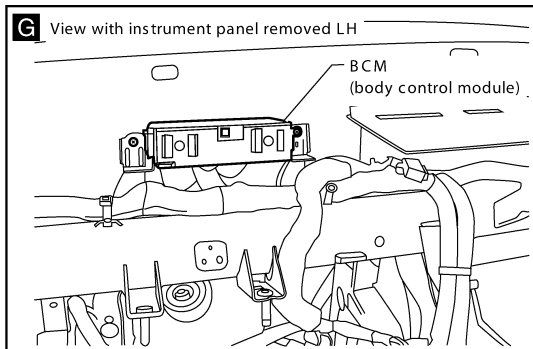
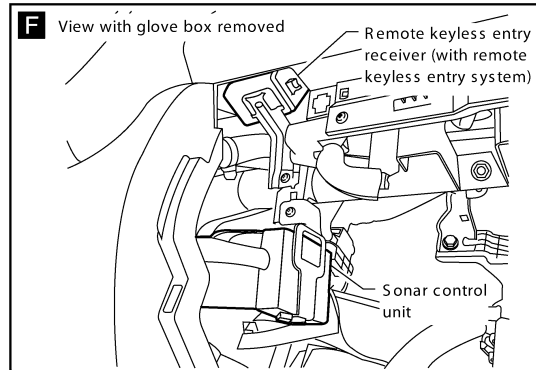
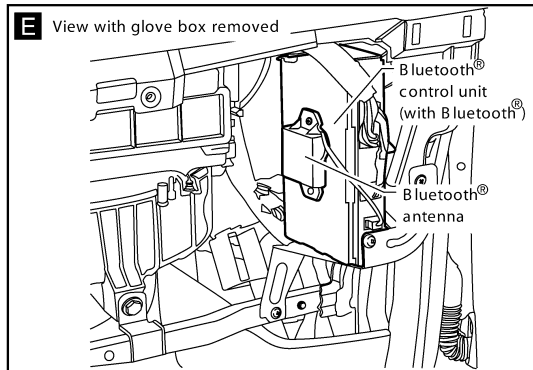
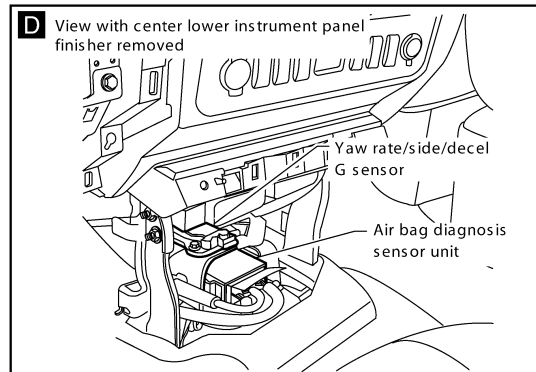
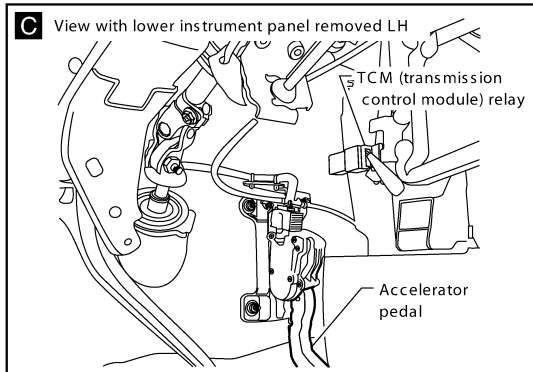
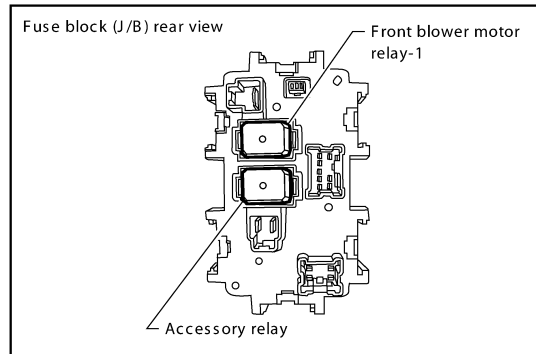
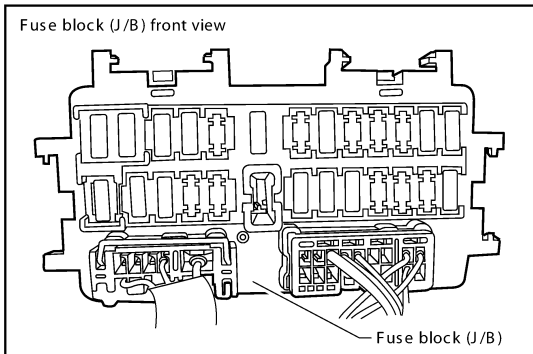


AAMIA1020GB

ELECTRICAL UNITS LOCATION

< DTC/CIRCUIT DIAGNOSIS >

B Instrument panel side LH



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AAMIA1021GB

HARNESS CONNECTOR

< DTC/CIRCUIT DIAGNOSIS >

HARNESS CONNECTOR

Description

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HARNESS CONNECTOR (TAB-LOCKING TYPE)

