

SECTION **PG**

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POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

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PRECAUTIONS

PFP:00011

Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

EKS00N4A

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. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

WARNING:

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

Wiring Diagrams and Trouble Diagnosis

EKS00LIU

When you read wiring diagrams, refer to the following:

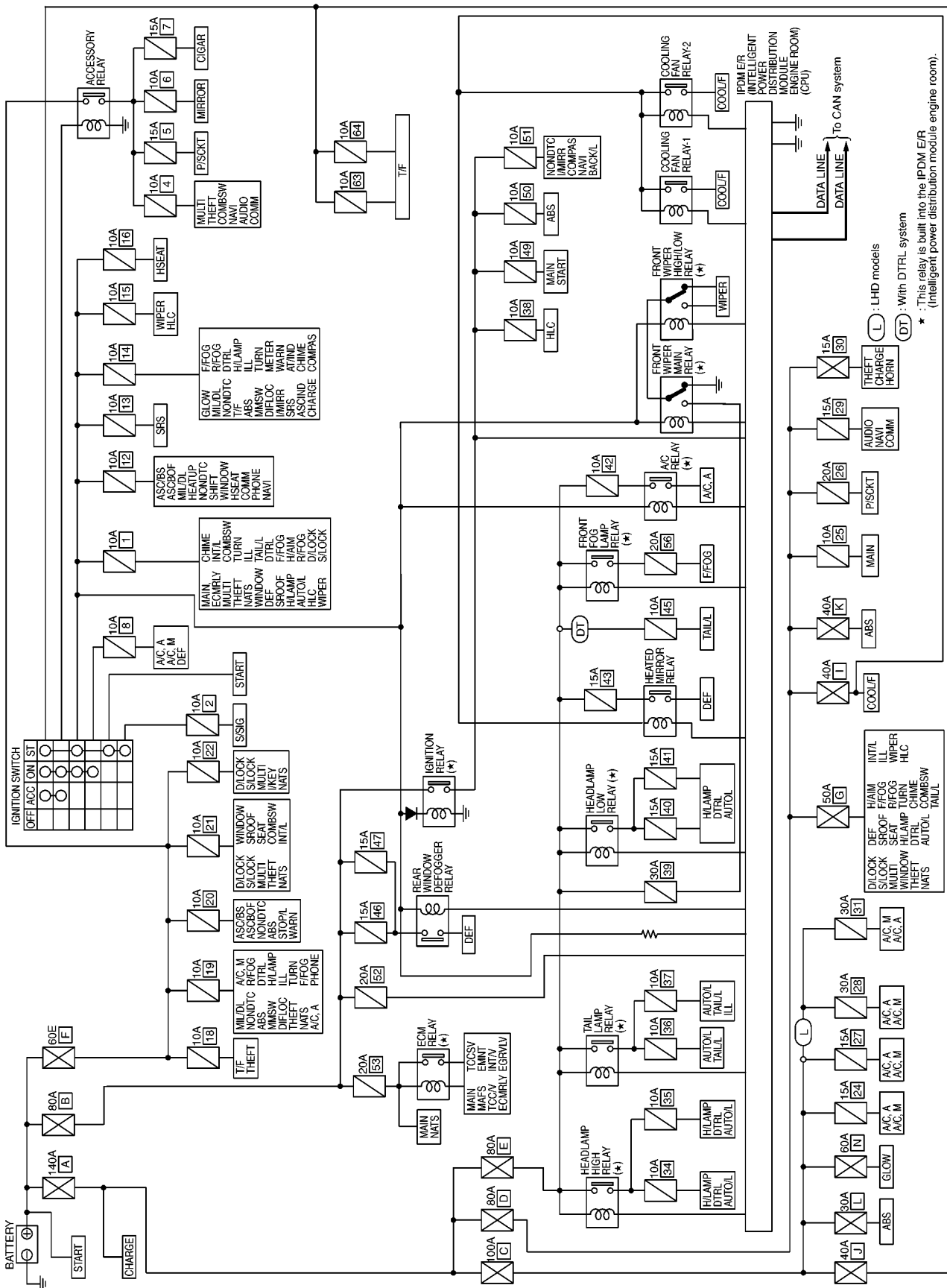
- Refer to [GI-15, "How to Read Wiring Diagrams"](#) in GI section.
- Refer to [PG-4, "POWER SUPPLY ROUTING CIRCUIT"](#) for power distribution.

When you perform trouble diagnosis, refer to the following:

- Refer to [GI-11, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"](#) in GI section.
- Refer to [GI-24, "How to Perform Efficient Diagnosis for an Electrical Incident"](#) in GI section.

Schematic

EKS00LIV




MKWA3809E

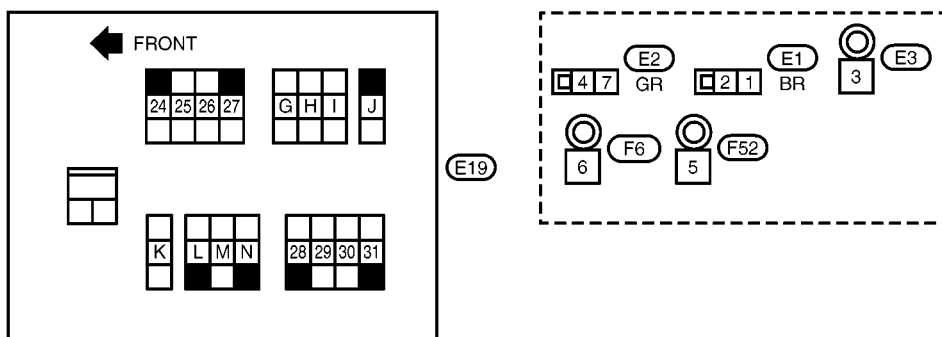
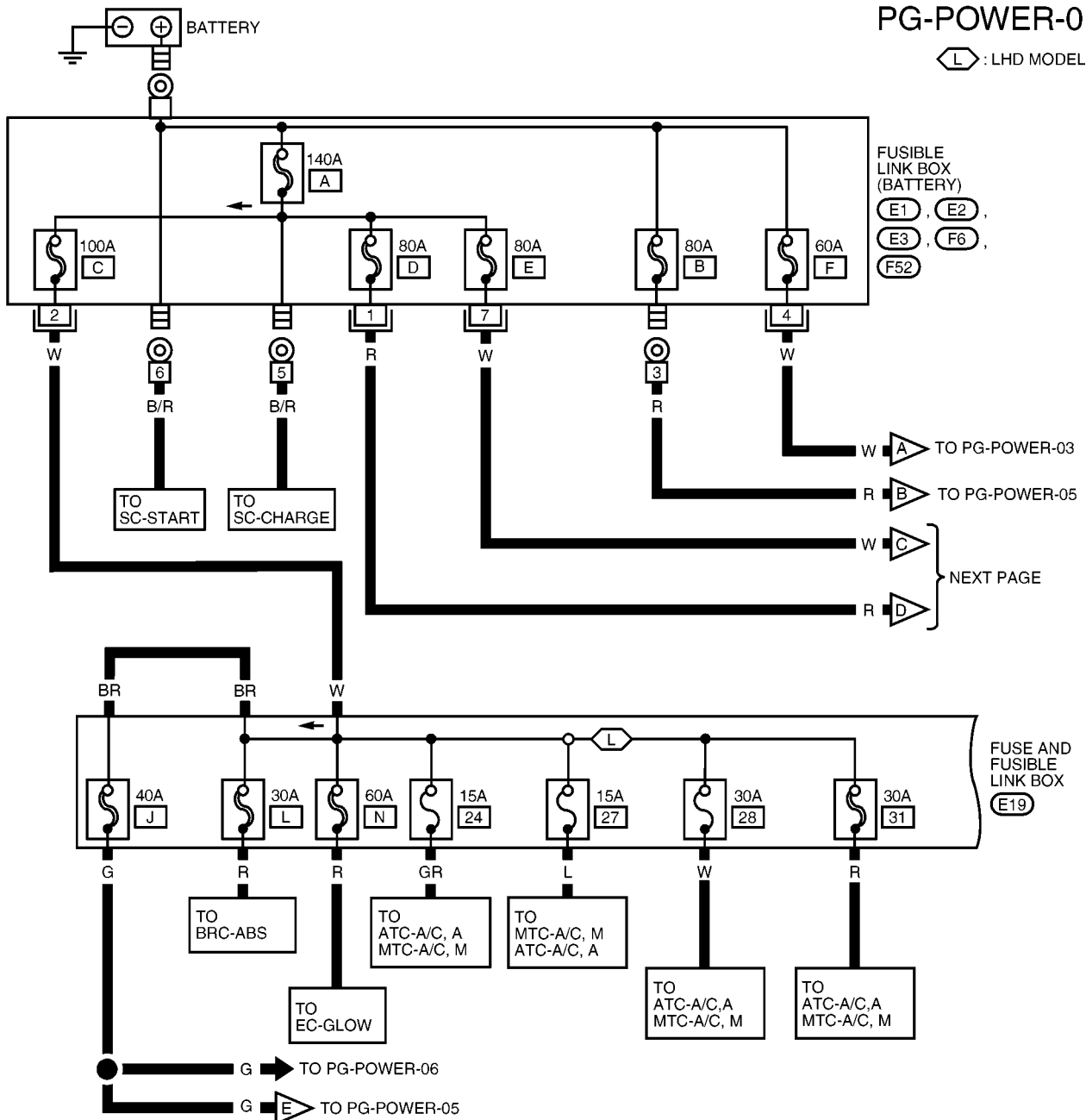
POWER SUPPLY ROUTING CIRCUIT

Wiring Diagram — POWER — BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION

EKS00LIW

PG-POWER-01

 : LHD MODELS

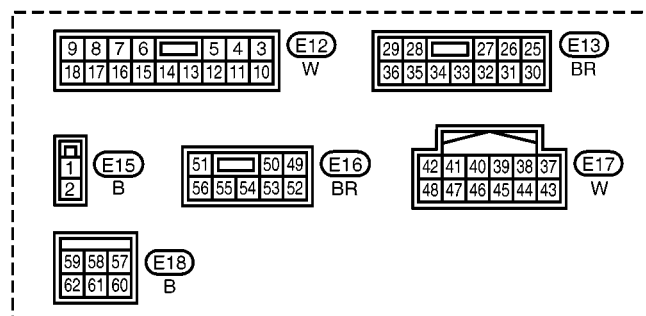
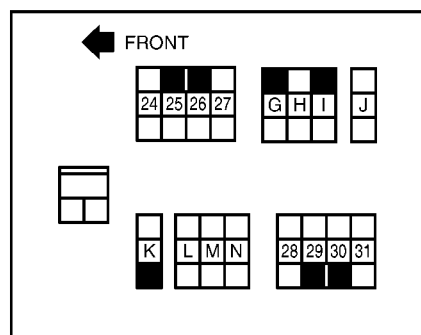
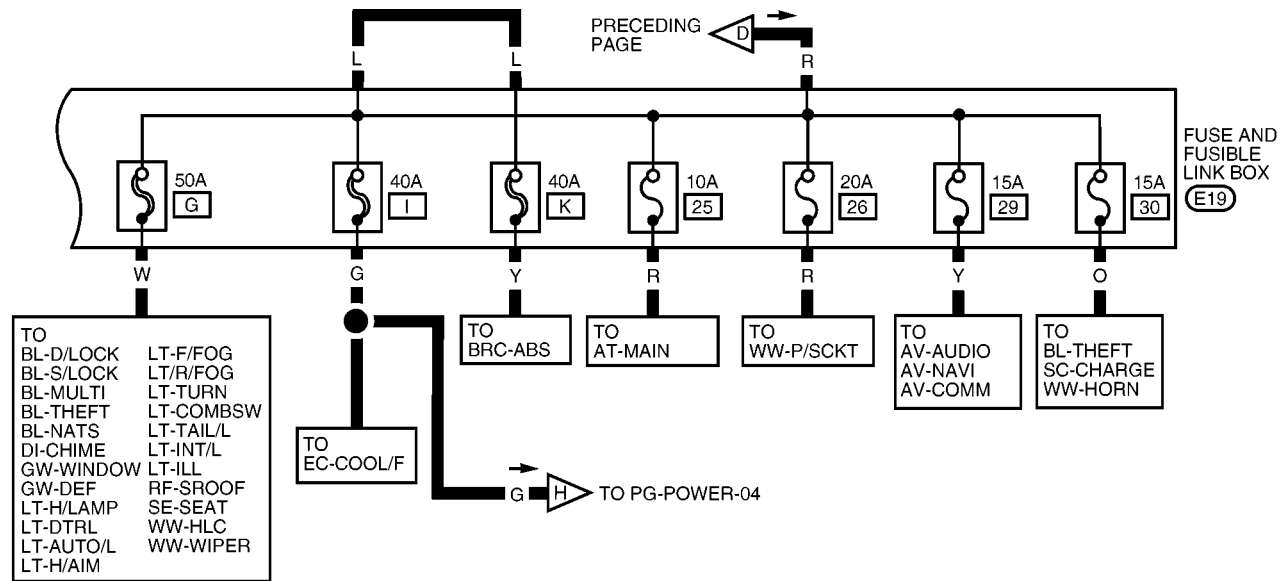
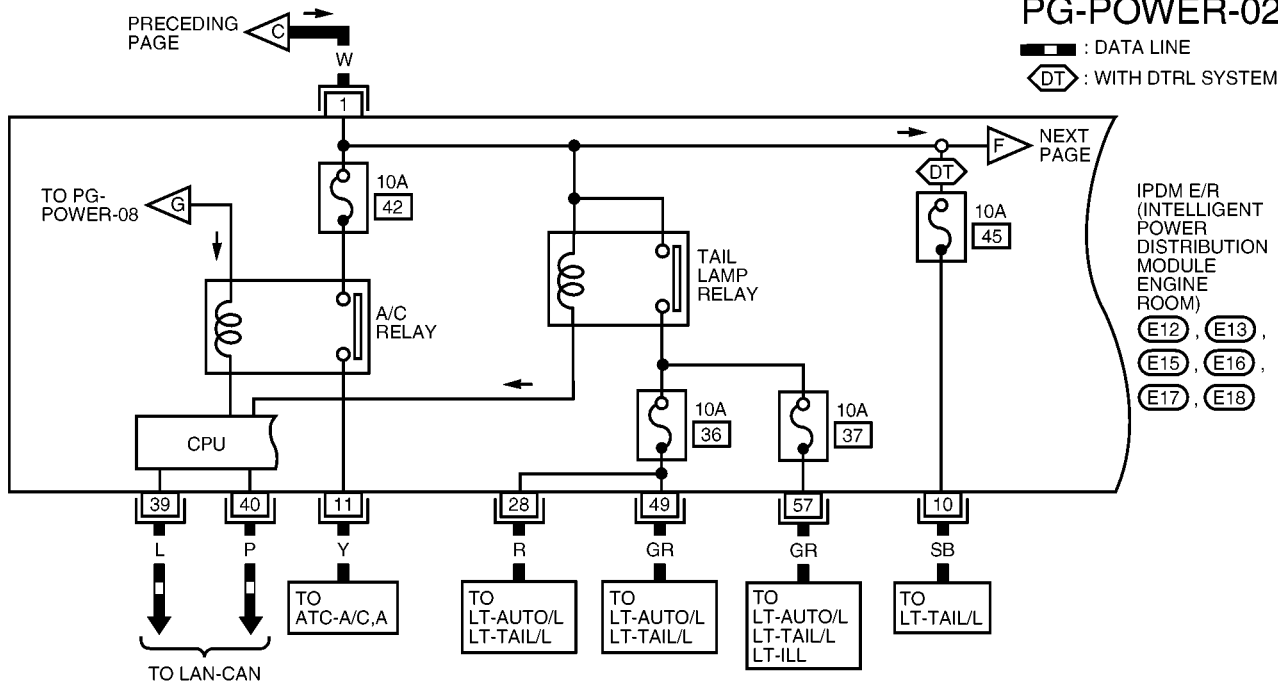


POWER SUPPLY ROUTING CIRCUIT

PG-POWER-02

— : DATA LINE

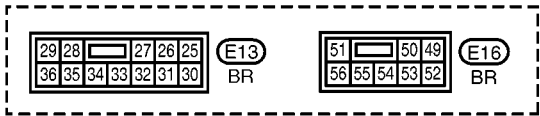
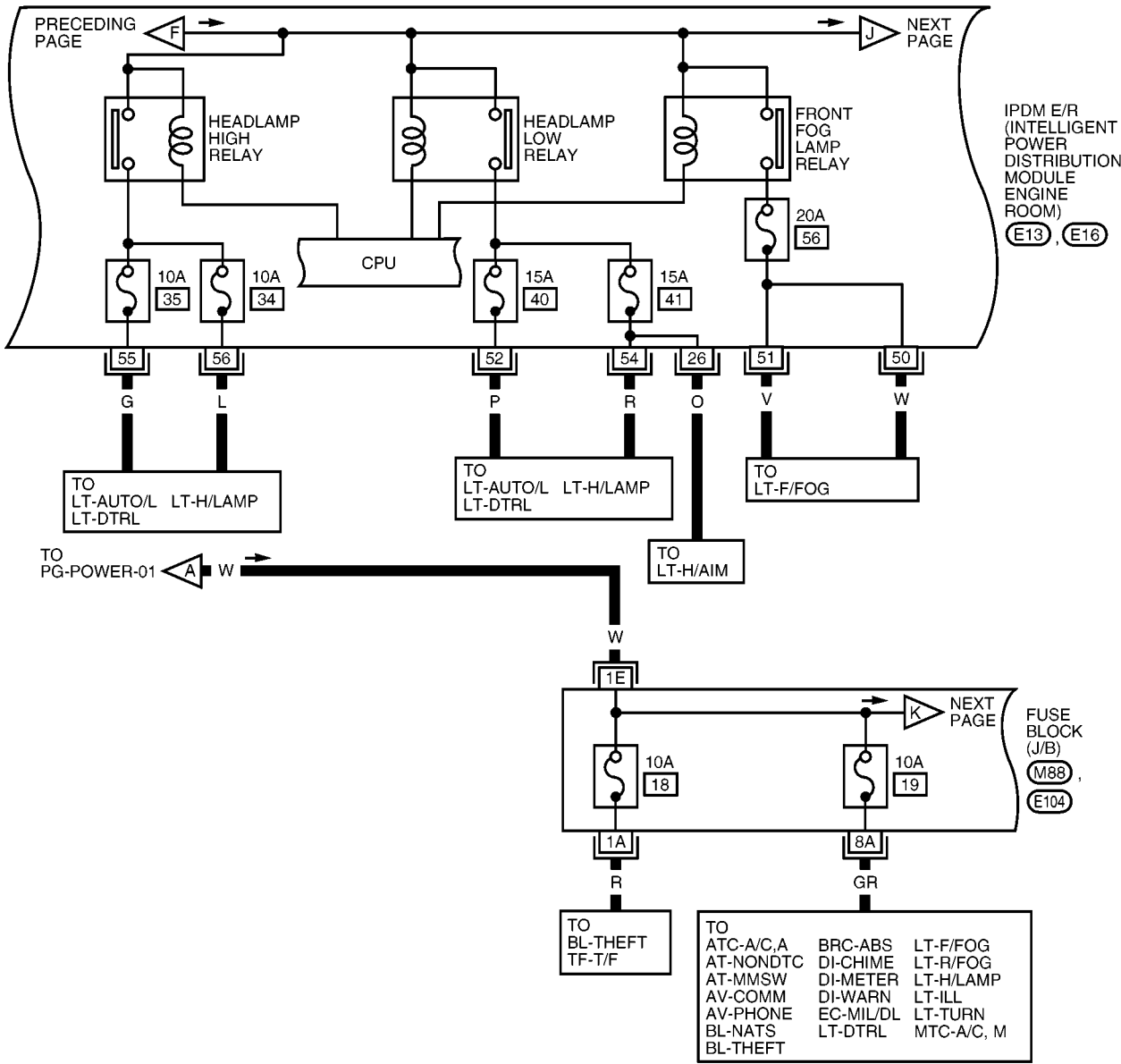
DT : WITH DTRL SYSTEM



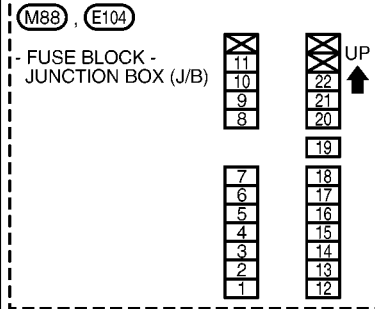
MKWA3811E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-03



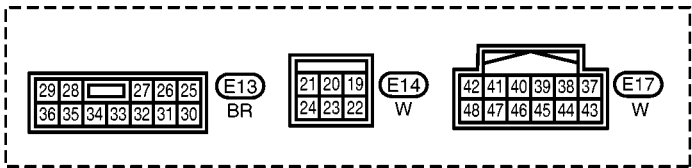
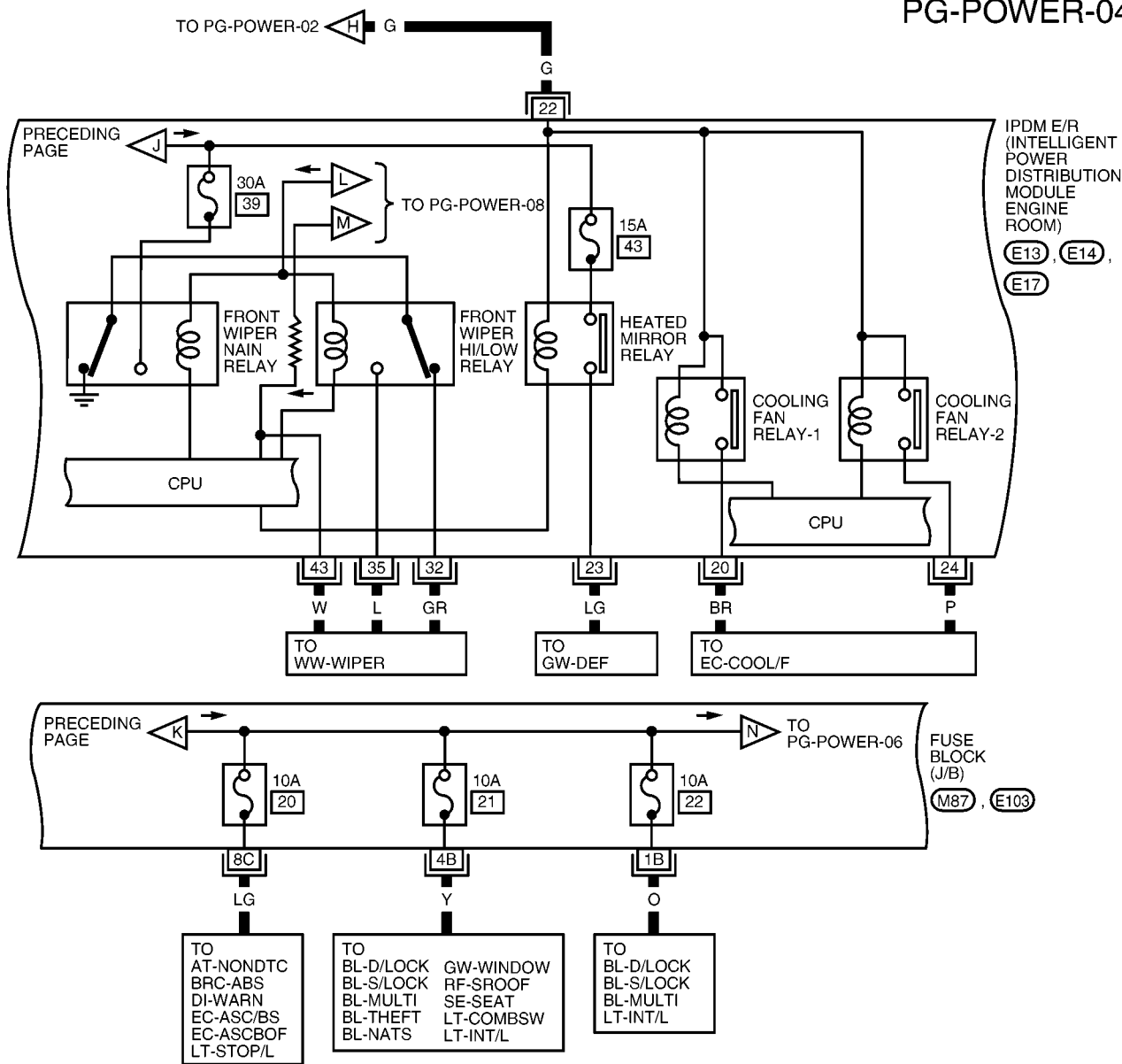
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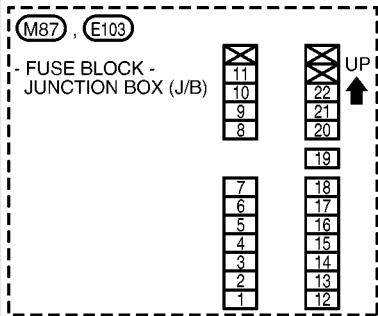
MKWA3812E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-04



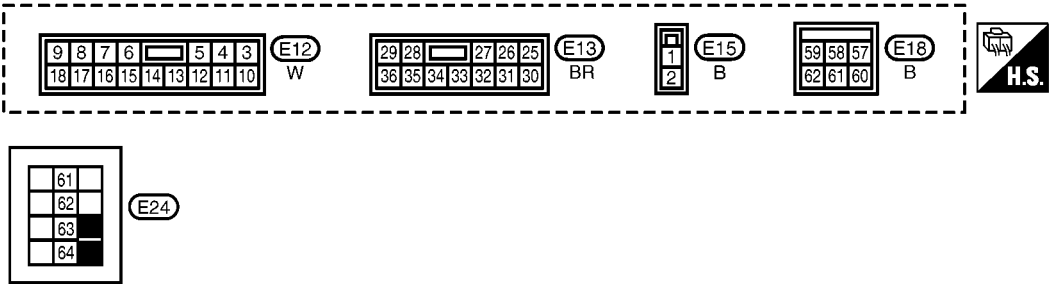
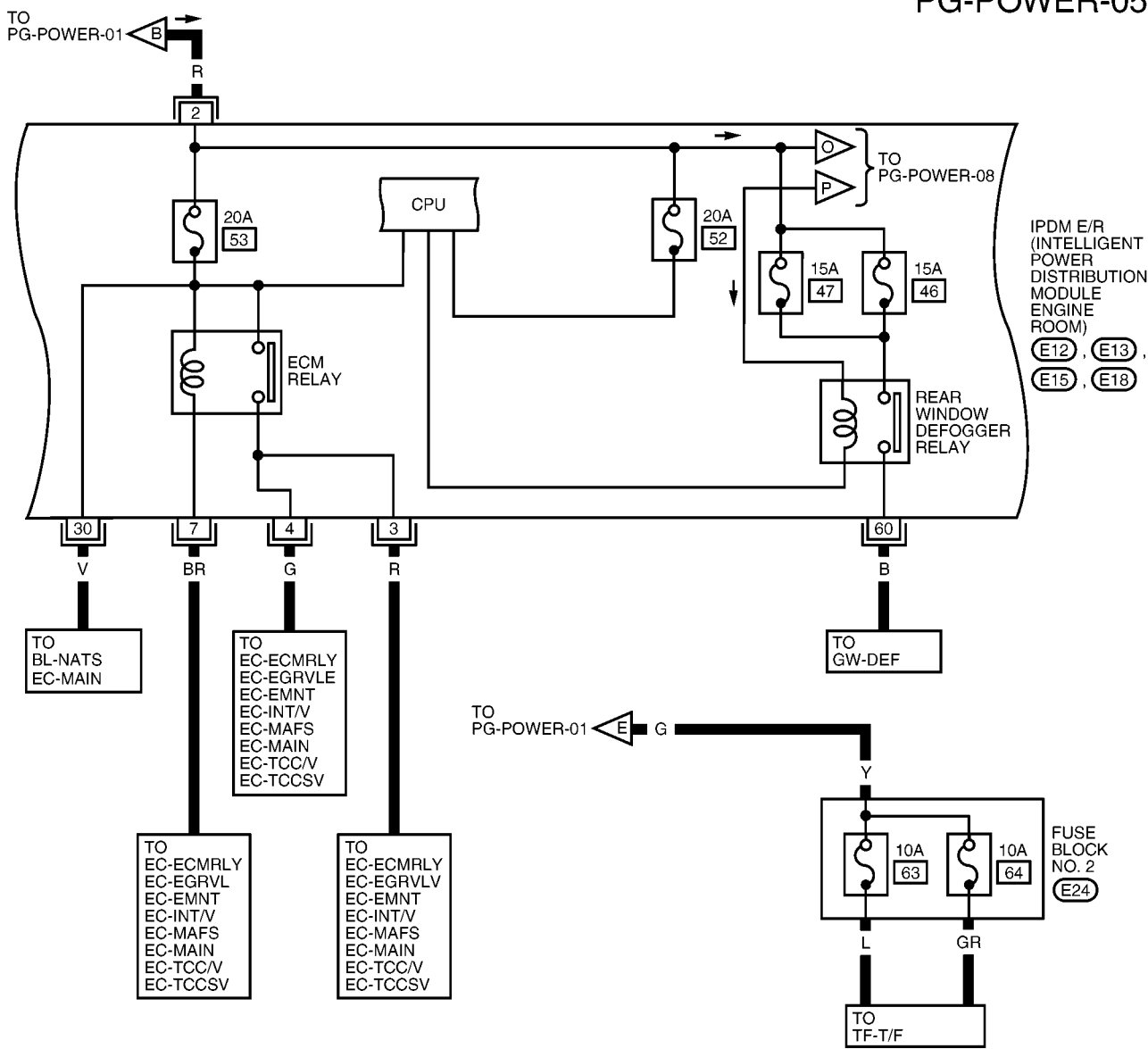
REFER TO THE FOLLOWING.



