SECTION PG

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

CONTENTS

PRECAUTION

PRECAUTIONS

Precaution for Technicians Using Medical Electric

INFOID:0000000007632687

OPERATION PROHIBITION

WARNING:

- **Parts with strong magnet is used in this vehicle.**
- **Technicians using a medical electric device such as pacemaker must never perform operation on the vehicle, as magnetic field can affect the device function by approaching to such parts.**

NORMAL CHARGE PRECAUTION

WARNING:

- **If a technician uses a medical electric device such as an implantable cardiac pacemaker or an implantable cardioverter defibrillator, the possible effects on the devices must be checked with the device manufacturer before starting the charge operation.**
- **As radiated electromagnetic wave generated by on board charger at normal charge operation may effect medical electric devices, a technician using a medical electric device such as implantable cardiac pacemaker or an implantable cardioverter defibrillator must not enter the vehicle compartment (including luggage room) during normal charge operation.**

PRECAUTION AT TELEMATICS SYSTEM OPERATION

WARNING:

- **If a technician uses implantable cardiac pacemaker or implantable cardioverter defibrillator (ICD), avoid the device implanted part from approaching within approximately 220 mm (8.66 in) from interior/exterior antenna.**
- **The electromagnetic wave of TCU might affect the function of the implantable cardiac pacemaker or the implantable cardioverter defibrillator (ICD), when using the service, etc.**
- **If a technician uses other medical electric devices than implantable cardiac pacemaker or implantable cardioverter defibrillator (ICD), the electromagnetic wave of TCU might affect the function of the device. The possible effects on the devices must be checked with the device manufacturer before TCU use.**

PRECAUTION AT INTELLIGENT KEY SYSTEM OPERATION

WARNING:

- **If a technician uses implantable cardiac pacemaker or implantable cardioverter defibrillator (ICD), avoid the device implanted part from approaching within approximately 220 mm (8.66 in) from interior/exterior antenna.**
- **The electromagnetic wave of Intelligent Key might affect the function of the implantable cardiac pacemaker or the implantable cardioverter defibrillator (ICD), at door operation, at each request switch operation, or at engine starting.**
- **If a technician uses other medical electric devices than implantable cardiac pacemaker or implantable cardioverter defibrillator (ICD), the electromagnetic wave of Intelligent Key might affect the function of the device. The possible effects on the devices must be checked with the device manufacturer before Intelligent Key use.**

Point to Be Checked Before Starting Maintenance Work

INFOID:0000000007632688

The high voltage system may starts automatically. It is required to check that the timer air conditioner and timer charge (during EVSE connection) are not set before starting maintenance work.
NOTE:
If the timer air conditioner or timer charge (during EVSE connection) is set, the high voltage system starts automatically even when the power switch is in OFF state.

High Voltage Precautions

INFOID:0000000007632689

DANGER:

Since hybrid vehicles and electric vehicles contain a high voltage battery, there is the risk of electric shock, electric leakage, or similar accidents if the high voltage component and vehicle are

handled incorrectly. Be sure to follow the correct work procedures when performing inspection and maintenance.

WARNING:

- **Be sure to remove the service plug in order to disconnect the high voltage circuits before performing inspection or maintenance of high voltage system harnesses and parts.**
- **The removed service plug must always be carried in a pocket of the responsible worker or placed in the tool box during the procedure to prevent the plug from being connected by mistake.**
- **Be sure to wear insulated protective equipment before beginning work on the high voltage system.**
- **Never allow workers other than the responsible person to touch the vehicle containing high voltage parts. To keep others from touching the high voltage parts, these parts must be covered with an insulating sheet except when using them.**

CAUTION:

Never bring the vehicle into the READY status with the service plug removed unless otherwise instructed in the Service Manual. A malfunction may occur if this is not observed.

HIGH VOLTAGE HARNESS AND EQUIPMENT IDENTIFICATION

All the high voltage harnesses and connectors are orange. The Li-ion battery and other high voltage devices include an orange high voltage label. Never touch these harnesses and high voltage parts.

HANDLING OF HIGH VOLTAGE HARNESS AND TERMINALS

Immediately insulate disconnected high voltage connectors and terminals with insulating tape.

REGULATIONS ON WORKERS WITH MEDICAL ELECTRONICS

WARNING:

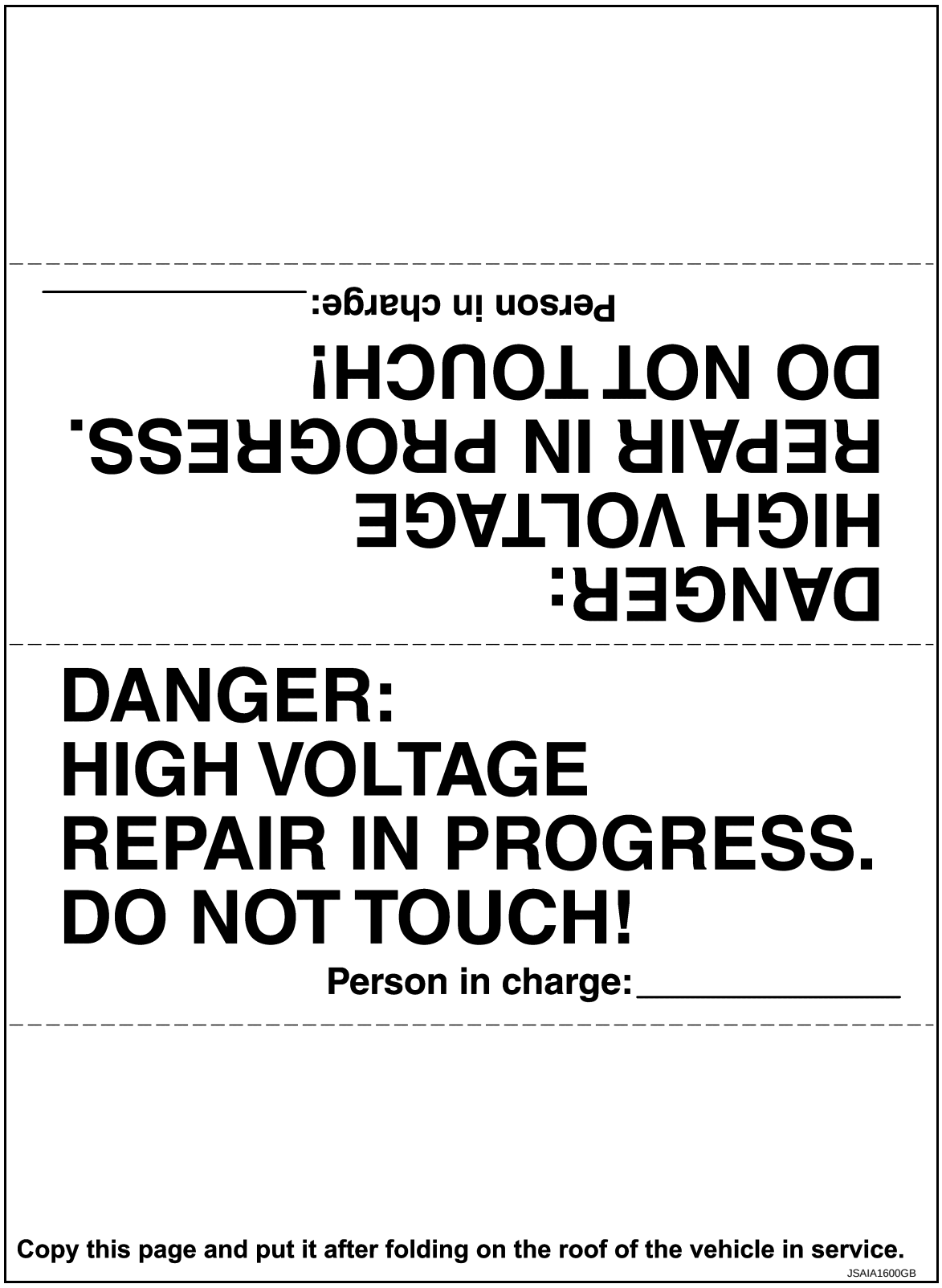
The vehicle contains parts that contain powerful magnets. If a person who is wearing a heart pacemaker or other medical device is close to these parts, the medical device may be affected by the magnets. Such persons must not perform work on the vehicle.

PROHIBITED ITEMS TO CARRY DURING THE WORK

Hybrid vehicles and electric vehicles contain parts with high voltage and intense magnetic force. Never carry metal products and magnetic recording media (e.g. cash card, prepaid card) to repair/inspect high voltage parts. If this is not observed, the metal products may create a risk of short circuit and the magnetic recording media may lose their magnetic recording.

POSTING A SIGN OF “DANGER! HIGH VOLTAGE AREA. KEEP OUT”

Indicate "HIGH VOLTAGE. DO NOT TOUCH" on the vehicle under repair/inspection to call attention to other workers.



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

INFOID:0000000007632690

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 “SRS AIR BAG” and “SEAT BELT” of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 “SRS AIR BAG”.**
- **Never 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:

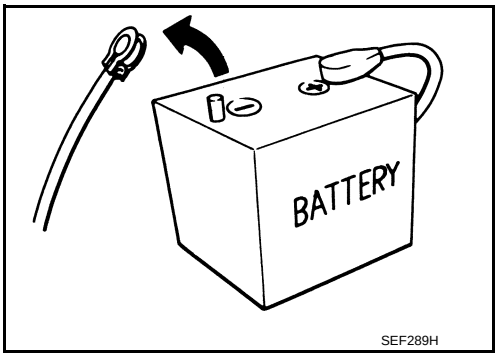
Always observe the following items for preventing accidental activation.

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the power switch ON, never 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 power switch OFF, disconnect the 12V battery, and wait at least 3 minutes before performing any service.**

Precautions for Removing Battery Terminal

INFOID:0000000007632691

- When removing the 12V battery terminal, turn OFF the power switch and wait at least 5 minutes.
  NOTE:
  ECU may be active for several minutes after the power switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.
- Always disconnect the battery terminal within 60 minutes after turning OFF the power switch. Even when the power switch is OFF, the 12V battery automatic charge control may automatically start after a lapse of 60 minutes from power switch OFF.
- Disconnect 12V battery terminal according to the following steps.



WORK PROCEDURE

1. Check that EVSE is not connected.
   NOTE:
   If EVSE is connected, the air conditioning system may be automatically activated by the timer A/C function.
2. Turn the power switch OFF → ON → OFF. Get out of the vehicle. Close all doors (including back door).
3. Check that the charge status indicator lamp does not blink and wait for 5 minutes or more.
   NOTE:
   If the battery is removed within 5 minutes after the power switch is turned OFF, plural DTCs may be detected.
4. Remove 12V battery terminal within 60 minutes after turning the power switch OFF → ON → OFF.
   CAUTION:
   - **After all doors (including back door) are closed, if a door (including back door) is opened before battery terminals are disconnected, start over from Step 1.**
   - **After turning the power switch OFF, if “Remote A/C” is activated by user operation, stop the air conditioner and start over from Step 1.**

   NOTE:
   Once the power switch is turned ON → OFF, the 12V battery automatic charge control does not start for approximately 1 hour.

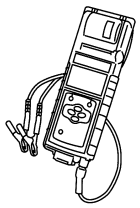
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the power switch.
  NOTE:
  If the power switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.
- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
  NOTE:
  The removal of 12V battery may cause a DTC detection error.

PREPARATION

PREPARATION

Special Service Tools

INFOID:0000000007796367

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.

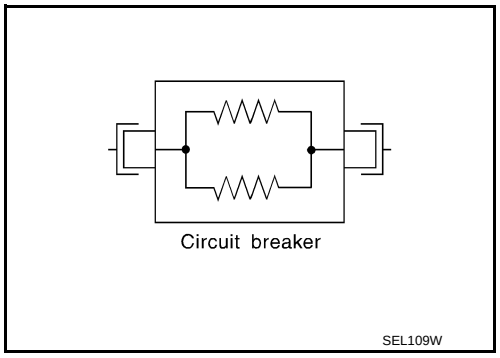
SYSTEM DESCRIPTION

COMPONENT PARTS

Circuit Breaker

INFOID:0000000007632693

The PTC thermistor generates heat in response to current flow. The temperature (and resistance) of the thermistor element varies with current flow. Excessive current flow will cause the element's temperature to rise. When the temperature reaches a specified level, the electrical resistance will rise sharply to control the circuit current. Reduced current flow will cause the element to cool. Resistance falls accordingly and normal circuit current flow is allowed to resume.



12V Battery

INFOID:0000000007632694

Type		55B24L(S)
20 hour rate capacity	[V – Ah]	12 – 45
Cold cranking current (For reference value)	[A]	433

NOTE:
VCM charges the 12V battery for 5 minutes when the vehicle power is not turned ON for a set period of time (120 h). Refer to EVC-48, "AUTOMATIC 12V BATTERY CHARGE CONTROL : System Description".

Harness Connector

INFOID:0000000007632695

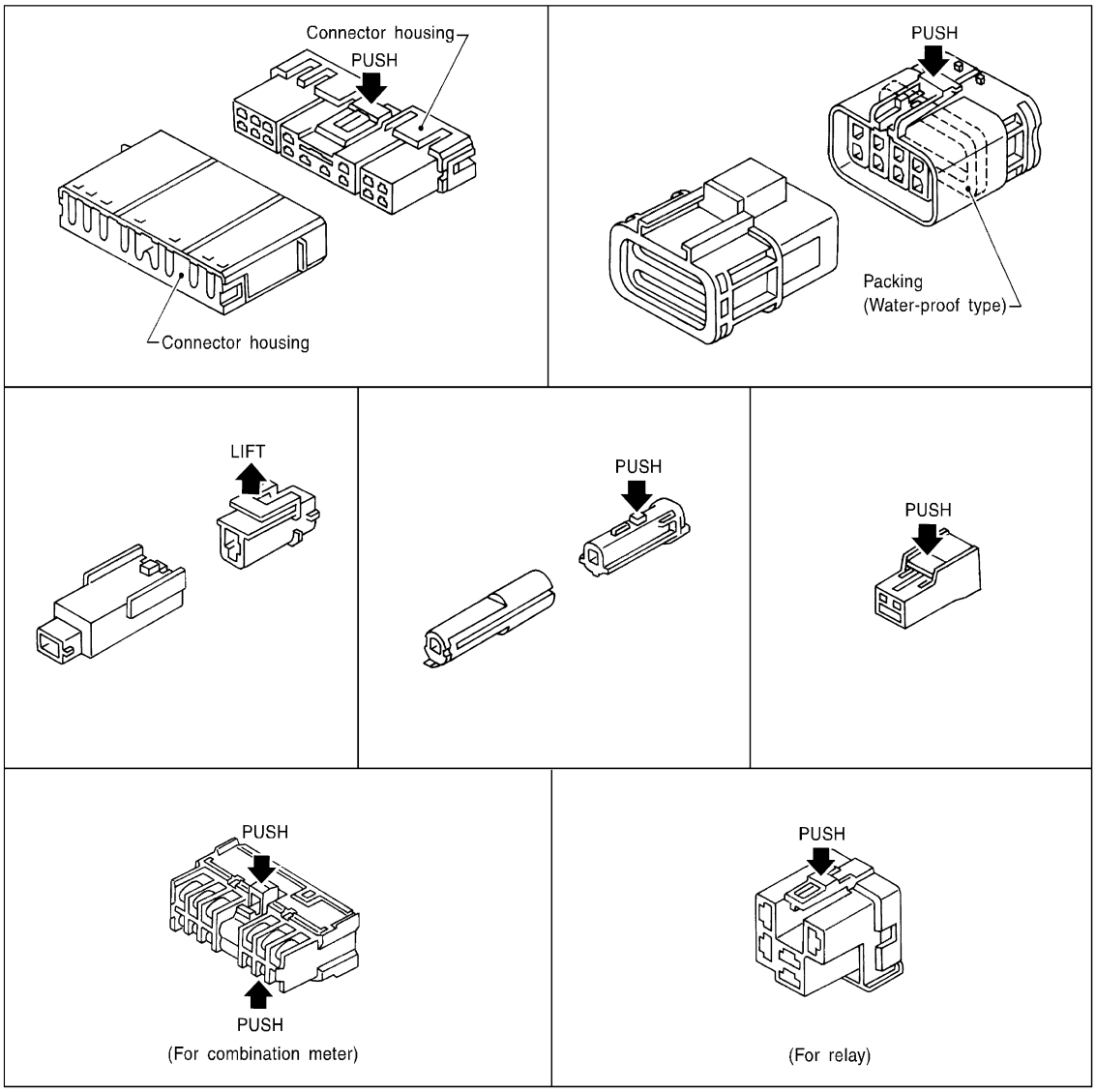
NOTE:
The color of the high voltage harnesses and connectors is orange. Do not carelessly touch these harnesses and connector.

HARNESS CONNECTOR (TAB-LOCKING TYPE)

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

CAUTION:
To prevent damage to the parts, never pull the harness or wires when disconnecting the connector.

[Example]



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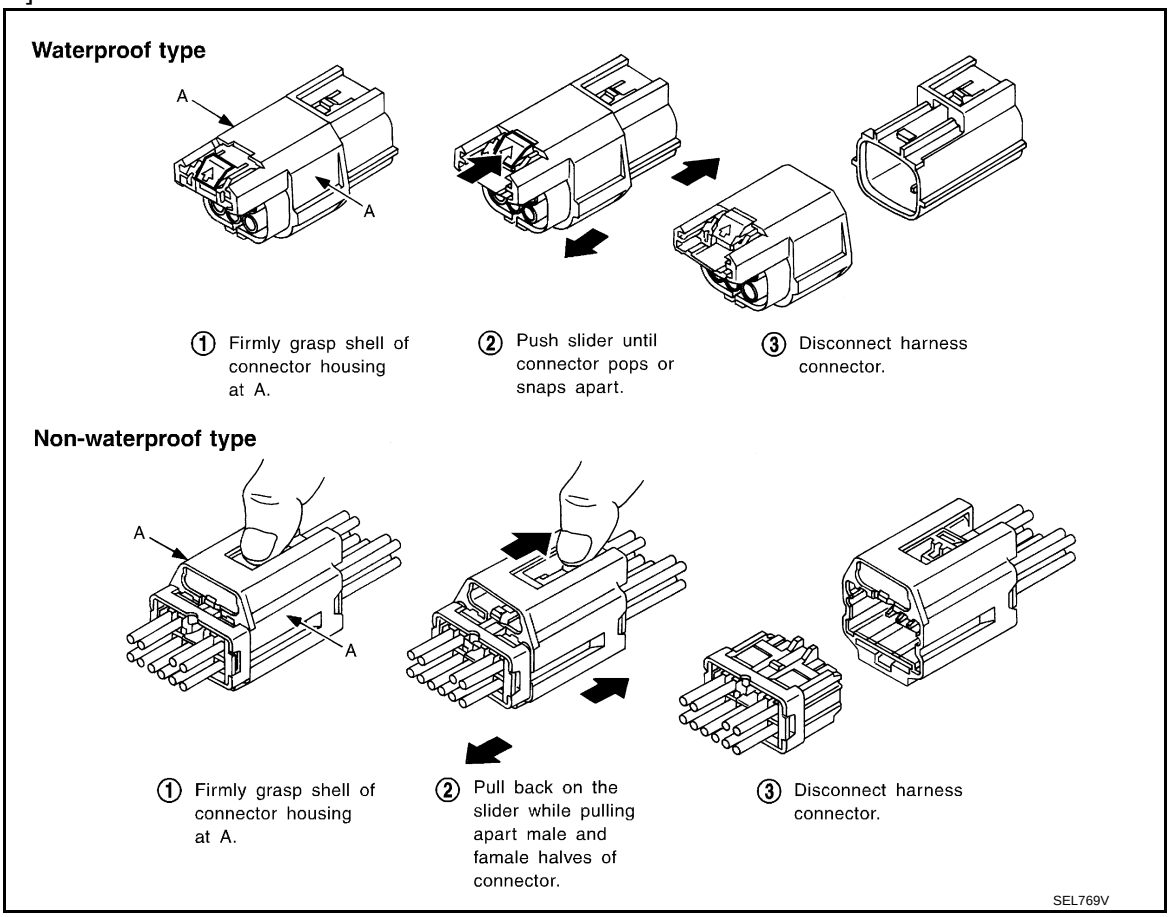
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

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

CAUTION:

- **To prevent damage to the parts, never pull the harness or wires when disconnecting the connector.**
- **To prevent damage to the parts, be careful not to damage the connector support bracket when disconnecting the connector.**

[Example]

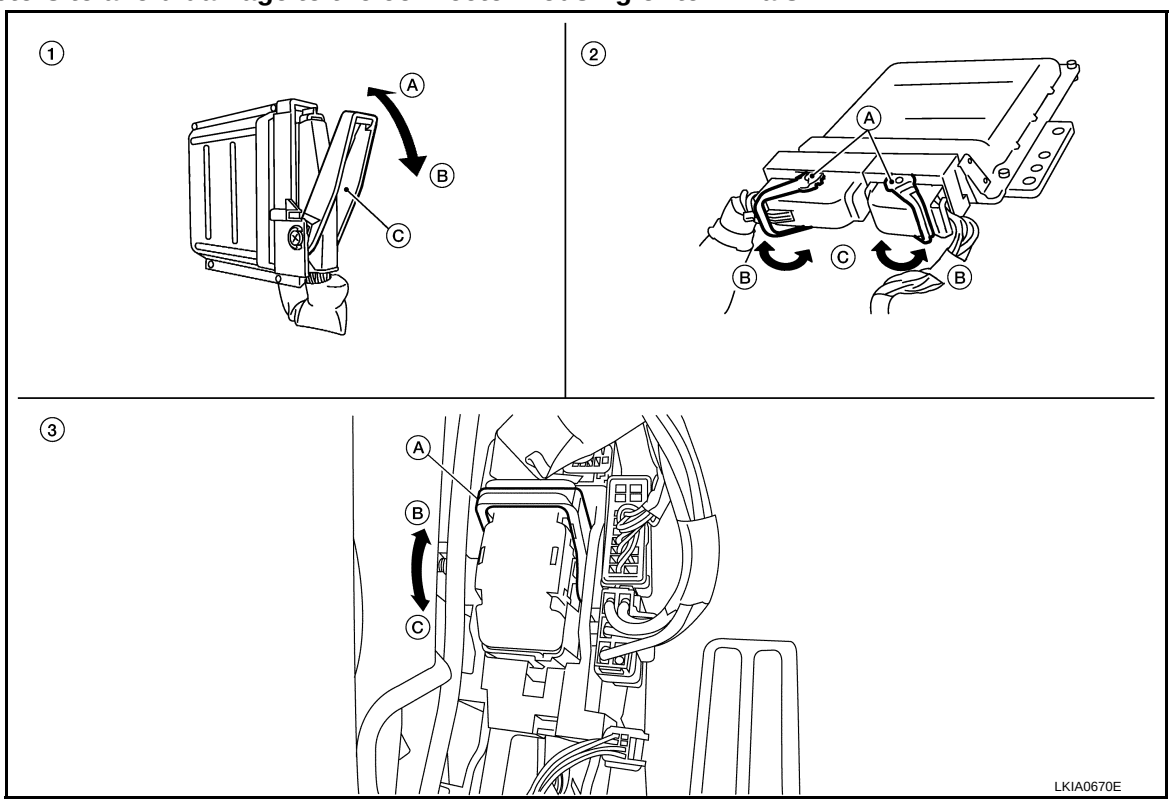


HARNESS CONNECTOR (LEVER LOCKING TYPE)

- 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.



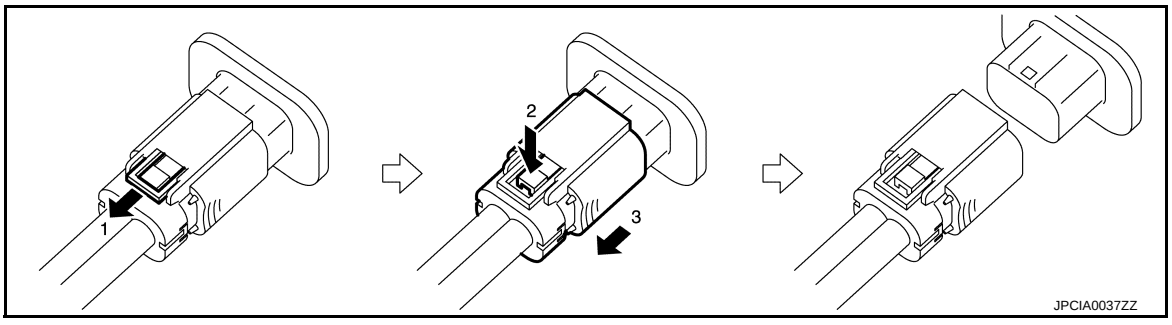
1. Control unit with single lever
   A. Fasten
   B. Loosen
   C. Lever
2. Control unit with dual levers
   A. Levers
   B. Fasten
   C. Loosen
3. SMJ connector
   A. Lever
   B. Fasten
   C. Loosen

HIGH VOLTAGE HARNESS CONNECTOR (2-STEP TYPE, 3-STEP TYPE)

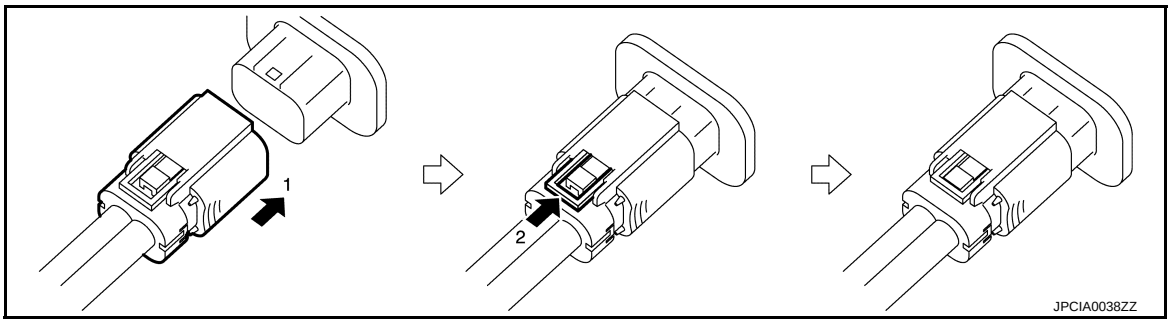
- 2-step type and 3-step type connectors are used for specific high voltage parts.
- For secure connection, check that the slider is pressed all the way when connecting the high voltage connector.

2-Step Type

DISCONNECT

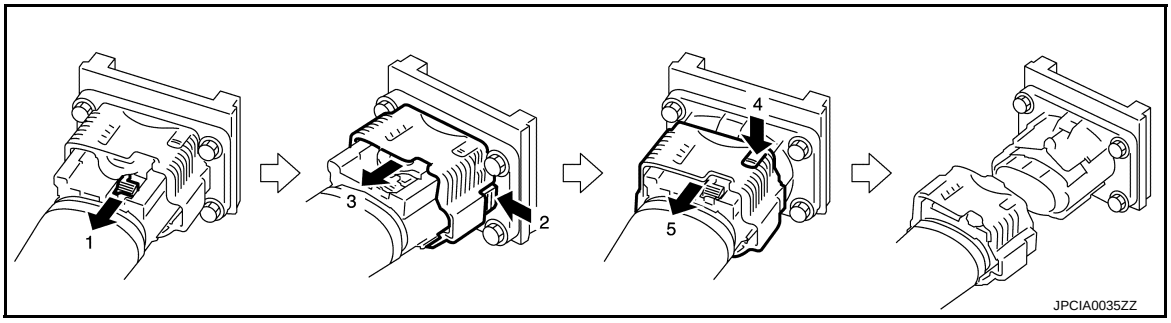


CONNECT

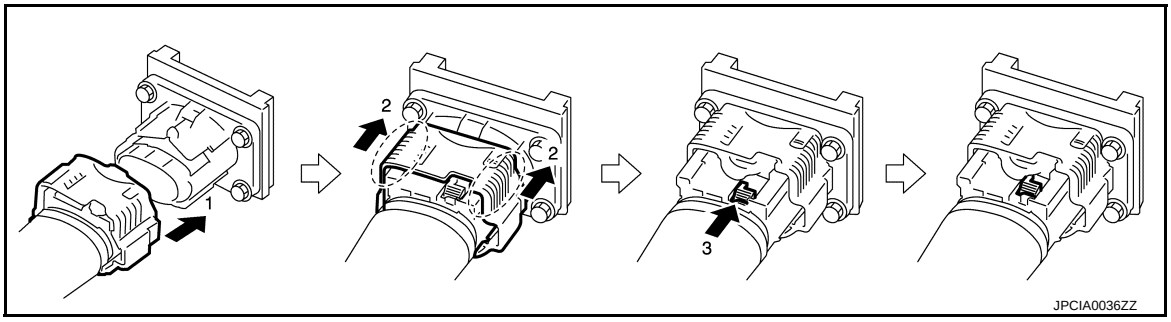


3-Step Type

DISCONNECT



CONNECT



Standardized Relay

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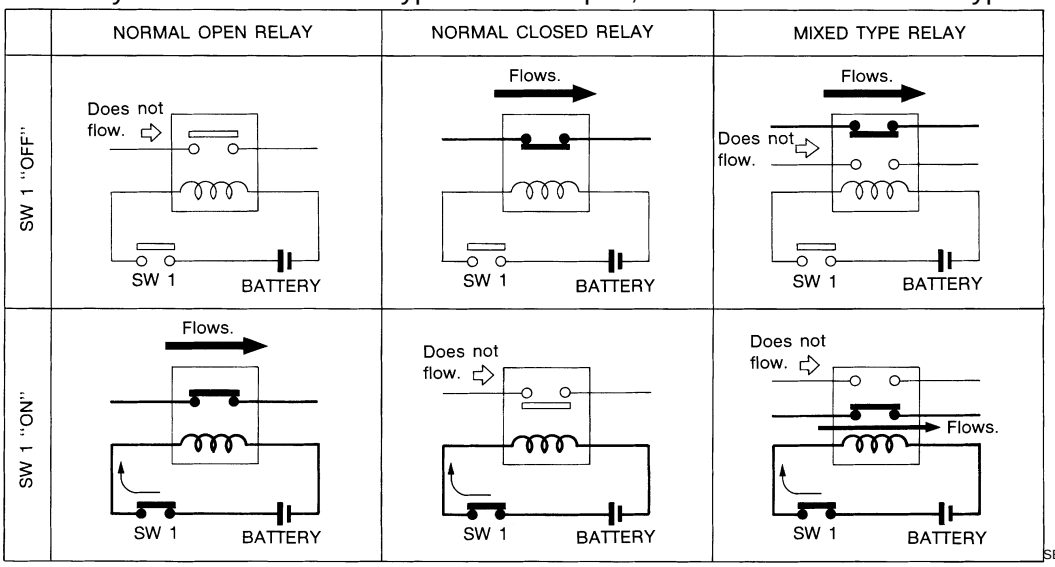
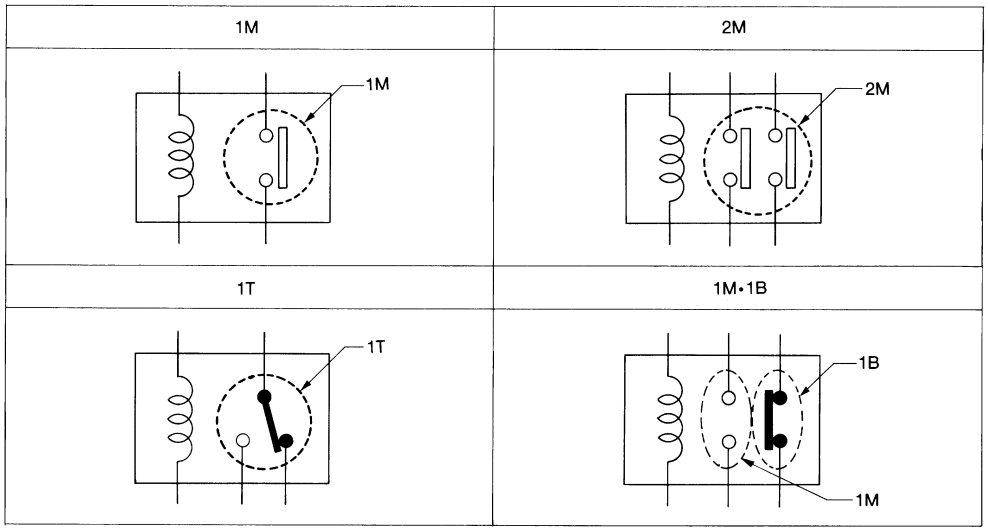
NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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



TYPE OF STANDARDIZED RELAYS

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



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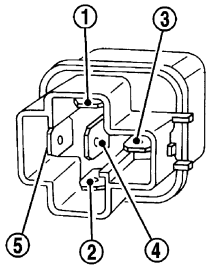
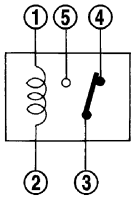
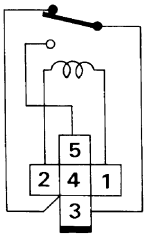
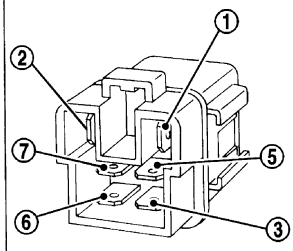
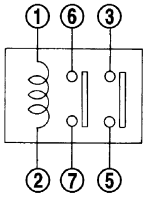
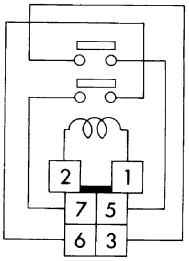
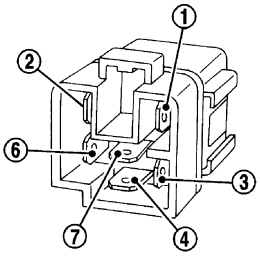
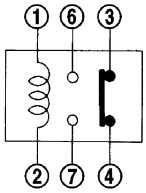
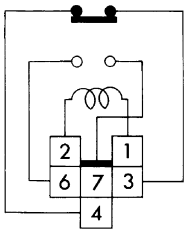
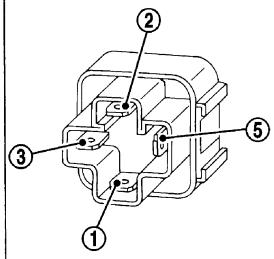
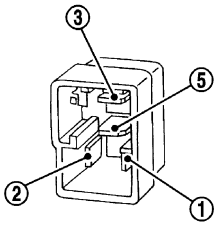
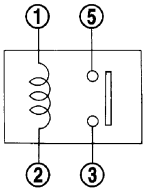
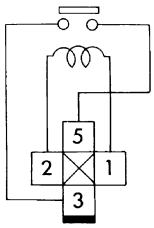
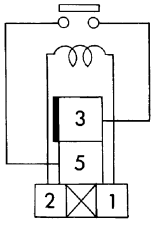
Type	Outer view	Circuit	Connector symbol and connection	Case color
1T				BLACK
2M				BROWN
1M•1B				GRAY
1M	 		 	BLUE

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

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WIRING DIAGRAM

POWER SUPPLY ROUTING CIRCUIT

Wiring Diagram - BATTERY POWER SUPPLY -

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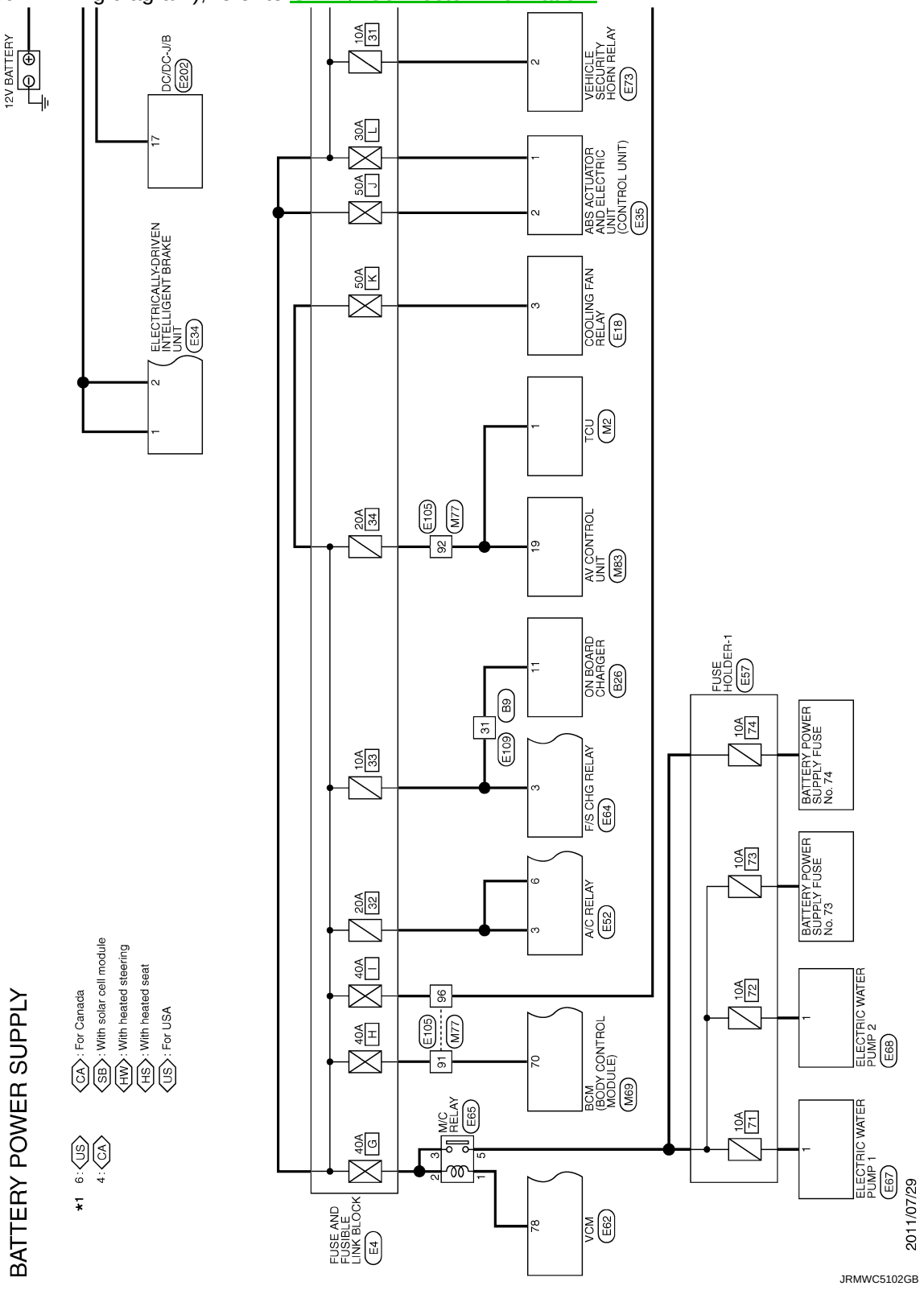
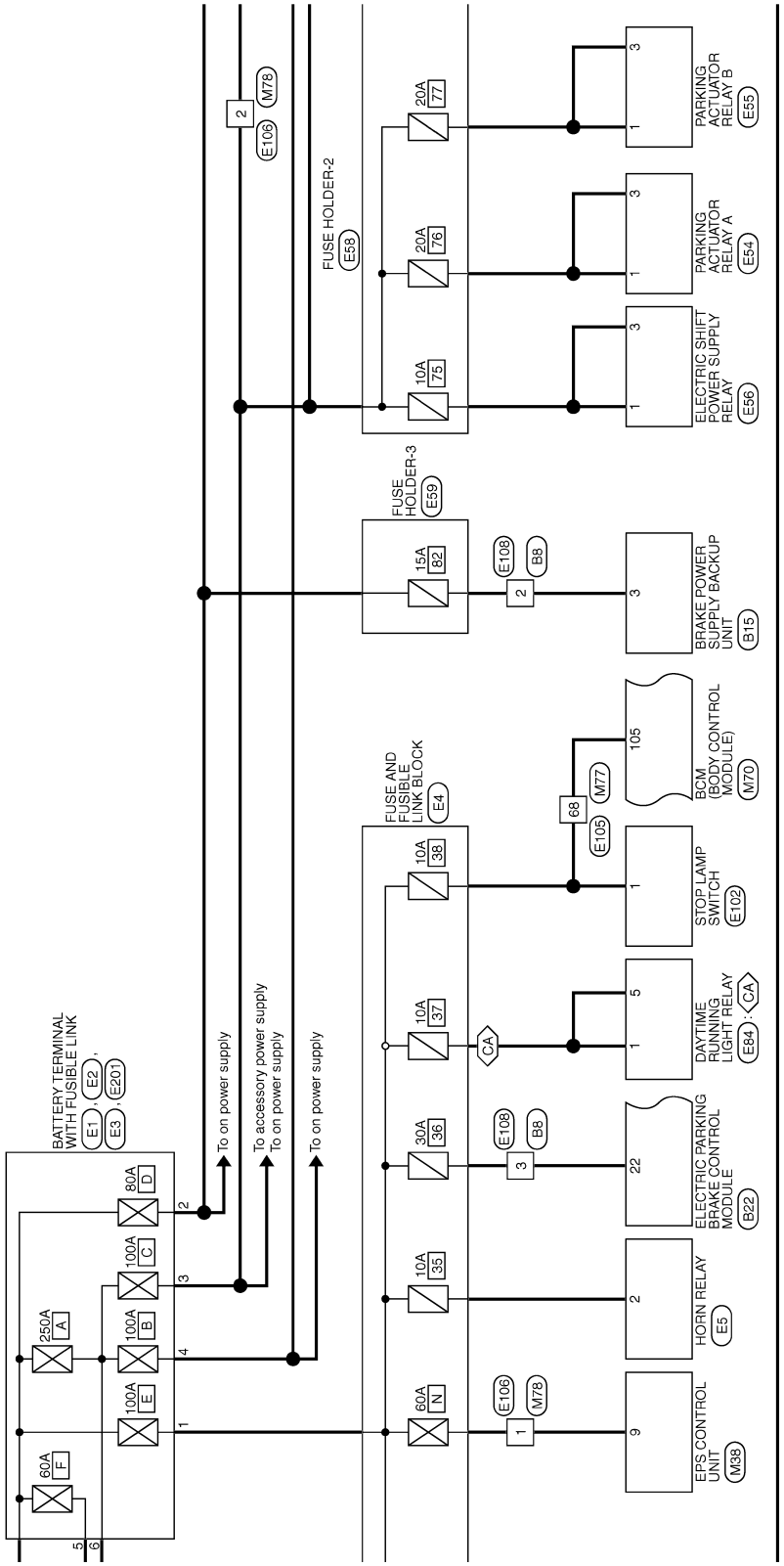
For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".





