

SECTION **PG**

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

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BATTERY

< BASIC INSPECTION >

BASIC INSPECTION

BATTERY

How to Handle Battery

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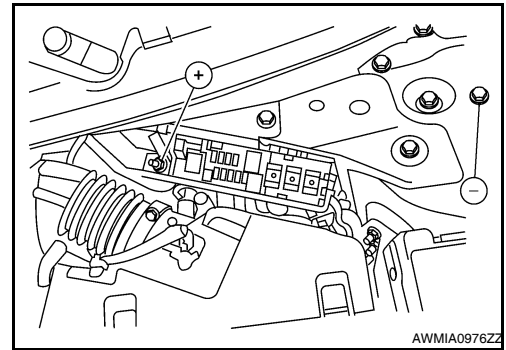
WARNING:

These vehicles contain **HIGH VOLTAGE SYSTEMS**. Service technicians must complete the "2007 Altima Hybrid New Technology Introduction" Service Training before they can service this vehicle.

JUMP-STARTING AN ALTIMA HYBRID WITH A DISCHARGED 12-VOLT BATTERY

CAUTION:

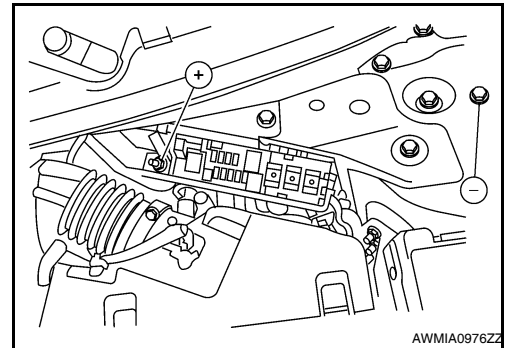
- If it becomes necessary to start the engine with a booster battery and jumper cables, use a 12-volt booster battery.
- Do not connect the jumper cables to the 12-volt battery located in the trunk. To jump-start the Altima Hybrid, use the positive stud and one of the strut mount insulator studs located in the LH rear of the engine compartment.



NOTE:

Follow all standard safety procedures for typical jump-start of a vehicle.

1. Remove the high voltage fuse and fusible link box cover.
2. Connect the positive (+) jumper cable to the positive stud inside the fuse box.
3. Connect the negative (-) jumper cable to one of the strut mount insulator studs.
4. Confirm the vehicle transmission is in the P (Park) position.
5. Depress the brake pedal and press the "Start Stop" button on the instrument panel.
6. Confirm the vehicle is in the READY mode. The word READY will illuminate green in the combination meter.
7. Disconnect the negative (-) jumper cable.
8. Disconnect the positive (+) jumper cable.



CHARGING AN ALTIMA HYBRID 12-VOLT BATTERY

CAUTION:

- Never "quick charge" the Altima Hybrid 12-volt battery. Use only a trickle charge method.
- Do not attempt to charge the Altima Hybrid 12-volt battery using the positive stud and strut mount insulator stud as described in the Jump-Starting section of this manual.
- Do not attempt to charge the Altima Hybrid 12-volt battery through the RH inner trunk access panel. The RH trunk side finisher **MUST BE REMOVED** prior to charging.
- 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.

1. Remove the trunk side finisher (RH). Refer to [INT-27, "Removal and Installation"](#).
2. Confirm the trunk lid is completely open.
3. Confirm all vehicle doors are closed.
4. Disconnect the negative (-) battery cable from the 12-volt battery.
5. Connect the positive (+) charging cable to the positive battery terminal.
6. Connect the negative (-) charging cable to the negative battery terminal.
7. Trickle charge the battery at a low setting (less than 5 amps).

NOTE:

BATTERY

< BASIC INSPECTION >

A fully charged Altima Hybrid 12-volt battery should read between 12.6 to 12.8 volts.

8. Disconnect the negative (-) charging cable.
9. Disconnect the positive (+) charging cable.
10. Reconnect the negative (-) battery cable to the 12-volt battery.
11. Reinstall the trunk side finisher (RH).

Work Flow

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TROUBLE DIAGNOSIS - ALTIMA HYBRID 12-VOLT BATTERY

For battery testing refer to Technical Service Bulletin.

Special Repair Requirement

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Required Procedure After Battery Disconnection

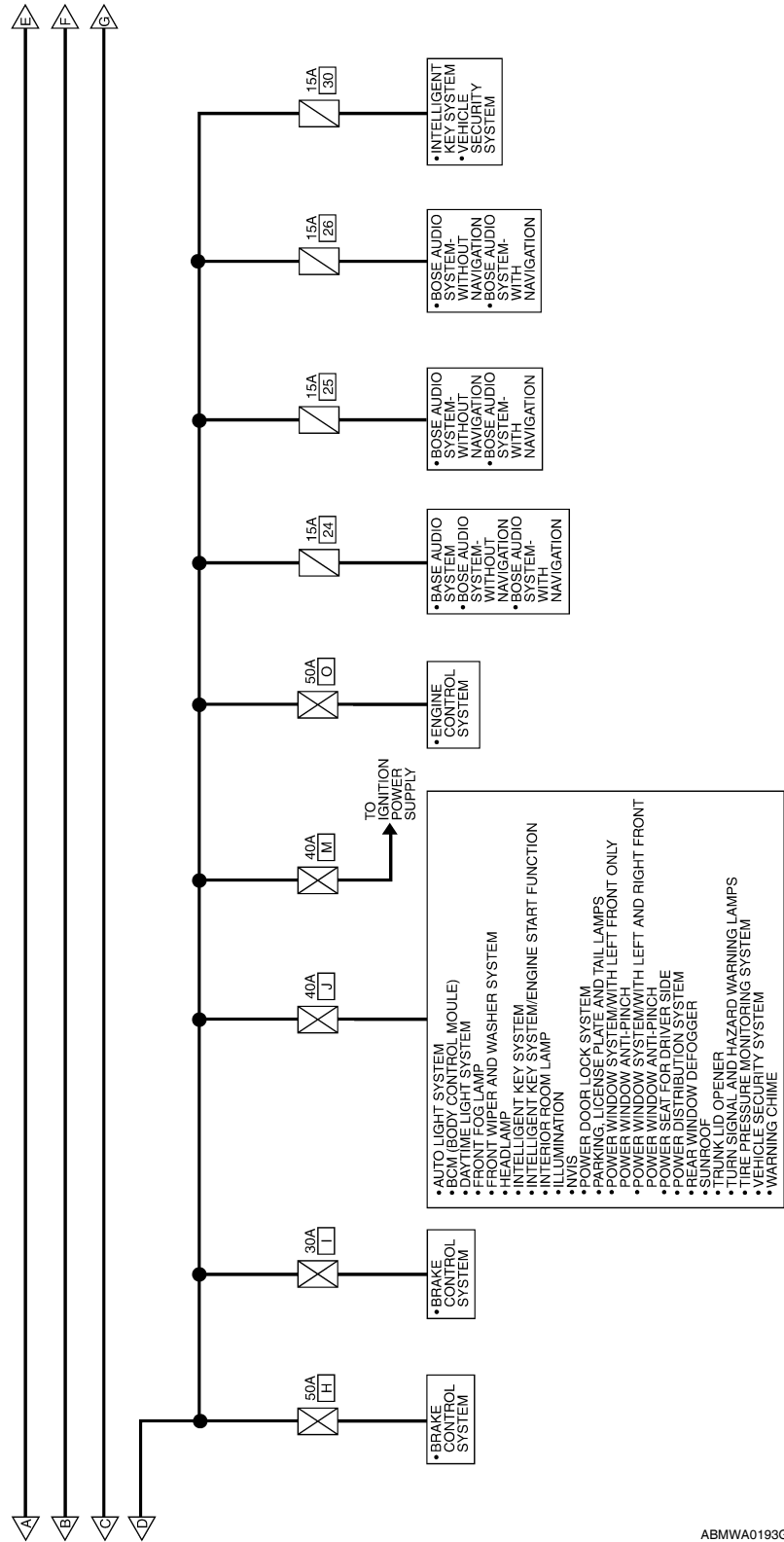
System	Item	Reference
Brake Control	Steering Angle Sensor Neutral Position	Refer to BRC-9 .
Glass, Window & Mirrors	Power Window System Initialization	LH only anti-pinch, refer to PWC-8 . LH & RH front anti-pinch, refer to PWC-102 .
Roof	Sunroof Memory Reset/Initialization	Refer to RF-6 .
Automatic Temperature Control	Temperature Setting Trimmer	Refer to HAC-5 .
	Foot Position Setting Trimmer	Refer to HAC-5 .
	Inlet Port Memory Function	Refer to HAC-5 .
Audio-Visual System	Audio (Radio Preset)	Refer to Owner's Manual.
	NAVI	Refer to Owner's Manual.
	Rear View Monitor Guiding Line Adjustment	Refer to AV-148 .

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POWER SUPPLY ROUTING CIRCUIT

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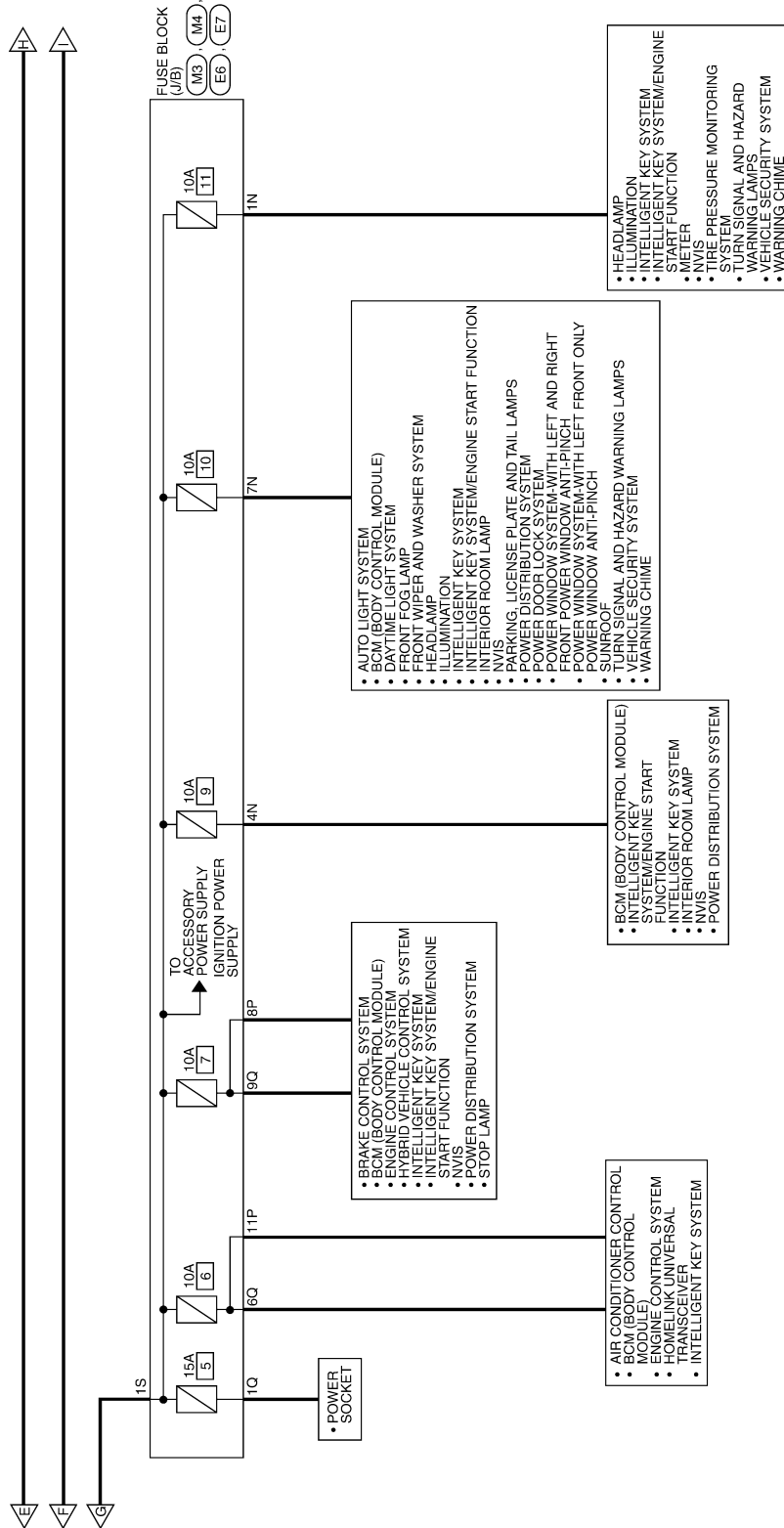


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POWER SUPPLY ROUTING CIRCUIT

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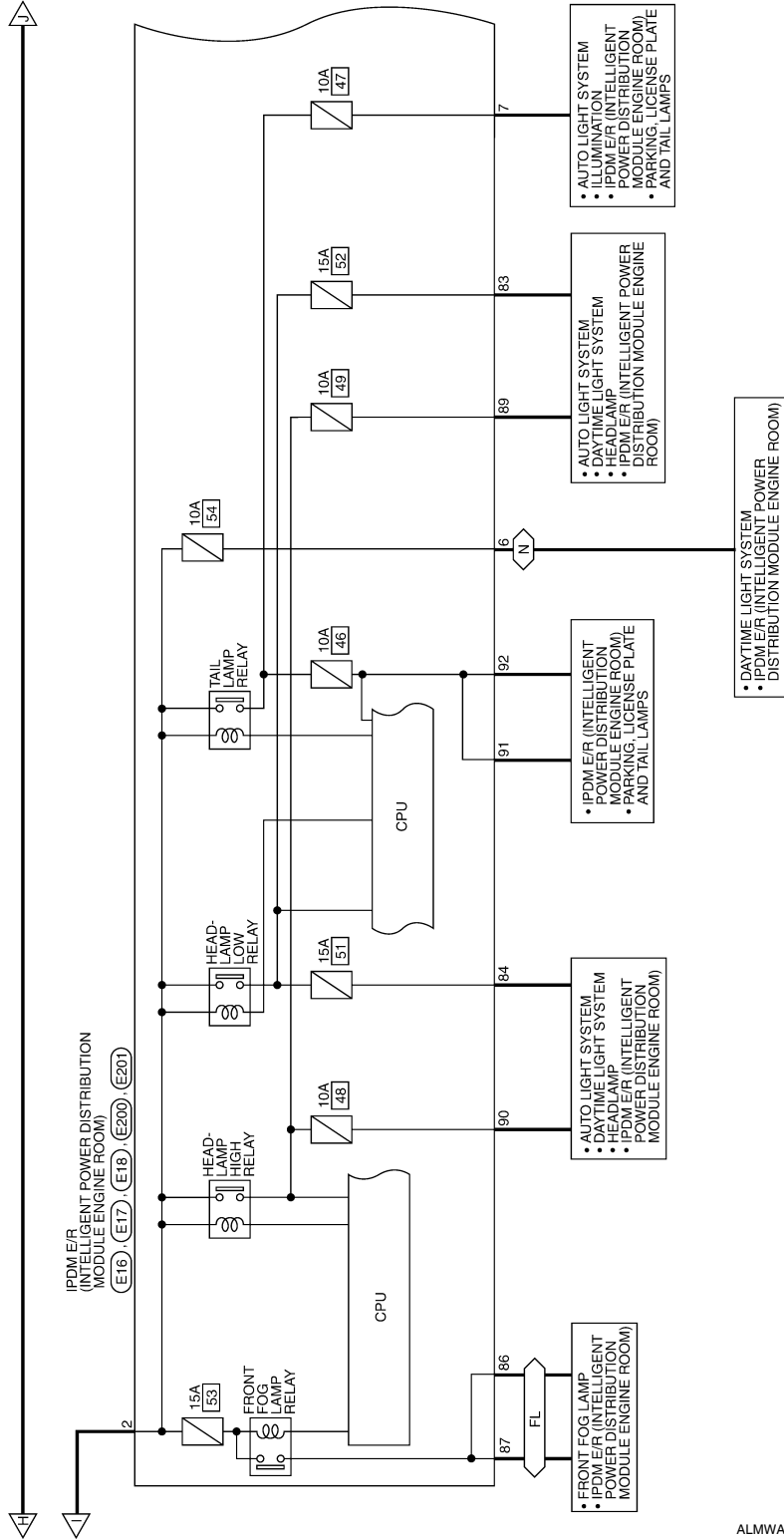


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POWER SUPPLY ROUTING CIRCUIT

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FL : WITH FRONT FOG LAMPS
N : CANADA



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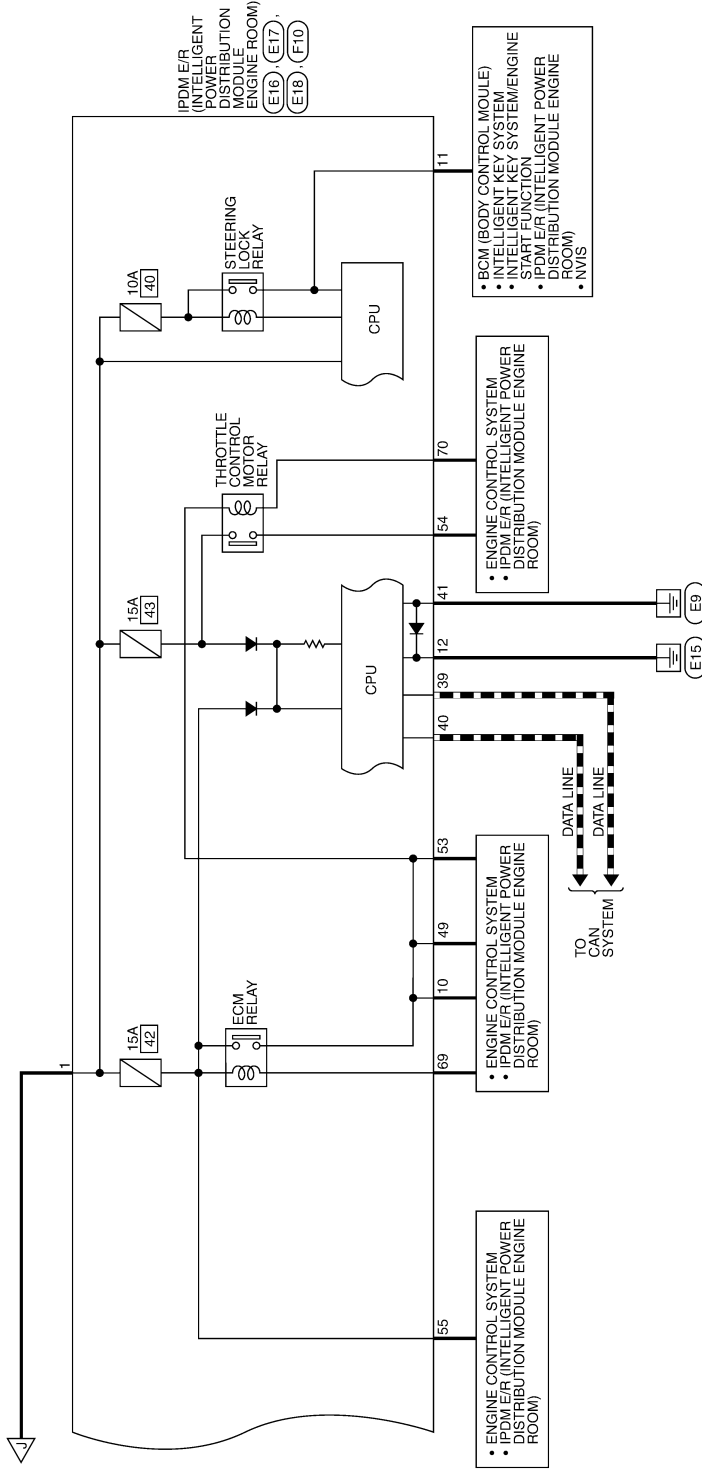
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POWER SUPPLY ROUTING CIRCUIT

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--- : DATA LINE



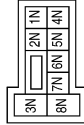
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POWER SUPPLY ROUTING CIRCUIT

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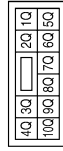
BATTERY POWER SUPPLY CONNECTORS

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



Terminal No.	Color of Wire	Signal Name
1N	W/L	-
4N	G/Y	-
7N	Y/R	-

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



Terminal No.	Color of Wire	Signal Name
1Q	R/W	-
6Q	Y/R	-
9Q	R/W	-

Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
8P	Y/R	-
11P	Y/B	-

Connector No.	E7
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



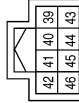
Terminal No.	Color of Wire	Signal Name
1S	W	-

Connector No.	E16
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R	F/L_MAIN
2	B/Y	F/L_USM

Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B/Y	GND (SIGNAL)

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Connector No.	E200
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



85	84	83	
90	88	87	86

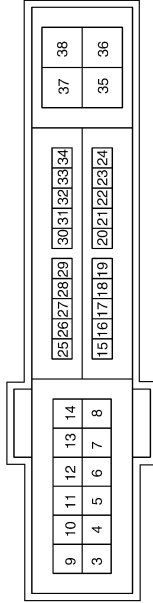
Terminal No.	Color of Wire	Signal Name
83	R/Y	HEAD_LAMP_LO_RH
84	L	HEAD_LAMP_LO_LH
86	W/R	FR_FOG_LAMP_RH
87	L/Y	FR_FOG_LAMP_LH
89	L/W	HEAD_LAMP_HI_RH
90	G	HEAD_LAMP_HI_LH

Connector No.	E31
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	Color of Wire	Signal Name
1	W/B	BATT

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	SB	DTRL
7	R/L	TAIL/ILLUMI
10	R/B	ECM_VB
11	P/L	ESCL
12	B	GND (POWER)

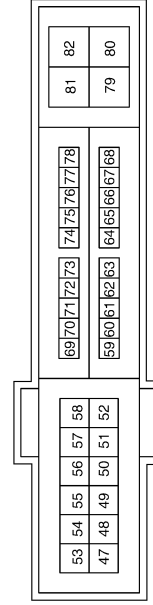
Connector No.	E201
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



98	97	96	95	94	93	92	91
108	105	104	103	102	101	100	99

Terminal No.	Color of Wire	Signal Name
91	LG/R	CLEARANCE_RH
92	LG/B	CLEARANCE_LH

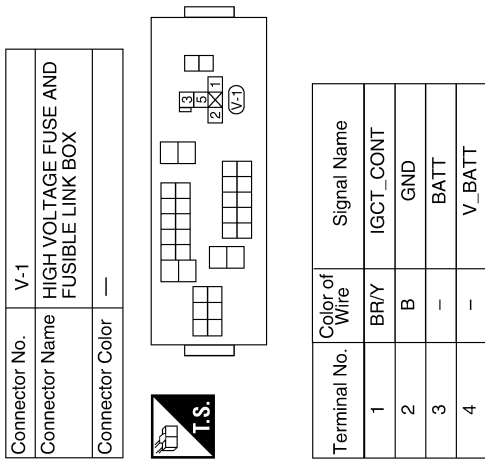
Connector No.	F10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
49	B/R	ENG_SOL
53	R/W	IGN_COIL
54	G/W	ETC
55	W/L	ECM_BAT
69	W/B	SSOFF
70	O	MOTRLY

POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >



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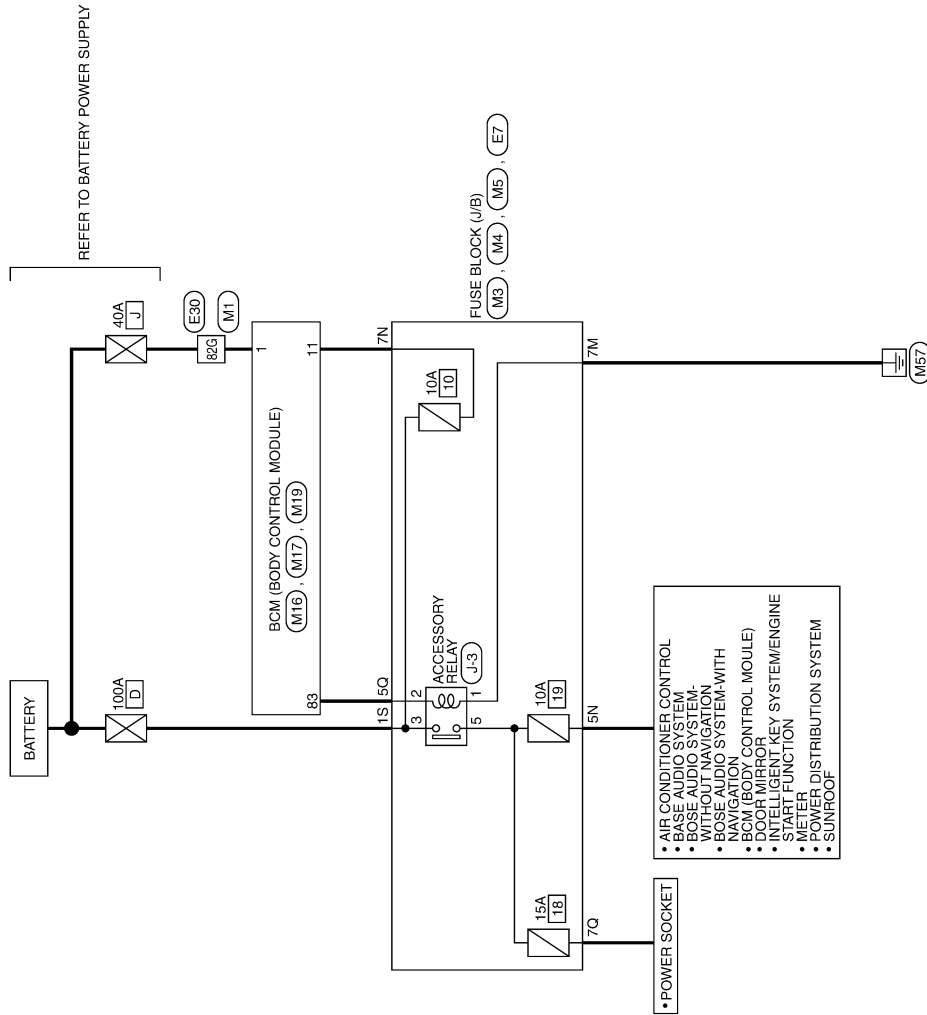
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Wiring Diagram —Accessory Power Supply—

