SECTION LT
LIGHTING SYSTEM

CONTENTS

PRECAUTIONS

PFP:00011

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

EKS00652

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

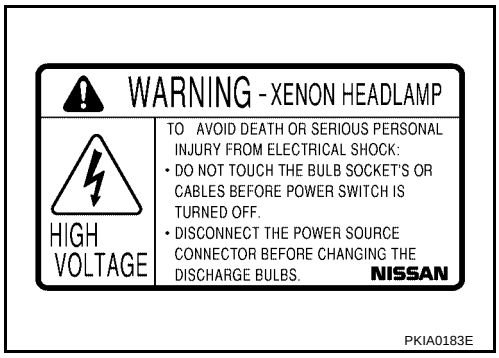
WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

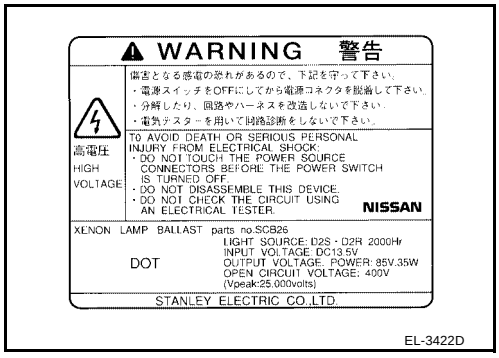
General precautions for service operations

EKS003C0

- Never work with wet hands.
- The xenon headlamp system includes a high voltage generating part. Be sure to disconnect battery negative cable (negative terminal) or power fuse before removing, installing, or touching the xenon headlamp (including lamp bulb).
- Turn the lighting switch OFF before disconnecting and connecting the connector.
- When turning the xenon headlamp on and while it is illuminated, never touch the harness, bulb, and socket of the headlamp.
- When checking the headlamp on/off operation, check it on vehicle and with the power connected to the vehicle-side connector.



- Do not touch the headlamp bulb glass surface with bare hands or allow oil or grease to get on it. Do not touch the headlamp bulb just after the headlamp is turned off, because it is very hot.
- Install the xenon headlamp bulb socket correctly. If it is installed improperly, high-voltage leak or corona discharge may occur that can melt the bulb, connector, and housing. Do not illuminate the xenon headlamp bulb out of the headlamp housing. Doing so can cause fire and harm your eyes.
- When the bulb has burned out, wrap it in a thick vinyl bag and discard. Do not break the bulb.
- Leaving the bulb removed from the headlamp housing for a long period of time can deteriorate the performance of the lens and reflector (dirt, clouding). Always prepare a new bulb and have it on hand when replacing the bulb.



- When adjusting the headlamp aiming, turn the aiming adjustment screw only in the tightening direction. (If it is necessary to loosen the screw, first fully loosen the screw, and then turn it in the tightening direction.)
- Do not use organic solvent (paint thinner or gasoline) to clean lamps and to remove old sealant.

Wiring Diagrams and Trouble Diagnosis

EKS003C1

When you read wiring diagrams, refer to the following:

- GI-12, "How to Read Wiring Diagrams"
- PG-4, "POWER SUPPLY ROUTING CIRCUIT"

When you perform trouble diagnosis, refer to the following:

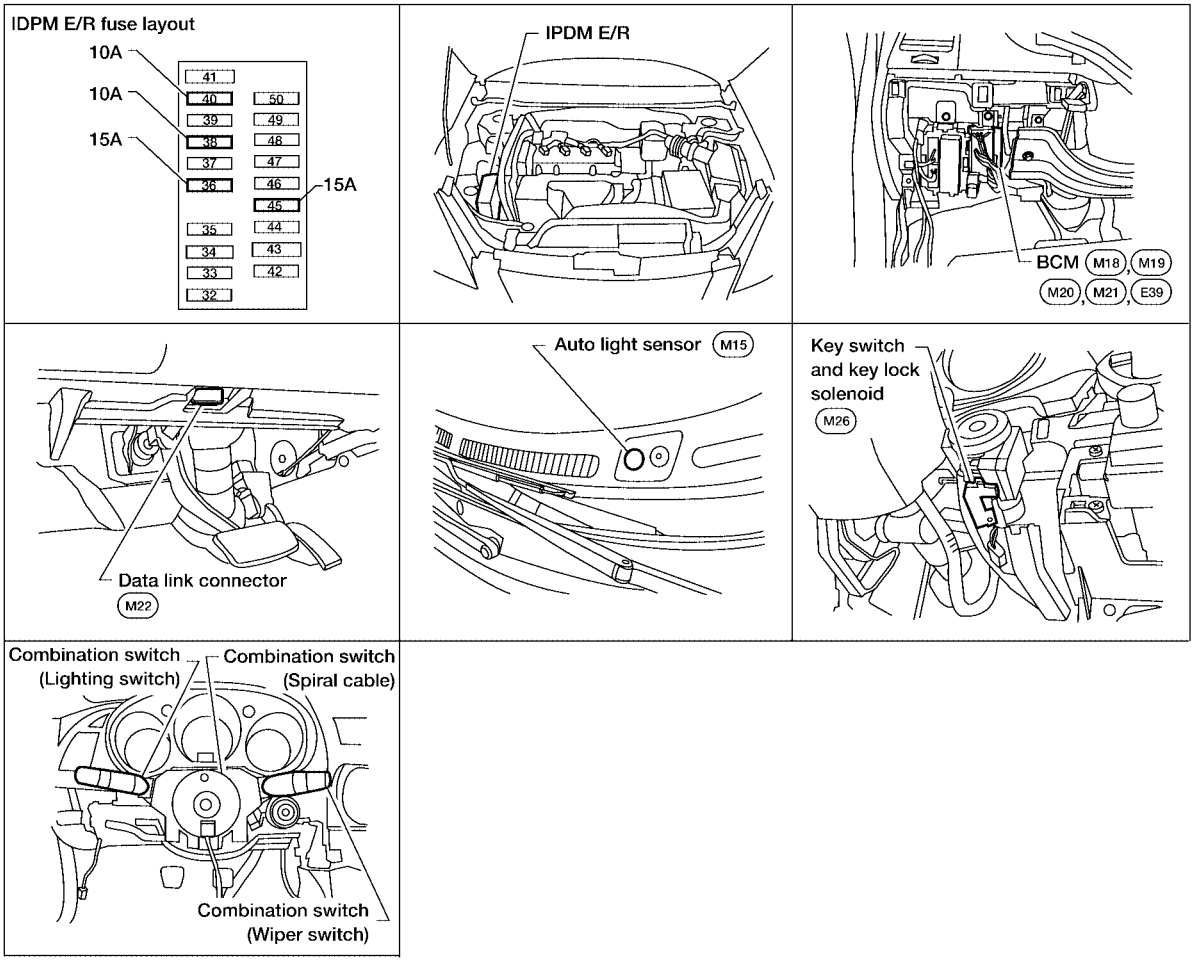
- GI-10, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"
- GI-25, "How to Perform Efficient Diagnosis for an Electrical Incident"

HEADLAMP (FOR USA)

PFP:26010

Component Parts and Harness Connector Location

EKS003C2



WKIA1577E

System Description

EKS003C3

Control of the headlamp system operation is dependent upon the position of the combination switch (lighting switch). When the lighting switch is placed in the 2ND position, the BCM (body control module) receives input requesting the headlamps (and tail lamps) illuminate. This input is communicated to the IPDM E/R (intelligent power distribution module engine room) across the CAN communication lines. The central processing unit of the IPDM E/R controls the headlamp high and headlamp low relay coils. When energized, these relays direct power to the respective headlamps, which then illuminate.

OUTLINE

Power is supplied at all times

- to headlamp high relay, located in the IPDM E/R, and
- to headlamp low relay, located in the IPDM E/R, and
- to BCM terminal 7
- through 50A fusible link (letter **f** , located in the fuse and fusible link box).

With the ignition switch in the ON or START position, power is supplied

- to BCM terminal 35
- through 10A fuse [No. 12, located in the fuse block (J/B)].

With the ignition switch in the ACC or ON position, power is supplied

- to BCM terminal 36
- through 10A fuse [No. 6, located in the fuse block (J/B)].

Ground is supplied

- to BCM terminals 8, 27, and 63
- through body grounds F14 (QR25DE models), M57, M61, E15, and E24.

Low Beam Operation

With the lighting switch in 2ND position, the BCM receives input requesting the headlamps to illuminate. This input is communicated to the IPDM E/R across the CAN communication lines. The central processing unit of the IPDM E/R controls the headlamp low relay coil. When energized, this relay directs power

- to 15A fuse (No. 36, located in the IPDM E/R)
- through terminal 20 of the IPDM E/R
- to terminal 1 of headlamp RH, and
- to 15A fuse (No. 45, located in the IPDM E/R)
- through terminal 30 of the IPDM E/R
- to terminal 1 of headlamp LH.

Ground is supplied at all times

- to terminal 2 of headlamp RH
- through body grounds E15 and E24, and
- to terminal 2 of headlamp LH
- through body grounds E15 and E24.

With power and ground supplied, low beam headlamps illuminate.

High Beam Operation/Flash-to-Pass Operation

With the lighting switch in 2ND position and placed in HIGH or PASS position, the BCM receives input requesting the headlamp high beams to illuminate. This input is communicated to the IPDM E/R across the CAN communication lines. The central processing unit of the IPDM E/R controls the headlamp high relay coil. When energized, this relay directs power

- to 10A fuse (No. 40, located in the IPDM E/R)
- through terminal 27 of the IPDM E/R
- to terminal 1 of headlamp RH, and
- to 10A fuse (No. 38, located in the IPDM E/R)
- through terminal 28 of the IPDM E/R
- to terminal 1 of headlamp LH.

Ground is supplied

- to terminal 2 of headlamp RH
- through body grounds E15 and E24, and
- to terminal 2 of headlamp LH
- through body grounds E15 and E24.

With power and ground supplied, the high beam headlamps and the HIGH BEAM indicator illuminate.

BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the 2ND position (ON), and the ignition switch is turned from ON or ACC to OFF, the battery saver control feature is activated.
Under this condition, the headlamps remain illuminated for 5 minutes, unless the combination switch (lighting switch) position is changed. If the combination switch (lighting switch) position is changed, then the headlamps are turned off.

AUTO LIGHT OPERATION

Refer to LT-46, "System Description" for auto light operation.

VEHICLE SECURITY SYSTEM

The vehicle security system will flash the high beams if the system is triggered. Refer to BL-82, "VEHICLE SECURITY (THEFT WARNING) SYSTEM" .

XENON HEADLAMP (IF EQUIPPED)

The low beam headlamps may be equipped with xenon type bulbs. Xenon bulbs do not use a filament. Instead, they produce light when a high voltage current is passed between two tungsten electrodes through a

mixture of xenon (an inert gas) and certain other metal halides. In addition to added lighting power, electronic control of the power supply gives the headlamps stable quality and tone color.
Following are some of the advantages of the xenon type headlamp.

- The light produced by the headlamps is a white color comparable to sunlight that is easy on the eyes.
- Light output is nearly double that of halogen headlamps, affording increased area of illumination.
- The light features a high relative spectral distribution at wavelengths to which the human eye is most sensitive. This means that even in the rain, more light is reflected back from the road surface toward the vehicle for added visibility.
- Power consumption is approximately 25 percent less than halogen headlamps, reducing battery load.

CAN Communication System Description

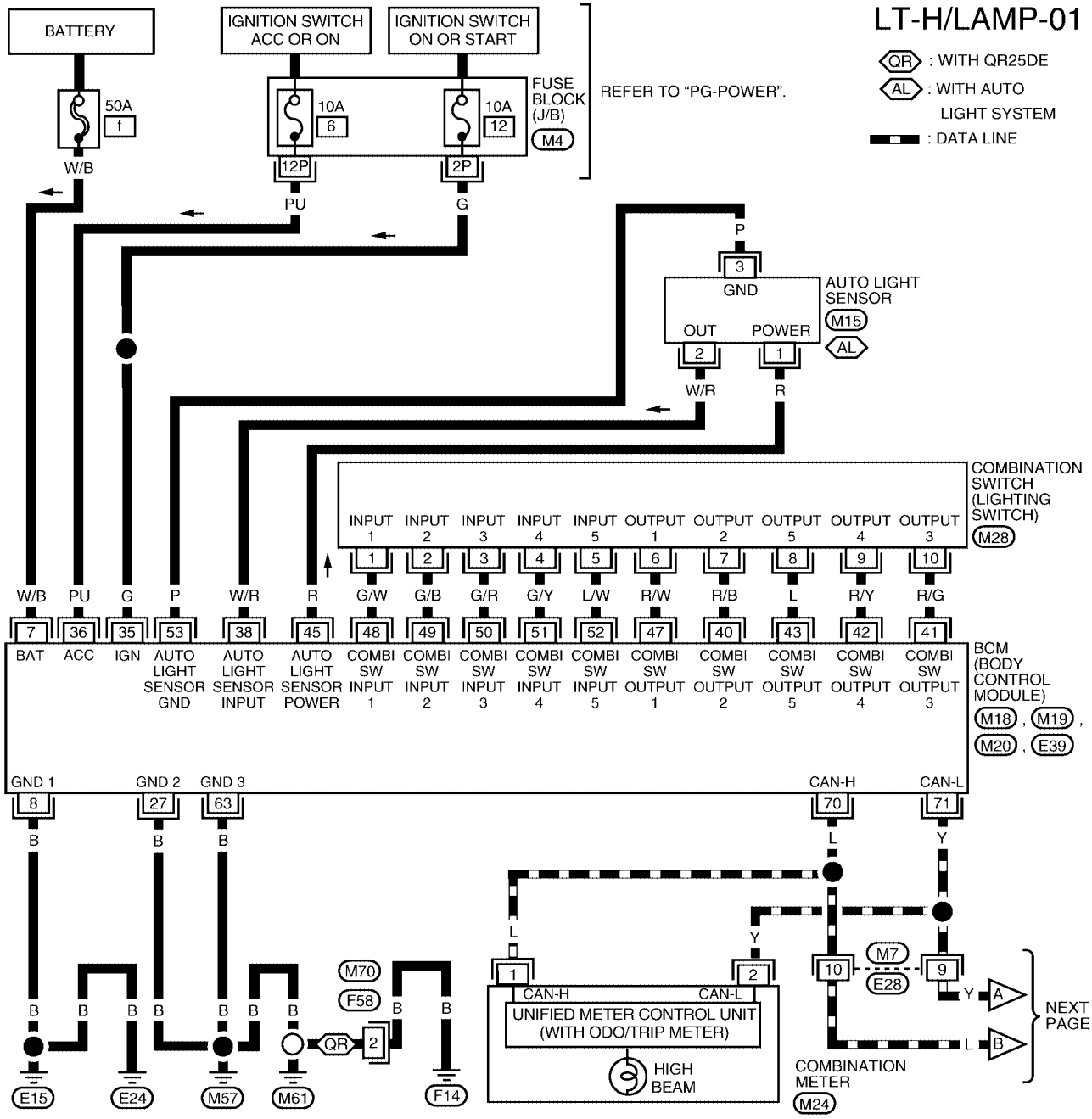
EKS003C4

Refer to LAN-4, "CAN COMMUNICATION" .

Wiring Diagram — H/LAMP —

EKS003C5

HALOGEN



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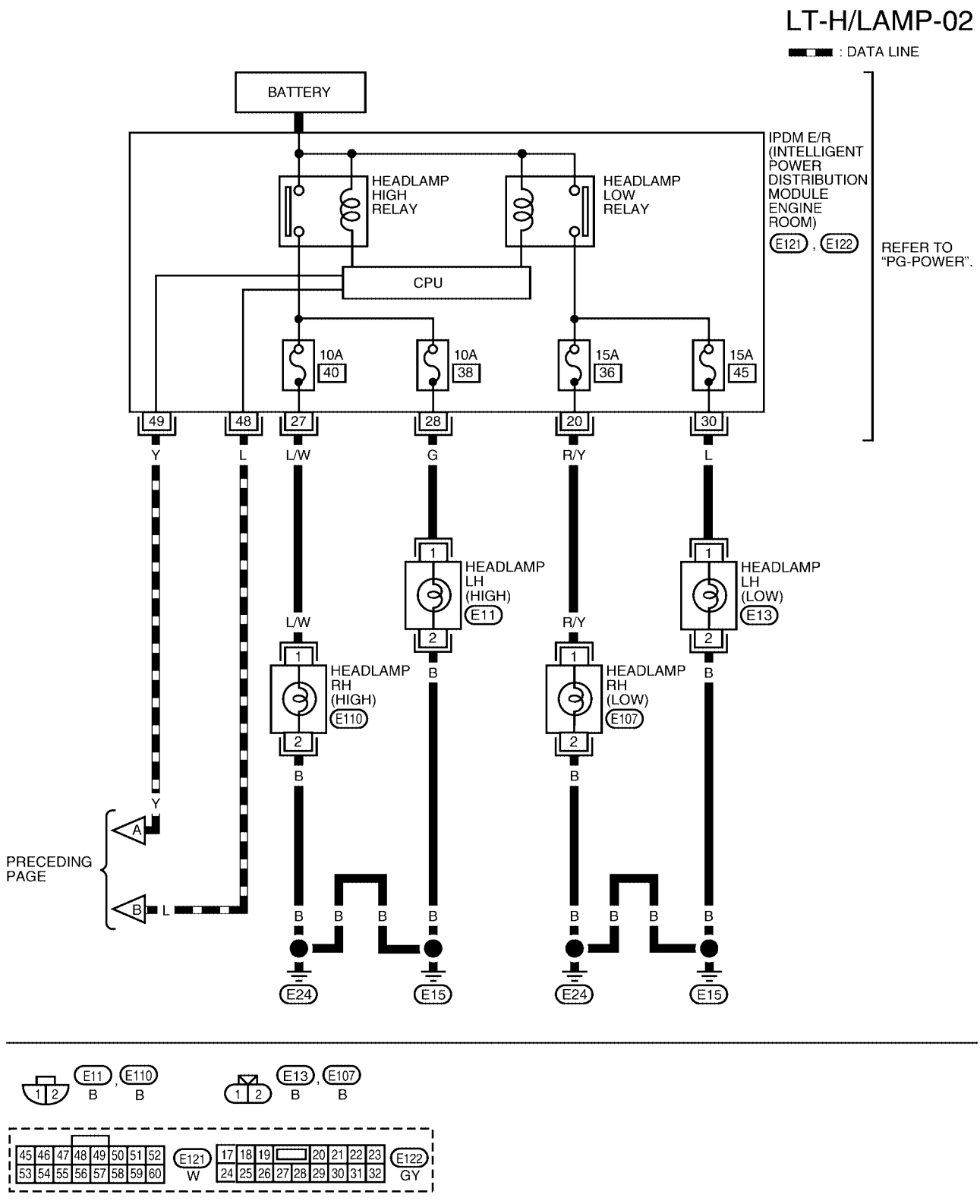
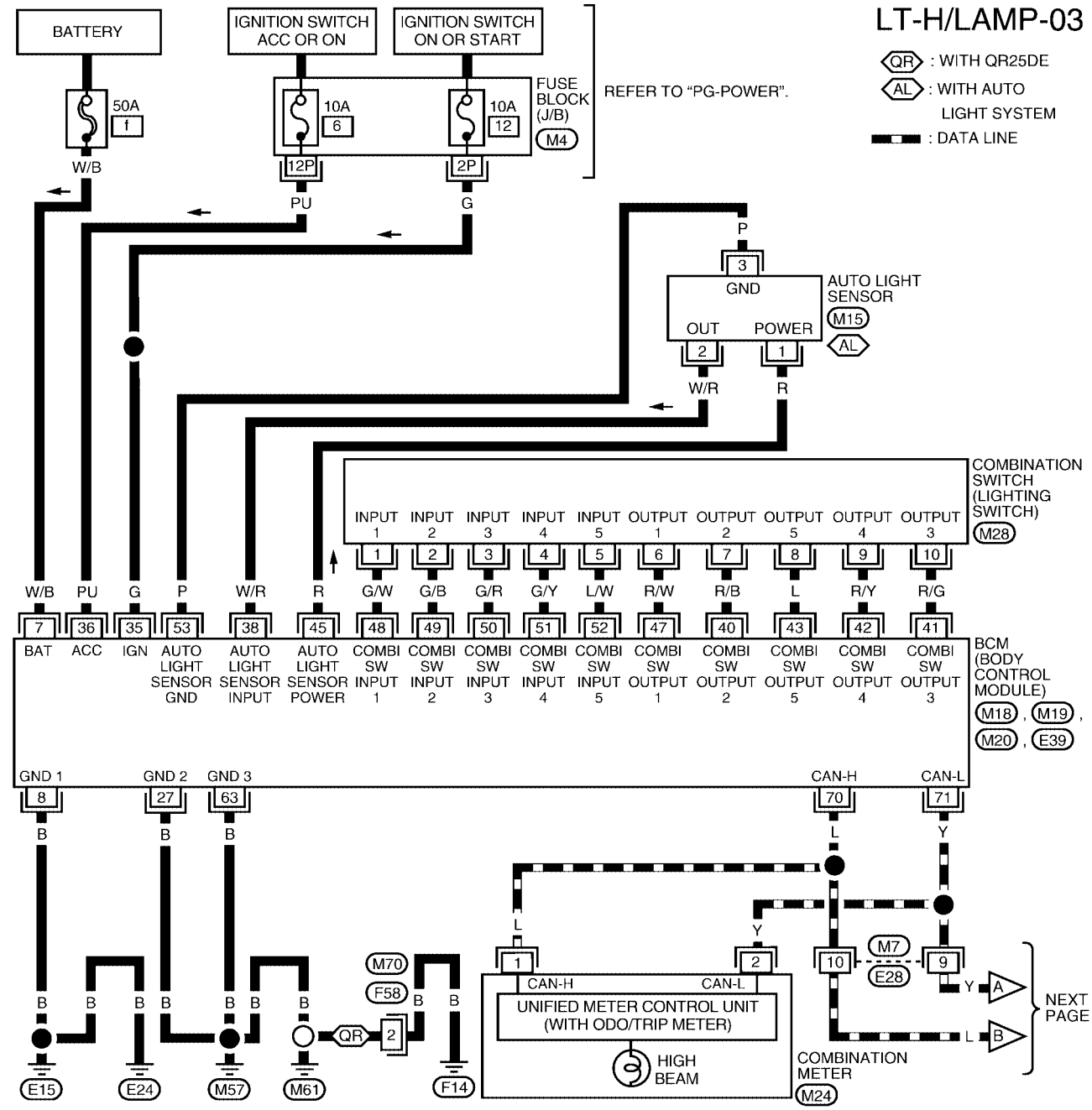
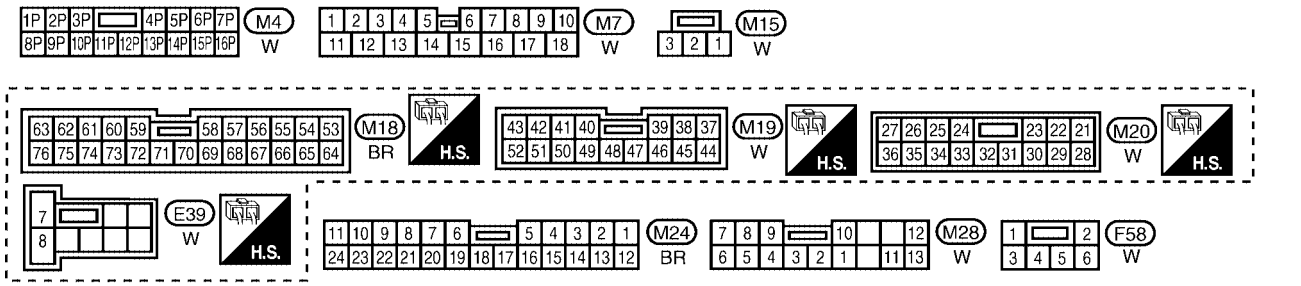

LT-H/LAMP-02
: DATA LINE
BATTERY
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E121 , E122
REFER TO "PG-POWER".
HEADLAMP HIGH RELAY
HEADLAMP LOW RELAY
CPU
10A 40
10A 38
15A 36
15A 45
49 48 27 28 20 30
Y L L/W G R/Y L
HEADLAMP LH (HIGH) E11
HEADLAMP LH (LOW) E13
HEADLAMP RH (HIGH) E110
HEADLAMP RH (LOW) E107
PRECEDING PAGE
A B
E24 E15 E24 E15

E11 , E110
B B
E13 , E107
B B
45 46 47 48 49 50 51 52
53 54 55 56 57 58 59 60
E121
W
17 18 19 20 21 22 23
24 25 26 27 28 29 30 31 32
E122
GY

WKWA0871E

XENON





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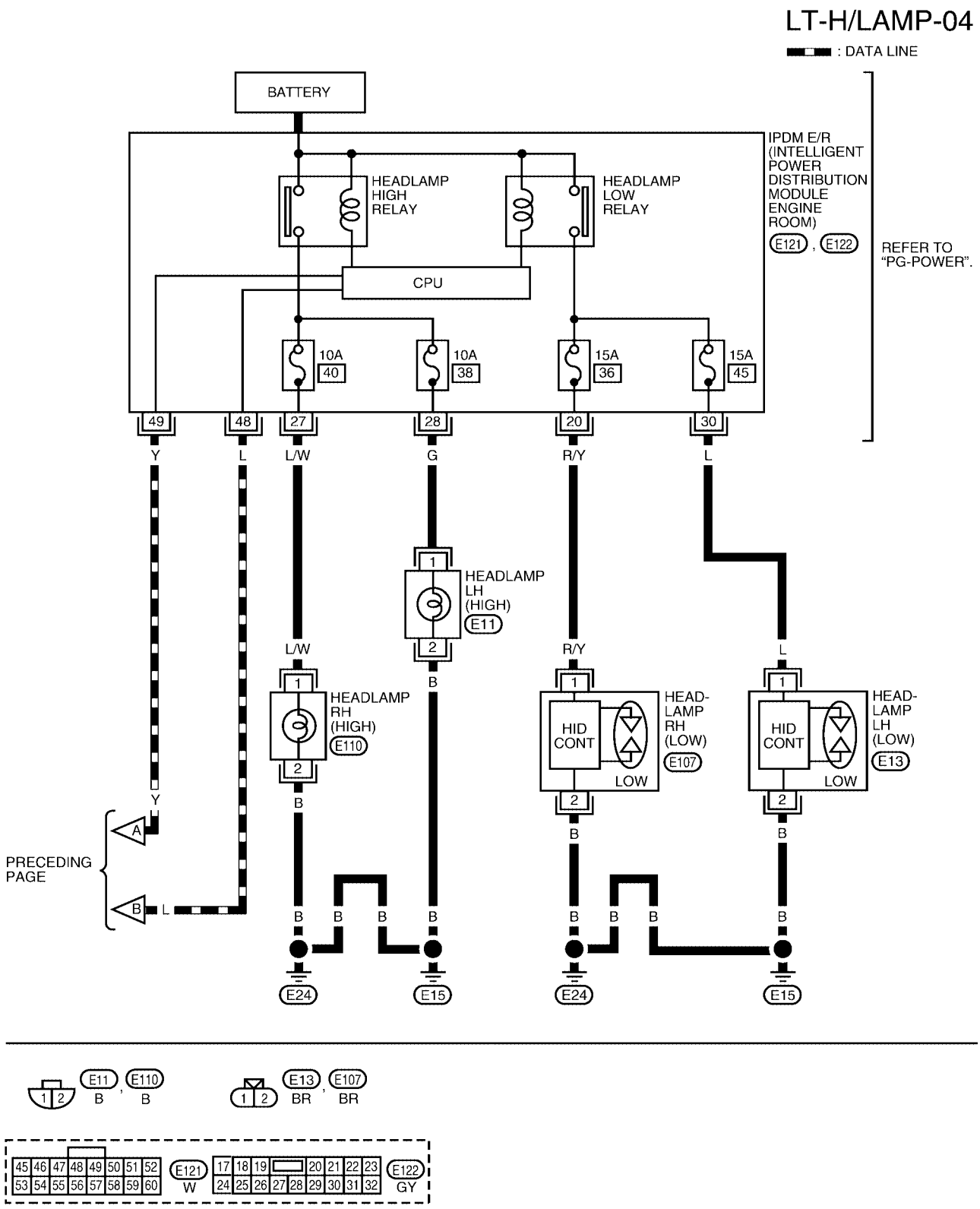

LT-H/LAMP-04
: DATA LINE
BATTERY
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E121 , E122
REFER TO "PG-POWER".
HEADLAMP HIGH RELAY
HEADLAMP LOW RELAY
CPU
10A 40
10A 38
15A 36
15A 45
49 48 27 28 20 30
Y L L/W G R/Y L
HEADLAMP LH (HIGH) E11
HEADLAMP RH (HIGH) E110
HEAD-LAMP RH (LOW) E107
HEAD-LAMP LH (LOW) E13
HID CONT
LOW
PRECEDING PAGE
A B
E24 E15 E24 E15

E11 B , E110 B
E13 BR , E107 BR
E121 W
E122 GY

WKWA0873E

Terminals and Reference Value for BCM

EKS003C6

Terminal No.	Wire color	Item	Measuring condition		Voltage (Approx.)
			Ignition switch	Operation or condition	
7	W/B	Battery power supply	OFF	—	Battery voltage
8	B	Ground	—	—	—
27	B	Ground	—	—	—
35	G	Ignition power supply	ON	—	Battery voltage
36	PU	Ignition power supply	ACC	—	Battery voltage
38	W/R	Auto light sensor input	ON	Headlamps illuminate by auto light control	0V → 3V
40	R/B	Combination switch output 2	—	—	2V → 10V
41	R/G	Combination switch output 3	—	—	2V → 10V
42	R/Y	Combination switch output 4	—	—	2V → 10V
43	L	Combination switch output 5	—	—	2V → 10V
45	R	Auto light sensor power	—	Ignition switch OFF → ON	0V → 5V
47	R/W	Combination switch output 1	—	—	2V → 10V
48	G/W	Combination switch input 1	—	—	1.5V → 10V
49	G/B	Combination switch input 2	—	—	1.5V → 10V
50	G/R	Combination switch input 3	—	—	1.5V → 10V
51	G/Y	Combination switch input 4	—	—	1.5V → 10V
52	L/W	Combination switch input 5	—	—	1.5V → 10V
53	P	Auto light sensor ground	—	—	—
63	B	Ground	—	—	—
70	L	CAN - H	—	—	1V → 3V
71	Y	CAN - L	—	—	1V → 3V

Terminals and Reference Values for IPDM E/R

EKS007OB

Terminal No.	Wire color	Signal name	Measuring condition			Reference value (Approx.)
			Ignition switch	Operation or condition		
20	R/Y	Headlamp low (RH)	ON	Lighting switch 2ND position	OFF	0V
					ON	Battery voltage
27	L/W	Headlamp high (RH)	ON	Lighting switch HIGH or PASS position	OFF	0V
					ON	Battery voltage
28	G	Headlamp high (LH)	ON	Lighting switch HIGH or PASS position	OFF	0V
					ON	Battery voltage
30	L	Headlamp low (LH)	ON	Lighting switch 2ND position	OFF	0V
					ON	Battery voltage
48	L	CAN - H	—	—		—
49	Y	CAN - L	—	—		—

How to Proceed With Trouble Diagnosis

EKS007OC

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to LT-6, "System Description" .
3. Perform the Preliminary Check. Refer to LT-14, "Preliminary Check" .
4. Check symptom and repair or replace the cause of malfunction.

5. Does the headlamp operate normally? If YES: GO TO 6. If NO: GO TO 4.
6. Inspection End.

Preliminary Check

EKS007OD

CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES OR FUSIBLE LINK

Check for blown fuses or fusible link.

Unit	Power source	Fuse No.
BCM	Battery	f
	Ignition switch ON or START position	12
	Ignition switch ACC or ON position	6
IPDM E/R	Battery	36
		38
		40
		45

Refer to LT-9, "Wiring Diagram — H/LAMP —" .

OK or NG

OK >> Inspection End.
NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-4, "POWER SUPPLY ROUTING CIRCUIT" .

CONSULT-II Function (BCM)

EKS003C7

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

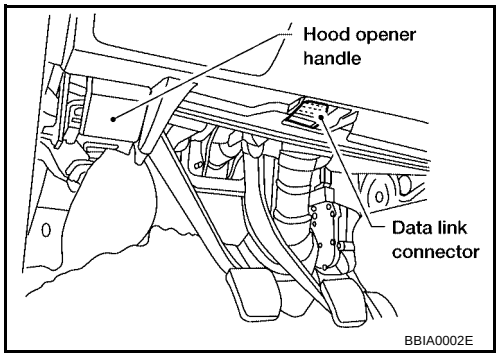
BCM diagnosis part	Check item, diagnosis mode	Description
HEADLAMP	Work support	Changes the setting for each function.
	Data monitor	Displays BCM input data in real time.
	Active test	Operation of electrical loads can be checked by sending drive signal to them.
BCM	Self-diagnosis	BCM performs self-diagnosis of CAN communication.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.

CONSULT-II BASIC OPERATION

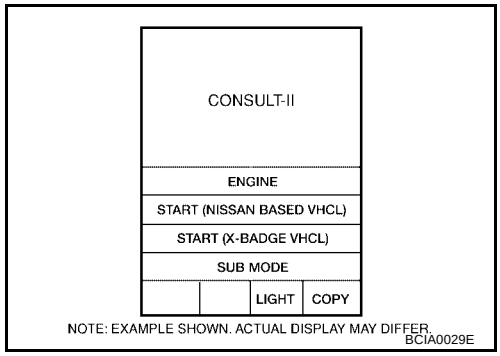
CAUTION:

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

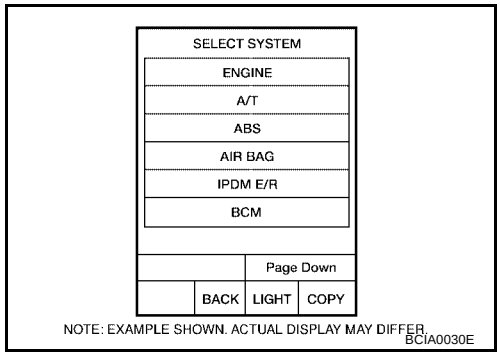
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn ignition switch ON.