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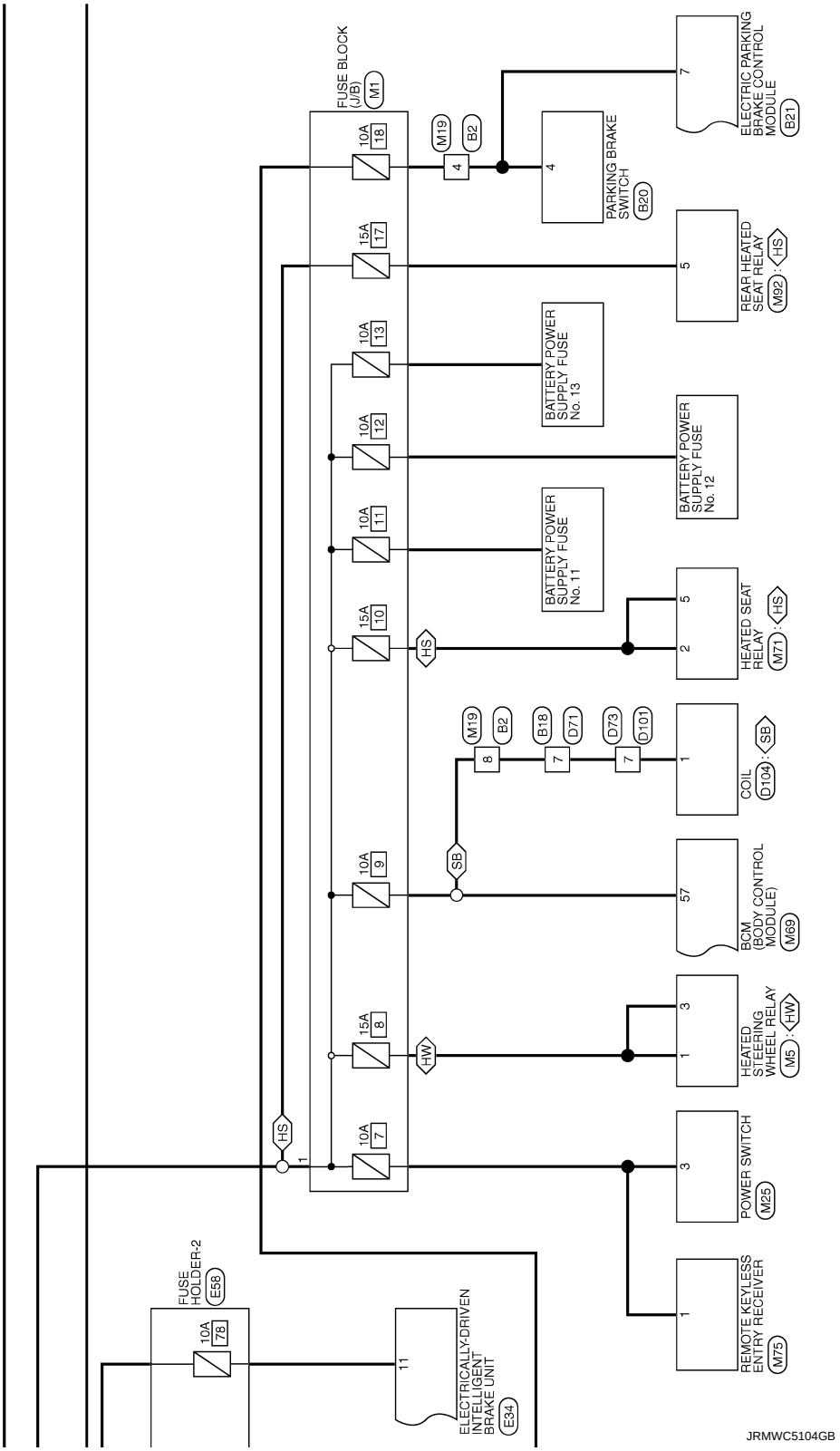
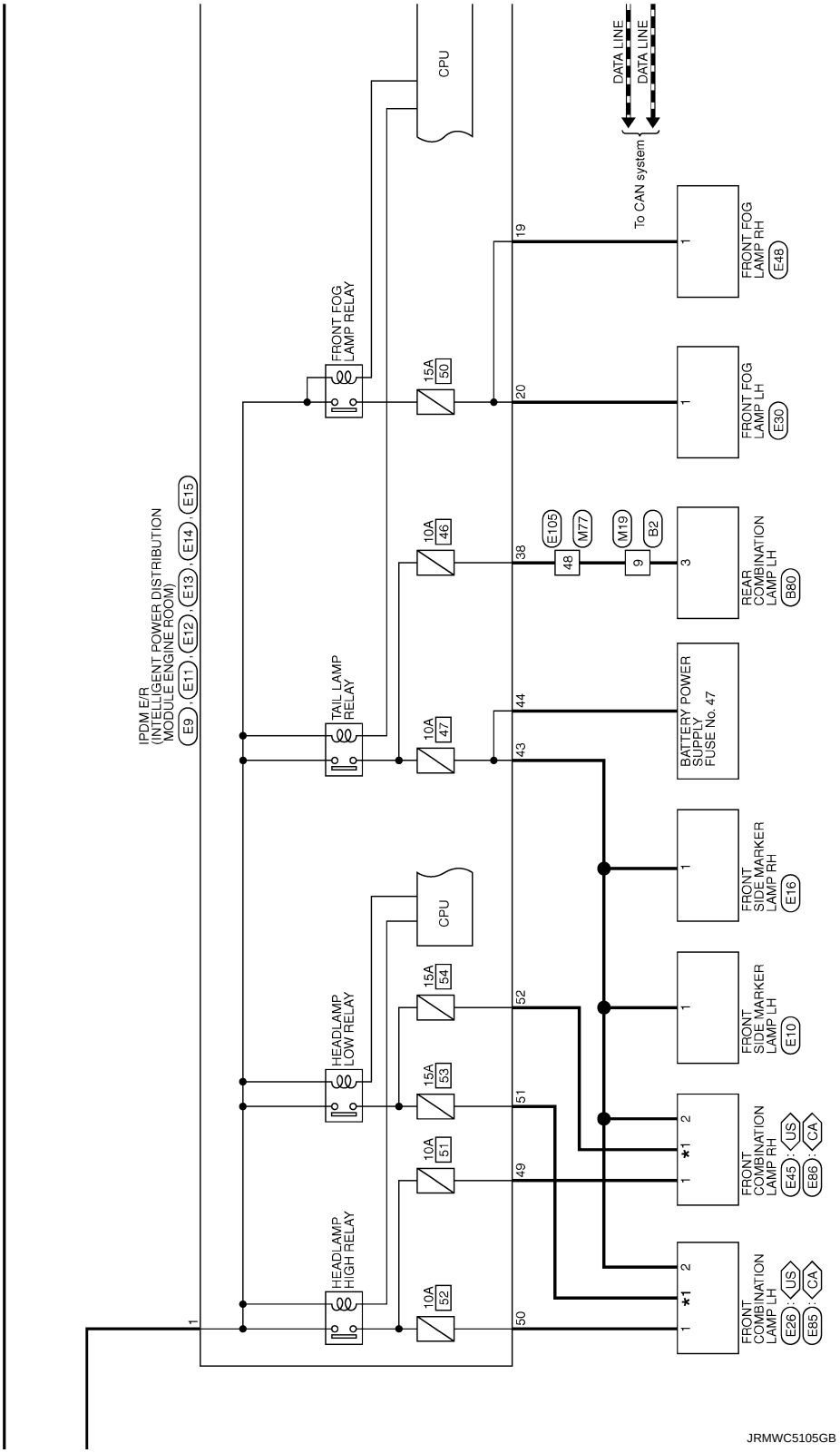
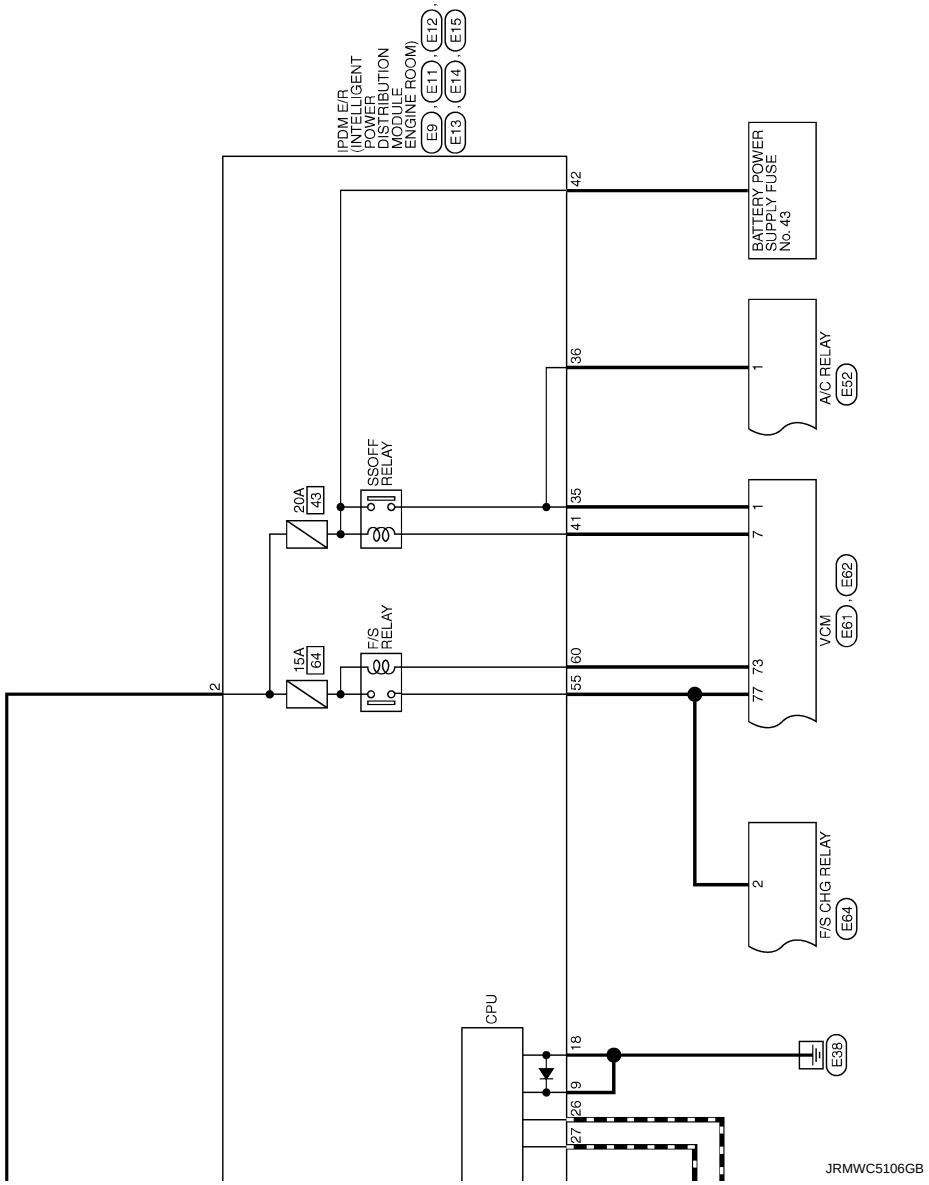

FUSE BLOCK (J/B) M1
10A 18
15A 17
10A 13
10A 12
10A 11
15A 10
10A 9
15A 8
10A 7
HS
HW
SB
M19
B2
4
PARKING BRAKE SWITCH B20
ELECTRIC PARKING BRAKE CONTROL MODULE B21
REAR HEATED SEAT RELAY M92 : HS
BATTERY POWER SUPPLY FUSE No. 13
BATTERY POWER SUPPLY FUSE No. 12
BATTERY POWER SUPPLY FUSE No. 11
HEATED SEAT RELAY M71 : HS
B18
D71
D73
D101
COIL D104 : SB
BCM (BODY CONTROL MODULE) M69
HEATED STEERING WHEEL RELAY M5 : HW
POWER SWITCH M25
REMOTE KEYLESS ENTRY RECEIVER M75
FUSE HOLDER-2 E58
10A 78
ELECTRICALLY-DRIVEN INTELLIGENT BRAKE UNIT E34
JRMWC5104GB


IPDM E/R
(INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E9, E11, E12, E13, E14, E15
CPU
DATA LINE
DATA LINE
To CAN system
FRONT FOG LAMP RELAY
TAIL LAMP RELAY
HEADLAMP LOW RELAY
HEADLAMP HIGH RELAY
15A 50
10A 46
10A 47
15A 54
15A 53
10A 51
10A 52
BATTERY POWER SUPPLY FUSE No. 47
FRONT FOG LAMP RH E48
FRONT FOG LAMP LH E30
REAR COMBINATION LAMP LH B80
FRONT SIDE MARKER LAMP RH E16
FRONT SIDE MARKER LAMP LH E10
FRONT COMBINATION LAMP RH E45 : US E86 : CA
FRONT COMBINATION LAMP LH E26 : US E85 : CA
JRMWC5105GB

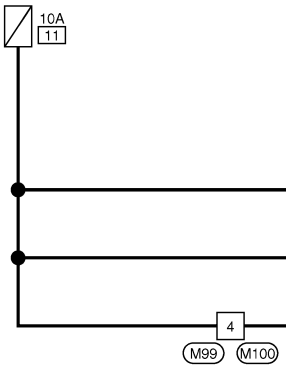

IPDM E/R
(INTELLIGENT
POWER
DISTRIBUTION
MODULE
ENGINE ROOM)
E9, E11, E12,
E13, E14, E15
42
BATTERY POWER
SUPPLY FUSE
No. 43
36
1
A/C RELAY
E52
20A
43
SSOFF
RELAY
35
41
1
7
15A
64
F/S
RELAY
60
55
73
77
VCM
E61, E62
2
2
F/S CHG RELAY
E64
CPU
18
9
26
27
E38
JRMWC5106GB

Wiring Diagram - BATTERY POWER SUPPLY FUSE No.11 -

INFOID:0000000007632698

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

BATTERY POWER SUPPLY FUSE No. 11



Connector No.	Terminal No.	Connect to
M34	1	COMBINATION METER
M47	13	APPROACHING VEHICLE SOUND FOR PEDESTRIANS (VSP) CONTROL UNIT
M101	4	CHARGING STATUS INDICATOR

2010/10/29

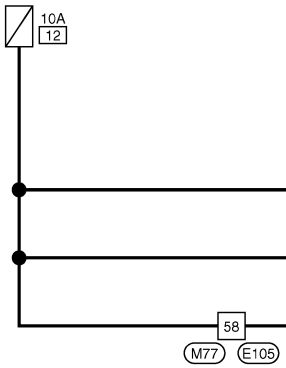
JCMWA6958GB

Wiring Diagram - BATTERY POWER SUPPLY FUSE No.12 -

INFOID:0000000007632699

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

BATTERY POWER SUPPLY FUSE No. 12



Connector No.	Terminal No.	Connect to
M56	2	SELECTOR INDICATOR
M58	8	ELECTRIC SHIFT CONTROL MODULE
E102	3	STOP LAMP SWITCH

2010/10/29

JCMWA6960GB

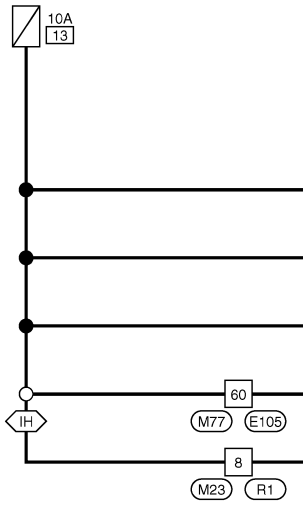
Wiring Diagram - BATTERY POWER SUPPLY FUSE No.13 -

INFOID:0000000007632700

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

BATTERY POWER SUPPLY FUSE No. 13

IH: With integrated homelink transmitter



Connector No.	Terminal No.	Connect to
M4	16	DATA LINK CONNECTOR
M50	31	A/C AUTO AMP.
M65	1	IMMEDIATE CHARGING SWITCH
E25	1	INTELLIGENT KEY WARNING BUZZER
R7	10	AUTO ANTI-DAZZLING INSIDE MIRROR

2010/10/29

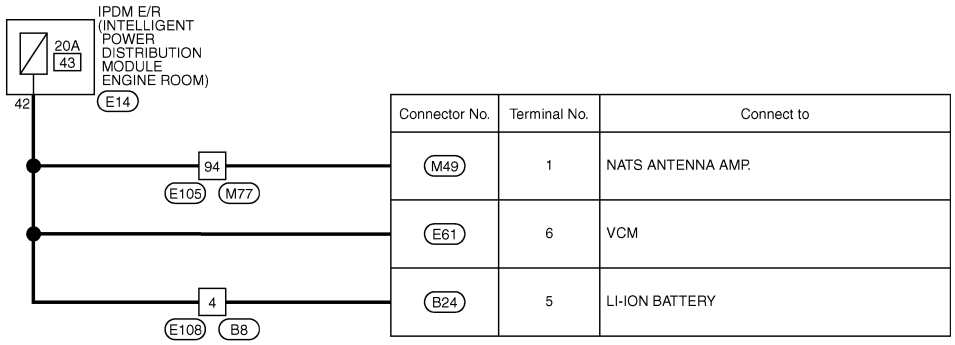
JCMWA6963GB

Wiring Diagram - BATTERY POWER SUPPLY FUSE No.43 -

INFOID:0000000007632701

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

BATTERY POWER SUPPLY FUSE No. 43



Connector No.	Terminal No.	Connect to
M49	1	NATS ANTENNA AMP.
E61	6	VCM
B24	5	LI-ION BATTERY

2010/10/29

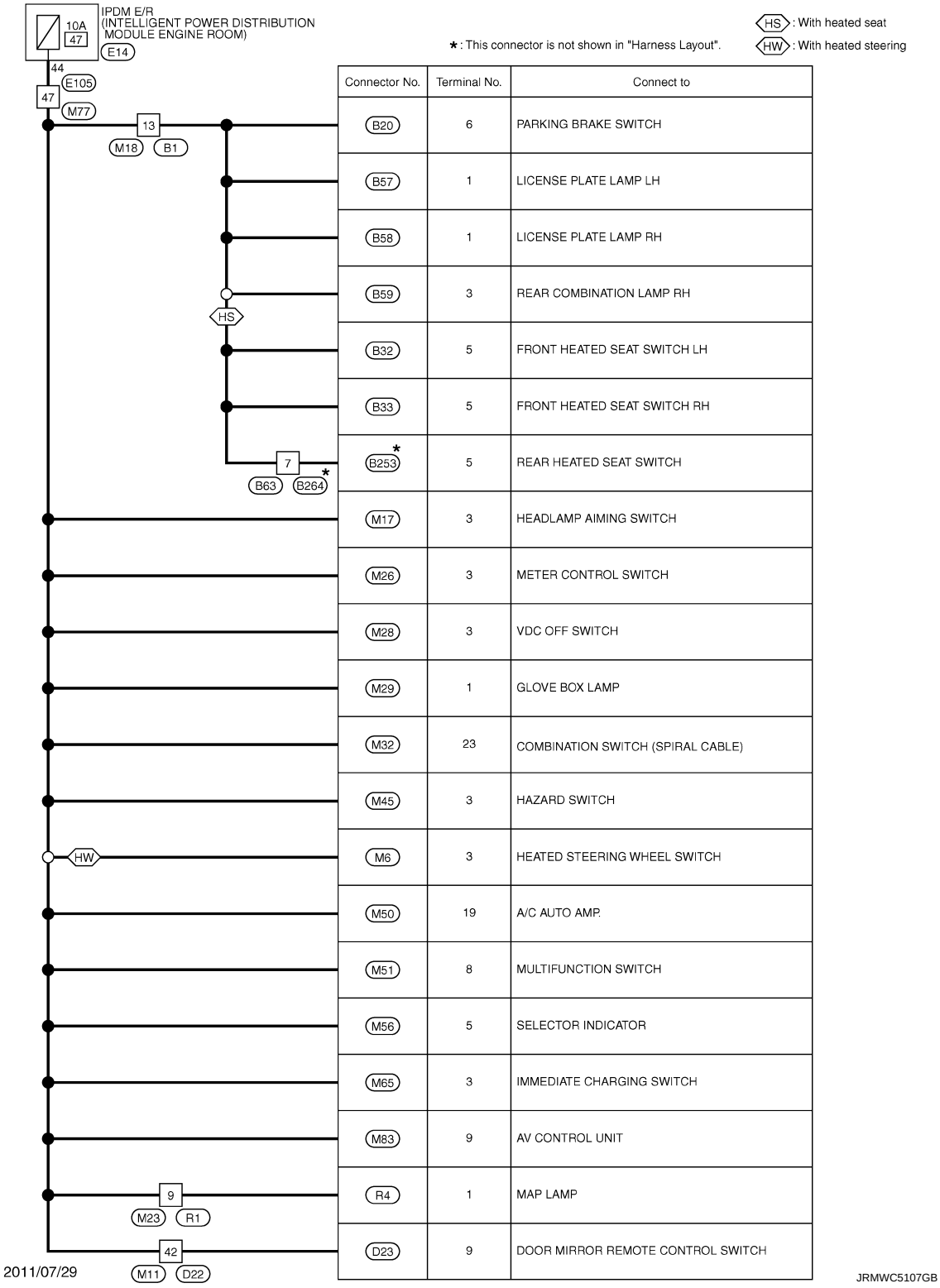
JCMWA6967GB

Wiring Diagram - BATTERY POWER SUPPLY FUSE No.47 -

INFOID:0000000007632702

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

BATTERY POWER SUPPLY FUSE No. 47



Connector No.	Terminal No.	Connect to
B20	6	PARKING BRAKE SWITCH
B57	1	LICENSE PLATE LAMP LH
B58	1	LICENSE PLATE LAMP RH
B59	3	REAR COMBINATION LAMP RH
B32	5	FRONT HEATED SEAT SWITCH LH
B33	5	FRONT HEATED SEAT SWITCH RH
B253 *	5	REAR HEATED SEAT SWITCH
M17	3	HEADLAMP AIMING SWITCH
M26	3	METER CONTROL SWITCH
M28	3	VDC OFF SWITCH
M29	1	GLOVE BOX LAMP
M32	23	COMBINATION SWITCH (SPIRAL CABLE)
M45	3	HAZARD SWITCH
M6	3	HEATED STEERING WHEEL SWITCH
M50	19	A/C AUTO AMP.
M51	8	MULTIFUNCTION SWITCH
M56	5	SELECTOR INDICATOR
M65	3	IMMEDIATE CHARGING SWITCH
M83	9	AV CONTROL UNIT
R4	1	MAP LAMP
D23	9	DOOR MIRROR REMOTE CONTROL SWITCH

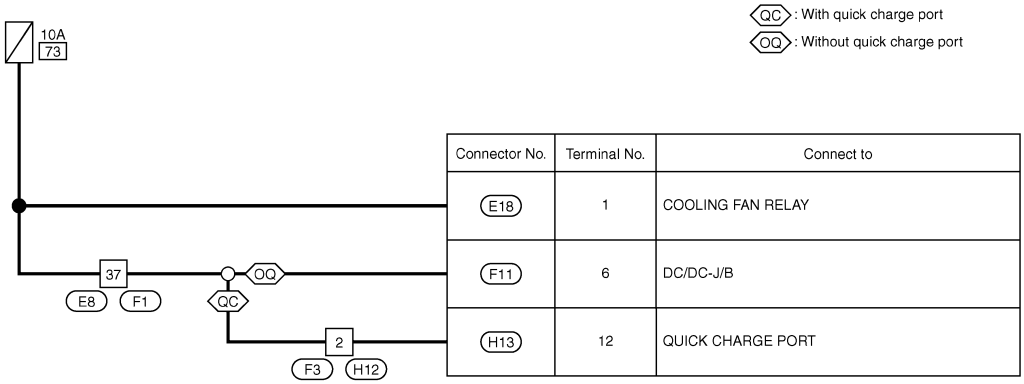
JRMWC5107GB

Wiring Diagram - BATTERY POWER SUPPLY FUSE No.73 -

INFOID:0000000007632703

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

BATTERY POWER SUPPLY FUSE No. 73



Connector No.	Terminal No.	Connect to
E18	1	COOLING FAN RELAY
F11	6	DC/DC-J/B
H13	12	QUICK CHARGE PORT

2010/10/29

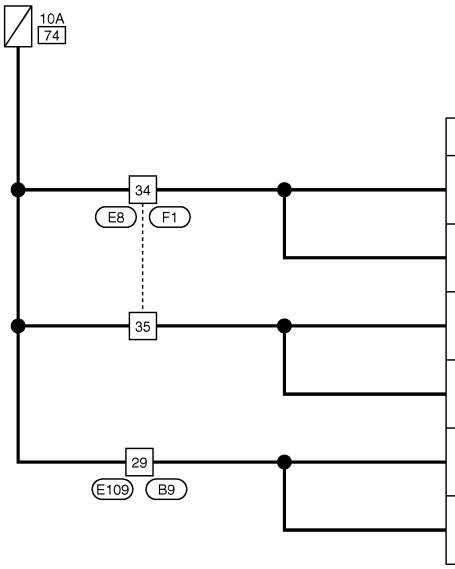
JCMWA6976GB

Wiring Diagram - BATTERY POWER SUPPLY FUSE No.74 -

INFOID:0000000007632704

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

BATTERY POWER SUPPLY FUSE No. 74



Connector No.	Terminal No.	Connect to
F11	3	DC/DC-J/B
F11	11	DC/DC-J/B
F13	4	TRACTION MOTOR INVERTER
F13	10	TRACTION MOTOR INVERTER
B24	21	LI-ION BATTERY
B26	12	ON BOARD CHARGER

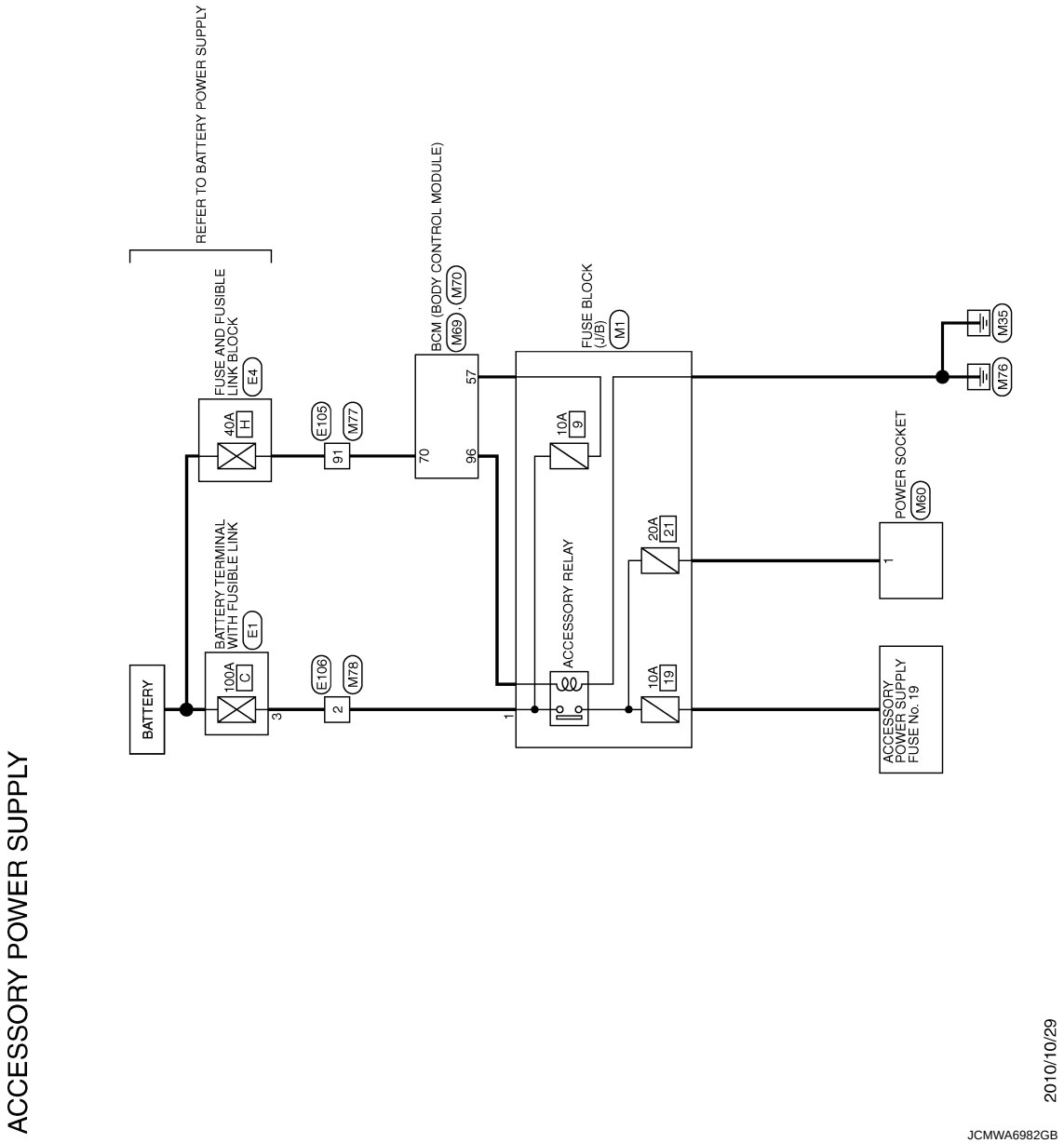
2010/10/29

JCMWA6979GB

Wiring Diagram - ACCESSORY POWER SUPPLY -

INFOID:0000000007632705

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

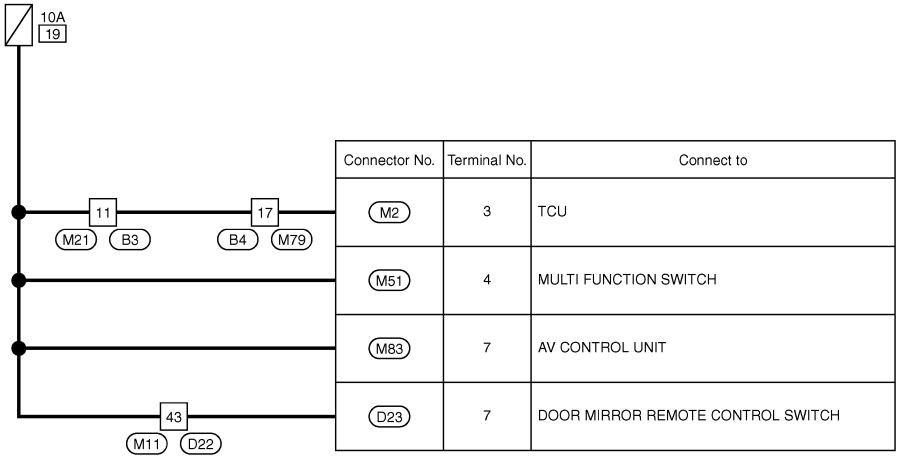


Wiring Diagram - ACCESSORY POWER SUPPLY FUSE No.19 -

INFOID:0000000007632706

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

ACCESSORY POWER SUPPLY FUSE No. 19



Connector No.	Terminal No.	Connect to
M2	3	TCU
M51	4	MULTI FUNCTION SWITCH
M83	7	AV CONTROL UNIT
D23	7	DOOR MIRROR REMOTE CONTROL SWITCH

