

SECTION **PG**

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

CONTENTS

POWER SUPPLY ROUTING CIRCUIT	3	GROUND CIRCUIT	27
Schematic	3	Ground Distribution	27
Wiring Diagram — POWER —	5	MAIN HARNESS	27
BATTERY POWER SUPPLY — IGNITION SW.		ENGINE ROOM HARNESS	30
IN ANY POSITION	5	ENGINE CONTROL HARNESS	32
ACCESSORY POWER SUPPLY — IGNITION		BODY HARNESS	33
SW. IN ACC OR ON	9	BODY NO. 2 HARNESS	34
IGNITION POWER SUPPLY — IGNITION SW.		HARNESS	36
IN ON	10	Harness Layout	36
IGNITION POWER SUPPLY — IGNITION SW.		HOW TO READ HARNESS LAYOUT	36
IN ON AND/OR START	11	OUTLINE	37
IPDM E/R (INTELLIGENT POWER DISTRIBUTION		MAIN HARNESS	38
MODULE ENGINE ROOM)	14	ENGINE ROOM HARNESS (LH VIEW)	40
System Description	14	ENGINE ROOM HARNESS (RH VIEW)	43
SYSTEMS CONTROLLED BY IPDM E/R	14	ENGINE CONTROL HARNESS	45
CAN COMMUNICATION LINE CONTROL	14	BODY HARNESS AND TAIL HARNESS	47
IPDM E/R STATUS CONTROL	15	BODY NO. 2 HARNESS AND BODY NO. 3 HAR-	
Function of Detecting Ignition Relay Malfunction ...	15	NESS	49
CONSULT-II Function (IPDM E/R)	16	ROOM LAMP HARNESS	51
CONSULT-II BASIC OPERATION	16	FRONT DOOR LH HARNESS	52
SELF-DIAGNOSTIC RESULTS	17	FRONT DOOR RH HARNESS	52
DATA MONITOR	17	REAR DOOR LH HARNESS	53
ACTIVE TEST	19	REAR DOOR RH HARNESS	53
Auto Active Test	20	Wiring Diagram Codes (Cell Codes)	54
DESCRIPTION	20	ELECTRICAL UNITS LOCATION	57
OPERATION PROCEDURE	20	Electrical Units Location	57
INSPECTION IN AUTO ACTIVE TEST MODE... ..	20	ENGINE COMPARTMENT	57
Schematic	22	PASSENGER COMPARTMENT	58
IPDM E/R Terminal Arrangement	23	Fuse	60
IPDM E/R Power/Ground Circuit Inspection	24	Fusible Link	60
Inspection with CONSULT-II (Self-Diagnosis)	25	Circuit Breaker (Built Into BCM)	60
Removal and Installation of IPDM E/R	26	HARNESS CONNECTOR	61
REMOVAL	26	Description	61
INSTALLATION	26	HARNESS CONNECTOR (TAB-LOCKING	
		TYPE)	61
		HARNESS CONNECTOR (SLIDE-LOCKING	
		TYPE)	62
		HARNESS CONNECTOR (DIRECT-CONNECT	
		SRS COMPONENT TYPE)	62

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

PG

ELECTRICAL UNITS	64	MIXED TYPE RELAYS	65
Terminal Arrangement	64	TYPE OF STANDARDIZED RELAYS	65
STANDARDIZED RELAY	65	FUSE BLOCK-JUNCTION BOX(J/B)	67
Description	65	Terminal Arrangement	67
NORMAL OPEN, NORMAL CLOSED AND		FUSE AND FUSIBLE LINK BOX	68
		Terminal Arrangement	68

POWER SUPPLY ROUTING CIRCUIT

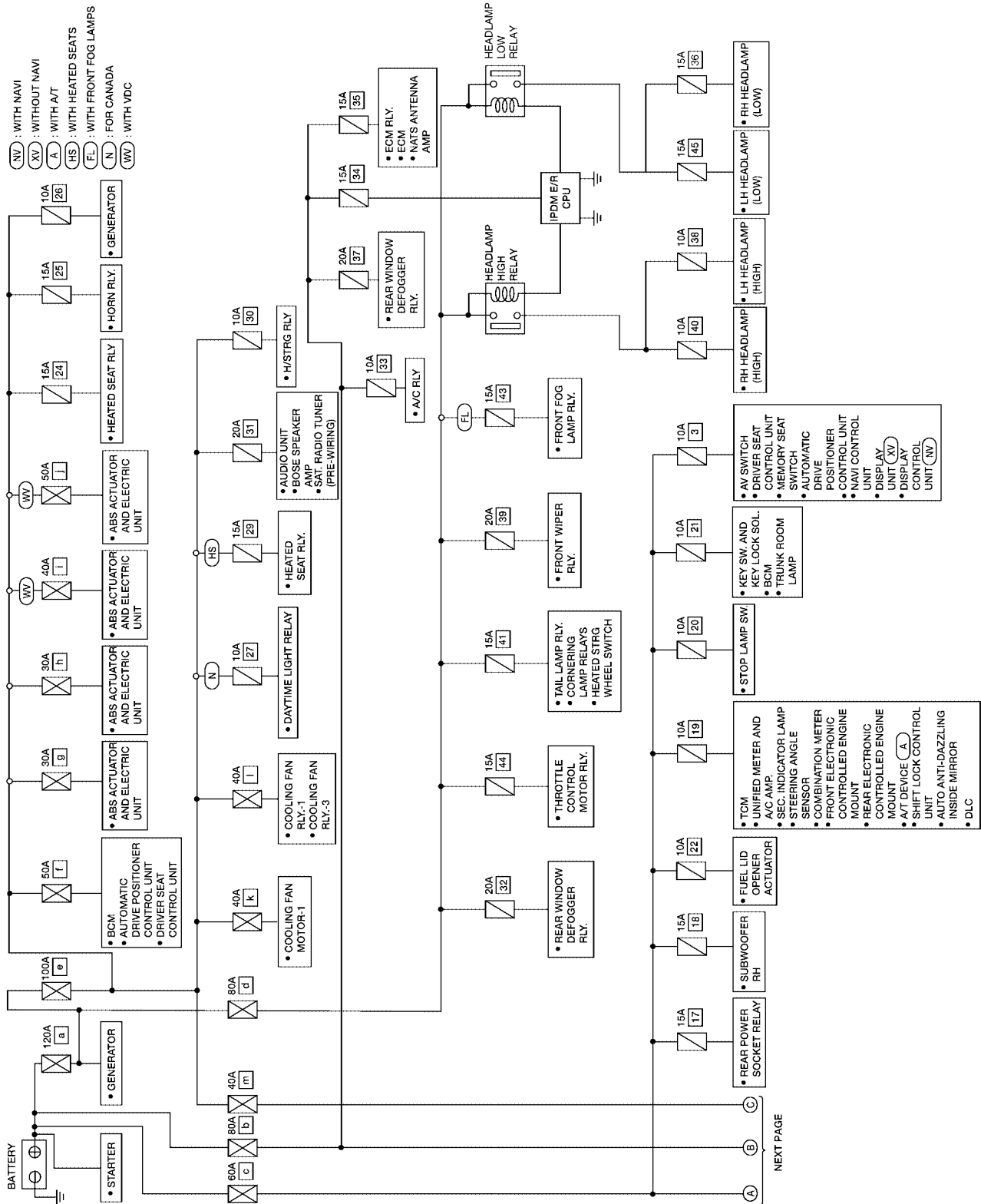
PF:24110

POWER SUPPLY ROUTING CIRCUIT

Schematic

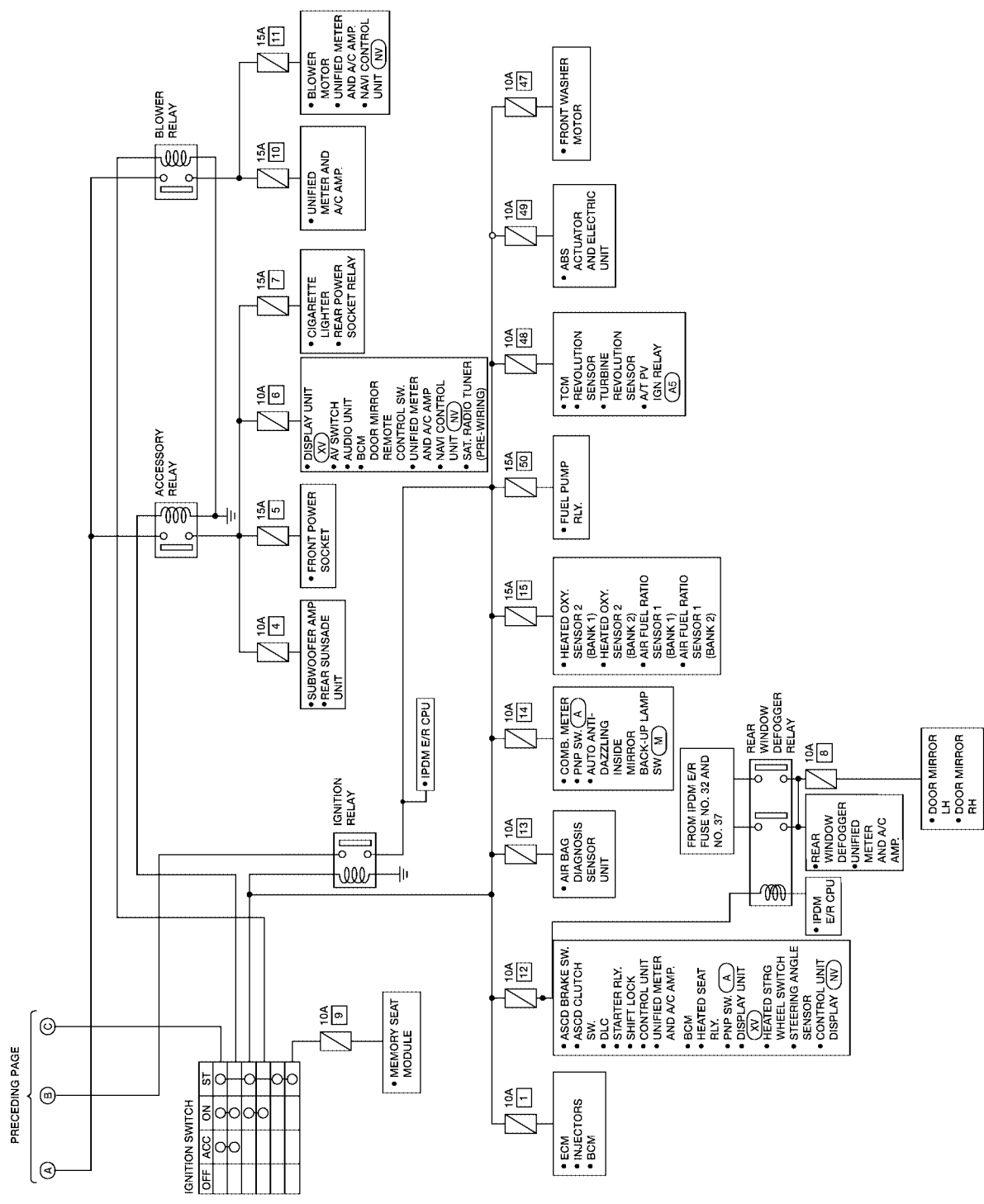
EKS003X1

For detailed ground distribution, refer to [PG-27, "Ground Distribution"](#).



POWER SUPPLY ROUTING CIRCUIT

- (M) : WITH M/T
- (A) : WITH A/T
- (N) : FOR CANADA
- (AC) : WITH 4-SPEED A/T
- (AS) : WITH 5-SPEED A/T
- (NV) : WITH NAVI
- (XV) : WITHOUT NAVI

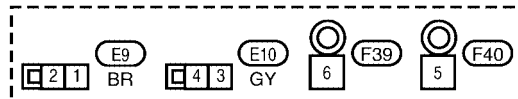
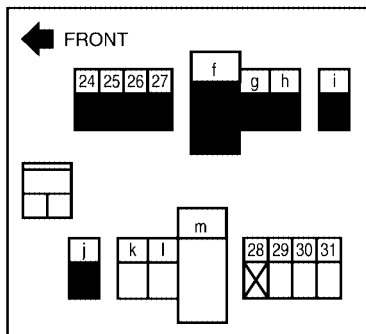
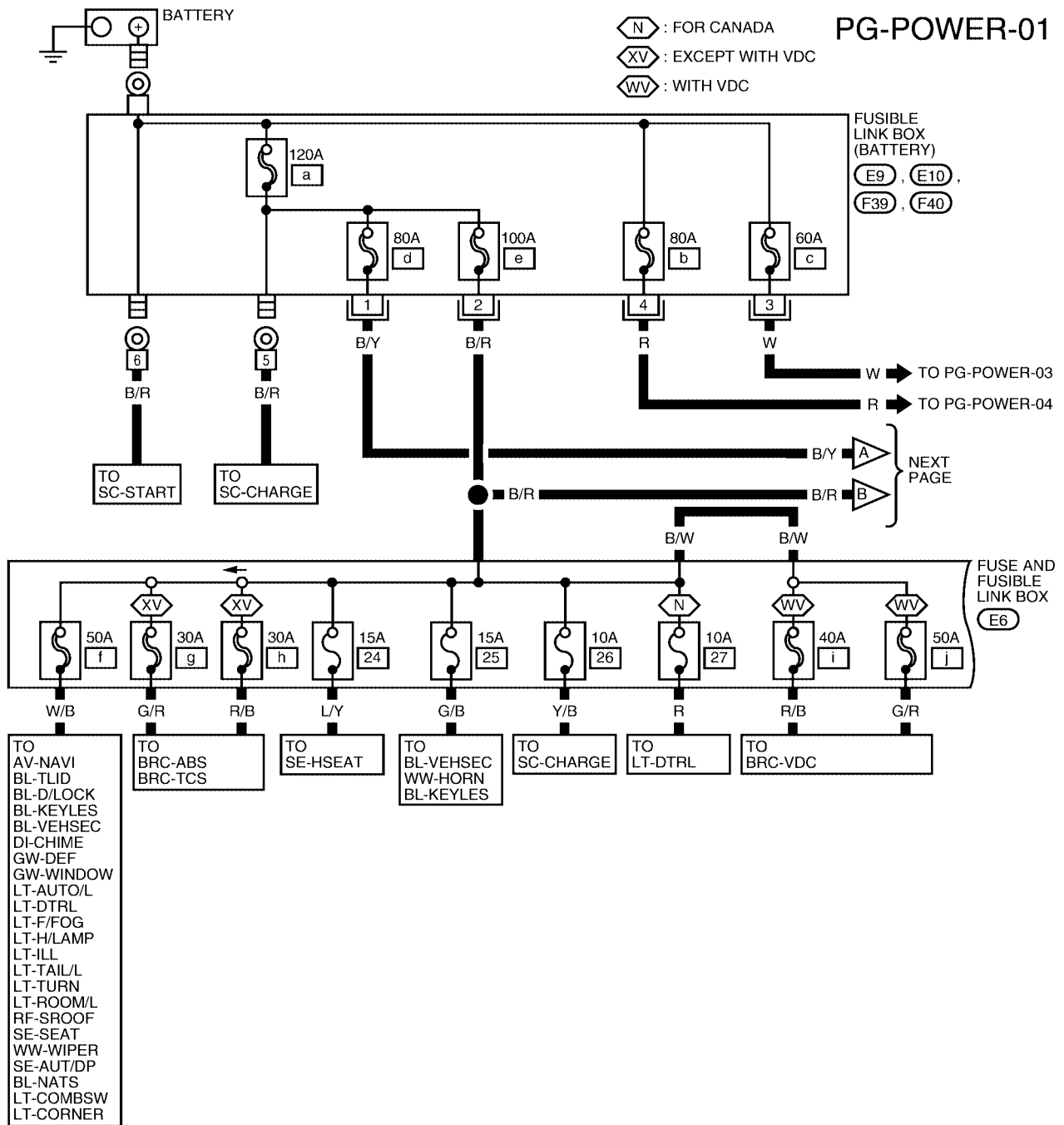


WKWA0931E

POWER SUPPLY ROUTING CIRCUIT

EKS003X2

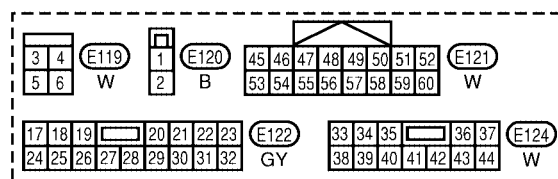
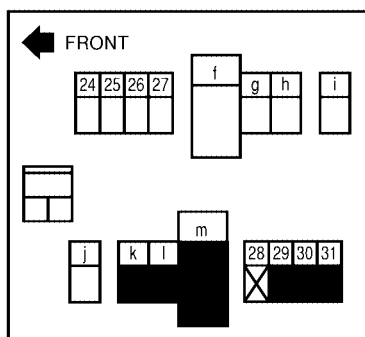
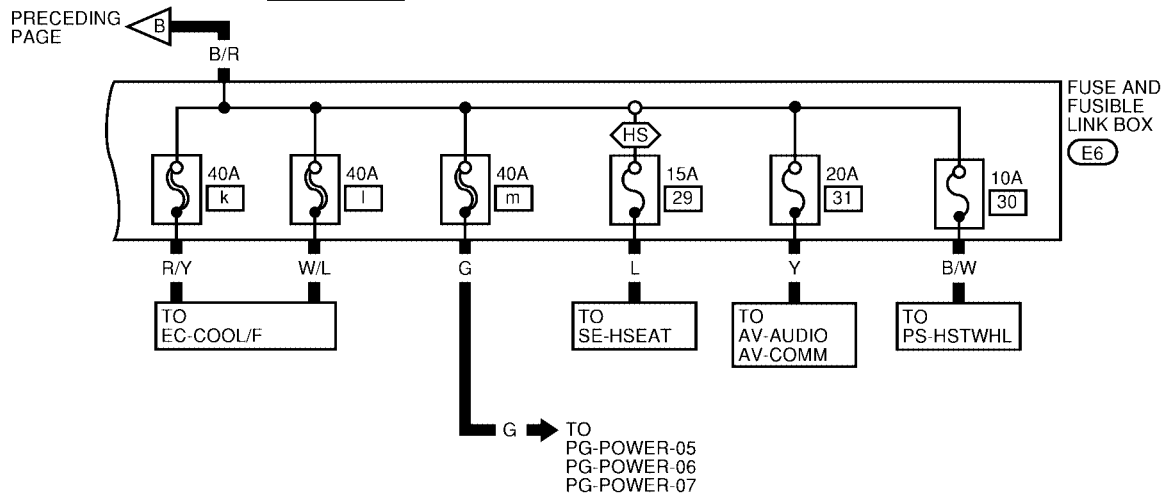
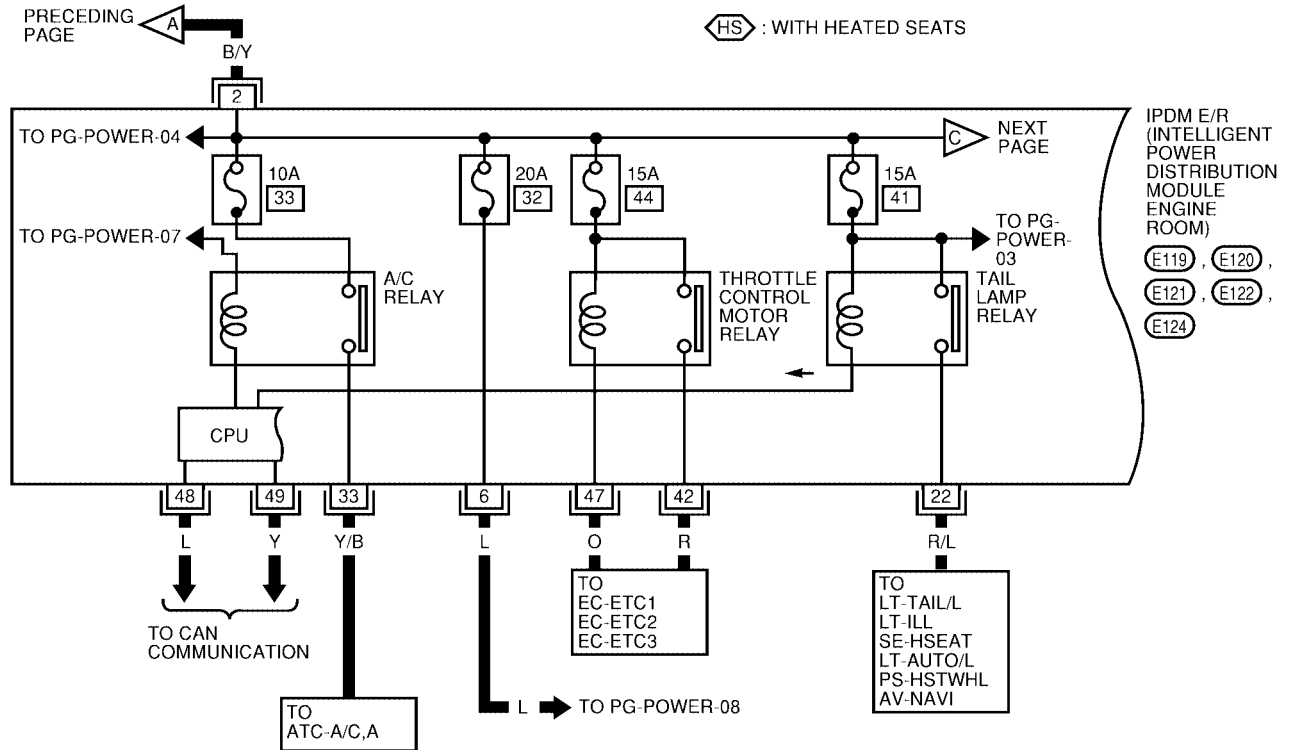
Wiring Diagram — POWER — BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION



WKWA0933E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-02

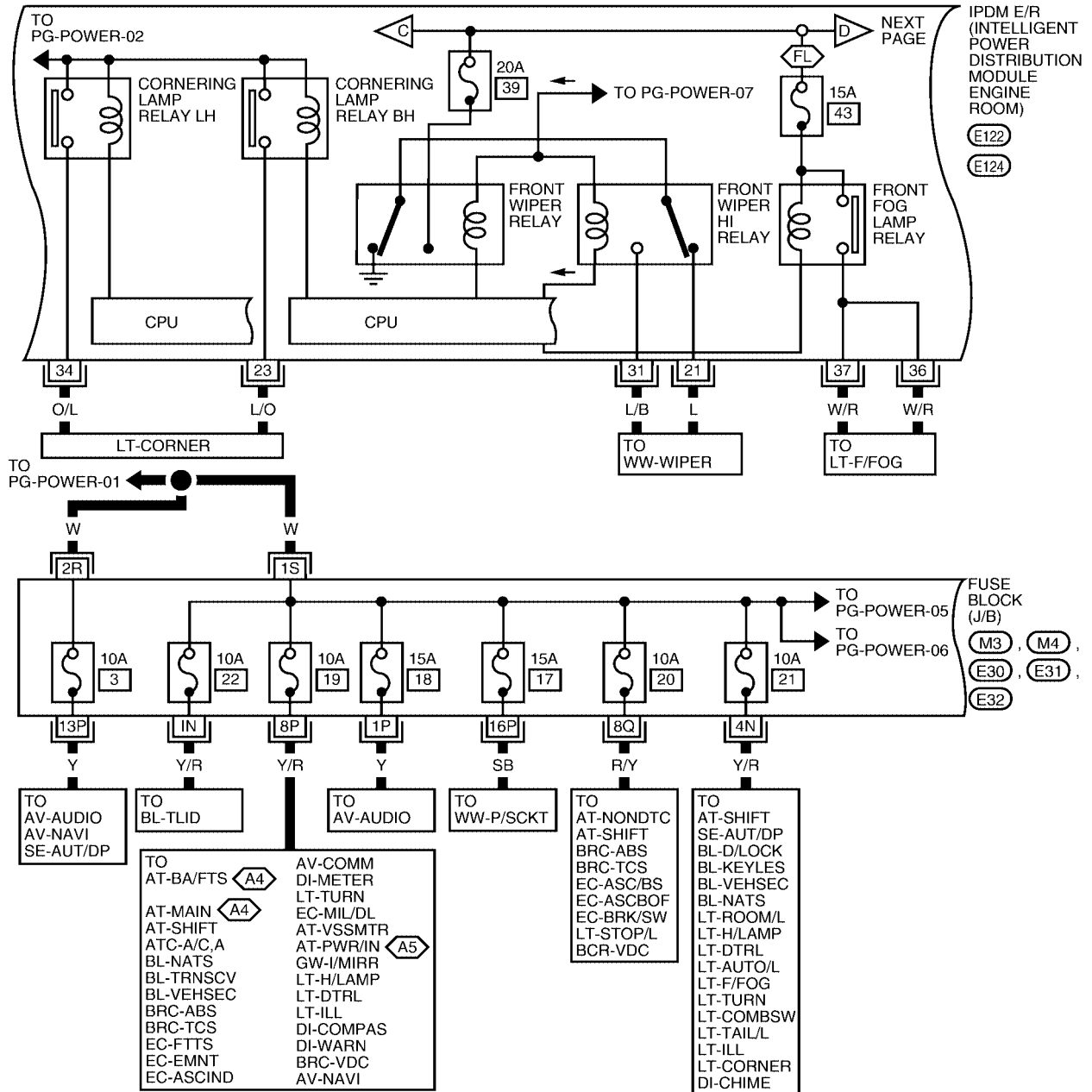


WKWA0460E

POWER SUPPLY ROUTING CIRCUIT

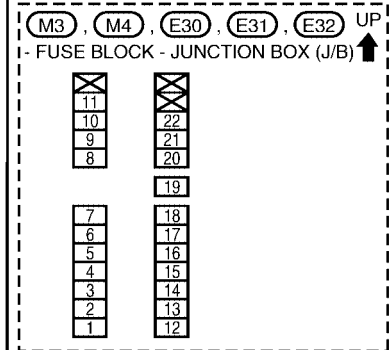
Ⓐ4 : WITH 4-SPEED A/T Ⓐ5 : WITH 5-SPEED A/T FL : WITH FRONT FOG LAMPS

PG-POWER-03



17	18	19	20	21	22	23	E122	33	34	34	36	37	E124		
24	25	26	27	28	29	30	GY	38	39	40	41	42	43	44	W

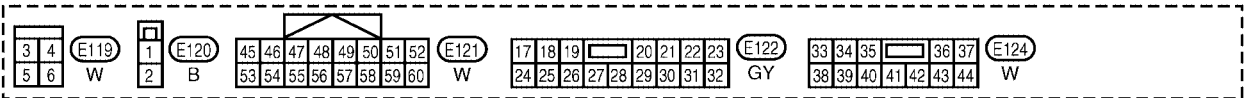
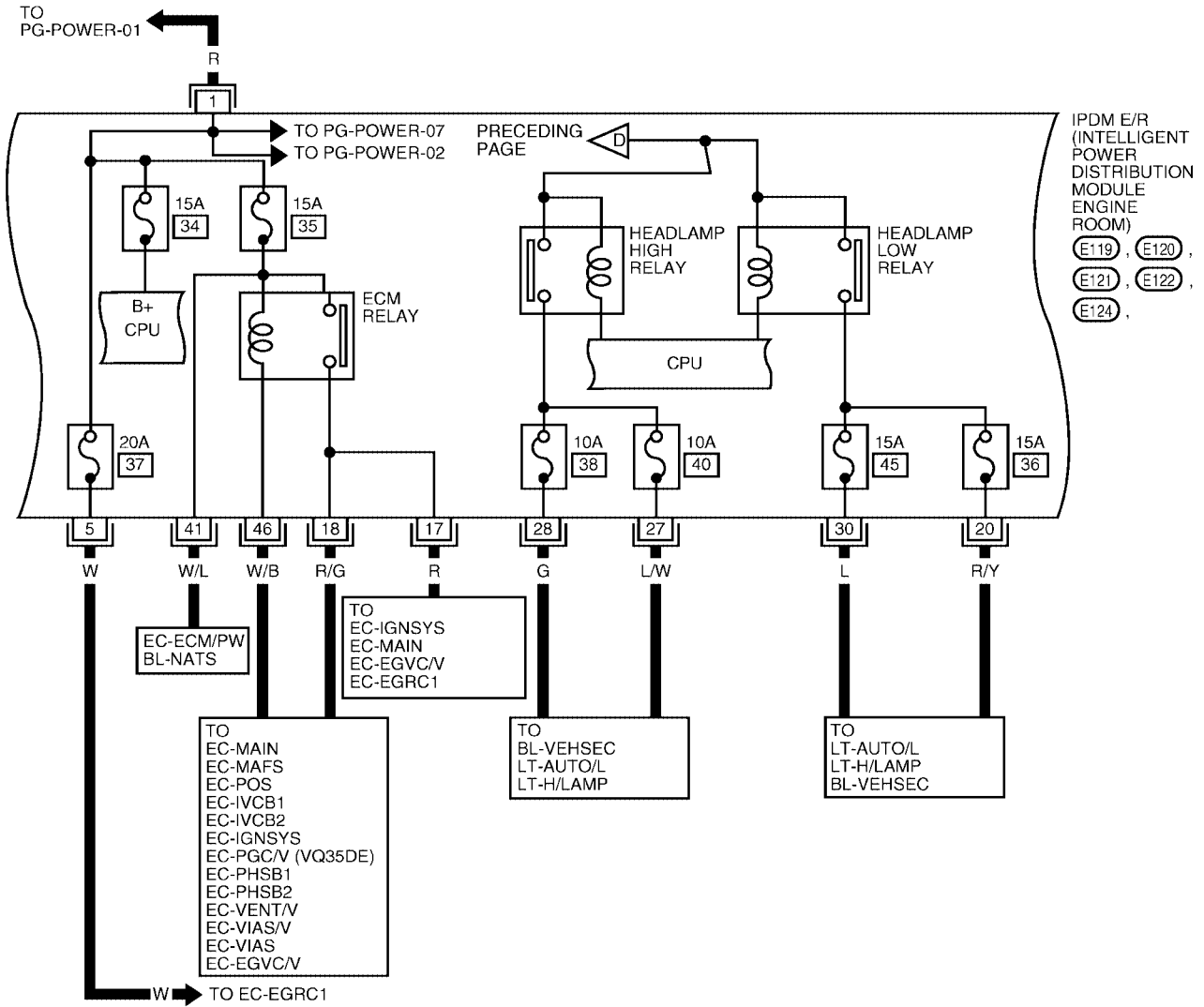
REFER TO THE FOLLOWING.



