SECTION PG

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

CONTENTS

BASIC INSPECTION

BATTERY

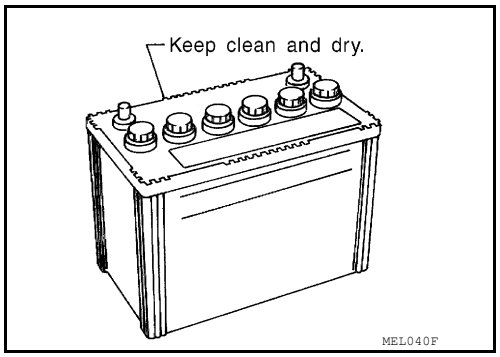
How to Handle Battery

INFOID:0000000006390986

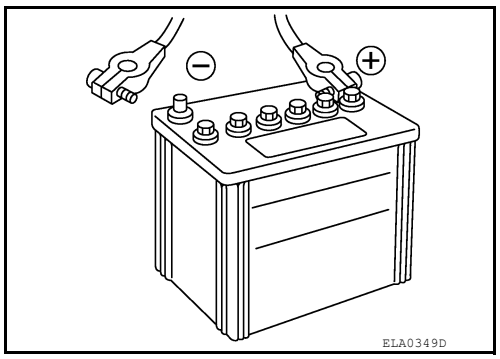
CAUTION:
- **If it becomes necessary to start the engine with a booster battery and jumper cables, use a 12-volt booster battery.**
- **After connecting battery cables, ensure that they are tightly clamped to battery terminals for good contact.**
- **Never add distilled water through the hole used to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

METHODS OF PREVENTING OVER-DISCHARGE

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



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



Work Flow

INFOID:0000000006390987

BATTERY DIAGNOSIS WITH EXP-800 NI OR GR8-1200 NI

To diagnose and confirm the condition of the battery, use the following special service tools:
- EXP-800 NI Battery and electrical diagnostic analyzer
- GR8-1200 NI Multitasking battery and electrical diagnostic station

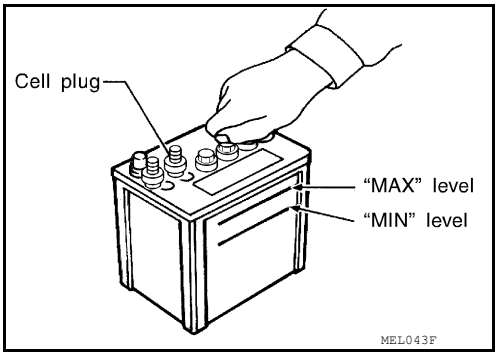
NOTE:
Refer to the applicable Instruction Manual for proper battery diagnosis procedures.

BATTERY DIAGNOSIS WITHOUT EXP-800 NI OR GR8-1200 NI

Checking Electrolyte Level

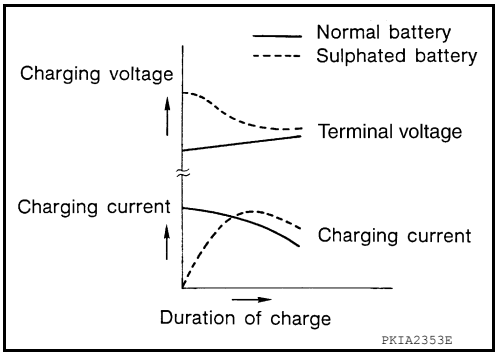
WARNING:
Never allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, never touch or rub your eyes until you have thoroughly washed your hands. If acid contacts eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical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

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



SULFATION

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



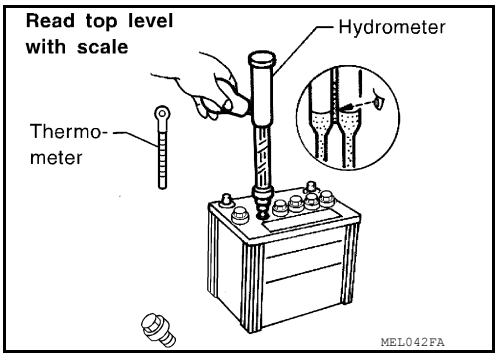
Specific Gravity Check

NOTE:

Check the charge condition of the battery.

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

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



Hydrometer Temperature Correction

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

Battery electrolyte temperature [°C (°F)]	Add to specific gravity reading
4 (40)	−0.016
−1 (30)	−0.020
−7 (20)	−0.024
−12 (10)	−0.028
−18 (0)	−0.032

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

Charging The Battery

CAUTION:

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

Charging Rates (Standard Charge)

Approximate charge condition	Charge current (A)	Charge time (h)
Fully charged	7	2
3/4 charged		2.5
1/2 charged		5
1/4 charged		7.5
Almost discharged		9
Completely discharged		10

Charging Rates (Quick Charge)

Approximate charge condition	Charge current (A)	Charge time (h)
Fully charged	—	—
3/4 charged	16	0.5
1/2 charged	33	
1/4 charged		
Almost discharged		
Completely discharged	—	—

NOTE:

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

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

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000006390988

Required Procedure After Battery Disconnection

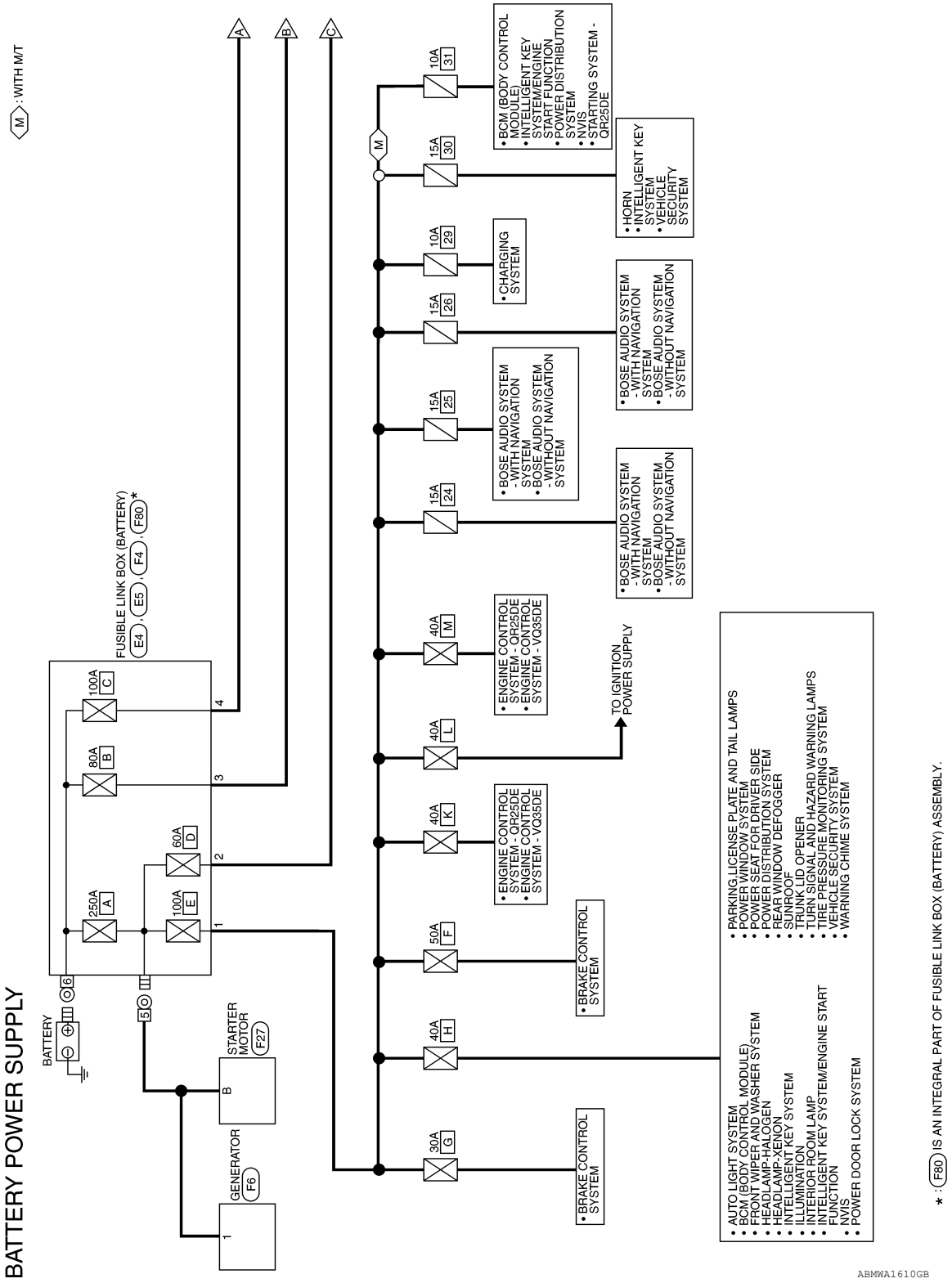
System	Item	Reference
Engine Control System	Idle Air Volume Learning	EC-20 (QR25DE) EC-336 (VQ35DE)
Power Window Control System	Power Window System Initialization	PWC-103
Roof	Sunroof Memory Reset/Initialization	RF-6
Heater & Air Conditioning Control System	Temperature Setting Trimmer	HAC-6
	Foot Position Setting Trimmer	HAC-6
	Inlet Port Memory Function	HAC-6
Audio, Visual & Navigation System	Audio (Radio Preset)	Refer to Owner's Manual.
	Navigation System	Refer to Owner's Manual.

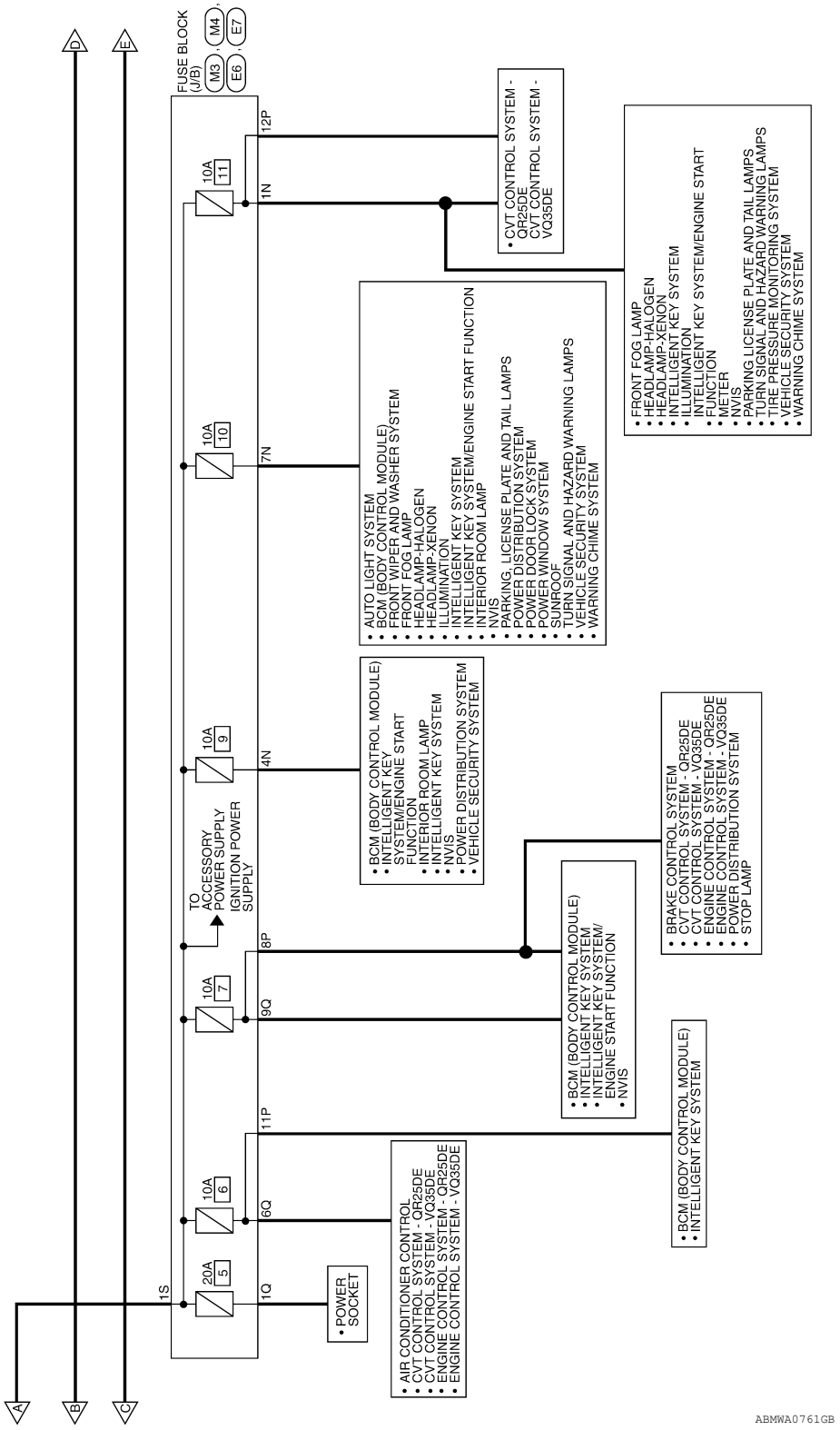
DTC/CIRCUIT DIAGNOSIS

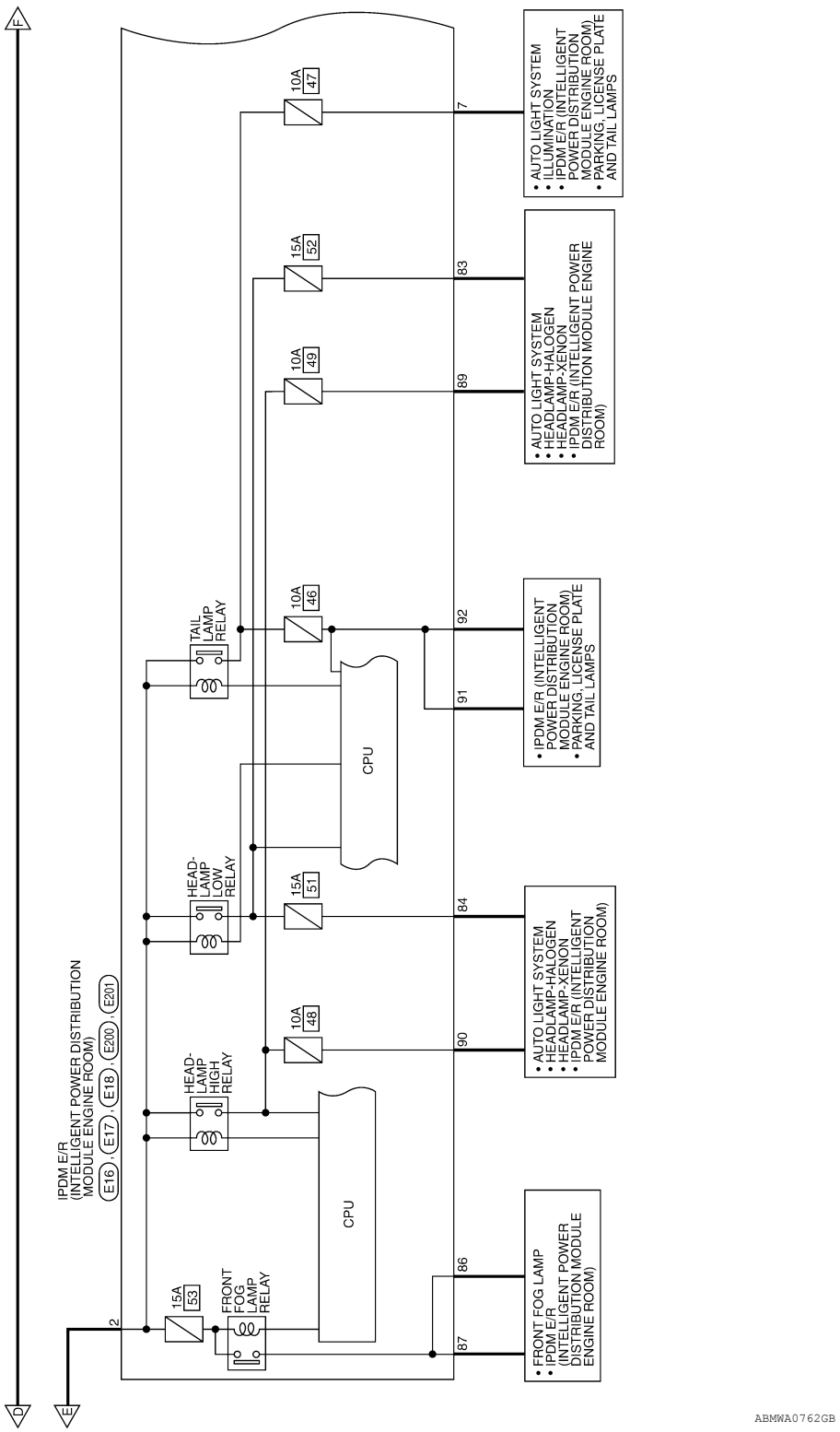
POWER SUPPLY ROUTING CIRCUIT

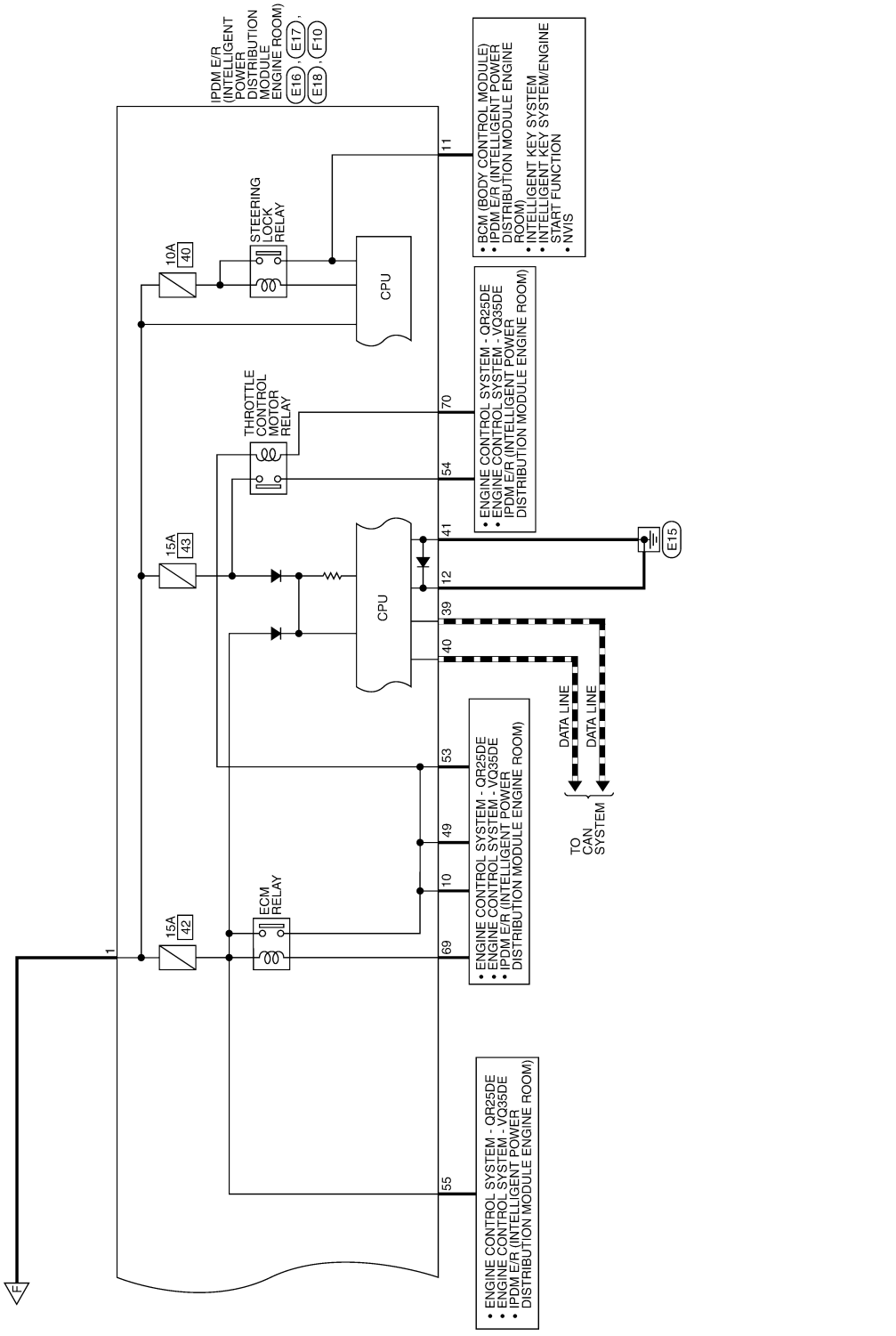
Wiring Diagram —Battery Power Supply —

INFOID:0000000006390989




FUSE BLOCK (J/B)
M3, M4, E6, E7
TO ACCESSORY POWER SUPPLY
IGNITION POWER SUPPLY
20A 5
10A 6
10A 7
10A 9
10A 10
10A 11
1S
1Q
6Q
9Q
11P
8P
4N
7N
1N
12P
• POWER SOCKET
• AIR CONDITIONER CONTROL
• CVT CONTROL SYSTEM - QR25DE
• CVT CONTROL SYSTEM - VQ35DE
• ENGINE CONTROL SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - VQ35DE
• BCM (BODY CONTROL MODULE)
• INTELLIGENT KEY SYSTEM
• INTELLIGENT KEY SYSTEM/ ENGINE START FUNCTION
• NVIS
• BCM (BODY CONTROL MODULE)
• INTELLIGENT KEY SYSTEM
• INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION
• INTERIOR ROOM LAMP
• INTELLIGENT KEY SYSTEM
• NVIS
• POWER DISTRIBUTION SYSTEM
• VEHICLE SECURITY SYSTEM
AUTO LIGHT SYSTEM
• BCM (BODY CONTROL MODULE)
• FRONT WIPER AND WASHER SYSTEM
• FRONT FOG LAMP
• HEADLAMP-HALOGEN
• HEADLAMP-XENON
• ILLUMINATION
• INTELLIGENT KEY SYSTEM
• INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION
• INTERIOR ROOM LAMP
• NVIS
• PARKING, LICENSE PLATE AND TAIL LAMPS
• POWER DISTRIBUTION SYSTEM
• POWER DOOR LOCK SYSTEM
• POWER WINDOW SYSTEM
• SUNROOF
• TURN SIGNAL AND HAZARD WARNING LAMPS
• VEHICLE SECURITY SYSTEM
• WARNING CHIME SYSTEM
• CVT CONTROL SYSTEM - QR25DE
CVT CONTROL SYSTEM - VQ35DE
• FRONT FOG LAMP
• HEADLAMP-HALOGEN
• HEADLAMP-XENON
• INTELLIGENT KEY SYSTEM
• ILLUMINATION
INTELLIGENT KEY SYSTEM/ENGINE START
• FUNCTION
• METER
• NVIS
• PARKING LICENSE PLATE AND TAIL LAMPS
• TURN SIGNAL AND HAZARD WARNING LAMPS
• TIRE PRESSURE MONITORING SYSTEM
• VEHICLE SECURITY SYSTEM
• WARNING CHIME SYSTEM
• BCM (BODY CONTROL MODULE)
• INTELLIGENT KEY SYSTEM
• BCM (BODY CONTROL MODULE)
• INTELLIGENT KEY SYSTEM/ ENGINE START FUNCTION
• NVIS
BRAKE CONTROL SYSTEM
• CVT CONTROL SYSTEM - QR25DE
• CVT CONTROL SYSTEM - VQ35DE
• ENGINE CONTROL SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - VQ35DE
• POWER DISTRIBUTION SYSTEM
• STOP LAMP
A
B
C
D
E
ABMWA0761GB


F
D
E
IPDM E/R
(INTELLIGENT POWER DISTRIBUTION
MODULE ENGINE ROOM)
E16, E17, E18, E200, E201
2
10A 47
15A 52
10A 49
10A 46
15A 51
10A 48
15A 53
TAIL LAMP RELAY
HEAD-LAMP LOW RELAY
HEAD-LAMP HIGH RELAY
FRONT FOG LAMP RELAY
CPU
CPU
7
83
89
92
91
84
90
86
87
• AUTO LIGHT SYSTEM
• ILLUMINATION
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• PARKING, LICENSE PLATE AND TAIL LAMPS
• AUTO LIGHT SYSTEM
• HEADLAMP-HALOGEN
• HEADLAMP-XENON
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• PARKING, LICENSE PLATE AND TAIL LAMPS
• AUTO LIGHT SYSTEM
• HEADLAMP-HALOGEN
• HEADLAMP-XENON
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• FRONT FOG LAMP
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
ABMWA0762GB


IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E16, E17, E18, F10
STEERING LOCK RELAY
10A 40
CPU
THROTTLE CONTROL MOTOR RELAY
15A 43
CPU
ECM RELAY
15A 42
11
70
54
41
12
39
40
53
49
10
69
55
1
E15
DATA LINE
DATA LINE
TO CAN SYSTEM
• BCM (BODY CONTROL MODULE)
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• INTELLIGENT KEY SYSTEM
• INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION
• NVIS
• ENGINE CONTROL SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - VQ35DE
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• ENGINE CONTROL SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - VQ35DE
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• ENGINE CONTROL SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - VQ35DE
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
ABMWA0763GB

BATTERY POWER SUPPLY CONNECTORS

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

H.S.

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

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

H.S.

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

Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN

H.S.

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

Connector No.	E5
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
8P	R	–
11P	G	–
12P	V	–

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

H.S.

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

ABMIA0723GB

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

H.S.

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

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

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
7	GR	TAIL/ILLUMI
10	BR	ECM_VB
11	O	ESCL
12	B	GND (POWER)

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

H.S.

Terminal No.	Color of Wire	Signal Name
83	R/Y	HEADLAMP_LO_RH
84	L	HEADLAMP_LO_LH
86	W/R	FR FOG LAMP RH
87	L/Y	FR FOG LAMP LH
89	L/W	HEADLAMP_HI_RH
90	G	HEADLAMP_HI_LH

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

H.S.

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

Connector No.	F4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	–

H.S.

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

ABMIA1977GB

Connector No.	F6
Connector Name	GENERATOR
Connector Color	–

H.S.

1

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

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

H.S.

53 54 55 56 57 58
47 48 49 50 51 52
69 70 71 72 73 74 75 76 77 78
59 60 61 62 63 64 65 66 67 68
81 82
79 80

Terminal No.	Color of Wire	Signal Name
49	V	ENG SOL (WITH QR25DE)
49	V	IGN SOL (WITH VQ35DE)
53	V	IGN SOL (WITH QR25DE)
53	G	ENG SOL (WITH VQ35DE)
54	GR	ETC
55	LG	ECM BAT
69	SB	SSOF
70	G	MOTRLY

Connector No.	F27
Connector Name	STARTER MOTOR
Connector Color	–

H.S.

B

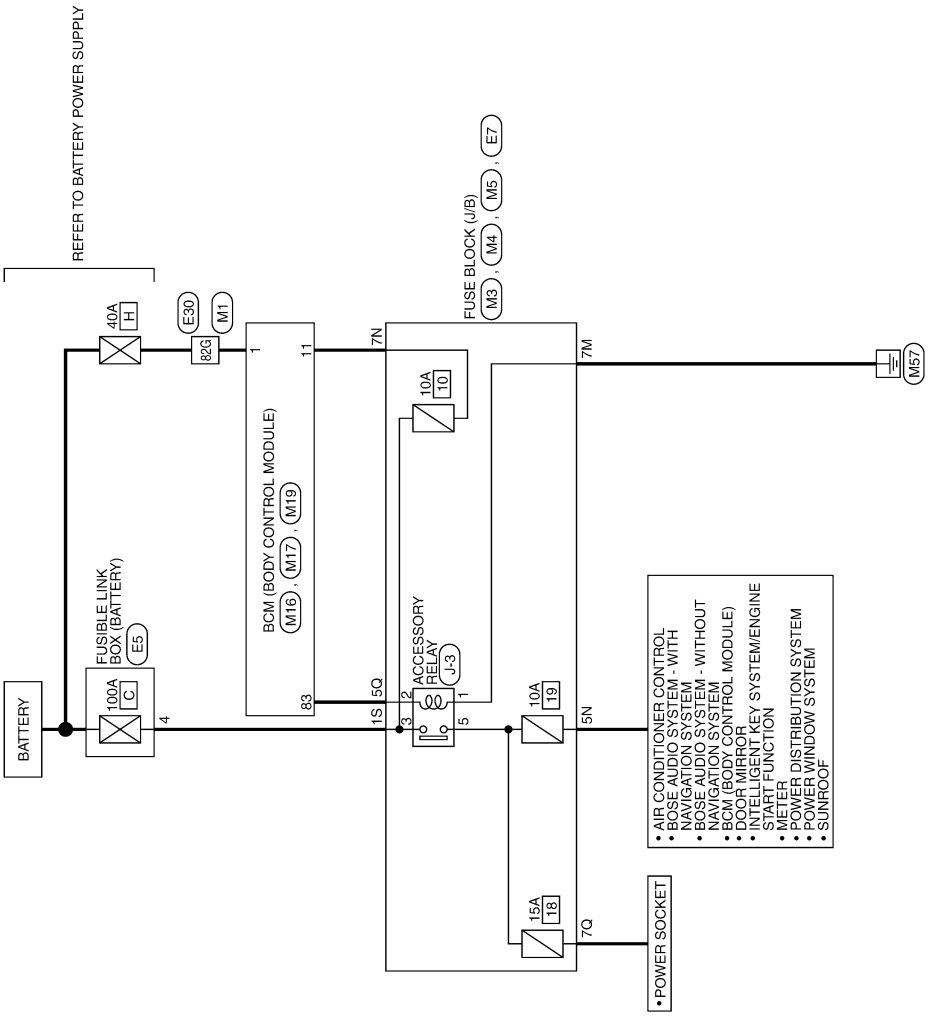
Terminal No.	Color of Wire	Signal Name
B	B/R	BATT

ABMIA1978GB

Wiring Diagram —Accessory Power Supply —

INFOID:0000000006390990

ACCESSORY POWER SUPPLY



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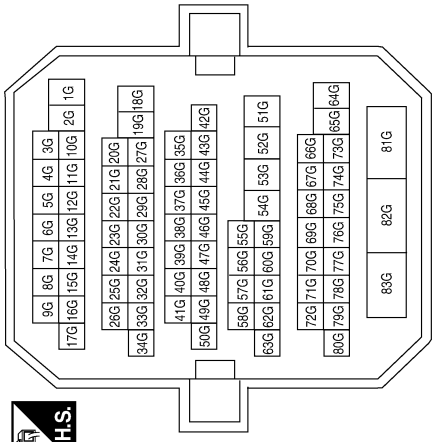
ACCESSORY POWER SUPPLY CONNECTORS

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

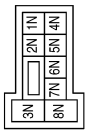
H.S.



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

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

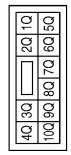
H.S.



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

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

H.S.



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

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

H.S.

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

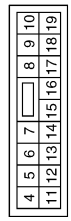
Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK

H.S.

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

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

H.S.



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

ABMIA0726GB

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
83	L	ACC_CONT

Connector No.	E5
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
4	W	–

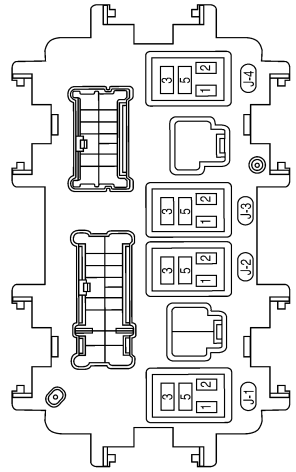
Connector No.	E7
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

H.S.

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

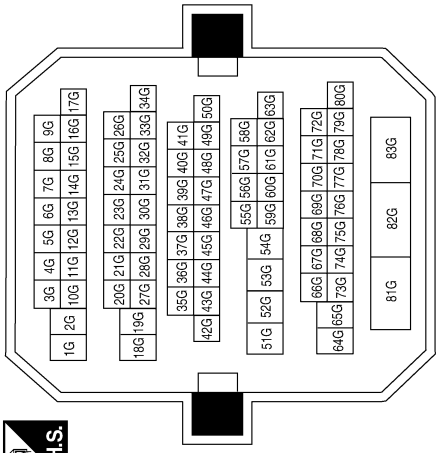
Connector No.	J-3
Connector Name	FUSE BLOCK (J/B) (ACCESSORY RELAY)
Connector Color	–

T.S.



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

H.S.

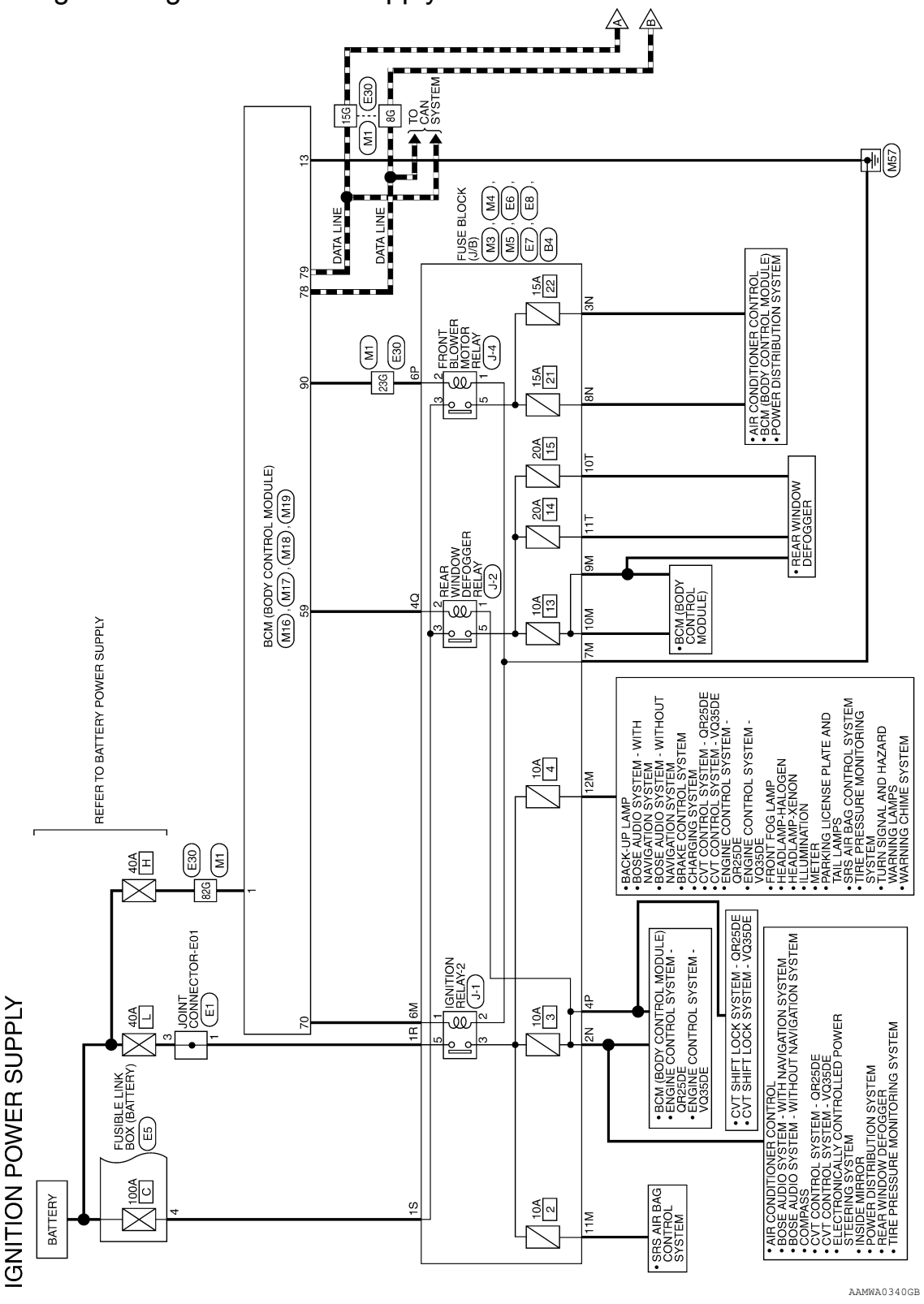


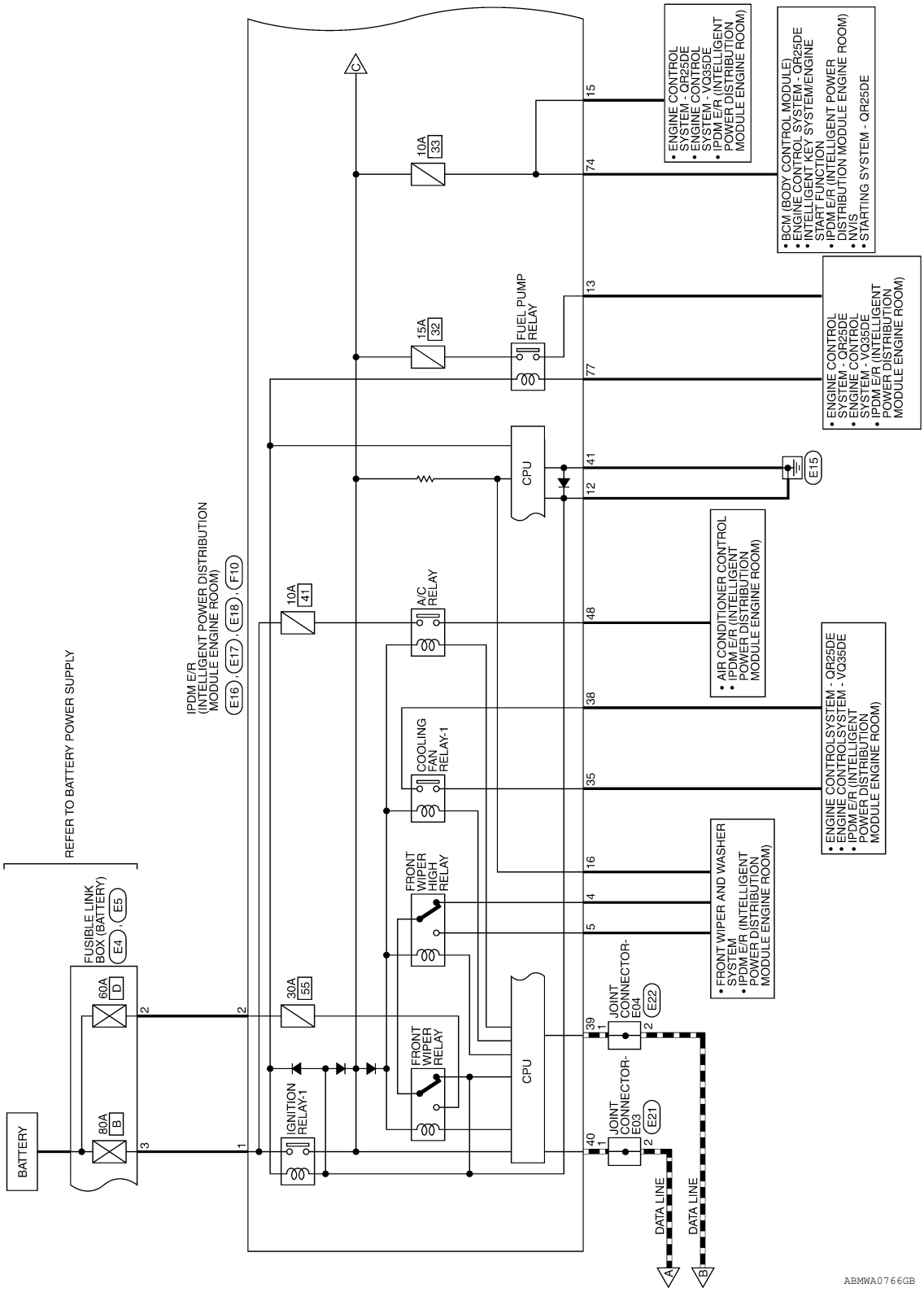
Terminal No.	Color of Wire	Signal Name
82G	LG	–

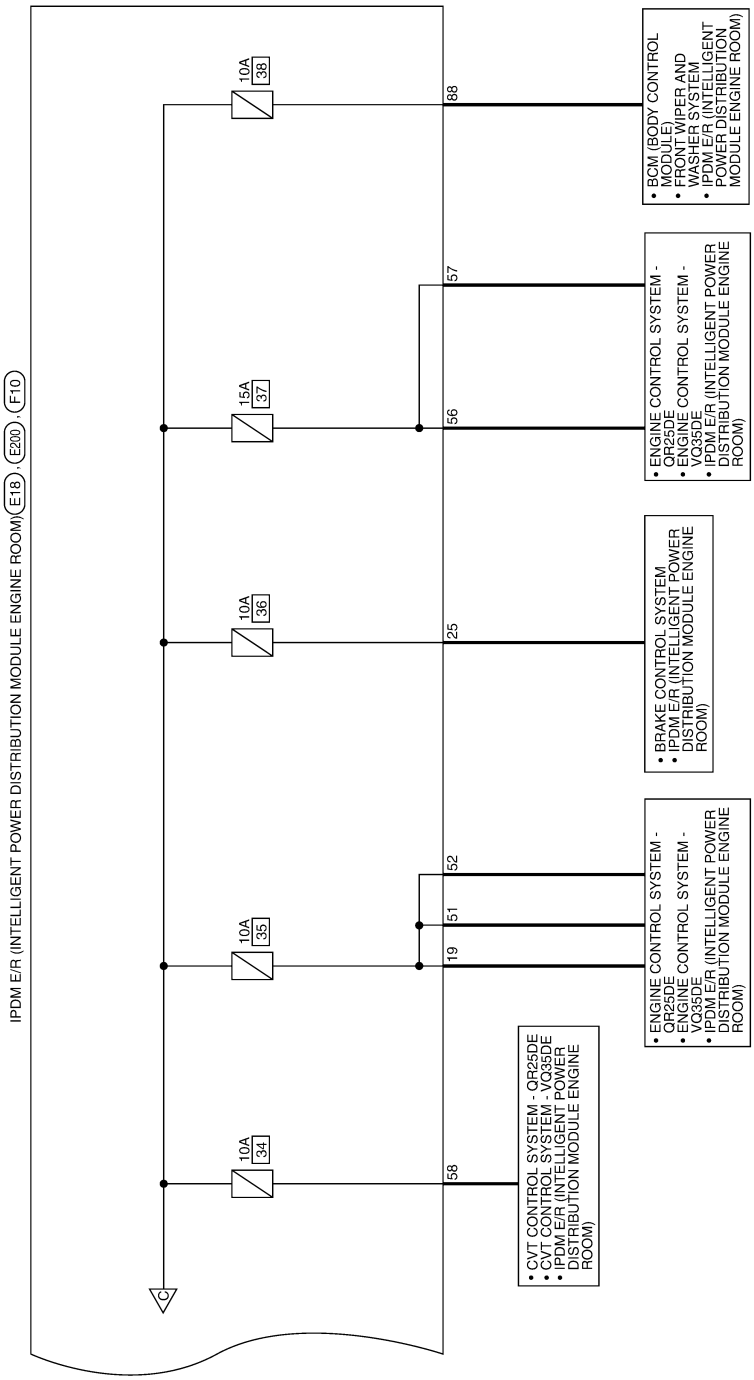
ABMIA1979GB

Wiring Diagram —Ignition Power Supply —

INFOID:0000000006390991



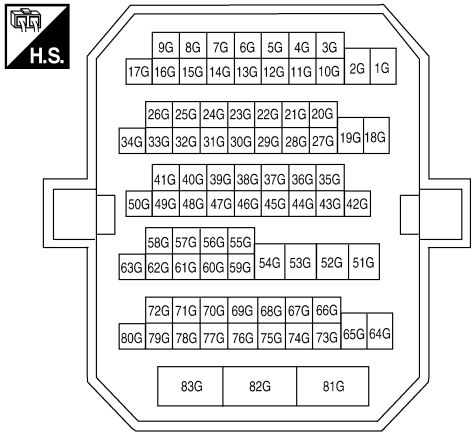

REFER TO BATTERY POWER SUPPLY
BATTERY
FUSIBLE LINK BOX (BATTERY) (E4), (E5)
80A B
60A D
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) (E16), (E17), (E18), (F10)
IGNITION RELAY-1
10A 41
30A 55
10A 33
15A 32
A/C RELAY
FUEL PUMP RELAY
COOLING FAN RELAY-1
FRONT WIPER HIGH RELAY
FRONT WIPER RELAY
CPU
JOINT CONNECTOR-E04 (E22)
JOINT CONNECTOR-E03 (E21)
DATA LINE
DATA LINE
• ENGINE CONTROL SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - VQ35DE
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• BCM (BODY CONTROL MODULE)
• ENGINE CONTROL SYSTEM - QR25DE
• INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• NVIS
• STARTING SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - VQ35DE
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E15
• AIR CONDITIONER CONTROL
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• ENGINE CONTROLSYSTEM - QR25DE
• ENGINE CONTROLSYSTEM - VQ35DE
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• FRONT WIPER AND WASHER SYSTEM
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
ABMWA0766GB



AAMWA0341GB

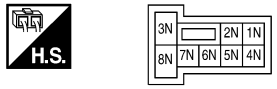
IGNITION POWER SUPPLY CONNECTORS

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



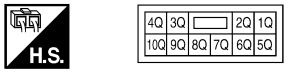
Terminal No.	Color of Wire	Signal Name
8G	P	–
15G	L	–
23G	Y	–
82G	W/B	–

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



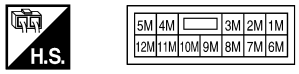
Terminal No.	Color of Wire	Signal Name
2N	G	–
3N	W/L	–
8N	W/L	–

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



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

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



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

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

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

ABMIA1980GB

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
13	B	GND1

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

H.S.

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

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

Connector No.	E1
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE

H.S.

3	2	1
6	5	4

Terminal No.	Color of Wire	Signal Name
1	G	–
3	G	–

Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN

H.S.

1
2

Terminal No.	Color of Wire	Signal Name
2	L	–

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

H.S.

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

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

Connector No.	E5
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY

H.S.

1	3	4

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

ABMIA1981GB

Connector No.	E6
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	P	– (WITH M/T)
4P	G/R	– (WITH CVT)
6P	Y	–

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

H.S.

1S

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

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

H.S.

2R 1R

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

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

H.S.

1 2

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

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

H.S.

42 41 40 39
46 45 44 43

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

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

H.S.

9 10 11 12 13 14
3 4 5 6 7 8

25 26 27 28 29 30 31 32 33 34
15 16 17 18 19 20 21 22 23 24

37 38
35 36

Terminal No.	Color of Wire	Signal Name
4	LG	FR_WIPER_LO
5	Y	FR_WIPER_HI
12	B	GND (POWER)
13	SB	FUEL_PUMP
15	W	SART_IG-E/R
16	L/Y	WIPER_AUTOSTOP
19	Y	BCM_IGNSW
25	GR	ABS_ECU
35	P	MOTOR_FAN_LO
38	R/W	F/L_MOTOR_FAN

ABMIA1982GB

Connector No.	E21
Connector Color	JOINT CONNECTOR-E03
Connector Name	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	L	–
2	L	–

Connector No.	E22
Connector Name	JOINT CONNECTOR-E04
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	P	–
2	P	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
8G	P	–
15G	L	–
23G	Y	–
82G	LG	–

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

H.S.

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

ABMIA0731GB

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

H.S.

