SECTION PG

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

CONTENTS

PRECAUTIONS

PFP:00001

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

BKS00268

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. 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.**

Maintenance Information

BKS00269

If any of following part is replaced, always replace with new* one.
If it's not (or fail to do so), the electrical system may not be operated properly.
*: New one means a virgin control unit that has never been energized on-board.

RHD MODELS

- BCM (Models without Intelligent Key system)
- Intelligent Key unit (Models with Intelligent Key system)
- ECM
- IPDM E/R
- Combination meter
- EPS control unit

LHD MODELS

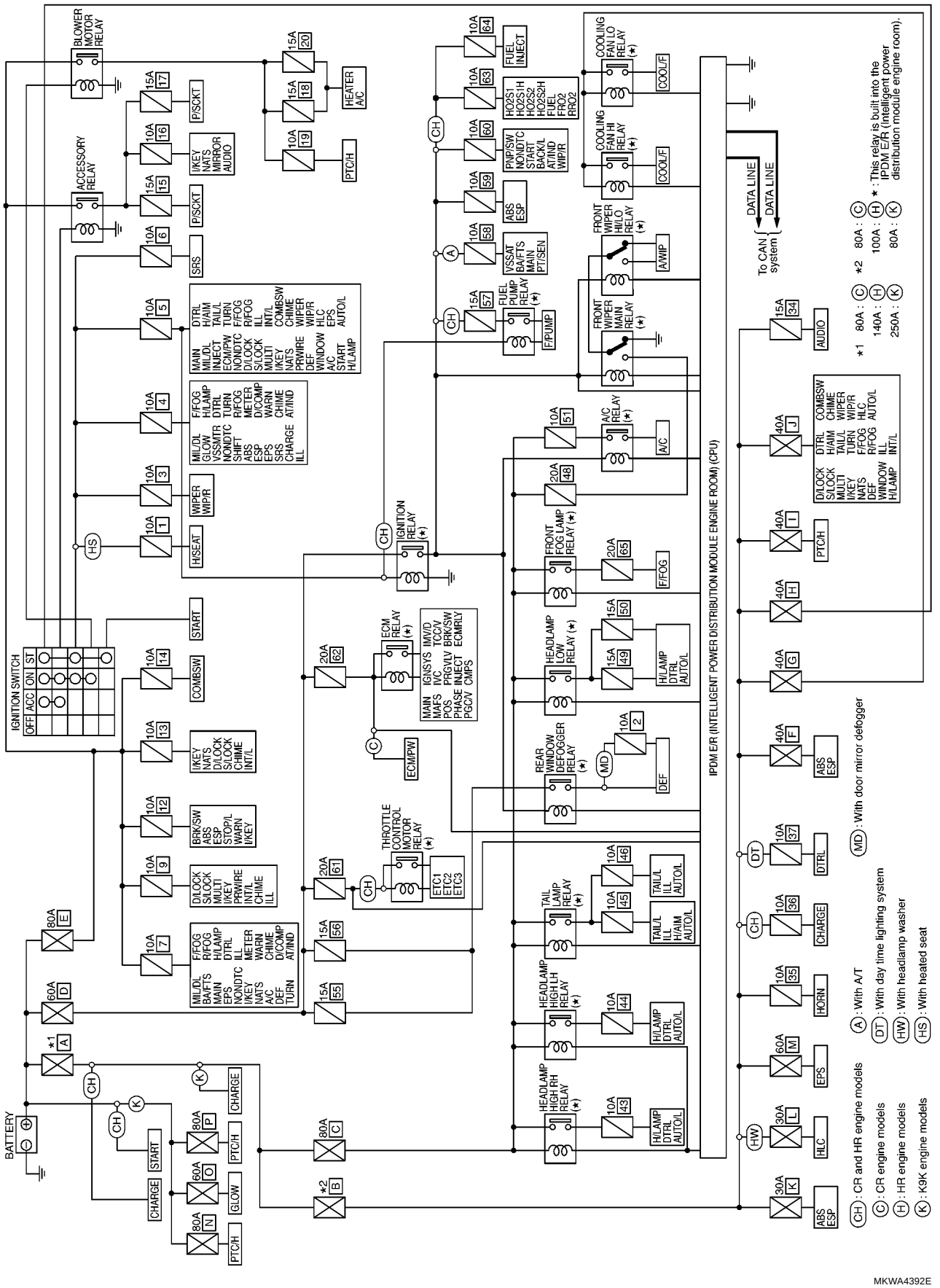
- BCM (Models without Intelligent Key system)
- Intelligent Key unit (Models with Intelligent Key system)
- ECM

POWER SUPPLY ROUTING CIRCUIT

PFP:24110

Schematic

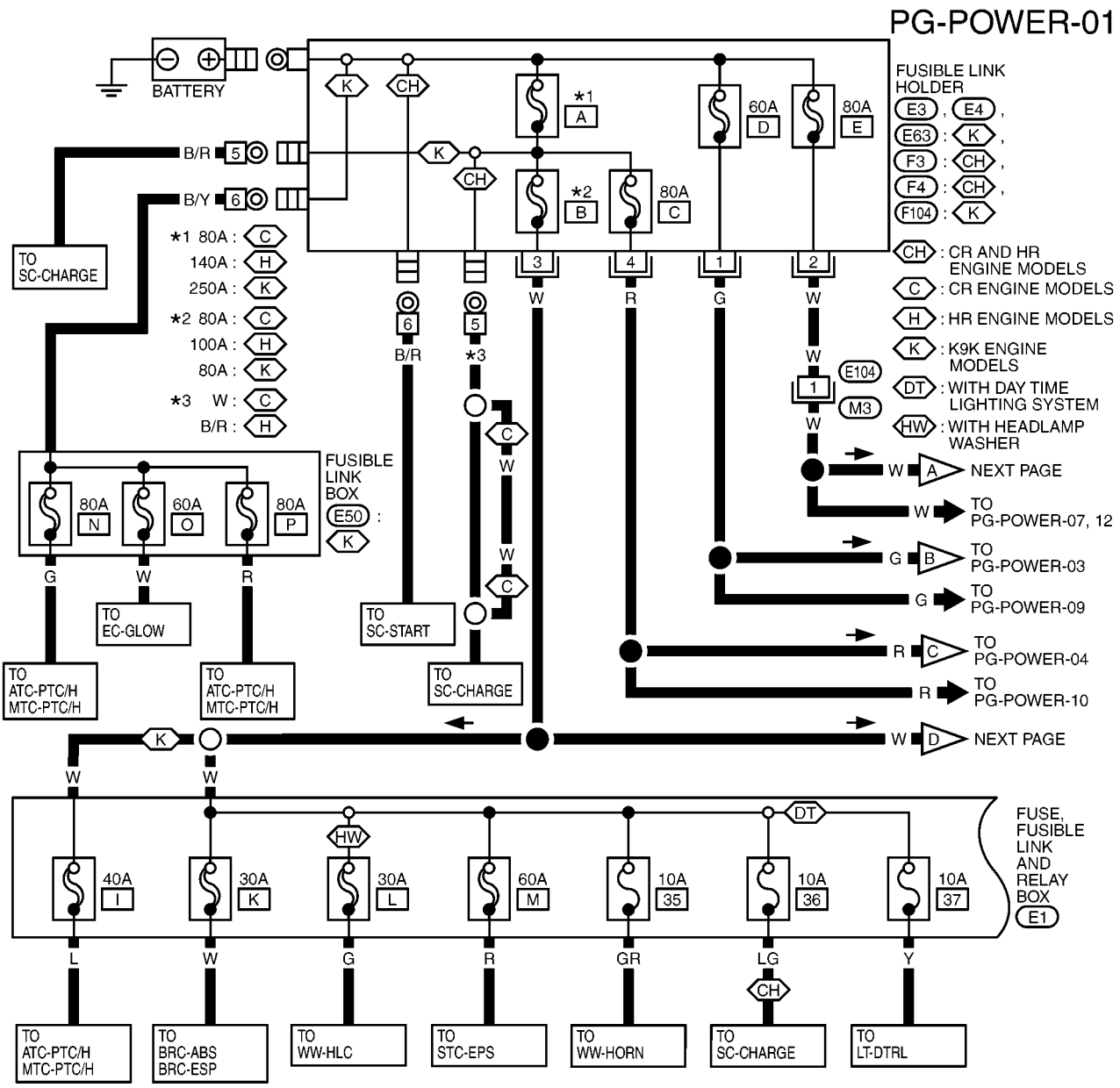
BKS0025I

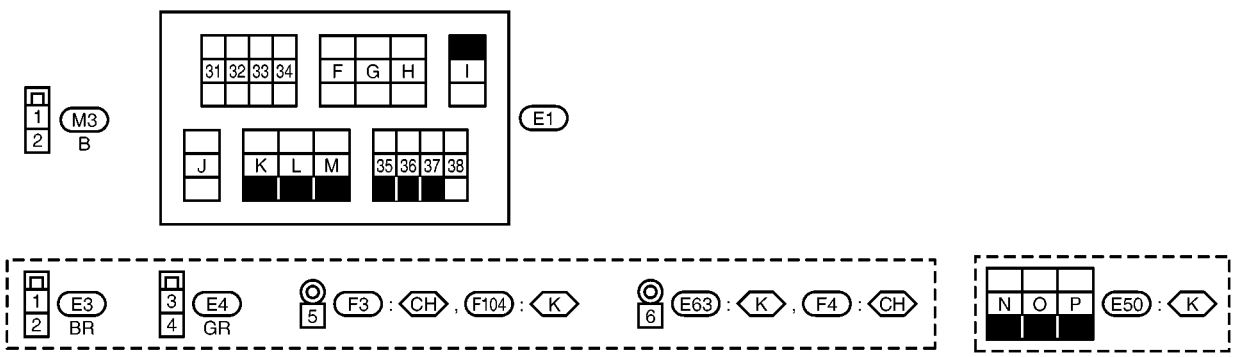


Wiring Diagram — POWER —

BKS0025J

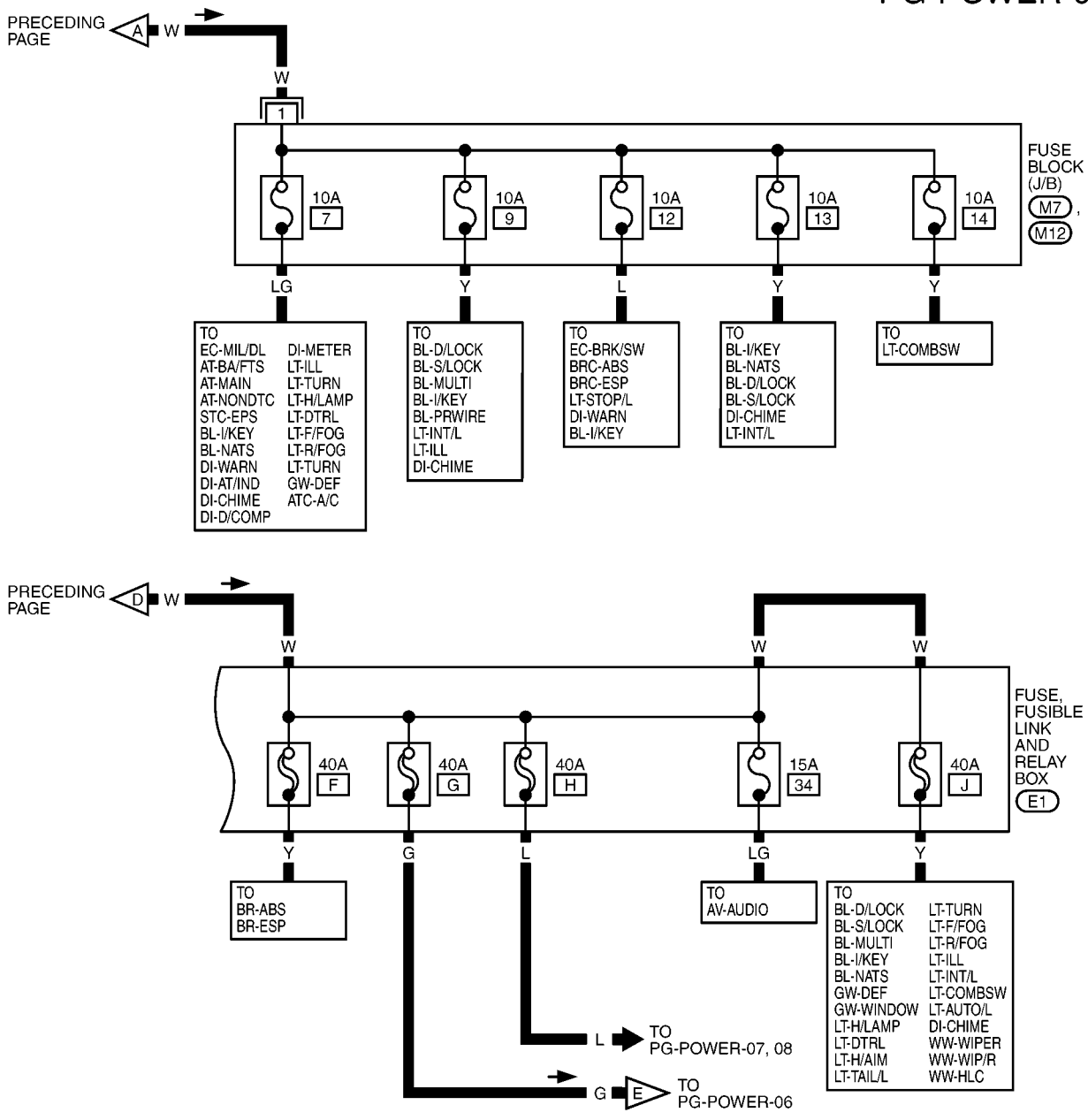
BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION

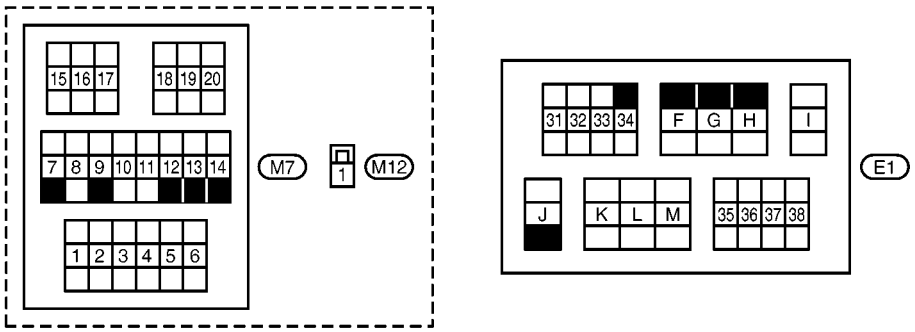




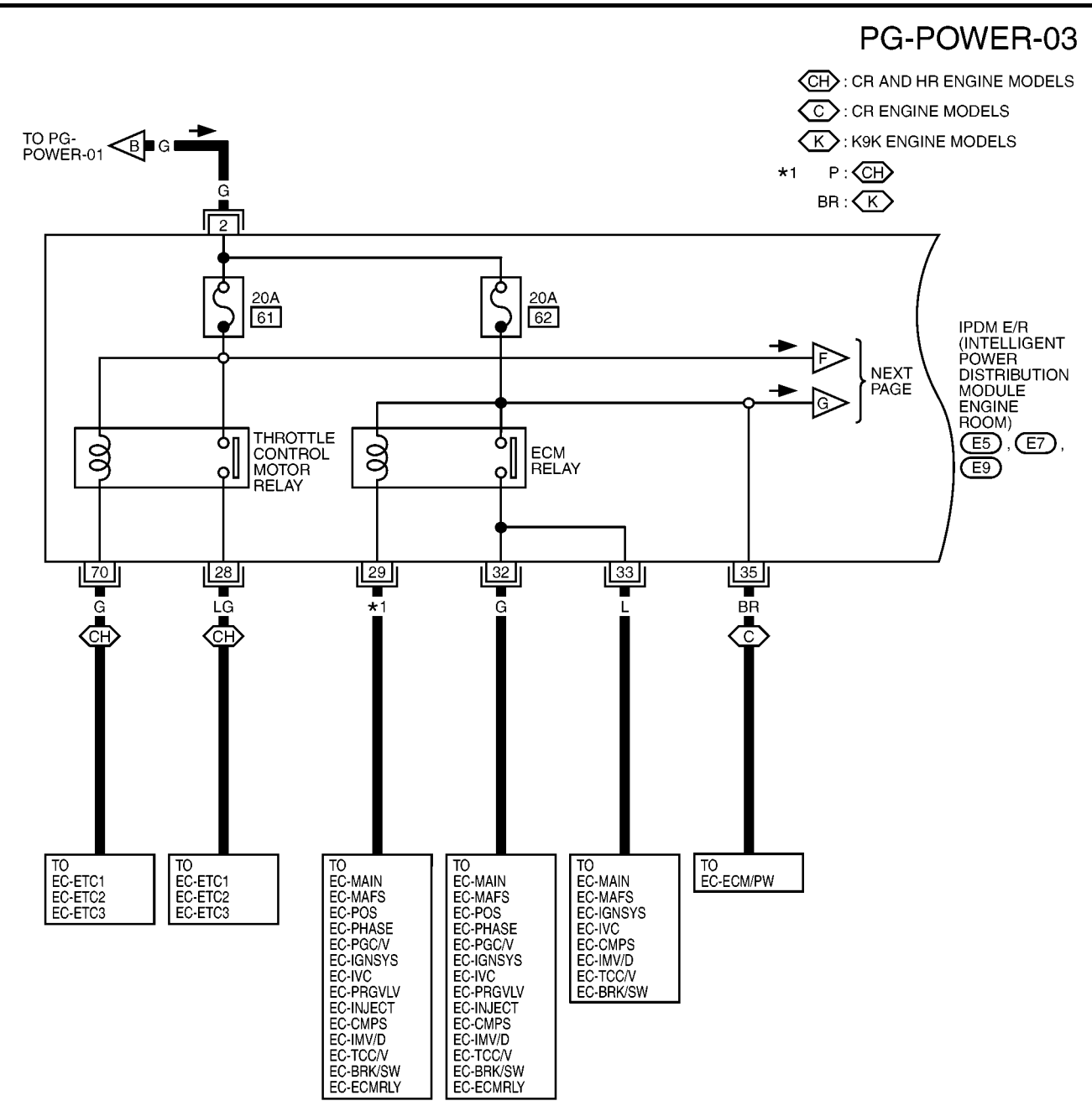
MKWA4393E

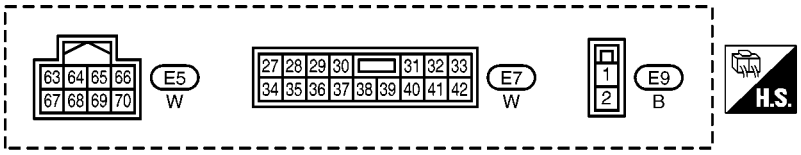
PG-POWER-02





MKWA4394E

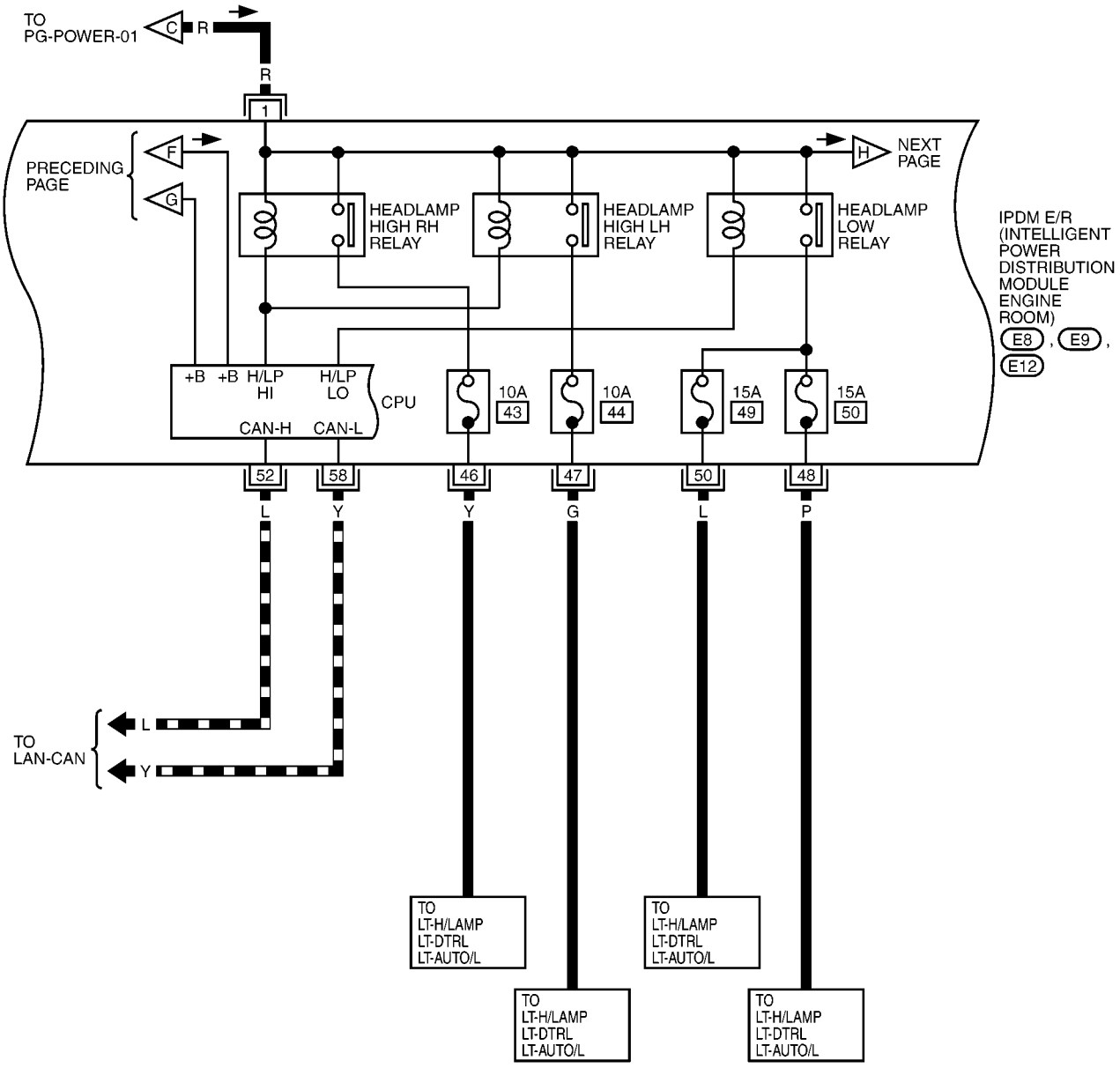

PG-POWER-03
CH : CR AND HR ENGINE MODELS
C : CR ENGINE MODELS
K : K9K ENGINE MODELS
*1 P : CH
BR : K
TO PG-POWER-01
B
G
G
2
20A
61
20A
62
F
G
NEXT PAGE
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E5 , E7 , E9
THROTTLE CONTROL MOTOR RELAY
ECM RELAY
70
28
29
32
33
35
G
LG
*1
G
L
BR
CH
CH
C
TO EC-ETC1 EC-ETC2 EC-ETC3
TO EC-ETC1 EC-ETC2 EC-ETC3
TO EC-MAIN EC-MAFS EC-POS EC-PHASE EC-PGC/V EC-IGNSYS EC-IVC EC-PRGVLV EC-INJECT EC-CMPS EC-IMV/D EC-TCC/V EC-BRK/SW EC-ECMRLY
TO EC-MAIN EC-MAFS EC-POS EC-PHASE EC-PGC/V EC-IGNSYS EC-IVC EC-PRGVLV EC-INJECT EC-CMPS EC-IMV/D EC-TCC/V EC-BRK/SW EC-ECMRLY
TO EC-MAIN EC-MAFS EC-IGNSYS EC-IVC EC-CMPS EC-IMV/D EC-TCC/V EC-BRK/SW
TO EC-ECM/PW

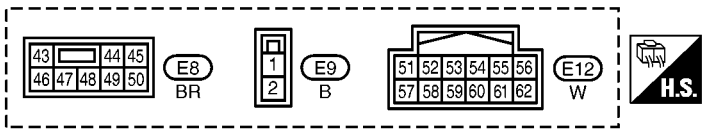

63 64 65 66
67 68 69 70
E5
W
27 28 29 30 31 32 33
34 35 36 37 38 39 40 41 42
E7
W
1
2
E9
B
H.S.

MKWA4395E

PG-POWER-04

: DATA LINE

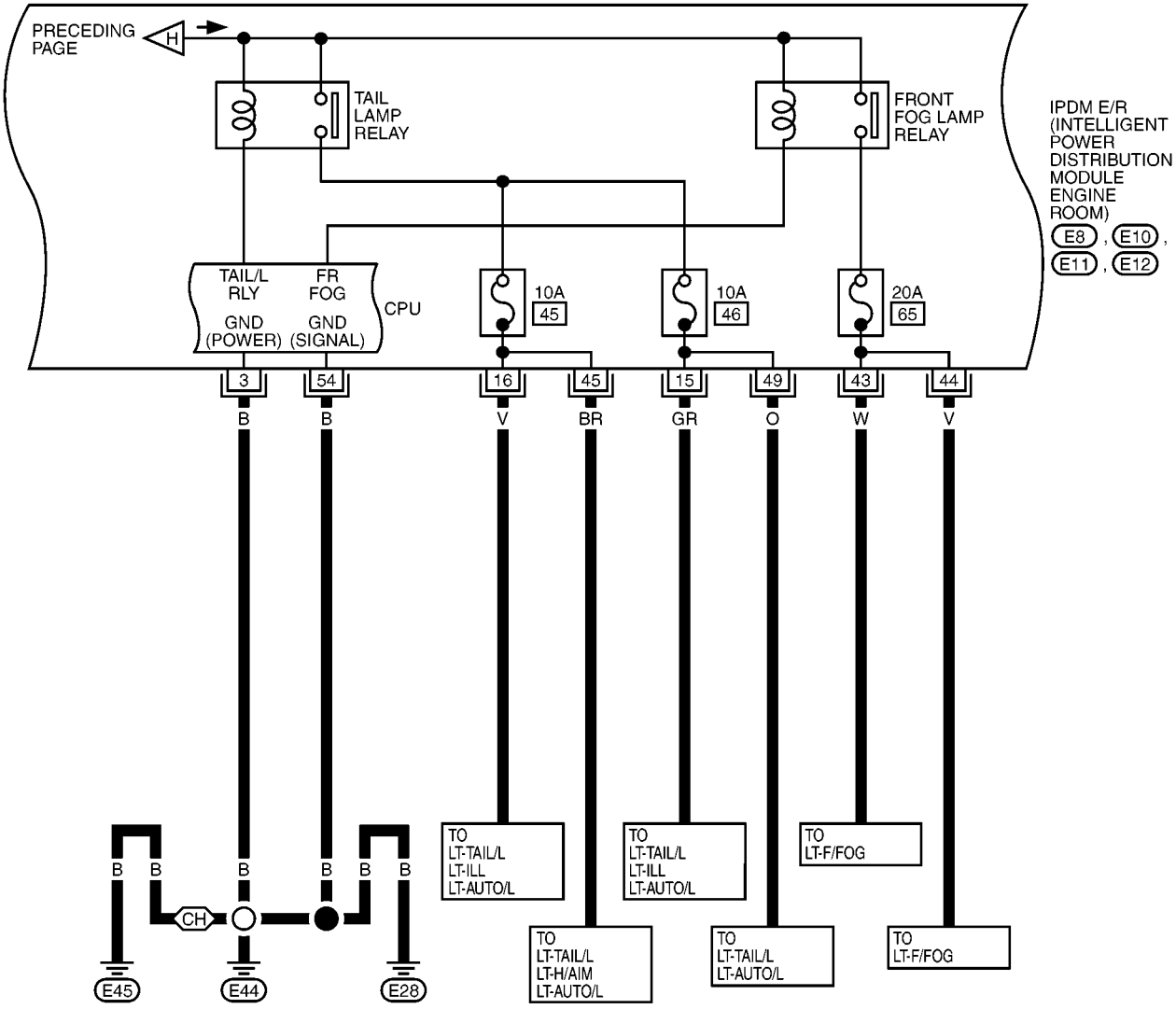


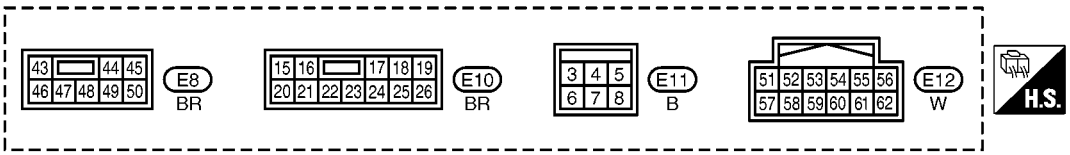


MKWA4396E

PG-POWER-05

CH : CR AND HR ENGINE MODELS

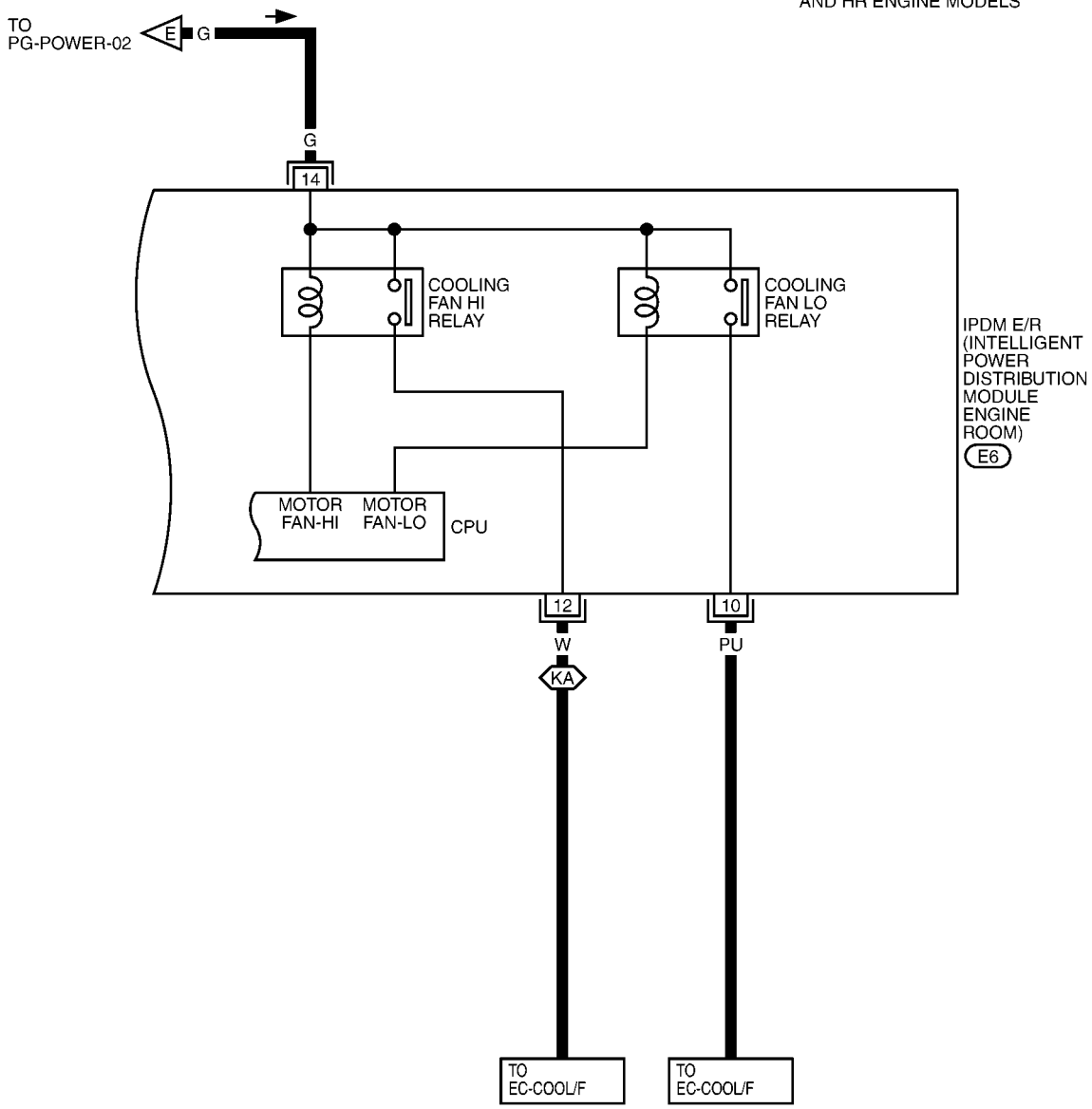


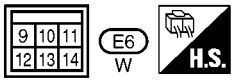


MKWA4397E

PG-POWER-06

KA : K9K ENGINE MODELS, WITH A/C FOR CR AND HR ENGINE MODELS

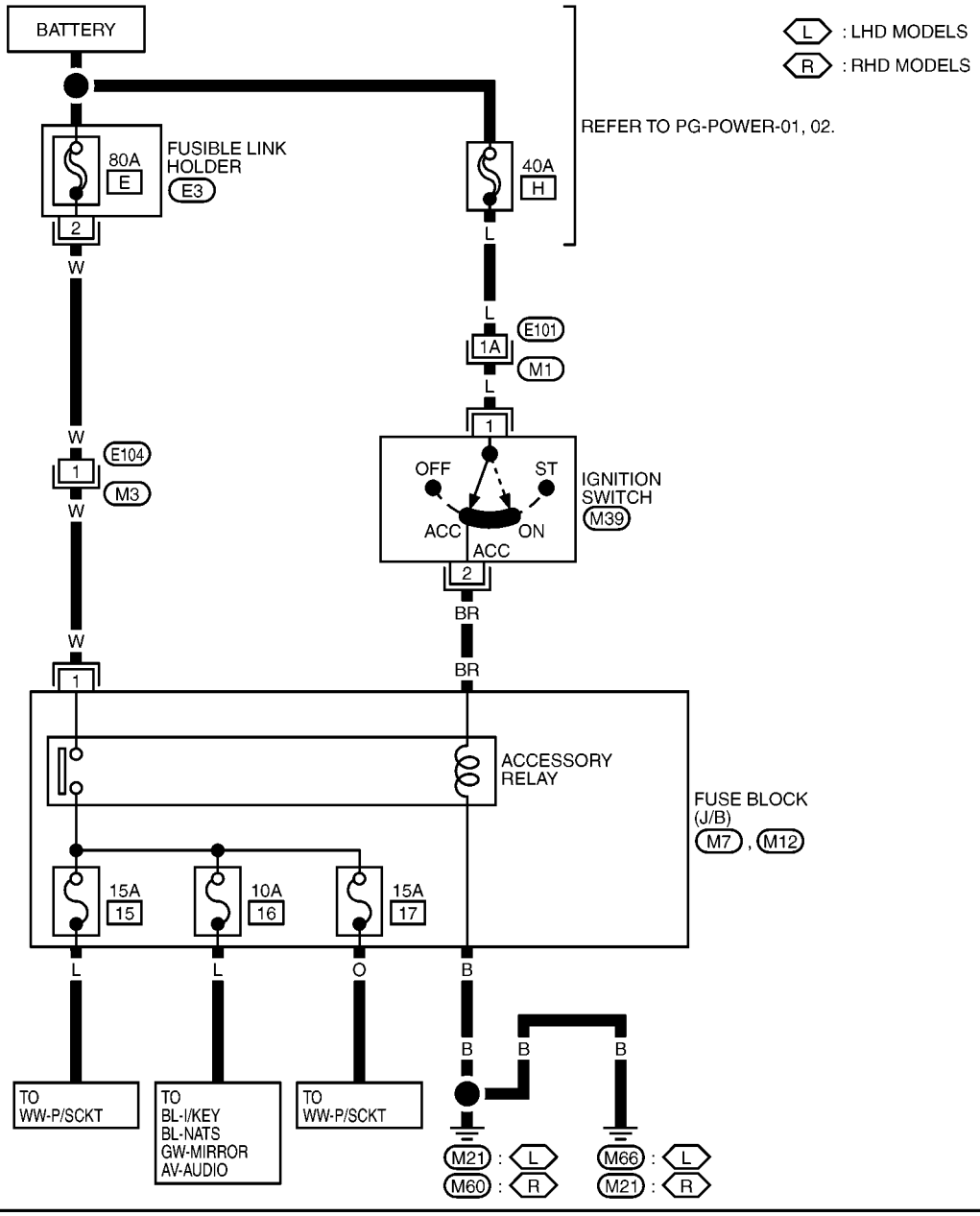




MKWA4398E

ACCESSORY POWER SUPPLY — IGNITION SW. IN “ACC” OR “ON”

