SECTION PG

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

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PRECAUTIONS

PFP:00011

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

EKS00JL2

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.**

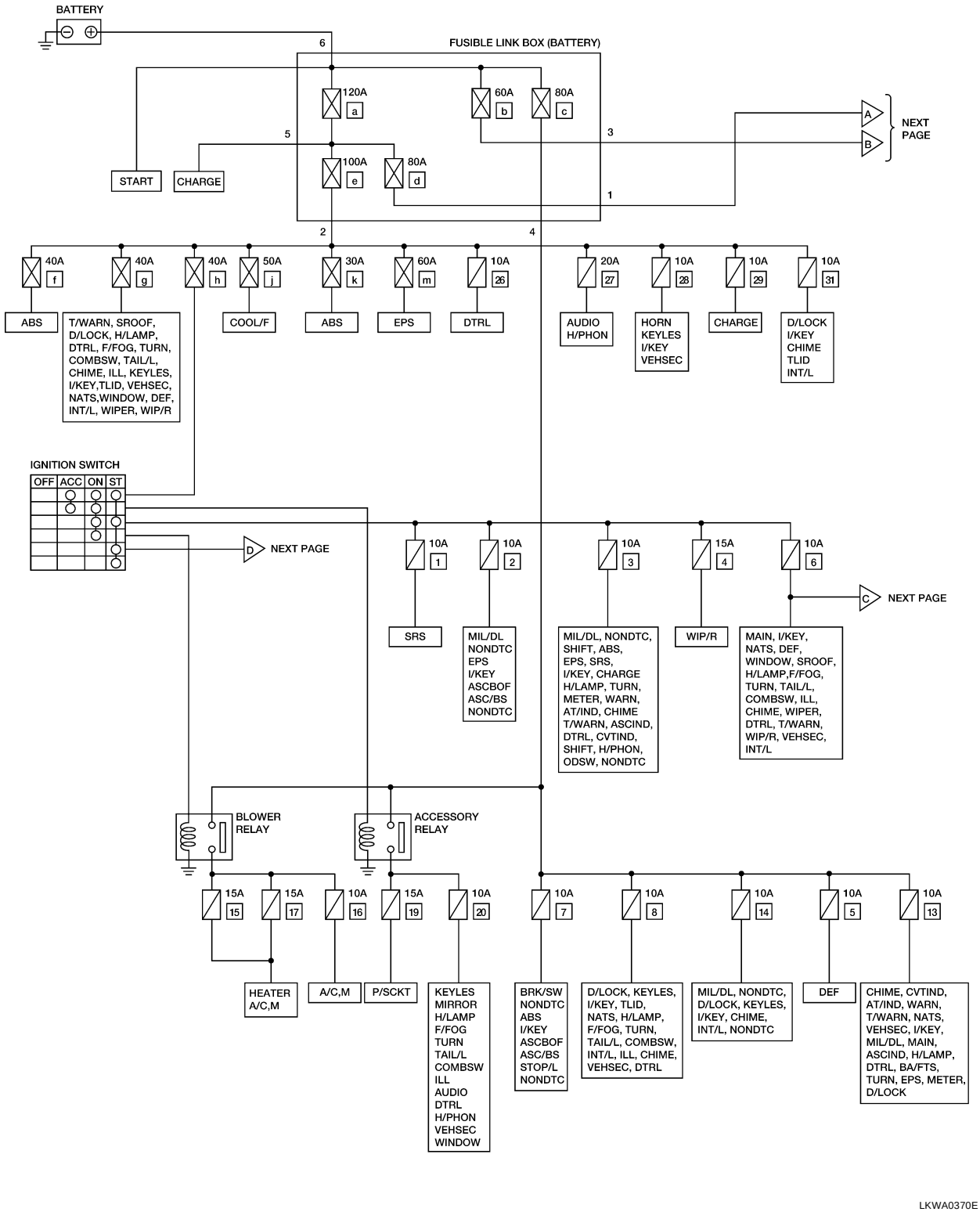
POWER SUPPLY ROUTING CIRCUIT

PFP:24110

Schematic

EKS00I5G

For detailed ground distribution, refer to PG-30, "Ground Distribution" .



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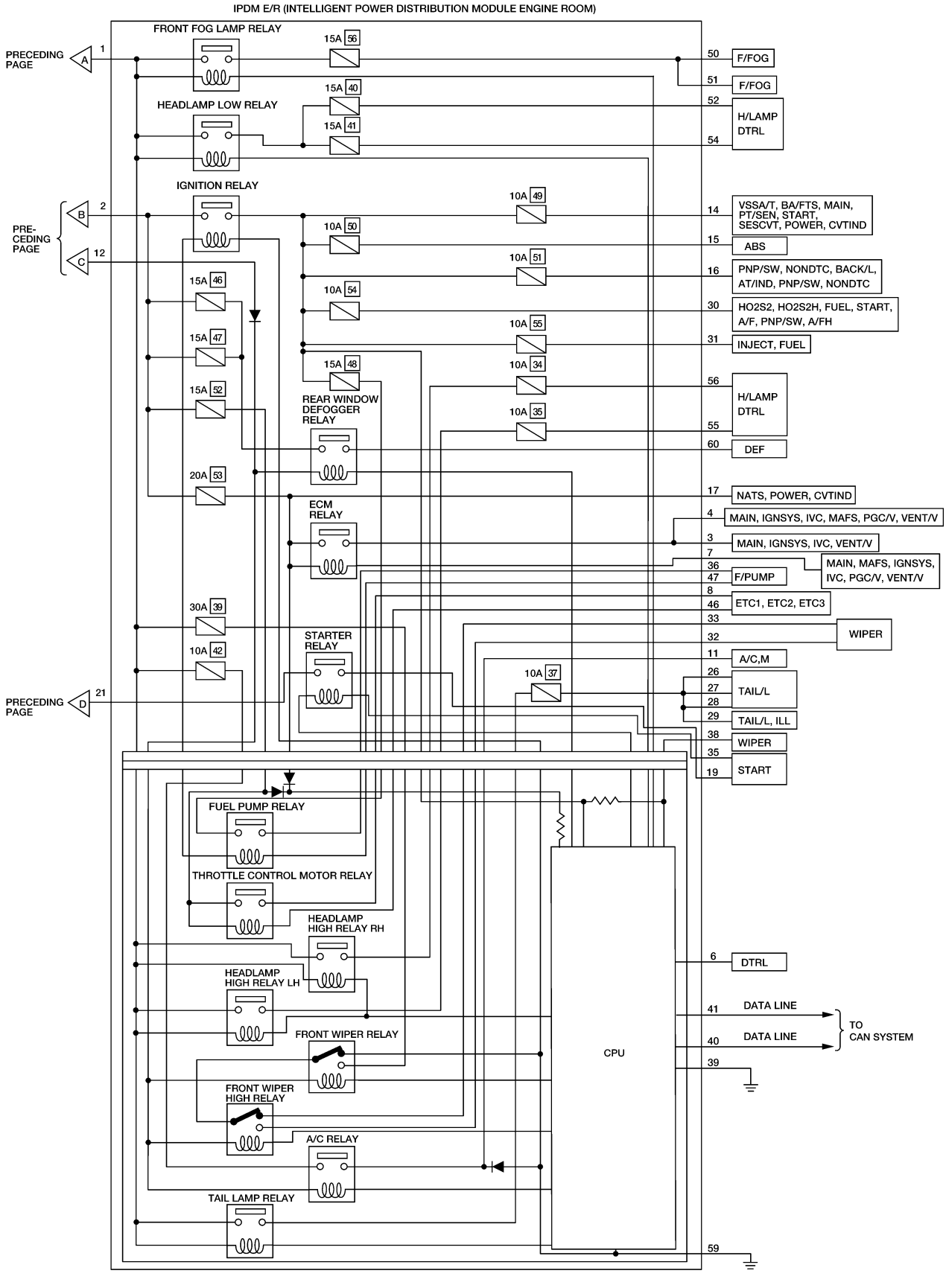
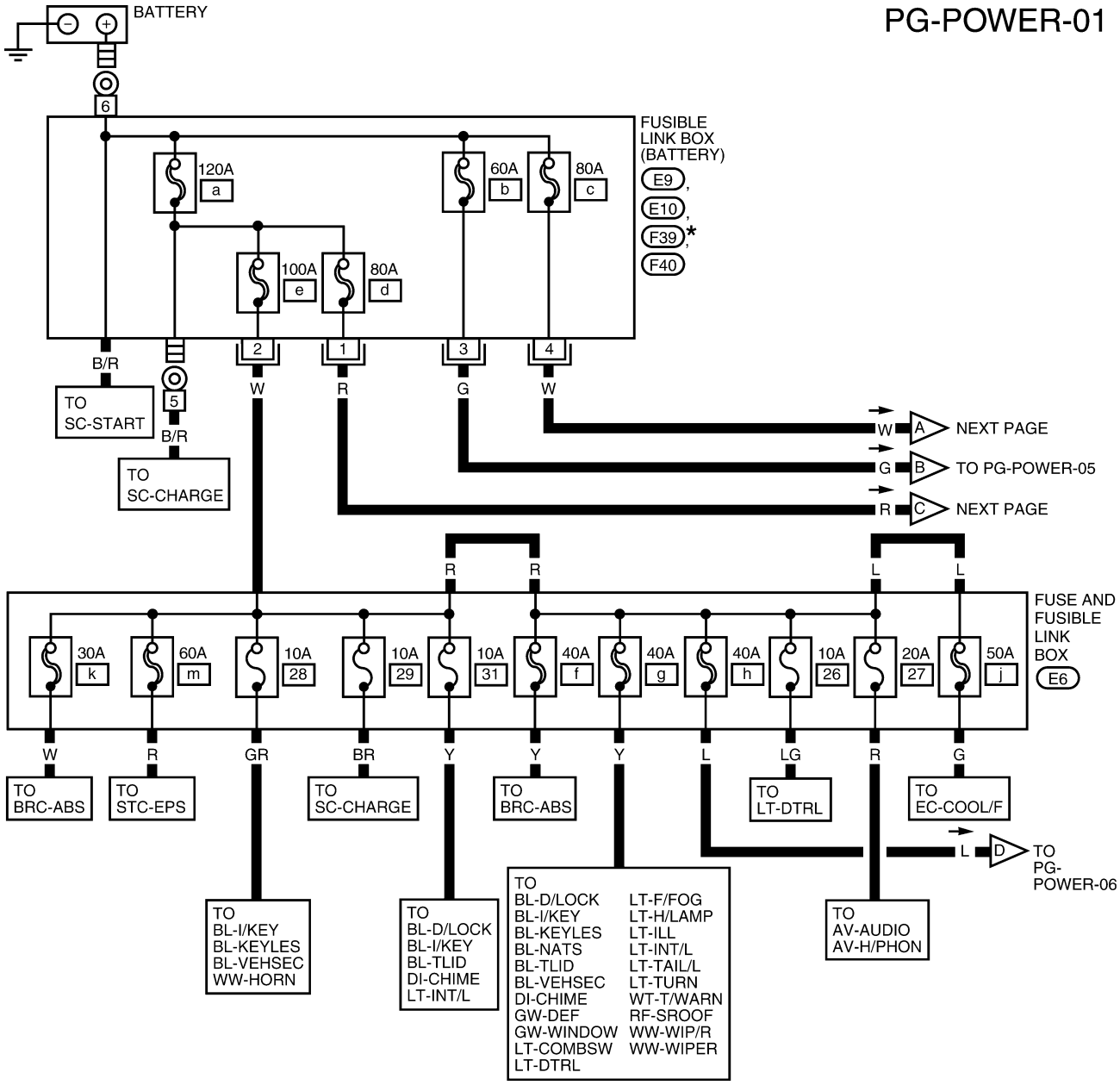
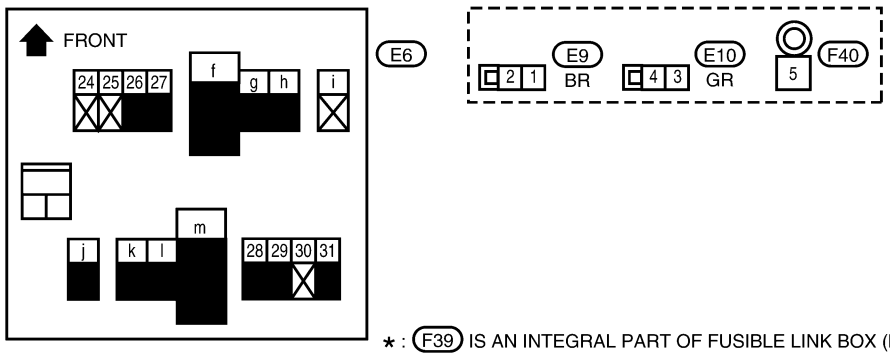

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
FRONT FOG LAMP RELAY
HEADLAMP LOW RELAY
IGNITION RELAY
REAR WINDOW DEFOGGER RELAY
ECM RELAY
STARTER RELAY
FUEL PUMP RELAY
THROTTLE CONTROL MOTOR RELAY
HEADLAMP HIGH RELAY RH
HEADLAMP HIGH RELAY LH
FRONT WIPER RELAY
FRONT WIPER HIGH RELAY
A/C RELAY
TAIL LAMP RELAY
CPU
PRECEDING PAGE
PRE-CEDING PAGE
15A 56
15A 40
15A 41
10A 49
10A 50
10A 51
10A 54
10A 55
10A 34
10A 35
15A 46
15A 47
15A 48
15A 52
20A 53
30A 39
10A 42
10A 37
F/FOG
H/LAMP DTRL
VSSA/T, BA/FTS, MAIN, PT/SEN, START, SESCVT, POWER, CVTIND
ABS
PNP/SW, NONDTC, BACK/L, AT/IND, PNP/SW, NONDTC
HO2S2, HO2S2H, FUEL, START, A/F, PNP/SW, A/FH
INJECT, FUEL
DEF
NATS, POWER, CVTIND
MAIN, IGNSYS, IVC, MAFS, PGC/V, VENT/V
MAIN, IGNSYS, IVC, VENT/V
MAIN, MAFS, IGNSYS, IVC, PGC/V, VENT/V
F/PUMP
ETC1, ETC2, ETC3
WIPER
A/C,M
TAIL/L
TAIL/L, ILL
START
DTRL
DATA LINE
TO CAN SYSTEM
LKWA0371E

Wiring Diagram — POWER —

EKS00I5H

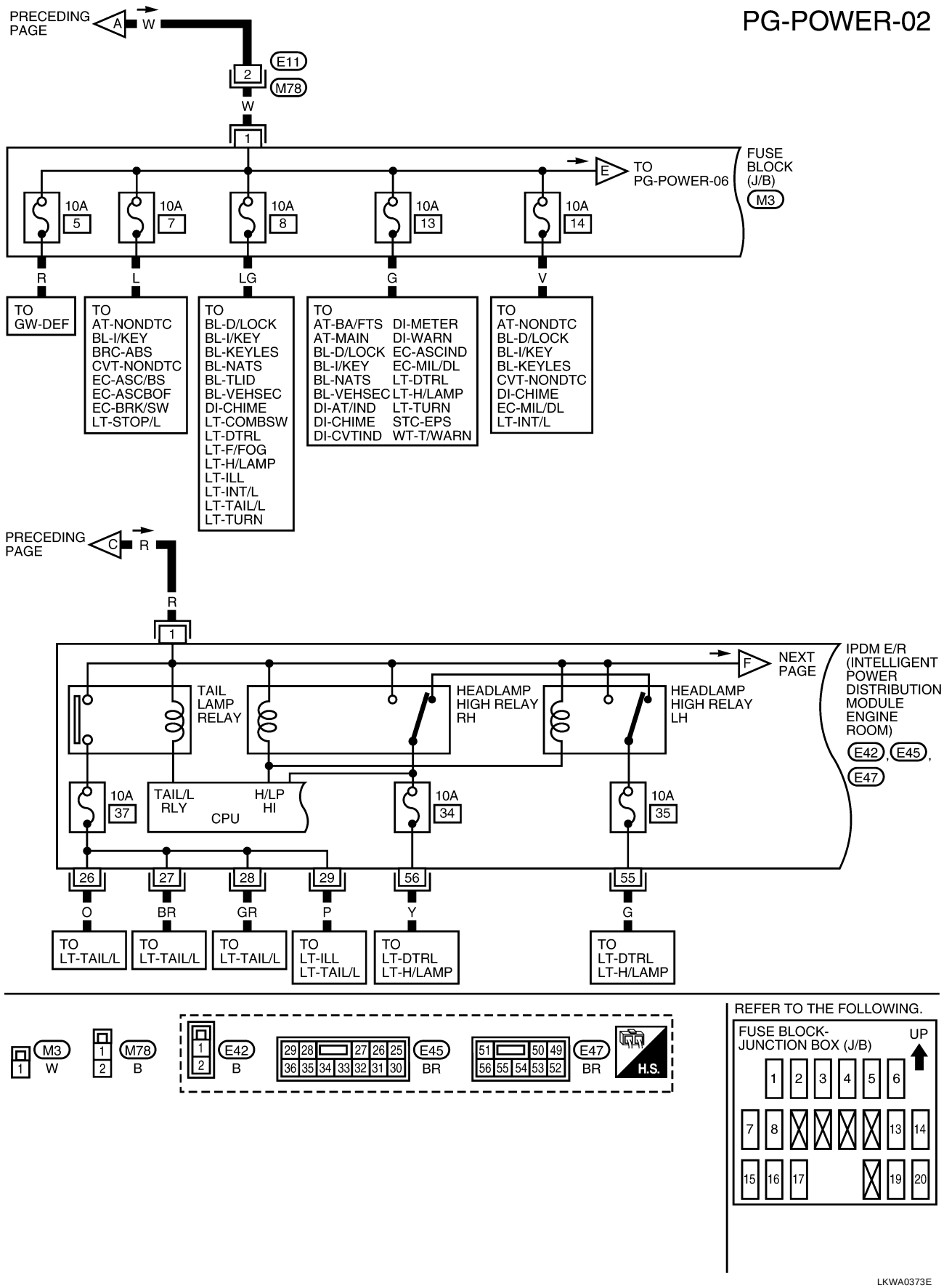
BATTERY POWER SUPPLY — IGNITION SWITCH IN ANY POSITION



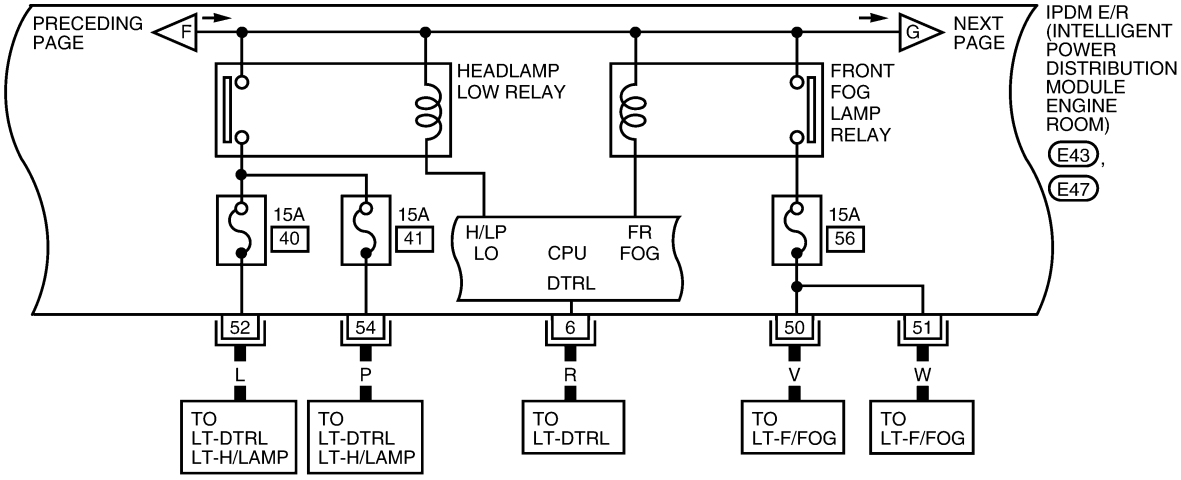


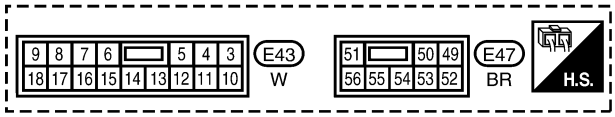
* : F39 IS AN INTEGRAL PART OF FUSIBLE LINK BOX (BATTERY) ASSEMBLY.

LKWA0372E


PG-POWER-02
PRECEDING PAGE
A
W
E11
2
M78
W
1
FUSE BLOCK (J/B)
M3
E
TO PG-POWER-06
10A 5
10A 7
10A 8
10A 13
10A 14
R
L
LG
G
V
TO GW-DEF
TO AT-NONDTC BL-I/KEY BRC-ABS CVT-NONDTC EC-ASC/BS EC-ASCBOF EC-BRK/SW LT-STOP/L
TO BL-D/LOCK BL-I/KEY BL-KEYLES BL-NATS BL-TLID BL-VEHSEC DI-CHIME LT-COMBSW LT-DTRL LT-F/FOG LT-H/LAMP LT-ILL LT-INT/L LT-TAIL/L LT-TURN
TO AT-BA/FTS AT-MAIN BL-D/LOCK BL-I/KEY BL-NATS BL-VEHSEC DI-AT/IND DI-CHIME DI-CVTIND DI-METER DI-WARN EC-ASCIND EC-MIL/DL LT-DTRL LT-H/LAMP LT-TURN STC-EPS WT-T/WARN
TO AT-NONDTC BL-D/LOCK BL-I/KEY BL-KEYLES CVT-NONDTC DI-CHIME EC-MIL/DL LT-INT/L
PRECEDING PAGE
C
R
R
1
F
NEXT PAGE
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E42, E45, E47
TAIL LAMP RELAY
HEADLAMP HIGH RELAY RH
HEADLAMP HIGH RELAY LH
10A 37
TAIL/L RLY
H/LP HI
CPU
10A 34
10A 35
26
27
28
29
56
55
O
BR
GR
P
Y
G
TO LT-TAIL/L
TO LT-TAIL/L
TO LT-TAIL/L
TO LT-ILL LT-TAIL/L
TO LT-DTRL LT-H/LAMP
TO LT-DTRL LT-H/LAMP
M3 W
M78 B
E42 B
E45 BR
E47 BR
H.S.
REFER TO THE FOLLOWING.
FUSE BLOCK-JUNCTION BOX (J/B)
UP
1 2 3 4 5 6
7 8 13 14
15 16 17 19 20
LKWA0373E

PG-POWER-03





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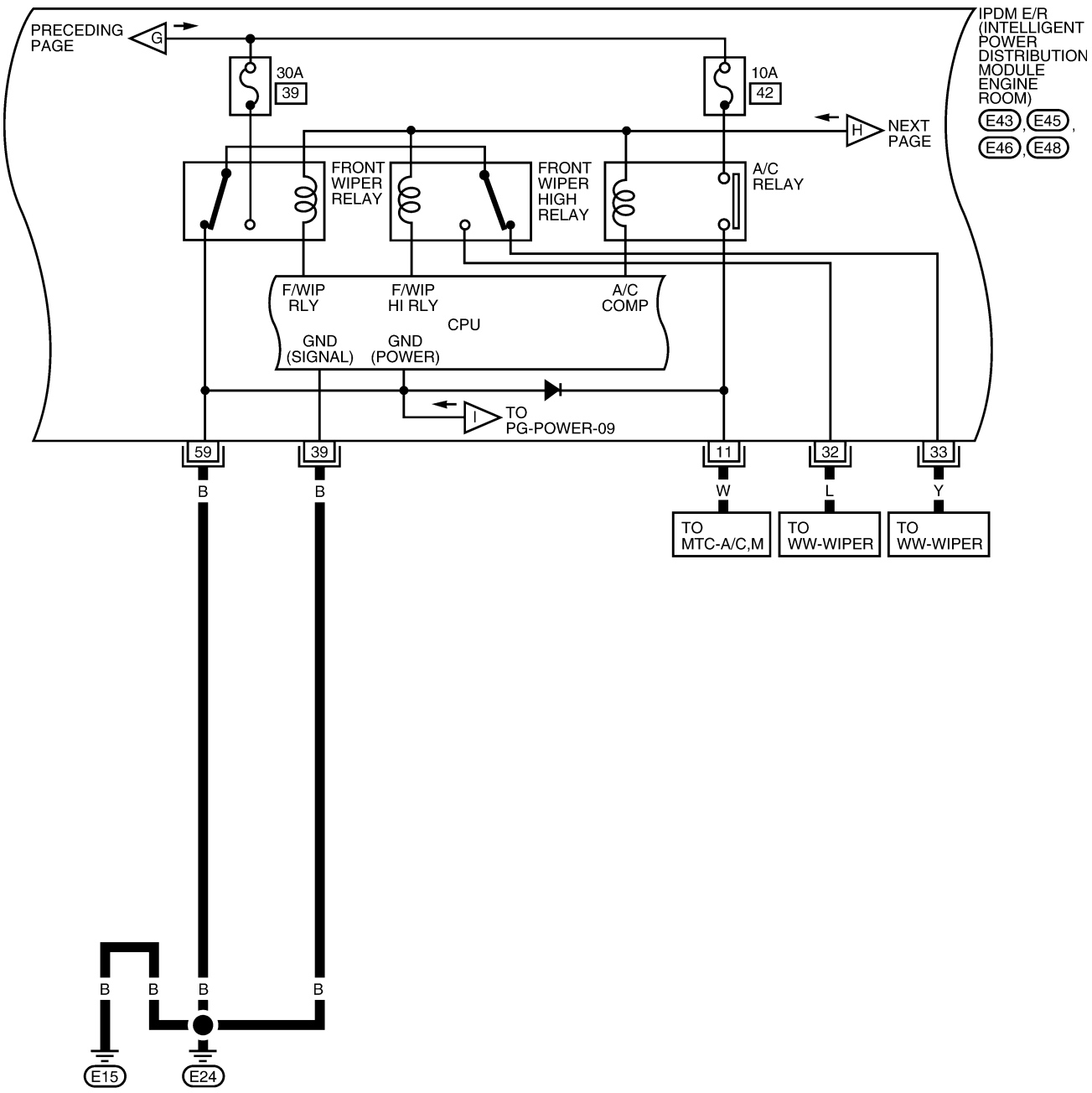
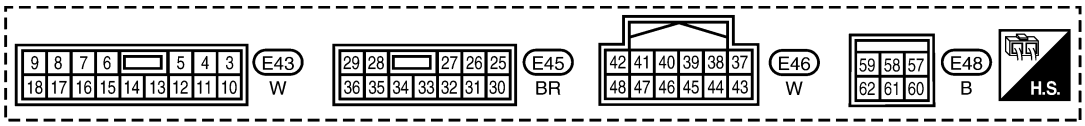
PG-POWER-04