53	54	55	56	57	58
47	48	49	50	51	52

69	70	71	72	73	74	75	76	77	78
59	60	61	62	63	64	65	66	67	68

81	82
79	80

Terminal No.	Color of Wire	Signal Name
48	W	A/C_COMP
51	SB	INJECTOR_#1
52	Y	INJECTOR_#2
56	R	O2_SENS_#1
57	O	O2_SENS_#2
58	BR	AT_ECU
74	L	START_IG-EGI
77	GR	FPR

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
10T	Y	–
11T	Y	–

Connector No.	J-1
Connector Name	FUSE BLOCK (J/B) (IGNITION RELAY-2)
Connector Color	–

T.S.

Connector No.	J-2
Connector Name	FUSE BLOCK (J/B) (REAR WINDOW DEFOGGER RELAY)
Connector Color	–

T.S.

Connector No.	J-4
Connector Name	FUSE BLOCK (J/B) (REAR WINDOW DEFOGGER RELAY)
Connector Color	–

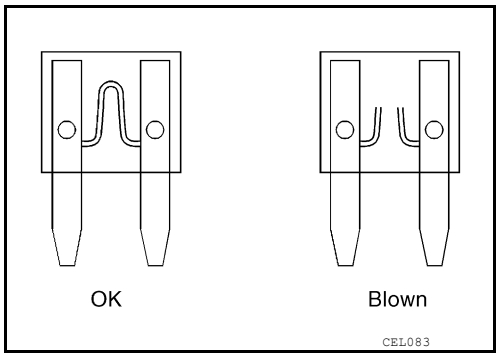
T.S.

ABMIA1983GB

Fuse

INFOID:0000000006390992

- 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.

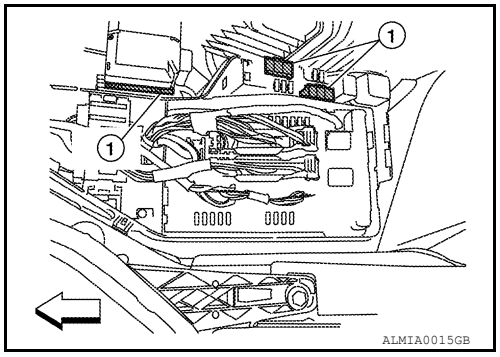


Fusible Link

INFOID:0000000006390993

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:

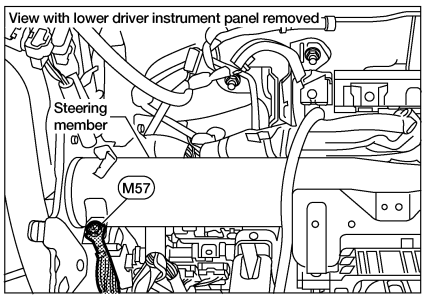
- **If fusible link should melt, it is possible that critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check and eliminate cause of malfunction.**
- **Never wrap outside of fusible link with vinyl tape. Important: Never let fusible link touch any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

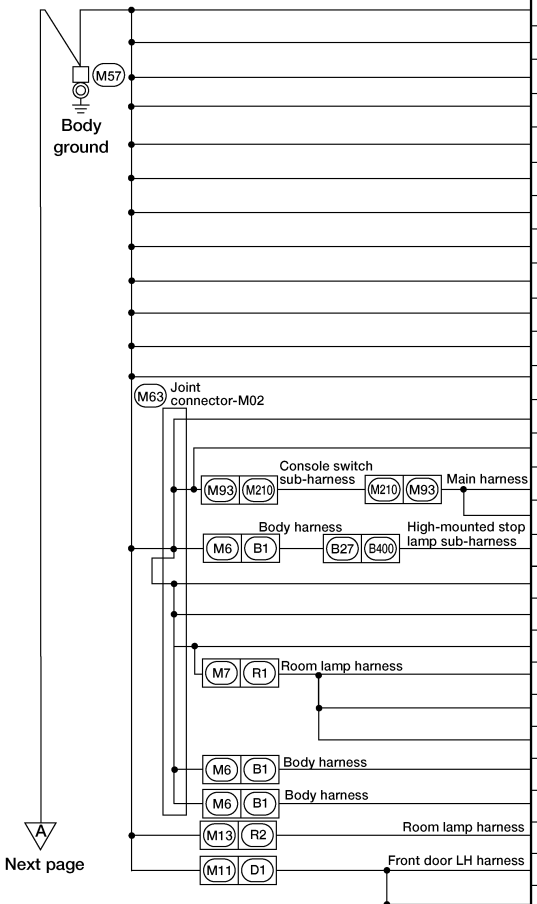
GROUND

Ground Distribution

INFOID:0000000006390994

MAIN HARNESS





CONNECTOR NUMBER	CONNECT TO
M5	Fuse block (J/B)
M17	BCM (Body control module) (Terminal No. 13)
M22	Data link connector (Terminal No. 4)
M22	Data link connector (Terminal No. 5)
M24	Combination meter (Terminal No. 3)
M24	Combination meter (Terminal No. 4)
M24	Combination meter (Terminal No. 23)
M28	Combination switch
M31	Blower motor
M40	Key slot
M45	Audio unit (Terminal No. 48)
M75	Trunk lid opener swich
M44	Audio unit (Terminal No. 20)
M45	Audio unit (Terminal No. 27)
M103	AV control unit (Terminal No. 77)
M104	AV control unit (Terminal No. 128)
B401	High-mounted stop lamp
M53	Steering angle sensor
M55	Yaw rate/side/decel G sensor
M100	AV control unit (Terminal No. 20)
R3	Vanity mirror lamp LH
R4	Auto anti-dazzling inside mirror
R9	Vanity mirror lamp RH
B30	Rear combination lamp LH
B45	Rear combination lamp RH
R5	Sunroof motor assembly
D4	Door mirror LH
D5	Door mirror remote control switch
D6	Outside handle LH
D7	Main power window and door lock/unlock switch (Terminal No. 15)
D10	Door lock assembly LH

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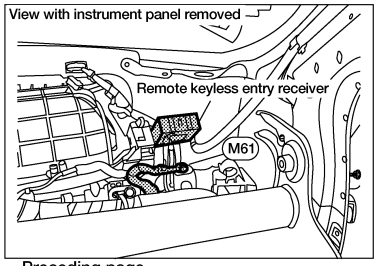

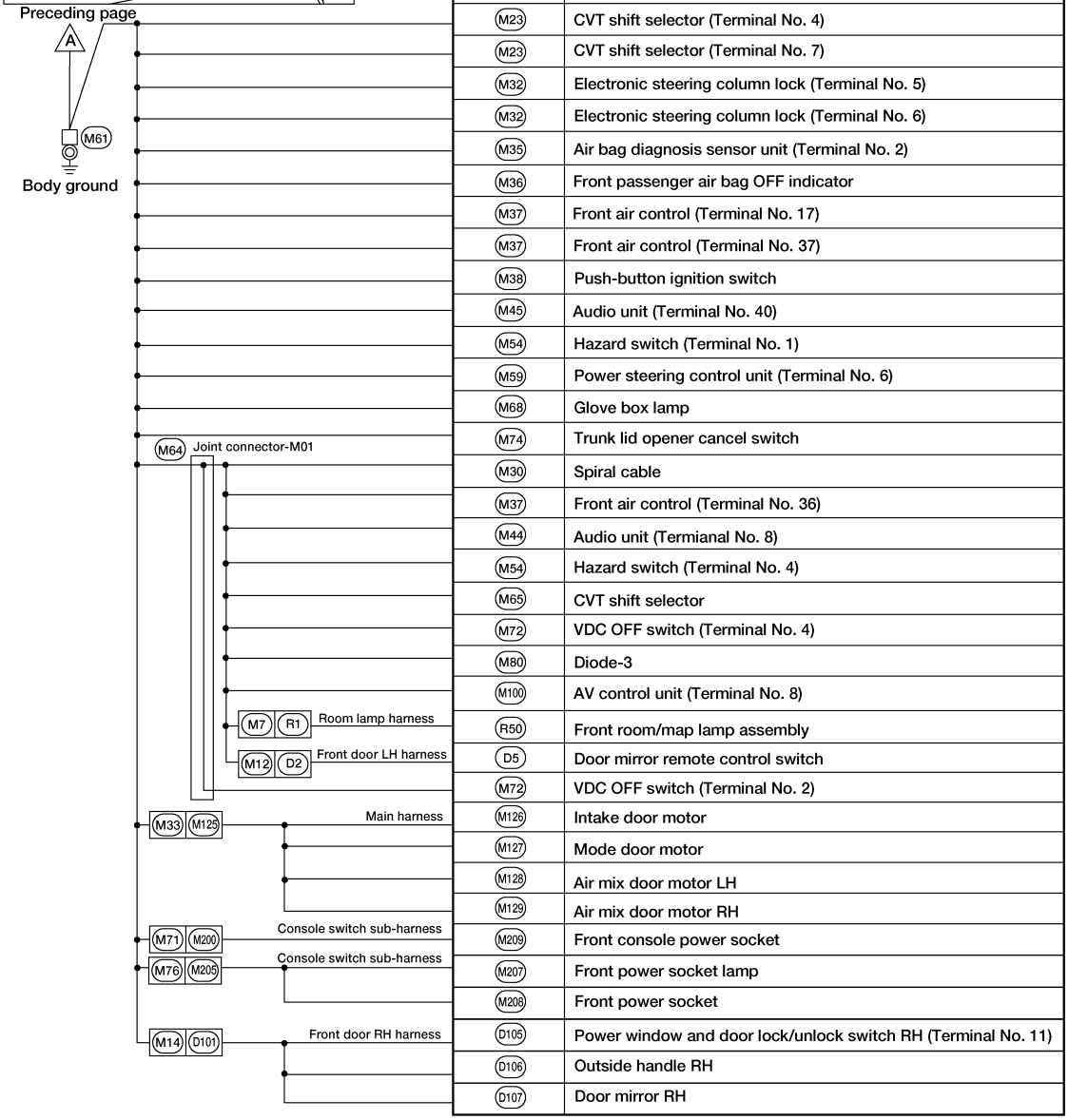

CONNECTOR NUMBER	CONNECT TO
M23	CVT shift selector (Terminal No. 4)
M23	CVT shift selector (Terminal No. 7)
M32	Electronic steering column lock (Terminal No. 5)
M32	Electronic steering column lock (Terminal No. 6)
M35	Air bag diagnosis sensor unit (Terminal No. 2)
M36	Front passenger air bag OFF indicator
M37	Front air control (Terminal No. 17)
M37	Front air control (Terminal No. 37)
M38	Push-button ignition switch
M45	Audio unit (Terminal No. 40)
M54	Hazard switch (Terminal No. 1)
M59	Power steering control unit (Terminal No. 6)
M68	Glove box lamp
M74	Trunk lid opener cancel switch
M30	Spiral cable
M37	Front air control (Terminal No. 36)
M44	Audio unit (Termianal No. 8)
M54	Hazard switch (Terminal No. 4)
M65	CVT shift selector
M72	VDC OFF switch (Terminal No. 4)
M80	Diode-3
M100	AV control unit (Terminal No. 8)
R50	Front room/map lamp assembly
D5	Door mirror remote control switch
M72	VDC OFF switch (Terminal No. 2)
M126	Intake door motor
M127	Mode door motor
M128	Air mix door motor LH
M129	Air mix door motor RH
M209	Front console power socket
M207	Front power socket lamp
M208	Front power socket
D105	Power window and door lock/unlock switch RH (Terminal No. 11)
D106	Outside handle RH
D107	Door mirror RH

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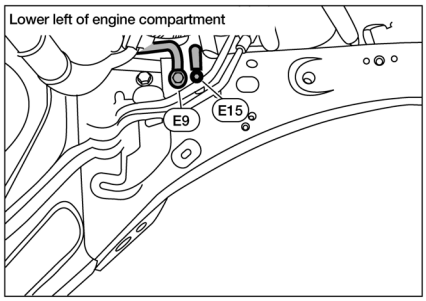
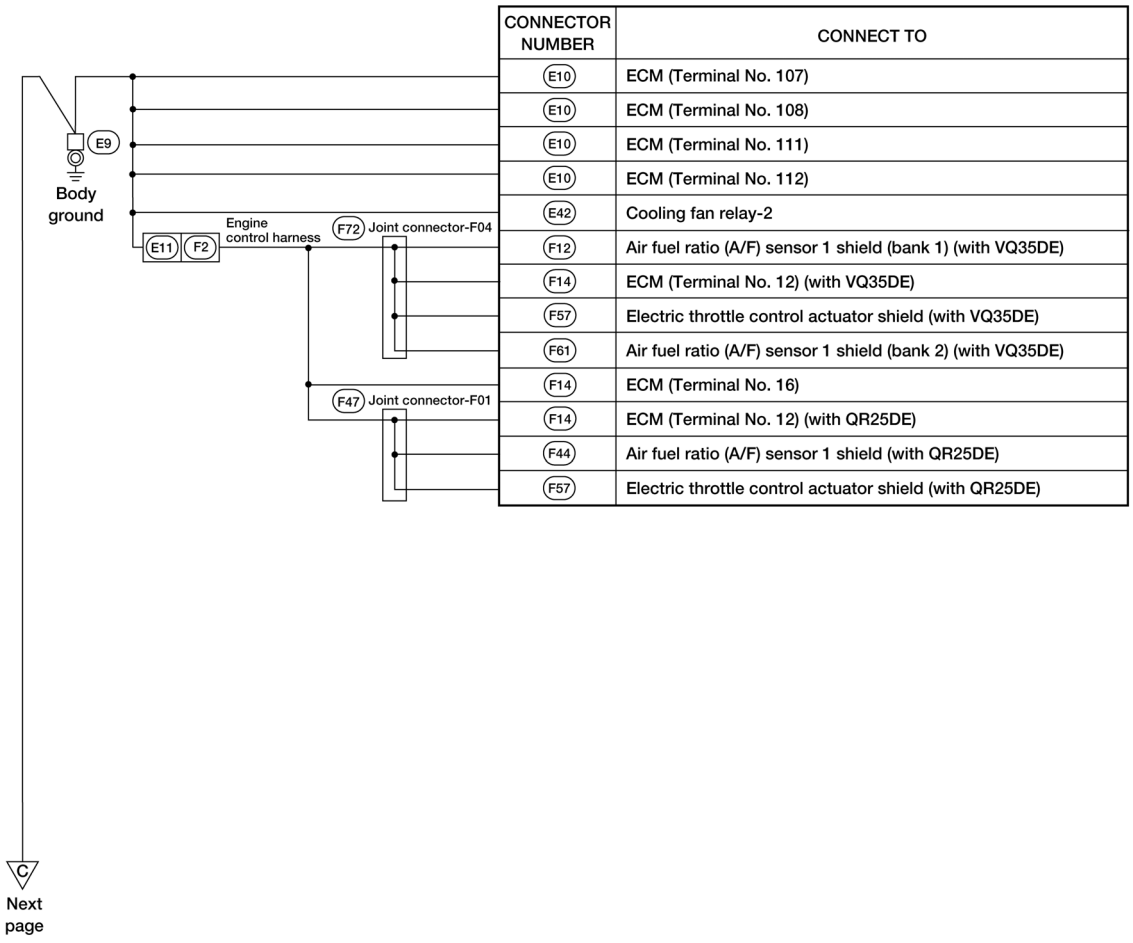
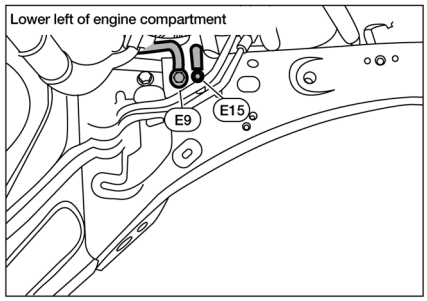
ENGINE ROOM HARNESS

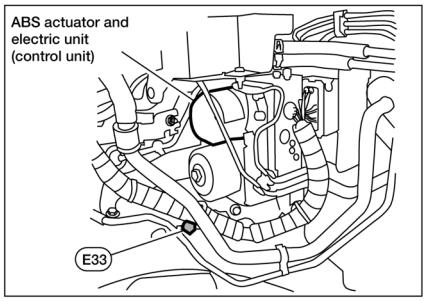


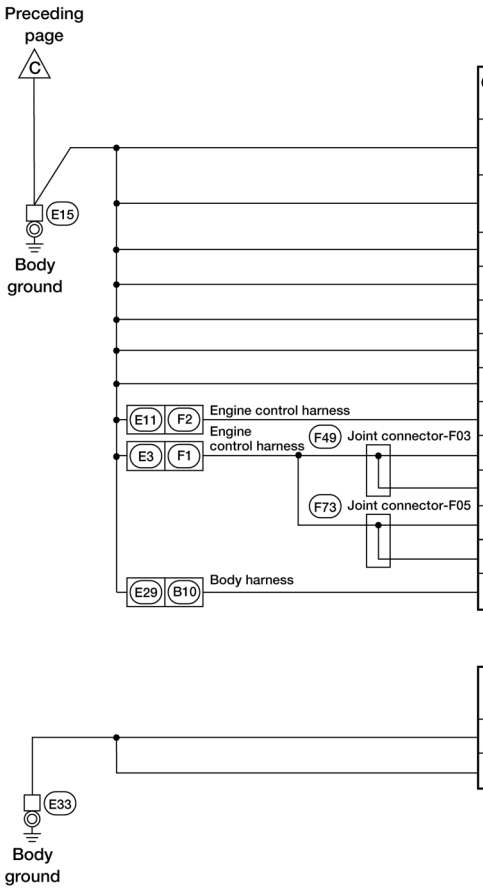


CONNECTOR NUMBER	CONNECT TO
E10	ECM (Terminal No. 107)
E10	ECM (Terminal No. 108)
E10	ECM (Terminal No. 111)
E10	ECM (Terminal No. 112)
E42	Cooling fan relay-2
F12	Air fuel ratio (A/F) sensor 1 shield (bank 1) (with VQ35DE)
F14	ECM (Terminal No. 12) (with VQ35DE)
F57	Electric throttle control actuator shield (with VQ35DE)
F61	Air fuel ratio (A/F) sensor 1 shield (bank 2) (with VQ35DE)
F14	ECM (Terminal No. 16)
F14	ECM (Terminal No. 12) (with QR25DE)
F44	Air fuel ratio (A/F) sensor 1 shield (with QR25DE)
F57	Electric throttle control actuator shield (with QR25DE)

ABMIA1986GB







CONNECTOR NUMBER	CONNECT TO
E17	IPDM E/R (intelligent power distribution module engine room) (Terminal No. 41)
E18	IPDM E/R (intelligent power distribution module engine room) (Terminal No. 12)
E24	Brake fluid level switch
E25	Front wiper motor
E43	Cooling fan relay-3
E57	Stop lamp relay-1
E58	Stop lamp relay-2
F3	A/C compressor
F16	TCM (transmission control module) (Terminal No. 5) (with QR25DE)
F16	TCM (transmission control module) (Terminal No. 42) (with QR25DE)
F16	TCM (transmission control module) (Terminal No. 5) (with VQ35DE)
F16	TCM (transmission control module) (Terminal No. 42) (with VQ35DE)
B42	Fuel level sensor unit and fuel pump (with rear view camera)

CONNECTOR NUMBER	CONNECT TO
E26	ABS actuator and electric unit (control unit) (Terminal No. 1)
E26	ABS actuator and electric unit (control unit) (Terminal No. 4)

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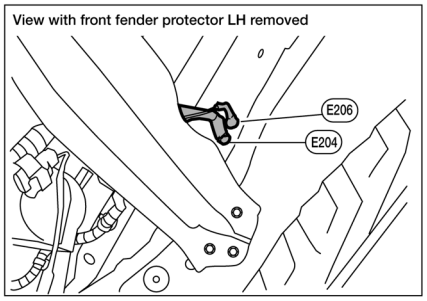
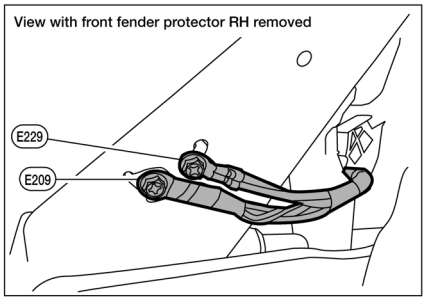
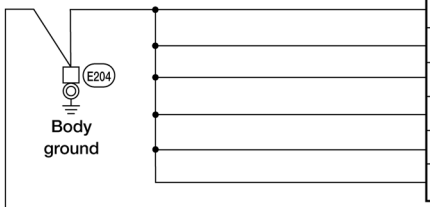
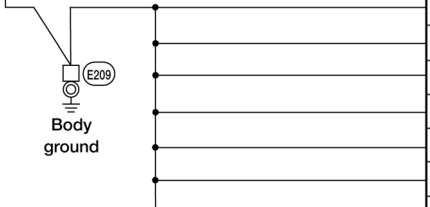
FRONT END MODULE HARNESS



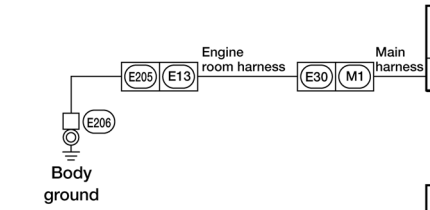




CONNECTOR NUMBER	CONNECT TO
E217	Front combination lamp LH
E221	Cooling fan motor-2 (Terminal No. 3)
E221	Cooling fan motor-2 (Terminal No. 4)
E223	Front combination lamp RH
E227	Front fog lamp RH
E235	Front combination lamp LH



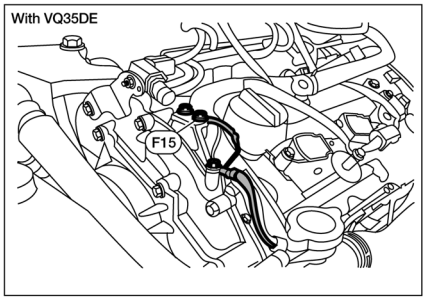
CONNECTOR NUMBER	CONNECT TO
E208	Washer level switch
E212	Front combination lamp LH
E213	Front combination lamp LH
E214	Front fog lamp LH
E222	Front combination lamp RH
E224	Front combination lamp RH
E236	Front combination lamp RH

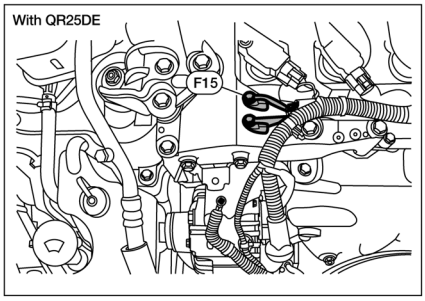


CONNECTOR NUMBER	CONNECT TO
M35	Air bag diagnosis sensor unit (Terminal No. 16)

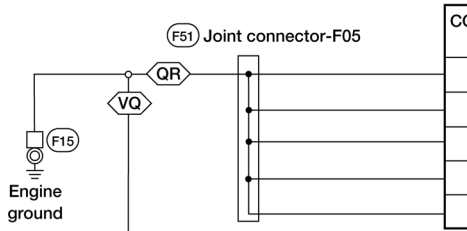
CONNECTOR NUMBER	CONNECT TO
E230	Generator

ABMIA1988GB





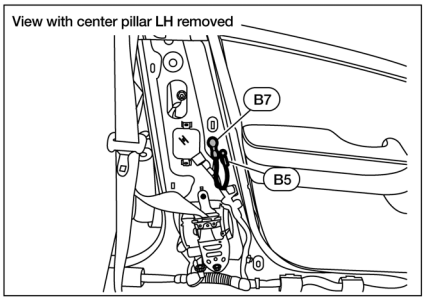
QR : With QR25DE
VQ : With VQ35DE

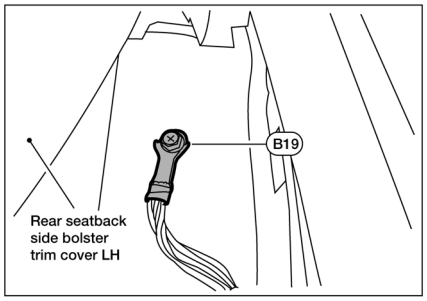


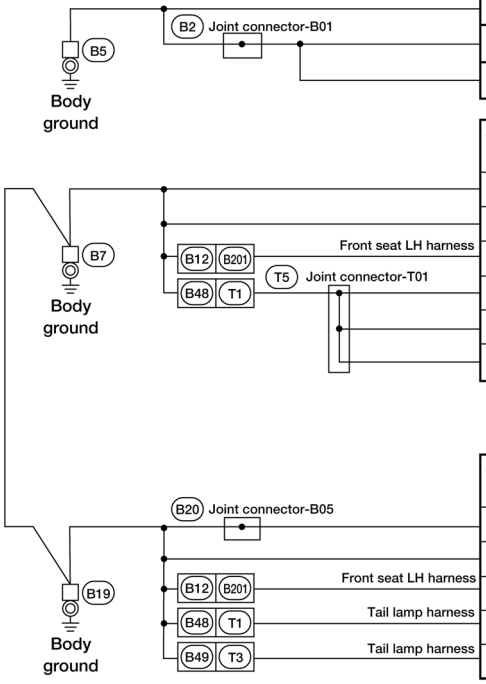
CONNECTOR NUMBER	CONNECT TO
F26	Condenser-2
F34	Ignition coil No. 1 (with power transistor)
F35	Ignition coil No. 2 (with power transistor)
F36	Ignition coil No. 3 (with power transistor)
F37	Ignition coil No. 4 (with power transistor)

CONNECTOR NUMBER	CONNECT TO
F26	Condenser-2
F34	Ignition coil No. 1 (with power transistor)
F35	Ignition coil No. 2 (with power transistor)
F36	Ignition coil No. 3 (with power transistor)
F37	Ignition coil No. 4 (with power transistor)
F38	Ignition coil No. 5 (with power transistor)
F39	Ignition coil No. 6 (with power transistor)

ABMIA2659GB







CONNECTOR NUMBER	CONNECT TO
B15	LH side air bag (satellite) sensor shield
B9	Air bag diagnosis sensor unit (Terminal No. 44)
B38	LH side curtain air bag module shield

CONNECTOR NUMBER	CONNECT TO
B55	Bluetooth control unit (Terminal No. 4)
B55	Bluetooth control unit (Terminal No. 22)
B203	Power seat switch
T4	Trunk lamp switch and trunk release solenoid
T6	License plate lamp LH
T8	License plate lamp RH

CONNECTOR NUMBER	CONNECT TO
B29	Rear parcel shelf antenna shield
B42	Fuel level sensor unit and fuel pump (without rear view monitor)
B202	Seat belt buckle switch LH
T2	Trunk opener request switch
T4	Trunk lamp switch and trunk release solenoid

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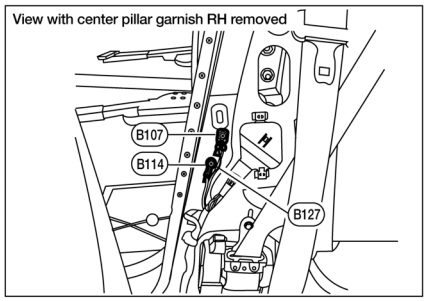

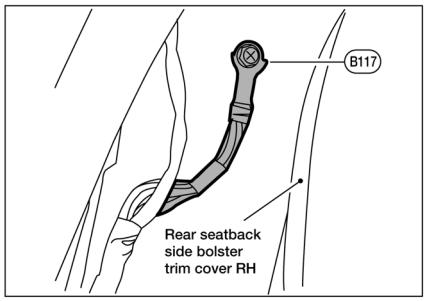

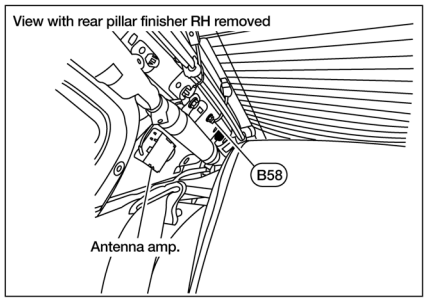

CONNECTOR NUMBER	CONNECT TO
B54	Rear window defogger

CONNECTOR NUMBER	CONNECT TO
B113	Air bag diagnosis sensor unit (Terminal No. 40)

CONNECTOR NUMBER	CONNECT TO
B122	BOSE speaker amp. (Terminal No. 47)
B122	BOSE speaker amp. (Terminal No. 52)
B302	Seat belt buckle switch RH
B303	Occupant classification system control unit (Terminal No. 5)

CONNECTOR NUMBER	CONNECT TO
B119	RH side curtain air bag module shield

B58 Body ground
B114 Body ground
B117 Body ground
B105 B301 Front seat RH harness
B107 Body ground
B127 Body ground

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HARNESS

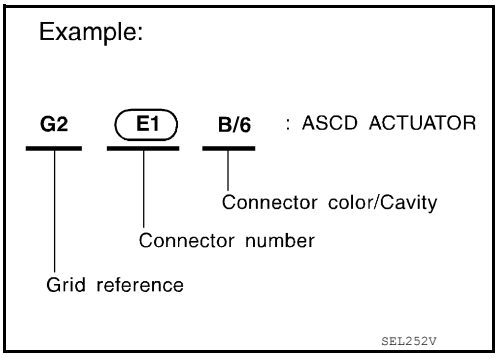
Harness Layout

INFOID:0000000006390995

HOW TO READ HARNESS LAYOUT

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

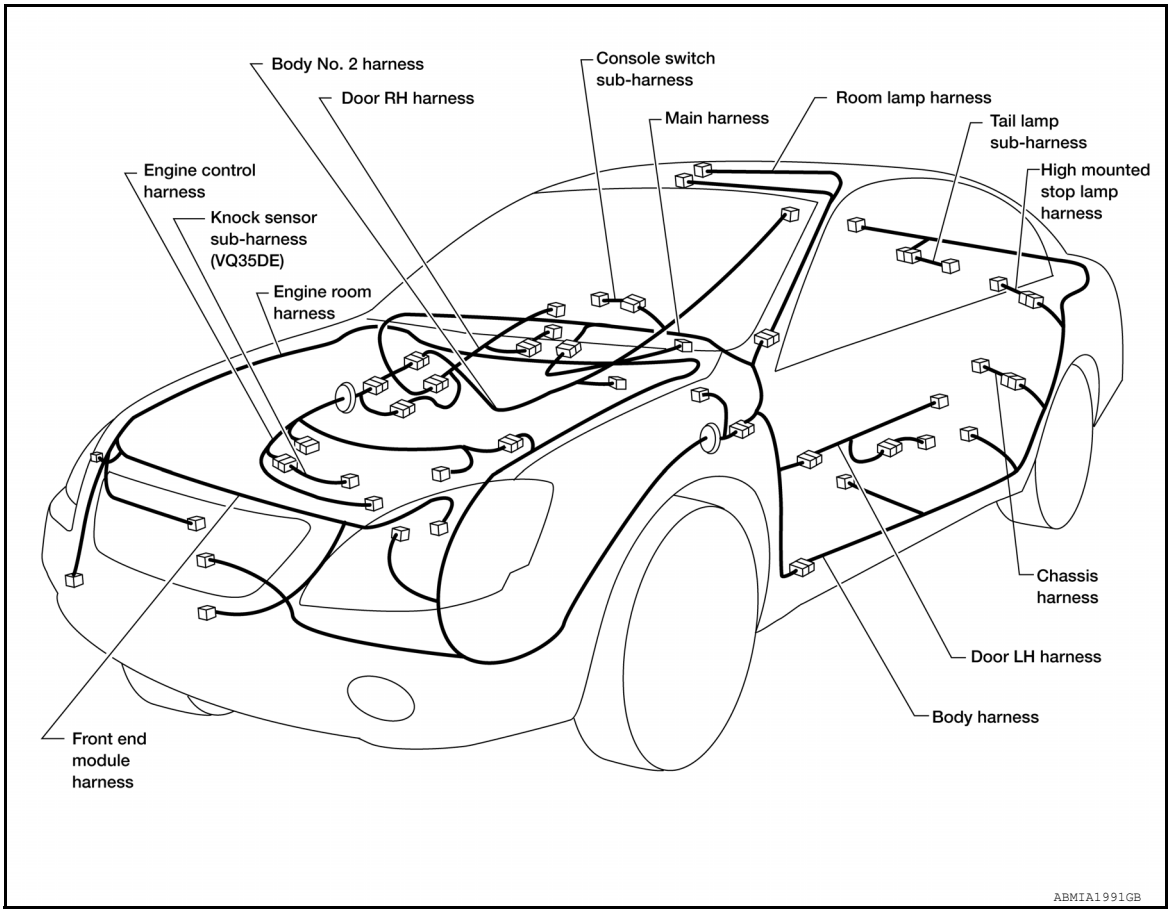
- Main Harness and Console Switch Sub-harness
- Engine Room Harness
- Engine Room Harness (Passenger Compartment)
- Front End Module Harness
- Engine Control Harness (VQ35DE) and Knock Sensor Sub-harness
- Engine Control Harness (QR25DE)
- Body Harness, Tail lamp Sub-harness and Chassis Harness and High-mounted Stop Lamp Sub-harness
- Body No. 2 Harness
- Room Lamp Harness



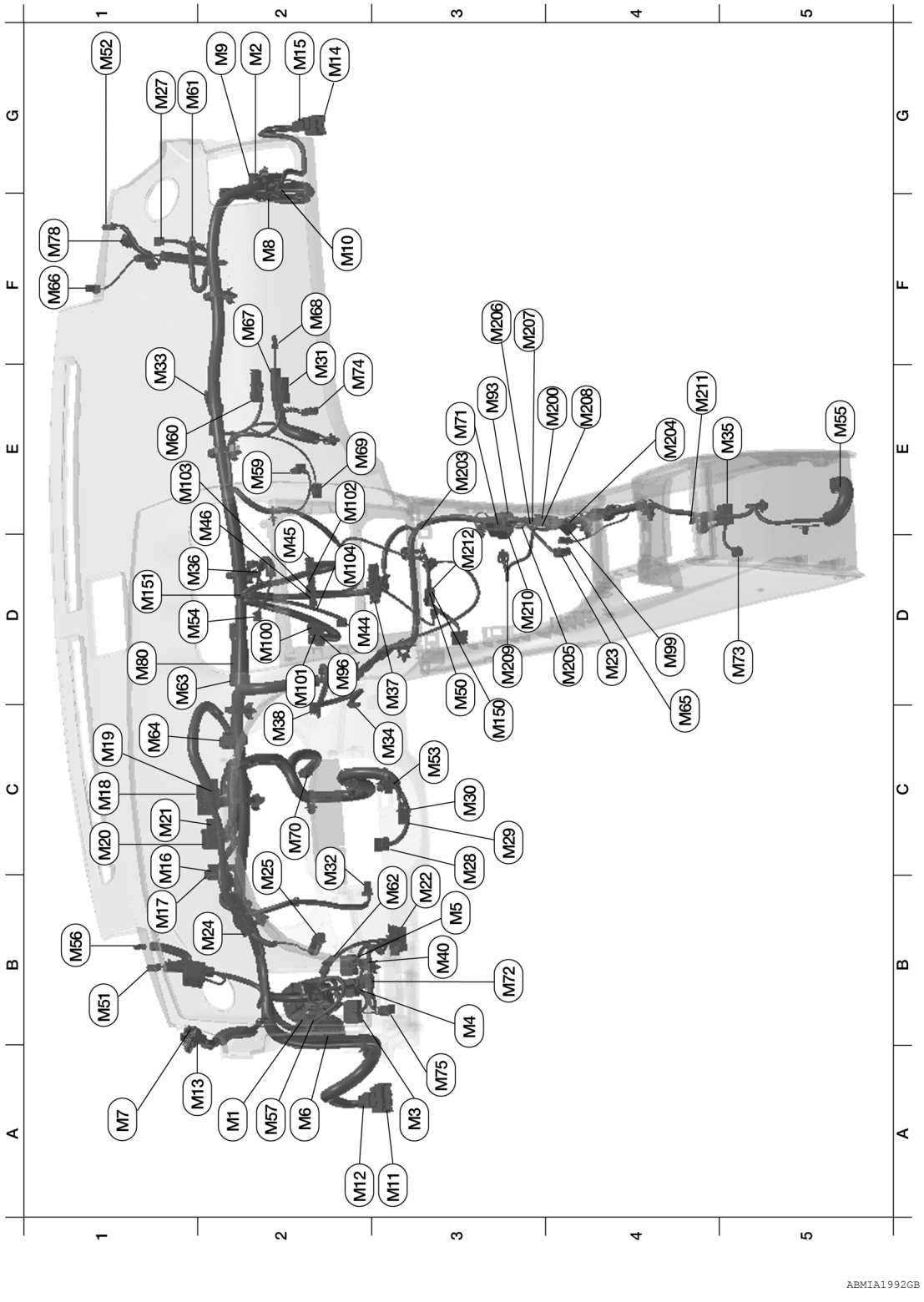
To use the grid reference

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

OUTLINE

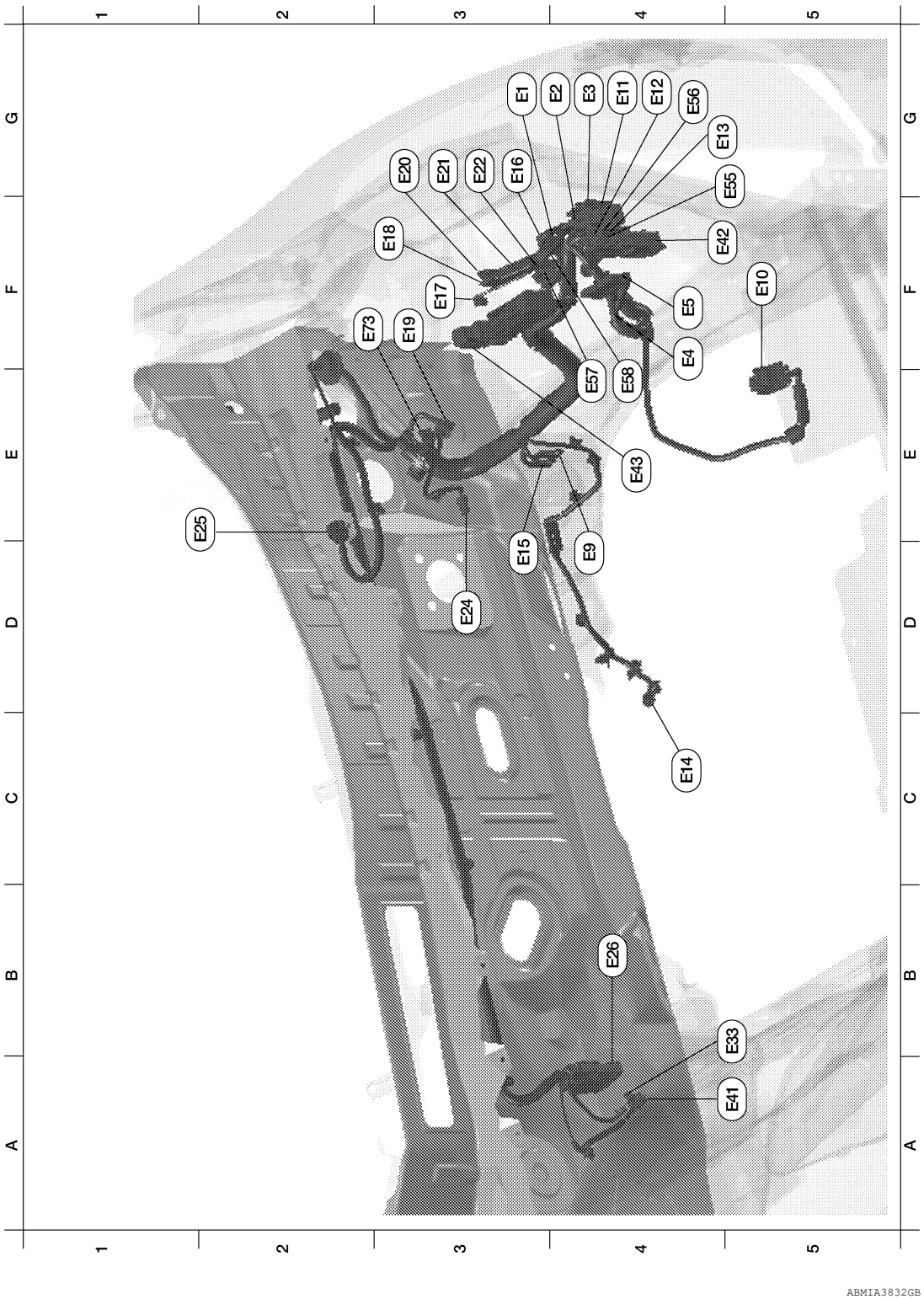


MAIN HARNESS



A2	M1	SMJ	: To E30	B1	M56	B/2	: Sunload sensor
G2	M2	W/32	: To B101	A2	M57	—	: Body ground
A3	M3	W/8	: Fuse block (J/B)	E2	M59	W/12	: Power steering control unit
B3	M4	W/10	: Fuse block (J/B)	E1	M60	Y/2	: Front passenger air bag module

B3	M5	W/12	: Fuse block (J/B)	G1	M61	—	: Body ground
A2	M6	SMJ	: To B1	B2	M62	W/2	: Tire pressure warning check connector
A1	M7	W/16	: To R1	D1	M63	L/12	: Joint connector-M02
F2	M8	W/24	: To B102	C1	M64	GR/6	: Joint connector-M01
G2	M9	BR/16	: To B103	C4	M65	BR/2	: CVT shift selector
F2	M10	BR/12	: To B104	F1	M66	W/3	: Optical sensor
A3	M11	W/16	: To D1	F2	M67	O/2	: Front passenger air bag module
A2	M12	W/16	: To D2	F2	M68	W/2	: Glove box lamp
A2	M13	W/4	: To R2	E2	M69	W/4	: Intake sensor
G2	M14	W/10	: To D101	C2	M70	W/4	: Tire pressure receiver
G2	M15	W/12	: To D102	E3	M71	W/12	: To M200
C1	M16	B/3	: BCM (Body control module)	B3	M72	GR/6	: VDC OFF switch
B1	M17	W/16	: BCM (Body control module)	D5	M73	B/1	: Parking brake switch
C1	M18	G/40	: BCM (Body control module)	E2	M74	W/2	: Trunk lid opener cancel switch
C1	M19	B/40	: BCM (Body control module)	A3	M75	B/2	: Trunk lid opener switch
C1	M20	W/12	: BCM (Body control module)	E3	M76	W/3	: To M205
C1	M21	GR/40	: BCM (Body control module)	F1	M78	Y/4	: Front passenger air bag module (service replacement)
B3	M22	W/16	: Data link connector	D1	M80	—	: Diode-3
D4	M23	W/10	: CVT shift selector	D4	M84	W/3	: To M204
B2	M24	W/40	: Combination meter	E3	M85	W/2	: To M350
B2	M25	B/10	: Meter mode switch	E3	M93	W/12	: To M210
G1	M27	B/4	: Remote keyless entry receiver	D2	M96	G/4	: Audio unit
C3	M28	W/16	: Combination switch	D4	M99	G/6	: To M204
C3	M29	Y/6	: Spiral cable	D2	M100	W/20	: AV control unit
C3	M30	GR/8	: Spiral cable	D2	M101	G/4	: AV control unit
E2	M31	W/6	: Blower motor	E2	M102	W/32	: AV control unit
B2	M32	W/8	: Electronic steering column lock	E1	M103	W/40	: AV control unit
E1	M33	W/3	: To M125	D2	M104	W/28	: AV control unit
C2	M34	W/2	: In-vehicle sensor	D3	M150	W/2	: To M50
E4	M35	Y/28	: Air bag diagnosis sensor unit	D1	M151	BR/2	: Center speaker
D1	M36	W/3	: Front passenger air bag off indicator	Console switch sub-harness			
D2	M37	W/40	: Front air control	E4	M200	W/12	: To M71
C2	M38	BR/8	: Push-button ignition switch	E3	M203	GR/2	: Front console antenna
B3	M40	W/12	: Key slot	E4	M204	GR/6	: To M99
D2	M44	W/20	: Audio unit	D4	M205	W/3	: To M76
E2	M45	W/32	: Audio unit	F3	M206	B/2	: Front power socket lamp
E1	M46	W/12	: Audio unit	F3	M207	B/1	: Front power socket lamp (for cigarette lighter)
D3	M50	W/2	: To M150	E4	M208	B/3	: Front power socket
B1	M51	BR/2	: Front tweeter LH	D3	M209	B/3	: Front console power socket
G1	M52	BR/2	: Front tweeter RH	D3	M210	W12	: To M93
C3	M53	W/8	: Steering angle sensor	E4	M211	G/4	: USB interface
D1	M54	W/4	: Hazard switch	D3	M212	W/8	: Aux jack
E5	M55	B/4	: Yaw rate/side/decel G sensor				



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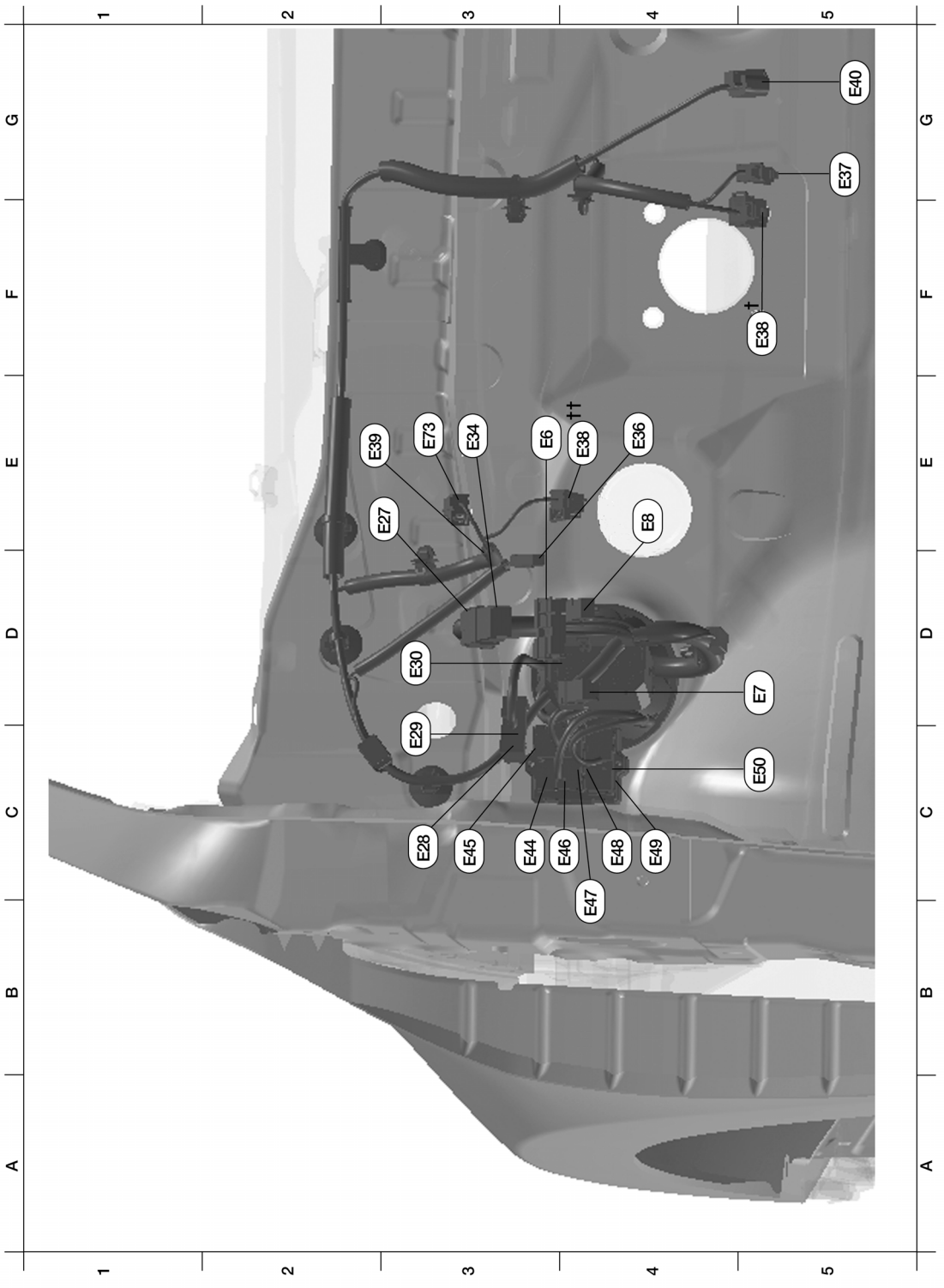
G3	E1	W/6	: Joint connector-E01	G3	E20	W/6	: Joint connector-E02
G3	E2	W/8	: To E202	G3	E21	W/4	: Joint connector-E03
G4	E3	W/16	: To F1	G3	E22	W/4	: Joint connector-E04
F4	E4	BR/2	: Fusible link box (battery)	D3	E24	GR/2	: Brake fluid level switch
F4	E5	GR/2	: Fusible link box (battery)	E1	E25	GR/5	: Front wiper motor

