

SECTION **PG**

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

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PRECAUTIONS

PRECAUTIONS

PFP:00011

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

EKS00AR4

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

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POWER SUPPLY ROUTING CIRCUIT

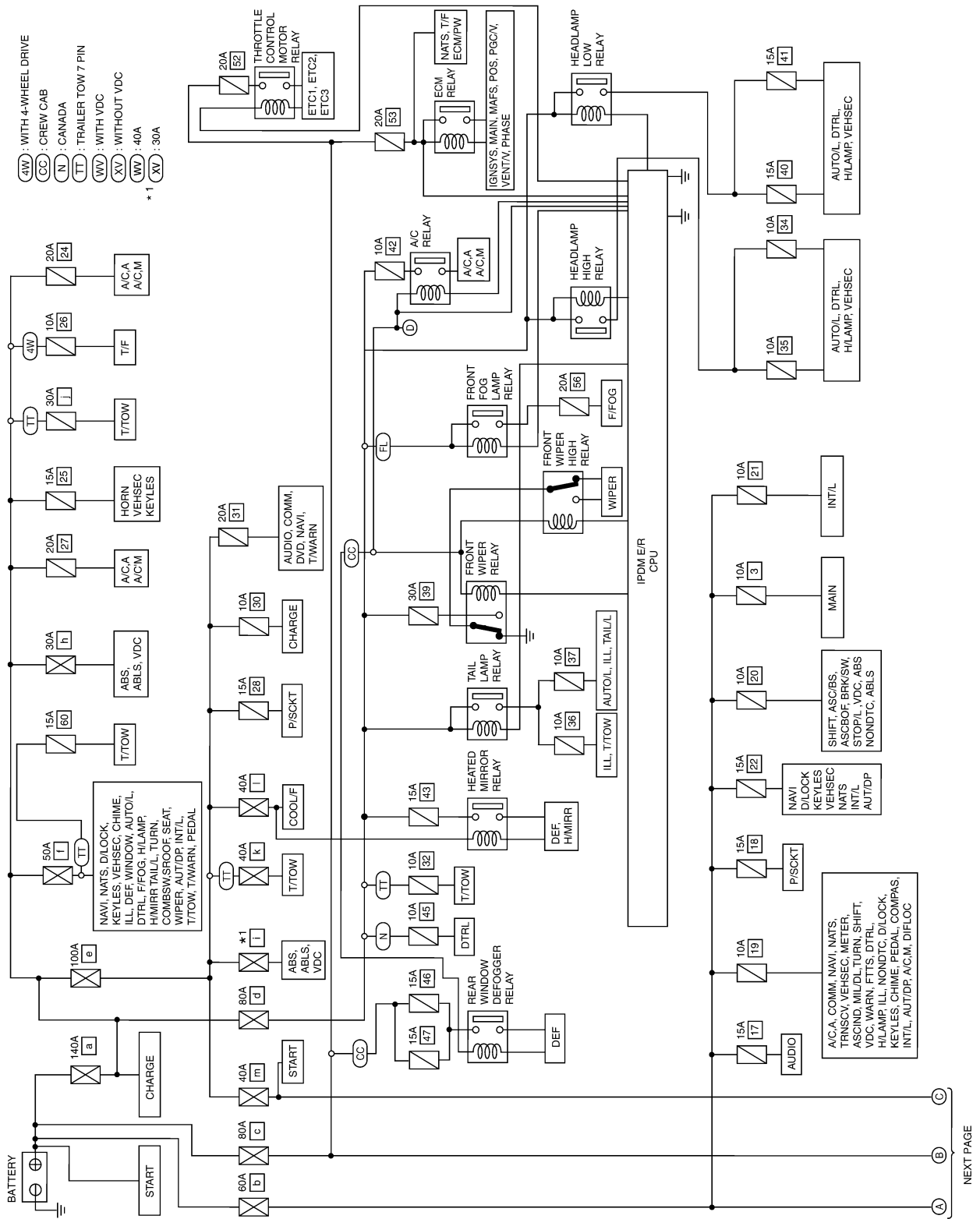
PF:24110

POWER SUPPLY ROUTING CIRCUIT

Schematic

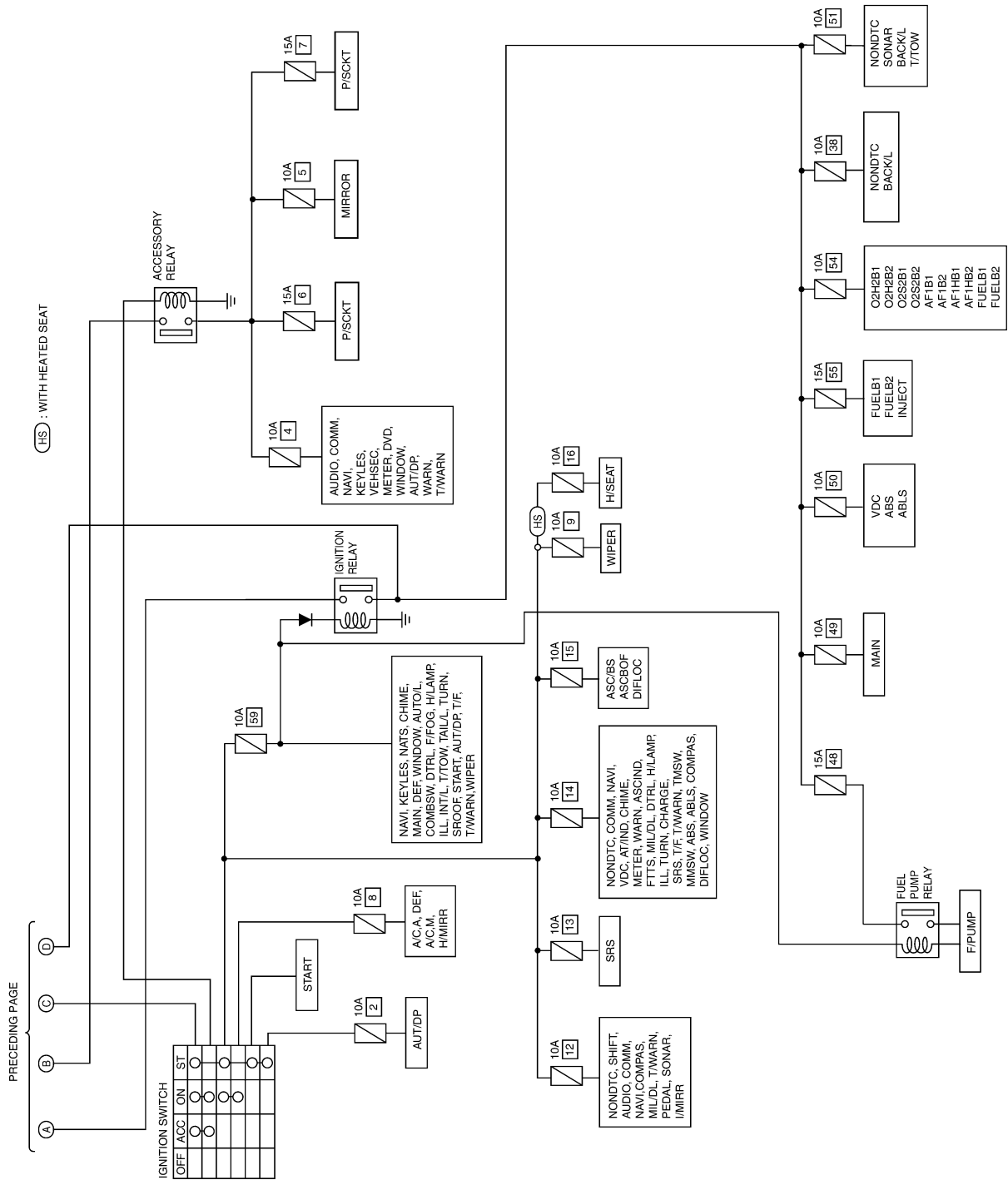
EKS00AR6

For detailed ground distribution, refer to [PG-32, "Ground Distribution"](#).



WKWA3837E

POWER SUPPLY ROUTING CIRCUIT



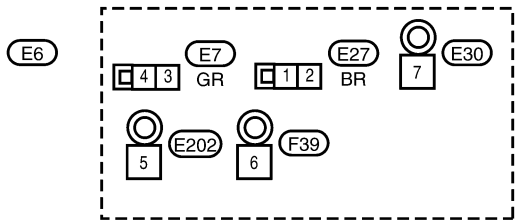
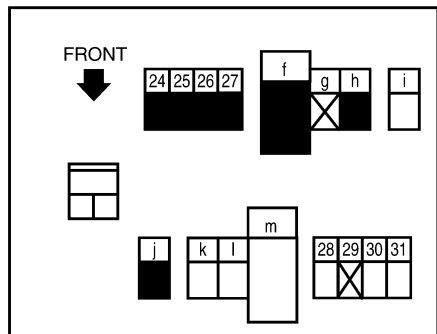
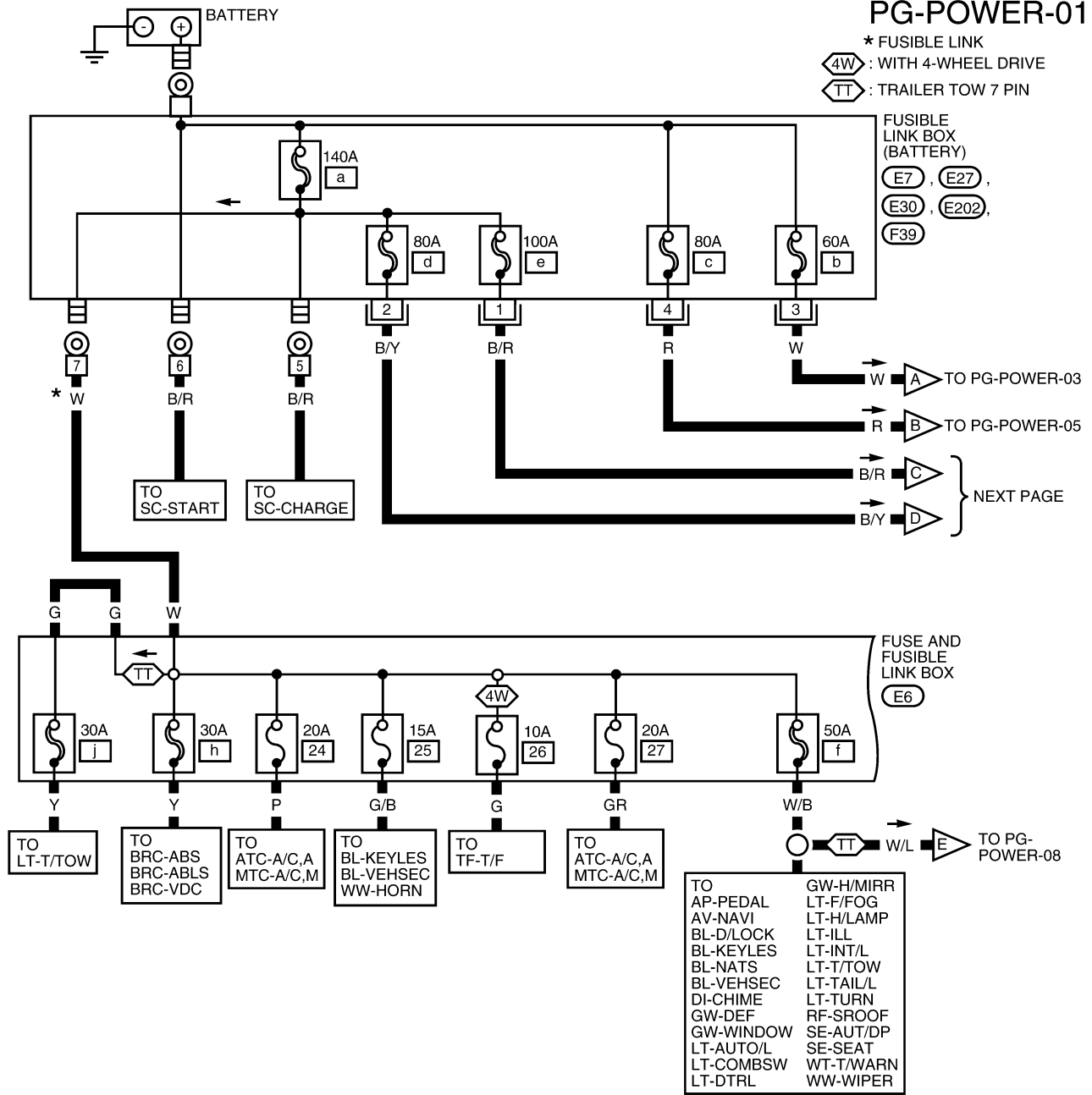
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POWER SUPPLY ROUTING CIRCUIT

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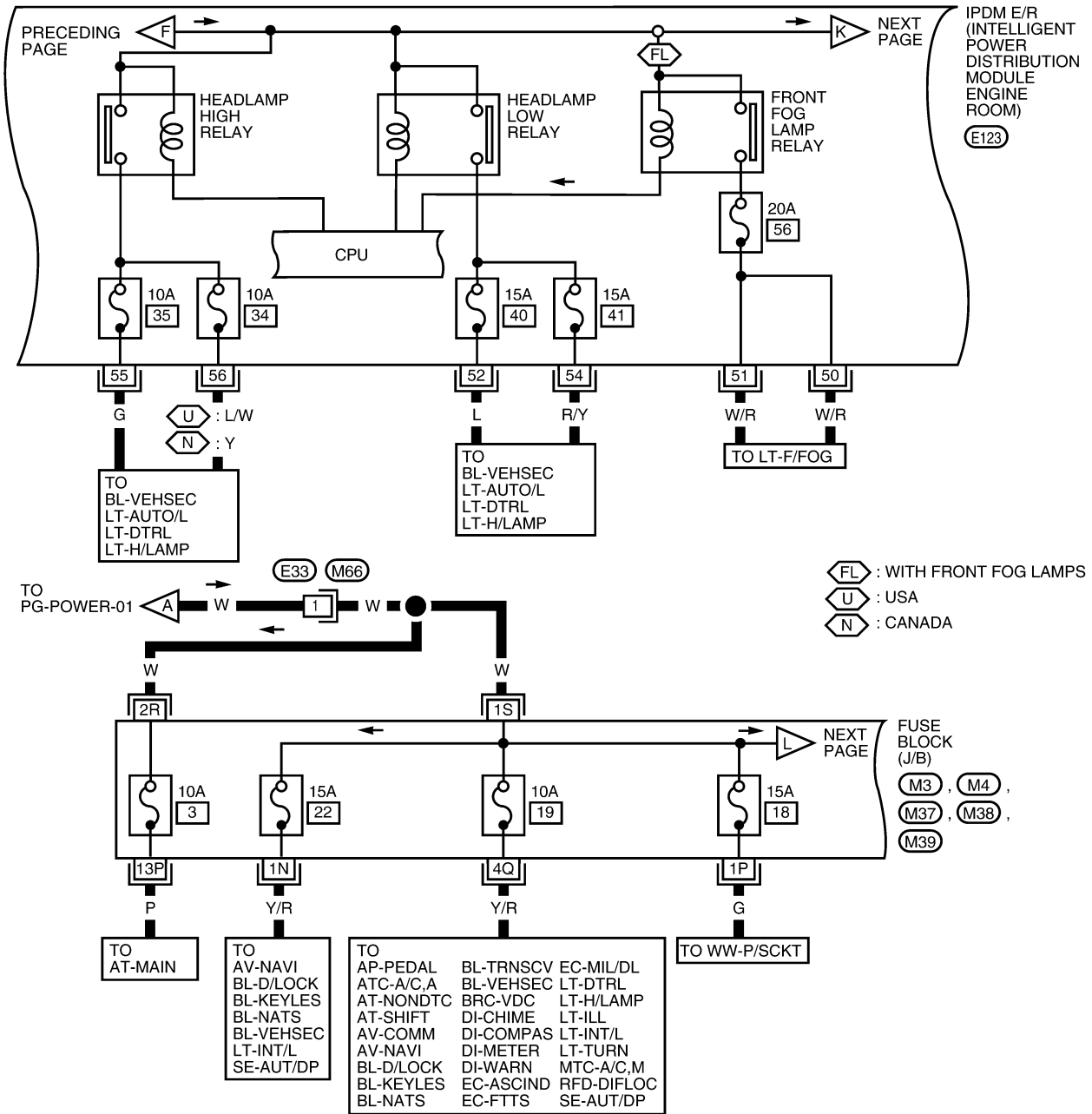
Wiring Diagram — POWER — BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION



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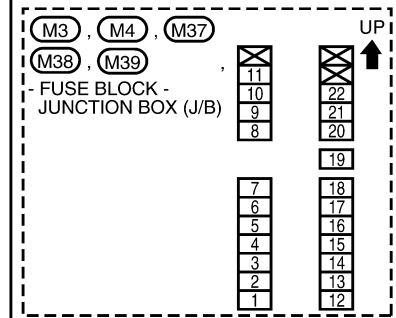
POWER SUPPLY ROUTING CIRCUIT

PG-POWER-03



1 M66 49 50 51 E123
B 52 53 54 55 56 BR

REFER TO THE FOLLOWING.

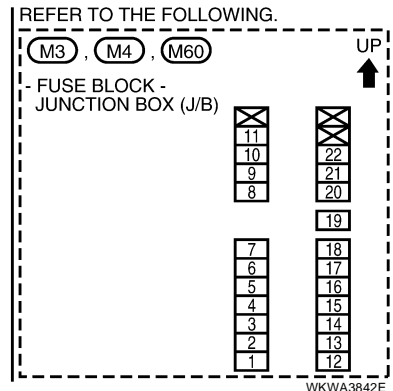
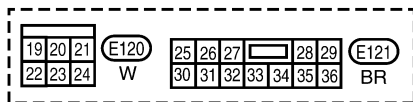
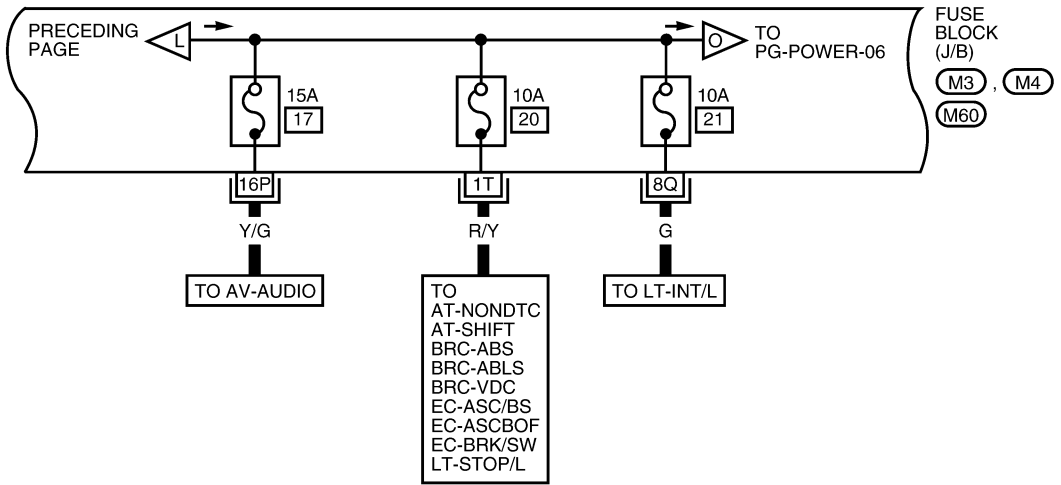
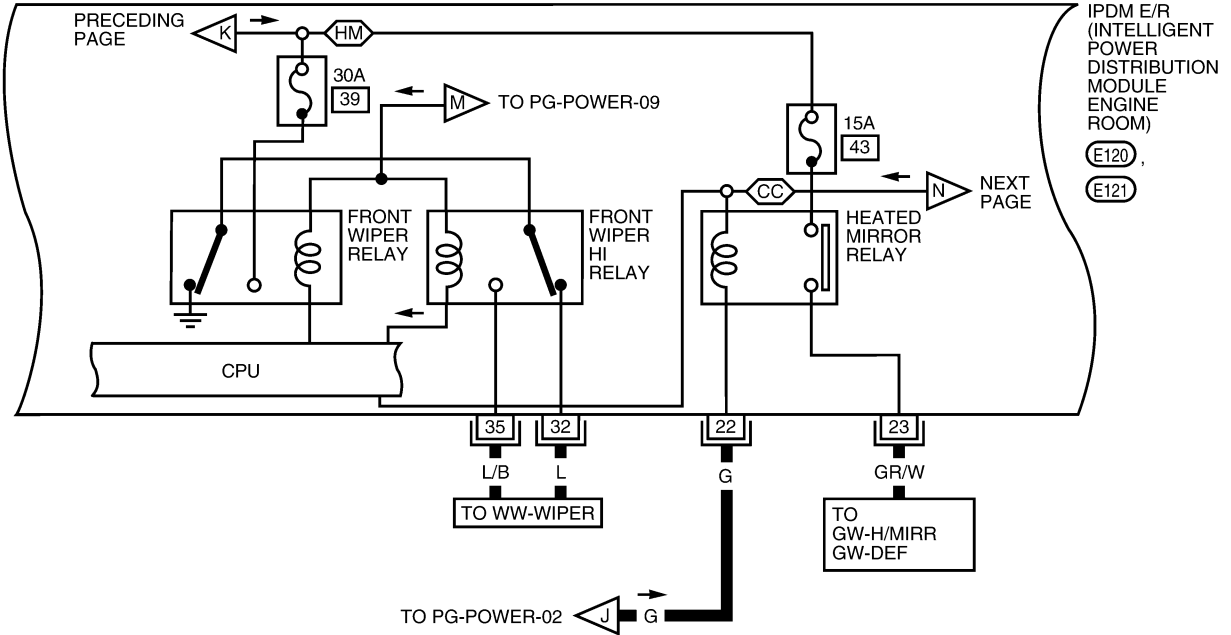


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POWER SUPPLY ROUTING CIRCUIT

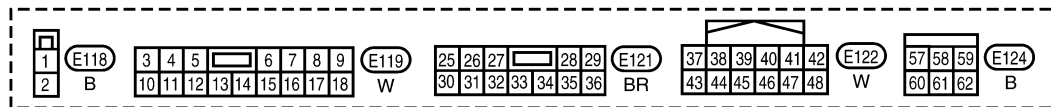
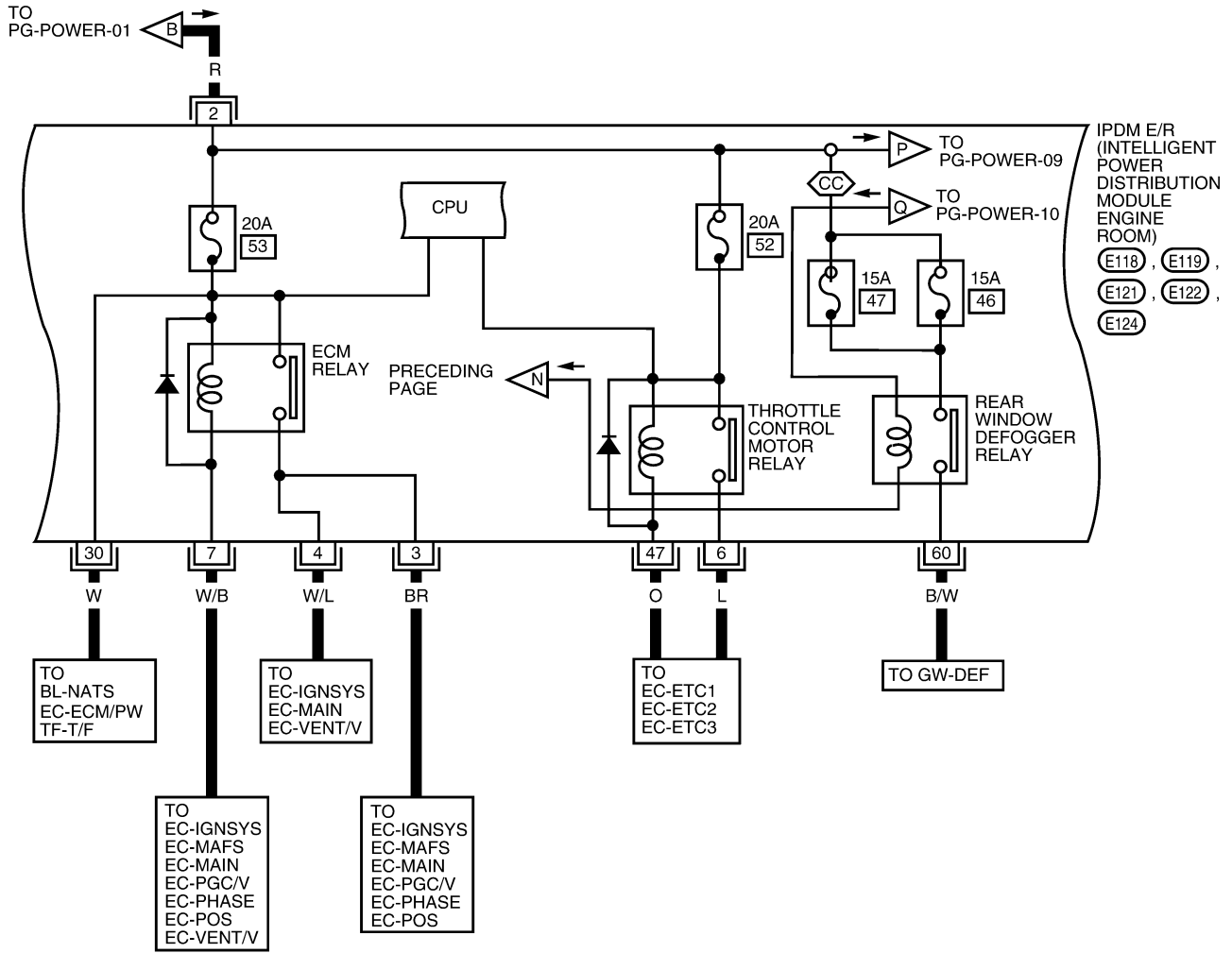
PG-POWER-04

CC : CREW CAB
 HM : WITH HEATED MIRRORS



POWER SUPPLY ROUTING CIRCUIT

PG-POWER-05

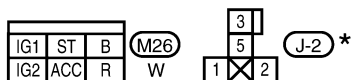
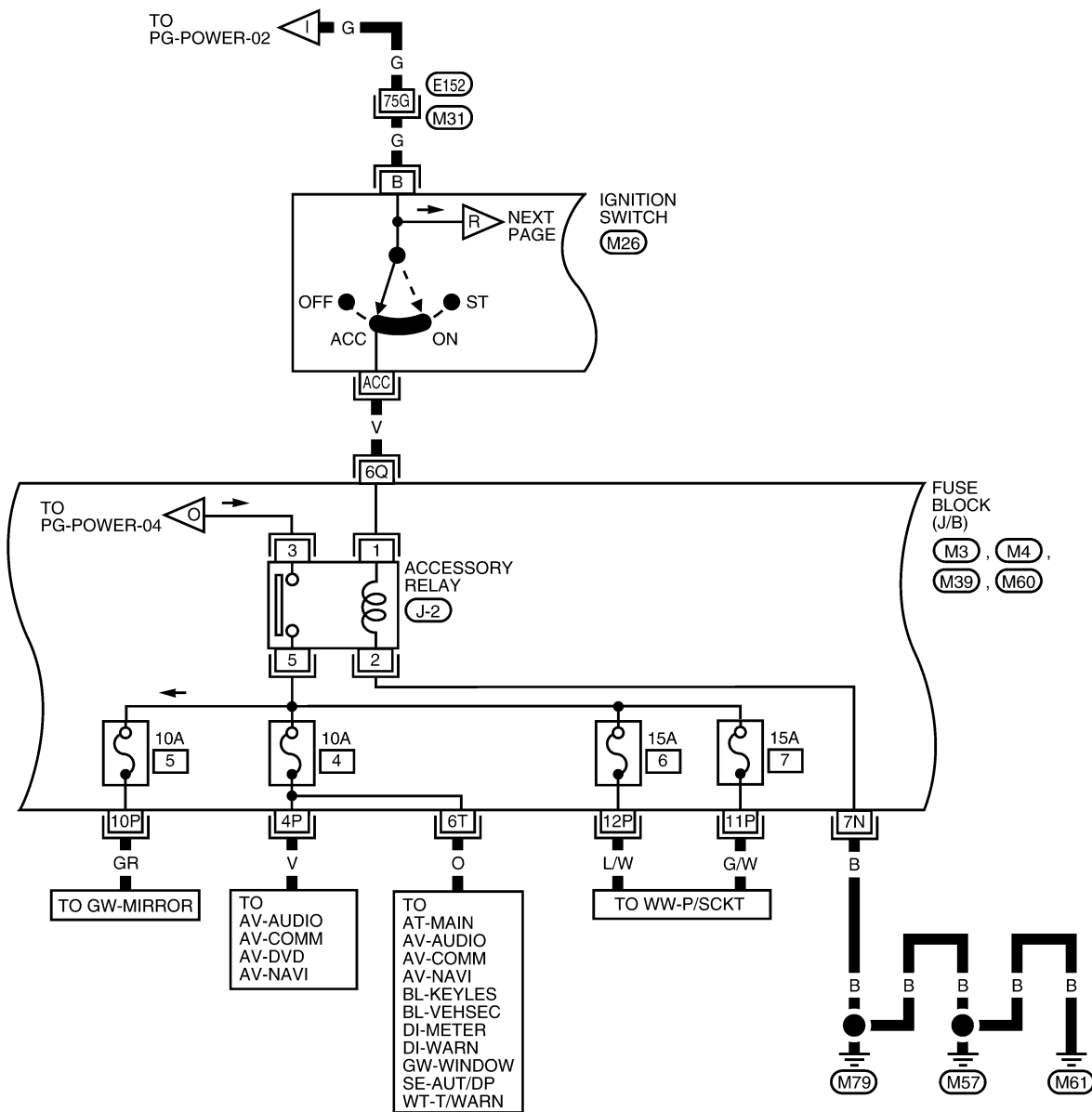


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POWER SUPPLY ROUTING CIRCUIT

ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON

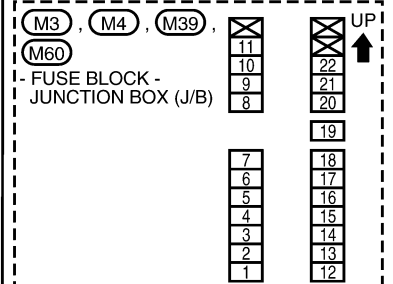
PG-POWER-06



* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT".

REFER TO THE FOLLOWING.