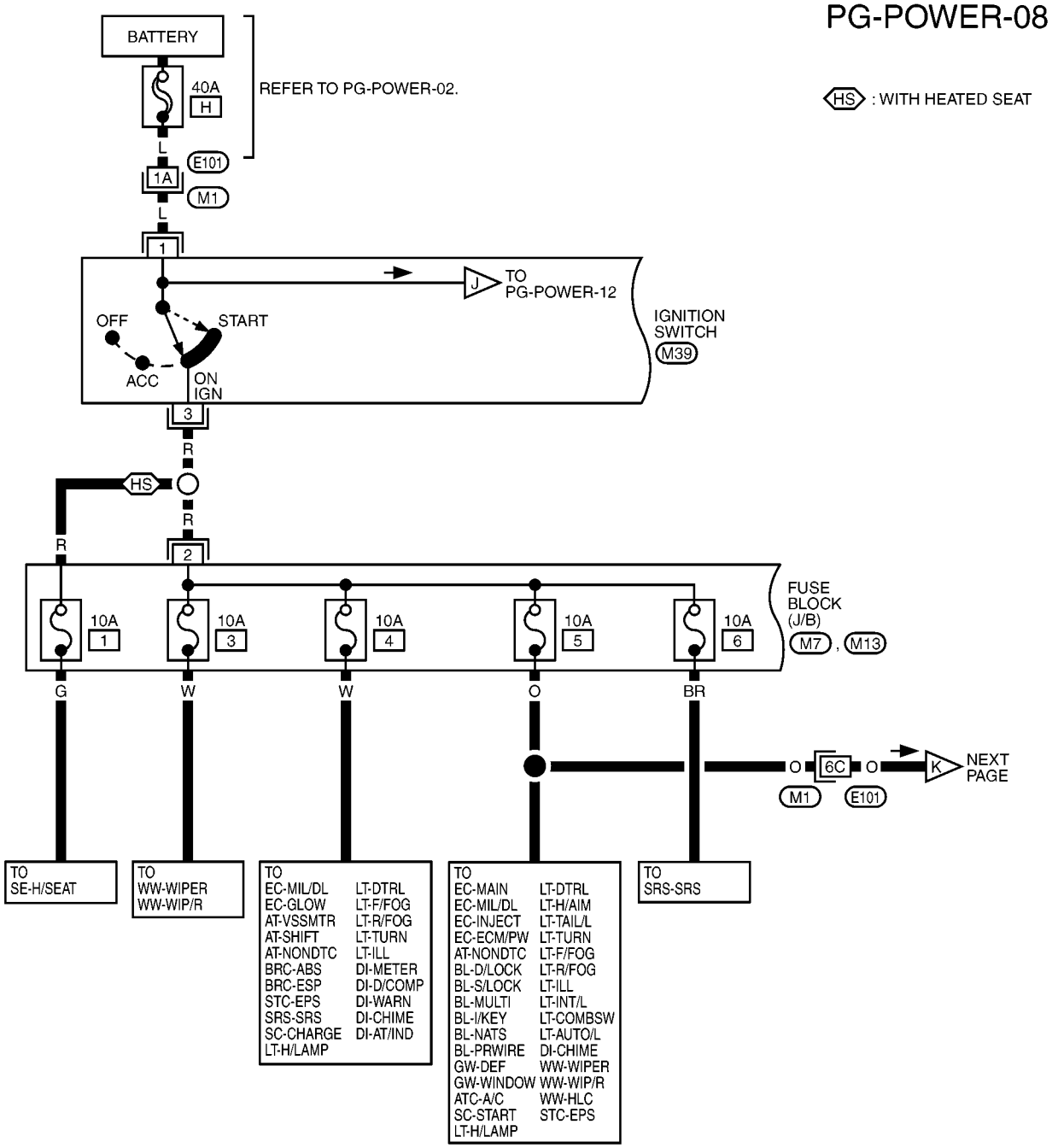
PG-POWER-07

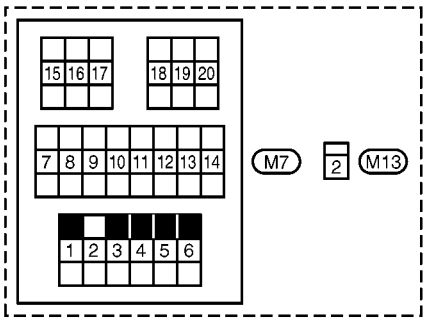


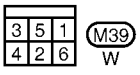
MKWA4399E

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

PG-POWER-08



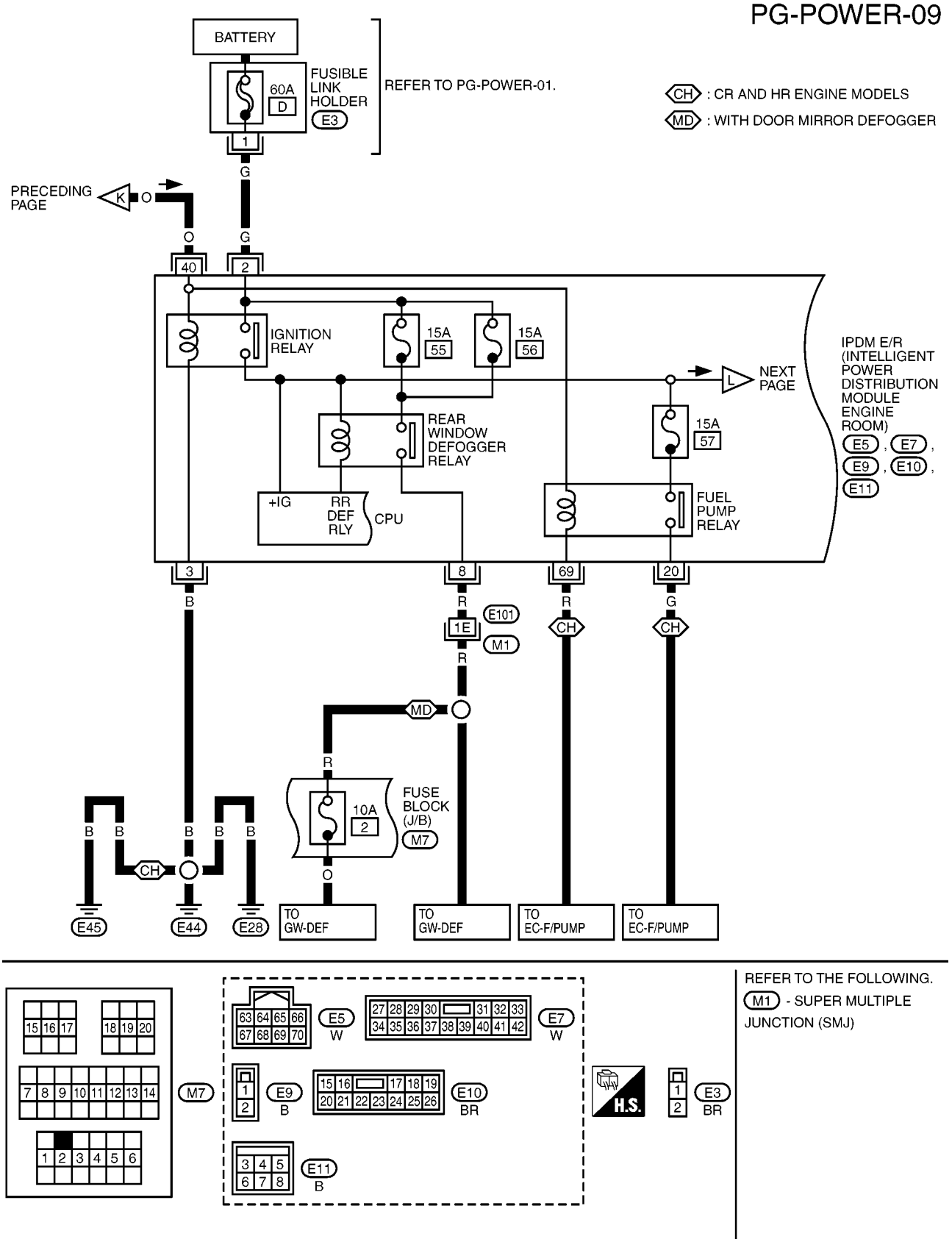




REFER TO THE FOLLOWING.
M1 - SUPER MULTIPLE JUNCTION (SMJ)

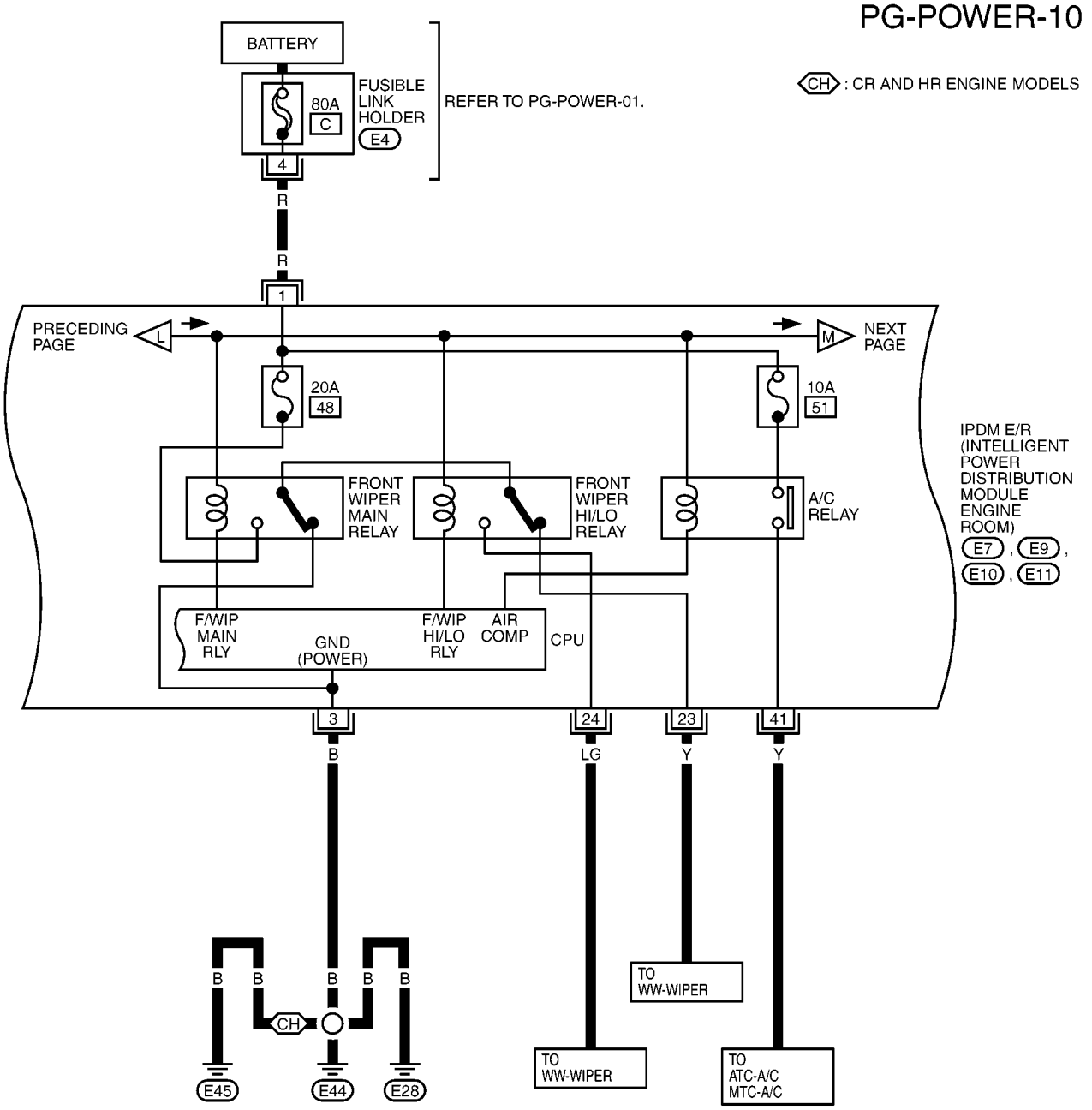
MKWA4400E

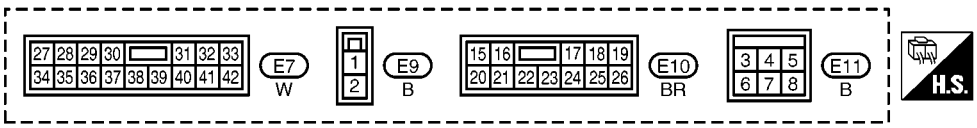
PG-POWER-09



MKWA4401E

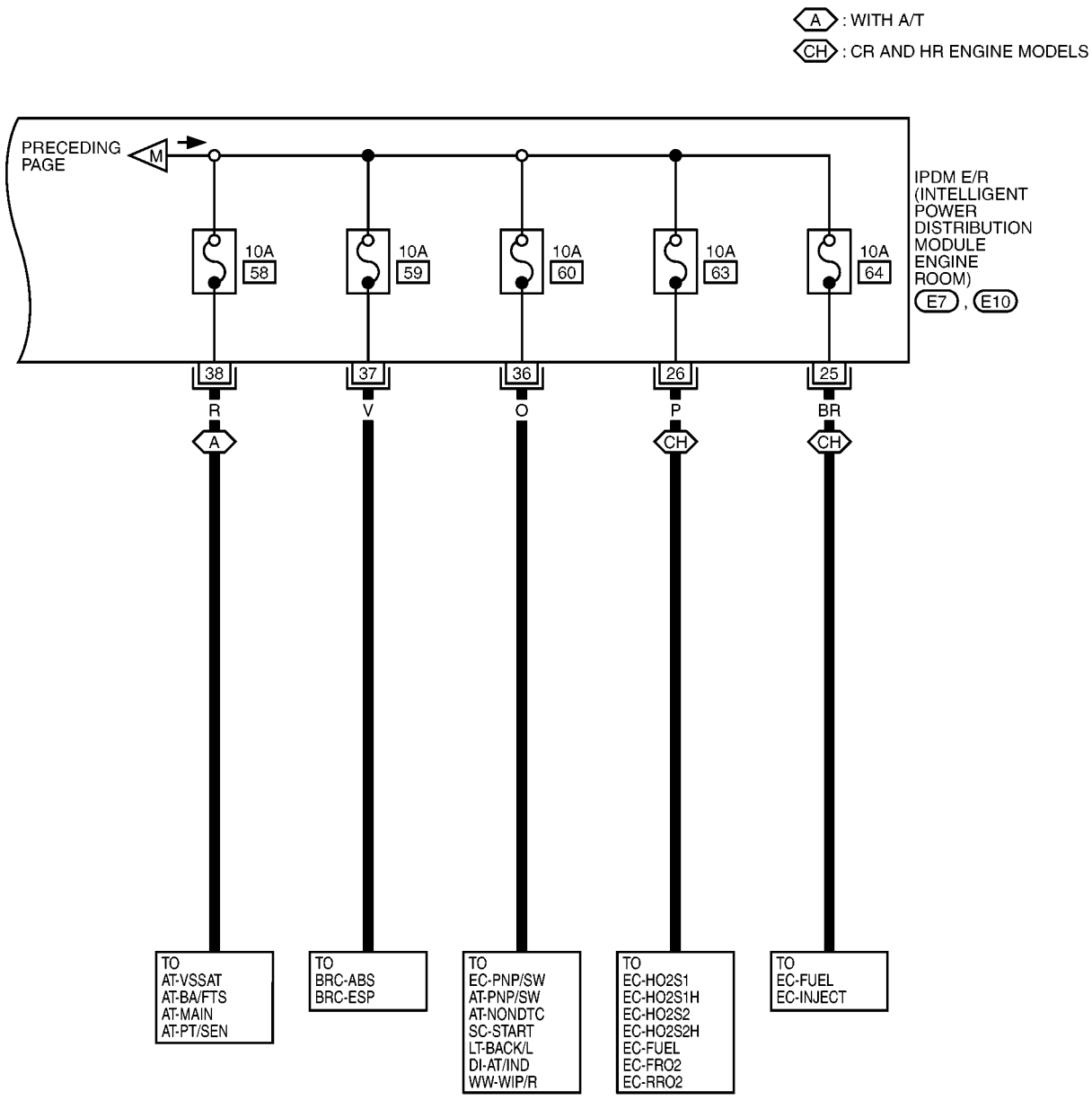
PG-POWER-10

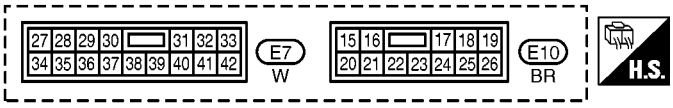




MKWA4402E

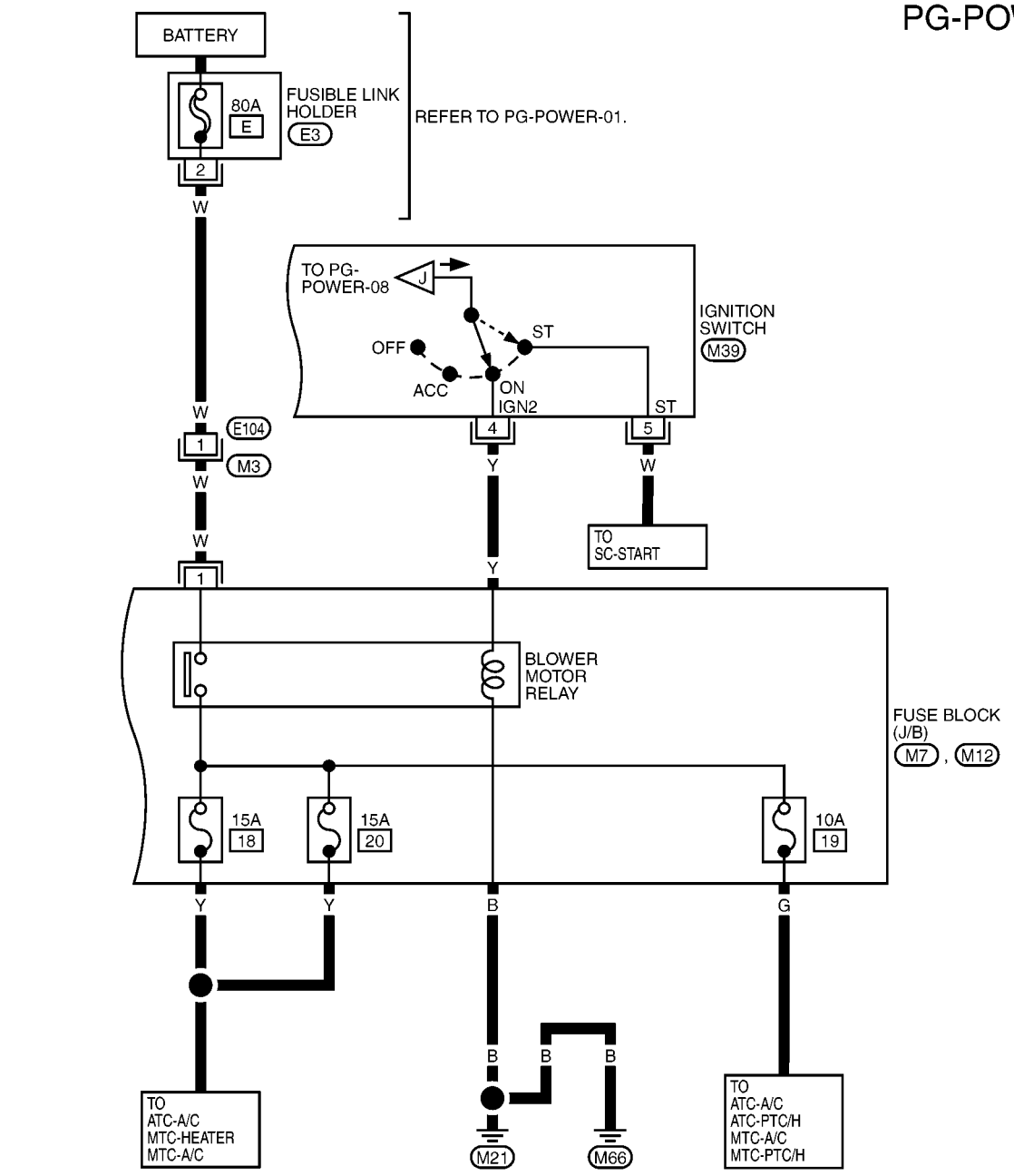
PG-POWER-11

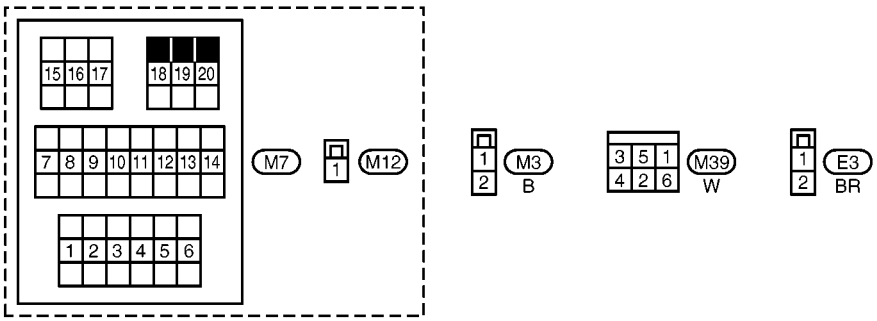




MKWA4403E

PG-POWER-12



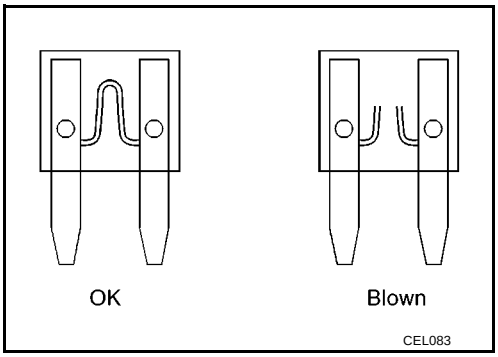


MKWA4404E

Fuse

BKS0025K

- 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.



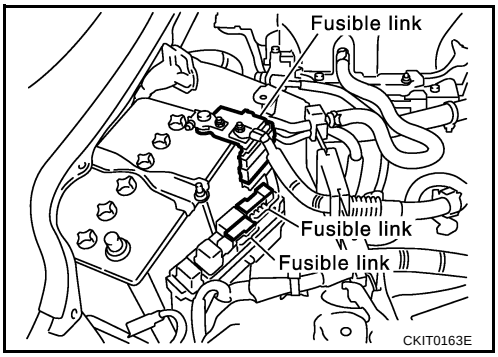
Fusible Link

BKS0025L

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:

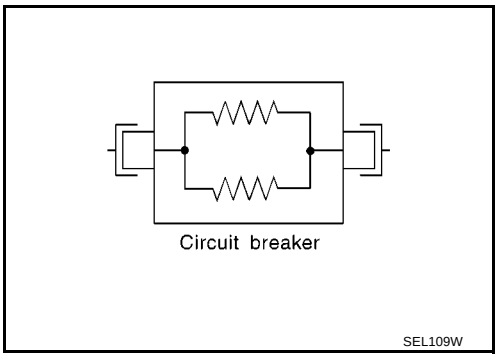
- **If fusible link should melt, it is possible that critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check and eliminate cause of malfunction.**
- **Never wrap outside of fusible link with vinyl tape. Important: Never let fusible link touch any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



Circuit Breaker

BKS0025M

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

BKS0025N

- 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 relay via IPDM E/R control circuit.
- IPDM E/R-integrated control circuit performs ON-OFF operation of relay, CAN communication control and oil pressure switch signal reception, etc.
- It controls operation of each electrical part 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

IPDM E/R receives a request signal from each Control unit with CAN communication. It controls each system.

Control system	Transmit control unit	Control part
Lamp control	BCM	● Head lamps (HI,LO) ● Tail lamps, parking and license plate lamps ● Front fog lamps
Wiper control	BCM	● Front wipers
Headlamp washer control	BCM	● Headlamp washer
Rear window defogger control	BCM	● Rear window defogger
A/C compressor control	ECM	● A/C compressor
Cooling fan control	ECM	● Cooling fan

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 maximum amount of information with minimum wiring. Each control unit can transmit and receive data, and reads necessary information only.

Fail-safe Control

- When CAN communication with other control units is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, 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
Headlamps	● With the ignition switch ON, the headlamp low is ON. ● With the ignition switch OFF, the headlamp low is OFF.
Tail, parking and license plate lamps	● With the ignition switch ON, the tail lamp is ON. ● With the ignition switch OFF, the tail lamp is OFF.
Cooling fan	● With the ignition switch ON, the cooling fan HI operates. ● With the ignition switch OFF, the cooling fan stops.
Front wiper	Until the ignition switch is turned off, the front wiper LO and HI remains in the same status it was in just before fail–safe control was initiated.
Rear window defogger	Rear window defogger OFF
Front fog lamps	Front fog lamp OFF
Headlamp washer	Headlamp washer is OFF
A/C compressor	A/C compressor 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.

- A status is changed into sleep transient status when receiving a sleep request signal from BCM while all the systems controlled by IPDM E/R are under suspension.

2. Sleep transient status
   - Process to stop CAN communication is activated.
   - All systems controlled by IPDM E/R are stopped, when 3 seconds have elapsed after CAN communication with other control units is stopped, mode switches to sleep status.
3. Sleep status
   - IPDM E/R operates in low power mode.
   - CAN communication is stopped.
   - When a change in CAN communication line 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

BKS0025O

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicles are equipped with many electronic control units and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

BKS0025P

Refer to LAN-27, "CAN Communication Unit" .

Function of Detecting Ignition Relay Malfunction

BKS0027F

- When integrated ignition relay cannot be turned OFF and ignition switch is turned OFF, IPDM E/R turns ON tail and parking lamps for 10 minutes. The lamps indicate ignition relay malfunction.
- When a state of ignition relay having built-in does not agree with a state of Ignition switch signal input by a CAN communication from BCM, IPDM E/R lets tail lamp relay operate.

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)

BKS0025R

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.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	The IPDM E/R sends a drive signal to electronic components to check their operation.
CONFIGURATION	Performs IPDM E/R configuration read/write functions.

CONSULT-II BASIC OPERATION

Refer to GI-36, "CONSULT-II Start Procedure" .

SELF-DIAG RESULTS

Operation Procedure

1. Touch “SELF-DIAG RESULTS” on “SELECT DIAG MODE” screen.
2. Check display content in self-diagnostic results.

Display Item List

Display Items	CONSULT-II display code	Malfunction detecting condition	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 malfunction, data reception/transmission cannot be confirmed. ● When the data in CAN communication is not received before the specified time	×	×	Any of or the items below have errors. ● TRANSMIT DIAG ● ECM ● BCM
IGN RELAY ON	B2098	Where the ignition switch is not ON position, the ignition relay in the IPDM E/R is ON.	×	×	Ignition relay (integrated in IPDM E/R)
IGN RELAY OFF	B2099	Where the ignition switch is ON position, the ignition relay in the IPDM E/R is OFF.	×	×	Ignition relay (integrated in IPDM E/R)
EEPROM	B2100	Malfunction is detected with the integrated EEPROM memory diagnosis.	×	×	IPDM E/R

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 memorized with IPDM E/R.

DATA MONITOR

Operation Procedure

1. Touch “DATA MONITOR” on “SELECT MONITOR ITEM ” screen.
2. Touch “ALL SIGNALS”, “MAIN SIGNALS” or “SELECTION FROM MENU” on the “DATA MONITOR” screen.

ALL SIGNALS	All items will be monitored.
MAIN SIGNALS	Monitor the predetermined item.
SELECTION FROM MENU	Select any item for monitoring.

3. Touch the required monitoring item on “SELECTION FROM MENU”. In “ALL SIGNALS”, all items are monitored. In “MAIN SIGNALS”, predetermined items are monitored.

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

All Signals, Main Signals, Selection From Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECTION FROM MENU	
Motor fan request	MOTOR FAN REQ	1/2/3/4	×	×	×	Signal status input from ECM
A/C Compressor request	AC COMP REQ	ON/OFF	×	×	×	Signal status input from ECM
Tail & clearance request	TAIL&CLR REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp LO request	HL LO REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp HI request	HL HI REQ	ON/OFF	×	×	×	Signal status input from BCM
Front fog lamp request	FR FOG REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp washer request	HL WASHER REQ	ON/OFF	×		×	This item cannot be monitored. (No change of display)
Front wiper request	FR WIP REQ	STOP/1LOW/ LOW/HI	×	×	×	Signal status input from BCM
Wiper auto stop	WIP AUTO STOP	ACT P/STOP P	×	×	×	Output status of IPDM E/R
Wiper protection	WIP PROT	OFF/BLOCK	×	×	×	Control status of IPDM E/R
Starter request	ST RLY REQ*	ON/OFF	×		×	Signal status input from BCM
Ignition relay status	IGN RLY	ON/OFF	×	×	×	Ignition relay status monitored with IPDM E/R
Rear window defogger request	RR DEF REQ	ON/OFF	×	×	×	Signal status input from BCM
Rear window defogger stop request	DEF STOP REQ	ON/OFF	×		×	Input signal status
Alternator load	ALT LOAD	%	×		×	This item cannot be monitored (No change of display)
Alternator current	ALT CRNT	A	×		×	
Alternator number	ALT NO	##	×		×	
Battery voltage	BAT VOLT	V	×		×	Value measured with IPDM E/R
Engine coolant temperature	ENG COOL TEMP	°C	×		×	Signal status input from ECM
Oil pressure switch	OIL P SW	OPEN/CLOSE	×		×	Signal status input in IPDM E/R
Reverse switch	REV SW	OPEN/CLOSE	×		×	Signal status input in IPDM E/R

NOTE:

- Perform monitoring of IPDM E/R data with the ignition switch ON. When the ignition switch is at ACC, the display may not be correct.
- *: The vehicle without Intelligent Key system displays only ON without change.

CAN DIAG SUPPORT MNTR

Refer to LAN-15, "CAN Diagnostic Support Monitor" .

ACTIVE TEST

Operation Procedure

1. Touch “ACTIVE TEST” on “SELECT DIAG MODE” screen.
2. Touch item to be tested.
3. Touch “START”, and confirm its operation.

4. Touch “STOP” while testing to stop the operation.

Test item	CONSULT-II screen display	Description
Headlamp (HI, LO) output	HEAD LAMP	With a certain operation (OFF, HI ON, LO ON), the headlamp relay (Lo, Hi) can be operated.
Front fog lamp output	FRONT FOG LAMP	With a certain ON-OFF operation, the fog lamp relay can be operated.
Tail lamp output	TAIL LAMP	With a certain ON-OFF operation, the tail lamp relay can be operated.
Rear window defogger operation	REAR DEFOGGER	With a certain ON-OFF operation, the rear window defogger relay can be operated.
Front wiper (HI, LO) operation	FRONT WIPER	With a certain operation (OFF, HI ON, LO ON), the front wiper relay (Lo, Hi) can be operated.
Cooling fan operation	MOTOR FAN	With a certain operation (1, 2, 3, 4), the cooling fan can be operated.
Headlamp washer output	HEAD LAMP WASHER	With a certain ON-OFF operation, the headlamp washer can be operated.

Auto Active Test

BKS0025S

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 wiper (LO, HI)
- Tail lamps, parking lamps, license plate lamps
- Front fog lamps
- Headlamps (LO, HI)
- Headlamp washer
- A/C compressor (magnetic clutch)
- Cooling fan

OPERATION PROCEDURE

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

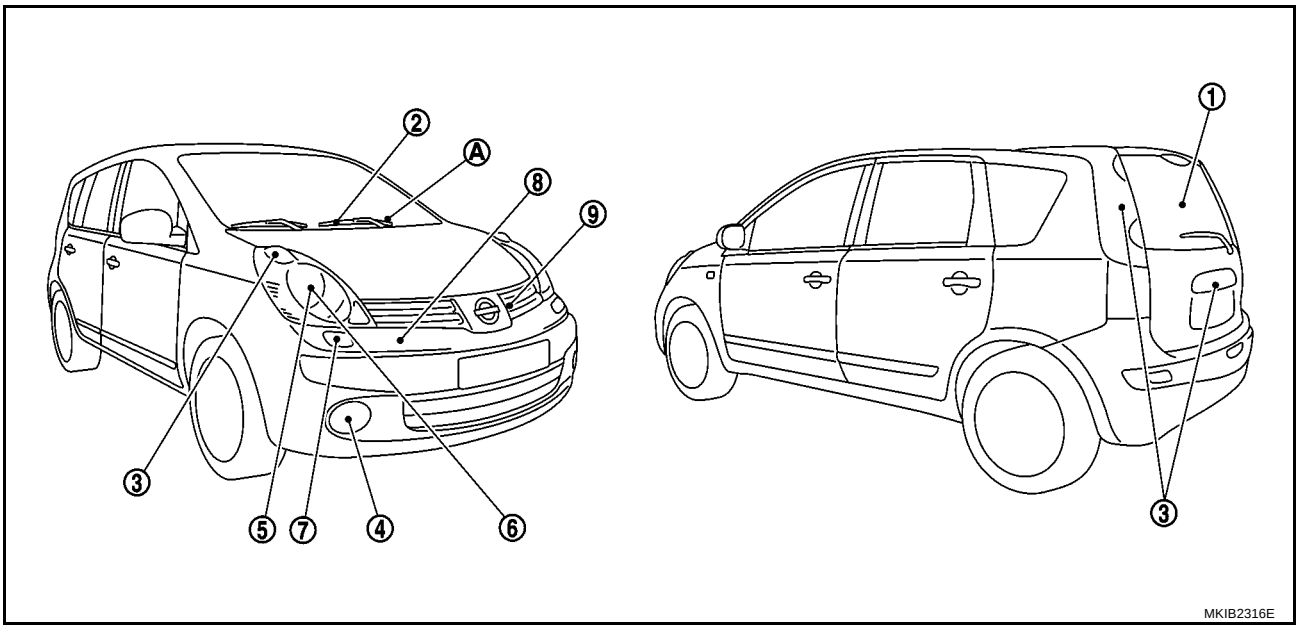
   NOTE:
   When auto active test is performed with hood opened, sprinkle water on windshield beforehand.
2. Turn ignition switch OFF.
3. Turn ignition switch ON, and within 20 seconds, press driver's door switch 10 times (close other doors). Then turn ignition switch OFF.
4. Turn ignition switch ON within 10 seconds after ignition switch OFF.
5. When auto active test mode is actuated, horn chirps once. Oil pressure warning lamp starts blinking.
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 inspect BL-46, "Check Door Switch" 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.



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

Operation steps

Step	Test item	Operation time/ frequency
1	Rear window defogger	10 seconds
2	Front wiper	LO 5 seconds → HI 5 seconds
3	Tail lamps, parking lamps, license plate lamps	10 seconds
4	Front fog lamps	10 seconds
5	Headlamp (LO)	10 seconds
6	Headlamp (HI)	LO←→HI repeats every 2 seconds, 5 times
7	Headlamp washer	Left 1 seconds → Right 1 second
8	A/C compressor (magnetic clutch)	ON←→OFF repeat every 2 seconds, 5 times
9	Cooling fan	LO 5 seconds → HI 5 seconds (Petrol engine models with air conditioner and diesel engine models) LO 10 seconds (Petrol engine models without air conditioner)

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 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 malfunction
		NO	● Harness/connector malfunction between IPDM E/R and rear window defogger ● Open circuit of rear window defogger ● IPDM E/R (integrated relay) malfunction (Rear window defogger relay)
Front wiper does not illuminate.	Perform auto active test. Does rear window defogger operate?	YES	● BCM signal input circuit malfunction
		NO	● Wiper motor malfunction ● Front wiper motor ground.
Either of parking lamp, license plate lamp and tail lamp does not illuminate.	Perform auto active test. Does parking lamp, license plate lamp and tail lamp illuminate?	YES	● BCM signal input circuit malfunction
		NO	● Bulb ● Harness/connector malfunction between IPDM E/R and parking, license plate or tail lamp. ● IPDM E/R (integrated relay) malfunction
Front fog lamp does not illuminate.	Perform auto active test. Does the front fog lamp illuminate?	YES	● BCM signal input circuit malfunction
		NO	● Bulb ● Harness/connector malfunction between IPDM E/R and front fog lamp ● IPDM E/R (integrated relay) malfunction
Headlamp (Hi, Lo) does not illuminate.	Perform auto active test. Does headlamp illuminate?	YES	● BCM signal input circuit malfunction
		NO	● Bulb ● Headlamp ground system malfunction ● Harness/connector malfunction between IPDM E/R and headlamps ● IPDM E/R (integrated relay) malfunction (headlamp relay)
Headlamp washer does not operate.	Perform auto active test. Does the headlamp washer operate?	YES	● BCM signal input circuit malfunction
		NO	● Harness/connector malfunction between IPDM E/R and headlamp washer ● Headlamp washer relay is malfunction
Cooling fan does not operate.	Perform auto active test. Does magnetic clutch operate?	YES	● CAN communication signal malfunction between ECM and IPDM E/R* ● ECM signal input circuit malfunction
		NO	● Cooling fan motor malfunction ● Harness/connector malfunction between cooling fan motor and IPDM E/R ● IPDM E/R (integrated relay) malfunction
A/C compressor is inoperative.	Perform auto active test. Does magnetic clutch operate?	YES	● CAN communication signal malfunction between BCM and ECM* ● CAN communication signal malfunction between ECM and IPDM E/R* ● BCM signal input circuit malfunction ● ECM signal input circuit malfunction
		NO	● Magnetic clutch inoperative ● Harness/connector malfunction between IPDM E/R and magnetic clutch ● 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 malfunction
		NO	● CAN communication signal malfunction between IPDM E/R and combination meter * ● Combination meter malfunction

*: Perform IPDM E/R self-diagnosis with CONSULT-II. Refer to PG-33, "Inspection With CONSULT-II (Self-Diagnosis)" .

Configuration

BKS0026I

DESCRIPTION

There are two CONFIGURATION functions, as follows.
READ CONFIGURATION is a function for confirming the vehicle configuration written on IPDM E/R.
WRITE CONFIGURATION is a function for writing a vehicle configuration to IPDM E/R.

CAUTION:

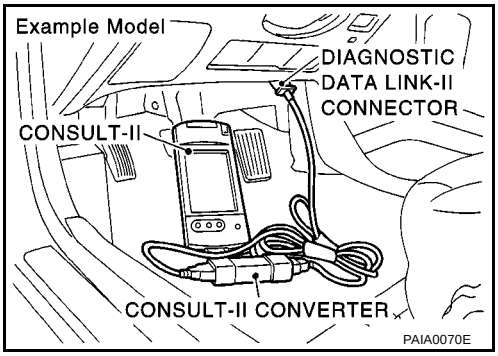
- **When replacing IPDM E/R, completely perform WRITE CONFIGURATION with CONSULT-II.**
- **Orderly complete the procedure of WRITE CONFIGURATION.**
- **If you set incorrect WRITE CONFIGURATION, vehicle operation will not be correct.**
- **Configuration is different by each vehicle model, confirm configuration in each case.**

READ CONFIGURATION PROCEDURE

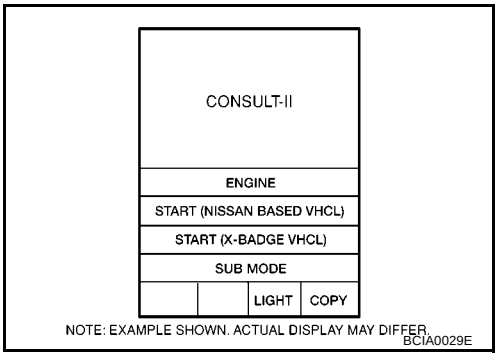
CAUTION:

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

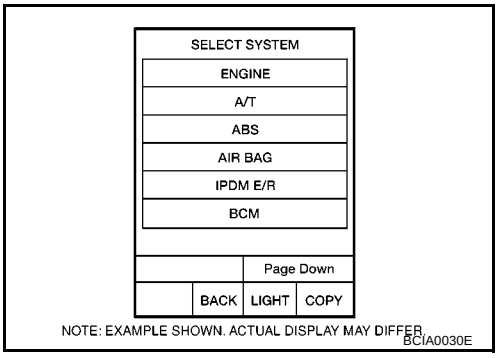
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn the ignition switch ON.