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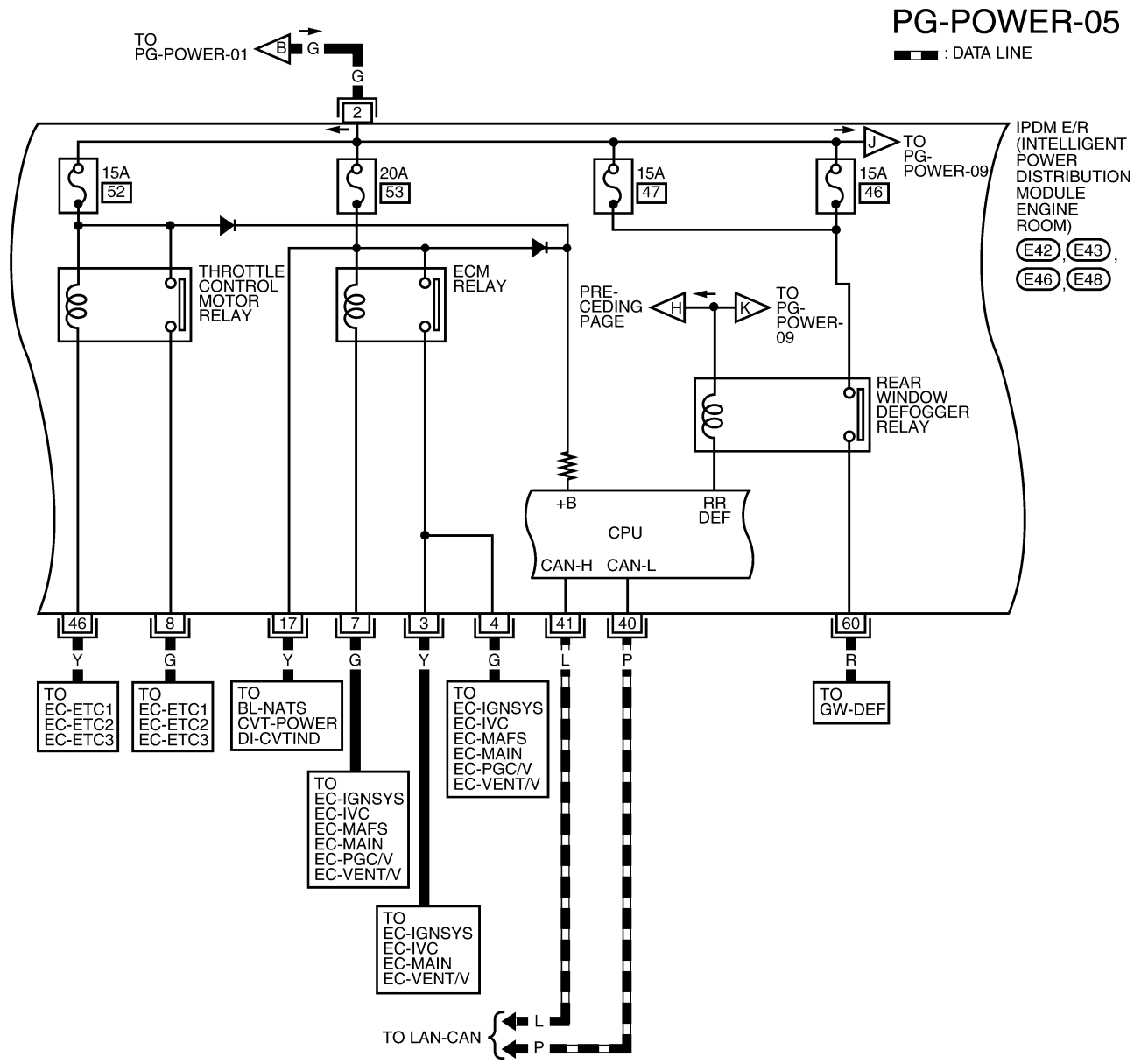
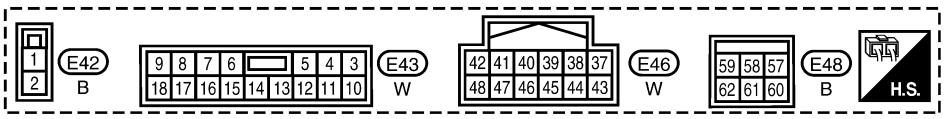
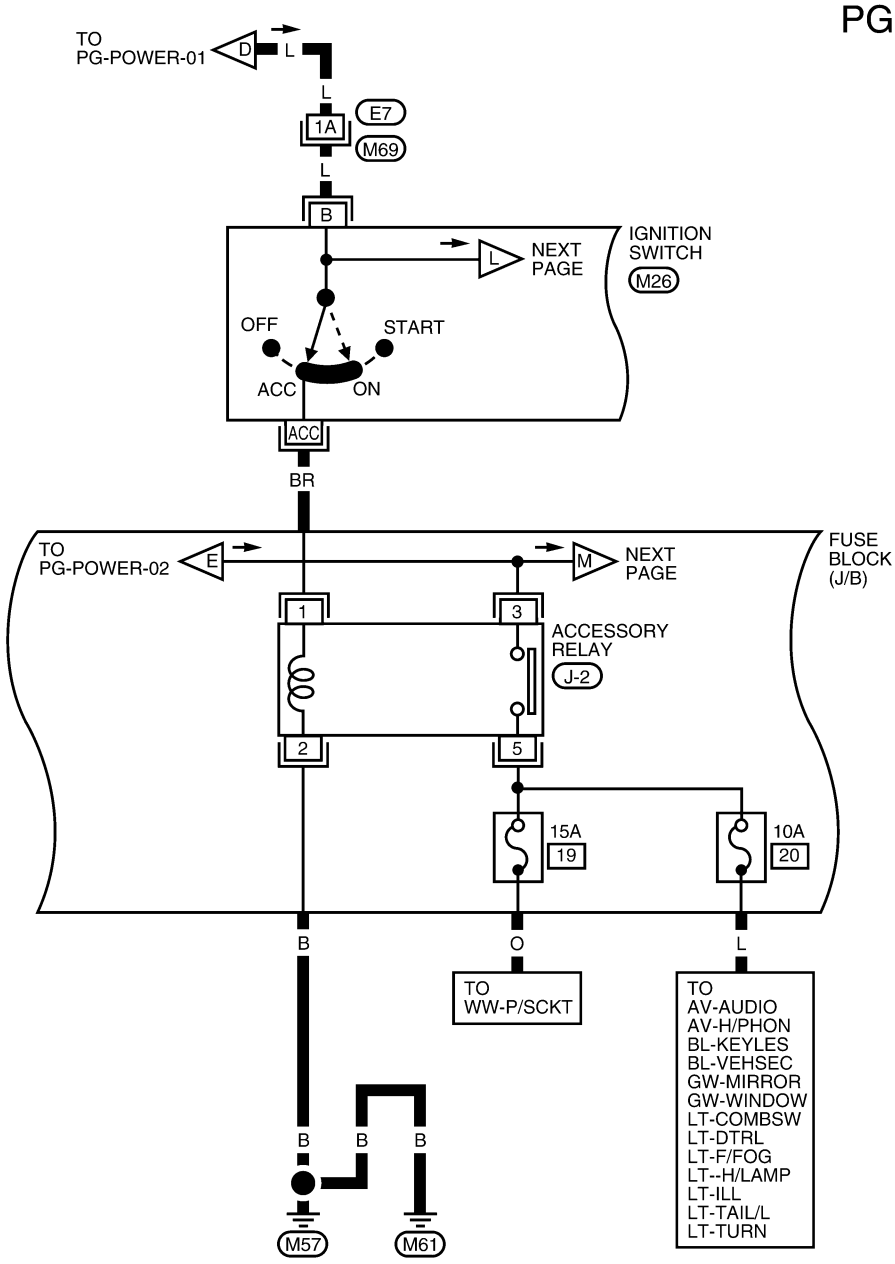

PG-POWER-05
: DATA LINE
TO PG-POWER-01
B
G
G
2
15A 52
20A 53
15A 47
15A 46
J
TO PG-POWER-09
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E42, E43, E46, E48
THROTTLE CONTROL MOTOR RELAY
ECM RELAY
PRE-CEDING PAGE
H
K
TO PG-POWER-09
REAR WINDOW DEFOGGER RELAY
+B
RR DEF
CPU
CAN-H CAN-L
46 8 17 7 3 4 41 40 60
Y G Y G Y G L P R
TO EC-ETC1 EC-ETC2 EC-ETC3
TO EC-ETC1 EC-ETC2 EC-ETC3
TO BL-NATS CVT-POWER DI-CVTIND
TO EC-IGNSYS EC-IVC EC-MAFS EC-MAIN EC-PGC/V EC-VENT/V
TO EC-IGNSYS EC-IVC EC-MAFS EC-MAIN EC-PGC/V EC-VENT/V
TO EC-IGNSYS EC-IVC EC-MAIN EC-VENT/V
TO GW-DEF
TO LAN-CAN
L
P

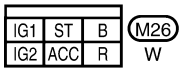

E42
B
E43
W
E46
W
E48
B
H.S.

LKWA0376E

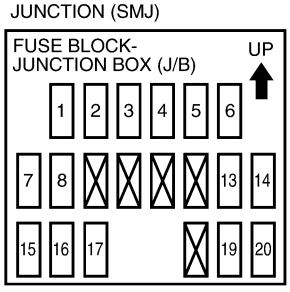
ACCESSORY POWER SUPPLY — IGNITION SWITCH IN ACC AND/OR ON

PG-POWER-06





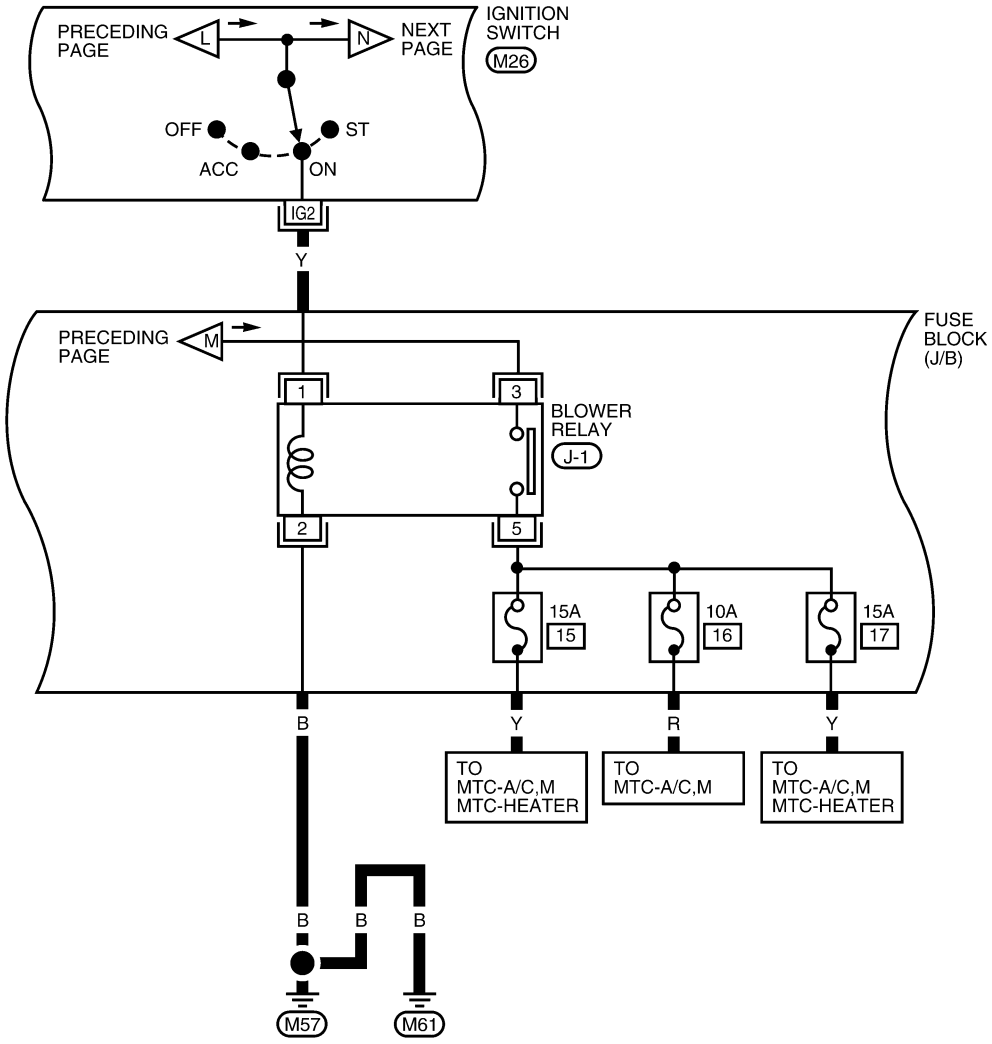
REFER TO THE FOLLOWING.
M69 - SUPER MULTIPLE JUNCTION (SMJ)

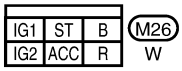


LKWA0377E

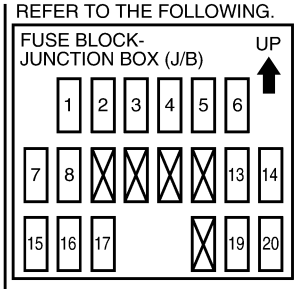
IGNITION POWER SUPPLY — IGNITION SWITCH IN ON

PG-POWER-07





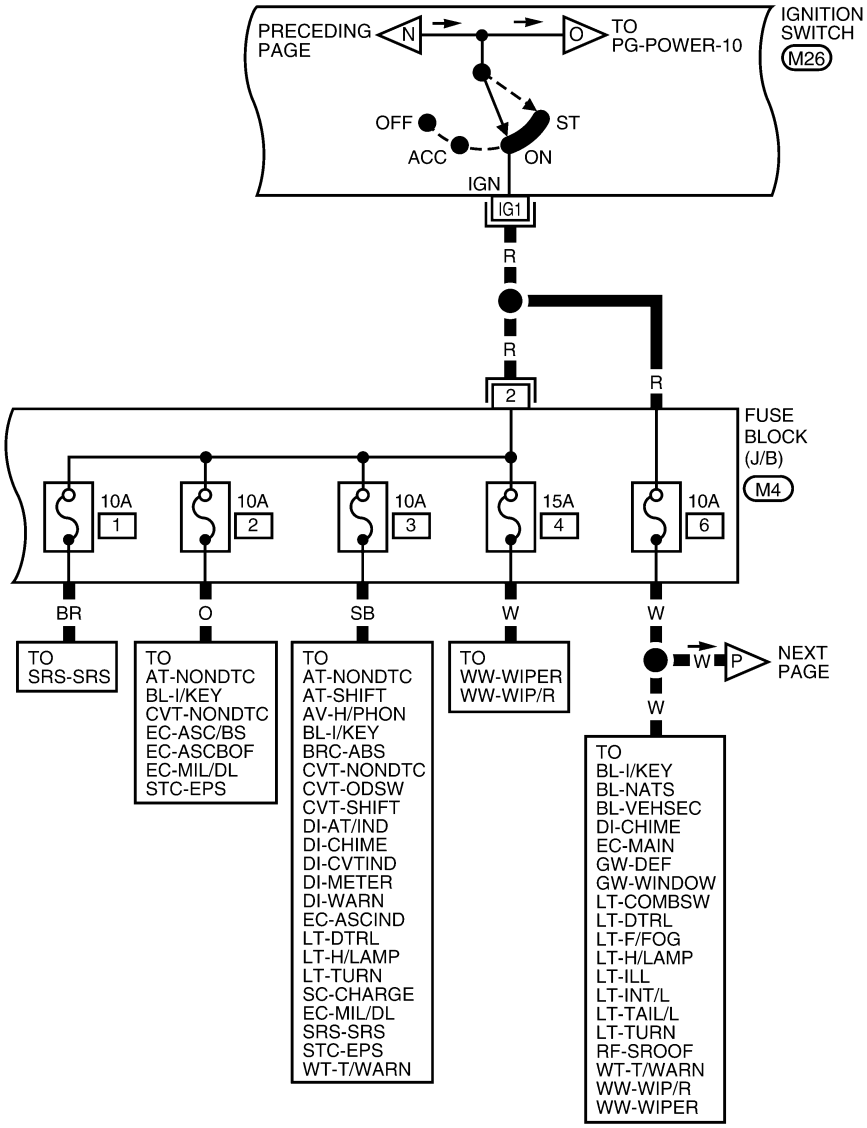
REFER TO THE FOLLOWING.

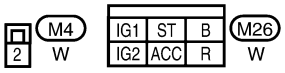


LKWA0378E

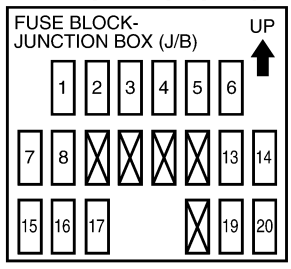
IGNITION POWER SUPPLY — IGNITION SWITCH IN ON AND/OR START.

PG-POWER-08

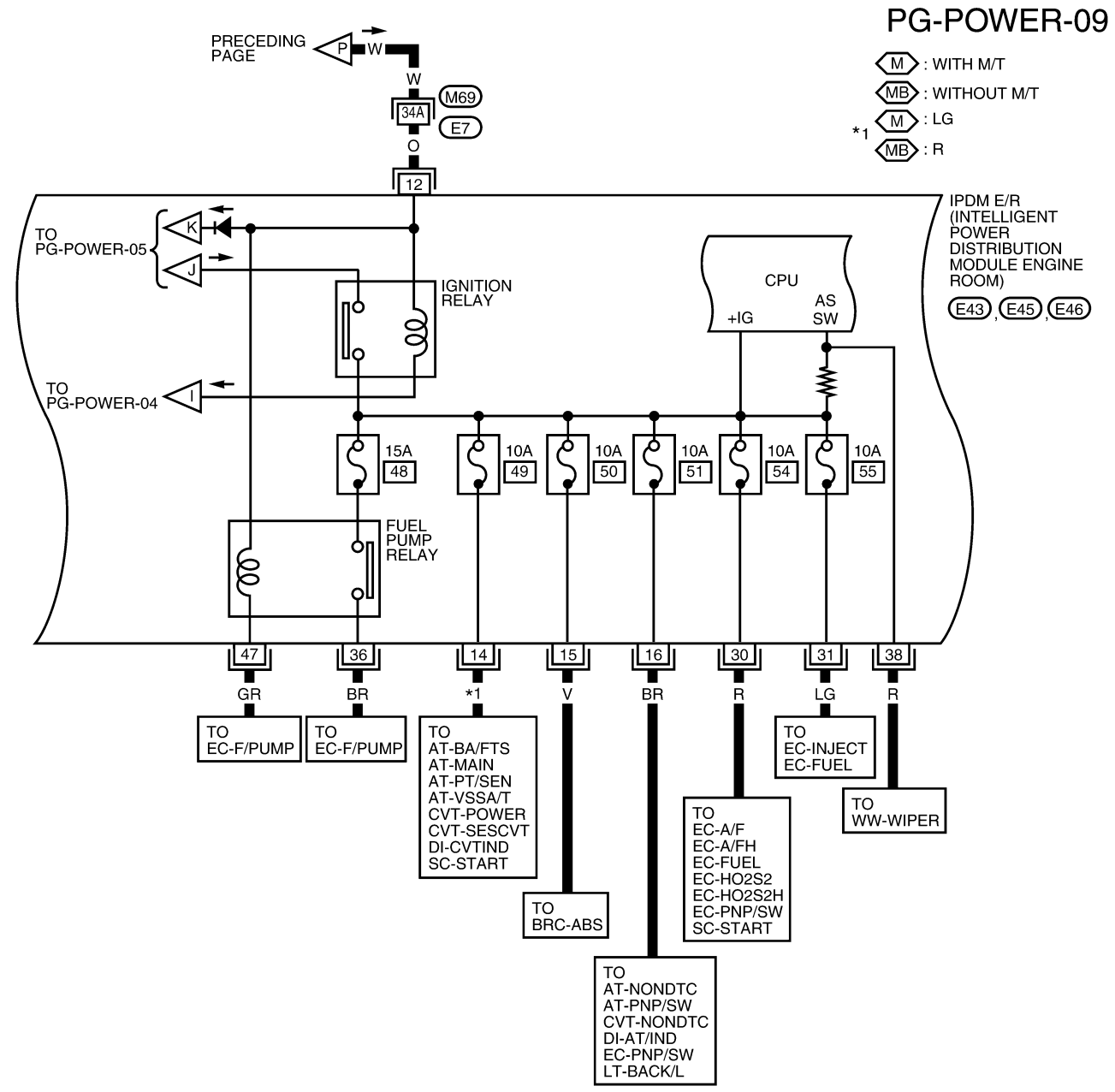


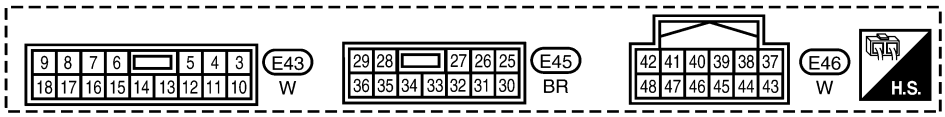


REFER TO THE FOLLOWING.



LKWA0379E

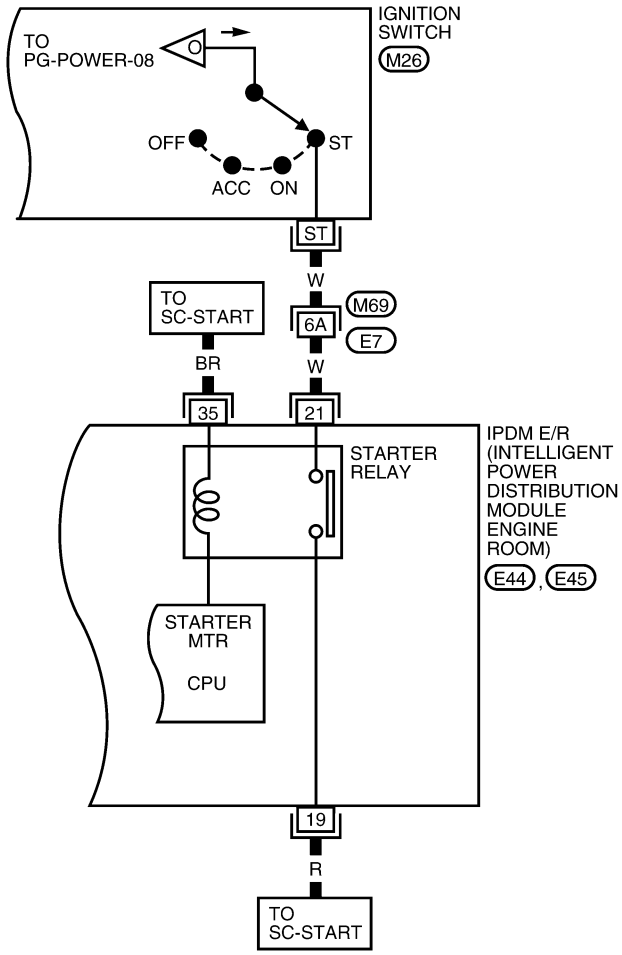


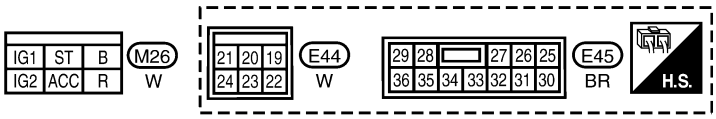


REFER TO THE FOLLOWING.
M69 - SUPER MULTIPLE JUNCTION (SMJ)

LKWA0381E

IGNITION POWER SUPPLY — IGNITION SWITCH IN START





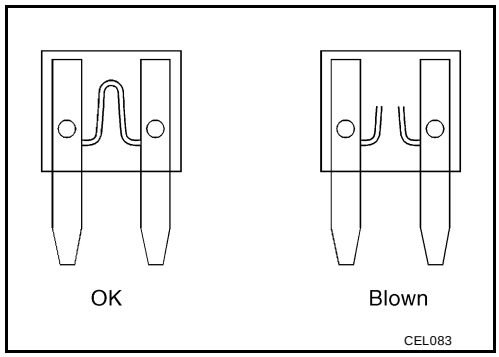
REFER TO THE FOLLOWING.
M69 - SUPER MULTIPLE JUNCTION (SMJ)

LKWA0380E

Fuse

EKS00I5I

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



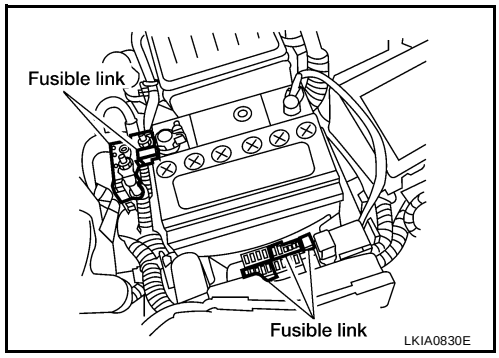
Fusible Link

EKS00I5J

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

CAUTION:

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

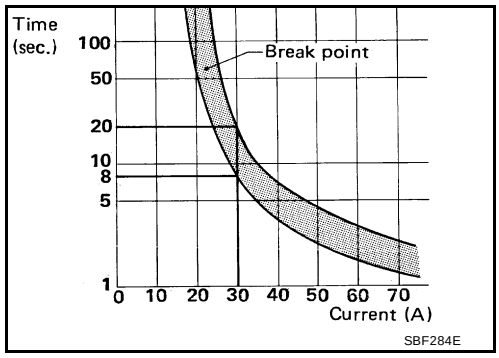


Circuit Breaker (Built Into BCM)

EKS00JLI

For example, when current is 30A, the circuit is broken within 8 to 20 seconds.
A circuit breaker is used for the following systems:

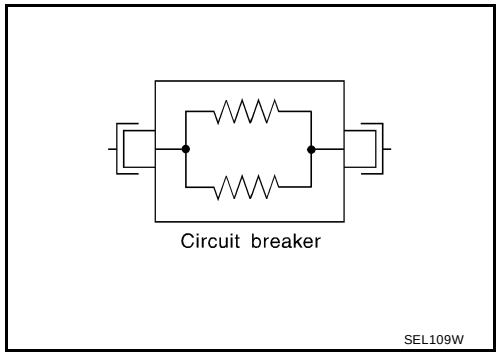
- Power windows
- Power sunroof



Circuit Breaker

EKS00I5K

The PTC thermistor generates heat in response to current flow. The temperature (and resistance) of the thermistor element varies with current flow. Excessive current flow will cause the element's temperature to rise. When the temperature reaches a specified level, the electrical resistance will rise sharply to control the circuit current.
Reduced current flow will cause the element to cool. Resistance falls accordingly and normal circuit current flow is allowed to resume.



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

PFP:284B7

System Description

EKS00JLJ

- 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, oil pressure switch signal reception, 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)
   - 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. Rear window defogger relay control
   Using CAN communication lines, it receives signals from the BCM and controls the rear window defogger relay.
4. A/C compressor control
   Using CAN communication lines, it receives signals from the ECM and controls the A/C compressor (magnet clutch).
5. Starter control
   Using CAN communication lines, it receives signals from the BCM and controls the starter relay.
6. Cooling fan control
   Using CAN communication lines, it receives signals from the ECM and controls the cooling fan relays.
7. Horn control
   Using CAN communication lines, it receives signals from the BCM and controls the horn relay.
8. Daytime light system control (Canada only)
   Using CAN communication lines, it receives signals from the BCM and controls the daytime light 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, headlamp low relay is ON, headlamp high relays are OFF, and daytime light system (Canada only) is OFF. ● With the ignition switch OFF, the headlamp relays are 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.
Cooling fan	● With the ignition switch ON, cooling fan relay-1, relay-2, and relay-3 are ON. ● With the ignition switch OFF, all cooling fan relays are OFF.
Front wiper	Until the ignition switch is turned off, the front wiper relays remain in the same status they were in just before fail–safe control was initiated.

