SECTION PG

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

CONTENTS

PRECAUTION

PRECAUTIONS

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

INFOID:0000000004876587

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

WARNING:

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

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

WARNING:

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

Precaution for Power Generation Variable Voltage Control System

INFOID:0000000003085096

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.

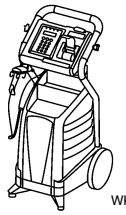
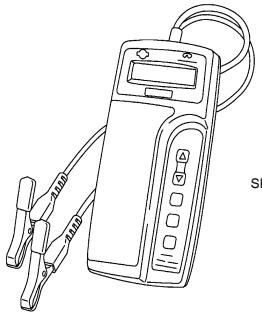
PREPARATION

PREPARATION

Special Service Tool

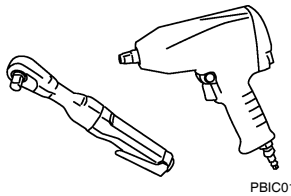
INFOID:0000000003085097

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

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

Commercial Service Tool

INFOID:0000000003085098

Tool number Tool name	Description
Power tool  PBIC0190E	Loosening bolts and nuts

BASIC INSPECTION

BATTERY

How to Handle Battery

INFOID:0000000003085099

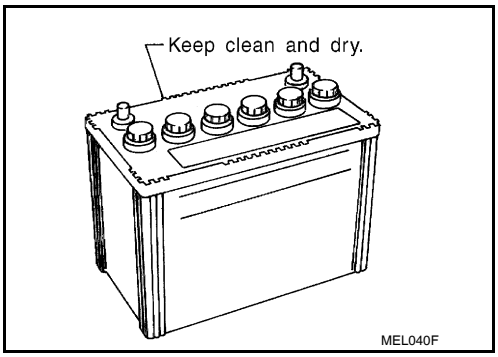
CAUTION:

- **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.**

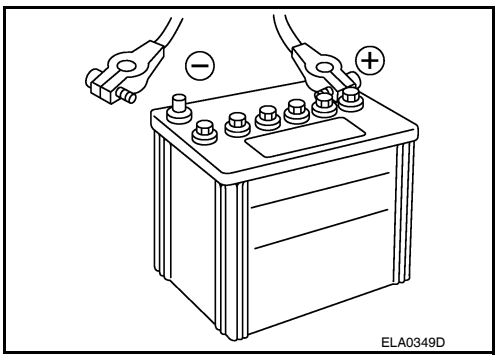
METHODS OF PREVENTING OVER-DISCHARGE

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

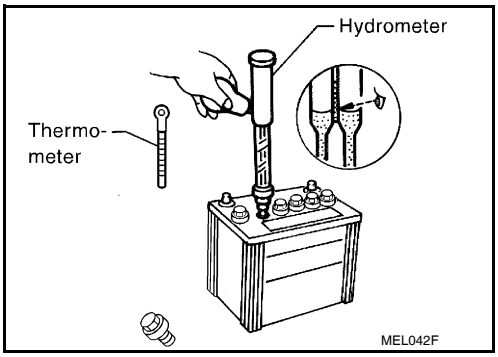
- The battery surface (particularly its top) should always be kept clean and dry.
- The terminal connections should be clean and tight.
- At every routine maintenance, check the electrolyte level.
  This also applies to batteries designated as “low maintenance” and “maintenance-free”.



- 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.

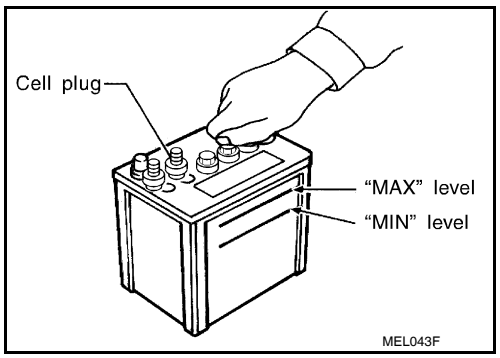


CHECKING ELECTROLYTE LEVEL

WARNING:

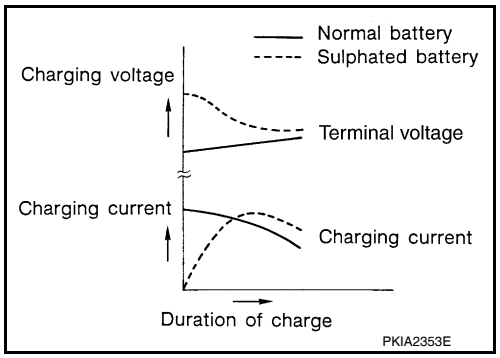
Never allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, never touch or rub your eyes until you have thoroughly washed your hands. If acid contacts eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical attention.

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



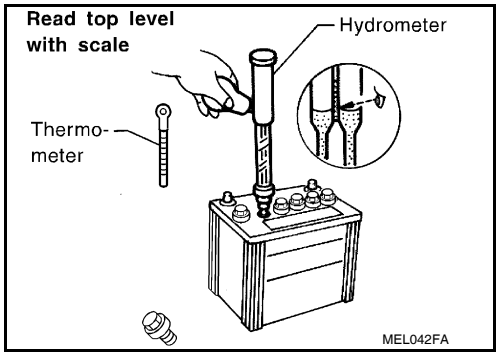
Sulphation

A battery will be completely discharged if it is left unattended for a long time and the specific gravity will become less than 1.100. This may result in sulphation on the cell plates.
To determine if a battery has been "sulphated", note its voltage and current when charging it. As shown in the figure, less current and higher voltage are observed in the initial stage of charging sulphated batteries.
A sulphated battery may sometimes be brought back into service by means of a long, slow charge, 12 hours or more, followed by a battery capacity test.



SPECIFIC GRAVITY CHECK

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



Hydrometer Temperature Correction

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

Battery 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

INFOID:0000000003085100

TROUBLE DIAGNOSIS WITH BATTERY SERVICE CENTER

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

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000006033834

Required Procedure After Battery Disconnection

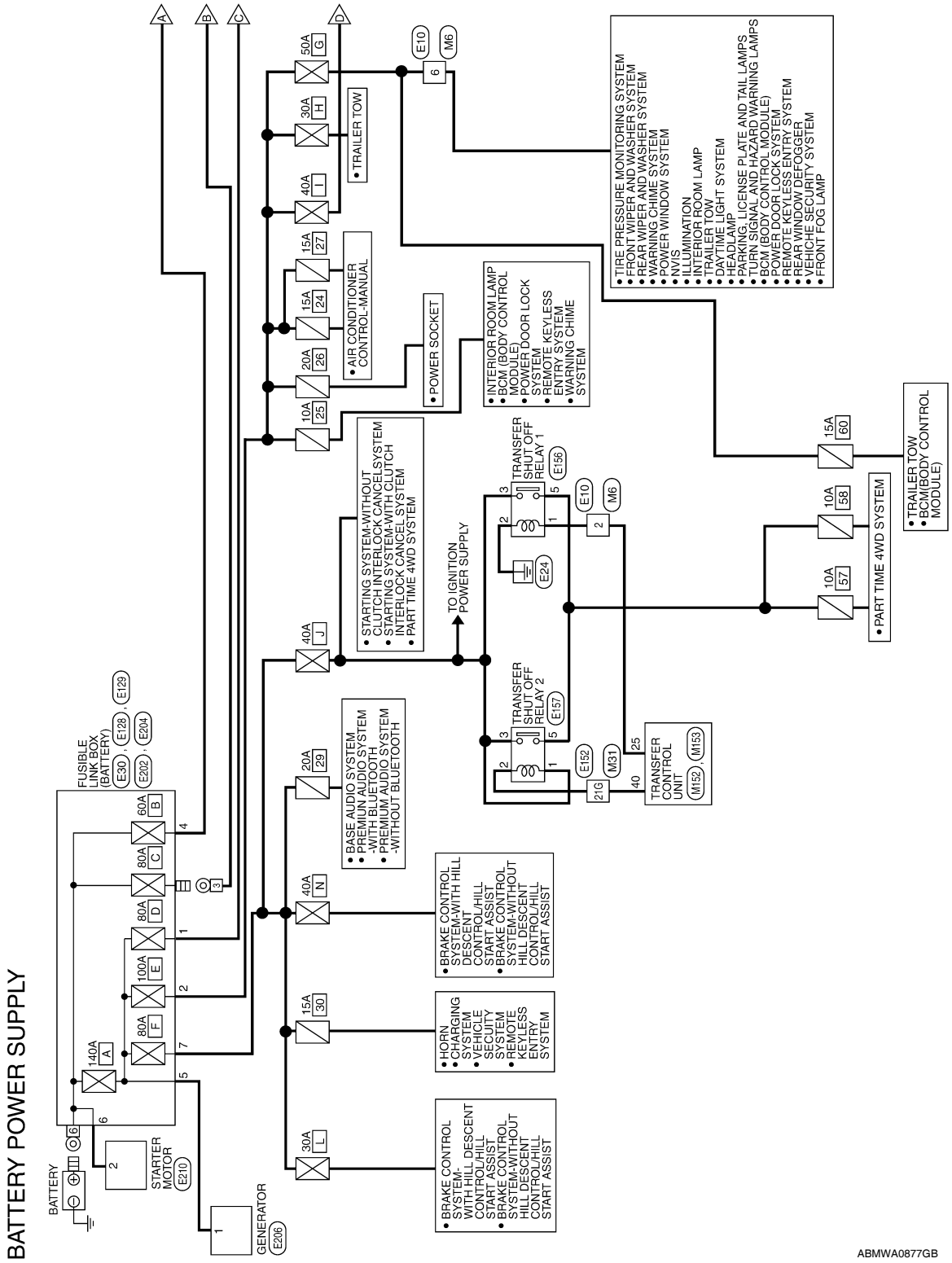
System	Item	Reference
Engine Control	Idle Air Volume Learning	Refer to EC-20.
Brake Control	Steering Angle Sensor Neutral Position	Type 1: Refer to BRC-12. Type 2: Refer to BRC-122.
	Calibration of decel G sensor	Type 1: Refer to BRC-13. Type 2: Refer to BRC-123.
Audio-Visual System	Audio (Radio Preset)	Refer to Owner's Manual.

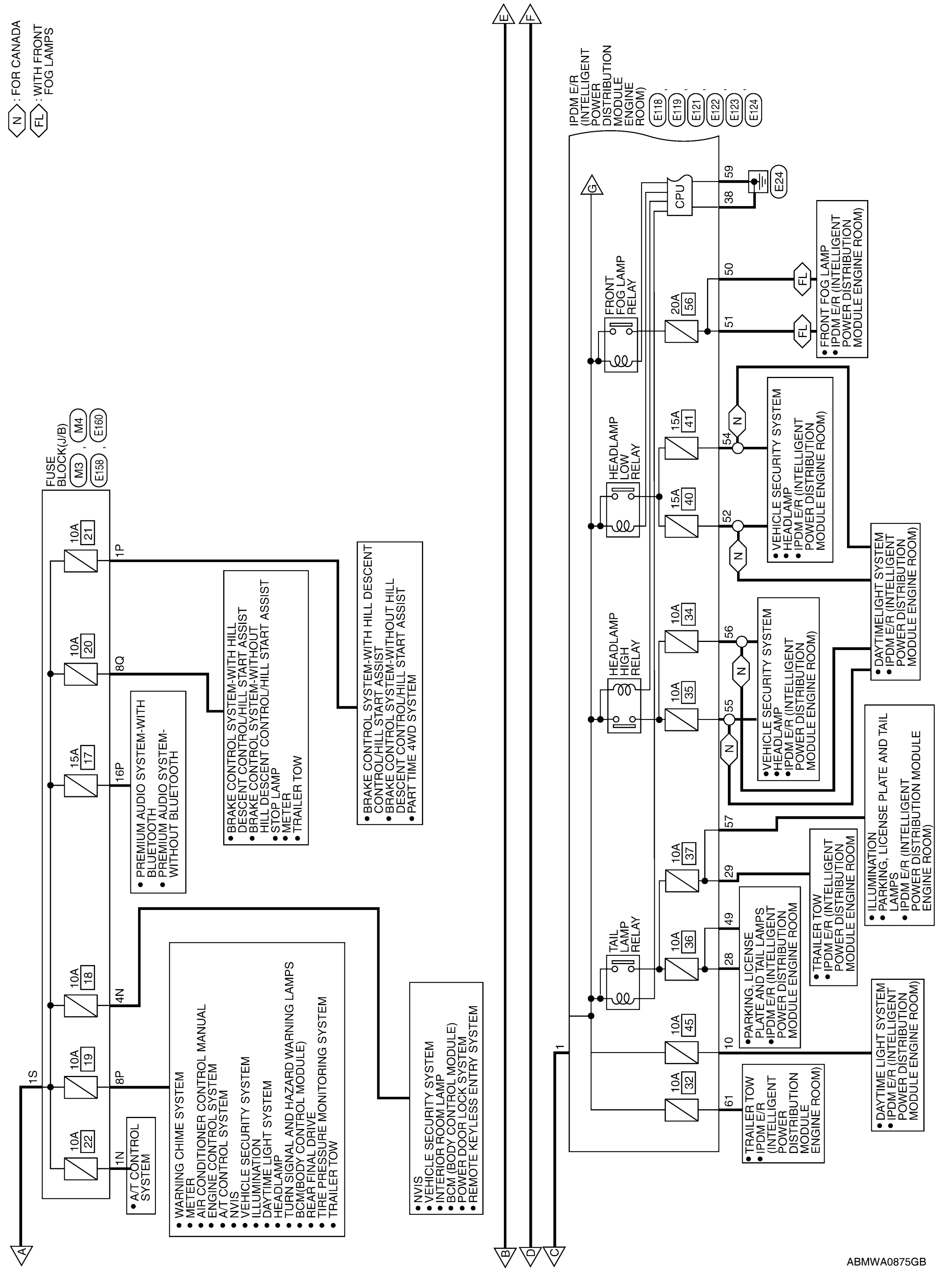
COMPONENT DIAGNOSIS

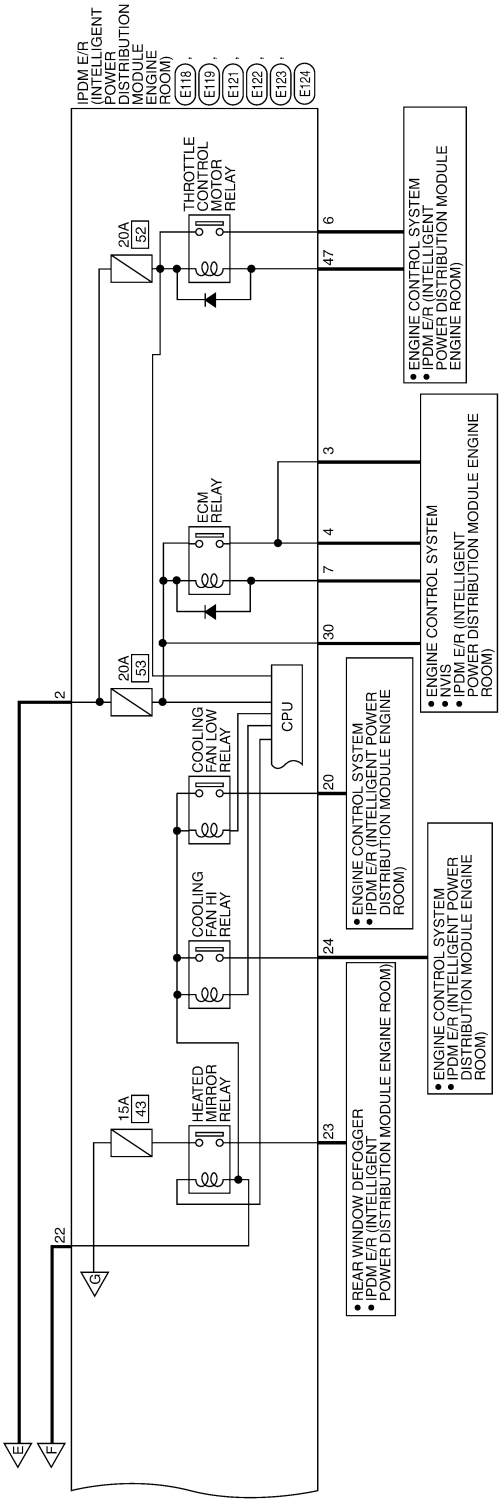
POWER SUPPLY ROUTING CIRCUIT

Wiring Diagram—Battery Power Supply

INFOID:0000000003261088




N : FOR CANADA
FL : WITH FRONT FOG LAMPS
FUSE BLOCK(J/B) M3 , M4 , E158 , E160
10A 22
10A 19
10A 18
15A 17
10A 20
10A 21
1S
1N
8P
4N
16P
8Q
1P
• A/T CONTROL SYSTEM
• WARNING CHIME SYSTEM
• METER
• AIR CONDITIONER CONTROL MANUAL
• ENGINE CONTROL SYSTEM
• A/T CONTROL SYSTEM
• NVIS
• VEHICLE SECURITY SYSTEM
• ILLUMINATION
• DAYTIME LIGHT SYSTEM
• HEADLAMP
• TURN SIGNAL AND HAZARD WARNING LAMPS
• BCM(BODY CONTROL MODULE)
• REAR FINAL DRIVE
• TIRE PRESSURE MONITORING SYSTEM
• TRAILER TOW
• NVIS
• VEHICLE SECURITY SYSTEM
• INTERIOR ROOM LAMP
• BCM (BODY CONTROL MODULE)
• POWER DOOR LOCK SYSTEM
• REMOTE KEYLESS ENTRY SYSTEM
• PREMIUM AUDIO SYSTEM-WITH BLUETOOTH
• PREMIUM AUDIO SYSTEM-WITHOUT BLUETOOTH
• BRAKE CONTROL SYSTEM-WITH HILL DESCENT CONTROL/HILL START ASSIST
• BRAKE CONTROL SYSTEM-WITHOUT HILL DESCENT CONTROL/HILL START ASSIST
• STOP LAMP
• METER
• TRAILER TOW
• BRAKE CONTROL SYSTEM-WITH HILL DESCENT CONTROL/HILL START ASSIST
• BRAKE CONTROL SYSTEM-WITHOUT HILL DESCENT CONTROL/HILL START ASSIST
• PART TIME 4WD SYSTEM
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E118 , E119 , E121 , E122 , E123 , E124
CPU
E24
FRONT FOG LAMP RELAY
HEADLAMP LOW RELAY
HEADLAMP HIGH RELAY
TAIL LAMP RELAY
20A 56
15A 41
15A 40
10A 34
10A 35
10A 37
10A 36
10A 45
10A 32
59
38
50
51
54
52
56
55
57
29
49
28
10
61
1
• FRONT FOG LAMP
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• VEHICLE SECURITY SYSTEM
• HEADLAMP
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• DAYTIMELIGHT SYSTEM
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• ILLUMINATION
• PARKING, LICENSE PLATE AND TAIL LAMPS
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• TRAILER TOW
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• PARKING, LICENSE PLATE AND TAIL LAMPS
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• DAYTIME LIGHT SYSTEM
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• TRAILER TOW
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
A
B
C
D
E
F
ABMWA0875GB



ABMWA0878GB

BATTERY POWER SUPPLY CONNECTORS

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

H.S.

3N		2N	1N
		7N	6N	5N	4N
8N					

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

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

H.S.

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

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

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

H.S.

3	2	1
6	5	4

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

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

H.S.

5G	4G	3G	2G	1G
10G	9G	8G	7G	6G

21G	20G	19G	18G	17G	16G	15G	14G	13G	12G	11G
30G	29G	28G	27G	26G	25G	24G	23G	22G		

41G	40G	39G	38G	37G	36G	35G	34G	33G	32G	31G
55G	54G	53G	52G	51G	50G	49G	48G	47G	46G	45G

61G	60G	59G	58G	57G	56G	55G	54G	53G	52G	51G
70G	69G	68G	67G	66G	65G	64G	63G	62G		

75G	74G	73G	72G	71G
80G	79G	78G	77G	76G

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

H.S.

6	5	4	3	2	1
17	16	15	14	13	12	11	10	9	8	7
26	25	24	23	22			21	20	19	18

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

AWMIA0403GB

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

H.S.

32	31	30	29	28	27
42	41	40	39	38	37	36	35	34	33
50	49	48	47	46	45	44	43

Terminal No.	Color of Wire	Signal Name
40	V	SSOF

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

H.S.

1
2

Terminal No.	Color of Wire	Signal Name
1	W	F/LUSM
2	R	F/LMAIN

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

H.S.

1	2	3
4	5	6

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

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

H.S.

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

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

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

H.S.

3

Terminal No.	Color of Wire	Signal Name
3	R	–

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

H.S.

21	20	19
24	23	22

Terminal No.	Color of Wire	Signal Name
20	BR	MOTOR FAN1
22	G	F/L M/FAN
23	LG	HEATED MIRROR
24	P	MOTOR FAN2

AWMIA0404GB

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
28	R	ILLUMINATION
30	R/B	ECM BAT

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

H.S.

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

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

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

H.S.

51		50	49
56	55	54	53	52

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

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

H.S.

59	58	57
62	61	60

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

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

H.S.

4
7

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

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

H.S.

2
1

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

AWMIA0405GB

Connector No.	E156
Connector Name	TRANSFER SHUT OFF RELAY1
Connector Color	BLUE

H.S.

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

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

H.S.

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

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

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

H.S.

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

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

H.S.

Connector No.	E157
Connector Name	TRANSFER SHUT OFF RELAY2
Connector Color	BLUE

H.S.

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

AWMIA0406GB

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

H.S.

5

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

Connector No.	E204
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	–

H.S.

6

Terminal No.	Color of Wire	Signal Name
6	B/R	–

Connector No.	E206
Connector Name	GENERATOR
Connector Color	–

H.S.

1

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

Connector No.	E210
Connector Name	STARTER MOTOR
Connector Color	BLACK

H.S.