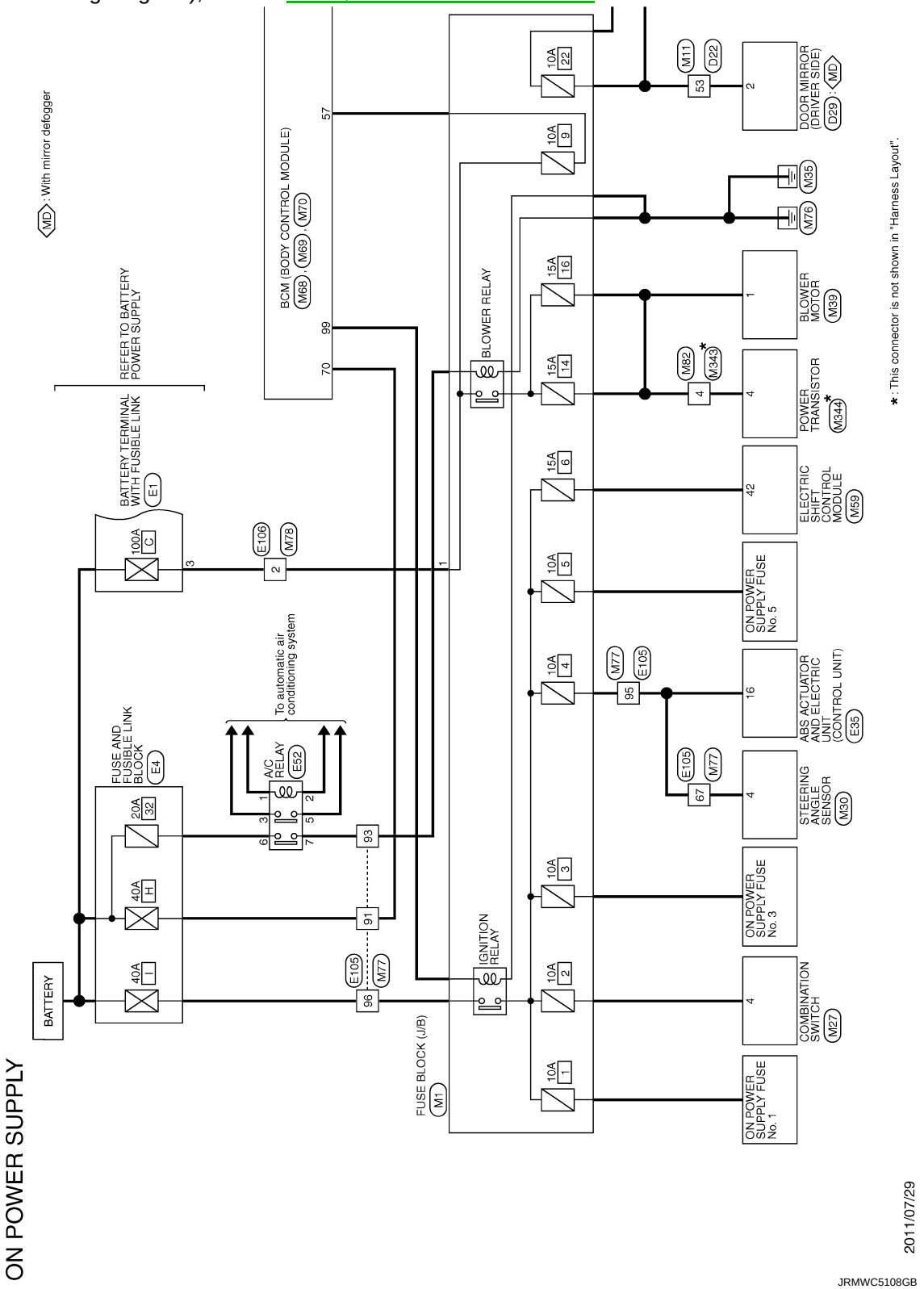
2010/10/29

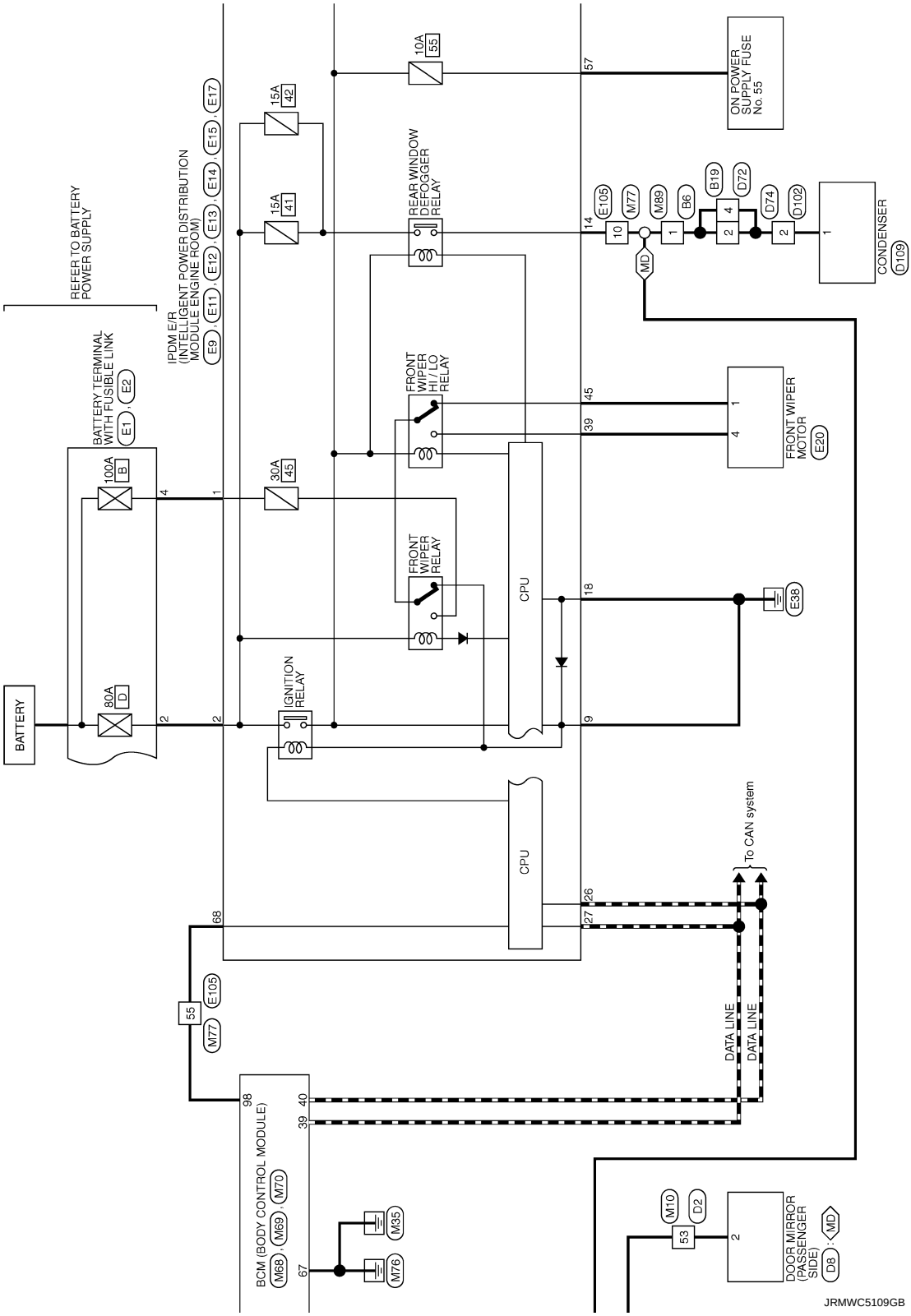
JCMWA6985GB

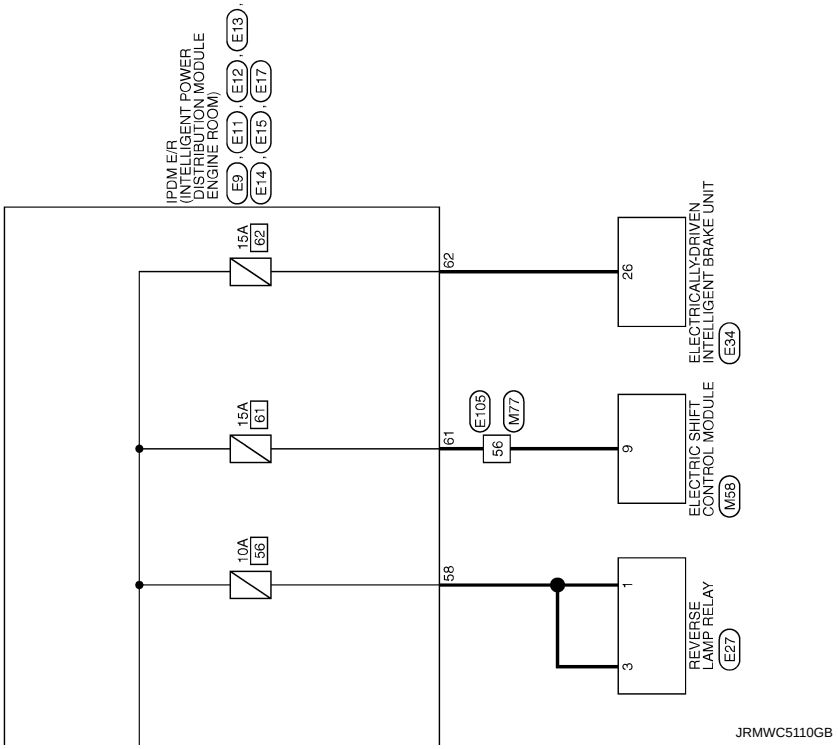
Wiring Diagram - ON POWER SUPPLY -

INFOID:0000000007632707

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".




REFER TO BATTERY POWER SUPPLY
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E9, E11, E12, E13, E14, E15, E17
BATTERY TERMINAL WITH FUSIBLE LINK
E1, E2
BATTERY
100A B
80A D
30A 45
15A 42
15A 41
10A 55
IGNITION RELAY
REAR WINDOW DEFOGGER RELAY
FRONT WIPER HI/LO RELAY
FRONT WIPER RELAY
CPU
CPU
ON POWER SUPPLY FUSE No. 55
CONDENSER D109
FRONT WIPER MOTOR E20
E38
To CAN system
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M68, M69, M70
M35
M76
DOOR MIRROR (PASSENGER SIDE) D8
M10
D2
JRMWC5109GB

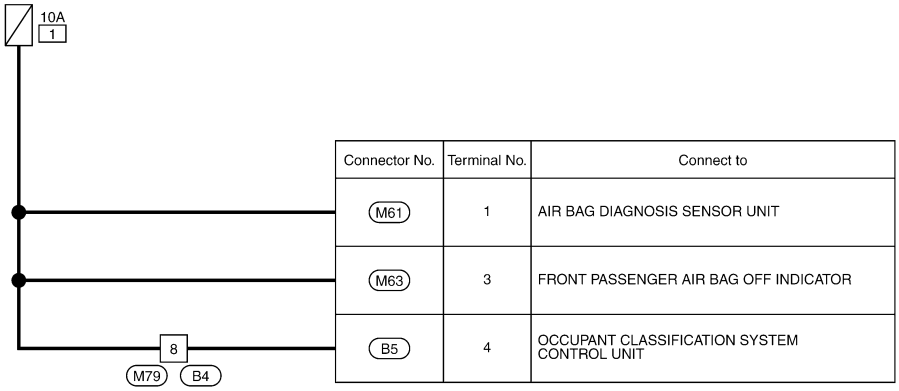

IPDM E/R
(INTELLIGENT POWER
DISTRIBUTION MODULE
ENGINE ROOM)
E9
E11
E12
E13
E14
E15
E17
15A
62
15A
61
10A
56
62
61
58
E105
56
M77
26
9
1
3
ELECTRICALLY-DRIVEN
INTELLIGENT BRAKE UNIT
E34
ELECTRIC SHIFT
CONTROL MODULE
M58
REVERSE
LAMP RELAY
E27
JRMWC5110GB

Wiring Diagram - ON POWER SUPPLY FUSE No.1 -

INFOID:0000000007828173

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

ON POWER SUPPLY FUSE No. 1



Connector No.	Terminal No.	Connect to
M61	1	AIR BAG DIAGNOSIS SENSOR UNIT
M63	3	FRONT PASSENGER AIR BAG OFF INDICATOR
B5	4	OCCUPANT CLASSIFICATION SYSTEM CONTROL UNIT

2011/07/29

JRMWC5111GB

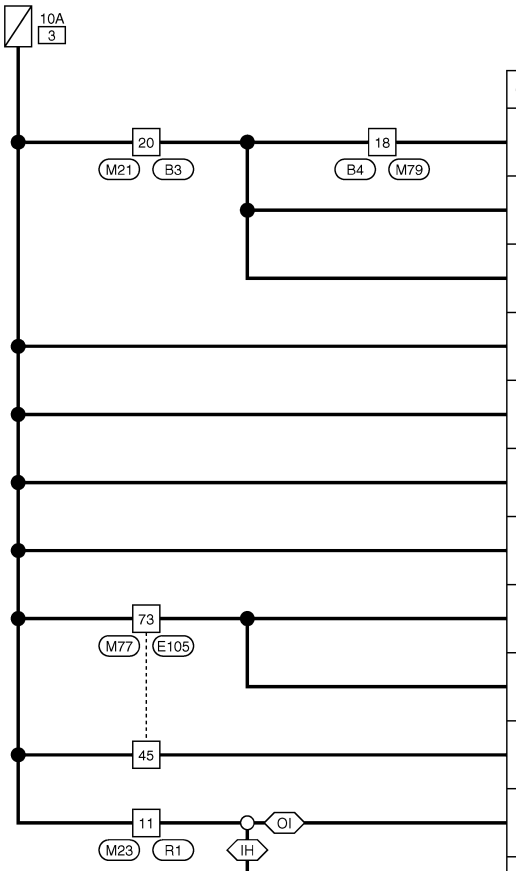
Wiring Diagram - ON POWER SUPPLY FUSE No.3 -

INFOID:0000000007632708

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

ON POWER SUPPLY FUSE No. 3

IH : With integrated homelink transmitter
OI : Without integrated homelink transmitter



Connector No.	Terminal No.	Connect to
M2	4	TCU
B21	5	ELECTRIC PARKING BRAKE CONTROL MODULE
B26	13	ON BOARD CHARGER
M4	8	DATA LINK CONNECTOR
M37	4	EPS CONTROL UNIT
M50	32	A/C AUTO AMP.
M84	31	AV CONTROL UNIT
E28	1	HEADLAMP AIMING MOTOR LH
E47	1	HEADLAMP AIMING MOTOR RH
E112	1	ASCD BRAKE SWITCH
R6	1	AUTO ANTI-DAZZLING INSIDE MIRROR
R7	6	AUTO ANTI-DAZZLING INSIDE MIRROR

2010/10/29

JCMWA6998GB

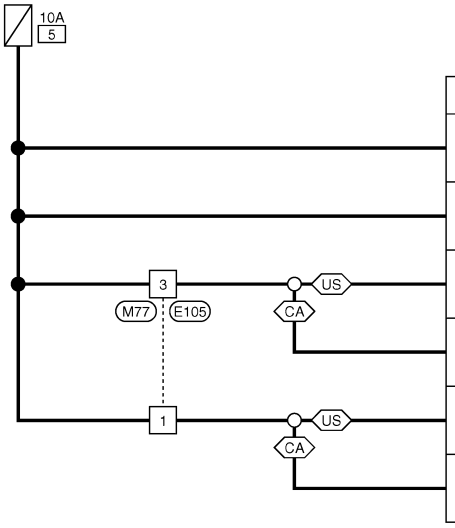
Wiring Diagram - ON POWER SUPPLY FUSE No.5 -

INFOID:0000000007632709

For connector terminal arrangements, harness layouts, and alphabets in a ⟨⟩ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

ON POWER SUPPLY FUSE No. 5

US : For USA
CA : For Canada



Connector No.	Terminal No.	Connect to
M34	3	COMBINATION METER
M47	11	APPROACHING VEHICLE SOUND FOR PEDESTRIANS (VSP) CONTROL UNIT
E26	5	FRONT COMBINATION LAMP LH
E85	3	FRONT COMBINATION LAMP LH
E45	5	FRONT COMBINATION LAMP RH
E86	3	FRONT COMBINATION LAMP RH

2011/07/29

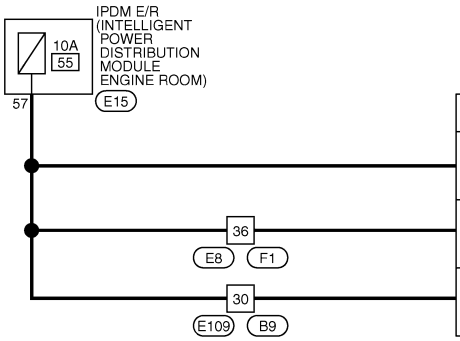
JRMWC5112GB

Wiring Diagram - ON POWER SUPPLY FUSE No.55 -

INFOID:0000000007632710

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

ON POWER SUPPLY FUSE No. 55



Connector No.	Terminal No.	Connect to
E61	21	VCM
F13	33	TRACTION MOTOR INVERTER
B24	4	LI-ION BATTERY

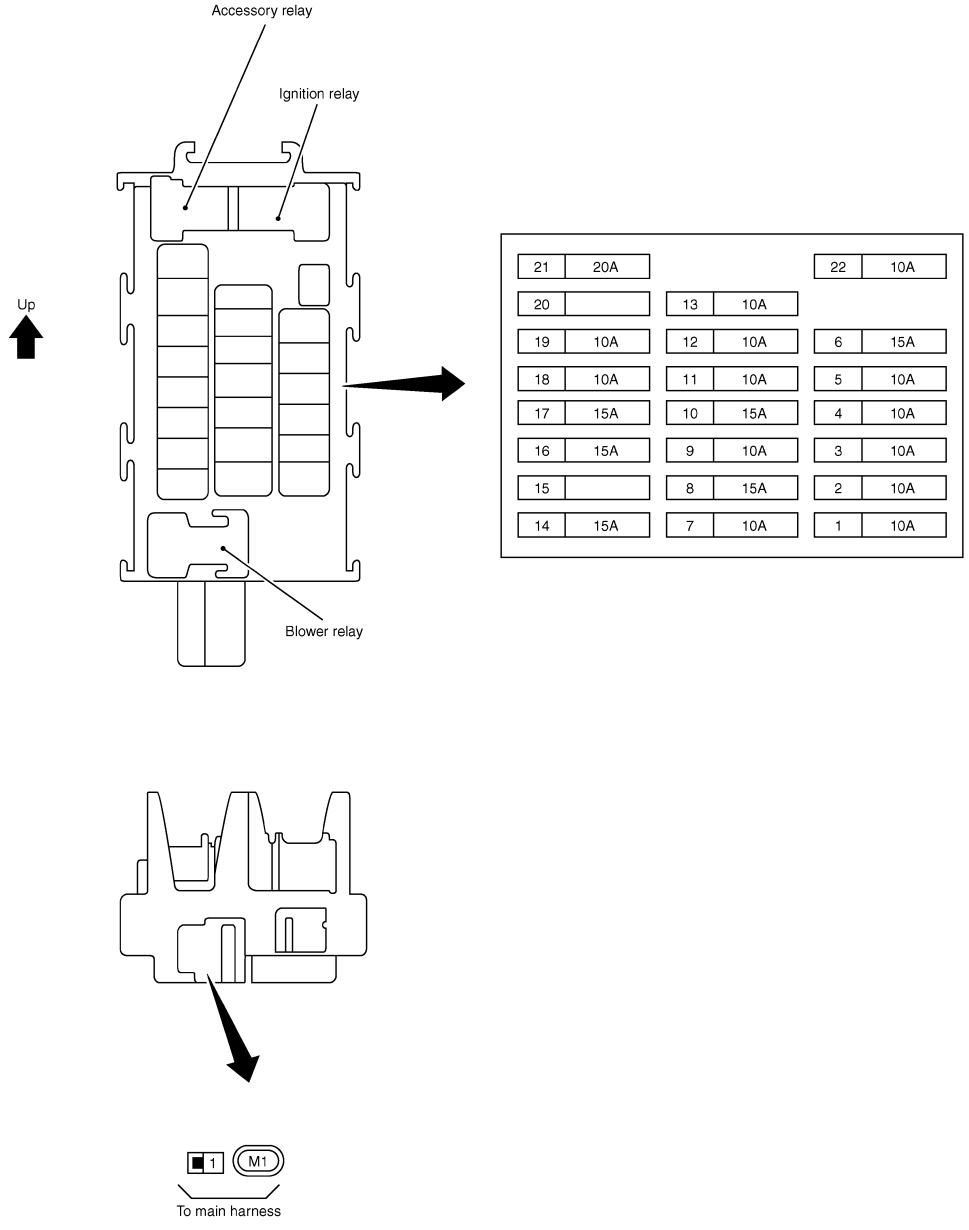
2010/10/29

JCMWA7007GB

FUSE BLOCK - JUNCTION BOX (J/B)

Fuse, Connector and Terminal Arrangement

INFOID:0000000007632711



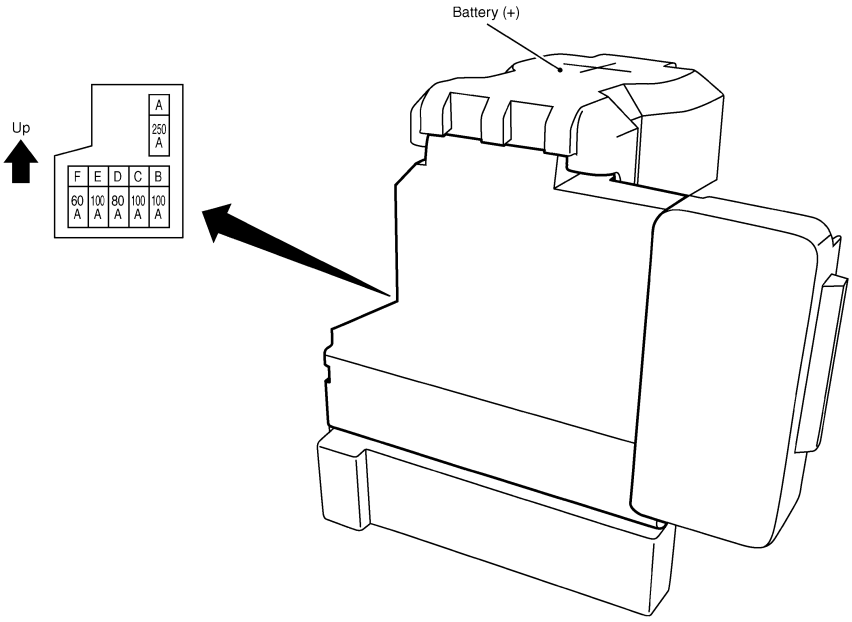
2011/03/25

JCMWA8500GB

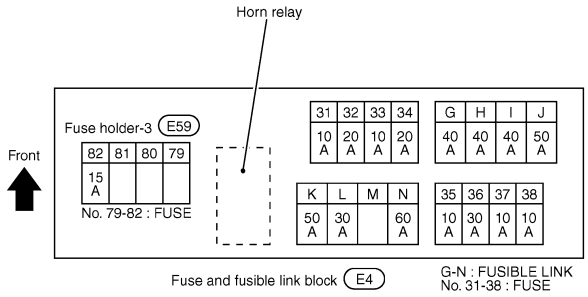
FUSE, FUSIBLE LINK AND RELAY BOX

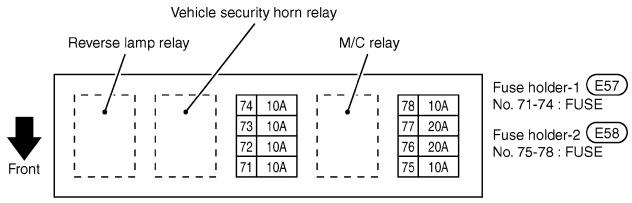
Fuse and Fusible Link Arrangement

INFOID:0000000007632712



Battery terminal with fusible link (E1), (E2), (E3), (E201)





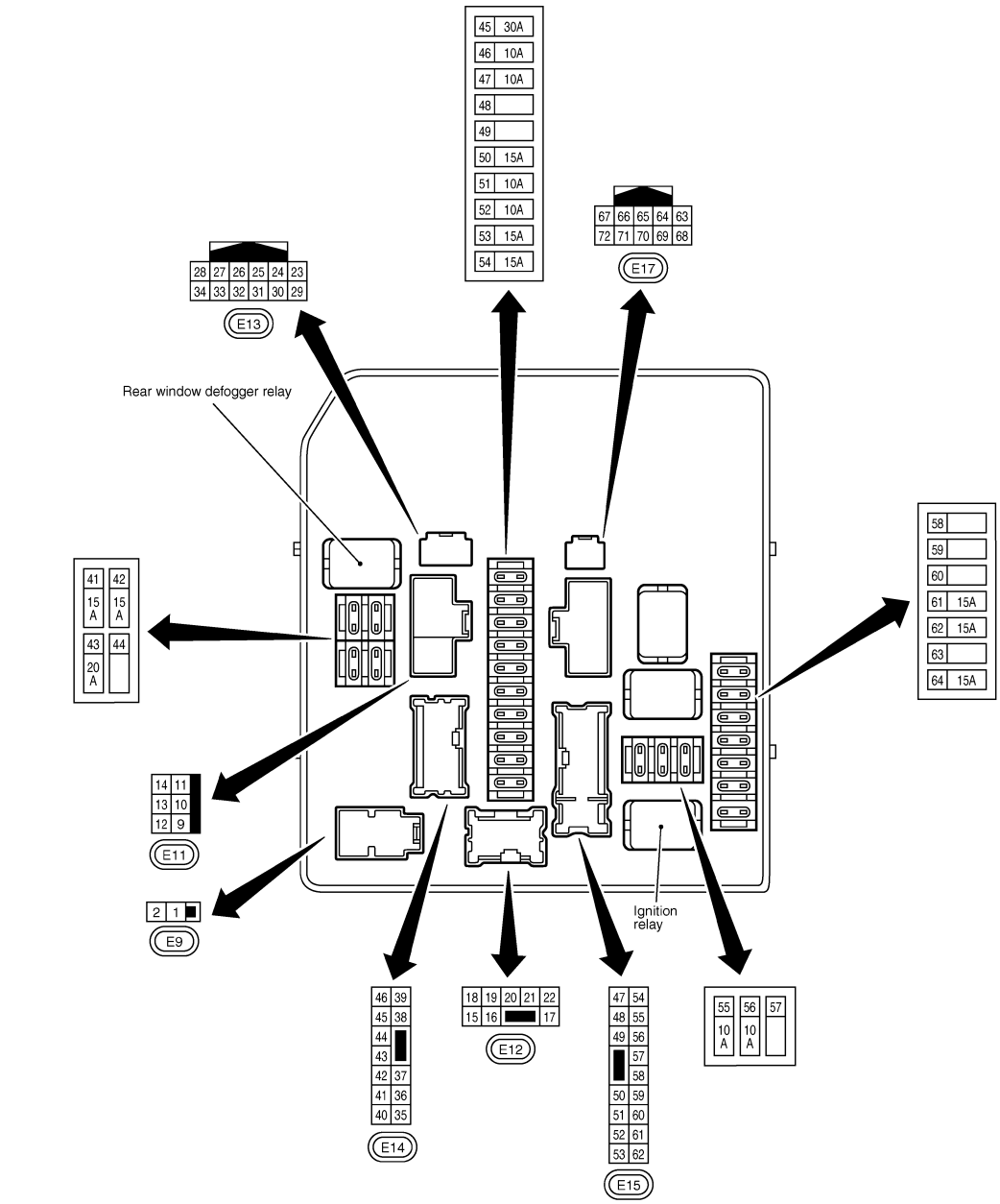
2011/03/25

JCMWA8501GB

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

Fuse, Connector and Terminal Arrangement

INFOID:0000000007632713



2010/10/29

JCMWA7012GB

HARNESS LAYOUT

How To Read Harness Layout

INFOID:0000000007632714

CONNECTOR SYMBOL

Main symbols of connector (in Harness Layout) are indicated in the below.

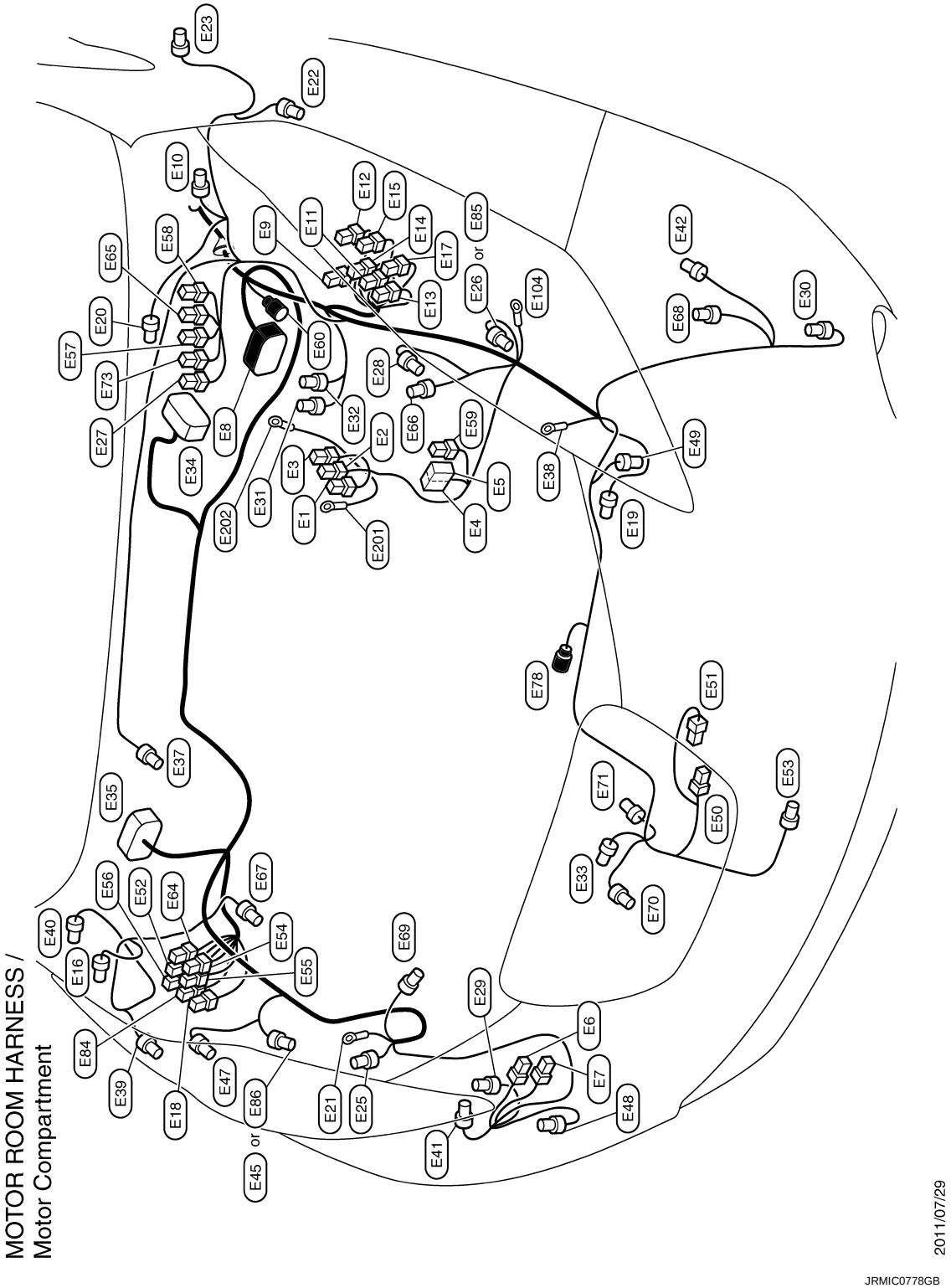
Connector type	Water proof type		Standard type	
	Male	Female	Male	Female
Connector symbol				
Ground terminal etc.	—			

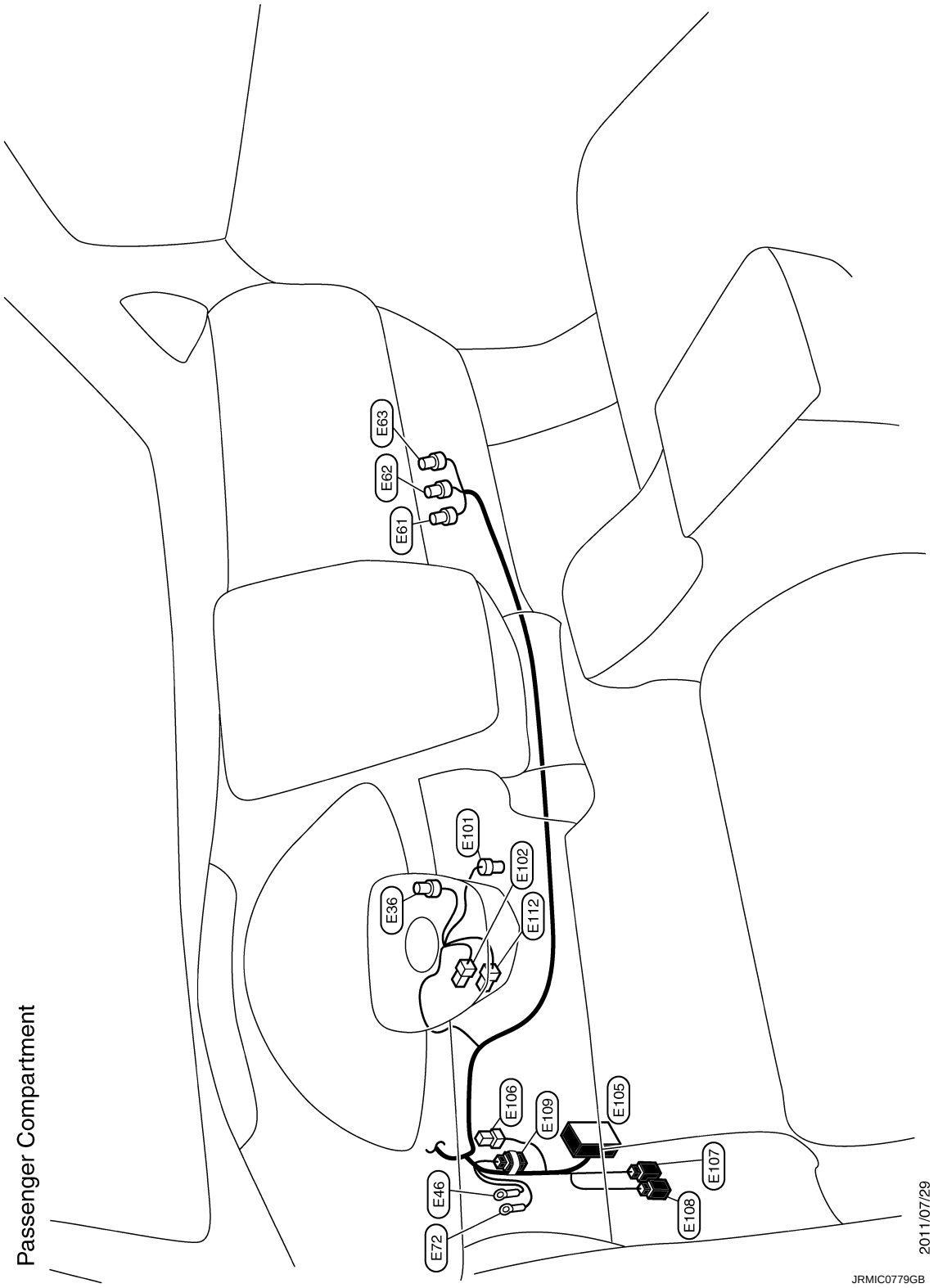
JPMIA0114GB

Motor Room Harness

INFOID:0000000007632716

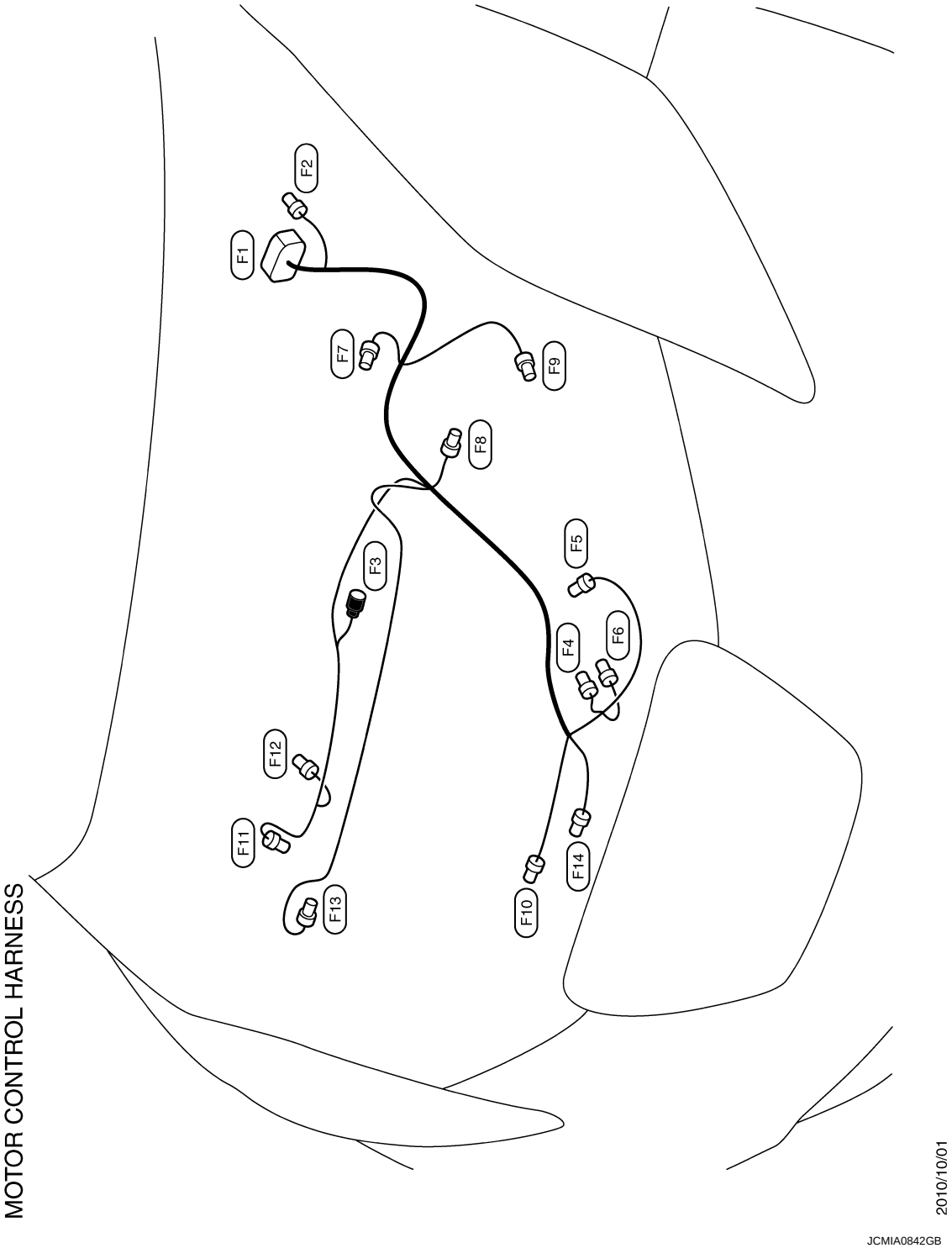
MOTER COMPARTMENT




E63
E62
E61
E101
E102
E112
E36
E106
E109
E105
E107
E108
E46
E72
Passenger Compartment
2011/07/29
JRMIC0779GB

