SECTION PG

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

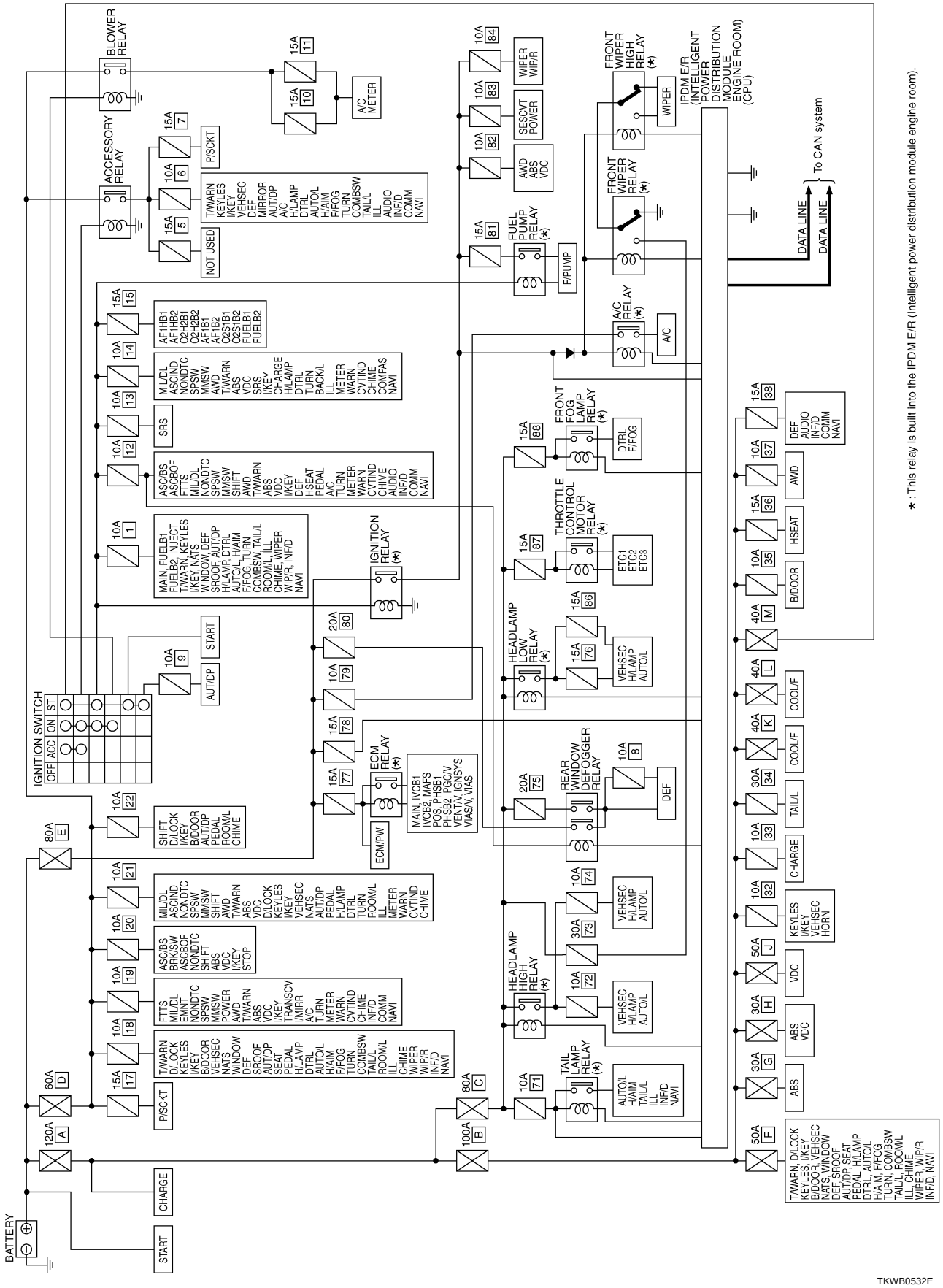
CONTENTS

POWER SUPPLY ROUTING CIRCUIT

PFP:24110

Schematic

AKS007HE

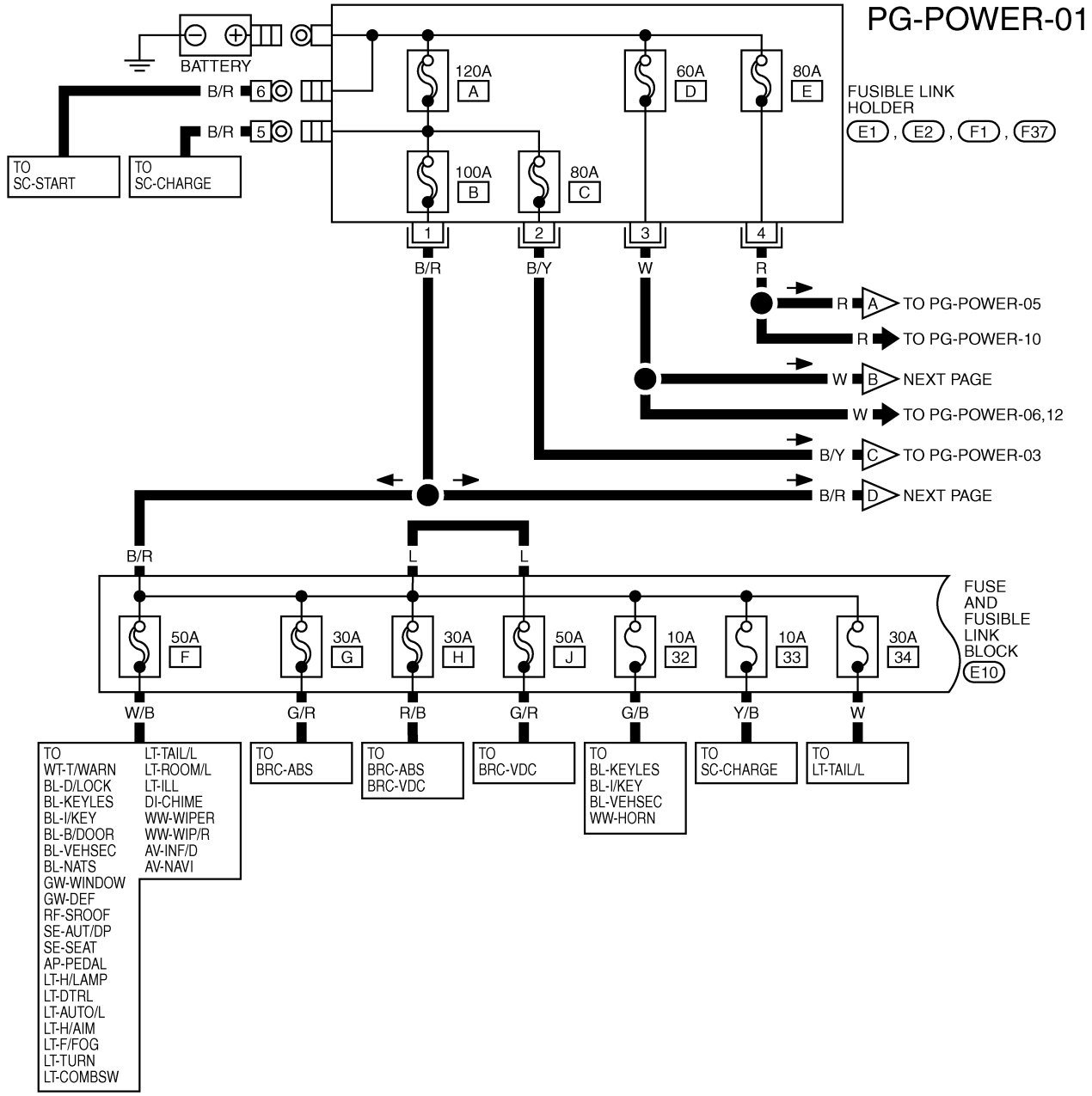


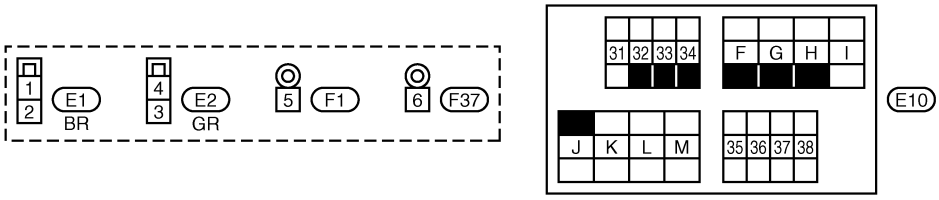
TKWB0532E

Wiring Diagram - POWER -

AKS007HF

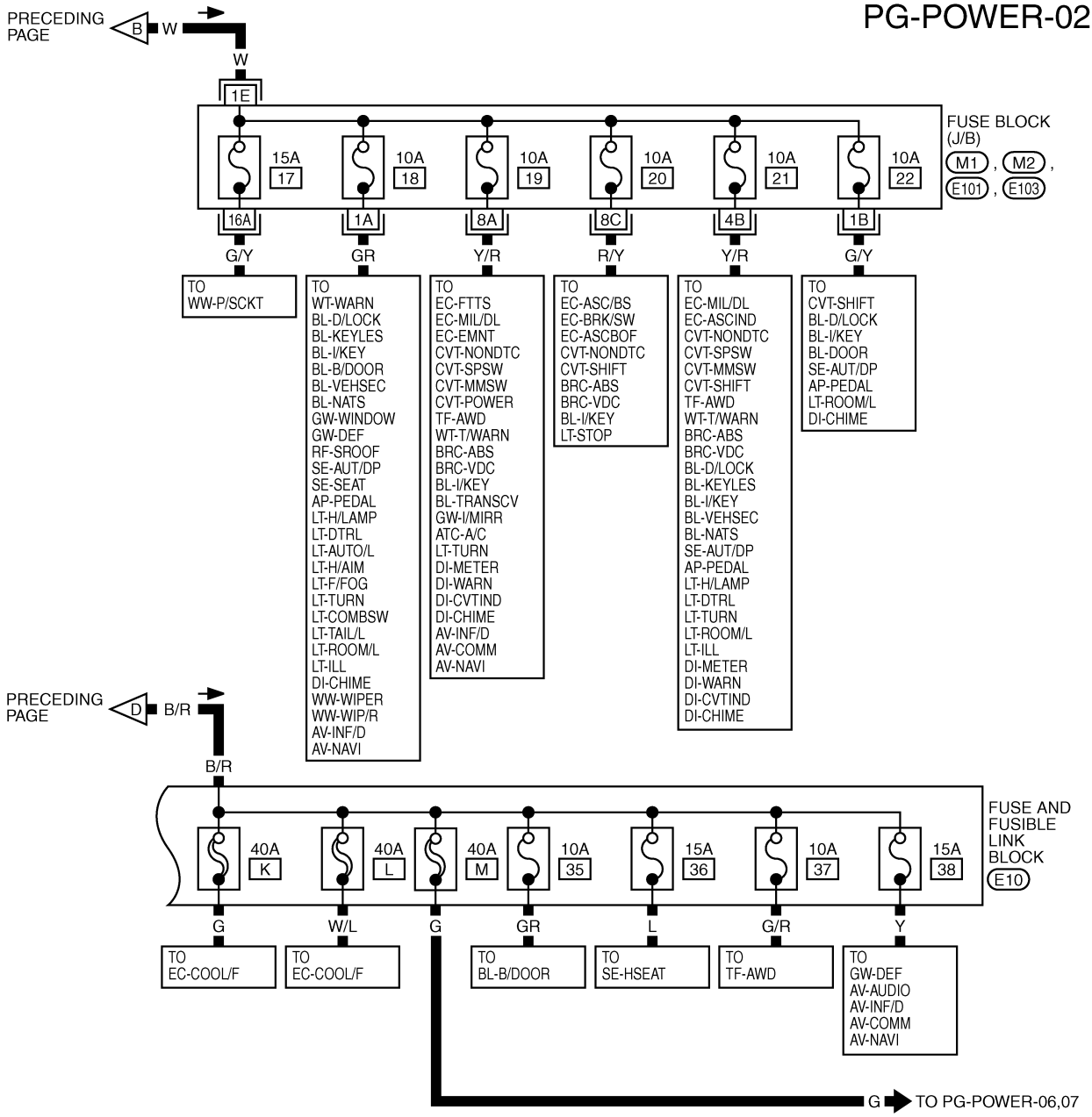
BATTERY POWER SUPPLY - IGNITION SW. IN ANY POSITION

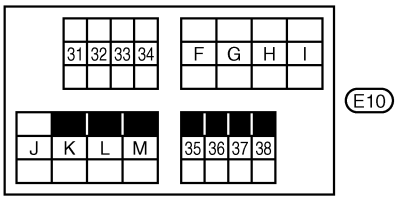


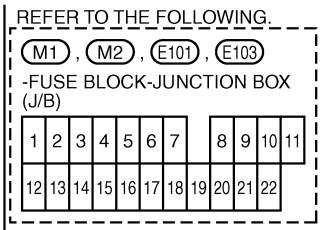


TKWB0533E

PG-POWER-02

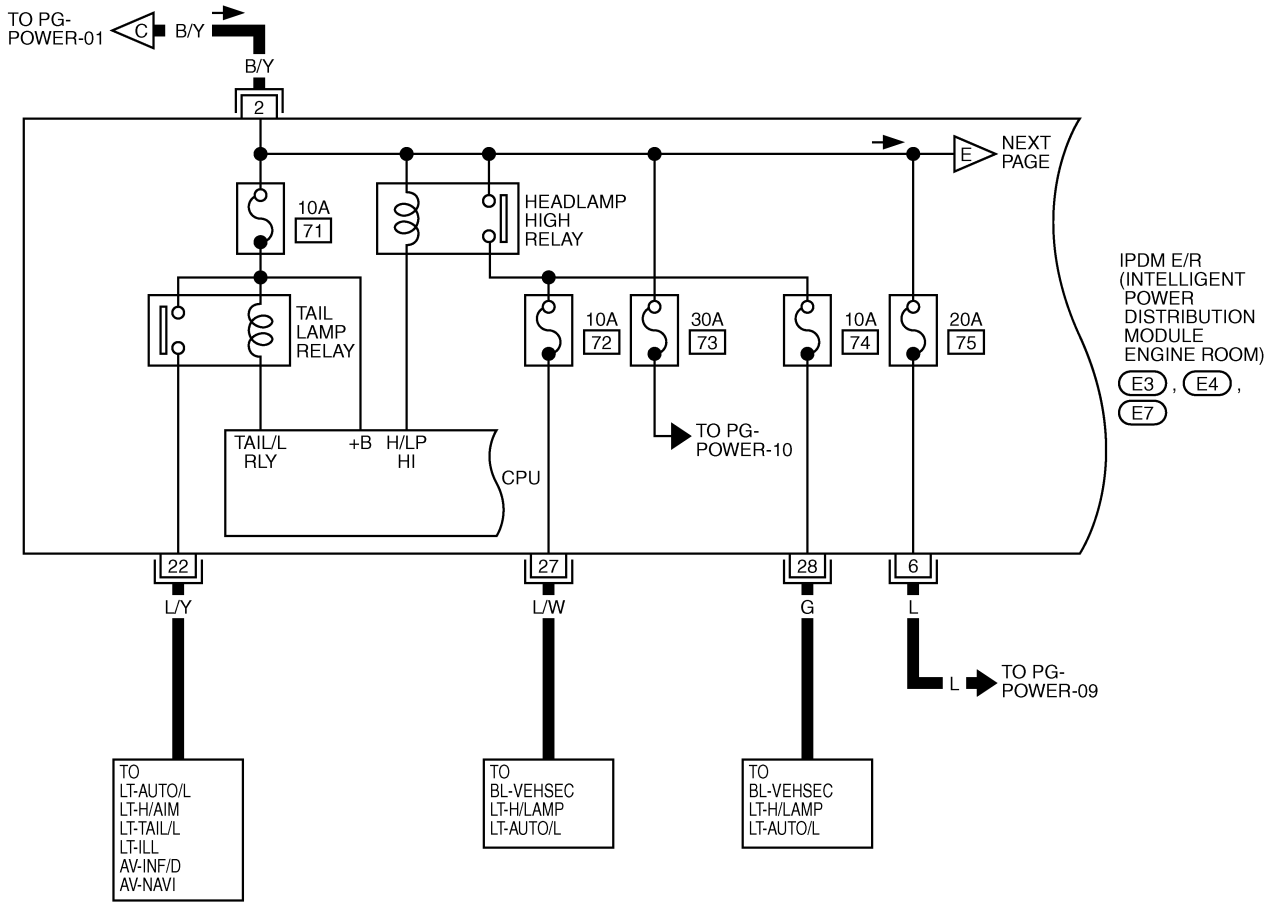


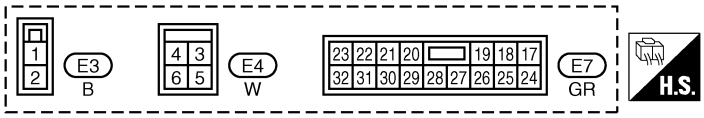




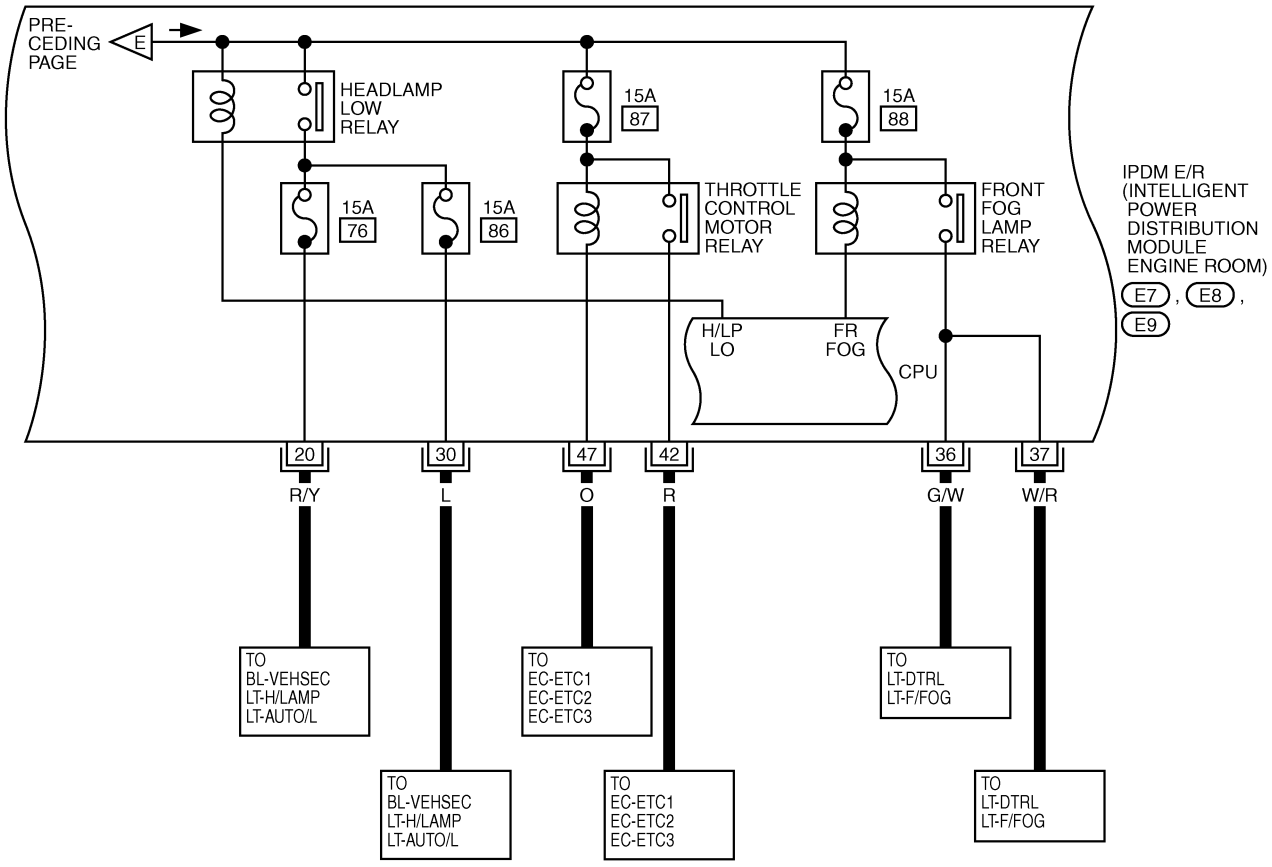
TKWB0534E

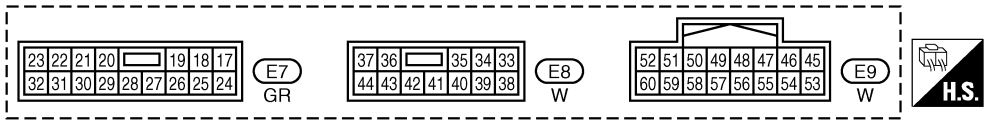
PG-POWER-03





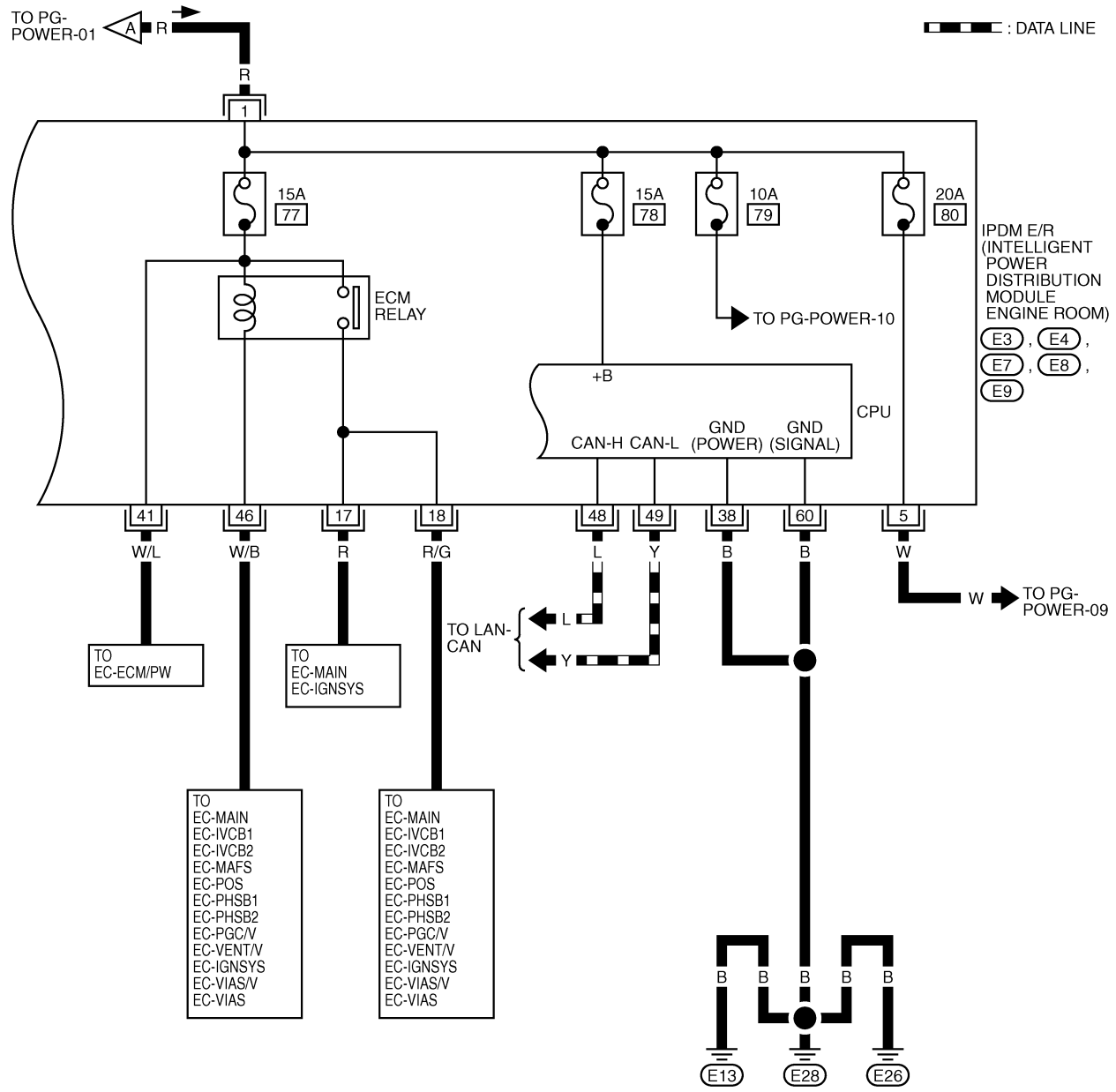
TKWA1744E

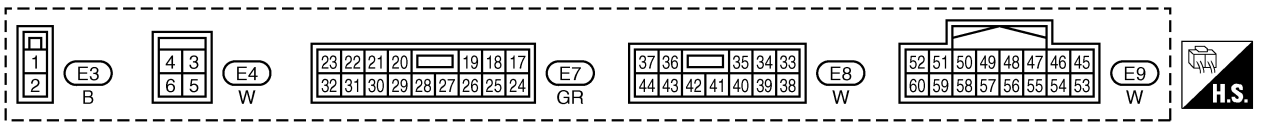

PRE-
CEDING
PAGE
E
HEADLAMP
LOW
RELAY
15A
87
15A
88
15A
76
15A
86
THROTTLE
CONTROL
MOTOR
RELAY
FRONT
FOG
LAMP
RELAY
IPDM E/R
(INTELLIGENT
POWER
DISTRIBUTION
MODULE
ENGINE ROOM)
E7 , E8 ,
E9
H/LP
LO
FR
FOG
CPU
20
30
47
42
36
37
R/Y
L
O
R
G/W
W/R
TO
BL-VEHSEC
LT-H/LAMP
LT-AUTO/L
TO
EC-ETC1
EC-ETC2
EC-ETC3
TO
LT-DTRL
LT-F/FOG
TO
BL-VEHSEC
LT-H/LAMP
LT-AUTO/L
TO
EC-ETC1
EC-ETC2
EC-ETC3
TO
LT-DTRL
LT-F/FOG


23 22 21 20 19 18 17
32 31 30 29 28 27 26 25 24
E7
GR
37 36 35 34 33
44 43 42 41 40 39 38
E8
W
52 51 50 49 48 47 46 45
60 59 58 57 56 55 54 53
E9
W
H.S.

TKWA1745E

PG-POWER-05

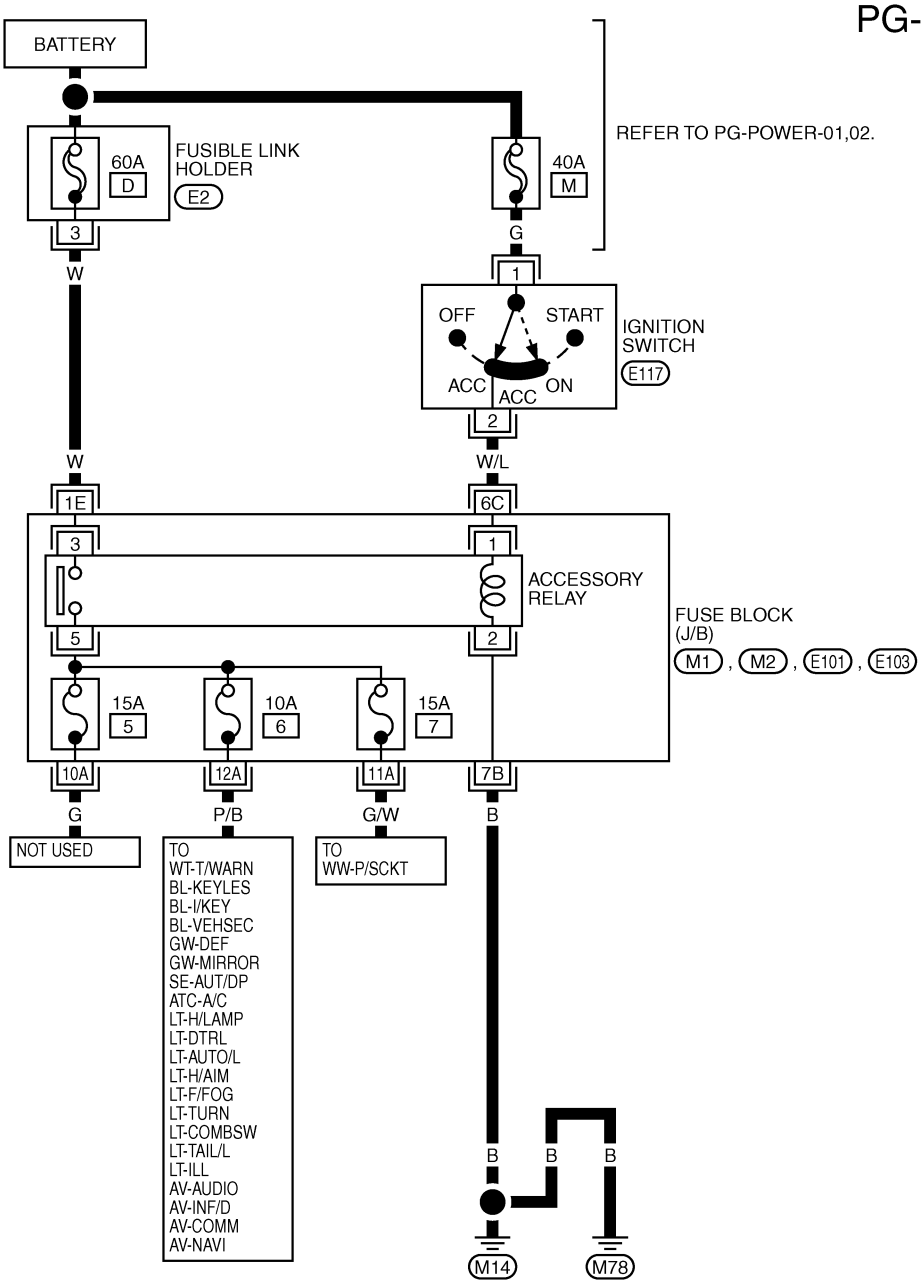


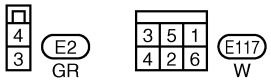


TKWA1746E

ACCESSORY POWER SUPPLY - IGNITION SW. IN “ACC” OR “ON”

PG-POWER-06





REFER TO THE FOLLOWING.