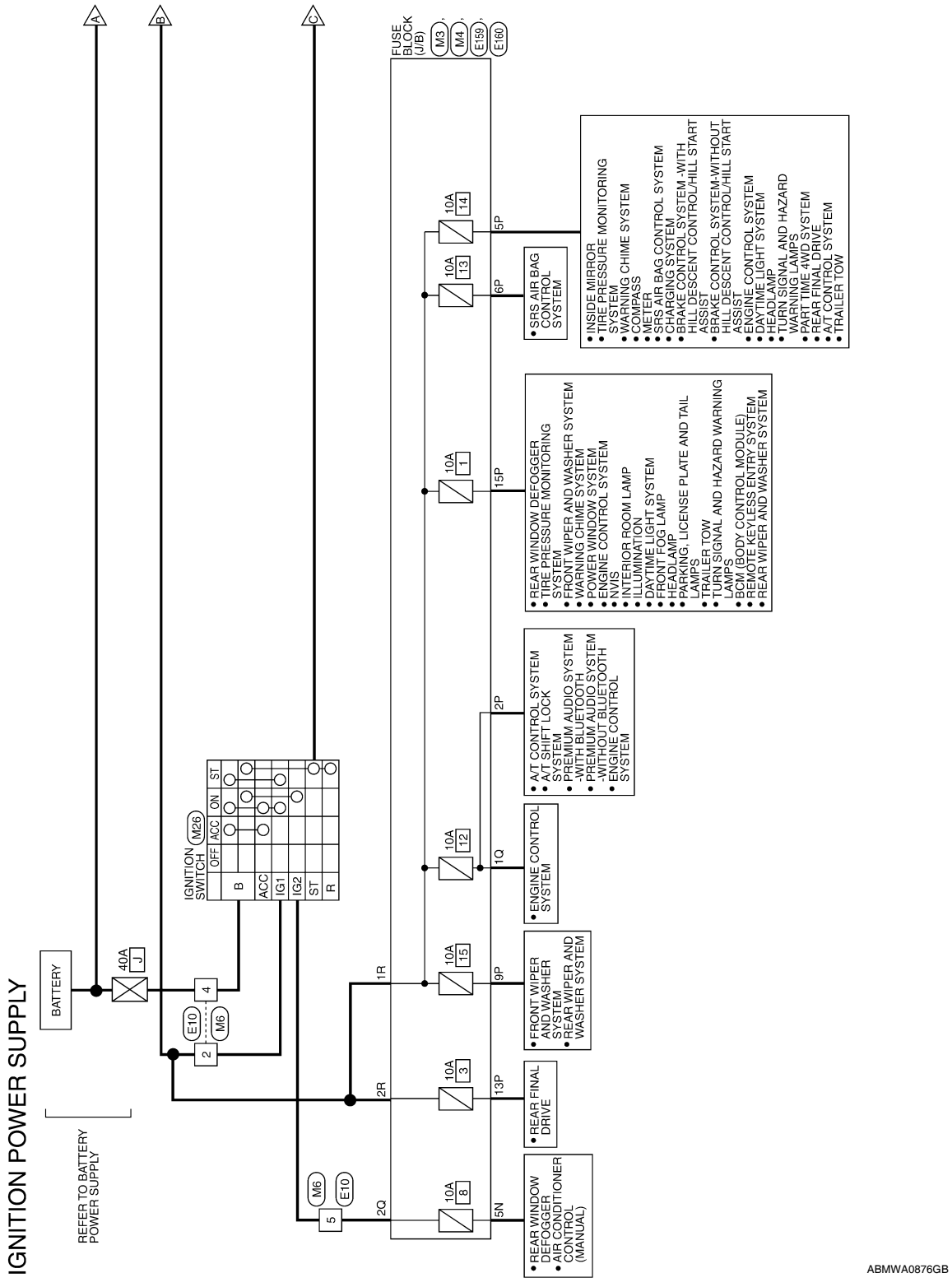
2

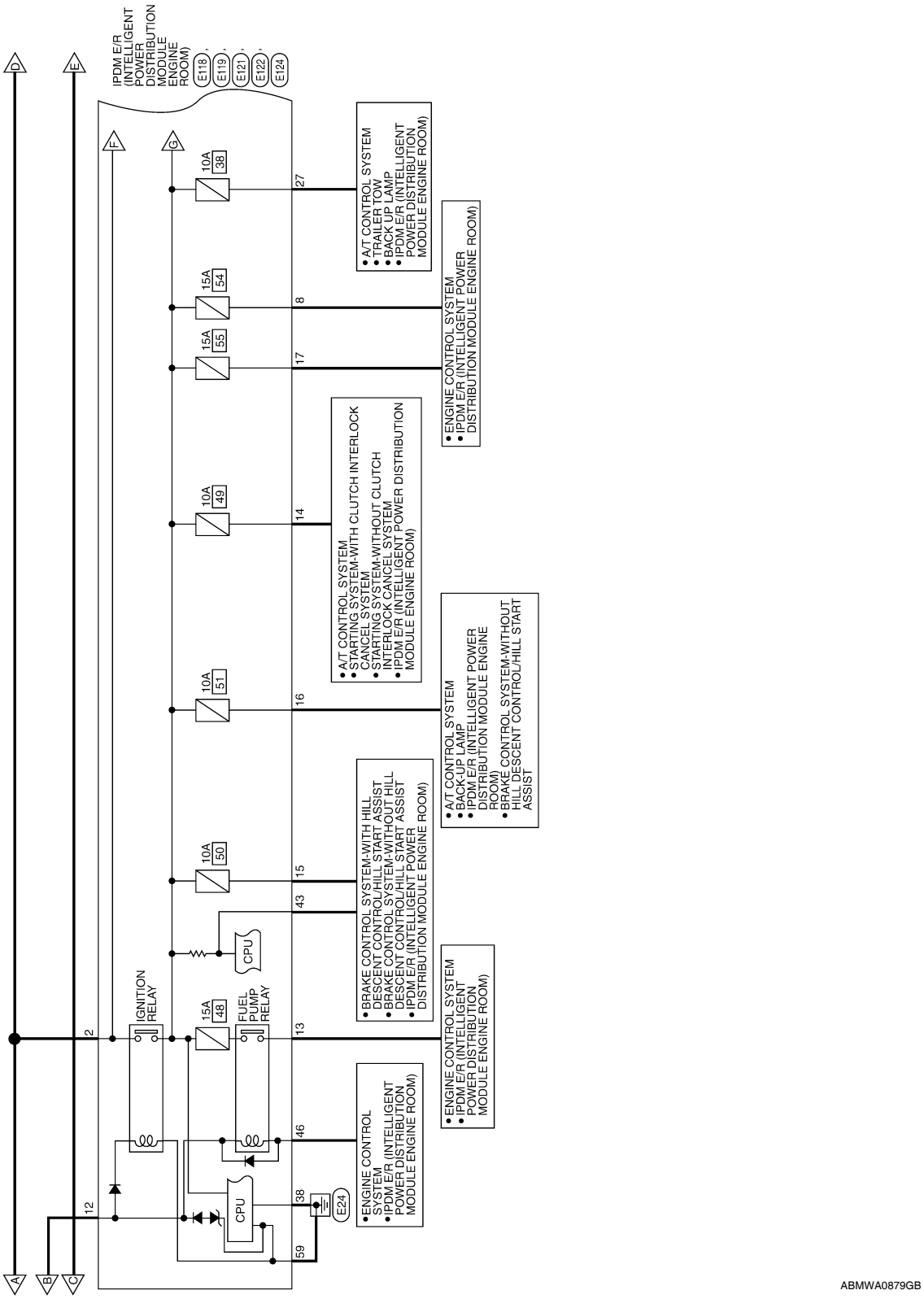
Terminal No.	Color of Wire	Signal Name
2	B/R	–

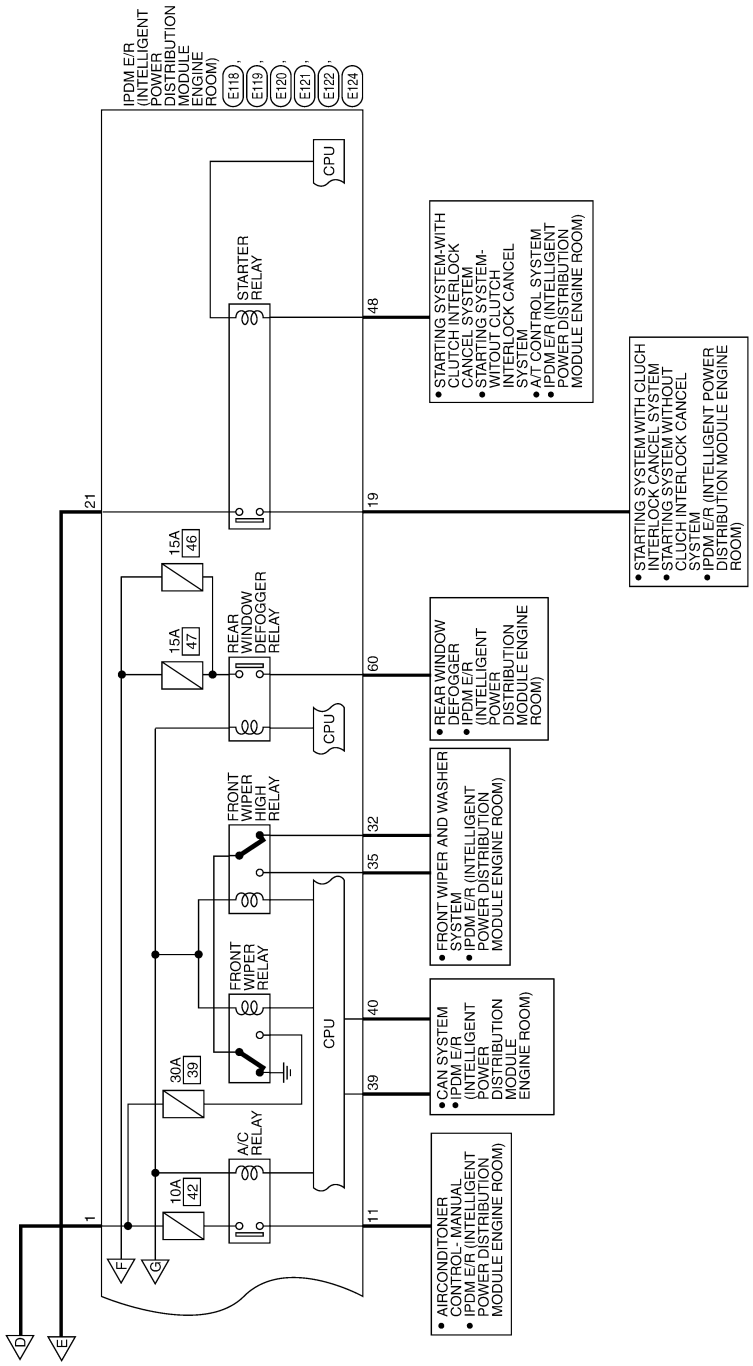
AWMIA0407GB

Wiring Diagram—Ignition Power Supply

INFOID:0000000003261089




IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E118, E119, E121, E122, E124
10A 38
15A 54
15A 55
10A 49
10A 51
10A 50
15A 48
IGNITION RELAY
FUEL PUMP RELAY
CPU
CPU
E24
• A/T CONTROL SYSTEM
• TRAILER TOW
• BACK UP LAMP
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• ENGINE CONTROL SYSTEM
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• A/T CONTROL SYSTEM
• STARTING SYSTEM-WITH CLUTCH INTERLOCK
• CANCEL SYSTEM-WITHOUT CLUTCH INTERLOCK CANCEL SYSTEM
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• A/T CONTROL SYSTEM
• BACK-UP LAMP
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• BRAKE CONTROL SYSTEM-WITHOUT HILL DESCENT CONTROL/HILL START ASSIST
• BRAKE CONTROL SYSTEM-WITH HILL DESCENT CONTROL/HILL START ASSIST
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• ENGINE CONTROL SYSTEM
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• ENGINE CONTROL SYSTEM
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
ABMWA0879GB



ABMWA0880GB

IGNITION POWER SUPPLY CONNECTORS

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

H.S.

3N		2N	1N
8N	7N	6N	5N	4N

Terminal No.	Color of Wire	Signal Name
5N	W/G	–

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

H.S.

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

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

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

H.S.

3	2	1
6	5	4

Terminal No.	Color of Wire	Signal Name
2	W/G	–
4	G	–
5	R	–

Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE

H.S.

B	ST	IG1
R	ACC	IG2

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

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

H.S.

1	2	3
4	5	6

Terminal No.	Color of Wire	Signal Name
2	W/G	–
4	G	–
5	R	–

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

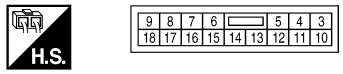
H.S.

1
2

Terminal No.	Color of Wire	Signal Name
1	W	F/LUSM
2	R	F/LMAIN

AWMIA0408GB

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

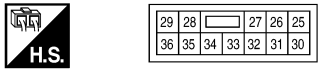


Terminal No.	Color of Wire	Signal Name
8	W/R	O2 SENS
11	Y	A/C COMPRESSOR
12	W/G	IGN SW (IG1)
13	R	FUEL PUMP
14	W/G	A/T ECU IGN SUPPLY
15	W/R	ABS IGN SUPPLY
16	W/G	REVERSE LAMP
17	W/G	INJECTIOR

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

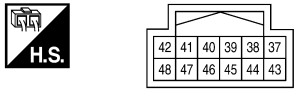
Terminal No.	Color of Wire	Signal Name
19	W	STARTER MTR
21	GR	IGN SW (ST)

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	T TOW REV LAMP
32	GR	FR WIPER LOW
35	L	FR WIPER HI

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



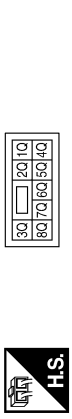
Terminal No.	Color of Wire	Signal Name
38	B	GND (SIGNAL)
39	L	CAN-H
40	P	CAN-L
43	G	AUTO STOP SW
46	V	FUEL PUMPRLY CONT
48	R	INHIBIT

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	GND (POWER)
60	GR	RR DEF

AWMIA0409GB

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



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

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

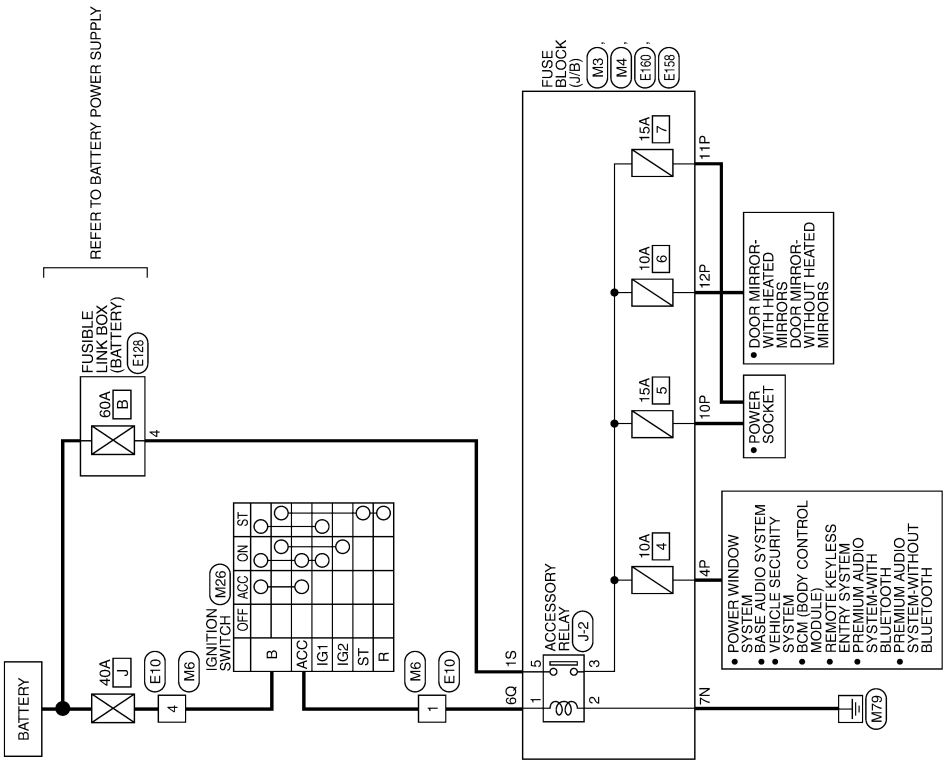
Terminal No.	Color of Wire	Signal Name
1R	W/G	–
2R	GR	–

AWMIA0410GB

Wiring Diagram—Accessory Power Supply

INFOID:0000000003261090

ACCESSORY POWER SUPPLY



ACCESSORY POWER SUPPLY CONNECTORS

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

H.S.

3N		2N	1N
7N		6N	5N
8N			4N

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

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

H.S.

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/B	–
10P	G/Y	–
11P	G/B	–
12P	G/Y	–

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

H.S.

3	2	1
6	5	4

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

Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE

H.S.

B	ST	IG1
R	ACC	IG2

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

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

H.S.

1	2	3
4	5	6

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

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

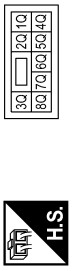
H.S.

4
7

Terminal No.	Color of Wire	Signal Name
4	W	–

AWMIA0411GB

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



Terminal No.	Color of Wire	Signal Name
6Q	G/Y	–

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

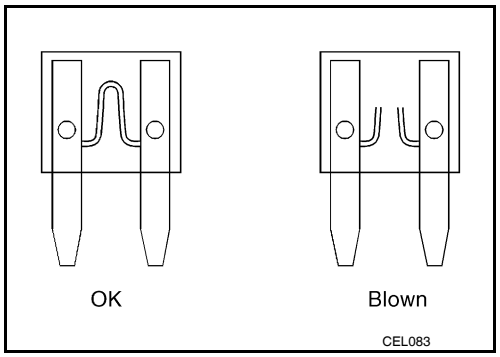
Terminal No.	Color of Wire	Signal Name
1S	W	–

AWMIA0412GB

Fuse

INFOID:0000000003085103

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



Fusible Link

INFOID:0000000003085104

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.

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 incident.**
- **Never wrap outside of fusible link with vinyl tape.**
- **Never let fusible link touch any other wiring harness, vinyl or rubber parts.**

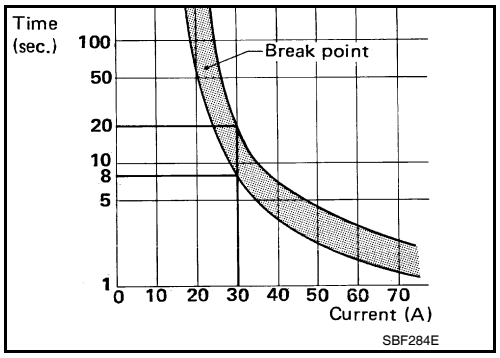
Circuit Breaker (Built Into BCM)

INFOID:0000000003085105

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

A circuit breaker is used for the following systems:

- Power windows
- Power sunroof

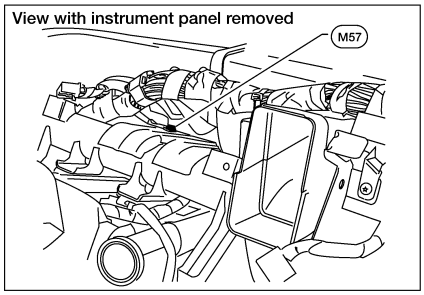


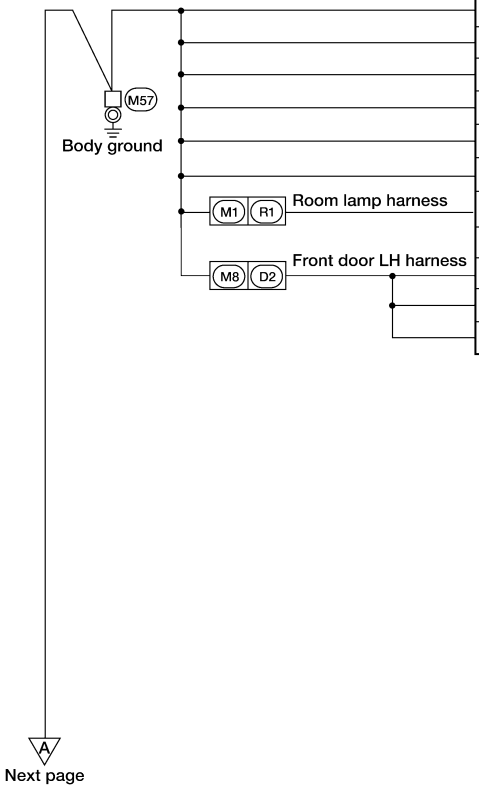
GROUND CIRCUIT

Ground Distribution

INFOID:0000000003085106

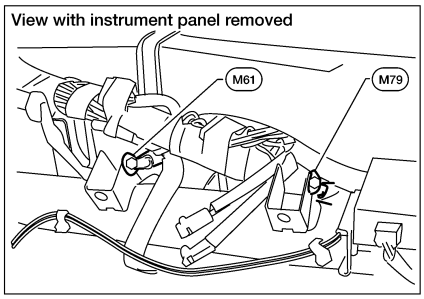
Main Harness

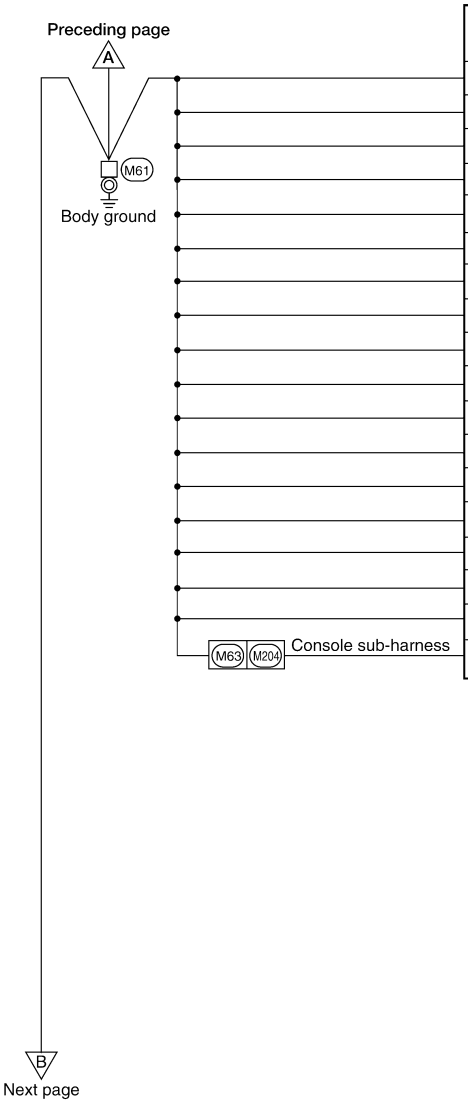




CONNECTOR NUMBER	CONNECT TO
M20	BCM (Terminal No. 67)
M21	Nats antena amp
M22	Data link connector (Terminal No. 4)
M22	Data link connector (Terminal No. 5)
M24	Combination meter (Terminal No. 23)
M28	Combination switch
R7	Auto anti-dazzing inside mirror
R9	Front room/map lamp assembly
D4	Door mirror LH
D7	Main power window and door lock/unlock switch
D14	Front door lock assembly LH

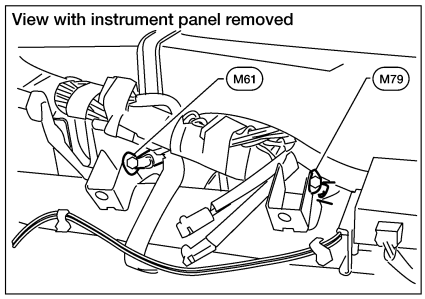
AWMIA0413GB

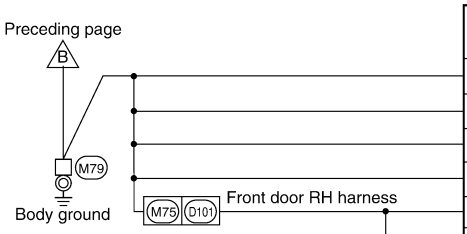




CONNECTOR NUMBER	CONNECT TO
M13	Front passenger air bag off indicator
M24	Combination meter (Terminal No. 13)
M35	Air bag diagnosis sensor unit
M47	Steering angle sensor
M49	Front air control
M51	Front blower switch
M55	Hazard switch
M152	Transfer control unit (Terminal No. 6)
M152	Transfer control unit (Terminal No. 18)
M153	Transfer control unit (Terminal No. 32)
M154	VDC off switch
M155	Hill descent control switch
M156	A/T shift selector (Terminal No. 2)
M156	A/T shift selector (Terminal No. 8)
M156	A/T shift selector (Terminal No. 10)
M159	Door mirror remote control switch
M163	Clutch interlock cancel switch
M207	Console power socket