WKWA0955E

POWER SUPPLY ROUTING CIRCUIT

PG-POWER-04

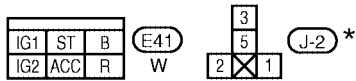
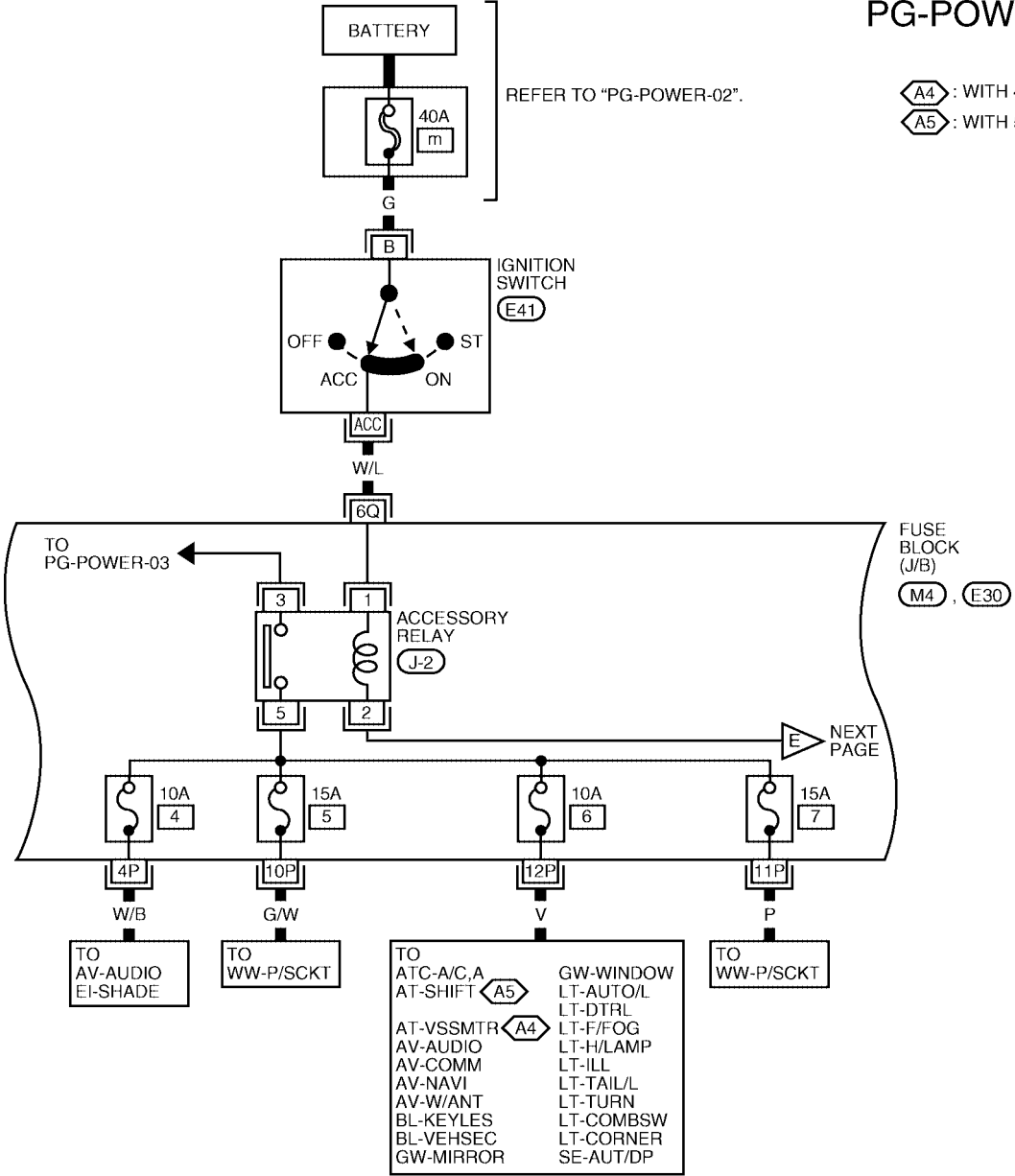


WKWA0462E

POWER SUPPLY ROUTING CIRCUIT

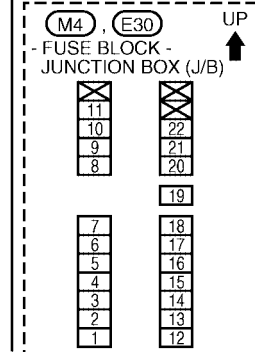
ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON

PG-POWER-05



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

REFER TO THE FOLLOWING.



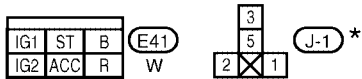
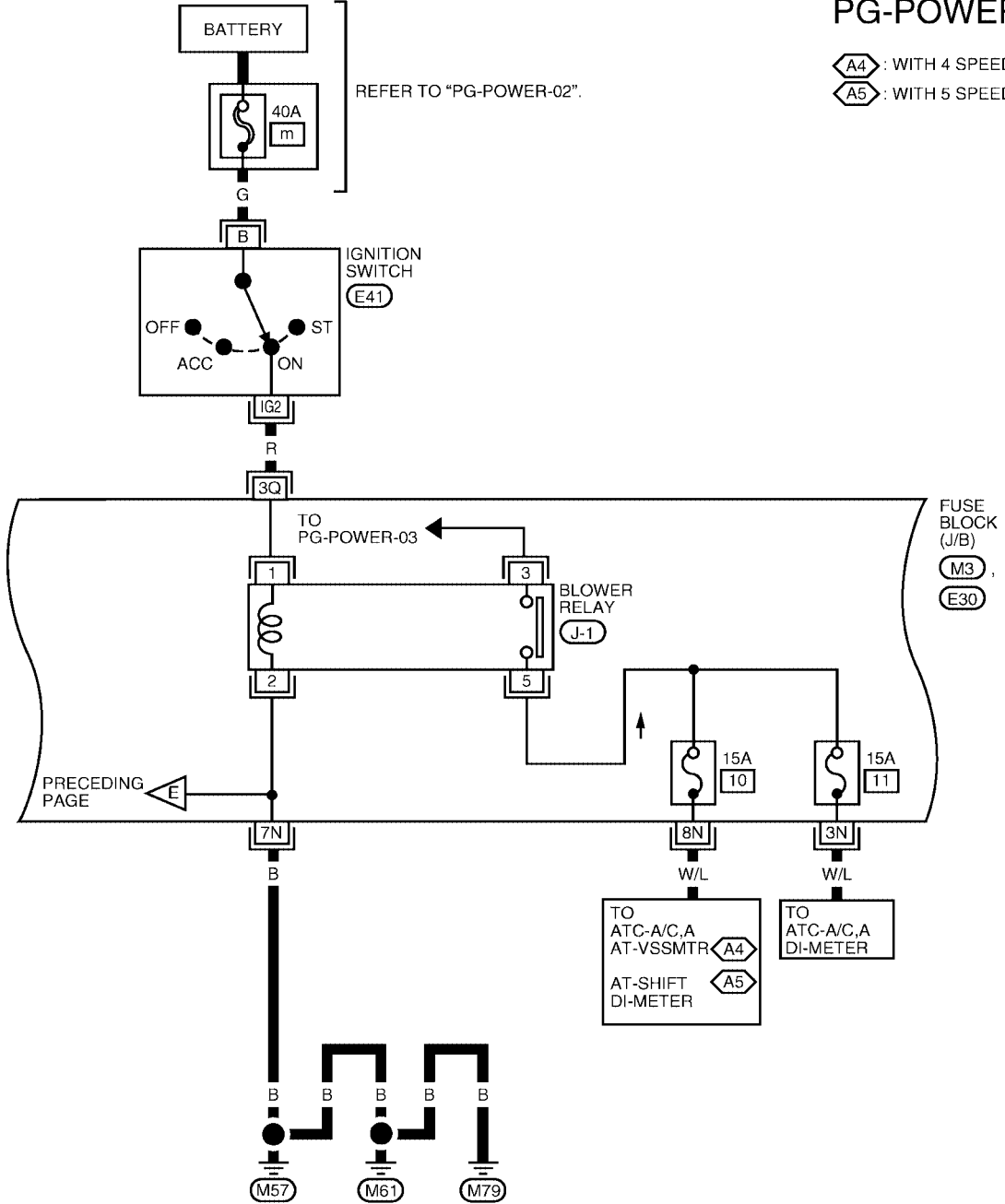
WKWA1829E

POWER SUPPLY ROUTING CIRCUIT

IGNITION POWER SUPPLY — IGNITION SW. IN ON

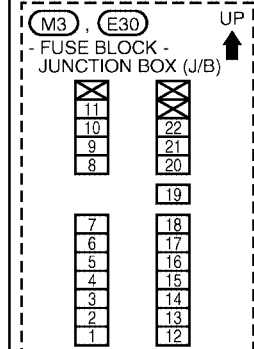
PG-POWER-06

A4 : WITH 4 SPEED AT
 A5 : WITH 5 SPEED AT



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

REFER TO THE FOLLOWING.

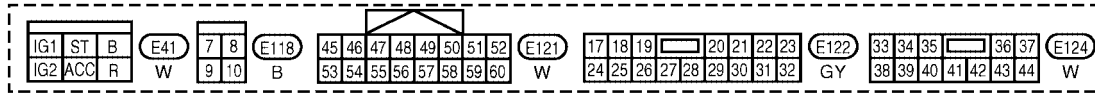
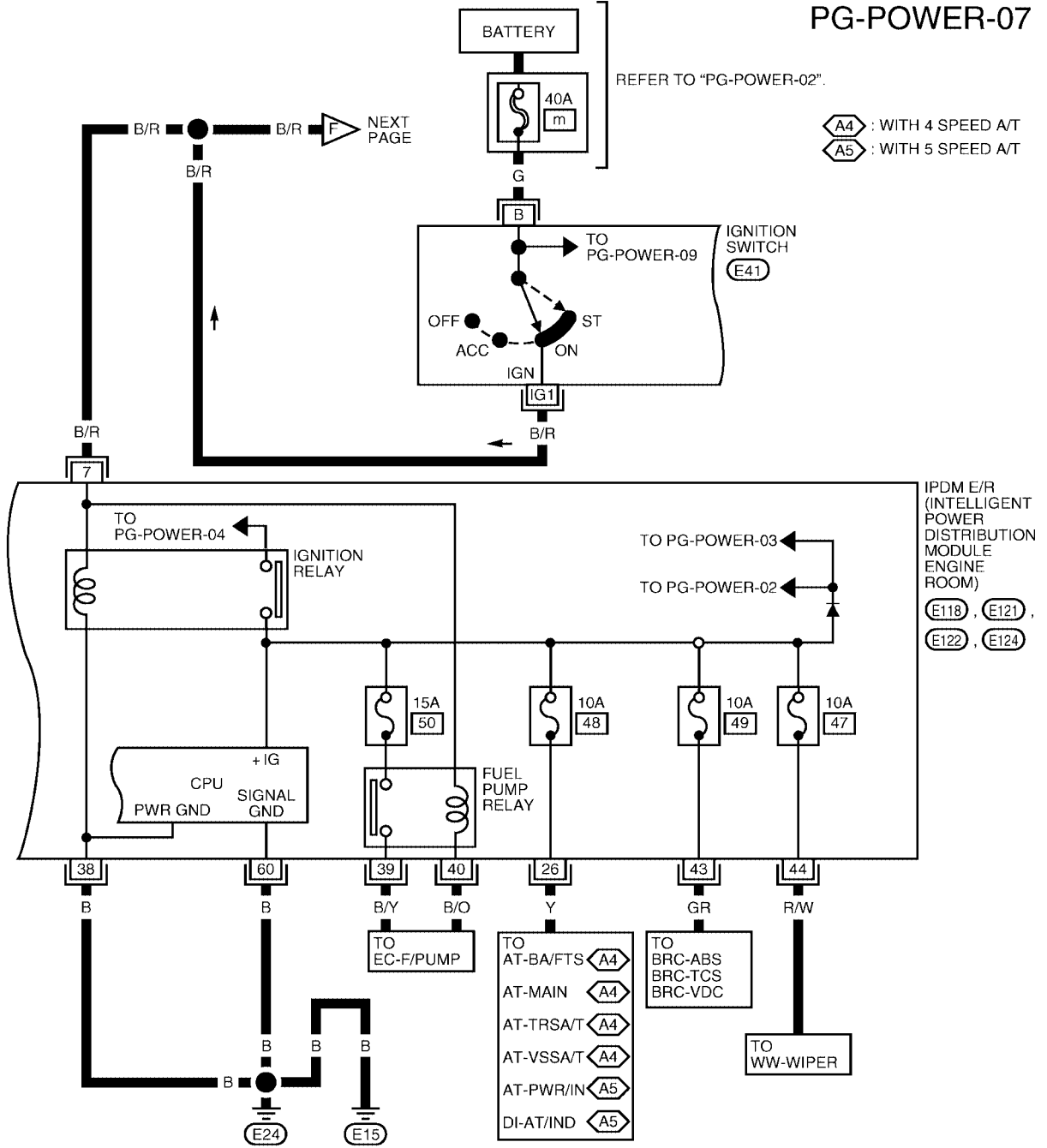


WKWA0464E

POWER SUPPLY ROUTING CIRCUIT

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

PG-POWER-07

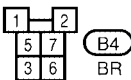
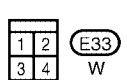
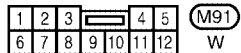
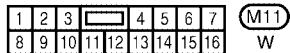
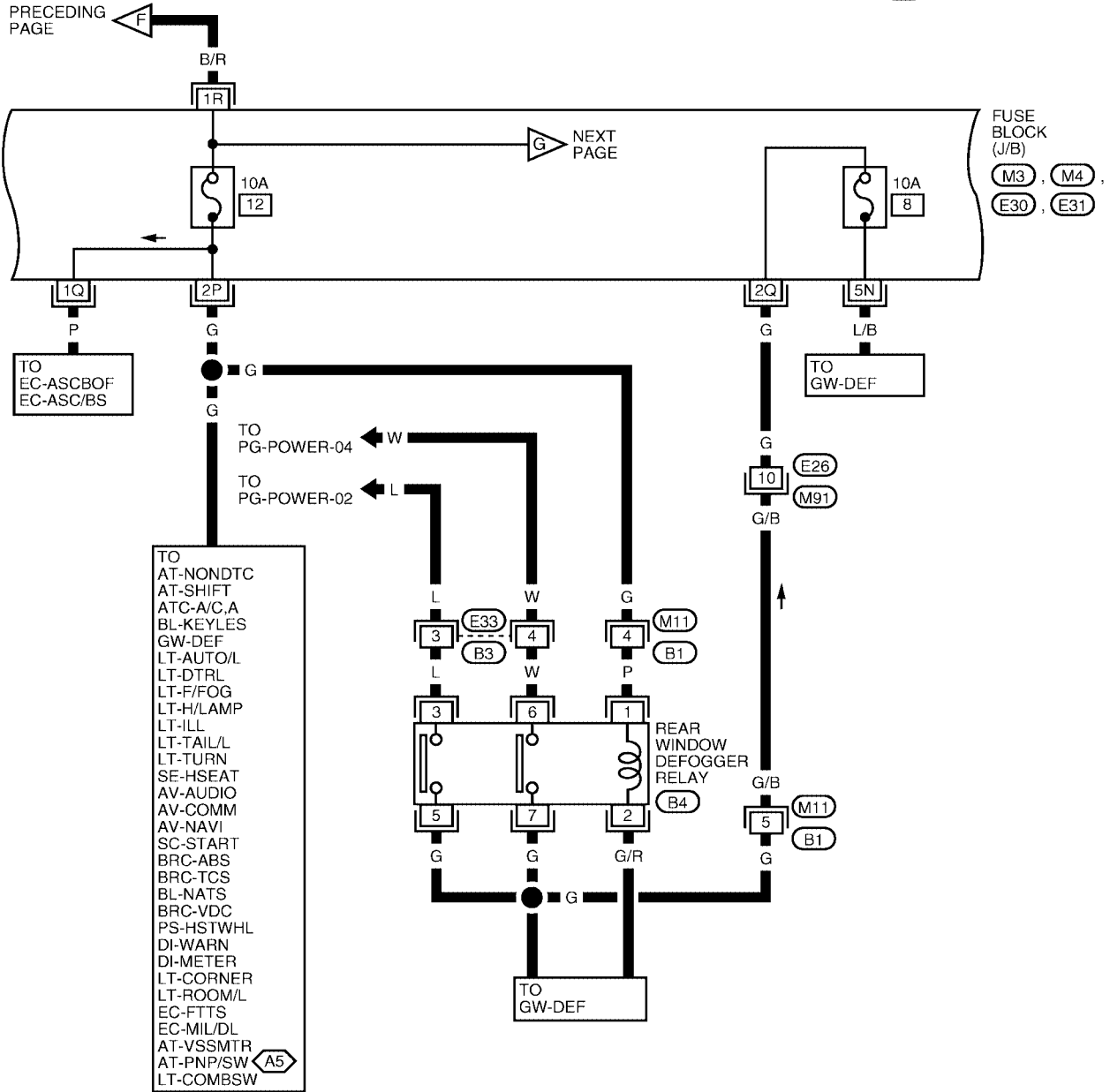


WKWA0465E

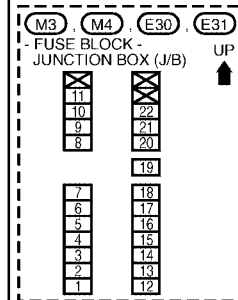
POWER SUPPLY ROUTING CIRCUIT

PG-POWER-08

A5 : With 5 speed A/T



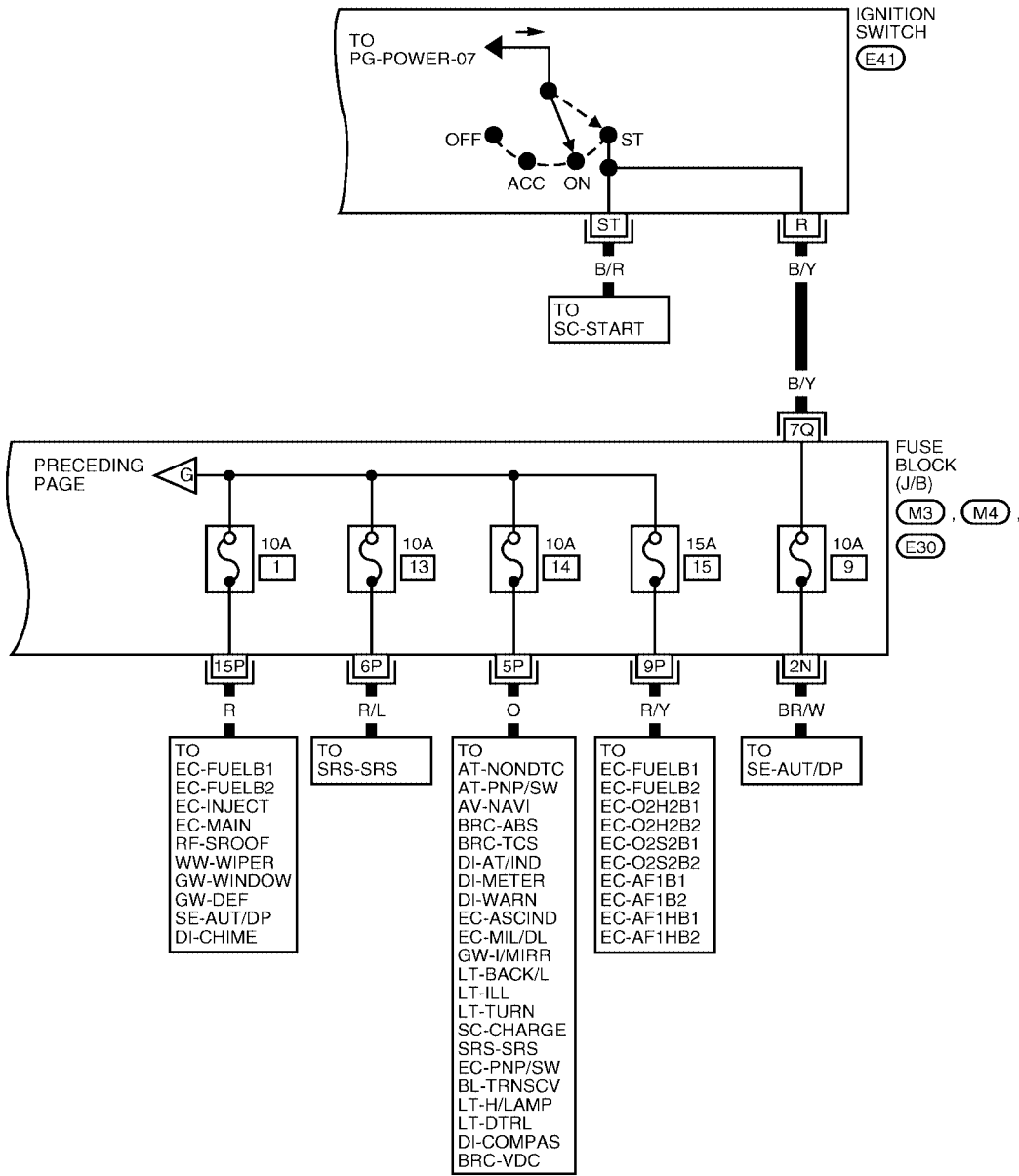
REFER TO THE FOLLOWING.



WKWA0466E

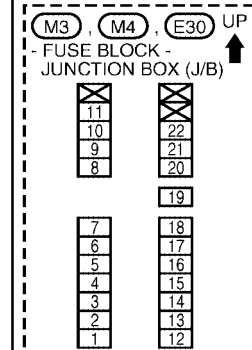
POWER SUPPLY ROUTING CIRCUIT

PG-POWER-09



IG1	ST	B	E41 W
IG2	ACC	R	

REFER TO THE FOLLOWING.



WKWA0467E

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

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

PFM:284B7

System Description

EKS005GU

- 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 circuit.
- IPDM E/R-integrated control circuit performs ON-OFF operation of relays, CAN communication control, oil pressure switch signal reception, etc.
- It controls operation of each electrical component via 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 signal from BCM and controls the following lamps:
 - Head lamps (Hi, Lo)
 - Parking lamps
 - Tail lamps
 - Cornering lamps
 - Front fog lamps
2. Wiper control
Using CAN communication lines, it receives signals from BCM and controls the front wipers.
3. Rear window defogger relay control
Using CAN communication lines, it receives signals from BCM and controls the rear window defogger relay.
4. A/C compressor control
Using CAN communication lines, it receives signals from ECM and controls the A/C compressor (magnetic clutch).
5. Cooling fan control
Using CAN communication lines, it receives signals from ECM and controls cooling fan.
6. Horn control
Using CAN communication lines, it receives signals from BCM and controls horn relay.

CAN COMMUNICATION LINE CONTROL

With CAN communication, by connecting each control unit using two communication lines (CAN L-line, CAN H-line), it is possible to transmit a maximum amount of information with minimum wiring. Each control unit can transmit and receive data, and reads necessary information only.