E3	E9	—	: Body ground	B4	E26	B/26	: ABS actuator and electric unit (control unit)
F5	E10	B/32	: ECM	B5	E33	—	: Body ground
G4	E11	W/10	: To F2	A5	E41	GR/2	: Front wheel sensor RH
G4	E12	W/6	: To E203	F5	E42	BR/6	: Cooling fan relay-2
G4	E13	B/3	: To E205	B3	E43	BR/6	: Cooling fan relay-3
C4	E14	B/2	: Power steering solenoid valve	G5	E55	W/4	: Joint connector-E07
D3	E15	—	: Body ground	G4	E56	W/4	: Joint connector-E14
G5	E16	B/2	: IPDM E/R (Intelligent power distribution module engine room)	F3	E57	L/4	: Stop lamp relay-1
F3	E17	W/8	: IPDM E/R (Intelligent power distribution module engine room)	F4	E58	L/4	: Stop lamp relay-2
F3	E18	W/36	: IPDM E/R (Intelligent power distribution module engine room)	E3	E73	BR/3	: Intelligent key warning buzzer
F3	E19	GR/2	: Front wheel sensor LH				

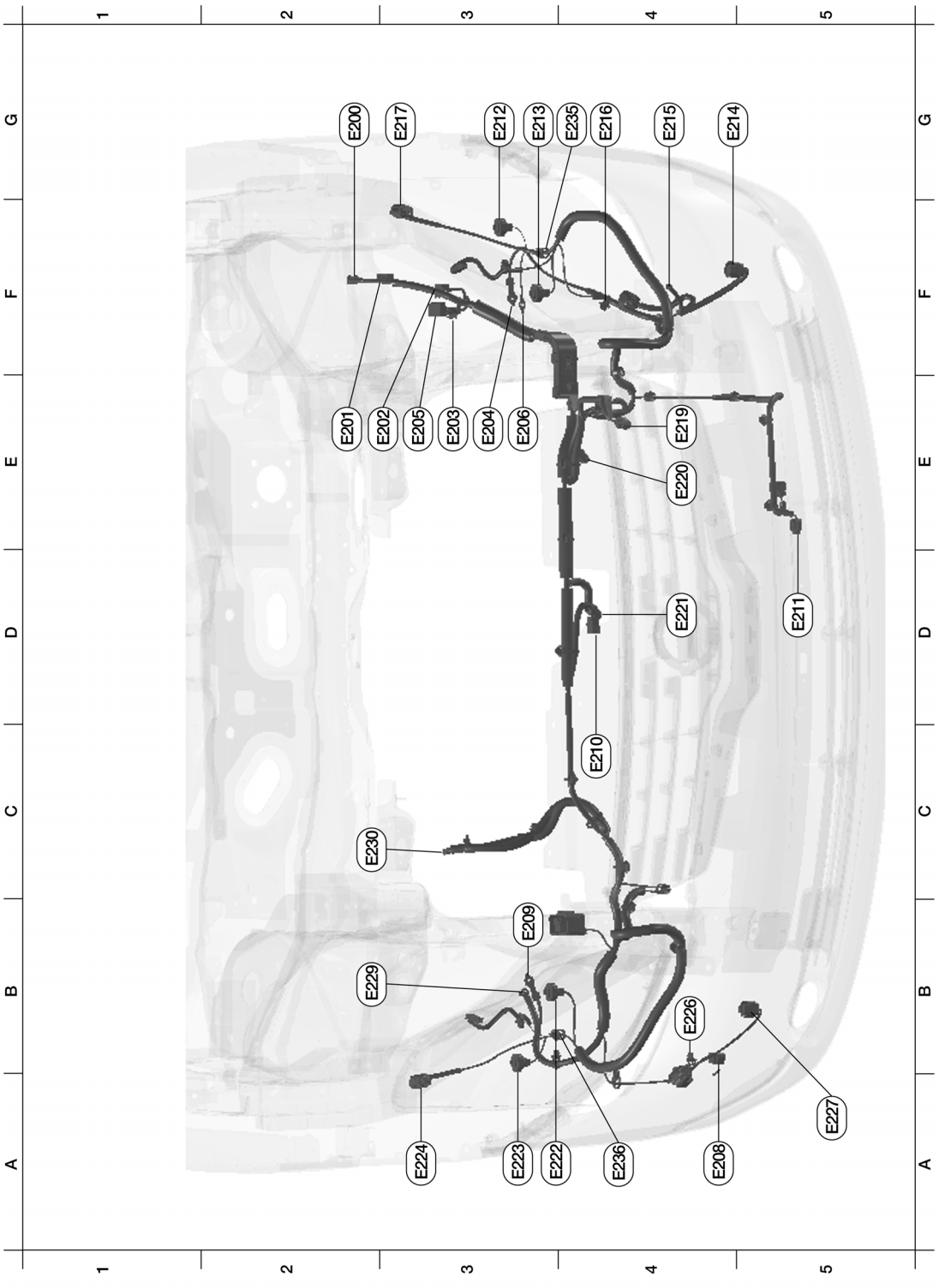
ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)



E3	E6	W/16	: Fuse block (J/B)	E4	E38††	B/2	: Stop lamp switch (with M/T)
D5	E7	W/1	: Fuse block (J/B)	E2	E39	BR/2	: ASCD clutch switch
E4	E8	B/2	: Fuse block (J/B)	G5	E40	B/6	: Accelerator pedal position (APP) sensor
E3	E27	W/4	: Joint connector-E06	C3	E44	BR/12	: Junction block
C3	E28	W/4	: Joint connector-E05	C3	E45	W/12	: Junction block

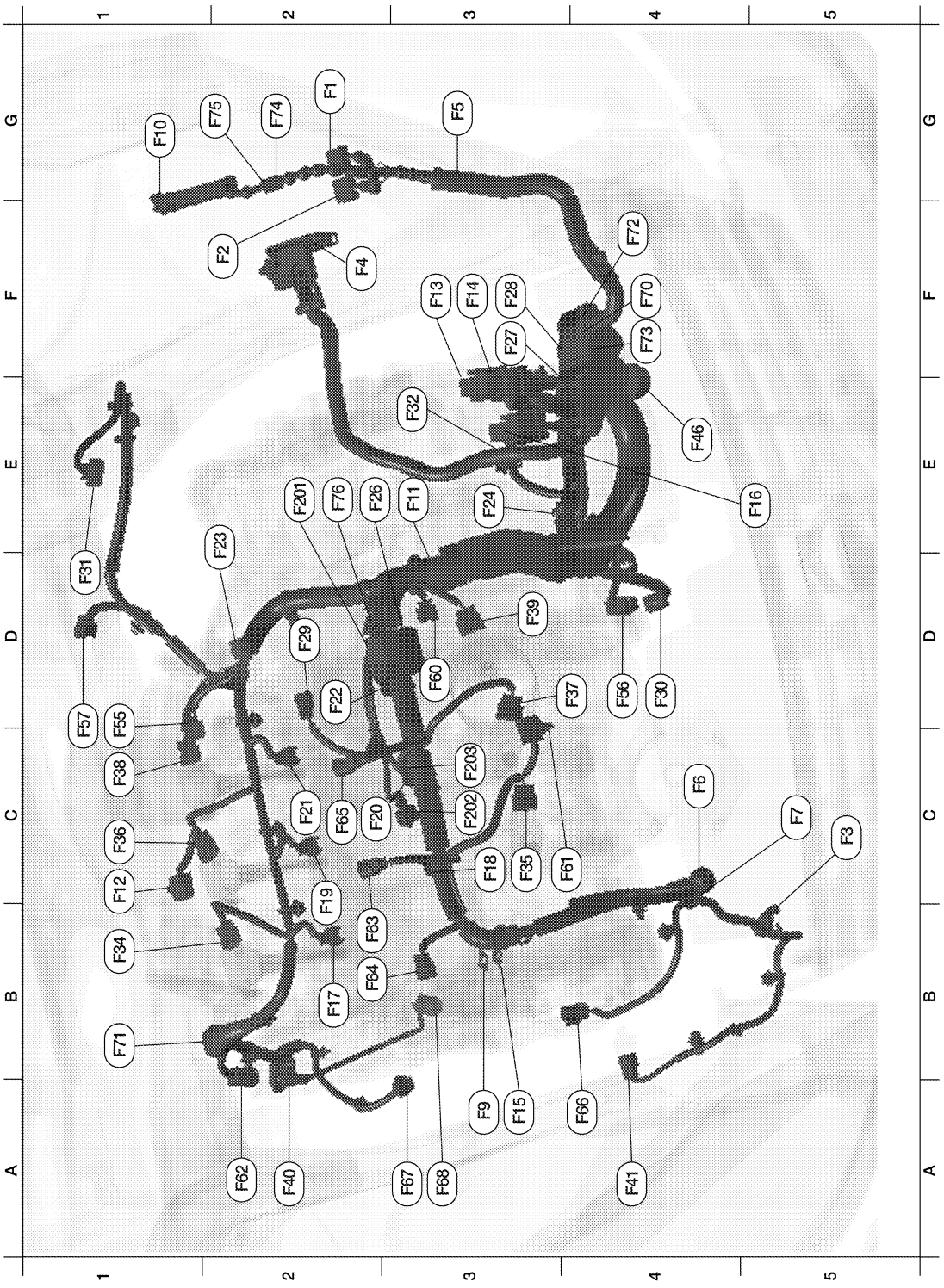
C3	E29	W/16	: To B10	C4	E46	W/16	: Junction block
D3	E30	SMJ	: To M1	C4	E47	W/6	: Junction block
E3	E34	L/4	: Back-up lamp relay	C4	E48	W/4	: Junction block
E4	E36	BR/2	: Clutch interlock switch	C4	E49	BR/4	: Junction block
G5	E37	BR/2	: ASCD brake switch	C5	E50	W/2	: Junction block
F5	E38†	W/4	: Stop lamp switch (with CVT)				

FRONT END MODULE HARNESS



G2	E200	W/8	: IPDM E/R (Intelligent power distribution module engine room)	G4	E216	B/1	: Horn (high)
E2	E201	W/16	: IPDM E/R (Intelligent power distribution module engine room)	G3	E217	GR/3	: Front combination lamp LH
E3	E202	W/8	: To E2	E4	E219	B/3	: Refrigerant pressure sensor
E3	E203	W/6	: To E12	E4	E220	GR/4	: Cooling fan motor-1

E3	E204	—	: Body ground	D4	E221	GR/4	: Cooling fan motor-2
E3	E205	B/3	: To E13	A3	E222	B/2	: Front combination lamp RH
E3	E206	—	: Body ground	A3	E223	B/2	: Front combination lamp RH (halogen)
A4	E208	W/2	: Washer fluid level switch	A3	E223	GR/2	: Front combination lamp RH (xenon)
B3	E209	—	: Body ground	A3	E224	GR/3	: Front combination lamp RH
C4	E210	Y/2	: Crash zone sensor	B4	E226	B/2	: Front washer motor
D5	E211	B/2	: Ambient sensor	A5	E227	B/2	: Front fog lamp RH
G3	E212	B/2	: Front combination lamp LH (halogen)	B3	E229	—	: Body ground
G3	E212	GR/2	: Front combination lamp LH (xenon)	C2	E230	—	: Generator
G3	E213	B/2	: Front combination lamp LH	G4	E235	GR/2	: Front combination lamp LH
G4	E214	B/2	: Front fog lamp LH	A4	E236	GR/2	: Front combination lamp RH
G4	E215	B/1	: Horn (low)				



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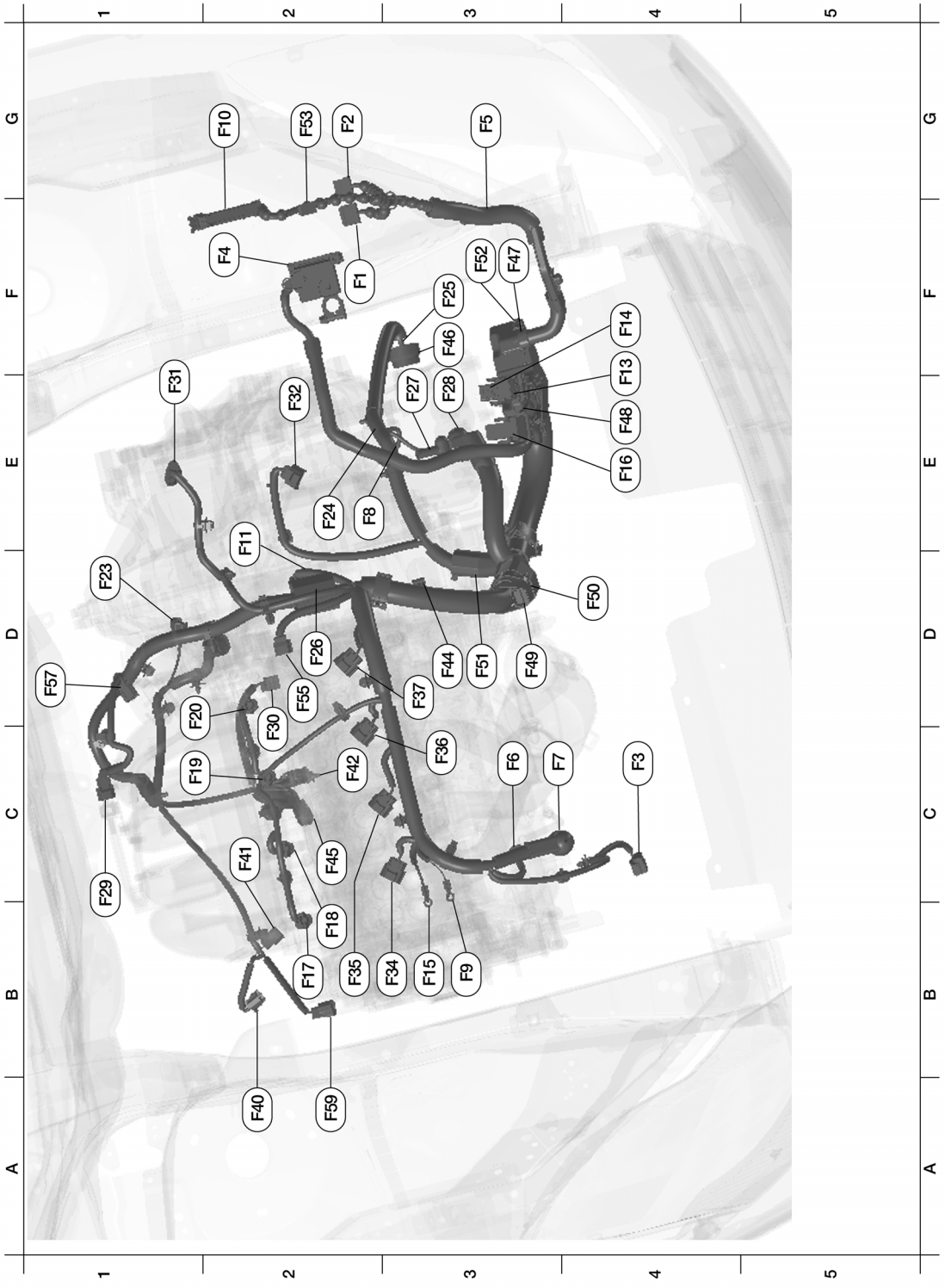
G2	F1	W/16	: To E3	C3	F35	GR/3	: Ignition coil No. 2 (with power transistor)
F1	F2	W/10	: To E11	C1	F36	GR/3	: Ignition coil No. 3 (with power transistor)
C5	F3	B/2	: A/C Compressor	D3	F37	GR/3	: Ignition coil No. 4 (with power transistor)
F2	F4	—	: Fusible link box (battery)	C1	F38	GR/3	: Ignition coil No. 5 (with power transistor)
G3	F5	B/3	: Battery current sensor	D3	F39	GR/3	: Ignition coil No. 6 (with power transistor)

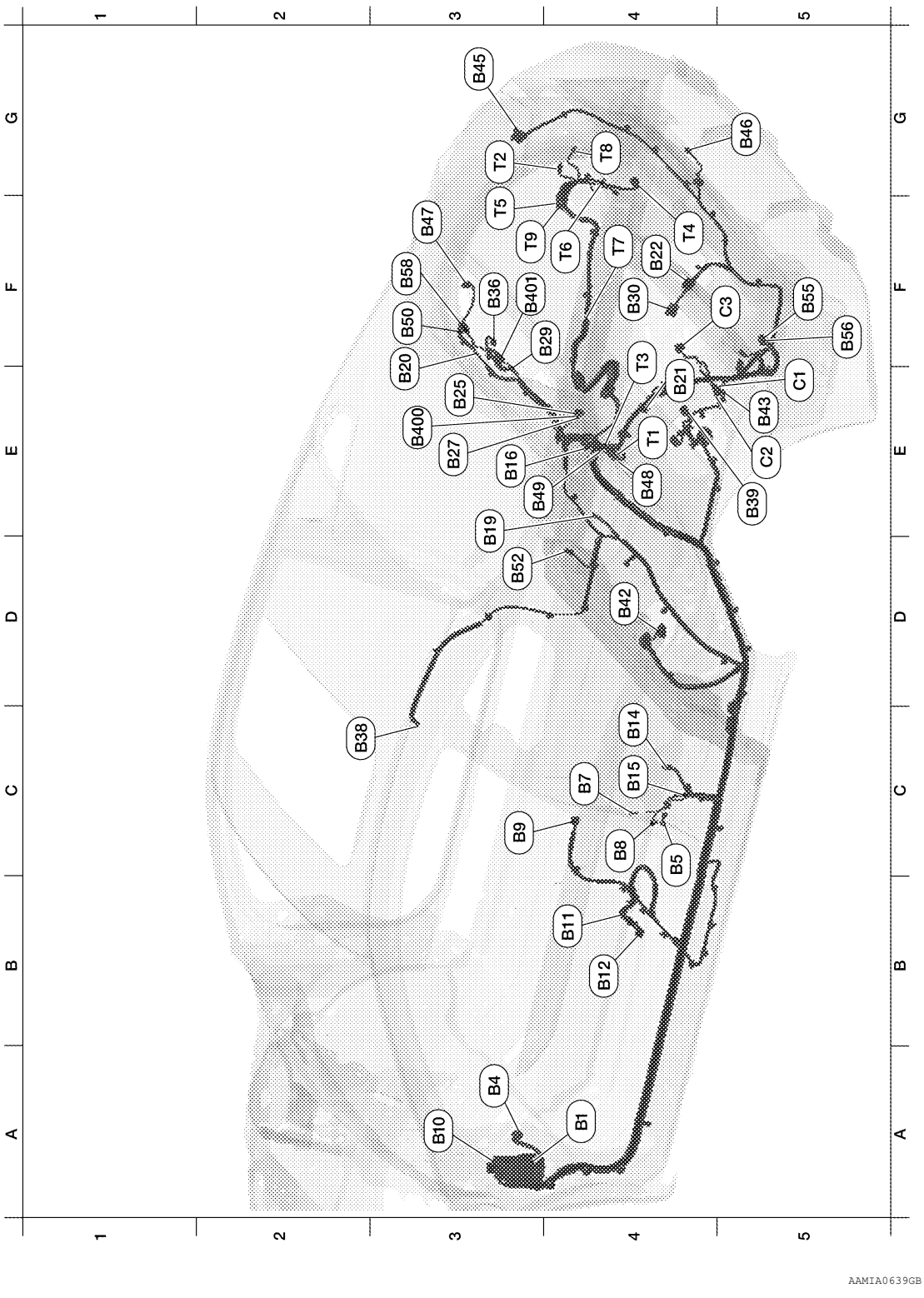
C4	F6	—	: Generator	A2	F40	B/3	: Power steering pressure sensor
C5	F7	B/3	: Generator	A4	F41	GR/1	: Oil pressure switch
A3	F9	—	: Engine ground	E4	F46	B/22	: CVT unit
G1	F10	W/36	: IPDM E/R (Intelligent power distribution module engine room)	D1	F55	B/3	: Camshaft position sensor (PHASE) (bank 1)
E3	F11	GR/2	: Engine coolant temperature sensor	D4	F56	B/4	: Heated oxygen sensor 2 (bank 2)
C1	F12	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 1)	D1	F57	B/6	: Electric throttle control actuator
F3	F13	BR/48	: ECM	D3	F60	B/3	: Camshaft position sensor (PHASE) (bank 2)
F3	F14	GR/32	: ECM	C3	F61	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 2)
A3	F15	—	: Engine ground	A2	F62	B/4	: Heated oxygen sensor 2 (bank 1)
E4	F16	B/48	: TCM (Transmission control module)	B2	F63	B/2	: VIAS control solenoid valve 1
B2	F17	GR/2	: Fuel injector No. 1	B2	F64	BR/2	: Electronic controlled engine mount control solenoid valve
C3	F18	GR/2	: Fuel injector No. 2	C2	F65	B/2	: VIAS control solenoid valve 2
B2	F19	GR/2	: Fuel injector No. 3	A3	F66	G/2	: Intake valve timing control solenoid valve (bank 2)
C2	F20	GR/2	: Fuel injector No. 4	A2	F67	G/2	: Intake valve timing control solenoid valve (bank 1)
C2	F21	GR/2	: Fuel injector No. 5	A3	F68	GR/2	: Engine oil temperature sensor
D2	F22	GR/2	: Fuel injector No. 6	F4	F70	B/10	: Joint connector-F01
E1	F23	B/3	: Secondary speed sensor	B1	F71	G/6	: Joint connector-F03
E3	F24	B/2	: Back-up lamp switch	F4	F72	B/10	: Joint connector-F04
E2	F26	W/2	: Condenser-2	F4	F73	B/10	: Joint connector-F05
F3	F27	—	: Starter motor	G2	F74	W/4	: Joint connector-F08
F3	F28	GR/1	: Starter motor	G1	F75	W/4	: Joint connector-F07
D2	F29	L/2	: EVAP canister purge volume control solenoid valve	E2	F76	L/4	: To F201
D4	F30	B/3	: Crankshaft position sensor (POS)	Knock sensor sub-harness			
D1	F31	B/6	: Mass air flow sensor	E2	F201	L/4	: To F76
E3	F32	B/2	: Park/neutral position (PNP) switch	C3	F202	GR/2	: Knock sensor (bank 1)
B1	F34	GR/3	: Ignition coil No. 1 (with power transistor)	C3	F203	GR/2	: Knock sensor (bank 2)

ENGINE CONTROL HARNESS (QR25DE)



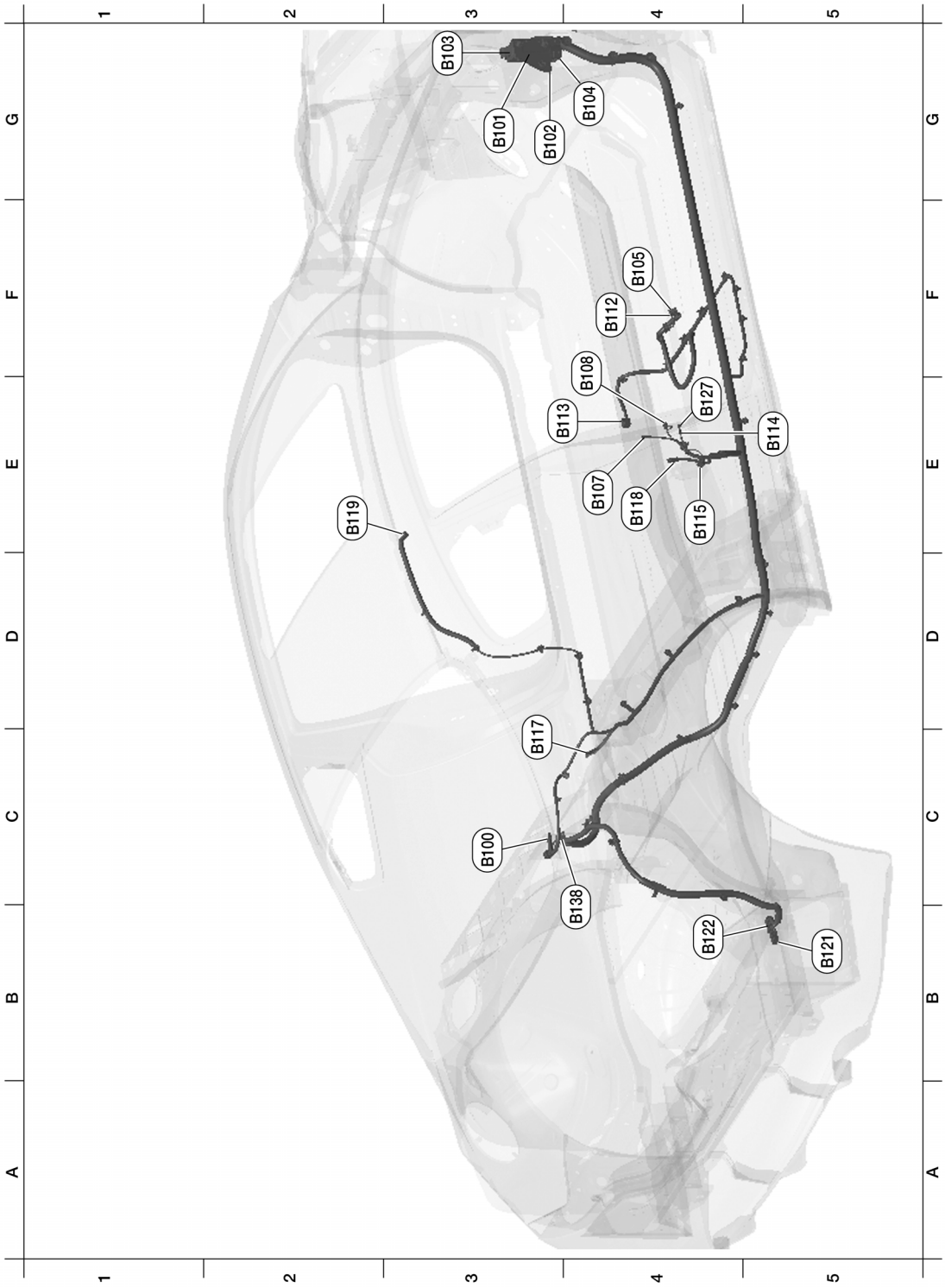
F2	F1	W/16	: To E3	C1	F29	L/2	: EVAP canister purge volume control solenoid valve
G2	F2	W/10	: To E11	C2	F30	B/3	: Crankshaft position sensor (POS)
C4	F3	B/12	: A/C Compressor	E1	F31	B/6	: Mass air flow sensor
F2	F4	—	: Fusible link box (battery)	E2	F32	B/2	: Park/neutral position (PNP) switch
G3	F5	B/3	: Battery current sensor	B3	F34	GR/3	: Ignition coil No. 1 (with power transistor)

C3	F6	—	: Generator	B2	F35	GR/3	: Ignition coil No. 2 (with power transistor)
C3	F7	B/3	: Generator	C3	F36	GR/3	: Ignition coil No. 3 (with power transistor)
E2	F8	B/3	: Primary speed sensor	D3	F37	GR/3	: Ignition coil No. 4 (with power transistor)
B3	F9	—	: Engine ground	A2	F40	B/3	: Power steering pressure sensor
G2	F10	W/36	: IPDM E/R (Intelligent power distribution module engine room)	C2	F41	GR/1	: Oil pressure switch
E2	F11	GR/2	: Engine coolant temperature sensor	C2	F42	B/4	: Heated oxygen sensor 2
E4	F13	BR/48	: ECM	D3	F44	GR/4	: Air fuel ratio (A/F) sensor 1
F4	F14	GR/32	: ECM	C2	F45	GR/2	: Knock sensor
B3	F15	—	: Engine ground	F3	F46	B/22	: CVT unit
E4	F16	B/48	: TCM (Transmission control module)	F3	F47	B/6	: Joint connector-F01
B2	F17	GR/2	: Fuel injector No. 1	E4	F48	B/6	: Joint connector-F02
B2	F18	GR/2	: Fuel injector No. 2	D3	F49	B/10	: Joint connector-F03
C1	F19	GR/2	: Fuel injector No. 3	D4	F50	B/10	: Joint connector-F04
D1	F20	GR/2	: Fuel injector No. 4	D3	F51	B/6	: Joint connector-F05
D1	F23	B/3	: Secondary speed sensor	F3	F52	B/10	: Joint connector-F06
E2	F24	B/2	: Back-up lamp switch	G2	F53	W/4	: Joint connector-F07
F3	F25	B/10	: Transmission range switch	D2	F55	B/3	: Camshaft position sensor (PHASE)
D2	F26	W/2	: Condenser-2	D1	F57	B/6	: Electric throttle control actuator
E3	F27	—	: Starter motor	A2	F59	G/2	: Intake valve timing control solenoid valve
E3	F28	—	: Starter motor				



A4	B1	SMJ	: To M6	G5	B46	GR/2	: Rear bumper antenna
A3	B4	BR/12	: Fuse block (J/B)	F3	B47	W/2	: Rear subwoofer RH
C4	B5	—	: Body ground	E4	B48	W/16	: To T1
C4	B7	—	: Body ground	E3	B49	W/2	: To T3
C4	B8	W/3	: Door switch LH	E3	B50	W/6	: To B138

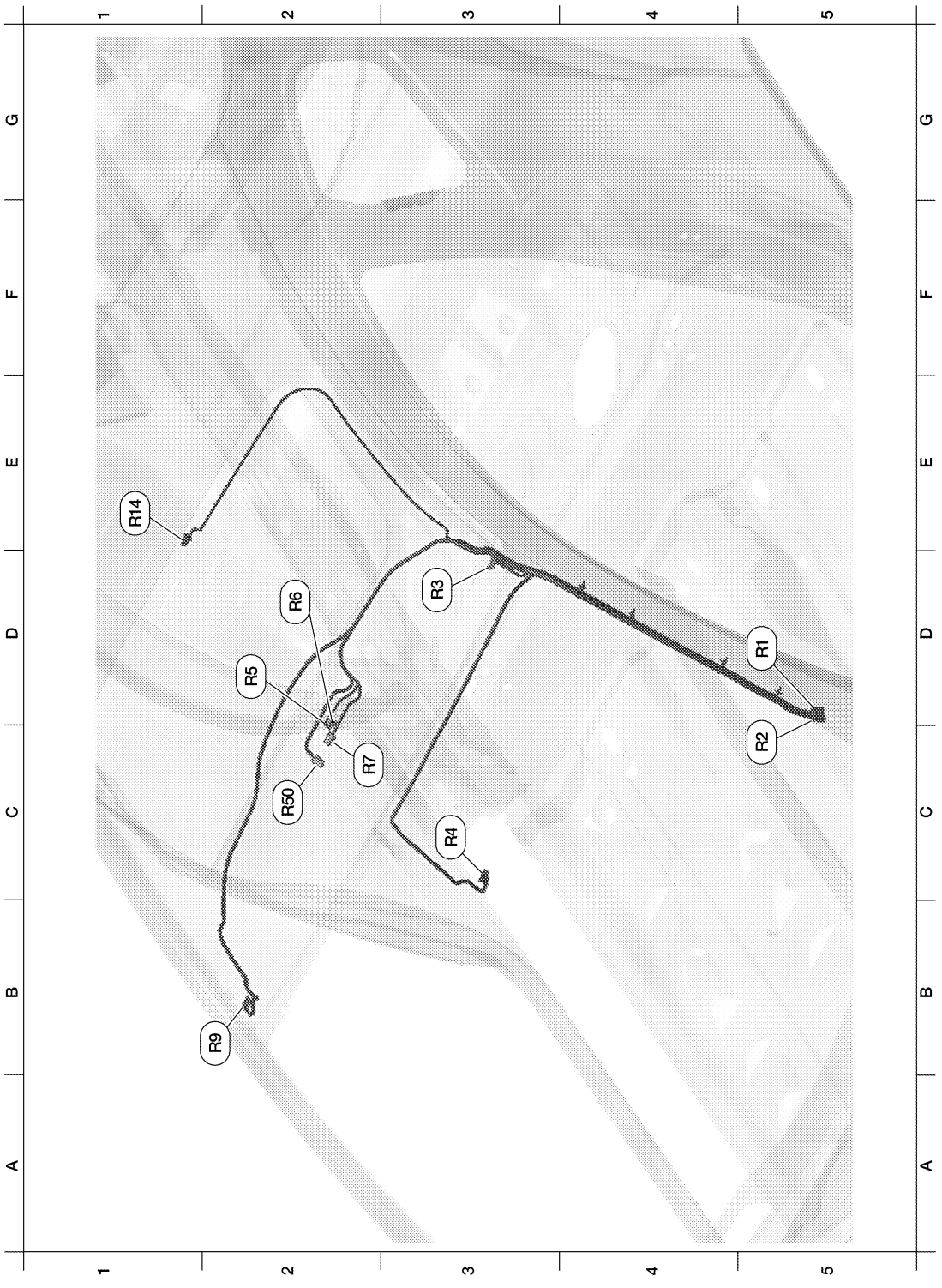
C3	B9	Y/12	: Air bag diagnosis sensor unit	D3	B52	W/1	: Condenser
A3	B10	W/16	: To E29	F5	B55	W/32	: Bluetooth control unit
B4	B11	Y/2	: Front LH side air bag module	F5	B56	W/8	: Bluetooth control unit
B4	B12	W/8	: To B201	F3	B58	—	: Body ground
C4	B14	Y/2	: Front LH seat belt pre-tensioner	High-mounted stop lamp sub-harness			
C4	B15	Y/2	: LH side air bag (satellite) sensor	E3	B400	W/2	: To B27
E3	B16	BR/2	: Rear tweeter LH	F3	B401	W/2	: High-mounted stop lamp
E4	B19	—	: Body ground	Tail lamp sub-harness			
E3	B20	W/4	: Joint connector-B05	E4	T1	W/16	: To B48
E3	B21	L/12	: Joint connector-B06	G3	T2	BR/2	: Trunk opener request switch
F4	B22	GR/6	: Joint connector-B07	E4	T3	W/2	: To B49
E3	B25	W/2	: Rear subwoofer LH	F4	T4	W/4	: Trunk lamp switch and trunk release solenoid
E3	B27	W/2	: To B400	F3	T5	W/4	: Joint connector-T01
F3	B29	GR/2	: Rear parcel shelf antenna	F4	T6	BR/2	: License plate lamp LH
F4	B30	W/6	: Rear combination lamp LH	F4	T7	W/4	: Rear view camera
F3	B36	W/2	: Trunk room lamp	G5	T8	BR/2	: License plate lamp RH
C2	B38	Y/2	: LH side curtain air bag module	F3	T9	W/4	: Joint connector-T02
E5	B39	B/2	: EVAP canister vent control valve	Chassis harness			
D4	B42	GR/5	: Fuel level sensor unit and fuel pump	E5	C1	GR/4	: To B43
E5	B43	GR/4	: To C1	E5	C2	B/2	: Rear wheel sensor LH
G3	B45	W/6	: Rear combination lamp RH	F5	C3	GR/2	: Rear wheel sensor RH



C3	B100	BR/2	: Rear tweeter RH	E5	B114	—	: Body ground
F3	B101	W/32	: To M2	F4	B115	Y/2	: Front RH seat belt pre-tensioner
G3	B102	W/24	: To M8	E4	B117	—	: Body ground
G3	B103	BR/16	: To M9	E4	B118	Y/2	: RH side air bag (satellite) sensor
G2	B104	BR/12	: To M10	D3	B119	Y/2	: RH side curtain air bag module

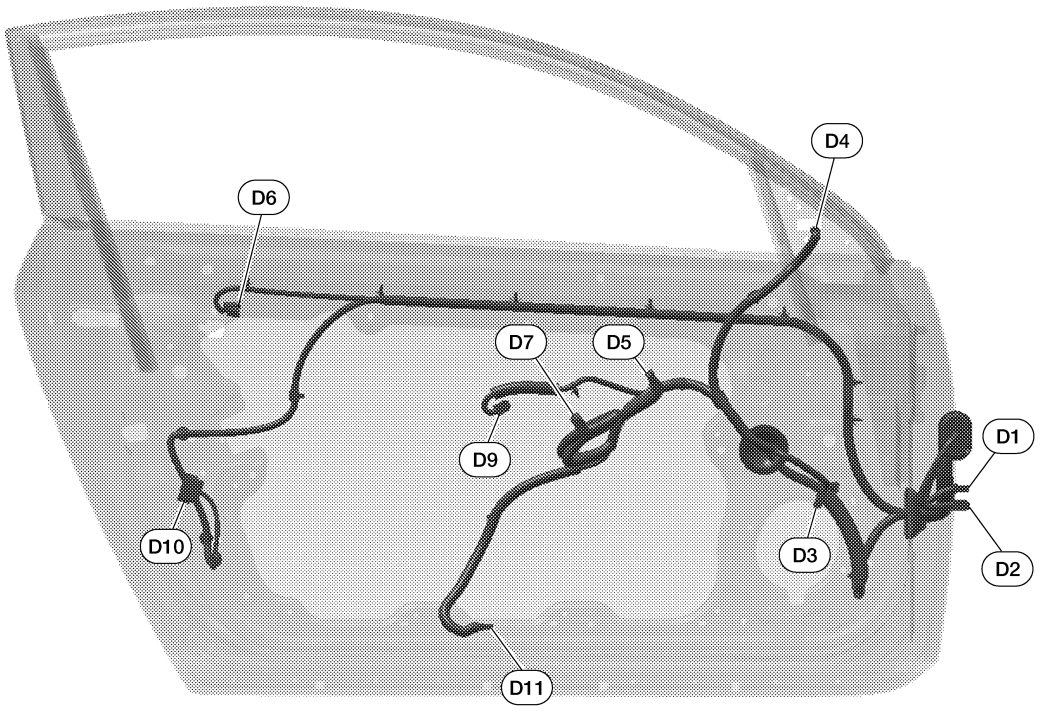
G3	B105	W/8	: To B301	C3	B121	BR/23	: BOSE speaker amp.
E3	B107	—	: Body ground	B4	B122	BR/14	: BOSE speaker amp.
E3	B108	W/3	: Door switch RH	B4	B127	—	: Body ground
G4	B112	Y/2	: Front RH side air bag module	C3	B138	W/6	: To B50
A3	B113	Y/12	: Air bag diagnosis sensor unit				

ROOM LAMP HARNESS



D5	R1	W/16	: To M7	D2	R6	W/3	: Sunroof switch
C5	R2	W/4	: To M13	C2	R7	W/4	: Microphone
D3	R3	W/2	: Vanity mirror lamp LH	B2	R9	W/2	: Vanity mirror lamp RH
C3	R4	B/7	: Auto anti-dazzling inside mirror	E1	R14	—	: Interior room lamp
C2	R5	GR/10	: Sunroof motor assembly	C2	R50	GR/6	: Front room/map lamp assembly

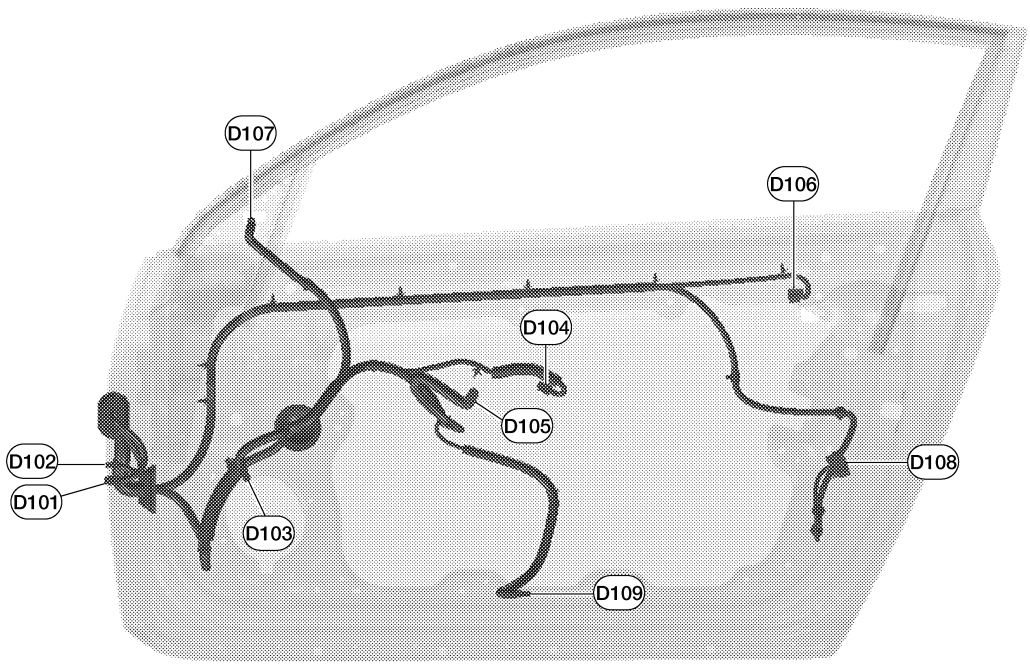
DOOR LH HARNESS



ALMIA0399GB

D1	W/16	: To M11	D6	B/4	: Outside handle LH
D2	W/16	: To M12	D7	W/16	: Main power window and door lock/unlock switch
D3	W/2	: Door speaker LH	D9	W/6	: Power window motor LH
D4	W/8	: Door mirror LH	D10	GR/6	: Door lock assembly LH
D5	W/16	: Door mirror remote control switch	D11	W/2	: Step lamp LH

DOOR RH HARNESS



ALMIA0400GB

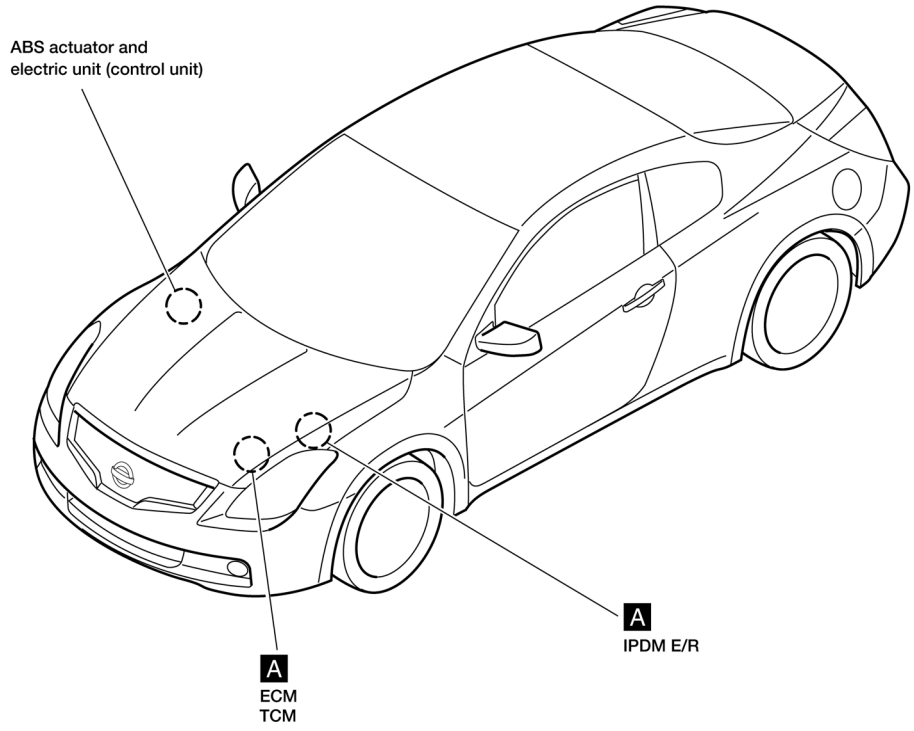
D101	W/10	: To M14	D106	B/4	: Outside handle RH
D102	W/12	: To M15	D107	W/8	: Door mirror RH
D103	W/2	: Door speaker RH	D108	GR/6	: Door lock actuator RH
D104	W/6	: Power window motor RH	D109	W/2	: Step lamp RH
D105	W/16	: Power window and door lock/unlock switch RH			

