

SECTION **PG**

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

CONTENTS

PRECAUTIONS	3	Terminals and Reference Values for IPDM E/R	27
Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	3	IPDM E/R Power/Ground Circuit Inspection	29
POWER SUPPLY ROUTING CIRCUIT	4	Inspection with CONSULT-II (Self-Diagnosis)	31
Schematic	4	Removal and Installation of IPDM E/R	32
Wiring Diagram — POWER —	6	REMOVAL	32
BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION	6	INSTALLATION	32
ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON	12	GROUND CIRCUIT	33
IGNITION POWER SUPPLY — IGNITION SW. IN ON	13	Ground Distribution	33
IGNITION POWER SUPPLY — IGNITION SW. IN ON AND/OR START	14	MAIN HARNESS	33
IGNITION POWER SUPPLY — IGNITION SWITCH IN START	16	ENGINE ROOM HARNESS	36
Fuse	17	ENGINE CONTROL HARNESS	39
Fusible Link	17	BODY HARNESS	40
Circuit Breaker (Built Into BCM)	17	BODY NO. 2 HARNESS	41
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	18	BACK DOOR NO. 2 AND BACK DOOR HARNESS	42
System Description	18	HARNESS	43
SYSTEMS CONTROLLED BY IPDM E/R	18	Harness Layout	43
CAN COMMUNICATION LINE CONTROL	18	HOW TO READ HARNESS LAYOUT	43
IPDM E/R STATUS CONTROL	19	OUTLINE	44
CAN Communication System Description	19	MAIN HARNESS	45
Function of Detecting Ignition Relay Malfunction ...	19	ENGINE ROOM HARNESS (RH VIEW)	48
CONSULT-II Function (IPDM E/R)	20	ENGINE ROOM HARNESS (LH VIEW)	52
CONSULT-II START PROCEDURE	20	ENGINE CONTROL HARNESS	54
SELF-DIAGNOSTIC RESULTS	20	CHASSIS HARNESS	56
DATA MONITOR	21	BODY HARNESS	58
CAN DIAG SUPPORT MNTR	21	BODY NO. 2 HARNESS	60
ACTIVE TEST	21	ROOM LAMP HARNESS	62
Auto Active Test	23	FRONT DOOR LH HARNESS	64
DESCRIPTION	23	FRONT DOOR RH HARNESS	65
OPERATION PROCEDURE	23	REAR DOOR LH HARNESS	66
INSPECTION IN AUTO ACTIVE TEST MODE ...	23	REAR DOOR RH HARNESS	67
Schematic	25	BACK DOOR HARNESS	68
IPDM E/R Terminal Arrangement	26	Wiring Diagram Codes (Cell Codes)	70
		ELECTRICAL UNITS LOCATION	73
		Electrical Units Location	73
		ENGINE COMPARTMENT	73
		PASSENGER COMPARTMENT	74
		HARNESS CONNECTOR	76
		Description	76
		HARNESS CONNECTOR (TAB-LOCKING	

A
B
C
D
E
F
G
H
I
J
L
M

PG

TYPE)	76	MIXED TYPE RELAYS	81
HARNESS CONNECTOR (SLIDE-LOCKING		TYPE OF STANDARDIZED RELAYS	81
TYPE)	77	SUPER MULTIPLE JUNCTION (SMJ)	83
HARNESS CONNECTOR (LEVER LOCKING		Terminal Arrangement	83
TYPE)	78	FUSE BLOCK-JUNCTION BOX (J/B)	85
HARNESS CONNECTOR (DIRECT-CONNECT		Terminal Arrangement	85
SRS COMPONENT TYPE)	79	FUSE AND FUSIBLE LINK BOX	86
ELECTRICAL UNITS	80	Terminal Arrangement	86
Terminal Arrangement	80	FUSE AND RELAY BOX	87
STANDARDIZED RELAY	81	Terminal Arrangement	87
Description	81		
NORMAL OPEN, NORMAL CLOSED AND			

PRECAUTIONS

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.

A

B

C

D

E

F

G

H

I

J

PG

L

M

POWER SUPPLY ROUTING CIRCUIT

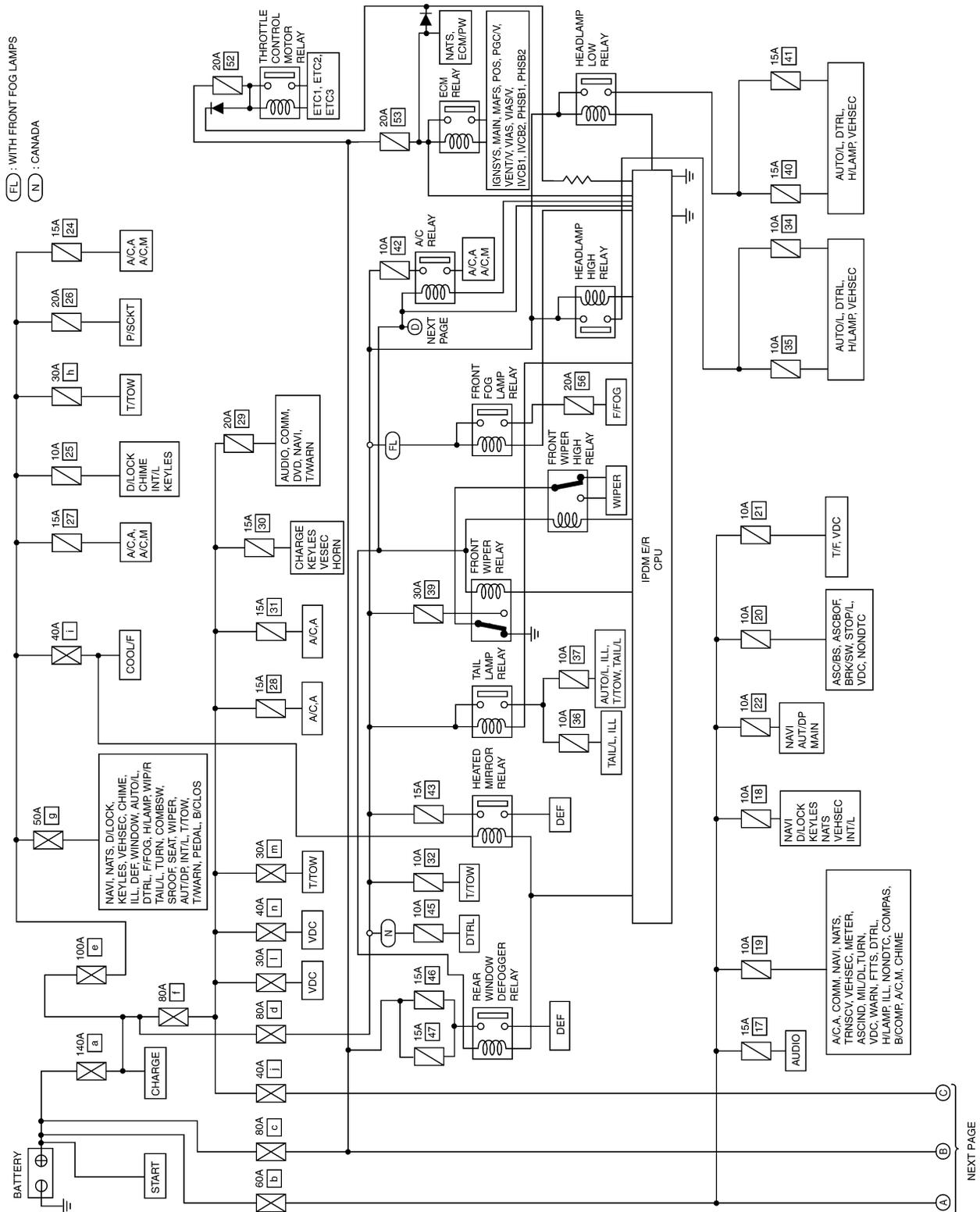
PF:24110

EKS00G6C

POWER SUPPLY ROUTING CIRCUIT

Schematic

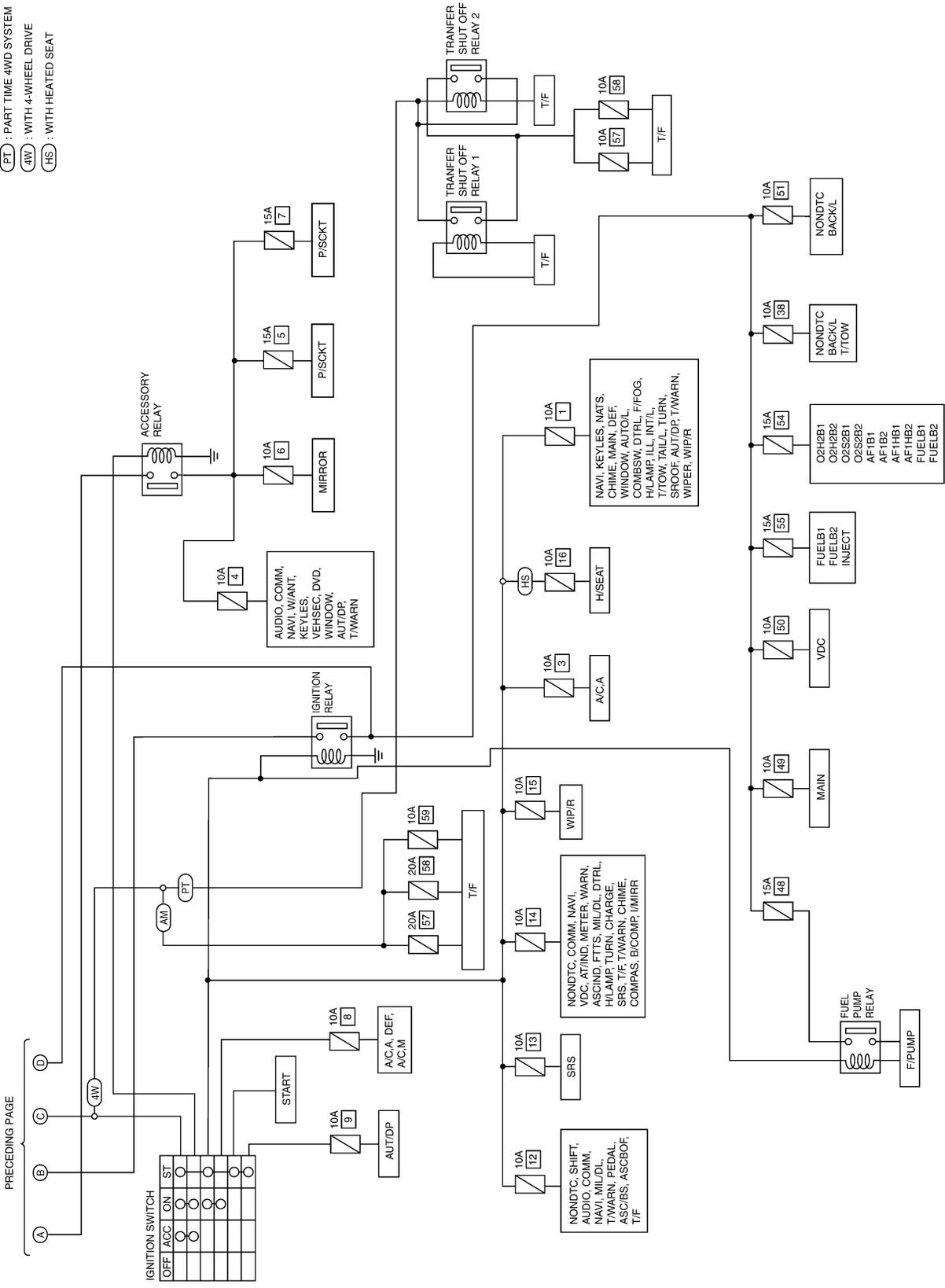
For detailed ground distribution, refer to [PG-33, "Ground Distribution"](#).



WKWA5488E

POWER SUPPLY ROUTING CIRCUIT

- (AM) : ALL-MODE 4WD SYSTEM
- (PT) : PART TIME 4WD SYSTEM
- (4W) : WITH 4-WHEEL DRIVE
- (HS) : WITH HEATED SEAT



A
B
C
D
E
F
G
H
I
J
K
L
M

WKWA5489E

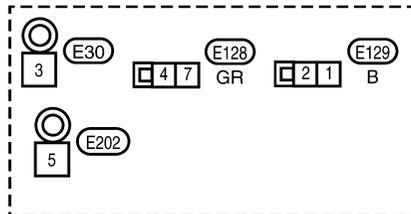
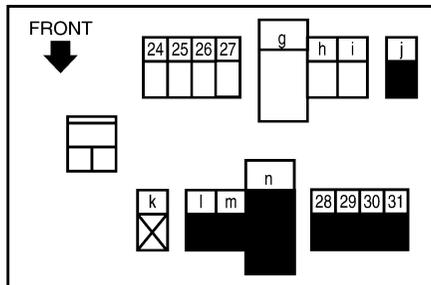
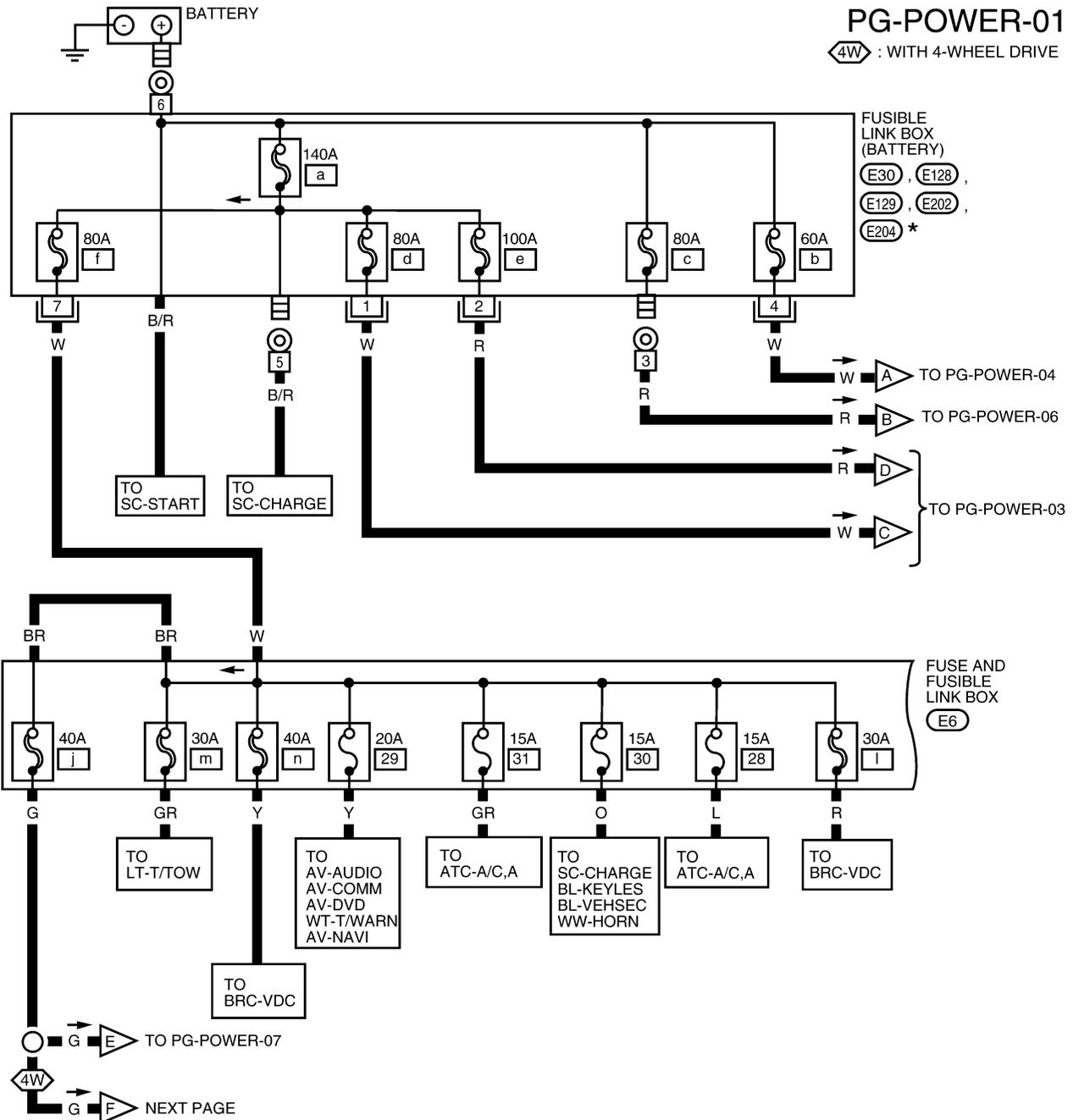
POWER SUPPLY ROUTING CIRCUIT

EKS00G8D

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

PG-POWER-01

4W : WITH 4-WHEEL DRIVE



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

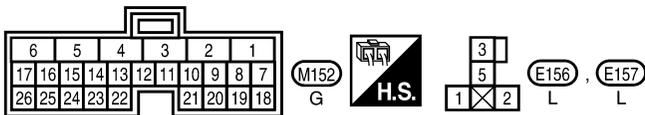
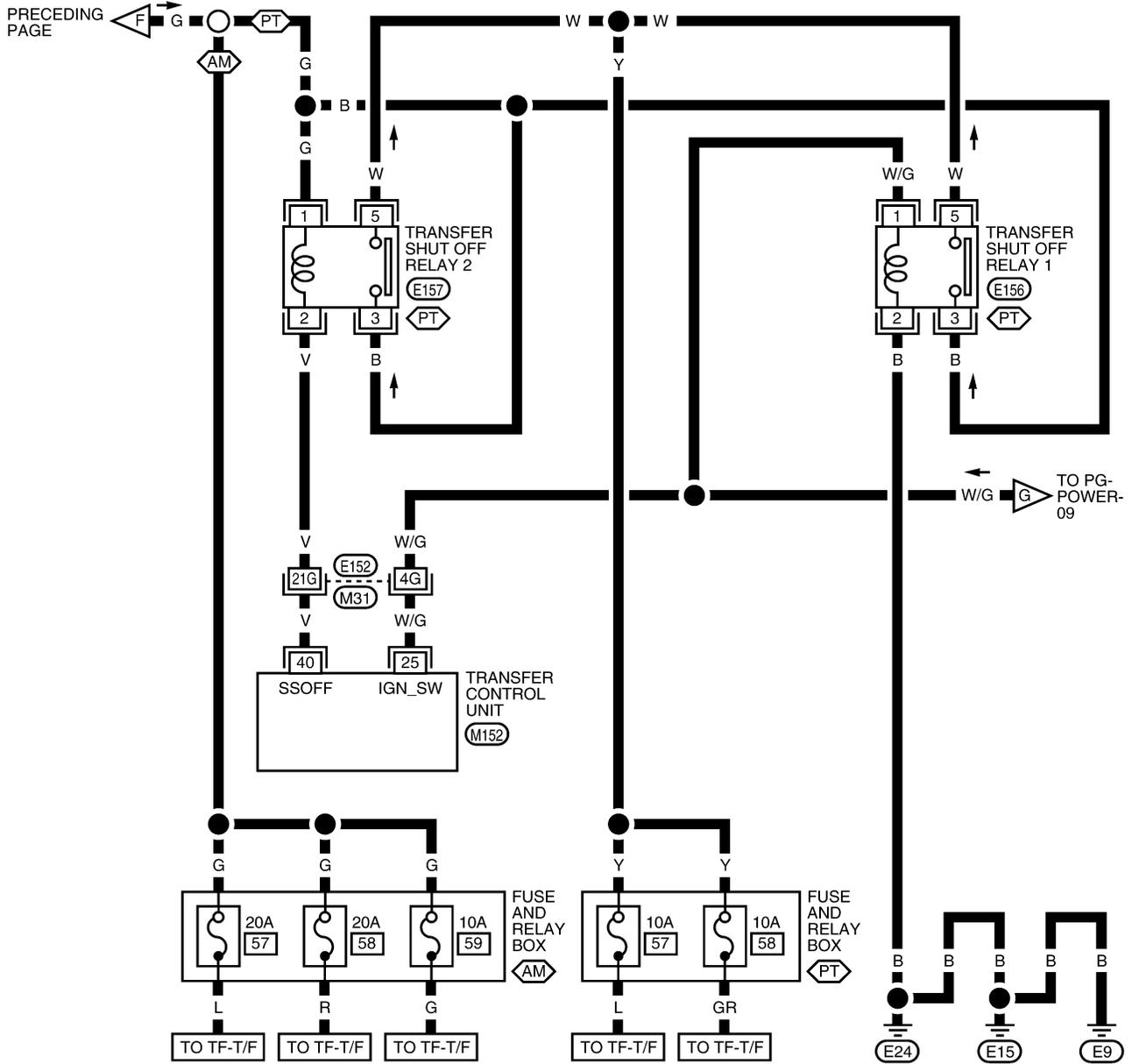
WKWA5490E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-02

AM : ALL-MODE 4WD SYSTEM

PT : PART TIME 4WD SYSTEM



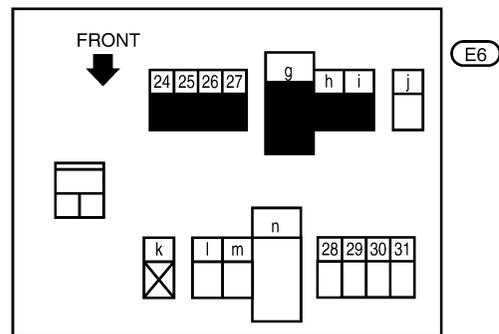
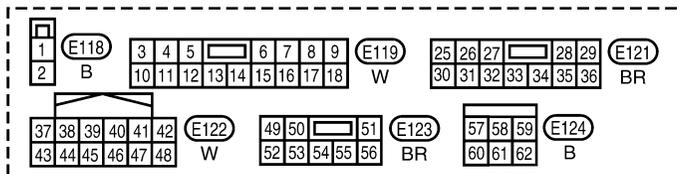
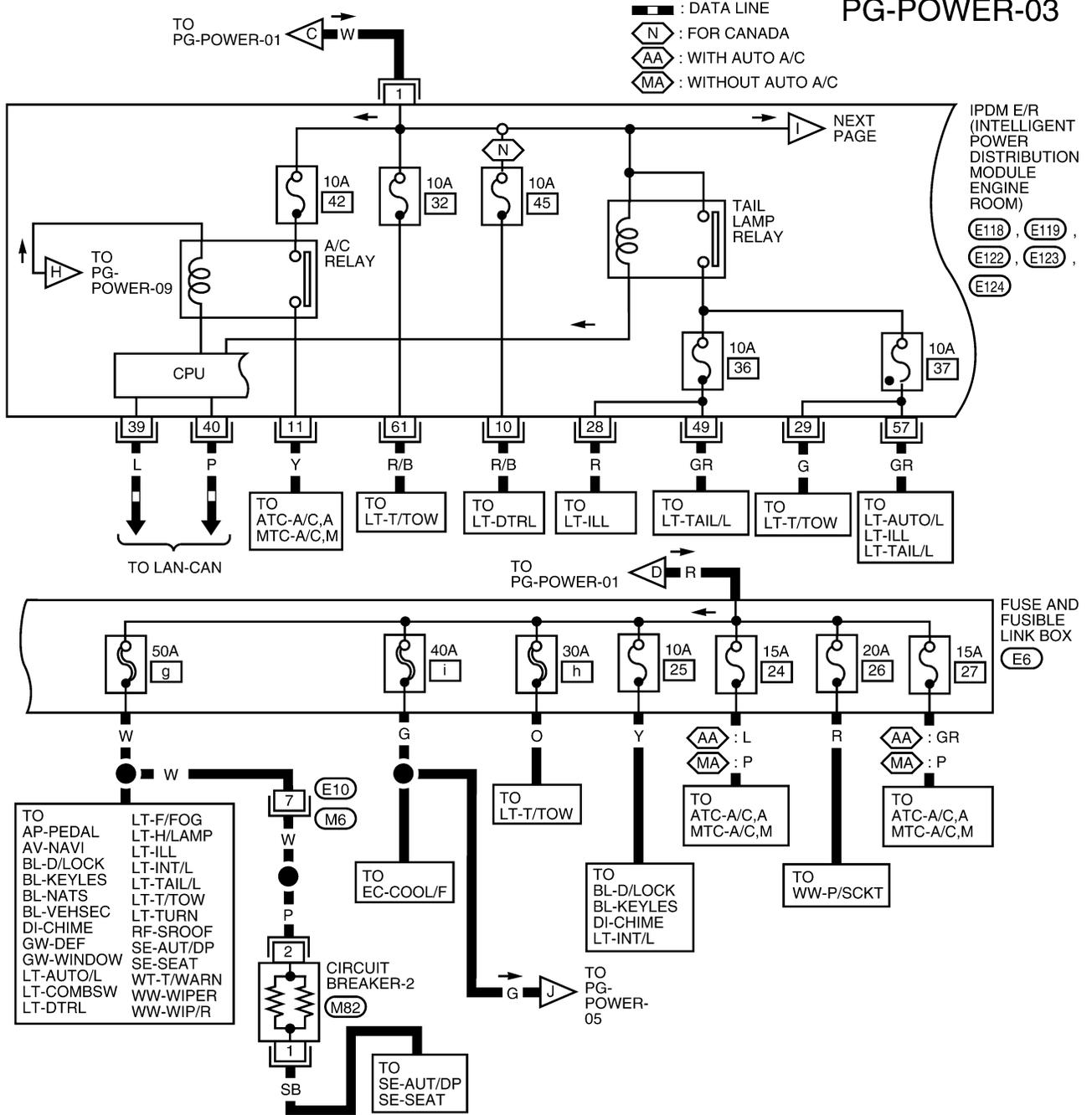
REFER TO THE FOLLOWING.

M31 - SUPER MULTIPLE JUNCTION (SMJ)

WKWA5491E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-03

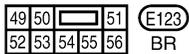
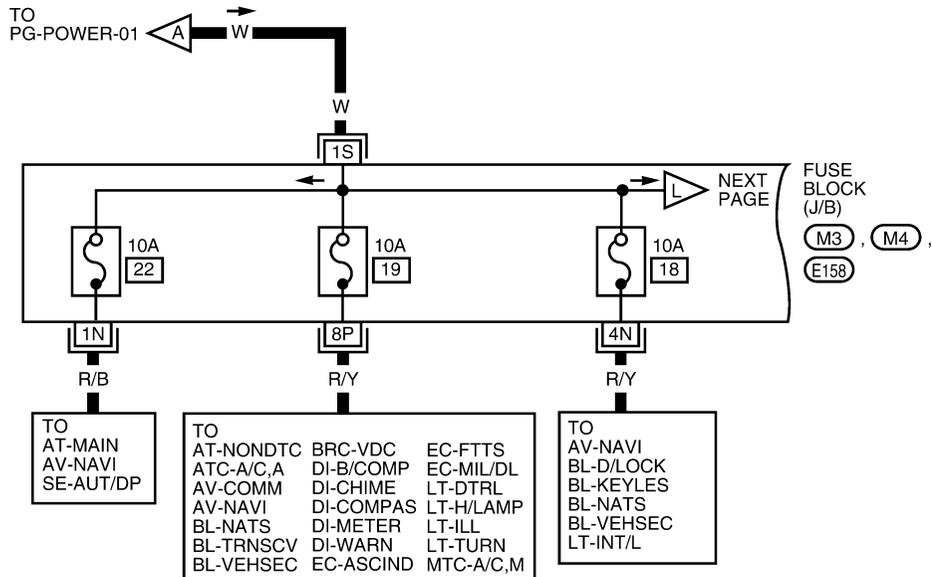
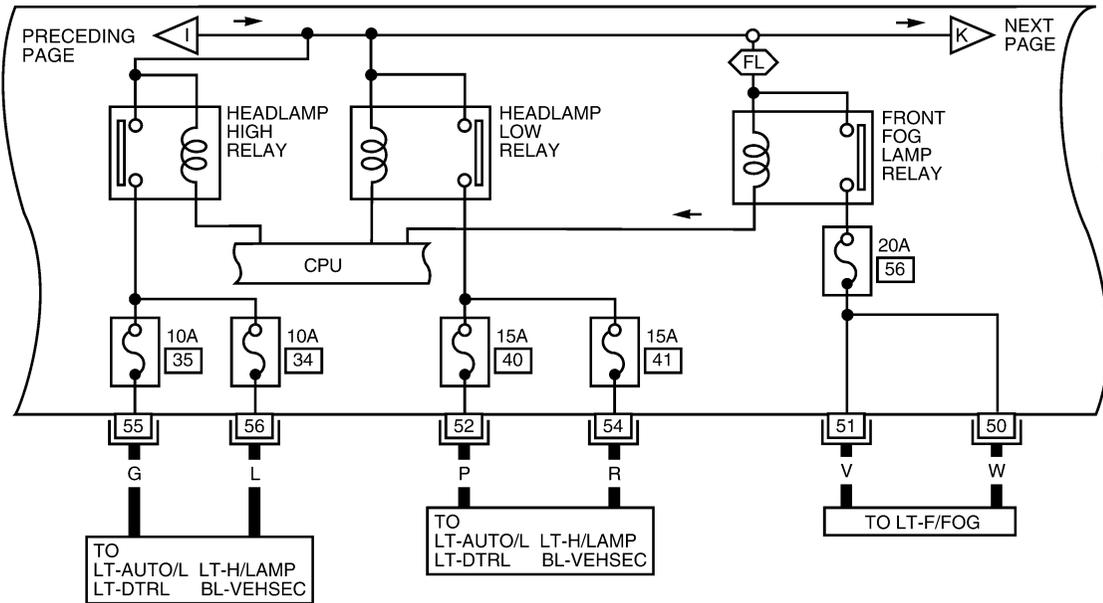