(M31) - SUPER MULTIPLE JUNCTION (SMJ)

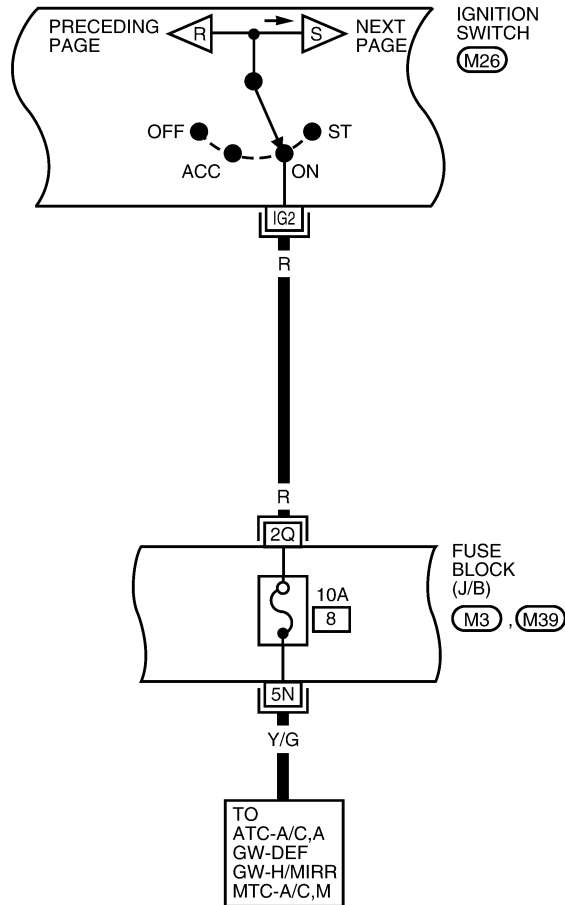


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POWER SUPPLY ROUTING CIRCUIT

IGNITION POWER SUPPLY — IGNITION SW. IN ON

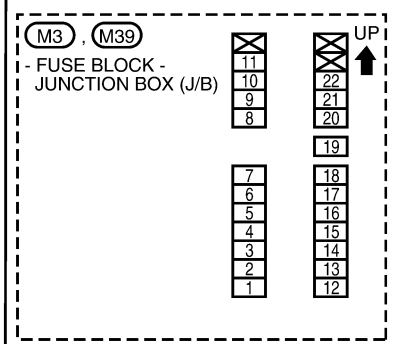
PG-POWER-07



IG1	ST	B	(M26)
IG2	ACC	R	

W

REFER TO THE FOLLOWING.

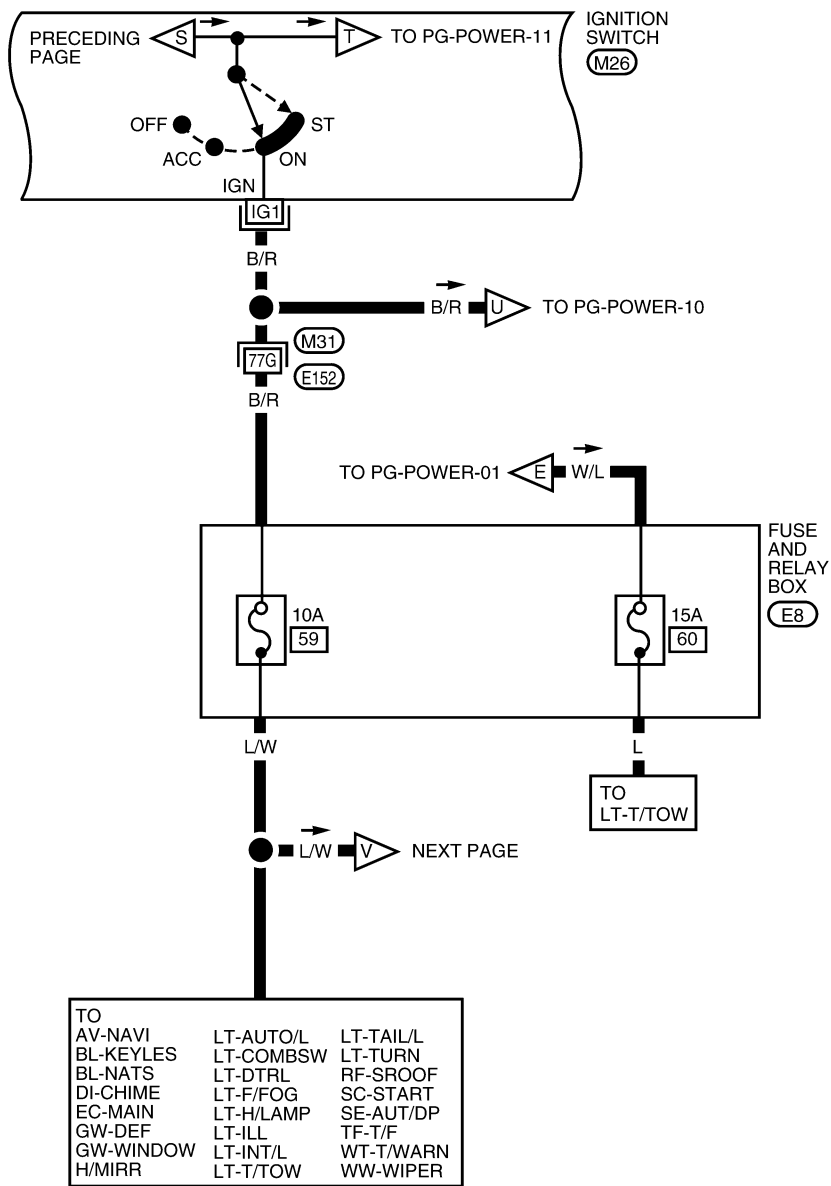


WKWA3845E

POWER SUPPLY ROUTING CIRCUIT

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

PG-POWER-08



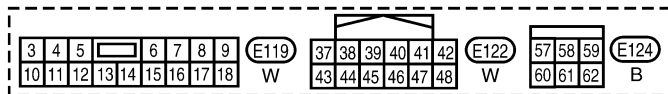
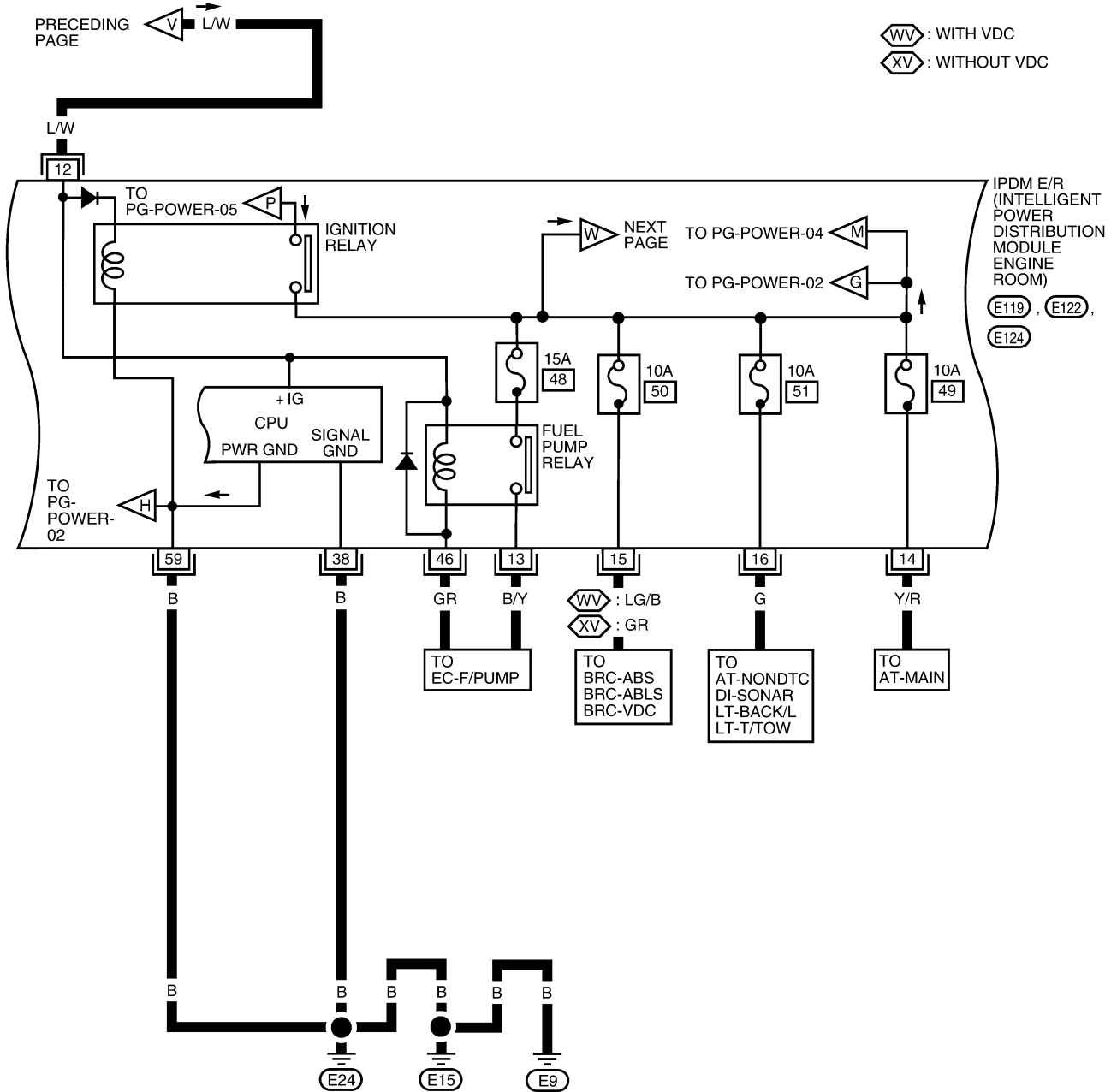
IG1	ST	B	(M26)
IG2	ACC	R	

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REFER TO THE FOLLOWING.
 (M31) - SUPER MULTIPLE
 JUNCTION (SMJ)

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-09

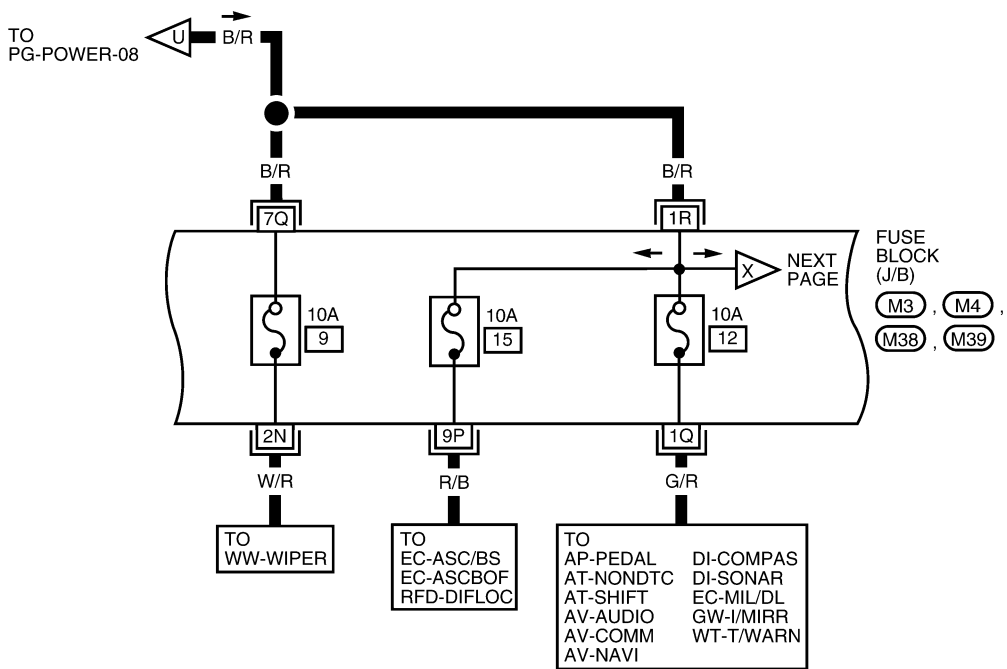
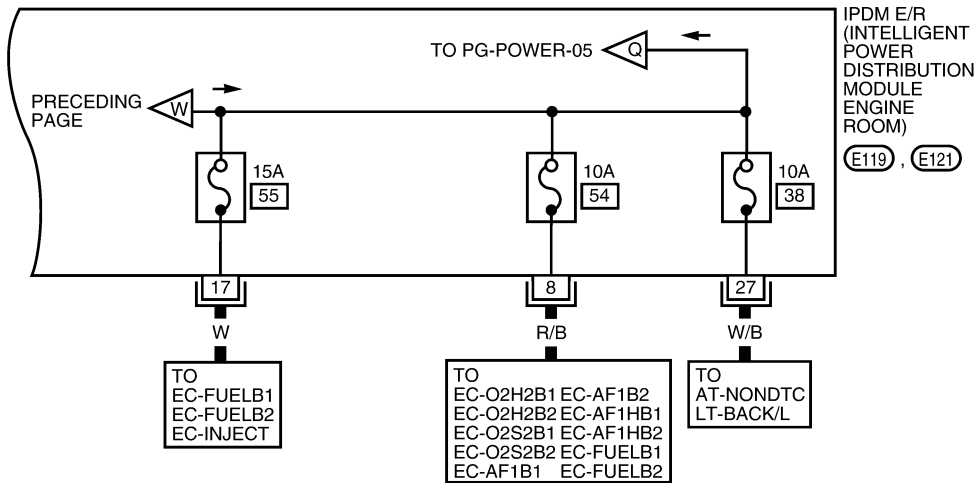


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POWER SUPPLY ROUTING CIRCUIT

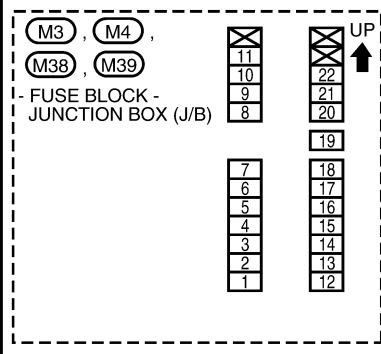
PG-POWER-10

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3	4	5	6	7	8	9	(E119)	25	26	27	28	29	(E121)		
10	11	12	13	14	15	16	W	30	31	32	33	34	35	36	BR

REFER TO THE FOLLOWING.

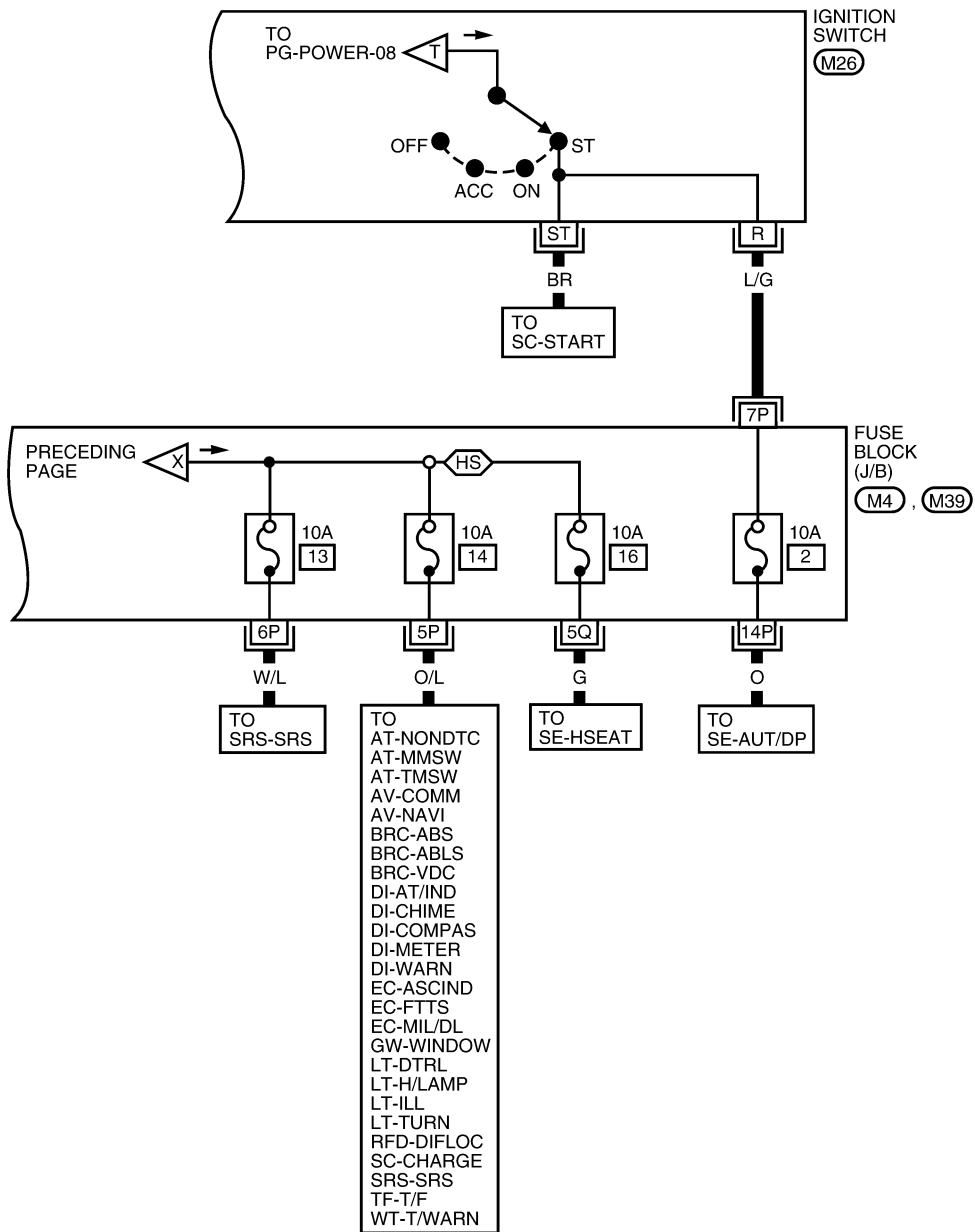


WKWA3848E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-11

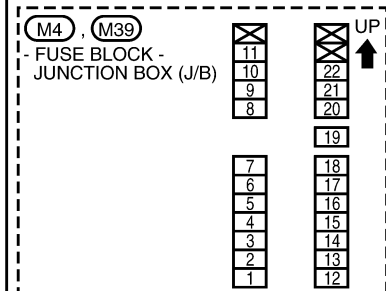
(HS) : WITH HEATED SEATS



IG1	ST	B	(M26)
IG2	ACC	R	

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REFER TO THE FOLLOWING.



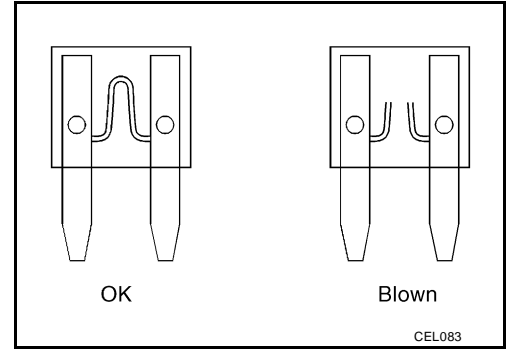
WKWA3849E

POWER SUPPLY ROUTING CIRCUIT

Fuse

EKS00GMD

- 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

EKS00GME

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.

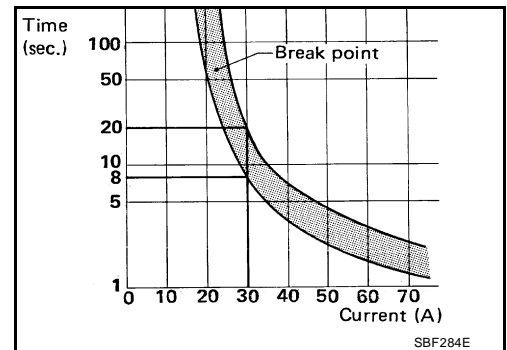
Circuit Breaker (Built Into BCM)

EKS00GMF

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

A circuit breaker is used for the following systems:

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



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

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

PF2:284B7

System Description

EKS00AR8

- 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

1. Lamp control
Using CAN communication lines, it receives signals from the BCM and controls the following lamps:
 - Headlamps (Hi, Lo)
 - Parking lamps
 - Tail and license lamps
 - Front fog lamps
2. Wiper control
Using CAN communication lines, it receives signals from the BCM and controls the front wipers.
3. Heated mirror relay control
Using CAN communication lines, it receives signals from the BCM and controls the heated mirror relay.
4. A/C compressor control
Using CAN communication lines, it receives signals from the ECM and controls the A/C compressor (magnetic clutch).
5. Starter control
Using CAN communication lines, it receives signals from the BCM and controls the starter relay.
6. Cooling fan control
Using CAN communication lines, it receives signals from the ECM and controls the cooling fan relays.
7. Horn control
Using CAN communication lines, it receives signals from the BCM and controls the 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 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
Headlamp	<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 and parking lamps	<ul style="list-style-type: none">● With the ignition switch ON, the tail and parking lamps are ON.● With the ignition switch OFF, the tail and parking lamps are 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 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 (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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 1 second has elapsed after CAN communication with other control units is stopped, mode switches to sleep status.
3. Sleep status
 - IPDM E/R operates in low current-consumption mode.
 - CAN communication is stopped.
 - When a change in CAN communication signal is detected, mode switches to CAN communication status.
 - When a change in ignition switch signal is detected, mode switches to CAN communication status.

CAN Communication System Description

EKS00AR9

Refer to [LAN-25, "CAN COMMUNICATION"](#) .

Function of Detecting Ignition Relay Malfunction

EKS00ARA

- 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 via 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.

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

CONSULT-II Function (IPDM E/R)

EKS00ARB

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

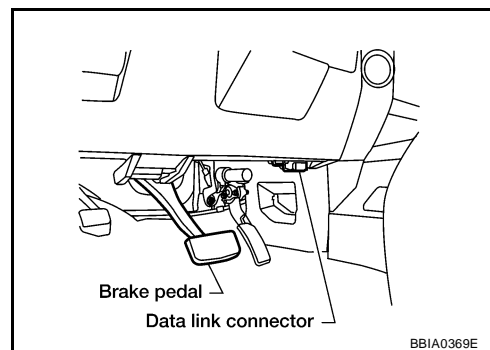
IPDM E/R diagnostic Mode	Description
SELF-DIAG RESULTS	Displays IPDM E/R self-diagnosis results.
DATA MONITOR	Displays IPDM E/R input/output data in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.

CONSULT-II BASIC OPERATION

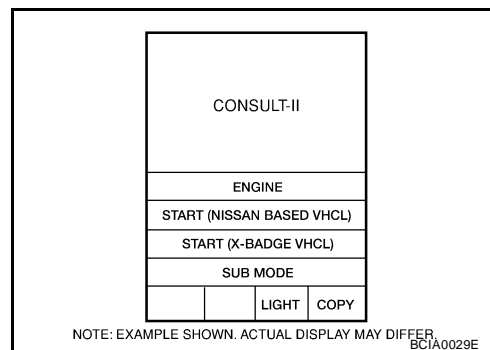
CAUTION:

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

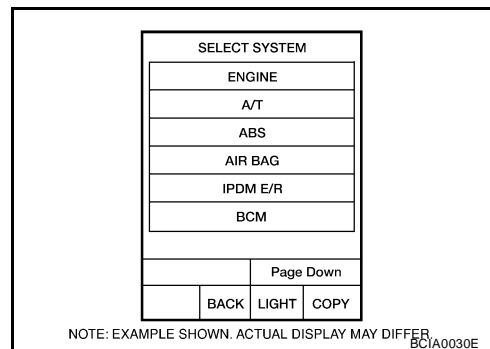
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn ignition switch ON.



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

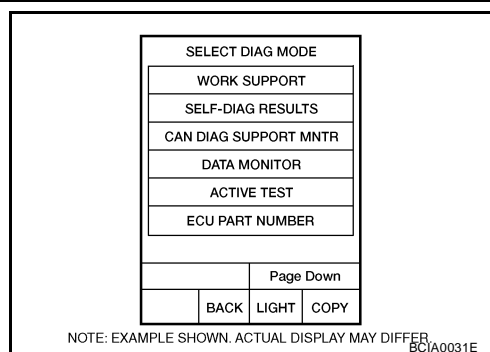


3. Touch "IPDM E/R" on "SELECT SYSTEM" screen.
 - If "IPDM E/R" is not displayed refer to [GI-39, "CONSULT-II Data Link Connector \(DLC\) Circuit"](#).



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

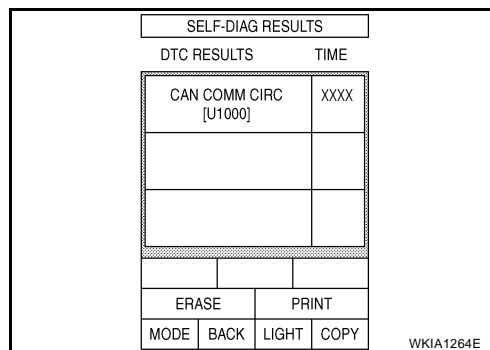
- Select the desired part to be diagnosed on the "SELECT DIAG MODE" screen.



SELF-DIAGNOSTIC RESULTS

Operation Procedure

- Touch "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
- Self-diagnosis results are displayed.



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

- Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
- 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).

- Touch "START".
- When "SELECTION FROM MENU" is selected, touch items to be monitored. When "ALL SIGNALS" is selected, all the items will be monitored. When "MAIN SIGNALS" is selected, predetermined items are monitored.

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".

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

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
Compressor request	AC COMP REQ	ON/OFF	X	X	X	Signal status input from ECM
Parking, license, and tail lamp request	TAIL & CLR REQ	ON/OFF	X	X	X	Signal status input from BCM
Headlamp low beam request	HL LO REQ	ON/OFF	X	X	X	Signal status input from BCM
Headlamp high beam request	HL HI REQ	ON/OFF	X	X	X	Signal status input from BCM
Front fog request	FR FOG REQ	ON/OFF	X	X	X	Signal status 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 (heated mirror)	RR DEF REQ	ON/OFF	X	X	X	Signal status input from BCM
Oil pressure switch	OIL P SW (*1)	OPEN/CLOSE	X		X	Signal status input from IPDM E/R
Hood switch	HOOD SW (*1)	OFF	X			Signal status input from IPDM E/R
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
Daytime running lamp request	DTRL REQ	ON/OFF	X		X	Signal status input from BCM

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.
- (*1) This item is displayed, but does not function.

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.

Test name	CONSULT-II screen display	Description
Rear defogger output	REAR DEFOGGER	With a certain ON-OFF operation, the heated mirror 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.

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

Test name	CONSULT-II screen display	Description
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.
Cornering lamp output	CORNERING LAMP	—
Horn output	HORN	With a certain ON-OFF operation, the horn relay can be operated.

Auto Active Test DESCRIPTION

EKS00ARC

- 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 (crew cab only)
 - Front wipers
 - Tail, parking, and license lamps
 - Front fog lamps
 - Headlamps (Hi, Lo)
 - A/C compressor (magnetic clutch)
 - Cooling fan

OPERATION PROCEDURE

1. Close hood and front door RH, and 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 front door switch LH 10 times. 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.
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.

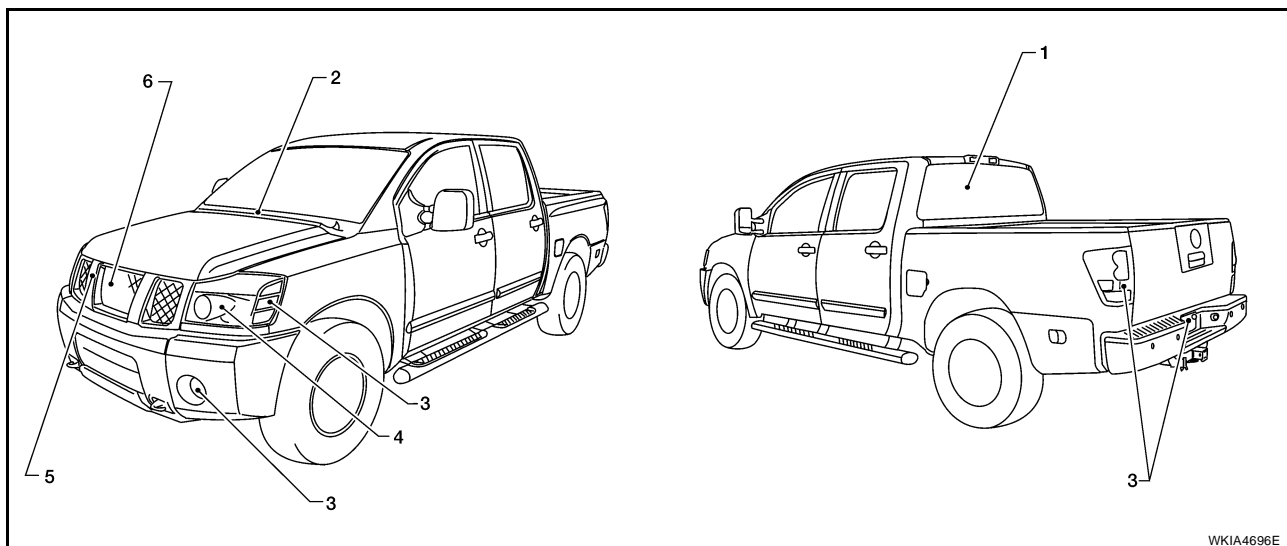
CAUTION:

Be sure to perform [BL-36, "Door Switch Check \(King Cab\)"](#) or [BL-38, "Door Switch Check \(Crew Cab\)"](#) 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.



Item Number	Test Item	Operation Time/Frequency
1	Rear window defogger	10 seconds (Crew Cab only)
2	Front wipers	LOW 5 seconds then HIGH 5 seconds
3	Front fog, tail, license, and parking lamps	10 seconds
4	Headlamps	Low on for 20 seconds. High on-off five times.
5	A/C compressor (magnetic clutch)	ON-OFF 5 times
6	Cooling fan	10 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.