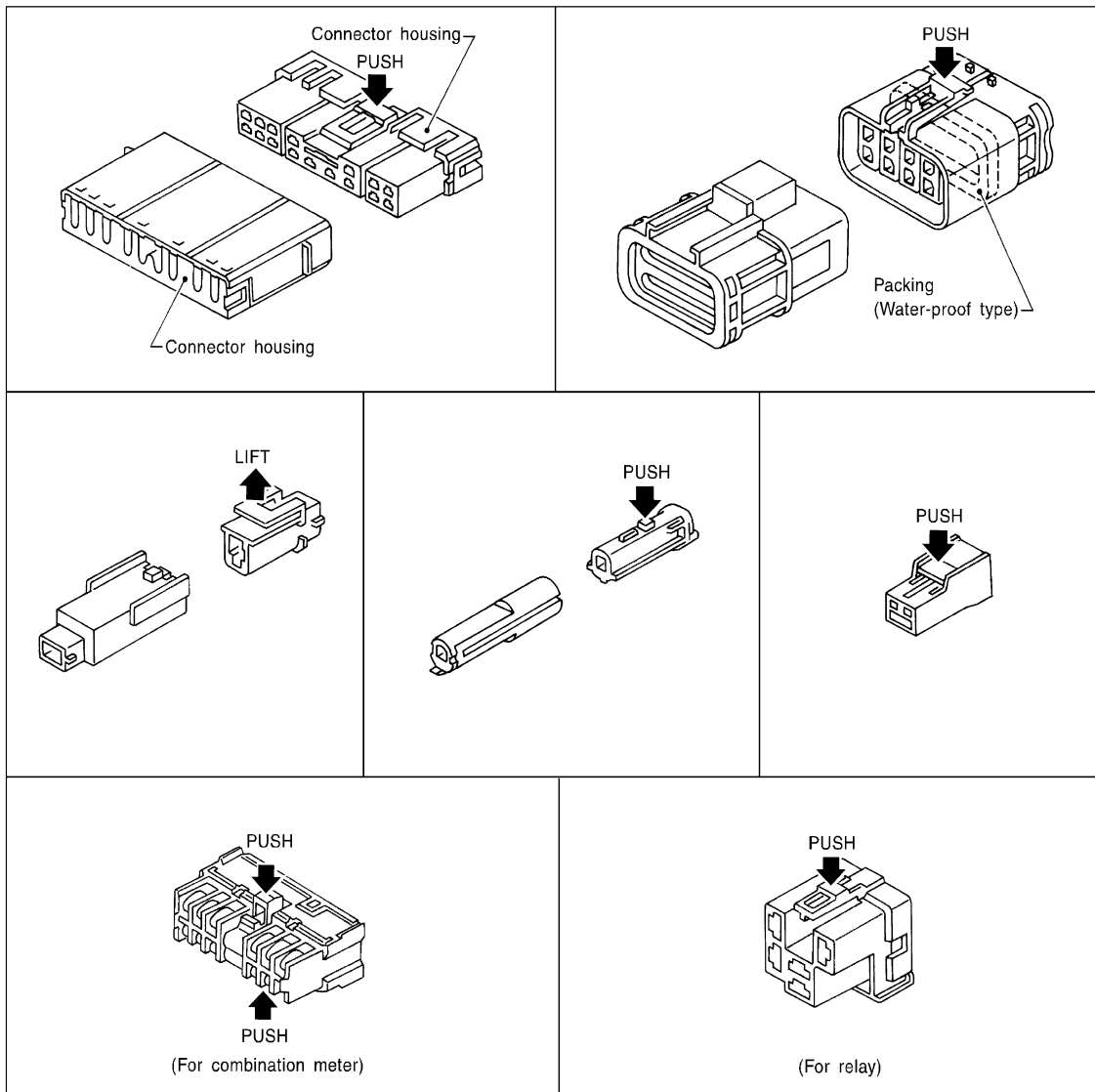
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the figure below.

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

CAUTION:

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

[Example]