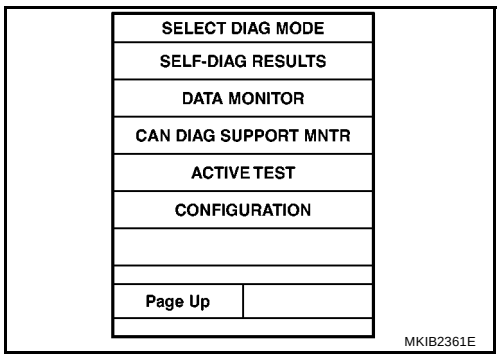
2. Touch “START(NISSAN BASED VHCL)”.



3. Touch “IPDM E/R” on “SELECT SYSTEM” screen.
If “IPDM E/R” is not indicated, go to GI-38, "CONSULT-II Data Link Connector (DLC) Circuit" .

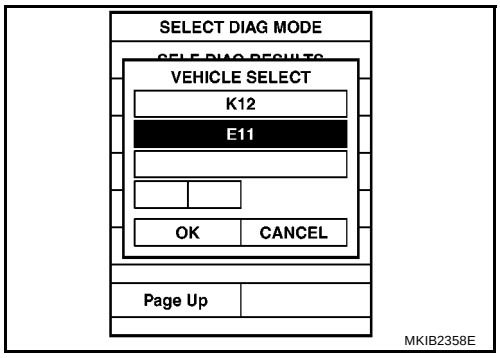


4. Touch “CONFIGURATION” on “SELECT DIAG MODE” screen.

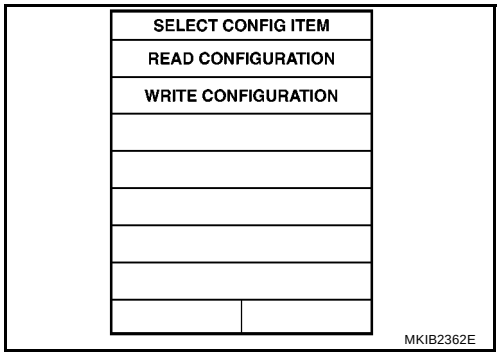


5. Touch “K12”, and “OK” on “VEHICLE SELECT” screen.
For canceling, touch “CANCEL” on “VEHICLE SELECT” screen.

NOTE:
Confirm vehicle model on IDENTICATION PLATE, refer to GI section.



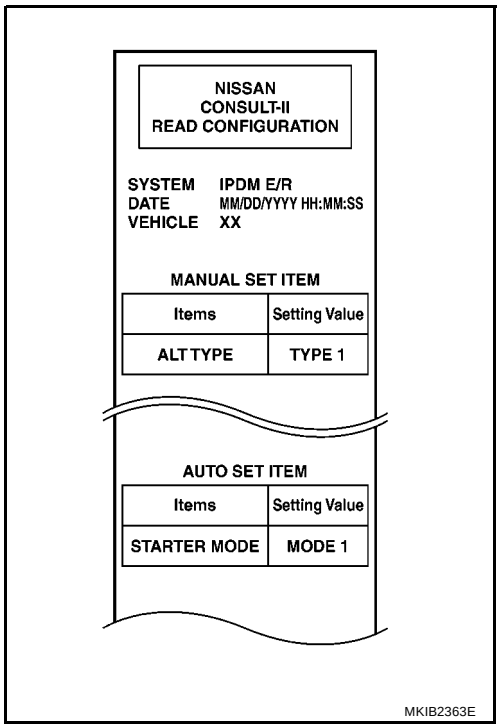
6. Touch “READ CONFIGURATION” on “SELECT CONFIG ITEM” screen.



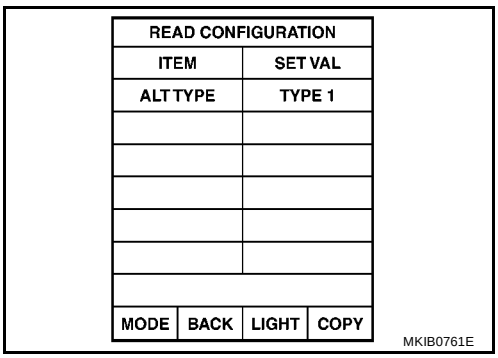
7. Configuration of current IPDM E/R are printed out automatically.
Configuration of brand-new IPDM E/R before executing “WRITE CONFIGURATION” is as follows.

MANUAL SET ITEM	
Items	Setting Value
ALT TYPE	TYPE 1

AUTO SET ITEM	
Items	Setting Value
STARTER MODE	MODE 1



8. Touch “BACK” on “ READ CONFIGURATION“screen.

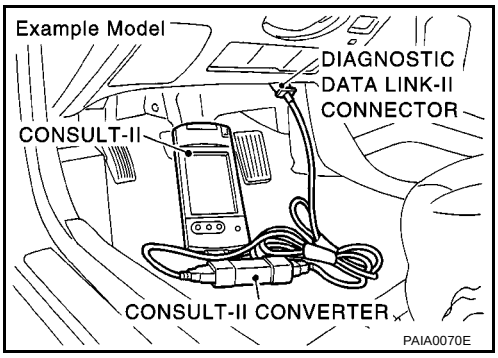


WRITE CONFIGURATION PROCEDURE

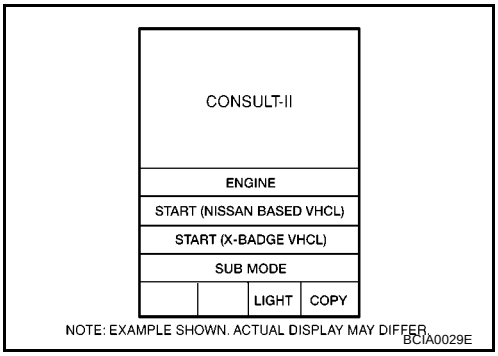
CAUTION:

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

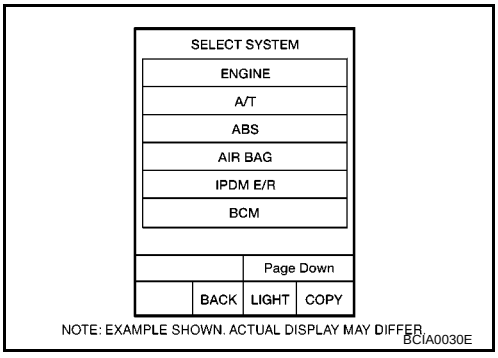
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn the ignition switch ON.



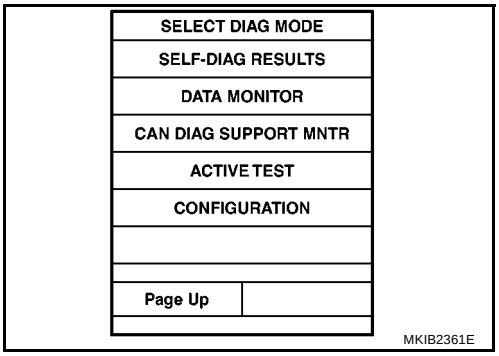
2. Touch “START(NISSAN BASED VHCL)”.



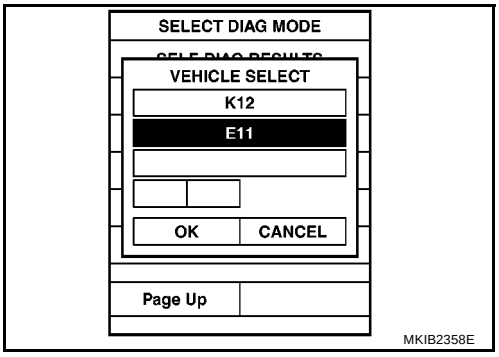
3. Touch “IPDM E/R” on “SELECT SYSTEM” screen.
If “IPDM E/R” is not indicated, go to GI-38, "CONSULT-II Data Link Connector (DLC) Circuit" .



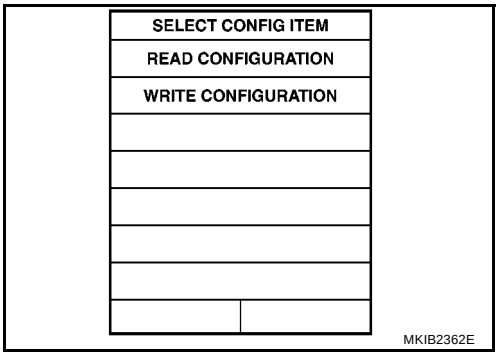
4. Touch “CONFIGURATION” on “SELECT DIAG MODE” screen.



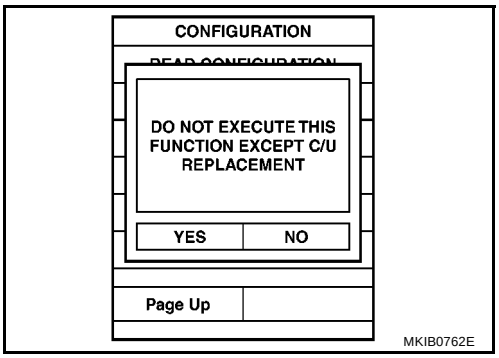
5. Touch “K12”, and “OK” on “VEHICLE SELECT” screen.
   For canceling, touch “CANCEL” on “VEHICLE SELECT” screen.
   NOTE:
   Confirm vehicle model on IDENTICATION PLATE, refer to GI section.



6. Touch “WRITE CONFIGURATION” on “SELECT CONFIG ITEM“screen.



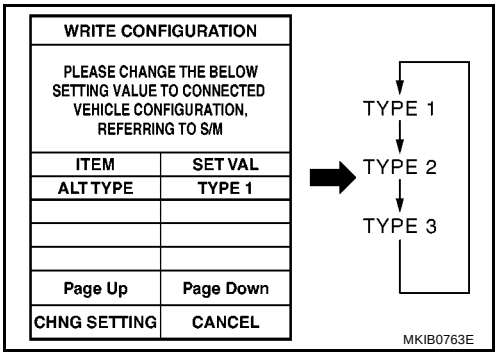
7. Touch “YES”.
   For canceling, touch “NO”.



8. Touch “TYPE 1”, “TYPE 2” or “TYPE 3” on “WRITE CONFIGURATION”screen based on the following ITEM LIST.
< ITEM LIST>

ITEM	SET VAL	NOTE
Alternator type	TYPE 1	Petrol engine models
	TYPE 2	Diesel engine models without PTC heater*
	TYPE 3	Diesel engine models with PTC heater*

*: Models with PTC heater have PTC heater relays. Refer to Harness Layout, PG-59, "ENGINE ROOM HARNESS/K9K ENGINE MODELS" , to confirm whether PTC heater relays are equipped or not.

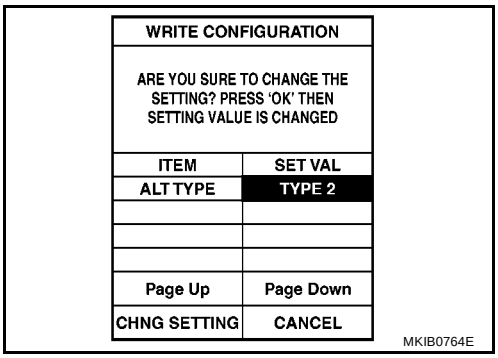


For canceling, touch “CANCEL”.

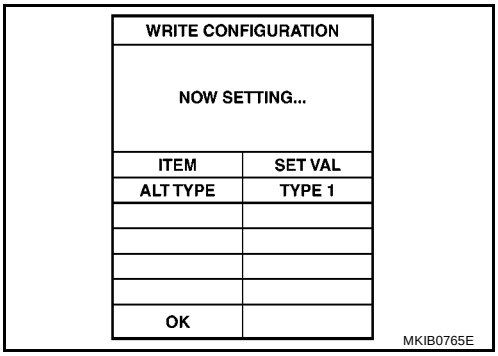
9. Touch “CHNG SETTING” on “WRITE CONFIGURATION“screen.

CAUTION:
Make sure to touch “CHNG SETTING even if the indicated configuration of brand new IPDM E/R is same as the desirable configuration.
If not, configuration which is set automatically by selecting vehicle model can not be memorized.

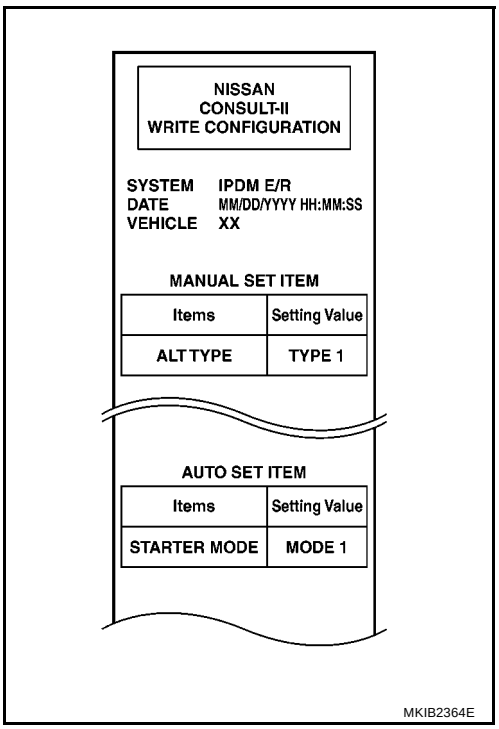
10. Touch “OK” on “WRITE CONFIGURATION”screen.
When touched “CANCEL”, go to previous screen.



11. Wait until the next screen during setting.



12. WRITE CONFIGURATION results are printed out automatically. Check “WRITE CONFIGURATION” is correctly executed by comparing sheet automatically printed out with desirable configuration.


NISSAN
CONSULT-II
WRITE CONFIGURATION

SYSTEM IPDM E/R
DATE MM/DD/YYYY HH:MM:SS
VEHICLE XX

MANUAL SET ITEM

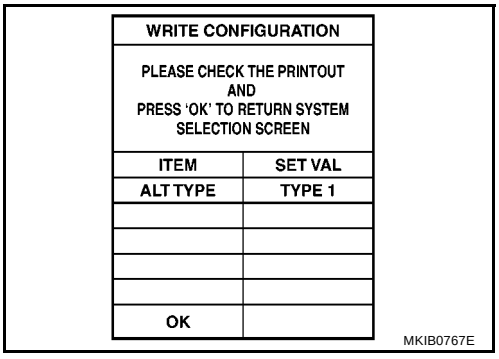
Items	Setting Value
ALT TYPE	TYPE 1

AUTO SET ITEM

Items	Setting Value
STARTER MODE	MODE 1

MKIB2364E

13. Touch “OK” on “WRITE CONFIGURATION“screen. WRITE CONFIGURATION is completed.


WRITE CONFIGURATION

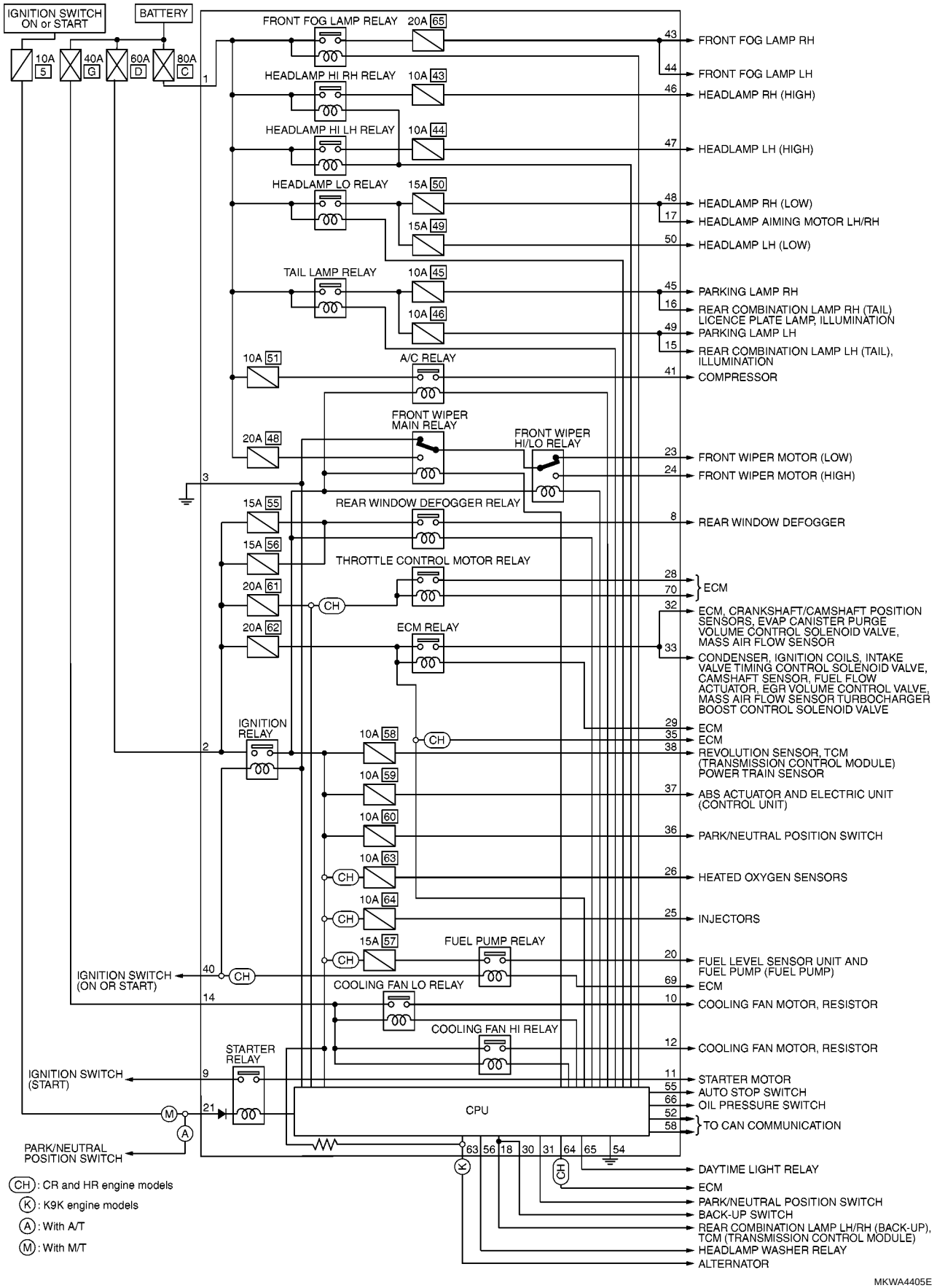
PLEASE CHECK THE PRINTOUT
AND
PRESS ‘OK’ TO RETURN SYSTEM
SELECTION SCREEN

ITEM	SET VAL
ALT TYPE	TYPE 1
OK	

MKIB0767E

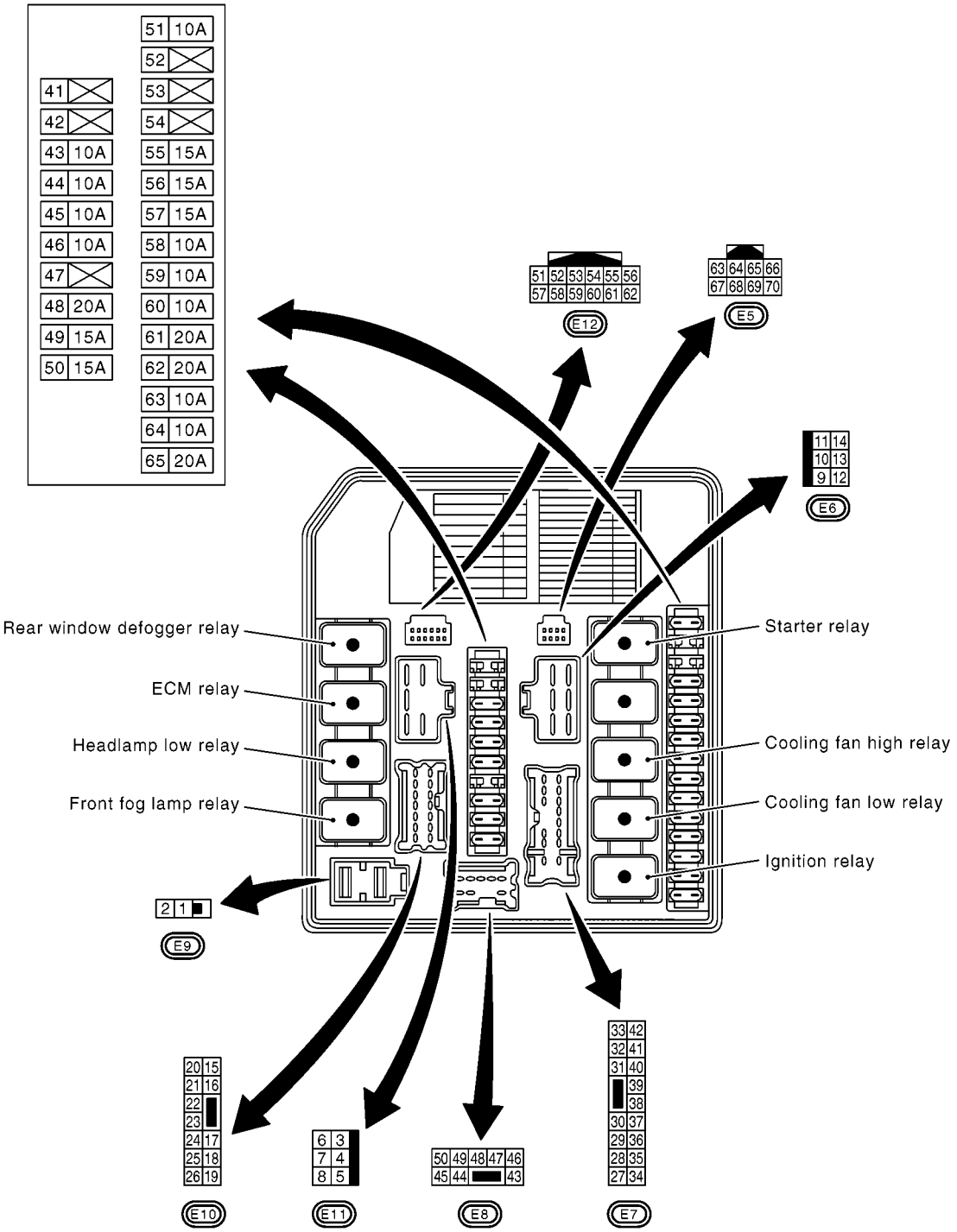
Schematic

BKS0025T



IPDM E/R Terminal Arrangement

BKS0025U



MKWA4445E

Inspection With CONSULT-II (Self-Diagnosis)

BKS0025W

1. CHECK SELF DIAGNOSTIC RESULT

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 diagnostic 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 COM CIRC	U1000	×	×	Any of or several items below have errors. ● TRANSMIT ● RECEIVE (ECM) ● RECEIVE (BCM)
IGN RELAY ON	B2098	×	×	Ignition relay malfunction (integrated in IPDM E/R)
IGN RELAY OFF	B2099	×	×	Ignition relay malfunction (integrated in IPDM E/R)
EEPROM	B2100	×	×	IPDM E/R malfunction

CAUTION:

If errors of the CAN communication system and the ignition relay ON or OFF are displayed at the same time after the self-diagnostic result, replace the IPDM E/R and perform the self-diagnosis again.

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 memorized with IPDM E/R.

Contents displayed

NO DTC IS DETECTED.FURTHER TESTING MAY BE REQUIRED.>>INSPECTION END
CAN COMM CIRC>>After print-out of the monitor items, refer to LAN-3, "Precautions When Using CONSULT-II" .
IGN RELAY ON>>Replace IPDM E/R.
IGN RELAY OFF>>Replace IPDM E/R.
EEPROM>>Replace IPDM E/R.

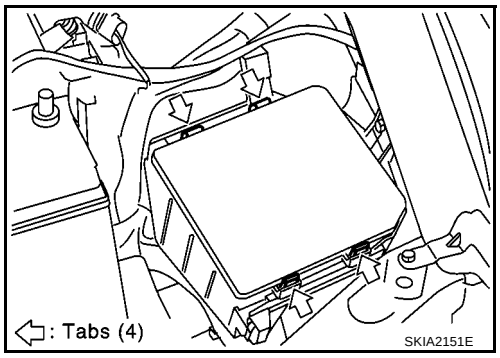
IPDM E/R Terminal Inspection

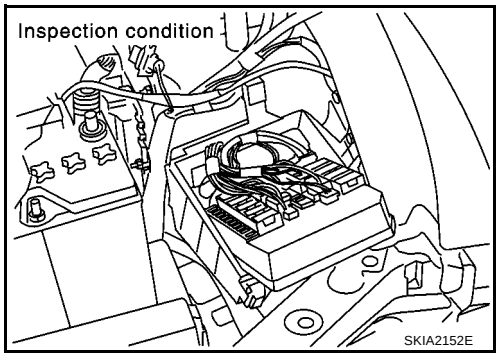
BKS0026O

CAUTION:

This is performed when the IPDM E/R is checked without removing the battery.

1. Remove the headlamp (LH). Refer to LT-32, "Removal and Installation" (Conventional type),LT-51, "Removal and Installation" (Daytime light system).
2. Remove tabs of the IPDM E/R and place the IPDM E/R with its connector facing upward. Check each terminal.





Check IPDM E/R Power Supply and Ground Circuit

BKS0025V

1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Power source	Fuse, fusible link No.
1	Battery	Letter C
2	Battery	Letter D
40	Ignition switch (ON)	5

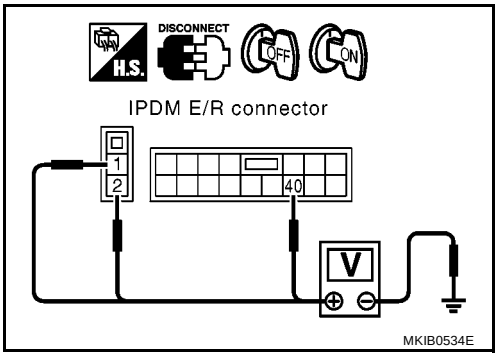
OK or NG

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

2. CHECK POWER SUPPLY CIRCUIT

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

Terminals			Ignition switch position		
(+)		(-)	OFF	ACC	ON
Connector	Terminal (wire color)				
E9	1 (R)	Ground	Battery voltage	Battery voltage	Battery voltage
	2 (G)		Battery voltage	Battery voltage	Battery voltage
E7	40 (O)		0V	0V	Battery voltage



OK or NG

OK >> GO TO 3.
NG >> Check harness between fuse, fusible link and IPDM E/R.

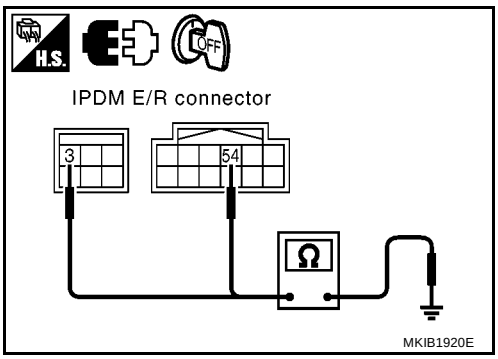
3. CHECK GROUND CIRCUIT

1. Disconnect IPDM E/R harness connectors.
2. Check continuity between IPDM E/R harness connectors E11 terminal 3 (B), E12 terminal 54 (B) and ground.

3 (B) – Ground :Continuity should exist.
54 (B) – Ground :Continuity should exist.

OK or NG

OK >> INSPECTION END.
NG >> Repair harness for ground circuit.



Diagnosis of IPDM E/R Integrated Relay

BKS0026P

1. CHECK SYMPTOM

Check the symptom of the malfunction relay.

What is the symptom?

No operation>>GO TO 2.
No stop>> GO TO 4.

2. CHECK RELAY TYPE

Which is the relay with error?

Front fog lamp relay, headlamp relay (Hi, Lo), tail lamp relay, front wiper relay (main, Hi/Lo), rear window defogger relay, A/C relay, starter motor relay, cooling fan relay (Hi, Lo)>>GO TO 5.
Ignition relay>> Go to PG-33, "Inspection With CONSULT-II (Self-Diagnosis)"
ECM relay>>Go to EC-128, "POWER SUPPLY AND GROUND CIRCUIT" (CR engine models with EURO-OBD), EC-543, "POWER SUPPLY AND GROUND CIRCUIT" (CR engine models without EURO-OBD), EC-918, "POWER SUPPLY AND GROUND CIRCUIT" (HR engine models with EURO-OBD), EC-1337, "POWER SUPPLY AND GROUND CIRCUIT" (HR engine models without EURO-OBD) or EC-1698, "POWER SUPPLY AND GROUND CIRCUIT" (K9K engine models).
Throttle motor relay>>Go to EC-299, "DTC P1124, P1126 THROTTLE CONTROL MOTOR RELAY" (CR engine models with EURO-OBD), EC-643, "DTC P1124, P1126 THROTTLE CONTROL MOTOR RELAY" (CR engine models without EURO-OBD), EC-1090, "DTC P1124, P1126 THROTTLE CONTROL MOTOR RELAY" (HR engine models with EURO-OBD) or EC-1439, "DTC P1124, P1126 THROTTLE CONTROL MOTOR RELAY" (HR engine models without EURO-OBD).
Fuel pump relay>>Go to EC-427, "FUEL PUMP" (CR engine models with EURO-OBD), EC-750, "FUEL PUMP" (CR engine models without EURO-OBD), EC-1215, "FUEL PUMP" (HR engine models with EURO-OBD) or EC-1543, "FUEL PUMP" .(HR engine models without EURO-OBD).

3. CHECK RELAY

Send an operation signal to the relay using a diagnosis tool. Check the voltage at the input and output terminals of inoperative relays according to the table below or check for continuity between input and output terminals. Refer to PG-21, "ACTIVE TEST" or PG-22, "Auto Active Test" .

Relay name	IPDM E/R terminal number		Voltage [V]	Diagnosis tool	
	Input side	Output side		CONSULT-II ACTIVE TEST	Auto ACTIVE TEST
Front fog lamp relay	1	43, 44	Battery voltage	×	×
Headlamp Hi relay		46, 47		×	×
Headlamp Lo relay		48, 50		×	×
Tail lamp relay		15, 16, 45, 49		×	×
Front wiper main relay		23		×	×
Front wiper HI/LO relay		24		×	×
A/C relay		41			×
Rear windows defogger relay	2	8		×	×
Cooling fan Lo relay	14	10		×	×
Cooling fan Hi relay		12		×	×

×: Applicable

OK or NG

OK >> Check the control unit that controls the inoperative relay. (system)
NG >> Replace the IPDM E/R. (malfunction of relay)

4. CHECK RELAY TYPE

Which is the relay with error?

Front fog lamp relay, headlamp relay (Hi, Lo), tail lamp relay, front wiper relay (main, Hi/Lo), rear window defogger relay, A/C relay, starter motor relay, cooling fan relay (Hi, Lo)>>GO TO 5.
Ignition relay>> Go to PG-33, "Inspection With CONSULT-II (Self-Diagnosis)"
ECM relay>>Go to EC-128, "POWER SUPPLY AND GROUND CIRCUIT" (CR engine models with EURO-OBD), EC-543, "POWER SUPPLY AND GROUND CIRCUIT" (CR engine models without EURO-OBD), EC-918, "POWER SUPPLY AND GROUND CIRCUIT" (HR engine models with EURO-OBD), EC-1337, "POWER SUPPLY AND GROUND CIRCUIT" (HR engine models without EURO-OBD) or EC-1698, "POWER SUPPLY AND GROUND CIRCUIT" (K9K engine models).
Throttle motor relay>>Go to EC-299, "DTC P1124, P1126 THROTTLE CONTROL MOTOR RELAY" (CR engine models with EURO-OBD), EC-643, "DTC P1124, P1126 THROTTLE CONTROL MOTOR RELAY" (CR engine models without EURO-OBD), EC-1090, "DTC P1124, P1126 THROTTLE CONTROL MOTOR RELAY" (HR engine models with EURO-OBD) or EC-1439, "DTC P1124, P1126 THROTTLE CONTROL MOTOR RELAY" (HR engine models without EURO-OBD).
Fuel pump relay>>Go to EC-427, "FUEL PUMP" (CR engine models with EURO-OBD), EC-750, "FUEL PUMP" (CR engine models without EURO-OBD), EC-1215, "FUEL PUMP" (HR engine models with EURO-OBD) or EC-1543, "FUEL PUMP" .(HR engine models without EURO-OBD).

5. CHECK INPUT SIGNAL

Check the control signal status of the relay on the IPDM E/R that receives from each control unit with the data monitor of CONSULT-II. Refer to PG-20, "DATA MONITOR" .

What is the data monitor result?

Other than OFF>>Check the control unit that controls the relay (system) not deactivated.
OFF >> Replace the IPDM E/R. (error of relay ON)

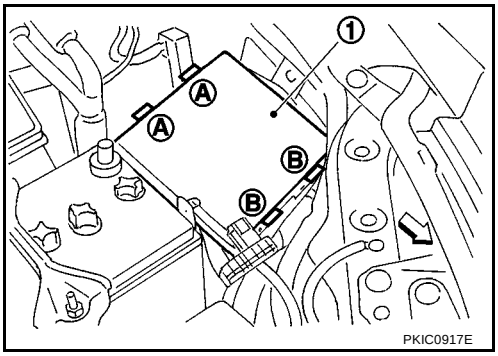
Removal and Installation of IPDM E/R

BKS0025X

⇦: 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.



INSTALLATION

Installation is the reverse order of removal.