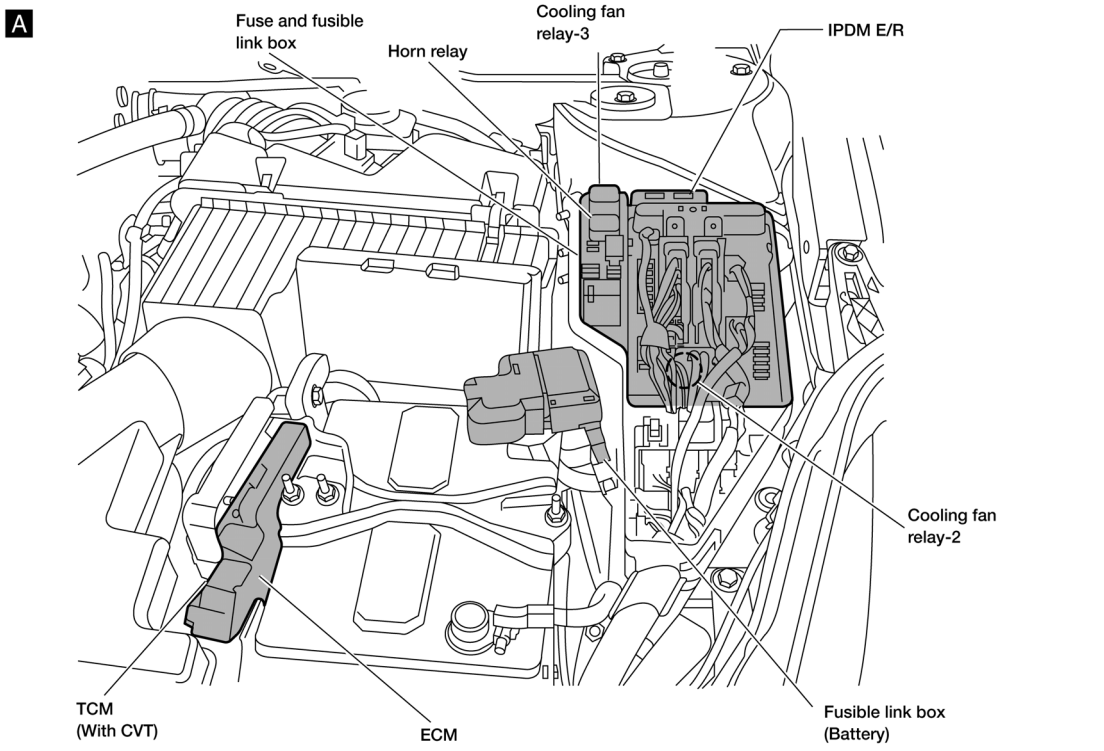
ELECTRICAL UNITS LOCATION

Electrical Units Location

INFOID:0000000006390996

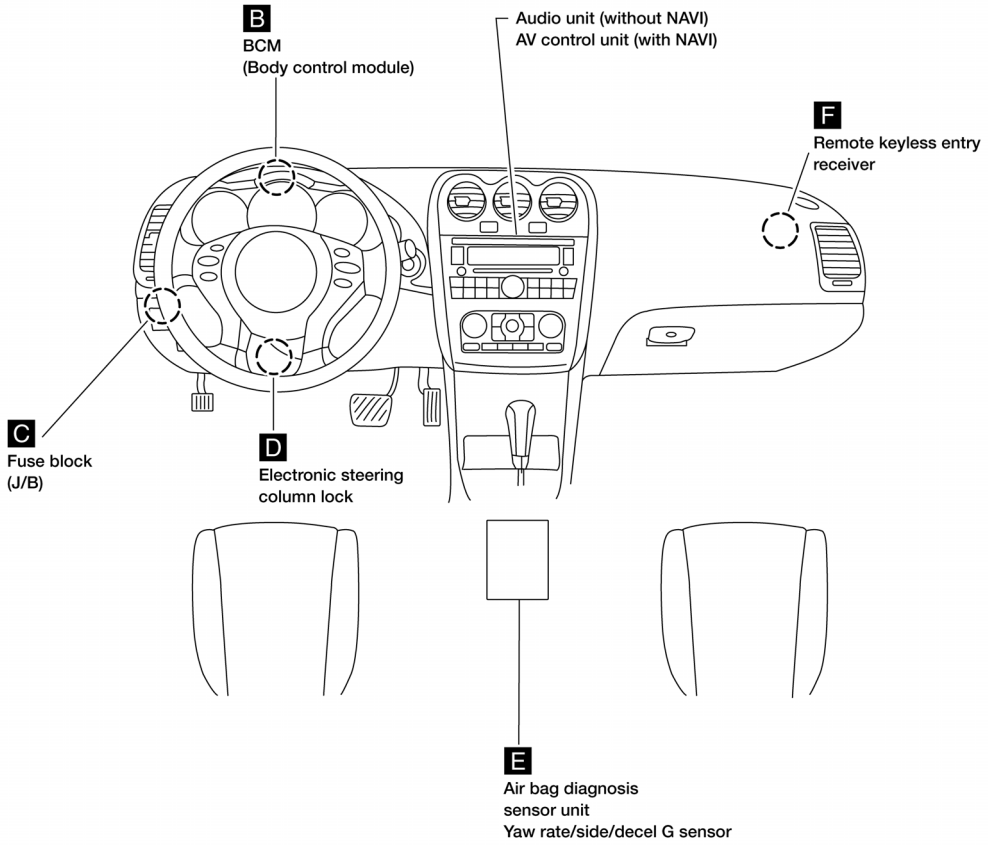
ENGINE COMPARTMENT



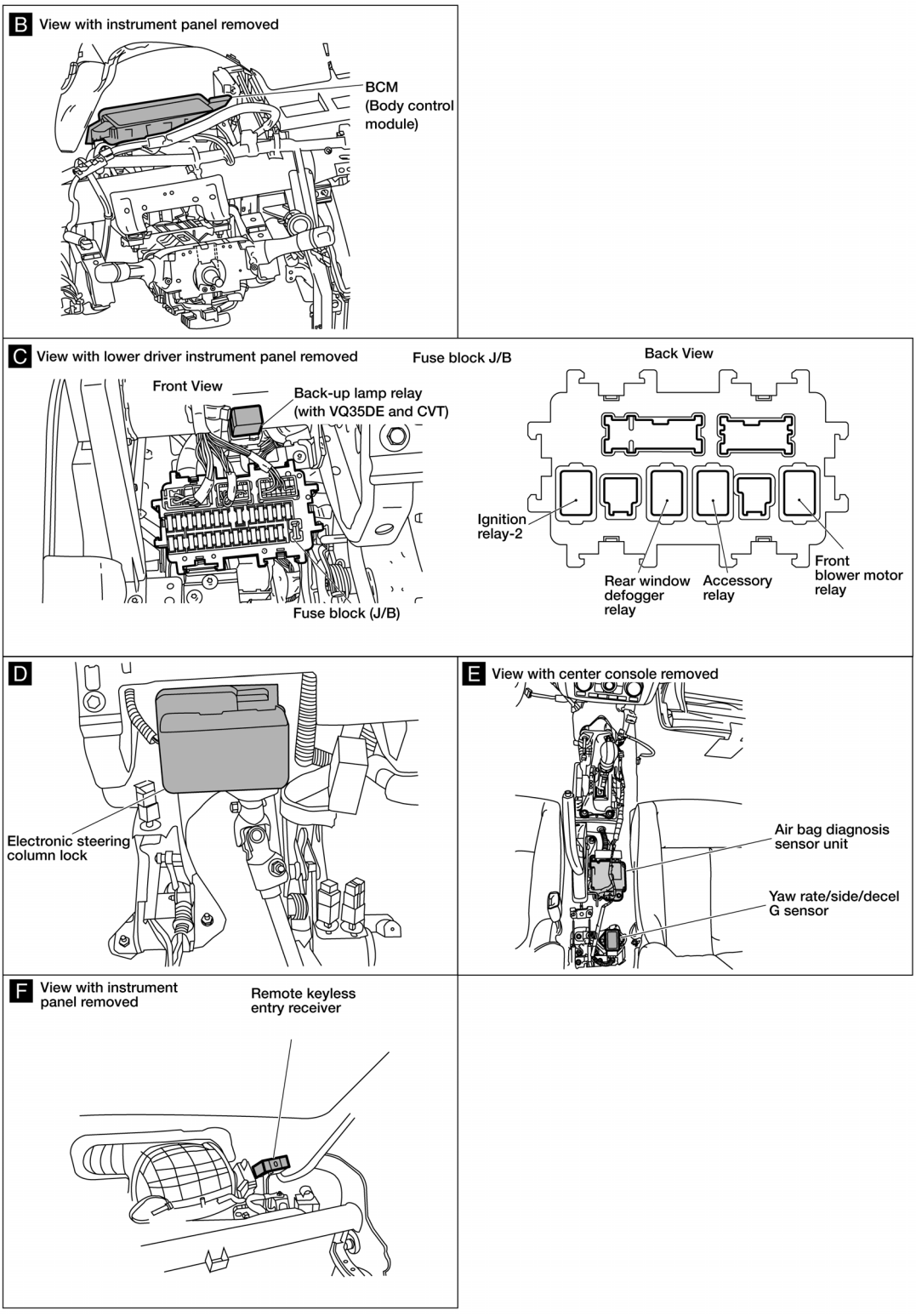


ABMIA1998GB

PASSENGER COMPARTMENT

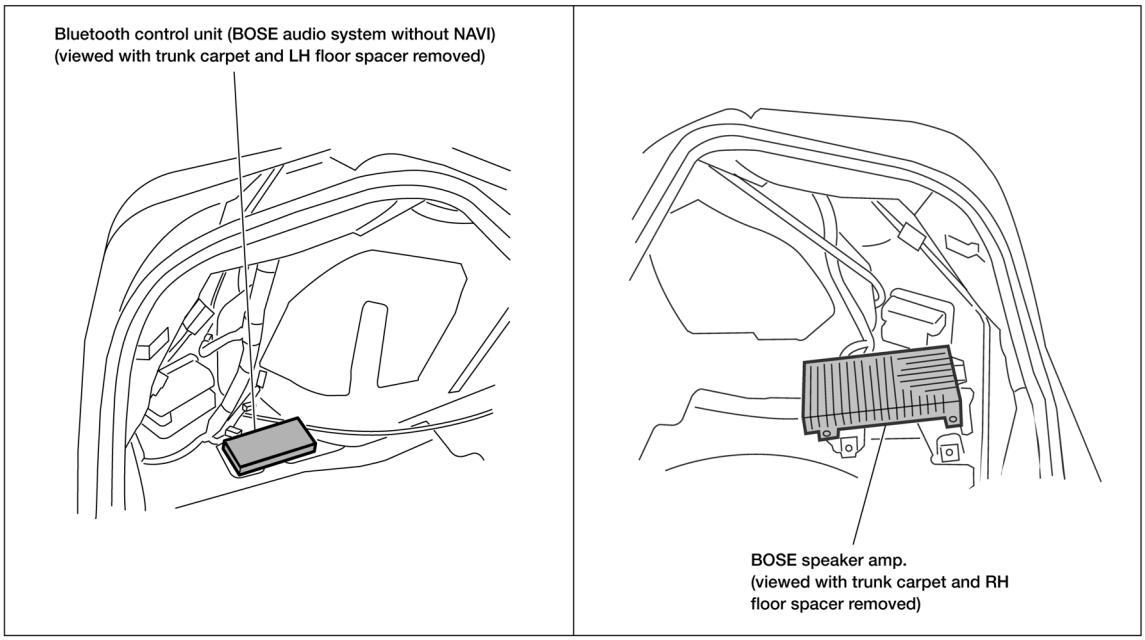


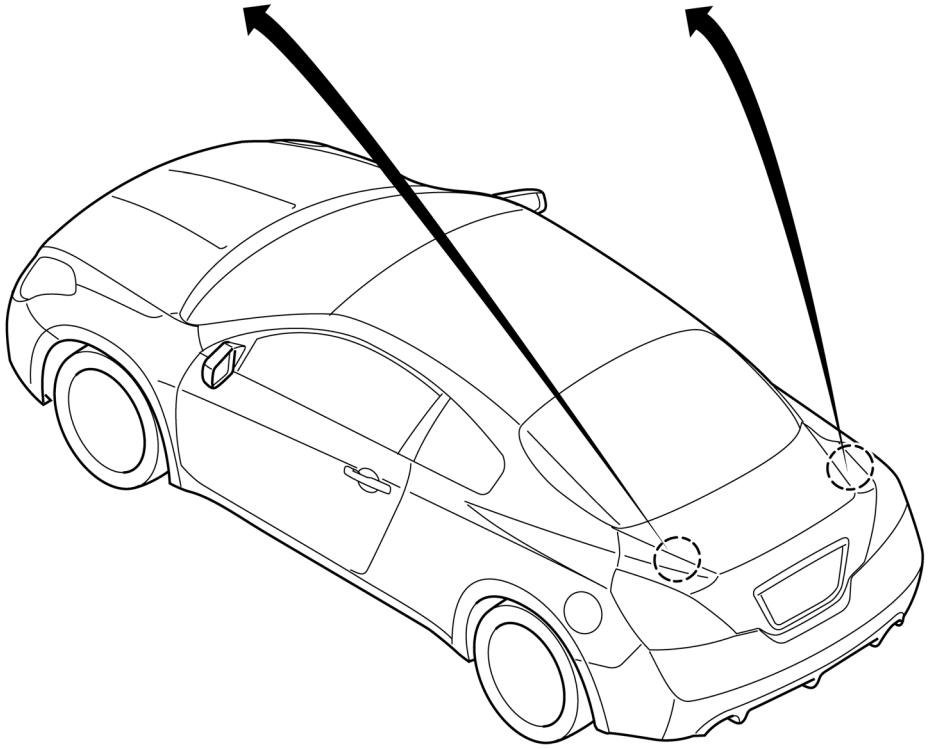
AAMIA0640GB



ABMIA2000GB

LUGGAGE COMPARTMENT





AAMIA0641GB

HARNESS CONNECTOR

Description

INFOID:0000000006390997

HARNESS CONNECTOR (TAB-LOCKING TYPE)

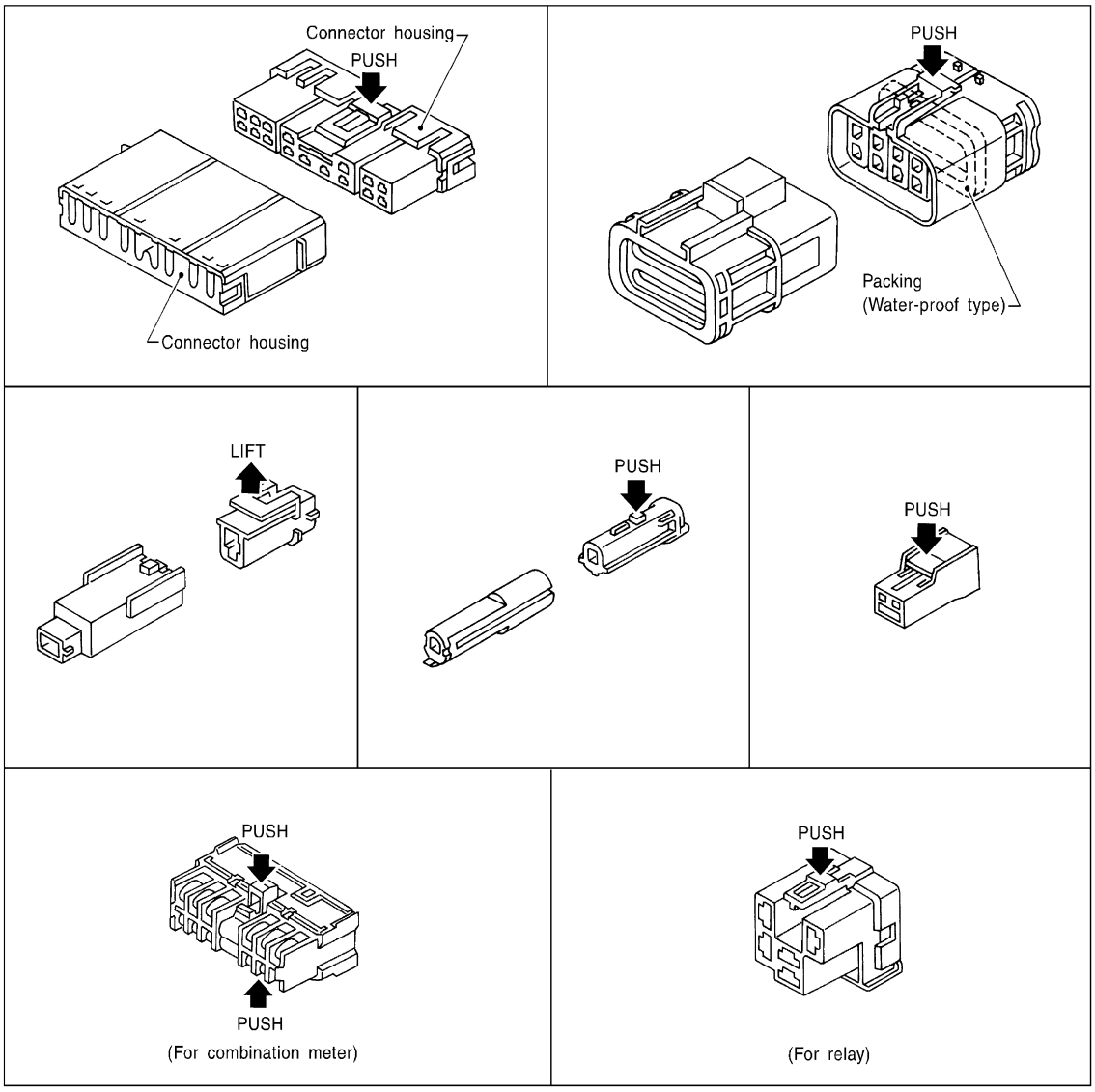
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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

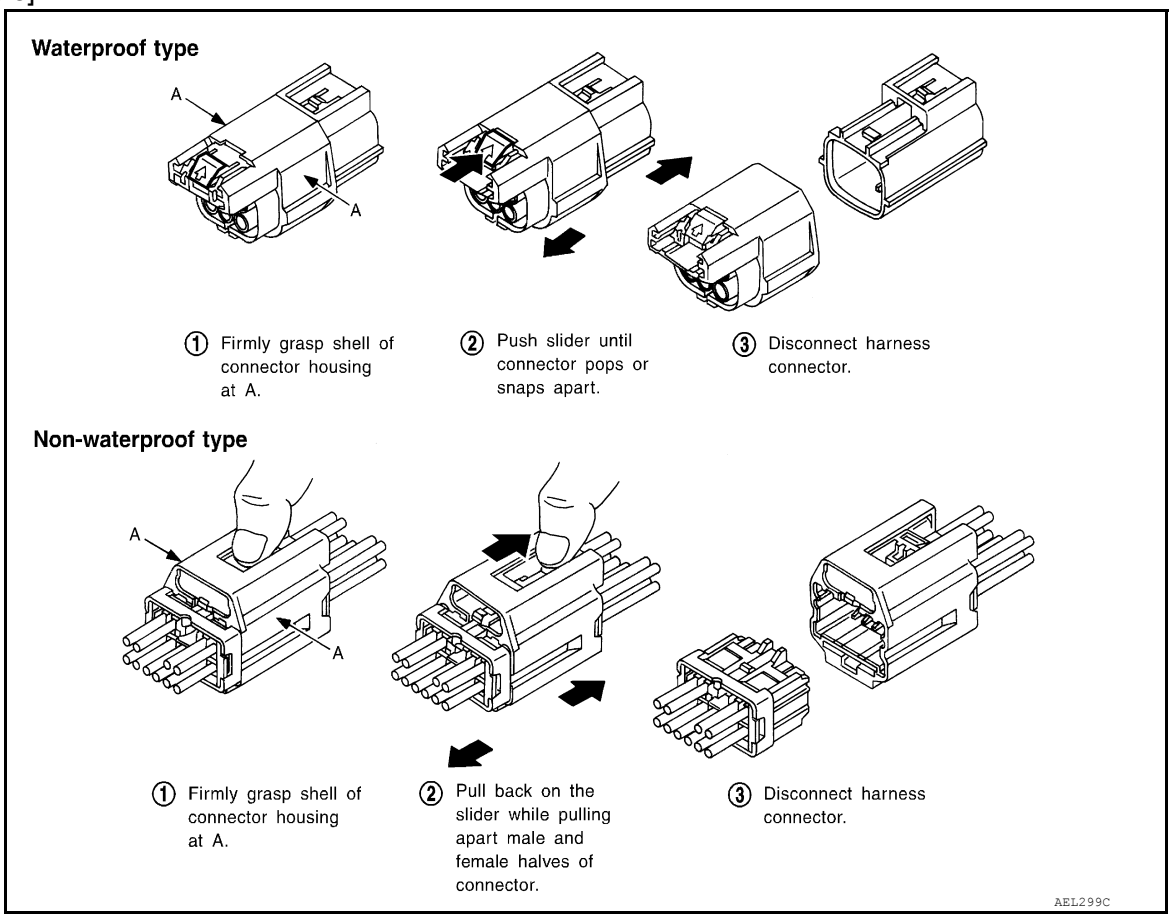
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- 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]

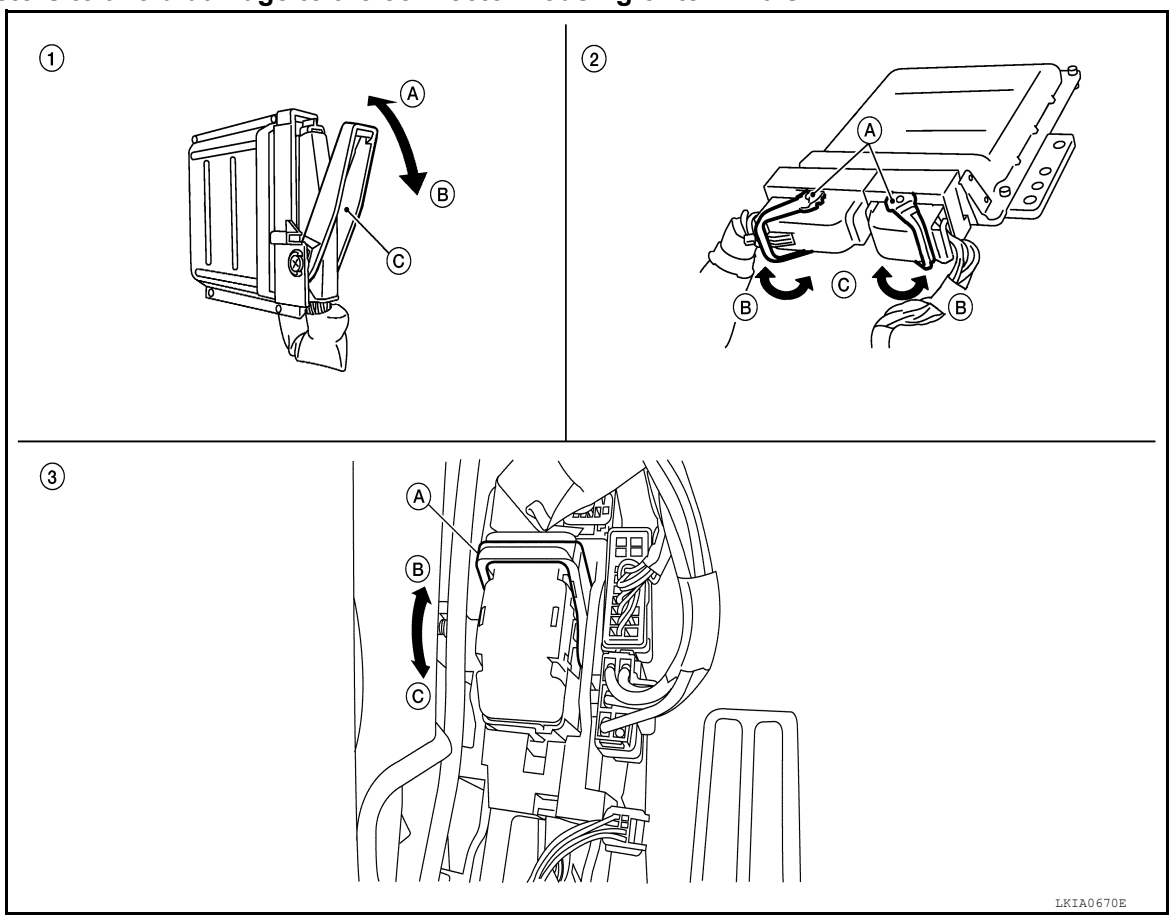


HARNESS CONNECTOR (LEVER LOCKING TYPE)

- 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.



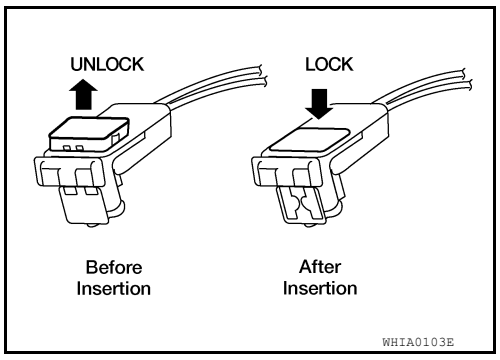
1. Control unit with single lever
   A. Fasten
   B. Loosen
   C. Lever
2. Control unit with dual levers
   A. Levers
   B. Fasten
   C. Loosen
3. SMJ connector
   A. Lever
   B. Fasten
   C. Loosen

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.**



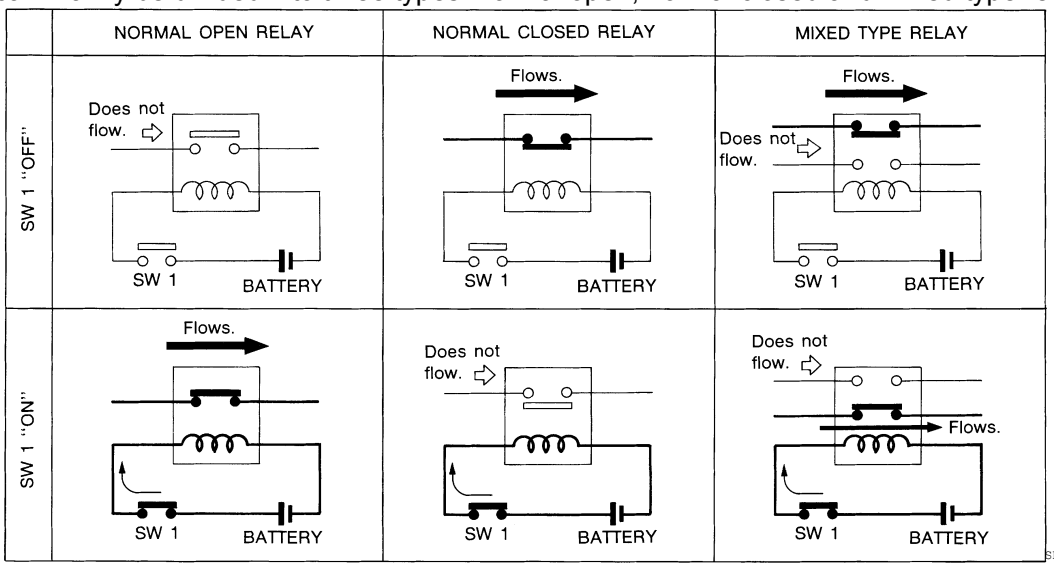
STANDARDIZED RELAY

Description

INFOID:0000000006390998

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

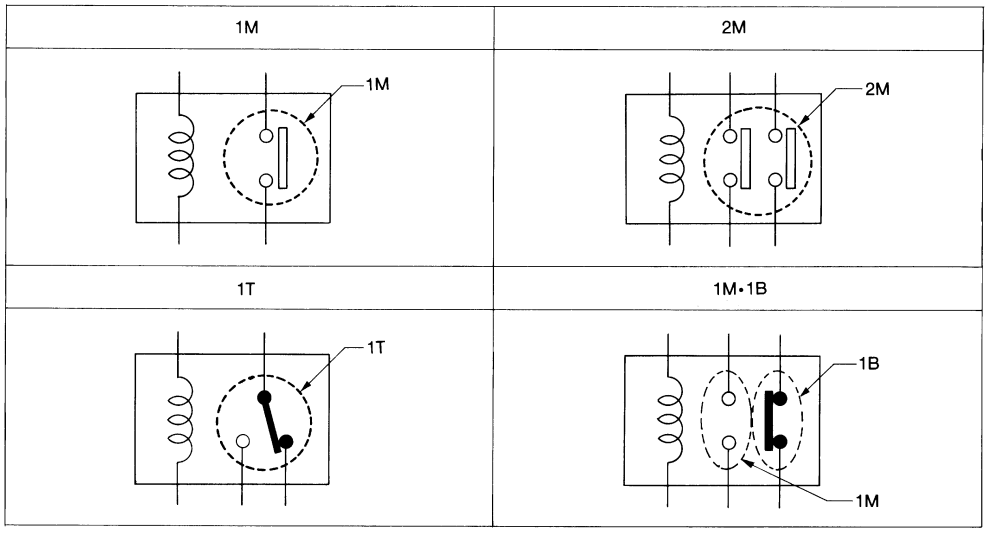
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



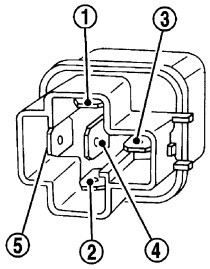
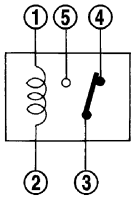
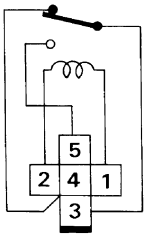
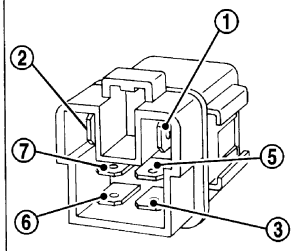
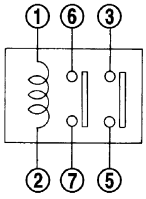
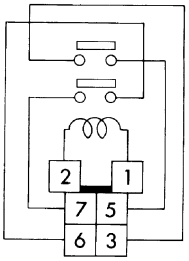
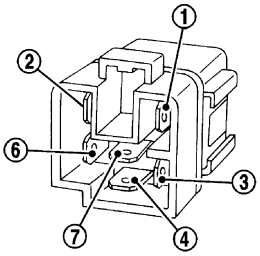
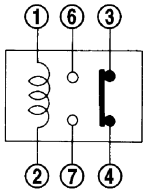
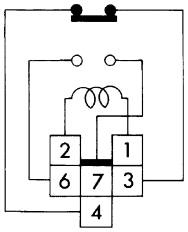
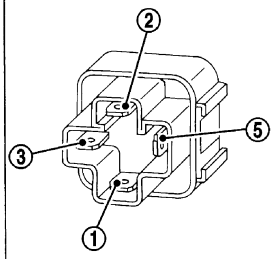
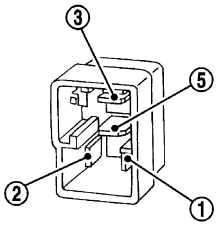
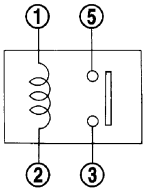
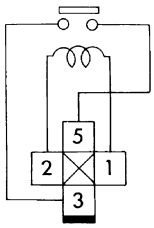
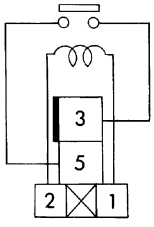
SEL881H

TYPE OF STANDARDIZED RELAYS

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



SEL882H

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

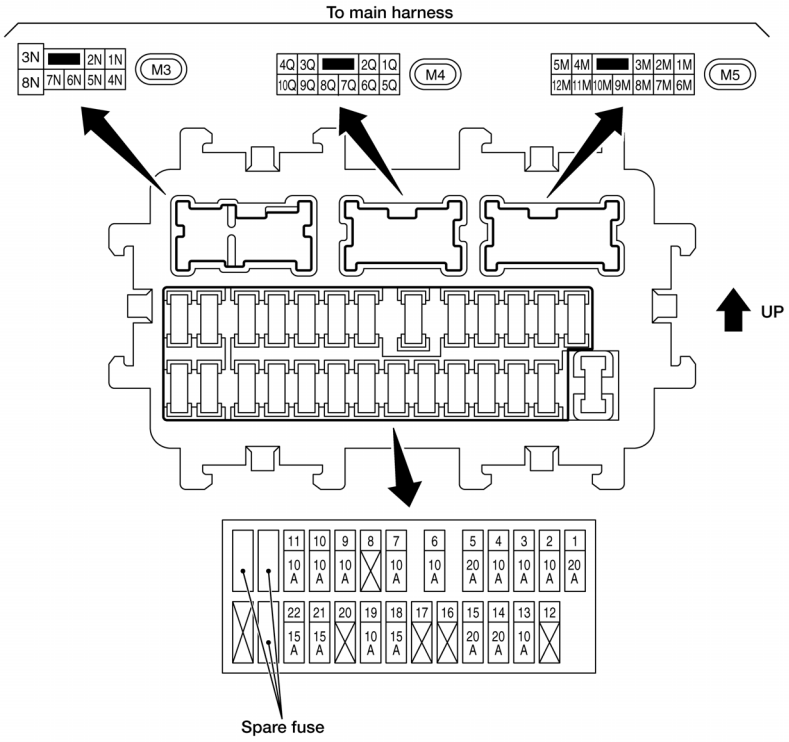
The arrangement of terminal numbers on the actual relays may differ from those shown above.

SEL188W

FUSE BLOCK - JUNCTION BOX (J/B)

Terminal Arrangement

INFOID:0000000006390999



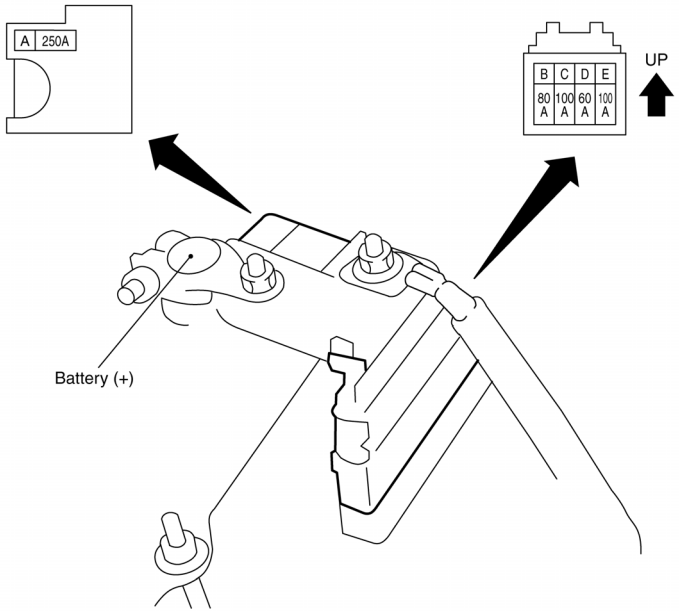
ABMIA2001GB

FUSE, FUSIBLE LINK AND RELAY BOX

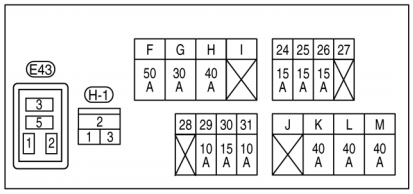
Terminal Arrangement

INFOID:0000000006391000

FUSIBLE LINK BOX (BATTERY)



FUSE AND FUSIBLE LINK BOX



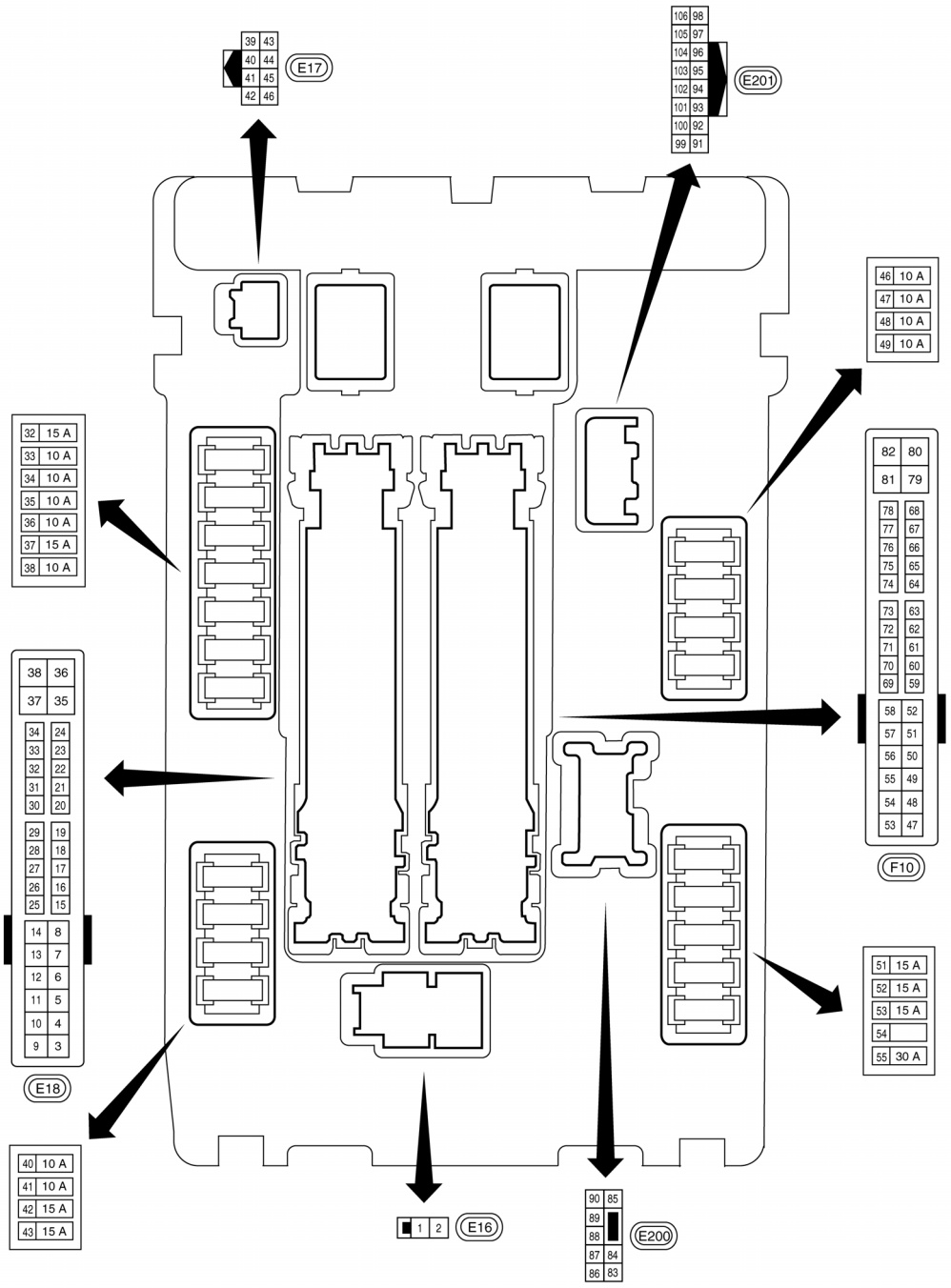
F-M: FUSIBLE LINK
No. 24-31: FUSE

ABMIA2002GB

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

Fuse, Connector and Terminal Arrangement

INFOID:0000000006391001



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PRECAUTION

PRECAUTIONS

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

INFOID:0000000006391002

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.**

Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000006391003

NOTE:

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

This vehicle is equipped with a push-button ignition switch and a steering lock unit.
If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.
If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.
   NOTE:
   Supply power using jumper cables if battery is discharged.
2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)

6. Perform self-diagnosis check of all control units using CONSULT.

Battery Service

INFOID:0000000006391004

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

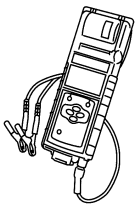
PREPARATION

PREPARATION

Special Service Tool

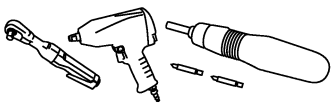
INFOID:0000000008655675

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
— (—) Model GR8-1200 NI Multitasking battery and electrical diagnostic station  AWIIA1239ZZ	Tests batteries, starting and charging systems and charges batteries. For operating instructions, refer to diagnostic station instruction manual.
— (—) Model EXP-800 NI Battery and electrical diagnostic analyzer  JSMIA0806ZZ	Tests batteries and charging systems. For operating instructions, refer to diagnostic analyzer instruction manual.

Commercial Service Tool

INFOID:0000000008655676

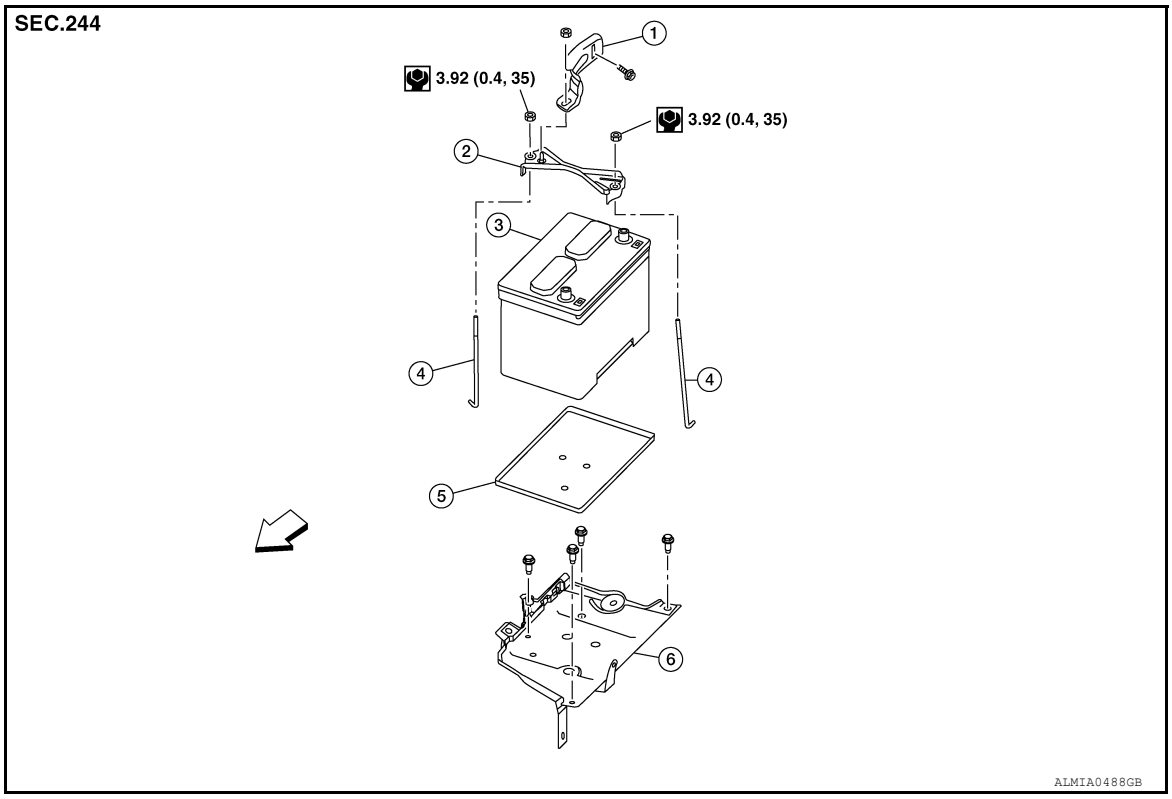
Tool number Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

REMOVAL AND INSTALLATION

BATTERY

Exploded View

INFOID:0000000006391007



1. Upper ECM bracket
2. Battery frame
3. Battery
4. Battery rods
5. Battery tray liner
6. Battery tray

⇦ Front

Removal and Installation (Battery)

INFOID:0000000006391008

REMOVAL

1. Disconnect the battery negative and positive terminals.
   CAUTION:
   Disconnect the negative terminal first.
2. Remove battery frame nuts and battery frame.
3. Remove battery.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

When connecting, connect the battery positive terminal first.

Battery frame nut	**: 3.92 N·m (0.4 kg-m, 35 in-lb)**
Battery terminal nut	**: 5.4 N·m (0.55 kg-m, 48 in-lb)**

Reset electronic systems as necessary. Refer to PG-74, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Removal and Installation (Battery Tray)

INFOID:0000000006391009

REMOVAL

1. Remove battery and battery tray liner. Refer to PG-68, "Removal and Installation (Battery)".
2. Remove air cleaner assembly. Refer to EM-25, "Removal and Installation" (QR25DE models) or EM-131, "Removal and Installation" (VQ35DE models).
3. Disconnect and remove ECM.
4. Disconnect transmission control module (TCM) (CVT models). Refer to TM-239, "Removal and Installation" (RE0F09B) or TM-403, "Removal and Installation" (RE0F10A).
5. Remove the ECM bracket.
6. Remove current sensor from battery tray.
7. Remove the battery tray bolts and battery tray.

INSTALLATION

Installation is in the reverse order of removal.
Reset electronic systems as necessary. Refer to PG-6, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

SERVICE DATA AND SPECIFICATIONS (SDS)

BATTERY

Battery

INFOID:0000000006391010

Type*	GR 35
Capacity (20HR) minimum V-AH	12 - 60
Cold cranking current A @ -18°C (0°F)	550

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

BASIC INSPECTION

BATTERY

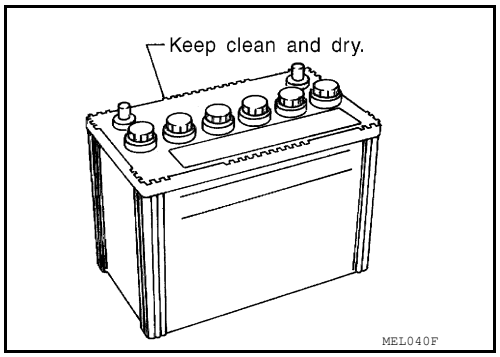
How to Handle Battery

INFOID:0000000006391011

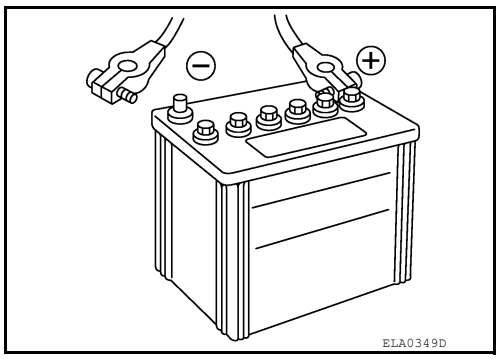
CAUTION:
- **If it becomes necessary to start the engine with a booster battery and jumper cables, use a 12-volt booster battery.**
- **After connecting battery cables, ensure that they are tightly clamped to battery terminals for good contact.**
- **Never add distilled water through the hole used to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

METHODS OF PREVENTING OVER-DISCHARGE

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



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



Work Flow

INFOID:0000000006391012

BATTERY DIAGNOSIS WITH EXP-800 NI OR GR8-1200 NI

To diagnose and confirm the condition of the battery, use the following special service tools:
- EXP-800 NI Battery and electrical diagnostic analyzer
- GR8-1200 NI Multitasking battery and electrical diagnostic station

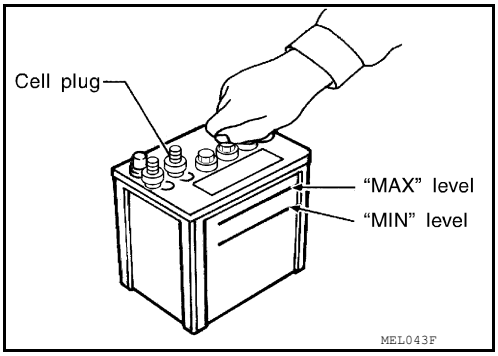
NOTE:
Refer to the applicable Instruction Manual for proper battery diagnosis procedures.

BATTERY DIAGNOSIS WITHOUT EXP-800 NI OR GR8-1200 NI

Checking Electrolyte Level

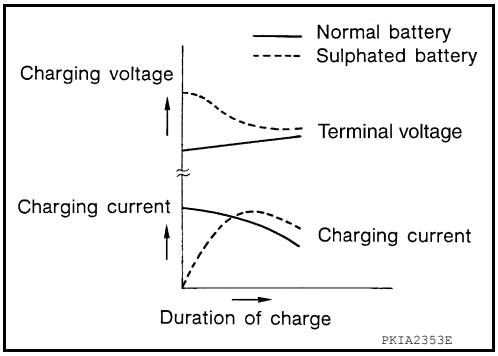
WARNING:
Never allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, never touch or rub your eyes until you have thoroughly washed your hands. If acid contacts eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical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

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



SULFATION

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



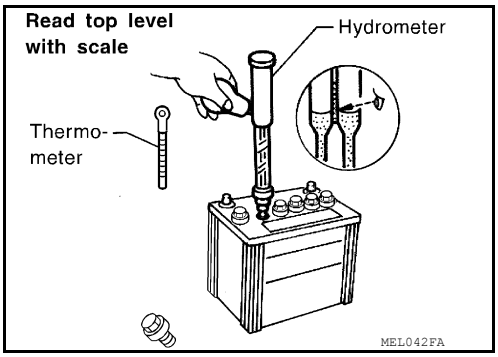
Specific Gravity Check

NOTE:

Check the charge condition of the battery.

