

SECTION **PG**

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

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PRECAUTIONS

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PRECAUTION

PRECAUTIONS

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

INFOID:000000001538774

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.

Precaution for Power Generation Variable Voltage Control System

INFOID:000000001538775

CAUTION:

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

PREPARATION


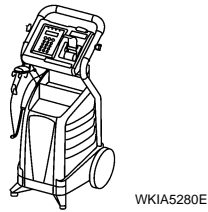
< PREPARATION >

PREPARATION

PREPARATION

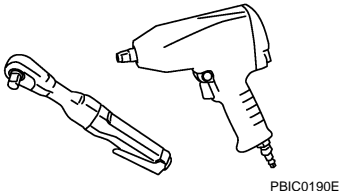
Special Service Tool

INFOID:000000001538776

Tool number (Kent-Moore No.) Tool name	Description
<p>— (J-44373) Battery/Starting/Charging system tester</p>  <p style="text-align: right;">SEL403X</p>	<p>Tests battery, starting and charging system.</p>
<p>(J-48087) Battery Service Center</p>  <p style="text-align: right;">WKIA5280E</p>	<p>Tests and charges batteries</p>

Commercial Service Tool

INFOID:000000001538777

Tool name	Description
<p>Power tool</p>  <p style="text-align: right;">PBIC0190E</p>	<p>Loosening bolts and nuts</p>

BATTERY

< BASIC INSPECTION >

BASIC INSPECTION

BATTERY

How to Handle Battery

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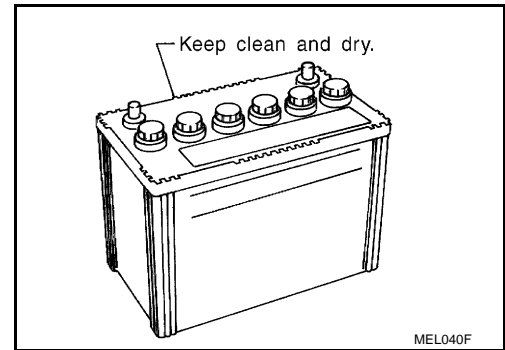
CAUTION:

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

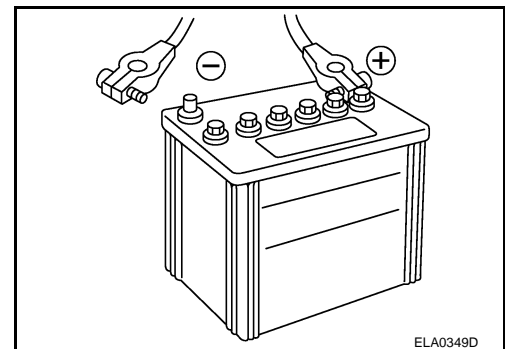
METHODS OF PREVENTING OVER-DISCHARGE

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

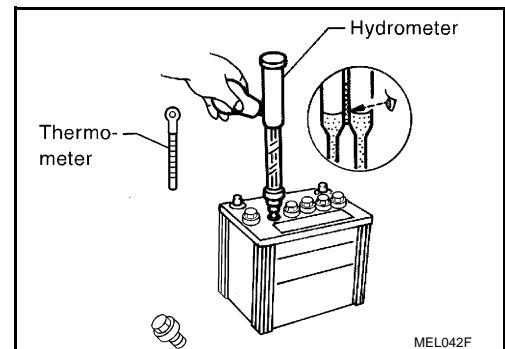
- The battery surface (particularly its top) should always be kept clean and dry.
- The terminal connections should be clean and tight.
- At every routine maintenance, check the electrolyte level. This also applies to batteries designated as "low maintenance" and "maintenance-free".



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



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



CHECKING ELECTROLYTE LEVEL

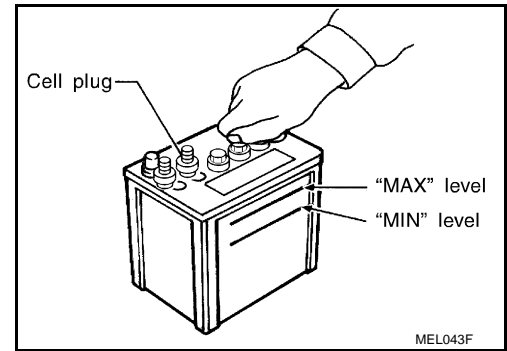
WARNING:

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

BATTERY

< BASIC INSPECTION >

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

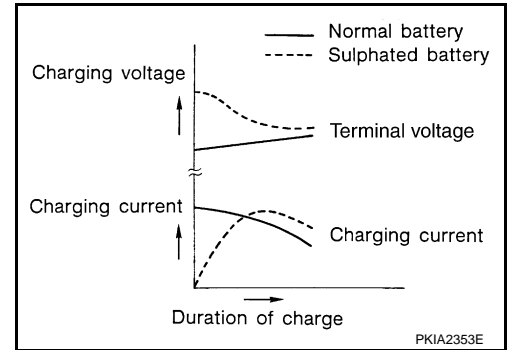


Sulphation

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

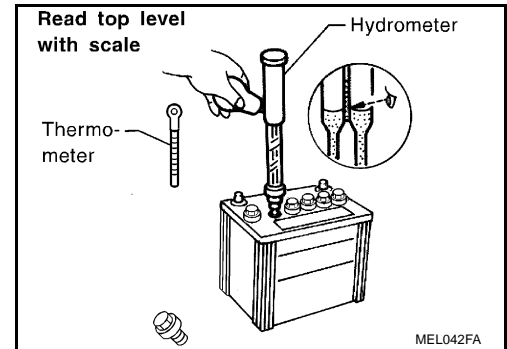
To determine if a battery has been “sulphated”, note its voltage and current when charging it. As shown in the figure, less current and higher voltage are observed in the initial stage of charging sulphated batteries.

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



SPECIFIC GRAVITY CHECK

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



Hydrometer Temperature Correction

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

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BATTERY

< BASIC INSPECTION >

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

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

CHARGING THE BATTERY

CAUTION:

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

Charging Rates

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

Do not charge at more than 50 ampere rate.

NOTE:

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

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

Work Flow

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TROUBLE DIAGNOSIS WITH BATTERY SERVICE CENTER

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

POWER SUPPLY ROUTING CIRCUIT

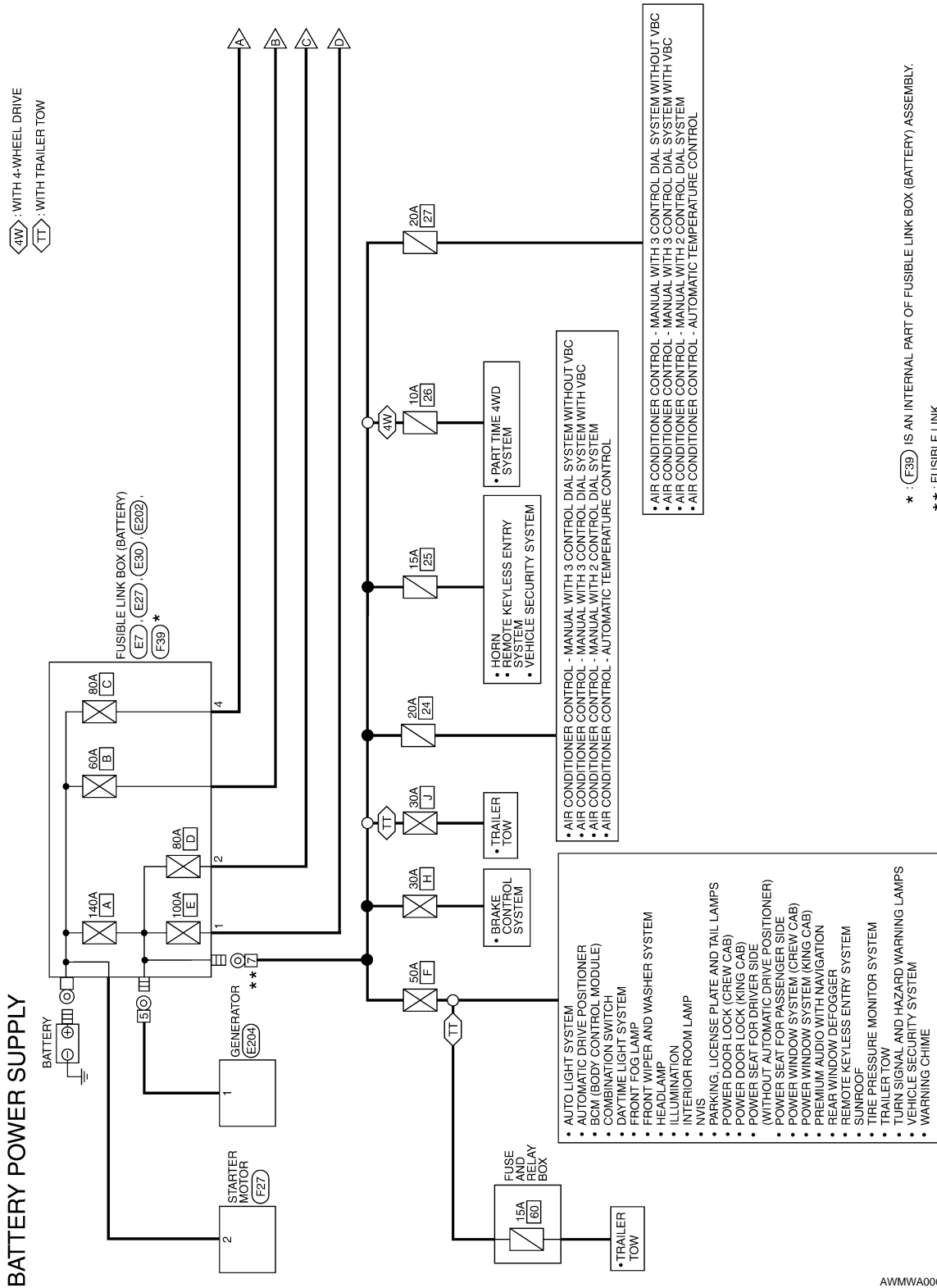
< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY ROUTING CIRCUIT

Wiring Diagram —Battery Power Supply —

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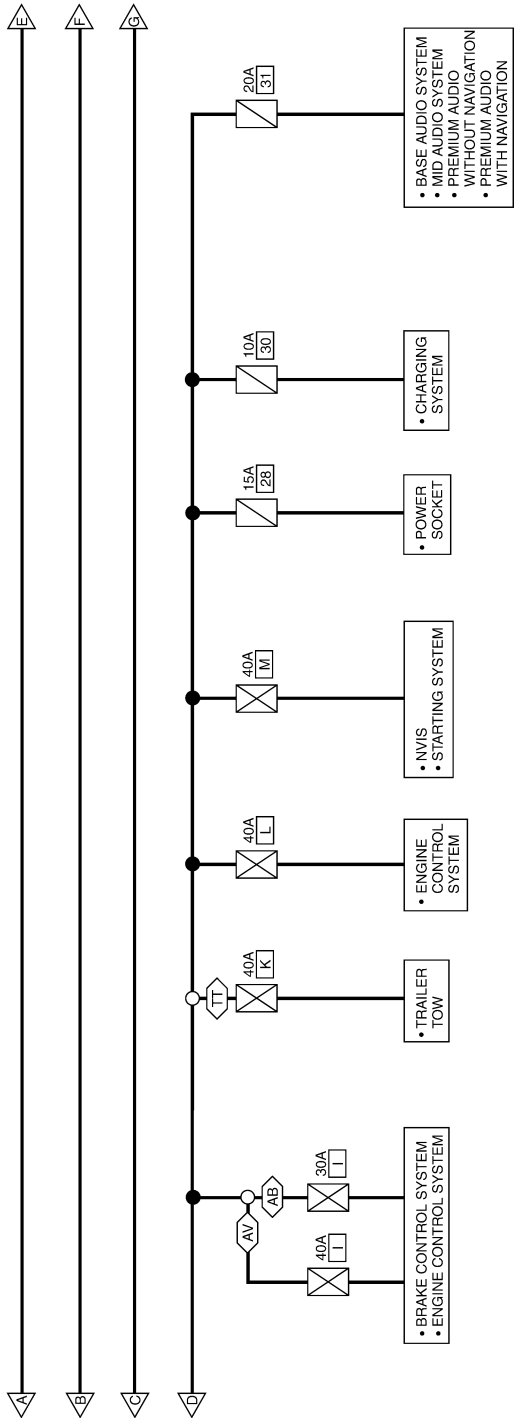
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

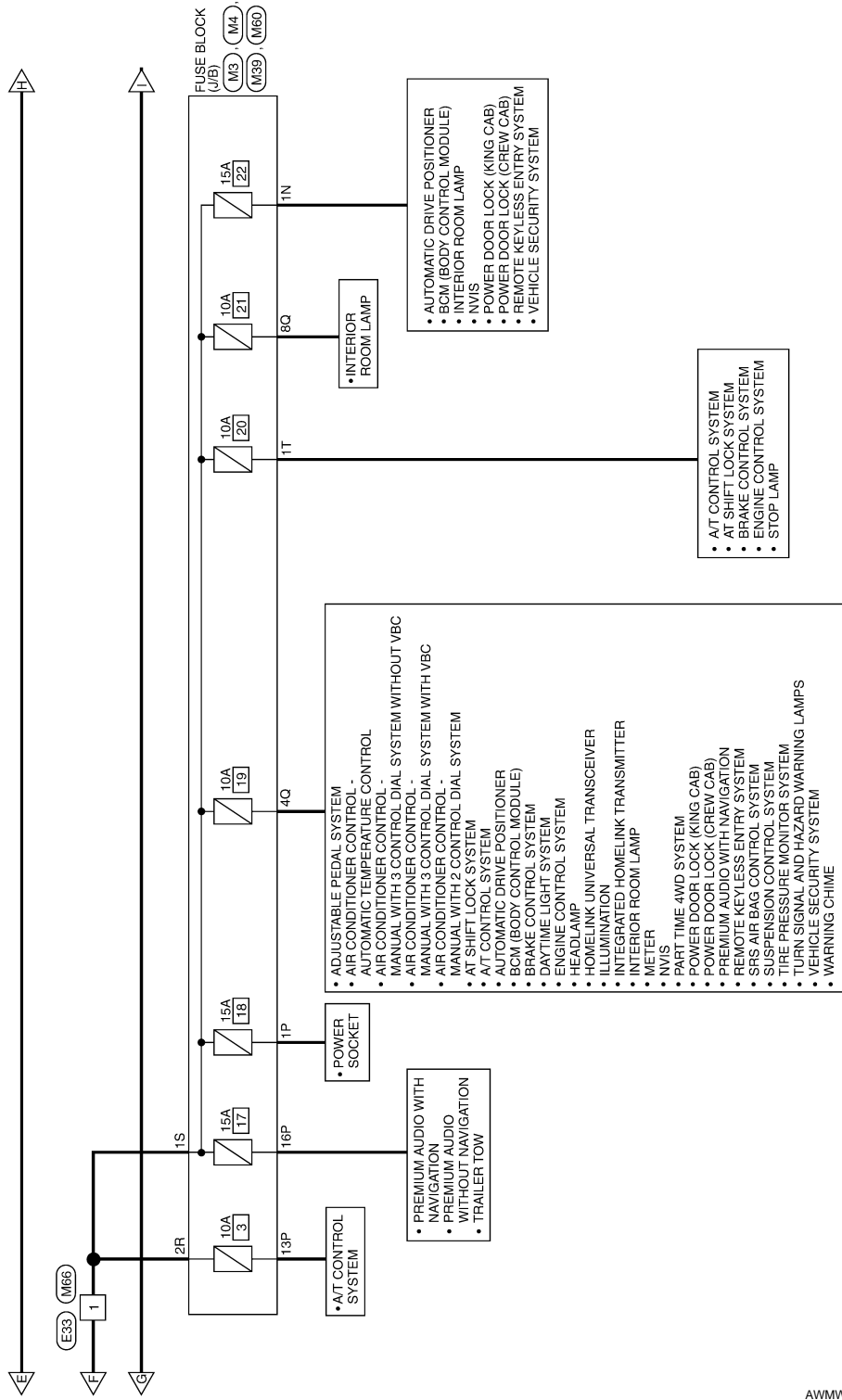
- : WITH 4-WHEEL DRIVE
- : WITH ABS
- : WITH ABL S OR VDC
- : WITH TRAILER TOW



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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >



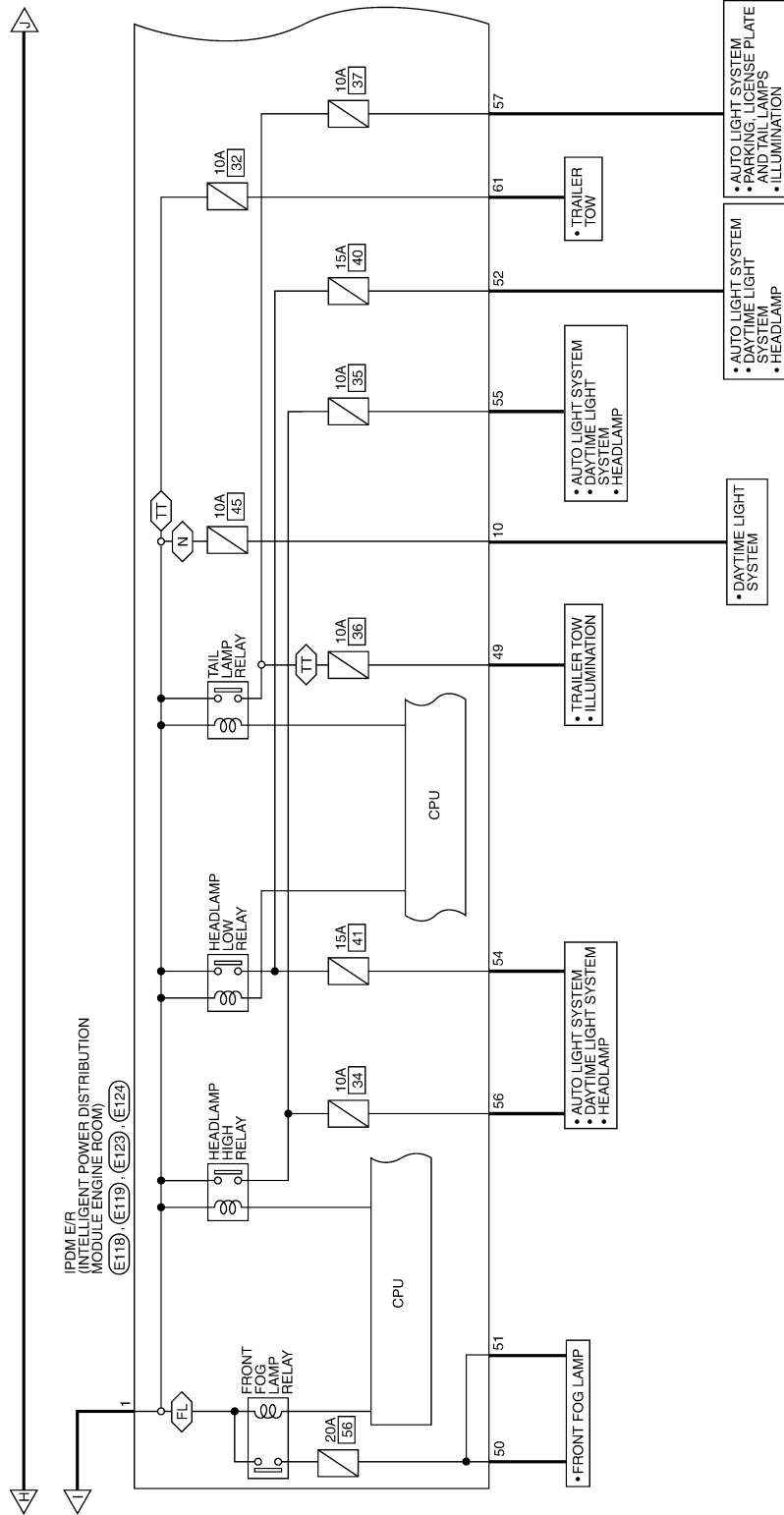
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

◊FL◊ : WITH FRONT FOG LAMPS
 ◊N◊ : CANADA
 ◊TT◊ : WITH TRAILER TOW

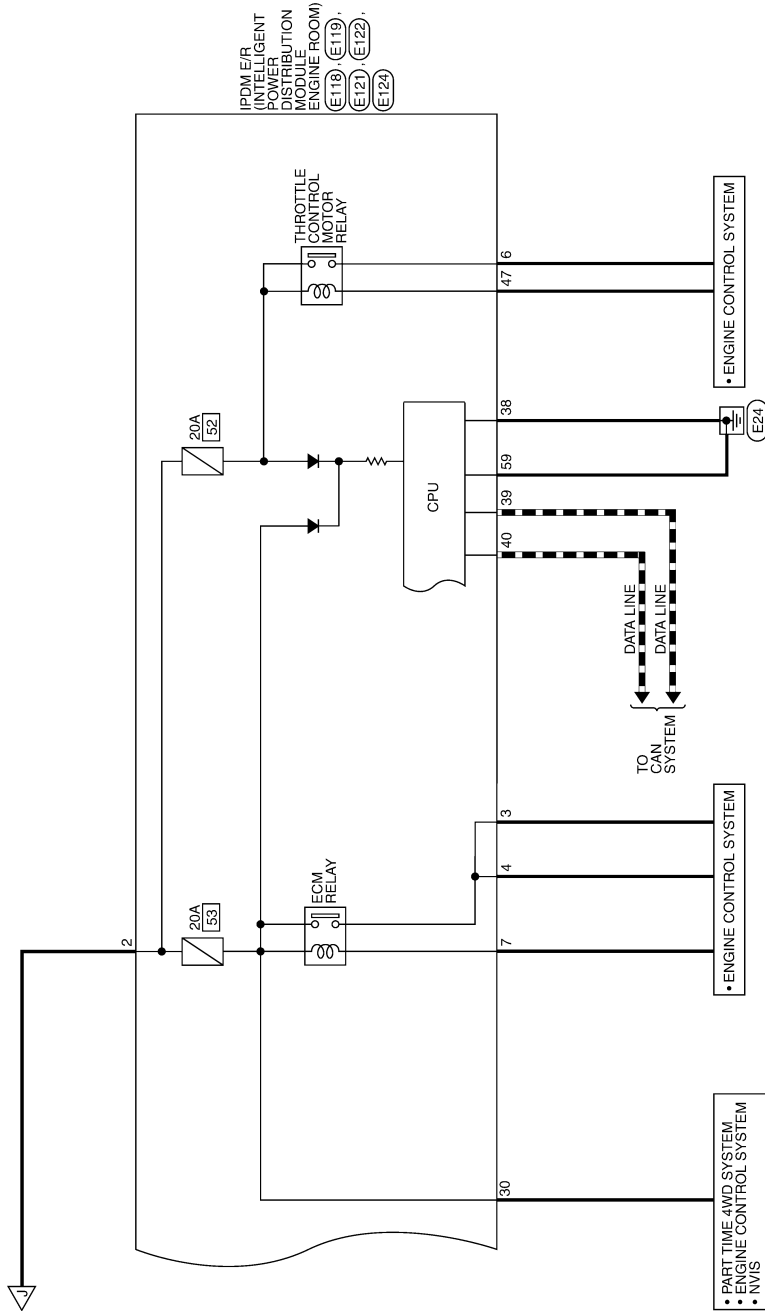


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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

--- : DATA LINE



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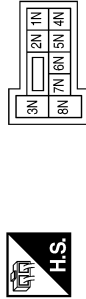
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

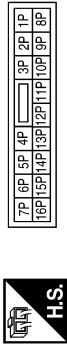
BATTERY POWER SUPPLY CONNECTORS

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



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



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

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



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



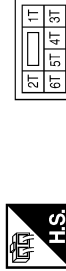
Terminal No.	2R	Color of Wire	W	Signal Name	B
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Connector No.	M39
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	4Q	Color of Wire	Y/R	Signal Name	-
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Connector No.	M60
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



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

< COMPONENT DIAGNOSIS >

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



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

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



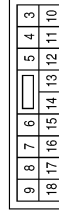
Terminal No.	Color of Wire	Signal Name
3	W	-
4	R	-