Controlled system	Fail-safe mode
Rear window defogger	Rear window defogger relay OFF
A/C compressor	A/C relay is 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 1 second has elapsed after CAN communication with other control units is stopped, mode switches to sleep status.
3. Sleep status
   - IPDM E/R operates in low current-consumption mode.
   - CAN communication is stopped.
   - When a change in CAN communication signal is detected, mode switches to CAN communication status.
   - When a change in ignition switch signal is detected, mode switches to CAN communication status.

CAN Communication System Description

EKS00JLK

Refer to LAN-4, "SYSTEM DESCRIPTION" .

Function of Detecting Ignition Relay Malfunction

EKS00JLL

- 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)

EKS00JLM

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	● 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

All Signals, Main Signals, Selection From Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECTION FROM MENU	
Motor fan request	MOTOR FAN REQ	1/2/3/4	X	X	X	Signal status input from ECM
Compressor request	AC COMP REQ	ON/OFF	X	X	X	Signal status input from ECM
Parking, license, and tail lamp request	TAIL & CLR REQ	ON/OFF	X	X	X	Signal status input from BCM
Headlamp low beam request	HL LO REQ	ON/OFF	X	X	X	Signal status input from BCM
Headlamp high beam request	HL HI REQ	ON/OFF	X	X	X	Signal status input from BCM
Front fog request	FR FOG REQ	ON/OFF	X	X	X	Signal status input from BCM
FR 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	Status of input signal (*1)
Ignition relay status	IGN RLY	ON/OFF	X	X	X	Ignition relay status monitored with IPDM E/R
Rear defogger request	RR DEF REQ	ON/OFF	X	X	X	Signal status input from BCM
Oil pressure switch	OIL P SW	OPEN/CLOSE	X		X	Signal status input from IPDM E/R
Hood switch	HOOD SW (*2)	OFF	X		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 light request	DTRL REQ	ON/OFF	X		X	Signal status input from BCM

*1 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.
*2 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
Head, tail, fog lamp output	EXTERNAL LAMP	With a certain ON-OFF operation (OFF, TAIL, LO, HI, FOG), the front fog lamp, headlamp low, headlamp high RH, headlamp high LH, and tail lamp relays can be operated.
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 relays (Lo, Hi) can be operated.

Test name	CONSULT-II screen display	Description
Cooling fan output	MOTOR FAN	With a certain operation (1, 2, 3, 4), the cooling fan relays can be operated.
Horn output	HORN	With a certain ON-OFF operation, the horn relay can be operated.

Auto Active Test

EKS00JLN

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 and parking lamps
  - Daytime lamp system (Canada only)
  - Front fog 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).

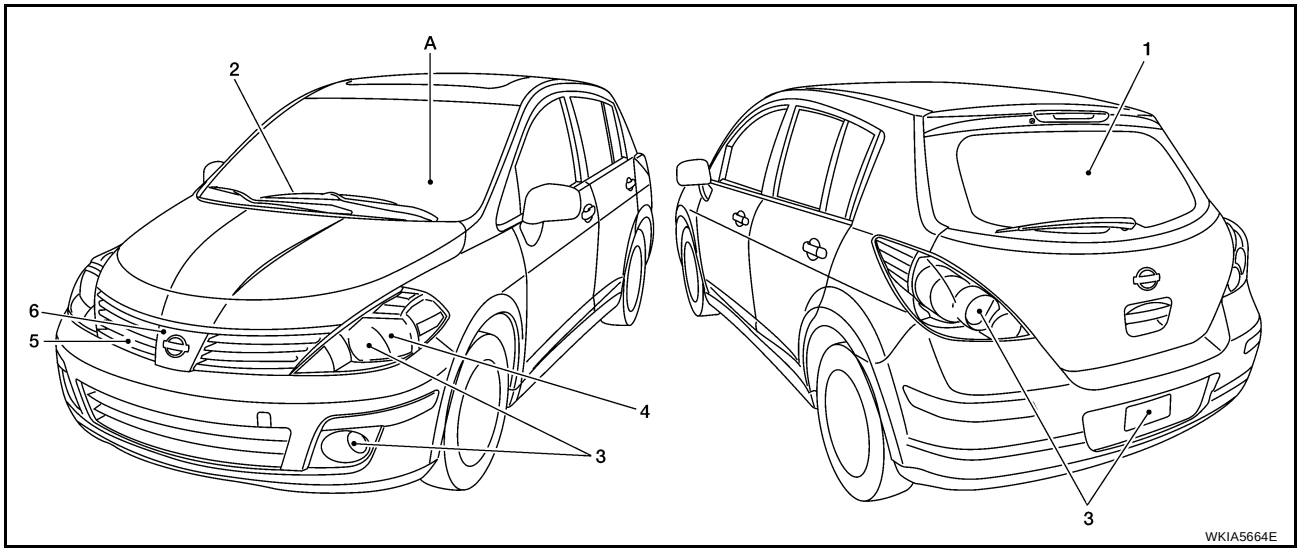
   NOTE:
   When auto active test is performed with hood opened, sprinkle water on windshield beforehand.
2. Turn ignition switch OFF.
3. Turn ignition switch ON and, within 20 seconds, press front door switch LH 20 times. Then turn ignition switch OFF.
4. Turn ignition switch ON within 10 seconds after 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-40, "Door Switch Check" when the auto active test cannot be performed.

INSPECTION IN AUTO ACTIVE TEST MODE

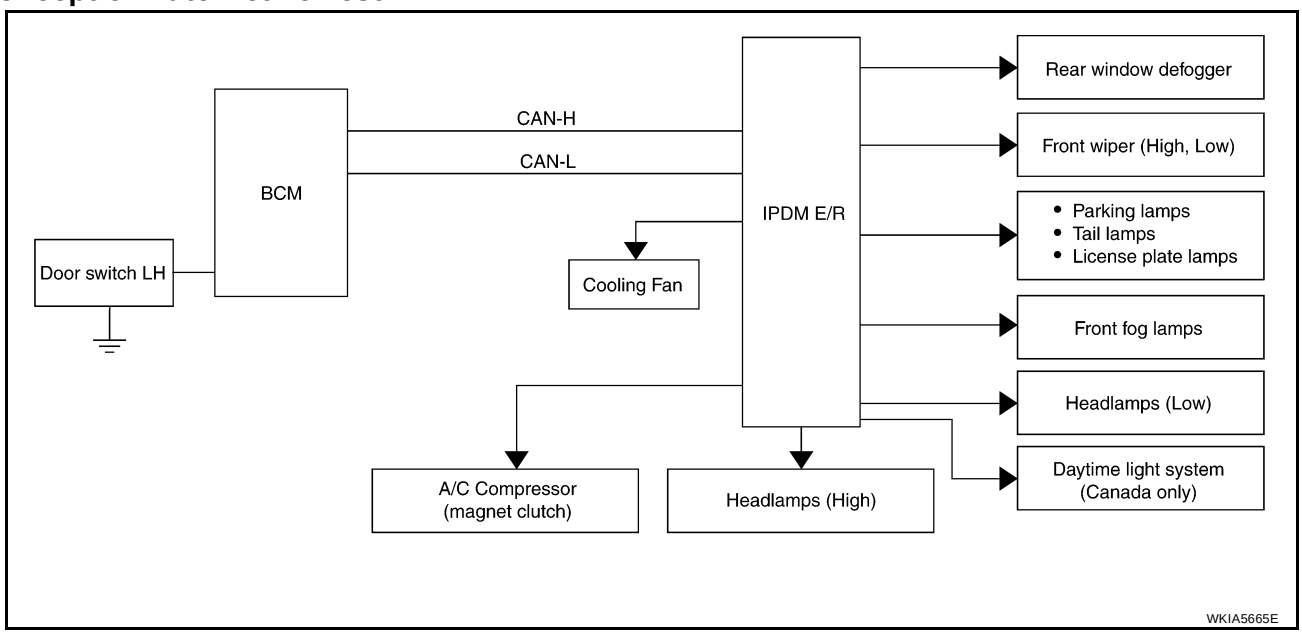
When auto active test mode is actuated, the following six steps are repeated three times.



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

Item Number	Test Item	Operation Time/Frequency
1	Rear window defogger	10 seconds
2	Front wipers	LOW 5 seconds then HIGH 5 seconds
3	Daytime light system (Canada only)	10 seconds
3	Tail, license, and parking lamps	10 seconds
3	Front fog lamps	10 seconds
4	Headlamps (low)	20 seconds
4	Headlamps (high)	ON-OFF 5 times
5	A/C compressor (magnet 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.

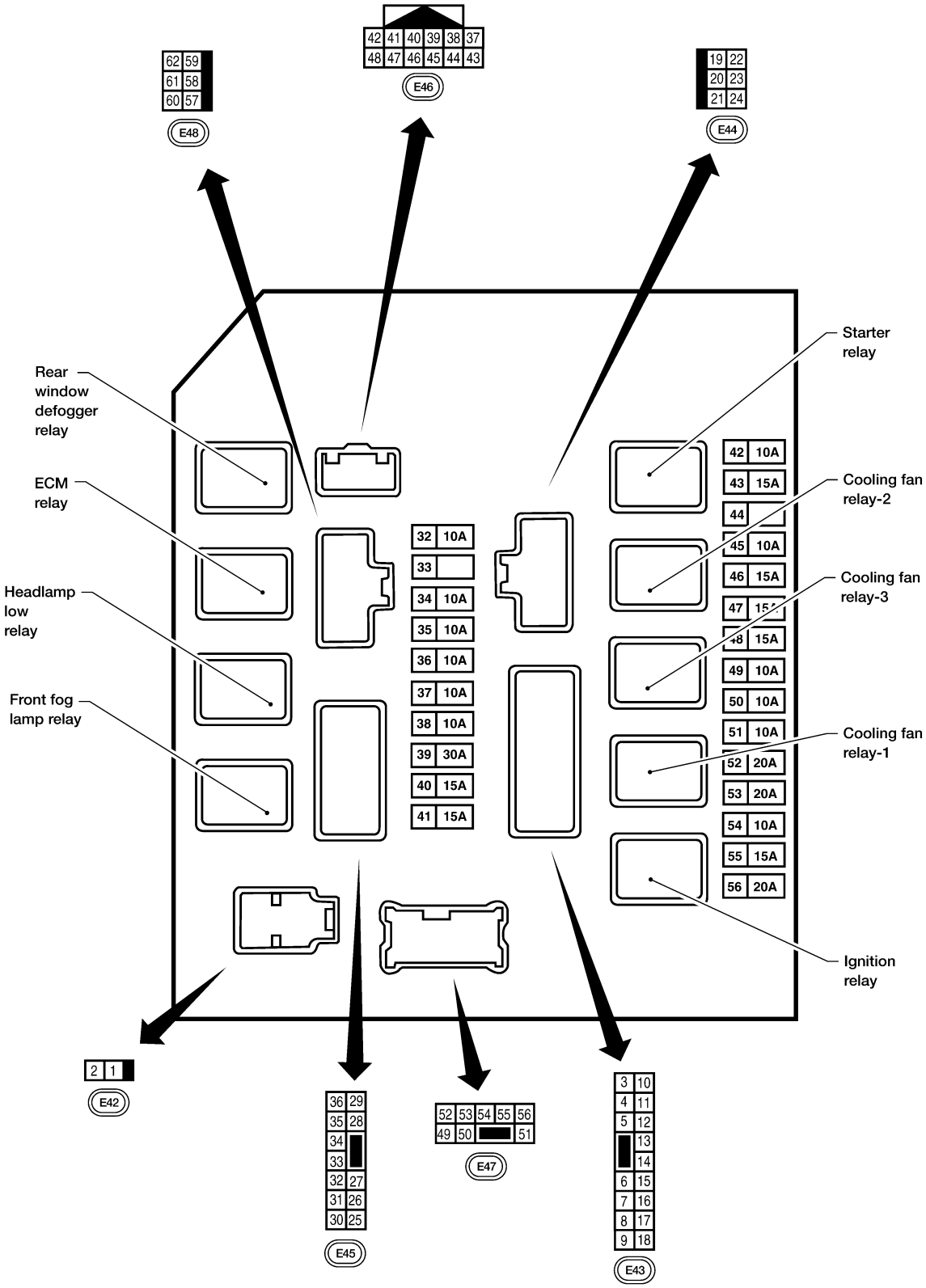
- If any of the systems controlled by IPDM E/R cannot be operated, possible cause can be easily diagnosed using auto active test.

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, daytime light system (Canada only), 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 magnet clutch operate?	YES	● BCM signal input circuit ● CAN communication signal between BCM and ECM ● CAN communication signal between ECM and IPDM E/R
		NO	● 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	● ECM signal input circuit ● CAN communication signal between ECM and IPDM E/R
		NO	● Cooling fan motor malfunction ● Harness/connector malfunction between IPDM E/R and cooling fan motor ● IPDM E/R (integrated relay) malfunction
Oil pressure warning lamp does not operate.	Perform auto active test. Does oil pressure warning lamp blink?	YES	● Harness/connector malfunction between IPDM E/R and oil pressure switch ● Oil pressure switch malfunction ● IPDM E/R
		NO	● CAN communication signal between BCM and combination meter ● Combination meter

IPDM E/R Terminal Arrangement

EKS00JLO



WKIA5666E

Terminals and Reference Values for IPDM E/R

EKS00JLP

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value (Approx.)
				Ignition switch	Operation or condition	
1	R	Battery power supply	Input	OFF	—	Battery voltage
2	G	Battery power supply	Input	OFF	—	Battery voltage
3	Y	ECM Relay	Output	—	Ignition switch ON or START	Battery voltage
					Ignition switch OFF or ACC	0V
4	G	ECM relay	Output	—	Ignition switch ON or START	Battery voltage
					Ignition switch OFF or ACC	0V
6	R	Daytime light relay control	Input	ON	Daytime light system active.	Less than battery voltage
					Daytime light system inactive.	Battery voltage
7	G	ECM relay control	Input	—	Ignition switch ON or START	0V
					Ignition switch OFF or ACC	Battery voltage
8	G	Throttle control motor relay	Output	—	Ignition switch ON or START	Battery voltage
					Ignition switch OFF or ACC	0V
11	W	A/C compressor	Output	ON or START	A/C switch ON or defrost A/C switch	Battery voltage
					A/C switch OFF or defrost A/C switch	0V
12	O	Ignition switch supplied power	Input	—	OFF or ACC	0V
					ON or START	Battery voltage
14	LG (M/T) R (A/T or CVT)	Fuse 49	Output	—	Ignition switch ON or START	Battery voltage
					Ignition switch OFF or ACC	0V
15	V	Fuse 50	Output	—	Ignition switch ON or START	Battery voltage
					Ignition switch OFF or ACC	0V
16	BR	Fuse 51	Output	—	Ignition switch ON or START	Battery voltage
					Ignition switch OFF or ACC	0V
17	Y	Battery power supply	Output	—	—	Battery voltage
19	R	Starter motor	Output	START	—	Battery voltage
20	L (with A/C) LG (without A/C)	Cooling fan relay-1	Output	—	Conditions correct for cooling fan low operation.	Battery voltage
					Conditions not correct for cooling fan low operation.	0V
22	G	Battery power supply	Input	—	—	Battery voltage
23	L	Cooling fan relay-2	Input	—	Conditions correct for cooling fan high operation	Battery voltage
					Conditions not correct for cooling fan high operation	0V
24	Y	Cooling fan relay-3	Output	—	Conditions correct for cooling fan high operation	Battery voltage
					Conditions not correct for cooling fan high operation	0V

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition			Reference value (Approx.)
				Ignition switch	Operation or condition		
26	O	Tail lamp relay (parking lamps)	Output	—	Lighting switch in 2nd position		Battery voltage
27	BR	Tail lamp relay (parking lamps)	Output	—	Lighting switch in 2nd position		Battery voltage
28	GR	Tail lamp relay (parking lamps)	Output	—	Lighting switch in 2nd position		Battery voltage
29	P	Tail lamp relay (parking lamps)	Output	—	Lighting switch in 2nd position		Battery voltage
30	R	Fuse 54	Output	—	Ignition switch ON or START		Battery voltage
					Ignition switch OFF or ACC		0V
31	LG	Fuse 55	Output	—	Ignition switch ON or START		Battery voltage
					Ignition switch OFF or ACC		0V
32	L	Wiper high speed signal	Output	ON or START	Wiper switch	OFF, LO, INT	0V
						HI	Battery voltage
33	Y	Wiper low speed signal	Output	ON or START	Wiper switch	OFF	0V
						LO or INT	Battery voltage
35	BR	Starter relay (inhibit switch)	Input	ON or START	Selector lever in "P" or "N" (CVT or A/T) or clutch pedal depressed (M/T)		Battery voltage
					Selector lever any other position (CVT or A/T) or clutch pedal released (M/T)		0V
36	BR	Fuel pump relay	Output	—	Ignition switch ON or START		Battery voltage
					Ignition switch OFF or ACC		0V
37	G	Oil pressure switch	Input	ON or START	Engine running and oil pressure within specification		Battery voltage
					Engine not running or oil pressure below specification		0V
38	R	Wiper auto stop signal	Input	ON or START	Wipers not in park position		Battery voltage
					Wipers in park position		0V
39	B	Ground	Input	—	—		0V
40	P	CAN-L	—	ON	—		—
41	L	CAN-H	—	ON	—		—
45	R	Horn relay control	Input	—	Horn switch PUSHED, alarm switch activated or door lock/ unlock is confirmed when operating lock system via the keyfob		0V
					Horn switch released, alarm not active, keyfob not active		Battery voltage
46	Y	Throttle control motor relay control	Input	—	Ignition switch ON or START		0V
					Ignition switch OFF or ACC		Battery voltage
47	GR	Fuel pump relay control	Input	—	Ignition switch ON or START		0V
					Ignition switch OFF or ACC		Battery voltage

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition			Reference value (Approx.)
				Ignition switch	Operation or condition		
50	V	Front fog lamp (LH)	Output	ON or START	Lighting switch must be in the 2ND position (LOW beam is ON) and the front fog lamp switch	OFF	0V
						ON	Battery voltage
51	W	Front fog lamp (RH)	Output	ON or START	Lighting switch must be in the 2ND position (LOW beam is ON) and the front fog lamp switch	OFF	0V
						ON	Battery voltage
52	L	LH Low beam headlamp	Output	—	Lighting switch in 2nd position		Battery voltage
54	P	RH Low beam headlamp	Output	—	Lighting switch in 2nd position		Battery voltage
55	G	LH High beam headlamp	Output	—	Lighting switch in 2nd position and placed in HIGH or PASS position		Battery voltage
56	Y	RH High beam headlamp	Output	—	Lighting switch in 2nd position and placed in HIGH or PASS position		Battery voltage
59	B	Ground	Input	—	—		0V
60	R	Rear window defogger relay	Output	ON or START	Rear defogger Switch ON		Battery voltage
					Rear defogger Switch OFF		0V

IPDM E/R Power/Ground Circuit Inspection

EKS00JLQ

1. FUSE AND FUSIBLE LINK INSPECTION

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

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

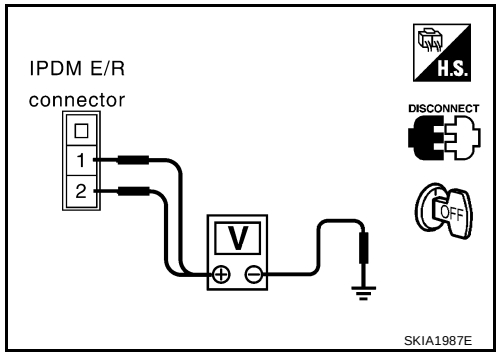
OK or NG

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

2. POWER CIRCUIT INSPECTION

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector E42.
3. Check voltage between IPDM E/R harness connector E42 terminals 1, 2 and ground.

Battery voltage should exist.



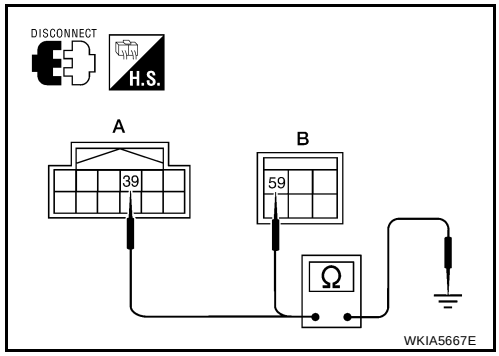
OK or NG

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 E46 and E48.
2. Check continuity between IPDM E/R harness connector E46 (A) terminal 39, E48 (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)

EKS00JLR

CAUTION:

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

1. SELF-DIAGNOSIS RESULT CHECK

1. Connect CONSULT-II and select "IPDM E/R" on the "SELECT SYSTEM" screen.
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-4, "SYSTEM DESCRIPTION" .

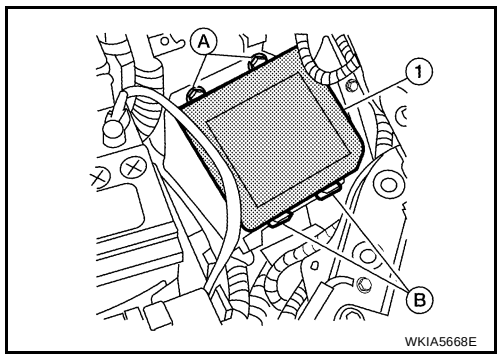
Removal and Installation of IPDM E/R

EKS00JWA

⇦: Vehicle front

REMOVAL

1. Lift up the IPDM E/R while pushing and opening pawls (A) or (B), and remove the IPDM E/R while pushing and opening the other side pawls.
2. Disconnect harness connector.



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INSTALLATION

Installation is the reverse order of removal.

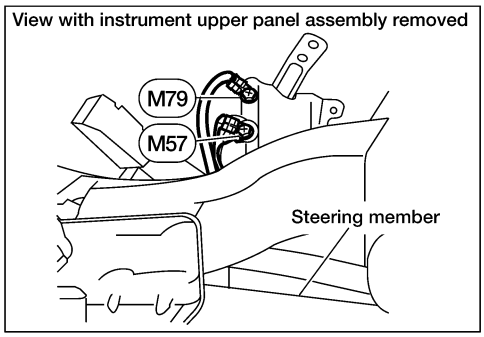
GROUND CIRCUIT

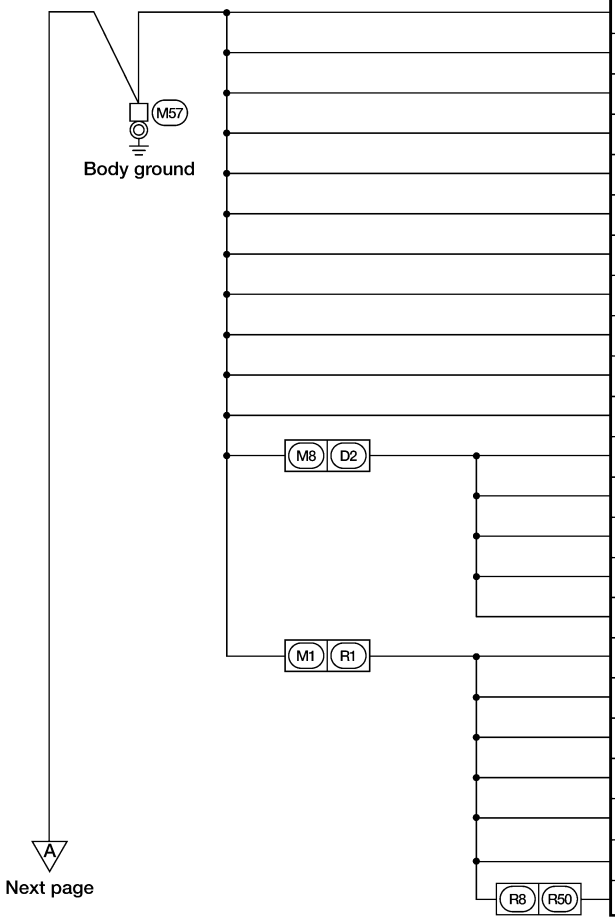
PFP:00011

Ground Distribution

EKS00I5W

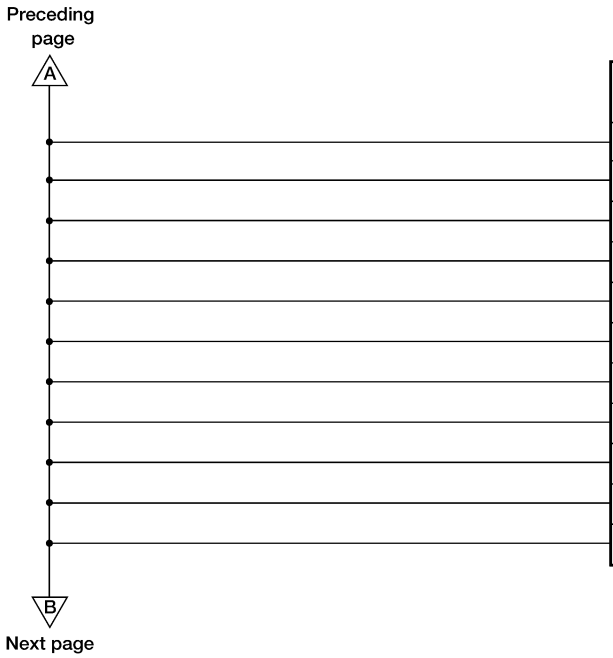
MAIN HARNESS





CONNECTOR NUMBER	CONNECT TO
M5	Illumination control switch
M7	Door mirror remote control switch (Terminal No. 12)
M20	BCM (body control module) (Terminal No. 67)
M22	Data link connector (Terminal No. 4)
M22	Data link connector (Terminal No. 5)
M33	Front air control (Terminal No. 8)
M33	Front air control (Terminal No. 9)
M34	Front air control
M35	Air bag diagnosis sensor unit
M36	Front passenger air bag off indicator
M42	Thermo control amp.
D3	Front door lock actuator LH (Door unlock sensor)
D5	Front door request switch LH
D8	Main power window and door lock/unlock switch
D14	Front door key cylinder switch LH
D114	Front door lock actuator RH (Door unlock sensor)
R2	Map lamp
R4	Sunroof motor assembly
R6	Sunroof switch
R9	Vanity mirror LH
R10	Vanity mirror RH
R15	Microphone
R51	Interior room lamp

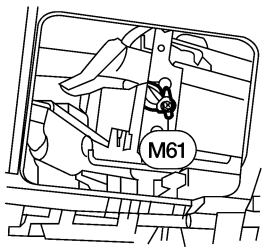
WKIA5644E



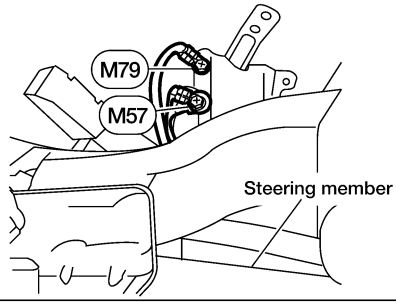
CONNECTOR NUMBER	CONNECT TO
J-1	Blower relay
M10	Instrument panel antenna (shield)
M38	A/T device (Terminal No. 2)
M38	A/T device (Terminal No. 6)
M38	CVT device (Park position switch)
M38	CVT device (Overdrive control switch) (Terminal No. 2)
M38	CVT device (Terminal No. 6)
M52	Intelligent key unit
M52	Intelligent key unit (shield)
M55	Hazard switch
M73	Key switch and ignition knob switch