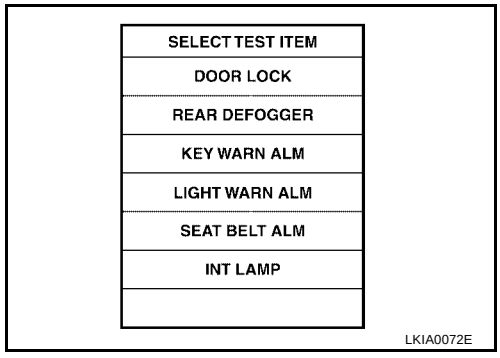
2. Touch “START (NISSAN BASED VEHICLE)”.



3. Touch “BCM” on “SELECT SYSTEM” screen.
If "BCM" is not indicated, go to GI-37, "CONSULT-II Data Link Connector (DLC) Circuit" .



4. Select the desired part to be diagnosed on the “SELECT TEST ITEM” screen.



DATA MONITOR

Operation Procedure

1. Touch “HEAD LAMP” on "SELECT TEST ITEM” screen.
2. Touch “DATA MONITOR” on "SELECT DIAG MODE” screen.
3. Touch either “ALL SIGNALS” or "SELECTION FROM MENU” on the “DATA MONITOR” screen.

All signals	Monitors all the signals.
Selection from menu	Selects and monitors individual signal.

4. Touch “START”.
5. When "SELECTION FROM MENU” is selected, touch individual items to be monitored. When “ALL SIGNALS" is selected, all the items will be monitored.
6. Touch “RECORD” while monitoring, then the status of the monitored item can be recorded. To stop recording, touch “STOP”.

Display Item List

Monitor item name “OPERATION OR UNIT”		Contents
IGN ON SW	“ON/OFF”	“IGN position (ON)/OFF, ACC position (OFF)” judged from the ignition switch signal is displayed.
ACC ON SW	“ON/OFF”	Displays “ACC (ON)/OFF, Ignition OFF (OFF)” status judged from ignition switch signal.

Monitor item name “OPERATION OR UNIT”		Contents
AUTO LIGHT SW[Note]	“ON/OFF”	Displays status of the lighting switch as judged from the lighting switch signal. (AUTO position: ON/Other than AUTO position: OFF)
TAIL LAMP SW	“ON/OFF”	Displays status (lighting switch 1st position: ON/Others: OFF) of light switch judged from lighting switch signal.
HEAD LAMP SW 1	“ON/OFF”	Displays status (headlamp switch: ON/Others: OFF) of headlamp switch judged from lighting switch signal.
HI BEAM SW	“ON/OFF”	Displays status (high beam switch: ON/Others: OFF) of high beam switch judged from lighting switch signal.
PASSING SW	“ON/OFF”	Displays status (flash-to-pass switch: ON/Others: OFF) of flash-to-pass switch judged from lighting switch signal.
FR FOG SW	“ON/OFF”	Displays status (front fog switch: ON/Others: OFF) of front fog switch judged from lighting switch signal.
DOOR SW - DR	“ON/OFF”	Displays status of the driver door as judged from the driver door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - AS	“ON/OFF”	Displays status of the passenger door as judged from the passenger door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - RR	“ON/OFF”	Displays status of the rear doors as judged from the rear door switch signal. (Door is open: ON/Door is closed: OFF)
HEAD LAMP SW 2	“ON/OFF”	Displays status (headlamp switch 2: ON/Others: OFF) of headlamp switch 2 judged from lighting switch signal.
OPTICAL SENSOR	[0 - 5V]	Displays “ambient light (close to 5V when light/close to 0V when dark)” judged from auto light sensor signal.

NOTE:
Vehicles without auto light system display this item, but cannot monitor it.

ACTIVE TEST

Operation Procedure

1. Touch “HEAD LAMP” on “SELECT TEST ITEM” screen.
2. Touch “ACTIVE TEST” on “SELECT DIAG MODE” screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching “BACK” deactivates the operation.

Display Item List

Test item	Display on CONSULT-II screen	Description
Tail light relay output	TAIL LAMP	Allows tail light relay to operate by switching ON–OFF at your option.
Headlamp relay output	HEAD LAMP (LOW)	Allows headlamp relay to operate by switching ON–OFF at your option.
Headlamp relay output	HEAD LAMP (HI)	Allows headlamp relay to operate by switching ON–OFF at your option.
Front fog lamp relay output	FR FOG LAMP	Allows fog lamp relay to operate by switching ON–OFF at your option.

CONSULT-II Function (IPDM E/R)

EKS007OF

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

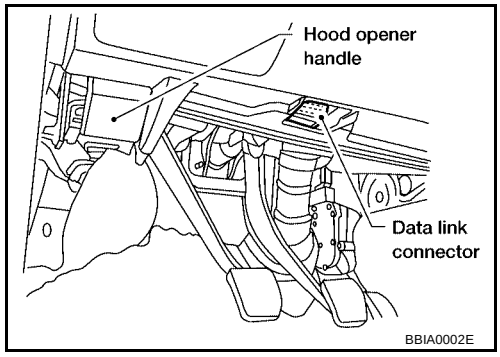
Inspection Item, Diagnosis Mode	Description
DATA MONITOR	The input/output data of the IPDM E/R is displayed in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	The IPDM E/R sends a drive signal to electronic components to check their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

CONSULT-II OPERATION

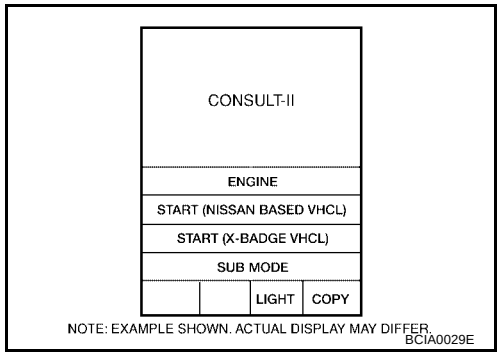
CAUTION:

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

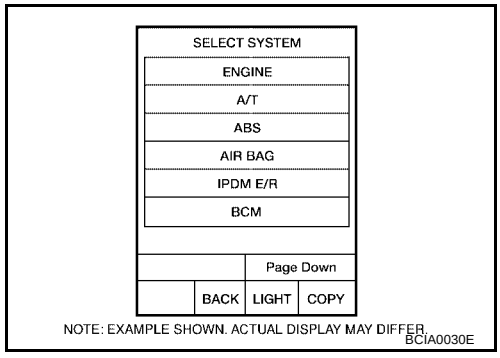
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn the ignition switch ON.



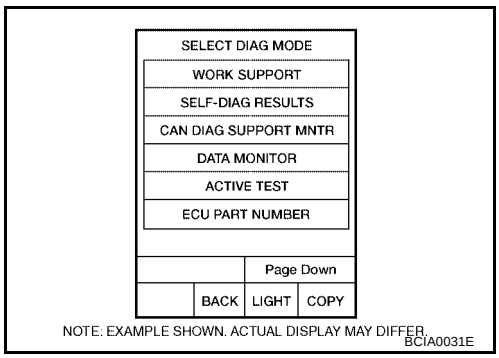
2. Touch “START (NISSAN BASED VHCL)”.



3. Touch “IPDM E/R” on “SELECT SYSTEM” screen.
If “IPDM E/R” is not displayed, go to GI-37, "CONSULT-II Data Link Connector (DLC) Circuit" .



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



DATA MONITOR

Operation Procedure

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

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

3. Touch “START”.
4. Touch the required monitoring item on “SELECT ITEM MENU”. In “ALL SIGNALS”, all items are monitored. In “MAIN SIGNALS”, predetermined items are monitored.
5. Touch “RECORD” while monitoring to record the status of the item being monitored. To stop recording, touch “STOP”.

All Items, Main Items, Select Item Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECT FROM MENU	
Position lights request	TAIL&CLR REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp low beam request	HL LO REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp high beam request	HL HI REQ	ON/OFF	×	×	×	Signal status input from BCM
Front fog lights request	FR FOG REQ	ON/OFF	×	×	×	Signal status input from BCM

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.

ACTIVE TEST

Operation Procedure

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

Test item	CONSULT-II screen display	Description
Headlamp relay (HI, LO) output	LAMPS	Allows headlamp relay (HI, LO) to operate by switching operation (OFF, HI ON, LO ON) at your option (Head lamp high beam repeats ON–OFF every 1 second).
Front fog lamp relay (FOG) output		Allows fog lamp relay (FOG) to operate by switching operation ON-OFF at your option
Tail lamp relay output	TAIL LAMP	Allows tail lamp relay to operate by switching operation ON-OFF at your option

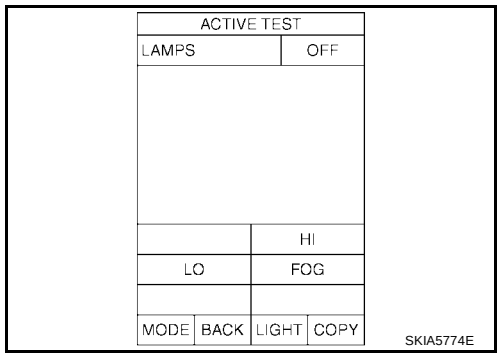
Headlamp HI Does Not Illuminate (Both Sides)

EKS007OG

1. HEADLAMP ACTIVE TEST

1. Select “IPDM E/R” on CONSULT-II and select “ACTIVE TEST” on “SELECT DIAG MODE” screen.
2. Select “LAMPS” on “SELECT TEST ITEM” screen.
3. Touch “HI” screen.
4. Make sure headlamp high beam operates.

Headlamp high beam should operate.



OK or NG

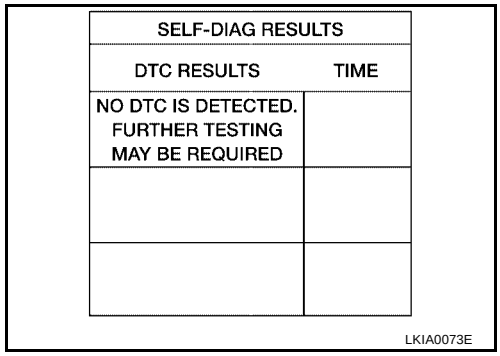
OK >> GO TO 2.
NG >> GO TO 4.

2. INSPECTION 1 BETWEEN COMBINATION SWITCH AND BCM

Carry out "BCM C/U" self-diagnosis.

Displayed results of self-diagnosis

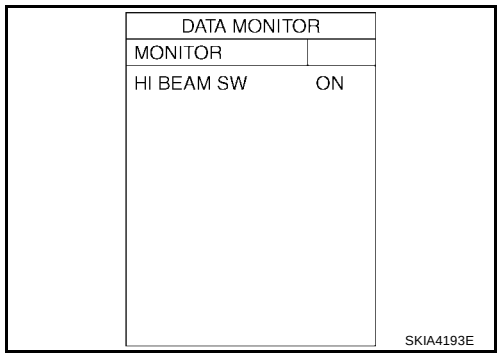
NO MALFUNCTION DETECTED>> GO TO 3.
CAN COMMUNICATION OR CAN SYSTEM>> Inspect the BCM CAN communications system. Refer to LAN-4, "CAN COMMUNICATION" .
OPEN DETECT 1 - 5>> Inspect combination switch system. Refer to BCS-12, "Combination Switch Inspection According to Self-Diagnostic Results" .



3. INSPECTION 2 BETWEEN COMBINATION SWITCH AND BCM

Select “BCM” on CONSULT-II. With “HEAD LAMP” data monitor, make sure “HI BEAM SW” turns ON-OFF linked with operation of lighting switch.

When lighting switch is in HIGH position : HI BEAM SW ON

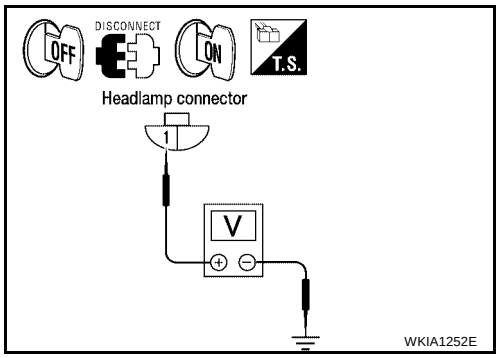


OK or NG

OK >> Replace BCM.
NG >> Replace lighting switch. Refer to LT-94, "Removal and Installation" .

4. CHECK HEADLAMP INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect headlamp RH and LH connector.
3. Select “IPDM E/R” on CONSULT-II and select “ACTIVE TEST” on “SELECT DIAG MODE” screen.
4. Select “LAMPS” on “SELECT TEST ITEM” screen.
5. Touch “HI” screen.
6. When headlamp high beam is operating, check voltage between headlamp RH and LH harness connector and ground.



Terminals				Voltage
(+)			(-)	
Connector		Terminal (Wire color)		
RH	E110	1 (L/W)	Ground	Battery voltage
LH	E11	1 (G)		

OK or NG

OK >> GO TO 6.
NG >> GO TO 5.

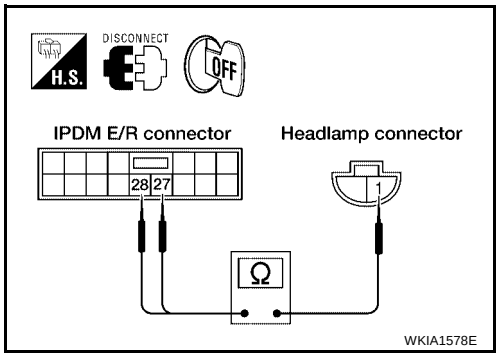
5. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector E122 terminal 27 (L/W) and headlamp RH harness connector E110 terminal 1 (L/W).

27 (L/W) – 1 (L/W) : Continuity should exist.

4. Check continuity between IPDM E/R harness connector E122 terminal 28 (G) and headlamp LH harness connector E11 terminal 1 (G).

28 (G) – 1 (G) : Continuity should exist.



OK or NG

OK >> Replace IPDM E/R. Refer to PG-27, "Removal and Installation of IPDM E/R" .
NG >> Repair harness or connector.

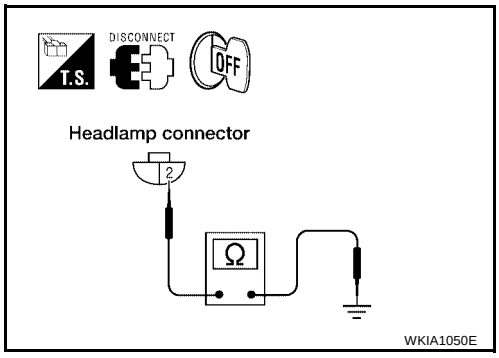
6. CHECK HEADLAMP GROUND

1. Check continuity between headlamp RH harness connector E110 terminal 2 (B) and ground.

2 (B) – Ground : Continuity should exist.

2. Check continuity between headlamp LH harness connector E11 terminal 2 (B) and ground.

2 (B) – Ground : Continuity should exist.



OK or NG

OK >> Check headlamp connector for damage or poor connection. Repair as necessary.
NG >> Repair harness or connector.

Headlamp HI Does Not Illuminate (One Side)

EKS007OH

1. BULB INSPECTION

Inspect inoperative headlamp bulb.

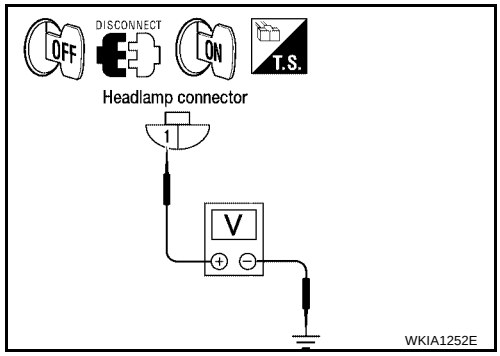
OK or NG

OK >> GO TO 2.
NG >> Replace headlamp bulb. Refer to LT-28, "HEADLAMP (INNER SIDE), FOR HIGH BEAM" .

2. CHECK POWER TO HEADLAMP

1. Disconnect inoperative headlamp connector.
2. Turn the HI beam headlamps ON.
3. Check voltage between inoperative headlamp terminal and ground.

Terminals				Voltage (Approx.)
(+)			(-)	
Connector		Terminal (Wire color)		
RH	E110	1 (L/W)	Ground	12
LH	E11	1 (G)		



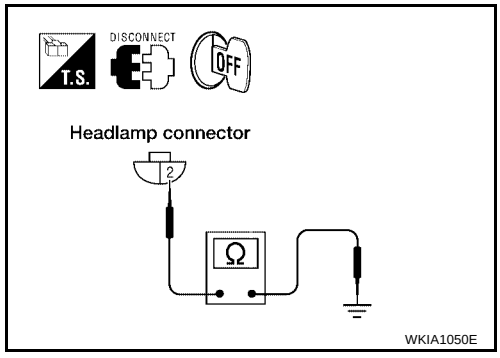
OK or NG

OK >> GO TO 3.
NG >> GO TO 4.

3. CHECK HEADLAMP GROUND

1. Turn the HI beam headlamps OFF.
2. Check continuity between inoperative headlamp connector and ground.

Terminals				Continuity
(+)			(-)	
Connector		Terminal (Wire color)		
RH	E110	2 (B)	Ground	Yes
LH	E11	2 (B)		

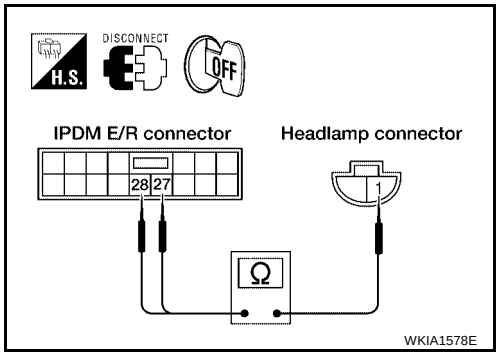


OK or NG

OK >> Check headlamp connector for damage or poor connection. Repair as necessary.
NG >> Repair open circuit in harness between inoperative headlamp and ground.

4. INSPECTION BETWEEN IPDM E/R AND HEADLAMPS

1. Disconnect IPDM E/R connector and headlamp connector.
2. Check continuity between harness connector terminals of IPDM E/R and harness connector terminals of inoperative headlamp.



Terminals					Continuity
IPDM E/R		Headlamp			
Connector	Terminal (wire color)	Connector		Terminal (wire color)	
E122	27 (L/W)	Right	E110	1 (L/W)	Yes
	28 (G)	Left	E11	1 (G)	

OK or NG

OK >> Replace IPDM E/R. Refer to PG-27, "Removal and Installation of IPDM E/R" .

NG >> Check for short circuits and open circuits in harness between IPDM E/R and headlamps. Repair as necessary.

High-Beam Indicator Lamp Does Not Illuminate

EKS007OI

1. BULB INSPECTION

Inspect CAN communication system. Refer to LAN-4, "CAN COMMUNICATION" .

OK or NG

OK >> Replace combination meter. Refer to IP-13, "Combination Meter" .

NG >> Repair as necessary.

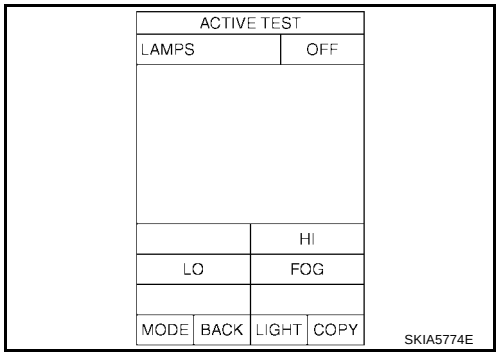
Headlamp LO Does Not Illuminate (Both Sides)

EKS007OJ

1. HEADLAMP ACTIVE TEST

1. Select “IPDM E/R” on CONSULT-II and select “ACTIVE TEST” on “SELECT DIAG MODE” screen.
2. Select “LAMPS” on “SELECT TEST ITEM” screen.
3. Touch “LO” screen.
4. Make sure headlamp low beam operates.

Headlamp low beam should operate.



OK or NG

OK >> GO TO 2.

NG >> GO TO 4.

2. INSPECTION 1 BETWEEN COMBINATION SWITCH AND BCM

Carry out "BCM C/U" self-diagnosis.

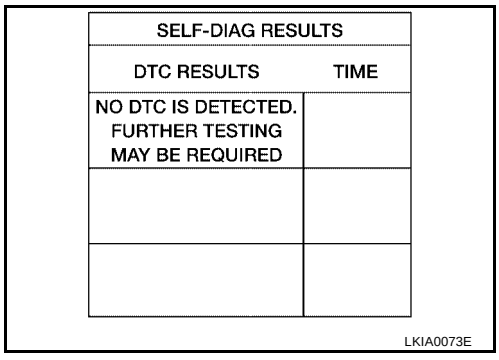
Displayed results of self-diagnosis

NO MALFUNCTION DETECTED>> GO TO 3.

CAN COMMUNICATION OR CAN SYSTEM>> Inspect the BCM CAN communications system. Refer to LAN-4, "CAN COMMUNICATION" .

OPEN DETECT 1 - 5>> Inspect combination switch system. Refer to BCS-12, "Combination Switch Inspection According to Self-Diagnostic Results" .

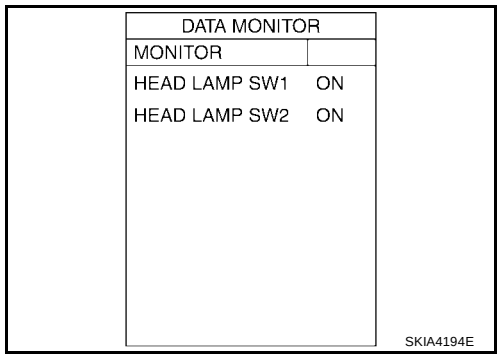
HEAD LAMP 1 SW or HEAD LAMP 2 SW>> Replace combination switch. Refer to LT-90, "Removal and Installation" .



3. INSPECTION 2 BETWEEN COMBINATION SWITCH AND BCM

Select “BCM” on CONSULT-II. With “HEAD LAMP” data monitor, make sure “HEAD LAMP SW1” and "HEAD LAMP SW2" turns ON-OFF linked with operation of lighting switch.

When lighting switch is in 2ND position : HEAD LAMP SW1 ON
: HEAD LAMP SW2 ON



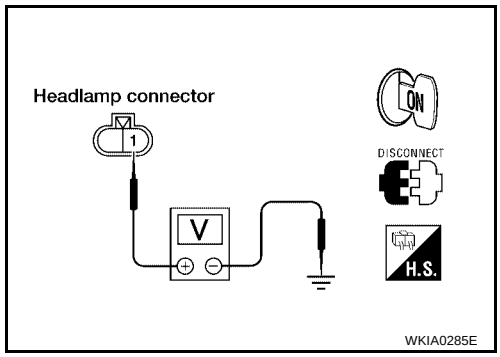
OK or NG

OK >> Replace BCM.
NG >> Replace combination switch. Refer to LT-90, "Removal and Installation" .

4. CHECK HEADLAMP INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect headlamp RH and LH connector.
3. Select “IPDM E/R” on CONSULT-II and select “ACTIVE TEST” on “SELECT DIAG MODE” screen.
4. Select “LAMPS” on “SELECT TEST ITEM” screen.
5. Touch “LO” screen.
6. When headlamp low beam is operating, check voltage between headlamp RH and LH harness connector and ground.

Terminals				Voltage
(+)			(-)	
Connector		Terminal (Wire color)		
RH	E107	1 (R/Y)	Ground	Battery voltage
LH	E13	1 (L)		



OK or NG

OK >> GO TO 6.
NG >> GO TO 5.

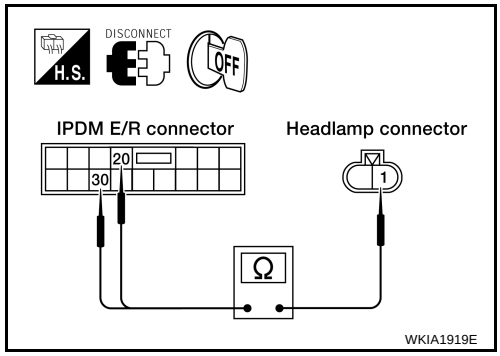
5. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector E122 terminal 20 (R/Y) and headlamp RH harness connector E107 terminal 1 (R/Y).

20 (R/Y) – 1 (R/Y) : Continuity should exist.

4. Check continuity between IPDM E/R harness connector E122 terminal 30 (L) and headlamp LH harness connector E13 terminal 1 (L).

30 (L) – 1 (L) : Continuity should exist.



OK or NG

OK >> Replace IPDM E/R. Refer to PG-27, "Removal and Installation of IPDM E/R" .
NG >> Repair harness or connector.

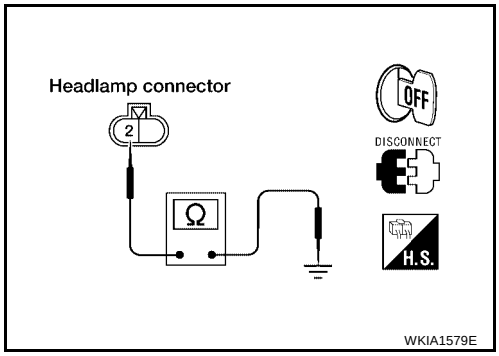
6. CHECK HEADLAMP GROUND

1. Turn ignition switch OFF.
2. Check continuity between headlamp RH harness connector E107 terminal 2 (B) and ground.

   2 (B) – Ground : Continuity should exist.

3. Check continuity between headlamp LH harness connector E13 terminal 2 (B) and ground.

   2 (B) – Ground : Continuity should exist.



OK or NG

OK >> Check headlamp connector for damage or poor connection. Repair as necessary.
NG >> Repair harness or connector.

Headlamp LO Does Not Illuminate (One Side)

EKS007OK

1. BULB INSPECTION

Inspect inoperative headlamp bulb.

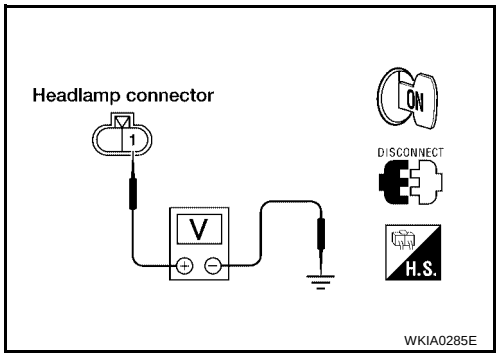
OK or NG

OK >> GO TO 2.
NG >> Replace headlamp bulb. Refer to LT-28, "HEADLAMP (OUTER SIDE), FOR LOW BEAM (HALOGEN)" .

2. CHECK POWER TO HEADLAMP

1. Disconnect inoperative headlamp connector.
2. Turn the low beam headlamps ON.
3. Check voltage between inoperative headlamp connector terminal and ground.

Terminals				Voltage (Approx.)
(+)			(-)	
Connector		Terminal		
Right	E107	1 (R/Y)	Ground	12
Left	E13	1 (L)		



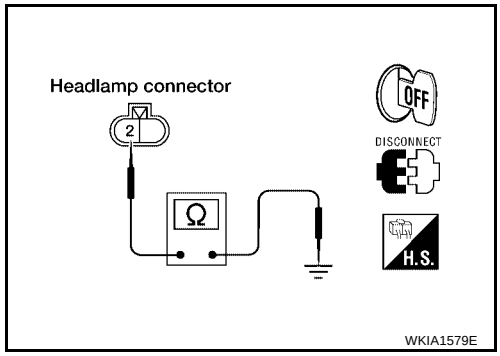
OK or NG

OK >> GO TO 3.
NG >> GO TO 4.

3. CHECK HEADLAMP GROUND

1. Turn the low beam headlamps OFF.
2. Check continuity between inoperative headlamp connector terminal and ground.

Terminals				Continuity
(+)			(-)	
Connector		Terminal (Wire color)		
RH	E107	2 (B)	Ground	Yes
LH	E13	2 (B)		



OK or NG

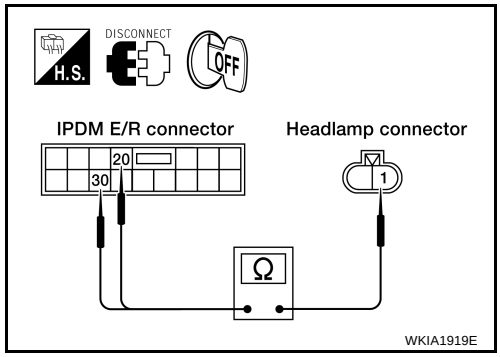
OK >> Check headlamp and IPDM E/R connector. Repair as necessary.

NG >> Repair open circuit in harness between inoperative headlamp and ground.

4. INSPECTION BETWEEN IPDM E/R AND HEADLAMPS

1. Disconnect IPDM E/R connector.
2. Check continuity between harness connector terminals of IPDM E/R harness connector terminals of inoperative headlamp.

Terminals					Continuity
IPDM E/R		Front combination lamp			
Connector	Terminal (Wire color)	Connector		Terminal (Wire color)	
E122	20 (R/Y)	RH	E107	1 (R/Y)	Yes
	30 (L)	LH	E13	1 (L)	



OK or NG

OK >> Replace IPDM E/R. Refer to PG-27, "Removal and Installation of IPDM E/R" .

NG >> Check for short circuits and open circuits in harness between IPDM E/R and headlamps. Repair as necessary.

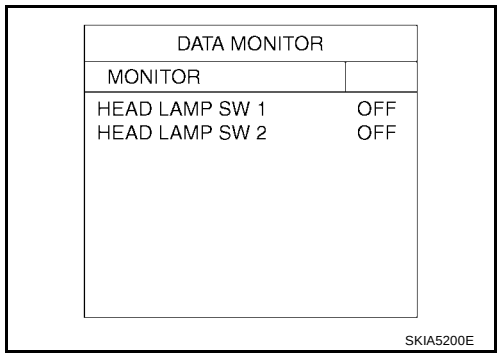
Headlamps Do Not Turn OFF

EKS007OL

1. CHECK COMBINATION SWITCH INPUT SIGNAL

Select “BCM” on CONSULT-II. With “HEAD LAMP” data monitor, make sure “HEAD LAMP SW 1” and “HEAD LAMP SW 2” turns ON-OFF linked with operation of lighting switch.

When lighting switch is OFF position : HEAD LAMP SW 1 OFF
: HEAD LAMP SW 2 OFF



OK or NG

OK >> Replace IPDM E/R. Refer to PG-27, "Removal and Installation of IPDM E/R" .

NG >> GO TO 2.

2. CHECK LIGHTING SWITCH

Check lighting switch. Refer to BCS-12, "Combination Switch Inspection According to Self-Diagnostic Results" .

OK or NG

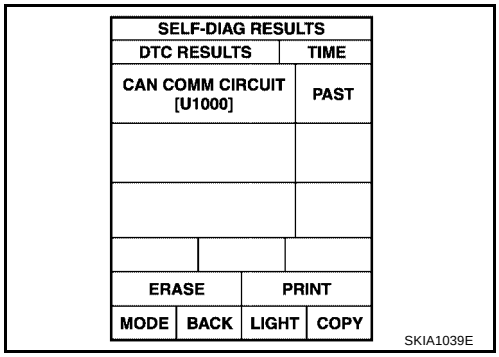
OK >> GO TO 3.
NG >> Replace switch. Refer to LT-90, "Removal and Installation" .

3. CHECKING CAN COMMUNICATIONS BETWEEN BCM AND IPDM E/R

Select “BCM” by CONSULT-II and perform self-diagnosis for BCM.

Display of self-diagnosis results

NO DTC>>Replace IPDM E/R. Refer to PG-27, "Removal and Installation of IPDM E/R" .
CAN COMM CIRCUIT>> Refer to BCS-12, "CAN Communication Inspection Using CONSULT-II (Self-Diagnosis)" .



One Xenon Headlamp Does Not Illuminate At Full Brightness

EKS003MG

1. COMPONENT INSPECTION

1. Check the inoperative headlamp subharness for open or short circuits.

OK or NG

OK >> Replace headlamp bulb. Refer to LT-28, "Bulb Replacement" . Check operation of headlamp. If headlamp still does not illuminate at full brightness, replace ballast and check operation. If headlamp still does not illuminate at full brightness, replace igniter.
NG >> Replace headlamp subharness.

One Xenon Headlamp Flickers

EKS003MH

1. CHECK SYSTEM OPERATION

1. Turn the low beam headlamps ON and check operation.

NOTE:
Xenon headlamps may flicker momentarily when the headlamps are turned ON. This is normal and does not indicate a fault. Diagnosis of flickering headlamps should only be performed if the headlamps continue to flicker for more than 3 seconds after turning headlamps ON.

OK or NG

OK >> System is operating correctly.
NG >> GO TO 2.

