SECTION PG

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

CONTENTS

PRECAUTIONS

PFP:00011

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

EKS00G8A

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.**

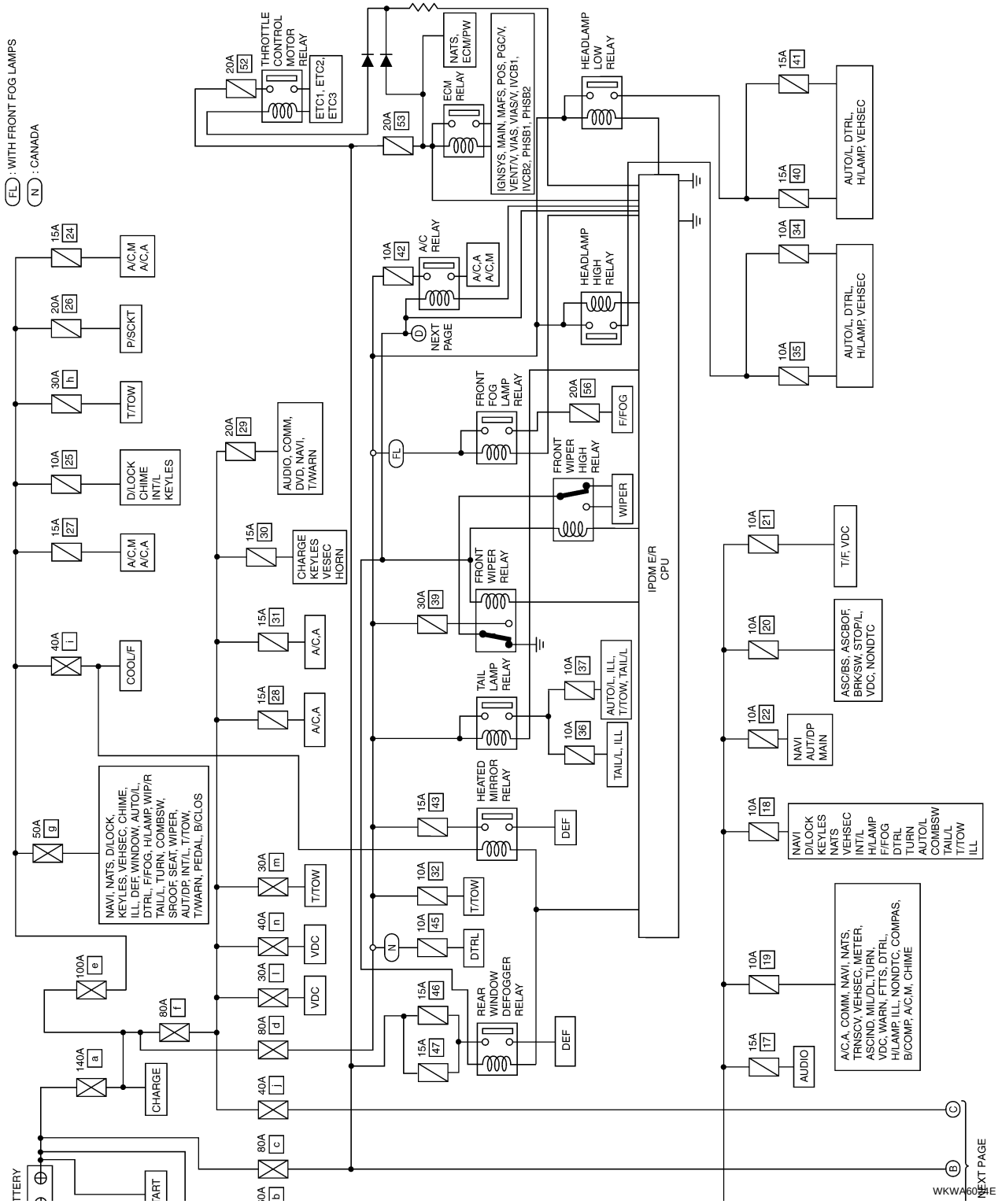
POWER SUPPLY ROUTING CIRCUIT

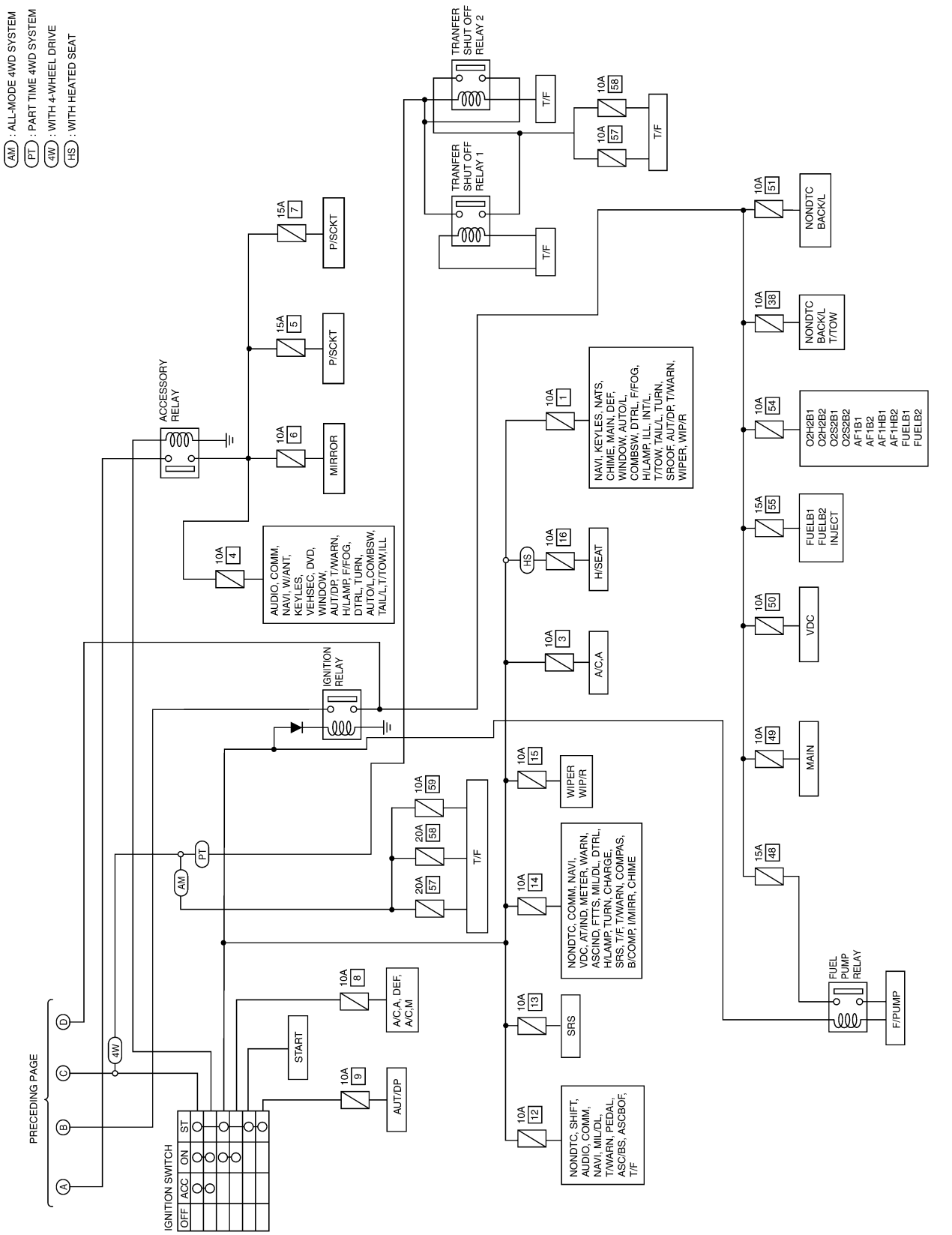
PFP:24110

Schematic

EKS00G8C

For detailed ground distribution, refer to PG-35, "Ground Distribution" .



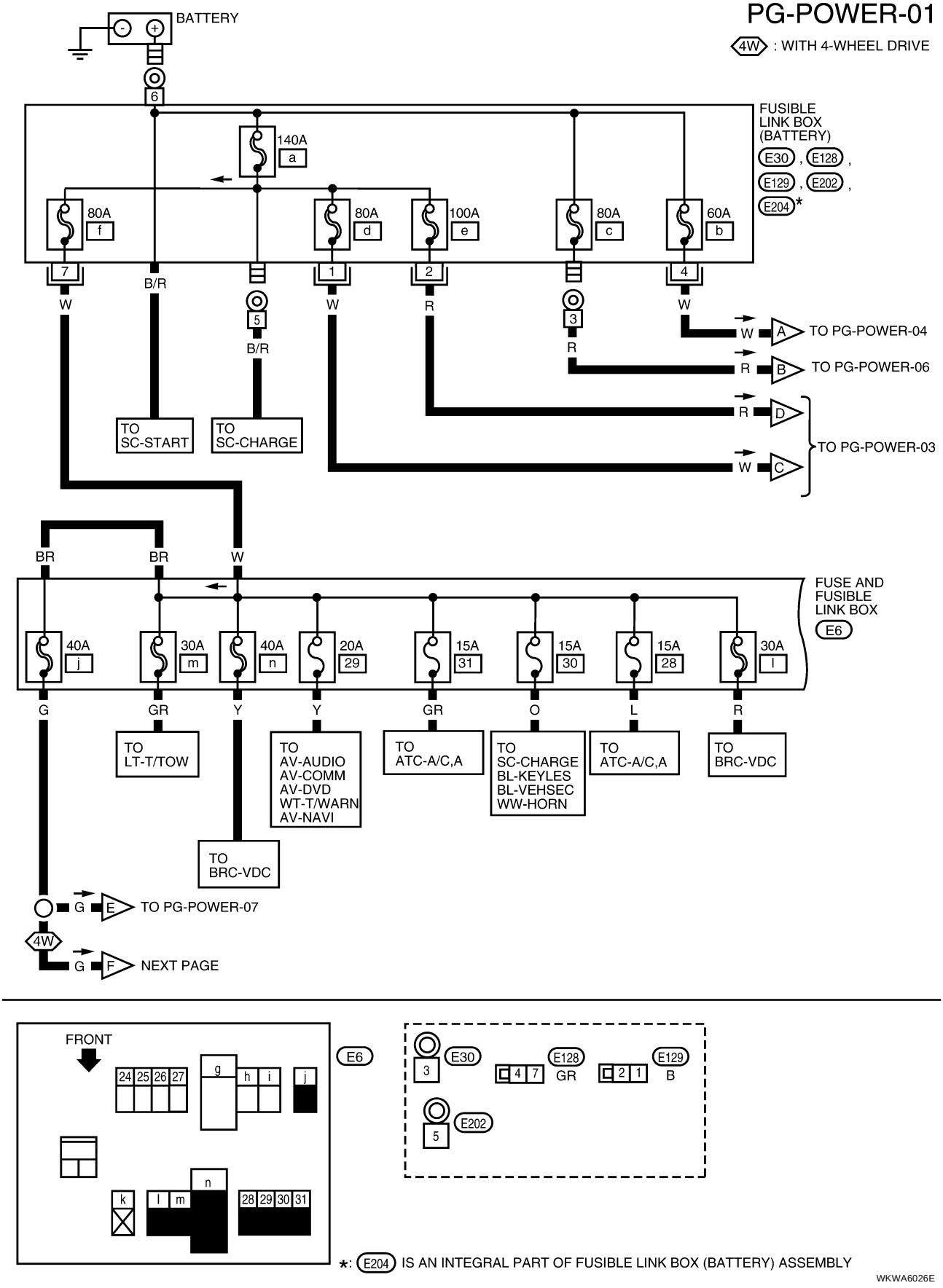

(AM) : ALL-MODE 4WD SYSTEM
(PT) : PART TIME 4WD SYSTEM
(4W) : WITH 4-WHEEL DRIVE
(HS) : WITH HEATED SEAT
TRANFER SHUT OFF RELAY 2
TRANFER SHUT OFF RELAY 1
T/F
15A 7
P/SCKT
15A 5
P/SCKT
ACCESSORY RELAY
10A 6
MIRROR
10A 4
AUDIO, COMM, NAVI, W/ANT, KEYLES, VEHSEC, DVD, WINDOW, AUT/DP, T/WARN, H/LAMP, F/FOG, DTRL, TURN, AUTO/L,COMBSW, TAIL/L,T/TOW,ILL
IGNITION RELAY
10A 59
20A 58
20A 57
10A 8
A/C,A. DEF, A/C,M
START
10A 9
AUT/DP
IGNITION SWITCH
OFF ACC ON ST
PRECEDING PAGE
10A 1
NAVI, KEYLES, NATS, CHIME, MAIN, DEF, WINDOW, AUTO/L, COMBSW, DTRL, F/FOG, H/LAMP, ILL, INT/L, T/TOW, TAIL/L, TURN, SROOF, AUT/DP, T/WARN, WIPER, WIP/R
10A 16
H/SEAT
10A 3
A/C,A
10A 15
WIPER WIP/R
10A 14
NONDTC, COMM, NAVI, VDC, AT/IND, METER, WARN, ASC/IND, FTTS, MIL/DL, DTRL, H/LAMP, TURN, CHARGE, SRS, T/F, T/WARN, COMPAS, B/COMP, I/MIRR, CHIME
10A 13
SRS
10A 12
NONDTC, SHIFT, AUDIO, COMM, NAVI, MIL/DL, T/WARN, PEDAL, ASC/BS, ASCBOF, T/F
10A 51
NONDTC BACK/L
10A 38
NONDTC BACK/L T/TOW
10A 54
O2H2B1 O2H2B2 O2S2B1 O2S2B2 AF1B1 AF1B2 AF1HB1 AF1HB2 FUELB1 FUELB2
15A 55
FUELB1 FUELB2 INJECT
10A 50
VDC
10A 49
MAIN
15A 48
FUEL PUMP RELAY
F/PUMP

WKWA6025E

Wiring Diagram — POWER —

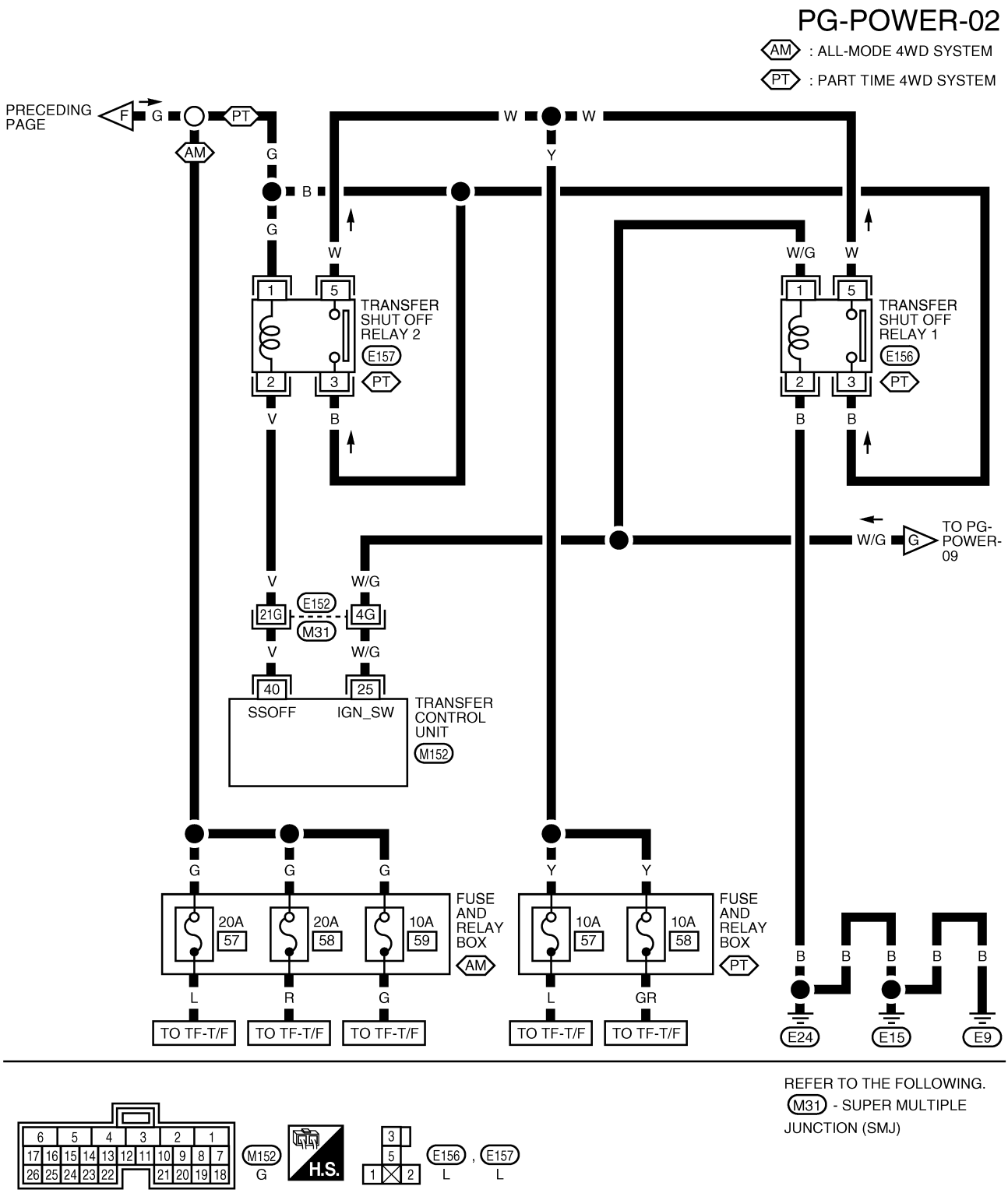
EKS00G8D

BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION

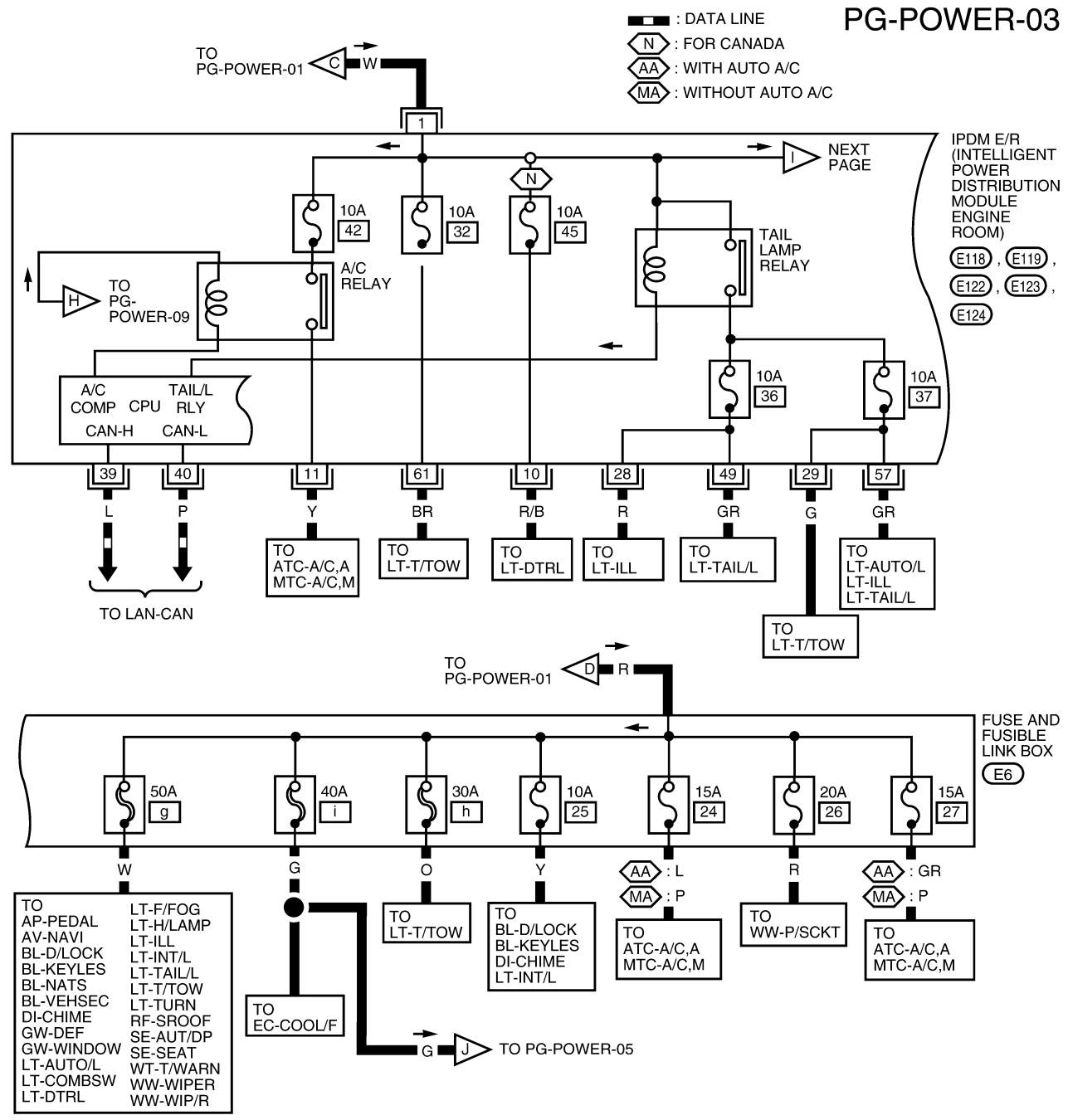


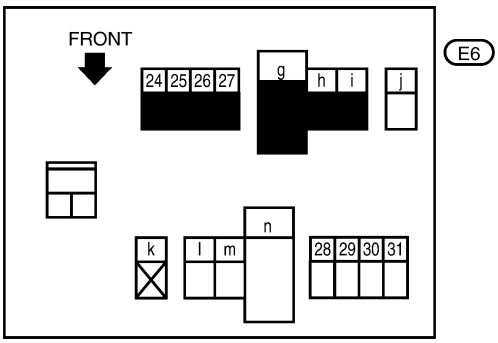
*: E204 IS AN INTEGRAL PART OF FUSIBLE LINK BOX (BATTERY) ASSEMBLY

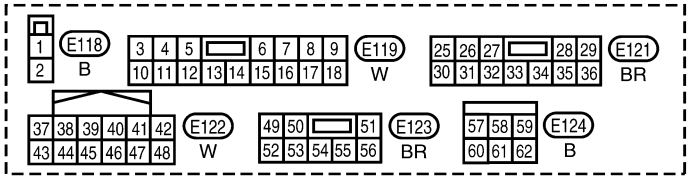
WKWA6026E


PG-POWER-02
AM : ALL-MODE 4WD SYSTEM
PT : PART TIME 4WD SYSTEM
PRECEDING PAGE
F
G
PT
AM
W
W
G
Y
B
G
W
W/G
W
1
5
2
3
TRANSFER SHUT OFF RELAY 2
E157
PT
TRANSFER SHUT OFF RELAY 1
E156
PT
V
B
B
B
TO PG-POWER-09
W/G
G
V
W/G
E152
21G
4G
M31
V
W/G
40
25
SSOFF
IGN_SW
TRANSFER CONTROL UNIT
M152
G
G
G
Y
Y
20A
57
20A
58
10A
59
FUSE AND RELAY BOX
AM
10A
57
10A
58
FUSE AND RELAY BOX
PT
L
R
G
L
GR
TO TF-T/F
TO TF-T/F
TO TF-T/F
TO TF-T/F
TO TF-T/F
B
B
B
B
B
E24
E15
E9
REFER TO THE FOLLOWING.
M31 - SUPER MULTIPLE JUNCTION (SMJ)
6 5 4 3 2 1
17 16 15 14 13 12 11 10 9 8 7
26 25 24 23 22 21 20 19 18
M152
G
H.S.
3
5
1 2
E156 , E157
L L

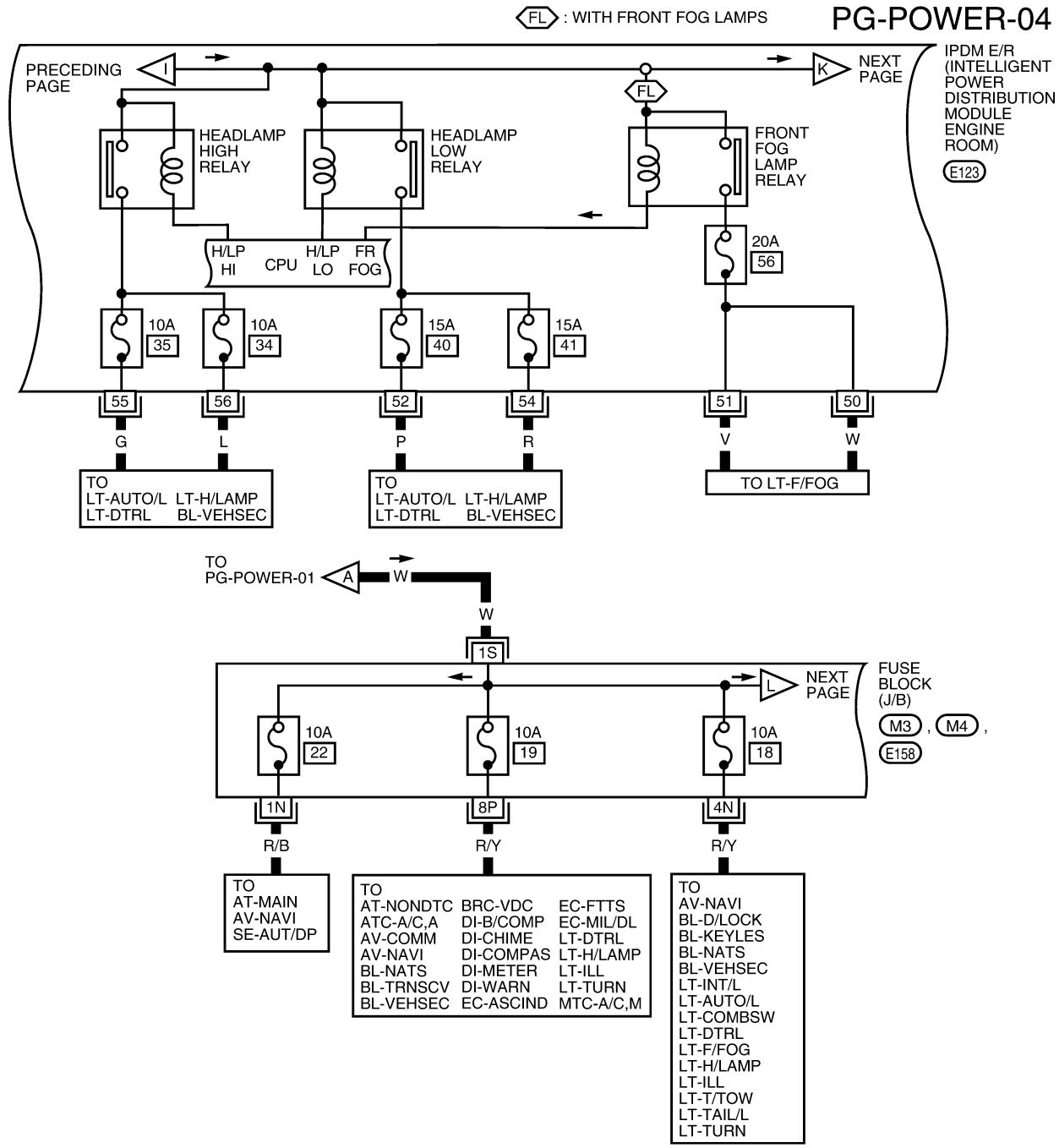
WKWA4404E

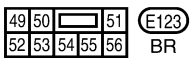

PG-POWER-03
: DATA LINE
N : FOR CANADA
AA : WITH AUTO A/C
MA : WITHOUT AUTO A/C
TO PG-POWER-01
C
W
1
NEXT PAGE
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E118, E119, E122, E123, E124
10A 42
10A 32
10A 45
TAIL LAMP RELAY
A/C RELAY
TO PG-POWER-09
A/C COMP
CPU
TAIL/L RLY
CAN-H
CAN-L
10A 36
10A 37
39 40 11 61 10 28 49 29 57
L P Y BR R/B R GR G GR
TO ATC-A/C,A MTC-A/C,M
TO LT-T/TOW
TO LT-DTRL
TO LT-ILL
TO LT-TAIL/L
TO LT-AUTO/L LT-ILL LT-TAIL/L
TO LT-T/TOW
TO LAN-CAN
TO PG-POWER-01
D
R
FUSE AND FUSIBLE LINK BOX
E6
50A g
40A i
30A h
10A 25
15A 24
20A 26
15A 27
W G O Y AA : L MA : P R AA : GR MA : P
TO AP-PEDAL AV-NAVI BL-D/LOCK BL-KEYLES BL-NATS BL-VEHSEC DI-CHIME GW-DEF GW-WINDOW LT-AUTO/L LT-COMBSW LT-DTRL
LT-F/FOG LT-H/LAMP LT-ILL LT-INT/L LT-TAIL/L LT-T/TOW LT-TURN RF-SROOF SE-AUT/DP SE-SEAT WT-T/WARN WW-WIPER WW-WIP/R
TO EC-COOL/F
TO LT-T/TOW
TO BL-D/LOCK BL-KEYLES DI-CHIME LT-INT/L
TO ATC-A/C,A MTC-A/C,M
TO WW-P/SCKT
TO ATC-A/C,A MTC-A/C,M
G J TO PG-POWER-05