M1 , M2 , E101 , E103

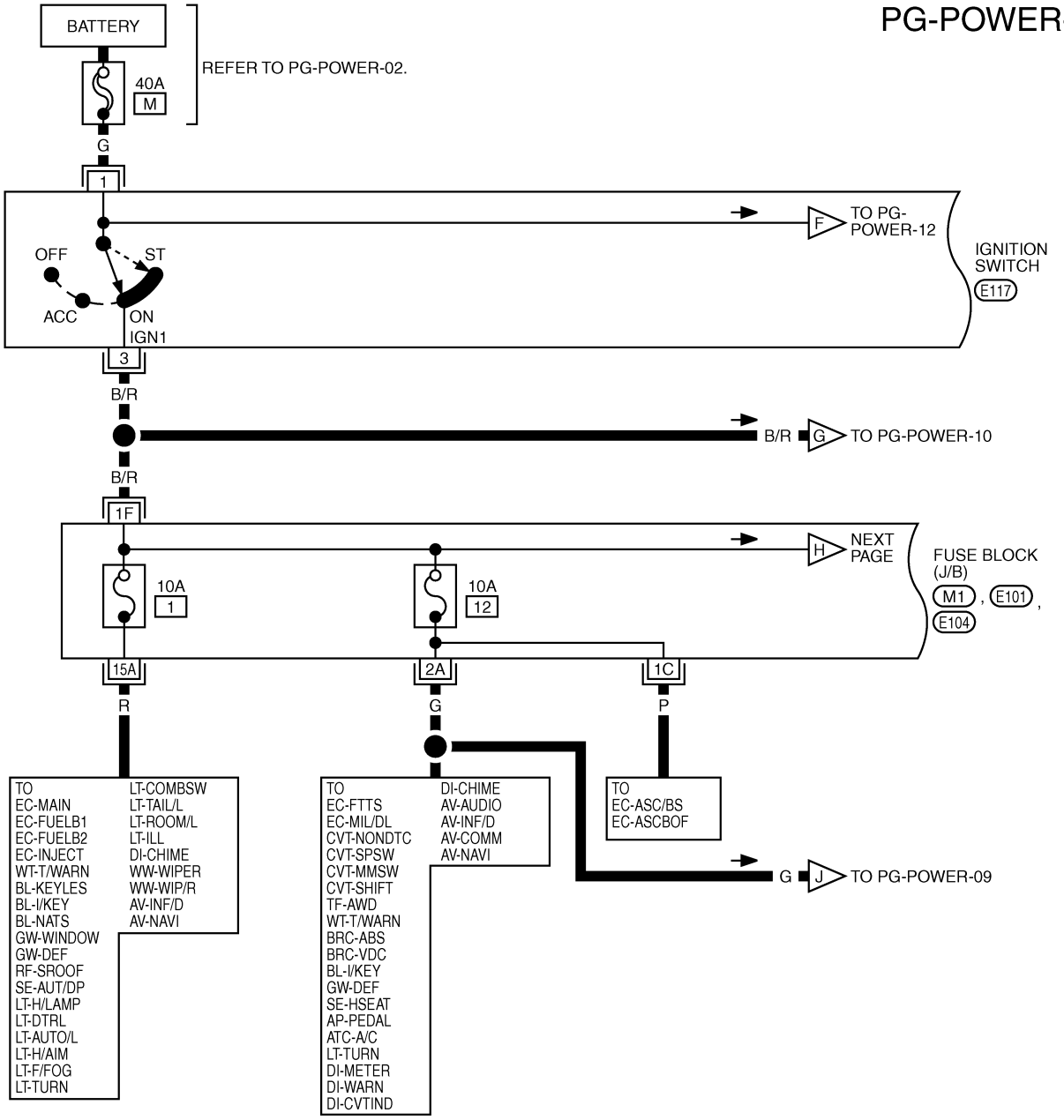
-FUSE BLOCK-JUNCTION BOX (J/B)

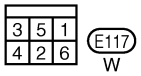
1	2	3	4	5	6	7		8	9	10	11
12	13	14	15	16	17	18	19	20	21	22	

TKWB0535E

IGNITION POWER SUPPLY - IGNITION SW. IN “ON” AND/OR “START”

PG-POWER-07

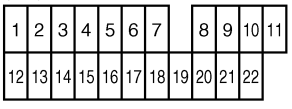




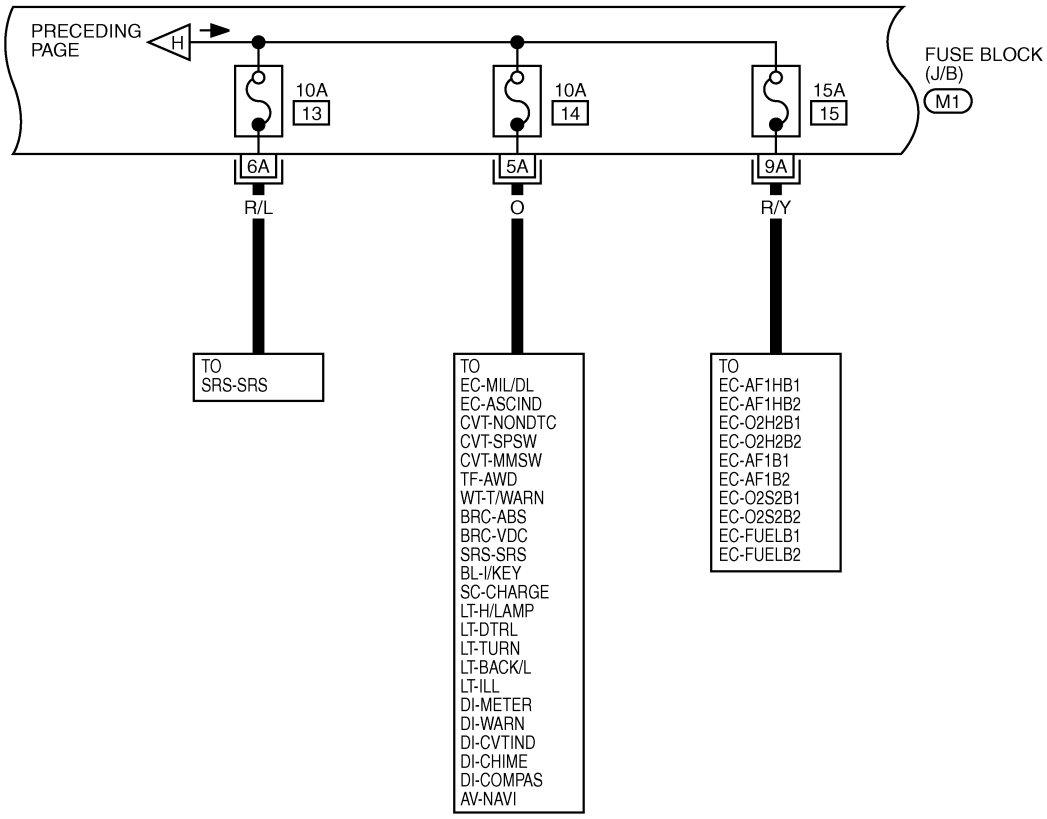
REFER TO THE FOLLOWING.

M1 , E101 , E104

-FUSE BLOCK-JUNCTION BOX (J/B)



TKWB0536E



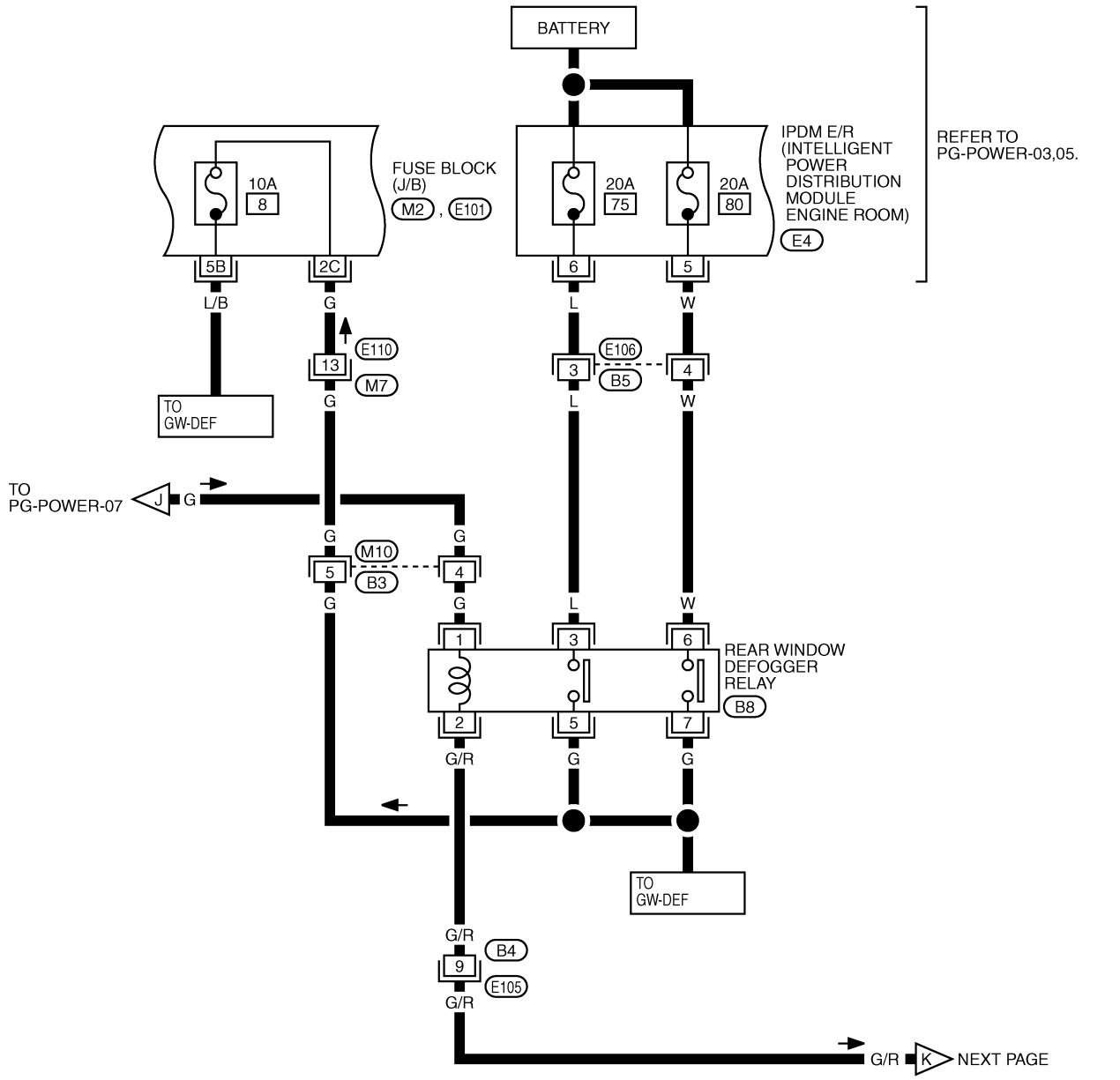
REFER TO THE FOLLOWING.

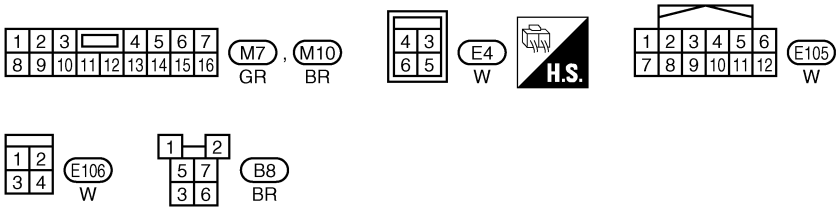
M1 -FUSE BLOCK-JUNCTION BOX (J/B)

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

TKWB0537E

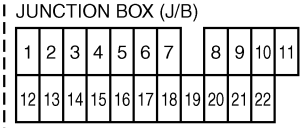
PG-POWER-09





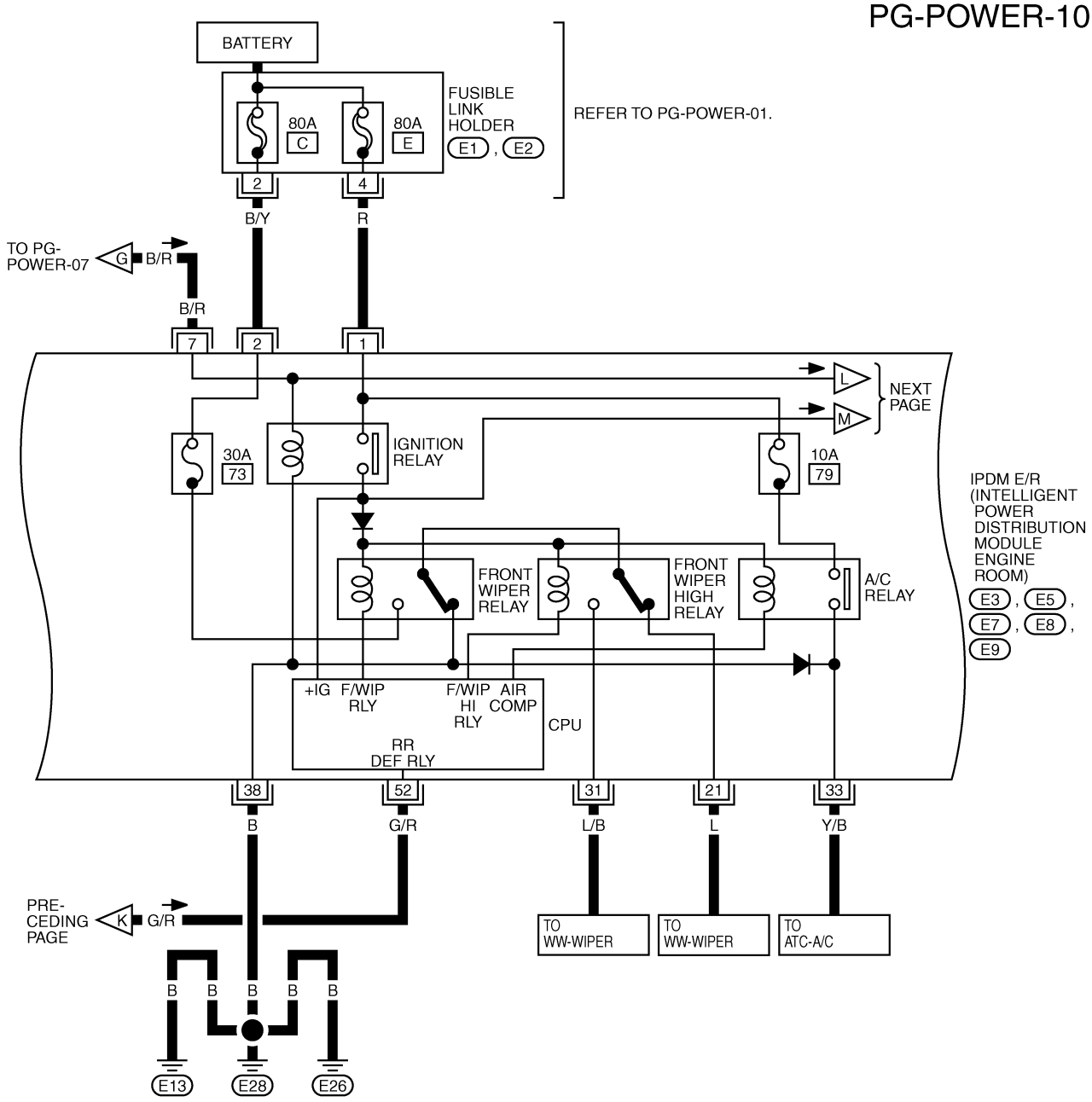
REFER TO THE FOLLOWING.

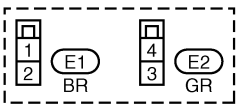
M2 , E101 -FUSE BLOCK-JUNCTION BOX (J/B)

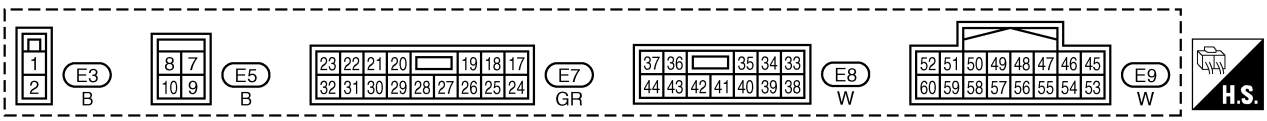


TKWB0538E

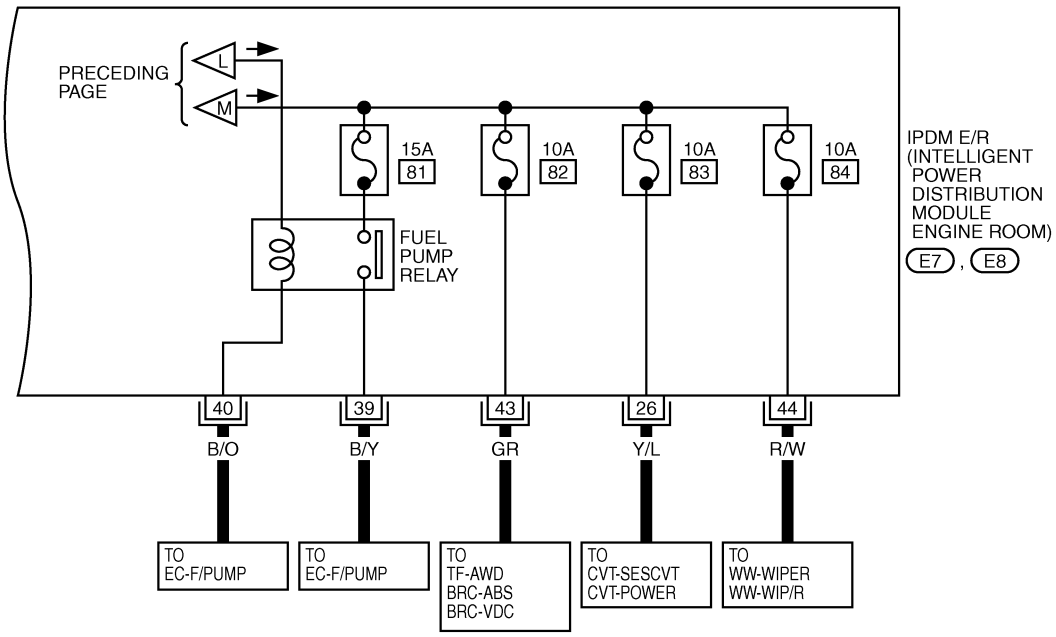
PG-POWER-10

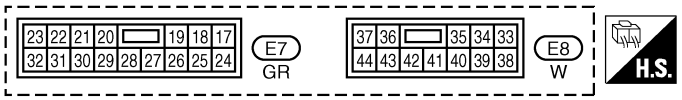






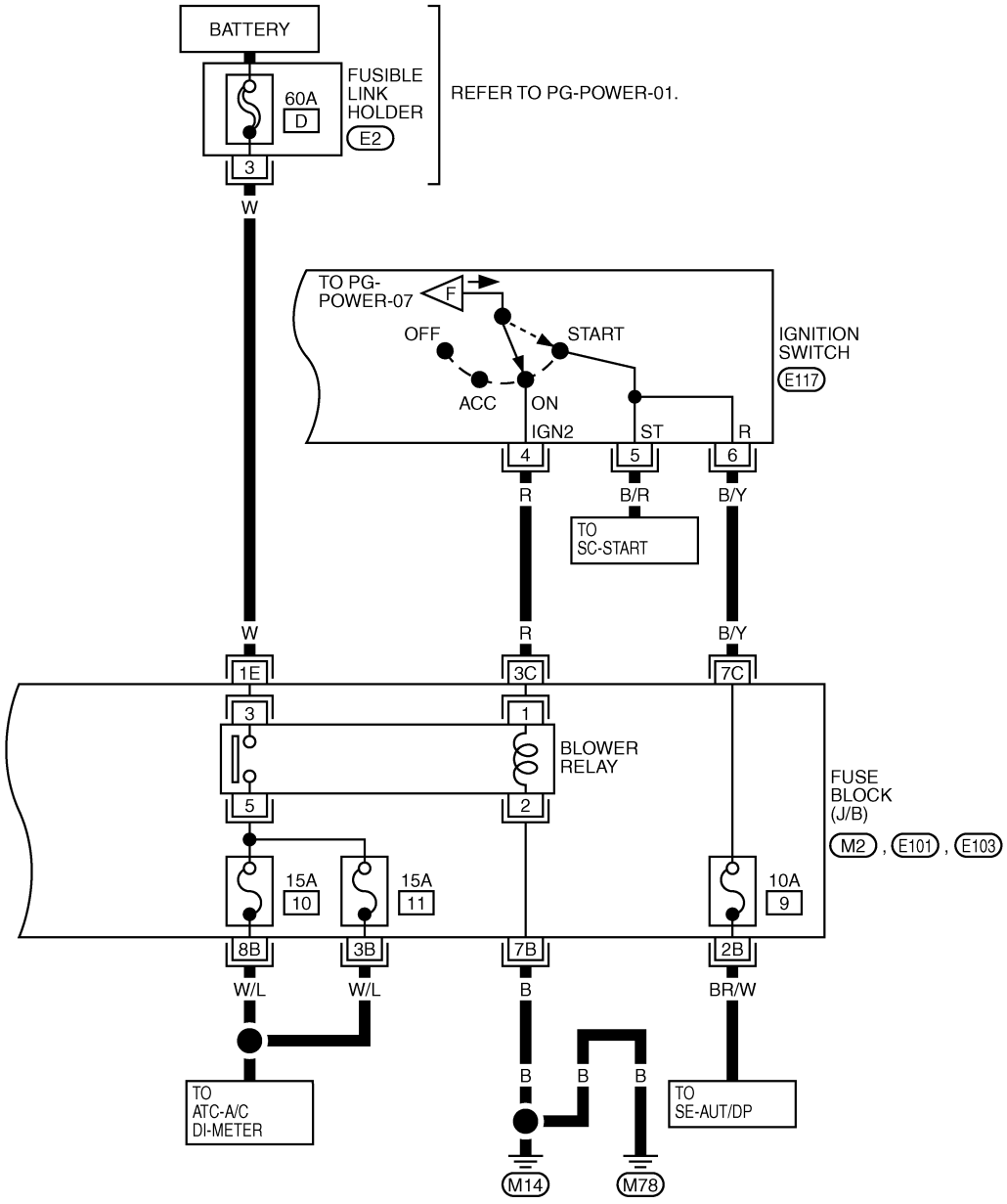
TKWB0539E

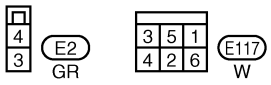

PRECEDING PAGE
L
M
15A
81
10A
82
10A
83
10A
84
FUEL PUMP RELAY
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E7 , E8
40
39
43
26
44
B/O
B/Y
GR
Y/L
R/W
TO EC-F/PUMP
TO EC-F/PUMP
TO TF-AWD BRC-ABS BRC-VDC
TO CVT-SESCVT CVT-POWER
TO WW-WIPER WW-WIP/R


23 22 21 20 19 18 17
32 31 30 29 28 27 26 25 24
E7
GR
37 36 35 34 33
44 43 42 41 40 39 38
E8
W
H.S.

TKWA1752E

PG-POWER-12





REFER TO THE FOLLOWING.

M2 , E101 , E103 -FUSE BLOCK-JUNCTION BOX (J/B)

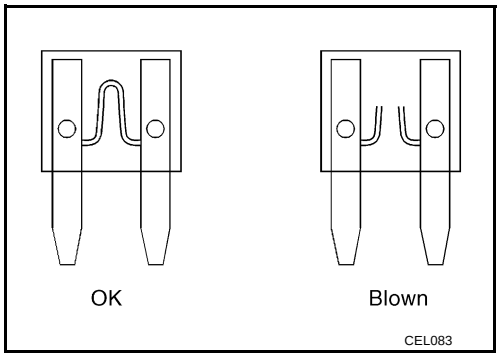
1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22

TKWA1753E

Fuse

AKS007HG

- 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.



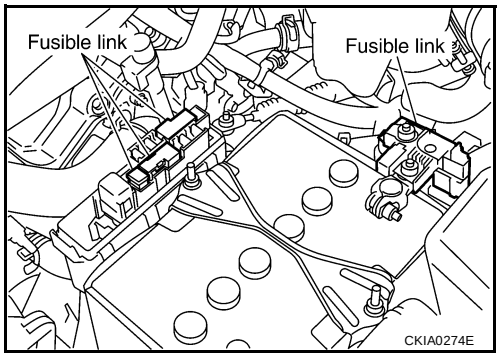
Fusible Link

AKS007HH

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

CAUTION:

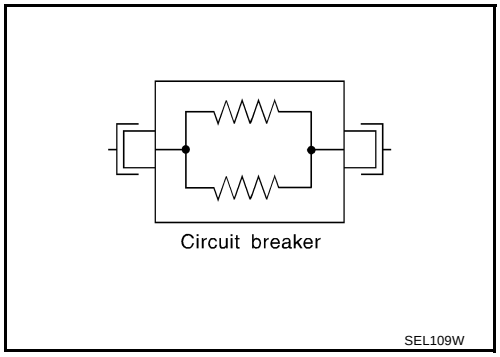
- **If fusible link should melt, it is possible that critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check and eliminate cause of malfunction.**
- **Never wrap outside of fusible link with vinyl tape. Important: Never let fusible link touch any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



Circuit Breaker

AKS007HI

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.



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

PFP:284B7

System Description

AKS00A49

- IPDM E/R (Intelligent Power Distribution Module Engine Room) integrates the relay box and fuse block which were originally placed in engine compartment. It controls integrated relay via IPDM E/R control circuit.
- IPDM E/R-integrated control circuit performs ON-OFF operation of relay, CAN communication control, oil pressure switch signal, and hood switch signal reception, etc.
- It controls operation of each electrical part via ECM, BCM and CAN communication lines.

CAUTION:
None of the IPDM E/R-integrated relays can be removed.

SYSTEMS CONTROLLED BY IPDM E/R

1. Lamp control
   Using CAN communication line, it receives signal from BCM and controls the following lamps:
   - Headlamps (Hi, Lo)
   - Parking lamps
   - Tail lamps
   - Front fog lamps
2. Wiper control
   Using CAN communication line, it receives signals from BCM and controls the front wipers.
3. Rear window defogger relay control
   Using CAN communication line, it receives signals from BCM and controls the rear window defogger relay.
4. A/C compressor control
   Using CAN communication line, it receives signals from ECM and controls the A/C relay.
5. Cooling fan control
   Using CAN communication line, it receives signals from ECM and controls cooling fan relay.
6. Horn control
   Using CAN communication line, it receives signals from BCM and controls horn relay.

CAN COMMUNICATION LINE CONTROL

With CAN communication, by connecting each control unit using two communication lines (CAN L line, CAN H line), it is possible to transmit maximum amount of information with minimum wiring. Each control unit can transmit and receive data, and reads necessary information only.

1. Fail-safe control
   - When CAN communication with other control units is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.
   - Operation of control parts by IPDM E/R during fail-safe mode is as follows:

Controlled system	Fail-safe mode
Headlamp	● With the ignition switch ON, the headlamp (low) is ON. ● With the ignition switch OFF, the headlamp (low) is OFF.
Tail and parking lamps	● With the ignition switch ON, the tail and parking lamps is ON. ● With the ignition switch OFF, the tail and parking lamps is OFF.
Cooling fan	● With the ignition switch ON, the cooling fan HI operates. ● With the ignition switch OFF, the cooling fan stops.
Front wiper	Until the ignition switch is turned off, the front wiper LO and HI remains in the same status it was in just before fail–safe control was initiated.
Rear window defogger	Rear window defogger relay OFF
A/C compressor	A/C compressor OFF
Front fog lamps	Front fog lamp relay OFF

IPDM E/R STATUS CONTROL

In order to save power, IPDM E/R switches status by itself based on each operating condition.

1. CAN communication status
   - CAN communication is normally performed with other control units.
   - Individual unit control by IPDM E/R is normally performed.
   - When sleep request signal is received from BCM, mode is switched to sleep waiting status.
2. Sleep waiting status
   - Process to stop CAN communication is activated.
   - All systems controlled by IPDM E/R are stopped. When 3 seconds have elapsed after CAN communication with other control units is stopped, mode switches to sleep status.
3. Sleep status
   - IPDM E/R operates in low power mode.
   - CAN communication is stopped.
   - When a change in CAN communication line is detected, mode switches to CAN communication status.
   - When a change hood switch or ignition switch signal is detected, mode switches to CAN communication status.

CAN Communication System Description

AKS00A4A

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicles are equipped with many electronic control units and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

AKS00AOH

Refer to LAN-29, "CAN Communication Unit" .

Function of Detecting Ignition Relay Malfunction

AKS00A4C

- When contact point of integrated ignition relay is stuck and cannot be turned OFF, IPDM E/R turns ON tail and parking lamps for 10 minutes to indicate ignition relay malfunction.
- When a state of ignition relay having built-in does not agree with a state of Ignition switch signal input by a CAN communication from BCM, IPDM E/R lets tail lamp relay operate.

Ignition switch signal	Ignition relay status	Tail lamp relay
ON	ON	—
OFF	OFF	—
ON	OFF	—
OFF	ON	ON (10 minutes)

NOTE:
When the ignition switch is turned ON, the tail lamps are OFF.

CONSULT-II Function (IPDM E/R)

AKS00A4D

CONSULT-II can display each diagnostic item using the diagnostic test modes shown following.

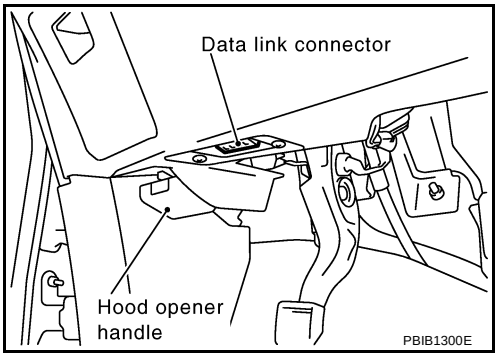
Inspection Item, Diagnosis Mode	Description
SELF-DIAG RESULTS	The IPDM E/R performs diagnosis of the CAN communication and self-diagnosis.
DATA MONITOR	The input/output data of the IPDM E/R is displayed in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	The IPDM E/R sends a drive signal to electronic components to check their operation.

CONSULT-II INSPECTION PROCEDURE

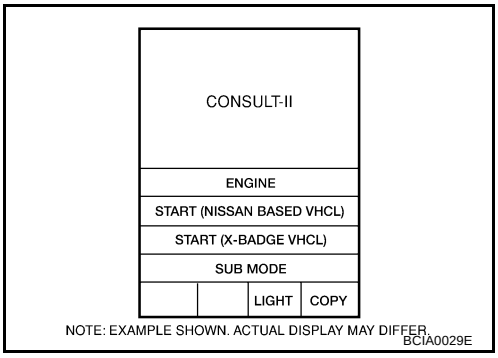
CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

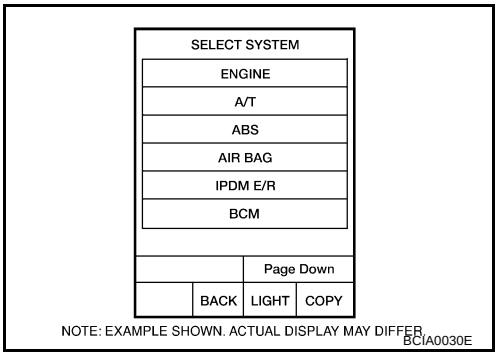
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn the ignition switch ON.



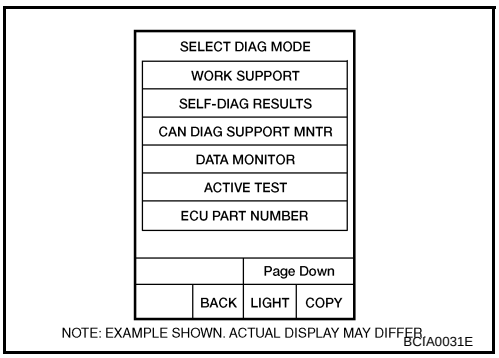
2. Touch “START (NISSAN BASED VHCL)”.



3. Touch “IPDM E/R” on “SELECT SYSTEM” screen.
If “IPDM E/R” is not indicated, go to GI-39, "CONSULT-II Data Link Connector (DLC) Circuit" .