MKW43813E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-05

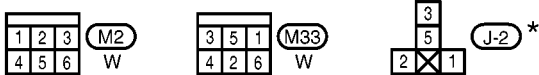
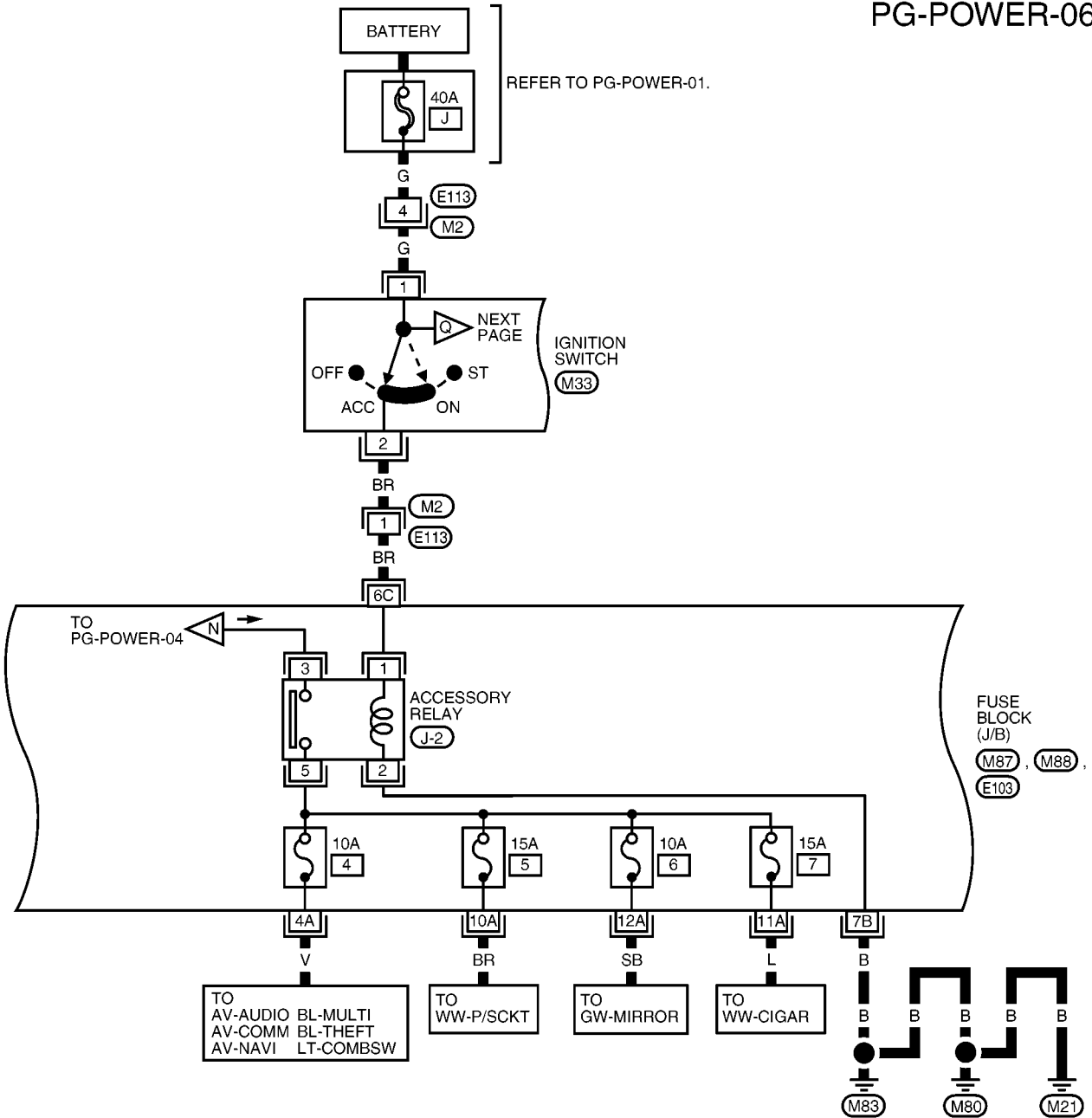


MKWA3814E

POWER SUPPLY ROUTING CIRCUIT

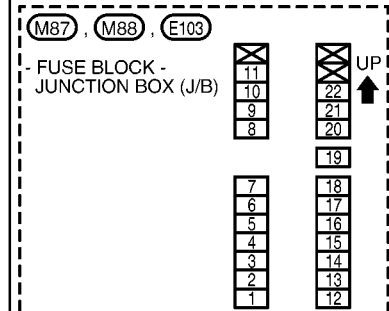
ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON

PG-POWER-06



* THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

REFER TO THE FOLLOWING.

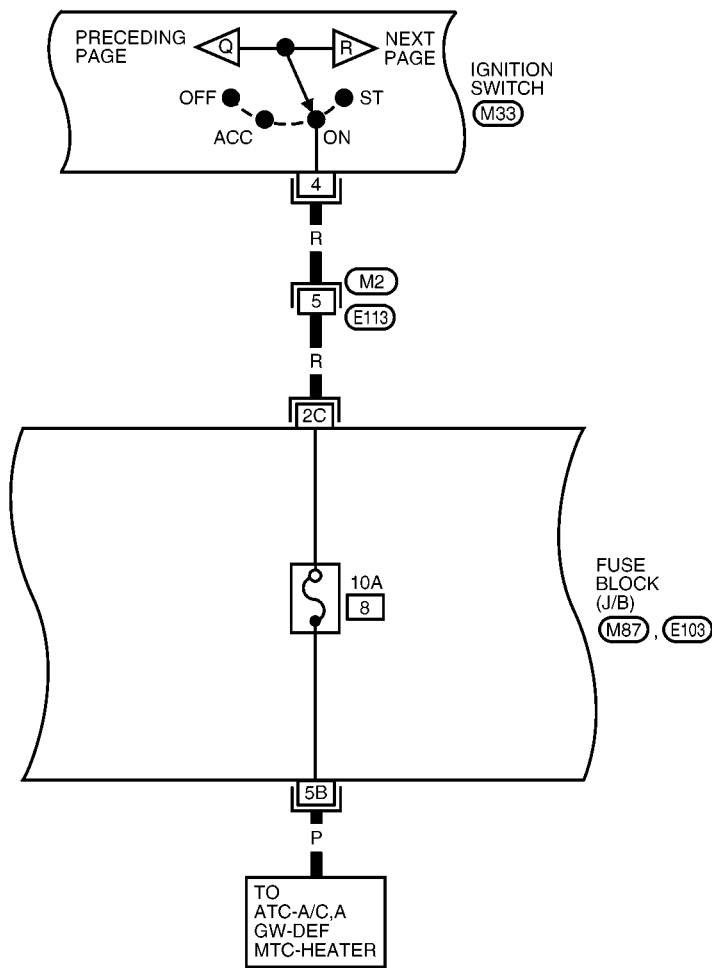


MKWA3815E

POWER SUPPLY ROUTING CIRCUIT

IGNITION POWER SUPPLY — IGNITION SW. IN ON

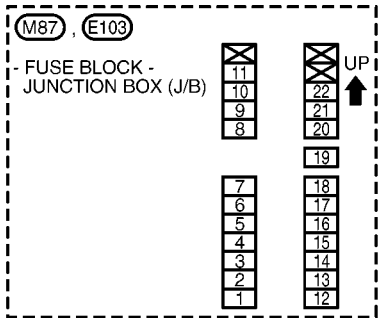
PG-POWER-07



1	2	3	M2
4	5	6	W

3	5	1	M33
4	2	6	W

REFER TO THE FOLLOWING.

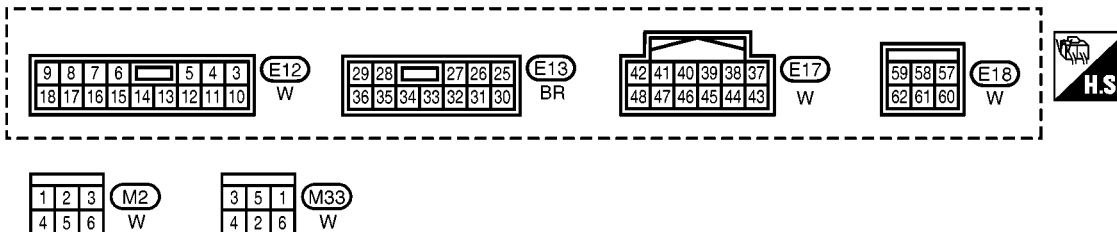
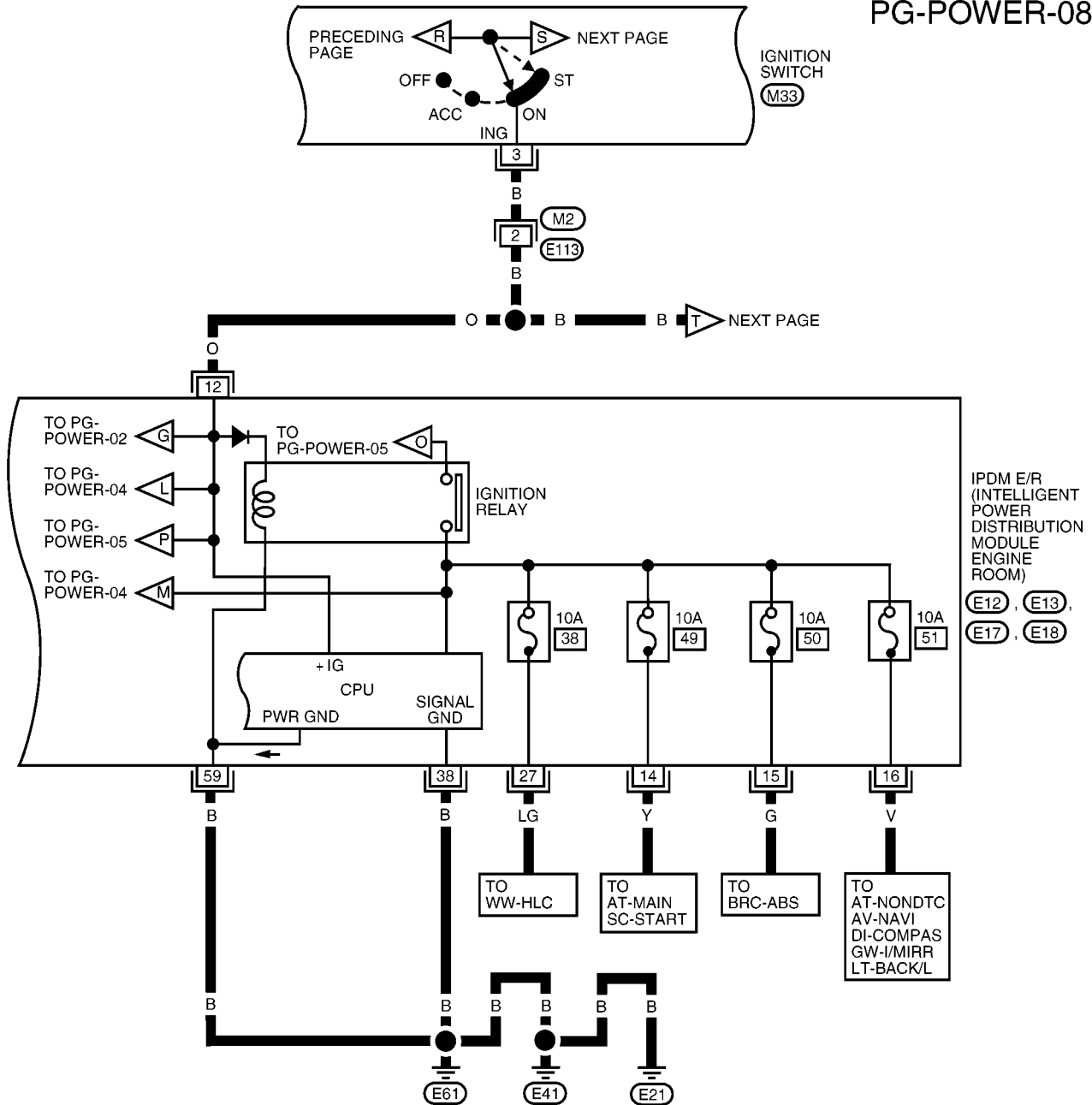


MKWA3816E

POWER SUPPLY ROUTING CIRCUIT

IGNITION POWER SUPPLY — IGNITION SW. IN ON AND/OR START

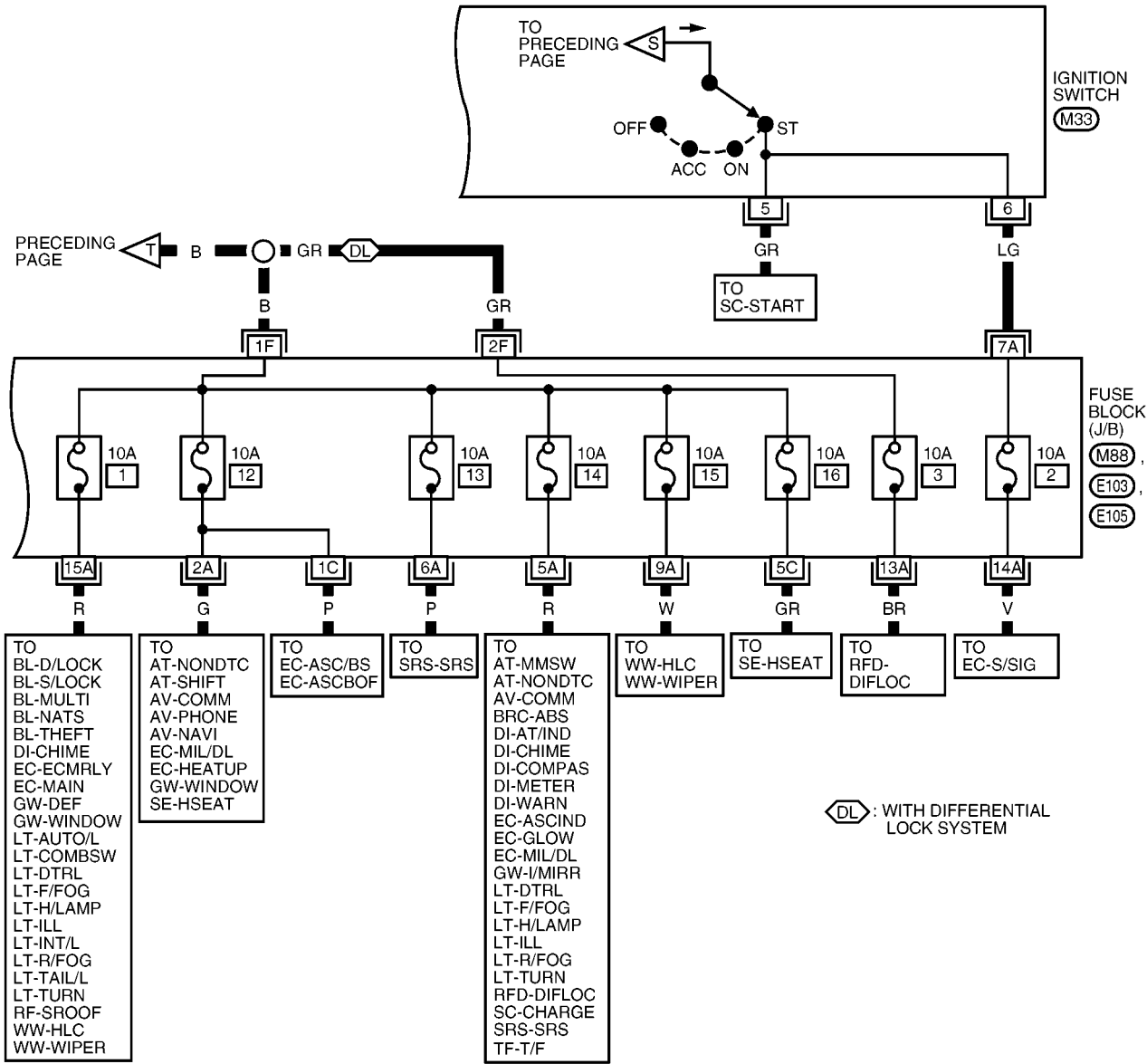
PG-POWER-08



POWER SUPPLY ROUTING CIRCUIT

PG-POWER-09

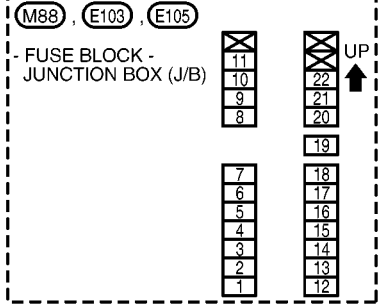
A
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3	5	1
4	2	6

(M33)
W

REFER TO THE FOLLOWING.



MKWA3818E

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

PFP:284B7

System Description

EKS00PA8

- 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 relays via IPDM E/R control circuits.
- IPDM E/R-integrated control circuits perform ON-OFF operation of relays, CAN communication control, etc.
- It controls operation of each electrical component 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

IPDM E/R receives a request signal from each Control unit with CAN communication. It controls each system.

Control system	Transmit control unit	Control part
Lamp control	BCM	<ul style="list-style-type: none"> ● Head lamps (HI, LO) ● Tail lamps, parking and license plate lamps ● Front fog lamps
Wiper control	BCM	Front wipers
Rear window defogger control	BCM	Rear window defogger
A/C compressor control	ECM	A/C compressor
Starter control	TCM	Starter motor
Cooling fan control	ECM	Cooling fan

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 a 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 returns to normal operation, 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
Headlamps	<ul style="list-style-type: none"> ● With the ignition switch ON, the headlamp low is ON. ● With the ignition switch OFF, the headlamp low is OFF.
Tail, parking and license plate lamps	<ul style="list-style-type: none"> ● With the ignition switch ON, the tail lamp is ON. ● With the ignition switch OFF, the tail lamp is OFF.
Cooling fan	<ul style="list-style-type: none"> ● With the ignition switch ON, the cooling fan HI operates. ● With the ignition switch OFF, the cooling fan stops.
Front wipers	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 OFF
A/C compressor	A/C compressor OFF
Front fog lamps	Front fog lamp 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.
 - A status is changed into sleep transient status when receiving a sleep request signal from BCM while all the systems controlled by IPDM E/R under suspension.
2. Sleep transient status
 - Process to stop CAN communication is activated.
 - All systems controlled by IPDM E/R are stopped. When 3 second has elapsed after CAN communication with other control units is stopped, status 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 signal is detected, status switches to CAN communication status.
 - When a change in ignition switch signal is detected, status switches to CAN communication status.

CAN Communication System Description

EKS00PA9

Refer to [LAN-23, "CAN COMMUNICATION"](#) .

Function of Detecting Ignition Relay Malfunction

EKS00PAA

- When the integrated ignition relay is stuck in a “closed contact” position and cannot be turned OFF, IPDM E/R turns ON tail and parking lamps for 10 minutes to indicate IPDM E/R malfunction.
- When the state of the integrated ignition relay does not agree with the state of the ignition switch signal received with CAN communication, the IPDM E/R activates the tail lamp relay.

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)

EKS00PAB

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

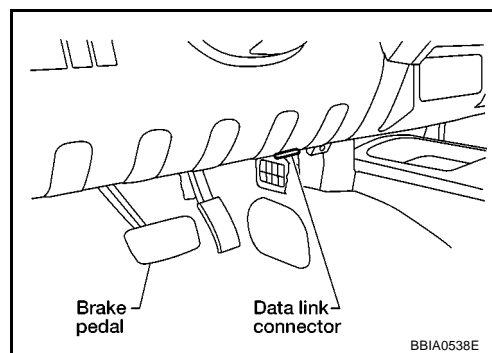
Inspection Item, Diagnosis Mode	Description
SELF-DIAG RESULTS	The IPDM E/R performs diagnosis of CAN communication and self-diagnosis.
DATA MONITOR	The input/output data of the IPDM E/R is displayed in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can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

CONSULT-II BASIC OPERATION

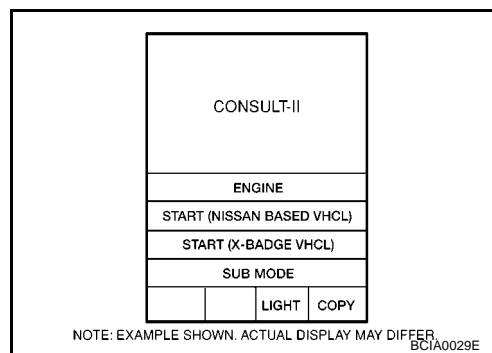
CAUTION:

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.

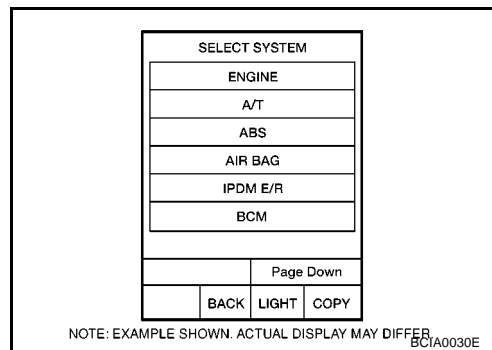
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, and then turn ignition switch ON.



2. Touch "START (NISSAN BASED VHCL)".

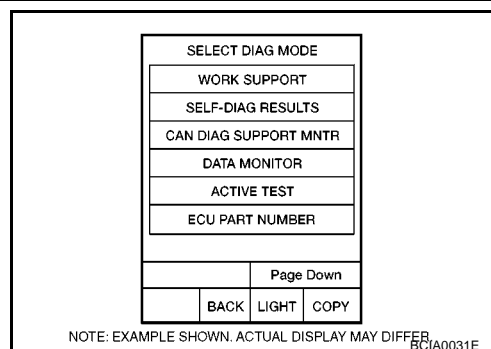


3. Touch "IPDM E/R" on "SELECT SYSTEM" screen.
If "IPDM E/R" is not displayed. Refer to [GI-50, "CONSULT-II Data Link Connector \(DLC\) Circuit"](#).



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

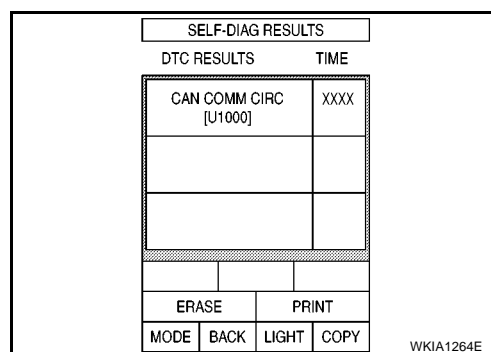
4. Select the desired part to be diagnosed on the “SELECT DIAG MODE” screen.



SELF-DIAGNOSTIC 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 detection	TIME		Possible causes
			CRNT	PAST	
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.	—	—	—	—	—
CAN COMM CIRC	U1000	<ul style="list-style-type: none"> ● If CAN communication reception/transmission data has a malfunction, or if any of the control units fail, data reception/transmission cannot be confirmed. ● When the data in CAN communication is not received before the specified time. 	X	X	Any of items listed below have errors: <ul style="list-style-type: none"> ● 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 placed in IPDM E/R memory.

DATA MONITOR

Operation Procedure

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

ALL SIGNALS	All signals will be monitored.
MAIN SIGNALS	Monitors the predetermined item(s).
SELECTION FROM MENU	Selects and monitors individual signal(s).

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”.

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

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	X	X	X	Signal status input from ECM
A/C compressor request	AC COMP REQ	ON/OFF	X	X	X	Signal status input from ECM
Tail & clear request	TAIL & CLR REQ	ON/OFF	X	X	X	Signal status input from BCM
Headlamp LO request	HL LO REQ	ON/OFF	X	X	X	Signal status input from BCM
Headlamp HI request	HL HI REQ	ON/OFF	X	X	X	Signal status input from BCM
Front fog lamp request	FR FOG REQ	ON/OFF	X	X	X	Signal status input from BCM
Headlamp washer request	HL WASHER REQ	ON/OFF	X		X	Signal from input from BCM
Front wiper request	FR WIP REQ	STOP/1LOW/LOW/HI	X	X	X	Signal status input from BCM
Wiper auto stop	WIP AUTO STOP	ACT P/STOP P	X	X	X	Output status of IPDM E/R
Wiper protection	WIP PROT	OFF/BLOCK	X	X	X	Control status of IPDM E/R
Starter request	ST RLY REQ	ON/OFF	X		X	Status of input signal ^{NOTE}
Ignition relay status	IGN RLY	ON/OFF	X	X	X	Ignition relay status monitored with IPDM E/R
Rear defogger request	RR DEF REQ	ON/OFF	X	X	X	Signal status input from BCM
Oil pressure switch	OIL P SW	OPEN/CLOSE	X		X	Signal status input from IPDM E/R
Hood switch	HOOD SW	OFF	X			Signal status input from IPDM E/R (function is not enabled)
Theft warning horn request	THFT HRN REQ	ON/OFF	X		X	Signal status input from BCM
Horn chirp	HORN CHIRP	ON/OFF	X		X	Output status of IPDM E/R

NOTE:

Perform monitoring of IPDM E/R data with the ignition switch ON. When the ignition switch is in ACC position, display may not be correct.

CAN DIAG SUPPORT MNTR

Refer to [LAN-15, "CAN Diagnostic Support Monitor"](#) .

ACTIVE TEST

Operation Procedure

1. Touch "ACTIVE TEST" on "SELECT DIAG-MODE" screen.
2. Touch item to be tested, and check operation.
3. Touch "START".
4. Touch "STOP" while testing to stop the operation.

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

Test name	CONSULT-II screen display	Description
Rear defogger output	REAR DEFOGGER	With a certain ON-OFF operation, the rear defogger relay can be operated.
Front wiper (HI, LO) output	FRONT WIPER	With a certain operation (OFF, HI ON, LO ON), the front wiper relay (Lo, Hi) can be operated.
Cooling fan output	MOTOR FAN	With a certain operation (1, 2, 3, 4), the cooling fan can be operated.
Lamp (HI, LO, TAIL, FOG) output	EXTERNAL LAMPS	With a certain operation (OFF, HI ON, LO ON, TAIL ON, FOG ON), the lamp relay (Low, High, Tail, Fog) can be operated.
Horn output	HORN	With a certain ON-OFF operation, the horn relay can be operated.

Auto Active Test DESCRIPTION

EKS00PAC

- 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 wiper
 - Tail lamps, front fog lamps, parking lamps and license plate lamps
 - Headlamps (HI, LO)
 - A/C compressor (magnetic clutch)
 - Cooling fan
 - Oil pressure warning lamp

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, press driver's door switch 10 times (close other doors). 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, 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.

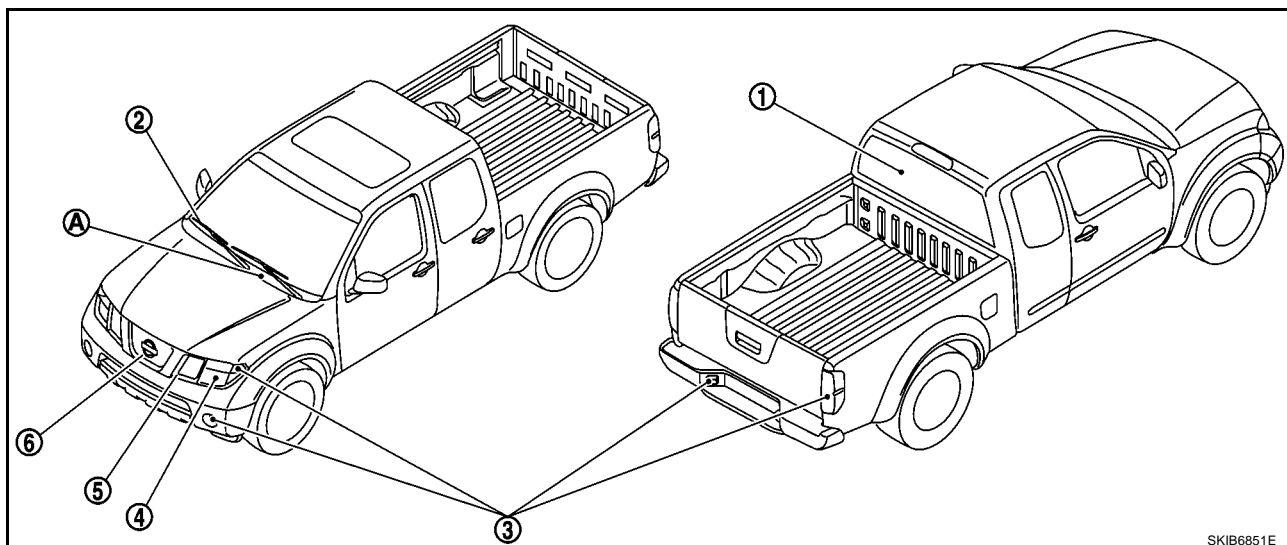
CAUTION:

Be sure to perform [BL-39, "Check Door Switch"](#) when the auto active test cannot be performed.

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

INSPECTION IN AUTO ACTIVE TEST MODE

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

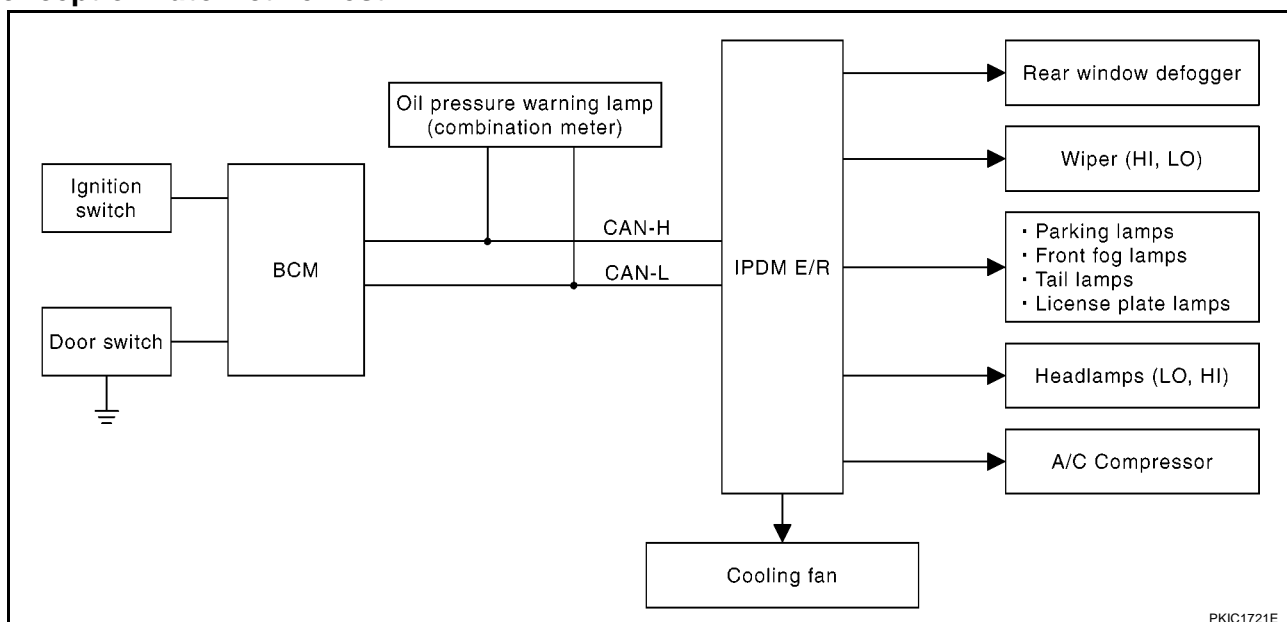


A: Oil pressure warning lamp is blinking when the auto active test operating.