2. COMPONENT INSPECTION

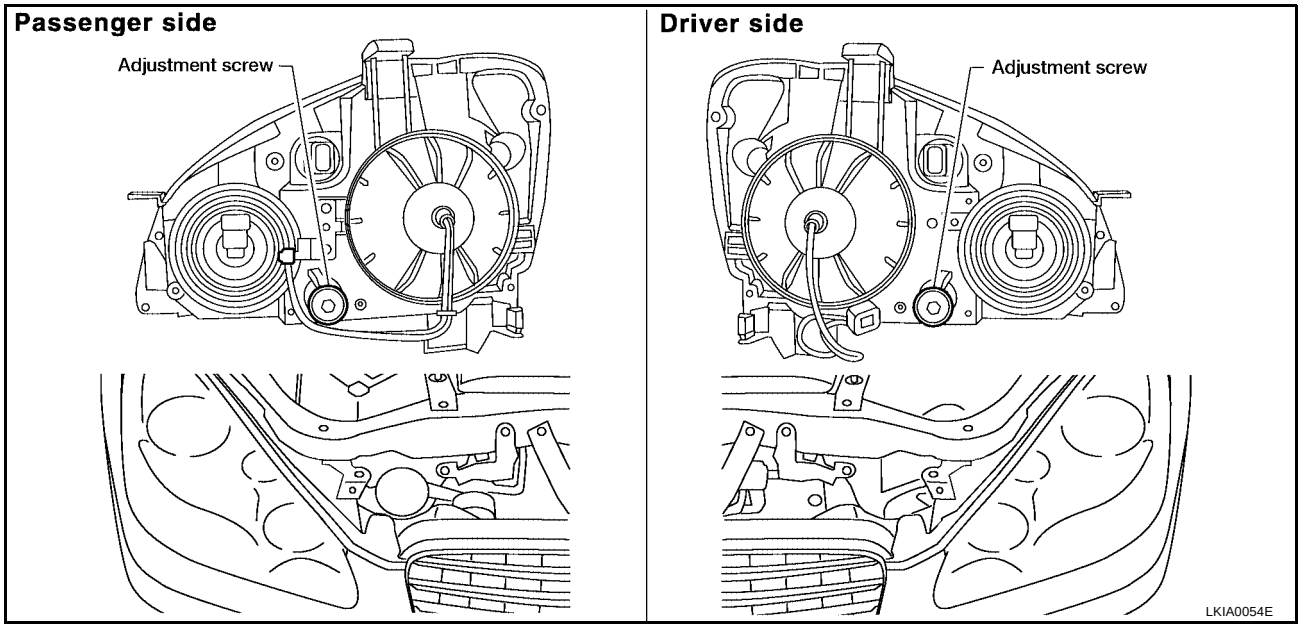
1. Check the inoperative headlamp subharness for open or short circuits.

OK or NG

OK >> Replace ballast. Check operation of headlamp. If headlamp still flickers, replace igniter and check operation. If headlamp still flickers, replace headlamp bulb. Refer to LT-28, "Bulb Replacement" .
NG >> Replace headlamp subharness.

Aiming Adjustment

EKS003CE



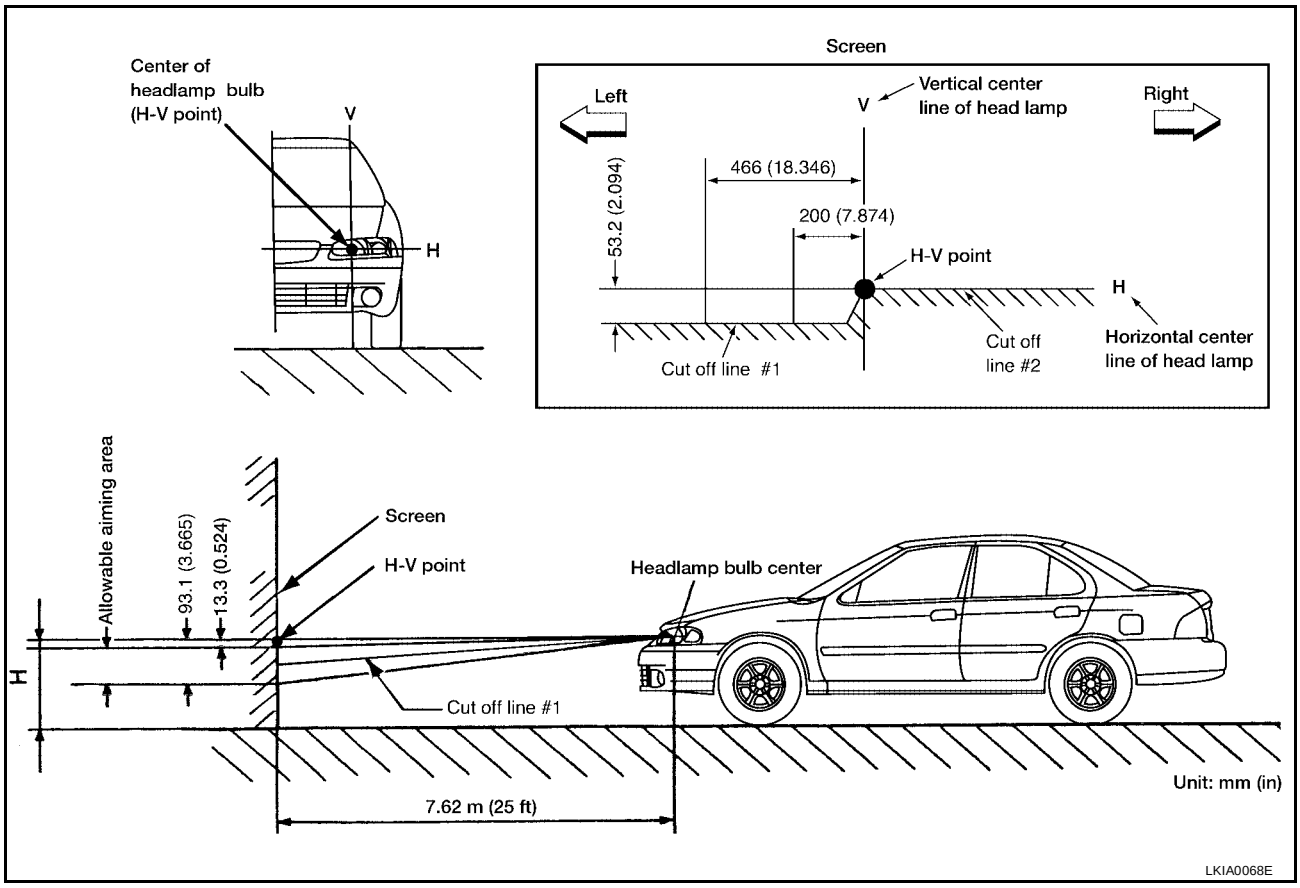
For details, refer to the regulations in your state.
Before performing aiming adjustment, check the following.

1. Ensure all tires are inflated to correct pressure.
2. Place vehicle on flat surface.
3. Ensure there is no load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant and engine oil filled to correct level, and fuel tank full.

LOW BEAM AND HIGH BEAM

1. Turn headlamp low beam on.
2. Use adjusting screws to perform aiming adjustment.

- **First loosen the adjusting screw all the way and then make adjustment by tightening the screw.**



If the vehicle front body has been repaired and/or the headlamp assembly has been replaced, check aiming. Use the aiming chart shown in the figure.

- **Basic illuminating area for adjustment should be within the range shown on the aiming chart. Adjust headlamps accordingly.**

Bulb Replacement

EKS003CF

HEADLAMP (OUTER SIDE), FOR LOW BEAM (XENON)

1. Disconnect negative battery cable.
2. Turn the plastic cap counterclockwise to unlock it from the headlamp.
3. Turn the bulb socket counterclockwise to unlock it.
4. Unlock the retaining spring and remove the bulb from the headlamp.
5. Install in reverse order of removal.

CAUTION:

After installing the bulb, be sure to install the plastic cap securely to ensure watertightness.

HEADLAMP (OUTER SIDE), FOR LOW BEAM (HALOGEN)

1. Disconnect negative battery cable.
2. Turn the plastic cap counterclockwise to unlock it from the headlamp.
3. Disconnect the electrical connectors from the bulb terminals.
4. Unlock the retaining spring and remove the bulb from the headlamp.
5. Install in reverse order of removal.

CAUTION:

After installing the bulb, be sure to install the plastic cap securely to ensure watertightness.

HEADLAMP (INNER SIDE), FOR HIGH BEAM

1. Turn the bulb counterclockwise to remove it.
2. Installation is reverse order of removal.

FRONT TURN SIGNAL LAMP

1. Remove the headlamp. Refer to LT-29, "Removal and Installation" .
2. Turn the bulb socket counterclockwise to unlock it.
3. Push and turn the bulb counterclockwise to remove it.
4. Installation is reverse order of removal.

Headlamp (outer side), for low beam (Halogen)	**: 12V 55W (H1)**
Headlamp (outer side), for low beam (Xenon)	**: 12V 35W (D2R)**
Headlamp (inner side), for high beam	**: 12V 60W (HB3)**
Front turn signal lamp	**: 12V 27W/8W (amber)**

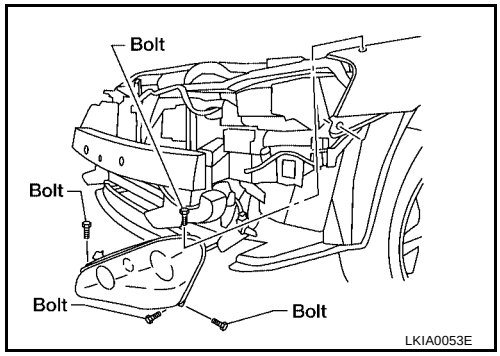
CAUTION:
After installing the bulb, be sure to install the bulb socket securely to ensure watertightness.

Removal and Installation

EKS003CG

REMOVAL

1. Remove the front fascia. Refer to EI-13, "FRONT BUMPER" .
2. Ensure lighting switch is OFF.
3. Disconnect the negative battery cable.
4. Remove the headlamp mounting bolts.
5. Pull the headlamp toward the front of the vehicle, disconnect connectors, and remove from vehicle.



INSTALLATION

Install in the reverse order of removal.

Headlamp mounting bolts:

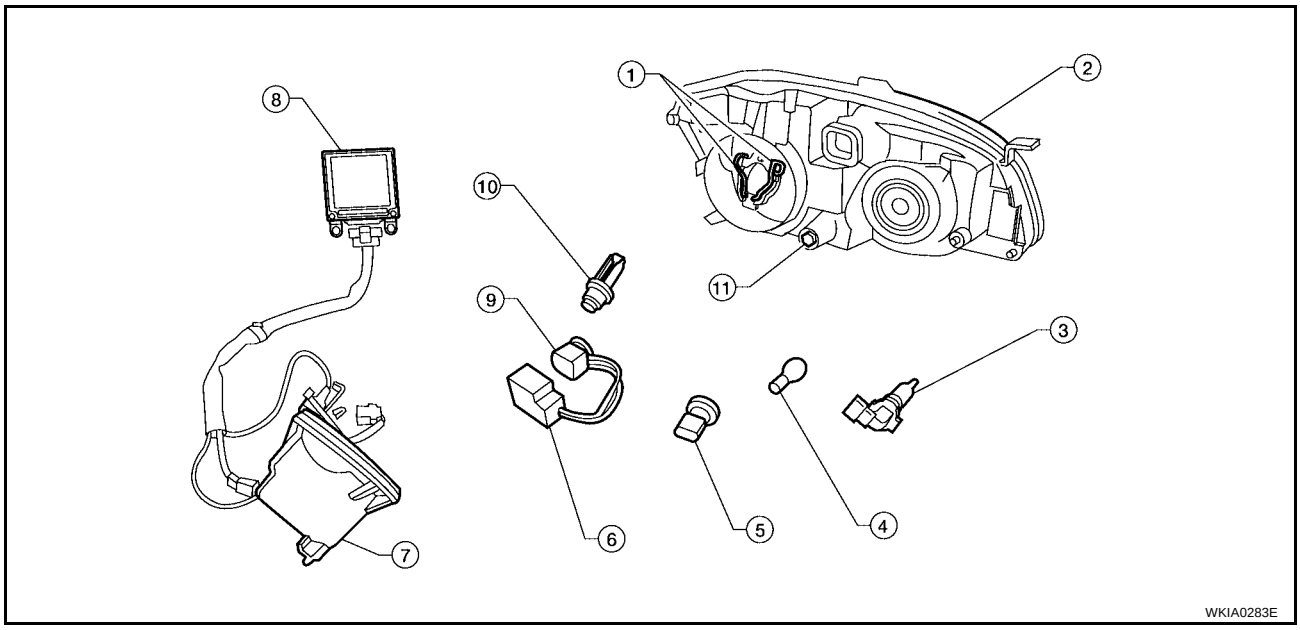
: 4.4 - 6.4 N·m (0.45 - 0.65 kg-m, 39 - 56 in-lb)

Disassembly and Assembly

EKS003CH

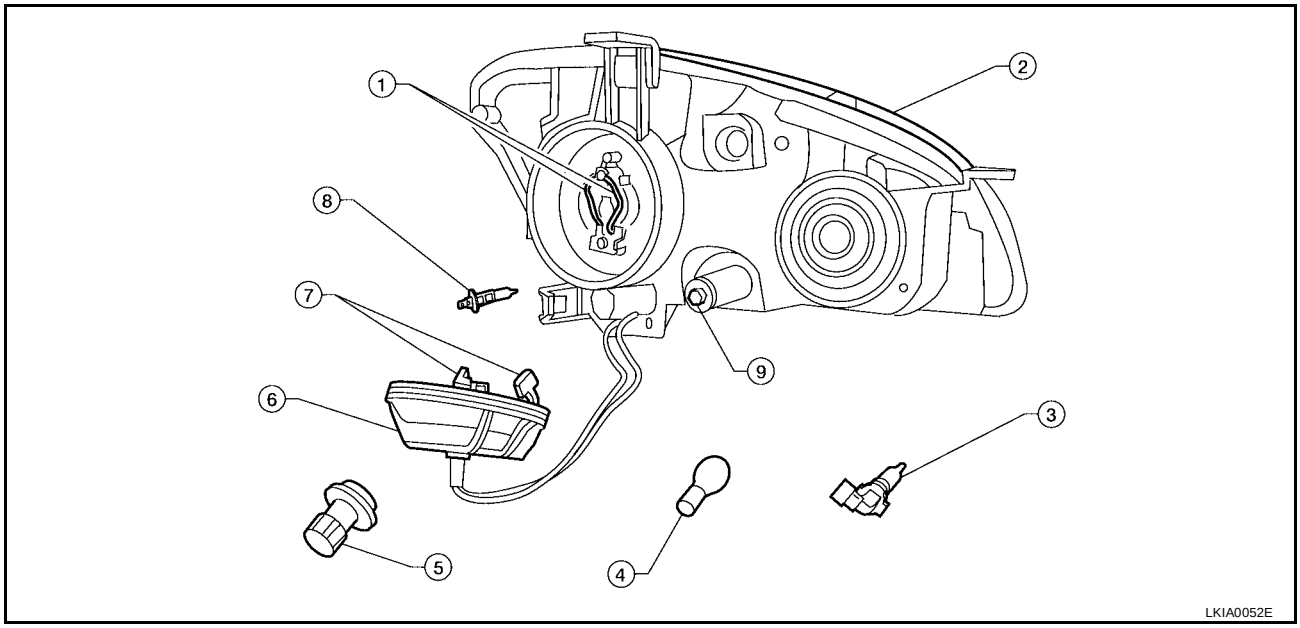
DISASSEMBLY

Xenon



1. Retaining springs
2. Headlamp assembly
3. Halogen bulb (high beam)
4. Front turn signal lamp bulb
5. Front turn signal bulb socket
6. Ignitor
7. Plastic cap
8. Ballast
9. Xenon bulb socket
10. Xenon bulb (low beam)
11. Aiming adjustment screw

Halogen



1. Retaining springs
2. Headlamp assembly
3. Halogen bulb (high beam)
4. Front turn signal lamp bulb
5. Front turn signal bulb socket
6. Plastic cap
7. Bulb terminal electrical connectors
8. Halogen bulb (low beam)
9. Aiming adjustment screw

1. Turn the low beam plastic cap counterclockwise to unlock and remove it.
2. Turn the bulb socket counterclockwise to unlock and remove it (xenon).
3. Disconnect the electrical connectors from the bulb terminals (halogen).
4. Unlock the retaining springs and remove the low beam bulb.
5. Release the ignitor and remove from the plastic cap (xenon).

6. Turn the high beam lamp socket counterclockwise to unlock and remove it.
7. Turn the front turn signal lamp bulb socket counterclockwise and unlock it.
8. Remove the front turn signal lamp bulb from its socket.

ASSEMBLY

Assemble in the reverse order of disassembly.

CAUTION:

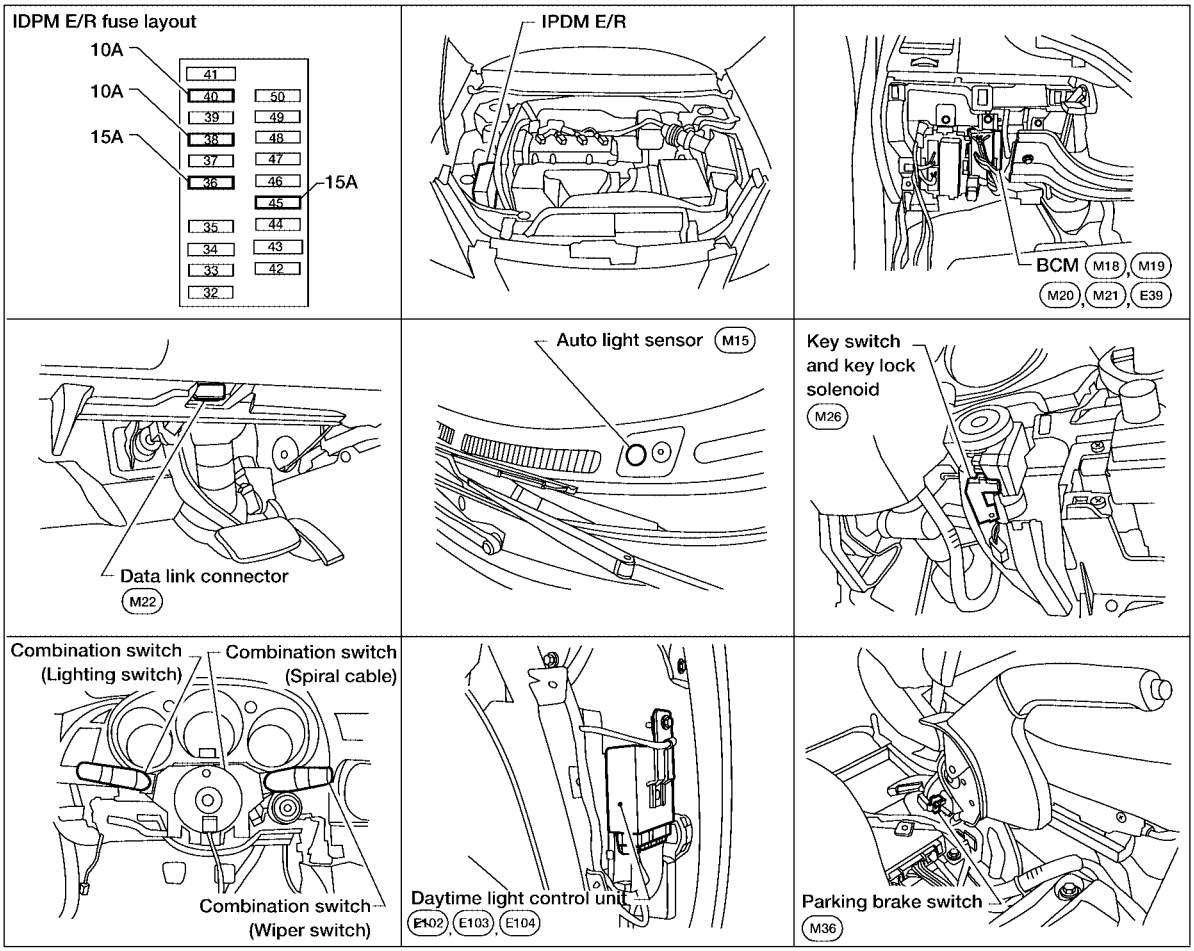
- **After installing the xenon bulb, be sure to install the bulb socket and plastic cap securely to ensure watertightness.**

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

PFP:26010

Component Parts and Harness Connector Location

EKS003CI



WKIA1581E

System Description

EKS003CJ

The headlamp system for Canada vehicles is equipped with a daytime light control unit that activates the high beam headlamps at approximately half illumination whenever the engine is running. If the parking brake is applied before the engine is started the daytime lights will not be illuminated. The daytime lights will illuminate once the parking brake is released. Thereafter, the daytime lights will continue to operate when the parking brake is applied.

Battery saver system is controlled by the BCM (body control module).

Power is supplied at all times

- to headlamp high relay located in the IPDM E/R (intelligent power distribution module engine room).

Power is also supplied at all times

- to BCM terminal 7
- through 50A fusible link (letter **f** , located in the fuse and fusible link box).

With the ignition switch in the ON or START position, power is supplied

- to daytime light control unit terminal 3 and
- to BCM terminal 35
- through 10A fuse [No. 12, located in the fuse block (J/B)].

With the ignition switch in the ACC or ON position, power is supplied

- to BCM terminal 36
- through 10A fuse [No. 6, located in the fuse block (J/B)].

With the ignition switch in the START position, power is supplied

- to daytime light control unit terminal 2

- through 10A fuse [No. 9, located in the fuse block (J/B)].

Ground is supplied

- to daytime light control unit terminals 13, 14, and 16
- through body grounds E15 and E24, and
- to BCM terminals 8, 27, and 63
- through body grounds F14 (QR25DE models), M57, M61, E15, and E24.

HEADLAMP OPERATION

Low Beam Operation

With the lighting switch in 2ND position, the BCM receives input requesting the headlamps to illuminate. This input is communicated to the IPDM E/R across the CAN communication lines. The central processing unit of the IPDM E/R controls the headlamp low relay coil. When energized, this relay directs power

- to 15A fuse (No. 36, located in the IPDM E/R)
- through terminal 20 of the IPDM E/R
- to terminal 1 of headlamp RH, and
- to 15A fuse (No. 45, located in the IPDM E/R)
- through terminal 30 of the IPDM E/R
- to terminal 1 of headlamp LH.

Ground is supplied at all times

- to terminal 2 of headlamp RH
- through body grounds E15 and E24, and
- to terminal 2 of headlamp LH
- through body grounds E15 and E24.

With power and ground supplied, low beam headlamps illuminate.

High Beam Operation/Flash-to-Pass Operation

With the lighting switch in 2ND position and placed in HIGH or PASS position, the BCM receives input requesting the headlamp high beams to illuminate. This input is communicated to the IPDM E/R across the CAN communication lines. The central processing unit of the IPDM E/R controls the headlamp high relay coil. When energized, this relay directs power

- to 10A fuse (No. 40, located in the IPDM E/R)
- through terminal 27 of the IPDM E/R
- to terminal 4 of the daytime light control unit
- through terminal 7 of the daytime light control unit
- to terminal 1 of headlamp RH, and
- to 10A fuse (No. 38, located in the IPDM E/R)
- through terminal 28 of the IPDM E/R
- to terminal 5 of the daytime light control unit
- through terminal 6 of the daytime light control unit
- to terminal 1 of headlamp LH.

Ground is supplied

- to terminal 2 of headlamp RH
- to terminal 9 of the daytime light control unit
- through terminal 14 of the daytime light control unit
- through body grounds E15 and E24, and
- to terminal 2 of headlamp LH
- to terminal 10 of the daytime light control unit
- through terminal 13 of the daytime light control unit
- through body grounds E15 and E24.

With power and ground supplied, the high beam headlamps and the HIGH BEAM indicator illuminate.

BATTERY SAVER CONTROL

With the combination switch (lighting switch) is in the 2ND position (ON), and the ignition switch is turned from ON or ACC to OFF, the battery saver control feature is activated.
Under this condition, the headlamps remain illuminated for 5 minutes, unless the combination switch (lighting switch) position is changed. If the combination switch (lighting switch) position is changed, then the headlamps are turned off.

AUTO LIGHT OPERATION

For auto light operation, refer to LT-46, "System Description" .

DAYTIME LIGHT OPERATION

With the engine running, the lighting switch in the OFF or 1ST position and parking brake released, power is supplied

- through daytime light control unit terminal 7
- to terminal 1 of RH headlamp
- through terminal 2 of RH headlamp
- to daytime light control unit terminal 9
- through daytime light control unit terminal 6
- to terminal 1 of LH headlamp
- through terminal 2 of LH headlamp
- to daytime light control unit terminal 10.

Ground is supplied

- to daytime light control unit terminals 13, 14, and 16
- through body grounds E15 and E24.

Because the high beam headlamps are now wired in series, they operate at half illumination.

XENON HEADLAMP (IF EQUIPPED)

The low beam headlamps may be equipped with xenon type bulbs. Xenon bulbs do not use a filament. Instead, they produce light when a high voltage current is passed between two tungsten electrodes through a mixture of xenon (an inert gas) and certain other metal halides. In addition to added lighting power, electronic control of the power supply gives the headlamps stable quality and tone color.
Following are some of the advantages of the xenon type headlamp.

- The light produced by the headlamps is a white color comparable to sunlight that is easy on the eyes.
- Light output is nearly double that of halogen headlamps, affording increased area of illumination.
- The light features a high relative spectral distribution at wavelengths to which the human eye is most sensitive. This means that even in the rain, more light is reflected back from the road surface toward the vehicle, for added visibility.
- Power consumption is approximately 25 percent less than halogen headlamps, reducing battery load.

OPERATION

After starting the engine with the lighting switch in the “OFF” or 1ST position, the headlamp high beam automatically turns on. Lighting switch operations other than the above are the same as conventional light systems.

Engine		With engine stopped									With engine running								
Lighting switch		OFF			1ST			2ND			OFF			1ST			2ND		
		Hi	Lo	P	Hi	Lo	P	Hi	Lo	P	Hi	Lo	P	Hi	Lo	P	Hi	Lo	P
Headlamp	High beam	–	–	–	–	–	×	×	–	×	●*	●*	×	●*	●*	×	×	–	×
	Low beam	–	–	–	–	–	×	×	×	×	–	–	×	–	–	×	×	×	×
Tail lamp		–	–	–	×	×	×	×	×	×	–	–	–	×	×	×	×	×	×
License and instrument illumination lamp		–	–	–	×	×	×	×	×	×	–	–	–	×	×	×	×	×	×

- Hi: “HIGH BEAM” position
- Lo: “LOW BEAM” position
- P: “FLASH TO PASS” position

- ×: Lamp “ON”
- –: Lamp “OFF”
- ●: Lamp dims. (Added functions)
- *: When starting the engine with the parking brake released, the daytime lights will operate.
  When starting the engine with the parking brake pulled, the daytime lights will not operate.

CAN Communication System Description

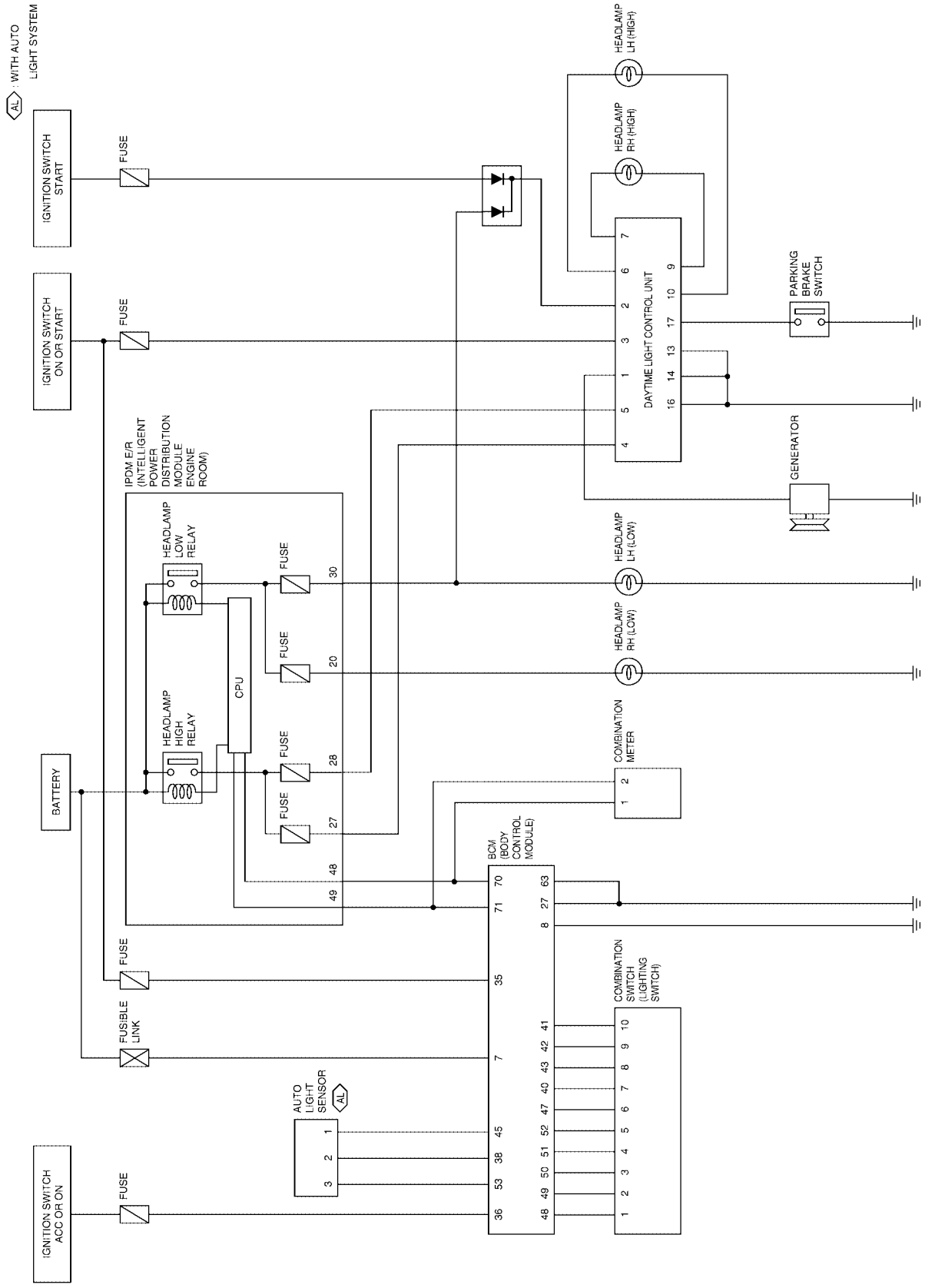
EKS003CK

Refer to LAN-4, "CAN COMMUNICATION" .