WKWA5492E

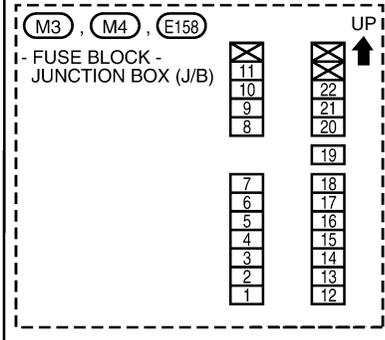
POWER SUPPLY ROUTING CIRCUIT

PG-POWER-04

⬠(FL) : WITH FRONT FOG LAMPS



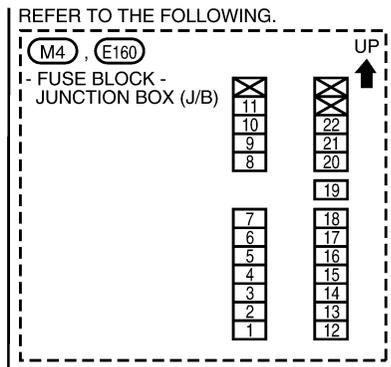
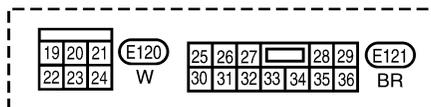
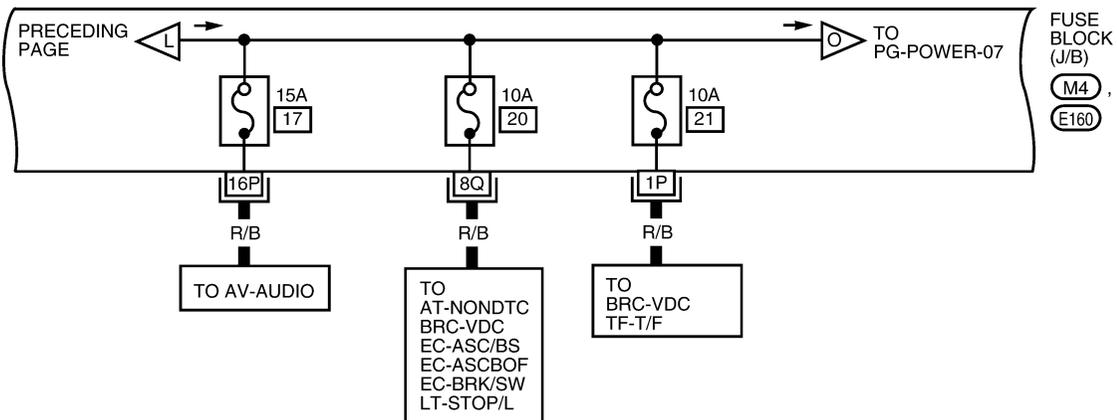
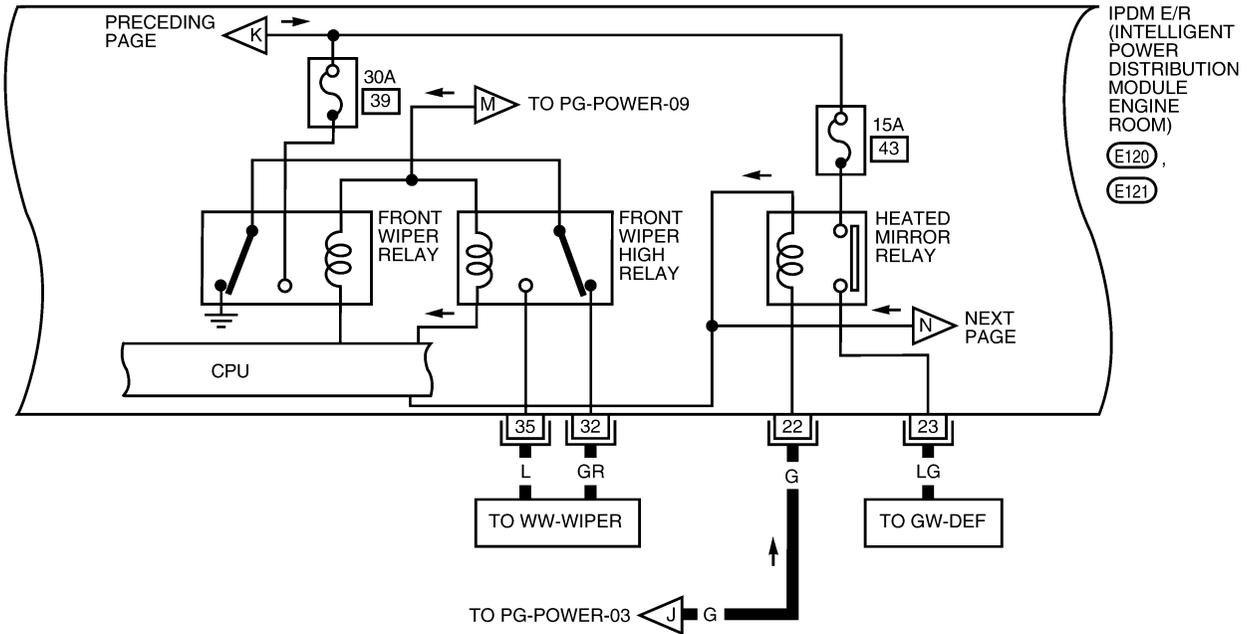
REFER TO THE FOLLOWING.



WKWA5493E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-05

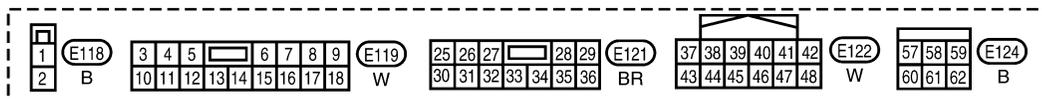
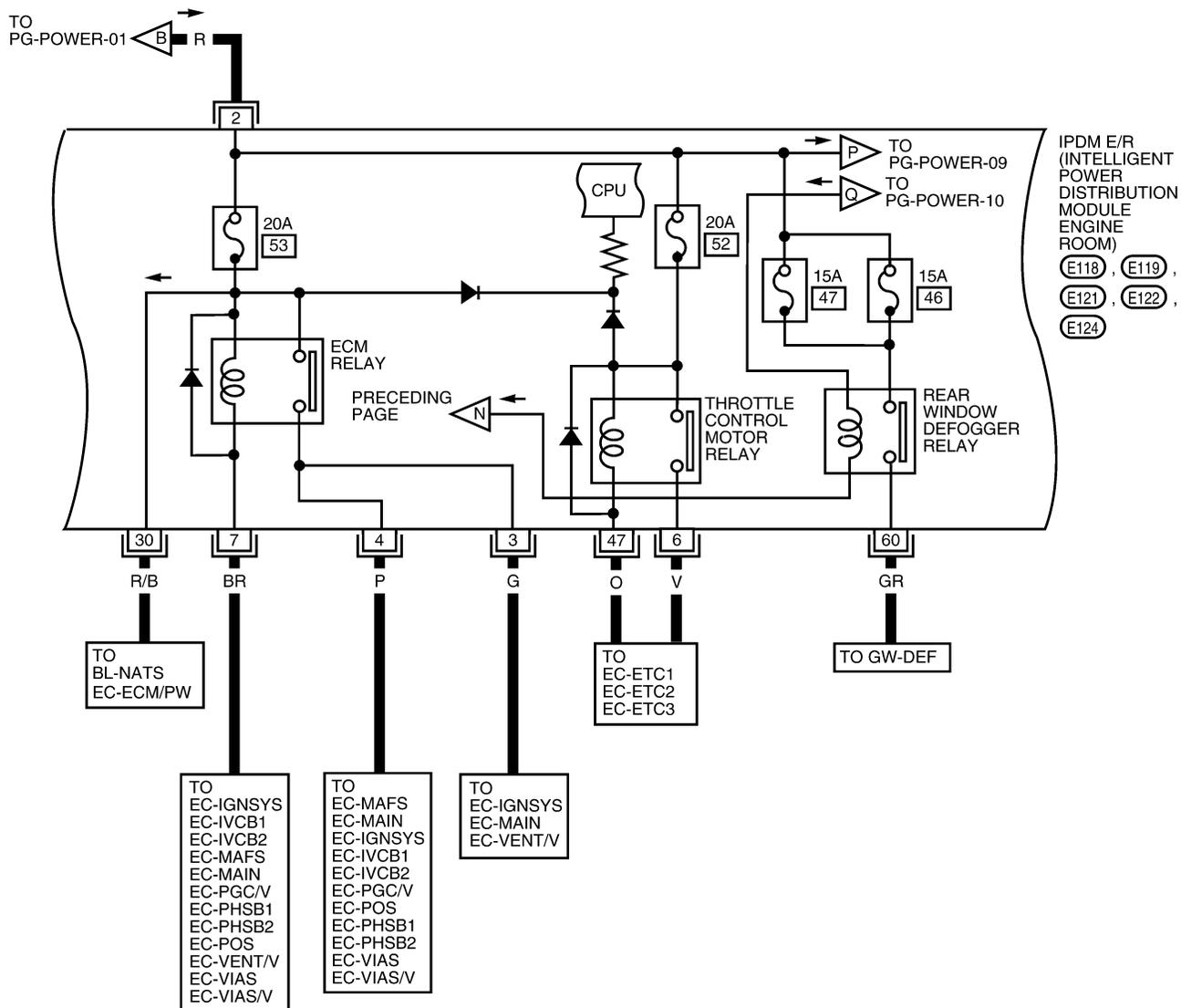


WKWA5494E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-06

A
B
C
D
E
F
G
H
I
J
PG
L
M

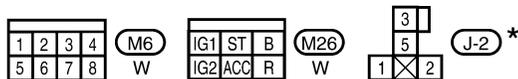
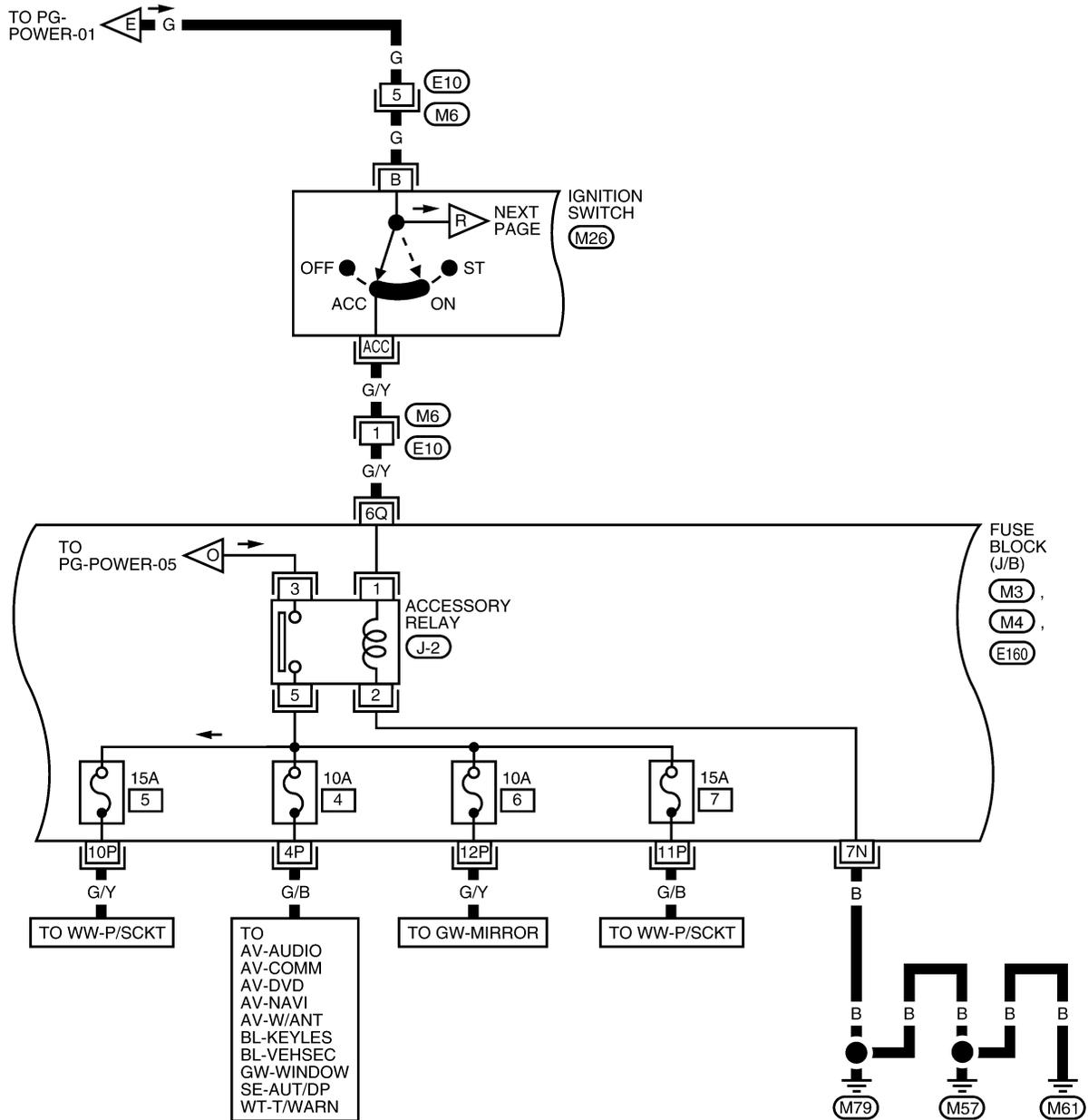


WKWA5495E

POWER SUPPLY ROUTING CIRCUIT

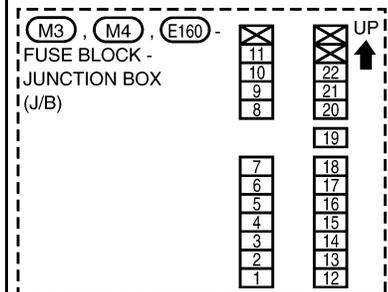
ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON

PG-POWER-07



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

REFER TO THE FOLLOWING.

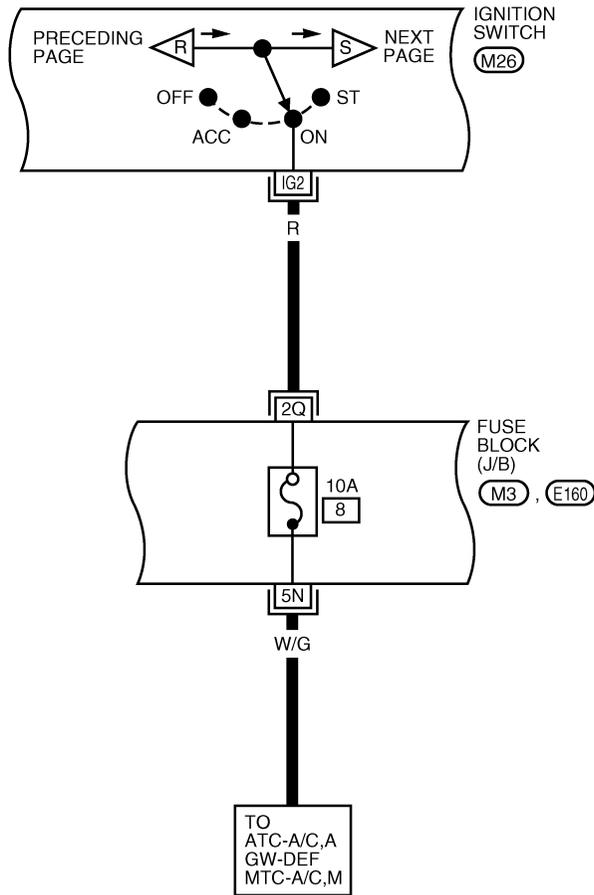


WKWA5497E

POWER SUPPLY ROUTING CIRCUIT

IGNITION POWER SUPPLY — IGNITION SW. IN ON

PG-POWER-08

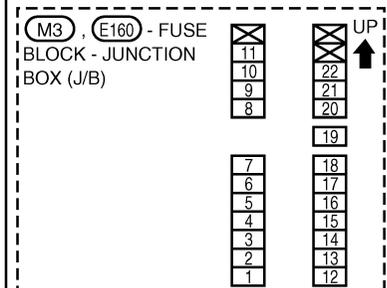


A
B
C
D
E
F
G
H
I
J
PG
L
M

IG1	ST	B	M26
IG2	ACC	R	

W

REFER TO THE FOLLOWING.

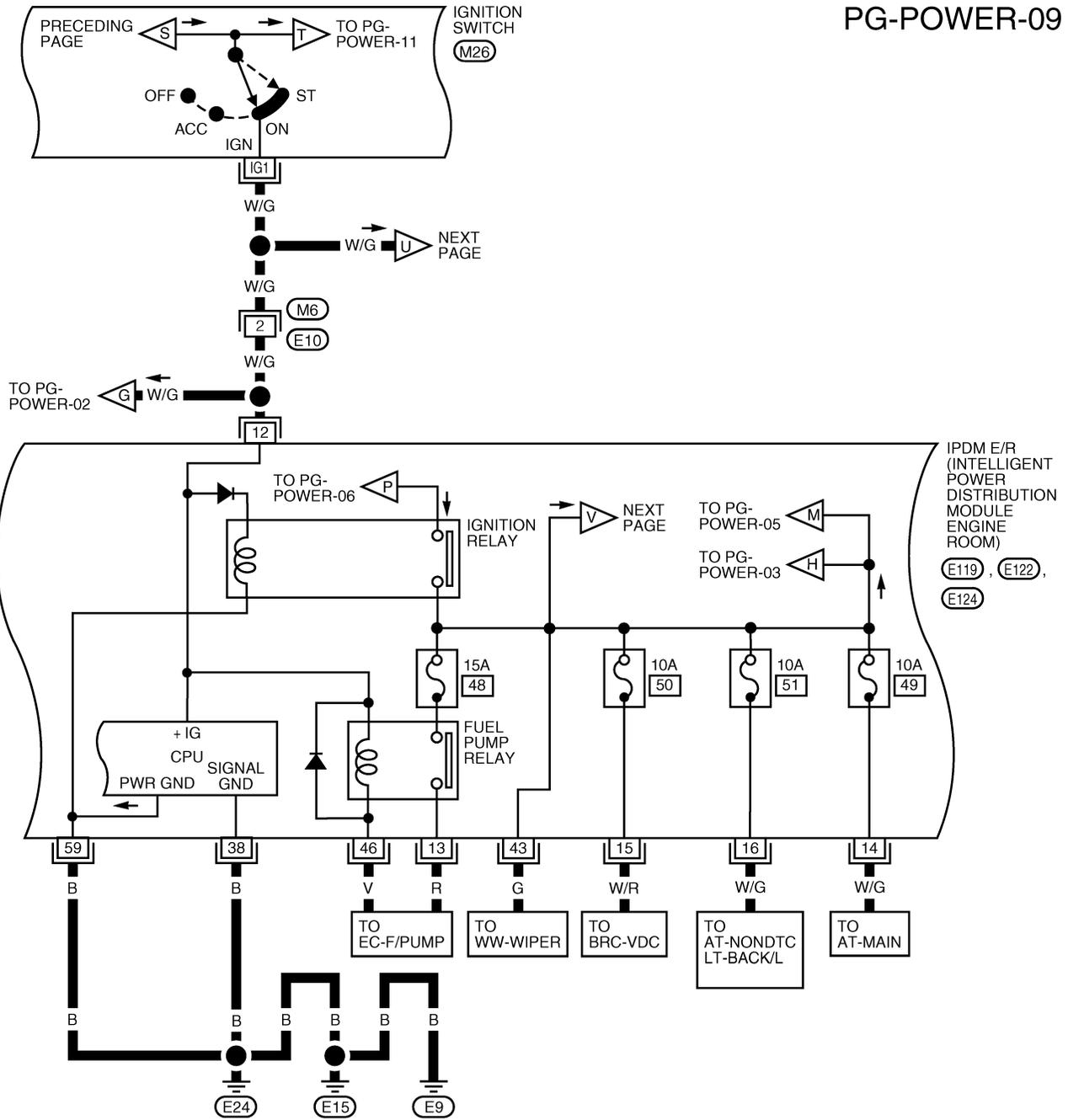


WKWA4410E

POWER SUPPLY ROUTING CIRCUIT

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

PG-POWER-09



1	2	3	4
5	6	7	8

(M6)
W

IG1	ST	B
IG2	ACC	R

(M26)
W

3	4	5	6	7	8	9		
10	11	12	13	14	15	16	17	18

(E119)
W

37	38	39	40	41	42
43	44	45	46	47	48

(E122)
W

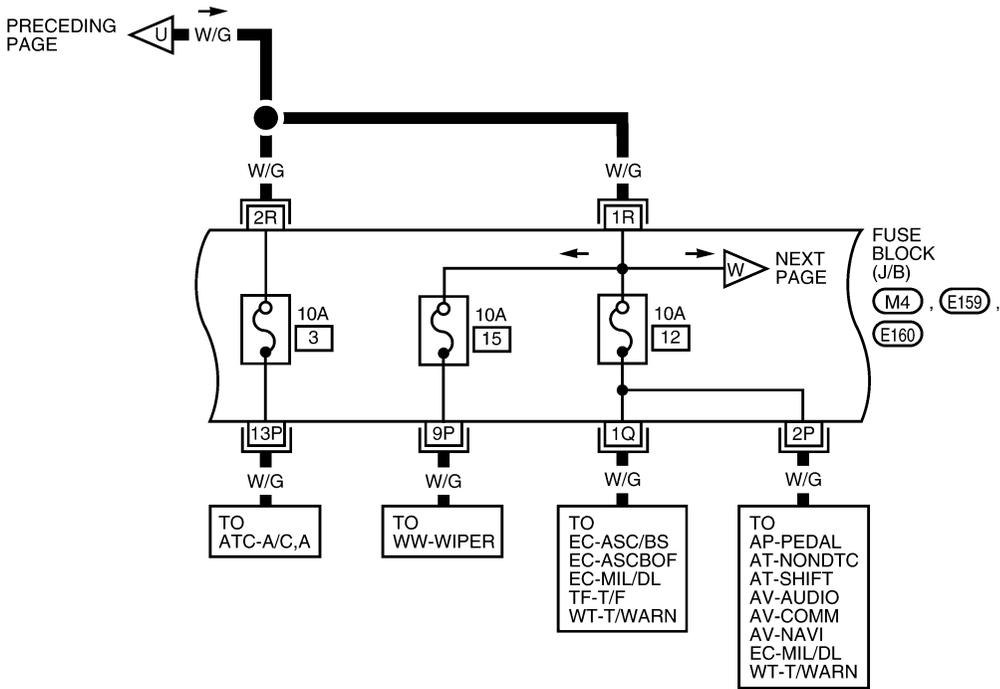
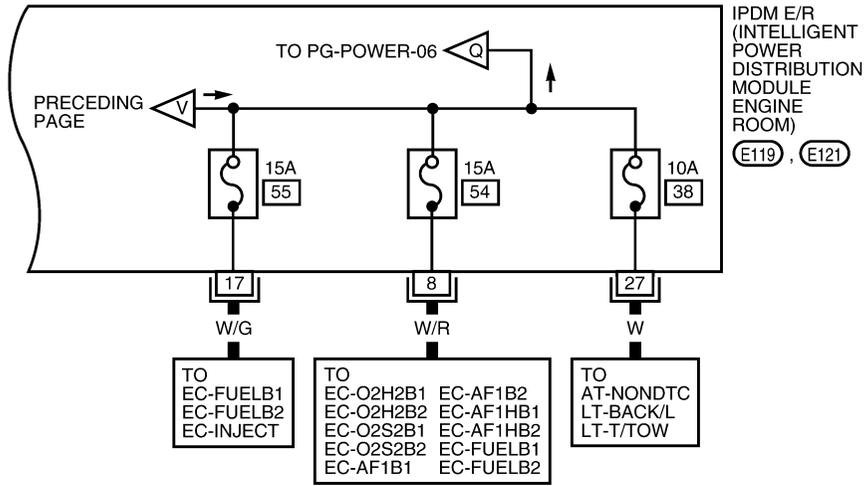
57	58	59
60	61	62

(E124)
B

WKWA4411E

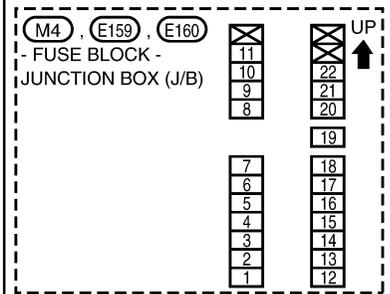
POWER SUPPLY ROUTING CIRCUIT

PG-POWER-10



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

REFER TO THE FOLLOWING.



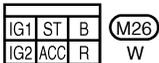
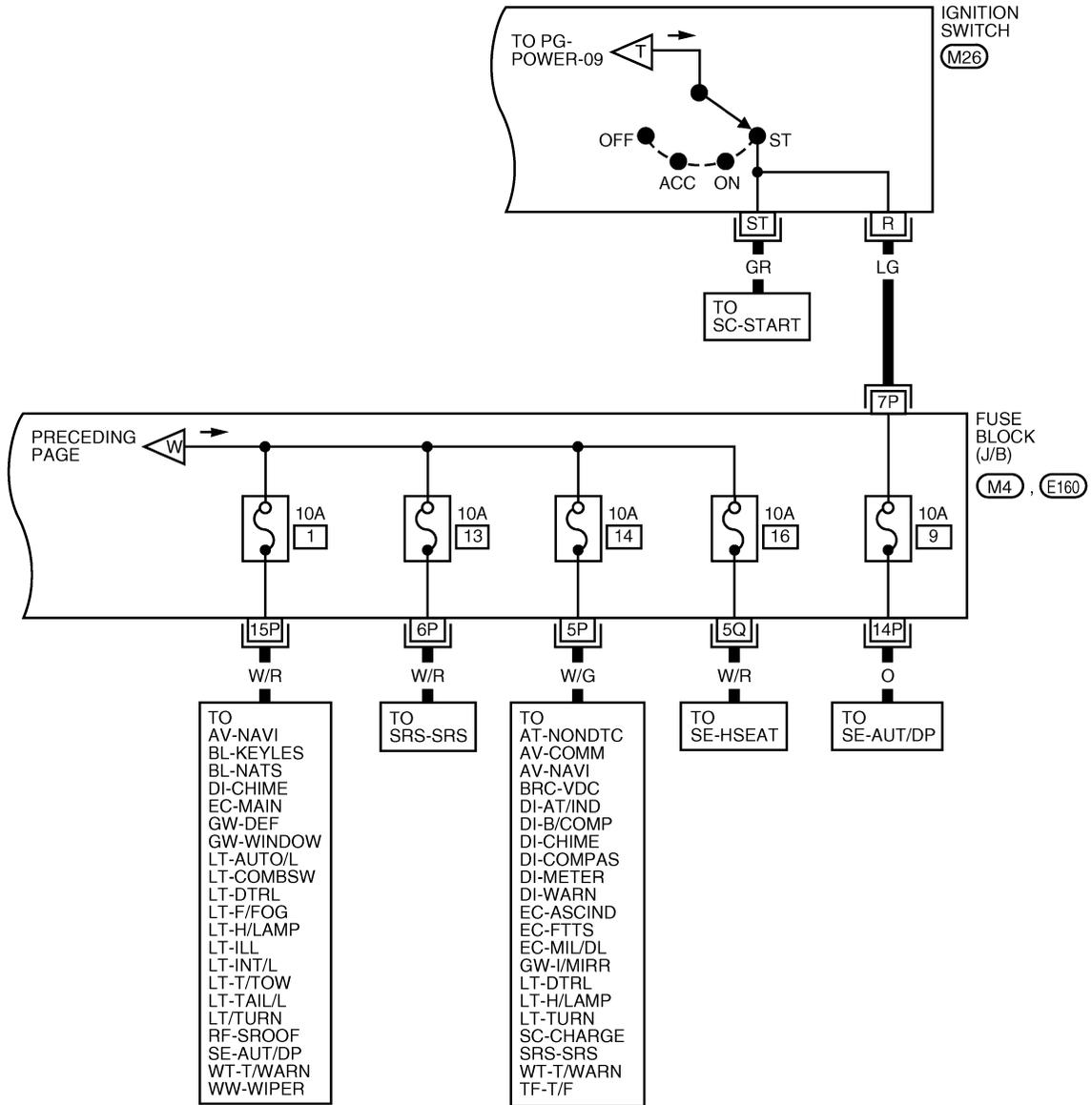
WKWA5496E

A
B
C
D
E
F
G
H
I
J
PG
L
M

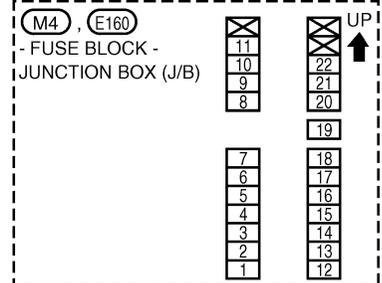
POWER SUPPLY ROUTING CIRCUIT

IGNITION POWER SUPPLY — IGNITION SWITCH IN START

PG-POWER-11



REFER TO THE FOLLOWING.



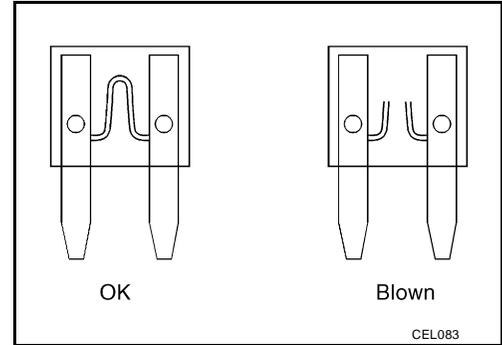
WKWA4413E

POWER SUPPLY ROUTING CIRCUIT

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.

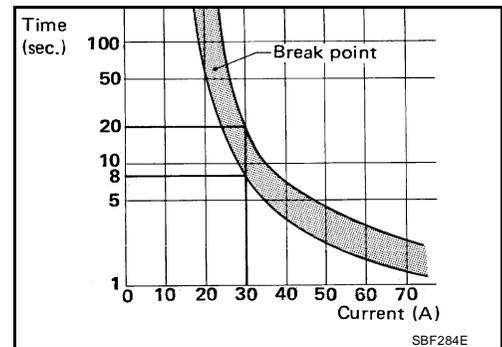
Circuit Breaker (Built Into BCM)

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 sunroof



A
B
C
D
E
F
G
H
I
J
PG
L
M

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

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

PF: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
 - 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 (magnet 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	<ul style="list-style-type: none">● With the ignition switch ON, the headlamp low is ON.● With the ignition switch OFF, the headlamp low is OFF.
Tail, license plate and parking lamps	<ul style="list-style-type: none">● With the ignition switch ON, the tail lamp relay is ON.● With the ignition switch OFF, the tail lamp relay is OFF.