Operation steps

Step	Test item	Operation time/ frequency
1	Rear window defogger	10 seconds
2	Front wiper	LO 5 seconds → HI 5 seconds
3	Tail lamps, front fog lamps, parking lamps, license plate lamps	10 seconds
4	Headlamps	LO 10 seconds → HI ON-OFF 5 times
5	A/C compressor	ON-OFF 5 times
6	Cooling fan	LO 5 seconds → HI 5 seconds

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 the systems controlled by IPDM E/R cannot be operated, possible cause can be easily diagnosed using auto active test.

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

Diagnosis chart in auto active test mode

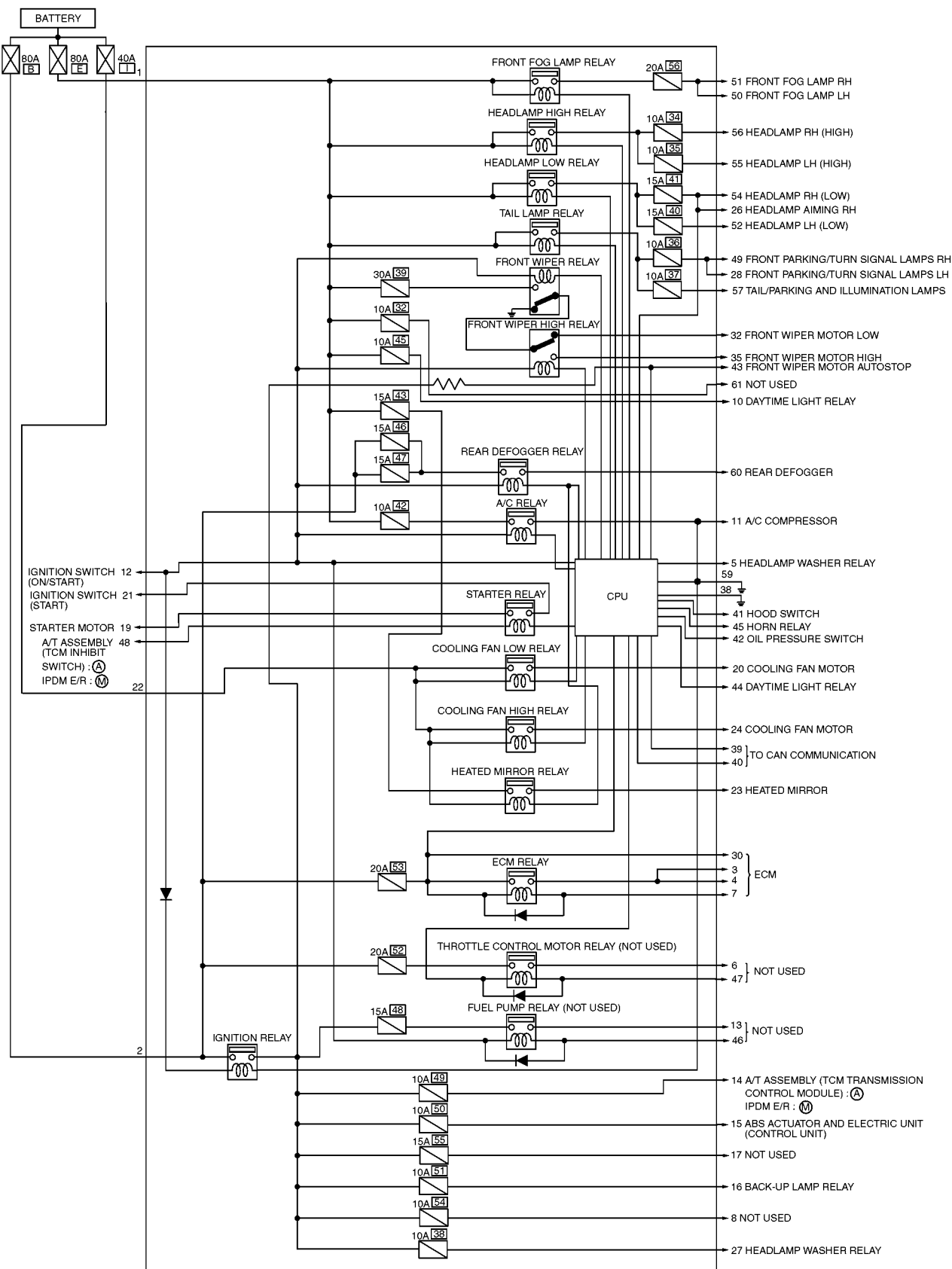
Symptom	Inspection contents	Possible cause
Any of front wipers, tail and parking lamps, front fog lamps, and headlamps (HI, LO) do not operate.	Perform auto active test. Does system in question operate?	YES ● BCM signal input system malfunction
		NO ● Lamp/wiper motor malfunction ● Lamp/wiper motor ground 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 ● Open circuit of rear window defogger ● Harness or connector malfunction between IPDM E/R and rear window defogger ● IPDM E/R (integrated relay) malfunction
A/C compressor does not operate.	Perform auto active test. Does magnetic clutch operate?	YES ● BCM signal input circuit malfunction ● CAN communication signal malfunction between BCM and ECM ● CAN communication signal malfunction 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 malfunction ● CAN communication signal malfunction 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 malfunction between IPDM E/R and combination meter ● Combination meter malfunction

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

Schematic

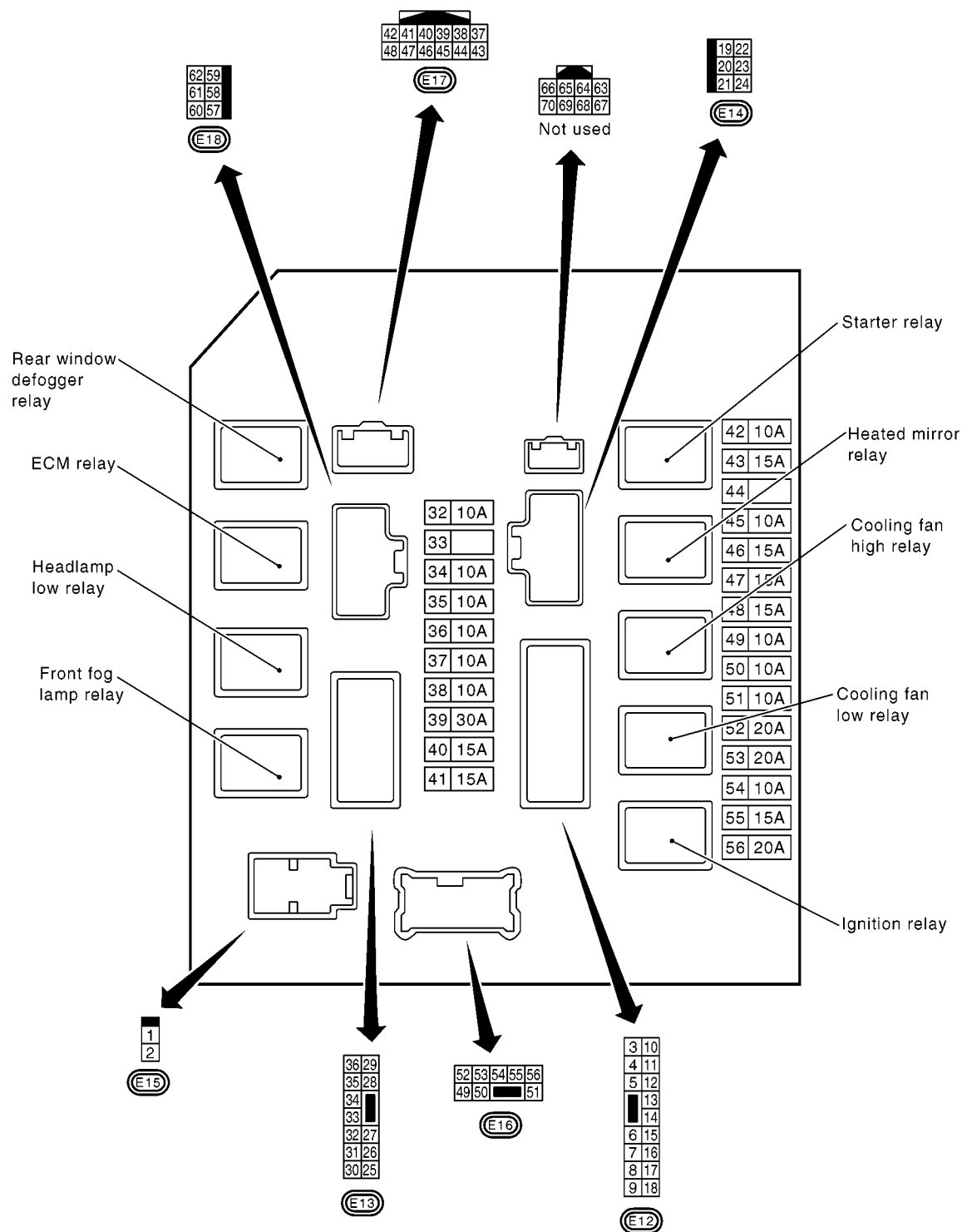
EKS00PAD



MKWA3819E

IPDM E/R Terminal Arrangement

EKS00PAE



PG

MKWA3146E

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

Check IPDM E/R Power Supply and Ground Circuit

EKS00PAF

1. CHECK FUSES AND FUSIBLE LINK

Check for blown fuses and fusible link.

Terminal No.	Power source	Fuse and fusible link No.
1	Battery	E
2		B
22		1

OK or NG

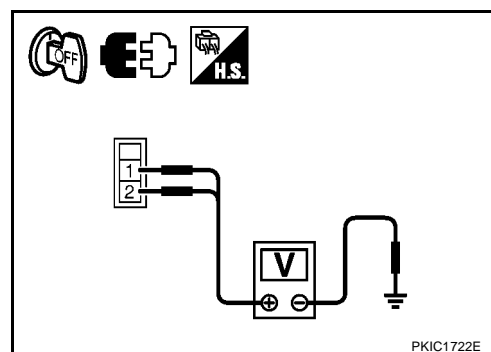
OK >> GO TO 2.

NG >> If fuse or fusible link is blown, be sure to eliminate cause of malfunction before installing new fuse or fusible link.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. Check voltage between IPDM E/R harness connector and ground.

Terminal		Voltage
(+)	(-)	
IPDM E/R connector	Terminal	
E15	1	Battery voltage
	2	Battery voltage



OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

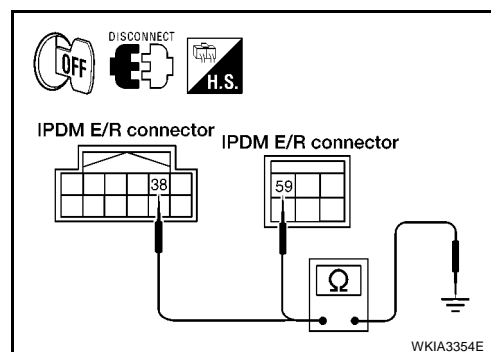
1. Disconnect IPDM E/R harness connectors.
2. Check continuity between IPDM E/R harness connectors and ground.

IPDM E/R connector	Terminal	Ground	Continuity
E17	38	Ground	Yes
E18	59		

OK or NG

OK >> INSPECTION END

NG >> Repair harness or connector.



Inspection with CONSULT-II (Self-Diagnosis)

EKS00PAG

CAUTION:

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

1. SELF-DIAGNOSIS RESULT CHECK

1. Connect CONSULT-II and select "IPDM E/R" on "SELECT SYSTEM" screen.
2. Select "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
3. Check display content in self-diagnosis 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	X	X	Any of items listed below have errors: <ul style="list-style-type: none"> ● TRANSMIT DIAG ● ECM ● BCM/SEC

NOTE:

The details for display for the period are as follows:

- CRNT: Error currently detected by IPDM E/R.
- PAST: Error detected in the past and stored in IPDM E/R memory.

Contents displayed

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

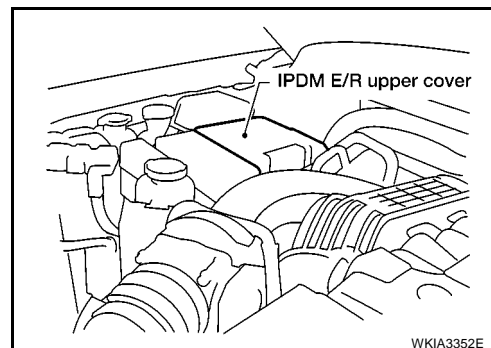
CAN COMM CIRC>> Print out the self-diagnosis result and refer to [LAN-23, "CAN COMMUNICATION"](#) .

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

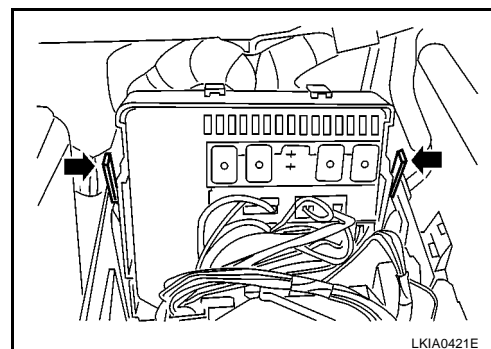
Removal and Installation of IPDM E/R REMOVAL

EKS00PAH

1. Disconnect the battery cable from the negative terminal.
2. Remove IPDM E/R upper cover.



3. Release 2 clips and pull IPDM E/R up from case.
4. Disconnect IPDM E/R connectors and remove IPDM E/R.



INSTALLATION

Installation is the reverse order of removal.

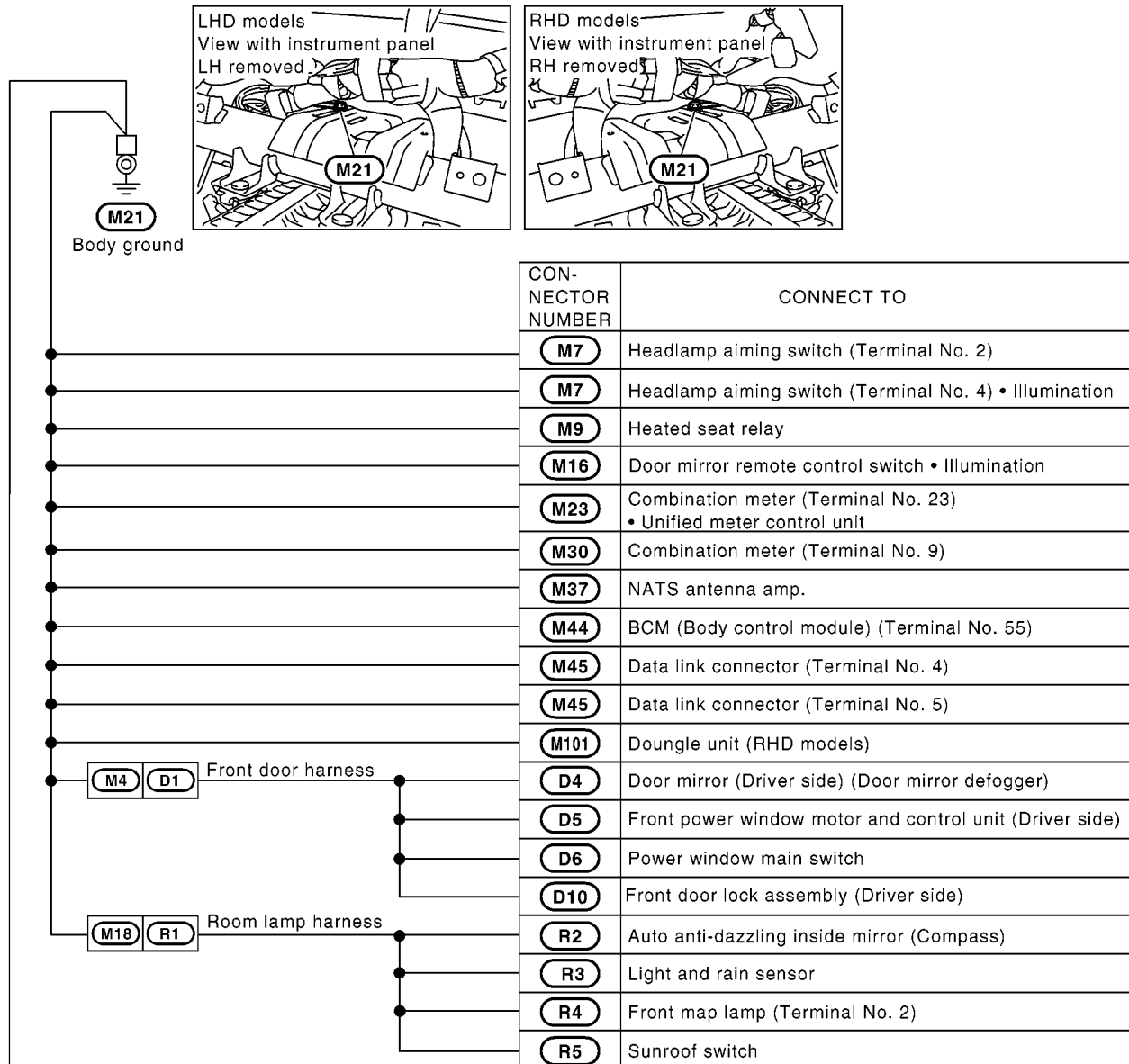
GROUND CIRCUIT

GROUND CIRCUIT

PFP:24080

Ground Distribution MAIN HARNESS

EKS00LJ7

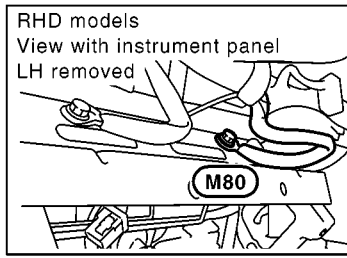
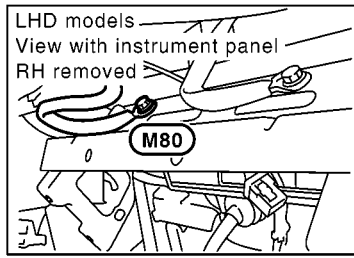
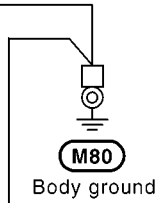


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GROUND CIRCUIT

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CON- NECTOR NUMBER	CONNECT TO
M6	Headlamp washer switch (Terminal No. 2)
M6	Headlamp washer switch (Terminal No. 4) • Illumination
M12	Heat up switch
M23	Combination meter (Terminal No. 13) • Unified meter control unit
M48	Hazard switch (Terminal No. 1)
M54	Front heated seat switch LH (Terminal No. 4)
M55	Front heated seat switch RH (Terminal No. 4)
M59	Front blower switch (Terminal No. 4)
M60	Front air control (Terminal No. 20) (With auto A/C)
M78	Air bag diagnosis sensor unit
M79	A/T device (Terminal No. 2) (With A/T)
M79	A/T device (Terminal No. 5) (With A/T)
M79	A/T device (Terminal No. 8) (With A/T)
M79	A/T device (Terminal No. 10) (With A/T)
M96	Variable blower control (With auto A/C)
M98	Front air control (Terminal No. 20) (With manual A/C)
M102	Option connector for telephone (Terminal No. 10) (Without NAVI)
M105	Transfer control unit (Terminal No. 6)
M105	Transfer control unit (Terminal No. 18)
M106	Transfer control unit (Terminal No. 32)
M89 D31	Front door harness
D34	Door mirror (Passenger side) (Door mirror defogger)



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MKWA3821E

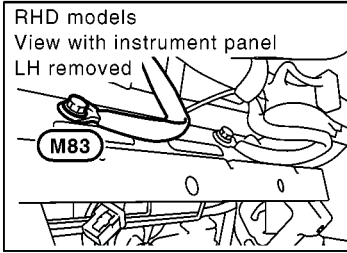
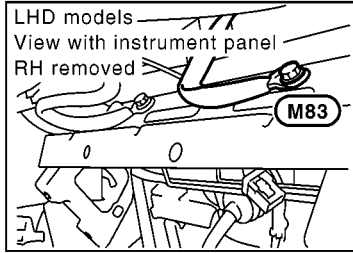
GROUND CIRCUIT

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B

M83

Body ground



		CON- NECTOR NUMBER	CONNECT TO
		M47	AV switch (Terminal No.9) (With NAVI)
		M52	Door lock/unlock switch • Switch • Illumination
		M64	Display unit (Terminal No.23) (With NAVI)
		M73	Cigarette lighter socket
		M74	Front power socket
		M85	Glove box lamp
	M77 M202	M203	Ashtray • Illumination
	M76 M201	M205	Console power socket
	M91 E101	E28	Front blower relay
	M89 D31	D39	Front door lock actuator (Passenger side)

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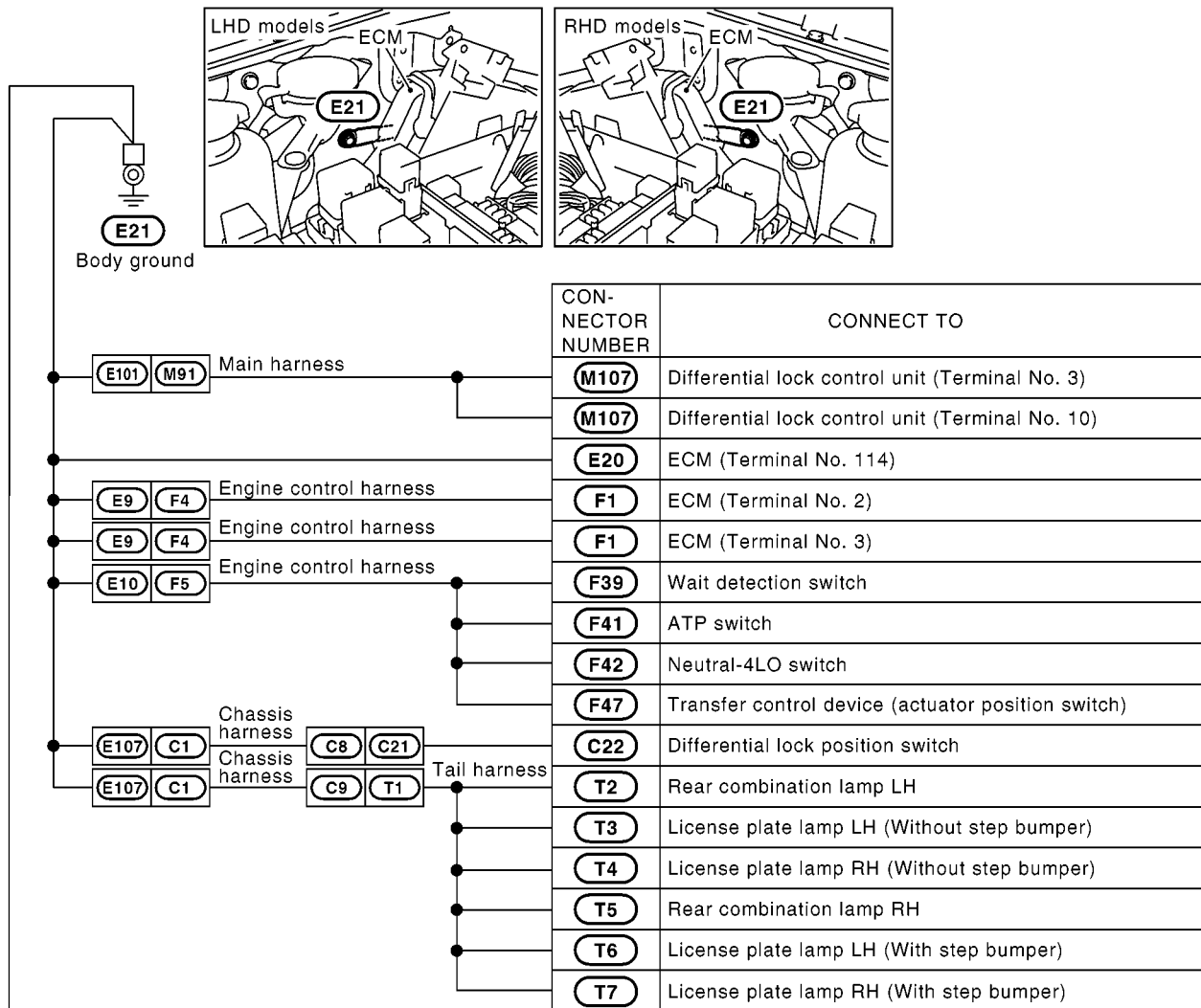
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MKWA3822E

GROUND CIRCUIT

ENGINE ROOM HARNESS

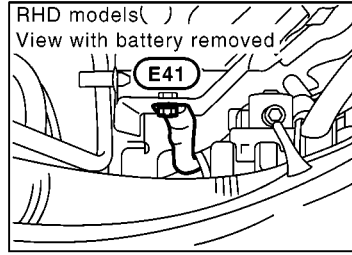
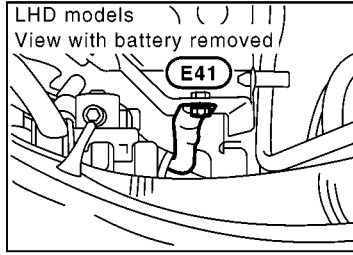
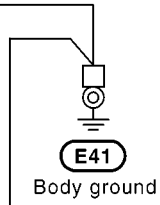


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MKWA3823E

GROUND CIRCUIT

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CON- NECTOR NUMBER		CONNECT TO
(E36)		Front combination lamp RH (Turn signal)
(E37)		Front combination lamp RH (Headlamp aiming motor)
(E42)		Cooling fan motor
(E54)		Front combination lamp LH (Headlamp)
(E56)		Front fog lamp LH
(E57)		Front combination lamp LH (Clearance lamp)
(E73)		Side turn signal lamp RH
(E75)		Washer fluid level switch
(E84)		Transfer shut off relay 1
(E9)	(F4)	Engine control harness
(E8)	(F2)	Engine control harness
(F1)		ECM (Terminal No. 1)
(F38)		Park/neutral position switch (With M/T)



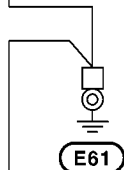
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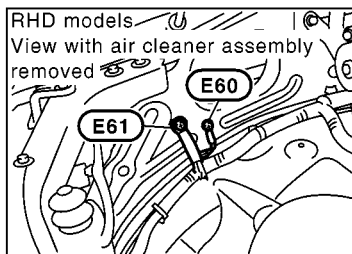
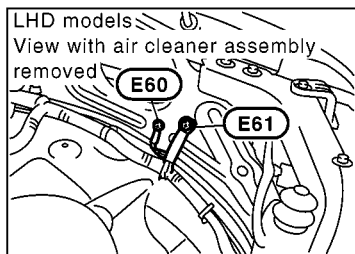
MKWA3824E

GROUND CIRCUIT

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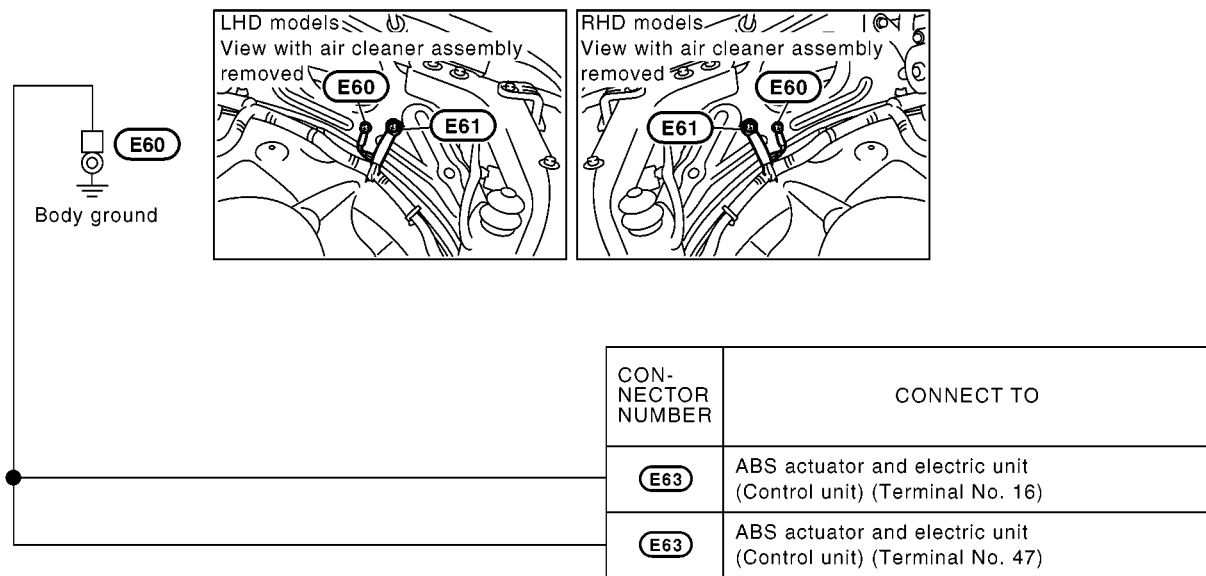
Body ground



CON- NECTOR NUMBER	CONNECT TO
E65	Brake fluid level switch
E17	IPDE E/R (Terminal No.38) (Intelligent power distribution module engine room)
E18	IPDE E/R (Terminal No.59) (Intelligent power distribution module engine room)
E35	Front combination lamp RH (Clearance lamp)
E39	Front combination lamp RH (Headlamp)
E40	Front fog lamp RH
E50	Horn
E51	Hood switch
E52	Front combination lamp LH (Headlamp aiming motor)
E55	Front combination lamp LH (Turn signal)
E65	Brake fluid level switch
E71	Side turn signal lamp LH
E72	Front wiper motor
E76	Headlamp washer motor
E83	Water in fuel sensor