1. Fail-safe control
 - When CAN communication with other control units is impossible, IPDM E/R performs fail-safe control. After CAN communication returns to normal operation, it also returns to normal control.
 - Operation of control parts by IPDM E/R during fail-safe mode is as follows:

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

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

IPDM E/R STATUS CONTROL

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

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

Function of Detecting Ignition Relay Malfunction

EKS005GW

- 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)

EKS005H6

CONSULT-II Function (IPDM E/R)

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

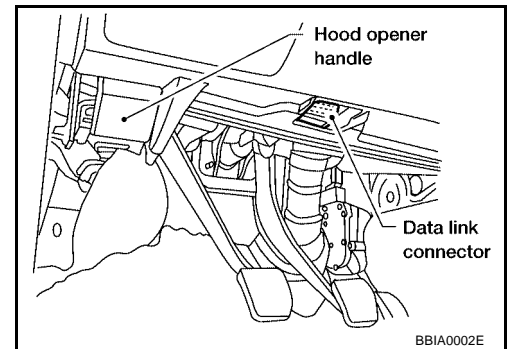
Inspection Item, Diagnosis Mode	Description
SELF-DIAG RESULTS	The IPDM E/R performs diagnosis of CAN communication and self-diagnosis.
DATA MONITOR	The input/output data of the IPDM E/R is displayed in real time.
ACTIVE TEST	The IPDM E/R sends a drive signal to electronic components to check their operation.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

CONSULT-II BASIC OPERATION

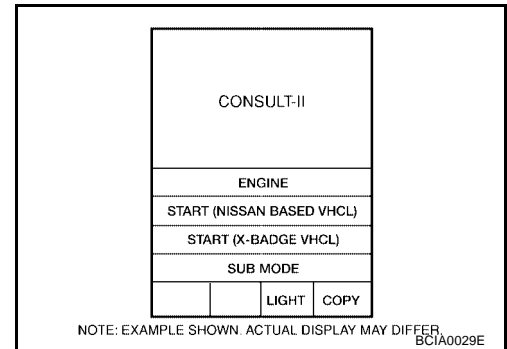
CAUTION:

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

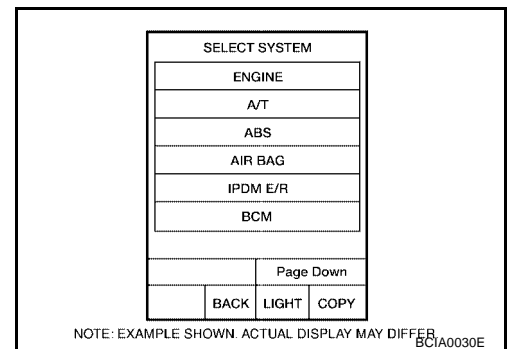
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn ignition switch ON.



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

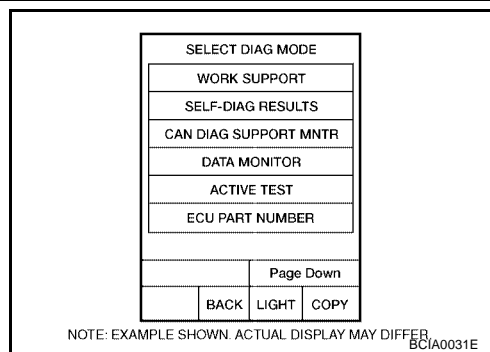


3. Touch "IPDM E/R" on "SELECT SYSTEM" screen.
 - If "IPDM E/R" is not displayed, print "SELECT SYSTEM" screen, then refer to [LAN-6. "Precautions for CAN System"](#).



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

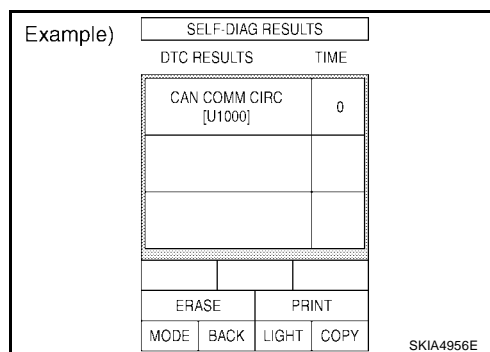
4. Select "SELF-DIAG RESULTS" or "DATA MONITOR".



SELF-DIAGNOSTIC RESULTS

Operation Procedure

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



Display Item List

Display items	CONSULT-II display code	Error return condition	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 an error, or if any of the control units fail, data reception/transmission cannot be confirmed. ● When the data in CAN communication is not received before the specified time. 	X	X	Any of items listed below have errors: <ul style="list-style-type: none"> ● TRANSMIT DIAG ● ECM ● BCM/SEC

NOTE:

The details for display of the period are as follows:

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

DATA MONITOR

Operation Procedure

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

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

3. Touch "START".
4. Touch the required monitoring item on "SELECT ITEM MENU".

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

5. Touch "RECORD" while monitoring to record the status of the item being monitored. To stop recording, touch "STOP".

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

All Signals, Main Signals, Select From Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECT 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
Tail & clear request	TAIL & CLR REQ	ON/OFF	X	X	X	Signal status input from BCM
H/L LO request	HL LO REQ	ON/OFF	X	X	X	Signal status input from BCM
H/L HI request	HL HI REQ	ON/OFF	X	X	X	Signal status input from BCM
FR 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	Control status of IPDM E/R
Starter request	ST RLY REQ	ON/OFF	X		X	Status of input signal ^{NOTE}
Ignition relay status	IGN RLY	ON/OFF	X	X	X	Ignition relay status monitored with IPDM E/R
Rear defogger request	RR DEF REQ	ON/OFF	X	X	X	Signal status input from BCM
Oil pressure switch	OIL P SW	OPEN/CLOSE	X		X	Signal status input from IPDM E/R
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
Cornering lamp request	CRNRNG LMP REQ	OFF/LEFT/RIGHT	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.

ACTIVE TEST

Operation Procedure

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

Test name	CONSULT-II screen display	Description
Tail lamp output	TAIL LAMP	With a certain ON-OFF operation, the tail lamp relay 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 relay (Lo, Hi) can be operated.
Cooling fan output	MOTOR FAN	With a certain operation (1, 2, 3, 4), the cooling fan can be operated.
Lamp (HI, LO, FOG) output	LAMPS	With a certain operation (OFF, HI ON, LO ON, FOG ON), the lamp relay (Lo, Hi, Fog) can be operated.
Cornering lamp output	CORNERING LAMP	—
Horn output	HORN	With a certain ON-OFF operation, the horn relay can be operated.

Auto Active Test DESCRIPTION

- 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 and parking lamps
 - Cornering lamps
 - Front fog lamps
 - Headlamps (Hi, Lo)
 - A/C compressor (magnetic clutch)
 - Cooling fan

OPERATION PROCEDURE

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

NOTE:

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

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

NOTE:

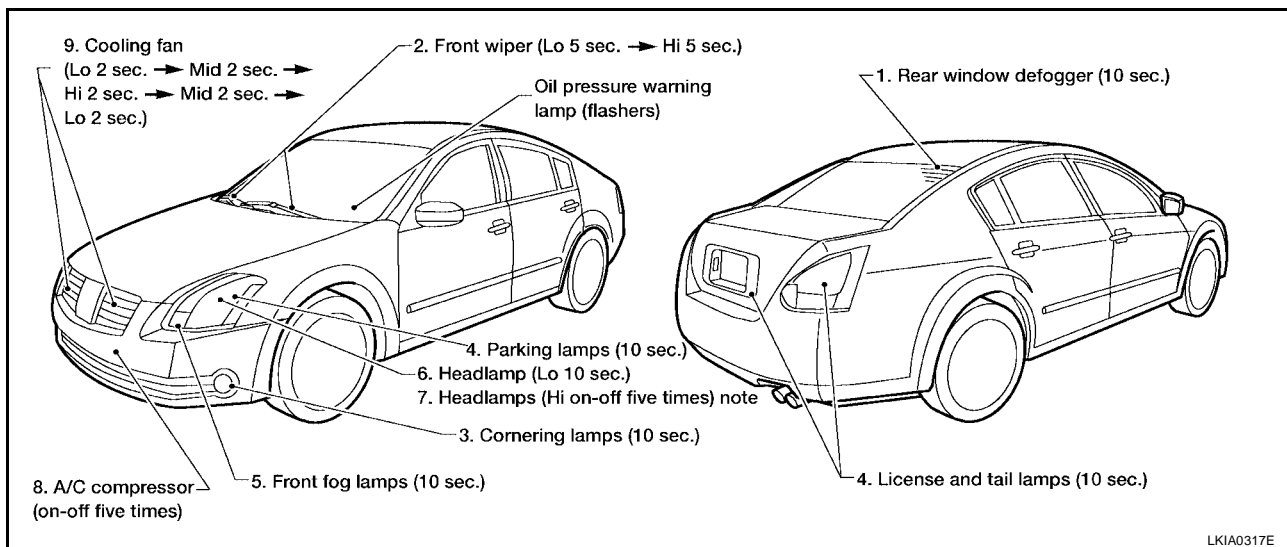
When auto active test mode has to be cancelled halfway, turn ignition switch OFF.

CAUTION:

Be sure to perform [BL-29, "Door Switch Check"](#) when the auto active test cannot be performed.

INSPECTION IN AUTO ACTIVE TEST MODE

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



NOTE:

Turns ON-OFF the solenoid to switch Hi/Lo. In this case, the bulb does not illuminate.

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.

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

- 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

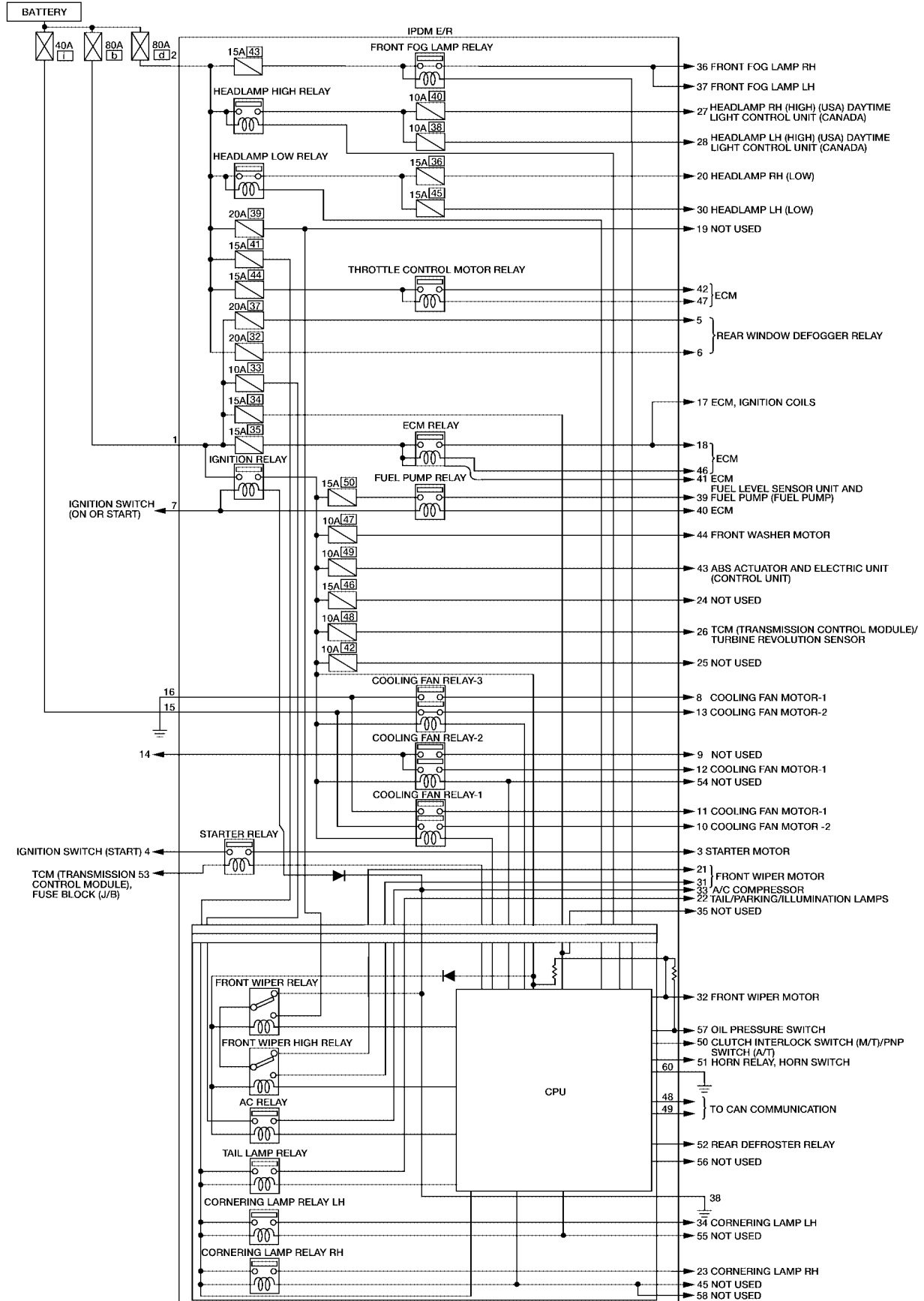
Symptom	Inspection contents	Possible cause	
Any of front wipers, tail and parking lamps, front fog lamps, cornering lamps, and head lamps (Hi, Lo) do not operate.	Perform auto active test. Does system in question operate?	YES	● BCM signal input system
		NO	<ul style="list-style-type: none"> ● Lamp/wiper 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
Rear window defogger does not operate.	Perform auto active test. Does rear window defogger operate?	YES	● BCM signal input circuit
		NO	<ul style="list-style-type: none"> ● Rear window defogger relay circuit ● Open circuit of rear window defogger ● IPDM E/R malfunction
A/C compressor does not operate.	Perform auto active test. Does magnetic clutch operate?	YES	<ul style="list-style-type: none"> ● BCM signal input circuit ● CAN communication signal between BCM and ECM. ● CAN communication signal between ECM and IPDM E/R
		NO	<ul style="list-style-type: none"> ● Magnetic clutch malfunction ● Harness/connector malfunction between IPDM E/R and magnetic clutch ● IPDM E/R (integrated relay) malfunction
Cooling fan does not operate.	Perform auto active test. Does cooling fan operate?	YES	<ul style="list-style-type: none"> ● ECM signal input circuit ● CAN communication signal between ECM and IPDM E/R
		NO	<ul style="list-style-type: none"> ● Cooling fan motor malfunction ● Harness/connector malfunction between IPDM E/R and cooling fan motor ● IPDM E/R (integrated relay) malfunction
Oil pressure warning lamp does not operate.	Perform auto active test. Does oil pressure warning lamp blink?	YES	<ul style="list-style-type: none"> ● Harness/connector malfunction between IPDM E/R and oil pressure switch ● Oil pressure switch malfunction
		NO	<ul style="list-style-type: none"> ● CAN communication signal between BCM and Unified Meter and A/C Amp ● Combination meter

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

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

EKS005GY

Schematic



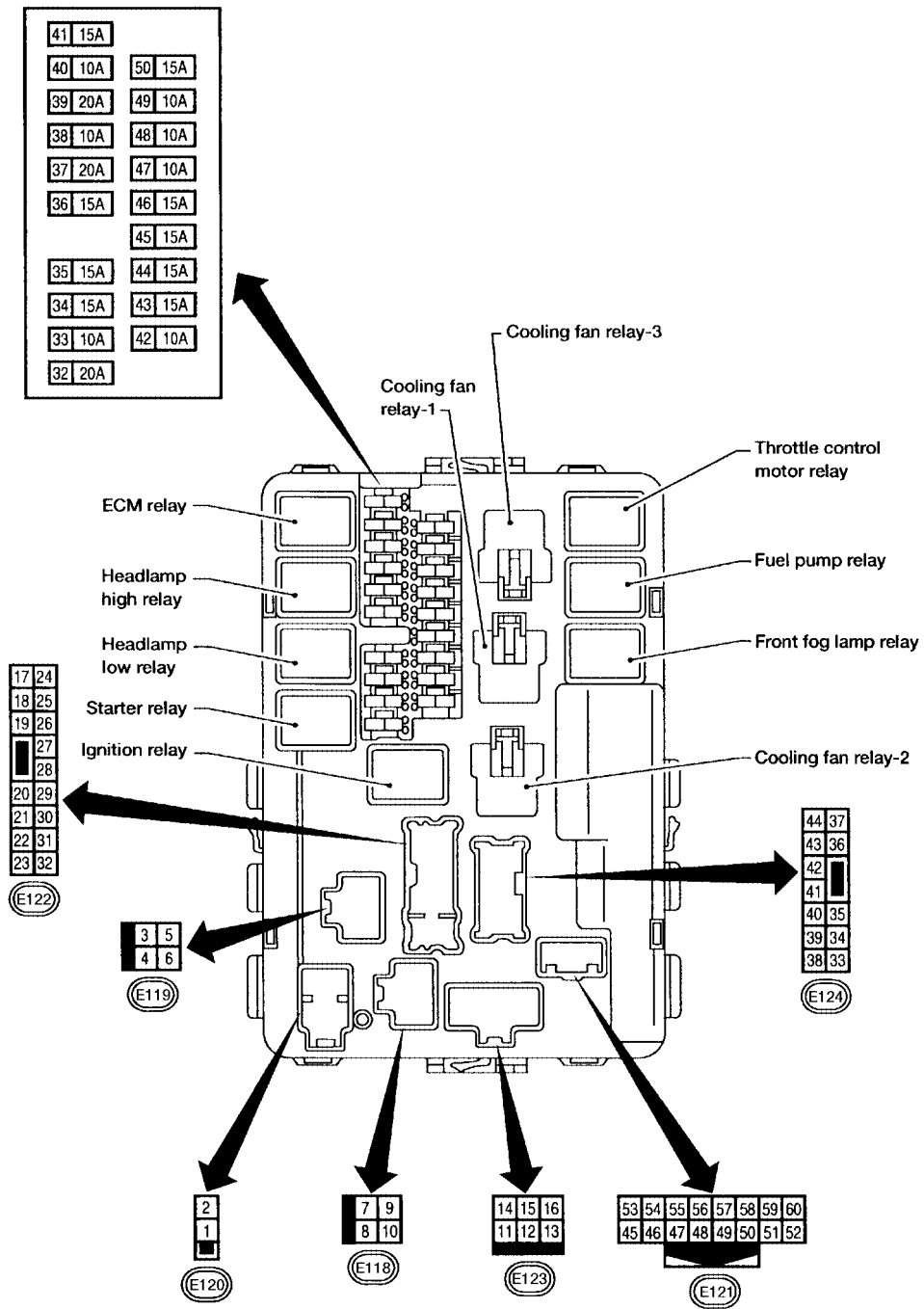
WKWA0932E

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

IPDM E/R Terminal Arrangement

EKS005GZ

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



LKWA0247E

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

EKS005H0

IPDM E/R Power/Ground Circuit Inspection

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, 15	Battery power	a, b, d, e, l

OK or NG

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

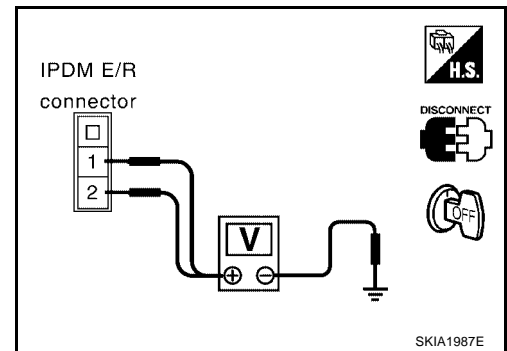
2. POWER CIRCUIT INSPECTION

1. Disconnect IPDM E/R harness connector E120.
2. Check voltage between IPDM E/R harness connector E120 terminals 1 (R), 2 (B/Y) and ground.

Battery voltage should exist.

OK or NG

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



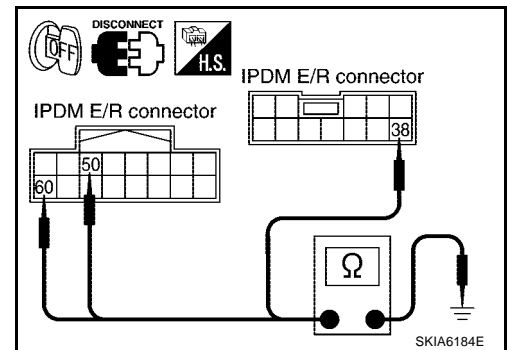
3. GROUND CIRCUIT INSPECTION

1. Disconnect IPDM E/R harness connectors E121 and E124.
2. Check continuity between IPDM E/R harness connector E121 terminal 50 (B) (A/T model only), E121 terminal 60 (B), E124 terminal 38 (B), E123 terminal 16 (B) and ground.

Continuity should exist.

OK or NG

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



Inspection with CONSULT-II (Self-Diagnosis)

CAUTION:

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

1. SELF-DIAGNOSIS RESULT CHECK

1. Connect CONSULT-II and select "IPDM E/R" on the Diagnosis System Selection screen.
2. Select "SELF-DIAG RESULTS" on the diagnosis mode selection screen.
3. Check display content in self-diagnosis results.

CONSULT-II Display	CONSULT-II display code	TIME		Details of diagnosis result
		CRNT	PAST	
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.	—	—	—	No malfunction
CAN COMM CIRC	U1000	X	X	Any of items listed below have errors: <ul style="list-style-type: none"> ● TRANSMIT DIAG ● ECM ● BCM/SEC

NOTE:

The Details for Display for the Period are as follows:

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

Contents displayed

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

CAN COMM CIRC>>Print out the self-diagnosis result and refer to [LAN-8, "CAN COMMUNICATION"](#) .

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

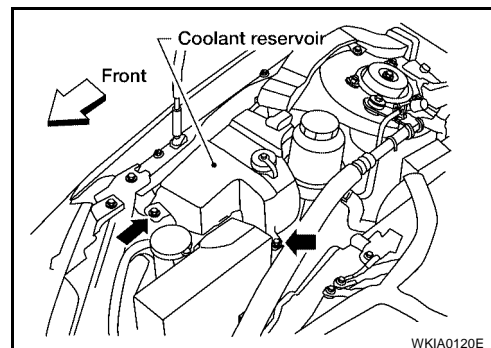
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

EKS005H1

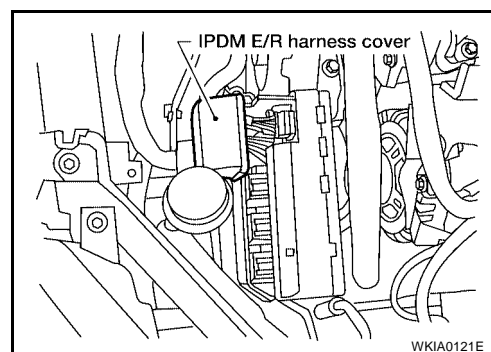
Removal and Installation of IPDM E/R

REMOVAL

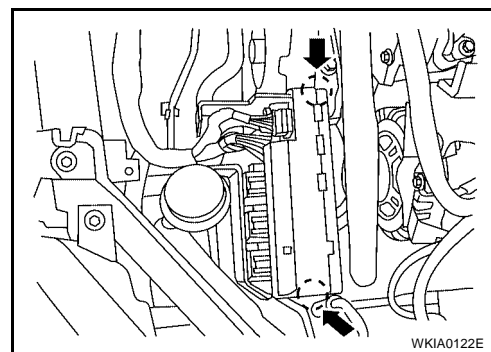
1. Disconnect negative battery cable.
2. Remove engine side cover RH.
3. Remove 2 bolts and position coolant reservoir aside.
4. Remove IPDM E/R upper cover.



5. Remove IPDM E/R harness cover.



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



INSTALLATION

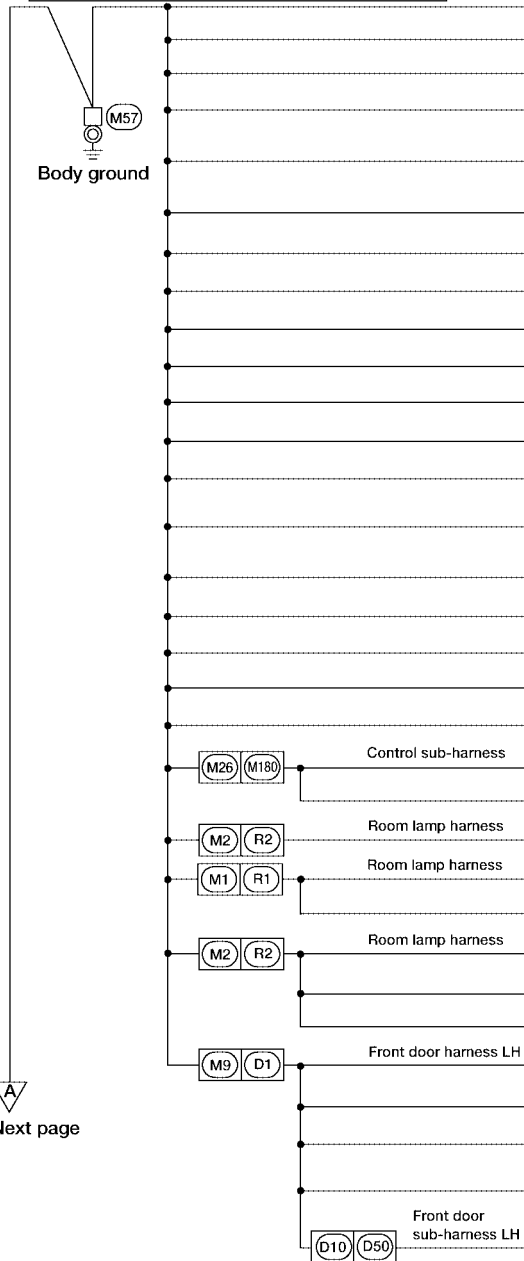
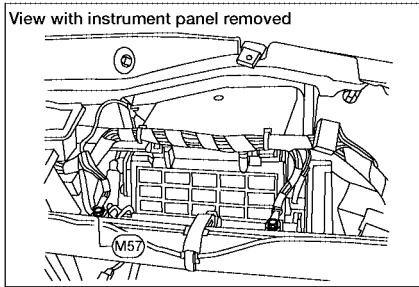
Installation is in the reverse order of removal.