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

Controlled system	Fail-safe mode
Cooling fan	<ul style="list-style-type: none"> ● With the ignition switch ON, the cooling fan HI operates. ● With the ignition switch OFF, the cooling fan stops.
Front wiper	Until the ignition switch is turned off, the front wiper LO and HI remains in the same status it was in just before fail-safe control was initiated.
Rear window defogger	Rear window defogger relay OFF
A/C compressor	A/C compressor OFF
Front fog lamps	Front fog lamp relay OFF

IPDM E/R STATUS CONTROL

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

- 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.
- 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.
- 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

EKS00GBF

Refer to [LAN-4, "SYSTEM DESCRIPTION"](#) .

Function of Detecting Ignition Relay Malfunction

EKS00GBG

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

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

NOTE:

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

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

CONSULT-II Function (IPDM E/R)

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 START PROCEDURE

Refer to [GI-38, "CONSULT-II Start Procedure"](#).

SELF-DIAGNOSTIC RESULTS

Display Item List

Display items	CONSULT-II display code	Malfunction detection	TIME		Possible causes
			CRNT	PAST	
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.	—	—	—	—	—
CAN COMM CIRC	U1000	<ul style="list-style-type: none"> If CAN communication reception/transmission data has a malfunction, or if any of the control units fail, data reception/transmission cannot be confirmed. When the data in CAN communication is not received before the specified time. 	X	X	Any of items listed below have errors: <ul style="list-style-type: none"> TRANSMIT DIAG ECM BCM/SEC

NOTE:

The details for display of the period are as follows:

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

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

DATA MONITOR

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

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.

CAN DIAG SUPPORT MNTR

Refer to [LAN-4, "SYSTEM DESCRIPTION"](#) .

ACTIVE TEST

Display Item List

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.

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

Test name	CONSULT-II screen display	Description
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	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.
Tail lamp relay output	EXTERNAL LAMPS	With a certain operation (OFF, HI ON, LO ON, TAIL ON, FOG ON), the lamp relay (Low, High, Tail, Fog) can be operated.
Horn output	HORN	With a certain ON-OFF operation, the horn relay can be operated.

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

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
 - Front wipers
 - Tail, license plate, front fog, and parking lamps
 - Headlamps (High, Low)
 - A/C compressor (magnet clutch)
 - Cooling fan

OPERATION PROCEDURE

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

NOTE:

When auto active test is performed with hood opened, sprinkle water on windshield beforehand.

2. Turn ignition switch OFF.
3. Turn ignition switch ON and, within 20 seconds, press front door switch LH 10 times. Then turn ignition switch OFF.
4. Turn ignition switch ON within 10 seconds after ignition switch OFF.
5. When auto active test mode is actuated, horn chirps once.
6. After a series of operations is repeated three times, auto active test is completed.

NOTE:

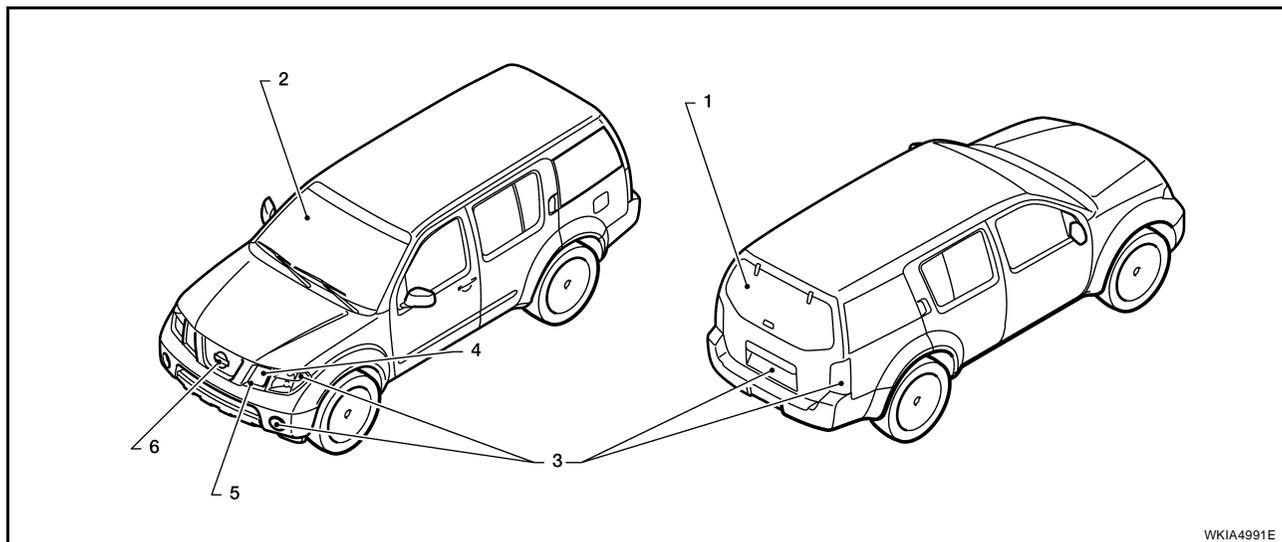
When auto active test mode has to be cancelled halfway, turn ignition switch OFF.

CAUTION:

Be sure to perform **BL-27. "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.
5	A/C compressor (magnet clutch)	ON-OFF 5 times
6	Cooling fan	LOW for 5 seconds, then HIGH for 5 seconds

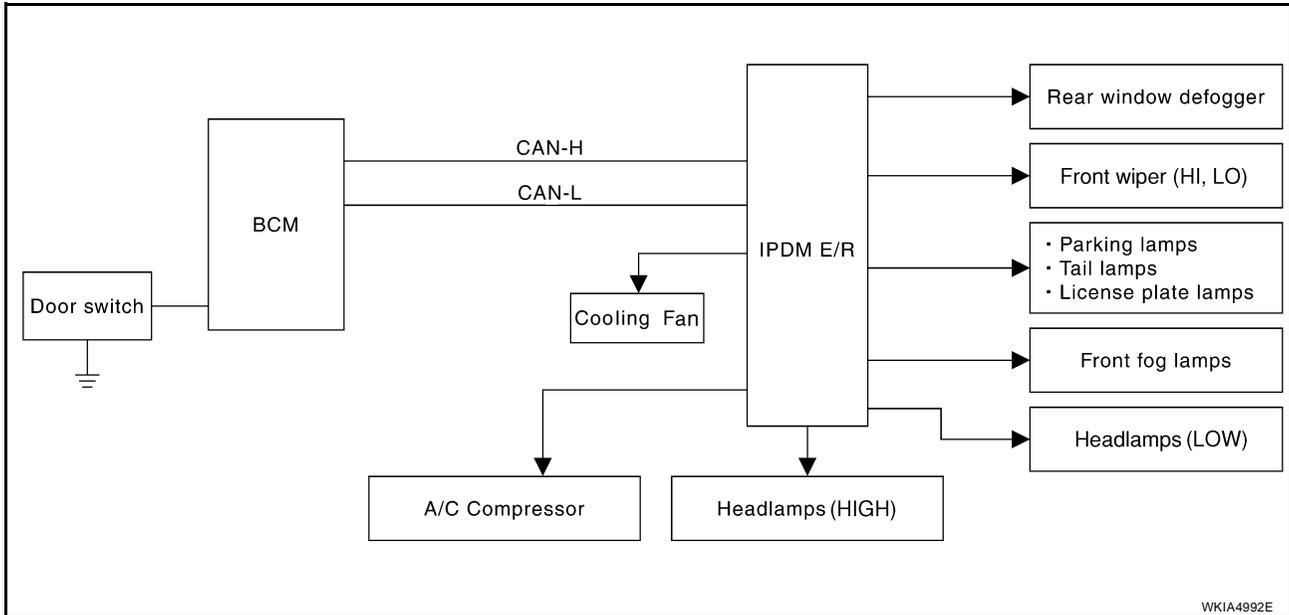
A
B
C
D
E
F
G
H
I
J

PG

L
M

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

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.

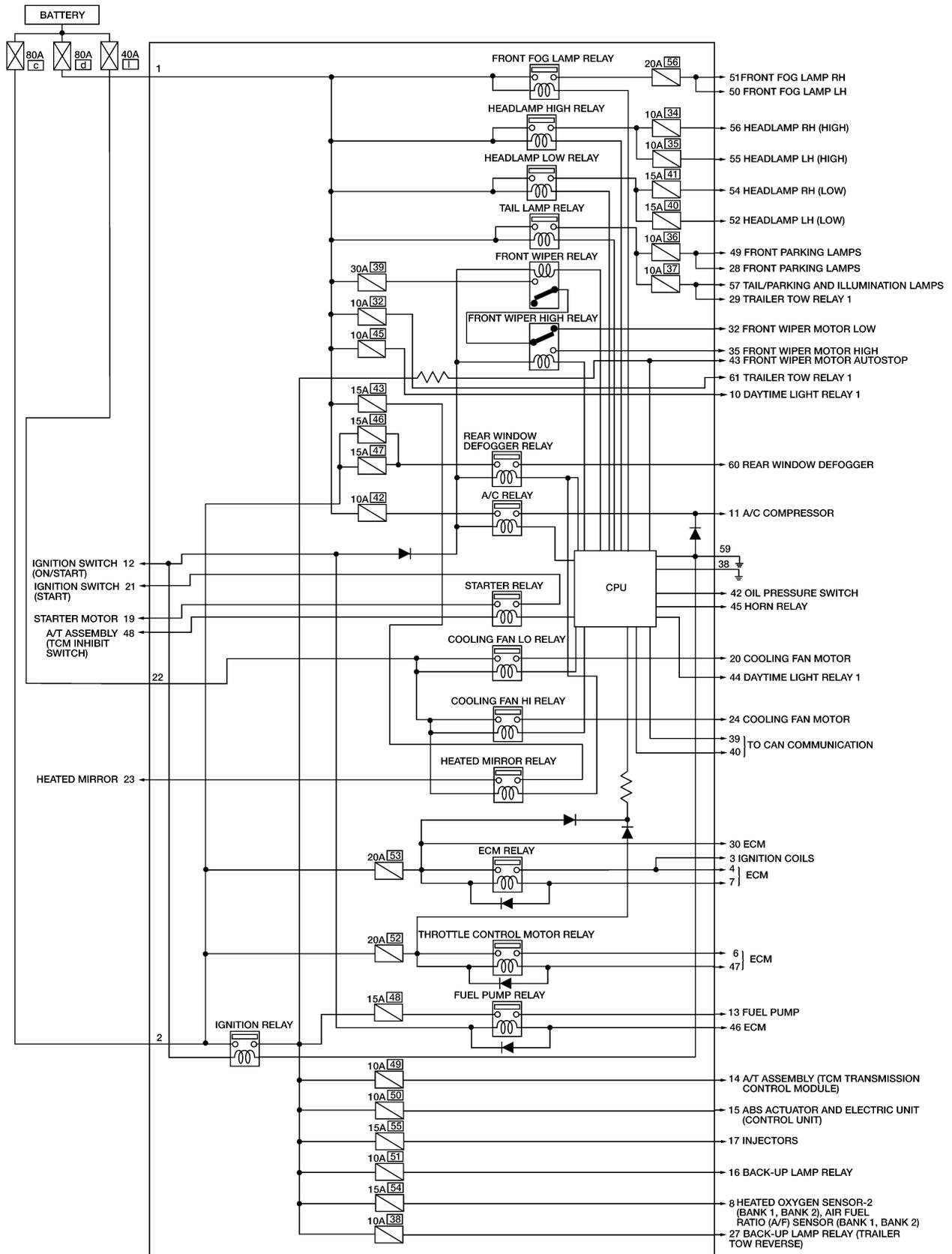
Diagnosis chart in auto active test mode

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

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

Schematic

EKS00G&J



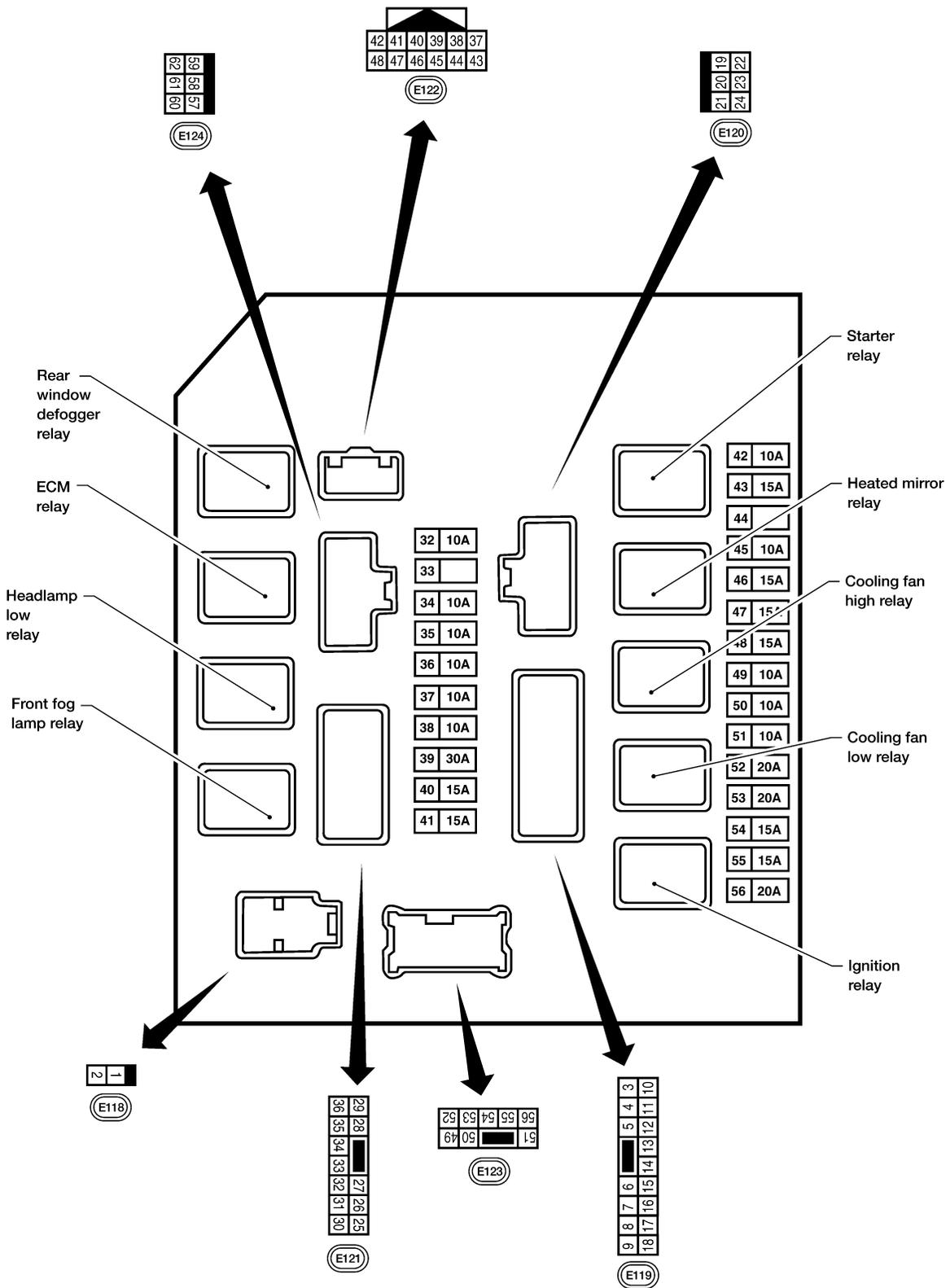
A
B
C
D
E
F
G
H
I
J
PG
L
M

WKIA5855E

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

IPDM E/R Terminal Arrangement

EKS00GBK



WKIA5856E

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

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	Output	—	OFF or ACC	0V
					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	0
24	P	Cooling fan motor (high)	Output	ON or START	—	Battery voltage
27	W	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
					ON	Battery voltage

A
B
C
D
E
F
G
H
I
J
L
M

PG

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

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	Wiper low speed signal	Output	ON	Wiper switch	OFF 0V
						HI Battery voltage
35	L	Wiper 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	OFF	When door locks 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 0V
						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	ON Battery voltage

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

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	0V
					OFF	Battery voltage
52	P	Headlamp low (LH)	Output	OFF	Lighting switch 2ND position	0V
					ON	Battery voltage
54	R	Headlamp low (RH)	Output	OFF	Lighting switch 2ND position	0V
					ON	Battery voltage
55	G	Headlamp high (LH)	Output	OFF	Lighting switch HIGH or PASS position	0V
					ON	Battery voltage
56	L	Headlamp high (RH)	Output	OFF	Lighting switch HIGH or PASS position	0V
					ON	Battery voltage
57	GR	Rear parking, license, and tail lamp	Input	OFF	Lighting switch 1ST position	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.

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

2. POWER CIRCUIT INSPECTION

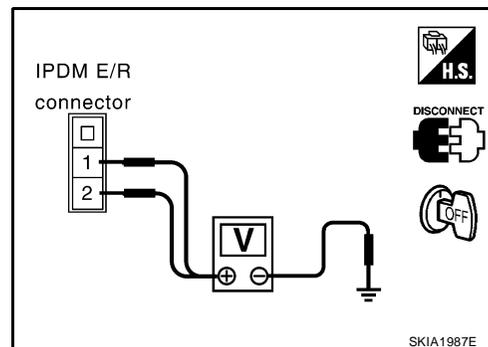
1. Turn ignition switch off.
2. Disconnect IPDM E/R harness connector E118.
3. Check voltage between IPDM E/R harness connector E118 terminals 1, 2 and ground.

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

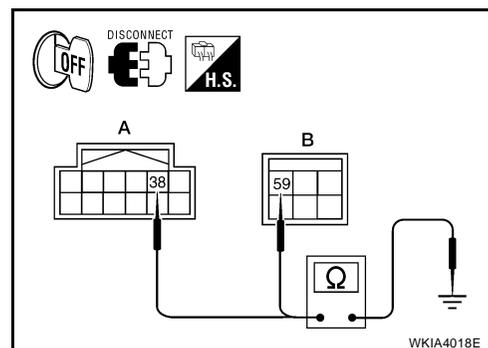
1. Disconnect IPDM E/R harness connectors E122 and E124.
2. Check continuity between IPDM E/R harness connectors E122 (A) terminal 38, E124 (B) terminal 59 and ground.

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: <ul style="list-style-type: none"> ● TRANSMIT DIAG ● ECM ● BCM/SEC

NOTE:

The Details for Display for the Period are as follows:

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

Contents displayed

NO DTC DETECTED. FURTHER TESTING MAY BE REQUIRED.>>Inspection End.

CAN COMM CIRC>>Print out the self-diagnosis result and refer to [LAN-15, "TROUBLE DIAGNOSES WORK FLOW"](#) .

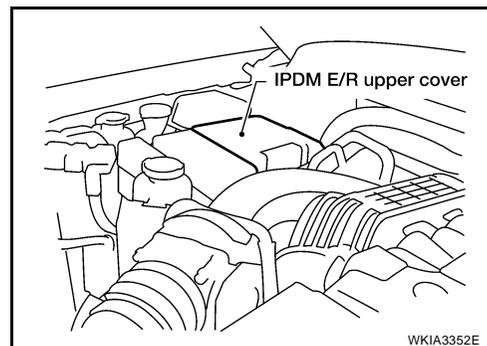
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

EKS00G8N

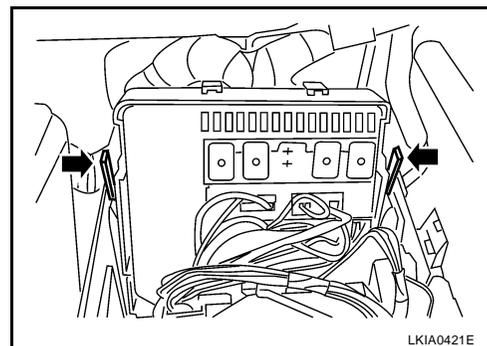
Removal and Installation of IPDM E/R

REMOVAL

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



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



INSTALLATION

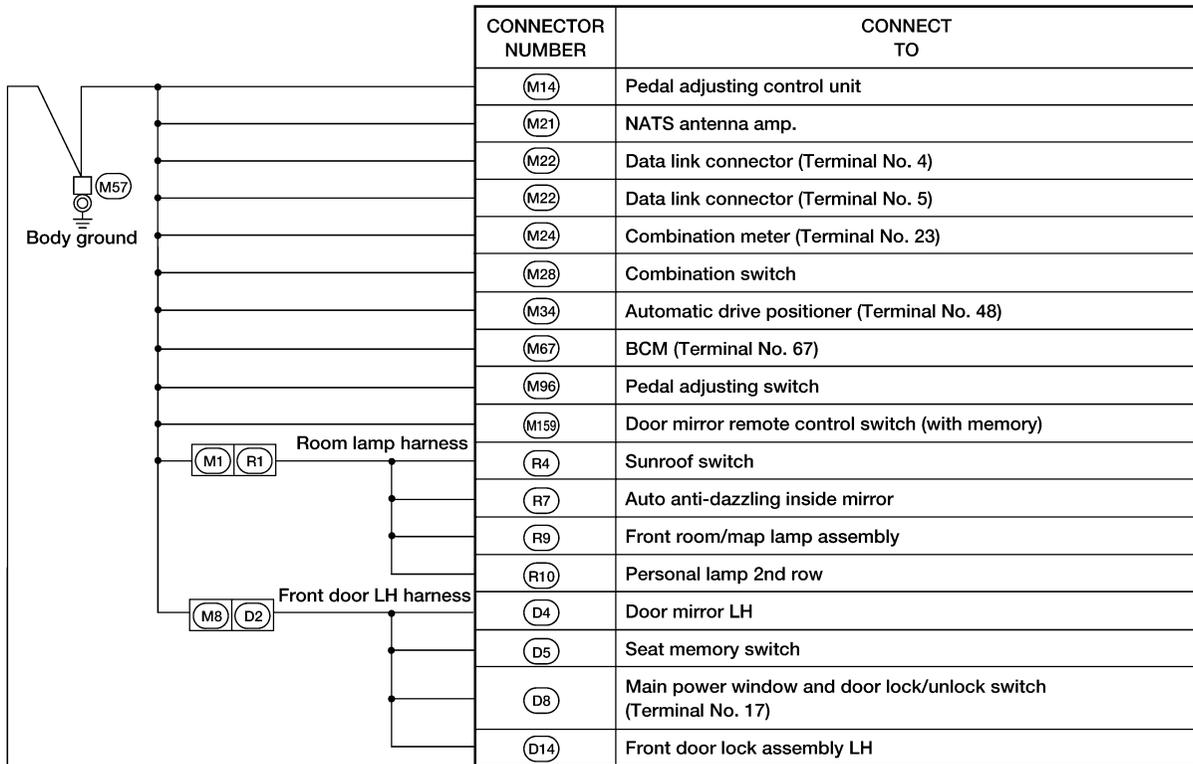
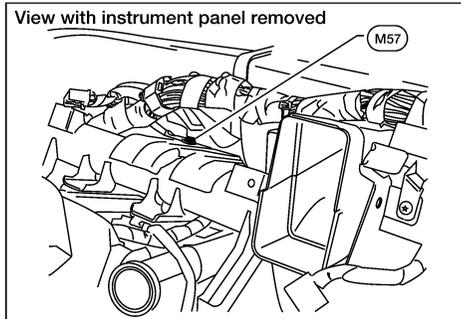
Installation is in the reverse order of removal.

GROUND CIRCUIT

PFP:24080

EKS00G80

GROUND CIRCUIT Ground Distribution MAIN HARNESS



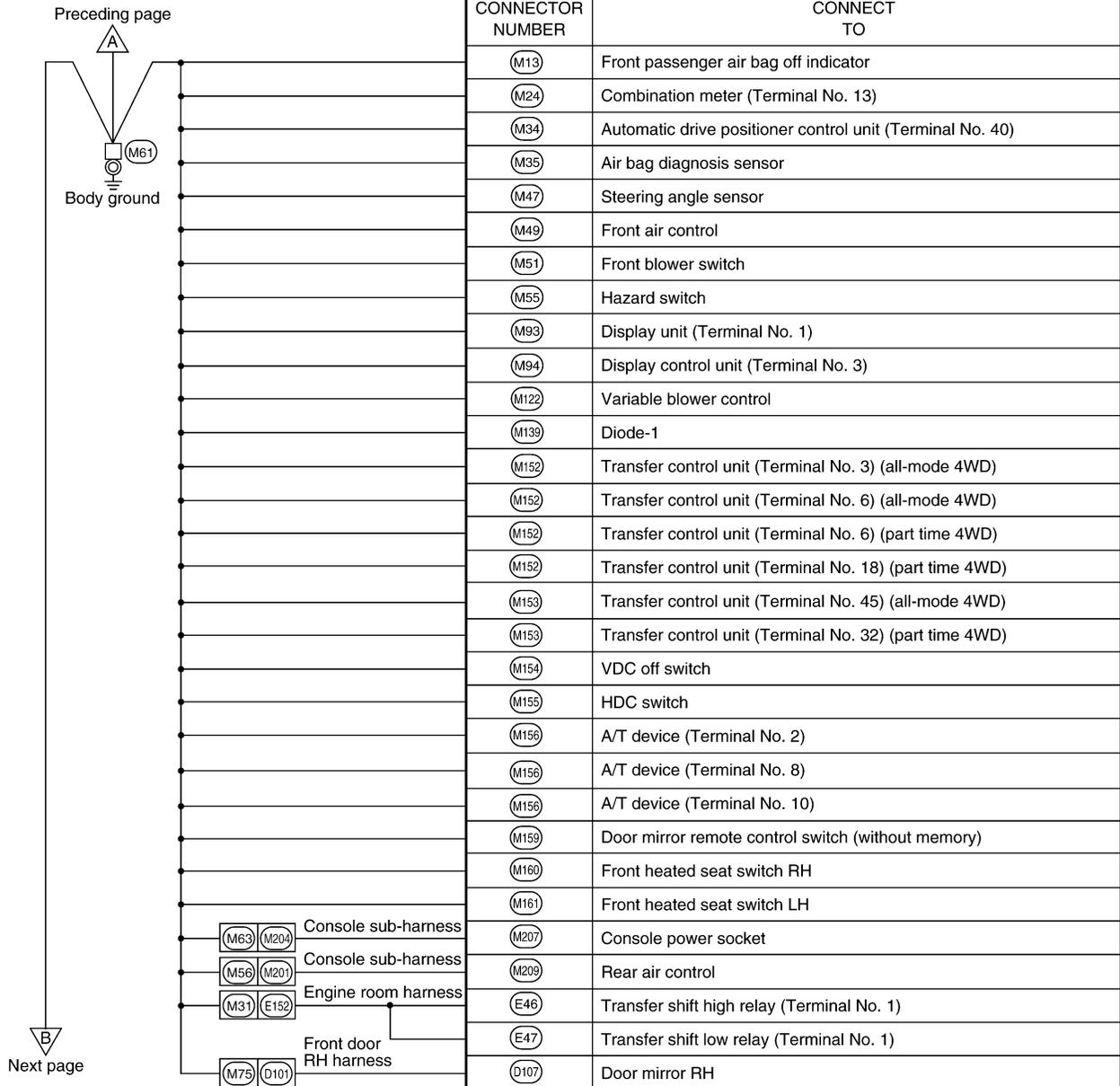
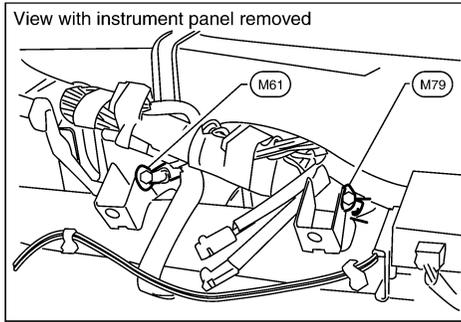
Next page

A
B
C
D
E
F
G
H
I
J
L
M

PG

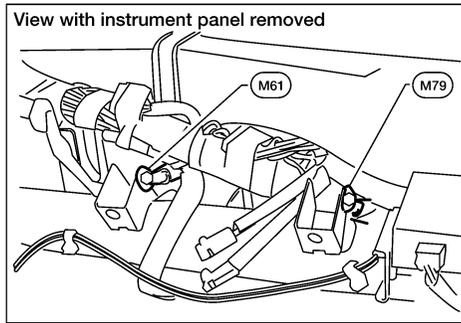
WKIA5857E

GROUND CIRCUIT

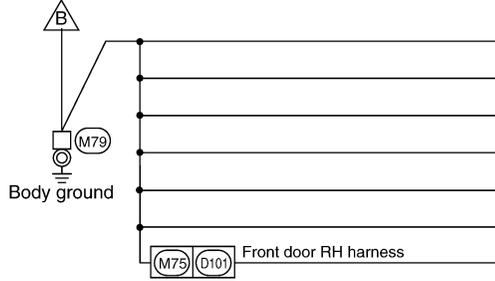


WKIA5858E

GROUND CIRCUIT



Preceding page



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

A
B
C
D
E
F
G
H
I
J
L
M

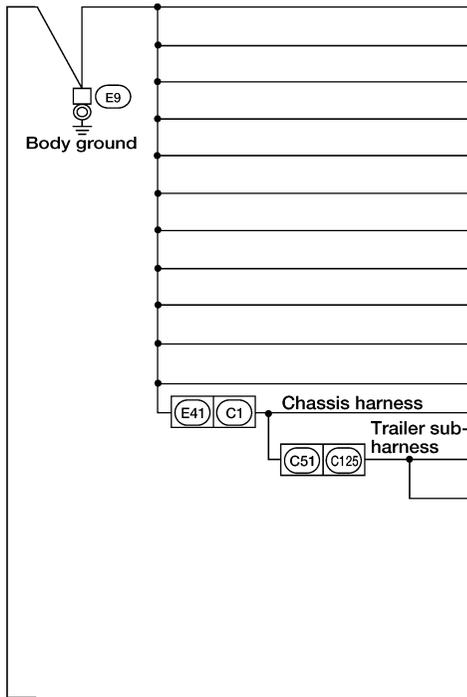
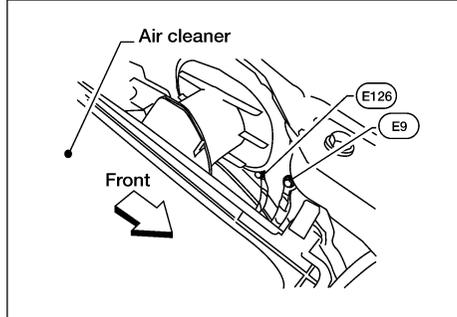
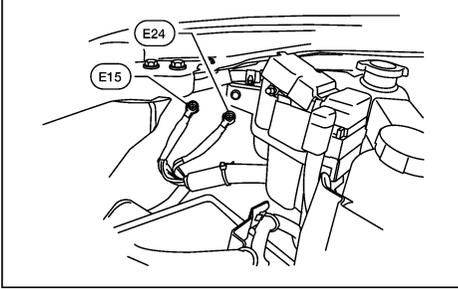
PG