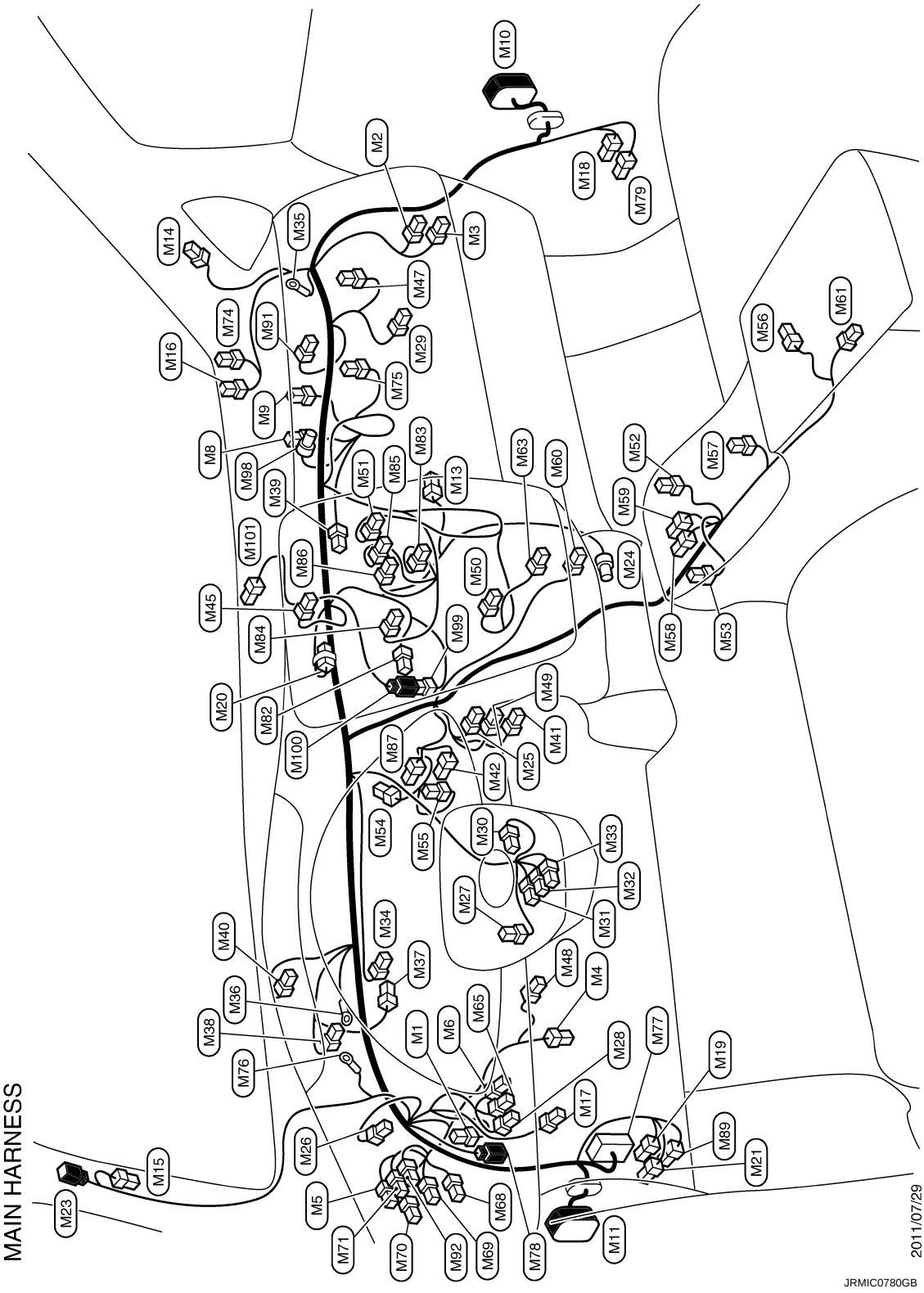
Motor Control Harness

INFOID:0000000007632717



Main Harness

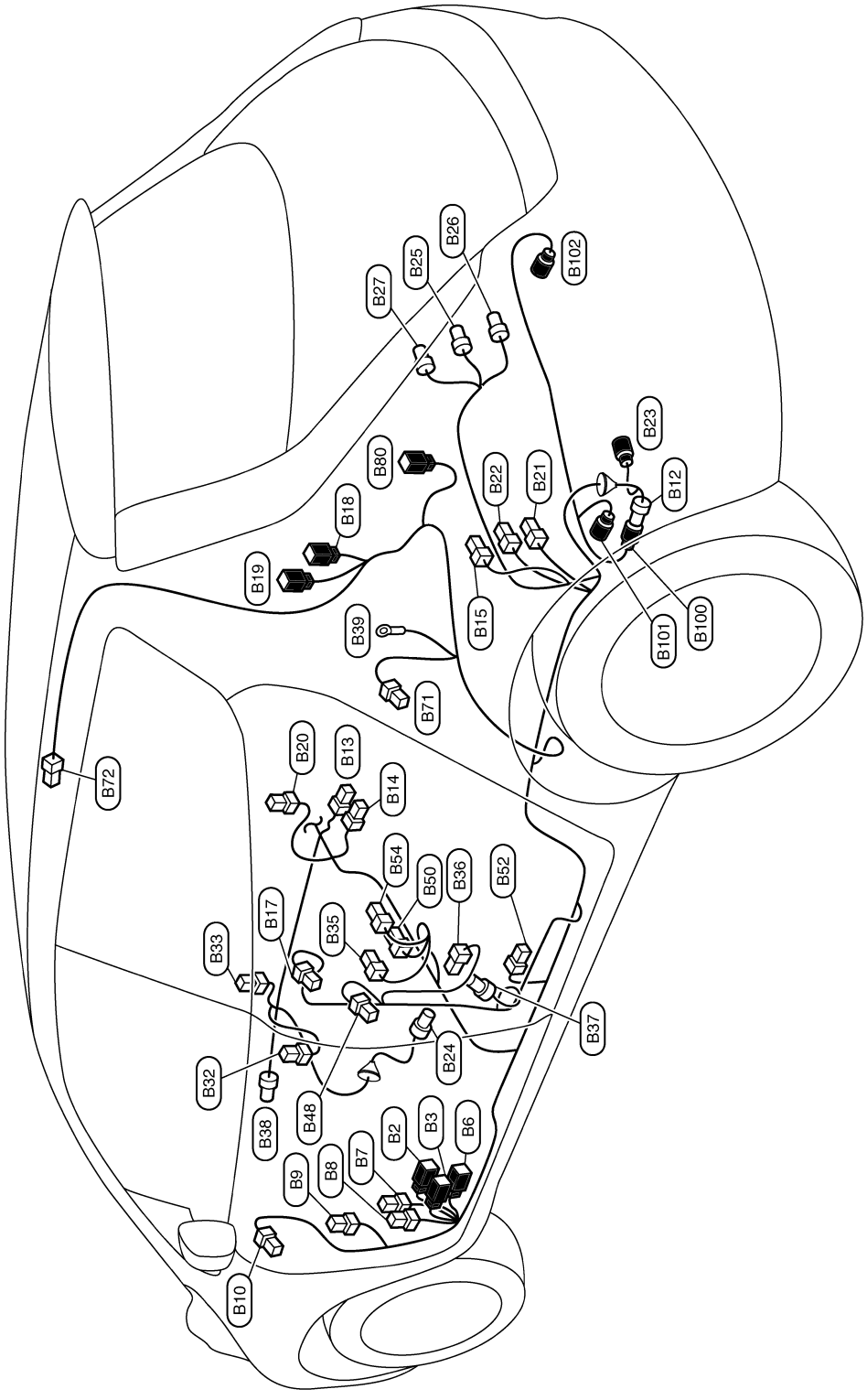
INFOID:0000000007632718



Body Harness

INFOID:0000000007632719

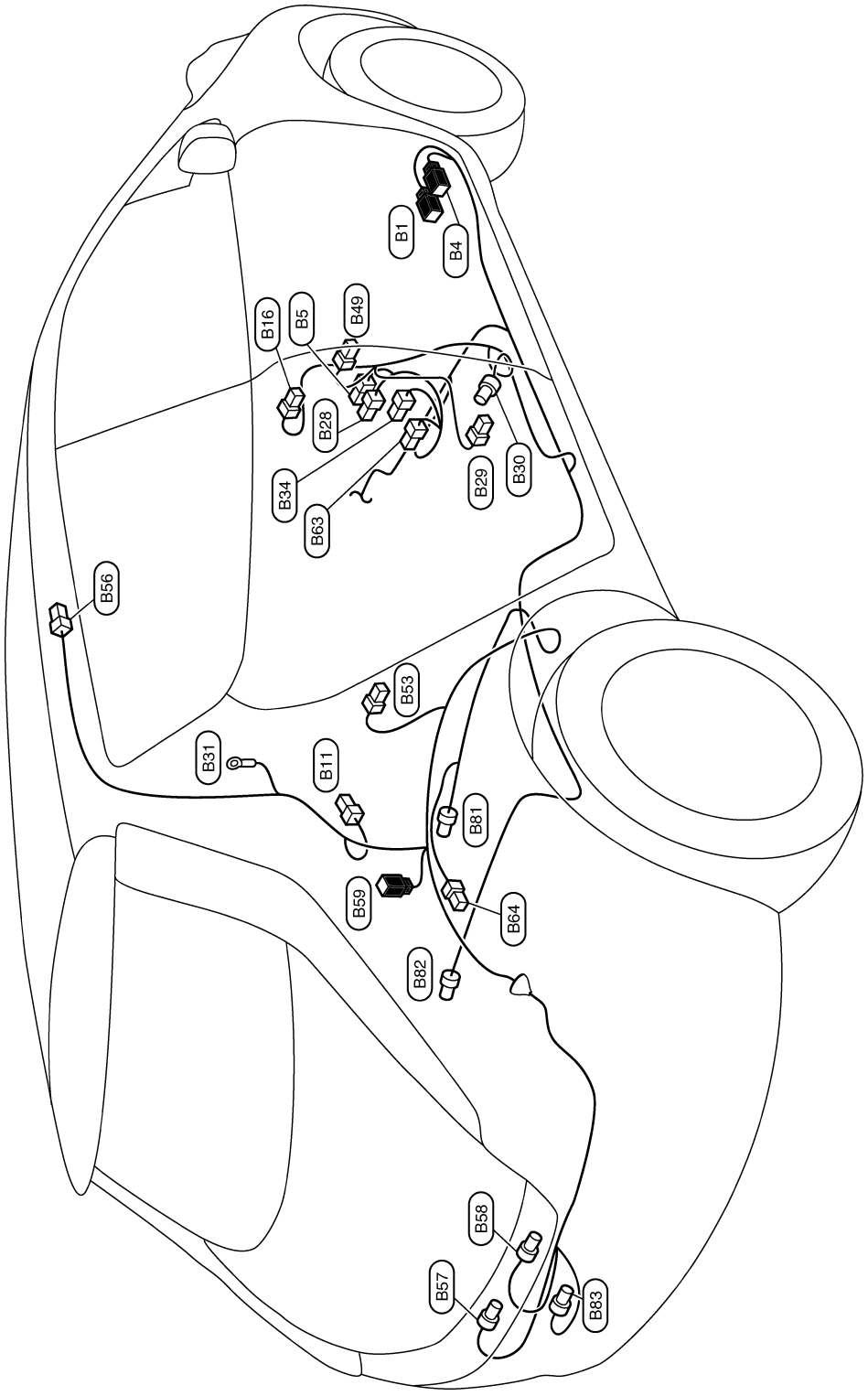
LH SIDE



BODY HARNESS (LH SIDE)

2011/07/29

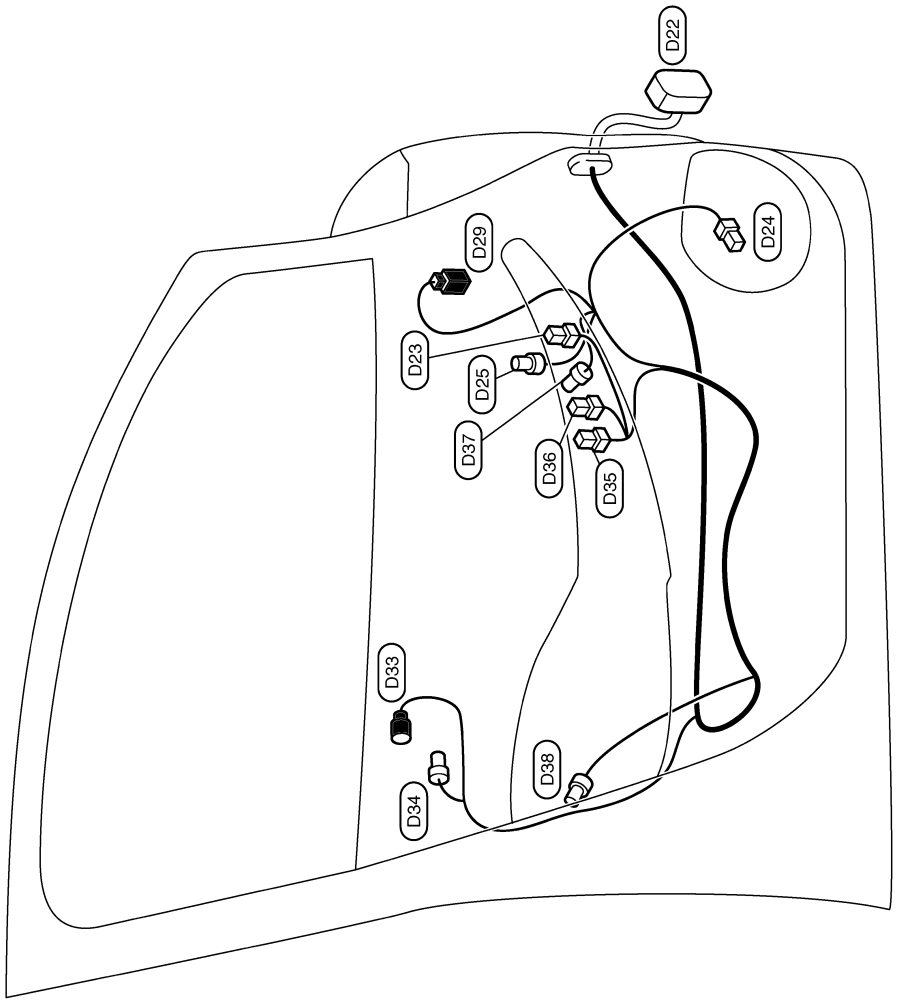
JRMIC0781GB


B1
B4
B16
B5
B49
B28
B34
B63
B29
B30
B56
B53
B31
B11
B81
B59
B64
B82
B58
B57
B83
BODY HARNESS (RH SIDE)
2011/07/29
JRMIC0782GB

Door Harness

INFOID:0000000007632721

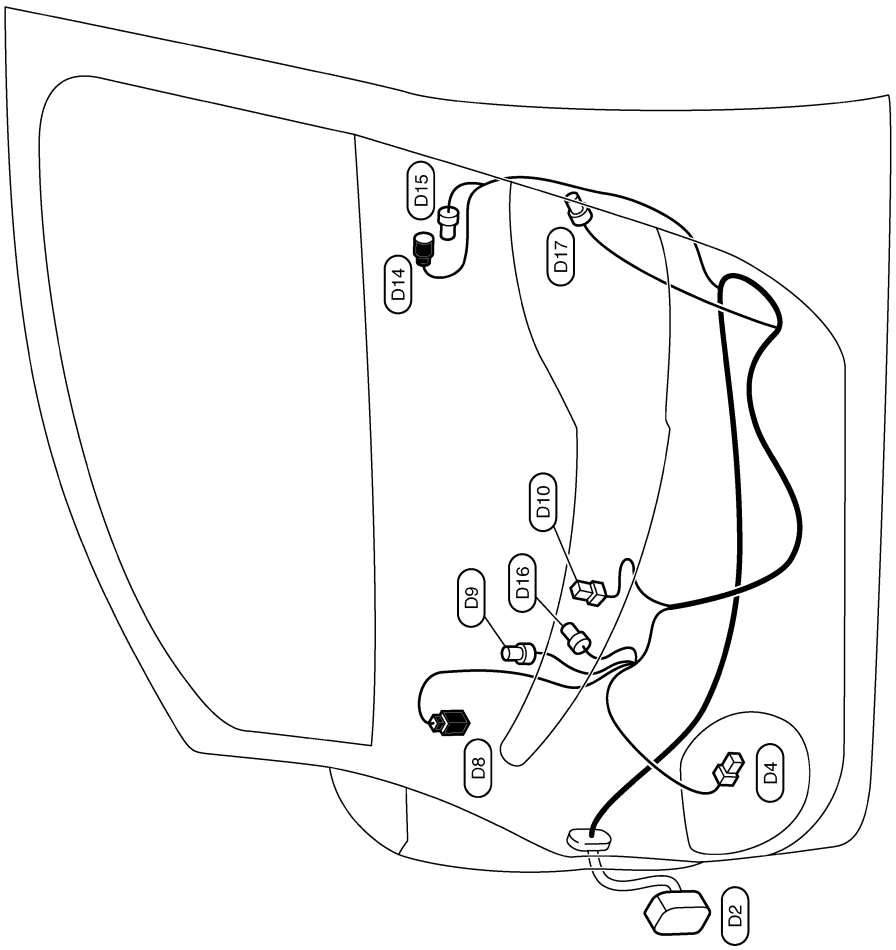
FRONT DOOR HARNESS (LH SIDE)



FRONT DOOR HARNESS (LH SIDE)

2011/07/29

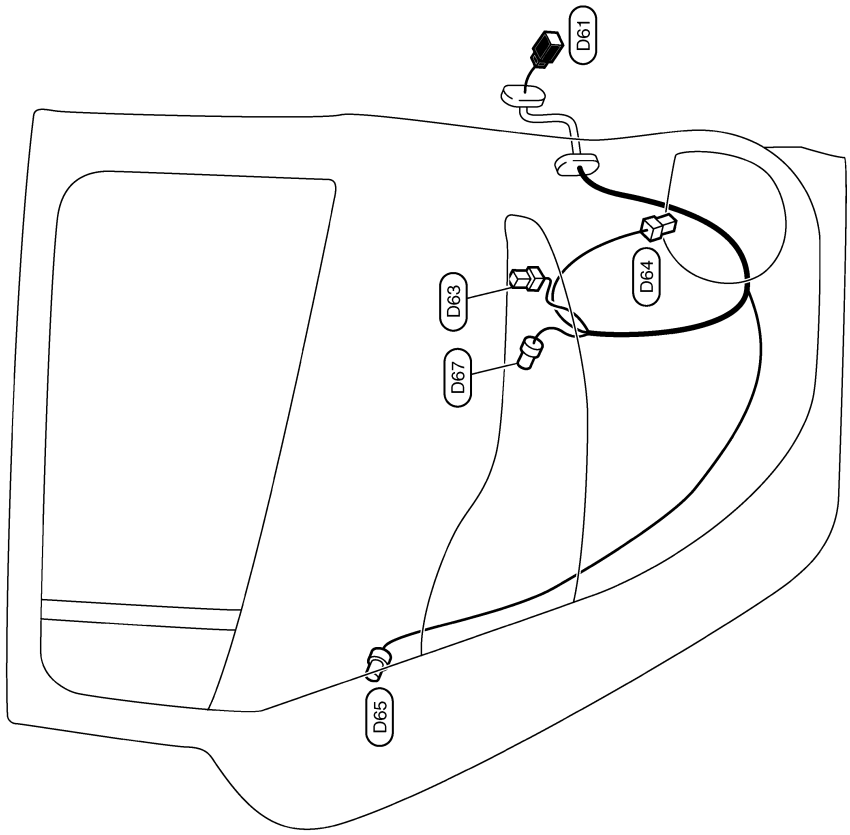
JRMIC0783GB



FRONT DOOR HARNESS (RH SIDE)

2011/07/29

JRMIC0784GB

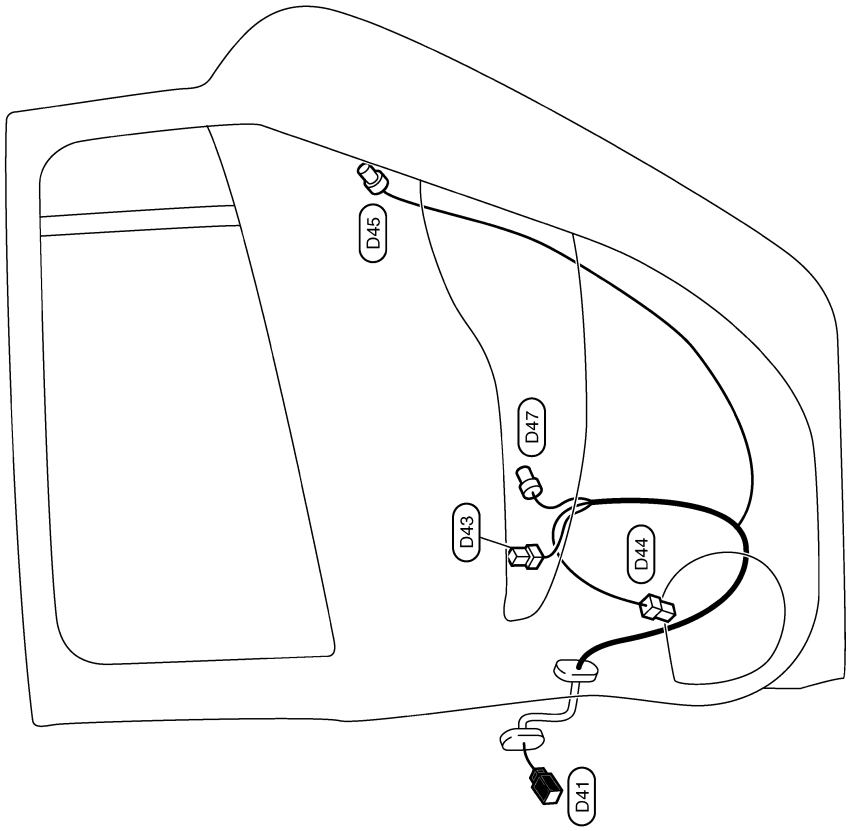


REAR DOOR HARNESS (LH SIDE)

2011/07/29

JRMIC0785GB

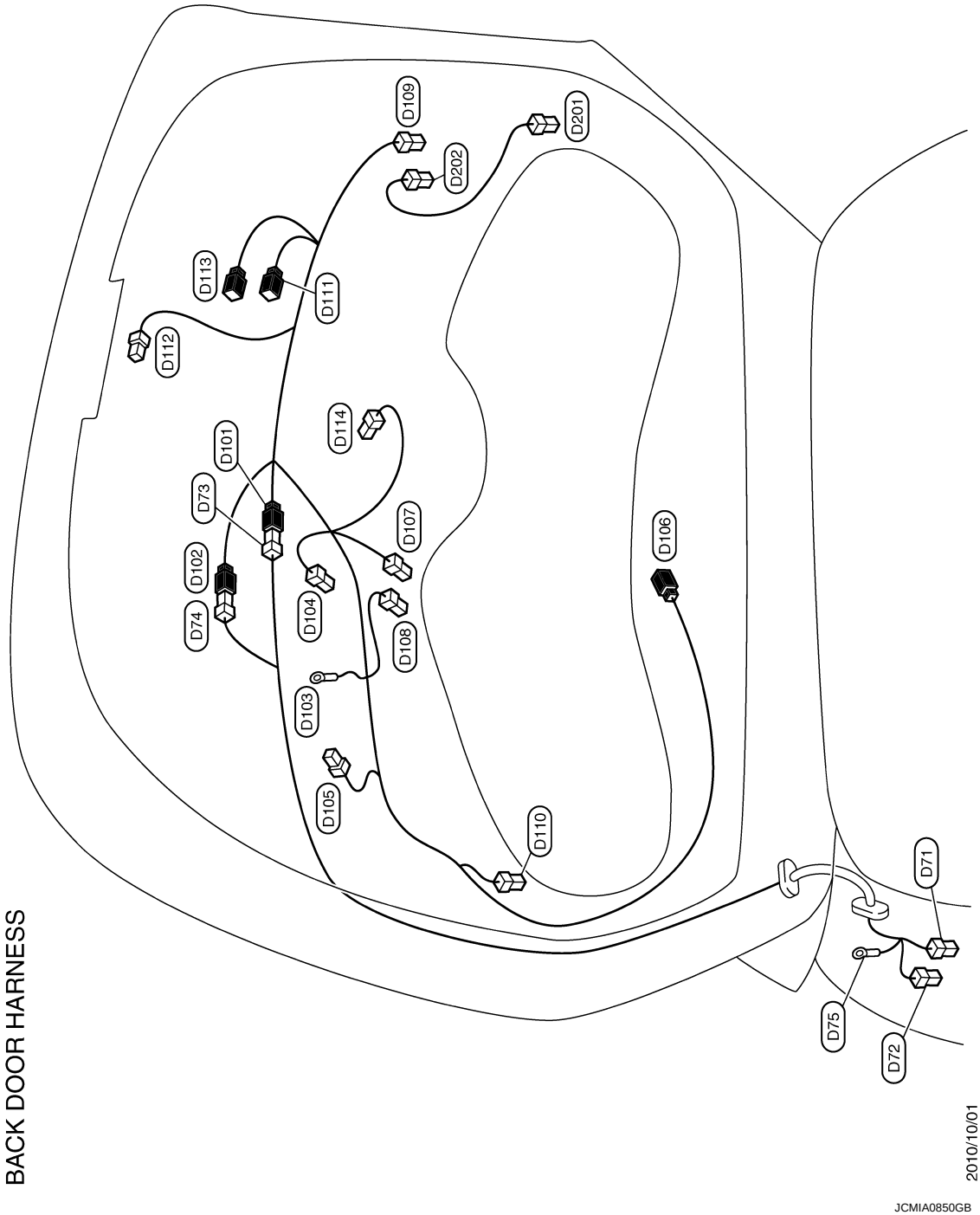
REAR DOOR HARNESS (RH SIDE)



REAR DOOR HARNESS (RH SIDE)

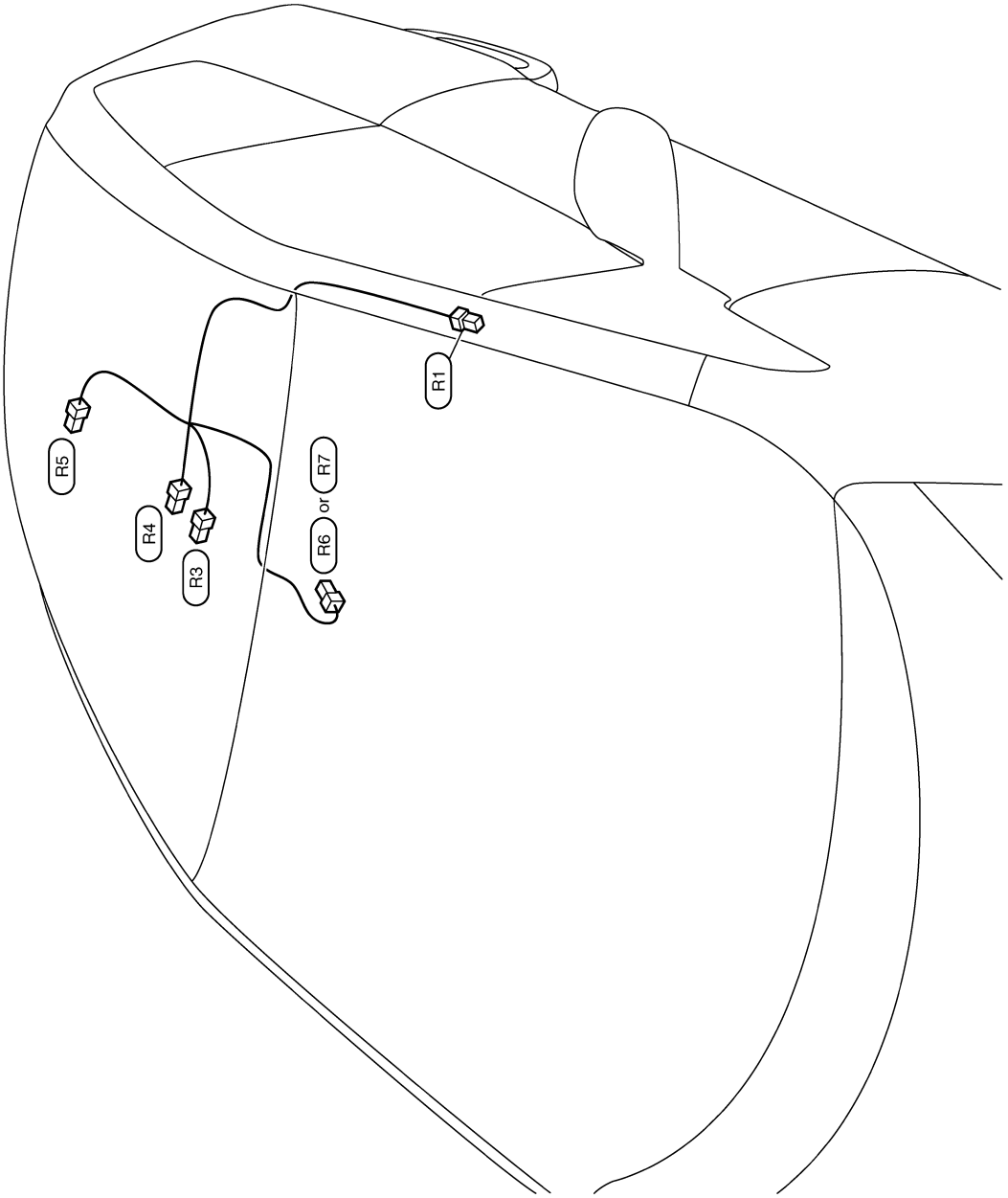
2011/07/29

JRMIC0786GB


BACK DOOR HARNESS
D109
D201
D202
D113
D111
D112
D114
D101
D73
D107
D106
D102
D74
D104
D108
D103
D105
D110
D71
D75
D72
2010/10/01
JCMIA0850GB

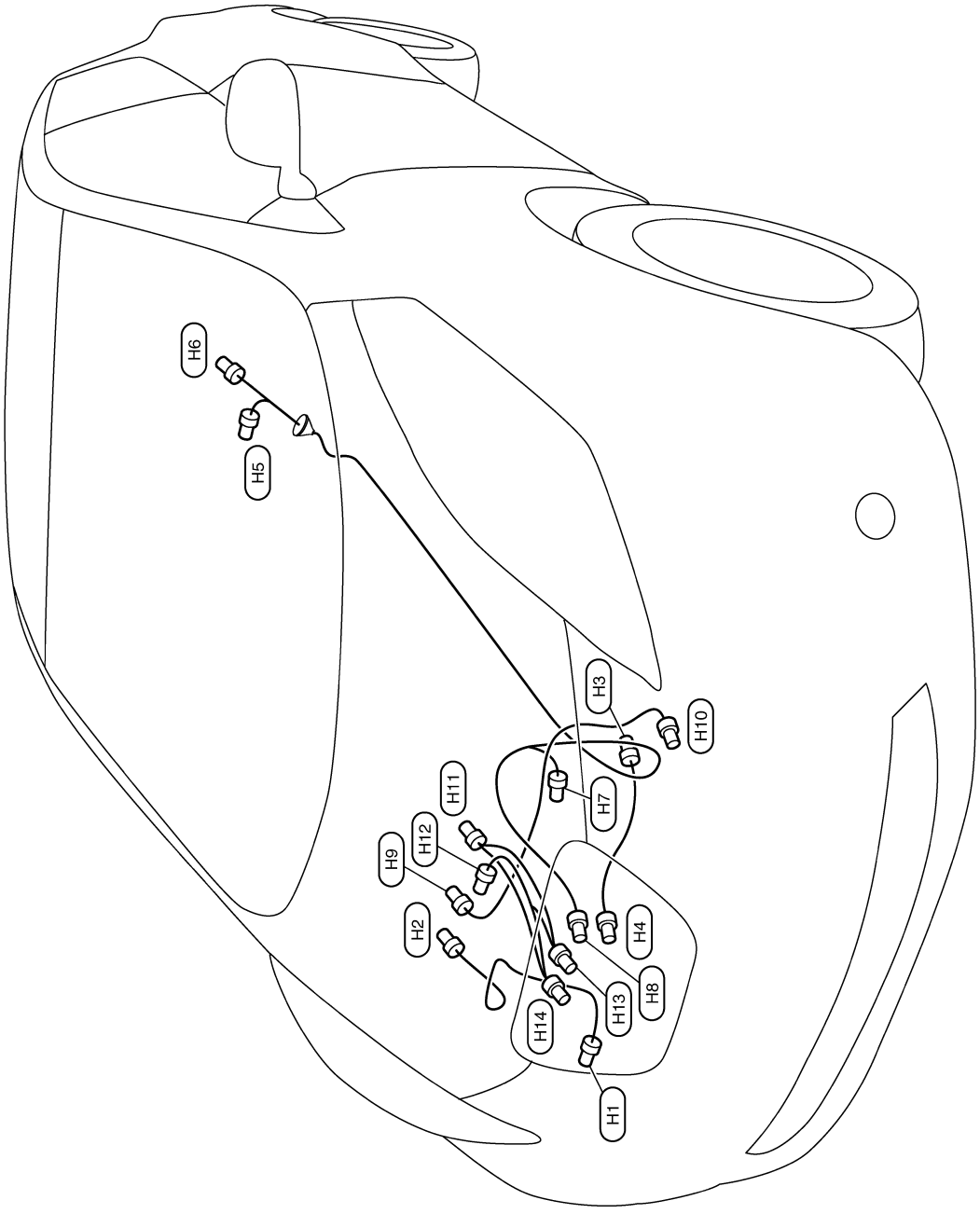
Room Lamp Harness

INFOID:0000000007632726



High Voltage Harness

INFOID:0000000007632727

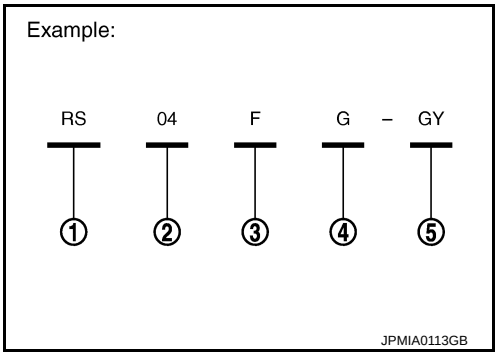


CONNECTOR INFORMATION

How to Read Connector Type

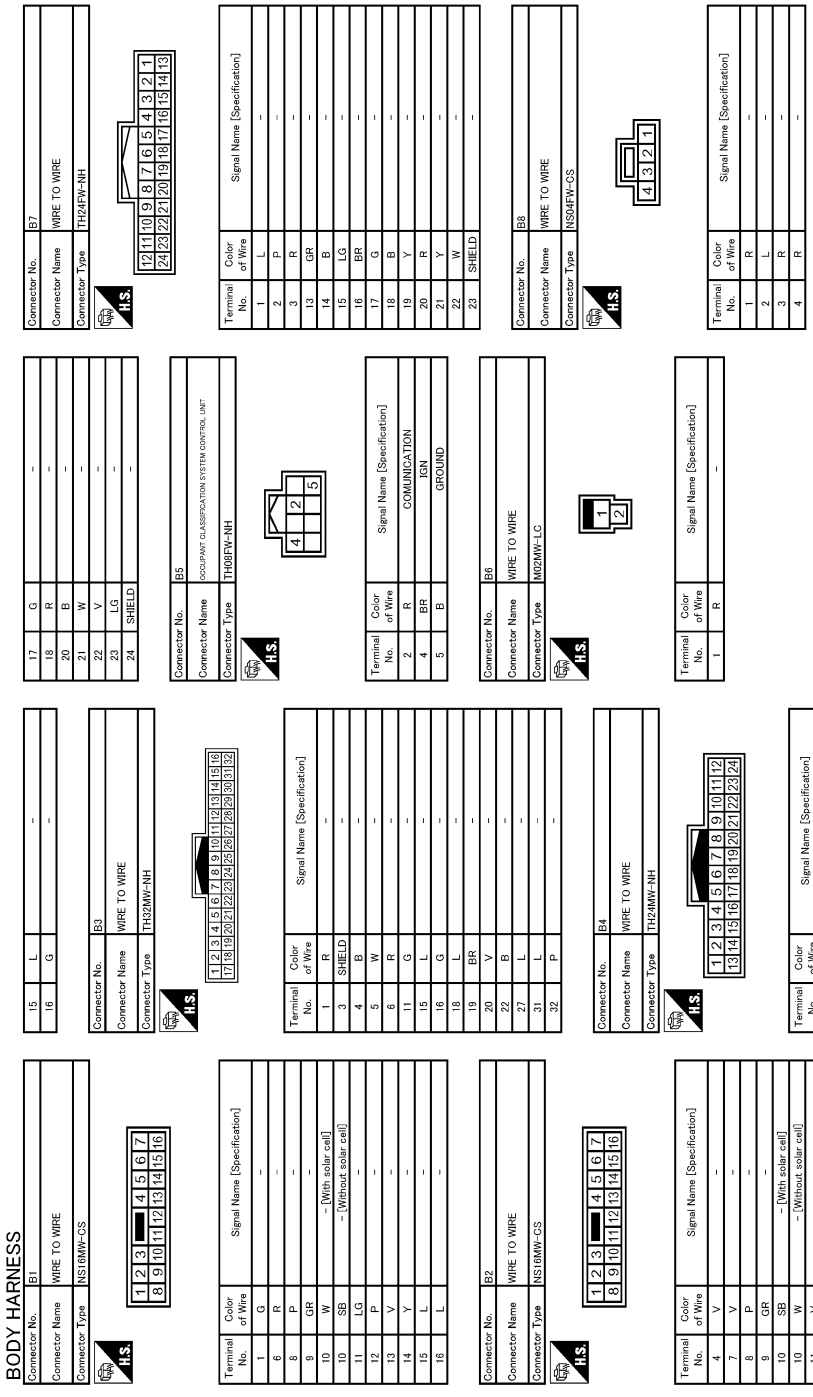
INFOID:0000000007828174

1 : Connector model
2 : Cavity
3 : Male (M) and female (F) terminals
4 : Connector color
5 : Special type