GROUND CIRCUIT

PFP:24080

EKS003XA

GROUND CIRCUIT Ground Distribution MAIN HARNESS

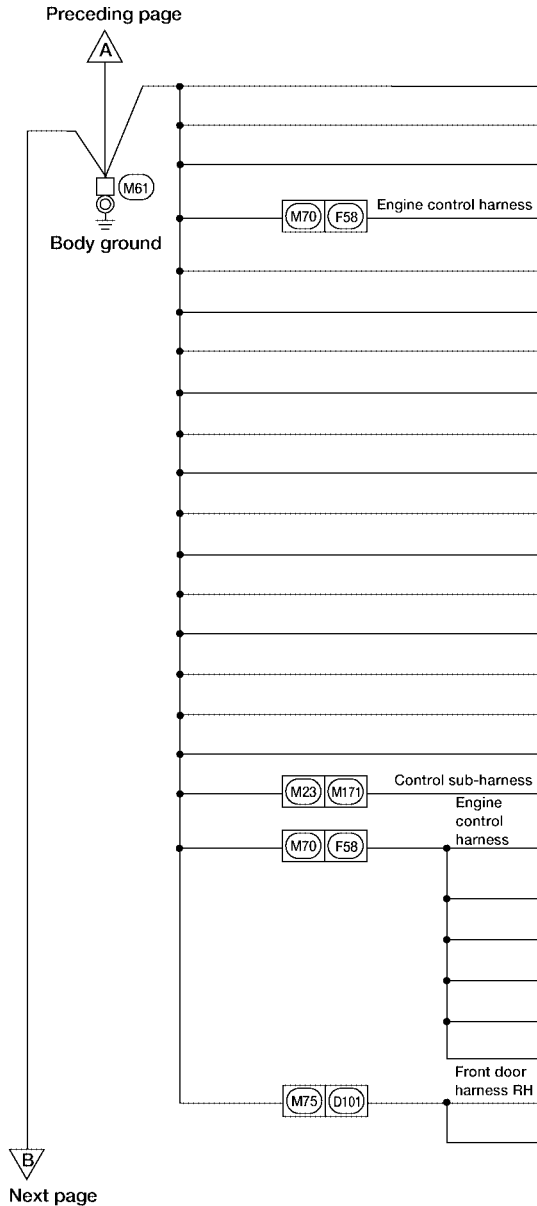
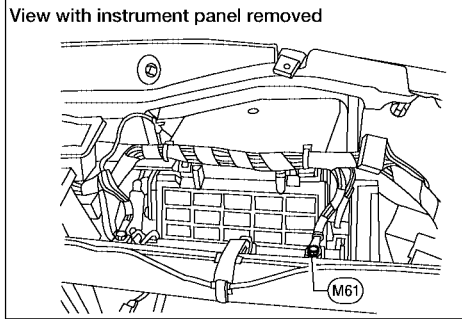


CONNECTOR NUMBER	CONNECT TO
M3	Fuse box (J/B) (Terminal No. 7N)
M6	VDC OFF switch
M7	Driver mirror control switch
M16	ADP steering switch
M19	BCM (Body control module) (Terminal No. 49) (early production)
M19	BCM (Body control module) (Terminal No. 52)
M21	NATS antenna amplifier
M22	Data link connector (Terminal No. 4)
M22	Data link connector (Terminal No. 5)
M24	Combination meter (Terminal No. 10)
M24	Combination meter (Terminal No. 11)
M24	Combination meter (Terminal No. 12)
M28	Combination switch
M34	A/T device (Terminal No. 2) (Overdrive control switch) (with 4-speed A/T) (early production)
M35	Air bag diagnosis sensor unit
M38	Heated steering combination switch
M47	Steering angle sensor
M93	Display unit
M109	Heated steering wheel switch
M181	Front heated seat switch LH
M182	Front heated seat switch RH
R3	Vanity mirror lamp LH
R4	Sunroof motor assembly
R7	Auto anti-dazzling inside mirror
R8	Vanity mirror lamp RH
R13	Personal lamp
R14	Room/map lamps
D4	Door mirror LH
D5	Seat memory switch
D6	Trunk lid opener switch
D8	Main power window and door lock/unlock switch (Terminal No. 17)
D51	Front door key cylinder switch LH

Next page

WKIA3120E

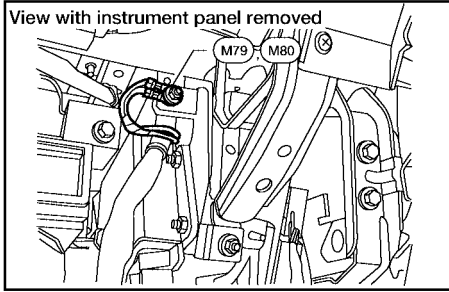
GROUND CIRCUIT



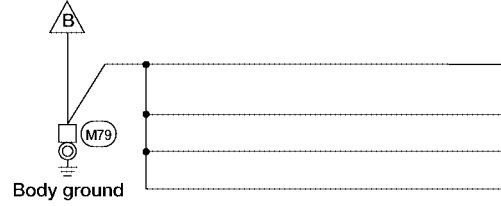
CONNECTOR NUMBER	CONNECT TO
(M5)	Illumination control switch
(M6)	TCS ON/OFF switch
(M31)	Shift lock control unit (Terminal No. 8)
(M34)	A/T device (Terminal No. 11) (Overdrive control switch) (With 5-speed A/T)
(M37)	Rear sunshade front switch
(M39)	Air mix door motor driver
(M40)	Mode door motor
(M42)	Automatic drive positioner control unit
(M50)	A/C auto amp. (With auto A/C) (Terminal No. 29)
(M50)	A/C auto amp. (With auto A/C) (Terminal No. 30)
(M55)	Hazard switch
(M58)	Intake door motor
(M59)	Glove box lamp
(M64)	Fan control amp.
(M87)	Air mix door motor passenger
(M94)	Display control unit
(M98)	AV switch
(M172)	Front power socket
(F29)	Park/neutral position (PNP) switch (Terminal No. 6) (with A/T)
(F37)	Turbine revolution sensor (shield wire)
(F38)	Revolution sensor (shield wire)
(F56)	TCM (Terminal No. 25)
(F57)	TCM (Terminal No. 14)
(F57)	TCM (Terminal No. 48)
(D105)	Front power window switch RH (Terminal No. 11)
(D107)	Door mirror RH

WKIA0489E

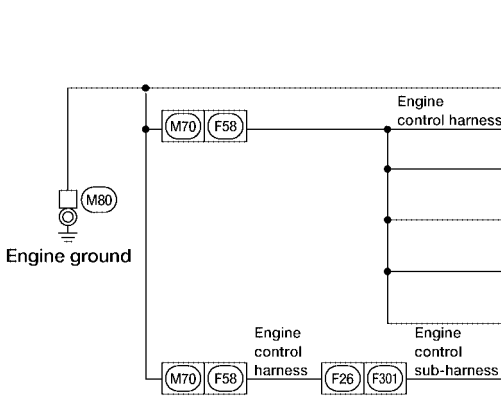
GROUND CIRCUIT



Preceding page



CONNECTOR NUMBER	CONNECT TO
M34	A/T device (Terminal No. 2) (Overdrive control switch) (With 4-speed A/T) (Late production)
M82	ECM (Terminal No. 116)
M96	NAVI control unit (Terminal No. 1)
M96	NAVI control unit (Terminal No. 4)



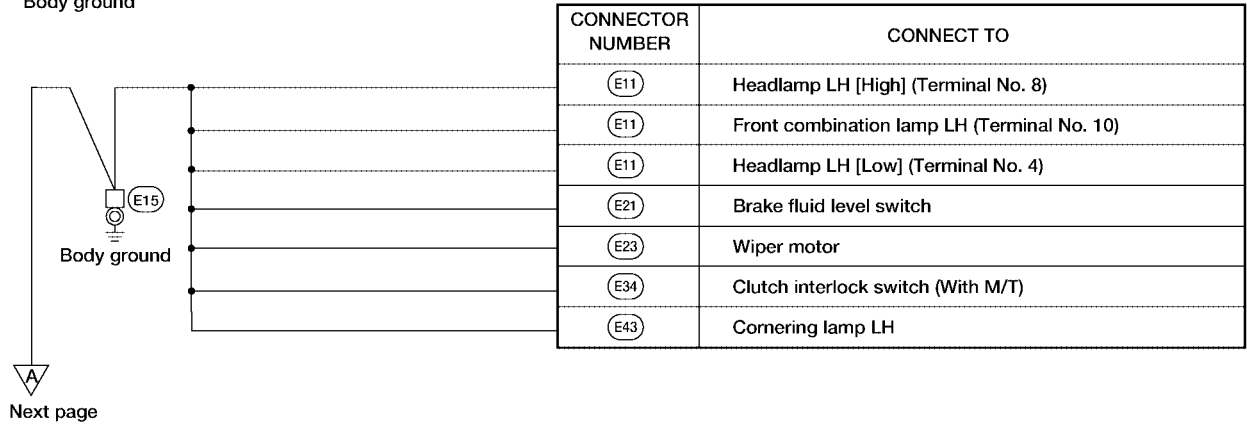
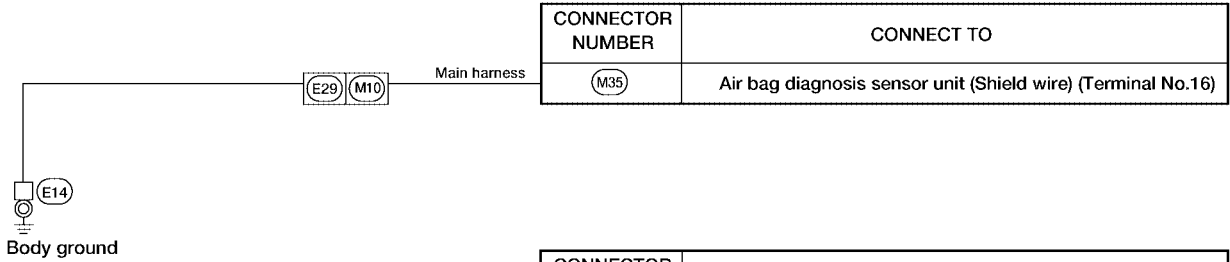
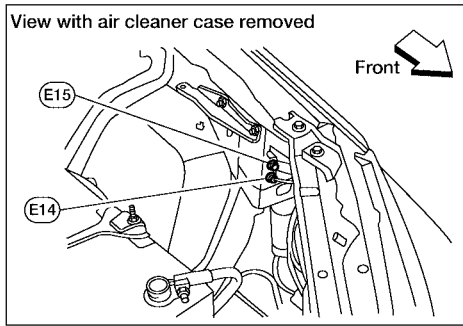
CONNECTOR NUMBER	CONNECT TO
M82	ECM (Terminal No. 115)
F11	Crankshaft position sensor (POS)
F23	Camshaft position sensor (PHASE) (BANK 2)
F42	Park/neutral position (PNP) switch (Terminal No. 2) (With M/T)
F48	Camshaft position sensor (PHASE) (BANK 1)
F50	Electric throttle control actuator (Throttle position sensor, throttle motor) (Shield wire)
F302	Knock sensor (Shield wire)

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

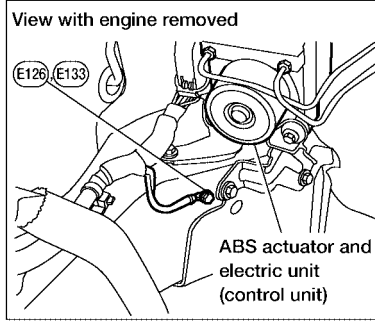
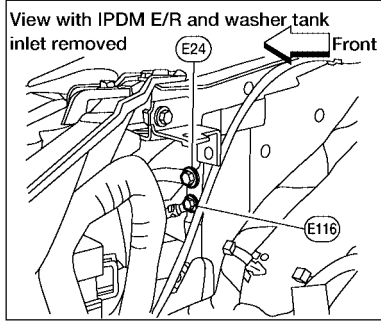
WKIA3121E

GROUND CIRCUIT

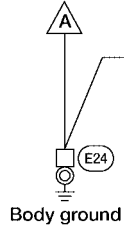
ENGINE ROOM HARNESS



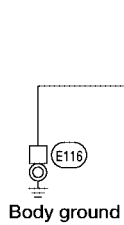
GROUND CIRCUIT



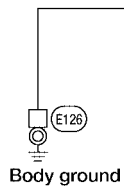
Preceding page



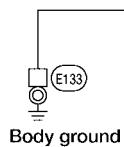
CONNECTOR NUMBER	CONNECT TO
(E106)	Washer level switch
(E107)	Headlamp RH [Low] (Terminal No. 4)
(E107)	Front combination lamp RH (Terminal No. 10)
(E107)	Headlamp RH [High] (Terminal No. 8)
(E113)	Cooling fan motor 1
(E114)	Cooling fan motor 2
(E121)	IPDM E/R (Terminal No. 50)
(E121)	IPDM E/R (Terminal No. 60)
(E123)	IPDM E/R [Cooling fan relay-1 and 3] (Terminal No. 16)
(E124)	IPDM E/R [IGN relay, A/C relay] (Terminal No. 38)
(E137)	Cornering lamp RH



CONNECTOR NUMBER	CONNECT TO
(E112)	Generator



CONNECTOR NUMBER	CONNECT TO
(M46)	Yaw rate/side/decel G sensor (Shield wire)
(E125)	ABS actuator and electric unit (Control unit) (Terminal No. 16)
(E125)	ABS actuator and electric unit (Control unit) (Terminal No. 30)
(E125)	ABS/TCS/VDC actuator and electric unit (Control unit) (Terminal No. 31)



CONNECTOR NUMBER	CONNECT TO
(E125)	ABS/TCS/VDC actuator and electric unit (Control unit) (Terminal No. 46)

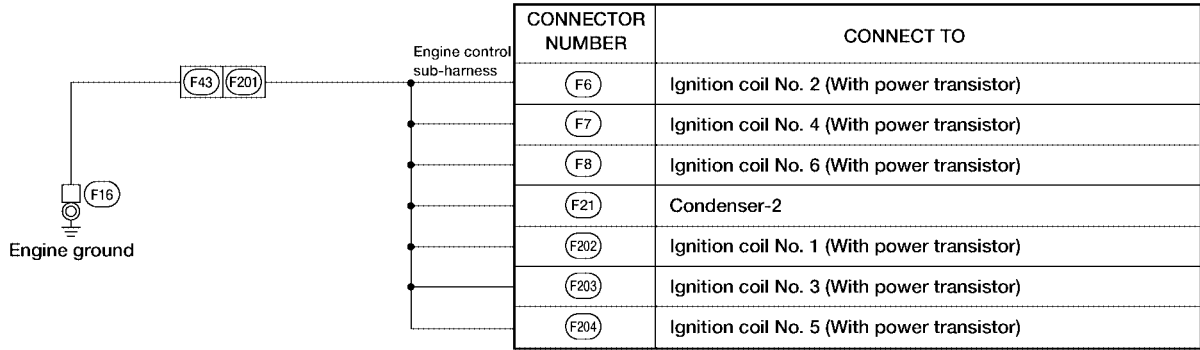
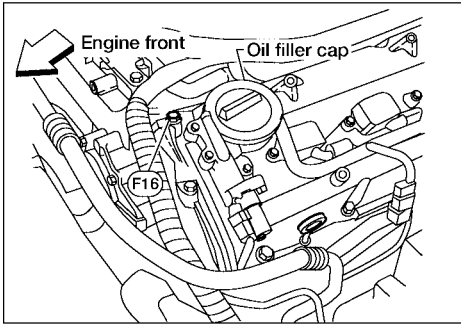
WKIA0492E

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

PG

GROUND CIRCUIT

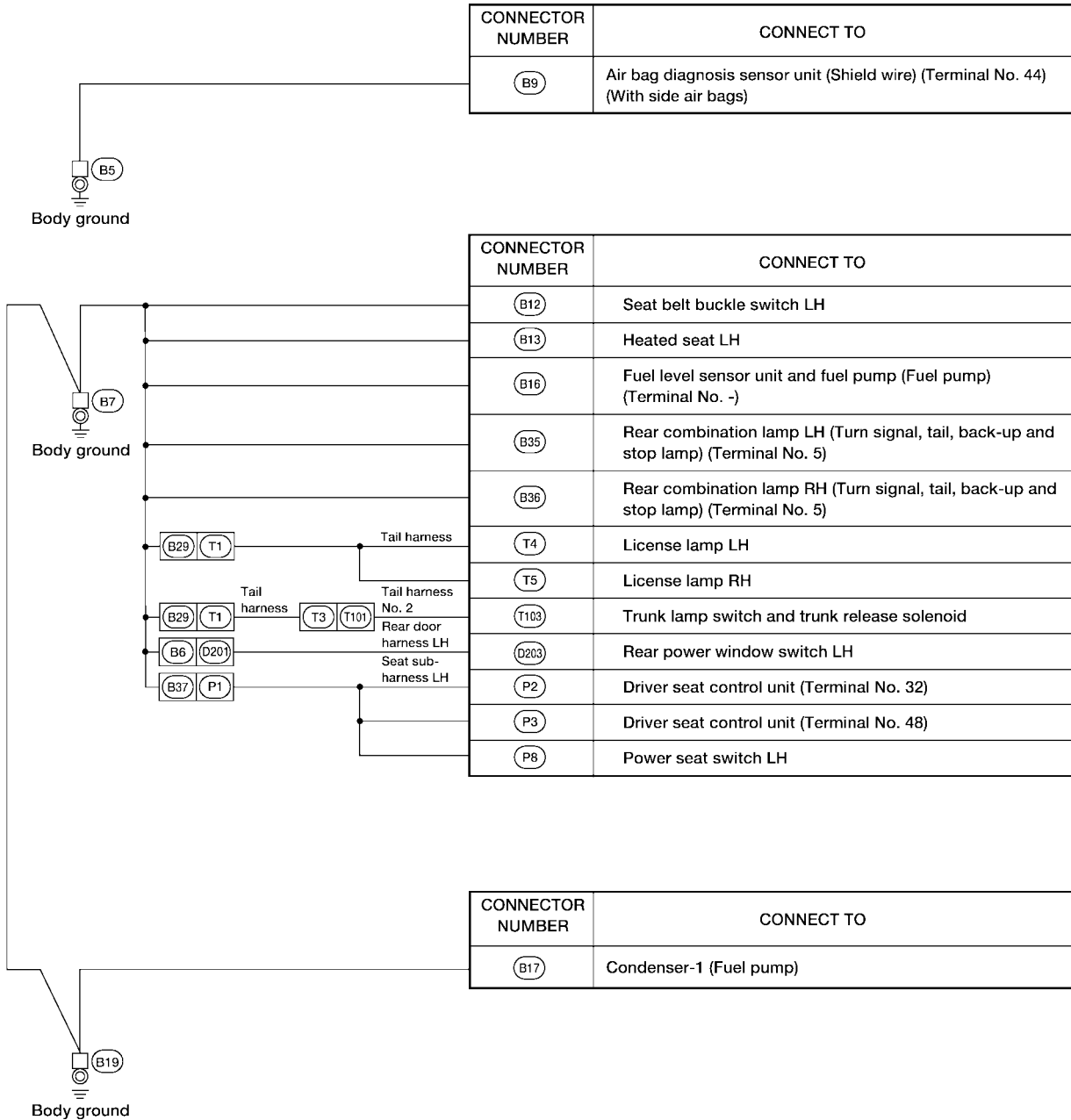
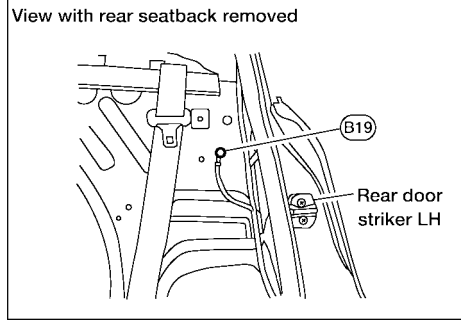
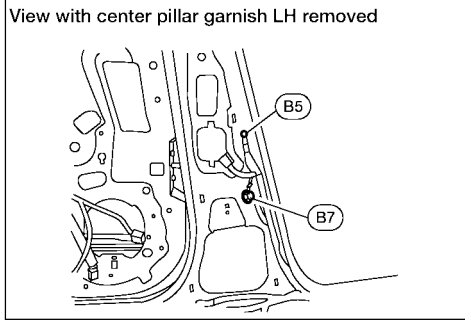
ENGINE CONTROL HARNESS



WKIA0493E

GROUND CIRCUIT

BODY HARNESS

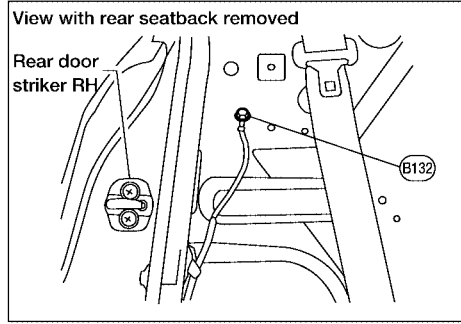
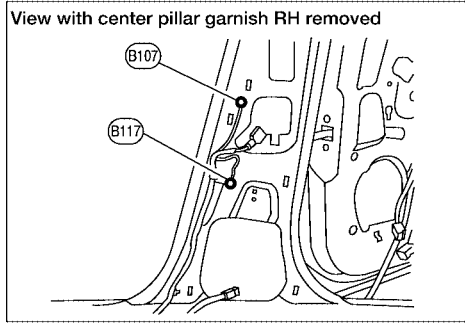


A
B
C
D
E
F
G
H
I
J
PG
L
M

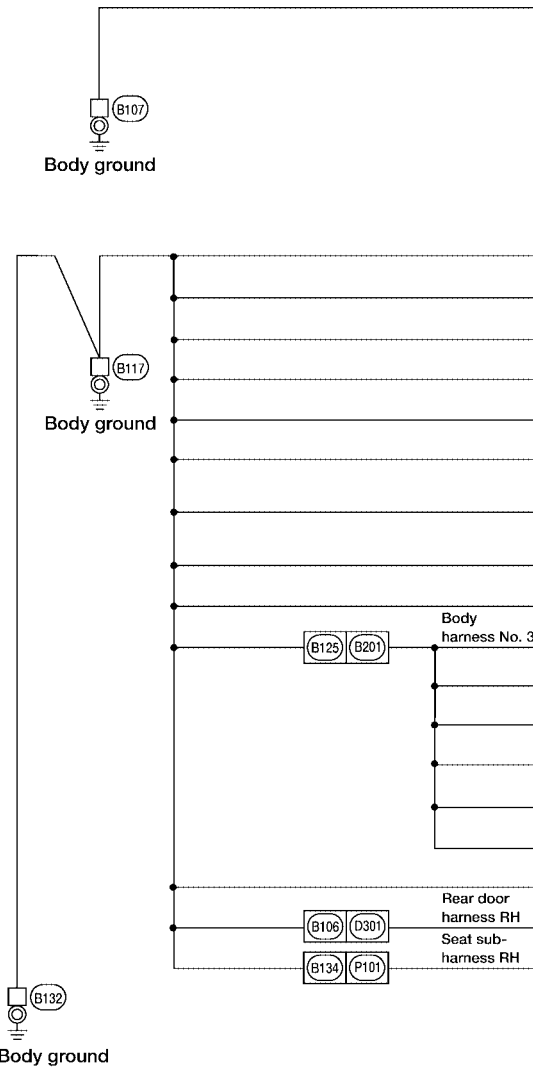
WKIA0495E

GROUND CIRCUIT

BODY NO. 2 HARNESS



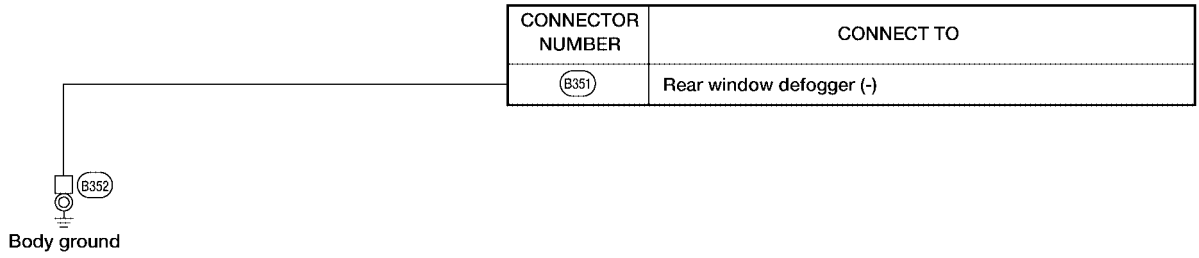
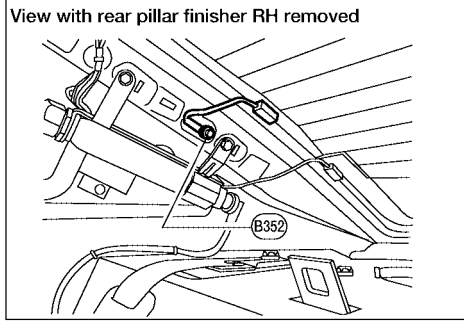
CONNECTOR NUMBER	CONNECT TO
B113	Air bag diagnosis sensor unit (Shield wire) (Terminal No. 40) (With side air bags)



CONNECTOR NUMBER	CONNECT TO
B105	Rear power socket relay
B109	Heated seat relay
B110	Seat belt buckle switch RH
B111	Heated seat RH
B126	Subwoofer RH
B127	Bose speaker amplifier
B129	High mounted stop lamp (Without rear air spoiler, with Bose audio)
B130	Rear sunshade unit
B133	Subwoofer amp
B202	Rear power socket
B203	Rear heated seat switch LH
B204	Rear heated seat switch RH
B205	Rear heated seat LH
B206	Rear heated seat RH
B208	Rear console lamp (late production)
B207	Rear sunshade rear switch
D303	Rear power window switch RH
P102	Power seat switch RH

WKIA1553E

GROUND CIRCUIT



WKIA0497E

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

HARNESS

PFP:24010

EKS003XB

HARNESS

Harness Layout

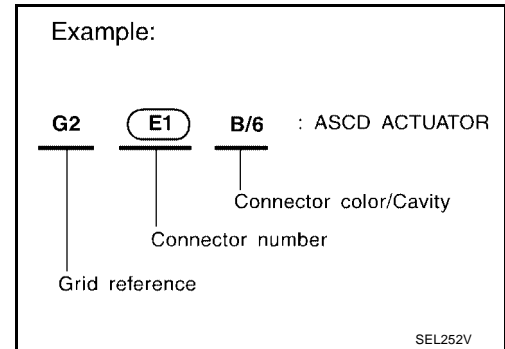
HOW TO READ HARNESS LAYOUT

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

- Main Harness
- Engine Room Harness LH View (Engine Compartment)
- Engine Room Harness RH View (Engine Compartment)
- Engine Control Harness
- Body Harness and Tail Harness
- Body No. 2 Harness and Body No. 3 Harness