WKIA3568E

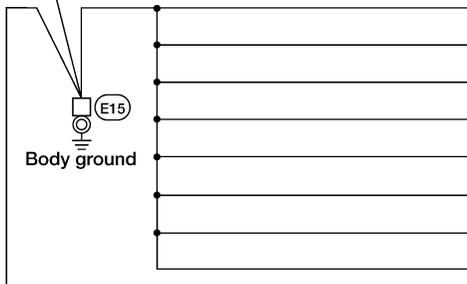
GROUND CIRCUIT

ENGINE ROOM HARNESS

View with battery removed



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)



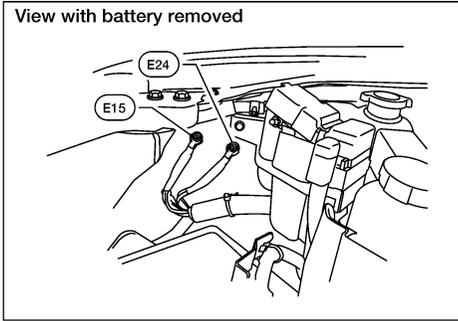
CONNECTOR NUMBER	CONNECT TO
(E11)	Headlamp LH
(E27)	Front turn signal/park lamp LH
(E101)	Front fog lamp LH
(E108)	Front side marker lamp RH
(E113)	Cooling fan motor (Terminal No. 3)
(E113)	Cooling fan motor (Terminal No. 4)
(E163)	Trailer turn relay LH
(E164)	Trailer turn relay RH

C
Next page

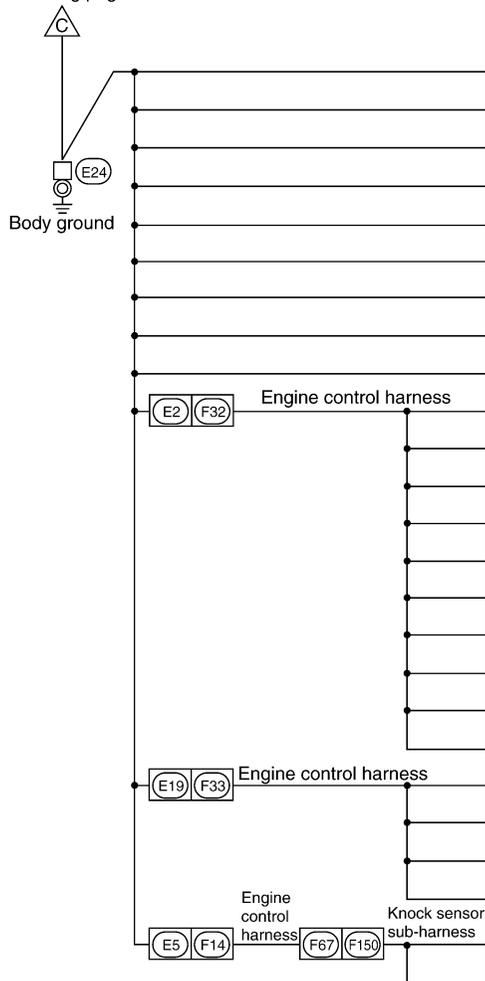
WKIA5859E

GROUND CIRCUIT

View with battery removed



Preceding page



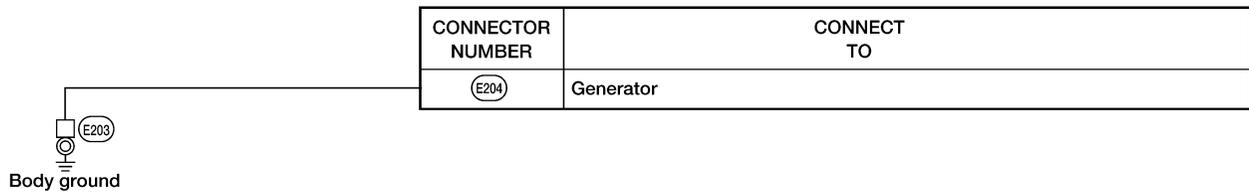
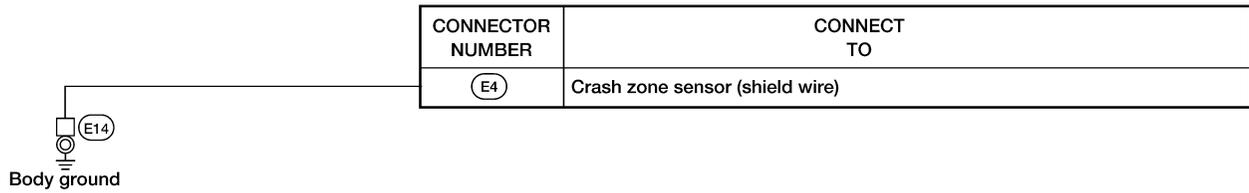
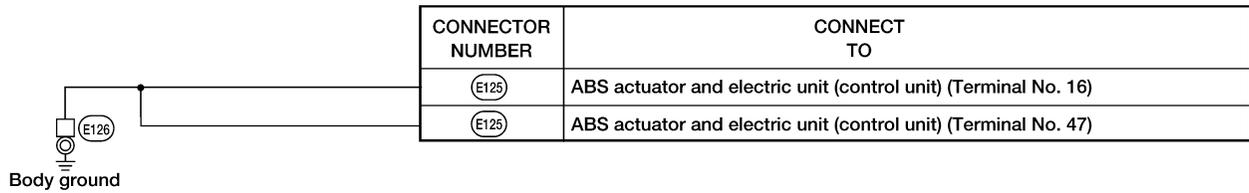
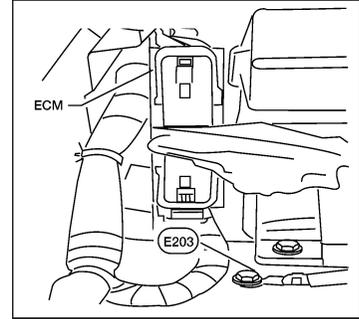
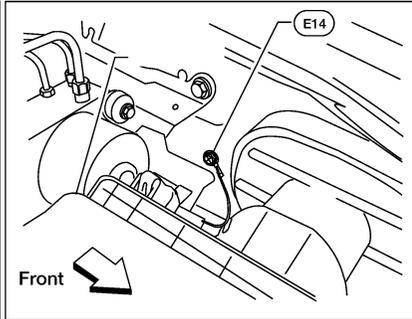
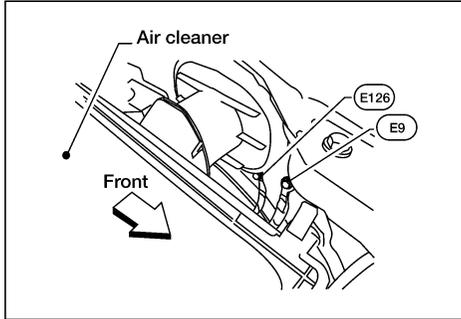
CONNECTOR NUMBER	CONNECT TO
(E16)	ECM (Terminal No. 115)
(E16)	ECM (Terminal No. 116)
(E46)	Transfer shift high relay (Terminal No. 4)
(E47)	Transfer shift low relay (Terminal No. 4)
(E54)	Front blower motor relay
(E56)	Transfer terminal cord assembly (all-mode 4WD) (Terminal No. 19)
(E122)	IPDM E/R (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)

A
B
C
D
E
F
G
H
I
J
L
M

PG

WKIA5860E

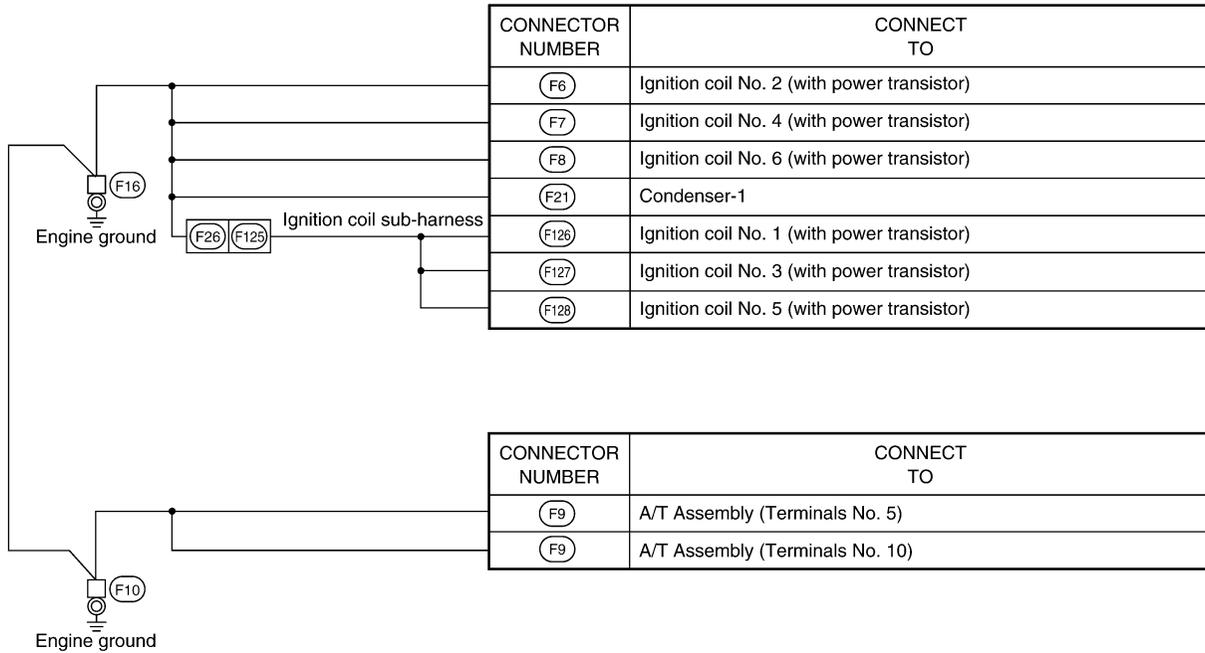
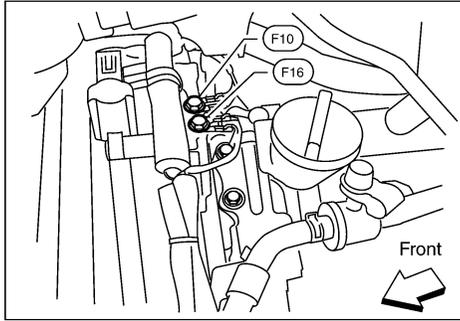
GROUND CIRCUIT



WKIA5861E

GROUND CIRCUIT

ENGINE CONTROL HARNESS

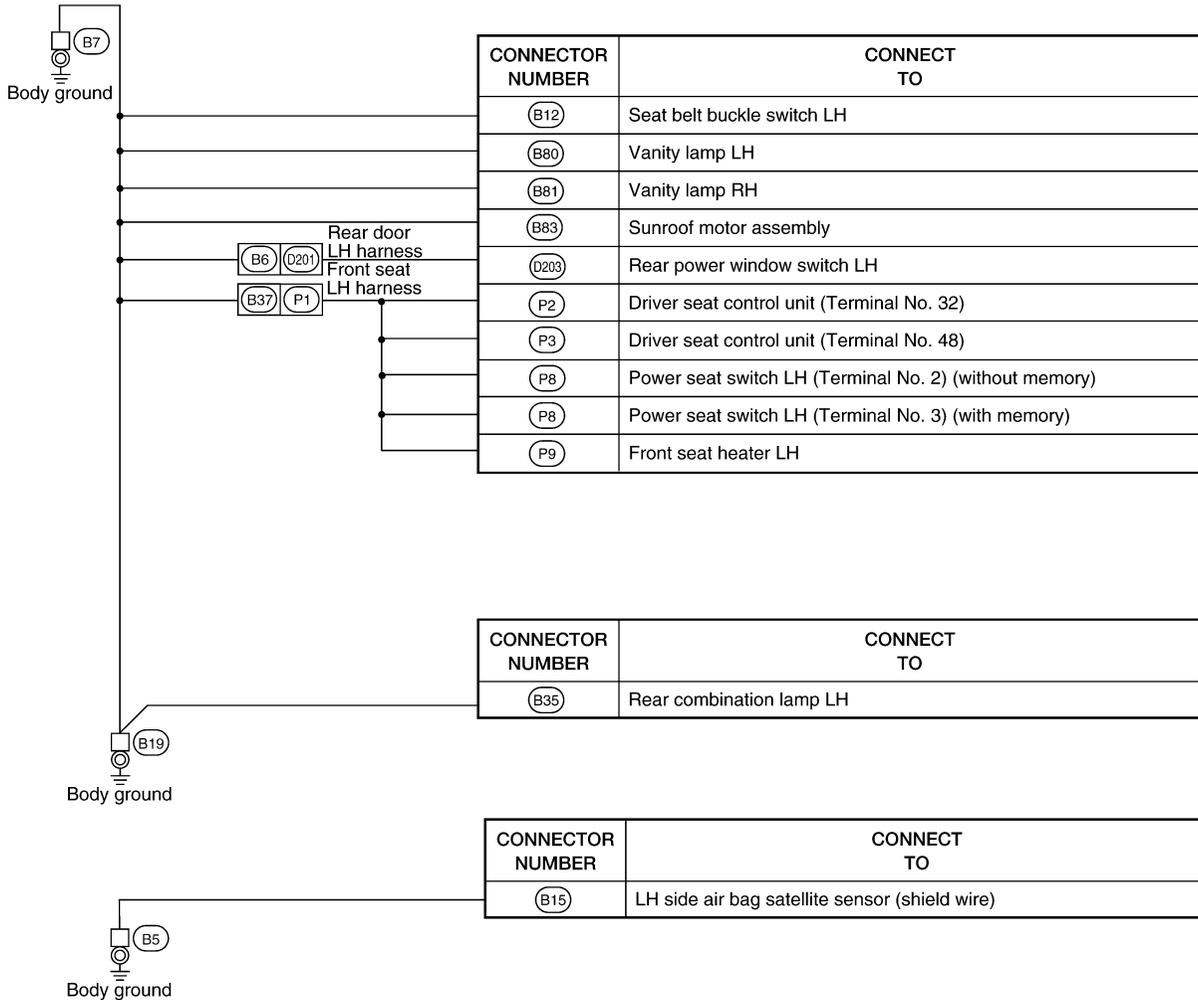
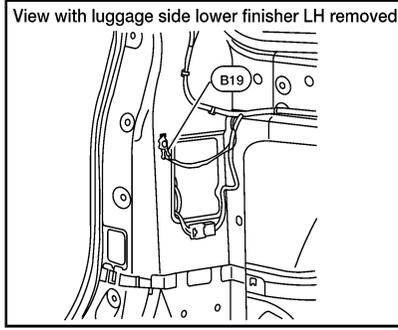
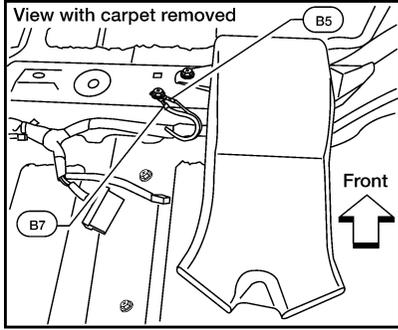


A
B
C
D
E
F
G
H
I
J
PG
L
M

WKIA5862E

GROUND CIRCUIT

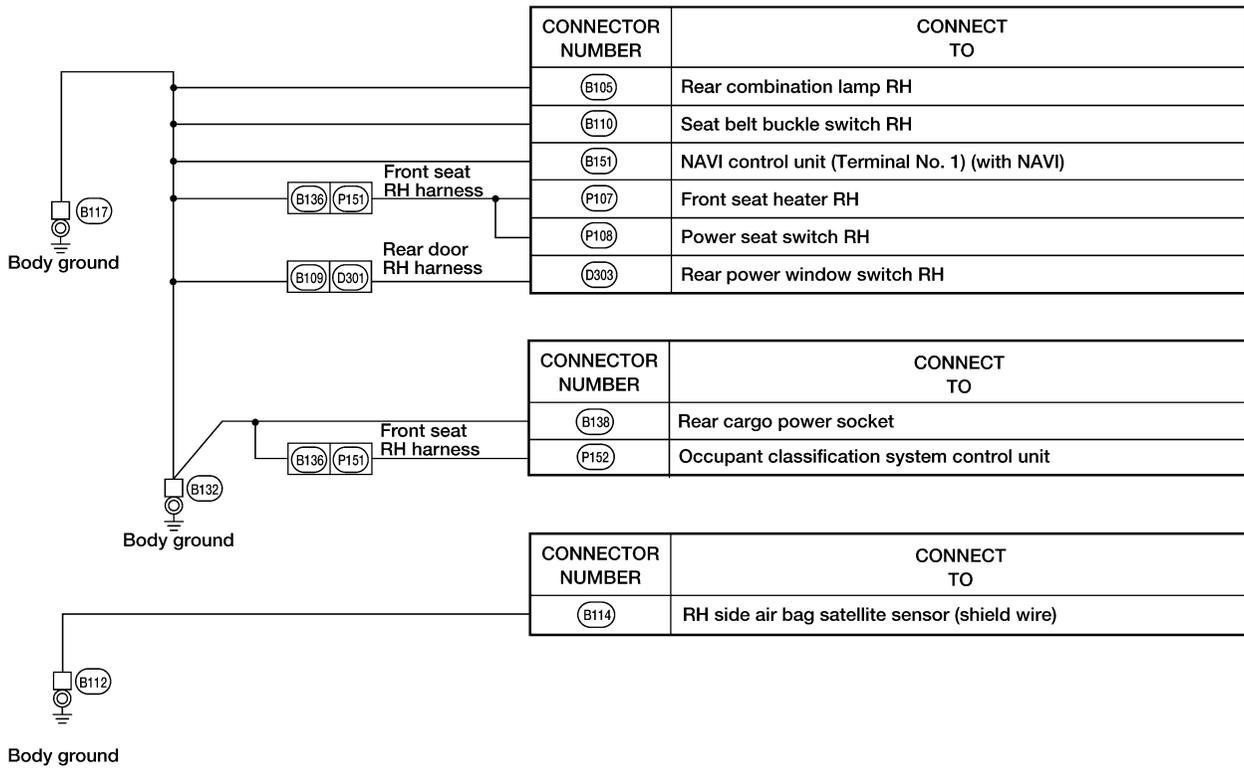
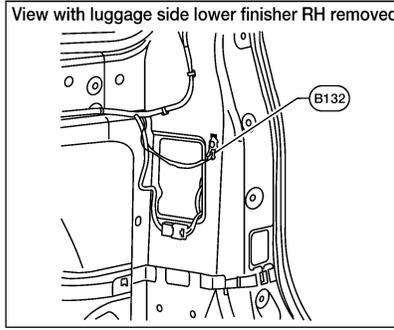
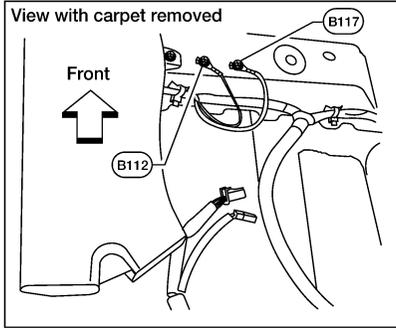
BODY HARNESS



WKIA5863E

GROUND CIRCUIT

BODY NO. 2 HARNESS



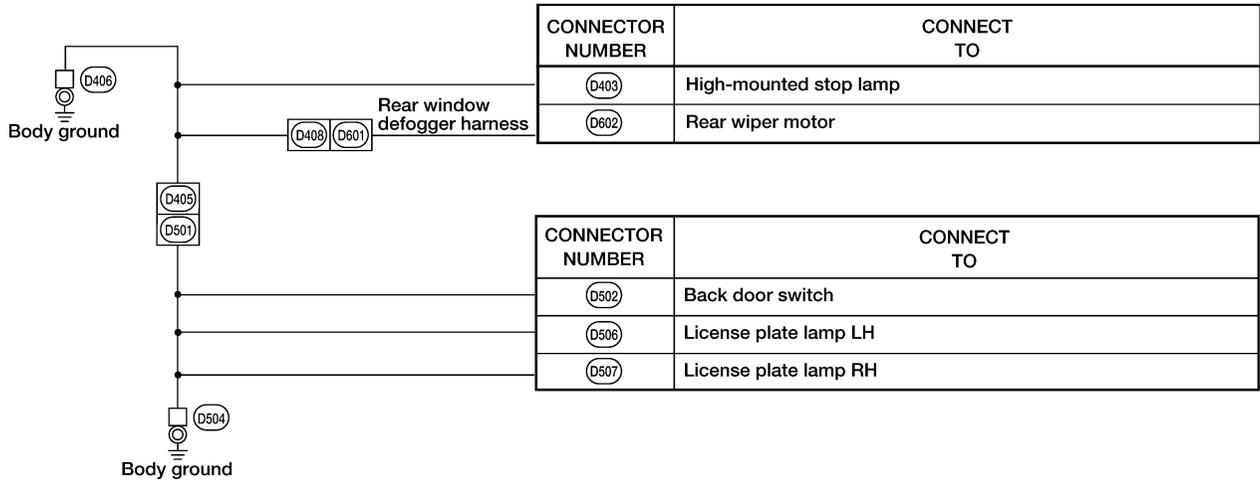
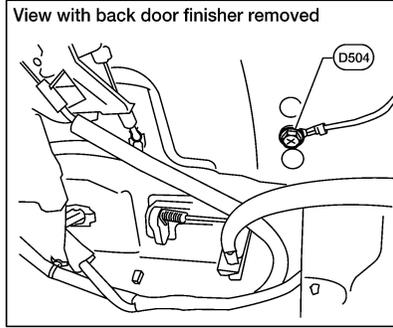
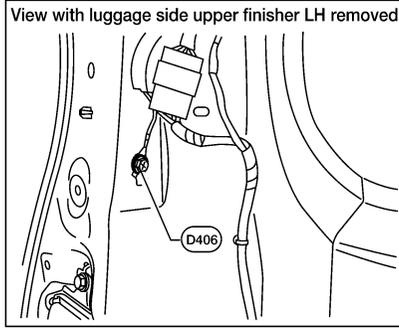
A
B
C
D
E
F
G
H
I
J
L
M

PG

WKIA5864E

GROUND CIRCUIT

BACK DOOR NO. 2 AND BACK DOOR HARNESS



WKIA3575E

HARNESS

PFP:24010

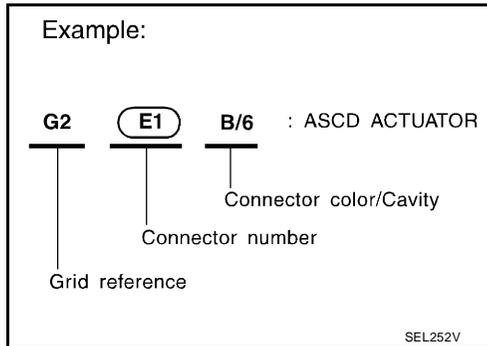
Harness Layout

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



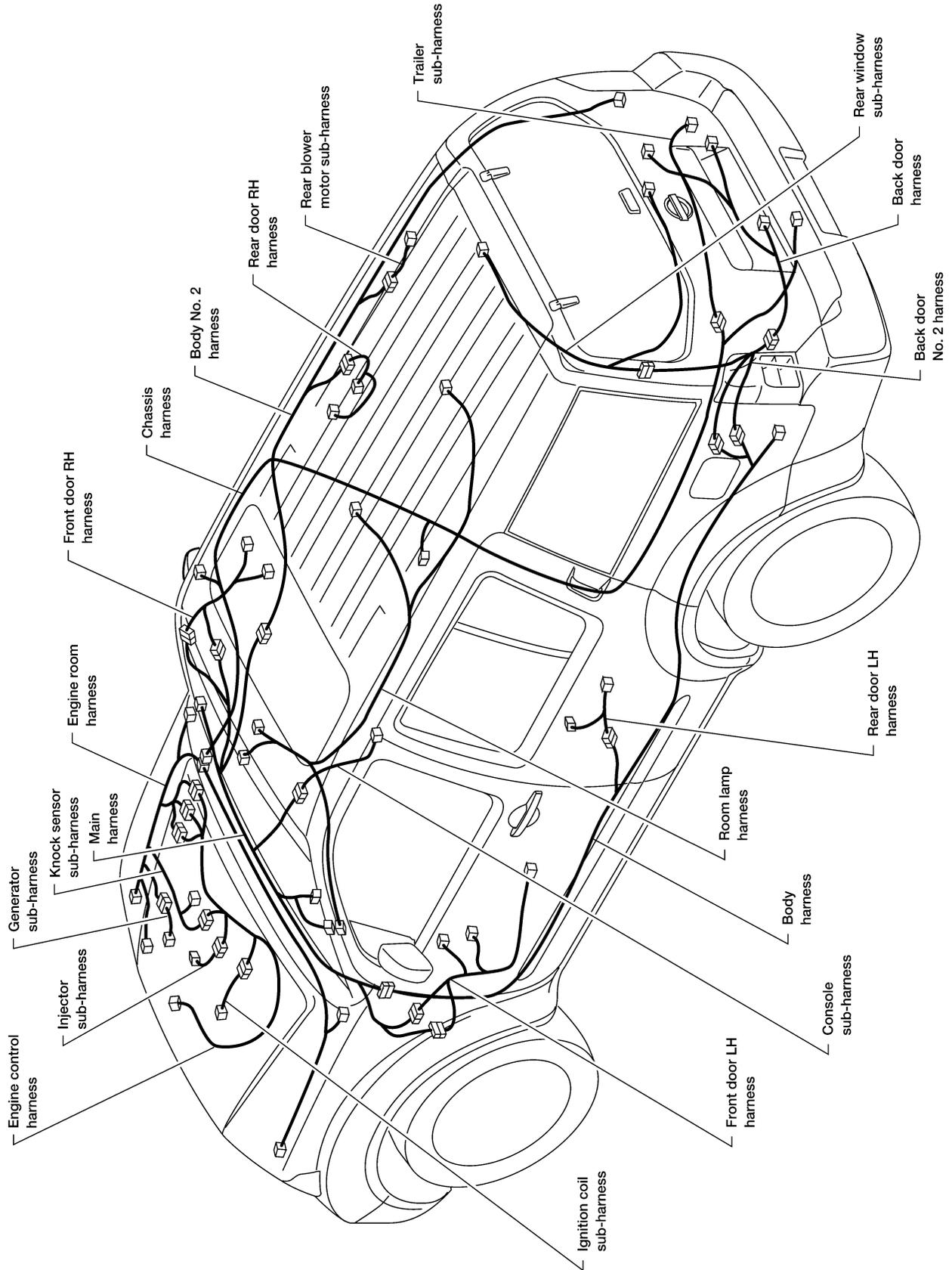
To use the grid reference

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.