Diagnosis chart in auto active test mode

Symptom	Inspection contents	Possible cause
Rear window defogger does not operate.	YES	<ul style="list-style-type: none"> BCM signal input system
	NO	<ul style="list-style-type: none"> Rear window defogger relay IPDM E/R malfunction Harness or connector malfunction between IPDM E/R and rear window defogger Open circuit of rear window defogger
Any of front wipers, tail and parking lamps, front fog lamps, and headlamps (Hi, Lo) do not operate.	YES	<ul style="list-style-type: none"> BCM signal input system
	NO	<ul style="list-style-type: none"> 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

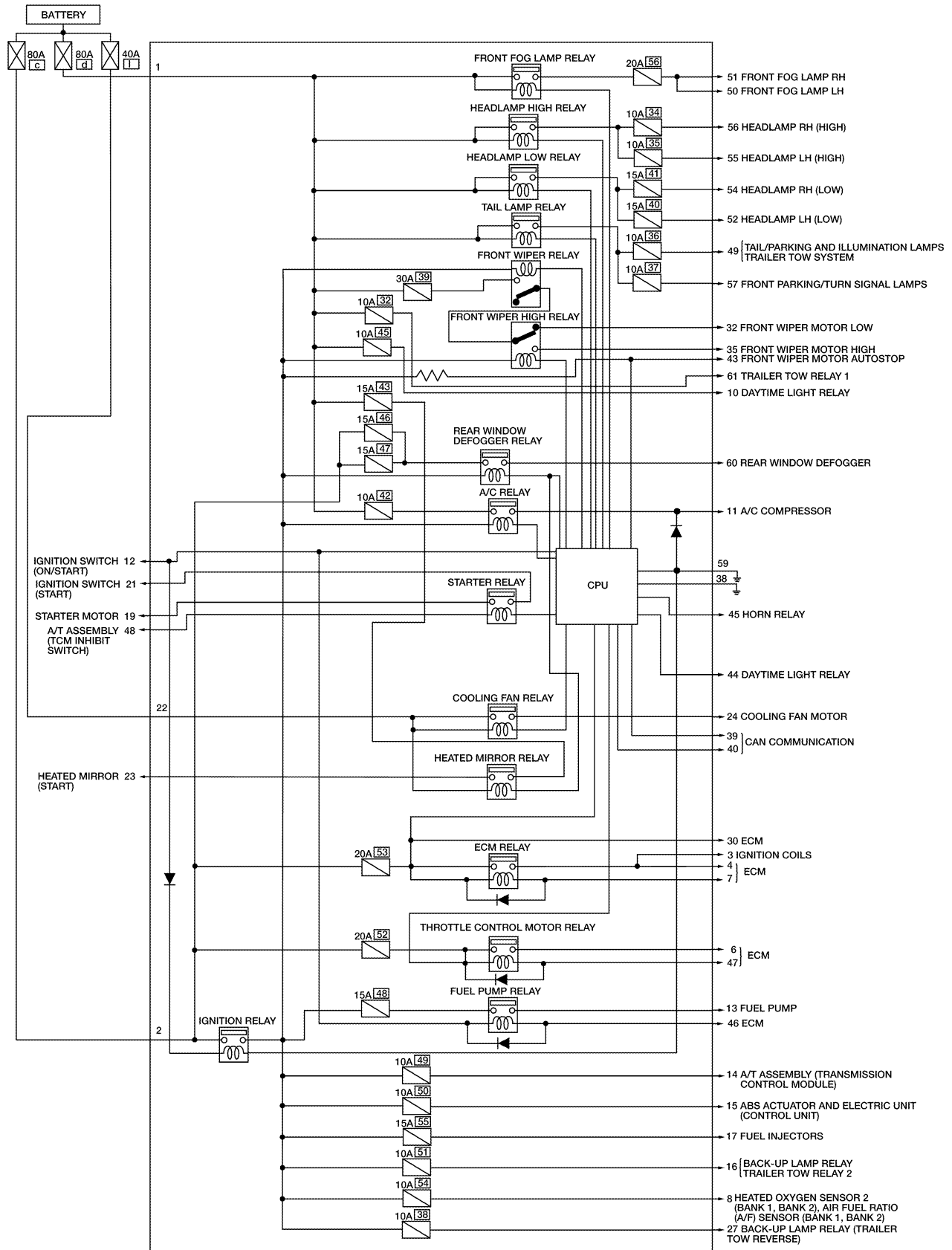
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Symptom	Inspection contents	Possible cause	
A/C compressor does not operate.	Perform auto active test. Does magnetic clutch operate?	YES	<ul style="list-style-type: none"> ● BCM signal input circuit ● CAN communication signal between BCM and ECM ● CAN communication signal between ECM and IPDM E/R
		NO	<ul style="list-style-type: none"> ● 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	<ul style="list-style-type: none"> ● ECM signal input circuit ● CAN communication signal between ECM and IPDM E/R
		NO	<ul style="list-style-type: none"> ● Cooling fan motor malfunction ● Harness/connector malfunction between IPDM E/R and cooling fan motor ● IPDM E/R (integrated relay) malfunction

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

Schematic

EKS00ARD



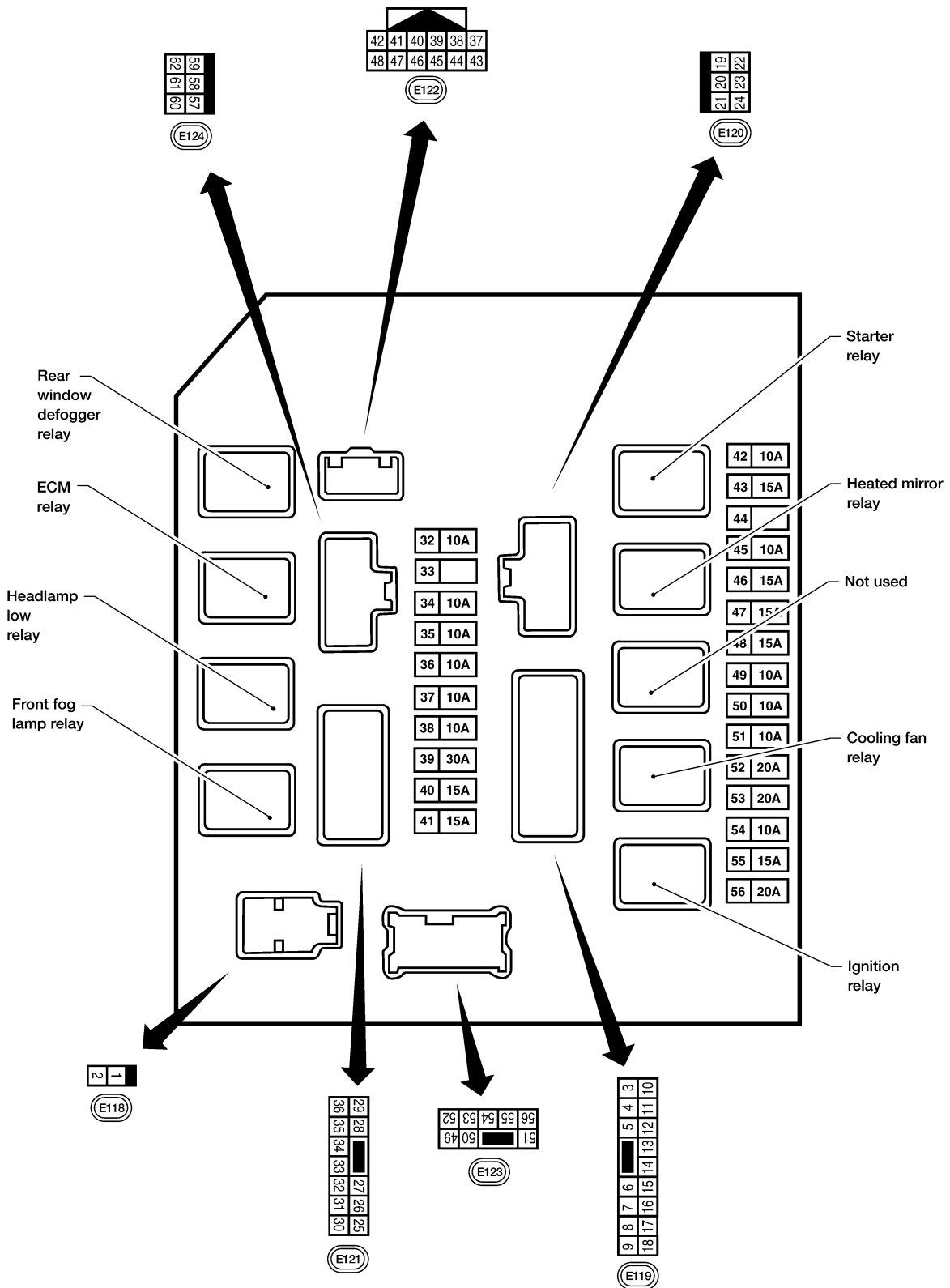
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

IPDM E/R Terminal Arrangement

EKS00ARE



WKIA4697E

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

IPDM E/R Power/Ground Circuit Inspection

EKS00ARF

1. FUSE AND FUSIBLE LINK INSPECTION

Check that the following fusible links or IPDM E/R fuses are not blown.

Terminal No.	Signal name	Fuse, fusible link No.
1, 2	Battery power	a, c, d

OK or NG

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

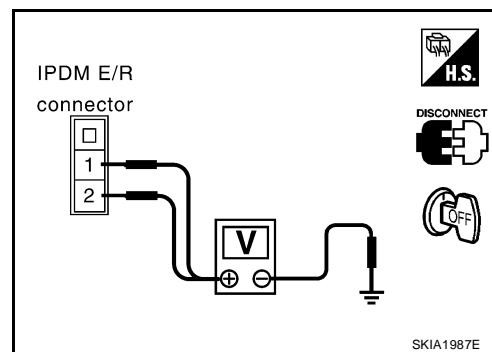
2. POWER CIRCUIT INSPECTION

1. Disconnect IPDM E/R harness connector E118.
2. Check voltage between IPDM E/R harness connector E118 terminals 1, 2 and ground.

Battery voltage should exist.

OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace IPDM E/R power circuit harness.



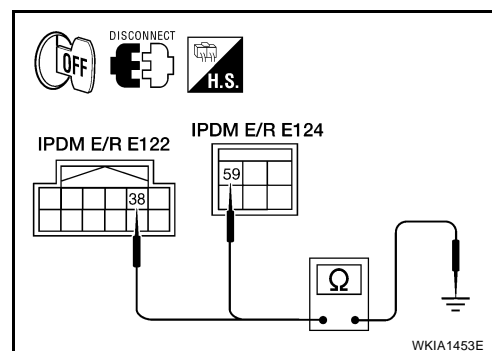
3. GROUND CIRCUIT INSPECTION

1. Disconnect IPDM E/R harness connectors E122 and E124.
2. Check continuity between IPDM E/R harness connector E122 terminal 38, and E124 terminal 59 and ground.

Continuity should exist.

OK or NG

- OK >> Inspection End.
- NG >> Repair or replace IPDM E/R ground circuit harness.



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

Inspection with CONSULT-II (Self-Diagnosis)

EKS00ARG

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 the Diagnosis System Selection screen.
2. Select "SELF-DIAG RESULTS" on the diagnosis mode selection 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.

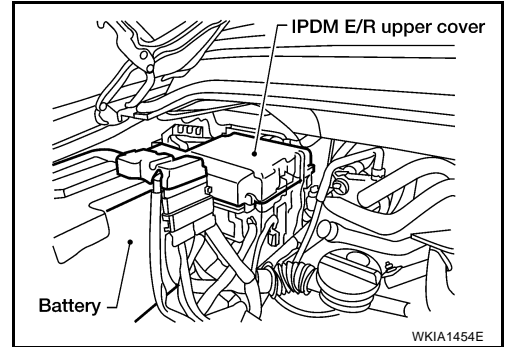
CAN COMM CIRC>>Print out the self-diagnosis result and refer to [LAN-25, "CAN COMMUNICATION"](#) .

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

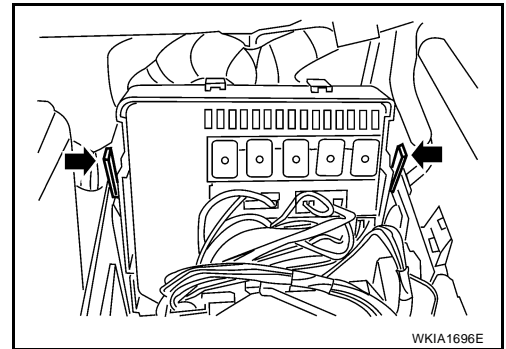
EKS00ARH

Removal and Installation of IPDM E/R REMOVAL

1. Disconnect negative battery cable.
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 the IPDM E/R.



INSTALLATION

Installation is in the reverse order of removal.

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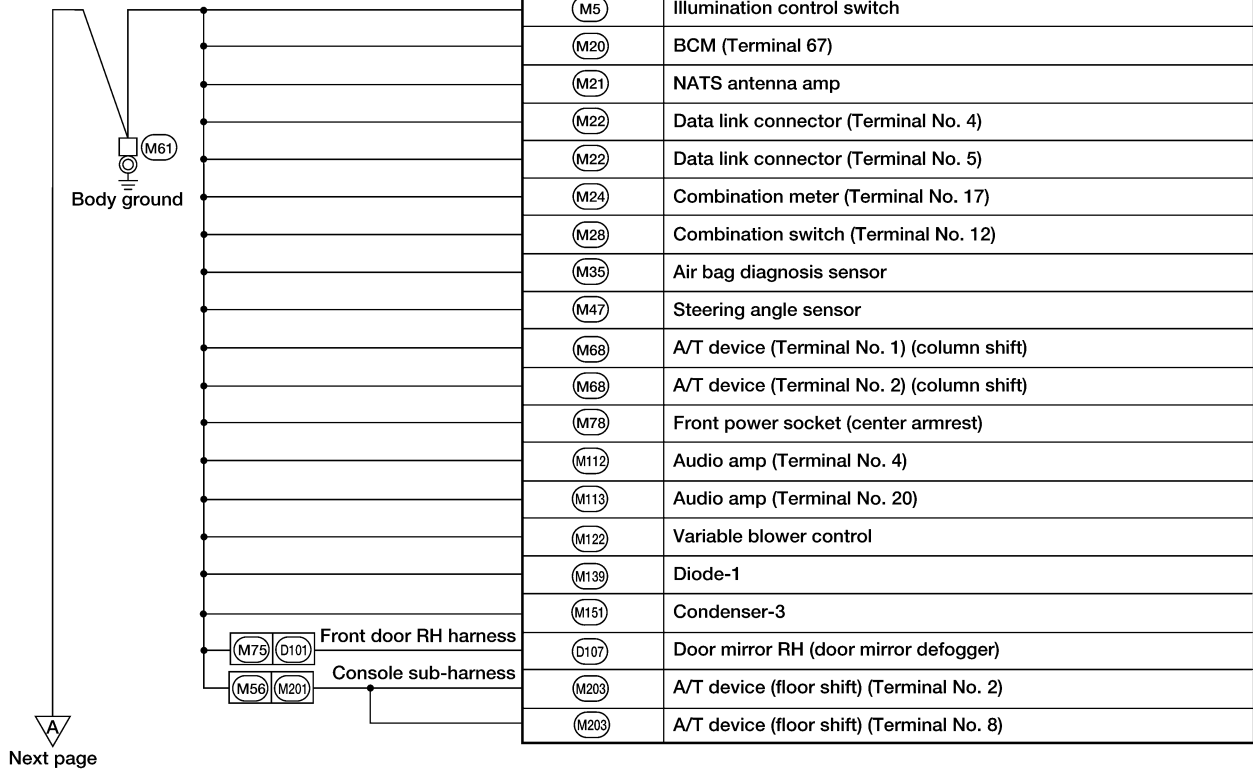
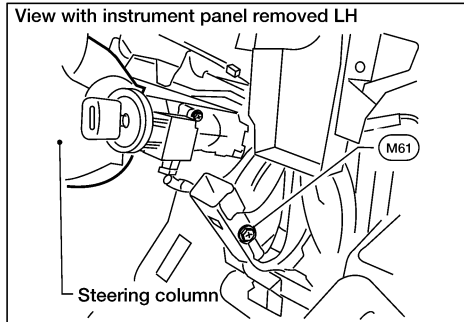
GROUND CIRCUIT

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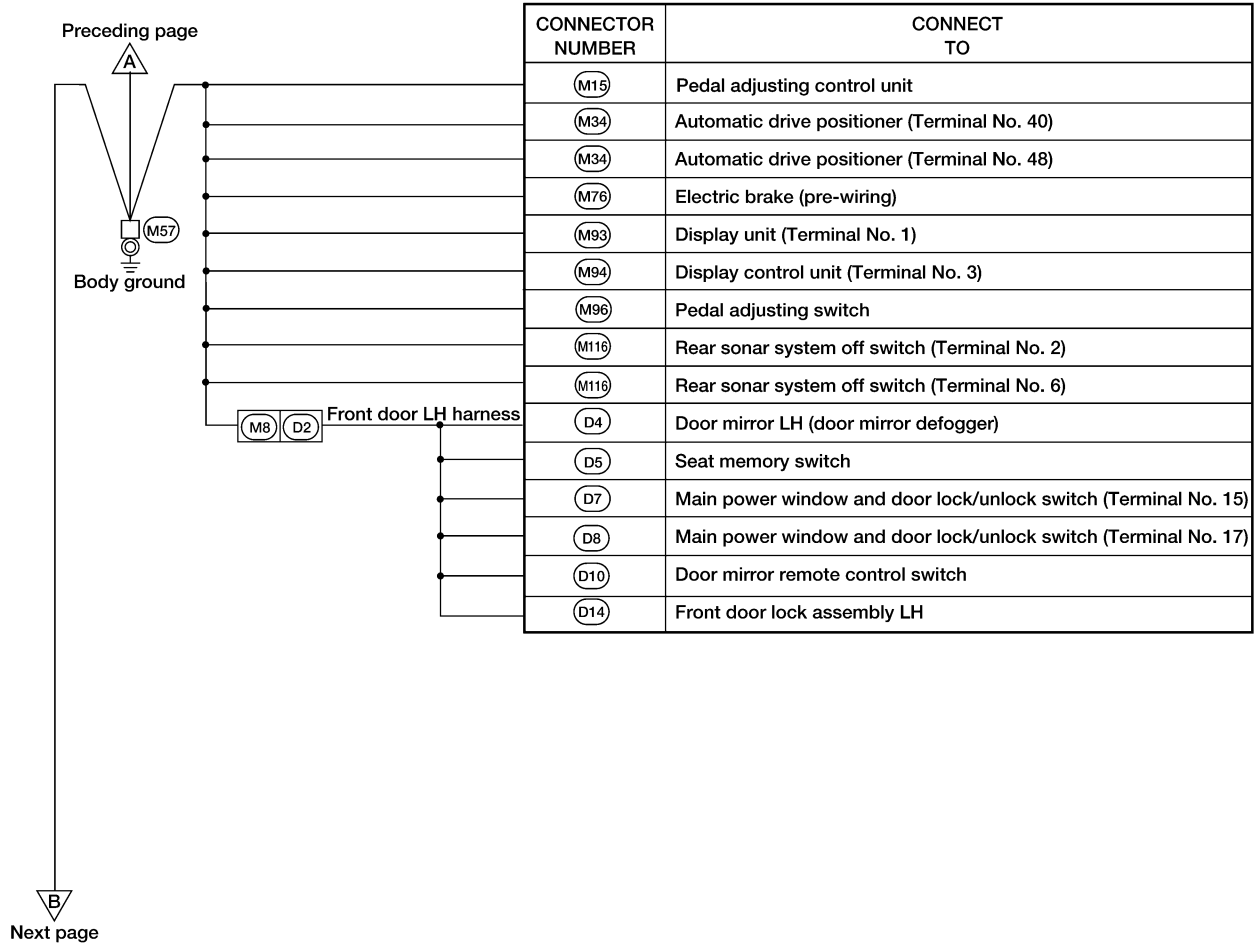
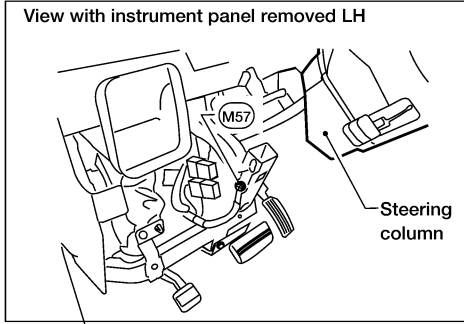
GROUND CIRCUIT

Ground Distribution MAIN HARNESS



WKIA4698E

GROUND CIRCUIT

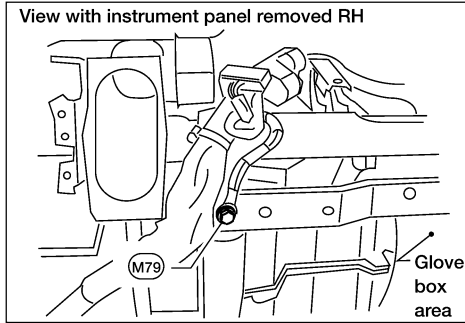


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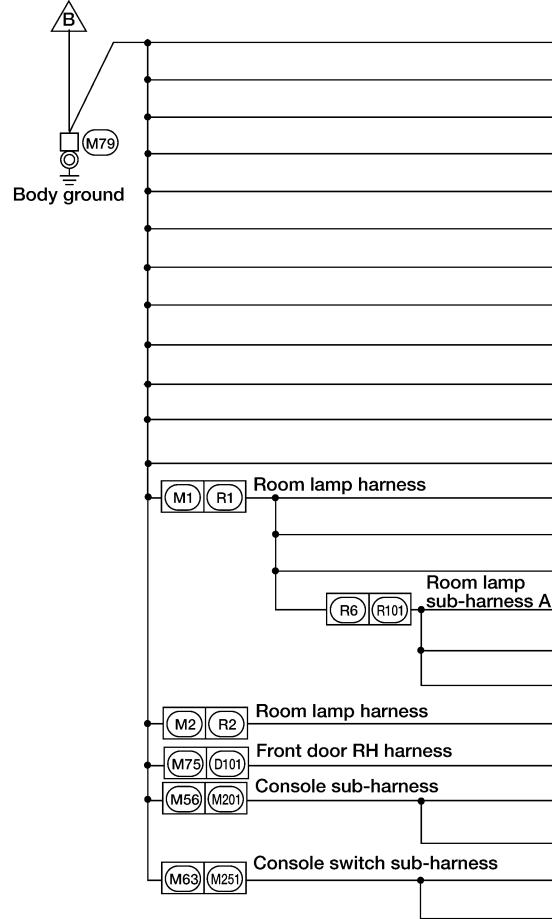
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GROUND CIRCUIT



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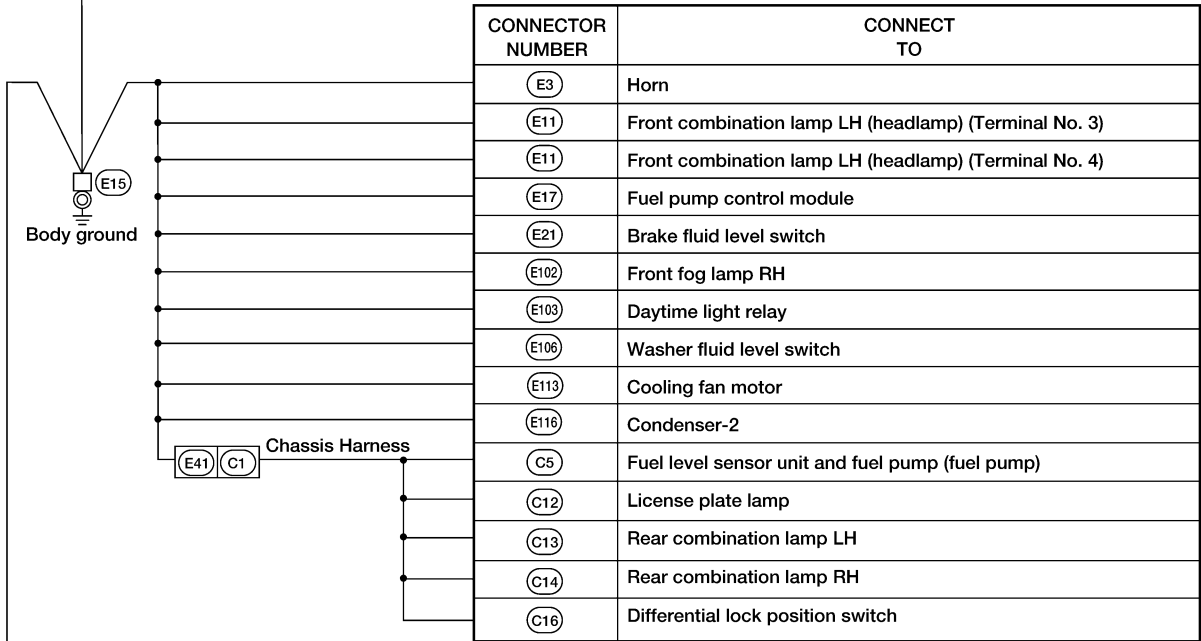
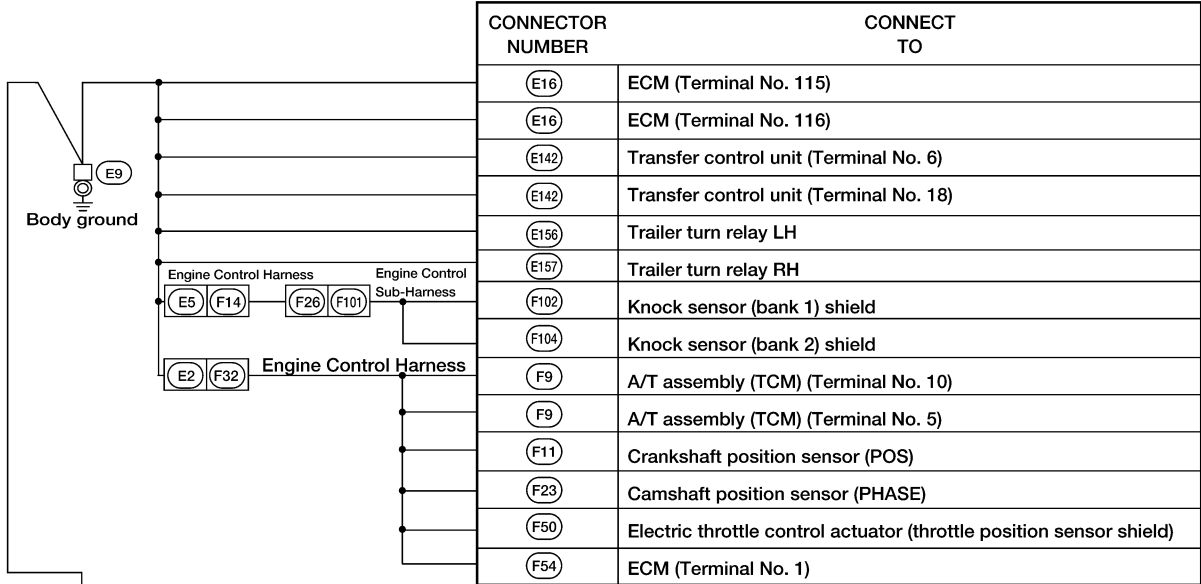
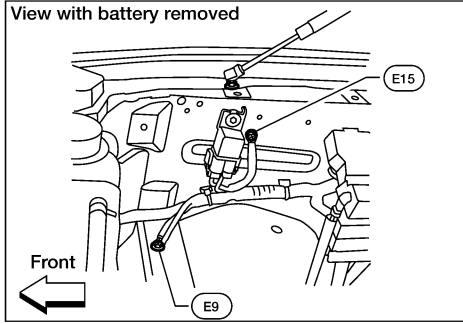


CONNECTOR NUMBER	CONNECT TO
(M3)	Fuse block J/B (Terminal No. 7N)
(M13)	Front passenger air bag off indicator
(M49)	Front air control (Terminal No. 1)
(M53)	Front power socket LH
(M54)	Front power socket RH (for cigarette lighter)
(M55)	Hazard switch
(M59)	Glove box lamp
(M67)	Tow mode switch (Terminal No. 2)
(M67)	Tow mode switch (Terminal No. 6)
(M81)	Shift lock control unit
(M98)	AV switch
(M148)	VDC OFF switch
(R3)	Vanity lamp LH
(R7)	Auto anti-dazzling inside mirror
(R8)	Vanity lamp RH
(R102)	Front room/map lamp assembly
(R105)	Compass and thermometer
(R106)	HOMELINK universal transceiver
(R4)	Sunroof motor
(D105)	Power window and door lock/unlock switch RH
(M206)	DVD player (Terminal No. 22)
(M207)	Console power socket
(M252)	Front heated seat switch RH
(M255)	Front heated seat switch LH

WKIA4700E

GROUND CIRCUIT

ENGINE ROOM HARNESS



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Next page

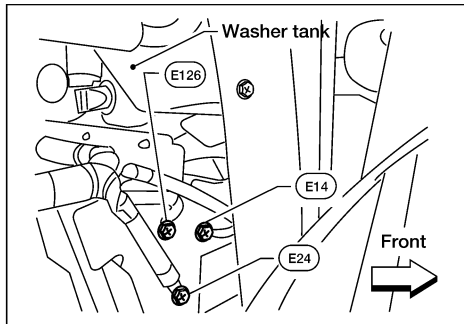
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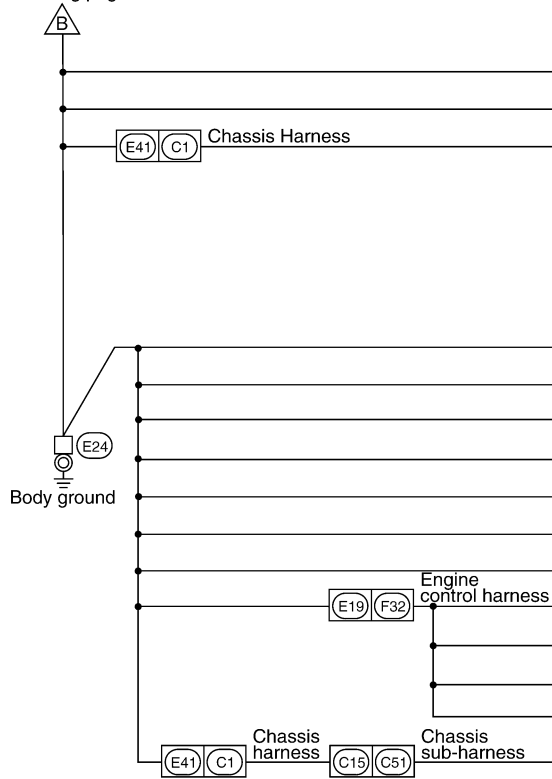
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GROUND CIRCUIT