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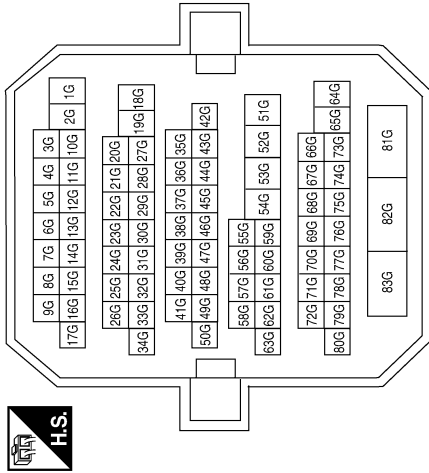
ACCESSORY POWER SUPPLY



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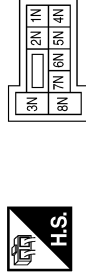
ACCESSORY POWER SUPPLY CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



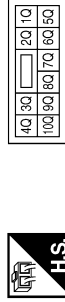
Terminal No.	Color of Wire	Signal Name
82G	W/B	-

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



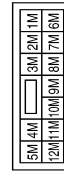
Terminal No.	Color of Wire	Signal Name
5N	V/Y	-
7N	Y/R	-

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



Terminal No.	Color of Wire	Signal Name
5Q	L	-
7Q	R/B	-

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



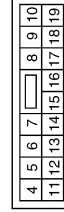
Terminal No.	Color of Wire	Signal Name
7M	B	-

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



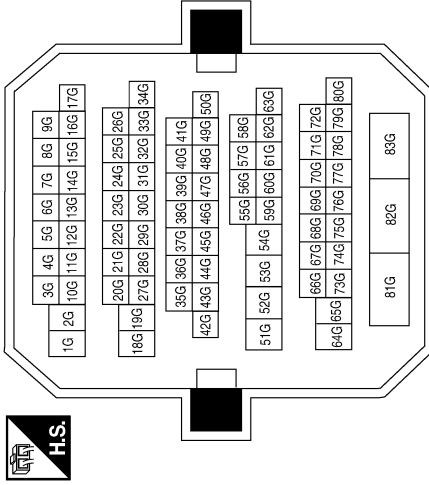
Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



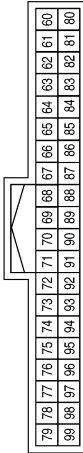
Terminal No.	Color of Wire	Signal Name
82G	W/B	-

Connector No.	E7
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



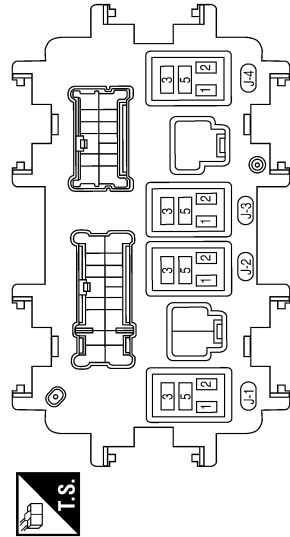
Terminal No.	Color of Wire	Signal Name
1S	W	-

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



Terminal No.	Color of Wire	Signal Name
83	L	ACC. CONT

Connector No.	J-3
Connector Name	ACCESSORY RELAY
Connector Color	-



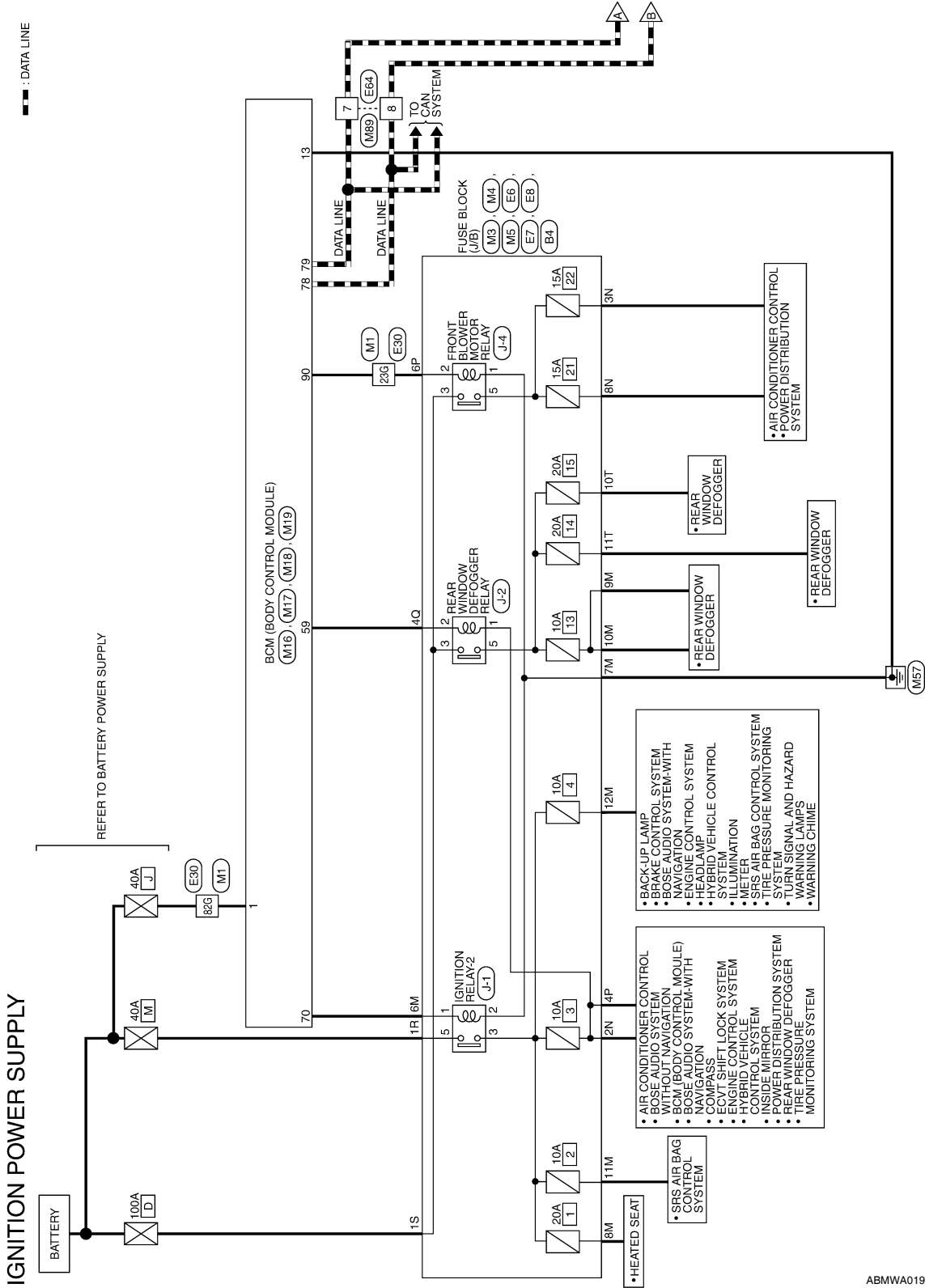
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Wiring Diagram — Ignition Power Supply —

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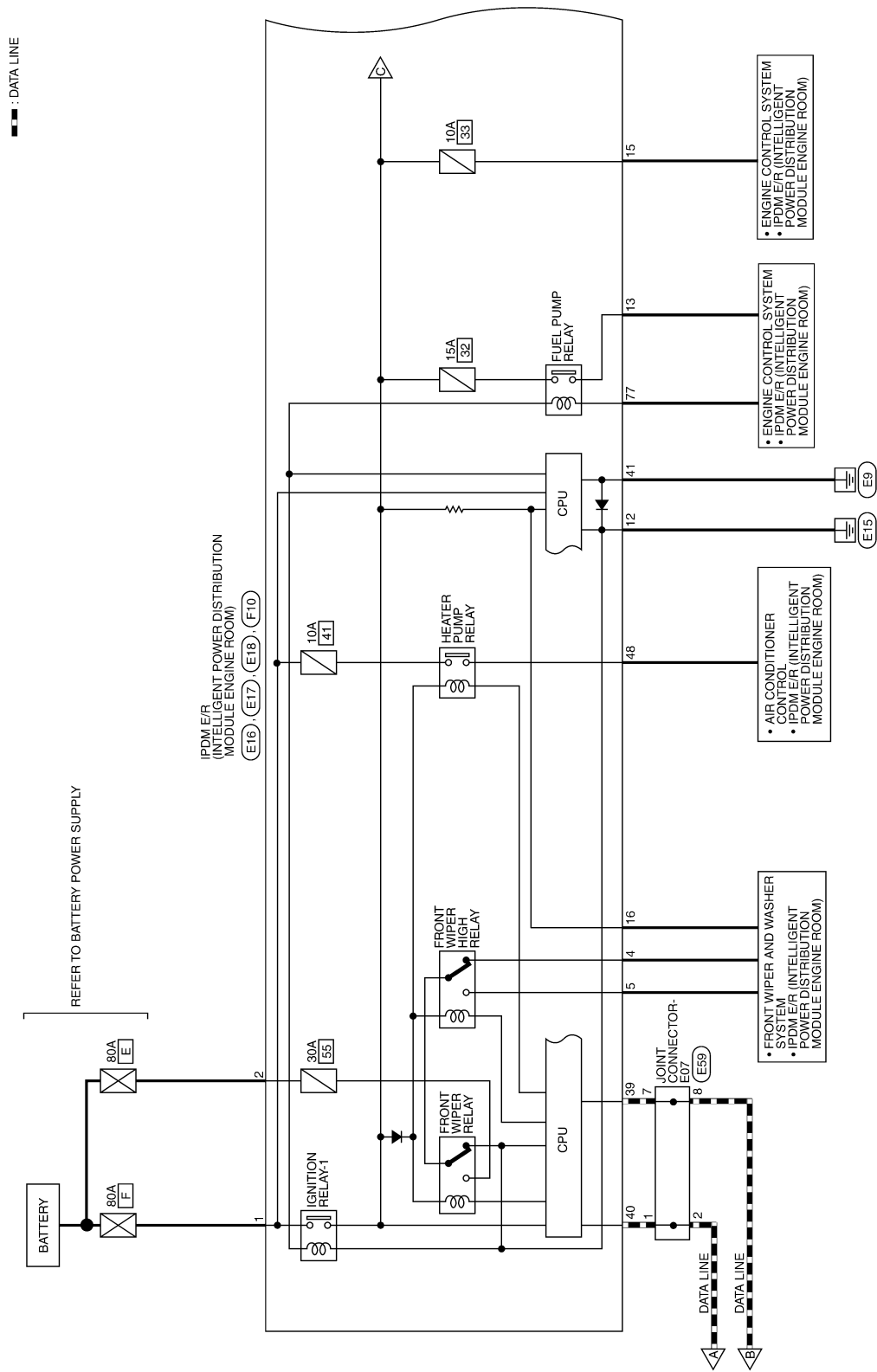


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POWER SUPPLY ROUTING CIRCUIT

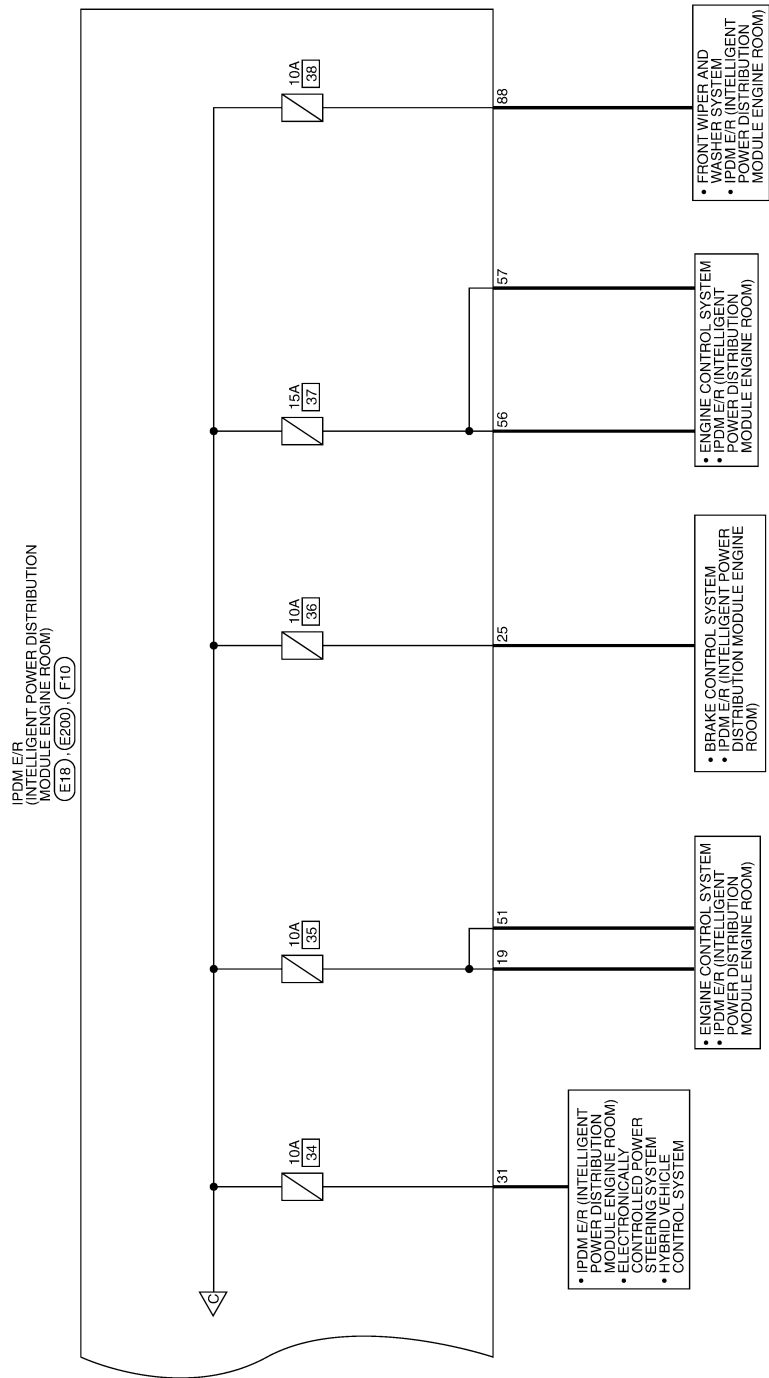
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POWER SUPPLY ROUTING CIRCUIT

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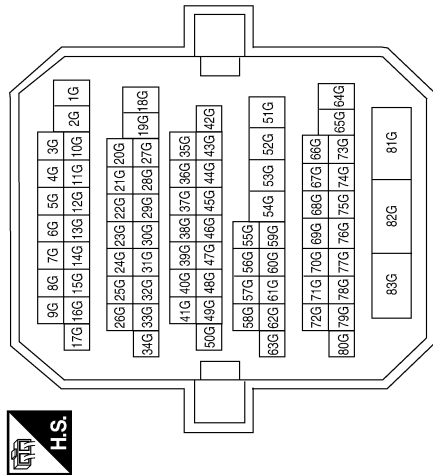
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POWER SUPPLY ROUTING CIRCUIT

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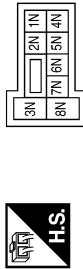
IGNITION POWER SUPPLY CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



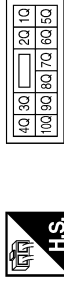
Terminal No.	Color of Wire	Signal Name
23G	Y	-
82G	W/B	-

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



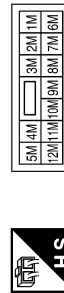
Terminal No.	Color of Wire	Signal Name
2N	G	-
3N	W/L	-
8N	W/L	-

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



Terminal No.	Color of Wire	Signal Name
4Q	G/R	-

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6M	R/B	-
7M	B	-
8M	G/R	-
9M	GR	-
10M	L/Y	-
11M	R/L	-
12M	O	-

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK




Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_FL

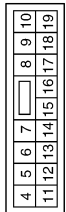
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE




4	5	6	7	8	9	10		
11	12	13	14	15	16	17	18	19

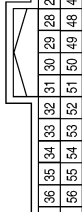


Terminal No.	Color of Wire	Signal Name
13	B	GND1

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




39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40

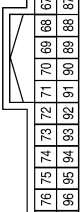


Terminal No.	Color of Wire	Signal Name
59	G/R	REAR_DEFOGGER_RLY

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




79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80

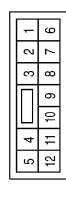


Terminal No.	Color of Wire	Signal Name
70	R/B	IGN_ELEC_CONT
78	P	CAN-L
79	L	CAN-H
90	Y	IGN2_CONT

Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Color	WHITE




5	4	3	2	1		
12	11	10	9	8	7	6




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

Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE




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




Terminal No.	Color of Wire	Signal Name
4P	G/R	-
6P	Y	-

Connector No.	E7
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



1S



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

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Connector No.	E8
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



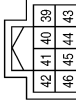
Terminal No.	Color of Wire	Signal Name
1R	G	-

Connector No.	E16
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



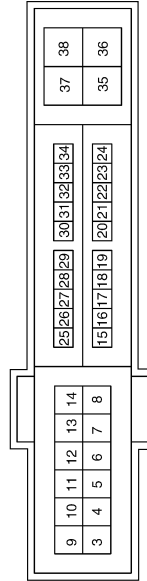
Terminal No.	Color of Wire	Signal Name
1	R	F/L_MAIN
2	B/Y	F/L_USM

Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



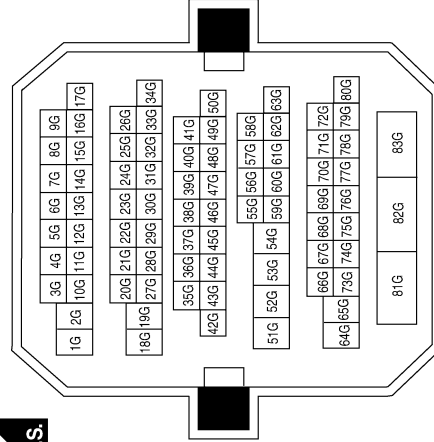
Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B/Y	GND (SIGNAL)

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4	L/R	FR_WIPER_LO
5	L/B	FR_WIPER_HI
12	B	GND (POWER)
13	W	FUEL_PUMP
15	BR	START_IG-E/R
16	L/Y	WIPER_AUTO_STOP
19	L/Y	BCM_IGN_SW
25	G/R	ABS_ECU
31	G/W	REC_RLY

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE




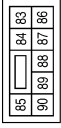
Terminal No.	Color of Wire	Signal Name
23G	Y	-
82G	W/B	-

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POWER SUPPLY ROUTING CIRCUIT


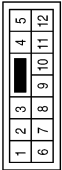
< COMPONENT DIAGNOSIS >

Connector No.	E200
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
88	R/W	WASHER_MTR

Connector No.	E64
Connector Name	WIRE TO WIRE
Connector Color	WHITE


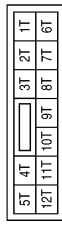
Terminal No.	Color of Wire	Signal Name
7	L	-
8	P	-

Connector No.	E59
Connector Name	JOINT CONNECTOR-E07
Connector Color	BLUE




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


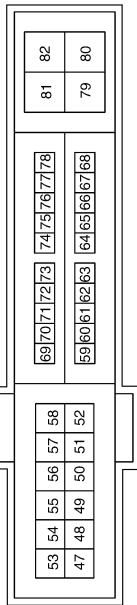
Connector No.	B4
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN

Terminal No.	Color of Wire	Signal Name
10T	R	-
11T	R	-

Terminal No.	Color of Wire	Signal Name
48	R	A/C_COMP
51	LG	INJECTOR_#1
56	R/Y	O2_SENS_#1
57	O	O2_SENS_#2
77	B/R	FPR

Connector No.	F10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

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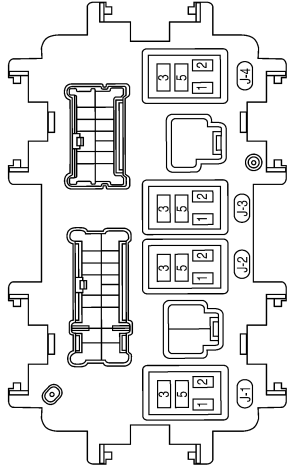
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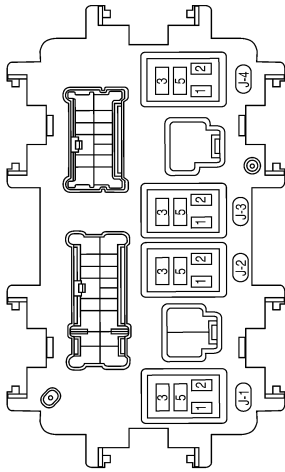
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

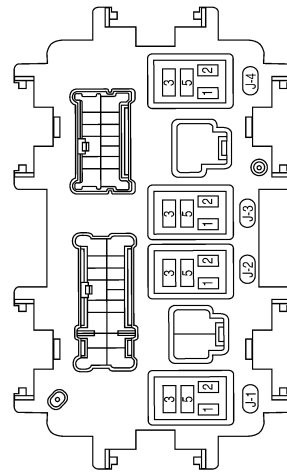
Connector No.	J-2
Connector Name	REAR WINDOW DEFOGGER RELAY
Connector Color	-



Connector No.	J-1
Connector Name	IGNITION RELAY-2
Connector Color	-



Connector No.	J-4
Connector Name	FRONT BLOWER MOTOR RELAY
Connector Color	-



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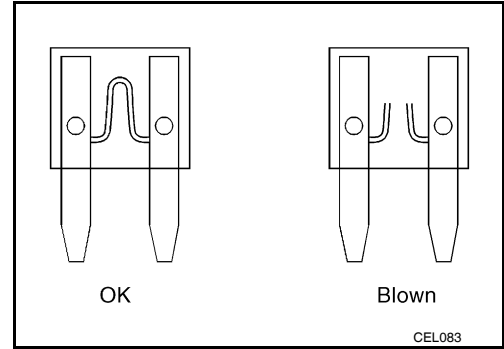
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Fuse

INFOID:000000004219223

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



Fusible Link

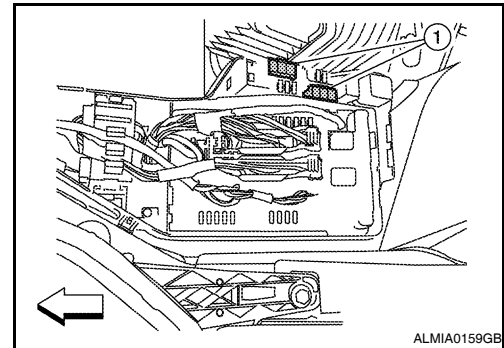
INFOID:000000004219224

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

1 : Fusible link

CAUTION:

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



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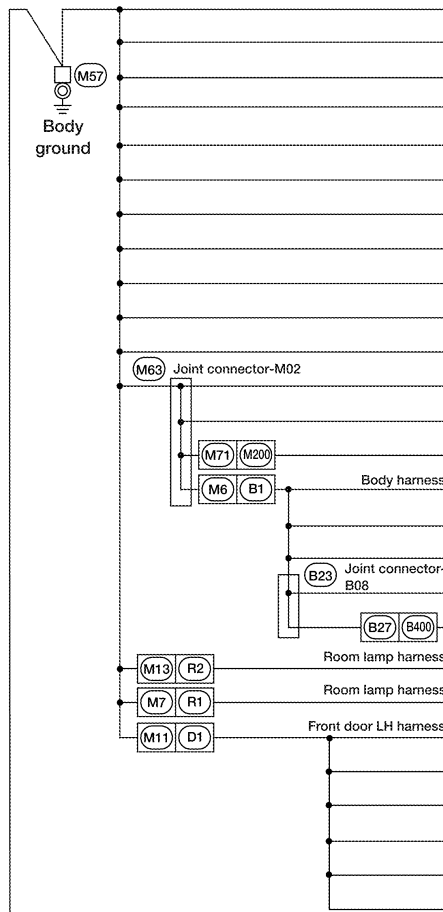
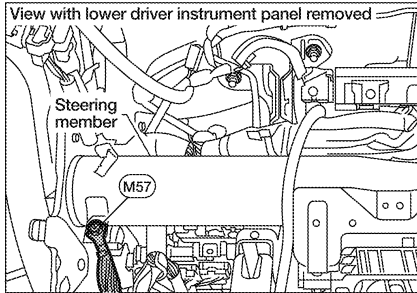
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GROUND