Schematic

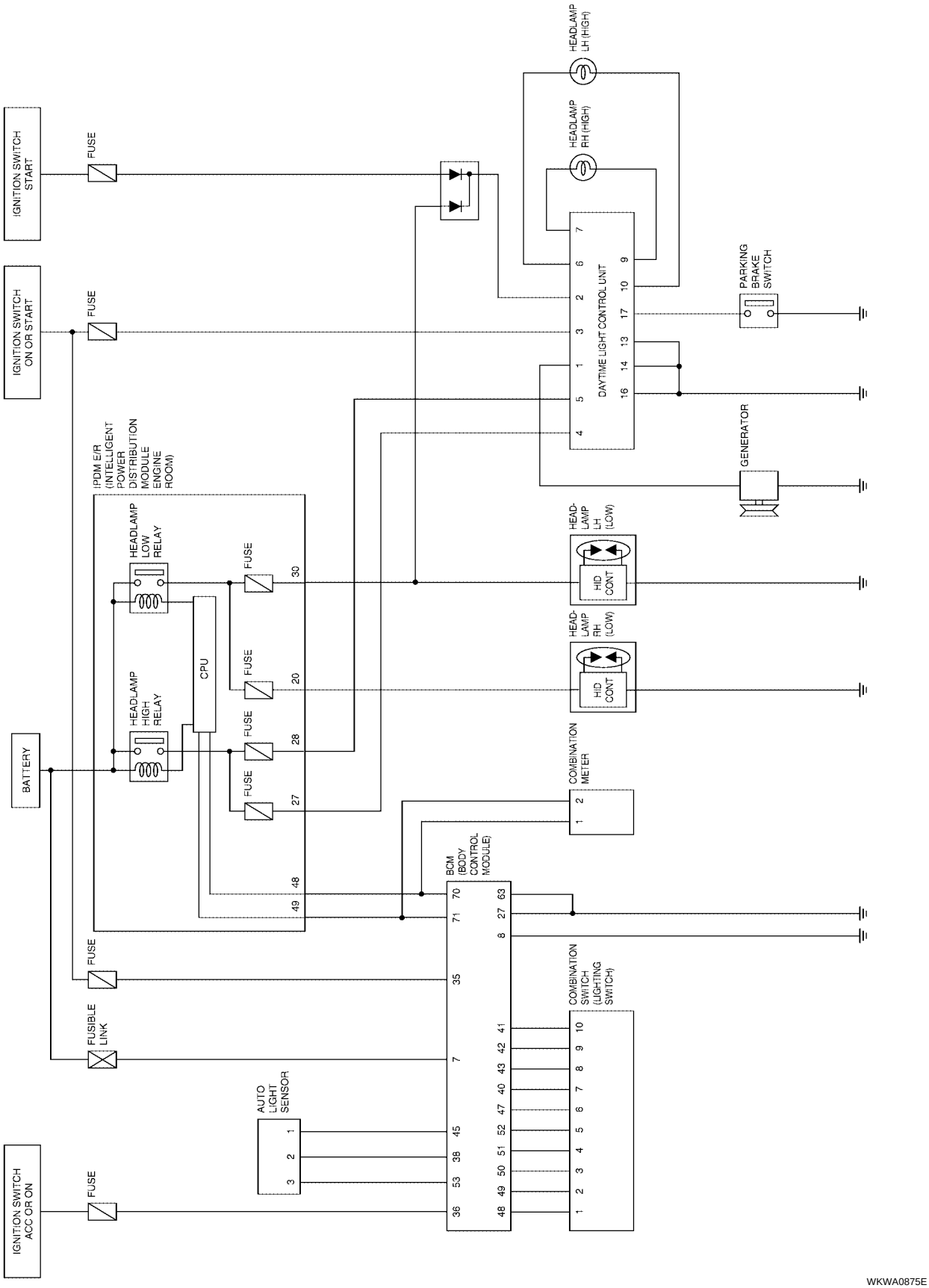
EKS003CL

HALOGEN



WKWA0874E

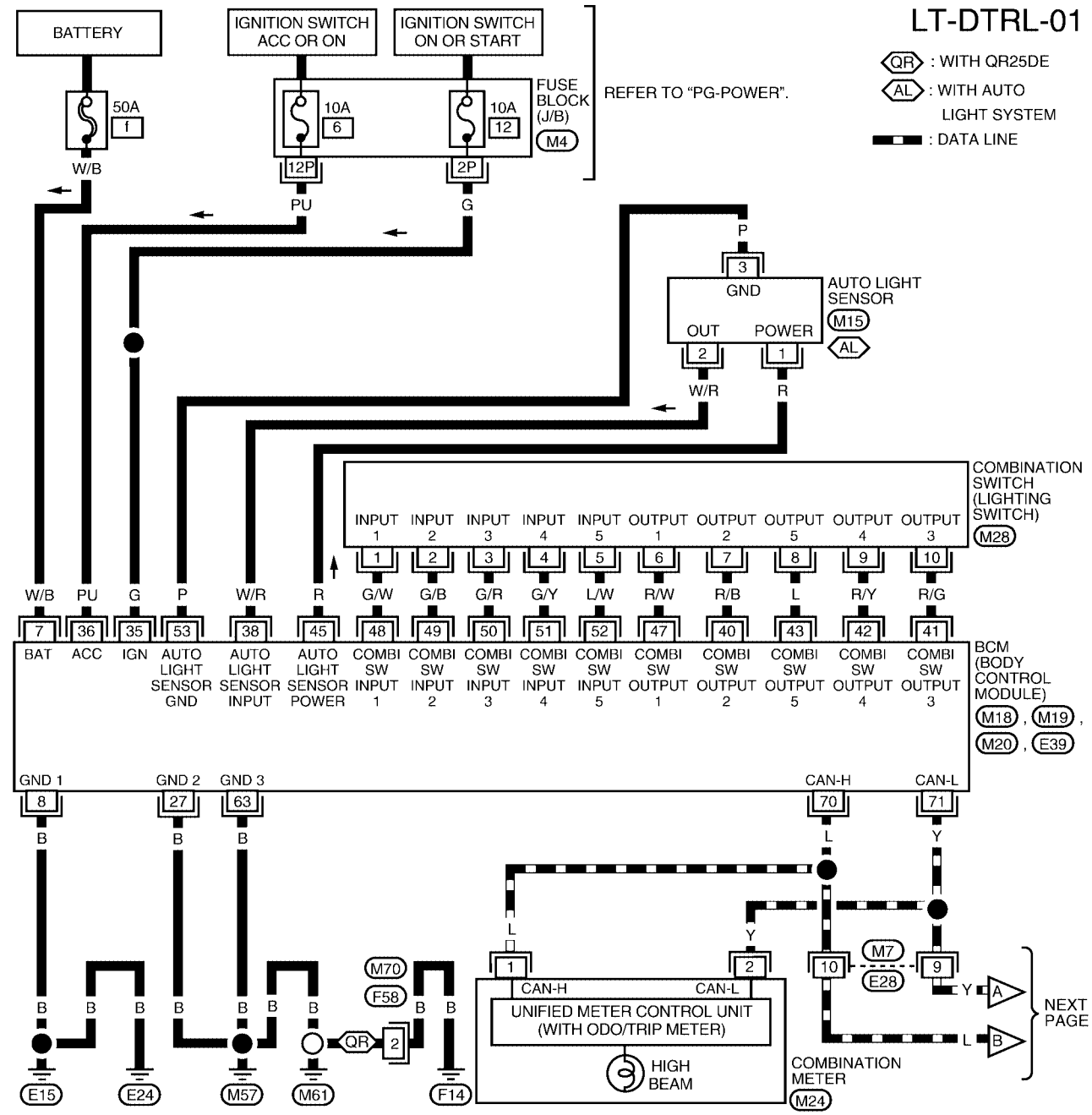
XENON


IGNITION SWITCH START
IGNITION SWITCH ON OR START
IGNITION SWITCH ACC OR ON
FUSE
FUSIBLE LINK
BATTERY
HEADLAMP LH (HIGH)
HEADLAMP RH (HIGH)
DAYTIME LIGHT CONTROL UNIT
PARKING BRAKE SWITCH
GENERATOR
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
HEADLAMP LOW RELAY
HEADLAMP HIGH RELAY
CPU
HEAD-LAMP LH (LOW)
HEAD-LAMP RH (LOW)
HID CONT
COMBINATION METER
BCM (BODY CONTROL MODULE)
COMBINATION SWITCH (LIGHTING SWITCH)
AUTO LIGHT SENSOR
WKWA0875E

Wiring Diagram — DTRL —

EKS003CM

HALOGEN



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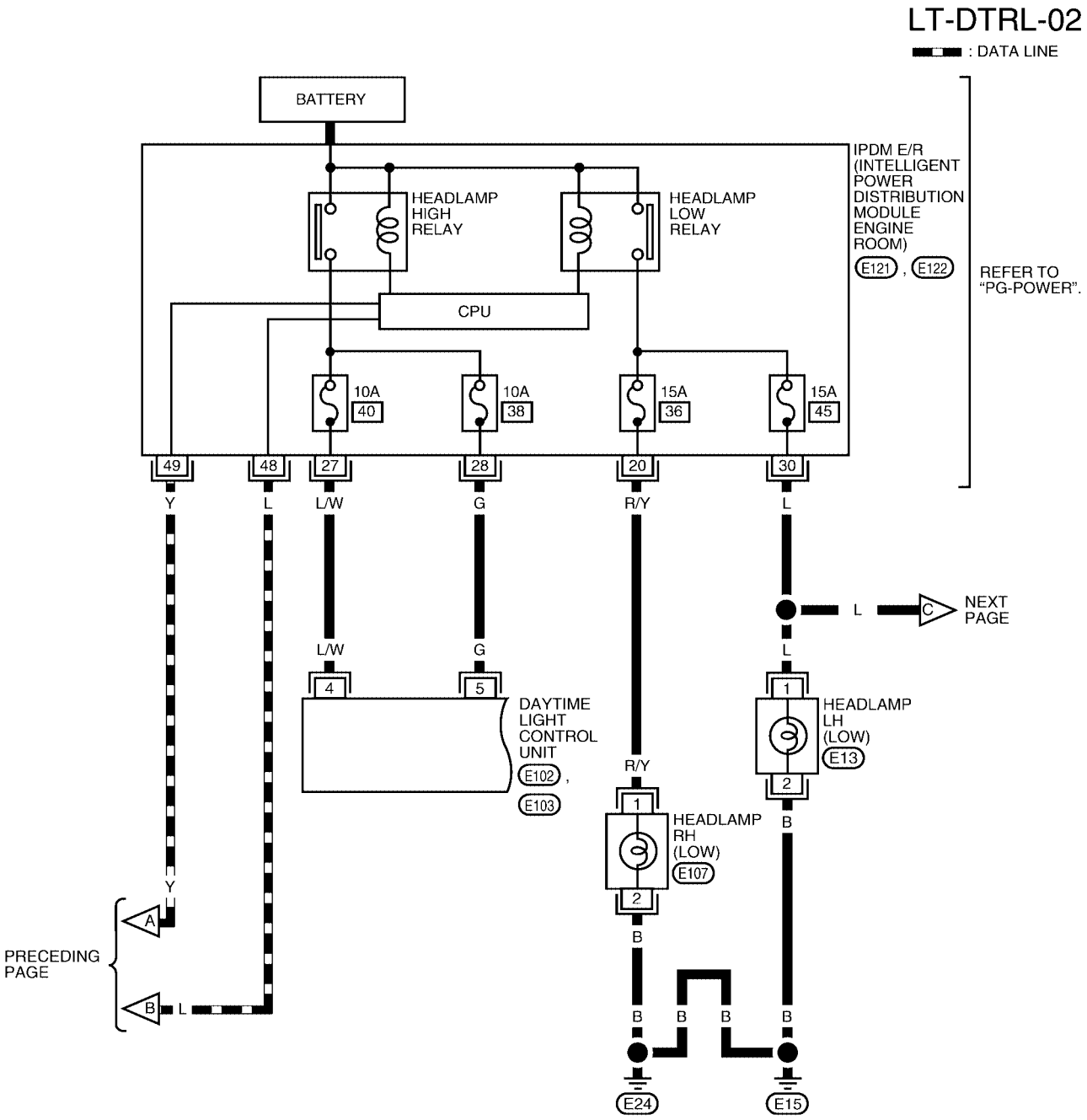
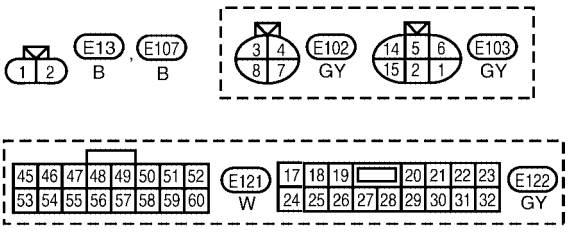
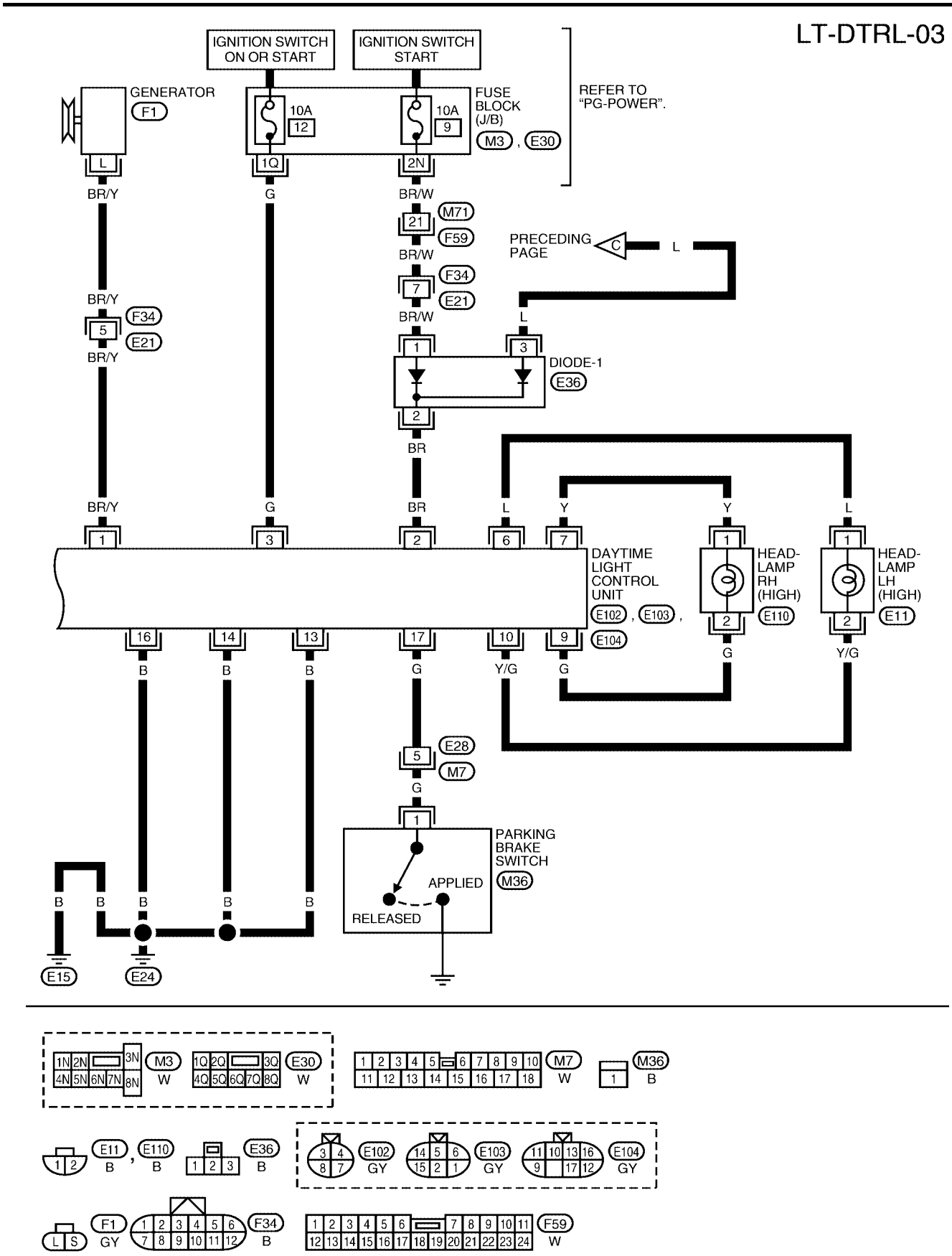
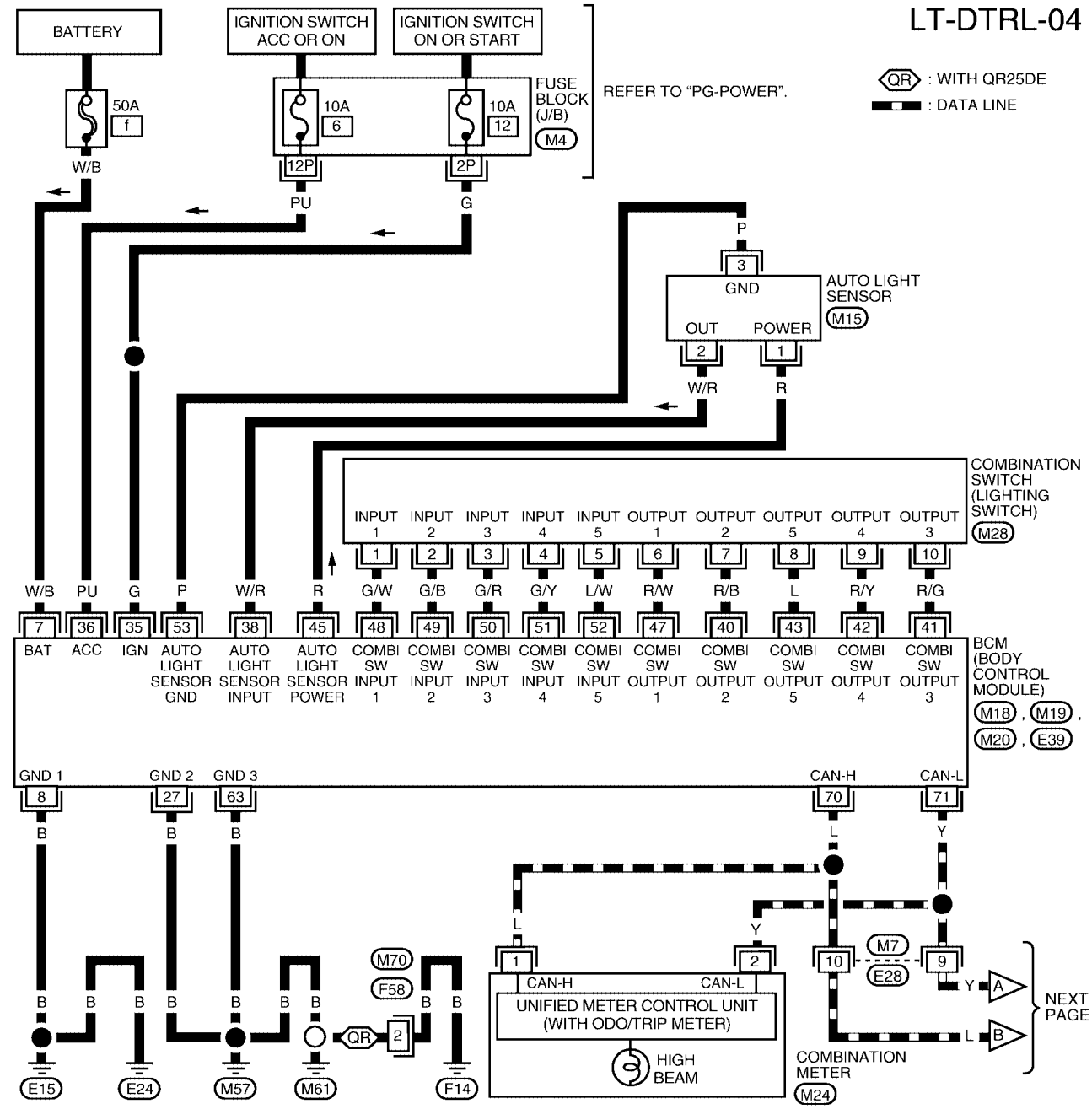

LT-DTRL-02
: DATA LINE
BATTERY
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E121 , E122
REFER TO "PG-POWER".
HEADLAMP HIGH RELAY
HEADLAMP LOW RELAY
CPU
10A 40
10A 38
15A 36
15A 45
49 48 27 28 20 30
Y L L/W G R/Y L
L C NEXT PAGE
L/W G
4 5
DAYTIME LIGHT CONTROL UNIT
E102 , E103
L
1
HEADLAMP LH (LOW)
E13
2
B
R/Y
1
HEADLAMP RH (LOW)
E107
2
B
Y
A
PRECEDING PAGE
B L
B B B B
E24
E15

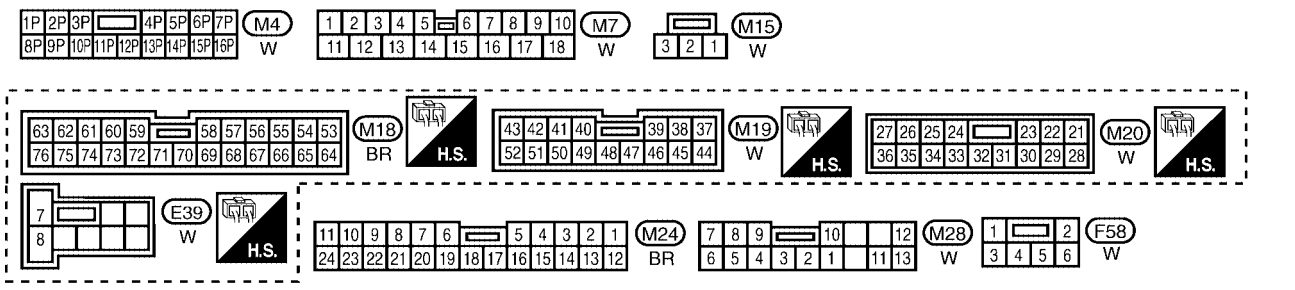

E13 , E107
1 2
B B
E102
3 4
8 7
GY
E103
14 5 6
15 2 1
GY
45 46 47 48 49 50 51 52
53 54 55 56 57 58 59 60
E121
W
17 18 19 20 21 22 23
24 25 26 27 28 29 30 31 32
E122
GY

WKWA0877E


LT-DTRL-03
IGNITION SWITCH ON OR START
IGNITION SWITCH START
GENERATOR
F1
10A 12
10A 9
FUSE BLOCK (J/B)
M3 , E30
REFER TO "PG-POWER".
L
1Q
2N
BR/Y
G
BR/W
M71
21
F59
PRECEDING PAGE
C
L
BR/W
7
F34
E21
BR/Y
5
F34
E21
BR/Y
BR/W
L
1
3
DIODE-1
E36
2
BR
BR/Y
G
BR
L
Y
Y
L
1
3
2
6
7
1
2
1
2
DAYTIME LIGHT CONTROL UNIT
E102 , E103 , E104
HEAD-LAMP RH (HIGH)
E110
HEAD-LAMP LH (HIGH)
E11
16
14
13
17
10
9
B
B
B
G
Y/G
G
G
Y/G
E28
5
M7
G
1
PARKING BRAKE SWITCH
M36
APPLIED
RELEASED
B
B
B
B
B
E15
E24
M3
W
E30
W
M7
W
M36
B
E11 , E110
B
B
E36
B
E102
GY
E103
GY
E104
GY
F1
GY
F34
B
F59
W
WKWA0878E

XENON





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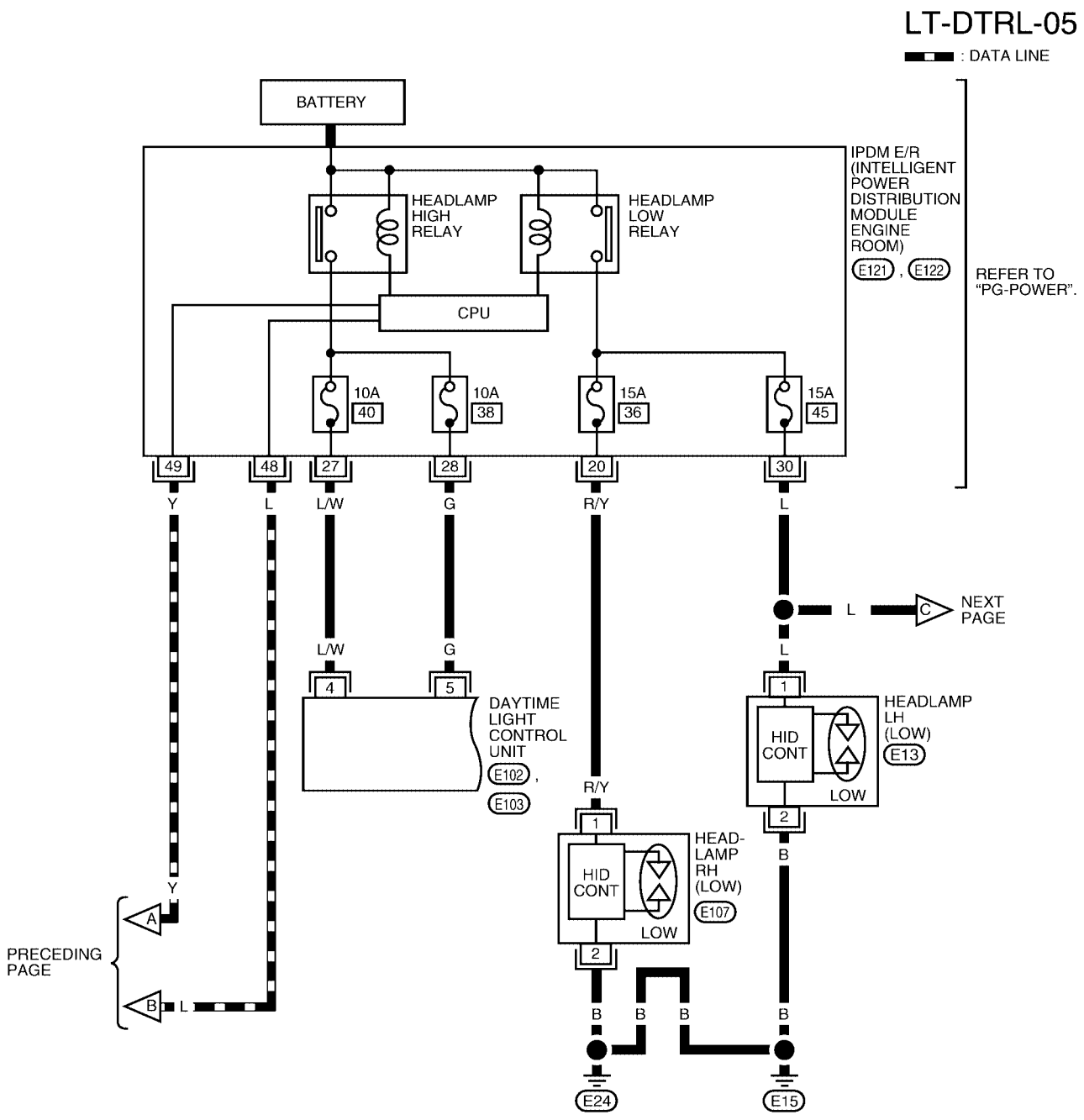
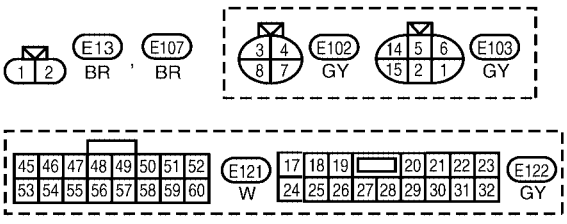
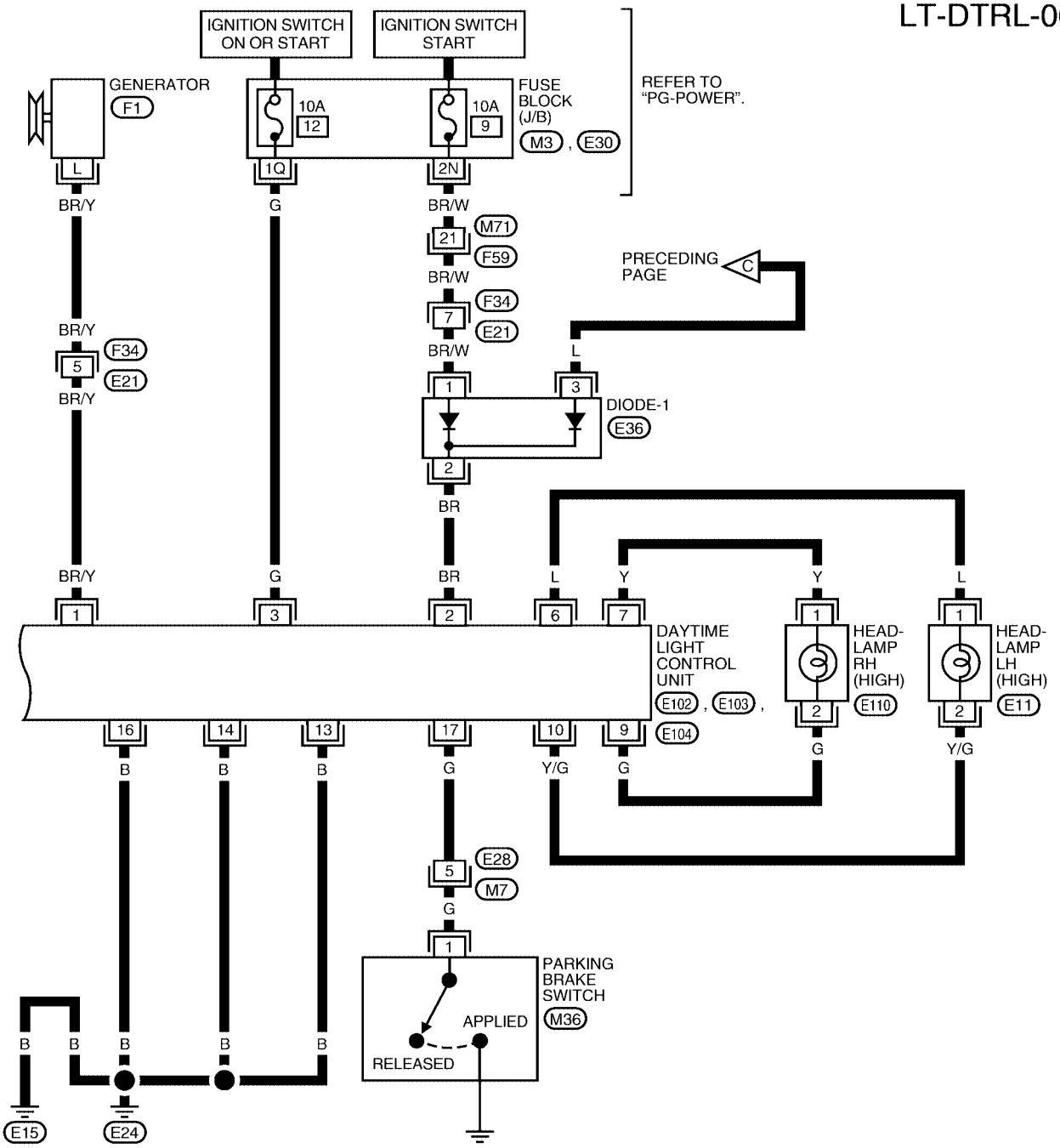
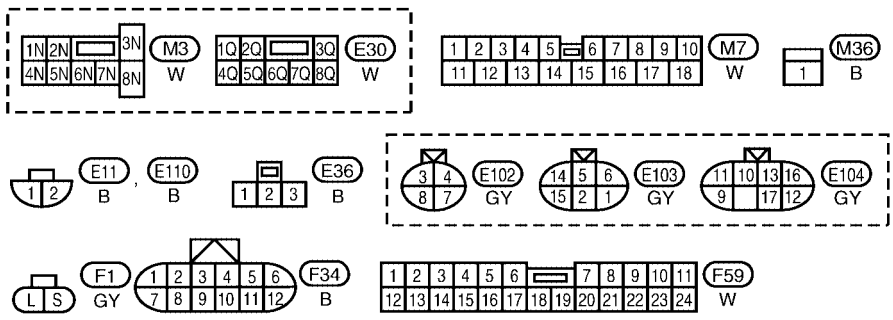

LT-DTRL-05
: DATA LINE
BATTERY
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E121 , E122
REFER TO "PG-POWER".
HEADLAMP HIGH RELAY
HEADLAMP LOW RELAY
CPU
10A 40
10A 38
15A 36
15A 45
49 48 27 28 20 30
Y L L/W G R/Y L
L
C
NEXT PAGE
L/W G
4 5
DAYTIME LIGHT CONTROL UNIT
E102 , E103
L
1
HID CONT
LOW
2
HEADLAMP LH (LOW)
E13
R/Y
1
HID CONT
LOW
2
HEAD-LAMP RH (LOW)
E107
B
Y
A
PRECEDING PAGE
B L
B B B B
E24
E15


E13 BR , E107 BR
E102 GY
E103 GY
45 46 47 48 49 50 51 52
53 54 55 56 57 58 59 60
E121 W
17 18 19 20 21 22 23
24 25 26 27 28 29 30 31 32
E122 GY

WKWA0880E

LT-DTRL-06





WKWA0881E

Terminals and Reference Value for Daytime Light Control Unit

EKS003CN

Terminal No.	Wire color	Item	Condition	Voltage (Approx.)
1	BR/Y	Generator	When turning ignition switch to “ON”	Less than 1V
			When engine is running	Battery voltage
			When turning ignition switch to “OFF”	Less than 1V
2	BR	Start signal	When turning ignition switch to “START”	Battery voltage
			When turning ignition switch to “ON” from “START”	Less than 1V
			When turning ignition switch to “OFF”	Less than 1V
3	G	Power source	When turning ignition switch to “ON”	Battery voltage
			When turning ignition switch to “START”	Battery voltage
			When turning ignition switch to “OFF”	Less than 1V
4	L/W	LH light fuse	When lighting switch is turned to the 2ND position with “HI BEAM” or “FLASH TO PASS” position	Battery voltage
			When lighting switch is turned to “FLASH TO PASS” position with ignition switch “ON” position	Battery voltage
5	G	RH light fuse	When lighting switch is turned to the 2ND position with “HI BEAM” or “FLASH TO PASS” position	Battery voltage
			When lighting switch is turned to “FLASH TO PASS” position with ignition switch “ON” position	Battery voltage
6	L	LH HI beam	When lighting switch is turned to the 2ND position with “HI BEAM” or “FLASH TO PASS” position	Battery voltage
			When releasing parking brake with engine running and turning lighting switch to “OFF” (daytime light operation) **CAUTION:** **Block wheels and ensure selector lever is in N or P position.**	Half battery voltage
7	Y	RH HI beam	When lighting switch is turned to the 2ND position with “HI BEAM” or “FLASH TO PASS” position	Battery voltage
			When releasing parking brake with engine running and turning lighting switch to “OFF” (daytime light operation) **CAUTION:** **Block wheels and ensure selector lever is in N or P position.**	Battery voltage
9	G	RH HI beam (ground)	When turning lighting switch to the 2ND position with “HI BEAM“ or “FLASH TO PASS” position	Less than 1V
			When releasing parking brake with engine running and turning lighting switch to “OFF” (daytime light operation) **CAUTION:** **Block wheels and ensure selector lever is in N or P position.**	Half battery voltage
10	Y/G	LH HI beam (ground)	When turning lighting switch to the 2ND position with “HI BEAM” or “FLASH TO PASS” position	Less than 1V
			When releasing parking brake with engine running and turning lighting switch to “OFF” (daytime light operation) **CAUTION:** **Block wheels and ensure selector lever is in N or P position.**	Less than 1V
13	B	Ground	—	—
14	B	Ground	—	—
16	B	Ground	—	—

Terminal No.	Wire color	Item	Condition	Voltage (Approx.)
17	G	Parking brake switch	When parking brake is released	Battery voltage
			When parking brake is set	Less than 1.7V

Aiming Adjustment

EKS003CO

Refer to LT-27, "Aiming Adjustment" .

Bulb Replacement

EKS003CP

Refer to LT-28, "Bulb Replacement" .

Removal and Installation

EKS003CQ

Refer to LT-29, "Removal and Installation" .