WKIA5673E

View with passenger airbag removed



View with instrument upper panel assembly removed



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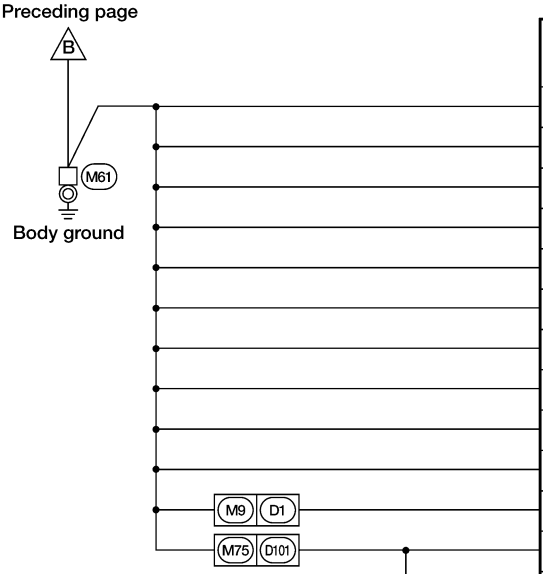
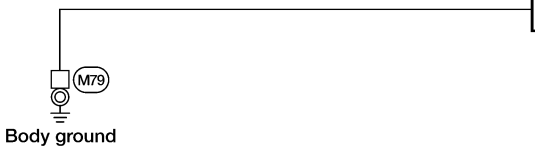


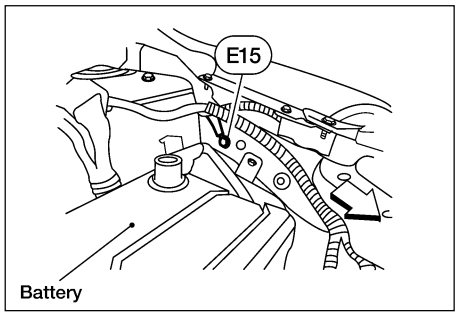
CONNECTOR NUMBER	CONNECT TO
M20	BCM (body control module) (Terminal No. 67)
M21	NATS antenna amp.
M24	Combination meter (Terminal No. 21)
M24	Combination meter (Terminal No. 22)
M24	Combination meter (Terminal No. 23)
M28	Combination switch
M41	Defrost A/C switch
M44	Audio unit
M48	Heated mirror relay
M59	Glove box lamp
D4	Door mirror LH
D103	Front door request switch RH
D105	Power window and door lock/unlock switch RH
D107	Door mirror RH

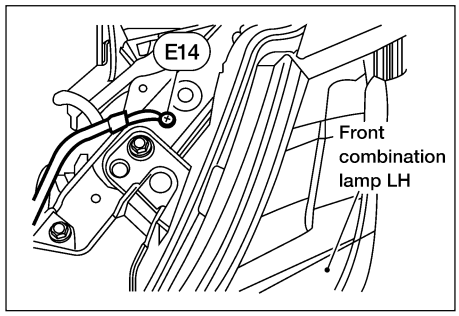


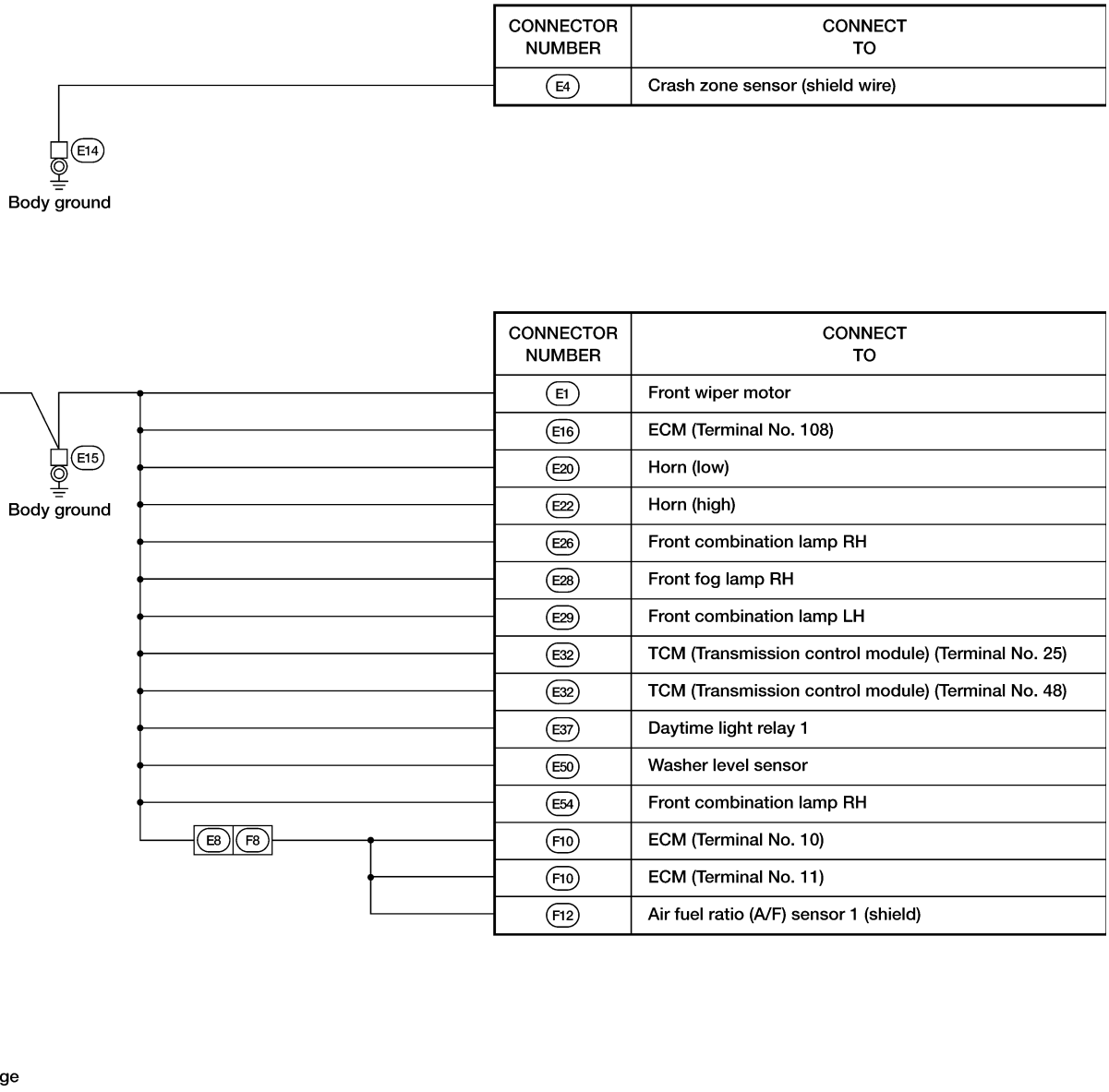
CONNECTOR NUMBER	CONNECT TO
M54	EPS control unit

WKIA5645E

ENGINE ROOM HARNESS







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

CONNECTOR NUMBER	CONNECT TO
E1	Front wiper motor
E16	ECM (Terminal No. 108)
E20	Horn (low)
E22	Horn (high)
E26	Front combination lamp RH
E28	Front fog lamp RH
E29	Front combination lamp LH
E32	TCM (Transmission control module) (Terminal No. 25)
E32	TCM (Transmission control module) (Terminal No. 48)
E37	Daytime light relay 1
E50	Washer level sensor
E54	Front combination lamp RH
F10	ECM (Terminal No. 10)
F10	ECM (Terminal No. 11)
F12	Air fuel ratio (A/F) sensor 1 (shield)

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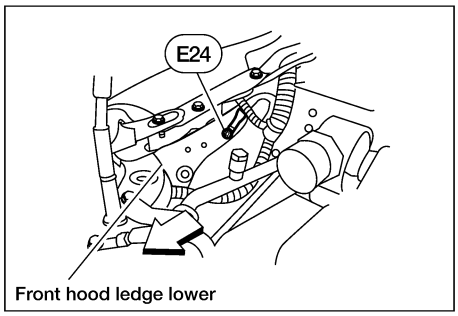
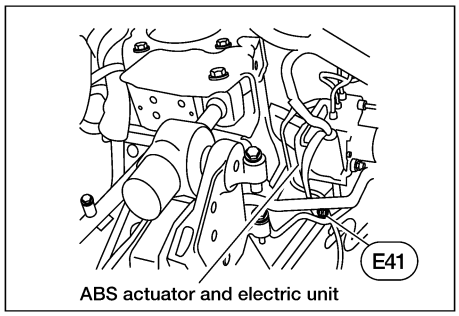
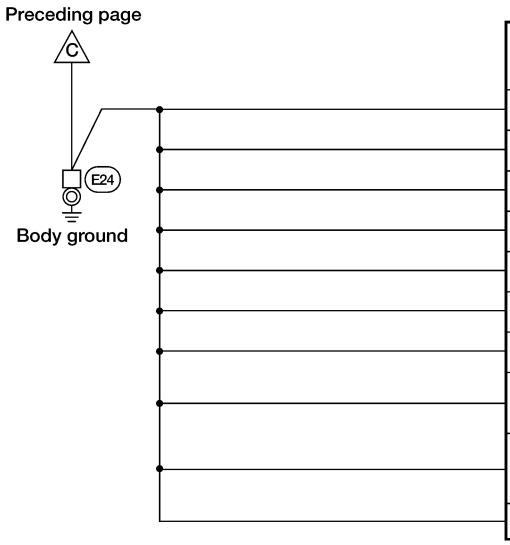
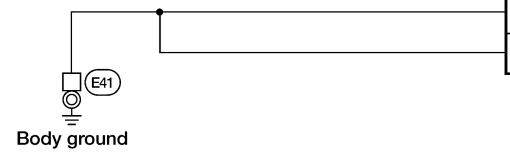






CONNECTOR NUMBER	CONNECT TO
E3	Cooling fan motor (Terminal No. 2) with A/C
E3	Cooling fan motor (Terminal No. 4) without A/C
E25	Front combination lamp LH
E27	Front fog lamp LH
E30	Front combination lamp RH
E38	Daytime light relay 2
E40	Brake fluid level switch
E46	IPDM E/R (Intelligent power distribution module engine room) (Terminal No. 39)
E48	IPDM E/R (Intelligent power distribution module engine room) (Terminal No. 59)
E53	Front combination lamp LH



CONNECTOR NUMBER	CONNECT TO
E33	ABS actuator and electric unit (Control unit) (Terminal No. 1)
E33	ABS actuator and electric unit (Control unit) (Terminal No. 4)

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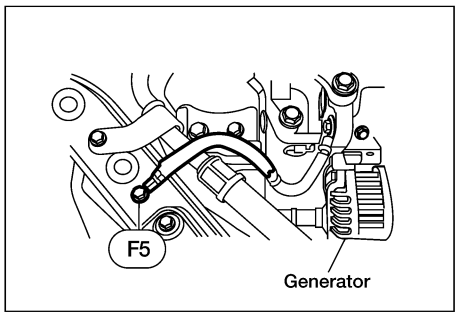
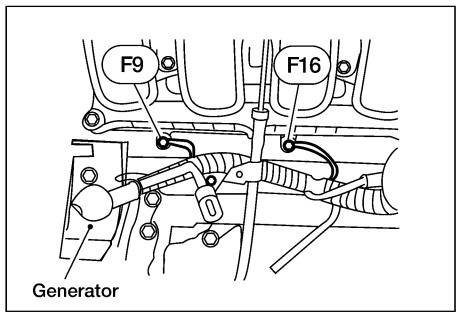
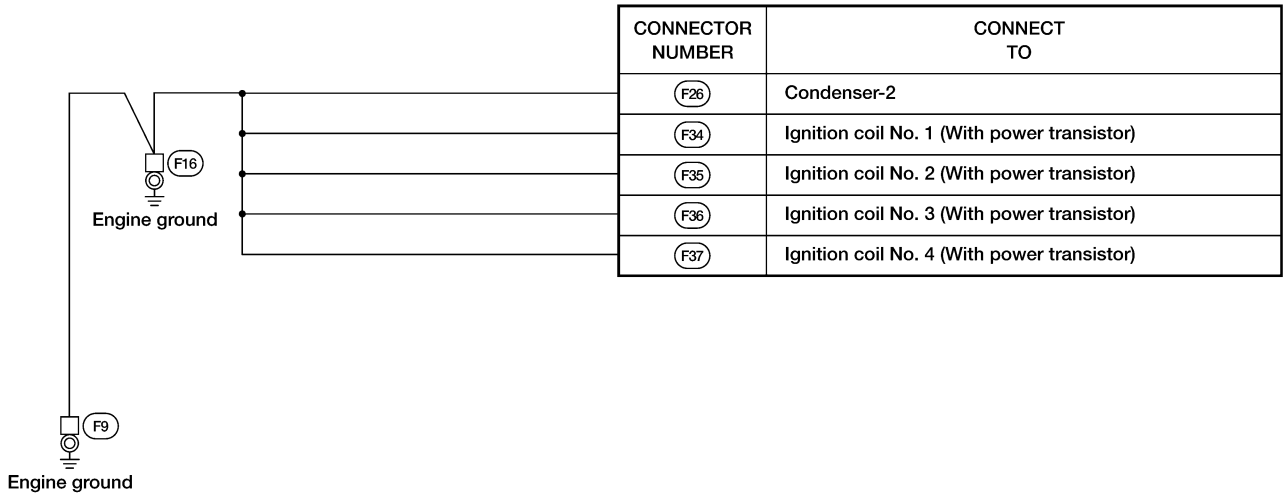
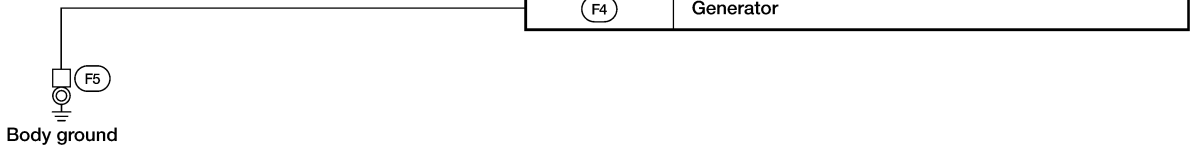
ENGINE CONTROL HARNESS







CONNECTOR NUMBER	CONNECT TO
F26	Condenser-2
F34	Ignition coil No. 1 (With power transistor)
F35	Ignition coil No. 2 (With power transistor)
F36	Ignition coil No. 3 (With power transistor)
F37	Ignition coil No. 4 (With power transistor)



CONNECTOR NUMBER	CONNECT TO
F4	Generator

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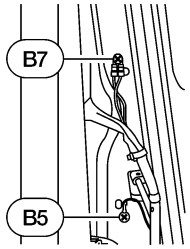
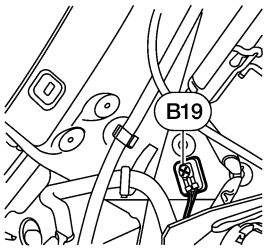
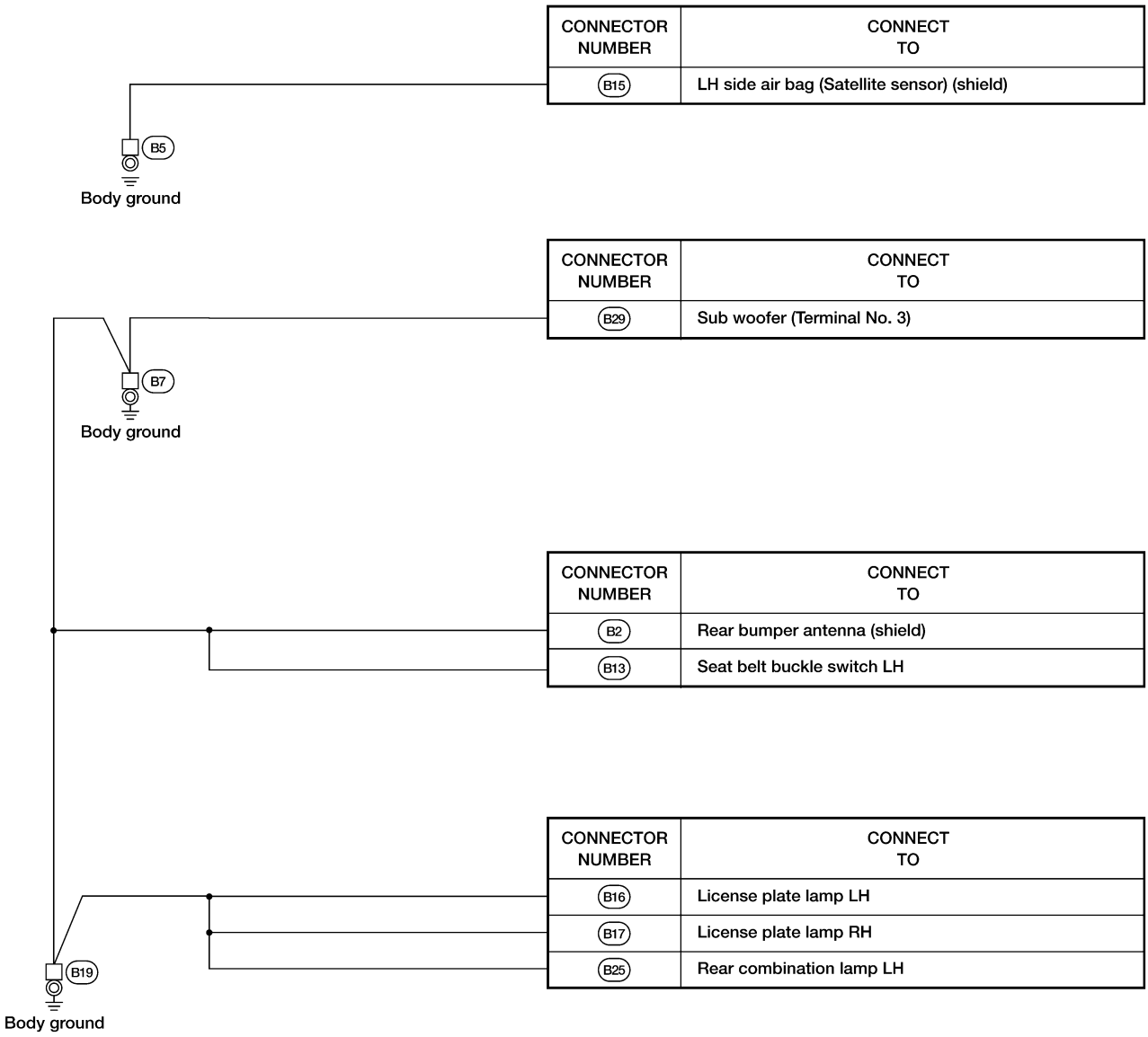
BODY HARNESS

View with LH center pillar upper garnish removed



View with LH luggage side lower finisher removed





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

CONNECTOR NUMBER	CONNECT TO
B29	Sub woofer (Terminal No. 3)

CONNECTOR NUMBER	CONNECT TO
B2	Rear bumper antenna (shield)
B13	Seat belt buckle switch LH

CONNECTOR NUMBER	CONNECT TO
B16	License plate lamp LH
B17	License plate lamp RH
B25	Rear combination lamp LH

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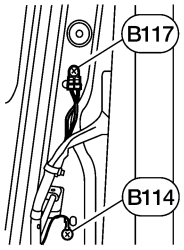
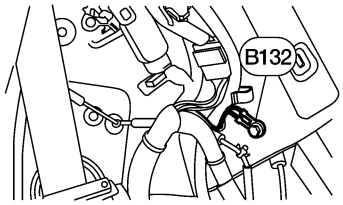
BODY NO. 2 HARNESS

View with RH center pillar upper garnish removed



View with RH luggage side lower finisher removed



CONNECTOR NUMBER	CONNECT TO
B111	RH side air bag (Satellite sensor) (shield)

B114
Body ground

CONNECTOR NUMBER	CONNECT TO
B100	Fuel level sensor unit and fuel pump (Fuel pump)
B112	Seat belt buckle switch RH

B117
Body ground

CONNECTOR NUMBER	CONNECT TO
B103	Console power socket
B107	Rear combination lamp RH
B121	Bluetooth control unit (Terminal No. 4)
B121	Bluetooth control unit (Terminal No. 20)
B121	Bluetooth control unit (Terminal No. 21)
B121	Bluetooth control unit (Terminal No. 23)
B125	Front console antenna
B126	Rear floor antenna (shield)
B301	Occupant classification system control unit

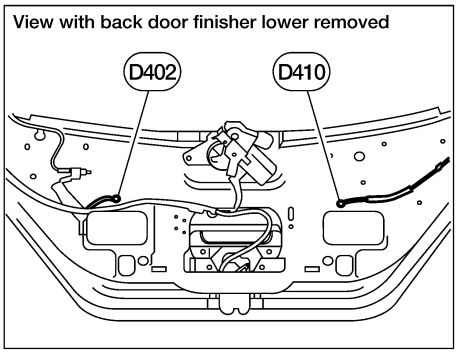
B110 B300

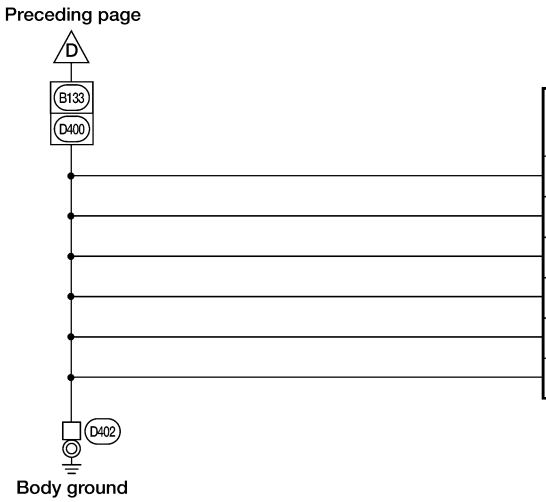
B132
Body ground

D
Next page

WKIA5650E

BACK DOOR HARNESS





CONNECTOR NUMBER	CONNECT TO
D404	Rear wiper motor
D405	Back door lock assembly (Terminal No. 2)
D405	Back door lock assembly (Terminal No. 4)
D406	Back door request switch
D407	High-mounted stop lamp
D408	Back door opener switch

CONNECTOR NUMBER	CONNECT TO
D413	Rear window defogger

WKIA5651E

HARNESS

PFP:24010

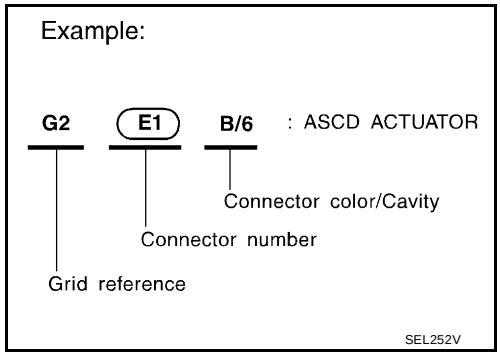
Harness Layout

EKS00IW8

HOW TO READ HARNESS LAYOUT

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

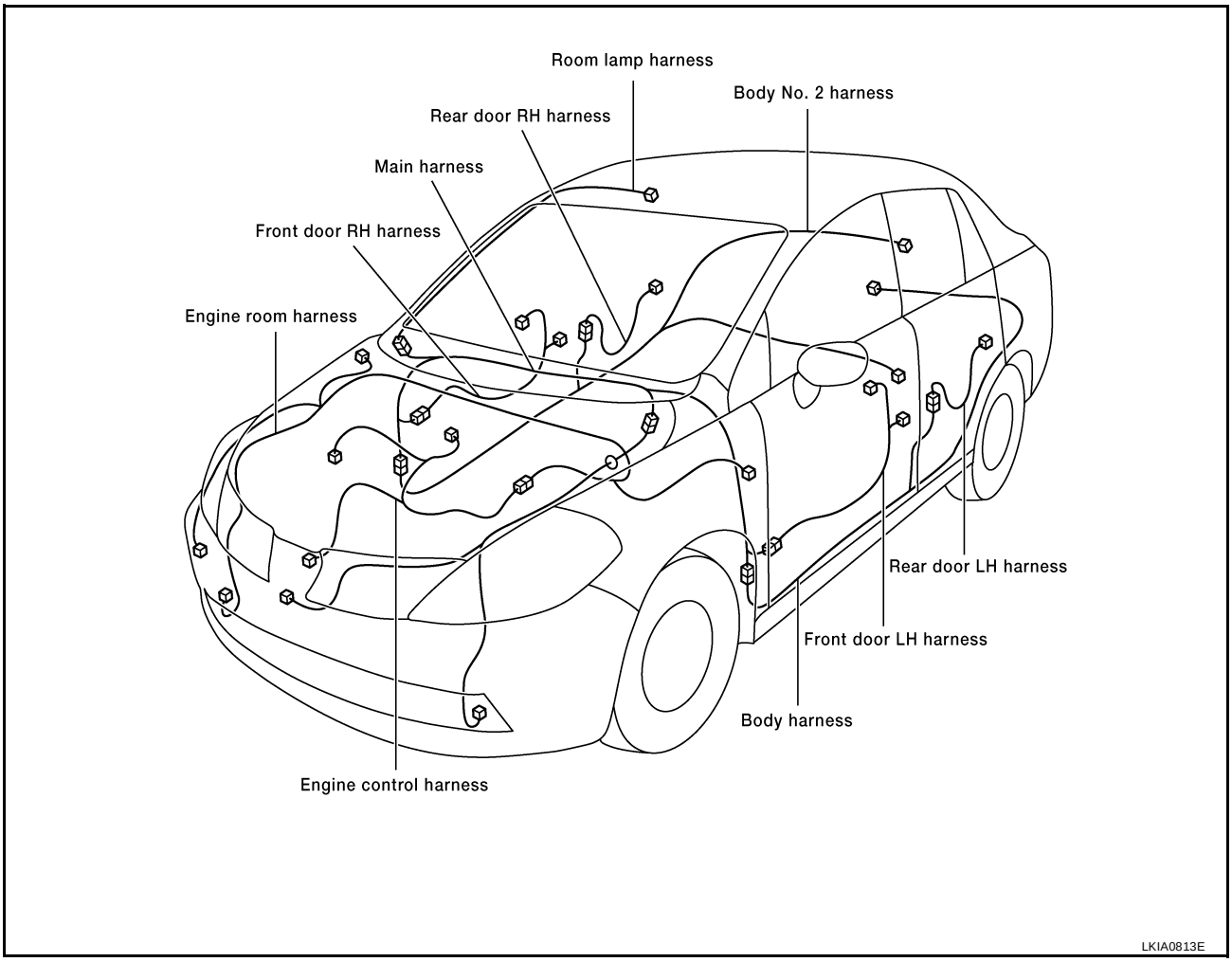
- Main Harness
- Engine Room Harness (LH View)
- Engine Room Harness (RH View)
- Engine Control Harness
- Body Harness
- Body No. 2 Harness
- Room Lamp Harness
- Back Door Harness