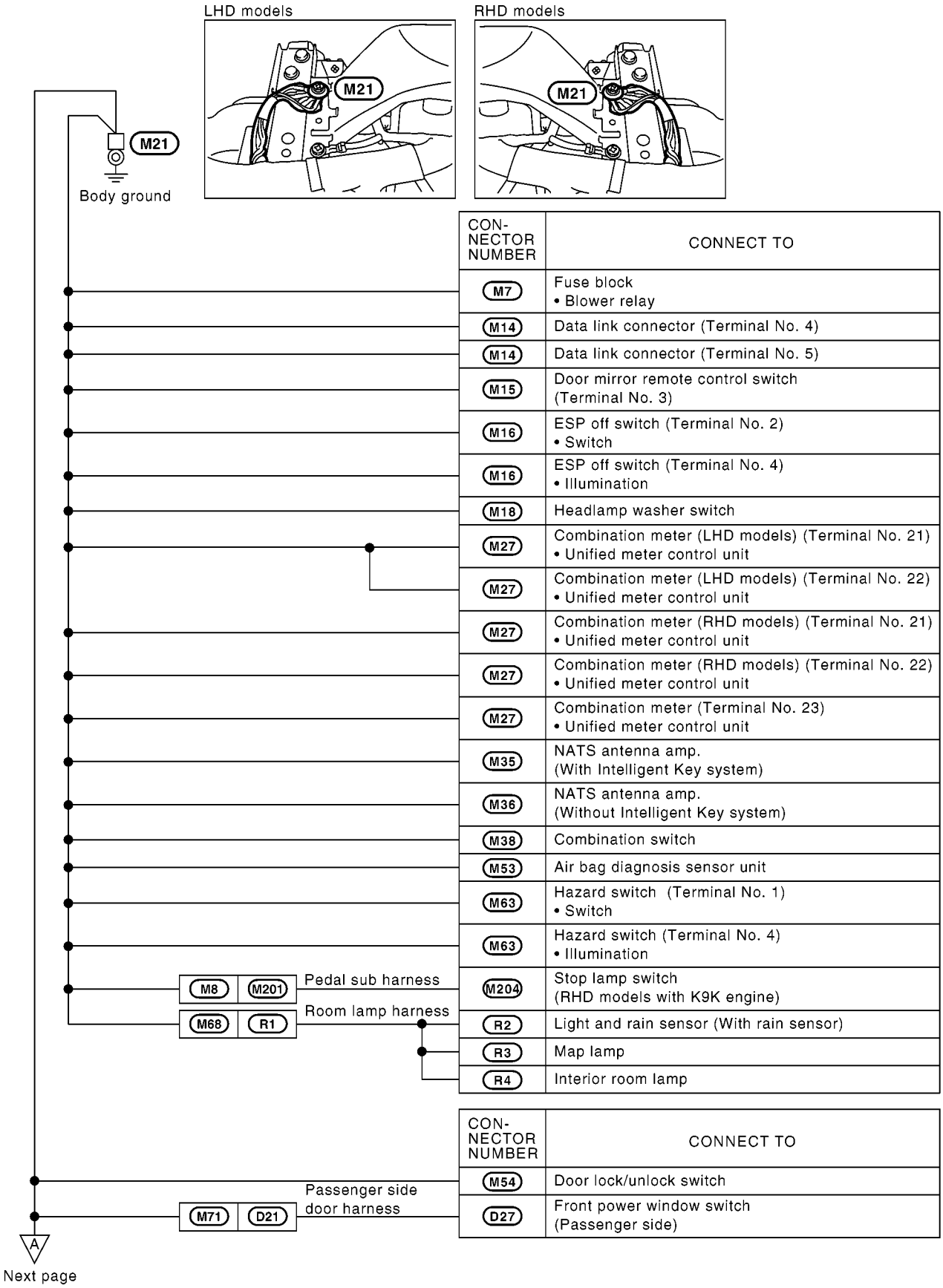
GROUND

PFP:00011

Ground Distribution

BKS0025Y

MAIN HARNESS



CON-NECTOR NUMBER	CONNECT TO
M7	Fuse block • Blower relay
M14	Data link connector (Terminal No. 4)
M14	Data link connector (Terminal No. 5)
M15	Door mirror remote control switch (Terminal No. 3)
M16	ESP off switch (Terminal No. 2) • Switch
M16	ESP off switch (Terminal No. 4) • Illumination
M18	Headlamp washer switch
M27	Combination meter (LHD models) (Terminal No. 21) • Unified meter control unit
M27	Combination meter (LHD models) (Terminal No. 22) • Unified meter control unit
M27	Combination meter (RHD models) (Terminal No. 21) • Unified meter control unit
M27	Combination meter (RHD models) (Terminal No. 22) • Unified meter control unit
M27	Combination meter (Terminal No. 23) • Unified meter control unit
M35	NATS antenna amp. (With Intelligent Key system)
M36	NATS antenna amp. (Without Intelligent Key system)
M38	Combination switch
M53	Air bag diagnosis sensor unit
M63	Hazard switch (Terminal No. 1) • Switch
M63	Hazard switch (Terminal No. 4) • Illumination
M204	Stop lamp switch (RHD models with K9K engine)
R2	Light and rain sensor (With rain sensor)
R3	Map lamp
R4	Interior room lamp

CON-NECTOR NUMBER	CONNECT TO
M54	Door lock/unlock switch
D27	Front power window switch (Passenger side)

MKWA4382E

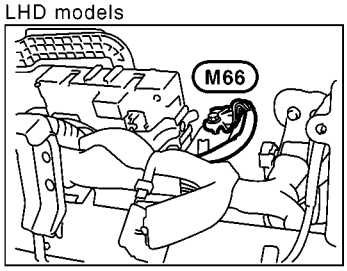
Preceding page

A

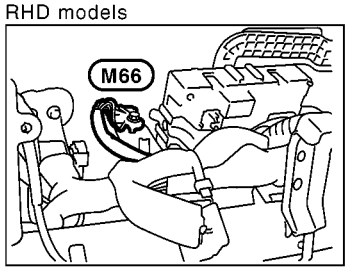
M66

Body ground

LHD models



RHD models



CONNECTOR NUMBER	CONNECT TO
M17	Headlamp aiming switch (Terminal No. 2) • Switch
M17	Headlamp aiming switch (Terminal No. 4) • Illumination
M30	Power transistor (With auto A/C)
M34	Key switch and ignition knob switch (With Intelligent Key system)
M40	Steering angle sensor (With ESP)
M45	Audio unit (Terminal No. 4) (With audio)
M49	Power socket (For cigarette lighter)
M52	A/T device (Terminal No. 2) (With A/T) • Overdrive control switch
M52	A/T device (Terminal No. 4) (With A/T) • Illumination
M57	BCM (Body control module) (Terminal No. 2)
M59	BCM (Body control module) (Terminal No. 70)
M60	Intelligent Key unit (With Intelligent Key system)
M61	Passenger air bag cut off telltale
M62	Heater control panel (Without auto A/C) (Terminal No. 6) • Illumination
M62	Heater control panel (Without auto A/C) (Terminal No. 8) • Switch
M62	Heater control panel (Without auto A/C) (Terminal No. 9) • Switch
M64	A/C auto amp. (Terminal No. 5) (With auto A/C) • Illumination
M64	A/C auto amp. (Terminal No. 10) (With auto A/C)
M69	Front passenger air bag cutoff switch
M77	After market alarm unit (Option connector)
D5	Door mirror actuator (Driver side) (With door mirror defogger)
D8	Power window main switch (Front 2D models)
D9	Power window main switch (Front & rear 4D models)
D12	Door request switch (Driver side) (With Intelligent Key system)
D25	Door mirror actuator (Passenger side) (With door mirror defogger)
D29	Door request switch (Passenger side) (With Intelligent Key system)

M5 D2 Driver side door harness

M5 D2 Driver side door harness

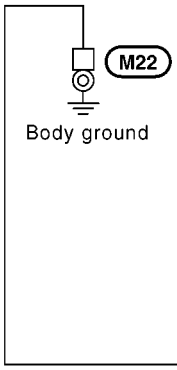
M5 D2 Driver side door harness

M5 D2 Driver side door harness

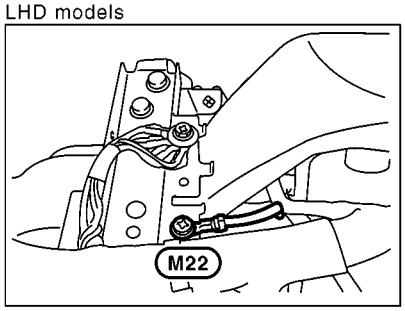
M70 D22 Passenger side door harness

M70 D22 Passenger side door harness

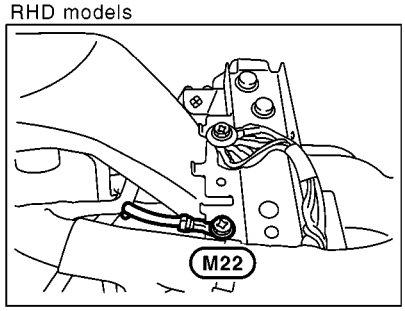
MKWA4383E



LHD models



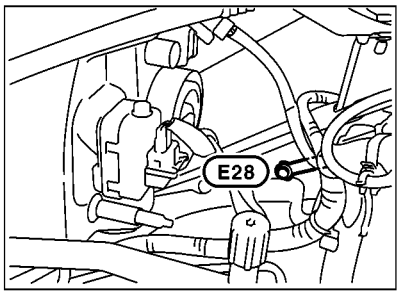
RHD models

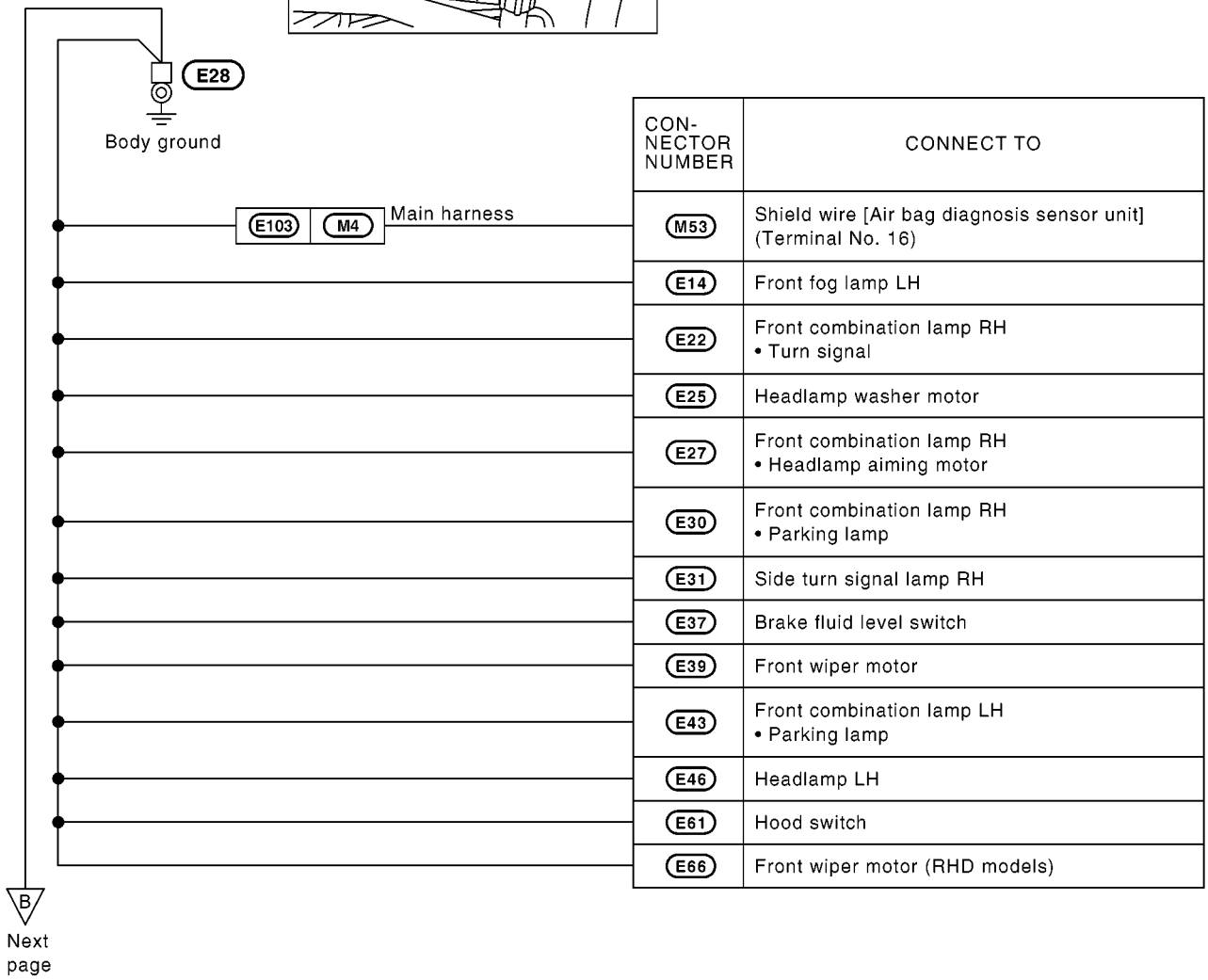


CON-NECTOR NUMBER	CONNECT TO
M24	EPS control unit

MKWA4384E

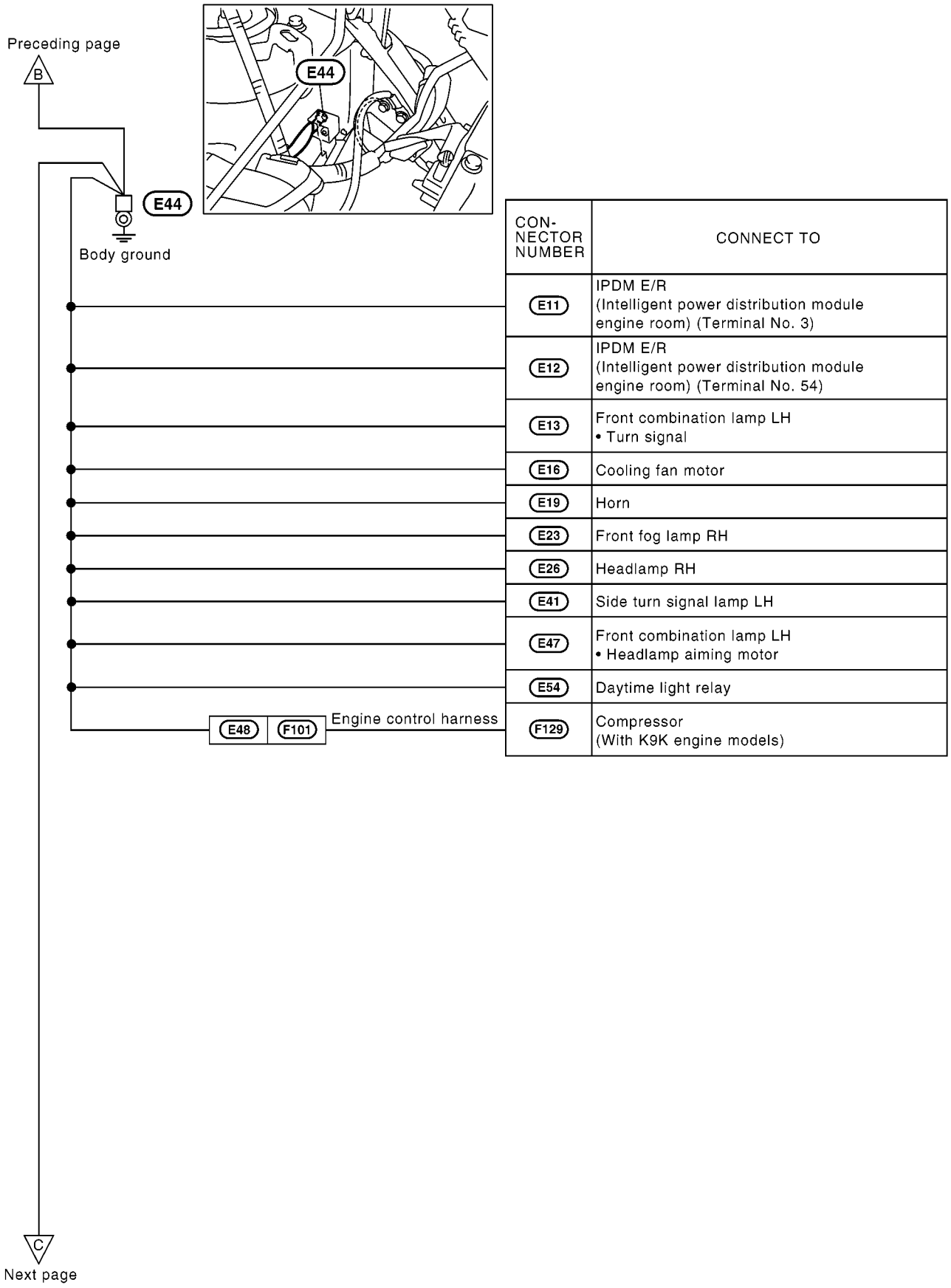
ENGINE ROOM HARNESS





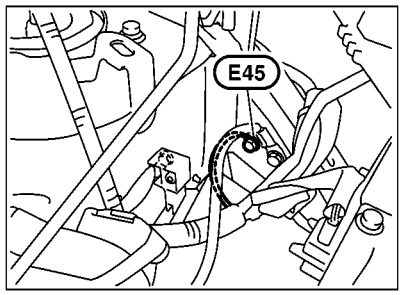
CON-NECTOR NUMBER	CONNECT TO
M53	Shield wire [Air bag diagnosis sensor unit] (Terminal No. 16)
E14	Front fog lamp LH
E22	Front combination lamp RH • Turn signal
E25	Headlamp washer motor
E27	Front combination lamp RH • Headlamp aiming motor
E30	Front combination lamp RH • Parking lamp
E31	Side turn signal lamp RH
E37	Brake fluid level switch
E39	Front wiper motor
E43	Front combination lamp LH • Parking lamp
E46	Headlamp LH
E61	Hood switch
E66	Front wiper motor (RHD models)

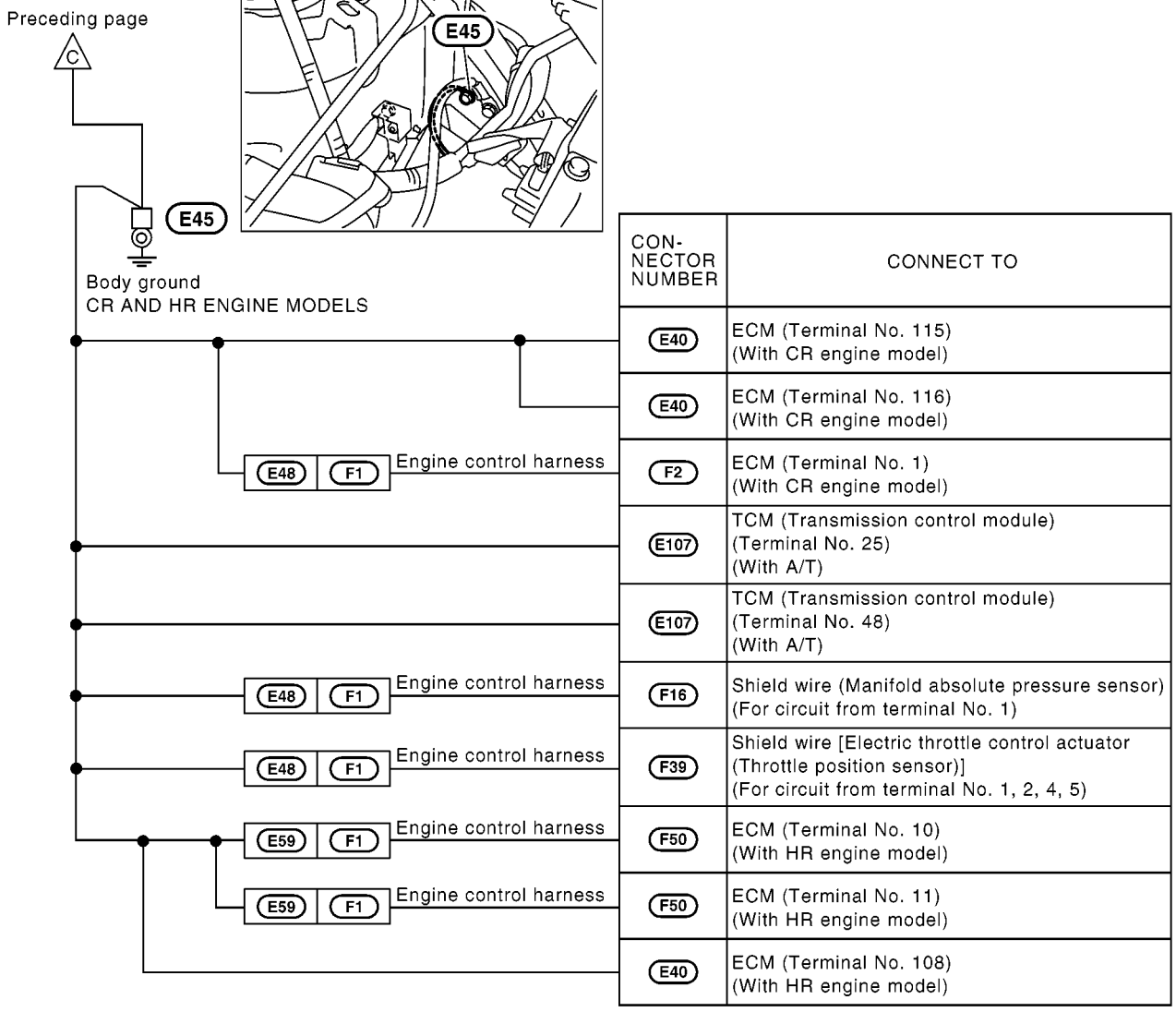
MKWA4385E



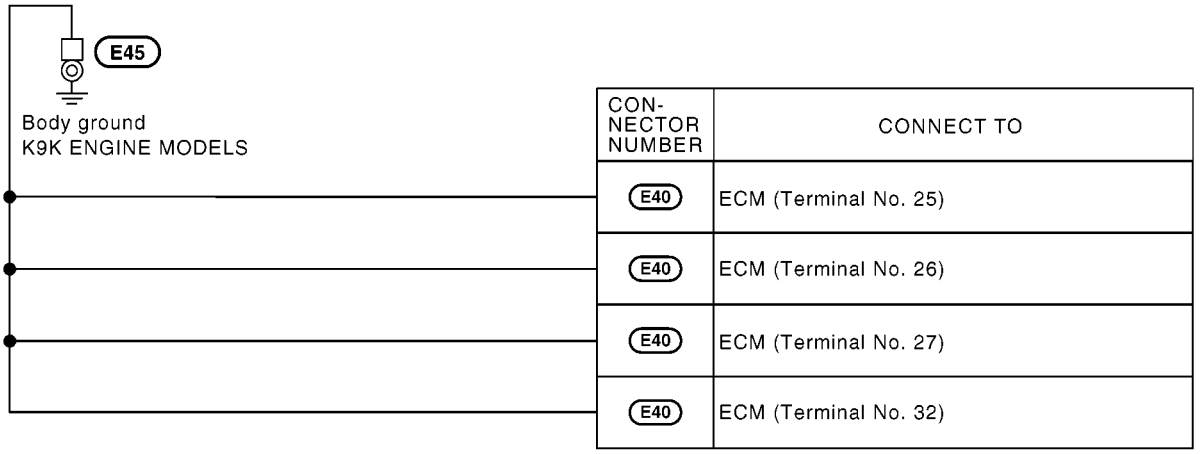
CON-NECTOR NUMBER	CONNECT TO
E11	IPDM E/R (Intelligent power distribution module engine room) (Terminal No. 3)
E12	IPDM E/R (Intelligent power distribution module engine room) (Terminal No. 54)
E13	Front combination lamp LH • Turn signal
E16	Cooling fan motor
E19	Horn
E23	Front fog lamp RH
E26	Headlamp RH
E41	Side turn signal lamp LH
E47	Front combination lamp LH • Headlamp aiming motor
E54	Daytime light relay
F129	Compressor (With K9K engine models)

MKWA4386E



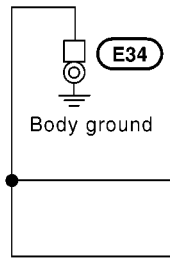


CONNECTOR NUMBER	CONNECT TO
E40	ECM (Terminal No. 115) (With CR engine model)
E40	ECM (Terminal No. 116) (With CR engine model)
F2	ECM (Terminal No. 1) (With CR engine model)
E107	TCM (Transmission control module) (Terminal No. 25) (With A/T)
E107	TCM (Transmission control module) (Terminal No. 48) (With A/T)
F16	Shield wire (Manifold absolute pressure sensor) (For circuit from terminal No. 1)
F39	Shield wire [Electric throttle control actuator (Throttle position sensor)] (For circuit from terminal No. 1, 2, 4, 5)
F50	ECM (Terminal No. 10) (With HR engine model)
F50	ECM (Terminal No. 11) (With HR engine model)
E40	ECM (Terminal No. 108) (With HR engine model)

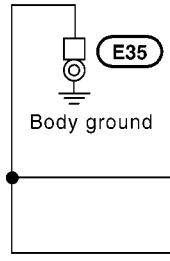


CONNECTOR NUMBER	CONNECT TO
E40	ECM (Terminal No. 25)
E40	ECM (Terminal No. 26)
E40	ECM (Terminal No. 27)
E40	ECM (Terminal No. 32)

MKWA4387E



CON-NECTOR NUMBER	CONNECT TO
E32	ABS actuator and electric unit (Control unit) (Terminal No. 1) (Without ESP)
E32	ABS actuator and electric unit (Control unit) (Terminal No. 4) (Without ESP)

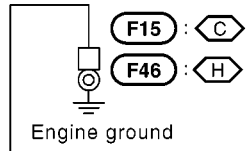


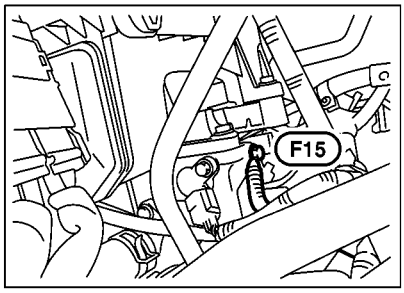
CON-NECTOR NUMBER	CONNECT TO
E33	ABS actuator and electric unit (Control unit) (Terminal No. 1) (With ESP)
E33	ABS actuator and electric unit (Control unit) (Terminal No. 4) (With ESP)

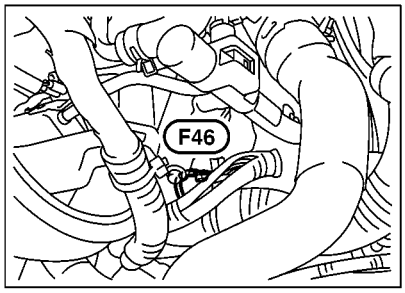
MKWA4388E

ENGINE CONTROL HARNESS/CR AND HR ENGINE MODELS

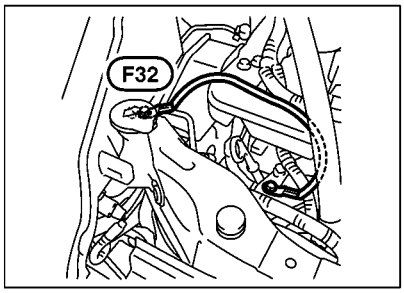
C : CR ENGINE MODELS
H : HR ENGINE MODELS

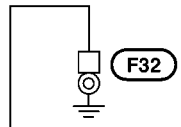






CON-NECTOR NUMBER	CONNECT TO
F26	Condenser
F33	Ignition coil No. 1 (With power transistor)
F34	Ignition coil No. 2 (With power transistor)
F35	Ignition coil No. 3 (With power transistor)
F36	Ignition coil No. 4 (With power transistor)

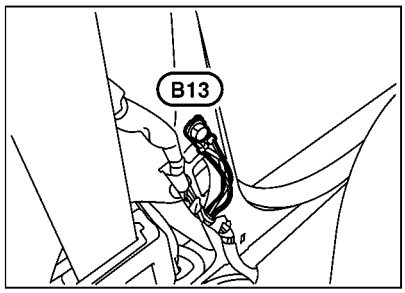


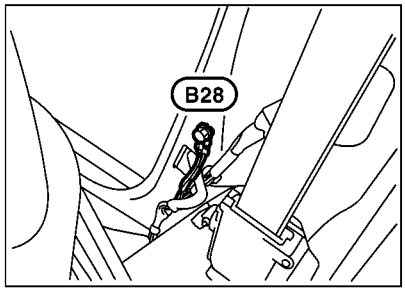


CON-NECTOR NUMBER	CONNECT TO
F31	Alternator (E)

MKWA4389E

BODY HARNESS





B13
Body ground

B28
Body ground

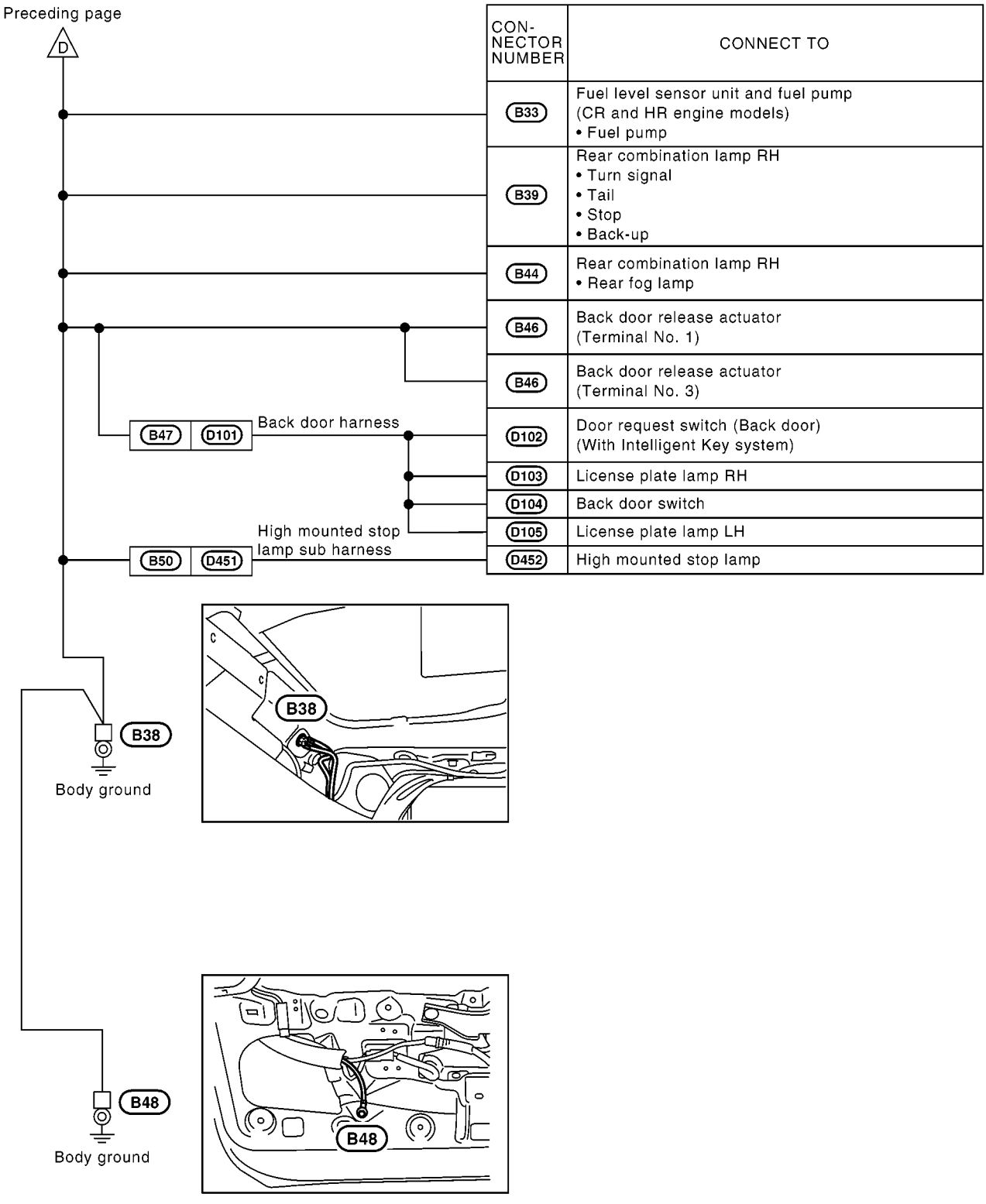
D
Next page

CONNECTOR NUMBER	CONNECT TO
B4	Shield wire [Air bag diagnosis sensor unit] (Terminal No. 38)
B18	Rear cargo power socket

CONNECTOR NUMBER	CONNECT TO
B5	Heated seat switch RH (Terminal No. 4)
B5	Heated seat switch RH (Terminal No. 6) • Illumination
B6	Heated seat switch LH (Terminal No. 4)
B6	Heated seat switch LH (Terminal No. 6) • Illumination
B8	Console power socket
B9	Heated seat LH (Terminal No. 2)
B10	Seat belt buckle switch LH (RHD models)
B17	Rear combination lamp LH • Turn signal • Tail • Stop • Back-up
B24	Heated seat RH (Terminal No. 2)
B25	Seat belt buckle switch RH (LHD models)
B45	Rear wiper motor

CONNECTOR NUMBER	CONNECT TO
B3	Shield wire [Air bag diagnosis sensor unit] (Terminal No. 36)

MKWA4390E



CON-NECTOR NUMBER	CONNECT TO
B33	Fuel level sensor unit and fuel pump (CR and HR engine models) • Fuel pump
B39	Rear combination lamp RH • Turn signal • Tail • Stop • Back-up
B44	Rear combination lamp RH • Rear fog lamp
B46	Back door release actuator (Terminal No. 1)
B46	Back door release actuator (Terminal No. 3)
D102	Door request switch (Back door) (With Intelligent Key system)
D103	License plate lamp RH
D104	Back door switch
D105	License plate lamp LH
D452	High mounted stop lamp

MKWA4391E

HARNESS

PFP:00011

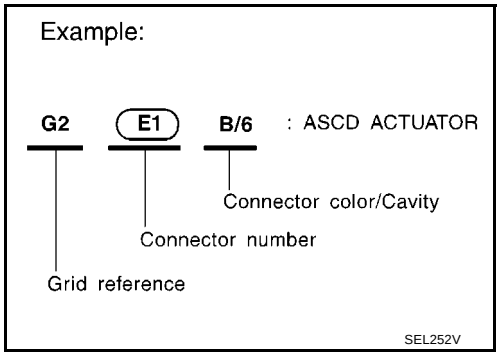
Harness Layout

BKS0025Z

HOW TO READ HARNESS LAYOUT

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

- Main Harness
- Engine Room Harness
- Engine Control Harness
- Body Harness
- Room Lamp Harness
- Front Door Harness
- Rear Door 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 figure, 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.