4. Select the desired part to be diagnosed on the “SELECT DIAG MODE” screen.



SELF-DIAG RESULTS

Operation Procedure

1. Touch “SELF-DIAG RESULTS” on “SELECT DIAG MODE” screen.
2. Check display content in self-diagnostic results.

Display Item List

Display Items	CONSULT-II display code	Malfunction detecting condition	TIME		Possible causes
			CRNT	PAST	
NO DTC IS DETECTED.FURTHER TESTING MAY BE REQUIRED.	-	-	-	-	-
CAN COMM CIRC	U1000	● If CAN communication reception/transmission data has a malfunction, or if any of the control units malfunction, data reception/ transmission cannot be confirmed. ● When the data in CAN communication is not received before the specified time	×	×	Any of or several items below have errors. ● TRANSMIT DIAG ● ECM ● BCM/SEC

NOTE:

The details for display of the period are as follows:

- CRNT: Error currently detected with IPDM E/R.
- PAST: Error detected in the past and memorized with IPDM E/R.

DATA MONITOR

Operation Procedure

1. Touch “DATA MONITOR” on “SELECT MONITOR ITEM ” screen.
2. Touch “ALL SIGNALS”, “MAIN SIGNALS” or “SELECTION FROM MENU” on the “DATA MONITOR” screen.

ALL SIGNALS	All items will be monitored.
MAIN SIGNALS	Monitor the predetermined item.
SELECTION FROM MENU	Select any item for monitoring.

3. Touch the required monitoring item on “SELECTION FROM MENU”. In “ALL SIGNALS”, all items are monitored. In “MAIN SIGNALS”, predetermined items are monitored.
4. Touch “START”.
5. Touch “RECORD” while monitoring to record the status of the item being monitored. To stop recording, touch “STOP”.

All Signals, Main Signals, Selection From Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECTION FROM MENU	
Motor fan request	MOTOR FAN REQ	1/2/3/4	×	×	×	Signal status input from ECM
Compressor request	AC COMP REQ	ON/OFF	×	×	×	Signal status input from ECM
Tail & clear request	TAIL&CLR REQ	ON/OFF	×	×	×	Signal status input from BCM
H/L LO request	HL LO REQ	ON/OFF	×	×	×	Signal status input from BCM
H/L HI request	HL HI REQ	ON/OFF	×	×	×	Signal status input from BCM
Front fog request	FR FOG REQ	ON/OFF	×	×	×	Signal status input from BCM
Head lamp washer request	HL WASHER REQ*1	ON/OFF	×		×	Signal status input from BCM
Front wiper request	FR WIP REQ	STOP/LOW/HI	×	×	×	Signal status input from BCM
Wiper auto stop	WIP AUTO STOP	ACT P/STOP P	×	×	×	Output status of IPDM E/R
Wiper protection	WIP PROT	OFF/BLOCK	×	×	×	Control status of IPDM E/R
Starter request	ST RLY REQ*2	ON/OFF	×		×	Status of input signal
Ignition relay status	IGN RLY	ON/OFF	×	×	×	Ignition relay status monitored with IPDM E/R
Rear window defogger request	RR DEF REQ	ON/OFF	×	×	×	Signal status input from BCM
Oil pressure switch	OIL P SW	OPEN/CLOSE	×		×	Signal status input in IPDM E/R
Day time light request	DTRL REQ*1	ON/OFF	×		×	Signal status input from BCM
Hood switch	HOOD SW	ON/OFF	×		×	Signal status input in IPDM E/R
Theft warning horn request	THFT HRN REQ	ON/OFF	×		×	Signal status input from BCM
Horn chirp	HORN CHIRP	ON/OFF	×		×	Output status of IPDM E/R

NOTE:

- Perform monitoring of IPDM E/R data with the ignition switch ON. When the ignition switch is at ACC, the display may not be correct.
- *1: This item is displayed, but does not function.
- *2: The vehicle without the Intelligent Key system displays only ON without change.

ACTIVE TEST

Operation Procedure

1. Touch “ACTIVE TEST” on “SELECT DIAG MODE” screen.
2. Touch item to be tested.
3. Touch “START”, and confirm its operation.
4. Touch “STOP” while testing to stop the operation.

Test item	CONSULT-II screen display	Description
Tail lamp operation	TAIL LAMP	With a certain ON-OFF operation, the tail lamp relay can be operated.
Rear window defogger operation	REAR DEFOGGER	With a certain ON-OFF operation, the rear window defogger relay can be operated.
Front wiper (HI, LO) operation	FRONT WIPER	With a certain operation (OFF, HI ON, LO ON), the front wiper relay (Lo, Hi) can be operated.
Cooling fan operation	MOTOR FAN	With a certain operation (1,2,3,4), the cooling fan can be operated.
Headlamp washer operation	HEAD LAMP WASHER NOTE	—
Lamp (HI, LO, FOG) operation	LAMPS	With a certain operation (OFF, HI ON, LO ON, FOG ON), the lamp relay (Lo, Hi, Fog) can be operated.
Horn operation	HORN	Push “ON” button, horn relay operates 20ms.

NOTE:
This item is displayed, but cannot be tested.

Auto Active Test

AKS00A4E

DESCRIPTION

- In auto active test mode, operation inspection can be performed when IPDM E/R sends a drive signal to the following systems:
  - Rear window defogger
  - Front wipers
  - Tail lamps and parking lamps
  - Front fog lamps
  - Headlamps (Hi, Lo)
  - A/C compressor (magnetic clutch)
  - Cooling fan

OPERATION PROCEDURE

1. Close hood and front door (passenger side), and then lift wiper arms away from windshield (to prevent glass damage by wiper operation).

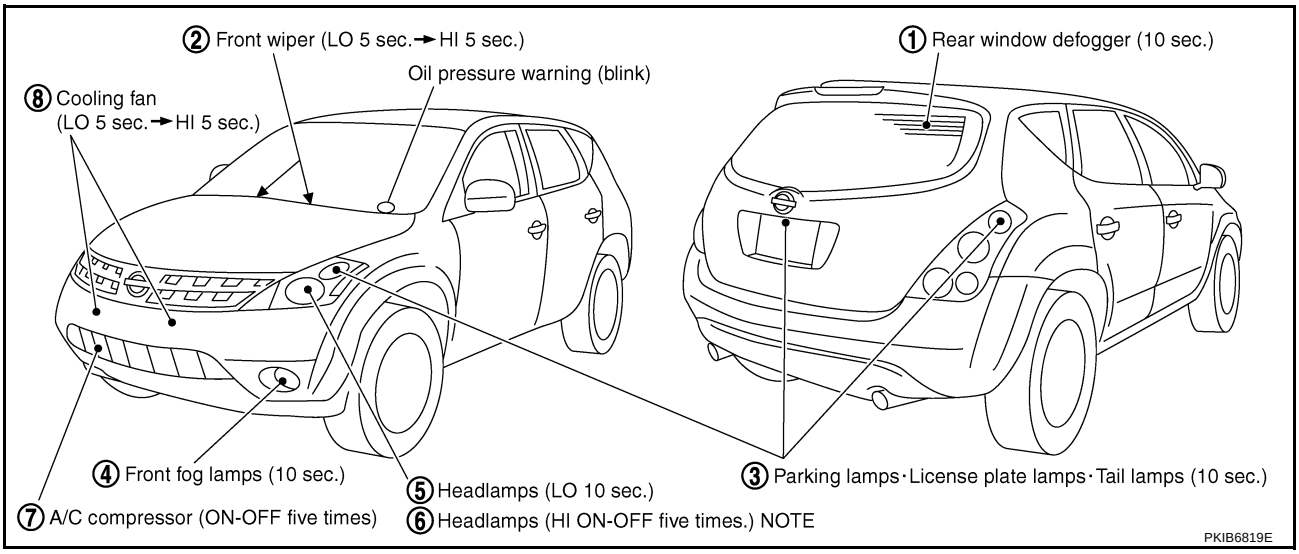
   NOTE:
   When auto active test is performed with hood opened, sprinkle water on windshield beforehand.
2. Turn ignition switch OFF.
3. Turn ignition switch ON, and within 20 seconds, open and close 10 times of front door LH. Then turn ignition switch OFF.
4. Turn ignition switch ON within 10 seconds after ignition switch OFF.
5. When auto active test mode is actuated, horn chirps once. Oil pressure warning lamp starts blinking.
6. After a series of operations is repeated three times, auto active test is completed.

   NOTE:
   When auto active test mode has to be cancelled halfway, turn ignition switch OFF.

   CAUTION:
   Be sure to inspect BL-45, "Check Door Switch" when the auto active test cannot be performed.

INSPECTION IN AUTO ACTIVE TEST MODE

- When auto active test mode is actuated, the following eight steps are repeated three times.



NOTE:
Turns ON-OFF the solenoid to switch Hi/Lo. In this case, the bulb does not illuminate.

Concept of Auto Active Test

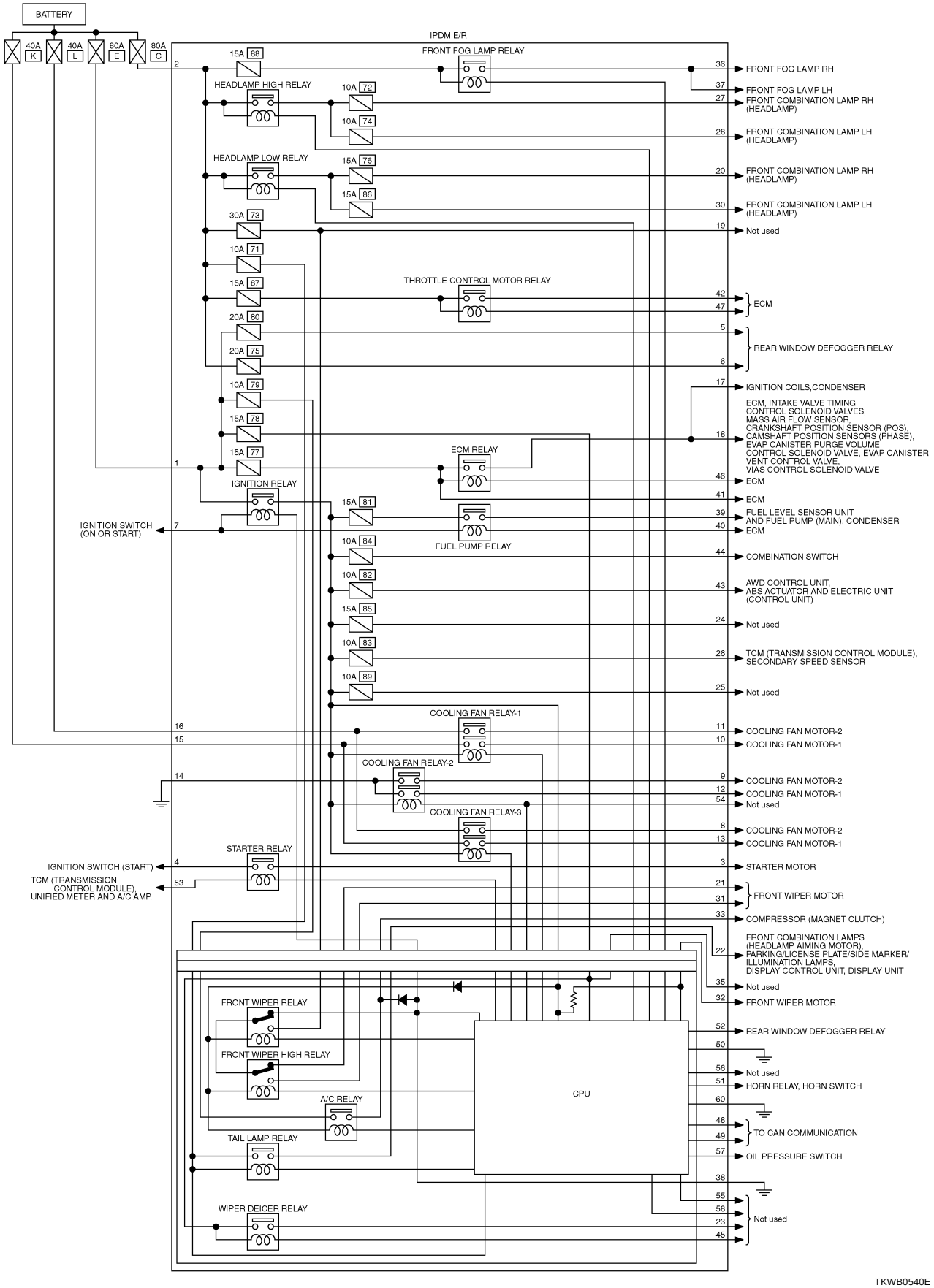
- IPDM E/R actuates auto active test mode when it receives door switch signal from BCM via CAN communication line. Therefore, when auto active test mode is activated successfully, CAN communication between IPDM E/R and BCM is normal.
- If any of systems controlled by IPDM E/R cannot be operated, possible cause can be easily diagnosed using auto active test.

Diagnosis chart in auto active test mode

Symptom	Inspection contents		Possible cause
Any of front wipers, tail and parking lamps, front fog lamps, and head lamps (Hi, Lo) do not operate.	Perform auto active test. Does system in question operate?	YES	● BCM signal input system malfunction
		NO	● Lamp/wiper motor malfunction ● Lamp/wiper motor ground circuit malfunction ● Harness/connector malfunction between IPDM E/R and system in question ● IPDM E/R (integrated relay) malfunction
Rear window defogger does not operate.	Perform auto active test. Does rear window defogger operate?	YES	● BCM signal input circuit malfunction
		NO	● Rear window defogger relay malfunction ● Harness/connector malfunction between IPDM E/R and rear window defogger relay ● Open circuit of rear window defogger ● IPDM E/R malfunction
A/C compressor does not operate.	Perform auto active test. Does magnetic clutch operate?	YES	● BCM signal input circuit malfunction ● CAN communication signal between BCM and ECM. ● CAN communication signal between ECM and IPDM E/R
		NO	● Magnetic clutch malfunction ● Harness/connector malfunction between IPDM E/R and magnetic clutch ● IPDM E/R (integrated relay) malfunction
Cooling fan does not operate.	Perform auto active test. Does cooling fan operate?	YES	● ECM signal input circuit ● CAN communication signal between ECM and IPDM E/R
		NO	● Cooling fan motor malfunction ● Harness/connector malfunction between IPDM E/R and cooling fan motor ● IPDM E/R (integrated relay) malfunction
Oil pressure warning lamp does not operate.	Perform auto active test. Does oil pressure warning lamp blink?	YES	● Harness/connector malfunction between IPDM E/R and oil pressure switch ● Oil pressure switch malfunction ● IPDM E/R malfunction
		NO	● CAN communication signal between BCM and Unified Meter and A/C Amp ● Combination meter

Schematic

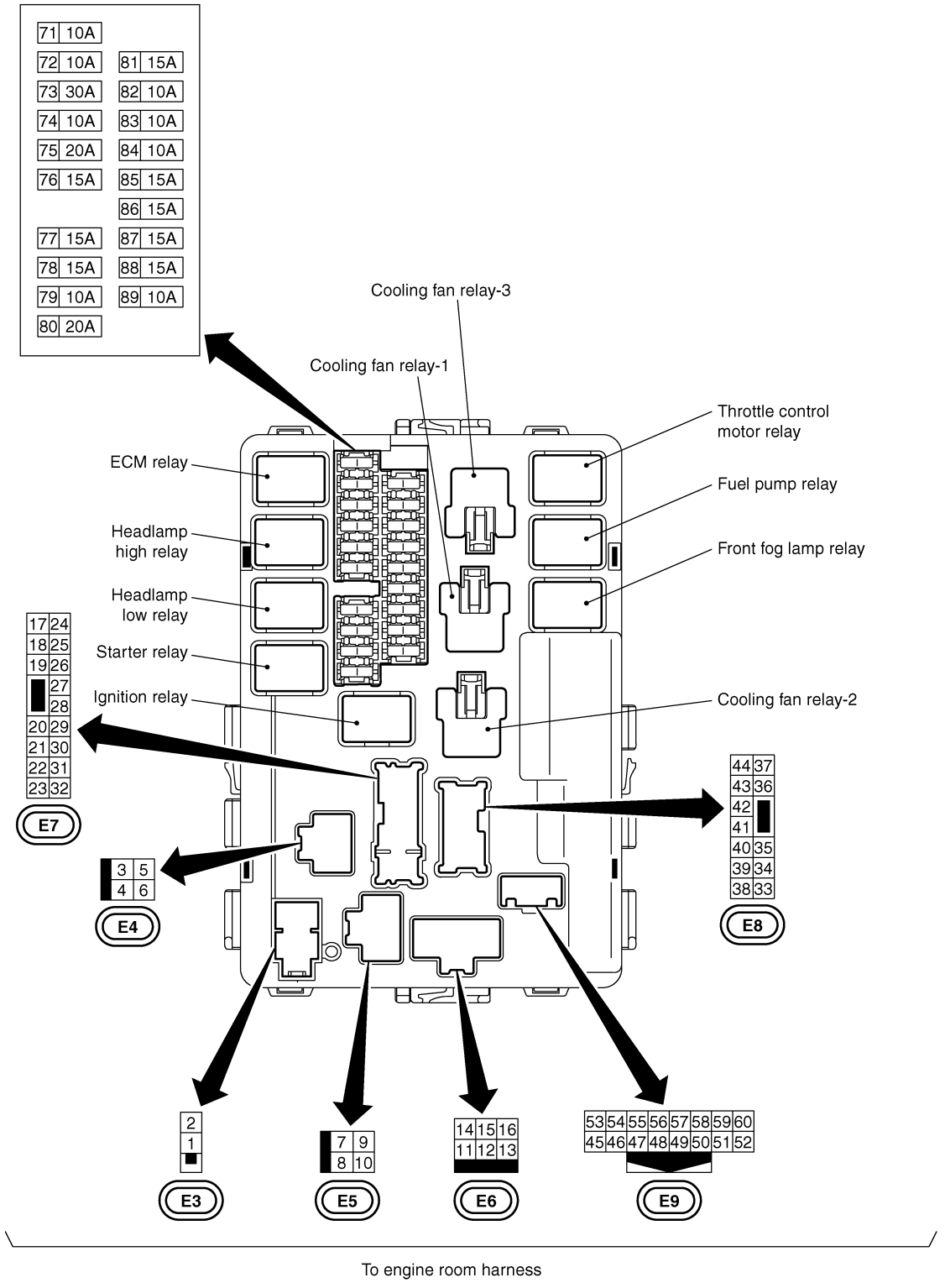
AKS00A4F



TKWB0540E

IPDM E/R Terminal Arrangement

AKS00A4G



CKIB0042E

IPDM E/R Power/Ground Circuit Inspection

AKS00A4H

1. CHECK FUSE AND FUSIBLE LINK

- Make sure the following fusible links or IPDM E/R fuses are not blown.

Terminal No.	Power source	Fuse and fusible link No.
1, 2	Battery power	C
		E
		71
		78

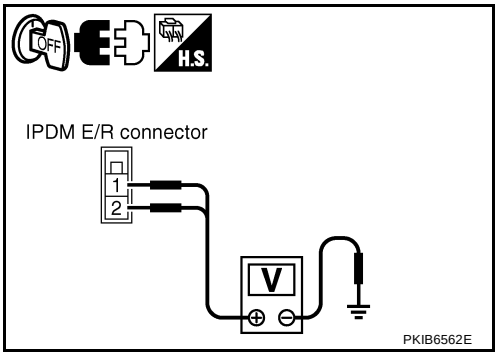
OK or NG

OK >> GO TO 2.
NG >> Replace fuse or fusible link.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector E3.
3. Check voltage between IPDM E/R harness connector E3 terminals 1 (R), 2 (W/L) and ground.

1, 2 - Ground : Battery voltage



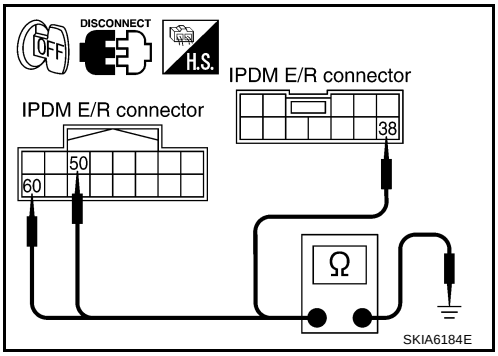
OK or NG

OK >> GO TO 3.
NG >> Replace IPDM E/R power supply circuit harness.

3. CHECK GROUND CIRCUIT

1. Disconnect IPDM E/R harness connectors E8 and E9.
2. Check continuity between IPDM E/R harness connectors E8 terminal 38 (B), E9 terminal 50 (B), 60 (B) and ground.

38, 50, 60 - Ground : Continuity should exist.



OK or NG

OK >> INSPECTION END
NG >> Replace ground circuit harness of IPDM E/R.

Inspection With CONSULT-II (Self-Diagnosis)

AKS00A4I

CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

1. CHECK SELF DIAGNOSTIC RESULT

1. Connect CONSULT-II and select “IPDM E/R” on “SELECT SYSTEM” screen.
2. Select “SELF-DIAG RESULTS” on the “SELECT DIAG MODE” screen.
3. Check display content in self diagnostic results.

CONSULT-II display	CONSULT-II display code	TIME		Details of diagnosis result
		CRNT	PAST	
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.	-	-	-	No malfunction
CAN COMM CIRC	U1000	×	×	Any of or several items below have errors. ● TRANSMIT DIAG ● ECM ● BCM/SEC

NOTE:

The details for display of the period are as follows:

- CRNT: Error currently detected with IPDM E/R.
- PAST: Error detected in the past and memorized with IPDM E/R.

Contents displayed

NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.>>INSPECTION END

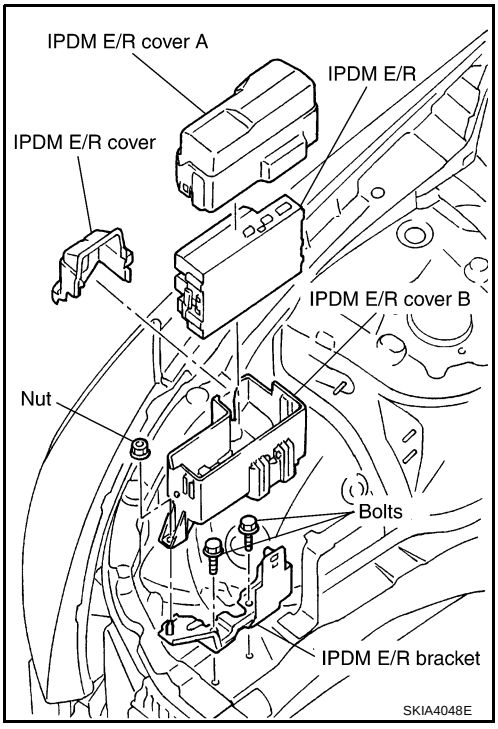
CAN COMM CIRC>>After print-out of the monitor items, refer to LAN-5, "Precautions When Using CONSULT-II" .

Removal and Installation of IPDM E/R

AKS00AAF

REMOVAL

1. Remove IPDM E/R cover A and IPDM E/R cover.
2. While spreading pawls on both side of IPDM E/R cover B, remove IPDM E/R from IPDM E/R cover B.
3. Remove harness connector from IPDM E/R.



INSTALLATION

Installation is the revers order of removal.

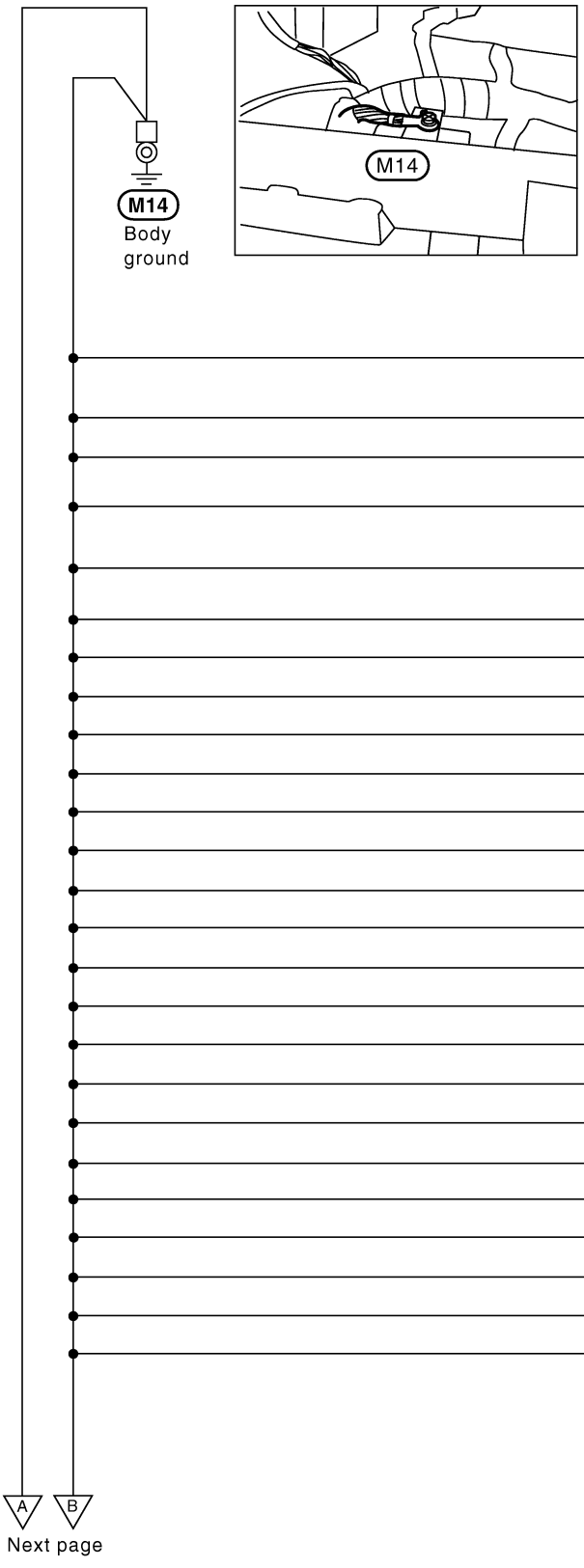
GROUND

PFP:00011

Ground Distribution

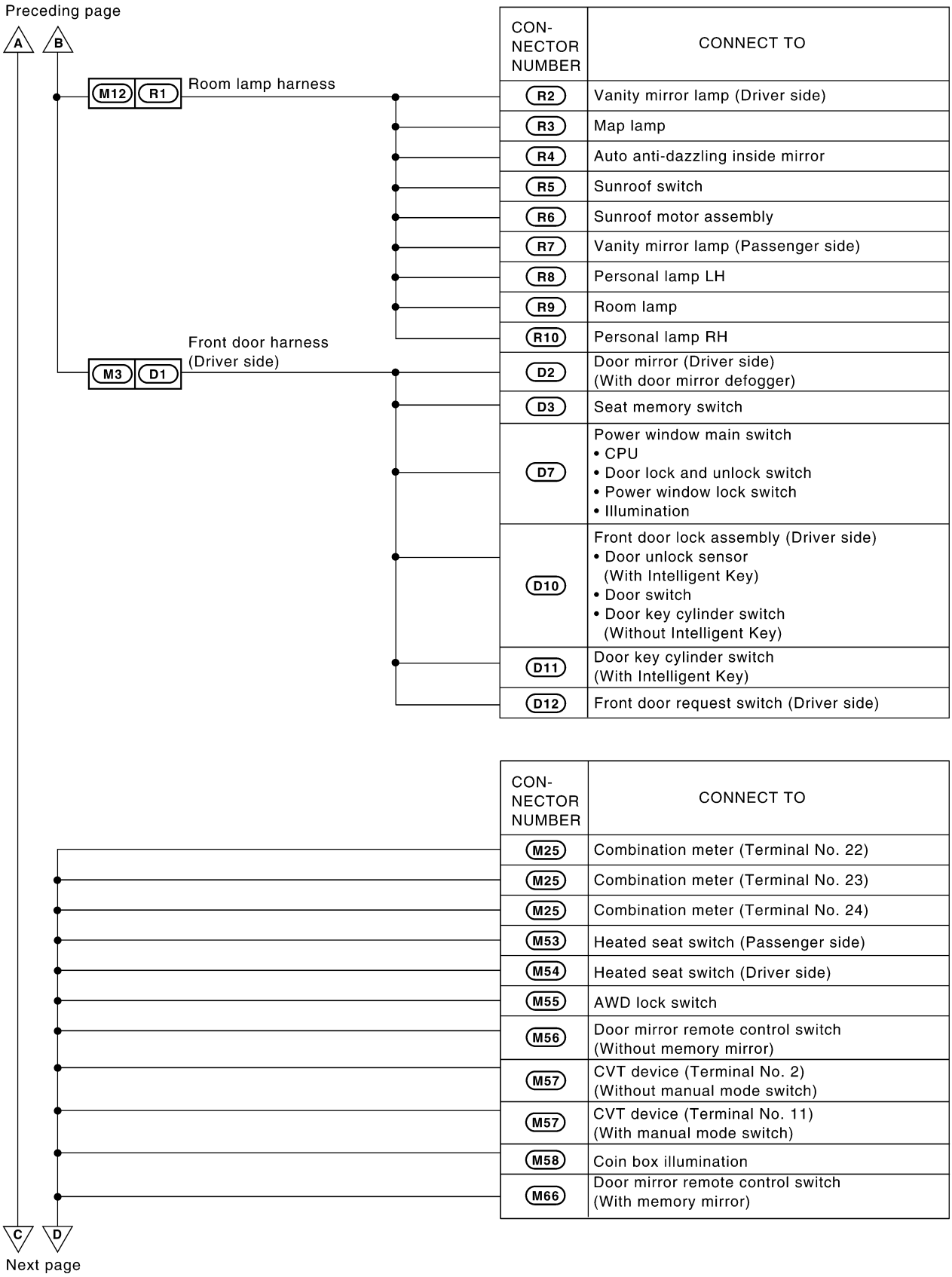
AKS007HJ

MAIN HARNESS



CON-NECTOR NUMBER	CONNECT TO
M2	Fuse block (J/B) (Terminal No. 7B) • Accessory relay • Blower relay
M17	VDC off switch
M18	Headlamp aiming switch
M20	Automatic drive positioner control unit (Terminal No. 40)
M20	Automatic drive positioner control unit (Terminal No. 48)
M22	Power socket relay
M24	Data link connector (Terminal No. 4)
M24	Data link connector (Terminal No. 5)
M27	Shift lock control unit
M29	Combination switch
M33	Steering angle sensor
M38	Display (With navigation system)
M39	Display unit (Without navigation system)
M42	Display control unit (With navigation system)
M48	A/C and AV switch
M50	Unified meter and A/C amp. (Terminal No. 29)
M50	Unified meter and A/C amp. (Terminal No. 30)
M60	Front power socket (Center console)
M62	NAVI control unit (Terminal No. 1)
M62	NAVI control unit (Terminal No. 4)
M64	Air bag diagnosis sensor unit
M73	Front power socket (Center cluster)
M88	Pedal adjusting control unit
M93	Condenser
M96	Option connector for DVD