SEL769DA

HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

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

HARNESS CONNECTOR

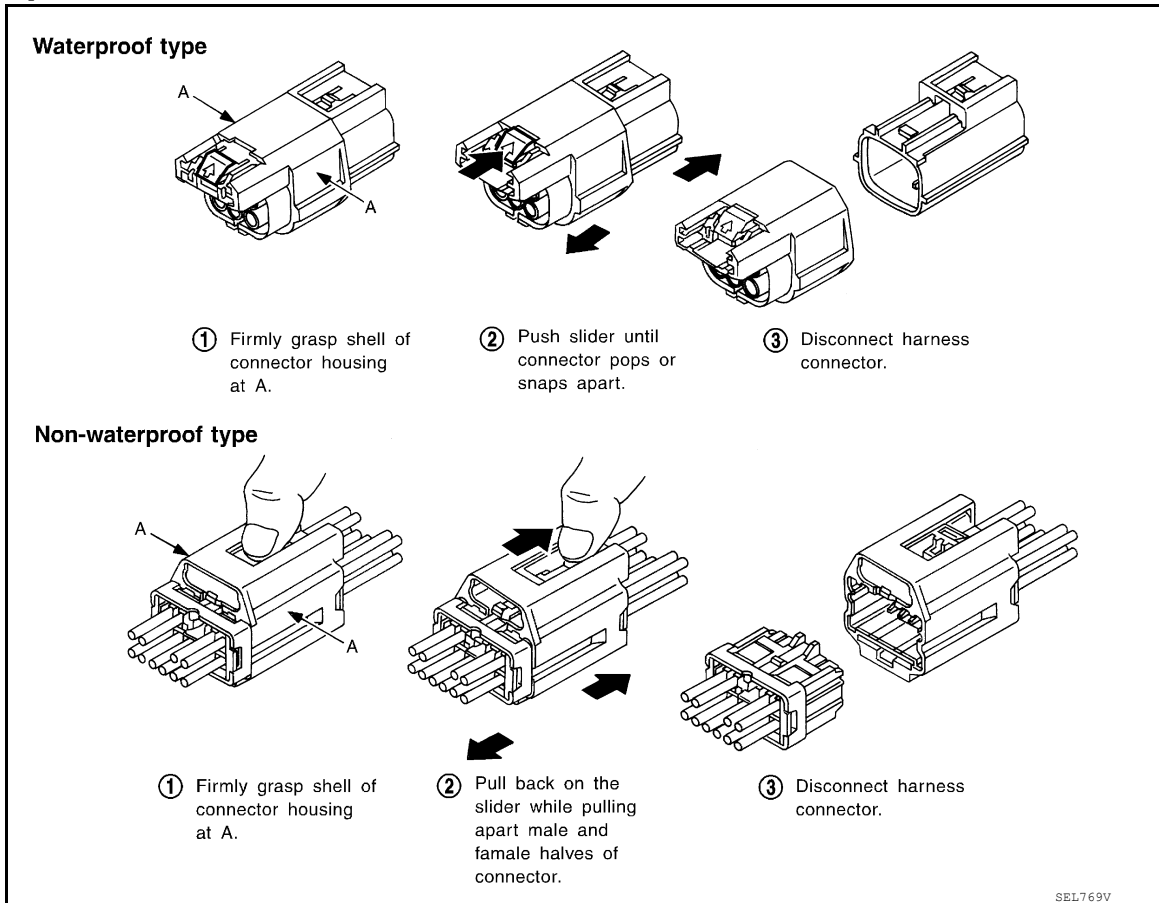
< DTC/CIRCUIT DIAGNOSIS >

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

CAUTION:

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

[Example]



HARNESS CONNECTOR (LEVER LOCKING TYPE)

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

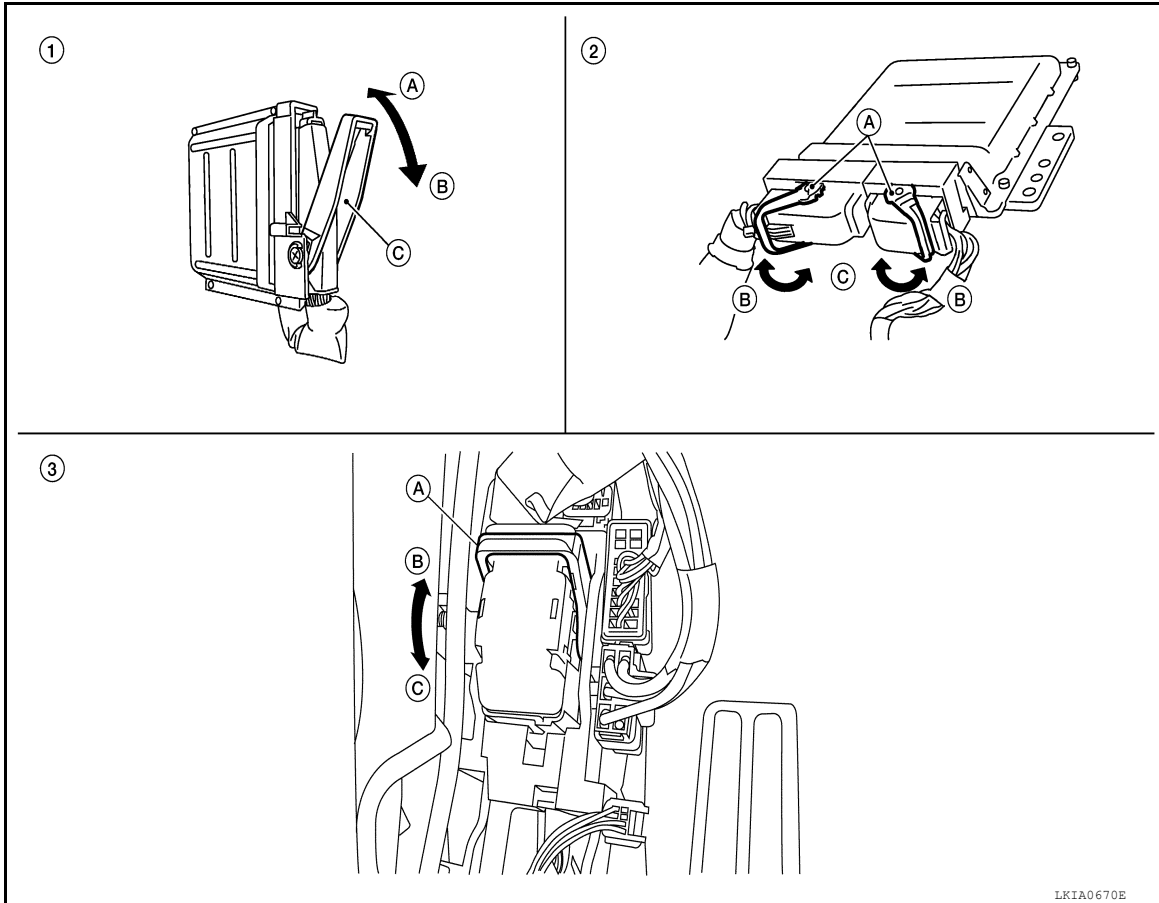
CAUTION:

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HARNES CONNECTOR

< DTC/CIRCUIT DIAGNOSIS >

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



LKIA0670E

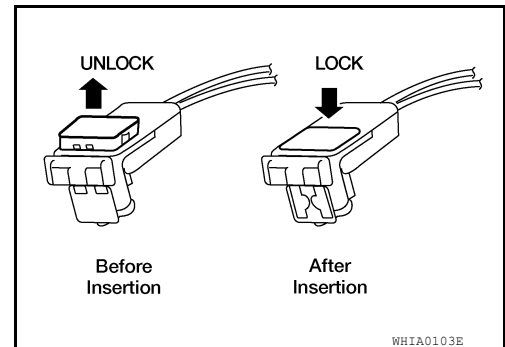
- | | | |
|--|--|---|
| <p>1. Control unit with single lever</p> <p>A. Fasten</p> <p>B. Loosen</p> <p>C. Lever</p> | <p>2. Control unit with dual lever</p> <p>A. Lever</p> <p>B. Fasten</p> <p>C. Loosen</p> | <p>3. SMJ connector</p> <p>A. Lever</p> <p>B. Fasten</p> <p>C. Loosen</p> |
|--|--|---|

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

CAUTION:

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



WHIA0103E

STANDARDIZED RELAY

< DTC/CIRCUIT DIAGNOSIS >

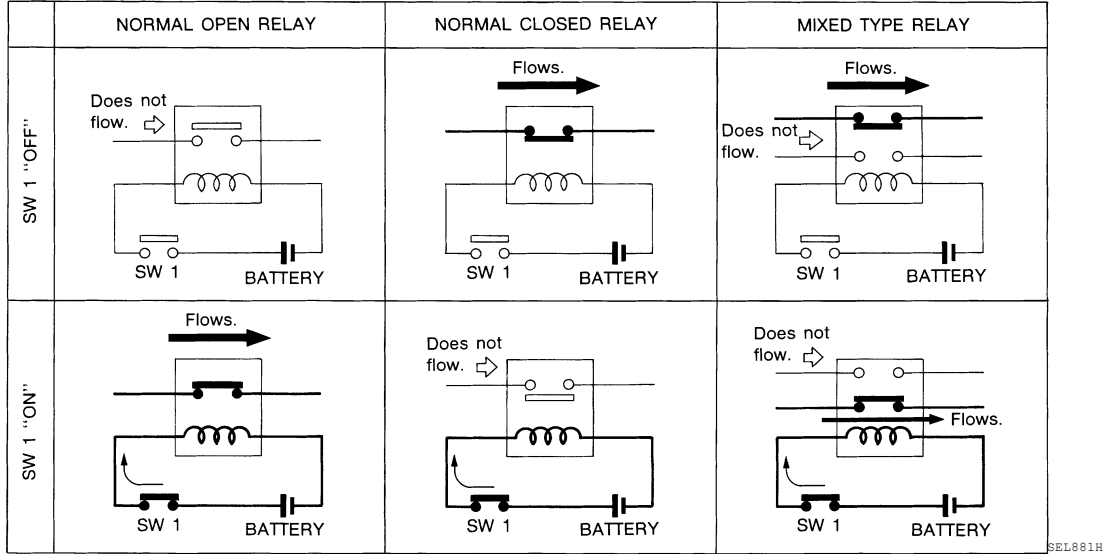
STANDARDIZED RELAY

Description

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NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

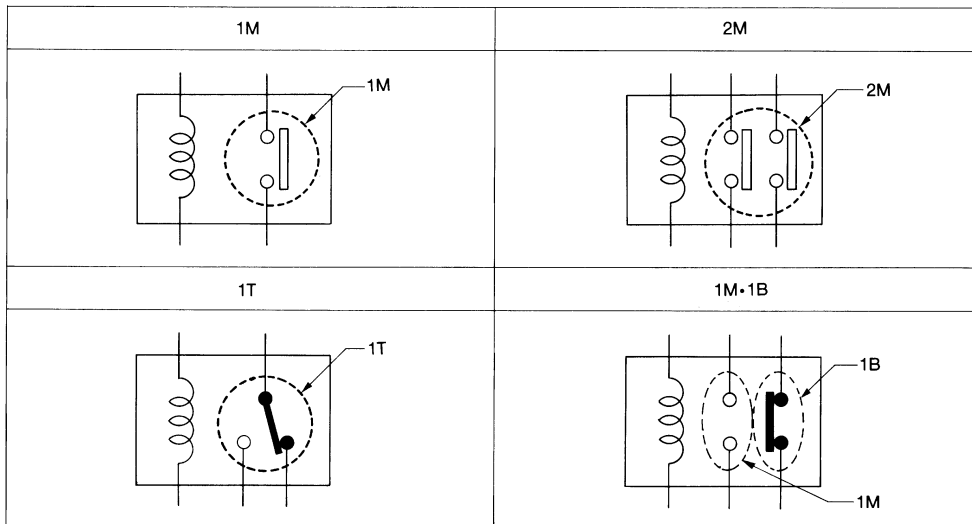
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