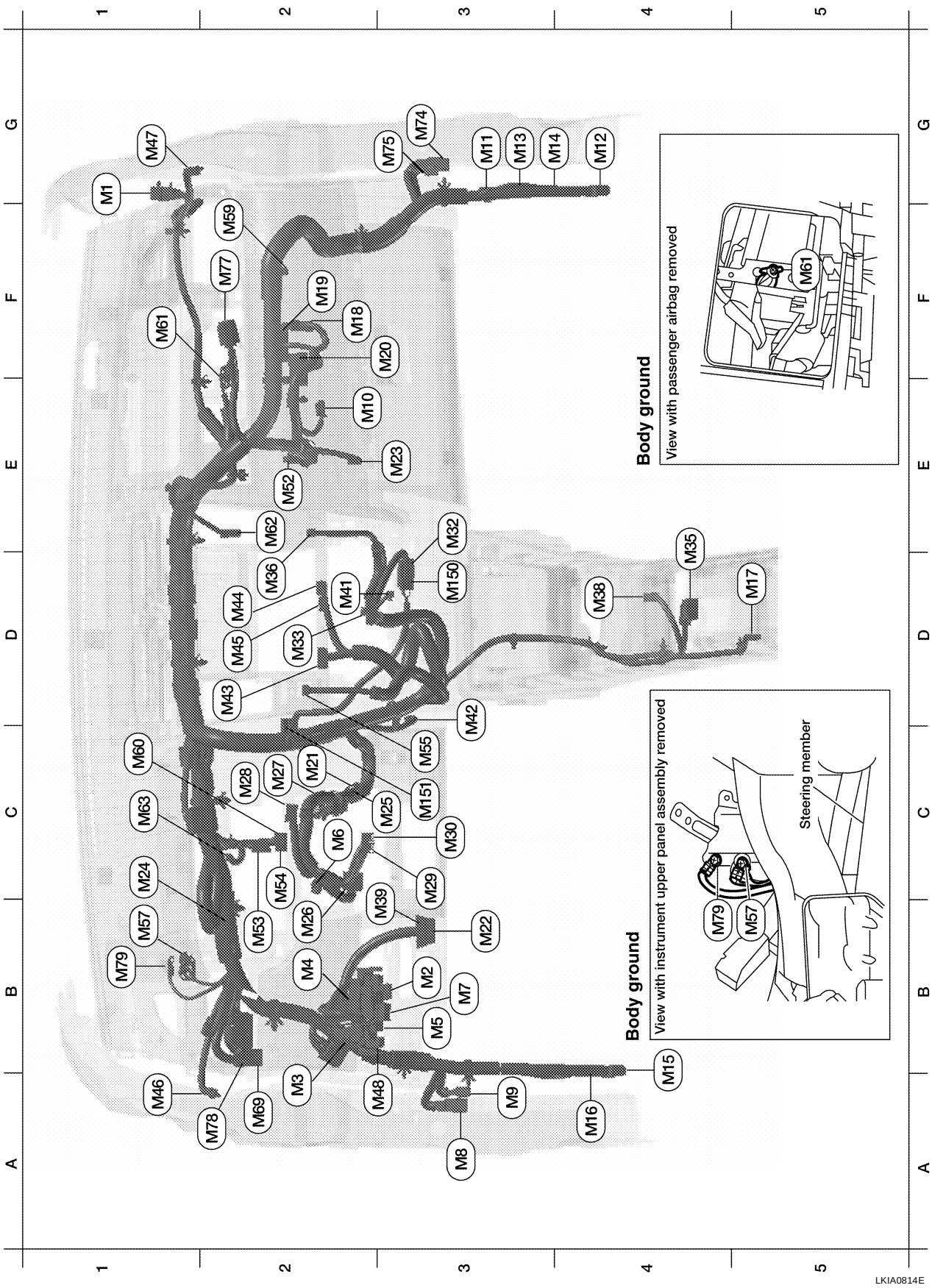
To use the grid reference

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

OUTLINE

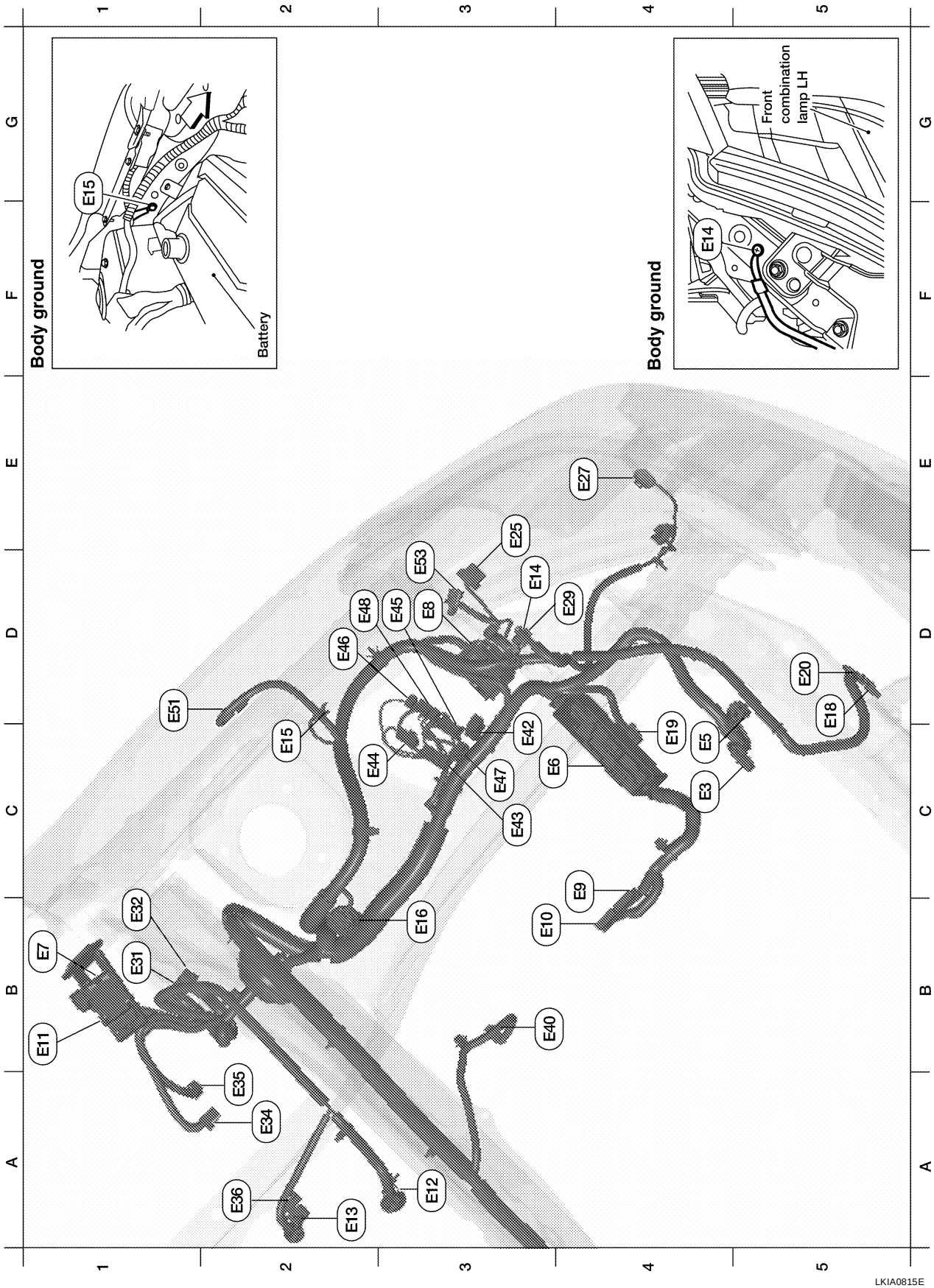

Room lamp harness
Body No. 2 harness
Rear door RH harness
Main harness
Front door RH harness
Engine room harness
Rear door LH harness
Front door LH harness
Body harness
Engine control harness
LKIA0813E

MAIN HARNESS



G1	M1	W/16	: To R1	G1	M47	BR/2	: Front tweeter RH
B3	M2	B/5	: Passenger select unlock relay	B2	M48	L/4	: Heated mirror relay
B2	M3	W/1	: Fuse block (J/B)	E2	M52	W/40	: Intelligent key unit
B3	M4	W/1	: Fuse block (J/B)	B2	M53	W/16	: EPS control unit
B3	M5	W/3	: Illumination control switch	B3	M54	B/2	: EPS control unit
C2	M6	W/4	: Steering lock solenoid	C3	M55	W/4	: Hazard switch
B3	M7	W/16	: Door mirror remote control switch	B2	M57	—	: Body ground
A3	M8	W/16	: To D2	F2	M59	W/2	: Glove box lamp
A3	M9	W/16	: To D1	C1	M60	L/2	: EPS control unit
E2	M10	GR/2	: Instrument panel antenna	F1	M61	—	: Body ground
G3	M11	W/4	: To B106	E2	M62	W/2	: Front blower motor
G4	M12	W/16	: To B101	C1	M63	W/4	: Torque sensor
G3	M13	W/24	: To B102	A2	M69	SMJ	: To E7
G3	M14	W/24	: To B120	G3	M74	W/12	: To D102
B4	M15	W/16	: To B23	G3	M75	W/12	: To D101
B4	M16	W/24	: To B24	F2	M77	Y/4	: Front passenger air bag module
D5	M17	B/1	: Parking brake switch	A2	M78	B/2	: To E11
F2	M18	W/40	: BCM (body control module)	B1	M79	—	: Body ground
F2	M19	W/15	: BCM (body control module)	D3	M150	W/4	: To M32
F3	M20	B/15	: BCM (body control module)	C3	M151	W/4	: Front blower motor resistor
C2	M21	W/4	: NATS antenna amp.				
B3	M22	W/16	: Data link connector				
E3	M23	W/4	: Remote keyless entry receiver				
C1	M24	W/40	: Combination meter				
C3	M25	/2	: Diode-1				
B2	M26	W/6	: Ignition switch				
C2	M27	GR/6	: Key switch and key lock solenoid				
C2	M28	W/16	: Combination switch				
C3	M29	Y/6	: Combination switch (spiral cable)				
C3	M30	GR/8	: Combination switch (spiral cable)				
E3	M32	W/4	: To M150				
D2	M33	B/15	: Front air control				
D4	M35	Y/28	: Air bag diagnosis sensor unit				
D2	M36	W/3	: Front passenger air bag OFF indicator				
D4	M38	W/6	: A/T device				
D4	M38	W/6	: CVT device (without intelligent key)				
D4	M38	W/8	: CVT device (with intelligent key)				
B3	M39	W/2	: Tire pressure warning check connector				
D2	M41	W/2	: Defrost A/C switch				
D3	M42	W/3	: Thermo control amp.				
D2	M43	W/20	: Audio unit				
D2	M44	W/16	: Audio unit				
D2	M45	W/12	: Audio unit				
A1	M46	BR/2	: Front tweeter LH				

ENGINE ROOM HARNESS (LH VIEW)



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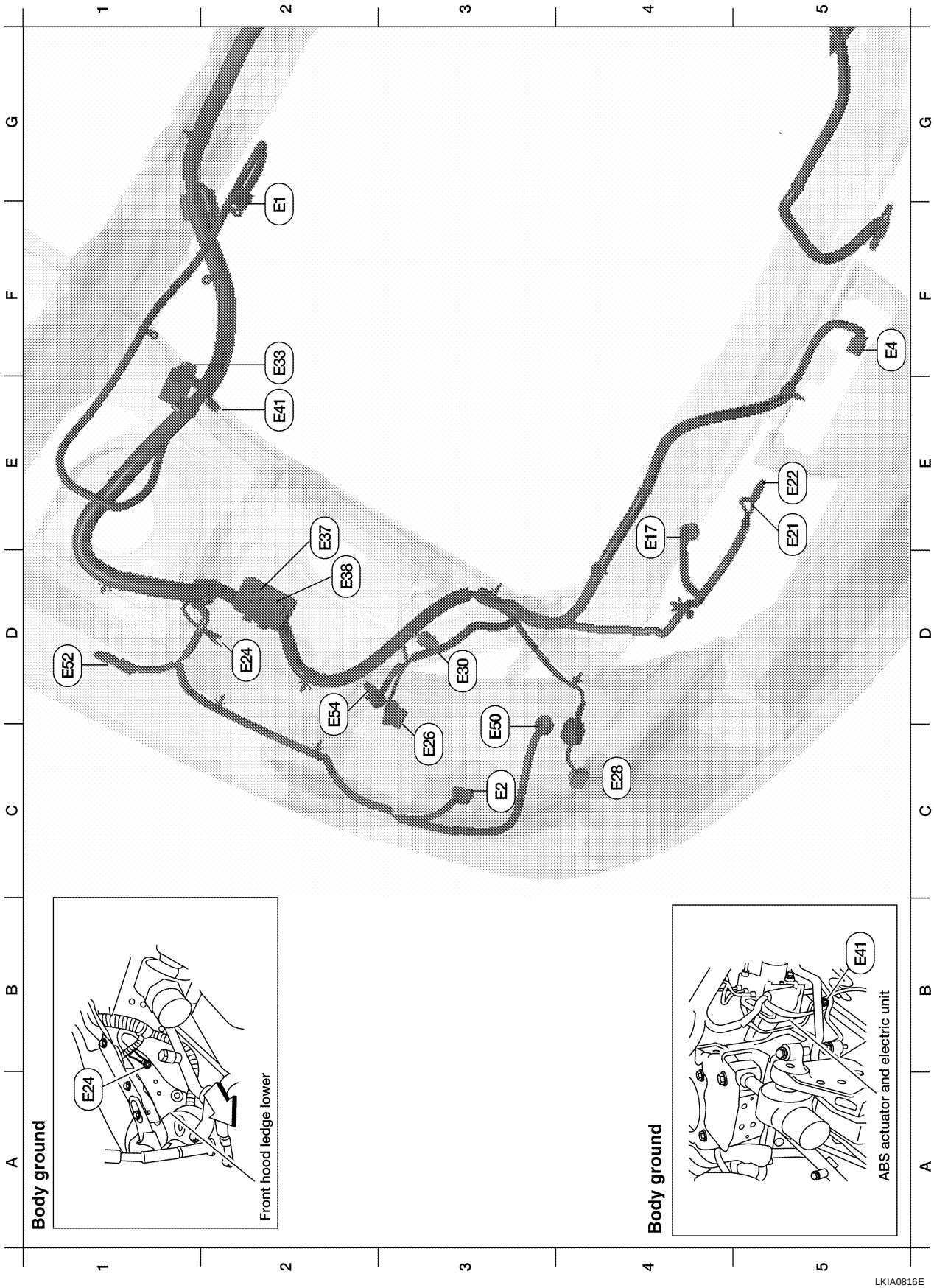
Refer to PG-45, "ENGINE ROOM HARNESS (RH VIEW)" for continuation of engine room harness.

C4	E3	GR/4	: Cooling fan motor (without A/C)	C3	E47	BR/8	: IPDM E/R (Intelligent Power Distribution Module Engine Room)
C4	E3	B/2	: Cooling fan motor (with A/C)	D3	E48	B/6	: IPDM E/R (Intelligent Power Distribution Module Engine Room)
C4	E5	GR/3	: Resistor	D1	E51	B/2	: Front wheel sensor LH
C3	E6	—	: Fuse and fusible link box	D3	E53	B/2	: Front combination lamp LH (parking)
B1	E7	SMJ	: To M69				
D3	E8	SMJ	: To F8				
B4	E9	BR/2	: Fusible link box (battery)				
B3	E10	GR/2	: Fusible link box (battery)				
B1	E11	B/2	: To M78				
A3	E12	B/6	: Accelerator pedal position sensor				
A2	E13	B/2	: Stop lamp switch (with M/T)				
A2	E13	W/4	: Stop lamp switch (without M/T)				
D3	E14	—	: Engine ground (crash zone sensor)				
C2	E15	—	: Engine ground				
B2	E16	B/32	: ECM				
C5	E18	B/1	: Horn (low)				
C4	E19	GR/6	: To F33				
D5	E20	B/1	: Horn (low)				
D3	E25	B/3	: Front combination lamp LH (headlamp)				
E4	E27	B/2	: Front fog lamp LH				
D4	E29	B/2	: Front combination lamp LH (turn signal)				
B1	E31	W/24	: TCM				
B1	E32	GR/24	: TCM				
A2	E34	BR/2	: Clutch interlock switch (with M/T)				
A2	E35	BR/2	: ASCD clutch switch				
A2	E36	BR/2	: ASCD brake switch				
B4	E40	GR/2	: Brake fluid level switch				
D3	E42	B/2	: IPDM E/R (Intelligent Power Distribution Module Engine Room)				
C3	E43	W/16	: IPDM E/R (Intelligent Power Distribution Module Engine Room)				
C3	E44	W/6	: IPDM E/R (Intelligent Power Distribution Module Engine Room)				
D3	E45	BR/12	: IPDM E/R (Intelligent Power Distribution Module Engine Room)				
D3	E46	W/12	: IPDM E/R (Intelligent Power Distribution Module Engine Room)				

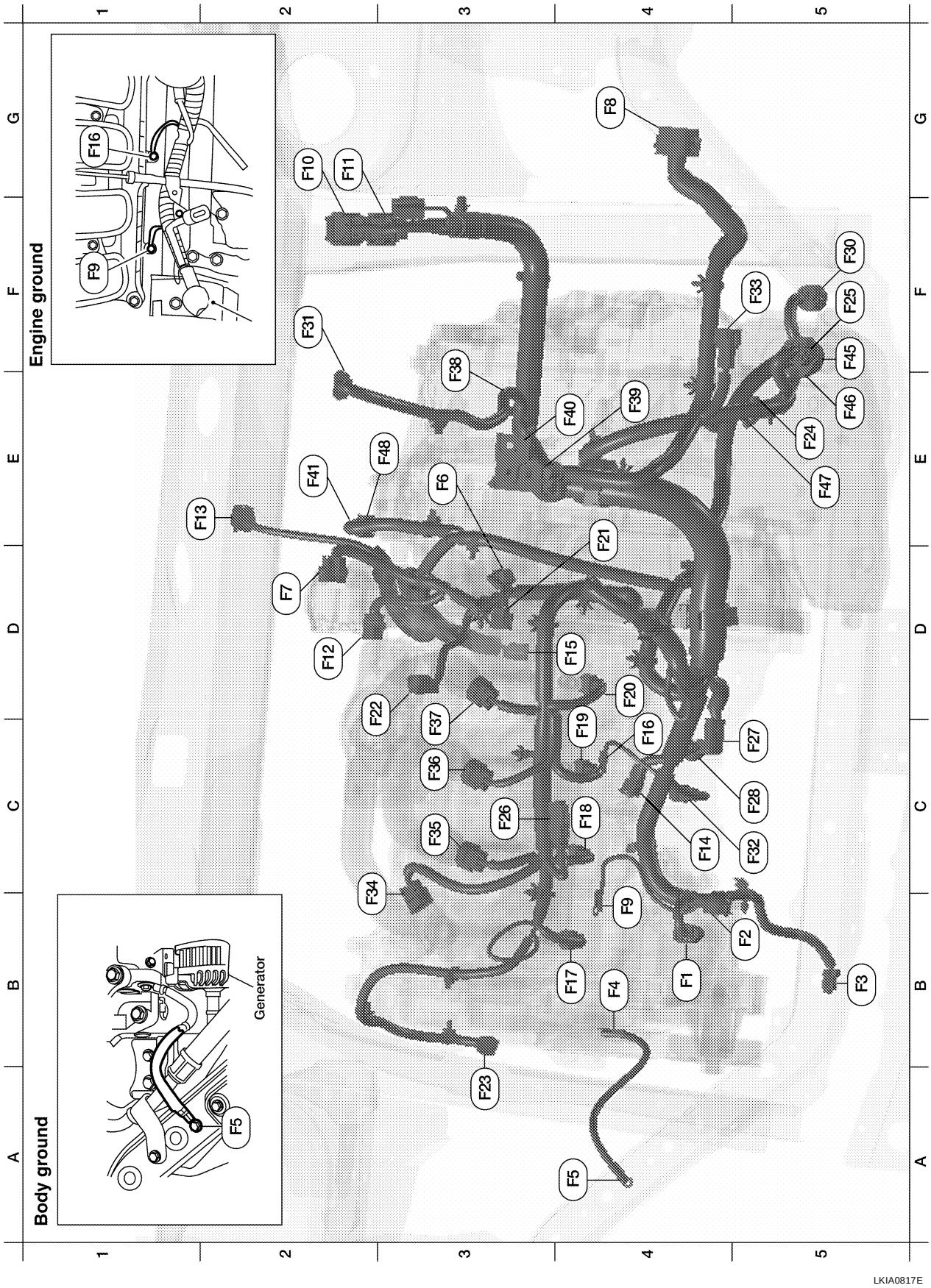
ENGINE ROOM HARNESS (RH VIEW)



Refer to PG-43, "ENGINE ROOM HARNESS (LH VIEW)" for continuation of engine room harness.

G2	E1	GR/5	: Front wiper motor	D3	E30	B/2	: Front combination lamp RH (turn signal)
C3	E2	B/2	: Front and rear washer motor	F2	E33	B/26	: ABS actuator and electric unit (control unit)
F5	E4	Y/2	: Crash zone sensor	E2	E37	B/5	: Daytime light relay 1
E4	E17	B/3	: Refrigerant pressure sensor	D2	E38	L/5	: Daytime light relay 2
E5	E21	B/1	: Horn (high)	E2	E41	—	: Ground (ABS)
E5	E22	B/1	: Horn (high)	C3	E50	W/2	: Washer fluid level switch
D2	E24	—	: Engine ground	D1	E52	B/2	: Front wheel sensor RH
C3	E26	B/3	: Front combination lamp RH (headlamp)	D2	E54	B/2	: Front combination lamp RH (parking)
C4	E28	B/2	: Front fog lamp RH				

ENGINE CONTROL HARNESS



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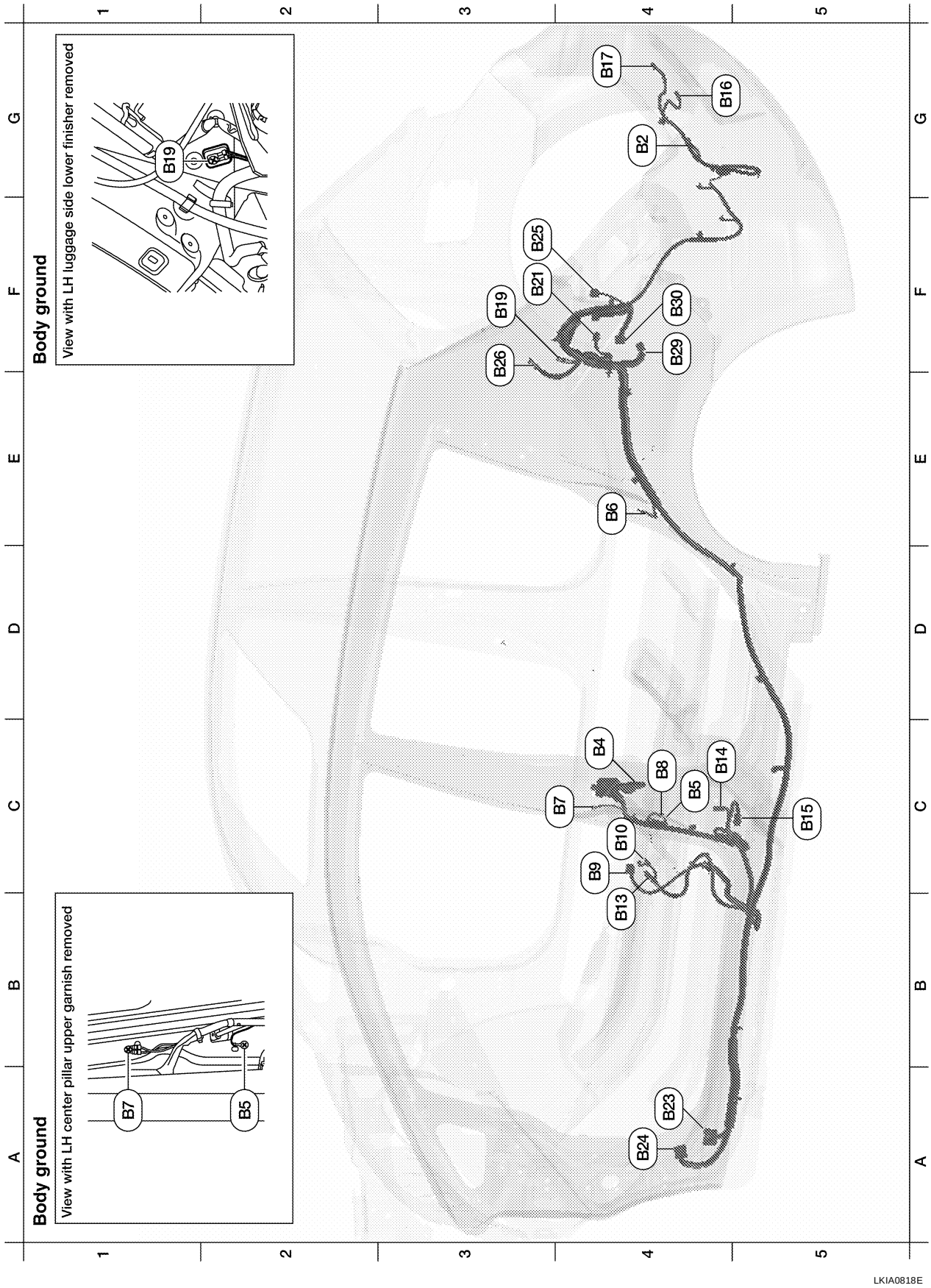
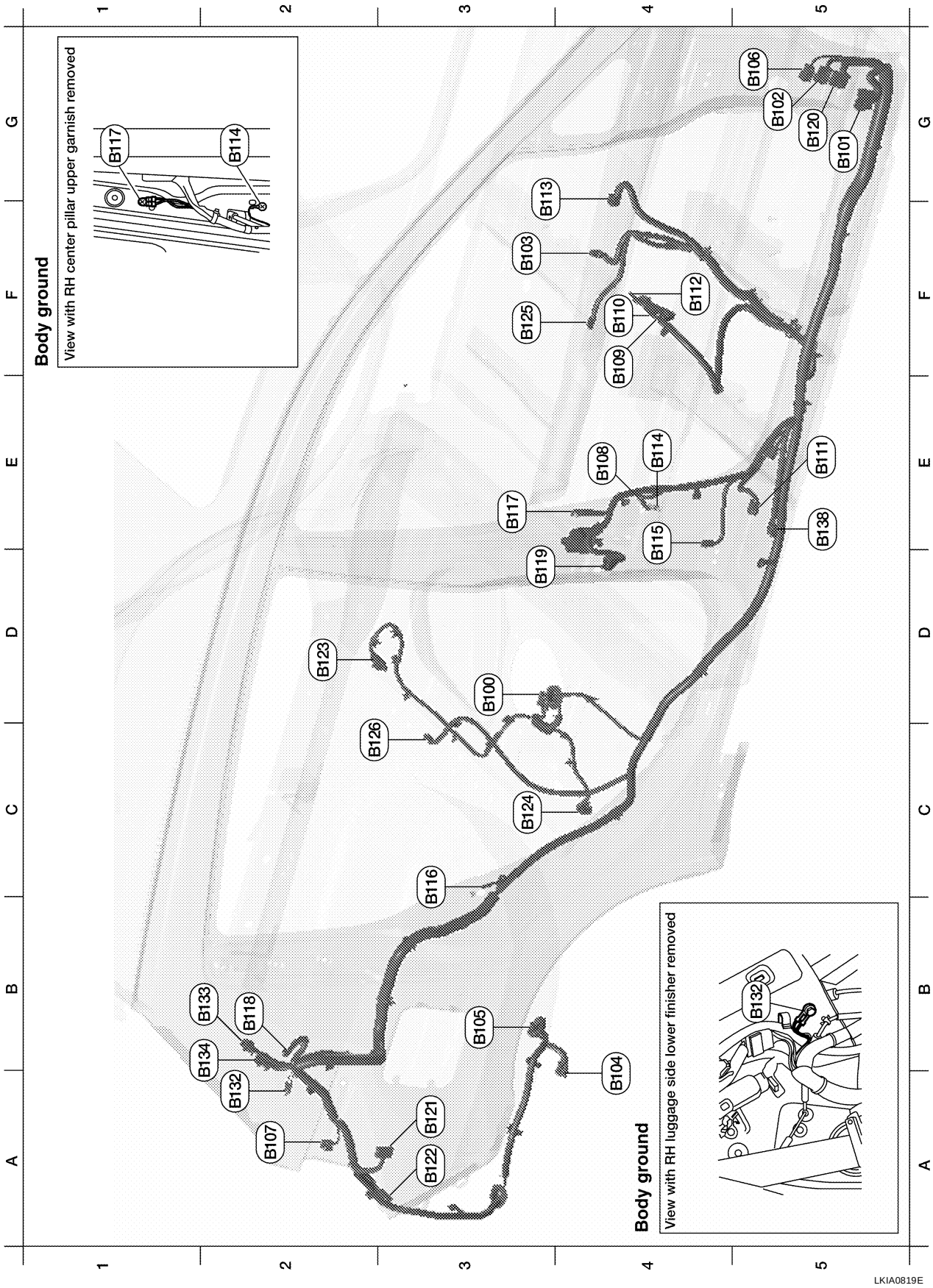
B4	F1	B/3	: Generator	E4	F39	—	: Fusible link box (battery)
B5	F2	—	: Generator	E4	F40	—	: Fusible link box (battery)
B5	F3	B/1	: A/C compressor	E2	F41	GR/2	: Vehicle speed sensor
B4	F4	—	: Generator	F5	F45	GR/3	: Turbine revolution sensor
A4	F5	—	: Generator ground	E5	F46	GR/22	: CVT unit
E3	F6	GR/2	: Engine coolant temperature sensor	E5	F47	B/3	: Powertrain revolution sensor (with A/T)
D2	F7	B/6	: Electric throttle control actuator	E3	F48	B/3	: Secondary speed sensor (with M/T)
G4	F8	SMJ	: To E8				
B4	F9	—	: Engine ground				
G2	F10	GR/32	: ECM				
G2	F11	BR/48	: ECM				
D3	F12	GR/4	: Air fuel ratio (A/F) sensor 1				
E2	F13	B/4	: Heated oxygen sensor 2				
C4	F14	B/2	: Knock sensor				
D3	F15	B/3	: Crankshaft position sensor (POS)				
C4	F16	—	: Engine ground				
B4	F17	GR/2	: Fuel injector No. 1				
C4	F18	GR/2	: Fuel injector No. 2				
C4	F19	GR/2	: Fuel injector No. 3				
D4	F20	GR/2	: Fuel injector No. 4				
D4	F21	B/3	: Camshaft position sensor (PHASE)				
C3	F22	GR/2	: EVAP canister purge volume control solenoid valve				
B3	F23	GR/2	: Intake valve timing control solenoid valve				
E5	F24	G/3	: Park/neutral position (PNP) switch (with M/T)				
F5	F25	B/10	: Park/neutral position (PNP) switch (with A/T)				
C3	F26	W/2	: Condenser-2				
C5	F27	—	: Starter motor				
C5	F28	—	: Starter motor				
F5	F30	B/8	: Terminal cord assembly				
F2	F31	B/6	: Mass air flow sensor				
C5	F32	GR/1	: Oil pressure switch				
F5	F33	GR/6	: To E19				
C3	F34	GR/3	: Ignition coil No. 1 (with power transistor)				
C3	F35	GR/3	: Ignition coil No. 2 (with power transistor)				
C3	F36	GR/3	: Ignition coil No. 3 (with power transistor)				
C3	F37	GR/3	: Ignition coil No. 4 (with power transistor)				
E5	F38	BR/3	: Revolution sensor				