A
B
C
D
E
F
G
H
I
J
L
M

HARNESS

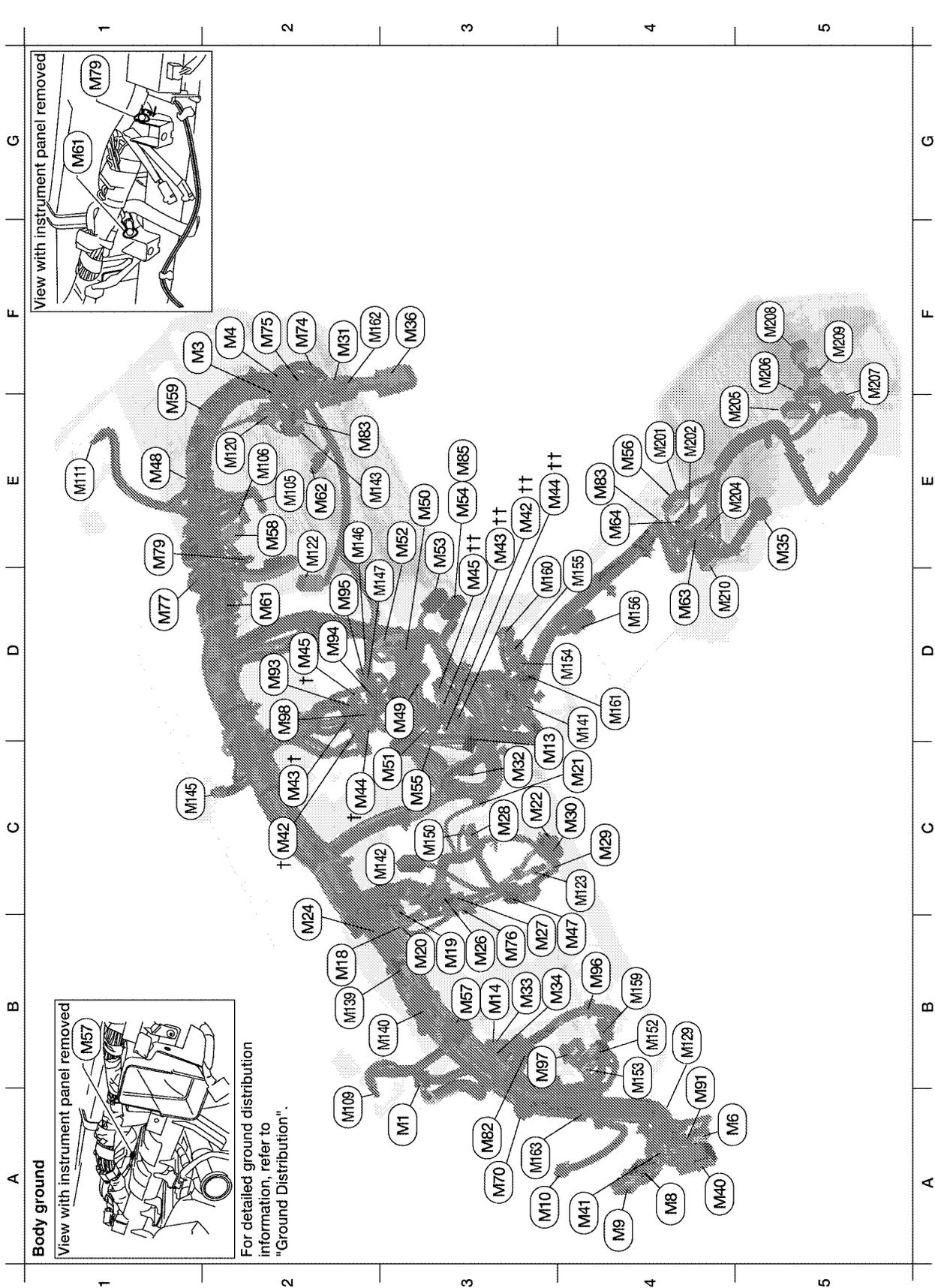
OUTLINE



WKIA5865E

HARNESS

MAIN HARNESS



A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
AA
AB
AC
AD
AE
AF
AG
AH
AI
AJ
AK
AL
AM
AN
AO
AP
AQ
AR
AS
AT
AU
AV
AW
AX
AY
AZ
BA
BB
BC
BD
BE
BF
BG
BH
BI
BJ
BK
BL
BM
BN
BO
BP
BQ
BR
BS
BT
BU
BV
BW
BX
BY
BZ
CA
CB
CC
CD
CE
CF
CG
CH
CI
CJ
CK
CL
CM
CN
CO
CP
CQ
CR
CS
CT
CU
CV
CW
CX
CY
CZ
DA
DB
DC
DD
DE
DF
DG
DH
DI
DJ
DK
DL
DM
DN
DO
DP
DQ
DR
DS
DT
DU
DV
DW
DX
DY
DZ
EA
EB
EC
ED
EE
EF
EG
EH
EI
EJ
EK
EL
EM
EN
EO
EP
EQ
ER
ES
ET
EU
EV
EW
EX
EY
EZ
FA
FB
FC
FD
FE
FF
FG
FH
FI
FJ
FK
FL
FM
FN
FO
FP
FQ
FR
FS
FT
FU
FV
FW
FX
FY
FZ
GA
GB
GC
GD
GE
GF
GG
GH
GI
GJ
GK
GL
GM
GN
GO
GP
GQ
GR
GS
GT
GU
GV
GW
GX
GY
GZ
HA
HB
HC
HD
HE
HF
HG
HH
HI
HJ
HK
HL
HM
HN
HO
HP
HQ
HR
HS
HT
HU
HV
HW
HX
HY
HZ
IA
IB
IC
ID
IE
IF
IG
IH
II
IJ
IK
IL
IM
IN
IO
IP
IQ
IR
IS
IT
IU
IV
IW
IX
IY
IZ
JA
JB
JC
JD
JE
JF
JG
JH
JI
JJ
JK
JL
JM
JN
JO
JP
JQ
JR
JS
JT
JU
JV
JW
JX
JY
JZ
KA
KB
KC
KD
KE
KF
KG
KH
KI
KJ
KK
KL
KM
KN
KO
KP
KQ
KR
KS
KT
KU
KV
KW
KX
KY
KZ
LA
LB
LC
LD
LE
LF
LG
LH
LI
LJ
LK
LL
LM
LN
LO
LP
LQ
LR
LS
LT
LU
LV
LW
LX
LY
LZ
MA
MB
MC
MD
ME
MF
MG
MH
MI
MJ
MK
ML
MN
MO
MP
MQ
MR
MS
MT
MU
MV
MW
MX
MY
MZ
NA
NB
NC
ND
NE
NF
NG
NH
NI
NJ
NK
NL
NM
NO
NP
NQ
NR
NS
NT
NU
NV
NW
NX
NY
NZ
OA
OB
OC
OD
OE
OF
OG
OH
OI
OJ
OK
OL
OM
ON
OO
OP
OQ
OR
OS
OT
OU
OV
OW
OX
OY
OZ
PA
PB
PC
PD
PE
PF
PG
PH
PI
PJ
PK
PL
PM
PN
PO
PP
PQ
PR
PS
PT
PU
PV
PW
PX
PY
PZ
QA
QB
QC
QD
QE
QF
QG
QH
QI
QJ
QK
QL
QM
QN
QO
QP
QQ
QR
QS
QT
QU
QV
QW
QX
QY
QZ
RA
RB
RC
RD
RE
RF
RG
RH
RI
RJ
RK
RL
RM
RN
RO
RP
RQ
RR
RS
RT
RU
RV
RW
RX
RY
RZ
SA
SB
SC
SD
SE
SF
SG
SH
SI
SJ
SK
SL
SM
SN
SO
SP
SQ
SR
SS
ST
SU
SV
SW
SX
SY
SZ
TA
TB
TC
TD
TE
TF
TG
TH
TI
TJ
TK
TL
TM
TN
TO
TP
TQ
TR
TS
TT
TU
TV
TW
TX
TY
TZ
UA
UB
UC
UD
UE
UF
UG
UH
UI
UJ
UK
UL
UM
UN
UO
UP
UQ
UR
US
UT
UU
UV
UW
UX
UY
UZ
VA
VB
VC
VD
VE
VF
VG
VH
VI
VJ
VK
VL
VM
VN
VO
VP
VQ
VR
VS
VT
VU
VV
VW
VX
VY
VZ
WA
WB
WC
WD
WE
WF
WG
WH
WI
WJ
WK
WL
WM
WN
WO
WP
WQ
WR
WS
WT
WU
WV
WW
WX
WY
WZ
XA
XB
XC
XD
XE
XF
XG
XH
XI
XJ
XK
XL
XM
XN
XO
XP
XQ
XR
XS
XT
XU
XV
XW
XX
XY
XZ
YA
YB
YC
YD
YE
YF
YG
YH
YI
YJ
YK
YL
YM
YN
YO
YP
YQ
YR
YS
YT
YU
YV
YW
YX
YZ
ZA
ZB
ZC
ZD
ZE
ZF
ZG
ZH
ZI
ZJ
ZK
ZL
ZM
ZN
ZO
ZP
ZQ
ZR
ZS
ZT
ZU
ZV
ZW
ZX
ZY
ZZ

PG

WKIA5728E

HARNESS

A3	M1	W/12	: To R1	C3	M51	W/8	: Front blower switch
F1	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	E1	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)	E2	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.	E4	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)	D1	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	E2	M83	W/4	: To B142
B3	M33	W/32	: Automatic drive positioner control unit	E3	M85	W/4	: Aux in jack
B4	M34	W/16	: Automatic drive positioner control unit	B4	M91	W/16	: To E26
E5	M35	Y/28	: Air bag diagnosis sensor unit	D2	M93	W/24	: Display unit
F3	M36	SMJ	: To B149	D2	M94	W/24	: Display control unit (with NAVI)
A4	M40	SMJ	: To B69	D2	M95	W/32	: Display control unit (with NAVI)
A4	M41	W/12	: Pre-wiring for satellite radio tuner	B4	M96	BR/6	: Pedal adjusting switch
A4	M41	W/12	: Satellite radio tuner	B3	M97	BR/5	: Heated seat relay
C2	M42	W/12†	: Audio unit (without NAVI)	D2	M98	W/16	: AV switch
E3	M42	W/ 12††	: Audio unit (with NAVI)	E2	M105	Y/2	: Front passenger air bag module
C2	M43	W/10†	: Audio unit (without NAVI)	E2	M106	O/2	: Front passenger air bag module
E3	M43	W/ 10††	: Audio unit (with NAVI)	A2	M109	BR/2	: Front tweeter LH
C2	M44	W/6†	: Audio unit (without NAVI)	E1	M111	BR/2	: Front tweeter RH
E3	M44	W/6††	: Audio unit (with NAVI)	E2	M120	W/4	: Remote keyless entry receiver
D2	M45	W/16†	: Audio unit (without NAVI)	E2	M122	W/4	: Variable blower control (with ATC)
D3	M45	W/ 16††	: Audio unit (with NAVI)	E2	M122	B/4	: Front blower motor resistor (with MTC)
B4	M47	W/8	: Steering angle sensor	C4	M123	W/2	: Tire pressure warning check connector
E1	M48	BR/2	: To M501	B4	M129	BR/1	: Satellite radio tuner (with Sirius satellite tuner)
D3	M49	B/26	: Front air control	B4	M129	V/1	: Satellite radio tuner (with XM satellite tuner)
E3	M50	W/18	: Front air control	B2	M139	B/2	: Diode-1

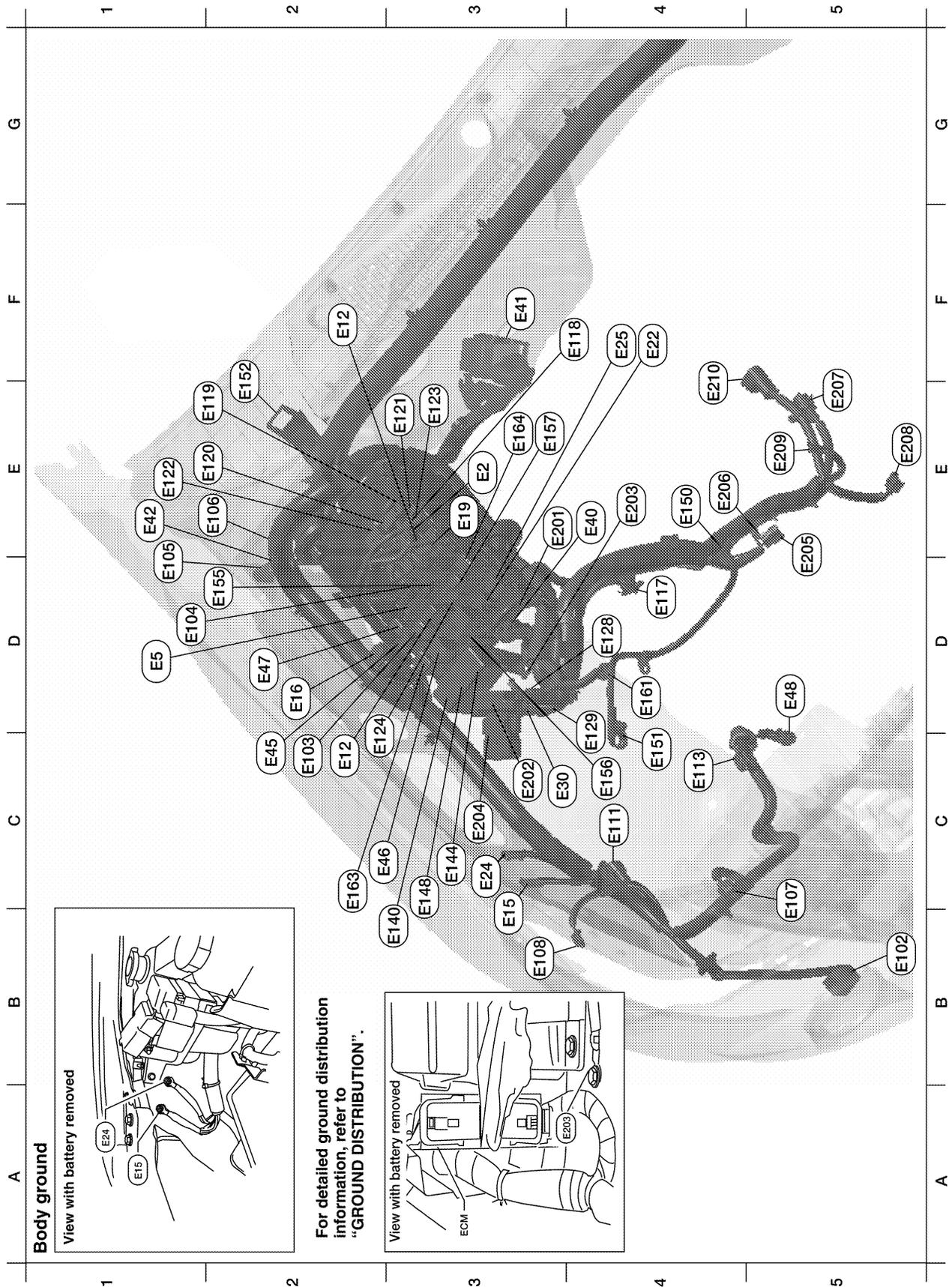
HARNESSES

B3	M140	B/2	: Diode-2							A
D4	M141	GR/8	: 4WD shift switch							
C2	M142	B/6	: Mode door motor							
E2	M143	B/6	: Air mix door motor (passenger)							B
C1	M145	B/4	: Optical sensor							
E2	M146	W/2	: Intake sensor							
D2	M147	B/6	: Air mix door motor (driver) (with ATC)							C
D2	M147	B/6	: Air mix door motor (front) (with MTC)							
C3	M150	W/2	: Ignition keyhole illumination							D
B4	M152	W/26	: Transfer case control unit (part time 4WD)							
B4	M152	W/24	: Transfer case control unit (all-mode 4WD)							E
B4	M153	GR/24	: Transfer case control unit (all-mode 4WD)							F
B4	M153	W/24	: Transfer case control unit (part time 4WD)							
D4	M154	GR/6	: VDC off switch							G
D4	M155	W/8	: HDC switch							
D4	M156	W/10	: A/T device							
B4	M159	W/16	: Door mirror remote control switch							H
D3	M160	BR/6	: Front heated seat switch RH							
D4	M161	BR/6	: Front heated seat switch LH							I
F2	M162	W/2	: To B131							
A3	M163	BR/6	: Rear blower motor relay							J
Console sub-harness										
E4	M201	W/16	: To M56							
E4	M202	W/6	: To M64							PG
E4	M204	W/6	: To M63							
E4	M205	GR/16	: DVD player							
F5	M206	L/16	: DVD player							L
F5	M207	B/2	: Console power socket							
F5	M208	GR/5	: Rear air control							M
F5	M209	GR/6	: Rear air control							
D4	M210	W/18	: To B77							

HARNESS

ENGINE ROOM HARNESS (RH VIEW)

Engine Compartment



WKIA5729E

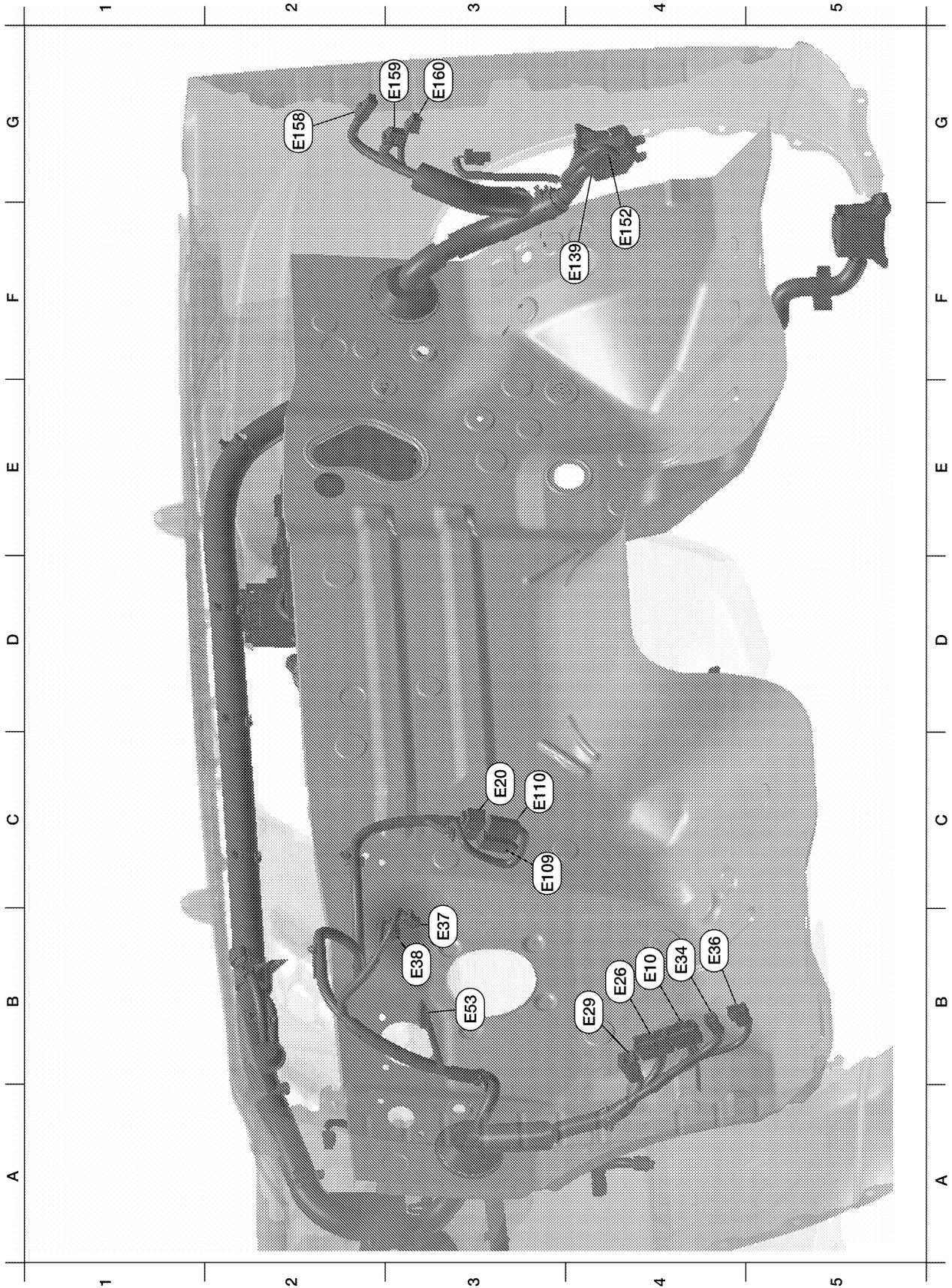
Refer to [PG-52, "ENGINE ROOM HARNESS \(LH VIEW\)"](#) for continuation of engine room harness.

HARNESS

E3	E2	W/16	: To F32	E3	E123	BR/8	: IPDM E/R (intelligent power distribution module engine room)	A	
D1	E5	W/24	: To F14	D2	E124	B/6	: IPDM E/R (intelligent power distribution module engine room)	B	
F2	E12	L/5	: Stop lamp relay	D4	E128	GR/2	: Fusible link box (battery)	C	
C3	E15	—	: Body ground	D4	E129	BR/2	: Fusible link box (battery)	D	
D2	E16	B/40	: ECM	B3	E140	BR/6	: Trailer tow relay 2	E	
E3	E19	W/16	: To F33	C3	E144	L/4	: Heater pump relay	F	
F4	E22	BR/6	: Front blower motor relay	C3	E148	L/4	: Trailer tow relay 1	G	
C3	E24	—	: Body ground	E4	E150	—	: Battery ground	H	
F4	E25	BR/6	: Rear blower motor relay	C4	E151	—	: Negative battery cable	I	
C3	E30	—	: Fusible link box (battery)	D2	E155	L/4	: Transfer shut off relay (all-mode 4WD)	J	
E4	E40	GR/9	: To E201	C4	E156	L/4	: Transfer shut off relay 1 (part time 4WD)	PG	
F3	E41	SMJ	: To C1 (located RH rear of engine compartment)	E3	E157	L/4	: Transfer shut off relay 2 (part time 4WD)	L	
E1	E42	—	: Relay box	D4	E161	B/3	: Battery current sensor	M	
C2	E45	BR/6	: Back-up lamp relay	C2	E163	L/4	: Trailer turn relay RH		
C2	E46	B/5	: Transfer shift high relay	E3	E164	L/4	: Trailer turn relay LH		
D2	E47	B/5	: Transfer shift low relay	Generator sub-harness					
D5	E48	B/3	: Refrigerant pressure sensor	E3	E201	GR/9	: To E40		
F1	E51	W/2	: To B104	C3	E202	B/1	: Fusible link box (battery)		
B5	E102	B/2	: Front fog lamp RH	E4	E203	—	: Body ground		
C2	E103	B/5	: Daytime light relay 1	C3	E204	—	: Battery (positive) starter		
D1	E104	L/4	: Daytime light relay 2	D5	E205	GR/3	: Generator		
D1	E105	B/2	: Front and rear washer motor	E4	E206	—	: Generator		
E2	E106	BR/2	: Washer fluid level switch	E4	E207	GR/1	: Starter motor		
C5	E107	B/3	: Front headlamp RH	D5	E208	GR/3	: Oil pressure switch		
B3	E108	GR/2	: Front side marker lamp RH	E5	E209	—	: Generator		
C4	E111	GR/3	: Front turn signal/parking lamp RH	F5	E210	—	: Starter motor		
C4	E113	GR/4	: Cooling fan motor						
D4	E117	GR/2	: Front wheel sensor RH						
F4	E118	B/2	: IPDM E/R (intelligent power distribution module engine room)						
F2	E119	W/18	: IPDM E/R (intelligent power distribution module engine room)						
E2	E120	W/6	: IPDM E/R (intelligent power distribution module engine room)						
E3	E121	BR/12	: IPDM E/R (intelligent power distribution module engine room)						
E1	E122	W/12	: IPDM E/R (intelligent power distribution module engine room)						

HARNESS

Passenger Compartment



WKIA5730E

HARNESSES

B4	E10	W/6	: To M6					A
C3	E20	B/6	: Accelerator pedal position (APP) sensor					
B4	E26	W/16	: To M91					B
B4	E29	Y/4	: To M10					
B4	E34	W/8	: To B40					
B4	E36	W/2	: To B42					C
B3	E37	BR/2	: ASCD brake switch					
B3	E38	W/4	: Stop lamp switch					D
B3	E53	B/1	: Park brake switch					
C3	E109	GR/2	: Pedal adjusting motor					E
C3	E110	W/4	: Pedal adjusting motor					
F3	E139	W/8	: To B107					
F4	E152	SMJ	: To M31					F
G2	E158	B/1	: Fuse block (J/B)					
G3	E159	B/2	: Fuse block (J/B)					
G3	E160	W/8	: Fuse block (J/B)					G

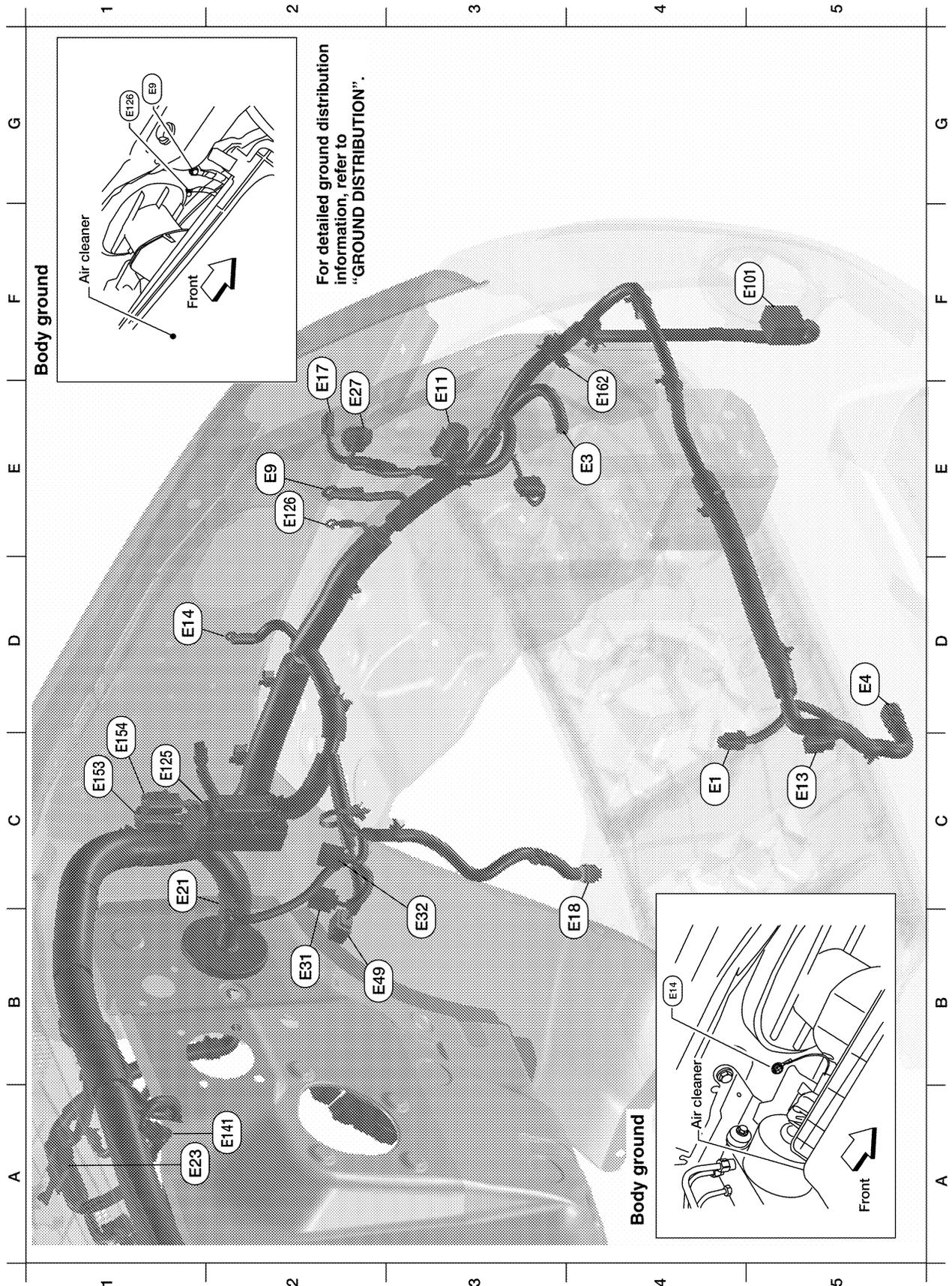
A
B
C
D
E
F
G
H
I
J
L
M

PG

HARNESS

ENGINE ROOM HARNESS (LH VIEW)

Engine Compartment



WKIA5731E

Refer to [PG-48, "ENGINE ROOM HARNESS \(RH VIEW\)"](#) for continuation of engine room harness.