Disassembly and Assembly

EKS003CR

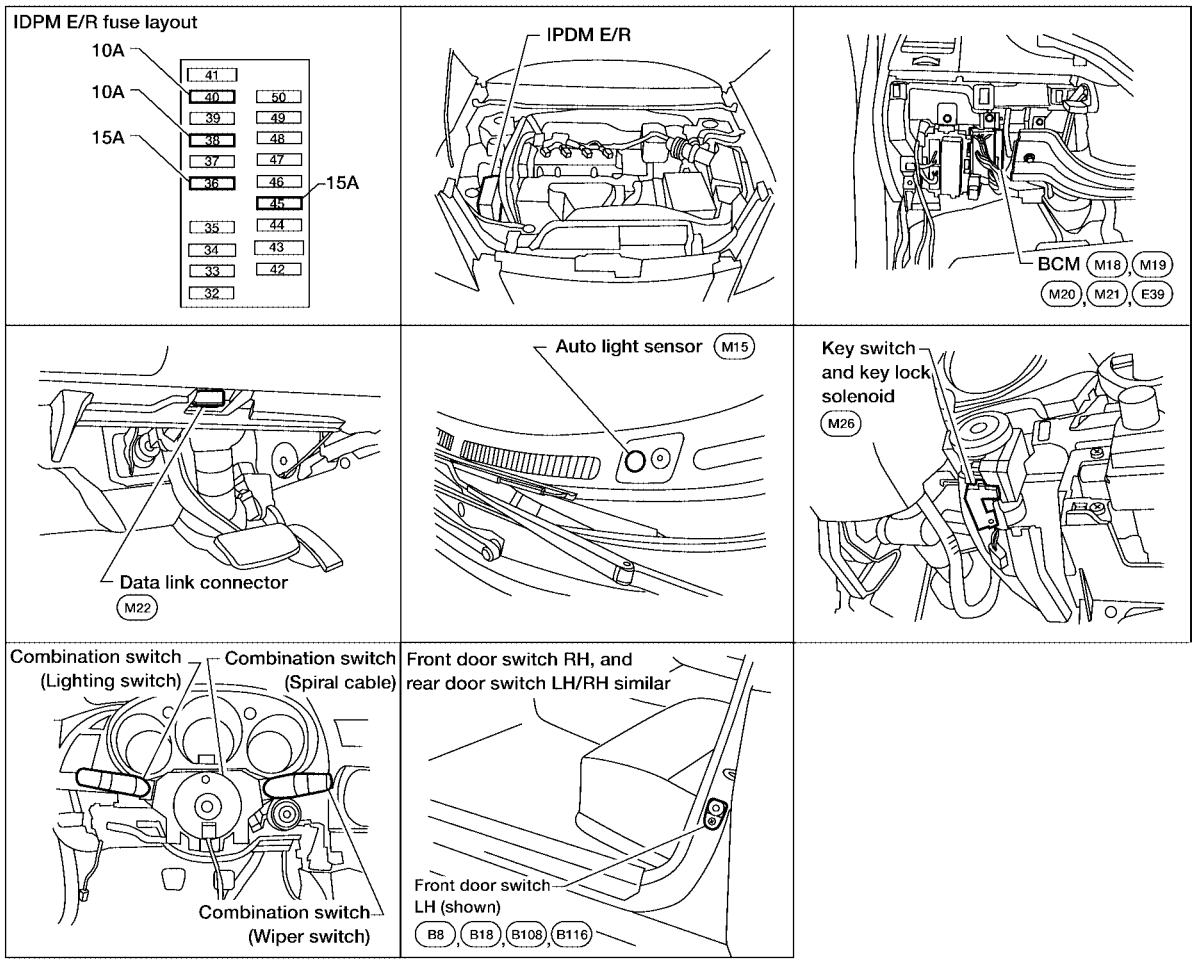
Refer to LT-30, "Disassembly and Assembly" .

AUTO LIGHT SYSTEM

PFP:28491

Component Parts and Harness Connector Location

EKS003CS



WKIA1582E

System Description

EKS003CT

This system automatically turns the parking lamps and the headlamps on and off in accordance with ambient light.
Timing for when the lamps turn on/off can be selected using four modes.

OUTLINE

The auto light control system uses an optical sensor that detects the brightness of outside light.
When the lighting switch is in AUTO position, it automatically turns on/off the parking lamps and the headlamps (and fog lamps, if equipped) in accordance with the ambient light. Sensitivity can be adjusted in four steps. For the details of the setting, refer to LT-60, "SETTING CHANGE FUNCTIONS" .
When the lighting switch is in "AUTO" position, power is supplied

- from BCM (body control module) terminal 45
- to auto light sensor terminal 1.

When lighting switch is in “AUTO” position, ground is supplied

- from BCM terminal 53
- to auto light sensor terminal 3.

When ignition switch is turned to "ON” or ”START” position and when outside brightness is darker than prescribed level, input is supplied

- to BCM terminal 38
- from auto light sensor terminal 2.

The headlamps will then illuminate. For a description of headlamp operation, refer to LT-6, "System Description" (USA) or LT-32, "System Description" (Canada).

BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the AUTO position, and the ignition switch is turned from ON or ACC to OFF, and one of the doors is opened, the battery saver feature is activated.
Under this condition, the headlamps remain illuminated for 5 minutes, unless the combination switch (lighting switch) position is changed. If the combination switch (lighting switch) position is changed, then the headlamps are turned off.

SHUT OFF DELAY

When the ignition switch is turned from ON to OFF while the auto light system is activated and the headlamps are illuminated, the shut off delay feature is activated. Under this condition, the BCM no longer receives a voltage signal at terminal 35, and this starts the auto light shut off delay timer. The shut off delay timer is active until one of the doors is opened, or the combination switch (lighting switch) position is changed. If one of the doors is opened, the shut off delay feature is deactivated, and the battery saver control feature is activated. If the combination switch (lighting switch) position is changed, the headlamps are turned off.

CAN Communication System Description

EKS003CU

Refer to LAN-4, "CAN COMMUNICATION" .

Major Components and Functions

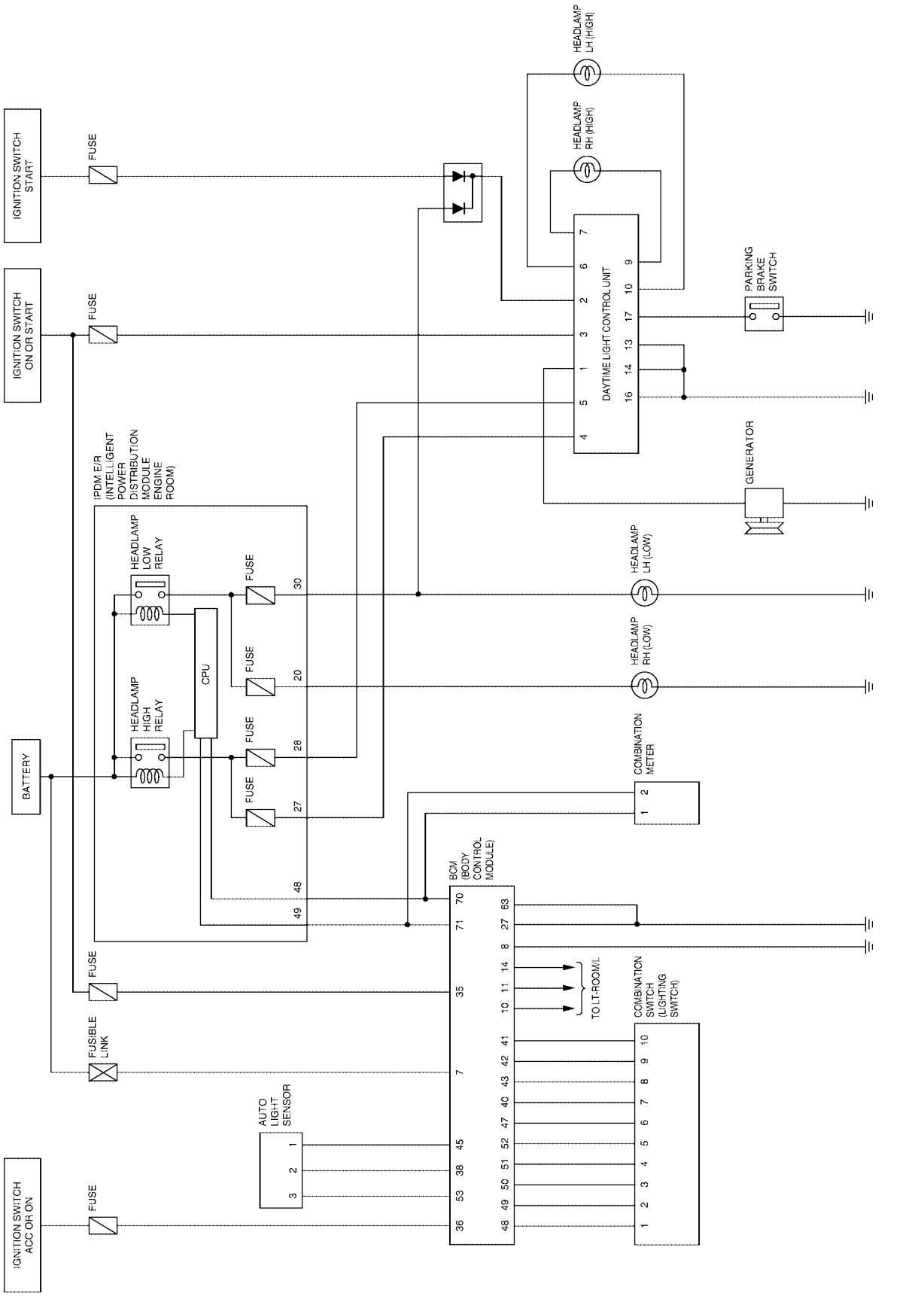
EKS003CV

Components	Functions
BCM	● Turns on/off circuits of tail light and headlamp according to signals from light sensor, lighting switch (AUTO), driver door switch, and ignition switch (ON, OFF), and vehicle signal from combination meter.
Auto light sensor	● Converts ambient light (lux) to voltage, and sends it to BCM. (Detects light from 50 to 1,300 lux)
Combination meter	● Sends vehicle signal to BCM via CAN communication line.

Schematic

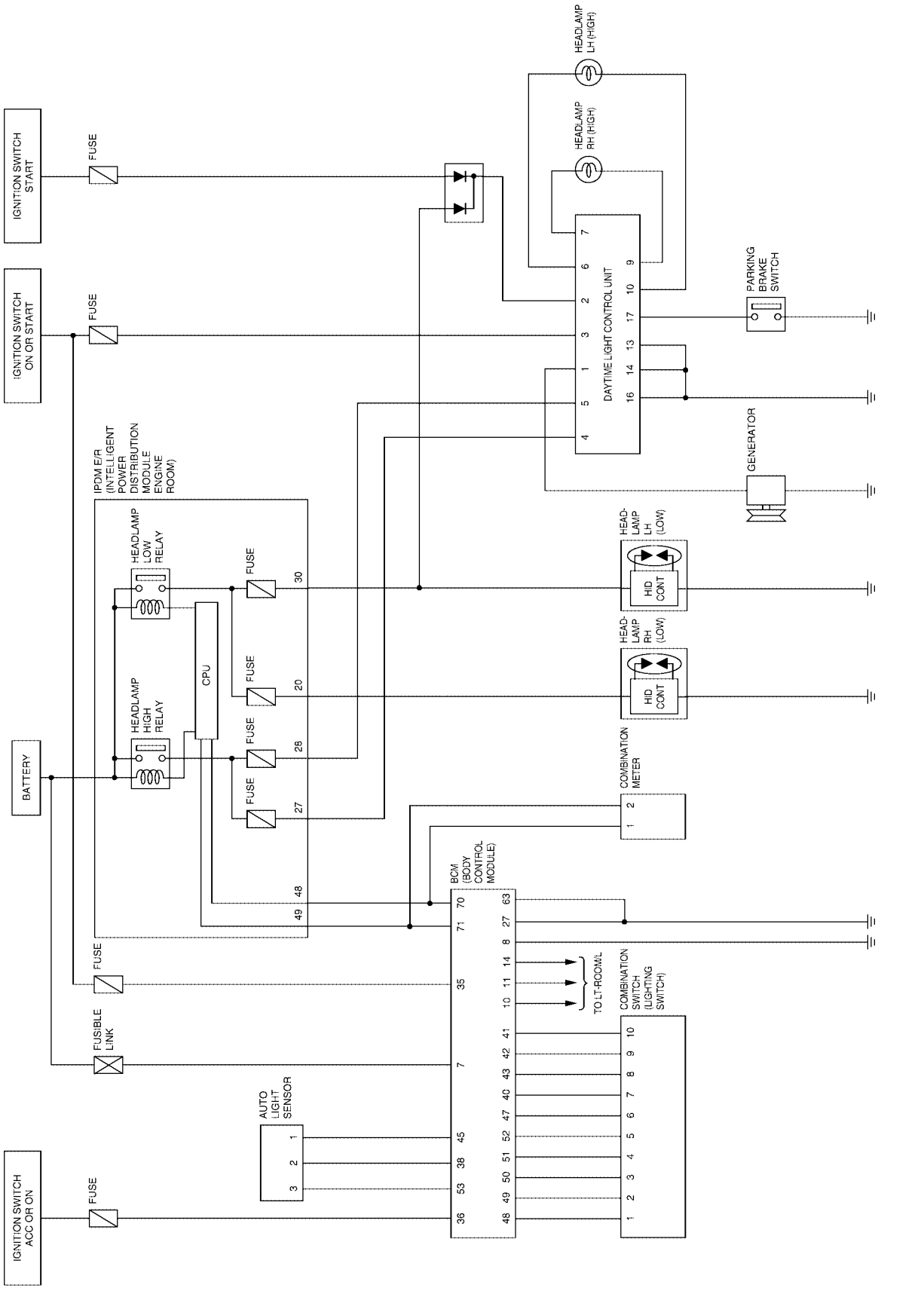
EKS003CW

HALOGEN (WITH DAYTIME LIGHT SYSTEM)



WKWA0882E

XENON (WITH DAYTIME LIGHT SYSTEM)

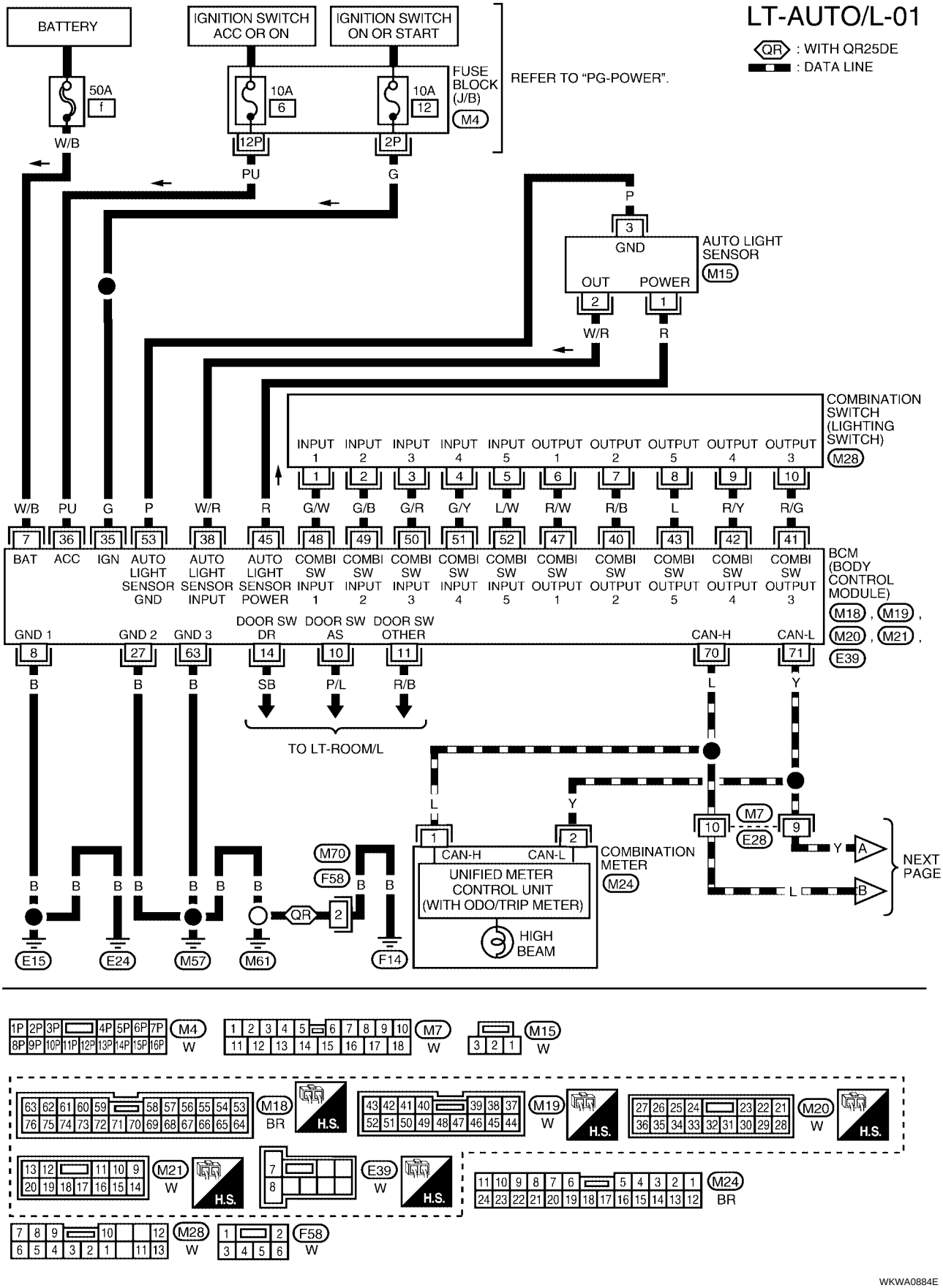


WKWA0883E

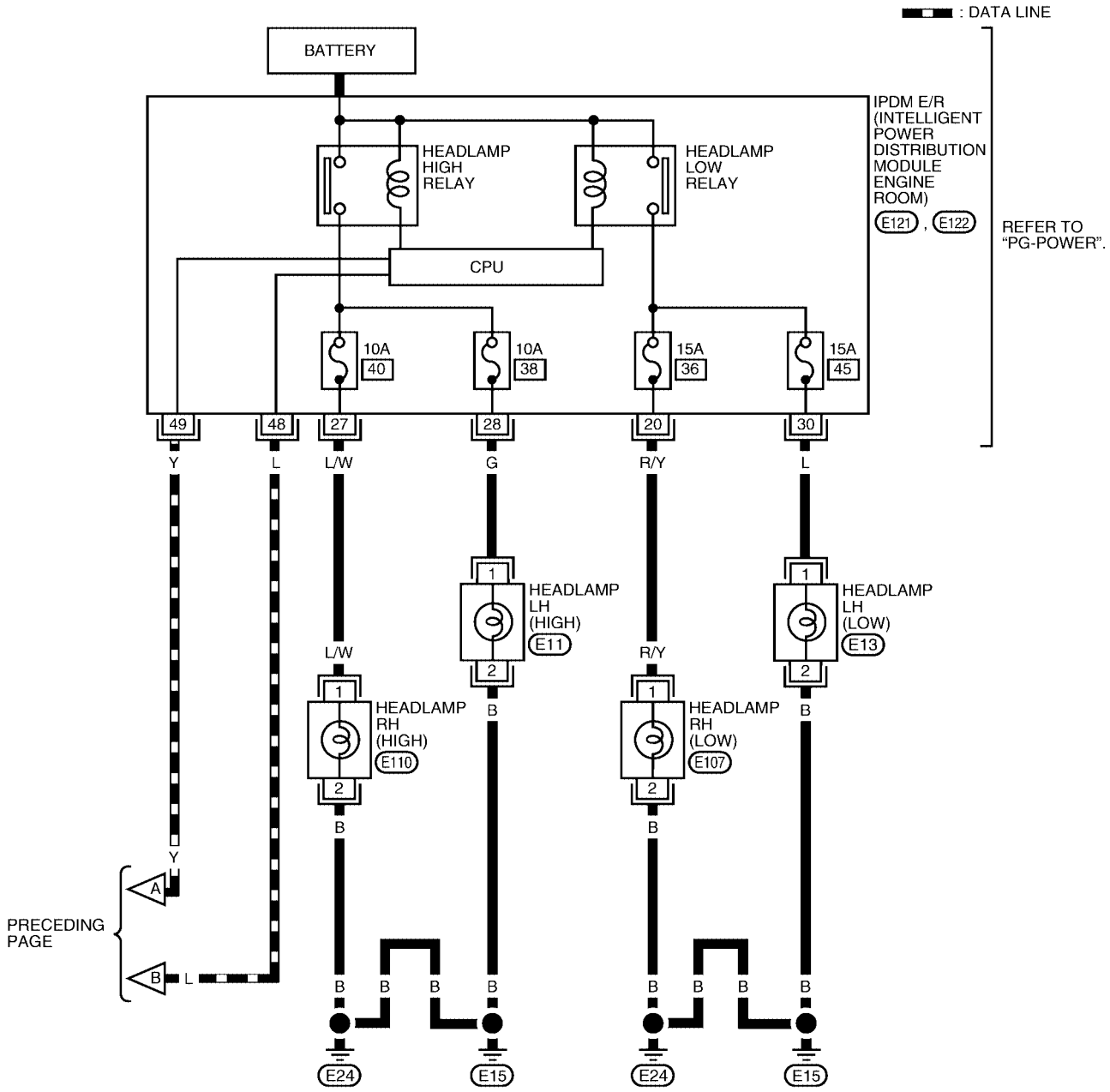
Wiring Diagram — AUTO/L —

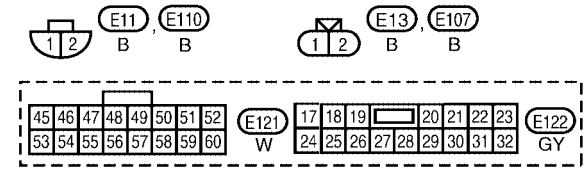
EKS003CX

HALOGEN (USA)



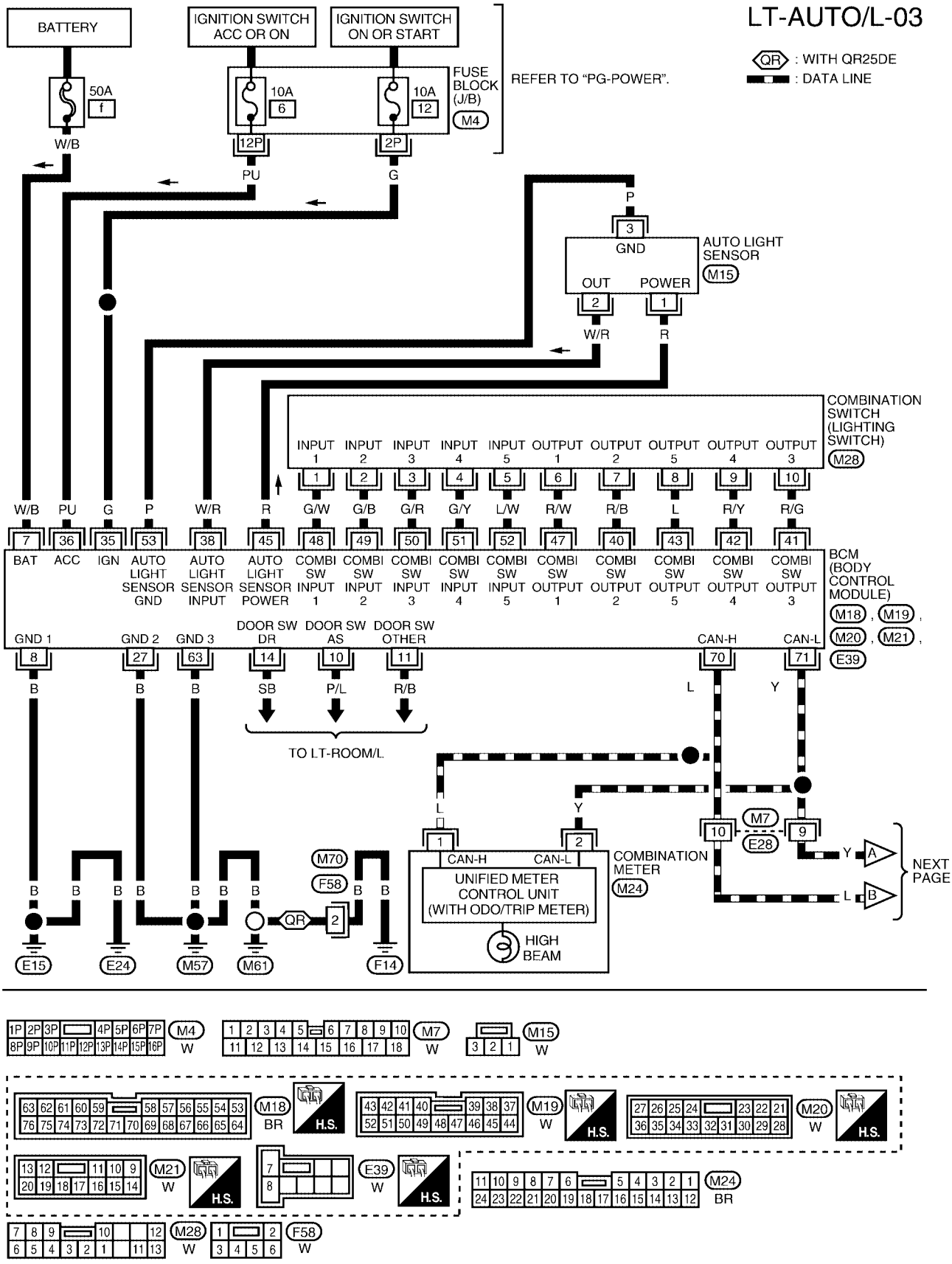
LT-AUTO/L-02



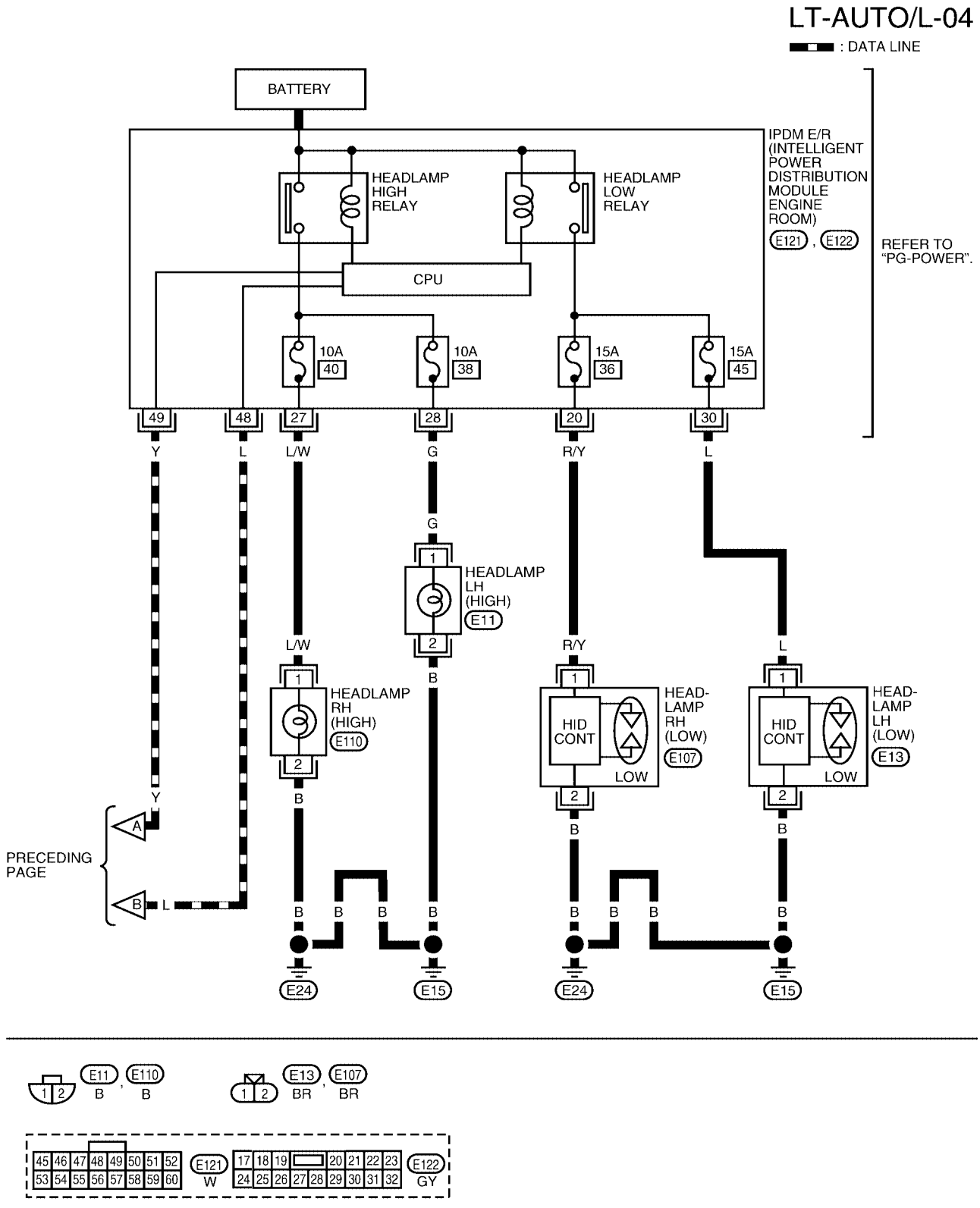


WKWA0885E

XENON (USA)



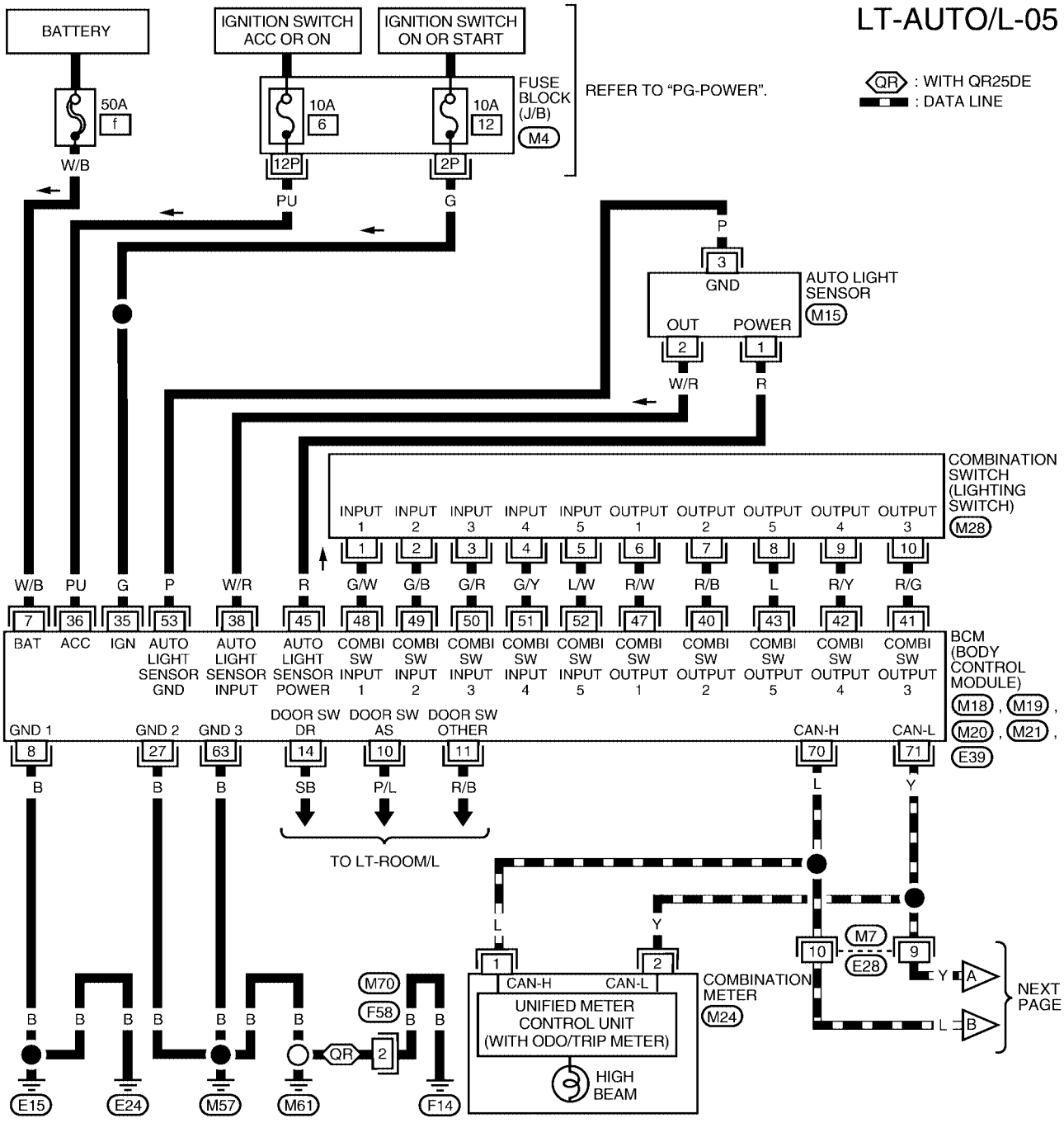
WKWA0886E

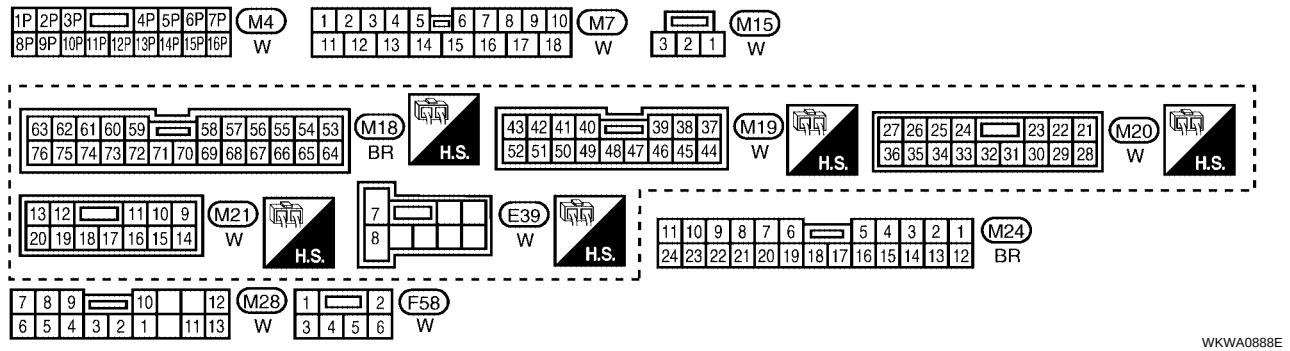

LT-AUTO/L-04
: DATA LINE
BATTERY
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E121 , E122
REFER TO "PG-POWER".
HEADLAMP HIGH RELAY
HEADLAMP LOW RELAY
CPU
10A 40
10A 38
15A 36
15A 45
49 48 27 28 20 30
Y L L/W G R/Y L
HEADLAMP LH (HIGH) E11
HEADLAMP RH (HIGH) E110
HEAD-LAMP RH (LOW) E107
HEAD-LAMP LH (LOW) E13
HID CONT
LOW
PRECEDING PAGE
A B
E24 E15 E24 E15