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

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



Hydrometer Temperature Correction

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

Battery electrolyte temperature [°C (°F)]	Add to specific gravity reading
4 (40)	−0.016
−1 (30)	−0.020
−7 (20)	−0.024
−12 (10)	−0.028
−18 (0)	−0.032

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

Charging The Battery

CAUTION:

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

Charging Rates (Standard Charge)

Approximate charge condition	Charge current (A)	Charge time (h)
Fully charged	7	2
3/4 charged		2.5
1/2 charged		5
1/4 charged		7.5
Almost discharged		9
Completely discharged		10

Charging Rates (Quick Charge)

Approximate charge condition	Charge current (A)	Charge time (h)
Fully charged	—	—
3/4 charged	16	0.5
1/2 charged	33	
1/4 charged		
Almost discharged		
Completely discharged	—	—

NOTE:

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

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

INSPECTION AND ADJUSTMENT
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000006391013

Required Procedure After Battery Disconnection

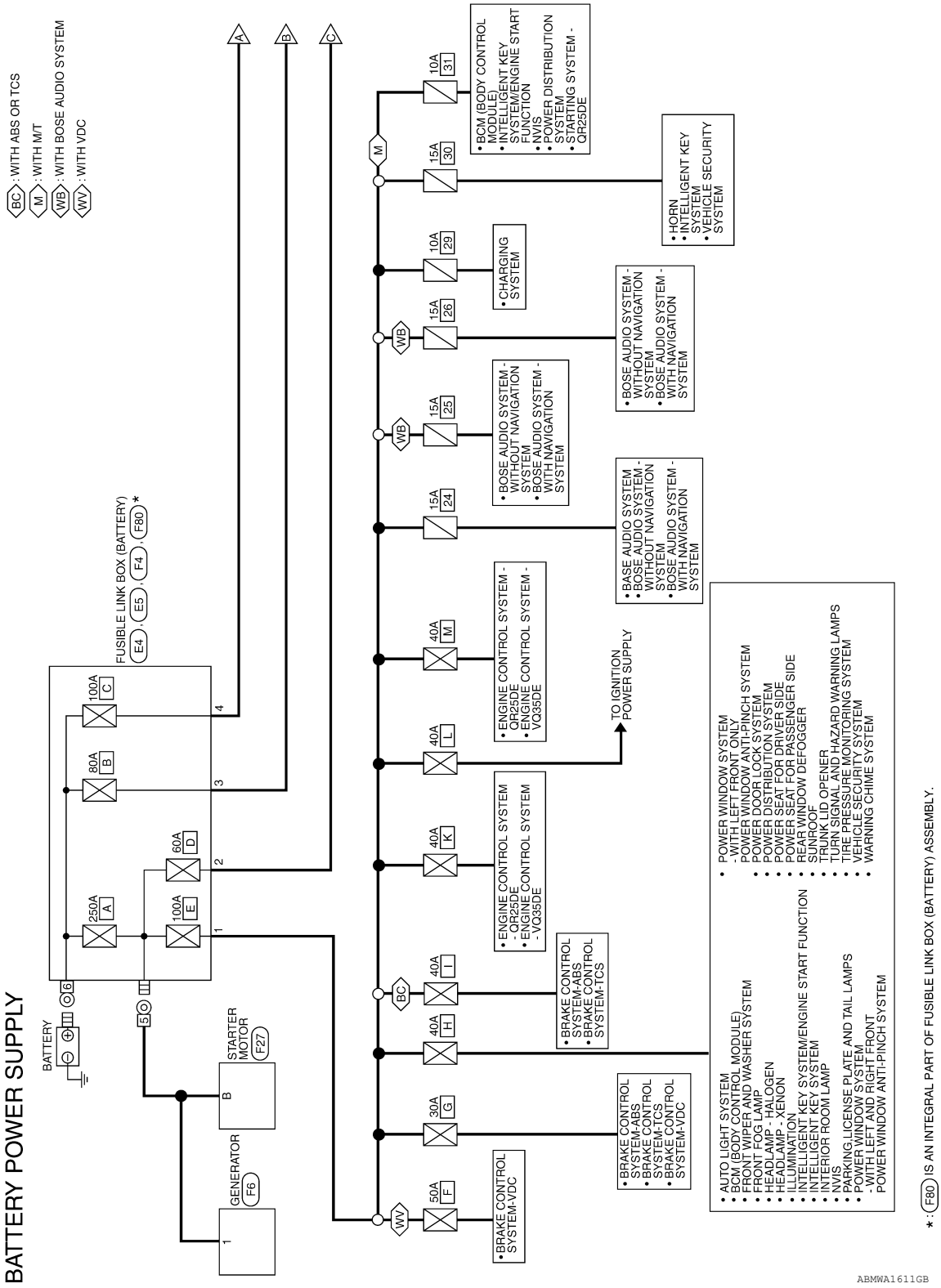
System	Item	Reference
Engine Control System	Idle Air Volume Learning	EC-20 (QR25DE) EC-336 (VQ35DE)
Power Window Control System	Power Window System Initialization	PWC-11 (LH only anti-pinch) PWC-195 (LH & RH anti-pinch)
Heater & Air Conditioning Control System	Temperature Setting Trimmer	HAC-6
	Foot Position Setting Trimmer	HAC-6
	Inlet Port Memory Function	HAC-6
Roof	Sunroof Memory Reset/Initialization	RF-6
Audio, Visual & Navigation System	Audio (Radio Preset)	Refer to Owner's Manual.
	Navigation System	Refer to Owner's Manual.

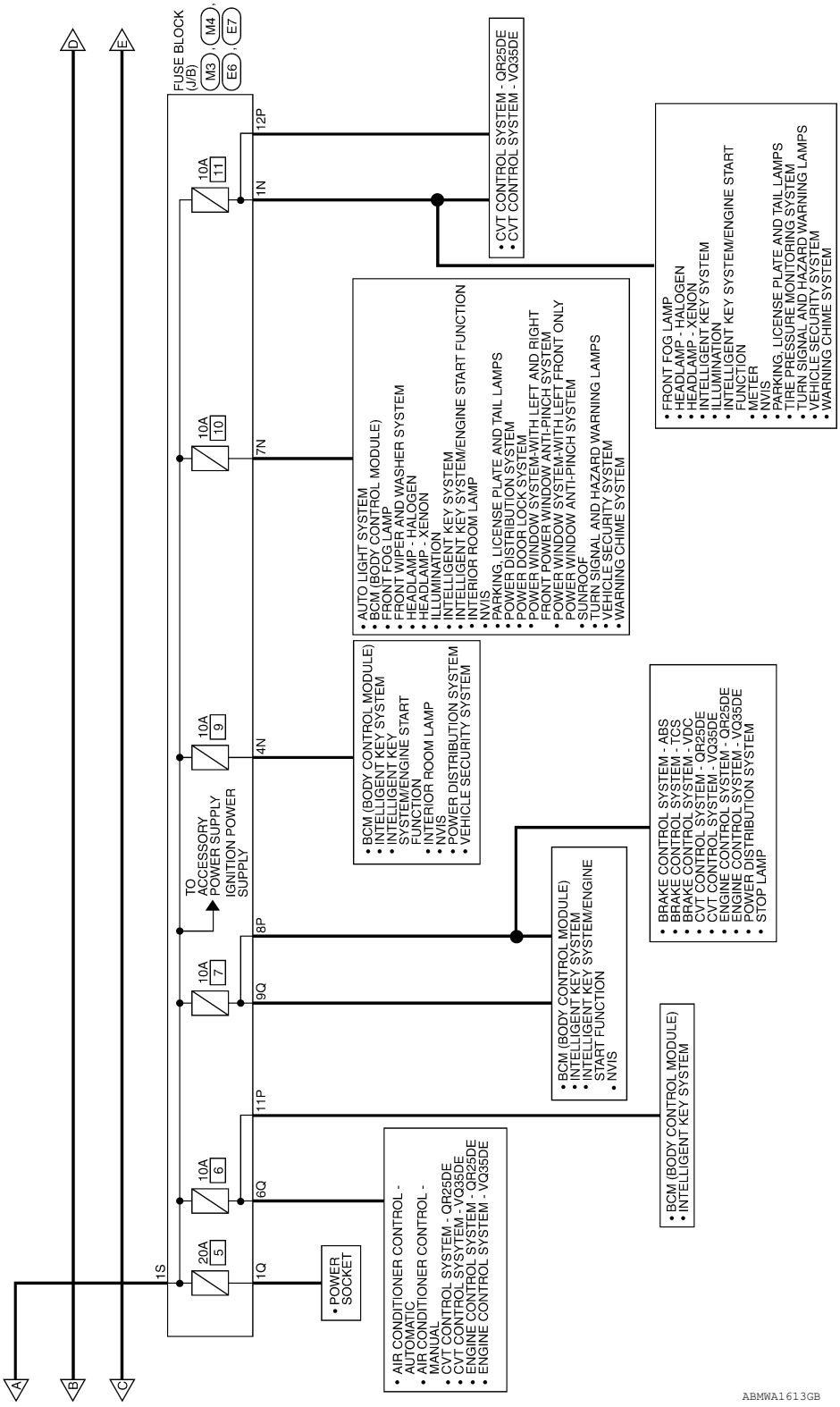
DTC/CIRCUIT DIAGNOSIS

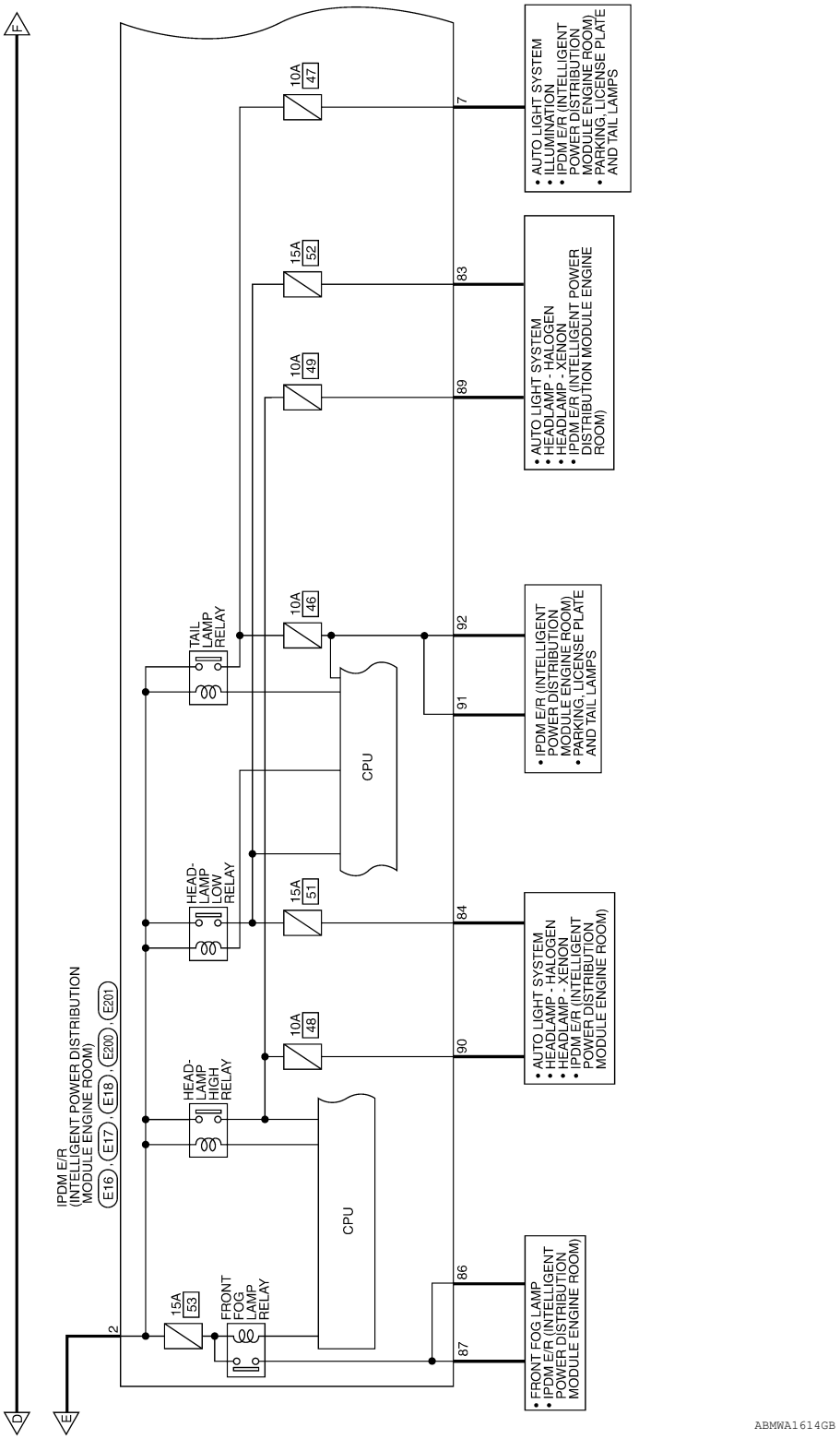
POWER SUPPLY ROUTING CIRCUIT

Wiring Diagram —Battery Power Supply —

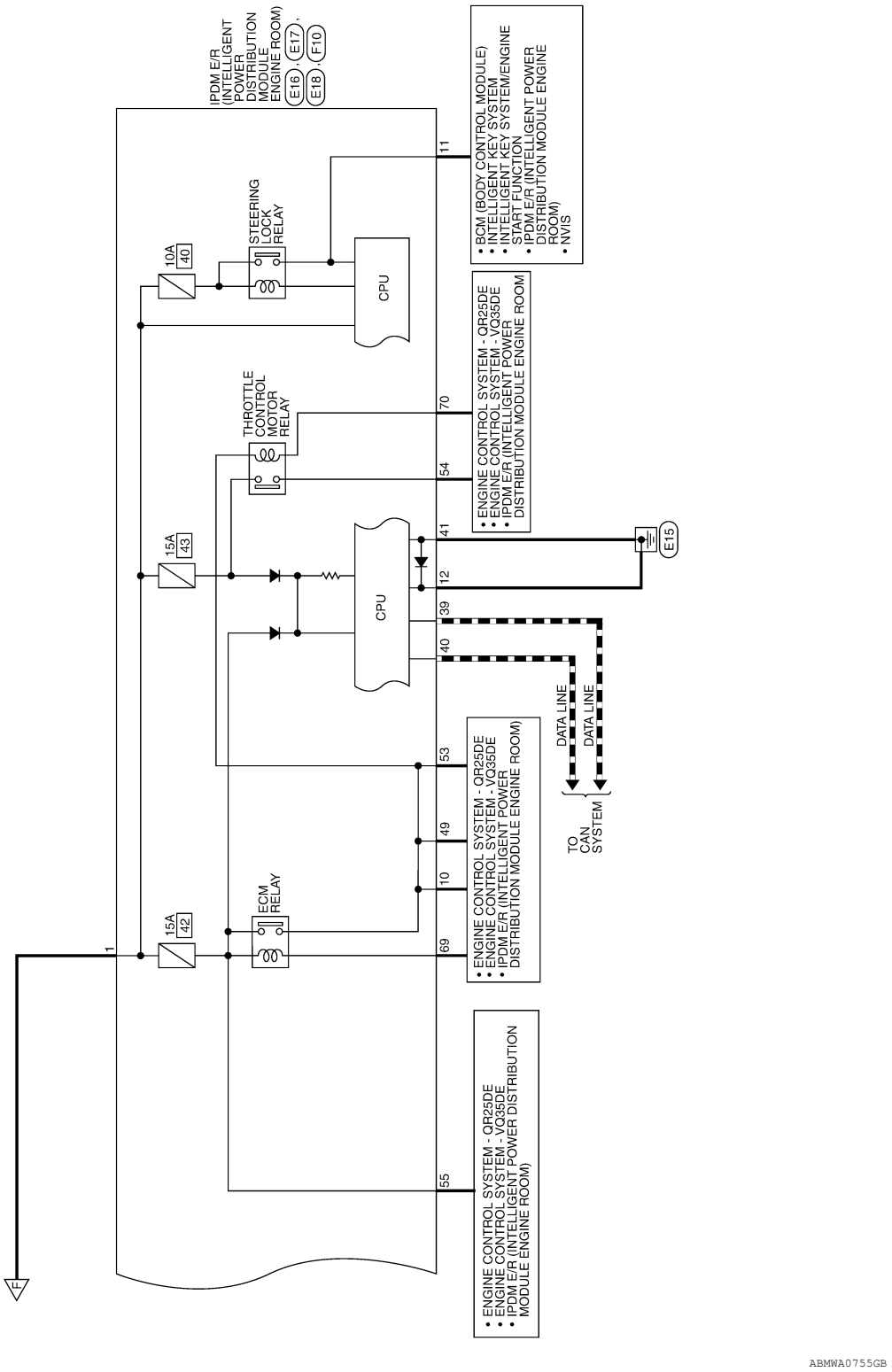
INFOID:0000000006391014




FUSE BLOCK (J/B)
M3, M4, E6, E7
TO ACCESSORY POWER SUPPLY
IGNITION POWER SUPPLY
20A 5
10A 6
10A 7
10A 9
10A 10
10A 11
1S
1Q
6Q
11P
9Q
8P
4N
7N
1N
12P
• POWER SOCKET
• AIR CONDITIONER CONTROL - AUTOMATIC
• AIR CONDITIONER CONTROL - MANUAL
• CVT CONTROL SYSTEM - QR25DE
• CVT CONTROL SYSTEM - VQ35DE
• ENGINE CONTROL SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - VQ35DE
• BCM (BODY CONTROL MODULE)
• INTELLIGENT KEY SYSTEM
• BCM (BODY CONTROL MODULE)
• INTELLIGENT KEY SYSTEM
• INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION
• NVIS
• BCM (BODY CONTROL MODULE)
• INTELLIGENT KEY SYSTEM
• INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION
• INTERIOR ROOM LAMP
• NVIS
• POWER DISTRIBUTION SYSTEM
• VEHICLE SECURITY SYSTEM
• AUTO LIGHT SYSTEM
• BCM (BODY CONTROL MODULE)
• FRONT FOG LAMP
• FRONT WIPER AND WASHER SYSTEM
• HEADLAMP - HALOGEN
• HEADLAMP - XENON
• ILLUMINATION
• INTELLIGENT KEY SYSTEM
• INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION
• INTERIOR ROOM LAMP
• NVIS
• PARKING, LICENSE PLATE AND TAIL LAMPS
• POWER DISTRIBUTION SYSTEM
• POWER DOOR LOCK SYSTEM
• POWER WINDOW SYSTEM-WITH LEFT AND RIGHT ANTI-PINCH SYSTEM
• POWER WINDOW SYSTEM-WITH LEFT FRONT ONLY ANTI-PINCH SYSTEM
• SUNROOF
• TURN SIGNAL AND HAZARD WARNING LAMPS
• VEHICLE SECURITY SYSTEM
• WARNING CHIME SYSTEM
• BRAKE CONTROL SYSTEM - ABS
• BRAKE CONTROL SYSTEM - TCS
• BRAKE CONTROL SYSTEM - VDC
• CVT CONTROL SYSTEM - QR25DE
• CVT CONTROL SYSTEM - VQ35DE
• ENGINE CONTROL SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - VQ35DE
• POWER DISTRIBUTION SYSTEM
• STOP LAMP
• CVT CONTROL SYSTEM - QR25DE
• CVT CONTROL SYSTEM - VQ35DE
• FRONT FOG LAMP
• HEADLAMP - HALOGEN
• HEADLAMP - XENON
• INTELLIGENT KEY SYSTEM
• ILLUMINATION
• INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION
• METER
• NVIS
• PARKING, LICENSE PLATE AND TAIL LAMPS
• TIRE PRESSURE MONITORING SYSTEM
• TURN SIGNAL AND HAZARD WARNING LAMPS
• VEHICLE SECURITY SYSTEM
• WARNING CHIME SYSTEM
A
B
C
D
E
ABMWA1613GB



ABMWA1614GB



ABMWA0755GB

BATTERY POWER SUPPLY CONNECTORS

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

H.S.

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

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

H.S.

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

Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN

H.S.

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

Connector No.	E5
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
8P	R	–
11P	G	–
12P	V	–

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

H.S.

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

ABMIA0753GB

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

H.S.

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

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

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
7	GR	TAIL/ILLUMI
10	BR	ECM_VB
11	O	ESCL
12	B	GND (POWER)

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

H.S.

Terminal No.	Color of Wire	Signal Name
83	R/Y	HEADLAMP_LO_RH
84	L	HEADLAMP_LO_LH
86	W/R	FR_FOG_LAMP_RH
87	L/Y	FR_FOG_LAMP_LH
89	L/W	HEADLAMP_HI_RH
90	G	HEADLAMP_HI_LH

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

H.S.

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

ABMIA3839GB

Connector No.	F4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	–

H.S.

5

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

Connector No.	F6
Connector Name	GENERATOR
Connector Color	–

H.S.

1

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
49	V	ENG SOL (WITH QR25DE)
49	V	IGN_COIL (WITH VQ35DE)
53	V	IGN_COIL (WITH QR25DE)
53	G	ENG_SOL (WITH VQ35DE)
54	GR	ETC
55	LG	ECM_BAT
69	SB	SSOF
70	G	MOTRLY

Connector No.	F27
Connector Name	STARTER MOTOR
Connector Color	–

H.S.

B

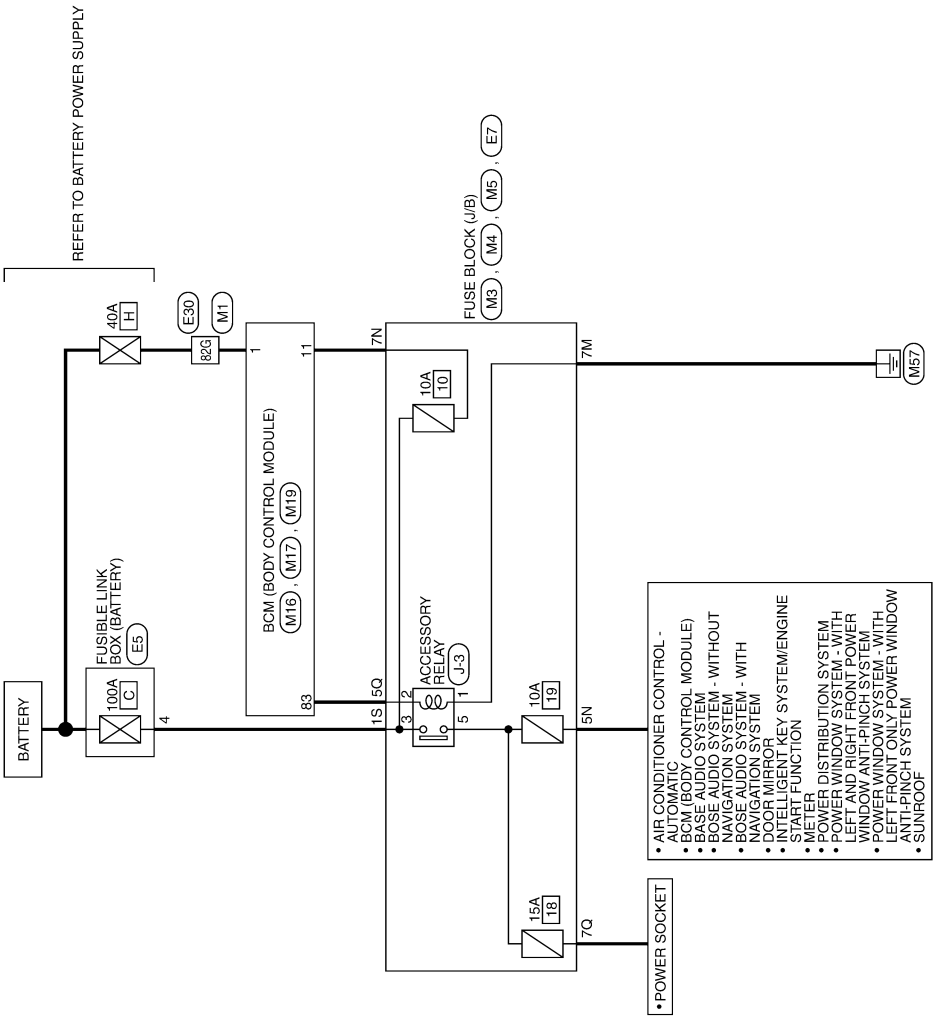
Terminal No.	Color of Wire	Signal Name
B	B/R	BAT

ABMIA1952GB

Wiring Diagram —Accessory Power Supply —

INFOID:0000000006391015

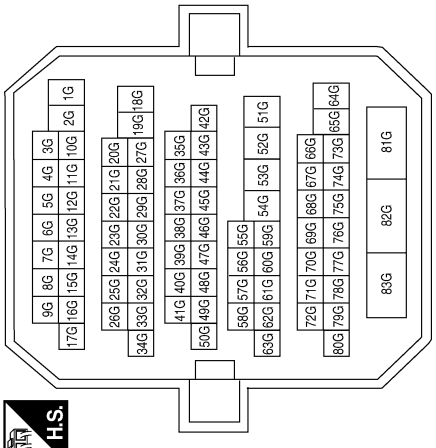
ACCESSORY POWER SUPPLY



ACCESSORY POWER SUPPLY CONNECTORS

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

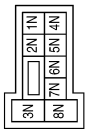
H.S.



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

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

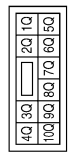
H.S.



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

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

H.S.



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

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

H.S.

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

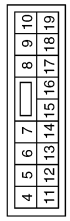
Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK

H.S.

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

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

H.S.



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

ABMIA0756GB

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
83	L	ACC_CONT

Connector No.	E5
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
4	W	–

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

H.S.

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

Connector No.	J-3
Connector Name	FUSE BLOCK (J/B) (ACCESSORY RELAY)
Connector Color	–

T.S.

Terminal No.	Color of Wire	Signal Name
82G	LG	–

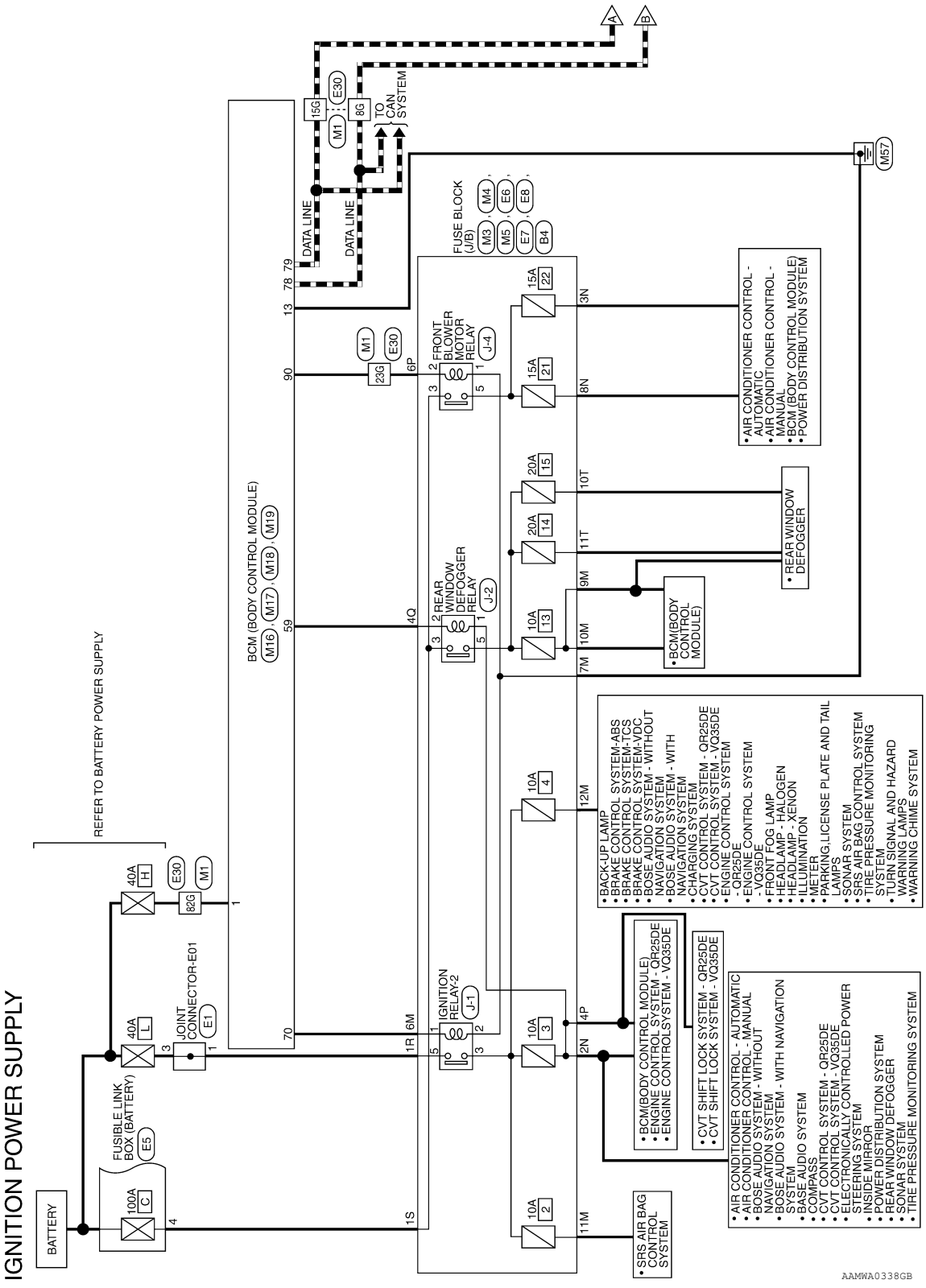
Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE

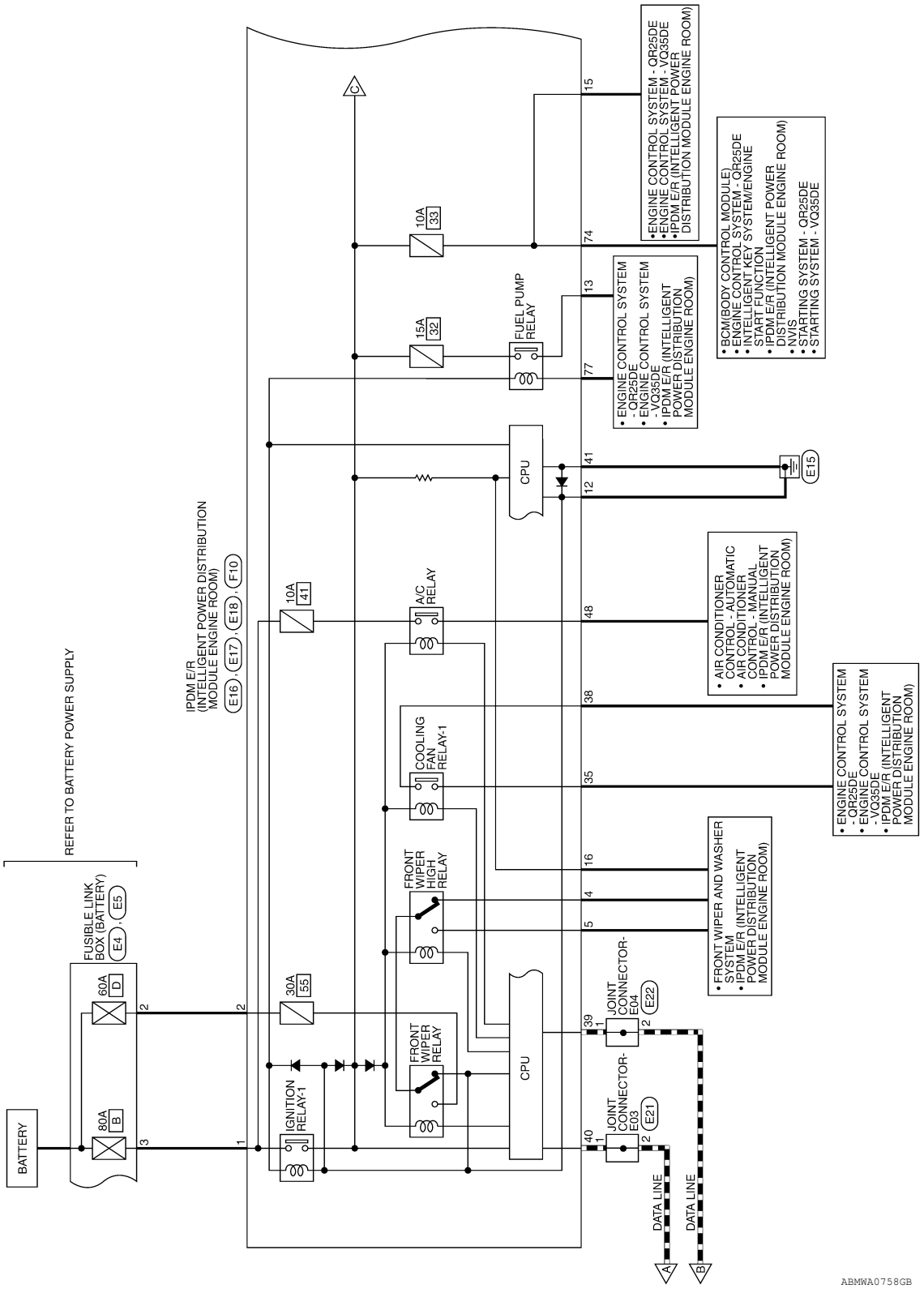
H.S.

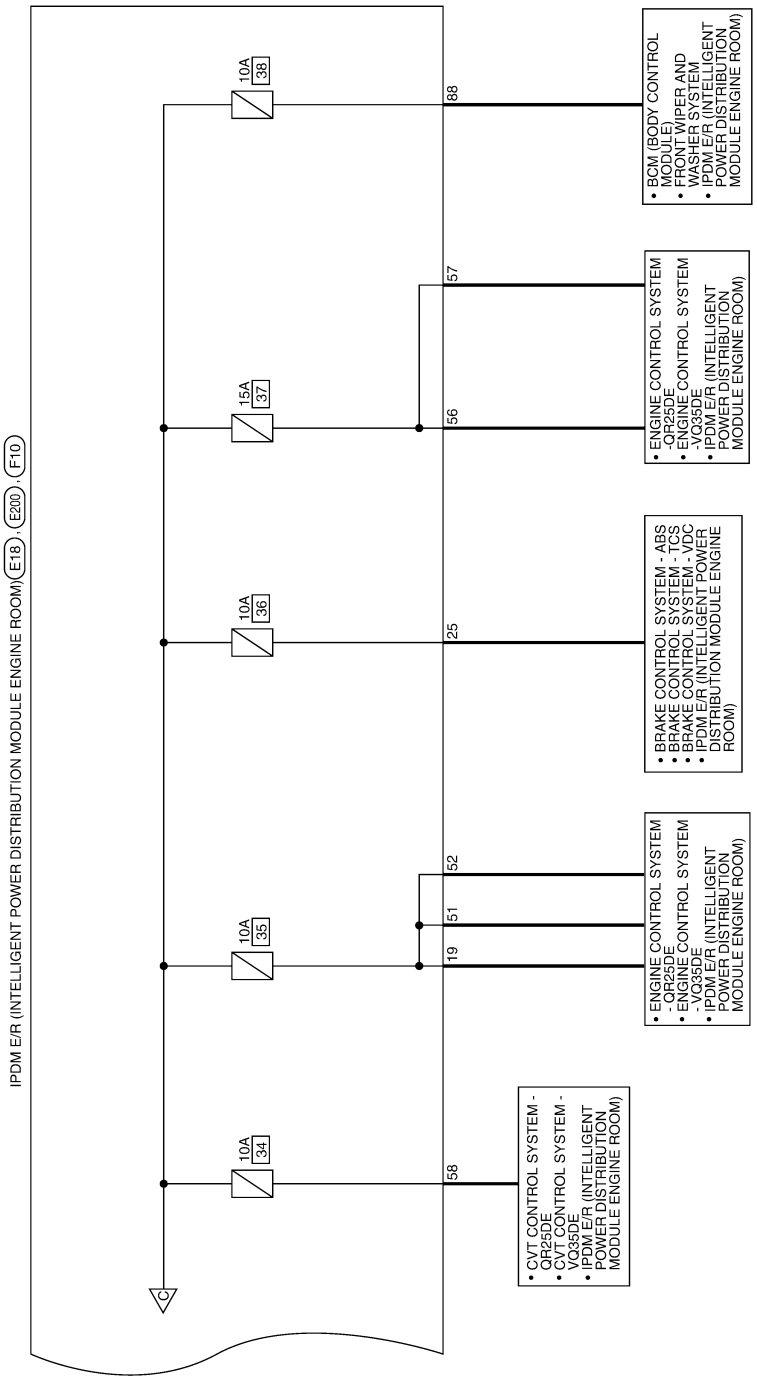
ABMIA1953GB

Wiring Diagram —Ignition Power Supply —

INFOID:0000000006391016




REFER TO BATTERY POWER SUPPLY
BATTERY
FUSIBLE LINK BOX (BATTERY) (E4), (E5)
80A B
60A D
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) (E16), (E17), (E18), (F10)
IGNITION RELAY-1
10A 41
30A 55
A/C RELAY
COOLING FAN RELAY-1
FRONT WIPER HIGH RELAY
FRONT WIPER RELAY
CPU
10A 33
15A 32
FUEL PUMP RELAY
JOINT CONNECTOR-E03 (E21)
JOINT CONNECTOR-E04 (E22)
DATA LINE
•ENGINE CONTROL SYSTEM - QR25DE
•ENGINE CONTROL SYSTEM - VQ35DE
•IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• BCM(BODY CONTROL MODULE)
• ENGINE CONTROL SYSTEM - QR25DE
• INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• NVIS
• STARTING SYSTEM - QR25DE
• STARTING SYSTEM - VQ35DE
• ENGINE CONTROL SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - VQ35DE
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E15
• AIR CONDITIONER CONTROL - AUTOMATIC
• AIR CONDITIONER CONTROL - MANUAL
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• ENGINE CONTROL SYSTEM - QR25DE
• ENGINE CONTROL SYSTEM - VQ35DE
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
• FRONT WIPER AND WASHER SYSTEM
• IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
ABMWA0758GB

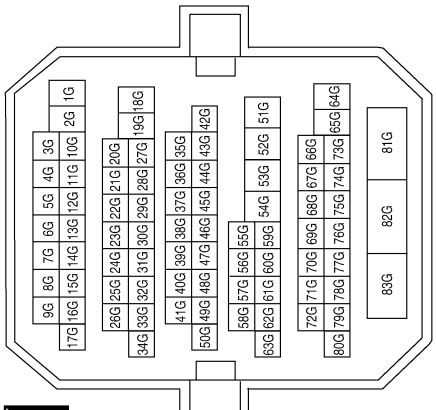


AAMWA0339GB

IGNITION POWER SUPPLY CONNECTORS

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

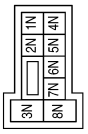
H.S.



Terminal No.	Color of Wire	Signal Name
8G	P	–
15G	L	–
23G	Y	–
82G	W/B	–

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

H.S.



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

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

H.S.

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

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

H.S.

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

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

H.S.

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

ABMIA1954GB

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
13	B	GND 1

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

H.S.

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

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

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

H.S.

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

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

Connector No.	E1
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE

H.S.

3	2	1
6	5	4

Terminal No.	Color of Wire	Signal Name
1	G	–
3	G	–

Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN

H.S.

1
2

Terminal No.	Color of Wire	Signal Name
2	L	–

Connector No.	E5
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY

H.S.

3	4

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

ABMIA1955GB

Connector No.	E6
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	P	– (WITH M/T)
4P	G/R	– (WITH CVT)
6P	Y	–

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

H.S.

1S

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

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

H.S.

2R	1R

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

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

H.S.

1
2

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

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

H.S.

42	41	40	39
46	45	44	43

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

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

H.S.

9	10	11	12	13	14
3	4	5	6	7	8

25	26	27	28	29	30	31	32	33	34	37	38
15	16	17	18	19	20	21	22	23	24	35	36

Terminal No.	Color of Wire	Signal Name
4	LG	FR_WIPER_LO
5	Y	FR_WIPER_HI
12	B	GND (POWER)
13	SB	FUEL_PUMP
15	W	SART_IG-E/R
16	L/Y	WIPER_AUTOSTOP
19	Y	BCM_IGNSW
25	GR	ABS_ECU
35	P	MOTOR_FAN_LO
38	R/W	F/L_MOTOR_FAN

ABMIA1956GB

Connector No.	E21
Connector Color	JOINT CONNECTOR-E03
Connector Name	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	L	–
2	L	–

Connector No.	E22
Connector Name	JOINT CONNECTOR-E04
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	P	–
2	P	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
8G	P	–
15G	L	–
23G	Y	–
82G	LG	–

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

H.S.

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

ABMIA0761GB

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

H.S.

53	54	55	56	57	58
47	48	49	50	51	52

69	70	71	72	73		74	75	76	77	78
59	60	61	62	63		64	65	66	67	68

81	82
79	80

Terminal No.	Color of Wire	Signal Name
48	W	A/C_COMP
51	SB	INJECTOR_#1
52	Y	INJECTOR_#2
56	R	O2_SENS_#1
57	O	O2_SENS_#2
58	BR	AT_ECU
74	L	START_IG-EGI
77	GR	FPR

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
10T	Y	–
11T	Y	–

Connector No.	J-1
Connector Name	FUSE BLOCK (J/B) (IGNITION RELAY-2)
Connector Color	–

T.S.

Connector No.	J-2
Connector Name	FUSE BLOCK (J/B) (REAR WINDOW DEFOGGER RELAY)
Connector Color	–

T.S.

Connector No.	J-4
Connector Name	FUSE BLOCK (J/B) (FRONT BLOWER MOTOR RELAY)
Connector Color	–

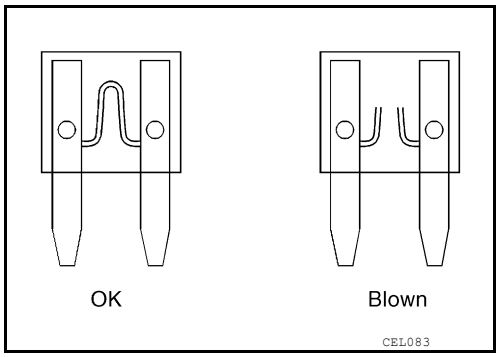
T.S.

ABMIA1957GB

Fuse

INFOID:0000000006391017

- 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.