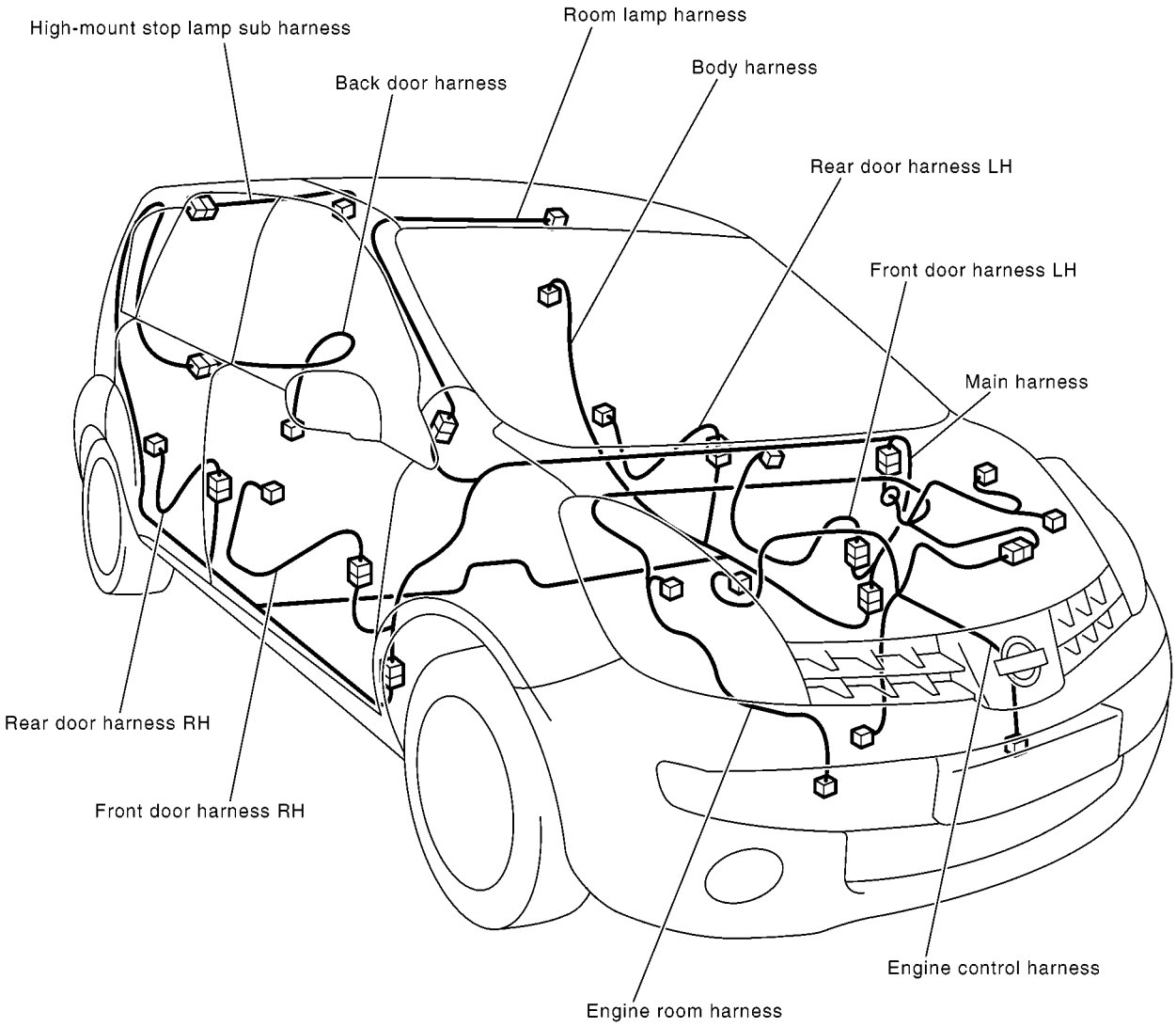
CONNECTOR SYMBOL

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

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

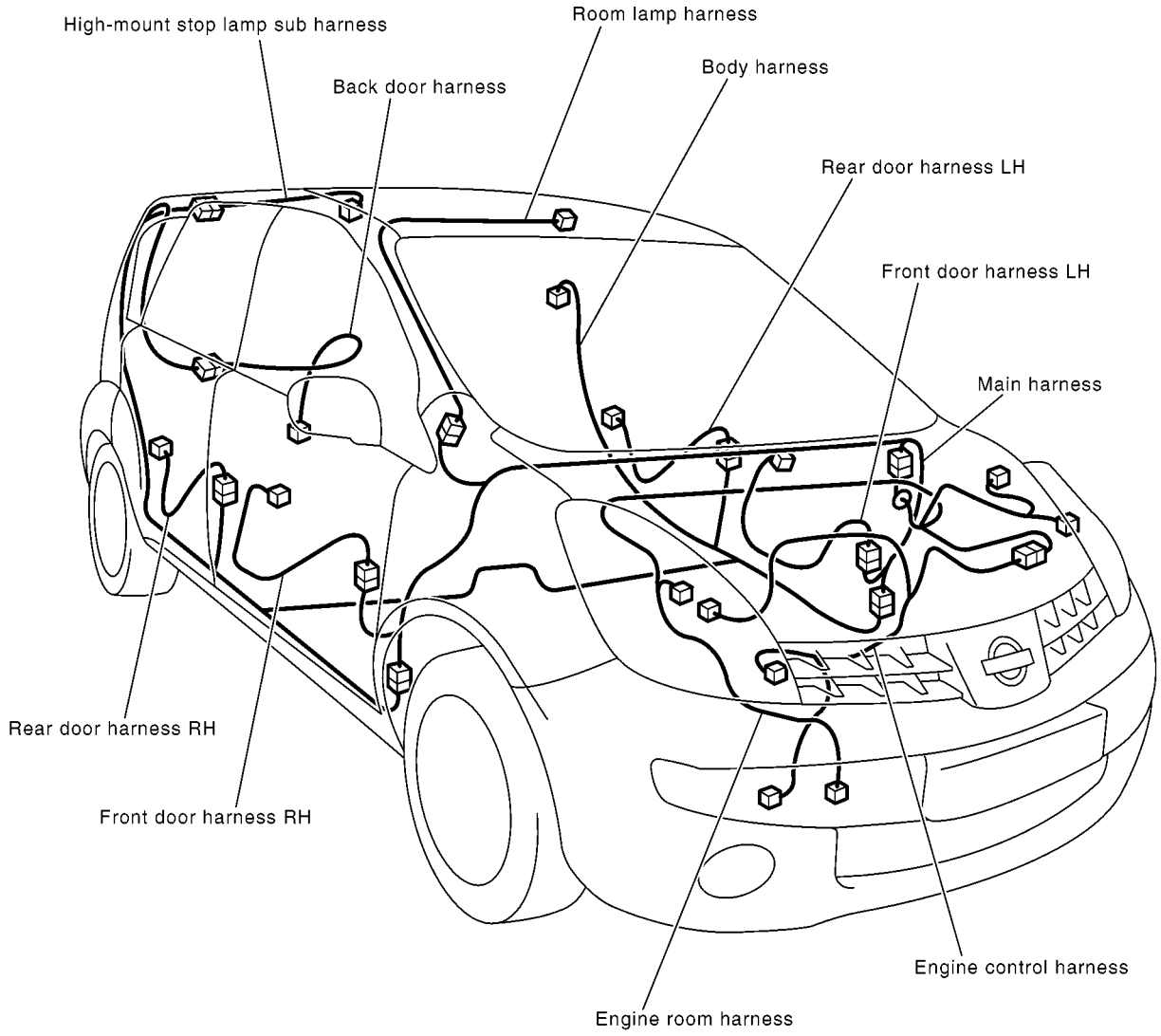
CKIT0108E

HARNESS OUTLINE/CR AND HR ENGINE MODELS



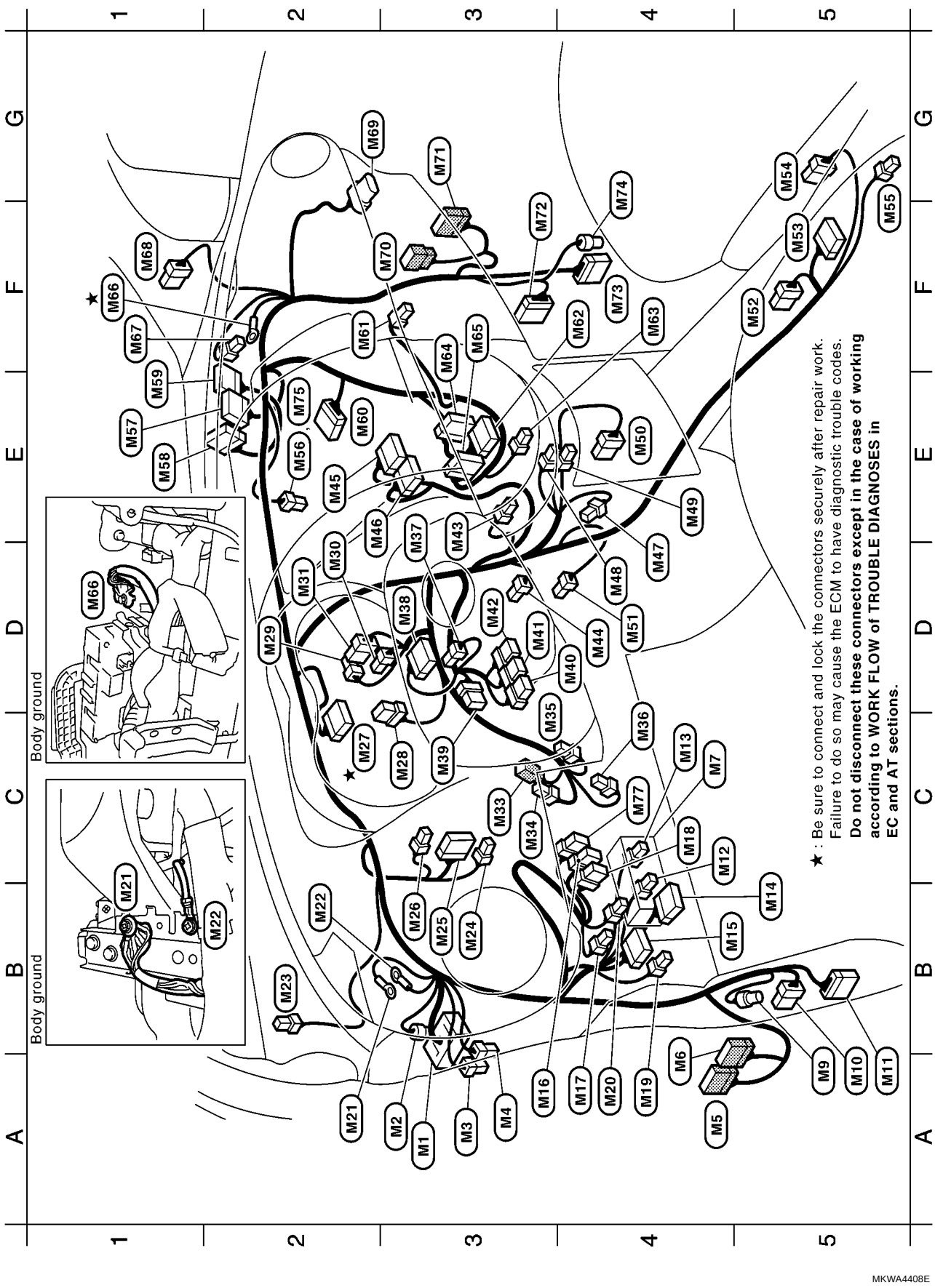
MKWA4406E

HARNESS OUTLINE/K9K ENGINE MODELS



MKWA4407E

MAIN HARNESS/LHD MODELS

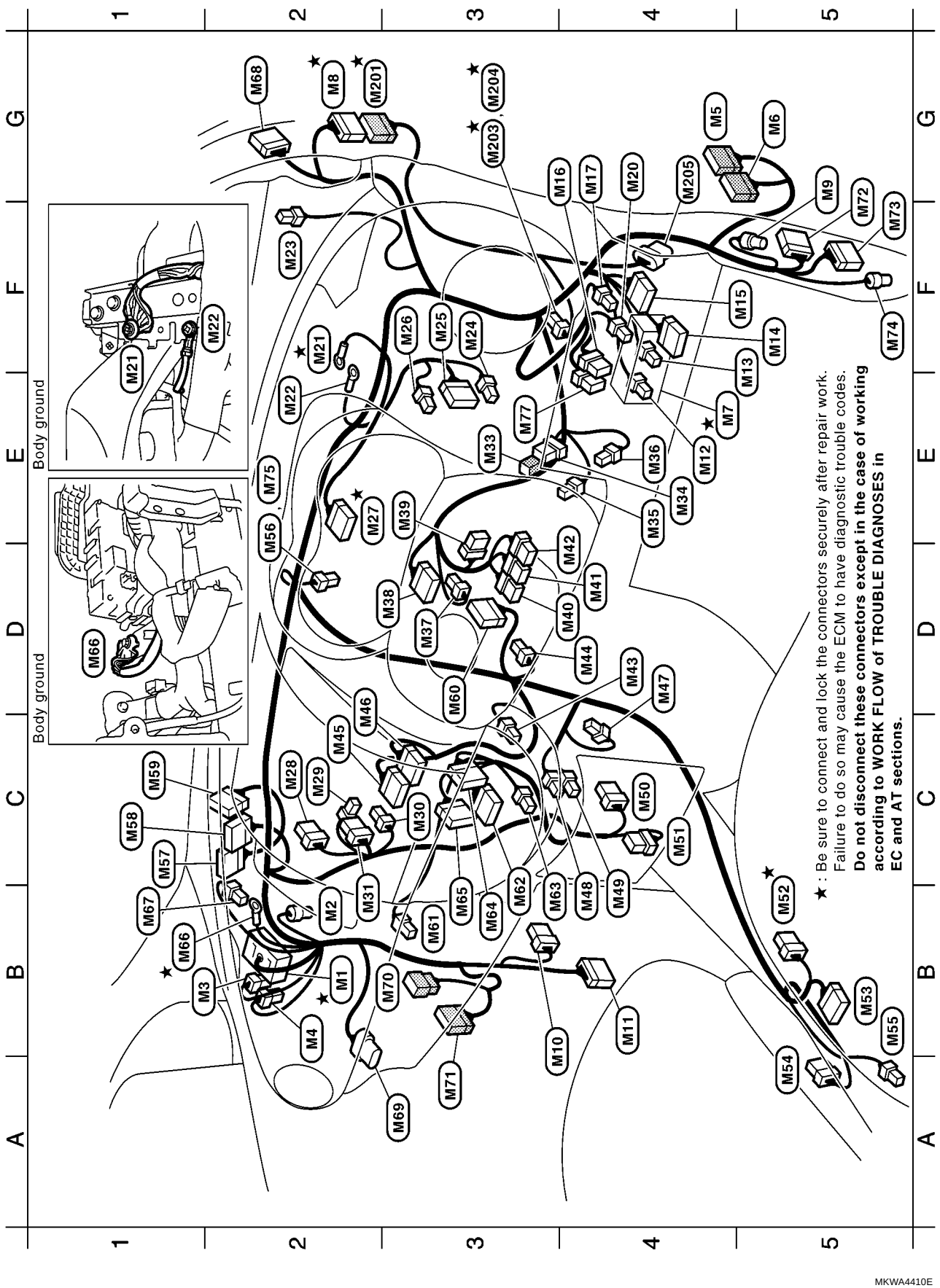


MKWA4408E

A3	M1	SMJ	: To E101
A3	M2	GR/2	: To E102
A3	M3	B/2	: To E104
A3	M4	Y/4	: To E103
A4	M5	W/12	: To D2
A4	M6	W/16	: To D1
C4	★ M7	–	: Fuse block (J/B)
A5	M9	GR/1	: Towbar kit
A5	M10	W/6	: To B1
A5	M11	W/16	: To B2
C4	M12	W/1	: Fuse block (J/B)
C4	M13	W/1	: Fuse block (J/B)
B5	M14	W/16	: Data link connector
B4	M15	W/10	: Door mirror remoto control switch
A3	M16	GR/6	: ESP off switch
A4	M17	W/4	: Headlamp aiming switch
C4	M18	GR/8	: Headlamp washer switch (With headlamp washer)
A4	M19	W/4	: Headlamp washer relay
A4	M20	B/5	: Door lock relay (With intelligent key system)
A2	M21	–	: Body ground
B2	M22	–	: Body ground
B2	M23	W/2	: Sunload sensor (With auto A/C)
B3	M24	B/2	: EPS control unit
B3	M25	W/16	: EPS control unit
B3	M26	W/4	: Torque sensor
C2	★ M27	W/40	: Combination meter
C3	M28	–/6	: Intake door motor (With auto A/C)
D2	M29	–/4	: Fan resistor (Without auto A/C)
D2	M30	–/2	: Power transister (With auto A/C)
D2	M31	–/6	: Power transister (With auto A/C)
C3	M33	W/2	: Key switch
C3	M34	GR/6	: Key switch and ignition knob switch (With Intelligent key system)
C3	M35	GR/4	: NATS antenna amp. (With Intelligent key system)
C4	M36	–/4	: NATS antenna amp. (Without Intelligent key system)
D3	M37	W/4	: Steering lock unit (With intelligent key system)
D3	M38	W/16	: Combination switch
C3	M39	W/6	: Ignition switch
D4	M40	W/8	: Steering angle sensor
D3	M41	Y/6	: Combination switch (Spiral cable) (Air bag)
D3	M42	GR/8	: Combination switch (Spiral cable) (Steering switch)
E3	M43	W/2	: In vehicle sensor (With auto A/C)
D4	M44	W/3	: Thermo control amp
E2	M45	–/20	: Audio unit
E2	M46	B/16	: Audio unit
D4	M47	GR/2	: Console antenna
D4	M48	B/1	: Power socket illumination
E4	M49	B/2	: Power socket
E4	M50	–/6	: Mode door motor (With auto A/C)
D4	M51	–/6	: Air mix door motor (With auto A/C)
F5	M52	W/6	: A/T device (With A/T)
F5	M53	Y/20	: Air bag diagnosis sensor unit
G5	M54	W/6	: Door lock/unlock switch
F5	M55	B/1	: Parking brake switch
E2	M56	GR/2	: Blower motor
E1	M57	W/40	: BCM (Body control module)
E1	M58	W/24	: BCM (Body control module)
E1	M59	B/15	: BCM (Body control module)
E2	M60	W/40	: Intelligent key unit (With intelligent key system)
F2	M61	B/4	: Passenger air bag cut off telltale
F4	M62	B/15	: Heater control panel (Without auto A/C)
F4	M63	W/4	: Hazard switch
F3	M64	B/18	: A/C auto amp. (With auto A/C)
F3	M65	W/18	: A/C auto amp. (With auto A/C)
F1	★ M66	–	: Body ground
F1	M67	Y/2	: Front passenger air bag module
F1	M68	W/12	: To R1
G2	M69	–/6	: Passenger air bag cut off switch
F3	M70	W/8	: To D22
G3	M71	W/12	: To D21
F3	M72	W/16	: To B21
F4	M73	W/24	: To B22
F4	M74	GR/2	: To B23
E2	M75	B/2	: Blower motor (Without A/C)
C4	M77	W/6	: After market alarm sub harness (Option connector)

MKWA4409E

MAIN HARNESS/RHD MODELS



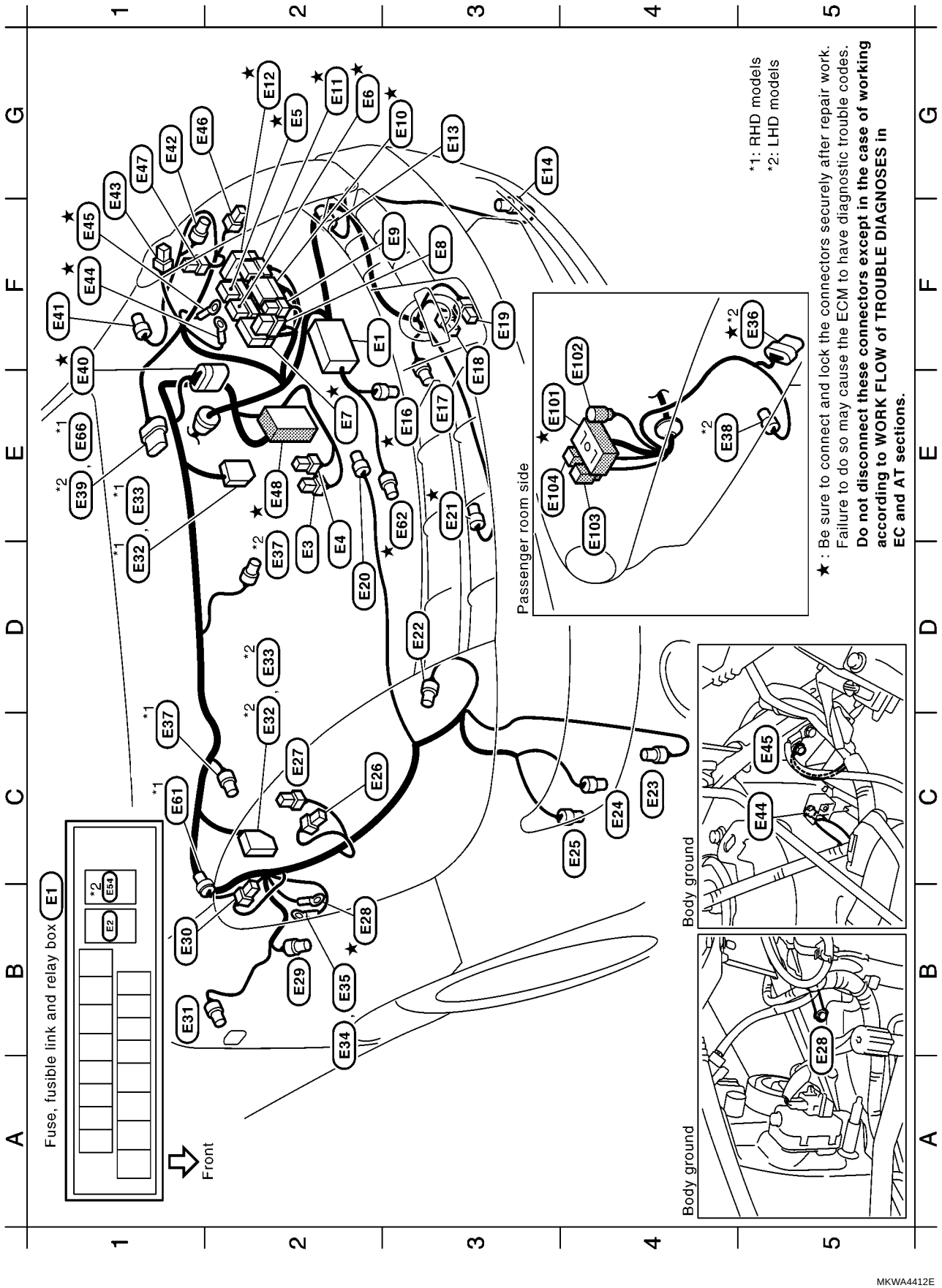
B2	★M1	SMJ	: To	E101
B2	M2	GR/2	: To	E102
B2	M3	B/2	: To	E104
B2	M4	Y/4	: To	E103
G4	M5	W/12	: To	D2
G6	M6	W/16	: To	D1
E4	★M7	–	: Fuse block (J/B)	
G2	★M8	W/12	: To	M201
G5	M9	GR/1	: Towbar kit	
B3	M10	W/6	: To	B1
B4	M11	W/16	: To	B2
E4	M12	W/1	: Fuse block (J/B)	
F5	M13	W/1	: Fuse block (J/B)	
F5	M14	W/16	: Data link connector	
F5	M15	W/10	: Door mirror remoto control switch	
G4	M16	GR/6	: ESP off switch	
G4	M17	W/4	: Headlamp aiming switch	
G4	M20	B/5	: Door lock relay (With intelligent key system)	
F2	M21	–	: Body ground	
E2	M22	–	: Body ground	
F2	M23	W/2	: Sunload sensor (With auto A/C)	
F3	M24	B/2	: EPS control unit	
F3	M25	W/16	: EPS control unit	
F3	M26	W/4	: Torque sensor	
E2	★M27	W/40	: Combination meter	
C2	M28	–/6	: Intake door motor (With auto A/C)	
C2	M29	–/4	: Fan resistor (Without auto A/C)	
C3	M30	–/2	: Power transister (With auto A/C)	
B2	M31	–/6	: Power transister (With auto A/C)	
E3	M33	W/2	: Key switch	
E4	M34	GR/6	: Key switch and ignition knob switch (With Intelligent key system)	
E4	M35	GR/4	: NATS antenna amp. (With Intelligent key system)	
E4	M36	–/4	: NATS antenna amp. (Without Intelligent key system)	
D3	M37	W/4	: Steering lock unit (With intelligent key system)	
D3	M38	W/16	: Combination switch	
E3	M39	W/6	: Ignition switch	
D4	M40	W/8	: Steering angle sensor	
D4	M41	Y/6	: Combination switch (Spiral cable) (Air bag)	
D4	M42	GR/8	: Combination switch (Spiral cable) (Steering switch)	
D4	M43	W/2	: In vehicle sensor (With auto A/C)	
D4	M44	W/3	: Thermo control amp	
C2	M45	–/20	: Audio unit	
D2	M46	B/16	: Audio unit	
D4	M47	GR/2	: Console antenna	
B4	M48	B/1	: Power socket illumination	
B4	M49	B/2	: Power socket	
C4	M50	–/6	: Mode door motor (With auto A/C)	
C4	M51	–/6	: Air mix door motor (With auto A/C)	
B5	★M52	W/6	: A/T device (With A/T)	
B5	M53	Y/20	: Air bag diagnosis sensor unit	
A5	M54	W/6	: Door lock/unlock switch	
B5	M55	B/1	: Parking brake switch	
E2	M56	GR/2	: Blower motor	
C1	M57	W/40	: BCM (Body control module)	
C1	M58	W/24	: BCM (Body control module)	
C1	M59	B/15	: BCM (Body control module)	
D3	M60	W/40	: Intelligent key unit (With intelligent key system)	
B3	M61	B/4	: Passenger air bag cut off telltale	
B3	M62	B/15	: Heater control panel (Without auto A/C)	
B3	M63	W/4	: Hazard switch	
B3	M64	B/18	: A/C auto amp. (With auto A/C)	
B3	M65	W/18	: A/C auto amp. (With auto A/C)	
B1	★M66	–	: Body ground	
B1	M67	Y/2	: Front passenger air bag module	
G2	M68	W/12	: To	R1
A3	M69	–/6	: Passenger air bag cut off switch	
B3	M70	W/8	: To	D22
A3	M71	W/12	: To	D21
F5	M72	W/16	: To	B21
F5	M73	W/24	: To	B22
F5	M74	GR/2	: To	B23
E2	M75	B/2	: Blower motor (Without A/C)	
E3	M77	W/6	: After market alarm sub harness (Option connector)	

Pedal sub harness

G2	★M201	W/12	: To	M8
G3	★M203	B/2	: Stop lamp switch (With M/T)	
G3	★M204	W/4	: Stop lamp switch (With A/T)	
G4	★M205	B/6	: Accelerator pedal position sensor	

MKWA4411E

ENGINE ROOM HARNESS/CR ENGINE MODELS



MKWA4412E

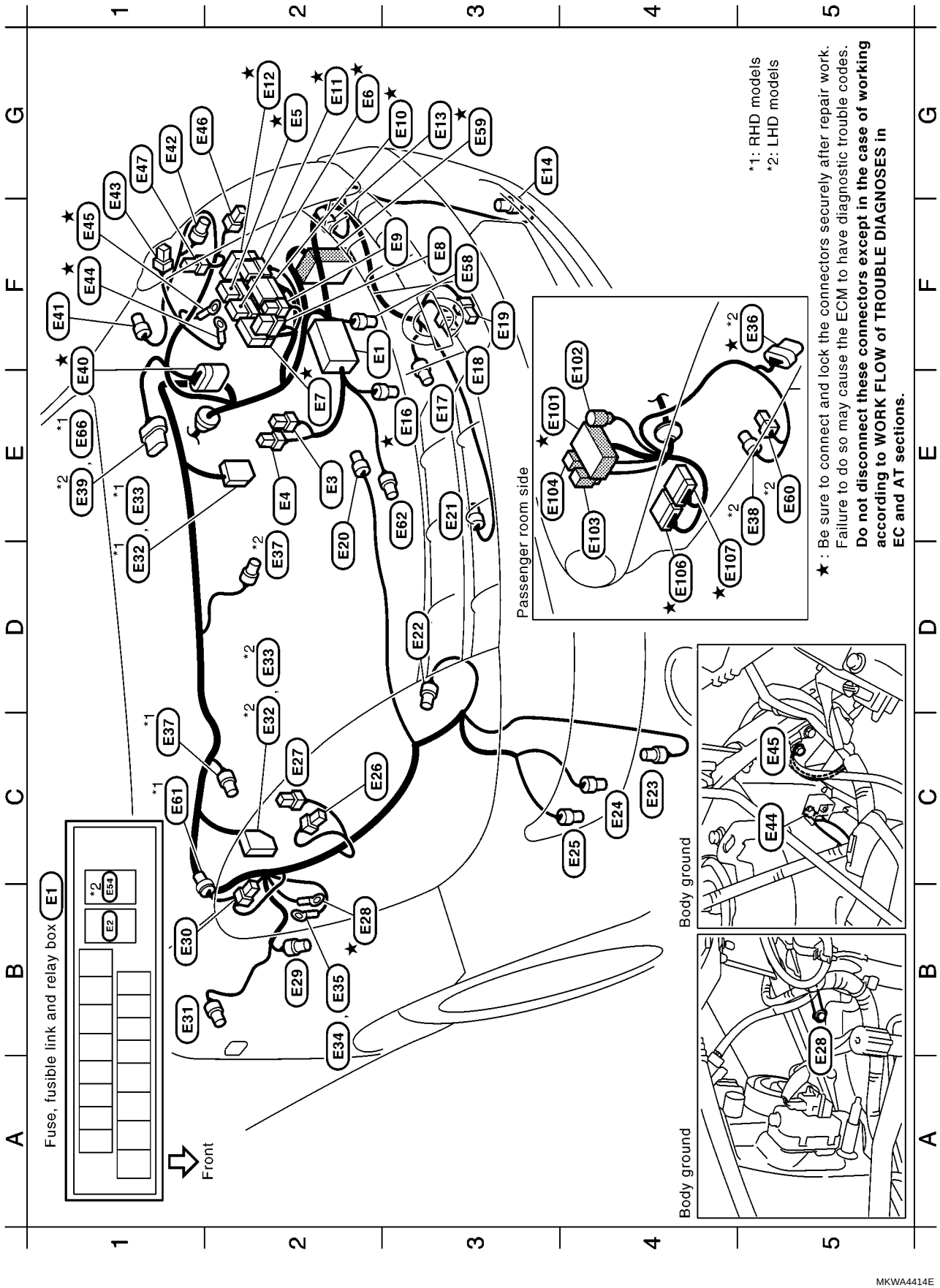
F2	E1	–	:	Fuse, fusible link and relay box
B1	E2	W/3	:	Horn relay
D2	E3	BR/2	:	Fusible link holder
E2	E4	GR/2	:	Fusible link holder
G2	★ E5	W/8	:	IPDM E/R (Intelligent power distribution module engine room)
G2	★ E6	W/6	:	IPDM E/R (Intelligent power distribution module engine room)
E2	★ E7	W/16	:	IPDM E/R (Intelligent power distribution module engine room)
F3	E8	BR/8	:	IPDM E/R (Intelligent power distribution module engine room)
F3	E9	B/2	:	IPDM E/R (Intelligent power distribution module engine room)
G3	★ E10	BR/12	:	IPDM E/R (Intelligent power distribution module engine room)
G2	★ E11	B/6	:	IPDM E/R (Intelligent power distribution module engine room)
G2	★ E12	W/12	:	IPDM E/R (Intelligent power distribution module engine room)
G3	E13	GR/2	:	Front turn signal lamp LH
G3	E14	–/2	:	Front fog lamp LH
E3	★ E16	–/2	:	Cooling fan motor
E3	E17	B/4	:	Ambient sensor
F3	E18	B/1	:	Horn (+)
F3	E19	B/1	:	Horn (–)
D2	E20	Y/2	:	Crash zone sensor
E3	★ E21	B/3	:	Refrigerent pressure sensor
D3	E22	GR/2	:	Front turn signal lamp RH
C4	E23	–/2	:	Front fog lamp RH
C4	E24	–/2	:	Washer motor
C4	E25	–/2	:	Headlamp washer motor
C2	E26	B/3	:	Headlamp RH
C2	E27	–/3	:	Headlamp aiming motor RH
B2	★ E28	–	:	Body ground
B2	E29	B/2	:	Front wheel sensor RH
B1	E30	B/2	:	Parking lamp RH
B1	E31	–/2	:	Side turn signal lamp RH
D1, C2	E32	B/26	:	ABS actuator and electric unit (Control unit)
E1, D2	E33	B/26	:	ABS actuator and electric unit (Control unit) (With ESP)
B2	E34	–	:	Body ground (For ABS)
B2	E35	–	:	Body ground (For ESP)
D2, C1	E37	GR/2	:	Brake fluid level switch
E1	E39	–/5	:	Front wiper motor (LHD models)
E1	★ E40	SMJ	:	ECM
F1	E41	–/2	:	Side turn signal lamp LH
G1	E42	B/2	:	Front wheel sensor LH
G1	E43	B/2	:	Parking lamp LH
F1	★ E44	–	:	Body ground
F1	★ E45	–	:	Body ground
G1	E46	B/3	:	Headlamp LH
G1	E47	–/3	:	Headlamp aiming motor LH
E2	★ E48	–/24	:	To F1
B1	E54	W/5	:	Daytime light relay (LHD models with daytime light system)
C1	E61	B/1	:	After market alarm unit (Hood switch) (RHD models)
E3	★ E62	–/2	:	Resistor
E1	E66	GR/5	:	Front wiper motor (RHD models)

Passenger room side

F5	★ E36	B/6	:	Accelerator pedal position sensor (LHD models)
E4	E38	B/2	:	Stop lamp switch (LHD models)
E3	★ E101	SMJ	:	To M1
F4	E102	GR/2	:	To M2
E4	E103	Y/4	:	To M4
E3	E104	B/2	:	To M3

MKWA4413E

ENGINE ROOM HARNESS/HR ENGINE MODELS



MKWA4414E

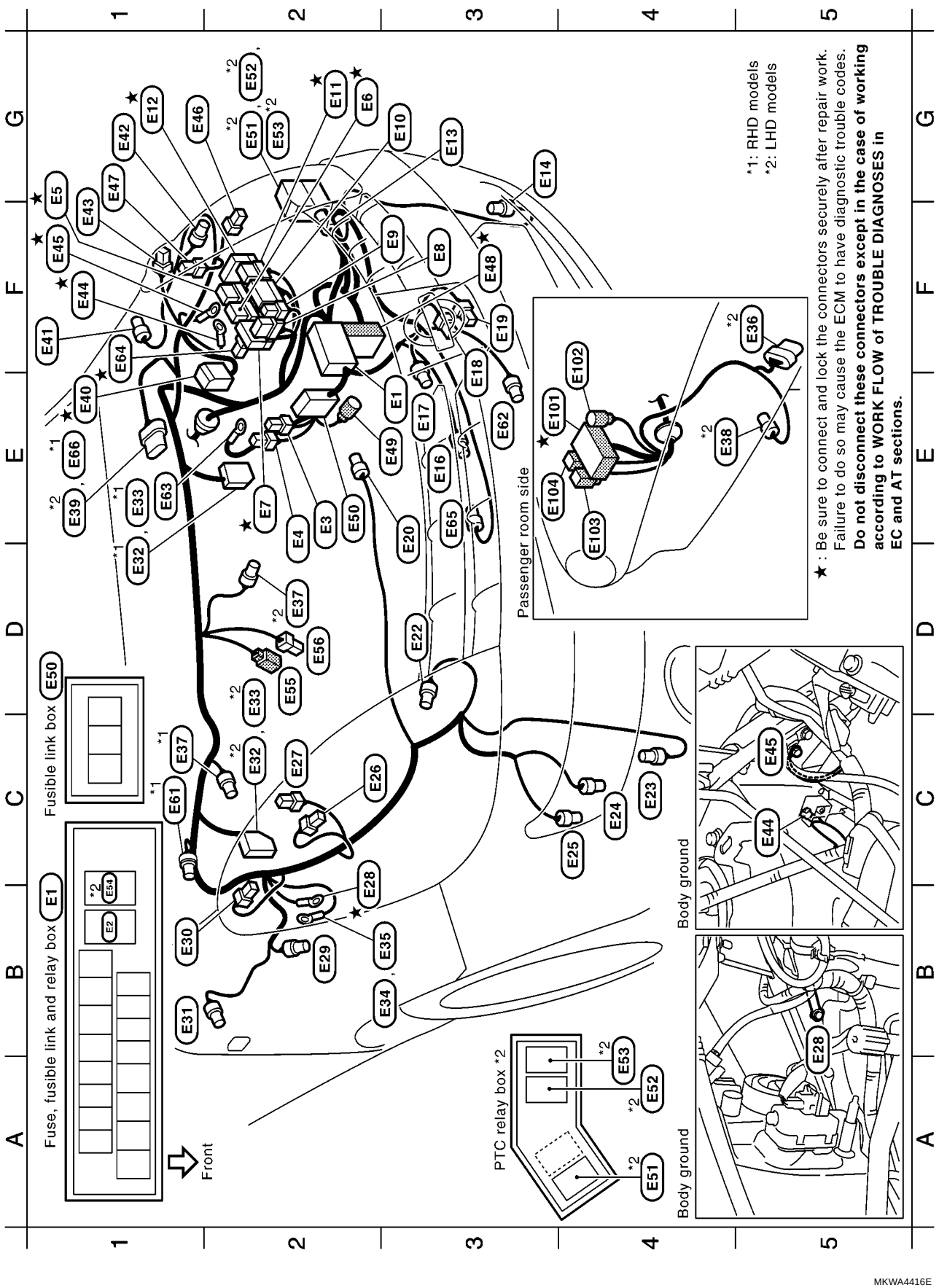
F2 (E1) – : Fuse, fusible link and relay box
B1 (E2) W/3 : Horn relay
E2 (E3) BR/2 : Fusible link holder
E2 (E4) GR/2 : Fusible link holder
★ G2 (E5) W/8 : IPDM E/R (Intelligent power distribution module engine room)
★ G2 (E6) W/6 : IPDM E/R (Intelligent power distribution module engine room)
★ E2 (E7) W/16 : IPDM E/R (Intelligent power distribution module engine room)
F3 (E8) BR/8 : IPDM E/R (Intelligent power distribution module engine room)
F3 (E9) B/2 : IPDM E/R (Intelligent power distribution module engine room)
★ G3 (E10) BR/12 : IPDM E/R (Intelligent power distribution module engine room)
★ G2 (E11) B/6 : IPDM E/R (Intelligent power distribution module engine room)
★ G2 (E12) W/12 : IPDM E/R (Intelligent power distribution module engine room)
G3 (E13) GR/2 : Front turn signal lamp LH
G3 (E14) –/2 : Front fog lamp LH
★ E3 (E16) –/2 : Cooling fan motor
E3 (E17) B/4 : Ambient sensor
F3 (E18) B/1 : Horn (+)
F3 (E19) B/1 : Horn (–)
E2 (E20) Y/2 : Crash zone sensor
★ E3 (E21) B/3 : Refrigerent pressure sensor
D3 (E22) GR/2 : Front turn signal lamp RH
C4 (E23) –/2 : Front fog lamp RH
C4 (E24) –/2 : Washer motor
C4 (E25) –/2 : Headlamp washer motor
C2 (E26) B/3 : Headlamp RH
C2 (E27) –/3 : Headlamp aiming motor RH
★ B2 (E28) – : Body ground
B2 (E29) B/2 : Front wheel sensor RH
B1 (E30) B/2 : Parking lamp RH
B1 (E31) –/2 : Side turn signal lamp RH
D1, C2 (E32) B/26 : ABS actuator and electric unit (Control unit)
E1, D2 (E33) B/26 : ABS actuator and electric unit (Control unit) (With ESP)
B2 (E34) – : Body ground (For ABS)
B2 (E35) – : Body ground (For ESP)
D2, C1 (E37) GR/2 : Brake fluid level switch
E1 (E39) –/5 : Front wiper motor (LHD models)
★ E1 (E40) SMJ : ECM
F1 (E41) –/2 : Side turn signal lamp LH
G1 (E42) B/2 : Front wheel sensor LH
G1 (E43) B/2 : Parking lamp LH
★ F1 (E44) – : Body ground
★ F1 (E45) – : Body ground
G1 (E46) B/3 : Headlamp LH
G1 (E47) –/3 : Headlamp aiming motor LH
B1 (E54) W/5 : Daytime light relay (LHD models with daytime light system)
F3 (E58) GR/2 : Droping resistor (A/T models)
★ G3 (E59) SMJ : To (F1)
C1 (E61) B/1 : After market alarm unit (Hood switch) (RHD models)
★ E3 (E62) –/2 : Resistor
E1 (E66) GR/5 : Front wiper motor (RHD models)

Passenger room side

★ F5 (E36) B/6 : Accelerator pedal position sensor (LHD models)
E5 (E38) B/2 : Stop lamp switch (LHD M/T models)
E5 (E60) W/4 : Stop lamp switch (LHD A/T models)
★ E3 (E101) SMJ : To (M1)
F4 (E102) GR/2 : To (M2)
E4 (E103) Y/4 : To (M4)
E3 (E104) B/2 : To (M3)
★ D4 (E106) W/24 : TCM (Transmission control module) (For A/T models)
★ D4 (E107) GR/24 : TCM (Transmission control module) (For A/T models)

MKWA4415E

ENGINE ROOM HARNESS/K9K ENGINE MODELS



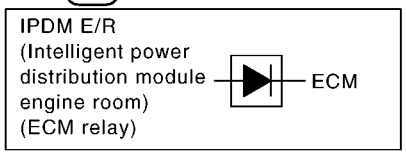
MKWA4416E

E3	E1	–	:	Fuse, fusible link and relay box
B1	E2	W/3	:	Horn relay
E2	E3	BR/2	:	Fusible link holder
E2	E4	GR/2	:	Fusible link holder
G1	E5	W/8	:	IPDM E/R (Intelligent power distribution module engine room)
G2	E6	W/6	:	IPDM E/R (Intelligent power distribution module engine room)
E2	E7	W/16	:	IPDM E/R (Intelligent power distribution module engine room)
F3	E8	BR/8	:	IPDM E/R (Intelligent power distribution module engine room)
F3	E9	B/2	:	IPDM E/R (Intelligent power distribution module engine room)
G3	E10	BR/12	:	IPDM E/R (Intelligent power distribution module engine room)
G2	E11	B/6	:	IPDM E/R (Intelligent power distribution module engine room)
G1	E12	W/12	:	IPDM E/R (Intelligent power distribution module engine room)
G3	E13	GR/2	:	Front turn signal lamp LH
G3	E14	–/2	:	Front fog lamp LH
E3	E16	–/2	:	Cooling fan motor
E3	E17	B/4	:	Ambient sensor
F3	E18	B/1	:	Horn (+)
F3	E19	B/1	:	Horn (–)
E3	E20	Y/2	:	Crash zone sensor
D3	E22	GR/2	:	Front turn signal lamp RH
C4	E23	–/2	:	Front fog lamp RH
C4	E24	–/2	:	Washer motor
C4	E25	–/2	:	Headlamp washer motor (LHD models)
C2	E26	B/3	:	Headlamp RH
C2	E27	–/3	:	Headlamp aiming motor RH
B2	E28	–	:	Body ground
B2	E29	B/2	:	Front wheel sensor RH
B1	E30	B/2	:	Parking lamp RH
B1	E31	–/2	:	Side turn signal lamp RH
C2, D1	E32	B/26	:	ABS actuator and electric unit (Control unit)
D2, E1	E33	B/26	:	ABS actuator and electric unit (Control unit) (With ESP)
B3	E34	–	:	Body ground (For ABS)
B3	E35	–	:	Body ground (For ESP)
D2, C1	E37	GR/2	:	Brake fluid level switch
E1	E39	–/5	:	Front wiper motor (LHD models)
E1	E40	SMJ	:	ECM
F1	E41	–/2	:	Side turn signal lamp LH
G1	E42	B/2	:	Front wheel sensor LH
G1	E43	B/2	:	Parking lamp LH
F1	E44	–	:	Body ground
F1	E45	–	:	Body ground
G1	E46	B/3	:	Headlamp LH
G1	E47	–/3	:	Headlamp aiming motor LH
F3	E48	–/24	:	To F1
E3	E49	GR/1	:	To F103
E2	E50	–	:	Fusible link holder
G2	E51	–/4	:	PTC heater relay 1 (LHD models)
G2	E52	–/4	:	PTC heater relay 2 (LHD models)
G2	E53	–/4	:	PTC heater relay 3 (LHD models)
B1	E54	W/5	:	Daytime light relay (LHD models with daytime light system)
D2	E55	B/2	:	PTC heater (LHD models)
D2	E56	B/1	:	PTC heater (LHD models)
C1	E61	GR/2	:	After market alarm unit (Hood switch) (RHD models)
E3	E62	–/2	:	Resistor
E1	E63	–	:	Fusible link holder
F1	E64	–/2	:	Diode
D3	E65	–/3	:	Refrigerent pressure sensor
E1	E66	GR/5	:	Front wiper motor (RHD models)