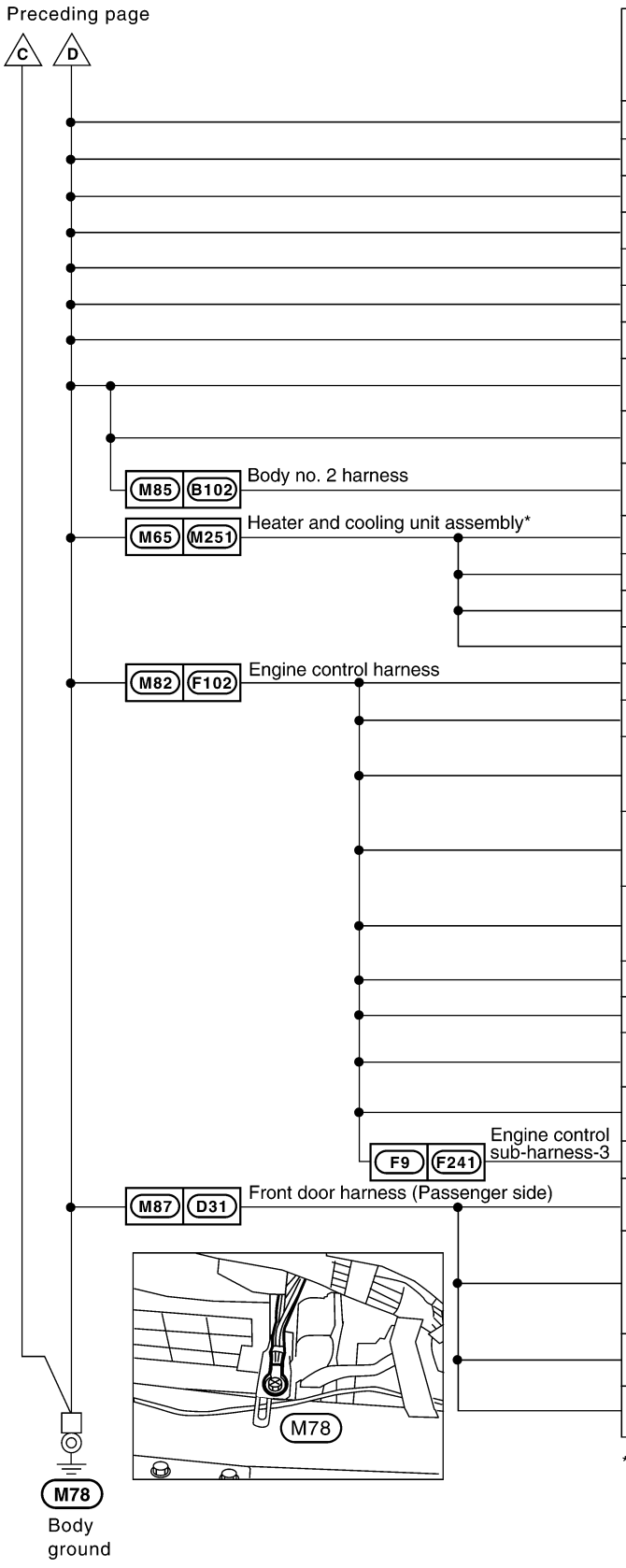
CKIB0098E



CONNECTOR NUMBER	CONNECT TO
R2	Vanity mirror lamp (Driver side)
R3	Map lamp
R4	Auto anti-dazzling inside mirror
R5	Sunroof switch
R6	Sunroof motor assembly
R7	Vanity mirror lamp (Passenger side)
R8	Personal lamp LH
R9	Room lamp
R10	Personal lamp RH
D2	Door mirror (Driver side) (With door mirror defogger)
D3	Seat memory switch
D7	Power window main switch • CPU • Door lock and unlock switch • Power window lock switch • Illumination
D10	Front door lock assembly (Driver side) • Door unlock sensor (With Intelligent Key) • Door switch • Door key cylinder switch (Without Intelligent Key)
D11	Door key cylinder switch (With Intelligent Key)
D12	Front door request switch (Driver side)

CONNECTOR NUMBER	CONNECT TO
M25	Combination meter (Terminal No. 22)
M25	Combination meter (Terminal No. 23)
M25	Combination meter (Terminal No. 24)
M53	Heated seat switch (Passenger side)
M54	Heated seat switch (Driver side)
M55	AWD lock switch
M56	Door mirror remote control switch (Without memory mirror)
M57	CVT device (Terminal No. 2) (Without manual mode switch)
M57	CVT device (Terminal No. 11) (With manual mode switch)
M58	Coin box illumination
M66	Door mirror remote control switch (With memory mirror)

CKIB0043E

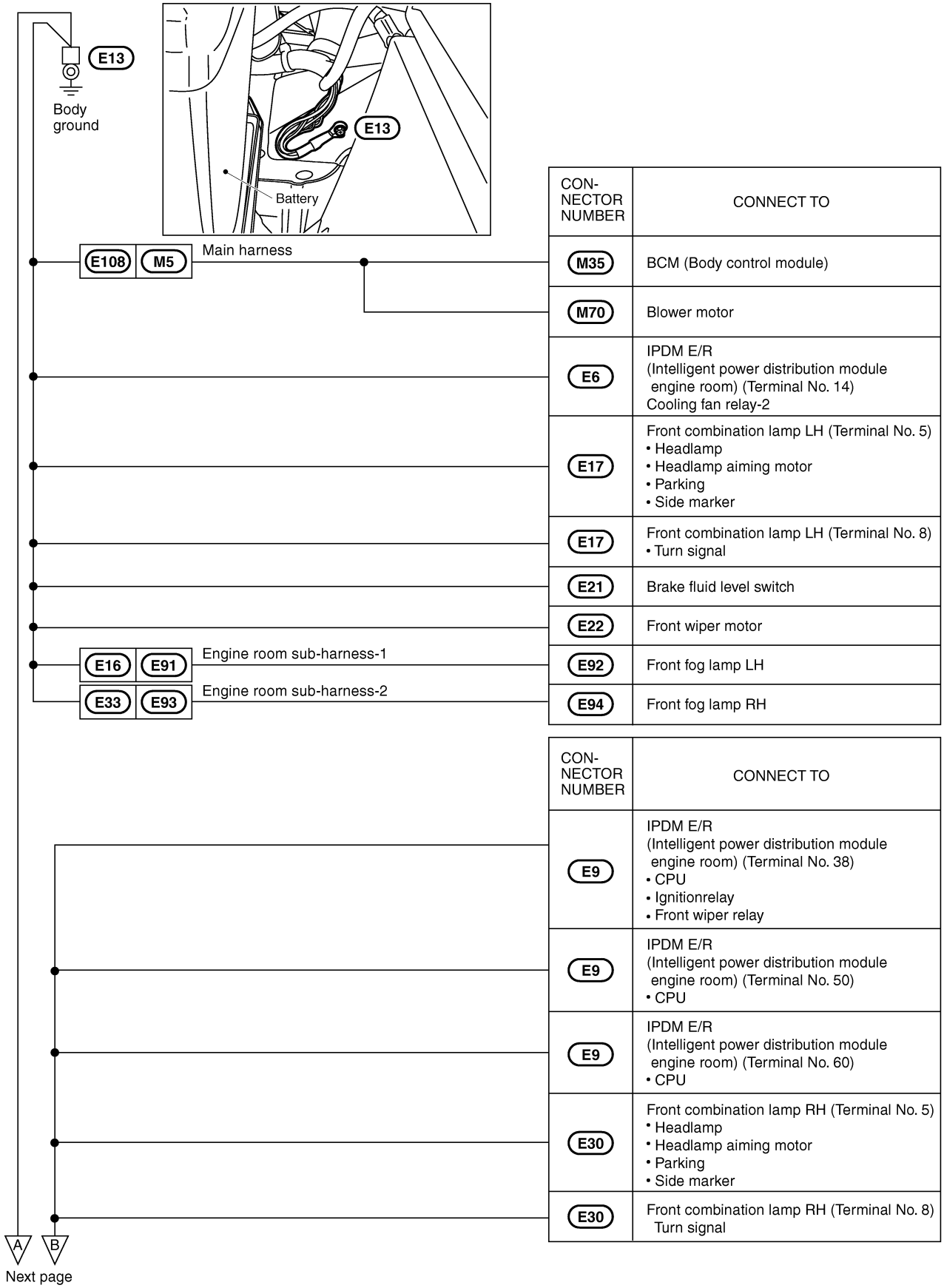


CONNECTOR NUMBER	CONNECT TO
M75	Glove box lamp
M80	ECM (Terminal No. 115)
M80	ECM (Terminal No. 116)
M81	Low tire pressure warning control unit
M91	Condenser
M92	Condenser
M99	Intelligent Key unit
M102	Shield wire (Inside key antenna-1 (console))
M109	Shield wire (Inside key antenna-2 (Dashboard))
B122	Shield wire (Inside key antenna-3 (Luggage room))
M252	Mode door motor
M253	Air mix door motor (Driver side)
M254	Air mix door motor (Passenger side)
M255	Intake door motor
F8	Camshaft position sensor (PHASE) (Bank 2)
F20	Crankshaft position sensor (POS)
F33	Shield wire [Electric throttle control actuator (Throttle position sensor)] (For circuit from terminal No. 1)
F33	Shield wire [Electric throttle control actuator (Throttle position sensor)] (For circuit from terminal No. 2,4,5)
F33	Shield wire [Electric throttle control actuator (Throttle control motor)] (For circuit from terminal No. 3,6)
F34	Camshaft position sensor (PHASE) (Bank 1)
F101	ECM (Terminal No. 1)
F104	TCM (Transmission control module) (Terminal No. 25)
F104	TCM (Transmission control module) (Terminal No. 48)
F242	Shield wire (Knock sensor)
D32	Door mirror (Passenger side) (With door mirror defogger)
D35	Front power window switch (Passenger side) • CPU • Doorlock and unlock switch • Illumination
D38	Front door lock assembly (Passenger side) • Door switch
D39	Front door request switch (Passenger side)

*:This sub-harness is not shown in "HARNESS LAYOUT".

CKIB0044E

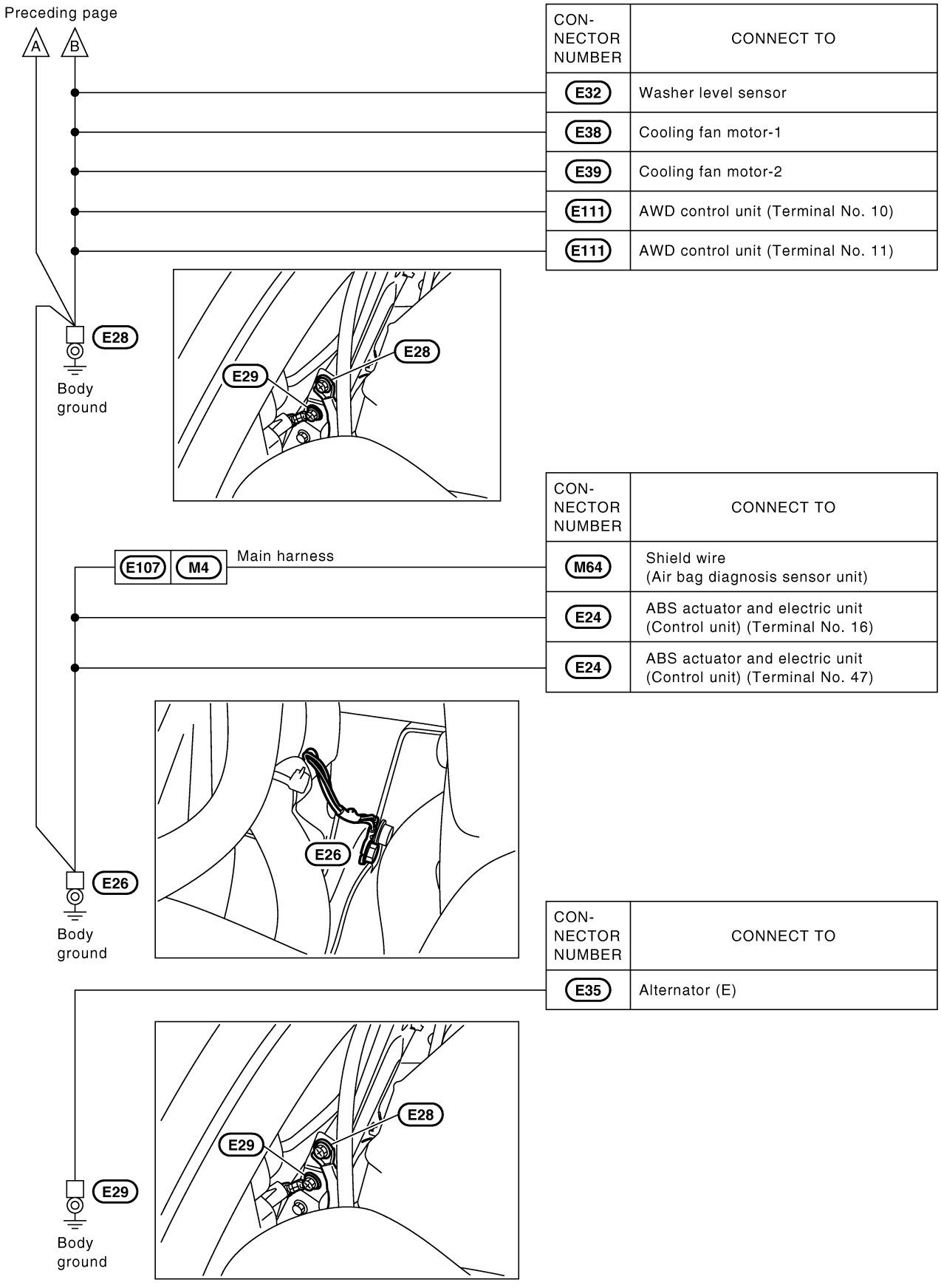
ENGINE ROOM HARNESS



CONNECTOR NUMBER	CONNECT TO
M35	BCM (Body control module)
M70	Blower motor
E6	IPDM E/R (Intelligent power distribution module engine room) (Terminal No. 14) Cooling fan relay-2
E17	Front combination lamp LH (Terminal No. 5) • Headlamp • Headlamp aiming motor • Parking • Side marker
E17	Front combination lamp LH (Terminal No. 8) • Turn signal
E21	Brake fluid level switch
E22	Front wiper motor
E92	Front fog lamp LH
E94	Front fog lamp RH

CONNECTOR NUMBER	CONNECT TO
E9	IPDM E/R (Intelligent power distribution module engine room) (Terminal No. 38) • CPU • Ignitionrelay • Front wiper relay
E9	IPDM E/R (Intelligent power distribution module engine room) (Terminal No. 50) • CPU
E9	IPDM E/R (Intelligent power distribution module engine room) (Terminal No. 60) • CPU
E30	Front combination lamp RH (Terminal No. 5) • Headlamp • Headlamp aiming motor • Parking • Side marker
E30	Front combination lamp RH (Terminal No. 8) Turn signal

CKIB0099E

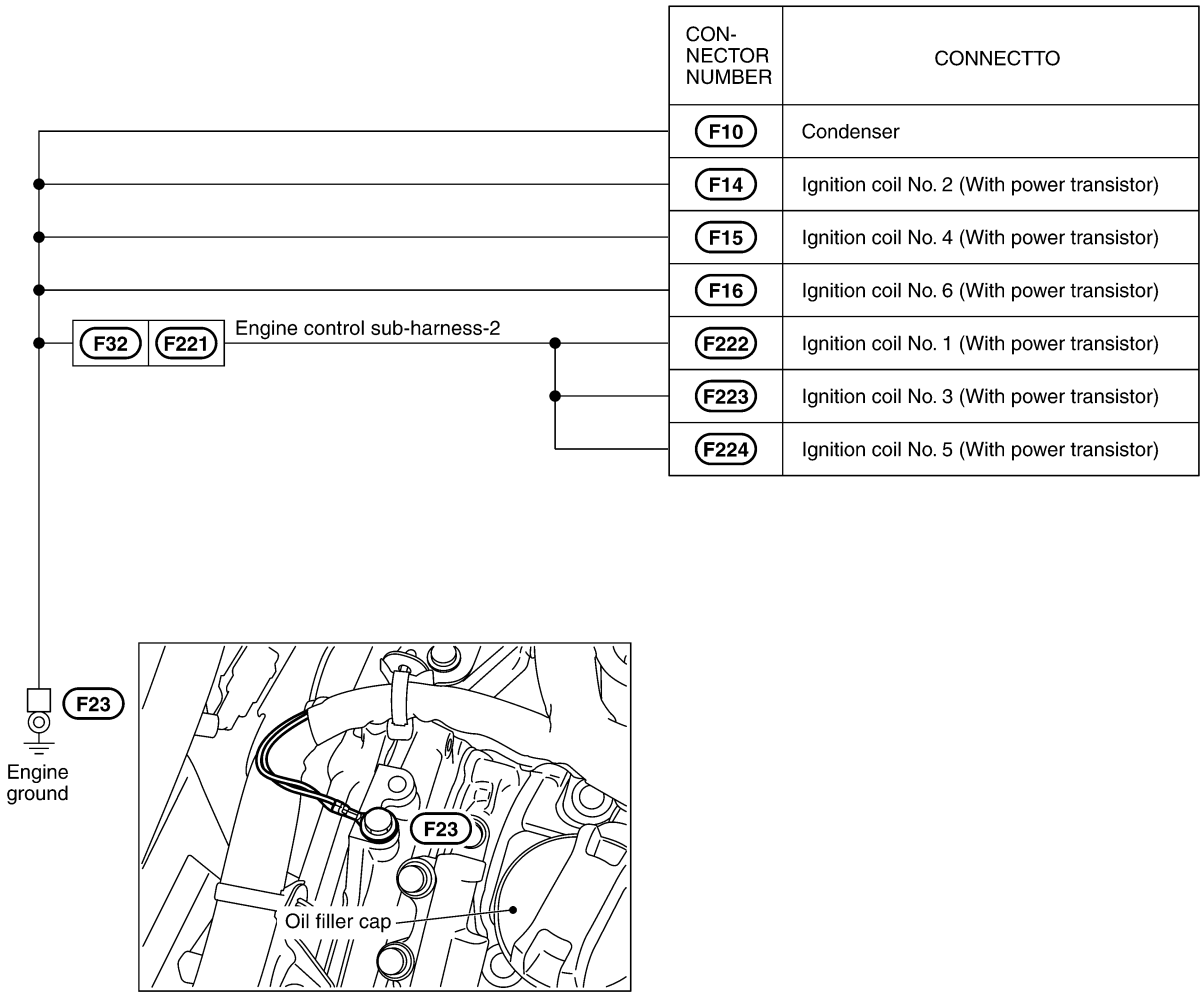


CON-NECTOR NUMBER	CONNECT TO
E32	Washer level sensor
E38	Cooling fan motor-1
E39	Cooling fan motor-2
E111	AWD control unit (Terminal No. 10)
E111	AWD control unit (Terminal No. 11)

CON-NECTOR NUMBER	CONNECT TO
M64	Shield wire (Air bag diagnosis sensor unit)
E24	ABS actuator and electric unit (Control unit) (Terminal No. 16)
E24	ABS actuator and electric unit (Control unit) (Terminal No. 47)

CON-NECTOR NUMBER	CONNECT TO
E35	Alternator (E)

ENGINE CONTROL HARNESS



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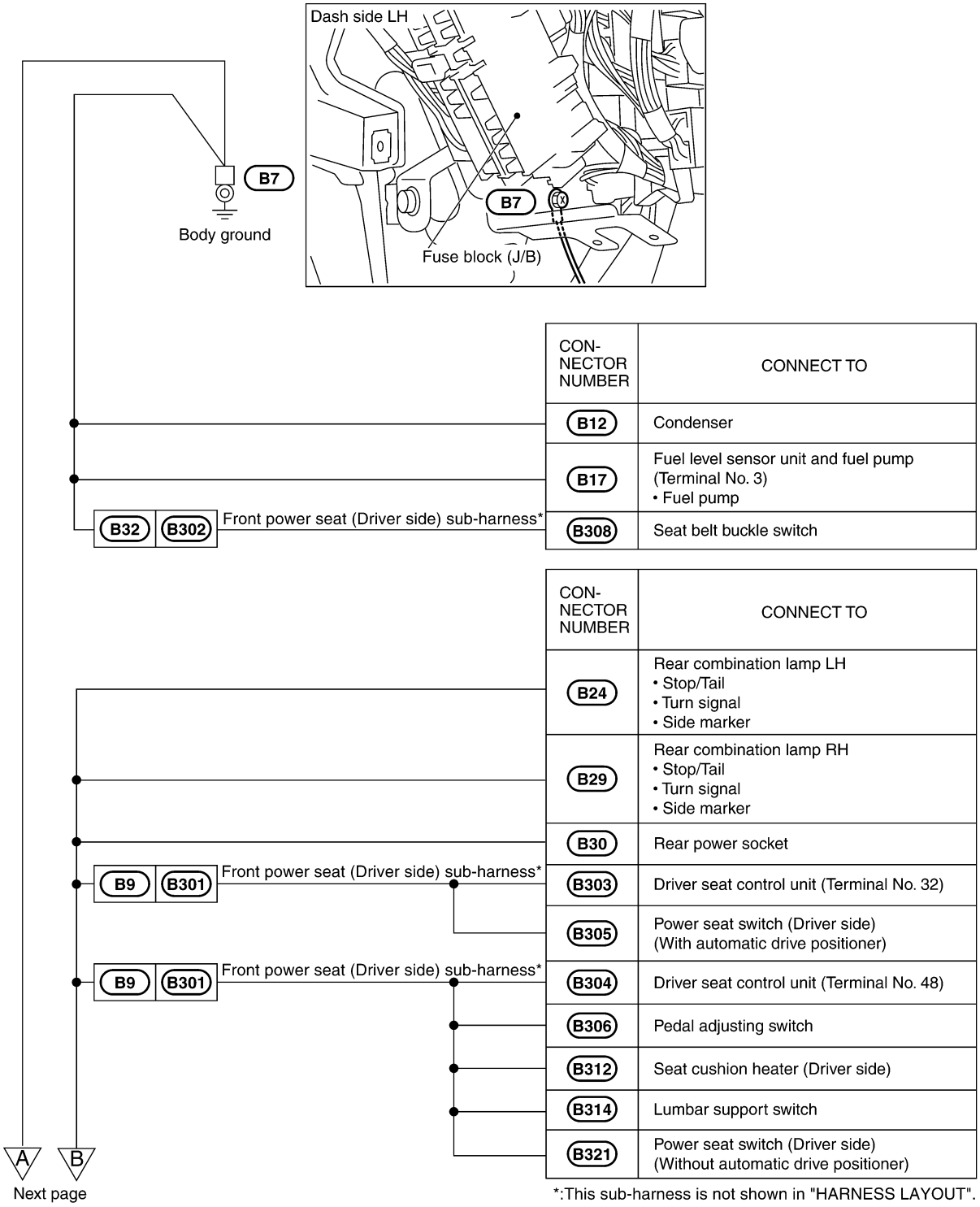
BODY HARNESS

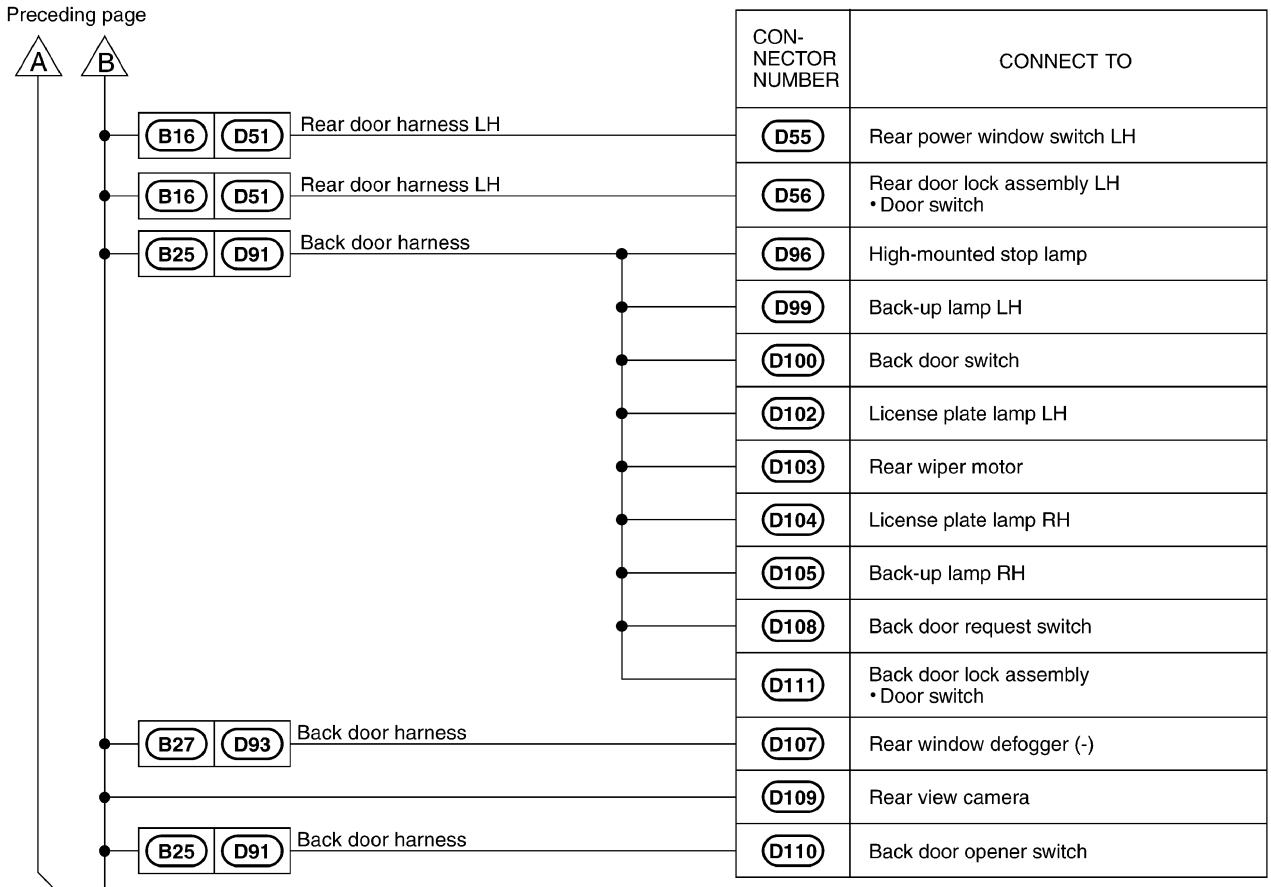


CON-NECTOR NUMBER	CONNECT TO
B12	Condenser
B17	Fuel level sensor unit and fuel pump (Terminal No. 3) • Fuel pump
B308	Seat belt buckle switch

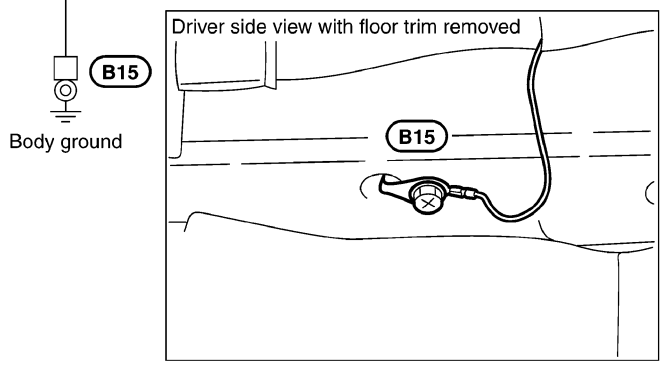
CON-NECTOR NUMBER	CONNECT TO
B24	Rear combination lamp LH • Stop/Tail • Turn signal • Side marker
B29	Rear combination lamp RH • Stop/Tail • Turn signal • Side marker
B30	Rear power socket
B303	Driver seat control unit (Terminal No. 32)
B305	Power seat switch (Driver side) (With automatic drive positioner)
B304	Driver seat control unit (Terminal No. 48)
B306	Pedal adjusting switch
B312	Seat cushion heater (Driver side)
B314	Lumbar support switch
B321	Power seat switch (Driver side) (Without automatic drive positioner)

*:This sub-harness is not shown in "HARNESS LAYOUT".

CKIB0045E



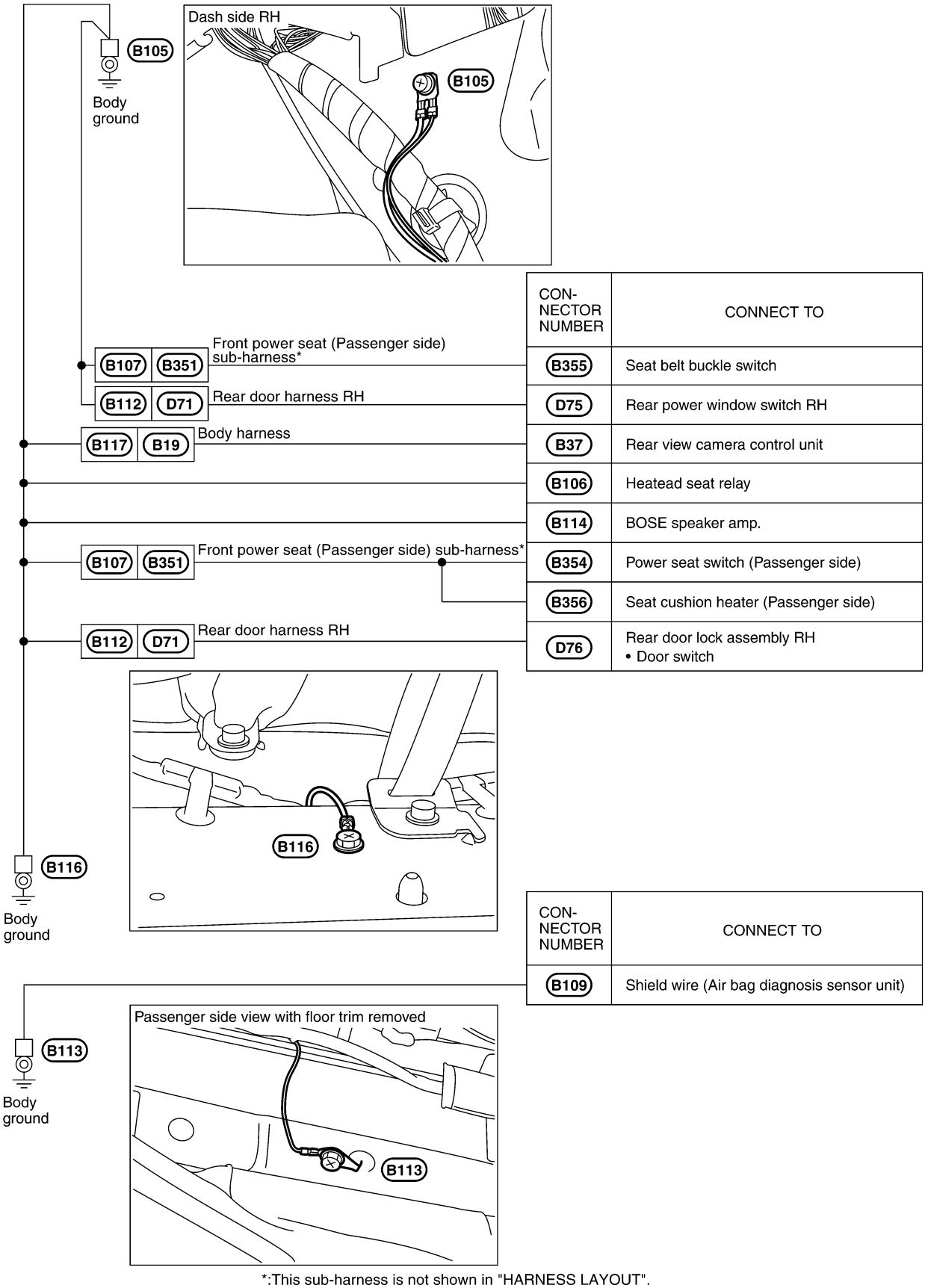
CONNECTOR NUMBER	CONNECT TO
D55	Rear power window switch LH
D56	Rear door lock assembly LH • Door switch
D96	High-mounted stop lamp
D99	Back-up lamp LH
D100	Back door switch
D102	License plate lamp LH
D103	Rear wiper motor
D104	License plate lamp RH
D105	Back-up lamp RH
D108	Back door request switch
D111	Back door lock assembly • Door switch
D107	Rear window defogger (-)
D109	Rear view camera
D110	Back door opener switch



CONNECTOR NUMBER	CONNECT TO
B11	Shield wire (Air bag diagnosis sensor unit)

CKIB0046E

BODY NO. 2 HARNESS



CON-NECTOR NUMBER	CONNECT TO
B355	Seat belt buckle switch
D75	Rear power window switch RH
B37	Rear view camera control unit
B106	Heatead seat relay
B114	BOSE speaker amp.
B354	Power seat switch (Passenger side)
B356	Seat cushion heater (Passenger side)
D76	Rear door lock assembly RH • Door switch

CON-NECTOR NUMBER	CONNECT TO
B109	Shield wire (Air bag diagnosis sensor unit)

*:This sub-harness is not shown in "HARNESS LAYOUT".