Ground Distribution

INFOID:000000004219225

MAIN HARNESS



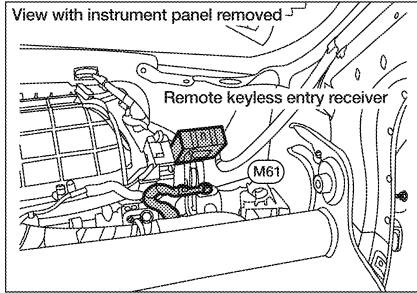
CONNECTOR NUMBER	CONNECT TO
M5	Fuse block (J/B) (Terminal 7M)
M17	BCM (Body control module) (Terminal 13)
M22	Data link connector (Terminal 4)
M22	Data link connector (Terminal 5)
M24	Combination meter (Terminal 3)
M24	Combination meter (Terminal 4)
M24	Combination meter (Terminal 23)
M28	Combination switch
M31	Blower motor
M40	Key slot
M75	Trunk lid opener switch
M47	AV control unit (Terminal 19)
M49	Instrument panel antenna (Terminal 1 and 2)
M203	Front console antenna (shield wire)
B29	Rear parcel shelf antenna (shield wire)
B30	Rear combination lamp LH (With rear view camera)
B45	Rear combination lamp RH (With rear view camera)
B37	High mounted stop lamp (With spoiler) (With rear view camera)
B401	High mounted stop lamp (Without spoiler) (With rear view camera)
R5	Sunroof motor assembly
R50	Front room/map lamp assembly
D4	Door mirror LH (Terminal 8) (With turn signal in mirror)
D4	Door mirror LH (Terminal 2) (With mirror defogger)
D5	Door mirror remote control switch
D6	Front outside handle LH
D8	Main power window and door lock/unlock switch
D10	Front door lock assembly LH

Next page

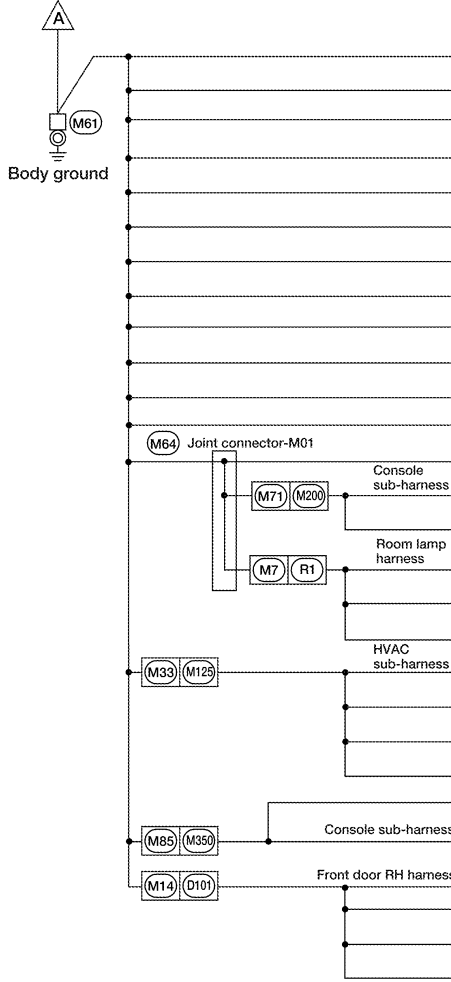
ABMIA0578GB

GROUND

< COMPONENT DIAGNOSIS >



Preceding page



CONNECTOR NUMBER	CONNECT TO
(M23)	ECVT device (Terminal 7)
(M32)	Electronic steering column lock (Terminal 5)
(M32)	Electronic steering column lock (Terminal 6)
(M36)	Front passenger air bag off indicator
(M37)	Controller (Auto amp.) (Terminal 17)
(M37)	Controller (Auto amp.) (Terminal 37)
(M38)	Push-button ignition switch
(M54)	Hazard switch
(M55)	Yaw rate/side/decel G sensor
(M68)	Glove box lamp
(M74)	Trunk lid opener cancel switch
(M76)	Front power socket
(M49)	Instrument panel antenna (Terminal 1 and 2)
(M201)	Front heated seat switch LH
(M202)	Front heated seat switch RH
(R3)	Vanity mirror lamp LH
(R4)	Auto anti-dazzling inside mirror
(R9)	Vanity mirror lap RH
(M128)	Intake door motor
(M127)	Mode door motor
(M128)	Air mix door motor LH
(M129)	Air mix door motor RH
(M203)	Front console antenna
(M351)	Front console power socket
(D105)	Power window and door lock/unlock switch RH
(D106)	Front outside handle RH
(D107)	Door mirror RH (Terminal 8) (With turn signal in mirror)
(D107)	Door mirror RH (Terminal 2) (With mirror defogger)

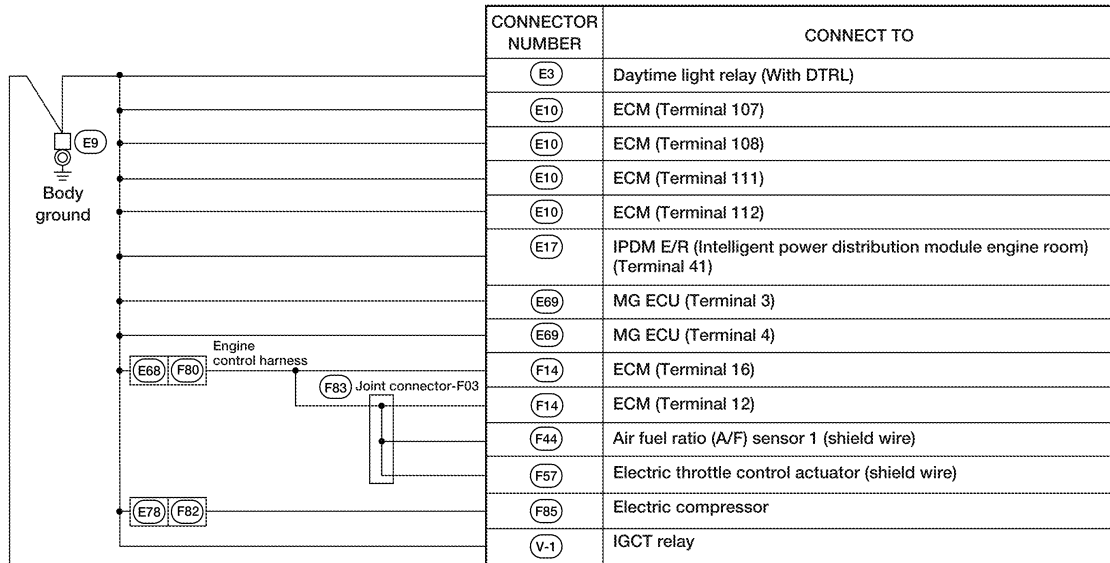
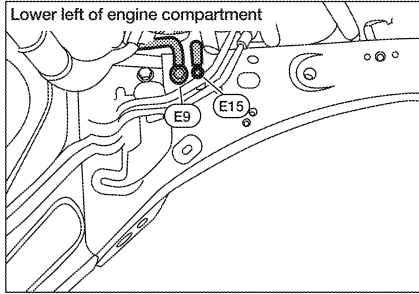
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GROUND

< COMPONENT DIAGNOSIS >

ENGINE ROOM HARNESS

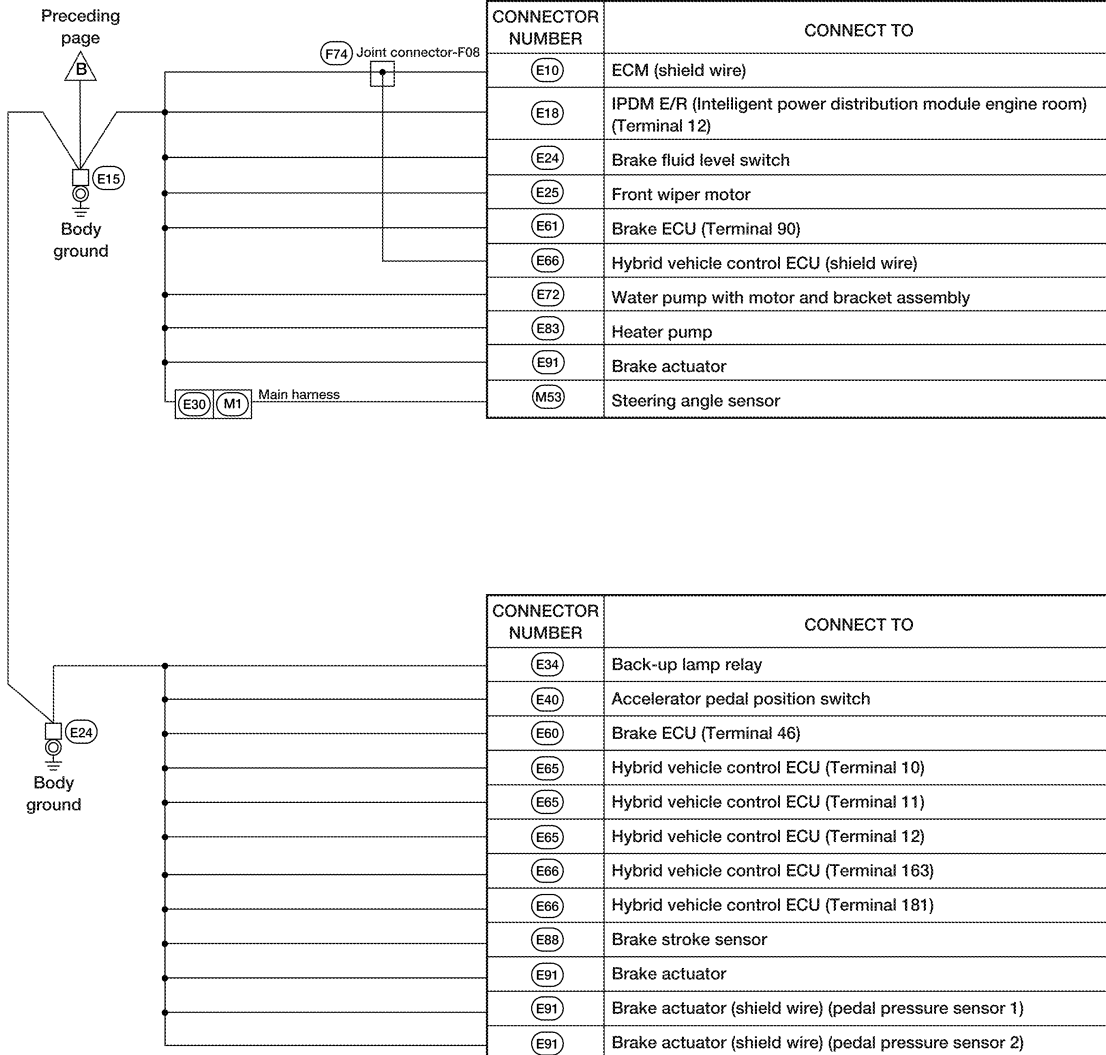
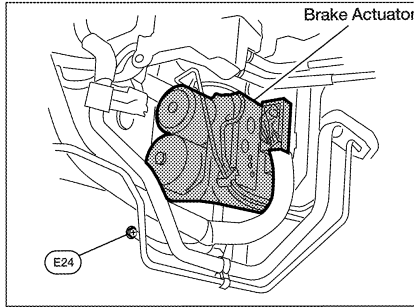
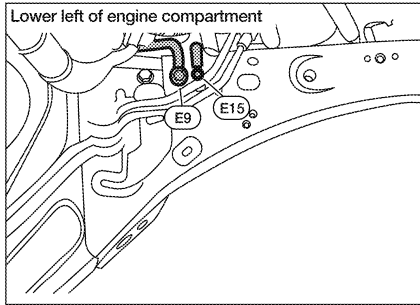


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GROUND

< COMPONENT DIAGNOSIS >

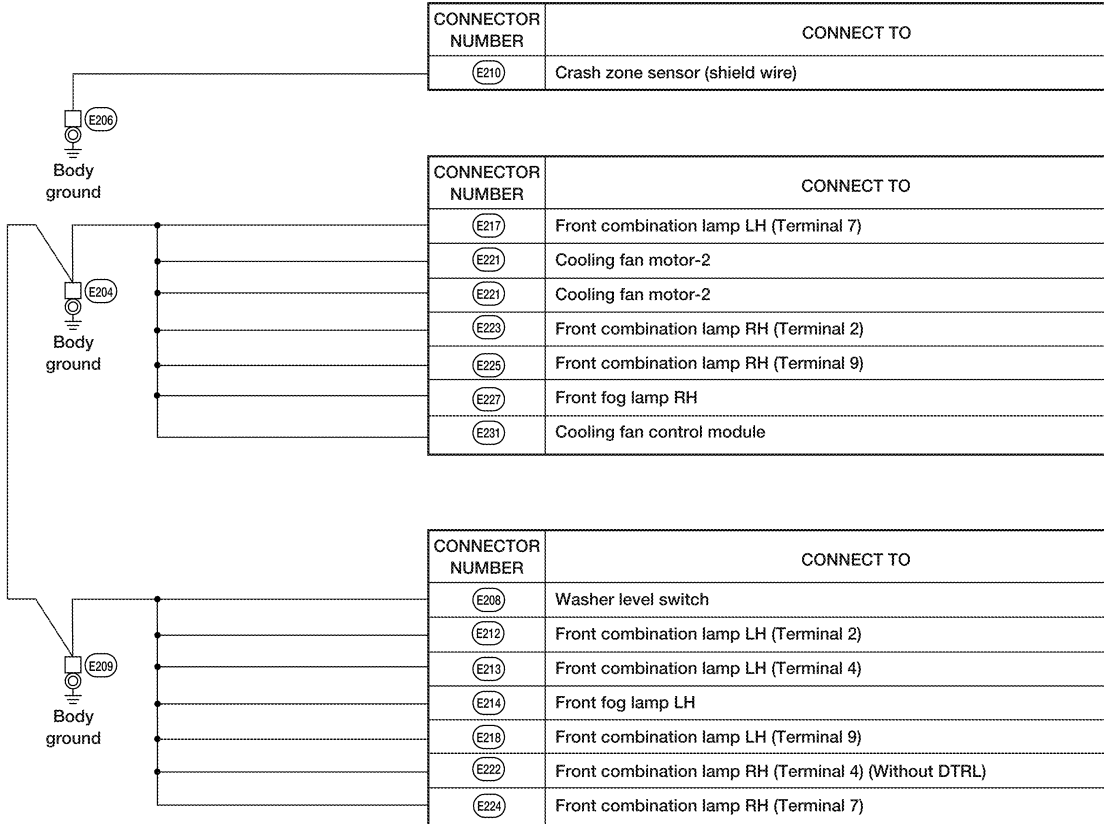
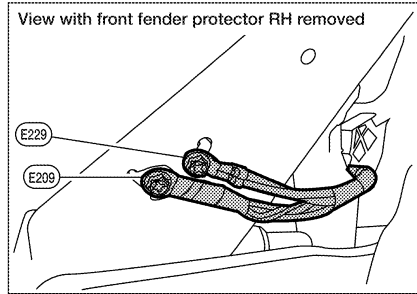
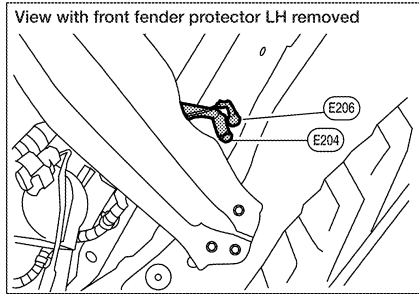


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GROUND

< COMPONENT DIAGNOSIS > FRONT END MODULE HARNESS

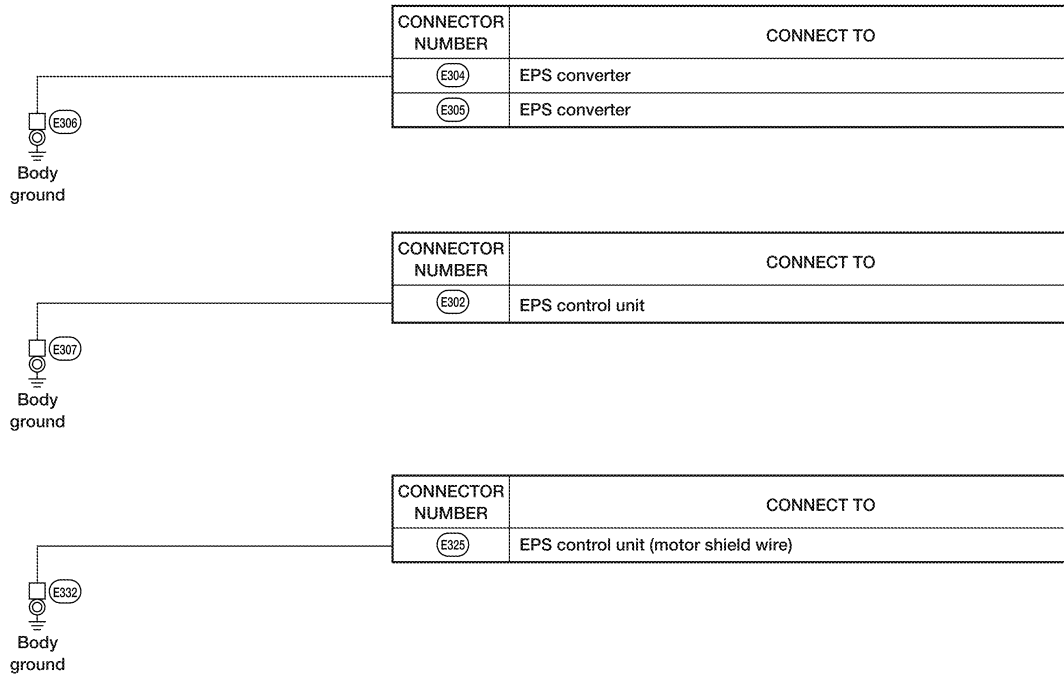
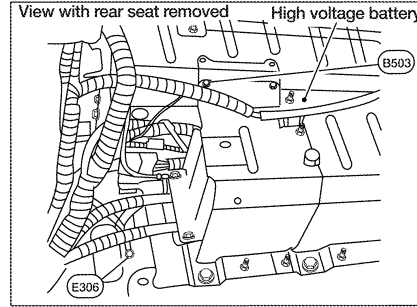
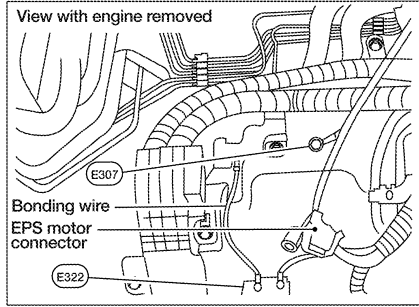


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GROUND

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HIGH VOLTAGE HARNESS

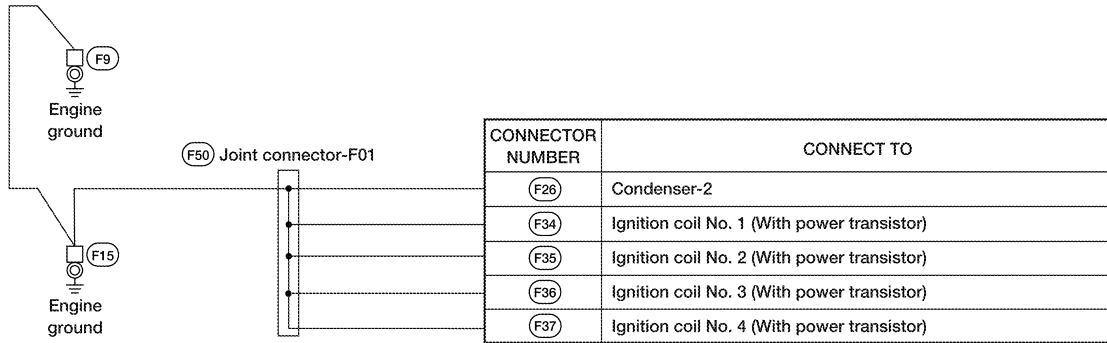
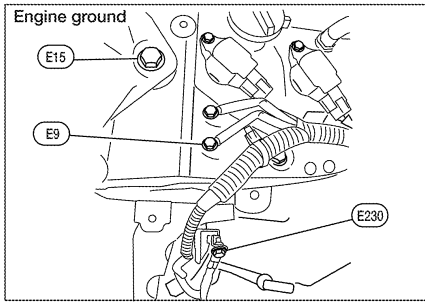


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GROUND

< COMPONENT DIAGNOSIS > ENGINE CONTROL HARNESS

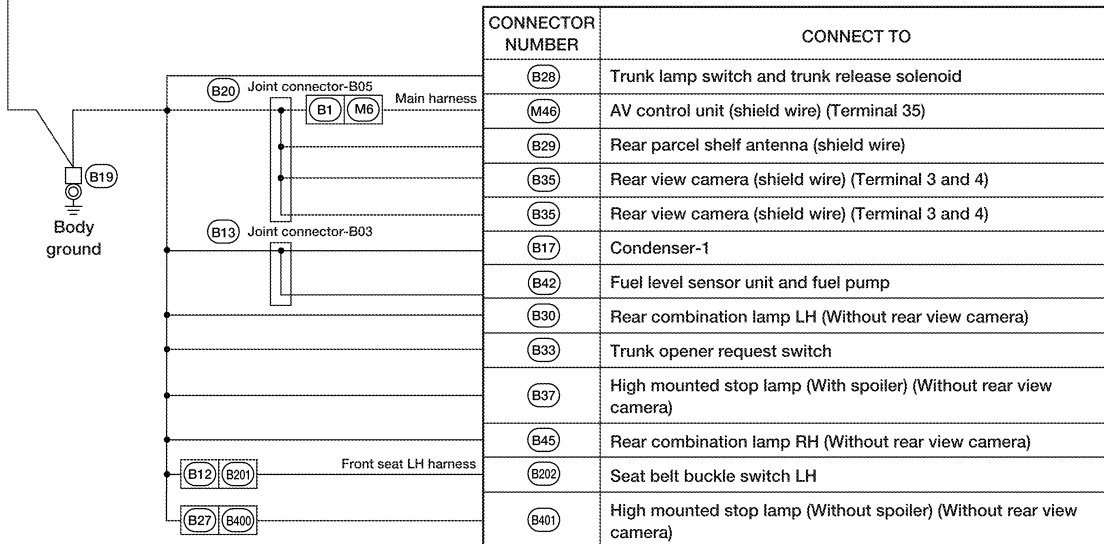
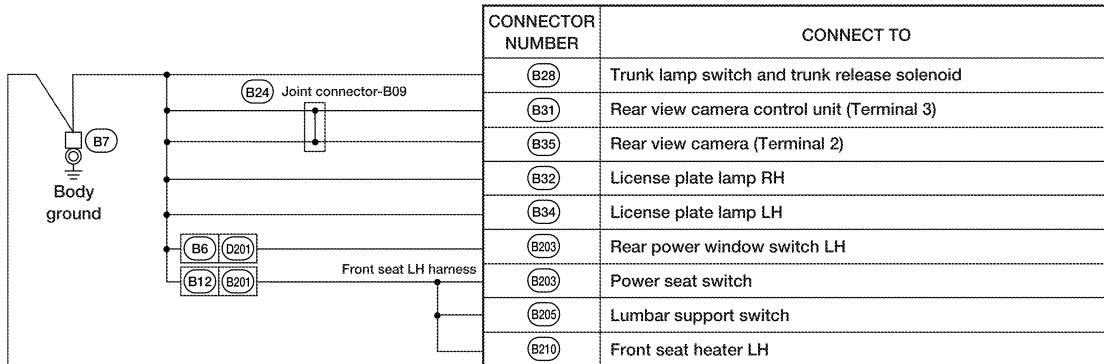
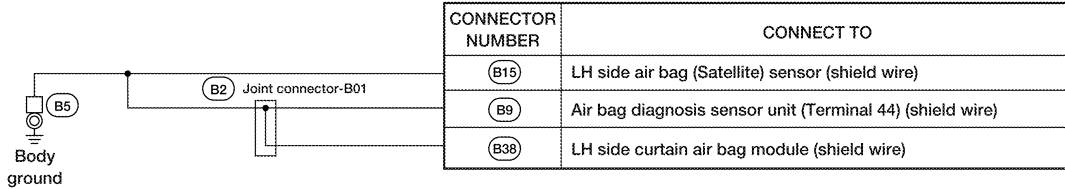
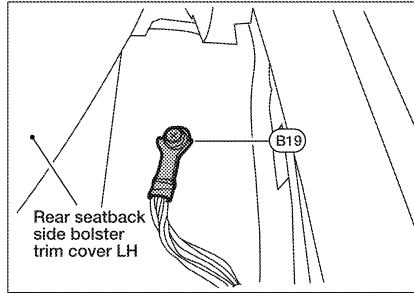
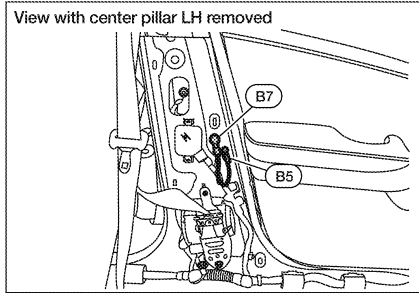