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



Terminal No.	Color of Wire	Signal Name
1	W	-

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



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

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



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

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




Terminal No.	Color of Wire	Signal Name
1	W	-

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >


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



51	50	49
56	55	54
53	52	

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


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



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

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

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



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

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

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



59	58	57
62	61	60

Terminal No.	Color of Wire	Signal Name
57	R/L	TAIL_LAMP
59	B	POWER GND

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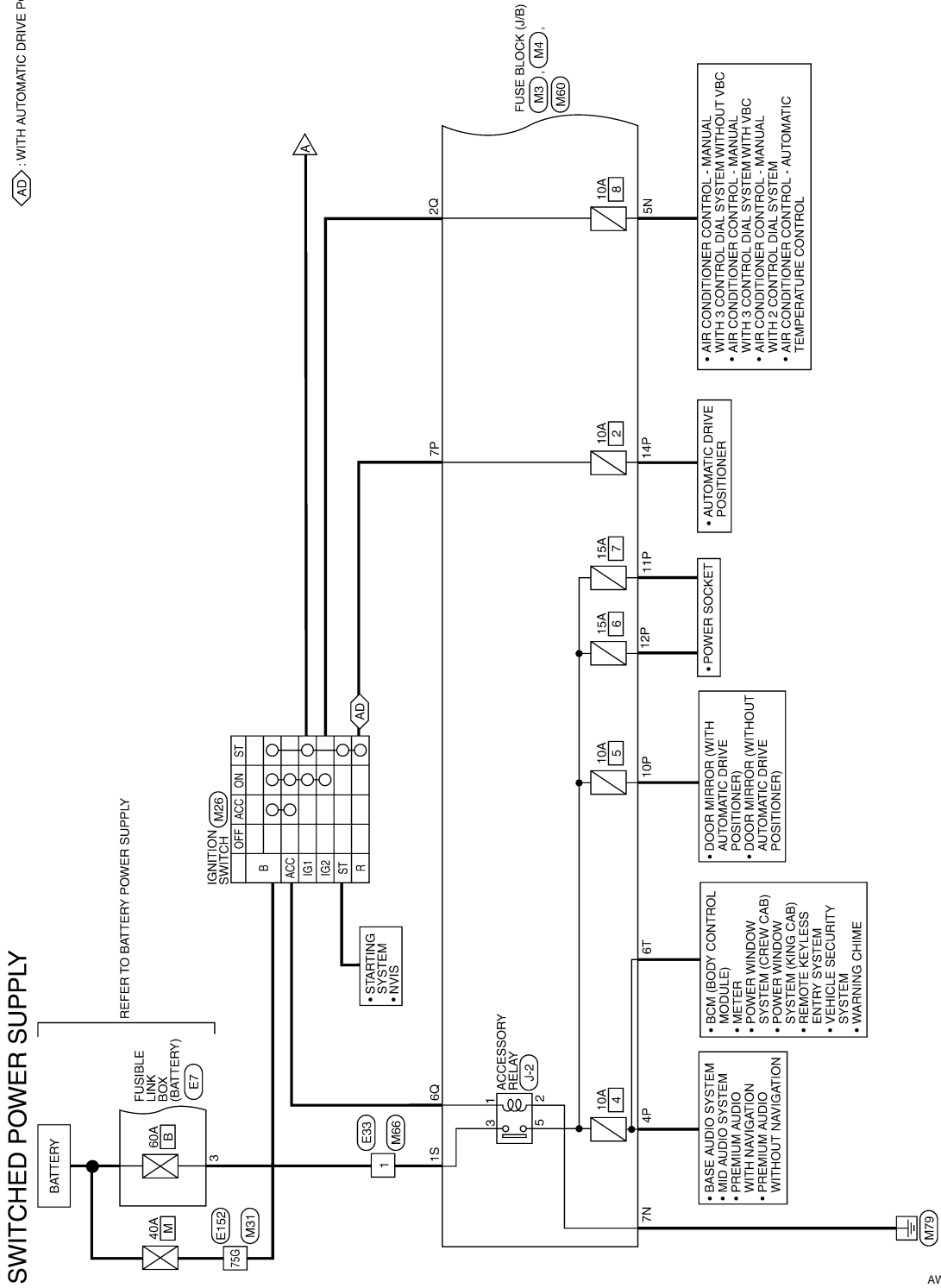
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Wiring Diagram — Ignition Power Supply —

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AD : WITH AUTOMATIC DRIVE POSITIONER



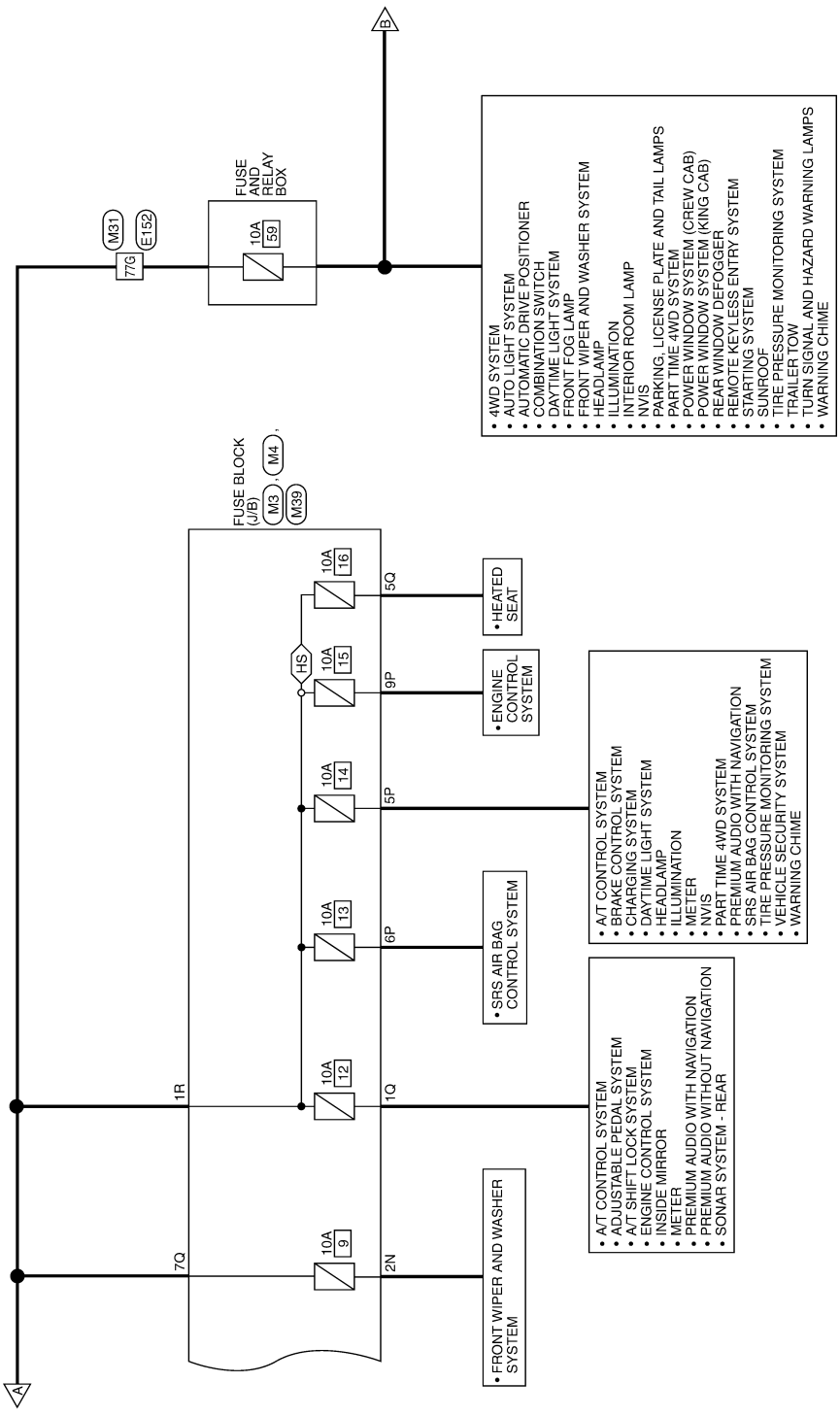
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

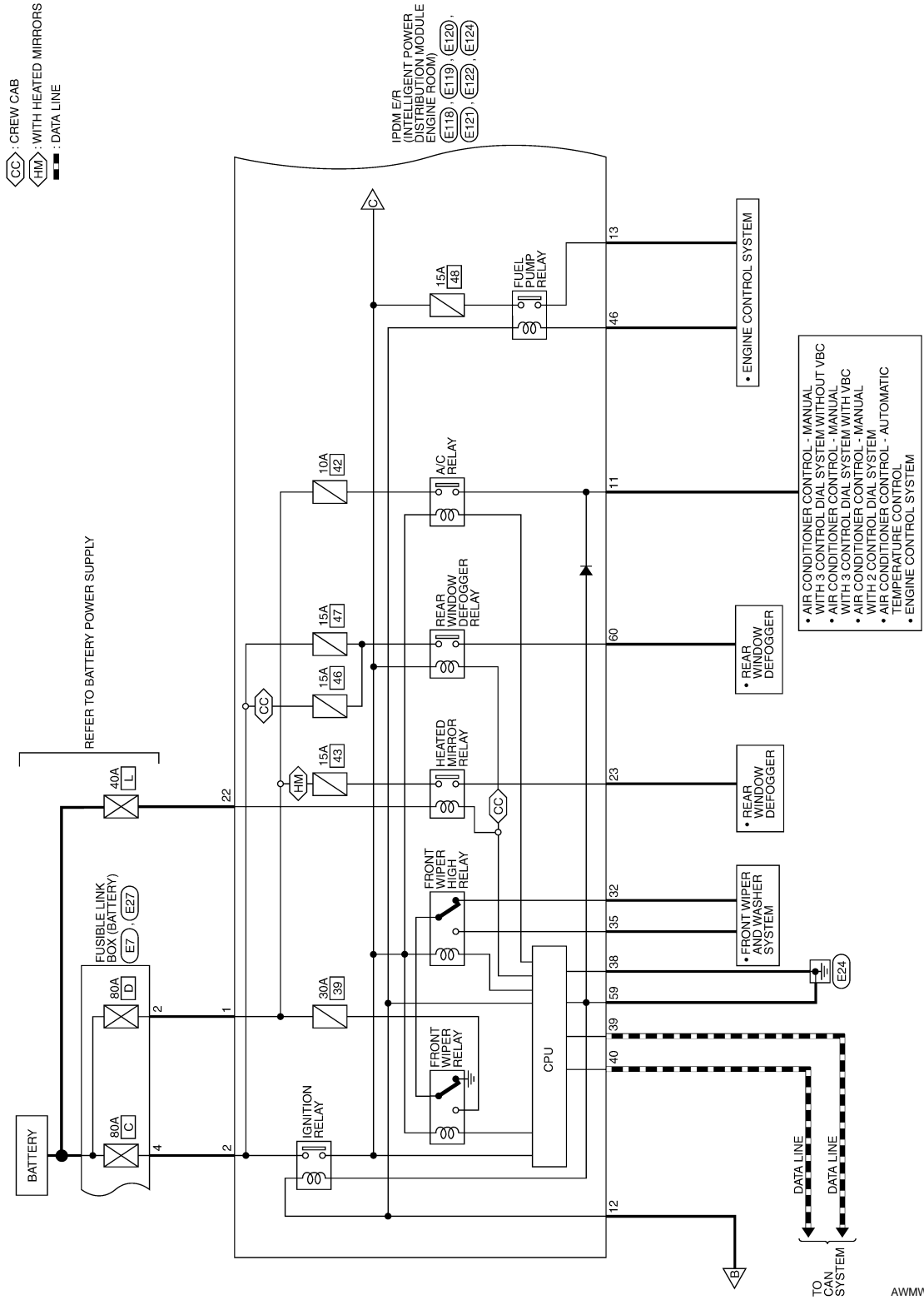
HS : WITH HEATED SEATS
 ■ : DATA LINE



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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >



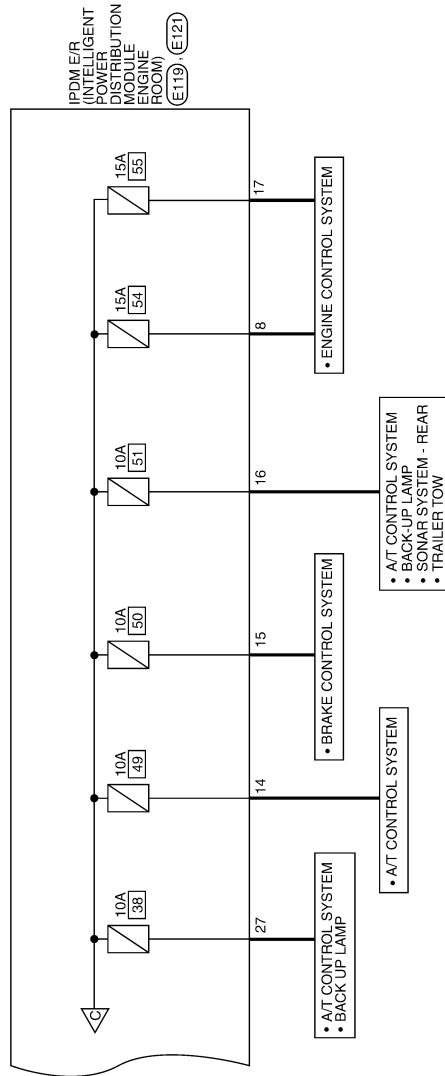
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POWER SUPPLY ROUTING CIRCUIT

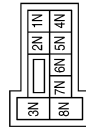
< COMPONENT DIAGNOSIS >



AWMWA0013G

SWITCHED POWER SUPPLY CONNECTORS

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



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

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



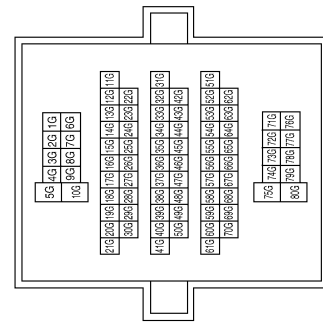
Terminal No.	Color of Wire	Signal Name
4P	V	-
5P	O/L	-
6P	W/L	-
7P	LG	ST-R
9P	R/B	-
10P	O	-
11P	G/W	-
12P	L/W	-
14P	O	AUTO_DRPO

Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE



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

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



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

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



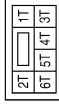
Terminal No.	Color of Wire	Signal Name
1S	W	B

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

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



Terminal No.	Color of Wire	Signal Name
6T	O	-

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



Terminal No.	Color of Wire	Signal Name
1Q	G/R	-
2Q	R	IGN_N
3Q	Y/G	IGN_2
5Q	G	-
6Q	V	ACC
7Q	B/R	IGN

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



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

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



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

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



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

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



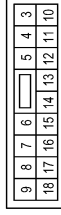
Terminal No.	Color of Wire	Signal Name
1	W	-

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

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



Terminal No.	Color of Wire	Signal Name
8	R/B	02_SENSOR
11	Y/B	AC_COMPRESSOR
12	L/W	IGN_SW (IG)
13	B/Y	FUEL_PUMP
14	Y/R	AT CU_IGN SUPPLY
15	GR	ABS ING SUPPLY
16	G	REVERSE LAMP
17	W	INJECTOT

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



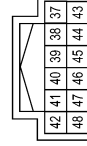
Terminal No.	Color of Wire	Signal Name
1	B/Y	FL_USM
2	R	FL_MAIN

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



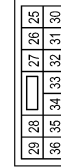
Terminal No.	Color of Wire	Signal Name
1	W	-

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



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

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



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

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



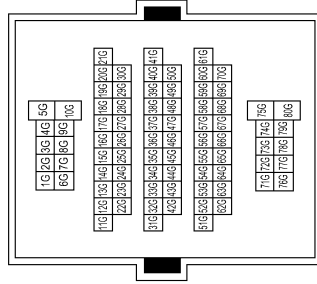
Terminal No.	Color of Wire	Signal Name
22	G	F/L MOTOR FAN
23	GR/W	HEATED MIRROR

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

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



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

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



Terminal No.	Color of Wire	Signal Name
59	B	POWER GND
60	B/W	RR_DEF

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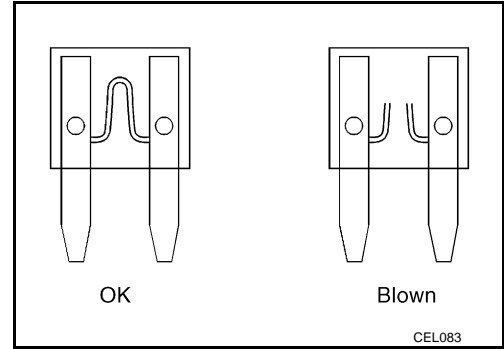
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Fuse

INFOID:000000001666581

- 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

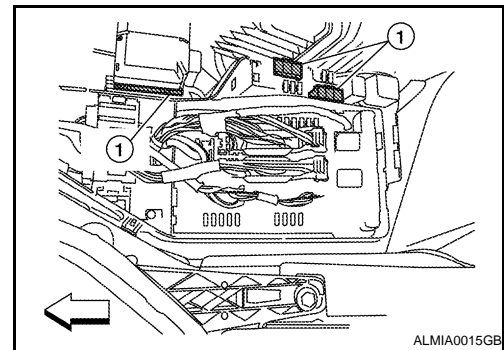
INFOID:000000001666582

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

1 : Fusible link

CAUTION:

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



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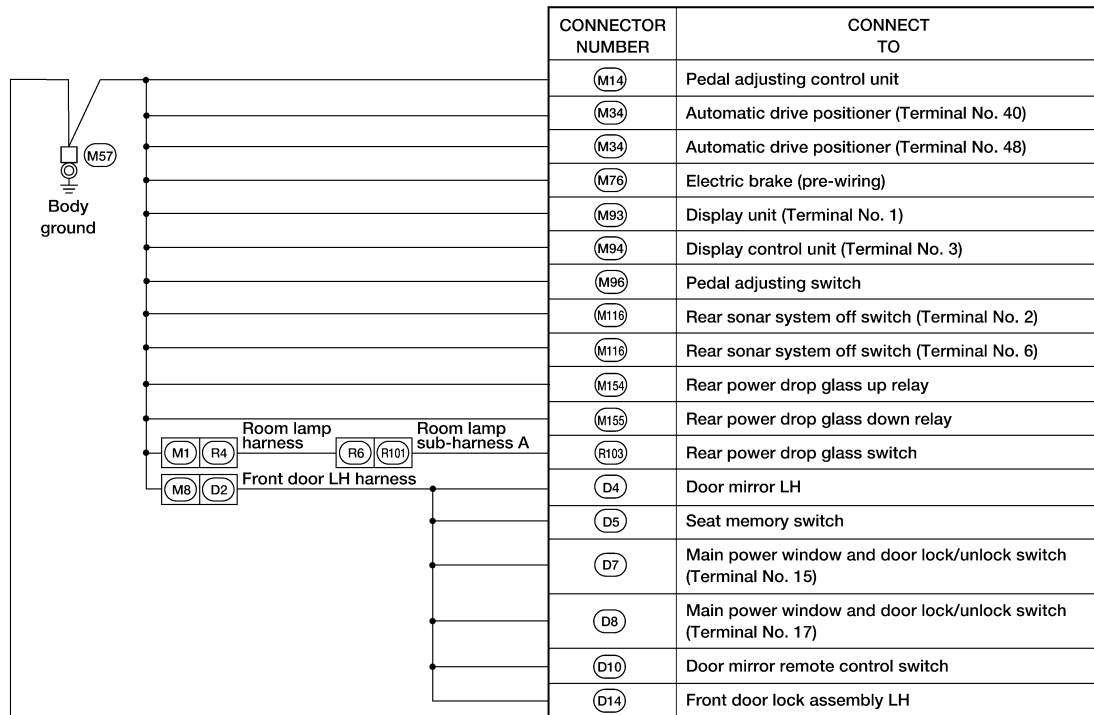
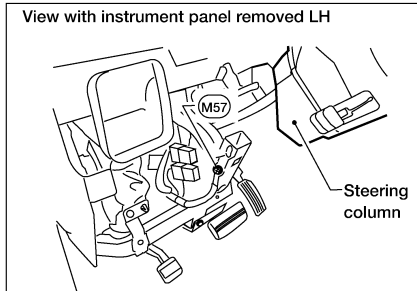
< COMPONENT DIAGNOSIS >

GROUND

Ground Distribution

INFOID:000000001666583

MAIN HARNESS

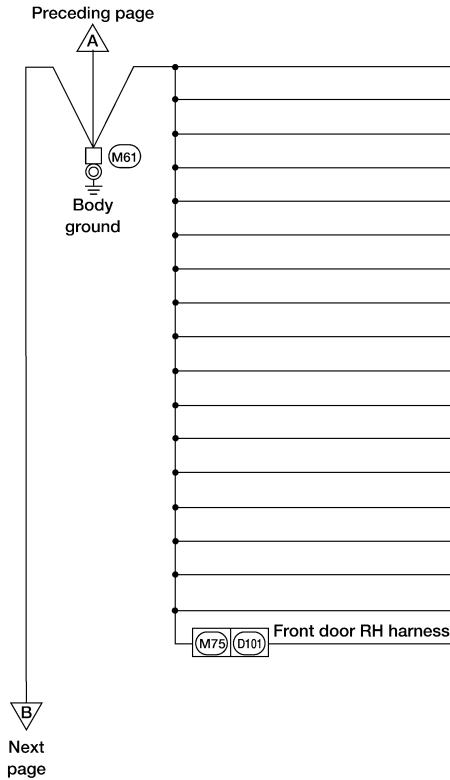
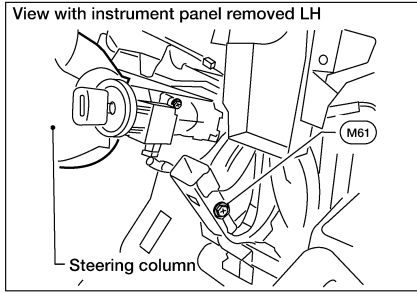


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GROUND

< COMPONENT DIAGNOSIS >



CONNECTOR NUMBER	CONNECT TO
M20	BCM (Terminal 67)
M21	NATS antenna amp
M22	Data link connector (Terminal No. 4)
M22	Data link connector (Terminal No. 5)
M24	Combination meter (Terminal No. 9)
M25	Combination meter (Terminal No. 52)
M28	Combination switch (Terminal No. 12)
M35	Air bag diagnosis sensor
M47	Steering angle sensor
M51	Trailer tow relay 1
M68	A/T device (Terminal No. 1) (column shift)
M68	A/T device (Terminal No. 2) (column shift)
M78	Front power socket (center armrest)
M112	Audio amp (Terminal No. 4)
M113	Audio amp (Terminal No. 20)
M149	Cargo lamp switch
M151	Condenser-3
D107	Door mirror RH

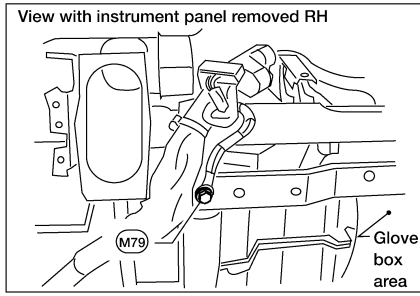
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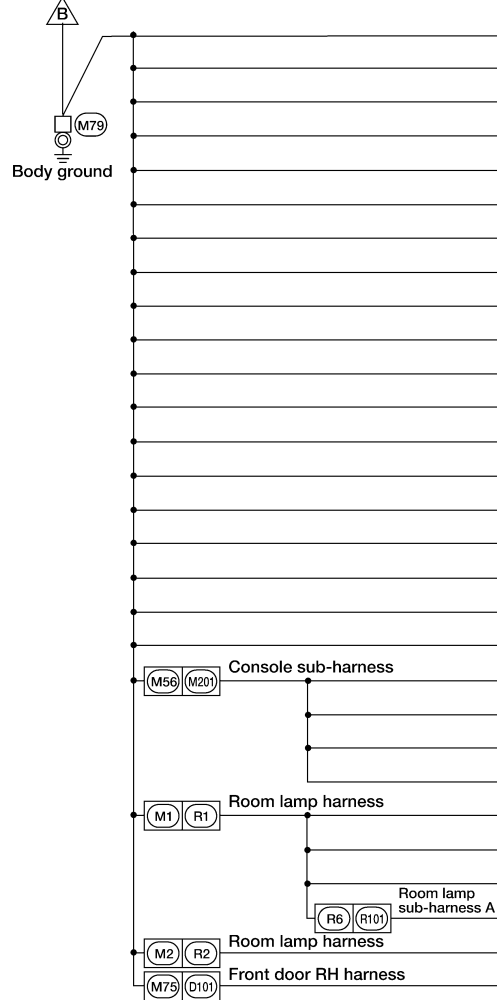
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GROUND