E11 B , E110 B
E13 BR , E107 BR
45 46 47 48 49 50 51 52
53 54 55 56 57 58 59 60
E121 W
17 18 19 20 21 22 23
24 25 26 27 28 29 30 31 32
E122 GY

WKWA0887E

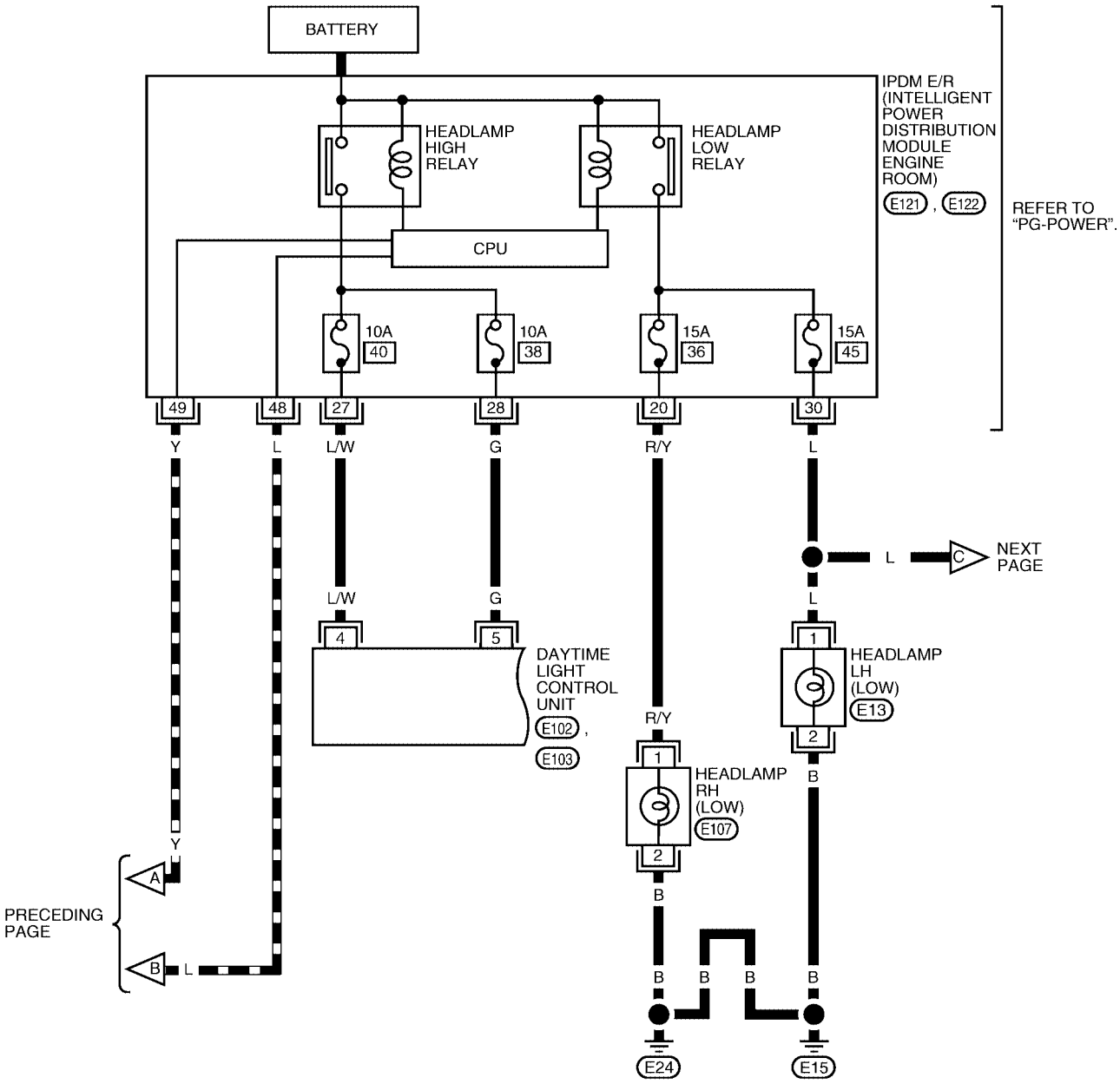
HALOGEN (CANADA)

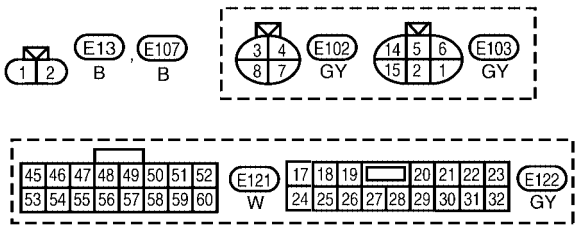




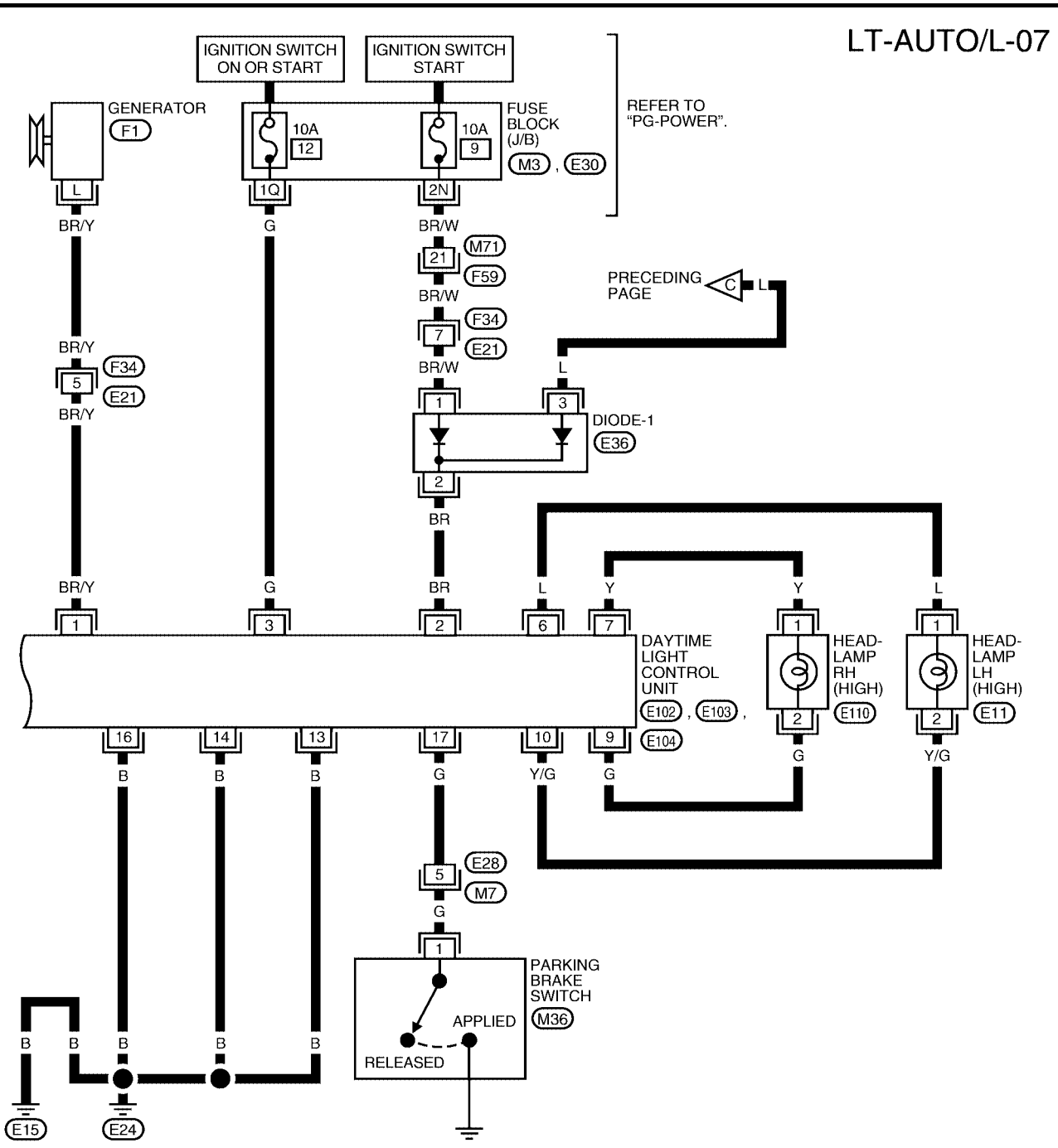
LT-AUTO/L-06

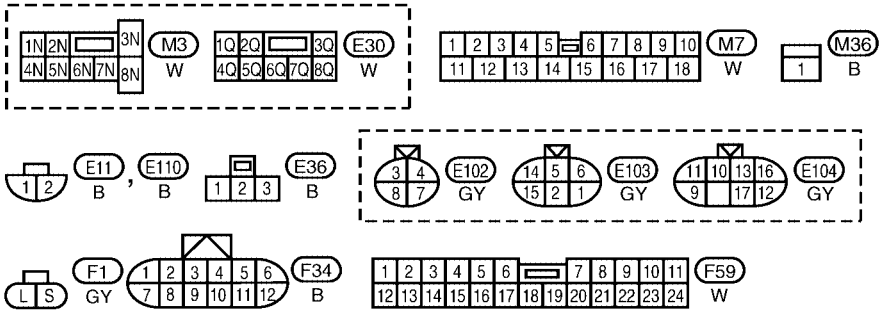
: DATA LINE





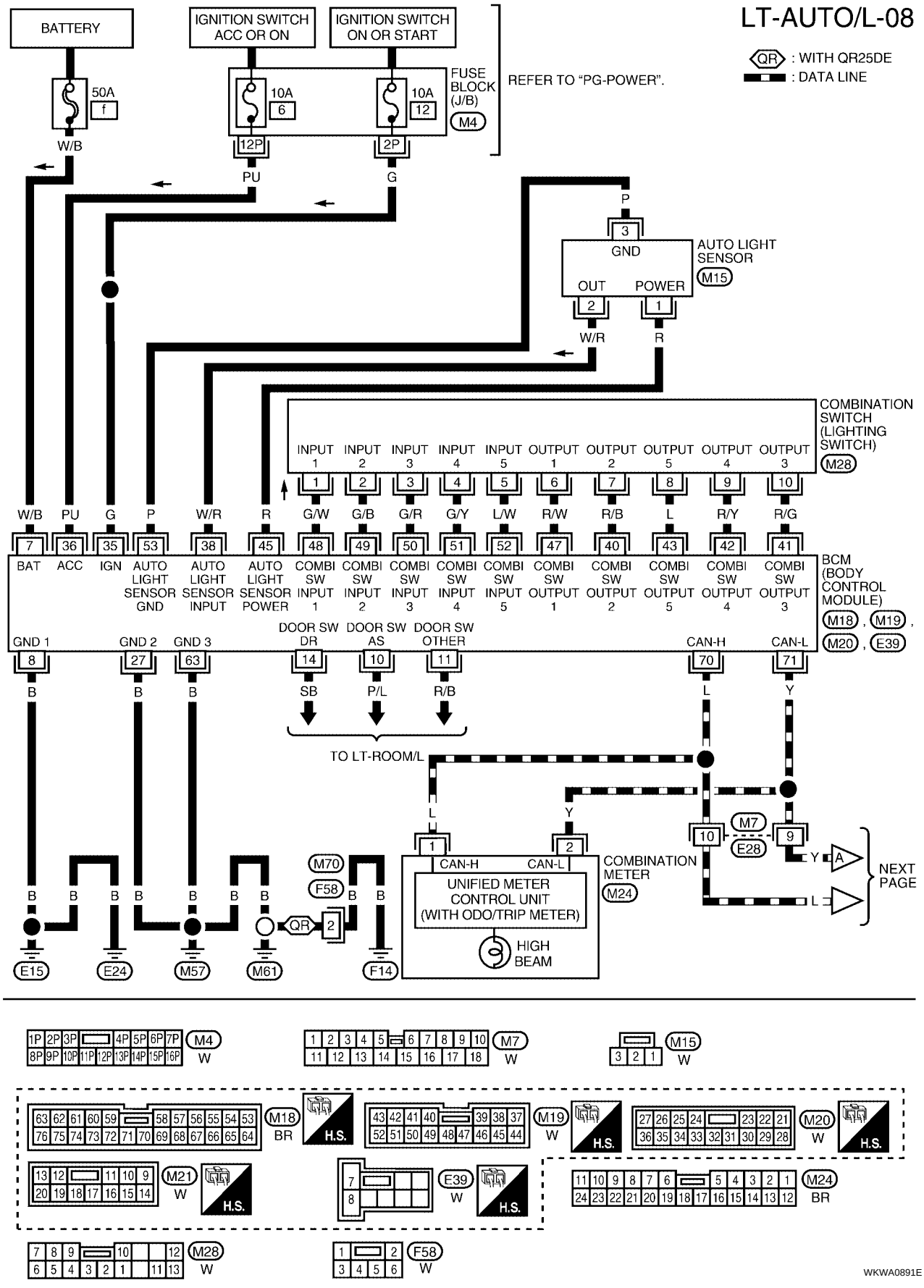
WKWA0889E


LT-AUTO/L-07
IGNITION SWITCH ON OR START
IGNITION SWITCH START
GENERATOR
F1
10A
12
10A
9
FUSE BLOCK (J/B)
M3 , E30
REFER TO "PG-POWER".
L
1Q
2N
BR/Y
G
BR/W
M71
21
F59
BR/W
F34
7
E21
BR/W
PRECEDING PAGE
C
L
BR/Y
F34
5
E21
BR/Y
L
1
3
DIODE-1
E36
2
BR
BR/Y
G
BR
L
Y
Y
L
1
3
2
6
7
1
2
1
2
DAYTIME LIGHT CONTROL UNIT
E102 , E103 ,
E104
HEAD-LAMP RH (HIGH)
E110
HEAD-LAMP LH (HIGH)
E11
16
14
13
17
10
9
B
B
B
G
Y/G
G
G
Y/G
E28
5
M7
G
1
PARKING BRAKE SWITCH
M36
APPLIED
RELEASED
B
B
B
B
B
E15
E24

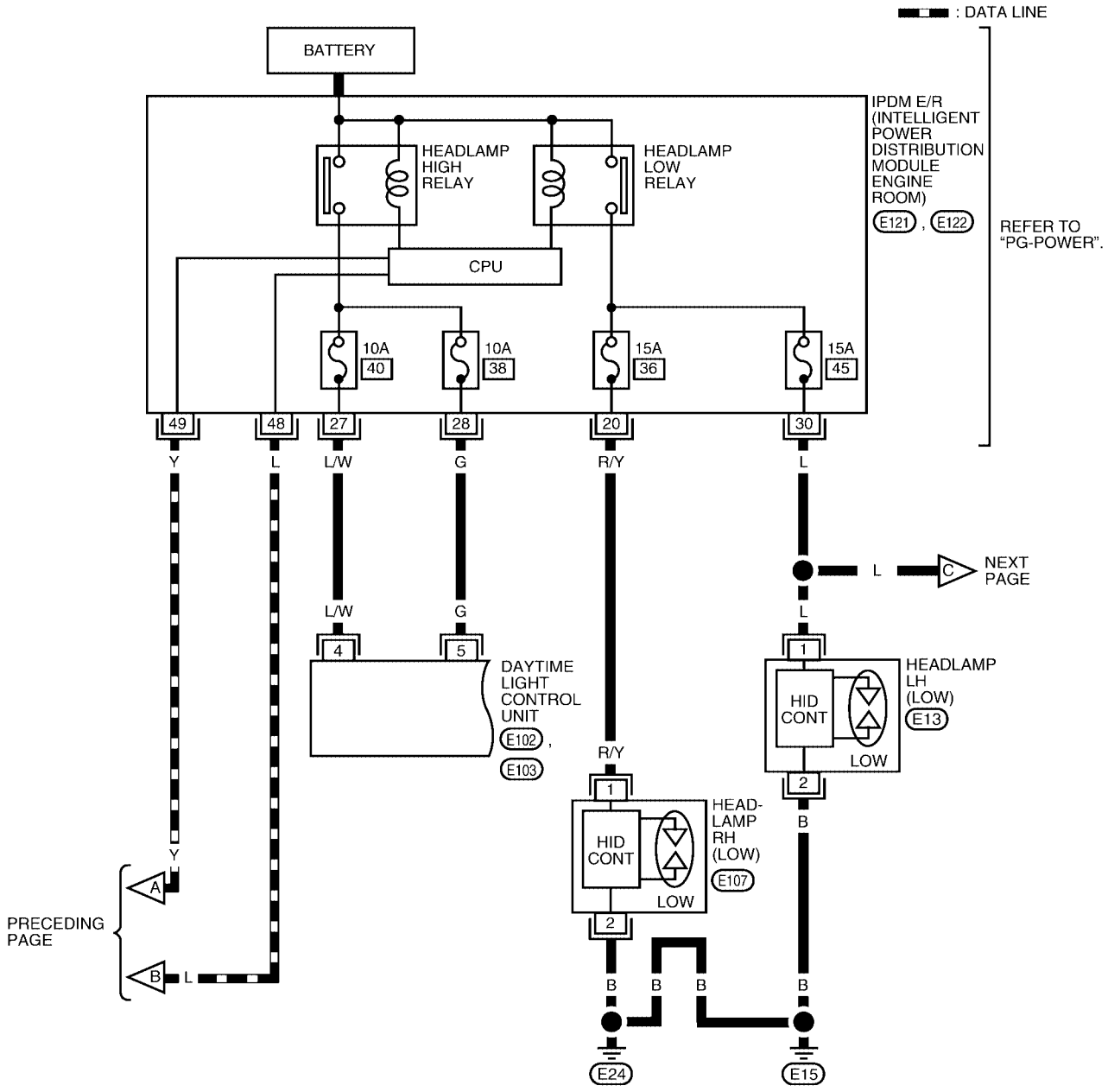

M3
W
E30
W
M7
W
M36
B
E11
B
E110
B
E36
B
E102
GY
E103
GY
E104
GY
F1
GY
F34
B
F59
W

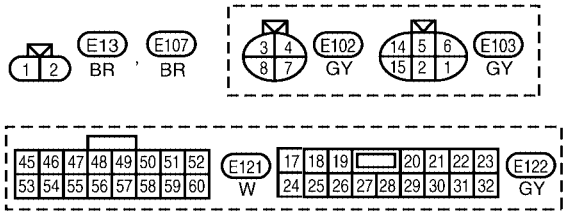
WKWA0890E

XENON (CANADA)



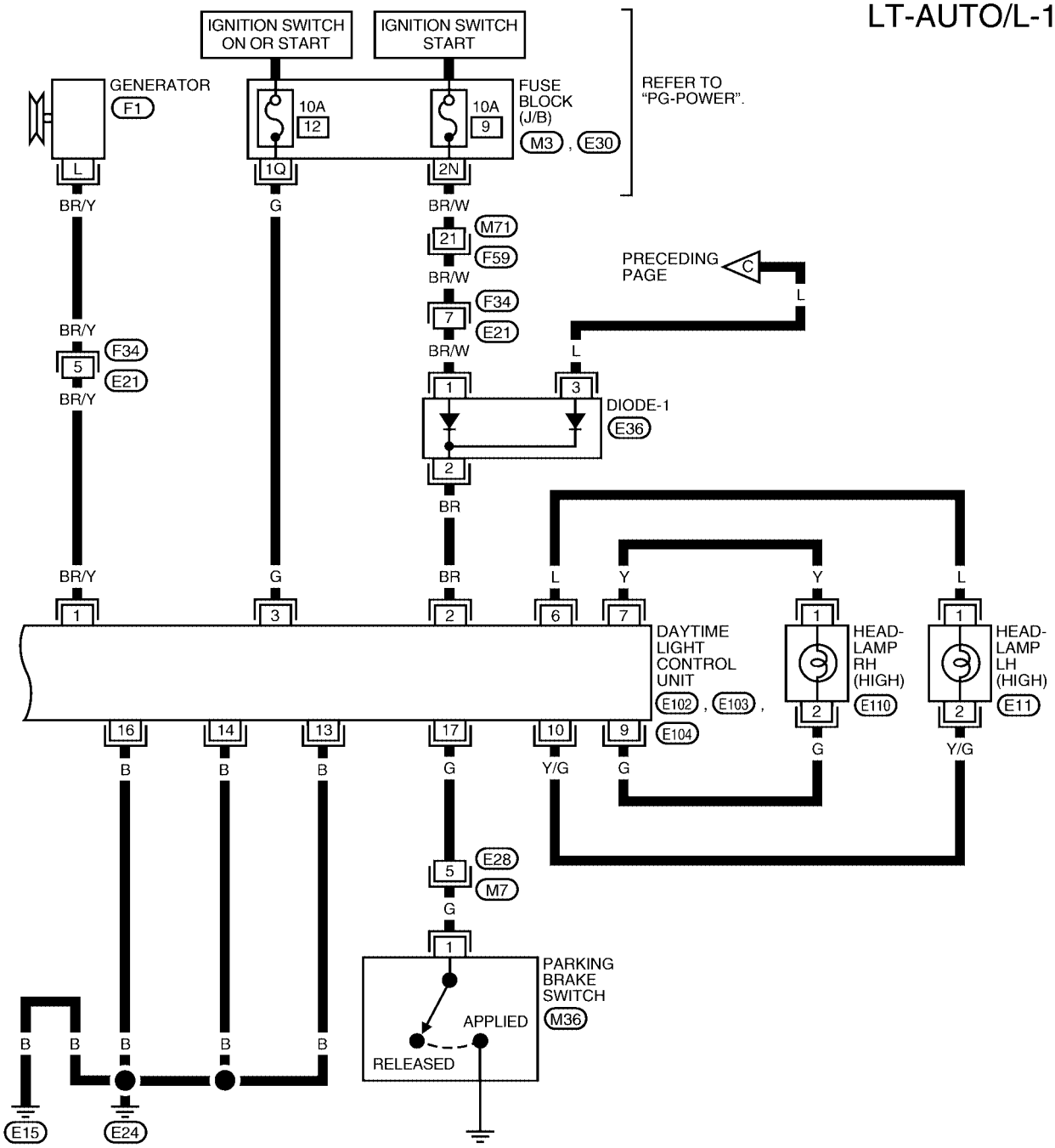
LT-AUTO/L-09

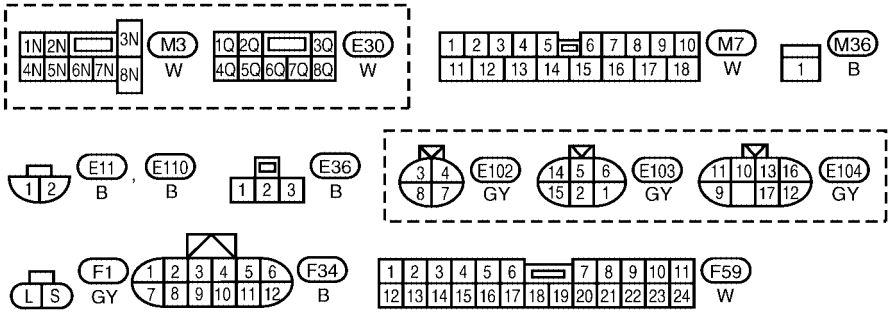




WKWA0892E

LT-AUTO/L-10





WKWA0893E

Terminals and Reference Value for BCM

EKS003CY

Terminal No.	Wire color	Signal name	Measuring condition			Standard (V) (Approx.)
			Ignition switch	Operation or condition		
7	W/B	Battery power supply	OFF	—		12V
8	B	Ground	ON	—		0
14	SB	Driver door switch signal	OFF	Driver door switch	ON (open)	0
					OFF (closed)	12V
27	B	Ground	ON	—		0
35	G	IGN power	ON	—		12V
36	PU	ACC power	ACC	—		12V
38	W/R	Auto light sensor signal	ON	When auto light sensor is illuminated		3.1V or more[Note] (Reference value)
				When auto light sensor is not illuminated		0.6 or less (Reference value)
45	R	Auto light sensor power source	ON	—		5
53	P	Sensor ground	ON	—		0
63	B	Ground	ON	—		0

NOTE:
If the auto light sensor is insufficiently illuminated, the measured value may not satisfy the standard.

Terminals and Reference Values for IPDM E/R

EKS007OM

Terminal No.	Wire color	Signal name	Measuring condition			Reference value (Approx.)
			Ignition switch	Operation or condition		
20	R/Y	Headlamp low (RH)	ON	Lighting switch 2ND position	OFF	0V
					ON	Battery voltage
27	L/W	Headlamp high (RH)	ON	Lighting switch HIGH or PASS position	OFF	0V
					ON	Battery voltage
28	G	Headlamp high (LH)	ON	Lighting switch HIGH or PASS position	OFF	0V
					ON	Battery voltage
30	L	Headlamp low (LH)	ON	Lighting switch 2ND position	OFF	0V
					ON	Battery voltage
48	L	CAN - H	—	—		—
49	Y	CAN - L	—	—		—

How to Proceed With Trouble Diagnosis

EKS007ON

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to LT-46, "System Description" .
3. Carry out the Preliminary Check. Refer to LT-60, "Preliminary Check" .
4. Check symptom and repair or replace the cause of malfunction. Refer to LT-67, "Trouble Diagnosis Chart by Symptom" .
5. Does the auto light system operate normally? If YES: GO TO 6. If NO: GO TO 4.
6. Inspection End.

Preliminary Check

EKS007OO

SETTING CHANGE FUNCTIONS

- Sensitivity of auto light system can be adjusted using CONSULT-II. Refer to LT-63, "WORK SUPPORT" .

CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES OR FUSIBLE LINK

Check for blown fuses or fusible link.

Unit	Power source	Fuse No.
BCM	Battery	f
	Ignition switch ON or START position	12
	Ignition switch ACC or ON position	6
IPDM E/R	Battery	36
		38
		40
		45

Refer to LT-50, "Wiring Diagram — AUTO/L —" .

OK or NG

OK >> Inspection End.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-4, "POWER SUPPLY ROUTING CIRCUIT" .

CONSULT-II Function (BCM)

EKS003D1

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

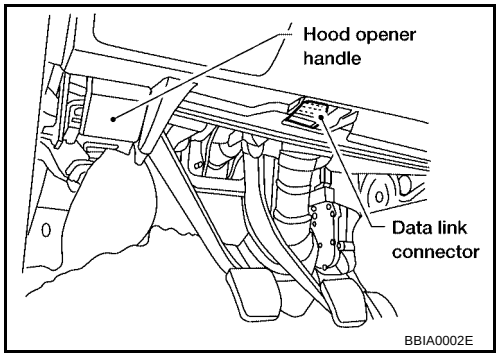
BCM diagnosis part	Check item, diagnosis mode	Description
HEAD LAMP	Work support	Changes the setting for each function.
	Data monitor	Displays BCM input data in real time.
	Active test	Operation of electrical loads can be checked by sending drive signal to them.
BCM	Self-diagnosis	BCM performs self-diagnosis of CAN communication.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.

CONSULT-II BASIC OPERATION

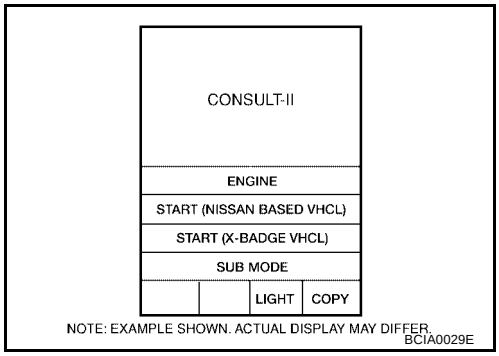
CAUTION:

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

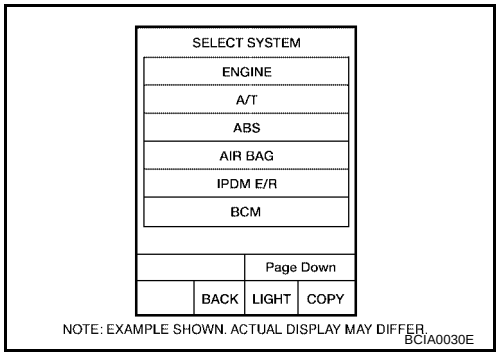
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn ignition switch ON.



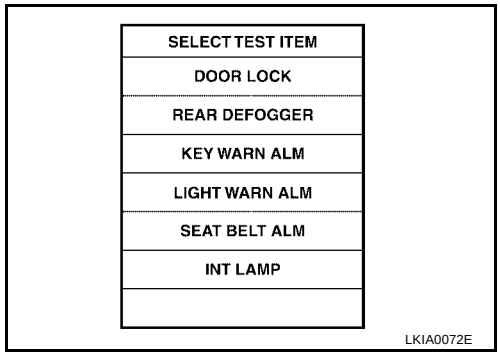
2. Touch “START (NISSAN BASED VEHICLE)”.



3. Touch “BCM” on “SELECT SYSTEM” screen.
If "BCM" is not indicated, go to GI-37, "CONSULT-II Data Link Connector (DLC) Circuit" .



4. Select the desired part to be diagnosed on the “SELECT TEST ITEM” screen.



WORK SUPPORT

Operation Procedure

1. Touch “HEAD LAMP” on “SELECT TEST ITEM” screen.
2. Touch “WORK SUPPORT” on “SELECT DIAG MODE” screen.
3. Touch item setting to be changed on “SELECT WORK ITEM” screen.
4. Touch “START”.
5. Touch the item setting desired.
6. Touch “CHANGE SETT”.
7. The setting will be changed and “CUSTOMIZING COMPLETED” will be displayed.
8. Touch “END”.

Work Support Setting Item

Work Support item	Description	Mode	Setting status
CUSTOM A/LIGHT SETTING	Sensitivity of auto light can be selected and set from four modes.	Normal	Factory setting
		Mode 2	More sensitive setting compared to factory setting (The time required for lamp light-up is shorter than “Normal”.)
		Mode 3	Less sensitive setting compared to factory setting (The time required for lamp light-up is longer than “Normal”.)
		Mode 4	Less sensitive setting compared to Mode 3 (The time required for lamp light-up is longer than Mode 3.)
BATTERY SAVER SET	Function is not enabled, battery saver operation cannot be changed.	On	Function is not enabled, battery saver operation cannot be changed.
		Off	
ILL DELAY SET	The timer that turns off the headlamps (and fog lamps, if turned on) after the last door is closed can be selected and set from 8 modes.	Mode 1	45 seconds (Factory setting)
		Mode 2	0 seconds (immediate shutoff)
		Mode 3	30 seconds
		Mode 4	60 seconds
		Mode 5	90 seconds
		Mode 6	120 seconds
		Mode 7	150 seconds
		Mode 8	180 seconds

DATA MONITOR

Operation Procedure

1. Touch “HEADLAMP” on “SELECT TEST ITEM” screen.
2. Touch “DATA MONITOR” on “SELECT DIAG MODE” screen.
3. Touch either “ALL SIGNALS” or “SELECTION FROM MENU”.

All signals	Monitors all the signals.
Selection from menu	Selects and monitors individual signal.

4. Touch “START”.
5. When “SELECTION FROM MENU” is selected, touch items to be monitored. When “ALL SIGNALS” is selected, all the signals will be monitored.
6. Touch “RECORD” while monitoring, then the status of the monitored item can be recorded. To stop recording, touch “STOP”.

Display Item List

Monitor item name “OPERATION OR UNIT”		Contents
IGN ON SW	“ON/OFF”	“IGN position (ON)/OFF, ACC position (OFF)” judged from the ignition switch signal is displayed.
ACC ON SW	“ON/OFF”	Displays “ACC (ON)/OFF, Ignition OFF (OFF)” status judged from ignition switch signal.
AUTO LIGHT SW	“ON/OFF”	Displays status of the lighting switch as judged from the lighting switch signal. (AUTO position: ON/Other than AUTO position: OFF)
TAIL LAMP SW	“ON/OFF”	Displays status (lighting switch 1st position: ON/Others: OFF) of light switch judged from lighting switch signal.
HEAD LAMP SW 1	“ON/OFF”	Displays status (headlamp switch: ON/Others: OFF) of headlamp switch judged from lighting switch signal.
HI BEAM SW	“ON/OFF”	Displays status (high beam switch: ON/Others: OFF) of high beam switch judged from lighting switch signal.
PASSING SW	“ON/OFF”	Displays status (flash-to-pass switch: ON/Others: OFF) of flash-to-pass switch judged from lighting switch signal.
FR FOG SW	“ON/OFF”	Displays status (front fog switch: ON/Others: OFF) of front fog switch judged from lighting switch signal.
DOOR SW - DR	“ON/OFF”	Displays status of the driver door as judged from the driver door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - AS	“ON/OFF”	Displays status of the passenger door as judged from the passenger door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - RR	“ON/OFF”	Displays status of the rear doors as judged from the rear door switch signal. (Door is open: ON/Door is closed: OFF)
HEAD LAMP SW 2	“ON/OFF”	Displays status (headlamp switch 2: ON/Others: OFF) of headlamp switch 2 judged from lighting switch signal.
OPTICAL SENSOR	[0 - 5V]	Displays “ambient light (close to 5V when light/close to 0V when dark)” judged from auto light sensor signal.