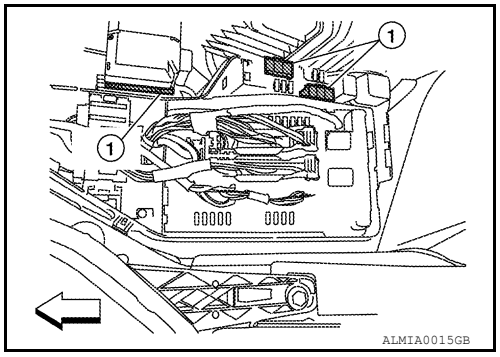


Fusible Link

INFOID:0000000006391018

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:

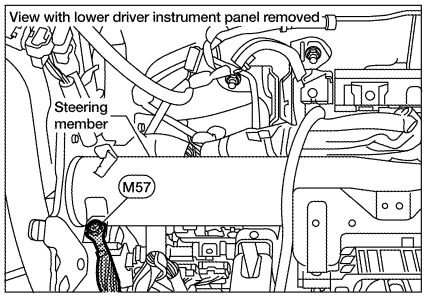
- **If fusible link should melt, it is possible that critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check and eliminate cause of malfunction.**
- **Never wrap outside of fusible link with vinyl tape. Important: Never let fusible link touch any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

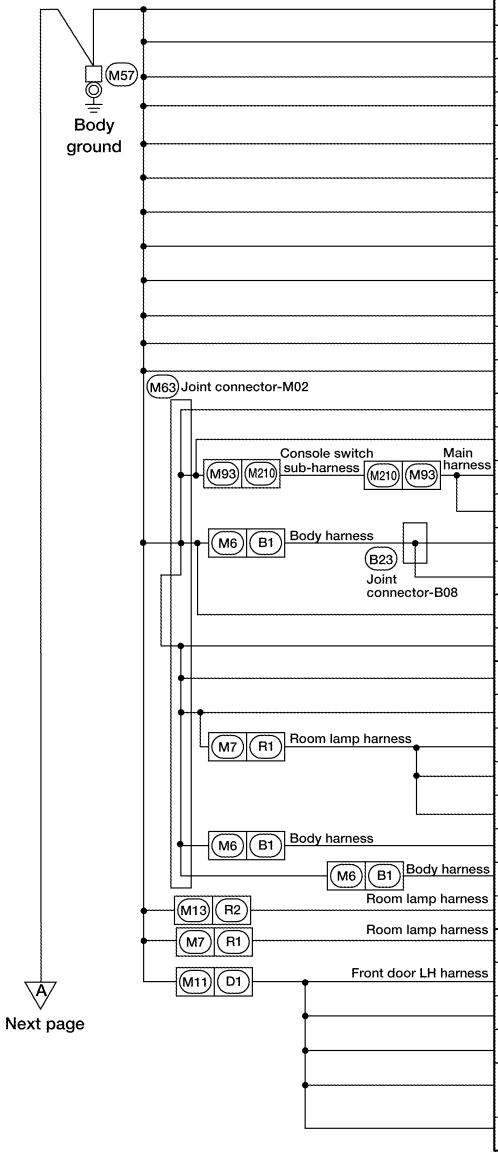
GROUND

Ground Distribution

INFOID:0000000006391019

MAIN HARNESS





CONNECTOR NUMBER	CONNECT TO
M5	Fuse block (J/B)
M17	BCM (Body control module) (Terminal No. 13)
M22	Data link connector (Terminal No. 4)
M22	Data link connector (Terminal No. 5)
M24	Combination meter (Terminal No. 3)
M24	Combination meter (Terminal No. 4)
M24	Combination meter (Terminal No. 23)
M28	Combination switch
M31	Blower motor
M40	Key slot
M45	Audio unit (Terminal No. 40)
M75	Trunk lid opener swich
M44	Audio unit (Terminal No. 20) (BOSE audio system without NAVI)
M45	Audio unit (Terminal No. 27) (BOSE audio system without NAVI)
M103	AV control unit (Terminal No. 77)
M104	AV control unit (Terminal No. 128)
B37	High-mounted stop lamp (without rear spoiler)
B37	High-mounted stop lamp (with rear spoiler)
M39	Rear sonar system OFF switch
M53	Steering angle sensor
M55	Yaw rate/side/decel G sensor
M100	AV cintrol unit (Terminal No. 20)
R3	Vanity mirror lamp LH
R4	Auto anti-dazzling inside mirror
R9	Vanity mirror lamp RH
B30	Rear combination lamp LH
B45	Rear combination lamp RH
R5	Sunroof motor assembly
R50	Front room/map lamp assembly
D4	Door mirror LH
D5	Door mirror remote control switch
D6	Front outside handle LH
D8	Main power window and door lock/unlock switch (Terminal No. 17)
D10	Front door lock assembly LH

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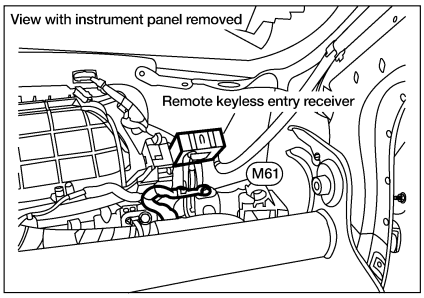
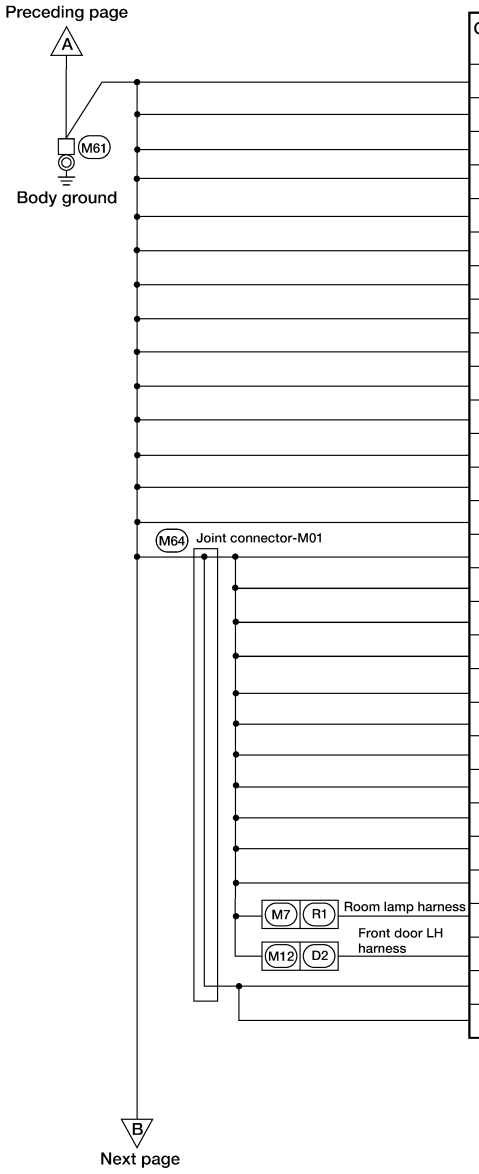
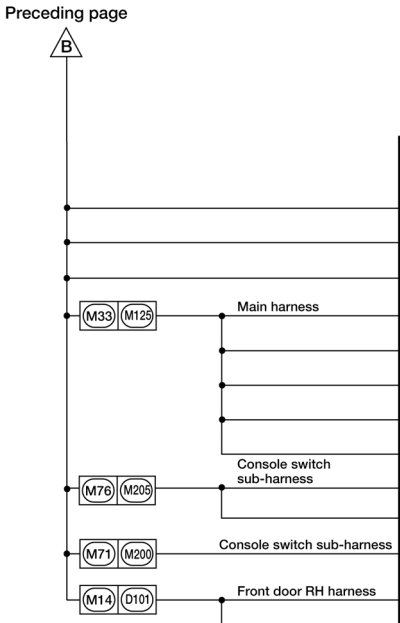




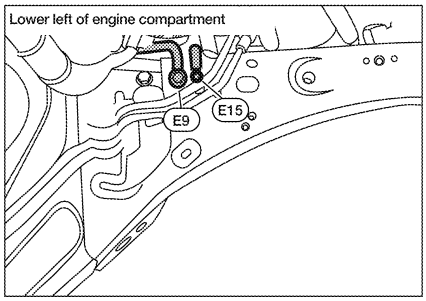
CONNECTOR NUMBER	CONNECT TO
M23	CVT shift selector (Terminal No. 4)
M23	CVT shift selector (Terminal No. 7)
M32	Electronic steering column lock (Terminal No. 5)
M32	Electronic steering column lock (Terminal No. 6)
M35	Air bag diagnosis sensor unit (Terminal No. 2)
M36	Front passenger air bag OFF indicator
M37	Front air control (Terminal No. 6) (without auto A/C)
M37	Front air control (Terminal No. 7) (without auto A/C)
M37	Front air control (Terminal No. 17) (with auto A/C)
M37	Front air control (Terminal No. 37) (with auto A/C)
M38	Push-button ignition switch
M39	Rear sonar system OFF switch (Terminal No. 6)
M40	Key slot
M54	Hazard switch (Terminal No. 1)
M30	Spiral cable
M37	Front air control (Terminal No. 8) (without auto A/C)
M37	Front air control (Terminal No. 36) (with auto A/C)
M39	Rear sonar system OFF switch (Terminal No. 4)
M44	Audio unit (Termianl No. 8)
M54	Hazard switch (Terminal No. 4)
M65	CVT shift selector
M72	VDC OFF switch (Terminal No. 4)
M72	TCS OFF switch (Terminal No. 4)
M80	Diode-3
M100	AV control unit (Terminal No. 8)
R50	Front room/map lamp assembly
D5	Door mirror remote control switch
M72	VDC OFF switch (Terminal No. 2)
M72	TCS OFF switch (Terminal No. 2)

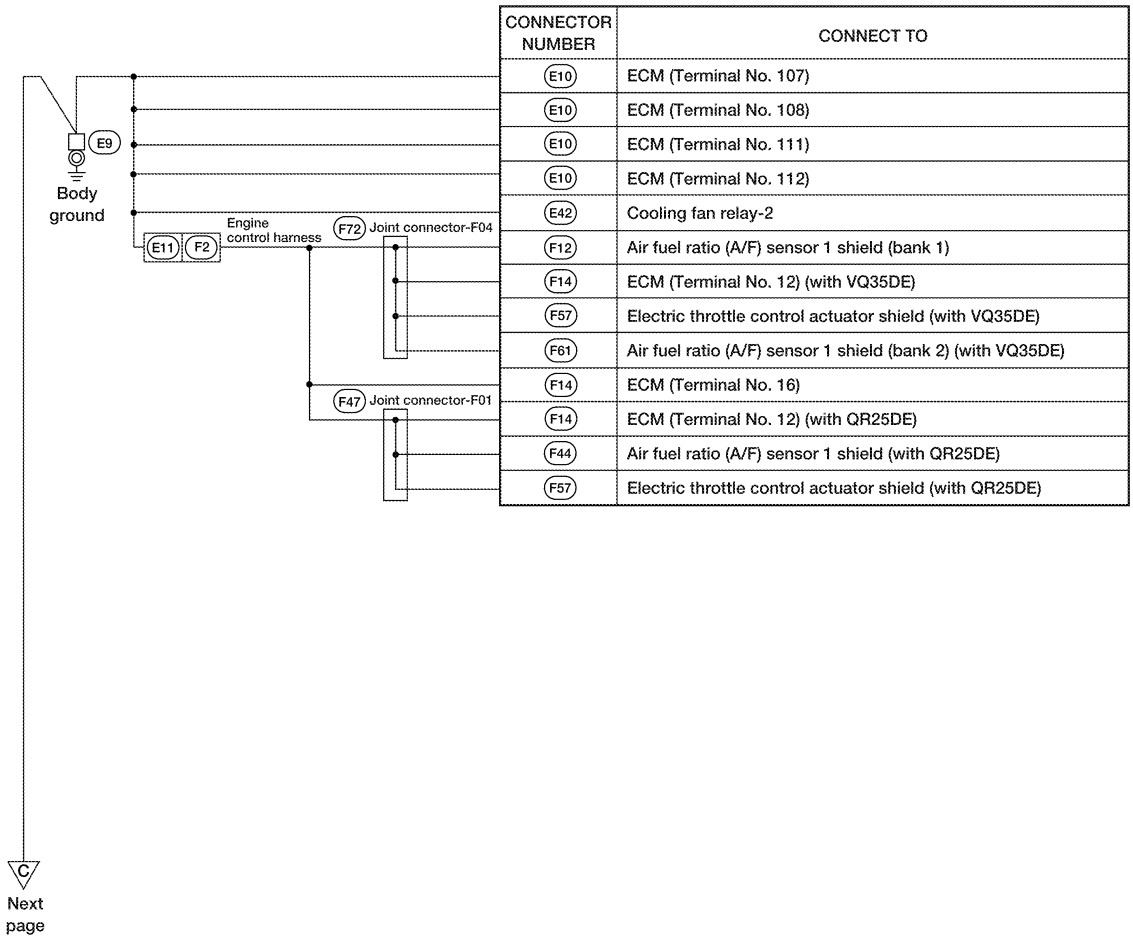
ABMIA3837GB



CONNECTOR NUMBER	CONNECT TO
M59	Power steering control unit (Terminal No. 6)
M68	Glove box lamp
M74	Trunk lid opener cancel switch
M126	Intake door motor
M127	Mode door motor
M128	Air mix door motor LH
M129	Air mix door motor RH
M130	Air mix door motor
M207	Front power socket lamp
M208	Front power socket
M209	Front console power socket
D105	Power window and door lock/unlock switch RH (with left front only power window anti-pinch system)
D105	Power window and door lock/unlock switch RH (Terminal No. 11) (with left and right front power window anti-pinch system)
D106	Front outside handle RH
D107	Door mirror RH

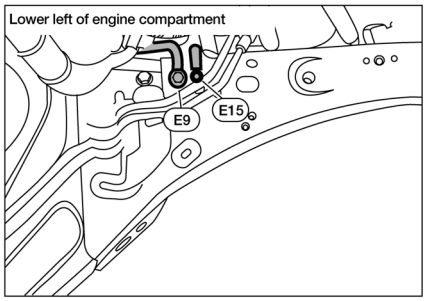
AAMIA0627GB

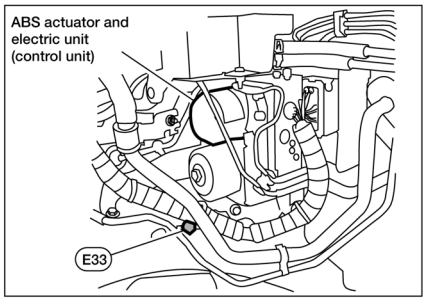


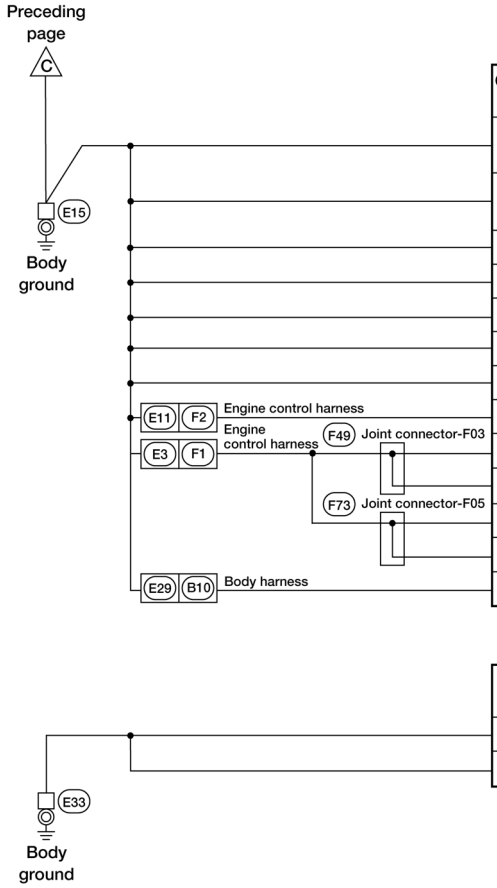


CONNECTOR NUMBER	CONNECT TO
E10	ECM (Terminal No. 107)
E10	ECM (Terminal No. 108)
E10	ECM (Terminal No. 111)
E10	ECM (Terminal No. 112)
E42	Cooling fan relay-2
F12	Air fuel ratio (A/F) sensor 1 shield (bank 1)
F14	ECM (Terminal No. 12) (with VQ35DE)
F57	Electric throttle control actuator shield (with VQ35DE)
F61	Air fuel ratio (A/F) sensor 1 shield (bank 2) (with VQ35DE)
F14	ECM (Terminal No. 16)
F14	ECM (Terminal No. 12) (with QR25DE)
F44	Air fuel ratio (A/F) sensor 1 shield (with QR25DE)
F57	Electric throttle control actuator shield (with QR25DE)

ABMIA0766GB





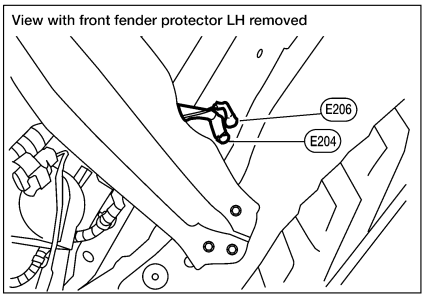


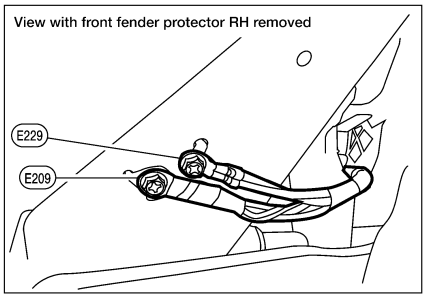
CONNECTOR NUMBER	CONNECT TO
E17	IPDM E/R (intelligent power distribution module engine room) (Terminal No. 41)
E18	IPDM E/R (intelligent power distribution module engine room) (Terminal No. 12)
E24	Brake fluid level switch
E25	Front wiper motor
E43	Cooling fan relay-3
E57	Stop lamp relay-1
E58	Stop lamp relay-2
F3	A/C compressor
F16	TCM (transmission control module) (Terminal No. 5) (with QR25DE)
F16	TCM (transmission control module) (Terminal No. 42) (with QR25DE)
F16	TCM (transmission control module) (Terminal No. 5) (with VQ35DE)
F16	TCM (transmission control module) (Terminal No. 42) (with VQ35DE)
B42	Fuel level sensor unit and fuel pump (with rear view camera)

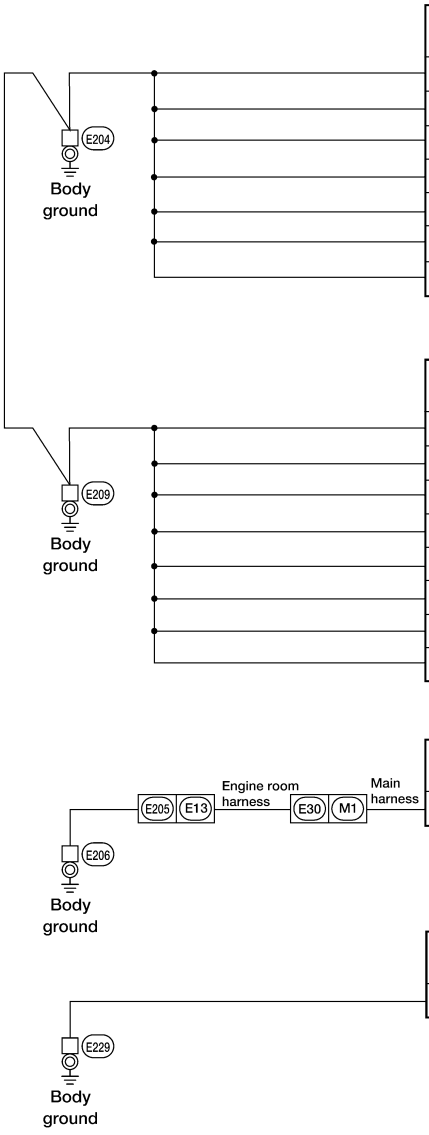
CONNECTOR NUMBER	CONNECT TO
E26	ABS actuator and electric unit (control unit) (Terminal No. 1)
E26	ABS actuator and electric unit (control unit) (Terminal No. 4)

AAMIA0628GB

FRONT END MODULE HARNESS







CONNECTOR NUMBER	CONNECT TO
E217	Front combination lamp LH
E221	Cooling fan motor-2 (Terminal No. 3)
E221	Cooling fan motor-2 (Terminal No. 4)
E223	Front combination lamp RH
E225	Front combination lamp RH
E227	Front fog lamp RH
E235	Front combination lamp LH

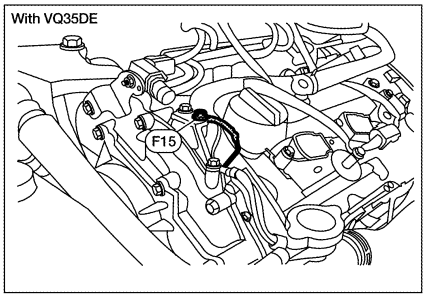
CONNECTOR NUMBER	CONNECT TO
E208	Washer level switch
E212	Front combination lamp LH
E213	Front combination lamp LH
E214	Front fog lamp LH
E218	Front combination lamp LH
E222	Front combination lamp RH
E224	Front combination lamp RH
E236	Front combination lamp RH

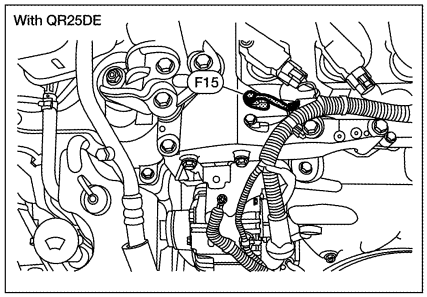
CONNECTOR NUMBER	CONNECT TO
M35	Air bag diagnosis sensor unit (Terminal No. 16)

CONNECTOR NUMBER	CONNECT TO
E230	Generator

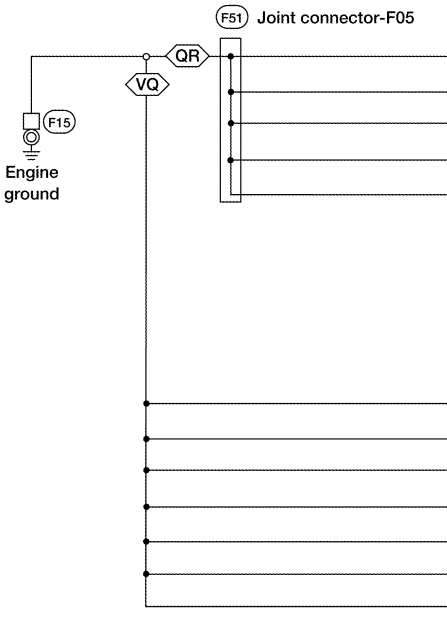
ABMIA3840GB

ENGINE CONTROL HARNESS





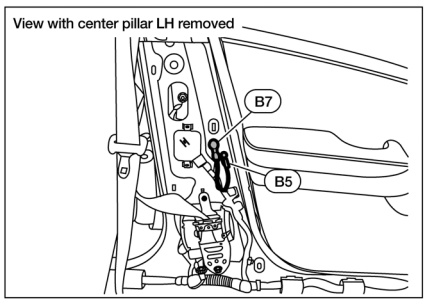
QR : With QR25DE
VQ : With VQ35DE

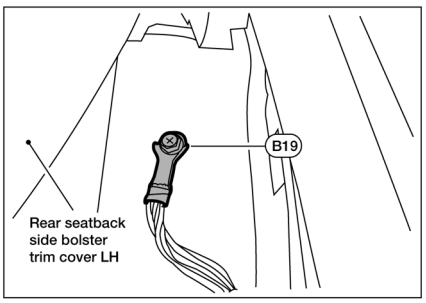


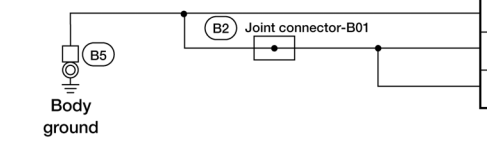
CONNECTOR NUMBER	CONNECT TO
F26	Condenser-2
F34	Ignition coil No. 1 (with power transistor)
F35	Ignition coil No. 2 (with power transistor)
F36	Ignition coil No. 3 (with power transistor)
F37	Ignition coil No. 4 (with power transistor)

CONNECTOR NUMBER	CONNECT TO
F26	Condenser-2
F34	Ignition coil No. 1 (with power transistor)
F35	Ignition coil No. 2 (with power transistor)
F36	Ignition coil No. 3 (with power transistor)
F37	Ignition coil No. 4 (with power transistor)
F38	Ignition coil No. 5 (with power transistor)
F39	Ignition coil No. 6 (with power transistor)

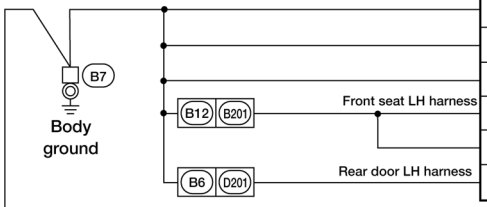
ABMIA2643GB



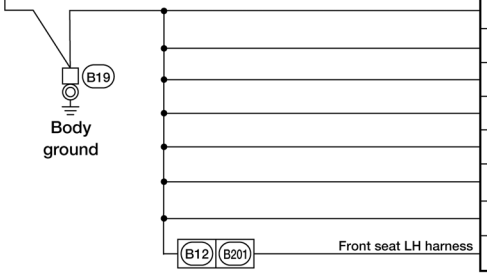




CONNECTOR NUMBER	CONNECT TO
B15	LH side air bag (satellite) sensor shield
B9	Air bag diagnosis sensor unit (Terminal No. 44)
B38	LH side curtain air bag module shield



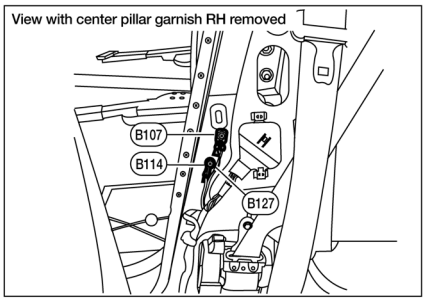
CONNECTOR NUMBER	CONNECT TO
B28	Trunk lamp switch and trunk release solenoid
B32	License plate lamp RH
B34	License plate lamp LH
B203	Power seat switch LH
B205	Lumbar support switch
D203	Rear power window switch LH

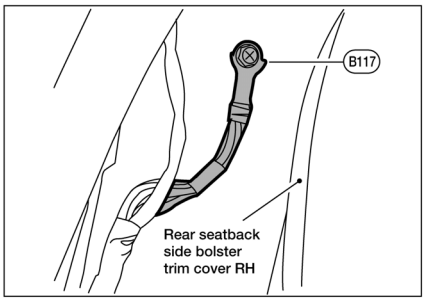


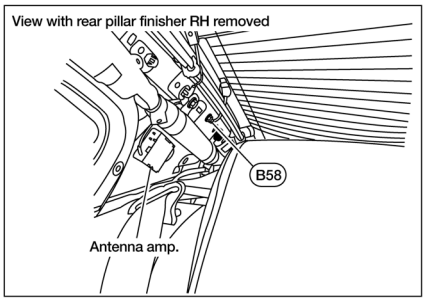
CONNECTOR NUMBER	CONNECT TO
B42	Fuel level sensor unit and fuel pump (without rear view camera)
B24	Sonar control unit
B28	Trunk lamp switch and trunk release solenoid
B30	Rear combination lamp LH (without rear view camera)
B33	Trunk opener request switch
B37	High-mounted stop lamp (without rear view camera)
B45	Rear combination lamp RH (without rear view camera)
B202	Seat belt buckle switch LH

ABMIA1963GB

BODY NO. 2 HARNESS





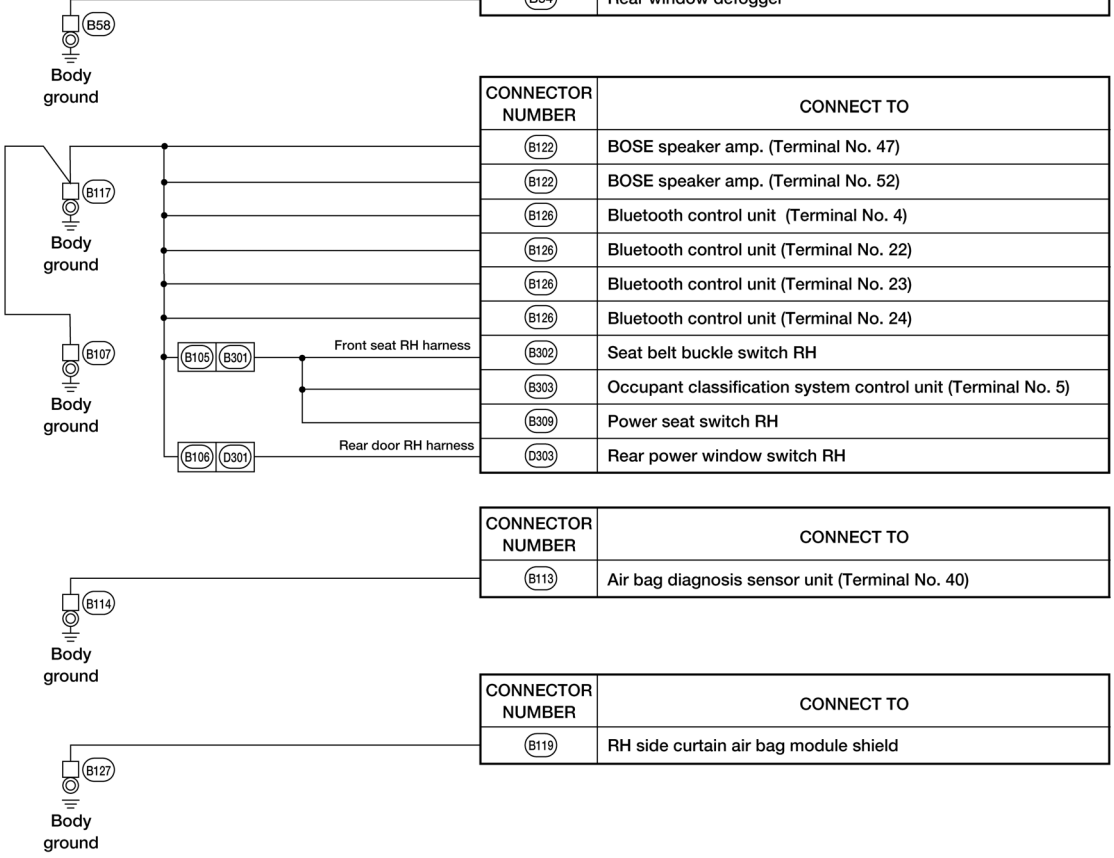


CONNECTOR NUMBER	CONNECT TO
B54	Rear window defogger

CONNECTOR NUMBER	CONNECT TO
B122	BOSE speaker amp. (Terminal No. 47)
B122	BOSE speaker amp. (Terminal No. 52)
B126	Bluetooth control unit (Terminal No. 4)
B126	Bluetooth control unit (Terminal No. 22)
B126	Bluetooth control unit (Terminal No. 23)
B126	Bluetooth control unit (Terminal No. 24)
B302	Seat belt buckle switch RH
B303	Occupant classification system control unit (Terminal No. 5)
B309	Power seat switch RH
D303	Rear power window switch RH

CONNECTOR NUMBER	CONNECT TO
B113	Air bag diagnosis sensor unit (Terminal No. 40)

CONNECTOR NUMBER	CONNECT TO
B119	RH side curtain air bag module shield



AAMIA0629GB

HARNESS

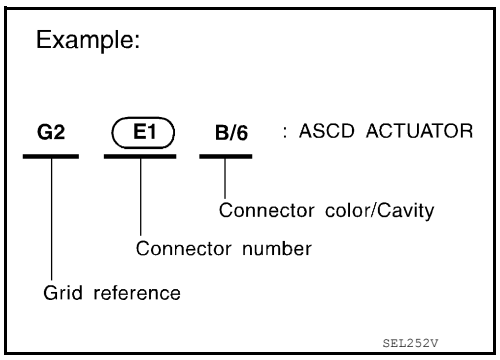
Harness Layout

INFOID:0000000006391020

HOW TO READ HARNESS LAYOUT

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

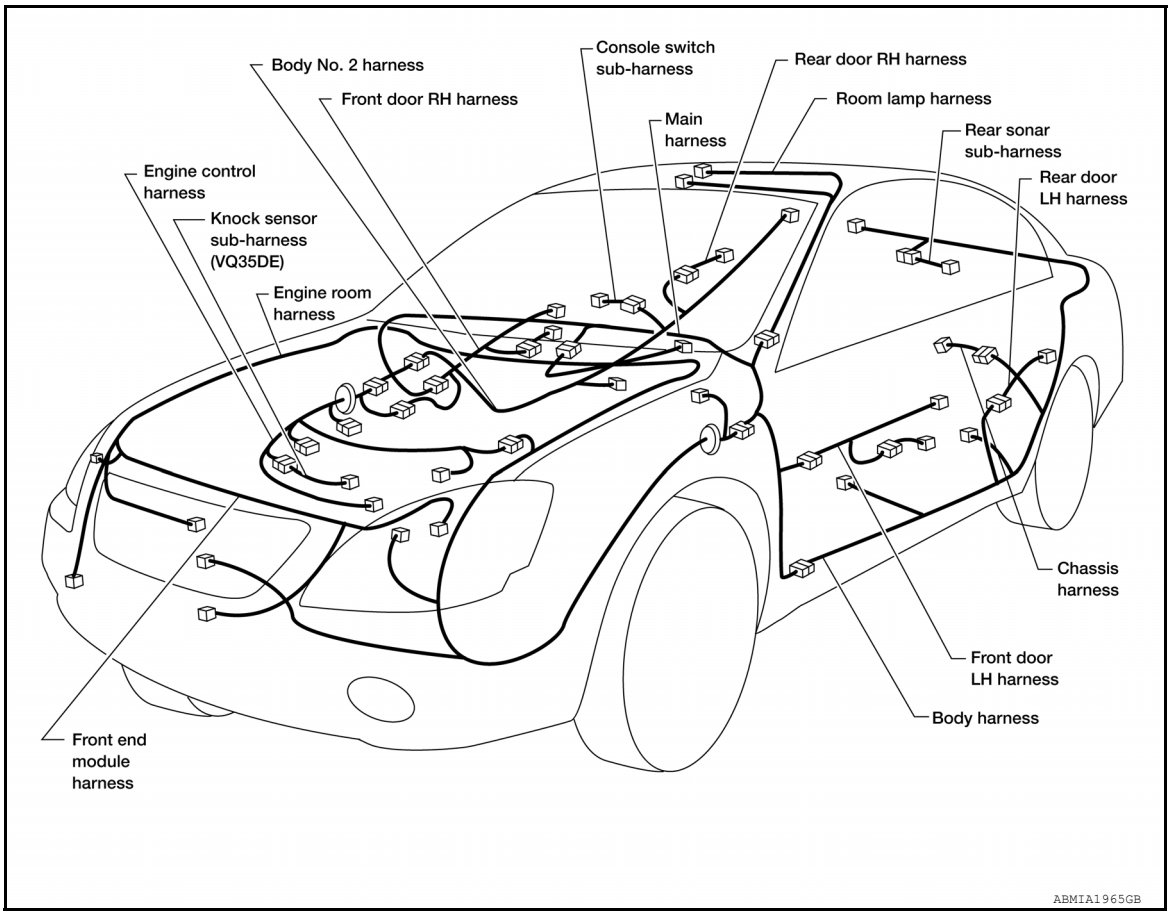
- Main Harness and Console Switch Sub-Harness
- Engine Room Harness
- Engine Room Harness (Passenger Compartment)
- Front End Module Harness
- Engine Control Harness (VQ35DE) and Knock Sensor Sub-harness
- Engine Control Harness (QR25DE)
- Body Harness, Rear Sonar Sub-harness and Chassis Harness
- Body No. 2 Harness
- Room Lamp Harness



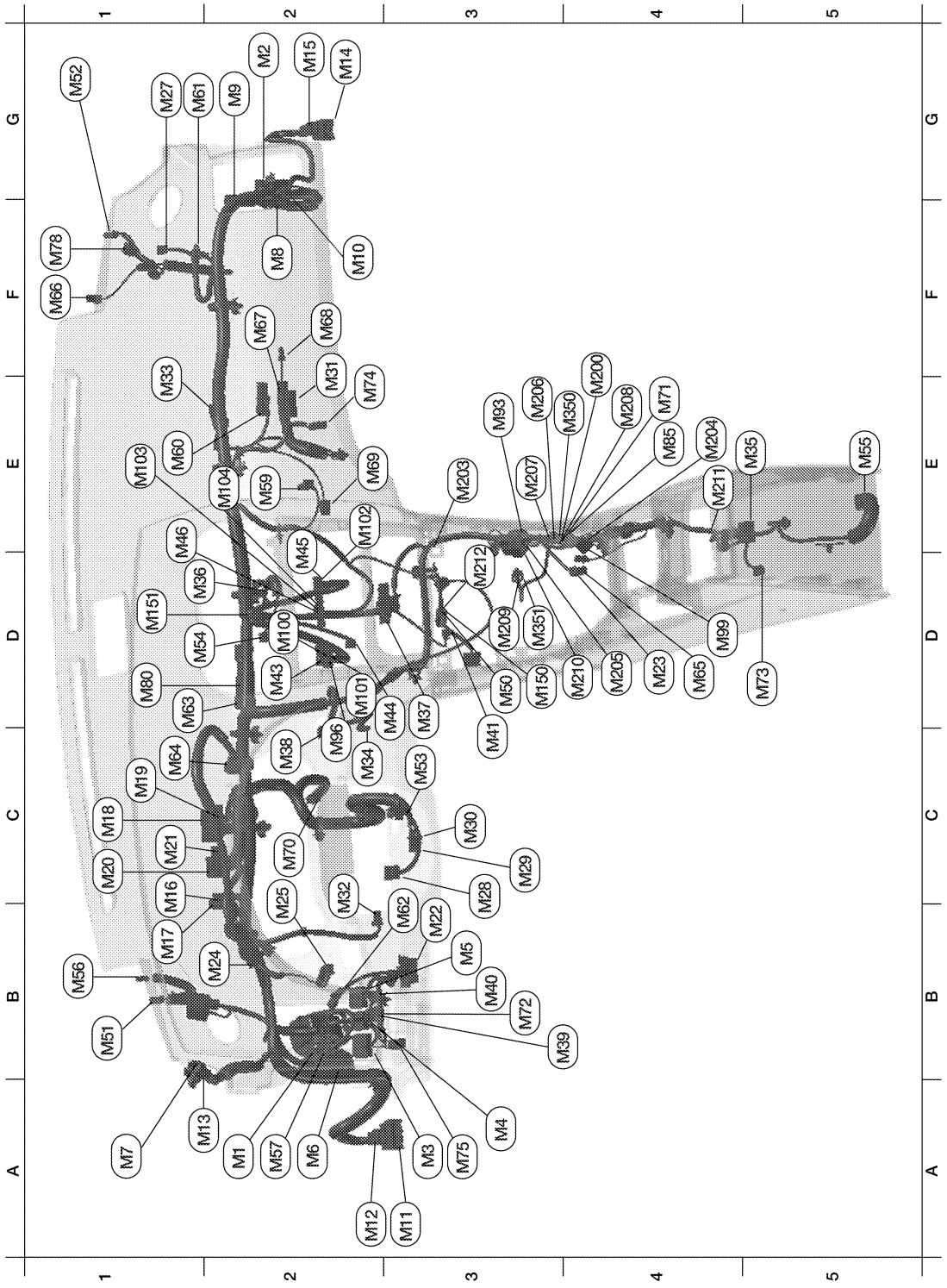
To use the grid reference

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

OUTLINE



MAIN HARNESS



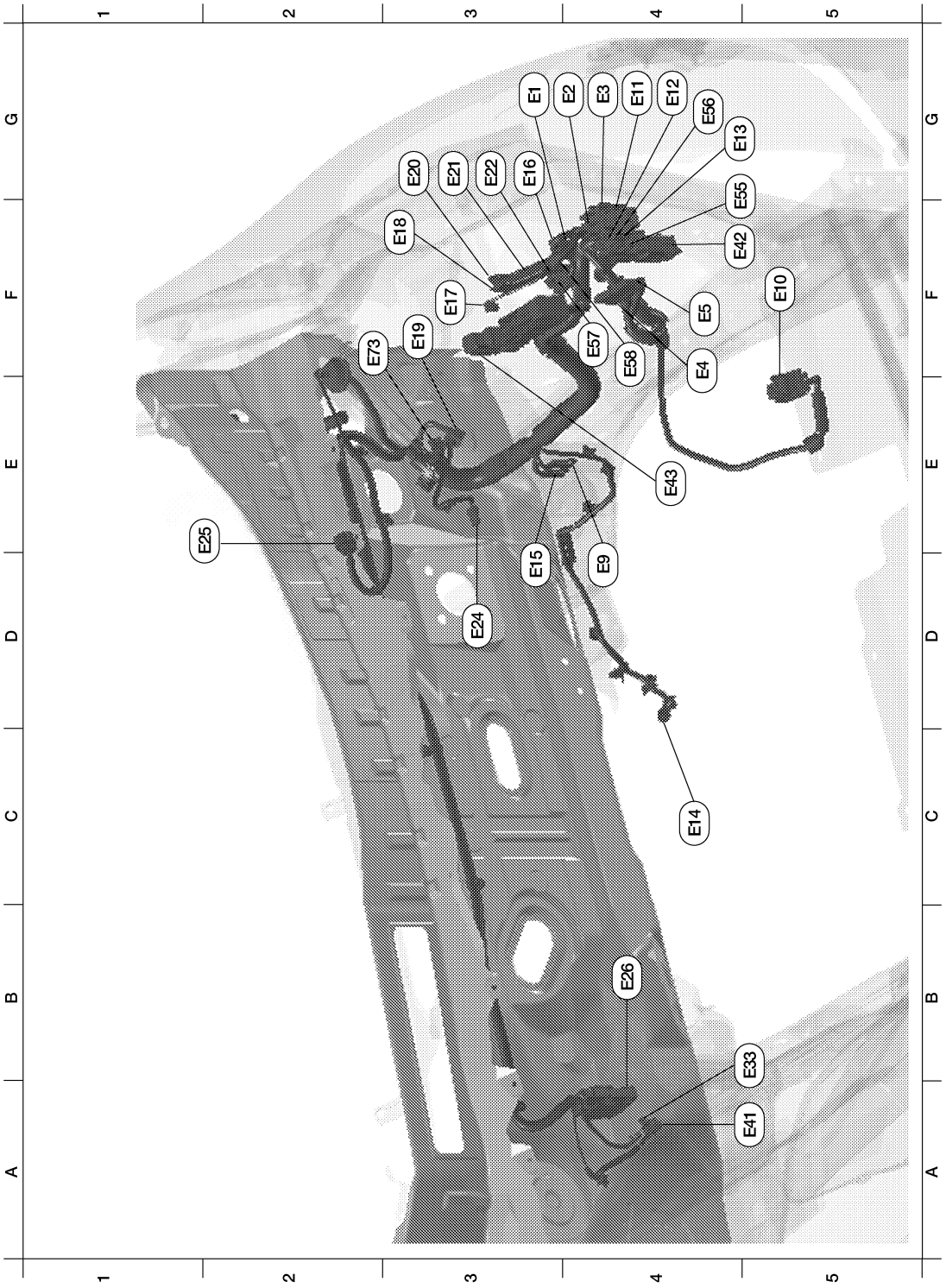
ABMIA3841GB

A2	M1	SMJ	: To E30	C3	M53	W/8	: Steering angle sensor
G2	M2	W/32	: To B101	D1	M54	W/4	: Hazard switch
A3	M3	W/8	: Fuse block (J/B)	E5	M55	B/4	: Yaw rate/side/decel G sensor
A3	M4	W/10	: Fuse block (J/B)	B1	M56	B/2	: Sunload sensor

B3	M5	W/12	: Fuse block (J/B)	A2	M57	—	: Body ground
A2	M6	SMJ	: To B1	E2	M59	W/12	: Power steering control unit
A1	M7	W/16	: To R1	E1	M60	Y/2	: Front passenger air bag module
F2	M8	W/24	: To B102	G1	M61	—	: Body ground
G2	M9	BR/16	: To B103	B2	M62	W/2	: Tire pressure warning check connector
F2	M10	BR/12	: To B104	D1	M63	L/12	: Joint connector-M02
A3	M11	W/16	: To D1	C1	M64	GR/6	: Joint connector-M01
A2	M12	W/16	: To D2	D4	M65	BR/2	: CVT shift selector
A1	M13	W/4	: To R2	F1	M66	W/3	: Optical sensor
G2	M14	W/10	: To D101	F2	M67	O/2	: Front passenger air bag module
G2	M15	W/12	: To D102	F2	M68	W/2	: Glove box lamp
C1	M16	B/3	: BCM (Body control module)	E2	M69	W/4	: Intake sensor
B1	M17	W/16	: BCM (Body control module)	C2	M70	W/4	: Tire pressure receiver
C1	M18	G/40	: BCM (Body control module)	E4	M71	W/12	: To M200
C1	M19	B/40	: BCM (Body control module)	C3	M72	GR/6	: TCS OFF switch (with TCS)
C1	M20	W/12	: BCM (Body control module)	B3	M72	GR/6	: VDC OFF switch (with VDC)
C1	M21	GR/40	: BCM (Body control module)	D5	M73	B/1	: Parking brake switch (with M/T)
B3	M22	W/16	: Data link connector	E2	M74	W/2	: Trunk lid opener cancel switch
D4	M23	W/10	: CVT shift selector	A3	M75	B/2	: Trunk lid opener switch
B2	M24	W/40	: Combination meter	E3	M76	W/3	: To M205
B2	M25	B/10	: Meter mode switch	F1	M78	Y/4	: Front passenger air bag module (service replacement)
G1	M27	B/4	: Remote keyless entry receiver	D1	M80	—	: Diode-3
C3	M28	W/16	: Combination switch	E3	M93	W/12	: To M210
C3	M29	Y/6	: Spiral cable	C2	M96	G/4	: Audio unit
C3	M30	GR/8	: Spiral cable	D4	M99	GR/6	: To M204
E2	M31	W/6	: Blower motor	D2	M100	W/20	: AV control unit
B2	M32	W/8	: Electronic steering column lock	C2	M101	G/4	: AV control unit
E1	M33	W/3	: To M125	E2	M102	W/32	: AV control unit
C2	M34	W/2	: In-vehicle sensor	E1	M103	W/40	: AV control unit
E5	M35	Y/28	: Air bag diagnosis sensor unit	E2	M104	W/28	: AV control unit
D1	M36	W/3	: Front passenger air bag off indicator	D3	M150	W/2	: To M50
D3	M37	W/40	: Front air control (with auto A/C)	D1	M151	BR/2	: Center speaker
D3	M37	W/16	: Front air control (without auto A/C)	Console switch sub-harness			
C2	M38	BR/8	: Push-button ignition switch	D3	M200	W/12	: To M71
B4	M39	GR/8	: Rear sonar system OFF switch	E3	M203	GR/2	: Front console antenna
B3	M40	W/12	: Key slot	E4	M204	GR/6	: To M99
D3	M41	W/2	: Sonar buzzer	D4	M205	B/2	: To M76
D2	M43	W/20	: Audio unit	E3	M206	B/2	: Front power socket lamp
D3	M44	W/8	: Audio unit (with base audio system)	E3	M207	B/1	: Front power socket lamp (for cigarette lighter)
D2	M44	W/20	: Audio unit (with BOSE audio system) (without NAVI)	E4	M208	B/3	: Front power socket
E2	M45	W/32	: Audio unit	D3	M209	B/3	: Front console power socket
E1	M46	W/12	: Audio unit	D3	M210	W/12	: To M93
D3	M50	W/2	: To M150	D3	M211	G/4	: USB interface

B1	M51	BR/2	: Tweeter LH	D3	M212	W/8	: Aux jack
G1	M52	BR/2	: Tweeter RH				

ENGINE ROOM HARNESS

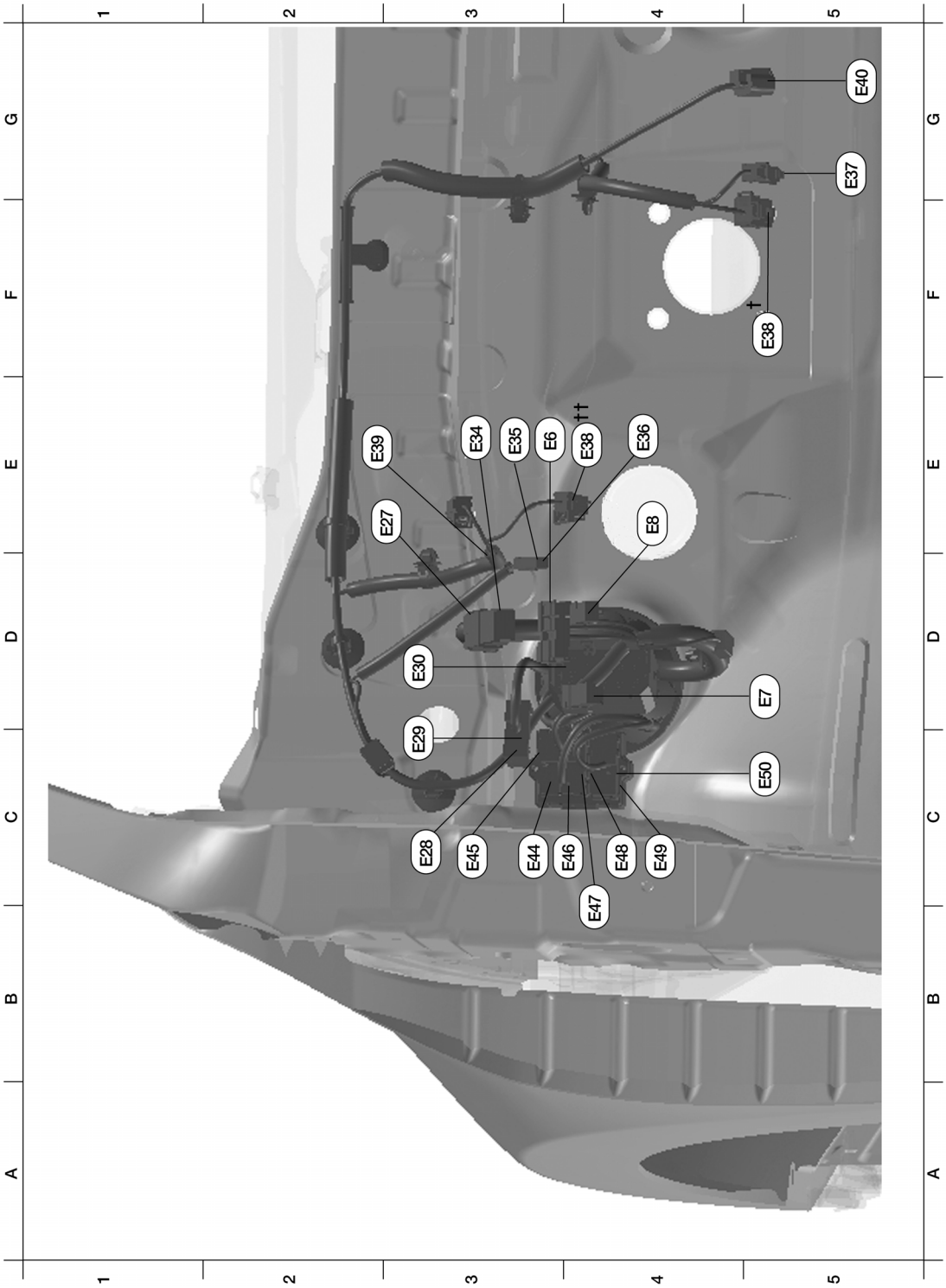


ABMIA3833GB

G3	E1	W/6	: Joint connector-E01	G3	E20	W/6	: Joint connector-E02
G3	E2	W/8	: To E202	G3	E21	W/4	: Joint connector-E03
G4	E3	W/16	: To F1	G3	E22	W/4	: Joint connector-E04