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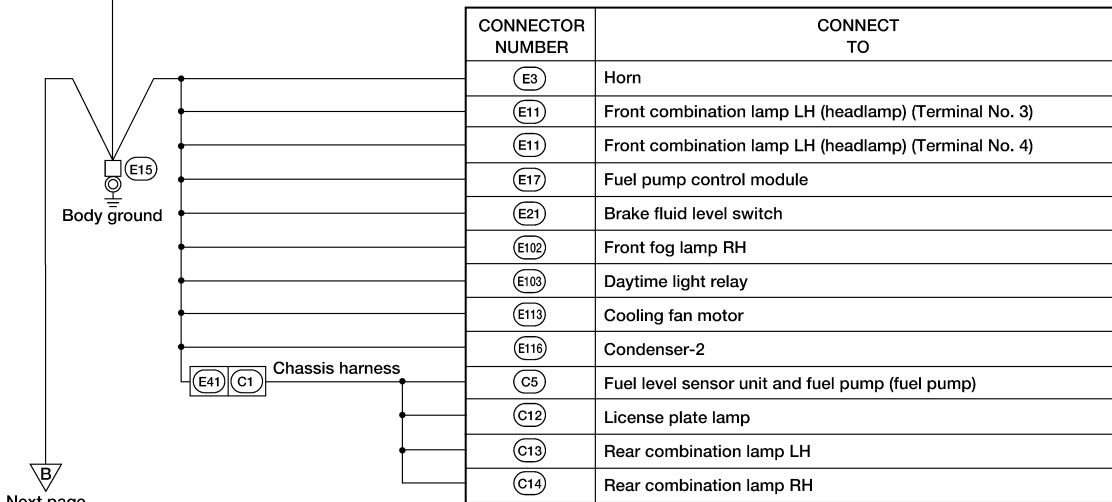
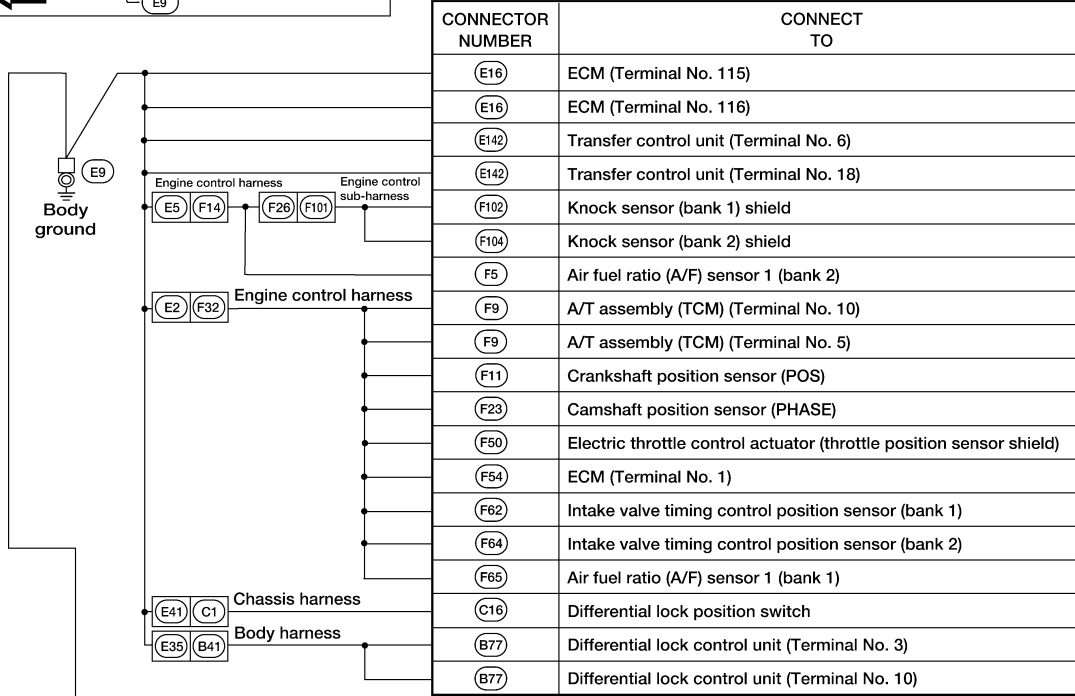
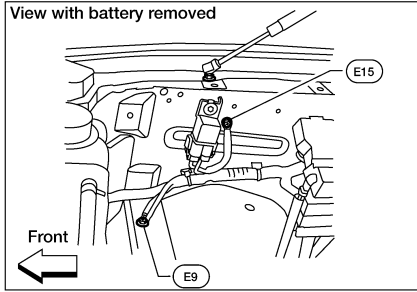
CONNECTOR NUMBER	CONNECT TO
(M3)	Fuse block J/B (Terminal No. 7N)
(M13)	Front passenger air bag off indicator
(M32)	In-vehicle sensor
(M49)	Front air control (Terminal No. 1)
(M50)	Front air control (Terminal No. 35)
(M53)	Front power socket LH
(M54)	Front power socket RH (for cigarette lighter)
(M55)	Hazard switch (Terminal No. 1) (with 2 control dial system)
(M55)	Hazard switch (Terminal No. 5) (with 3 control dial system)
(M59)	Glove box lamp
(M67)	Tow mode switch (Terminal No. 2)
(M67)	Tow mode switch (Terminal No. 6)
(M81)	Shift lock control unit
(M98)	AV switch
(M107)	Front blower relay
(M122)	Variable blower control (front)
(M148)	VDC OFF switch
(M159)	Front heated seat switch LH
(M160)	Front heated seat switch RH
(M203)	A/T device (floor shift) (Terminal No. 2)
(M203)	A/T device (floor shift) (Terminal No. 8)
(M206)	DVD player (Terminal No. 22)
(M207)	Console power socket
(R3)	Vanity lamp LH
(R7)	Auto anti-dazzling inside mirror
(R8)	Vanity lamp RH
(R102)	Front room/map lamp assembly
(R4)	Sunroof motor assembly
(D105)	Power window and door lock/unlock switch RH

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GROUND

< COMPONENT DIAGNOSIS >

ENGINE ROOM HARNESS



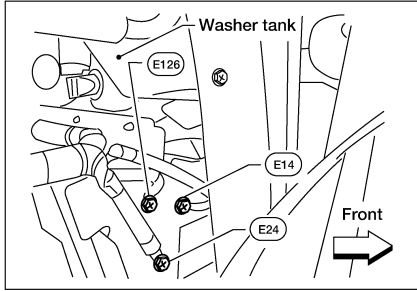
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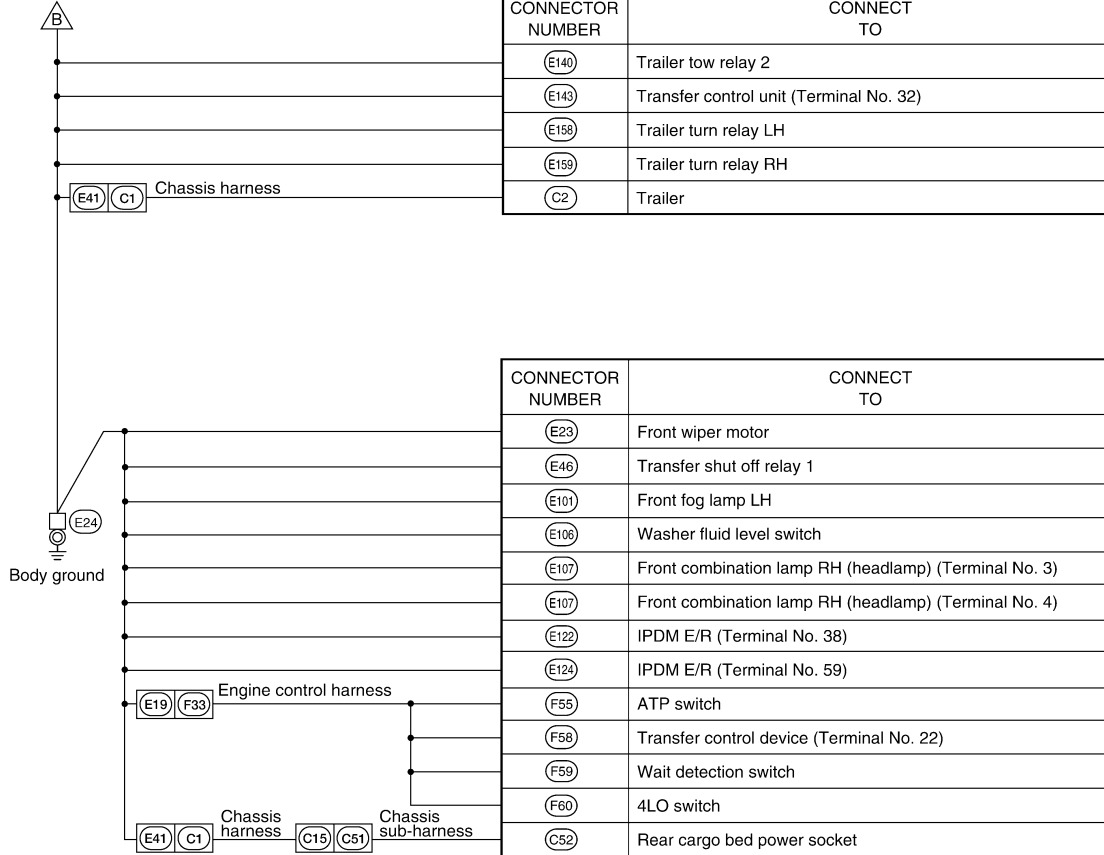
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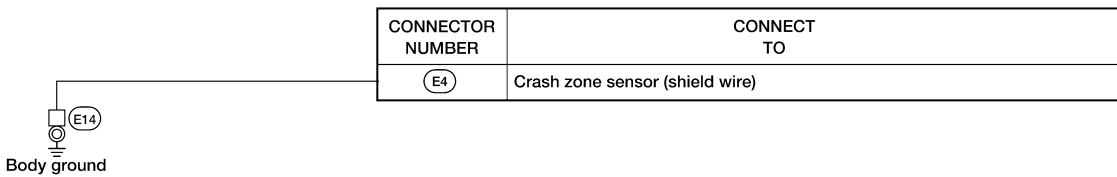
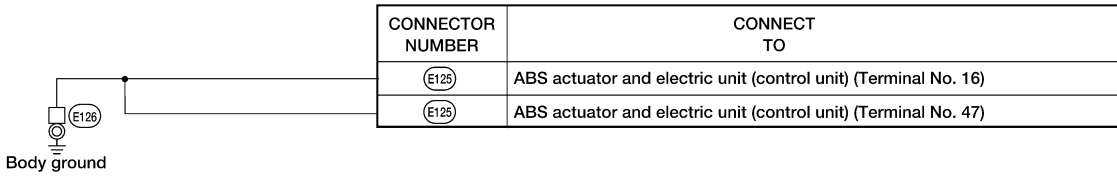
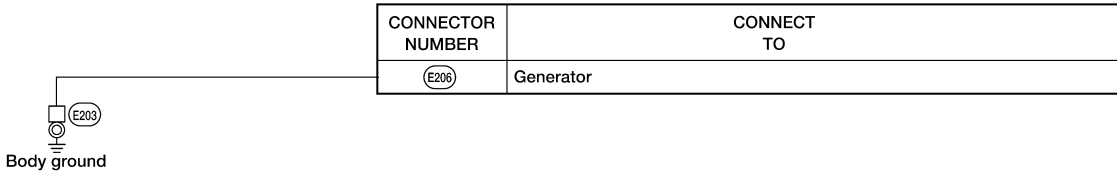
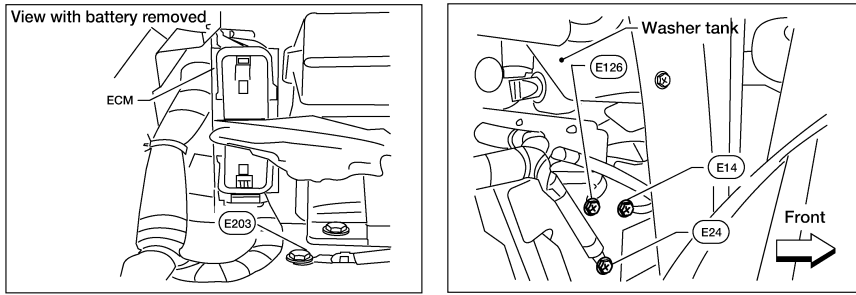
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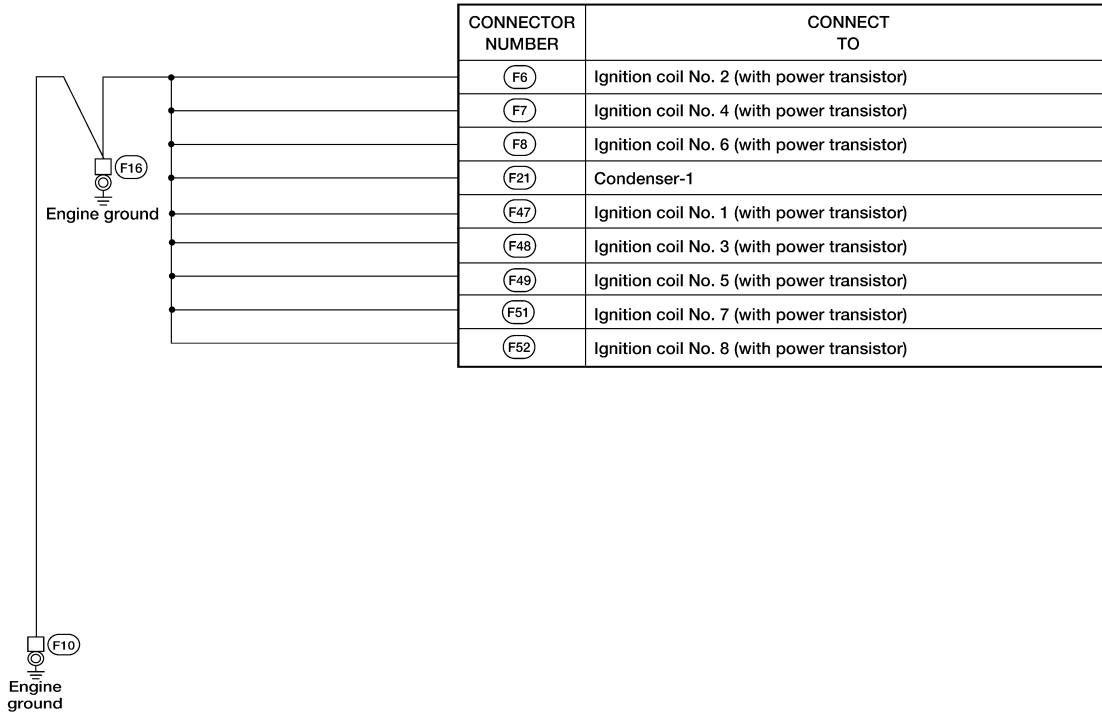
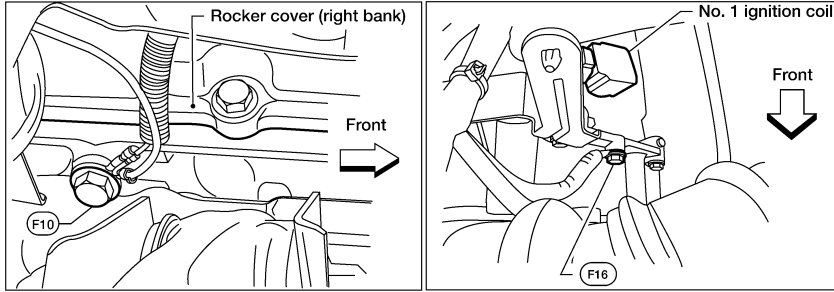
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ENGINE CONTROL HARNESS

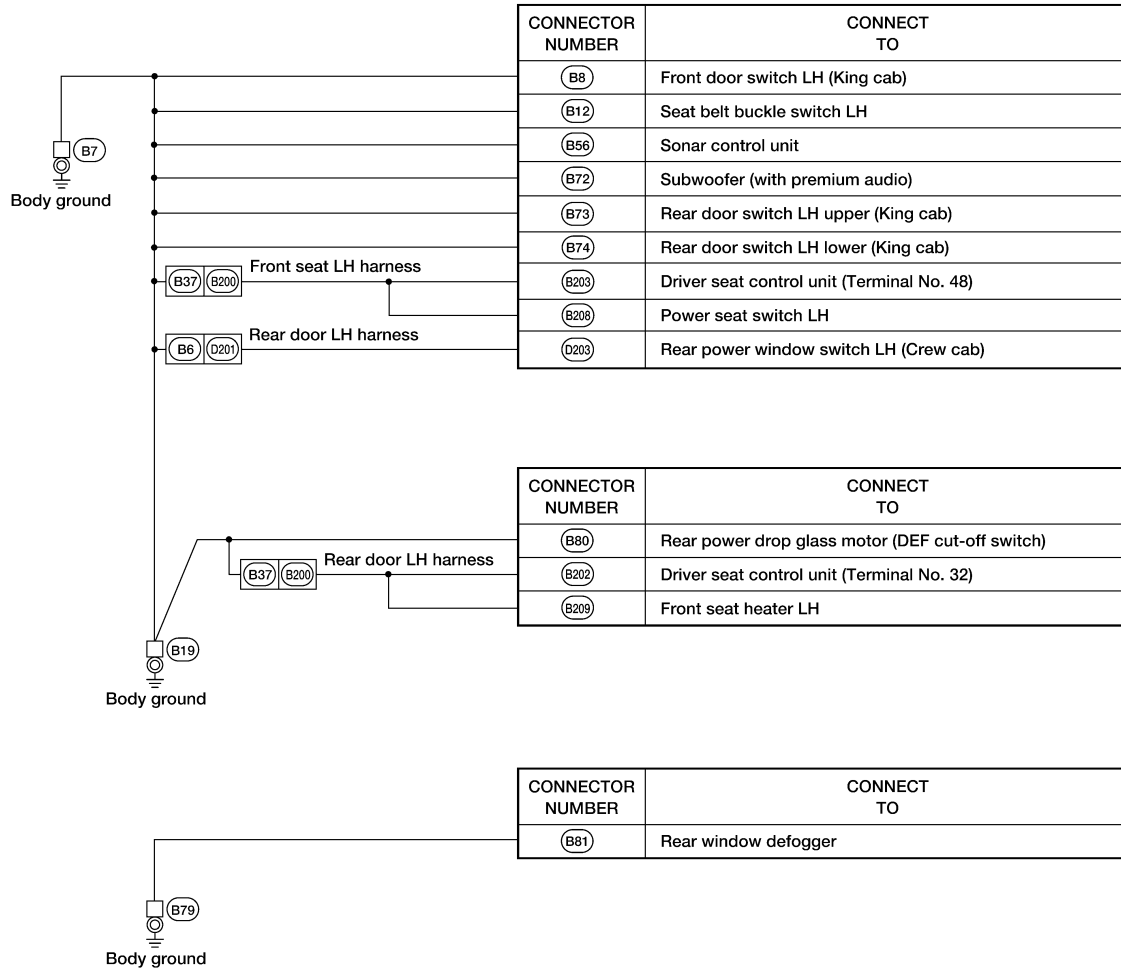
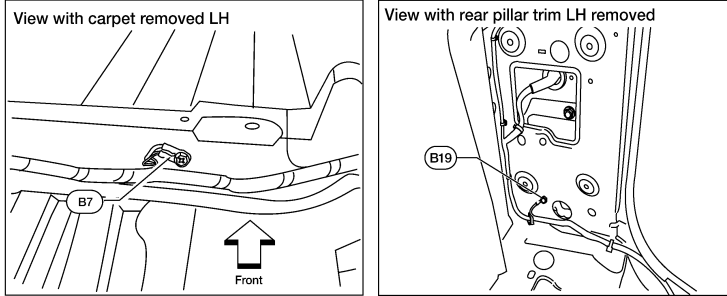


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GROUND

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BODY HARNESS



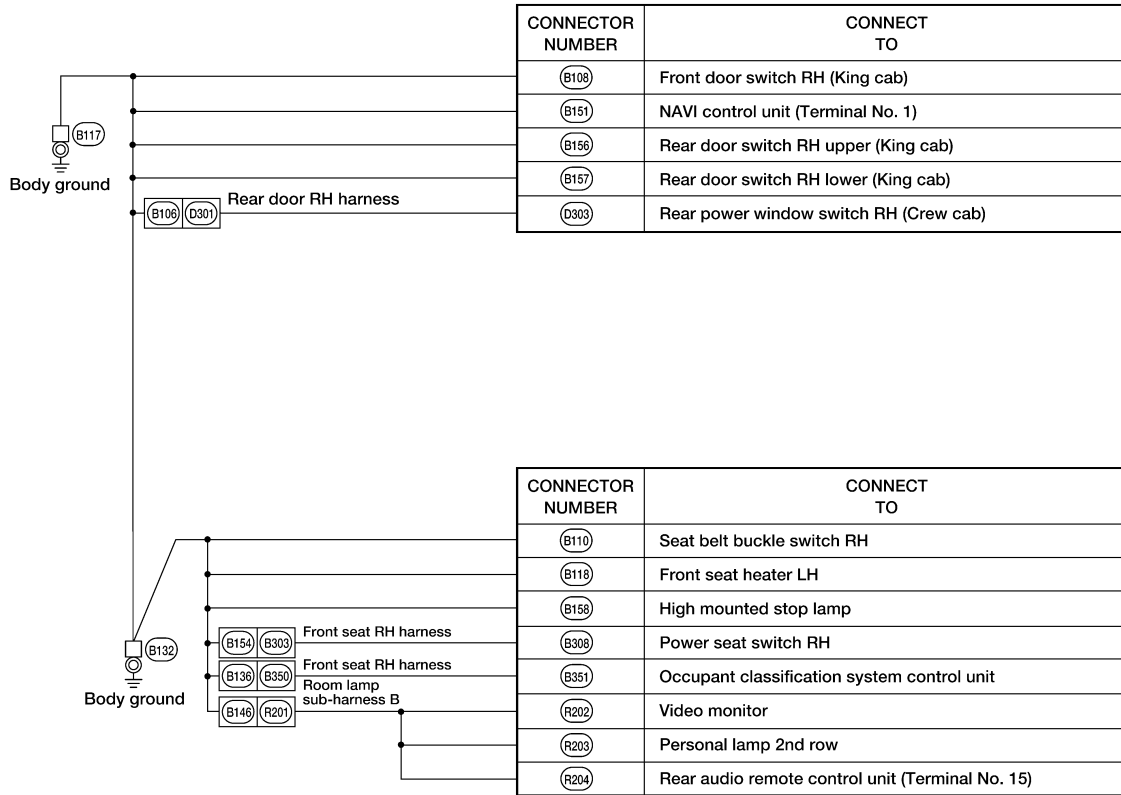
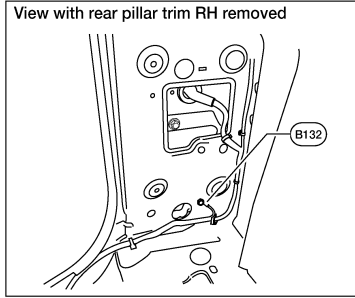
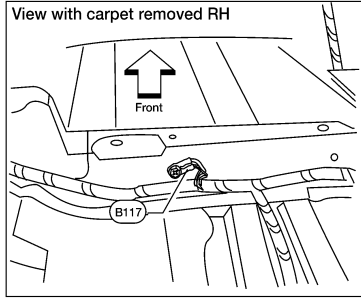
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BODY NO. 2 HARNESS



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HARNESS

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HARNESS

Harness Layout

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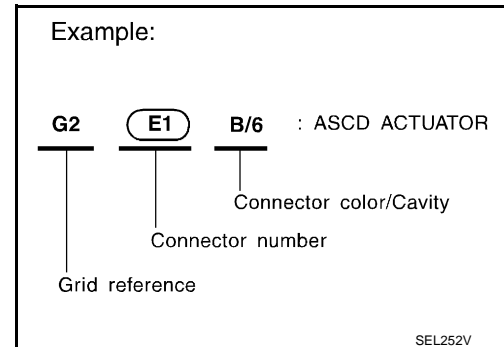
HOW TO READ HARNESS LAYOUT

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

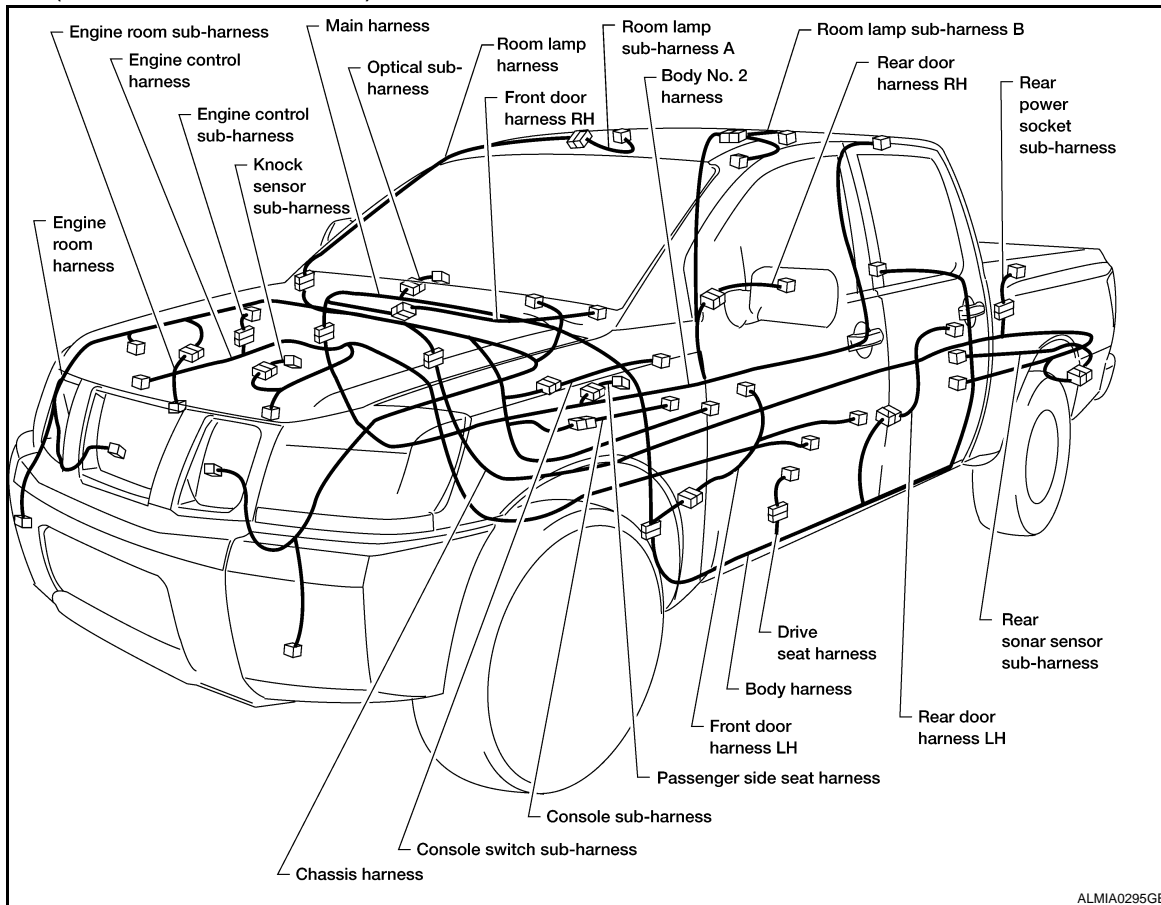
- Main Harness
- Engine Room Harness
- Engine Room Harness (Passenger Compartment)
- Engine Control Harness
- Chassis Harness and Rear Sonar Sensor Sub-harness
- Body Harness (King Cab Models)
- Body Harness (Crew Cab Models)
- Body No. 2 Harness (King Cab Models)
- Body No. 2 Harness (Crew Cab Models)
- 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 (CREW CAB MODELS)