ACTIVE TEST

Operation Procedure

1. Touch “HEADLAMP” on “SELECT TEST ITEM” screen.
2. Touch “ACTIVE TEST” on “SELECT DIAG MODE” screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching “BACK” deactivates the operation.

Display Item List

Test item	Display on CONSULT-II screen	Description
Tail light relay output	TAIL LAMP	Allows tail light relay to operate by switching ON–OFF at your option.
Headlamp relay output	HEAD LAMP (LOW)	Allows headlamp relay to operate by switching ON–OFF at your option.
Headlamp relay output	HEAD LAMP (HI)	Allows headlamp relay to operate by switching ON–OFF at your option.
Front fog lamp relay output	FR FOG LAMP	Allows fog lamp relay to operate by switching ON–OFF at your option.

CONSULT-II Function (IPDM E/R)

EKS007OQ

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

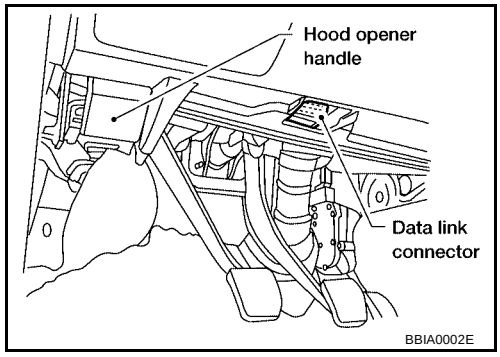
Inspection Item, Diagnosis Mode	Description
DATA MONITOR	The input/output data of the IPDM E/R is displayed in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	The IPDM E/R sends a drive signal to electronic components to check their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

CONSULT-II OPERATION

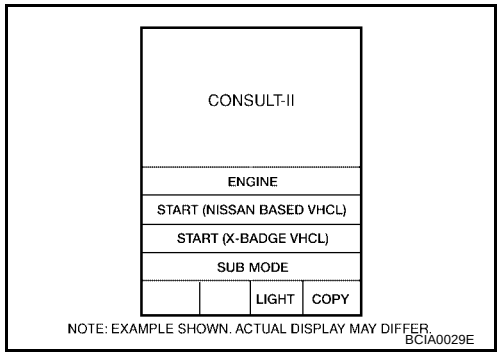
CAUTION:

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

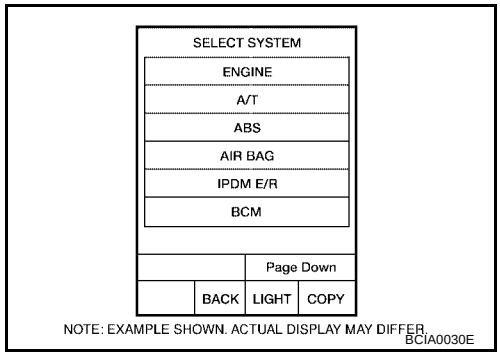
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn the ignition switch ON.



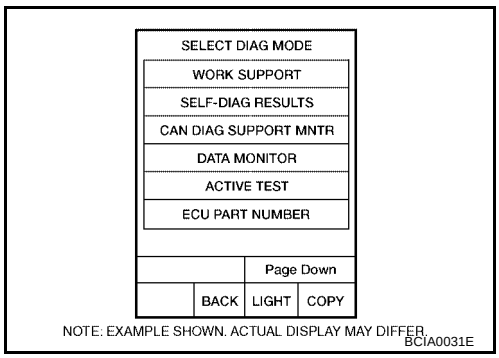
2. Touch “START (NISSAN BASED VHCL)”.



3. Touch “IPDM E/R” on “SELECT SYSTEM” screen.
If “IPDM E/R” is not displayed, go to GI-37, "CONSULT-II Data Link Connector (DLC) Circuit" .



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



DATA MONITOR

Operation Procedure

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

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

3. Touch “START”.
4. Touch the required monitoring item on “SELECT ITEM MENU”. In “ALL SIGNALS”, all items are monitored. In “MAIN SIGNALS”, predetermined items are monitored.
5. Touch “RECORD” while monitoring to record the status of the item being monitored. To stop recording, touch “STOP”.

All Items, Main Items, Select Item Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECT FROM MENU	
Position lights request	TAIL&CLR REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp low beam request	HL LO REQ	ON/OFF	×	×	×	Signal status input from BCM
Headlamp high beam request	HL HI REQ	ON/OFF	×	×	×	Signal status input from BCM
Front fog lights request	FR FOG REQ	ON/OFF	×	×	×	Signal status input from BCM

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.

ACTIVE TEST

Operation Procedure

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

Test item	CONSULT-II screen display	Description
Headlamp relay (HI, LO) output	LAMPS	Allows headlamp relay (HI, LO) to operate by switching operation (OFF, HI ON, LO ON) at your option (Headlamp high beam repeats ON–OFF every 1 second).
Front fog lamp relay output		Allows fog lamp relay to operate by switching operation ON-OFF at your option.
Tail lamp relay output	TAIL LAMP	Allows tail lamp relay to operate by switching operation ON-OFF at your option.

Trouble Diagnosis Chart by Symptom

EKS003D2

Trouble phenomenon	Malfunction system and reference
● Parking lamps and headlamps will not illuminate when outside of the vehicle becomes dark. (Lighting switch 1st position and 2nd position operate normally.) ● Parking lamps and headlamp will not go out when outside of the vehicle becomes light. (Lighting switch 1st position and 2nd position operate normally.) ● Headlamps go out when outside of the vehicle becomes light, but parking lamps stay on.	● Refer to LT-63, "WORK SUPPORT" . ● Refer to LT-67, "Lighting Switch Inspection" . ● Refer to LT-68, "Auto Light Sensor System Inspection" . If above systems are normal, replace BCM.
Parking lamps illuminate when outside of the vehicle becomes dark, but headlamps stay off. (Lighting switch 1st position and 2nd position operate normally.)	● Refer to LT-63, "WORK SUPPORT" . ● Refer to LT-68, "Auto Light Sensor System Inspection" . If above systems are normal, replace BCM.
Auto light adjustment system will not operate. (Lighting switch AUTO, 1st position and 2nd position operate normally.)	● Refer to LT-68, "Auto Light Sensor System Inspection" . If above system is normal, replace BCM.
Auto light adjustment system will not operate.	● CAN communication line to BCM inspection. Refer to BCS-12, "CAN Communication Inspection Using CONSULT-II (Self-Diagnosis)" .

Lighting Switch Inspection

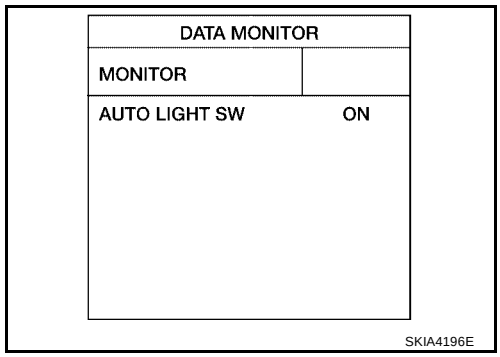
EKS007OS

1. CHECK LIGHTING SWITCH INPUT SIGNAL

With CONSULT-II

Select “BCM” on CONSULT-II. With “HEAD LAMP” data monitor, make sure “AUTO LIGHT SW” turns ON–OFF linked with operation of lighting switch.

When lighting switch is in AUTO position : AUTO LIGHT SW ON



Without CONSULT-II

Refer to BCS-12, "Combination Switch Inspection According to Self-Diagnostic Results" .

OK or NG

OK >> Inspection End.

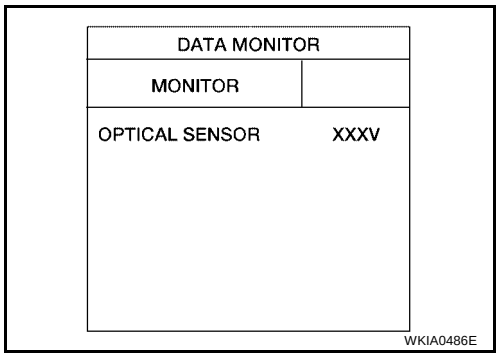
NG >> Check lighting switch. Refer to BCS-12, "Combination Switch Inspection According to Self-Diagnostic Results" .

Auto Light Sensor System Inspection

EKS003D4

1. OUTPUT SIGNAL INSPECTION

Select “BCM” in CONSULT-II. Using “OPTICAL SENSOR” data from "DATA MONITOR", check difference in the voltage when the auto light sensor is illuminated and not illuminated.



Illuminated
Light sensor : 3.1V or more
Not illuminated
Light sensor : 0.6V or less

NOTE:
If the auto light sensor is insufficiently illuminated, the measured value may not satisfy the standard.

OK or NG

OK >> Normal.
NG >> GO TO 2.

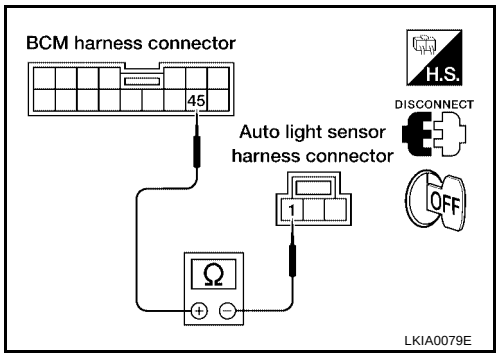
2. POWER SUPPLY CIRUIT CONTINUITY INSPECTION

1. Disconnect connectors of BCM and auto light sensor.
2. Check harness continuity between BCM vehicle-side connector terminal 45 (R) and vehicle-side connector terminal 1 (R) of auto light sensor.

Continuity should exist.

3. Check continuity between BCM vehicle-side connector terminal 45 (R) and body ground.

Continuity should not exist.



OK or NG

OK >> GO TO 3.
NG >> Malfunction in harness between BCM and auto light sensor. Repair or replace as required.

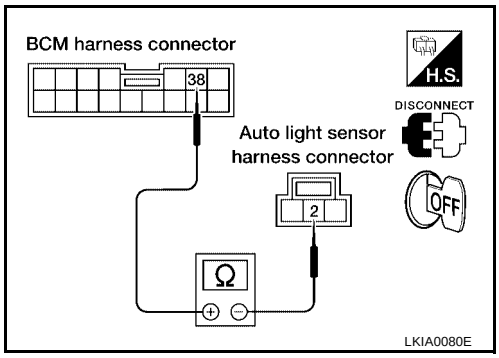
3. OUTPUT CIRCUIT CONTINUITY INSPECTION

1. Check harness continuity between BCM vehicle-side connector terminal 38 (W/R) and vehicle-side connector terminal 2 (W/R) of auto light sensor.

Continuity should exist.

2. Check continuity between BCM vehicle-side connector terminal 38 (W/R) and body ground.

Continuity should not exist.



OK or NG

OK >> GO TO 4.
NG >> Malfunction in harness between BCM and auto light sensor. Repair or replace as required.

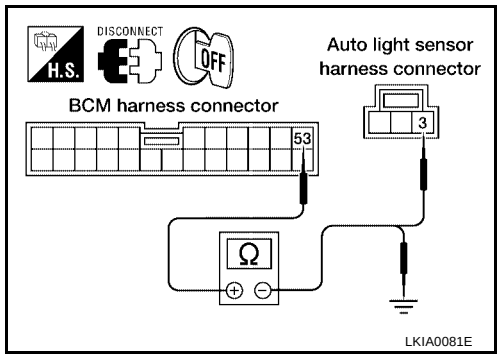
4. GROUND CIRCUIT CONTINUITY INSPECTION

1. Check harness continuity between BCM vehicle-side connector terminal 53 (P) and vehicle-side connector terminal 3 (P) of auto light sensor.

Continuity should not exist.

2. Check continuity between BCM vehicle-side connector terminal 53 (P) and body ground.

Continuity should not exist.



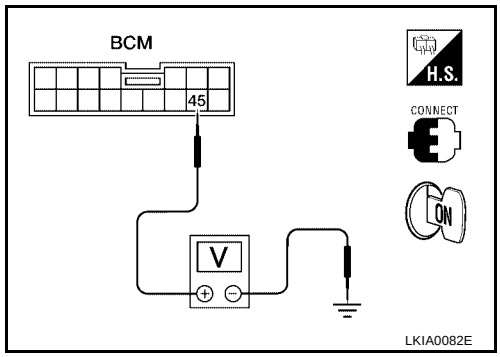
OK or NG

OK >> GO TO 5.
NG >> Malfunction in harness between BCM and auto light sensor. Repair or replace as required.

5. SENSOR VOLTAGE INSPECTION

1. Connect BCM connector.
2. Check voltage between BCM terminal 45 (R) and body ground.

Approx. 5V



OK or NG

OK >> Replace the auto light sensor.
NG >> Replace BCM.

FRONT FOG LAMP

PFP:26150

System Description

EKS003D5

Control of the fog lamps is dependent upon the position of the combination switch (lighting switch). The lighting switch must be in the 2ND position or AUTO position (LOW beam is ON) for front fog lamp operation. When the lighting switch is placed in the fog lamp position, the BCM (body control module) receives input requesting the fog lamps to illuminate. This input is communicated to the IPDM E/R (intelligent power distribution module engine room) across the CAN communication lines. The central processing unit of the IPDM E/R controls the front fog lamp relay coil. When energized, this relay directs power to the front fog lamps.

OUTLINE

Power is supplied at all times

- through 15A fuse (No. 43, located in the IPDM E/R)
- to front fog lamp relay, located in the IPDM E/R, and

Power is also supplied at all times

- to BCM terminal 7
- through 50A fusible link (letter **f** , located in the fuse and fusible link box).

When the ignition switch is in ON or START position, power is supplied

- to BCM terminal 35
- through 10A fuse [No. 12, located in the fuse block (J/B)].

When the ignition switch is in ACC or ON position, power is supplied

- to BCM terminal 36
- through 10A fuse [No. 6, located in the fuse block (J/B)].

Ground is supplied

- to BCM terminals 8, 27, and 63
- through body grounds F14 (QR25DE models), M57, M61, E15, and E24.

FOG LAMP OPERATION

The fog lamp switch is built into the combination switch. The lighting switch can be in any position (except pass or high beam) and the fog lamp switch must be ON for fog lamp operation.
With the fog lamp switch in the ON position, the central processing unit of the IPDM E/R grounds the coil side of the fog lamp relay. The fog lamp relay then directs power

- to front fog lamp LH terminal 1
- through IPDM E/R terminal 37, and
- to front fog lamp RH terminal 1
- through IPDM E/R terminal 36.

Ground is supplied

- to front fog lamp LH terminal 2
- through body grounds E15 and E24, and
- to front fog lamp RH terminal 2
- through body grounds E15 and E24.

With power and grounds supplied, the front fog lamps illuminate.

BATTERY SAVER CONTROL

When the fog lamp switch is ON and the ignition switch is turned from ON to ACC or OFF, or if the ignition switch is in the OFF position when the fog lamp switch is turned ON, the battery saver control feature is activated.
Under this condition, the fog lamps (and headlamps) remain illuminated for 5 minutes, unless the combination switch (lighting switch) position is changed. If the combination switch (lighting switch) position is changed, then the fog lamps (and headlamps) are turned off.

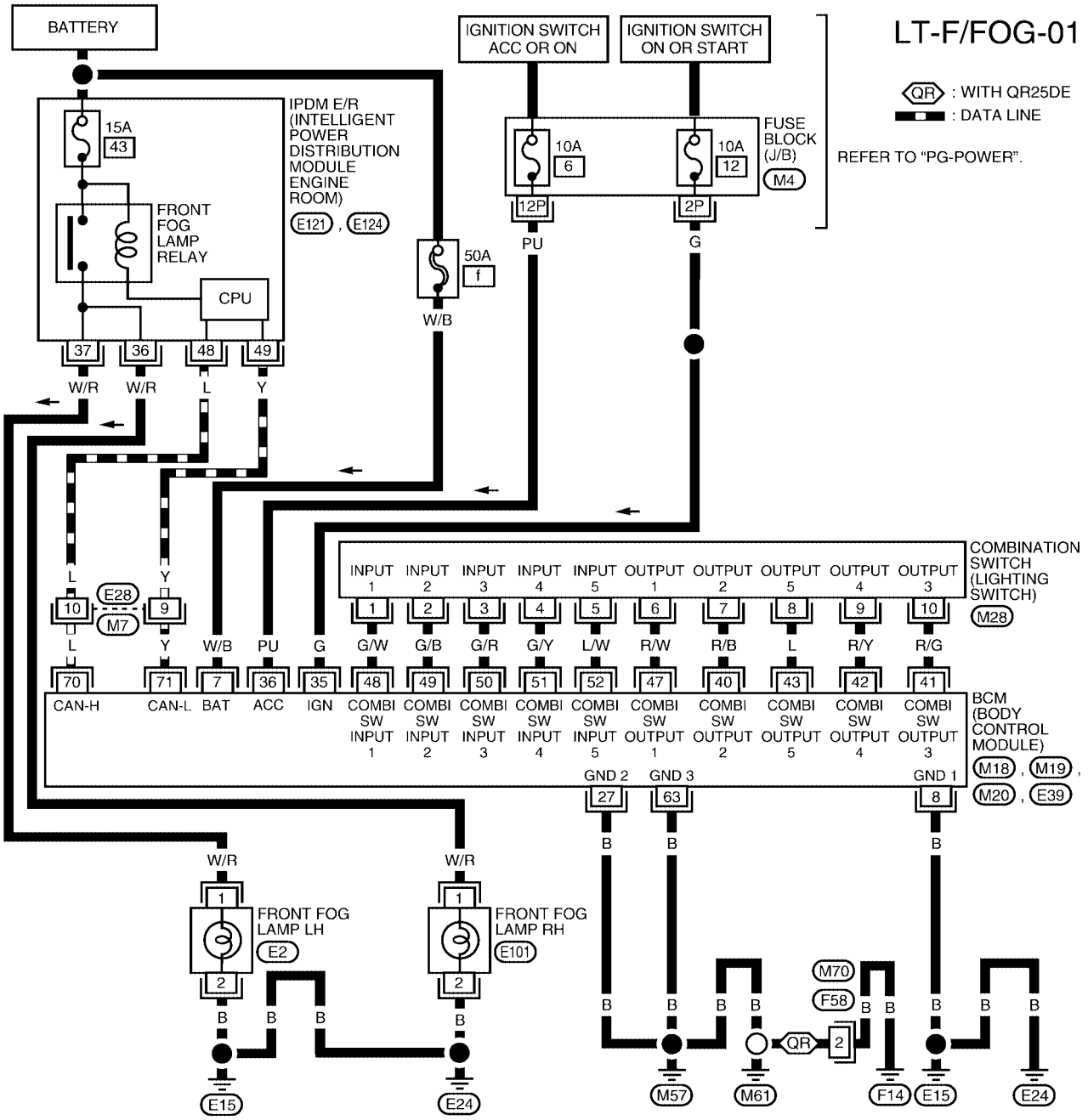
CAN Communication System Description

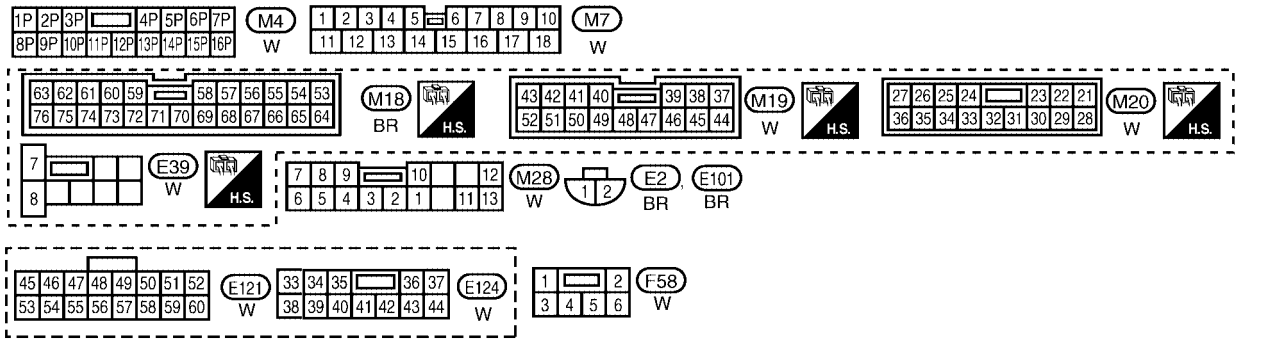
EKS003D6

Refer to LAN-4, "CAN COMMUNICATION" .

Wiring Diagram — F/FOG —

EKS003D7





WKWA0894E

Terminals and Reference Value for BCM

EKS007P1

Terminal No.	Wire color	Item	Measuring condition		Voltage (Approx.)
			Ignition switch	Operation or condition	
7	W/B	Battery power supply	OFF	—	Battery voltage
8	B	Ground	—	—	—
27	B	Ground	—	—	—
35	G	Ignition power supply	ON	—	Battery voltage
36	PU	Ignition power supply	ACC	—	Battery voltage
40	R/B	Combination switch output 2	—	—	2V → 10V
41	R/G	Combination switch output 3	—	—	2V → 10V
42	R/Y	Combination switch output 4	—	—	2V → 10V
43	L	Combination switch output 5	—	—	2V → 10V
47	R/W	Combination switch output 1	—	—	2V → 10V
48	G/W	Combination switch input 1	—	—	1.5V → 10V
49	G/B	Combination switch input 2	—	—	1.5V → 10V
50	G/R	Combination switch input 3	—	—	1.5V → 10V
51	G/Y	Combination switch input 4	—	—	1.5V → 10V
52	L/W	Combination switch input 5	—	—	1.5V → 10V
63	B	Ground	—	—	—
70	L	CAN - H	—	—	1V → 3V
71	Y	CAN - L	—	—	1V → 3V

Terminals and Reference Values for IPDM E/R

EKS007OV

Terminal No.	Wire color	Signal name	Measuring condition			Reference value (Approx.)
			Ignition switch	Operation or condition		
36	W/R	Front fog lamp (RH)	ON	Lighting switch must be in the 2ND position or AUTO position (LOW beam is ON) and the front fog lamp switch must be ON	OFF	0V
					ON	Battery voltage
37	W/R	Front fog lamp (LH)	ON	Lighting switch must be in the 2ND position or AUTO position (LOW beam is ON) and the front fog lamp switch must be ON	OFF	0V
					ON	Battery voltage
48	L	CAN - H	—	—		—
49	Y	CAN - L	—	—		—

How to Proceed With Trouble Diagnosis

EKS007OW

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to LT-70, "System Description" .
3. Perform the Preliminary Check. Refer to LT-73, "Preliminary Check" .
4. Check symptom and repair or replace the cause of malfunction.
5. Does the front fog lamp operate normally? If YES: GO TO 6. If NO: GO TO 4.
6. Inspection End.

Preliminary Check

EKS007OX

CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES OR FUSIBLE LINK

Check for blown fuses or fusible link.

Unit	Power source	Fuse No.
BCM	Battery	f
	Ignition switch ON or START position	12
	Ignition switch ACC or ON position	6
IPDM E/R	Battery	43

Refer to LT-71, "Wiring Diagram — F/FOG —" .

OK or NG

OK >> Inspection End.
NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-4, "POWER SUPPLY ROUTING CIRCUIT" .

CONSULT-II Functions

EKS007OY

Refer to LT-14, "CONSULT-II Function (BCM)" in HEADLAMP (FOR USA).
Refer to LT-17, "CONSULT-II Function (IPDM E/R)" in HEADLAMP (FOR USA).

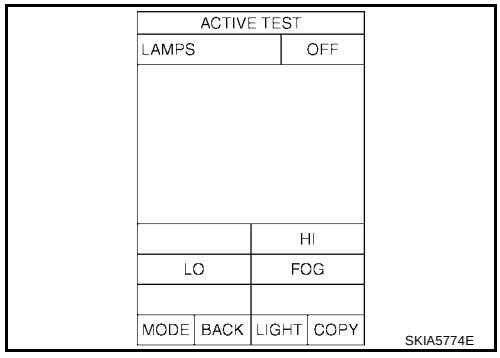
Front Fog Lamps Do Not Illuminate (Both Sides)

EKS007OZ

1. FOG LAMP ACTIVE TEST

1. Select “IPDM E/R” on CONSULT-II and select “ACTIVE TEST” on “SELECT DIAG MODE” screen.
2. Select “LAMPS” on “SELECT TEST ITEM” screen.
3. Touch “FOG” screen.
4. Make sure fog lamps operate.

Fog lamps should operate.



OK or NG

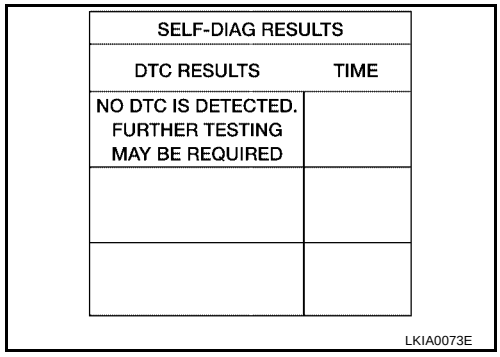
OK >> GO TO 2.
NG >> GO TO 4.

2. INSPECTION 1 BETWEEN COMBINATION SWITCH AND BCM

Carry out BCM C/U self-diagnosis.

Displayed results of self-diagnosis

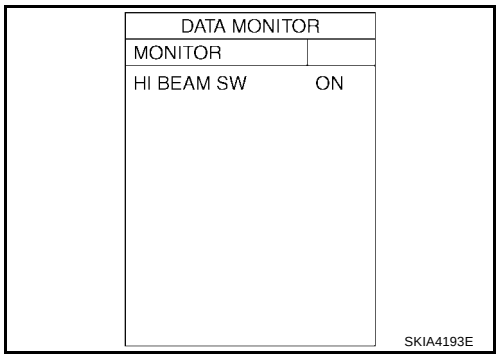
NO MALFUNCTION DETECTED>> GO TO 3.
CAN COMMUNICATION OR CAN SYSTEM>> Inspect the BCM CAN communications system. Refer to LAN-4, "CAN COMMUNICATION" .
OPEN DETECT 1 - 5>> Inspect combination switch system. Refer to BCS-12, "Combination Switch Inspection According to Self-Diagnostic Results" .



3. INSPECTION 2 BETWEEN COMBINATION SWITCH AND BCM

Select “BCM” on CONSULT-II. With “HEAD LAMP” data monitor, make sure “FR FOG SW” turns ON-OFF linked with operation of lighting switch.

When lighting switch is in FOG position : FR FOG SW ON

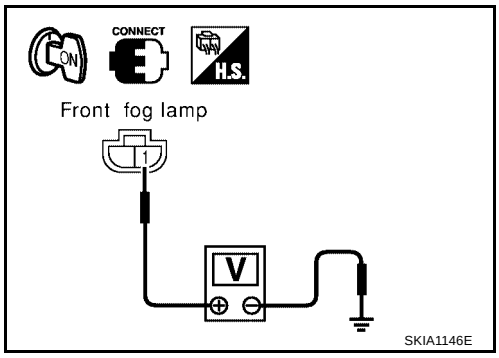


OK or NG

OK >> Replace BCM.
NG >> Replace lighting switch. Refer to LT-94, "Removal and Installation" .

4. IPDM E/R INSPECTION

Start active test. Refer to PG-21, "Auto Active Test" . When front fog lamp relay is operating, check voltage between left/right front fog lamp connector terminals and body ground.



Terminals				Voltage (Approx.)
Front fog lamp			Body ground (–)	12
Connector		Terminal (wire color)		
Right	E101	1 (W/R)		
Left	E2	1 (W/R)		

OK or NG

OK >> Check front fog lamp bulbs and replace as necessary.
NG >> Replace IPDM E/R. Refer to PG-27, "Removal and Installation of IPDM E/R" .

Front Fog Lamp Does Not Illuminate (One Side)

EKS007P0

1. BULB INSPECTION

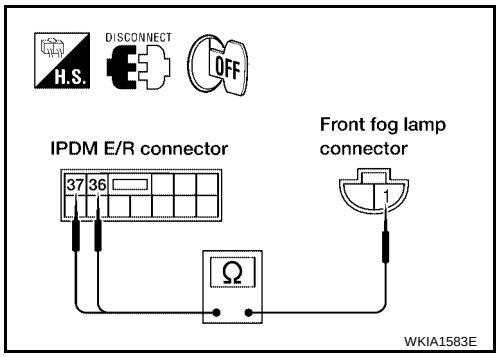
Inspect bulbs of lamps which do not illuminate.

OK or NG

OK >> GO TO 2.
NG >> Replace lamp bulb.

2. INSPECTION BETWEEN IPDM E/R AND FRONT FOG LAMPS

1. Disconnect IPDM E/R connector and inoperative front fog lamp connector.
2. Check continuity between harness connector terminals of IPDM E/R and harness connector terminal of front fog lamps.



Terminals					Continuity
IPDM E/R		Front fog lamp			
Connector	Terminal (wire color)	Connector		Terminal (wire color)	
E124	36 (W/R)	Right	E101	1 (W/R)	Yes
	37 (W/R)	Left	E2	1 (W/R)	

OK or NG

OK >> Check ground circuit. If OK, replace IPDM E/R. Refer to PG-27, "Removal and Installation of IPDM E/R" . If NG, repair harness or connector.
NG >> Check for short circuits and open circuits in harness between IPDM E/R and front fog lamps.

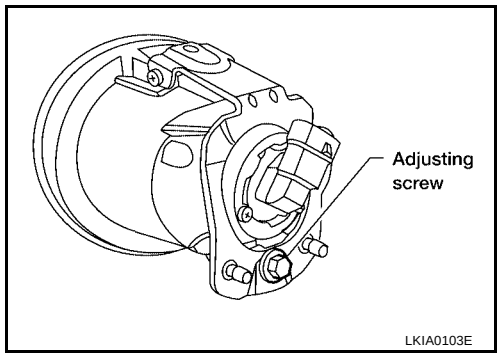
Aiming Adjustment

EKS003DA

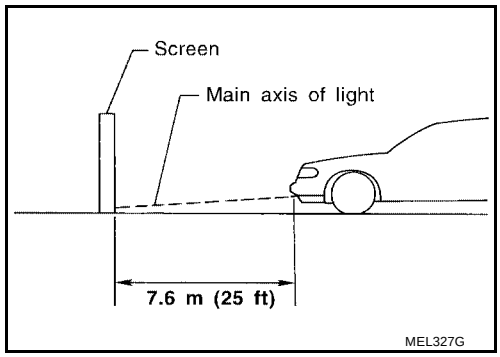
The fog lamp is a semi-sealed beam type which uses a replaceable halogen bulb. Before performing aiming adjustment, make sure of the following.

- Keep all tires inflated to correct pressure.
- Place vehicle on level ground.
- See that vehicle is unloaded (except for full levels of coolant, engine oil and fuel, and spare tire, jack, and tools). Have the driver or equivalent weight placed in driver seat.

Adjust aiming in the vertical direction by turning the adjusting screw.

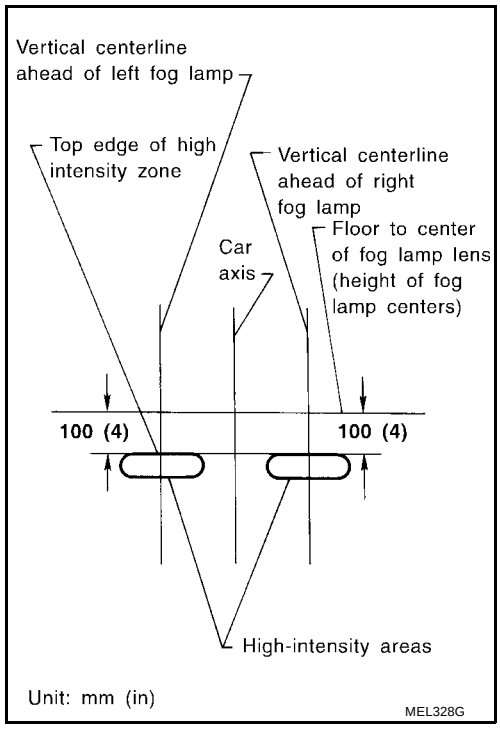


1. Set the distance between the screen and the center of the fog lamp lens as shown.
2. Turn front fog lamps ON.



3. Adjust front fog lamps using adjusting screw so that the top edge of the high intensity zone is 100 mm (4 in) below the height of the fog lamp centers as shown.

- When performing adjustment, if necessary, cover the headlamps and opposite fog lamp.



Removal and Installation

EKS003DB

The fog lamp is a semi-sealed beam type which uses a replaceable halogen bulb.

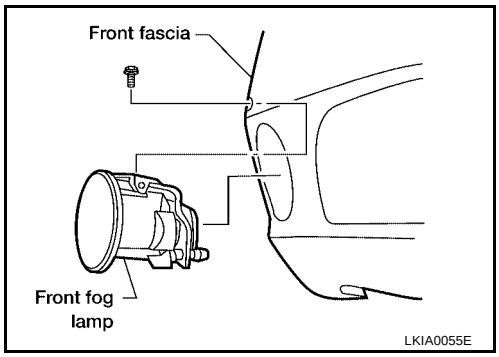
FRONT FOG LAMP

CAUTION:

- **Do not leave fog lamp assembly without bulb for a long period of time. Dust, moisture, smoke, etc. entering the fog lamp body may affect the performance. Remove the bulb from the headlamp assembly just before replacement bulb is installed.**
- **Grasp only the plastic base when handling the bulb. Never touch the glass envelope. Touching the glass could significantly affect the bulb life and/or fog lamp performance.**

1. Remove the fender protector. Refer to EI-20, "Removal and Installation" .
2. Disconnect electrical connector.
3. Remove bolt, and slide fog lamp out of front fascia.