MKWA3825E

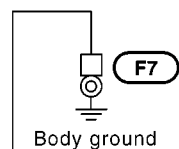
GROUND CIRCUIT



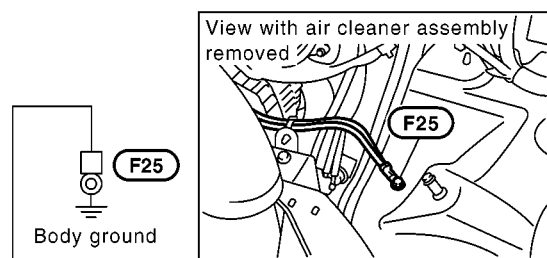
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GROUND CIRCUIT

ENGINE CONTROL HARNESS



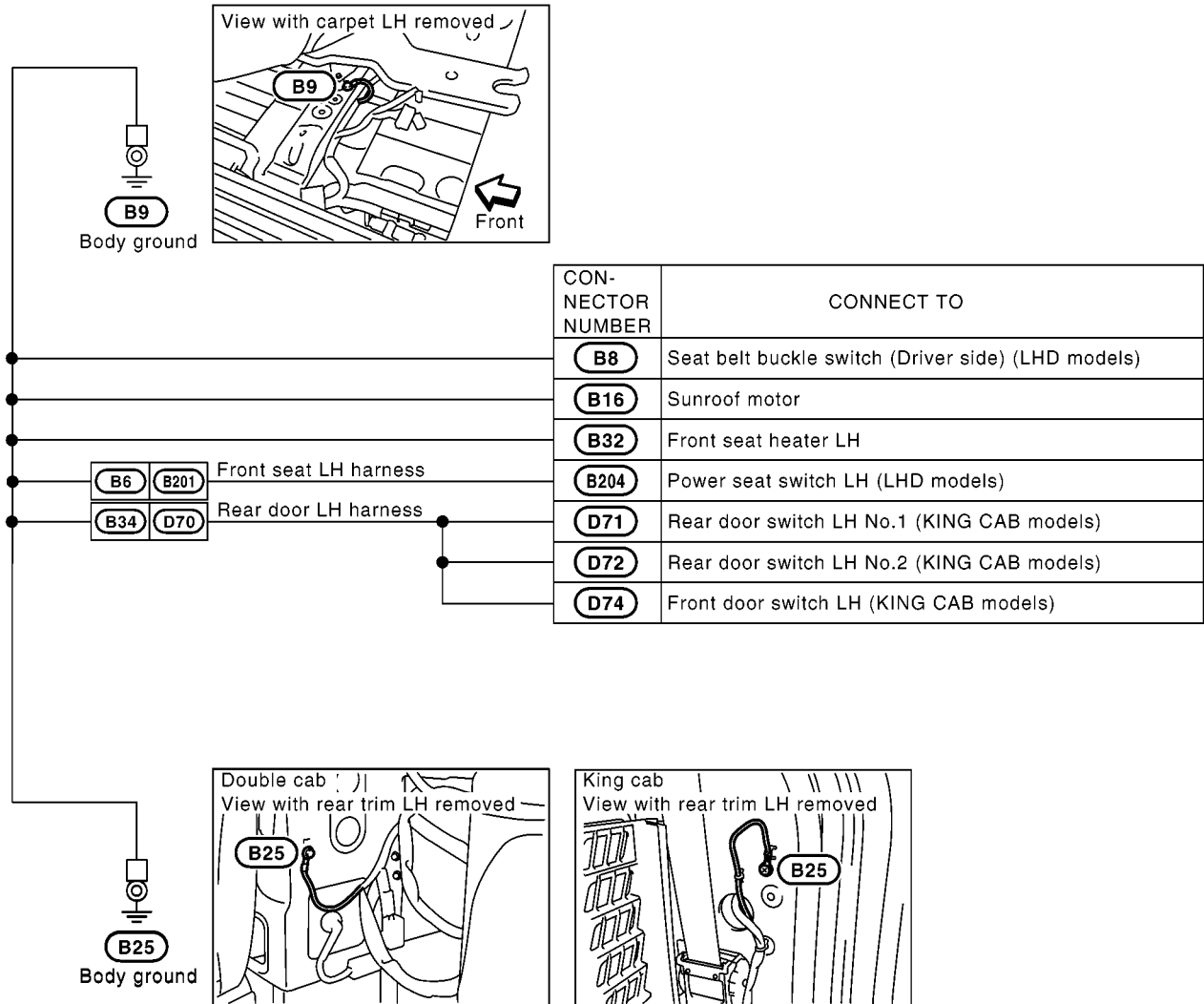
CON- NECTOR NUMBER	CONNECT TO
F36	A/T assembly (Transmission control module) (Terminal No.5) (With A/T)
F36	A/T assembly (Transmission control module) (Terminal No.10) (With A/T)



CON- NECTOR NUMBER	CONNECT TO
F19	Alternator

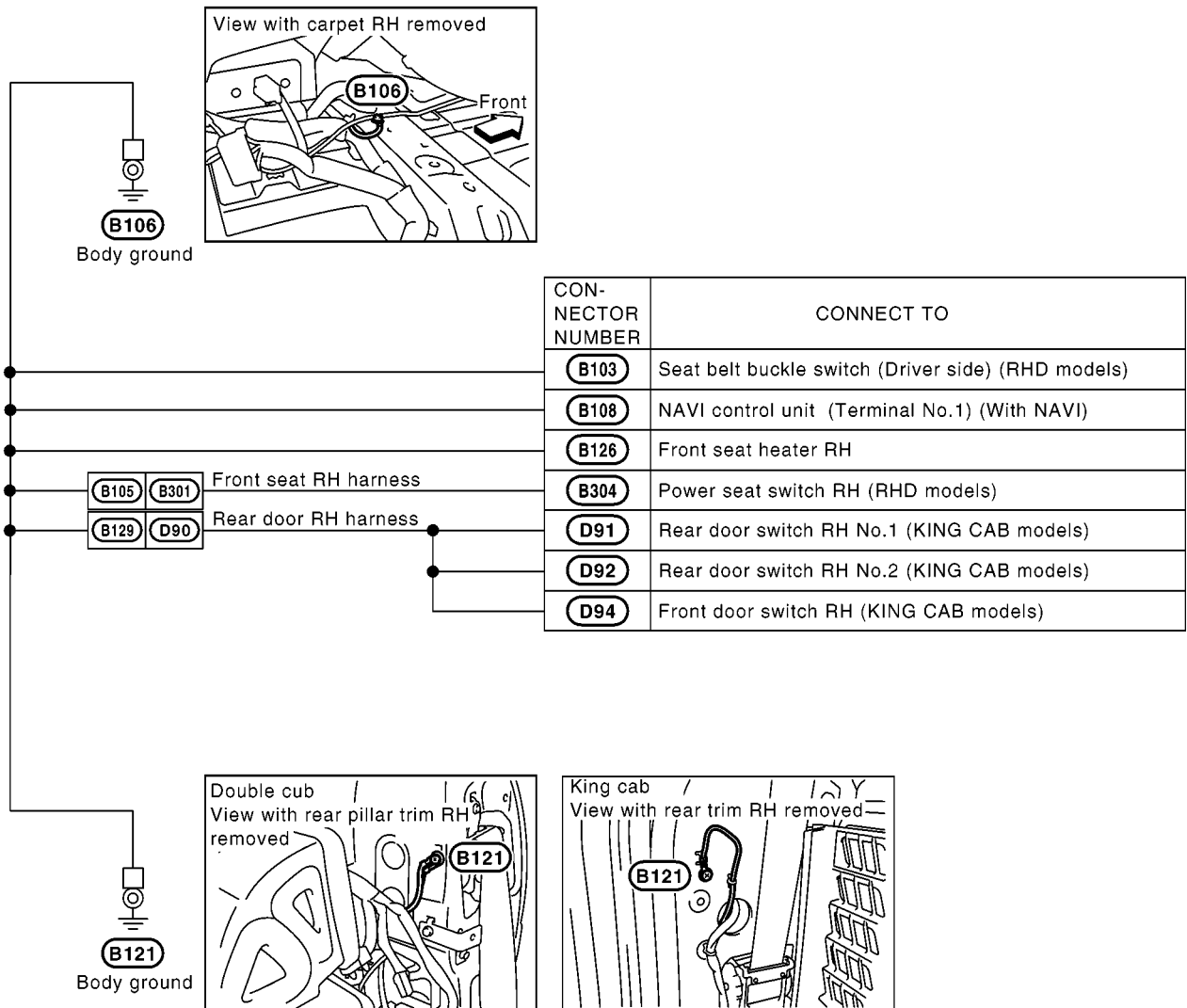
GROUND CIRCUIT

BODY HARNESS (LH SIDE)



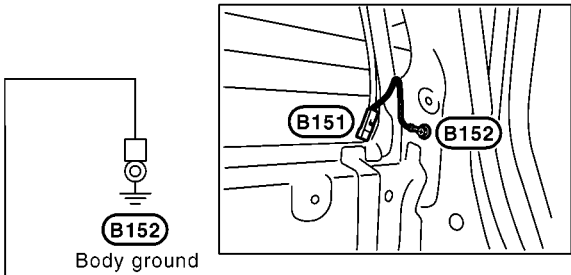
GROUND CIRCUIT

BODY HARNESS (RH SIDE)



GROUND CIRCUIT

DEFOGGER CABLE



CON-NECTOR NUMBER	CONNECT TO
B151	Rear window defogger

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HARNESS

PFP:24010

Harness Layout

EKS00LJ8

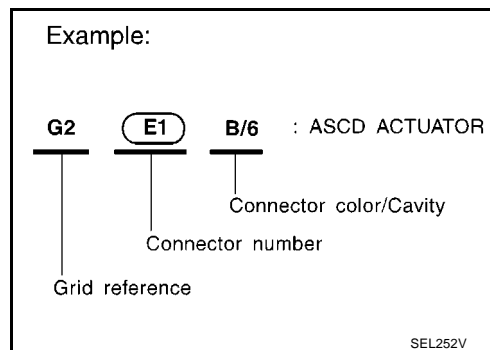
HOW TO READ HARNESS LAYOUT

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

- Main Harness
- Engine Room Harness
- Engine Control Harness
- Chassis Harness
- Body Harness
- Room Lamp Harness
- Door Harness

To use the grid reference

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



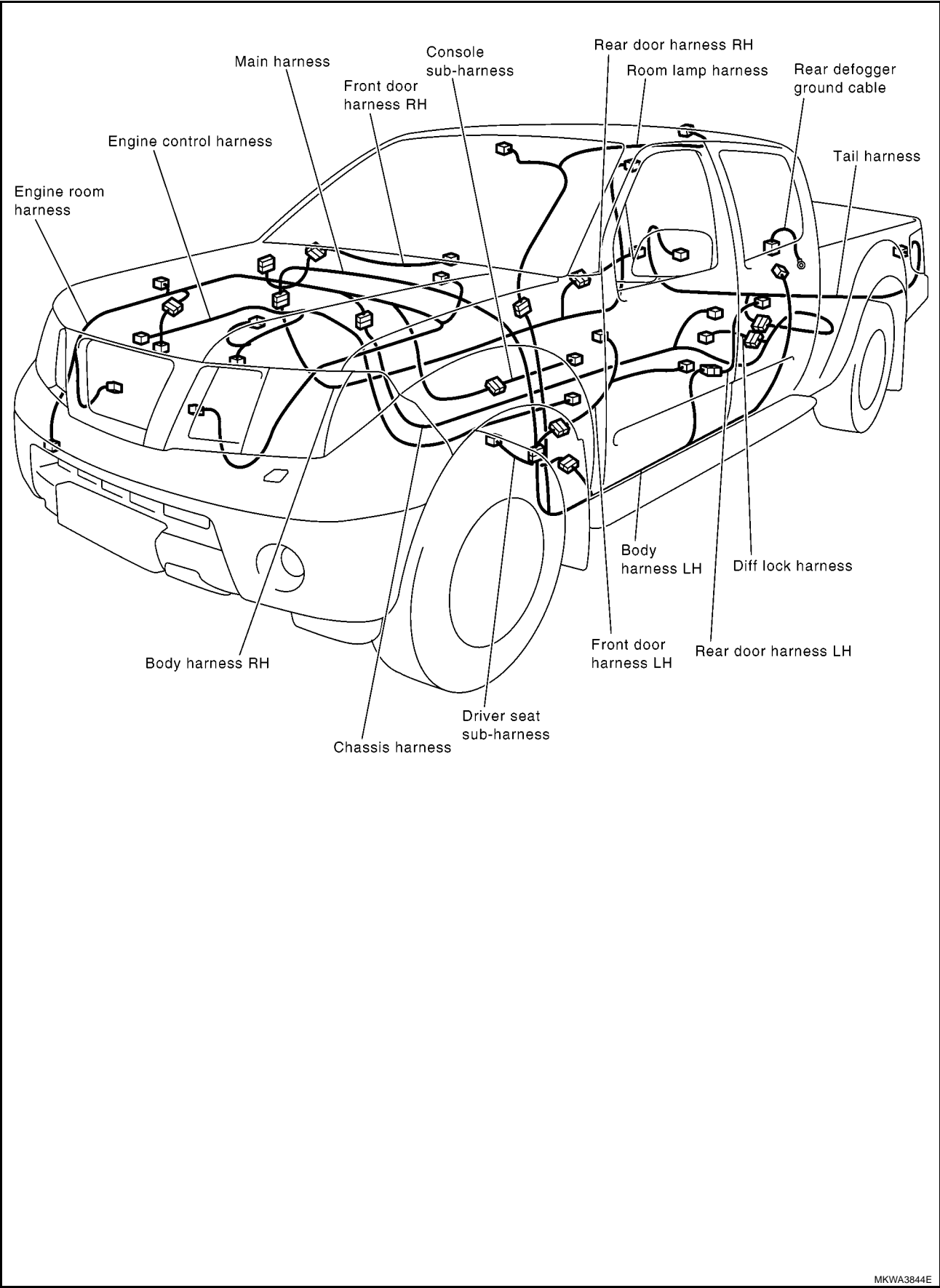
CONNECTOR SYMBOL

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

Connector type	Water proof type		Standard type	
	Male	Female	Male	Female
<ul style="list-style-type: none"> ● Cavity: Less than 4 ● Relay connector 				
<ul style="list-style-type: none"> ● Cavity: From 5 to 8 				
<ul style="list-style-type: none"> ● Cavity: More than 9 				
<ul style="list-style-type: none"> ● Ground terminal etc. 	—			

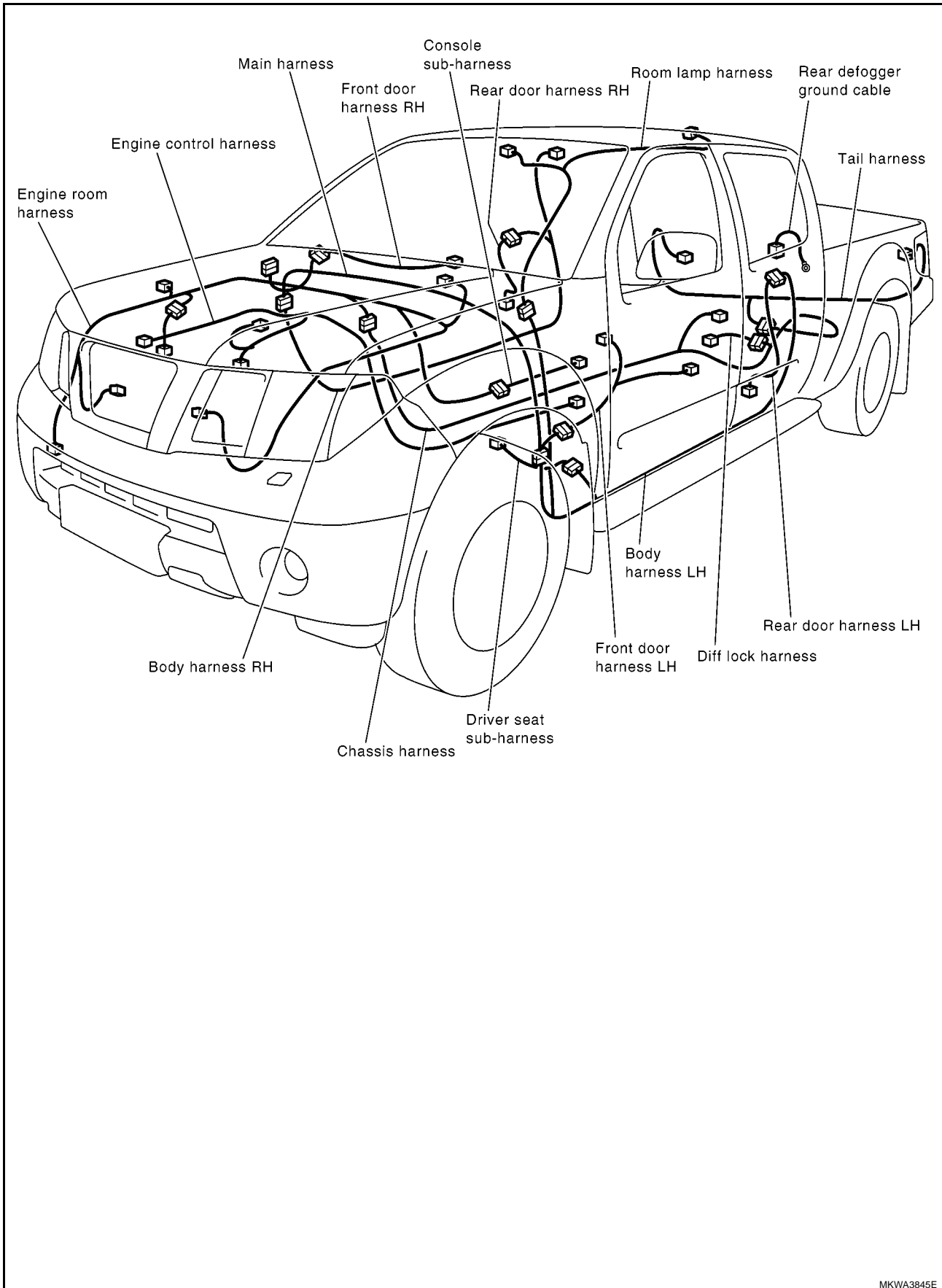
HARNESS

OUTLINE/DOUBLE CAB MODELS



HARNESS

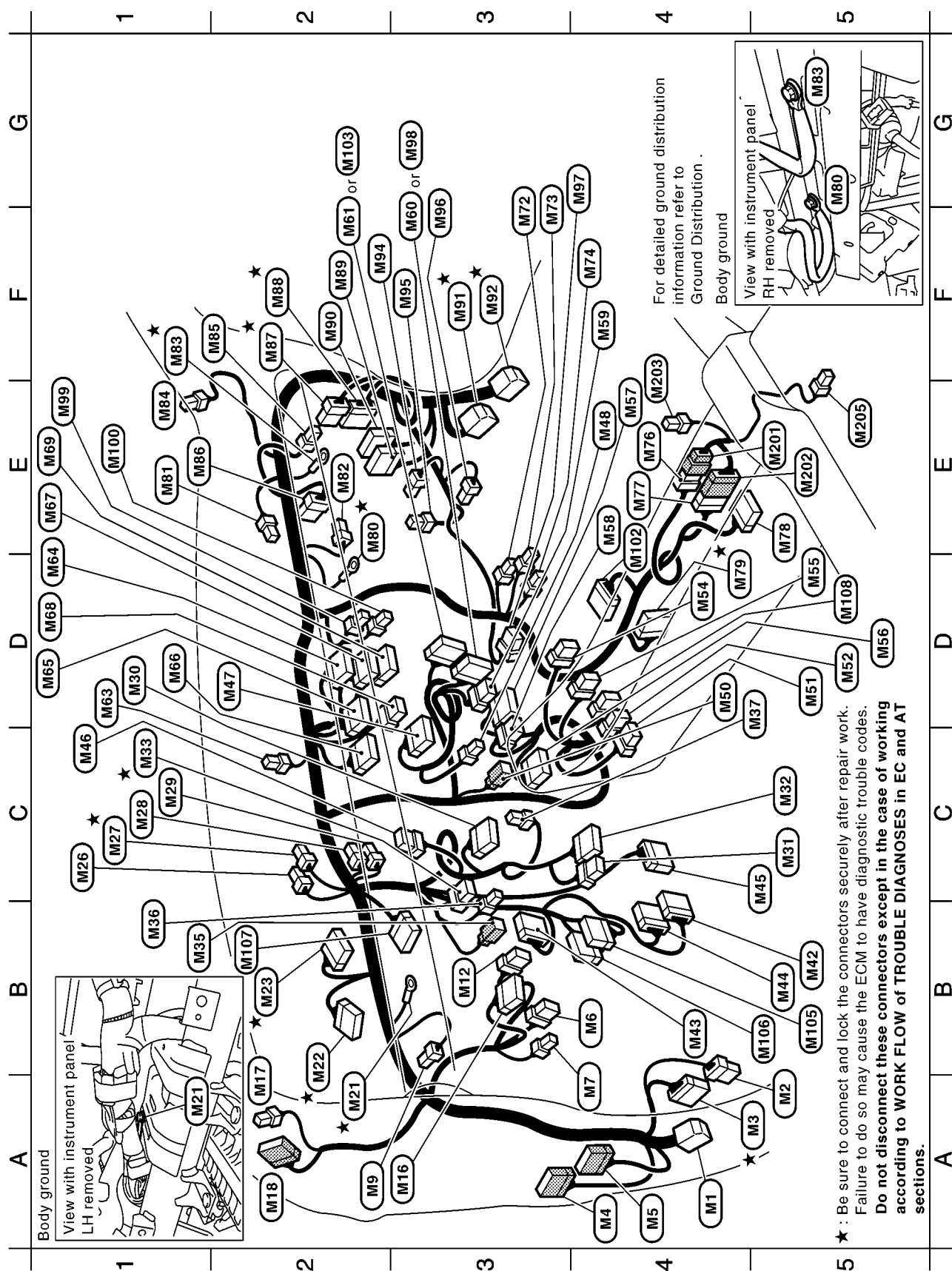
OUTLINE/KING CAB MODELS



MKWA3845E

HARNESS

MAIN HARNESS/LHD MODELS



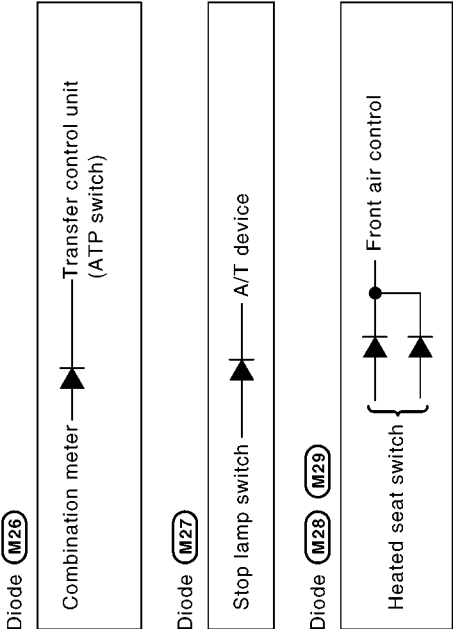
★ : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

PG-42

MKWA3847E

Console sub harness

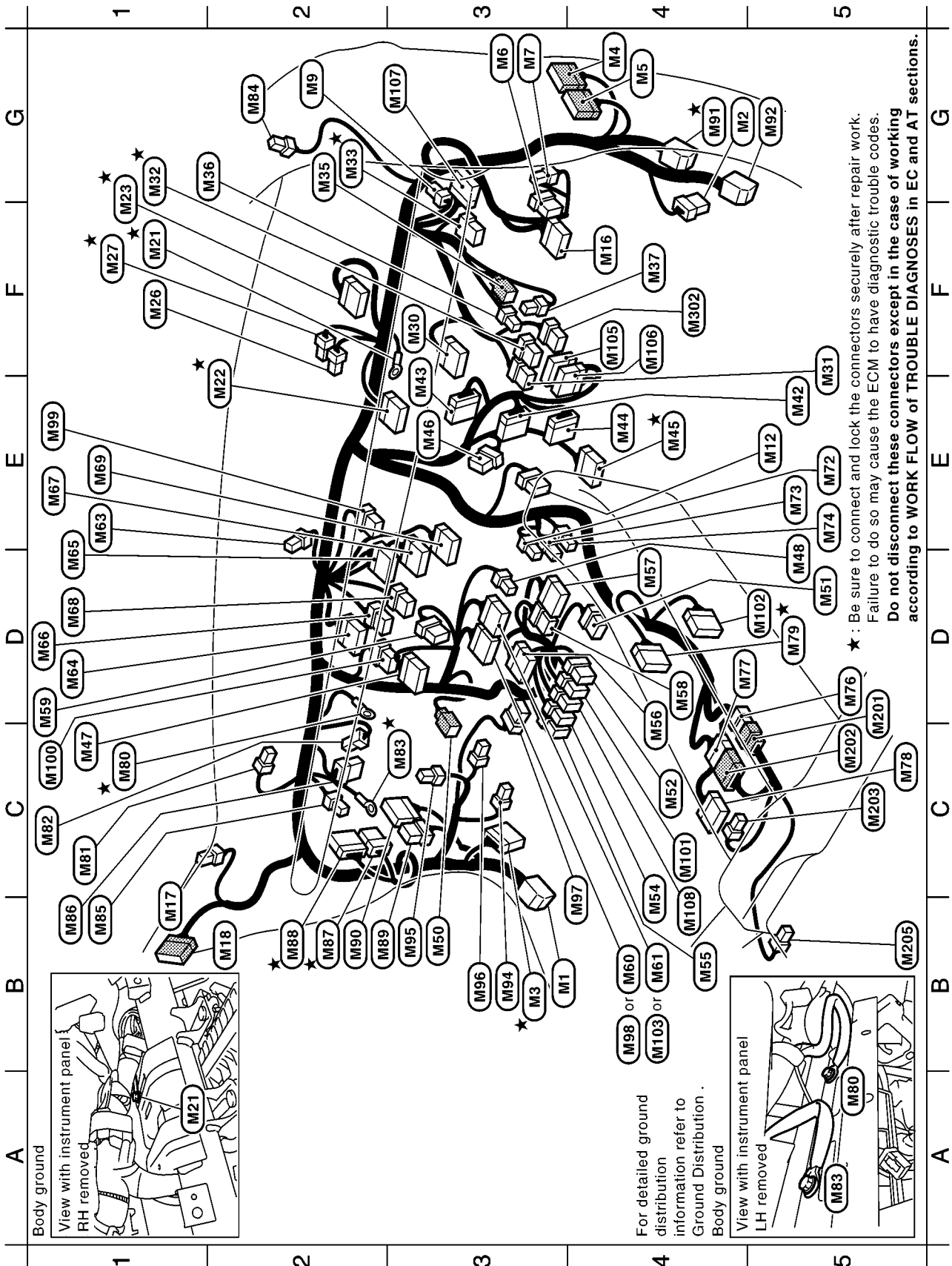
- B5 M105 W/26 : Transfer control unit
- B5 M106 W/24 : Transfer control unit
- B2 M107 B/26 : Differential lock control unit
- D5 M108 W/6 : Differential lock mode switch
- E5 M201 W/6 : To M76
- E5 M202 W/16 : To M77
- E4 M203 -/2 : Ashtray illumination
- E5 M205 -/3 : Console power socket



★ : 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, TF and AT sections.

HARNESS

MAIN HARNESS/RHD MODELS

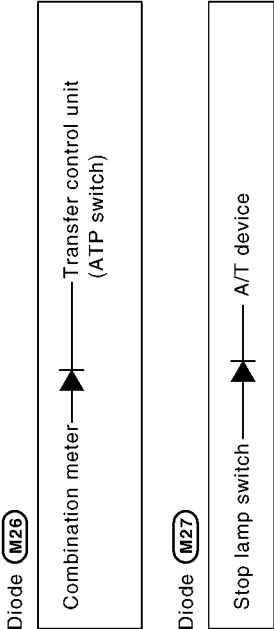


MKWA3849E

PG

Console sub harness

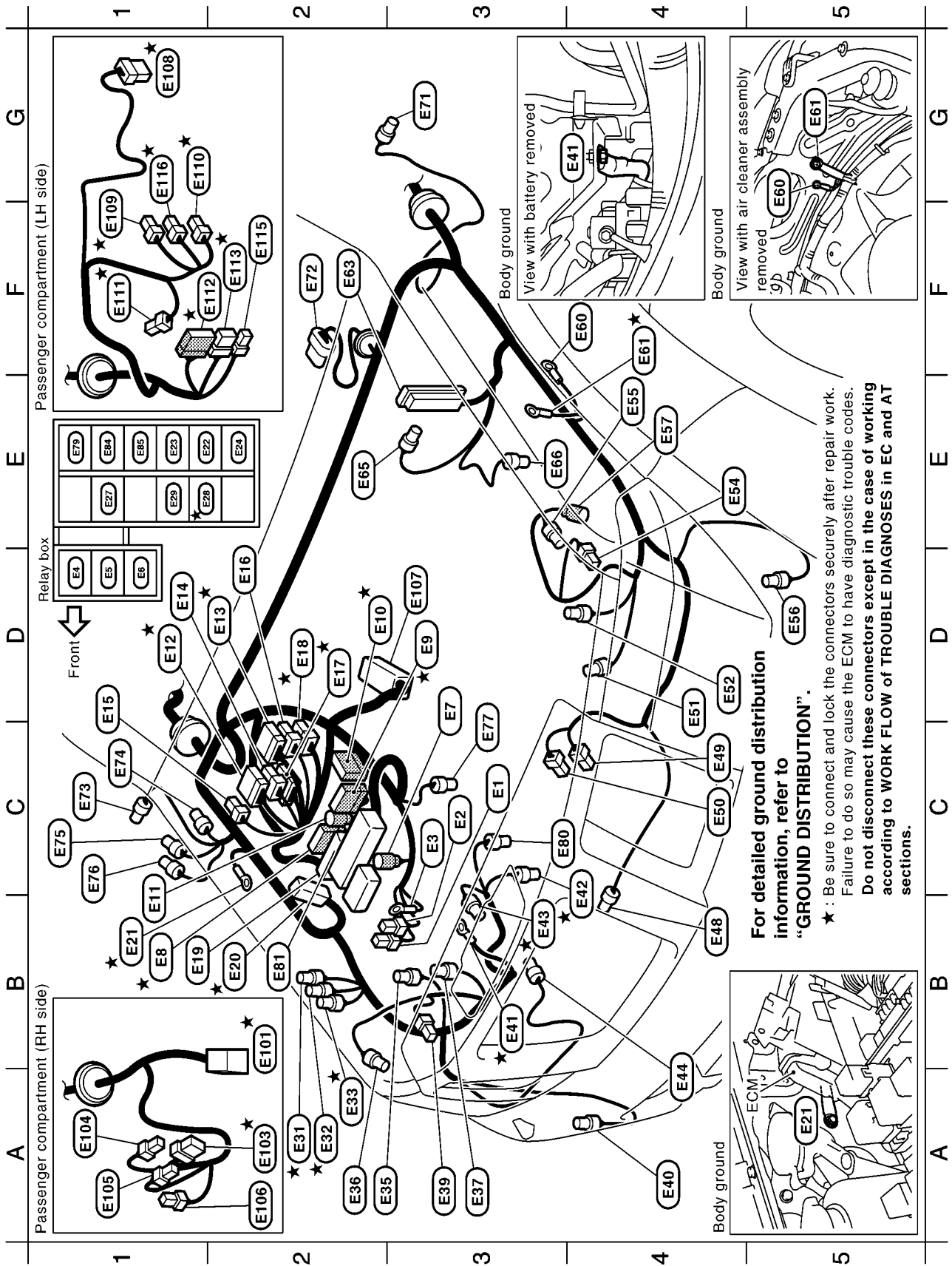
- F4 M105 W/26 : Transfer control unit
- F4 M106 W/24 : Transfer control unit
- G3 M107 B/26 : Differential lock control unit
- B4 M108 W/6 : Differential lock mode switch
- D5 M201 W/6 : To M76
- C5 M202 W/16 : To M77
- C5 M203 -/2 : Ashtray illumination
- B5 M205 -/3 : Console power socket
- F4 M302 GR/8 : Combination switch (Spiral cable)



★ : 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, TF and AT sections.