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GROUND

< COMPONENT DIAGNOSIS >

BODY HARNESS



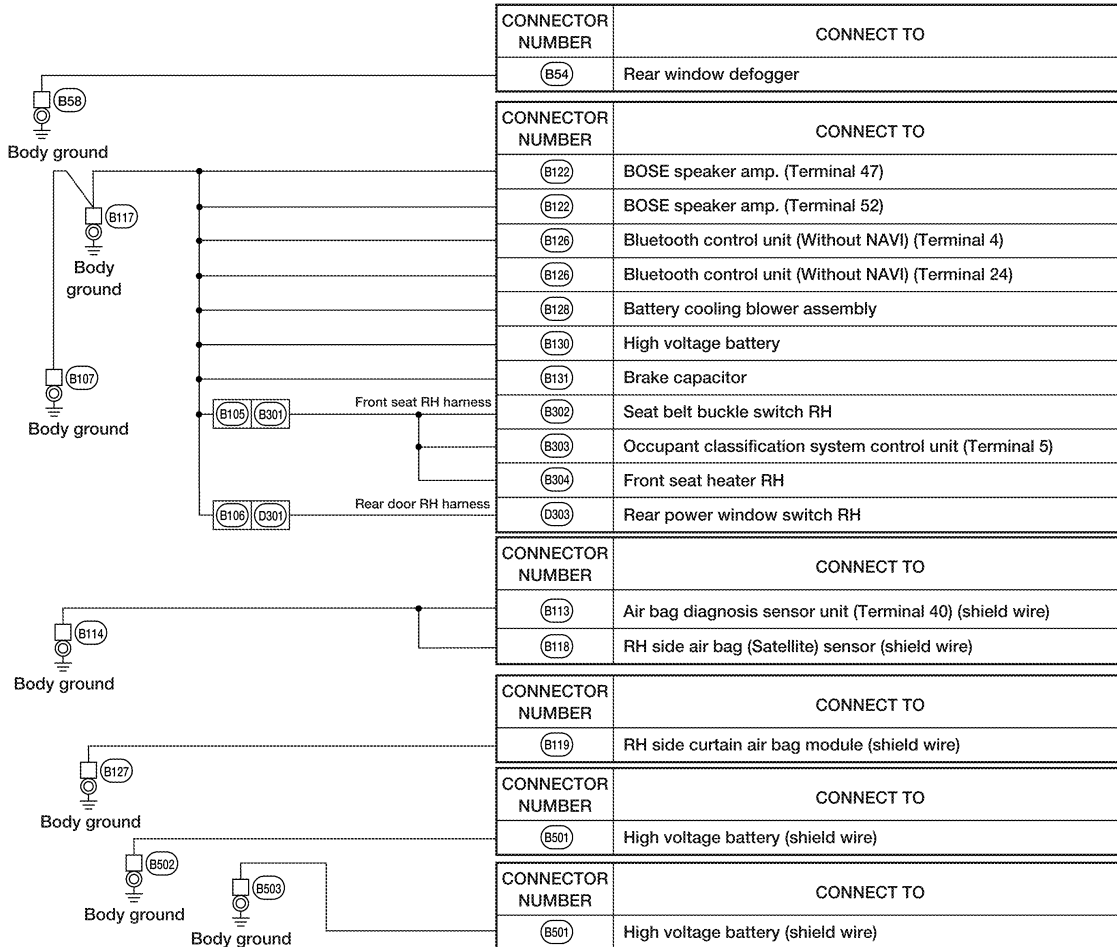
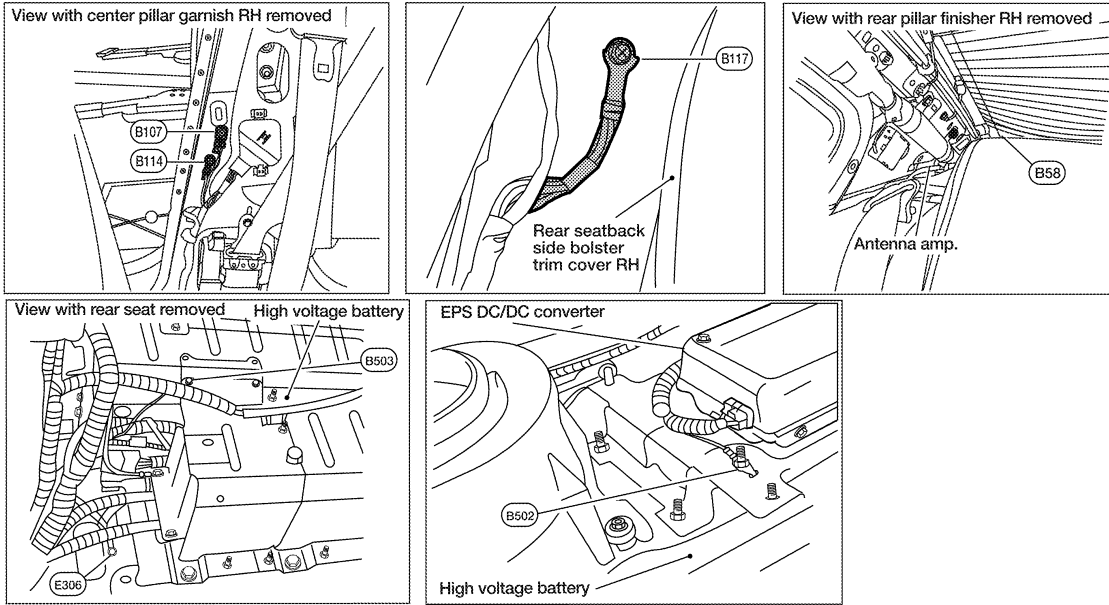
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< COMPONENT DIAGNOSIS >

BODY NO. 2 HARNESS



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HARNESS

< COMPONENT DIAGNOSIS >

HARNESS

Harness Layout

INFOID:000000004219226

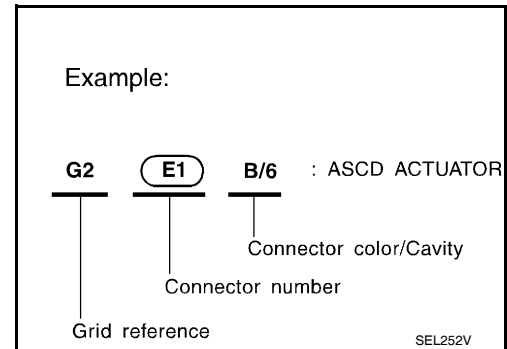
HOW TO READ HARNESS LAYOUT

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

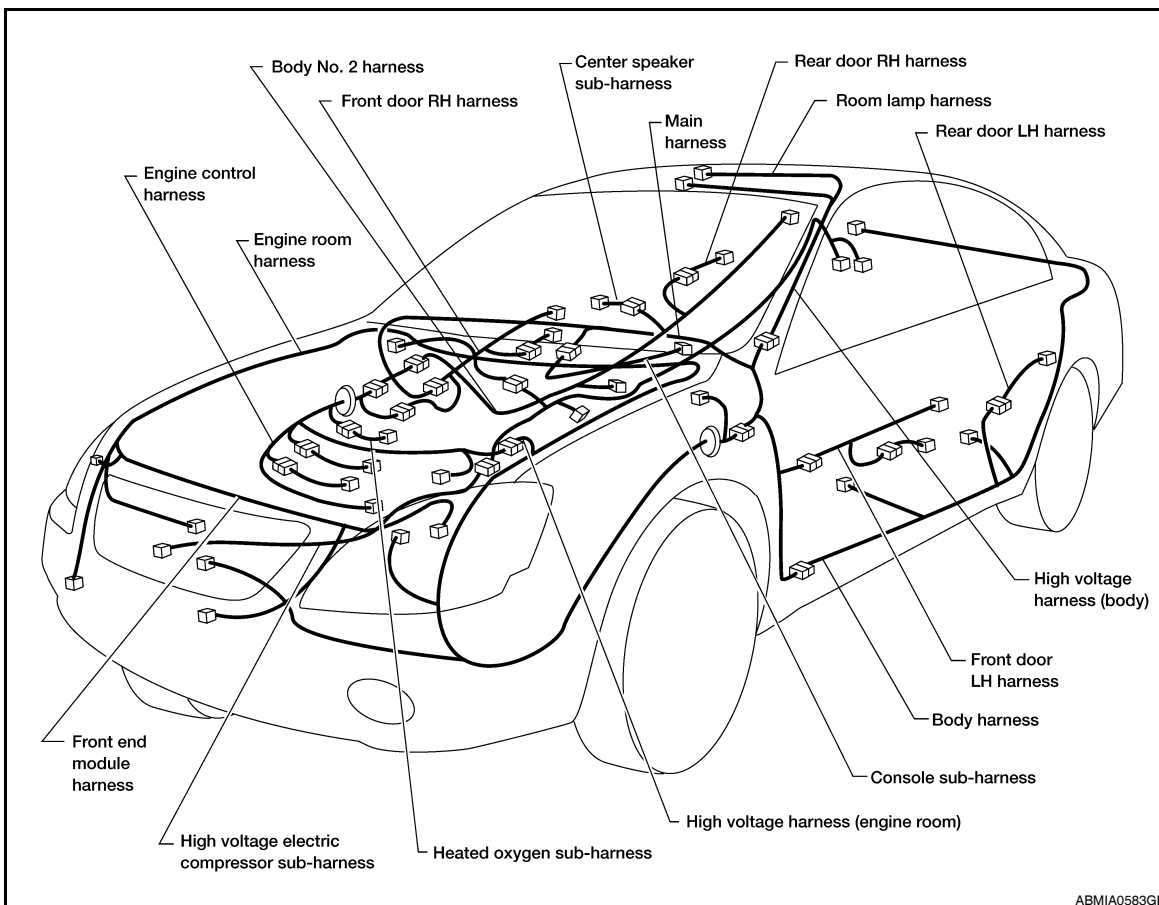
- Main Harness, Center Speaker Sub-harness and Console Sub-harness
- Engine Room Harness
- Engine Room Harness (Passenger Compartment)
- Front End Module Harness
- High Voltage Harness (Engine Room) and High Voltage Electric Compressor Sub-harness
- High Voltage Harness (Body)
- Engine Control Harness and Heated Oxygen Sensor Sub-harness
- Body Harness
- Body No. 2 Harness
- Room Lamp Harness

To use the grid reference

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



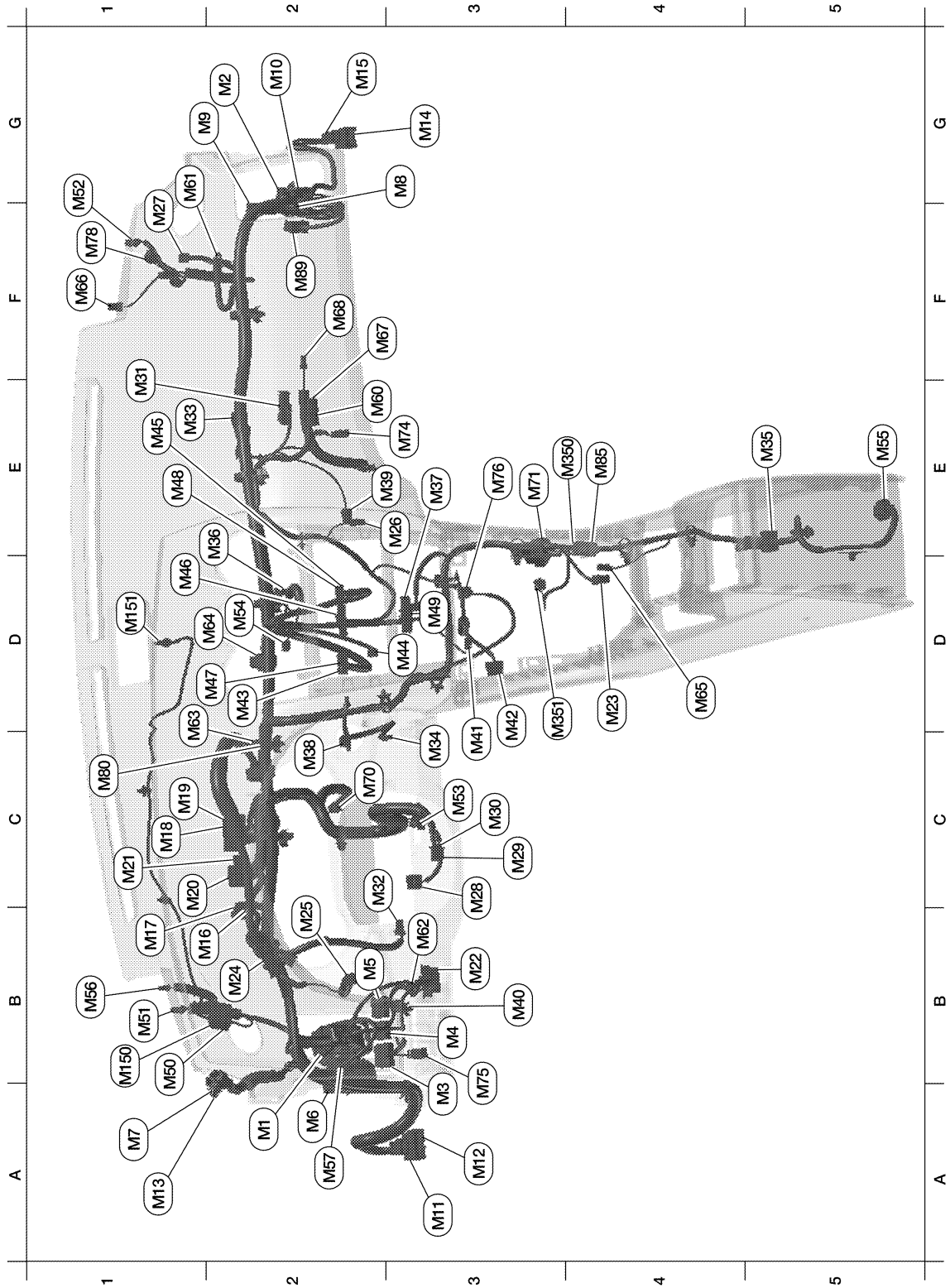
OUTLINE



HARNESS

< COMPONENT DIAGNOSIS >

MAIN HARNESS



ABMIA0584GB

A2	M1	SMJ	: To E30	D3	M42	W/16	: CD changer
G2	M2	W/32	: To B101	D2	M43	W/20	: Audio unit
B3	M3	W/8	: Fuse block (J/B)	D3	M44	W/8	: Audio unit
B3	M4	W/10	: Fuse block (J/B)	E1	M45	W/12	: Audio unit

HARNESS

< COMPONENT DIAGNOSIS >

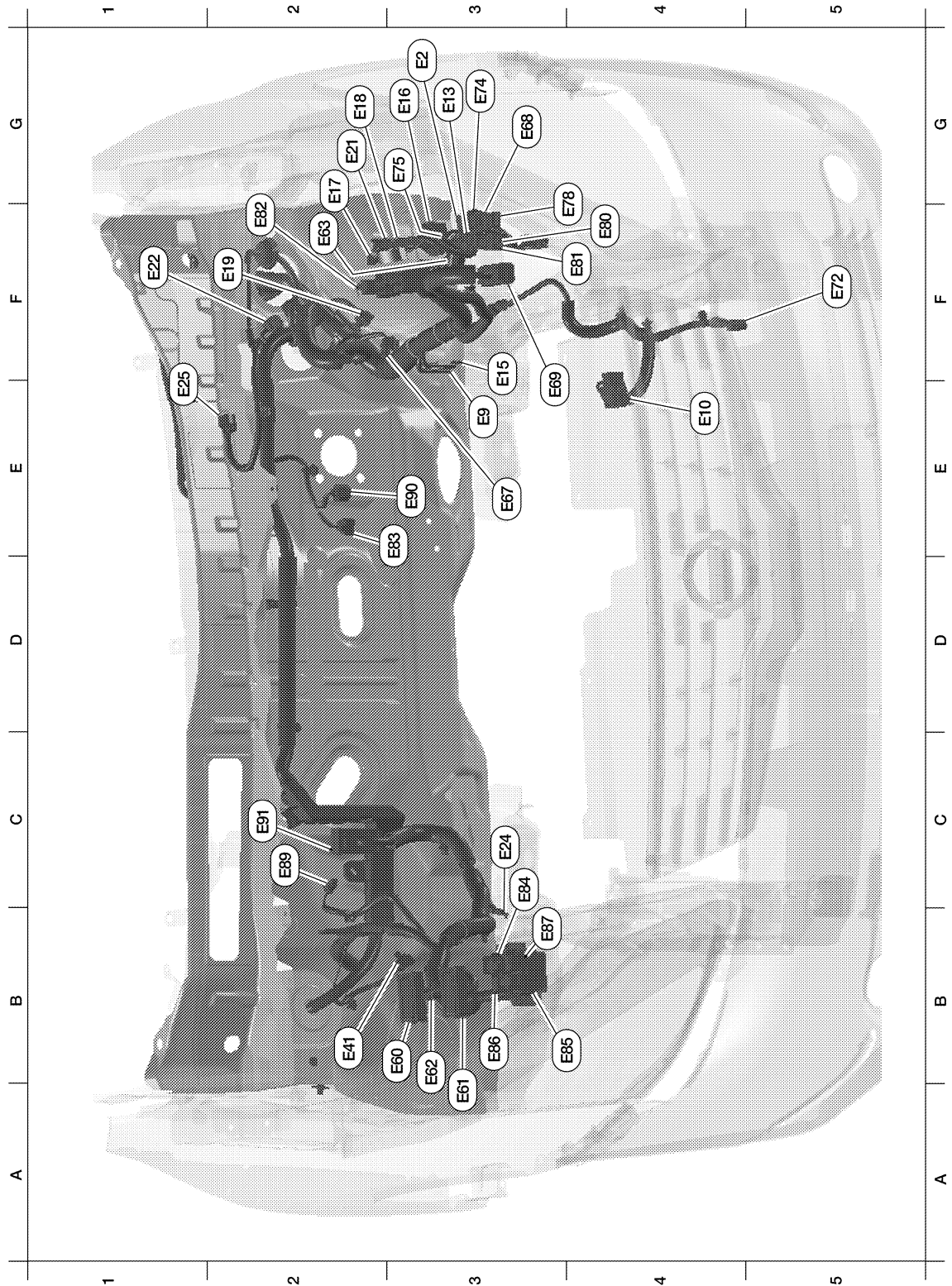
B2	M5	W/12	: Fuse block (J/B)	D1	M46	W/40	: AV control unit
A2	M6	SMJ	: To B1	D2	M47	W/20	: AV control unit
A1	M7	W/16	: To R1	E1	M48	GR/12	: AV control unit
G3	M8	W/24	: To B102	D3	M49	GR/2	: Instrument panel antenna
G1	M9	BR/16	: To B103	B1	M50	W/2	: To M150
G2	M10	BR/12	: To B104	B1	M51	BR/2	: Tweeter LH
A3	M11	W/16	: To D1	G1	M52	BR/2	: Tweeter RH
A3	M12	W/16	: To D2	C3	M53	W/8	: Steering angle sensor
A1	M13	W/4	: To R2	D2	M54	W/4	: Hazard switch
G3	M14	W/10	: To D101	E5	M55	B/5	: Yaw rate/side/decel G sensor
G2	M15	W/12	: To D102	B1	M56	B/2	: Sunload sensor
B1	M16	B/3	: BCM (body control module)	A2	M57	—	: Body ground
B1	M17	W/16	: BCM (body control module)	E2	M60	Y/2	: Front passenger air bag module
C1	M18	G/40	: BCM (body control module)	G1	M61	—	: Body ground
C1	M19	B/40	: BCM (body control module)	B3	M62	W/2	: Tire pressure warning check connector
C1	M20	W/12	: BCM (body control module)	D1	M63	L/12	: Joint connector-M02
C1	M21	GR/40	: BCM (body control module)	D1	M64	GR/6	: Joint connector-M01
B3	M22	W/16	: Data link connector	D4	M65	BR/2	: ECVT device
D4	M23	W/10	: ECVT device	F1	M66	W/3	: Optical sensor
B2	M24	W/40	: Combination meter	F3	M67	O/2	: Front passenger air bag module
B2	M25	B/10	: Meter mode switch	F2	M68	W/2	: Glove box lamp
E3	M26	BR/2	: Brake warning buzzer	C2	M70	W/4	: Tire pressure receiver
F1	M27	B/4	: Remote keyless entry receiver	E3	M71	W/12	: To M200
C3	M28	W/16	: Combination switch	E3	M74	W/2	: Trunk lid cancel switch
C3	M29	Y/6	: Combination switch (spiral cable)	B3	M75	B/2	: Trunk lid opener switch
C3	M30	GR/8	: Combination switch (spiral cable)	E3	M76	B/3	: Front power socket
E1	M31	W/6	: Blower motor	F1	M78	Y/4	: Front passenger air bag module (service replacement)
C2	M32	W/8	: Electronic steering column lock	C1	M80	—	: Diode-3
E1	M33	W/3	: To M125	E4	M85	W/2	: To M350
C3	M34	W/2	: In-vehicle sensor	F2	M89	W/12	: To E64
E5	M35	Y/28	: Air bag diagnosis sensor unit	Center speaker sub-harness			
E2	M36	W/3	: Front passenger air bag off indicator	D1	M150	W/2	: To M50
E3	M37	W/40	: Front air control	B1	M151	—	: Center speaker
C2	M38	BR/8	: Push-button ignition switch	Console sub-harness			
E2	M39	W/4	: Intake sensor	D3	M350	W/2	: To M85
D3	M40	W/12	: Key slot	E3	M351	B/3	: Front console power socket
C3	M41	W/4	: Aux jack				

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< COMPONENT DIAGNOSIS >

ENGINE ROOM HARNESS



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G3	E2	W/8	: To E202	E3	E67	B/4	: To E301
E3	E9	—	: Body ground	G3	E68	W/20	: To F80
E4	E10	B/32	: ECM	F3	E69	B/40	: MG ECU
G3	E13	B/3	: To E205	F5	E72	GR/4	: Water pump with motor and bracket assembly
F3	E15	—	: Body ground	G3	E74	W/4	: Joint connector - E08

HARNESS

< COMPONENT DIAGNOSIS >

G3	E16	B/2	: IPDM E/R (intelligent power distribution module engine room)	G3	E75	W/6	: Joint connector - E01
G2	E17	W/8	: IPDM E/R (intelligent power distribution module engine room)	G4	E78	W/12	: To F82
G2	E18	W/32	: IPDM E/R (intelligent power distribution module engine room)	F4	E80	BR/8	: To F84
F2	E19	GR/2	: Front wheel sensor LH	F4	E81	B/1	: To E207
G2	E21	W/4	: Joint connector-E03	F2	E82	—	: Cooling fan relay - 1
F1	E22	B/10	: Joint connector-E04	E3	E83	B/2	: Auxiliary coolant pump
C3	E24	—	: Body ground	C3	E84	L/5	: ABS relay No. 1
E1	E25	GR/5	: Front wiper motor	B4	E85	L/5	: ABS relay No. 2
B2	E41	GR/2	: Front wheel sensor RH	B3	E86	—	: ABS motor relay No. 2
B3	E60	B/46	: Brake ECU	B3	E87	—	: ABS motor relay No. 1
A3	E61	B/40	: Brake ECU	C2	E89	B/2	: Brake fluid level switch
B3	E62	B/5	: Brake ECU	E3	E90	B/2	: Brake simulator
F2	E63	W/4	: Joint connector - E09	C2	E91	B/46	: Brake actuator