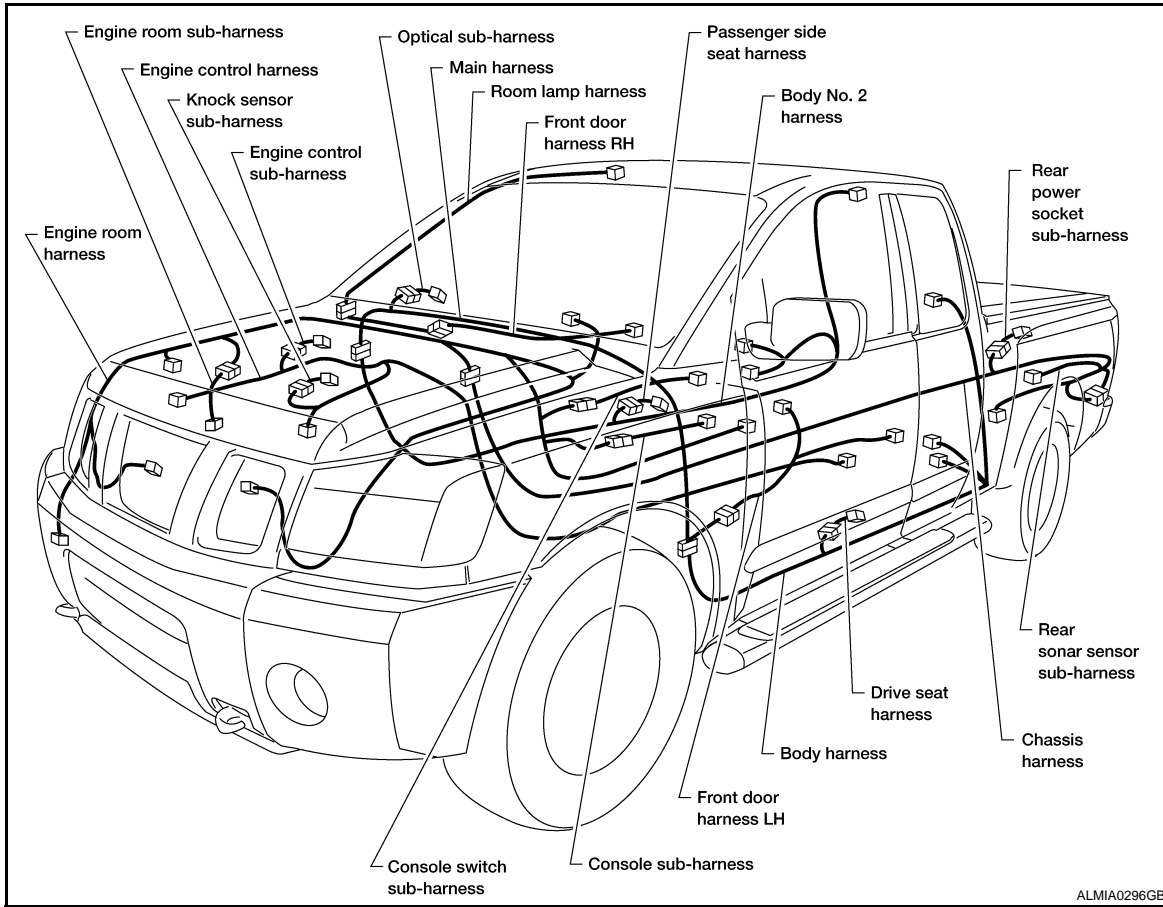
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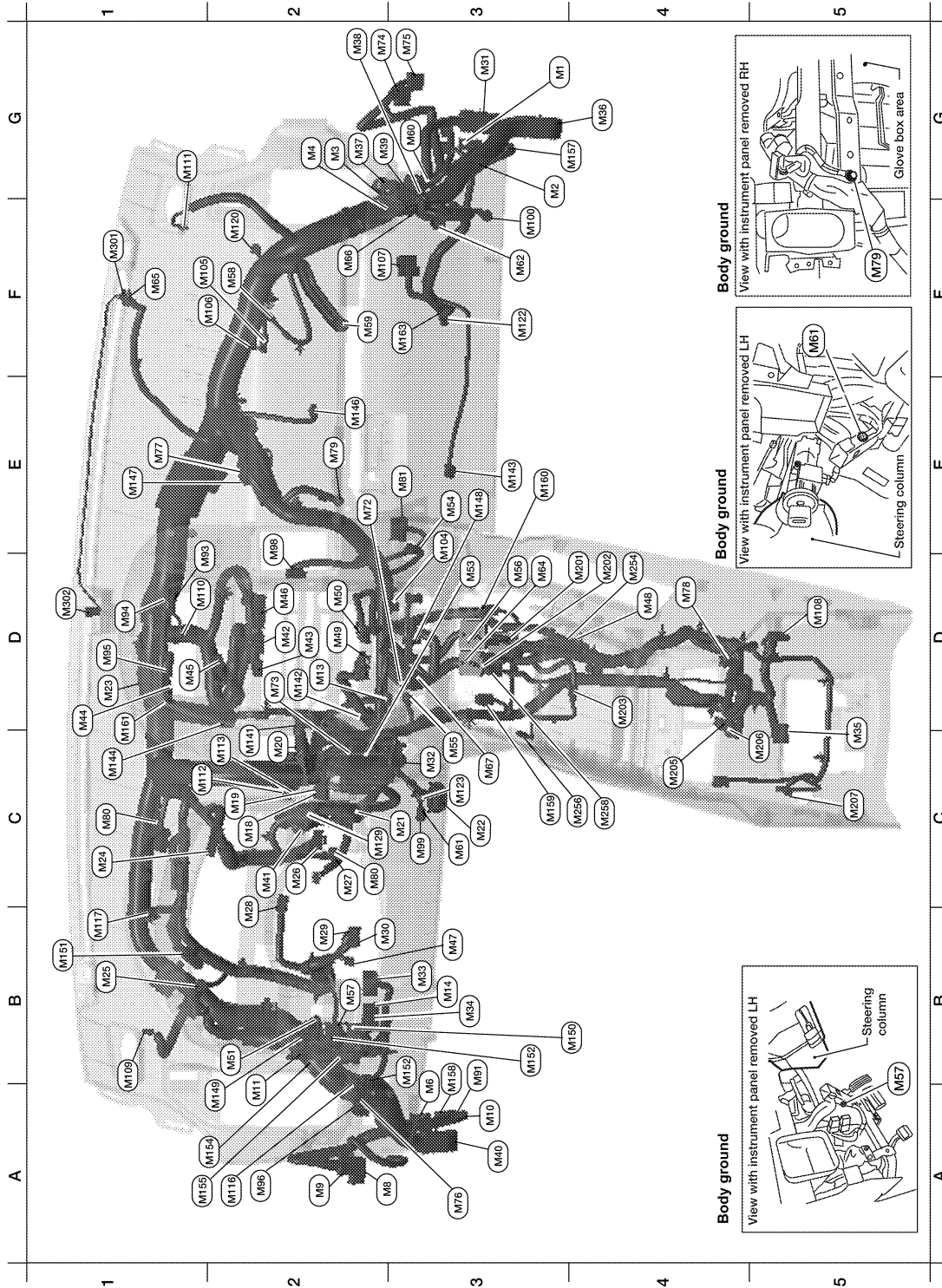
OUTLINE (KING CAB MODELS)



HARNESS

< COMPONENT DIAGNOSIS >

MAIN HARNESS



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G3	M1	W/16	: To R1	C2	M98	W/24	: AV switch
G3	M2	W/12	: To R2	C3	M99	BR/2	: Foot lamp LH
G2	M3	W/8	: Fuse block (J/B)	F4	M100	BR/2	: Foot lamp RH
G2	M4	W/16	: Fuse block (J/B)	F4	M104	W/4	: Foot lamp RH

HARNESSES

< COMPONENT DIAGNOSIS >

A3	M6	W/10	: To E10	F2	M105	Y/2	: Front passenger air bag module
A2	M7	B/5	: Passenger select unlock relay	F2	M106	O/2	: Front passenger air bag module
A3	M8	W/16	: To D2	F3	M107	B/5	: Front blower relay
A2	M9	BR/24	: To D1	D5	M108	B/6	: Yaw rate/ side/ decel G sensor
A3	M10	Y/4	: To E29	A1	M109	BR/2	: Front tweeter LH
A2	M11	B/1	: Parking brake switch	D2	M110	BR/2	: Center speaker
D3	M13	BR/3	: Front passenger air bag OFF indicator	F2	M111	BR/2	: Front tweeter LH
B3	M14	W/16	: Pedal adjusting control unit	C2	M112	W/8	: Audio amplifier
C2	M18	W/40	: BCM (body control module)	C2	M113	W/24	: Audio amplifier
C2	M19	W/15	: BCM (body control module)	A2	M116	GR/8	: Rear sonar system OFF switch
C2	M20	B/15	: BCM (body control module)	B1	M117	BR/2	: Rear sonar buzzer
C3	M21	W/4	: NATS antenna amp.	F2	M120	W/4	: Remote keyless entry receiver
C3	M22	W/16	: Data link connector	F4	M122	W/4	: Variable blower control
B1	M23	W/2	: Diode-1	C3	M123	W/2	: Tire pressure warning check connector
C1	M24	W/40	: Combination meter	C2	M141	W/8	: 4WD shift switch
B1	M25	W/12	: Combination meter	E1	M142	B/6	: Mode door motor
B2	M26	W/6	: Ignition switch	E3	M143	B/6	: Air mix door motor (passenger)
B2	M27	W/4	: Key switch and key lock solenoid	C3	M144	B/6	: Defroster door motor
B2	M28	W/16	: Combination switch	E3	M146	W/2	: Intake sensor
B2	M29	Y/6	: Combination switch (spiral cable)	D3	M147	B/6	: Air mix door motor (driver)
B3	M30	GR/8	: Combination switch (spiral cable)	D3	M148	GR/6	: VDC OFF switch
G4	M31	SMJ	: To E152	D3	M149	W/6	: Cargo lamp switch
C3	M32	W/4	: In-vehicle sensor	D3	M150	L/4	: Cargo lamp relay
B3	M33	W/32	: Automatic drive position control unit	D3	M151	W/2	: Condenser-3
B3	M34	W/16	: Automatic drive position control unit	D3	M152	L/4	: Rear window defogger cut-off relay
C5	M35	Y/28	: Air bag diagnosis sensor unit	D3	M154	B/5	: Rear power drop glass up relay
G4	M36	SMJ	: To B149	D3	M155	B/5	: Rear power drop glass down relay
G3	M37	B/1	: Fuse block (J/B)	G4	M157	W/20	: To B161
G3	M38	B/2	: Fuse block (J/B)	A3	M158	W/10	: To D3
D3	M39	W/8	: Fuse block (J/B)	A3	M159	BR/6	: Front heated seat switch LH
A3	M40	SMJ	: To B69	A3	M160	BR/6	: Front heated seat switch RH
C3	M41	W/16	: Satellite radio tuner	B1	M161	W/2	: Diode-3
D2	M42	W/12	: AV control unit	B1	M162	W/8	: Front blower switch
D2	M43	W/20	: AV control unit (base audio system)	B1	M163	B/4	: Front blower motor resistor
E3	M43	W/10	: AV control unit (except base audio system)	Console sub-harness			
D2	M44	W/6	: AV control unit	D4	M201	W/16	: To M56
D2	M45	W/16	: AV control unit	D4	M202	BR/24	: To M64
D2	M46	W/20	: AV control unit	D4	M203	W/12	: A/T device (park position) (floor shift)
D2	M47	W/8	: Steering angle sensor	D5	M205	GR/16	: DVD player
D4	M48	W/2	: To M254	D5	M206	L/16	: DVD player
D2	M49	B/26	: Front air control	C5	M207	B/3	: Console power socket
D2	M50	W/18	: Front air control	Console switch sub-harness			
B3	M51	L/4	: Trailer tow relay 1	D4	M254	BR/2	: To M48
D3	M53	B/3	: Front power socket LH	C4	M256	B/2	: A/T device (illumination)

HARNESSES

< COMPONENT DIAGNOSIS >

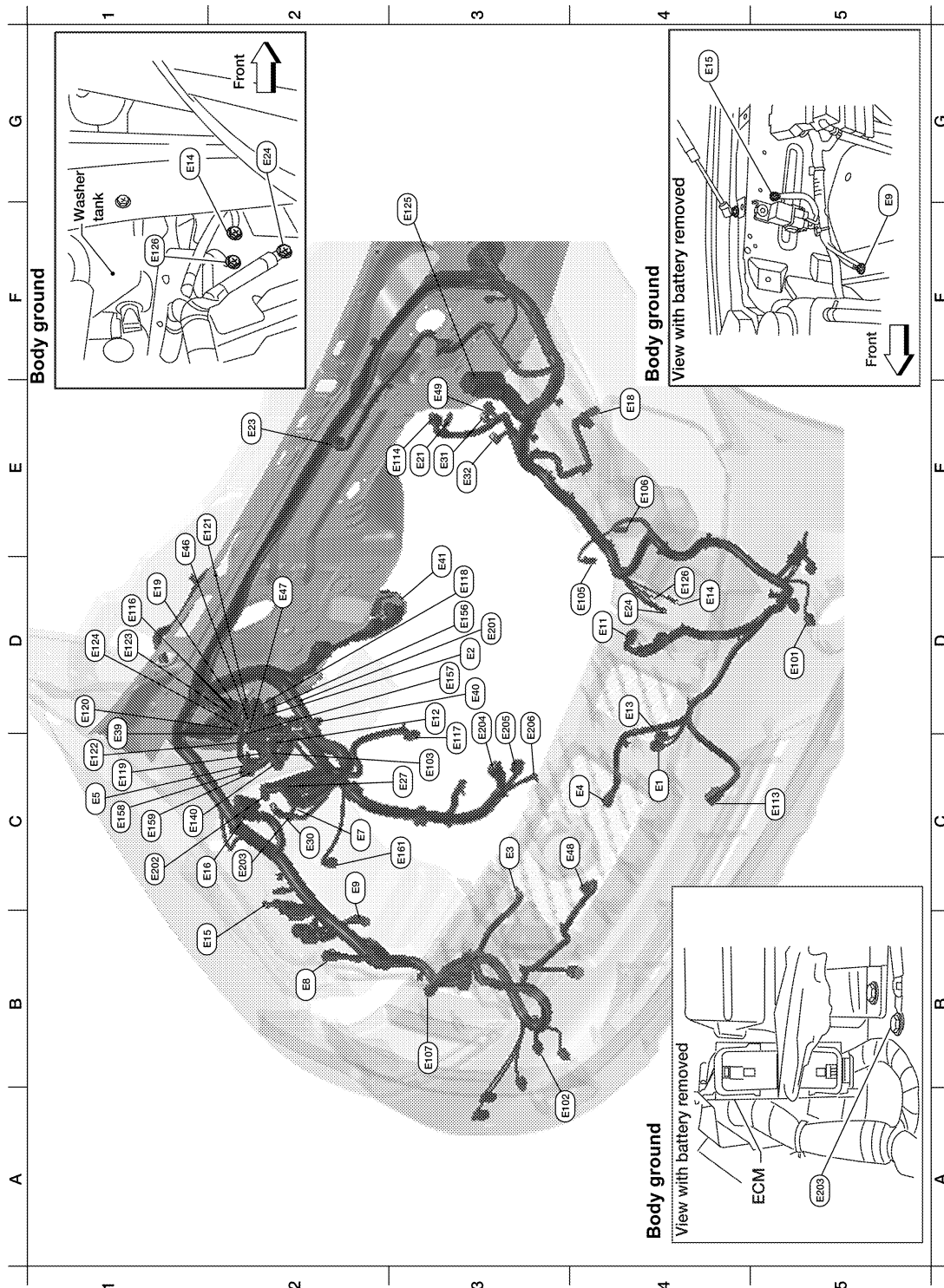
D3	M54	B/3	: Front power socket RH (for cigarette lighter)	Optical sub-harness			
D2	M55	W/4	: Hazard switch (with base audio)	D4	M301	W/4	: To M48
D2	M55	W/8	: Hazard switch (except base audio)	C4	M302	B/4	: Optical sensor
D4	M56	W/16	: To M201				
A3	M57	—	: Body ground				
F2	M58	B/6	: Intake door motor				
F3	M59	BR/2	: Glove box lamp				
G3	M60	W/6	: Fuse block (J/B)				
C3	M61	—	: Body ground				
F4	M62	B/2	: Front blower motor				
D4	M64	BR/24	: To M202				
F2	M65	W/4	: To M301				
G3	M66	B/1	: To E33				
G3	M67	GR/8	: Tow mode switch				
G3	M68	W/8	: A/T device (park position switch) (column shift)				
E3	M72	W/6	: Differential lock mode switch				
D3	M73	BR/6	: Back-up lamp relay				
G3	M74	BR/24	: To D102				
G3	M75	W/10	: To D101				
A3	M76	W/6	: Electric brake (pre-wiring)				
E2	M77	Y/4	: Front passenger air bag module (service replacement)				
D3	M78	W/2	: Front power socket (center arm rest)				
E2	M79	—	: Body ground				
C1	M80	W/2	: Key switch				
E3	M81	GR/10	: Shift lock control unit				
A3	M82	W/2	: Circuit breaker-2				
B3	M91	W/16	: To E26				
D1	M93	W/24	: Display control unit				
D1	M94	W/24	: Display control unit				
D1	M95	W/32	: Display control unit				
A2	M96	BR/6	: Pedal adjusting switch				

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ENGINE ROOM HARNESS



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C4	E1	GR/2	: Ambient sensor	C1	E119	W/16	: IPDM E/R (intelligent power distribution module engine room)
D3	E2	W/16	: To F32	D1	E120	W/6	: IPDM E/R (intelligent power distribution module engine room)
C3	E3	B/2	: Horn	E1	E121	BR/12	: IPDM E/R (intelligent power distribution module engine room)

HARNESS

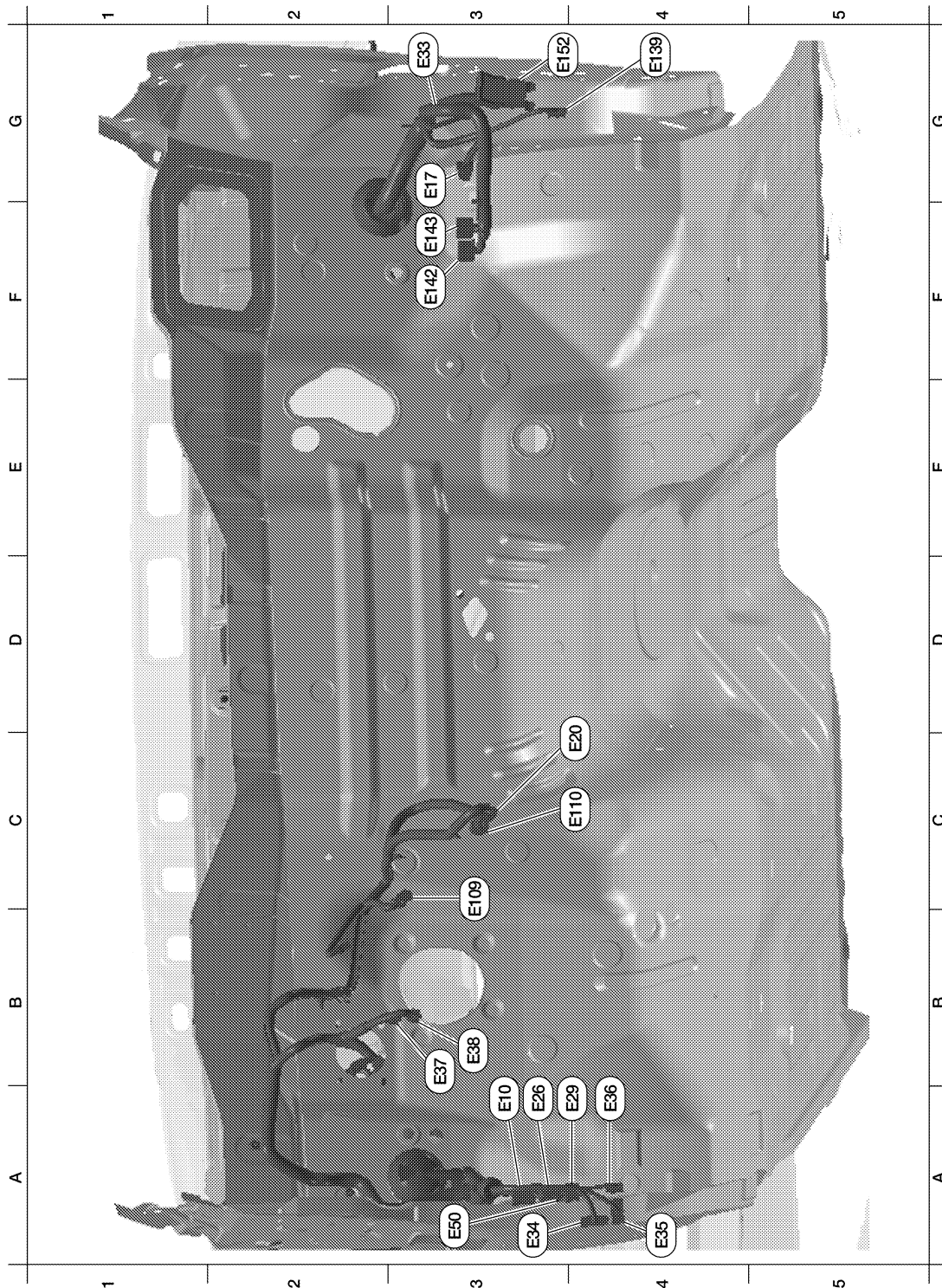
< COMPONENT DIAGNOSIS >

C3	E4	Y/2	: Crash zone sensor	E1	E122	W/12	: IPDM E/R (intelligent power distribution module engine room)	A
C1	E5	W/24	: To F14	C1	E123	BR/8	: IPDM E/R (intelligent power distribution module engine room)	B
C2	E7	GR/2	: Fusible link box (battery)	D1	E124	B/6	: IPDM E/R (intelligent power distribution module engine room)	C
B2	E8	GR/2	: Dropping resistor	F3	E125	B/47	: ABS actuator and electric unit (control unit)	D
C2	E9	—	: Body ground	C2	E126	—	: Body ground	E
D4	E11	B/6	: Front combination lamp LH	C1	E140	BR/6	: Trailer tow relay-2	F
D3	E12	B/5	: Stop lamp relay	C2	E150	—	: Engine ground	G
D4	E13	GR/2	: Ambient sensor 2	C2	E151	—	: Negative battery cable	H
D4	E14	—	: Body ground	D3	E156	B/5	: Transfer shift high LH	I
B1	E15	—	: Body ground	D3	E157	B/5	: Transfer shift low LH	J
C1	E16	B/40	: ECM	B2	E158	L/4	: Trailer turn relay LH	K
E4	E18	GR/2	: Front wheel sensor LH	B2	E159	L/4	: Trailer turn relay RH	L
D1	E19	W/16	: To F33	B2	E161	B/3	: Battery current sensor	
E3	E21	GR/2	: Brake fluid level switch	Engine room sub-harness				
E2	E23	GR/6	: Front wiper motor	D3	E201	B/3	: To E40	
D4	E24	—	: Body ground	C1	E202	/1	: Fusible link box (battery)	
C3	E27	BR/2	: Fusible link box (battery)	C2	E203	—	: Engine ground	
C2	E30	/1	: Fusible link box (battery)	D3	E204	/1	: Generator	
E3	E31	GR/3	: Front pressure sensor	D3	E205	B/3	: Generator	
E3	E32	GR/3	: Rear pressure sensor	D3	E206	/1	: Generator	
E1	E39	W/2	: To F34					
D3	E40	B/3	: To E201					
D3	E41	SMJ	: To C1					
E1	E46	L/4	: Transfer SHUT OFF relay 1					
D2	E47	L/4	: Transfer SHUT OFF relay 2					
C4	E48	B/3	: Refrigerant pressure sensor					
E3	E49	B/6	: Active booster					
D5	E101	B/2	: Front fog lamp LH					
A4	E102	B/2	: Front fog lamp RH					
C3	E103	B/5	: Daytime light relay					
D4	E105	BR/2	: Front washer motor					
E4	E106	BR/2	: Washer fluid level switch					
B3	E107	B/6	: Front combination lamp RH					
C5	E113	W/2	: Cooling fan motor					
E3	E114	B/6	: Delta stroke motor					
D1	E116	W/2	: Condenser-2					
D3	E117	GR/2	: Front wheel sensor RH					
D3	E118	B/2	: IPDM E/R (intelligent power distribution module engine room)					