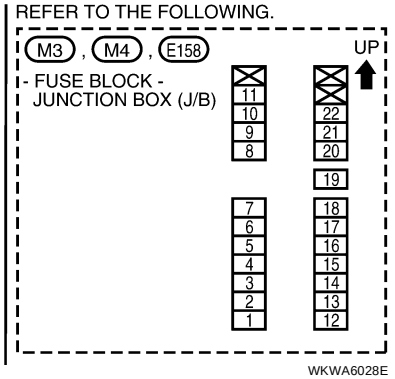

FRONT
E6
24 25 26 27
g h i
j
k
l m
n
28 29 30 31


E118 B
E119 W
E121 BR
E122 W
E123 BR
E124 B

WKWA6027E

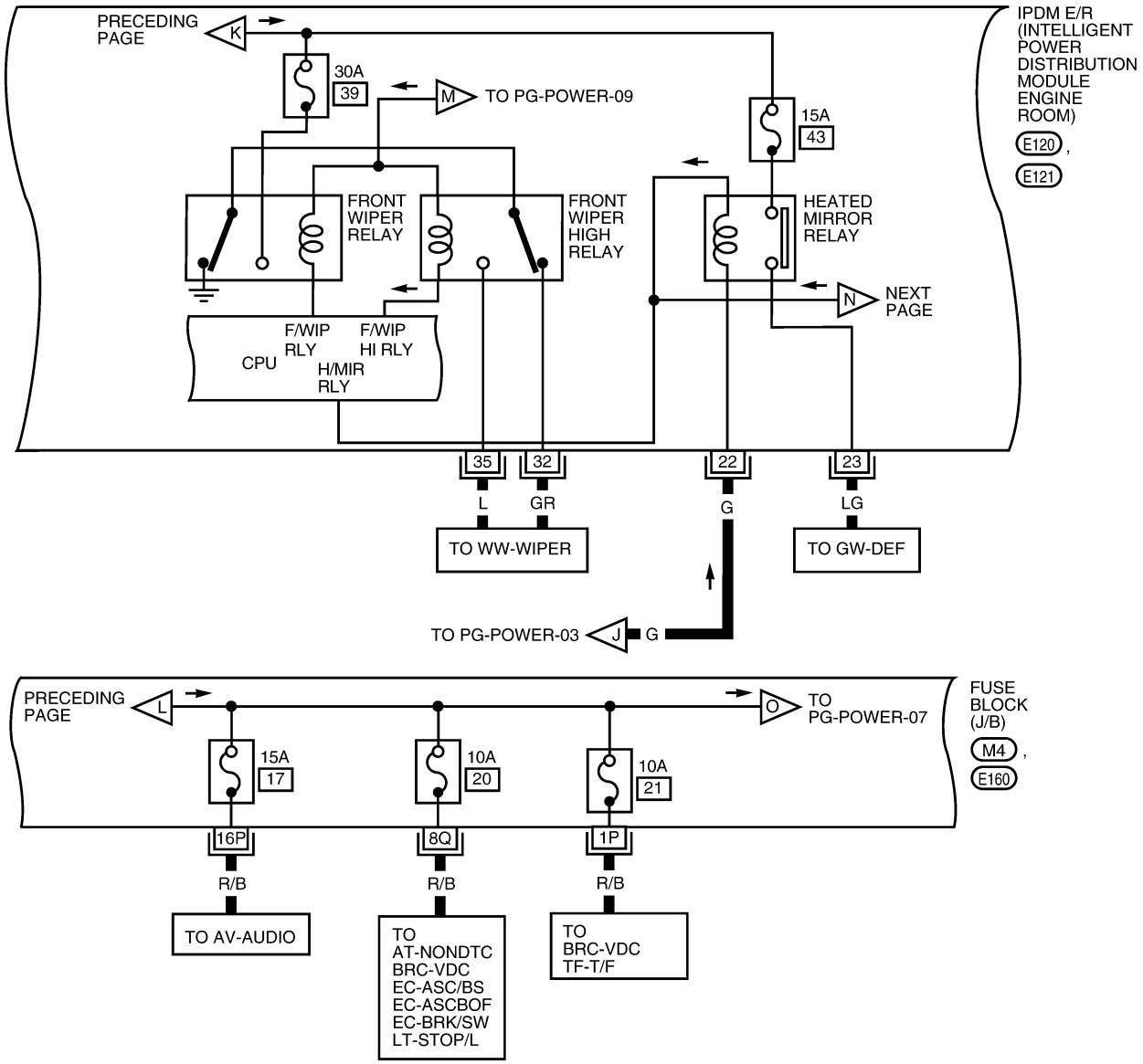

FL : WITH FRONT FOG LAMPS
PG-POWER-04
PRECEDING PAGE
I
K
NEXT PAGE
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E123
HEADLAMP HIGH RELAY
HEADLAMP LOW RELAY
FRONT FOG LAMP RELAY
H/LP HI
CPU
H/LP LO
FR FOG
20A 56
10A 35
10A 34
15A 40
15A 41
55
56
52
54
51
50
G
L
P
R
V
W
TO LT-AUTO/L LT-DTRL LT-H/LAMP BL-VEHSEC
TO LT-AUTO/L LT-DTRL LT-H/LAMP BL-VEHSEC
TO LT-F/FOG
TO PG-POWER-01
A
W
1S
L
NEXT PAGE
FUSE BLOCK (J/B)
M3 , M4 , E158
10A 22
10A 19
10A 18
1N
8P
4N
R/B
R/Y
R/Y
TO AT-MAIN AV-NAVI SE-AUT/DP
TO AT-NONDTC ATC-A/C,A AV-COMM AV-NAVI BL-NATS BL-TRNSCV BL-VEHSEC BRC-VDC DI-B/COMP DI-CHIME DI-COMPAS DI-METER DI-WARN EC-ASCIND EC-FTTS EC-MIL/DL LT-DTRL LT-H/LAMP LT-ILL LT-TURN MTC-A/C,M
TO AV-NAVI BL-D/LOCK BL-KEYLES BL-NATS BL-VEHSEC LT-INT/L LT-AUTO/L LT-COMBSW LT-DTRL LT-F/FOG LT-H/LAMP LT-ILL LT-T/TOW LT-TAIL/L LT-TURN

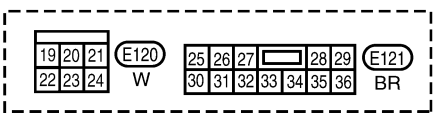

49 50 51
52 53 54 55 56
E123
BR

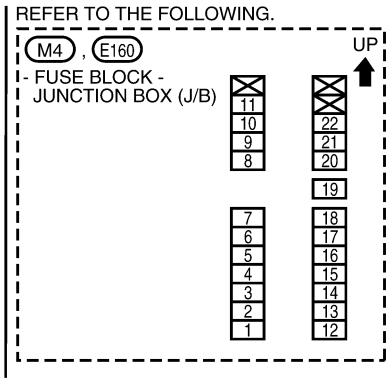

REFER TO THE FOLLOWING.
M3 , M4 , E158
- FUSE BLOCK - JUNCTION BOX (J/B)
UP
11 10 9 8
22 21 20
19
7 6 5 4 3 2 1
18 17 16 15 14 13 12

WKWA6028E

PG-POWER-05

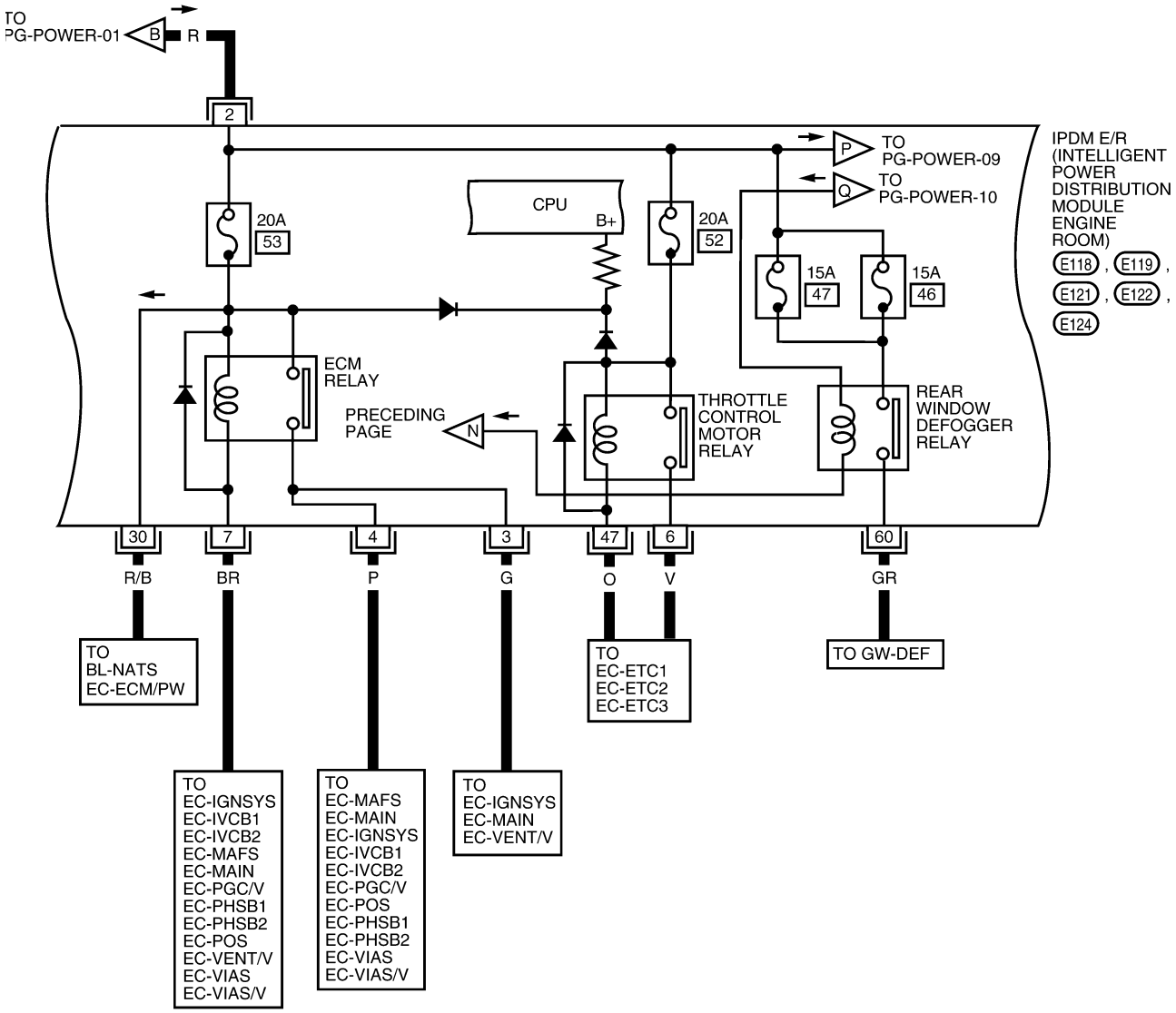


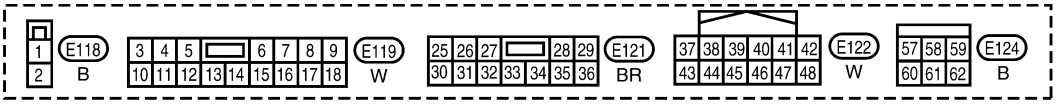




WKWA6029E

PG-POWER-06

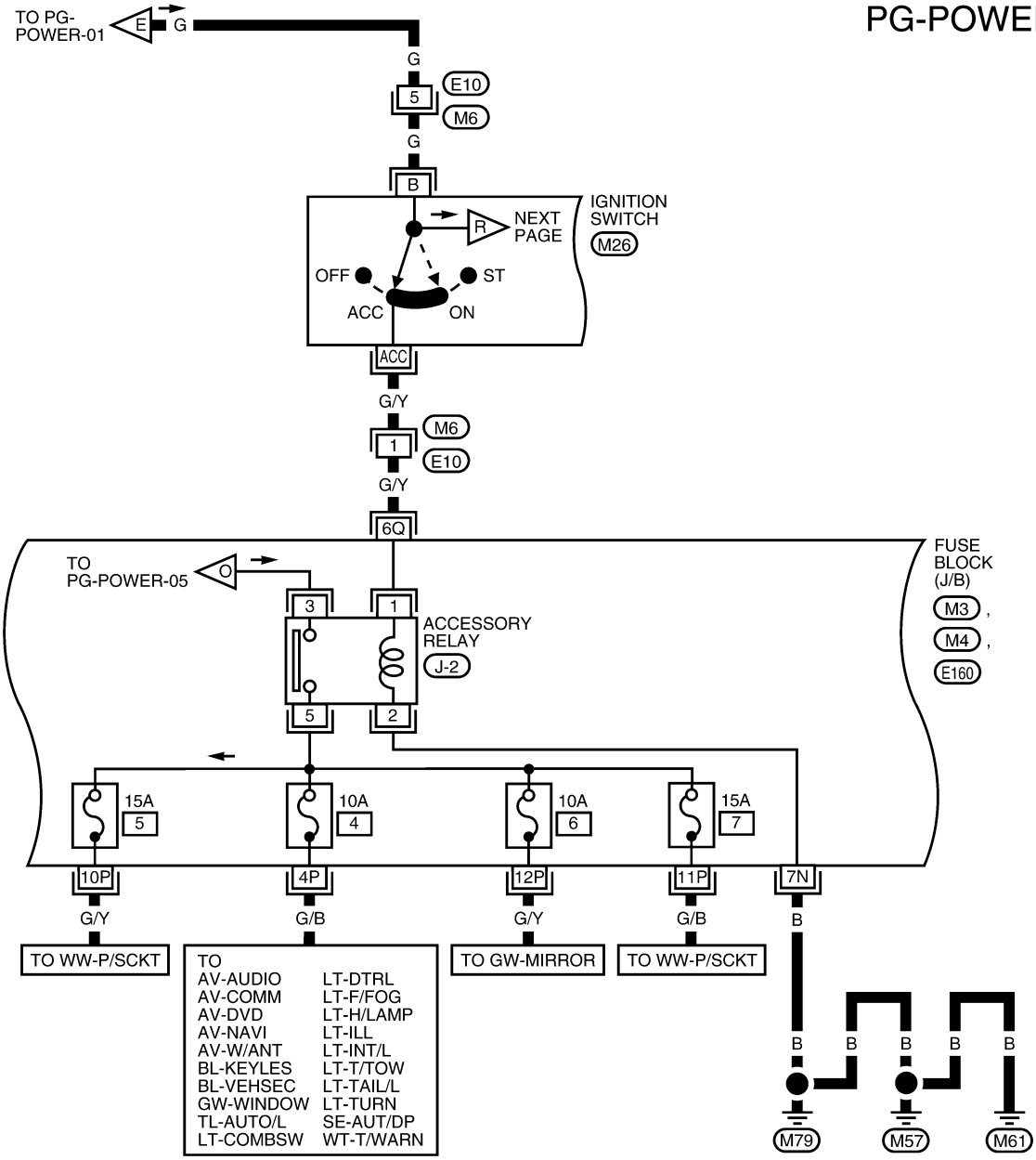


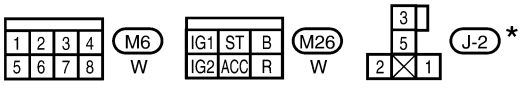


WKWA6030E

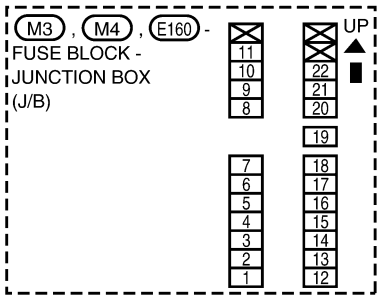
ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON

PG-POWER-07





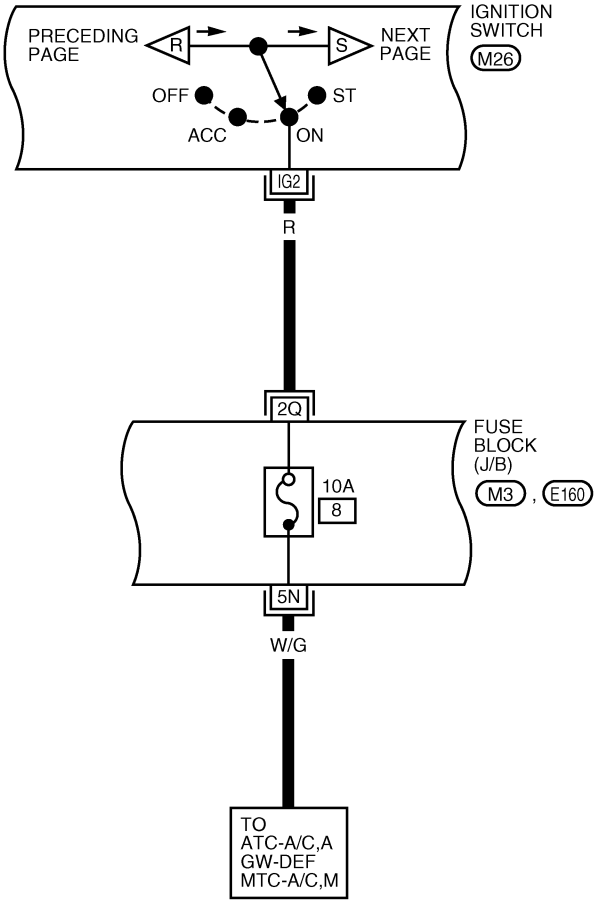
REFER TO THE FOLLOWING.

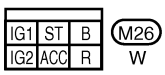


* : THIS CONNECTOR IS NOT SHOWN IN “HARNESS LAYOUT”.

WKWA6031E

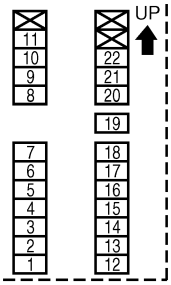
IGNITION POWER SUPPLY — IGNITION SW. IN ON





REFER TO THE FOLLOWING.

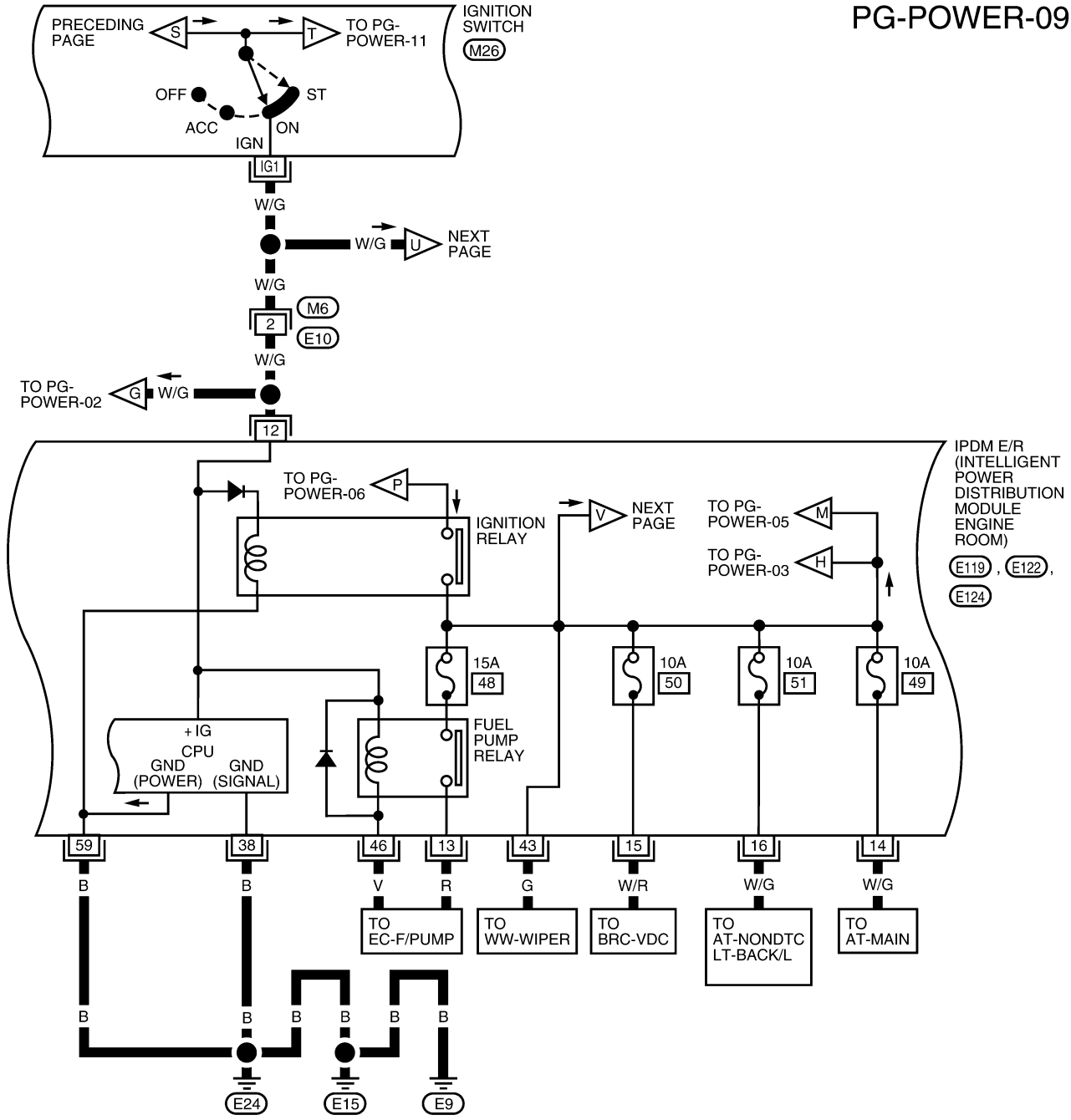
M3 , E160 - FUSE BLOCK - JUNCTION BOX (J/B)

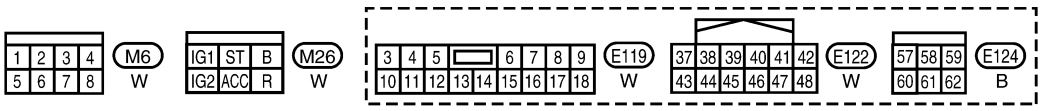


WKWA4410E

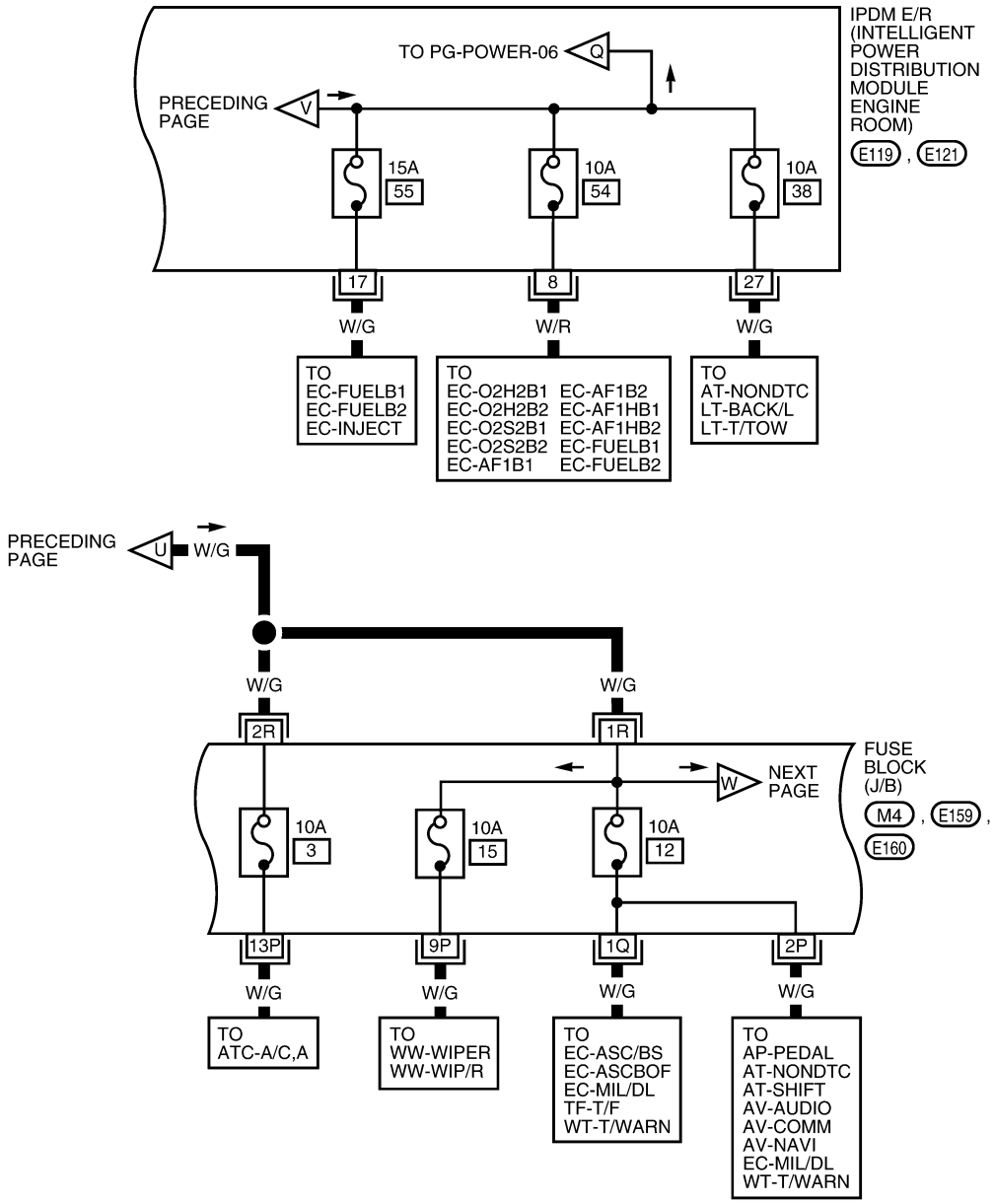
IGNITION POWER SUPPLY — IGNITION SW. IN ON AND/OR START

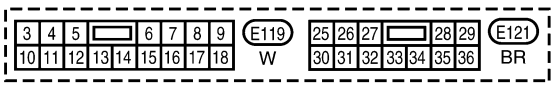
PG-POWER-09





WKWA6032E





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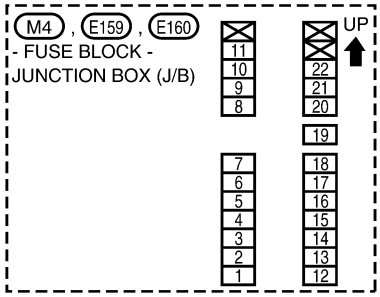
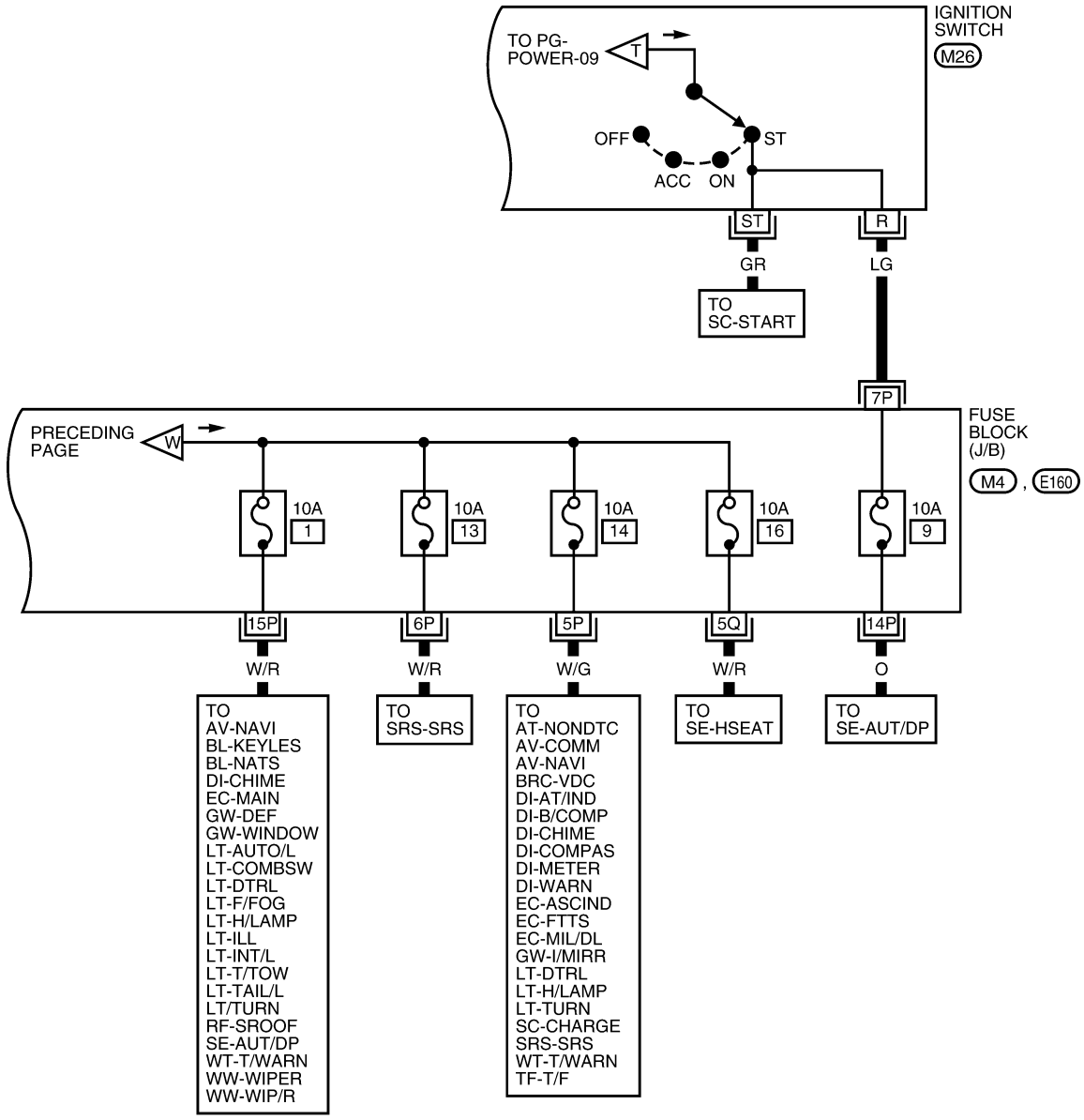
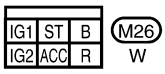


WKWA6033E





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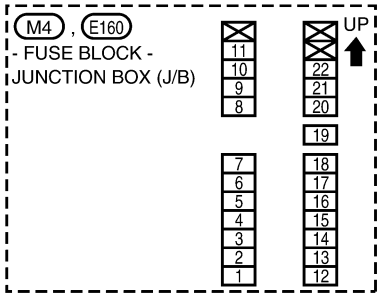
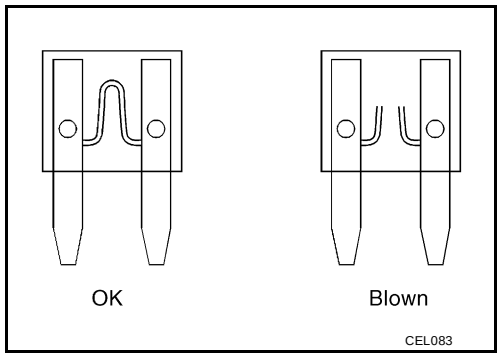


WKWA6034E

Fuse

EKS00HM0

- 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

EKS00HM1

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:

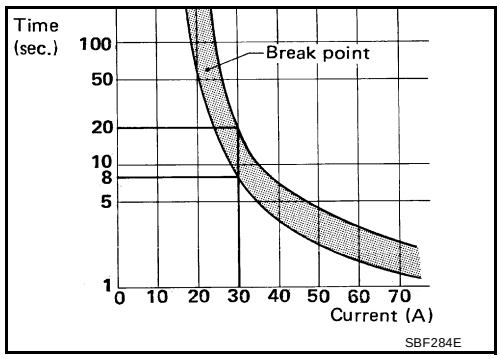
- **If fusible link should melt, it is possible that critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check and eliminate cause of incident.**
- **Never wrap outside of fusible link with vinyl tape.**
- **Never let fusible link touch any other wiring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

Circuit Breaker (Built Into BCM)

EKS00HM2

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



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

PFP:284B7

System Description

EKS00G8E

- 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 (High, Low)
   - Daytime light relay control (canada only)
   - Parking lamps and side marker lamps
   - Tail and license plate lamps
   - Front fog lamps
2. Wiper control
   Using CAN communication lines, it receives signals from the BCM and controls the front wipers.
3. Daytime light relay control
   Using CAN communication lines, it receives signals from the BCM and controls the daytime light relay.
4. Generator control
   Using CAN communication lines, it receives signals from the ECM and controls power generation output.
5. Rear window defogger relay control
   Using CAN communication lines, it receives signals from the BCM and controls the rear window defogger relay.
6. A/C compressor control
   Using CAN communication lines, it receives signals from the BCM and controls the A/C compressor (magnetic clutch).
7. Starter control
   Using CAN communication lines, it receives signals from the BCM and controls the starter relay.
8. Cooling fan control
   Using CAN communication lines, it receives signals from the ECM and controls the cooling fan relays.
9. 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	● With the ignition switch ON, the headlamp low is ON. ● With the ignition switch OFF, the headlamp low is OFF.
Tail, license plate and parking lamps	● With the ignition switch ON, the tail lamp relay is ON. ● With the ignition switch OFF, the tail lamp relay is OFF.

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

IPDM E/R STATUS CONTROL

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

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

EKS00G8F

Refer to LAN-25, "CAN COMMUNICATION" .

Function of Detecting Ignition Relay Malfunction

EKS00G8G

- 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.

CONSULT-II Function (IPDM E/R)

EKS00G8H

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

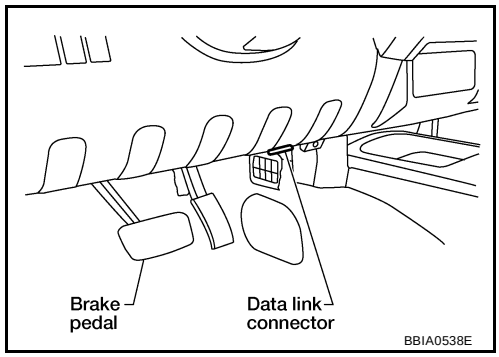
IPDM E/R diagnostic Mode	Description
SELF-DIAG RESULTS	Displays IPDM E/R self-diagnosis results.
DATA MONITOR	Displays IPDM E/R input/output data in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	Operation of electrical loads can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

CONSULT-II BASIC OPERATION

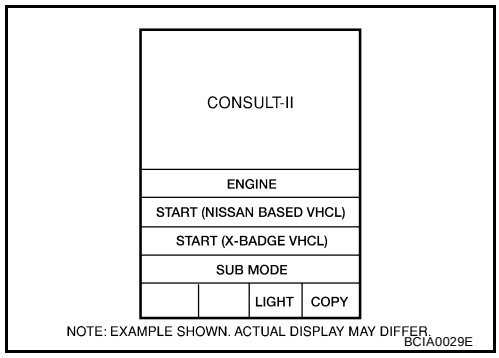
CAUTION:

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.