B Body Harness

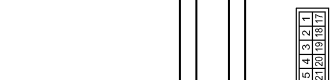
INFOID:0000000007828175



JRMWC5113GB

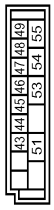
BODY HARNESS

Connector No.	B9
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	GR	–
3	Y	–
4	G	–
5	BR	–
6	L	–
7	B	–
8	P	–
9	SB	–
10	LG	–
11	W	–
17	R	–
18	Y	–
19	G	–
20	V	–
21	SB	–
22	P	–
23	LG	–
24	L	–
25	Y	–
26	L	–
27	G	–
28	GR	–
29	R	–
30	R	–
31	Y	–

Connector No.	B10
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FB-FHAE-SA

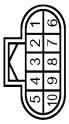


Terminal No.	Color of Wire	Signal Name [Specification]
43	Y	BACK DOOR SW
44	LG	REAR WIPER STOP POSITION
45	BR	PASSENGER DOOR SW
46	R	REAR RH DOOR SW
47	SB	DRIVER DOOR SW
48	W	REAR LH DOOR SW
49	L	LUGGAGE LAMP OUTPUT
51	P	BACK DOOR REQ SW
53	GR	BK DOOR OPEN OUTPUT
54	P	REAR WIPER OUTPUT
55	GR	PASS. RR DOOR UNLK OUTPUT

Connector No.	B11
Connector Name	LUGGAGE ROOM LAMP
Connector Type	NS02FW-CS

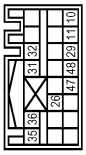
Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	L	–

Connector No.	B12
Connector Name	WIRE TO WIRE
Connector Type	RH10FB



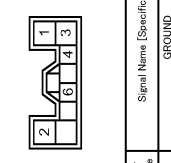
Terminal No.	Color of Wire	Signal Name [Specification]
4	B	–
5	GR	–
9	BR	–
10	LG	–

Connector No.	B13
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	NH22FY-1V-EX



Terminal No.	Color of Wire	Signal Name [Specification]
10	Y	PRH (+)
11	LG	PRH (–)
26	R	ODS INPUT
29	LG	RH BUCKLE SW INPUT
31	Y	SRH (+)
32	Y/R	SRH (–)
35	Y	CRH (+)
36	LG	CRH (–)
47	G	SATELLITE RH (+)
48	R	SATELLITE RH (–)

Connector No.	B14
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	NH22FY-2V-EX

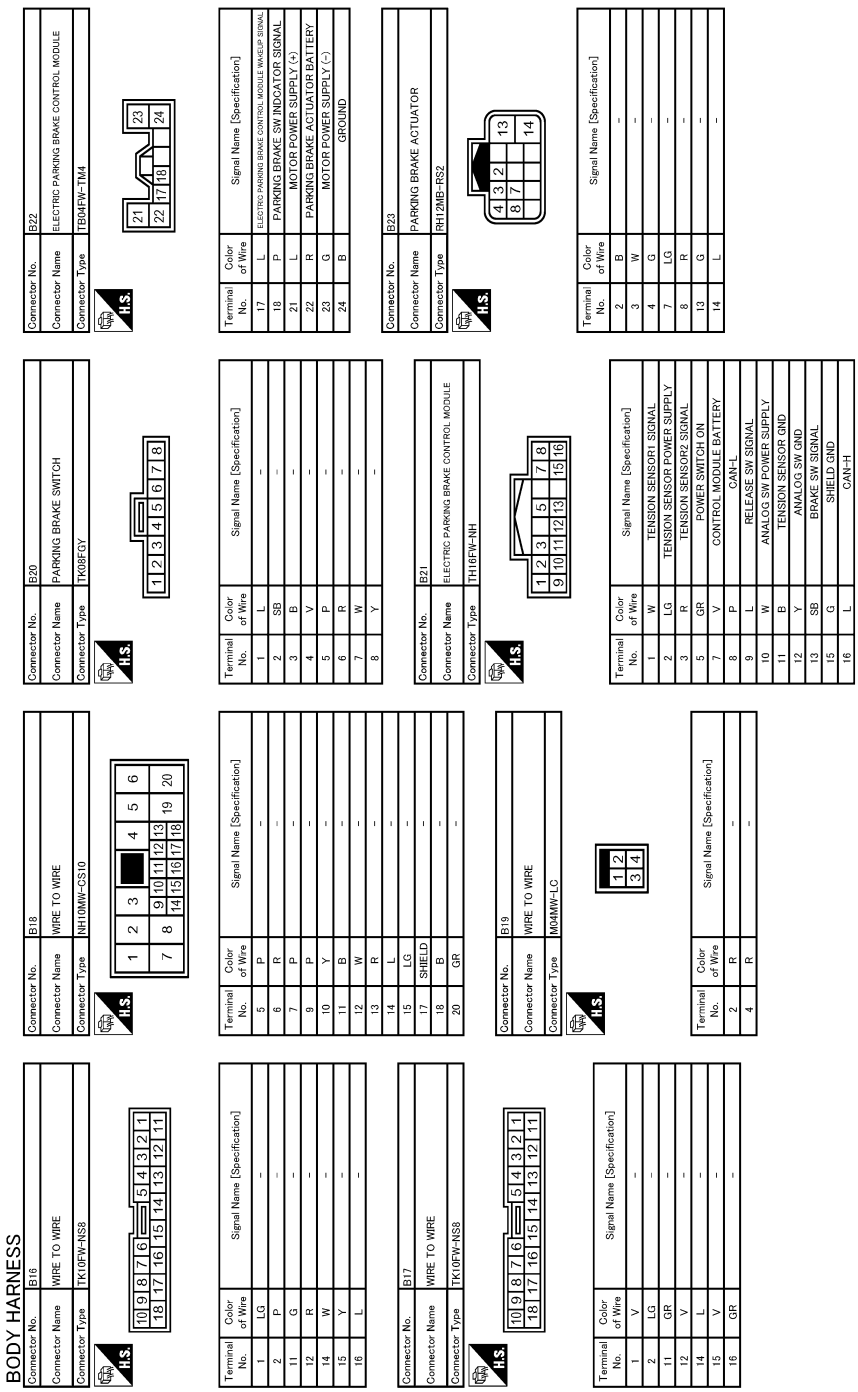


Terminal No.	Color of Wire	Signal Name [Specification]
12	P	PLH (+)
13	V	PLH (–)
16	Y	PLH 2 (+)
17	Y	PLH 2 (–)
30	LG	LH BUCKLE SW INPUT
33	Y	SLH (+)
34	L	SLH (–)
37	G	CLH (+)
38	R	CLH (–)
49	Y	SATELLITE LH (+)
50	LG	SATELLITE LH (–)

Connector No.	B15
Connector Name	BRAKE POWER SUPPLY BACKUP UNIT
Connector Type	TB04FW-TM4

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GROUND
2	R	BRAKE POWER SUPPLY BACKUP UNIT BACKUP SIGNAL
3	L	BRAKE POWER SUPPLY BACKUP UNIT POWER SUPPLY
4	W	BRAKE POWER SUPPLY BACKUP COMM
6	Y	BRAKE POWER SUPPLY BACKUP UNIT WAKEUP SIGNAL

JRMWC5114GB



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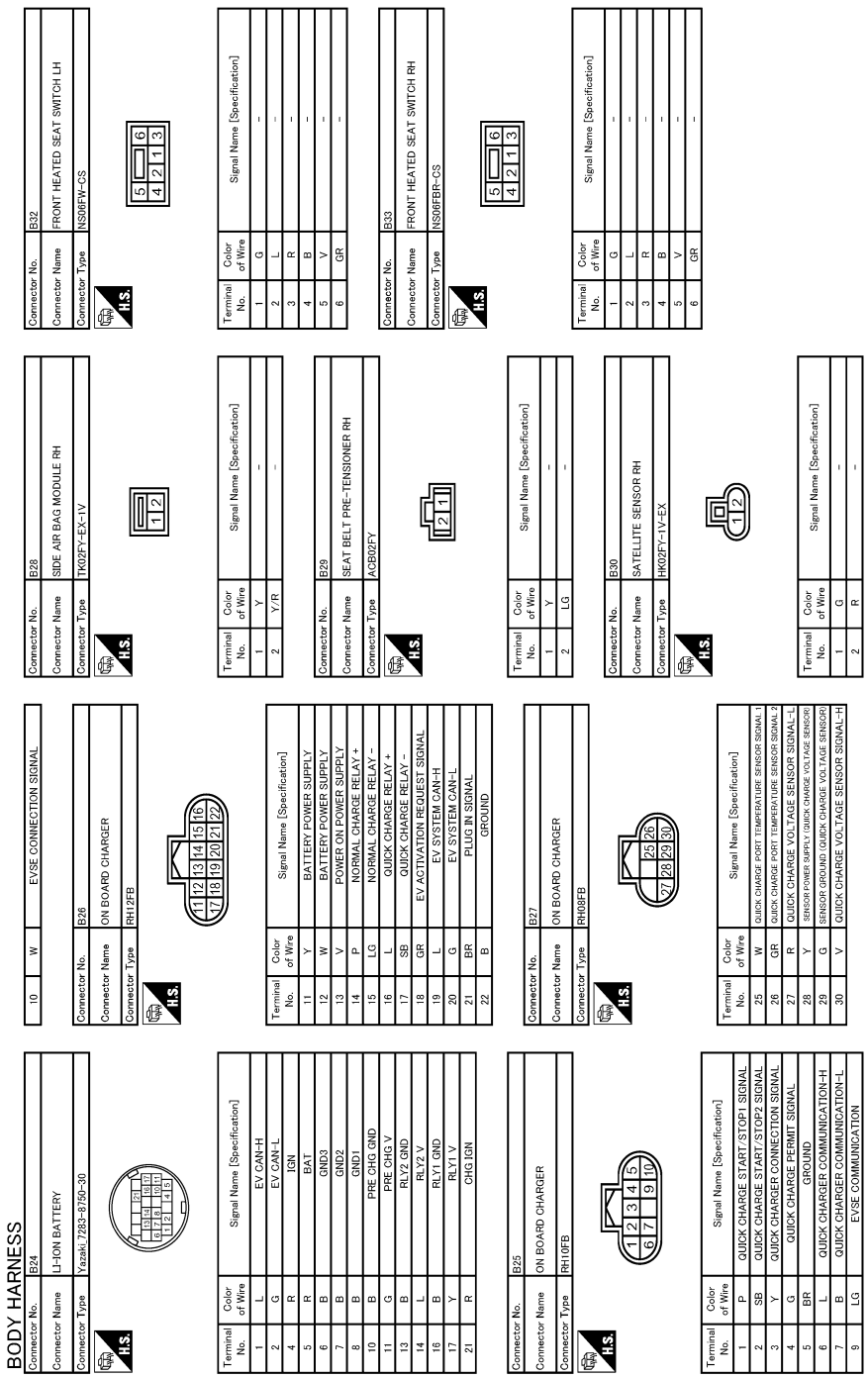

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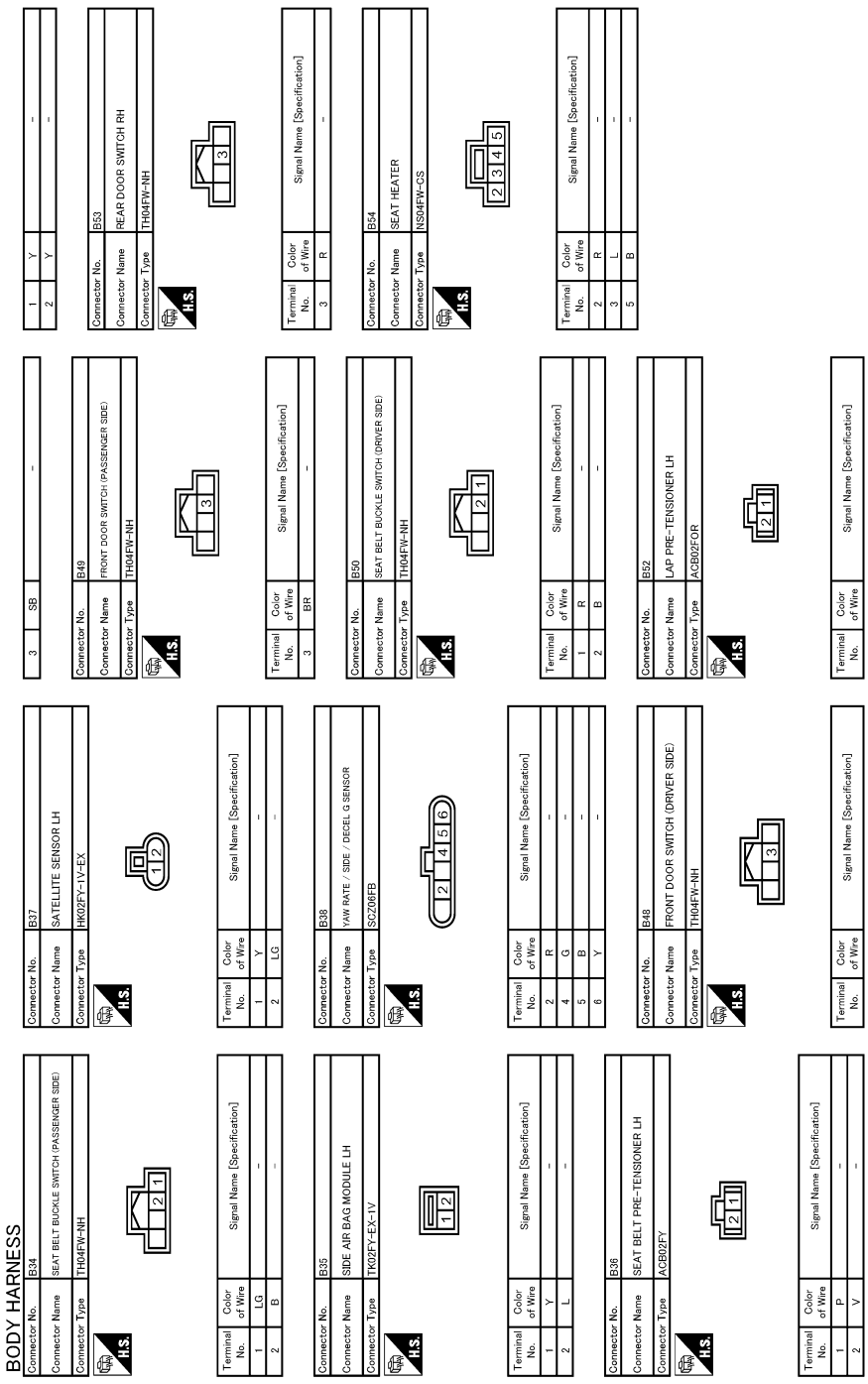

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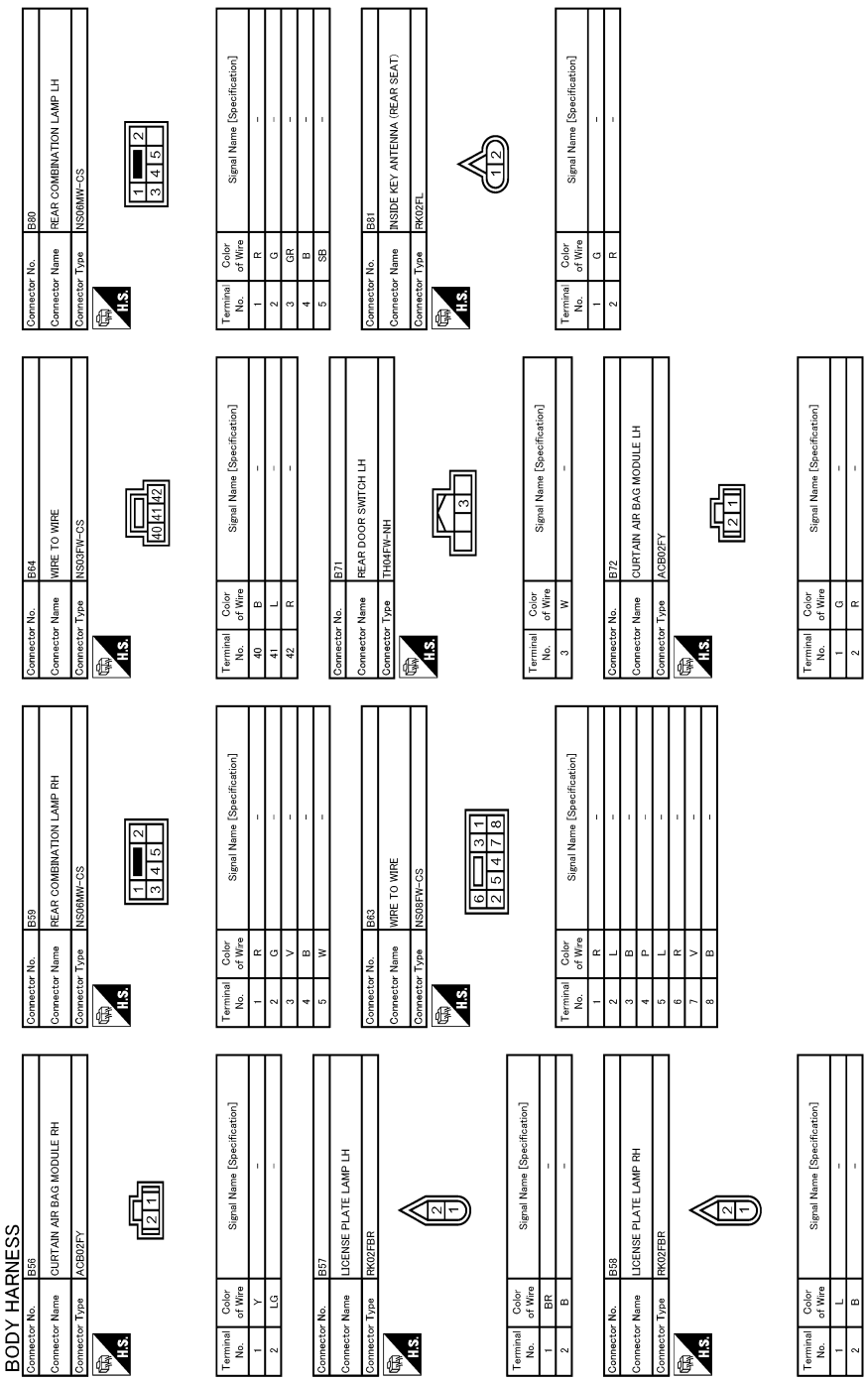

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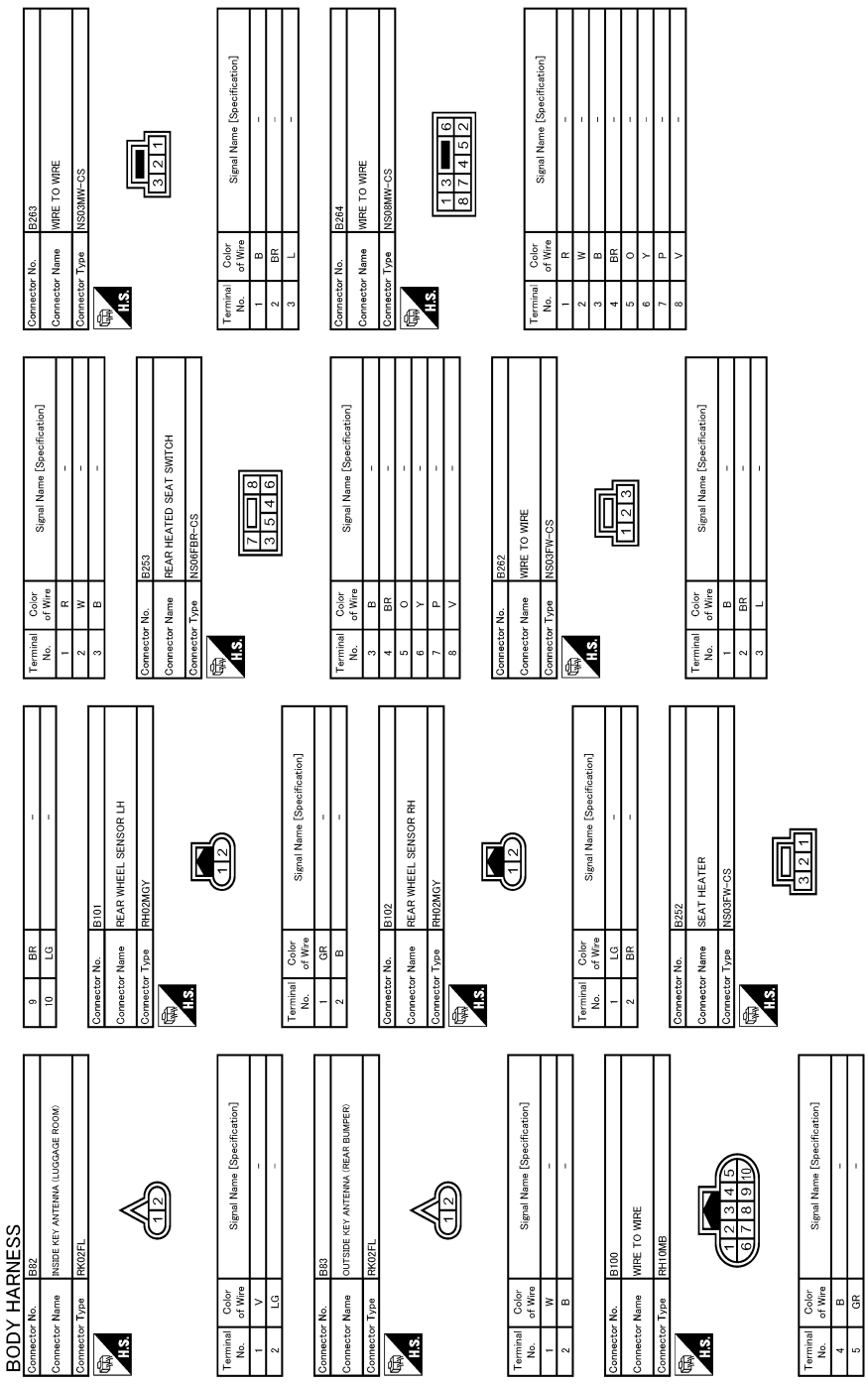


JRMWC5119GB

BODY HARNESS

Connector No.	B265
Connector Name	WIRE TO WIRE
Connector Type	NS03MW-CS

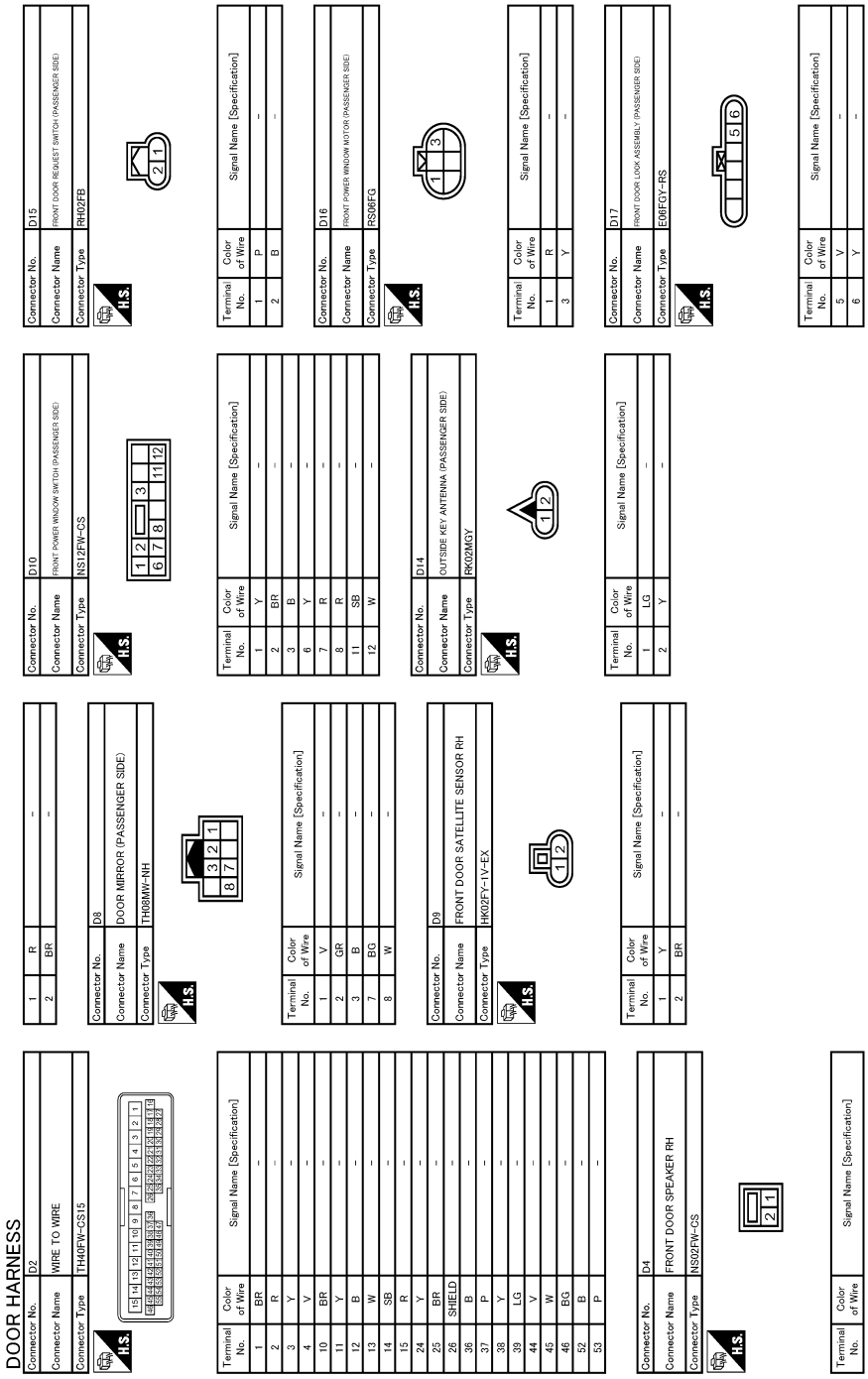
H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
40	B	-
41	W	-
42	R	-

JRMWC5120GB

D Door Harness

INFOID:0000000007828177



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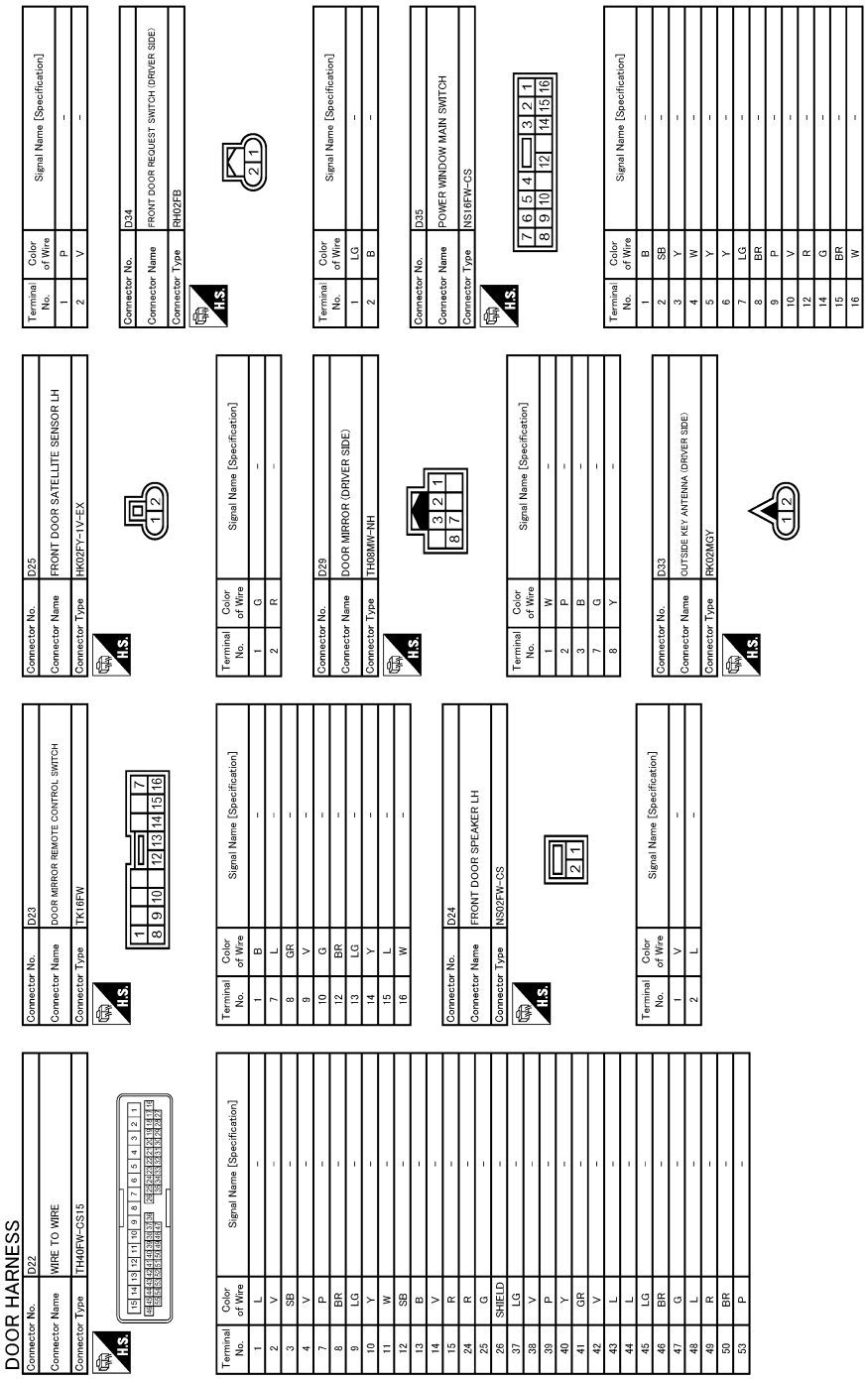

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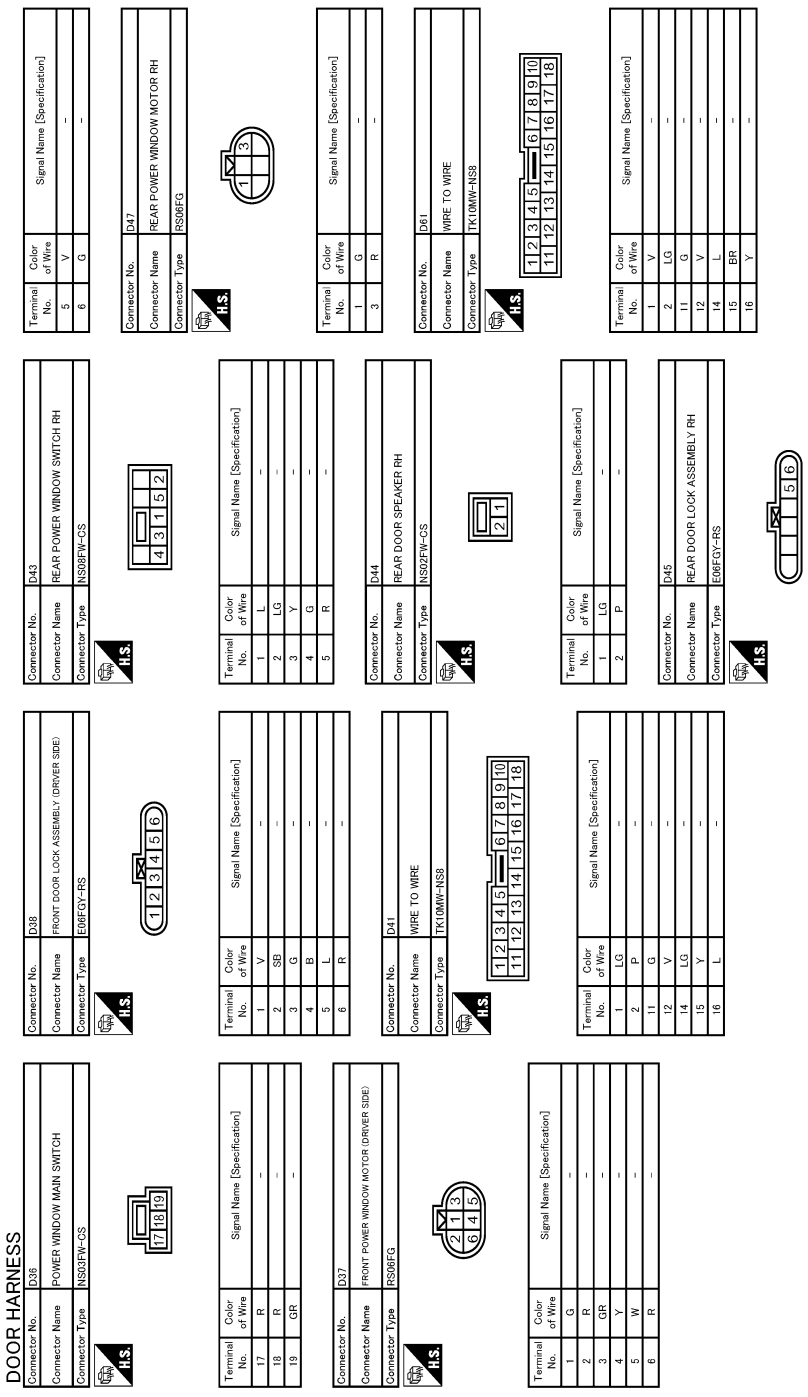

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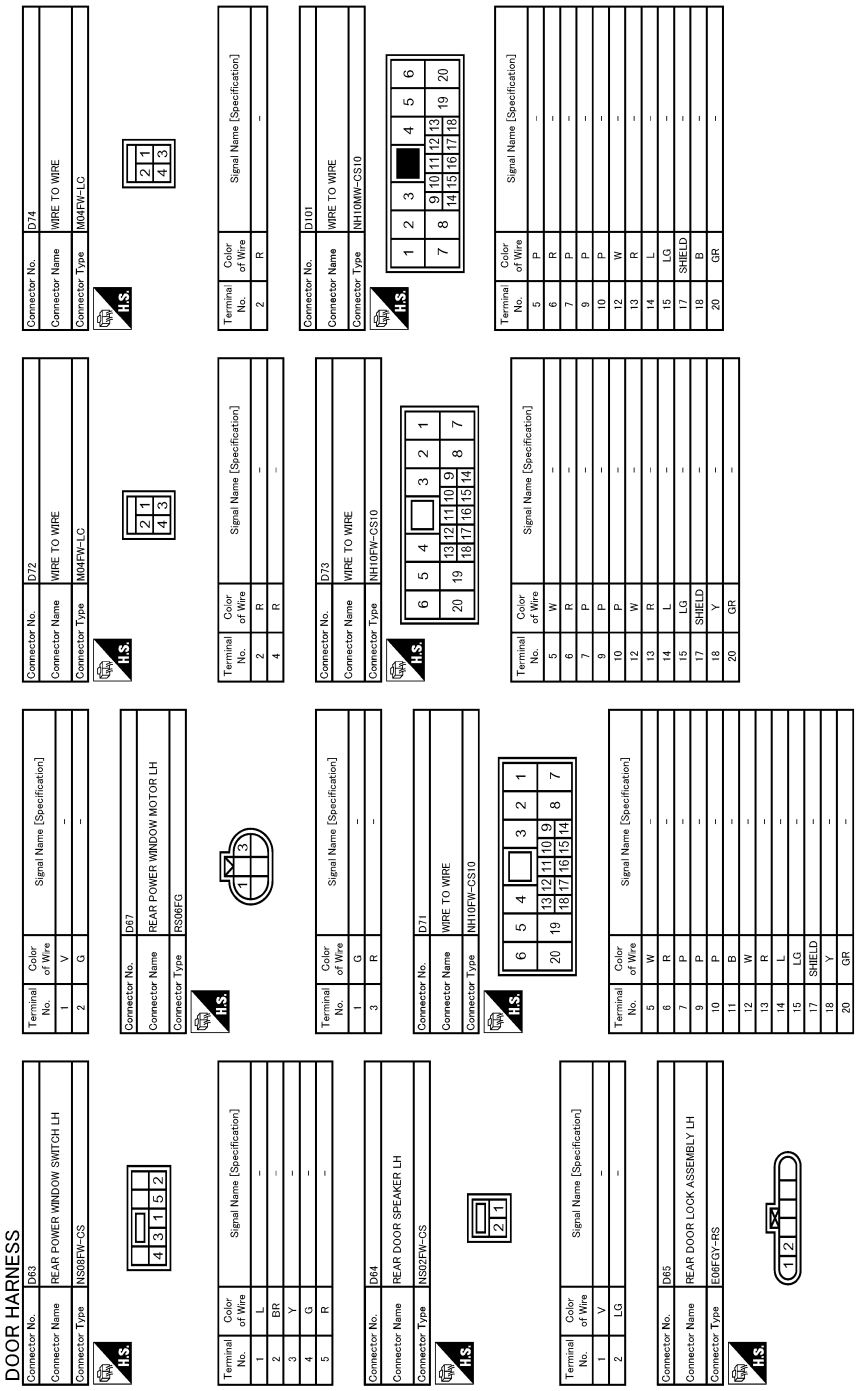