HARNESS

< COMPONENT DIAGNOSIS >

ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)



AWMIA0032GB

A3	E10	W/10	: To M6			
G3	E17	W/4	: Fuel pump control module (FPCM)			
C4	E20	B/8	: Accelerator pedal position sensor			
C4	E26	W/16	: To M91			
B4	E29	Y/4	: To M10			

HARNESS

< COMPONENT DIAGNOSIS >

G3	E33	B/1	: To M66				
A3	E34	W/24	: To B40				
A4	E35	W/12	: To B41				
A4	E36	W/2	: To B42				
B3	E37	BR/2	: ASCD brake switch				
B3	E38	W/4	: Stop lamp switch (column shift)				
B3	E38	B/2	: Stop lamp switch (floor shift)				
B3	E50	BR/2	: To B75				
B3	E109	GR/2	: Pedal adjusting motor				
C4	E110	GR/3	: Pedal adjusting motor				
G4	E139	W/8	: To B107				
F3	E142	W/24	: Transfer control unit				
F3	E143	W/24	: Transfer control unit				
G3	E152	SMJ	: To M31				

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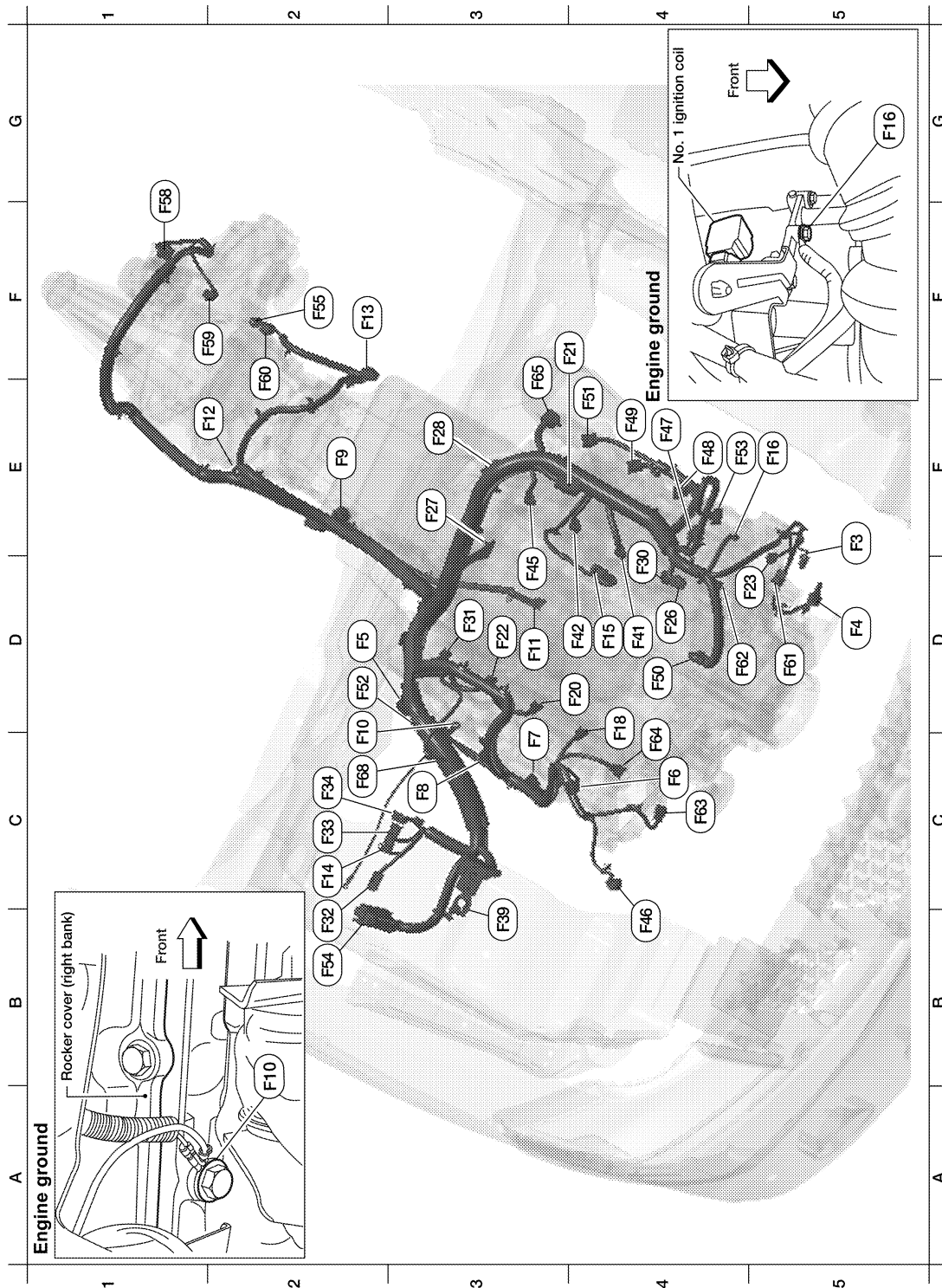
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HARNESS

< COMPONENT DIAGNOSIS > ENGINE CONTROL HARNESS



AWMIA0033GB

E5	F3	B/1	: A/C Compressor	F1	F58	B/8	: Transfer control device
D5	F4	GR/1	: Oil pressure switch	F2	F59	B/2	: Wait detection switch
D2	F5	GR/4	: Air fuel ratio (A/F) sensor 1 (bank2)	F2	F60	GR/2	: 4LO switch
C4	F6	GR/3	: Ignition coil No. 2 (with power transistor)	D5	F61	G/2	: Intake valve timing control solenoid valve (bank 1)

HARNESS

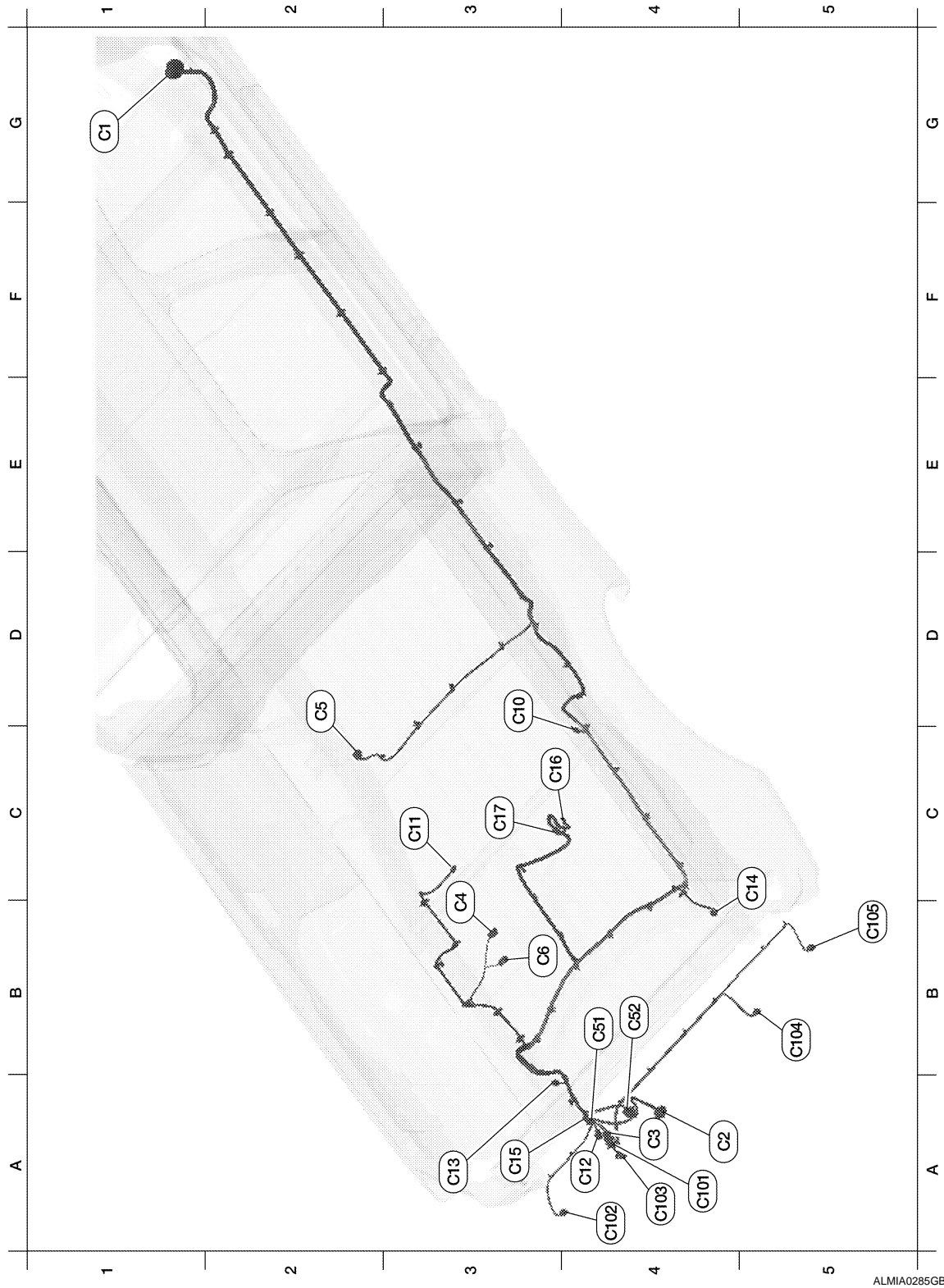
< COMPONENT DIAGNOSIS >

C3	F7	GR/3	: Ignition coil No. 4 (with power transistor)	D5	F62	B/2	: Intake valve timing control position sensor (bank 1)	A
C3	F8	GR/3	: Ignition coil No. 6 (with power transistor)	C4	F63	G/2	: Intake valve timing control solenoid valve (bank 2)	B
E2	F9	G/10	: A/T assembly	C4	F64	G/2	: Intake valve timing control position sensor (bank 2)	B
C3	F10	—	: Engine ground	F3	F65	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 1)	C
D3	F11	B/3	: Crankshaft position sensor (POS)	C2	F68	GR/2	: Water valve	C
E1	F12	G/4	: Heated oxygen sensor 2 (bank2)	Knock sensor sub-harness				
F2	F13	G/4	: Heated oxygen sensor 2 (bank1)	C3	F101	B/6	: To F26	D
B2	F14	W/24	: To E5	C3	F102	B/2	: Knock sensor (bank 1)	D
D4	F15	GR/2	: EVAP canister purge volume control solenoid valve	C3	F103	GR/2	: Engine coolant temperature sensor	E
E5	F16	—	: Engine ground	C3	F104	B/2	: Knock sensor (bank 2)	E
C4	F18	GR/2	: Fuel injector No. 2					F
D4	F20	GR/2	: Fuel injector No. 4					F
F4	F21	W/2	: Condenser-1					
D3	F22	GR/2	: Fuel injector No. 6					G
D4	F23	B/3	: Camshaft position sensor (phase)					
D4	F25	W/2	: Diode No. 2					
D4	F26	B/6	: To F101					H
E3	F27	B/1	: Starter motor					
D4	F28	GR/1	: Starter motor					I
D4	F30	GR/2	: Fuel injector No. 1					
D3	F31	GR/2	: Fuel injector No. 8					
B2	F32	W/16	: To E2					J
C2	F33	W/16	: To E19					
C2	F34	W/2	: To E39					
B3	F39	—	: Fusible link (battery)					K
D4	F41	GR/2	: Fuel injector No. 3					
D4	F42	GR/2	: Fuel injector No. 5					L
D3	F45	GR/2	: Fuel injector No. 7					
B4	F46	B/3	: Power steering pressure sensor					PG
E4	F47	GR/3	: Ignition coil No. 1 (with power transistor)					
E4	F48	GR/3	: Ignition coil No. 3 (with power transistor)					N
E4	F49	GR/3	: Ignition coil No. 5 (with power transistor)					
D4	F50	B/6	: Electric throttle control actuator					O
E4	F51	GR/3	: Ignition coil No. 7 (with power transistor)					
D2	F52	GR/3	: Ignition coil No. 8 (with power transistor)					P
E5	F53	B/6	: Mass air flow sensor					
B2	F54	B/81	: ECM					
F2	F55	B/2	: ATP switch					

HARNESS

< COMPONENT DIAGNOSIS >

CHASIS HARNESS



ALMIA0285GB

G1	C1	SMJ	: To E41				
A4	C2	B/7	: Trailer				
A4	C3	GR/8	: To C101				
C3	C4	GR/3	: Evap control system pressure sensor				
D2	C5	GR/5	: Fuel level sensor unit and fuel pump				

HARNESSES

< COMPONENT DIAGNOSIS >

B3	C6	B/2	: Evap canister vent control valve					A
D3	C10	BR/2	: Rear wheel sensor RH					
C3	C11	BR/2	: Rear wheel sensor LH					
A4	C12	W/2	: License plate lamps					B
A3	C13	GR/8	: Rear combination lamp LH					
C5	C14	GR/8	: Rear combination lamp LH					
A3	C15	W/2	: To C51					C
C3	C16	GR/2	: Differential lock position switch					
C3	C17	B/2	: Differential lock solenoid					D
Rear power socket sub-harness								
B4	C51	W/2	: To C15					
B4	C52	BR/2	: Rear cargo power socket					E
Rear sonar sensor sub-harness								
A4	C101	GR/8	: To C3					
A4	C102	B/3	: Rear sonar sensor LH outer					F
A4	C103	B/3	: Rear sonar sensor LH inner					
B5	C104	B/3	: Rear sonar sensor RH inner					G
B5	C105	B/3	: Rear sonar sensor RH outer					

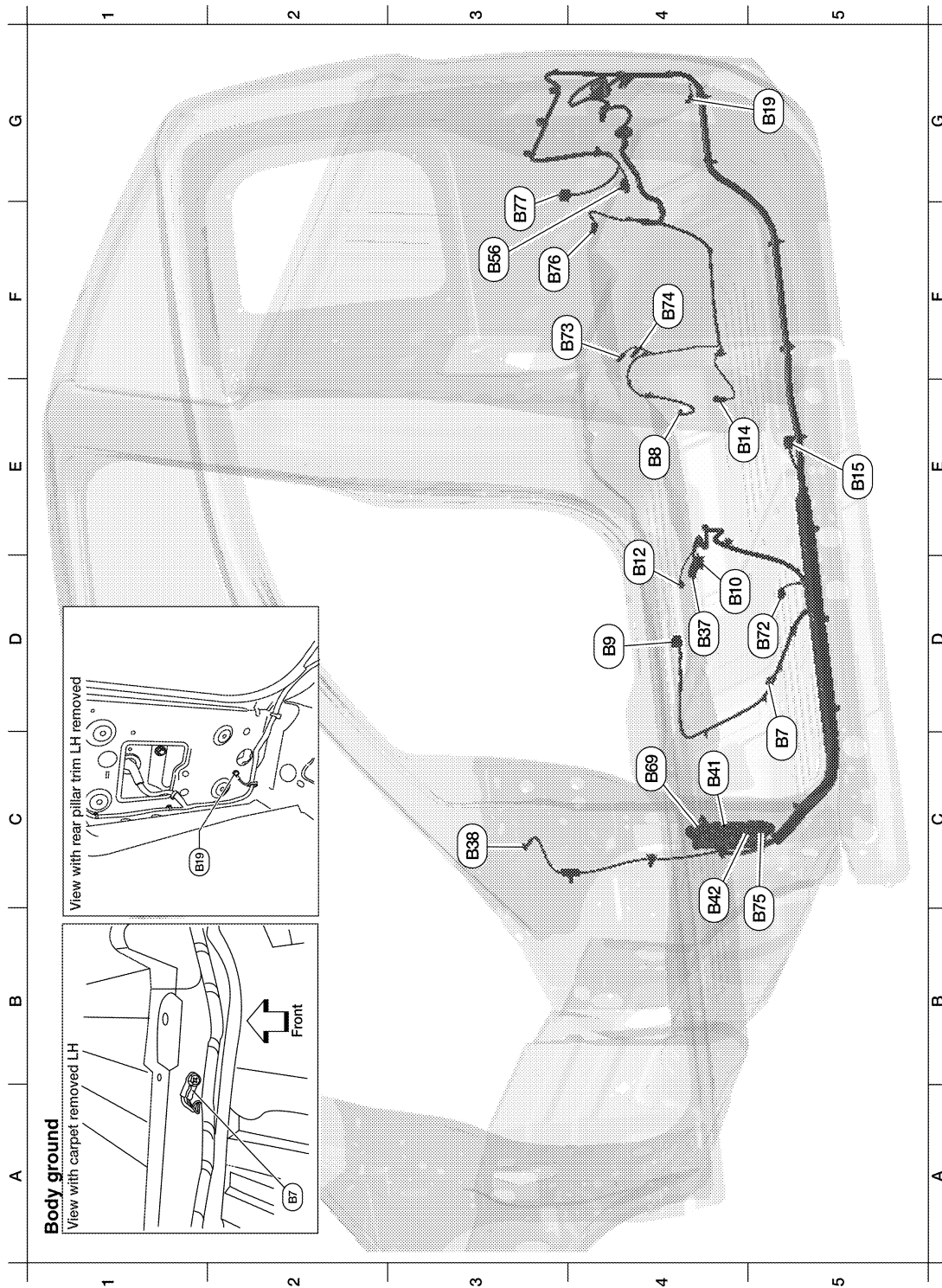
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< COMPONENT DIAGNOSIS >

BODY HARNESS (KING CAB MODELS)



ALMIA0286GB

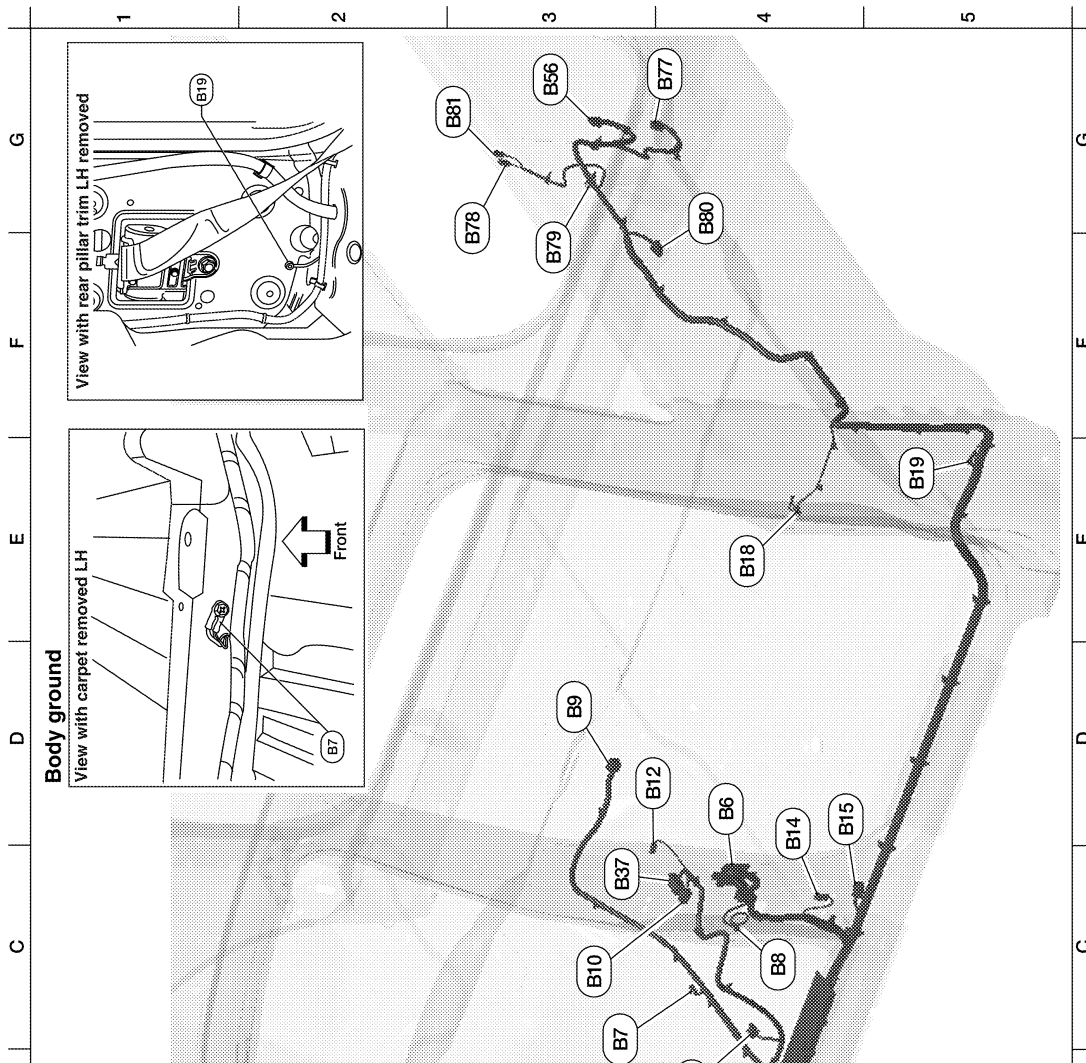
C5	B7	—	: Body ground			
E4	B8	W/3	: Front door switch LH			
D4	B9	Y/12	: Air bag diagnosis sensor unit			
D4	B10	Y/2	: Front LH side air bag module			
D4	B12	W/3	: Seat belt buckle switch LH			

HARNESS

< COMPONENT DIAGNOSIS >

E4	B14	Y/2	: Front LH seat belt pre-tensioner				
E5	B15	Y/2	: LH side air bag (satellite) sensor				
G5	B19	—	: Body ground				
D4	B37	W/3	: To B200 (without automatic drive positioner)				
D4	B37	W/16	: To B200 (with automatic drive positioner)				
C3	B38	Y/2	: LH side curtain air bag module				
C4	B41	W/12	: To E35				
B4	B42	W/2	: To E36				
F3	B56	W/16	: Sonar control unit				
C4	B69	SMJ	: To M40				
D5	B72	W/4	: Subwoofer				
F4	B73	B/2	: Rear door switch upper LH				
F4	B74	B/2	: Rear door switch lower LH				
C4	B75	BR/2	: To E50				
F3	B76	W/2	: Rear door speaker LH				
F3	B77	W/26	: Differential lock control unit				

BODY HARNESS (CREW CAB MODELS)