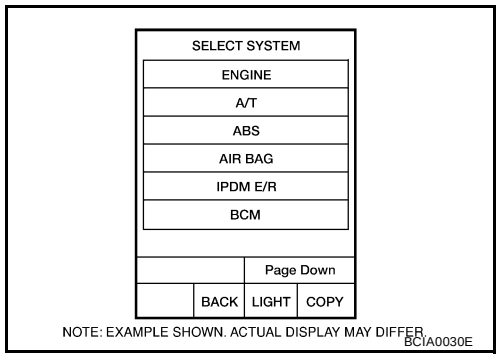
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn ignition switch ON.



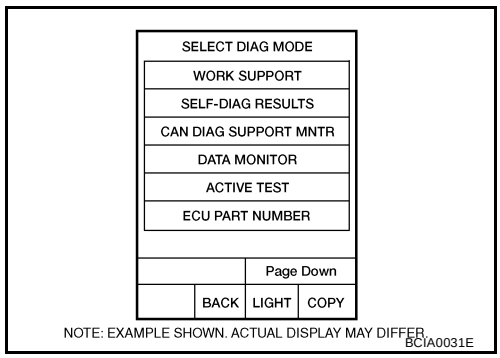
2. Touch “START (NISSAN BASED VHCL)”.



3. Touch “IPDM E/R” on “SELECT SYSTEM” screen.
   - If “IPDM E/R” is not displayed, go to GI-40, "CONSULT-II Data Link Connector (DLC) Circuit" .



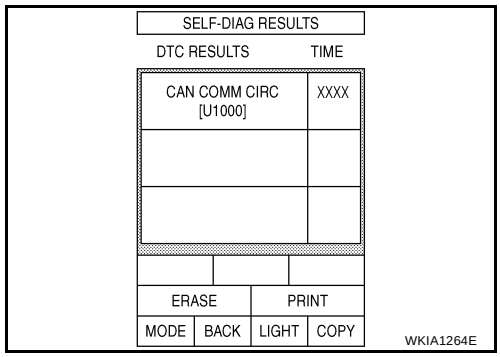
4. Select the desired part to be diagnosed on the “SELECT DIAG MODE” screen.



SELF-DIAGNOSTIC RESULTS

Operation Procedure

1. Touch “SELF-DIAG RESULTS” on “SELECT DIAG MODE” screen.
2. 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	● 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: ● 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 “START”.
4. 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.
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
Compressor request	AC COMP REQ	ON/OFF	X	X	X	Signal status input from BCM
Parking, license plate, 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 lamps request	FR FOG REQ	ON/OFF	X	X	X	Signal status input from BCM
Front wiper request	FR WIP REQ	STOP/1LO/LO/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/LS/HS/ BLOCK	X	X	X	Control status of IPDM E/R
Starter request	ST RLY REQ	ON/OFF	X		X	Signal status input from BCM
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
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 lights request	DTRL REQ	ON/OFF	X		X	Signal status input from BCM

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECTION FROM MENU	
Headlamp washer request	HL WASHER REQ (*1)	ON/OFF	X		X	—
Oil pressure switch	OIL P SW (*1)	OPEN/CLOSE	X		X	—

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 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.
Headlamp relay (HIGH, LOW) 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.
Front fog lamp relay (FOG) output		With a certain operation (OFF, HI ON, LO ON, TAIL ON, FOG ON), the lamp relay (Low, High, Tail, Fog) can be operated.
Tail lamp relay output		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

EKS00G8I

DESCRIPTION

- In auto active test mode, operation inspection can be performed when IPDM E/R sends a drive signal to the following systems:
  - Rear window defogger
  - Side marker lamps
  - Front wipers
  - Cooling Fan
  - Tail, license plate, and parking lamps
  - Headlamps (High, Low)
  - A/C compressor (magnetic clutch)
  - Fog lamps

OPERATION PROCEDURE

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

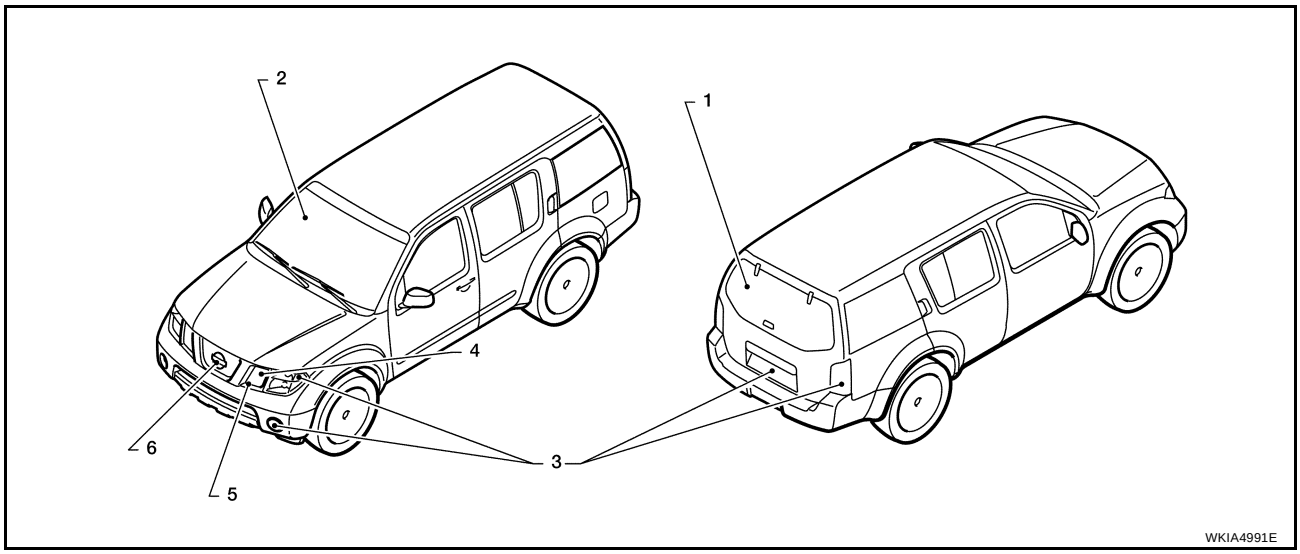
   NOTE:
   When auto active test is performed with hood opened, sprinkle water on windshield beforehand.
2. Turn ignition switch OFF.
3. Turn ignition switch ON and, within 20 seconds, press front door switch LH 10 times. Then turn ignition switch OFF.
4. Turn ignition switch ON within 10 seconds after 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-29, "Door Switch Check" when the auto active test cannot be performed.

INSPECTION IN AUTO ACTIVE TEST MODE

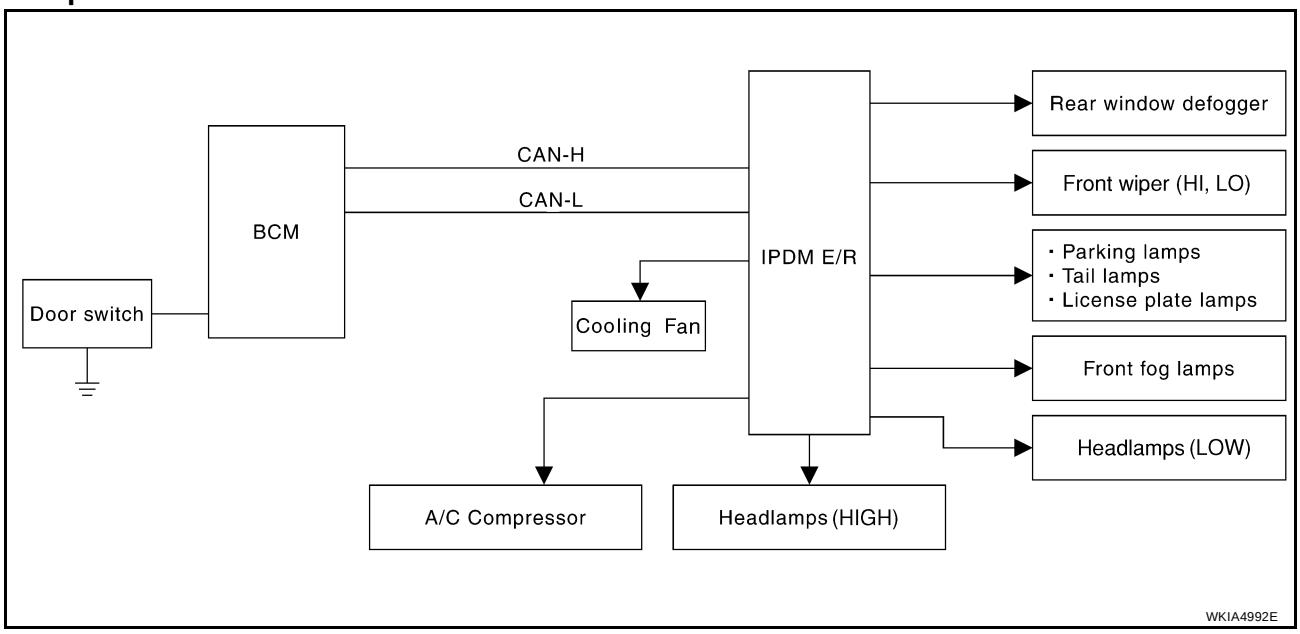
When auto active test mode is actuated, the following six steps are repeated three times.



Item Number	Test Item	Operation Time/Frequency
1	Rear window defogger	10 seconds
2	Front wipers	LOW 5 seconds then HIGH 5 seconds
3	Tail, license plate, front fog and parking lamps	10 seconds
4	Headlamps	Low ON for 10 seconds then High ON-OFF five times.

Item Number	Test Item	Operation Time/Frequency
5	A/C compressor (magnetic clutch)	ON-OFF 5 times
6	Cooling fan	LOW 5 seconds then HIGH 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.

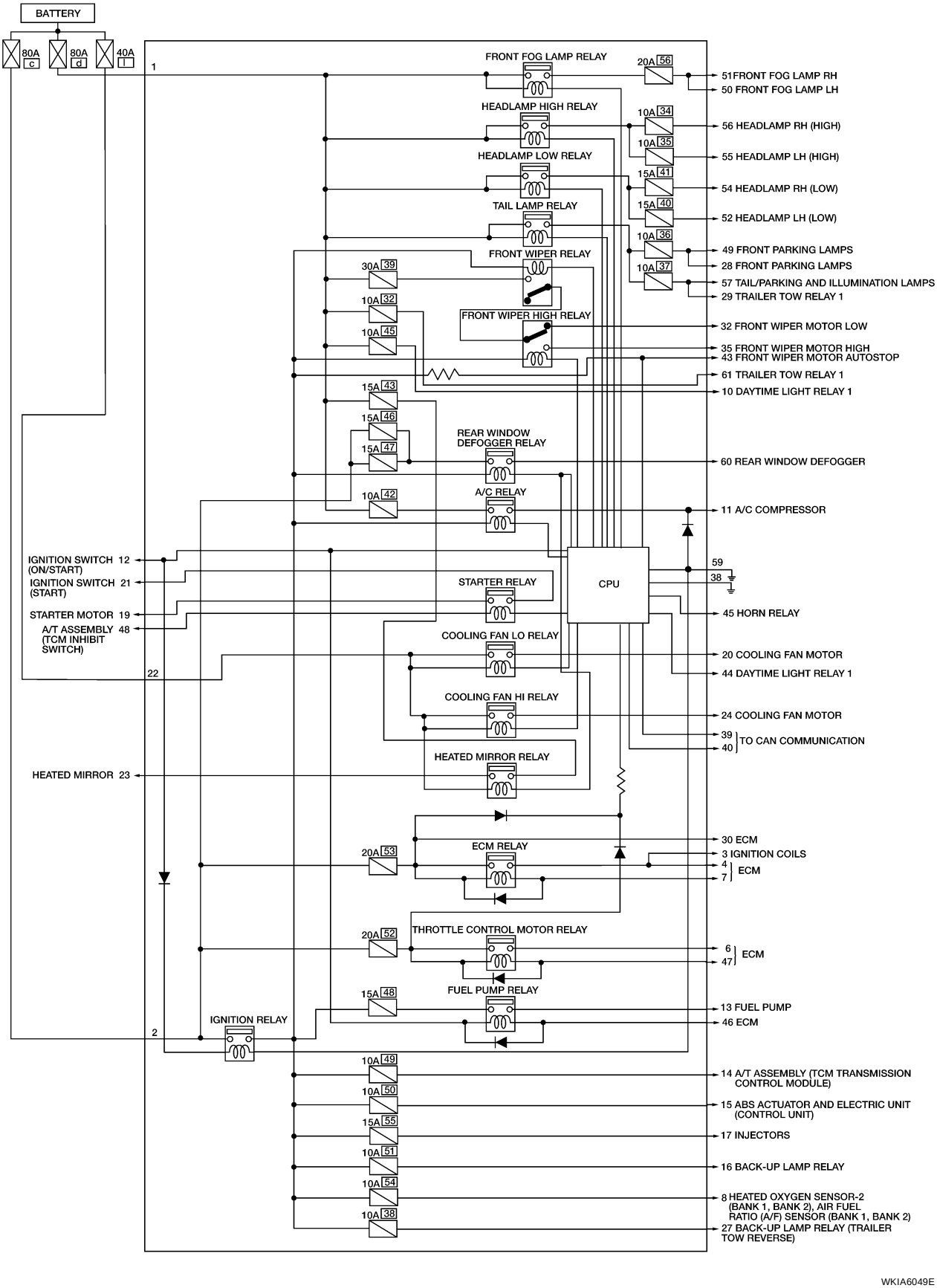
Diagnosis chart in auto active test mode

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

Symptom	Inspection contents		Possible cause
Cooling fan does not operate.	Perform auto active test. Does cooling fan operate?	YES	● ECM signal input circuit ● CAN communication signal between ECM and IPDM E/R
		NO	● Cooling fan motor malfunction ● Harness/connector malfunction between IPDM E/R and cooling fan motor ● IPDM E/R (integrated relay) malfunction

Schematic

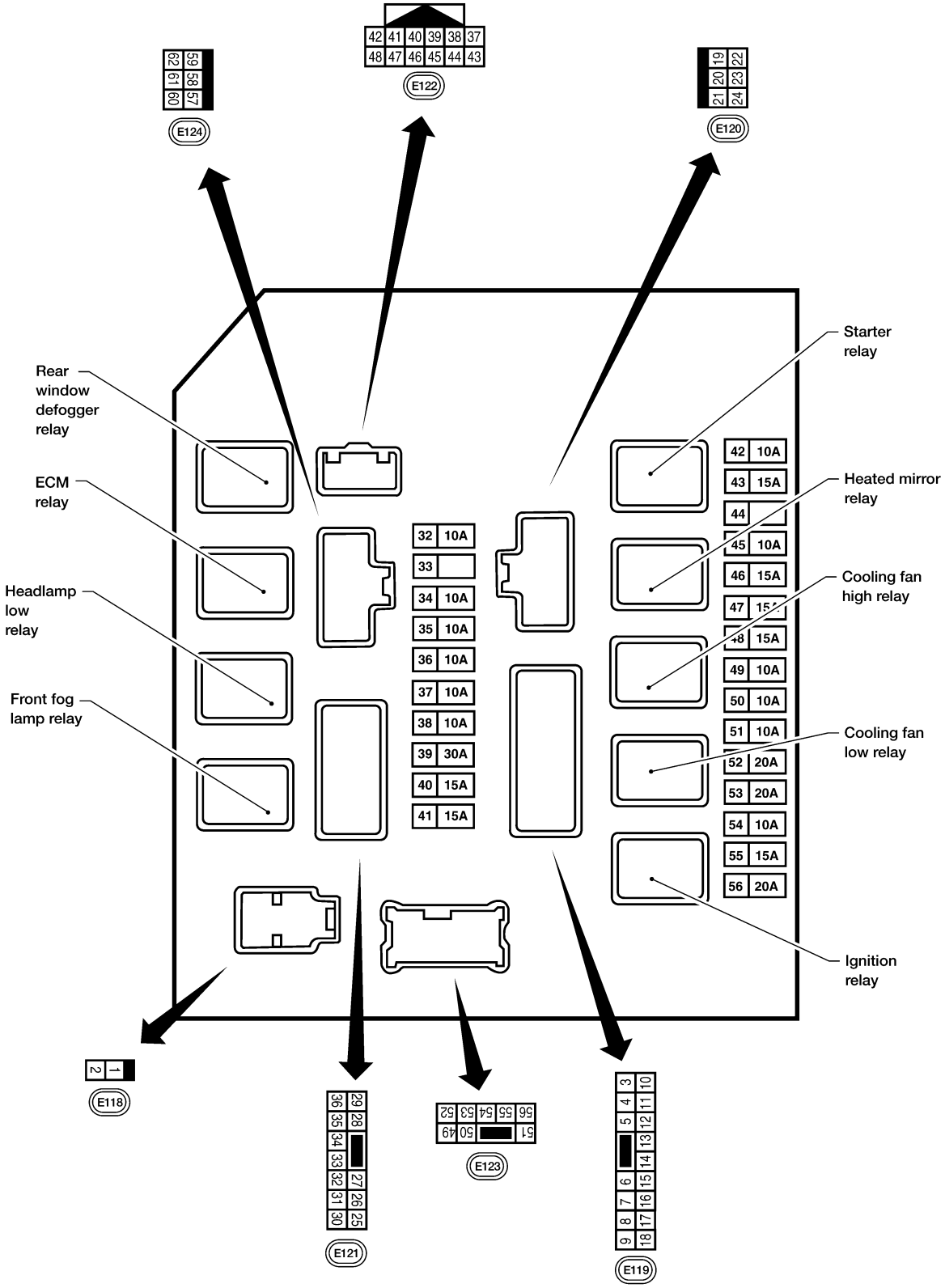
EKS00G8J



WKIA6049E

IPDM E/R Terminal Arrangement

EKS00G8K



WKIA1695E

Terminals and Reference Values for IPDM E/R

EKS00HLS

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value (Approx.)
				Ignition switch	Operation or condition	
1	W	Battery power supply	Input	OFF	—	Battery voltage
2	R	Battery power supply	Input	OFF	—	Battery voltage
3	G	Ignition coil	Output	ON or START	—	Battery voltage
4	P	ECM relay	Output	ON or START	—	Battery voltage
6	V	Throttle control relay	Output	ON or START	—	Battery voltage
7	BR	ECM relay control	Input	—	Ignition switch ON or START	0V
					Ignition switch OFF or ACC	Battery voltage
8	W/R	O2 and A/F sensor ignition supply	Output	ON or START	—	Battery voltage
10	R/B	Battery power supply (daytime light relay)	Output	OFF	—	Battery voltage
11	Y	A/C compressor	Output	ON	A/C switch or auto A/C request ON	Battery voltage
12	W/G	Ignition switch	Input	—	OFF or ACC	0V
					ON or START	Battery voltage
13	R	Fuel pump relay	Output	ON or START	—	Battery voltage
14	W/G	A/T ignition supply	Output	ON or START	—	Battery voltage
15	W/R	ABS ignition supply	Output	ON or START	—	Battery voltage
16	W/G	Reverse lamp	Output	ON or START	—	Battery voltage
17	W/G	Injector	Output	ON or START	—	Battery voltage
19	W	Starter motor	Output	START	—	Battery voltage
20	BR	Cooling fan motor (low)	Output	ON or START	—	Battery voltage
21	GR	Ignition switch	Input	—	OFF or ACC or ON	0V
					START	Battery voltage
22	G	Battery power supply (cooling fan relays)	Input	OFF	—	Battery voltage
23	LG	Heated mirror relay	Output	ON or START	Rear window defogger switch is ON	Battery voltage
					Rear window defogger switch is OFF	0V
24	P	Cooling fan motor (high)	Output	ON or START	—	Battery voltage
27	WG	Trailer tow relay	Output	ON or START	—	Battery voltage
28	R	LH front parking and front side marker lamp	Output	OFF	Lighting switch 1ST position: OFF	0V
					Lighting switch 1ST position: ON	Battery voltage

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition			Reference value (Approx.)
				Ignition switch	Operation or condition		
29	G	Trailer tow relay	Output	OFF	Lighting switch 1ST position	OFF	0V
						ON	Battery voltage
30	R/B	Battery power supply (ECM)	Input	OFF	—		Battery voltage
32	GR	Low speed signal	Output	ON	Wiper switch	OFF	0V
						LO	Battery voltage
35	L	High speed signal	Output	ON	Wiper switch	OFF	0V
						HI	Battery voltage
37	Y	Generator	Output	ON			—
38	B	Ground	Input	—	—		0V
39	L	CAN-H	—	ON	—		—
40	P	CAN-L	—	ON	—		—
43	G	Wiper auto stop signal	Input	ON	Wipers in non-park position		Battery voltage
					Wipers in park position		0V
44	R	Daytime light relay 1 signal	Output	ON	Park brake switch position	OFF	0V
						ON	Battery voltage
45	LG	Horn relay	Input	When doors are operated using keyfob		OFF	Battery voltage
						ON	0V
46	V	Fuel pump relay control	Input	—	Ignition switch ON or START		0V
					Ignition switch OFF or ACC		Battery voltage
47	O	Throttle control relay control	Input	—	Ignition switch ON or START		0V
					Ignition switch OFF or ACC		Battery voltage
48	R	Starter relay (inhibit switch)	Input	ON or START	Selector lever in "P" or "N"		Battery voltage
					Selector lever any other position		0V
49	GR	RH front parking and front side marker lamp	Output	OFF	Lighting switch 1ST position	OFF	
						ON	Battery voltage
50	W	Front fog lamp (LH)	Output	ON	Lighting switch must be in the 2ND position or AUTO position (LOW beam is ON) and the front fog lamp switch must be ON	OFF	0V
						ON	Battery voltage

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition			Reference value (Approx.)
				Ignition switch	Operation or condition		
51	V	Front fog lamp (RH)	Output	ON	Lighting switch must be in the 2ND position or AUTO position (LOW beam is ON) and the front fog lamp switch must be ON	OFF	0V
						ON	Battery voltage
52	P	Headlamp low (LH)	Output	OFF	Lighting switch 2ND position	OFF	0V
						ON	Battery voltage
54	R	Headlamp low (RH)	Output	OFF	Lighting switch 2ND position	OFF	0V
						ON	Battery voltage
55	G	Headlamp high (LH)	Output	OFF	Lighting switch HIGH or PASS position	OFF	0V
						ON	Battery voltage
56	L	Headlamp high (RH)	Output	OFF	Lighting switch HIGH or PASS position	OFF	0V
						ON	Battery voltage
57	GR	Rear parking, license, and tail lamp	Input	ON	Lighting switch 1ST position	OFF	0V
						ON	Battery voltage
59	B	Ground	—	—	—		0V
60	GR	Rear window defogger relay output signal	Output	ON	When rear window defogger switch is ON		Battery voltage
					When rear window defogger switch is OFF		0V
61	R/B	Battery power supply (trailer tow relay)	Output	OFF	—		Battery voltage

IPDM E/R Power/Ground Circuit Inspection

EKS00G8L

1. FUSE AND FUSIBLE LINK INSPECTION

Check that the following fusible links are not blown.

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

OK or NG

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

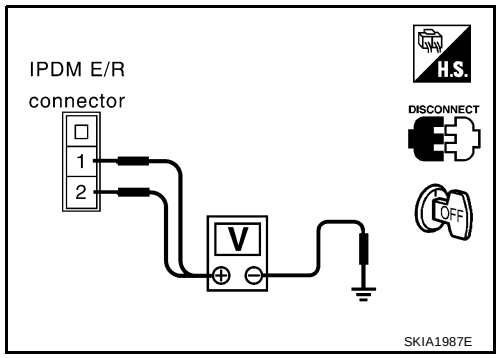
2. POWER CIRCUIT INSPECTION

1. Turn ignition switch off.
2. Disconnect IPDM E/R harness connector E118.
3. 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.



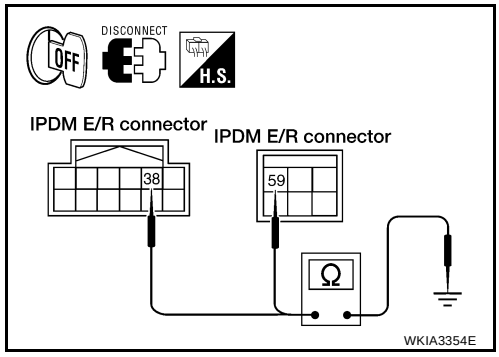
3. GROUND CIRCUIT INSPECTION

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.



Inspection with CONSULT-II (Self-Diagnosis)

EKS00G8M

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) carries out CAN communication.

1. SELF-DIAGNOSIS RESULT CHECK

1. Connect CONSULT-II and select "IPDM E/R" on the "SELECT SYSTEM".
2. Select "SELF-DIAG RESULTS" on the "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: ● 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

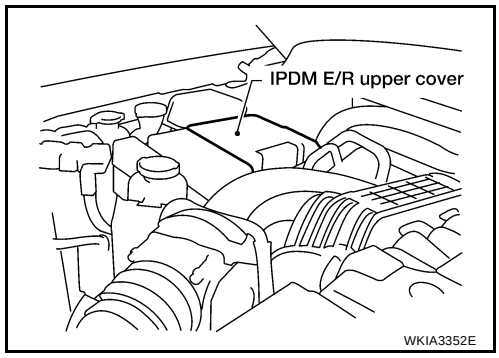
NO DTC DETECTED. FURTHER TESTING MAY BE REQUIRED.>>INSPECTION END.
CAN COMM CIRC>>Print out the self-diagnosis result and refer to LAN-25, "CAN COMMUNICATION" .

Removal and Installation of IPDM E/R

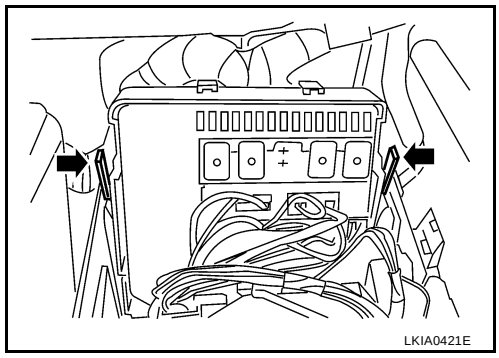
EKS00G8N

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.

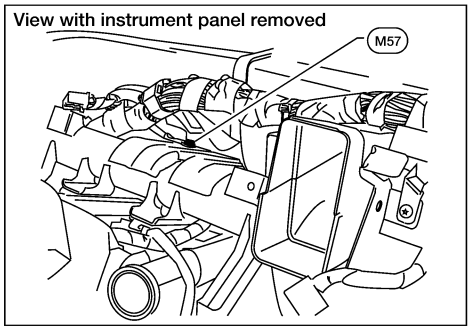
GROUND CIRCUIT

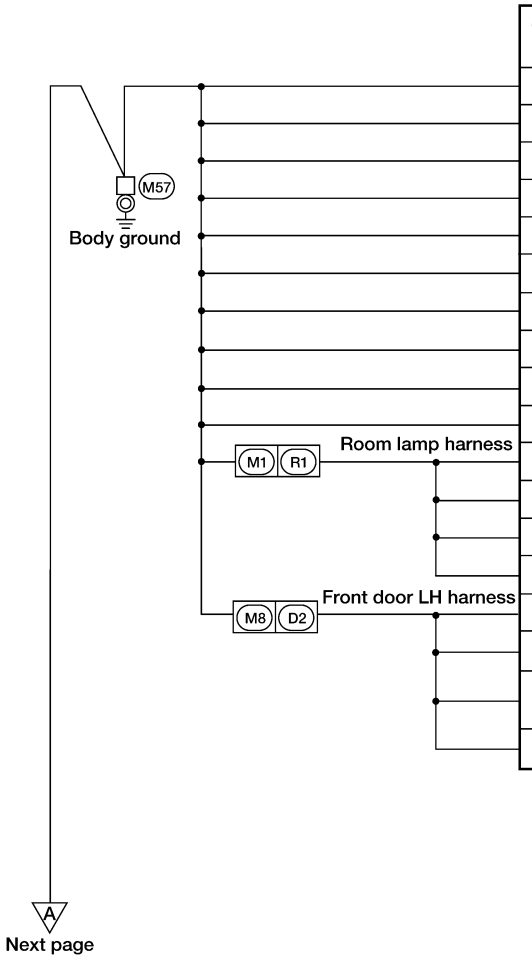
PFP:24080

Ground Distribution

EKS00G8O

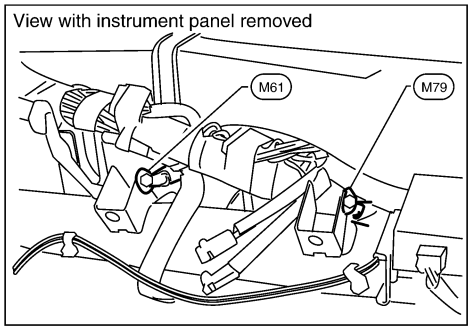
MAIN HARNESS

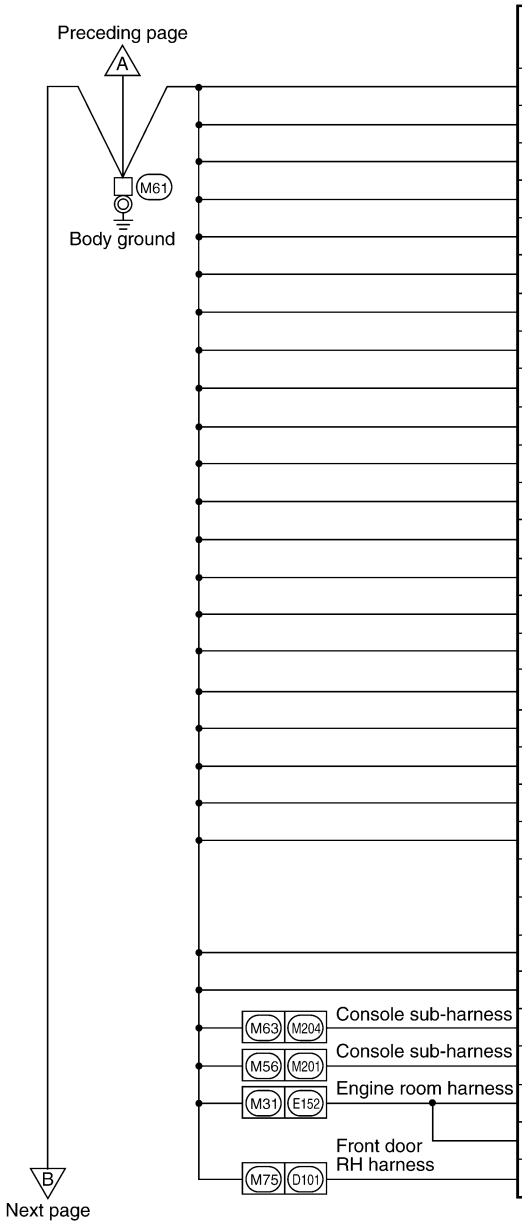




CONNECTOR NUMBER	CONNECT TO
M14	Pedal adjusting control unit
M21	NATS antenna amp.
M22	Data link connector (Terminal No. 4)
M22	Data link connector (Terminal No. 5)
M24	Combination meter (Terminal No. 23)
M28	Combination switch
M34	Automatic drive positioner (Terminal No. 48)
M67	BCM (Terminal No. 67)
M96	Pedal adjusting switch
M159	Door mirror remote control switch (with memory)
R4	Sunroof switch
R7	Auto anti-dazzling inside mirror
R9	Front room/map lamp assembly
R10	Personal lamp 2nd row
D4	Door mirror LH
D5	Seat memory switch
D8	Main power window and door lock/unlock switch (Terminal No. 17)
D14	Front door lock assembly LH