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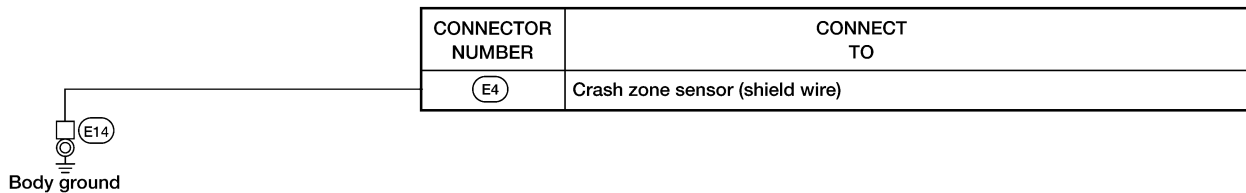
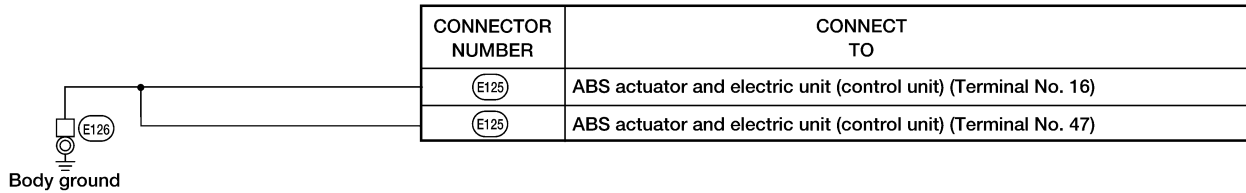
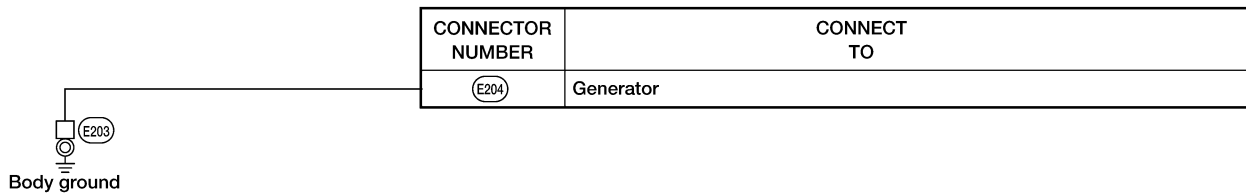
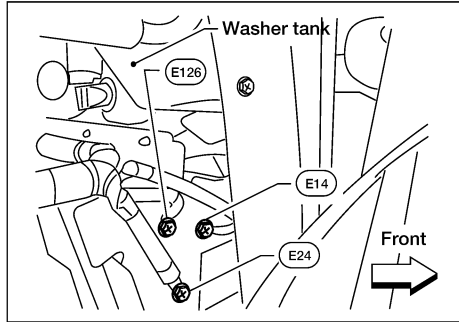
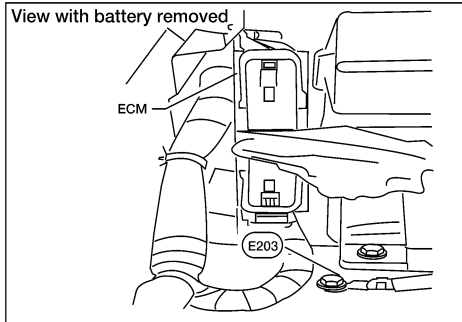


CONNECTOR NUMBER	CONNECT TO
(E140)	Trailer tow relay 2
(E143)	Transfer control unit (Terminal No. 32)
(C2)	Trailer

CONNECTOR NUMBER	CONNECT TO
(E23)	Front wiper motor
(E46)	Transfer shut off relay 1
(E101)	Front fog lamp LH
(E107)	Front combination lamp RH (headlamp) (Terminal No. 3)
(E107)	Front combination lamp RH (headlamp) (Terminal No. 4)
(E122)	IPDM E/R
(E124)	IPDM E/R
(F55)	ATP switch
(F58)	Transfer control device (Terminal No. 22)
(F59)	Wait detection switch
(F60)	4LO switch
(C52)	Rear cargo bed power socket

WKIA4702E

GROUND CIRCUIT



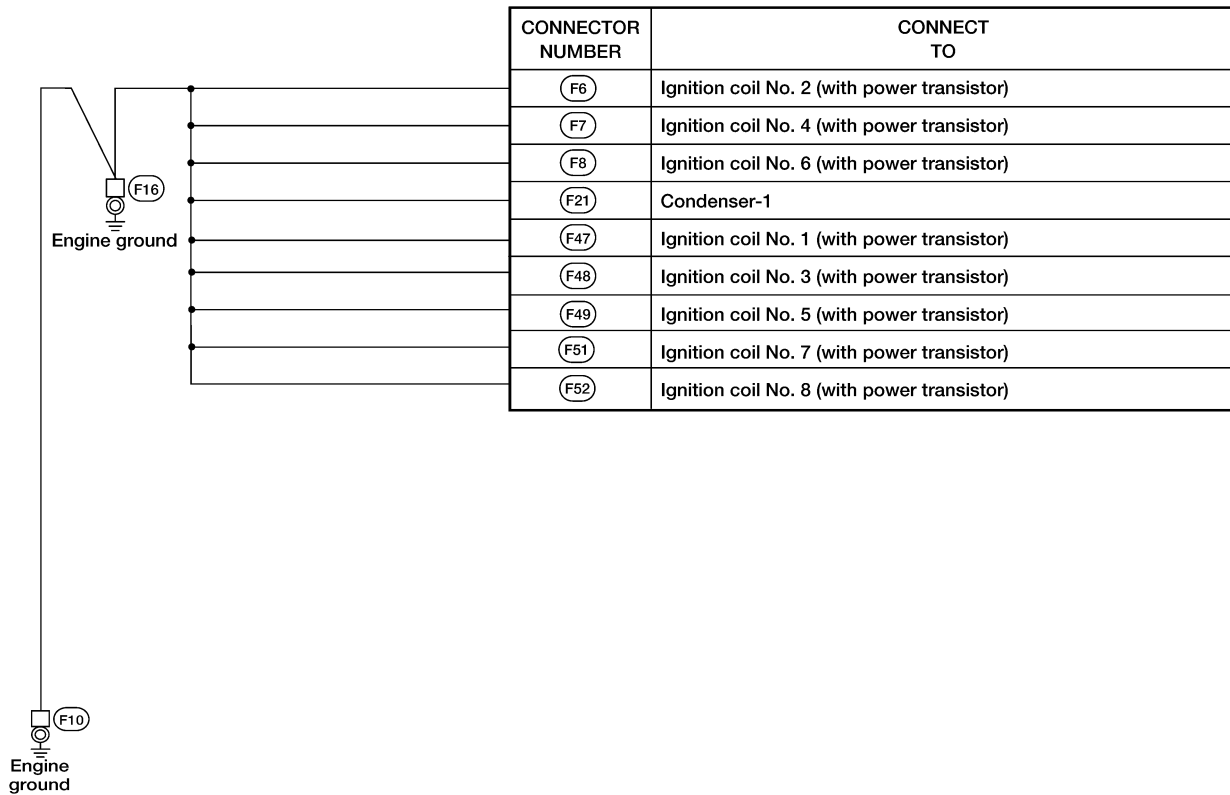
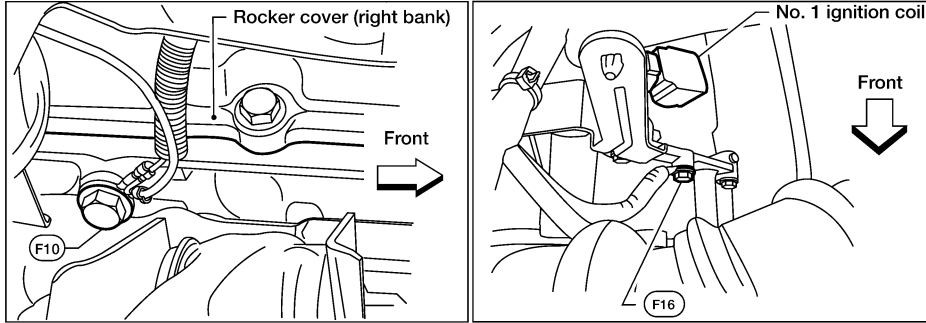
WKIA3876E

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GROUND CIRCUIT

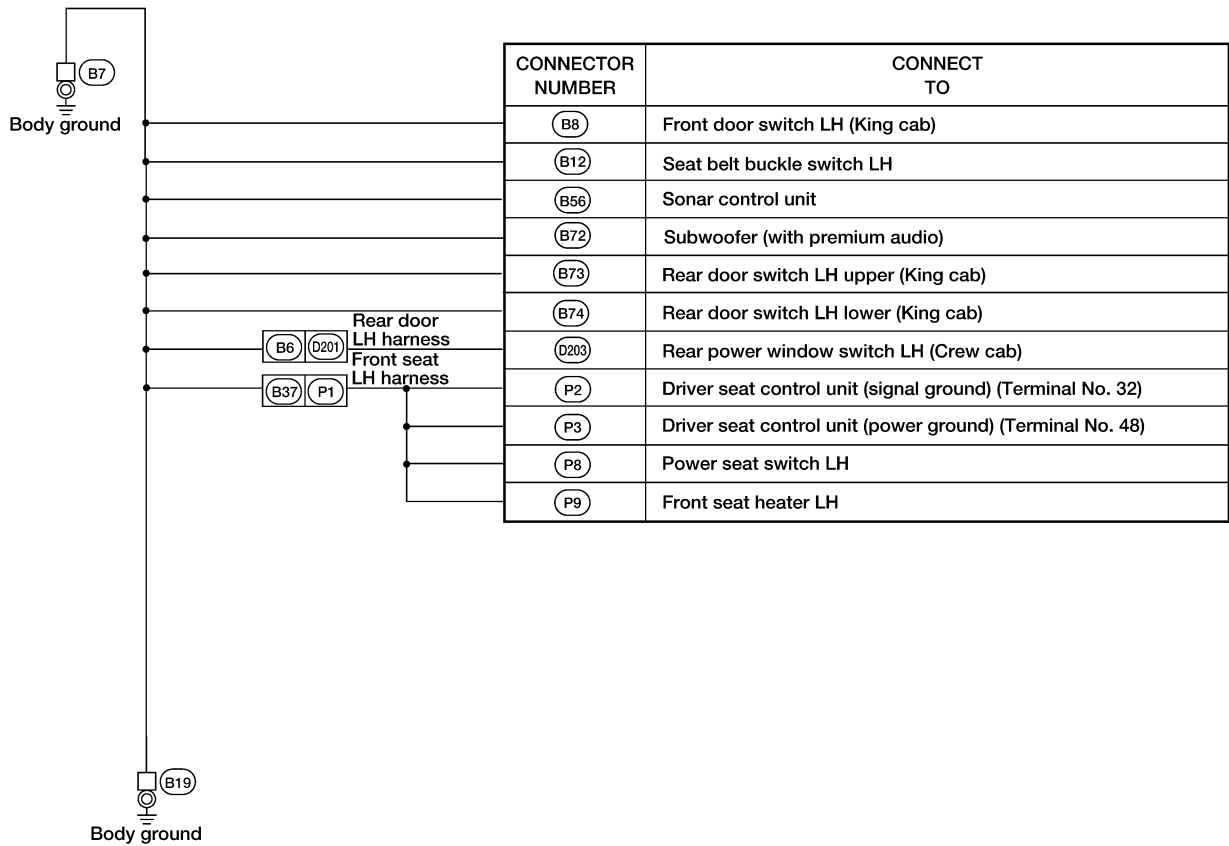
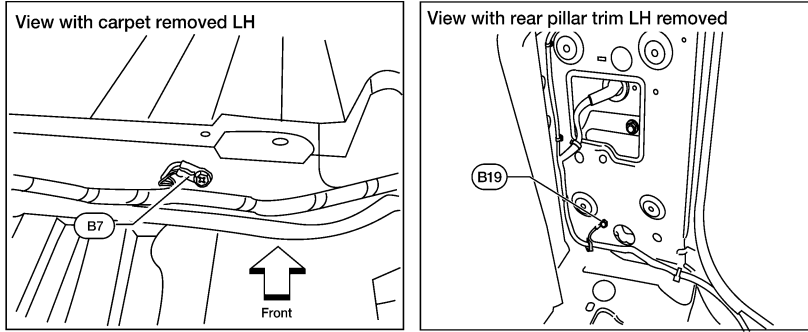
ENGINE CONTROL HARNESS



WKIA3853E

GROUND CIRCUIT

BODY HARNESS

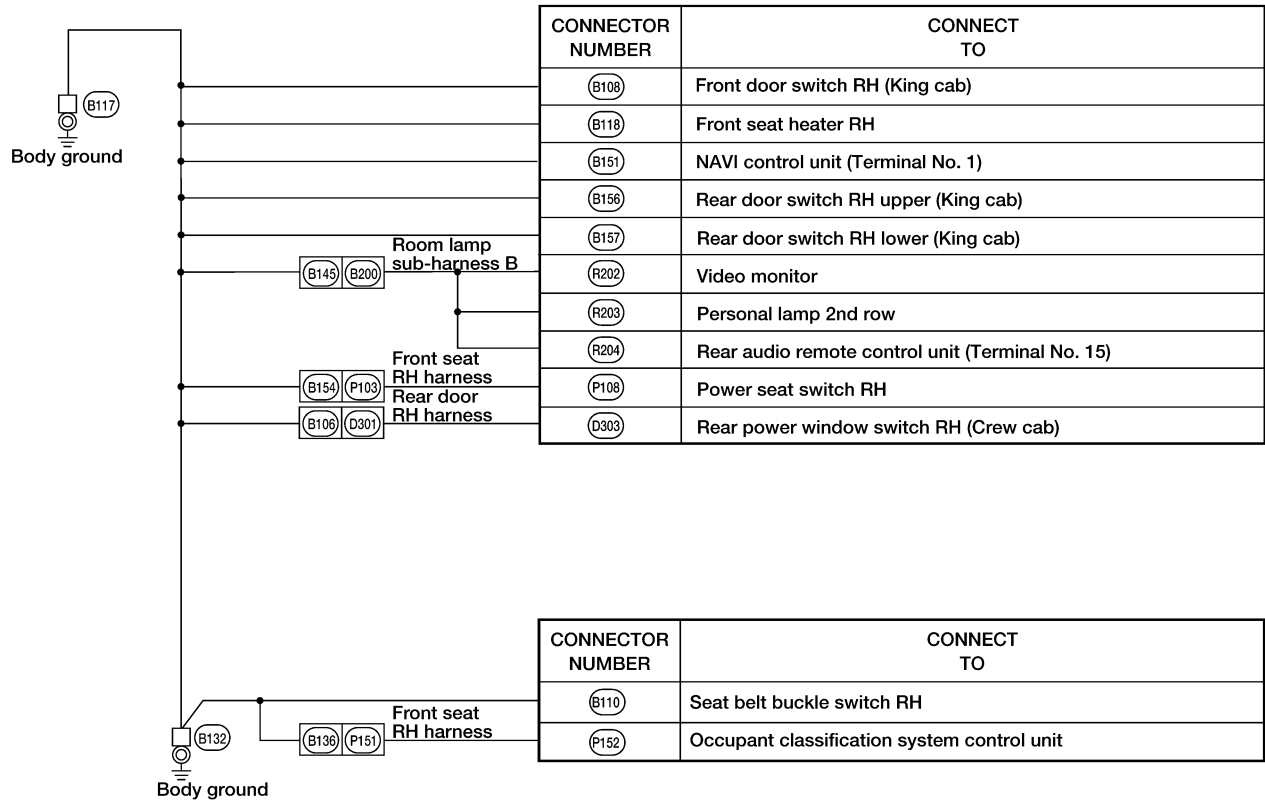
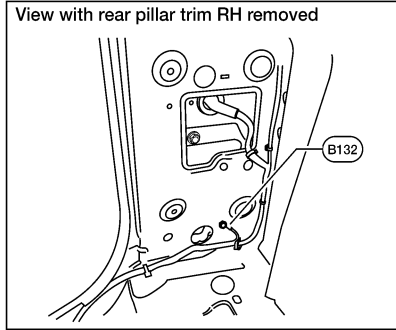
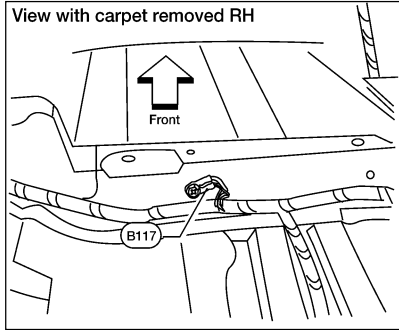


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GROUND CIRCUIT

BODY NO. 2 HARNESS



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HARNESS

PFP:24010

EKS00ARJ

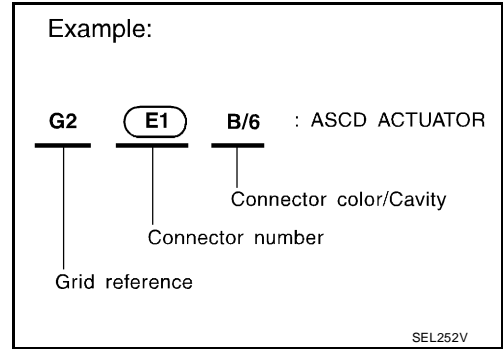
HARNESS

Harness Layout

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 LH View (Engine Compartment)
- Engine Room Harness RH View (Engine Compartment)
- Engine Control Harness
- Chassis Harness and Rear Sonar Sensor Sub-harness
- Body Harness (King Cab Models)
- Body Harness (Crew Cab Models)
- Body No. 2 Harness (King Cab Models)
- Body No. 2 Harness (Crew Cab Models)



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.

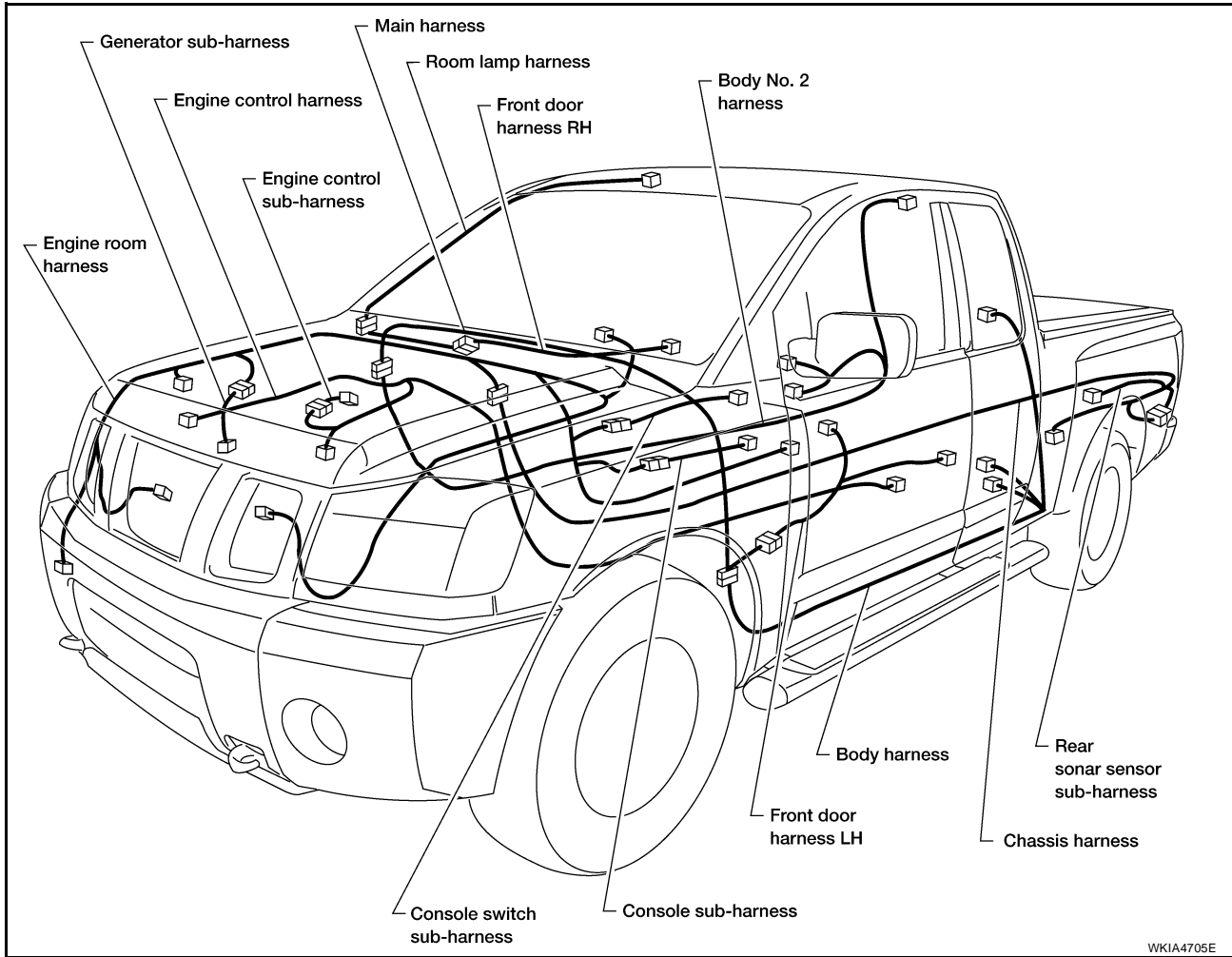
CONNECTOR SYMBOL

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: 4 or Less ● Relay connector 				
<ul style="list-style-type: none"> ● Cavity: From 5 to 8 				
<ul style="list-style-type: none"> ● Cavity: 9 or More 				
<ul style="list-style-type: none"> ● Ground terminal etc. 	—			

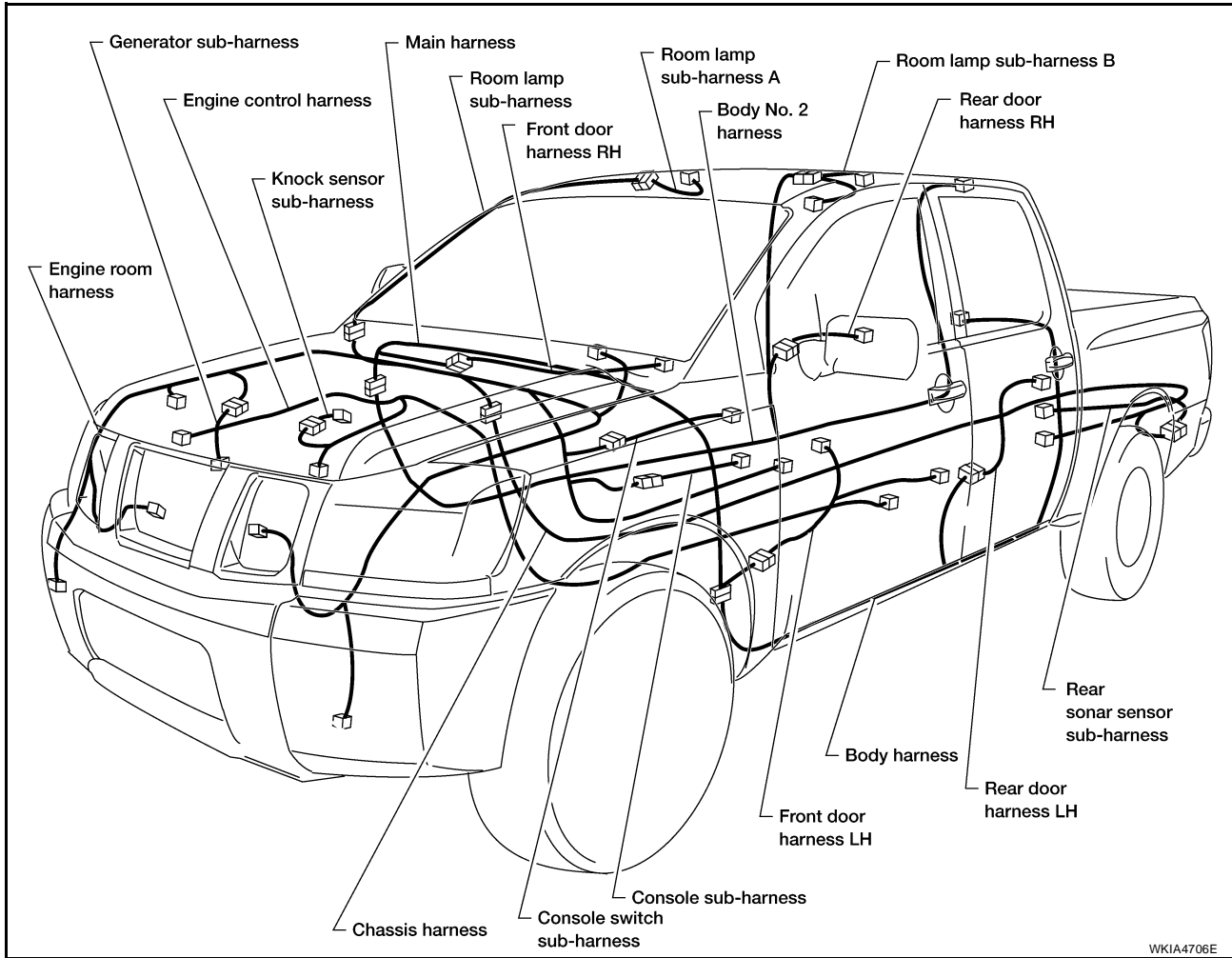
HARNESS

OUTLINE (KING CAB MODELS)



HARNESS

OUTLINE (CREW CAB MODELS)



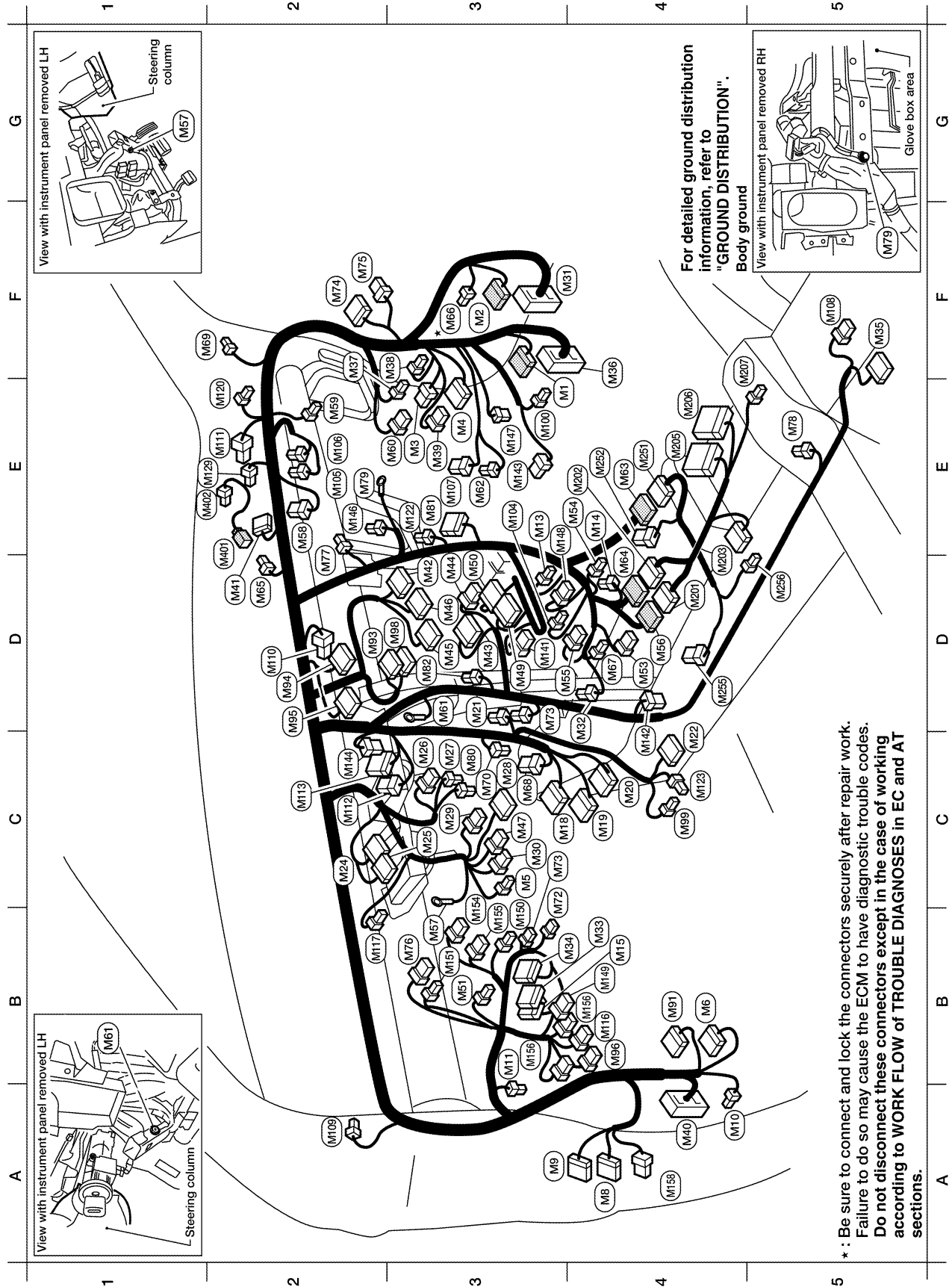
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HARNESS

MAIN HARNESS

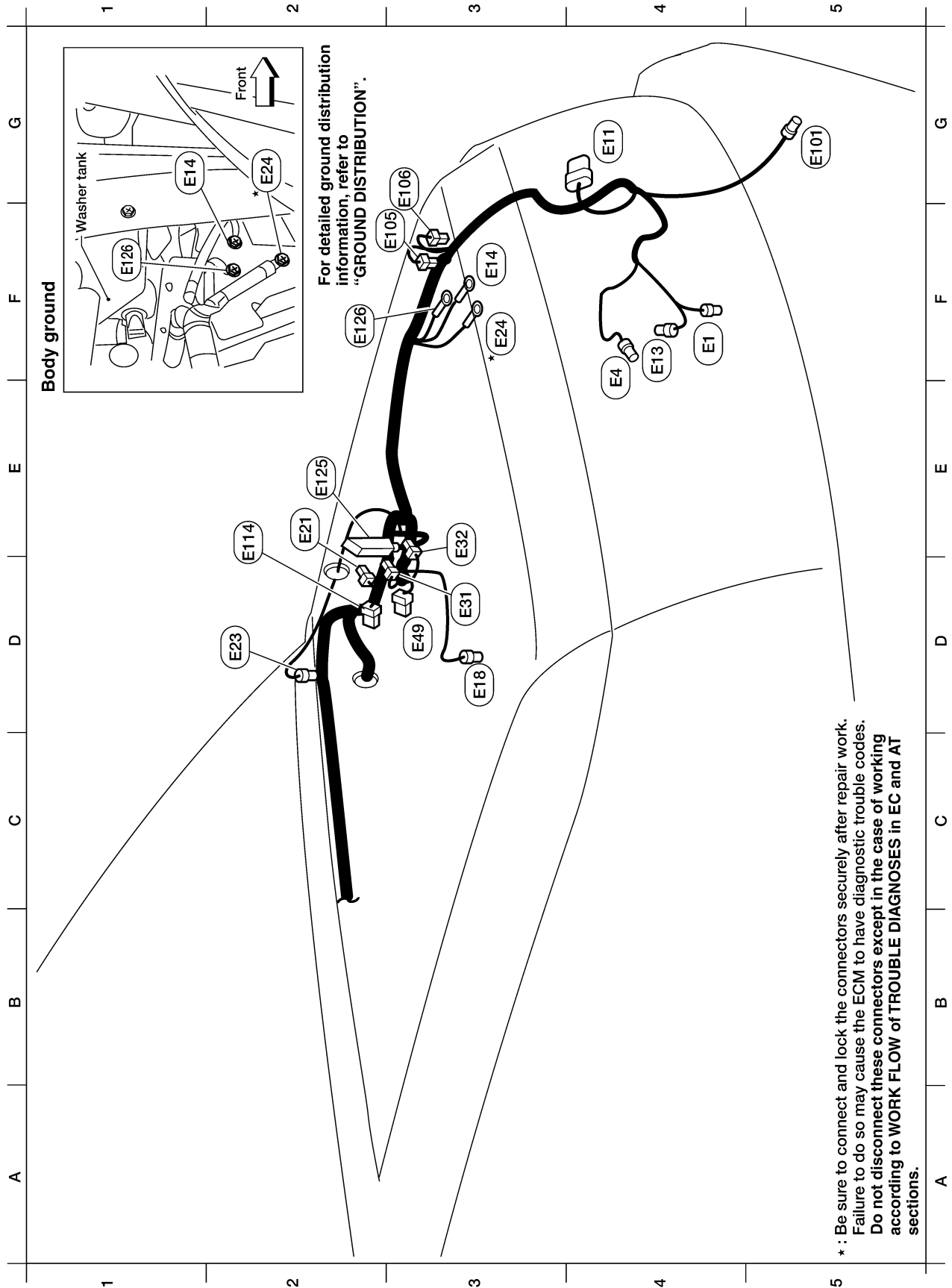


WKIA4707E

HARNESS

ENGINE ROOM HARNESS (LH VIEW)

Engine Compartment



* : 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.