HARNESS

C4	E1	B/2	: Ambient sensor 1					A
E4	E3	B/1	: Horn (without dual note horn)					
E4	E3	B/2	: Horn (with dual note horn)					
D5	E4	Y/2	: Crash zone sensor					B
E2	E9	—	: Body ground					
E3	E11	B/3	: Front headlamp LH					C
C5	E13	GR/2	: Ambient sensor 2					
D1	E14	—	: Body ground					
F2	E17	GR/2	: Front side marker lamp LH					D
B4	E18	GR/2	: Front wheel sensor LH					
C1	E21	GR/2	: Brake fluid level switch					
A1	E23	GR/5	: Front wiper motor					E
E2	E27	GR/3	: Front turn signal/park lamp LH					
B2	E31	B/3	: Front pressure sensor					F
C3	E32	B/3	: Rear pressure sensor					
B3	E49	B/6	: Active booster					
F5	E101	B/2	: Front fog lamp LH					G
C1	E125	B/47	: ABS actuator and electric unit (control unit)					H
E2	E126	—	: Body ground					
A2	E141	B/2	: Heater pump					
C1	E153	W/2	: Transfer motor relay (all-mode 4WD)					I
C1	E154	W/2	: Transfer motor relay (all-mode 4WD)					
E4	E162	B/1	: Horn					J

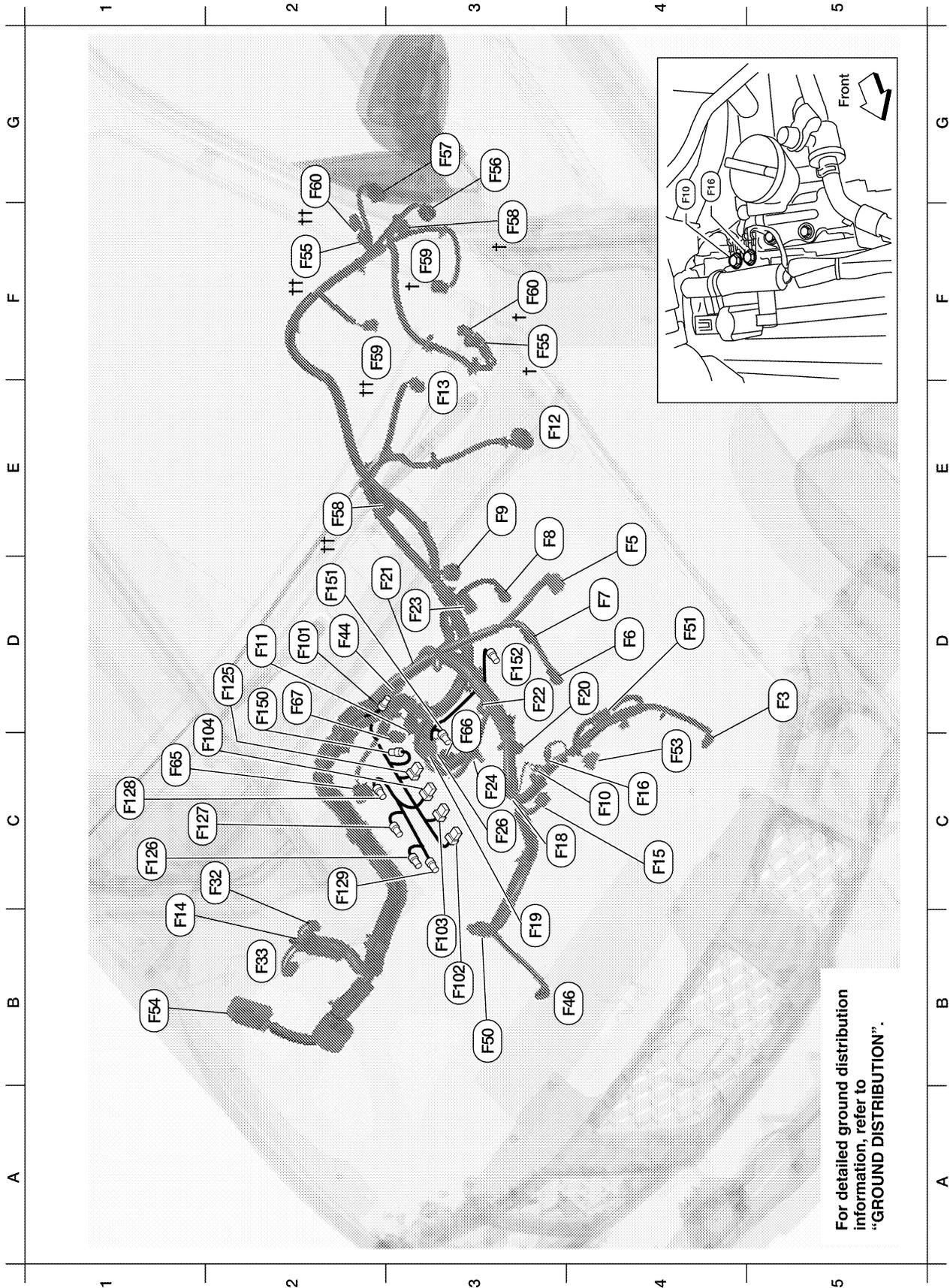
PG

L

M

HARNESS

ENGINE CONTROL HARNESS



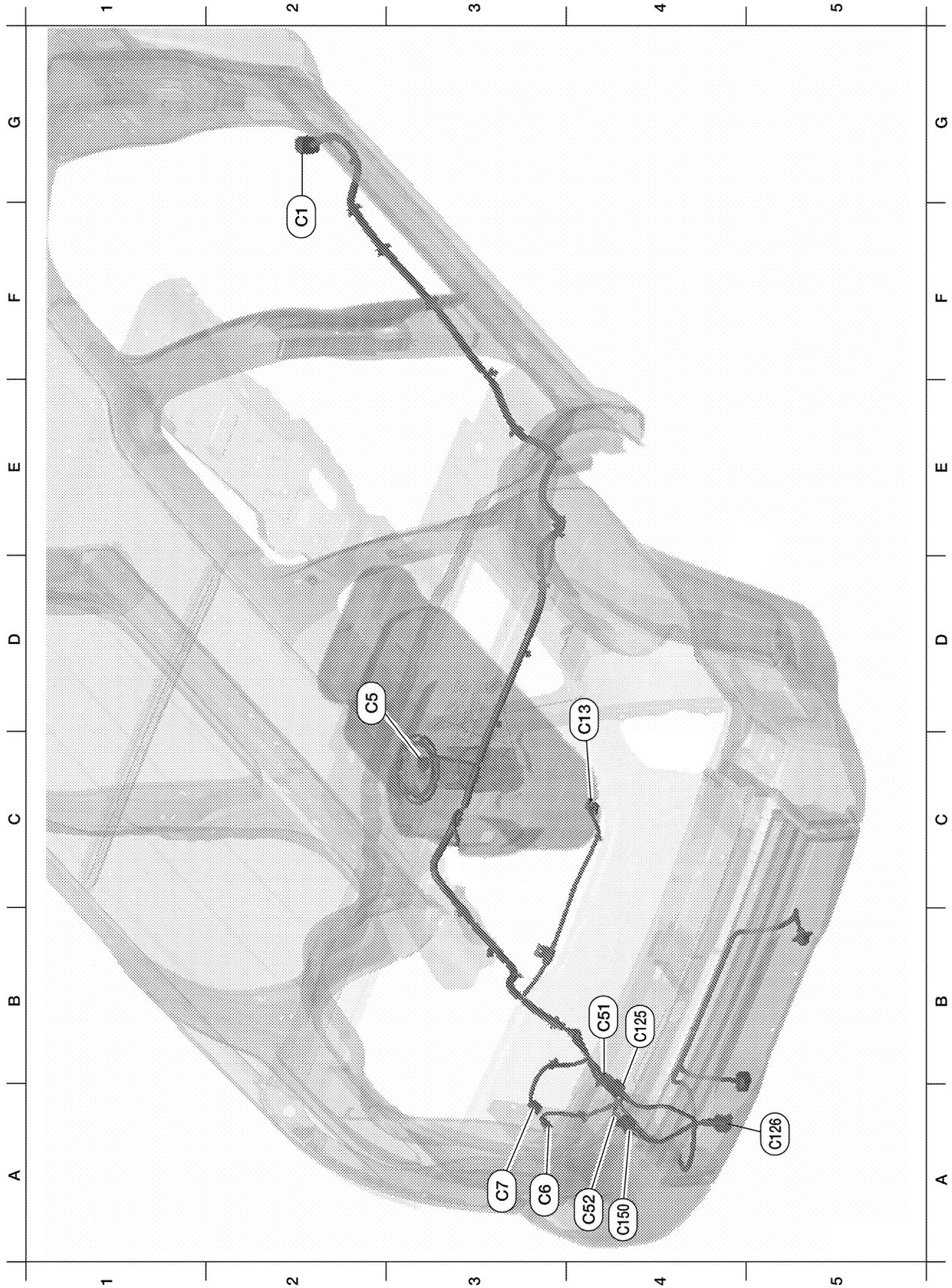
LKIA0848E

HARNESS

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

HARNESS

CHASSIS HARNESS



LKIA0847E

HARNESSES

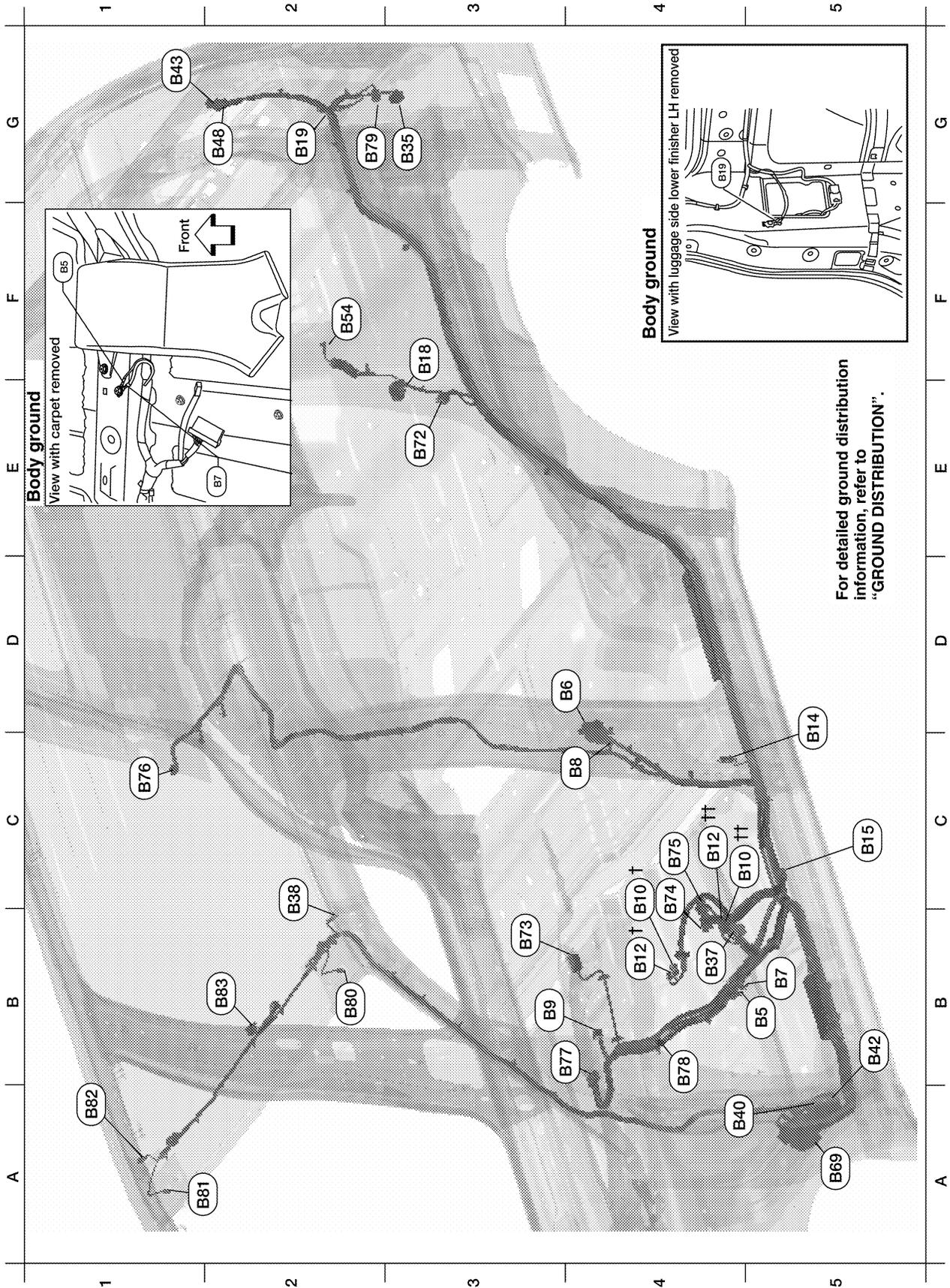
F2	C1	SMJ	: To E41						A
D2	C5	GR/5	: Fuel level sensor unit and fuel pump						
A3	C6	B/2	: EVAP canister vent control valve						B
A3	C7	GR/3	: EVAP control system pressure sensor						B
C3	C13	GR/4	: Rear wheel sensor assembly						
B4	C51	GR/6	: To C125						C
A4	C52	B/2	: To C150						
Trailer sub-harness									
B4	C125	GR/6	: To C51						D
A5	C126	B/7	: Trailer (7-pin)						
A5	C126	B/4	: Trailer (4-pin)						E
A4	C150	B/2	: To C52						

A
B
C
D
E
F
G
H
I
J
L
M

PG

HARNESS

BODY HARNESS



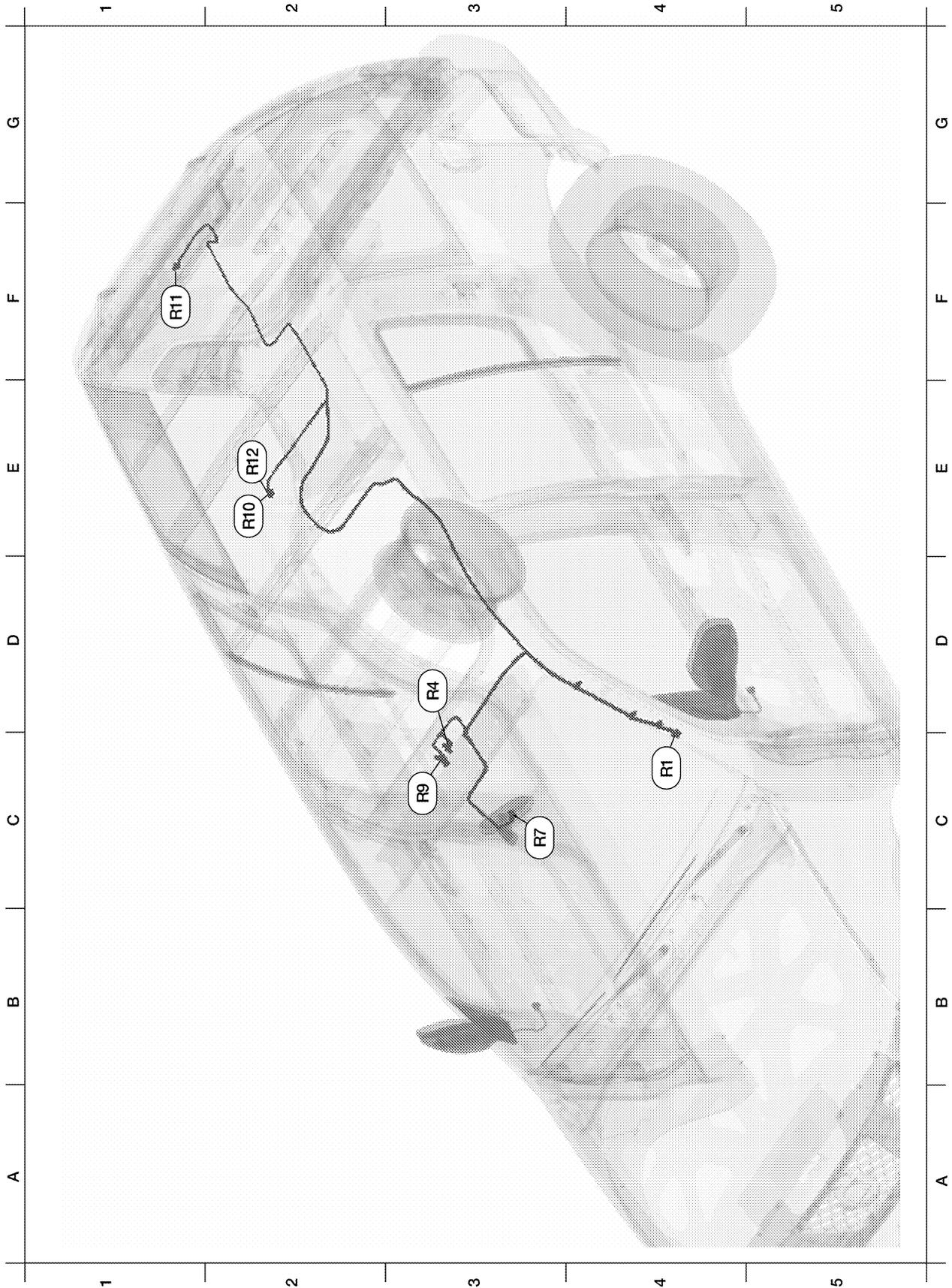
LKIA0849E

HARNESS

B5	B5	—	: LH side air bag satellite sensor (shield wire)					A
D4	B6	W/12	: To D201					
B5	B7	—	: Body ground					B
C4	B8	W/3	: Front door switch LH					
B3	B9	Y/12	: Air bag diagnosis sensor unit					C
C4	B10	Y/2	: Front LH side air bag module					
B4	B12	W/3	: Seat belt buckle switch LH					
D5	B14	Y/2	: Front LH seat belt pre-tensioner					D
C5	B15	Y/2	: LH side air bag (satellite) sensor					
F3	B18	W/3	: Rear door switch LH					E
G2	B19	—	: Body ground					
G3	B35	W/6	: Rear combination lamp LH					F
B4	B37	W/16	: To P1					
B2	B38	Y/2	: LH side front curtain air bag module					G
A4	B40	W/8	: To E34					
B5	B42	W/2	: To E36					H
G1	B43	W/8	: To D401					
G2	B48	W/6	: To D402					I
F2	B54	Y/2	: LH side rear curtain air bag module					
A5	B69	SMJ	: To M40					J
E3	B72	W/8	: Subwoofer (with BOSE audio system)					
B3	B73	B/6	: Yaw rate/side/decel G sensor					PG
C4	B74	GR/8	: BOSE speaker amp.					
C4	B75	B/24	: BOSE speaker amp.					
C1	B76	W/16	: Video monitor					
B4	B77	W/16	: Video monitor					
B4	B78	Y/2	: To B157					L
G2	B79	W/4	: Fuel lid door lock actuator					
B2	B80	W/2	: Vanity lamp LH					
A1	B81	W/2	: Vanity lamp RH					M
A1	B82	Y/2	: RH side front curtain air bag module					
B2	B83	B/10	: Sunroof motor assembly					

HARNESS

ROOM LAMP HARNESS



LKIA0623E

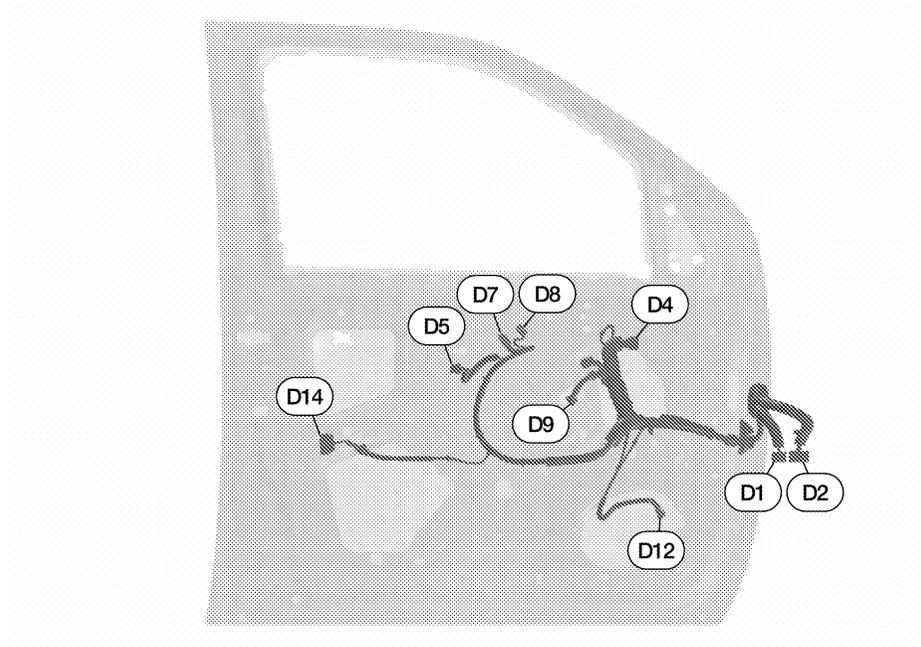
HARNESSES

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

PG

HARNESS

FRONT DOOR LH HARNESS

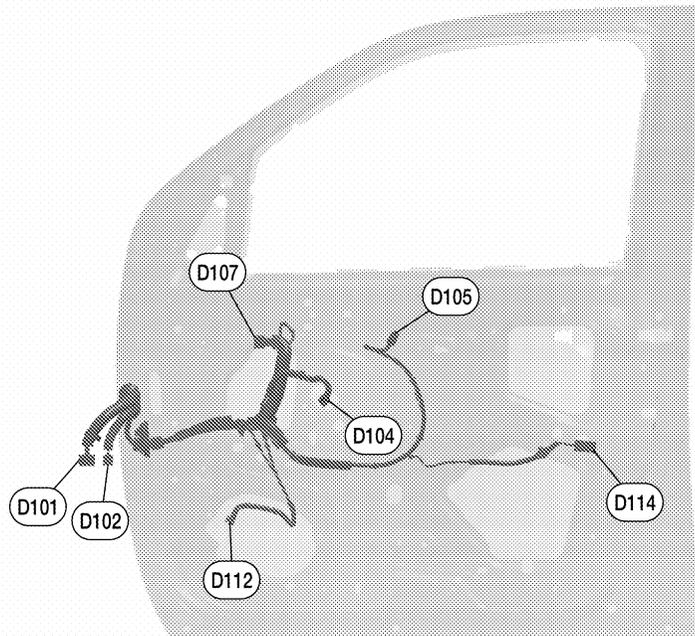


WKIA5184E

D1	W/24	: To M9	D9	B/6	: Front power window motor LH
D2	W/16	: To M8	D12	W/2	: Tweeter LH
D4	B/10	: Door mirror LH (with heated mirrors)	D14	GR/6	: Front door lock assembly LH
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			

HARNESS

FRONT DOOR RH HARNESS

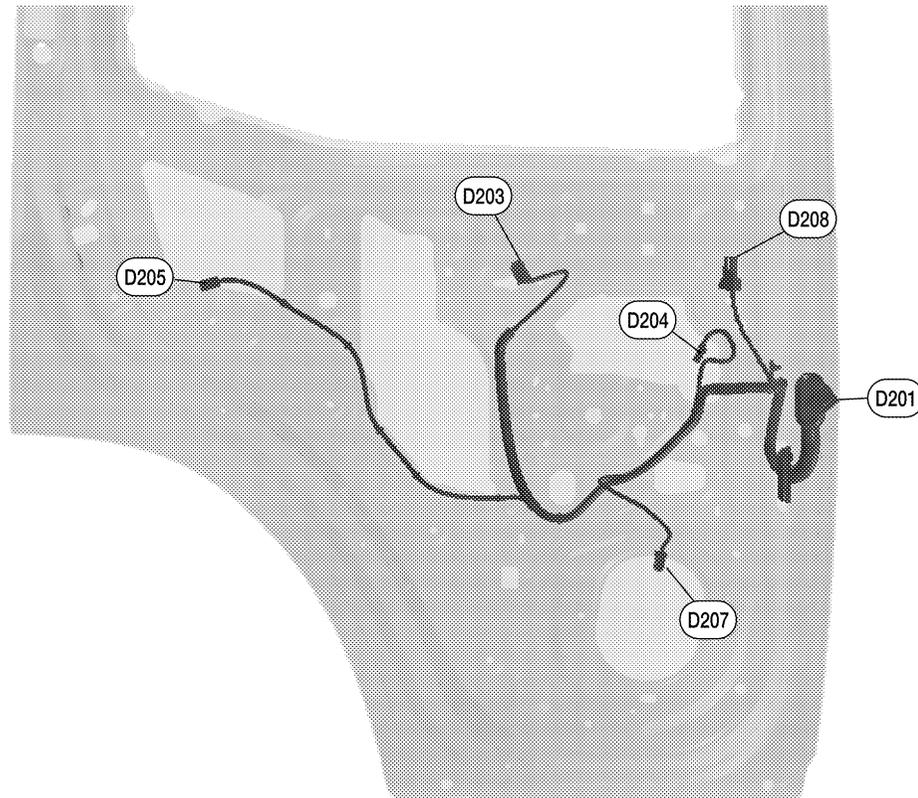


WKIA5185E

D101	W/12	: To M75	D107	B/10	: Door mirror RH (with heated mirrors)
D102	W/16	: To M74	D112	W/2	: Front door speaker RH
D104	B/6	: Front power window motor RH	D114	W/2	: Front door lock actuator RH
D105	W/12	: Power window and door lock/unlock switch RH			
D107	B/3	: Door mirror RH (without heated mirrors)			

HARNESS

REAR DOOR LH HARNESS

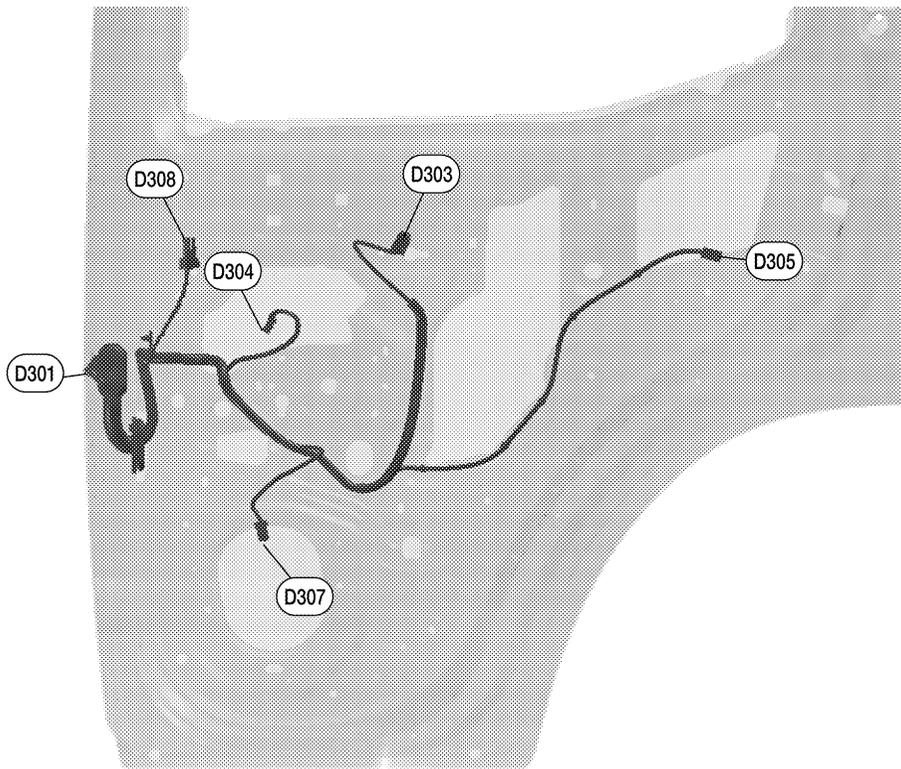


LKIA0850E

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

HARNESS

REAR DOOR RH HARNESS



LKIA0851E

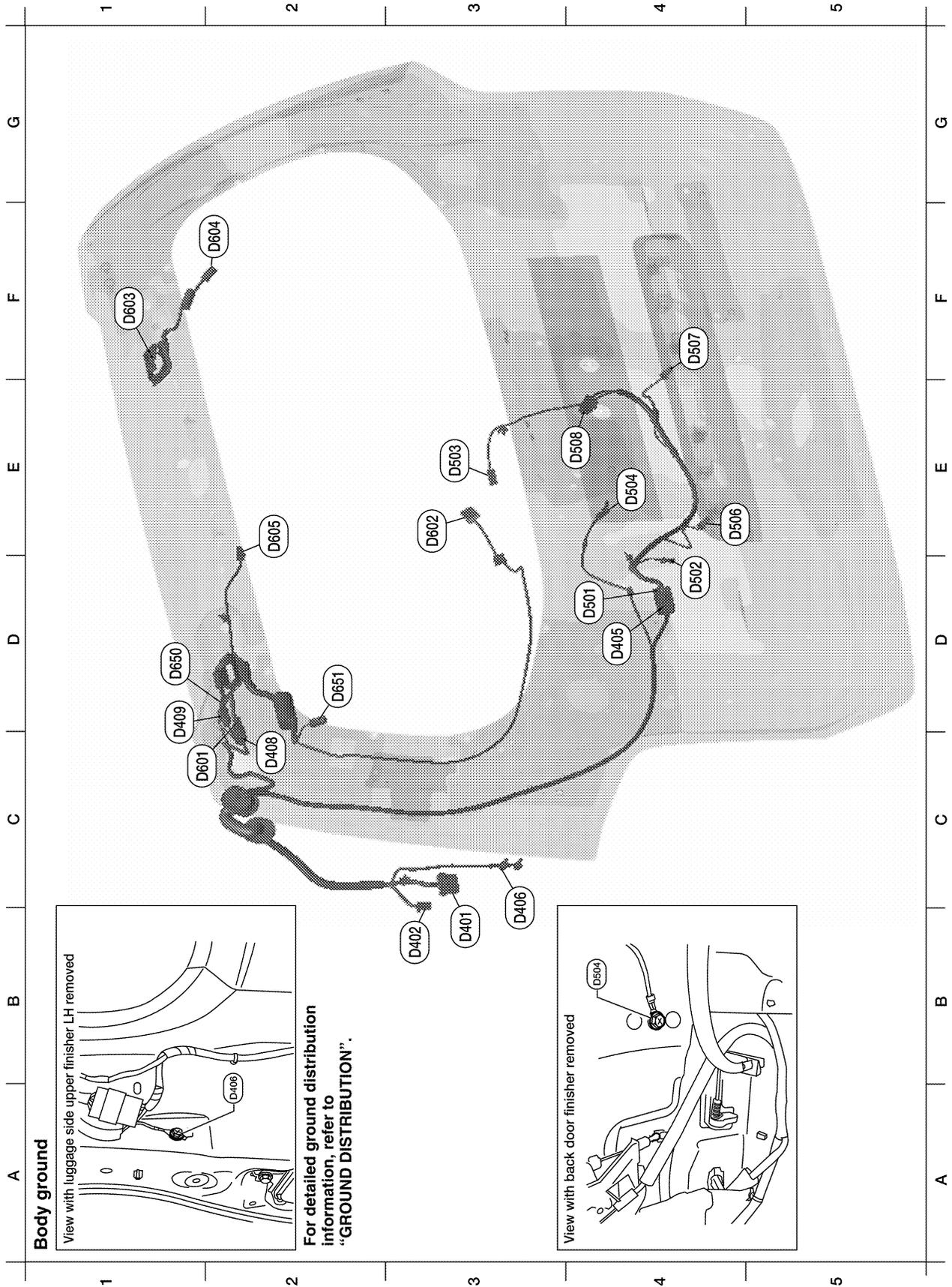
D301	W/12	: To B106	D307	W/2	: Rear door speaker RH (without BOSE)
D303	W/8	: Rear power window switch RH	D307	BR/2	: Rear door speaker RH (with BOSE)
D304	B/2	: Rear power window motor RH	D308	BR/2	: Rear door tweeter RH
D305	W/2	: Rear door lock actuator RH			

A
B
C
D
E
F
G
H
I
J
L
M

PG

HARNESS

BACK DOOR HARNESS



LKIA0628E

HARNESS

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

PG

L

M

HARNESS

EKS00G80

Wiring Diagram Codes (Cell Codes)

Use the chart below to find out what each wiring diagram code stands for.

Refer to the wiring diagram code in the alphabetical index to find the location (page number) of each wiring diagram.