Passenger room side

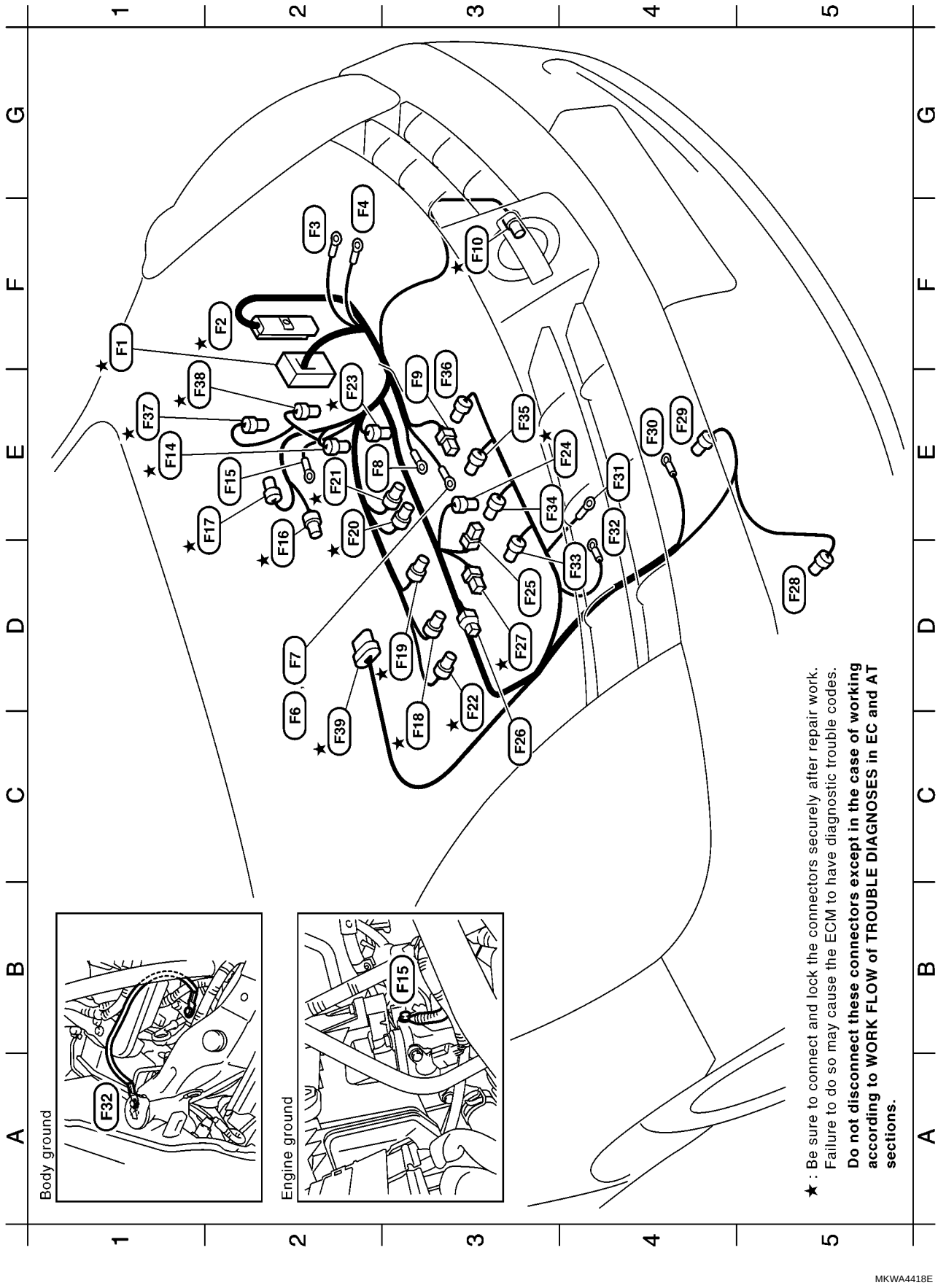
F5	E36	B/6	:	Accelerator pedal position sensor (LHD models)
E4	E38	B/2	:	Stop lamp switch (LHD models)
E3	E101	SMJ	:	To M1
F4	E102	GR/2	:	To M2
E4	E103	Y/4	:	To M4
E3	E104	B/2	:	To M3

Diode E64



MKWA4417E

ENGINE CONTROL HARNESS/CR ENGINE MODELS



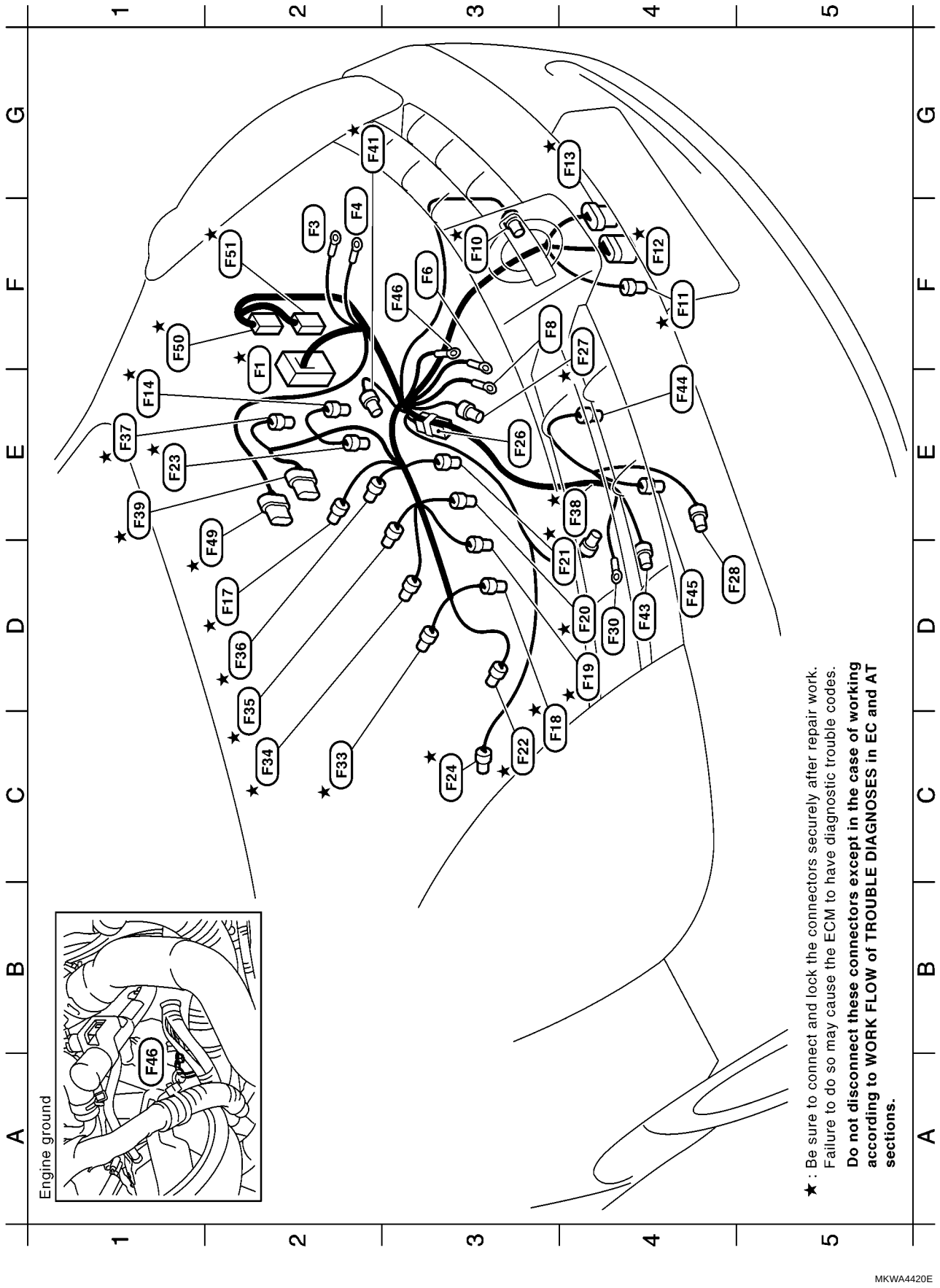
MKWA4418E

F1	★ F1	SMJ	:	To E48
F2	★ F2	SMJ	:	ECM
F2	F3	–	:	Fusible link holder
F2	F4	–	:	Fusible link holder
D2	F6	–	:	Starter motor (Except for cold area)
D2	F7	–	:	Starter motor (For cold area)
E2	F8	–	:	Starter motor (Except for cold area)
E3	F9	B/1	:	Starter motor (For cold area)
F3	★ F10	G/3	:	Park/neutral position switch
E1	★ F14	B/3	:	Camshaft position sensor
E2	F15	–	:	Engine ground
D2	★ F16	GR/4	:	Manifold absolute pressure sensor
E2	★ F17	L/2	:	EVAP canister purge volume control solenoid valve
C3	★ F18	GR/2	:	Fuel injection No. 1
D3	★ F19	GR/2	:	Fuel injection No. 2
E2	★ F20	GR/2	:	Fuel injection No. 3
E2	★ F21	GR/2	:	Fuel injection No. 4
D3	★ F22	G/2	:	Intake valve timing control solenoid valve
E2	★ F23	GR/2	:	Engine coolant temperature sensor
E4	★ F24	G/4	:	Heated oxygen sensor 2
D3	F25	B/1	:	Oil pressure switch
C3	F26	GR/2	:	Condenser
D3	★ F27	B/2	:	Knock sensor
D5	F28	B/1	:	Compressor (With A/C)
E4	F29	B/2	:	Alternator
E4	F30	–	:	Alternator
E4	F31	–	:	Alternator (E)
E4	F32	–	:	Body ground
D4	F33	GR/3	:	Ignition coil No. 1
E3	F34	GR/3	:	Ignition coil No. 2
E3	F35	GR/3	:	Ignition coil No. 3
E3	F36	GR/3	:	Ignition coil No. 4
E1	★ F37	B/4	:	Heated oxygen sensor 1
E1	★ F38	G/3	:	Crankshaft position sensor
C2	★ F39	B/6	:	Electric throttle control actuator

★ : 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.**

MKWA4419E

ENGINE CONTROL HARNESS/HR ENGINE MODELS



MKWA4420E

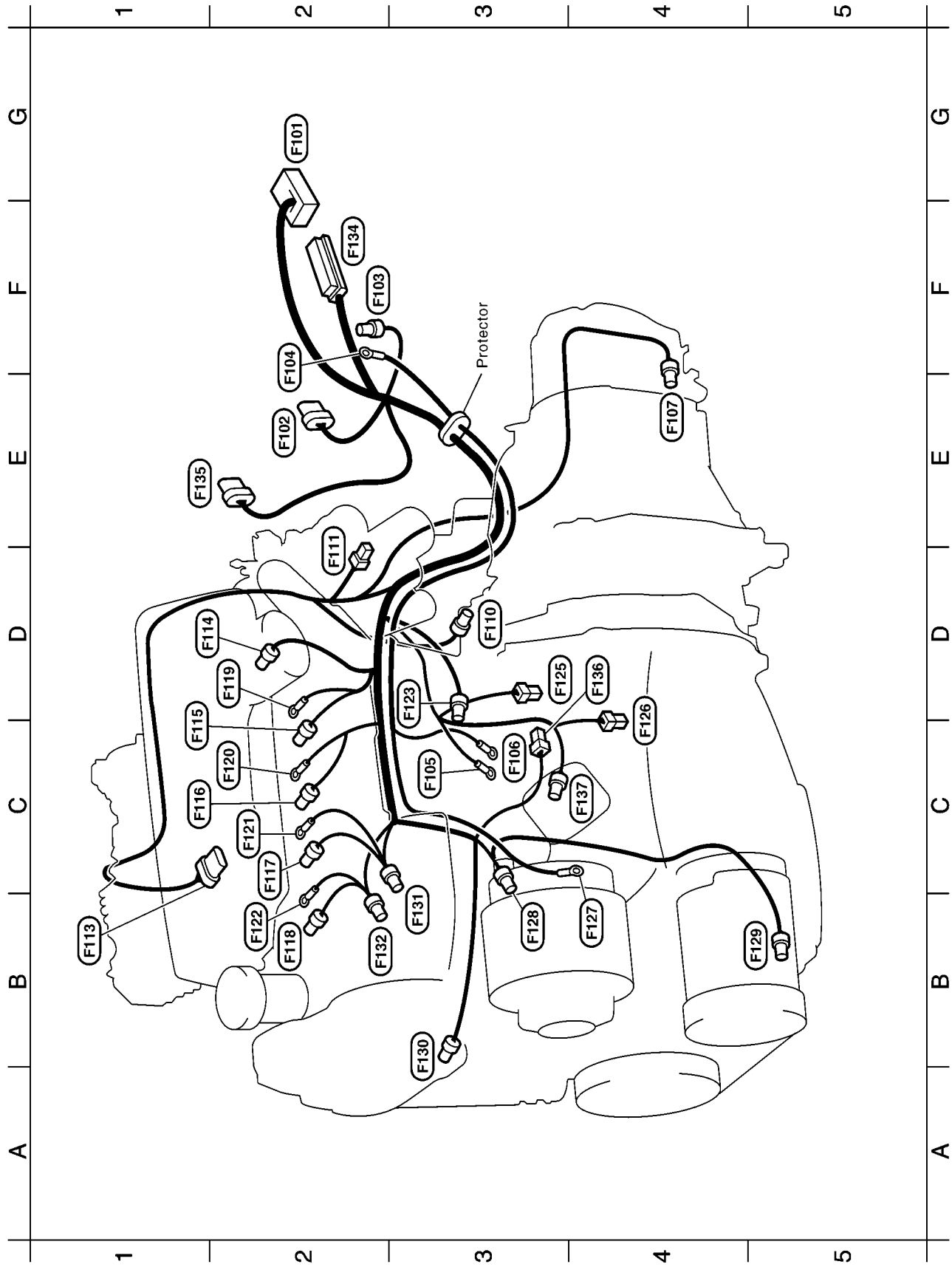
F2	★F1	SMJ	:	To E59
F2	F3	–	:	Fusible link holder
F2	F4	–	:	Fusible link holder
F3	F6	–	:	Starter motor
F3	F8	–	:	Starter motor
F3	★F10	G/3	:	Park/neutral position switch (With M/T)
F4	★F11	B/3	:	Power train sensor (With A/T)
F4	★F12	B/10	:	Park/neutral position switch (With A/T)
G4	★F13	B/8	:	Terminal cord assembly (With A/T)
E1	★F14	B/3	:	Camshaft position sensor
D2	★F17	L/2	:	EVAP canister purge volume control solenoid valve
C3	★F18	GR/2	:	Fuel injector No. 1
D4	★F19	GR/2	:	Fuel injector No. 2
D4	★F20	GR/2	:	Fuel injector No. 3
D4	★F21	GR/2	:	Fuel injector No. 4
C3	★F22	G/2	:	Intake valve timing control solenoid valve
E1	★F23	GR/2	:	Engine coolant temperature sensor
C3	★F24	B/4	:	Heated oxygen sensor 2
E3	F26	GR/2	:	Condenser
F4	★F27	B/2	:	Knock sensor
D4	F28	B/1	:	Compressor (With A/C)
D4	F30	–	:	Alternator
C2	★F33	GR/3	:	Ignition coil No. 1
C2	★F34	GR/3	:	Ignition coil No. 2
C2	★F35	GR/3	:	Ignition coil No. 3
D2	★F36	GR/3	:	Ignition coil No. 4
E1	★F37	B/4	:	Heated oxygen sensor 1
E4	★F38	B/3	:	Crankshaft position sensor
E1	★F39	B/6	:	Electric throttle control actuator
G2	★F41	BR/3	:	Revolution sensor
D4	F43	B/3	:	Alternator
E4	F44	SB/3	:	Oil level sensor
D4	F45	GR/1	:	Oil pressure switch
F3	F46	–	:	Engine ground
E2	★F49	B/6	:	Mass air flow sensor
F1	★F50	SMJ	:	ECM
F2	★F51	SMJ	:	ECM

★ : 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.

MKWA4421E

ENGINE CONTROL HARNESS/K9K ENGINE MODELS

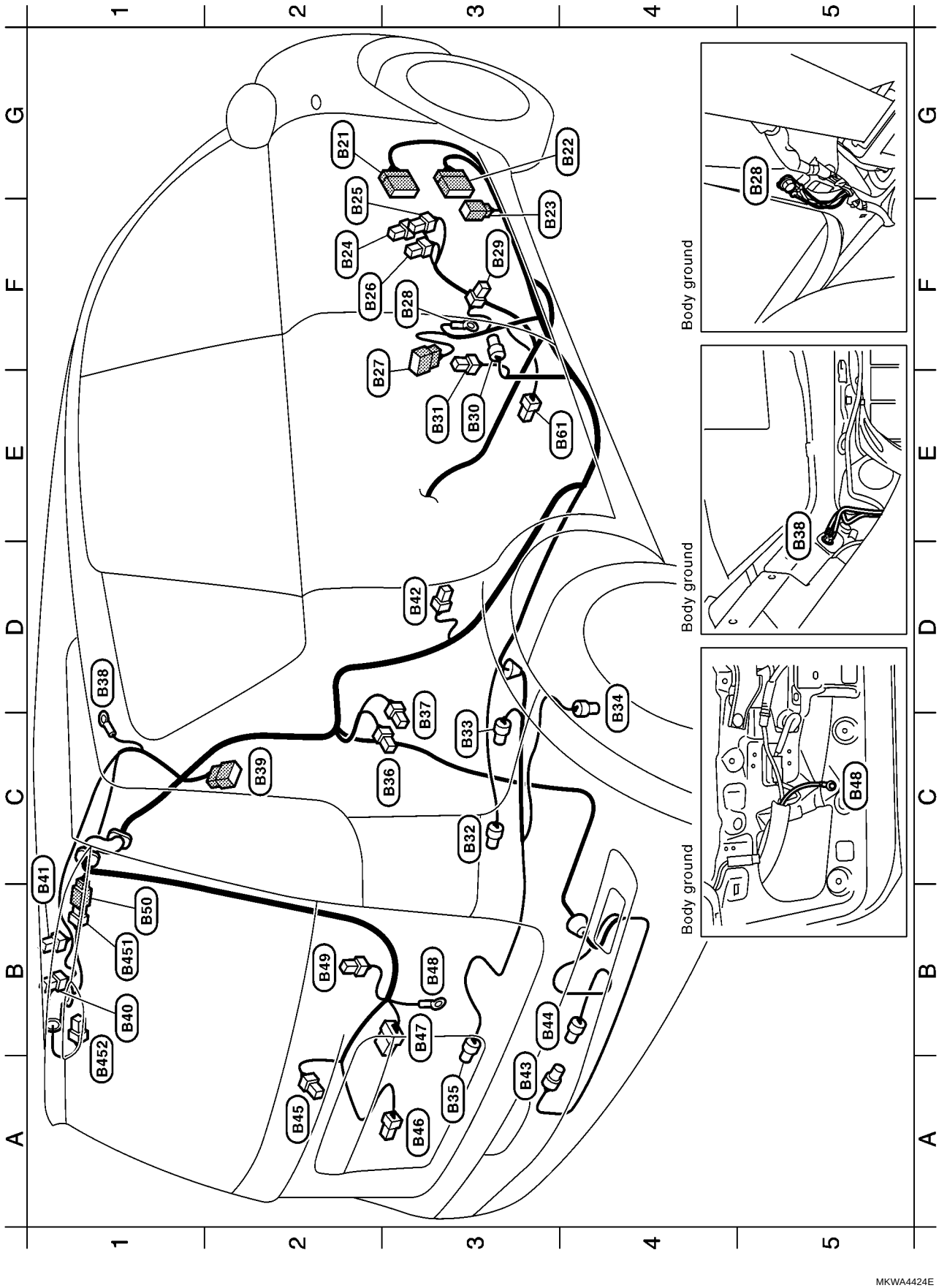


MKWA4422E

G2	F101	SMJ	:	To E60
E2	F102	B/8	:	Glow control unit
F2	F103	GR/1	:	To E62
F2	F104	–	:	Fusible link holder
C3	F105	–	:	Starter motor
C3	F106	–	:	Starter motor
E4	F107	G/3	:	Park/neutral position switch
D3	F110	B/2	:	Crankshaft position sensor
D2	F111	–/4	:	Engine coolant temperature sensor
B1	F113	–/6	:	EGR volume control solenoid valve
D2	F114	–/3	:	Turbocharger boost sensor
C1	F115	–/2	:	Fuel injector No. 1
C1	F116	–/2	:	Fuel injector No. 2
C2	F117	–/2	:	Fuel injector No. 3
B2	F118	–/2	:	Fuel injector No. 4
D2	F119	B/1	:	Glow plug No. 1
C2	F120	B/1	:	Glow plug No. 2
C2	F121	B/1	:	Glow plug No. 3
B2	F122	B/1	:	Glow plug No. 4
D3	F123	B/3	:	Fuel rail pressure sensor
D3	F125	B/2	:	Knock sensor (Accelometer)
C4	F126	B/2	:	Oil level sensor
B4	F127	–	:	Alternator (B)
B3	F128	B/2	:	Alternator (S), (L)
B5	F129	GR/2	:	Compressor (With A/C)
B3	F130	B/3	:	Camshaft position sensor
B3	F131	BR/2	:	Fuel pump
B2	F132	G/2	:	Fuel pump temperature sensor
F2	F134	SMJ	:	ECM
E1	F135	B/6	:	Intake air temperature sensor (Built into mass air flow sensor)
D4	F136	B/2	:	Turbocharger boost control solenoid valve
C4	F137	B/2	:	Oil pressure switch

MKWA4423E

BODY HARNESS (RH SIDE)



MKWA4424E

Body harness RH side

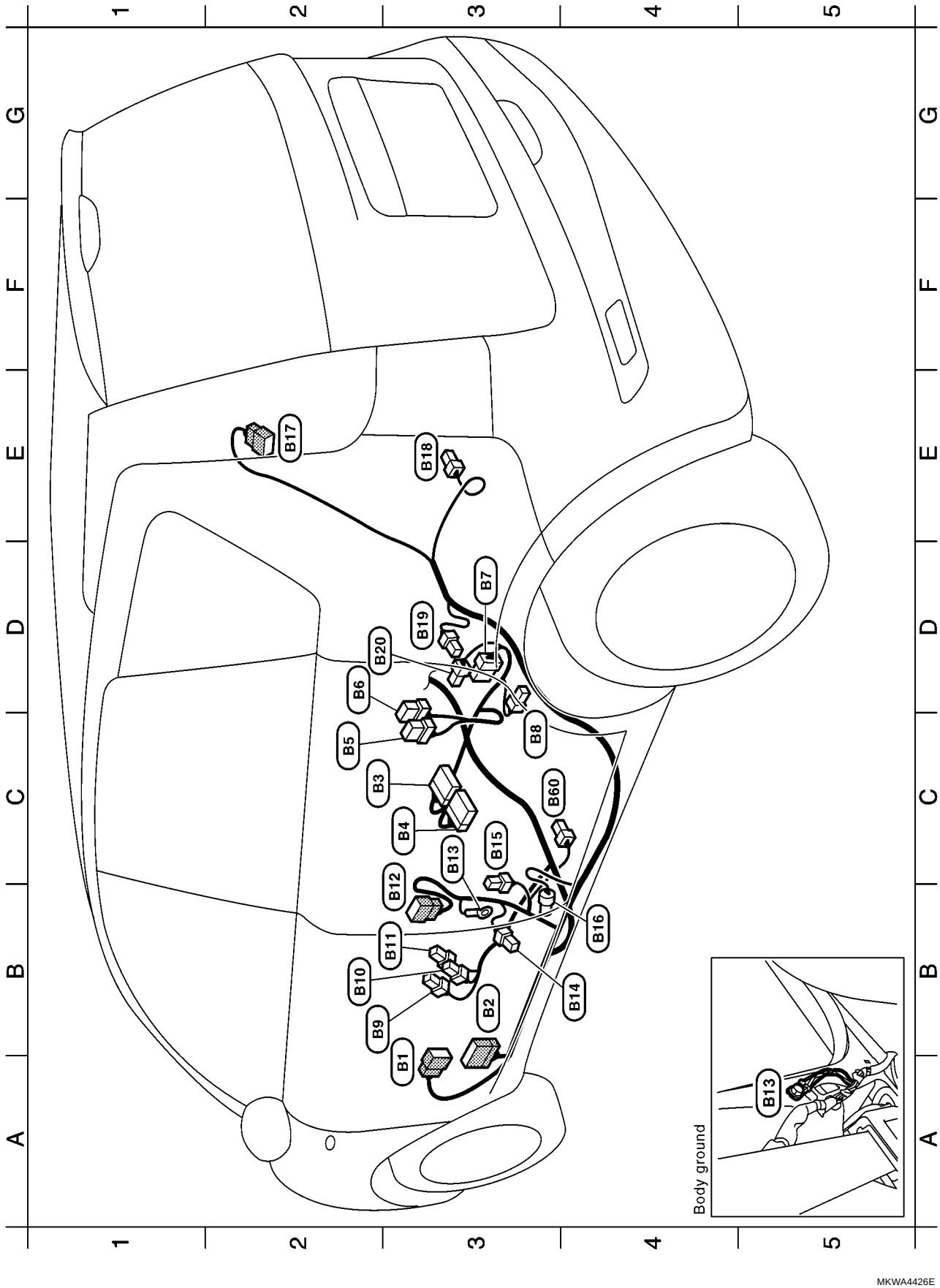
G2	B21	W/16	:	To M72
G4	B22	W/24	:	To M73
F3	B23	W/2	:	To M74
F2	B24	W/3	:	Heated seat RH
F2	B25	W/3	:	Seat belt buckle switch RH
F2	B26	Y/2	:	Front RH side air bag module
F3	B27	W/8	:	To D61
F3	B28	–	:	Body ground
F3	B29	W/2	:	Front door switch RH
E3	B30	W/3	:	RH side air bag (satellite) sensor
E3	B31	Y/2	:	Front RH seat belt pre-tensioner
C3	B32	BR/2	:	Inside key antenna (Rare seat)
C3	B33	GR/4	:	Fuel sensor unit and fuel pump
D4	B34	B/2	:	Rear wheel sensor RH
A3	B35	B/2	:	Rear wheel sensor LH
C3	B36	B/1	:	Luggage room lamp (+)
C3	B37	B/1	:	Luggage room lamp (–)
D1	B38	–	:	Body ground
C2	B39	W/6	:	Rear combination lamp RH
B1	B40	Y/2	:	LH side curtain air bag module
C1	B41	Y/2	:	RH side curtain air bag module
D3	B42	W/3	:	Rear door switch RH
A3	B43	GR/2	:	Inside key antenna (Rare bumper)
B3	B44	GR/2	:	Rear fog lamp RH
A2	B45	W/4	:	Rear wiper motor
A3	B46	W/4	:	Back door release actuator
B3	B47	W/8	:	To D101
B3	B48	–	:	Body ground
B2	B49	GR/1	:	Rear window defogger
B1	B50	BR/2	:	To B451
E3	B61	O/2	:	Lap outer RH

High mounted stop lamp sub harness

B1	B451	BR/2	:	To B50
A1	B452	W/2	:	High mounted stop lamp

MKWA4425E

BODY HARNESS (LH SIDE)

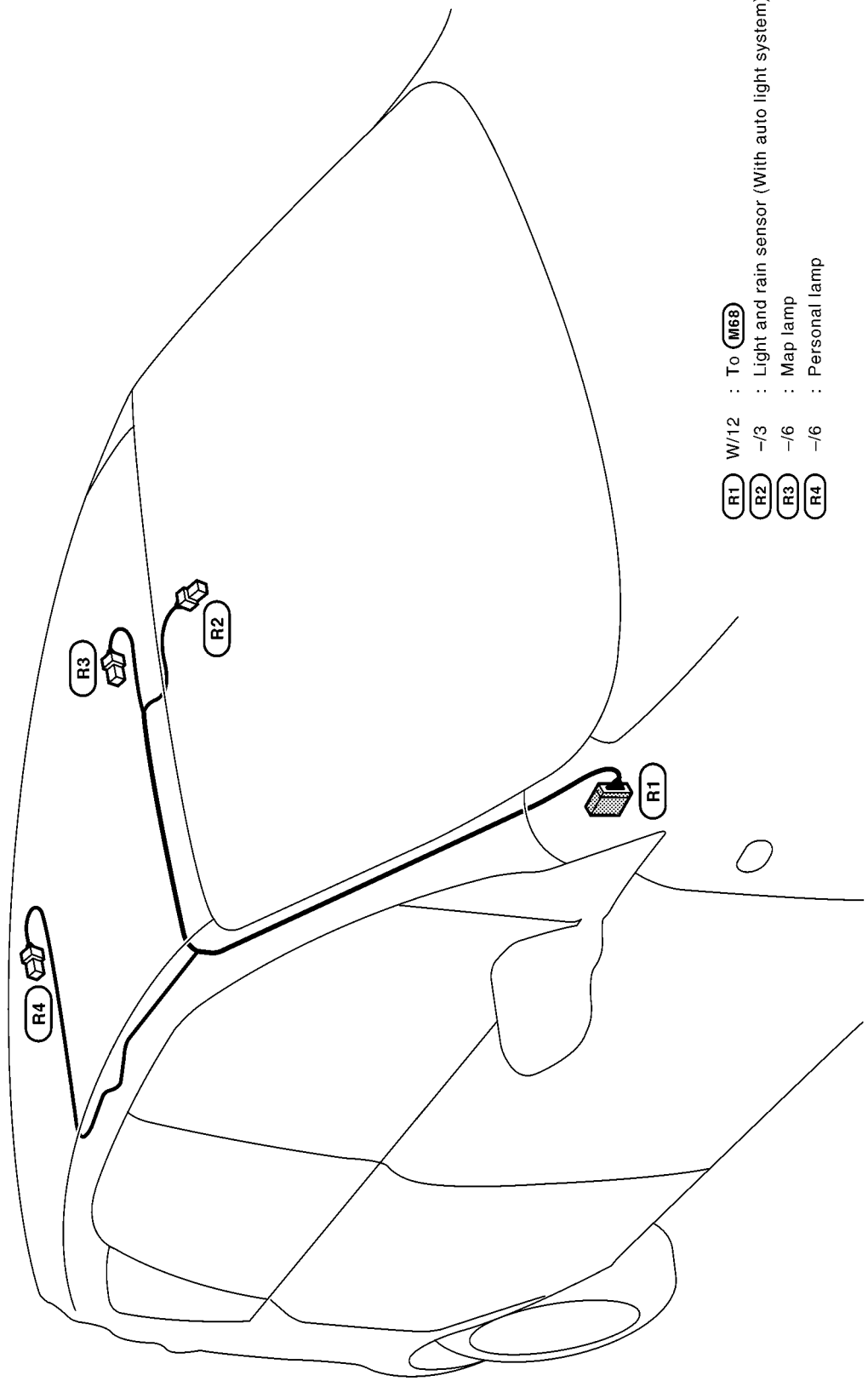


MKWA4426E

A3	B1	W/6	: To M10
B3	B2	W/16	: To M11
C3	B3	Y/12	: Air bag diagnosis sensor unit
C3	B4	Y/12	: Air bag diagnosis sensor unit
C2	B5	BR/6	: Heated seat switch RH
D2	B6	W/6	: Heated seat switch LH
D3	B7	B/6	: Yaw rate/side G sensor
C3	B8	B/2	: Power socket
B2	B9	W/3	: Heated seat LH
B2	B10	W/3	: Seat belt buckle switch LH
B3	B11	Y/2	: Front LH side air bag module
B3	B12	W/8	: To D41
C3	B13	–	: Body ground
B4	B14	W/3	: Front door switch LH
C3	B15	Y/2	: Front LH seat belt per-tensioner
B4	B16	Y/2	: LH side air bag (satellite) sensor
E2	B17	W/6	: Rear combination lamp LH
E3	B18	B/2	: Power socket
D3	B19	W/3	: Rear door switch LH
D2	B20	GR/2	: Inside antenna (Center console)
C3	B60	O/2	: Lap outer LH

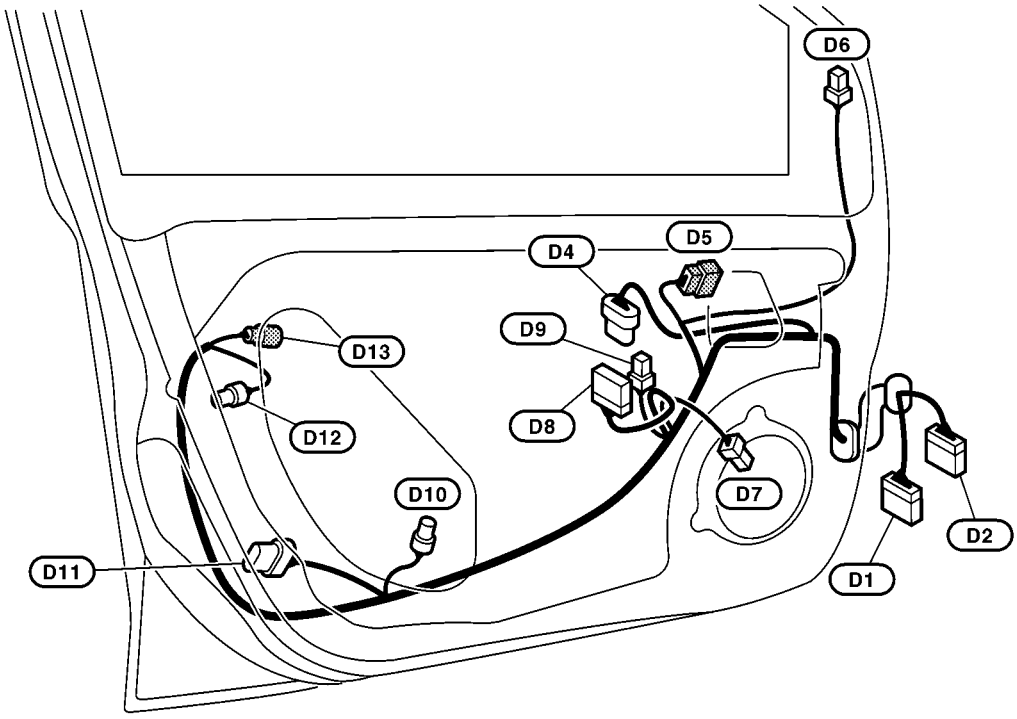
MKWA4427E

ROOM LAMP HARNESS



MKWA4428E

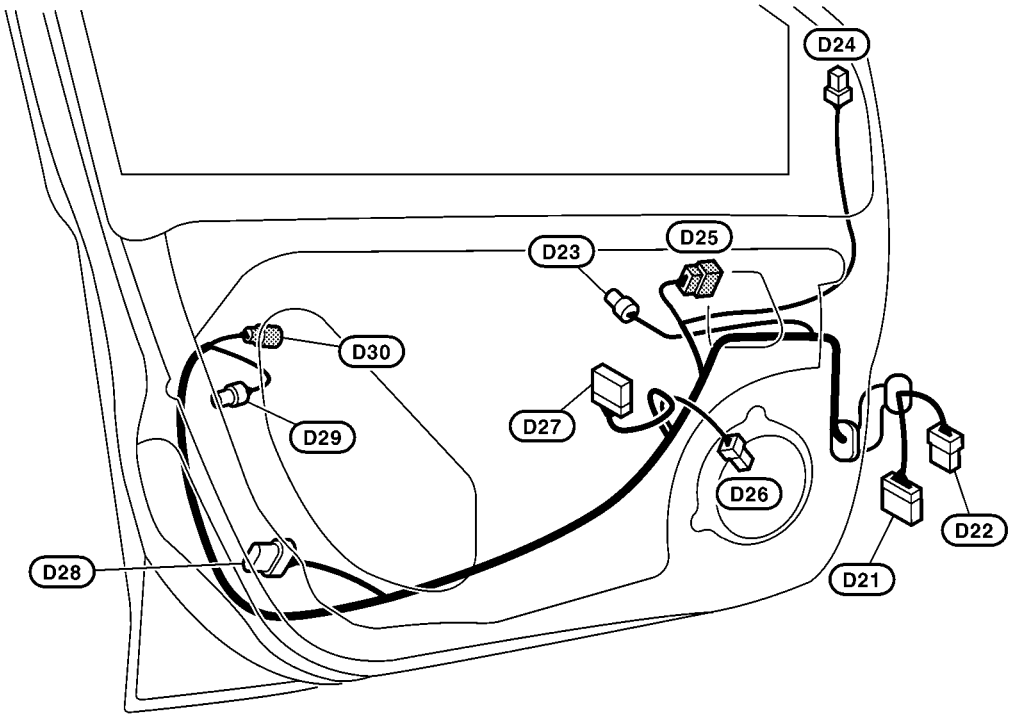
FRONT DOOR HARNESS LH SIDE/LHD MODELS



D1	W/16	:	To M6
D2	W/12	:	To M5
D4	B/6	:	Front power window motor (Driver side)
D5	W/8	:	Door mirror actuator (Driver side)
D6	BR/2	:	Tweeter RH (With 6 speakers)
D7	W/2	:	Front door speaker RH (Driver side)
D8	W/16	:	Power window main switch
D9	W/3	:	Power window main switch
D10	BR/2	:	Intelligent key warning buzzer (With Intelligent key system)
D11	B/6	:	Door lock actuator (Driver side)
D12	GR/2	:	Door request switch (Driver side) (With Intelligent key system)
D13	GR/2	:	Outside antenna (Driver side) (With Intelligent key system)