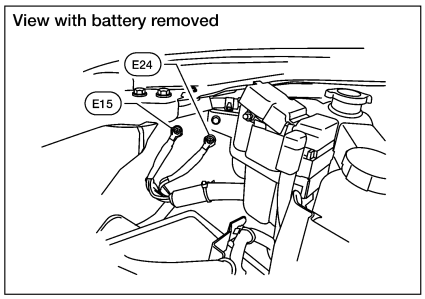
ABMIA2190GB

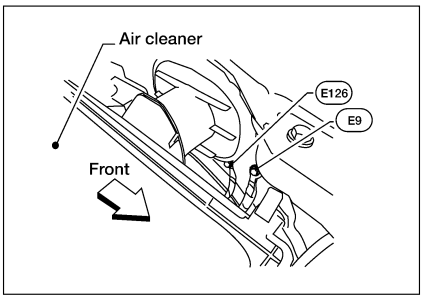


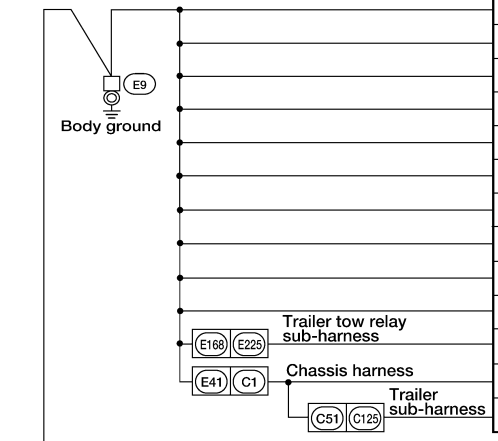


CONNECTOR NUMBER	CONNECT TO
M53	Lower front power socket
M54	Upper front power socket (For cigarette lighter)
M59	Glove box lamp
M76	Electric brake (pre-wiring)
D105	Power window and door lock/unlock switch RH
D107	Door mirror RH

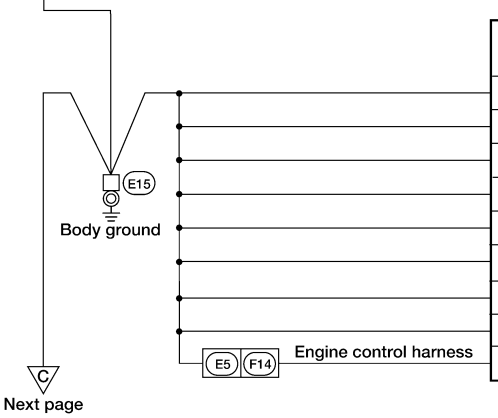
AWMIA0415GB





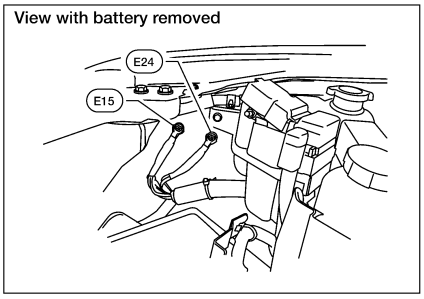


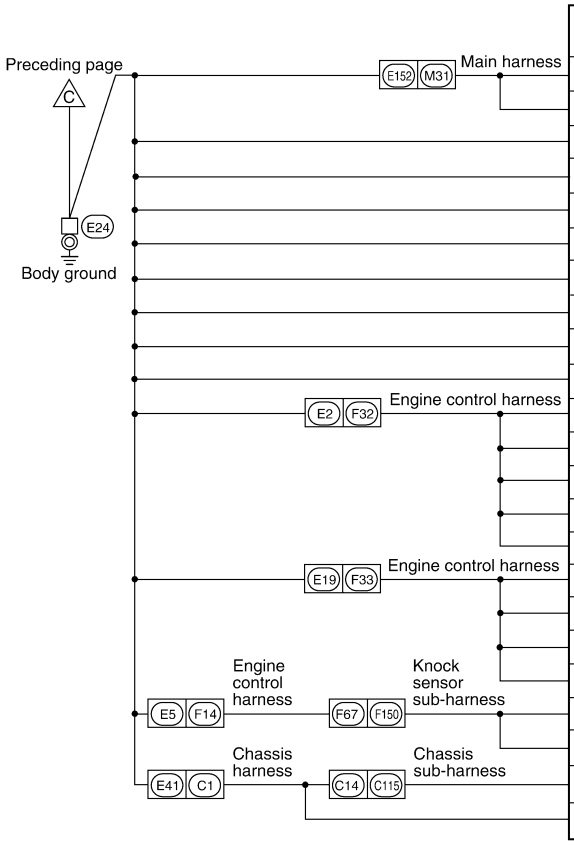
CONNECTOR NUMBER	CONNECT TO
E3	Horn (with dual note horn)
E17	Front combination lamp LH (side marker)
E21	Brake fluid level switch
E102	Front fog lamp RH
E103	Daytime light relay 1
E104	Daytime light relay 2
E106	Washer fluid level switch
E107	Front combination lamp RH (headlamp)
E111	Front combination lamp RH
E162	Horn (with single note horn)
E226	Back-up lamp relay
C5	Fuel level sensor unit and fuel pump
C126	Trailer



CONNECTOR NUMBER	CONNECT TO
E11	Front combination lamp LH (headlamp)
E27	Front combination lamp LH
E101	Front fog lamp LH
E108	Front combination lamp RH (side marker)
E113	Cooling fan motor (Terminal No. 3)
E113	Cooling fan motor (Terminal No. 4)
E169	Trailer turn relay LH
E170	Trailer turn relay RH
F66	Park/neutral position (PNP) switch (with M/T)

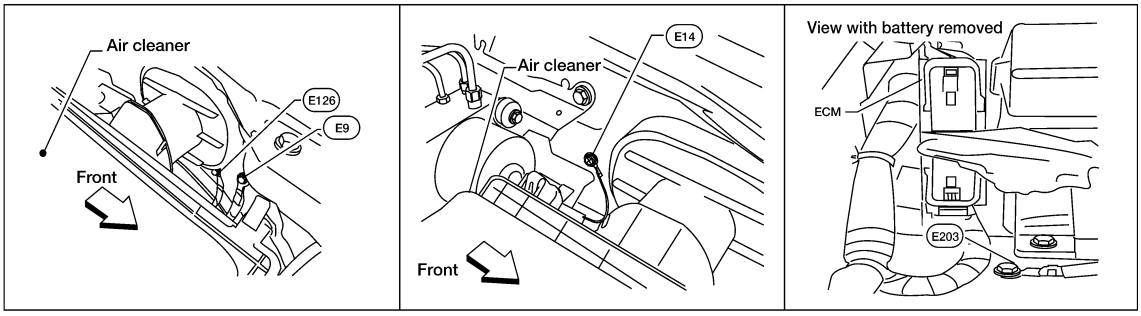
AWMIA0416GB

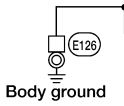




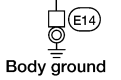
CONNECTOR NUMBER	CONNECT TO
M70	Differential lock control unit (Terminal No. 3)
M70	Differential lock control unit (Terminal No. 10)
E16	ECM (Terminal No. 115)
E16	ECM (Terminal No. 116)
E54	Front blower motor relay
E122	IPDM E/R (Terminal No. 38)
E124	IPDM E/R (Terminal No. 59)
E156	Transfer shut off relay 1
E166	Clutch interlock cancel relay 2
E171	Clutch interlock cancel relay 1
F11	Crankshaft position sensor (POS)
F23	Camshaft position sensor (PHASE) (bank 2)
F50	Electric throttle control actuator (shield wire)
F54	ECM (Terminal No. 1)
F70	Camshaft position sensor (PHASE) (bank 1)
F55	ATP switch
F58	Transfer control device (Actuator motor)
F59	Wait detection switch
F60	4LO switch
F151	Knock sensor (bank 1) (shield wire)
F152	Knock sensor (bank 2) (shield wire)
C116	Differential lock position switch
C12	License plate lamp

AWMIA0417GB





CONNECTOR NUMBER	CONNECT TO
E125	ABS actuator and electric unit (control unit) (Terminal No. 16)
E125	ABS actuator and electric unit (control unit) (Terminal No. 47)

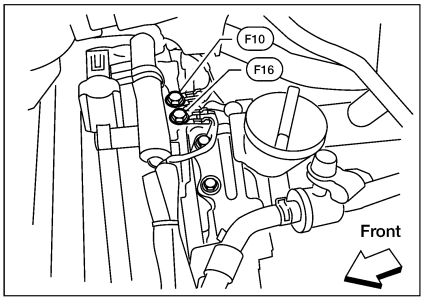


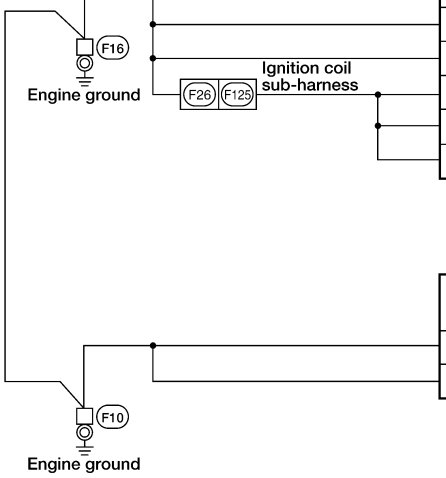
CONNECTOR NUMBER	CONNECT TO
E4	Crash zone sensor (shield wire)

CONNECTOR NUMBER	CONNECT TO
E209	Generator

WKIA5887E

Engine Control Harness

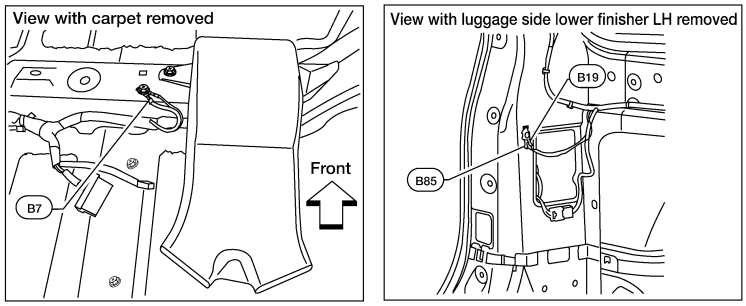


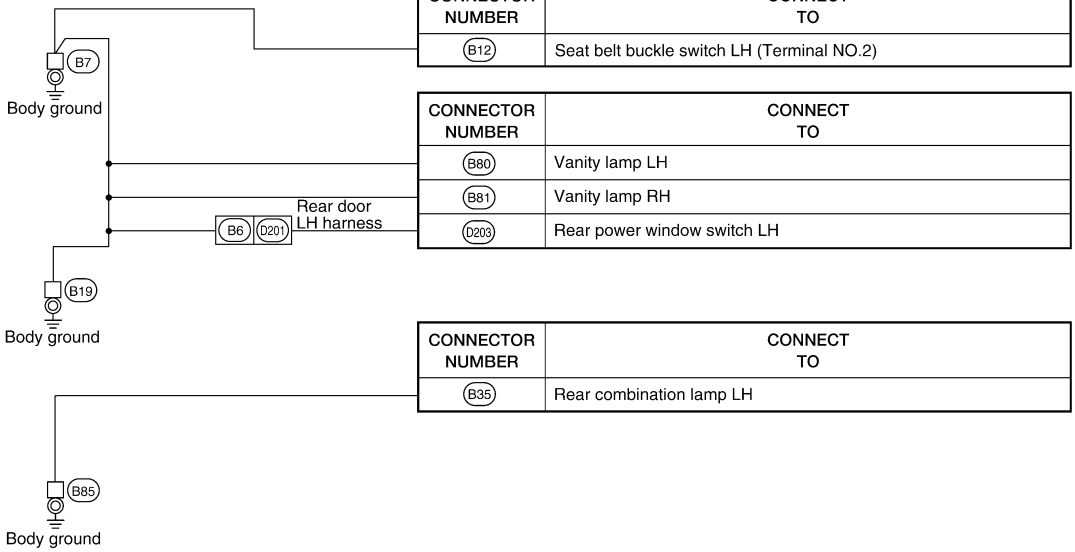


CONNECTOR NUMBER	CONNECT TO
F6	Ignition coil No. 2 (with power transistor)
F7	Ignition coil No. 4 (with power transistor)
F8	Ignition coil No. 6 (with power transistor)
F21	Condenser-1
F126	Ignition coil No. 1 (with power transistor)
F127	Ignition coil No. 3 (with power transistor)
F128	Ignition coil No. 5 (with power transistor)

CONNECTOR NUMBER	CONNECT TO
F9	A/T Assembly (Terminal No. 5)
F9	A/T Assembly (Terminal No. 10)

WKIA5888E





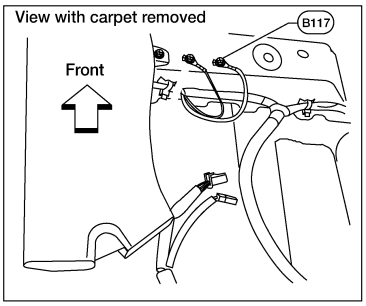
CONNECTOR NUMBER	CONNECT TO
B12	Seat belt buckle switch LH (Terminal NO.2)

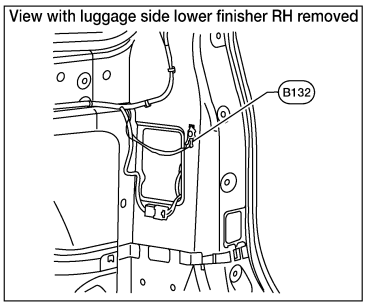
CONNECTOR NUMBER	CONNECT TO
B80	Vanity lamp LH
B81	Vanity lamp RH
D203	Rear power window switch LH

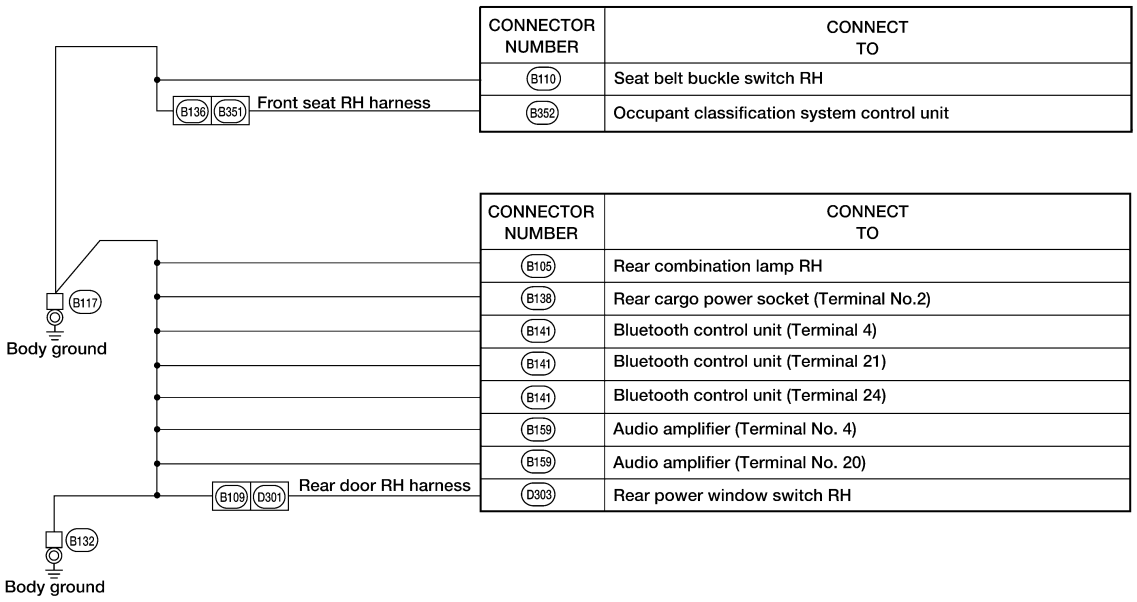
CONNECTOR NUMBER	CONNECT TO
B35	Rear combination lamp LH

AWMIA0418GB

Body No. 2 Harness





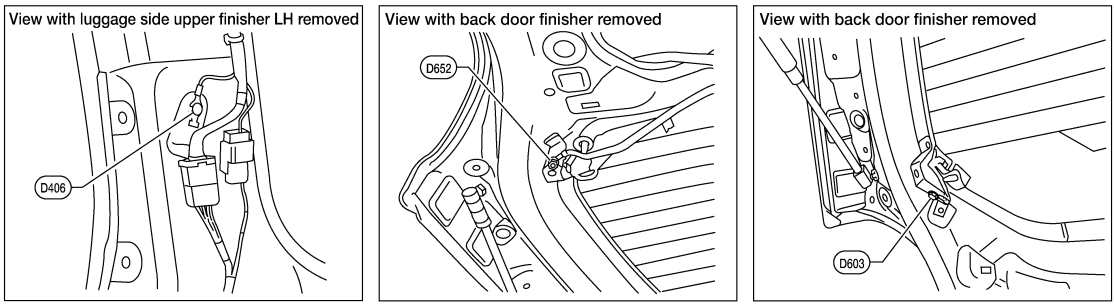


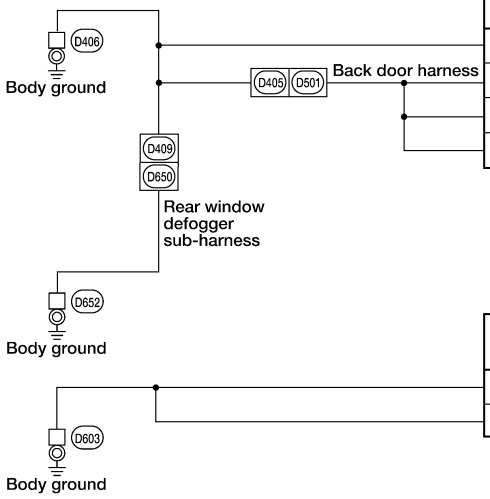
CONNECTOR NUMBER	CONNECT TO
B110	Seat belt buckle switch RH
B352	Occupant classification system control unit

CONNECTOR NUMBER	CONNECT TO
B105	Rear combination lamp RH
B138	Rear cargo power socket (Terminal No.2)
B141	Bluetooth control unit (Terminal 4)
B141	Bluetooth control unit (Terminal 21)
B141	Bluetooth control unit (Terminal 24)
B159	Audio amplifier (Terminal No. 4)
B159	Audio amplifier (Terminal No. 20)
D303	Rear power window switch RH

AWMIA0419GB

Back Door No. 2 and Back Door Harness





CONNECTOR NUMBER	CONNECT TO
D403	High-mounted stop lamp
D502	Back door switch
D505	Back door key cylinder switch
D509	Rear wiper motor

CONNECTOR NUMBER	CONNECT TO
D604	Rear window defogger
D651	Rear window defogger

AWMIA0420GB

HARNESS

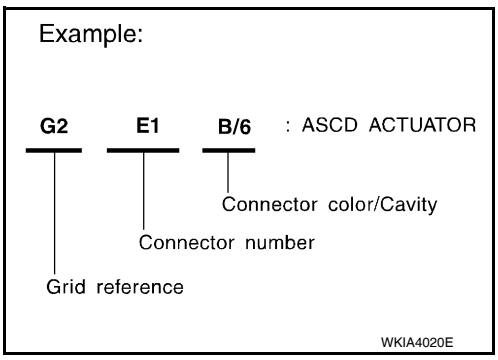
Harness Layout

INFOID:0000000003289094

HOW TO READ HARNESS LAYOUT

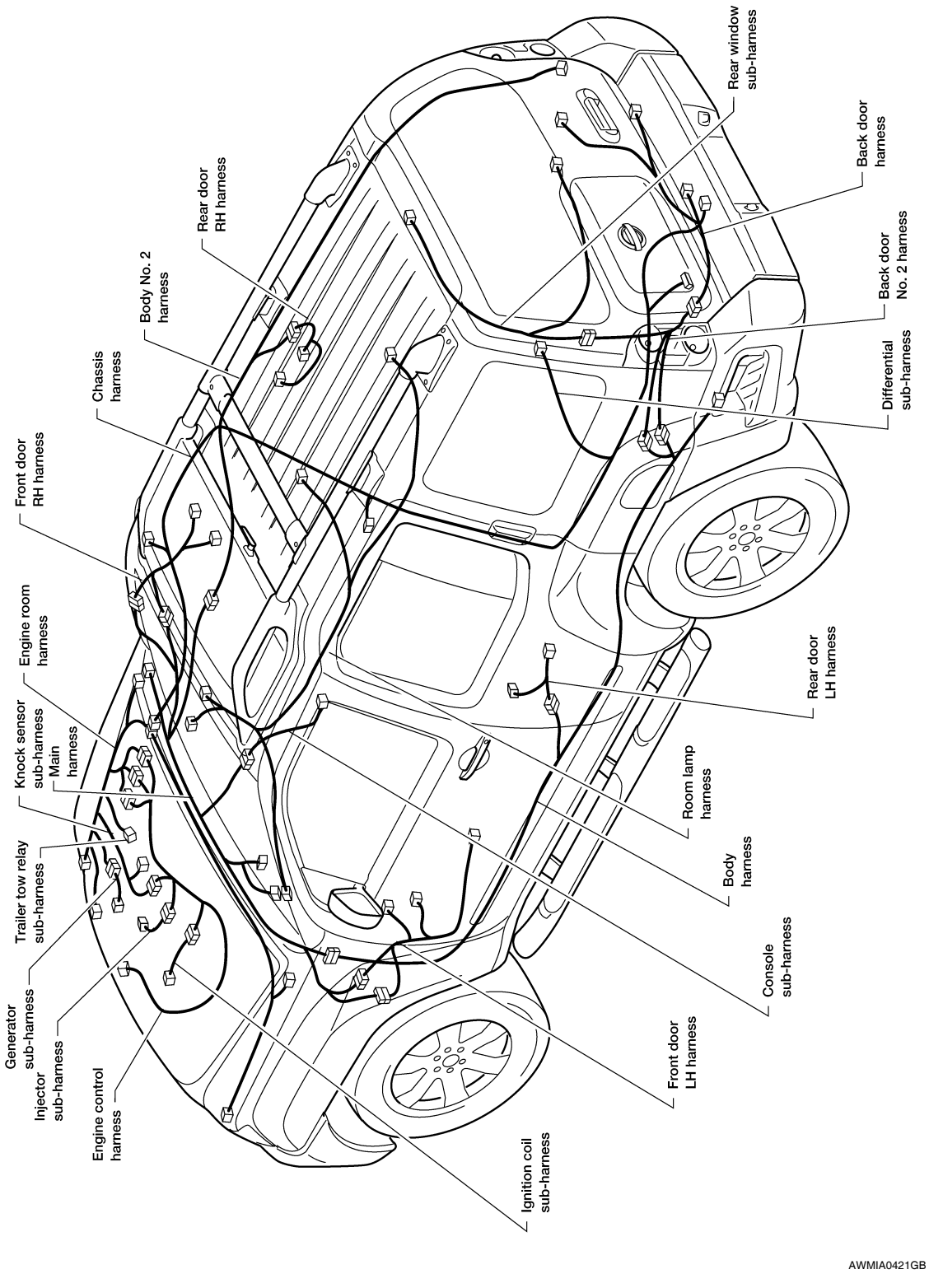
The following Harness Layouts use a map style grid to help locate connectors on the drawings:

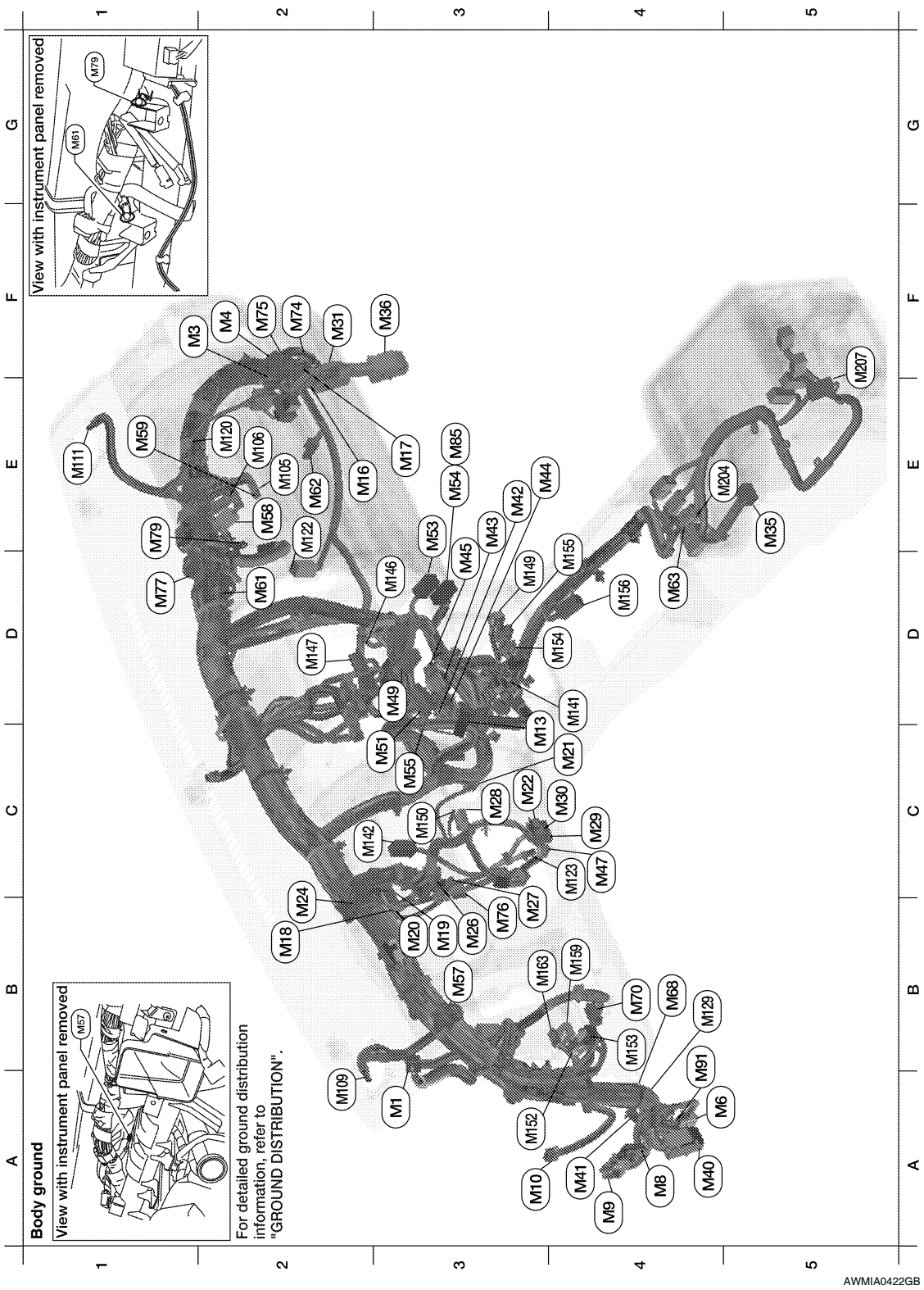
- Main Harness and Console Sub-harness
- Engine Room Harness (RH View) Engine Compartment, Generator Sub-harness, and Trailer Tow Relay Sub-harness
- Engine Room Harness (Passenger Compartment)
- Engine Room Harness (LH View) Engine Compartment
- Engine Control Harness, Injector Sub-harness, Ignition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



To use the grid reference

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


Rear window sub-harness
Back door harness
Rear door RH harness
Back door No. 2 harness
Body No. 2 harness
Differential sub-harness
Chassis harness
Front door RH harness
Engine room harness
Rear door LH harness
Knock sensor sub-harness
Main harness
Room lamp harness
Trailer tow relay sub-harness
Body harness
Console sub-harness
Generator sub-harness
Injector sub-harness
Front door LH harness
Engine control harness
Ignition coil sub-harness
AWMIA0421GB

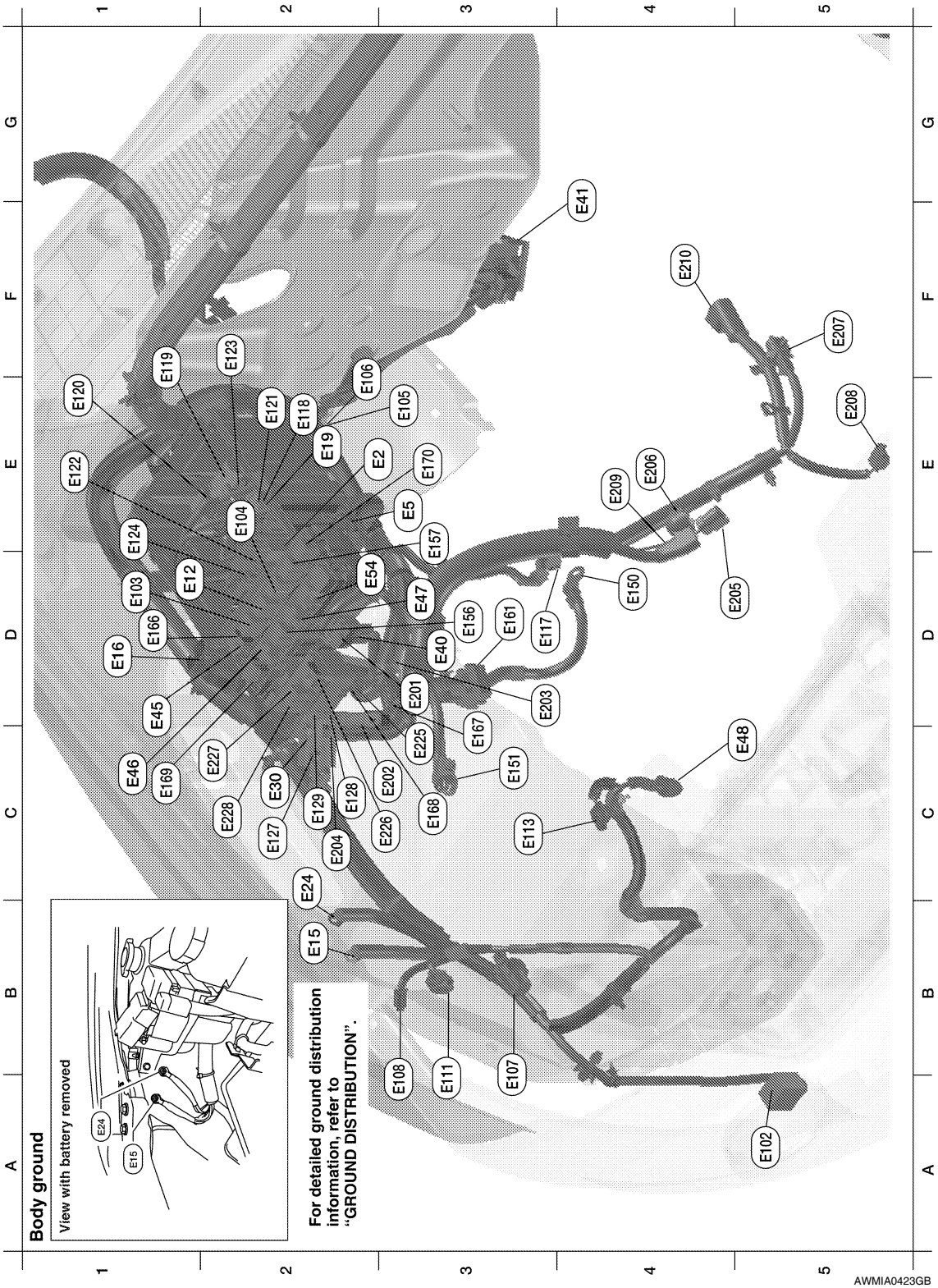


A3	M1	W/24	: To R1	E1	M59	BR/2	: Glove box lamp
F1	M3	W/8	: Fuse block (J/B)	D2	M61	—	: Body ground
F2	M4	W/16	: Fuse block (J/B)	E2	M62	B/2	: Front blower motor
A4	M6	W/6	: To E10	D4	M63	W/6	: To M204
A4	M8	BR/12	: To D2	B4	M68	V/1	: To M250 (with XM satellite radio tuner)

A4	M9	W/16	: To D1	B4	M70	W/26	:Differential lock control unit
A3	M10	Y/4	: To E29	F2	M74	W/16	: To D102
C3	M13	BR/2	: Front passenger air bag OFF indicator	F2	M75	W/12	: To D101
E3	M16	W/12	: To B162	B3	M76	W/6	: Electric brake (pre-wiring)
E3	M17	W/16	: To B163	D1	M77	Y/4	: Front passenger air bag module (service replacement)
B2	M18	W/40	: BCM (body control module)	E3	M85	W/4	: Aux in jack
B3	M19	W/15	: BCM (body control module)	B4	M91	W/16	: To E26
B3	M20	B/15	: BCM (body control module)	E2	M105	Y/2	: Front passenger air bag module
C4	M21	W/4	: NATS antenna amp.	E2	M106	O/2	: Front passenger air bag module
C3	M22	W/16	: Data link connector	A2	M109	W/2	: Front tweeter LH
B2	M24	W/24	: Combination meter	A2	M109	BR/2	: Front tweeter LH
B3	M26	W/6	: Ignition switch	E1	M111	W/2	: Front tweeter RH
B3	M27	W/2	: Key switch	E1	M111	BR/2	: Front tweeter RH
C2	M28	W/16	: Combination switch	E2	M120	W/4	: Remote keyless entry receiver
C4	M29	Y/6	: Combination switch (spiral cable)	E2	M122	W/4	: Front blower motor resistor
C4	M30	GR/8	: Combination switch (spiral cable)	C4	M123	W/2	: Tire pressure warning check connector
F2	M31	W/80	: To E152	B4	M129	V/1	: Satellite radio tuner or pre-wiring for satellite radio turner
E5	M35	Y/28	: Air bag diagnosis sensor unit	D4	M141	GR/8	: 4WD shift switch
F3	M36	W/80	: To B149	C2	M142	B/6	: Mode door motor
A3	M40	W/80	: To B69	D3	M146	W/2	: Intake sensor
A4	M41	W/16	: Satellite radio tuner	D2	M147	B/6	: Air mix door motor
E3	M42	W/12	: Audio unit	D3	M149	W/6	:Differential lock mode switch
E3	M43	W/10	: Audio unit (Base audio system)	C3	M150	W/2	: Ignition keyhole illumination
E3	M43	W/20	: Audio unit (Premium audio system)	A3	M152	W/26	: Transfer control unit
E2	M44	W/6	: Audio unit	B4	M153	W/24	: Transfer control unit
D3	M45	W/16	: Audio unit	D4	M154	GR/6	: VDC off switch
C4	M47	W/8	: Steering angle sensor	D4	M155	W/8	: Hill descent control off switch
D3	M49	B/26	: Front air control	D4	M156	W/10	: A/T shift selector
C3	M51	W/8	: Front blower switch	B4	M159	W/16	: Door mirror remote control switch
E3	M53	B/3	: Lower front power socket	B3	M163	W/8	: Clutch interlock cancel switch
E3	M54	GR/3	: Upper front power socket	Console sub-harness			
C3	M55	W/4	: Hazard switch	E4	M204	W/6	: To M63
B3	M57	—	: Body ground	F5	M207	B/3	: Console power socket

ENGINE ROOM HARNESS (RH VIEW)

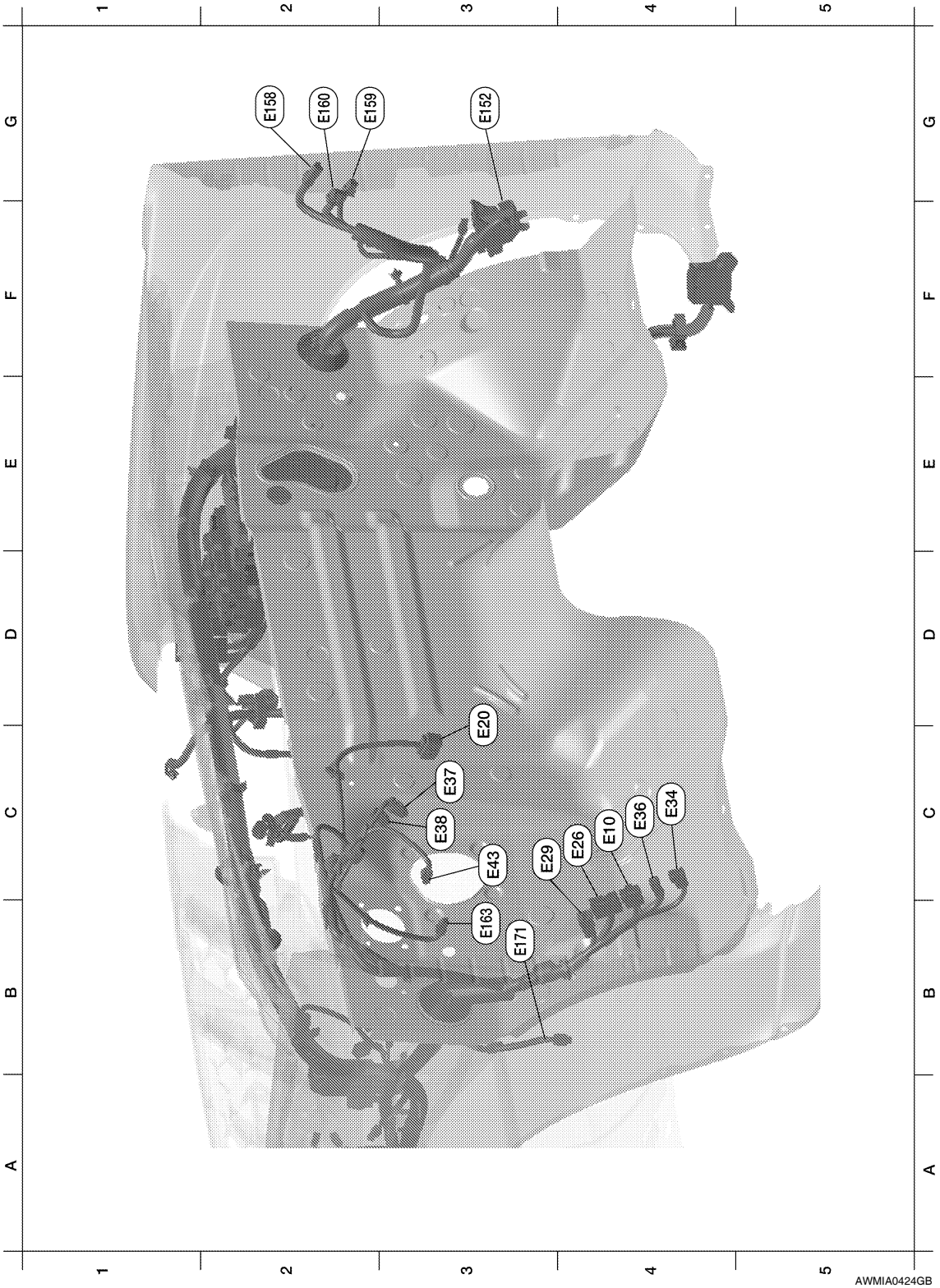
Engine Compartment



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

E3	E2	W/16	: To F32	E1	E124	B/6	: IPDM E/R (intelligent power distribution module engine room)
E3	E5	W/24	: To F14	C2	E127	—	: Fuseible link box (battery)
D1	E12	L/4	: Stop lamp relay	C2	E128	GR/2	: Fuseible link box (battery)

C2	E15	—	: Body ground	C2	E129	BR/2	: Fuseible link box (battery)
D1	E16	B/40	: ECM	D5	E150		: Battery ground
E2	E19	W/16	: To F33	C3	E151		: Negative battery cable
D4	E24	—	: Body ground	D3	E156	L/4	: Trailer shut off relay1
C2	E30	—	: Fusible link box (battery)	D3	E157	L/4	: Trailer shut off realy 2
D3	E40	GR/9	: To E201	D3	E161	B/3	: Battery current sensor
G4	E41	B/48	: To C1	D1	E166	BR/3	: Clutch interlock cancel relay 2 (with M/T)
D1	E45	B/48	: Back-up lamp relay (with A/T)	C3	E167	B/2	: Diode-3
C1	E46	B/5	: Transfer shift high relay	C3	E168	B/12	: To E225
D3	E47	B/5	: Transfer shift low relay	C1	E169	L/4	: Trailer turn relay LH
C5	E48	B/3	: Refrigerant pressure sensor	E3	E170	L/4	: Trailer turn relay RH
D2	E54	BR/6	: Front blower motor relay	Generator sub-harness			
A5	E102	B/2	: Front fog lamp RH	D3	E201	GR/9	: To E40
D1	E103	B/5	: Daytime light relay 1	C3	E202	B/1	: To fuse and fuseible link box
E1	E104	L/5	: Daytime light relay 2	C3	E203	—	: Body ground
F3	E105	B/2	: Front and rear washer motor	C2	E204	—	: Fusible link box (battery)
F2	E106	BR/2	: Washer fluid level switch	D5	E205	B/3	: Generator
A3	E107	B/3	: Front combination lamp RH (head lamp)	C3	E206		: Generator
A3	E108	GR/2	: Front combination lamp RH (side marker)	F5	E207	GR/1	: Starter motor
A3	E111	GR/3	: Front combination lamp RH (parking / turn signal lamp	E5	E208	GR/1	: Oil pressure switch
C3	E113	GR/4	: Cooling fan motor	E4	E209		: Generator
D3	E117	GR/2	: Front wheel sensor RH	F4	E210	B/1	: Starter motor
E2	E118	B/2	: IPDM E/R (intelligent power distribution module engine room)	Trailer tow relay sub-harness			
F1	E119	W/16	: IPDM E/R (intelligent power distribution module engine room)	C3	E225	W/12	: To E168
E1	E120	W/6	: IPDM E/R (intelligent power distribution module engine room)	C3	E226	L/4	: Back-up lamp relay (with M/T)
E1	E121	BR/12	: IPDM E/R (intelligent power distribution module engine room)	C2	E227	—	: Trailer tow relay 1
E1	E122	W/12	: IPDM E/R (intelligent power distribution module engine room)	C2	E228	L/4	: Trailer tow relay 2
F2	E123	BR/8	: IPDM E/R (intelligent power distribution module engine room)				

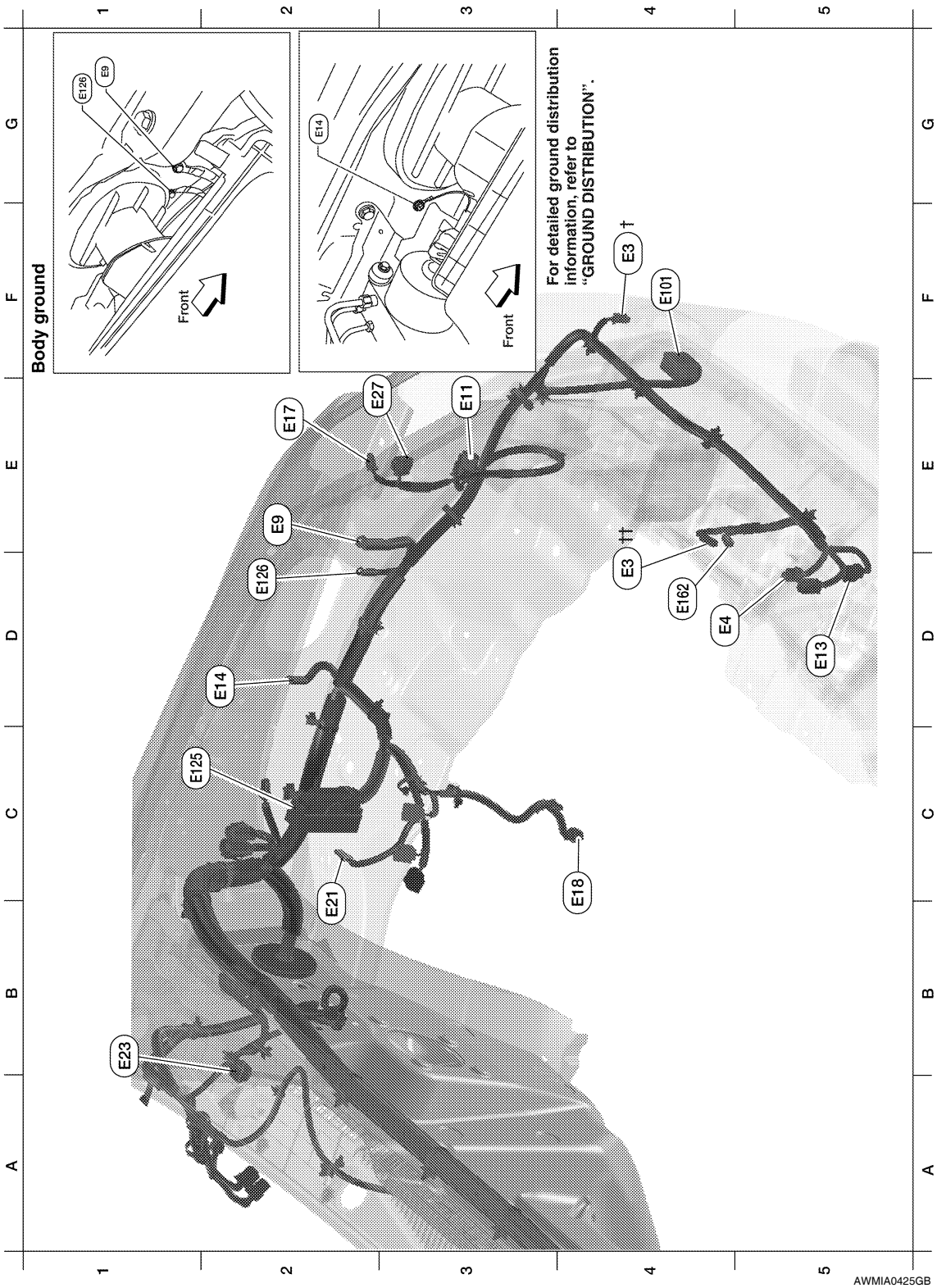


C4	E10	W/6	: To M6	C3	E38	W/4	: Stop lamp switch (with A/T)
D3	E20	B/6	: Accelerator pedal position (APP) sensor	C3	E43	L/2	: ASCD clutch switch
C4	E26	W/16	: To M91	G3	E152	W/80	: To M31
C3	E29	Y/4	: To M10	G2	E158	B/1	: Fuse block (J/B)
C4	E34	W/8	: To B40	G2	E159	B/2	: Fuse block (J/B)