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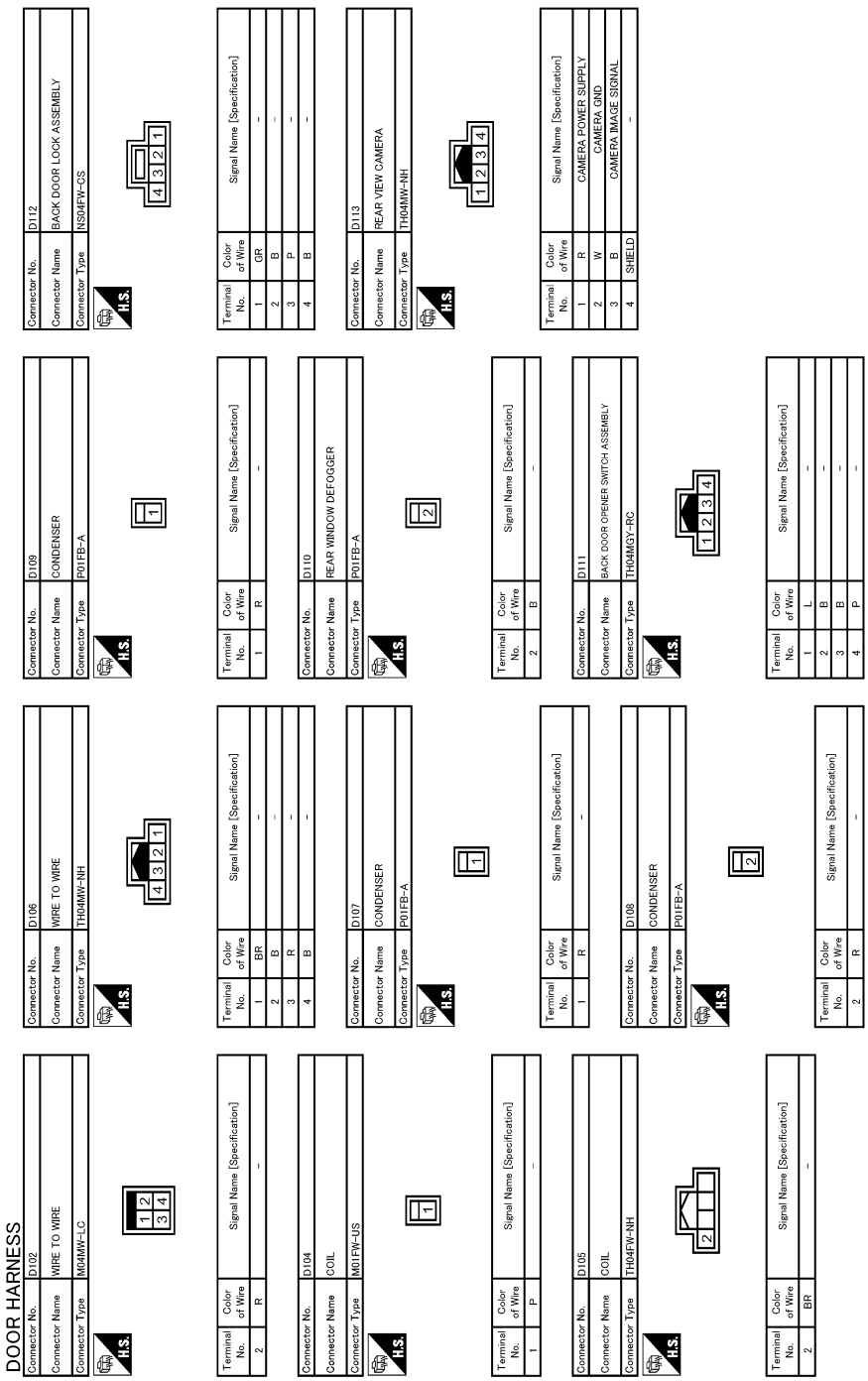

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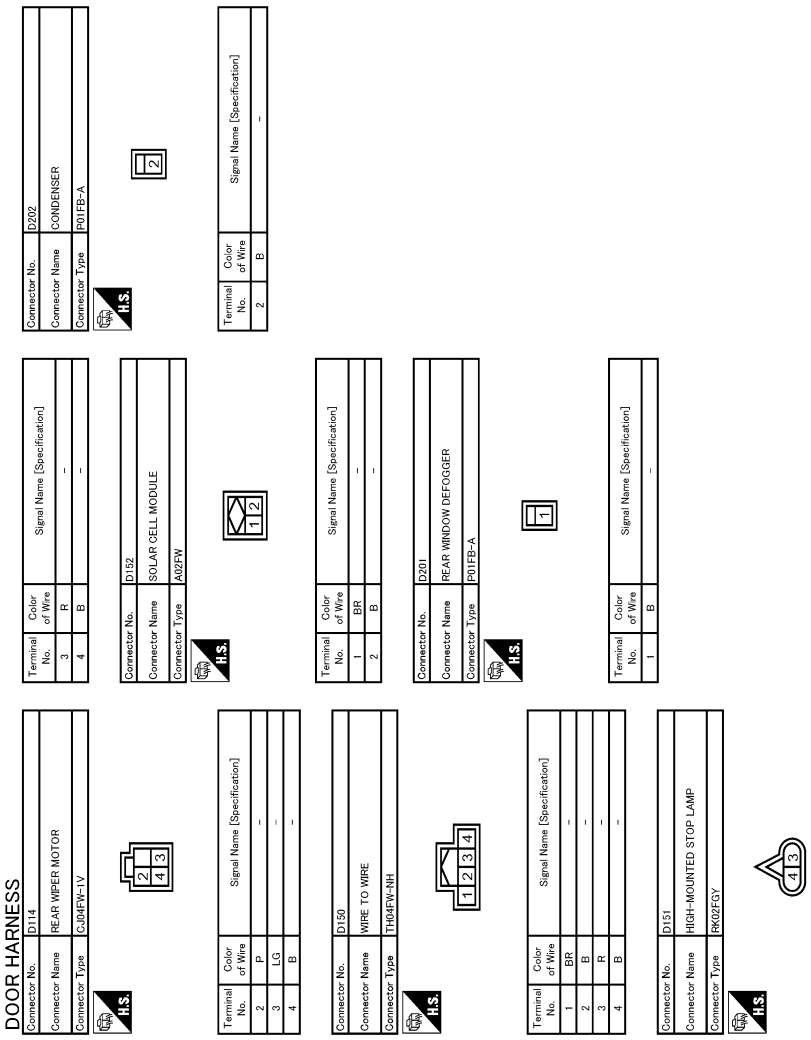
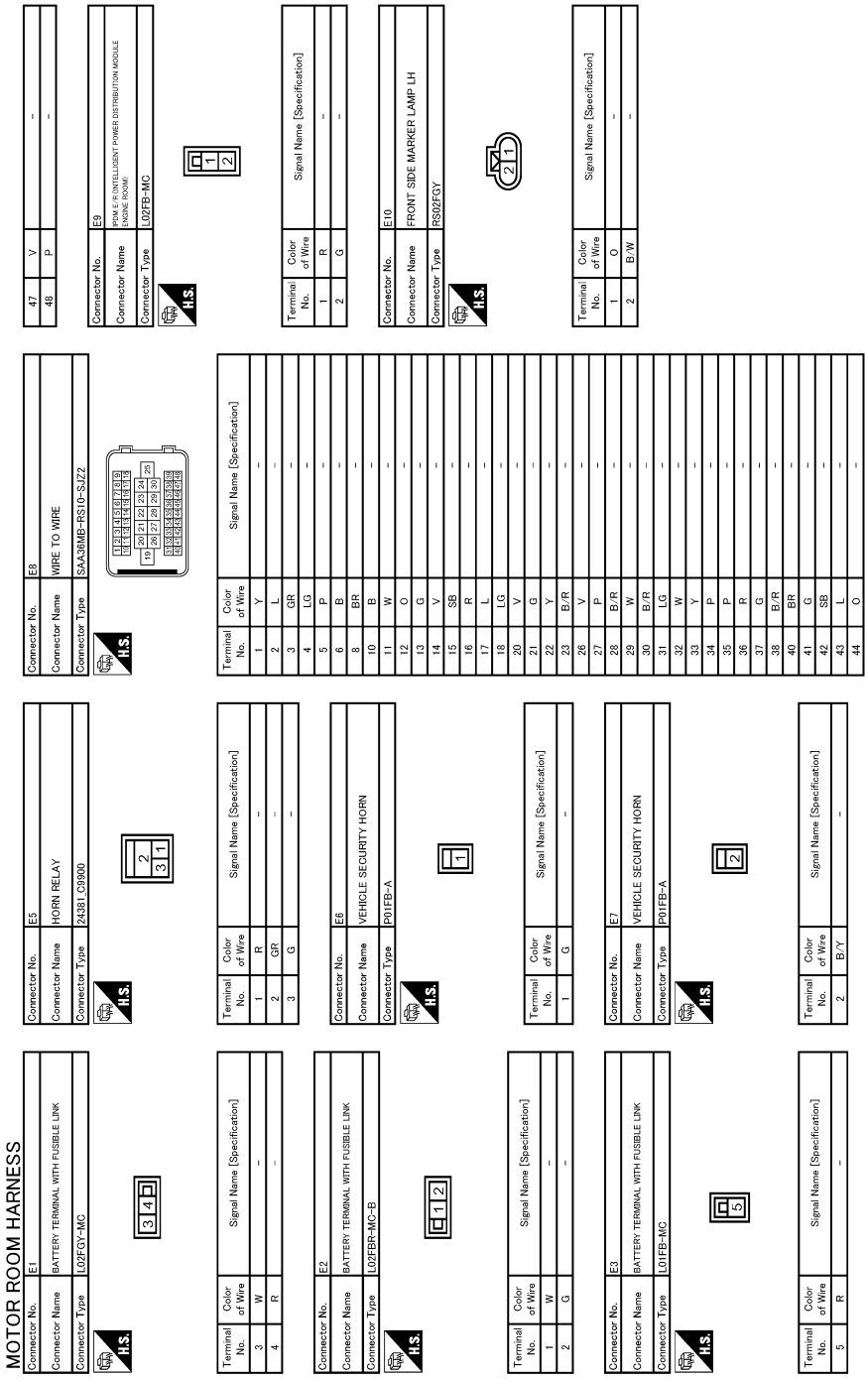


JRMWC5126GB

E Motor Room Harness

INFOID:0000000007828178



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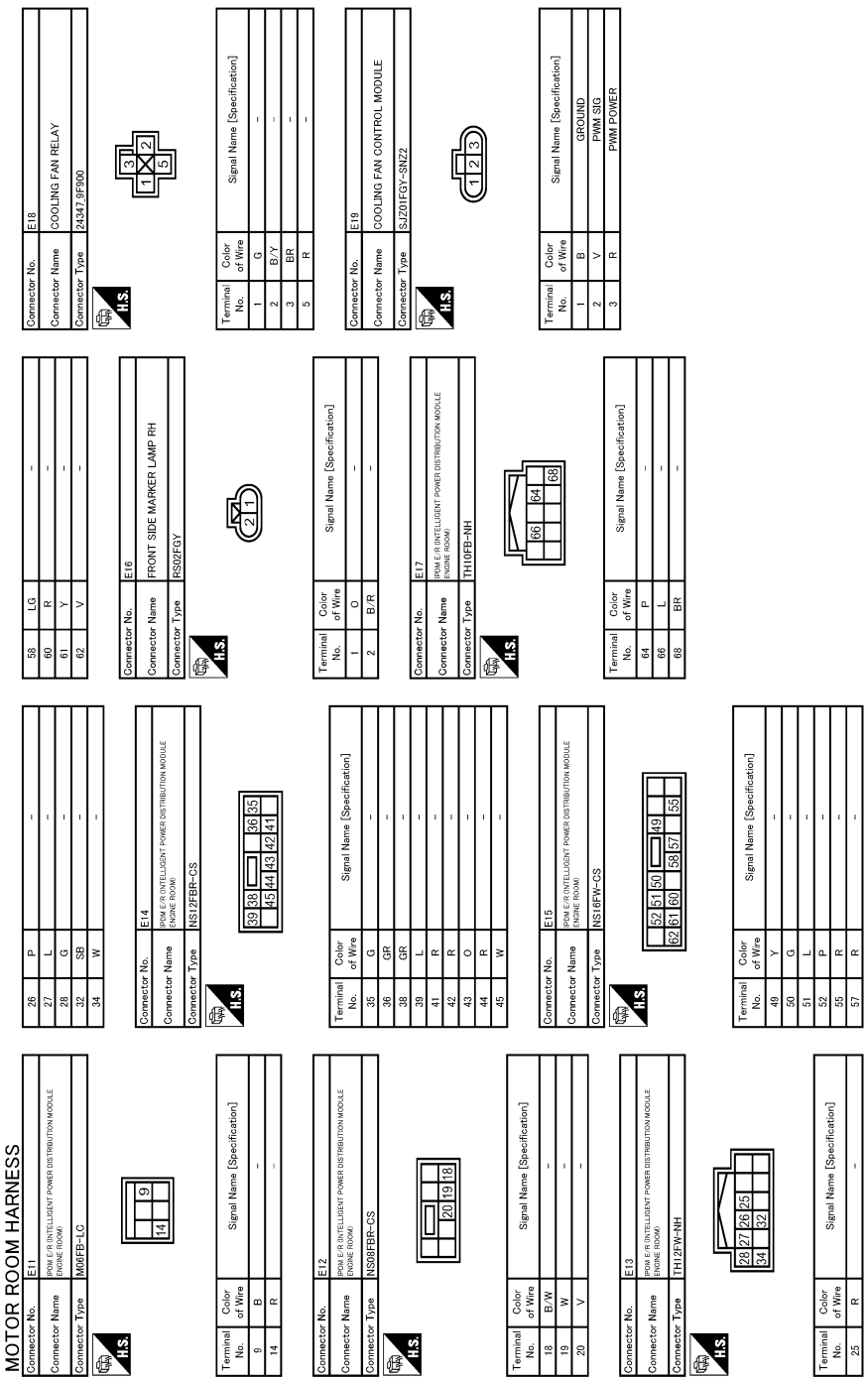

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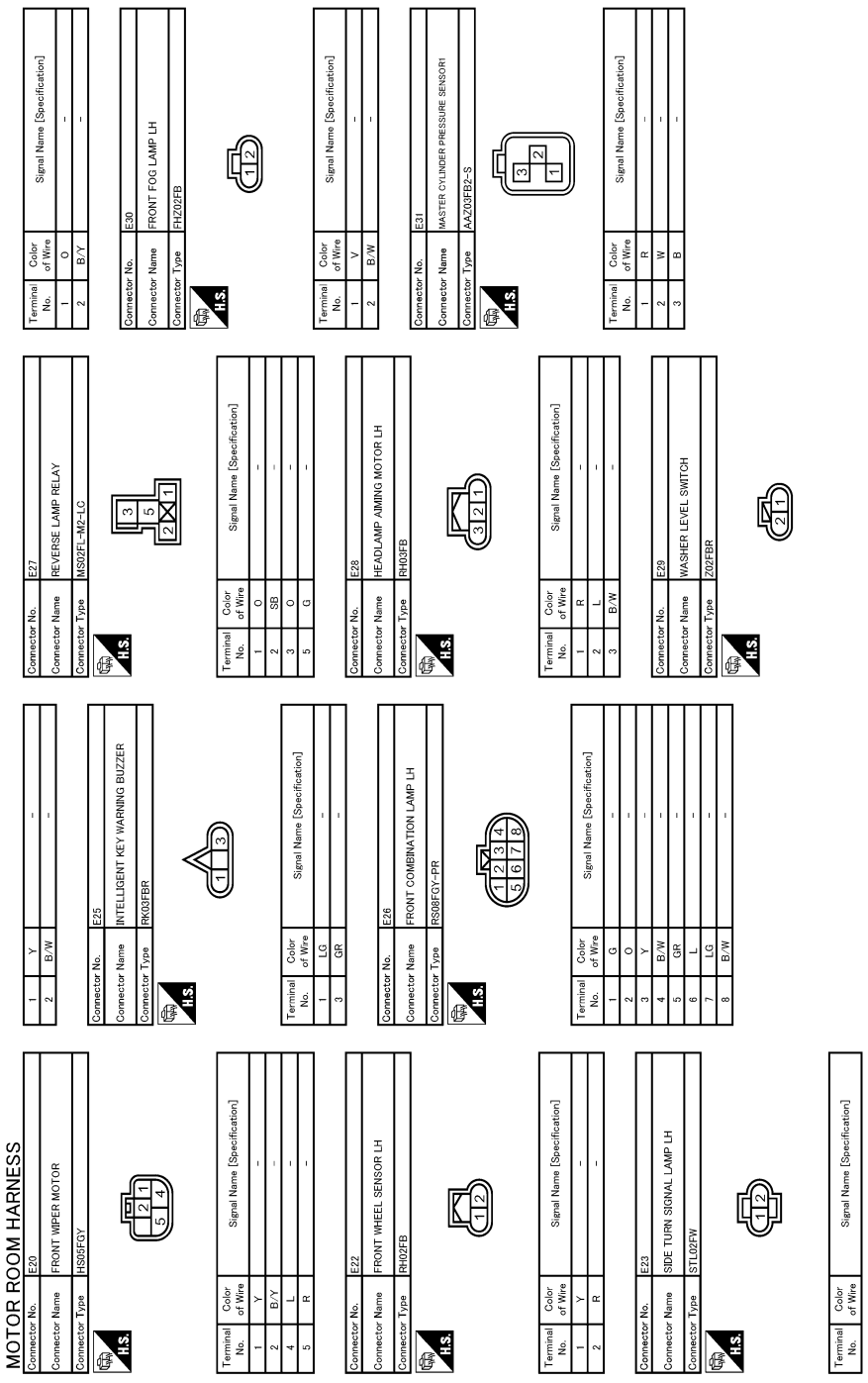

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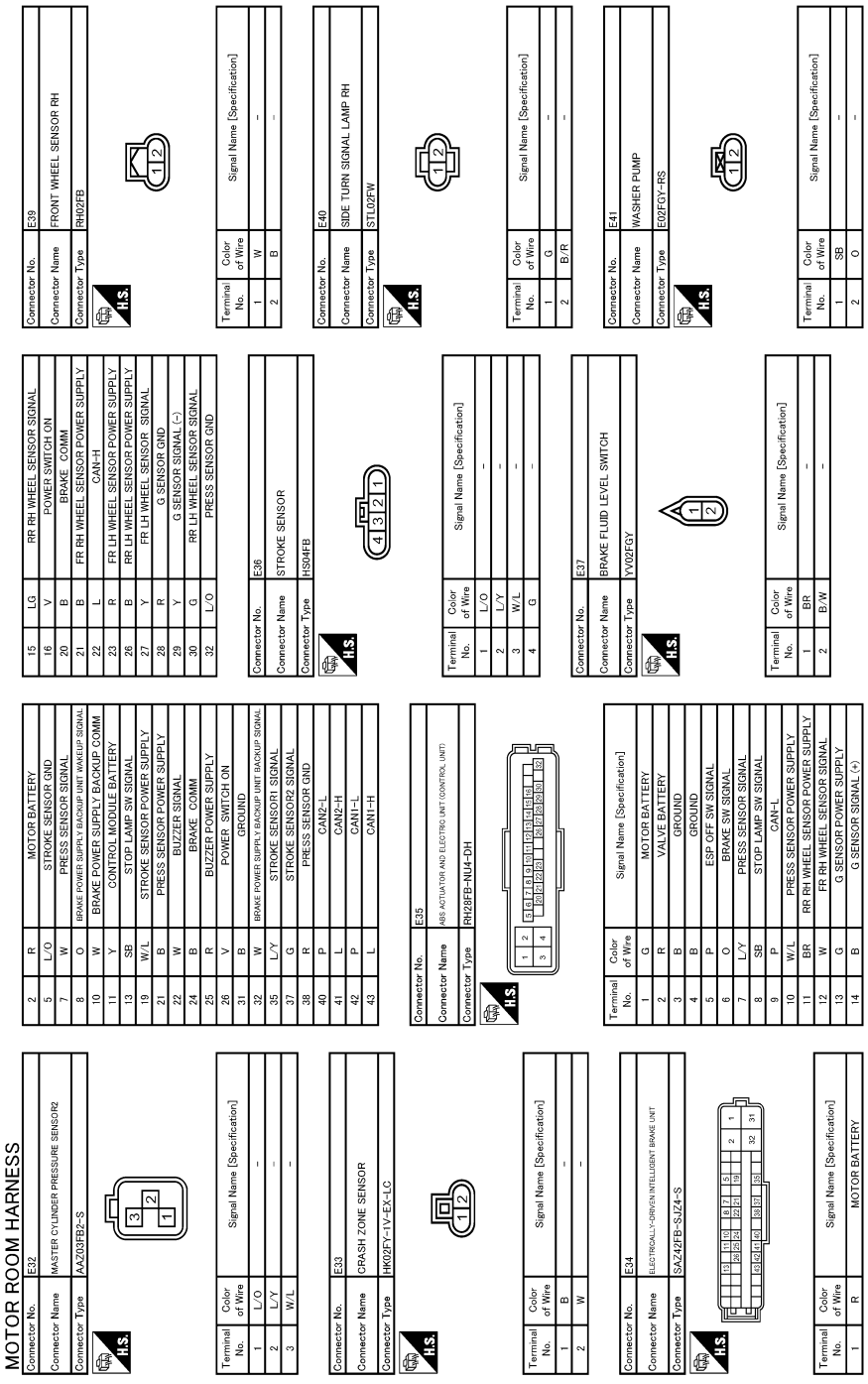

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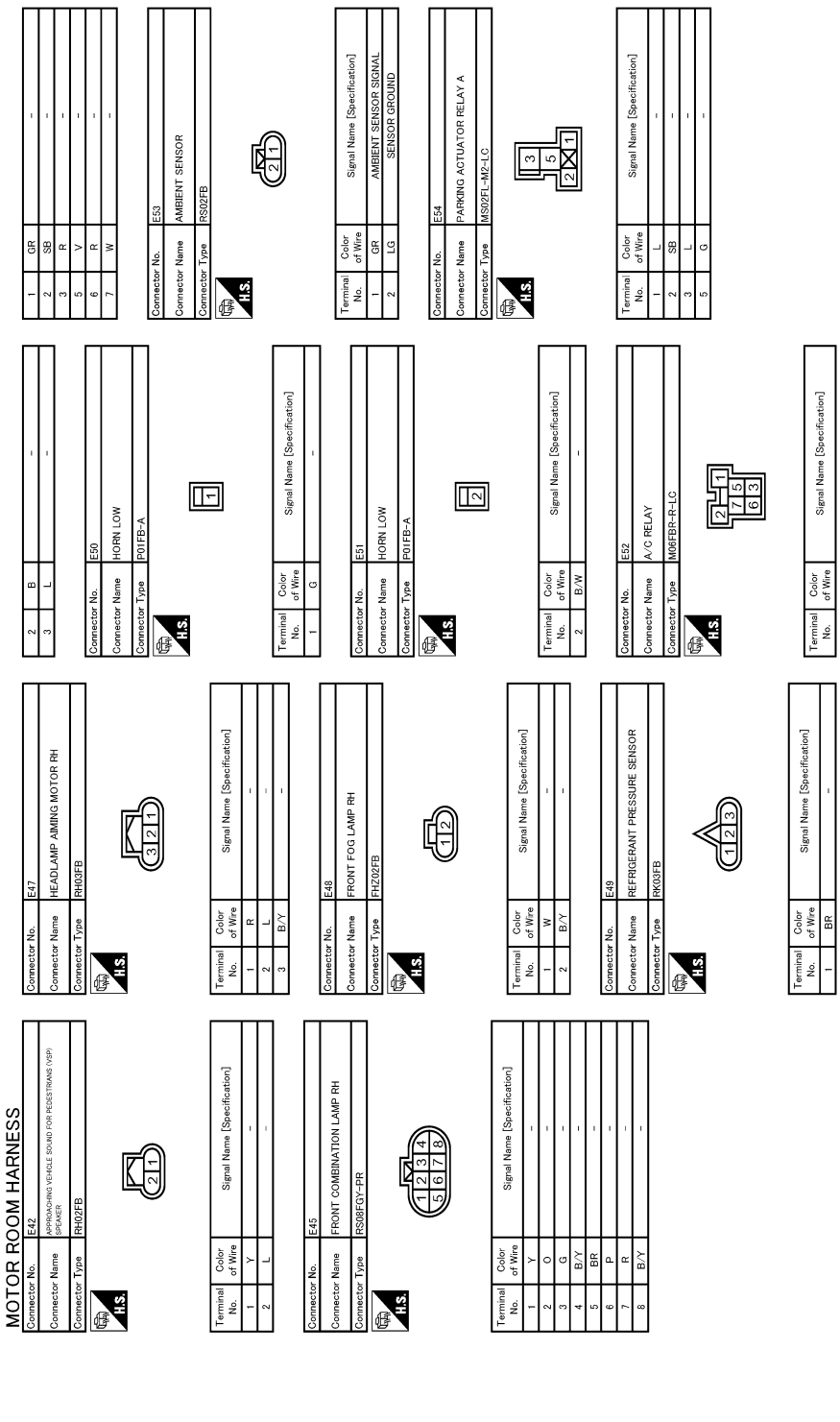

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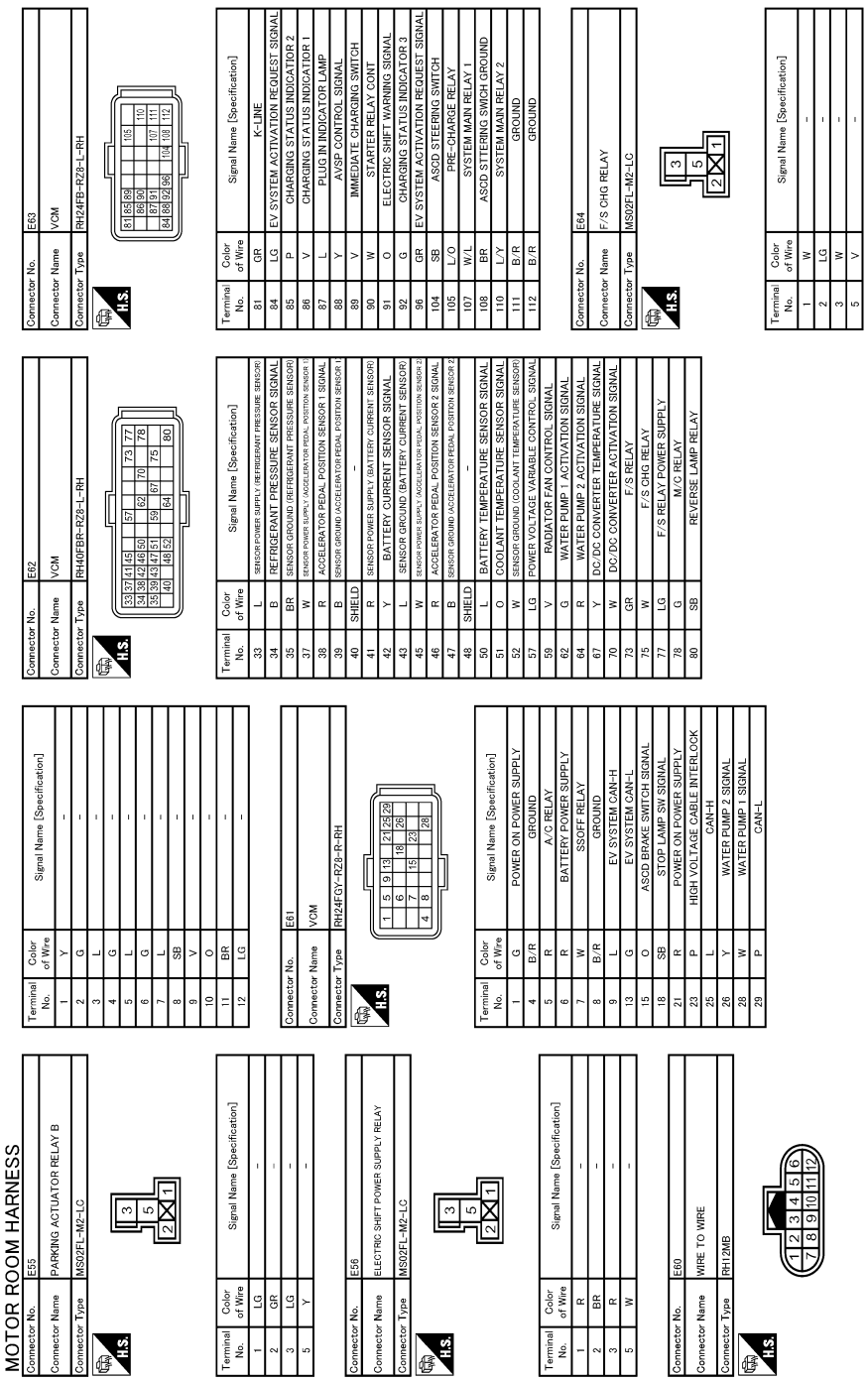


JRMWC5132GB

MOTOR ROOM HARNESS

Connector No.	E65
Connector Name	M/C RELAY
Connector Type	MS02FL-M2-LC

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–
3	R	–
5	W	–

Connector No.	E66
Connector Name	BATTERY CURRENT SENSOR
Connector Type	SAZ04FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	–
2	L	–
3	L	–
4	Y	–

Connector No.	E67
Connector Name	ELECTRIC WATER PUMP 1
Connector Type	RS04FG

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	B/Y	–
3	G	–
4	W	–

Connector No.	E68
Connector Name	ELECTRIC WATER PUMP 2
Connector Type	RS04FG

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	B/W	–
3	R	–
4	Y	–

Connector No.	E69
Connector Name	COOLANT TEMPERATURE SENSOR
Connector Type	E02FGY-RS

Terminal No.	Color of Wire	Signal Name [Specification]
1	O	–
2	W	–

Connector No.	E70
Connector Name	QUICK CHARGE PORT
Connector Type	RH10FB

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	–
2	SB	–
3	Y	–
4	G	–
5	BR	–
6	L	–
7	O	–
9	W	–
10	R	–

Connector No.	E71
Connector Name	NORMAL CHARGE PORT
Connector Type	RH03FB

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	B	–
3	L	–

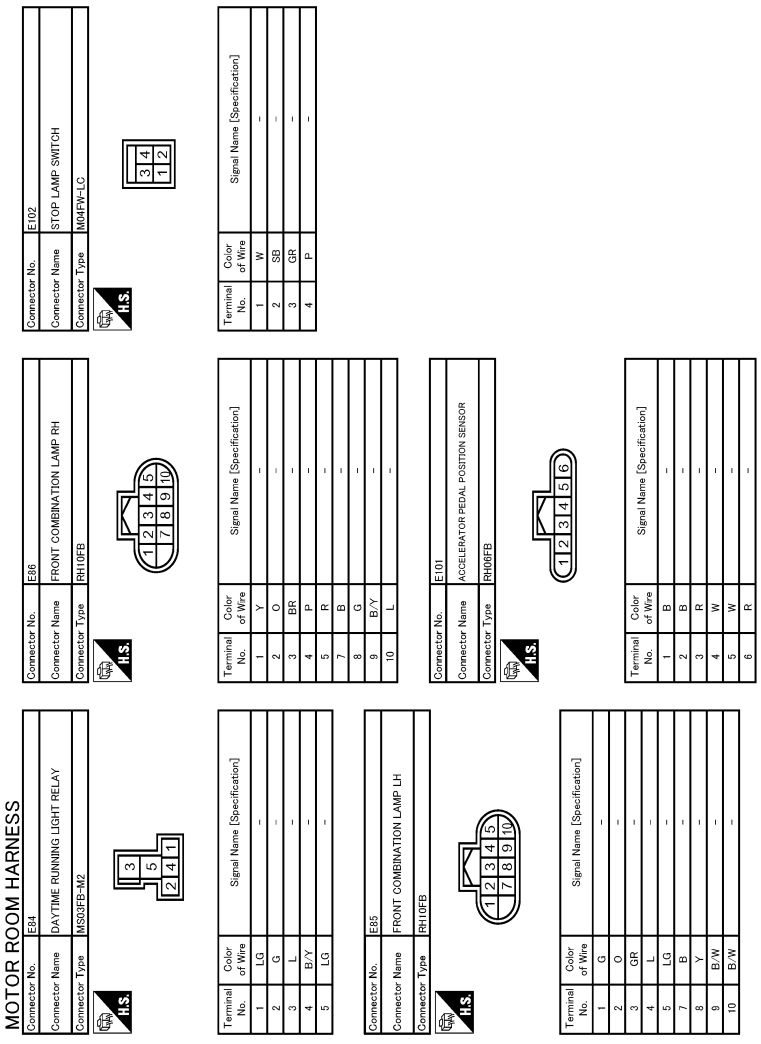
Connector No.	E73
Connector Name	VEHICLE SECURITY HORN RELAY
Connector Type	M03FW-R-LC

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	–
2	O	–
3	G	–

Connector No.	E78
Connector Name	HOOD SWITCH
Connector Type	RK02MGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	–
2	SB	–

JRMWC5133GB



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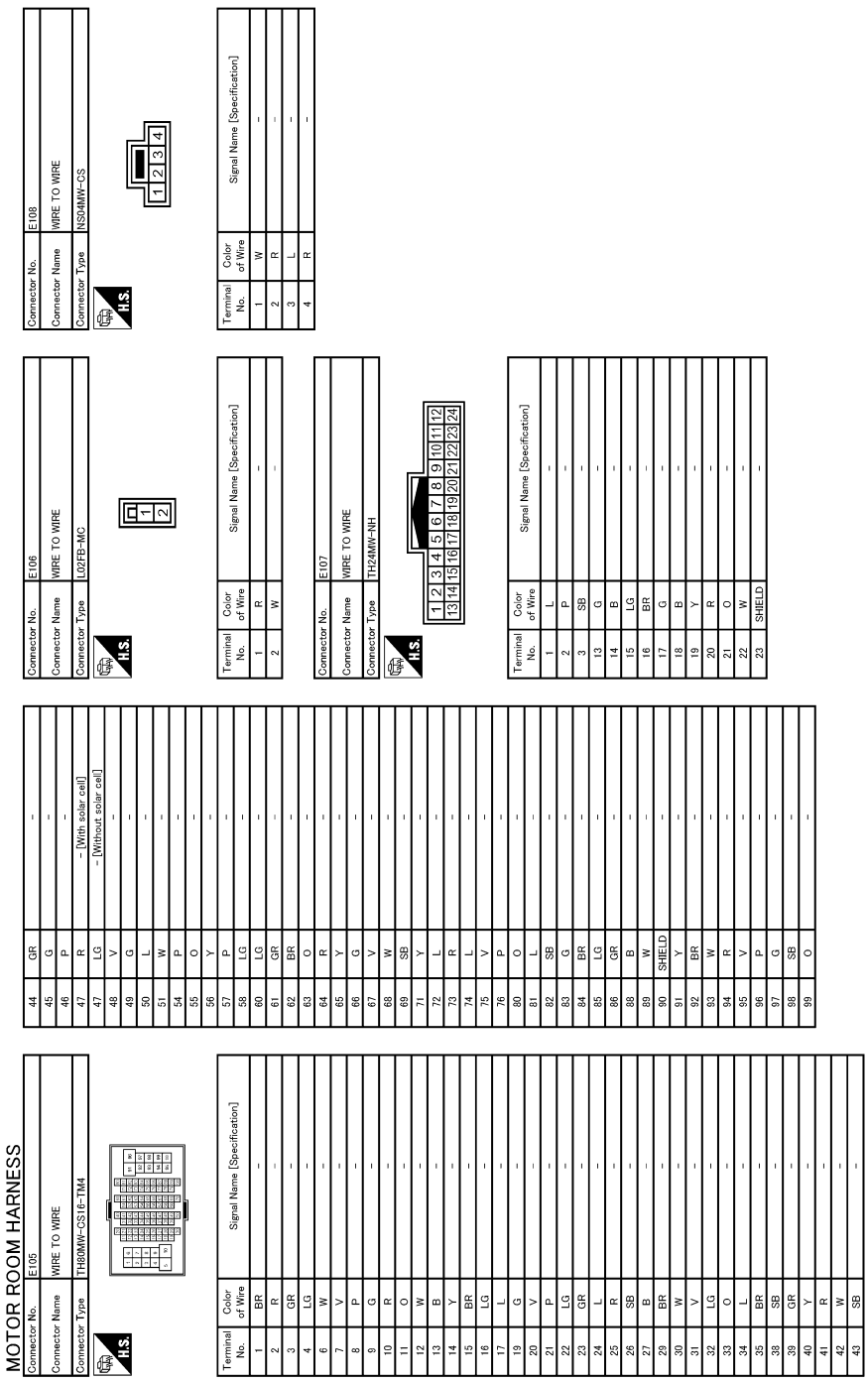

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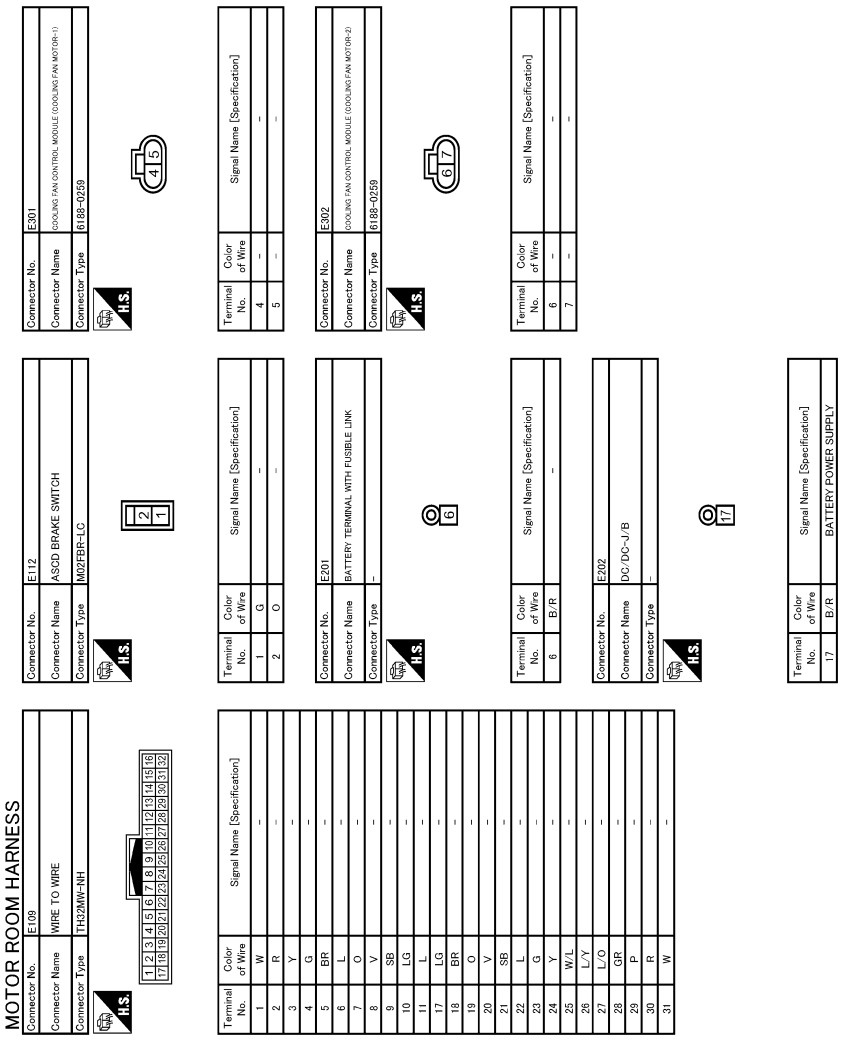