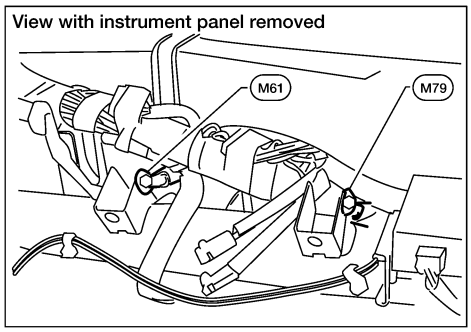
WKIA6050E

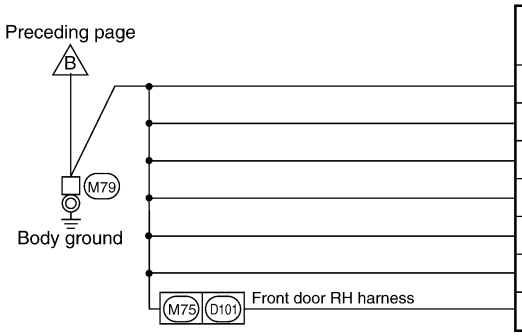




CONNECTOR NUMBER	CONNECT TO
M13	Front passenger air bag off indicator
M24	Combination meter (Terminal No. 13)
M34	Automatic drive positioner control unit (Terminal No. 40)
M35	Air bag diagnosis sensor
M47	Steering angle sensor
M49	Front air control
M51	Front blower switch
M55	Hazard switch
M93	Display unit (Terminal No. 1)
M94	Display control unit (Terminal No. 3)
M122	Variable blower control
M139	Diode-1
M152	Transfer control unit (Terminal No. 3) (all-mode 4WD)
M152	Transfer control unit (Terminal No. 6) (all-mode 4WD)
M152	Transfer control unit (Terminal No. 6) (part time 4WD)
M152	Transfer control unit (Terminal No. 18) (part time 4WD)
M153	Transfer control unit (Terminal No. 45) (all-mode 4WD)
M153	Transfer control unit (Terminal No. 32) (part time 4WD)
M154	VDC off switch
M155	HDC switch
M156	A/T device (Terminal No. 2)
M156	A/T device (Terminal No. 8)
M156	A/T device (Terminal No. 10)
M159	Door mirror remote control switch (without memory)
M161	Front heated seat switch LH
M207	Console power socket
M209	Rear air control
E46	Transfer shift high relay (Terminal No. 1)
E47	Transfer shift low relay (Terminal No. 1)
D107	Door mirror RH

WKIA6051E

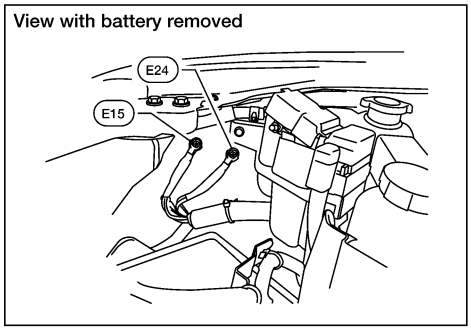


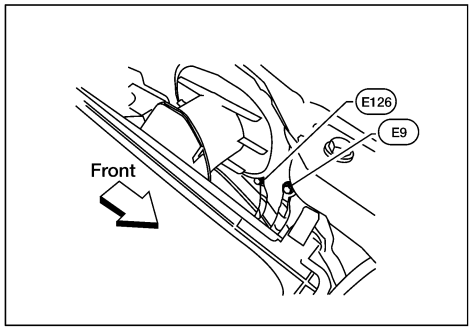


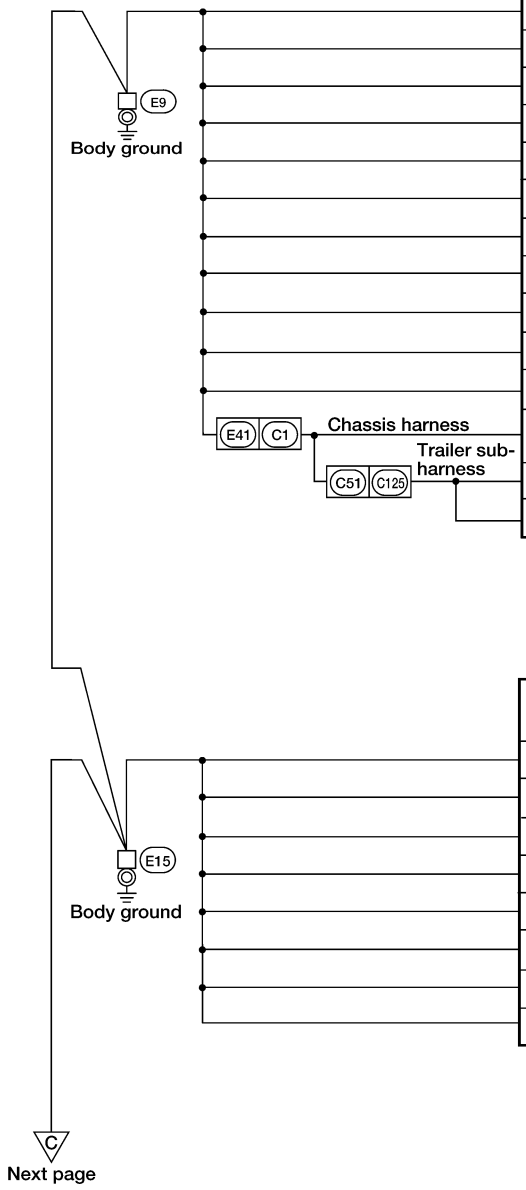
CONNECTOR NUMBER	CONNECT TO
M3	Fuse block J/B
M52	Rear blower switch (front)
M53	Lower front power socket
M54	Upper front power socket
M59	Glove box lamp
M76	Electric brake (pre-wiring)
D105	Power window and door lock/unlock switch RH

WKIA3568E

ENGINE ROOM HARNESS



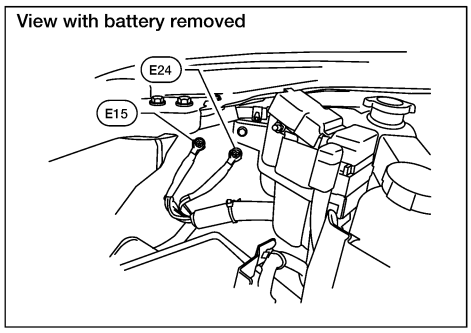


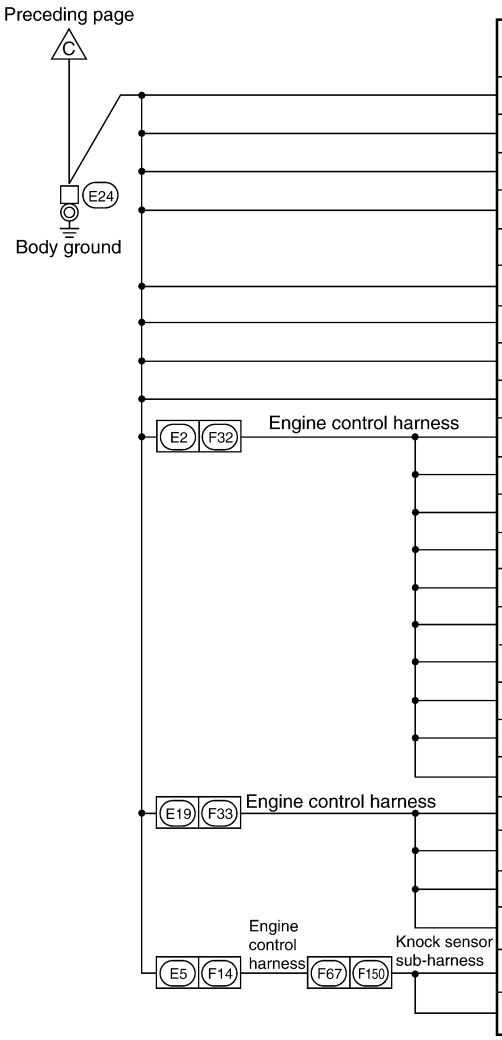


CONNECTOR NUMBER	CONNECT TO
E3	Horn
E21	Brake fluid level switch
E23	Front wiper motor
E102	Front fog lamp RH
E103	Daytime light relay 2
E104	Daytime light relay 1
E106	Washer fluid level switch
E107	Headlamp RH
E111	Front turn signal/park lamp RH
E140	Trailer tow relay 2
E148	Trailer tow relay 1
C5	Fuel level sensor unit and fuel pump
C126	Trailer (7-pin)
C126	Trailer (4-pin)

CONNECTOR NUMBER	CONNECT TO
E11	Headlamp LH
E27	Front turn signal/park lamp LH
E101	Front fog lamp LH
E108	Front side marker lamp RH
E113	Cooling fan motor (Terminal No. 3)
E113	Cooling fan motor (Terminal No. 4)
E163	Trailer turn relay LH
E164	Trailer turn relay RH

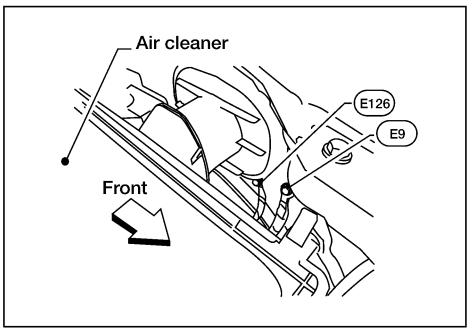
WKIA6052E

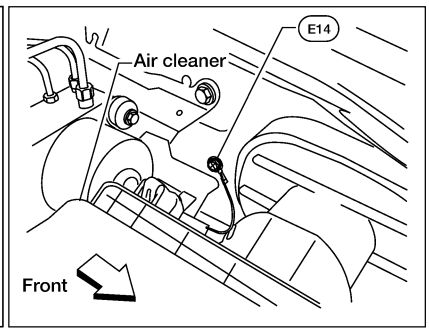


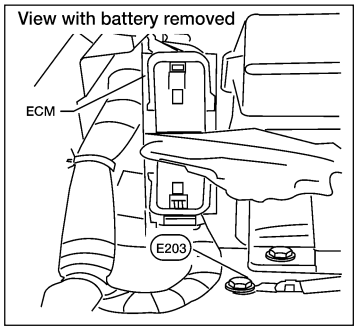


CONNECTOR NUMBER	CONNECT TO
E16	ECM (Terminal No. 115)
E16	ECM (Terminal No. 116)
E46	Transfer shift high relay (Terminal No. 4)
E47	Transfer shift low relay (Terminal No. 4)
E54	Front blower motor relay (with MTC)
E56	Transfer terminal cord assembly (all-mode 4WD) (Terminal No. 19)
E122	IPDM E/R (Terminal No. 38)
E124	IPDM E/R (Terminal No. 59)
E156	Transfer shut off relay 1
F11	Crankshaft position sensor
F23	Camshaft position sensor (PHASE) (bank 2)
F50	Electric throttle control actuator (shield wire)
F54	ECM (Terminal No. 1)
F55	ATP switch (all-mode 4WD)
F57	Transfer motor
F58	Transfer control device (all-mode 4WD)
F59	Wait detection switch (all-mode 4WD)
F60	Neutral 4LO switch (all-mode 4WD)
F66	Camshaft position sensor (PHASE) (bank 1)
F55	ATP switch (part time 4WD)
F58	Transfer control device (part time 4WD)
F59	Wait detection switch (part time 4WD)
F60	4LO switch (part time 4WD)
F151	Knock sensor (bank 1) (shield wire)
F152	Knock sensor (bank 2) (shield wire)

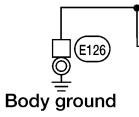
WKIA6053E



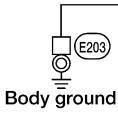




CONNECTOR NUMBER	CONNECT TO
E4	Crash zone sensor (shield wire)



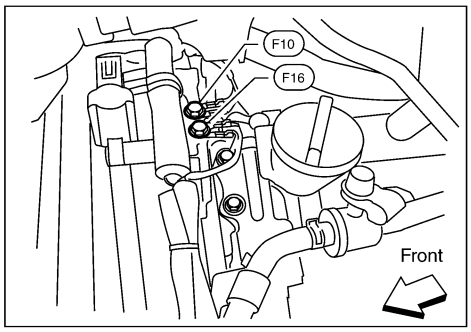
CONNECTOR NUMBER	CONNECT TO
E125	ABS actuator and electric unit (control unit) (Terminal No. 16)
E125	ABS actuator and electric unit (control unit) (Terminal No. 47)

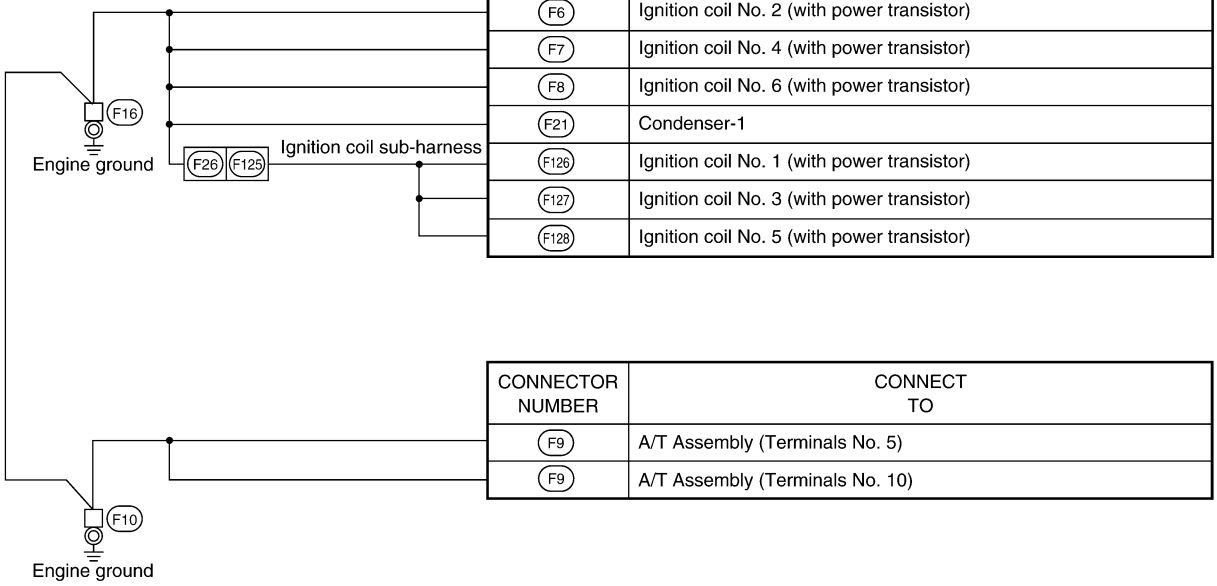


CONNECTOR NUMBER	CONNECT TO
E209	Generator

WKIA6054E

ENGINE CONTROL HARNESS



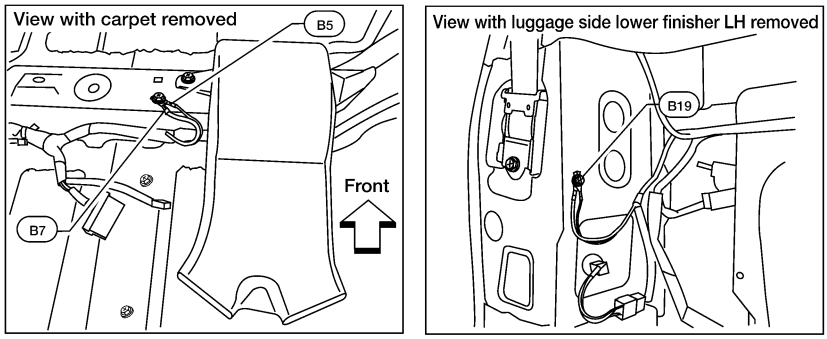


CONNECTOR NUMBER	CONNECT TO
F6	Ignition coil No. 2 (with power transistor)
F7	Ignition coil No. 4 (with power transistor)
F8	Ignition coil No. 6 (with power transistor)
F21	Condenser-1
F126	Ignition coil No. 1 (with power transistor)
F127	Ignition coil No. 3 (with power transistor)
F128	Ignition coil No. 5 (with power transistor)

CONNECTOR NUMBER	CONNECT TO
F9	A/T Assembly (Terminals No. 5)
F9	A/T Assembly (Terminals No. 10)

WKIA5171E

BODY HARNESS



CONNECTOR NUMBER	CONNECT TO
B15	LH side air bag (satellite sensor) (shield wire)

B5
Body ground

B7
Body ground

CONNECTOR NUMBER	CONNECT TO
B12	Seat belt buckle switch LH
B80	Vanity lamp LH
B81	Vanity lamp RH
B83	Sunroof motor assembly
D203	Rear power window switch LH
P2	Driver seat control unit (Terminal No. 32)
P3	Driver seat control unit (Terminal No. 48)
P8	Power seat switch LH (Terminal No. 2) (without memory)
P8	Power seat switch LH (Terminal No. 3) (with memory)
P9	Front seat heater LH

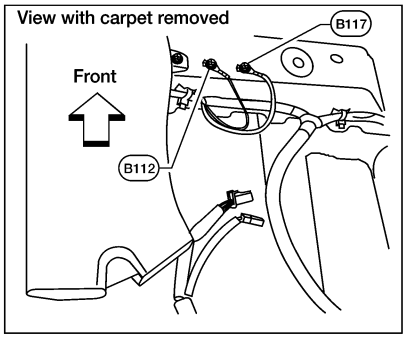
Rear door LH harness: B6, D201
Front seat LH harness: B37, P1

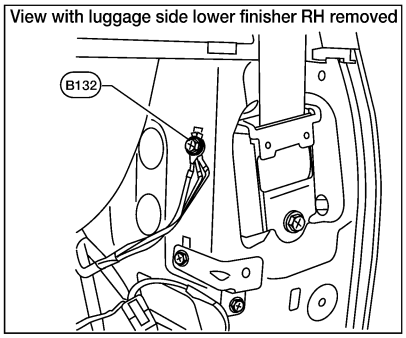
CONNECTOR NUMBER	CONNECT TO
B35	Rear combination lamp LH

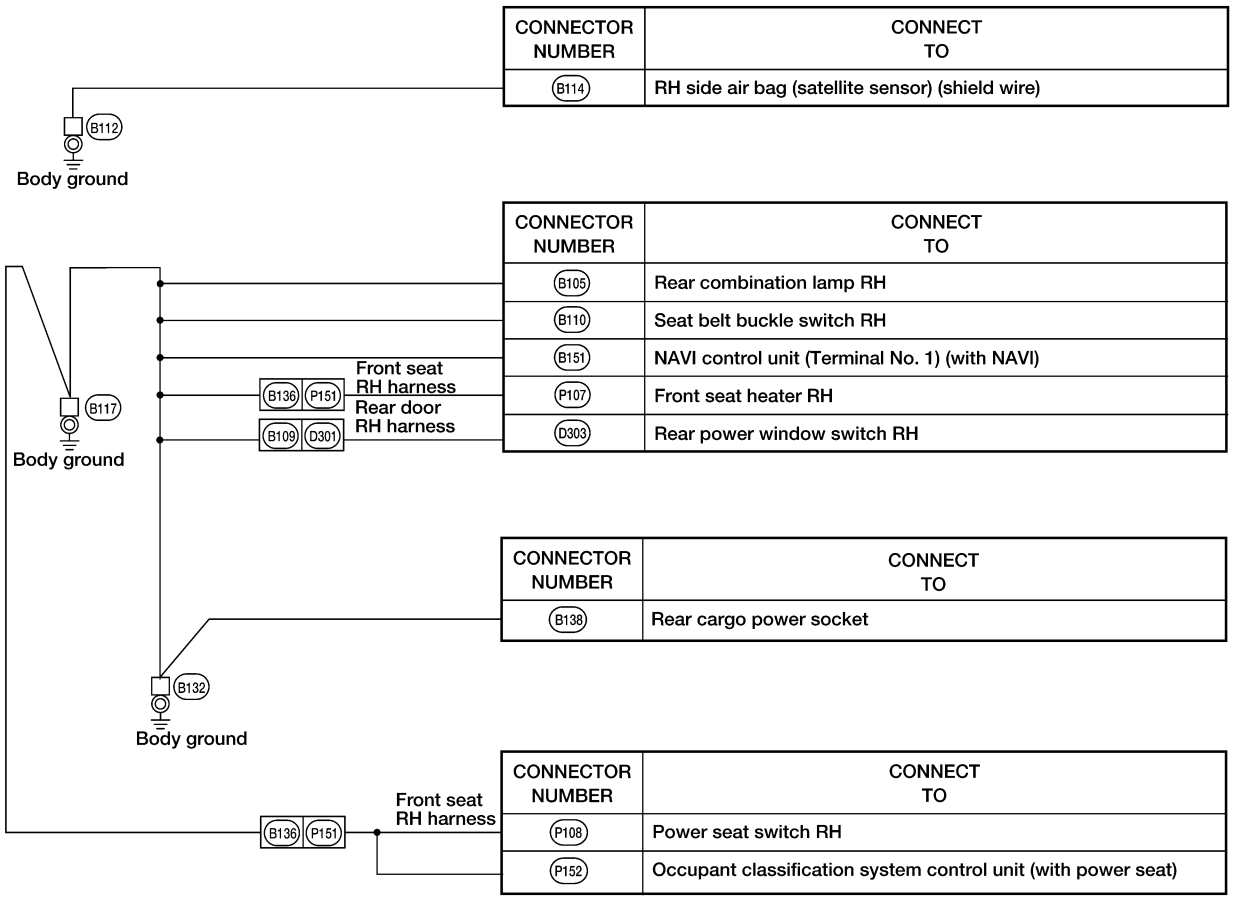
B19
Body ground

WKIA6055E

BODY NO. 2 HARNESS







CONNECTOR NUMBER	CONNECT TO
B114	RH side air bag (satellite sensor) (shield wire)

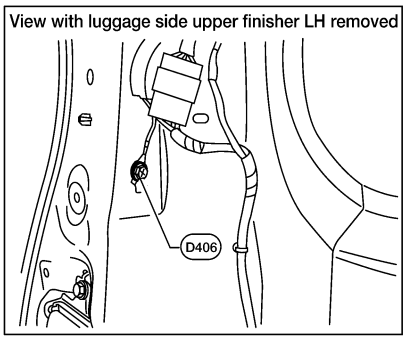
CONNECTOR NUMBER	CONNECT TO
B105	Rear combination lamp RH
B110	Seat belt buckle switch RH
B151	NAVI control unit (Terminal No. 1) (with NAVI)
P107	Front seat heater RH
D303	Rear power window switch RH

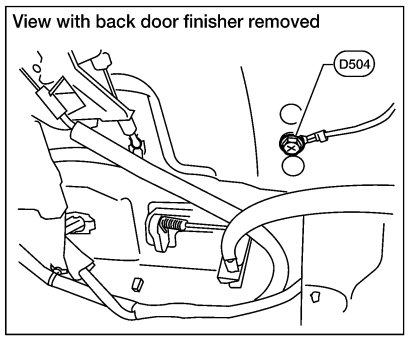
CONNECTOR NUMBER	CONNECT TO
B138	Rear cargo power socket

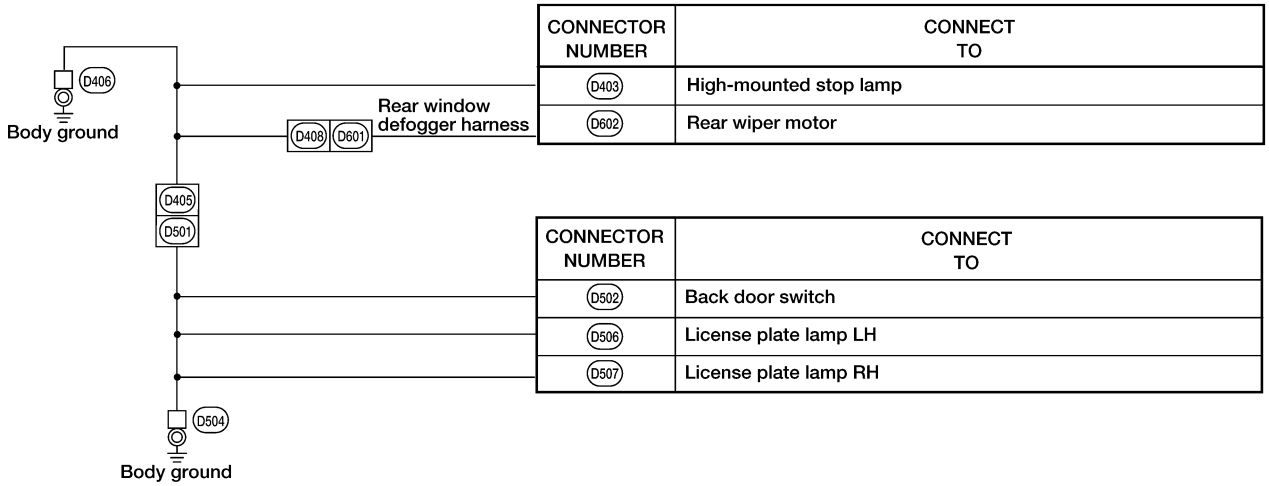
CONNECTOR NUMBER	CONNECT TO
P108	Power seat switch RH
P152	Occupant classification system control unit (with power seat)

WKIA6056E

BACK DOOR NO. 2 AND BACK DOOR HARNESS







CONNECTOR NUMBER	CONNECT TO
D403	High-mounted stop lamp
D602	Rear wiper motor

CONNECTOR NUMBER	CONNECT TO
D502	Back door switch
D506	License plate lamp LH
D507	License plate lamp RH

WKIA3575E

HARNESS

PFP:24010

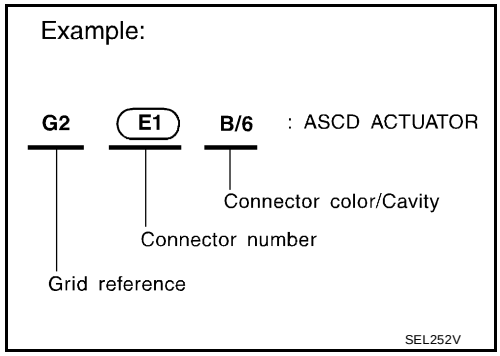
Harness Layout

EKS00G8P

HOW TO READ HARNESS LAYOUT

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

- Main Harness and Console Sub-harness
- Engine Room Harness RH View (Engine Compartment) and Generator Sub-harness
- Engine Room Harness (Passenger Compartment)
- Engine Room Harness LH View (Engine Compartment)
- Engine Control Harness, Injector Sub-harness, Ignition Coil Sub-harness, and Knock Sensor Sub-harness
- Chassis Harness and Trailer Sub-harness
- Body Harness
- Body No. 2 Harness and Rear Blower Motor Sub-harness
- Room Lamp Harness
- Back Door Harness, Back Door No. 2 Harness, Rear Window Sub-harness, and Rear Window Defogger Sub-harness



To use the grid reference

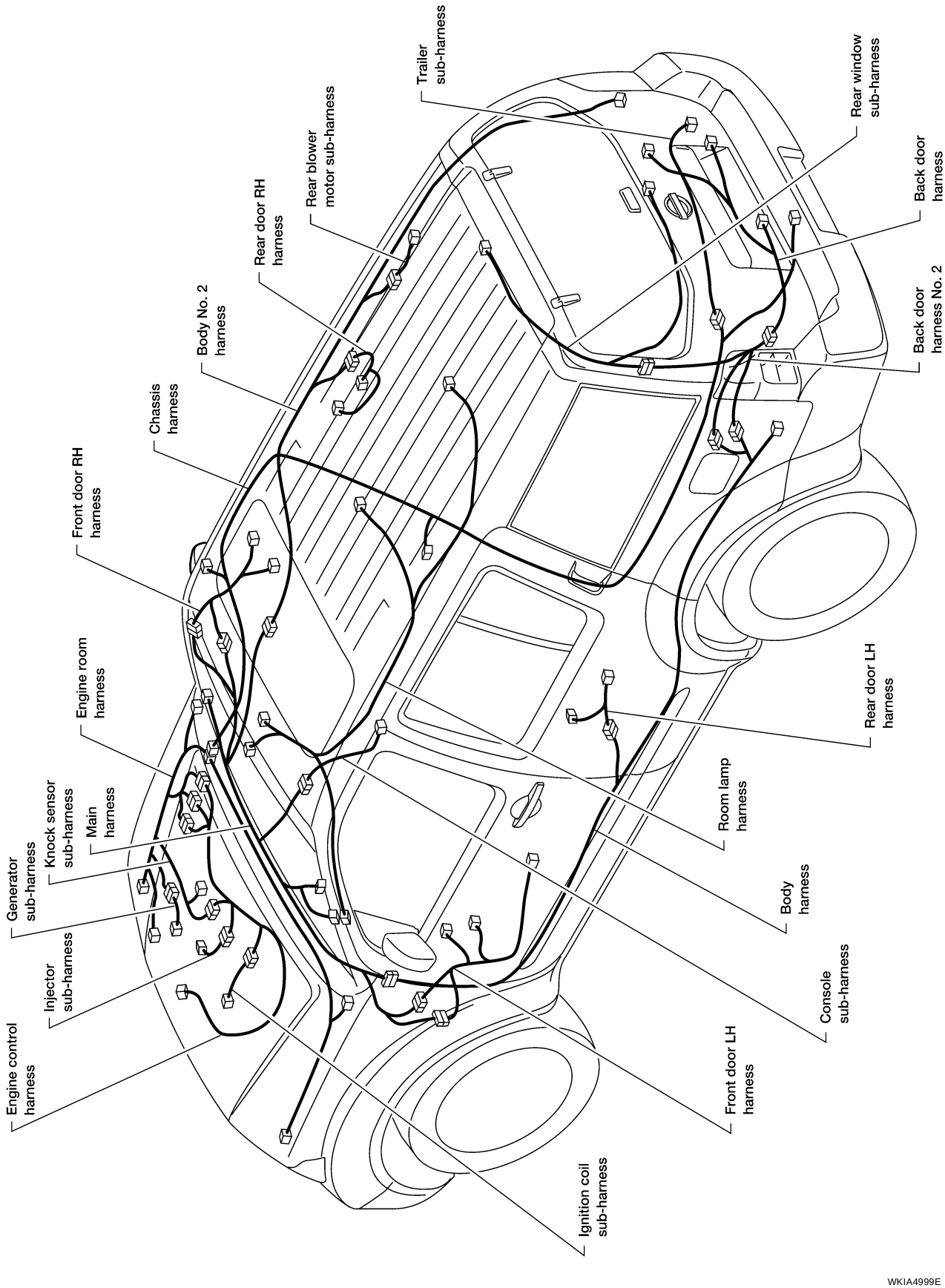
1. Find the desired connector number on the connector list.
2. Find the grid reference.
3. On the drawing, find the crossing of the grid reference letter column and number row.
4. Find the connector number in the crossing zone.
5. Follow the line (if used) to the connector.

CONNECTOR SYMBOL

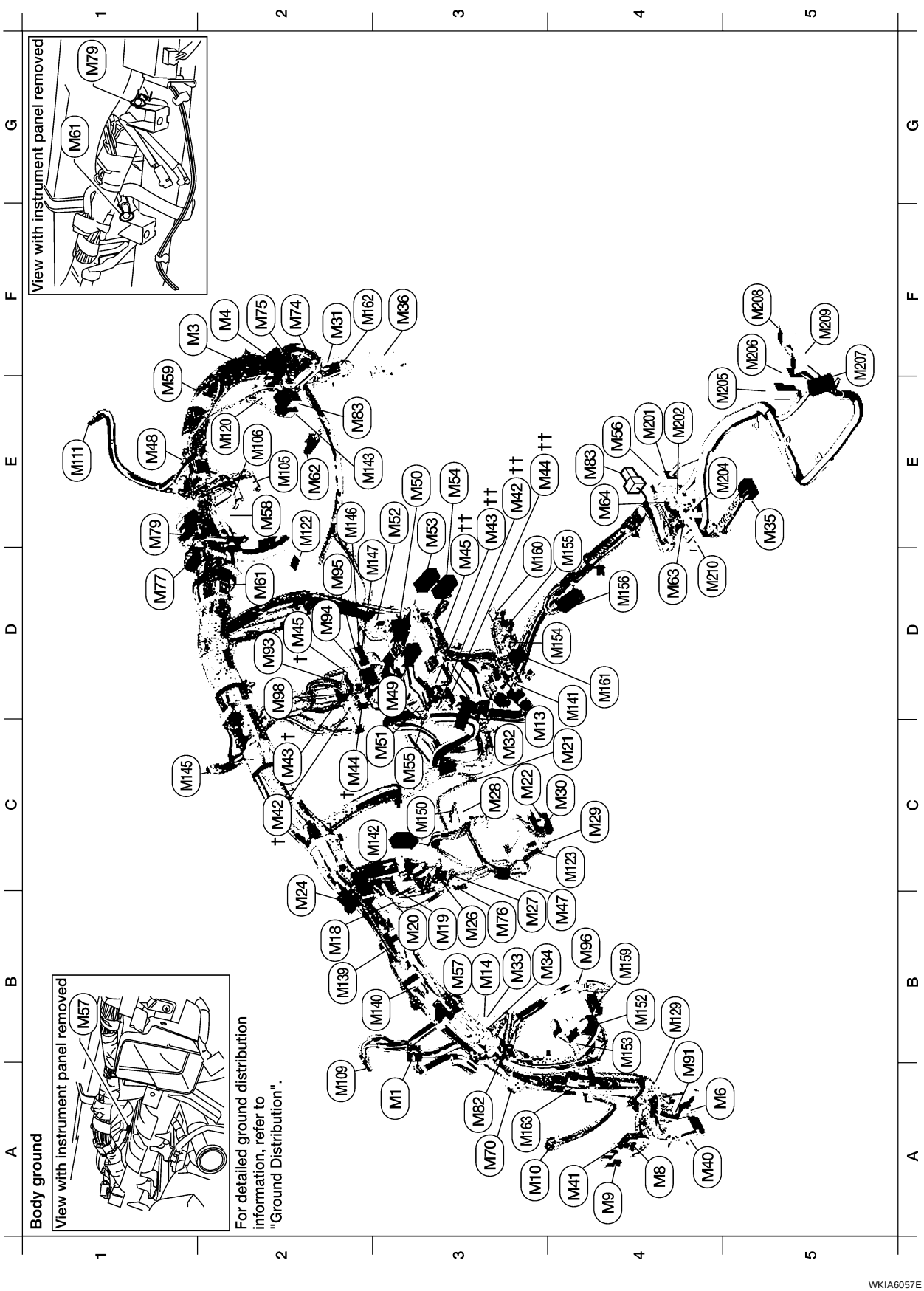
Main symbols of connector (in Harness Layout) are indicated below.