BODY HARNESS



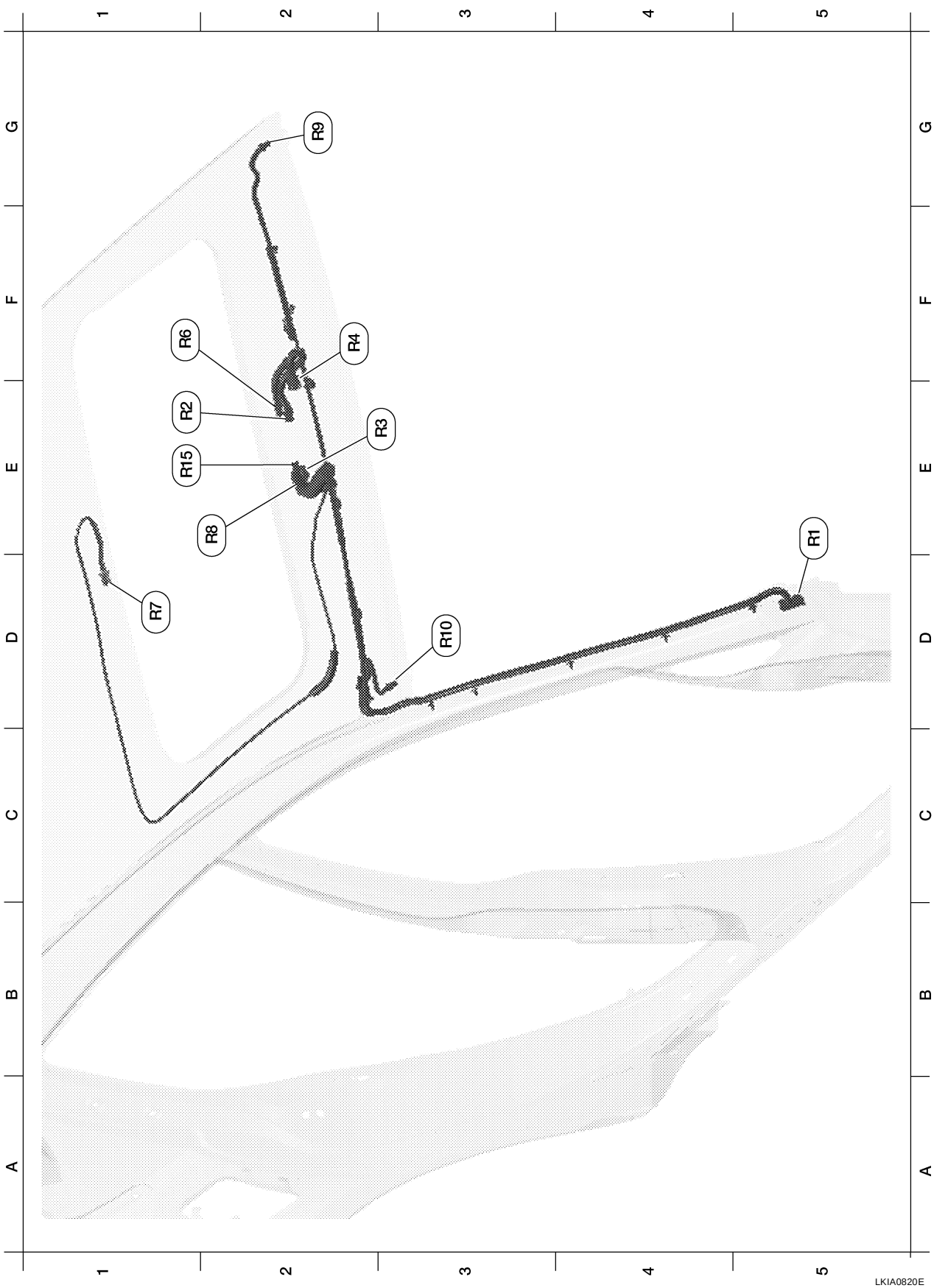
G4	B2	GR/2	: Rear bumper antenna				
C4	B4	W/8	: To D201				
C4	B5	—	: Body ground				
E4	B6	W/1	: Rear door switch LH				
C4	B7	—	: Body ground				
C4	B8	W/3	: Front door switch LH				
C4	B9	Y/12	: Air bag diagnosis sensor unit				
C4	B10	Y/2	: Front LH side air bag module				
F3	B13	W/3	: Seat belt buckle switch LH				
C4	B14	Y/2	: Front LH seat belt pre-tensioner				
C5	B15	Y/2	: LH side air bag (satellite) sensor				
G4	B16	BR/2	: License plate lamp LH				
G4	B17	BR/2	: License plate lamp RH				
F3	B19	—	: Body ground				
F3	B21	W/2	: Luggage room lamp				
A4	B23	W/16	: To M15				
A4	B24	W/24	: To M16				
F3	B25	BR/6	: Rear combination lamp LH				
F3	B26	Y/2	: LH side curtain air bag module				
F4	B29	W/6	: Subwoofer				
F4	B30	W/16	: Satellite radio tuner				

BODY NO. 2 HARNESS



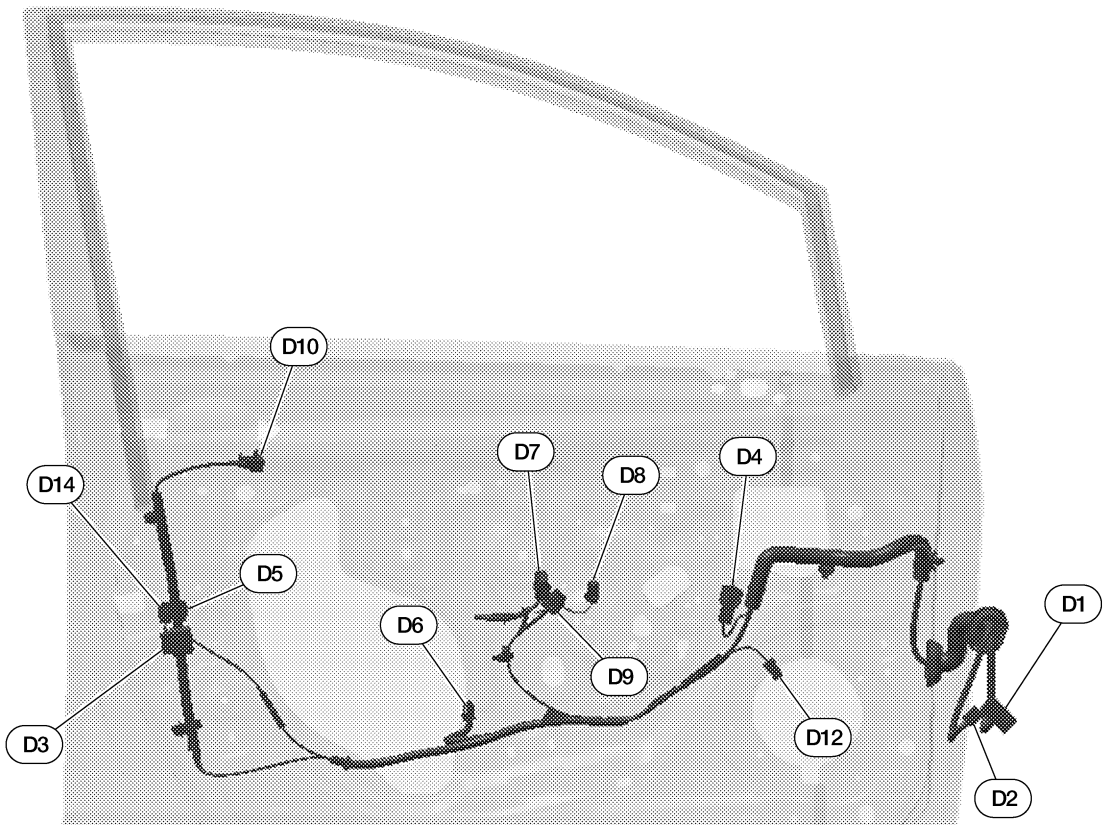
D3	B100	GR/5	: Fuel level sensor unit and fuel pump				
G5	B101	W/16	: To M12				
G5	B102	W/24	: To M13				
F3	B103	B/2	: Console power socket				
A4	B104	GR/3	: EVAP control system pressure sensor				
A3	B105	B/2	: EVAP canister vent control valve				
G5	B106	W/4	: To M11				
A2	B107	BR/6	: Rear combination lamp RH				
E4	B108	W/3	: Front door switch RH				
F4	B109	Y/2	: Front RH side air bag module				
F4	B110	W/10	: To B300				
E5	B111	Y/2	: RH side air bag (satellite) sensor				
F4	B112	W/3	: Seat belt buckle switch RH				
F3	B113	Y/12	: Air bag diagnosis sensor unit				
E4	B114	—	: Body ground				
E4	B115	Y/2	: Front RH seat belt pre-tensioner				
C3	B116	W/1	: Rear door switch RH				
E3	B117	—	: Body ground				
B2	B118	Y/2	: RH side curtain air bag module				
D3	B119	W/8	: To D301				
G5	B120	W/24	: To M14				
A3	B121	W/32	: Bluetooth control unit				
A3	B122	GR/1	: Bluetooth control unit				
D2	B123	B/2	: Rear wheel sensor LH				
C3	B124	B/2	: Rear wheel sensor RH				
F3	B125	GR/2	: Front console antenna				
C3	B126	GR/2	: Rear floor antenna				
A2	B132	—	: Body ground				
B2	B133	W/2	: To D400				
A2	B134	W/12	: To D401				
E5	B138	B/3	: Belt tension sensor				

ROOM LAMP HARNESS



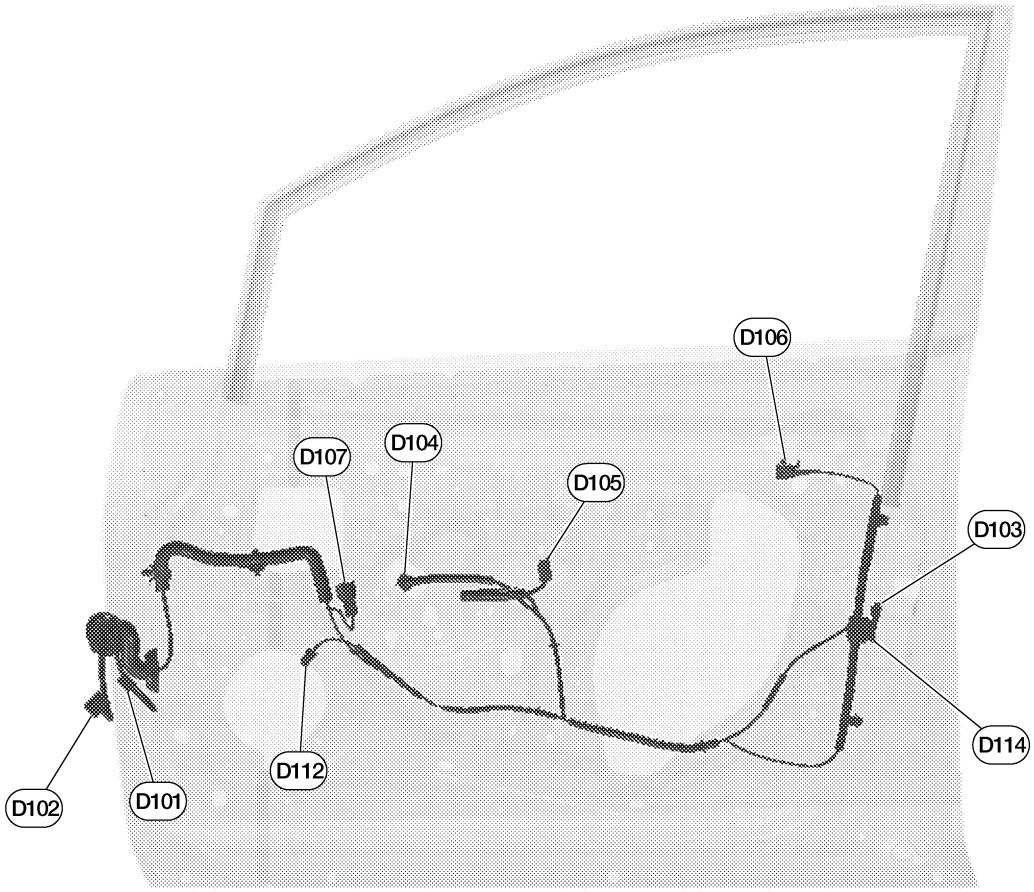
D5	R1	W/16	: To M1				
F2	R2	GR/6	: Map lamp				
F2	R3	W/3	: Map lamp				
F2	R4	GR/10	: Sunroof motor assembly				
F2	R6	W/3	: Sunroof switch				
D1	R7	W/3	: Interior room lamp				
E2	R8	W/3	: To R50 (without map lamps)				
G2	R9	W/2	: Vanity mirror lamp LH				
D3	R10	W/2	: Vanity mirror lamp RH				
D1	R15	W/8	: Microphone				

FRONT DOOR LH HARNESS



D1	W/16	: To M9	D8	W/3	: Main power window and door lock/ unlock switch
D2	W/16	: To M8	D9	B/6	: Front power window motor LH
D3	B/6	: Front door lock actuator LH	D10	GR/2	: Front outside antenna LH
D4	BR/8	: Door mirror LH	D12	W/2	: Front door speaker LH
D5	GR/2	: Front door request switch LH	D14	BR/3	: Front door key cylinder switch LH
D6	BR/2	: Intelligent key warning buzzer			
D7	W/16	: Main power window and door lock/ unlock switch			

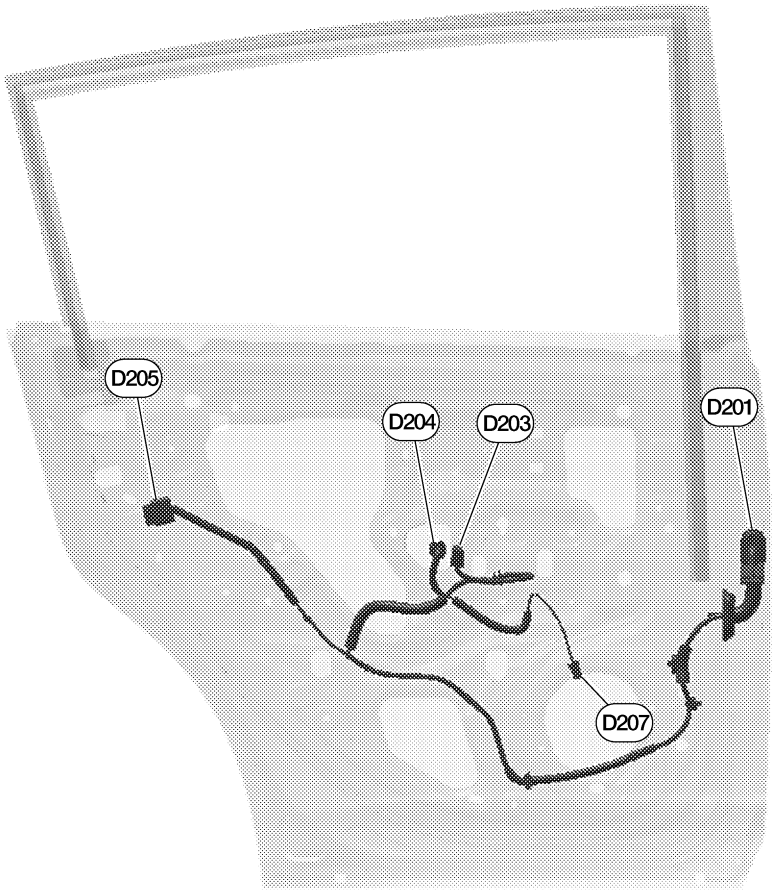
FRONT DOOR RH HARNESS



LKIA0822E

D101	W/12	: To M75	D106	GR/2	: Front outside antenna RH
D102	W/12	: To M74	D107	BR/8	: Door mirror RH
D103	GR/2	: Front door request switch RH	D112	W/2	: Front door speaker RH
D104	BR/2	: Front power window motor RH	D114	B/6	: Front door lock actuator RH
D105	W/12	: Power window and door lock/unlock switch RH			

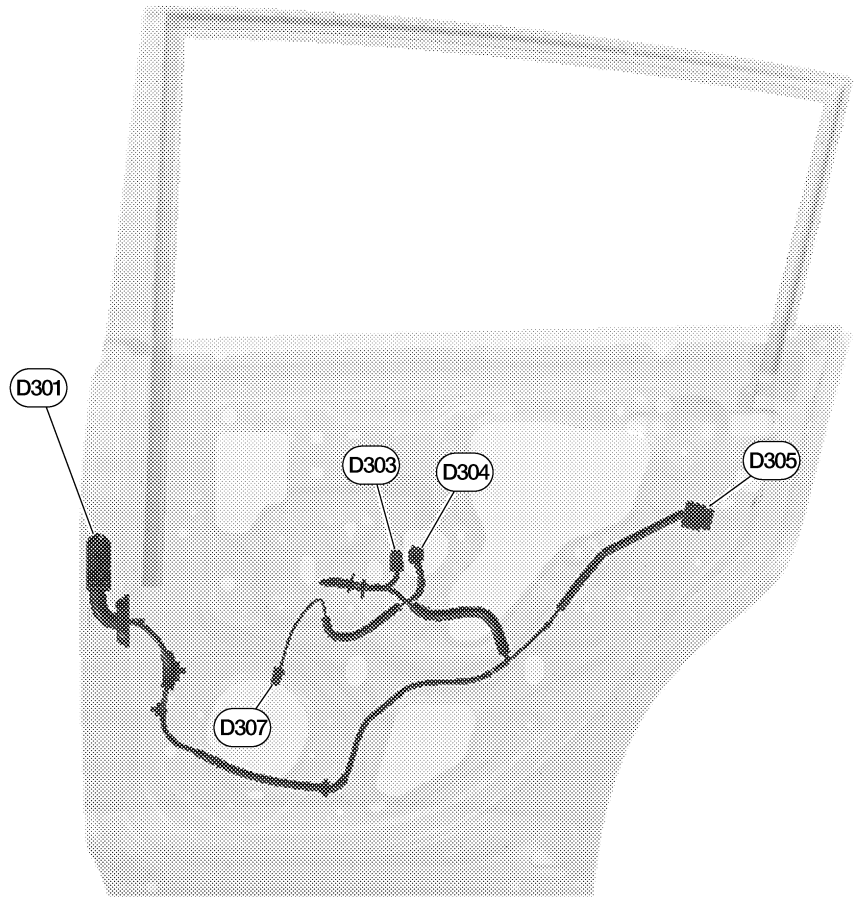
REAR DOOR LH HARNESS



LKIA0824E

D201	W/8	: To B4	D205	B/6	: Rear door lock actuator LH
D203	W/8	: Rear power window switch LH	D207	W/2	: Rear door speaker LH
D204	BR/2	: Rear power window motor LH			

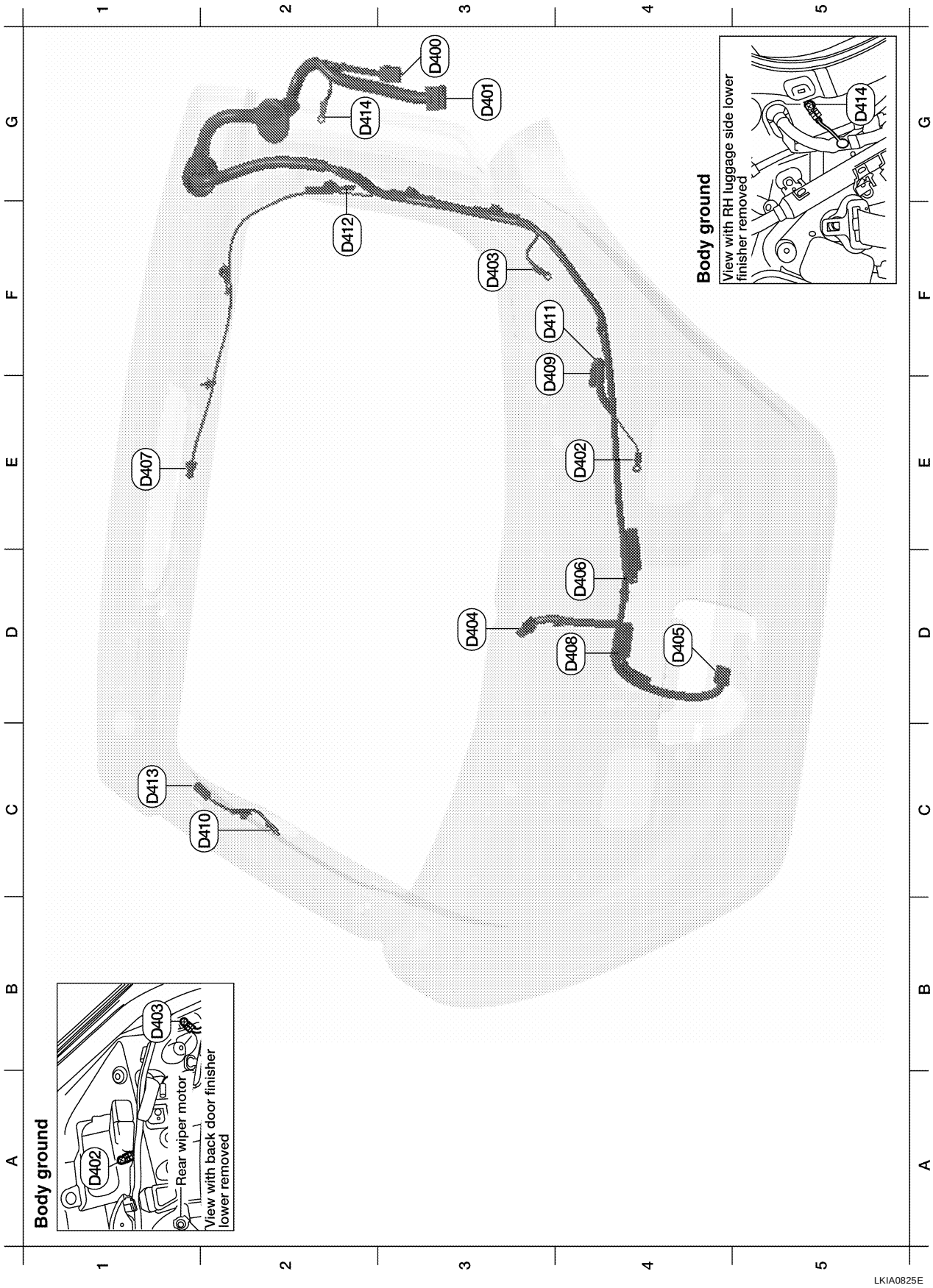
REAR DOOR RH HARNESS



LKIA0823E

D301	W/8	: To B119	D305	B/6	: Rear door lock actuator RH
D303	W/8	: Rear power window switch RH	D307	W/2	: Rear door speaker RH
D304	BR/2	: Rear power window motor RH			