To use the grid reference

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



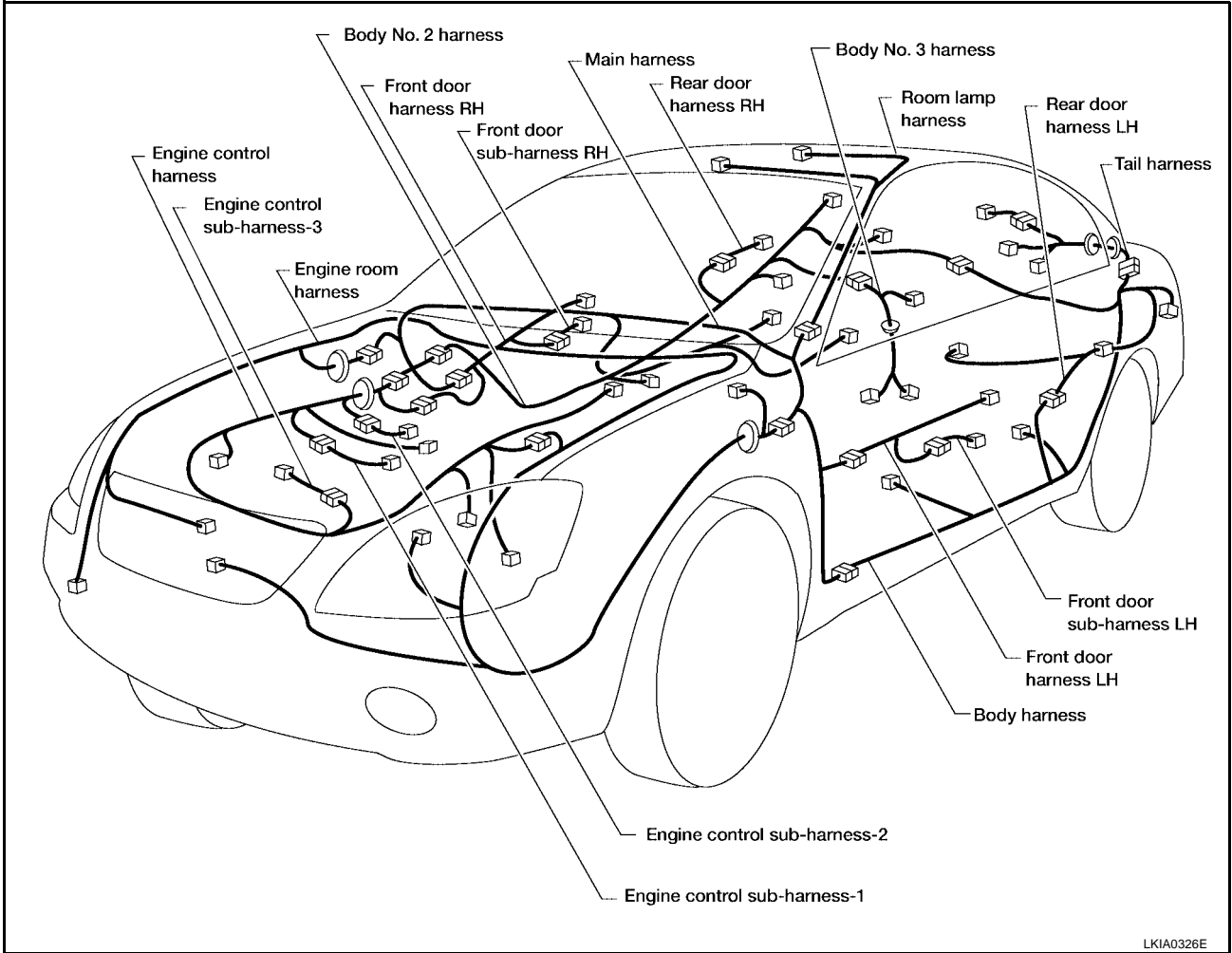
CONNECTOR SYMBOL

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

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

HARNESS

OUTLINE



A

B

C

D

E

F

G

H

I

J

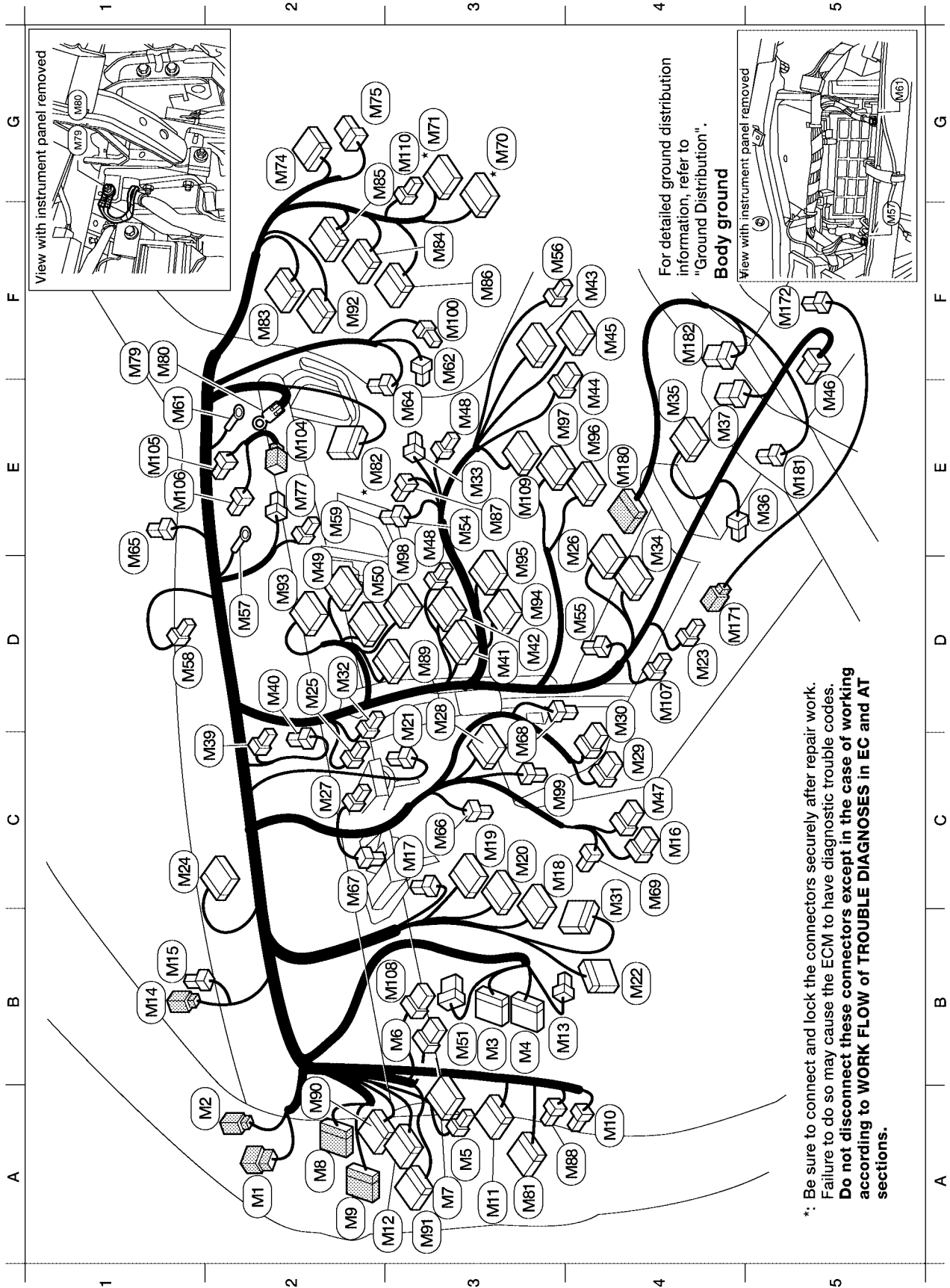
PG

L

M

HARNESS

MAIN HARNESS



WKIA3172E

HARNESS

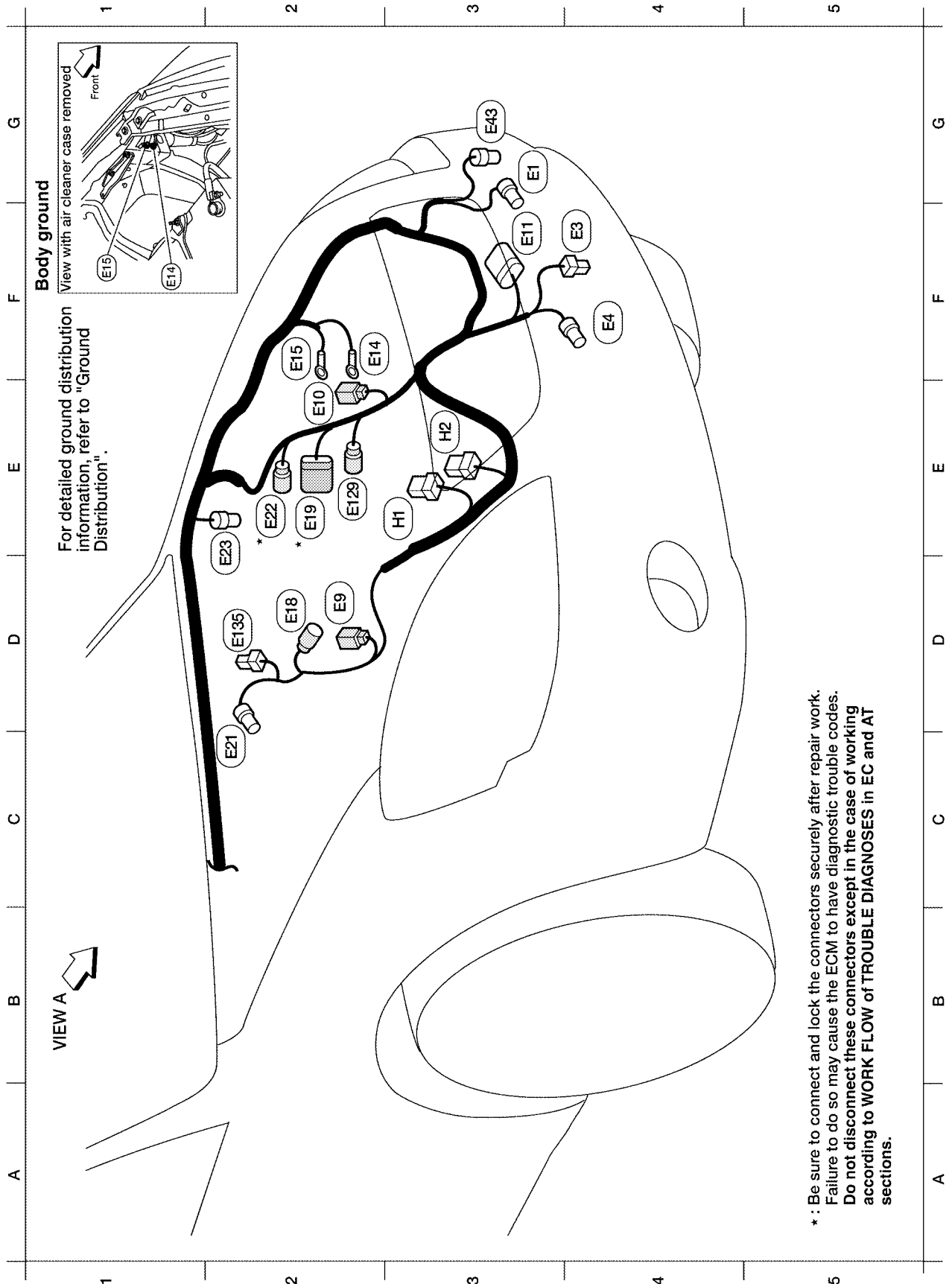
A2	(M1)	W/8	: To (R1)	E4	(M25)	Y/28	: Air bag diagnosis sensor unit	F1	(M73)	: Body ground 1-3
A1	(M2)	W/3	: To (R2)	E5	(M36)	B/1	: Parking brake switch	F1	(M80)	: Body ground
B3	(M3)	W/8	: Fuse block (J/B)	E4	(M37)	W/6	: Rear sunshade front switch	A3	(M81)	GR/20 : To (E20)
B3	(M4)	W/16	: Fuse block (J/B)	C2	(M39)	W/3	: Air mix door motor (driver)	E2	(M82)	B/40 : ECM
A3	(M5)	W/3	: Illumination control switch	D2	(M40)	W/3	: Mode door motor	F2	(M83)	W/20 : To (E134)
B3	(M6)	GR/6	: TCS on/off switch (with TCS) or VDC OFF switch (with VDC) (early production)	D3	(M41)	W/32	: Automatic drive pos control unit	F3	(M84)	W/18 : To (E101)
B3	(M6)	W/6	: Heated steering wheel switch (late production)	D3	(M42)	W/16	: Automatic drive pos control unit	G2	(M85)	GR/24 : To (E102)
A3	(M7)	W/10	: Door mirror remote control switch	F4	(M43)	W/10	: Audio unit	F3	(M86)	W/16 : To (E103)
A2	(M8)	W/24	: To (D2)	F4	(M44)	W/6	: Audio unit	E3	(M87)	W/3 : Air mix door motor (passenger)
A2	(M8)	W/12	: To (D1)	F4	(M45)	W/16	: Audio unit	A4	(M88)	B/2 : To (E42)
A4	(M10)	Y/4	: To (E28)	E5	(M46)	B/6	: Yaw rate/side/decel G sensor	D3	(M89)	W/24 : Unified meter and A/C amplifier
A3	(M11)	W/16	: To (B1)	C4	(M47)	W/8	: Steering angle sensor	A2	(M90)	W/16 : To (E28)
A3	(M12)	W/12	: To (B2)	E3	(M48)	W/2	: Antenna amplifier	A3	(M91)	W/12 : To (E28)
B3	(M13)	L/4	: Heated steering relay	D2	(M49)	GR/20	: Unified meter and A/C amplifier	F2	(M92)	W/10 : To (E13)
B1	(M14)	BR/2	: Security indicator lamp	D2	(M50)	GR/16	: Unified meter and A/C amplifier	D2	(M93)	W/24 : Display unit
B1	(M15)	W/3	: Optical sensor	B3	(M51)	BR/6	: Relay	D3	(M94)	W/24 : Display control unit (with NAVI)
C4	(M16)	GR/6	: ADP steering switch	E3	(M54)	W/2	: Trunk lid opener cancel switch	D3	(M95)	W/32 : Display control unit (with NAVI)
C3	(M17)	W/2	: Circuit breaker	D4	(M55)	W/4	: Hazard switch	E4	(M96)	W/24 : NAVI control unit (with NAVI)
C3	(M18)	W/40	: BCM (body control module)	F3	(M56)	B/2	: Cigarette lighter	E3	(M97)	GR/24 : NAVI control unit (with NAVI)
C3	(M19)	B/15	: BCM (body control module)	D2	(M57)		: Body ground	D3	(M98)	W/16 : AV switch
C3	(M20)	W/15	: BCM (body control module)	D1	(M58)	W/3	: Intake door motor	C3	(M99)	W/2 : Foot lamp LH
D3	(M21)	W/4	: NATS antenna amplifier	E2	(M59)	BR/2	: Glove box lamp	F3	(M100)	W/2 : Foot lamp RH
B4	(M22)	W/16	: Data link connector	E1	(M61)		: Body ground 1-2	E2	(M104)	Y/4 : To (M77)
D4	(M23)	W/2	: To (M17)	F3	(M62)	W/2	: Blower motor	E1	(M105)	B/2 : Passenger air bag module
C1	(M24)	W/24	: Combination meter	E3	(M64)	W/4	: Fan control amplifier	E1	(M106)	O/2 : Passenger air bag module
D2	(M25)	W/2	: Ignition keyhole illumination	E1	(M65)	B/2	: Sunload sensor	D4	(M107)	BR/2 : A/T device (illumination) (with A/T)
E4	(M26)	BR/16	: To (M180)	C3	(M66)	W/2	: Telescopic motor	B3	(M108)	W/6 : Heated steering wheel switch (early production)
C2	(M27)	W/4	: Key switch and key lock solenoid	C2	(M67)	W/3	: Telescopic motor	B3	(M108)	GR/6 : TCS on/off switch (with TCS) or VDC OFF switch (with VDC) (late production)
D3	(M28)	W/16	: Combination switch	D3	(M68)	W/2	: Tilt motor	E3	(M109)	W/12 : Audio unit
C4	(M29)	Y/6	: Spiral cable	C4	(M69)	W/3	: Tilt motor	F3	(M110)	W/2 : To (E136)
D4	(M30)	GR/8	: Combination switch (spiral cable)	G3	(M70)	W/16	: To (F53)	D4	(M11)	W/2 : To (M23)
C4	(M31)	GR/10	: Shift lock control unit (with A/T)	G2	(M74)	W/16	: To (D109)	F5	(M12)	B/2 : Front power socket
D2	(M32)	W/2	: In-vehicle sensor	G2	(M75)	W/8	: To (D10)	E4	(M130)	BR/16 : To (M26)
E3	(M33)	W/2	: Intake sensor	E2	(M77)	Y/4	: To (M104) (to front passenger air bag)	E5	(M18)	BR/6 : Front heated seat switch LH
F4	(M34)	W/16	: A/T device					F4	(M182)	W/6 : Front heated seat switch RH

* : Refer to previous page

HARNESS

ENGINE ROOM HARNESS (LH VIEW)

Engine Compartment



WKIA0500E

Refer to [PG-43, "ENGINE ROOM HARNESS \(RH VIEW\)"](#) for continuation of engine room harness.

G3	(E1)	B/2	: Ambient sensor
F4	(E3)	B/1	: Horn (low)
F4	(E4)	Y/2	: Crash zone sensor
E3	(H-1)	W/3	: Horn relay (inside fuse and fusible link box)
E3	(H-2)	-	: Daytime light relay (inside fuse and fusible link box)
D2	(E9)	BR/2	: Fusible link box (battery)
E2	(E10)	GR/2	: Fusible link box (battery)
F3	(E11)	GR/12	: Front combination lamp LH
F2	(E14)	-	: Body ground
F2	(E15)	-	: Body ground
D2	(E18)	B/2	: Front wheel sensor LH
E2	(E19)	GR/9	: To (F33)
C2	(E21)	GR/2	: Brake fluid level switch
E2	(E22)	B/2	: To (F35)
E2	(E23)	GR/6	: Front wiper motor
G3	(E43)	GR/2	: Cornering lamp LH
E2	(E129)	B/2	: To (F45)
D2	(E135)	GR/2	: Dropping resistor (with 4-speed A/T)

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

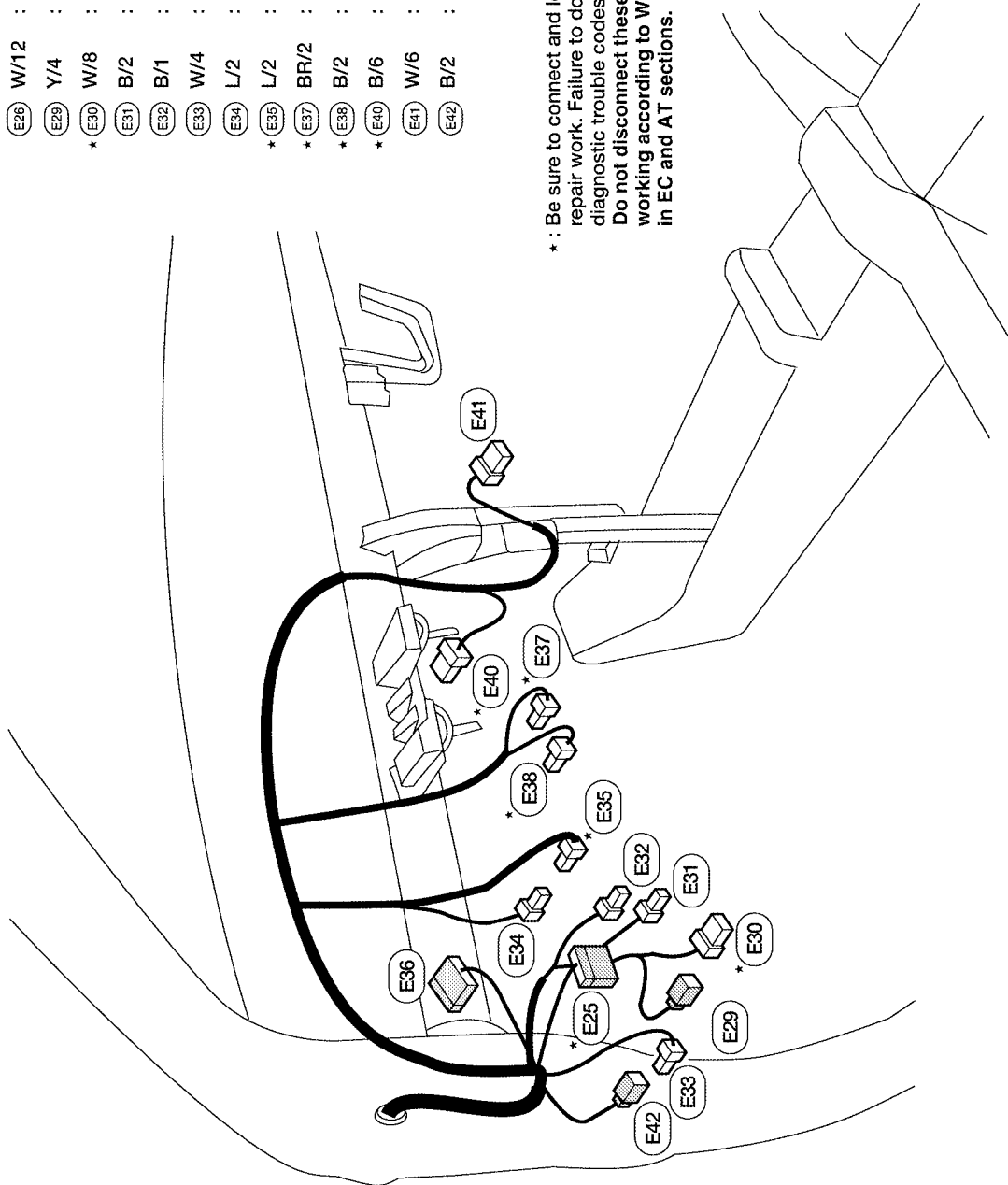
WKIA0501E

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

HARNESS

Passenger Compartment

- * E25 W/16 : To M88
- E26 W/12 : To M91
- E28 Y/4 : To M10
- * E30 W/8 : Fuse block J/B
- E31 B/2 : Fuse block J/B
- E32 B/1 : Fuse block J/B
- E33 W/4 : To B3
- E34 L/2 : Clutch interlock switch (with M/T)
- * E35 L/2 : ASCD clutch switch (with M/T)
- * E37 BR/2 : ASCD brake switch
- * E38 B/2 : Stop lamp switch
- * E40 B/6 : Accelerator pedal position (APP) sensor
- E41 W/6 : Ignition switch
- E42 B/2 : To M88



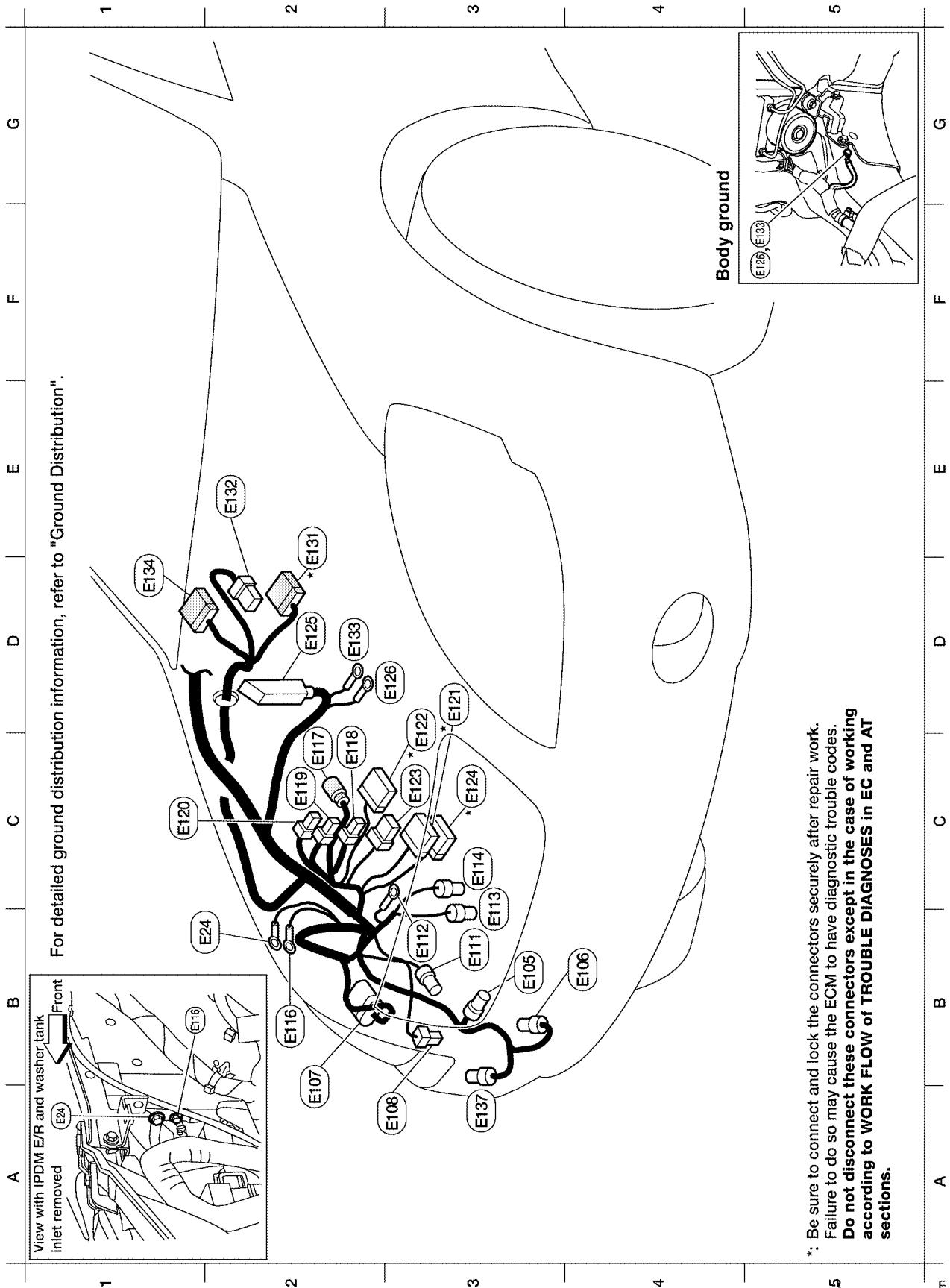
* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
 Do not disconnect these connectors except in the case of working according to **WORK FLOW of TROUBLE DIAGNOSES** in EC and AT sections.

WKIA0502E

HARNESS

ENGINE ROOM HARNESS (RH VIEW)

Engine Compartment



Refer to [PG-40, "ENGINE ROOM HARNESS \(LH VIEW\)"](#) for continuation of engine room harness.