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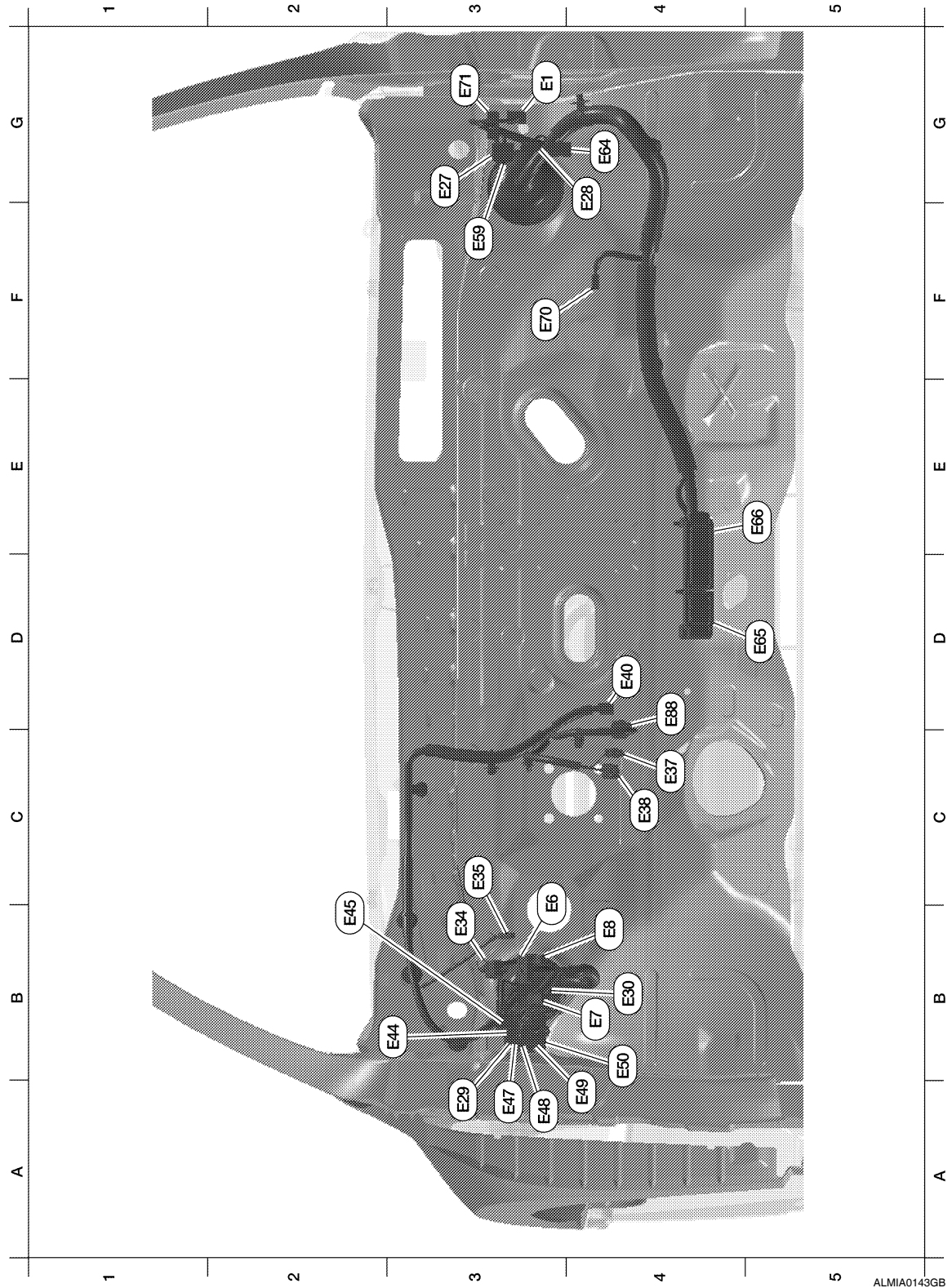
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HARNESS

< COMPONENT DIAGNOSIS >

ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)



ALMIA0143GB

G3	E1	W/10	: To B109	B3	E44	BR/12	: Junction block
C3	E6	W/16	: Fuse block (J/B)	B2	E45	W/12	: Junction block
B4	E7	W/1	: Fuse block (J/B)	A3	E47	W/6	: Junction block
B4	E8	B/2	: Fuse block (J/B)	A3	E48	W/4	: Junction block
G3	E27	W/4	: Joint connector-E06	A4	E49	BR/4	: Junction block

HARNESS

< COMPONENT DIAGNOSIS >

F4	E28	W/6	: Joint connector - E05	B4	E50	W/2	: Junction block
A3	E29	W/16	: To B10	F3	E59	L/12	: Joint connector - E07
B4	E30	SMJ	: To M1	G4	E64	W/12	: To M89
B3	E34	L/4	: Back-up lamp relay	D5	E65	B/60	: Hibrid vehicle control ECU
C3	E35	B/1	: Park brake switch	E5	E66	B/126	: Hibrid vehicle control ECU
C4	E37	BR/2	: ASCD brake switch	F3	E70	W/8	: Data recorder
C4	E38	W/4	: Stop lamp switch	G3	E71	GR/24	: To B129
D4	E40	B/6	: Accelerator pedal position switch	D4	E88	B/4	: Brake stroke sensor

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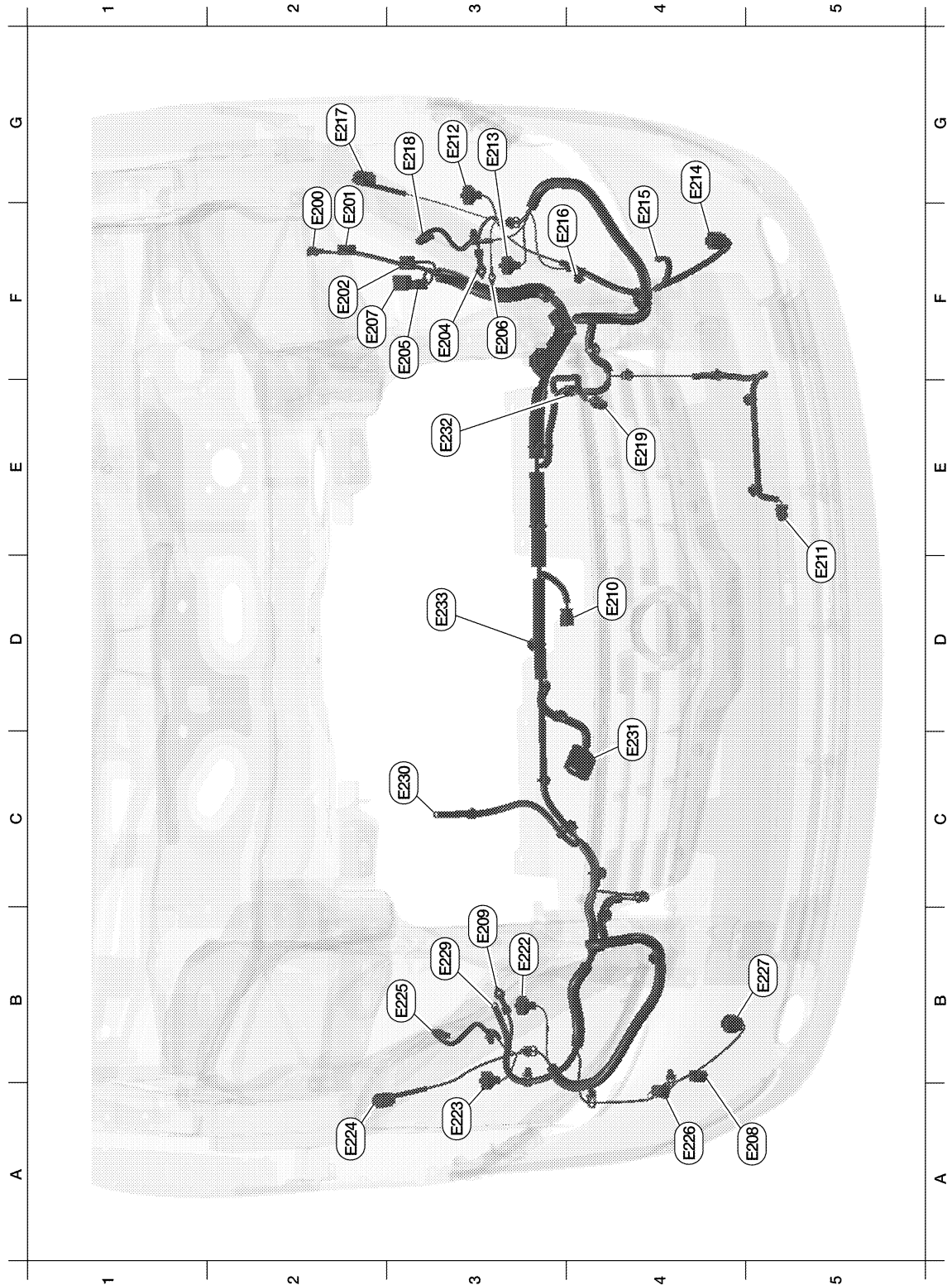
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HARNESS

< COMPONENT DIAGNOSIS >

FRONT END MODULE HARNESS



ABMIA0586GB

F2	E200	W/8	: IPDM E/R (intelligent power distribution module engine room)	F3	E216	B/1	: Horn (high)
F2	E201	W/16	: IPDM E/R (intelligent power distribution module engine room)	G2	E217	GR/3	: Front turn signal lamp LH
F2	E202	W/8	: To E2	G3	E218	B/2	: Front parking lamp LH
F3	E204	—	: Body ground	E4	E219	B/3	: Refrigerant pressure sensor

HARNESS

< COMPONENT DIAGNOSIS >

F3	E205	B/3	: To E13	B3	E222	B/2	: Front headlamp RH (high)	A
F3	E206	—	: Body ground	A3	E223	B/2	: Front headlamp RH (low)	B
F2	E207	B/1	: To E81	A2	E224	GR/3	: Front turn signal lamp RH	B
A5	E208	W/2	: Washer fluid level switch	B3	E225	B/2	: Front parking lamp RH	C
B3	E209	—	: Body ground	A4	E226	B/2	: Front washer motor	C
D4	E210	Y/2	: Crash zone sensor	B5	E227	B/2	: Front fog lamp RH	D
D5	E211	B/2	: Ambient sensor	B3	E229	—	: Bonding wire	D
G3	E212	B/2	: Front headlamp LH (low)	C3	E230	—	: Body ground	E
G3	E213	B/2	: Front headlamp LH (high)	C4	E231	GR/3	: Cooling fan control module	F
G4	E214	B/2	: Front fog lamp LH	E3	E232	B/2	: Cooling fan motor - 1	G
F4	E215	B/1	: Horn (low)	D3	E233	B/2	: Cooling fan motor - 2	H

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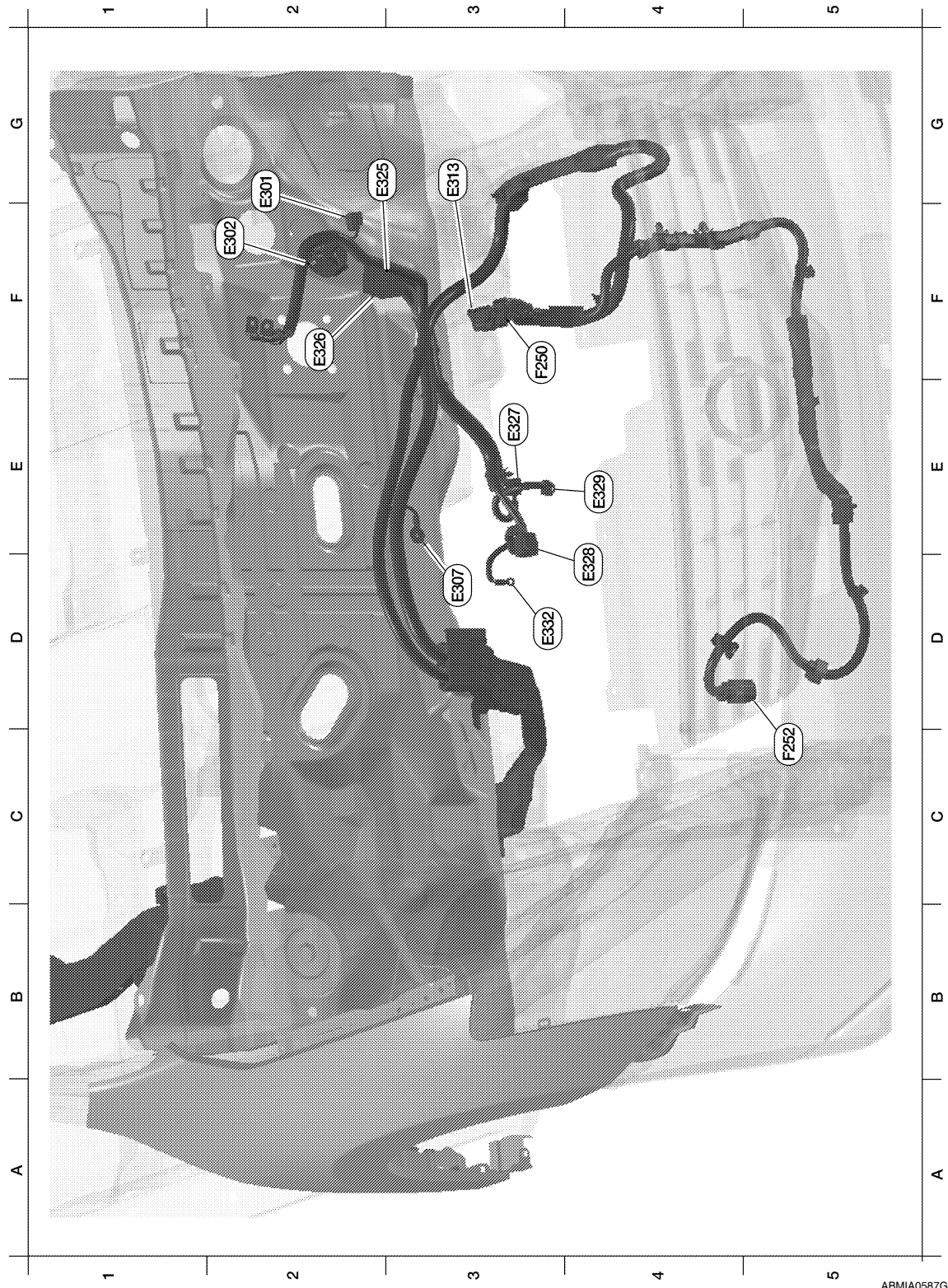
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< COMPONENT DIAGNOSIS >

HIGH VOLTAGE HARNESS (ENGINE ROOM)



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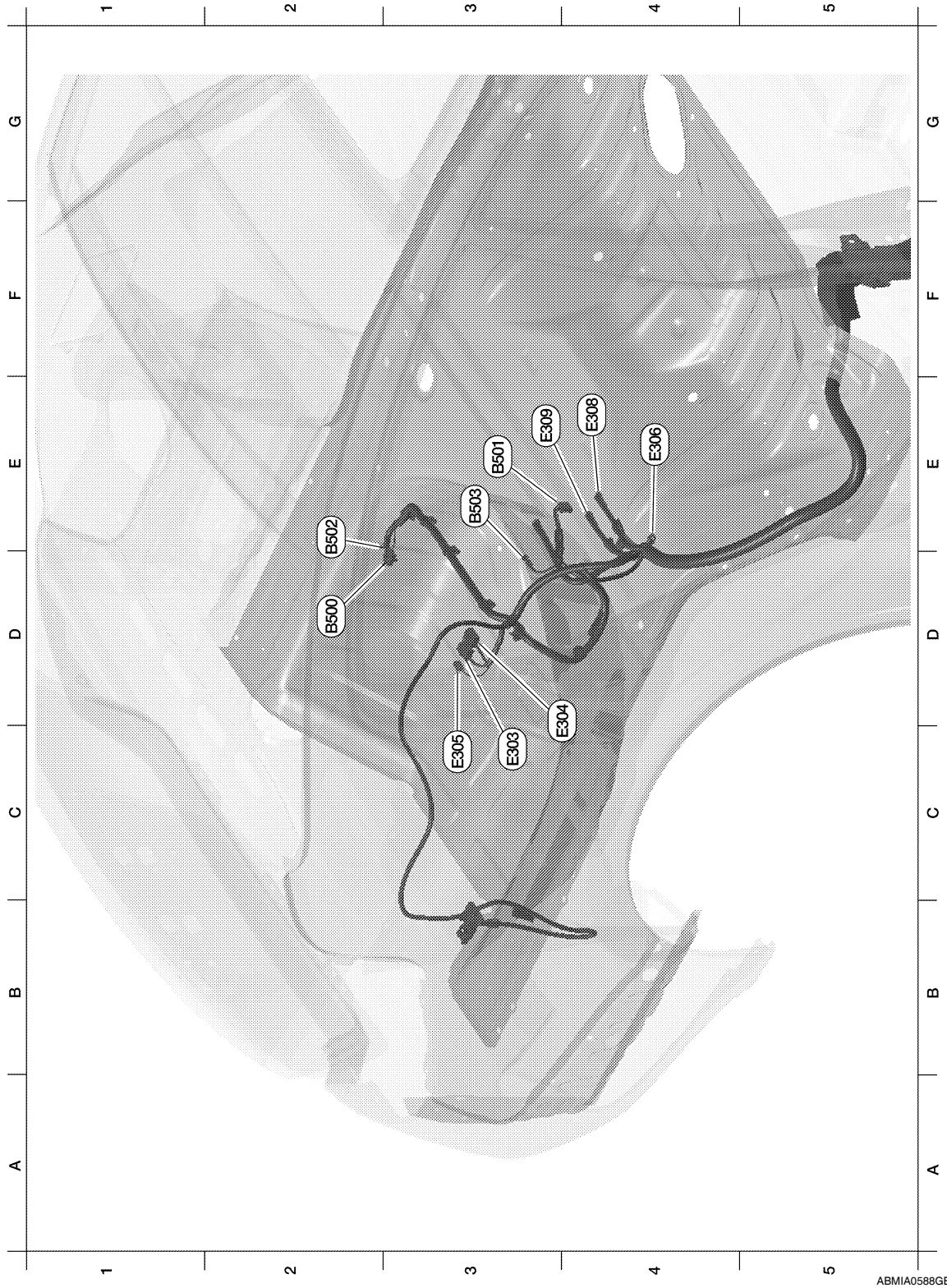
G2	E301	B/4	: To E67	D4	E328	GY/3	: EPS motor
F2	E302	B/11	: EPS control unit	E4	E329	GY/4	: EPS motor
D3	E307	—	: Body ground	D3	E332	—	: Power steering motor ground
G2	E313	W/2	: Inverter	High voltage electric compressor sub-harness			
G3	E325	GY/3	: EPS control unit	F3	F250	W/2	: Inverter

HARNESS

< COMPONENT DIAGNOSIS >

F2	E326	GY/13	: EPS control unit	C5	F252	O/2	: A/C compressor
E3	E327	—	: Torque sensor/EPS position sensor				

HIGH VOLTAGE HARNESS (BODY)



C3	E303	W/2	: EPS DC/DC converter	E3	B311	—	: High voltage battery
D4	E304	GY/2	: EPS DC/DC converter	D2	B312	—	: High voltage battery
C3	E305	W/4	: EPS DC/DC converter	E2	B500	O/5	: EPS DC/DC converter

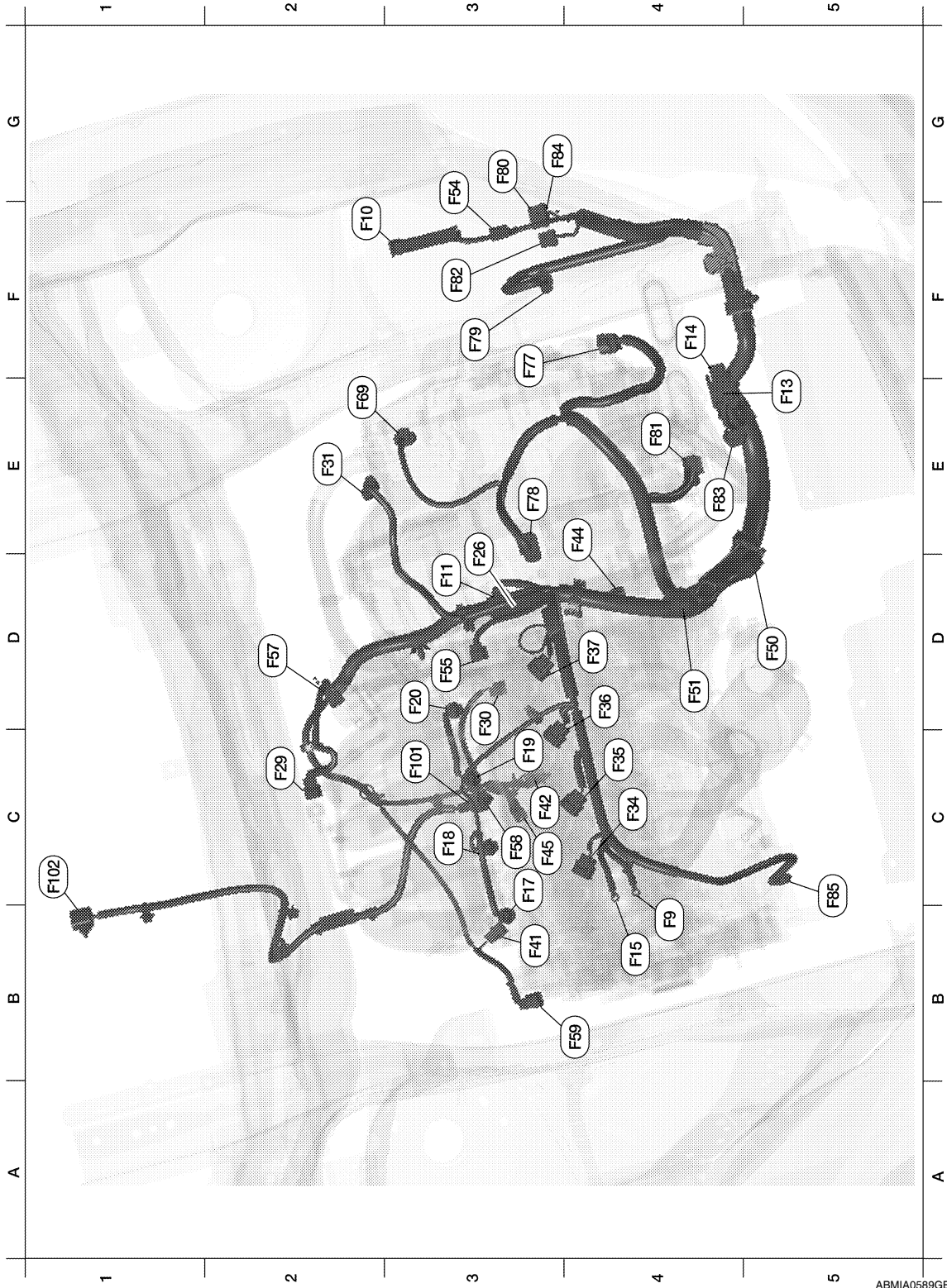
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< COMPONENT DIAGNOSIS >

E4	E306	—	: Body ground	E2	B501	W/4	: High voltage battery
E4	E308	—	: High voltage battery	E2	B502	—	: Body ground
E3	E309	—	: High voltage battery	E3	B503	—	: Body ground
E2	B310	—	: High voltage battery				

ENGINE CONTROL HARNESS



ABMIA0589GB

HARNESS

< COMPONENT DIAGNOSIS >

B4	F9	—	: Engine ground	C3	F45	GR/2	: Knock sensor
F2	F10	W/36	: IPDM E/R (intelligent power distribution module engine room)	D5	F50	B/10	: Joint connector - F01
D3	F11	GR/2	: Engine coolant temperature sensor	D4	F51	B/10	: Joint connector - F05
E5	F13	BR/48	: ECM	G3	F54	W/4	: Joint connector - F08
F4	F14	GR/32	: ECM	D3	F55	B/3	: Camshaft position sensor (PHASE)
B4	F15	—	: Engine ground	D2	F57	B/6	: Electric throttle control actuator
C3	F17	GR/2	: Fuel injector No. 1	C3	F58	B/4	: To F101
C3	F18	GR/2	: Fuel injector No. 2	B4	F59	G/2	: Intake valve timing control solenoid valve
C3	F19	GR/2	: Fuel injector No. 3	E2	F69	B/3	: Motor generator No. 2
D3	F20	GR/2	: Fuel injector No. 4	F3	F77	B/6	: Motor generator No. 2
E3	F26	GR/2	: Condenser-2	E3	F78	B/10	: Motor generator No. 1
C2	F29	L/2	: EVAP canister purge volume control solenoid valve	F3	F79	GR/13	: MG ECU
D3	F30	B/3	: Crankshaft position sensor (POS)	G3	F80	W/20	: To E68
E2	F31	B/6	: Mass air flow sensor	E4	F81	GR/9	: Park/neutral (PNP) switch
C4	F34	GR/3	: Ignition coil No. 1 (with power transistor)	F3	F82	W/12	: To E78
C4	F35	GR/3	: Ignition coil No. 2 (with power transistor)	E4	F83	B/10	: Joint connector - F03
D4	F36	GR/3	: Ignition coil No. 3 (with power transistor)	F3	F84	BR/8	: To E80
D4	F37	GR/3	: Ignition coil No. 4 (with power transistor)	C5	F85	B/6	: A/C compressor
B3	F41	GR/1	: Oil pressure switch	Heated oxygen sensor sub-harness			
C3	F42	B/4	: Heated oxygen sensor 2	C3	F101	B/4	: To F58
E4	F44	GR/4	: Air fuel ratio (A/F) sensor 1	C1	F102	GR/4	: Heated oxygen sensor 3