HARNESS

ENGINE ROOM HARNESS/LHD MODELS



MKWA3852E

C3	(E1)	BR/2	Fusible link holder	A3	(E35)	GR/2	Clearance lamp RH	G3	(E71)	-/2	Side turn signal lamp LH
C3	(E2)	GR/2	Fusible link holder	A2	(E36)	BR/2	Front turn signal lamp RH	F2	(E72)	GR/5	Front wiper motor
C3	(E3)	-	Fusible link holder	A3	(E37)	B/3	Head lamp aim RH	C1	(E73)	-/2	Side turn signal lamp RH
D1	(E4)	L/4	Heater relay-1	A3	(E39)	B/3	Head lamp RH	C1	(E74)	B/2	Front and rear washer motor
D1	(E5)	L/4	Heater relay-2	A4	(E40)	-/2	Front fog lamp RH	C1	(E75)	GR/2	Washer fluid level switch
D1	(E6)	L/4	Heater relay-3	B3	(E41)	-	Body ground	C1	(E76)	-/2	Head lamp washer motor
D3	(E7)	GR/1	To (F8)	C4	(E42)	GR/3	Cooling fan motor (With automatic A/C)	C3	(E77)	GR/2	Front wheel sensor RH
B1	(E8)	W/24	To (F2)	B3	(E43)	B/3	Refrigerant pressure sensor	E1	(E79)	L/4	Back-up lamp relay
D3	(E9)	W/16	To (F4)	A4	(E44)	GR/3	Turbocharger boost sensor	C3	(E80)	GR/2	Cooling fan motor (With manual A/C)
D2	(E10)	W/16	To (F5)	B4	(E48)	B/4	Ambient sensor	B2	(E81)	-/3	Horn relay
B1	(E11)	B/2	To (F3)	C4	(E49)	B/1	Horn (+)	E1	(E84)	L/4	Transfer shut off relay 1
D1	(E12)	W/16	IPDM E/R (Intelligent power distribution module engine room)	C4	(E50)	B/1	Horn (-)	E1	(E85)	L/4	Transfer shut off relay 2
D2	(E13)	BR/12	IPDM E/R (Intelligent power distribution module engine room)	D4	(E51)	W/2	Hood switch	Passenger compartment			
D1	(E14)	W/6	IPDM E/R (Intelligent power distribution module engine room)	D4	(E52)	B/3	Head lamp aim LH	B2	(E101)	SMJ	To (M91)
D1	(E15)	B/2	IPDM E/R (Intelligent power distribution module engine room)	E4	(E54)	B/3	Head lamp LH	A2	(E103)	W/8	Fuse block (J/B)
D2	(E16)	BR/8	IPDM E/R (Intelligent power distribution module engine room)	F4	(E60)	-	Body ground	A1	(E104)	B/1	Fuse block (J/B)
D2	(E17)	W/12	IPDM E/R (Intelligent power distribution module engine room)	F4	(E61)	-	Body ground	A1	(E105)	B/2	Fuse block (J/B)
D2	(E18)	B/6	IPDM E/R (Intelligent power distribution module engine room)	F2	(E63)	B/47	ABS actuator and electric unit (Control unit)	A2	(E106)	W/4	Heater
B1	(E19)	-	Fusible link holder No.2	E2	(E65)	GR/2	Brake fluid level switch	D3	(E107)	SMJ	To (C1)
B2	(E20)	B/40	ECM	E3	(E66)	GR/2	Front wheel sensor LH	G1	(E108)	B/6	Accelerator pedal position sensor
B1	(E21)	-	Body ground					F1	(E109)	W/4	Stop lamp switch (With A/T)
E1	(E22)	L/4	Head lamp washer relay					G1	(E110)	BR/2	ASCD brake switch
E1	(E23)	L/4	Daytime light relay					F1	(E111)	L/2	ASCD clutch switch
E2	(E24)	-/12	Fuse block No.2					F2	(E112)	GR/16	To (M3)
E1	(E27)	B/5	Transfer shift high relay					F2	(E113)	W/6	To (M2)
E1	(E28)	BR/6	Front blower motor relay					F2	(E115)	B/2	To (B3)
E1	(E29)	B/5	Transfer shift low relay					G1	(E116)	B/2	Stop lamp switch (With M/T)
A2	(E31)	G/2	Glow relay								
A2	(E32)	W/1	Glow relay								
A2	(E33)	W/1	Glow relay								

★ : 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, TF and AT sections.

A
B
C
D
E
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G
H
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PG

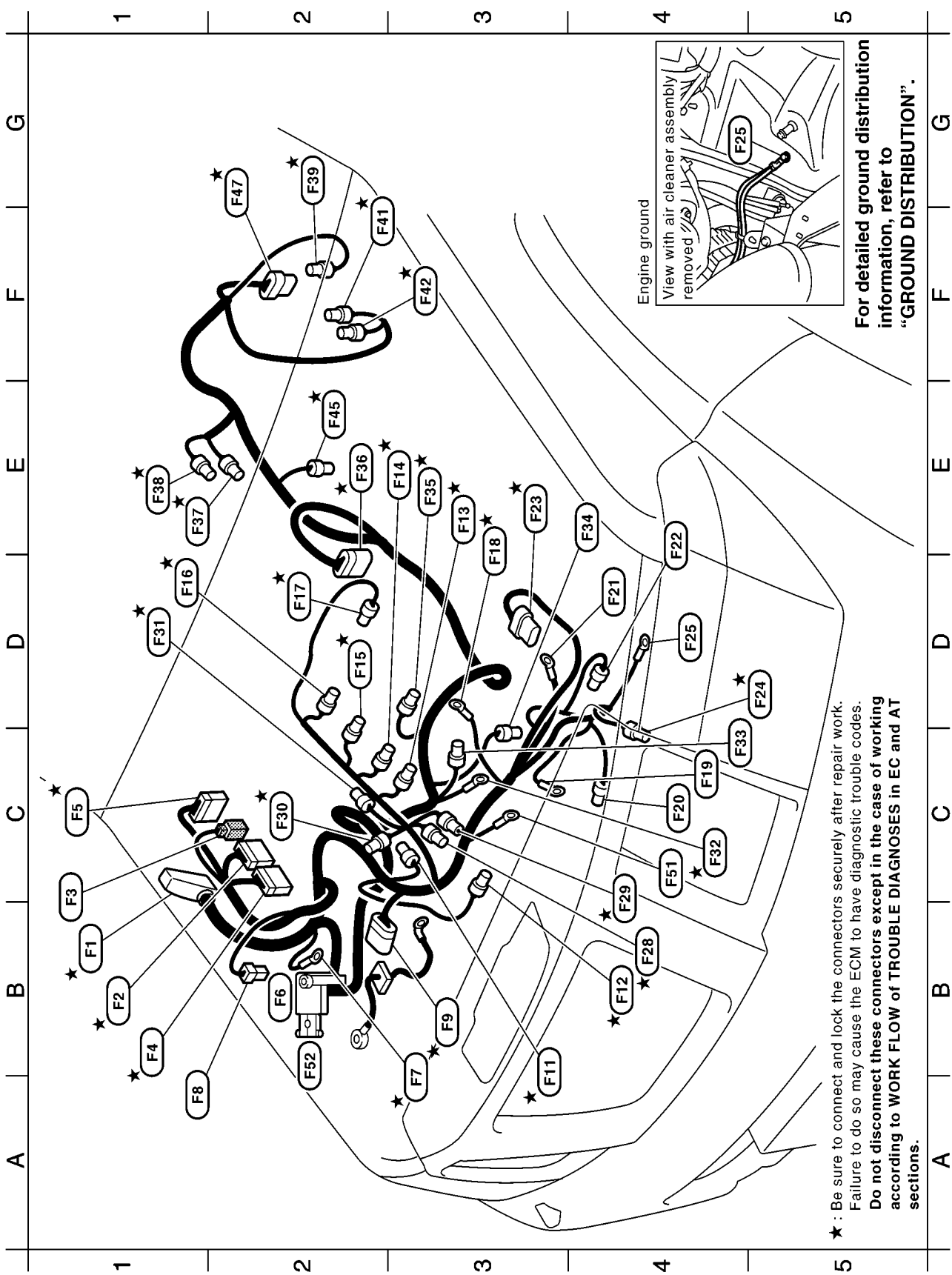


B4	(E1)	BR/2	: Fusible link holder	D4	(E39)	B/3	: Head lamp RH	A3	(E76)	−/2	: Head lamp washer motor
D3	(E2)	GR/2	: Fusible link holder	D5	(E40)	−/2	: Front fog lamp RH	D3	(E77)	GR/2	: Front wheel sensor RH
D3	(E3)	−	: Fusible link holder	D4	★(E41)	−	: Body ground	G2	(E79)	L/4	: Back-up lamp relay (With A/T)
B4	(E7)	GR/1	: To (F8)	E3	★(E42)	GR/3	: Cooling fan motor (With automatic A/C)	E4	★(E80)	GR/2	: Cooling fan motor (With manual A/C)
★B4	(E8)	W/24	: To (F2)	D3	★(E43)	B/3	: Refrigerant pressure sensor	C2	(E81)	−/3	: Horn relay
★B4	(E9)	W/16	: To (F4)	E4	★(E44)	GR/3	: Turbocharger boost sensor	G2	(E84)	L/4	: Transfer shut off relay 1
★C3	(E10)	W/16	: To (F5)	E4	(E48)	B/4	: Ambient sensor	G3	(E85)	L/4	: Transfer shut off relay 2
B4	(E11)	B/2	: To (F3)	F4	(E49)	B/1	: Horn (+)	Passenger compartment			
★D2	(E12)	W/16	: IPDM E/R (Intelligent power distribution module engine room)	E3	(E50)	B/1	: Horn (−)				
★D2	(E13)	BR/12	: IPDM E/R (Intelligent power distribution module engine room)	E3	(E51)	W/2	: Hood switch				
D1	★(E14)	W/6	: IPDM E/R (Intelligent power distribution module engine room)	F4	(E52)	B/3	: Head lamp aim LH	B1	★(E101)	SMJ	: To (M91)
D2	(E15)	B/2	: IPDM E/R (Intelligent power distribution module engine room)	G3	(E54)	B/3	: Head lamp LH	G1	★(E103)	W/8	: Fuse block (J/B)
D2	(E16)	BR/8	: IPDM E/R (Intelligent power distribution module engine room)	G2	(E55)	BR/2	: Front turn signal lamp LH	G1	(E104)	B/1	: Fuse block (J/B)
★D1	(E17)	W/12	: IPDM E/R (Intelligent power distribution module engine room)	G4	(E56)	−/2	: Front fog lamp LH	G1	(E105)	B/2	: Fuse block (J/B)
E2	★(E18)	B/6	: IPDM E/R (Intelligent power distribution module engine room)	G2	(E57)	GR/2	: Clearance lamp LH	A4	(E107)	SMJ	: To (C1)
C2	(E19)	−	: Fusible link holder No.2	F2	(E60)	−	: Body ground	B1	★(E108)	B/6	: Accelerator pedal position sensor
B3	★(E20)	B/40	: ECM	G3	★(E61)	−	: Body ground	A2	★(E109)	W/4	: Stop lamp switch (With A/T)
B3	★(E21)	−	: Body ground	F2	(E63)	B/47	: ABS actuator and electric unit (Control unit)	A1	★(E110)	BR/2	: ASCD brake switch
G3	(E22)	L/4	: Head lamp washer relay	D2	(E65)	GR/2	: Brake fluid level switch	A1	★(E111)	L/2	: ASCD clutch switch
G3	(E24)	−/12	: Fuse block No.2	E3	(E66)	GR/2	: Front wheel sensor LH	F1	★(E112)	GR/16	: To (M3)
G3	★(E27)	B/5	: Transfer shift high relay	E1	(E71)	−/2	: Side turn signal lamp LH	B1	★(E113)	W/6	: To (M2)
G3	★(E29)	B/5	: Transfer shift low relay	C2	(E72)	GR/5	: Front wiper motor	A2	★(E116)	B/2	: Stop lamp switch (With M/T)
C4	(E31)	G/2	: Glow relay	A2	(E73)	−/2	: Side turn signal lamp RH				
C4	(E32)	W/1	: Glow relay	A3	(E74)	B/2	: Front and rear washer motor				
D3	(E35)	GR/2	: Clearance lamp RH	A3	(E75)	GR/2	: Washer fluid level switch				
D5	(E37)	B/3	: Head lamp aim LH								
D5	(E38)	BR/2	: Front turn signal lamp RH								

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Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC, TF and AT sections.

ENGINE CONTROL HARNESS



MKWA3856E

★ E1 (F37)	W/2	:	Back-up lamp switch
★ E1 (F38)	B/2	:	Park/neutral position switch
★ G2 (F39)	GR/2	:	Wait detection switch
★ F2 (F41)	B/2	:	ATP switch
★ F3 (F42)	GR/2	:	Neutral-4LO switch
★ E2 (F45)	GR/3	:	Front revolution sensor
★ G2 (F47)	B/8	:	Transfer control device (Actuator motor)

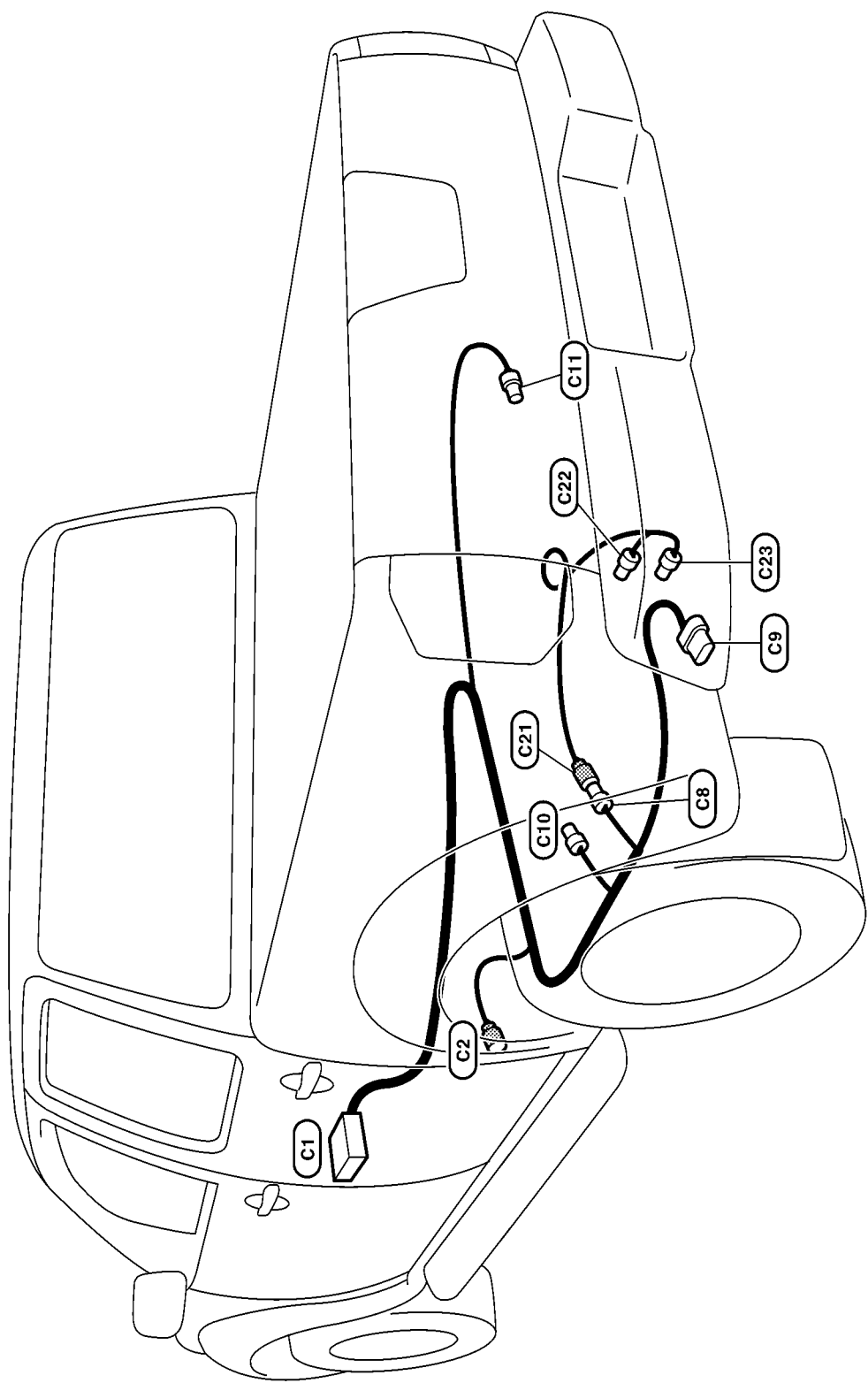
Sub harness

C4 (F51)	B/1	:	Starter motor
B2 (F52)	-/1	:	Fusible link holder

★ B1 (F1)	B/81	:	ECM
★ B1 (F2)	W/24	:	To (E8)
C1 (F3)	B/2	:	To (E11)
★ B1 (F4)	W/16	:	To (E9)
★ C1 (F5)	W/16	:	To (E10)
B2 (F6)	-	:	Fusible link holder
★ B3 (F7)	-	:	Body ground (With AT)
A1 (F8)	GR/1	:	To (E7)
★ B3 (F9)	GR/6	:	EGR volume control valve
B3 (F11)	-/3	:	Fuel rail pressure sensor
★ B4 (F12)	GR/2	:	Engine coolant temperature sensor
★ E3 (F13)	LGR/2	:	Fuel injector No. 1
★ E3 (F14)	LGR/2	:	Fuel injector No. 3
★ D2 (F15)	LGR/2	:	Fuel injector No. 4
★ D1 (F16)	LGR/2	:	Fuel injector No. 2
★ D2 (F17)	B/3	:	Camshaft position sensor
★ E3 (F18)	-	:	Glow plug
C4 (F19)	-/1	:	Alternator
C4 (F20)	B/1	:	Compressor
D4 (F21)	-/1	:	Alternator (B)
E4 (F22)	B/3	:	Alternator
★ E3 (F23)	B/6	:	Mass air flow sensor
★ D5 (F24)	B/2	:	Turbocharger boost control solenoid valve
D4 (F25)	-	:	Body ground
B4 (F28)	-/2	:	Fuel pump
★ C4 (F29)	-/2	:	Fuel pump temperature sensor
★ C2 (F30)	G/2	:	Electronic controlled engine mount control solenoid valve
★ D1 (F31)	B/2	:	Intake air control valve control solenoid valve
C4 (F32)	B/1	:	Starter motor
C4 (F33)	B/1	:	Oil pressure switch
E4 (F34)	SB/3	:	Oil level sensor
★ E3 (F35)	B/3	:	Crankshaft position sensor
★ E2 (F36)	G/10	:	A/T assembly

★ : 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, TF and AT sections.

CHASSIS HARNESS



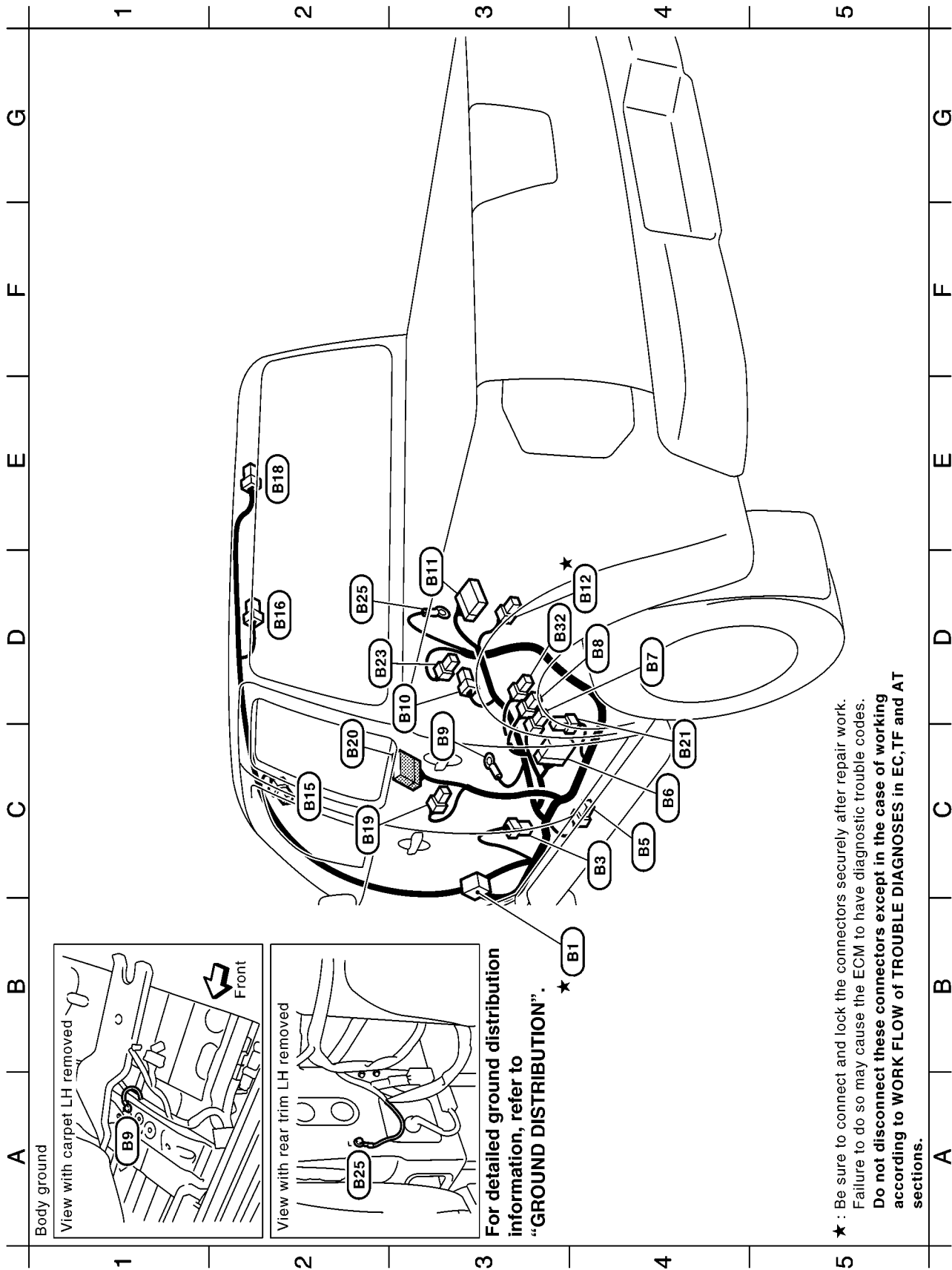
★ : Be sure to connect and lock the connectors securely after repair work.
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Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC,TF and AT sections.

- C11 GR/2 : Rear wheel sensor RH
- C21 GR/4 : To C8
- C22 GR/2 : Differential lock position switch
- C23 B/2 : Differential lock solenoid

- C1 SMJ : To E107
- C2 GR/2 : Fuel level sensor unit
- C8 GR/4 : To C21
- C9 GR/8 : To T1
- C10 GR/2 : Rear wheel sensor LH

HARNESS

BODY HARNESS (LH SIDE)/DOUBLE CAB MODELS



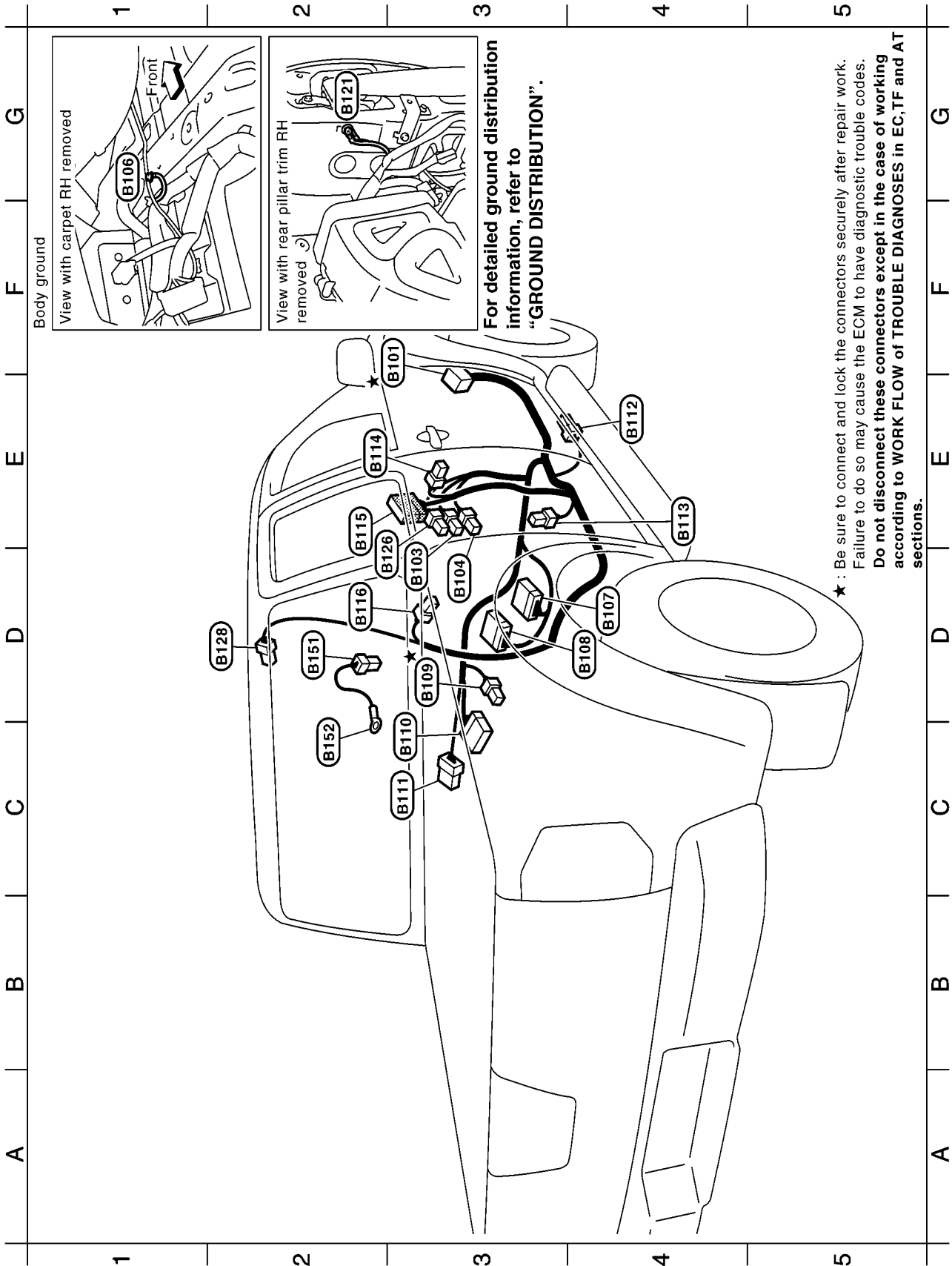
MKWA3859E

B4	B1	SMJ	:	To	M1
C4	B3	B/2	:	To	E115
C4	B5	Y/2	:	LH side air bag sensor (Satellite sensor)	
C4	B6	W/16	:	To	B201
D4	B7	Y/2	:	Front LH side air bag module	
D4	B8	W/3	:	Seat belt buckle switch LH	
C3	B9	—	:	Body ground	
D3	B10	Y/3	:	To	B111
D3	B11	Y/12	:	Air bag diagnosis sensor unit	
D4	B12	B/1	:	Parking brake switch (LHD models)	
C2	B15	Y/2	:	LH side front curtain air bag module	
D2	B16	GR/10	:	Sunroof motor assembly	
E2	B18	Y/2	:	RH side front curtain air bag module	
C2	B19	W/3	:	Front door switch LH	
C2	B20	W/12	:	To	D61
C4	B21	Y/2	:	Front LH seat belt pre-tensioner	
D2	B23	W/3	:	Rear door switch LH	
D2	B25	—	:	Body ground	
D3	B32	W/3	:	Front seat heater LH	

★ : Be sure to connect and lock the connectors securely after repair work.
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HARNESS

BODY HARNESS (RH SIDE)/DOUBLE CAB MODELS



MKWA3861E

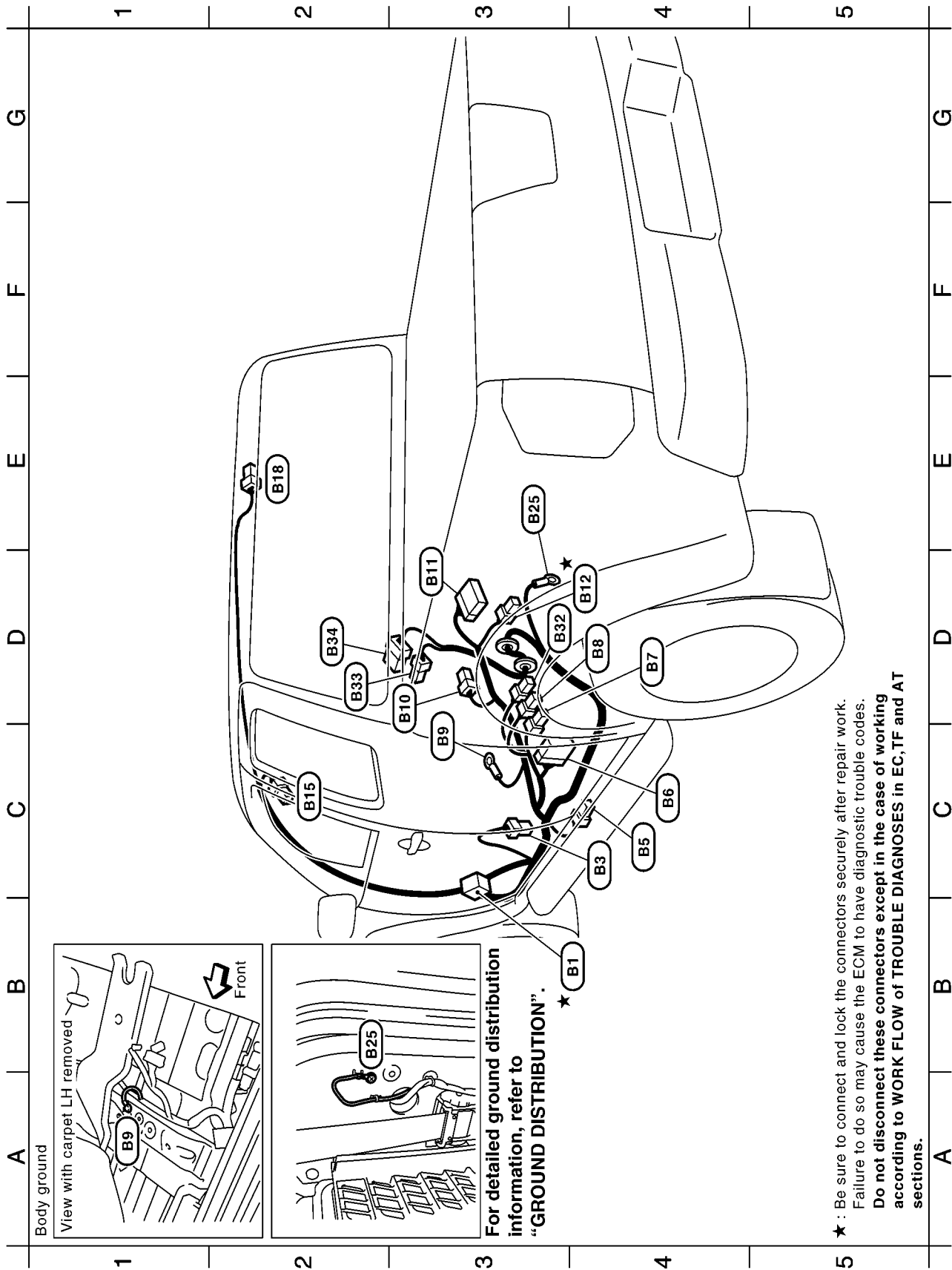
Body harness RH

F3	★	B101	SMJ	:	To	M92
D3		B103	W/3	:	Seat belt buckle switch RH	
D3		B104	Y/2	:	Front RH side air bag module	
D4		B107	W/32	:	NAVI control unit	
D4		B108	W/40	:	NAVI control unit	
D3		B109	B/1	:	Parking brake switch (RHD models)	
C3		B110	Y/12	:	Air bag diagnosis sensor unit	
C3		B111	Y/2	:	To	B10
E4	★	B112	Y/2	:	RH side air bag sensor (satellite sensor)	
E4		B113	Y/2	:	Front RH seat belt pre-tensioner RH	
E2		B114	W/3	:	Front door switch RH	
E2		B115	W/12	:	To	D81
D2		B116	W/3	:	Rear door switch RH	
E3		B126	W/3	:	Front seat heater RH	
D2		B128	B/1	:	Rear window defogger (+)	
D2		B151	B/1	:	Rear window defogger (–)	
C2		B152	–	:	Body ground	

★ : 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, TF and AT sections.