WKIA0503^{EM}

HARNESS

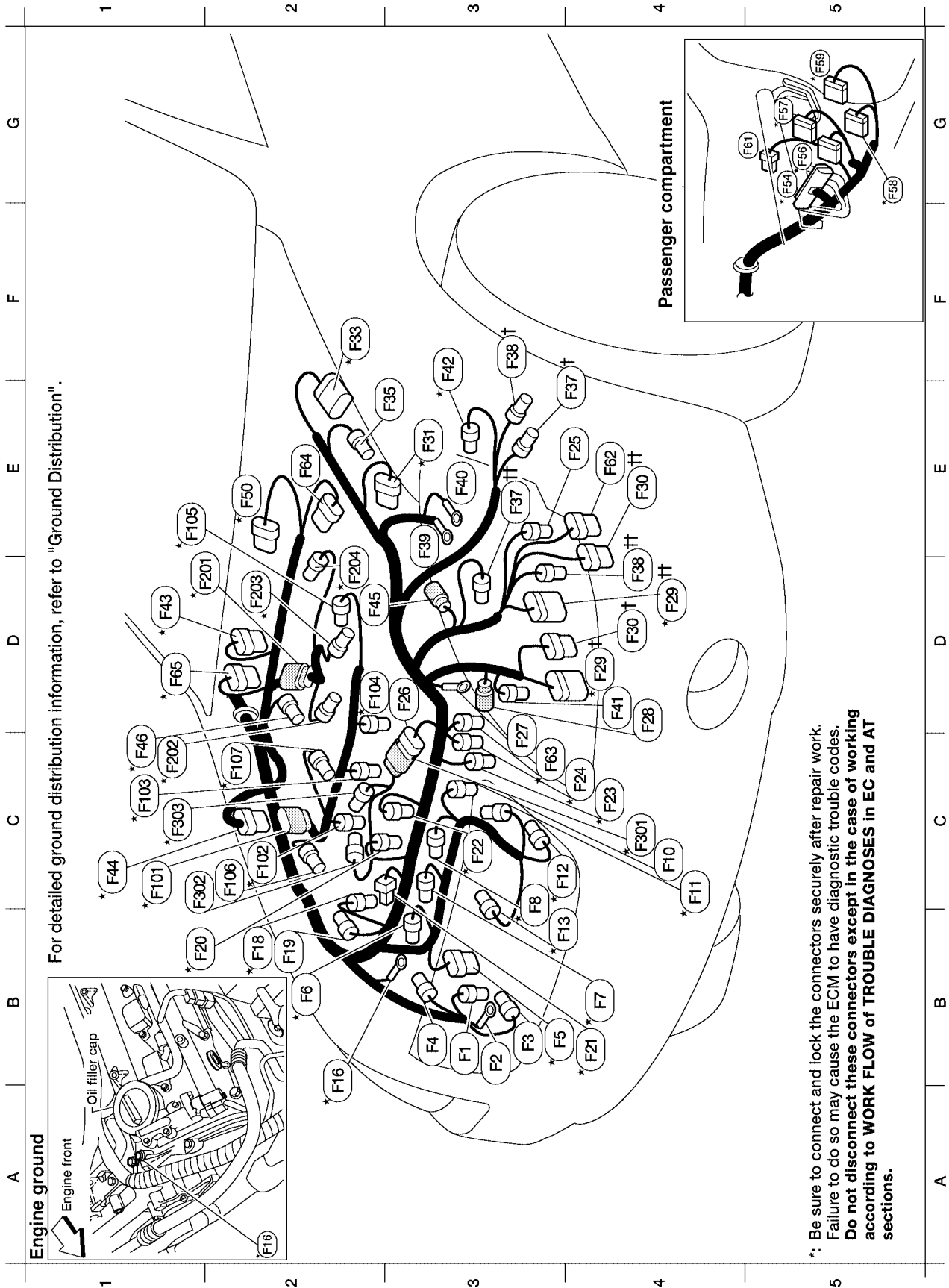
B2	(E24)	-	: Body ground
B3	(E105)	GR/2	: Front washer motor
B4	(E106)	BR/2	: Washer fluid level switch
B2	(E107)	GR/12	: Front combination lamp RH
B3	(E108)	B/1	: Horn (high)
B3	(E111)	B/3	: Refrigerant pressure sensor
B3	(E112)	-	: Generator (ground)
B3	(E113)	GR/4	: Cooling fan motor-1
C3	(E114)	GR/4	: Cooling fan motor-2
B2	(E116)	-	: Body ground
C2	(E117)	GR/2	: Front wheel sensor RH
C2	(E118)	B/4	: IPDM E/R (Intelligent Power Distribution Module Engine Room)
C2	(E119)	W/4	: IPDM E/R (Intelligent Power Distribution Module Engine Room)
C1	(E120)	B/2	: IPDM E/R (Intelligent Power Distribution Module Engine Room)
D3	* (E121)	W/12	: IPDM E/R (Intelligent Power Distribution Module Engine Room)
D3	* (E122)	GV/16	: IPDM E/R (Intelligent Power Distribution Module Engine Room)
C3	(E123)	W/6	: IPDM E/R (Intelligent Power Distribution Module Engine Room)
C3	* (E124)	W/12	: IPDM E/R (Intelligent Power Distribution Module Engine Room)
D2	(E125)	GR/30	: ABS actuator and electric unit (control unit) (except with VDC)
D2	(E125)	B/46	: ABS actuator and electric unit (control unit) (with VDC)
D3	(E126)	-	: Body ground
E2	* (E131)	W/10	: To (N622)
E2	(E132)	W/8	: To (E104)
D2	(E133)	:	Body ground (with VDC)
D1	(E134)	W/20	: To (N63)
A3	(E137)	GR/2	: Cornering lamp RH

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

WKIA0504E

HARNESS

ENGINE CONTROL HARNESS



WKIA0505E

HARNESS

B3	(F1)	GR/2	: Generator	D4	(F29)	B/10	: Park/neutral position (PNP) switch (with 4-speed A/T)	G5	(F59)	W/24	: To (W7)
B3	(F2)	-	: Generator	E4	(F30)	BR/8	: Terminal cord assembly (with 5-speed A/T)	G5	(F61)	L/4	: A/T PV IGN Relay (with 5-speed A/T)
B3	(F3)	B/1	: A/C compressor	D4	(F30)	B/8	: Terminal cord assembly (with 4-speed A/T)	E4	(F62)	GR/6	: Terminal cord assembly (with 5-speed A/T)
B3	(F4)	G/2	: Intake valve timing control solenoid valve (Bank 2) (early production)	E3	(F31)	B/6	: Mass air flow sensor	C3	(F63)	GR/2	: EGR temperature sensor
B3	(F4)	GR/2	: Intake valve timing control solenoid valve (Bank 2) (late production)	F2	(F33)	GR/9	: To (E19)	E2	(F64)	GR/6	: EGR volume control valve
B3	(F6)	B/6	: Air /fuel ratio (A/F) sensor (Bank 2)	E3	(F35)	GR/2	: To (E22)	D1	(F65)	B/6	: Air/Fuel ratio (A/F) sensor (Bank 1)
B2	(F6)	GR/3	: Ignition coil No. 2 (with power transistor)	E3	(F37)	L/2	: Turbine revolution sensor (with 5-speed A/T)				
B4	(F7)	GR/3	: Ignition coil No. 4 (with power transistor)	E4	(F37)	B/3	: Turbine revolution sensor (with 4-speed A/T)				
C3	(F8)	GR/3	: Ignition coil No. 6 (with power transistor)	D4	(F38)	L/2	: Revolution sensor (with 5-speed A/T)				
C4	(F10)	BR/3	: Front electronic controlled engine mount	F3	(F38)	B/3	: Revolution sensor (with 4-speed A/T)				
C4	(F11)	B/3	: Crankshaft position sensor	E3	(F39)	-	: Battery (positive)				
C3	(F12)	L/4	: Heated oxygen sensor 2 (Rear) (Bank 2)	E3	(F40)	-	: Fusible link box (battery)	C2	(F106)	B/1	: Oil pressure switch
B3	(F13)	G/4	: Heated oxygen sensor 2 (Rear) (Bank 1)	D4	(F41)	B/2	: Back-up lamp switch (with M/T)	C2	(F107)	G/2	: Intake valve timing control solenoid valve (Bank 1)
B2	(F16)	-	: Engine ground	F3	(F42)	B/2	: Park/neutral position (PNP) switch (with M/T)				
B2	(F18)	GR/2	: Injector No. 2	D1	(F43)	GR/6	: To (F20)	D1	(F201)	G/6	: To (F43)
B2	(F19)	B/2	: V/AS control solenoid valve	C1	(F44)	G/8	: To (F10)	C1	(F202)	GR/3	: Ignition coil No. 1 (with power transistor)
B1	(F20)	GR/2	: Injector No. 4	D2	(F45)	B/2	: To (E129) (with 4-speed A/T)	D2	(F203)	GR/3	: Ignition coil No. 3 (with power transistor)
B4	(F21)	GR/2	: Condenser 2	C1	(F46)	B/3	: Power steering oil pressure sensor	D2	(F204)	GR/3	: Ignition coil No. 5 (with power transistor)
C3	(F22)	GR/2	: Injector No. 6	E2	(F50)	G/6	: Electric throttle control actuator (early production)				
C4	(F23)	B/3	: Camshaft position sensor (PHASE) (Bank 2)	E2	(F50)	GR/6	: Electric throttle control actuator (late production)				
C4	(F24)	GR/2	: Engine coolant temperature sensor	G5	(F54)	B/81	: ECM	C4	(F301)	GR/6	: To (F26)
E4	(F25)	BR/3	: Rear electronic controlled engine mount (with A/T)	G5	(F56)	GR/20	: TCM (transmission control module) (with 5-speed A/T)	C1	(F302)	GR/2	: Knock sensor
D3	(F26)	GR/6	: To (F30)	G5	(F56)	W/24	: TCM (transmission control module) (with 4-speed A/T)	C1	(F303)	G/3	: Camshaft position sensor (PHASE) (Bank 1)
C3	(F27)	-	: Starter motor	G5	(F57)	GR/28	: TCM (transmission control module) (with 5-speed A/T)				
D4	(F28)	GR/1	: Starter motor	G5	(F57)	GR/24	: TCM (transmission control module) (with 4-speed A/T)				
D4	(F29)	GR/10	: Park/neutral position (PNP) switch (with 5-speed A/T)	G5	(F58)	W/16	: To (W70)				

Engine control sub-harness-1

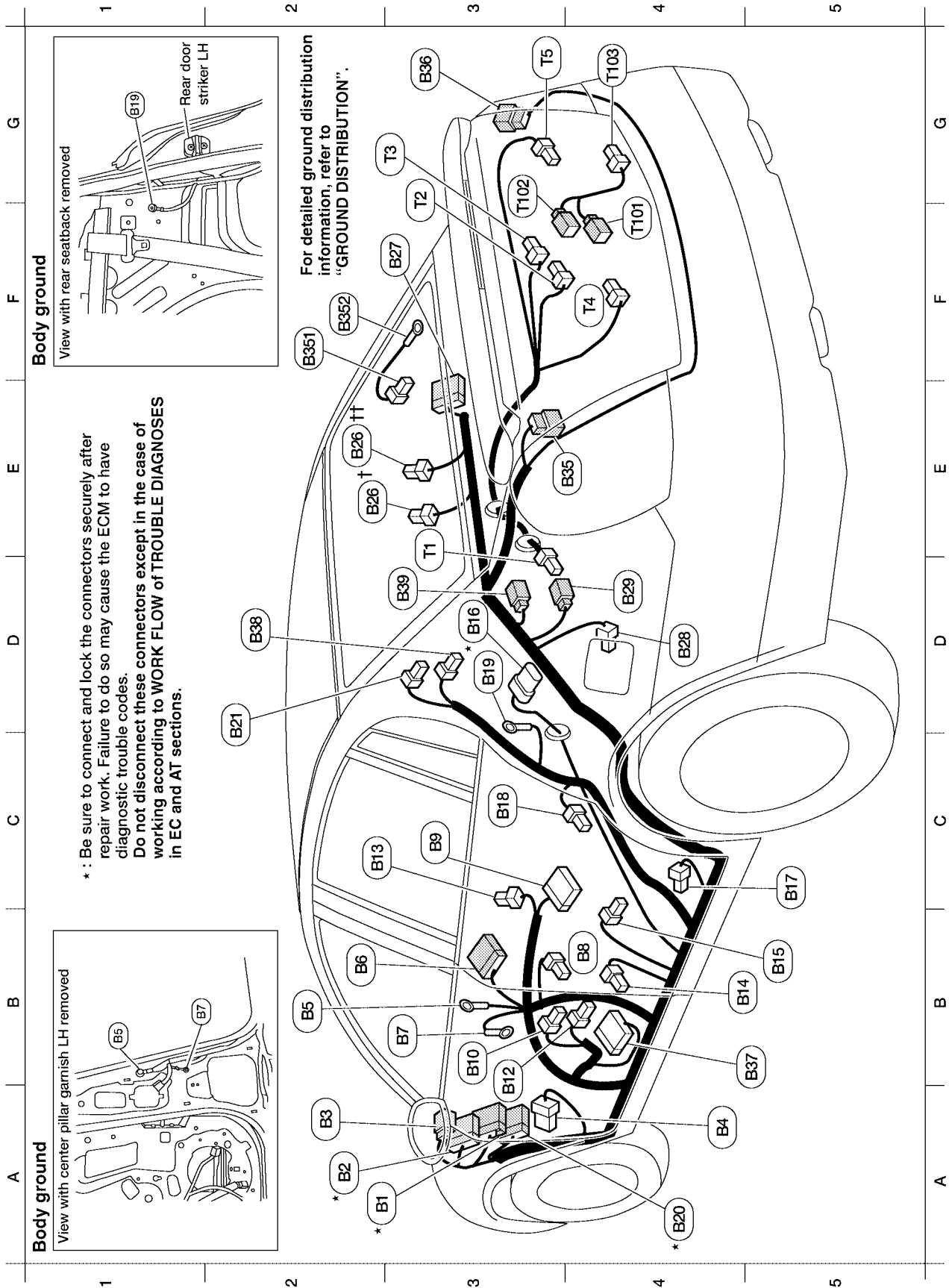
Engine control sub-harness-2

Engine control sub-harness-3

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

HARNESS

BODY HARNESS AND TAIL HARNESS



WKIA0507E

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

Body harness

A2 *	(B1)	W/16	: To	(M11)
A2 *	(B2)	W/12	: To	(M12)
A2	(B3)	W/4	: To	(E33)
A4	(B4)	BR/6	: Rear window defogger relay	
A3	(B5)	-	: Body ground	
B3	(B6)	W/12	: To	(D20)
B3	(B7)	-	: Body ground	
B4	(B8)	W/3	: Front door switch LH	
C3	(B9)	Y/12	: Air bag diagnosis sensor unit	
B3	(B10)	Y/2	: Front LH side air bag module	
B5	(B12)	W/3	: Seat belt buckle switch LH	
C3	(B13)	W/3	: Front seat heater LH	
B5	(B14)	Y/2	: Front LH seat belt pre-tensioner	
B5	(B15)	Y/2	: LH side air bag (satellite) sensor	
D4 *	(B16)	GR/5	: Fuel level sensor unit and fuel pump	
B5	(B17)	W/2	: Condenser-1	
C3	(B18)	W/1	: Rear door switch LH	

D3	(B19)	-	: Body ground	
A4 *	(B20)	GR/20	: To	(M61)
C2	(B21)	W/1	: Rear window defogger condenser	
E2	(B26)	† W/2	: Subwoofer LH (without BOSE audio system)	
E2	(B26)	†† W/6	: Subwoofer LH (with BOSE audio system)	
F2	(B27)	W/12	: To	(B13)
F3	(B28)	W/4	: Fuel lid opener actuator	
F5	(B29)	W/4	: To	(T1)
E4	(B35)	W/6	: Rear combination lamp LH	
G3	(B36)	W/6	: Rear combination lamp RH	
E2	(B37)	W/18	: To	(P1)
D2	(B38)	Y/2	: LH side curtain air bag module	
E4	(B39)	W/2	: Diode - 5	

Tail harness

D3	(T1)	W/4	: To	(B29)
F3	(T2)	B/2	: To	(T01)
G2	(T3)	W/2	: To	(T102)
F4	(T4)	B/2	: License lamp LH	
G3	(T5)	B/2	: License lamp RH	
F4	(T101)	B/2	: To	(T2)
F3	(T102)	W/2	: To	(T3)
G4	(T103)	W/4	: Trunk lamp switch and trunk release solenoid	

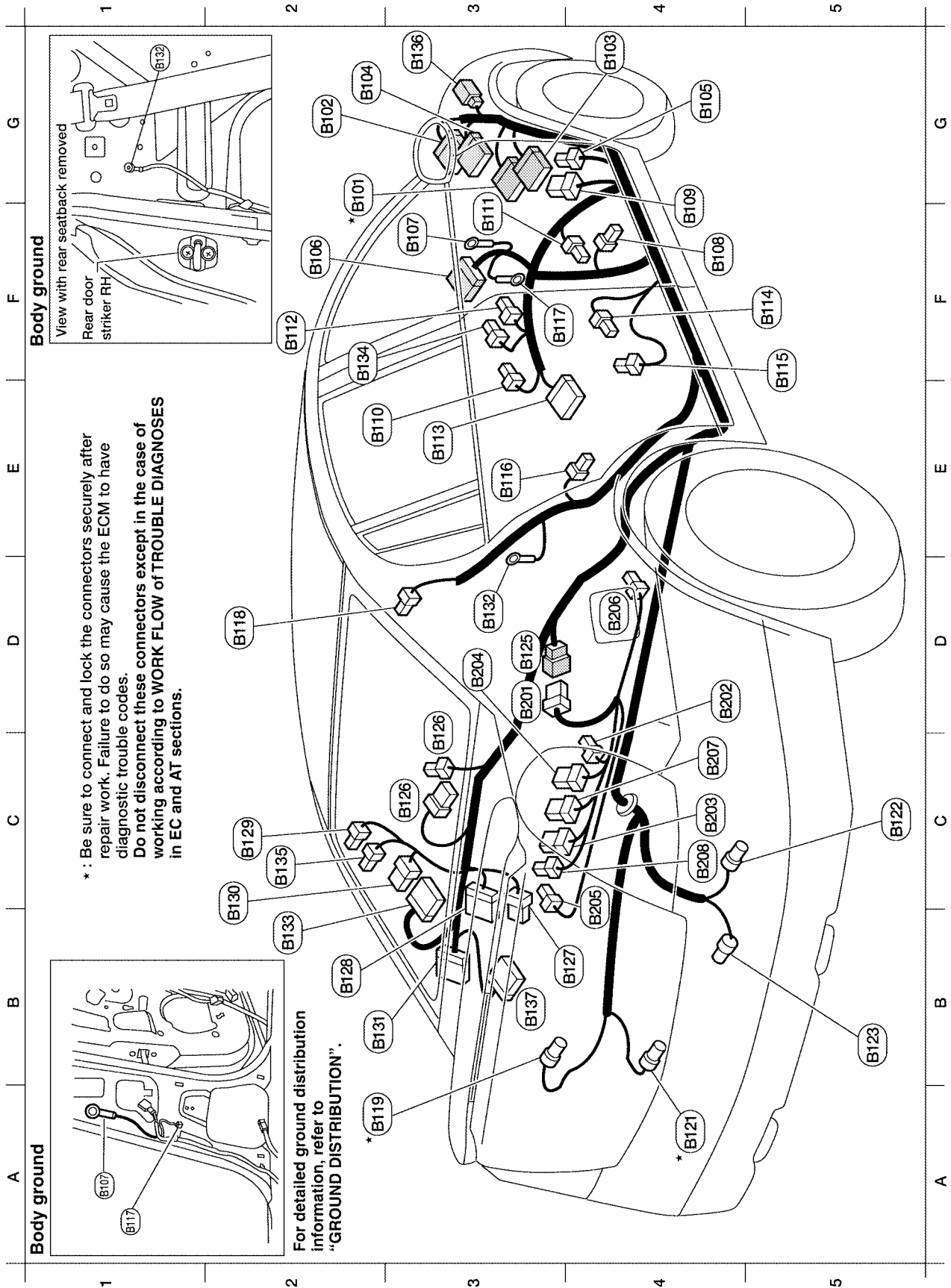
Rear defogger ground harness

F2	(B35)	B/1	: Rear window defogger
F2	(B35)	-	: Body ground

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

HARNESS

BODY NO. 2 HARNESS AND BODY NO. 3 HARNESS



WKIA1557E

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

Body harness No. 2

G2 *	(B101)	W/18	: To (M84)	D3	(B125)	W/8	: To (B201) (Early production)
G2	(B102)	GR/24	: To (M85)	C2	(B125)	W/10	: To (B201) (Late production)
G4	(B103)	W/16	: To (M86)	C3	(B126)	W/2	: Subwoofer RH (without BOSE audio system)
G2	(B104)	W/8	: To (E132)	C3	(B126)	BR/6	: Subwoofer RH (with BOSE audio system)
G4	(B105)	L/4	: To Rear power socket relay	B3	(B127)	GR/8	: BOSE speaker amp.
F2	(B106)	W/12	: To (C301)	B2	(B128)	B/24	: BOSE speaker amp.
F3	(B107)	-	: Body ground	C2	(B129)	W/2	: High mounted stop lamp
F4	(B108)	W/3	: Front door switch RH	C2	(B130)	W/6	: Rear sunshade unit
F4	(B109)	BR/6	: Heated seat relay	B2	(B131)	W/12	: To (B27)
E2	(B110)	W/3	: Seat belt buckle switch RH	D3	(B132)	-	: Body ground
F3	(B111)	W/3	: Front seat heater RH	B2	(B133)	W/10	: Subwoofer amp. (without BOSE audio system)
F2	(B112)	Y/2	: Front RH side air bag module	F2	(B134)	W/2	: To (P101)
E3	(B113)	Y/12	: Air bag diagnosis sensor unit	C2	(B135)	W/2	: Trunk room lamp
F5	(B114)	Y/2	: RH side air bag (satellite) sensor	G3	(B136)	W/2	: To (M110)
F5	(B115)	Y/2	: Front RH seat belt pre-tensioner	B3	(B137)	W/16	: Satellite radio tuner (pre-wiring)
E3	(B116)	W/1	: Rear door switch RH				
F3	(B117)	-	: Body ground				
D2	(B118)	Y/2	: RH side curtain air bag module				
A2 *	(B119)	GR/3	: EVAP control system pressure sensor				
A4 *	(B121)	B/2	: EVAP canister vent control valve				
C5	(B122)	GR/2	: Rear wheel sensor RH				
B5	(B123)	BL/2	: Rear wheel sensor LH				

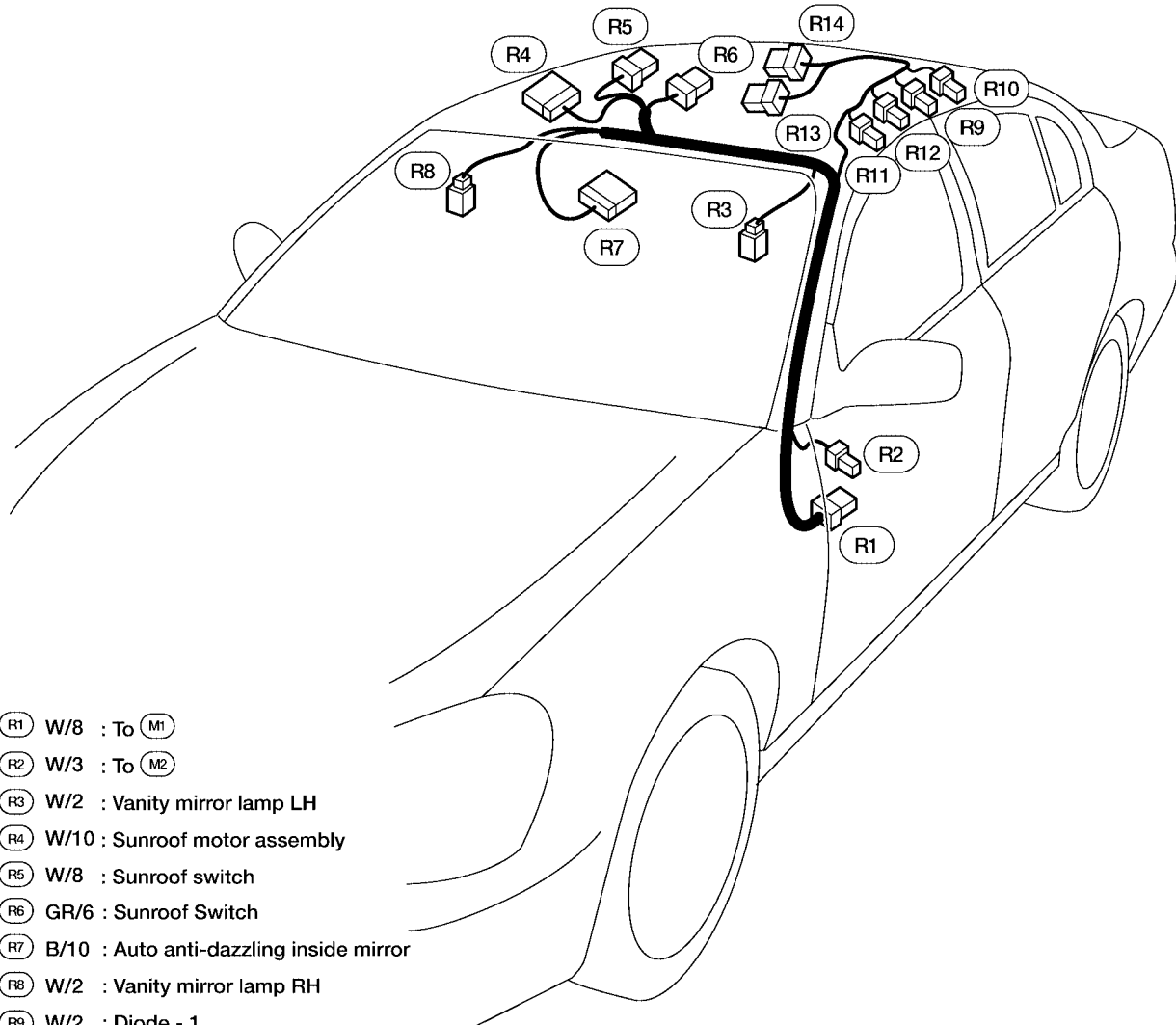
Body harness No. 3

D3	(B201)	W/8	: To (B125)
D4	(B202)	B/2	: Rear power socket
C4	(B203)	W/6	: Rear heated seat switch LH
D3	(B204)	BR/6	: Rear heated seat switch RH
C4	(B205)	W/3	: Rear seat heater LH
D4	(B206)	W/3	: Rear seat heater RH
C4	(B207)	W/6	: Rear sunshade rear switch
C4	(B208)	W/2	: Rear console lamp (late production)

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

HARNESS

ROOM LAMP HARNESS



- (R1) W/8 : To (M1)
- (R2) W/3 : To (M2)
- (R3) W/2 : Vanity mirror lamp LH
- (R4) W/10 : Sunroof motor assembly
- (R5) W/8 : Sunroof switch
- (R6) GR/6 : Sunroof Switch
- (R7) B/10 : Auto anti-dazzling inside mirror
- (R8) W/2 : Vanity mirror lamp RH
- (R9) W/2 : Diode - 1
- (R10) W/2 : Diode - 2
- (R11) W/2 : Diode - 3
- (R12) W/2 : Diode - 4
- (R13) W/6 : Personal lamp (with sunroof)
- (R14) W/8 : Interior room lamp (without sunroof)