CKIB0047E

HARNESS

PFP:00011

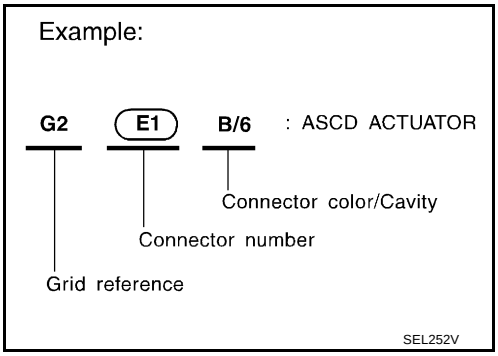
Harness Layout

AKS007HK

HOW TO READ HARNESS LAYOUT

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

- Main Harness
- Engine Room Harness (Engine Compartment)
- Engine Control Harness
- Body Harness



To Use the Grid Reference

1. Find the desired connector number on the connector list.
2. Find the grid reference.
3. On the figure, 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.

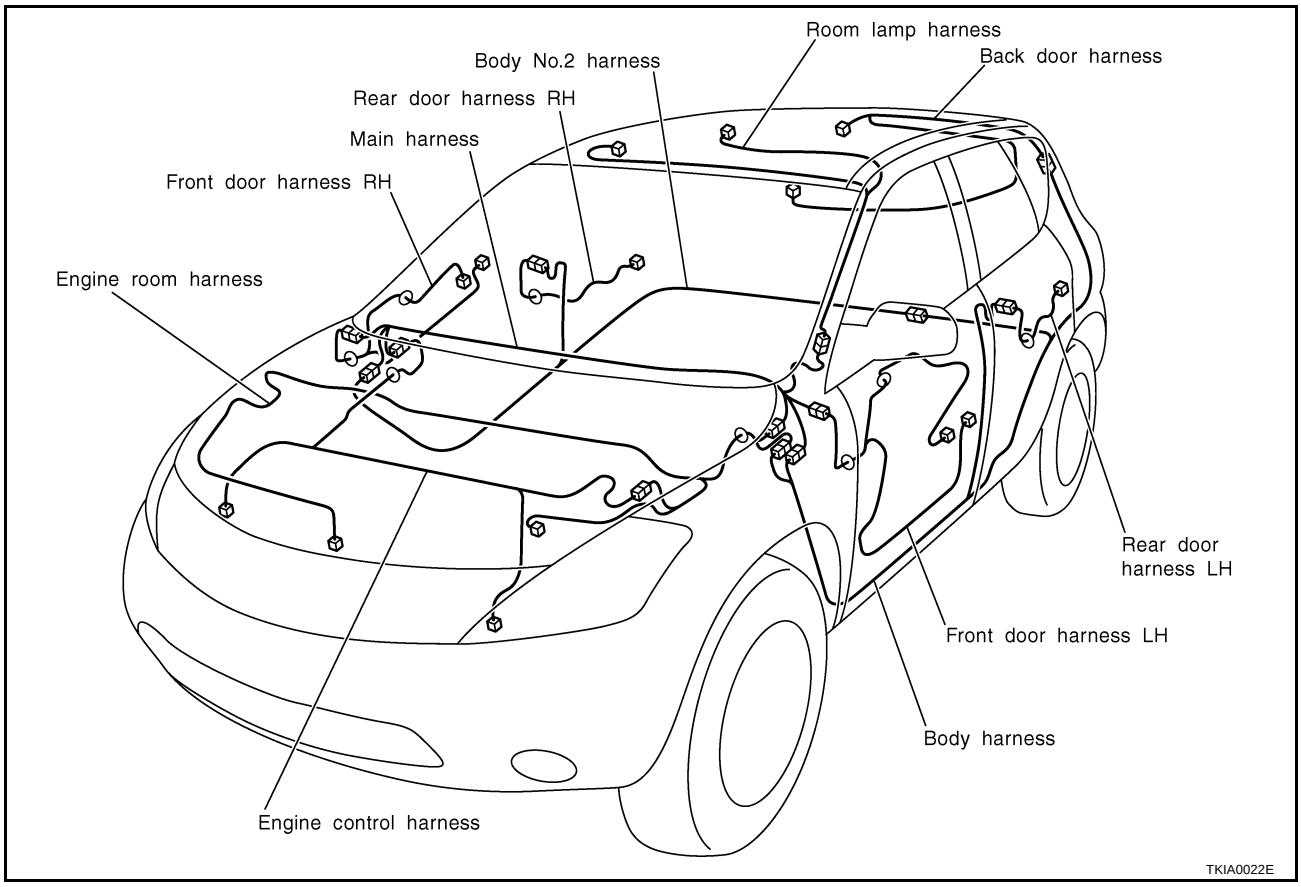
CONNECTOR SYMBOL

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

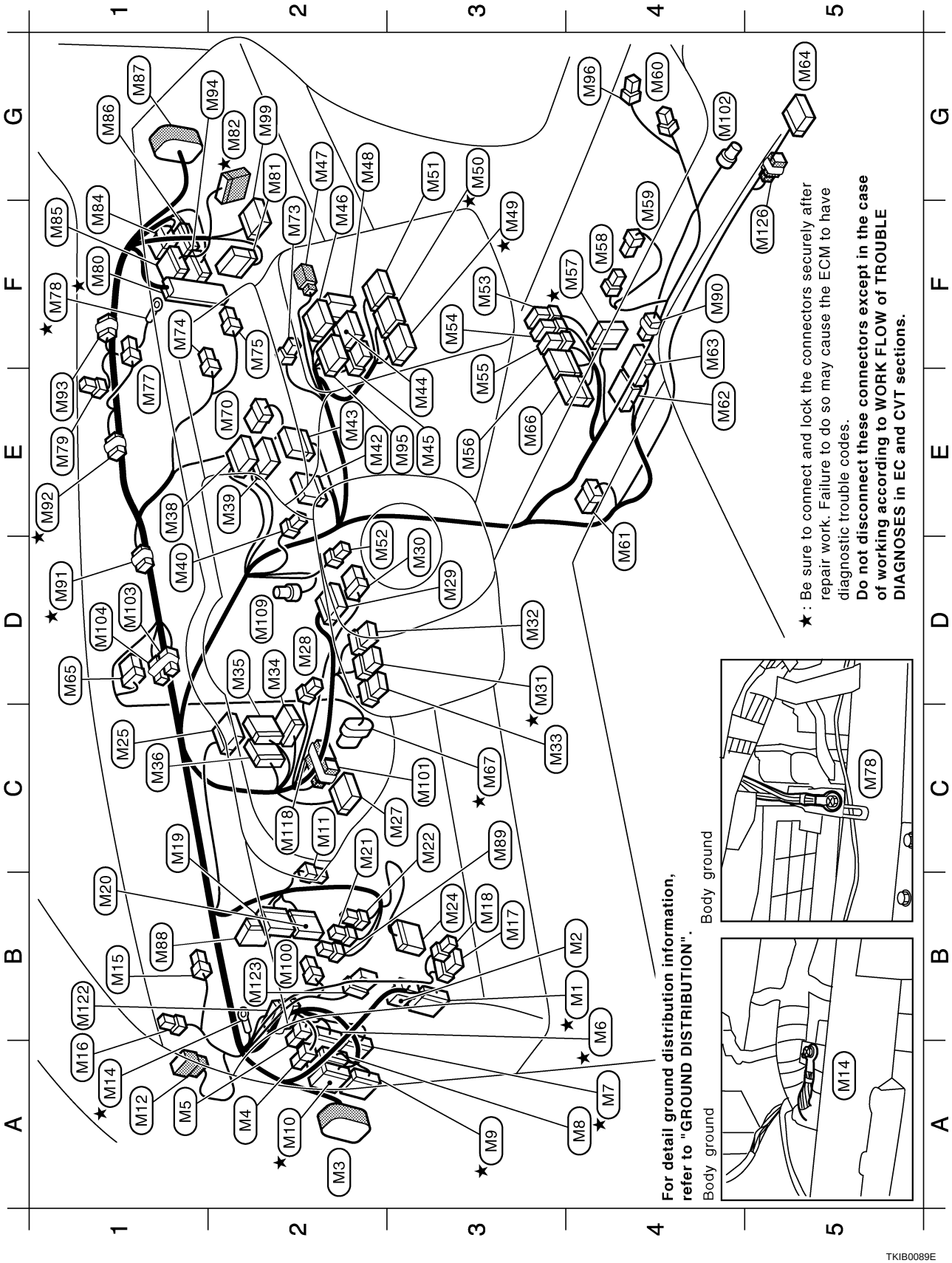
Connector type	Water proof type		Standard type	
	Male	Female	Male	Female
• Cavity: Less than 4 • Relay connector				
• Cavity: From 5 to 8				
• Cavity: More than 9				
• Ground terminal etc.	—			

CKIT0108E

OUTLINE


Room lamp harness
Back door harness
Body No.2 harness
Rear door harness RH
Main harness
Front door harness RH
Engine room harness
Rear door harness LH
Front door harness LH
Body harness
Engine control harness
TKIA0022E

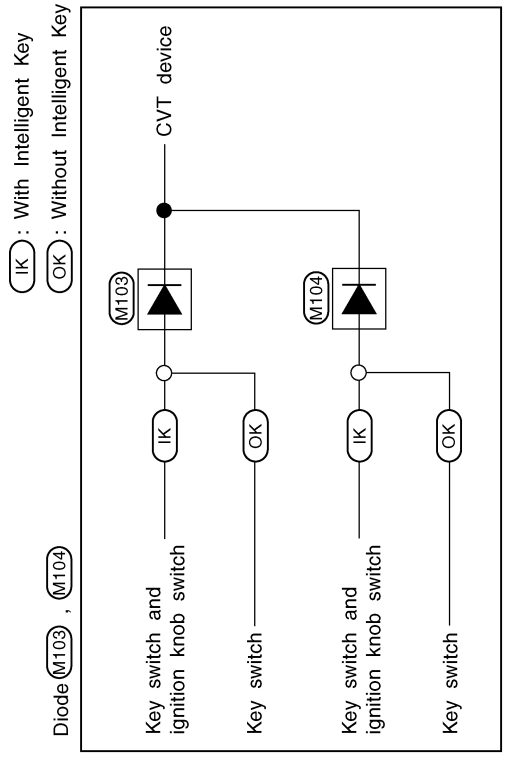
MAIN HARNESS



B4 ★	M1	W/16	:	Fuse block (J/B)
B4	M2	W/8	:	Fuse block (J/B)
A2	M3	SMJ	:	To D1
A2	M4	Y/4	:	To E107
A1	M5	W/4	:	To E108
B4 ★	M6	W/32	:	To E109
A4 ★	M7	GR/16	:	To E110
A4	M8	BR/12	:	To B1
A3 ★	M9	W/24	:	To B2
A2 ★	M10	BR/16	:	To B3
C2	M11	W/2	:	Tire pressure warning check connector
A1	M12	W/8	:	To R1
A1 ★	M14	—	:	Body ground
B1	M15	BR/2	:	Tweeter LH
A1	M16	W/3	:	Optical sensor
B3	M17	GR/6	:	VDC off switch
B3	M18	W/4	:	Headlamp aiming switch
C1	M19	W/32	:	Automatic drive positioner control unit
B1	M20	W/16	:	Automatic drive positioner control unit
C2	M21	L/4	:	Back-up lamp relay
C3	M22	L/4	:	Power socket relay
B3	M24	W/16	:	Data link connector
C1	M25	W/24	:	Combination meter
C3	M27	GR/10	:	Shift lock control unit
D2	M28	W/4	:	Key switch (Without Intelligent Key)
D3	M29	W/16	:	Combination switch
D3	M30	W/8	:	NATS antenna amp.
D3 ★	M31	GR/8	:	Combination switch (Spiral cable)
D3	M32	Y/6	:	Combination switch (Spiral cable)
C3	M33	W/8	:	Steering angle sensor
D2	M34	W/40	:	BCM (Body control module)
D2	M35	B/15	:	BCM (Body control module)
C1	M36	W/15	:	BCM (Body control module)
E1	M38	W/24	:	Display (With NAVI)
E2	M39	W/24	:	Display unit (Without NAVI)
D1	M40	W/2	:	Ignition keyhole illumination
E2	M42	W/24	:	Display control unit (With NAVI)
E2	M43	W/32	:	Display control unit (With NAVI)
E3	M44	W/10	:	Audio unit
E3	M45	W/6	:	Audio unit
F2	M46	W/16	:	Audio unit
G2	M47	BR/2	:	Antenna amp.
G2	M48	W/16	:	A/C and AV switch
F3 ★	M49	GR/20	:	Unified meter and A/C amp.
G3 ★	M50	GR/16	:	Unified meter and A/C amp.
G3	M51	W/24	:	Unified meter and A/C amp.
D2	M52	W/2	:	In-vehicle sensor
F3	M53	BR/6	:	Heated seat switch (Passenger side)
F3	M54	W/6	:	Heated seat switch (Driver side)
E3	M55	W/6	:	AWD lock switch
E3	M56	W/16	:	Door mirror remote control switch (Without memory mirror)
F4 ★	M57	W/16	:	CVT device
F4	M58	W/2	:	Coin box illumination
F4	M59	BR/2	:	CVT illumination
G4	M60	B/2	:	Front power socket (Center console)
D4	M61	B/6	:	Yaw rate / side / decel G sensor
E4	M62	W/24	:	NAVI control unit
F4	M63	GR/24	:	NAVI control unit
G5	M64	Y/28	:	Air bag diagnosis sensor unit
D1	M65	W/6	:	Heater & cooling unit assembly
E3	M66	BR/16	:	Door mirror remote control switch (With memory mirror)
C3 ★	M67	B/8	:	Accelerator pedal position sensor
E2	M70	W/6	:	Blower motor
F2	M73	B/2	:	Front power socket (Center cluster)
F1	M74	Y/4	:	Front passenger air bag module
F2	M75	W/2	:	Glove box lamp
E1	M77	BR/2	:	Tweeter RH
F1 ★	M78	—	:	Body ground
E1	M79	B/2	:	Sunload sensor
F1 ★	M80	SMJ	:	ECM
G2	M81	W/24	:	Low tire pressure warning control unit
G2 ★	M82	W/18	:	To F102
F1	M84	W/6	:	To B101
F1	M85	W/18	:	To B102
G1	M86	W/16	:	To B103
G1	M87	SMJ	:	To D31
B1	M88	W/16	:	Pedal adjusting control unit
C3	M89	W/2	:	Circuit breaker
F4	M90	B/2	:	Not used
D1 ★	M91	GR/2	:	Condenser
E1 ★	M92	GR/2	:	Condenser
E1	M93	W/2	:	Condenser
G2	M94	W/12	:	To B120
E3	M95	W/12	:	Option connector for audio unit
G4	M96	W/3	:	Option connector for DVD
G2	M99	W/40	:	Intelligent Key unit
B2	M100	W/3	:	Intelligent Key warning buzzer (Inside)

★ : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and CVT sections.**

TKIB0090E

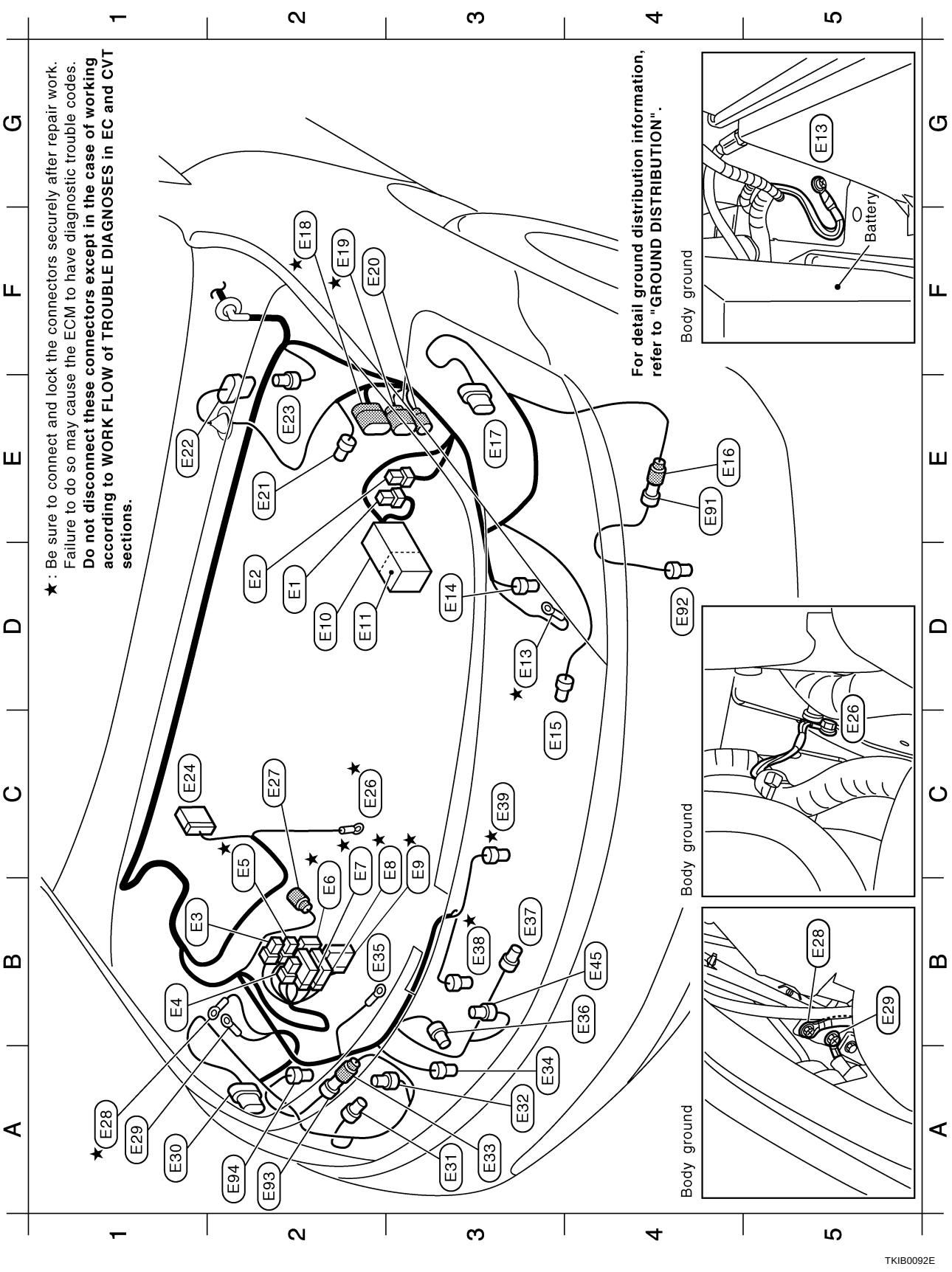


C3 M101 W/4 : Steering lock unit
G4 M102 GR/2 : Inside key antenna-1 (Center console)
D1 M103 — : Diode
D1 M104 — : Diode
D2 M109 GR/2 : Inside key antenna-2 (Dash board)
C2 M118 GR/6 : Key switch and ignition knob switch (With Intelligent Key)
B1 M122 W/16 : To B35
B2 M123 B/5 : Passenger side select unlock relay
F5 M126 W/4 : To B39

TKIB0091E

ENGINE ROOM HARNESS

Engine Compartment



D2	E1	BR/2	:	Fusible link holder
D2	E2	GR/2	:	Fusible link holder
B1	E3	B/2	:	IPDM E/R (Intelligent power distribution module engine room)
B1	E4	W/4	:	IPDM E/R (Intelligent power distribution module engine room)
C2★	E5	B/4	:	IPDM E/R (Intelligent power distribution module engine room)
B2★	E6	W/6	:	IPDM E/R (Intelligent power distribution module engine room)
C2★	E7	GR/16	:	IPDM E/R (Intelligent power distribution module engine room)
C3★	E8	W/12	:	IPDM E/R (Intelligent power distribution module engine room)
C3★	E9	W/16	:	IPDM E/R (Intelligent power distribution module engine room)
D2	E10	—	:	Fuse and fusible link block
D2	E11	-/3	:	Horn relay
D3★	E13	—	:	Body ground
D3	E14	B/1	:	Horn (Low)
C3	E15	B/2	:	Ambient sensor
E4	E16	B/2	:	To E91
E3	E17	GR/8	:	Front combination lamp LH
F2★	E18	GR/9	:	To F2
F2★	E19	B/8	:	To F3
F2	E20	L/2	:	Front wheel sensor LH
E2	E21	GR/2	:	Brake fluid level switch
E1	E22	GR/6	:	Front wiper motor
E2	E23	B/3	:	Pressure sensor
C1	E24	B/47	:	ABS actuator and electric unit
C2★	E26	—	:	Body ground
C2	E27	GR/2	:	Front wheel sensor RH
A1★	E28	—	:	Body ground
A1	E29	—	:	Body ground
A1	E30	GR/8	:	Front combination lamp RH
A3	E31	GR/2	:	Front and rear washer motor
A3	E32	BR/2	:	Washer level sensor
A3	E33	B/2	:	To E93
A3	E34	B/1	:	Horn (High)
B2	E35	—	:	Alternator (E)
B4	E36	B/3	:	Refrigerant pressure sensor
B3	E37	Y/2	:	Crash zone sensor
B3★	E38	GR/4	:	Cooling fan motor-1
C3★	E39	GR/4	:	Cooling fan motor-2
B4	E45	BR/3	:	Intelligent Key warning buzzer (Engine room)

Engine room sub-harness-1

E4	E91	B/2	:	To E16
D4	E92	BR/2	:	Front fog lamp LH

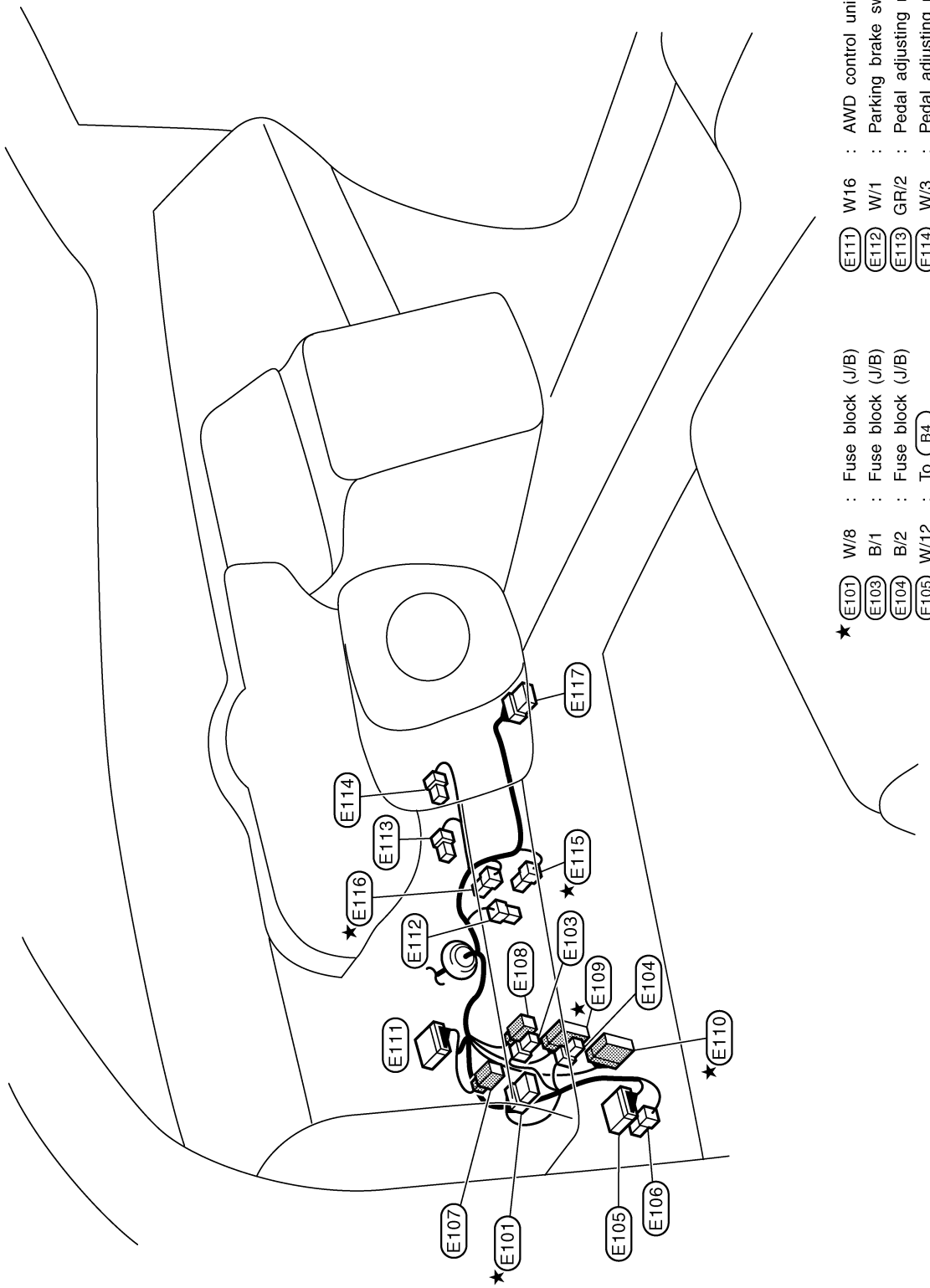
Engine room sub-harness-2

A2	E93	B/2	:	To E33
A2	E94	BR/2	:	Front fog lamp RH

★: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and CVT sections.**

TKIB0093E

Passenger Compartment



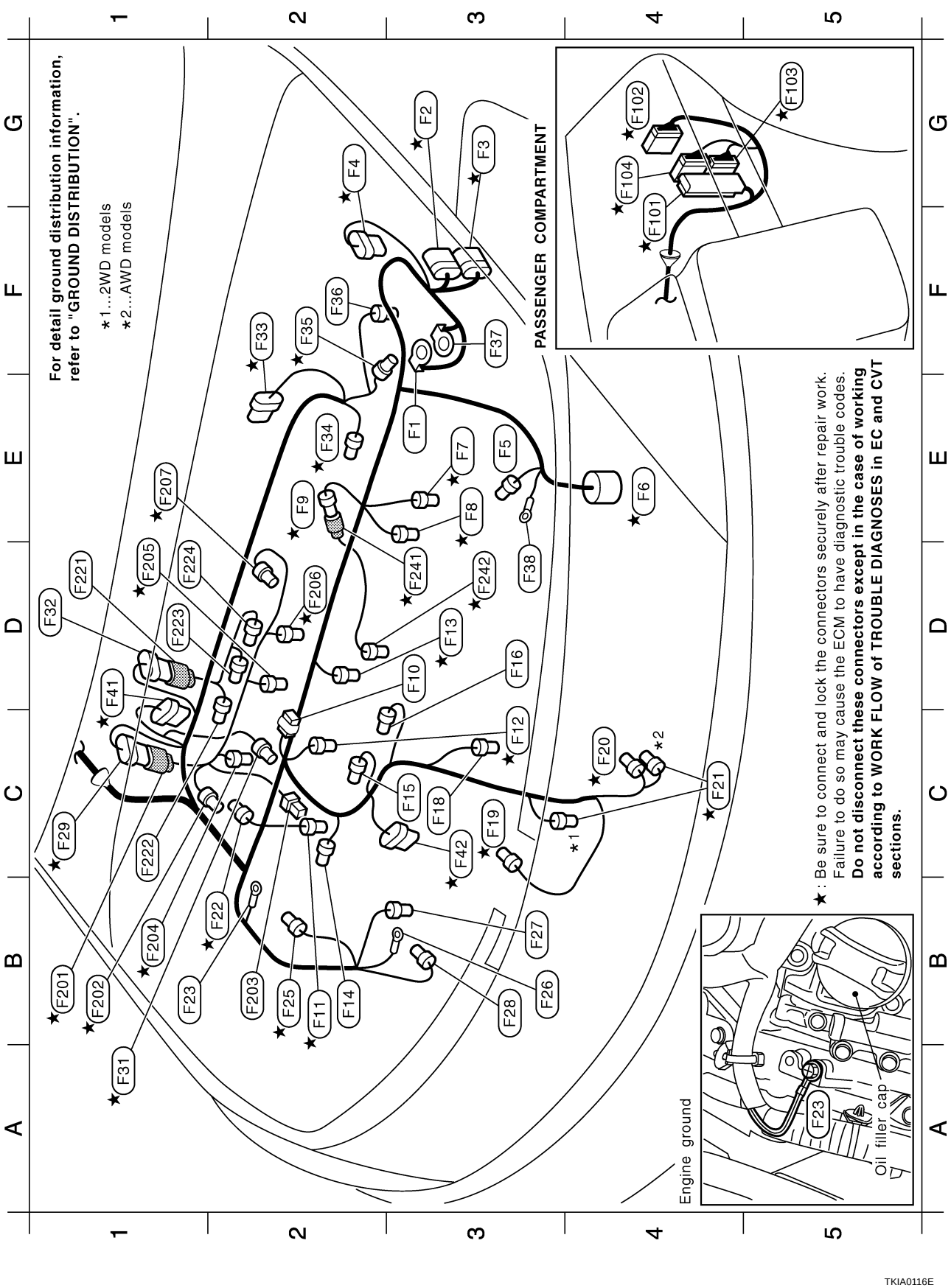
★ E101 W/8 : Fuse block (J/B)
E103 B/1 : Fuse block (J/B)
E104 B/2 : Fuse block (J/B)
E105 W/12 : To B4
E106 W/4 : To B5
E107 Y/4 : To M4
E108 W/4 : To M5
★★ E109 W/32 : To M6
★★ E110 GR/16 : To M7

E111 W16 : AWD control unit
E112 W/1 : Parking brake switch
E113 GR/2 : Pedal adjusting motor
E114 W/3 : Pedal adjusting motor
★★ E115 BR/2 : ASCD brake switch
★★ E116 B/2 : Stop lamp switch
E117 W/6 : Ignition switch