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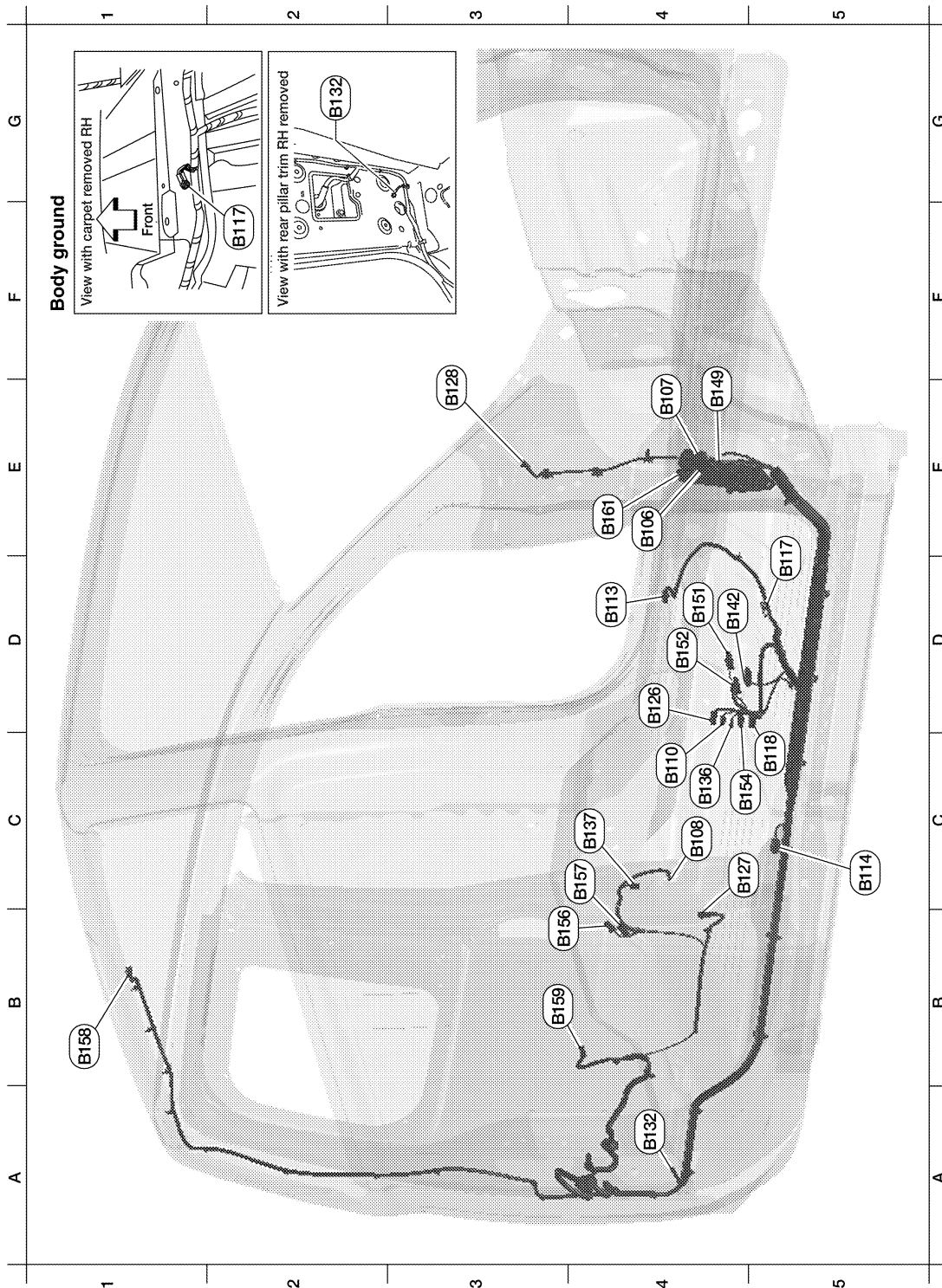
< COMPONENT DIAGNOSIS >

D4	B6	W/18	: To D201				
C3	B7	—	: Body ground				
C4	B8	W/3	: Front door switch LH				
D3	B9	Y/12	: Air bag diagnosis sensor unit				
C3	B10	Y/2	: Front LH side air bag module				
D3	B12	W/3	: Seat belt buckle switch LH				
D4	B14	Y/2	: Front LH seat belt pre-tensioner				
D4	B15	Y/2	: LH side air bag (satellite) sensor				
E4	B18	W/3	: Rear door switch LH				
E5	B19	—	: Body ground				
C3	B37	W/3	: To B200 (without automatic drive positioner)				
C3	B37	W/16	: To B200 (with automatic drive positioner)				
A2	B38	Y/2	: LH side curtain air bag module				
B3	B41	W/12	: To E35				
A3	B42	W/2	: To E36				
G3	B56	W/16	: Sonar control unit				
A3	B69	SMJ	: To M40				
B4	B72	W/4	: Subwoofer				
A4	B75	BR/2	: To E50				
G4	B77	W/26	: Differential lock control unit				
F3	B78	B/1	: Rear window defogger				
F3	B79	—	: Body ground				
G4	B80	GR/4	: Rear power drop glass motor				
G3	B81	B/1	: Rear window defogger				

HARNESS

< COMPONENT DIAGNOSIS >

BODY NO. 2 HARNESS (KING CAB MODELS)



ALMIA0288GB

E4	B107	W/8	: To E139			
C4	B108	W/3	: Front door switch RH			
C4	B110	Y/3	: Seat belt buckle switch RH			
D4	B113	Y/12	: Air bag diagnosis sensor unit			
C5	B114	Y/2	: RH side air bag (satellite) sensor			

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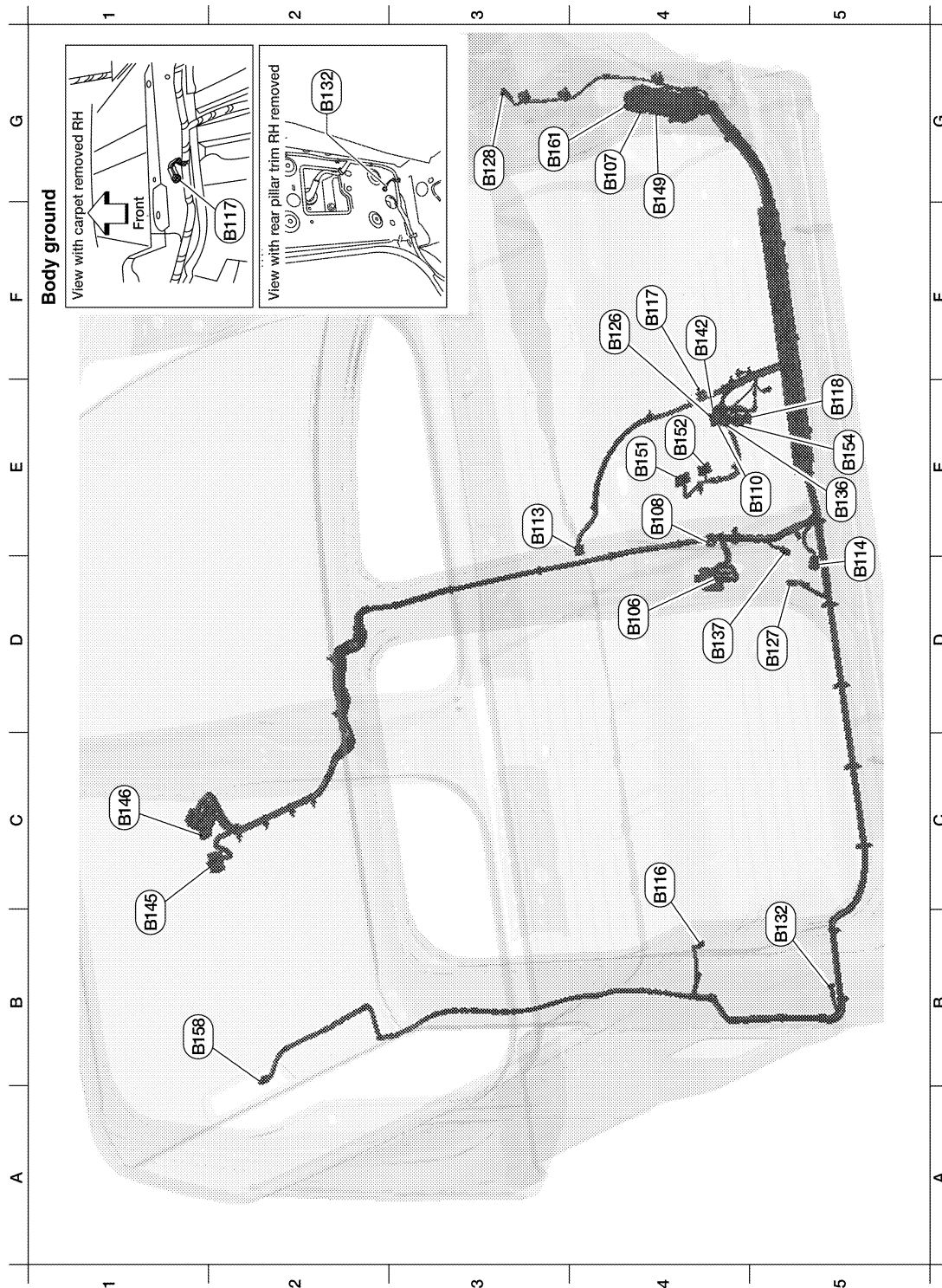
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E5	B117	—	: Body ground				
C5	B118	W/3	: Front seat heater RH				
D4	B126	Y/2	: Front RH side air bag module				
C4	B127	Y/2	: Front RH seat belt pre-tensioner				
E3	B128	Y/2	: RH side curtain air bag module				
A4	B132	—	: Body ground				
C4	B136	W/8	: To B350				
C4	B137	W/3	: Belt tension sensor				
D4	B142	W/32	: Bluetooth control unit				
E4	B149	SMJ	: To M36				
D4	B151	W/40	: NAVI control unit				
D4	B152	W/32	: NAVI control unit				
C4	B154	W/2	: To B303				
B3	B156	B/2	: Rear door switch upper RH				
C4	B157	B/2	: Rear door switch lower RH				
B1	B158	W/3	: High mounted stop lamp				
B3	B159	W/2	: Rear door speaker RH				
E4	B161	W/20	: To M157				

HARNESS

< COMPONENT DIAGNOSIS >

BODY NO. 2 HARNESS (CREW CAB MODELS)



ALMIA0289GB

D4	B106	W/18	: To D301			
G4	B107	W/8	: To E139			
E4	B108	W/3	: Front door switch RH			
E5	B110	Y/3	: Seat belt buckle switch RH			
E3	B113	Y/12	: Air bag diagnosis sensor unit			

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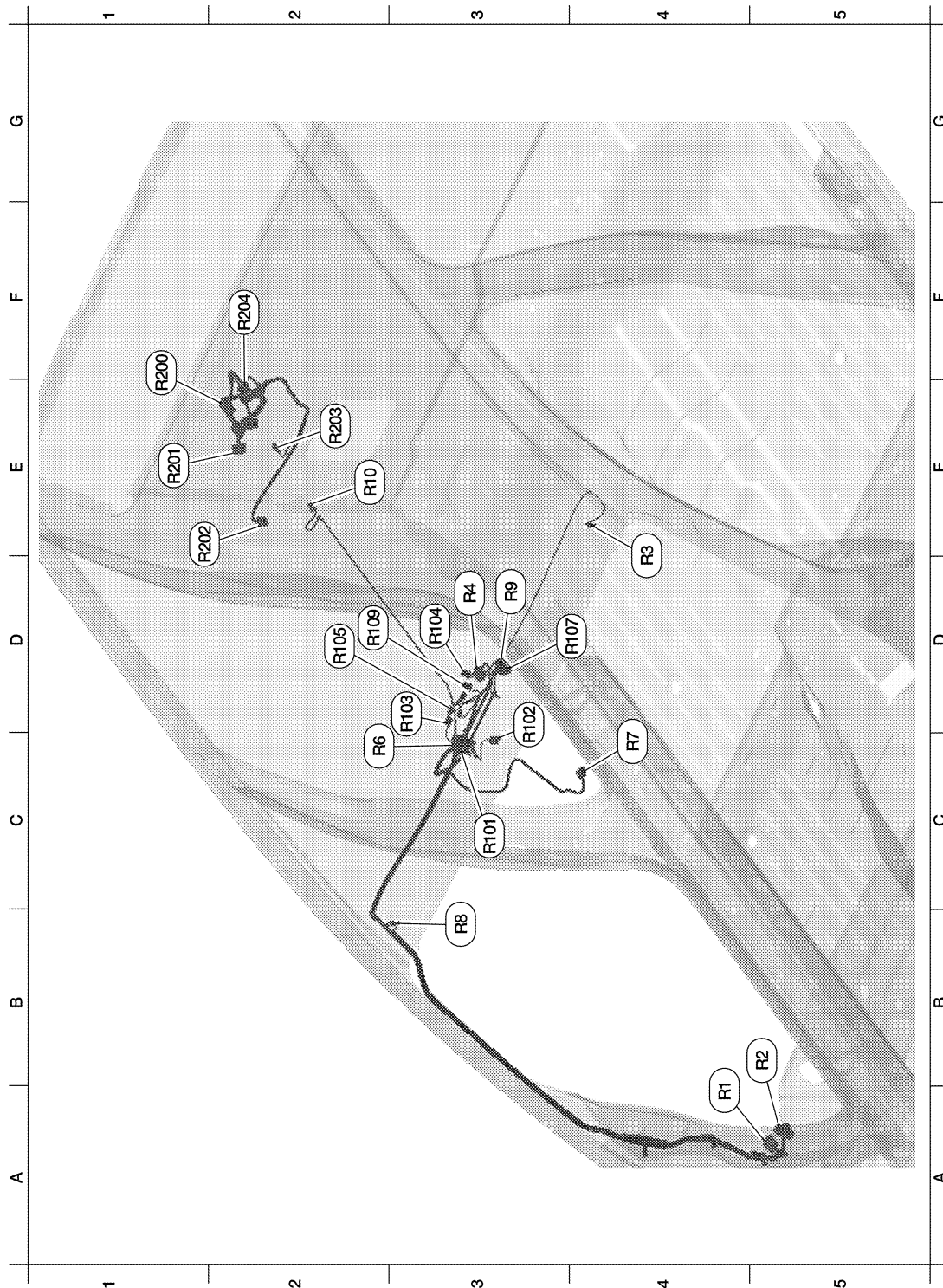
< COMPONENT DIAGNOSIS >

E5	B114	Y/2	: RH side air bag (satellite) sensor				
C4	B116	W/3	: Rear door switch RH				
F4	B117	—	: Body ground				
E5	B118	W/3	: Front seat heater RH				
F4	B126	Y/2	: Front RH side air bag module				
D5	B127	Y/2	: Front RH seat belt pre-tensioner				
G3	B128	Y/2	: RH side curtain air bag module				
B5	B132	—	: Body ground				
E5	B136	W/8	: To B350				
D4	B137	W/3	: Belt tension sensor				
F4	B142	W/32	: Bluetooth control unit				
C1	B145	W/16	: To R200				
C1	B146	BR/24	: To R201				
G4	B149	SMJ	: To M36				
E4	B151	W/40	: NAVI control unit				
E4	B152	W/32	: NAVI control unit				
E5	B154	W/2	: To B303				
B1	B158	W/3	: High mounted stop lamp				
G3	B161	W/20	: To M157				

HARNESS

< COMPONENT DIAGNOSIS >

ROOM LAMP HARNESS



ALMIA0290GB

A4	R1	W/16	: To M1	D3	R103	W/6	: Rear power drop glass switch
B5	R2	W/12	: To M2	D3	R104	GR/6	: Sunroof switch
E4	R3	W/2	: Vanity lamp LH	D2	R105	W/4	: Bluetooth ON indicator
D3	R4	W/10	: Sunroof motor assembly	D3	R107	W/8	: To R9
C2	R6	W/16	: To R101	D2	R109	W/4	: Microphone

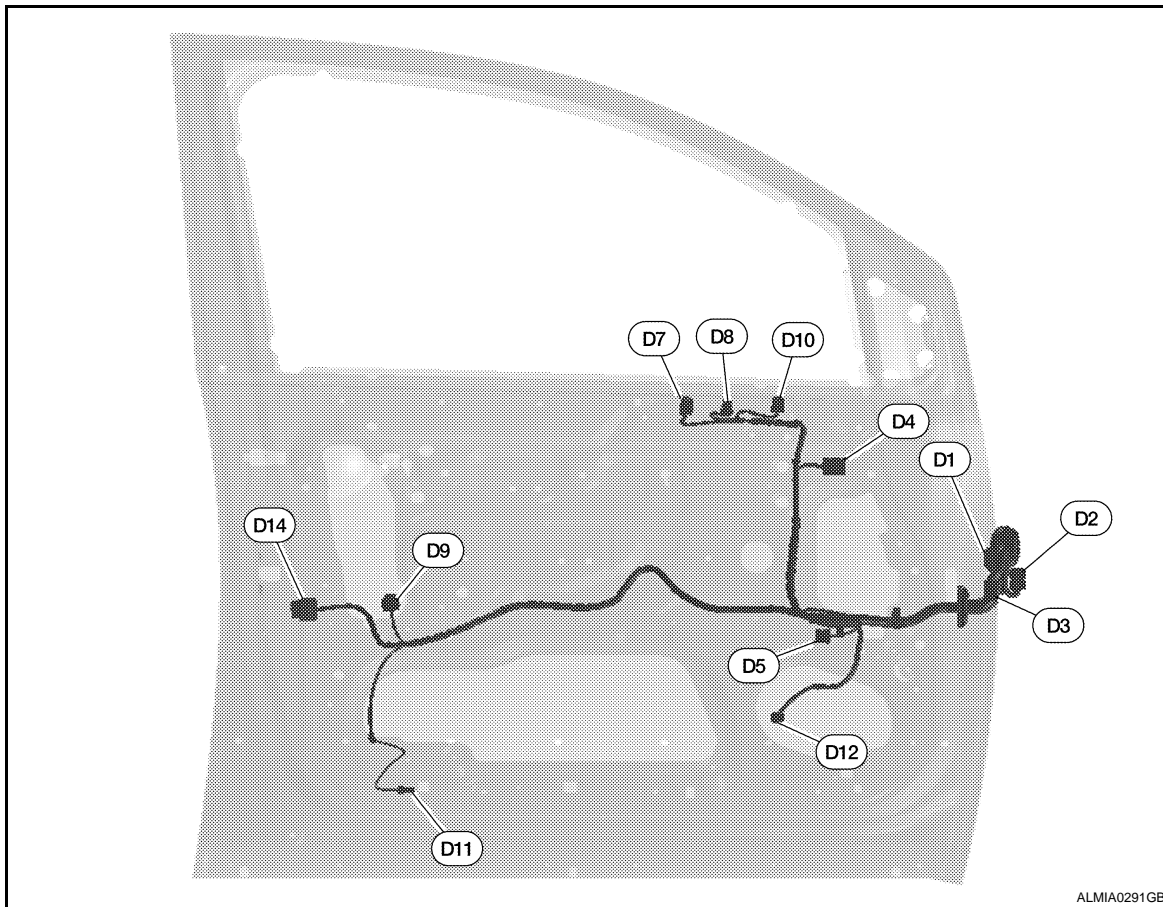
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< COMPONENT DIAGNOSIS >

C4	R7	B/7	: Auto anti-dazzling inside mirror (without homelink universal transceiver)	Room lamp sub-harness B			
C4	R7	GR/10	: Auto anti-dazzling inside mirror (with homelink universal transceiver)	F1	R200	W/16	: To B145
B3	R8	W/2	: Vanity lamp RH	E1	R201	BR/24	: To B146
D3	R9	W/8	: To R107	E1	R202	W/12	: Video monitor
E2	R10	W/2	: Room lamp	E2	R203	W/3	: Personal lamp 2ND row
Room lamp sub-harness A				F2	R204	W/16	: Rear audio remote control unit
C3	R101	W/16	: To R6				
D3	R102	GR/8	: Front room/map lamp assembly				

FRONT DOOR LH HARNESS



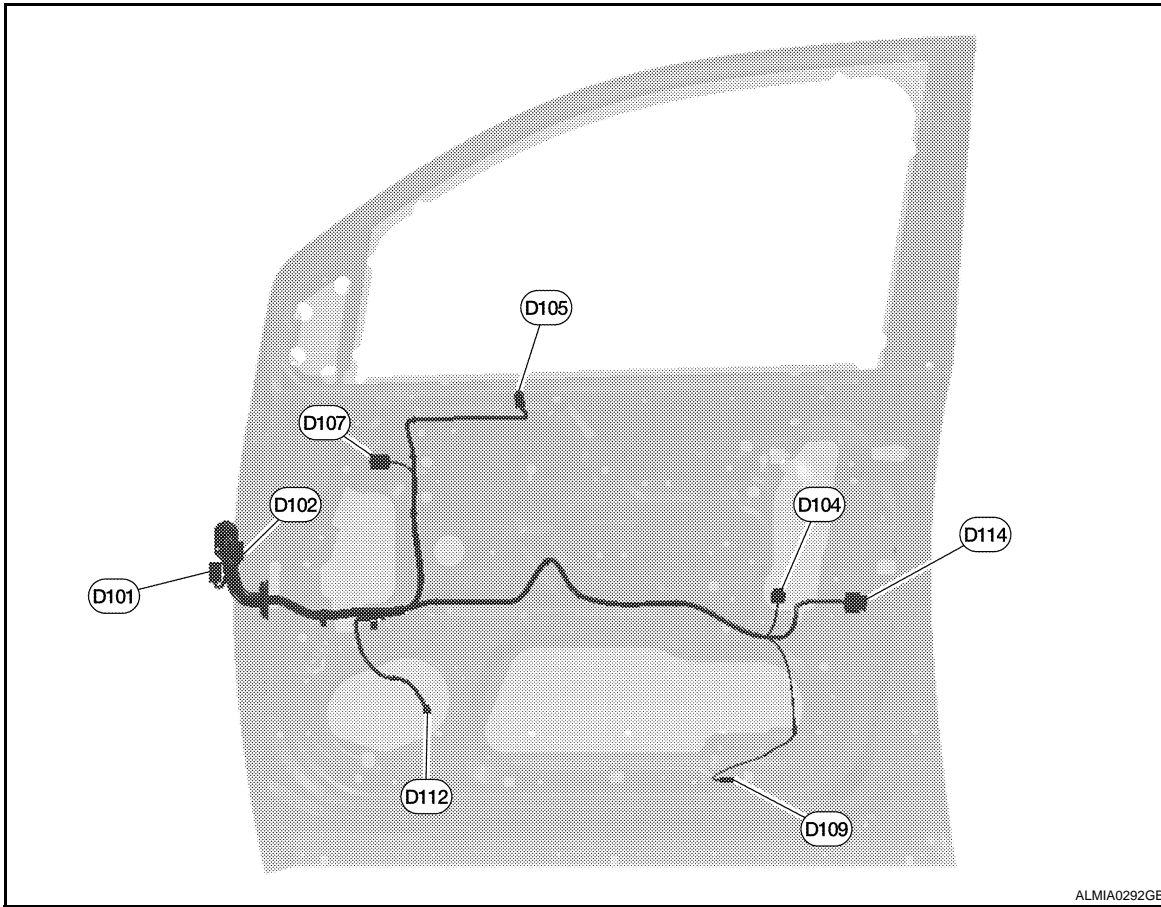
ALMIA0291GB

D1	BR/24	: To M9	D8	W/3	: Main power window and door lock/unlock switch (with left and right front power window anti-pinch system)
D2	W/16	: To M8	D9	GR/6	: Front power window motor LH
D3	W/10	: To M158	D10	BR/16	: Door mirror remote control switch (with automatic drive positioner)
D4	W/6	: Door mirror LH (without automatic drive positioner)	D10	W/16	: Door mirror remote control switch (without automatic drive positioner)
D4	W/16	: Door mirror LH (with automatic drive positioner)	D11	W/2	: Front step lamp LH
D5	W/8	: Seat memory switch	D12	W/2	: Front door speaker LH
D7	W/16	: Main power window and door lock/unlock switch	D14	B/6	: Front door lock assembly LH

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< COMPONENT DIAGNOSIS >

FRONT DOOR RH HARNESS



ALMIA0292GB

D101	W/10	: To M75	D107	W/16	: Door mirror RH (with automatic drive positioner)
D102	BR/20	: To M74	D109	W/2	: Front step lamp RH
D104	GR/6	: Front power window motor RH	D112	W/2	: Front door speaker RH
D105	W/16	: Power window and door lock/unlock switch RH	D114	B/6	: Front door lock actuator RH
D107	W/6	: Door mirror RH (without automatic drive positioner)			

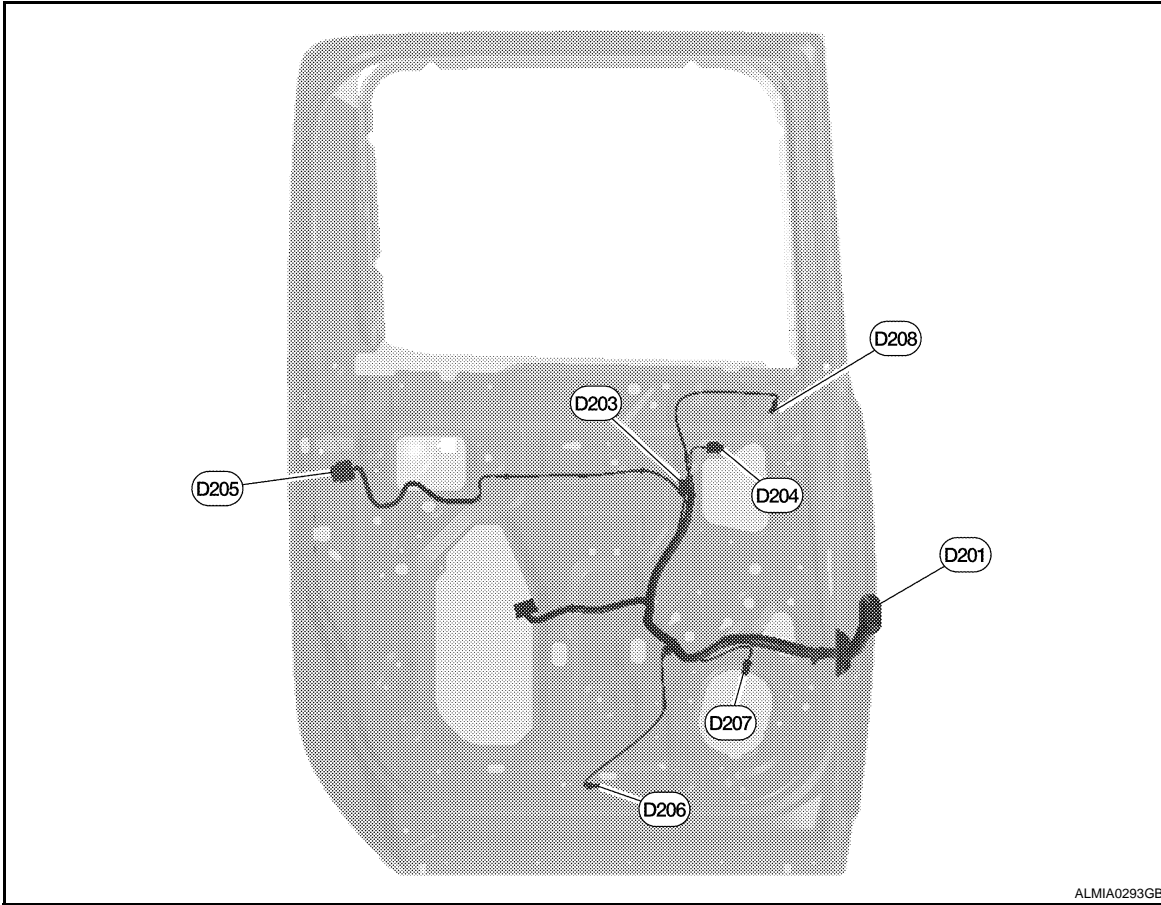
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REAR DOOR LH HARNESS (CREW CAB MODELS)