C4	E36	W/2	: To B42	G2	E160	W/8	: Fuse block (J/B)
C3	E37	BR/2	: ASCD brake switch	B3	E163	L/2	: Clutch interlock switch (with M/T)
C3	E38	B/2	: Stop lamp switch (with M/T)	B3	E171	B/5	: Clutch interlock cancel relay 1

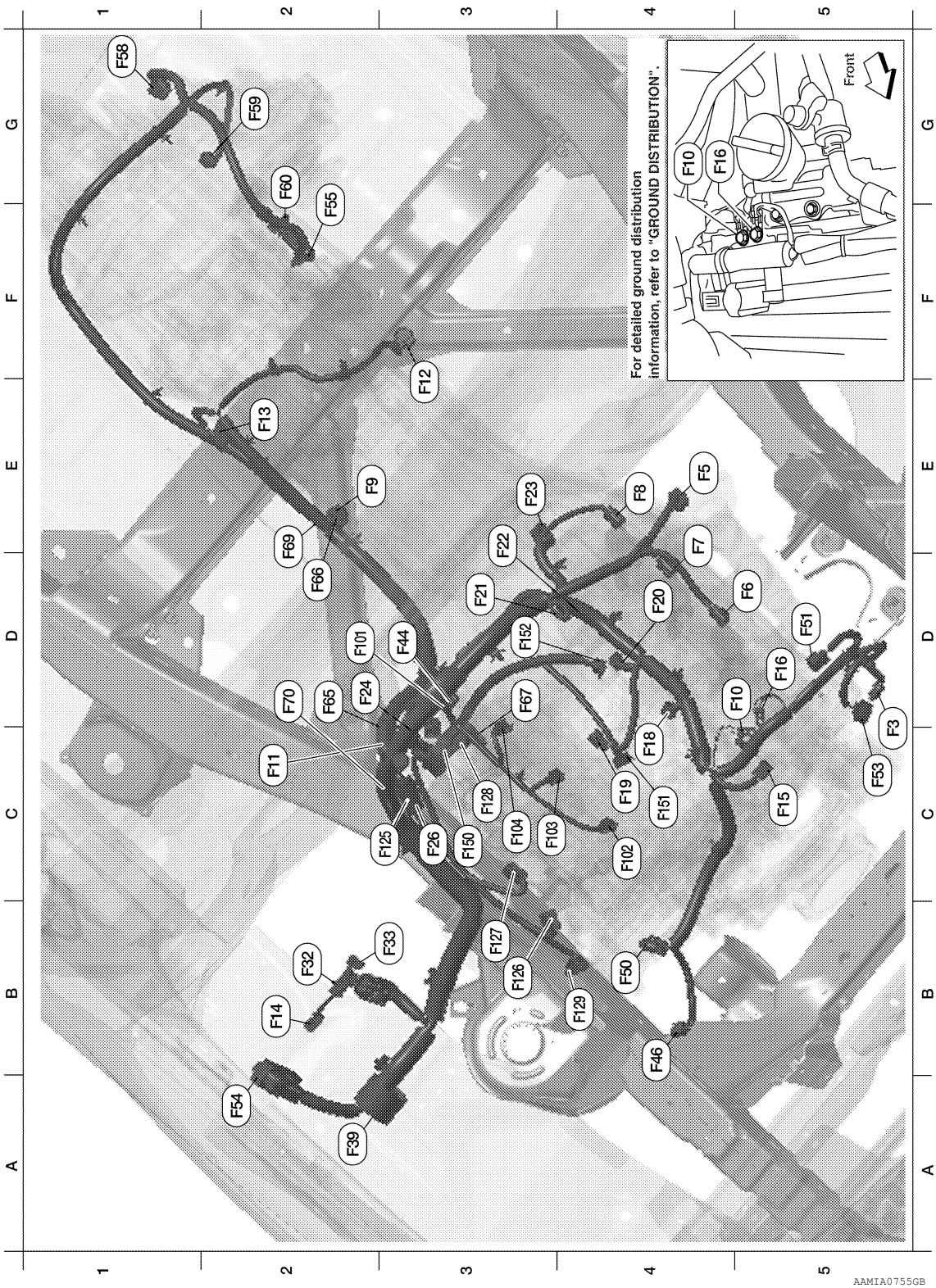
ENGINE ROOM HARNESS (LH VIEW)

Engine Compartment



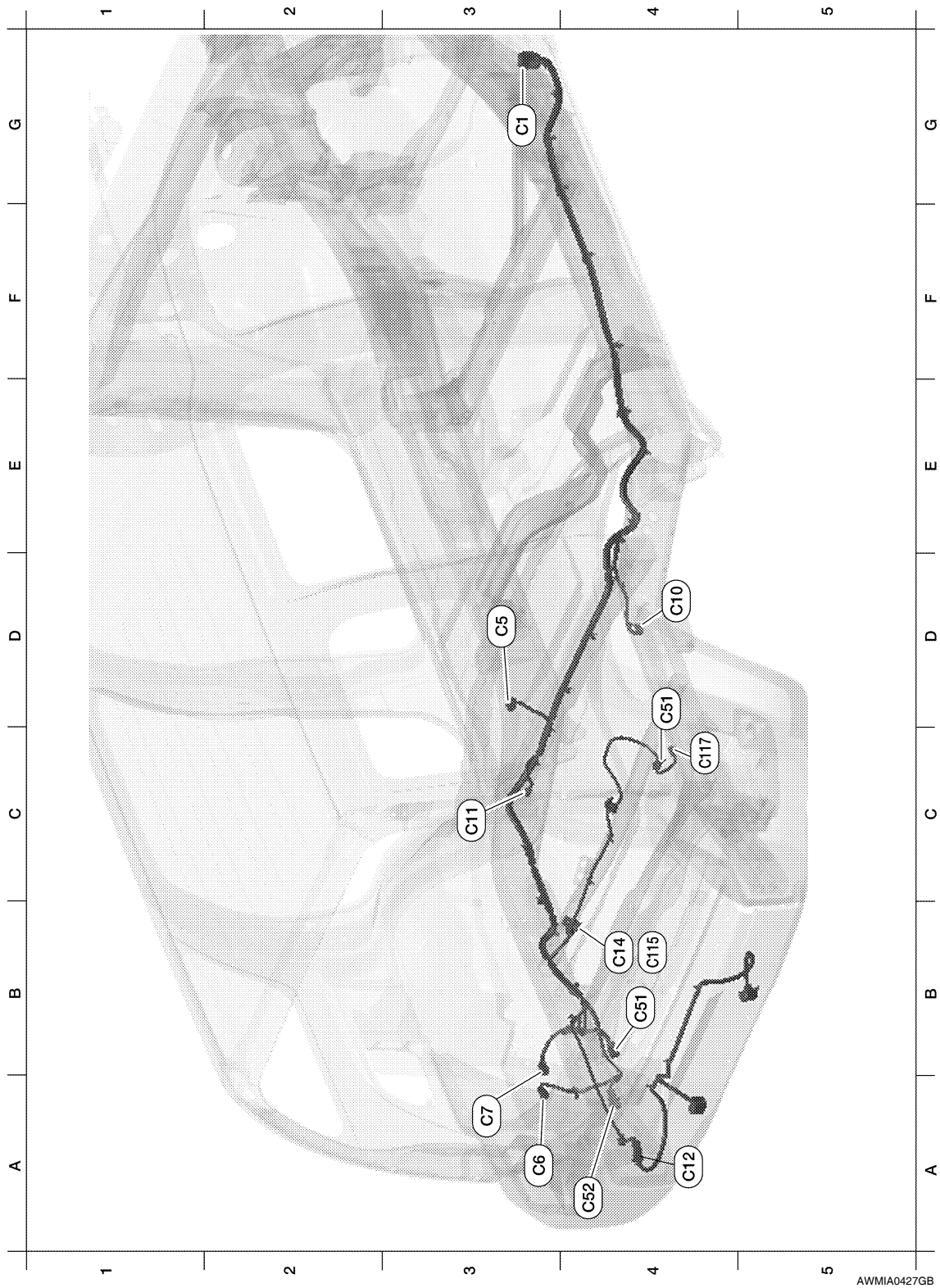
Refer to "ENGINE ROOM HARNESS (RH VIEW)" for continuation of engine room harness.

F4	E3	B/2	: Horn (with dual note born)	C4	E18	GR/2	: Front wheel sensor LH
D4	E3	B/1	: Horn (without dual note horn)	B2	E21	GR/2	: Brake fluid level switch
D4	E4	Y/2	: Crash zone sensor	B1	E23	GR/5	: Front wiper motor
E2	E9	—	: Body ground	E2	E27	GR/3	: Front combination lamp LH (parking/turn signal)
E3	E11	B/3	: Front combination lamp LH (head lamp)	D5	E101	B/2	: Front fog lamp LH
C1	E13	GR/2	: Ambient sensor 2	C1	E125	B/47	: ABS actuator and electric unit (control unit)
D2	E14		: Body ground	D2	E126	—	: Body ground
E2	E17	GR/2	: Front combination lamp LH (side marker)	D4	E162	B/1	: Horn (with signal note horn)



C5	F3	B/1	: A/C Compressor	B4	F50	B/6	: Electric throttle control actuator
D2	F5	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 2)	D4	F51	G/2	: Intake valve timing control solenoid valve (bank 2)
D5	F6	GR/3	: Ignition coil No. 2 (with power transistor)	A2	F54	B/81	: ECM

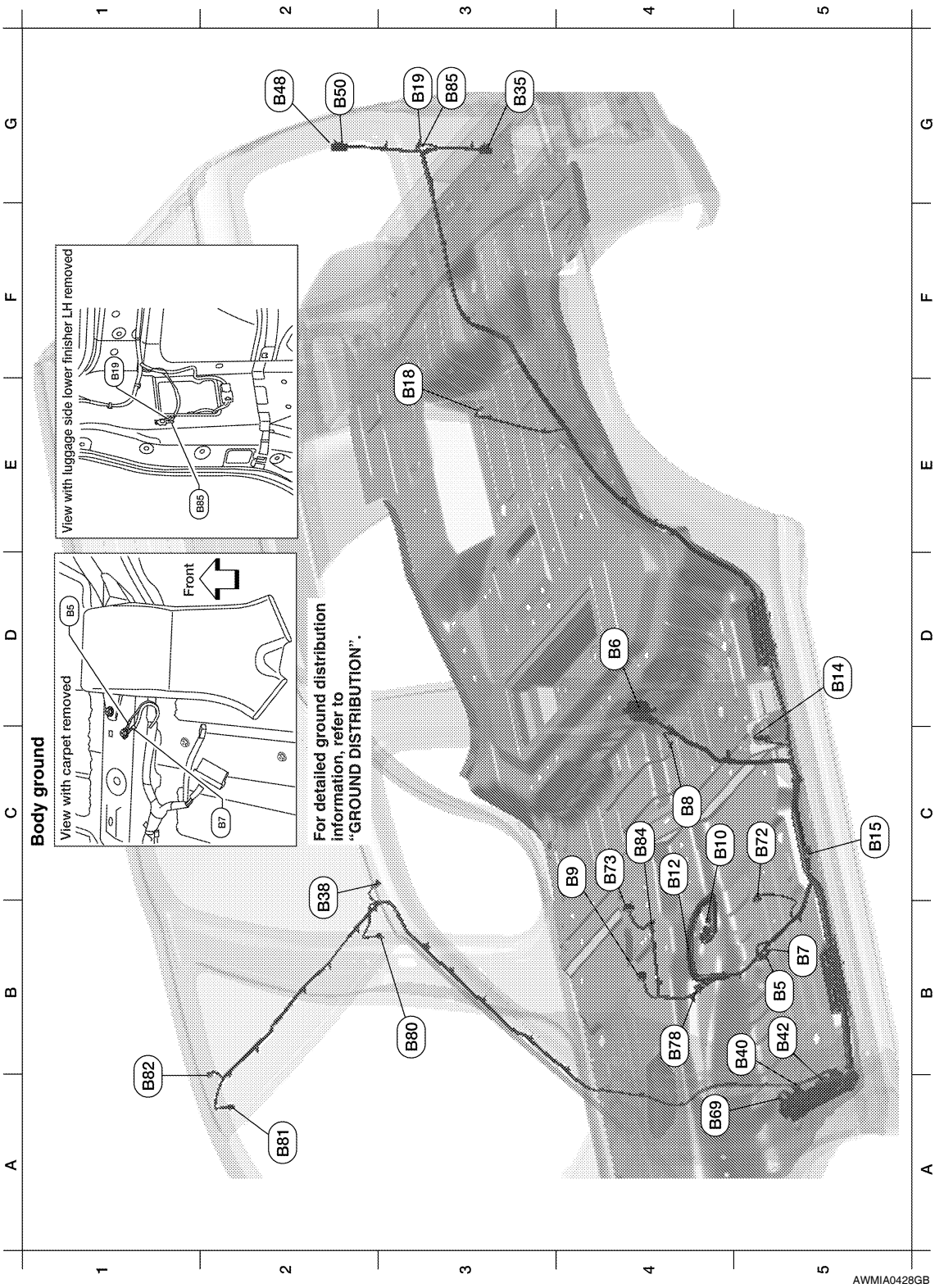
E4	F7	GR/3	: Ignition coil No. 4 (with power transistor)	F2	F55	B/2	: ATP switch
C3	F8	GR/3	: Ignition coil No. 6 (with power transistor)	G1	F58	B/8	: Transfer control device (actuator motor)
E2	F9	G/10	: A/T assembly	G2	F59	GR/2	: Wait detection switch
C5	F10	—	: Engine ground	G3	F60	GR/2	: 4LO switch
D3	F11	B/3	: Crankshaft position sensor (POS)	C2	F65	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 1)
F1	F12	G/4	: Heated oxygen sensor 2 (bank 2)	D2	F68	B/2	: Park/neutral position switch (with M/T)
E3	F13	L/4	: Heated oxygen sensor 2 (bank 1)	D3	F67	L/4	: To F150
B2	F14	W/24	: To E5	E2	F69	W/2	: Back up lamp switch
C5	F15	L/2	: EVAP canister purge volume control solenoid valve	C2	F70	G/3	: Camshaft position sensor (PHASE) (bank 1)
D5	F16	—	: Engine ground	Injector sub-harness			
C4	F18	GR/2	: Fuel injector No. 2	D2	F101	GR/4	: To F44
C4	F19	B/2	: VIAS control solenoid valve	C4	F102	GR/2	: Fuel injector NO.1
D4	F20	GR/2	: Fuel injector No. 4	C4	F103	GR/2	: Fuel injector NO.3
D3	F21	W/2	: Condenser-1	C3	F104	GR/2	: Fuel injector NO.5
D3	F22	GR/2	: Fuel injector No. 6	Ignition coil sub-harness			
E4	F23	B/3	: Camshaft position sensor (phase) (bank 2)	B3	F125	G/8	: To F26
D2	F24	GR/2	: Engine coolant temperature sensor	B3	F126	GR/3	: Fuel injector NO.1 (with power transistor)
C3	F26	G/8	: To F125	B3	F127	GR/3	: Fuel injector NO.3 (with power transistor)
B2	F31	B/6	: Mass air flow sensor	C3	F128	GR/3	: Fuel injector NO.5 (with power transistor)
B2	F32	W/16	: To E2	B3	F129	G/2	: Intake valve timing control solenoid valve (bank 1)
B2	F33	W/16	: To E19	Knock sensor sub-harness			
A2	F39	—	: Fusible link (battery)	C3	F150	L/4	: To F67
D2	F44	G/4	: To F101	C4	F151	B/2	: Knock sensor (bank 1)
B4	F46	B/3	: Power steering pressure sensor	D3	F152	B/2	: Knock sensor (bank 2)



F3	C1	B/48	: To E41	B4	C14	GR/4	: To C115
D3	C5	GR/5	: Fuel level sensor unit and fuel pump (fule level sensor)	B4	C51	GR/6	: To C125
A3	C6	B/2	: Evap canister vent control valve	A4	C52	B/2	: To C150
A3	C7	GR/3	: EVAP control system pressure sensor	Differential Sub-harness			

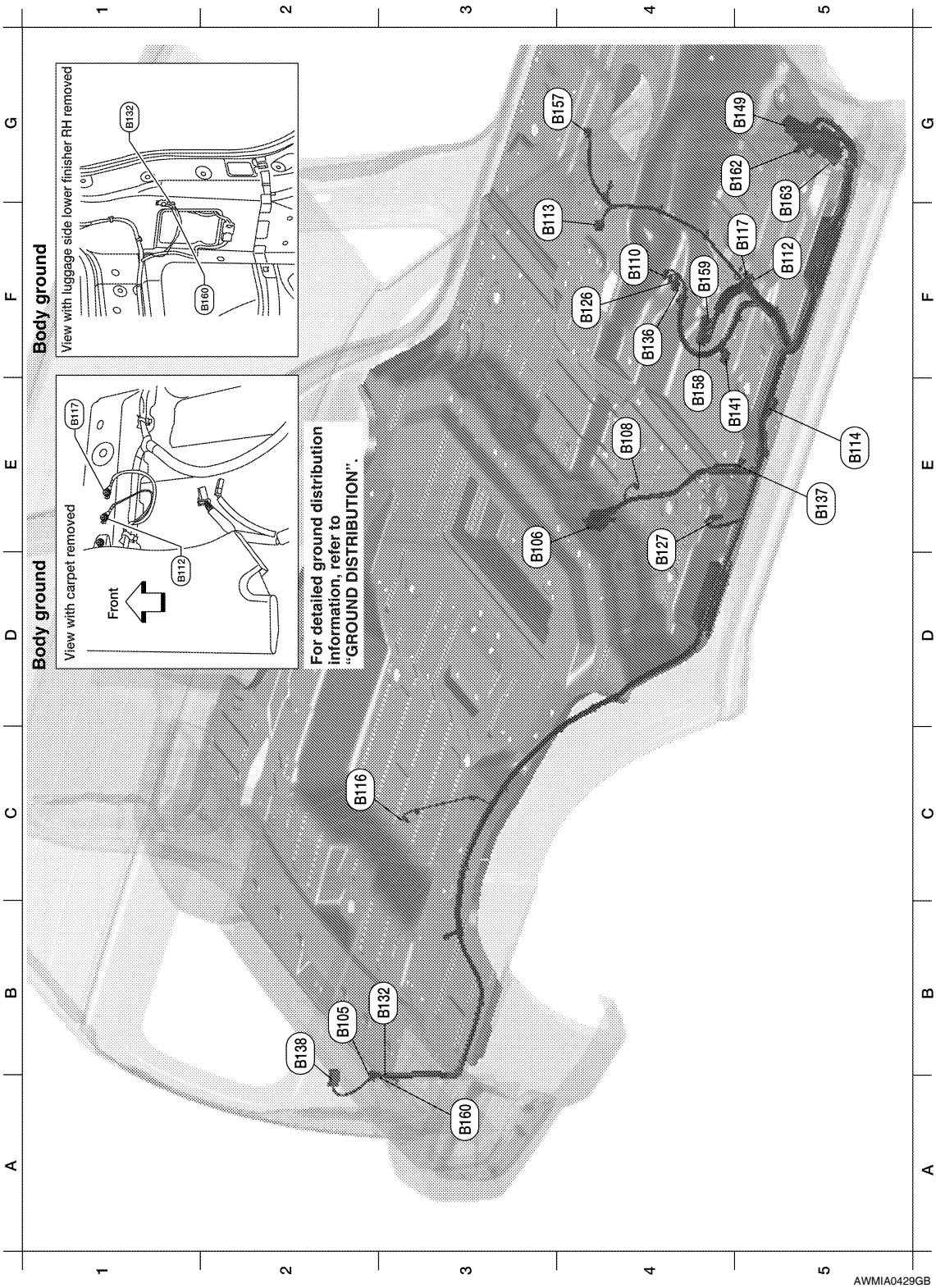
D4	C10	G/2	: Rear wheel sensor RH	B4	C115	GR/4	: To C14
C3	C11	G/2	: Rear wheel sensor LH	C4	C116	GR/2	: Differential lock position switch
A4	C12	W/2	: License plate lamp	C4	C117	B/2	: Differential lock solenoid