WKIA4709E

Refer to [PG-49, "ENGINE ROOM HARNESS \(RH VIEW\)"](#) for continuation of engine room harness.

HARNESS

E4	(E1)	GR/2	: Ambient sensor
E4	(E4)	Y/2	: Crash zone sensor
G4	(E11)	B/6	: Front combination lamp LH
F4	(E13)	GR/2	: Ambient sensor 2
F3	(E14)	-	: Body ground
D3	(E18)	GR/2	: Front wheel sensor LH
E2	(E21)	GR/2	: Brake fluid level switch
D2	(E23)	GR/6	: Front wiper motor
F3	(E24)	*	: Body ground
D3	(E31)	B/3	: Front pressure sensor
E3	(E32)	B/3	: Rear pressure sensor
D3	(E49)	B/6	: Active booster
G5	(E101)	B/2	: Front fog lamp LH
F3	(E105)	GR/2	: Washer motor
G3	(E106)	BR/2	: Washer fluid level switch
E2	(E114)	B/6	: Delta stroke sensor
E2	(E125)	B/47	: ABS actuator and electric unit (control unit)
F2	(E126)	-	: Body ground

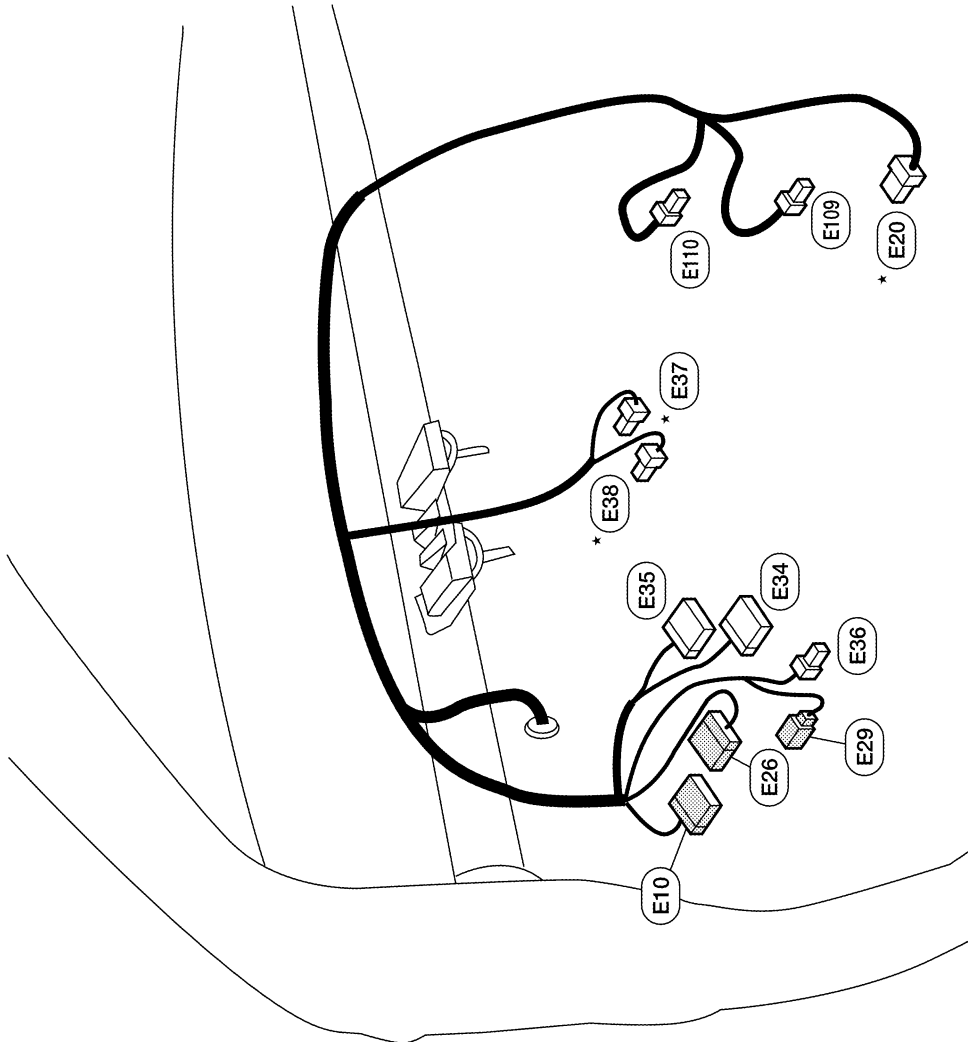
* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

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HARNESS

Passenger Compartment

- (E10) W/10 : To (M6)
- * (E20) B/8 : Accelerator pedal position (APP) sensor
- (E26) W/16 : To (M91)
- (E29) Y/4 : To (M10)
- (E34) W/24 : To (E40)
- (E35) W/12 : To (B41)
- (E36) W/2 : To (E42)
- * (E37) BR/2 : ASCD brake switch
- * (E38) W/4 : Stop lamp switch (column shift)
- * (E39) B/2 : Stop lamp switch (floor shift)
- (E109) GR/2 : Pedal adjusting motor
- (E110) W/3 : Pedal adjusting motor

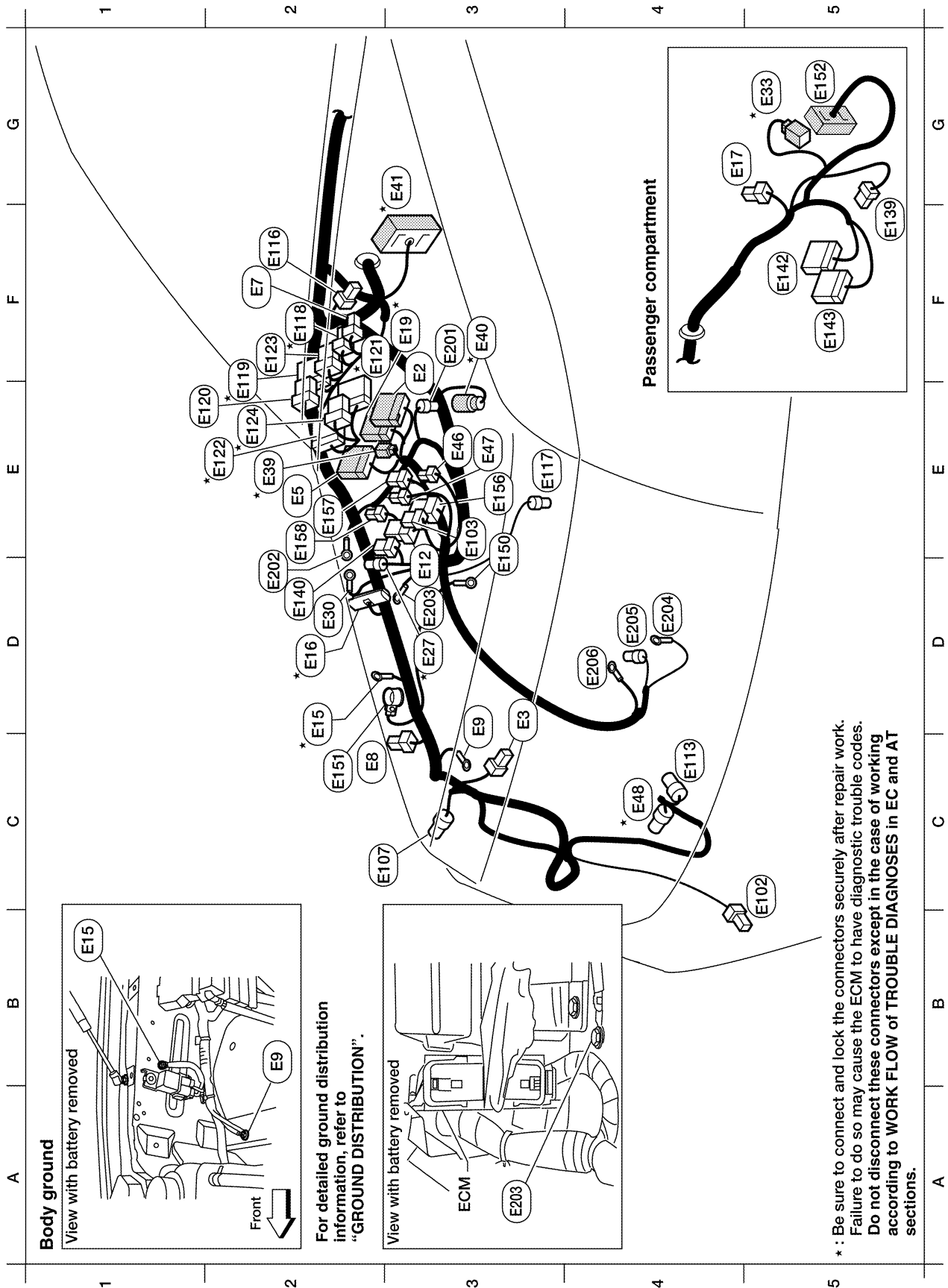


* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
 Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

WKIA4711E

HARNESS

ENGINE ROOM HARNESS (RH VIEW) Engine Compartment



Refer to [PG-46, "ENGINE ROOM HARNESS \(LH VIEW\)"](#) for continuation of engine room harness.

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HARNESS

F3	(E2)	W/16	: To (F32)
D3	(E3)	B/2	: Horn
E2 *	(E5)	W/24	: To (F14)
C2	(E7)	GR/2	: Fuse and fusible link box
C2	(E8)	GR/2	: Dropping resistor
C3 *	(E9)	-	: Body ground
D3	(E12)	B/5	: Stop lamp relay
C2	(E15)	-	: Body ground
D2	(E16)	B/32	: ECM
G4	(E17)	W/4	: Fuel pump control module
F3	(E19)	W/16	: To (F33)
D3	(E27)	BR/2	: Fusible link box (battery)
D2	(E30)	-	: Fusible link box (battery)
G5 *	(E33)	B/1	: To (M66)
E2 *	(E39)	W/2	: To (F34)
F3 *	(E40)	GR/2	: To (E201)
G3	(E41)	SMJ	: To (C1) (located RH rear of engine compartment)
E3	(E46)	L/4	: Transfer SHUT OFF relay 1
E3	(E47)	L/4	: Transfer SHUT OFF relay 2
C4 *	(E48)	B/3	: Refrigerant pressure sensor
C5	(E102)	B/2	: Front fog lamp RH
E3	(E103)	B/5	: Daytime light relay
C2	(E107)	B/6	: Front combination lamp RH
C4	(E113)	GR/2	: Cooling fan motor
F2 *	(E116)	W/2	: Condenser-2
E3 *	(E117)	GR/2	: Front wheel sensor RH
F2	(E118)	B/2	: IPDM E/R (intelligent power distribution module engine room)
E2 *	(E119)	W/16	: IPDM E/R (intelligent power distribution module engine room)
E2 *	(E120)	W/6	: IPDM E/R (intelligent power distribution module engine room)
F3	(E121)	BR/12	: IPDM E/R (intelligent power distribution module engine room)
E2 *	(E122)	W/12	: IPDM E/R (intelligent power distribution module engine room)
F2	(E123)	BR/8	: IPDM E/R (intelligent power distribution module engine room)
E2 *	(E124)	B/6	: IPDM E/R (intelligent power distribution module engine room)

F5	(E139)	W/8	: To (E107)
D2	(E140)	BR/6	: Trailer tow relay 2
F5	(E142)	W/26	: Transfer control unit
F5	(E143)	W/24	: Transfer control unit
E3	(E150)	-	: Engine ground
C2	(E151)	-	: Negative battery cable
G5	(E152)	SMJ	: To (M31)
E3	(E156)	B/5	: Transfer shift high relay
E2	(E157)	B/5	: Transfer shift low relay
E2	(E158)	L/4	: Trailer turn relay LH
D2	(E159)	L/4	: Trailer turn relay RH

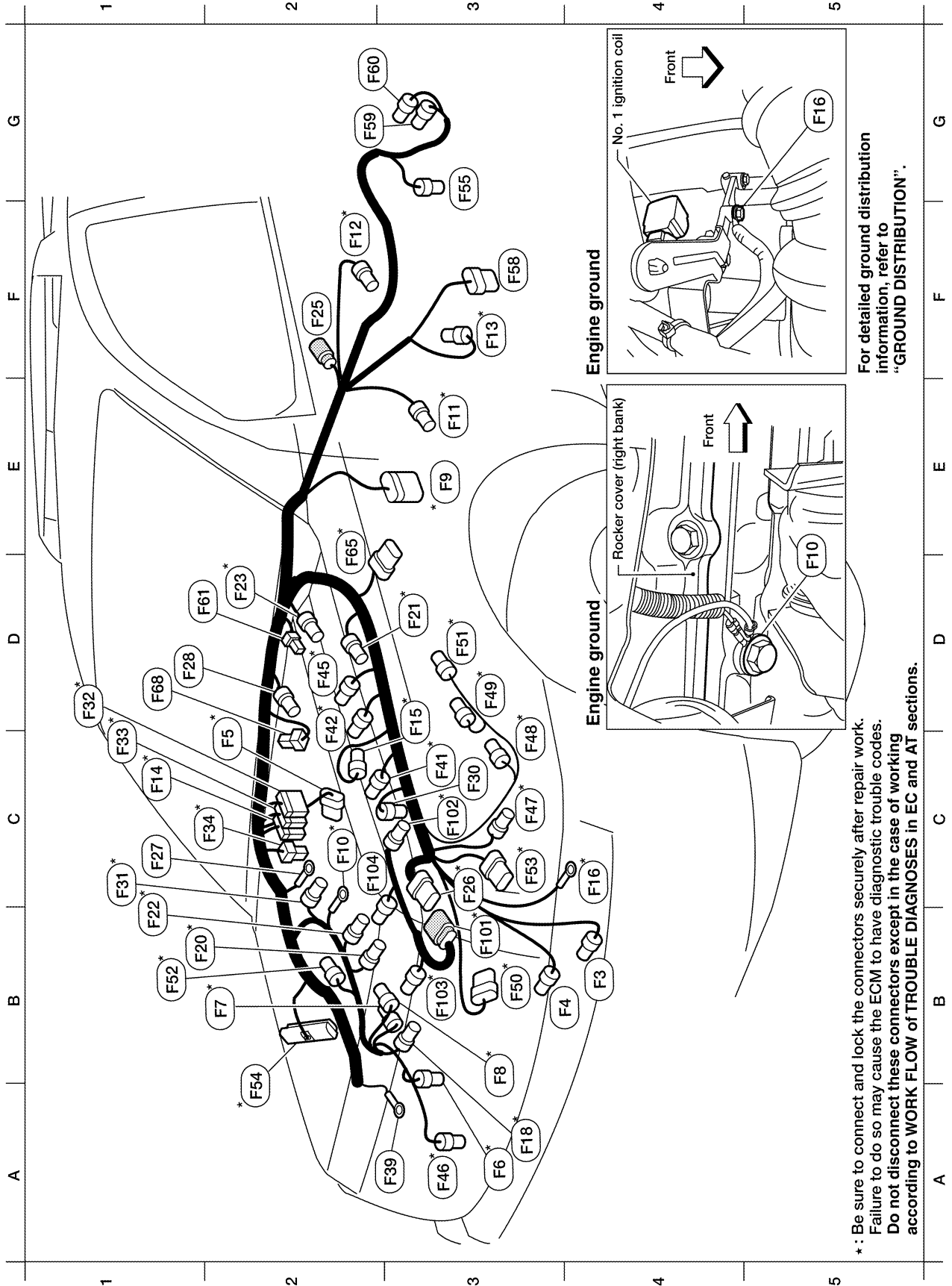
Generator sub-harness

F3	(E201)	GR/2	: To (E40)
D2	(E202)	B/1	: Fusible link box (battery)
D3	(E203)	-	: Body ground
D4	(E204)	-	: Generator
D4	(E205)	GR/2	: Generator
D4	(E206)	-	: Generator

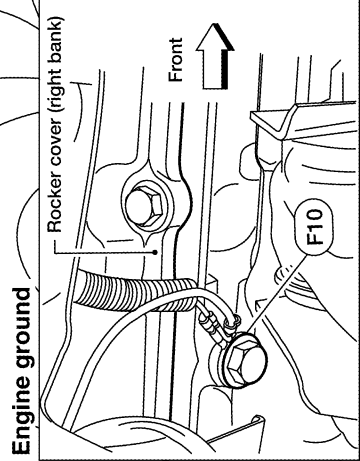
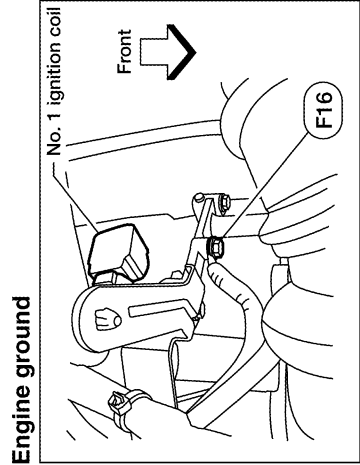
* : Be sure to connect and lock the connectors securely after repair work.
 Failure to do so may cause the ECM to have diagnostic trouble codes.
 Do not disconnect these connectors except in the case of working according to **WORK FLOW of TROUBLE DIAGNOSES** in **EC and AT** sections.

HARNESS

ENGINE CONTROL HARNESS



* : 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.



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HARNESS

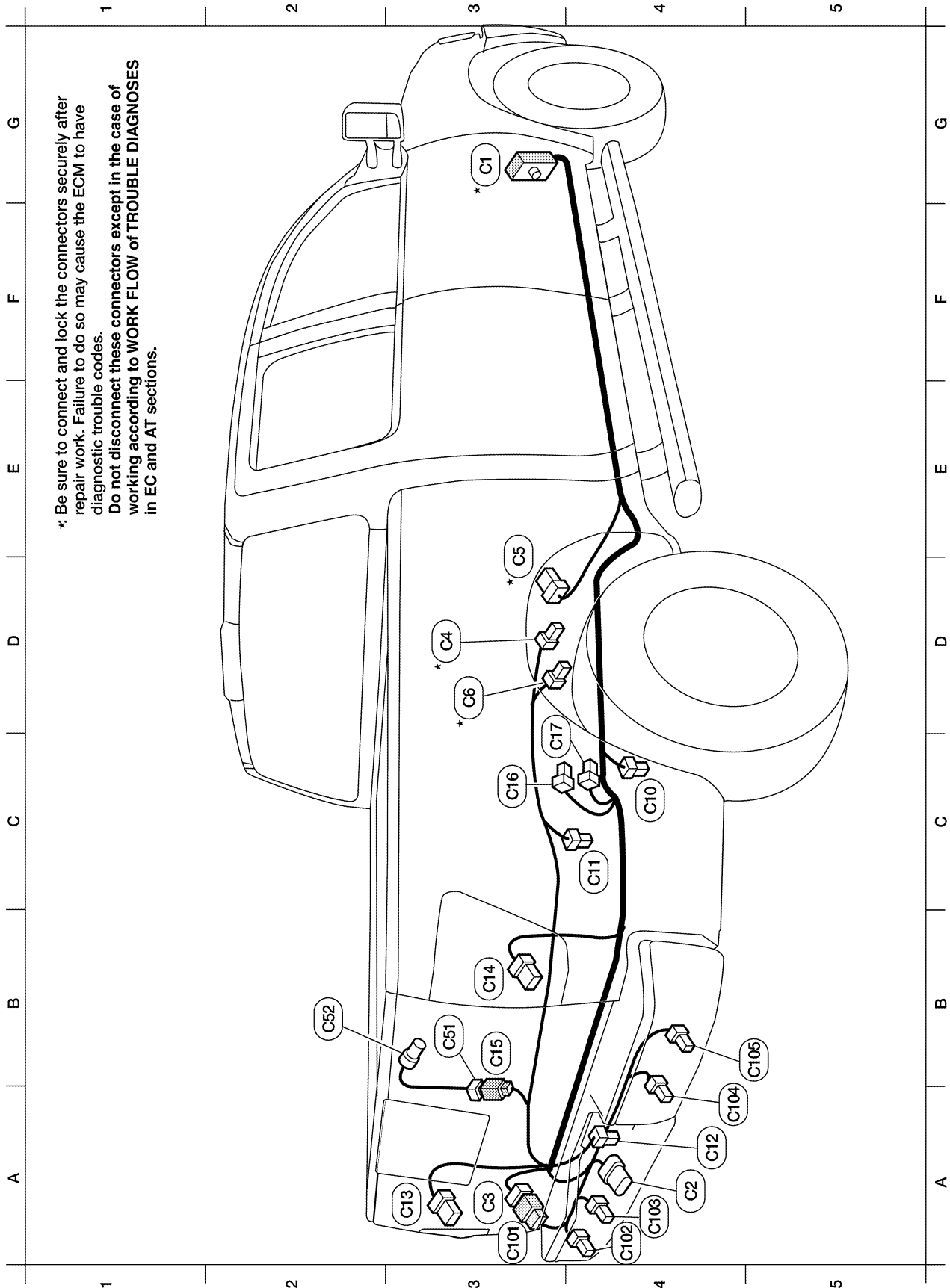
B4 (F3) B/1	: A/C Compressor	C3 * (F47) GR/3	: Ignition coil No. 1 (with power transistor)
B4 (F4) B/3	: Oil pressure sensor	C3 * (F48) GR/3	: Ignition coil No. 3 (with power transistor)
C2 (F5) B/6	: Air fuel ratio (A/F) sensor 1 (bank 2)	D3 * (F49) GR/3	: Ignition coil No. 5 (with power transistor)
A3 * (F6) GR/3	: Ignition coil No. 2 (with power transistor)	B3 * (F50) B/6	: Electric throttle control actuator
B2 * (F7) GR/3	: Ignition coil No. 4 (with power transistor)	D3 * (F51) GR/3	: Ignition coil No. 7 (with power transistor)
B3 * (F8) GR/3	: Ignition coil No. 6 (with power transistor)	B1 * (F52) GR/3	: Ignition coil No. 8 (with power transistor)
E3 * (F9) G/10	: A/T assembly	C3 * (F53) B/6	: Mass air flow sensor
C2 * (F10) -	: Engine ground	A2 * (F54) B/81	: ECM
E3 * (F11) B/3	: Crankshaft position sensor (POS)	G3 * (F55) B/2	: ATP switch (4WD only)
F2 * (F12) G/4	: Heated oxygen sensor 2 (bank 2)	F3 (F58) B/8	: Transfer control device (4WD only)
F3 * (F13) G/4	: Heated oxygen sensor 2 (bank 1)	G2 (F59) GR/2	: Wait detection switch (4WD only)
C1 (F14) W/24	: To (E5)	G2 (F60) GR/2	: 4LO switch (4WD only)
C3 * (F15) L/2	: EVAP canister purge volume control solenoid valve	D1 (F61) W/2	: Condenser-2
C4 * (F16) -	: Engine ground	D2 * (F65) B/6	: Air fuel ratio (A/F) sensor 1 (bank 1)
A3 * (F18) GR/2	: Fuel injector No. 2	D1 * (F68) B/2	: Water valve
B2 * (F20) GR/2	: Fuel injector No. 4	Engine control sub-harness	
D3 * (F21) GR/2	: Condenser-1	B3 * (F101) B/6	: To (F26)
B1 * (F22) GR/2	: Fuel injector No. 6	C3 * (F102) B/2	: Knock sensor (bank 1)
D2 * (F23) B/3	: Camshaft position sensor (PHASE)	B3 * (F103) GR/2	: Engine coolant temperature sensor
F2 (F25) W/2	: Diode No. 2	C2 * (F104) B/2	: Knock sensor (bank 2)
C3 * (F26) B/6	: To (F101)		
C1 (F27) B/1	: Starter motor		
D1 (F28) GR/1	: Starter motor		
C3 * (F30) GR/2	: Fuel injector No. 1		
C1 * (F31) GR/2	: Fuel injector No. 8		
D1 * (F32) W/16	: To (E2)		
C1 * (F33) W/16	: To (E19)		
C1 * (F34) W/2	: To (E39)		
A3 (F39) -	: Fusible link box (battery)		
C3 * (F41) GR/2	: Fuel injector No. 3		
C2 * (F42) GR/2	: Fuel injector No. 5		
D2 * (F45) GR/2	: Fuel injector No. 7		
A3 * (F46) B/3	: Power steering pressure 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 AT
 sections.

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HARNESS

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* 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.

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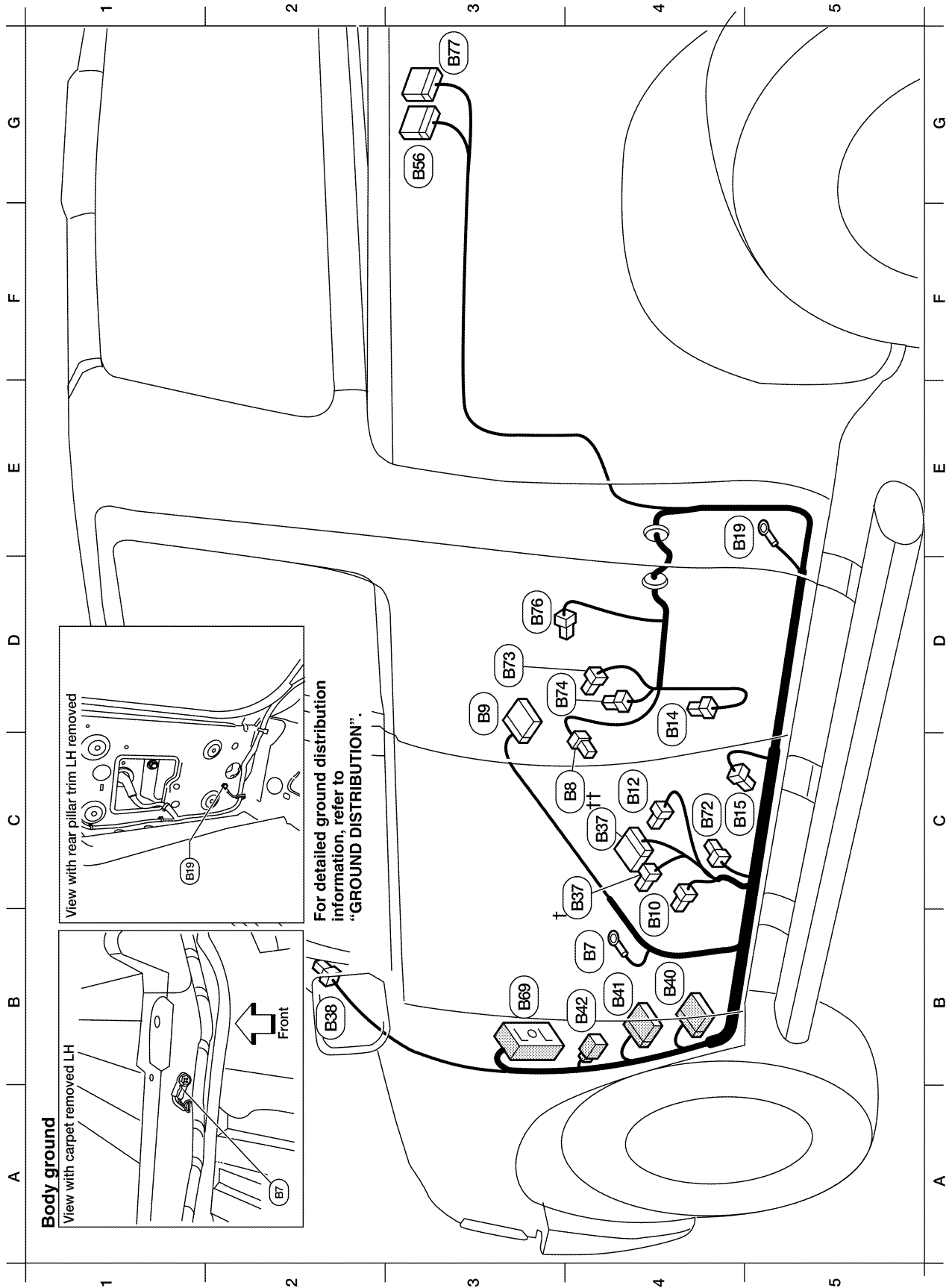
G3 * C1 SMJ : To E41 (located RH rear of engine compartment)
 A4 C2 B/7 : Trailer
 A3 C3 GR/6 : To C10
 D3 * C4 GR/3 : EVAP control system pressure sensor
 E3 * C5 GR/5 : Fuel level sensor unit and fuel pump
 D3 * C6 B/2 : EVAP canister vent control valve
 C4 C10 GR/2 : Rear wheel sensor RH
 C4 C11 BR/2 : Rear wheel sensor LH
 A4 C12 W/2 : License plate lamps
 A3 C13 GR/8 : Rear combination lamp LH
 B3 C14 GR/8 : Rear combination lamp RH
 B3 C15 W/2 : To C51
 C3 C16 GR/2 : Differential lock position switch
 C3 C17 B/2 : Differential lock solenoid
 Rear power socket sub-harness
 B3 C51 W/2 : To C15
 B2 C52 BR/2 : Rear cargo bed power socket
 Rear sonar sensor sub-harness
 A3 C10 GR/6 : To C3
 A4 C102 B/3 : Rear sonar sensor LH outer
 A4 C103 B/3 : Rear sonar sensor LH inner
 A4 C104 B/3 : Rear sonar sensor RH inner
 B5 C105 B/3 : Rear sonar sensor RH outer

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 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.