F4	E4	BR/2	: Fusible link box (battery)	D3	E24	GR/2	: Brake fluid level switch
F4	E5	GR/2	: Fusible link box (battery)	E1	E25	GR/5	: Front wiper motor
E3	E9	—	: Body ground	B4	E26	B/26	: ABS actuator and electric unit (control unit)
F5	E10	B/32	: ECM	B5	E33	—	: Body ground
G4	E11	W/10	: To F2	A5	E41	GR/2	: Front wheel sensor RH
G4	E12	W/6	: To E203	F5	E42	BR/6	: Cooling fan relay-2
G4	E13	B/3	: To E205	E4	E43	BR/6	: Cooling fan relay-3
C4	E14	B/2	: Power steering solenoid valve	G5	E55	W/4	: Joint connector-E07
D3	E15	—	: Body ground	G4	E56	W/4	: Joint connector-E14
G5	E16	B/2	: IPDM E/R (Intelligent power distribution module engine room)	F4	E57	L/4	: Stop lamp relay-1
F3	E17	W/8	: IPDM E/R (Intelligent power distribution module engine room)	F4	E58	L/4	: Stop lamp relay-2
F3	E18	W/36	: IPDM E/R (Intelligent power distribution module engine room)	E3	E73	BR/3	: Intelligent key warning buzzer
F3	E19	GR/2	: Front wheel sensor LH				

ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)

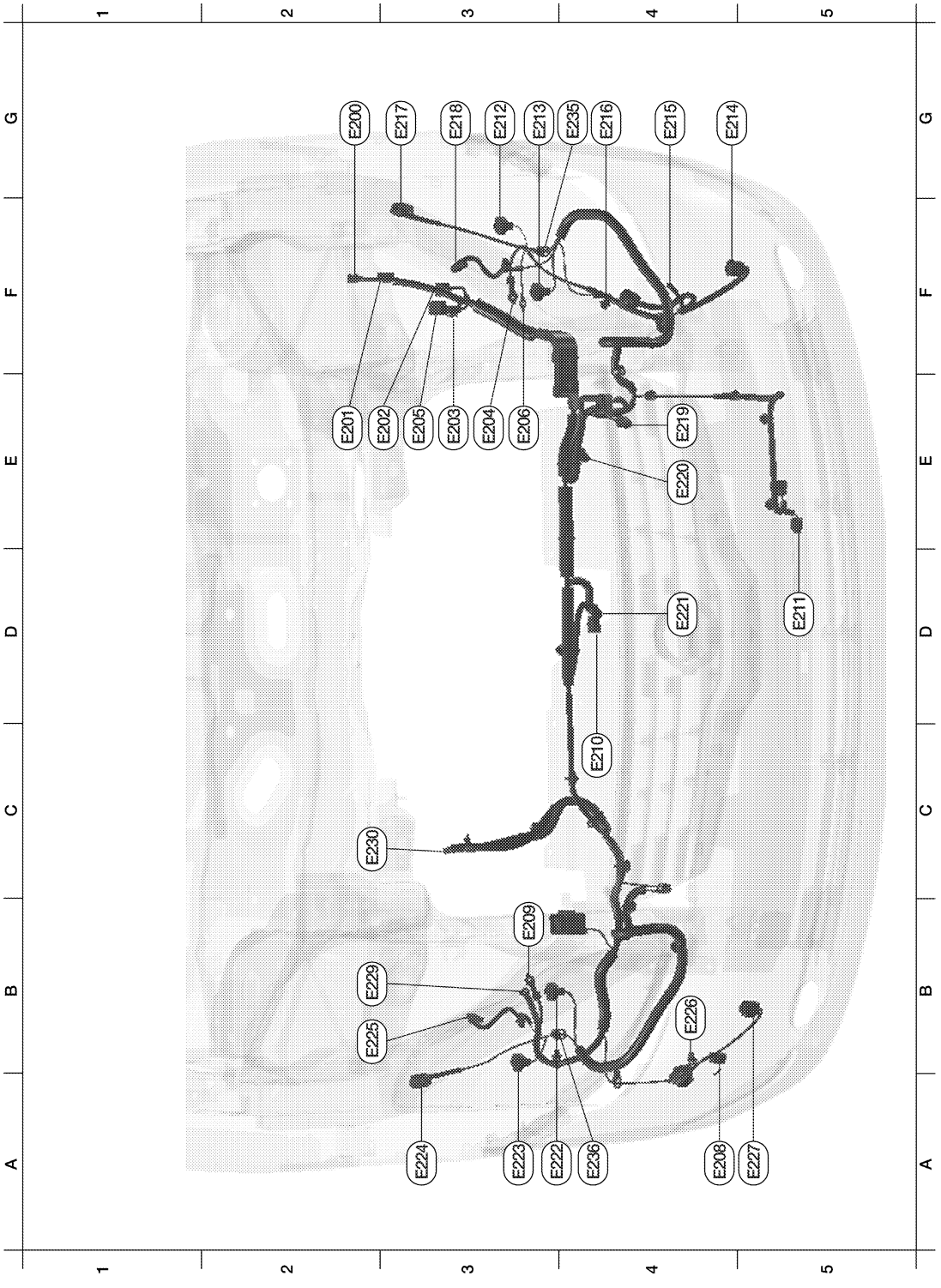


ABMIA1967GB

E3	E6	W/16	: Fuse block (J/B)	F5	E38†	W/4	: Stop lamp switch (with CVT)
D5	E7	W/1	: Fuse block (J/B)	E4	E38††	B/2	: Stop lamp switch (with M/T)
E4	E8	B/2	: Fuse block (J/B)	E2	E39	BR/2	: ASCD clutch switch
E3	E27	W/4	: Joint connector-E06	G5	E40	B/6	: Accelerator pedal position (APP) sensor
C3	E28	W/4	: Joint connector-E05	C3	E44	BR/12	: Junction block

C3	E29	W/16	: To B10	C3	E45	W/12	: Junction block
D3	E30	SMJ	: To M1	C4	E46	W/16	: Junction block
E3	E34	L/4	: Back-up lamp relay	C4	E47	W/6	: Junction block
E3	E35	B/1	: Parking brake switch (with CVT)	C4	E48	W/4	: Junction block
E4	E36	BR/2	: Clutch interlock switch	C4	E49	BR/4	: Junction block
G5	E37	BR/2	: ASCD brake switch	C5	E50	W/2	: Junction block

FRONT END MODULE HARNESS

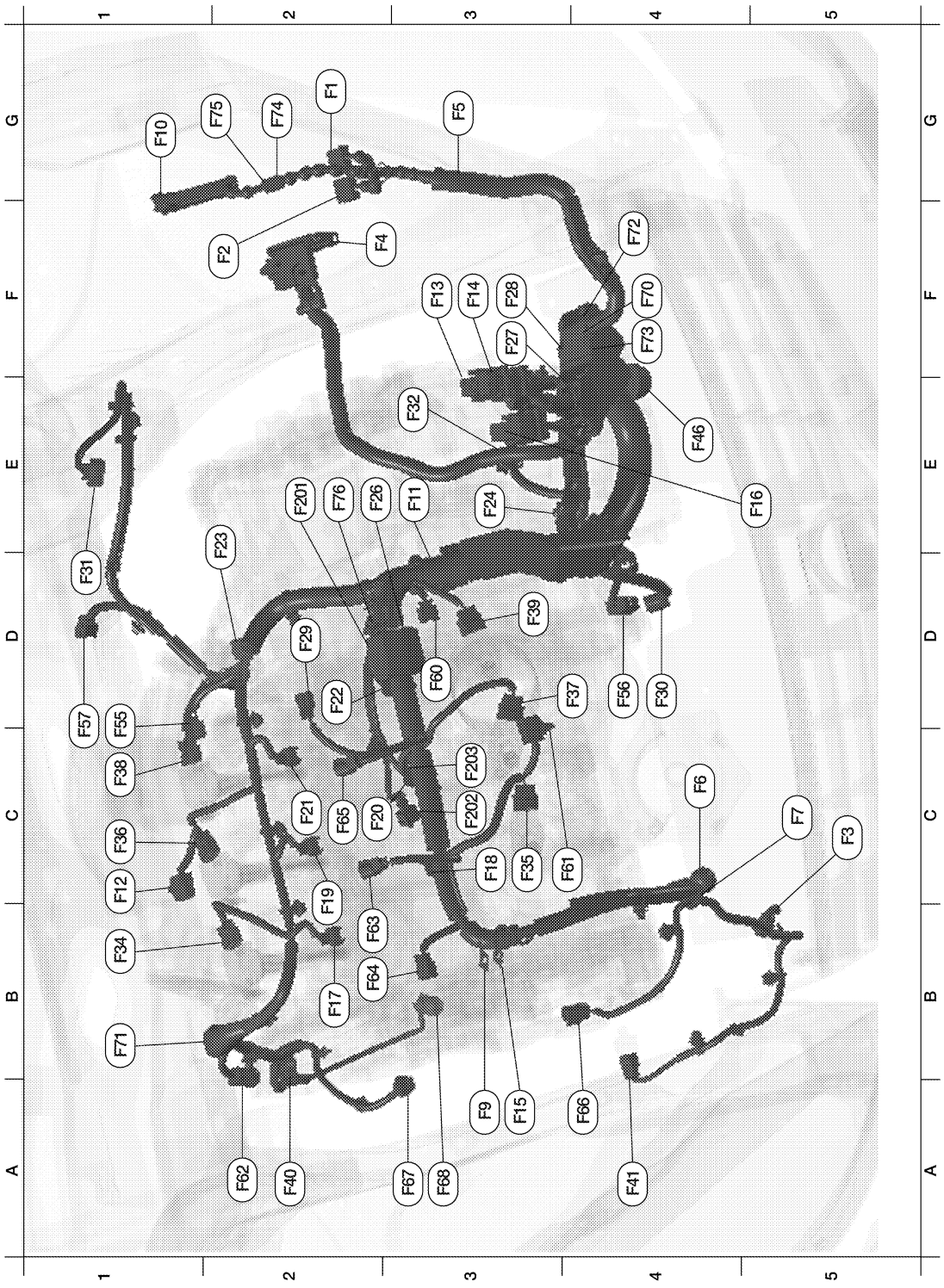


ABMIA3842GB

G2	E200	W/8	: IPDM E/R (Intelligent power distribution module engine room)	G3	E217	GR/3	: Front combination lamp LH
E2	E201	W/16	: IPDM E/R (Intelligent power distribution module engine room)	G3	E218	B/2	: Front combination lamp LH
E3	E202	W/8	: To E2	E4	E219	B/3	: Refrigerant pressure sensor
E3	E203	W/6	: To E12	E4	E220	GR/4	: Cooling fan motor-1

E3	E204	—	: Body ground	D4	E221	GR/4	: Cooling fan motor-2
E3	E205	B/3	: To E13	A3	E222	B/2	: Front combination lamp RH
E3	E206	—	: Body ground	A3	E223	B/2	: Front combination lamp RH (halogen)
A4	E208	W/2	: Washer fluid level switch	A3	E223	GR/2	: Front combination lamp RH (xenon)
B3	E209	—	: Body ground	A3	E224	GR/3	: Front combination lamp RH
C4	E210	Y/2	: Crash zone sensor	B3	E225	B/2	: Front combination lamp RH
D4	E211	B/2	: Ambient sensor	B4	E226	B/2	: Front washer motor
G3	E212	B/2	: Front combination lamp LH (halogen)	B5	E227	B/2	: Front fog lamp RH
G3	E212	GR/2	: Front combination lamp LH (xenon)	B3	E229	—	: Body ground
G3	E213	B/2	: Front combination lamp LH	C2	E230	—	: Generator
G4	E214	B/2	: Front fog lamp LH	G4	E235	B/2	: Front combination lamp LH
G4	E215	B/1	: Horn (low)	A4	E236	B/2	: Front combination lamp RH
G4	E216	B/1	: Horn (high)				

ENGINE CONTROL HARNESS (VQ35DE)

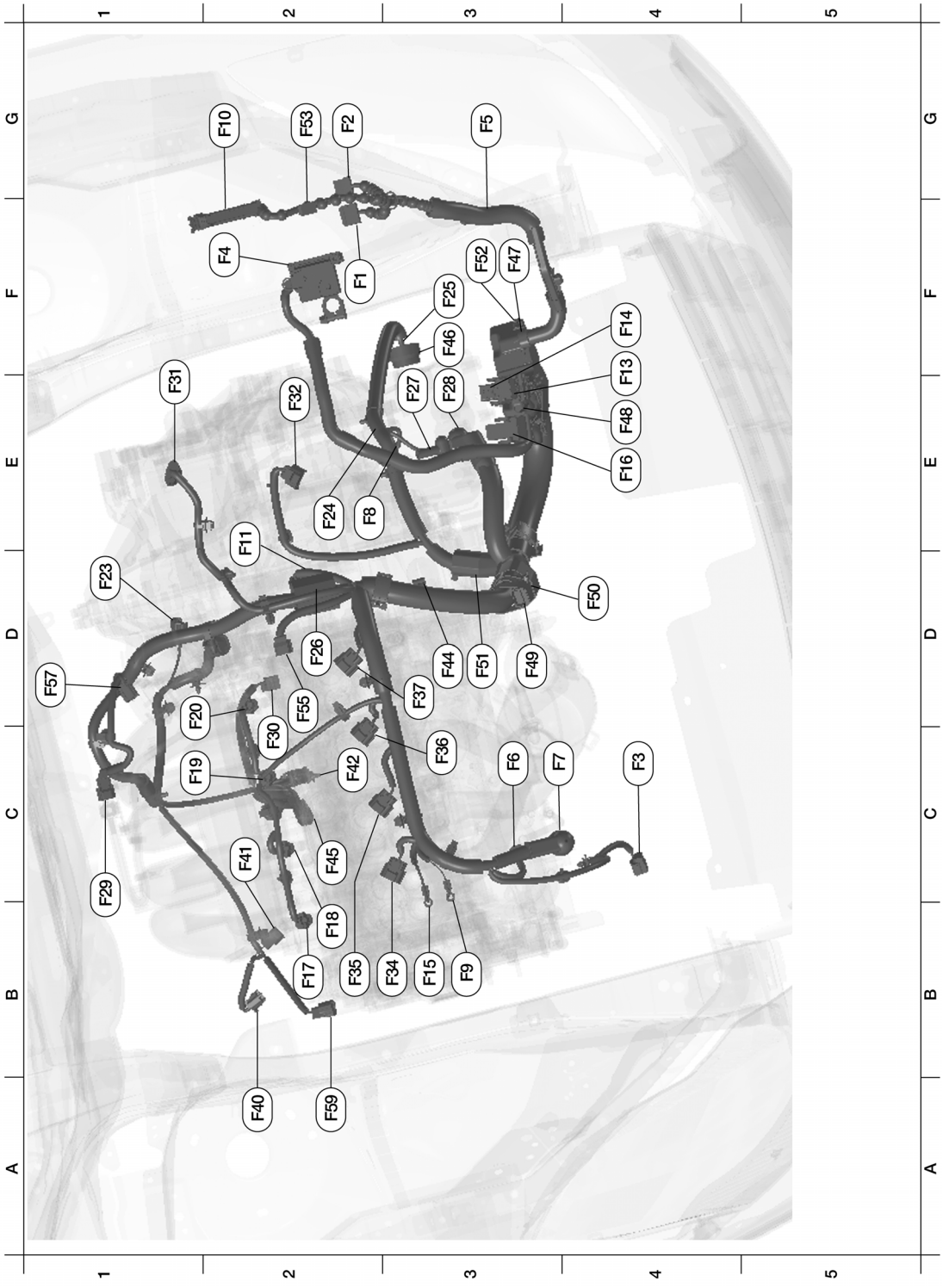


ABMIA0776GB

G2	F1	W/16	: To E3	C3	F35	GR/3	: Ignition coil No. 2 (with power transistor)
F1	F2	W/10	: To E11	C1	F36	GR/3	: Ignition coil No. 3 (with power transistor)
C5	F3	B/2	: A/C Compressor	D3	F37	GR/3	: Ignition coil No. 4 (with power transistor)
F2	F4	—	: Fusible link box (battery)	C1	F38	GR/3	: Ignition coil No. 5 (with power transistor)
G3	F5	B/3	: Battery current sensor	D3	F39	GR/3	: Ignition coil No. 6 (with power transistor)

C4	F6	—	: Generator	A2	F40	B/3	: Power steering pressure sensor
C5	F7	B/3	: Generator	A4	F41	GR/1	: Oil pressure switch
A3	F9	—	: Engine ground	E4	F46	B/22	: CVT unit
G1	F10	W/36	: IPDM E/R (Intelligent power distribution module engine room)	D1	F55	B/3	: Camshaft position sensor (PHASE) (bank 1)
E3	F11	GR/2	: Engine coolant temperature sensor	D4	F56	B/4	: Heated oxygen sensor 2 (bank 2)
C1	F12	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 1)	D1	F57	B/6	: Electric throttle control actuator
F3	F13	BR/48	: ECM	D3	F60	B/3	: Camshaft position sensor (PHASE) (bank 2)
F3	F14	GR/32	: ECM	C3	F61	GR/4	: Air fuel ratio (A/F) sensor 1 (bank 2)
A3	F15	—	: Engine ground	A2	F62	B/4	: Heated oxygen sensor 2 (bank 1)
E4	F16	B/48	: TCM (Transmission control module)	B2	F63	B/2	: VIAS control solenoid valve 1
B2	F17	GR/2	: Fuel injector No. 1	B2	F64	BR/2	: Electronic controlled engine mount control solenoid valve
C3	F18	GR/2	: Fuel injector No. 2	C2	F65	B/2	: VIAS control solenoid valve 2
B2	F19	GR/2	: Fuel injector No. 3	A3	F66	GR/2	: Intake valve timing control solenoid valve (bank 2)
C2	F20	GR/2	: Fuel injector No. 4	A3	F67	GR/2	: Intake valve timing control solenoid valve (bank 1)
C2	F21	GR/2	: Fuel injector No. 5	A3	F68	GR/2	: Engine oil temperature sensor
D2	F22	GR/2	: Fuel injector No. 6	F4	F70	B/10	: Joint connector-F01
E1	F23	B/3	: Secondary speed sensor	B1	F71	G/6	: Joint connector-F03
E3	F24	B/2	: Back-up lamp switch	F4	F72	B/10	: Joint connector-F04
E2	F26	W/2	: Condenser-2	F4	F73	B/10	: Joint connector-F05
F3	F27	—	: Starter motor	G2	F74	W/4	: Joint connector-F08
F3	F28	GR/1	: Starter motor	G1	F75	W/4	: Joint connector-F07
D2	F29	L/2	: EVAP canister purge volume control solenoid valve	E2	F76	L/4	: To F201
D4	F30	B/3	: Crankshaft position sensor (POS)	Knock sensor sub-harness			
D1	F31	B/6	: Mass air flow sensor	E2	F201	L/4	: To F76
E3	F32	B/2	: Park/neutral position (PNP) switch (with M/T)	C3	F202	GR/2	: Knock sensor (bank 1)
B1	F34	GR/3	: Ignition coil No. 1 (with power transistor)	C3	F203	GR/2	: Knock sensor (bank 2)

ENGINE CONTROL HARNESS (QR25DE)

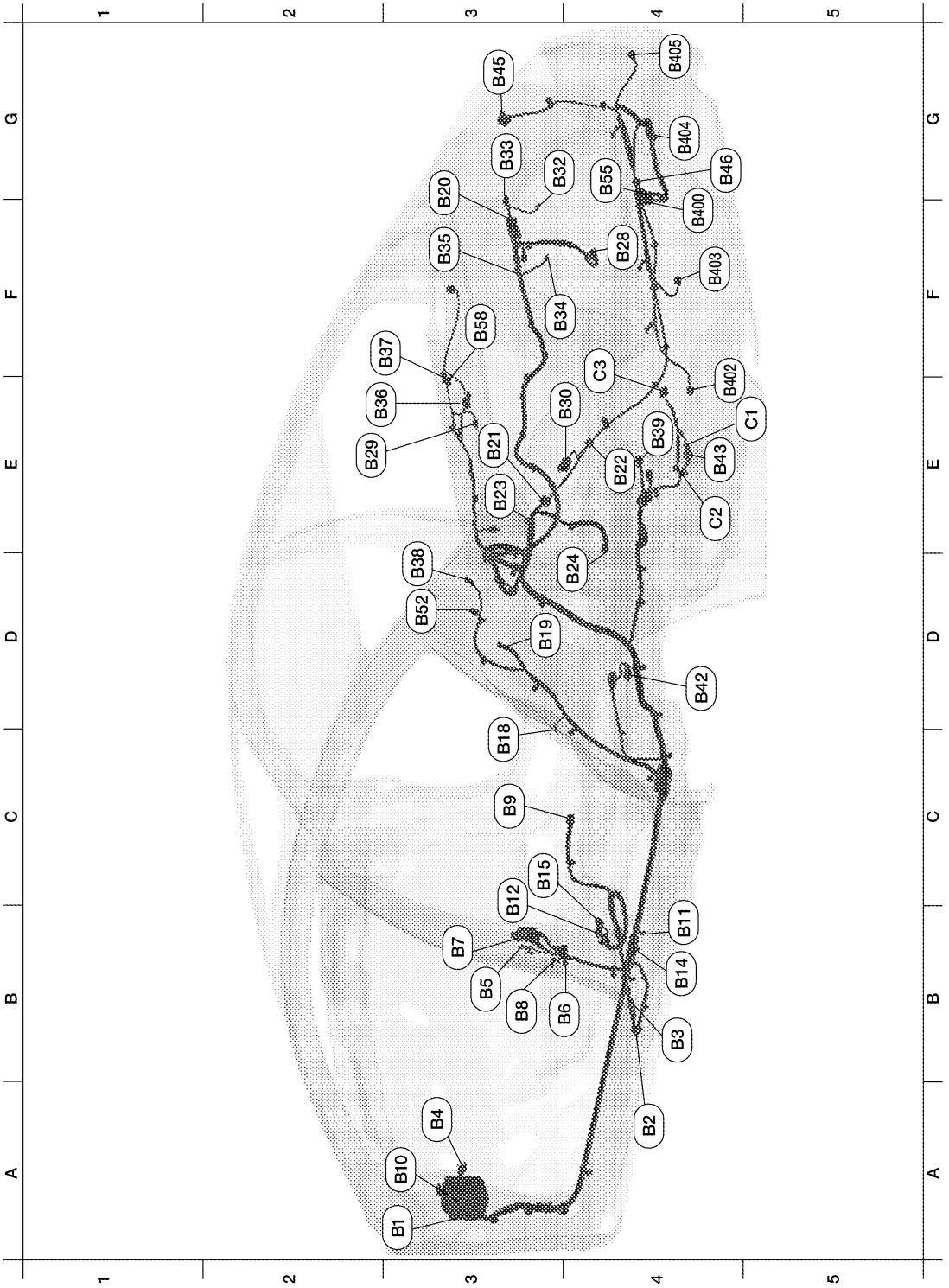


ABMIA1969GB

F2	F1	W/16	: To E3	C1	F29	L/2	: EVAP canister purge volume control solenoid valve
G2	F2	W/10	: To E11	D2	F30	B/3	: Crankshaft position sensor (POS)
C4	F3	B/2	: A/C Compressor	E1	F31	B/6	: Mass air flow sensor
F2	F4	—	: Fusible link box (battery)	E2	F32	B/2	: Park/neutral position (PNP) switch (with M/T)
G3	F5	B/3	: Battery current sensor	B3	F34	GR/3	: Ignition coil No. 1 (with power transistor)

C3	F6	—	: Generator	B2	F35	GR/3	: Ignition coil No. 2 (with power transistor)
C3	F7	B/3	: Generator	C3	F36	GR/3	: Ignition coil No. 3 (with power transistor)
E2	F8	W/3	: Primary speed sensor	D3	F37	GR/3	: Ignition coil No. 4 (with power transistor)
B3	F9	—	: Engine ground	A2	F40	B/3	: Power steering pressure sensor
G2	F10	W/36	: IPDM E/R (Intelligent power distribution module engine room)	C2	F41	GR/1	: Oil pressure switch
E2	F11	GR/2	: Engine coolant temperature sensor	C2	F42	B/4	: Heated oxygen sensor 2
F4	F13	BR/48	: ECM	D3	F44	GR/4	: Air fuel ratio (A/F) sensor 1
F4	F14	GR/32	: ECM	C2	F45	GR/2	: Knock sensor
B3	F15	—	: Engine ground	F3	F46	B/22	: CVT unit
E4	F16	B/48	: TCM (Transmission control module)	F3	F47	B/6	: Joint connector-F01
B2	F17	GR/2	: Fuel injector No. 1	E4	F48	B/6	: Joint connector-F02
B2	F18	GR/2	: Fuel injector No. 2	D3	F49	B/10	: Joint connector-F03
C1	F19	GR/2	: Fuel injector No. 3	D4	F50	B/10	: Joint connector-F04
D1	F20	GR/2	: Fuel injector No. 4	D3	F51	B/6	: Joint connector-F05
D1	F23	B/3	: Secondary speed sensor	F3	F52	B/10	: Joint connector-F06
E2	F24	B/2	: Back-up lamp switch	G2	F53	B/4	: Joint connector-F07
F3	F25	B/10	: Transmission range switch	D2	F55	B/3	: Camshaft position sensor (PHASE)
D2	F26	W/2	: Condenser-2	D1	F57	B/6	: Electric throttle control actuator
F3	F27	—	: Starter motor	A2	F59	GR/2	: Intake valve timing control solenoid valve
F3	F28	—	: Starter motor				

BODY HARNESS

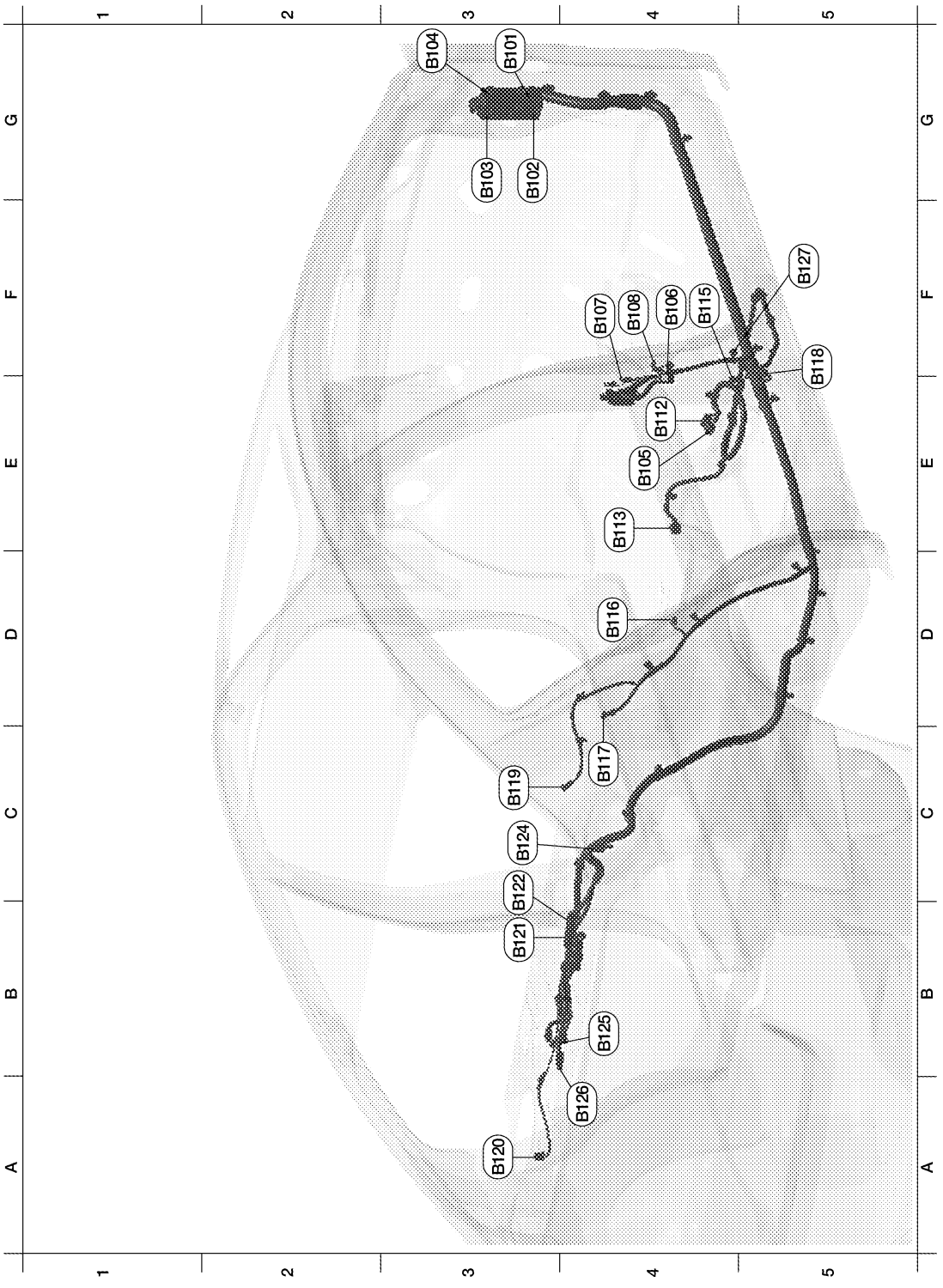


AAMIA0631GB

A3	B1	SMJ	: To M6	G3	B33	BR/2	: Trunk opener request switch
A4	B2	W/4	: Joint connector-B01	G4	B34	BR/2	: License plate lamp LH
B4	B3	W/4	: Joint connector-B02	F3	B35	W/4	: Rear view camera
A3	B4	BR/12	: Fuse block (J/B)	E3	B36	W/2	: Trunk room lamp
B3	B5	—	: Body ground	E3	B37	W/2	: High-mounted stop lamp (without rear spoiler)

B4	B6	W/8	: To D201	E3	B37	BR/2	: High-mounted stop lamp (with rear spoiler)
B3	B7	—	: Body ground	D3	B38	Y/2	: LH side curtain air bag module
B3	B8	W/3	: Front door switch LH	E4	B39	B/2	: EVAP canister vent control valve
C3	B9	Y/12	: Air bag diagnosis sensor unit	D4	B42	GR/5	: Fuel level sensor unit and fuel pump
A3	B10	W/16	: To E29	E4	B43	GR/4	: To C1
B4	B11	Y/2	: Front LH side air bag module	G3	B45	W/6	: Rear combination lamp RH
B3	B12	W/8	: To B201	G4	B46	GR/2	: Rear bumper antenna
B4	B14	Y/2	: Front LH seat belt pre-tensioner	D3	B52	W/1	: Condenser
C3	B15	Y/2	: LH side air bag (satellite) sensor	G4	B55	B/10	: To B400
C3	B18	W/3	: Rear door switch LH	F3	B58	—	: Body ground
D3	B19	—	: Body ground	Rear sonar sub-harness			
G3	B20	GR/6	: Joint connector-B05	F4	B400	B/10	: To B55
E3	B21	L/12	: Joint connector-B06	E4	B402	B/3	: Rear sonar sensor LH outer
E4	B22	GR/6	: Joint connector-B07	F4	B403	B/3	: Rear sonar sensor LH inner
E3	B23	W/4	: Joint connector-B08	G4	B404	B/3	: Rear sonar sensor RH inner
D4	B24	W/16	: Sonar control unit	G4	B405	B/3	: Rear sonar sensor RH outer
F4	B28	W/4	: Trunk lamp switch and trunk release solenoid	Chassis harness			
E2	B29	GR/2	: Rear parcel shelf antenna	E5	C1	GR/4	: To B43
E4	B30	W/6	: Rear combination lamp LH	E4	C2	GR/2	: Rear wheel sensor LH
F4	B32	BR/2	: License plate lamp RH	F4	C3	B/2	: Rear wheel sensor RH

BODY NO. 2 HARNESS

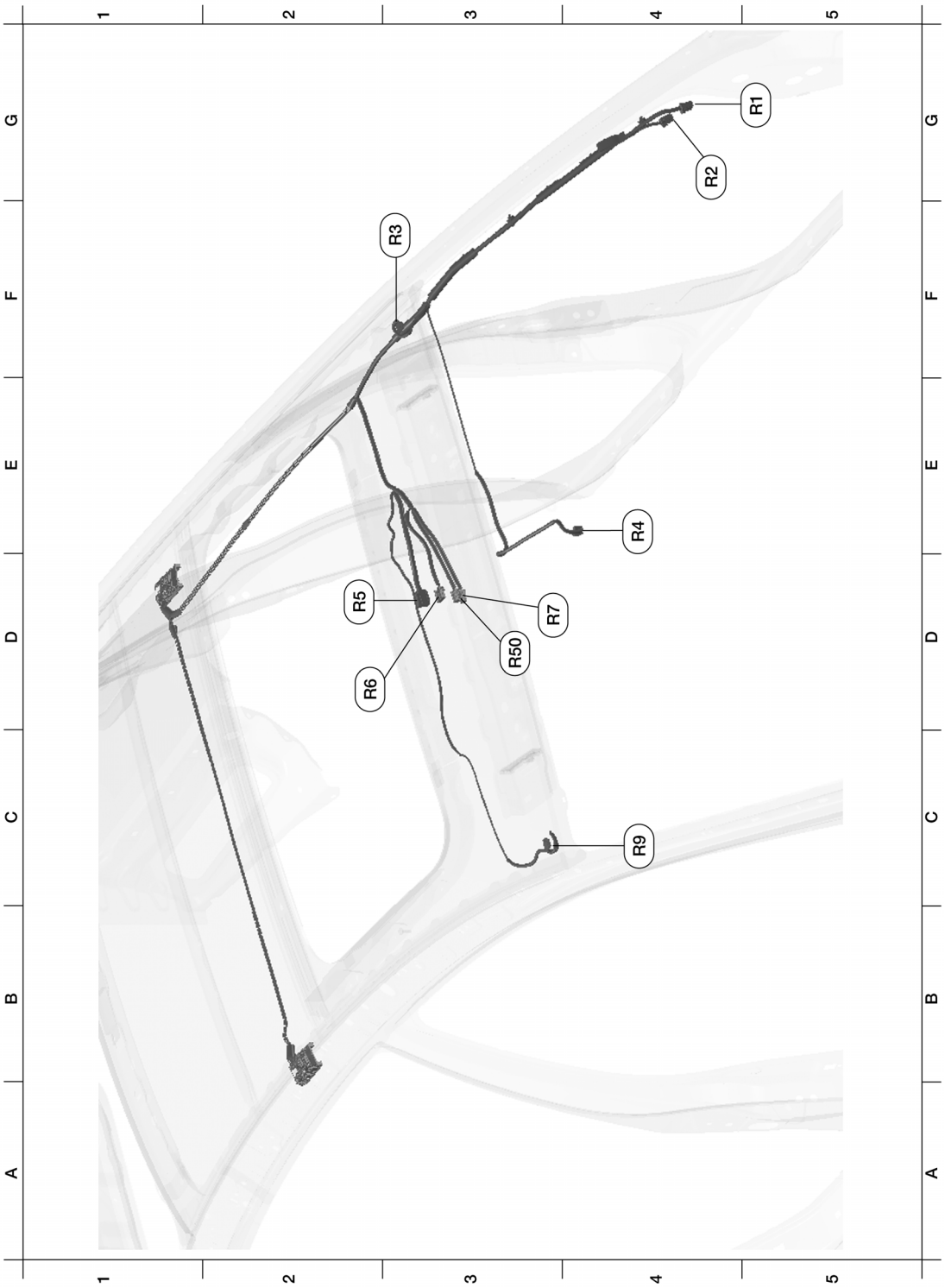


AAMIA0632GB

G3	B101	W/32	: To M2	D4	B116	W/3	: Rear door switch RH
G3	B102	W/24	: To M8	C4	B117	—	: Body ground
G3	B103	BR/16	: To M9	F5	B118	Y/2	: RH side air bag (satellite) sensor
G3	B104	BR/12	: To M10	C3	B119	Y/2	: RH side curtain air bag module
E4	B105	W/8	: To B301 (without power seat for passenger side)	A3	B120	W/2	: Rear subwoofer LH

E4	B105	B/10	: To B301 (with power seat for passenger side)	B3	B121	BR/23	: BOSE speaker amp.
F4	B106	W/8	: To D301	B3	B122	BR/14	: BOSE speaker amp.
F4	B107	—	: Body ground	C3	B124	W/2	: Rear subwoofer RH
F4	B108	W/3	: Front door switch RH	B4	B125	W/8	: Bluetooth control unit
E4	B112	Y/2	: Front RH side air bag module	A4	B126	W/32	: Bluetooth control unit
E4	B113	Y/12	: Air bag diagnosis sensor unit	F5	B127	—	: Body ground
F4	B115	Y/2	: Front RH seat belt pre-tensioner				

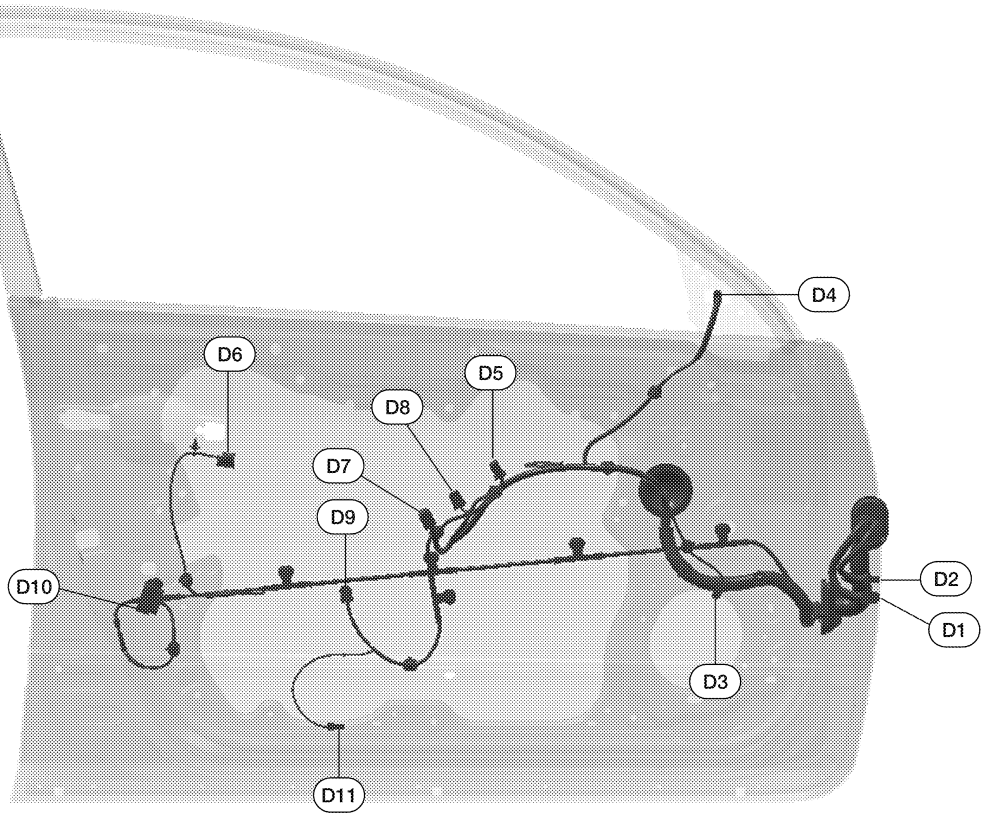
ROOM LAMP HARNESS



ABMIA2004GB

G5	R1	W/16	: To M7	D3	R6	W/3	: Sunroof switch
G4	R2	W/4	: To M13	D3	R7	W/4	: Microphone
F3	R3	W/2	: Vanity mirror lamp LH	C4	R9	W/2	: Vanity mirror lamp RH
E4	R4	B/7	: Auto anti-dazzling inside mirror	D3	R50	GR/6	: Front room/map lamp assembly
D2	R5	GR/10	: Sunroof motor assembly				

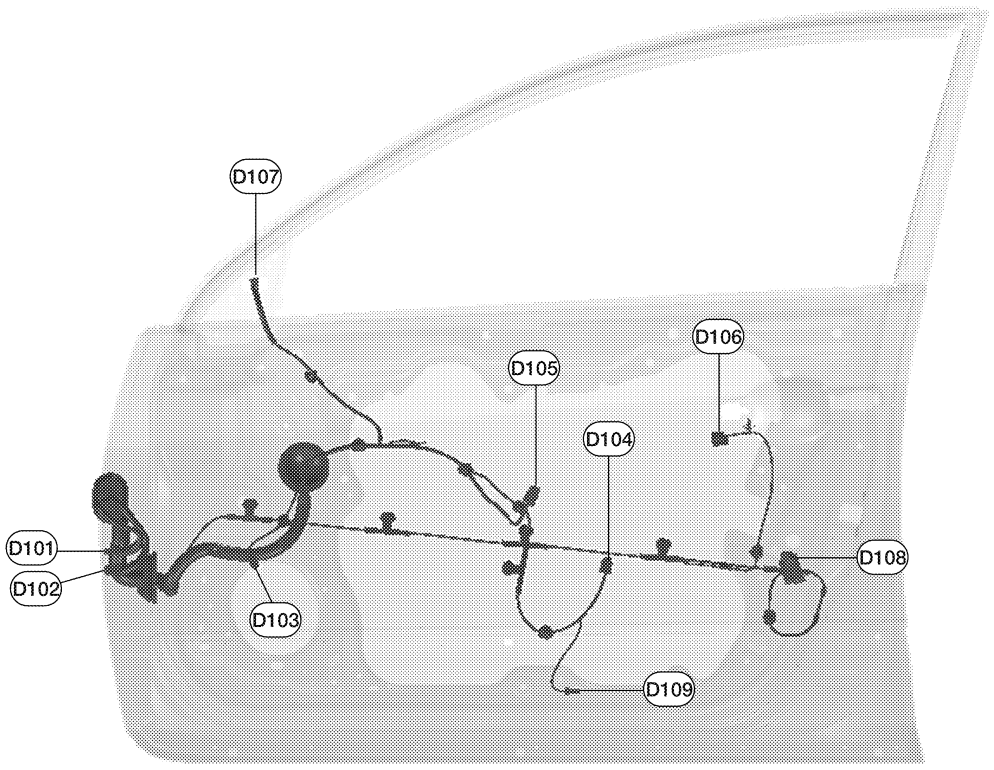
FRONT DOOR LH HARNESS



ALMIA0026GB

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

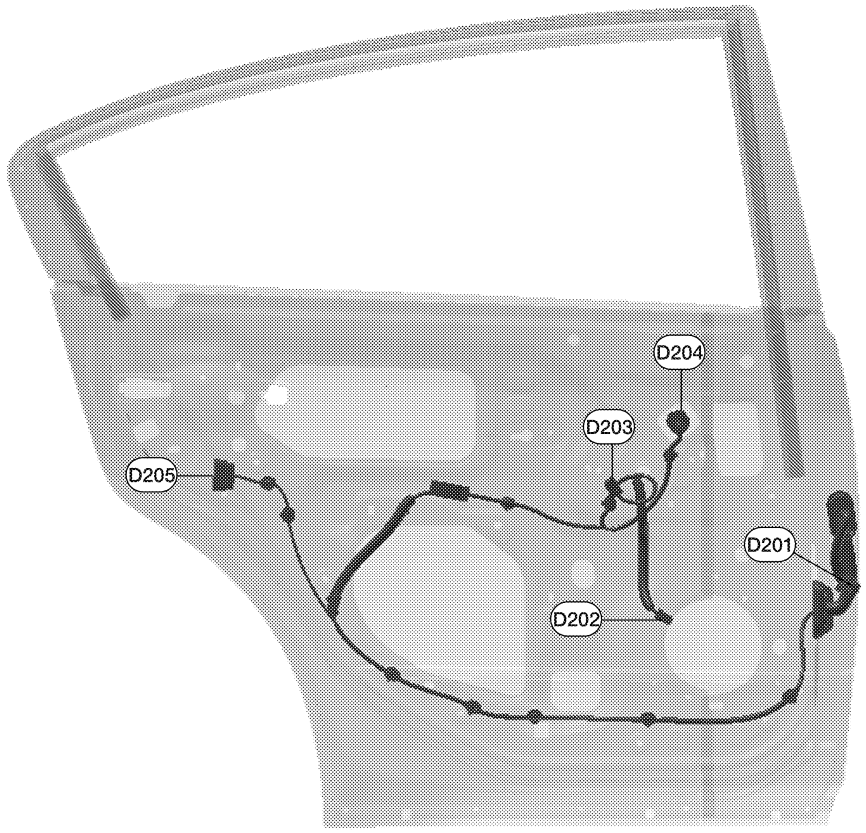
FRONT DOOR RH HARNESS



ALMIA0027GB

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

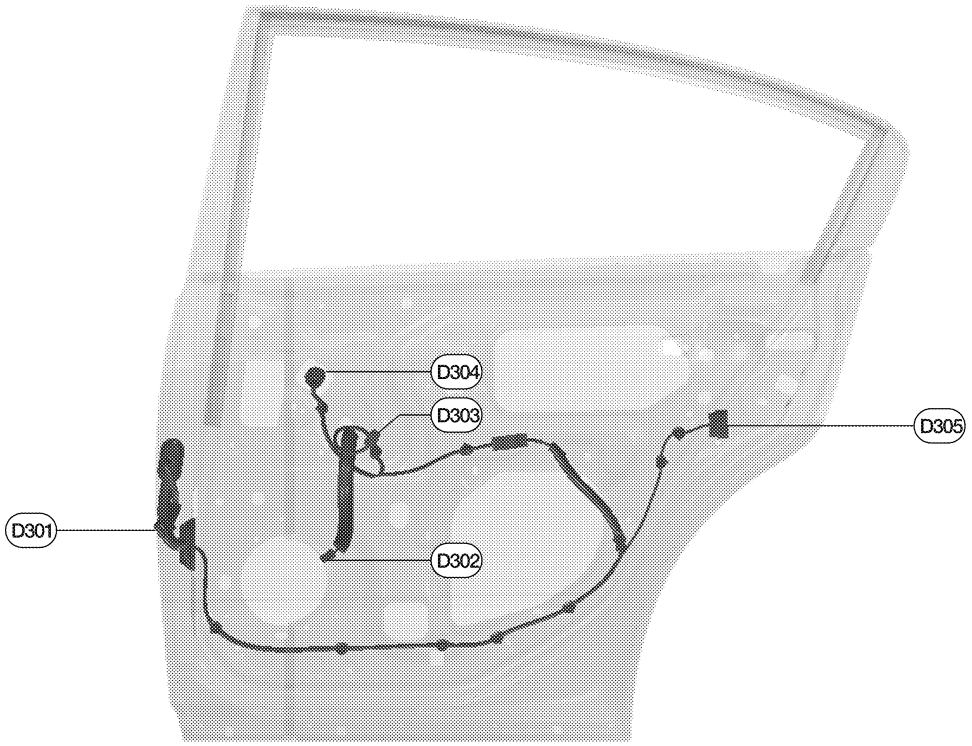
REAR DOOR LH HARNESS



ALMIA0028GB

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

REAR DOOR RH HARNESS



ALMIA0029GB

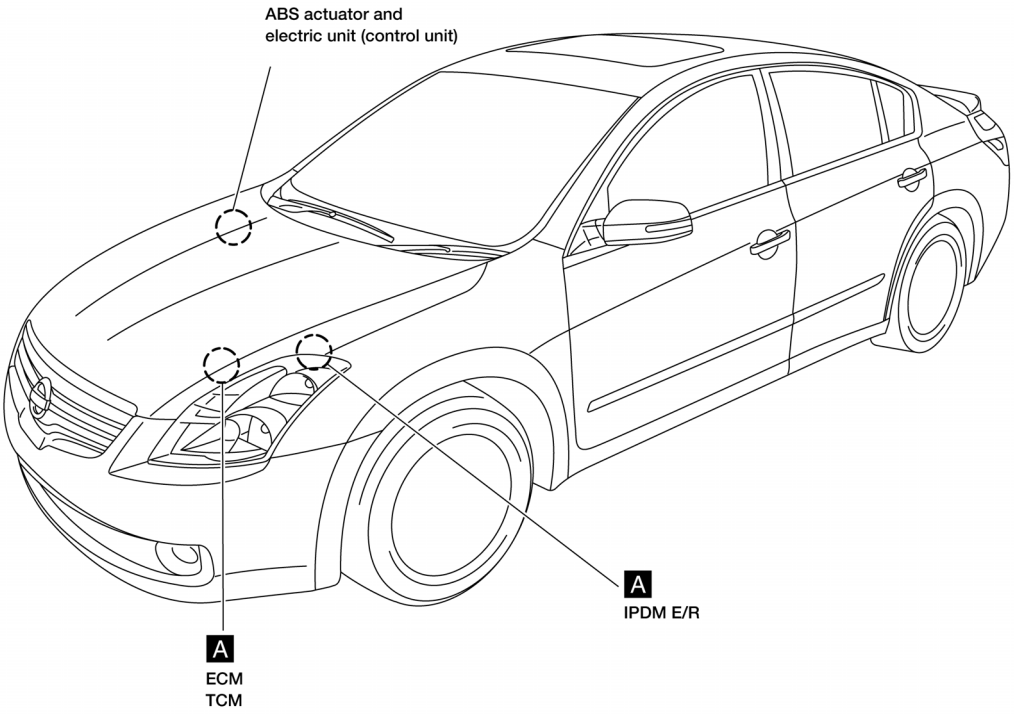
D301	W/8	: To B106	D304	G/6	: Rear power window motor RH
D302	BR/2	: Rear door speaker RH	D305	GR/6	: Rear door lock actuator RH
D303	W/8	: Rear power window switch RH			