BODY HARNESS



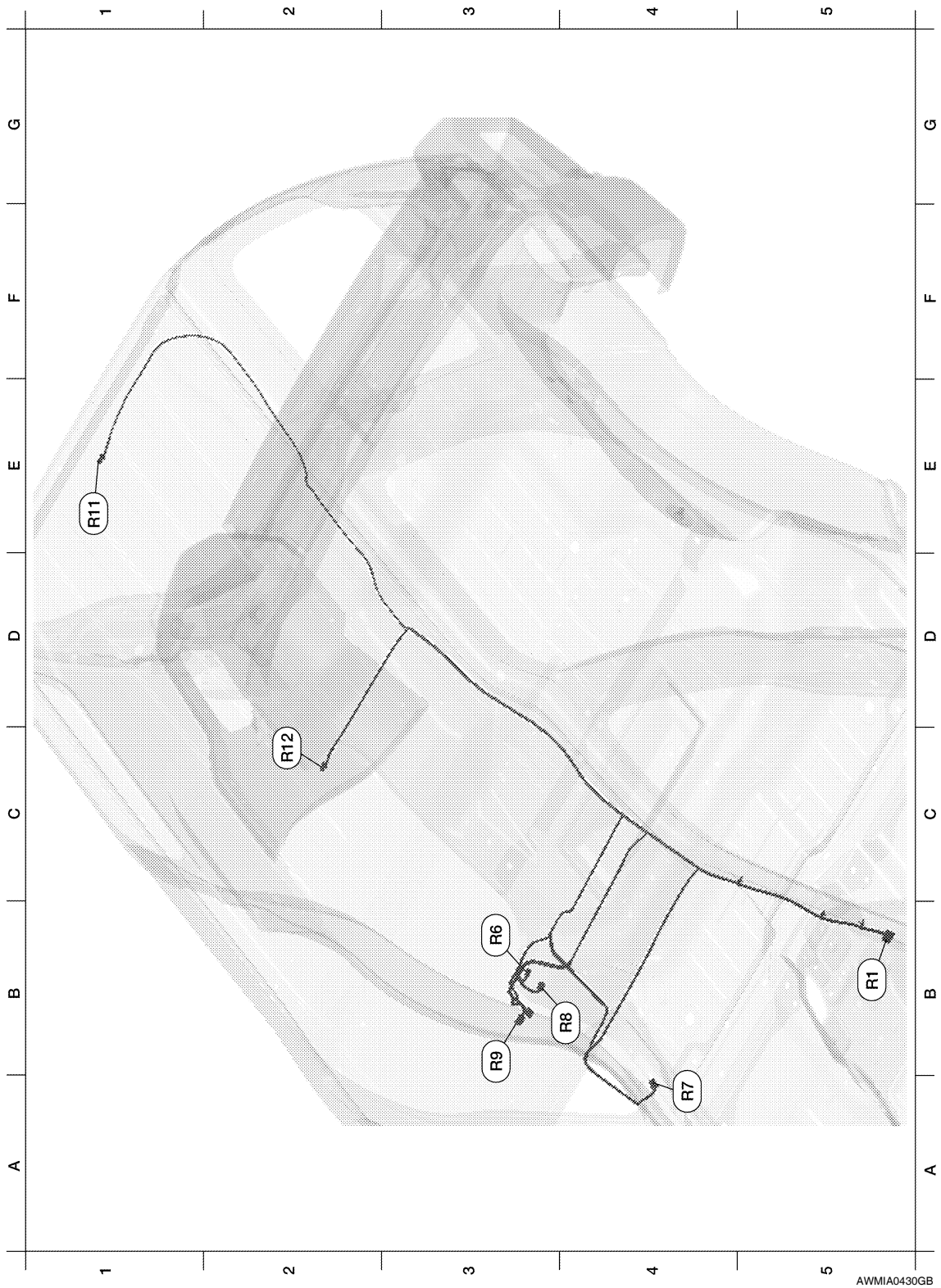
B5	B5	—	: Body ground (LH sattelite sensor)	A4	B40	W/8	: To E34
D4	B6	W/12	: To D201	B5	B42	W/2	: To E36

B5	B7	—	: Body ground	G2	B48	W/8	: To D401
C4	B8	W/3	: Front door switch LH	G2	B50	W/2	: To D410
B4	B9	Y/12	: Air bag diagnosis sensor unit	A5	B69	W/80	: To M40
C4	B10	Y/2	: Front LH side air bag module	C5	B72	GR/4	: Subwoofer
C4	B12	W/3	: Seat belt buckle switch LH	B4	B73	B/6	: Yaw rate/side/decel G sensor
D5	B14	Y/2	: Front LH seat belt pre-tensioner	A4	B78	Y/2	: To B157
C5	B15	Y/2	: LH side air bag (satellite) sensor	B3	B80	W/2	: Vanity lamp LH
E3	B18	W/3	: Rear door switch LH	A2	B81	W/2	: Vanity lamp RH
G3	B19	—	: Body ground	A2	B82	Y/2	: Right side front curtain air bag module
G3	B35	W/6	: Rear combination lamp LH	B4	B84	B/1	: Parking brake switch
C2	B38	Y/2	: LH side front curtain air bag module	G3	B85	—	: Body ground



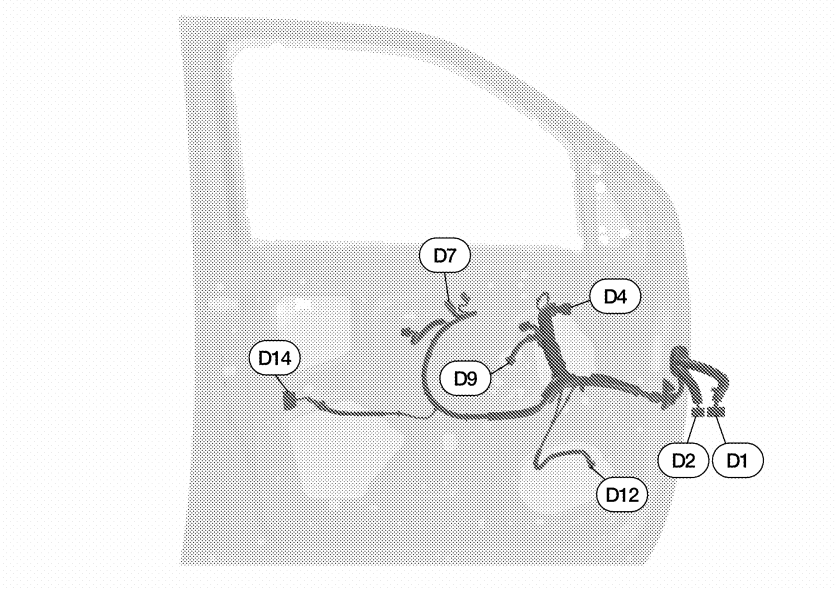
B2	B105	W/6	: Rear combination lamp RH	E4	B136	W/8	: To B351
D4	B106	W/12	: To D301	D5	B137	W/3	: Belt tension sensor
E4	B108	W/3	: Front door switch RH	B2	B138	B/3	: Rear cargo power socket
F5	B112	—	: Body ground (satelite sensor)	E5	B141	W/32	: Bluetooth control unit
F4	B113	Y/12	: Air bag diagnosis sensor unit	G5	B149	W/80	: To M36

E5	B114	Y/2	: RH side air bag (satellite) sensor	G4	B157	Y/2	: To B78
C3	B116	W/3	: Rear door switch RH	E4	B158	W/8	: Audio amplifier
F5	B117	—	: Body ground	F4	B159	W/24	: Audio amplifier
F4	B126	Y/2	: Front RH side air bag module	A4	B160	—	: Body ground
E5	B127	Y/2	: Front RH side air bag module	G5	B162	W/12	: To M16
B3	B132	—	: Body ground	F5	B163	W/16	: To M17



B5	R1	W/24	: To M1	D3	R9	W/3	: Front room/map lamp assembly
B3	R6	W/4	: Bluetooth on indicator	E1	R11	W/2	: Cargo lamp
A4	R7	B/7	: Auto anti-dazzling inside mirror	D2	R12	W/2	: Room lamp 2nd row
B4	R8	W/4	: Microphone				

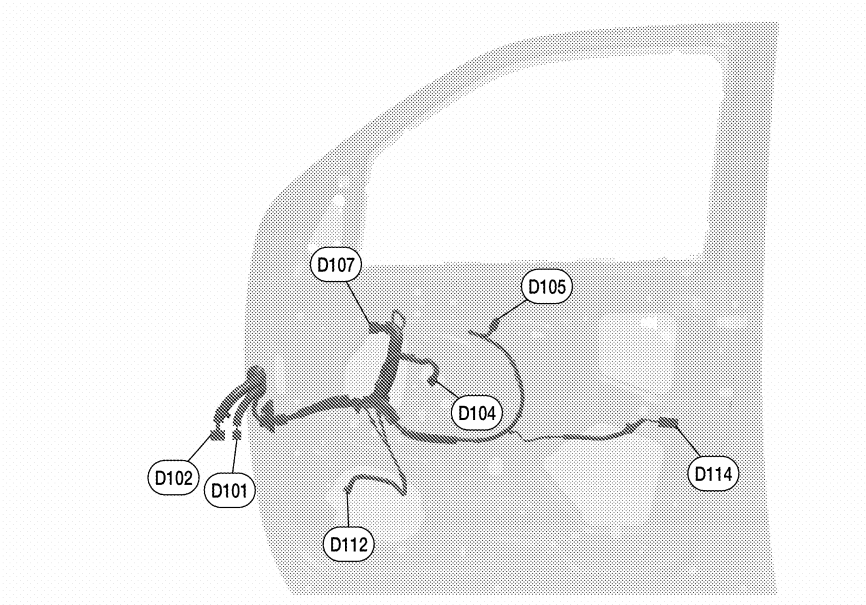
FRONT DOOR LH HARNESS



WKIA3986E

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

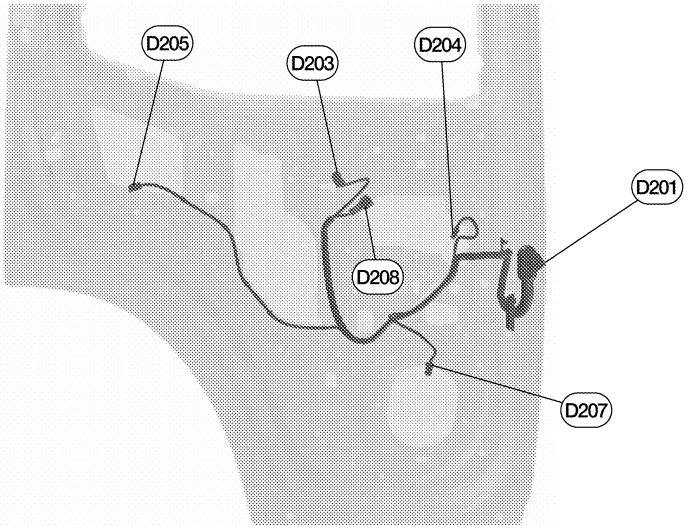
FRONT DOOR RH HARNESS



WKIA3987E

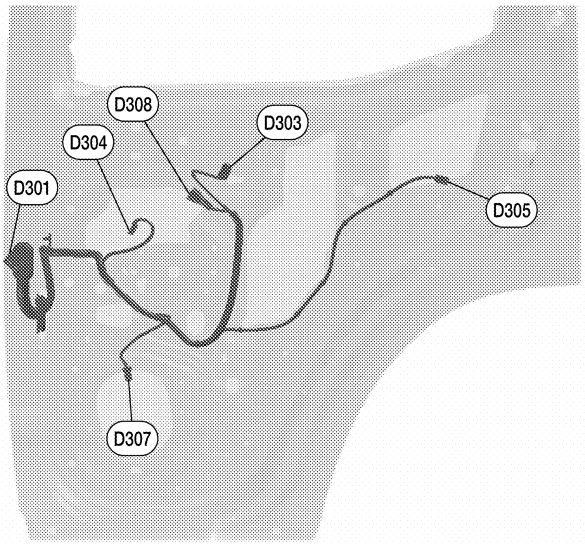
D101	W/12	: To M75	D107	B/3	: Door mirror RH (without heated mirror)
D102	W/16	: To M74	D107	B/10	: Door mirror RH (with heated mirror)
D104	BR/2	: Front power window motor RH	D112	W/2	: Front door speaker RH
D105	W/12	: Power window and door lock/unlock switch RH	D114	W/2	: Front door lock actuator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

REAR DOOR LH HARNESS



WKIA3989E

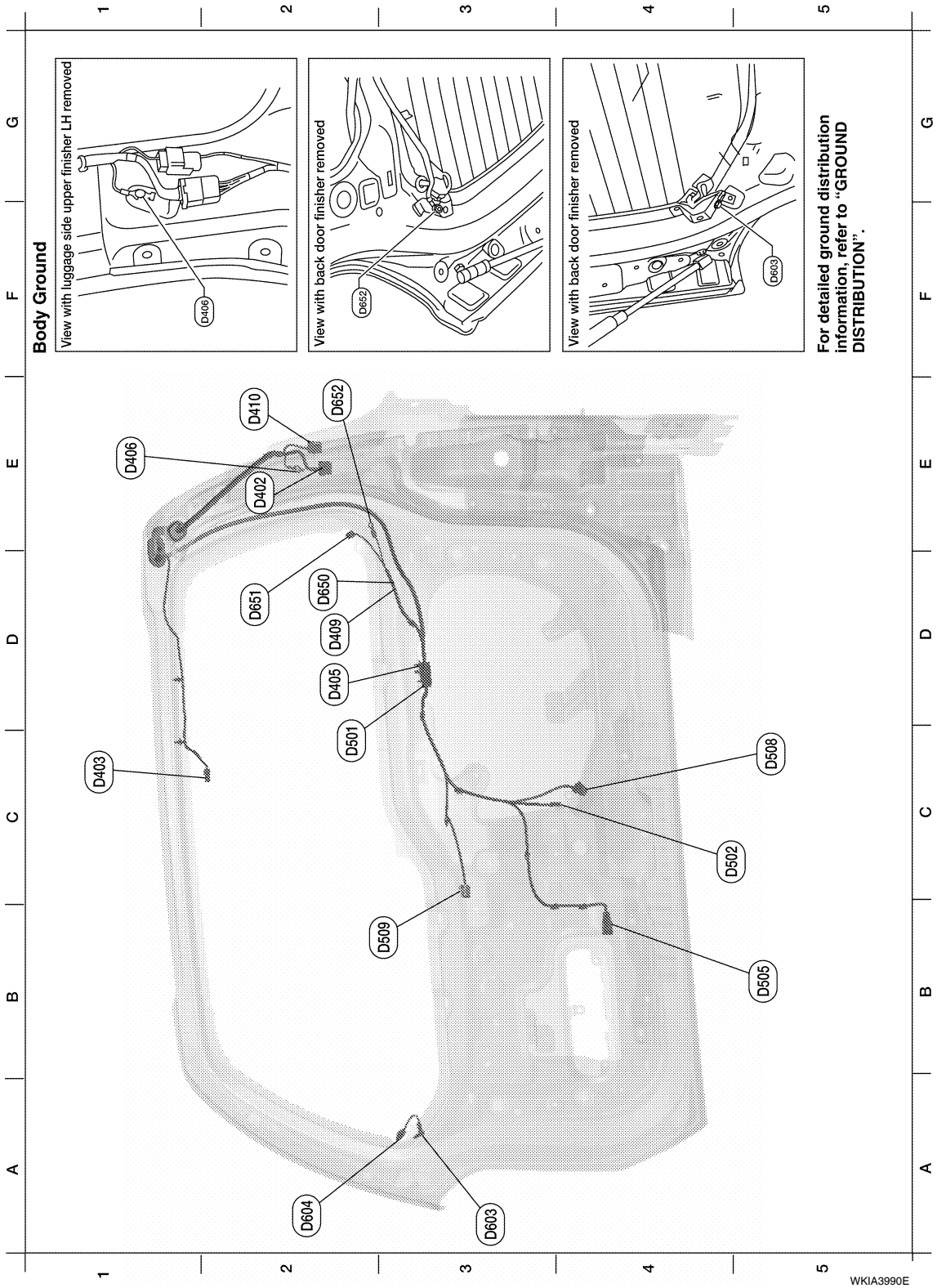
D201	W/12	: To B6	D205	W/2	: Rear door lock actuator LH
D203	W/8	: Rear power window switch LH	D207	W/2	: Rear door speaker LH
D204	B/2	: Rear power window motor LH	D208	BR/2	: Rear door tweeter LH



WKIA3988E

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

BACK DOOR HARNESS



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

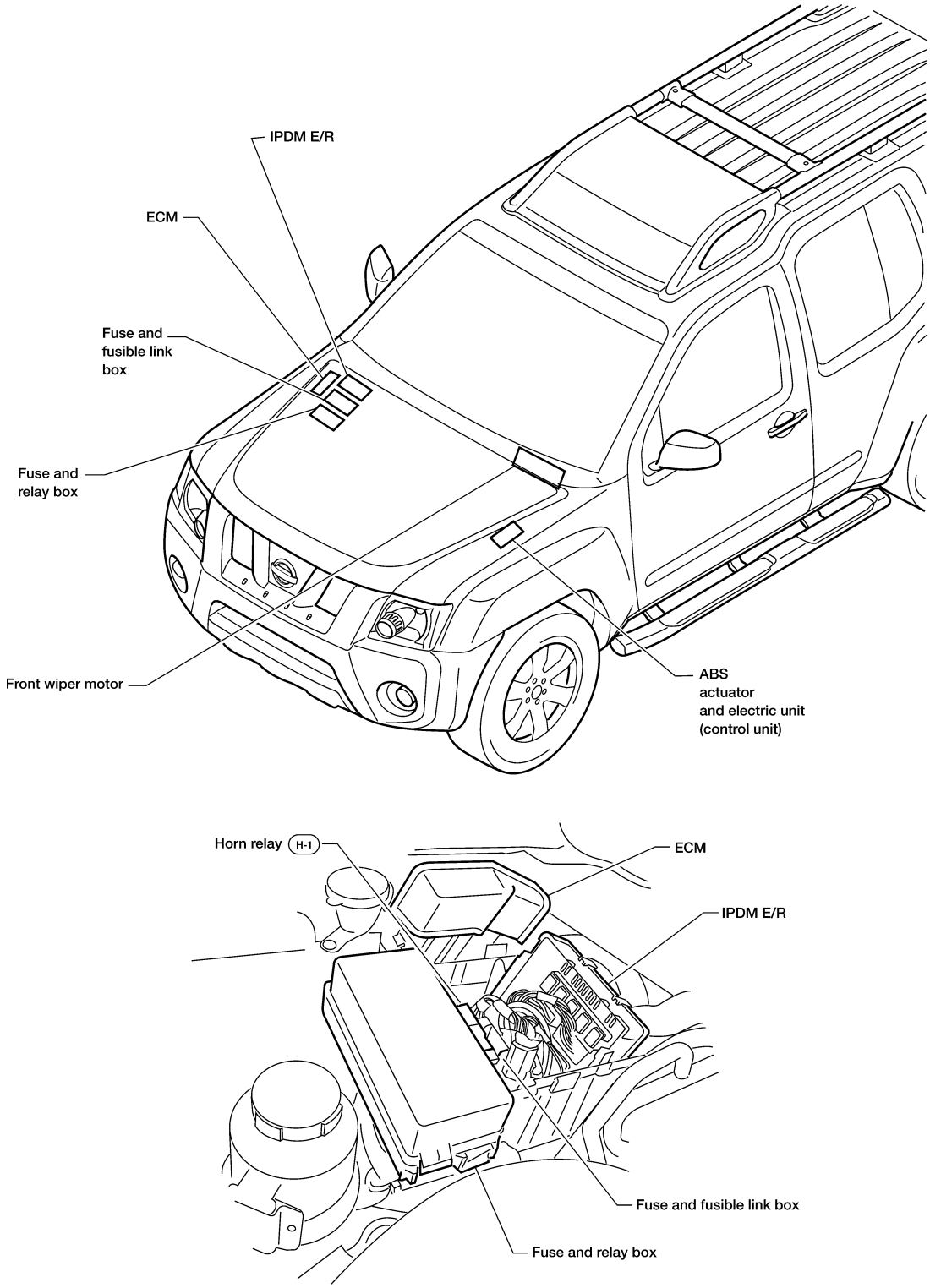
D2	D409	W/2	: To D650	A2	D604	B/1	: Rear window defogger
E2	D410	W/2	: To B50	Rear window defogger sub-harness			
Back door harness				D2	D650	W/2	: To D409
C2	D501	W/8	: To D405	D2	D651	B/1	: Rear window defogger
C5	D502	W/3	: Back door switch	E2	D652	—	: Body ground