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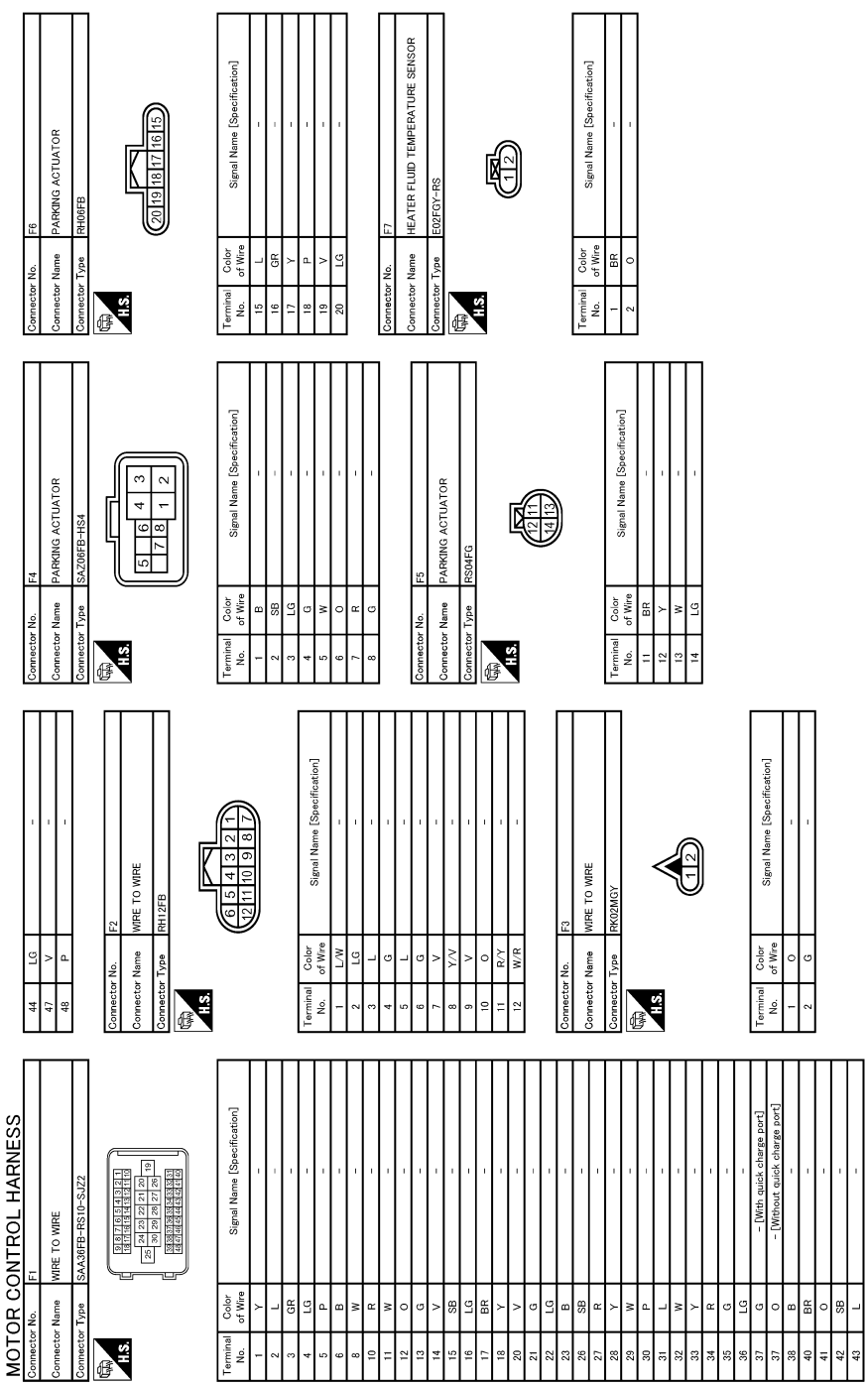

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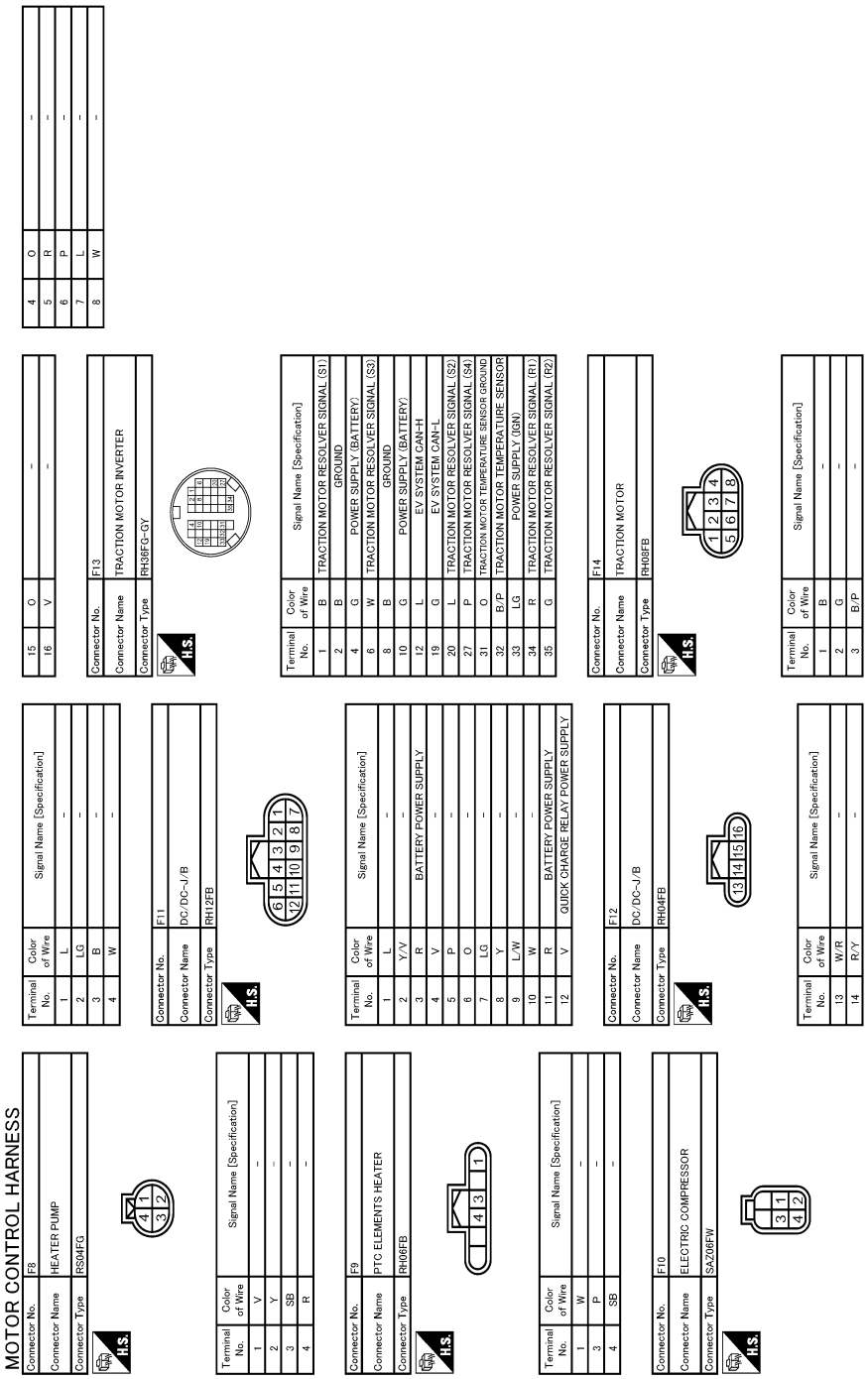

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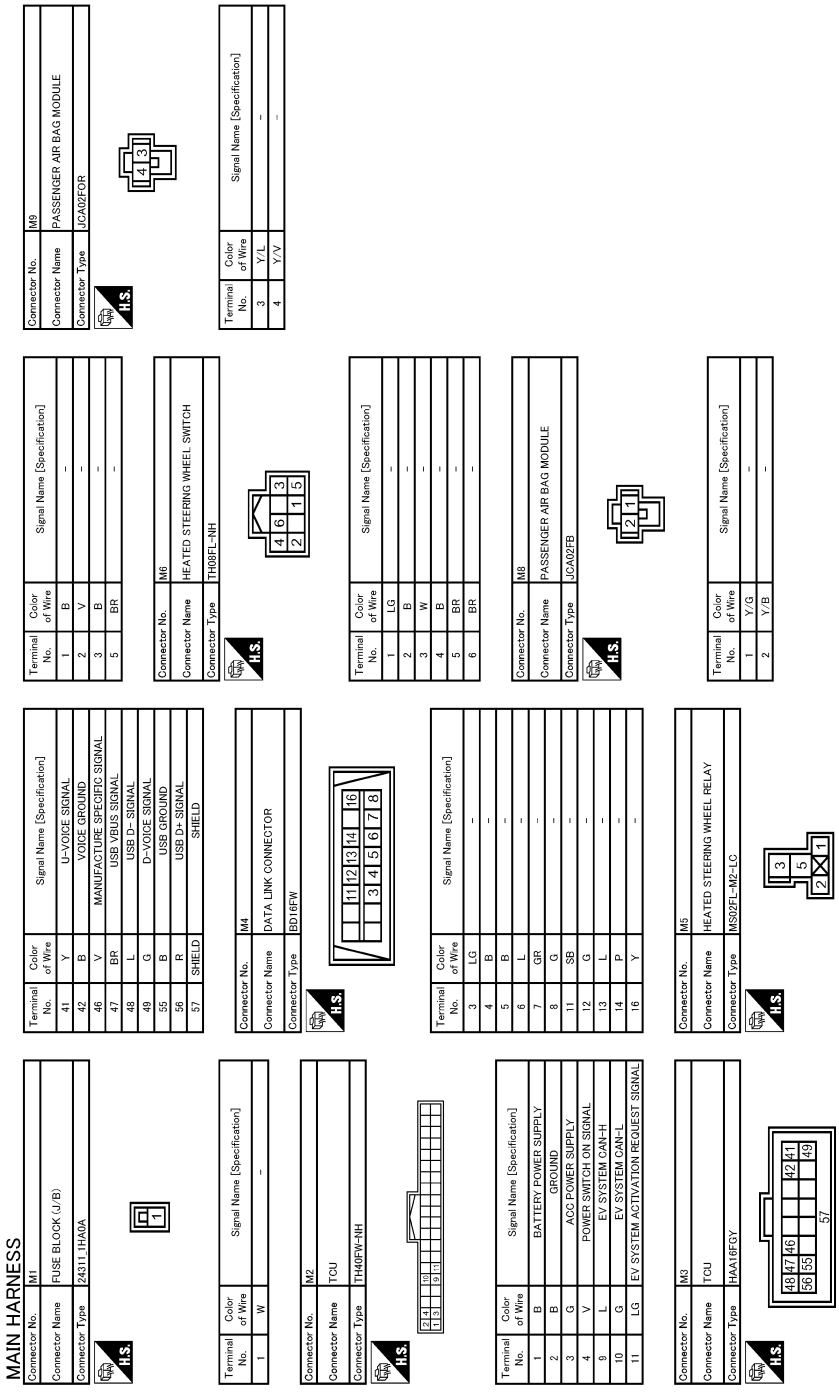

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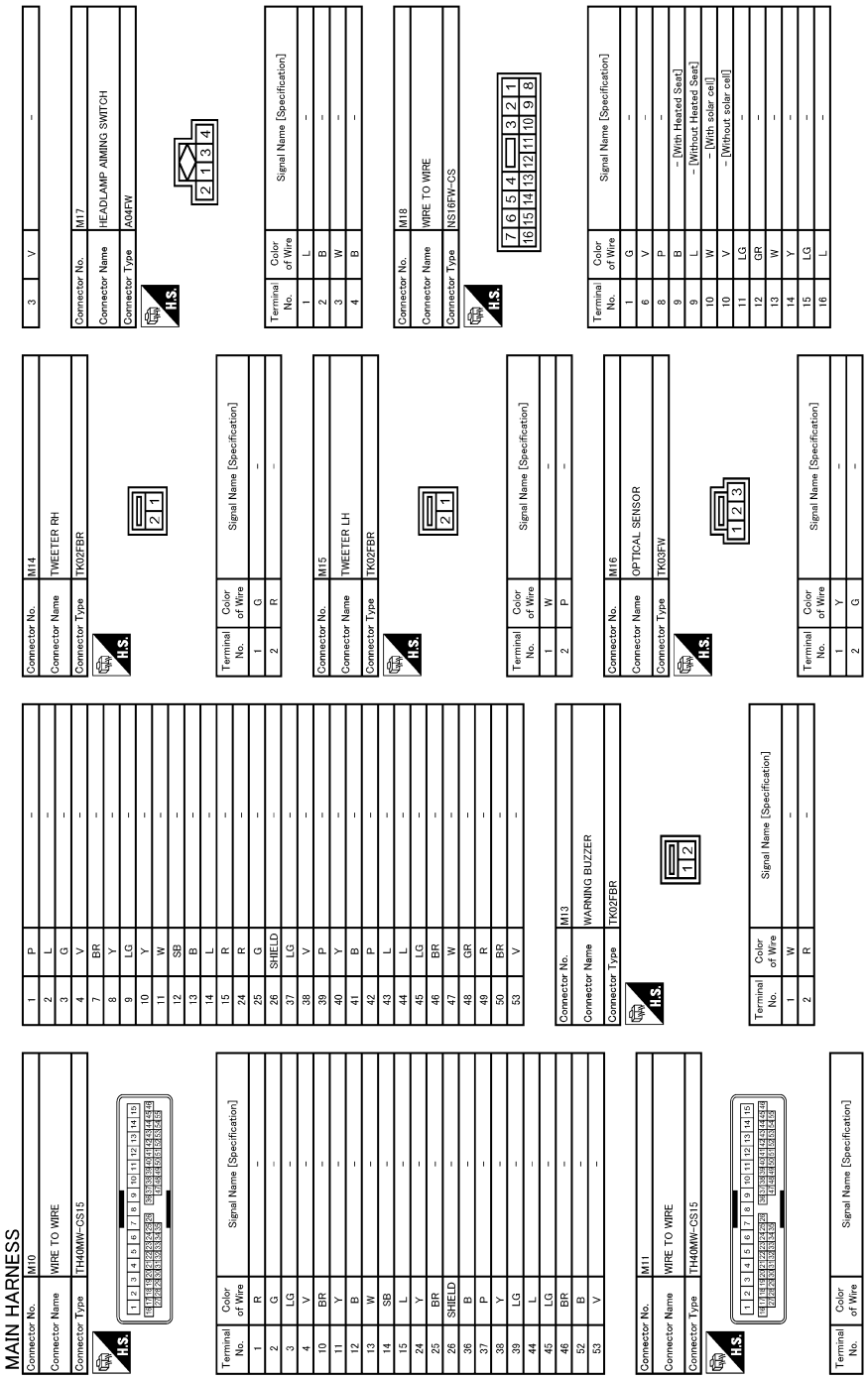

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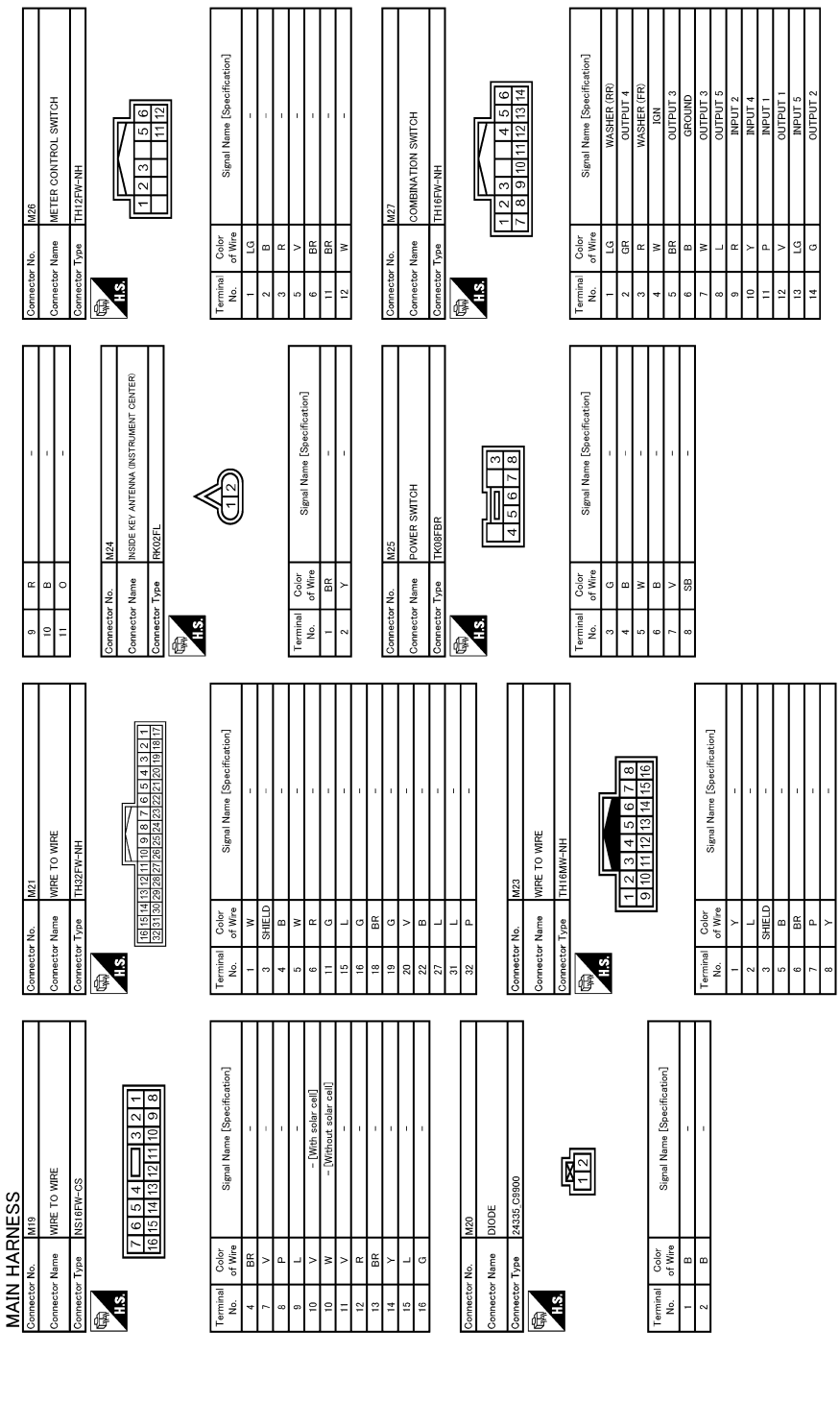

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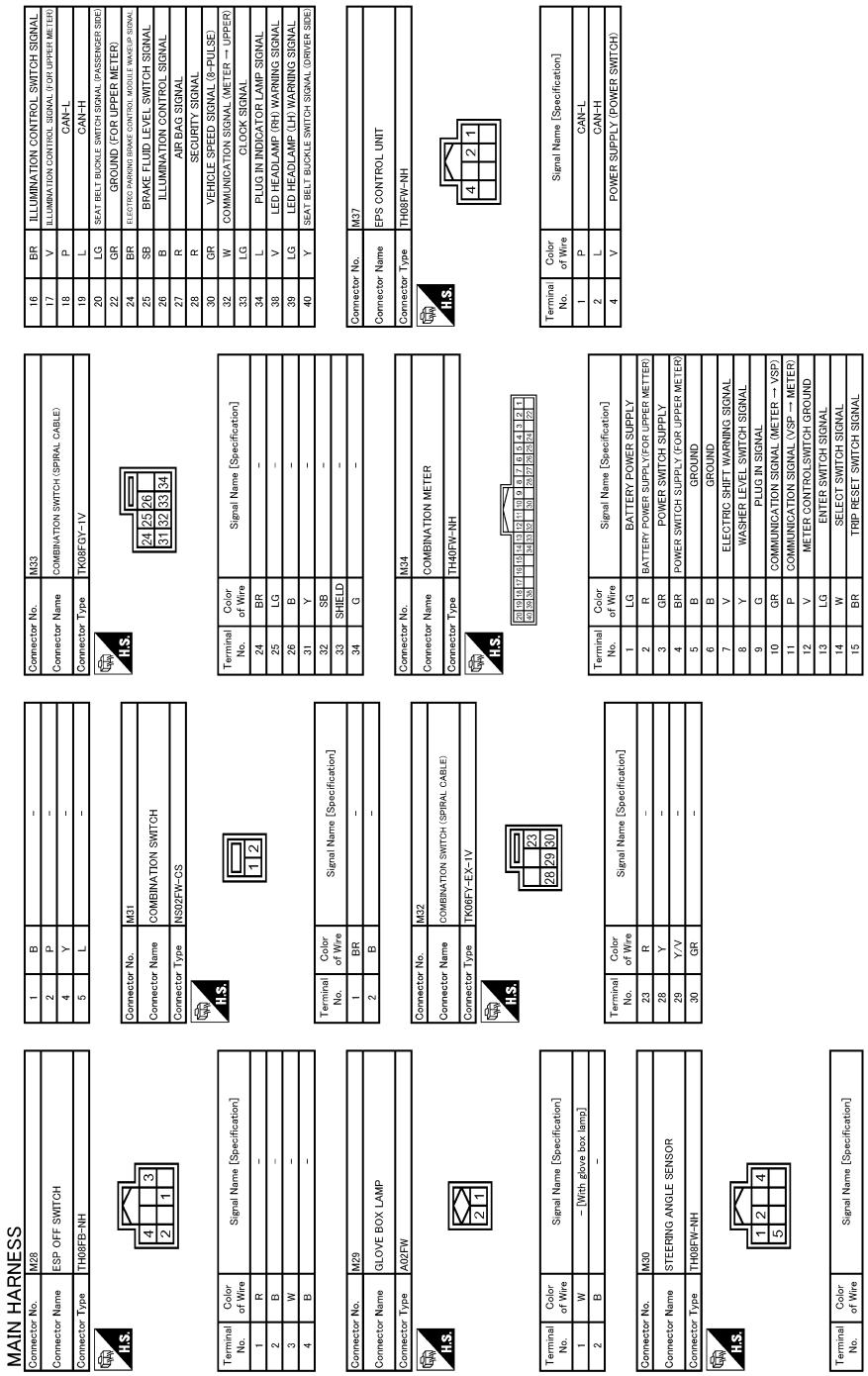

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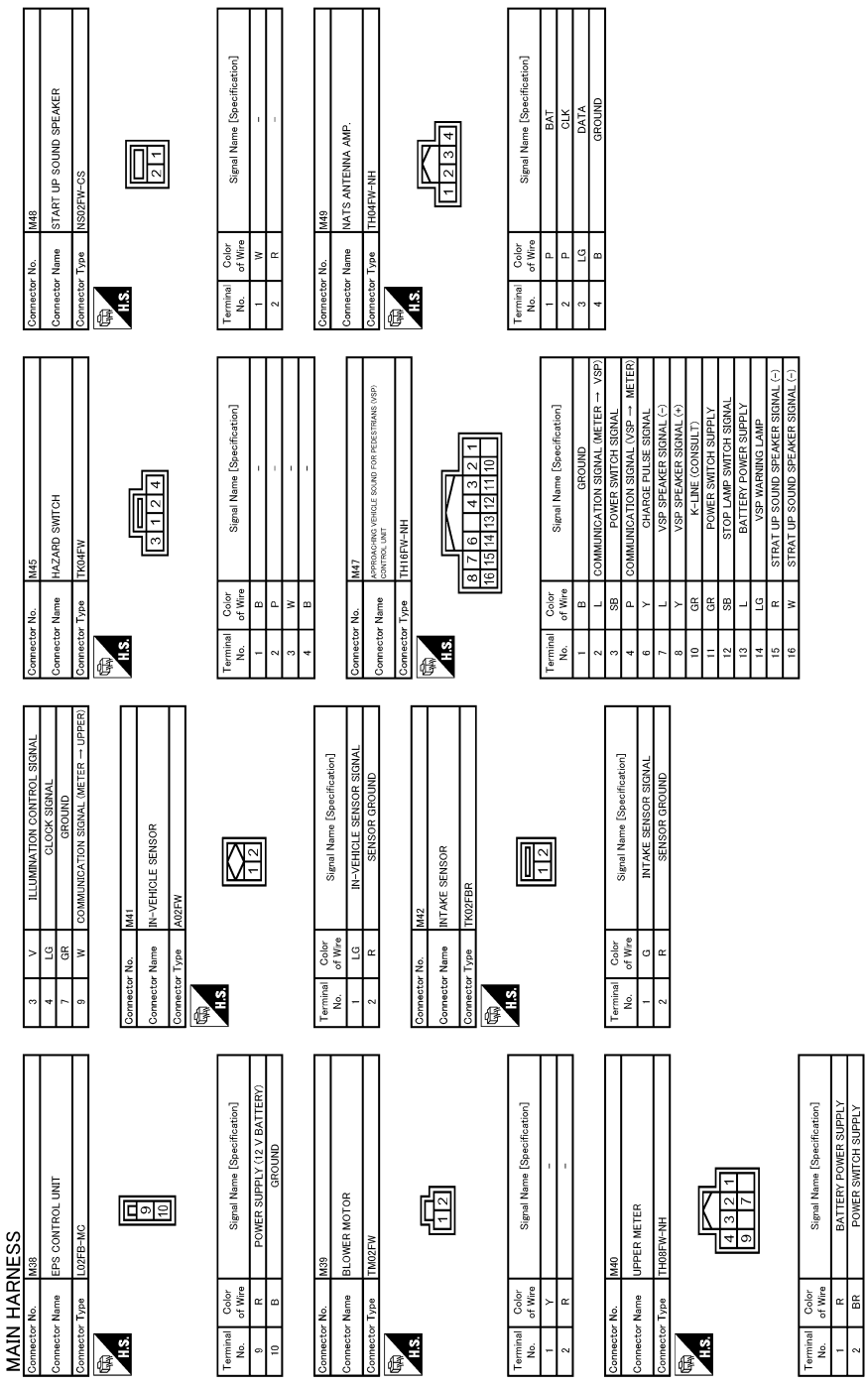

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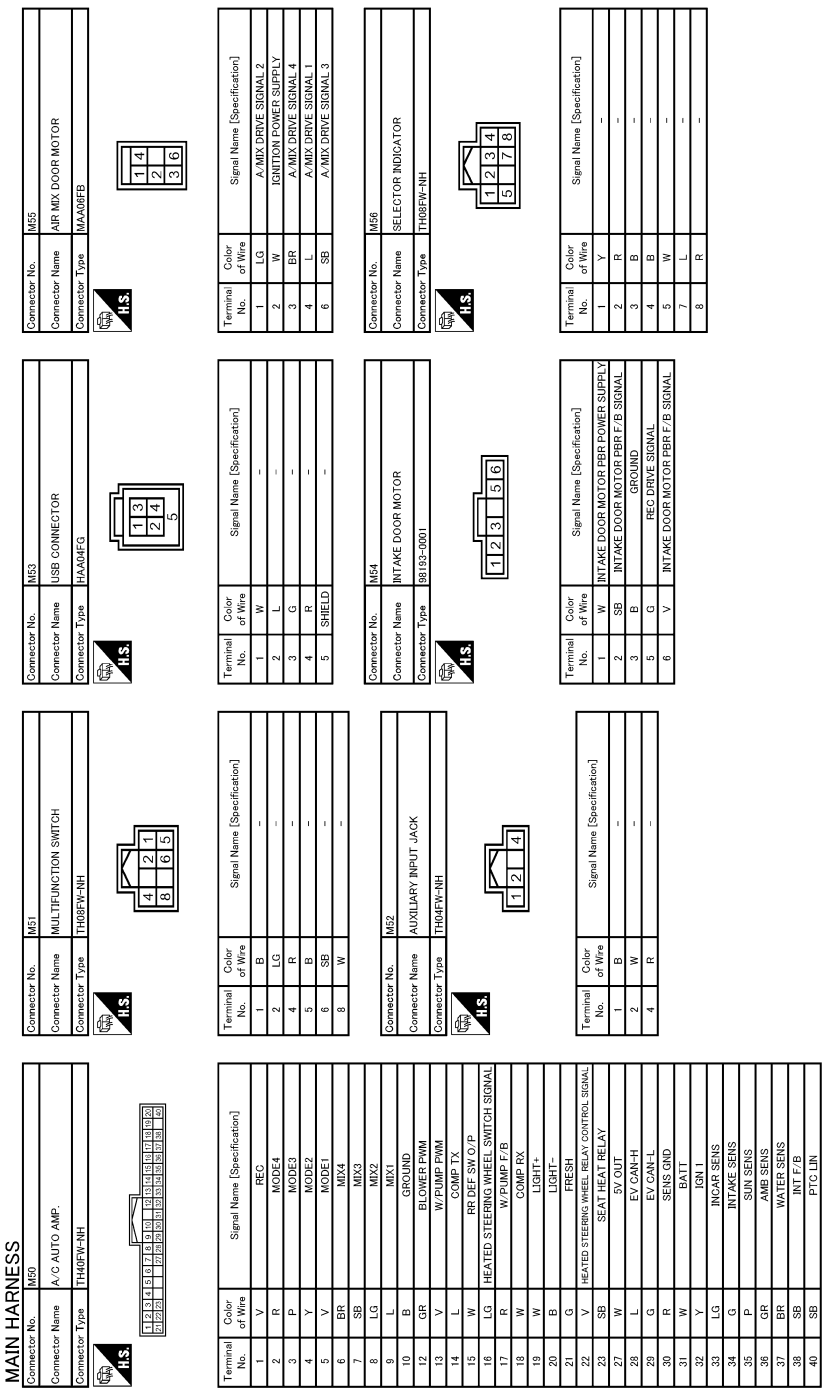

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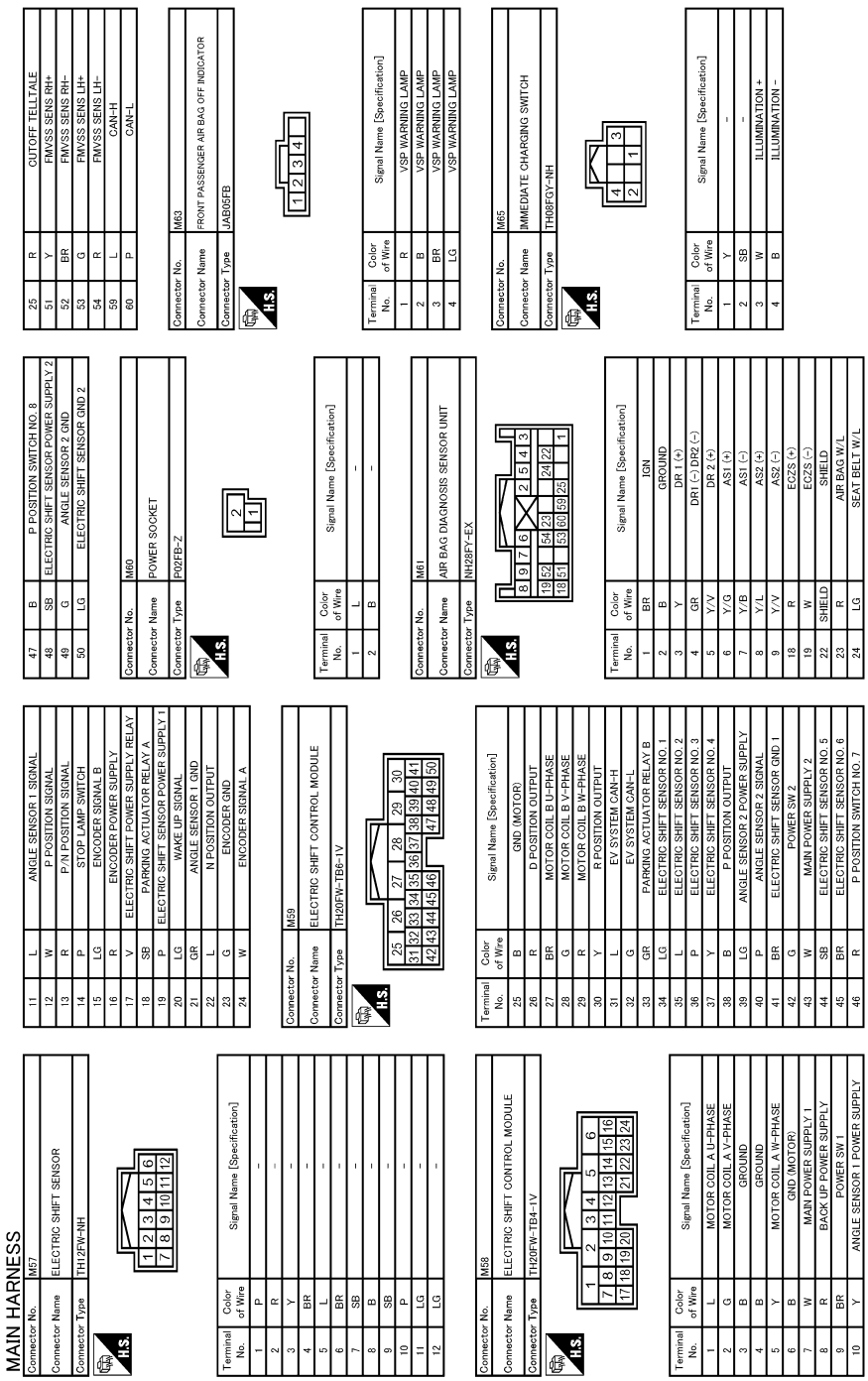

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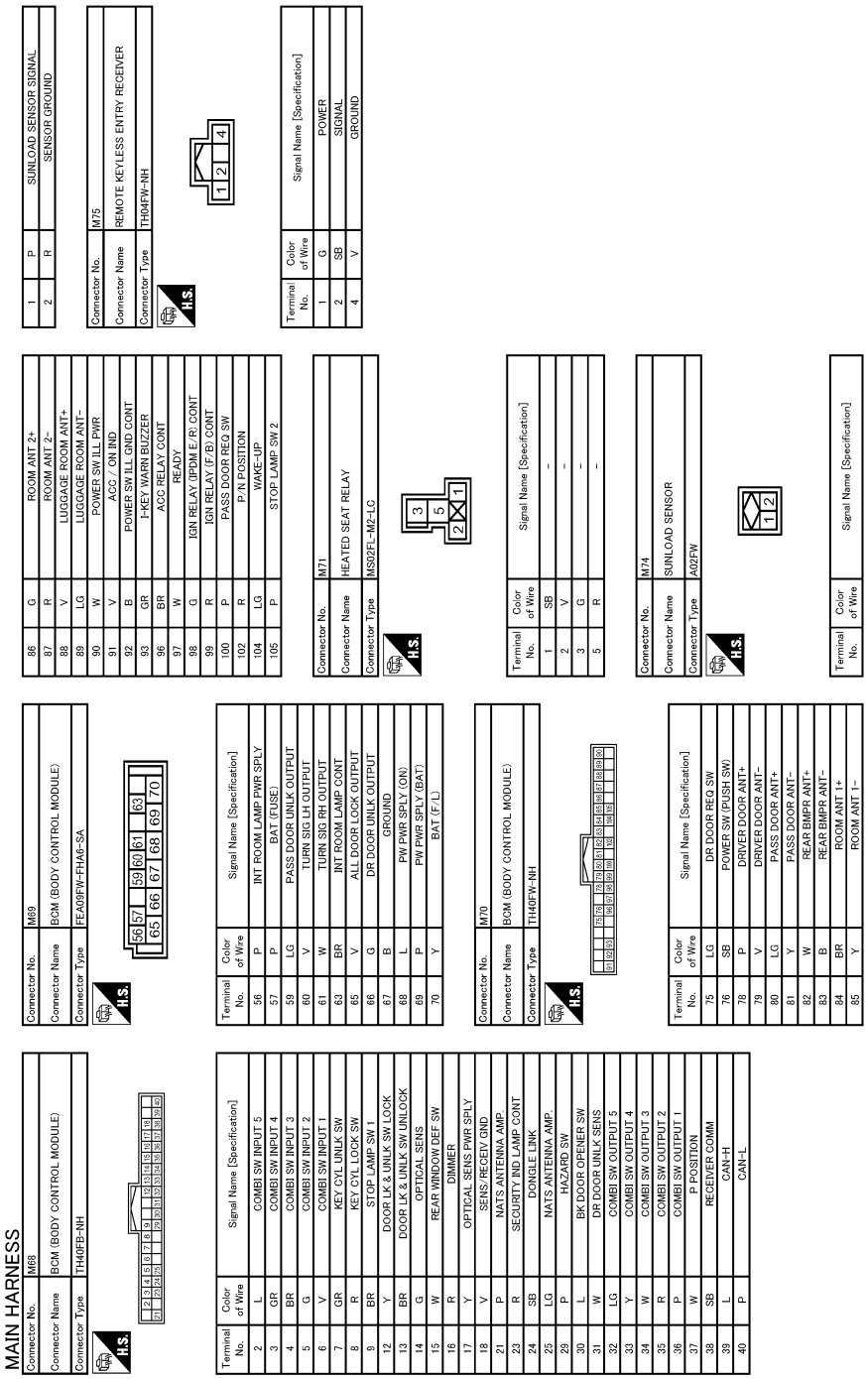
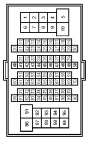