A
B
C
D
E
F
G
H
I
J

PG

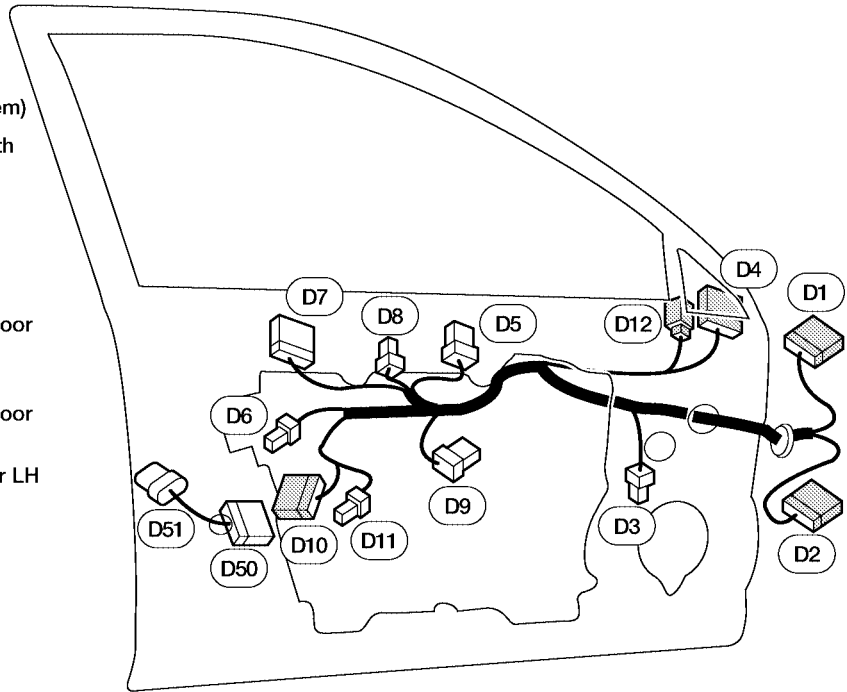
L
M

WKIA1559E

HARNESS

FRONT DOOR LH HARNESS

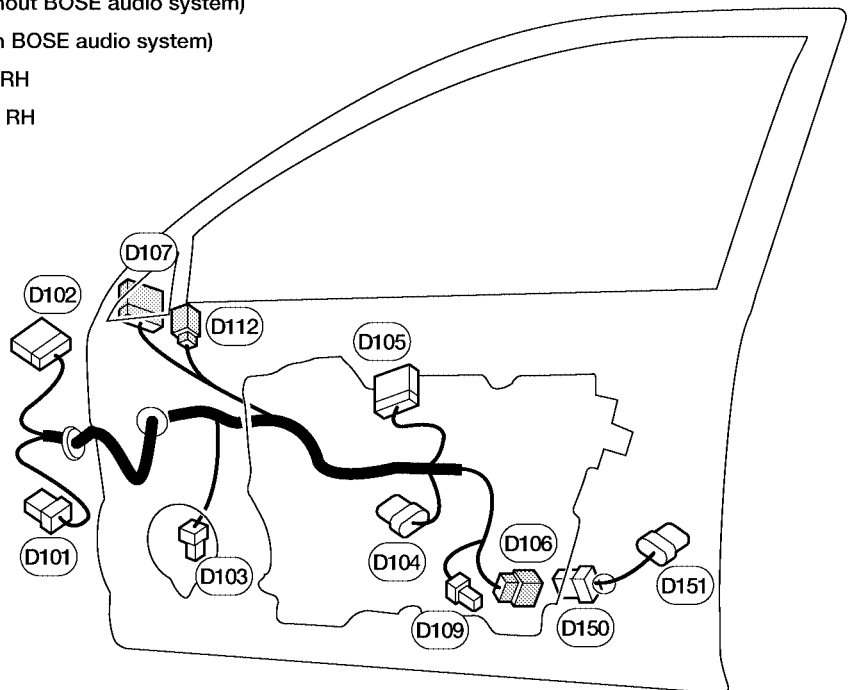
- Ⓓ1 W/12 : To Ⓓ9
- Ⓓ2 W/24 : To Ⓓ8
- Ⓓ3 W/2 : Front door speaker LH
(without BOSE audio system)
- Ⓓ3 BR/2 : Front door speaker LH (with
BOSE audio system)
- Ⓓ4 W/12 : Door mirror LH
- Ⓓ5 W/8 : Seat memory switch
- Ⓓ6 W/4 : Trunk lid opener switch
- Ⓓ7 W/16 : Main power window and door
lock/unlock switch
- Ⓓ8 W/3 : Main power window and door
lock/unlock switch
- Ⓓ9 W/6 : Front power window motor LH
- Ⓓ10 W/10 : To Ⓓ50
- Ⓓ11 W/2 : Front step lamp LH
- Ⓓ12 BR/2 : Tweeter LH
- Front door LH sub-harness**
- Ⓓ50 W/10 : To Ⓓ10
- Ⓓ51 B/6 : Front door lock actuator LH (Front door
key cylinder switch LH)



WKIA0512E

FRONT DOOR RH HARNESS

- Ⓓ101 W/8 : To Ⓓ75
- Ⓓ102 W/16 : To Ⓓ74
- Ⓓ103 W/2 : Front door speaker RH (without BOSE audio system)
- Ⓓ103 BR/2 : Front door speaker RH (with BOSE audio system)
- Ⓓ104 W/6 : Front power window motor RH
- Ⓓ105 W/16 : Front power window switch RH
- Ⓓ106 W/8 : To Ⓓ130
- Ⓓ107 W/12 : Door mirror RH
- Ⓓ109 W/2 : Front step lamp RH
- Ⓓ112 BR/2 : Tweeter RH
- Front door RH sub-harness**
- Ⓓ130 W/8 : To Ⓓ106
- Ⓓ151 W/8 : Front door lock actuator RH

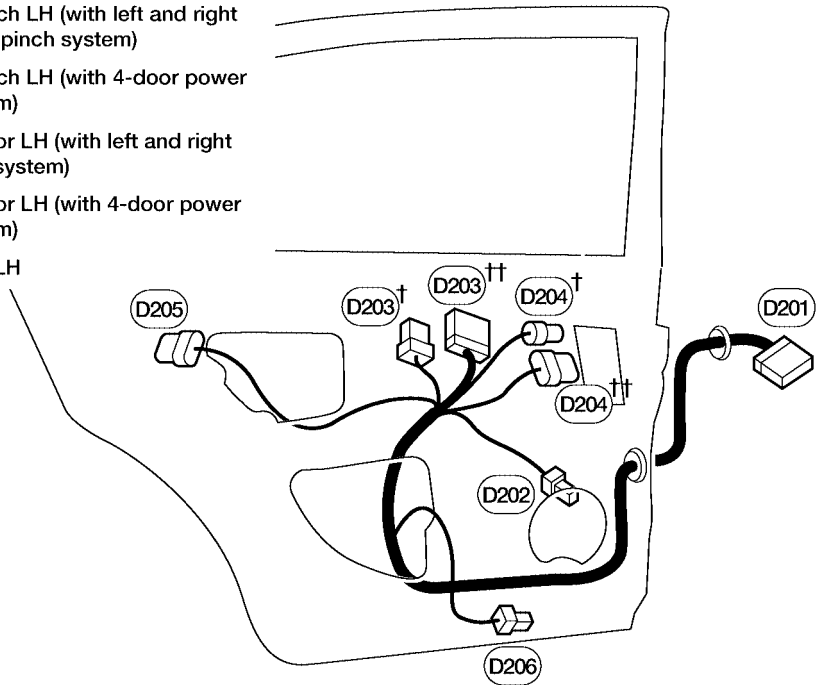


WKIA0513E

HARNESS

REAR DOOR LH HARNESS

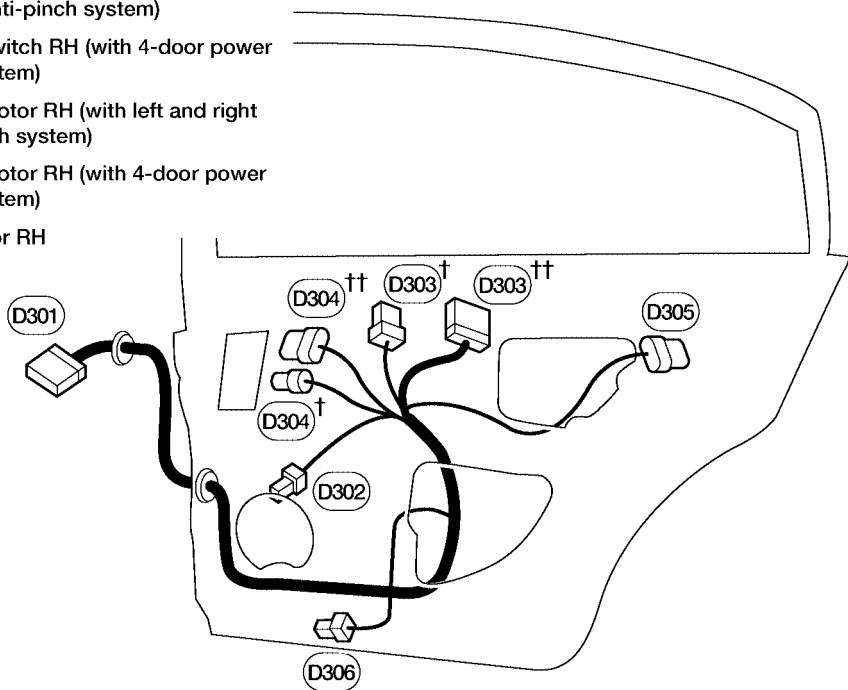
- (D201) W/12 : To (B6)
- (D202) BR/2 : Rear door speaker LH (with BOSE audio system)
- (D202) W/2 : Rear door speaker LH (without BOSE audio system)
- (D203)[†] W/8 : Rear power window switch LH (with left and right front power window anti-pinch system)
- (D203)^{††} W/16 : Rear power window switch LH (with 4-door power window anti-pinch system)
- (D204)[†] GR/2 : Rear power window motor LH (with left and right front window anti-pinch system)
- (D204)^{††} GR/6 : Rear power window motor LH (with 4-door power window anti-pinch system)
- (D205) B/4 : Rear door lock actuator LH
- (D206) W/2 : Rear step lamp LH



WKIA0514E

REAR DOOR RH HARNESS

- (D301) W/12 : To (B106)
- (D302) W/2 : Rear door speaker RH (without BOSE audio system)
- (D302) BR/2 : Rear door speaker RH (with BOSE audio system)
- (D303)[†] W/8 : Rear power window switch RH (with left and right front power window anti-pinch system)
- (D303)^{††} W/16 : Rear power window switch RH (with 4-door power window anti-pinch system)
- (D304)[†] GR/2 : Rear power window motor RH (with left and right front window anti-pinch system)
- (D304)^{††} GR/6 : Rear power window motor RH (with 4-door power window anti-pinch system)
- (D305) B/6 : Rear door lock actuator RH
- (D306) W/2 : Rear step lamp RH



WKIA0515E

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

PG

HARNESS

EKS003XC

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
1STSIG	AT	A/T 1st Signal
2NDSIG	AT	A/T 2nd Signal
3RDSIG	AT	A/T 3rd Signal
4THSIG	AT	A/T 4th Signal
5THSIG	AT	A/T 5th Signal
A/C,A	ATC	Auto Air Conditioner
AF1B1	EC	Air Fuel Ratio Sensor 1 Bank 1
AF1B2	EC	Air Fuel Ratio Sensor 1 Bank 2
AF1HB1	EC	Air Fuel Ratio Sensor 1 Heater Bank 1
AF1HB2	EC	Air Fuel Ratio Sensor 1 Heater Bank 2
AUTO/L	LT	Auto Light Control
ABS	BRC	Anti-Lock Brake System
APPS1	EC	Accelerator Pedal Position Sensor
APPS2	EC	Accelerator Pedal Position Sensor
APPS3	EC	Accelerator Pedal Position Sensor
ASCBOF	EC	ASCD Brake Switch
ASC/BS	EC	ASCD Brake Switch
ASCIND	EC	ASCD Indicator
ASC/SW	EC	ASCD Steering Switch
AT/IND	DI	A/T Indicator Lamp
AUDIO	AV	Audio
AUTO/DP	SE	Automatic Drive Positioner
BAF/TS	AT	A/T Fluid Temperature Sensor and TCM Power Supply
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
CORNER	LT	Cornering Lamps
D/LOCK	BL	Power Door Lock
DEF	GW	Rear Window Defogger
DTRL	LT	Headlamp - With Daytime Light System
ECM/PW	EC	ECM Power Supply for Back-Up
ECTS	EC	Engine Coolant Temperature Sensor
EGRC1	EC	EGR Function
EGR/TS	EC	EGR Temperature Sensor
EGVC/V	EC	EGR Volume Control Valve
ENGSS	AT	Engine Speed Signal
EMNT	EC	Engine Mount
ETC1	EC	Electric Throttle Control Function
ETC2	EC	Throttle Control Motor Relay

HARNESSES

ETC3	EC	Throttle Control Motor	
F/FOG	LT	Front Fog Lamp	A
F/PUMP	EC	Fuel Pump	
FTS	AT	A/T Fluid Temperature Sensor	
FTSP	AT	A/T Fluid Temperature Sensor Failure	B
FTTS	EC	Fuel Tank Temperature Sensor	
FUELB1	EC	Fuel Injection System Bank 1	
FUELB2	EC	Fuel Injection System Bank 2	C
H/LAMP	LT	Headlamp	
HORN	WW	Horn	D
HSEAT	SE	Heated Seat	
H/STRG	PS	Heated Steering Wheel	
I/MIRR	GW	Inside Mirror (Auto Anti-Dazzling Mirror)	E
IATS	EC	Intake Air Temperature Sensor	
IGNSYS	EC	Ignition System	
ILL	LT	Illumination	F
INJECT	EC	Injector	
IVC	EC	Intake Valve Timing Control Solenoid Valve	
IVCB1	EC	Intake Valve Timing Control Solenoid Valve Bank 1	G
IVCB2	EC	Intake Valve Timing Control Solenoid Valve Bank 2	
KEYLES	BL	Remote Keyless Entry System	
KS	EC	Knock Sensor	H
MAFS	EC	Mass Air Flow Sensor	
MAIN	AT	Main Power Supply and Ground Circuit	
MAIN	EC	Main Power Supply and Ground Circuit	I
METER	DI	Speedometer, Tachometer, Temp., Oil and Fuel Gauges	
MIL/DL	EC	Malfunction Indicator Lamp	
MIRROR	GW	Door Mirror	J
MMSW	AT	Manual Mode Switch	
NATS	BL	Nissan Anti-Theft System	
NAVI	AV	Navigation System	PG
NONDTC	AT	Non-detectable Items	
O2H2B1	EC	Rear Heated Oxygen Sensor 2 (Rear) Heater Bank 1	
O2H2B2	EC	Rear Heated Oxygen Sensor 2 (Rear) Heater Bank 2	L
O2S2B1	EC	Heated Oxygen Sensor 2 (Rear) Bank 1	
O2S2B2	EC	Heated Oxygen Sensor 2 (Rear) Bank 2	
PC/A	AT	Line Pressure Solenoid Valve	M
PC/B	AT	Shift Pressure Solenoid Valve	
PC/C	AT	Pressure Control Solenoid Valve	
PC/CS	AT	Pressure Control Solenoid Valve Failure	
PGC/V	EC	EVAP Canister Purge Volume Control Solenoid Valve	
PHSB1	EC	Camshaft Position Sensor (PHASE) (Bank 1)	
PHSB2	EC	Camshaft Position Sensor (PHASE) (Bank 2)	
PNP/SW	AT	Park/Neutral Position Switch	
PNP/SW	EC	Park/Neutral Position Switch	
POS	EC	Crankshaft Position Sensor (CKPS) (POS)	
POWER	PG	Power Supply Routing	
PRE/SE	EC	EVAP Control System Pressure Sensor	
P/SCKT	WW	Power Socket	
PS/SEN	EC	Power Steering Oil Pressure Sensor	
PST/SW	EC	Power Steering Oil Pressure Switch	
PWR/IN	AT	TCM Ignition Power	

HARNESSES

ROOM/L	LT	Interior Room Lamp
RP/SEN	EC	Refrigerant Pressure Sensor
S/SIG	EC	Start Signal
SEAT	SE	Power Seat
SEN/PW	EC	Sensor Power Supply
SFTFNC	AT	Unusual Shifting
SHADE	EI	Rear Sunshade
SHIFT	AT	A/T 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
SSV/C	AT	Shift Solenoid Valve C
SSV/CS	AT	Shift Solenoid Valve C Failure
SSV/D	AT	Shift Solenoid Valve D
SSV/E	AT	Shift Solenoid Valve E
START	SC	Starting System
STOP/L	LT	Stop Lamp
TLID	BL	Trunk Lid Opener
TAIL/L	LT	Parking, License and Tail Lamps
TCCSIG	AT	A/T TCC Signal (Lock Up)
TCS	BRC	Traction Control System
TPS	AT	Throttle Position Sensor
TPS1	EC	Throttle Position Sensor
TPS2	EC	Throttle Position Sensor
TPS3	EC	Throttle Position Sensor
TRNSCV	BL	HOMELINK® Universal Transceiver
TRSA/T	AT	Turbine Revolution Sensor
TRSC	AT	Turbine Revolution Sensor
TURN	LT	Turn Signal and Hazard Warning Lamps
VDC	BRC	Vehicle Dynamic Control System
VEHSEC	BL	Vehicle Security 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)
VSSATC	AT	Revolution Sensor
VSSMTR	AT	Vehicle Speed Sensor Meter
W/ANT	AV	Audio Antenna
WARN	DI	Warning Lamps
WINDOW	GW	Power Window
WIPER	WW	Front Wiper and Washer

ELECTRICAL UNITS LOCATION

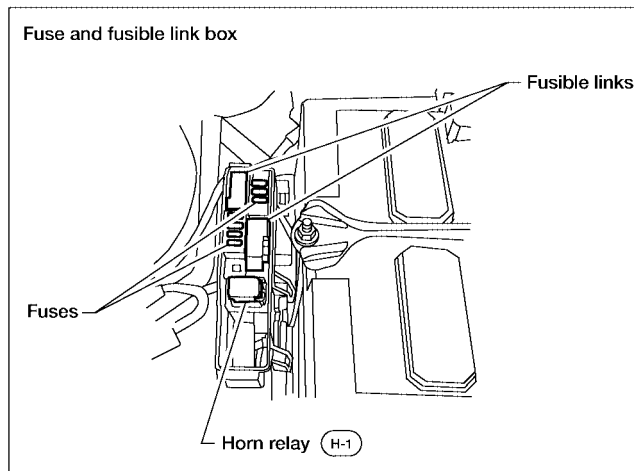
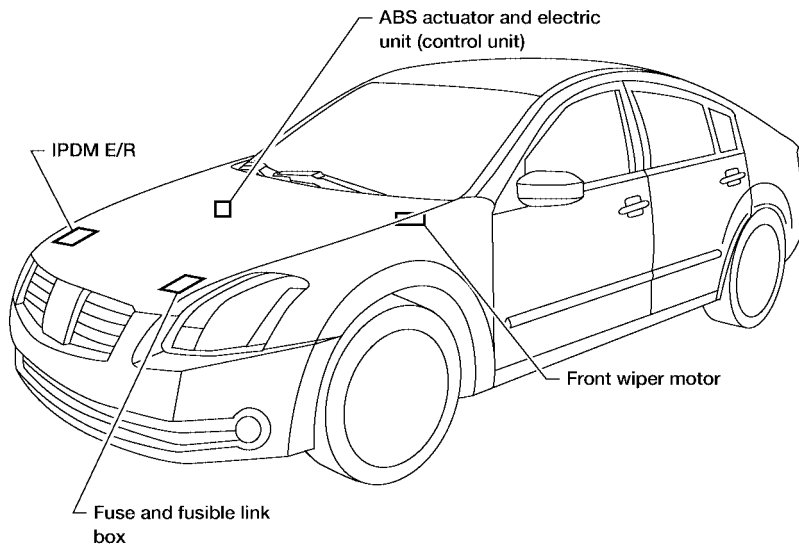
ELECTRICAL UNITS LOCATION

Electrical Units Location ENGINE COMPARTMENT

PFP:25230

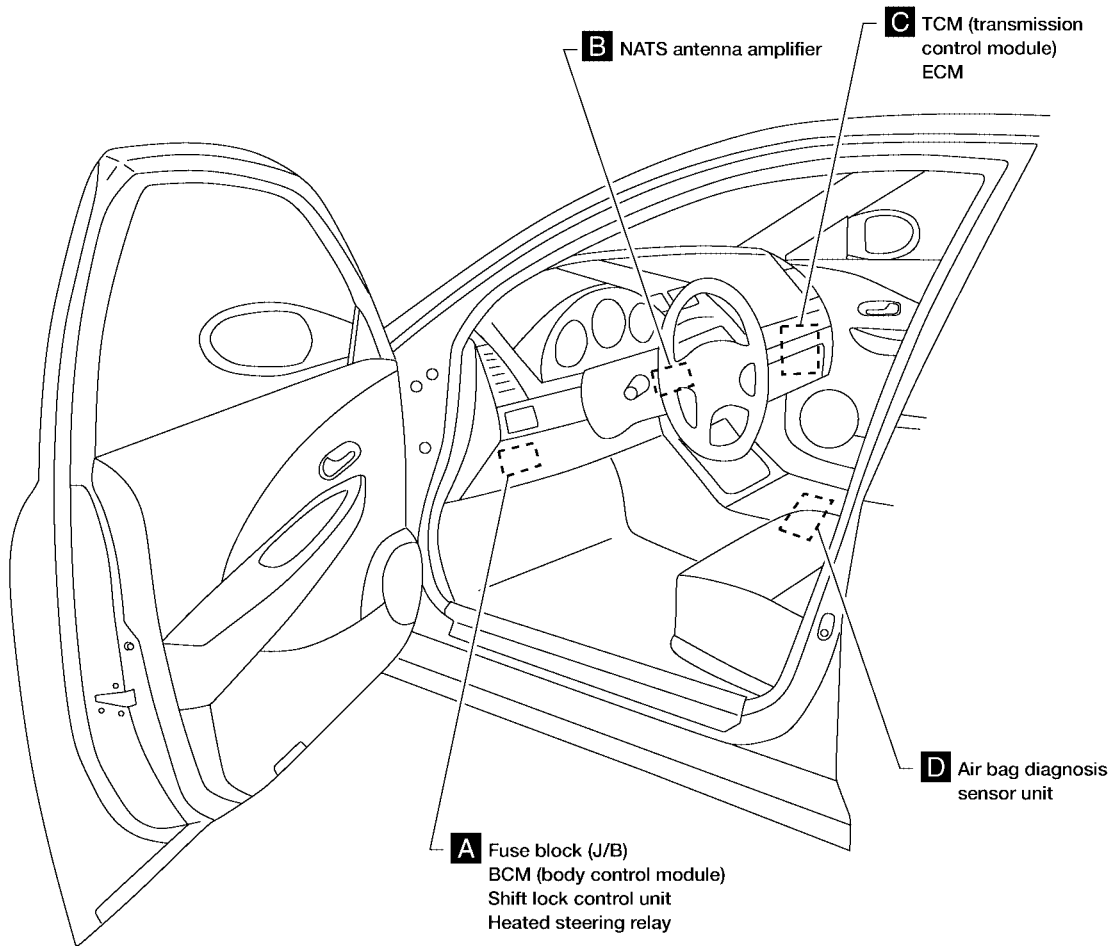
EKS003XD

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

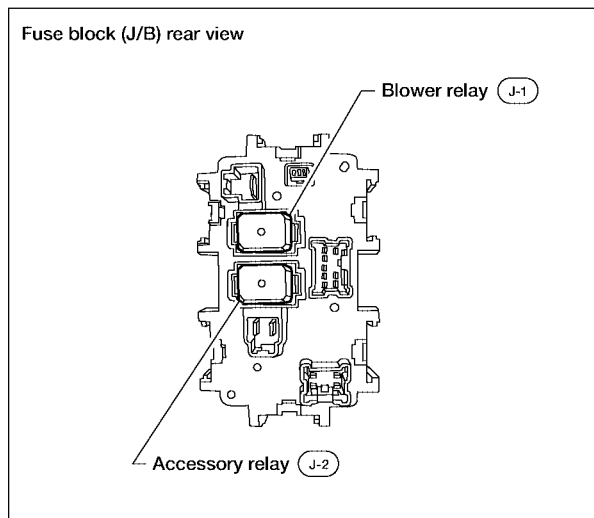
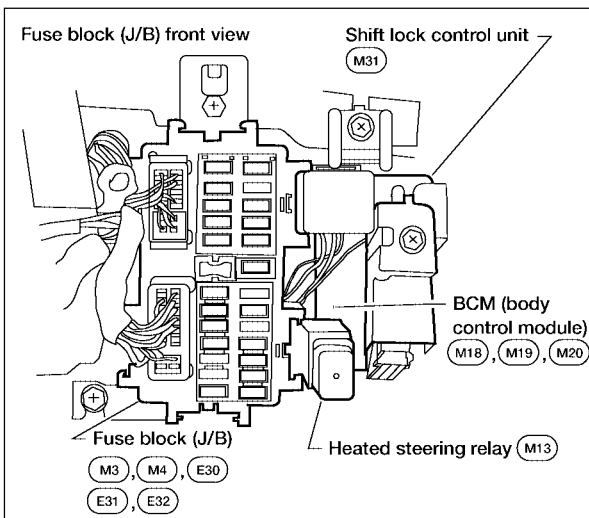


ELECTRICAL UNITS LOCATION

PASSENGER COMPARTMENT

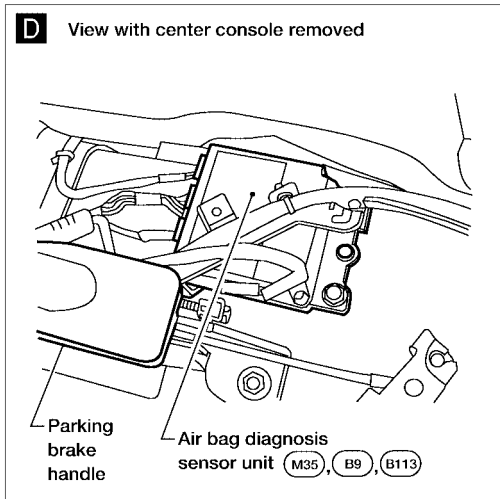
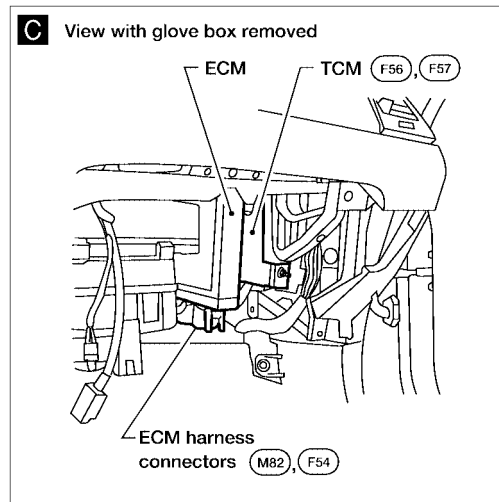
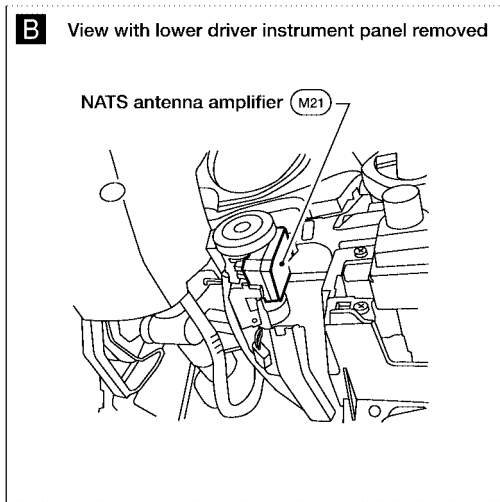


A Instrument panel side LH



WKIA3124E

ELECTRICAL UNITS LOCATION



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

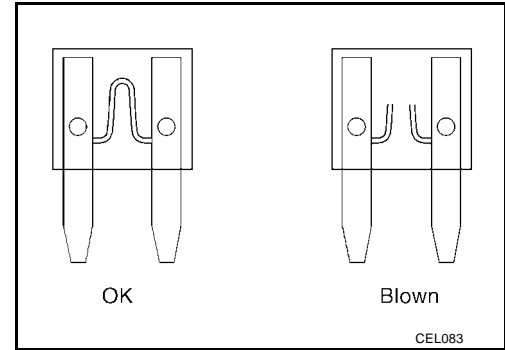
WKIA0476E

ELECTRICAL UNITS LOCATION

Fuse

EKS003XE

- 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

EKS003XF

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.