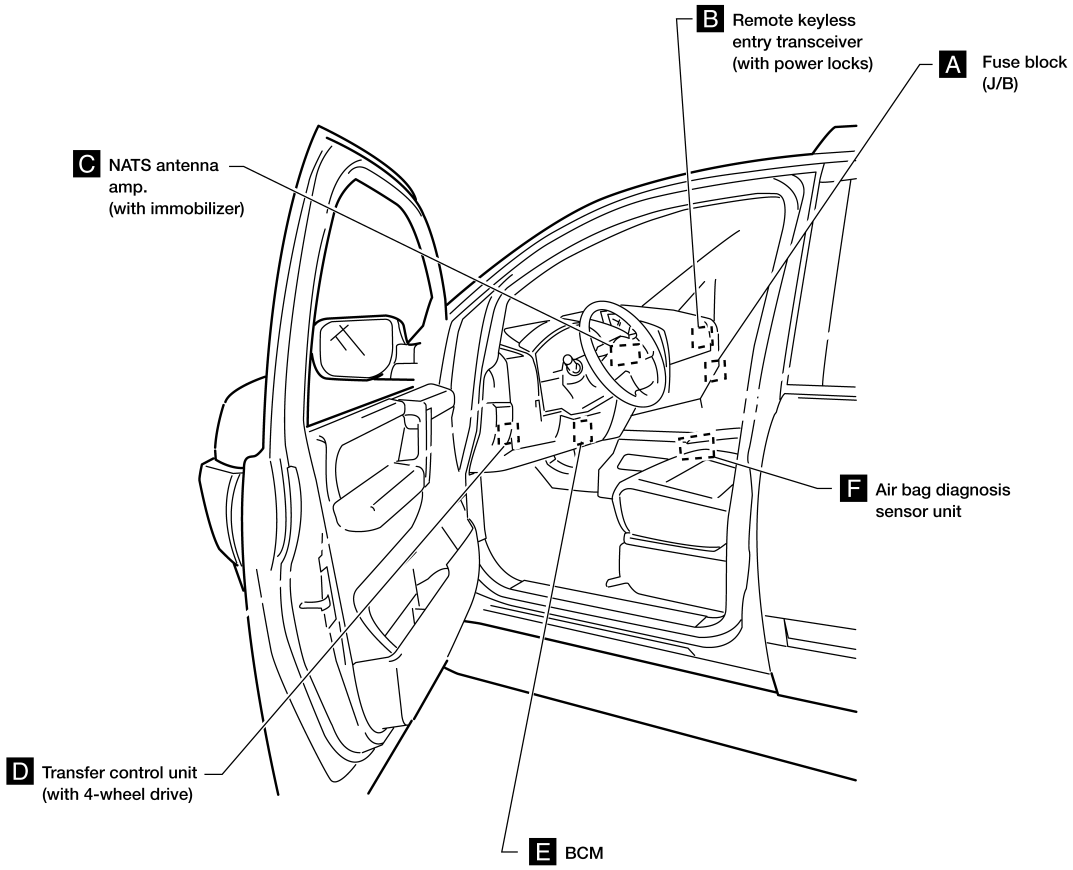
ELECTRICAL UNITS LOCATION

Electrical Units Location

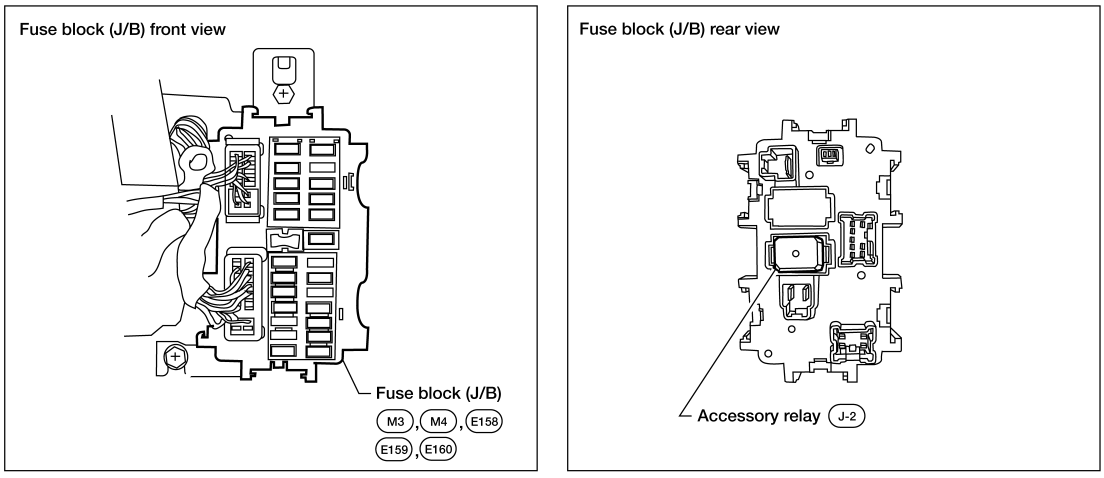
INFOID:0000000003085108

ENGINE COMPARTMENT



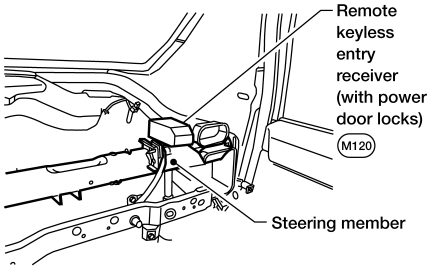


A Instrument panel side RH

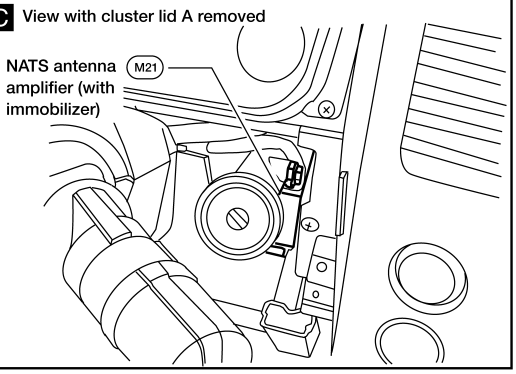


WKIA5071E

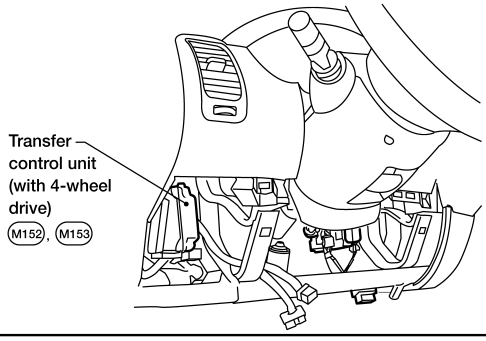
B View with instrument panel removed RH



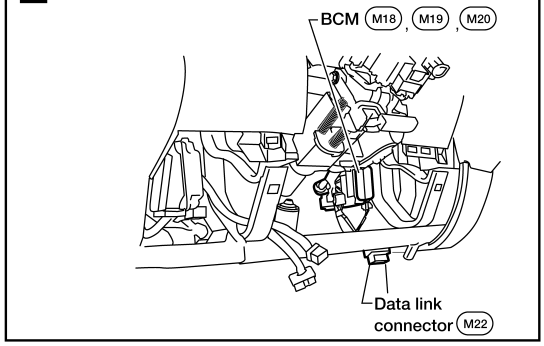
C View with cluster lid A removed



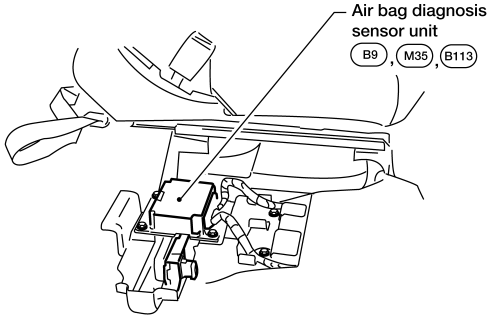
D View with lower instrument cover removed



E View with instrument lower panel LH removed



F View with center console removed



WKIA5072E

HARNESS CONNECTOR

Description

INFOID:0000000003085109

HARNESS CONNECTOR (TAB-LOCKING TYPE)

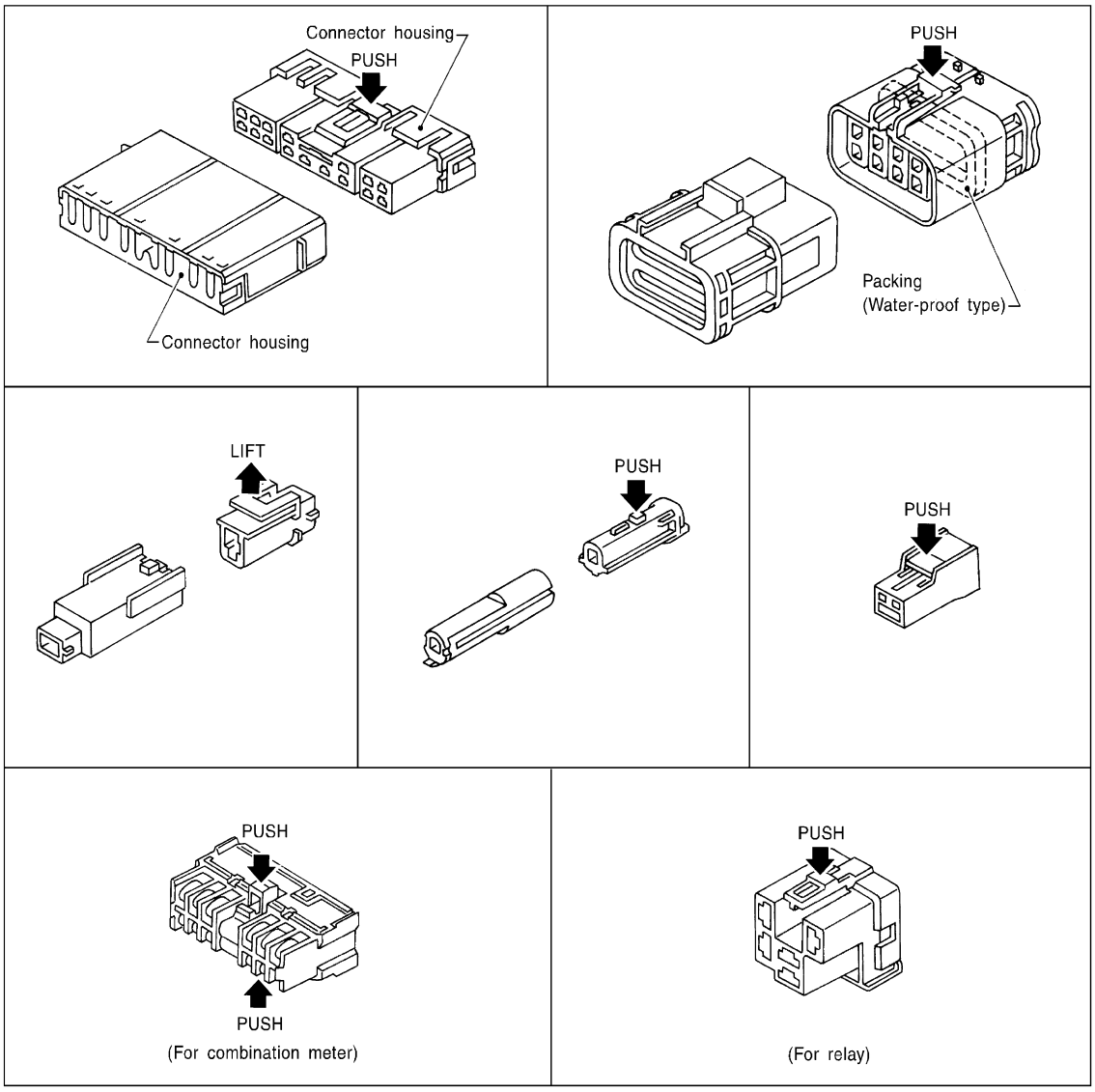
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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

CAUTION:

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

[Example]



SEL769DA

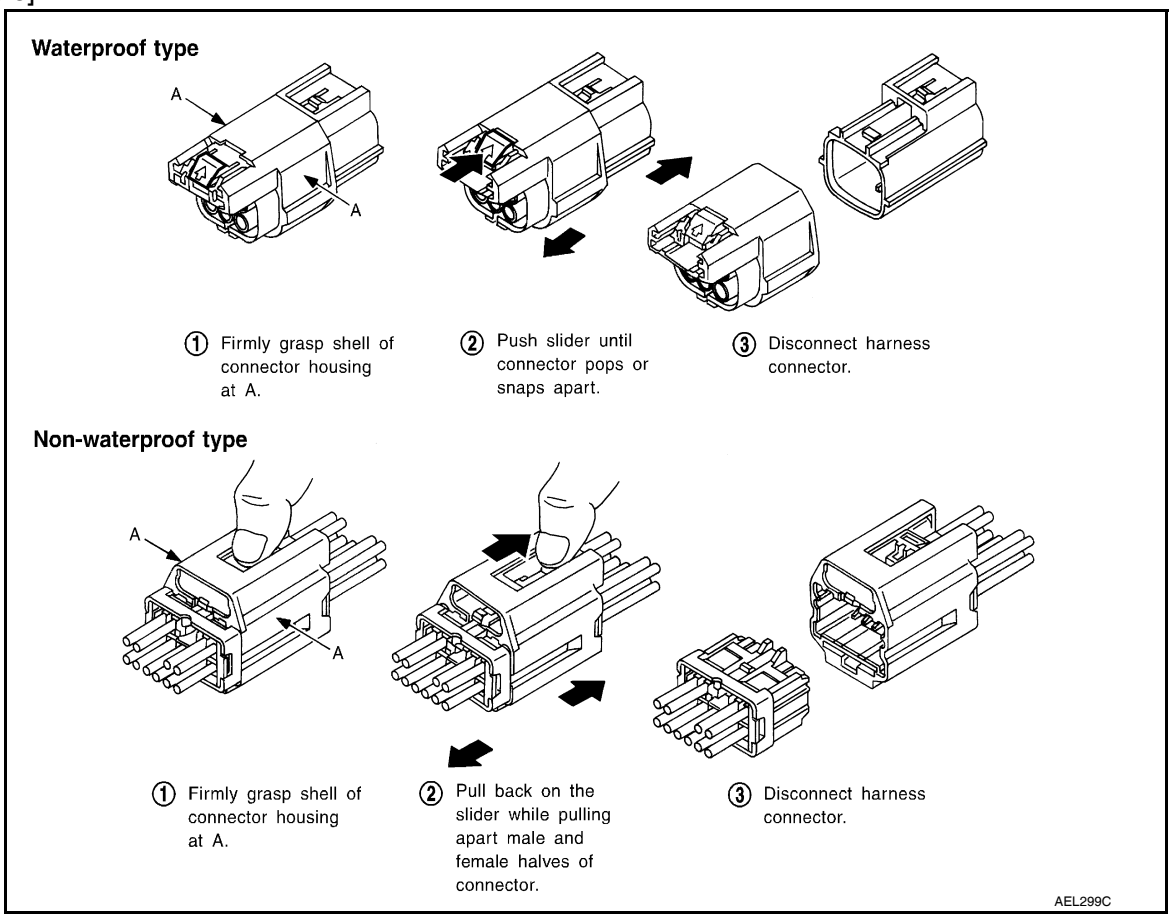
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- A new style slide-locking type connector is used on certain systems and components, especially those related to OBD.
- The slide-locking type connectors help prevent incomplete locking and accidental looseness or disconnection.
- The slide-locking type connectors are disconnected by pushing or pulling the slider. Refer to the illustration below.

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]

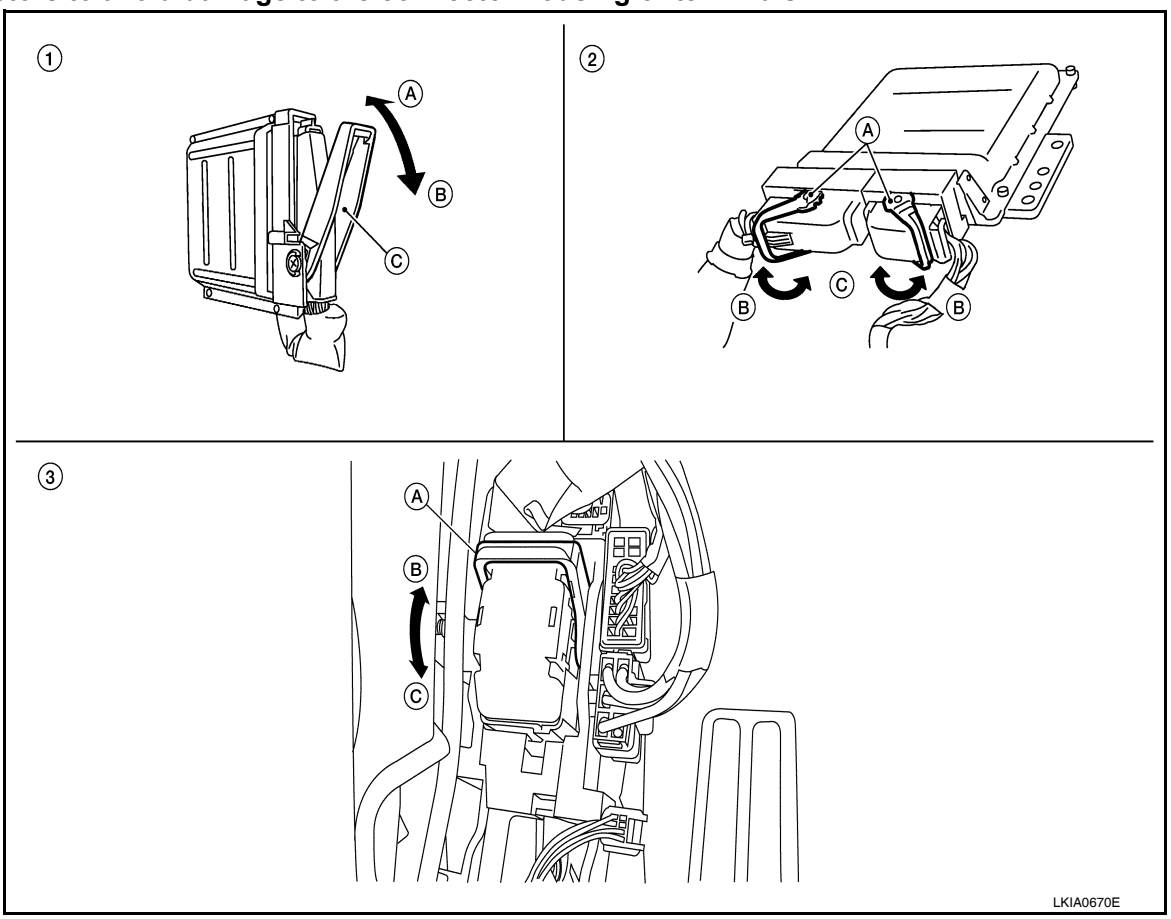


HARNESS CONNECTOR (LEVER LOCKING TYPE)

- 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:

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



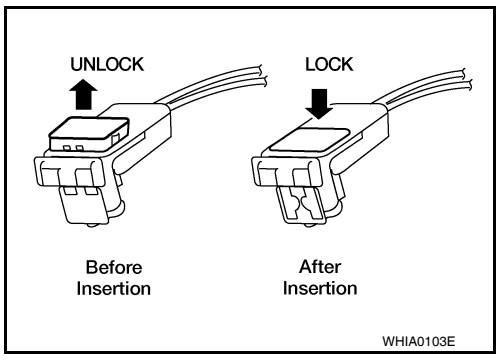
1. Control unit with single lever
   A. Fasten
   B. Loosen
   C. Lever
2. Control unit with dual levers
   A. Levers
   B. Fasten
   C. Loosen
3. SMJ connector
   A. Lever
   B. Fasten
   C. Loosen

HARNESS CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

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

CAUTION:

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

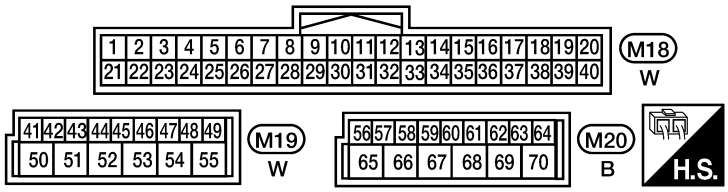


ELECTRICAL UNITS

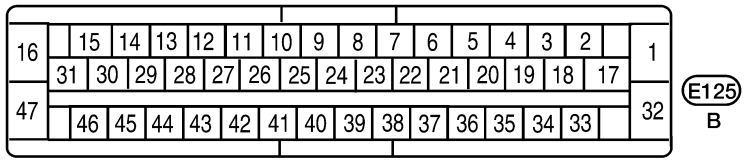
Terminal Arrangement

INFOID:0000000003085110

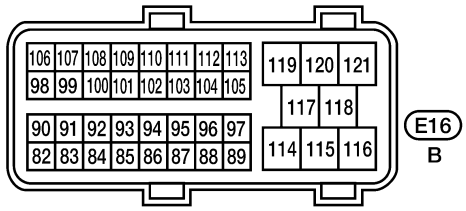
BCM (BODY CONTROL MODULE)

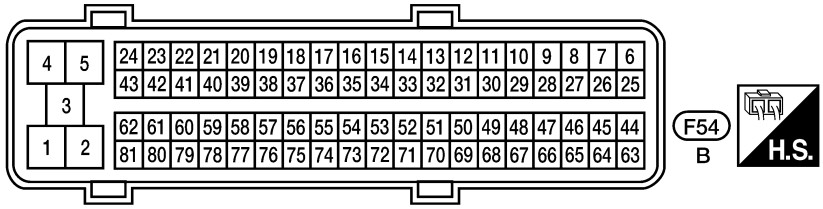


ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

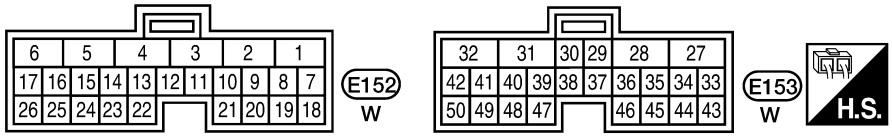


ECM





TRANSFER CONTROL UNIT



WKIA4003E

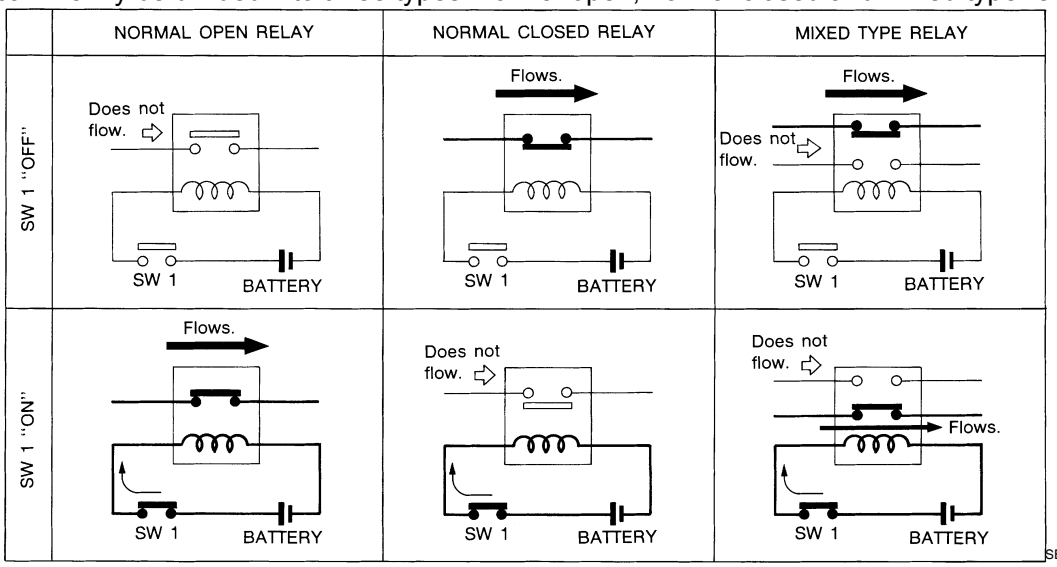
STANDARDIZED RELAY

Description

INFOID:0000000003085111

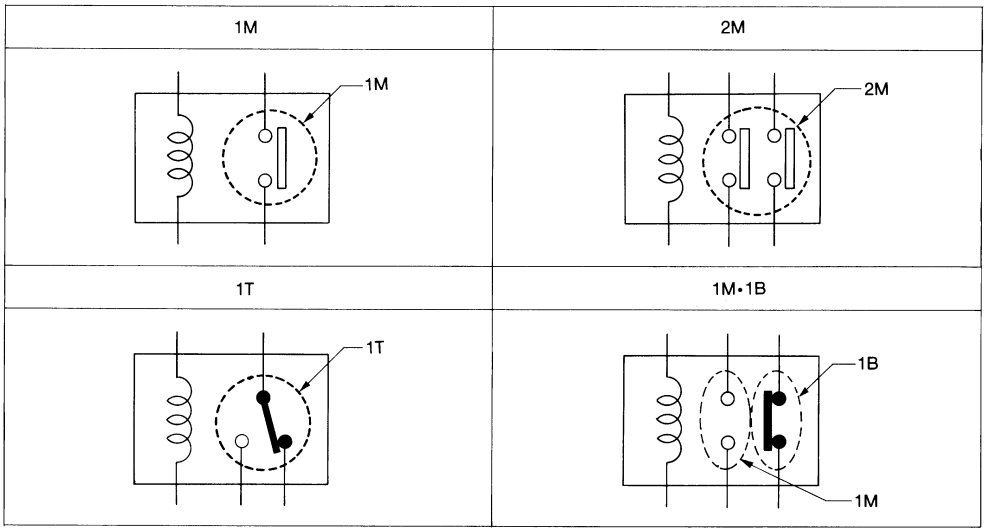
NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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