Code	Section	Wiring Diagram Name
A/C,A	ATC	Auto Air Conditioner
A/C,M	MTC	Manual Air Conditioner
AF1B1	EC	Air Fuel Ratio (A/F) Sensor 1 Bank 1
AF1B2	EC	Air Fuel Ratio (A/F) Sensor 1 Bank 2
AF1HB1	EC	Air Fuel Ratio (A/F) Sensor 1 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

HARNESSES

HSEAT	SE	Heated Seat	
I/MIRR	GW	Inside Mirror (Auto Anti-Dazzling Mirror)	A
IATS	EC	Intake Air Temperature Sensor	
IGNSYS	EC	Ignition System	
ILL	LT	Illumination	B
INJECT	EC	Injectors	
INT/L	LT	Room/Map, Vanity, Cargo, and Personal Lamps	
IVCB1	EC	Intake Valve Timing Control Solenoid Valve Bank 1	C
IVCB2	EC	Intake Valve Timing Control Solenoid Valve Bank 2	
KEYLES	BL	Remote Keyless Entry System	
KS	EC	Knock Sensor	D
MAFS	EC	Mass Air Flow Sensor	
MAIN	AT	Main Power Supply and Ground Circuit	E
MAIN	EC	Main Power Supply and Ground Circuit	
METER	DI	Speedometer, Tachometer, Temp. and Fuel Gauges	
MIL/DL	EC	Malfunction Indicator Lamp	F
MIRROR	GW	Door Mirror	
NATS	BL	Nissan Anti-Theft System	
NAVI	AV	Navigation System	G
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	H
O2S2B1	EC	Heated Oxygen Sensor 2 Bank 1	
O2S2B2	EC	Heated Oxygen Sensor 2 Bank 2	
P/SCKT	WW	Power Socket	I
PEDAL	AP	Adjustable Pedal System	
PGC/V	EC	EVAP Canister Purge Volume Control Solenoid Valve	
PHSB1	EC	Camshaft Position Sensor (PHASE) (Bank 1)	J
PHSB2	EC	Camshaft Position Sensor (PHASE) (Bank 1)	
PNP/SW	AT	Park/Neutral Position Switch	
PNP/SW	EC	Park/Neutral Position Switch	PG
POS	EC	Crankshaft Position Sensor (POS)	
POWER	PG	Power Supply Routing	
PRE/SE	EC	EVAP Control System Pressure Sensor	L
PS/SEN	EC	Power Steering Pressure Sensor	
RP/SEN	EC	Refrigerant Pressure Sensor	
SEAT	SE	Power Seat	M
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	

HARNESSES

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

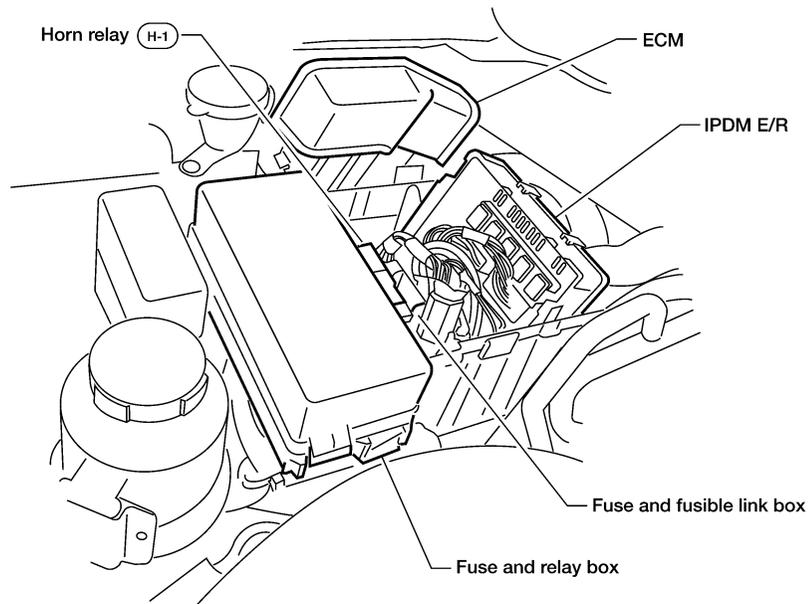
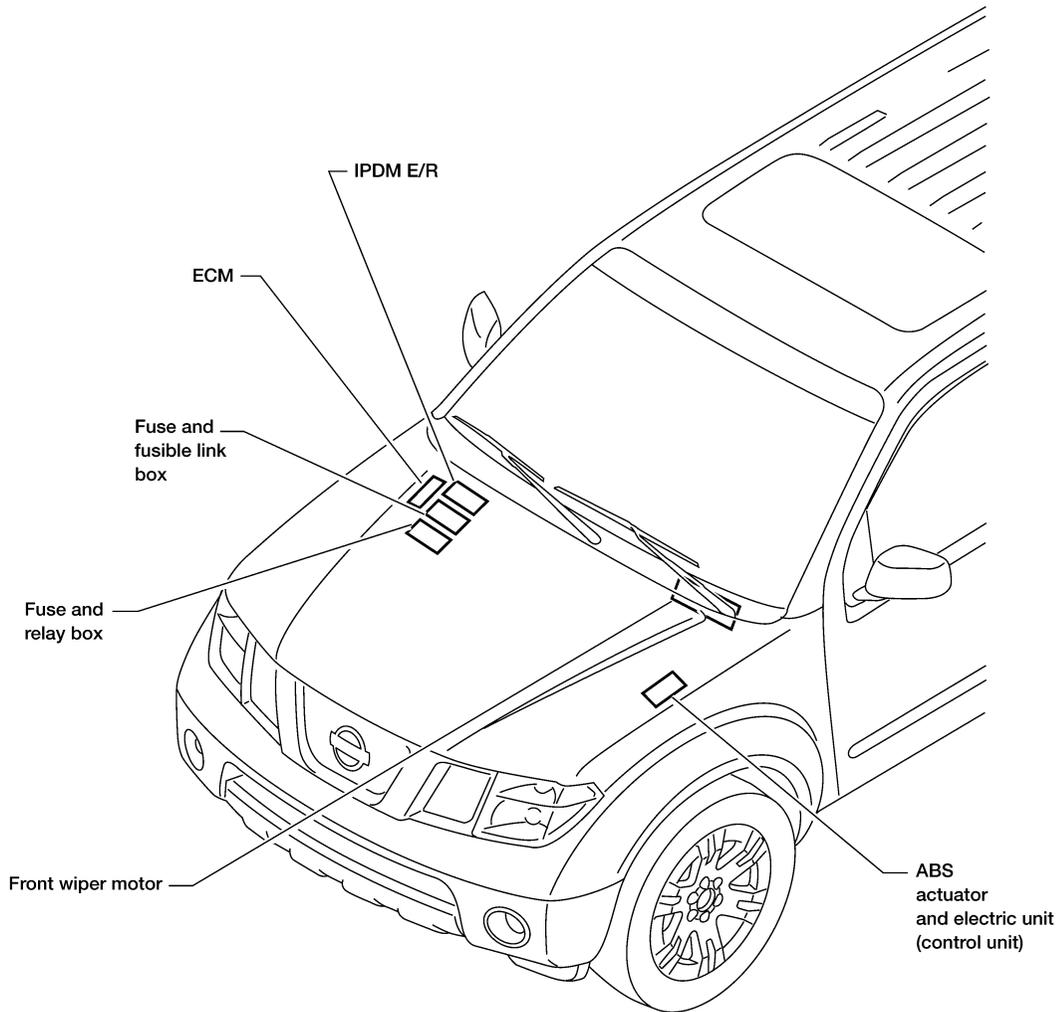
ELECTRICAL UNITS LOCATION

ELECTRICAL UNITS LOCATION

Electrical Units Location ENGINE COMPARTMENT

PDF:25230

EKS00G8R



A

B

C

D

E

F

G

H

I

J

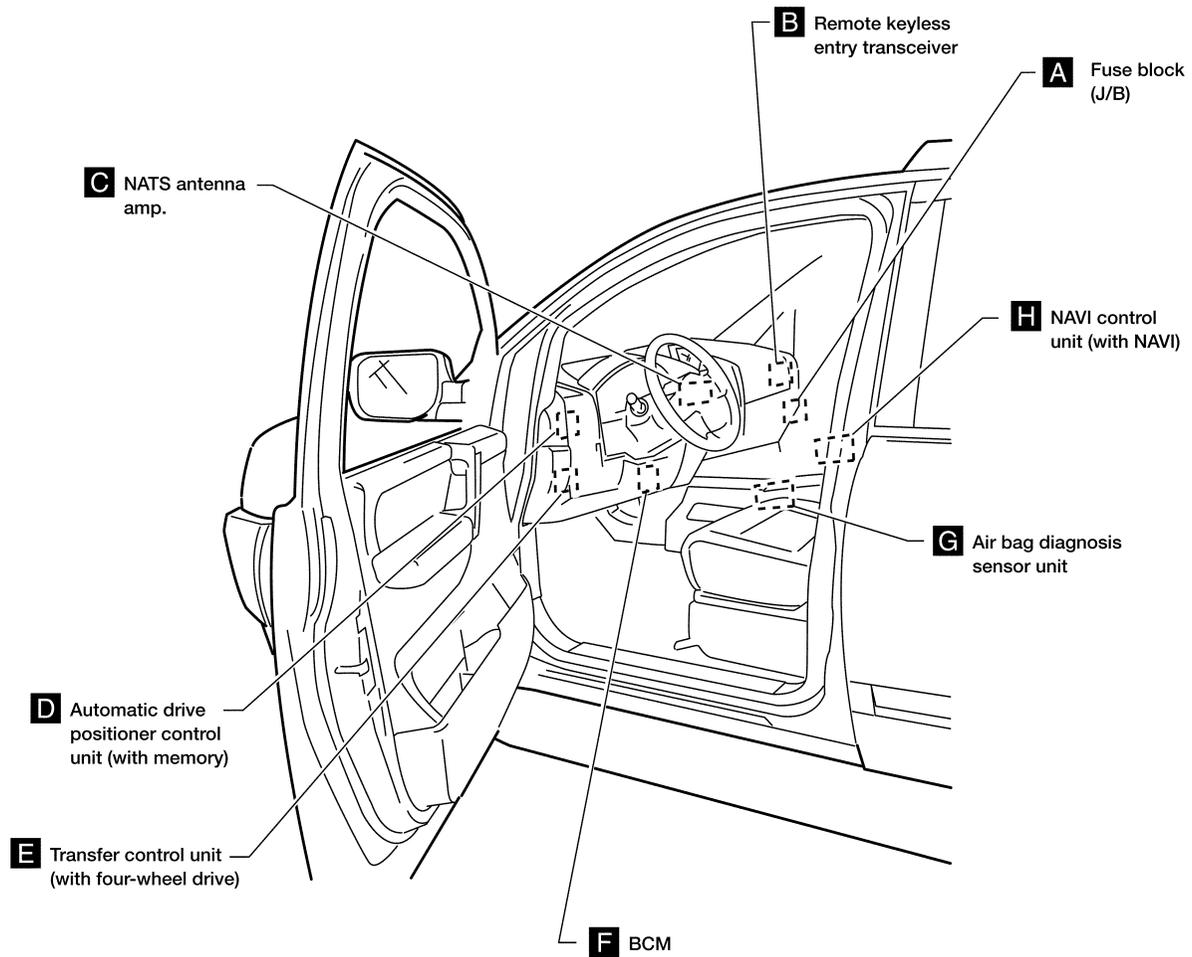
PG

L

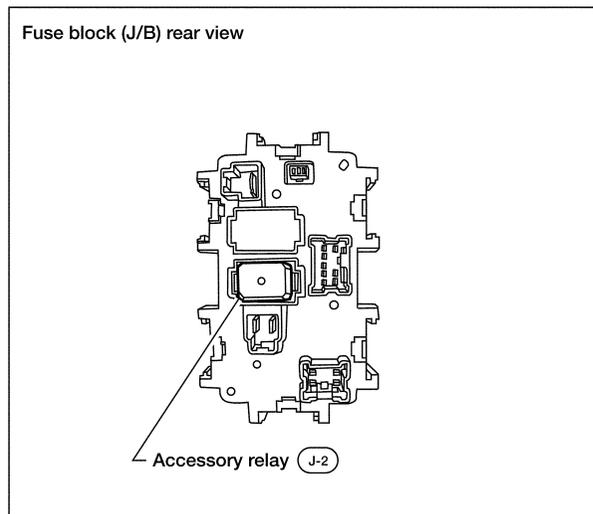
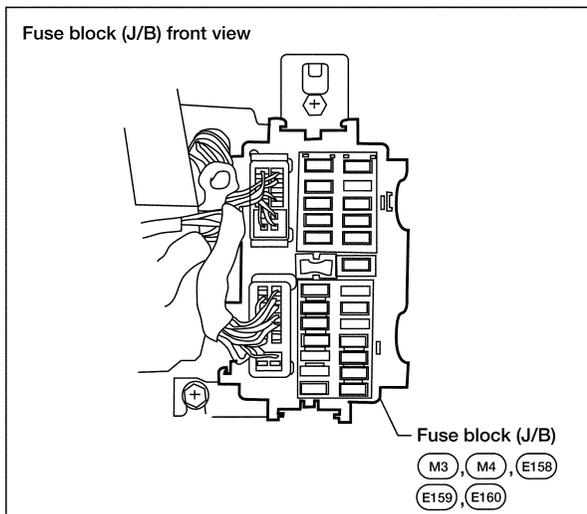
M

ELECTRICAL UNITS LOCATION

PASSENGER COMPARTMENT

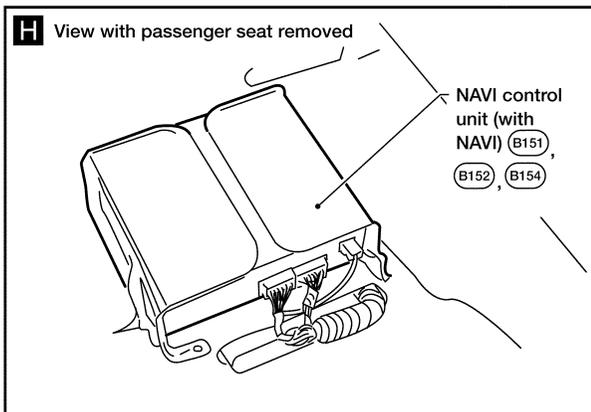
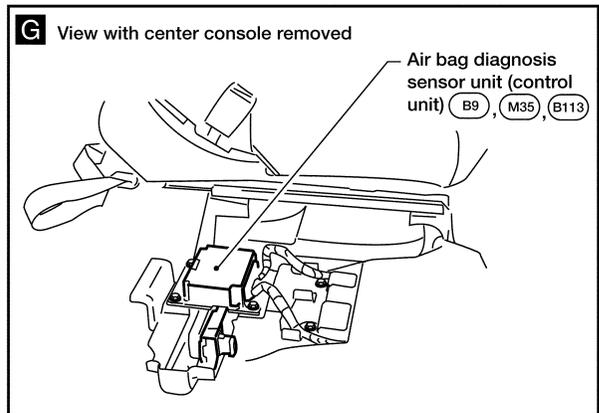
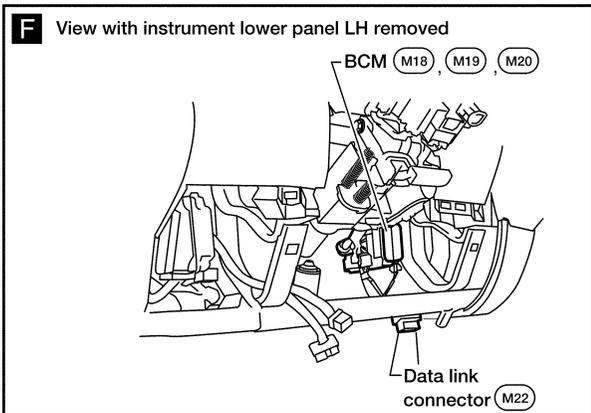
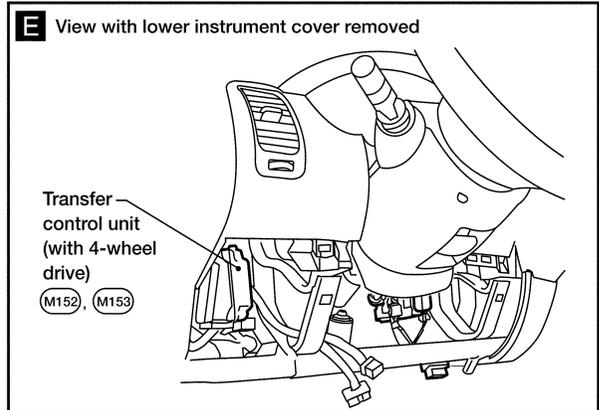
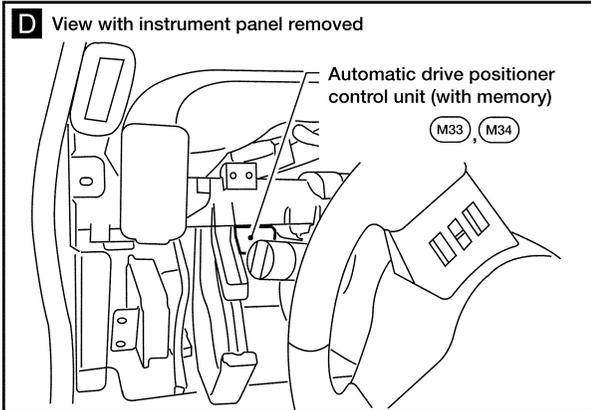
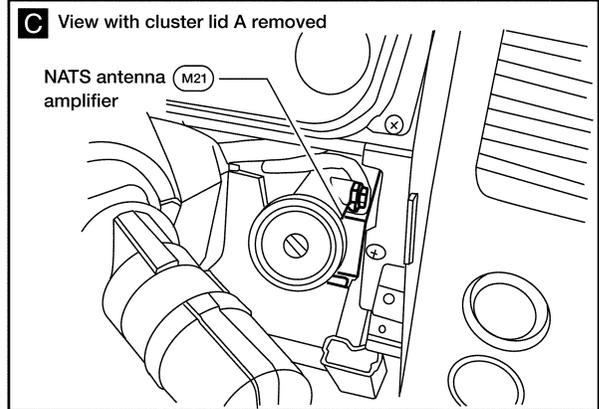
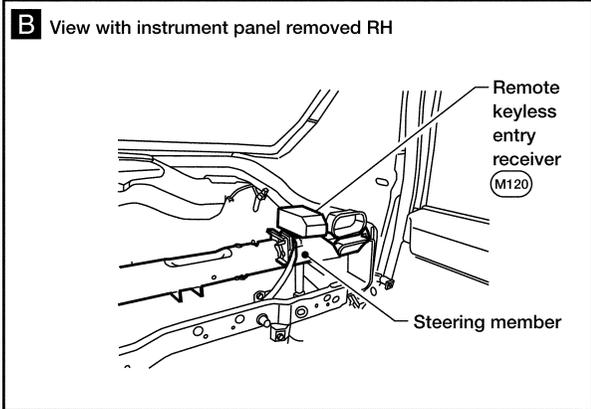


A Instrument panel side RH



WKIA5024E

ELECTRICAL UNITS LOCATION



A
B
C
D
E
F
G
H
I
J
L
M

PG

WKIA5025E

HARNESS CONNECTOR

HARNESS CONNECTOR

PFP:B4341

Description

HARNESS CONNECTOR (TAB-LOCKING TYPE)

EKS00G8V

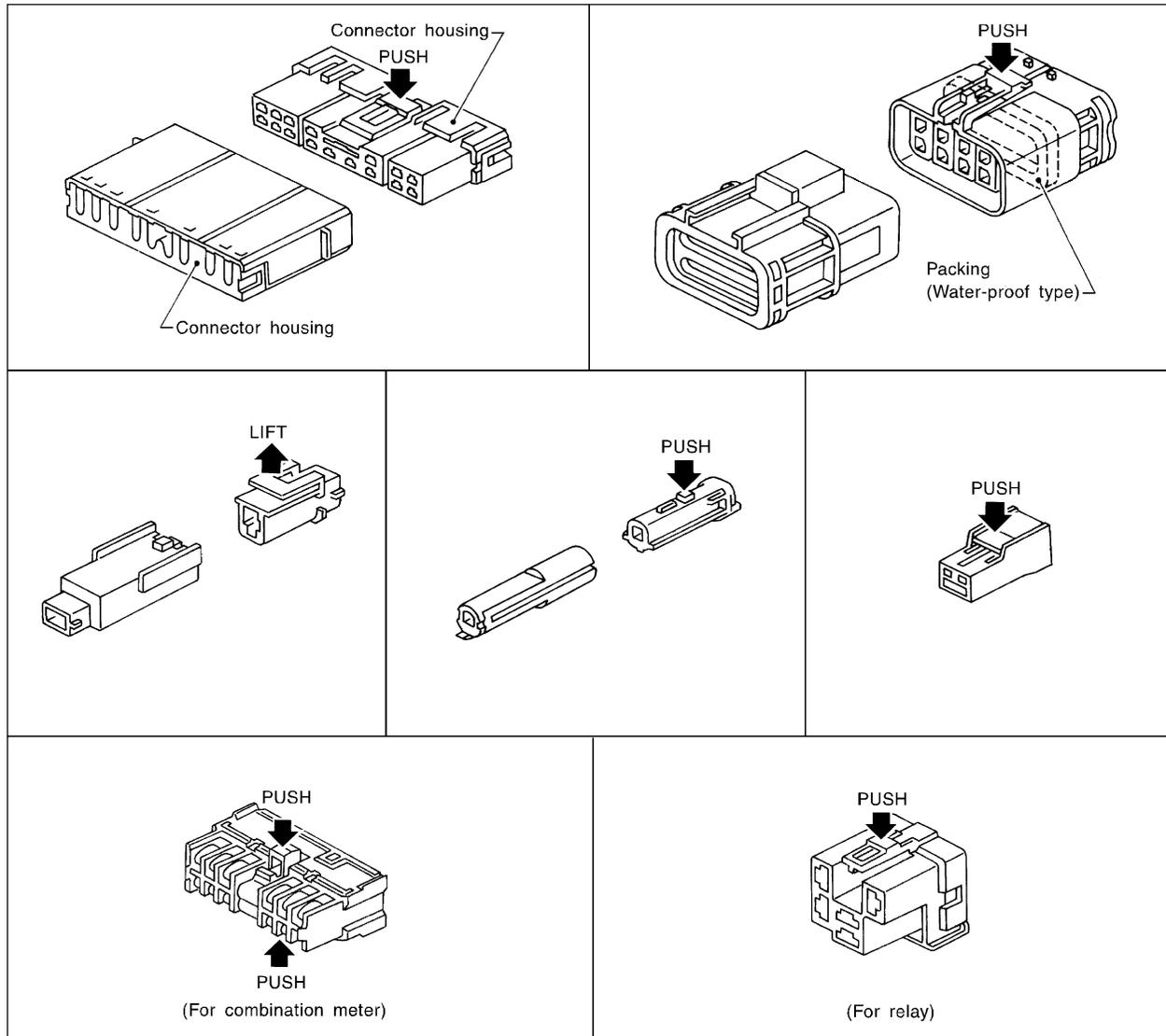
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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

HARNES CONNECTOR

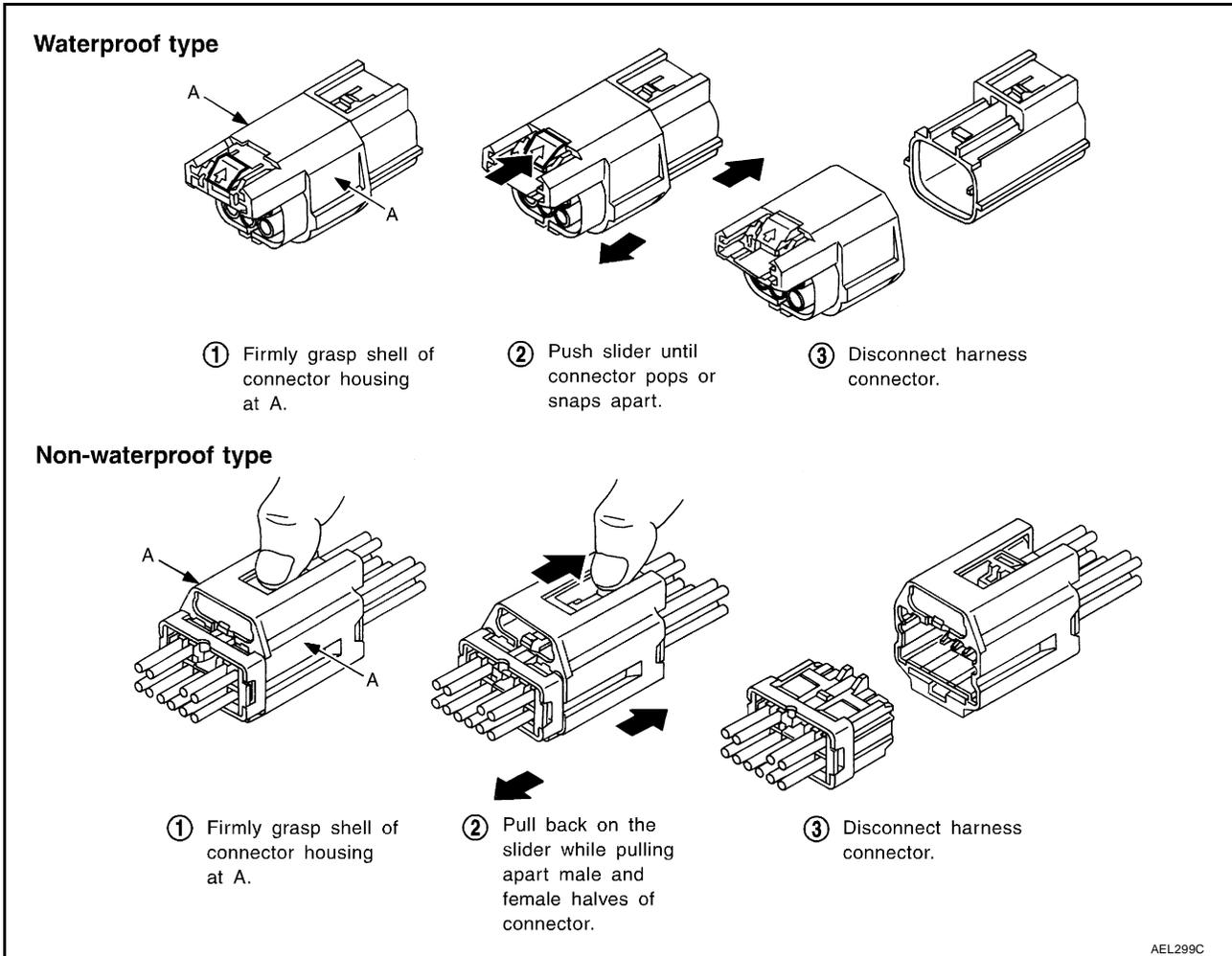
HARNES CONNECTOR (SLIDE-LOCKING TYPE)

- 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]



A
B
C
D
E
F
G
H
I
J
L
M

PG

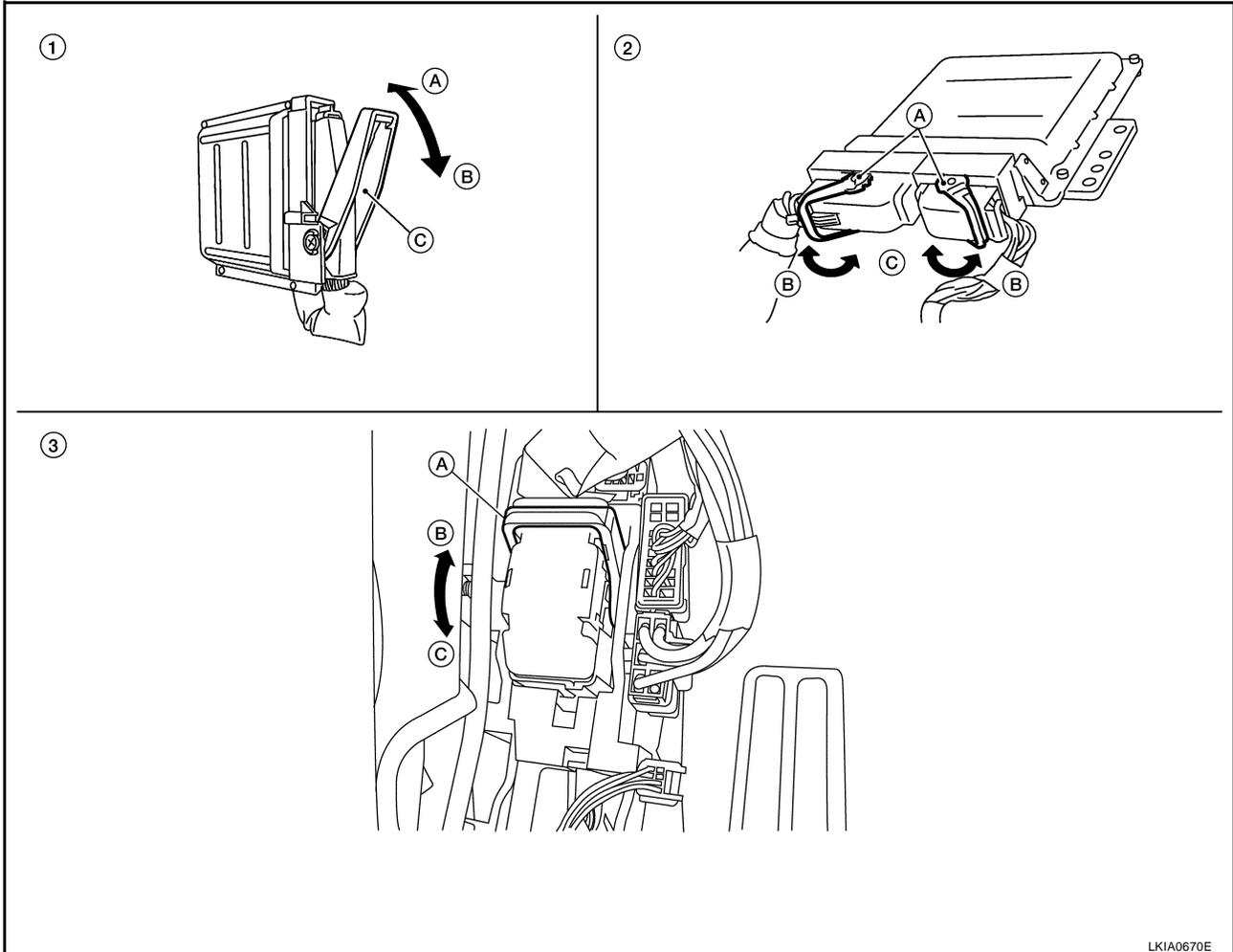
HARNESS CONNECTOR

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

LKIA0670E

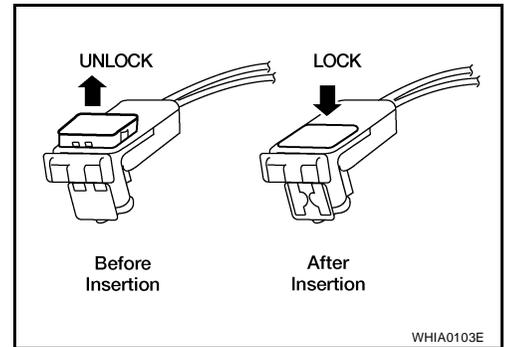
HARNESS CONNECTOR

HARNESS CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

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

CAUTION:

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



A
B
C
D
E
F
G
H
I
J
L
M

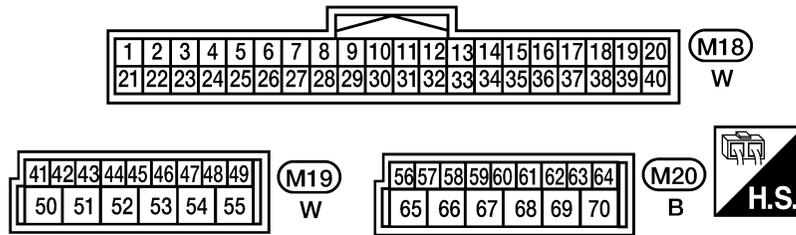
ELECTRICAL UNITS

PF2:23710

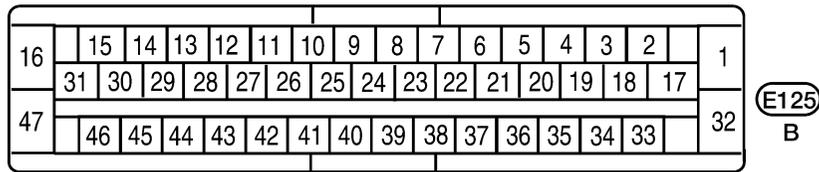
EKS00G8W

ELECTRICAL UNITS Terminal Arrangement

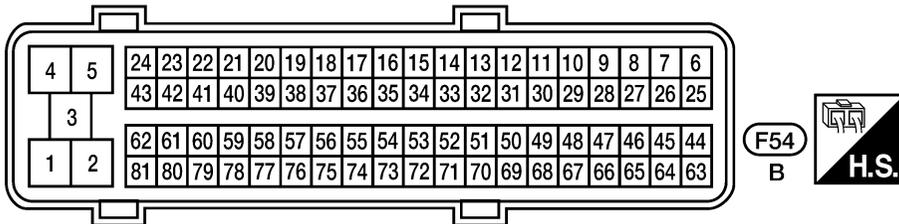
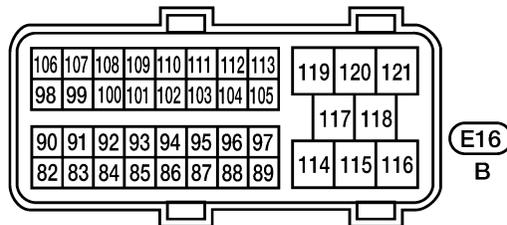
BCM (BODY CONTROL MODULE)



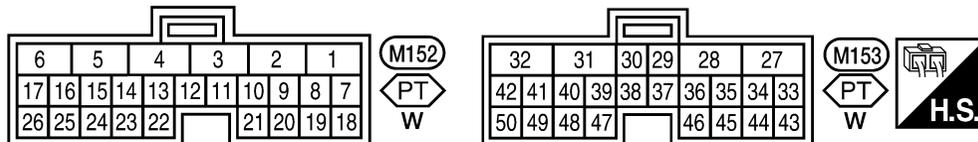
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



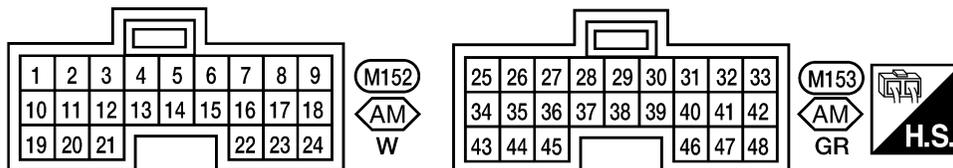
ECM



TRANSFER CONTROL UNIT



TRANSFER CONTROL UNIT



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

WKIA5869E

STANDARDIZED RELAY

PFP:25230

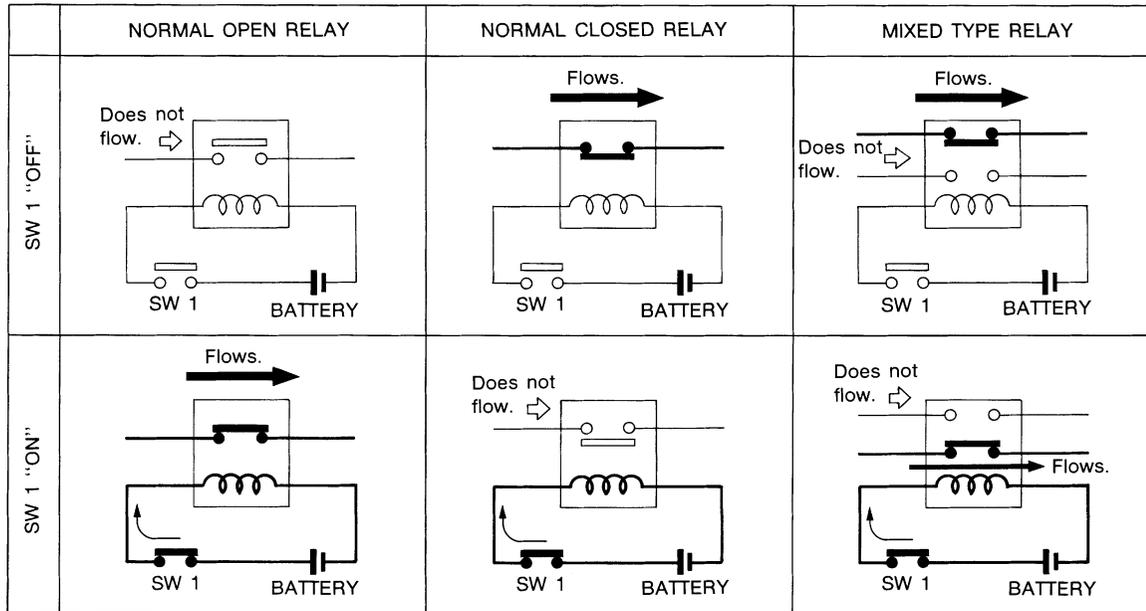
EKS00G8X

STANDARDIZED RELAY

Description

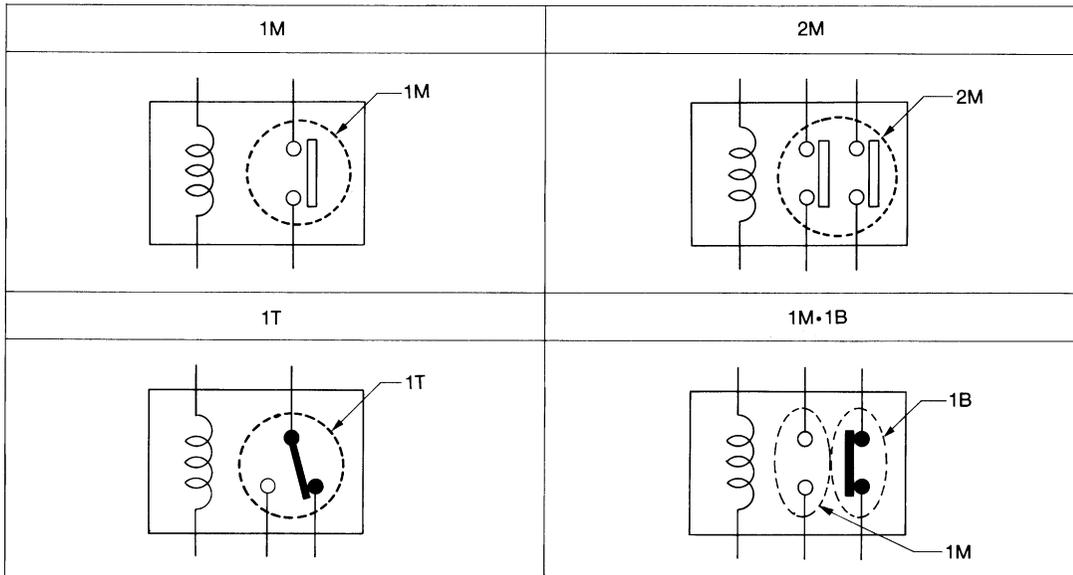
NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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



SEL881H

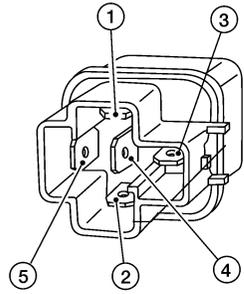
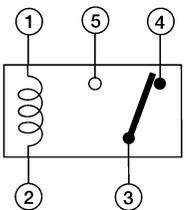
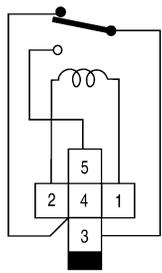
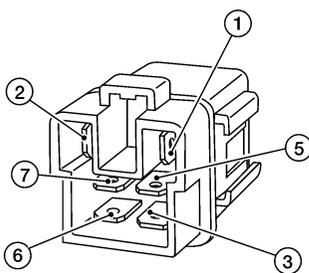
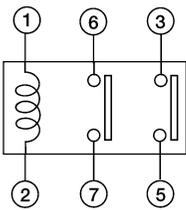
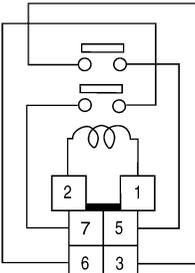
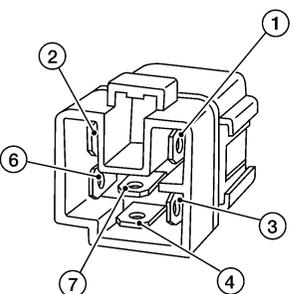
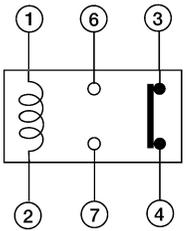
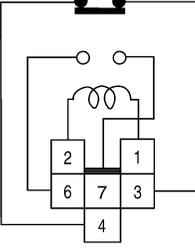
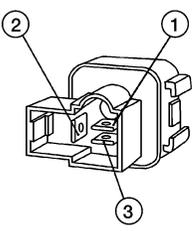
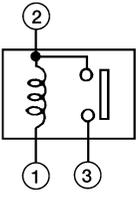
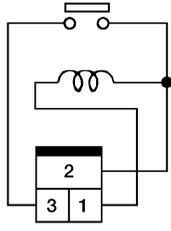
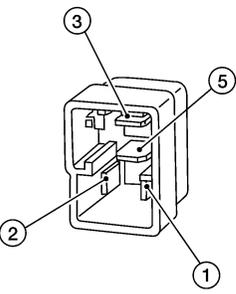
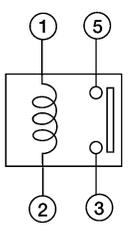
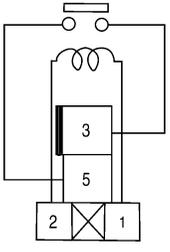
TYPE OF STANDARDIZED RELAYS



SEL882H

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

STANDARDIZED RELAY

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

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

WKIA0253E

SUPER MULTIPLE JUNCTION (SMJ)

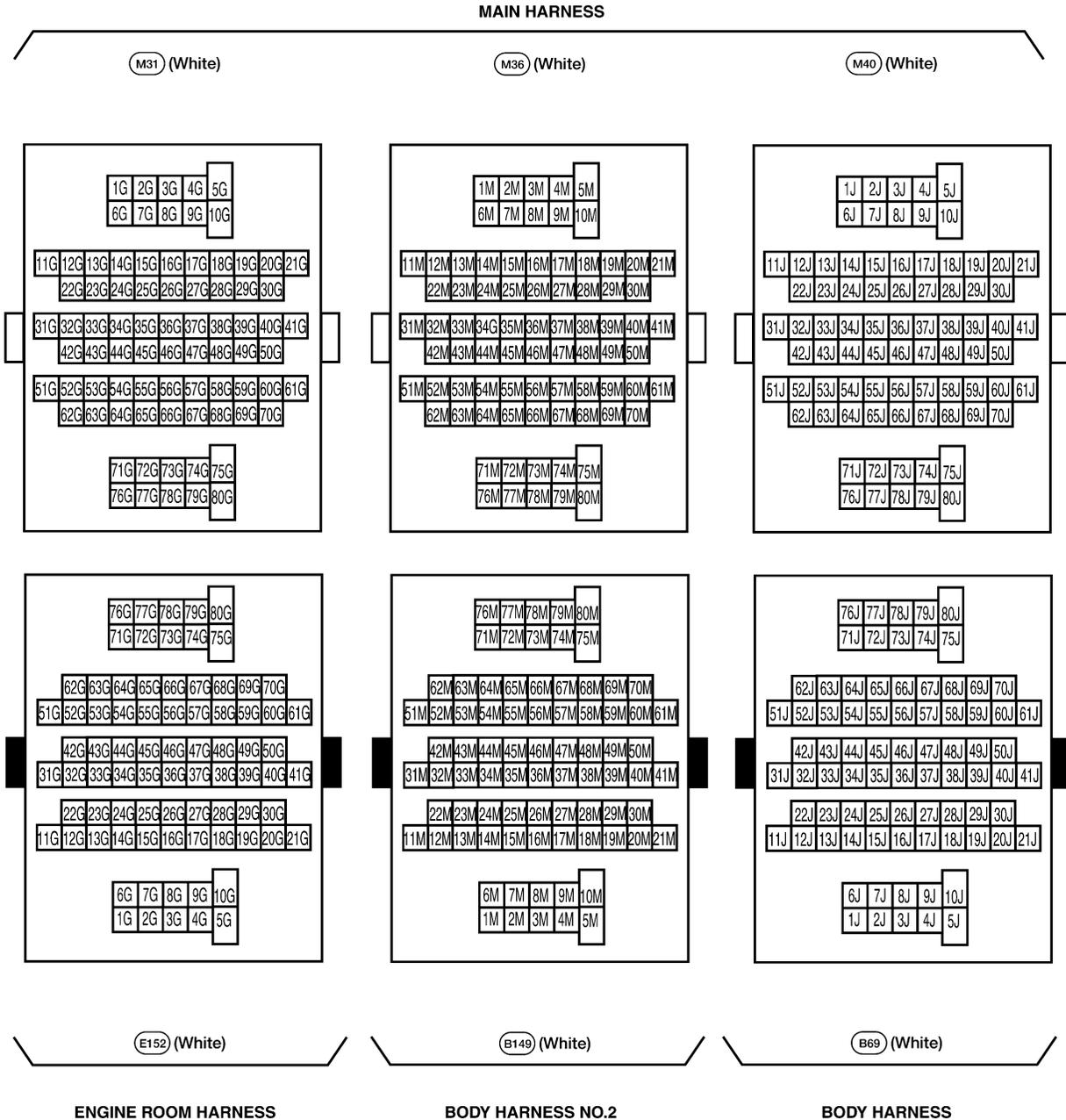
SUPER MULTIPLE JUNCTION (SMJ)

Terminal Arrangement

PF:84341

EKS00G8Y

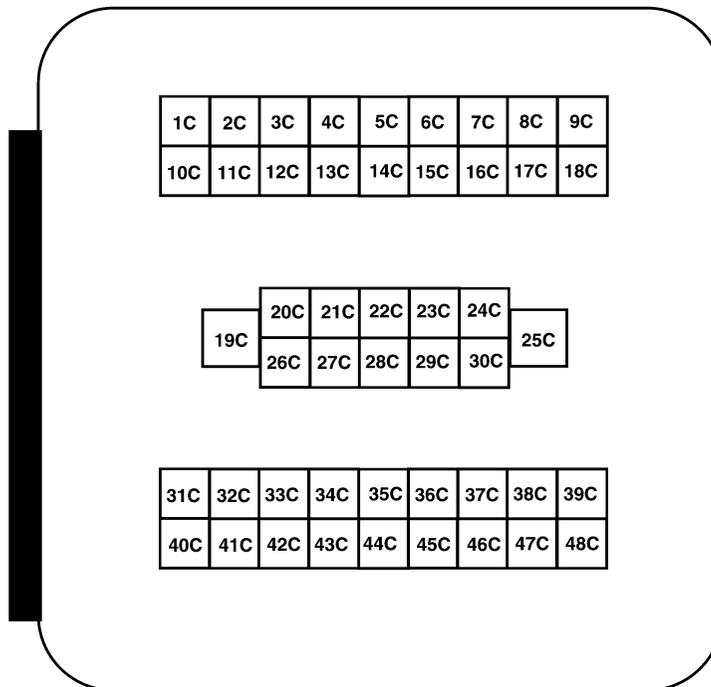
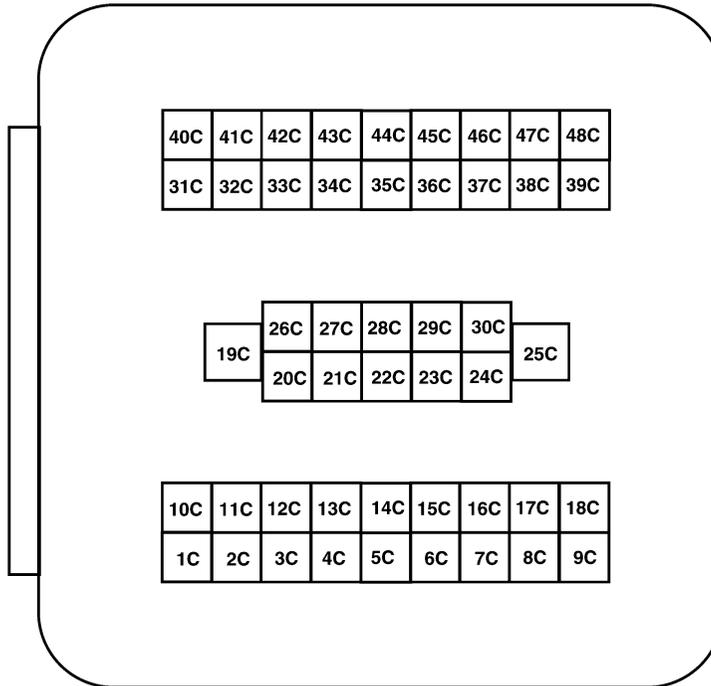
A
B
C
D
E
F
G
H
I
J
PG
L
M



SUPER MULTIPLE JUNCTION (SMJ)

CHASSIS HARNESS

C1 (Black)



E41 (Black)

ENGINE ROOM HARNESS

WKIA4179E

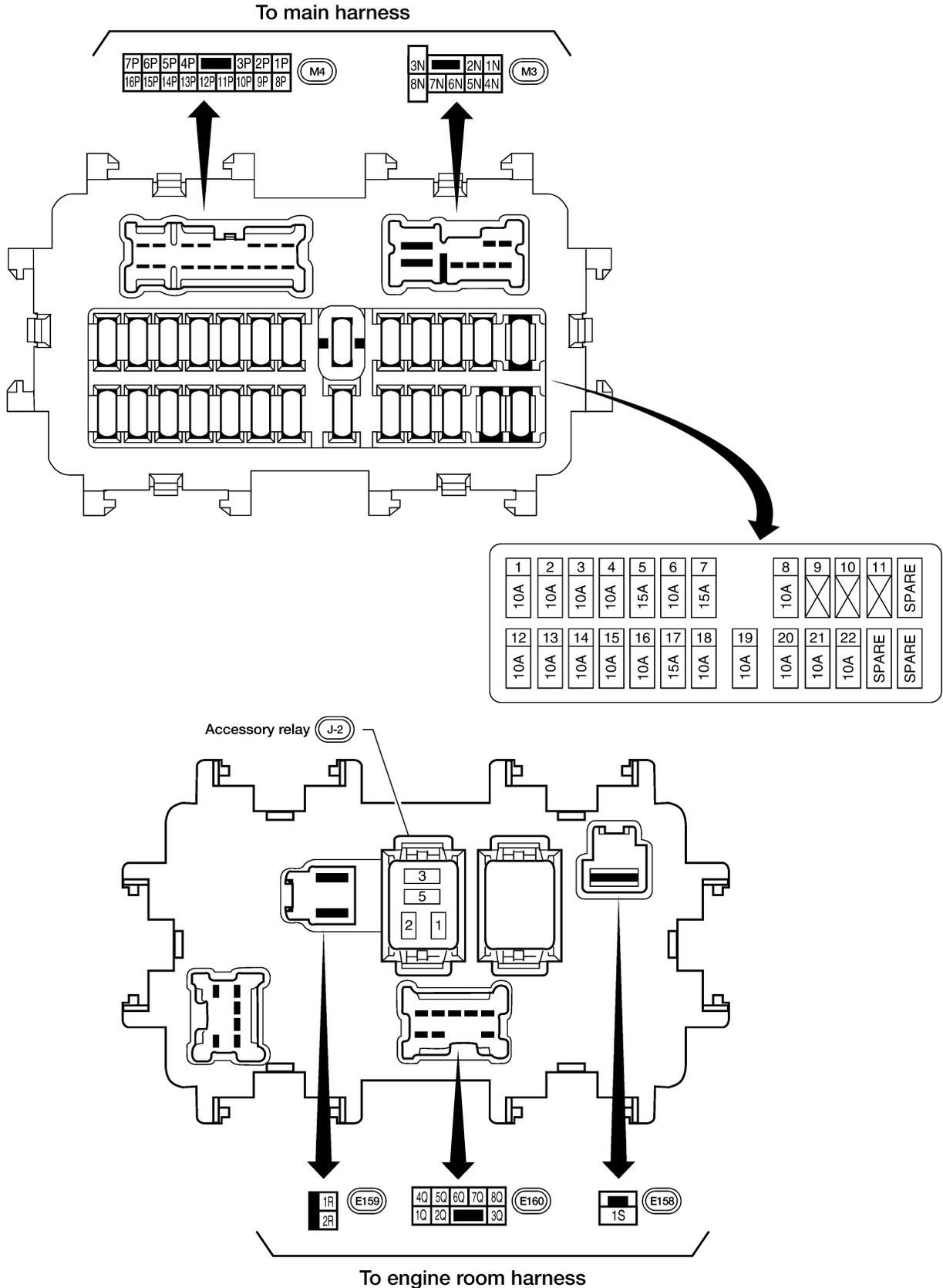
FUSE BLOCK-JUNCTION BOX (J/B)

FUSE BLOCK-JUNCTION BOX (J/B)

Terminal Arrangement

PF0:24350

EKS00G8Z



A
B
C
D
E
F
G
H
I
J
PG
L
M

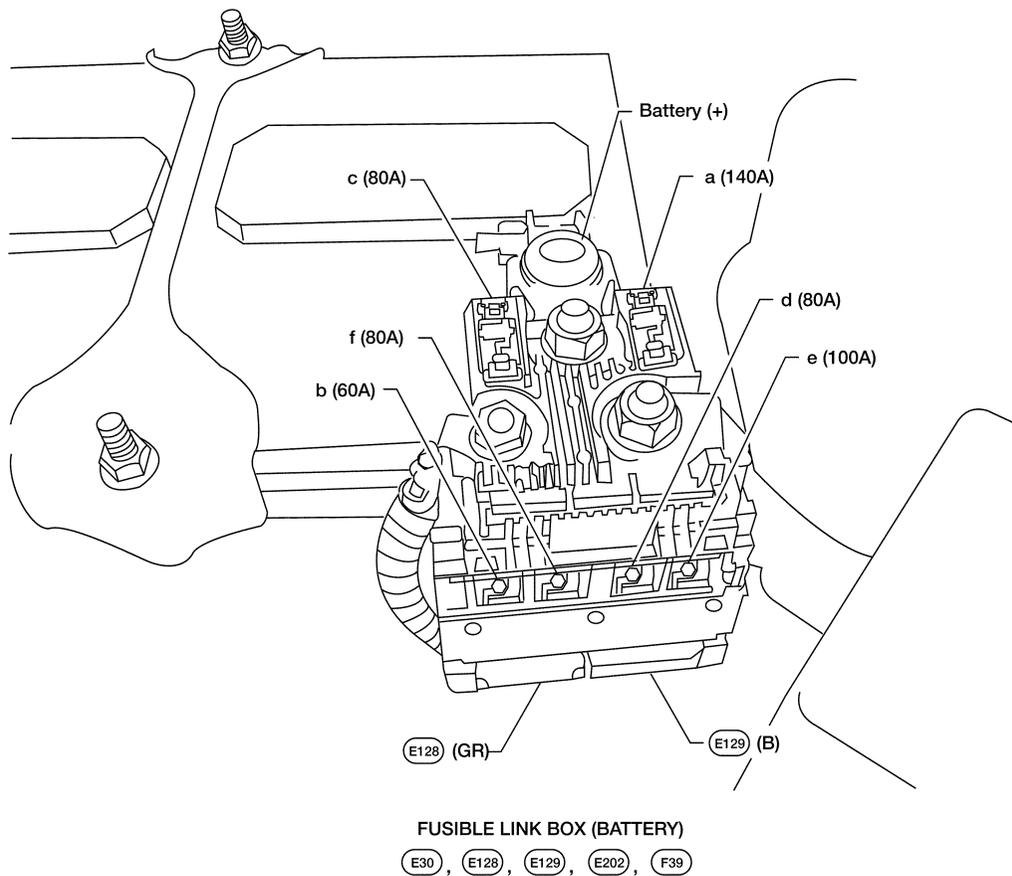
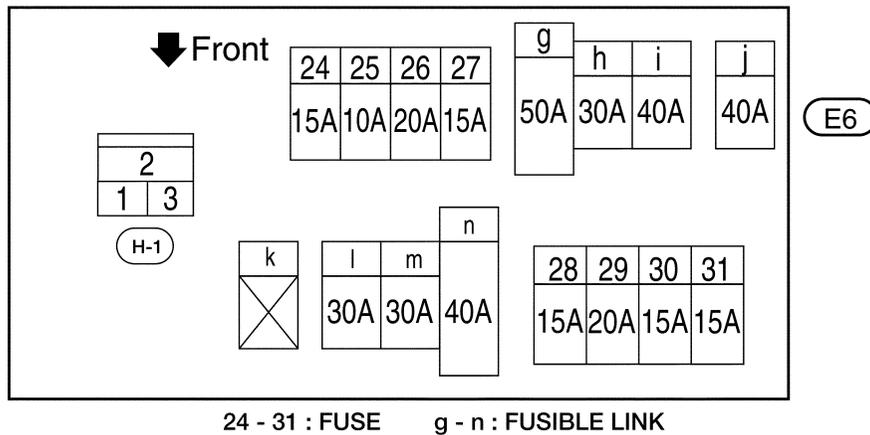
FUSE AND FUSIBLE LINK BOX

FUSE AND FUSIBLE LINK BOX

PF-P:24381

Terminal Arrangement

EKS00G90



WKIA5013E

FUSE AND RELAY BOX

PFP:24012

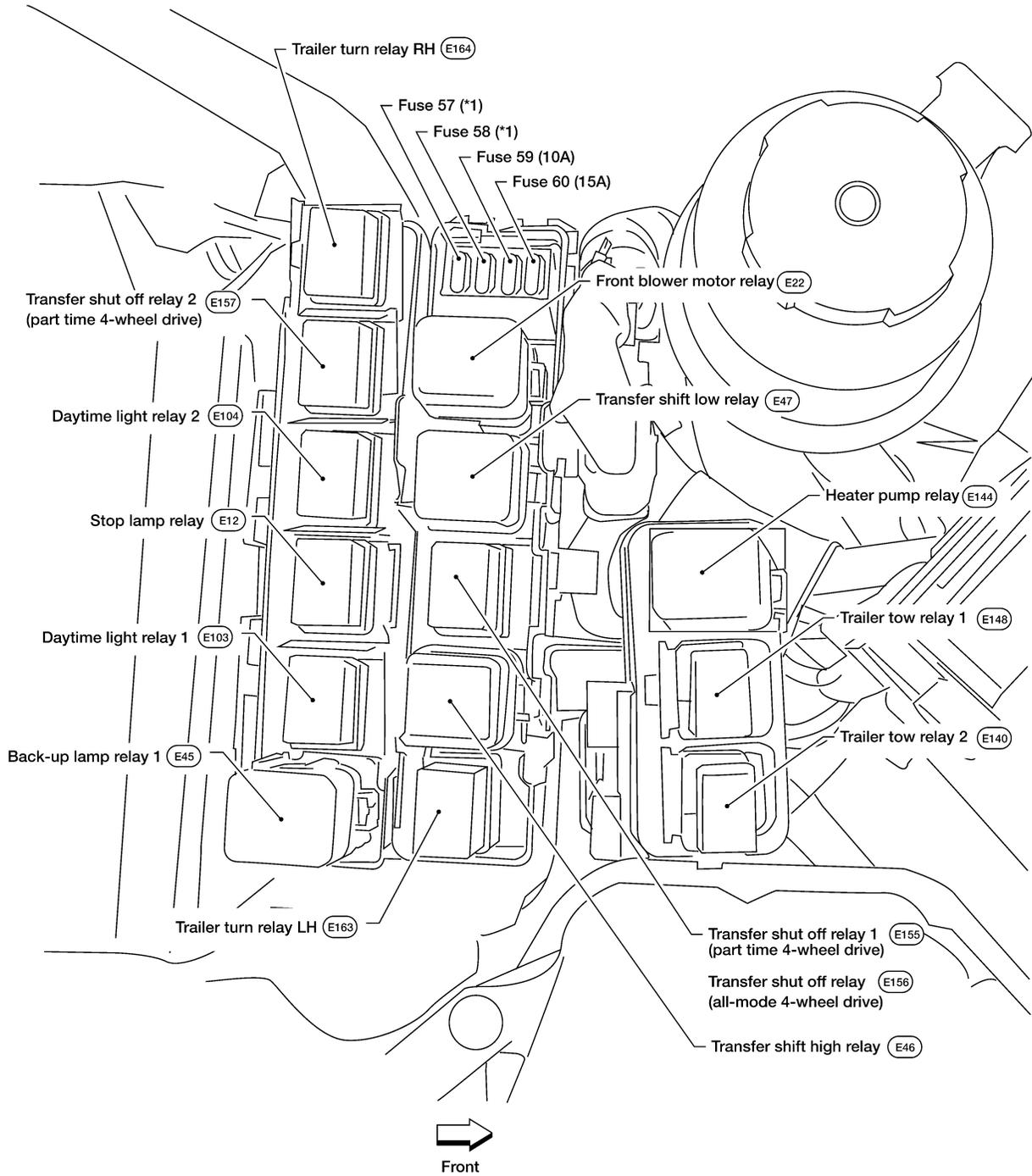
EKS00G91

FUSE AND RELAY BOX

Terminal Arrangement

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

*1 AM : 20A
 PT : 10A



A
B
C
D
E
F
G
H
I
J
PG
L
M

FUSE AND RELAY BOX