SEL881H

TYPE OF STANDARDIZED RELAYS

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

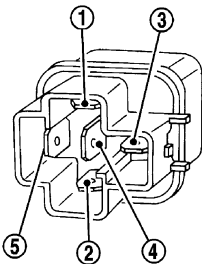
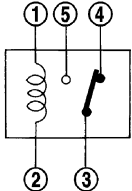
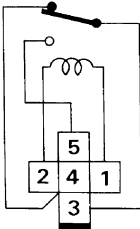
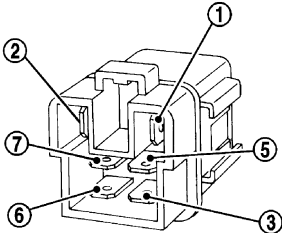
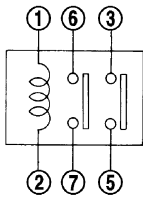
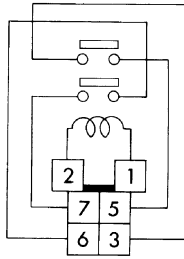
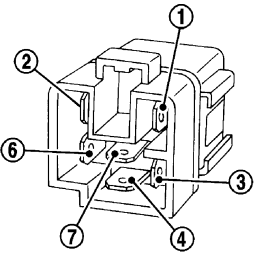
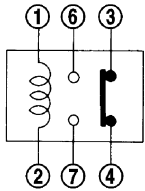
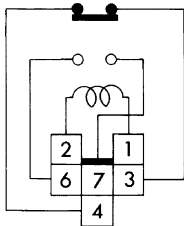
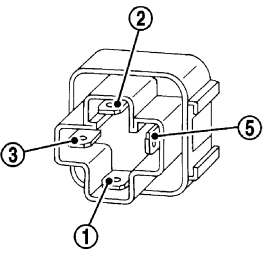
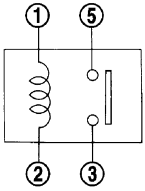
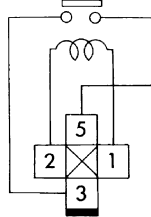
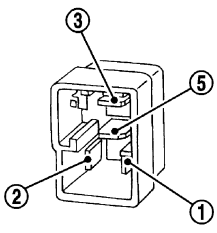
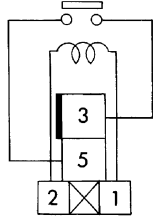


SEL882H

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STANDARDIZED RELAY

< DTC/CIRCUIT DIAGNOSIS >

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

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

SEL188W

FUSE, FUSIBLE LINK AND RELAY BOX

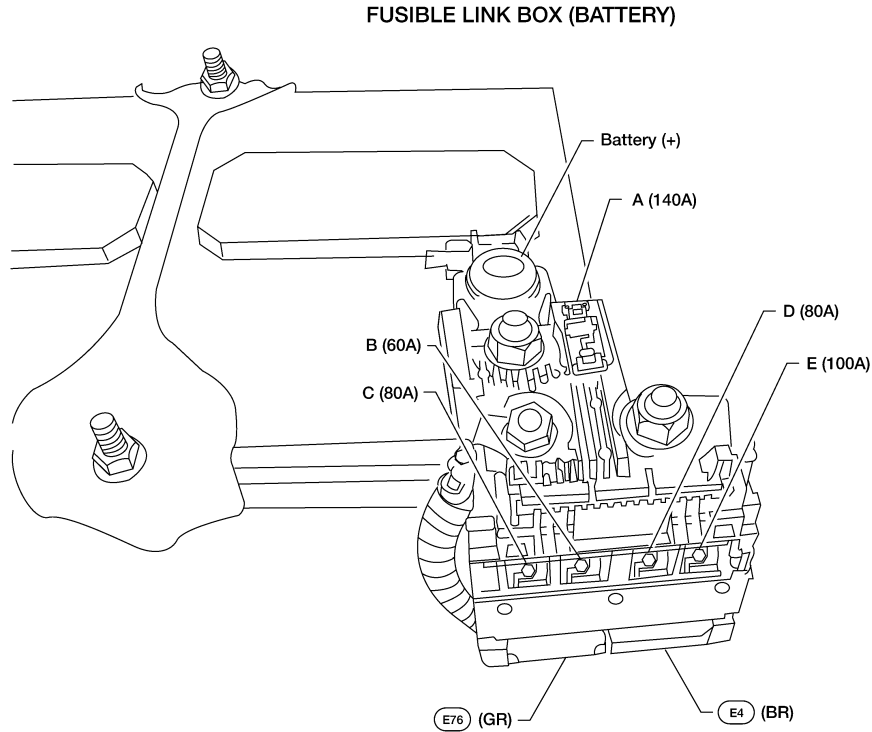
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FUSE, FUSIBLE LINK AND RELAY BOX

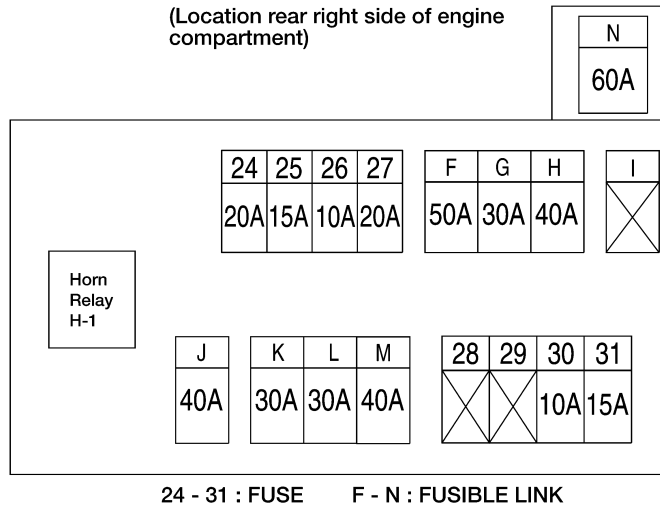
Terminal Arrangement

INFOID:000000006737611

FUSE AND FUSIBLE LINK BOX



FUSE AND FUSIBLE LINK BOX
(Location rear right side of engine compartment)