MKWA4429E

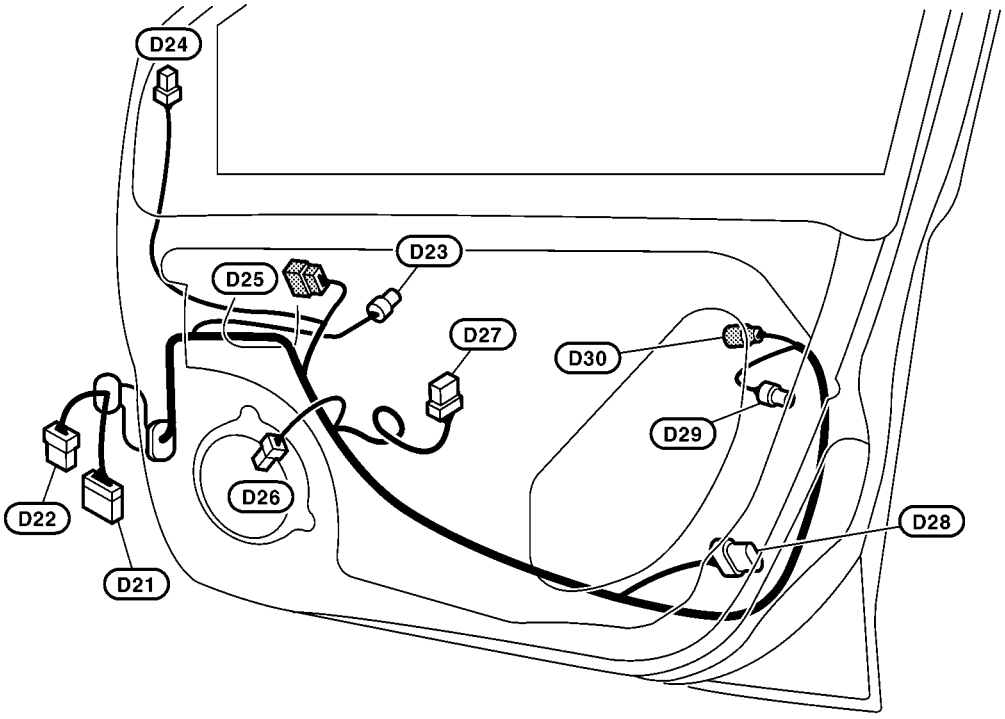
FRONT DOOR HARNESS LH SIDE/RHD MODELS



D21	W/12	:	To M71
D22	W/8	:	To M70
D23	GR/2	:	Front power window motor (Passenger side)
D24	BR/2	:	Tweeter RH (With 6 speakers)
D25	W/8	:	Door mirror actuator (Passenger side)
D26	W/2	:	Front door speaker RH
D27	W/8	:	Front power window switch (Passenger side)
D28	B/6	:	Door lock actuator (Passenger side)
D29	GR/2	:	Door request switch (Passenger side) (With Intelligent key system)
D30	W/2	:	Outside antenna (Passenger side) (With Intelligent key system)

MKWA4430E

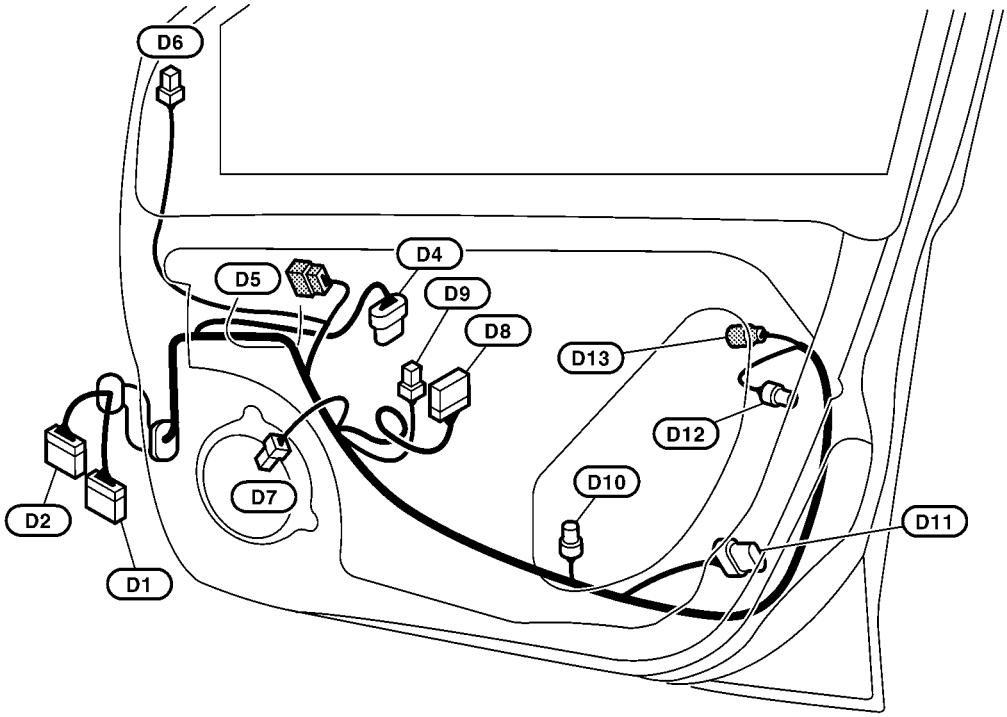
FRONT DOOR HARNESS RH SIDE/LHD MODELS



D21	W/12	:	To M71
D22	W/8	:	To M70
D23	GR/2	:	Front power window motor (Passenger side)
D24	BR/2	:	Tweeter RH (With 6 speakers)
D25	W/8	:	Door mirror actuator (Passenger side)
D26	W/2	:	Front door speaker RH
D27	W/8	:	Front power window switch (Passenger side)
D28	B/6	:	Door lock actuator (Passenger side)
D29	GR/2	:	Door request switch (Passenger side) (With Intelligent key system)
D30	W/2	:	Outside antenna (Passenger side) (With Intelligent key system)

MKWA4431E

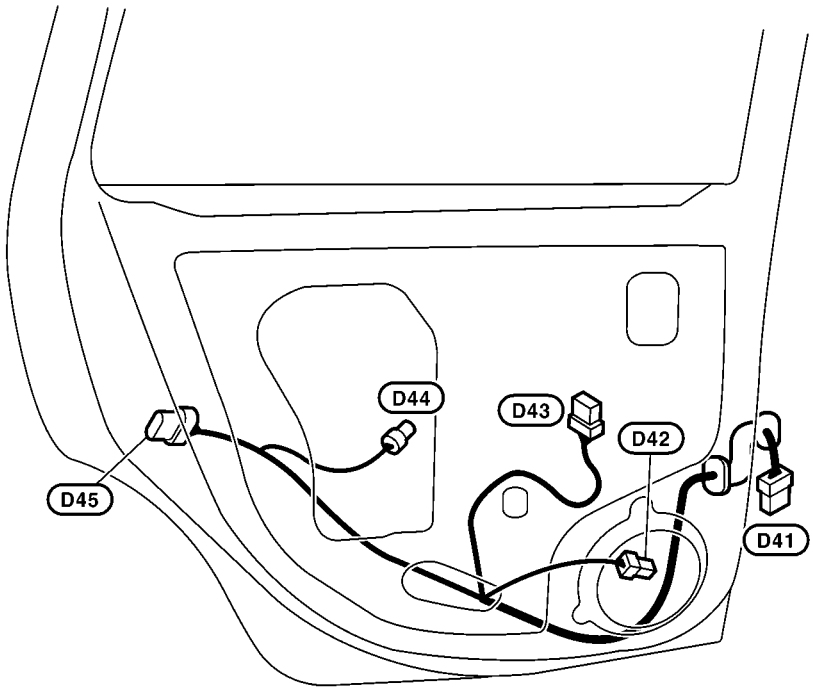
FRONT DOOR HARNESS RH SIDE/RHD MODELS



D1	W/16	:	To M6
D2	W/12	:	To M5
D4	B/6	:	Front power window motor (Driver side)
D5	W/8	:	Door mirror actuator (Driver side)
D6	BR/2	:	Tweeter RH (With 6 speakers)
D7	W/2	:	Front door speaker RH (Driver side)
D8	W/16	:	Power window main switch
D9	W/3	:	Power window main switch
D10	BR/2	:	Intelligent key warning buzzer (With Intelligent key system)
D11	B/6	:	Door lock actuator (Driver side)
D12	GR/2	:	Door request switch (Driver side) (With Intelligent key system)
D13	GR/2	:	Outside antenna (Driver side) (With Intelligent key system)

MKWA4432E

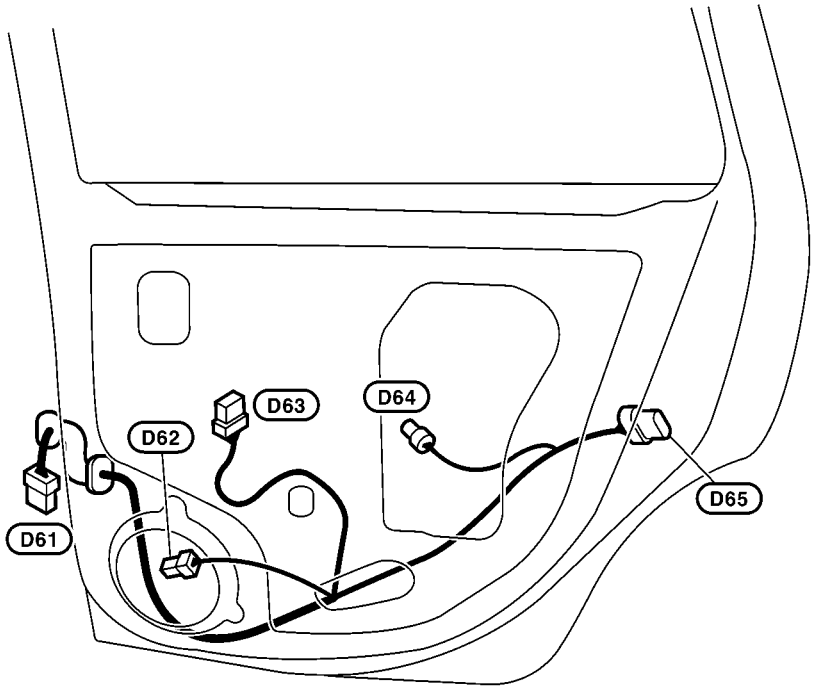
REAR DOOR HARNESS LH SIDE



D41	W/8	:	To B12
D42	W/2	:	Rear door speaker LH side
D43	W/8	:	Rear power window switch LH side
D44	B/2	:	Rear power window motor LH side
D45	B/6	:	Rear door lock actuator LH side

MKWA4433E

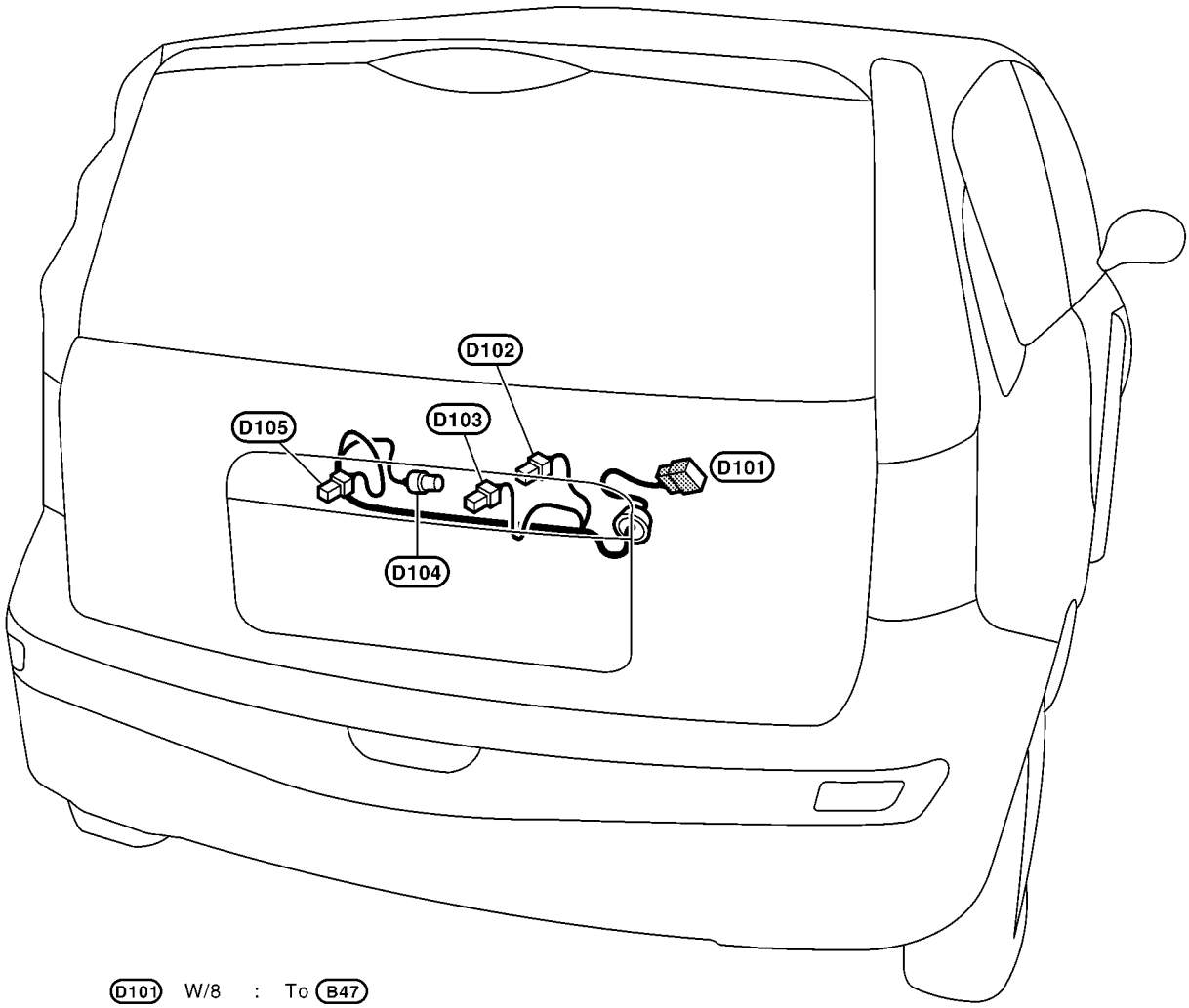
REAR DOOR HARNESS RH SIDE



D61	W/8	:	To B27
D62	W/2	:	Rear door speaker RH side
D63	W/8	:	Rear power window switch RH side
D64	B/2	:	Rear power window motor RH side
D65	B/6	:	Rear door lock actuator RH side

MKWA4434E

BACK DOOR HARNESS



D101	W/8	:	To B47
D102	–/2	:	Back door request switch (With Intelligent key system)
D103	B/2	:	License plate lamp RH
D104	GR/2	:	Back door switch
D105	B/2	:	License plate lamp LH

MKWA4435E

Wiring Diagram Codes (Cell Codes)

BKS0026Q

Use the chart below to find out what each wiring diagram code stands for.
Refer to the wiring diagram code in the alphabetical index to find the location (page number) of each wiring diagram.

Code	Section	Wiring Diagram Name
A/C	ATC	Air Conditioner
A/C	MTC	Air Conditioner
A/WIP	WW	Front Wiper and Washer System (With Rain Sensor)
ABS	BRC	Anti-lock Brake System
AP/SEN	EC	Absolute Pressure Sensor
APPS	EC	Accelerator Pedal Position Sensor
APPS1	EC	Accelerator Pedal Position Sensor
APPS2	EC	Accelerator Pedal Position Sensor
APPS3	EC	Accelerator Pedal Position Sensor
AT/IND	DI	A/T Indicator Lamp
AUDIO	AV	Audio
AUTO/L	LT	Auto Light Control
BA/FTS	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
CIGAR	WW	Cigarette Lighter
CKPS	EC	Crankshaft Position Sensor
CMPS	EC	Camshaft Position Sensor
COMBSW	LT	Combination Switch
COOL/F	EC	Cooling Fan Control
CRFPS	EC	Common Rail Fuel Pressure Sensor
D/COMP	DI	Drive Computer
D/LOCK	BL	Power Door Lock
DEF	GW	Rear Window Defogger
DTRL	LT	Headlamp - With Daytime Light System
ECMRLY	EC	ECM Relay
ECM/PW	EC	ECM Power Supply For Back-up
ECTS	EC	Engine Coolant Temperature Sensor
EGRC/V	EC	EGR Control System
ENGSS	AT	Engine Speed Signal
EPS	STC	Electric Controlled Power Steering System
ESP	BRC	Electronic Stability Program System
ETC1	EC	Electric Throttle Control Function
ETC2	EC	Throttle Control Motor Relay
ETC3	EC	Throttle Control Motor
F/FOG	LT	Front Fog Lamp

Code	Section	Wiring Diagram Name
F/PUMP	EC	Fuel Pump
FRO2	EC	Front Heated Oxygen Sensor
FRPS	EC	Fuel Rail Pressure Sensor
FTS	AT	A/T Fluid Temperature Sensor
FTS	EC	Fuel Temperature Sensor
FUEL	EC	Fuel Injection System Function
GLOW	EC	Quick Glow System
H/AIM	LT	Headlamp Aiming Control System
H/LAMP	LT	Headlamp
H/SEAT	SE	Heated Seat
HEATER	MTC	Heater System
HLC	WW	Headlamp Washer
HO2S1	EC	Heated Oxygen Sensor 1
HO2S1H	EC	Heated Oxygen Sensor 1 Heater
HO2S2	EC	Rear Heated Oxygen Sensor 2
HO2S2H	EC	Rear Heated Oxygen Sensor 2 Heater
HORN	WW	Horn
I/KEY	BL	Intelligent Key System
IATS	EC	Intake Air Temperature Sensor
IATSEN	EC	Intake Air Temperature Sensor
IGNSYS	EC	Ignition System
ILL	LT	Illumination
IMV/D	EC	Fuel Flow Actuator
INJECT	EC	Fuel Injector
INT/L	LT	Stop, Vanity Mirror and Trunk Room Lamps
IVC	EC	Intake Valve Timing Control Solenoid Valve
KS	EC	Knock Sensor
LPSV	AT	Line Pressure 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	Speed Meter, Tachometer, Temp, Oil and Fuel Gauge
MIL/DL	EC	MIL & Data Link Connector
MIRROR	GW	Door Mirror
MULTI	BL	Multi-remote Control System
NATS	BL	Nissan Anti-Theft System
NONDTC	AT	NON-detective Items
OVRCSV	AT	Overrun Clutch Solenoid Valve
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	EC	Park/Neutral Position Switch
POS	EC	Crankshaft Position Sensor (CKPS) (POS)
POWER	PG	Power Supply Routing Circuit

Code	Section	Wiring Diagram Name
PRGVLV	EC	EVAP Canister Purge Volume Control Solenoid Valve
PRWIRE	BL	After Market Alarm - Prewire
PTC/H	ATC	PTC Heater
PTC/H	MTC	PTC Heater
PT/SEN	AT	Turbine Revolution Sensor
R/FOG	LT	Rear Fog Lamp
RP/SEN	EC	Refrigerant Pressure Sensor
RRO2	EC	Rear Heated Oxygen Sensor 2
S/LOCK	BL	Power Door Lock-Super Lock
SEN/PW	EC	Sensor Power Supply
SHIFT	AT	A/T Shift Lock System
SRS	SRS	Supplemental Restraint System
SSV/A	AT	Shift Solenoid Valve A
SSV/B	AT	Shift Solenoid Valve B
START	SC	Starting System
STOP/L	LT	Stop Lamp
TAIL/L	LT	Parking, License Tail and Stop Lamps
TCBST	EC	TC Boost Pressure Sensor
TCC/V	EC	Turbocharger Boost Control Solenoid Valve
TCV	AT	Torque Converter Clutch Solenoid Valve
TPS1	EC	Throttle Position Sensor (Sensor 1)
TPS2	EC	Throttle Position Sensor (Sensor 2)
TPS3	EC	Throttle Position Sensor
TURN	LT	Turn Signal and Hazard Warning Lamps
VSSAT	AT	Vehicle Speed Sensor A/T (Revolution Senor)
VSSMTR	AT	Vehicle Speed Sensor MTR
WARN	DI	Warning Lamps
WINDOW	GW	Power Window
WIP/R	WW	Rear Wiper and Washer

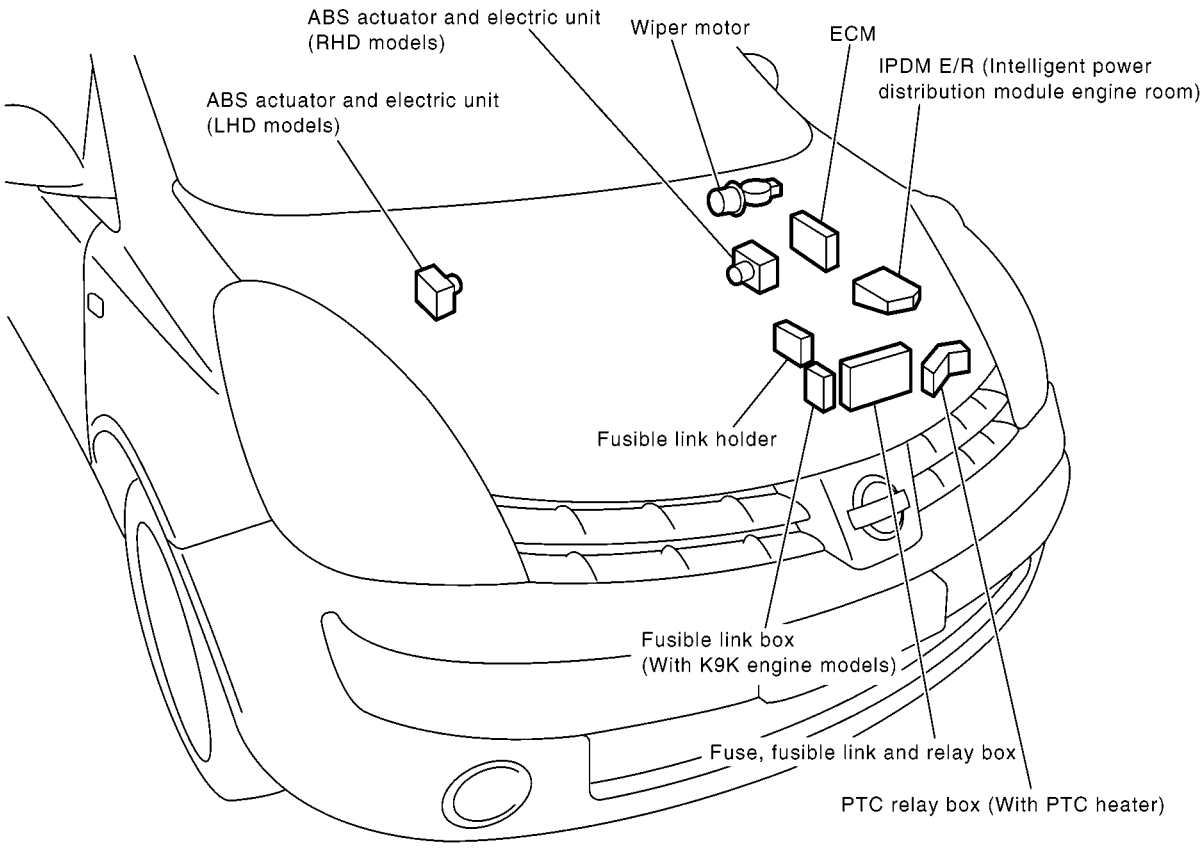
ELECTRICAL UNITS LOCATION

PFP:25230

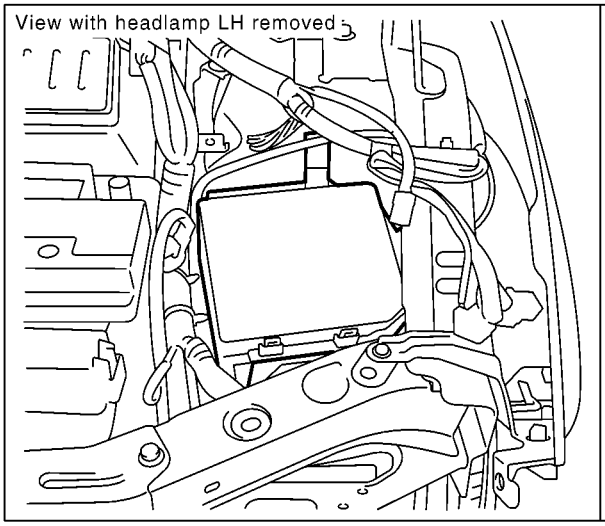
Electrical Units Location

BKS00261

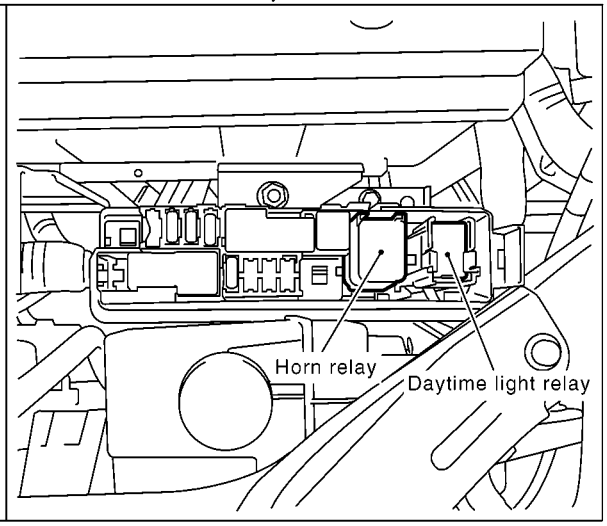
ENGINE COMPARTMENT



IPDM E/R (Intelligent power distribution module engine room)

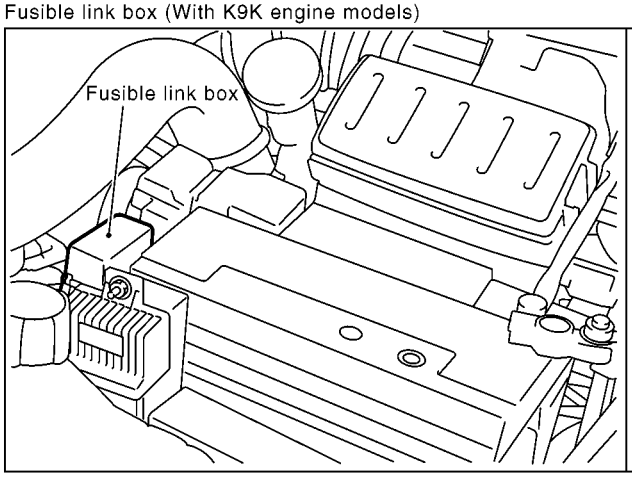


Fuse, fusible link and relay box

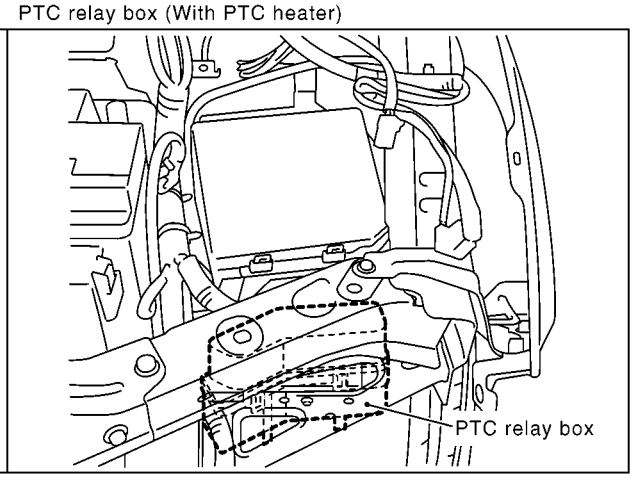


MKWA4436E

Fusible link box (With K9K engine models)

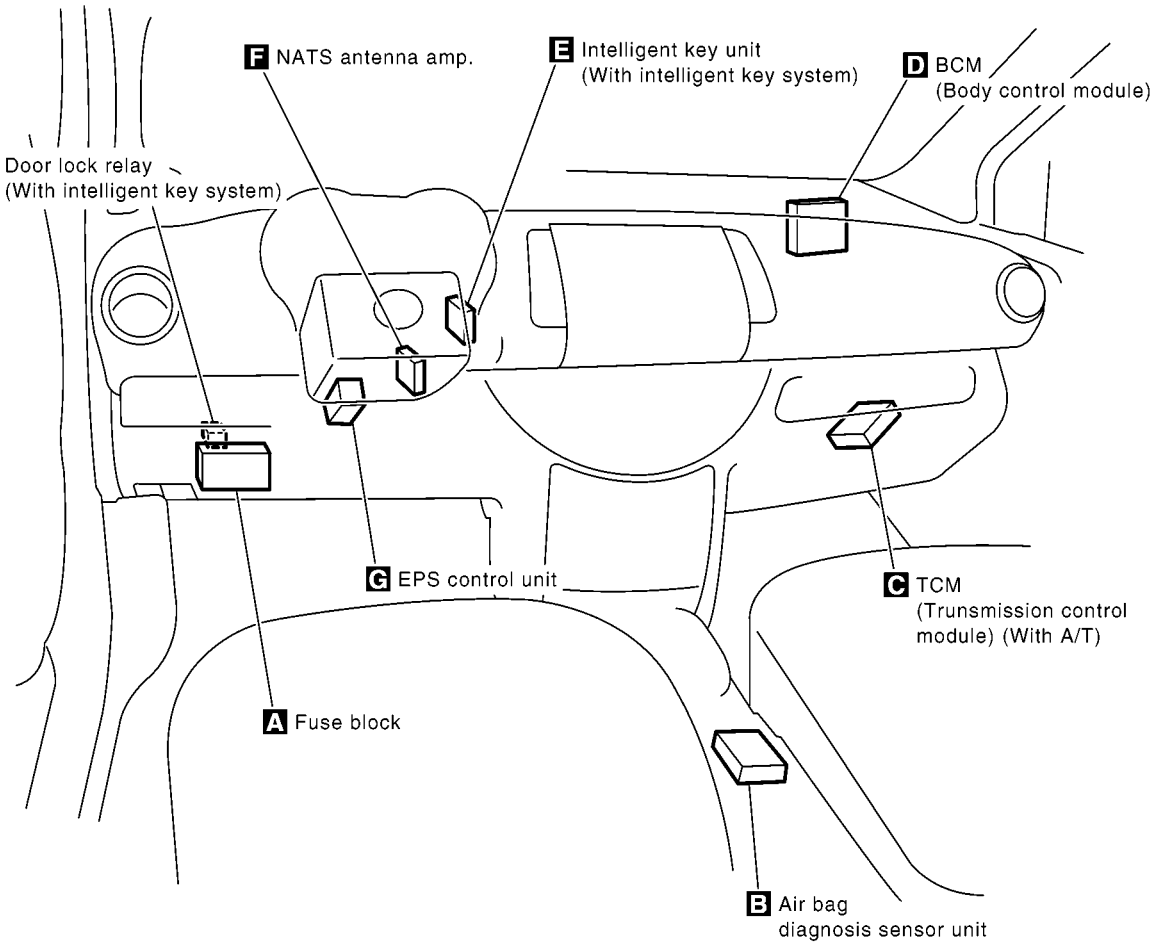


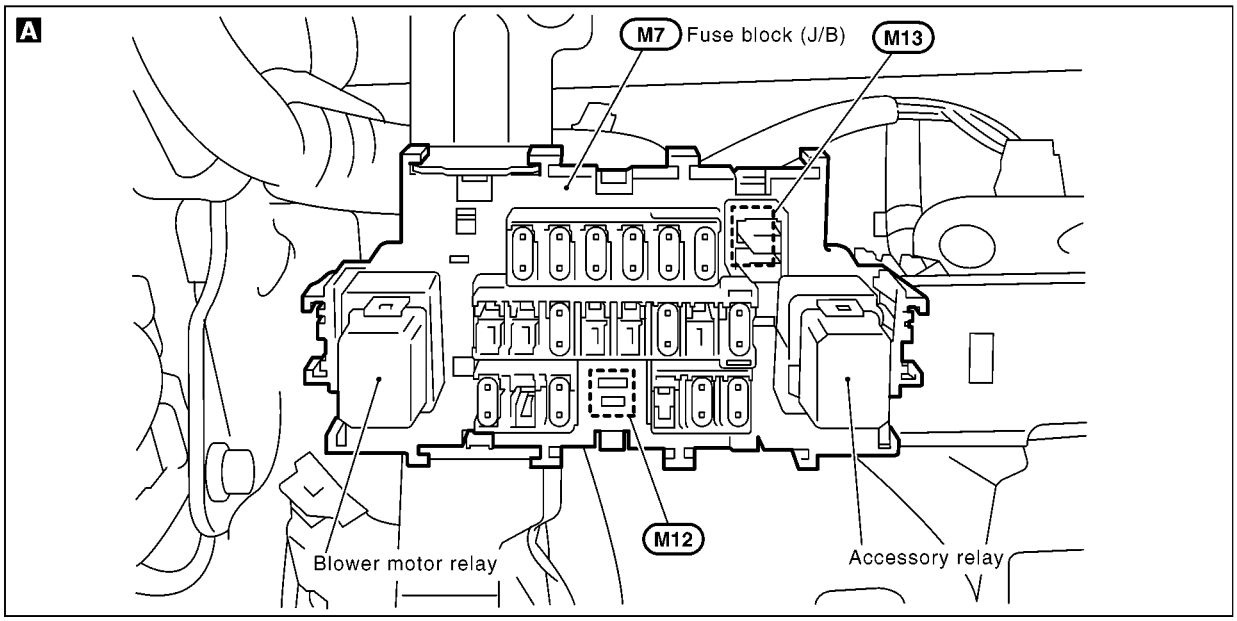
PTC relay box (With PTC heater)