BACK DOOR HARNESS



G3	D400	W/12	: To B133				
G3	D401	W/12	: To B134				
G3	D401	W/24	: To B48 (without power back door)				
E4	D402	—	: Body ground				
F3	D403	—	: Body ground				
D3	D404	W/3	: Rear wiper motor				
D4	D405	W/4	: Back door lock assembly				
D4	D406	W/2	: Back door request switch				
E2	D407	W/2	: High mounted stop lamp				
D4	D408	BR/2	: Back door opener switch				
E4	D409	B/1	: Condenser-1				
C2	D410	—	: Body ground				
E3	D411	B/1	: Condenser-1				
E1	D412	B/1	: Rear window defogger (+)				
C2	D413	B/1	: Rear window defogger (-)				
F3	D414	—	: Body ground				

Wiring Diagram Codes (Cell Codes)

EKS00IW9

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
ABS	BRC	Anti-lock Brake System
A/C,M	MTC	Manual Air Conditioner
APPS1	EC	Accelerator Pedal Position Sensor
A/F	EC	Air Fuel Ratio Sensor 1
A/FH	EC	Air Fuel Ratio Sensor 1 Heater
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
BACK/L	LT	Back-up Lamp
BA/FTS	AT	A/T Fluid Temperature Sensor and TCM Power Supply
BRK/SW	EC	Brake Switch
CAN	AT	CAN Communication Line
CAN	CVT	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
CVTIND	DI	CVT Indicator Lamp
D/LOCK	BL	Power Door Lock
DEF	GW	Rear Window Defogger
DTRL	LT	Headlamp - With Daytime Light System
ECTS	EC	Engine Coolant Temperature Sensor
ENGSS	AT	Engine Speed Signal
EPS	STC	Electronic Controlled Power Steering
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
FTS	CVT	CVT Fluid Temperature Sensor Circuit
FTTS	EC	Fuel Tank Temperature Sensor
FUEL	EC	Fuel Ignition System Function
HEATER	MTC	Heater System
H/LAMP	LT	Headlamp
H/PHON	AV	Hands Free Telephone
HORN	WW	Horn
HO2S2	EC	Heated Oxygen Sensor 2
HO2S2H	EC	Heated Oxygen Sensor 2 Heater
IATS	EC	Intake Air Temperature Sensor

IGNSYS	EC	Ignition System
I/KEY	BL	Intelligent Key System
ILL	LT	Illumination
INJECT	EC	Injector
INT/L	LT	Room/Map, Vanity and Luggage Lamps
IVC	EC	Intake Valve Timing Control Solenoid Valve
KEYLES	BL	Remote Keyless Entry System
KS	EC	Knock Sensor
LPSV	AT	Line Pressure Solenoid Valve
LPSV	CVT	Line Pressure Solenoid Valve
L/USSV	CVT	Lock-up Select Solenoid Valve
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
NONDTC	AT	Non-detectable Item
NONDTC	CVT	Non-detectable Item
ODSW	CVT	Overdrive Control Switch
OVRCSV	AT	Over Run Clutch Solenoid Valve
P/SCKT	WW	Power Socket
PGC/V	EC	EVAP Canister Purge Volume Control Solenoid Valve
PHASE	EC	Camshaft Position Sensor (PHASE)
PNP/SW	AT	Park/Neutral Position Switch
PNP/SW	CVT	Park/Neutral Position Switch
PNP/SW	EC	Park/Neutral Position Switch
POS	EC	Crankshaft Position Sensor (POS)
POWER	CVT	Transmission Control Module (Power Supply)
PRE/SE	EC	EVAP Control System Pressure Sensor
PRIPS	CVT	Primary Pressure Sensor
PRSCVT	CVT	Primary Speed Sensor CVT (Revolution Sensor)
PT/SEN	AT	Powertrain Revolution Sensor
RP/SEN	EC	Refrigerant Pressure Sensor
SECPS	CVT	Secondary Pressure Sensor
SECPSV	CVT	Secondary Speed Sensor CVT (Revolution Sensor)
SEN/PW	EC	Sensor Power Supply
SESCVT	CVT	Secondary Pressure Sensor Solenoid Valve
SHIFT	AT	A/T Shift Lock System
SHIFT	CVT	CVT Shift Lock System
SROOF	RF	Sunroof
SRS	SRS	Supplemental Restraint System
SSV/A	AT	Shift Solenoid Valve A
SSV/B	AT	Shift Solenoid Valve B
START	SC	Starting System
STM	CVT	Step Motor
STSIG	CVT	Start Signal Circuit
STOP/L	LT	Stop Lamp
TCV	AT	Torque Converter Clutch Solenoid Valve
TCV	CVT	Torque Converter Clutch Solenoid Valve
T/LID	BL	Trunk Lid Opener

T/WARN	WT	Low Tire Pressure Warning System
TAIL/L	LT	Parking, License and Tail Lamps
TPS1	EC	Throttle Position Sensor
TPS2	EC	Throttle Position Sensor
TPS3	EC	Throttle Position Sensor
TURN	LT	Turn Signal and Hazard Warning Lamps
VEHSEC	BL	Vehicle Security (Theft Warning) System
VENT/V	EC	EVAP Canister Vent Control Valve
VSSA/T	AT	Vehicle Speed Sensor A/T (Revolution Sensor)
VSSMTR	AT	Vehicle Speed Sensor MTR
WARN	DI	Warning Lamps
WINDOW	GW	Power Window
WIP/R	WW	Rear Wiper and Washer
WIPER	WW	Front Wiper and Washer

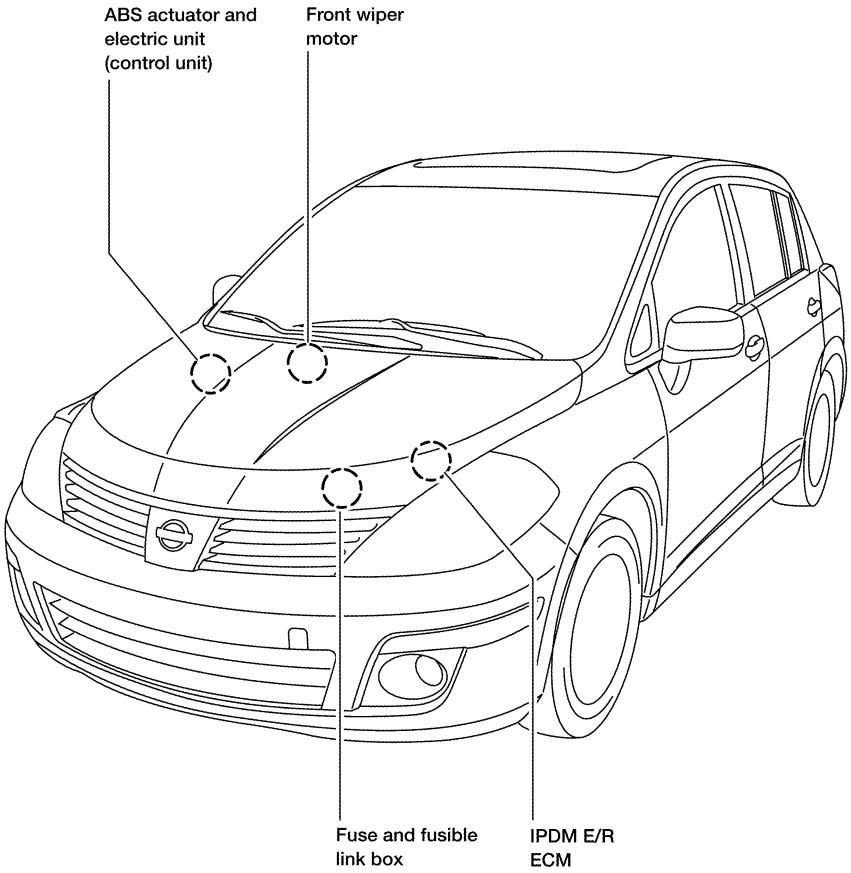
ELECTRICAL UNITS LOCATION

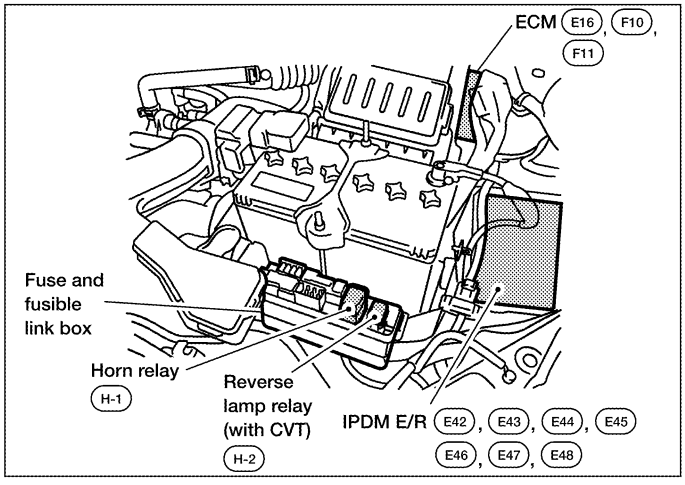
PFP:25230

Electrical Units Location

EKS00I5Z

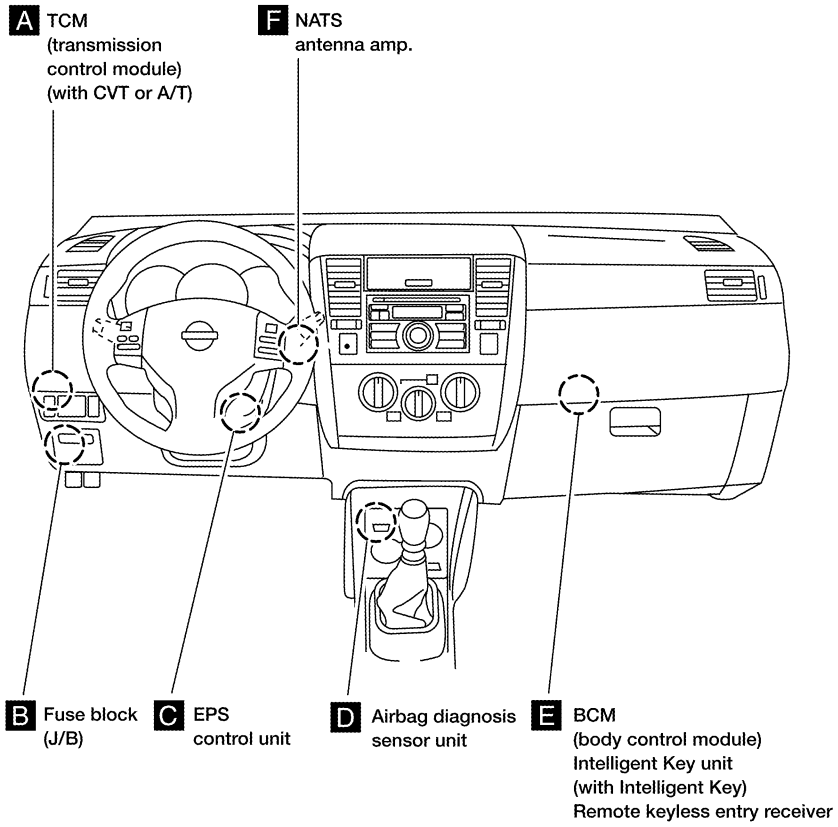
ENGINE COMPARTMENT

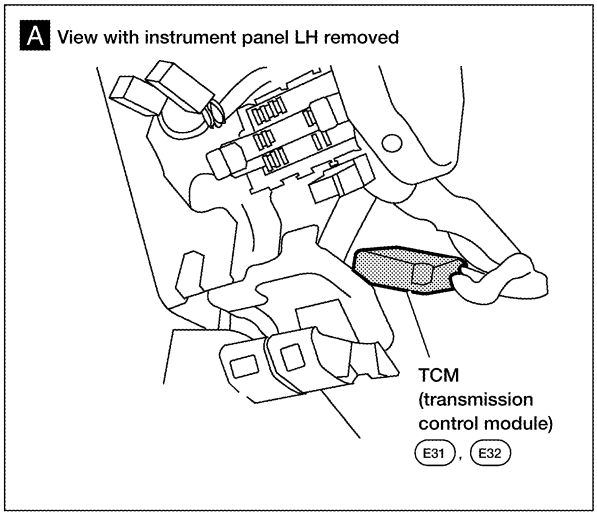


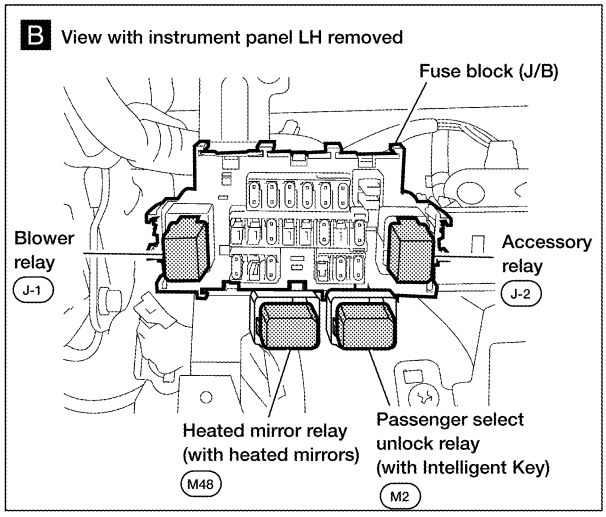


LKIA0826E

PASSENGER COMPARTMENT

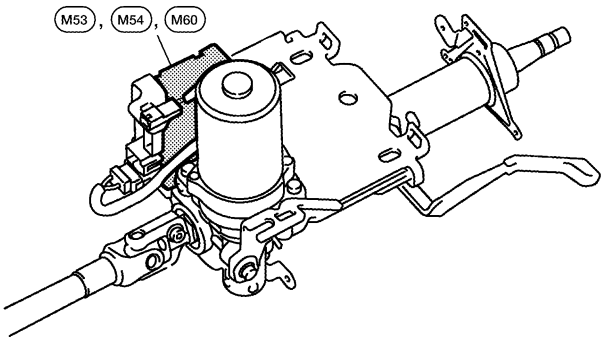




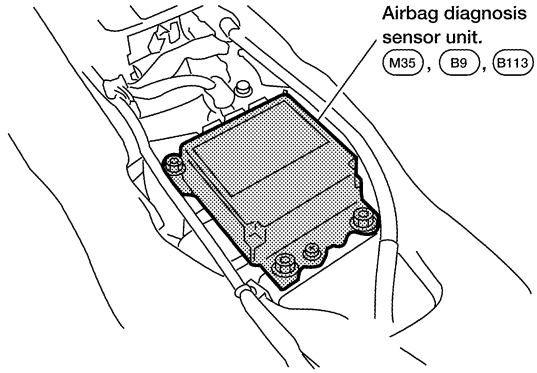


LKIA0827E

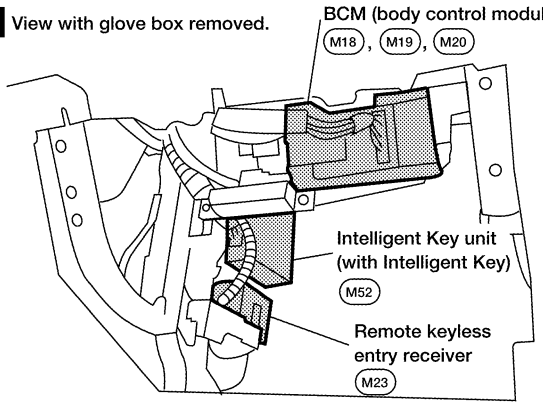
C View with steering column assembly removed.



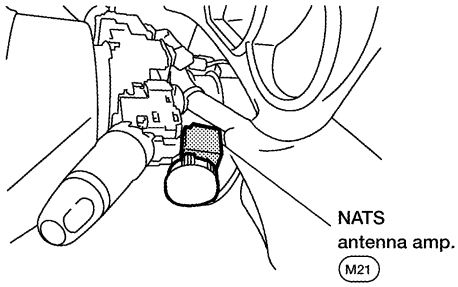
D View with center console assembly removed.



E View with glove box removed.

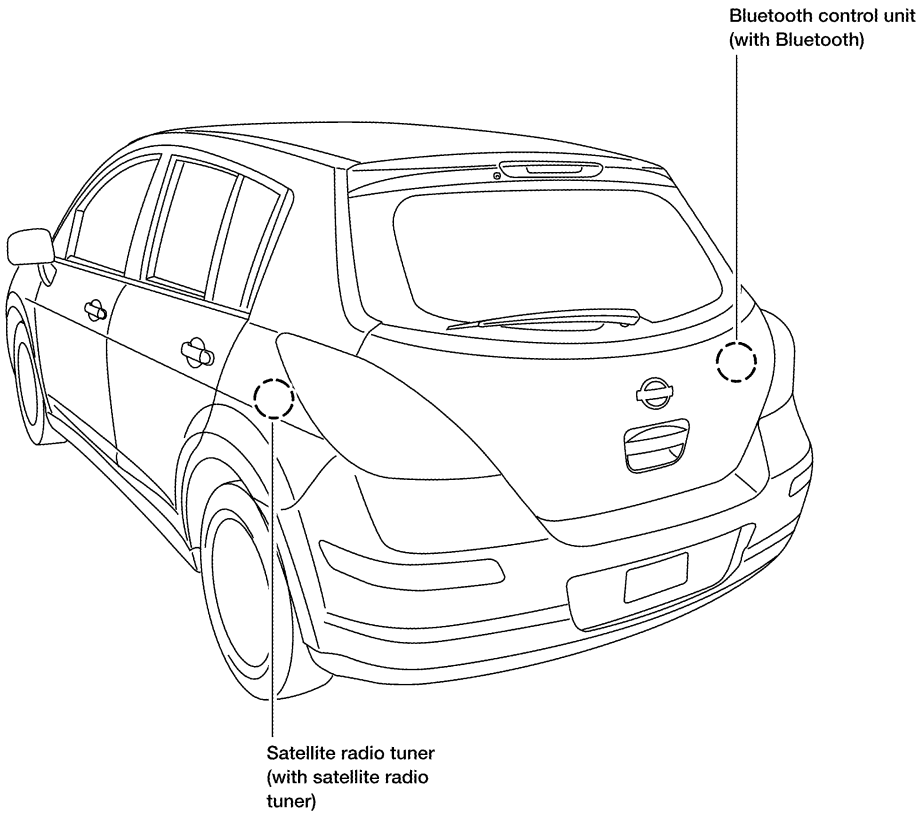


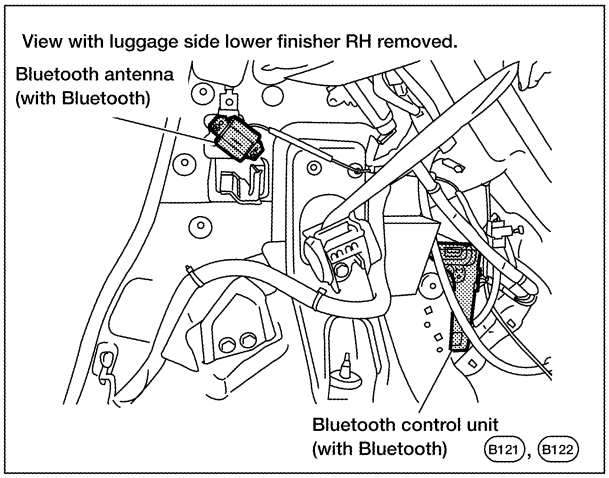
F View with lower driver instrument panel removed.

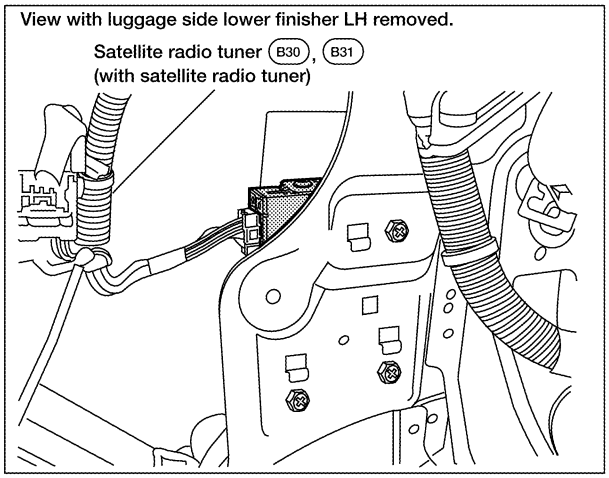


LKIA0828E

LUGGAGE COMPARTMENT







LKIA0829E

HARNESS CONNECTOR

PFP:00011

Description

EKS00I60

HARNESS CONNECTOR (TAB-LOCKING TYPE)

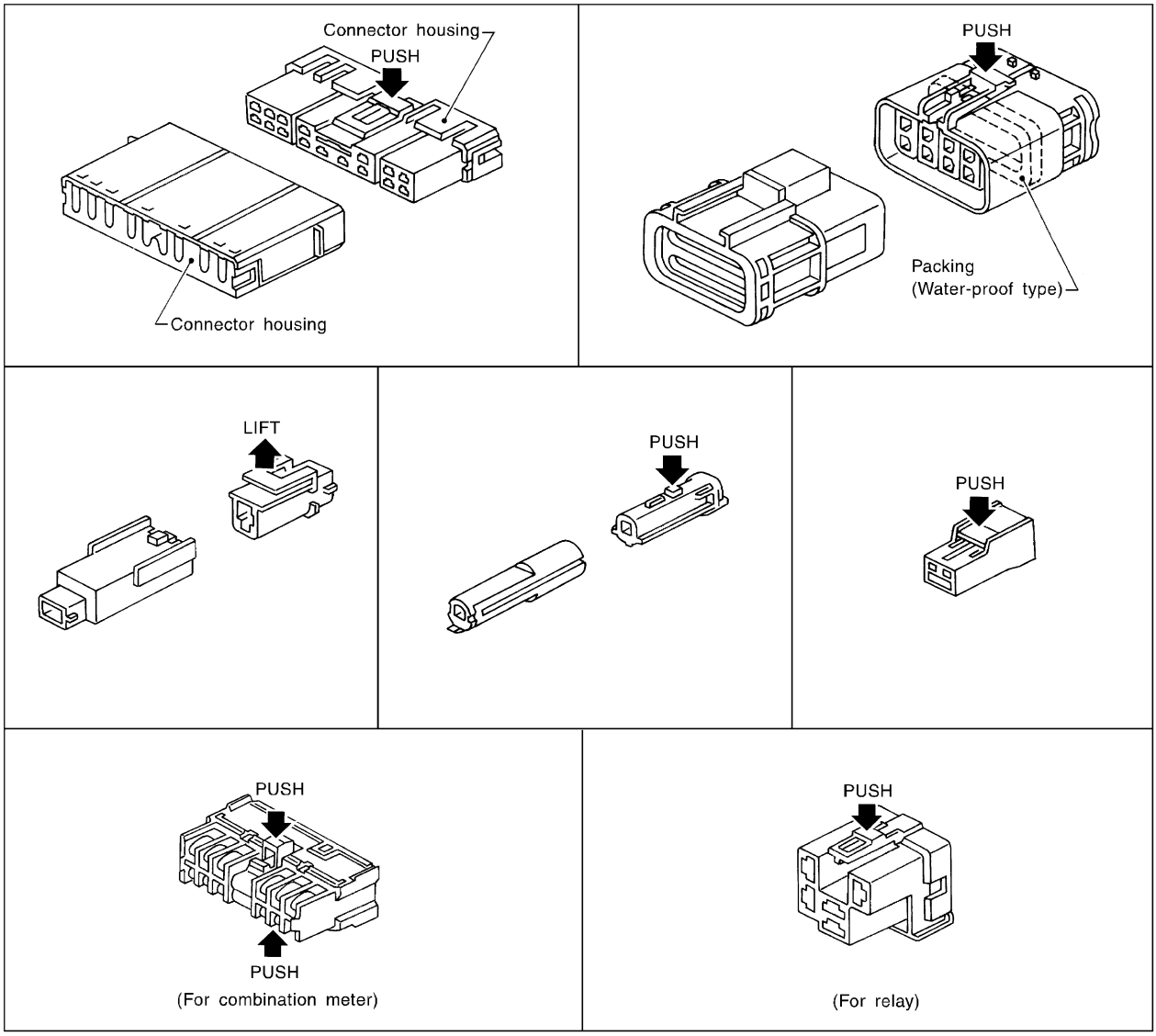
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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

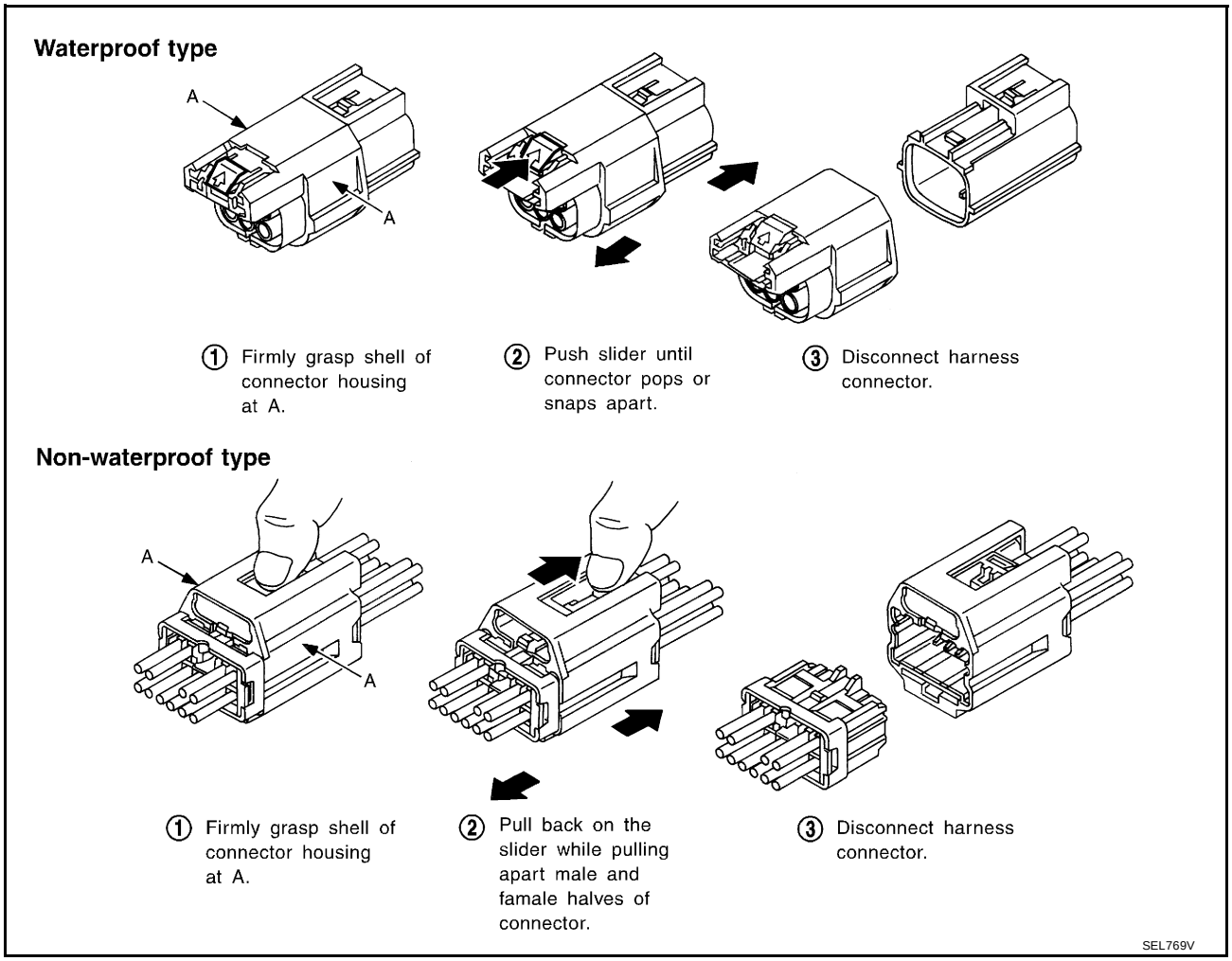
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- 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 figure below.