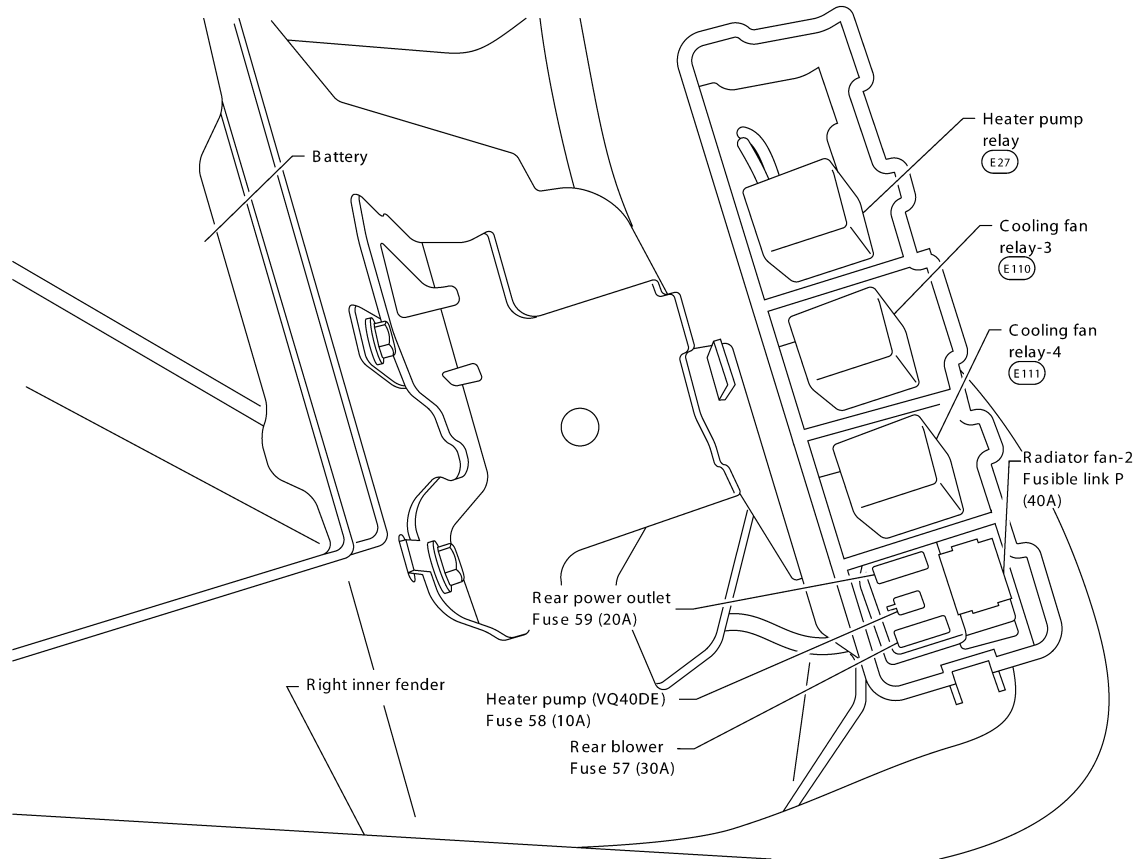


AAMIA1031GB

FUSE, FUSIBLE LINK AND RELAY BOX

< DTC/CIRCUIT DIAGNOSIS >

FUSE HOLDER-2



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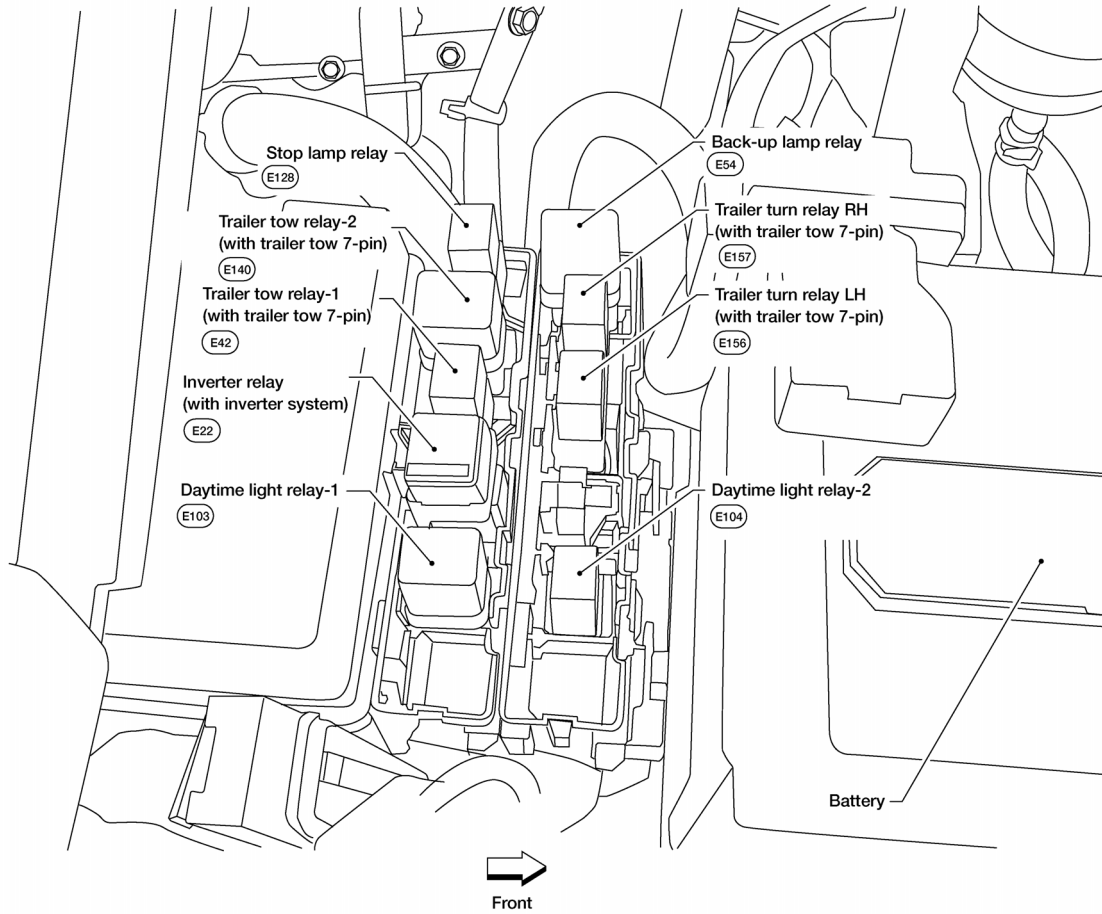
N
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AAMIA1051GB

FUSE, FUSIBLE LINK AND RELAY BOX