HARNESS

BODY HARNESS (LH SIDE)/KING CAB MODELS



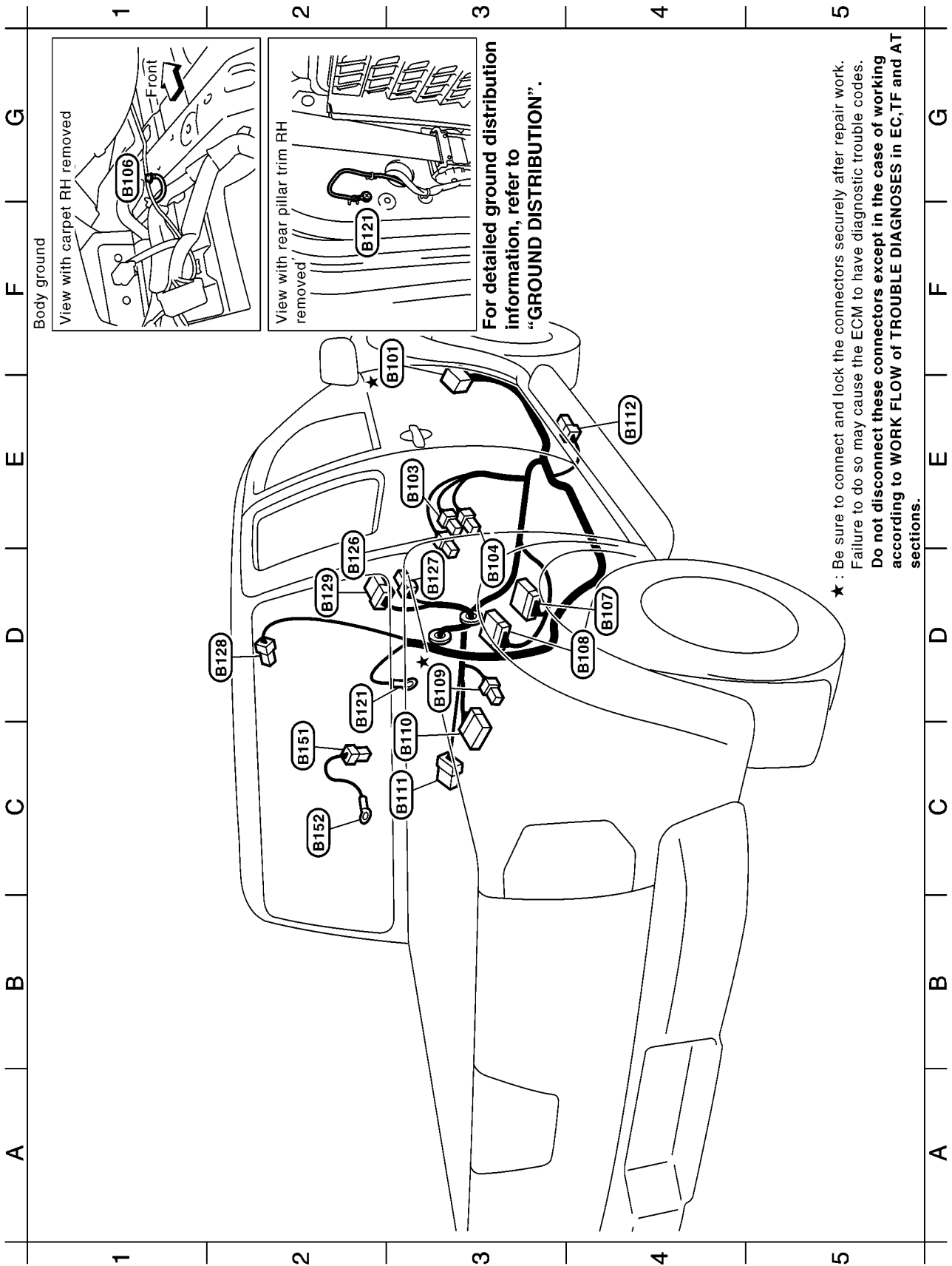
MKWA3863E

★ B4	B1	SMJ	:	To	M1
C4	B3	B/2	:	To	E115
C4	B5	Y/2	:	LH side air bag sensor (Satellite sensor)	
C4	B6	W/16	:	To	B201
D4	B7	Y/2	:	Front LH side air bag module	
D4	B8	W/3	:	Seat belt buckle switch LH	
C3	B9	-	:	Body ground	
D3	B10	Y/3	:	To	B111
D3	B11	Y/12	:	Air bag diagnosis sensor unit	
★ D4	B12	B/1	:	Parking brake switch (LHD models)	
C2	B15	Y/2	:	LH side front curtain air bag module	
E2	B18	Y/2	:	RH side front curtain air bag module	
E3	B25	-	:	Body ground	
D3	B32	W/3	:	Front seat heater LH	
D2	B33	W/2	:	Rear door speaker LH	
D2	B34	W/8	:	To	D70

★ : Be sure to connect and lock the connectors securely after repair work.
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HARNESS

BODY HARNESS (RH SIDE)/KING CAB MODELS



MKWA3865E

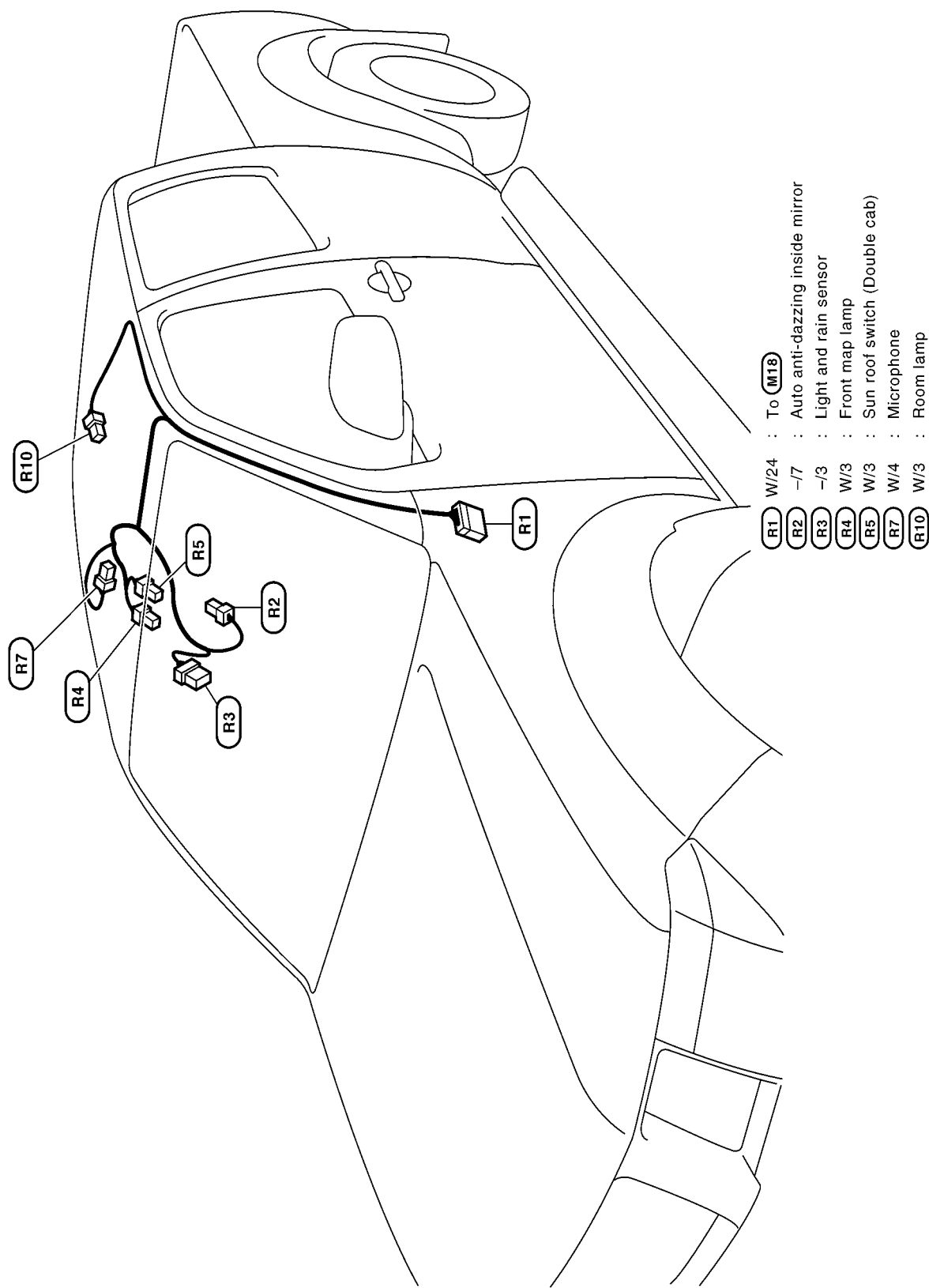
Body harness RH

F3	★	B101	SMJ	:	To	M92
E2		B103	W/3	:	Seat belt buckle switch RH	
D3		B104	Y/2	:	Front RH side air bag module	
D4		B107	W/32	:	NAVI control unit	
D4		B108	W/40	:	NAVI control unit	
D3		B109	B/1	:	Parking brake switch (RHD models)	
C3		B110	Y/12	:	Air bag diagnosis sensor unit	
C3		B111	Y/2	:	To	B10
E4	★	B112	Y/2	:	RH side air bag sensor (satellite sensor)	
D2		B121	–	:	Body ground	
D2		B126	W/3	:	Front seat heater RH	
D3		B127	W/2	:	Rear door speaker RH	
D2		B128	B/1	:	Rear window defogger (+)	
D2		B129	W/8	:	To	D90
C2		B151	B/1	:	Rear window defogger (–)	
C2		B152	–	:	Body ground	

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HARNESS

ROOM LAMP HARNESS

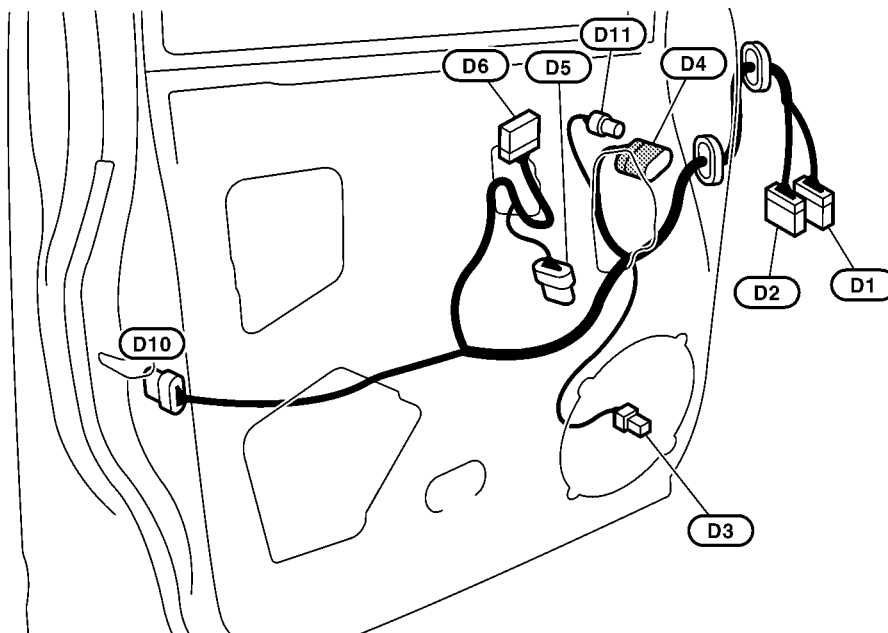


MKWA3867E

HARNESS

FRONT DOOR LH HARNESS/LHD MODELS

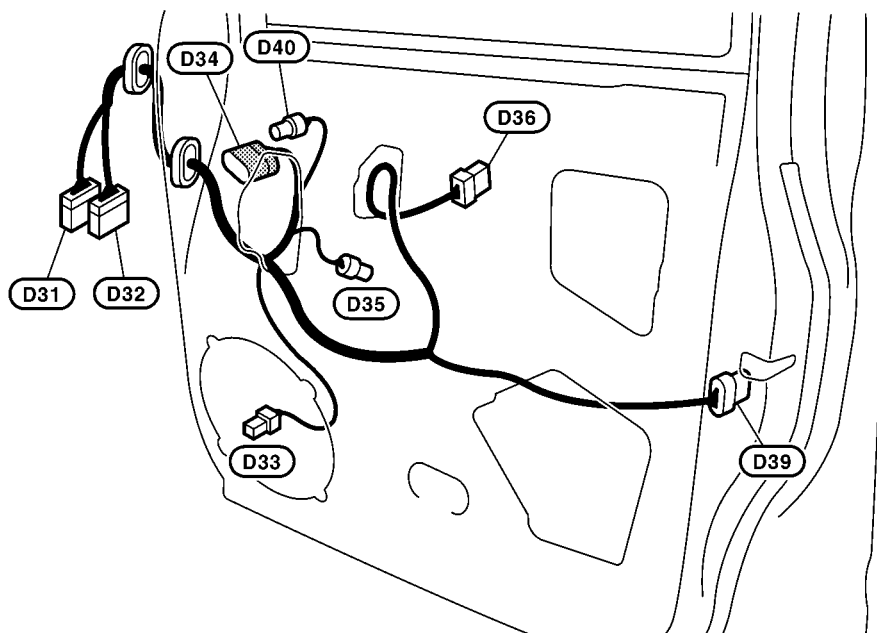
- | | | | | | |
|-----------|---|---|-----------|---|---|
| (D1) W/16 | : | To (M4) | (D6) W/16 | : | Power window main switch |
| (D2) W/24 | : | To (M5) | (D10) B/6 | : | Front door lock actuator (Driver side) |
| (D3) W/2 | : | Front door speaker LH | (D11) B/3 | : | Door mirror LH (Without door mirror defogger) |
| (D4) B/12 | : | Door mirror (Driver side) | | | |
| (D5) -/6 | : | Front power window motor and control unit (Driver side) | | | |



MKWA3868E

FRONT DOOR RH HARNESS/LHD MODELS

- | | | | | | |
|------------|---|------------------------------|-----------|---|---|
| (D31) W/16 | : | To (M89) | (D35) -/2 | : | Front power window motor (Passenger side) |
| (D32) W/16 | : | To (M90) | (D36) W/8 | : | Front power window switch (Passenger side) |
| (D33) W/2 | : | Front door speaker RH | (D39) B/6 | : | Front door lock actuator (Passenger side) |
| (D34) B/12 | : | Door mirror (Passenger side) | (D40) B/3 | : | Door mirror RH (Without door mirror defogger) |

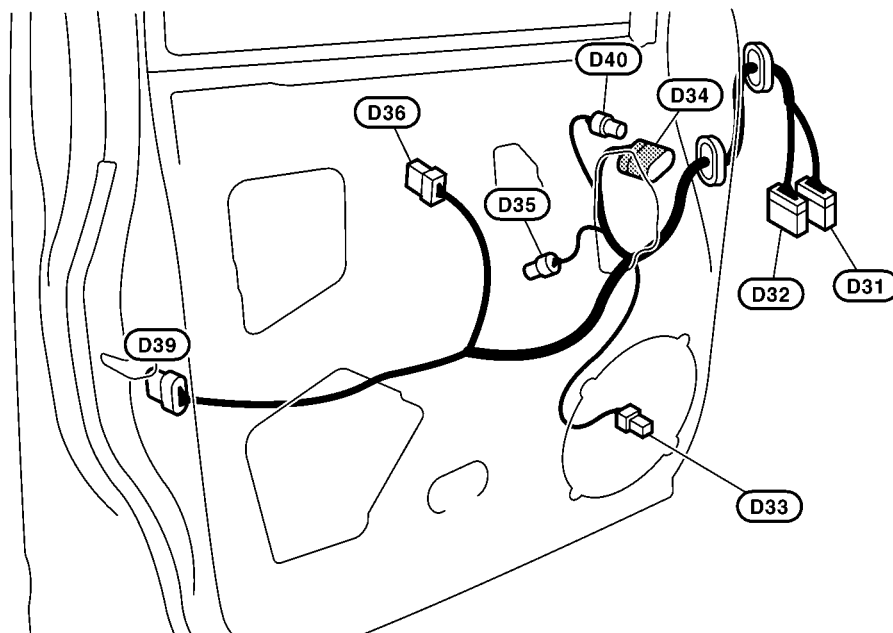


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HARNESS

FRONT DOOR LH HARNESS/RHD MODELS

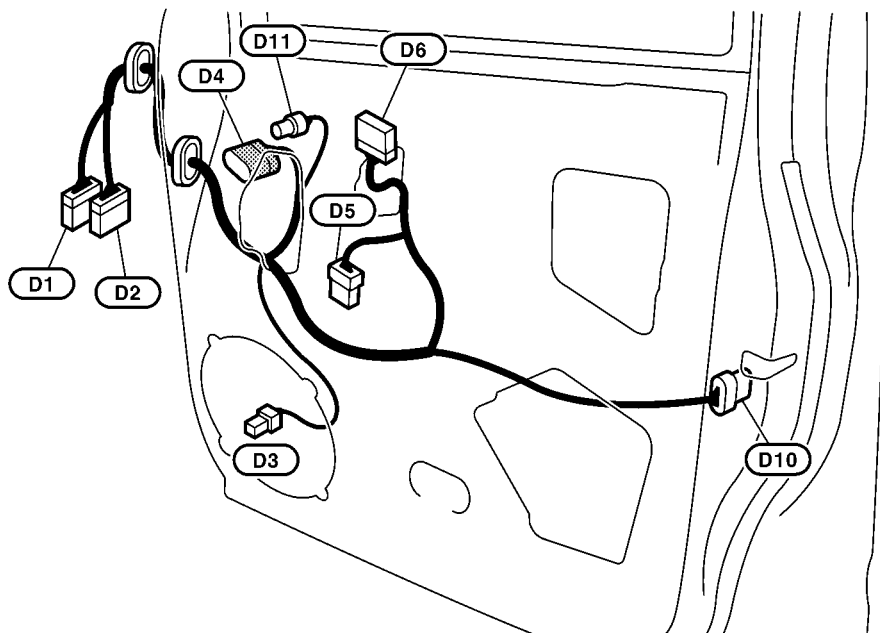
D31 W/16	: To M89	D36 W/8	: Front power window switch (Passenger side)
D32 W/16	: To M90	D39 B/6	: Front door lock actuator (Passenger side)
D33 W/2	: Front door speaker LH	D40 B/3	: Door mirror LH (Without door mirror defogger)
D34 B/12	: Door mirror (Passenger side)		
D35 -/2	: Front power window motor RH		



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FRONT DOOR RH HARNESS/RHD MODELS

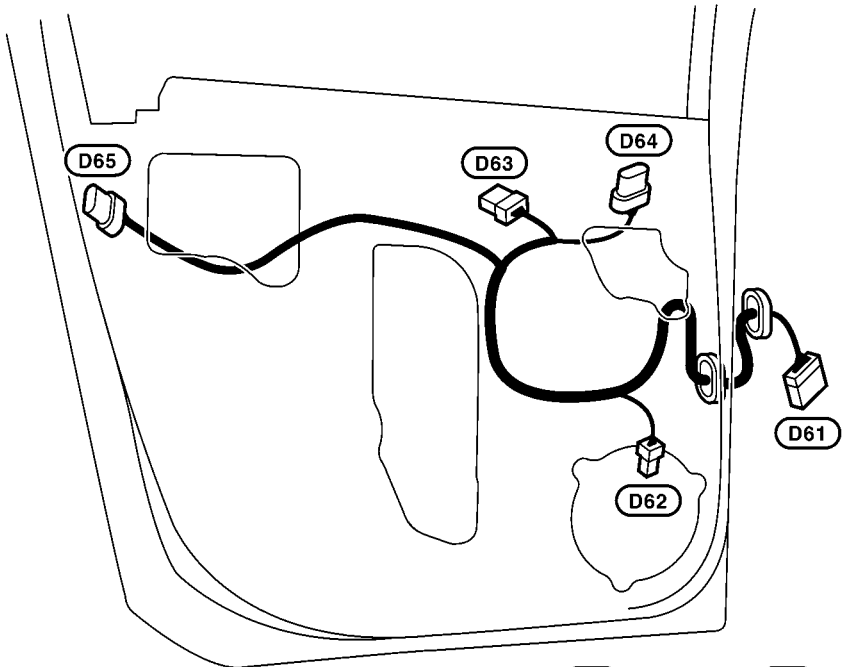
D1 W/16	: To M4	D5 -/6	: Front power window motor and control unit (Driver side)
D2 W/24	: To M5	D6 W/16	: Power window main switch
D3 W/2	: Front door speaker RH	D10 B/6	: Front door lock actuator (Driver side)
D4 B/12	: Door mirror (Driver side)	D11 B/3	: Door mirror RH (Without door mirror defogger)



MKWA3871E

HARNESS

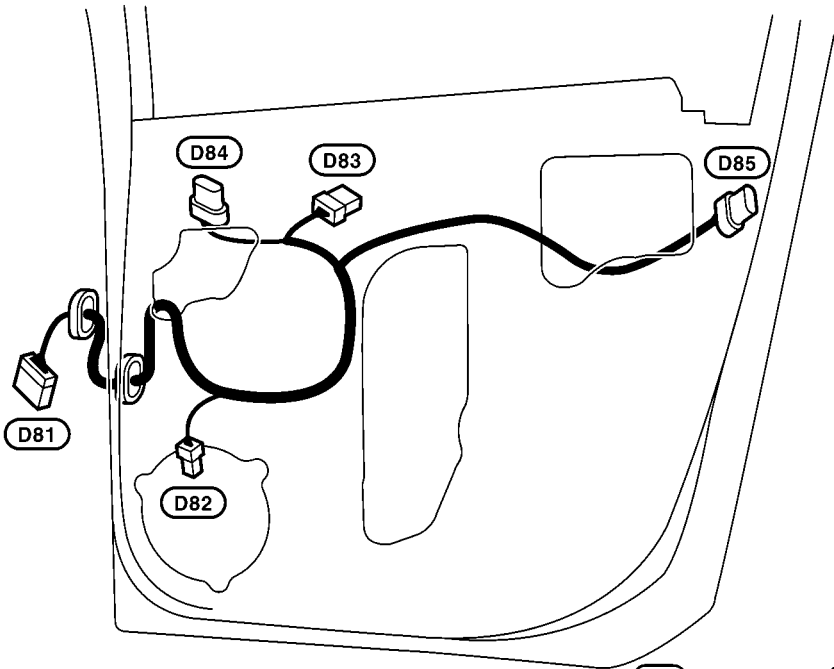
REAR DOOR LH HARNESS/DOUBLE CAB MODELS



- (D61) W/12 : To (B20)
- (D62) W/2 : Rear door speaker LH
- (D63) -/2 : Rear door window motor LH
- (D64) W/8 : Rear power window switch LH
- (D65) B/6 : Rear door actuator LH

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REAR DOOR RH HARNESS/DOUBLE CAB MODELS

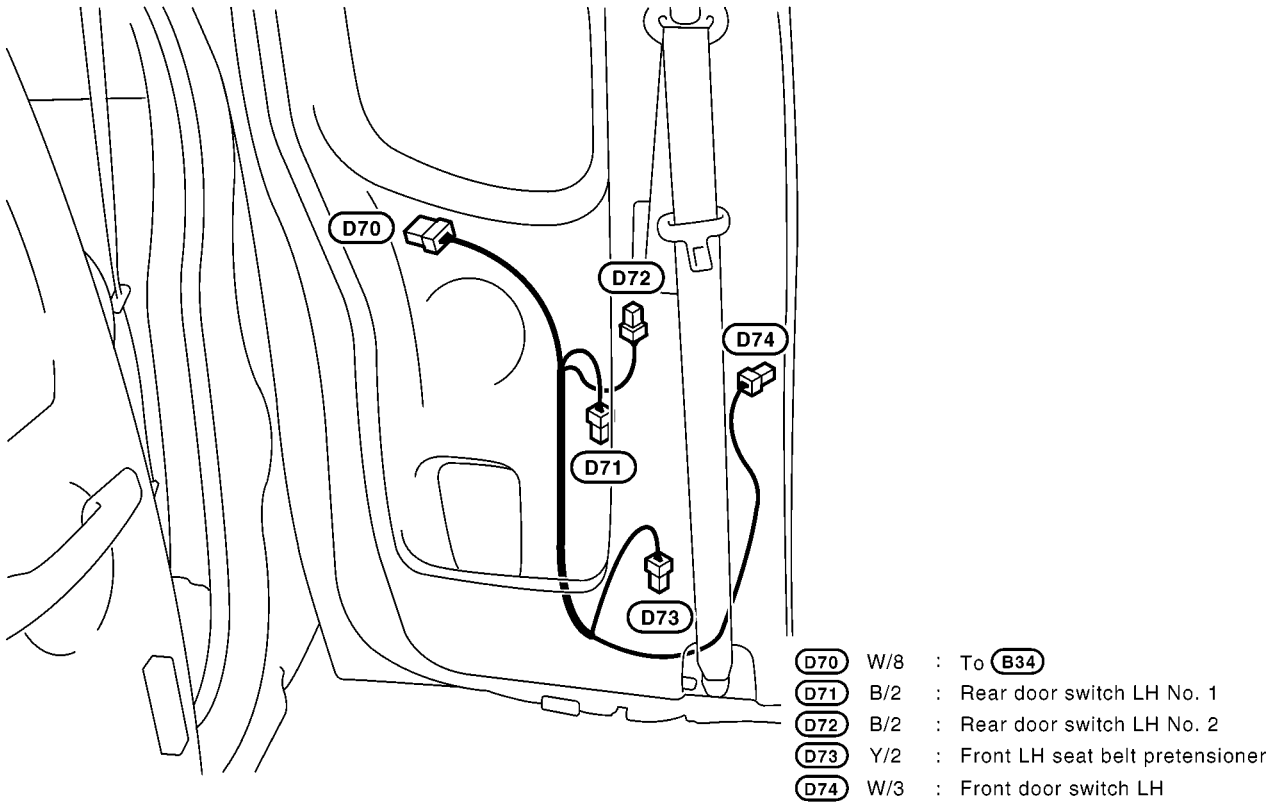


- (D81) W/12 : To (B115)
- (D82) W/2 : Rear door speaker RH
- (D83) -/2 : Rear power window motor RH
- (D84) W/8 : Rear power window switch RH
- (D85) B/6 : Rear door lock actuator RH