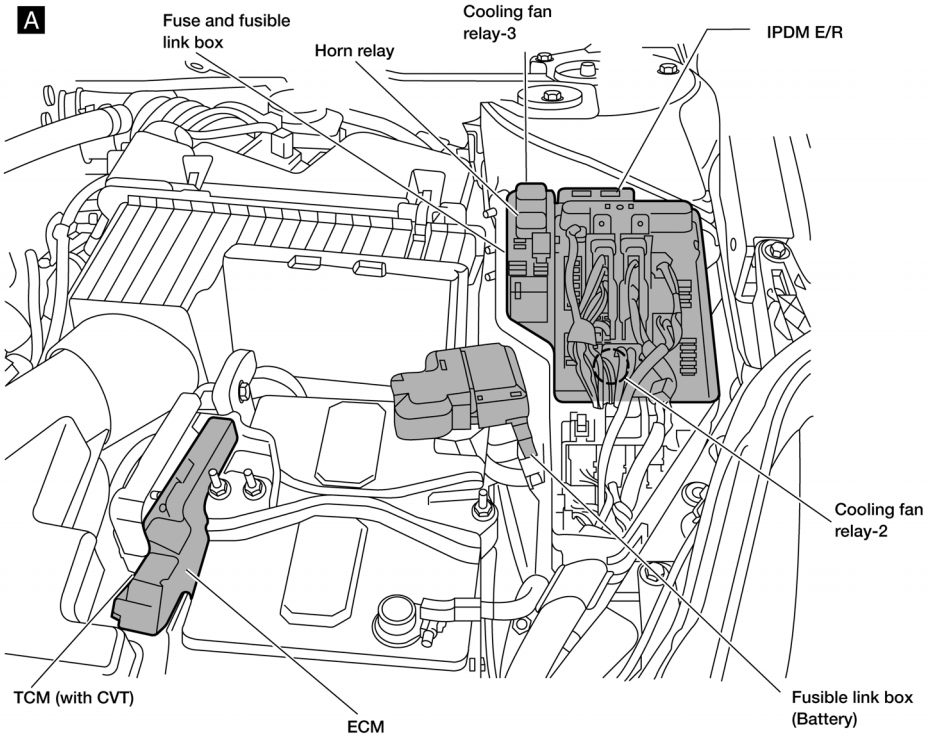
ELECTRICAL UNITS LOCATION

Electrical Units Location

INFOID:0000000006391021

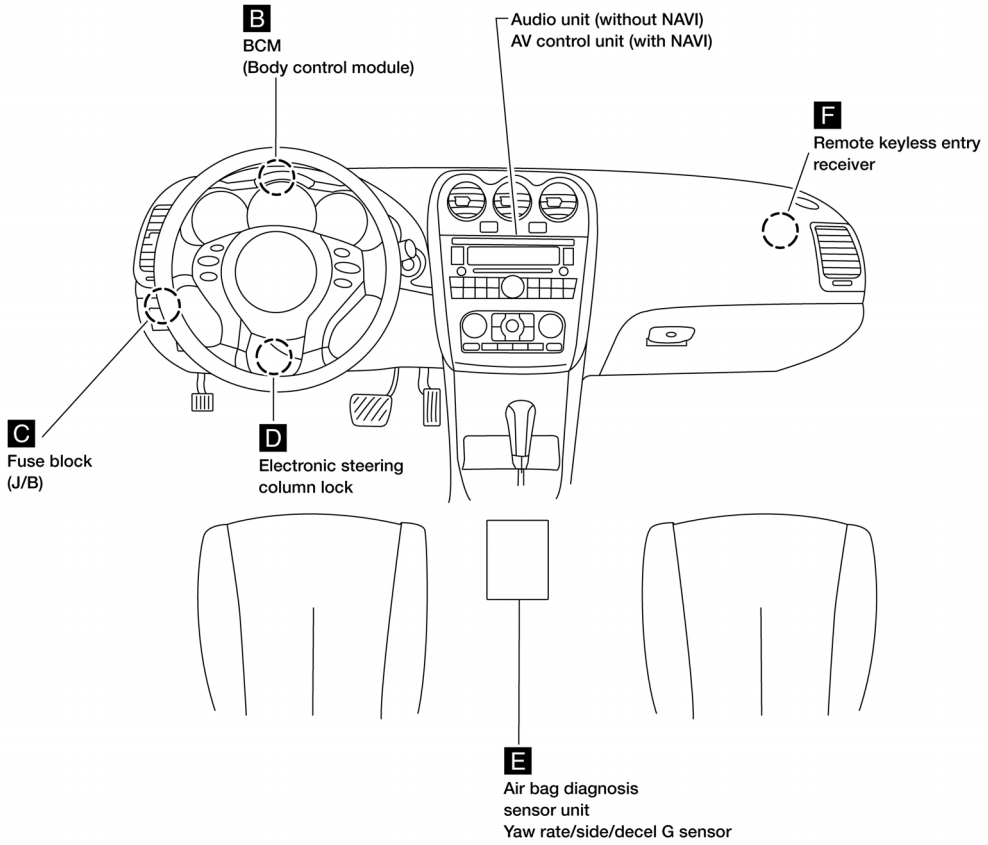
ENGINE COMPARTMENT



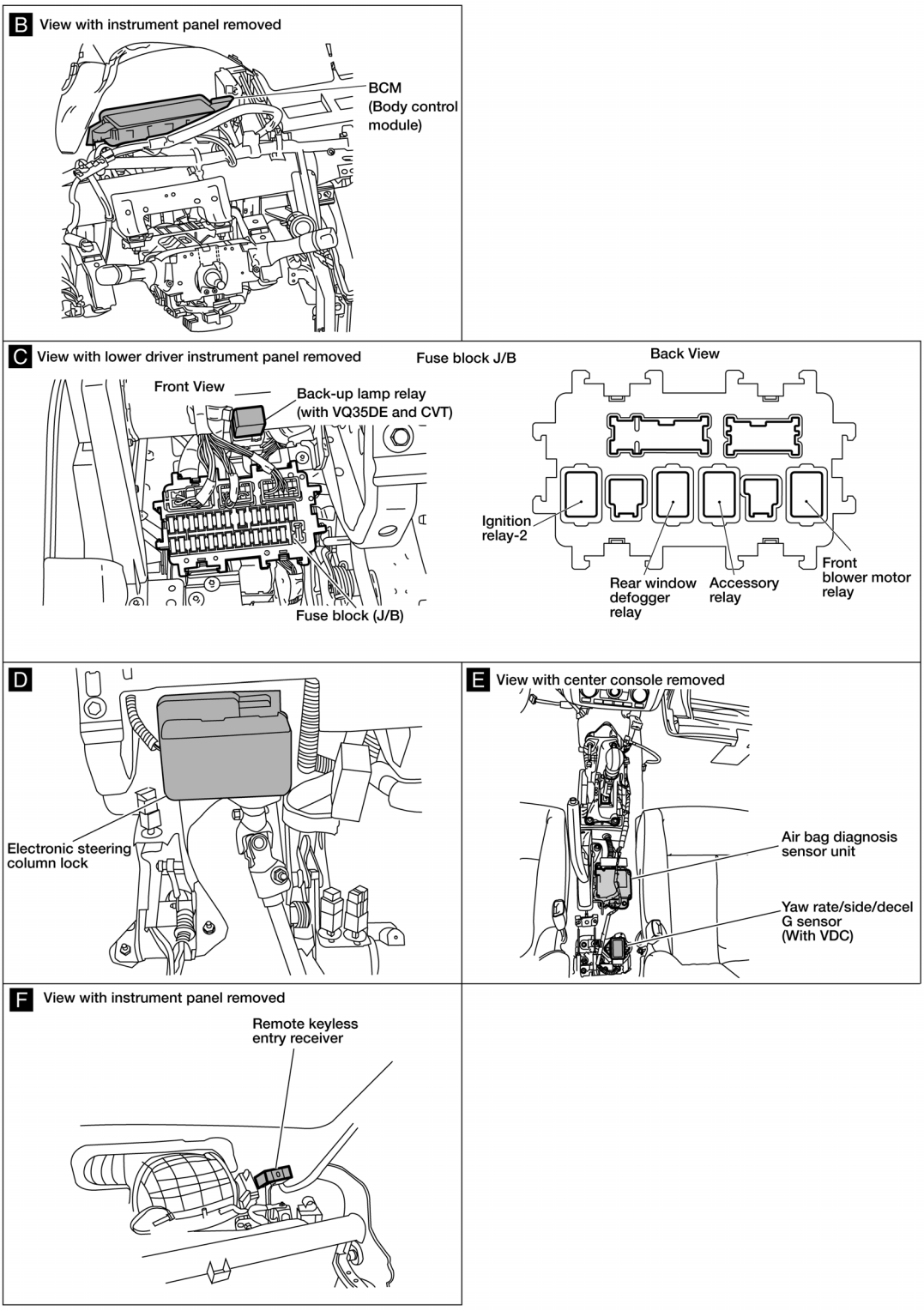


ABMIA1972GB

PASSENGER COMPARTMENT

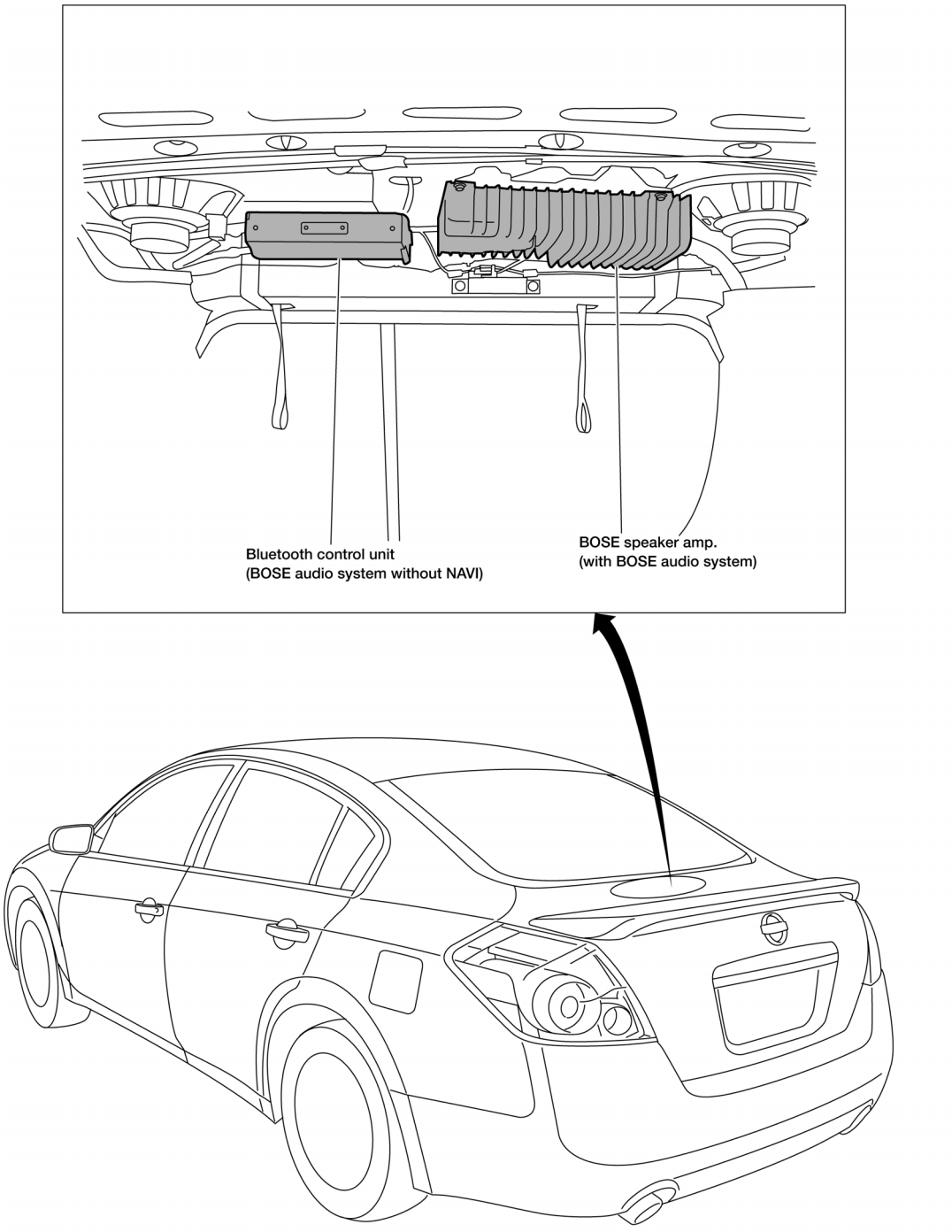


AAMIA0633GB



ABMIA2030GB

LUGGAGE COMPARTMENT



AAMIA0634GB

HARNESS CONNECTOR

Description

INFOID:0000000006391022

HARNESS CONNECTOR (TAB-LOCKING TYPE)

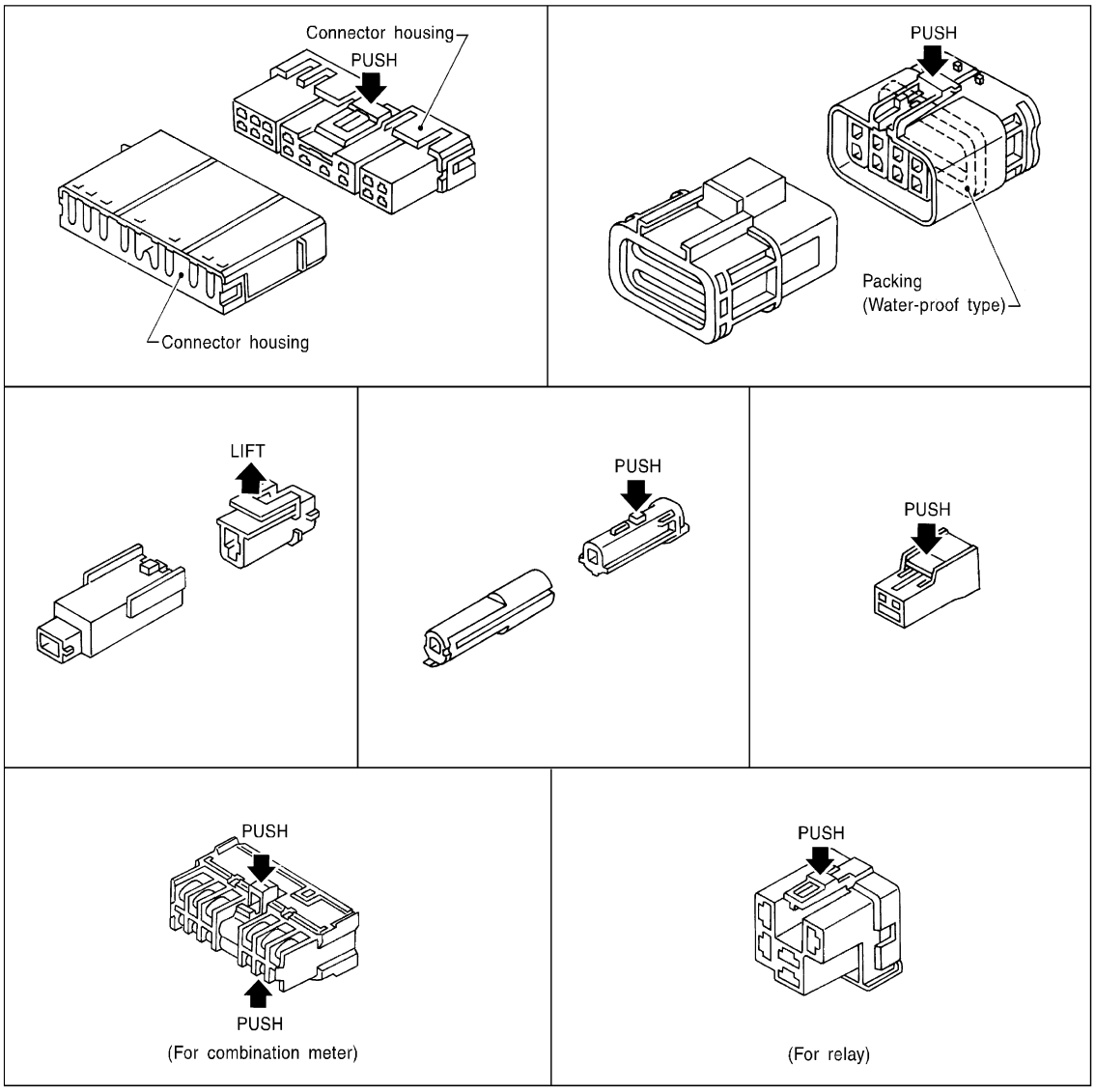
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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

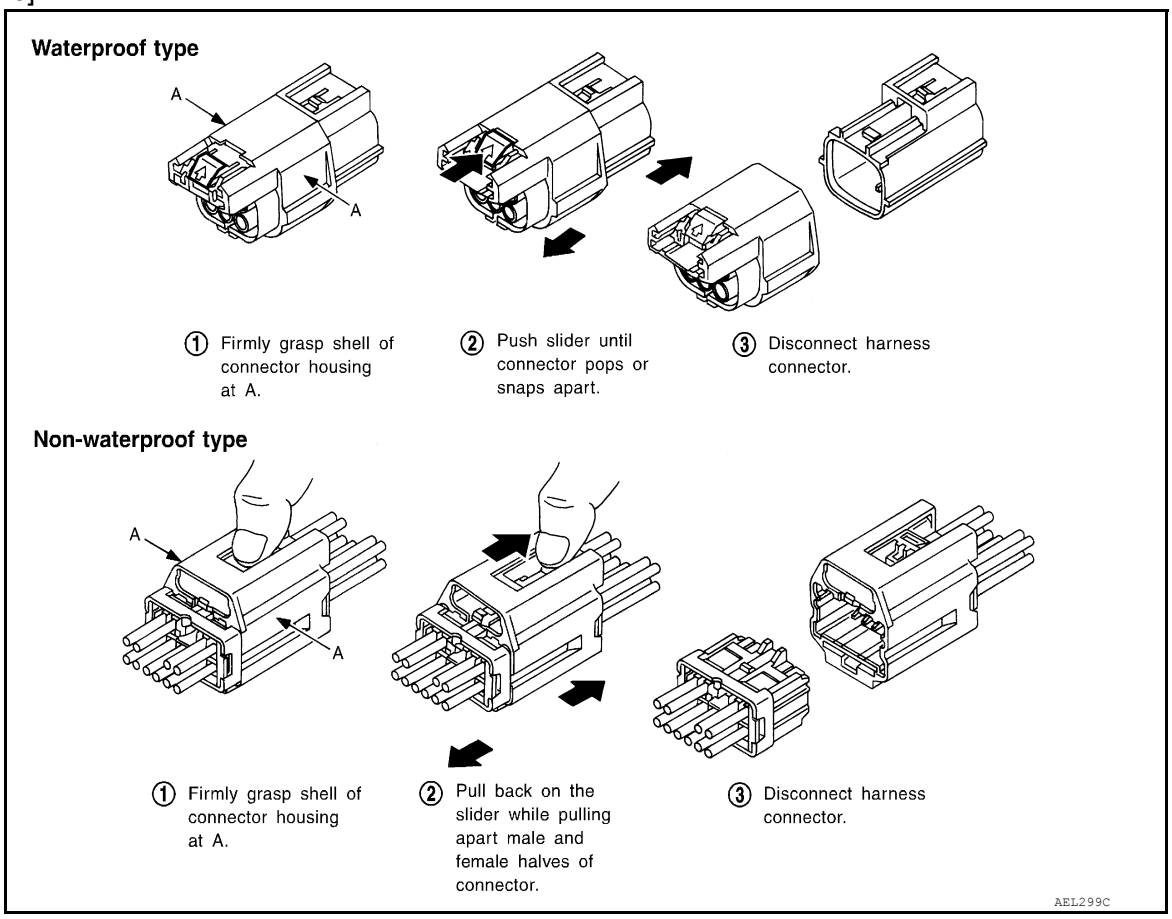
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- 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]

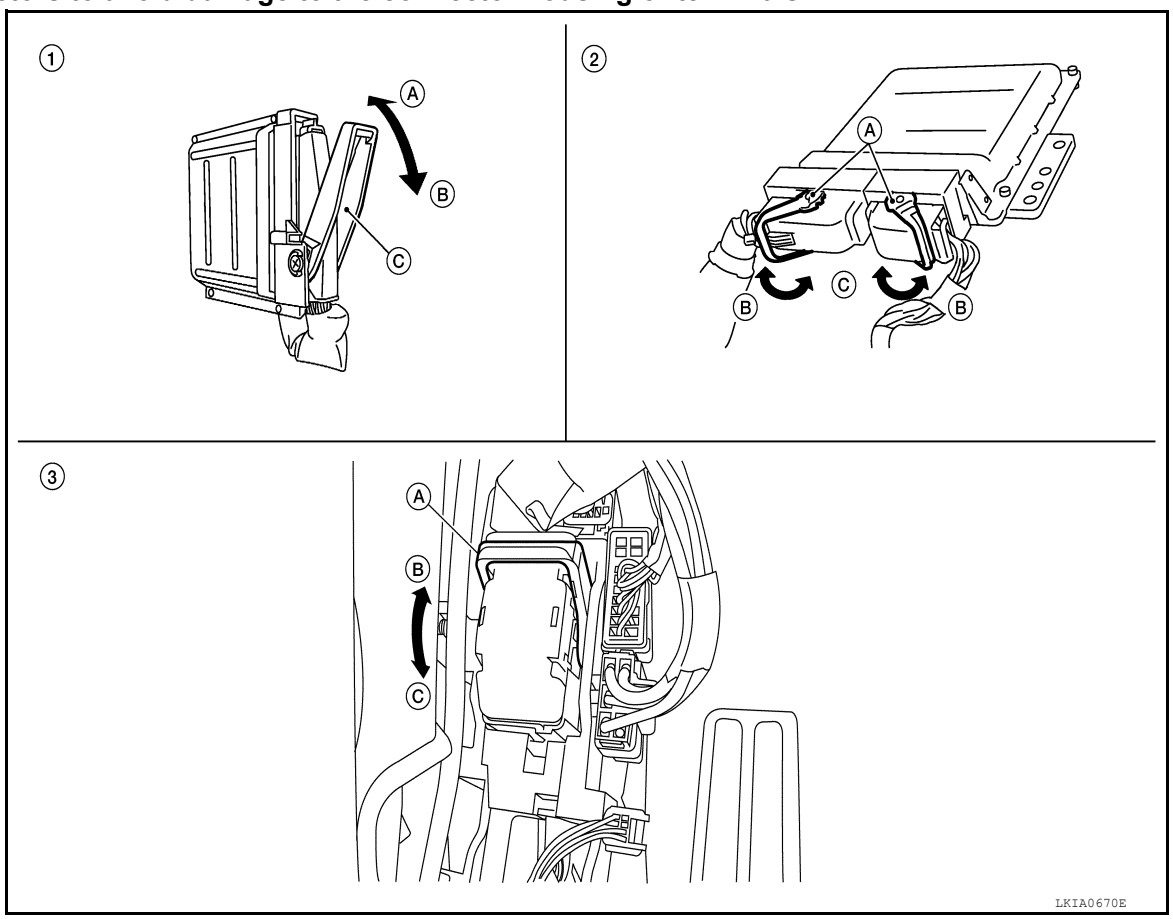


HARNESS CONNECTOR (LEVER LOCKING TYPE)

- 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.



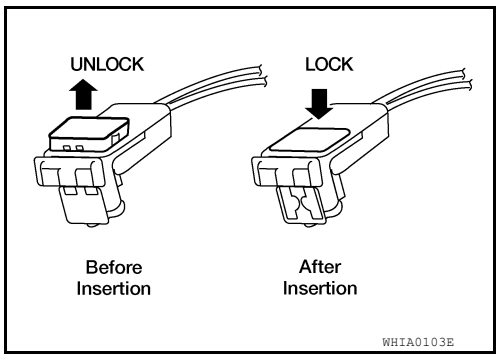
1. Control unit with single lever
   A. Fasten
   B. Loosen
   C. Lever
2. Control unit with dual levers
   A. Levers
   B. Fasten
   C. Loosen
3. SMJ connector
   A. Lever
   B. Fasten
   C. Loosen

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.**



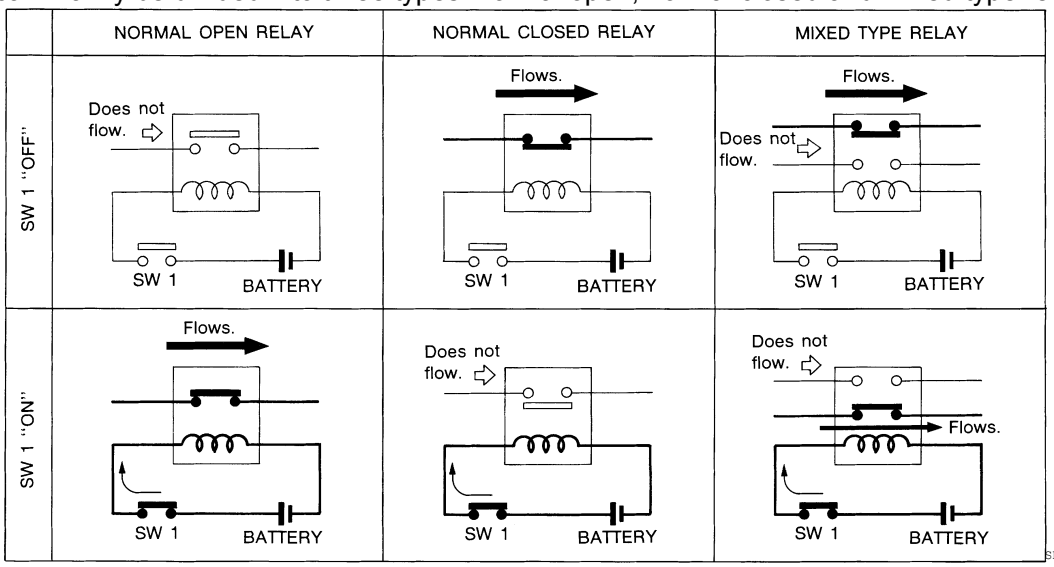
STANDARDIZED RELAY

Description

INFOID:0000000006391023

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

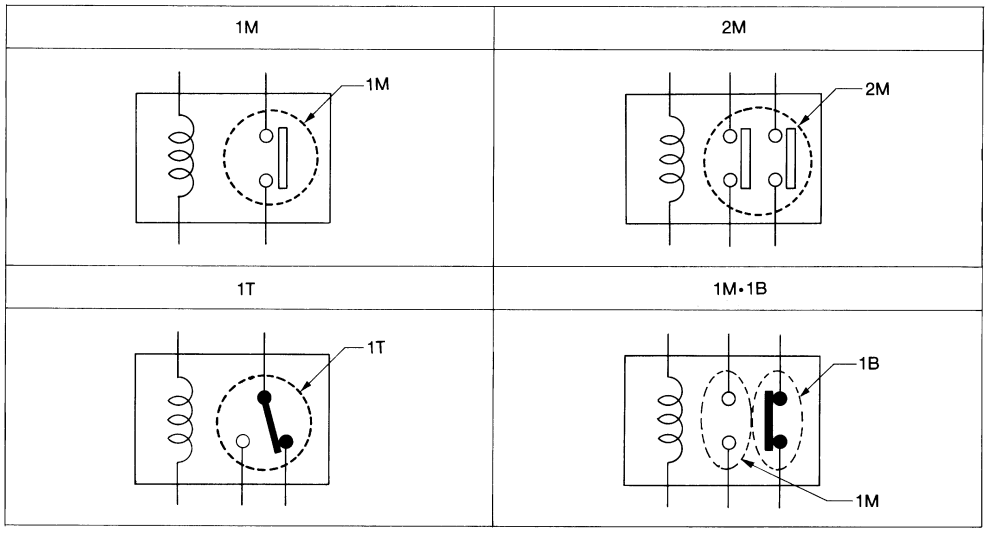
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



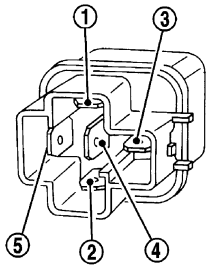
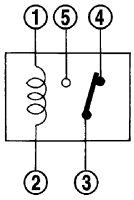
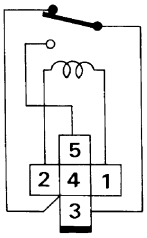
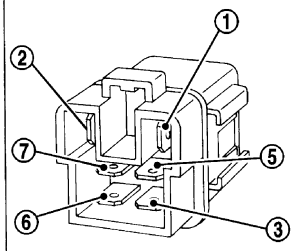
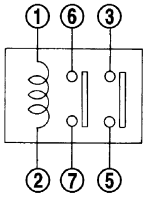
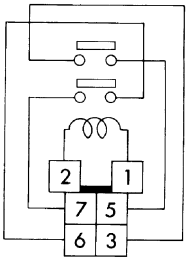
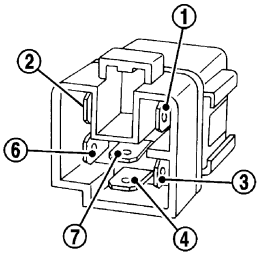
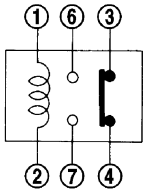
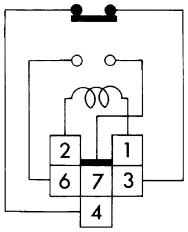
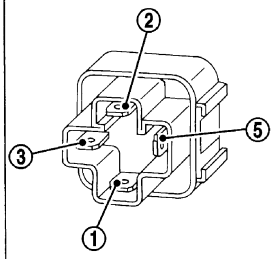
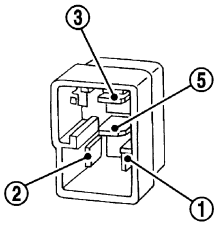
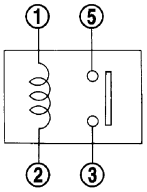
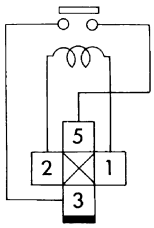
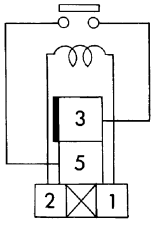
SEL881H

TYPE OF STANDARDIZED RELAYS

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



SEL882H

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

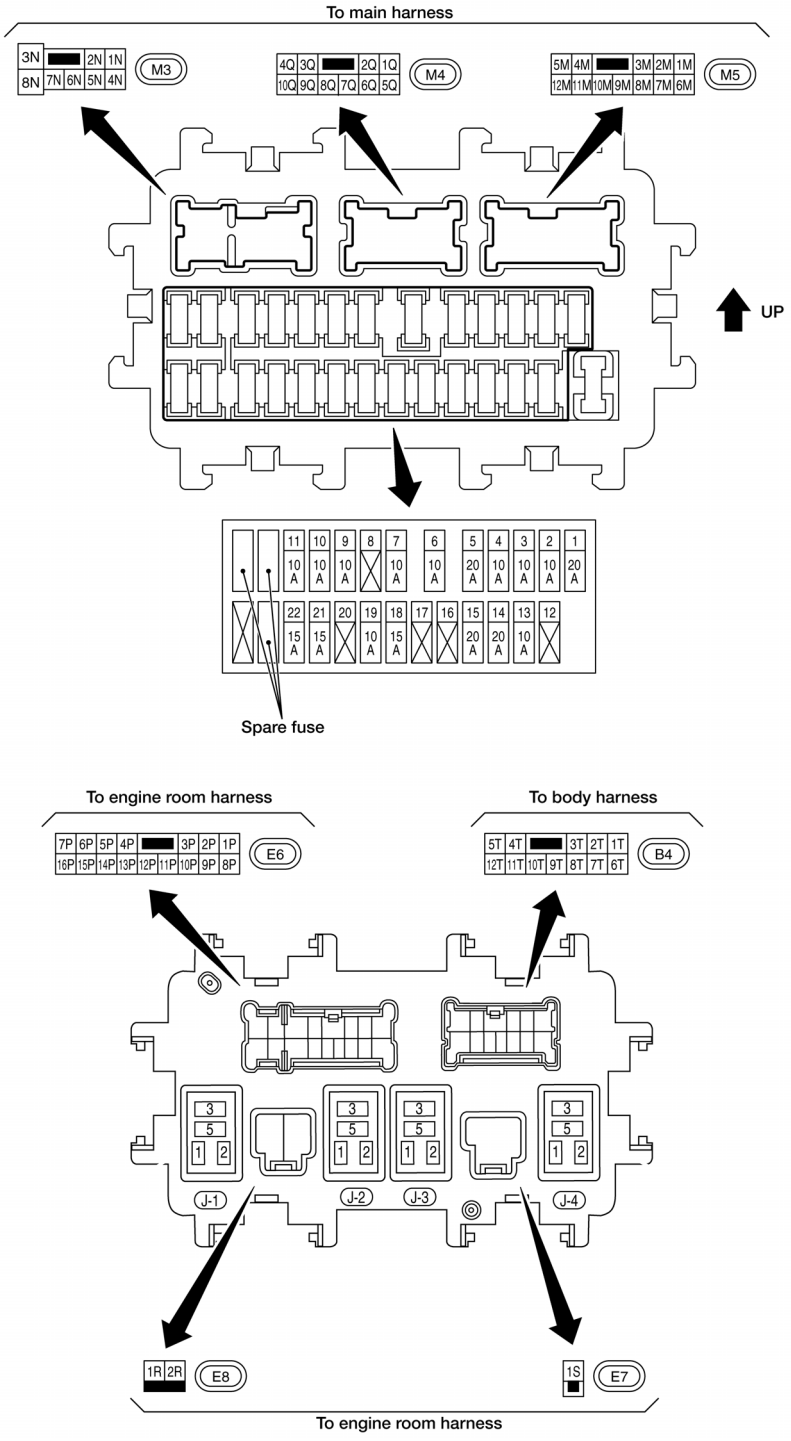
The arrangement of terminal numbers on the actual relays may differ from those shown above.

SEL188W

FUSE BLOCK - JUNCTION BOX (J/B)

Terminal Arrangement

INFOID:0000000006391024



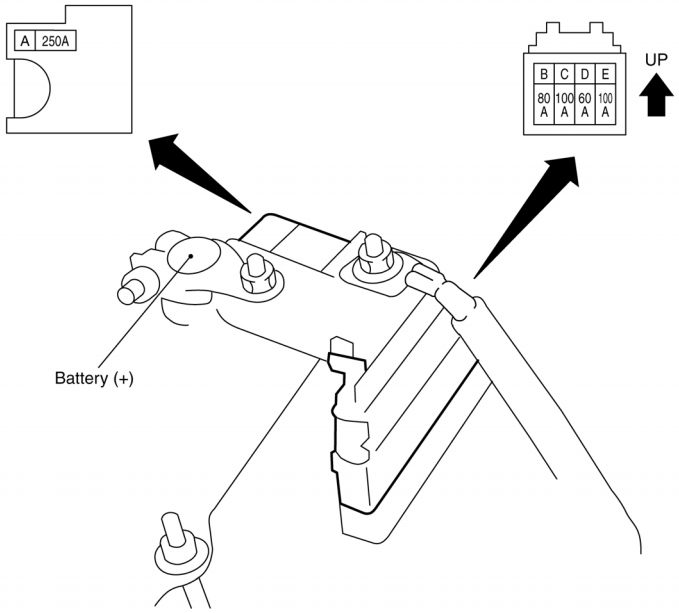
ABMIA1974GB

FUSE, FUSIBLE LINK AND RELAY BOX

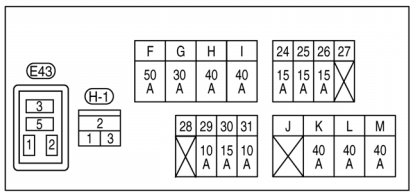
Terminal Arrangement

INFOID:0000000006391025

FUSIBLE LINK BOX (BATTERY)



FUSE AND FUSIBLE LINK BOX



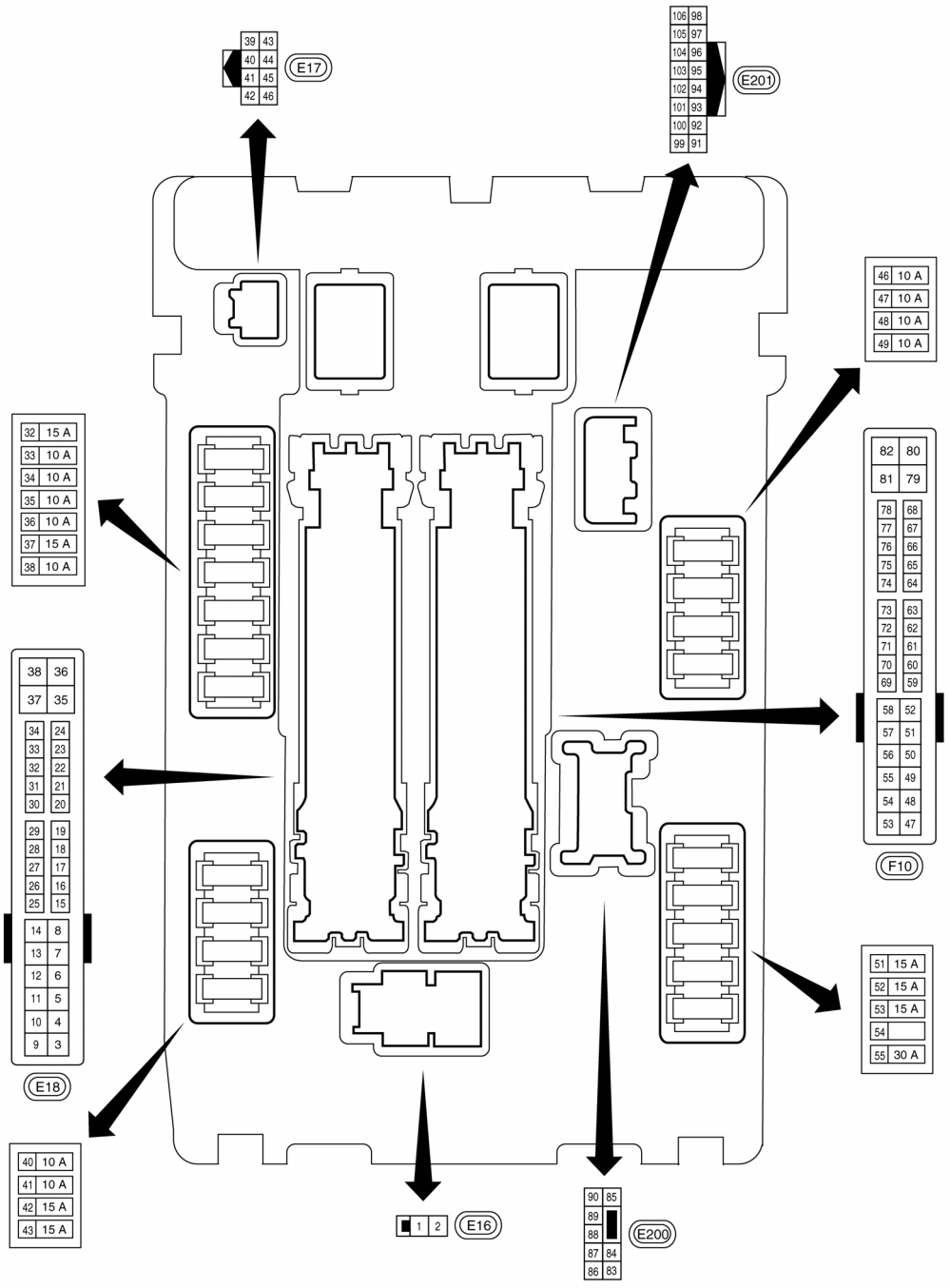
F-M: FUSIBLE LINK
No. 24-31: FUSE

ABMIA1975GB

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

Fuse, Connector and Terminal Arrangement

INFOID:0000000006391026



ABMIA1976GB

PRECAUTION

PRECAUTIONS

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

INFOID:0000000006391027

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.**

Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000006391028

NOTE:

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

This vehicle is equipped with a push-button ignition switch and a steering lock unit.
If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.
If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.
   NOTE:
   Supply power using jumper cables if battery is discharged.
2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)

6. Perform self-diagnosis check of all control units using CONSULT.

Battery Service

INFOID:0000000006391029

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

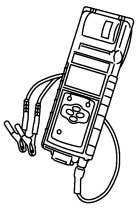
PREPARATION

PREPARATION

Special Service Tool

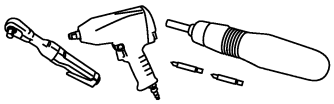
INFOID:0000000008655679

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
— (—) Model GR8-1200 NI Multitasking battery and electrical diagnostic station	 AWIIA1239ZZ	Tests batteries, starting and charging systems and charges batteries. For operating instructions, refer to diagnostic station instruction manual.
— (—) Model EXP-800 NI Battery and electrical diagnostic analyzer	 JSMIA0806ZZ	Tests batteries and charging systems. For operating instructions, refer to diagnostic analyzer instruction manual.

Commercial Service Tool

INFOID:0000000008655680

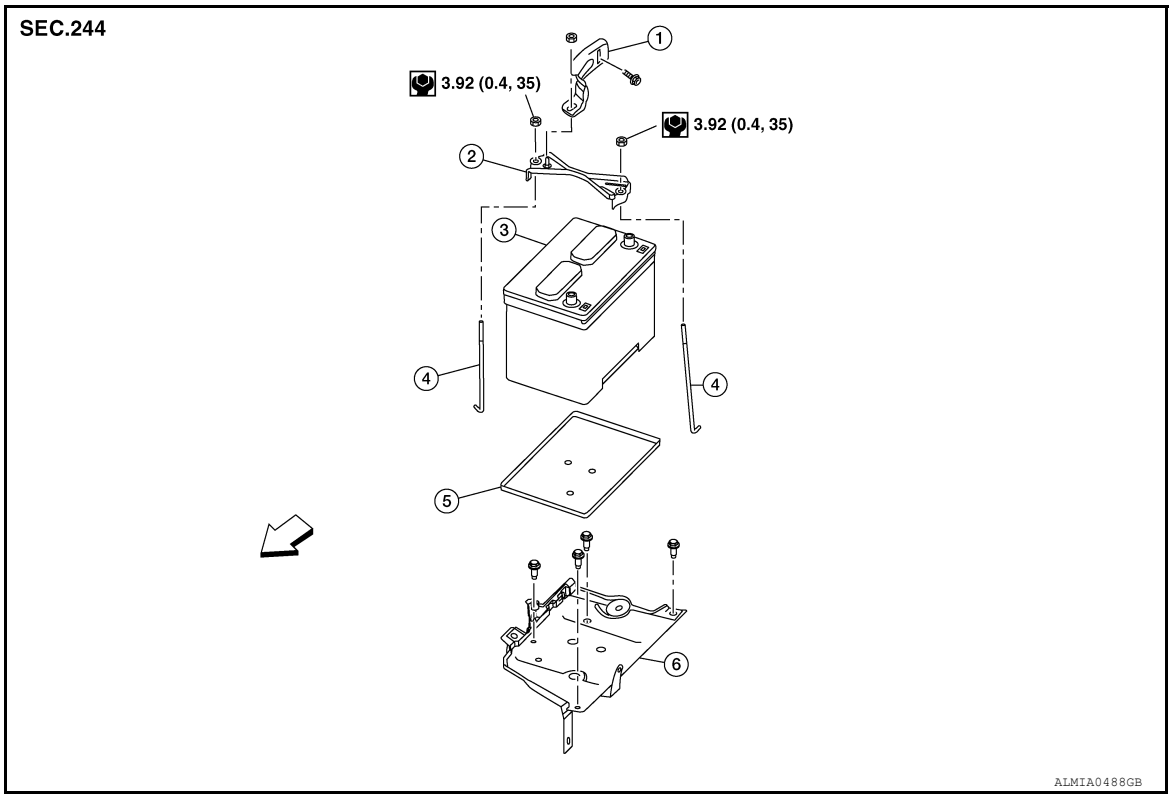
Tool number Tool name		Description
Power tool	 PIIB1407E	Loosening nuts, screws and bolts

REMOVAL AND INSTALLATION

BATTERY

Exploded View

INFOID:0000000006391032



1. Upper ECM bracket
2. Battery frame
3. Battery
4. Battery rods
5. Battery tray liner
6. Battery tray

⇦ Front

Removal and Installation (Battery)

INFOID:0000000006391033

REMOVAL

1. Disconnect the battery negative and positive terminals.
   CAUTION:
   Disconnect the negative terminal first.
2. Remove battery frame nuts and battery frame.
3. Remove battery.

INSTALLATION

Installation is the reverse order of removal.

CAUTION:

When connecting, connect the battery positive terminal first.

Battery frame nut	**: 3.92 N·m (0.4 kg-m, 35 in-lb)**
Battery terminal nut	**: 5.4 N·m (0.55 kg-m, 48 in-lb)**

Reset electronic systems as necessary. Refer to PG-74, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Removal and Installation (Battery Tray)

INFOID:0000000006391034

REMOVAL

1. Remove battery and battery tray liner. Refer to PG-140, "Removal and Installation (Battery)".
2. Remove air cleaner assembly. Refer to EM-25, "Removal and Installation" (QR25DE models) or EM-131, "Removal and Installation" (VQ35DE models).
3. Disconnect and remove ECM.
4. Disconnect transmission control module (TCM) (CVT models). Refer to TM-239, "Removal and Installation" (RE0F09B) or TM-403, "Removal and Installation" (RE0F10A).
5. Remove the ECM bracket.
6. Remove current sensor from battery tray.
7. Remove the battery tray bolts and battery tray.

INSTALLATION

Installation is in the reverse order of removal.
Reset electronic systems as necessary. Refer to PG-74, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

SERVICE DATA AND SPECIFICATIONS (SDS)

BATTERY

Battery

INFOID:0000000006391035

Type*	GR 35
Capacity (20HR) minimum V-AH	12 - 60
Cold cranking current A @ -18°C (0°F)	550

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