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

OUTLINE


Trailer sub-harness
Rear window sub-harness
Rear blower motor sub-harness
Back door harness
Rear door RH harness
Back door harness No. 2
Body No. 2 harness
Chassis harness
Front door RH harness
Engine room harness
Rear door LH harness
Knock sensor sub-harness
Main harness
Room lamp harness
Generator sub-harness
Body harness
Injector sub-harness
Console sub-harness
Engine control harness
Front door LH harness
Ignition coil sub-harness
WKIA4999E

MAIN HARNESS



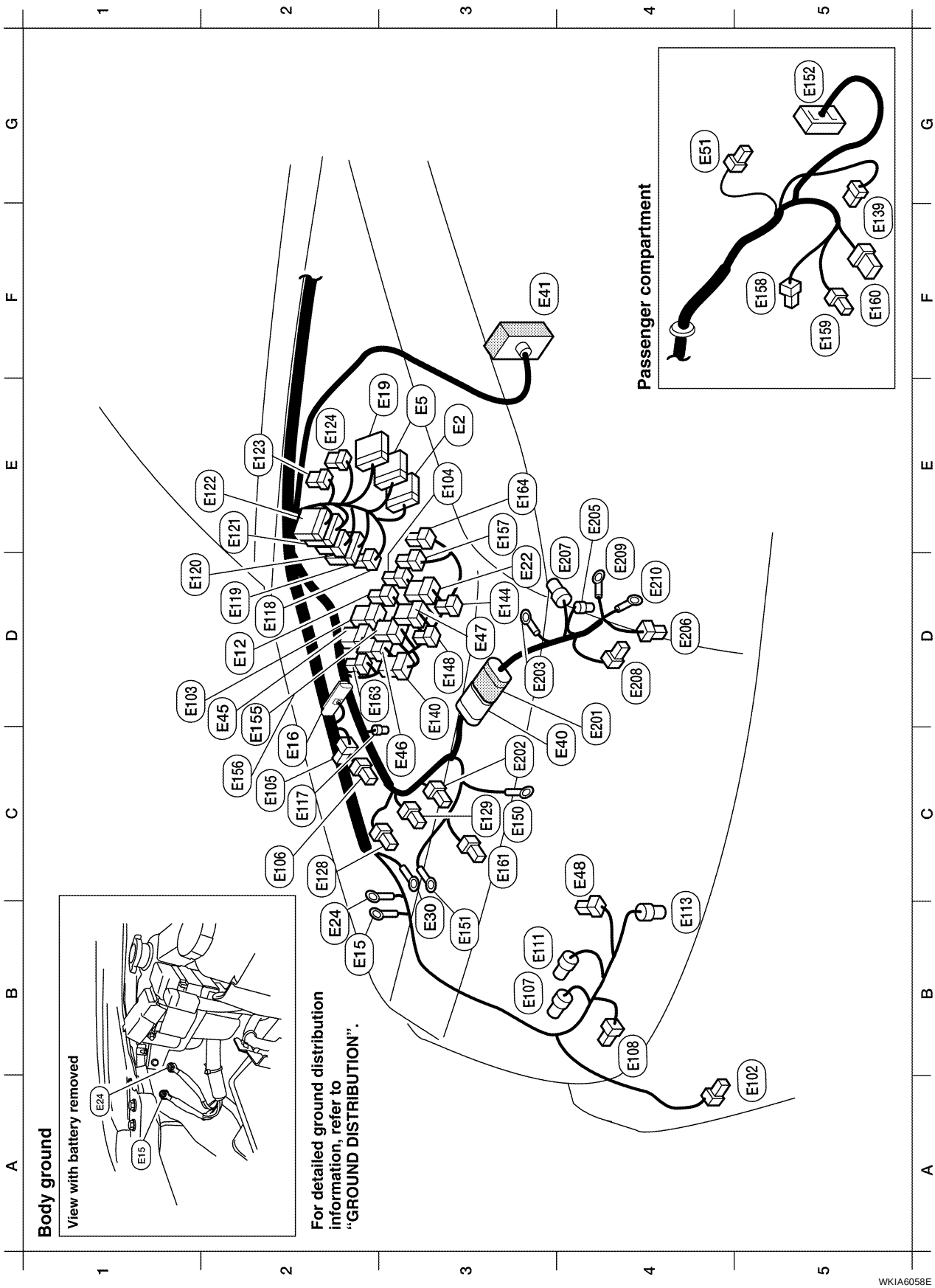
WKIA6057E

A3	M1	W/12	: To R1	C2	M51	W/8	: Front blower switch
F2	M3	W/8	: Fuse block (J/B)	E3	M52	W/8	: Rear blower switch (front)
F2	M4	W/16	: Fuse block (J/B)	E3	M53	B/2	: Power socket
A5	M6	W/8	: To E10	E3	M54	GR/2	: Power socket
A4	M8	W/16	: To D2	C3	M55	W/4	: Hazard switch
A4	M9	W/24	: To D1	E4	M56	W/16	: To M201
A3	M10	Y/4	: To E29	B3	M57	–	: Body ground
C3	M13	W/3	: Front passenger air bag OFF indicator	E2	M58	B/6	: Intake door motor
B3	M14	W/16	: Pedal adjusting control unit	E2	M59	BR/2	: Glove box lamp
B2	M18	W/40	: BCM (body control module)	D2	M61	—	: Body ground
B3	M19	W/15	: BCM (body control module)	E3	M62	B/2	: Front blower motor
B3	M20	B/15	: BCM (body control module)	D4	M63	W/6	: To M204
C4	M21	W/4	: NATS antenna amp.	D4	M64	W/6	: To M202
C3	M22	W/16	: Data link connector	A3	M70	BR/1	: To M350 (with Sirius satellite tuner)
B2	M24	W/40	: Combination meter	A3	M70	V/1	: To M350 (with XM satellite tuner)
B3	M26	W/6	: Ignition switch	F2	M74	W/16	: To D102
B3	M27	W/2	: Key switch	F2	M75	W/12	: To D101
C3	M28	W/16	: Combination switch	B3	M76	W/6	: Electric brake (pre-wiring)
C4	M29	Y/6	: Combination switch (spiral cable)	D2	M77	Y/4	: Front passenger air bag module (service replacement)
C4	M30	GR/8	: Combination switch (spiral cable)	E1	M79	—	: Body ground
F2	M31	SMJ	: To E152	A3	M82	W/2	: Circuit breaker-2
C3	M32	W/4	: In-vehicle sensor	E4	M83	W/4	: To B142
B3	M33	W/32	: Automatic drive positioner control unit	B4	M91	W/16	: To E26
B4	M34	W/16	: Automatic drive positioner control unit	D2	M93	W/24	: Display unit
E5	M35	Y/28	: Air bag diagnosis sensor unit	D2	M94	W/24	: Display control unit (with NAVI)
F3	M36	SMJ	: To B149	D2	M95	W/32	: Display control unit (with NAVI)
A4	M40	SMJ	: To B69	B4	M96	BR/6	: Pedal adjusting switch
A4	M41	W/12	: Pre-wiring for satellite radio tuner	B4	M97	BR/5	: Heated seat relay
A4	M41	W/12	: Satellite radio tuner	D2	M98	W/16	: AV switch
C2	M42	W/12†	: Audio unit (without NAVI)	E2	M105	Y/2	: Front passenger air bag module
E3	M42	W/ 12††	: Audio unit (with NAVI)	E2	M106	O/2	: Front passenger air bag module
C2	M43	W/10†	: Audio unit (without NAVI)	B2	M109	BR/2	: Front tweeter LH
E3	M43	W/ 10††	: Audio unit (with NAVI)	E1	M111	BR/2	: Front tweeter RH
C2	M44	W/6†	: Audio unit (without NAVI)	E2	M120	W/4	: Remote keyless entry receiver
E3	M44	W/6††	: Audio unit (with NAVI)	E2	M122	W/4	: Variable blower control (with ATC)
D2	M45	W/16†	: Audio unit (without NAVI)	E2	M122	B/4	: Front blower motor resistor (with MTC)
D3	M45	W/ 16††	: Audio unit (with NAVI)	C4	M123	W/2	: Tire pressure warning check connector
B4	M47	W/8	: Steering angle sensor	B4	M129	BR/1	: Satellite radio tuner (with Sirius satellite tuner)
E1	M48	BR/2	: To M501	B4	M129	V/1	: Satellite radio tuner (with XM satellite tuner)
D3	M49	B/26	: Front air control	B3	M139	B/2	: Diode-1
E3	M50	W/18	: Front air control	B3	M140	B/2	: Diode-2

D4	M141	GR/8	: 4WD shift switch				
C3	M142	B/6	: Mode door motor				
E3	M143	B/6	: Air mix door motor (passenger)				
C1	M145	B/4	: Optical sensor				
E2	M146	W/2	: Intake sensor				
D2	M147	B/6	: Air mix door motor (driver) (with ATC)				
D2	M147	B/6	: Air mix door motor (front) (with MTC)				
C3	M150	BR/2	: Ignition keyhole illumination				
B4	M152	W/26	: Transfer case control unit (part time 4WD)				
B4	M152	L/24	: Transfer case control unit (all-mode 4WD)				
B4	M153	W/24	: Transfer case control unit (part time 4WD)				
B4	M153	G/24	: Transfer case control unit (all-mode 4WD)				
D4	M154	GR/6	: VDC off switch				
E4	M155	W/8	: HDC switch				
D4	M156	W/10	: A/T device				
B2	M157	W/2	: Diode-5				
B4	M159	W/16	: Door mirror remote control switch				
D4	M160	BR/6	: Front heated seat switch RH				
D4	M161	BR/6	: Front heated seat switch LH				
F2	M162	W/2	: To B131				
A3	M163	BR/6	: Rear blower motor relay				
Console sub-harness							
E4	M201	W/16	: To M56				
E4	M202	W/6	: To M64				
D4	M204	W/6	: To M63				
E5	M205	GR/16	: DVD player				
E5	M206	L/16	: DVD player				
F5	M207	B/2	: Console power socket				
F5	M208	GR/5	: Rear air control				
D4	M210	W/18	: To B77				

ENGINE ROOM HARNESS (RH VIEW)

Engine Compartment

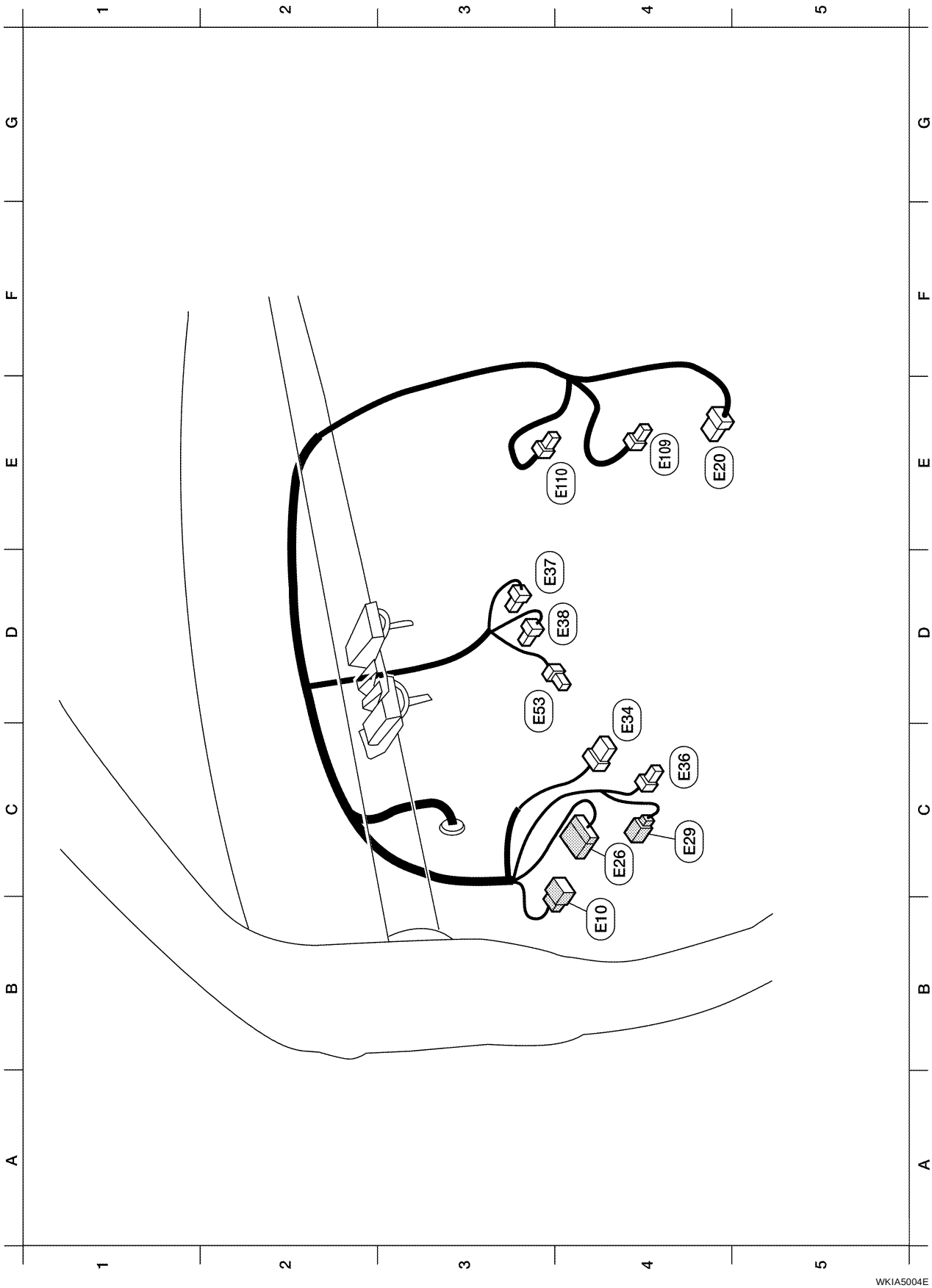


WKIA6058E

Refer to PG-54, "ENGINE ROOM HARNESS (LH VIEW)" for continuation of engine room harness.

E3	E2	W/16	: To F32	E2	E123	BR/8	: IPDM E/R (intelligent power distribution module engine room)
E3	E5	W/24	: To F14	E2	E124	B/6	: IPDM E/R (intelligent power distribution module engine room)
D2	E12	L/5	: Stop lamp relay	C2	E128	GR/2	: Fusible link box (battery)
B2	E15	—	: Body ground	C3	E129	BR/2	: Fusible link box (battery)
C2	E16	B/40	: ECM	F5	E139	W/8	: To B107
E3	E19	W/16	: To F33	D3	E140	BR/6	: Trailer tow relay 2
D3	E22	BR/6	: Front blower motor relay	D3	E144	L/4	: Heater pump relay
B2	E24	—	: Body ground	D3	E148	L/4	: Trailer tow relay 1
D2	E25	BR/6	: Rear blower motor relay	C3	E150	—	: Battery ground
B3	E30	—	: Fusible link box (battery)	B3	E151	—	: Negative battery cable
D3	E40	GR/9	: To E201	G5	E152	SMJ	: To M31
F4	E41	SMJ	: To C1 (located RH rear of engine compartment)	C2	E155	L/4	: Transfer shut off relay (all-mode 4WD)
D3	E42	—	: Relay box	C2	E156	L/4	: Transfer shut off relay 1 (part time 4WD)
D2	E45	BR/6	: Back-up lamp relay	E3	E157	L/4	: Transfer shut off relay 2 (part time 4WD)
D3	E46	B/5	: Transfer shift high relay	F5	E158	B/1	: Fuse block (J/B)
D3	E47	B/5	: Transfer shift low relay	F5	E159	B/2	: Fuse block (J/B)
C4	E48	B/3	: Refrigerant pressure sensor	F5	E160	W/8	: Fuse block (J/B)
G4	E51	W/2	: To B104	C3	E161	B/3	: Battery current sensor
A5	E102	B/2	: Front fog lamp RH	E3	E164	L/4	: Trailer turn relay LH
D2	E103	B/5	: Daytime light relay 1	D2	E163	L/4	: Trailer turn relay RH
E3	E104	L/4	: Daytime light relay 2	Generator sub-harness			
C2	E105	B/2	: Front and rear washer motor	D3	E201	GR/9	: To E40
C2	E106	BR/2	: Washer fluid level switch	C3	E202	B/1	: Fusible link box (battery)
B3	E107	B/3	: Front headlamp RH	E4	E203	—	: Body ground
B4	E108	GR/2	: Front side marker lamp RH	E4	E205	B/3	: Generator
B3	E111	GR/3	: Front turn signal/parking lamp RH	D4	E206	—	: Generator
B4	E113	GR/4	: Cooling fan motor	D4	E207	GR/1	: Starter motor
C2	E117	GR/2	: Front wheel sensor RH	D5	E208	B/3	: Oil pressure sensor
D2	E118	B/2	: IPDM E/R (intelligent power distribution module engine room)	D3	E209	—	: Generator
D2	E119	W/18	: IPDM E/R (intelligent power distribution module engine room)	E4	E210	—	: Starter motor (battery supply)
D1	E120	W/6	: IPDM E/R (intelligent power distribution module engine room)				
E2	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)				

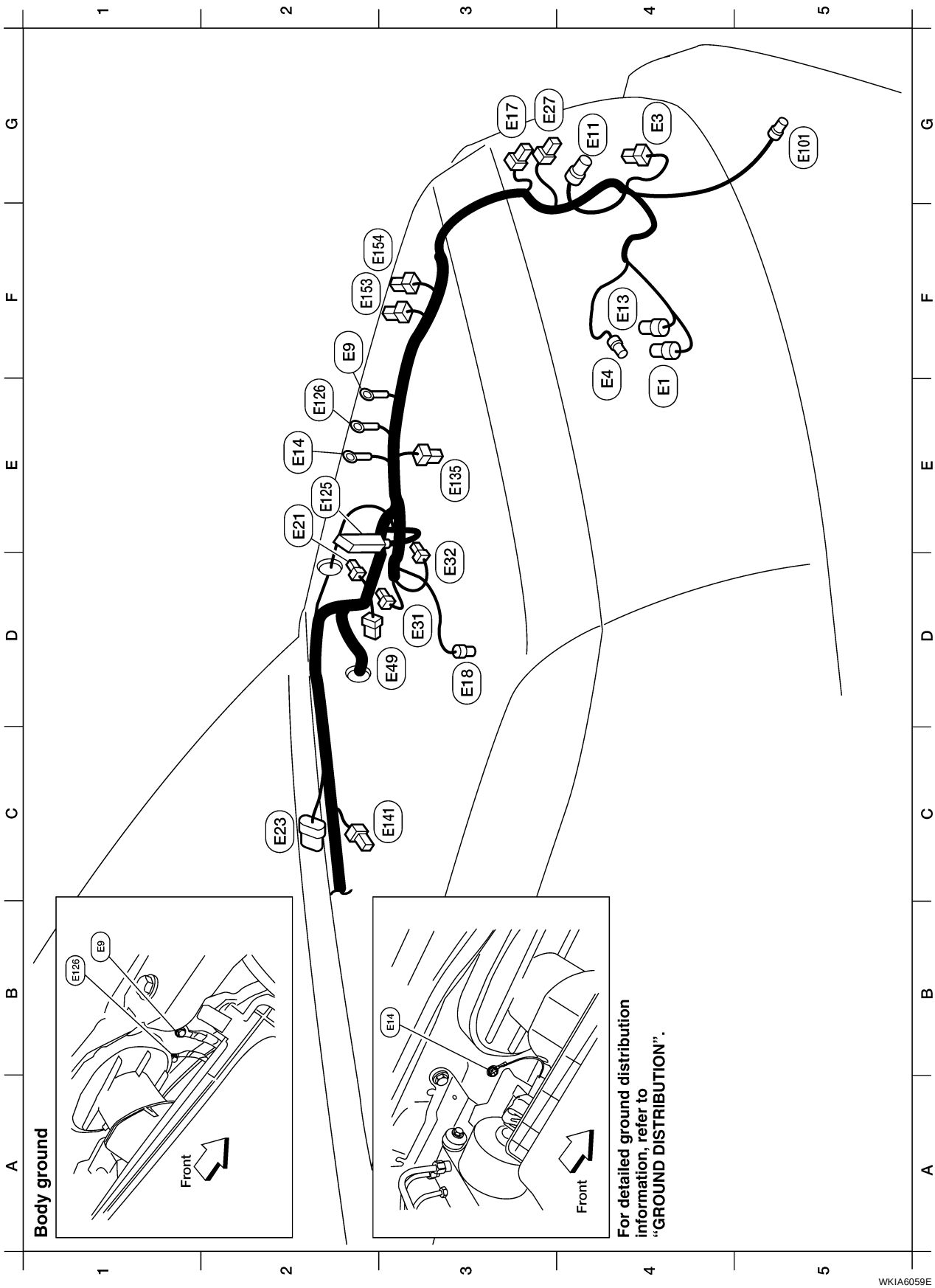
Passenger Compartment



B4	E10	W/6	: To M6				
E4	E20	B/6	: Accelerator pedal position (APP) sensor				
C4	E26	W/16	: To M91				
C4	E29	Y/4	: To M10				
C4	E34	W/8	: To B40				
C4	E36	W/2	: To B42				
D4	E37	BR/2	: ASCD brake switch				
D4	E38	W/4	: Stop lamp switch				
C3	E53	B/1	: Park brake switch				
E4	E109	GR/2	: Pedal adjusting motor				
E3	E110	W/4	: Pedal adjusting motor				

ENGINE ROOM HARNESS (LH VIEW)

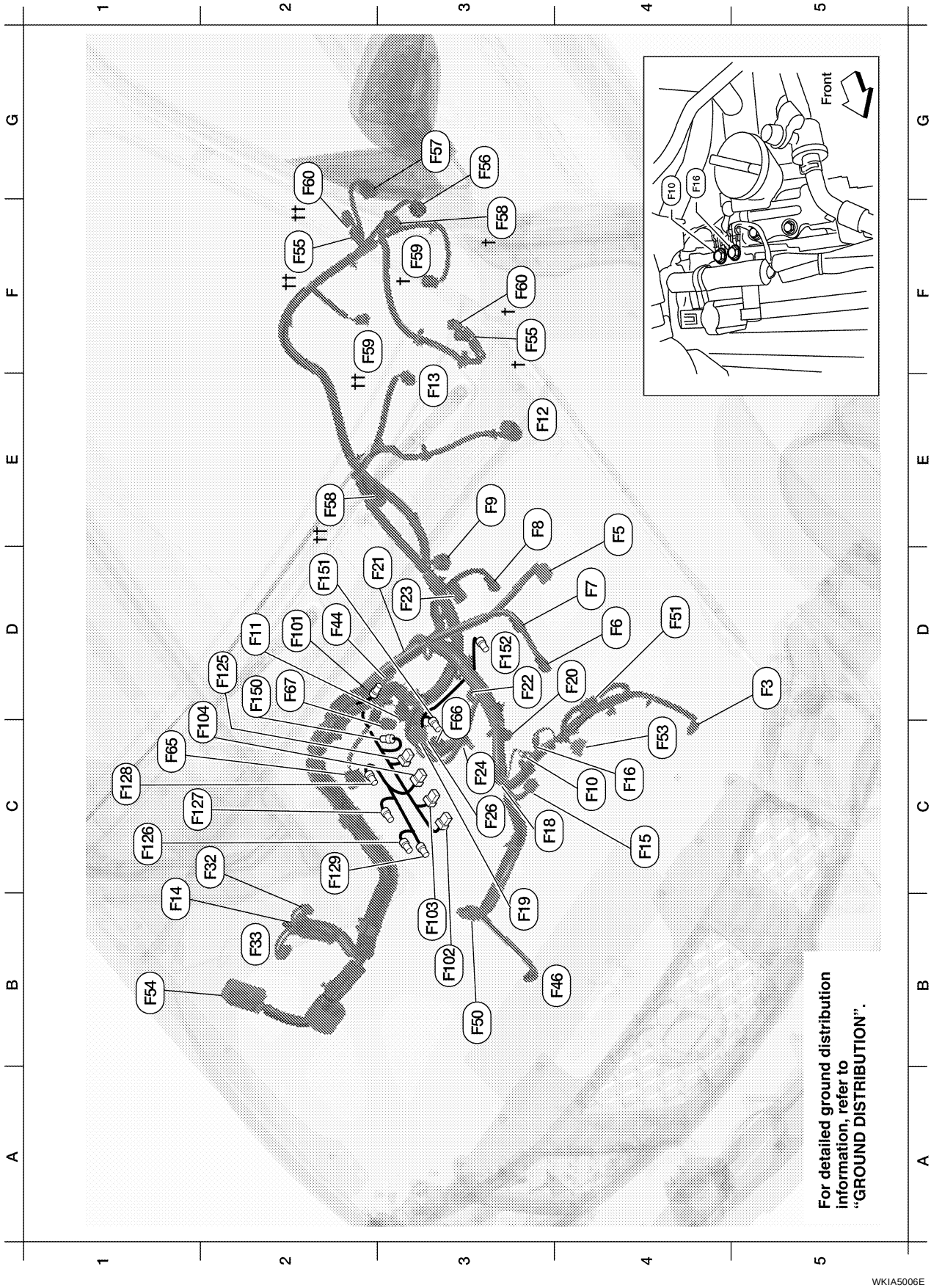
Engine Compartment



Refer to PG-50, "ENGINE ROOM HARNESS (RH VIEW)" for continuation of engine room harness.

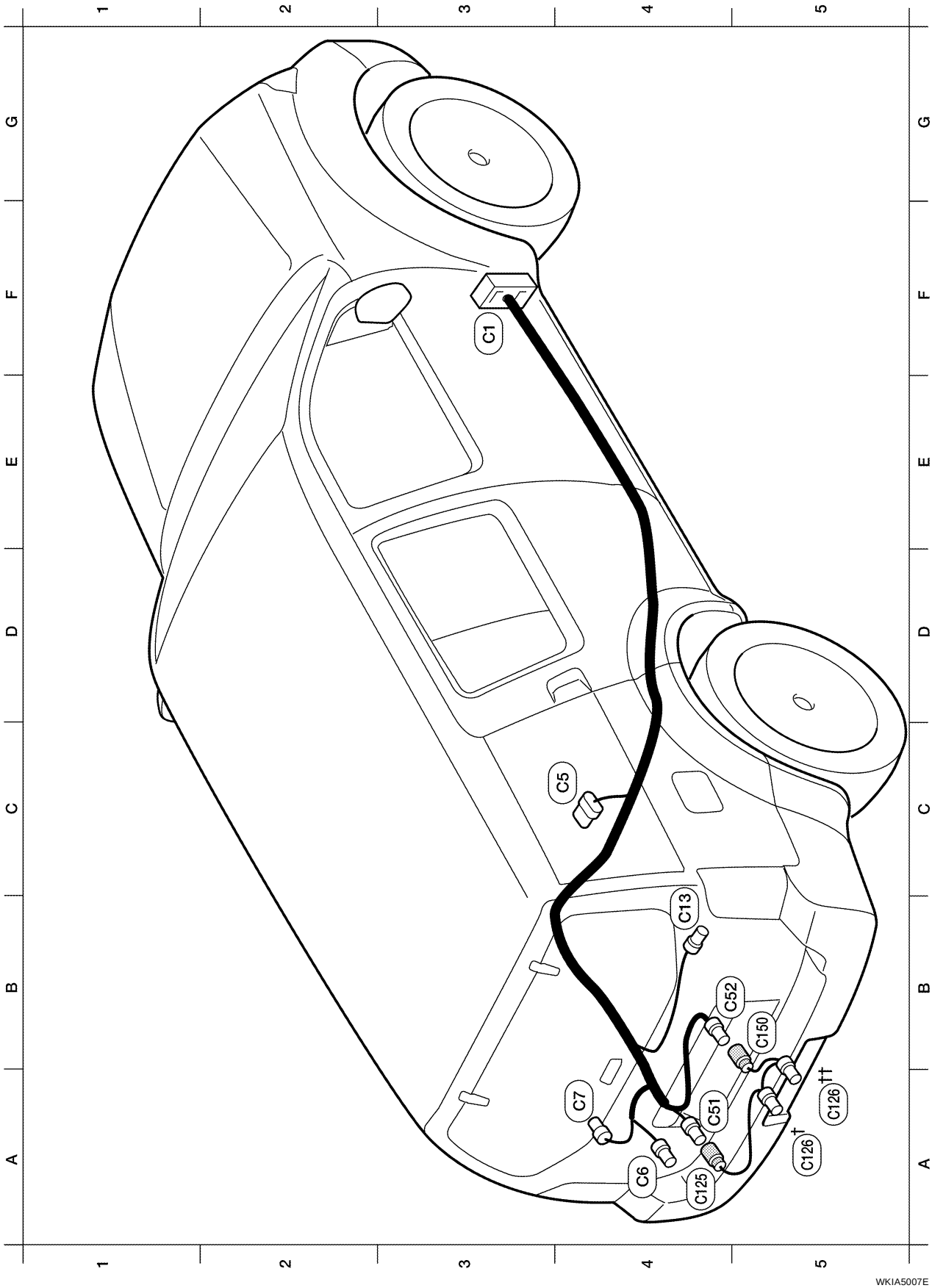
E4	E1	B/2	: Ambient sensor 1				
F4	E3	B/2	: Horn				
E4	E4	Y/2	: Crash zone sensor				
F2	E9	—	: Body ground				
G4	E11	B/3	: Front headlamp LH				
F4	E13	GR/2	: Ambient sensor 2				
E2	E14	—	: Body ground				
G3	E17	GR/2	: Front side marker lamp LH				
D3	E18	GR/2	: Front wheel sensor LH				
E2	E21	GR/2	: Brake fluid level switch				
C2	E23	GR/5	: Front wiper motor				
G3	E27	GR/3	: Front turn signal/parking lamp LH				
D3	E31	B/3	: Front pressure sensor				
D3	E32	B/3	: Rear pressure sensor				
D3	E49	B/6	: Active booster				
G5	E101	B/2	: Front fog lamp LH				
E2	E125	B/47	: ABS actuator and electric unit (control unit)				
E2	E126	—	: Body ground				
E3	E135	GR/2	: Transfer dropping resistor				
C3	E141	B/2	: Heater pump				
F2	E153	W/2	: Transfer motor relay (all-mode 4WD)				
F2	E154	W/2	: Transfer motor relay (all-mode 4WD)				