MKWA3873E

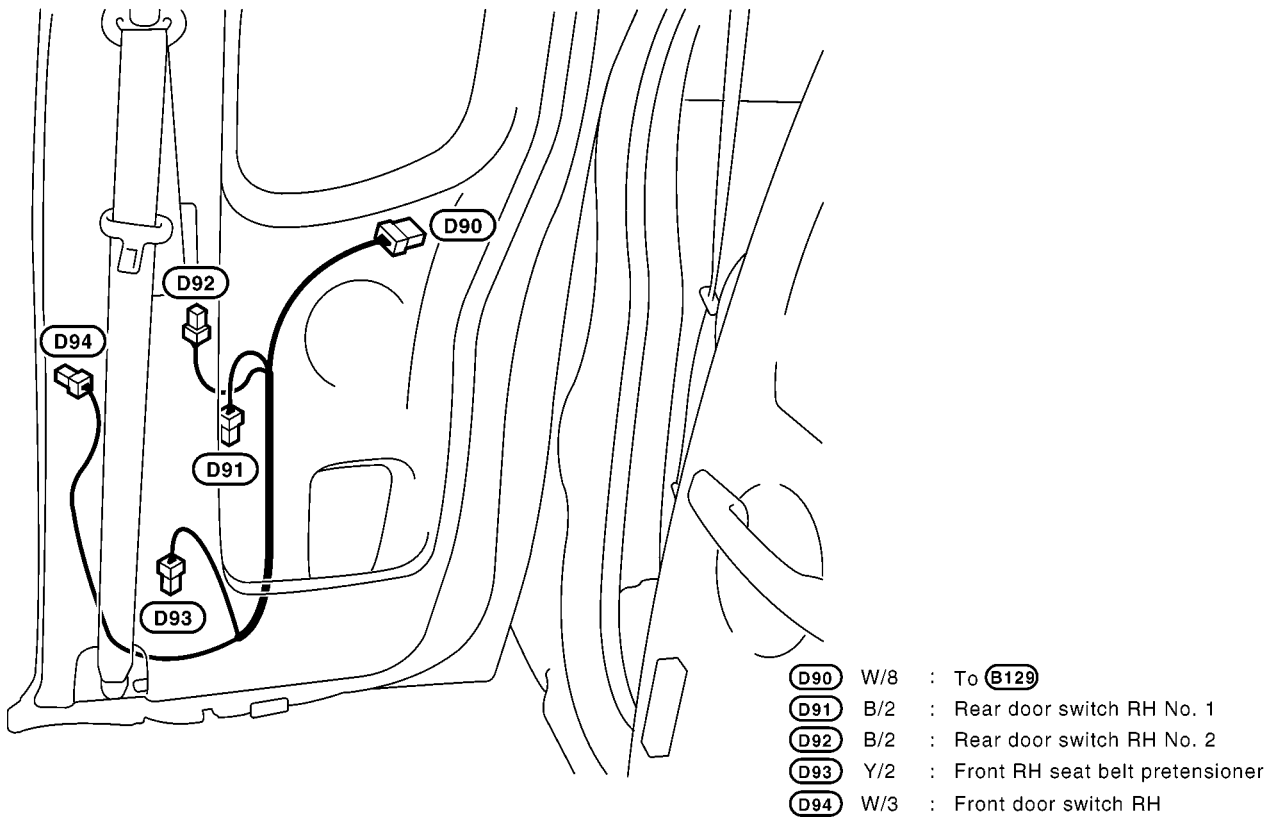
HARNESS

REAR DOOR LH HARNESS/KING CAB MODELS



MKWA3874E

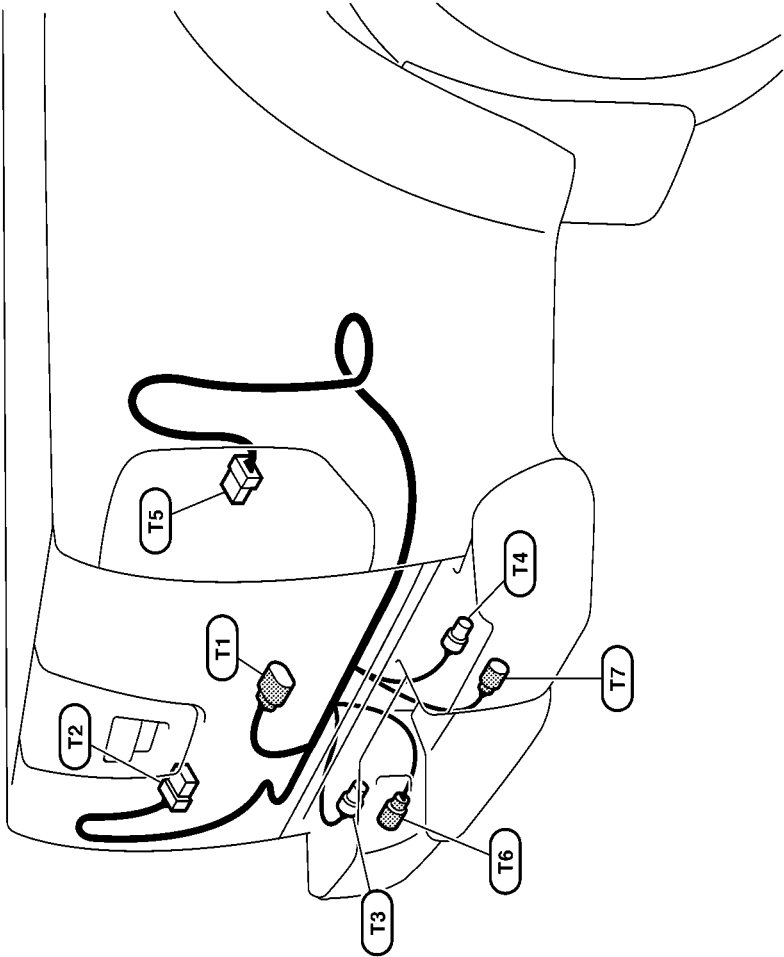
REAR DOOR RH HARNESS/KING CAB MODELS



MKWA3875E

TAIL HARNESS

- | | | | | |
|----|------|---|---|----|
| T1 | GR/8 | : | To | C9 |
| T2 | GR/6 | : | Rear combination lamp LH | |
| T3 | GR/2 | : | License plate lamp LH (Without step bumper) | |
| T4 | GR/2 | : | License plate lamp RH (Without step bumper) | |
| T5 | GR/6 | : | Rear combination lamp RH | |
| T6 | GR/2 | : | License plate lamp LH (With step bumper) | |
| T7 | GR/2 | : | License plate lamp RH (With step bumper) | |



HARNESS

Wiring Diagram Codes (Cell Codes)

EKS00LJ9

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,A	ATC	Auto Air Conditioner
A/C,M	MTC	Manual Air Conditioner
ABS	BRC	Anti-lock Brake System
APP1PW	EC	Accelerator Pedal Position Sensor 1 Power
APP2PW	EC	Accelerator Pedal Position Sensor 2 Power
APPS1	EC	Accelerator Pedal Position Sensor 1
APPS2	EC	Accelerator Pedal Position Sensor 2
APPS3	EC	Accelerator Pedal Position Sensor
ASC/BS	EC	ASCD Brake Switch
ASC/SW	EC	ASCD Steering Switch
ASCBOF	EC	ASCD Brake Switch
ASCIND	EC	ASCD Indicator
AT/IND	DI	A/T Indicator Lamp
AUDIO	AV	Audio
AUTO/L	LT	Auto Light System
BACK/L	LT	Back-up Lamp
BOOST	EC	Turbocharger Boost Sensor
CAN	AT	CAN Communication Line
CAN	EC	CAN Communication Line
CAN	LAN	CAN System
CHARGE	SC	Charging System
CHIME	DI	Warning Chime
CIGER	WW	Cigarette Lighter
CKPS	EC	Crankshaft Position Sensor
CMPS	EC	Camshaft Position Sensor
COMBSW	LT	Combination Switch
COMM	AV	Audio Visual Communication Line
COMPAS	DI	Compass
COOL/F	EC	Cooling Fan Control
D/LOCK	BL	Power Door Lock
DIFLOC	RFD	Rear Final Drive
DEF	GW	Rear Window Defogger
DTRL	LT	Headlamp — With Daytime Running Light System
ECMRLY	EC	ECM Relay
ECTS	EC	Engine Coolant Temperature Sensor
EGRVLV	EC	EGR Volume Control System
EMNT	EC	Electronic Controlled Engine Mount Control Solenoid Valve
F/FOG	LT	Front Fog Lamp
F/PUMP	EC	Fuel Pump
FRPS	EC	Fuel Rail Pressure Sensor
FTS	AT	A/T Fluid Temperature Sensor

HARNESS

Code	Section	Wiring Diagram Name	
FTS	EC	Fuel Pump Temperature Sensor	A
GLOW	EC	Glow Control System	
H/AIM	LT	Headlamp Aiming Control System	B
H/LAMP	LT	Headlamp	
HEATUP	EC	Heat Up Switch	
HLC	WW	Headlamp Washer	C
HORN	WW	Horn	
HSEAT	SE	Heated Seat	D
I/KEY	BL	Intelligent Key System	
I/MIRR	GW	Inside Mirror (Auto Anti-dazzling Mirror)	
IATS	EC	Intake Air Temperature Sensor	E
ILL	LT	Illumination	
INJ/PW	EC	Fuel Injector Power Supply	F
INJECT	EC	Fuel Injector	
INT/L	LT	Room and Map Lamps	
INT/V	EC	Intake Air Control Valve Control Solenoid Valve	G
MAFS	EC	Mass Air Flow Sensor	
MAIN	AT	Main Power Supply and Ground Circuit	H
MAIN	EC	Main Power Supply and Ground Circuit	
METER	DI	Speedometer, Tachometer, Temp. and Fuel Gauges	
MIL/DL	EC	Malfunction Indicator Lamp, Data Link Connector	I
MIRROR	GW	Door Mirror	
MMSW	AT	Manual Mode Switch	
MULTI	BL	Multi-remote Control System	J
NATS	BL	NATS (Nissan Anti-Theft System)	
NAVI	AV	Navigation System	PG
NONDTC	AT	NON-detective Items	
P/SCKT	WW	Power Socket	
PHONE	AV	Telephone	L
PNP/SW	AT	Park/Neutral Position Switch	
PNP/SW	EC	Park/Neutral Position Switch	M
POWER	PG	Power Supply Routing	
R/FOG	LT	Rear Fog Lamp	
RP/SEN	EC	Refrigerant Pressure Sensor	
S/LOCK	BL	Power Door Lock — Super Lock	
S/SIG	EC	Start Signal	
SEAT	SE	Power Seat	
SHIFT	AT	A/T Shift Lock System	
SROOF	RF	Sunroof	
SRS	SRS	Supplemental Restraint System	
START	SC	Starting System	
STOP/L	LT	Stop Lamp	
STSIG	AT	Start Signal Circuit	
T/F	TF	Transfer	

HARNESS

Code	Section	Wiring Diagram Name
TAIL/L	LT	Parking, License and Tail Lamps
TCC/V	EC	Turbocharger Boost Control Solenoid Valve
TCCSV	EC	Turbocharger Boost Control Solenoid Valve
THEFT	BL	Theft Warning System
TURN	LT	Turn Signal and Hazard Warning Lamp
VSSA/T	AT	Vehicle Speed Sensor A/T (Revolution Sensor)
WARN	DI	Warning Lamps
WINDOW	GW	Power Window
WIPER	WW	Front Wiper and Washer

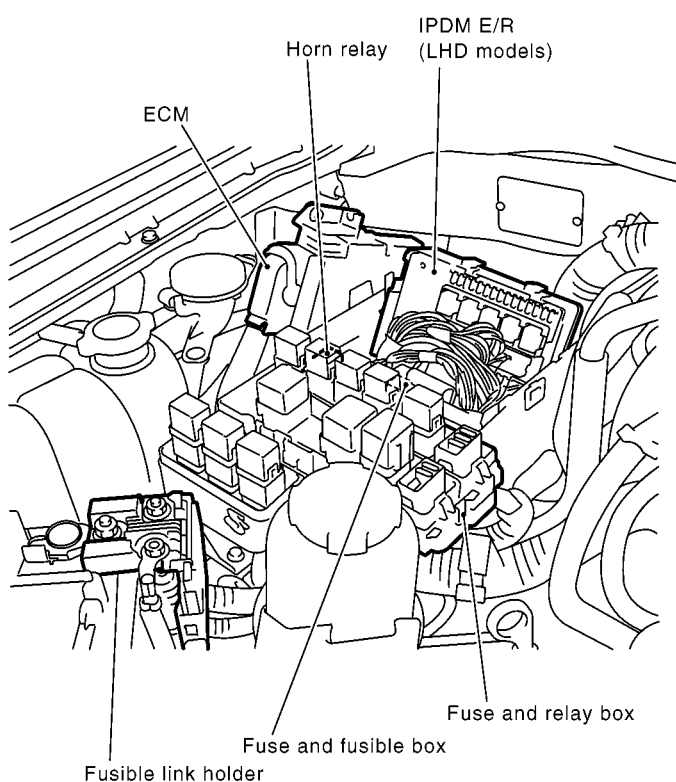
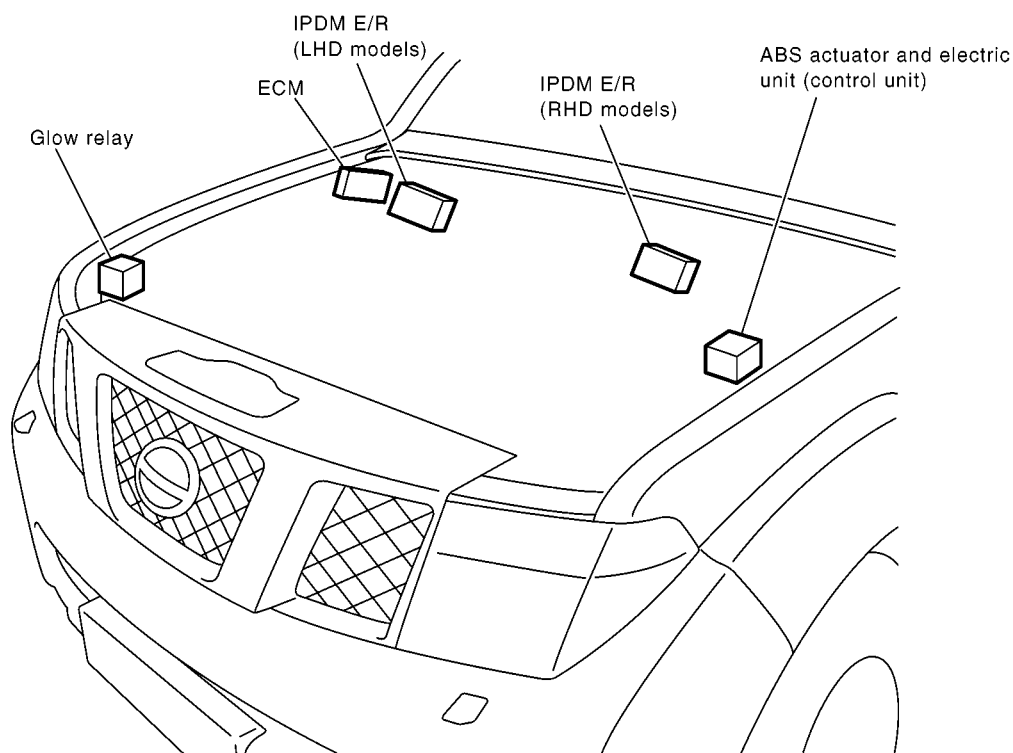
ELECTRICAL UNITS LOCATION

ELECTRICAL UNITS LOCATION

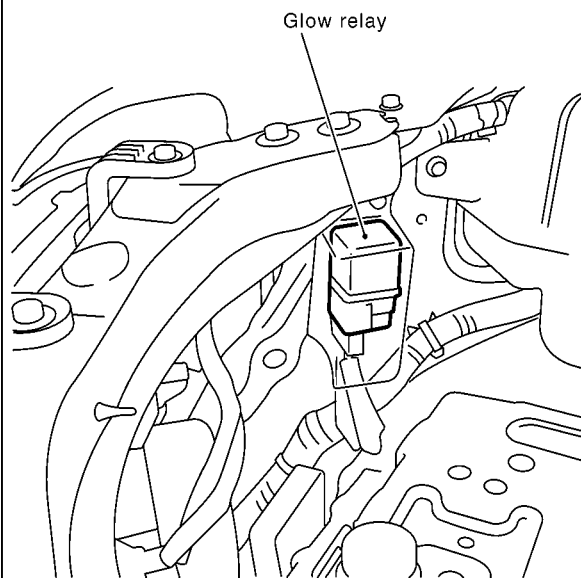
PFP:25230

Electrical Units Location ENGINE COMPARTMENT

EKS00LJA

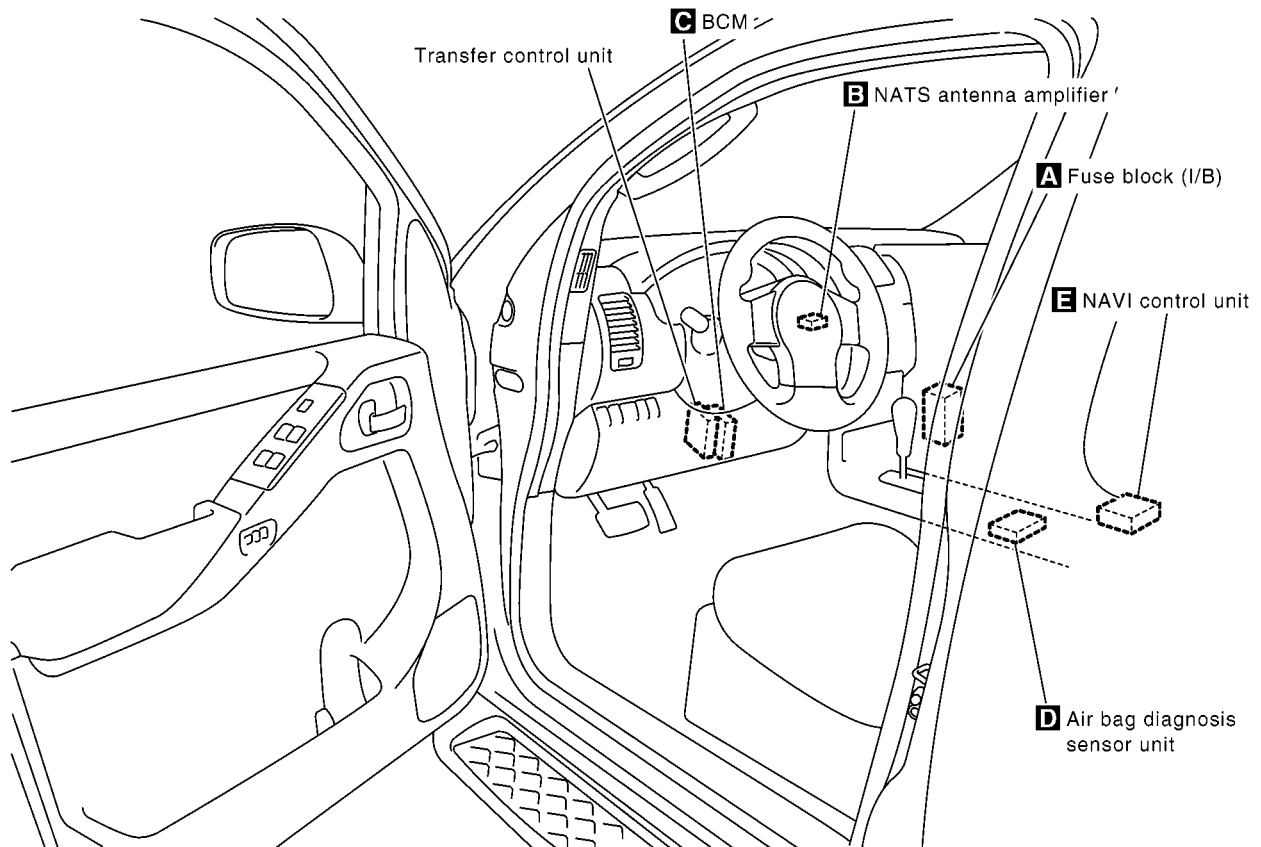


View with battery removed



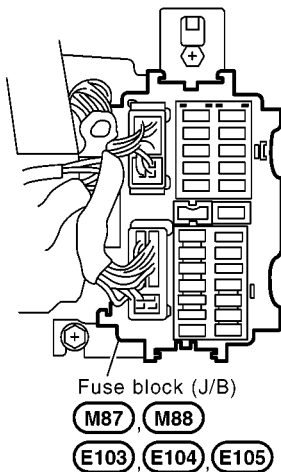
ELECTRICAL UNITS LOCATION

PASSENGER COMPARTMENT

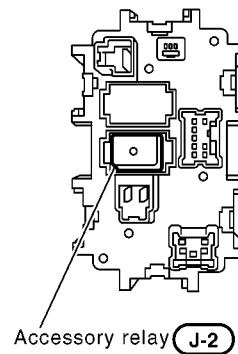


A Instrument panel side RH (LHD models) or LH (RHD models)

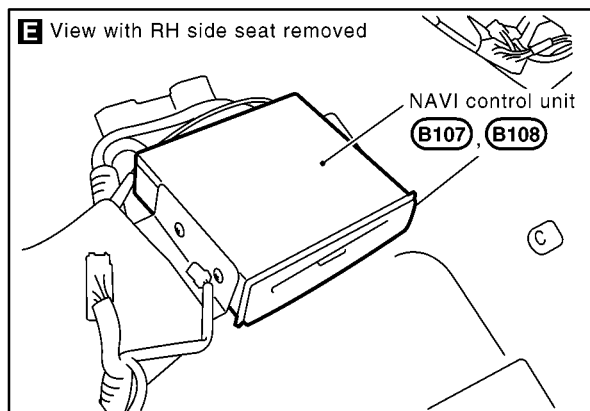
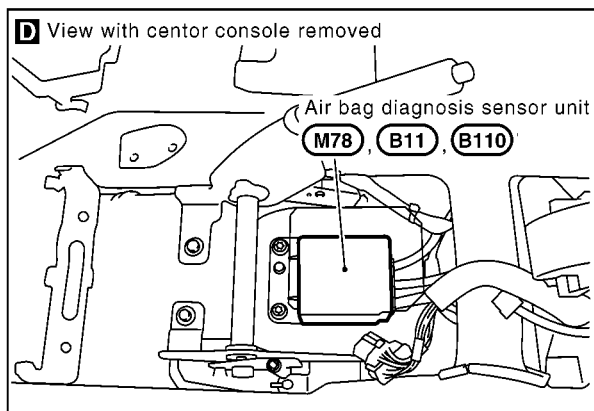
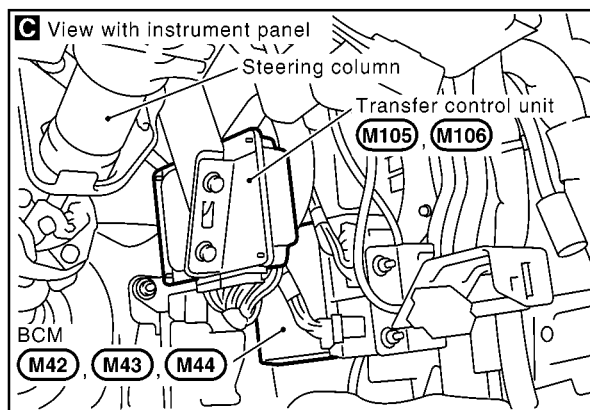
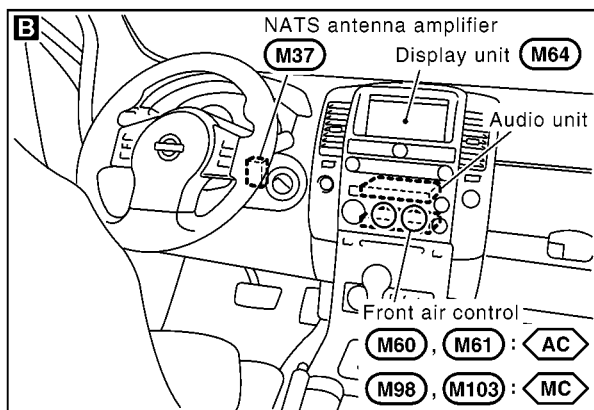
Fuse block (J/B) front view



Fuse block (J/B) rear view



ELECTRICAL UNITS LOCATION



AC : With automatic A/C

MC : With manual A/C

A

B

C

D

E

F

G

H

I

J

PG

L

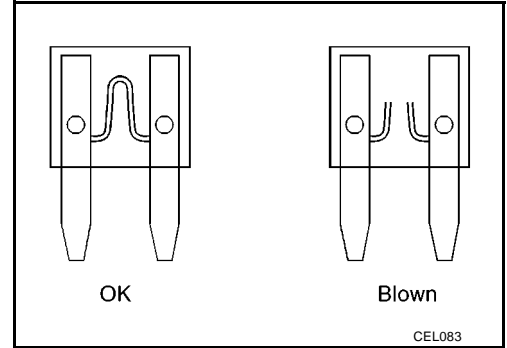
M

ELECTRICAL UNITS LOCATION

Fuse

EKS00LJB

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



Fusible Link

EKS00LJC

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

CAUTION:

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

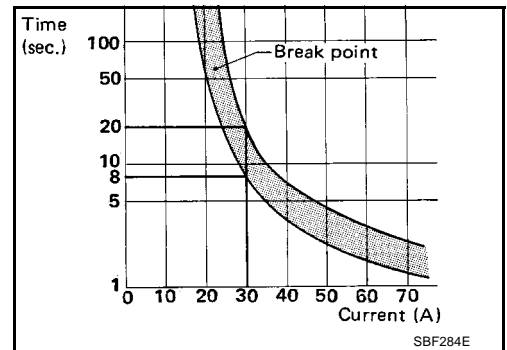
Circuit Breaker (Built Into BCM)

EKS00LJD

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

A circuit breaker is used for the following systems:

- Power seat
- Power windows
- Power door locks
- Remote keyless entry system
- Power sunroof
- Rear window wiper



HARNESS CONNECTOR

PFP:B4341

Description

HARNESS CONNECTOR (TAB-LOCKING TYPE)

EKS00LJE

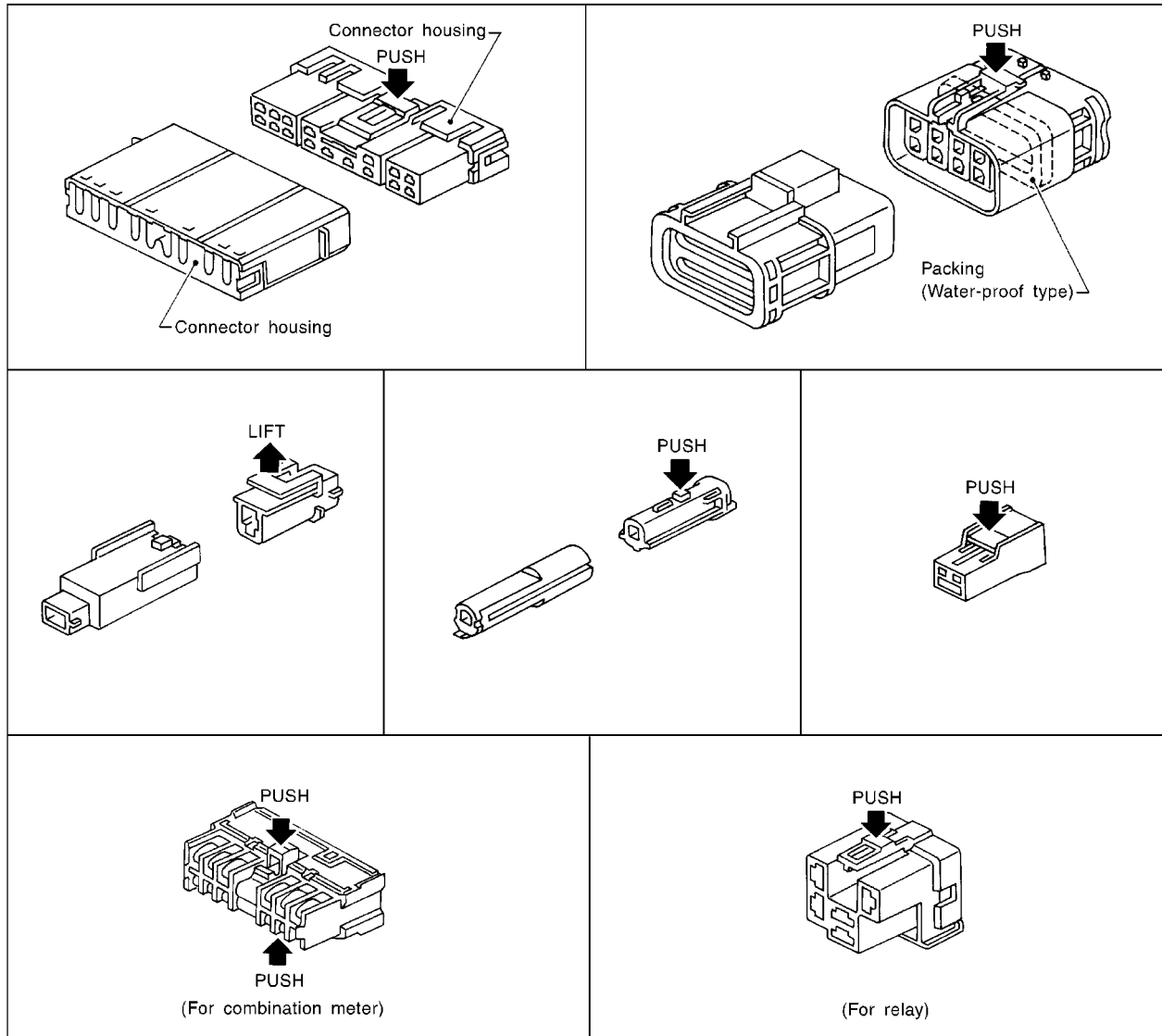
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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

CAUTION:

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

[Example]