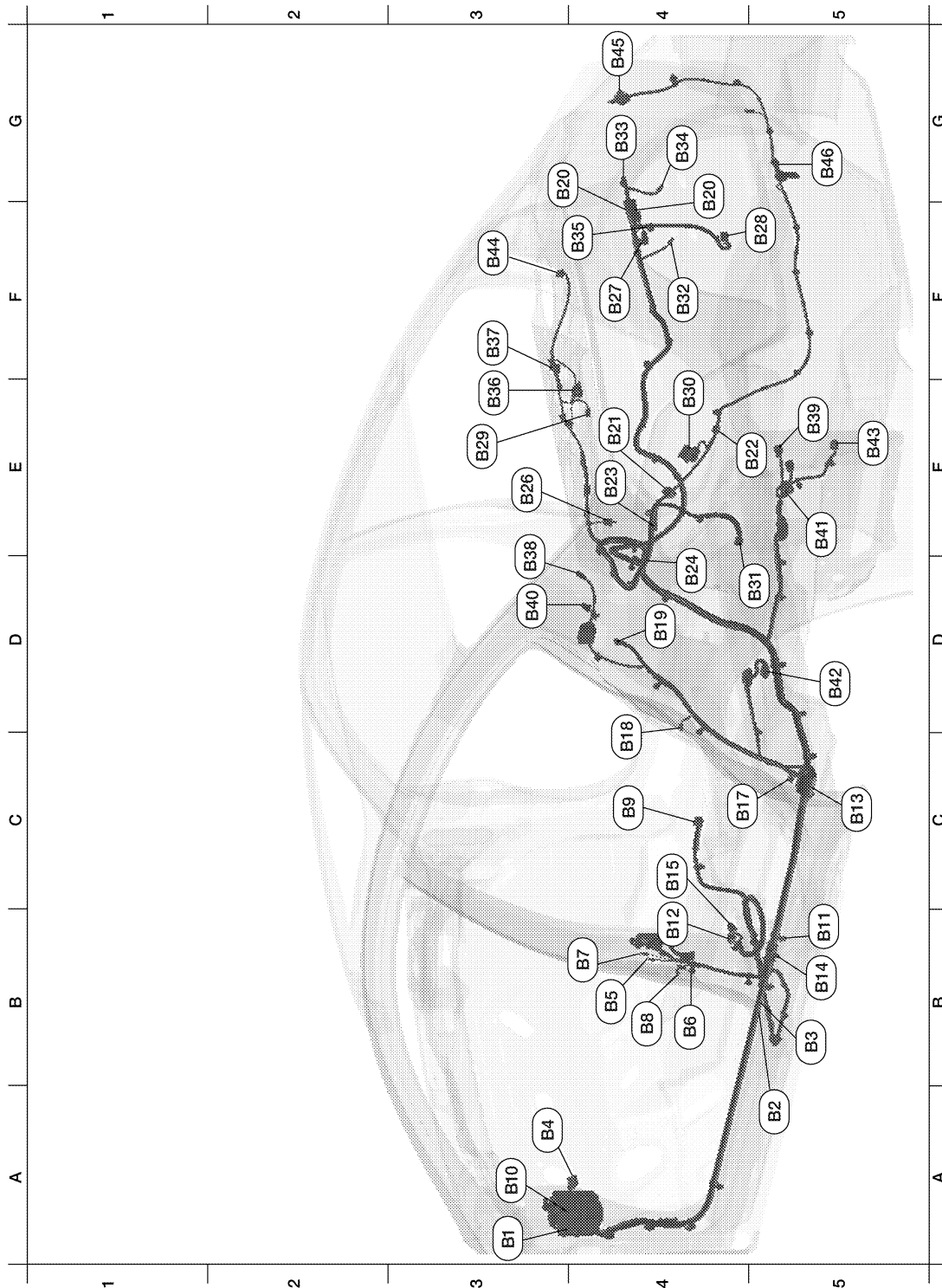
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< COMPONENT DIAGNOSIS >

BODY HARNESS



ABMIA0590GB

A3	B1	SMJ	: To M6	D4	B24	W/4	: Joint connector-B09
A5	B2	W/4	: Joint connector-B01	E3	B26	W/2	: Rear speaker LH
B5	B3	W/4	: Joint connector-B02	F5	B28	W/4	: Trunk lamp switch and trunk release solenoid
A3	B4	BR/12	: Fuse block (J/B)	E3	B29	GR/2	: Rear parcel shelf antenna

HARNESS

< COMPONENT DIAGNOSIS >

B4	B5	—	: LH side air bag (satellite) sensor (sheild wire)	E4	B30	W/6	: Rear combination lamp LH	A
B4	B6	W/8	: To D201	D5	B31	W/16	: Rear view camera control unit	
B4	B7	—	: Body ground	F4	B32	BR/2	: License plate lamp RH	B
B4	B8	W/3	: Front door switch LH	G4	B33	BR/2	: Trunk opener request switch	
C4	B9	Y/12	: Air bag diagnosis sensor unit	G4	B34	BR/2	: License plate lamp LH	
A3	B10	W/16	: To E29	F4	B35	W/4	: Rear view camera control unit	C
B5	B11	Y/2	: Front LH side air bag module	E3	B36	W/2	: Trunk room lamp	
B4	B12	W/8	: To B201	F3	B37	BR/2	: High mounted stop lamp	D
C5	B13	W/6	: Joint connector-B03	D3	B38	Y/2	: LH side front curtain air bag module	
B5	B14	Y/2	: Front LH seat belt pre-tensioner	E5	B39	B/2	: EVAP canister vent control valve	
C4	B15	Y/2	: LH side air bag (satellite) sensor	D3	B40	W/1	: Rear window defogger	E
C4	B17	W/2	: Condenser-1	E5	B41	GR/3	: EVAP control system pressure sensor	
C4	B18	W/3	: Rear door switch LH	D5	B42	GR/5	: Fuel level sensor unit and fuel pump	
D4	B19	—	: Body ground	E5	B43	GR/4	: Rear wheel sensor	F
G3	B20	GR/6	: Joint connector-B05	F3	B44	W/2	: Rear speaker RH	
E4	B21	L/12	: Joint connector-B06	G4	B45	W/6	: Rear combination lamp RH	G
E5	B22	GR/6	: Joint connector-B07	G5	B46	GR/2	: Rear bumper antenna	
E4	B23	W/4	: Joint connector-B08					H

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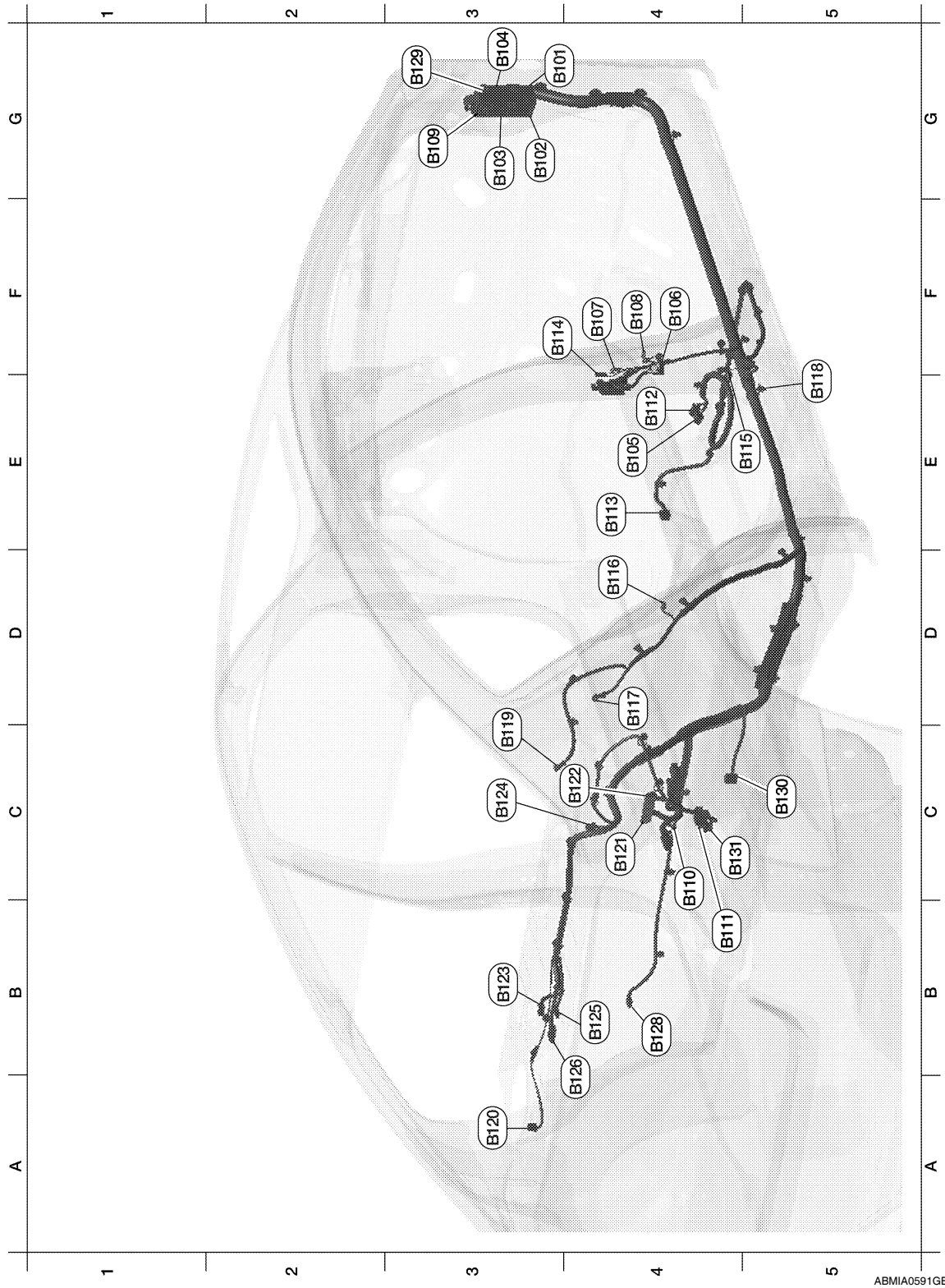
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< COMPONENT DIAGNOSIS >

BODY NO. 2 HARNESS



ABMIA0591GB

G3	B101	W/32	: To M2	D4	B117	—	: Body ground
G3	B102	W/24	: To M8	E5	B118	Y/2	: RH side air bag (satellite) sensor
G3	B103	BR/16	: To M9	C3	B119	Y/2	: RH side curtain air bag module
G3	B104	BR/12	: To M10	A3	B120	W/2	: Rear speaker woofer LH
E4	B105	W/8	: To B301	C4	B121	BR/23	: BOSE speaker amp.

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< COMPONENT DIAGNOSIS >

F4	B106	W/8	: To D301	C4	B122	BR/14	: BOSE speaker amp.
E4	B107	—	: Body ground	C4	B123	W/16	: Satellite radio tuner or pre-wiring for satellite radio tuner
F4	B108	W/3	: Front door switch RH	C3	B124	W/2	: Rear subwoofer RH
G3	B109	W/10	: To E1	B4	B125	W/8	: Bluetooth control unit
C4	B110	W/6	: Joint connector - B01	B4	B126	W/32	: Bluetooth control unit
B4	B111	L/5	: High voltage battery fan relay	B4	B128	W/4	: Battery cooling blower assembly
E4	B112	Y/2	: Front RH side air bag module	G3	B129	GR/24	: To E71
E4	B113	Y/12	: Air bag diagnosis sensor unit	C5	B130	W/20	: High Voltage Battery
F3	B114	—	: RH side air bag (satellite) sensor (sheild wire)	C4	B131	W/14	: Brake capacitor
E5	B115	Y/2	: Front RH seat belt pre-tensioner	C4	B132	BR/1	: Roof antenna (satellite)
D4	B116	W/3	: Rear door switch RH	C4	B133	V/2	: Satellite radio tuner or pre-wiring for satellite radio tuner

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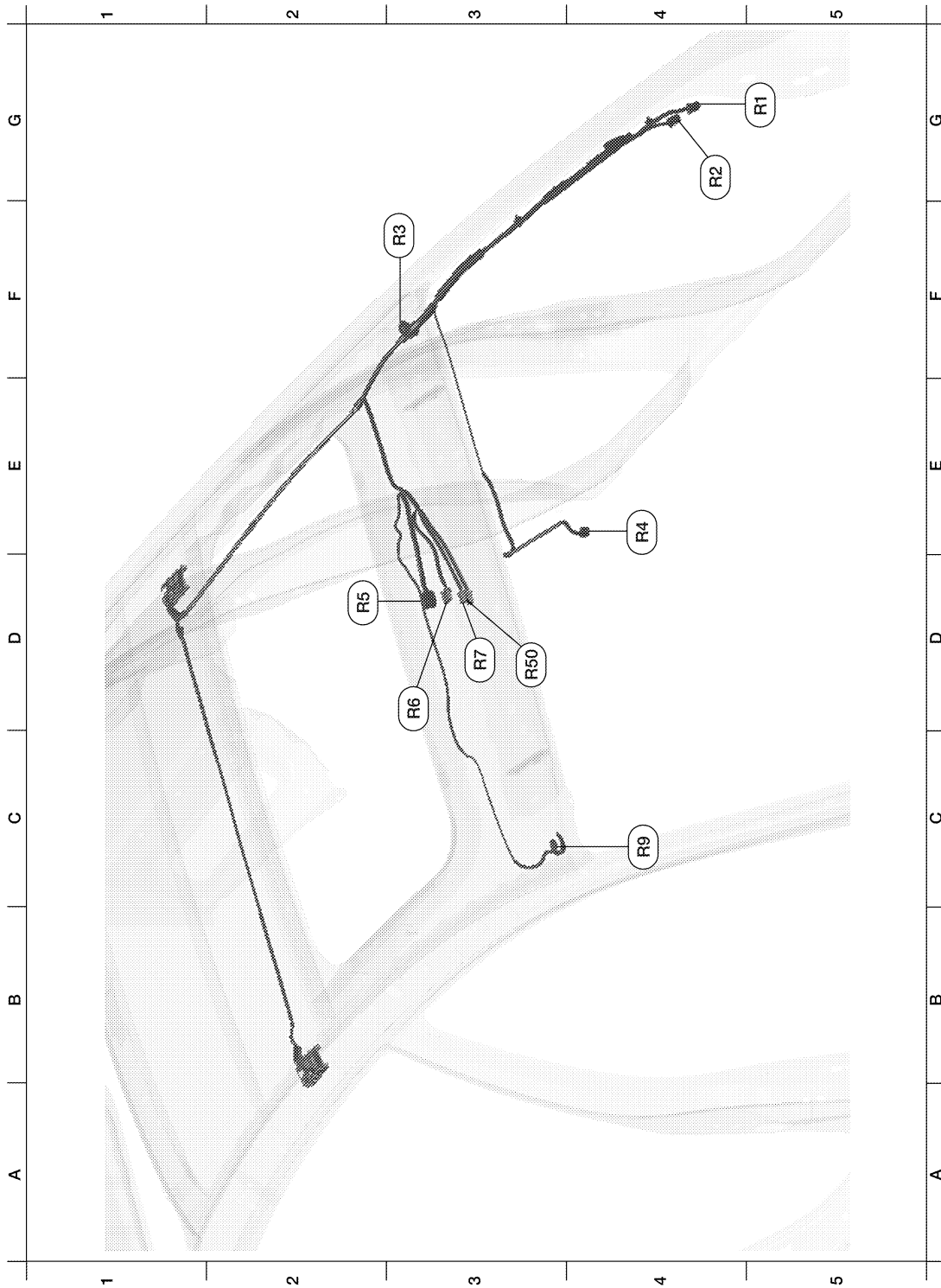
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ROOM LAMP HARNESS



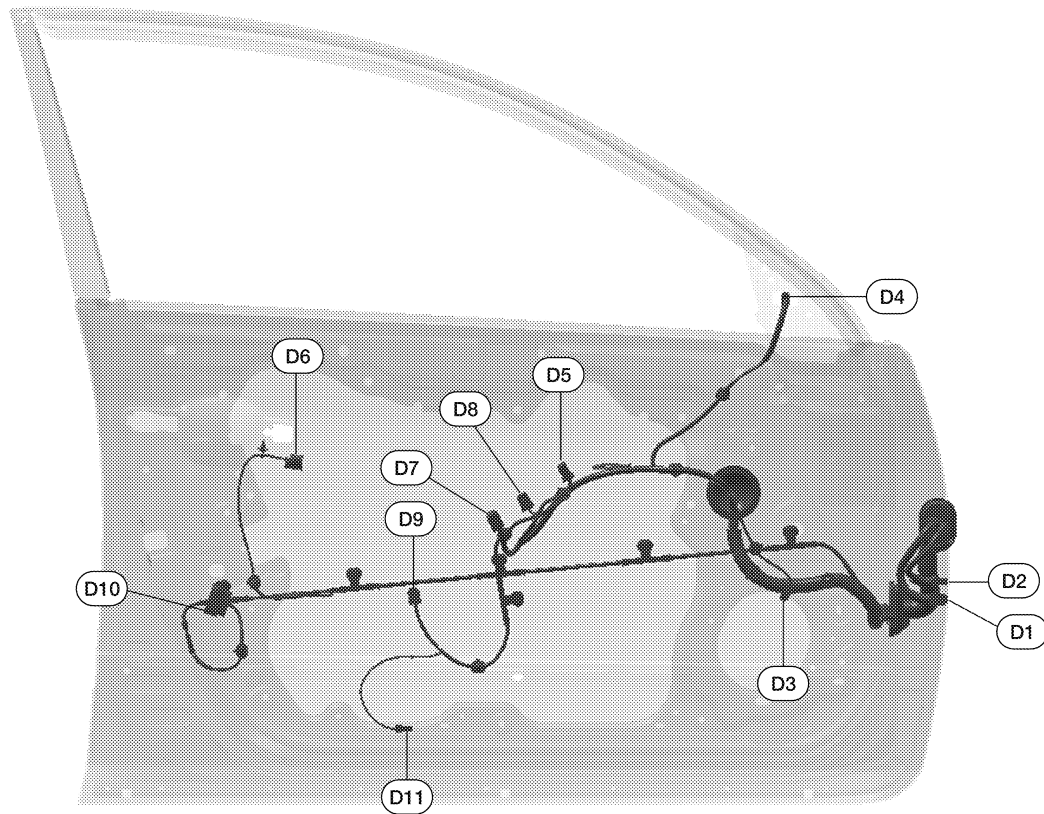
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G5	R1	W/16	: To M7	D3	R6	W/3	: Sunroof switch
G4	R2	W/3	: To M13	D3	R7	W/4	: Microphone
F3	R3	W/2	: Vanity mirror lamp LH	C4	R9	W/2	: Vanity mirror lamp RH
E4	R4	B/10	: Auto anti-dazzling inside mirror	D4	R50	GR/6	: Front room/map lamp assembly
D2	R5	W/10	: Sunroof motor assembly				

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< COMPONENT DIAGNOSIS >

FRONT DOOR LH HARNESS



ALMIA0026GB

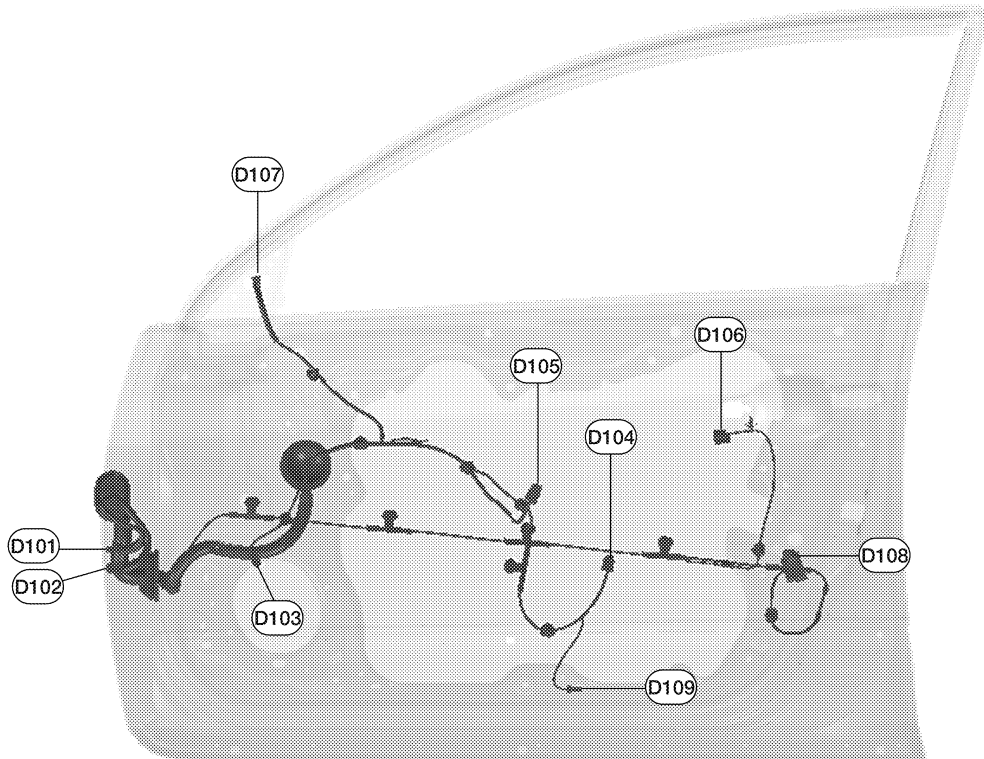
D1	W/16	: To M11	D6	B/4	: Front outside handle LH
D2	W/16	: To M12	D7	W/16	: Main power window and door lock/unlock switch
D3	BR/2	: Front door speaker LH (with BOSE audio system)	D8	W/3	: Main power window and door lock/unlock switch
D3	W/2	: Front door speaker LH (with base audio system)	D9	W/6	: Front power window motor LH
D4	W/8	: Door mirror LH	D10	GR/6	: Front door lock assembly LH
D5	W/16	: Door mirror remote control switch	D11	W/2	: Front step lamp LH

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FRONT DOOR RH HARNESS



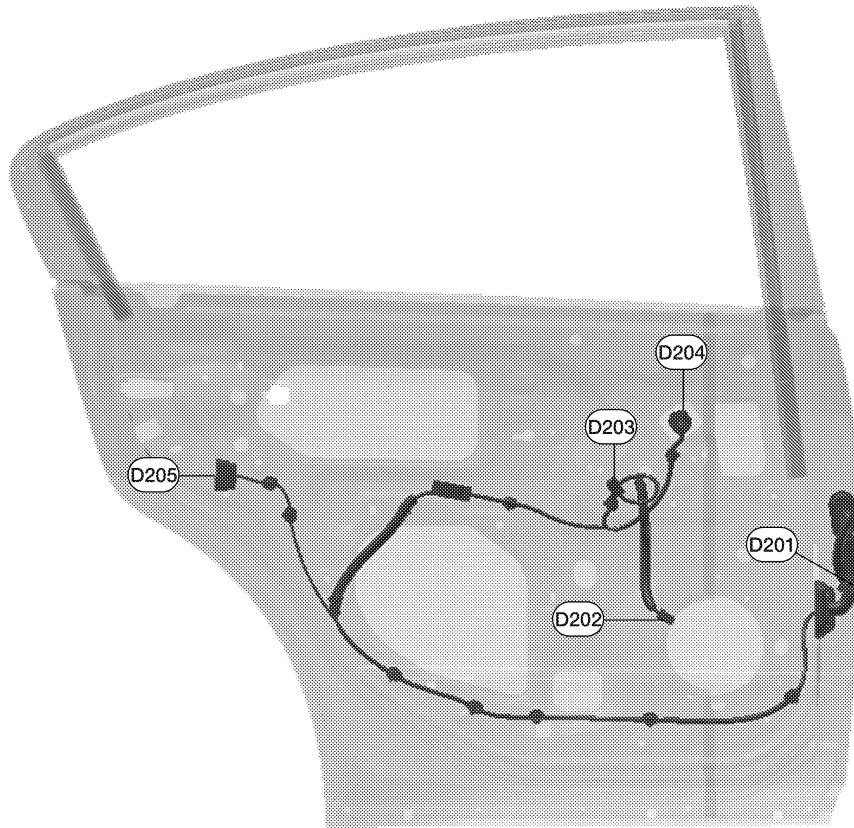
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D101	W/10	: To M14	D105	W/16	: Power window and door lock/unlock switch RH (with left and right front power window anti -pinch system)
D102	W/16	: To M15	D106	B/4	: Front outside handle RH
D103	W/2	: Front door speaker LH (with base audio system)	D107	W/8	: Door mirror RH
D103	BR/2	: Front door speaker LH (with BOSE audio system)	D108	GR/8	: Front door lock actuator RH
D104	W/6	: Front power window motor RH	D109	W/2	: Front step lamp RH
D105	W/12	: Power window and door lock/unlock switch RH (with left front only power window anti -pinch system)			