ENGINE CONTROL HARNESS



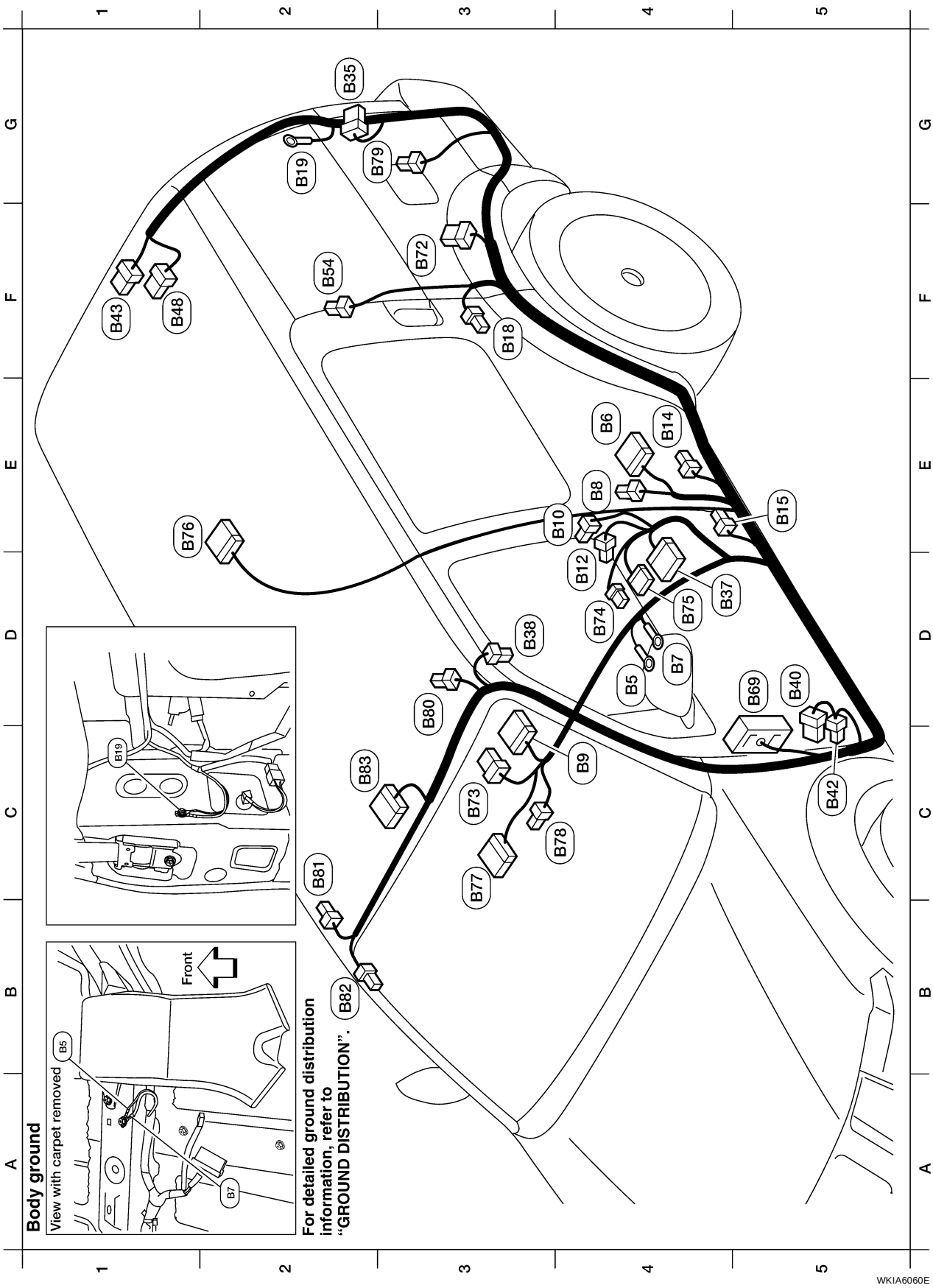
D5	F3	B/1	: A/C Compressor	F2	F59††	B/2	: Wait detection switch (all mode 4WD)
E4	F5	B/6	: Air fuel ratio (A/F) sensor 1 (bank 2)	G2	F60†	GR/2	: 4LO switch (part time 4WD)
D4	F6	GR/3	: Ignition coil No. 2 (with power transistor)	C1	F60††	GR/2	: 4LO switch (all-mode 4WD)
D4	F7	GR/3	: Ignition coil No. 4 (with power transistor)		F65	B/6	: Air fuel ratio (A/F) sensor 1 (bank 1)
E3	F8	GR/3	: Ignition coil No. 6 (with power transistor)	D3	F66	GR/3	: Camshaft position sensor (PHASE) (bank 1)
E3	F9	G/10	: A/T assembly	D2	F67	L/4	: To F150
C4	F10	—	: Engine ground	Injector sub-harness			
D2	F11	B/3	: Crankshaft position sensor (POS)	D2	F101	GR/4	: To F44
E3	F12	G/4	: Heated oxygen sensor 2 (bank 2)	B3	F102	GR/2	: Fuel injector No. 1
E3	F13	L/4	: Heated oxygen sensor 2 (bank 1)	B3	F103	GR/2	: Fuel injector No. 3
B1	F14	W/24	: To E5	C1	F104	GR/2	: Fuel injector No. 5
C4	F15	L/2	: EVAP canister purge volume control solenoid valve	Ignition coil sub-harness			
C4	F16	—	: Engine ground	D2	F125	G/8	: To F26
C3	F18	GR/2	: Fuel injector No. 2	C1	F126	GR/3	: Ignition coil No. 1 (with power transistor)
B3	F19	B/2	: VIAS control solenoid valve	C1	F127	GR/3	: Ignition coil No. 3 (with power transistor)
D4	F20	GR/2	: Fuel injector No. 4	C1	F128	GR/3	: Ignition coil No. 5 (with power transistor)
D2	F21	GR/2	: Condenser-1	C2	F129	G/2	: Intake valve timing control solenoid valve (bank 1)
D3	F22	GR/2	: Fuel injector No. 6	Knock sensor sub-harness			
D3	F23	B/3	: Camshaft position sensor (PHASE) (bank 1)	D2	F150	L/4	: To F67
C3	F24	GR/2	: Engine coolant temperature sensor	D2	F151	B/2	: Knock sensor (bank 1)
C3	F26	G/8	: To F125	D3	F152	B/2	: Knock sensor (bank 2)
C2	F32	W/16	: To E2				
B2	F33	W/16	: To E19				
D2	F44	GR/4	: To F101				
B4	F46	B/3	: Power steering pressure sensor				
B3	F50	B/6	: Electric throttle control actuator				
D4	F51	G/2	: Intake valve timing control solenoid valve (bank 2)				
C4	F53	B/6	: Mass air flow sensor				
B1	F54	B/81	: ECM				
F3	F55†	B/2	: ATP switch (all-mode 4WD)				
F2	F55††	B/2	: ATP switch (part time 4WD)				
G3	F56	B/8	: Terminal cord assembly (all-mode 4WD)				
G3	F57	B/2	: Transfer motor (all-mode 4WD)				
F3	F58†	B/8	: Transfer control device (part time 4WD)				
E2	F58††	GR/6	: Transfer control device (all-mode 4WD)				
F3	F59†	GR/2	: Wait detection switch (part time 4WD)				

CHASSIS HARNESS



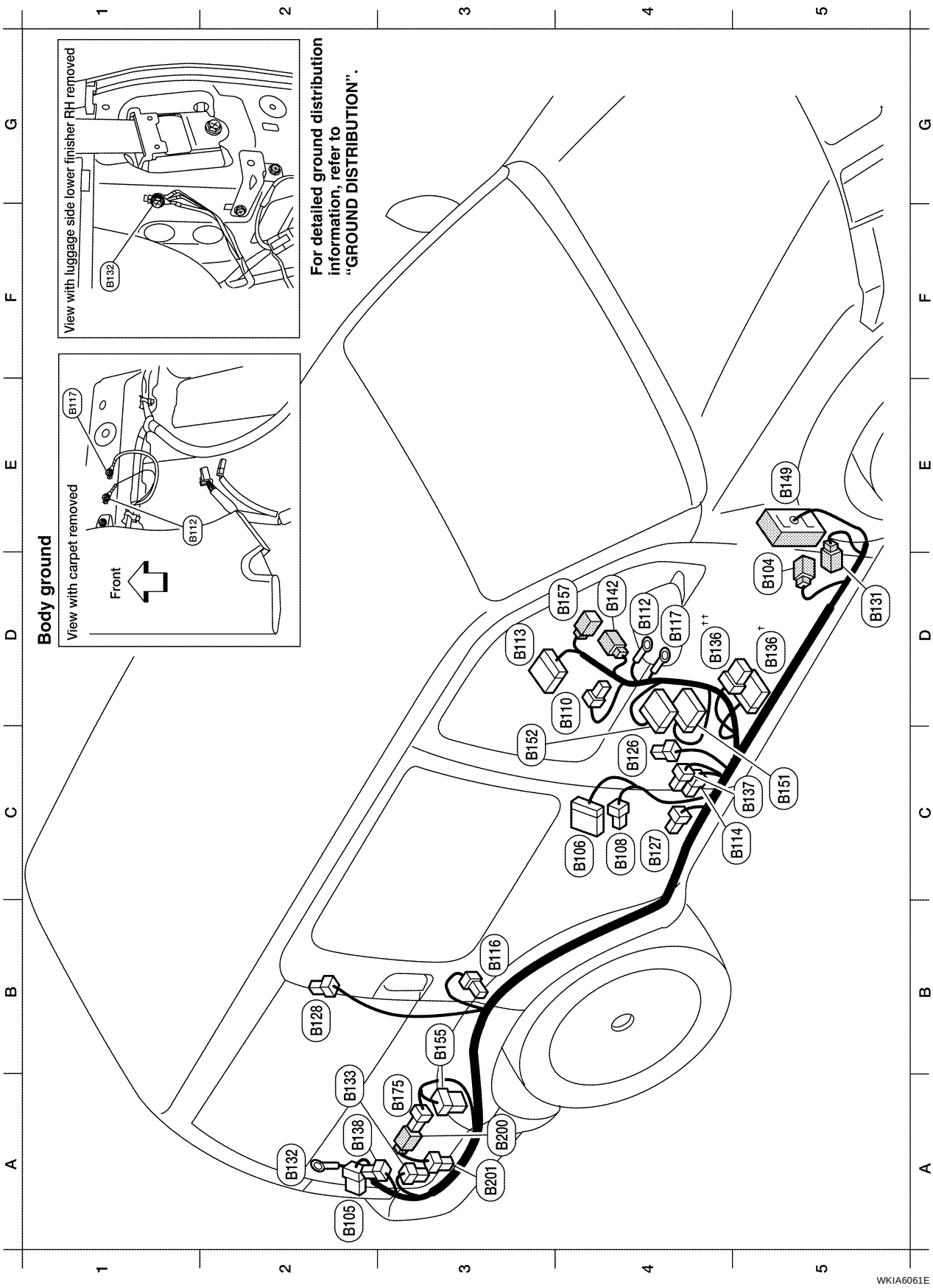
F3	C1	SMJ	: To E41				
C4	C5	GR/5	: Fuel level sensor unit and fuel pump				
A4	C6	B/2	: EVAP canister vent control valve				
A4	C7	GR/3	: EVAP control system pressure sensor				
B4	C13	GR/4	: Rear wheel sensor assembly				
A4	C51	GR/6	: To C125				
B4	C52	B/2	: To C150				
Trailer sub-harness							
A4	C125	GR/6	: To C51				
A5	C126†	B/7	: Trailer (7-pin)				
A5	C126††	B/4	: Trailer (4-pin)				
B5	C150	B/2	: To C52				

BODY HARNESS



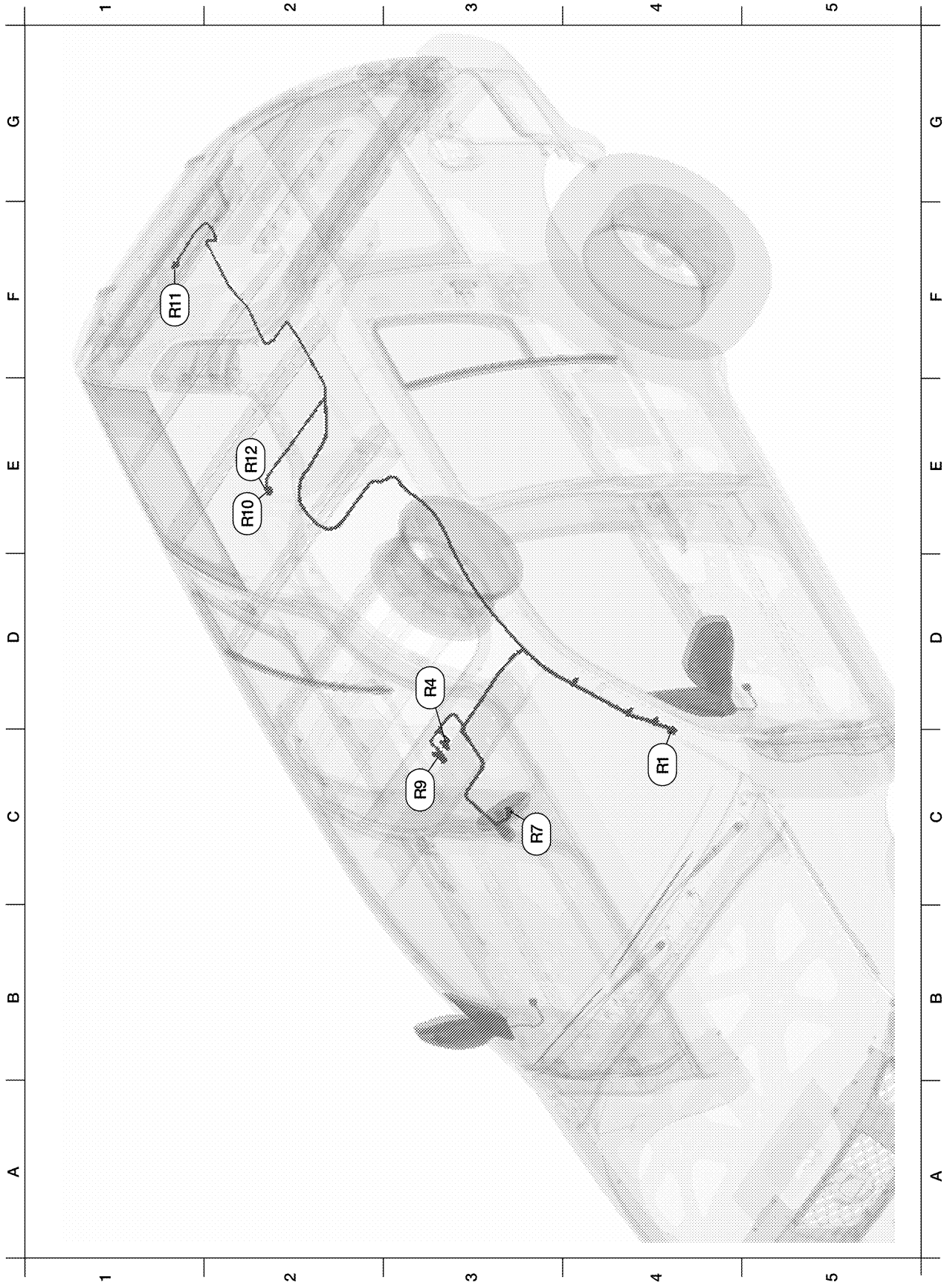
D4	B5	—	: LH side air bag (satellite sensor) (shield wire)	B2	B82	Y/2	: RH side front curtain air bag module
E4	B6	W/12	: To D201	C3	B83	B/10	: Sunroof motor assembly
D4	B7	—	: Body ground				
E4	B8	W/3	: Front door switch LH				
C4	B9	Y/12	: Air bag diagnosis sensor unit				
E4	B10	Y/2	: Front LH side air bag module				
D4	B12	W/3	: Seat belt buckle switch LH				
E4	B14	Y/2	: Front LH seat belt pre-tensioner				
E5	B15	Y/2	: LH side air bag (satellite sensor)				
F3	B18	W/3	: Rear door switch LH				
G2	B19	—	: Body ground				
G2	B35	W/6	: Rear combination lamp LH				
D5	B37	W/16	: To P1				
D3	B38	Y/2	: LH side front curtain air bag module				
D5	B40	W/8	: To E34				
C5	B42	W/2	: To E36				
F1	B43	W/8	: To D401				
F1	B48	W/6	: To D402				
F2	B54	Y/2	: LH side rear curtain air bag module				
D5	B69	SMJ	: To M40				
F3	B72	W/8	: Subwoofer (with BOSE audio system)				
C3	B73	B/6	: Yaw rate/side/decel G sensor				
D4	B74	GR/8	: BOSE speaker amp.				
D4	B75	B/24	: BOSE speaker amp.				
E1	B76	W/16	: Video monitor				
C3	B77	W/18	: To M210				
C4	B78	Y/2	: To B157				
G3	B79	W/4	: Fuel lid lock actuator				
D3	B80	W/2	: Vanity lamp LH				
C2	B81	W/2	: Vanity lamp RH				

BODY NO. 2 HARNESS



D5	B104	W/2	: To E51	A3	B201	B/2	: Rear blower motor
A2	B105	W/6	: Rear combination lamp RH				
C4	B106	W/12	: To D301				
C4	B108	W/3	: Front door switch RH				
D4	B110	W/3	: Seat belt buckle switch RH				
D4	B112	—	: RH side air bag (satellite sensor) (shield wire)				
D3	B113	Y/12	: Air bag diagnosis sensor unit				
C5	B114	Y/2	: RH side air bag (satellite sensor)				
B3	B116	W/3	: Rear door switch RH				
D4	B117	—	: Body ground				
C4	B126	Y/2	: Front RH side air bag module				
C4	B127	Y/2	: Front RH seat belt pre-tensioner				
B2	B128	Y/2	: RH side rear curtain air bag module				
D5	B131	W/2	: To M162				
A2	B132	—	: Body ground				
A2	B133	W/4	: Rear blower motor resistor				
D5	†B136	W/16	: To P151 (with power seat)				
D4	††B136	W/8	: To P151 (without power seat)				
C5	B137	B/3	: Belt tension sensor				
A2	B138	B/2	: Rear cargo power socket				
D4	B142	W/4	: To M83				
E5	B149	SMJ	: To M36				
C5	B151	W/40	: NAVI control unit (with NAVI)				
C3	B152	W/32	: NAVI control unit (with NAVI)				
B3	B155	B/6	: Air mix door motor (rear)				
D4	B157	Y/2	: To B78				
A3	B175	W/2	: To B200				
Rear blower motor sub-harness							
A3	B200	W/2	: To B175				

ROOM LAMP HARNESS

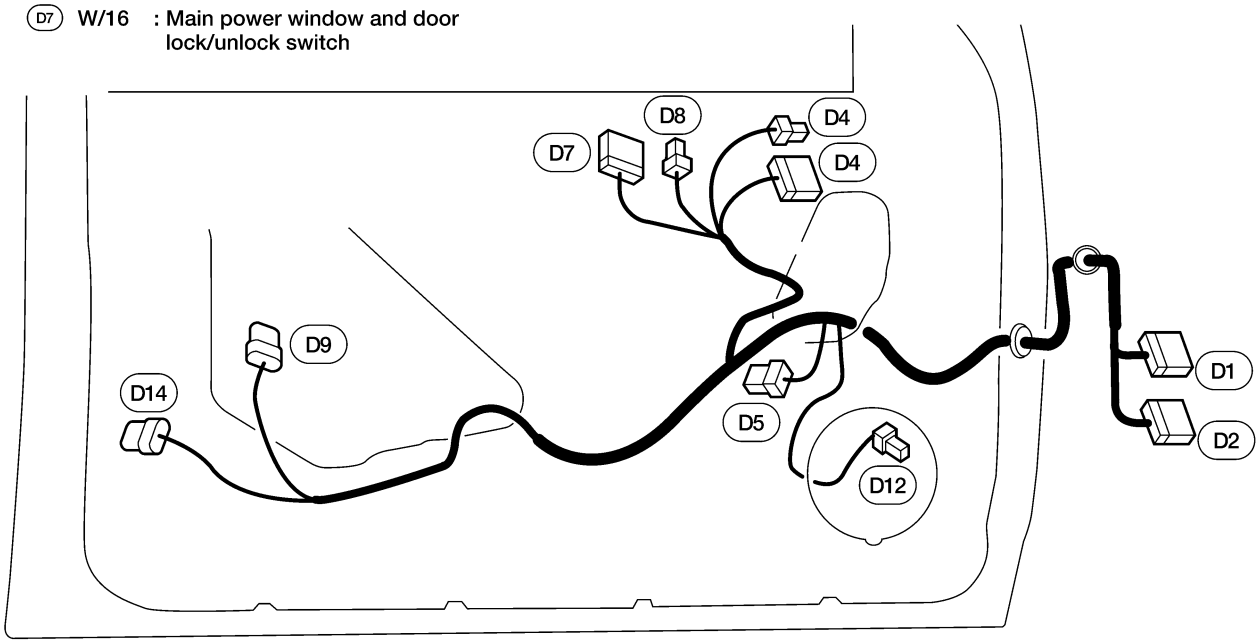


LKIA0623E

C4	R1	W/12	: To M1				
D3	R4	W/3	: Sunroof switch				
C3	R7	W/7	: Auto anti-dazzling inside mirror (without HOMELINK® universal transceiver)				
C3	R7	B/10	: Auto day/night inside mirror (with HOMELINK® universal transceiver)				
C3	R9	W/3	: Front room/map lamp assembly				
E2	R10	W/3	: Personal lamp 2nd row				
F1	R11	W/2	: Cargo lamp				
E2	R12	W/3	: Room lamp 2nd row				

FRONT DOOR LH HARNESS

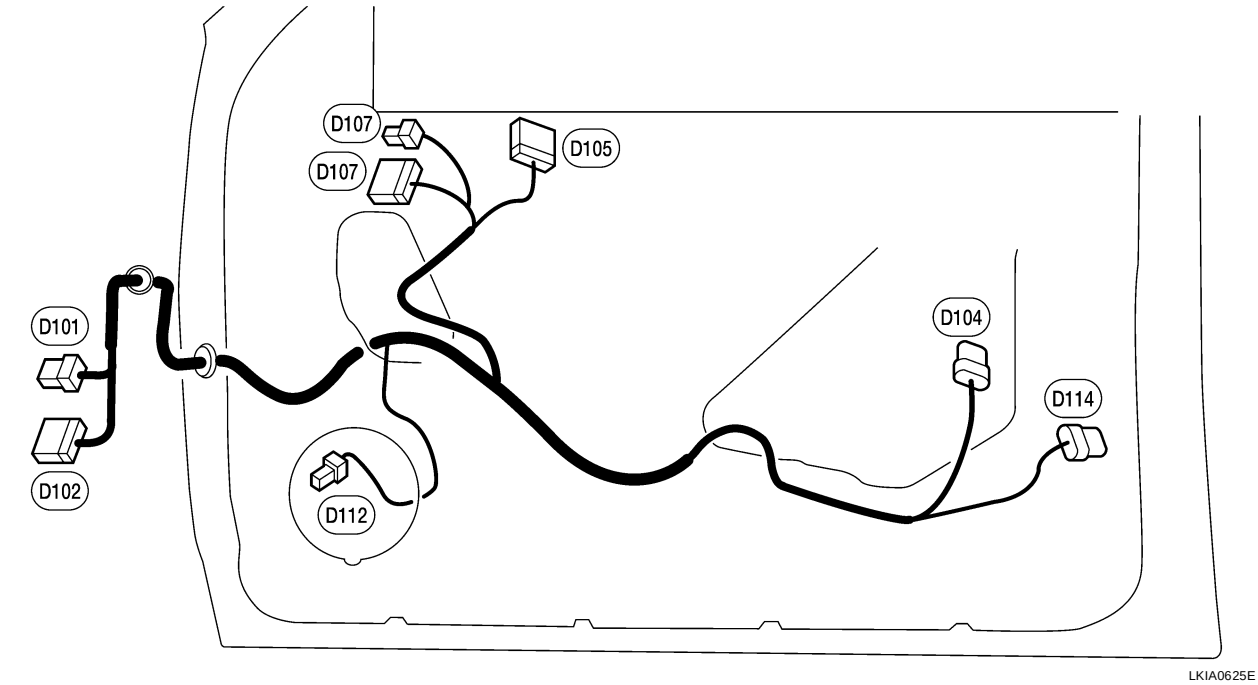
(D1) W/24 : To (M9)
(D2) W/16 : To (M8)
(D4) B/10 : Door mirror LH (with heated mirrors)
(D4) B/3 : Door mirror LH (without heated mirrors)
(D5) W/8 : Seat memory switch
(D7) W/16 : Main power window and door lock/unlock switch
(D8) W/3 : Main power window and door lock/unlock switch
(D9) GR/6 : Front power window motor LH
(D12) W/2 : Front door speaker LH
(D14) GR/6 : Front door lock assembly LH



LKIA0624E

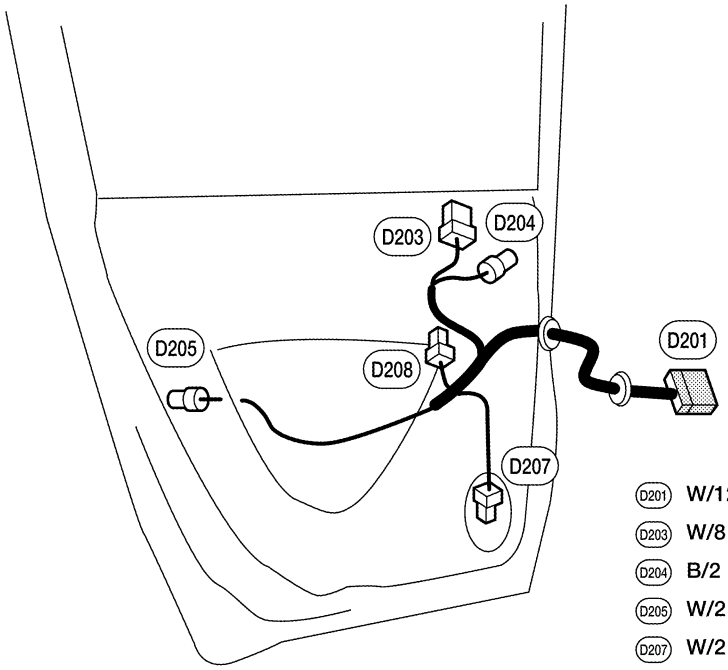
FRONT DOOR RH HARNESS

(D101) W/12 : To (M75)
(D102) W/16 : To (M74)
(D104) GR/2 : Front power window motor RH
(D105) W/12 : Power window and door lock/unlock switch RH
(D107) B/3 : Door mirror RH (without heated mirrors)
(D107) B/10 : Door mirror RH (with heated mirrors)
(D112) W/2 : Front door speaker RH
(D114) W/2 : Front door lock actuator RH



LKIA0625E

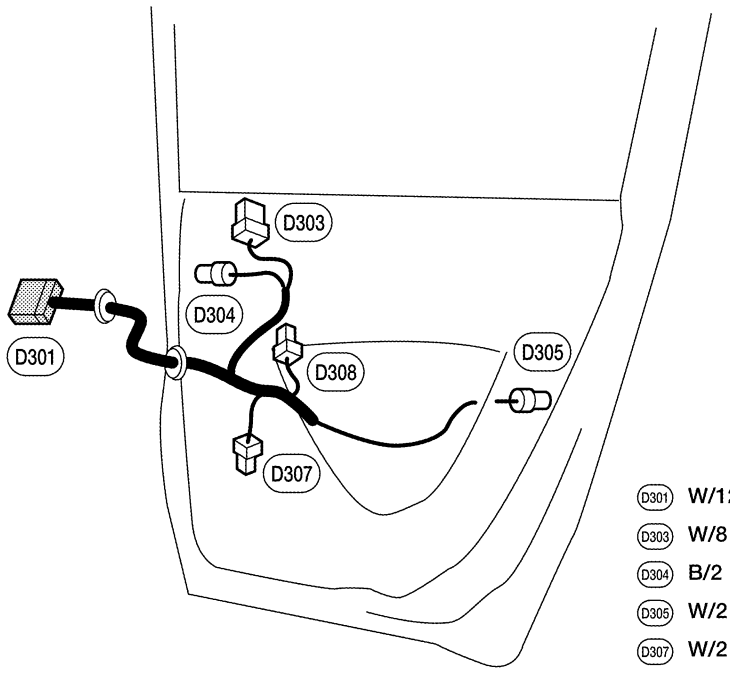
REAR DOOR LH HARNESS



D201	W/12	: To B6
D203	W/8	: Rear power window switch LH
D204	B/2	: Rear power window motor LH
D205	W/2	: Rear door lock actuator LH
D207	W/2	: Rear door speaker LH (without BOSE)
D207	BR/2	: Rear door speaker LH (with BOSE)
D208	BR/2	: Rear door tweeter LH

LKIA0626E

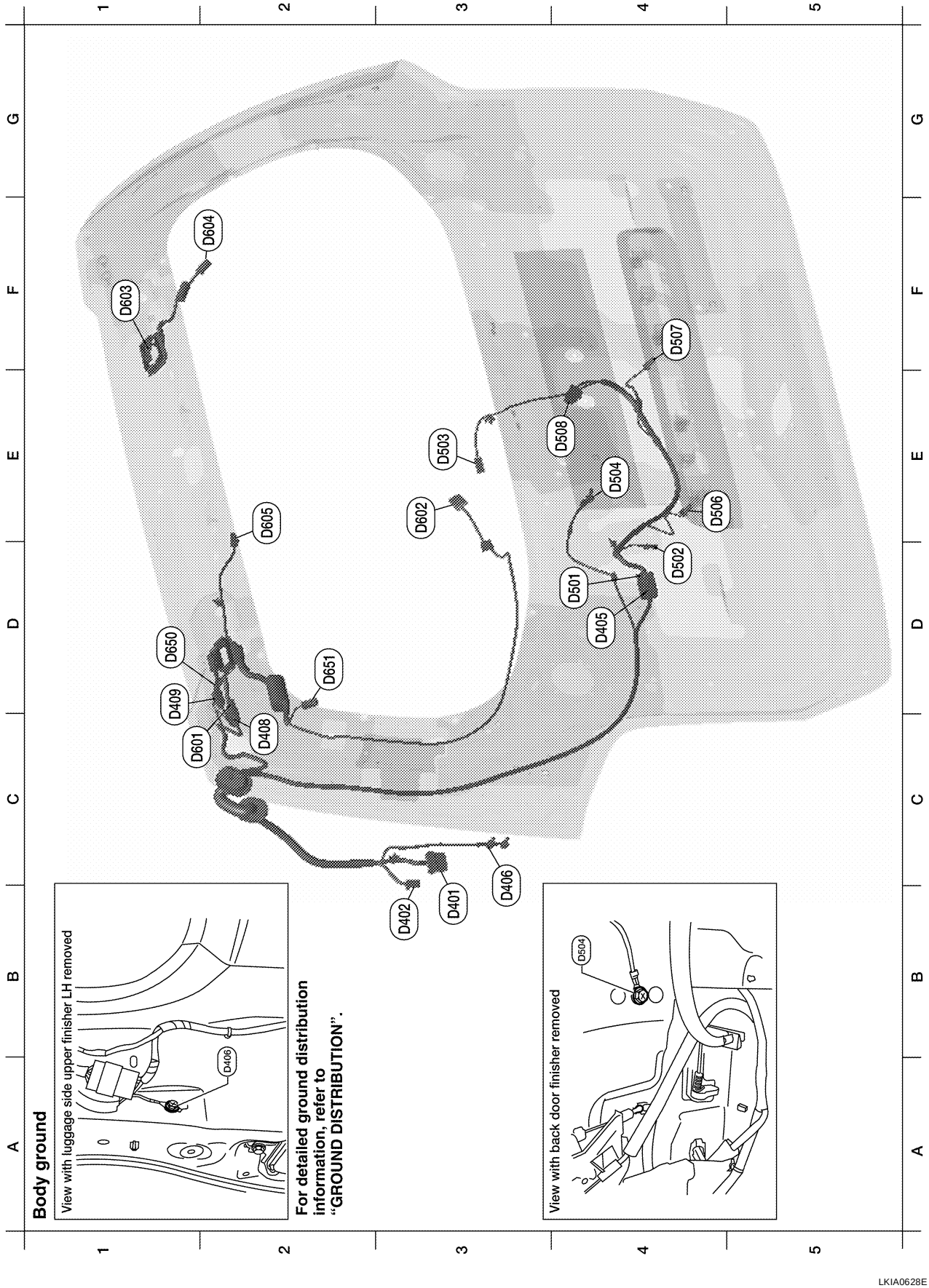
REAR DOOR RH HARNESS



D301	W/12	: To B106
D303	W/8	: Rear power window switch RH
D304	B/2	: Rear power window motor RH
D305	W/2	: Rear door lock actuator RH
D307	W/2	: Rear door speaker RH (without BOSE)
D307	BR/2	: Rear door speaker RH (with BOSE)
D308	BR/2	: Rear door tweeter RH