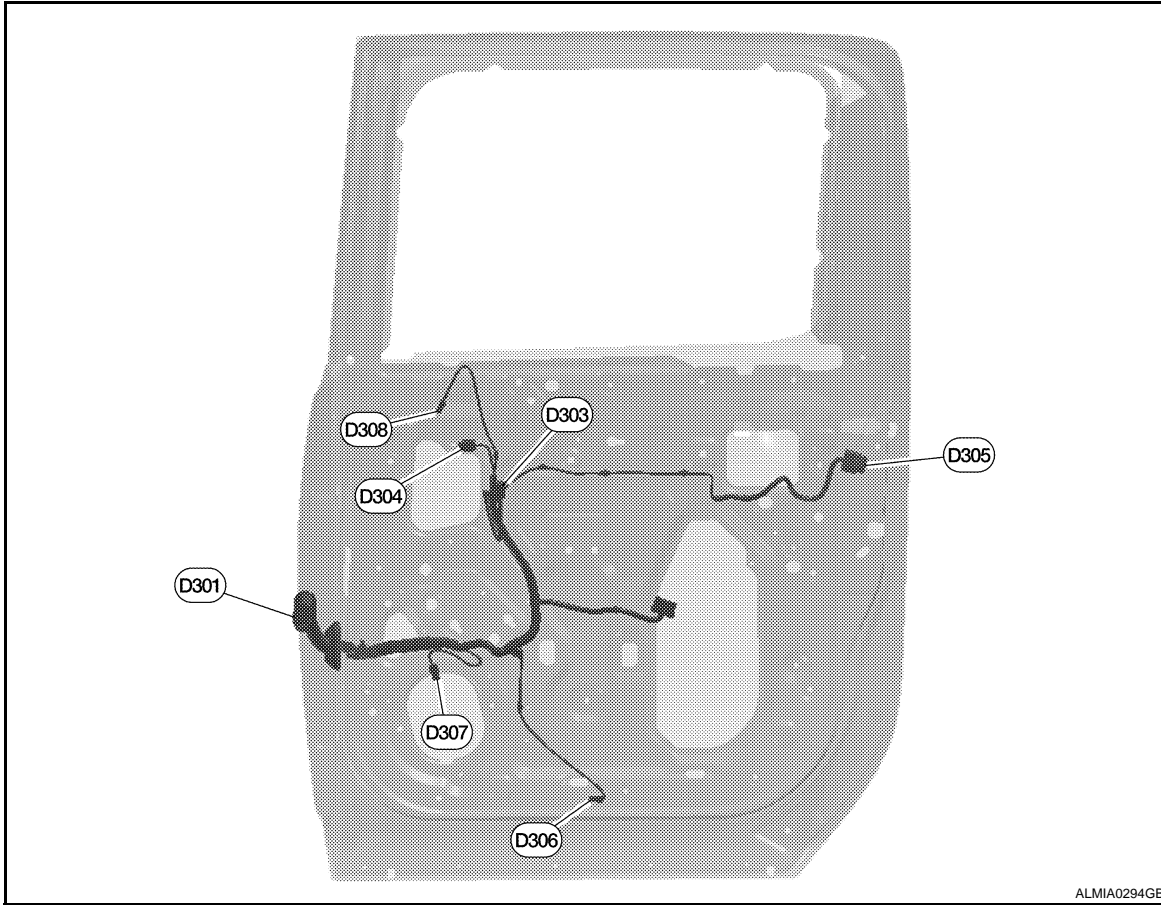
ALMIA0293GB

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

HARNESS

< COMPONENT DIAGNOSIS >

REAR DOOR RH HARNESS (CREW CAB MODELS)



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

ELECTRICAL UNITS LOCATION

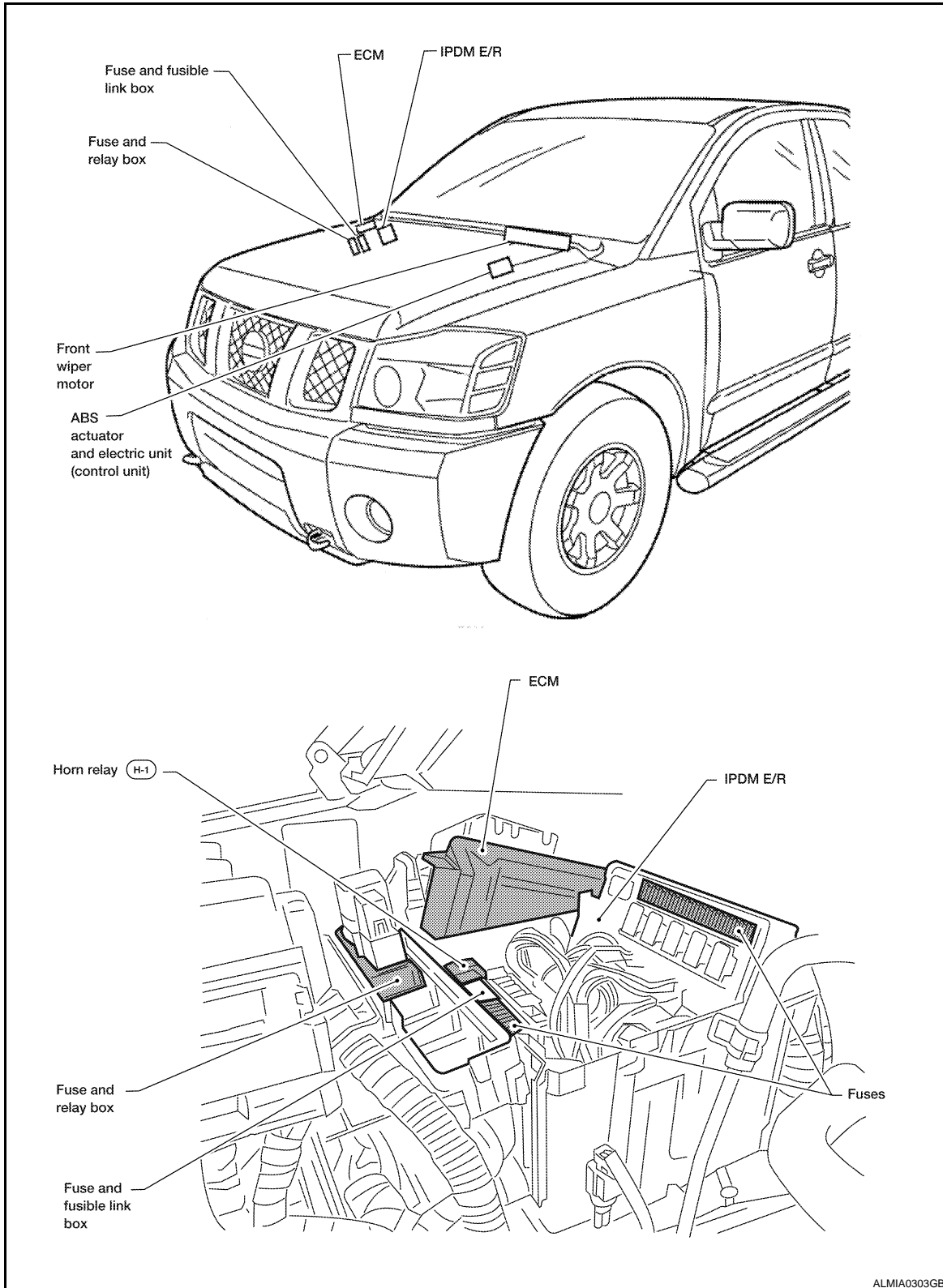
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ELECTRICAL UNITS LOCATION

Electrical Units Location

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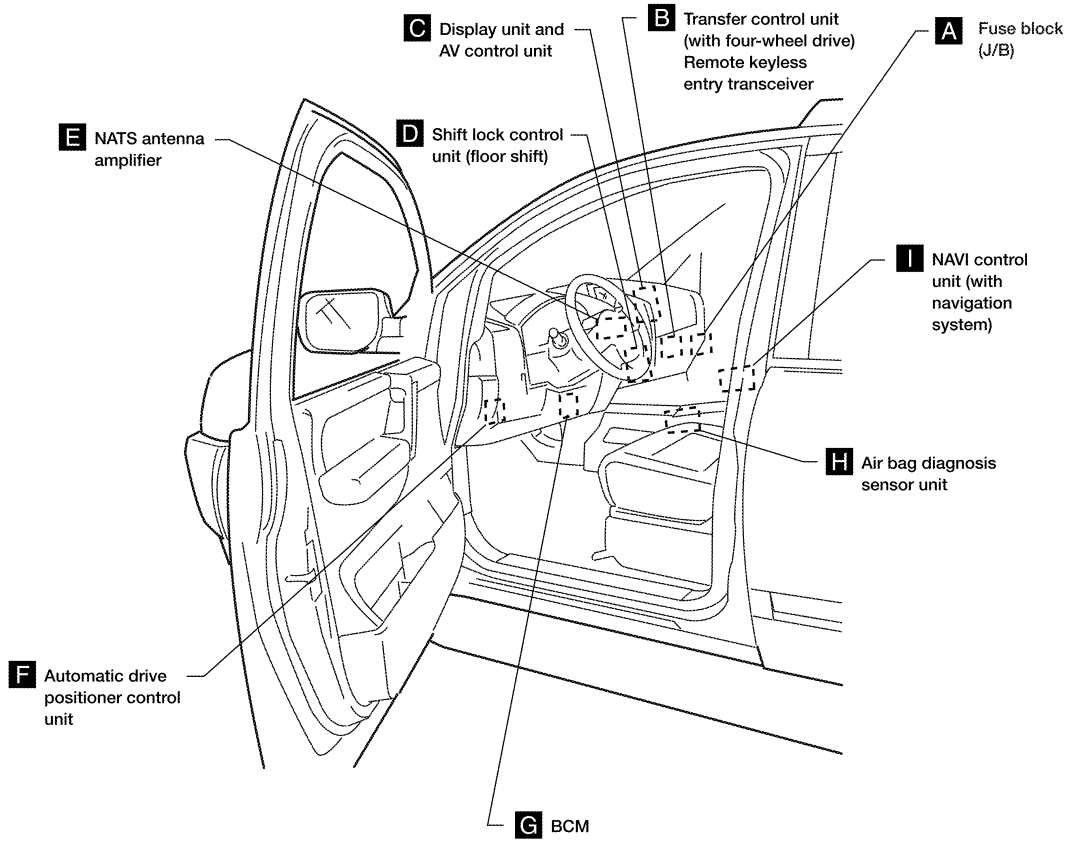
ENGINE COMPARTMENT



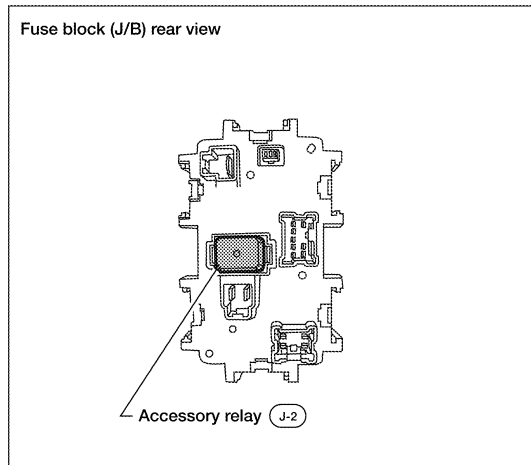
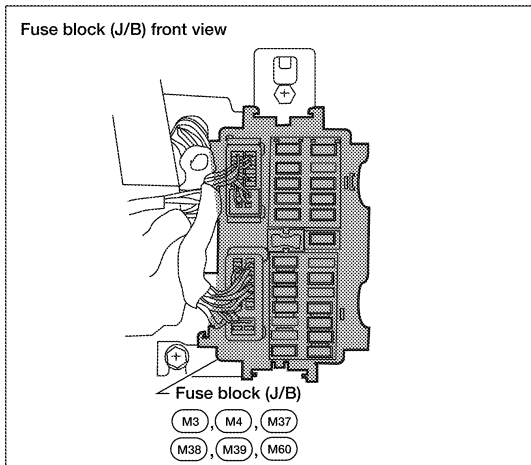
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ELECTRICAL UNITS LOCATION

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PASSENGER COMPARTMENT



A Instrument panel side RH

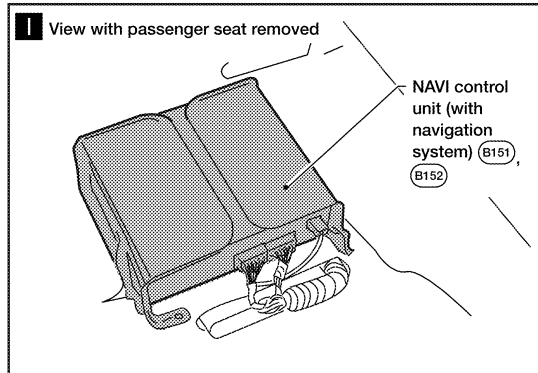
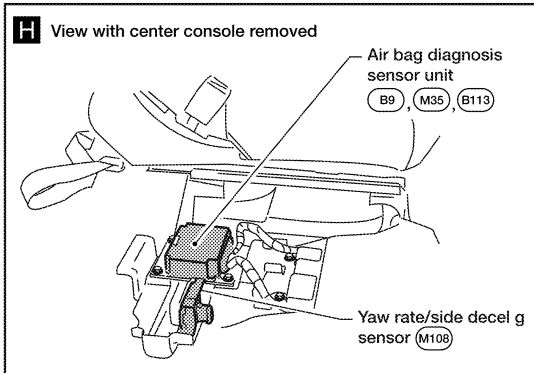
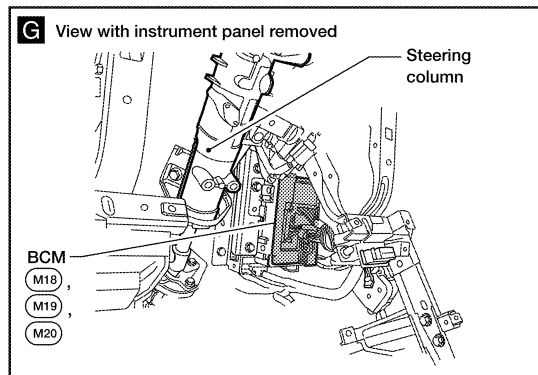
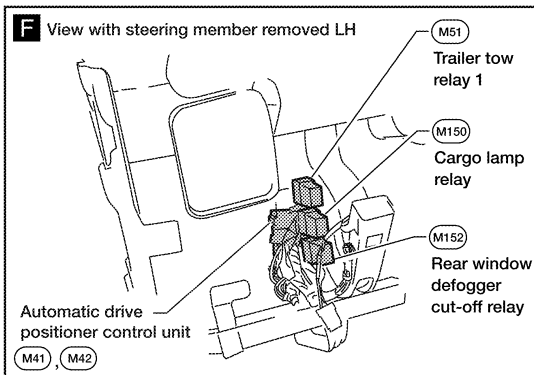
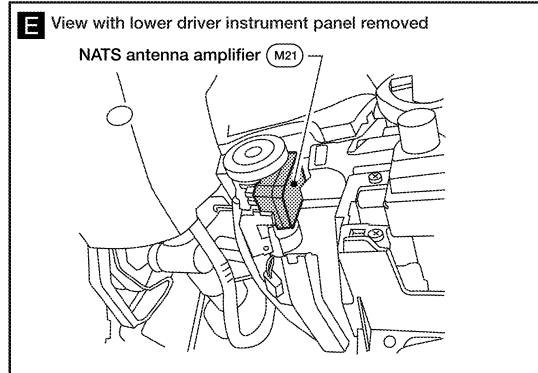
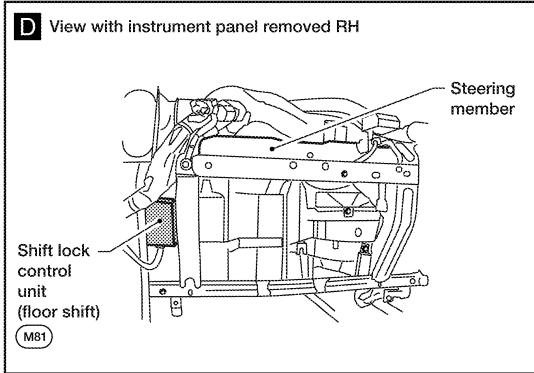
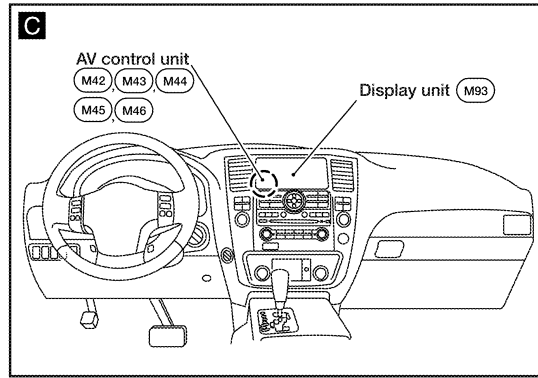
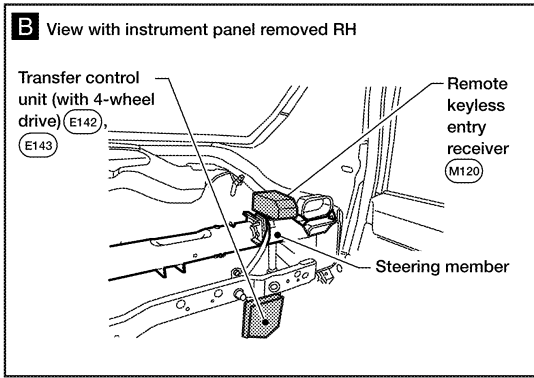


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ELECTRICAL UNITS LOCATION

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ALMIA0305GB

HARNESS CONNECTOR

< COMPONENT DIAGNOSIS >

HARNESS CONNECTOR

Description

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HARNESS CONNECTOR (TAB-LOCKING TYPE)

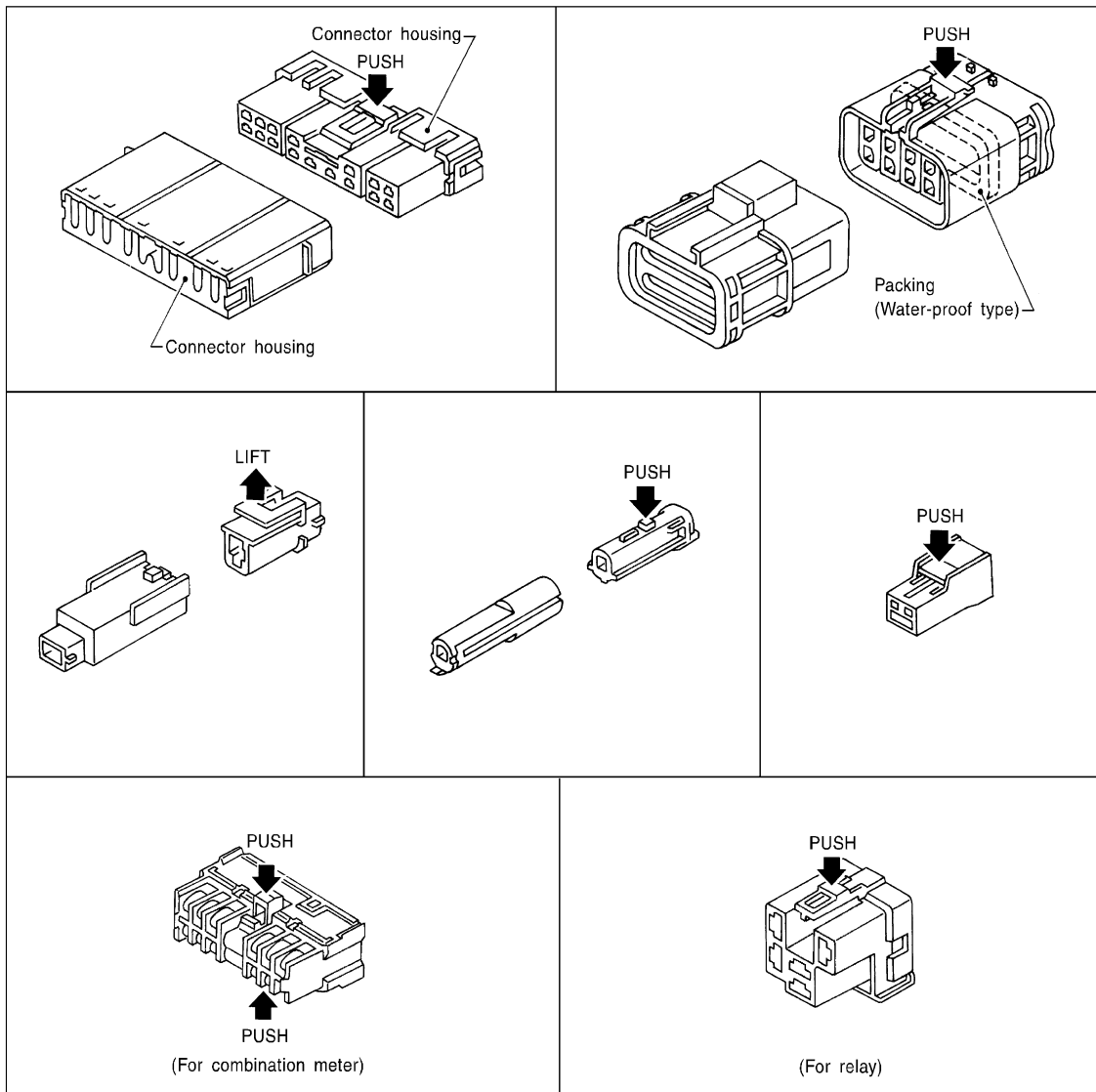
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the figure below.

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]



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.