WKIA4717E

HARNESS

BODY HARNESS (KING CAB MODELS)



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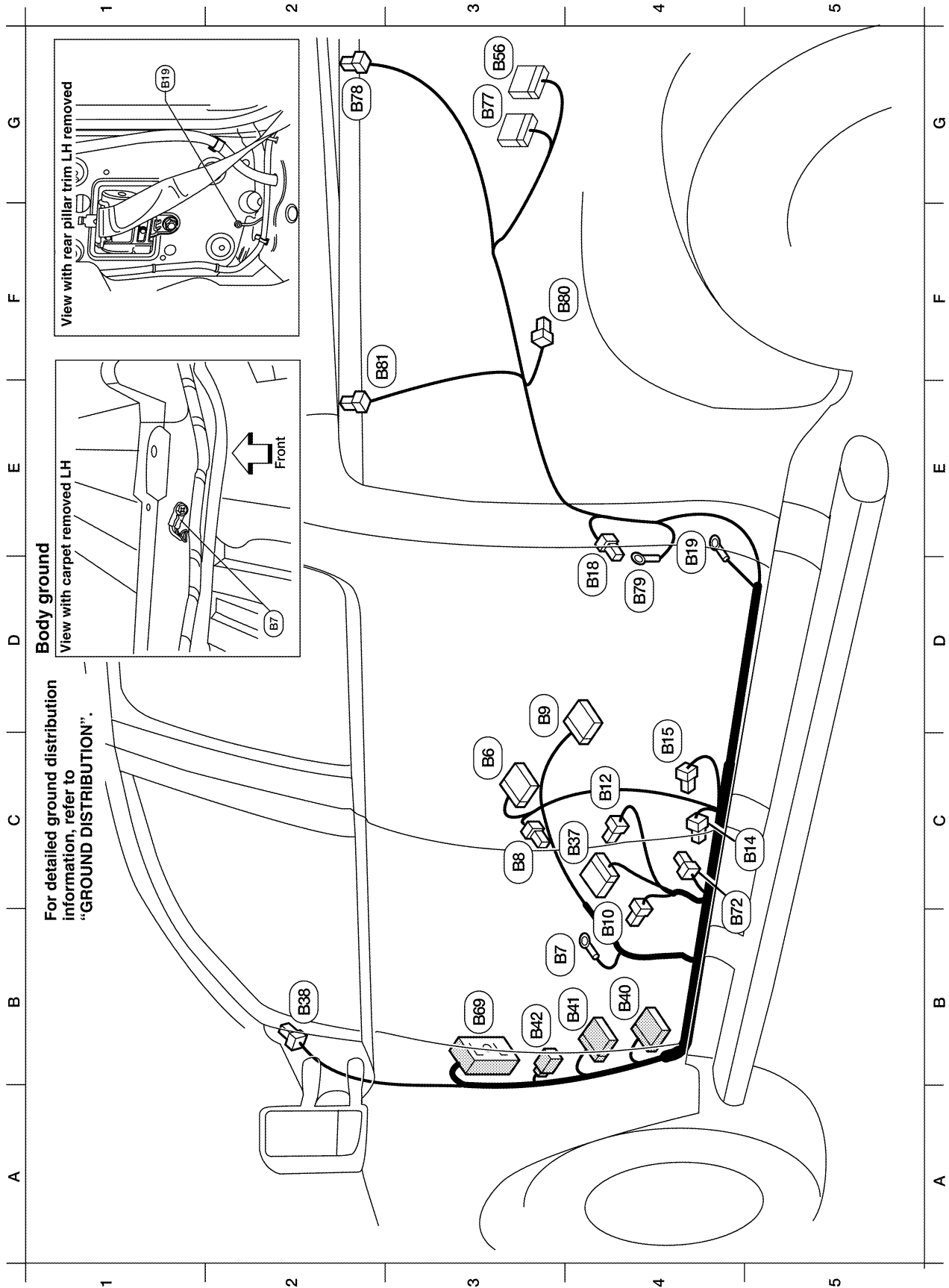
HARNESSES

B4	(B7)	-	: Body ground
C4	(B8)	W/3	: Front door switch LH
D3	(B9)	Y/12	: Air bag diagnosis sensor unit
B4	(B10)	Y/2	: Front LH side air bag module
C4	(B12)	W/3	: Seat belt buckle switch LH
D4	(B14)	Y/2	: Front LH seat belt pre-tensioner
C4	(B15)	Y/2	: LH side air bag (satellite) sensor
E5	(B19)	-	: Body ground
C4	† (B37)	W/2	: To (P1) (without automatic drive positioner)
C4	†† (B37)	W/16	: To (P1) (with automatic drive positioner)
B2	(B38)	Y/2	: LH side curtain air bag module
B4	(B40)	W/24	: To (E34)
B4	(B41)	W/12	: To (E35)
B4	(B42)	W/2	: To (E36)
G3	(B56)	W/16	: Sonar control unit
B3	(B69)	SMJ	: To (M40)
C4	(B72)	W/4	: Subwoofer (with premium audio system)
D3	(B73)	B/2	: Rear door switch upper LH
D3	(B74)	B/2	: Rear door switch lower LH
D3	(B76)	W/2	: Rear door speaker LH
G3	(B77)	B/26	: Differential lock control unit

WKIA4720E

HARNESS

BODY HARNESS (CREW CAB MODELS)



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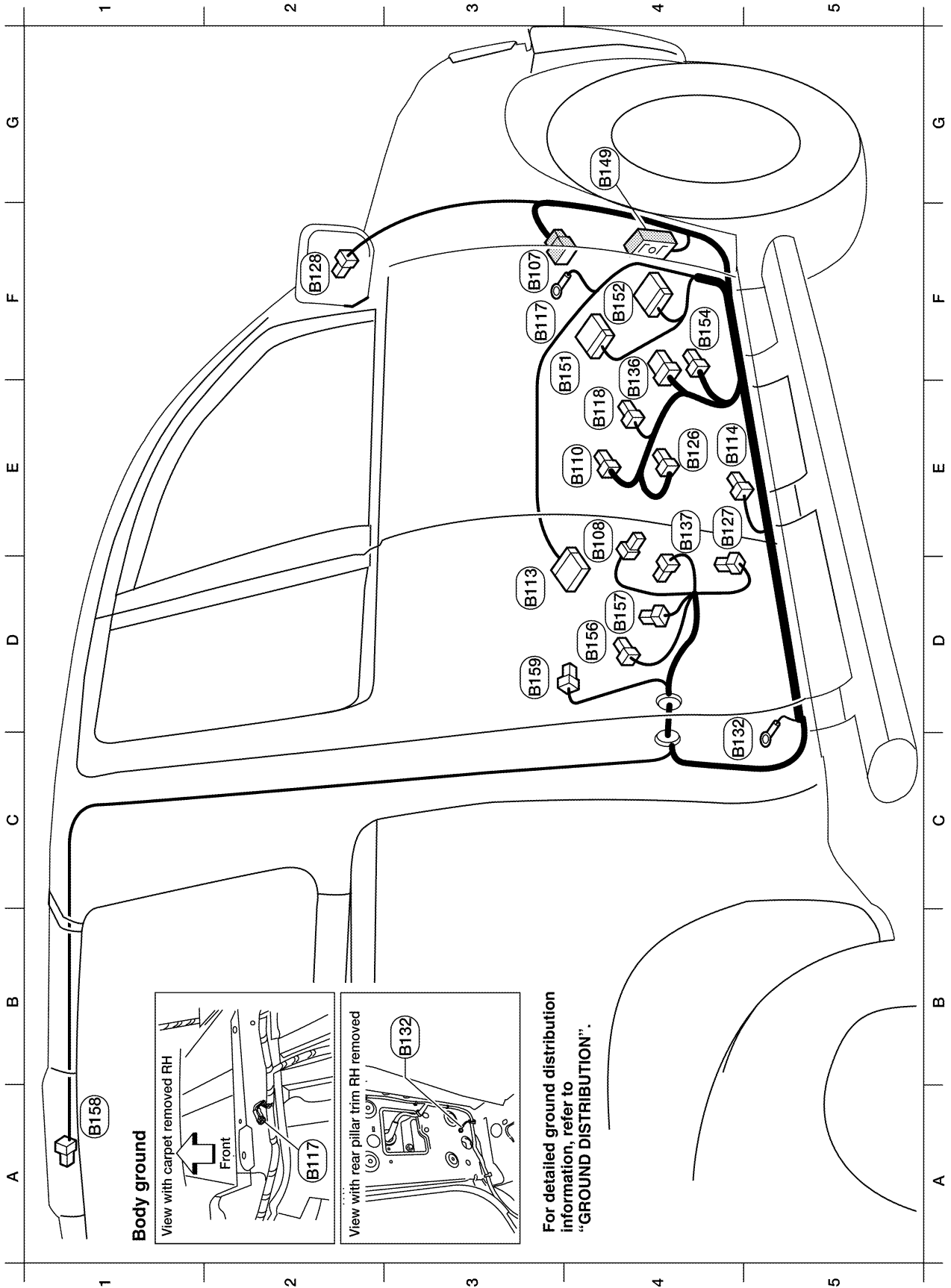
HARNESS

C3 (B6) W/18 : To (D201)
B3 (B7) - : Body ground
C3 (B8) W/3 : Front door switch LH
C3 (B9) Y/12 : Air bag diagnosis sensor unit
B4 (B10) Y/2 : Front LH side air bag module
C4 (B12) W/3 : Seat belt buckle switch LH
C5 (B14) Y/2 : Front LH seat belt pre-tensioner
C4 (B15) Y/2 : LH side air bag (satellite) sensor
D4 (B18) W/3 : Rear door switch LH
E4 (B19) - : Body ground
C4 (B37) W/16 : To (P1)
B2 (B38) Y/2 : LH side curtain air bag module
B4 (B40) W/24 : To (E34)
B4 (B41) W/12 : To (E35)
B3 (B42) W/2 : To (E36)
G3 (B56) W/16 : Sonar control unit
B3 (B69) SMJ : To (M40)
B4 (B72) W/4 : Subwoofer (with premium audio system)
G3 (B77) B/26 : Differential lock control unit
G2 (B78) B/1 : Rear window defogger
D4 (B79) - : Body ground
F4 (B80) GR/4 : Rear power drop glass motor
F2 (B81) B/1 : Rear window defogger

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HARNESS

BODY NO. 2 HARNESS (KING CAB MODELS)



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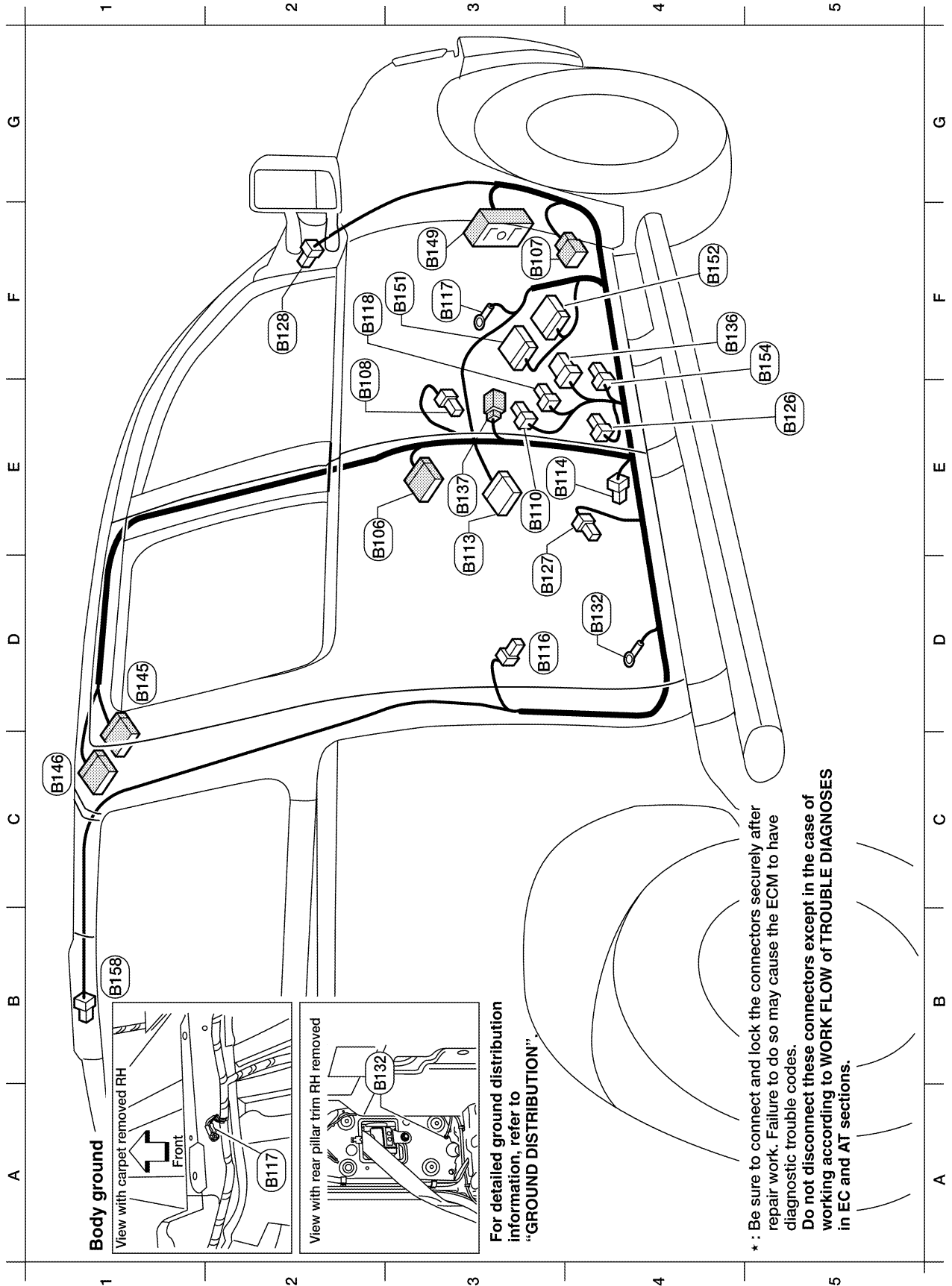
HARNESS

F3 (B107) W/8 : To (E138)
E4 (B108) W/3 : Front door switch RH
E4 (B110) W/3 : Seat belt buckle switch RH
D3 (B113) Y/12 : Air bag diagnosis sensor unit
E4 (B114) Y/2 : RH side air bag (satellite) sensor
F3 (B117) - : Body ground
E4 (B118) W/3 : Front seat heater RH
E4 (B126) Y/2 : Front RH side air bag module
E4 (B127) Y/2 : Front RH seat belt pre-tensioner
F2 (B128) Y/2 : RH side curtain air bag module
C4 (B132) - : Body ground
E4 (B136) W/8 : To (F151)
E4 (B137) W/3 : Belt tension sensor
G4 (B148) SMJ : To (M36)
F4 (B151) W/40 : NAVI control unit (with NAVI)
F4 (B152) W/32 : NAVI control unit (with NAVI)
F4 (B154) W/2 : To (F103)
D4 (B156) B/2 : Rear door switch upper RH
D4 (B157) B/2 : Rear door switch lower RH
A1 (B158) W/3 : High mounted stop lamp
D3 (B159) W/2 : Rear door speaker RH

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HARNESS

BODY NO. 2 HARNESS (CREW CAB MODELS)



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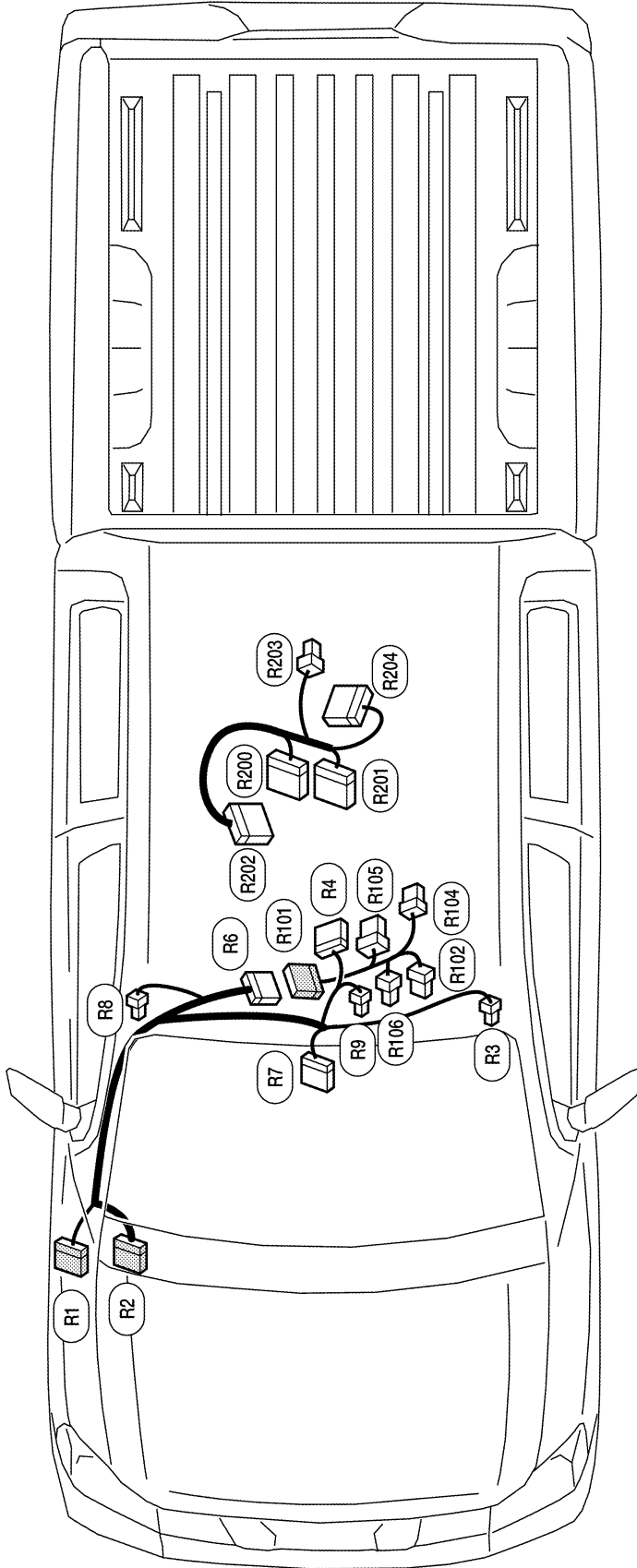
HARNESS

E2 (E106) W/18 : To (D307)
F3 (E107) W/8 : To (E139)
F2 (E108) W/3 : Front door switch RH
E3 (E110) W/3 : Seat belt buckle switch RH
E3 (E113) Y/12 : Air bag diagnosis sensor unit
E4 (E114) Y/2 : RH side air bag (satellite) sensor
D3 (E116) W/3 : Rear door switch RH
F3 (E117) - : Body ground
F2 (E118) W/3 : Front seat heater RH
E5 (E126) Y/2 : Front RH side air bag module
D4 (E127) Y/2 : Front RH seat belt pre-tensioner
F2 (E128) Y/2 : RH side curtain air bag module
D4 (E132) - : Body ground
F4 (E136) W/8 : To (F151)
E3 (E137) W/3 : Belt tension sensor
D1 (E145) W/16 : To (R200)
C1 (E146) BR/24 : To (R201)
F3 (E149) SMJ : To (M336)
F3 (E151) W/40 : NAVI control unit (with NAVI)
F4 (E152) W/32 : NAVI control unit (with NAVI)
F5 (E154) W/2 : To (E103)
B1 (E156) W/3 : High mounted stop lamp

WKIA5899E

HARNESS

ROOM LAMP HARNESS



- (R1) W/16 : To (M1)
- (R2) W/12 : To (M2)
- (R3) W/2 : Vanity lamp LH
- (R4) W/10 : Sunroof motor assembly
- (R6) W/24 : To (R10)
- (R7) B/7 : Auto anti-dazzling inside mirror
- (R8) W/2 : Vanity lamp RH
- (R9) W/2 : Room lamp

Room lamp sub-harness A

- (R10) W/24 : To (R6)
- (R102) GR/8 : Front room/map lamp assembly
- (R104) GR/6 : Sunroof switch
- (R105) W/8 : Compass and thermometer
- (R106) W/2 : HOMELINK universal transceiver

Room lamp sub-harness B (Crew Cab)

- (R200) W/16 : To (B145)
- (R201) BR/24 : To (B146)
- (R202) W/12 : Video monitor
- (R203) W/3 : Personal lamp 2nd row
- (R204) W/16 : Rear audio remote control unit

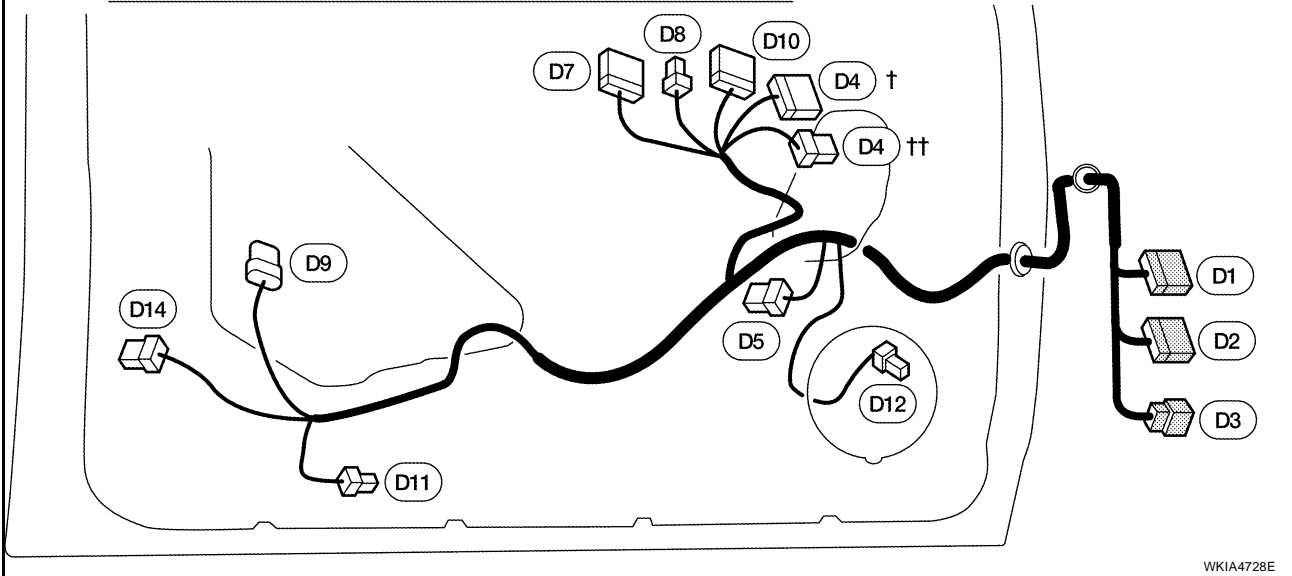
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PG

HARNESS

FRONT DOOR HARNESS LH

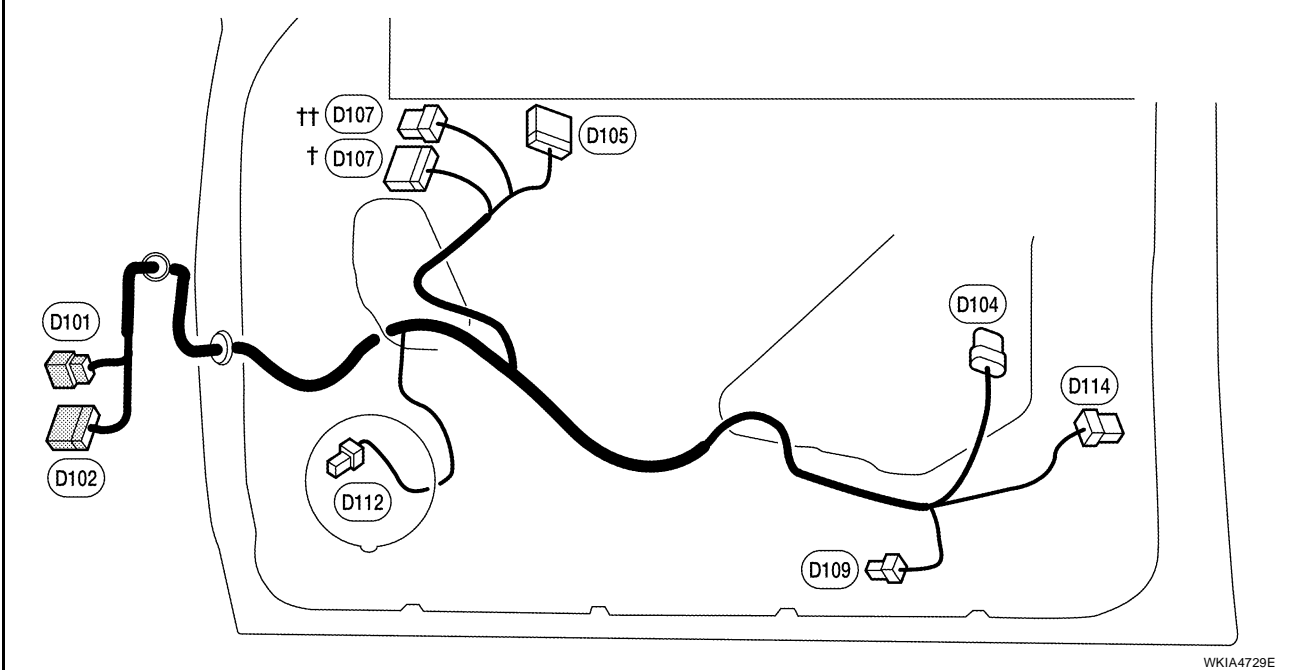
- | | |
|-------------------------------------------------------------------|----------------------------------------------------------|
| Ⓧ D1 BR/24 : To Ⓧ M9 | Ⓧ D8 W/3 : Main power window and door lock/unlock switch |
| Ⓧ D2 W/16 : To Ⓧ M8 | Ⓧ D9 GR/6 : Front power window motor LH |
| Ⓧ D3 W/8 : To Ⓧ M158 | Ⓧ D10 W/16 : Door mirror remoater control switch |
| † Ⓧ D4 W/16 : Door mirror LH (with automatic drive positioner) | Ⓧ D11 W/2 : Front step lamp LH |
| †† Ⓧ D4 W/6 : Door mirror LH (without automatic drive positioner) | Ⓧ D12 W/2 : Front door speaker LH |
| Ⓧ D5 W/8 : Seat memory switch | Ⓧ D14 B/6 : Front door lock assembly LH |
| Ⓧ D7 W/16 : Main power window and door lock/unlock switch | |



WKIA4728E

FRONT DOOR HARNESS RH

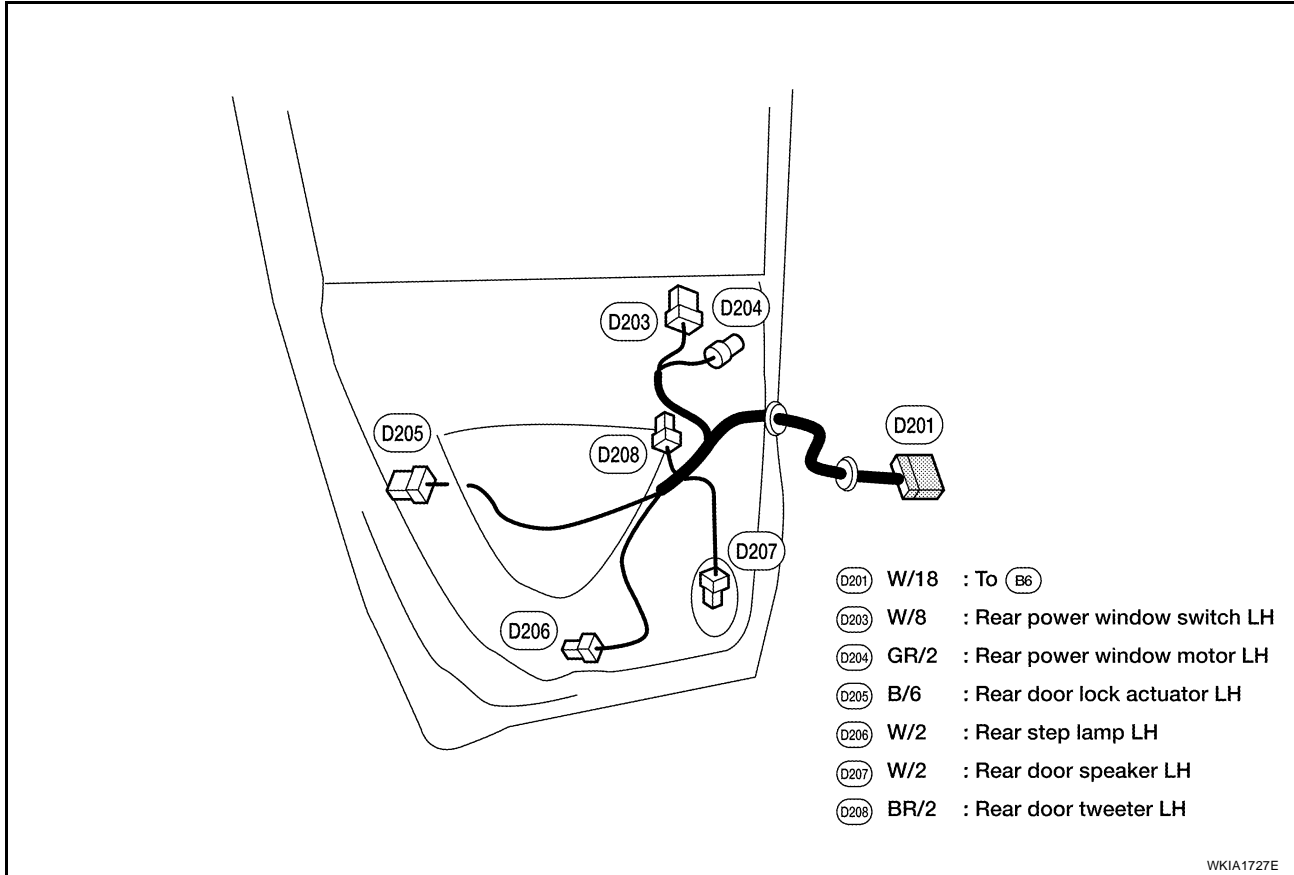
- | | |
|-----------------------------------------------------------|---------------------------------------------------------------------|
| Ⓧ D101 W/8 : To Ⓧ M75 | † Ⓧ D107 W/16 : Door mirror RH (with automatic drive positioner) |
| Ⓧ D102 W/20 : To Ⓧ M74 | †† Ⓧ D107 W/6 : Door mirror RH (without automatic drive positioner) |
| Ⓧ D104 GR/6 : Front power window motor RH | Ⓧ D109 W/2 : Front step lamp RH |
| Ⓧ D105 W/16 : Power window and door lock/unlock switch RH | Ⓧ D112 W/2 : Front door speaker RH |
| | Ⓧ D114 B/6 : Front door lock actuator RH |