< DTC/CIRCUIT DIAGNOSIS >

RELAY BOX



AAMIA0682GB

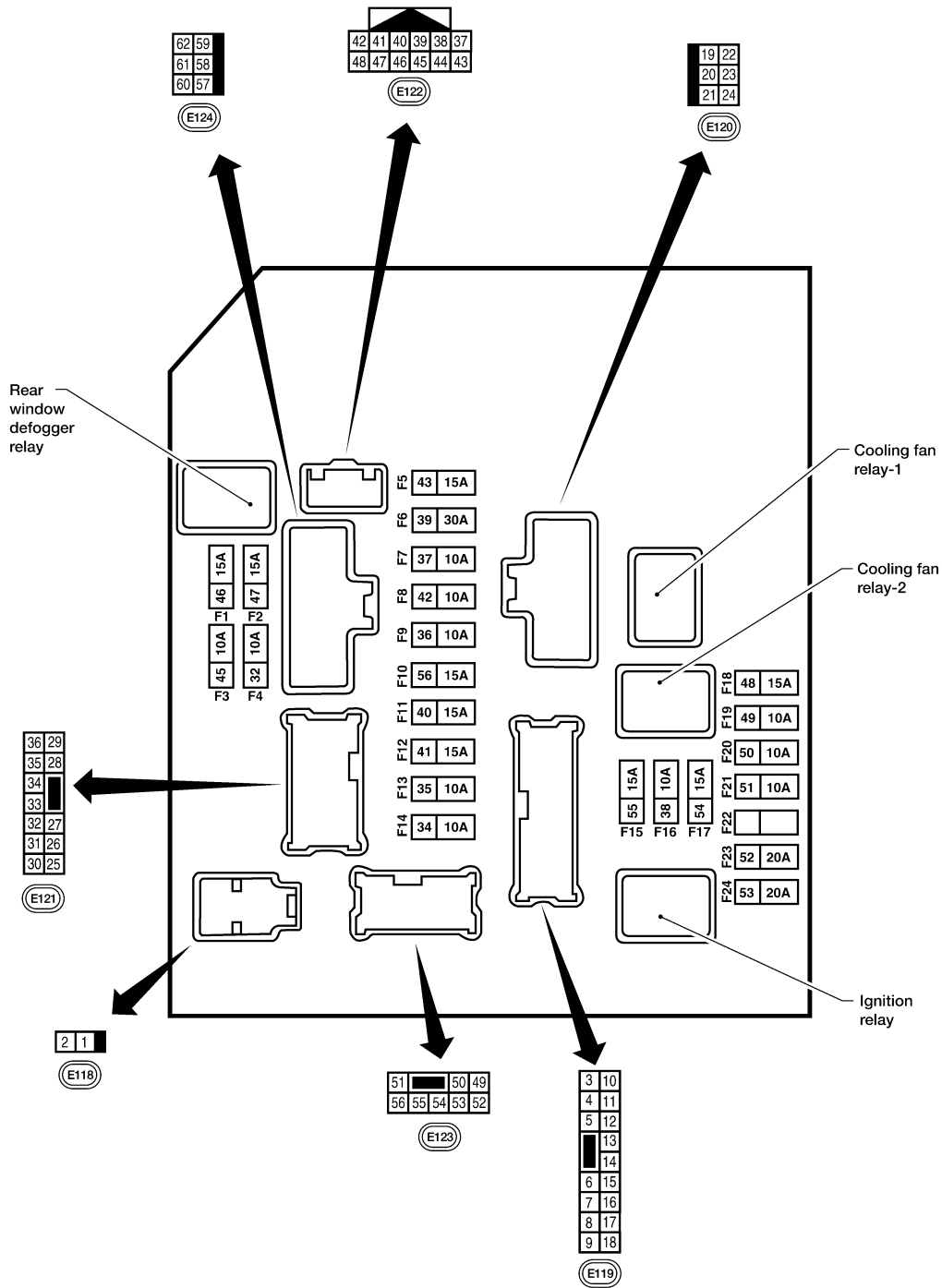
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< DTC/CIRCUIT DIAGNOSIS >

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

IPDM E/R Terminal Arrangement

INFOID:000000006737612



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.