SEL769DA

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HARNESS CONNECTOR

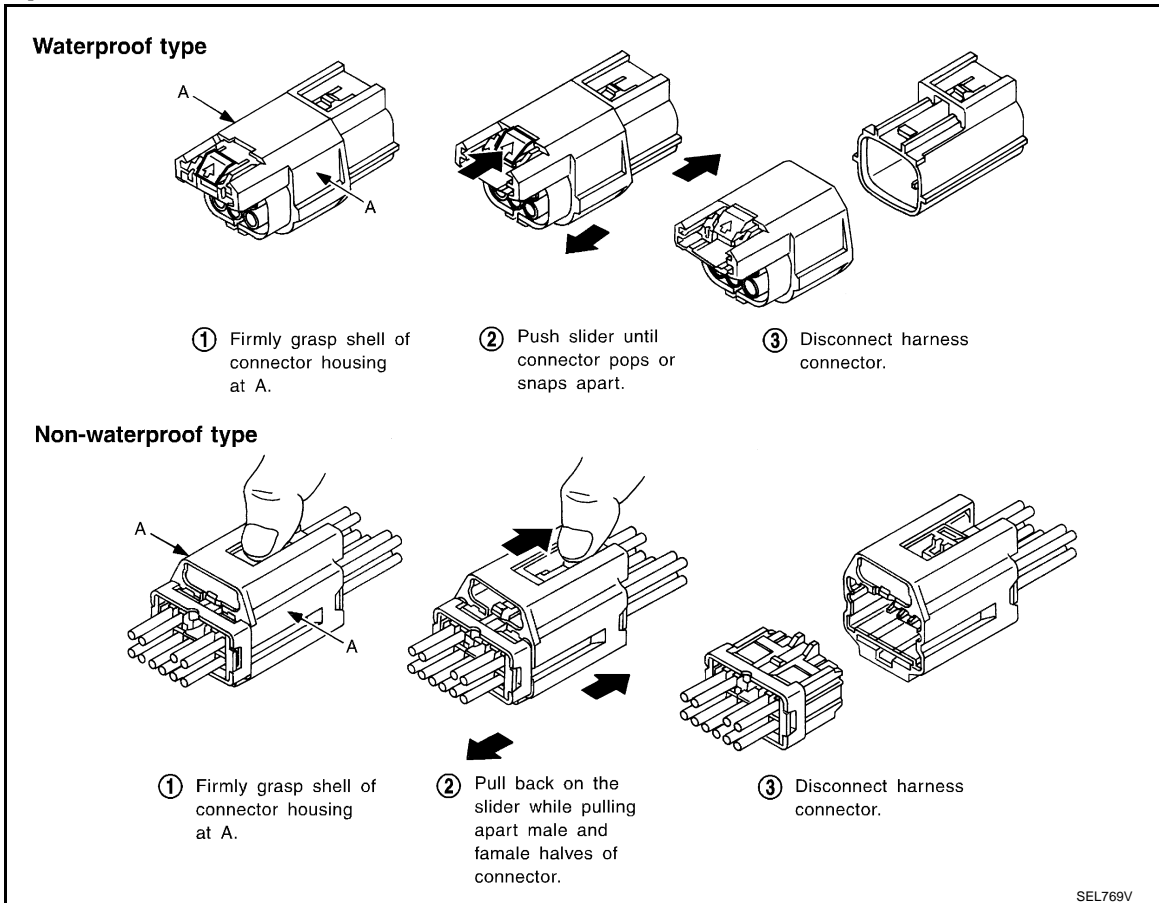
< COMPONENT DIAGNOSIS >

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

CAUTION:

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

[Example]



HARNESS CONNECTOR (LEVER LOCKING TYPE)

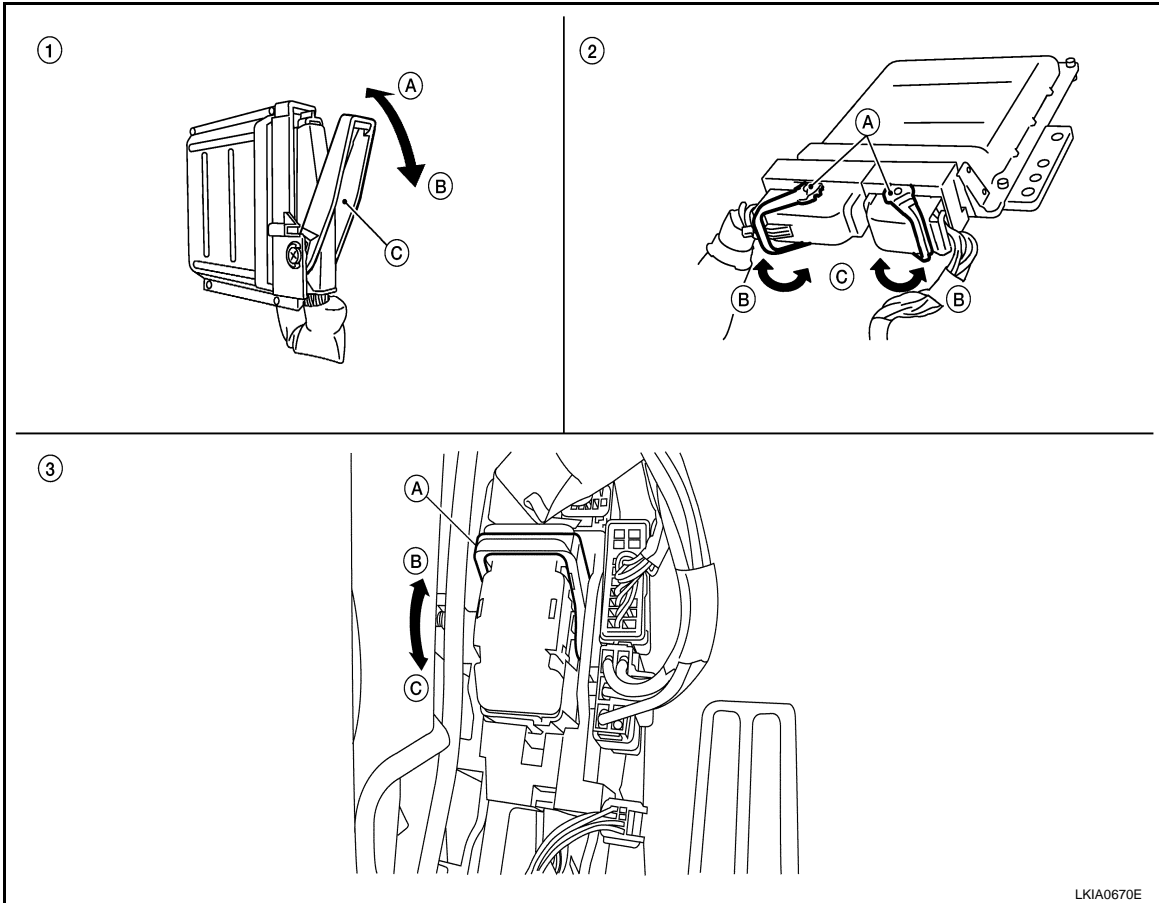
- Lever locking type harness connectors are used on certain control units and control modules such as ECM, ABS actuator and electric unit (control unit), etc.
- Lever locking type harness connectors are also used on super multiple junction (SMJ) connectors.
- Always confirm the lever is fully locked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

CAUTION:

HARNES CONNECTOR

< COMPONENT DIAGNOSIS >

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



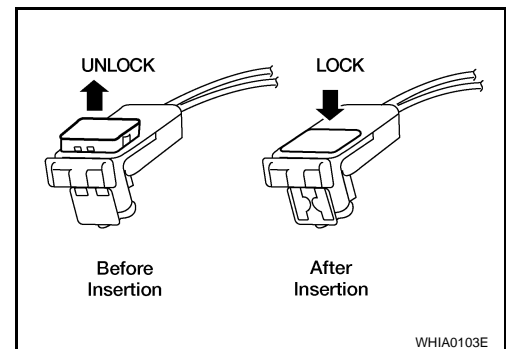
- | | | |
|-----------------------------------|---------------------------------|------------------|
| 1. Control unit with single lever | 2. Control unit with dual lever | 3. SMJ connector |
| A. Fasten | A. Fasten | A. Fasten |
| B. Loosen | B. Loosen | B. Loosen |
| C. Lever | C. Lever | C. Lever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

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 >

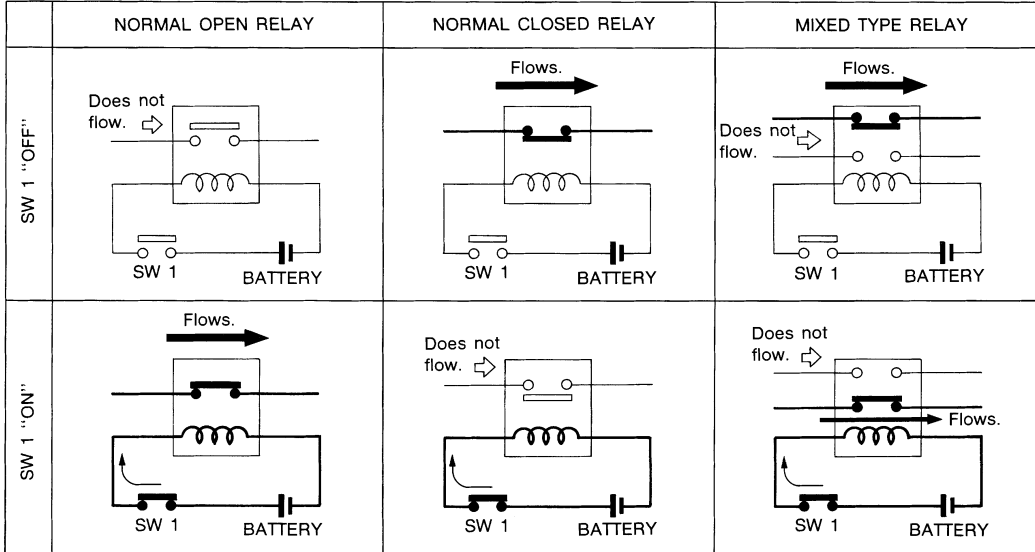
STANDARDIZED RELAY

Description

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NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

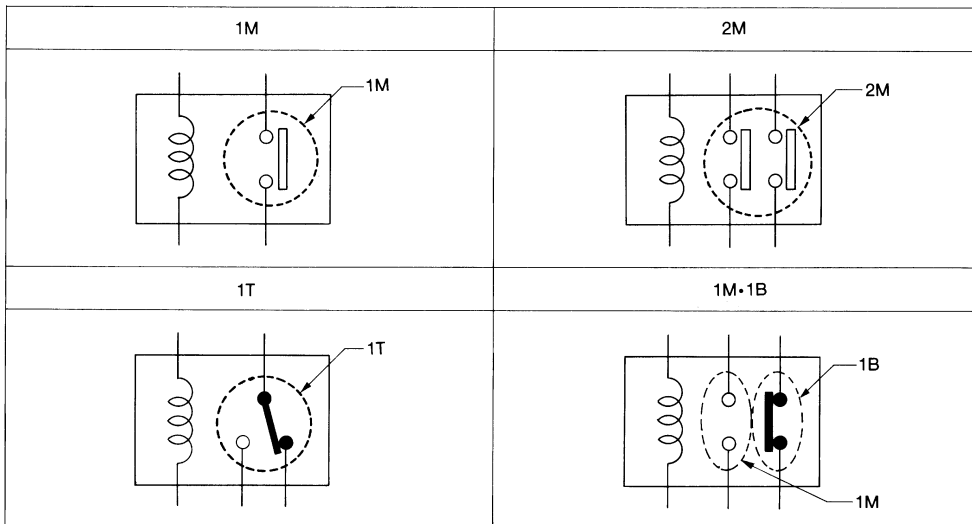
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



SEL881H

TYPE OF STANDARDIZED RELAYS

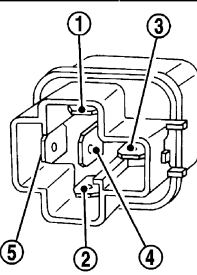
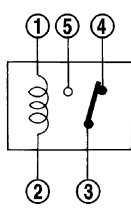
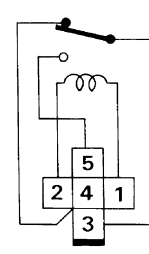
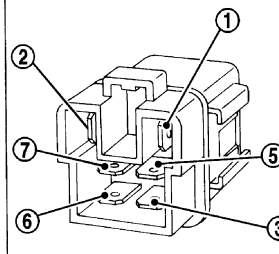
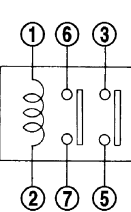
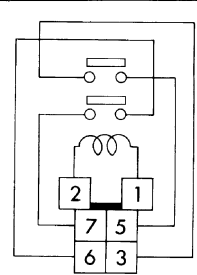
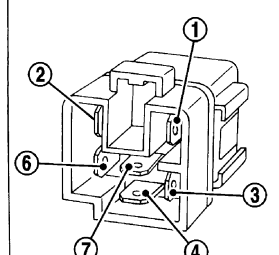
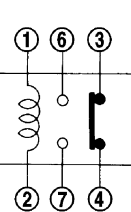
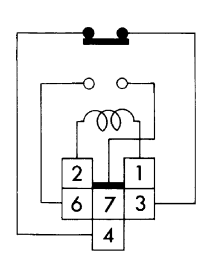
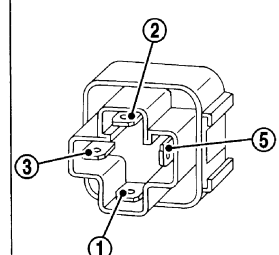
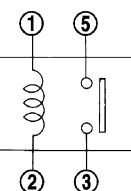
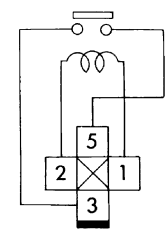
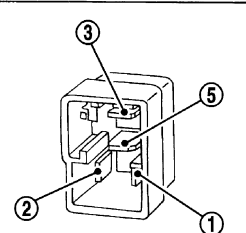
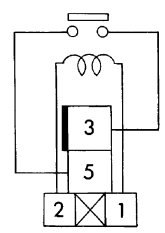
- 1M 1 Make
- 2M 2 Make
- 1T 1 Transfer
- 1M·1B 1 Make 1 Break



SEL882H

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

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

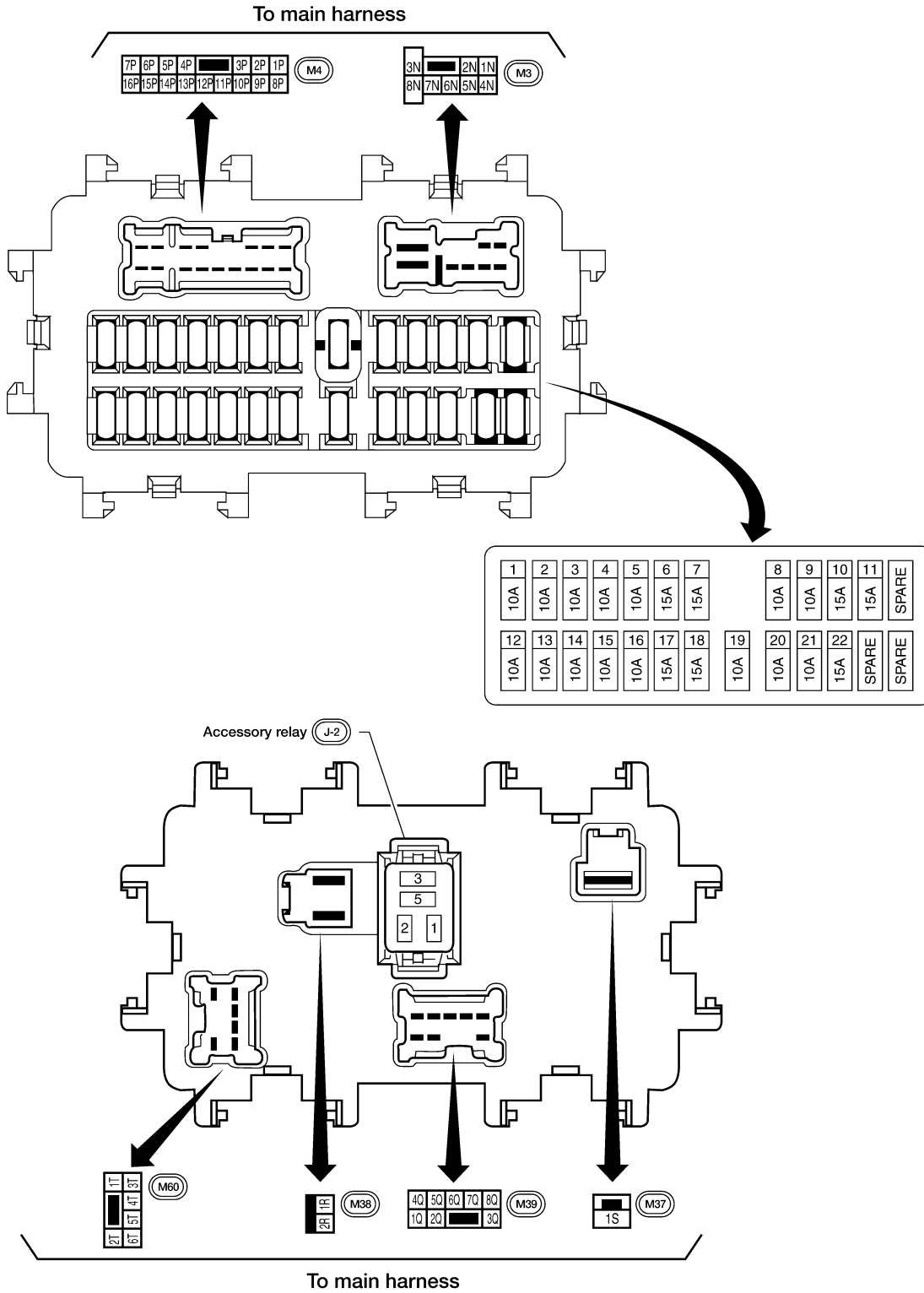
FUSE BLOCK - JUNCTION BOX (J/B)

< COMPONENT DIAGNOSIS >

FUSE BLOCK - JUNCTION BOX (J/B)

Terminal Arrangement

INFOID:000000001666588



WKIA4734E

FUSE, FUSIBLE LINK AND RELAY BOX

< COMPONENT DIAGNOSIS >

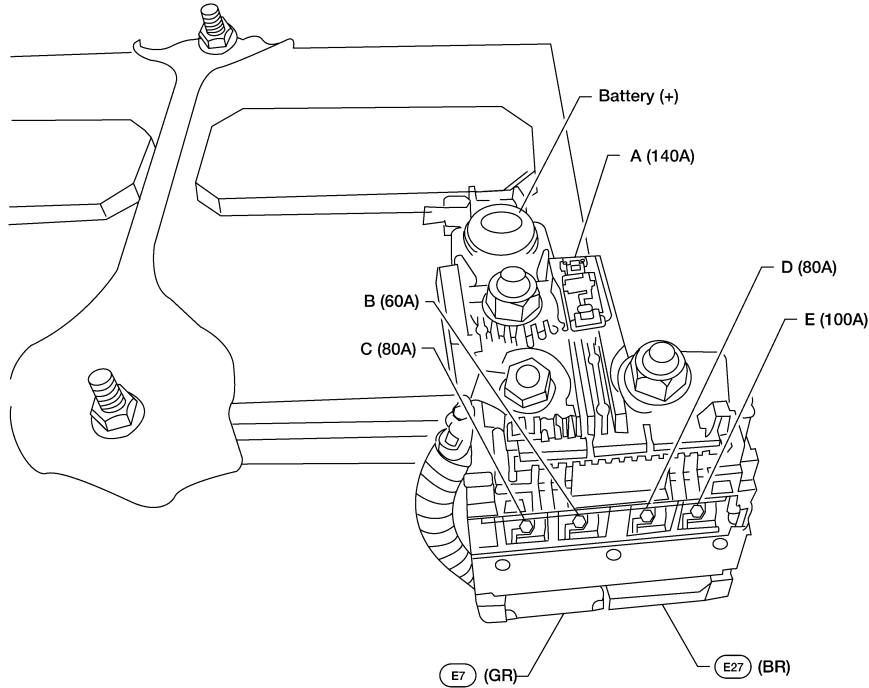
FUSE, FUSIBLE LINK AND RELAY BOX

Terminal Arrangement

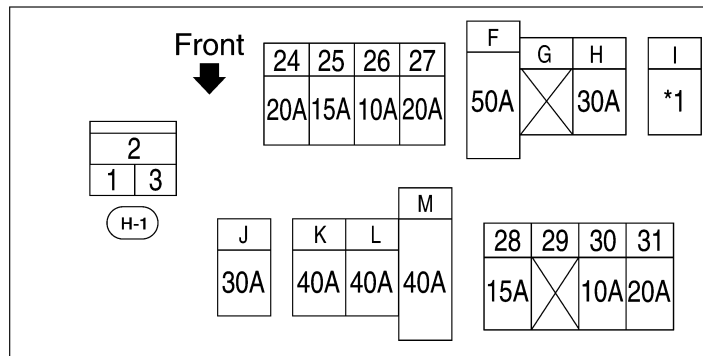
INFOID:000000001666589

FUSE AND FUSIBLE LINK BOX

FUSE LINK BOX (BATTERY)



FUSE AND FUSIBLE LINK BOX



24 - 31 : FUSE F - M : FUSIBLE LINK

*1 40A WITH VDC
30A WITHOUT VDC

ALMIA0306GB

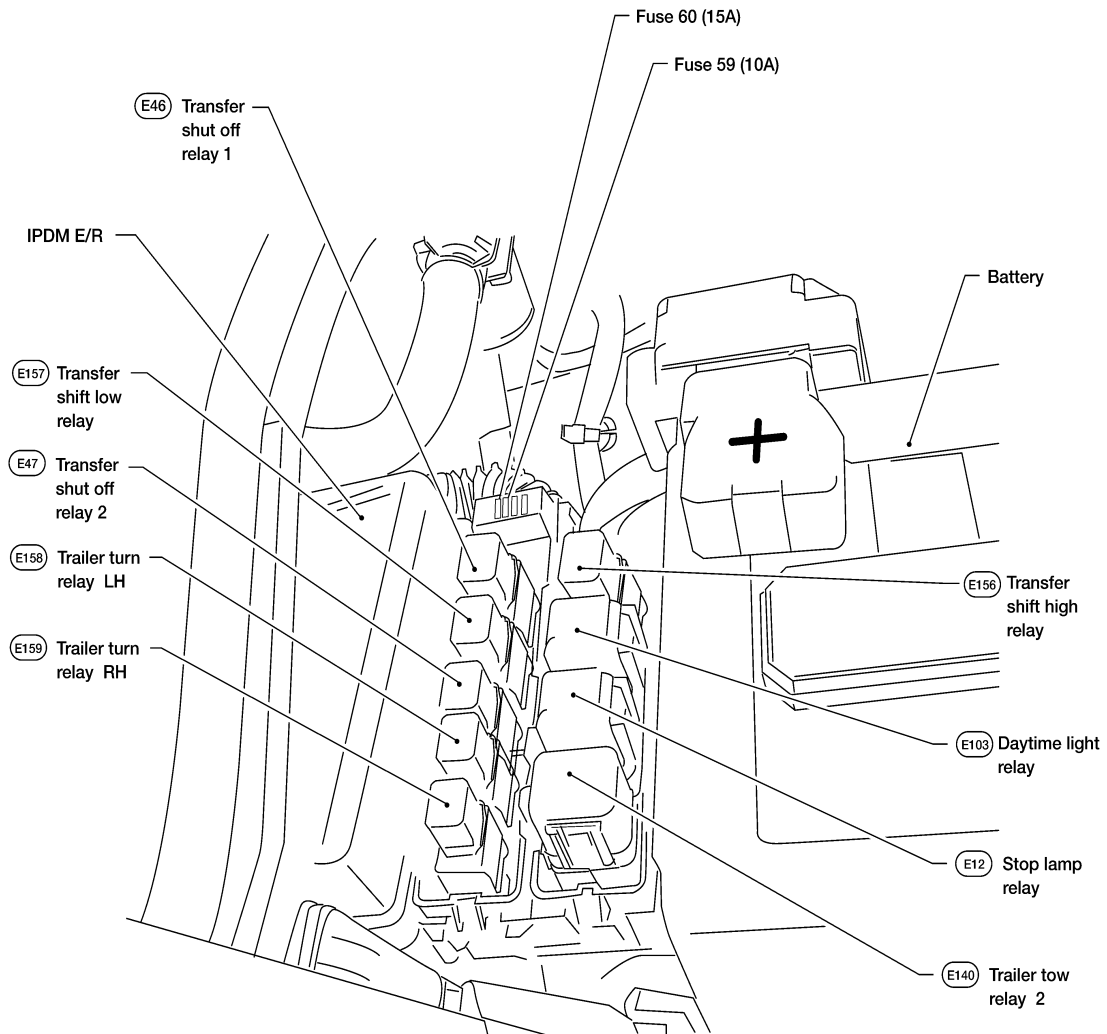
A
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O
P

PG

FUSE, FUSIBLE LINK AND RELAY BOX

< COMPONENT DIAGNOSIS >

FUSE AND RELAY BOX



WKIA4736E

BATTERY

< ON-VEHICLE REPAIR >

ON-VEHICLE REPAIR

BATTERY

Removal and Installation

INFOID:000000001538780

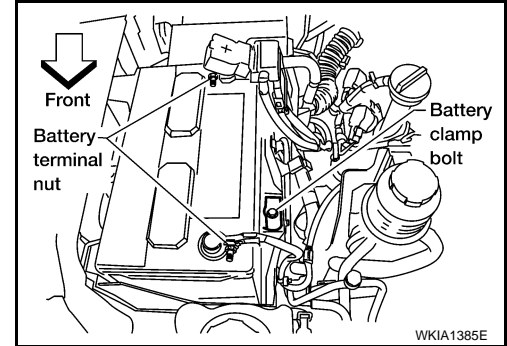
REMOVAL

1. Disconnect the negative battery terminal and positive battery terminal.

CAUTION:

Remove negative battery terminal first.

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



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

When installing, install the positive battery terminal first.

- | | |
|-----------------------------|--|
| Battery clamp bolt | : 14.7 N·m (1.5 kg-m, 11 ft-lb) |
| Battery terminal nut | : 3.5 N·m (0.36 kg-m, 31 in-lb) |

A

B

C

D

E

F

G

H

I

J

K

L

PG

N

O

P

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Battery

INFOID:000000001538781

	Standard battery	Heavy duty battery
Type	Gr. 24	Gr. 27
Capacity (20 HR) minimum V-AH	72	80
Cold cranking current A (For reference value)	650	710