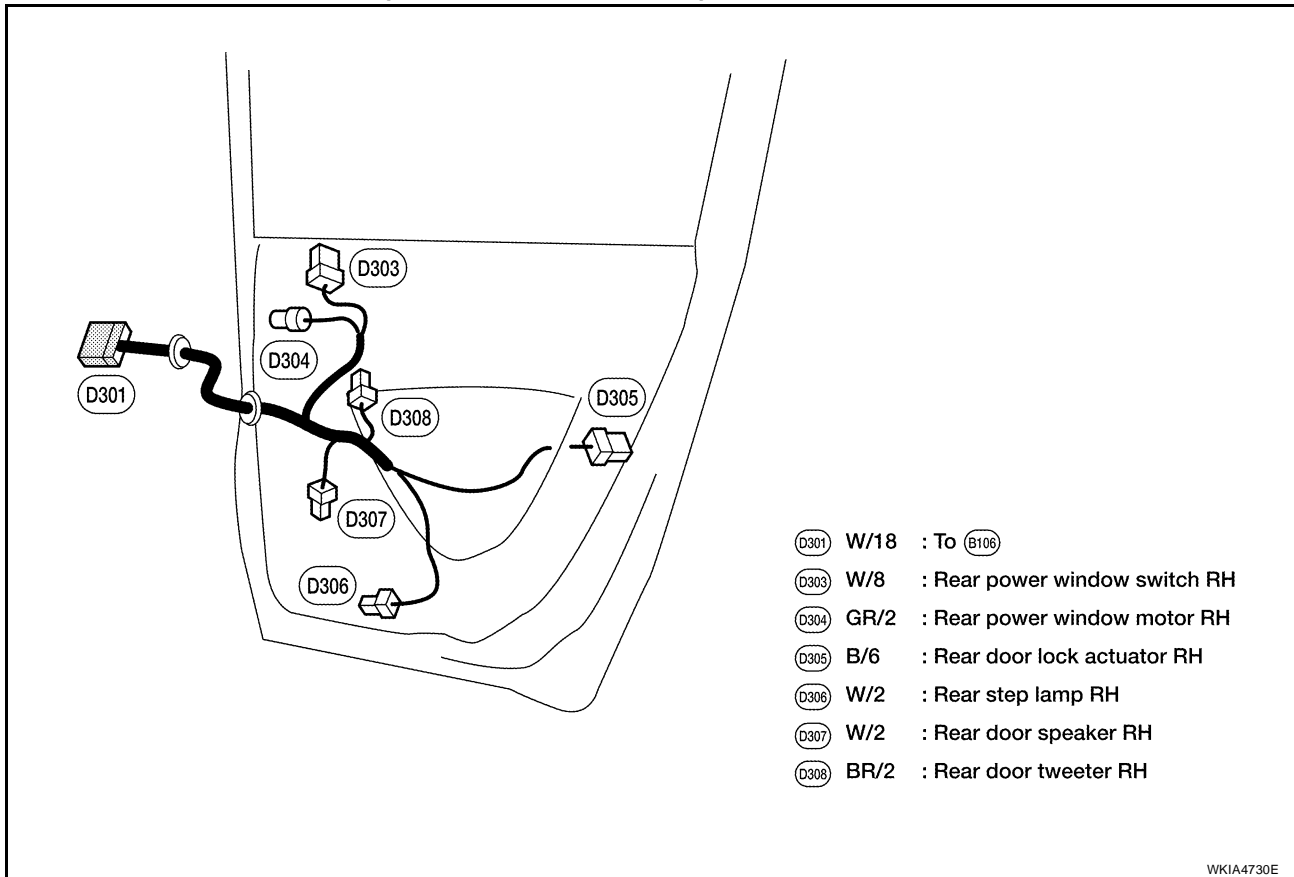
WKIA4729E

HARNESS

REAR DOOR HARNESS LH (CREW CAB MODELS)



REAR DOOR HARNESS RH (CREW CAB MODELS)



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HARNESS

EKS00ARK

Wiring Diagram Codes (Cell Codes)

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
AF1B1	EC	Air Fuel Ratio (A/F) Sensor 1 (Bank 1)
AF1B2	EC	Air Fuel Ratio (A/F) Sensor 1 (Bank 2)
AF1HB1	EC	Air Fuel Ratio (A/F) Sensor 1 (Bank 1)
AF1HB2	EC	Air Fuel Ratio (A/F) Sensor 1 (Bank 2)
APPS1	EC	Accelerator Pedal Position Sensor
APPS2	EC	Accelerator Pedal Position Sensor
APPS3	EC	Accelerator Pedal Position Sensor
ABLS	BRC	Anti-Lock Brake System Limited Slip
ABS	BRC	Anti-Lock Brake System
ASC/BS	EC	ASCD Brake Switch
ASC/SW	EC	ASCD Steering Switch
ASCBOF	EC	ASCD Brake Switch
ASCIND	EC	ASCD Indicator
A/T	AT	A/T Assembly
AT/IND	DI	A/T Indicator Lamp
AUDIO	AV	Audio
AUT/DP	SE	Automatic Drive Positioner
AUTO/L	LT	Auto Light Control
BACK/L	LT	Back-up Lamp
BRK/SW	EC	Brake Switch
CAN	EC	CAN Communication Line
CAN	LAN	CAN System
CHARGE	SC	Charging System
CHIME	DI	Warning Chime
COOL/F	EC	Cooling Fan Control
COMBSW	LT	Combination Switch
COMM	AV	Audio Visual Communication System
COMPAS	DI	Compass and Thermometer
D/LOCK	BL	Power Door Lock
DIFLOC	RFD	Electronic Locking Differential
DEF	GW	Rear Window Defogger
DTRL	LT	Headlamp - With Daytime Light System
DVD	AV	DVD Entertainment System
ECM/PW	EC	ECM Power Supply for Back-Up
ECTS	EC	Engine Coolant Temperature Sensor
ETC1	EC	Electric Throttle Control Function
ETC2	EC	Throttle Control Motor Relay
ETC3	EC	Throttle Control Motor
F/FOG	LT	Front Fog Lamp
F/PUMP	EC	Fuel Pump
FTTS	EC	Fuel Tank Temperature Sensor
FUELB1	EC	Fuel Injection System Bank 1
FUELB2	EC	Fuel Injection System Bank 2
H/LAMP	LT	Headlamp
H/MIRR	GW	Heated Mirror

HARNESSES

HORN	WW	Horn	A
HSEAT	SE	Heated Seat	
I/MIRR	GW	Inside Mirror (Auto Anti-Dazzling Mirror)	
IATS	EC	Intake Air Temperature Sensor	B
IGNSYS	EC	Ignition System	
ILL	LT	Illumination	
INJECT	EC	Injectors	C
INT/L	LT	Room/Map, Vanity, Cargo, Personal, Foot, Step, and Puddle Lamps	
KEYLES	BL	Remote Keyless Entry System	
KS	EC	Knock Sensor	D
MAFS	EC	Mass Air Flow Sensor	
MAIN	EC	Main Power Supply and Ground Circuit	
METER	DI	Speedometer, Tachometer, Temp. and Fuel Gauges	E
MIL/DL	EC	Malfunction Indicator Lamp	
MIRROR	GW	Door Mirror	
MMSW	AT	Manual Mode Switch	F
NATS	BL	Nissan Anti-Theft System	
NAVI	AV	Navigation System	
NONDTC	AT	Non-Detective Items	G
O2H2B1	EC	Rear Heated Oxygen Sensor 2 Heater Bank 1	
O2H2B2	EC	Rear Heated Oxygen Sensor 2 Heater Bank 2	
O2S2B1	EC	Heated Oxygen Sensor 2 Bank 1	H
O2S2B2	EC	Heated Oxygen Sensor 2 Bank 2	
P/SCKT	WW	Power Socket	
PEDAL	AP	Adjustable Pedal System	I
PGCV	EC	EVAP Canister Purge Volume Control Solenoid Valve	
PHASE	EC	Camshaft Position Sensor (PHASE) (Bank 1)	
PNP/SW	EC	Park/Neutral Position Switch	J
POS	EC	Crankshaft Position Sensor (POS)	
POWER	PG	Power Supply Routing	
PRE/SE	EC	EVAP Control System Pressure Sensor	PG
PS/SEN	EC	Power Steering Pressure Sensor	
RP/SEN	EC	Refrigerant Pressure Sensor	
SEAT	SE	Power Seat	L
SEN/PW	EC	Sensor Power Supply	
SHIFT	AT	A/T Shift Lock System	
SONAR	DI	Rear Sonar System	M
SROOF	RF	Sunroof	
SRS	SRS	Supplemental Restraint System	
START	SC	Starting System	
STOP/L	LT	Stop Lamp	
T/TOW	LT	Trailer Tow	
T/WARN	WT	Low Tire Pressure Warning System	
TAIL/L	LT	Parking, License and Tail Lamps	
T/F	TF	Transfer Case	
TMSW	AT	Tow Mode Switch	
TPS1	EC	Throttle Position Sensor	
TPS2	EC	Throttle Position Sensor	
TPS3	EC	Throttle Position Sensor	
TRNSCV	BL	HOMELINK® Universal Transceiver	
TURN	LT	Turn Signal and Hazard Warning Lamps	
VDC	BRC	Vehicle Dynamic Control System	

HARNESSES

VEHSEC	BL	Vehicle security (theft warning) system
VENT/V	EC	EVAP Canister Vent Control Valve
WARN	DI	Warning Lamps
WINDOW	GW	Power Window
WIPER	WW	Front Wiper and Washer

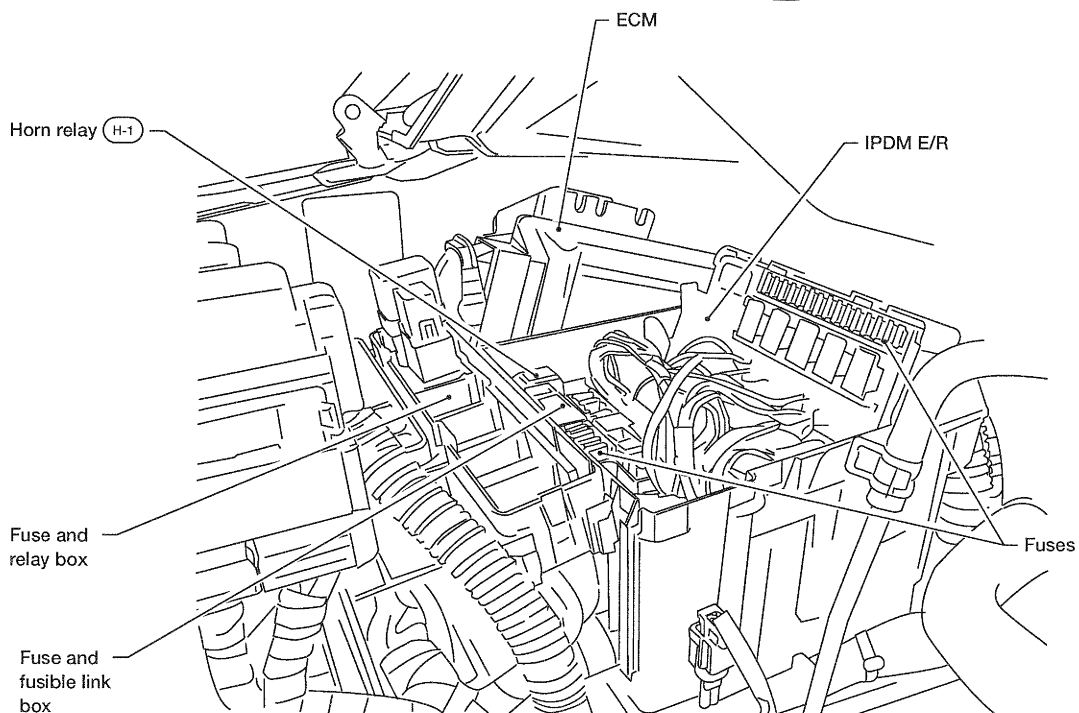
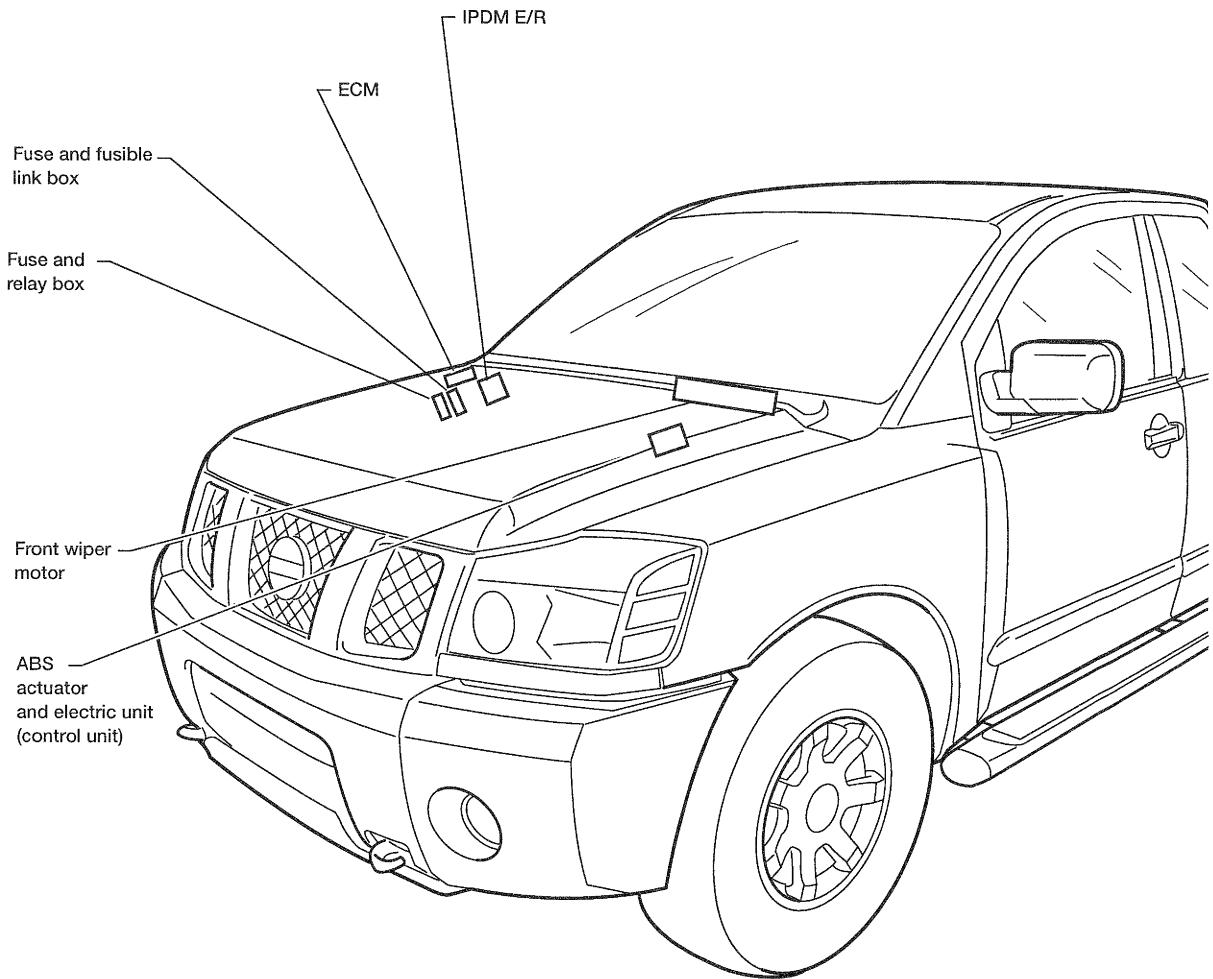
ELECTRICAL UNITS LOCATION

ELECTRICAL UNITS LOCATION

PFP:25230

Electrical Units Location ENGINE COMPARTMENT

EKS00ARL



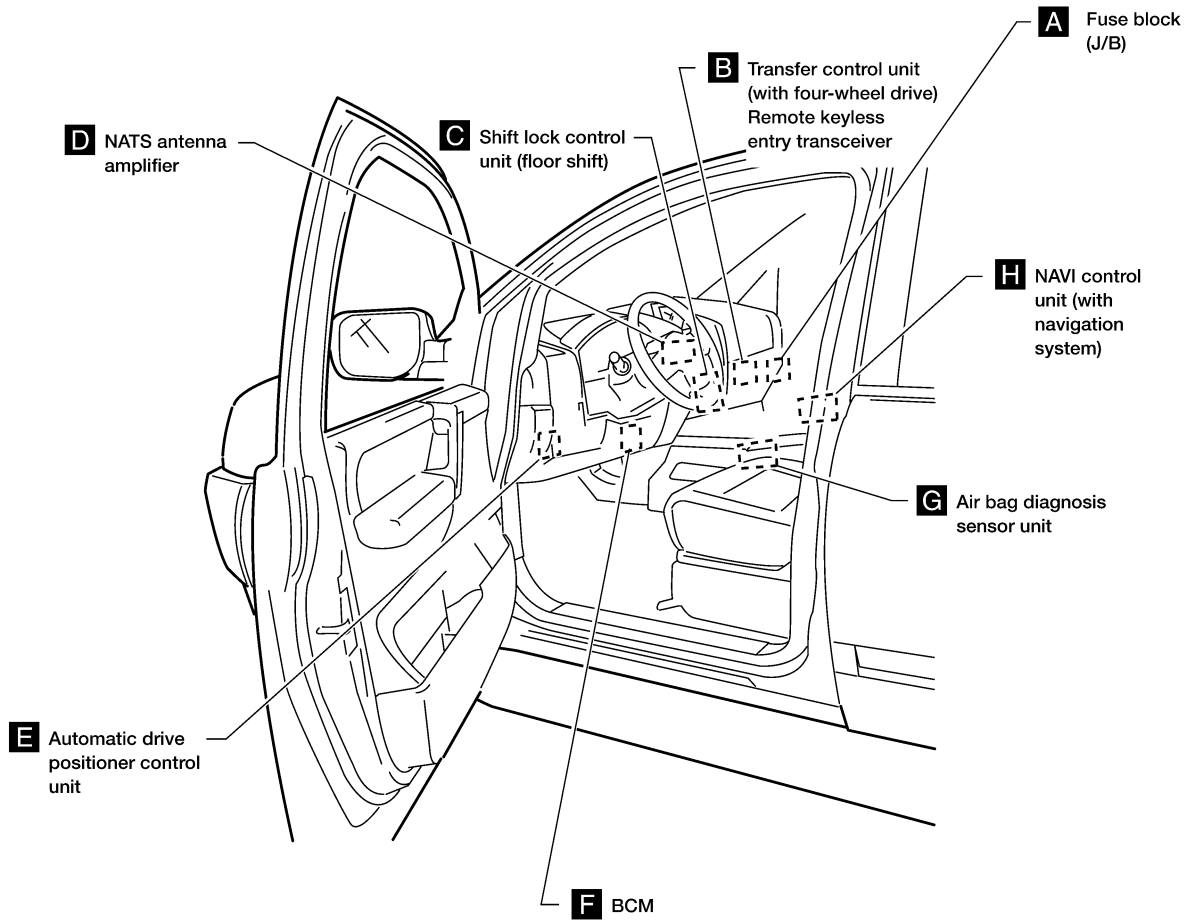
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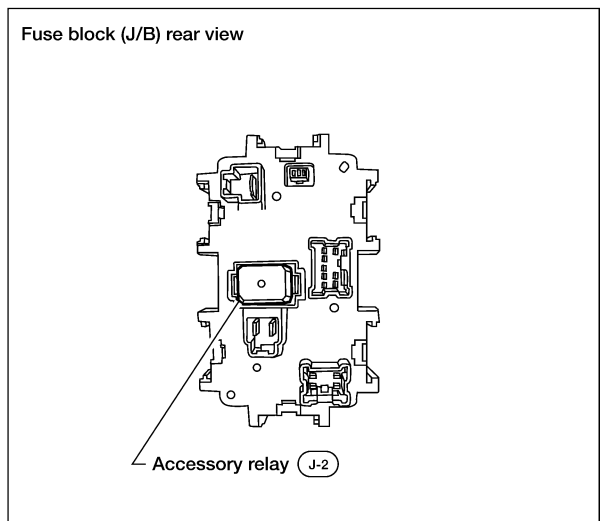
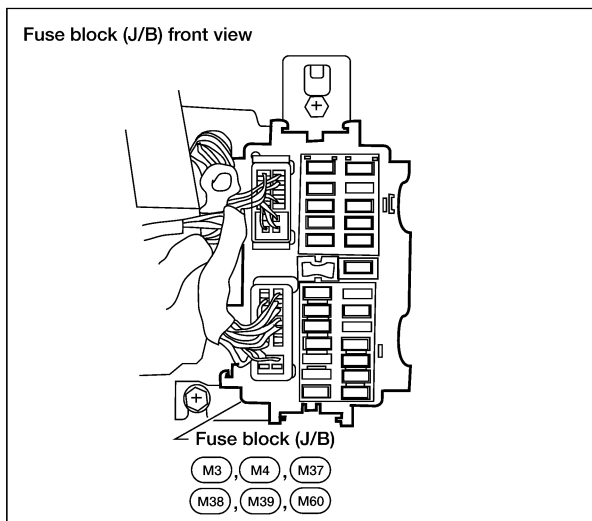
WKIA1703E

ELECTRICAL UNITS LOCATION

PASSENGER COMPARTMENT



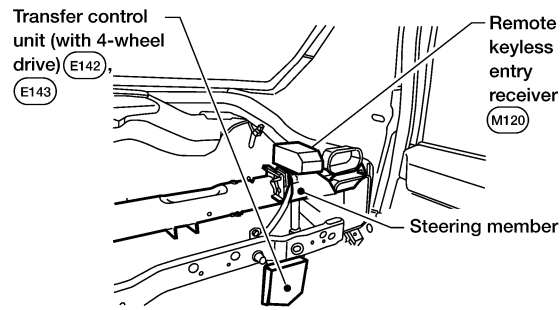
A Instrument panel side RH



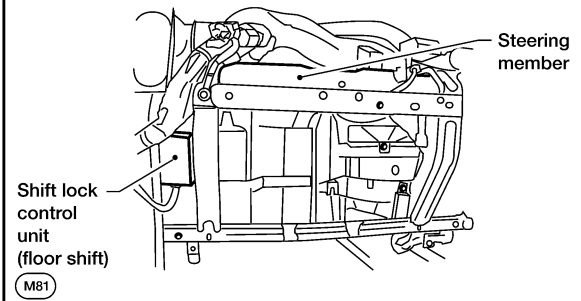
WKIA4731E

ELECTRICAL UNITS LOCATION

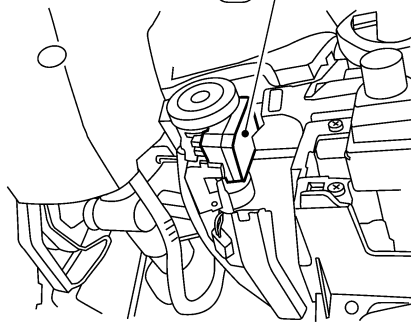
B View with instrument panel removed RH



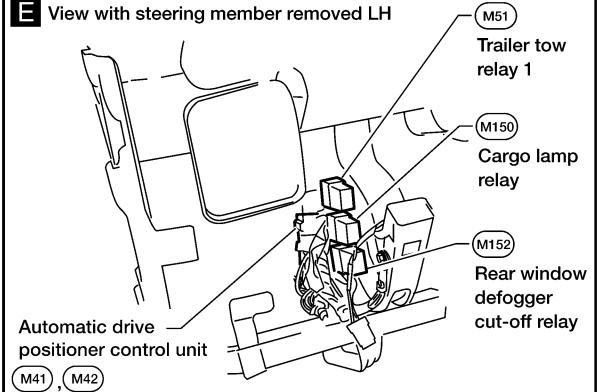
C View with instrument panel removed RH



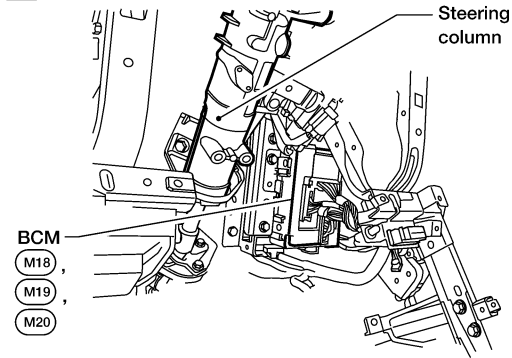
D View with lower driver instrument panel removed
NATS antenna amplifier (M21)



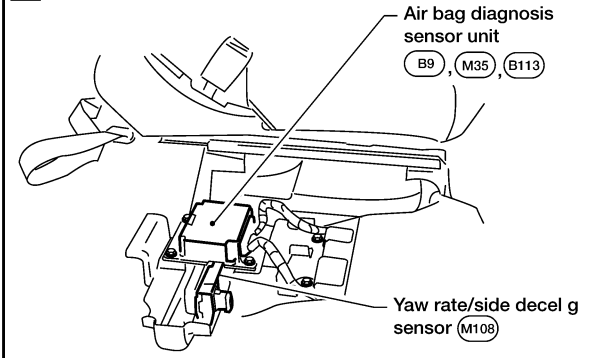
E View with steering member removed LH



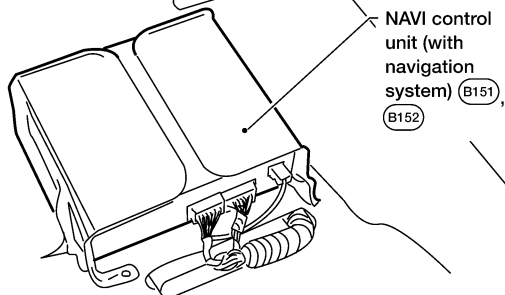
F View with instrument panel removed



G View with center console removed



H View with passenger seat removed



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WKIA4732E

HARNESS CONNECTOR

HARNESS CONNECTOR

PFP:B4341

Description

HARNESS CONNECTOR (TAB-LOCKING TYPE)

EKS00ARP

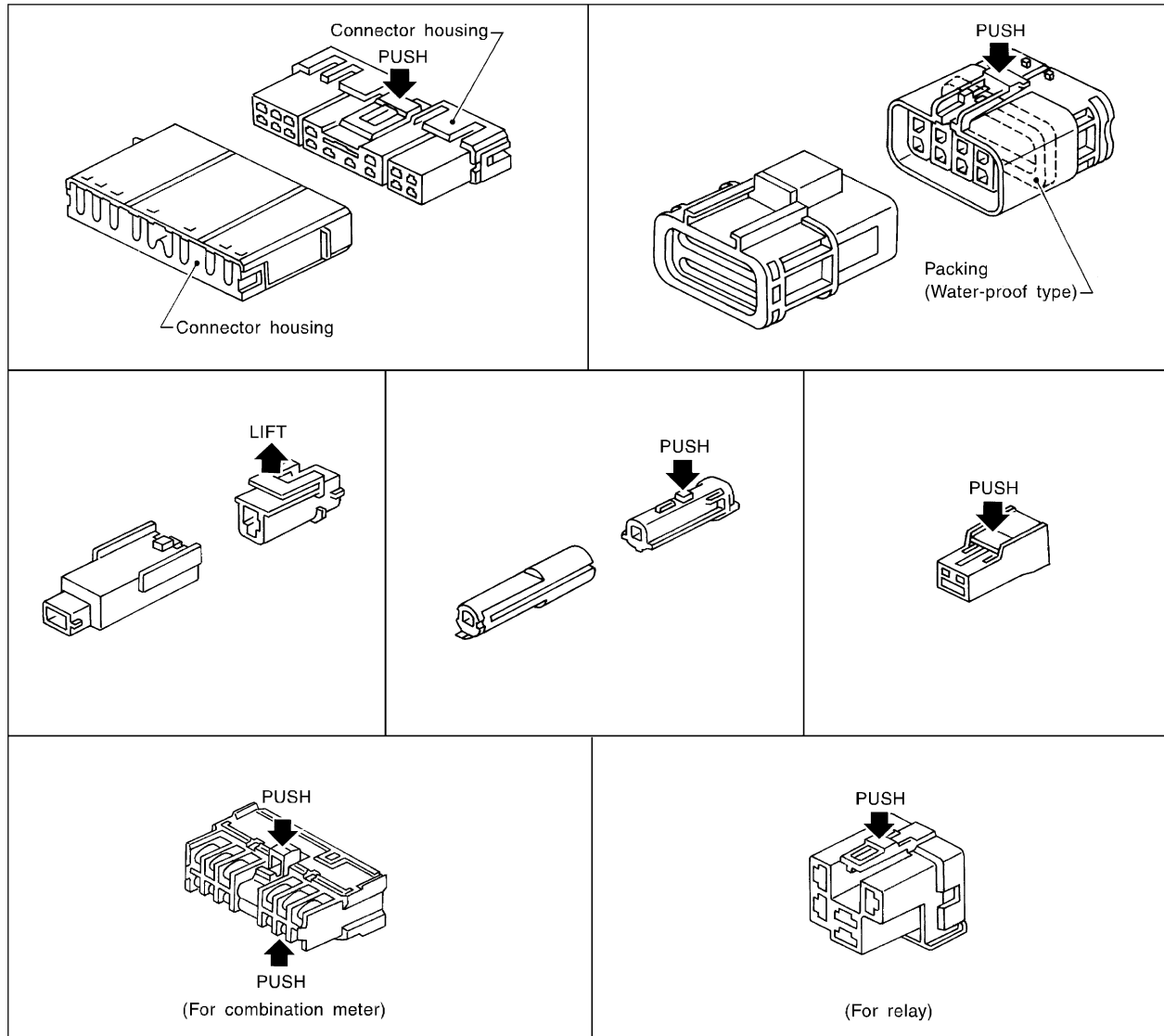
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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