HARNESS

< COMPONENT DIAGNOSIS >

REAR DOOR LH HARNESS



ALMIA0028GB

D201	W/8	: To B6			
D202	BR/2	: Rear door speaker LH			
D203	W/8	: Rear power window switch LH			
D204	G/6	: Rear power window motor LH			
D205	GR/6	: Rear door lock actuator LH			

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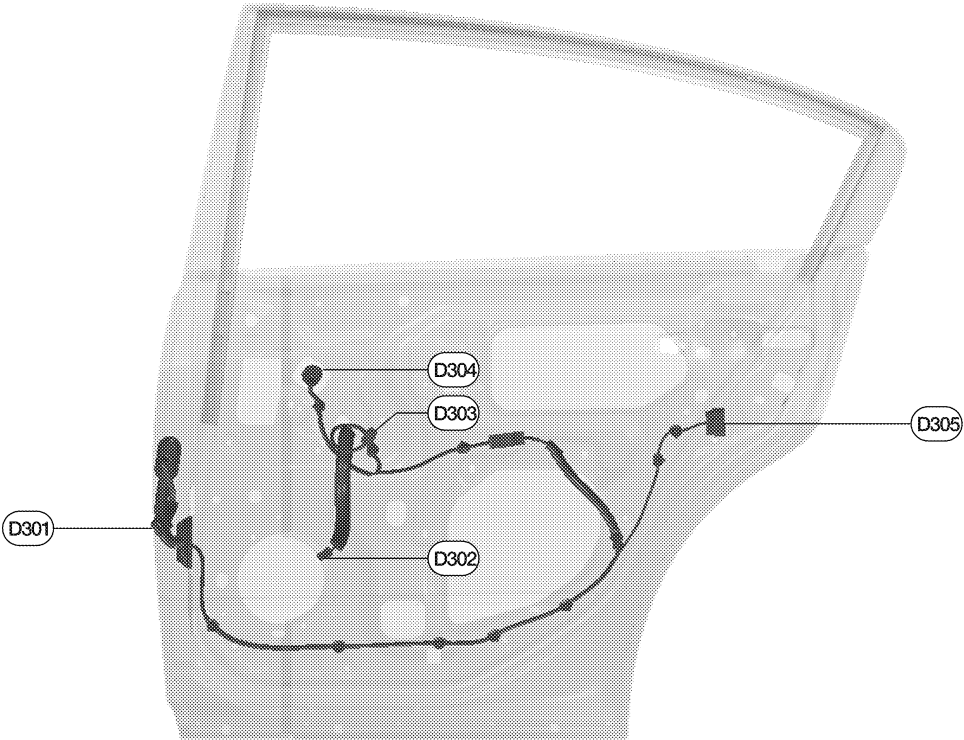
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REAR DOOR RH HARNESS



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D301	W/8	: To B106			
D302	BR/2	: Rear door speaker RH			
D303	W/8	: Rear power window switch RH			
D304	G/6	: Rear power window motor RH			
D305	GR/6	: Rear door lock actuator RH			

ELECTRICAL UNITS LOCATION

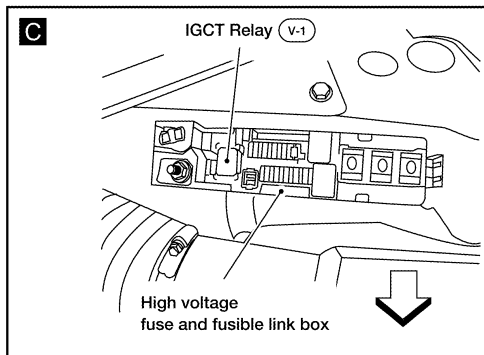
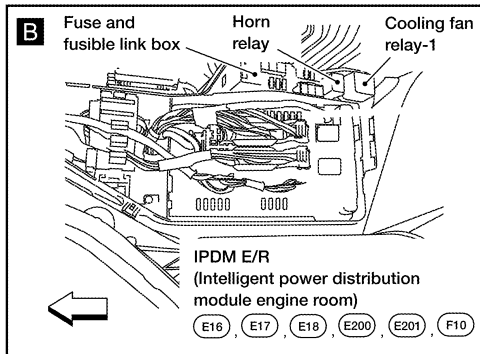
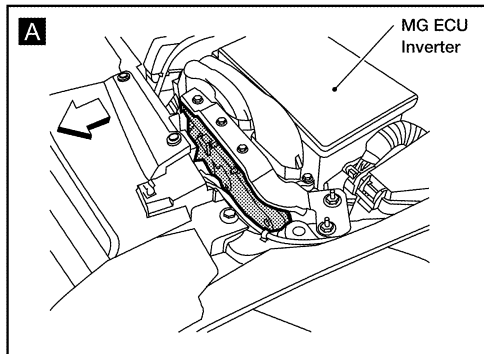
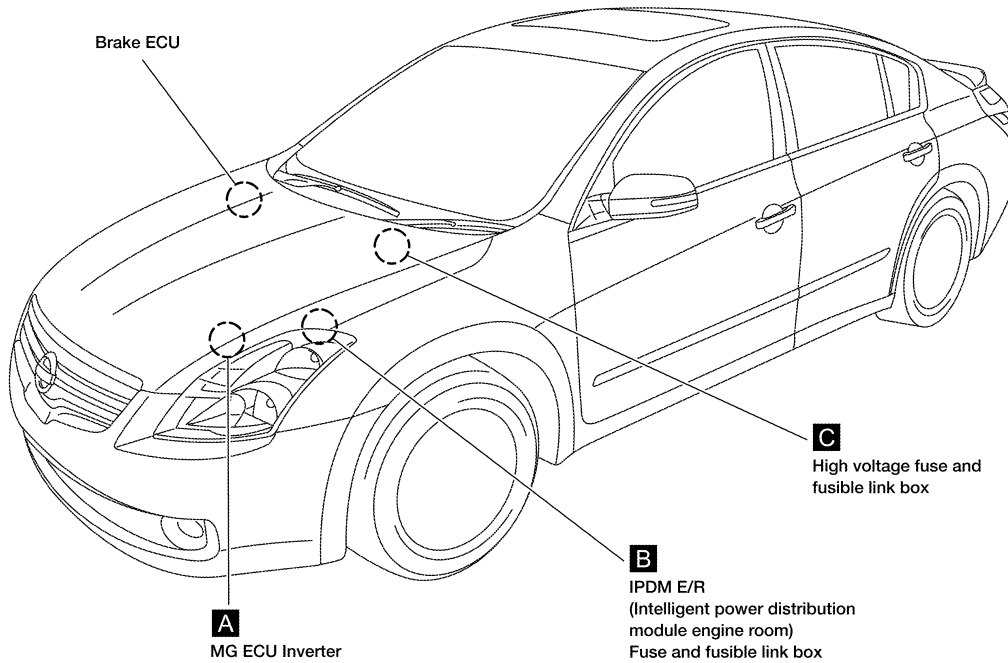
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ELECTRICAL UNITS LOCATION

Electrical Units Location

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ENGINE COMPARTMENT



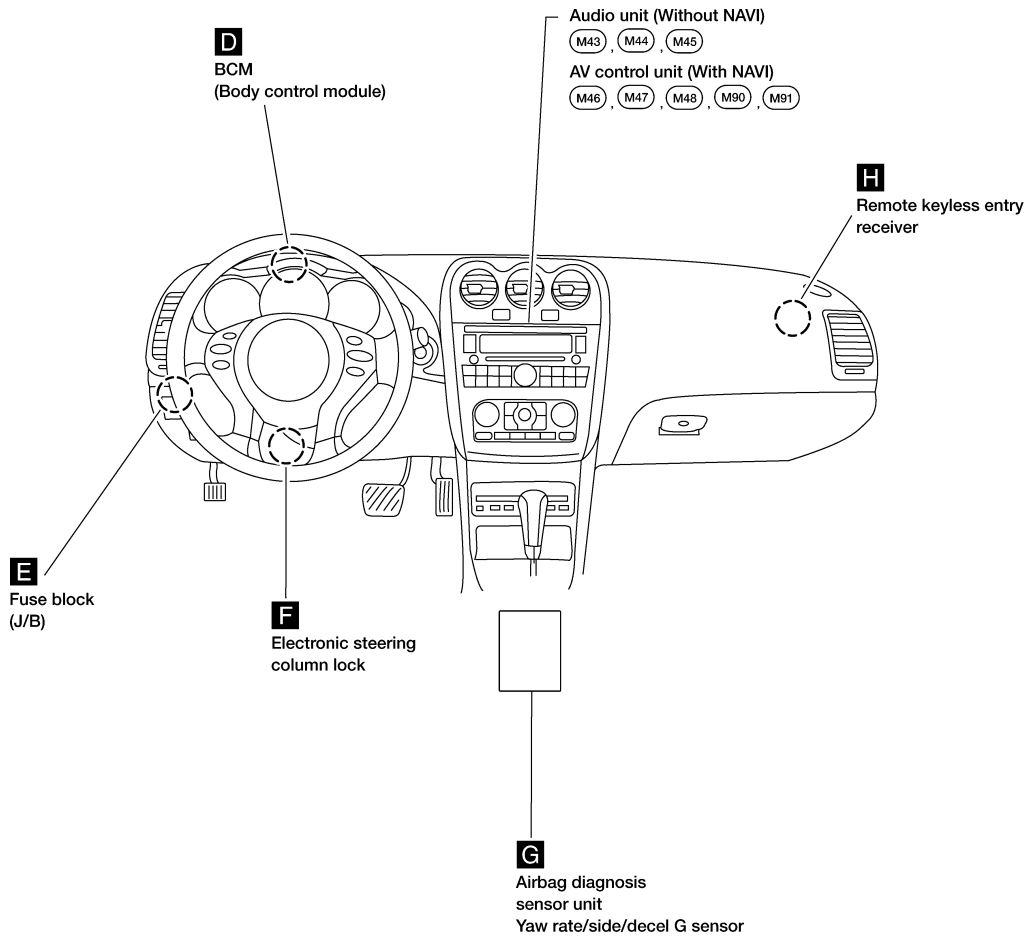
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ELECTRICAL UNITS LOCATION

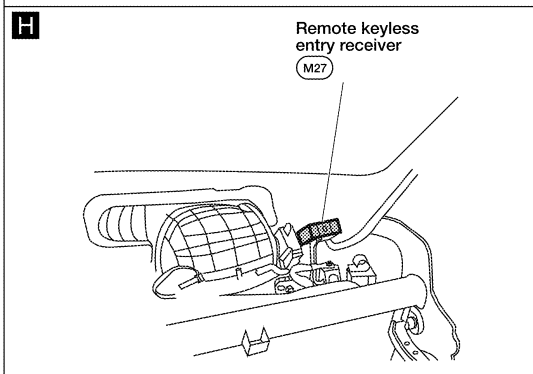
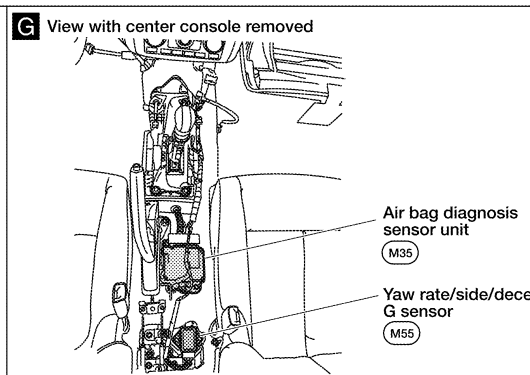
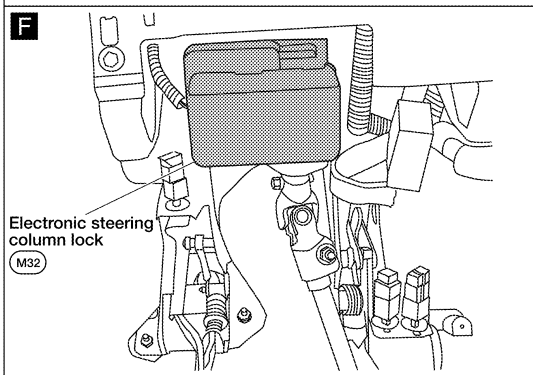
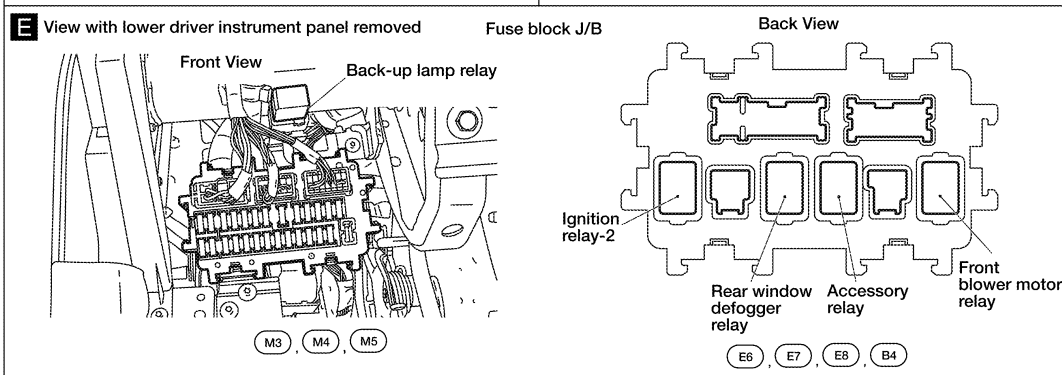
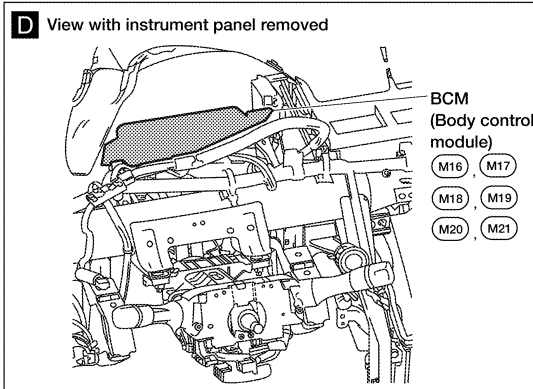
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PASSENGER COMPARTMENT



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ELECTRICAL UNITS LOCATION

< COMPONENT DIAGNOSIS >



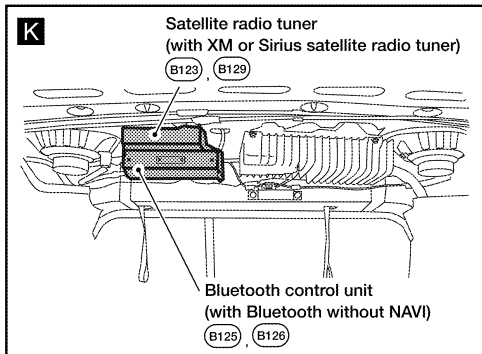
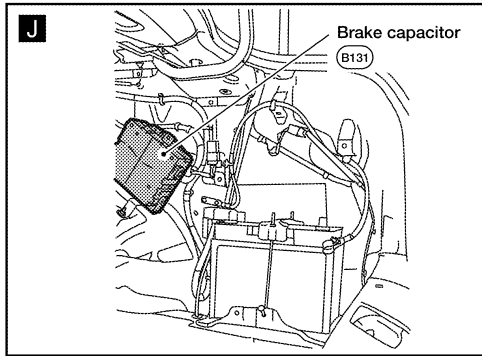
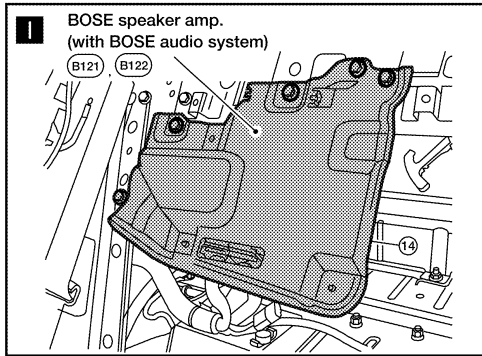
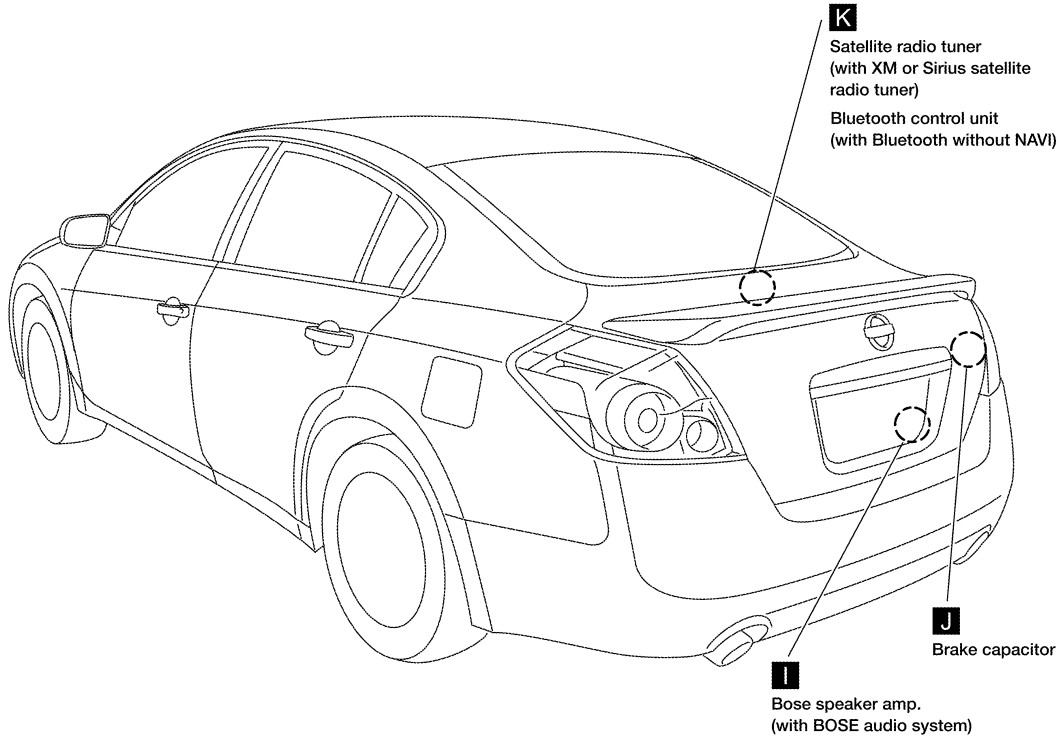
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ELECTRICAL UNITS LOCATION

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LUGGAGE COMPARTMENT



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HARNESS CONNECTOR

< COMPONENT DIAGNOSIS >

HARNESS CONNECTOR

Description

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HARNESS CONNECTOR (TAB-LOCKING TYPE)

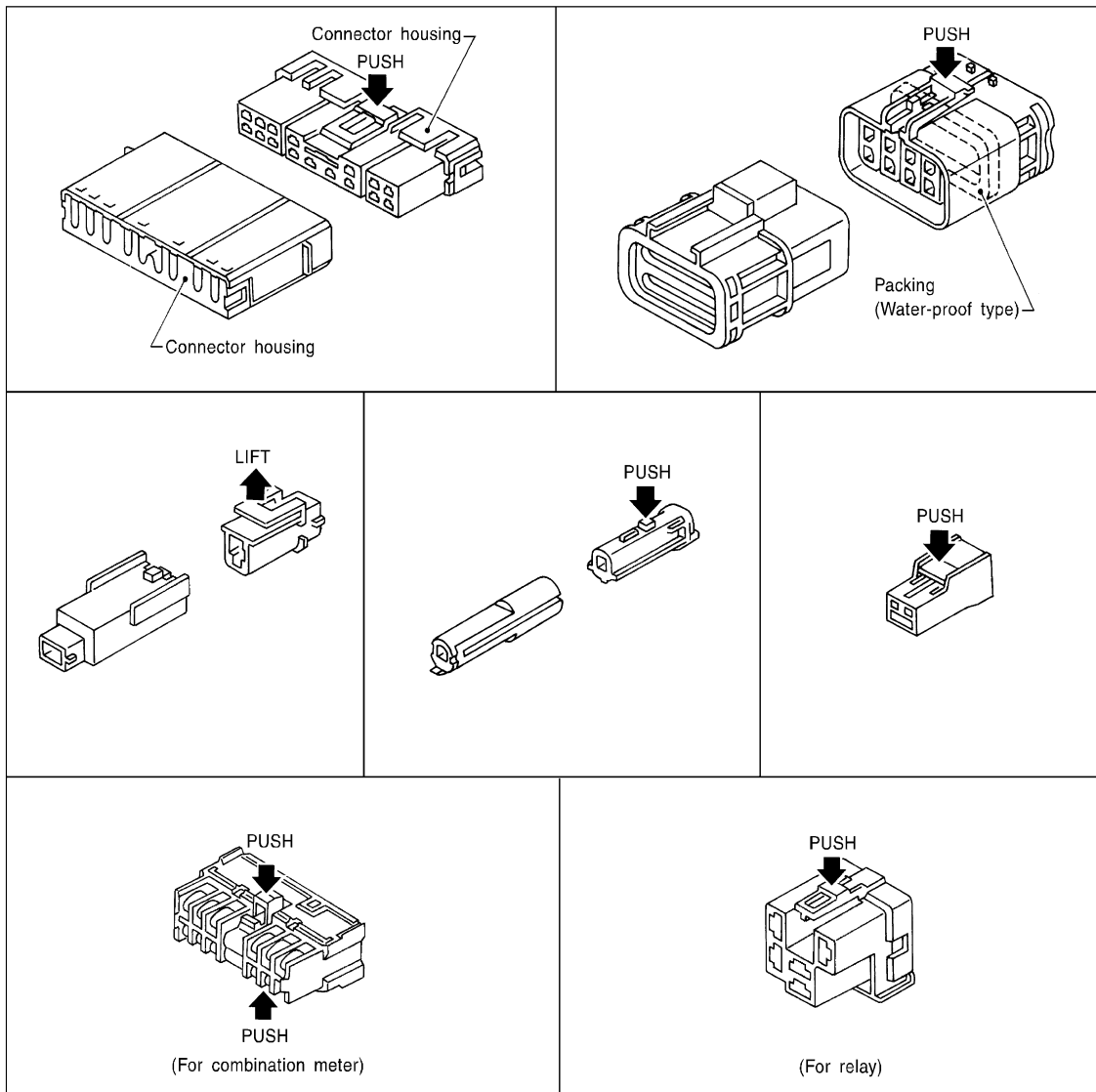
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the figure below.