WKIA5010E

BACK DOOR HARNESS



LKIA0628E

Back door No. 2 harness							
B3	D401	W/8	: To B43				
B3	D402	W/6	: To B48				
D4	D405	W/8	: To D501				
B3	D406	—	: Body ground				
C2	D408	W/4	: To D601				
D1	D409	W/1	: To D650				
Back door harness							
D4	D501	W/8	: To D405				
D4	D502	W/3	: Back door switch				
E3	D503	B/1	: Glass hatch ajar switch				
E4	D504	—	: Body ground				
E4	D506	W/2	: License plate lamp LH				
F4	D507	W/2	: License plate lamp RH				
E4	D508	W/4	: Back door lock actuator				
Rear window sub-harness							
C1	D601	W/4	: To D405				
E3	D602	W/4	: Rear wiper motor				
F1	D603	—	: Body ground (defogger)				
F2	D604	B/1	: Rear window defogger				
E2	D605	W/2	: High mounted stop lamp				
Rear window defogger sub-harness							
D1	D650	W/1	: To D409				
D2	D651	B/1	: Rear window defogger				

Wiring Diagram Codes (Cell Codes)

EKS00G8Q

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 Heater Bank 1
AF1HB2	EC	Air Fuel Ratio (A/F) Sensor 1 Heater Bank 2
APPS1	EC	Accelerator Pedal Position Sensor
APPS2	EC	Accelerator Pedal Position Sensor
APPS3	EC	Accelerator Pedal Position Sensor
ASC/BS	EC	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
AUT/DP	SE	Automatic Drive Positioner
AUTO/L	LT	Auto Light Control
B/COMP	DI	Combination Meter Board Computer
BACK/L	LT	Back-up Lamp
BRK/SW	EC	Brake Switch
CAN	AT	CAN Communication Line
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
CUR/SE	EC	Battery Current Sensor
D/LOCK	BL	Power Door Lock
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
FTS	AT	A/T Fluid Temperature Sensor
FTTS	EC	Fuel Tank Temperature Sensor
FUELB1	EC	Fuel Injection System Bank 1
FUELB2	EC	Fuel Injection System Bank 2
H/LAMP	LT	Headlamp
HORN	WW	Horn

HSEAT	SE	Heated Seat
I/MIRR	GW	Inside Mirror (Auto Anti-Dazzling Mirror)
IATS	EC	Intake Air Temperature Sensor
IGNSYS	EC	Ignition System
ILL	LT	Illumination
INJECT	EC	Injectors
INT/L	LT	Room/Map, Vanity, Cargo, and Personal Lamps
IVCB1	EC	Intake Valve Timing Control Solenoid Valve Bank 1
IVCB2	EC	Intake Valve Timing Control Solenoid Valve Bank 2
KEYLES	BL	Remote Keyless Entry System
KS	EC	Knock Sensor
MAFS	EC	Mass Air Flow Sensor
MAIN	AT	Main Power Supply and Ground Circuit
MAIN	EC	Main Power Supply and Ground Circuit
METER	DI	Speedometer, Tachometer, Temp. and Fuel Gauges
MIL/DL	EC	Malfunction Indicator Lamp
MIRROR	GW	Door Mirror
NATS	BL	Nissan Anti-Theft System
NAVI	AV	Navigation System
NONDTC	AT	Non-Detective Items
O2H2B1	EC	Rear Heated Oxygen Sensor 2 Heater Bank 1
O2H2B2	EC	Rear Heated Oxygen Sensor 2 Heater Bank 2
O2S2B1	EC	Heated Oxygen Sensor 2 Bank 1
O2S2B2	EC	Heated Oxygen Sensor 2 Bank 2
P/SCKT	WW	Power Socket
PEDAL	AP	Adjustable Pedal System
PGC/V	EC	EVAP Canister Purge Volume Control Solenoid Valve
PHSB1	EC	Camshaft Position Sensor (PHASE) (Bank 1)
PHSB2	EC	Camshaft Position Sensor (PHASE) (Bank 1)
PNP/SW	AT	Park/Neutral Position Switch
PNP/SW	EC	Park/Neutral Position Switch
POS	EC	Crankshaft Position Sensor (POS)
POWER	PG	Power Supply Routing
PRE/SE	EC	EVAP Control System Pressure Sensor
PS/SEN	EC	Power Steering Pressure Sensor
RP/SEN	EC	Refrigerant Pressure Sensor
SEAT	SE	Power Seat
SEN/PW	EC	Sensor Power Supply
SHIFT	AT	A/T Shift Lock System
SROOF	RF	Sunroof
SRS	SRS	Supplemental Restraint System
STSIG	AT	Start Signal Circuit
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
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
VEHSEC	BL	Vehicle security (theft warning) system
VENT/V	EC	EVAP Canister Vent Control Valve
VIAS	EC	Variable Air Induction Control System
VIAS/V	EC	Variable Air Induction Control System Valve
VSSA/T	AT	Vehicle Speed Sensor A/T (Revolution Sensor)
W/ANT	AV	Audio Antenna
WARN	DI	Warning Lamps
WINDOW	GW	Power Window
WIP/R	WW	Rear Wiper and Washer
WIPER	WW	Front Wiper and Washer

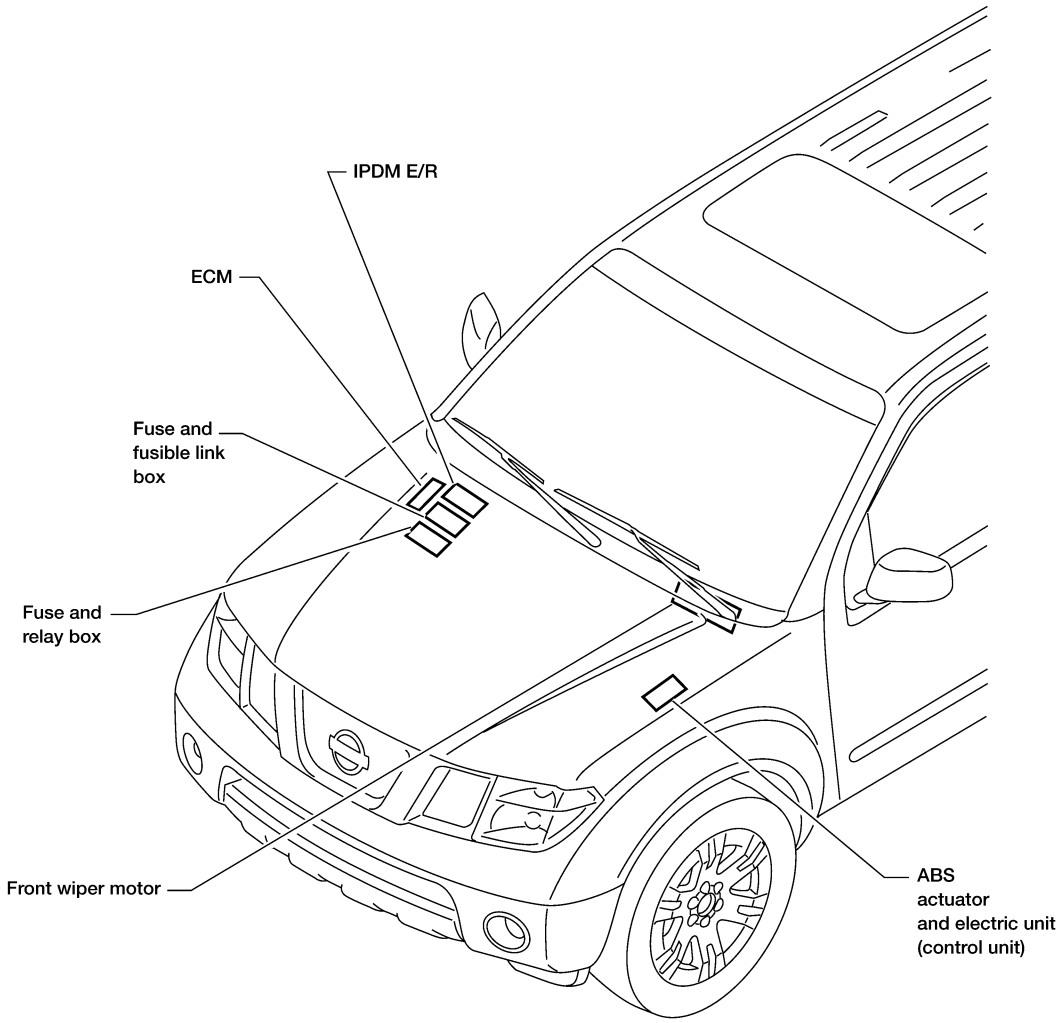
ELECTRICAL UNITS LOCATION

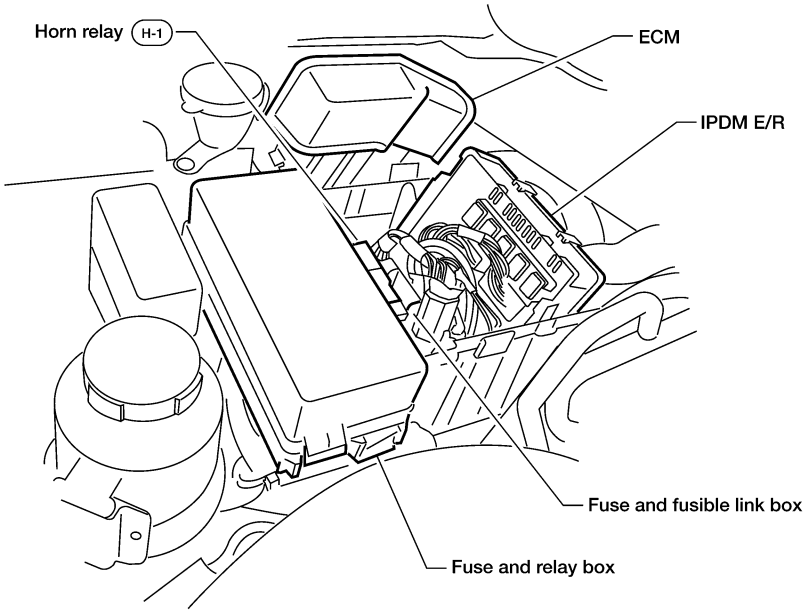
PFP:25230

Electrical Units Location

EKS00G8R

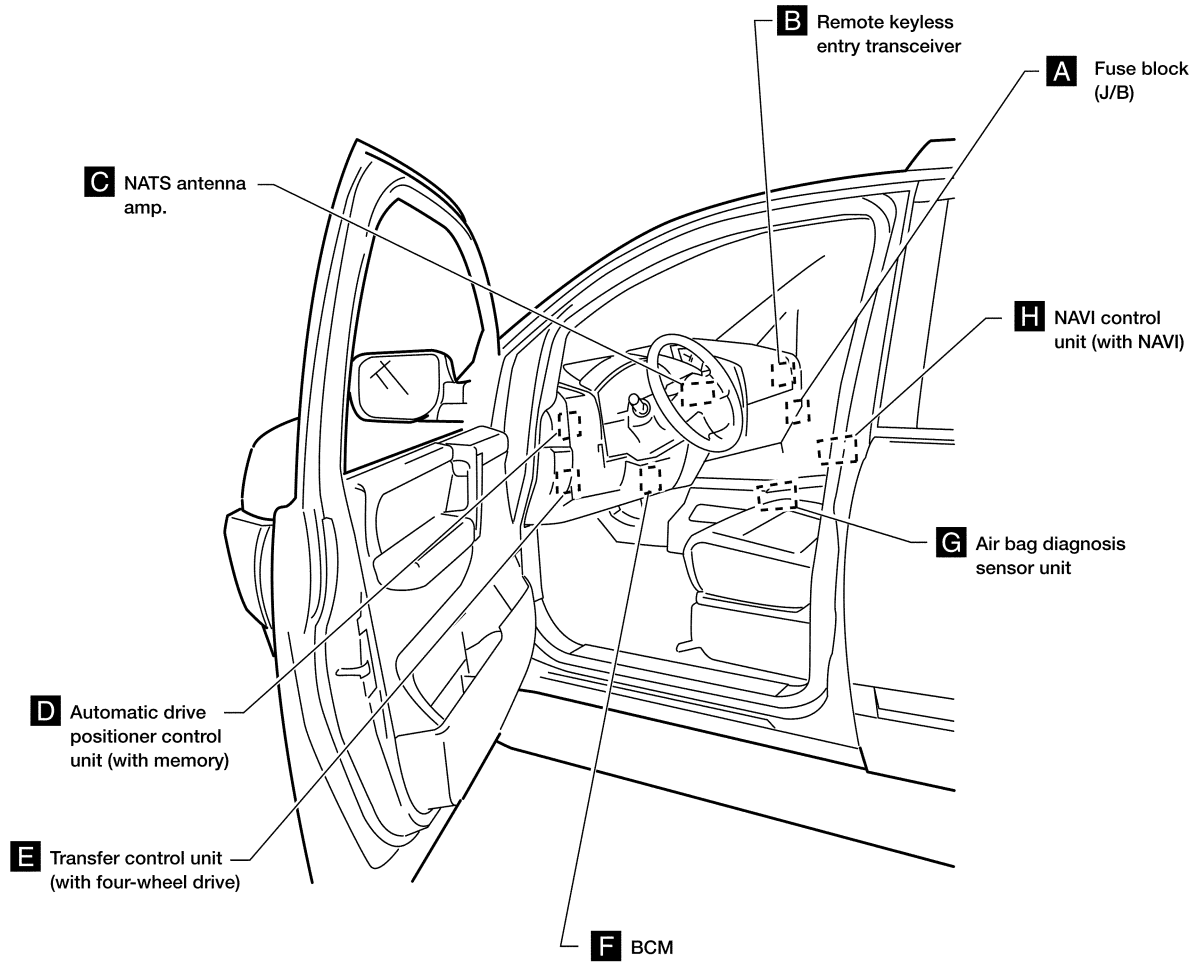
ENGINE COMPARTMENT



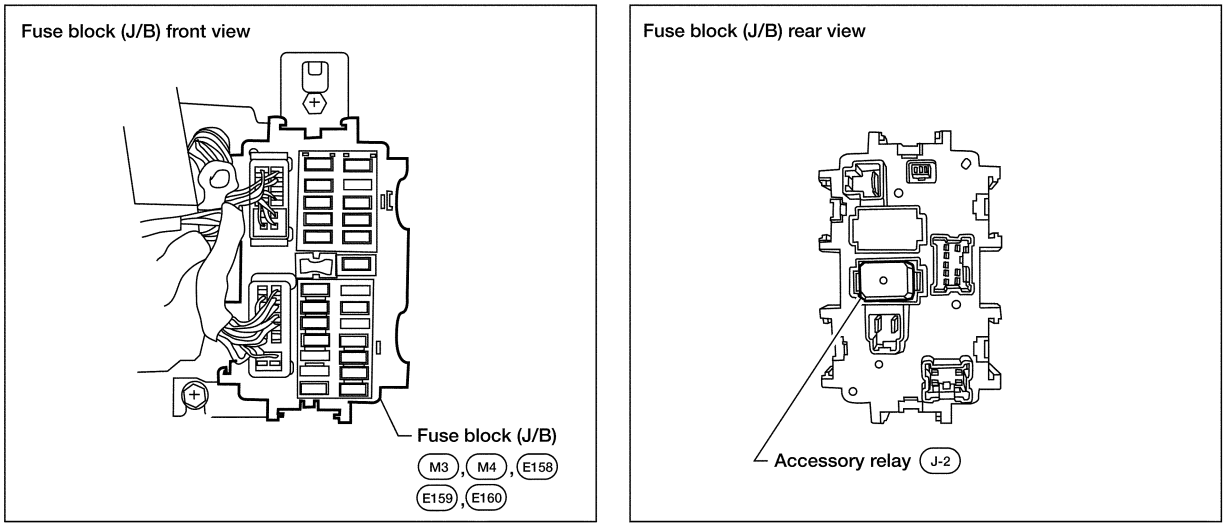


LKIA0629E

PASSENGER COMPARTMENT

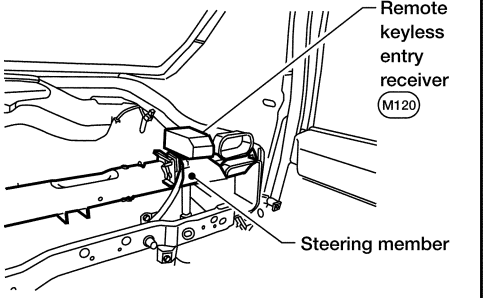


A Instrument panel side RH

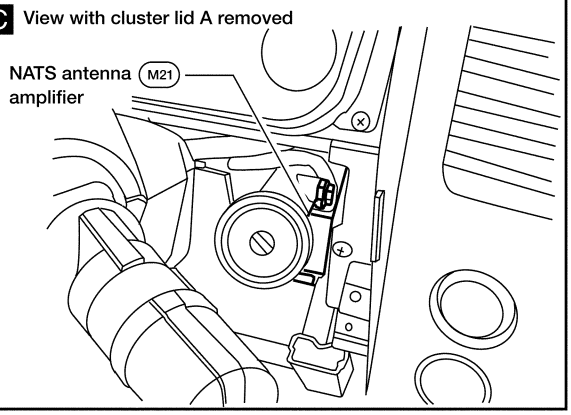


WKIA5024E

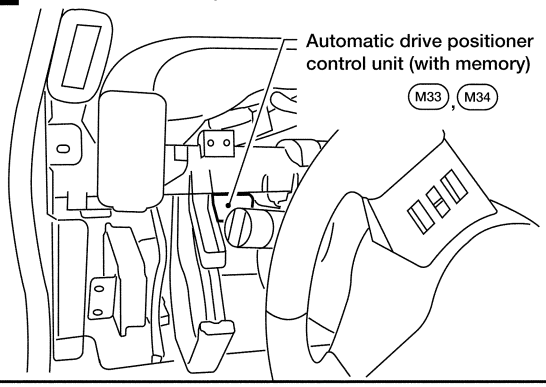
B View with instrument panel removed RH



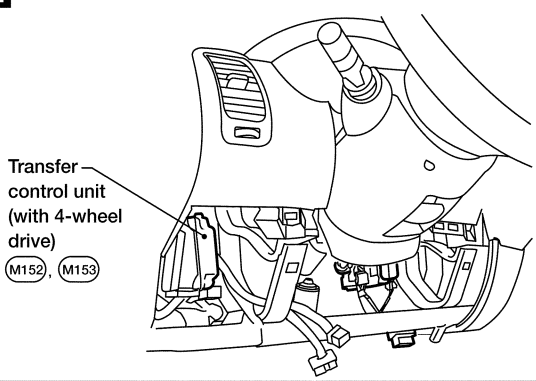
C View with cluster lid A removed



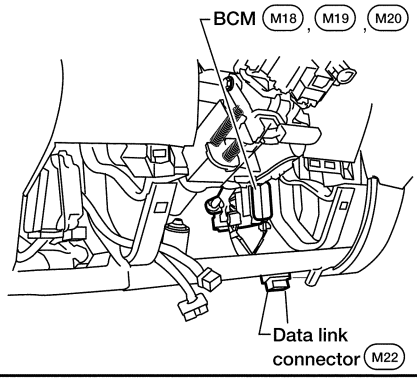
D View with instrument panel removed



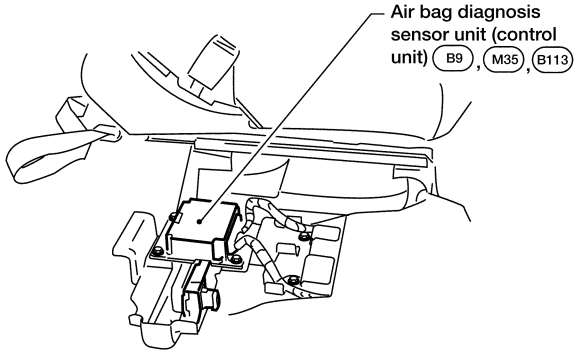
E View with lower instrument cover removed



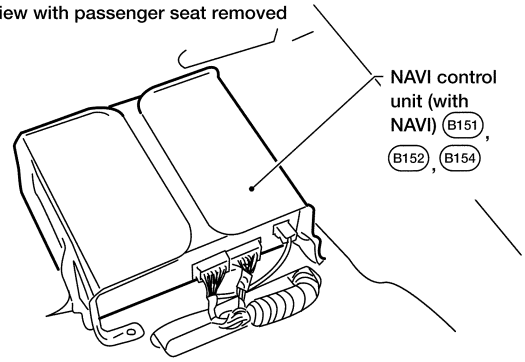
F View with instrument lower panel LH removed



G View with center console removed



H View with passenger seat removed



WKIA5025E

HARNESS CONNECTOR

PFP:B4341

Description

EKS00G8V

HARNESS CONNECTOR (TAB-LOCKING TYPE)

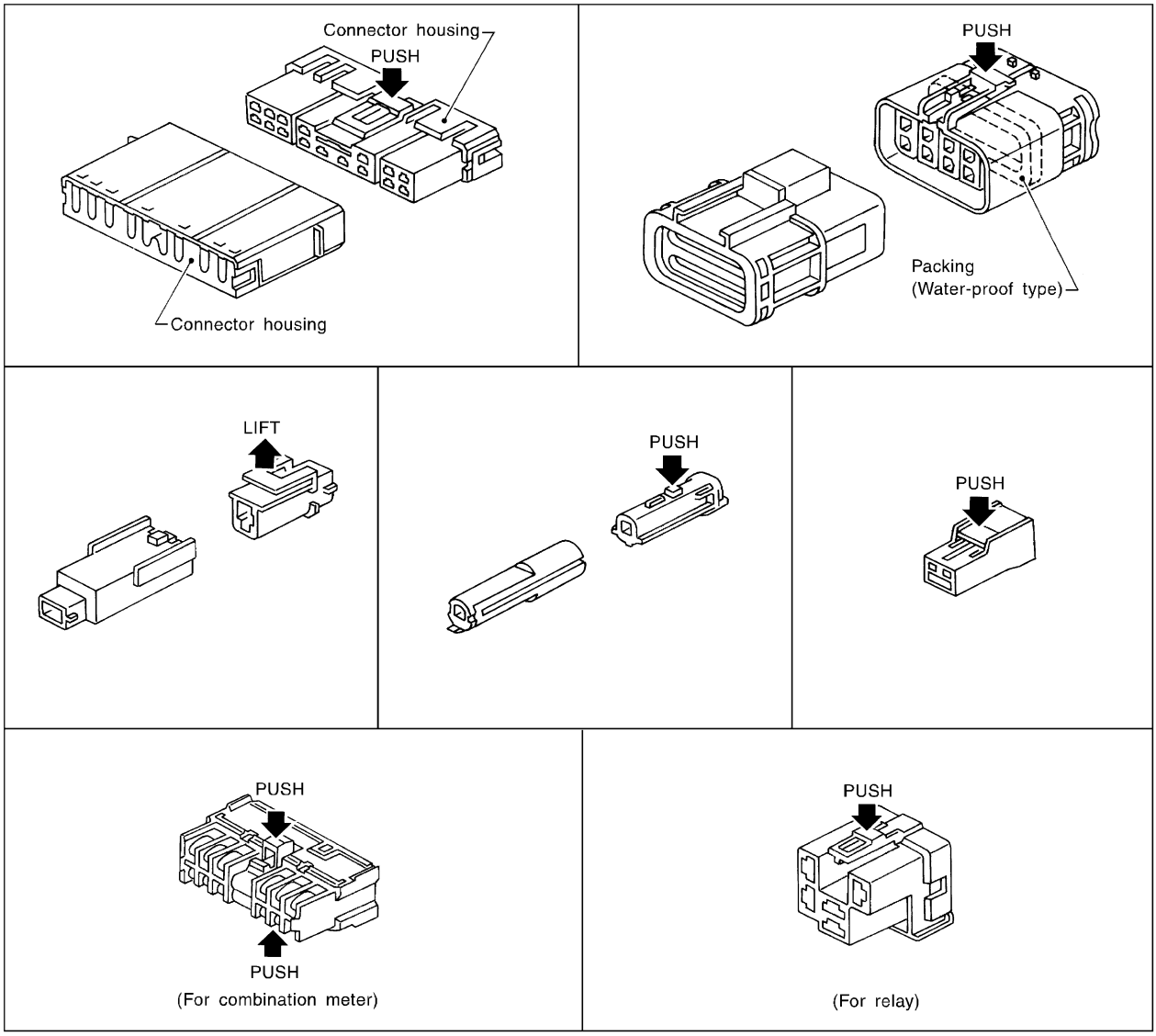
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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

CAUTION:

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

[Example]



SEL769DA

HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

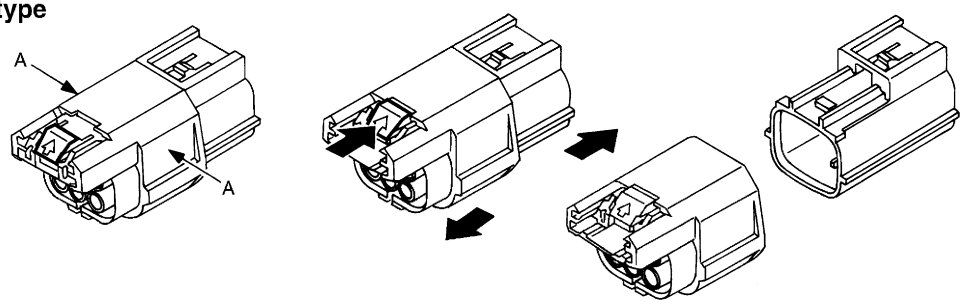
- A new style slide-locking type connector is used on certain systems and components, especially those related to OBD.
- The slide-locking type connectors help prevent incomplete locking and accidental looseness or disconnection.
- The slide-locking type connectors are disconnected by pushing or pulling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

CAUTION:

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

[Example]

Waterproof type

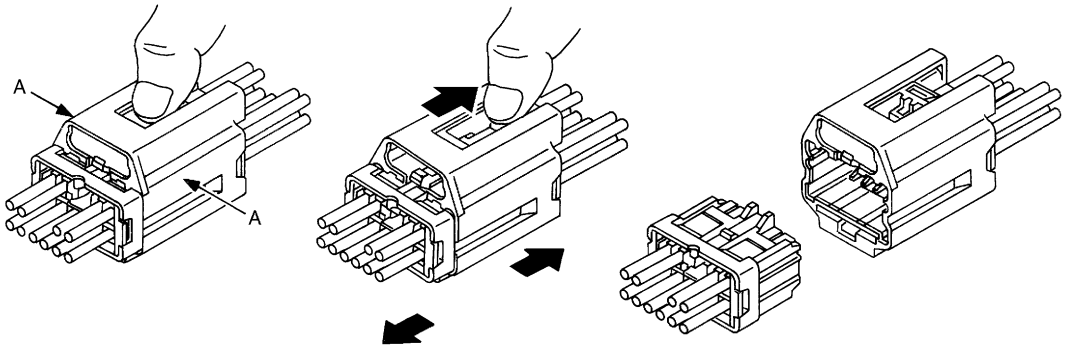


① Firmly grasp shell of connector housing at A.

② Push slider until connector pops or snaps apart.

③ Disconnect harness connector.

Non-waterproof type



① Firmly grasp shell of connector housing at A.

② Pull back on the slider while pulling apart male and female halves of connector.

③ Disconnect harness connector.

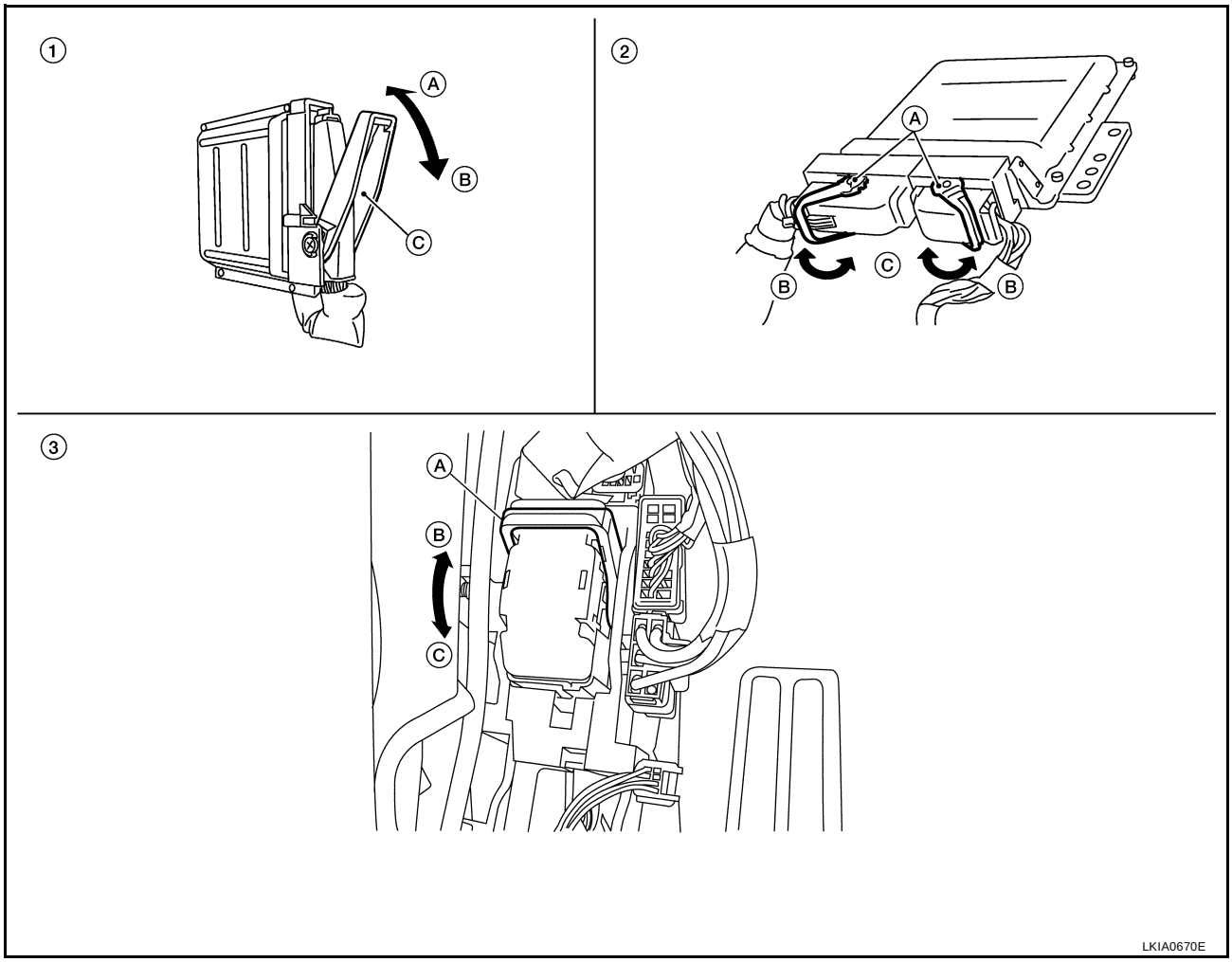
AEL299C

HARNESS CONNECTOR (LEVER LOCKING TYPE)

- Lever locking type harness connectors are used on certain control units and control modules such as ECM, ABS actuator and electric unit (control unit), etc.
- Lever locking type harness connectors are also used on super multiple junction (SMJ) connectors.
- Always confirm the lever is fully locked in place by moving the lever as far as it will go to ensure full connection.

CAUTION:

Always confirm the lever is fully released (loosened) before attempting to disconnect or connect these connectors to avoid damage to the connector housing or terminals.