CAUTION:

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

[Example]

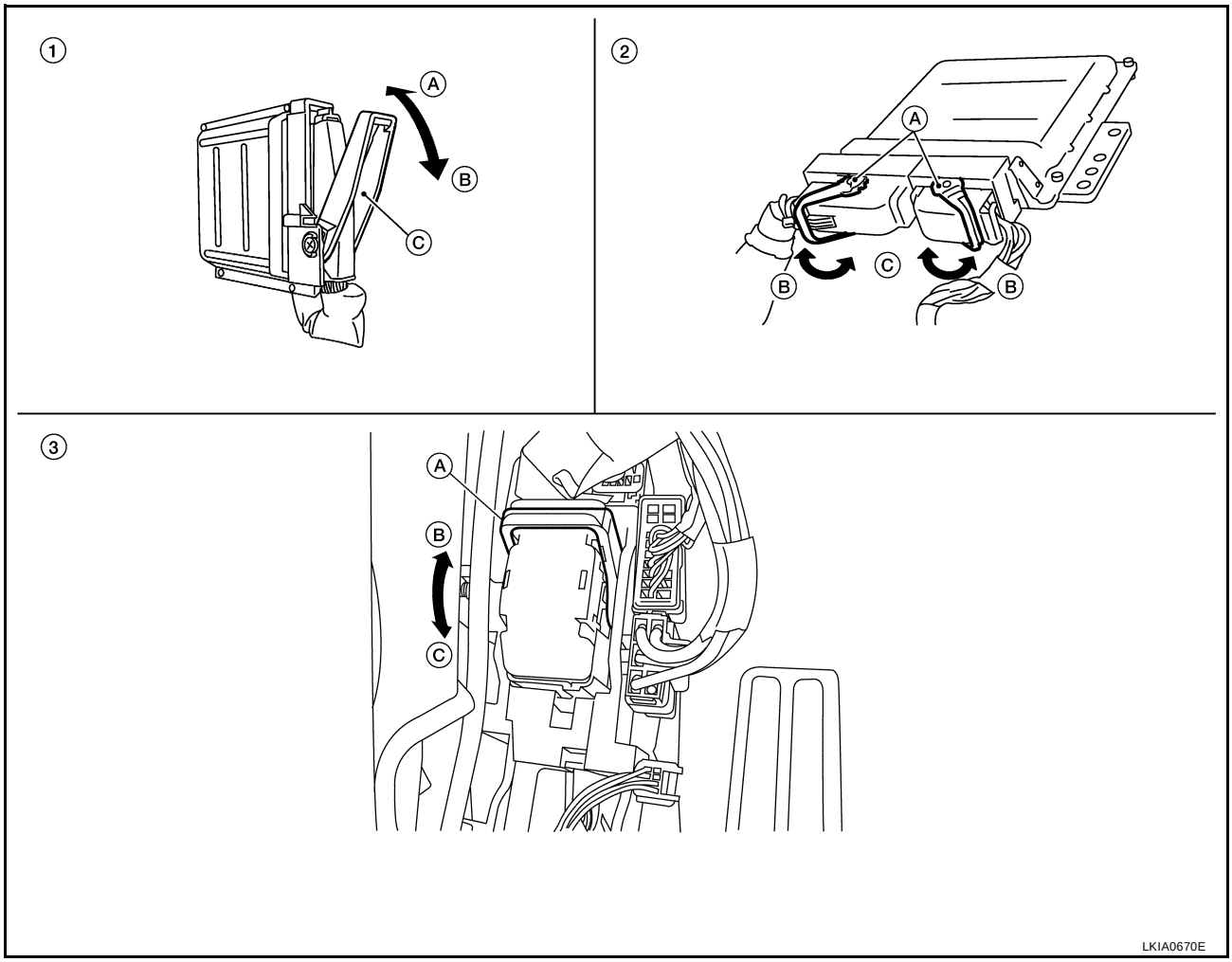


HARNESS CONNECTOR (LEVER LOCKING TYPE)

- 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.



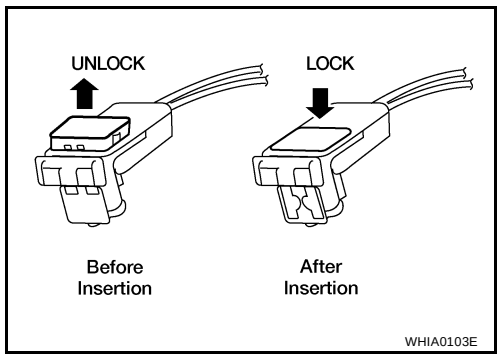
1. Control unit with single lever
   A. Fasten
   B. Loosen
   C. Lever
2. Control unit with dual levers
   A. Levers
   B. Fasten
   C. Loosen
3. SMJ connector
   A. Lever
   B. Fasten
   C. Loosen

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.**



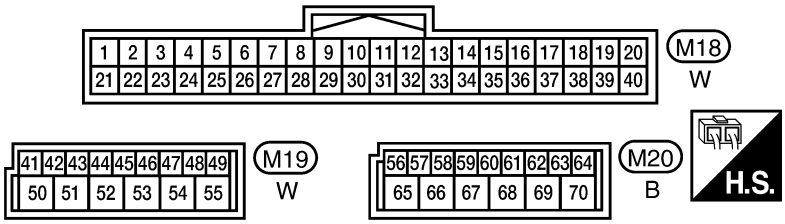
ELECTRICAL UNITS

PFP:00011

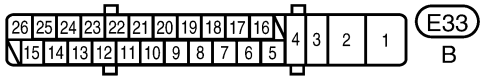
Terminal Arrangement

EKS00I61

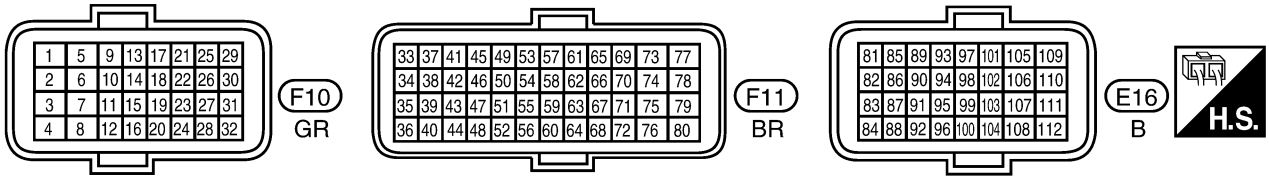
BCM (BODY CONTROL MODULE)



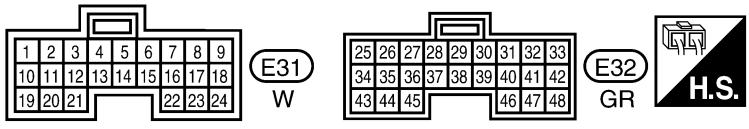
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



ECM



TCM (TRANSMISSION CONTROL MODULE)



LKIA0810E

STANDARDIZED RELAY

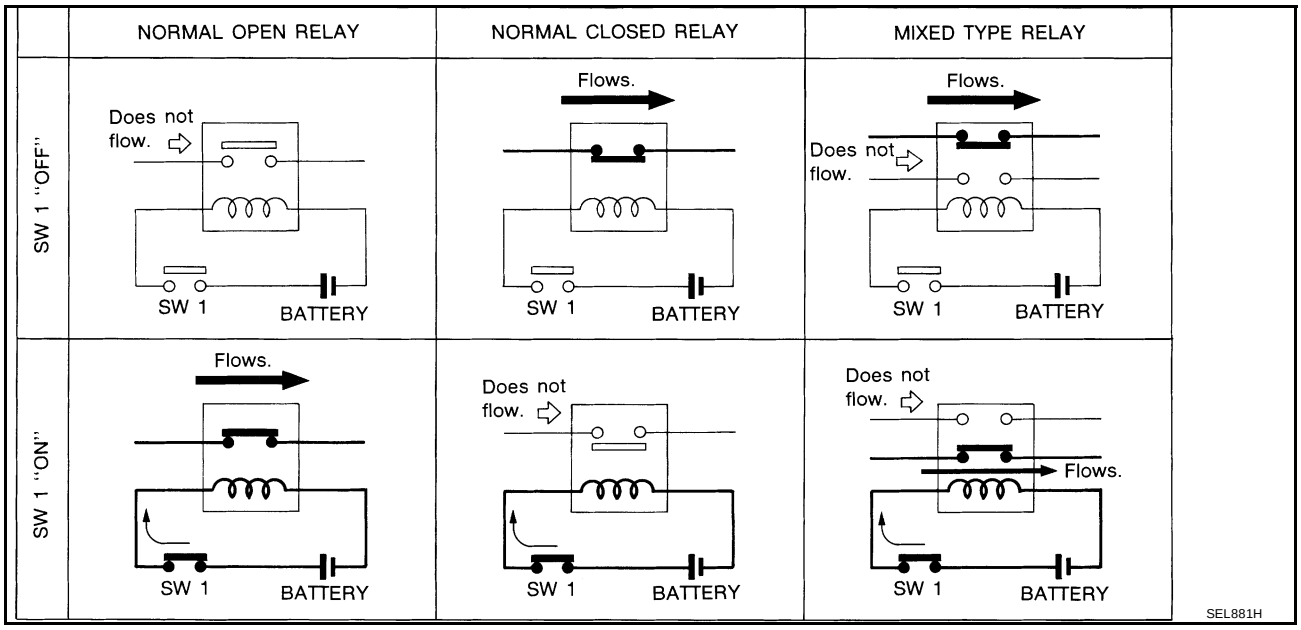
PFP:00011

Description

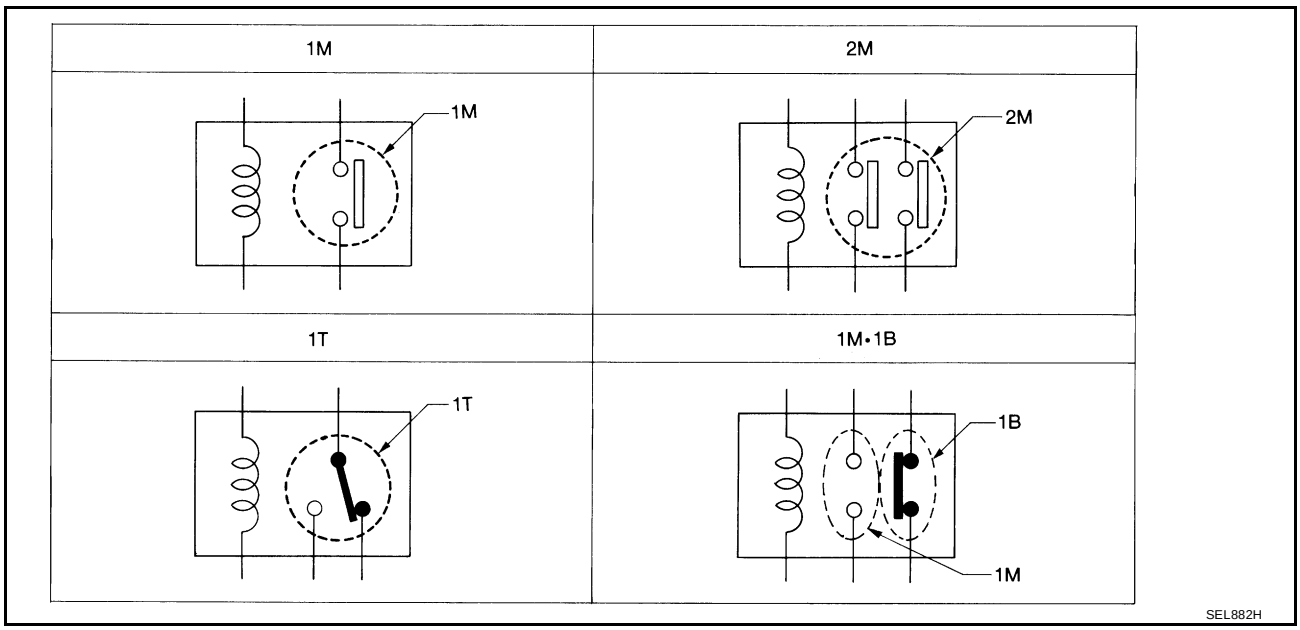
EKS00INH

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

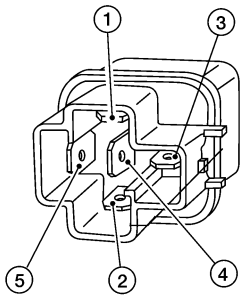
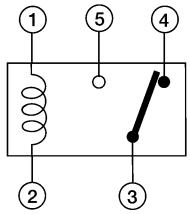
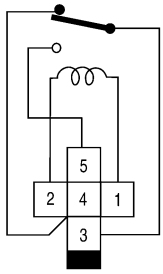
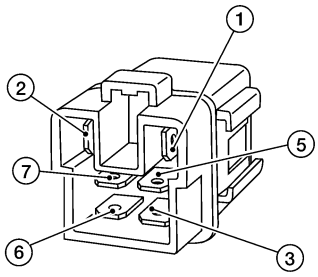
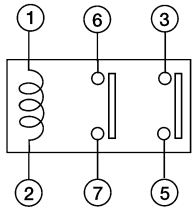
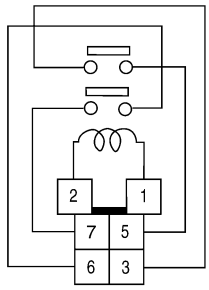
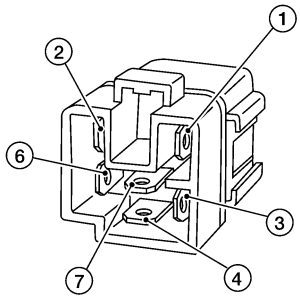
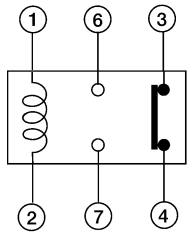
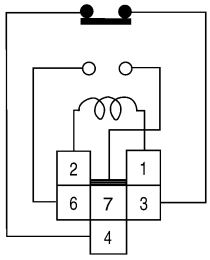
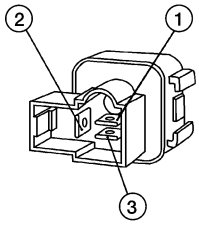
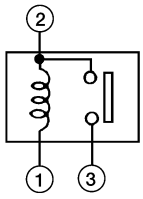
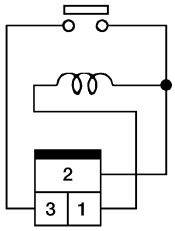
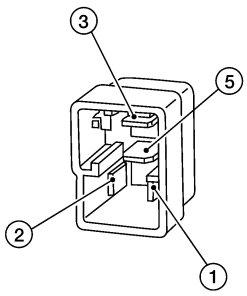
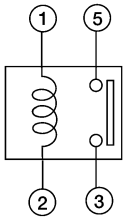
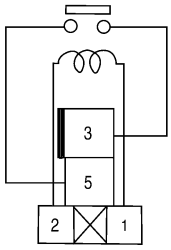
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



TYPE OF STANDARDIZED RELAYS



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

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.

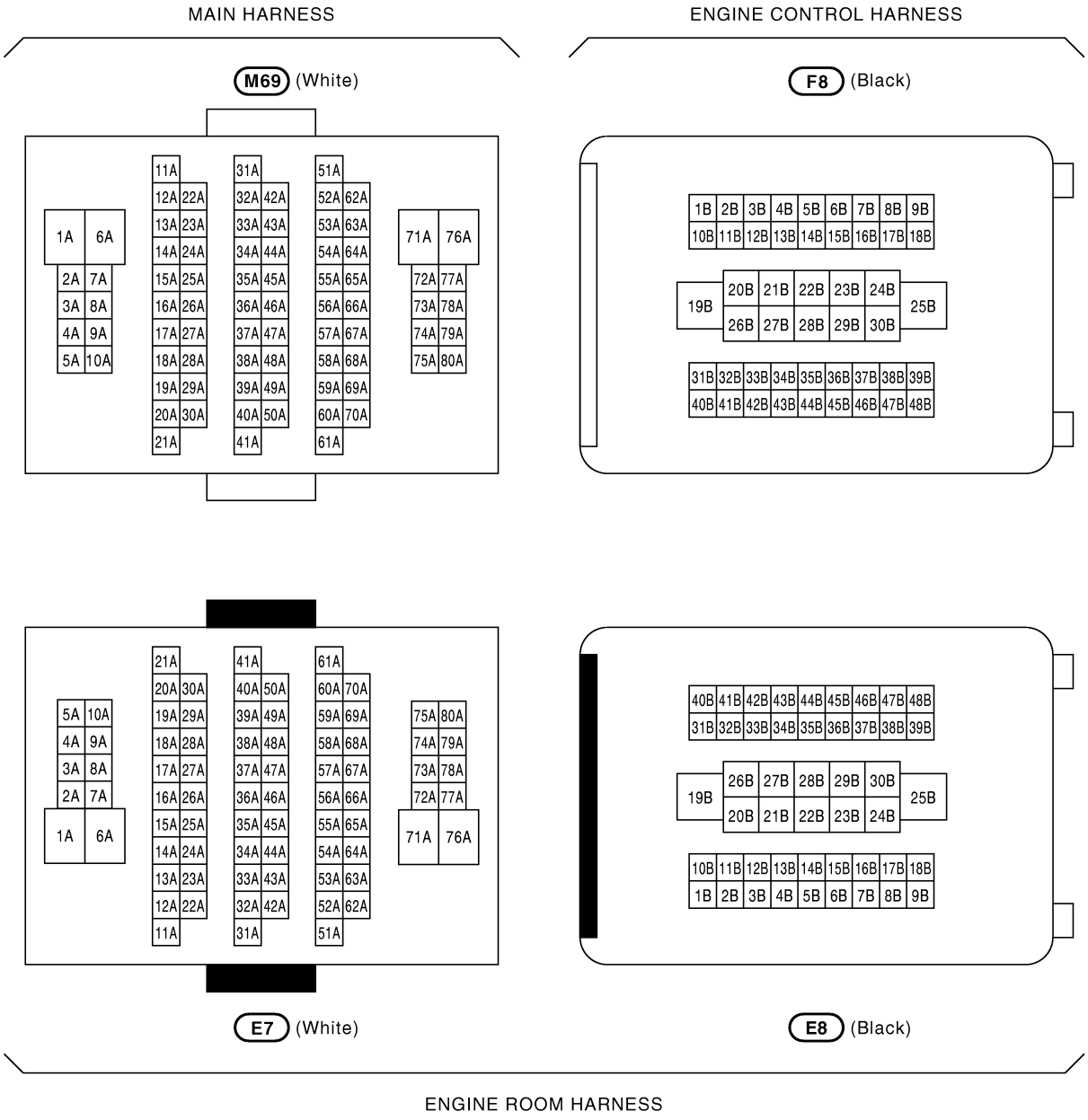
WKIA0253E

SUPER MULTIPLE JUNCTION (SMJ)

PFP:B4341

Terminal Arrangement

EKS00I62



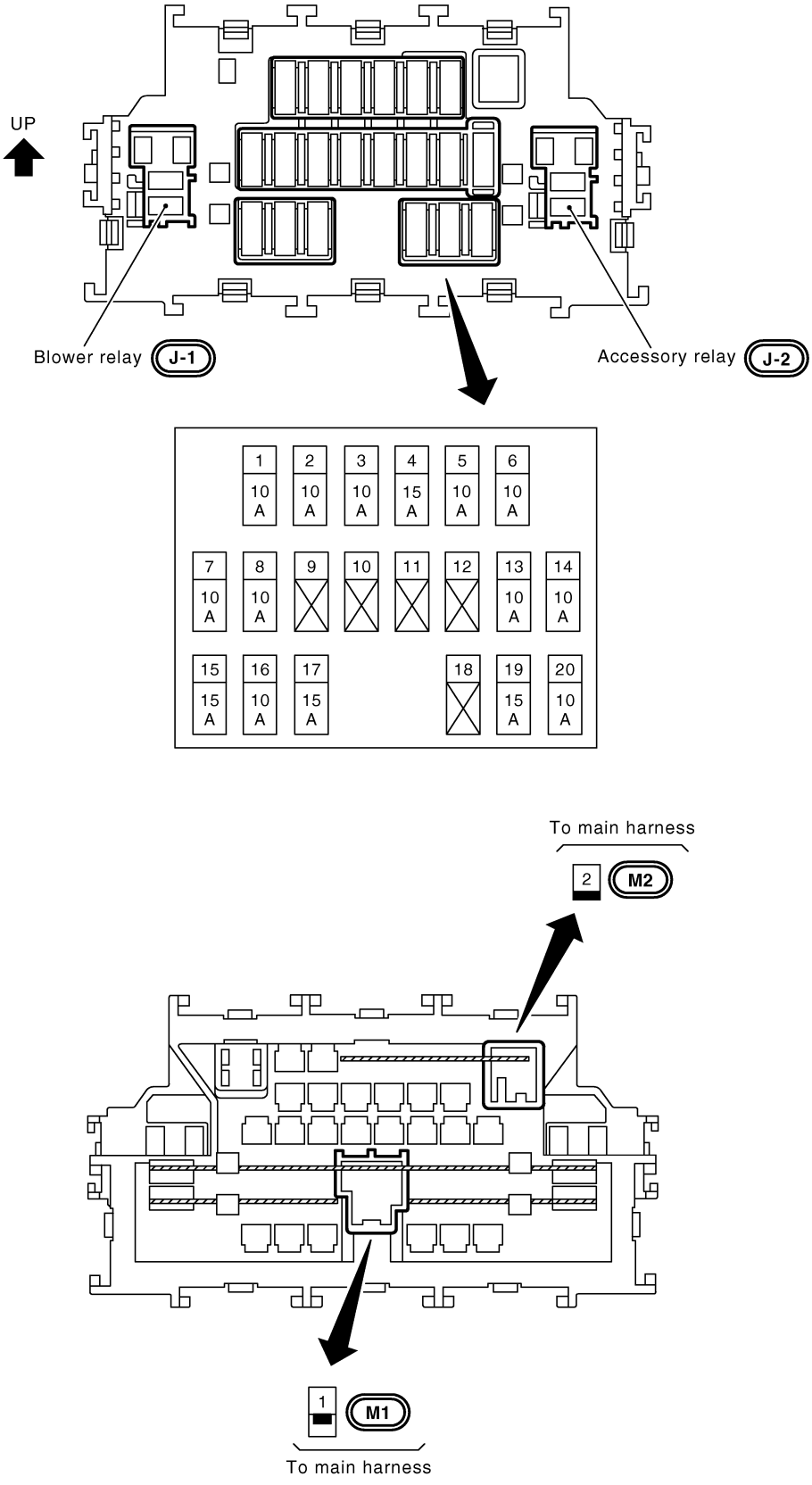
LKIA0811E

FUSE BLOCK-JUNCTION BOX (J/B)

PFP:24010

Terminal Arrangement

EKS00I64



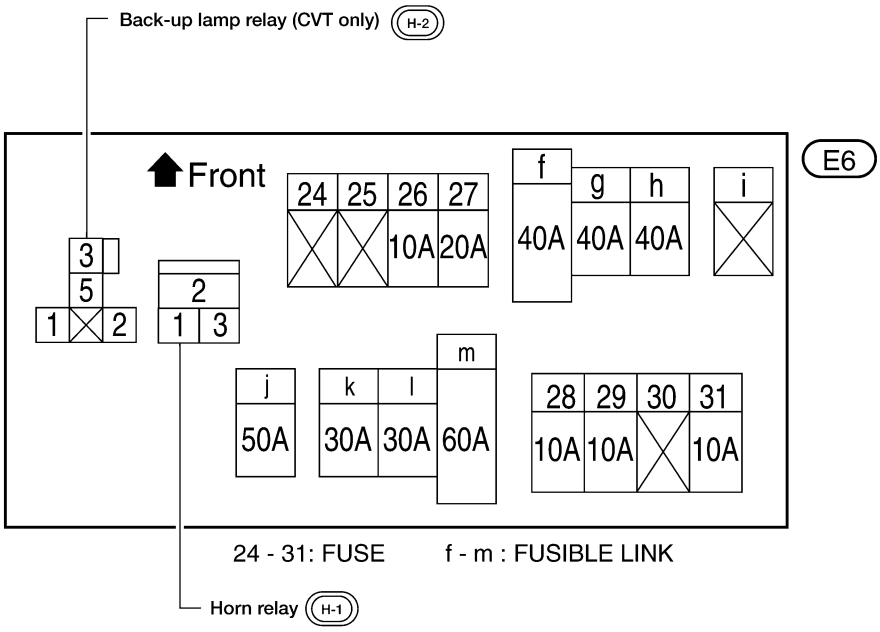
LKIA0812E

FUSE AND FUSIBLE LINK BOX

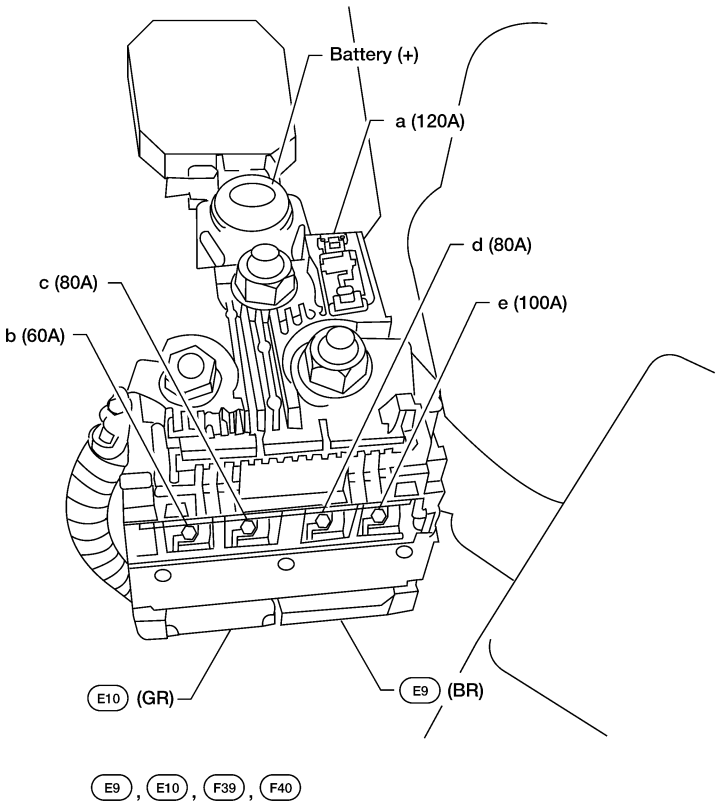
PFP:24382

Terminal Arrangement

EKS00I65



FUSIBLE LINK BOX (BATTERY)



WKIA5604E