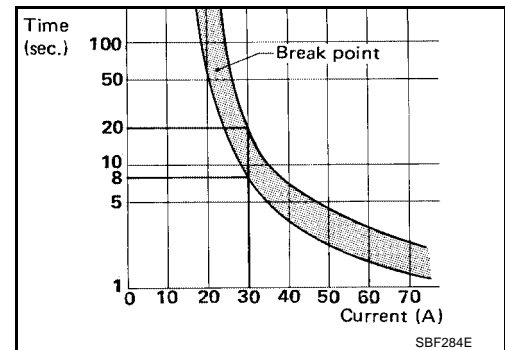
Circuit Breaker (Built Into BCM)

EKS003XG

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

A circuit breaker is used for the following systems:

- Power seat
- Power windows
- Power door locks
- Remote keyless entry system



SBF284E

HARNESS CONNECTOR

PFP:B4341

EKS003XH

HARNESS CONNECTOR

Description

HARNESS CONNECTOR (TAB-LOCKING TYPE)

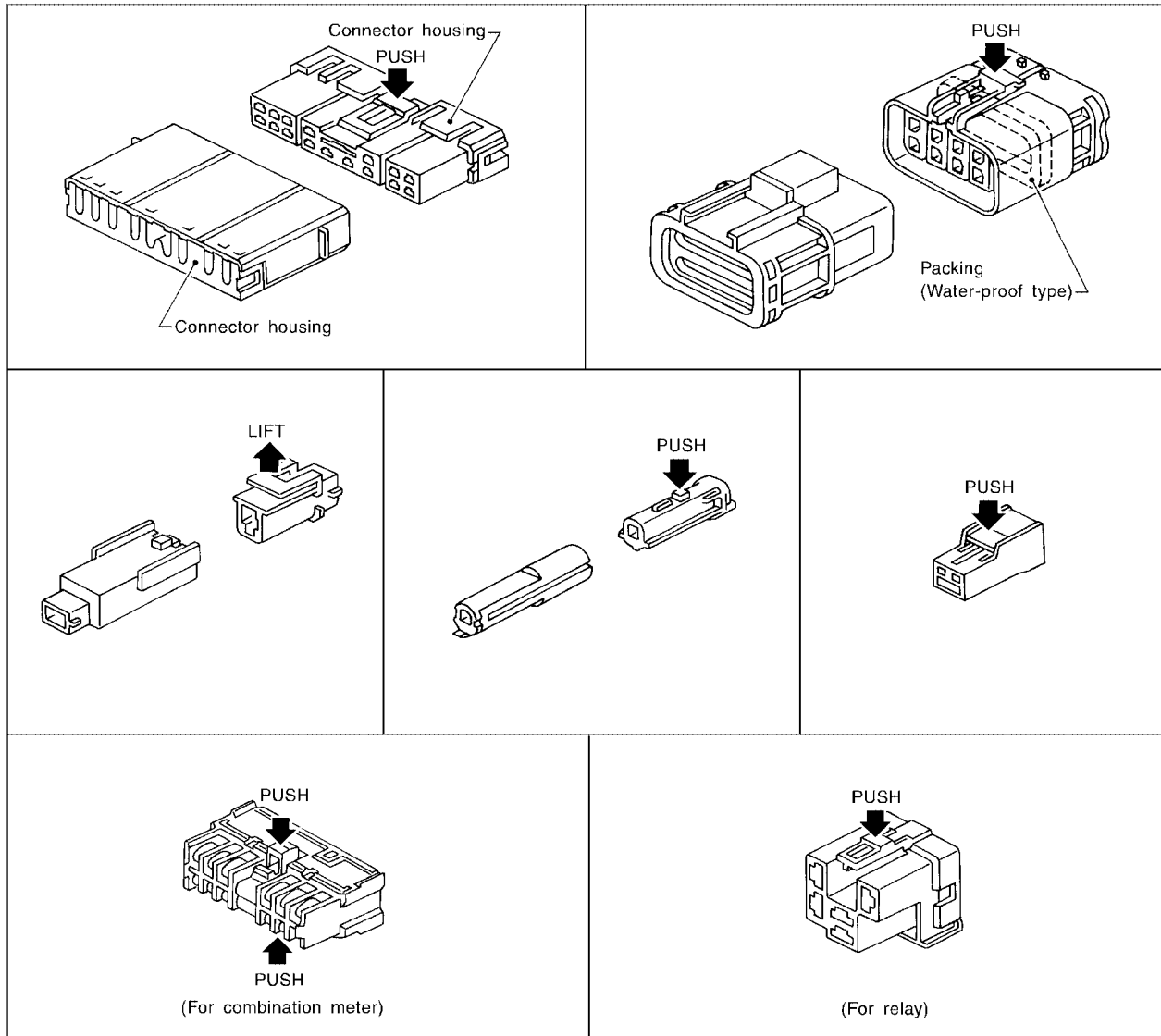
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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]



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

PG

SEL769DA

HARNESS CONNECTOR

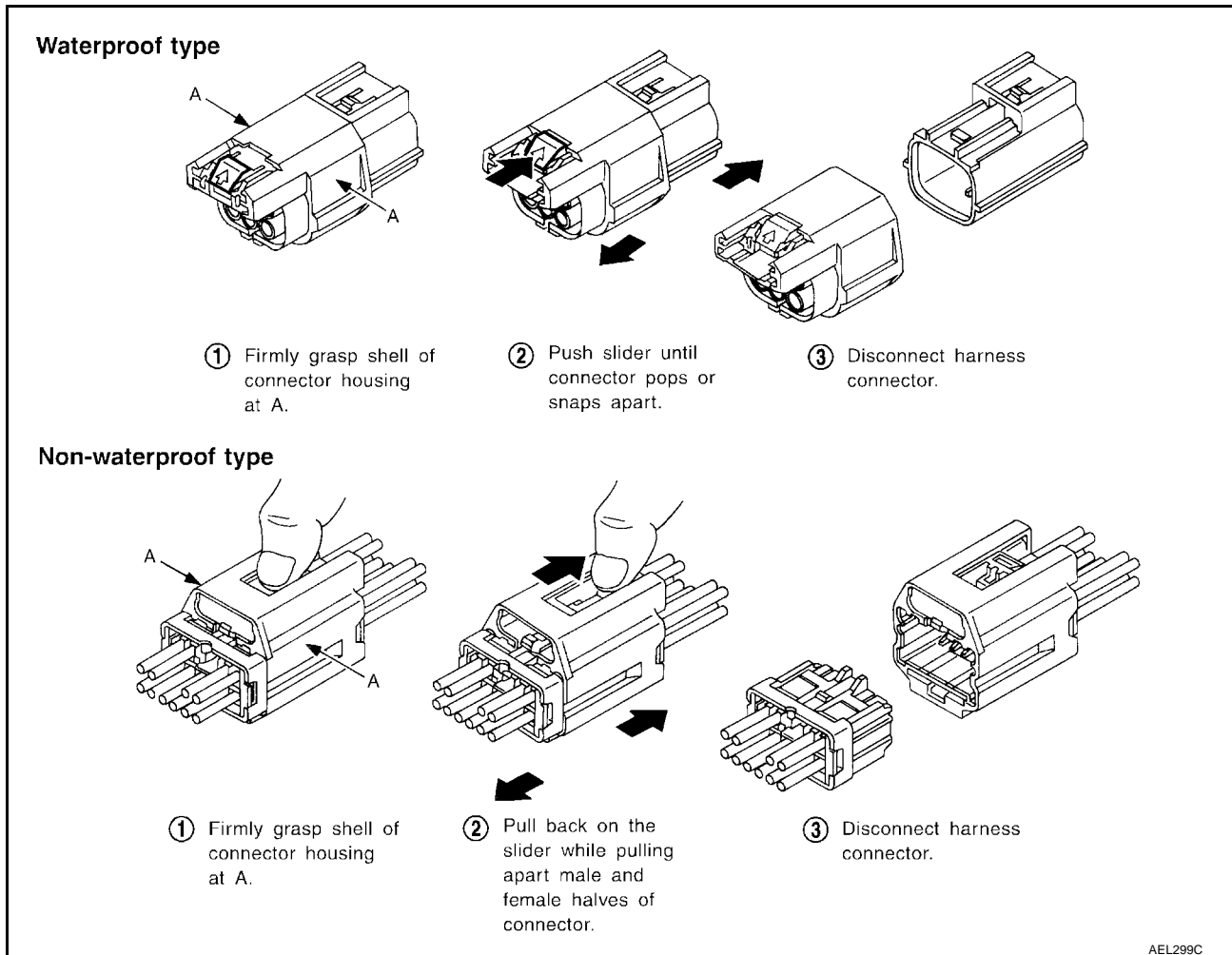
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

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

CAUTION:

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

[Example]



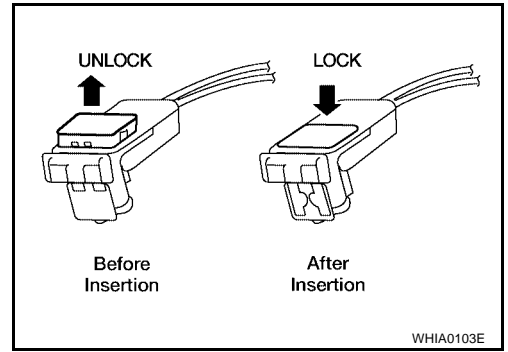
HARNESS CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

- 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.

HARNESS CONNECTOR

CAUTION:

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



A
B
C
D

E

F

G

H

I

J

PG

L


M


ELECTRICAL UNITS

PF2:23710

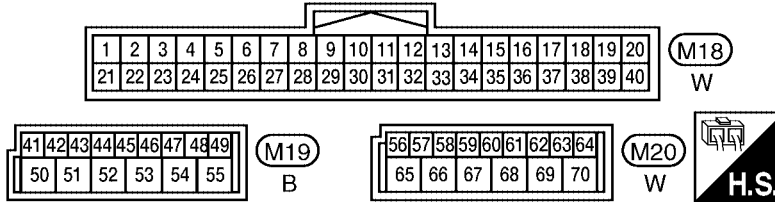
EKS003XJ

ELECTRICAL UNITS Terminal Arrangement

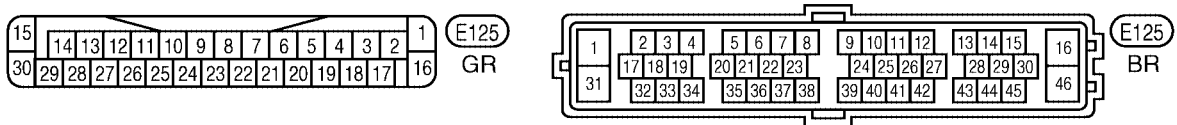
 : WITH 4-SPEED A/T

 : WITH 5-SPEED A/T

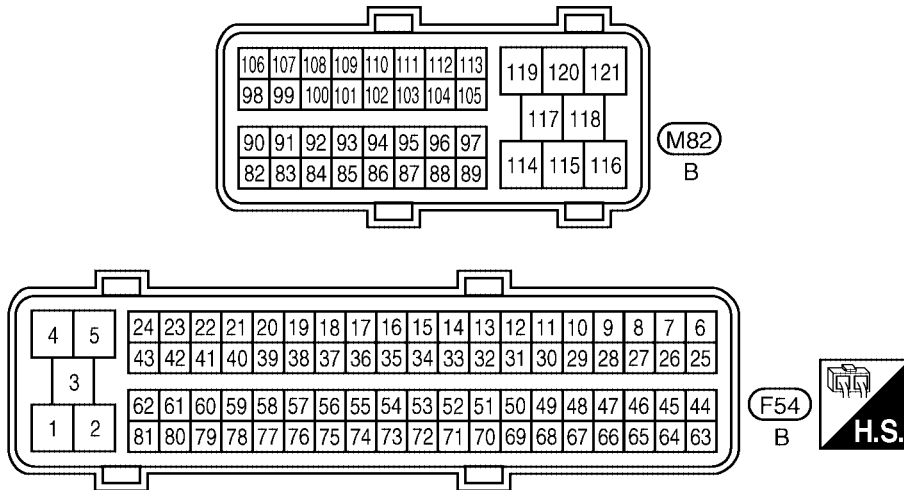
BCM (BODY CONTROL MODULE)



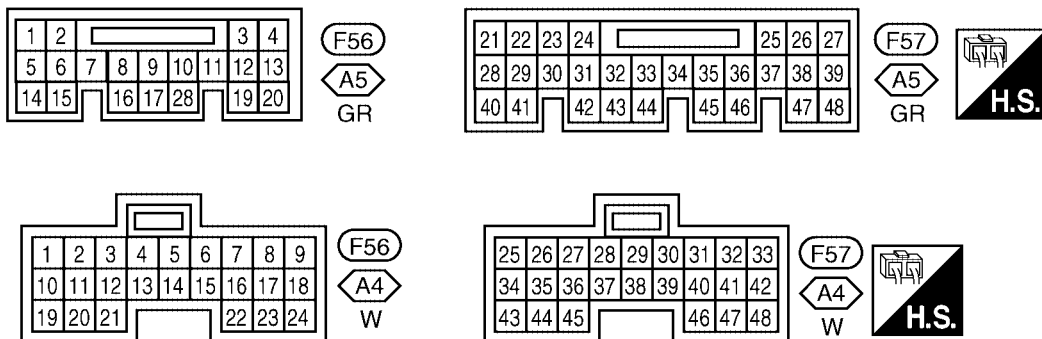
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



ECM



TCM (TRANSMISSION CONTROL MODULE)



WKIA3125E

STANDARDIZED RELAY

PFP:25230

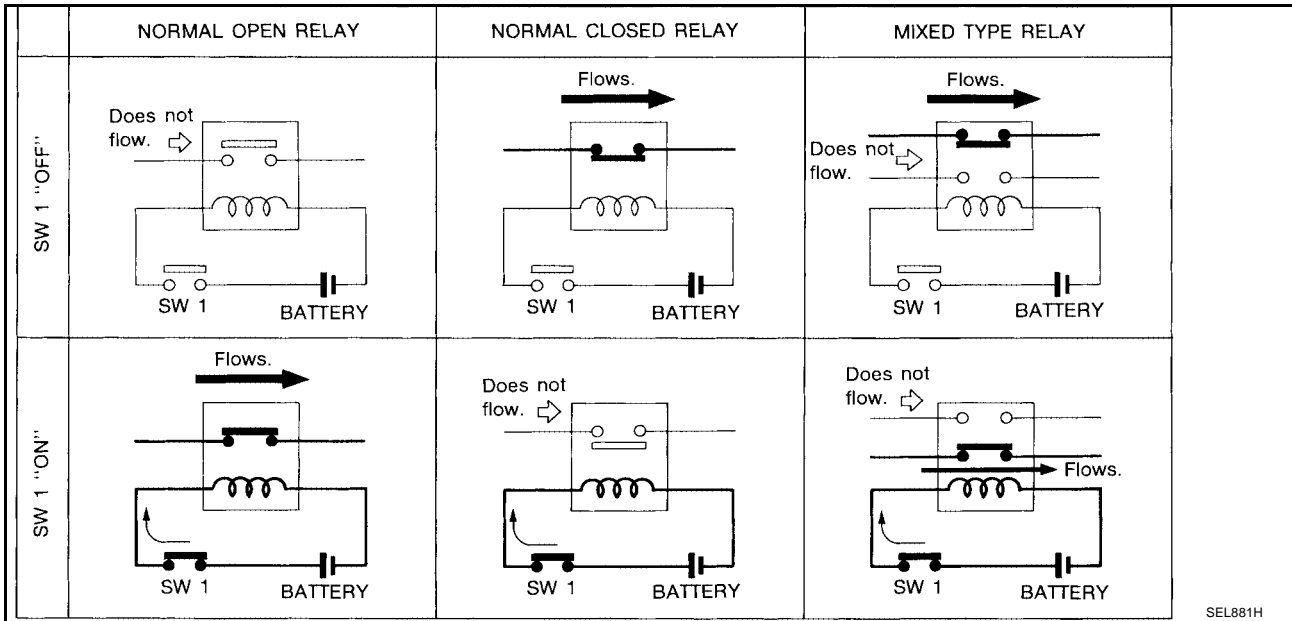
EKS003XK

STANDARDIZED RELAY

Description

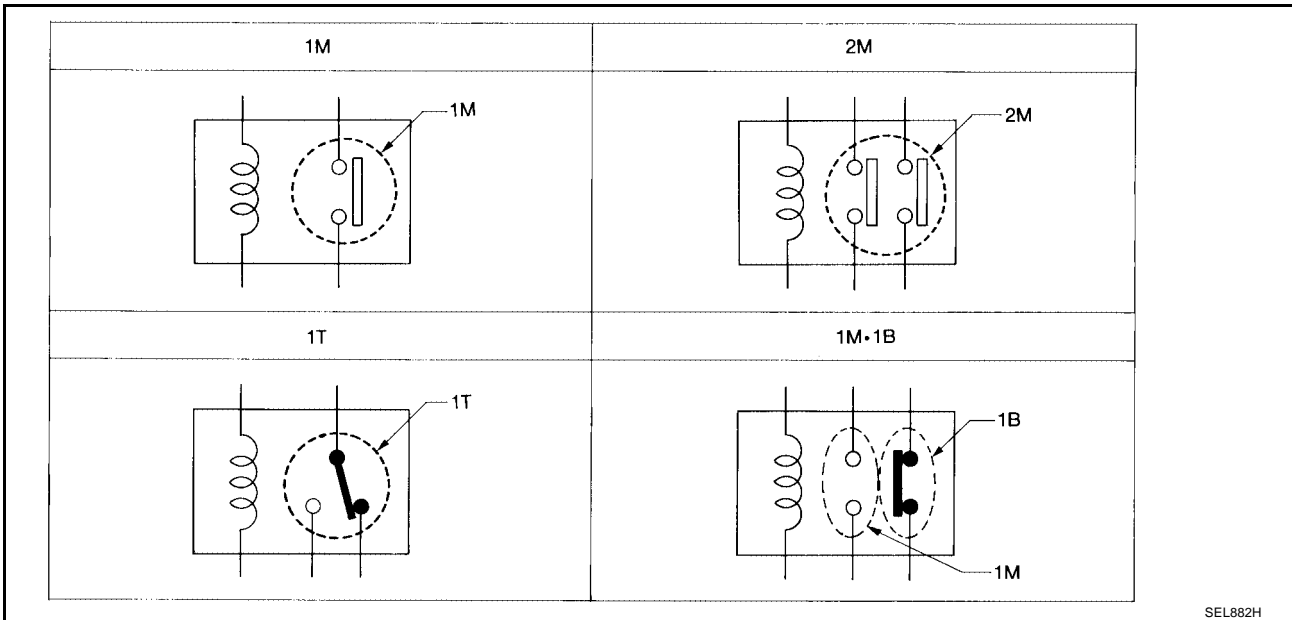
NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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



SEL881H

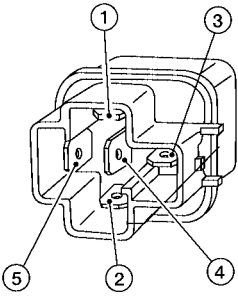
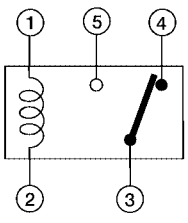
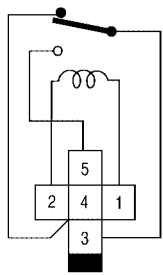
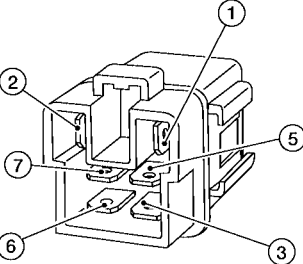
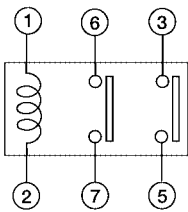
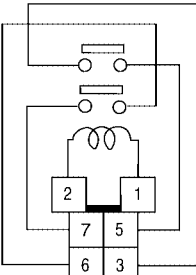
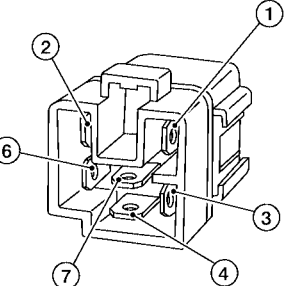
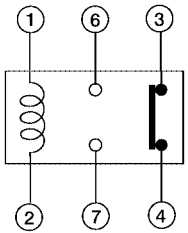
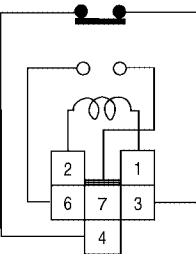
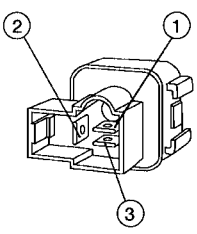
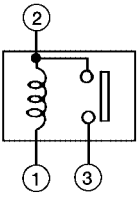
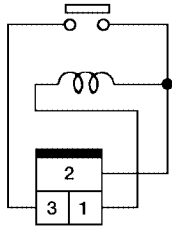
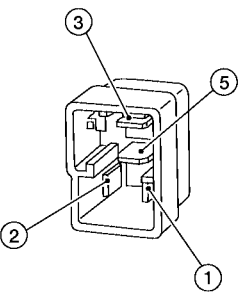
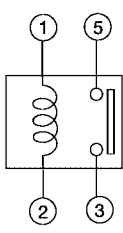
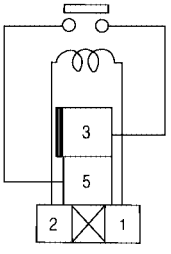
TYPE OF STANDARDIZED RELAYS



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

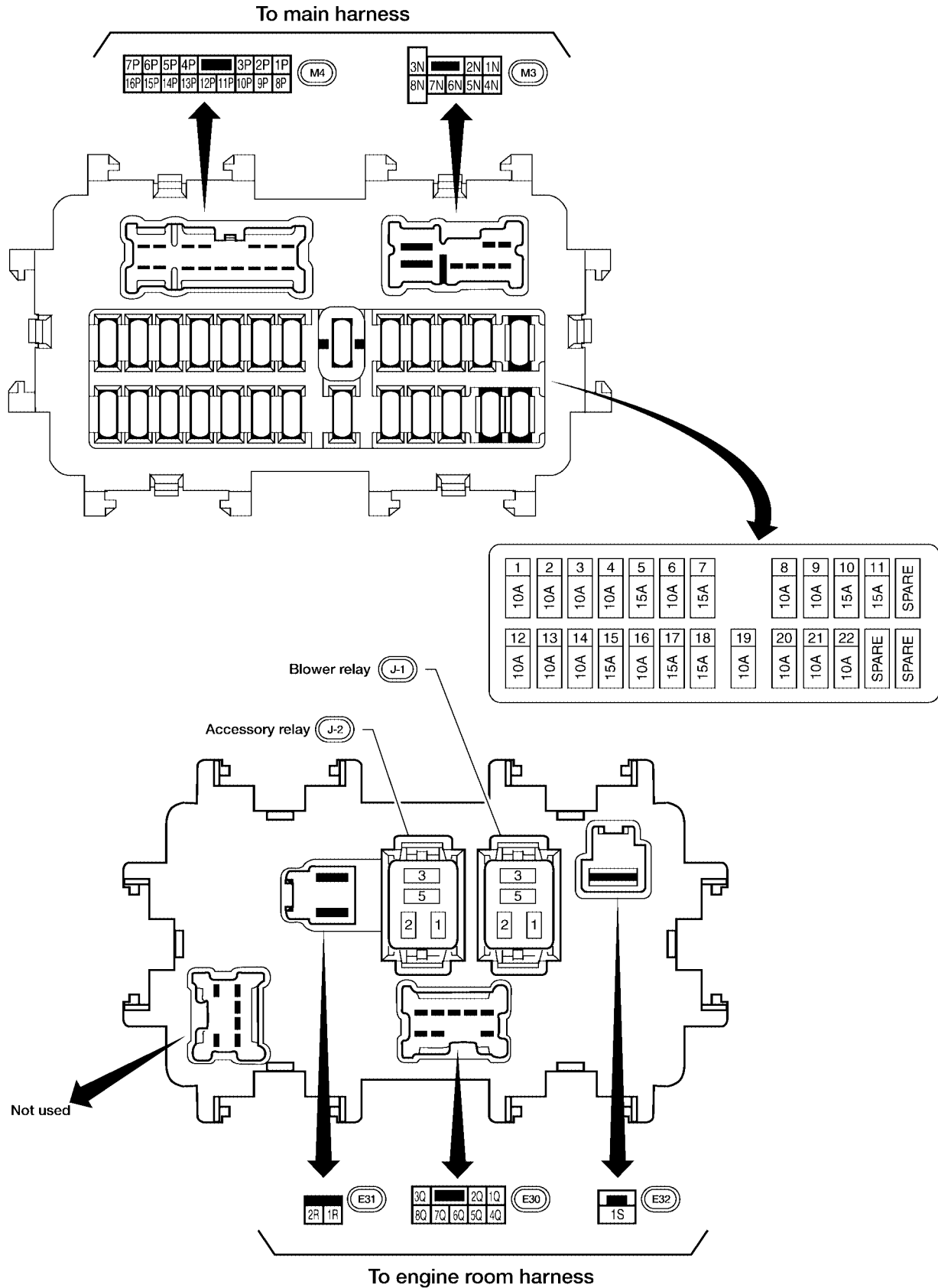
FUSE BLOCK-JUNCTION BOX(J/B)

FUSE BLOCK-JUNCTION BOX(J/B)

Terminal Arrangement

PFPP:24350

EKS003XL



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

FUSE AND FUSIBLE LINK BOX

FUSE AND FUSIBLE LINK BOX Terminal Arrangement

PF24381

EKS003XM