★: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and CVT sections.**

TKIB0094E

ENGINE CONTROL HARNESS



TKIA0116E

Engine control harness

E3	F1	—	:	Fusible link holder
G3★	F2	GR/9	:	To E18
G3★	F3	B/8	:	To E19
G2★	F4	B/6	:	Mass air flow sensor
E3	F5	GR/1	:	Starter motor
E4★	F6	-/22	:	CVT unit
E3★	F7	GR/2	:	Engine coolant temperature sensor
E3★	F8	B/3	:	Camshaft position sensor (PHASE) (Bank 2)
E2★	F9	GR/2	:	To F241
D3	F10	GR/2	:	Condenser
B2★	F11	GR/2	:	Injector No.2
C3★	F12	GR/2	:	Injector No.4
D3★	F13	GR/2	:	Injector No.6
B2	F14	GR/3	:	Ignition coil No.2 (With power transistor)
C3	F15	GR/3	:	Ignition coil No.4 (With power transistor)
D3	F16	GR/3	:	Ignition coil No.6 (With power transistor)
C3	F18	BR/3	:	Front electronic controlled engine mount
C3★	F19	G/4	:	Heated oxygen sensor 2 (Bank 1)
C4★	F20	B/3	:	Crankshaft position sensor (POS)
C4★	F21	G/4	:	Heated oxygen sensor 2 (Bank 2)
B2★	F22	B/2	:	VIAS control solenoid valve
B1	F23	—	:	Engine ground
B2★	F25	LGR/2	:	Intake valve timing control solenoid valve (Bank 2)
B3	F26	—	:	Alternator (B)
B3	F27	GR/4	:	Alternator (S, L)
B3	F28	B/1	:	Compressor
C1★	F29	GR/8	:	To F201
A1★	F31	B/3	:	Power steering pressure sensor
D1	F32	DGR/6	:	To F221
F2★	F33	DGR/6	:	Electric throttle control actuator
E2★	F34	G/3	:	Camshaft position sensor (PHASE) (Bank 1)
F2★	F35	B/3	:	Secondary speed sensor
F2	F36	BR/3	:	Rear electronic controlled engine mount (AWD models)
F3	F37	—	:	Fusible link holder
D3	F38	—	:	Starter motor
D1★	F41	-/6	:	Air fuel ratio (A/F) sensor 1 (Bank 1)
C3★	F42	-/6	:	Air fuel ratio (A/F) sensor 1 (Bank 2)
F4★	F101	SMJ	:	ECM
G4★	F102	W/18	:	To M82
G5★	F103	W/24	:	TCM (Transmission control module)
G4★	F104	GR/24	:	TCM (Transmission control module)

Engine control sub-harness-1

B1★	F201	G/8	:	To F29
B1★	F202	G/2	:	Intake valve timing control solenoid valve (Bank 1)
B2	F203	GR/1	:	Oil pressure switch
B1★	F204	GR/2	:	Injector No.1
D1★	F205	GR/2	:	Injector No.3
D2★	F206	GR/2	:	Injector No.5
E1★	F207	L/2	:	EVAP canister purge volume control solenoid valve

Engine control sub-harness-2

D1	F221	G/6	:	To F32
C1	F222	GR/3	:	Ignition coil No.1 (With power transistor)
D1	F223	GR/3	:	Ignition coil No.3 (With power transistor)
D1	F224	GR/3	:	Ignition coil No.5 (With power transistor)

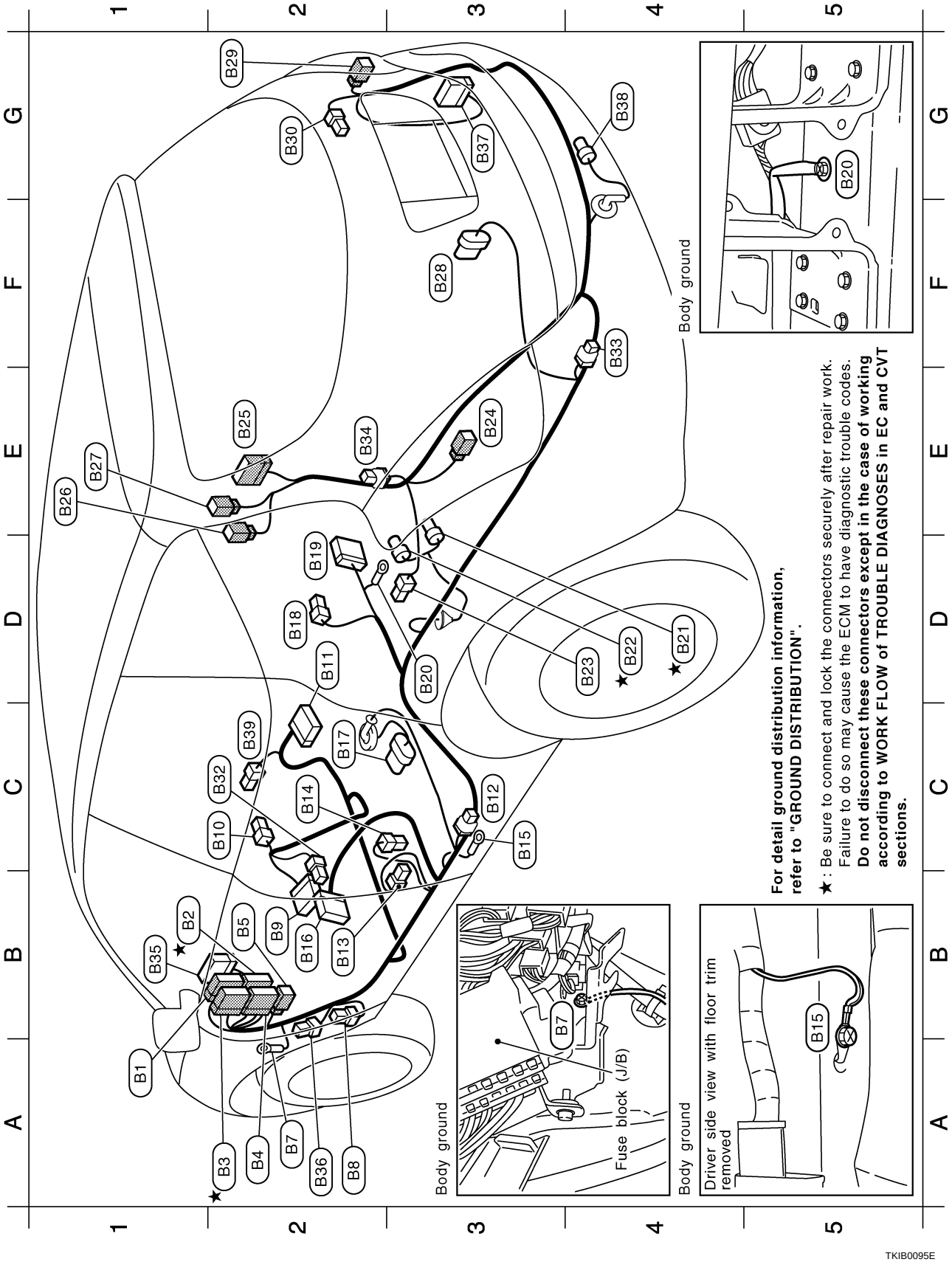
Engine control sub-harness-3

D3★	F241	GR/2	:	To F9
D3★	F242	L/2	:	Knock sensor

★: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and CVT sections.**

TKIA0117E

BODY HARNESS

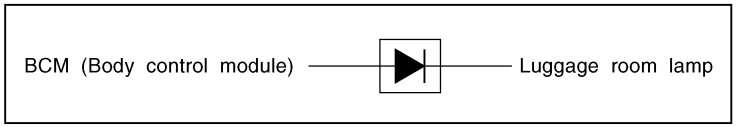


TKIB0095E

A1	B1	BR/12	:	To M8
B1 ★	B2	W/24	:	To M9
A2 ★	B3	BR/16	:	To M10
A2	B4	W/12	:	To E105
B2	B5	W/4	:	To E106
A2	B7	—	:	Body ground
A2	B8	BR/6	:	Rear window defogger relay
B2	B9	W/16	:	Front power seat (Driver side)
C2	B10	Y/2	:	Front LH side air bag module
D2	B11	Y/12	:	Air bag diagnosis sensor unit
C3	B12	W/2	:	Condenser
B2	B13	Y/2	:	LH side air bag (satellite) sensor
C2	B14	Y/2	:	Front LH seat belt pre-tensioner
C3	B15	—	:	Body ground
B2	B16	W/18	:	To D51
C2	B17	GR/5	:	Fuel level sensor unit and fuel pump
D2	B18	Y/2	:	To B118
D2	B19	W/16	:	To B117
D3	B20	—	:	Body ground
D4 ★	B21	B/2	:	EVAP canister vent control valve
D4 ★	B22	GR/3	:	EVAP control system pressure sensor
D4	B23	W/4	:	Fuel lid lock actuator
E3	B24	W/4	:	Rear combination lamp LH
E2	B25	W/18	:	To D91
E1	B26	Y/4	:	To D92
E1	B27	W/2	:	To D93
F3	B28	GR/6	:	Woofer
G2	B29	W/4	:	Rear combination lamp RH
G2	B30	B/2	:	Rear power socket
C2	B32	W/2	:	Front power seat (Driver side)
F4	B33	W/1	:	Option connector for trailer
E2	B34	W/2	:	Diode
B1	B35	W/16	:	To M122
A2	B36	L/4	:	Back door opener relay
G3	B37	W/16	:	Rear view camera control unit
G4	B38	GR/2	:	Outside key antenna (Rear bumper)
C2	B39	W/4	:	To M126

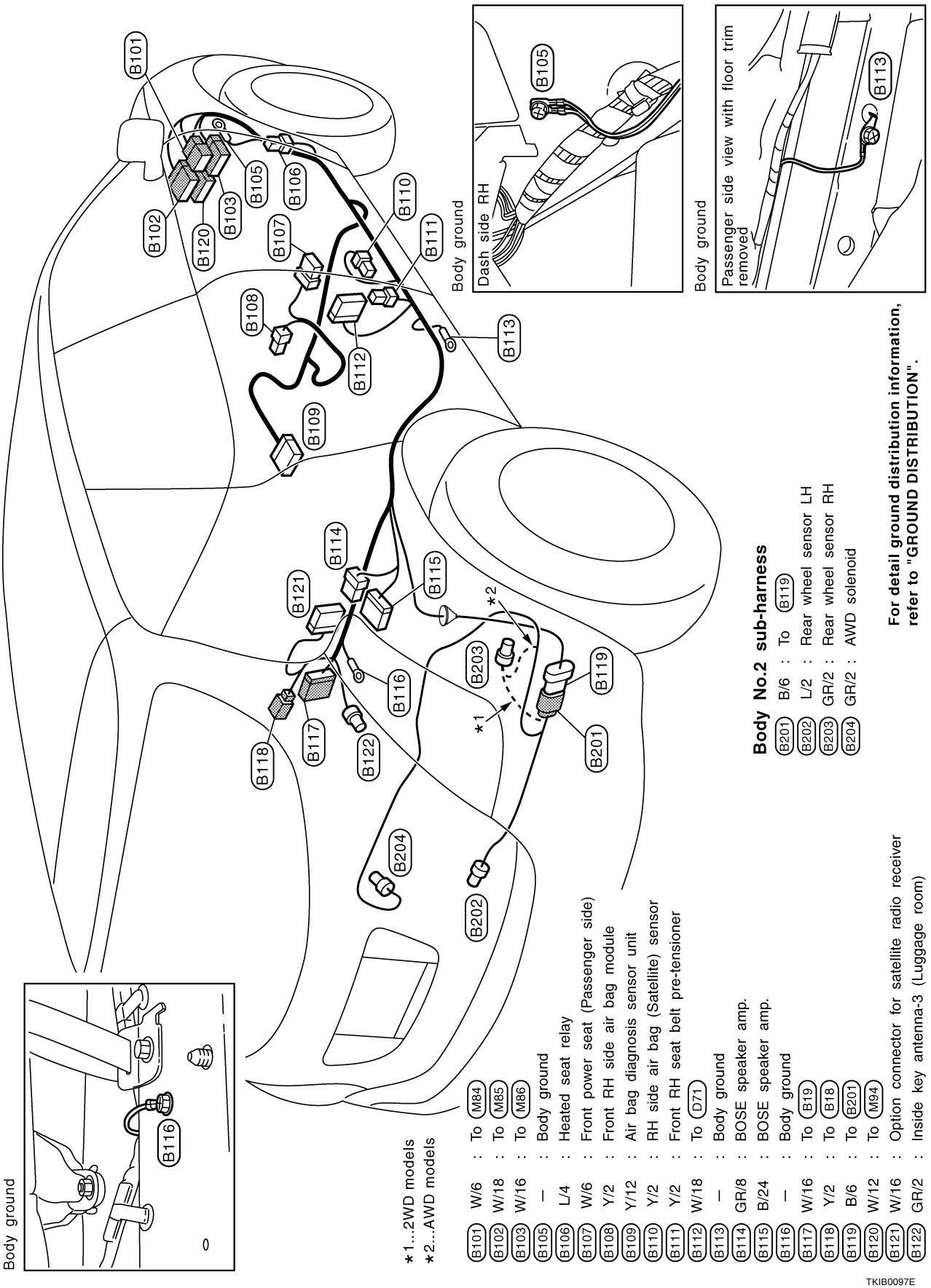
★: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and CVT sections.**

Diode B34



TKIB0096E

BODY NO. 2 HARNESS



*1...2WD models
*2...AWD models

B101	W/6	: To	M84
B102	W/18	: To	M85
B103	W/16	: To	M86
B105	—	: Body ground	
B106	L/4	: Heated seat relay	
B107	W/6	: Front power seat (Passenger side)	
B108	Y/2	: Front RH side air bag module	
B109	Y/12	: Air bag diagnosis sensor unit	
B110	Y/2	: RH side air bag (Satellite) sensor	
B111	Y/2	: Front RH seat belt pre-tensioner	
B112	W/18	: To	D71
B113	—	: Body ground	
B114	GR/8	: BOSE speaker amp.	
B115	B/24	: BOSE speaker amp.	
B116	—	: Body ground	
B117	W/16	: To	B19
B118	Y/2	: To	B18
B119	B/6	: To	B201
B120	W/12	: To	M94
B121	W/16	: Option connector for satellite radio receiver	
B122	GR/2	: Inside key antenna-3 (Luggage room)	

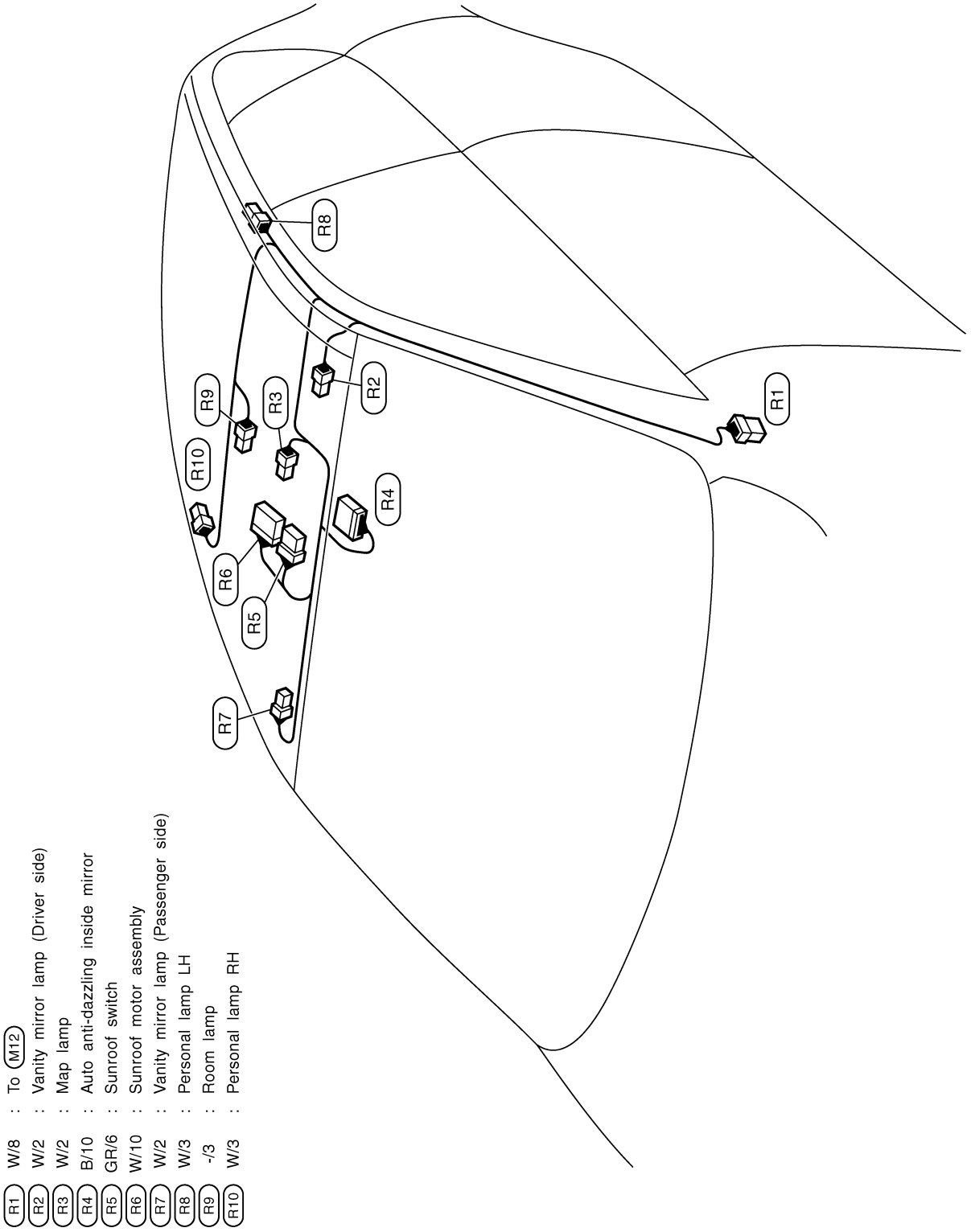
Body No.2 sub-harness

B201	B/6	: To	B119
B202	L/2	: Rear wheel sensor LH	
B203	GR/2	: Rear wheel sensor RH	
B204	GR/2	: AWD solenoid	

For detail ground distribution information, refer to "GROUND DISTRIBUTION".

TKIB0097E

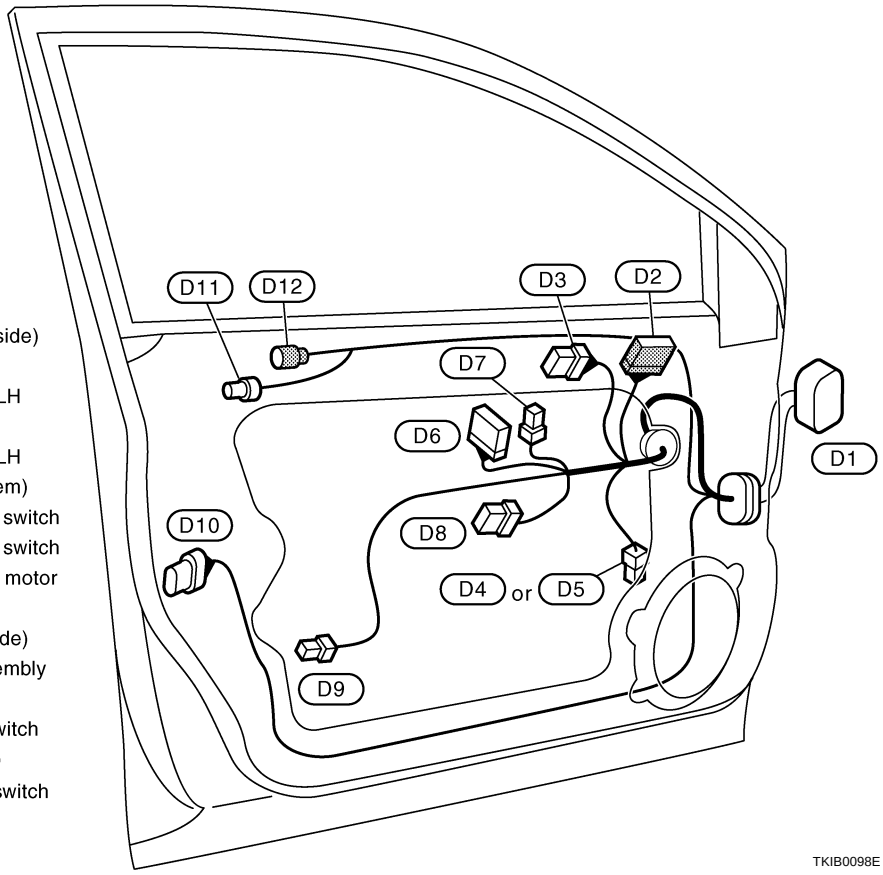
ROOM LAMP HARNESS



TKIA0035E

FRONT DOOR HARNESS

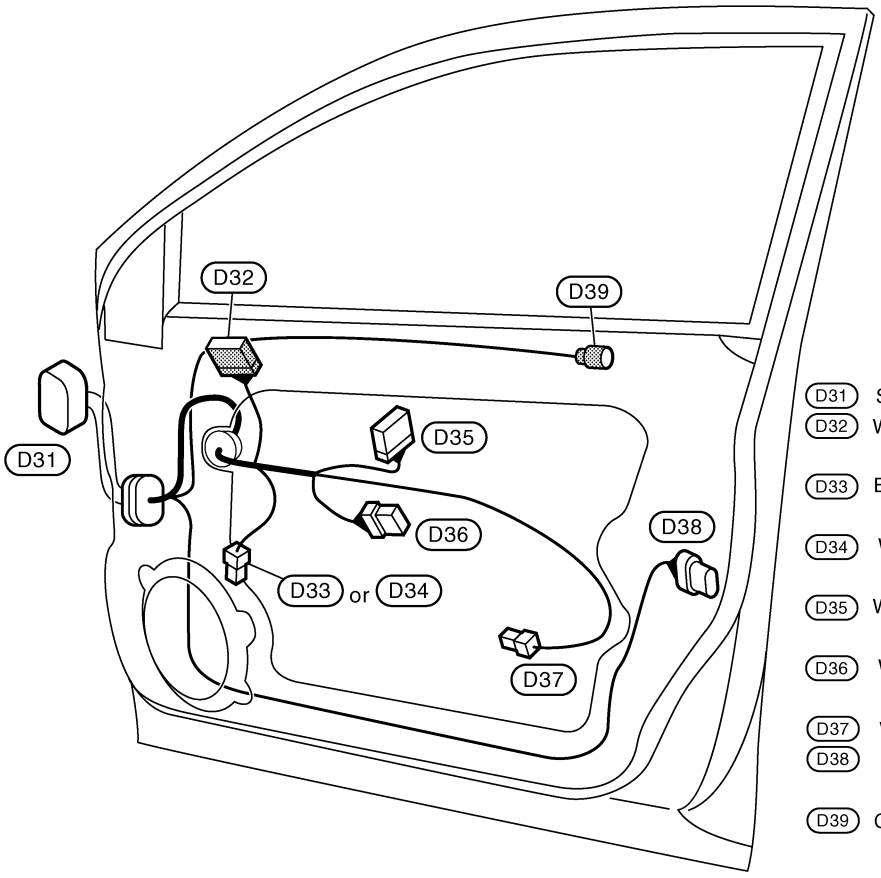
LH Side



TKIB0098E

D1	SMJ	:	To M3
D2	W/12	:	Door mirror (Driver side)
D3	W/8	:	Seat memory switch
D4	BR/2	:	Front door speaker LH (With BOSE system)
D5	W/2	:	Front door speaker LH (Without BOSE system)
D6	W/16	:	Power window main switch
D7	W/3	:	Power window main switch
D8	W/6	:	Front power window motor (Driver side)
D9	W/2	:	Step lamp (Driver side)
D10	B/6	:	Front door lock assembly (Driver side)
D11	BR/3	:	Door key cylinder switch (With Intelligent Key)
D12	GR/2	:	Front door request switch (Driver side)

RH Side

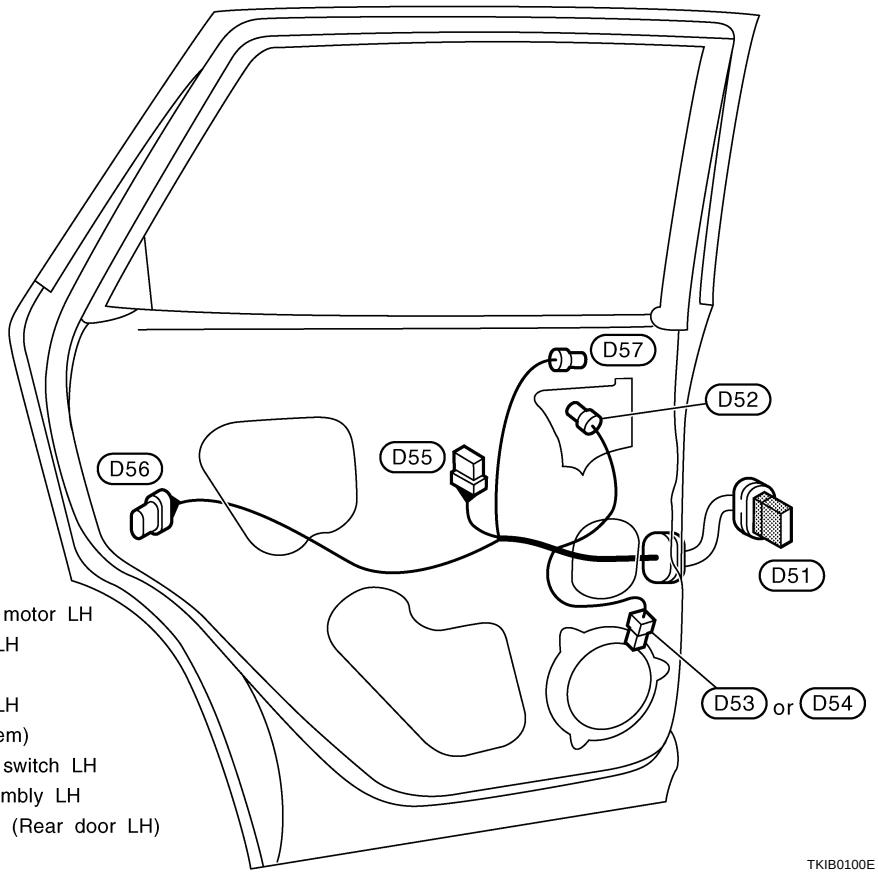


TKIB0099E

D31	SMJ	:	To M87
D32	W/12	:	Door mirror (Passenger side)
D33	BR/2	:	Front door speaker RH (With BOSE system)
D34	W/2	:	Front door speaker RH (Without BOSE system)
D35	W/16	:	Front power window switch (Passenger side)
D36	W/6	:	Front power window motor (Passenger side)
D37	W/2	:	Step lamp (Passenger side)
D38	B/6	:	Front door lock assembly (Passenger side)
D39	GR/2	:	Front door request switch (Passenger side)

REAR DOOR HARNESS

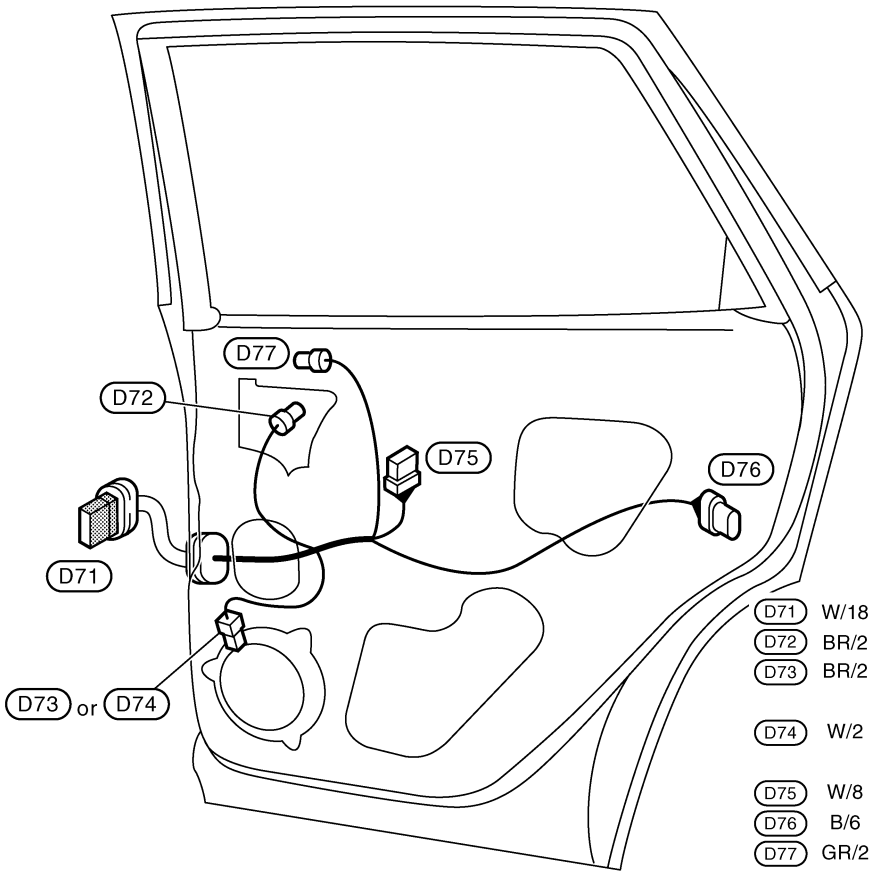
LH Side



TKIB0100E

D51	W/18	:	To B16
D52	BR/2	:	Rear power window motor LH
D53	BR/2	:	Rear door speaker LH (With BOSE system)
D54	W/2	:	Rear door speaker LH (Without BOSE system)
D55	W/8	:	Rear power window switch LH
D56	B/6	:	Rear door lock assembly LH
D57	GR/2	:	Outside key antenna (Rear door LH)

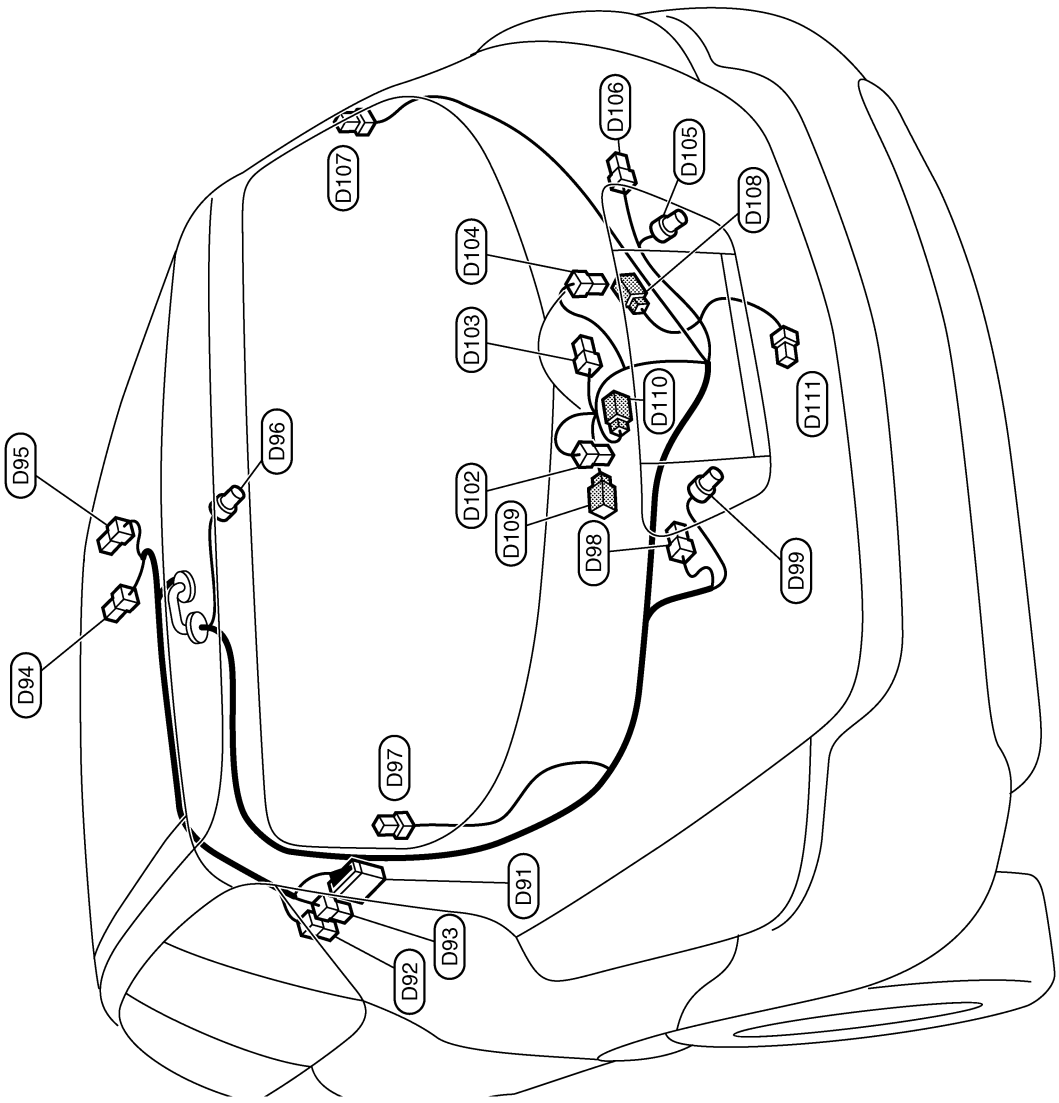
RH Side



TKIB0101E

D71	W/18	:	To B112
D72	BR/2	:	Rear power window motor RH
D73	BR/2	:	Rear door speaker RH (With BOSE system)
D74	W/2	:	Rear door speaker RH (Without BOSE system)
D75	W/8	:	Rear power window switch RH
D76	B/6	:	Rear door lock assembly RH
D77	GR/2	:	Outside key antenna (Rear door RH)

BACK DOOR HARNESS



D91	W/18	: To	B25
D92	Y/4	: To	B26
D93	W/2	: To	B27
D94	O/2	: LH side curtain air bag module	
D95	Y/2	: RH side curtain air bag module	
D96	W/2	: High-mounted stop lamp	
D97	B/1	: Rear window defogger (+)	
D98	W/4	: Luggage room lamp LH	
D99	W/2	: Back-up lamp LH	
D102	BR/2	: License plate lamp LH	
D103	W/4	: Rear wiper motor	
D104	BR/2	: License plate lamp RH	
D105	W/2	: Back-up lamp RH	
D106	W/4	: Luggage room lamp RH	
D107	B/1	: Rear window defogger (-)	
D108	BR/2	: Back door request switch	
D109	W/4	: Rear view camera	
D110	BR/2	: Back door opener switch	
D111	W/4	: Back door lock assembly	

TKIB0102E

Wiring Diagram Codes (Cell Codes)

AKS007HU

Use the chart below to find out what each wiring diagram code stands for.
Refer to the wiring diagram code in the alphabetical index to find the location (page number) of each wiring diagram.