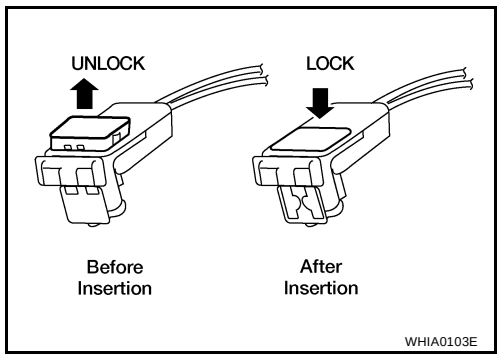
1. Control unit with single lever
   A. Fasten
   B. Loosen
   C. Lever
2. Control unit with dual levers
   A. Levers
   B. Fasten
   C. Loosen
3. SMJ connector
   A. Lever
   B. Fasten
   C. Loosen

HARNESS CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

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

CAUTION:

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



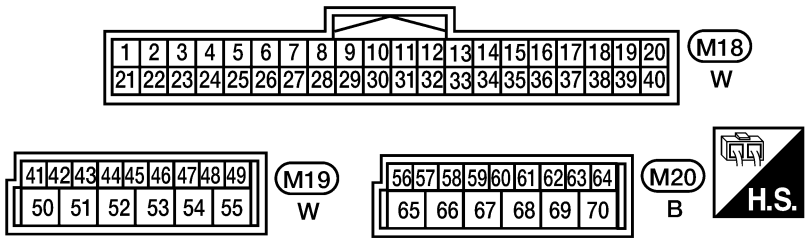
ELECTRICAL UNITS

PFP:23710

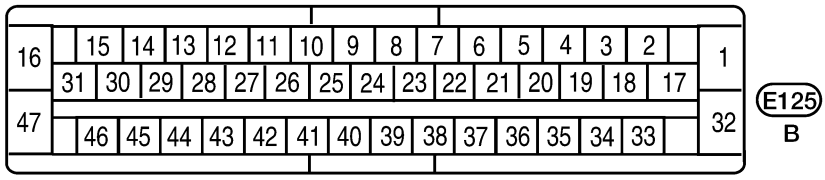
Terminal Arrangement

EKS00G8W

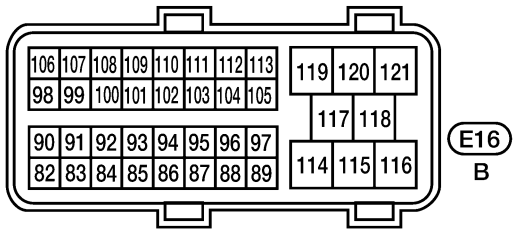
BCM (BODY CONTROL MODULE)

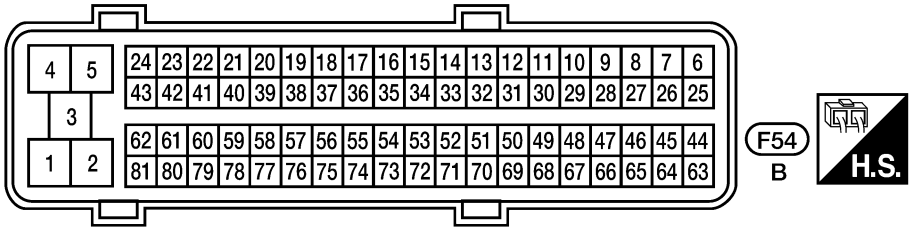


ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

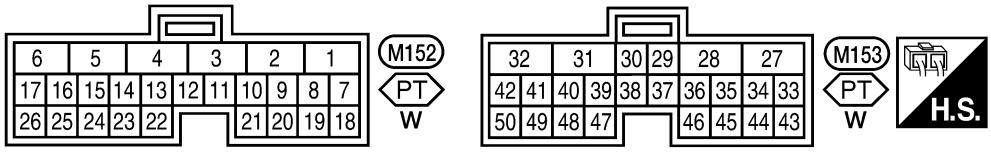


ECM

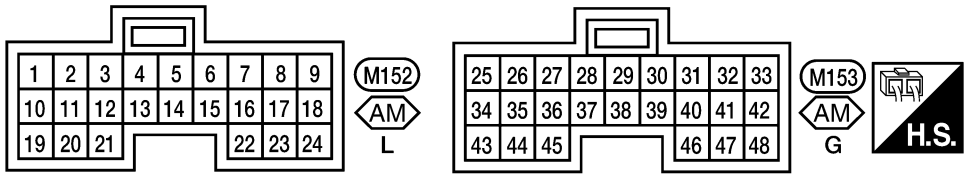




TRANSFER CONTROL UNIT



TRANSFER CONTROL UNIT



AM : ALL-MODE 4WD SYSTEM PT : PART TIME 4WD SYSTEM

WKIA5011E

STANDARDIZED RELAY

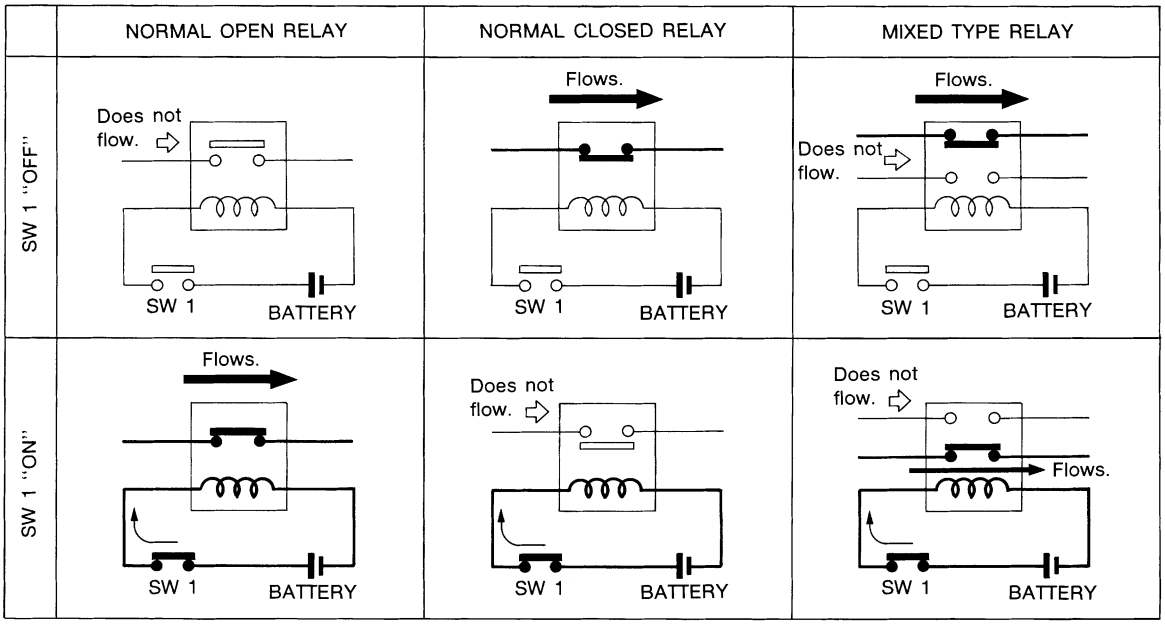
PFP:25230

Description

EKS00G8X

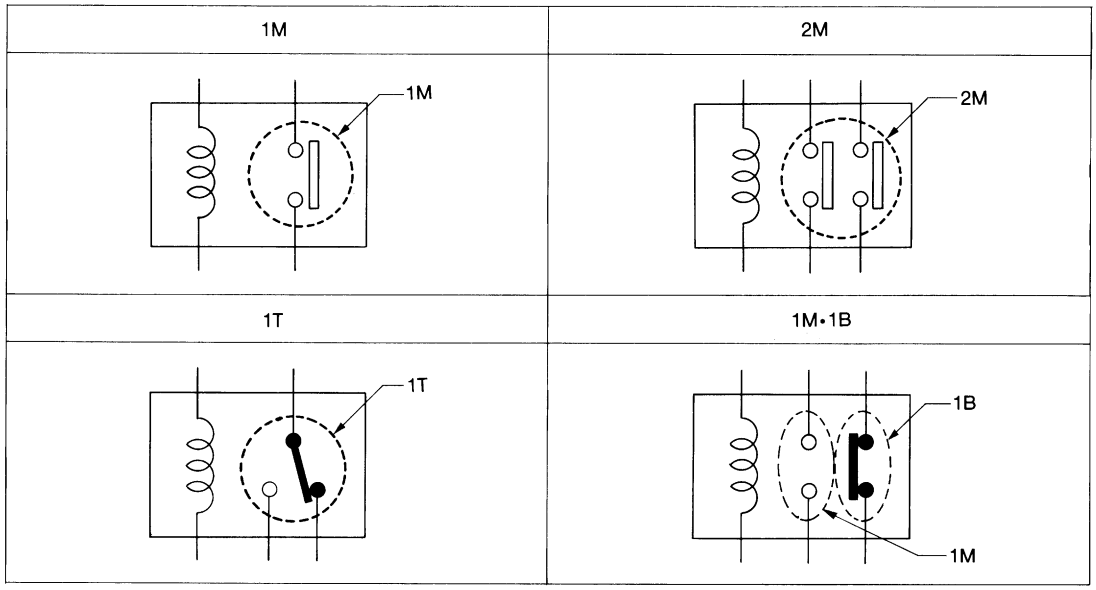
NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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



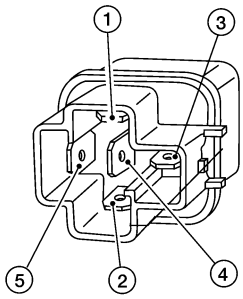
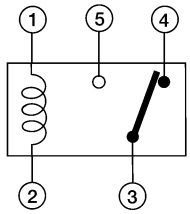
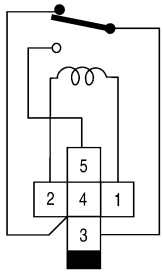
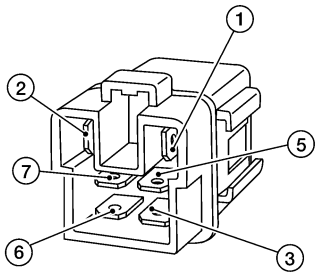
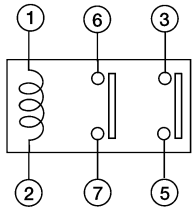
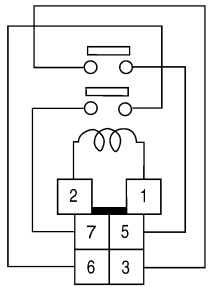
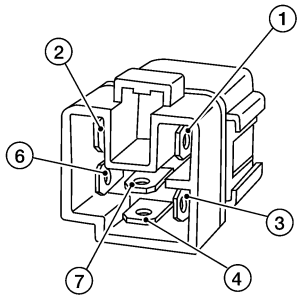
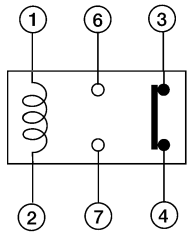
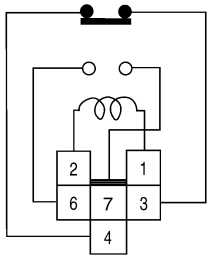
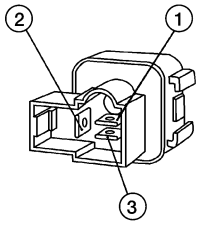
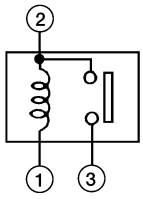
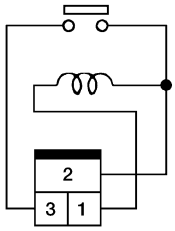
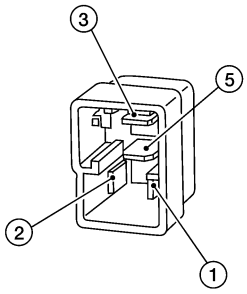
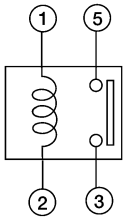
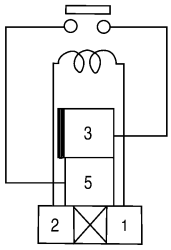
SEL881H

TYPE OF STANDARDIZED RELAYS



SEL882H

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

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.

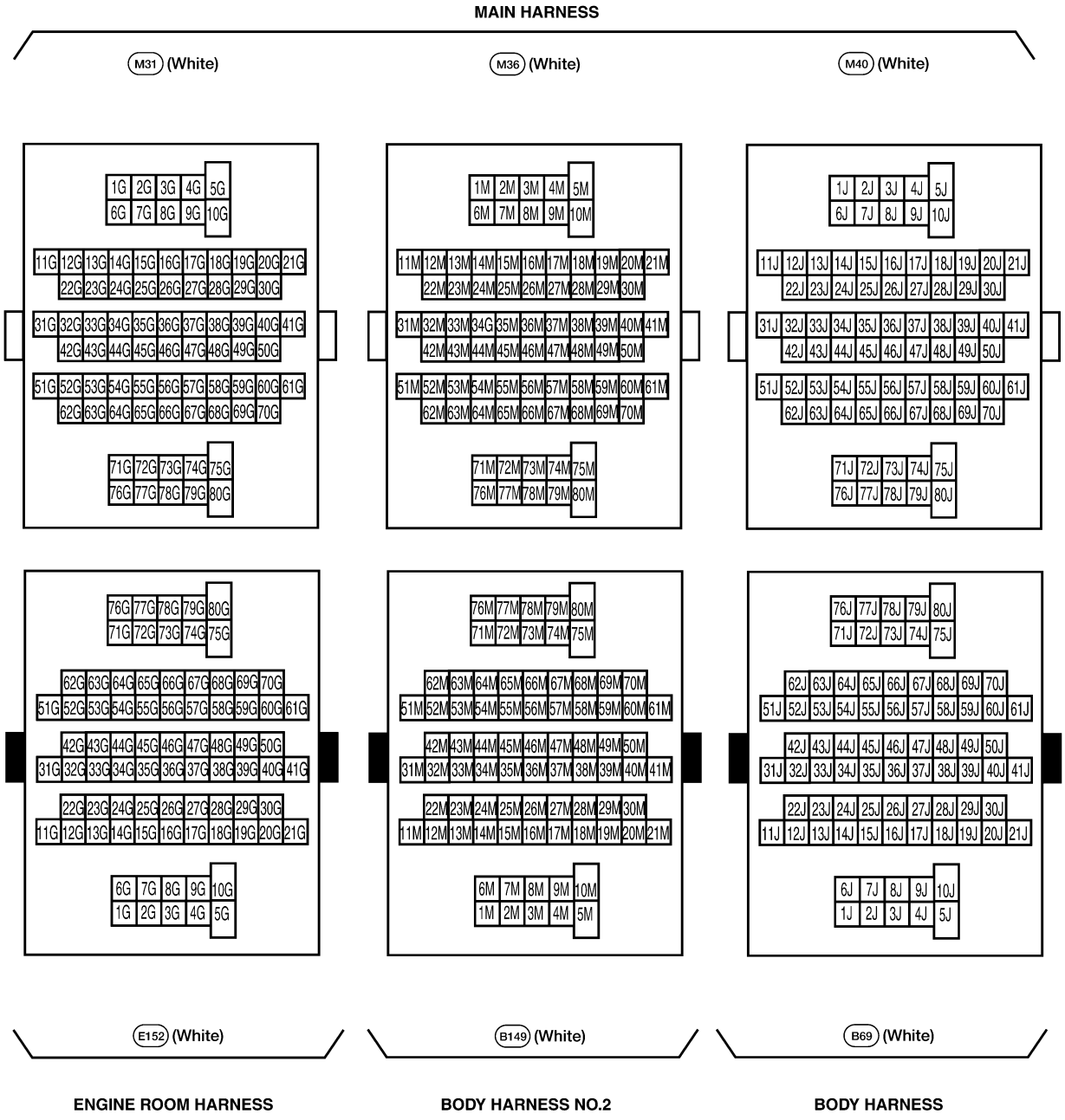
WKIA0253E

SUPER MULTIPLE JUNCTION (SMJ)

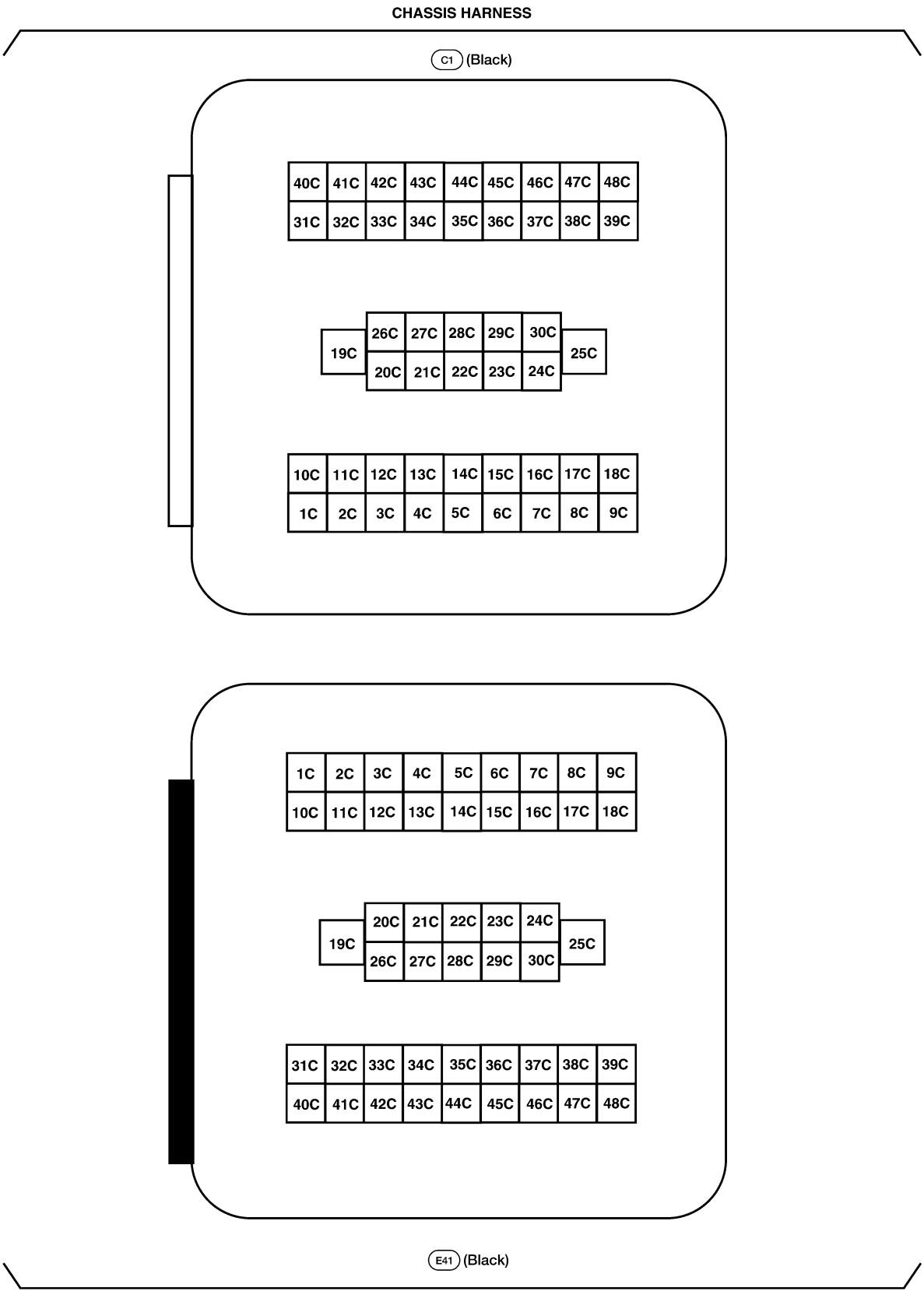
PFP:84341

Terminal Arrangement

EKS00G8Y



WKIA3590E


CHASSIS HARNESS
C1 (Black)
40C 41C 42C 43C 44C 45C 46C 47C 48C
31C 32C 33C 34C 35C 36C 37C 38C 39C
19C
26C 27C 28C 29C 30C
20C 21C 22C 23C 24C
25C
10C 11C 12C 13C 14C 15C 16C 17C 18C
1C 2C 3C 4C 5C 6C 7C 8C 9C
1C 2C 3C 4C 5C 6C 7C 8C 9C
10C 11C 12C 13C 14C 15C 16C 17C 18C
19C
20C 21C 22C 23C 24C
26C 27C 28C 29C 30C
25C
31C 32C 33C 34C 35C 36C 37C 38C 39C
40C 41C 42C 43C 44C 45C 46C 47C 48C
E41 (Black)
ENGINE ROOM HARNESS

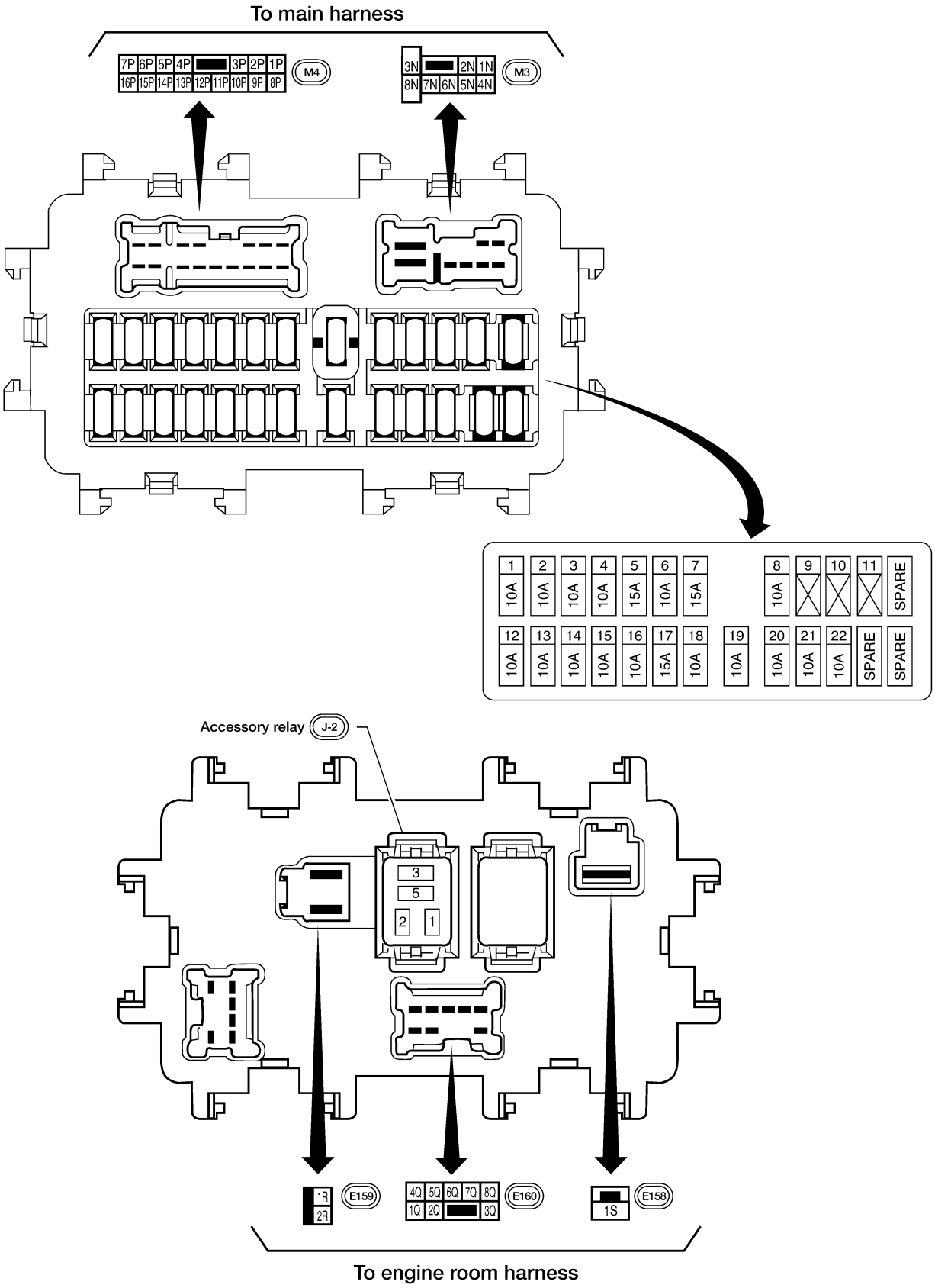
WKIA4179E

FUSE BLOCK-JUNCTION BOX (J/B)

PFP:24350

Terminal Arrangement

EKS00G8Z



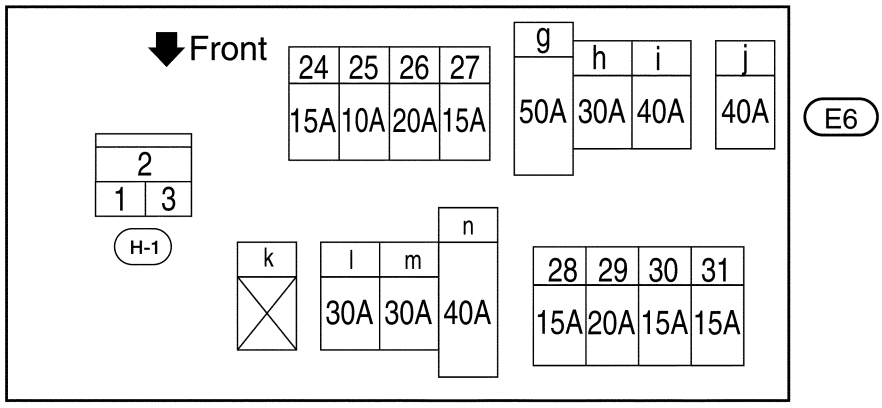
WKIA5012E

FUSE AND FUSIBLE LINK BOX

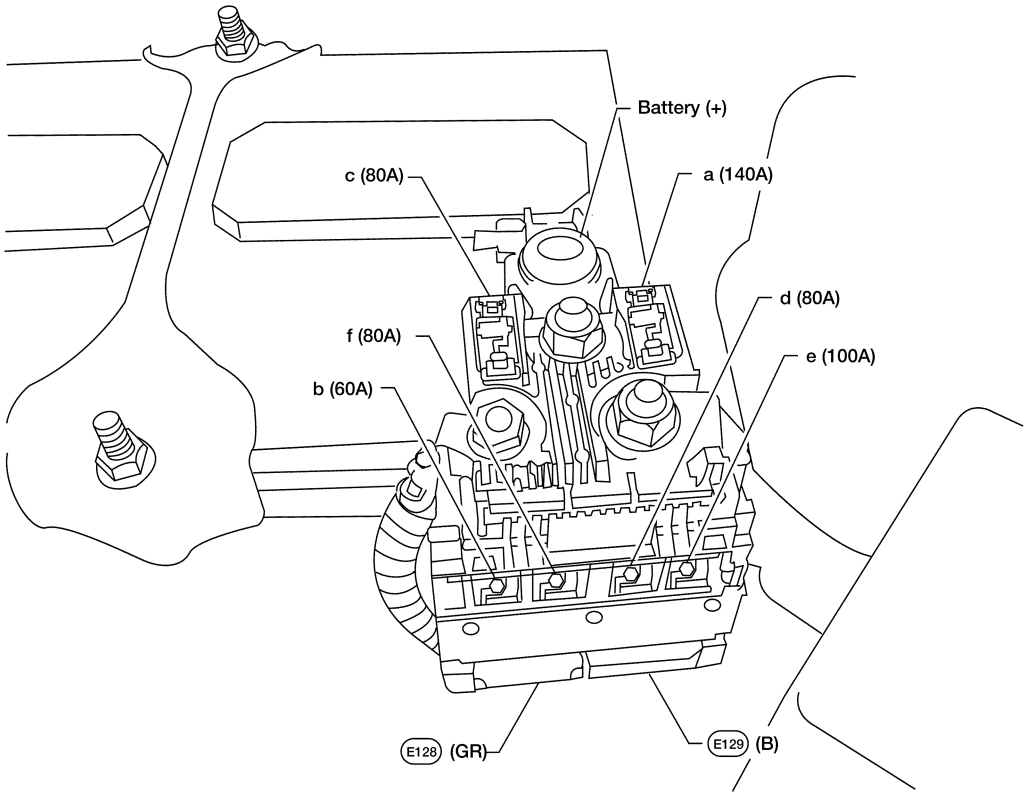
PFP:24381

Terminal Arrangement

EKS00G90



24 - 31 : FUSE g - n : FUSIBLE LINK



FUSIBLE LINK BOX (BATTERY)

E30, E128, E129, E202, F39

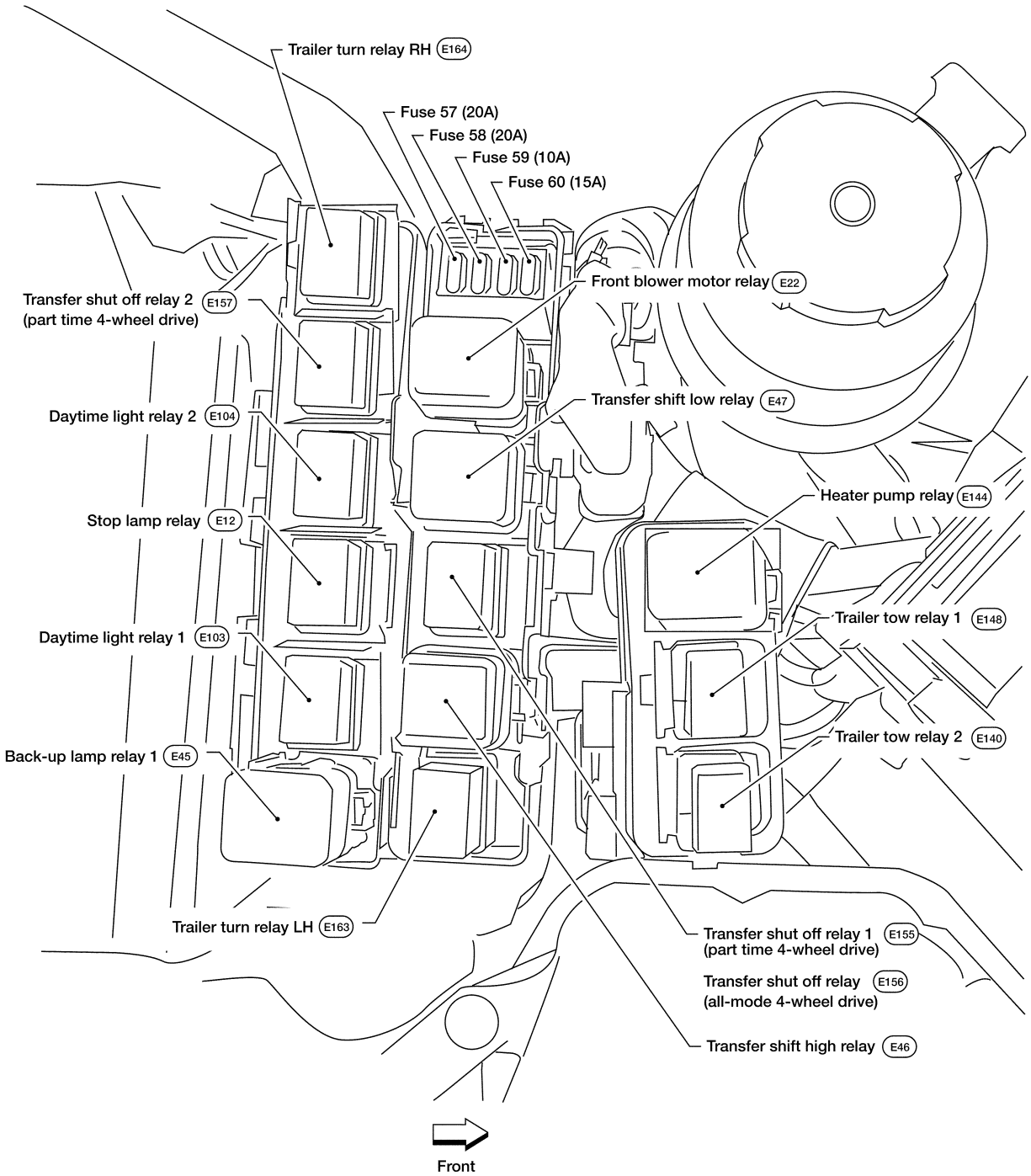
WKIA5013E

FUSE AND RELAY BOX

PFP:24012

Terminal Arrangement

EKS00G91



WKIA5014E