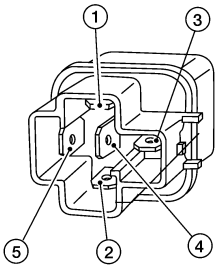
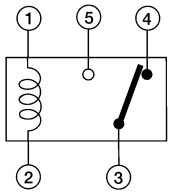
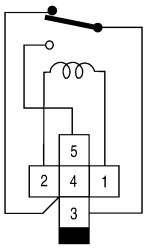
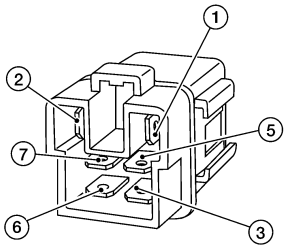
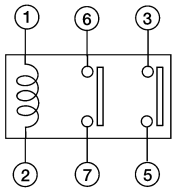
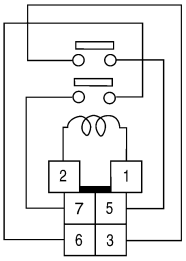
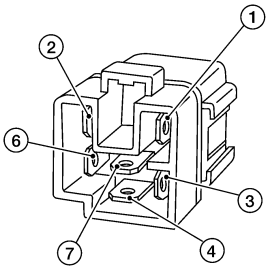
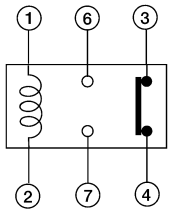
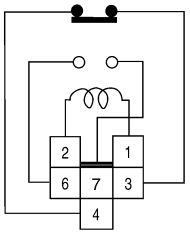
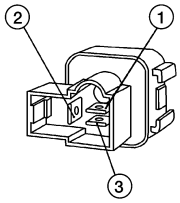
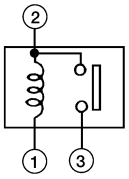
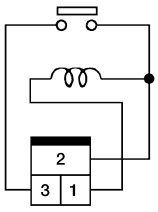
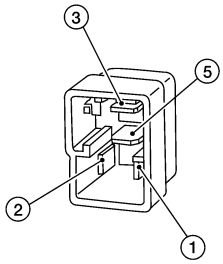
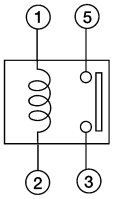
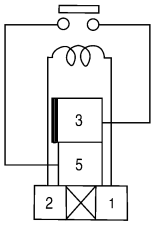
SEL881H

TYPE OF STANDARDIZED RELAYS



SEL882H

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

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

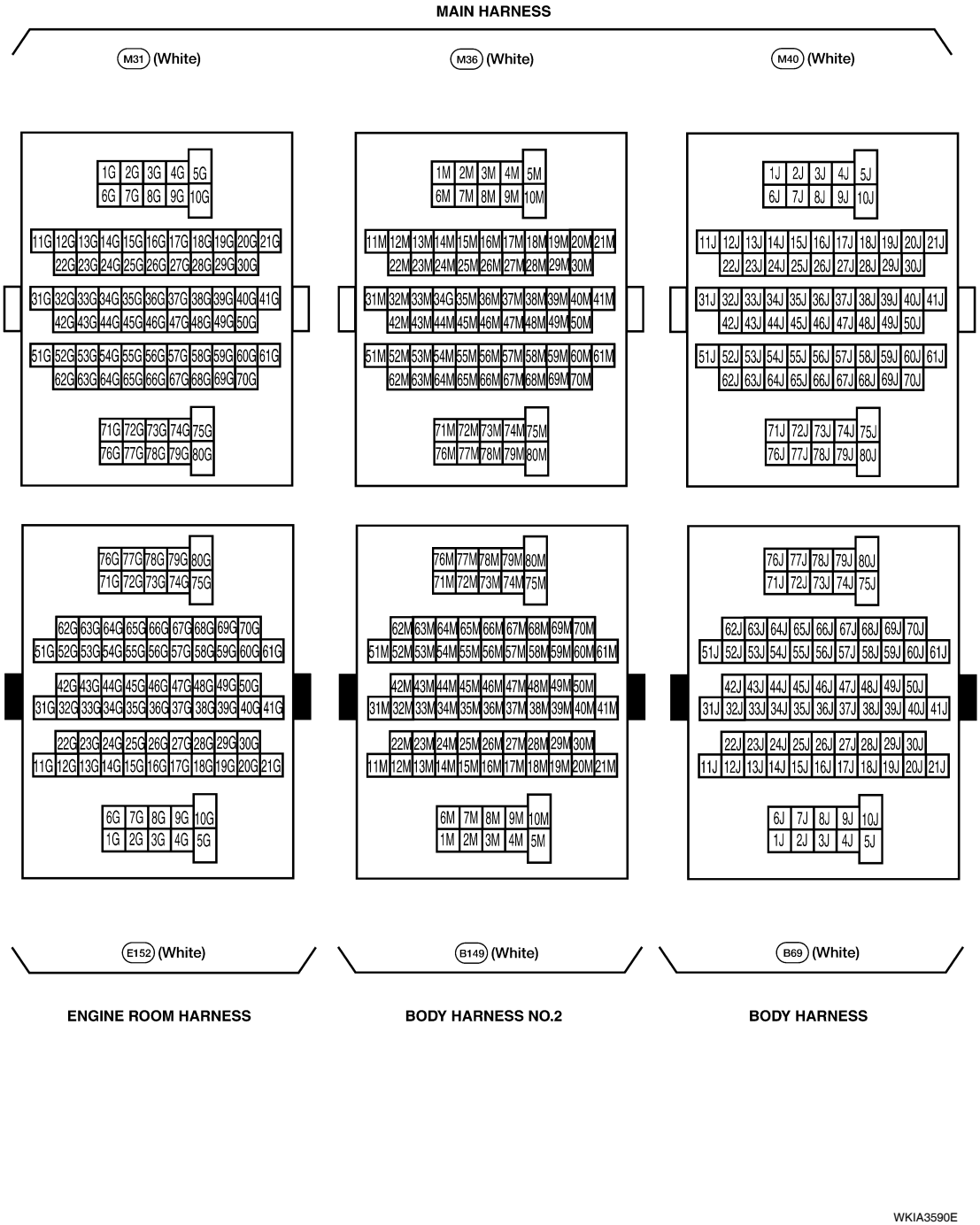
The arrangement of terminal numbers on the actual relays may differ from those shown above.

WKIA0253E

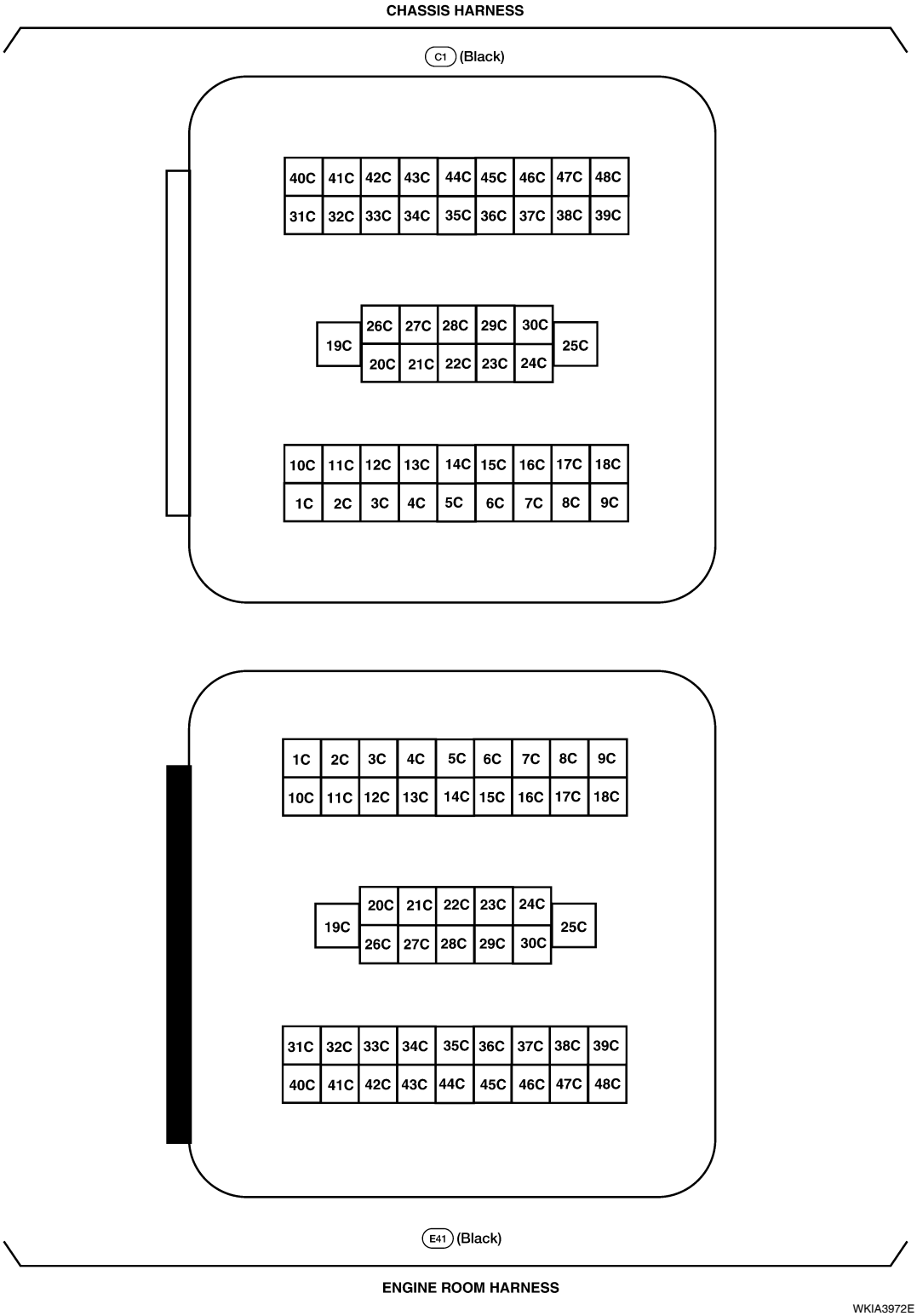
SUPER MULTIPLE JUNCTION (SMJ)

Terminal Arrangement

INFOID:0000000003085112



WKIA3590E

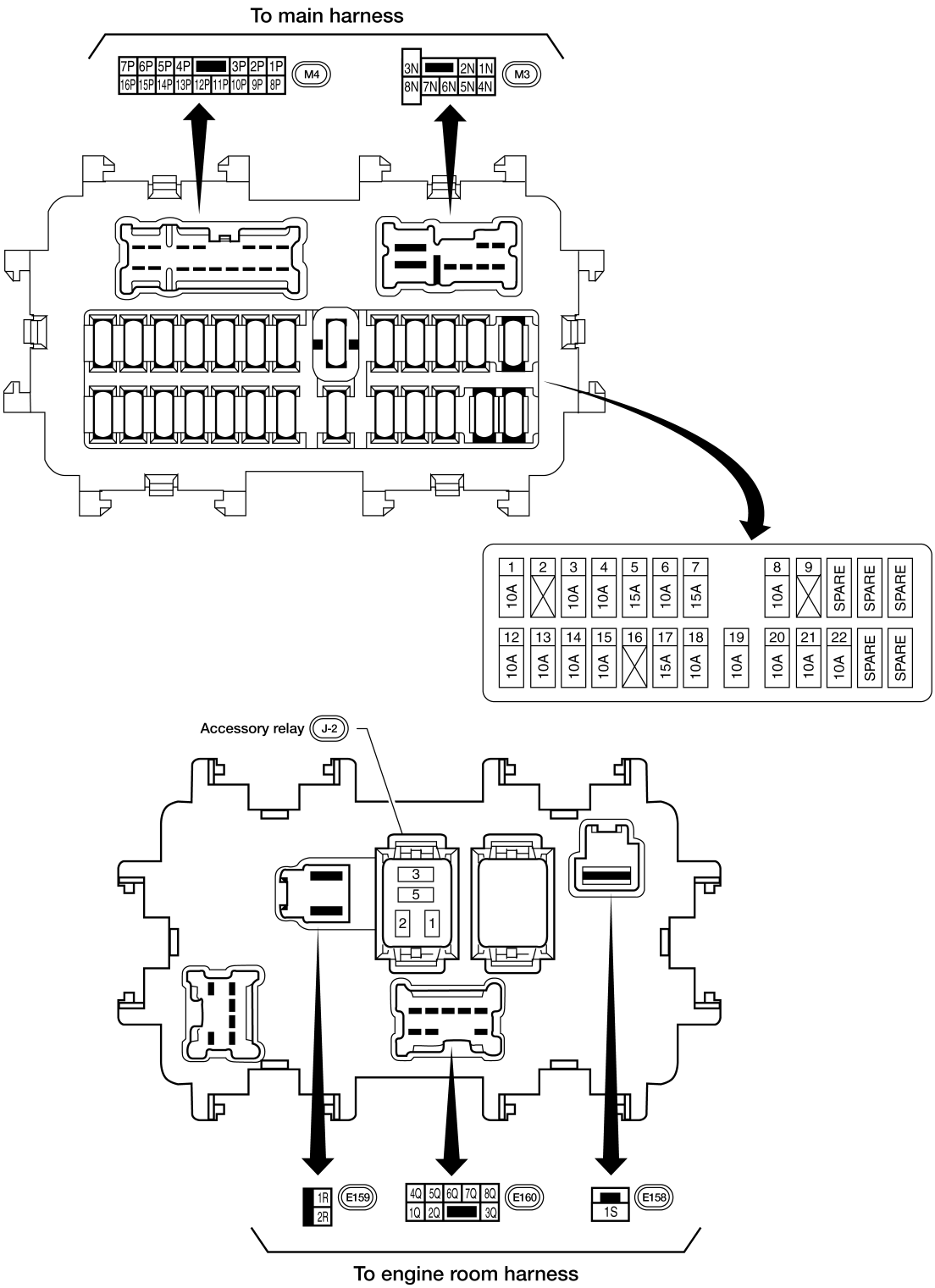

CHASSIS HARNESS
C1 (Black)
40C 41C 42C 43C 44C 45C 46C 47C 48C
31C 32C 33C 34C 35C 36C 37C 38C 39C
19C
26C 27C 28C 29C 30C
20C 21C 22C 23C 24C
25C
10C 11C 12C 13C 14C 15C 16C 17C 18C
1C 2C 3C 4C 5C 6C 7C 8C 9C
1C 2C 3C 4C 5C 6C 7C 8C 9C
10C 11C 12C 13C 14C 15C 16C 17C 18C
19C
20C 21C 22C 23C 24C
26C 27C 28C 29C 30C
25C
31C 32C 33C 34C 35C 36C 37C 38C 39C
40C 41C 42C 43C 44C 45C 46C 47C 48C
E41 (Black)
ENGINE ROOM HARNESS

WKIA3972E

FUSE BLOCK-JUNCTION BOX (J/B)

Terminal Arrangement

INFOID:0000000003085113



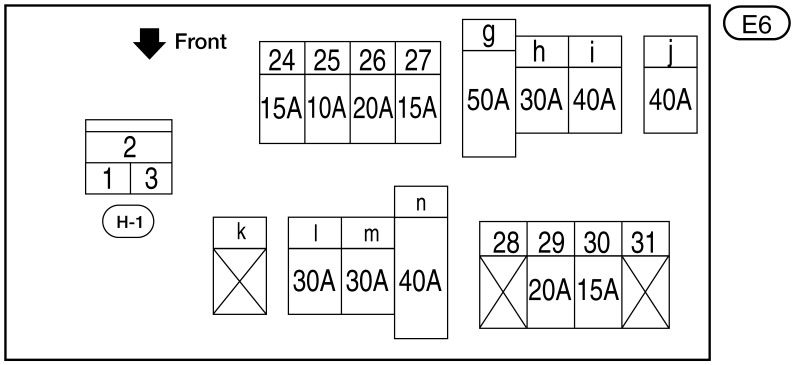
WKIA5073E

FUSE AND FUSIBLE LINK BOX

Terminal Arrangement

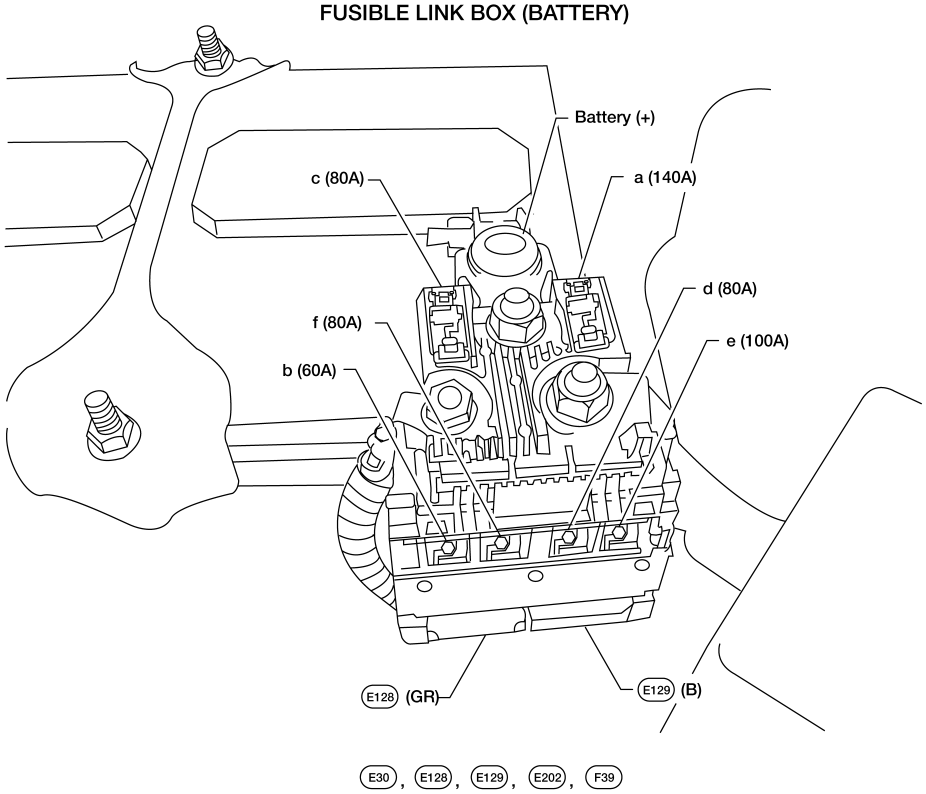
INFOID:0000000003085114

FUSE AND FUSIBLE LINK BOX



24 - 31 : FUSE g - n : FUSIBLE LINK

FUSIBLE LINK BOX (BATTERY)



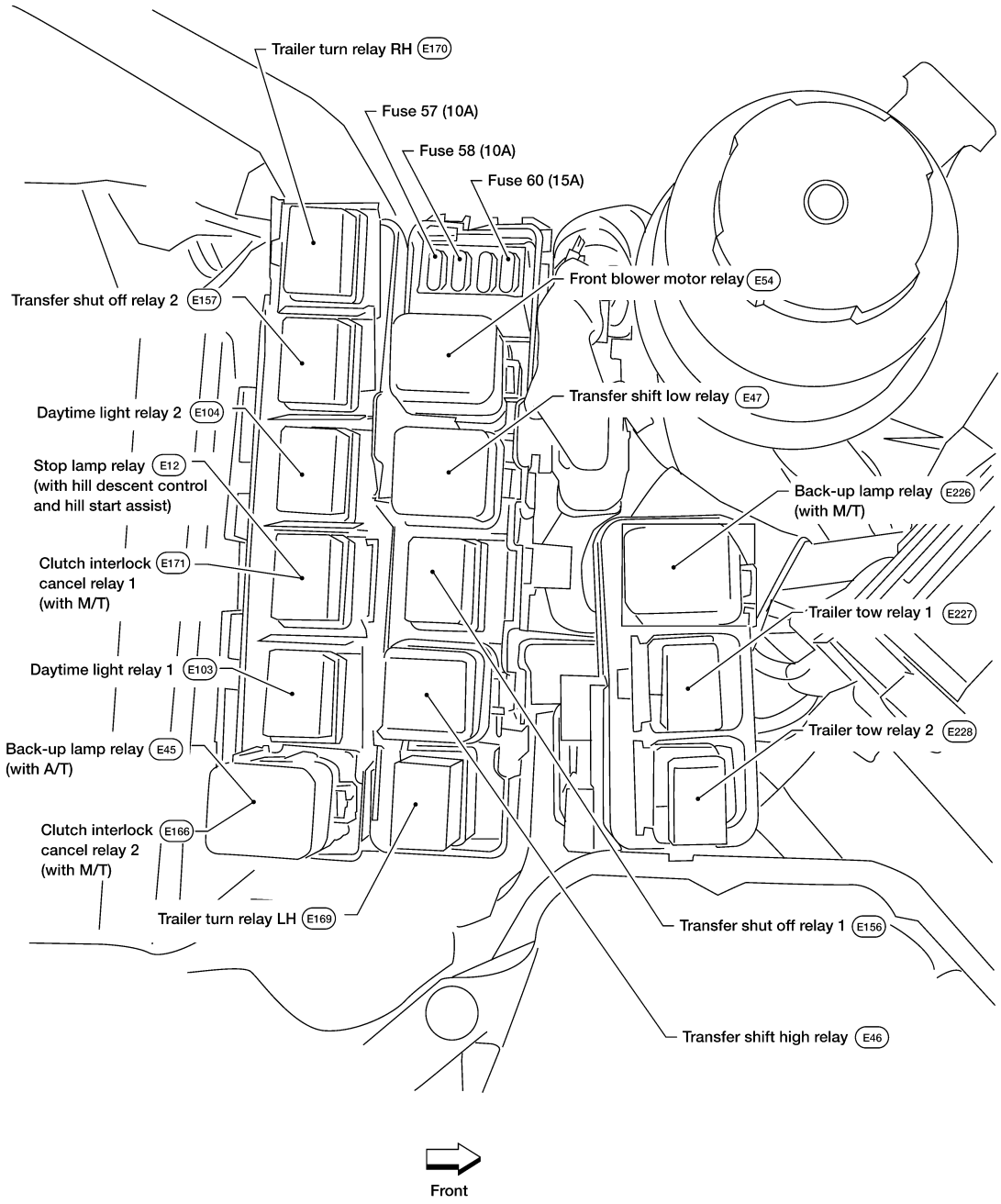
E30, E128, E129, E202, F39

WKIA5074E

FUSE AND RELAY BOX

Terminal Arrangement

INFOID:0000000003085115



WKIA5895E

ON-VEHICLE REPAIR

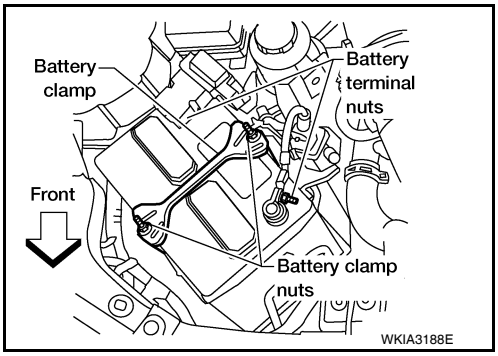
BATTERY

Removal and Installation

INFOID:0000000003085116

REMOVAL

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



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:
Install positive battery terminal first.

Battery clamp nuts	**: 3.92 N·m (0.40 kg-m, 35 in-lb)**
Battery terminal nut	**: 3.4 N·m (0.35 kg-m, 30 in-lb)**

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

SERVICE DATA AND SPECIFICATIONS (SDS)

BATTERY

Battery

INFOID:0000000003085117

	Standard battery
Type*	Gr. 24F
Capacity (20 HR) minimum V-AH	63
Cold cranking current A (For reference value)	550

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