Code	Section	Wiring Diagram Name
A/C	ATC	Air Conditioner
ABS	BRC	Anti-Lock Brake System
AF1B1	EC	Air Fuel Ratio Sensor 1 Bank 1
AF1B2	EC	Air Fuel Ratio Sensor 1 Bank 2
AF1HB1	EC	Air Fuel Ratio Sensor 1 Heater Bank 1
AF1HB2	EC	Air Fuel Ratio Sensor 1 Heater Bank 2
APPS1	EC	Accelerator Pedal Position Sensor
APPS2	EC	Accelerator Pedal Position Sensor
APPS3	EC	Accelerator Pedal Position Sensor
ASC/BS	EC	Automatic Speed Control Device (ASCD) Brake Switch
ASC/SW	EC	Automatic Speed Control Device (ASCD) Steering Switch
ASCBOF	EC	Automatic Speed Control Device (ASCD) Brake Switch
ASCIND	EC	Automatic Speed Control Device (ASCD) Indicator
AUDIO	AV	Audio
AUT/DP	SE	Automatic Drive Positioner
AUTO/L	LT	Automatic Light System
AWD	TF	AWD System
B/DOOR	BL	Back door opener
BACK/L	LT	Back-Up Lamp
BRK/SW	EC	Brake Switch
CAN	CVT	CAN Communication Line
CAN	EC	CAN Communication Line
CAN	LAN	CAN System
CHARGE	SC	Charging System
CHIME	DI	Warning Chime
COMBSW	LT	Combination Switch
COMM	AV	Audio Visual Communication Line
COMPAS	DI	Compass
COOL/F	EC	Cooling Fan Control
CVTIND	DI	CVT Indicator Lamp
D/LOCK	BL	Power Door Lock
DEF	GW	Rear Window Defogger
DTRL	LT	Headlamp – With Daytime Light System
ECM/PW	EC	ECM Power Supply for Back-Up
ECTS	EC	Engine Coolant Temperature Sensor
EMNT	EC	Engine Mount
ETC1	EC	Electric Throttle Control Function
ETC2	EC	Electric Throttle Control Motor Relay
ETC3	EC	Electric Throttle Control Motor
F/FOG	LT	Front Fog Lamp
F/PUMP	EC	Fuel Pump

Code	Section	Wiring Diagram Name
FTS	CVT	CVT Fluid Temperature Sensor Circuit
FTTS	EC	Fuel Tank Temperature Sensor
FUELB1	EC	Fuel Injection System Function (Bank 1)
FUELB2	EC	Fuel Injection System Function (Bank 2)
H/AIM	LT	Headlamp Aiming Control System
H/LAMP	LT	Headlamp
HORN	WW	Horn
HSEAT	SE	Heated Seat
I/KEY	BL	Intelligent Key System
I/MIRR	GW	Inside Mirror (Auto Anti-Dazzling Mirror)
IATS	EC	Intake Air Temperature Sensor
IGNSYS	EC	Ignition System
ILL	LT	Illumination
INF/D	AV	Vehicle Information And Integrated Switch System
INJECT	EC	Injector
IVCB1	EC	Intake Valve Timing Control Solenoid Valve Bank 1
IVCB2	EC	Intake Valve Timing Control Solenoid Valve Bank 2
KEYLES	BL	Remote Keyless Entry System
KS	EC	Knock Sensor
L/USSV	CVT	Lock-Up Select Solenoid Valve
LPSV	CVT	Line Pressure Solenoid Valve
MAFS	EC	Mass Air Flow Sensor
MAIN	EC	Main Power Supply and Ground Circuit
METER	DI	Speedometer, Tachometer, Temp, and Fuel Gauges
MIL/DL	EC	MIL & Data Link Connectors
MIRROR	GW	Power Door Mirror
MMSW	CVT	Manual Mode Switch
NATS	BL	Nissan Anti-Theft System
NAVI	AV	Navigation System
NONDTC	CVT	Non-Detective Items
O2H2B1	EC	Rear Heated Oxygen Sensor 2 Heater Bank 1
O2H2B2	EC	Rear Heated Oxygen Sensor 2 Heater Bank 2
O2S2B1	EC	Rear Heated Oxygen Sensor 2 Bank 1
O2S2B2	EC	Rear Heated Oxygen Sensor 2 Bank 2
P/SCKT	WW	Power Socket
PEDAL	AP	Adjustable Pedal System
PGC/V	EC	EVAP Canister Purge Volume Control Solenoid Valve
PHSB1	EC	Camshaft Position Sensor (PHASE) (Bank1)
PHSB2	EC	Camshaft Position Sensor (PHASE) (Bank2)
PNP/SW	CVT	Park / Neutral Position Switch
PNP/SW	EC	Park / Neutral Position Switch
POS	EC	Crankshaft Position Sensor (CKPS) (POS)
POWER	CVT	Transmission Control Module (Power Supply)
POWER	PG	Power Supply Routing

Code	Section	Wiring Diagram Name
PRE/SE	EC	EVAP Control System Pressure Sensor
PRIPS	CVT	Primary Pressure Sensor
PRSCVT	CVT	Primary Speed Sensor CVT (Revolution Sensor)
PS/SEN	EC	Power Steering Pressure Sensor
ROOM/L	LT	Interior Room Lamp
RP/SEN	EC	Refrigerant Pressure Sensor
SEAT	SE	Power Seat
SECPS	CVT	Secondary Pressure Sensor
SECPSV	CVT	Secondary Pressure Solenoid Valve
SEN/PW	EC	Sensor Power Supply
SESCVT	CVT	Secondary Speed Sensor CVT (Revolution Sensor)
SHIFT	CVT	CVT Shift Lock System
SPSW	CVT	Second position Switch
SROOF	RF	Sunroof
SRS	SRS	Supplemental Restraint System
START	SC	Starting System
STM	CVT	Step Motor
STOP/L	LT	Stop Lamp
STSIG	CVT	Start Signal Circuit
T/WARN	WT	Low Tire Pressure Warning System
TAIL/L	LT	Parking, License and Tail Lamps
TCV	CVT	Torque Converter Clutch Solenoid Valve
TPS1	EC	Throttle Position Sensor (Sensor 1)
TPS2	EC	Throttle Position Sensor (Sensor 2)
TPS3	EC	Throttle Position Sensor
TRNSCV	BL	Homelink Universal Transceiver
TURN	LT	Turn Signal and Hazard Warning Lamp
VDC	BRC	Vehicle Dynamics Control System
VEHSEC	BL	Vehicle Security System
VENT/V	EC	EVAP Canister Vent Control Valve
VIAS	EC	Variable Induction Air Control System
VIAS/V	EC	VIAS Control Solenoid Valve
WARN	DI	Warning Lamps
WINDOW	GW	Power Window
WIP/R	WW	Rear Wiper and Washer
WIPER	WW	Front Wiper and Washer

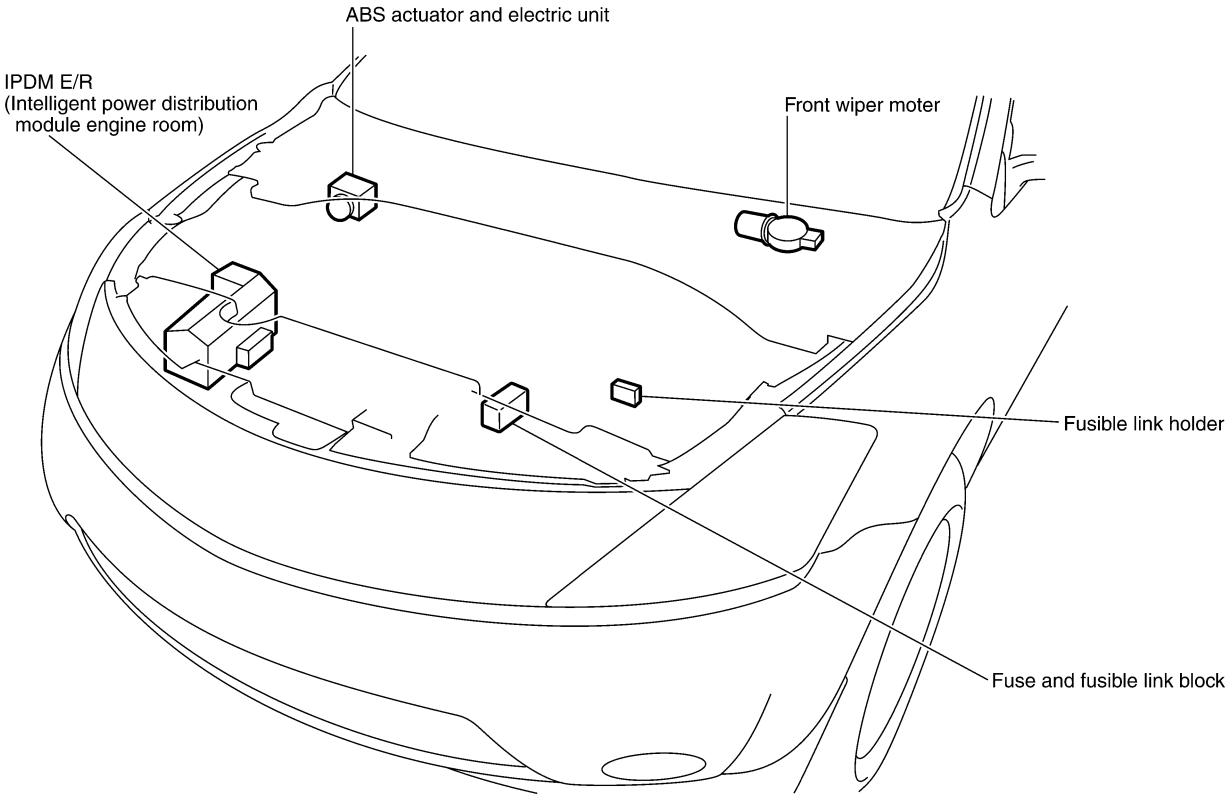
ELECTRICAL UNITS LOCATION

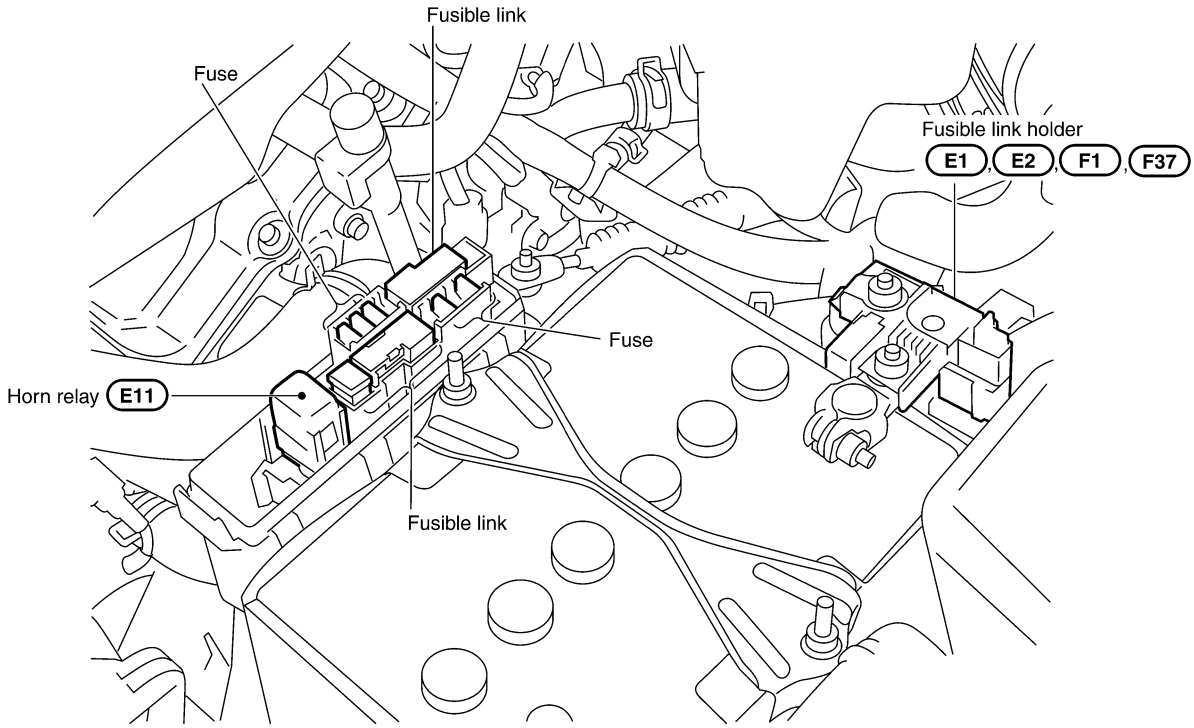
PFP:25230

Electrical Units Location

AKS007HM

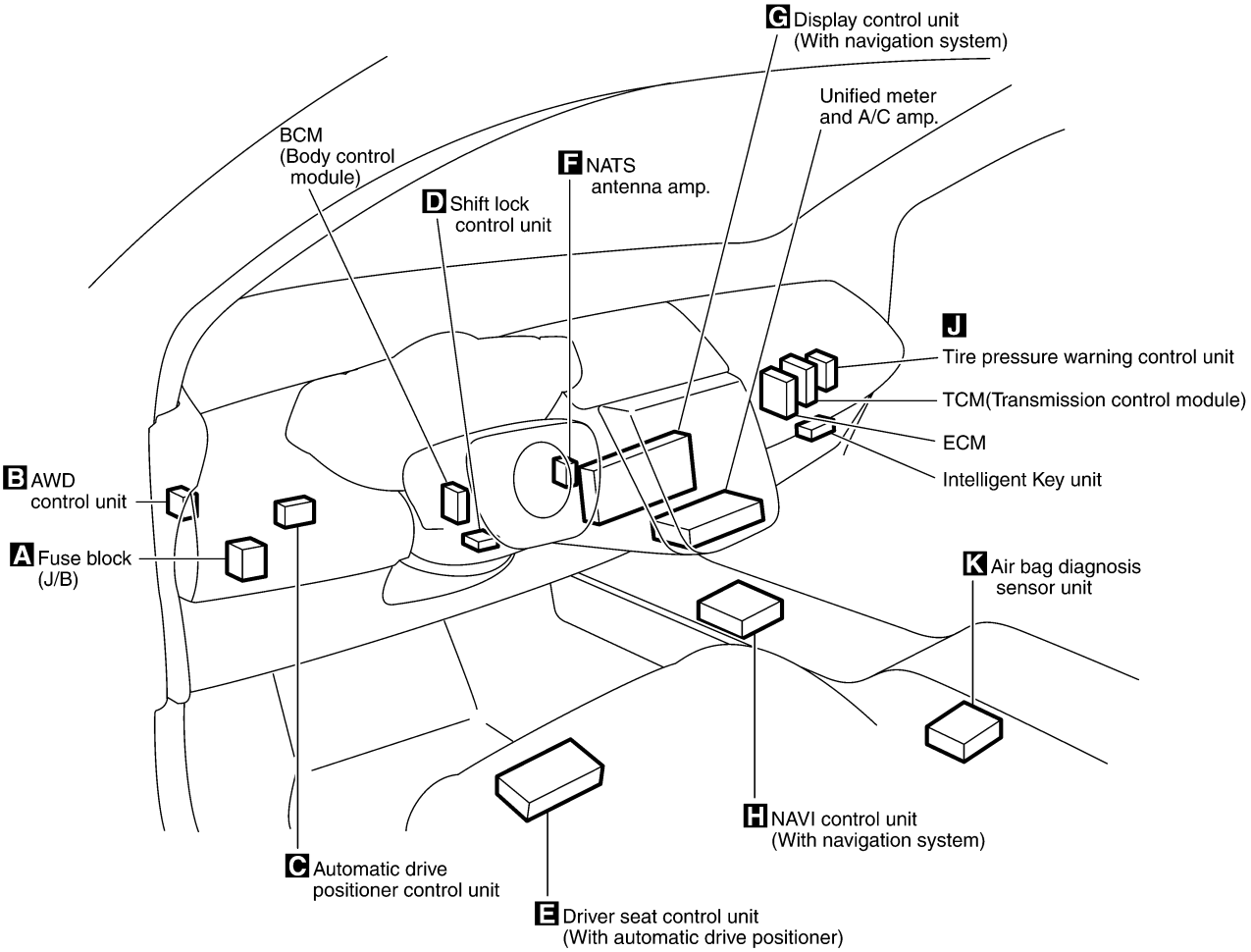
ENGINE COMPARTMENT



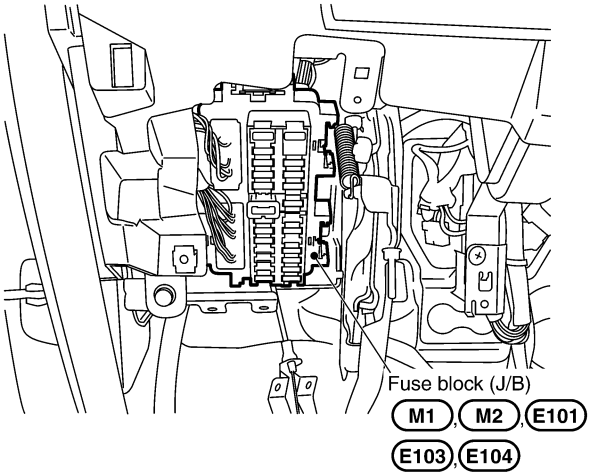


CKIA0319E

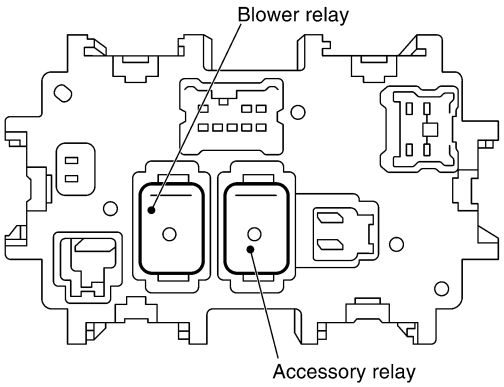
PASSENGER COMPARTMENT



A Driver side view with lower instrument panel removed

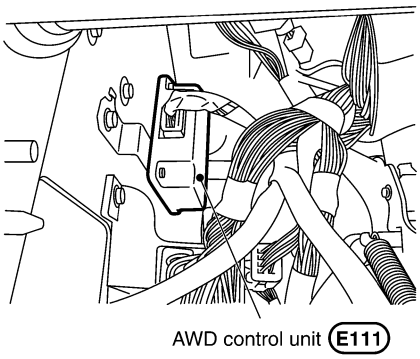


Fuse block (J/B) rear view

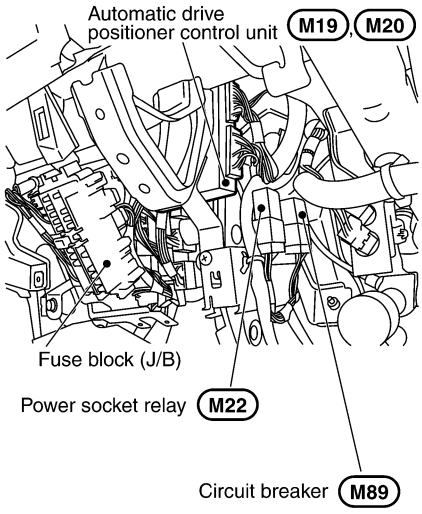


CKIB0048E

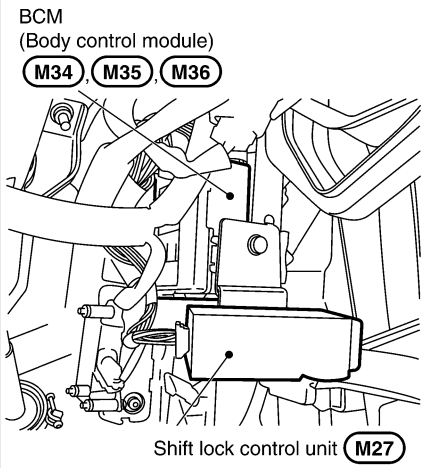
B Dash side LH



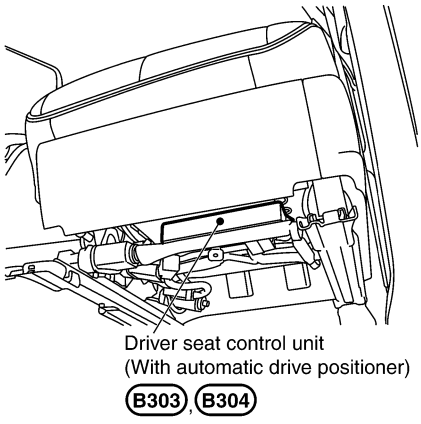
C Driver side view with lower instrument panel removed



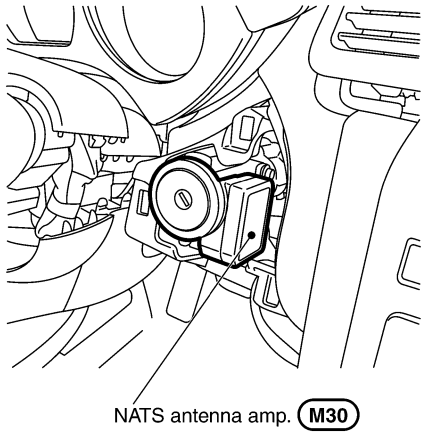
D Driver side view with lower instrument panel removed



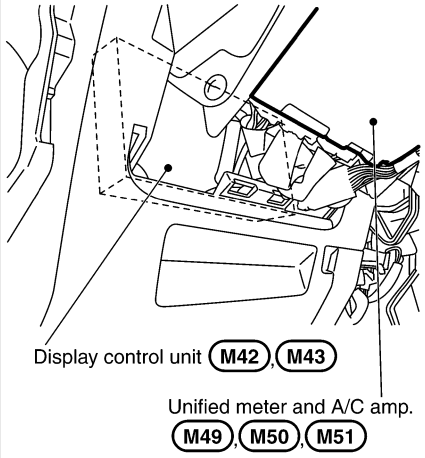
E Under driver seat



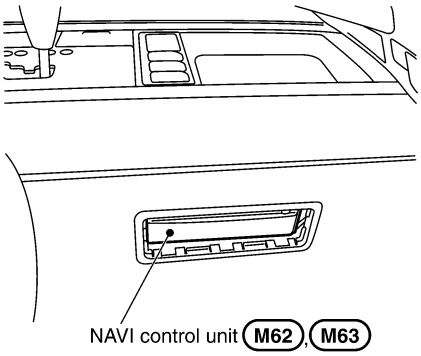
F Driver side view with cluster lid A removed



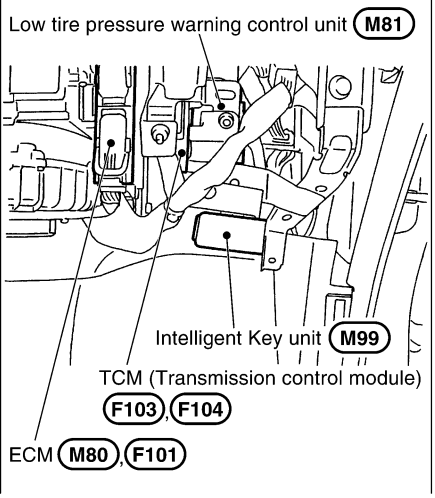
G View with instrument panel center removed



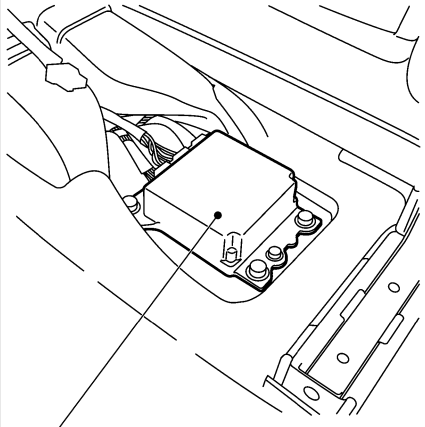
H



J Behind lower instrument panel on passenger side

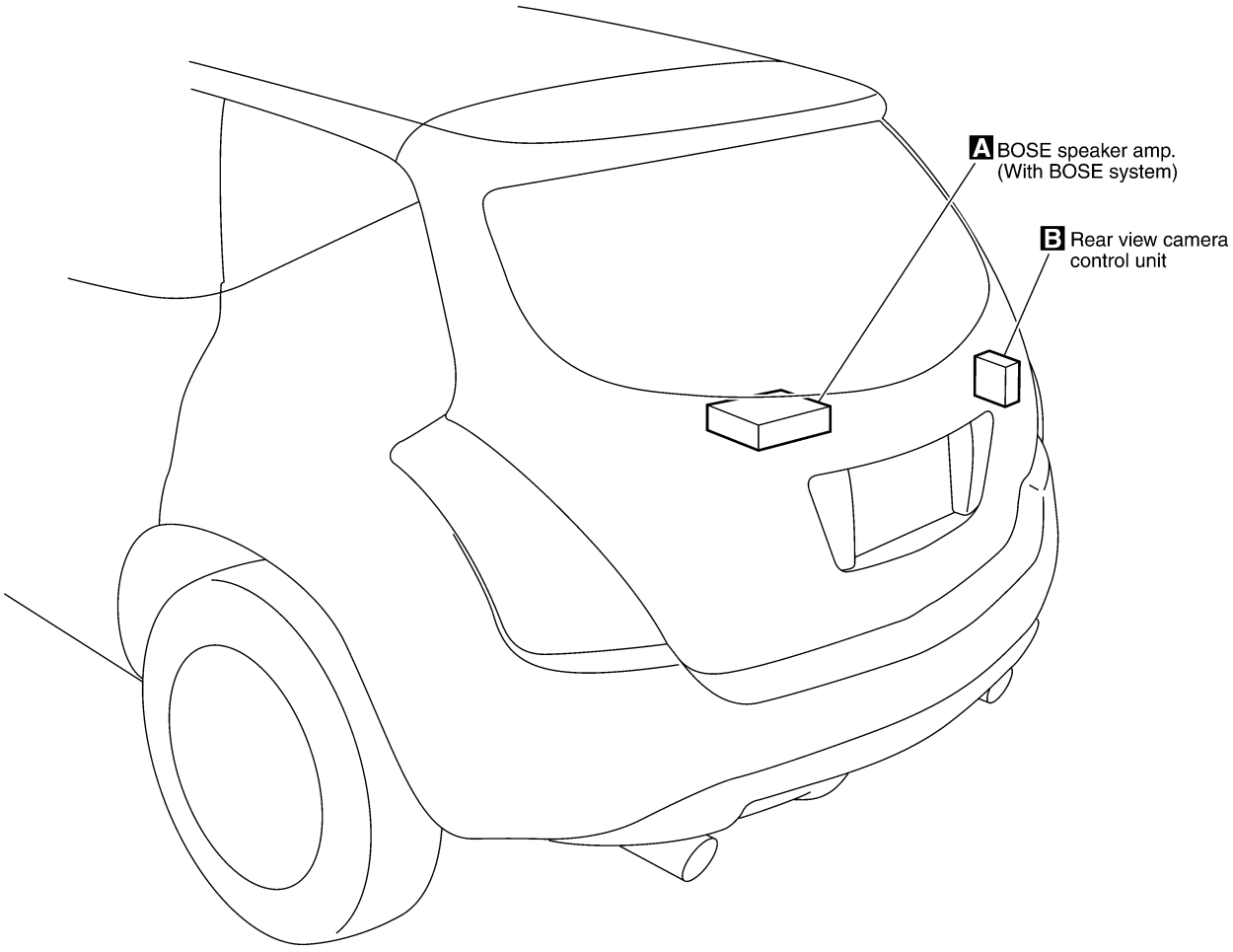


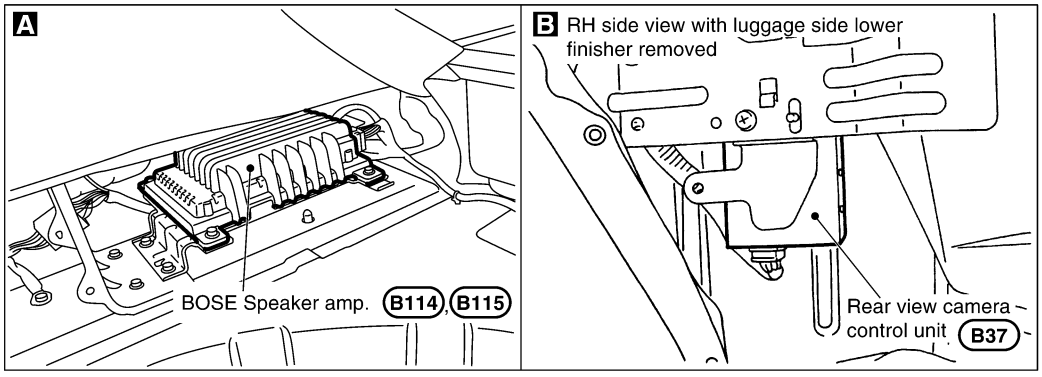
K View with floor console box removed



CKIB0049E

LUGGAGE COMPARTMENT





CKIB0050E

HARNESS CONNECTOR

PFP:00011

Description

AKS007HN

HARNESS CONNECTOR (TAB-LOCKING TYPE)