JRMWC5146GB

MAIN HARNESS

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

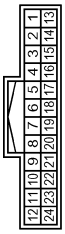


Terminal No.	Color of Wire	Signal Name [Specification]
1	GR	–
2	V	–
3	GR	–
4	LG	–
6	W	–
7	V	–
8	P	–
9	SB	–
10	L	–
11	LG	–
12	W	–
13	R	–
14	Y	–
15	R	–
16	G	–
17	BR	–
19	G	–
20	G	–
21	P	–
22	LG	–
23	GR	–
24	L	–
25	Y	–
26	G	–
27	L	–
29	V	–
30	W	–
31	SB	–
32	LG	–
33	V	–
34	L	–
35	SB	–
38	LG	–
39	GR	–
40	Y	–
41	R	–
42	W	–
43	SB	–
44	GR	–
45	P	–
46	R	–
47	W	–
48	L	–
49	G	–
50	L	–
51	L	–
54	W	–
55	G	–
56	BR	–
57	P	–
58	R	–
60	Y	–
61	GR	–
62	SB	–
63	Y	–
64	G	–
65	V	–
66	P	–
67	Y	–
68	P	–
69	BR	–
71	Y	–
72	L	–
73	G	–
74	L	–
75	V	–
76	R	–
80	W	–
81	L	–
82	SB	–
83	R	–
84	BR	–
85	R	–
86	GR	–
88	R	–
89	W	–
90	SHIELD	–
91	Y	–
92	BR	–
93	W	–
94	P	–
95	V	–
96	P	–
97	G	–
98	R	–
99	LG	–

Connector No.	M78
Connector Name	WIRE TO WIRE
Connector Type	L02MB-MC

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

Connector No.	M79
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

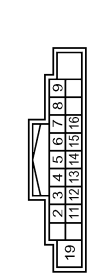


Terminal No.	Color of Wire	Signal Name [Specification]
8	BR	–
11	R	–
12	G	–
17	G	–
18	V	–
20	B	–
21	W	–
22	V	–
23	LG	–
24	SHIELD	–

Connector No.	M82
Connector Name	WIRE TO WIRE
Connector Type	M04FW-LC

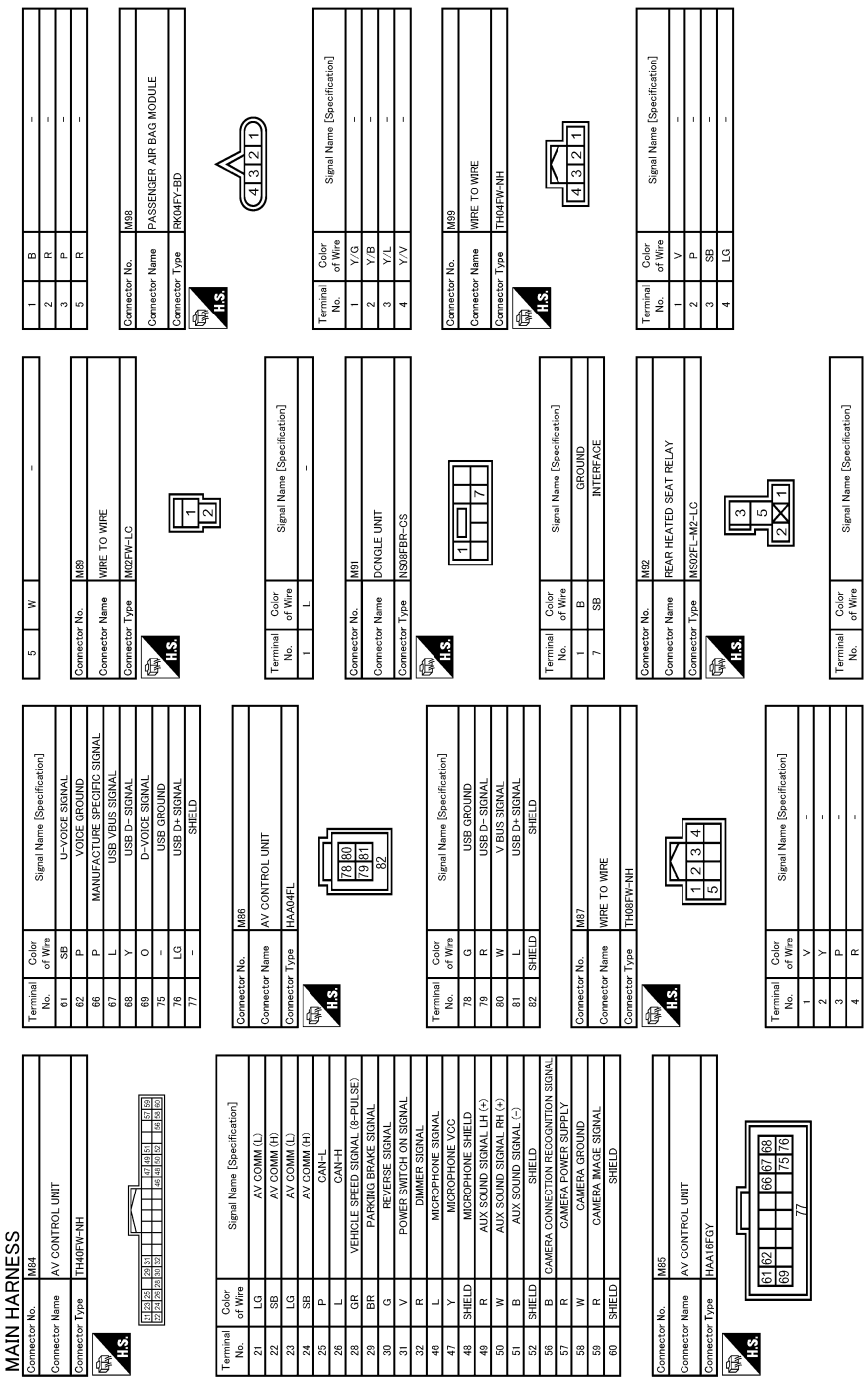
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	–
2	GR	–
3	B	–
4	Y	–

Connector No.	M83
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

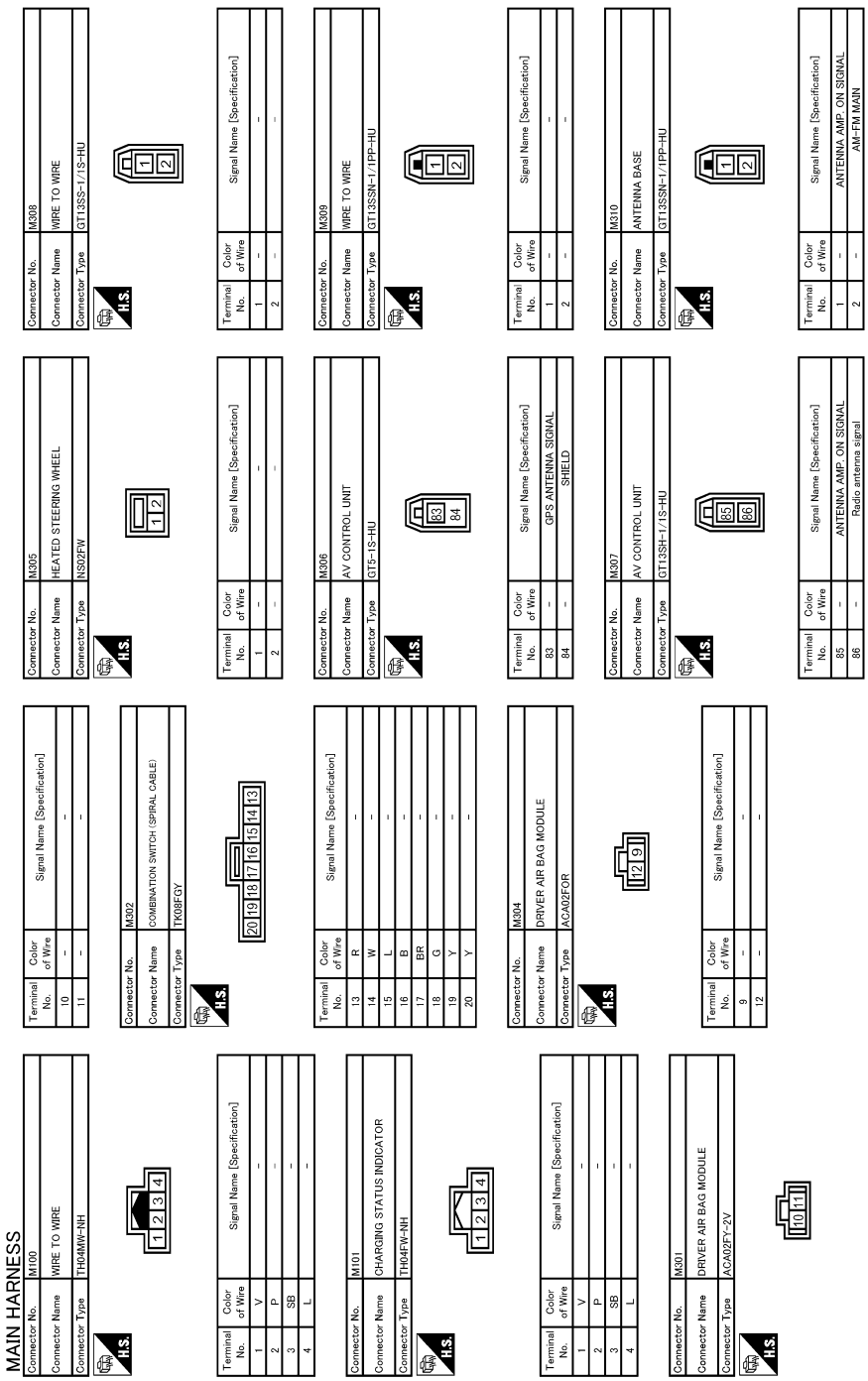


Terminal No.	Color of Wire	Signal Name [Specification]
2	L	SOUND SIGNAL FRONT LH (+)
3	P	SOUND SIGNAL FRONT LH (–)
4	V	SOUND SIGNAL REAR LH (+)
5	R	SOUND SIGNAL REAR LH (–)
6	BR	STEERING SWITCH SIGNAL A
7	L	ACC POWER SUPPLY
8	B	GROUND
9	W	ILLUMINATION SIGNAL
11	G	SOUND SIGNAL FRONT RH (+)
12	R	SOUND SIGNAL FRONT RH (–)
13	LG	SOUND SIGNAL REAR RH (+)
14	GR	SOUND SIGNAL REAR RH (–)
15	SHIELD	STEERING SWITCH SIGNAL GROUND
16	Y	STEERING SWITCH SIGNAL B
19	BR	BATTERY POWER SUPPLY

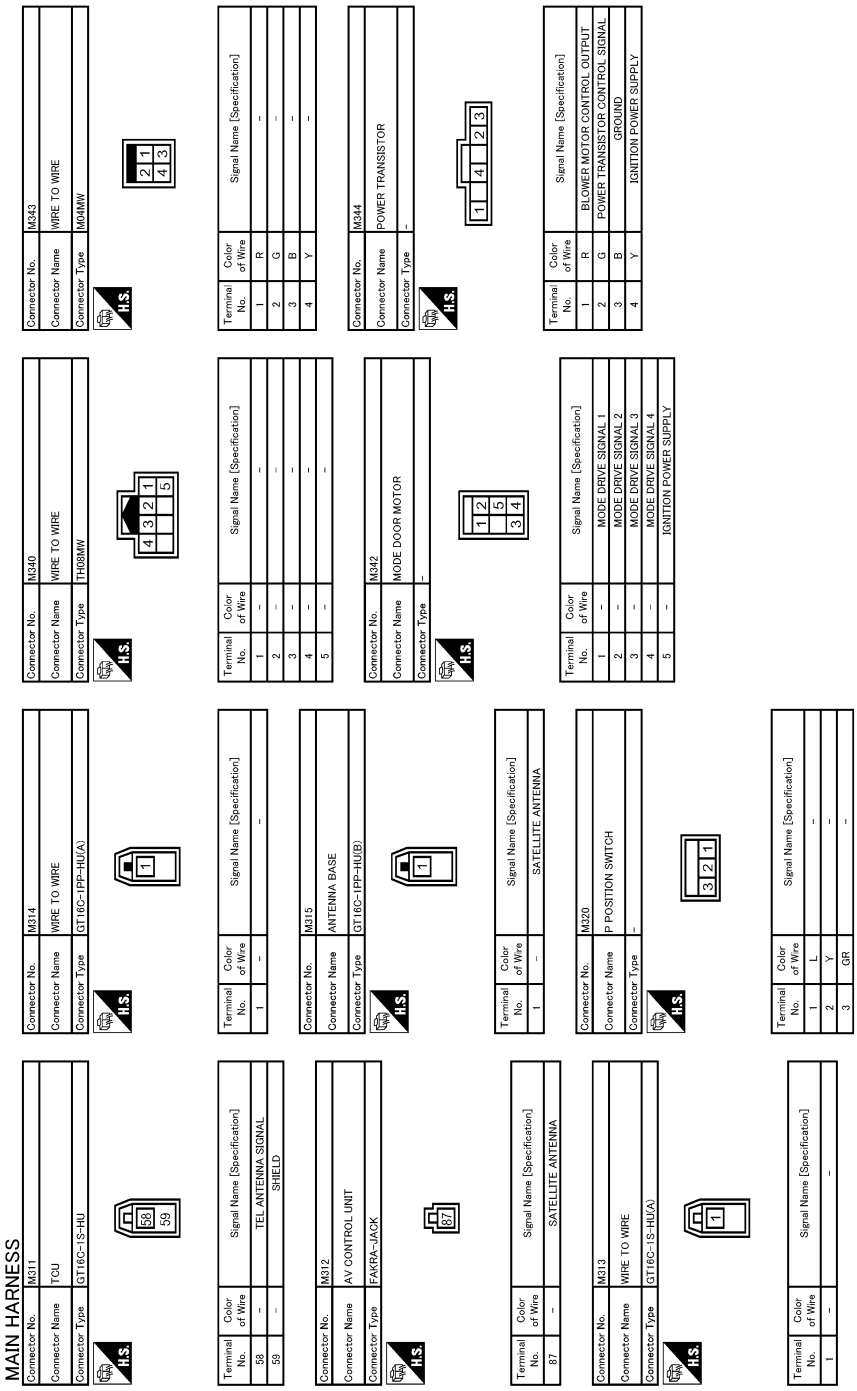
JRMWC5147GB



JRMWC5148GB



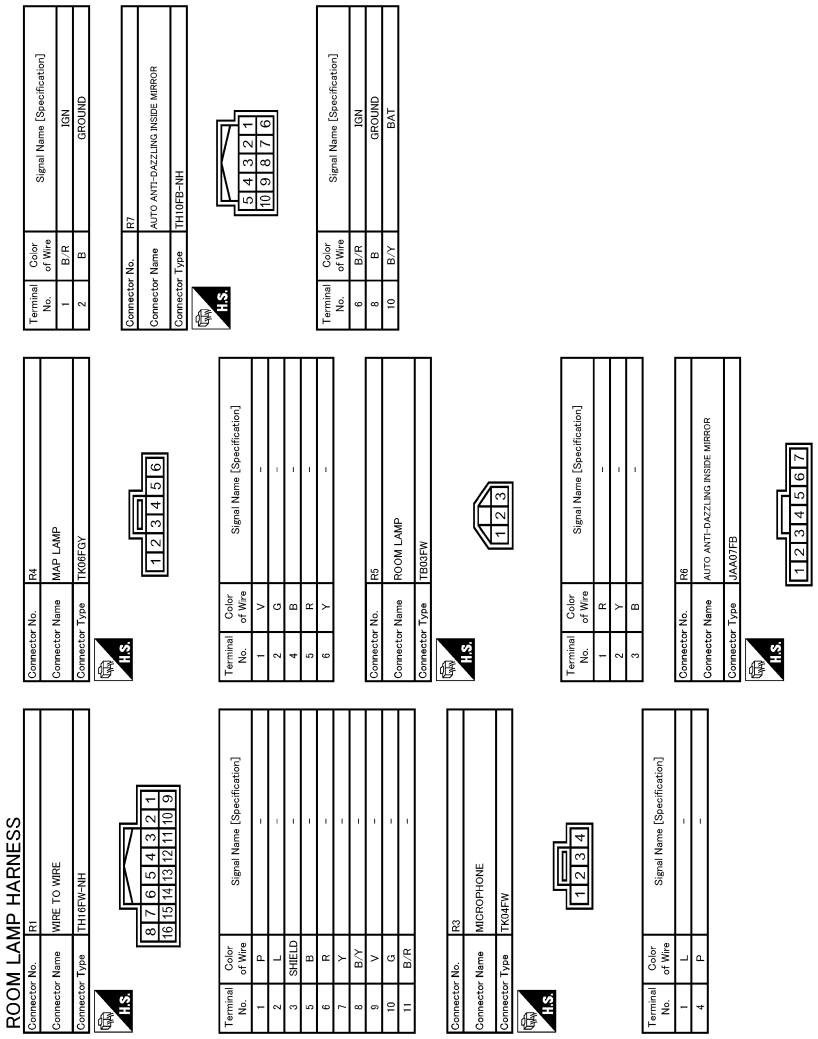
JRMWC5149GB



JRMWC5150GB

R Room Lamp Harness

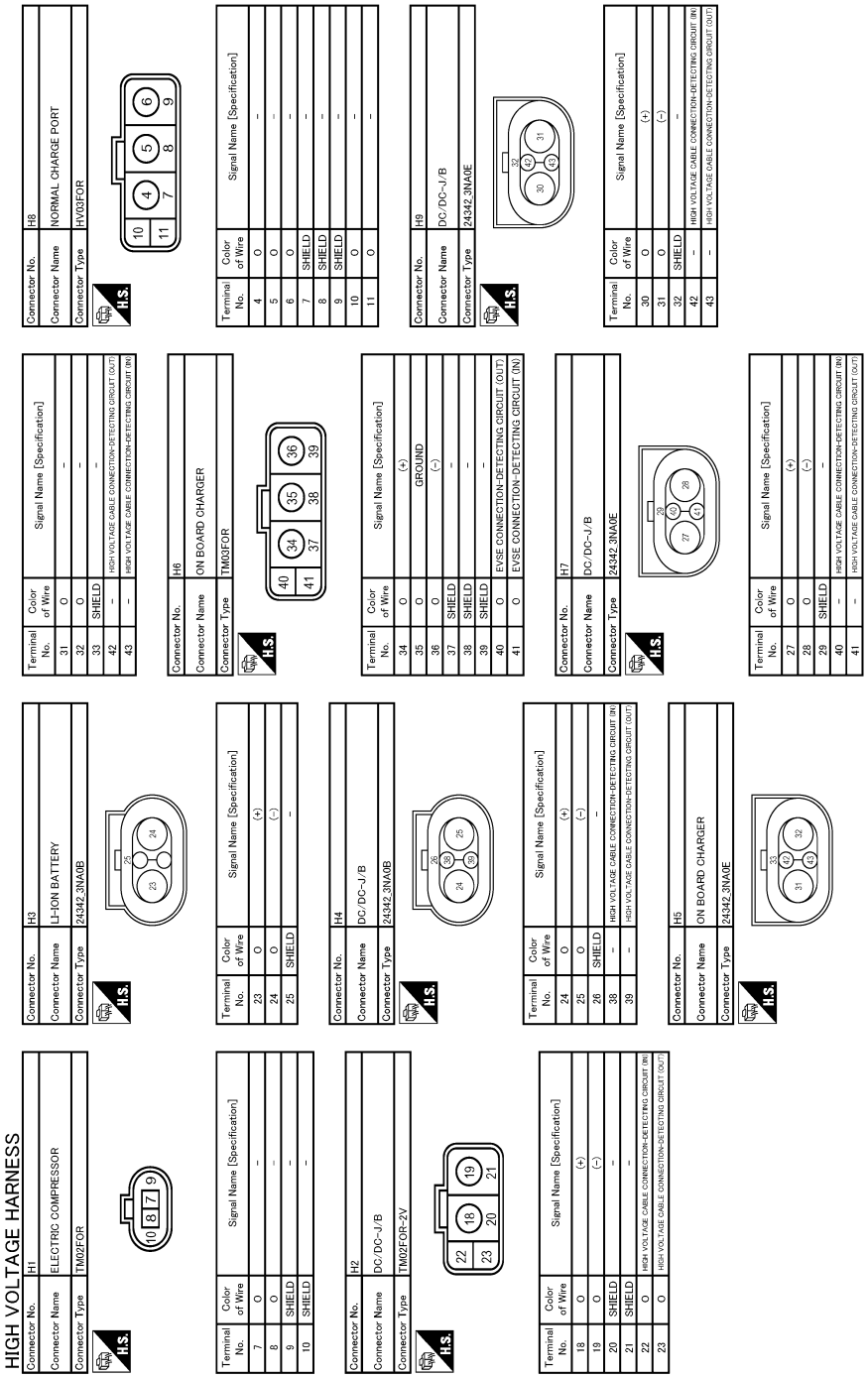
INFOID:0000000007828181



JRMWC5151GB

H High Voltage Harness

INFOID:0000000007828182



JRMWC5337GB

HIGH VOLTAGE HARNESS

Connector No.	H10
Connector Name	PTC ELEMENTS HEATER
Connector Type	24342-2NA0E

Terminal No.	Color of Wire	Signal Name [Specification]
1	O	–
2	G	–

Connector No.	H13
Connector Name	QUICK CHARGE PORT
Connector Type	24342-2NA2B

Terminal No.	Color of Wire	Signal Name [Specification]
11	O	(+)
12	O	HIGH VOLTAGE CABLE CONNECTION-DETECTING CIRCUIT (IN)
13	L	HIGH VOLTAGE CABLE CONNECTION-DETECTING CIRCUIT (OUT)

Connector No.	H14
Connector Name	QUICK CHARGE PORT
Connector Type	24342-2NA2C

Terminal No.	Color of Wire	Signal Name [Specification]
14	O	(–)
15	L	HIGH VOLTAGE CABLE CONNECTION-DETECTING CIRCUIT (IN)
16	G	HIGH VOLTAGE CABLE CONNECTION-DETECTING CIRCUIT (OUT)

Connector No.	H15
Connector Name	DC/DC-J/B
Connector Type	24342-2NA0B

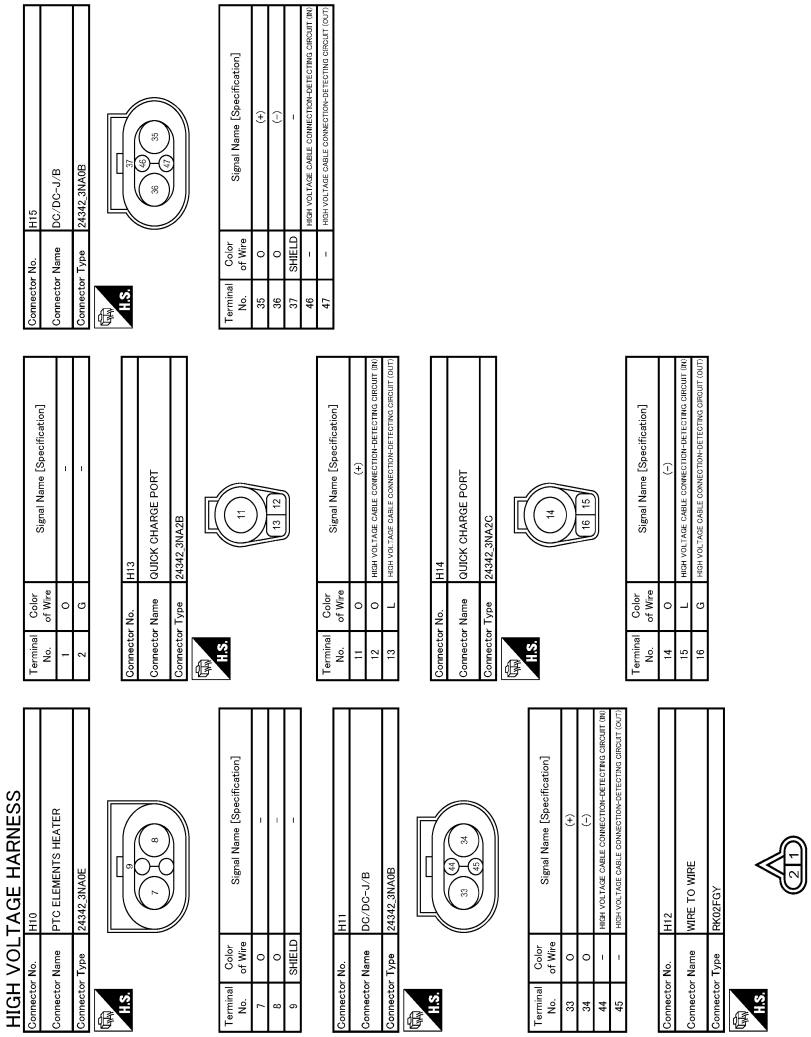
Terminal No.	Color of Wire	Signal Name [Specification]
35	O	(+)
36	O	(–)
37	SHIELD	–
46	–	HIGH VOLTAGE CABLE CONNECTION-DETECTING CIRCUIT (IN)
47	–	HIGH VOLTAGE CABLE CONNECTION-DETECTING CIRCUIT (OUT)

Terminal No.	Color of Wire	Signal Name [Specification]
7	O	–
8	O	–
9	SHIELD	–

Connector No.	H11
Connector Name	DC/DC-J/B
Connector Type	24342-2NA0B

Terminal No.	Color of Wire	Signal Name [Specification]
33	O	(+)
34	O	(–)
44	–	HIGH VOLTAGE CABLE CONNECTION-DETECTING CIRCUIT (IN)
45	–	HIGH VOLTAGE CABLE CONNECTION-DETECTING CIRCUIT (OUT)

Connector No.	H12
Connector Name	WIRE TO WIRE
Connector Type	RK02FGY



JRMWC5338GB

BASIC INSPECTION

12V BATTERY INSPECTION

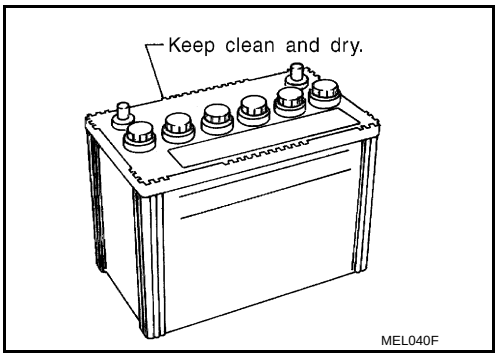
How to Handle 12V Battery

INFOID:0000000007796377

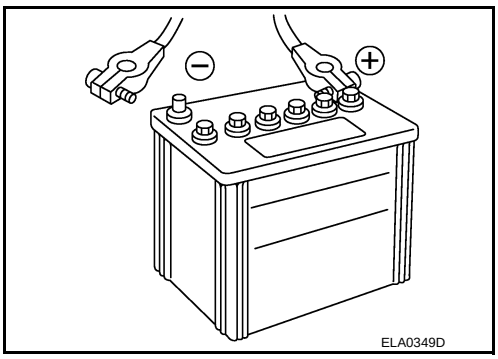
CAUTION:
- **If it becomes necessary to start the EV system with a booster battery and jumper cables, use a 12-volt booster battery.**
- **After connecting 12V battery cables, ensure that they are tightly clamped to 12V battery terminals for good contact.**
- **Never add distilled water through the hole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

METHODS OF PREVENTING OVER-DISCHARGE

The following precautions must be taken to prevent over-discharging a battery.
- The 12V 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 12V battery cable from the negative terminal. (If the vehicle has an extended storage switch, turn it off.) Refer to PG-6, "Precautions for Removing Battery Terminal".



Work Flow

INFOID:0000000007796378

12V BATTERY DIAGNOSIS WITH EXP-800 NI OR GR8-1200 NI

To diagnose and confirm the condition of the 12V battery, use the following special service tools:
- EXP-800 NI Battery and electrical diagnostic analyzer
- GR8-1200 NI Multitasking battery and electrical diagnostic station

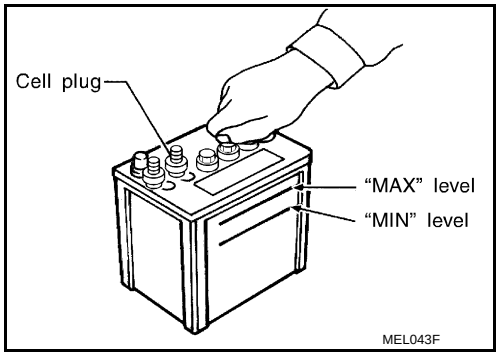
NOTE:
Refer to the applicable instruction manual for proper battery diagnosis procedures.

12V BATTERY DIAGNOSIS WITHOUT EXP-800 NI OR GR8-1200 NI

Check Electrolyte Level

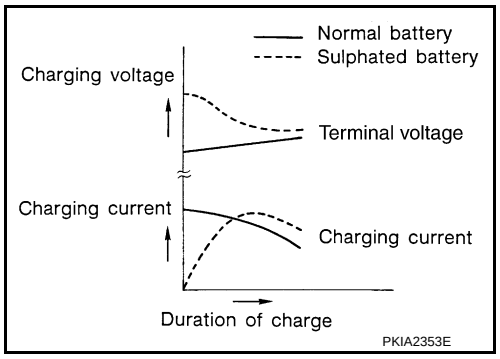
WARNING:
Never allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a 12V battery, never touch or rub your eyes until you have thoroughly washed your hands. If acid contacts eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical 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.



SULPHATION

- **A 12V battery will be completely discharged if it is left unattended for a long time and the specific gravity will become less than 1.100. This may result in sulphation on the cell plates.**
- **To determine if a 12V battery has been "sulphated", note its voltage and current when charging it. As shown in the figure, less current and higher voltage are observed in the initial stage of charging sulphated batteries.**
- **A sulphated 12V 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.**



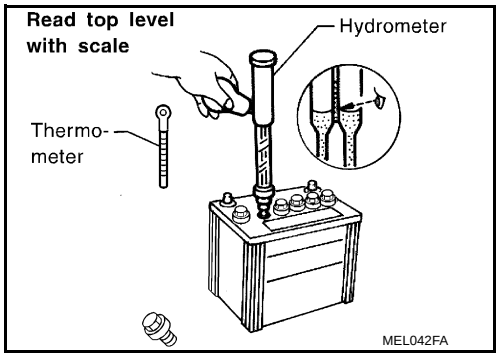
Specific Gravity Check

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

12V 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

12V 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 12V Battery

CAUTION:

- **Never “quick charge” a fully discharged 12V battery.**
- **Keep the 12V 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 12V 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	5	2
3/4 charged	10	1.5
1/2 charged		2.5
1/4 charged		3.5
Almost discharged		4
Completely discharged		4.5

Charging Rates (Quick Charge)

Approximate charge condition	Charge current (A)	Charge time (h)
Fully charged	—	—
3/4 charged	15	1
1/2 charged	25	
1/4 charged	35	
Almost discharged	40	
Completely discharged	—	—

NOTE:

The ammeter reading on your 12V battery charger will automatically decrease as the 12V battery charges. This indicates that the voltage of the 12V battery is increasing normally as the state of charge improves. The charging amps indicated above refer to initial charge rate.

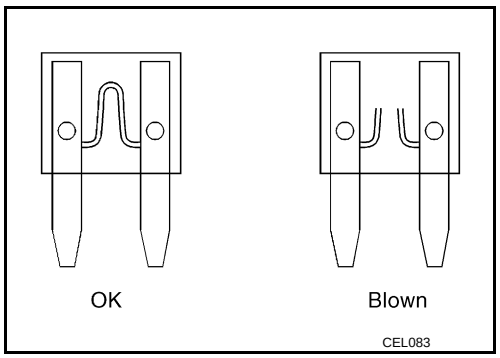
- If, after charging, the specific gravity of any two cells varies more than 0.050, the 12V battery should be replaced.

FUSE INSPECTION

How To Check

INFOID:0000000007632730

- 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.

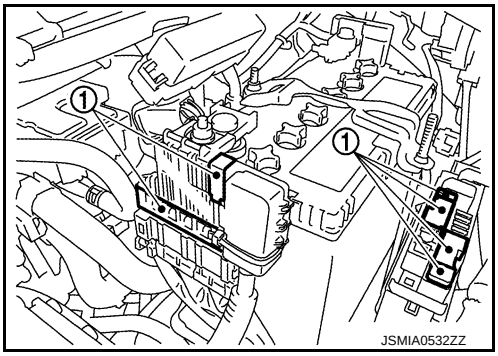


FUSIBLE LINK INSPECTION

How To Check

INFOID:0000000007632731

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.**

REMOVAL AND INSTALLATION

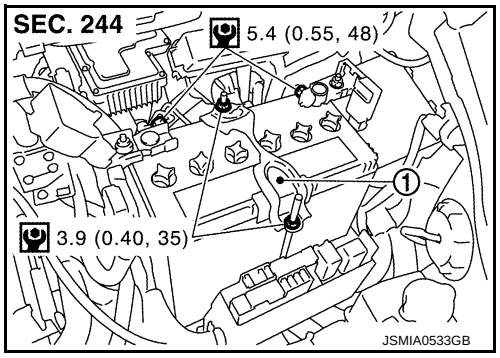
12V BATTERY

Exploded View

INFOID:0000000007632732

1 : Battery fix frame

:N·m (kg-m, in-lb)



Removal and Installation

INFOID:0000000007632733

REMOVAL

1. Disconnect the 12V battery cable from the negative terminal. Refer to PG-6, "Precautions for Removing Battery Terminal".
   CAUTION:
   To prevent damage to the parts, disconnect the 12V battery cable from the negative terminal first.
2. Remove cover of 12V battery positive terminal.
3. Disconnect the 12V battery cable from the positive terminal.
4. Remove battery fix frame mounting nuts and battery fix frame.
5. Remove 12V battery.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

To install the 12V battery, carefully read the following instructions.

- **To prevent damage to the parts, connect the 12V battery cable to the positive terminal first.**
- **After connecting 12V battery cables, to securely supply 12V battery voltage, ensure that they are tightly clamped to 12V battery terminals for good contact.**
- **To securely supply 12V battery voltage, check 12V battery terminal for poor connection caused by corrosion.**

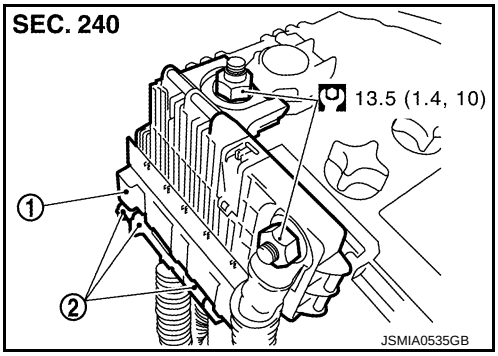
Reset electronic systems as necessary. Refer to GI-63, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Required Procedure After Battery Disconnection".

BATTERY TERMINAL WITH FUSIBLE LINK

Exploded View

INFOID:0000000007632734

1 : Battery terminal with fusible link
2 : Harness connector
: N·m (kg-m, ft-lb)



Removal and Installation

INFOID:0000000007632735

REMOVAL

1. Disconnect the 12V battery cable from the negative terminal. Refer to PG-101, "Exploded View" and PG-6, "Precautions for Removing Battery Terminal".
   CAUTION:
   To prevent damage to the parts, disconnect the 12V battery cable from the negative terminal first.
2. Remove cover of 12V battery positive terminal.
3. Disconnect the 12V battery cable from the positive terminal. Refer to PG-101, "Exploded View".
4. Open cover of harness mounting nut.
5. Remove harness mounting nut and battery terminal with fusible link mounting nut.
6. Disconnect harness connector and remove battery terminal with fusible link.

INSTALLATION

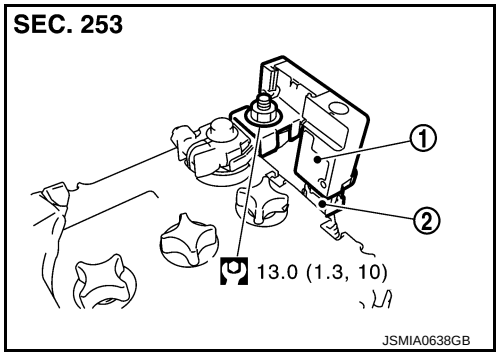
Install in the reverse order of removal.
CAUTION:
To prevent damage to the parts, connect the 12V battery cable to the positive terminal first.

BATTERY CURRENT SENSOR

Exploded View

INFOID:0000000007632736

1 : Battery current sensor (With battery temperature sensor)
2 : Harness connector
: N·m (kg-m, ft-lb)



Removal and Installation

INFOID:0000000007632737

REMOVAL

1. Disconnect the 12V battery cable from the negative terminal. Refer to PG-101, "Exploded View" and PG-6, "Precautions for Removing Battery Terminal".
2. Disconnect the battery current sensor connector.
3. Remove the battery current sensor mounting nut.
4. Remove the battery current sensor from 12V battery cable.

INSTALLATION

Install in the reverse order of removal.

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

12V Battery

INFOID:0000000007632738

Type		55B24L(S)
20 hour rate capacity	[V – Ah]	12 – 45
Cold cranking current (For reference value)	[A]	433