MKWA4437E

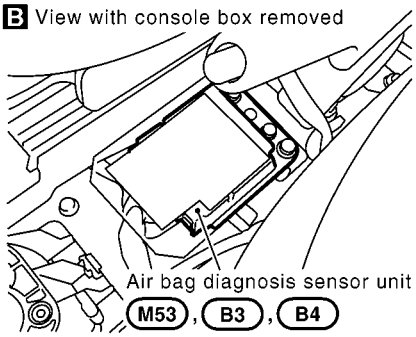
PASSENGER COMPARTMENT/LHD MODELS



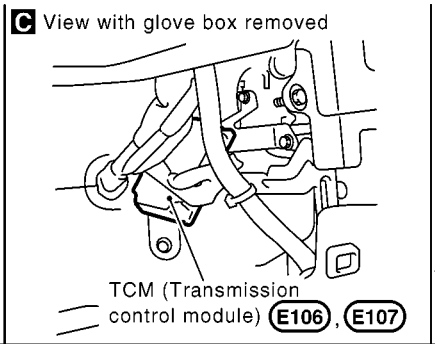


MKWA4438E

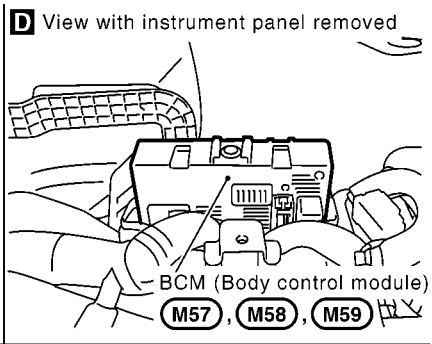
B View with console box removed



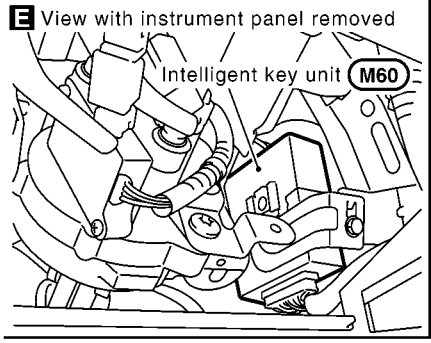
C View with glove box removed



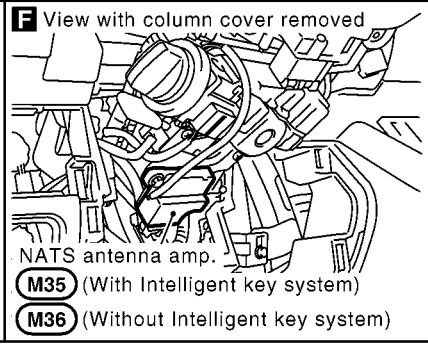
D View with instrument panel removed



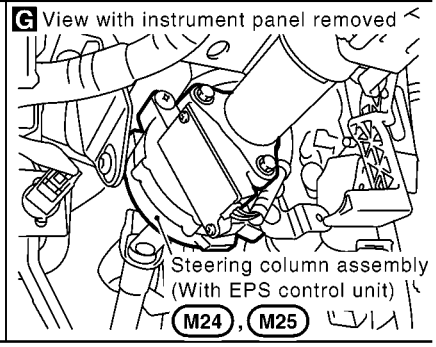
E View with instrument panel removed



F View with column cover removed

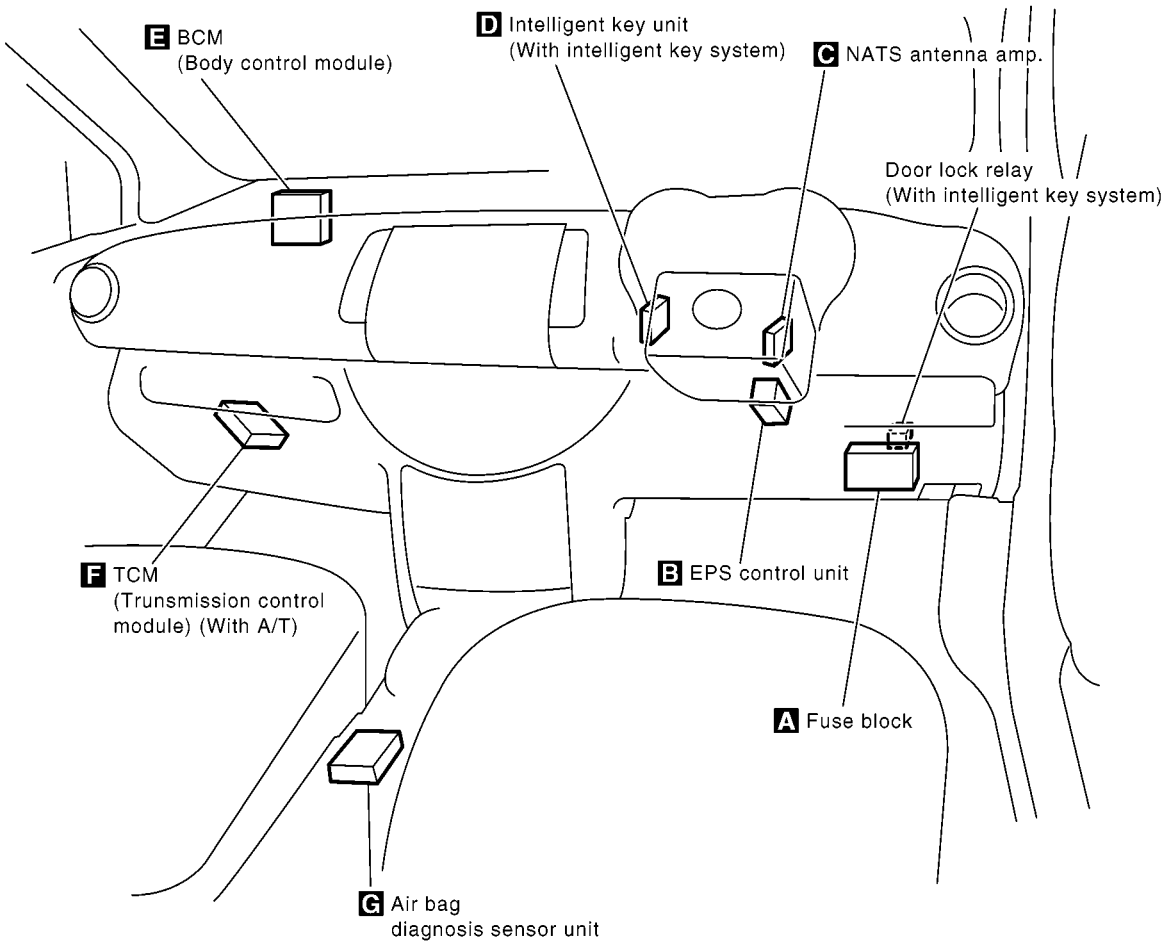


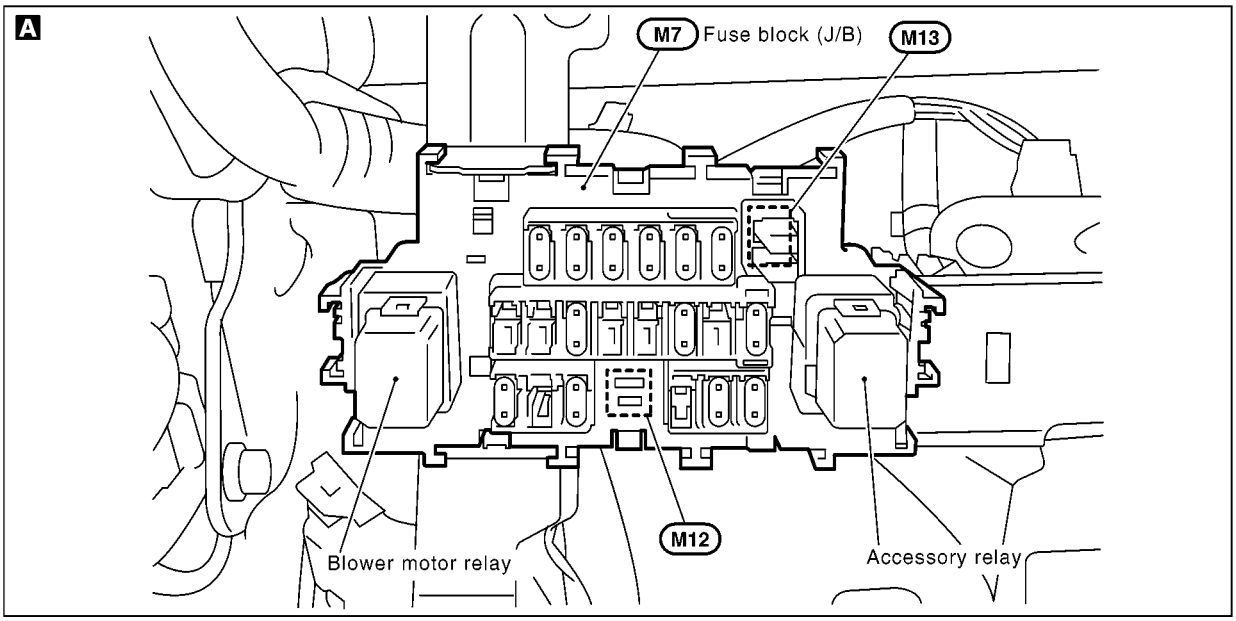
G View with instrument panel removed



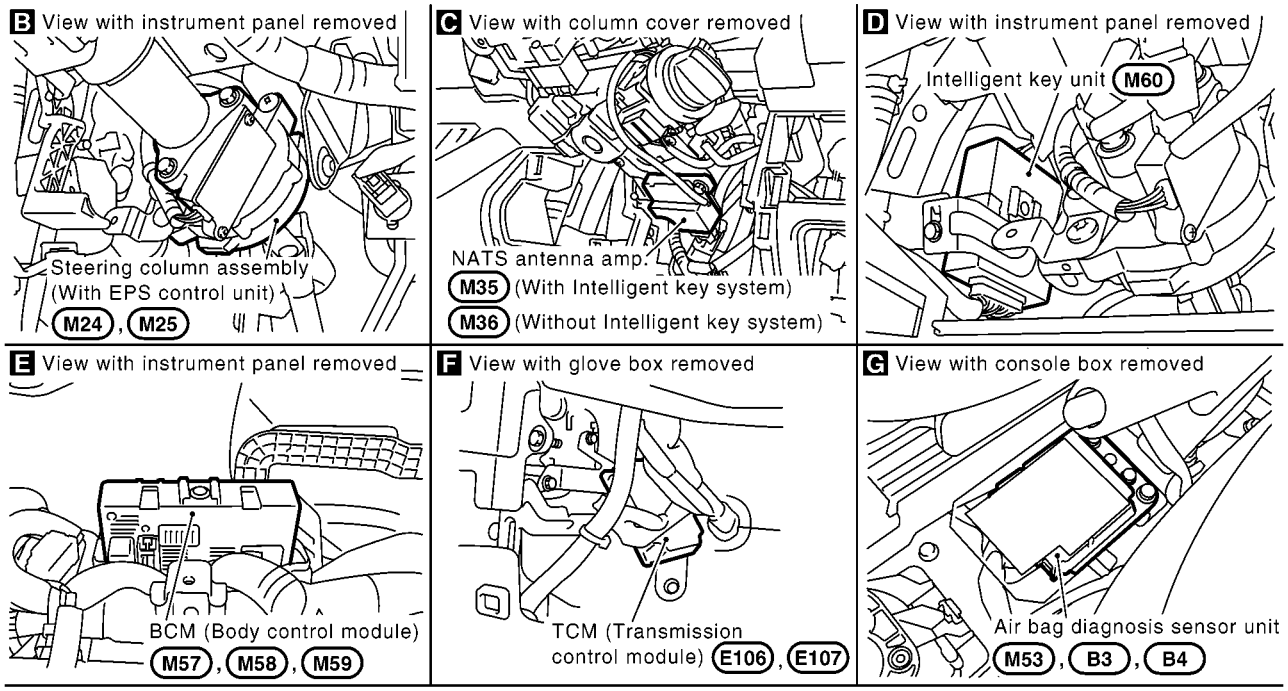
MKWA4439E

PASSENGER COMPARTMENT/RHD MODELS





MKWA4440E


B View with instrument panel removed
Steering column assembly
(With EPS control unit)
M24, M25
C View with column cover removed
NATS antenna amp.
M35 (With Intelligent key system)
M36 (Without Intelligent key system)
D View with instrument panel removed
Intelligent key unit M60
E View with instrument panel removed
BCM (Body control module)
M57, M58, M59
F View with glove box removed
TCM (Transmission
control module) E106, E107
G View with console box removed
Air bag diagnosis sensor unit
M53, B3, B4

MKWA4441E

HARNESS CONNECTOR

PFP:00011

Description

BKS00262

HARNESS CONNECTOR (TAB-LOCKING TYPE)

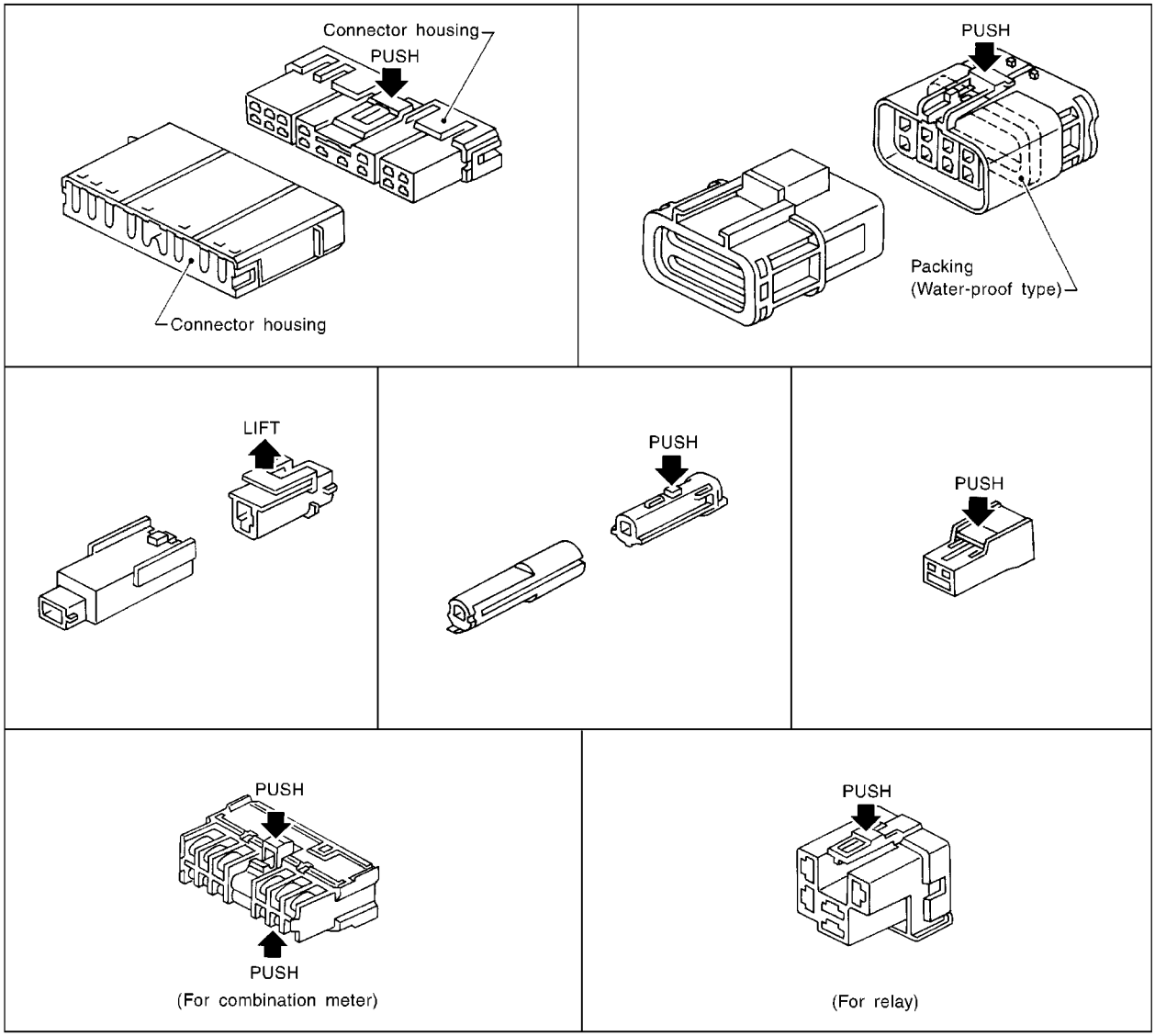
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the figure below.

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

CAUTION:

Never pull the harness or wires when disconnecting the connector.

[Example]



SEL769DA

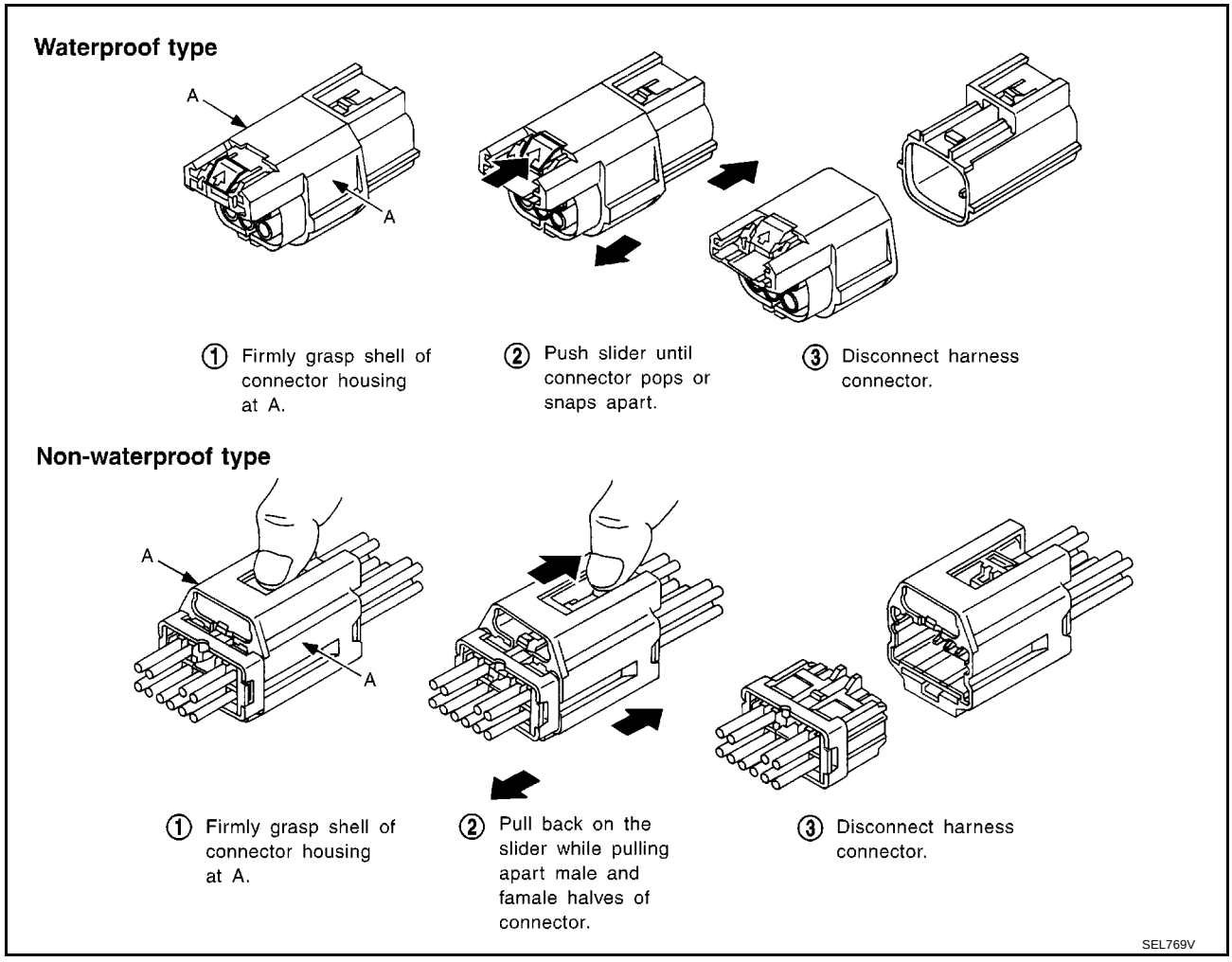
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- 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]



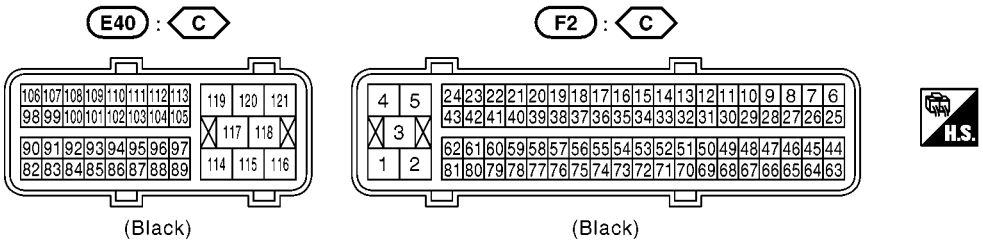
ELECTRICAL UNITS

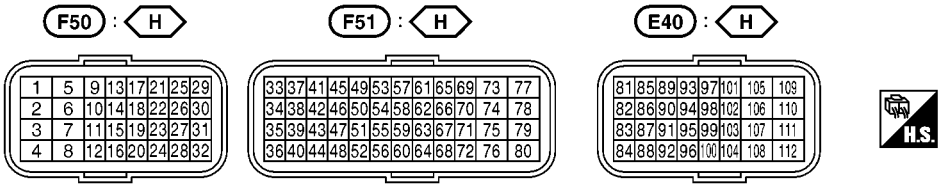
PFP:00011

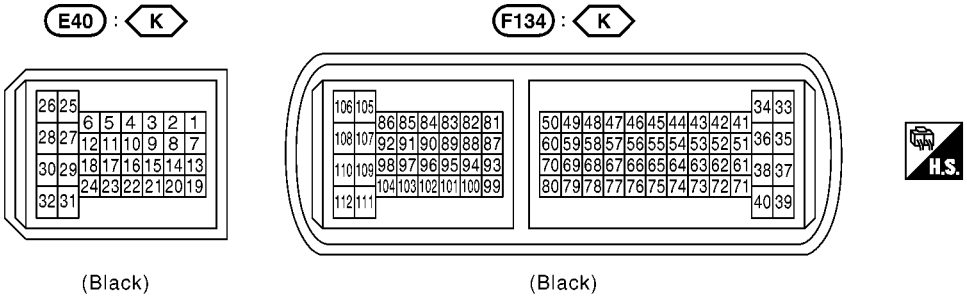
Terminal Arrangement

BKS00263

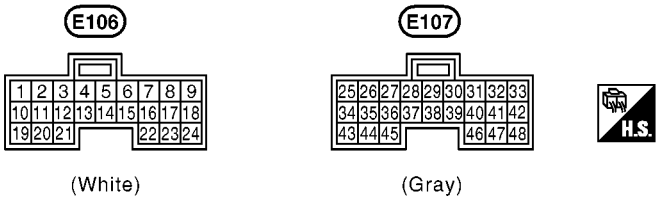
ECM



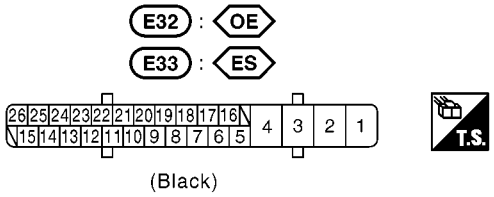




TCM (TRANSMISSION CONTROL MODULE)



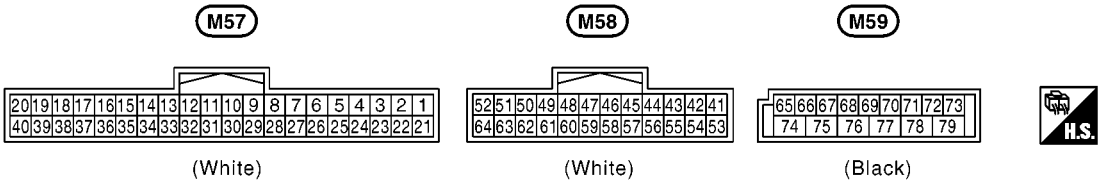
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



C : CR engine models
H : HR engine models
K : K9K engine models
ES : With ESP
OE : Without ESP

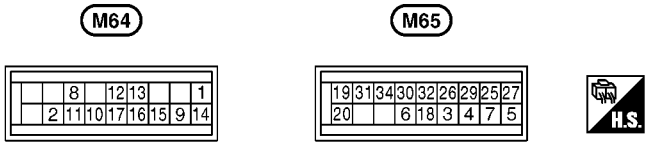
MKWA4443E

BCM (BODY CONTROL MODULE)



(White) (White) (Black)

A/C AUTO AMP.



(Black) (White)

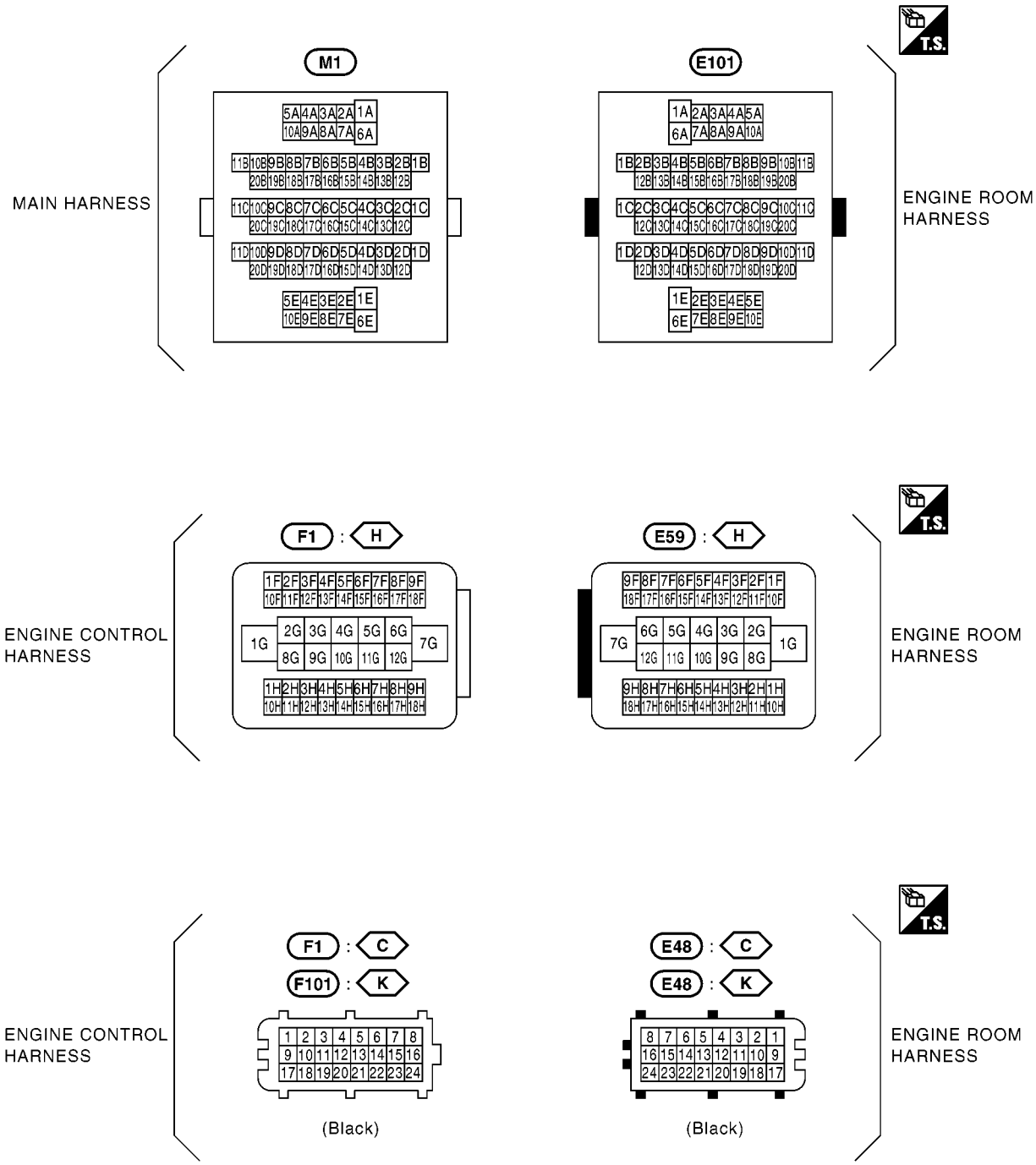
MKWA4444E

SMJ (SUPER MULTIPLE JUNCTION)

PFP:B4341

Terminal Arrangement

BKS00264



MKWA4442E

STANDARDIZED RELAY

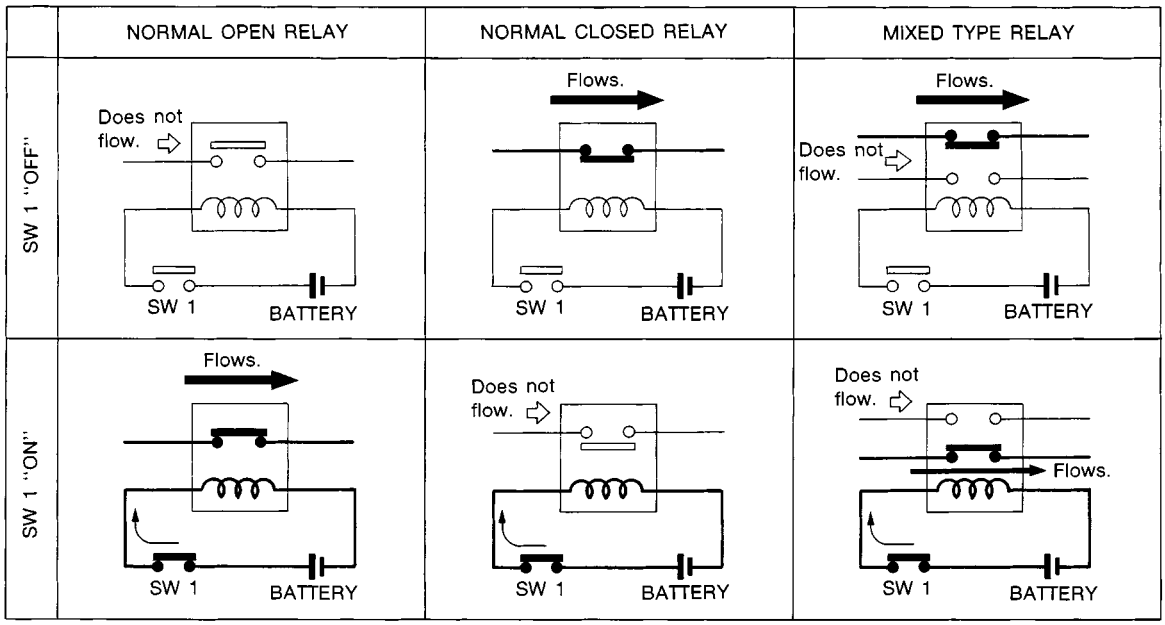
PFP:00011

Description

BKS00265

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

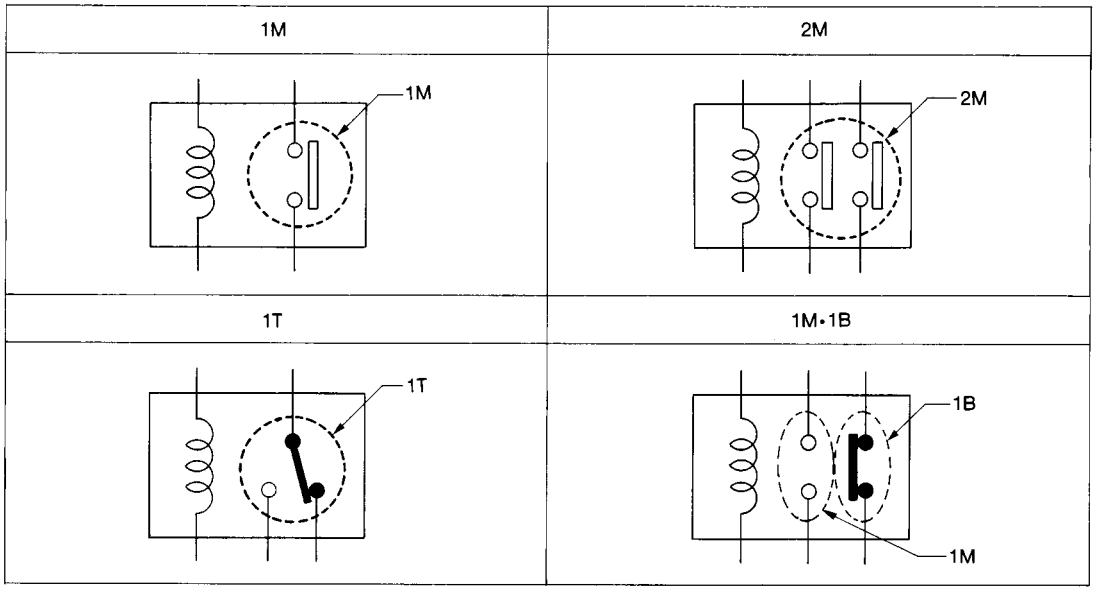
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



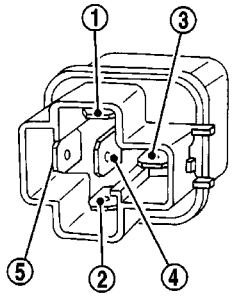
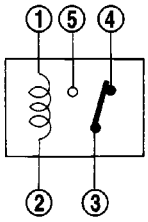
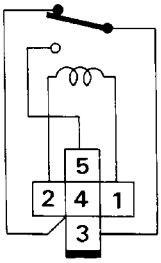
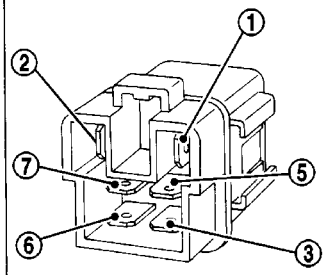
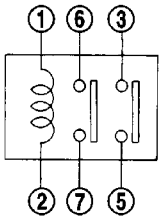
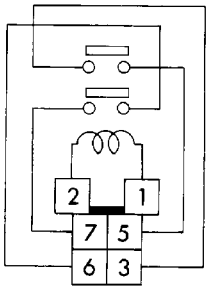
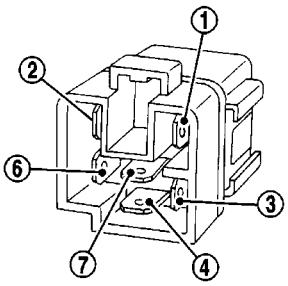
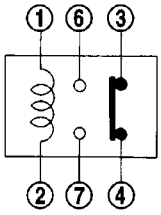
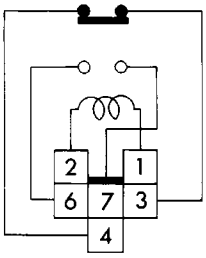
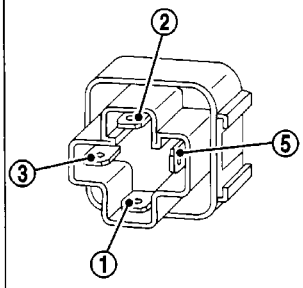
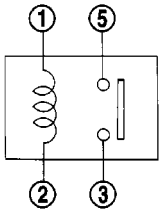
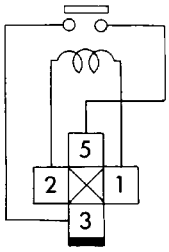
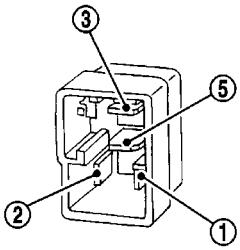
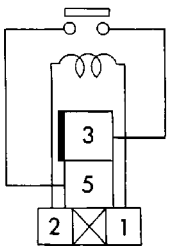
SEL881H

TYPE OF STANDARDIZED RELAYS

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



SEL882H

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

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

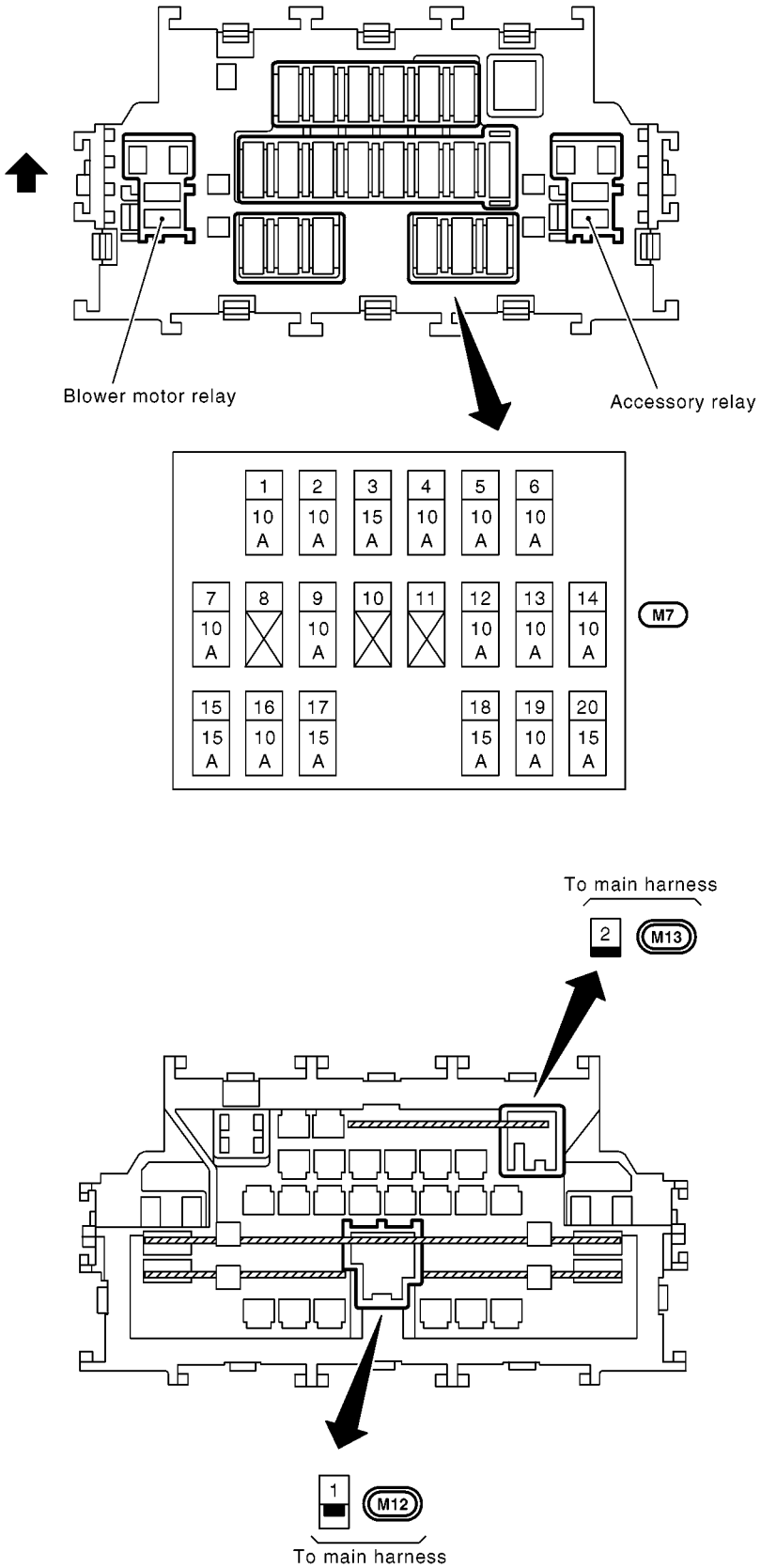
SEL188W

FUSE BLOCK

PFP:24010

Terminal Arrangement

BKS00266



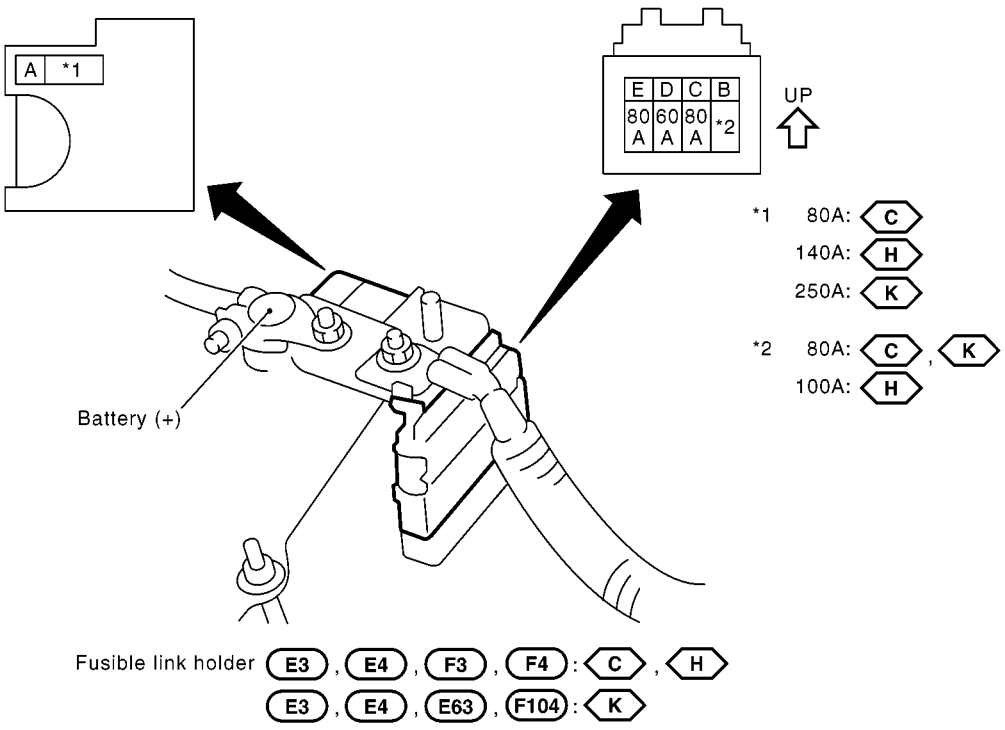
MKWA4446E

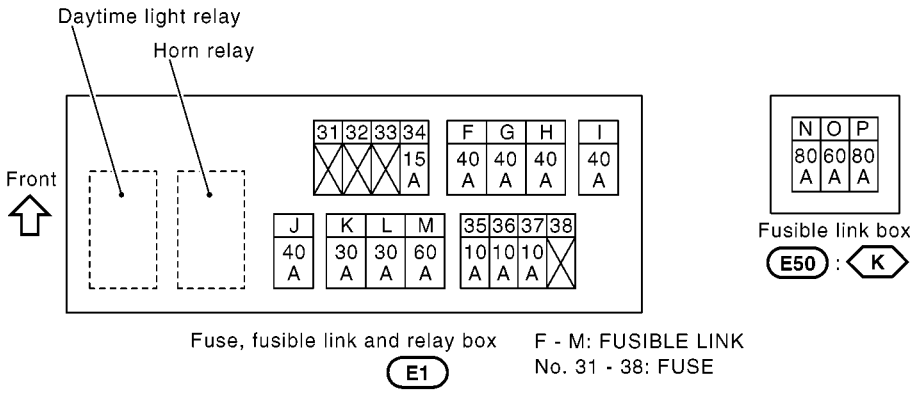
FUSE, FUSIBLE LINK AND RELAY BOX

PFP:24382

Terminal Arrangement

BKS00267





C : CR engine models

H : HR engine models

K : K9K engine models

MKWA4447E