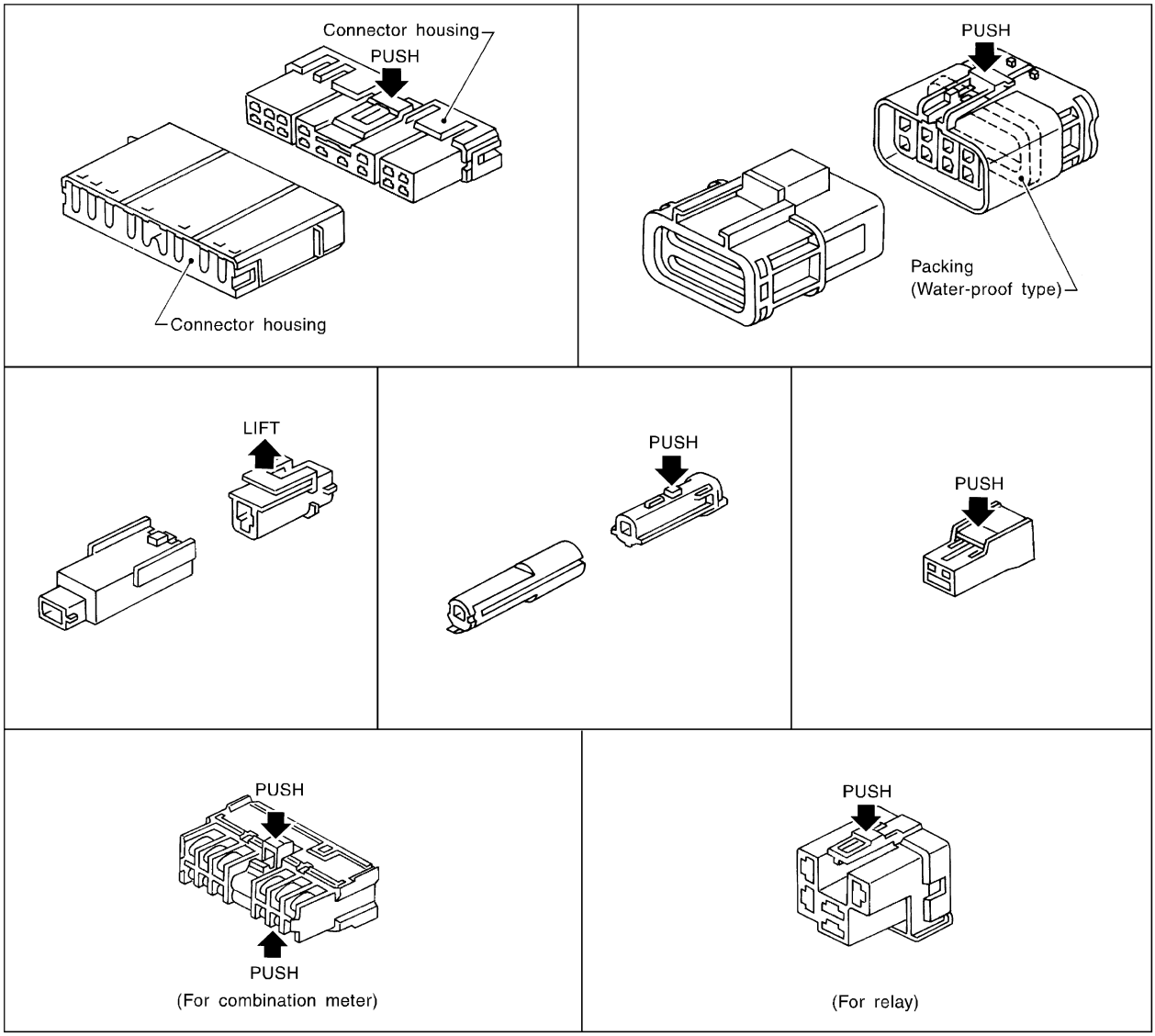
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the figure below.

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

CAUTION:

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

[Example]



SEL769DA

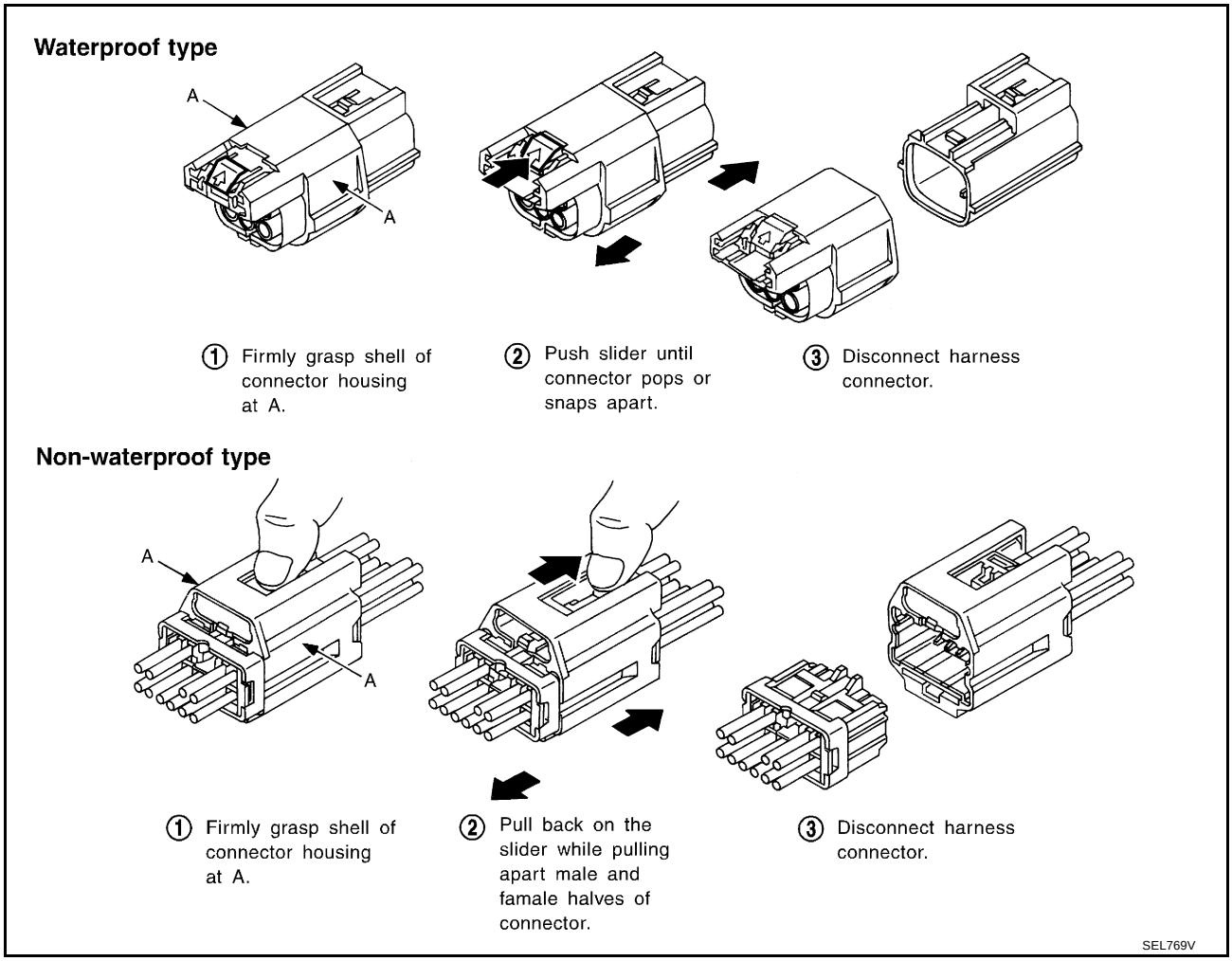
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- 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 figure below.

CAUTION:

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

[Example]



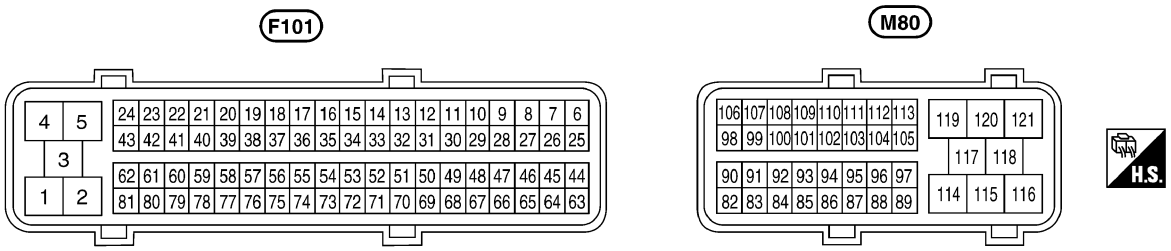
ELECTRICAL UNITS

PFP:00011

Terminal Arrangement

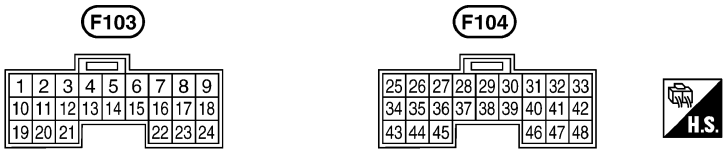
AKS007HP

ECM



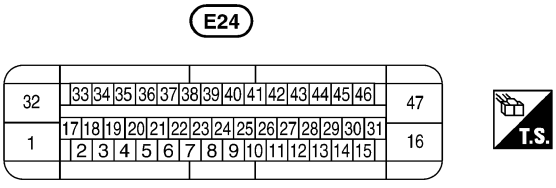
(Black) (Black)

TCM (TRANSMISSION CONTROL MODULE)



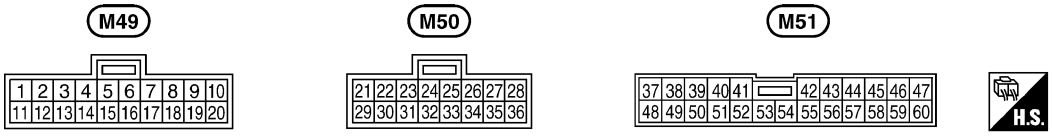
(White) (Gray)

ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



(Black)

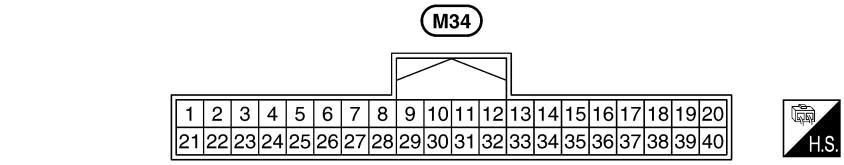
UNIFIED METER AND A/C AMP.



(Gray) (Gray) (White)

CKIA0322E

BCM (BODY CONTROL MODULE)

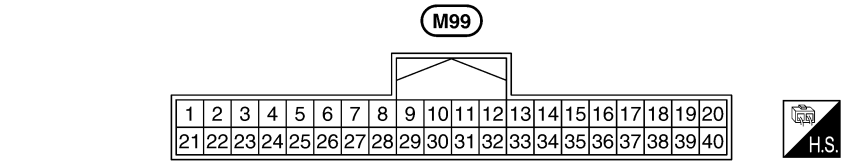


(White)

(Black)

(White)

INTELLIGENT KEY UNIT



(White)

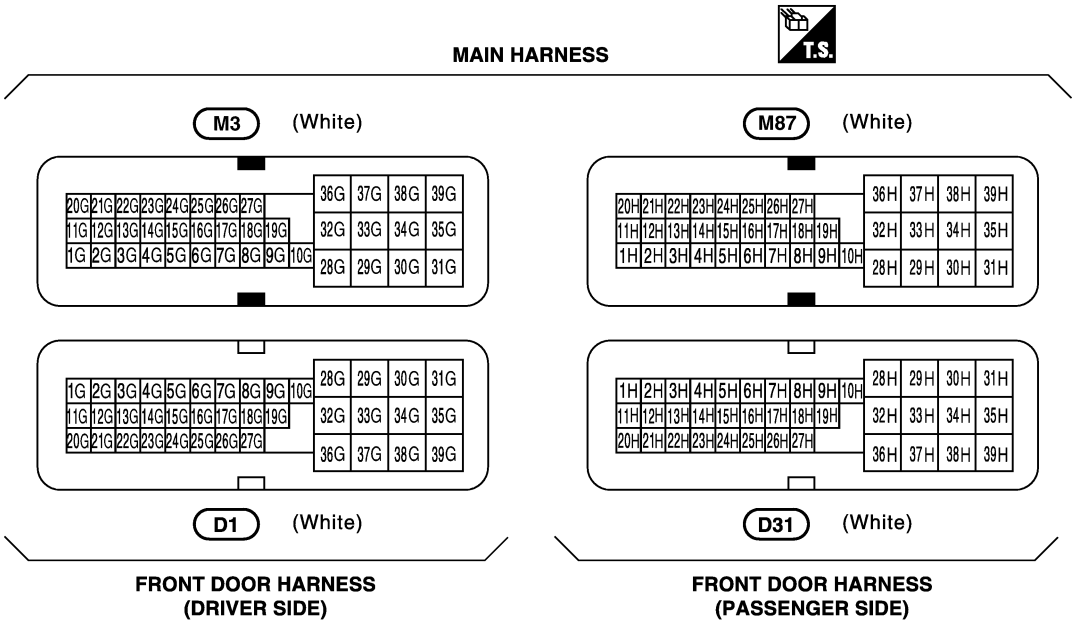
CKIB0051E

SMJ (SUPER MULTIPLE JUNCTION)

PFP:B4341

Terminal Arrangement

AKS007HQ



CKIA0292E

STANDARDIZED RELAY

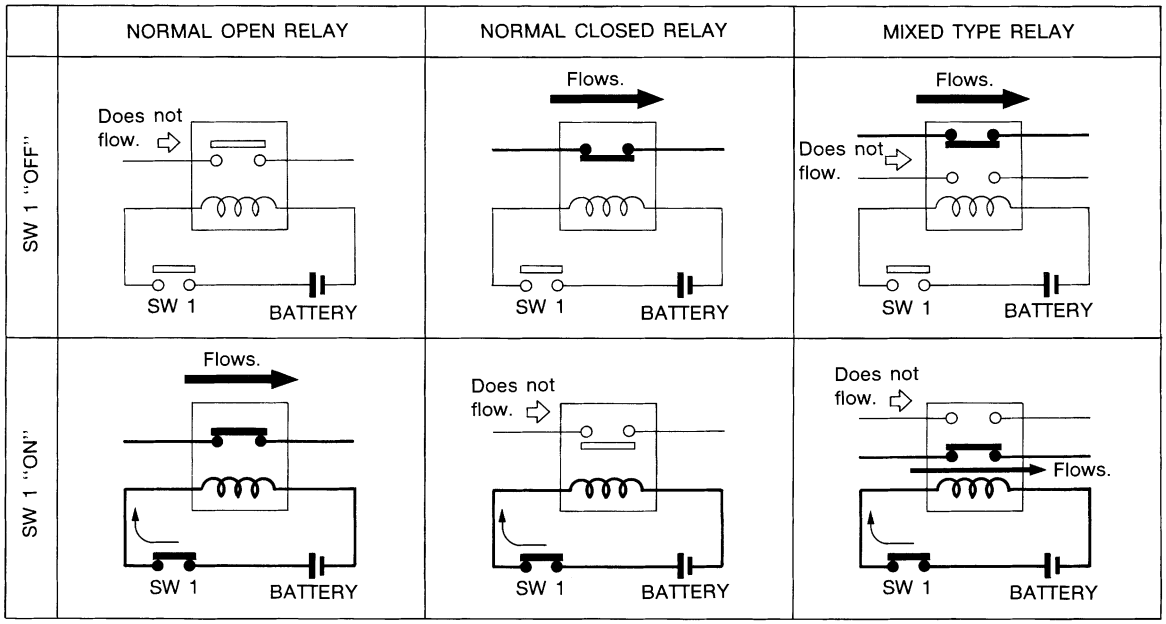
PFP:00011

Description

AKS007HR

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

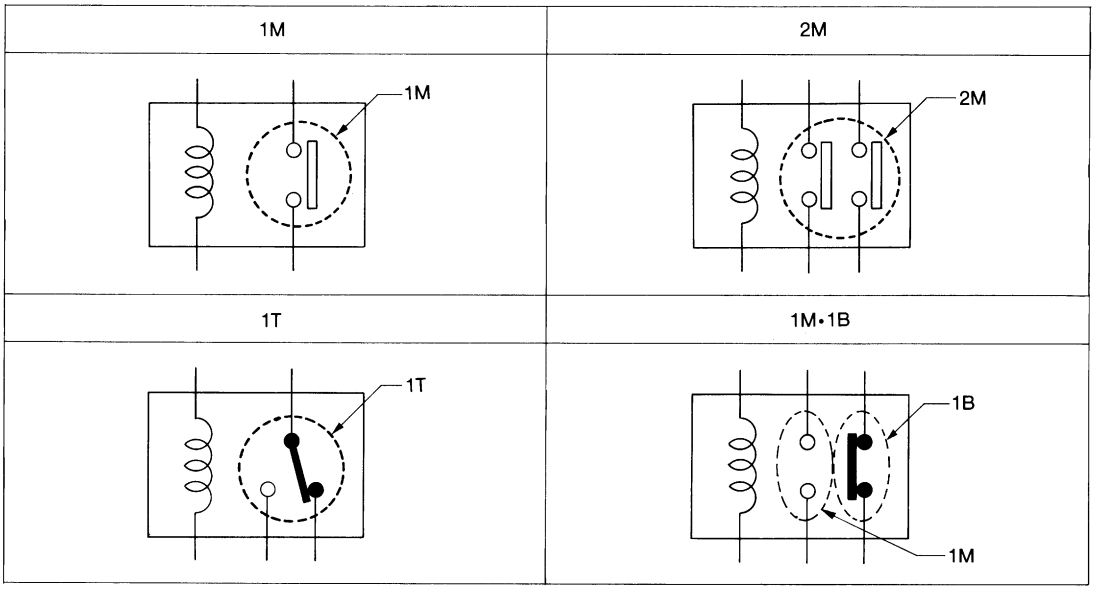
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



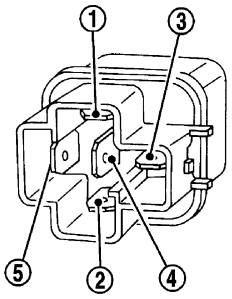
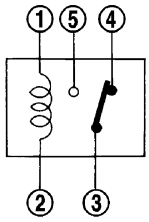
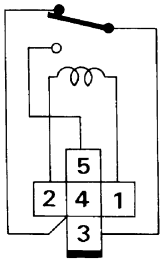
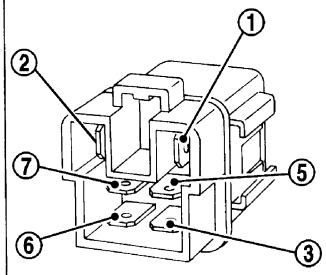
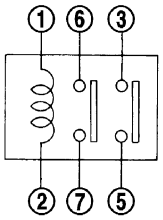
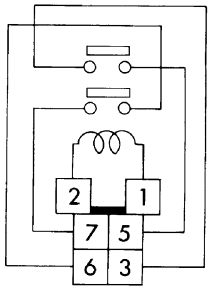
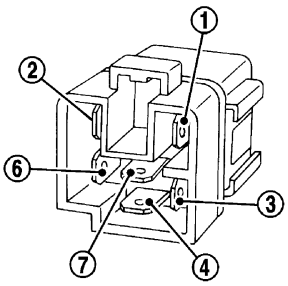
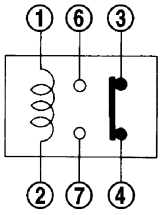
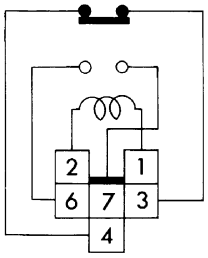
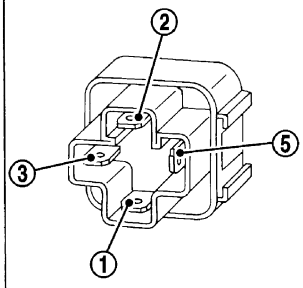
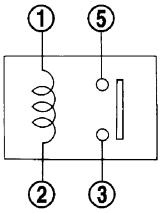
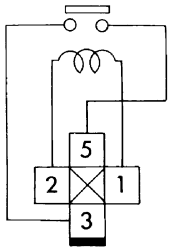
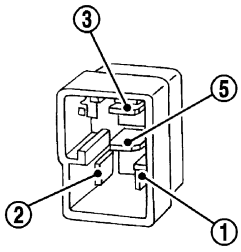
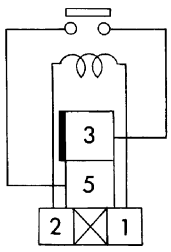
SEL881H

TYPE OF STANDARDIZED RELAYS

1M ..... 1 Make
1T ..... 1 Transfer
2M ..... 2 Make
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.

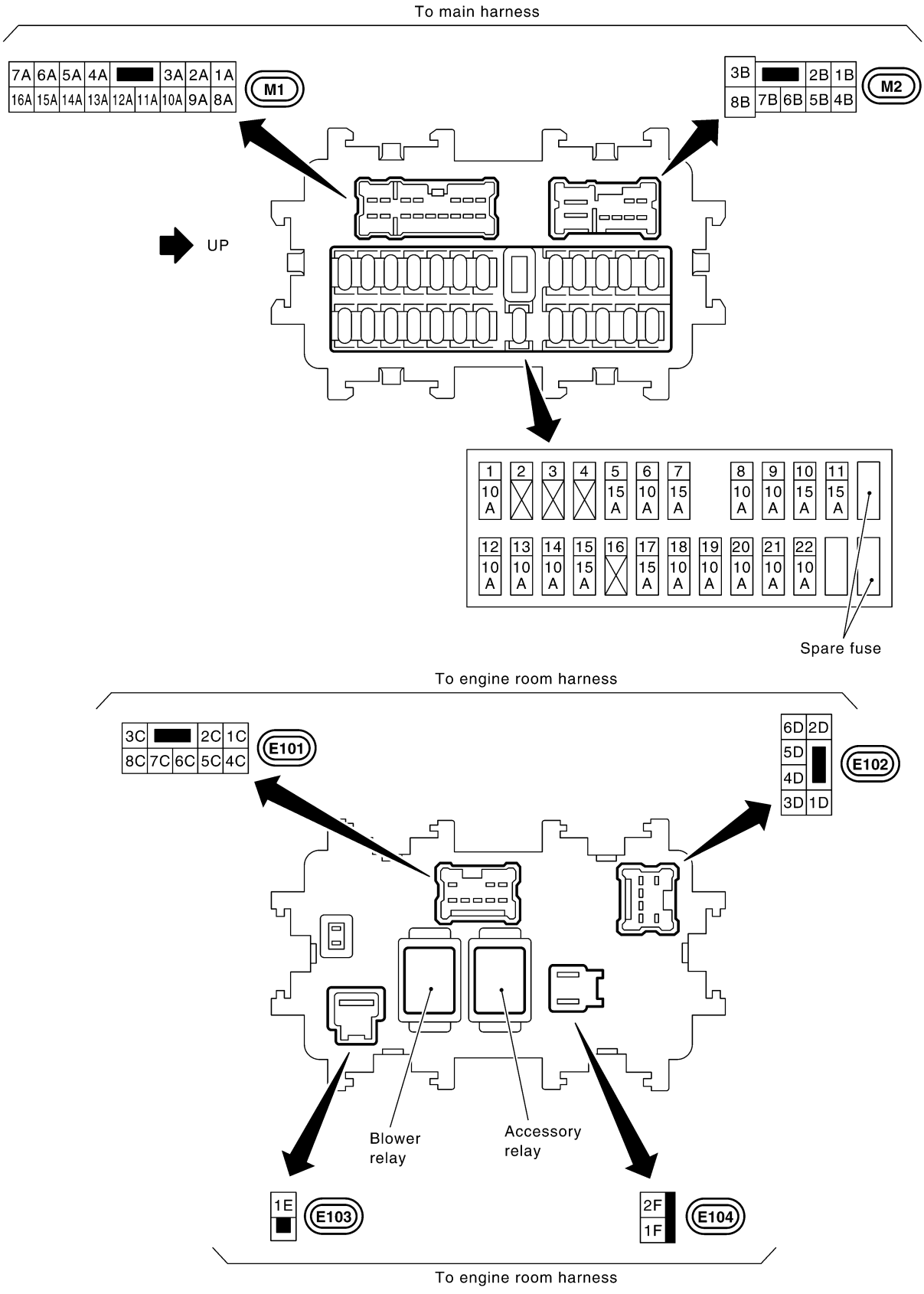
SEL188W

FUSE BLOCK - JUNCTION BOX (J/B)

PFP:24350

Terminal Arrangement

AKS007HS



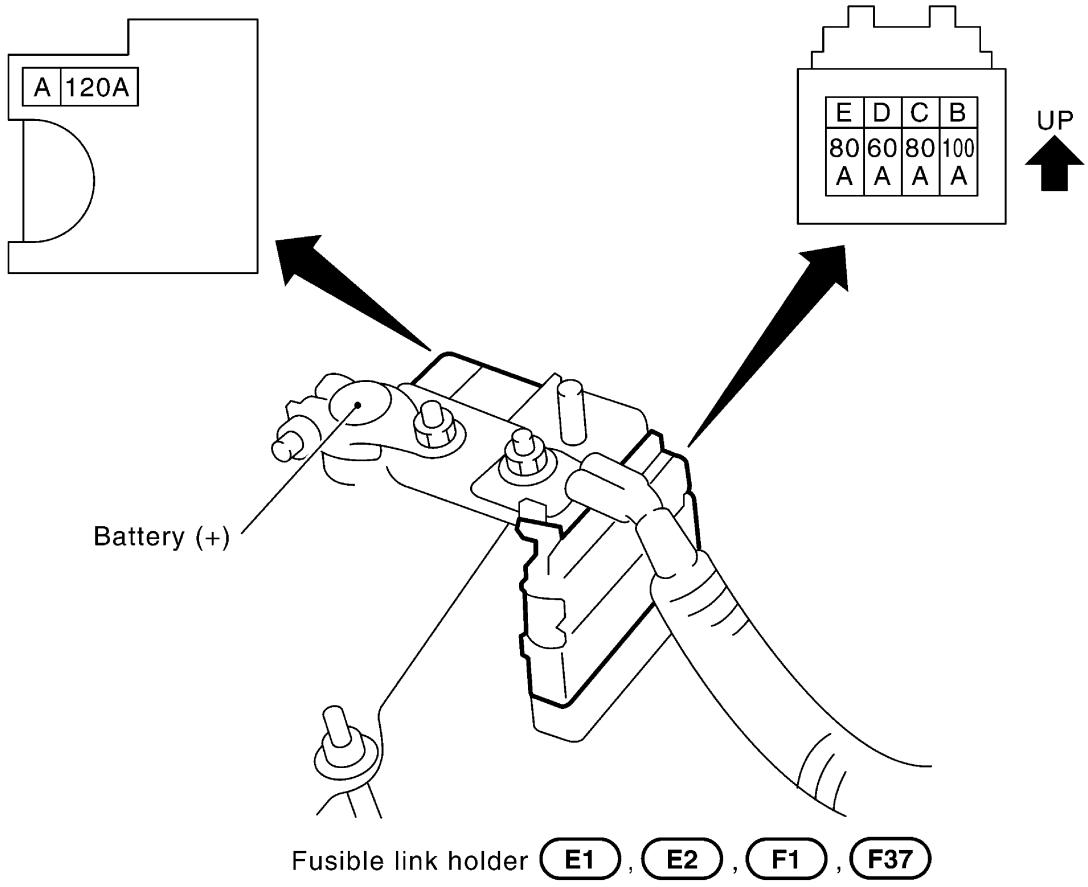
CKIA0357E

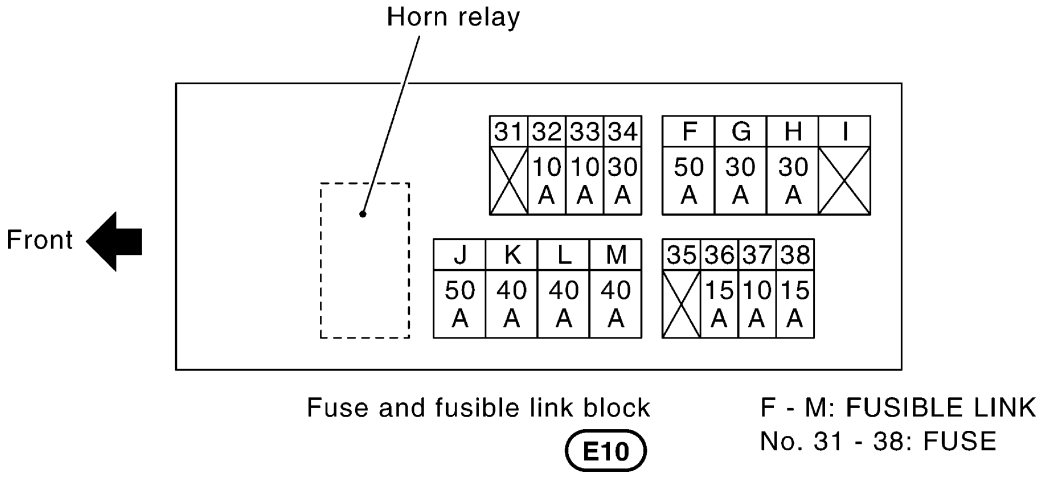
FUSE, FUSIBLE LINK AND RELAY BOX

PFP:24382

Terminal Arrangement

AKS007HT





Fuse and fusible link block
E10

F - M: FUSIBLE LINK
No. 31 - 38: FUSE

CKIA0358E