SEL769DA

HARNESS CONNECTOR

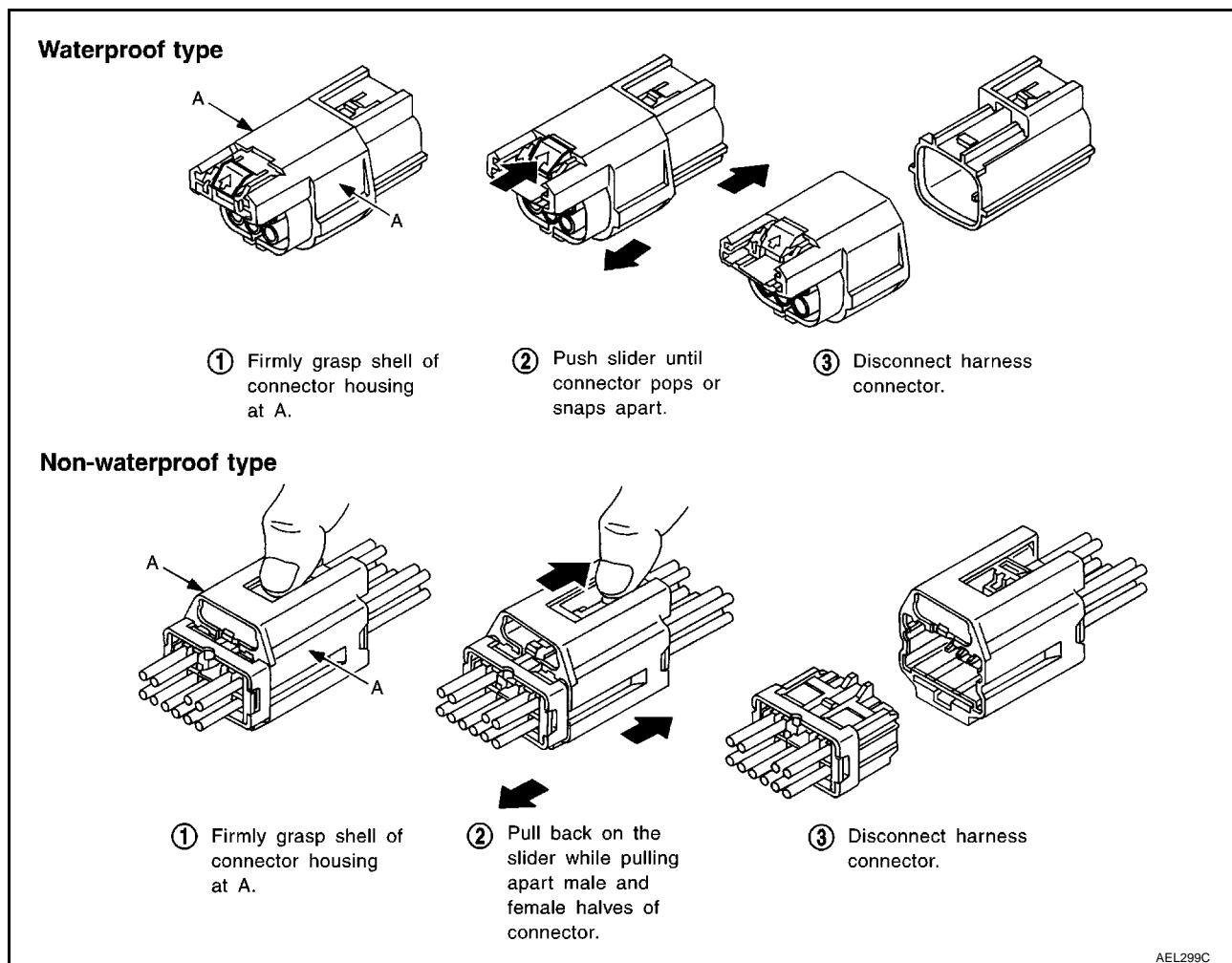
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

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

CAUTION:

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

[Example]



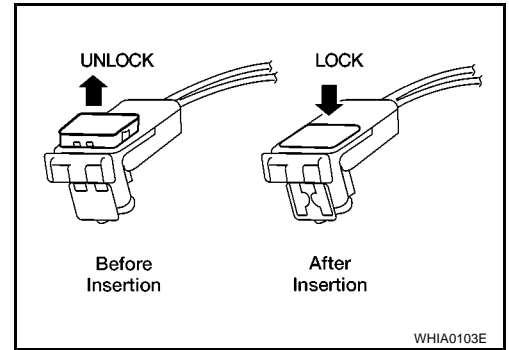
HARNESS CONNECTOR

HARNESS CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

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

CAUTION:

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



A
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ELECTRICAL UNITS


ELECTRICAL UNITS

PFP:23710

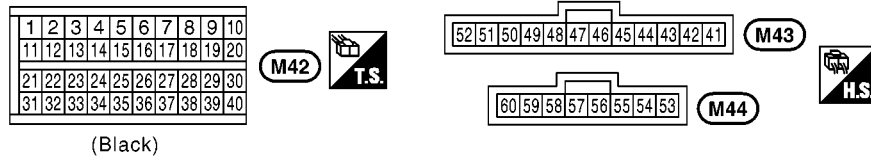
Terminal Arrangement

EKS00LJF

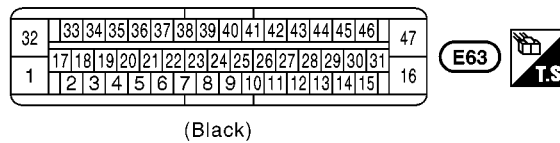
 : With automatic A/C

 : With manual A/C

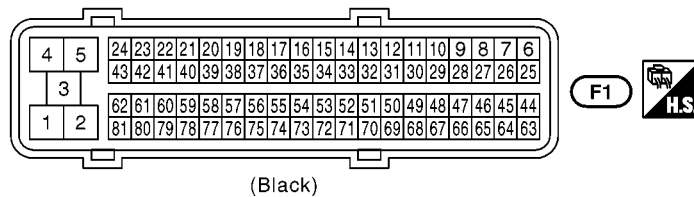
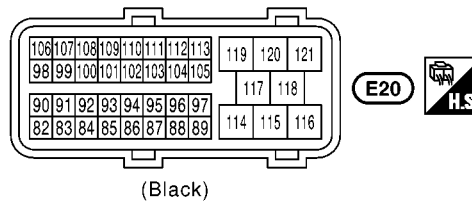
BCM (BODY CONTROL MODULE)



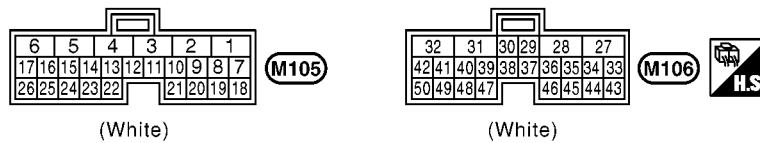
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



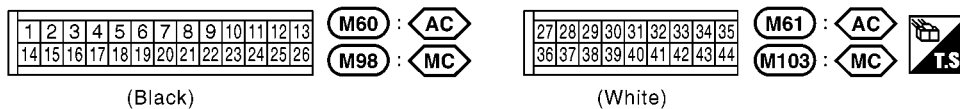
ECM



TRANSFER CONTROL UNIT



FRONT AIR CONTROL



STANDARDIZED RELAY

STANDARDIZED RELAY

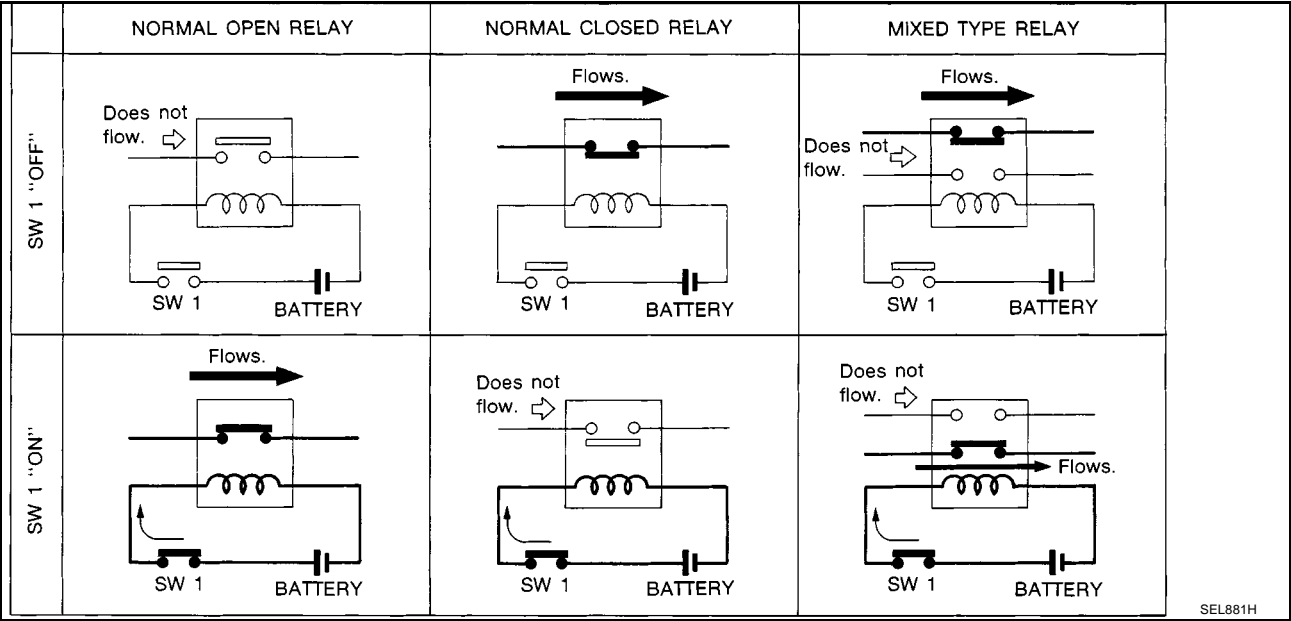
PFP:25230

Description

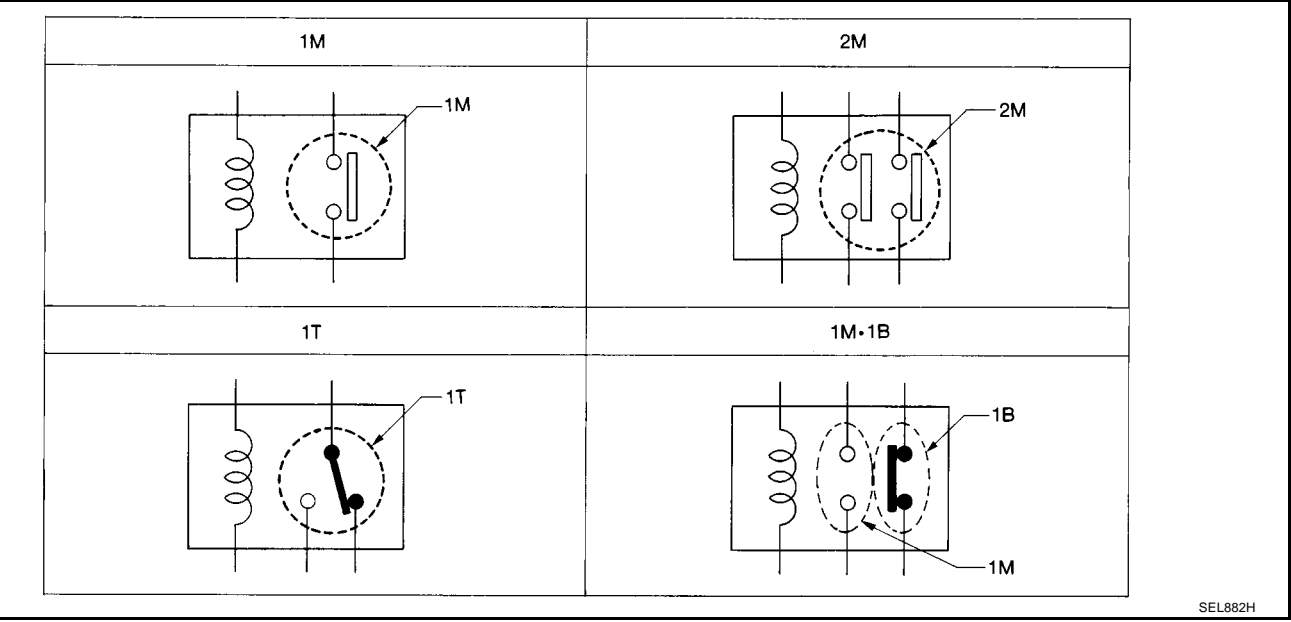
EKS00LJG

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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

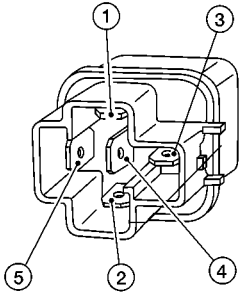
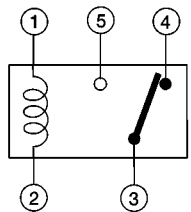
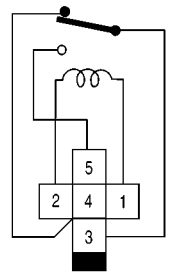
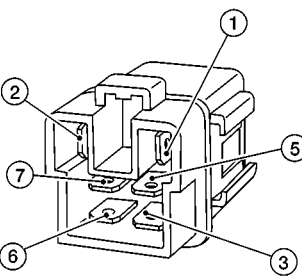
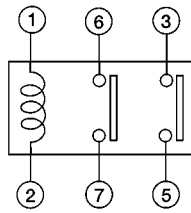
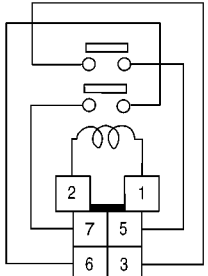
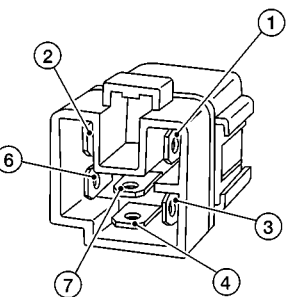
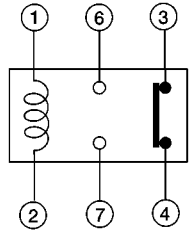
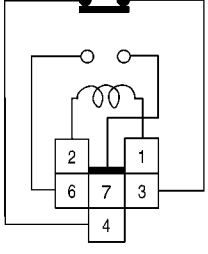
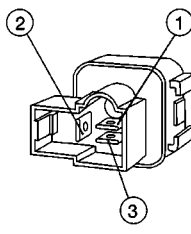
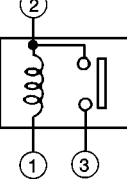
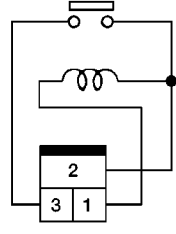
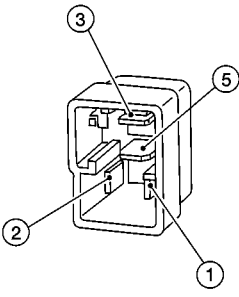
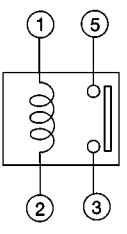
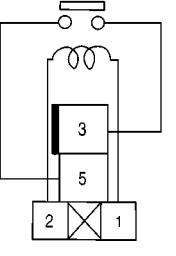


TYPE OF STANDARDIZED RELAYS



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

STANDARDIZED RELAY

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

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

WKIA0253E

SUPER MULTIPLE JUNCTION (SMJ)

SUPER MULTIPLE JUNCTION (SMJ)

PFP:84341

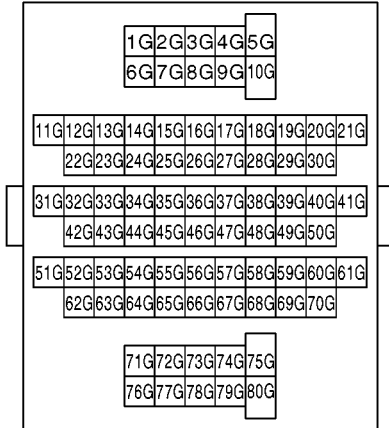
Terminal Arrangement

EKS00LJH

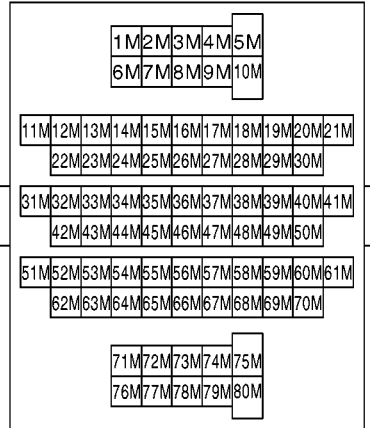
MAIN HARNESS



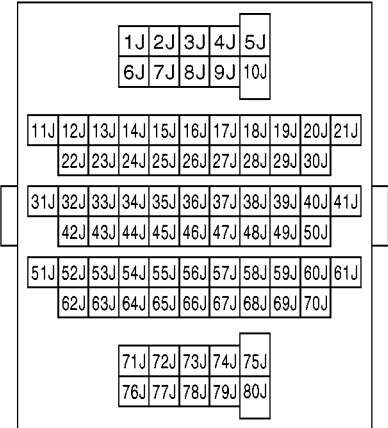
M91 (White)



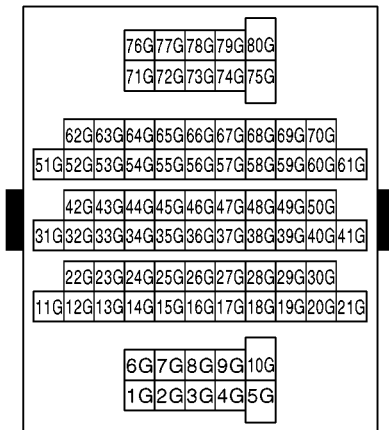
M92 (White)



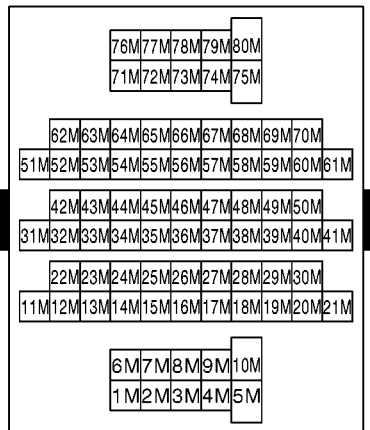
M1 (White)



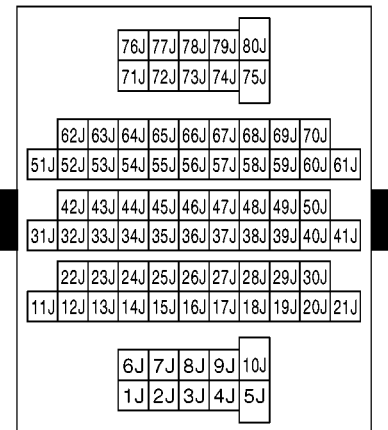
E101 (White)



B101 (White)



B1 (White)



ENGINE ROOM HARNESS

BODY HARNESS (RH)

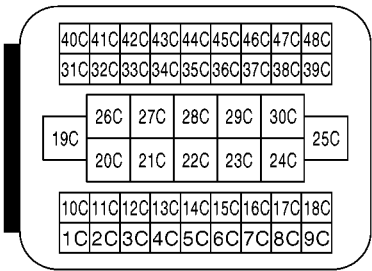
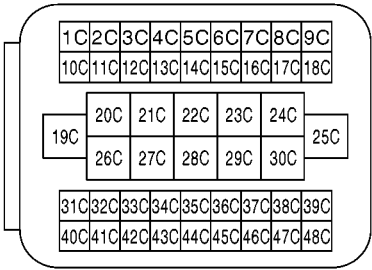
BODY HARNESS (LH)

SUPER MULTIPLE JUNCTION (SMJ)

CHASSIS HARNESS



C1 (Black)



E107 (Black)

ENGINE ROOM HARNESS

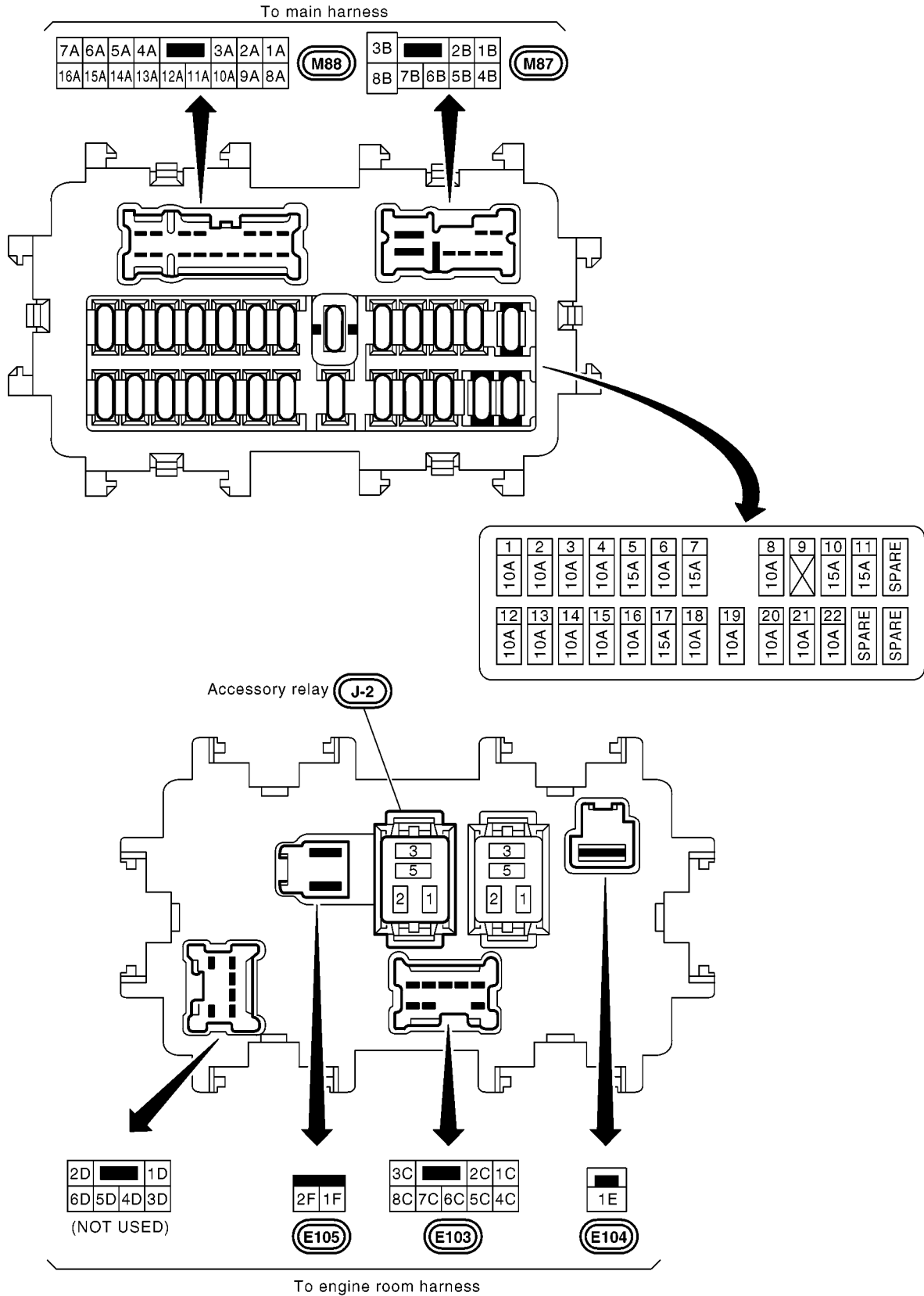
FUSE BLOCK - JUNCTION BOX (J/B)

FUSE BLOCK - JUNCTION BOX (J/B)

PFP:24350

Terminal Arrangement

EKS00LJI



PG

L

M

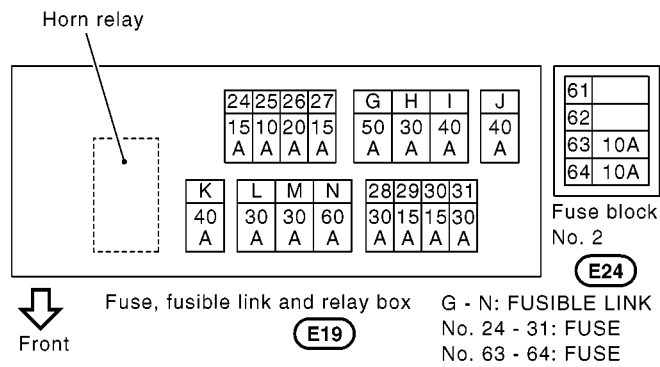
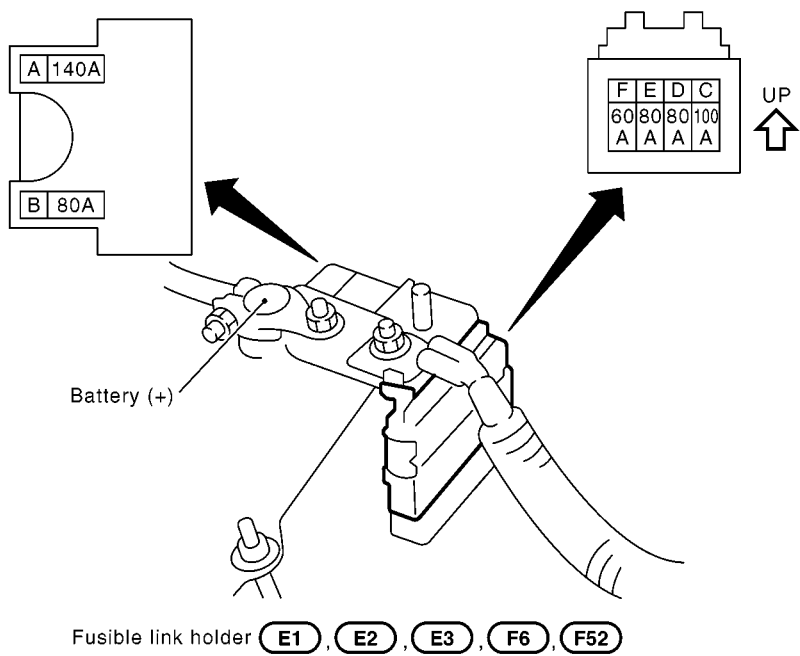
MKWA3881E

FUSE AND FUSIBLE LINK BOX

FUSE AND FUSIBLE LINK BOX
Terminal Arrangement

PFP:24381

EKS00LJJ

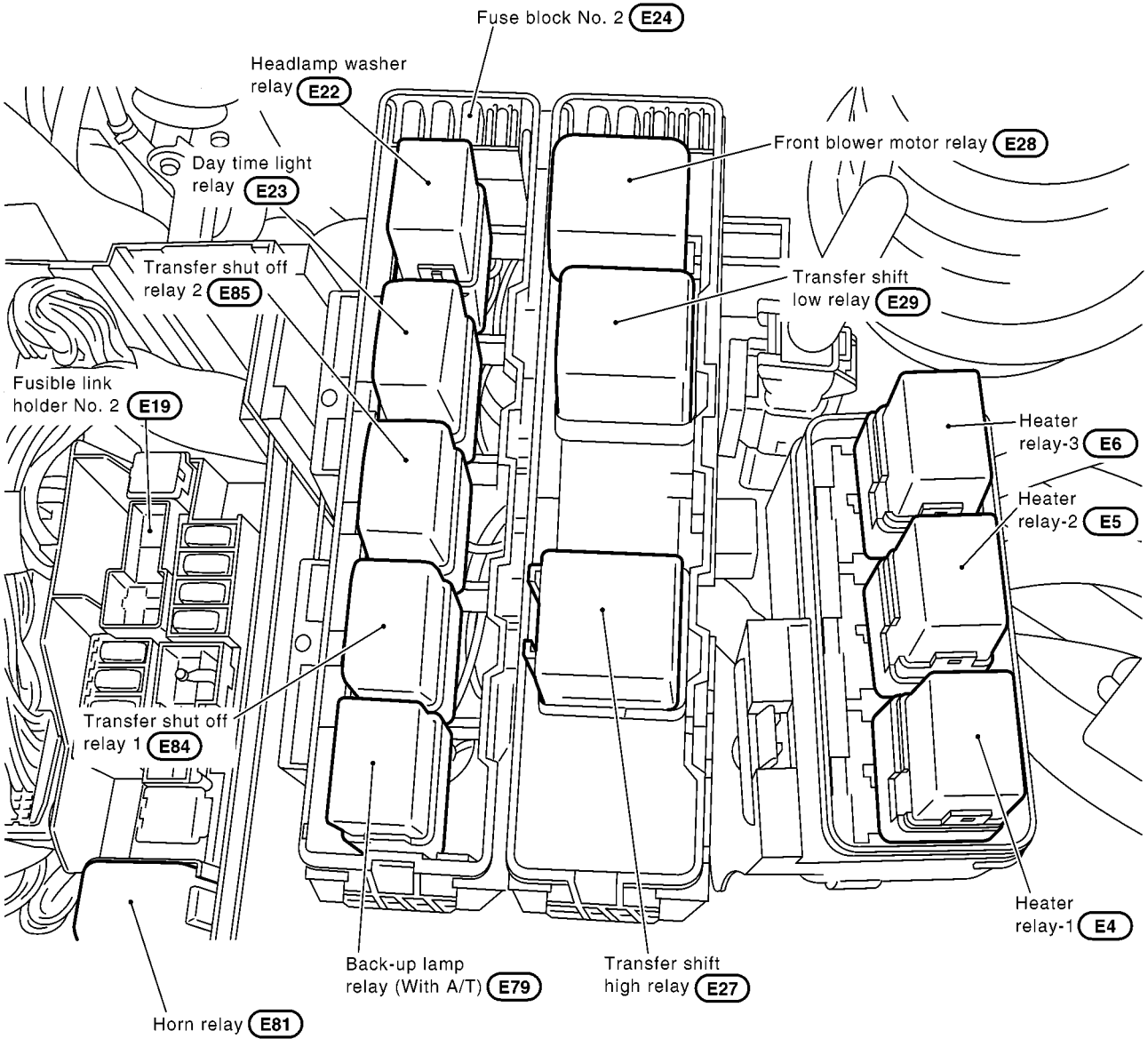


FUSE AND RELAY BOX

FUSE AND RELAY BOX Terminal Arrangement

PPF:24012

EKS00LJK



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PG
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M

FUSE AND RELAY BOX