AAMIA1032GB

BATTERY

< REMOVAL AND INSTALLATION >

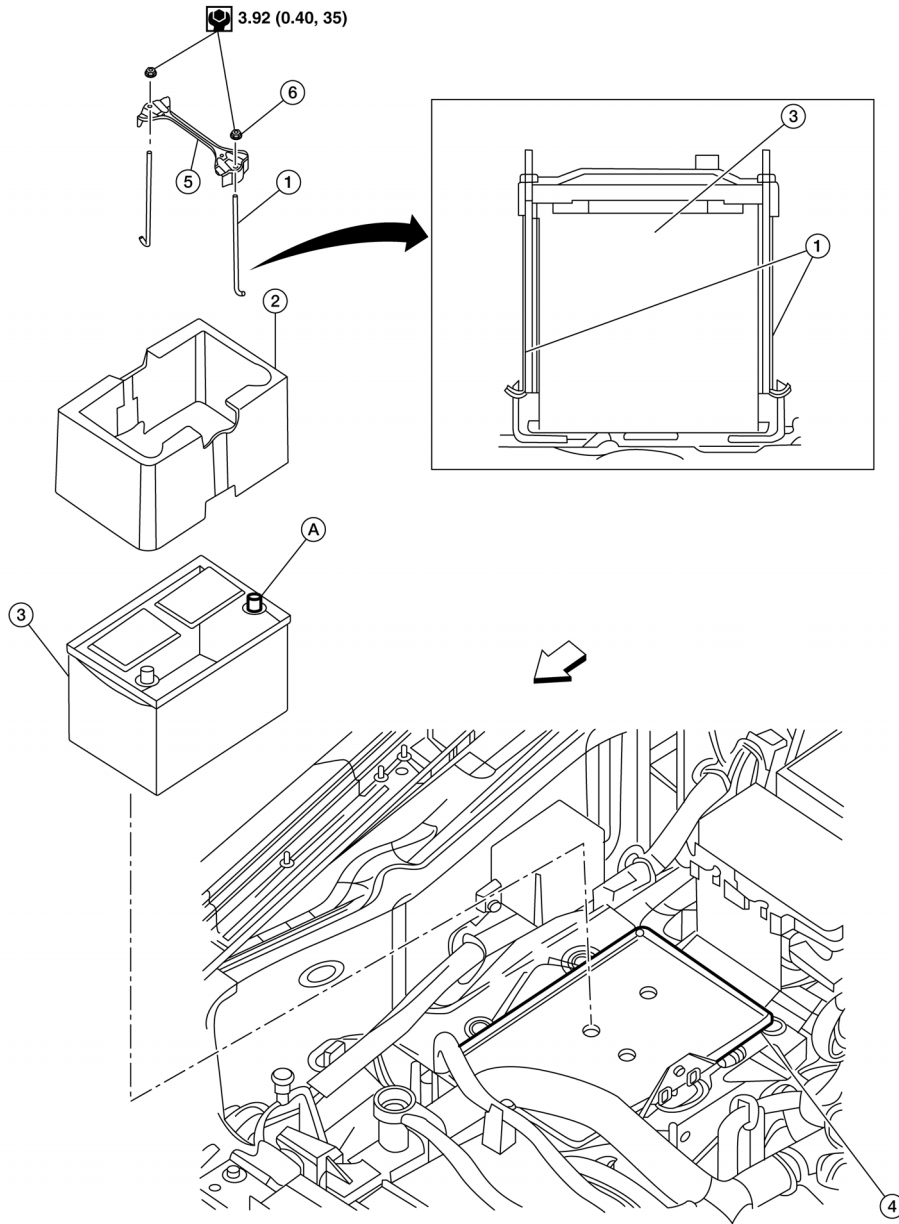
REMOVAL AND INSTALLATION

BATTERY

Removal and Installation

INFOID:000000006737613

SEC. 244



AWMIA1267GB

BATTERY

< REMOVAL AND INSTALLATION >

- | | | | |
|----------------------|------------------|------------|---|
| 1. Rod | 2. Battery cover | 3. Battery | A |
| 4. Battery tray | 5. Battery clamp | 6. Nut | B |
| A. Positive terminal | ↔ Vehicle front | | C |

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 the 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 terminal nuts : 3.5 N·m (0.36 kg-m, 31 in-lb)

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

PG

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Battery

INFOID:000000006737614

Application	Standard	With Tow Package option and Power Package fleet option
Type*	GR24F	GR27F
Capacity (20 HR) minimum V-AH	12 - 70	12 - 80
Cold cranking current A [For reference value at -18°C (0°F)]	650	710

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