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]



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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

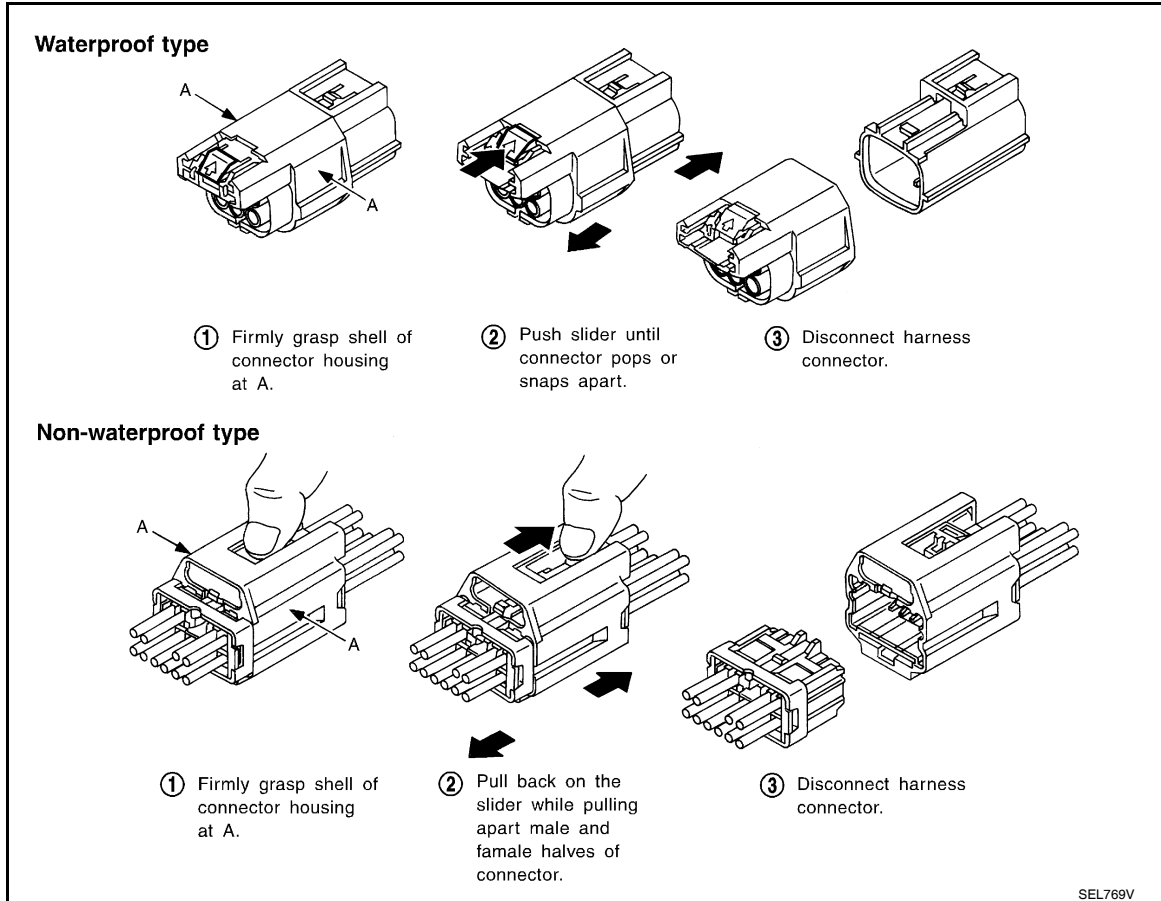
< COMPONENT DIAGNOSIS >

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

CAUTION:

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

[Example]



HARNESS CONNECTOR (LEVER LOCKING TYPE)

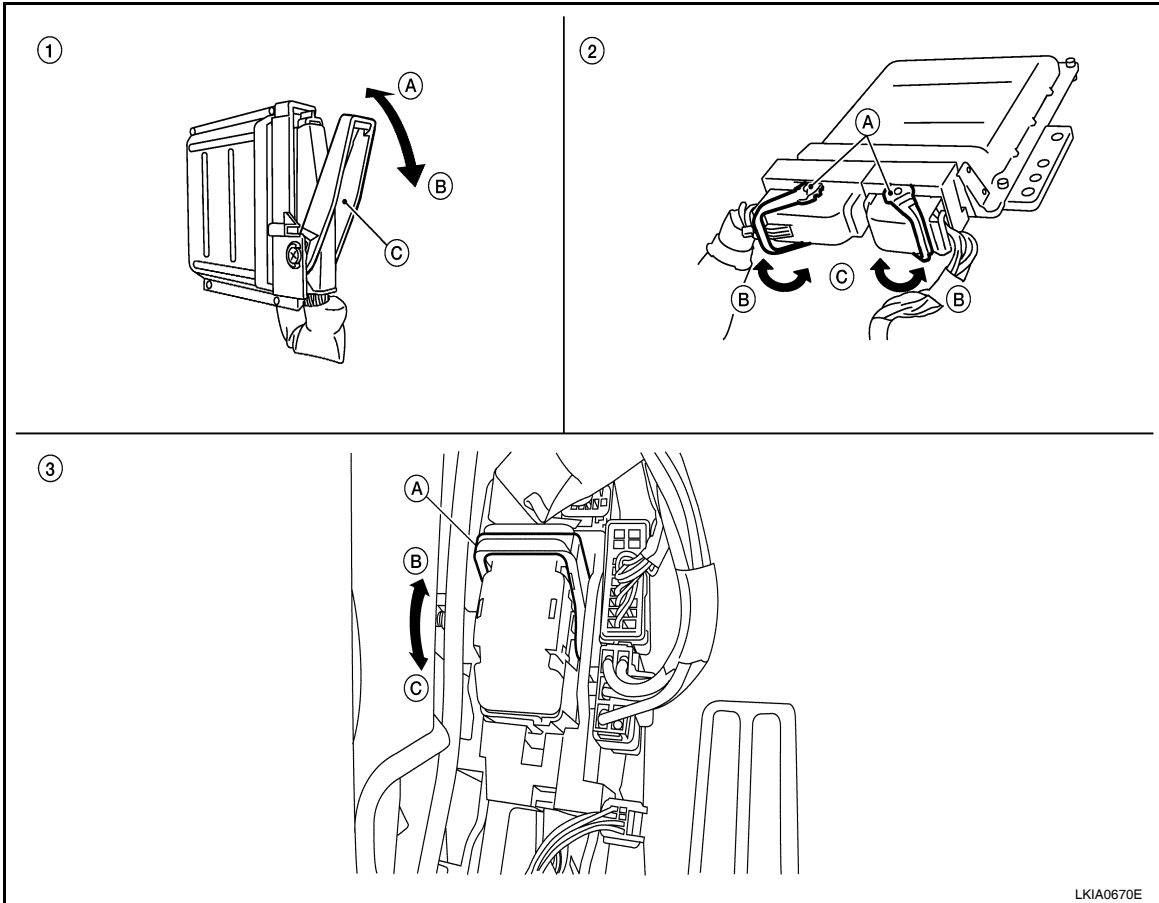
- Lever locking type harness connectors are used on certain control units and control modules such as ECM, ABS actuator and electric unit (control unit), etc.
- Lever locking type harness connectors are also used on super multiple junction (SMJ) connectors.
- Always confirm the lever is fully locked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

CAUTION:

HARNES CONNECTOR

< COMPONENT DIAGNOSIS >

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



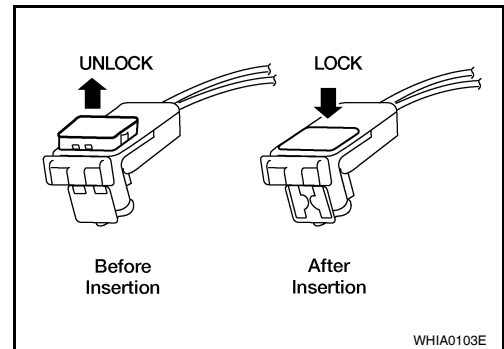
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|-----------------------------------|---------------------------------|------------------|
| 1. Control unit with single lever | 2. Control unit with dual lever | 3. SMJ connector |
| A. Fasten | A. Fasten | A. Fasten |
| B. Loosen | B. Loosen | B.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

HARNES CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

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

CAUTION:

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



STANDARDIZED RELAY

< COMPONENT DIAGNOSIS >

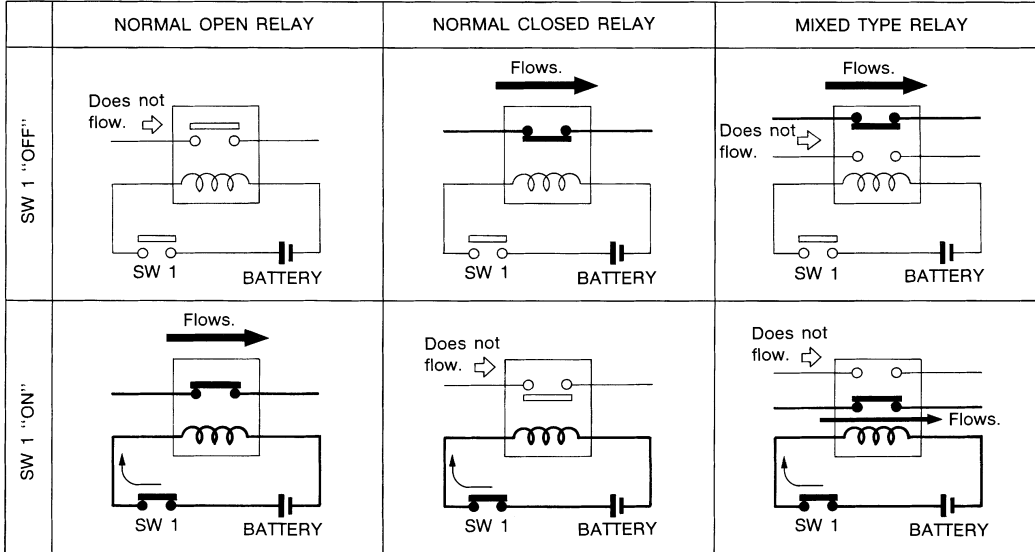
STANDARDIZED RELAY

Description

INFOID:000000004219229

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

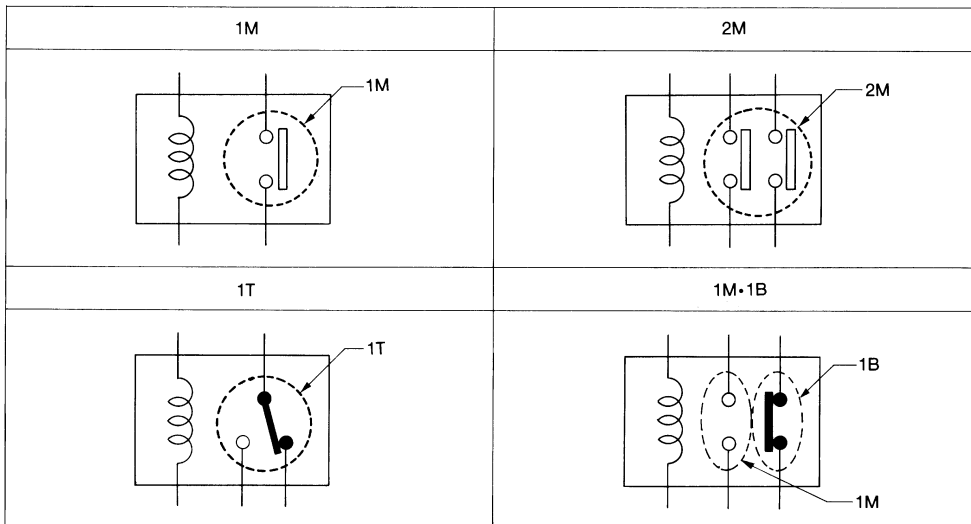
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



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TYPE OF STANDARDIZED RELAYS

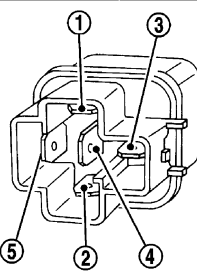
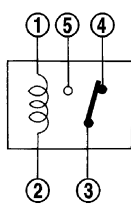
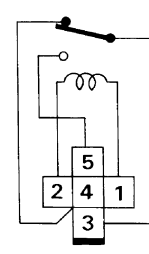
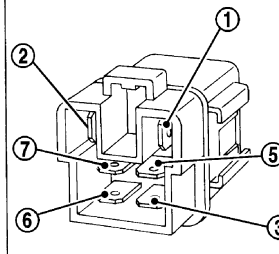
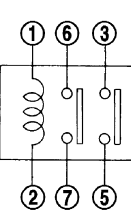
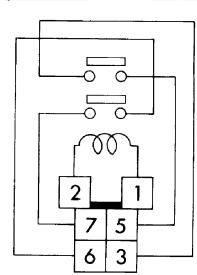
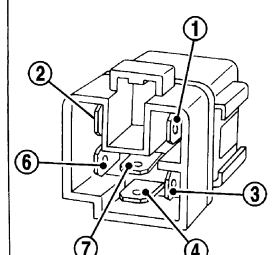
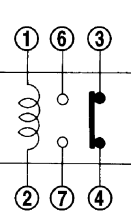
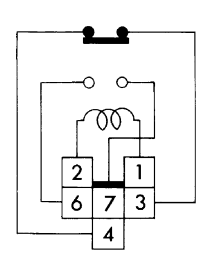
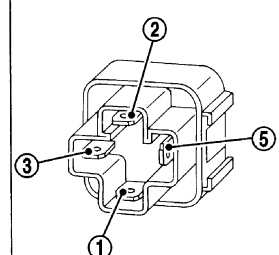
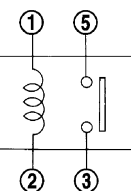
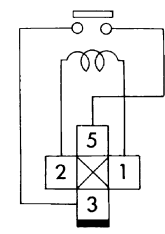
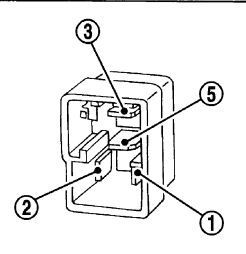
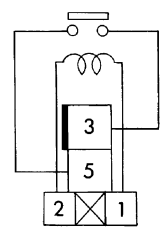
- 1M 1 Make
- 2M 2 Make
- 1T 1 Transfer
- 1M·1B 1 Make 1 Break



SEL882H

STANDARDIZED RELAY

< COMPONENT DIAGNOSIS >

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

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

SEL188W

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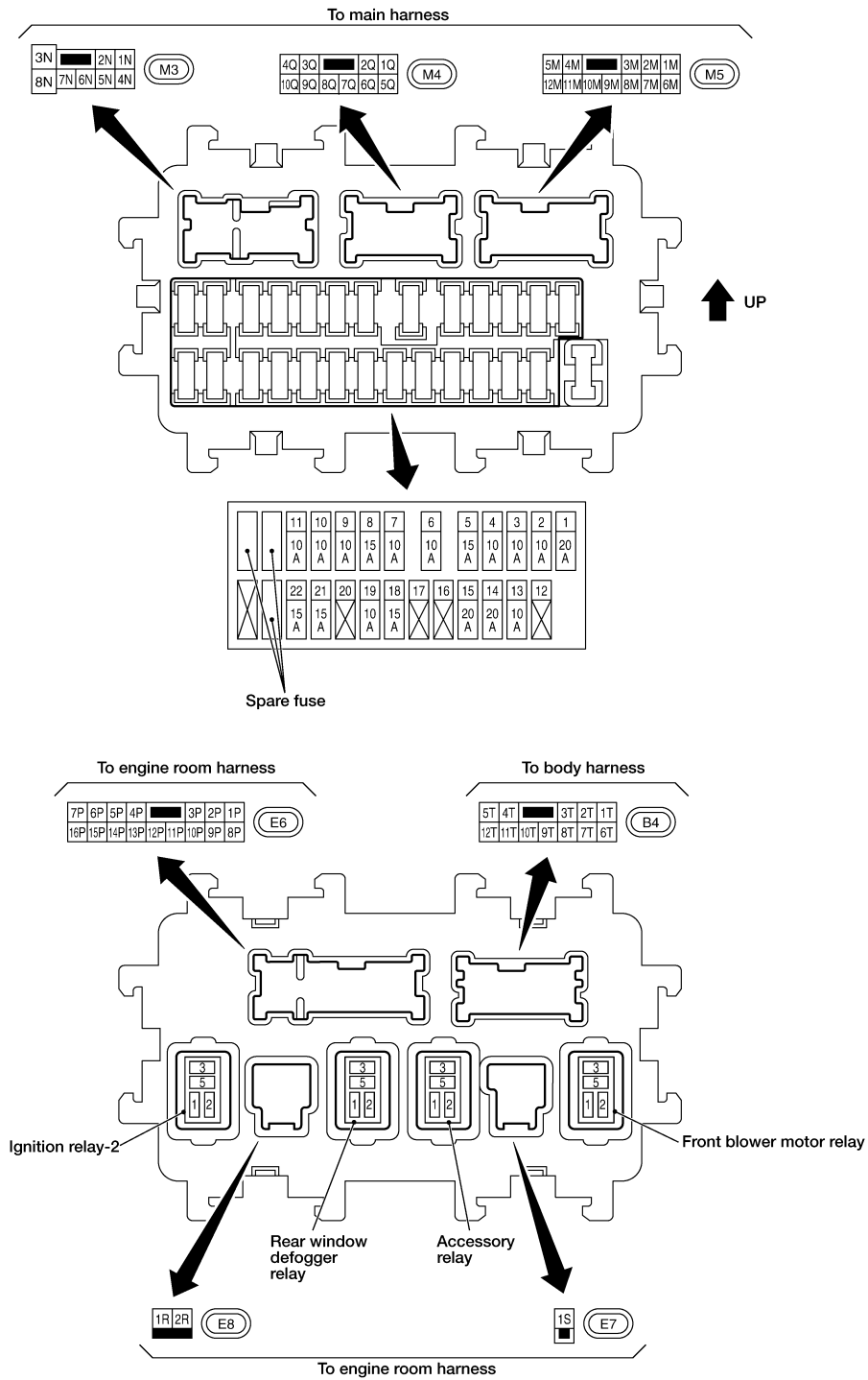
FUSE BLOCK - JUNCTION BOX (J/B)

< COMPONENT DIAGNOSIS >

FUSE BLOCK - JUNCTION BOX (J/B)

Terminal Arrangement

INFOID:000000004219230



AWMIA0955GB

FUSE, FUSIBLE LINK AND RELAY BOX

< COMPONENT DIAGNOSIS >

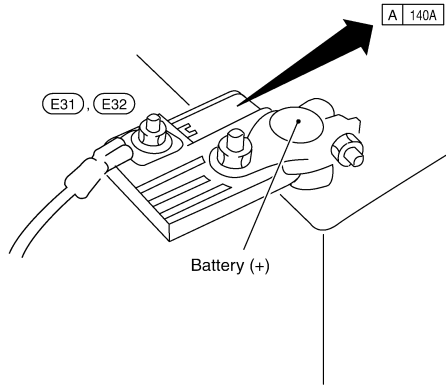
FUSE, FUSIBLE LINK AND RELAY BOX

Terminal Arrangement

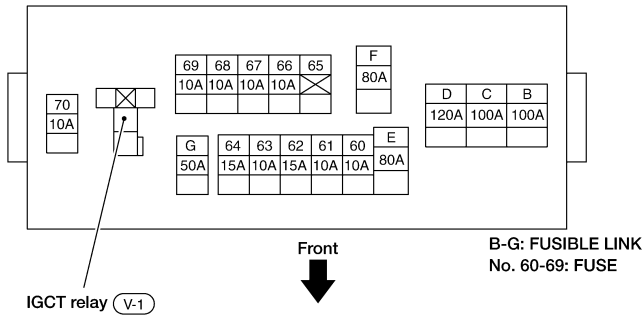
INFOID:000000004219231

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Fuse and fusible link box (Battery)

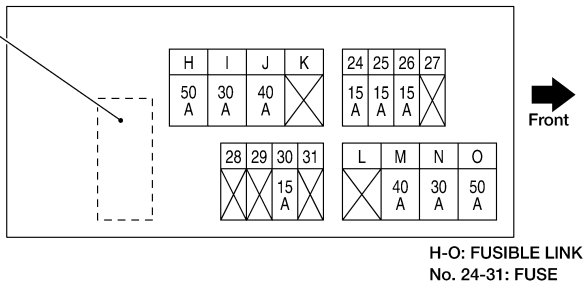


High voltage fuse and fusible link box



Horn relay (H-1)

Fuse and fusible link box



AWMIA0480GE

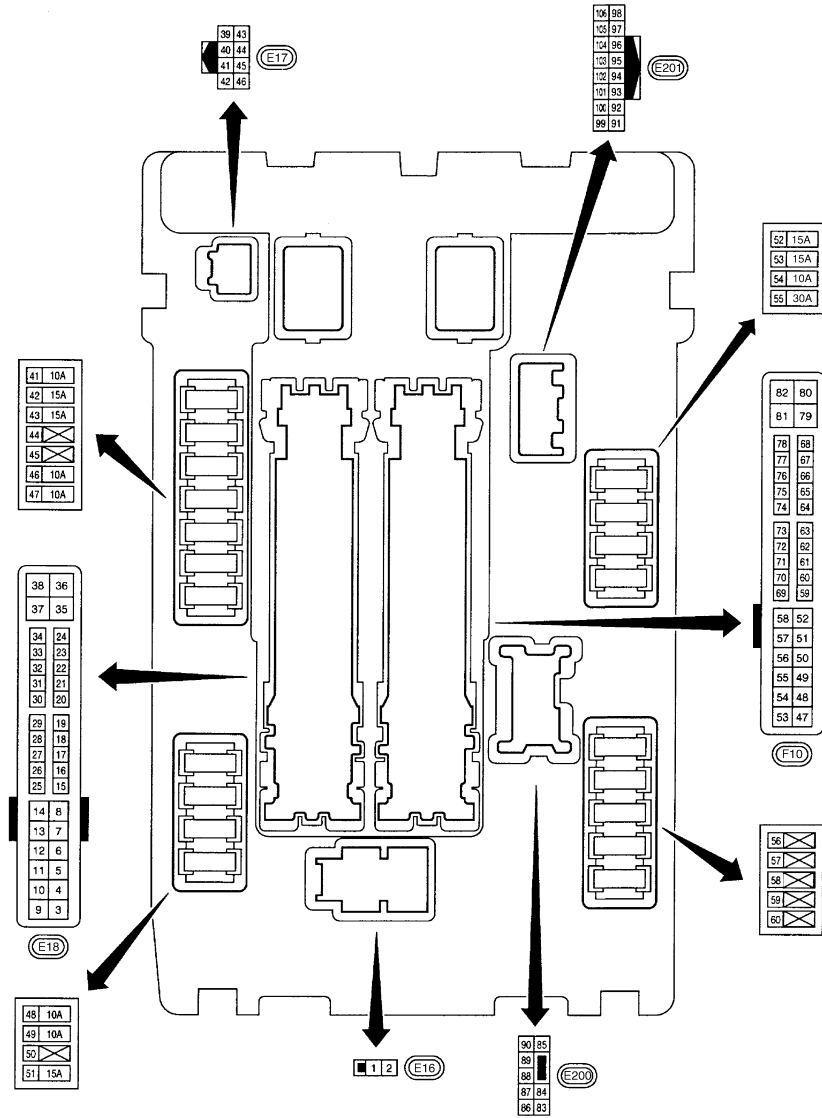
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< COMPONENT DIAGNOSIS >

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

Fuse, Connector and Terminal Arrangement

INFOID:000000004219232



ALMIA0149GB

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Supplemental Restraint System SRS "AIR BAG" and "SEAT BELT PRE-TENSIONER" Service

INFOID:000000004219233

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 For High-Voltage System

INFOID:000000004219234

Refer to [GI-24. "Precautions For High-Voltage System"](#).

Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000004507221

NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both 12-volt battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both 12-volt battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

This vehicle is equipped with a push-button ignition switch and a steering lock unit.

If the 12-volt battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the 12-volt battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both 12-volt battery cables.

NOTE:

Supply power using jumper cables if 12-volt battery is discharged.

2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
3. Disconnect both 12-volt battery cables. The steering lock will remain released with both 12-volt battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both 12-volt battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT-III.

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PREPARATION

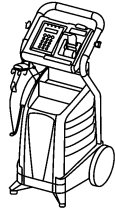
< PREPARATION >

PREPARATION

PREPARATION

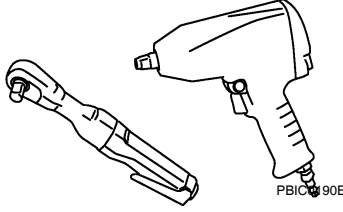
Special Service Tool

INFOID:000000004219235

Tool number (Kent Moore No.) Tool name	Description
<p>— (J-48087) Battery Service Center</p>  <p>WKIA5280E</p>	<p>Tests Battery. For operating instructions, refer to Technical Service Bulletin and Battery Service Center User Guide.</p>

Commercial Service Tool

INFOID:000000004219236

Tool name	Description
<p>Power tool</p>  <p>PBIC990E</p>	<p>Loosening bolts and nuts</p>

BATTERY

< ON-VEHICLE REPAIR >

ON-VEHICLE REPAIR

BATTERY

Removal and Installation

INFOID:000000004219237

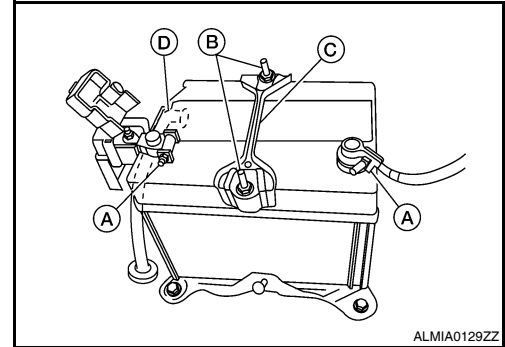
REMOVAL

1. Remove trunk side finisher (RH). Refer to [INT-26, "Exploded View"](#).
2. Loosen 12-volt battery terminal nuts (A), and disconnect both 12-volt battery terminals.

CAUTION:

When disconnecting, disconnect the 12-volt battery negative terminal first.

3. Remove the 12-volt battery ventilation tube (D).
4. Remove 12-volt battery frame nuts (B) and 12-volt battery frame (C).
5. Remove 12-volt battery.



INSTALLATION

Installation is the reverse order of removal.

CAUTION:

When connecting, connect the 12-volt battery positive terminal first.

Battery frame nut : 3.92 N·m (0.4 kg-m, 35 in-lb)

Battery terminal nut : 5.4 N·m (0.55 kg-m, 48 in-lb)

Reset electronic systems as necessary. Refer to [PG-3, "Special Repair Requirement"](#).

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BATTERY

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

BATTERY

Battery

INFOID:000000004219238

Type	S65D26R (JIS)
Capacity (5 HR) minimum Ah	48
CCA (cold cranking amperage) A (For reference value)	446