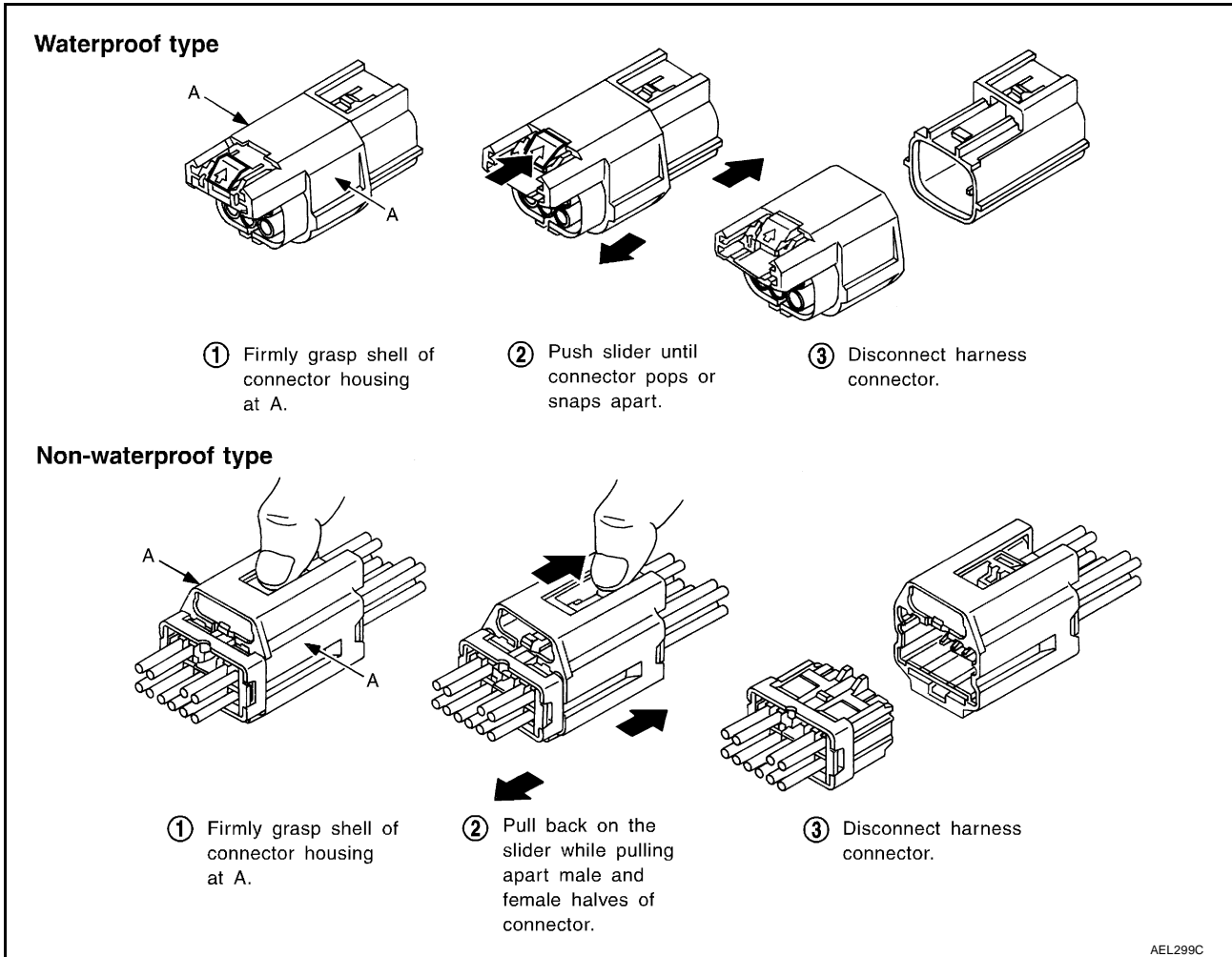
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- 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]



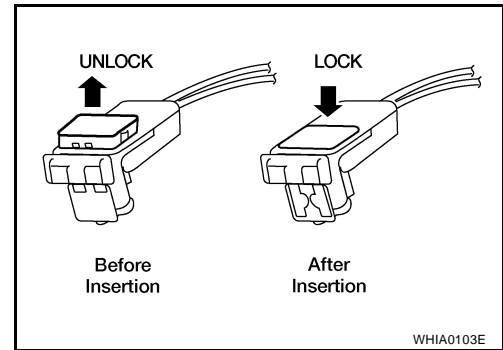
HARNES CONNECTOR

HARNES CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

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

CAUTION:

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



ELECTRICAL UNITS

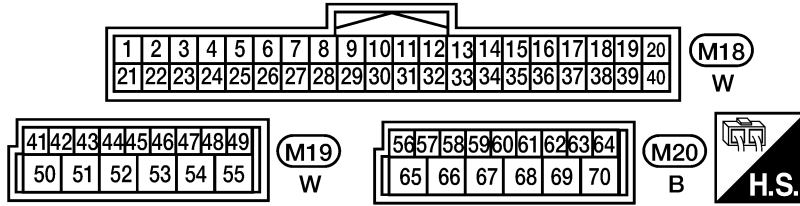
ELECTRICAL UNITS

Terminal Arrangement

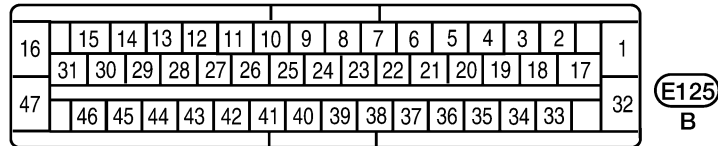
PF2:23710

EKS00ARQ

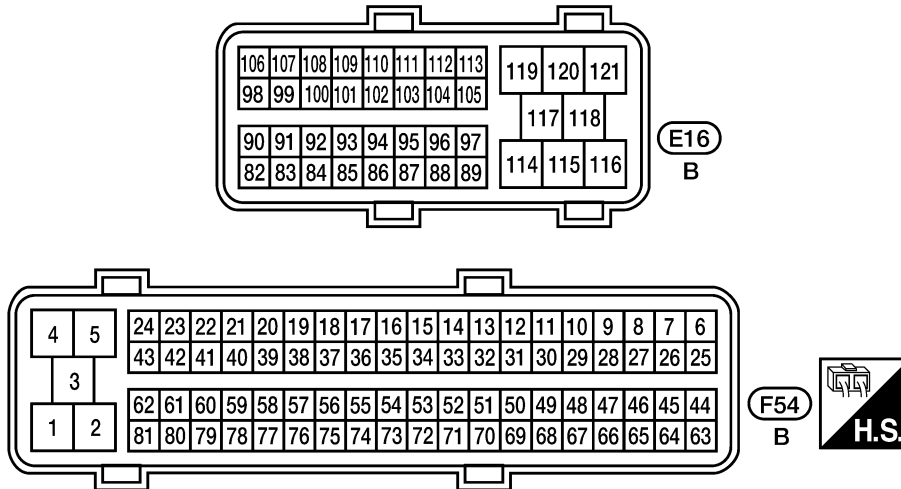
BCM (BODY CONTROL MODULE)



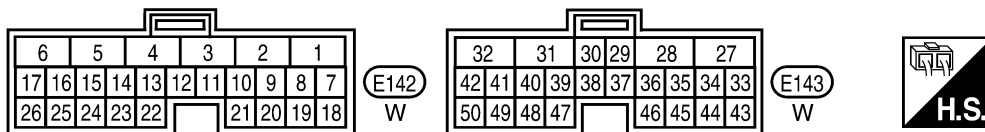
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



ECM



TRANSFER CONTROL UNIT



WKIA4733E

STANDARDIZED RELAY

PFP:25230

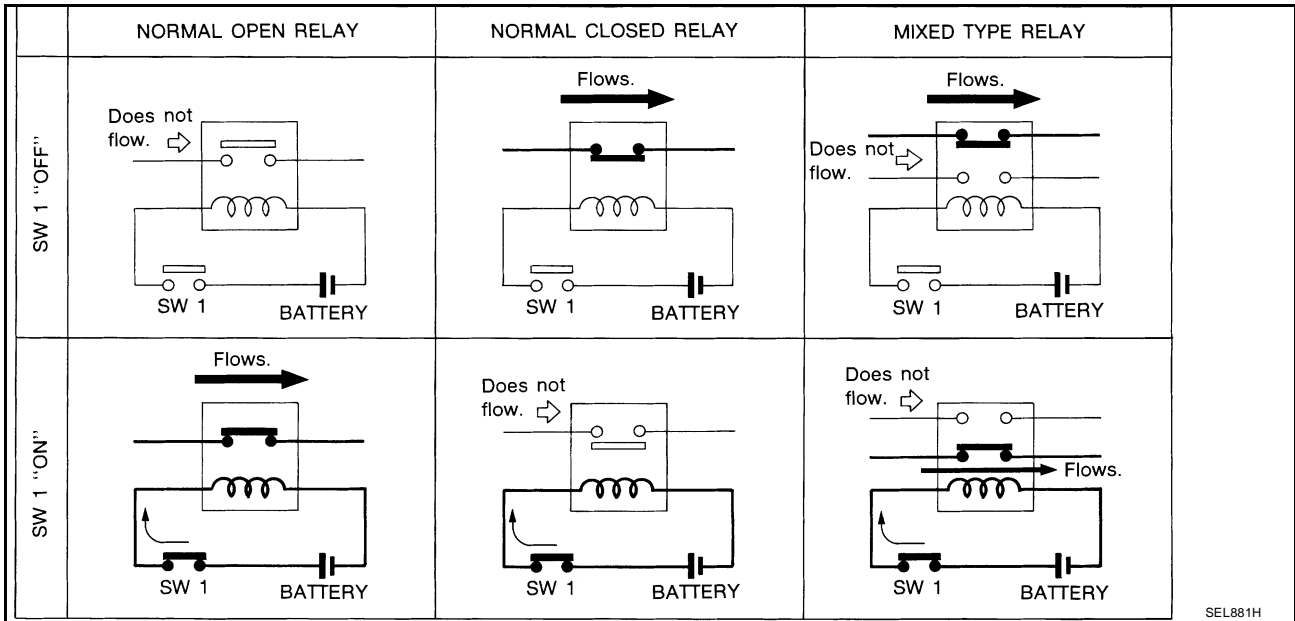
EKS00ARR

STANDARDIZED RELAY

Description

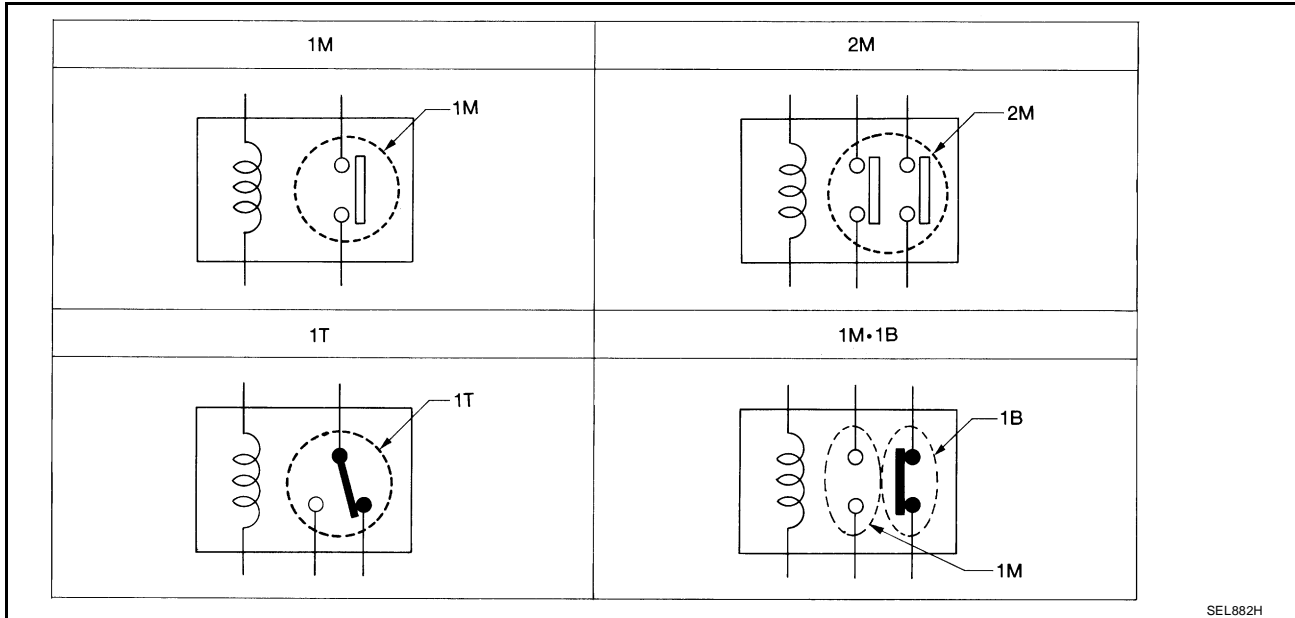
NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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



SEL881H

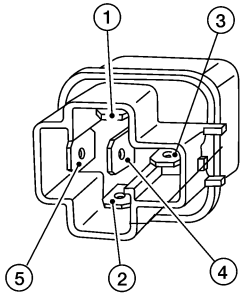
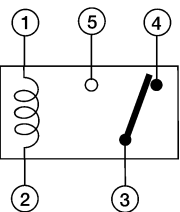
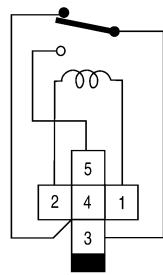
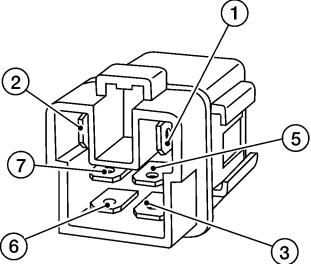
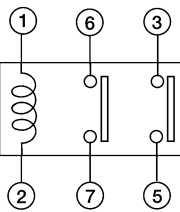
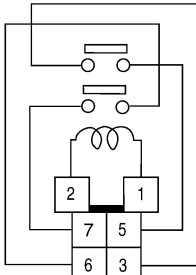
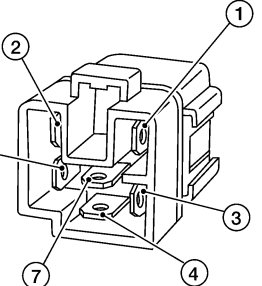
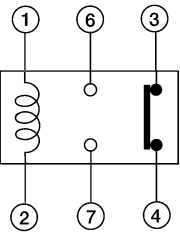
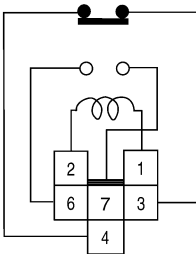
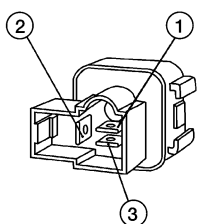
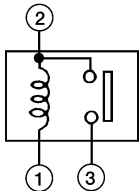
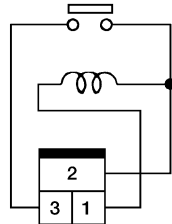
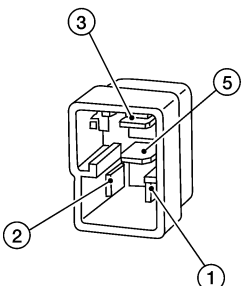
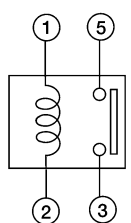
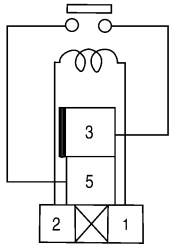
TYPE OF STANDARDIZED RELAYS



SEL882H

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

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

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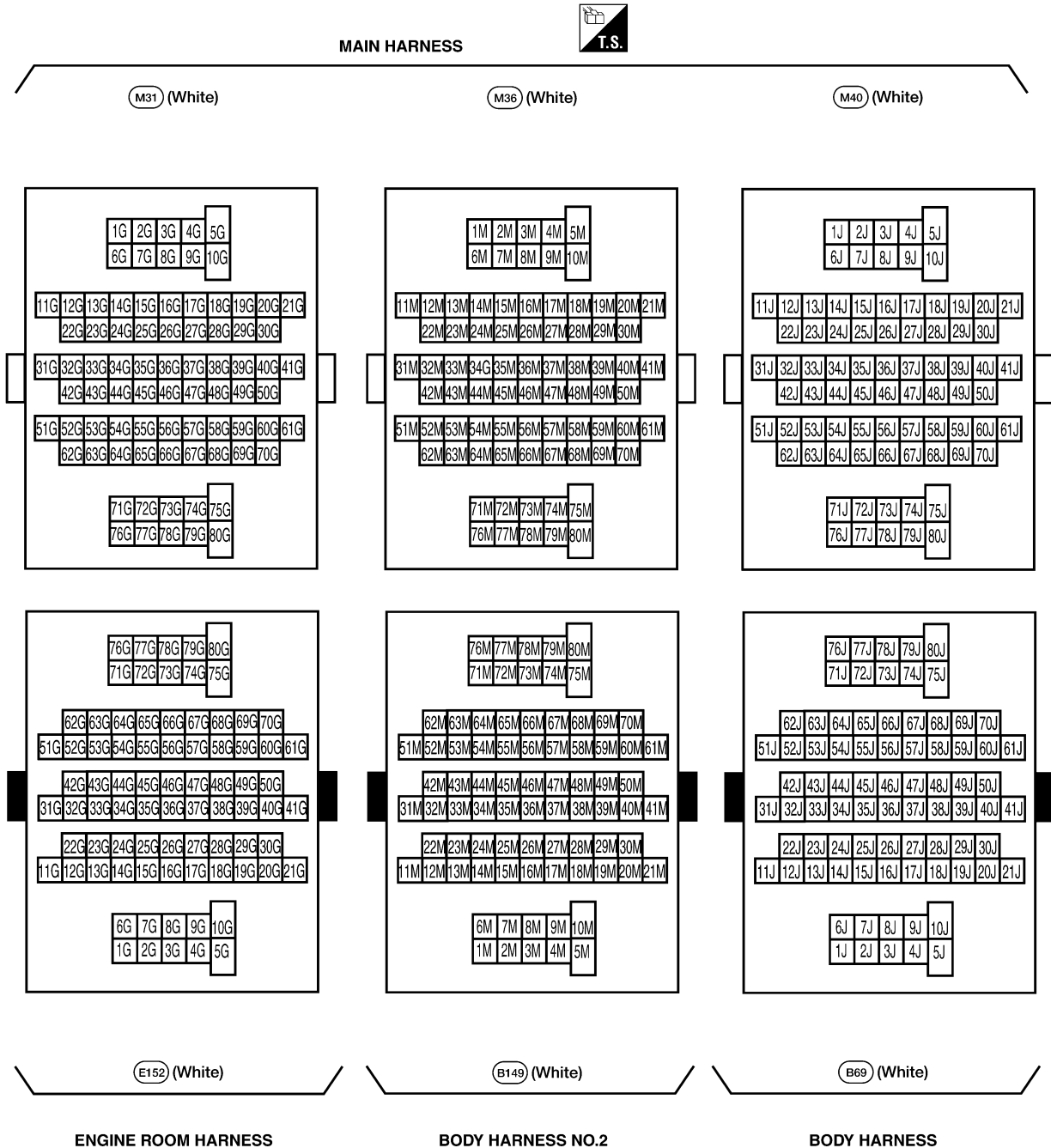
SUPER MULTIPLE JUNCTION (SMJ)

SUPER MULTIPLE JUNCTION (SMJ)

PFJ:84341

Terminal Arrangement

EKS00ARS



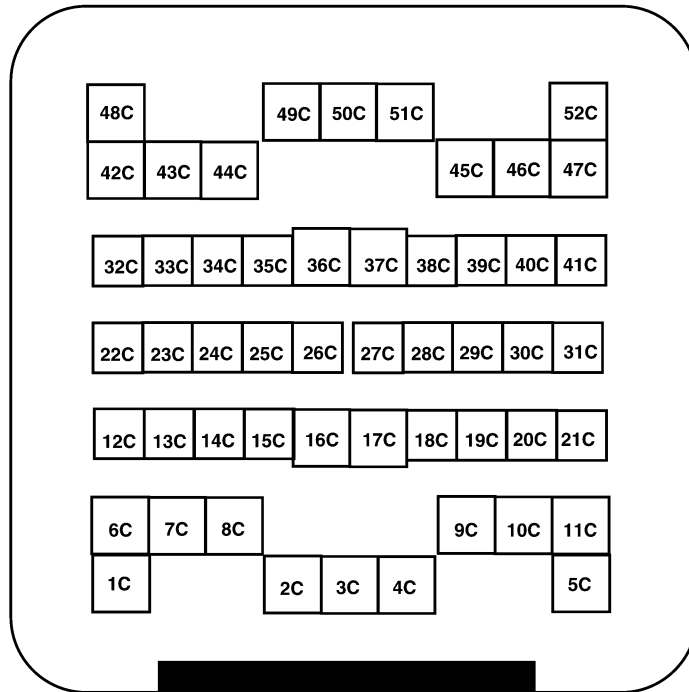
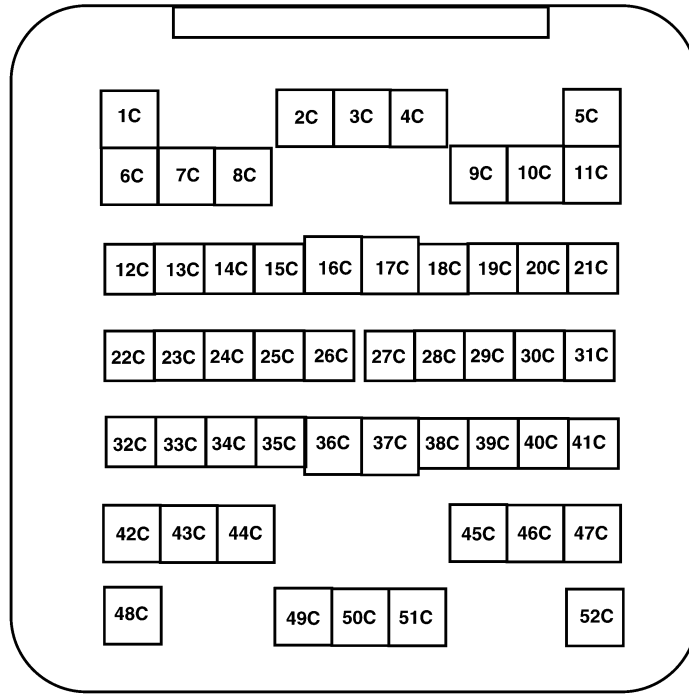
LKIA0385E

SUPER MULTIPLE JUNCTION (SMJ)

CHASSIS HARNESS



(C1) (Gray)



(E41) (Gray)

ENGINE ROOM HARNESS

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WKIA1845E

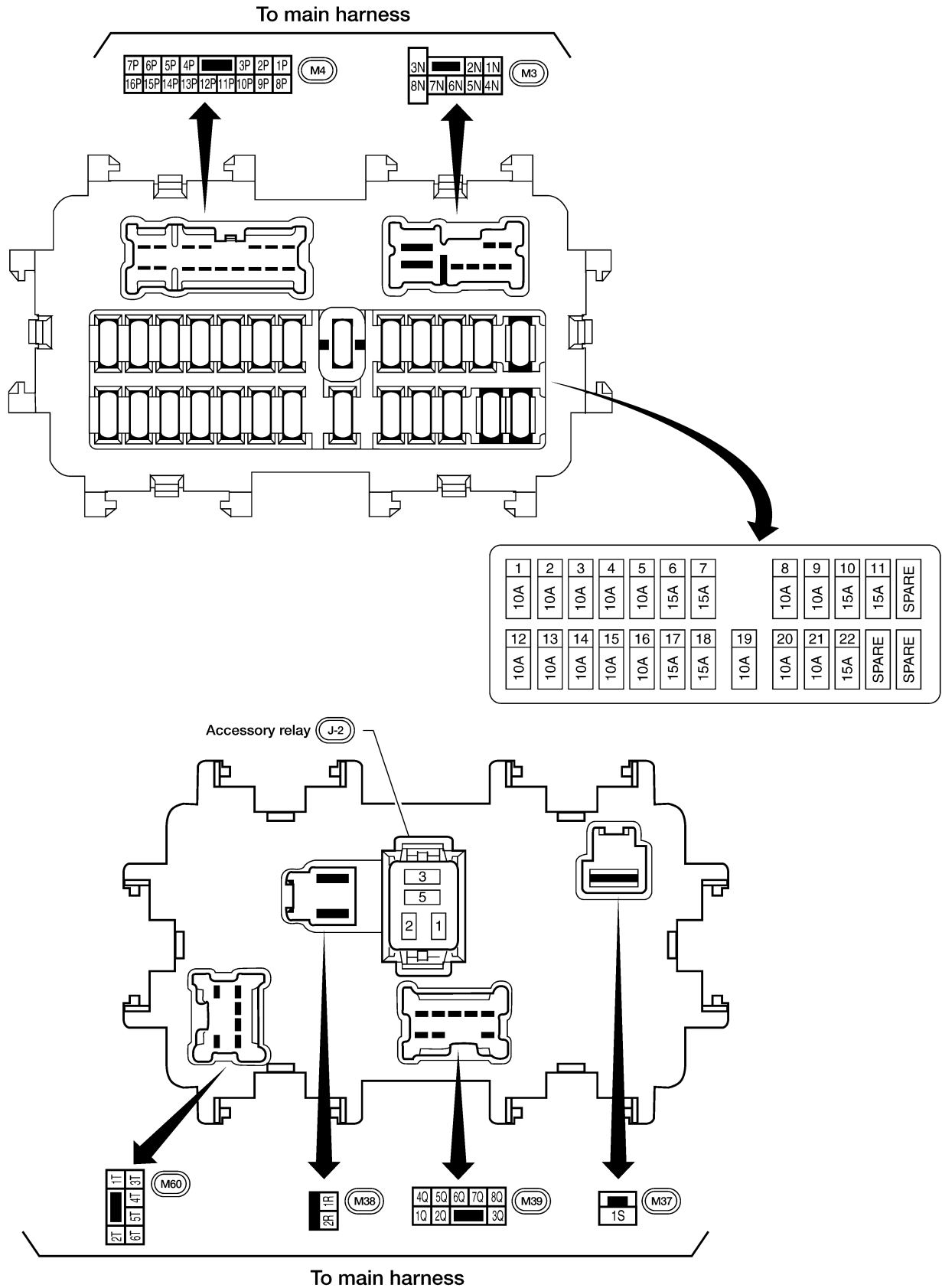
FUSE BLOCK-JUNCTION BOX (J/B)

FUSE BLOCK-JUNCTION BOX (J/B)

PF2:24350

Terminal Arrangement

EKS00ART



WKIA4734E

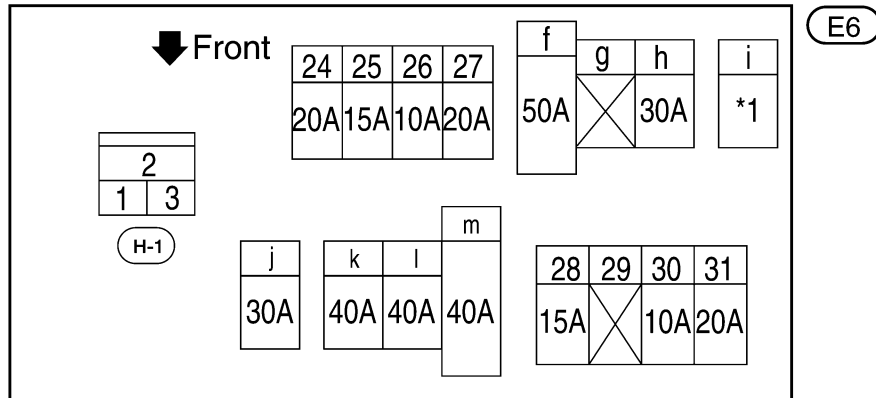
FUSE AND FUSIBLE LINK BOX

FUSE AND FUSIBLE LINK BOX

PF24381

Terminal Arrangement

EKS00ARU



24 - 31: FUSE f - m: FUSIBLE LINK

*1 40A with VDC
30A without VDC

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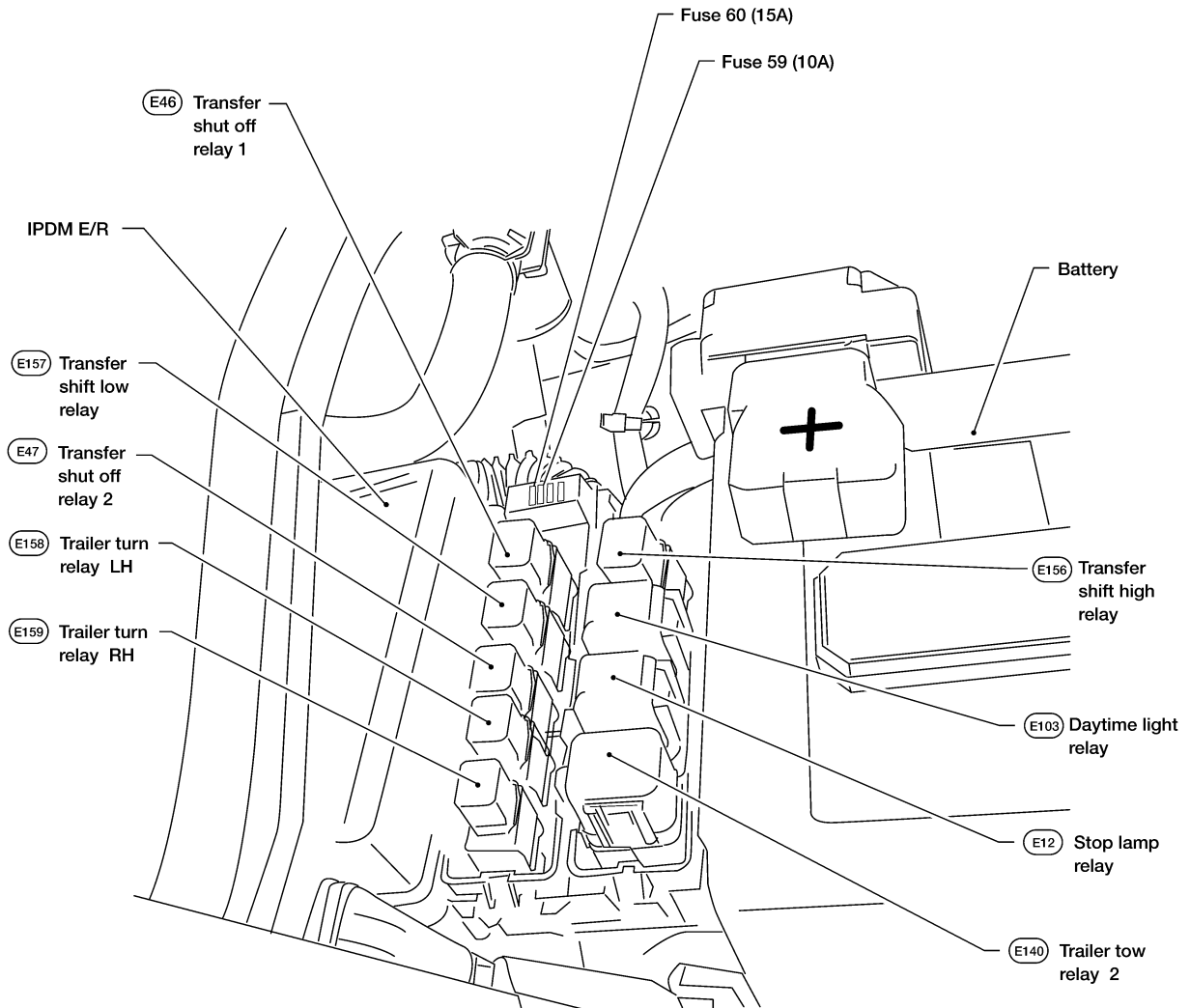
FUSE AND RELAY BOX

PF2:24012

EKS00ARV

FUSE AND RELAY BOX

Terminal Arrangement



WKIA4736E