Installation is in the reverse order of removal.



TURN SIGNAL AND HAZARD WARNING LAMPS

PFP:26120

System Description

EKS003DC

TURN SIGNAL OPERATION

When the ignition switch is in the ON or START position, power is supplied

- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to BCM (body control module) terminal 35, and
- through 10A fuse [No. 14, located in the fuse block (J/B)]
- to terminals 17 and 18 of the combination meter.

Ground is supplied

- to BCM terminals 8, 27, and 63
- through body grounds F14 (QR25DE models), M57, M61, E15, and E24, and
- to combination meter terminals 6 and 39
- through body grounds F14 (QR25DE models), M57 and M61.

LH Turn

When the turn signal switch (combination switch) is moved to the L position, the BCM receives input requesting the left turn signals to flash. The BCM then supplies power

- to front turn signal lamp LH terminal 3
- to rear turn signal lamp LH (part of the rear combination lamp LH) terminal 3.

Ground is supplied to the front turn signal lamp LH terminal 2 through body grounds E15 and E24.
Ground is supplied to the rear turn signal lamp LH (part of the rear combination lamp) terminal 5 through body grounds B7and B19.
The BCM also supplies ground to combination meter terminals 1 and 2 across the CAN communication lines. This input is processed by the central processing unit of the combination meter, which in turn supplies ground to the left turn signal indicator lamp.
With power and ground supplied, the BCM controls the flashing of the LH turn signal lamps.

RH Turn

When the turn signal switch (combination switch) is moved to the R position, the BCM (body control module) receives input requesting the right turn signals to flash. The BCM then supplies power

- to front turn signal lamp RH terminal 3
- to rear turn signal lamp RH (part of the rear combination lamp RH) terminal 3.

Ground is supplied to the front turn signal lamp RH terminal 2 through body grounds E15 and E24.
Ground is supplied to the rear turn signal lamp RH (part of the rear combination lamp RH) terminal 5 through body grounds B7and B19.
The BCM also supplies ground to combination meter terminals 1 and 2 across the CAN communication lines. This input is processed by the central processing unit of the combination meter, which in turn supplies ground to the right turn signal indicator lamp.
With power and ground supplied, the BCM controls the flashing of the RH turn signal lamps.

HAZARD LAMP OPERATION

Power is supplied at all times

- to BCM terminal 7
- through 50A fusible link (letter **f** , located in the fuse and fusible link box), and
- to combination meter terminal 5
- through 10A fuse [No. 19, located in the fuse block (J/B)].

Ground is supplied

- to hazard switch terminal 3
- through body grounds F14 (QR25DE models), M57 and M61,
- to BCM terminals 8, 27, and 63,
- through body grounds F14 (QR25DE models), M57, M61, E15, and E24, and
- to combination meter terminals 6 and 39
- through body grounds F14 (QR25DE models), M57 and M61.

When the hazard switch is depressed, ground is supplied

- to BCM terminal 61
- through hazard lamp switch terminal 1.

The BCM then supplies power

- to front turn signal lamp LH terminal 3
- to front turn signal lamp RH terminal 3
- to rear turn signal lamp LH (part of the rear combination lamp LH) terminal 3
- to rear turn signal lamp RH (part of the rear combination lamp RH) terminal 3.

Ground is supplied

- to the front turn signal lamp LH terminal 2 through body grounds E15 and E24
- to the front turn signal lamp RH terminal 2 through body grounds E15 and E24
- to the rear turn signal lamp LH (part of the rear combination lamp) terminal 5 through body grounds B7 and B19
- to the rear turn signal lamp RH (part of the rear combination lamp RH) terminal 5 through body grounds B7 and B19.

The BCM also supplies input to combination meter terminals 1 and 2 across the CAN communication lines. This input is processed by the central processing unit of the combination meter, which in turn supplies ground to the left and right turn signal indicator lamps.
With power and ground supplied, the BCM controls the flashing of the hazard warning lamps.

REMOTE KEYLESS ENTRY SYSTEM OPERATION

Power is supplied at all times

- to BCM terminal 7
- through 50A fusible link (letter **f** , located in the fuse and fusible link box), and
- to combination meter terminal 5
- through 10A fuse [No. 19, located in the fuse block (J/B)].

Ground is supplied

- to BCM terminals 8, 27, and 63,
- through body grounds F14 (QR25DE models), M57, M61, E15, and E24, and
- to combination meter terminals 6 and 39
- through body grounds F14 (QR25DE models), M57 and M61.

When the remote keyless entry system is triggered by input from the keyfob, the BCM supplies power

- to front turn signal lamp LH terminal 3
- to front turn signal lamp RH terminal 3
- to rear turn signal lamp LH (part of the rear combination lamp LH) terminal 3
- to rear turn signal lamp RH (part of the rear combination lamp RH) terminal 3.

Ground is supplied

- to the front turn signal lamp LH terminal 2 through body grounds E15 and E24
- to the front turn signal lamp RH terminal 2 through body grounds E15 and E24
- to the rear turn signal lamp LH (part of the rear combination lamp) terminal 5 through body grounds B7 and B19
- to the rear turn signal lamp RH (part of the rear combination lamp RH) terminal 5 through body grounds B7 and B19.

The BCM also supplies input to combination meter terminals 1 and 2 across the CAN communication lines. This input is processed by the central processing unit of the combination meter, which in turn supplies ground to the left and right turn signal indicator lamps.
With power and ground supplied, the BCM controls the flashing of the hazard warning lamps when keyfob is used to activate the remote keyless entry system.

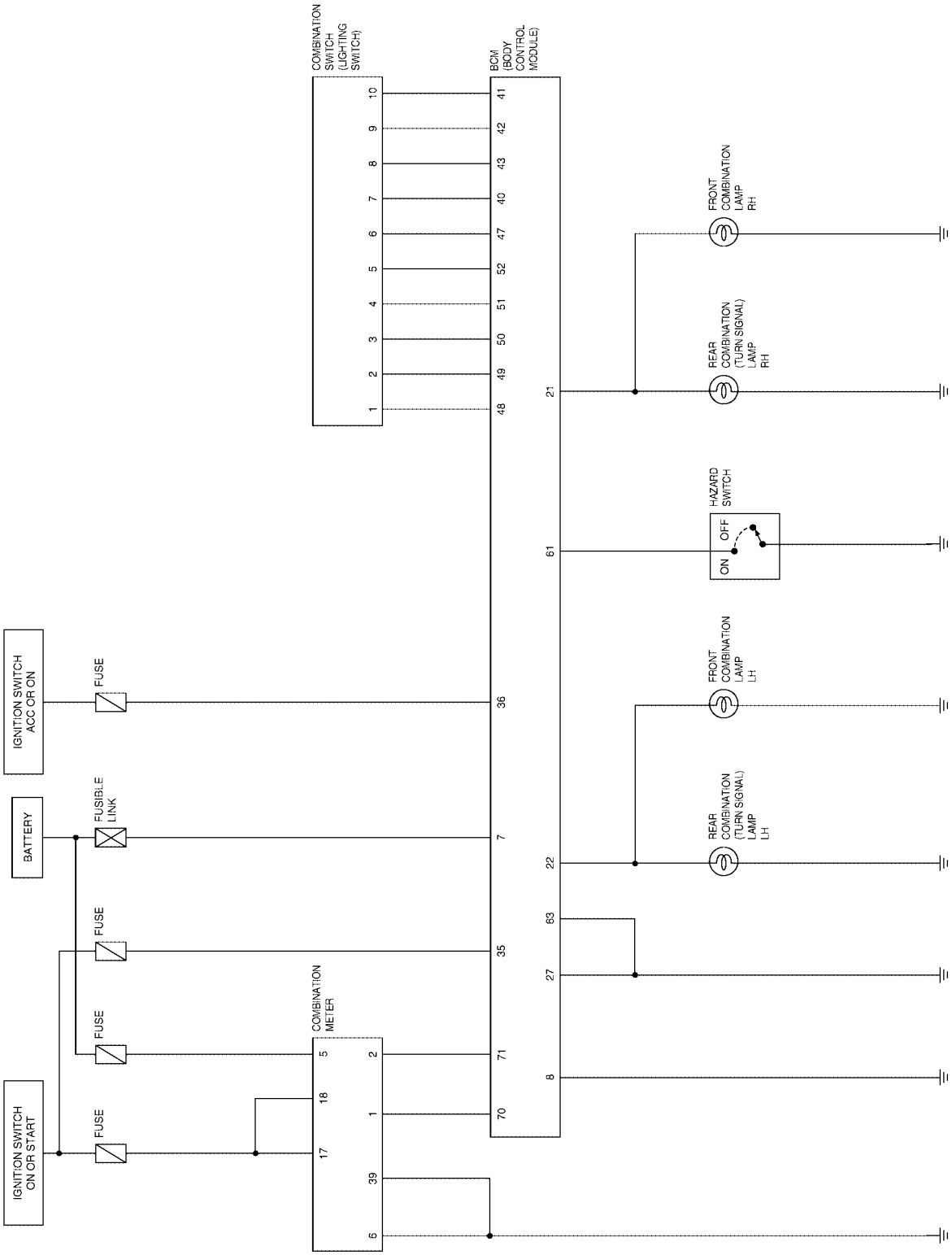
CAN Communication System Description

EKS003DD

Refer to LAN-4, "CAN COMMUNICATION" .

Schematic

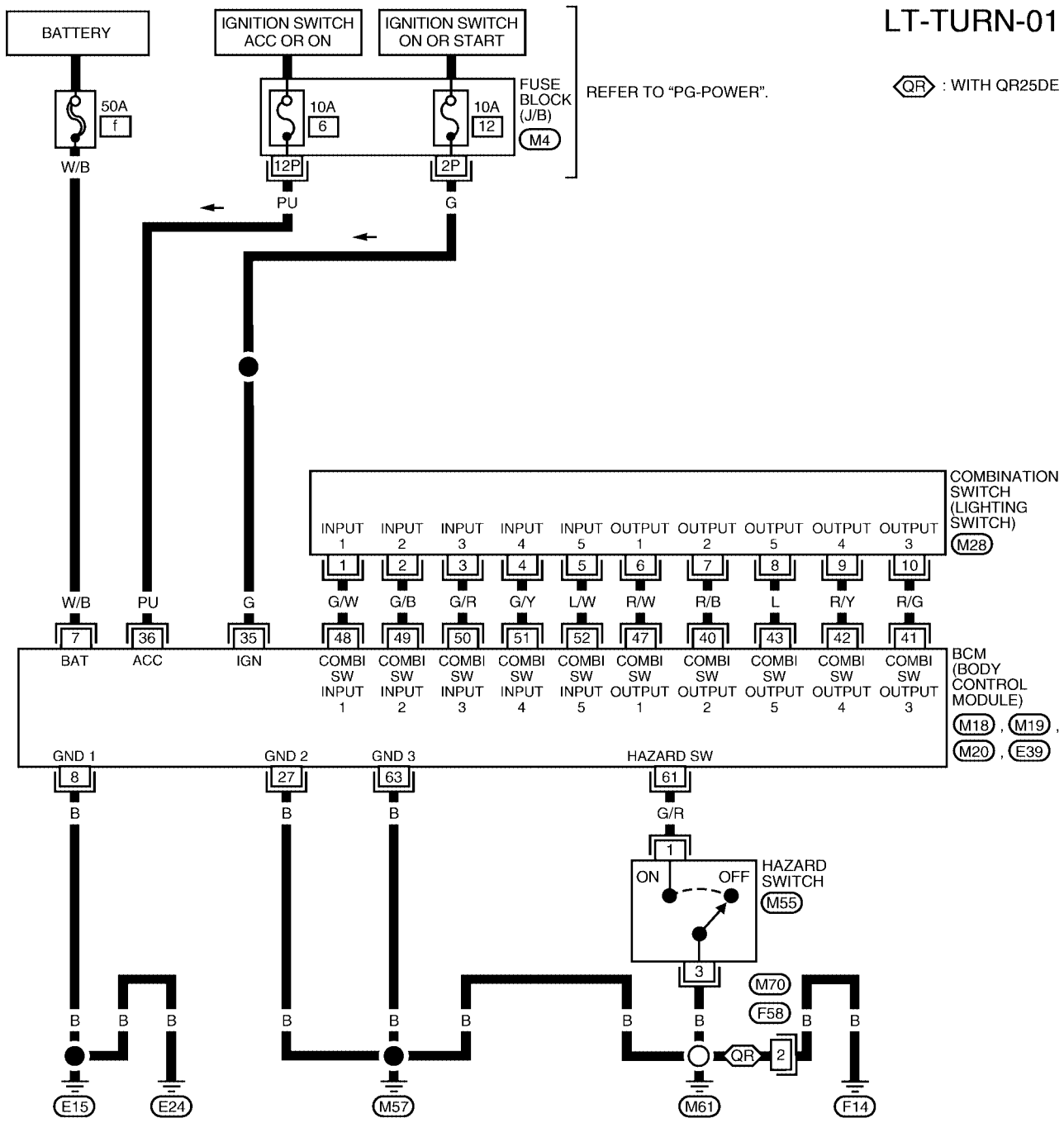
EKS003DE

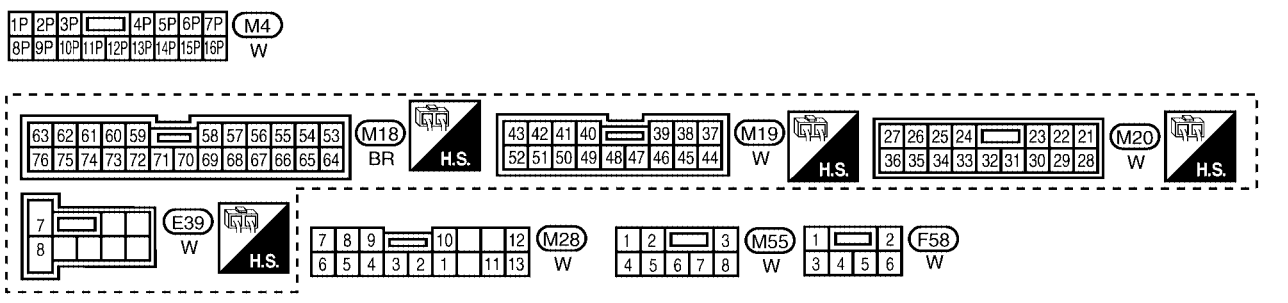


WKWA0186E

Wiring Diagram — TURN —

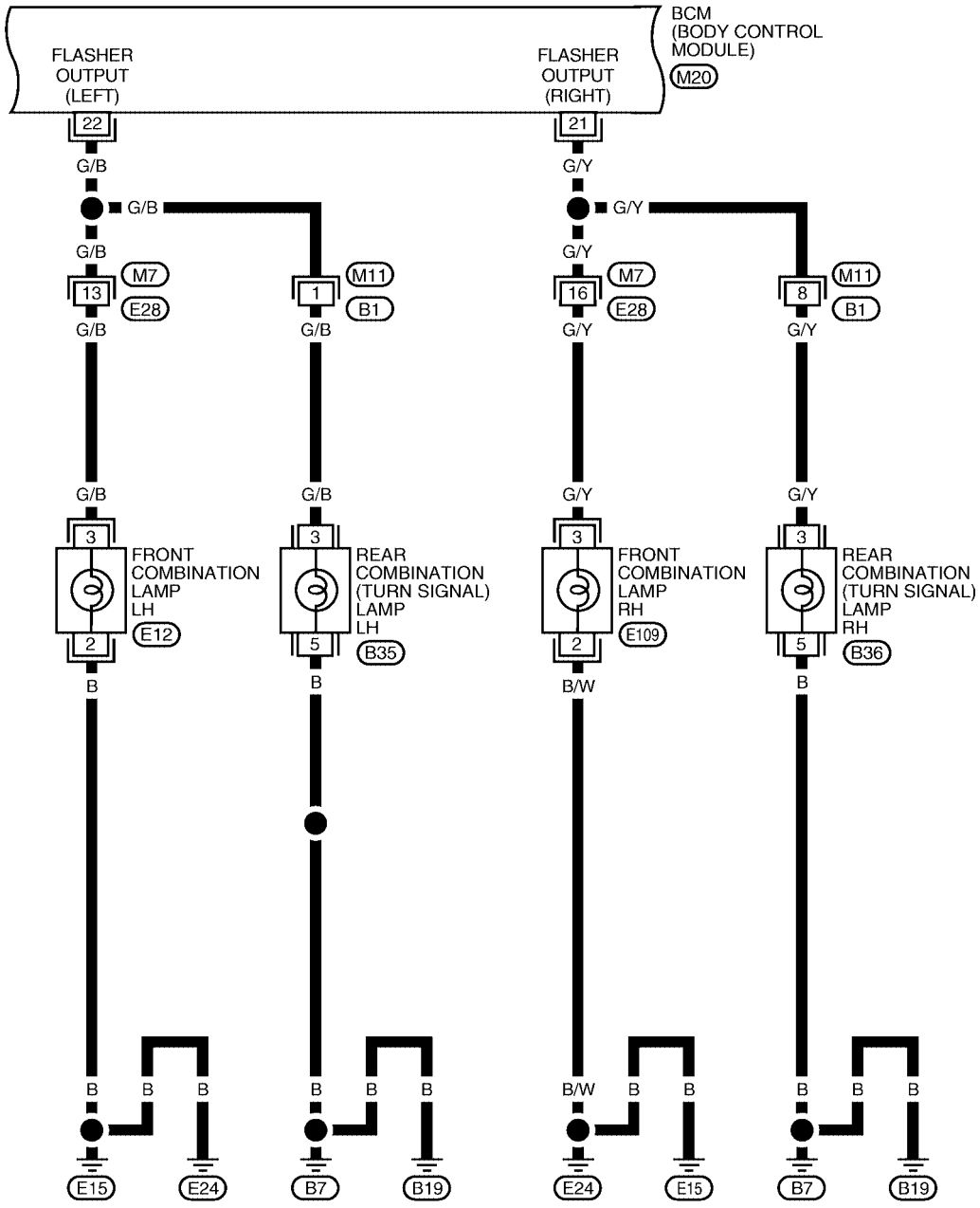
EKS003DF

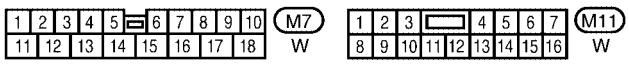


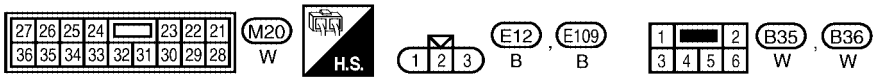


WKWA0895E

LT-TURN-02







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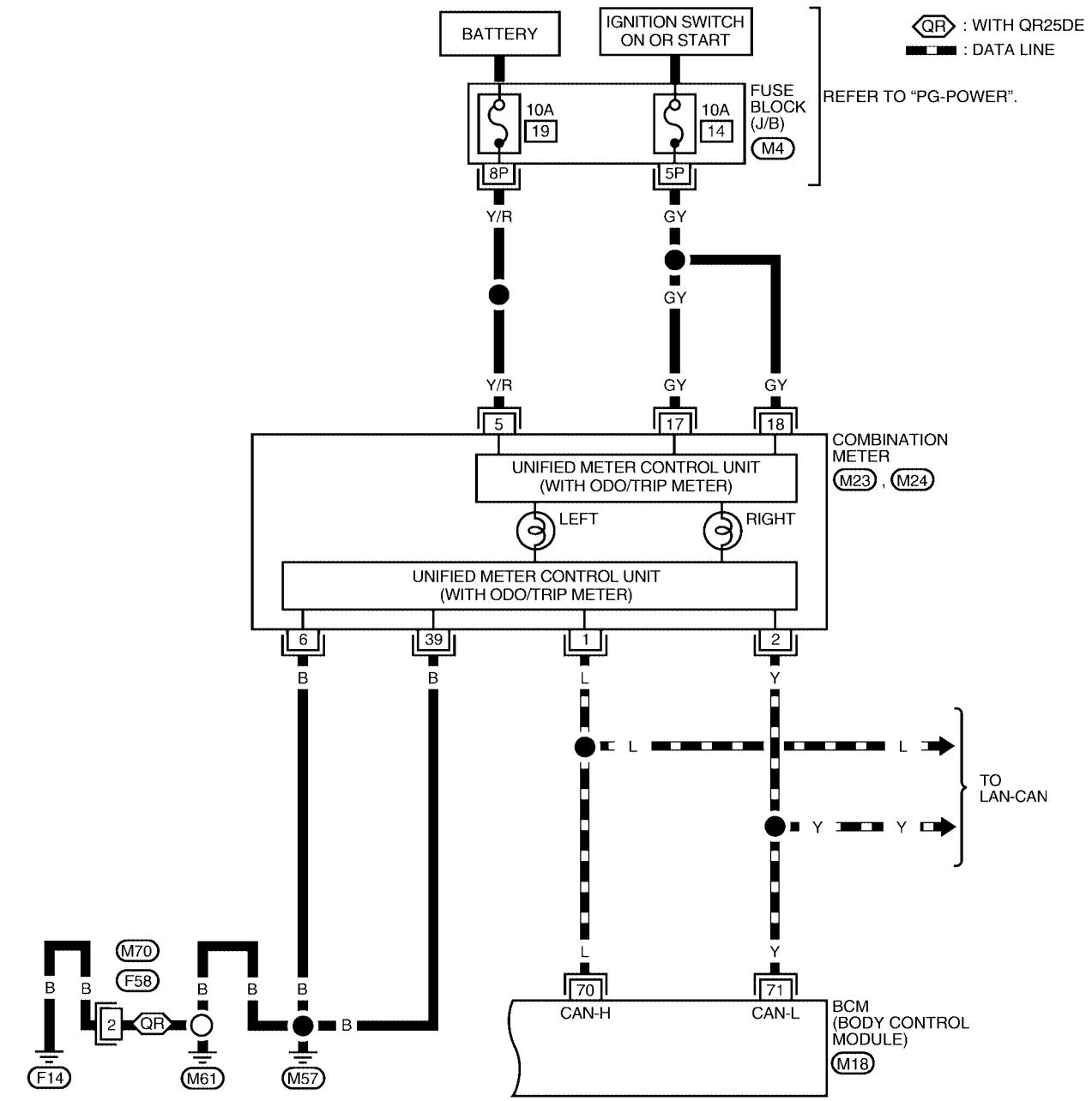
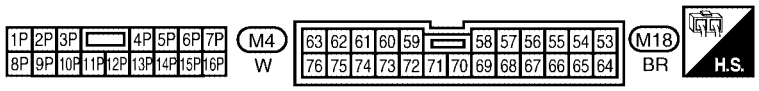
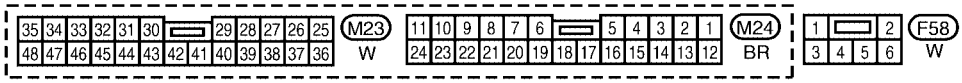
LT-TURN-03







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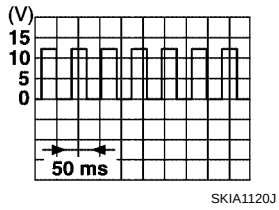
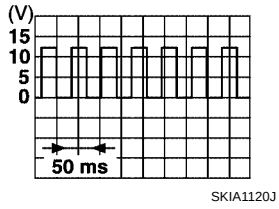
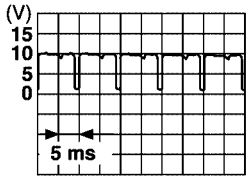
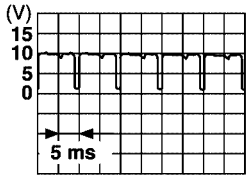
Terminals and Reference Value for BCM

EKS003DG

Terminal No.	Wire color	Signal name	Measuring condition			Reference value (V) or waveform
			Ignition switch	Operation or condition		
7	W/B	Battery power supply	OFF	—		Approx. 12V
8	B	Ground	ON	—		Approx. 0V
21	G/Y	Turn signal (right)	ON	Combination switch	Turn right ON	 SKIA1120J
22	G/B	Turn signal (left)	ON	Combination switch	Turn left ON	 SKIA1120J
35	G	IGN power	ON	—		Approx. 12V
42	R/Y	Combination switch OUTPUT 4	ON	Lighting, turn, wiper OFF		 SKIA1119J
43	L	Combination switch OUTPUT 5	ON	Lighting, turn, wiper OFF		 SKIA1119J
48	G/W	Combination switch INPUT 1	ON	Lighting, turn, wiper OFF		Approx. 0V
61	G/R	Hazard	OFF	Hazard switch	ON	Approx. 0V
					OFF	Approx. 5V

CONSULT-II Function (BCM)

EKS003DH

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

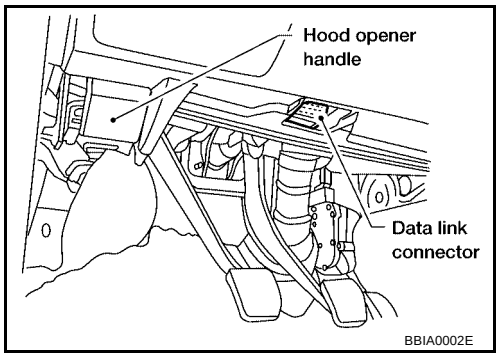
BCM diagnosis part	Check item, diagnosis mode	Description
FLASHER	Data monitor	Displays BCM input data in real time.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
	Active test	Operation of electrical loads can be checked by sending driving signal to them.

CONSULT-II BASIC OPERATION

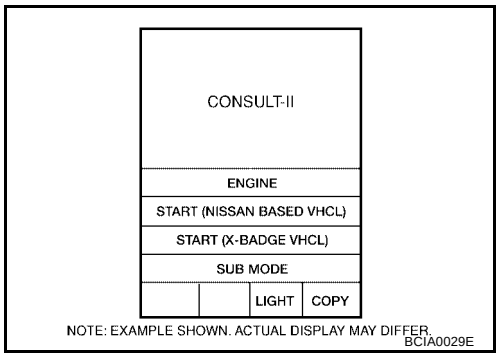
CAUTION:

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

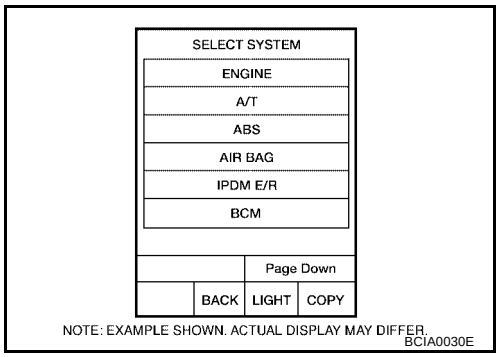
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn ignition switch ON.



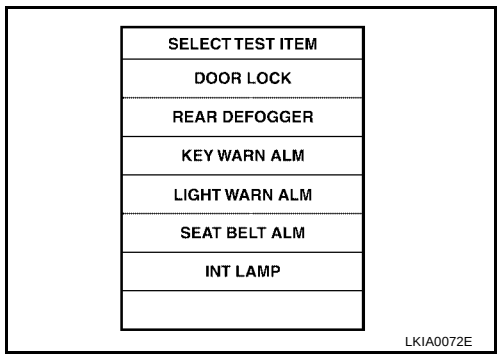
2. Touch “START (NISSAN BASED VEHICLE)”.



3. Touch “BCM” on “SELECT SYSTEM” screen.
If "BCM" is not indicated, go to GI-37, "CONSULT-II Data Link Connector (DLC) Circuit" .



4. Select the desired part to be diagnosed on the “SELECT TEST ITEM” screen.



DATA MONITOR

Operation Procedure

1. Touch “FLASHER” on “SELECT TEST ITEM” screen.
2. Touch “DATA MONITOR” on “SELECT DIAG MODE” screen.
3. Touch either “ALL SIGNALS” or “SELECTION FROM MENU” on the “DATA MONITOR” screen.

All signals	Monitors all the signals.
Selection from menu	Selects and monitors the individual signal.

4. Touch “START”.
5. When “SELECTION FROM MENU” is selected, touch items to be monitored. When “ALL SIGNALS” is selected, all the items will be monitored.
6. Touch “RECORD” while monitoring, then the status of the monitored item can be recorded. To stop recording, touch “STOP”.

Display Item List

Monitor item name “OPERATION OR UNIT”		Contents
IGN ON SW	“ON/OFF”	“IGN position (ON)/OFF, ACC position (OFF)” judged from the ignition switch signal is displayed.
HAZARD SW	“ON/OFF”	Displays “Hazard ON (ON)/Hazard OFF (OFF)” status, determined from hazard switch signal.
TURN SIGNAL R	“ON/OFF”	Displays “Turn right (ON)/Other (OFF)” status, determined from lighting switch signal.
TURN SIGNAL L	“ON/OFF”	Displays “Turn left (ON)/Other (OFF)” status, determined from lighting switch signal.

ACTIVE TEST

Operation Procedure

1. Touch “FLASHER” on “SELECT TEST ITEM” screen.
2. Touch “ACTIVE TEST” on “SELECT DIAG MODE” screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching “BACK” deactivates the operation.

Display Item List

Test item	Display on CONSULT-II screen	Description
Turn signal lamp (right) output	FLASHER (RIGHT)	Turn signal lamp (right) can be operated by any ON-OFF operations.
Turn signal lamp (left) output	FLASHER (LEFT)	Turn signal lamp (left) can be operated by any ON-OFF operations.
Turn signal lamp (right) indicator signal output	FLASHER (RIGHT) (CAN)	Turn signal lamp (right) indicator signal can be output by CAN communication line to gauges by any ON-OFF operations.
Turn signal lamp (left) indicator signal output	FLASHER (LEFT) (CAN)	Turn signal lamp (left) indicator signal can be output by CAN communication line to gauges by any ON-OFF operations.

Turn Signal Lamp Does Not Operate

EKS003DI

1. BULB INSPECTION

Check each turn signal lamp bulb to make sure correct bulbs are installed.

OK or NG

OK >> GO TO 2.
NG >> Replace bulb.

2. INSPECTION 1 BETWEEN COMBINATION SWITCH AND BCM

Select "BCM" on CONSULT-II. Carry out BCM C/U self-diagnosis.

Displayed results of self-diagnosis

Diagnosis system 1 - 5>> Combination switch system malfunction. Refer to BCS-12, "Combination Switch Inspection According to Self-Diagnostic Results" .
No malfunction detected>> GO TO 3.

SELF-DIAG RESULTS	
DTC RESULTS	TIME
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED	

LKIA0073E

3. INSPECTION 2 BETWEEN COMBINATION SWITCH AND BCM

Select “BCM” on CONSULT-II. With “FLASHER” data monitor, check that “TURN SIGNAL R” and “TURN SIGNAL L” turn ON-OFF according to operation of turn signal switch.

OK or NG

OK >> GO TO 4.
NG >> Replace lighting switch. Refer to LT-90, "Removal and Installation" .

DATA MONITOR	
MONITOR	
IGN ON SW	ON
HAZARD SW	ON
TURN SIGNAL R	OFF
TURN SIGNAL L	OFF

LKIA0083E

4. INSPECTION 1 BETWEEN BCM AND TURN SIGNAL LAMPS

1. Select “BCM” on CONSULT-II. Select “FLASHER” active test.
2. Check that “FLASHER RIGHT” and “FLASHER LEFT” operate.

OK or NG

OK >> Replace BCM.
NG >> GO TO 5.

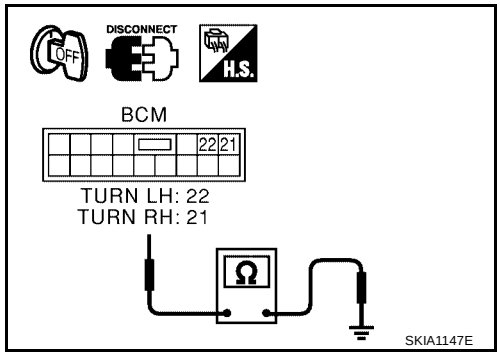
ACTIVE TEST	
FLASHER RIGHT	ON
	OFF

LKIA0084E

5. INSPECTION 2 BETWEEN BCM AND TURN SIGNAL LAMPS

1. Disconnect BCM connector and all turn signal lamp connectors.
2. Check continuity between harness connectors of BCM and body ground.

Terminals				Continuity
BCM				
Connector		Terminal (wire color)		
Right	M20	21 (G/Y)	Body ground	No
Left	M20	22 (G/B)		



OK or NG

OK >> Replace BCM.
NG >> Check for short circuit in harnesses between BCM and each turn signal and repair as necessary.

Hazard Lamp Does Not Operate

EKS003DJ

1. BULB INSPECTION

Check each turn signal lamp bulb to make sure correct bulbs are installed.

OK or NG

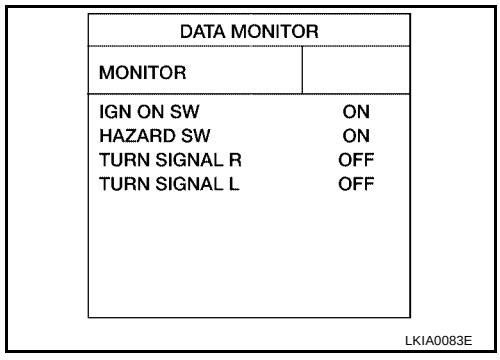
OK >> GO TO 2.
NG >> Replace bulb.

2. INSPECTION 1 BETWEEN HAZARD SWITCH AND BCM

Select “BCM” on CONSULT-II. Use “FLASHER” data monitor to verify that “HAZARD SW” turns ON-OFF according to operation of hazard switch.

OK or NG

OK >> GO TO 5.
NG >> GO TO 3.



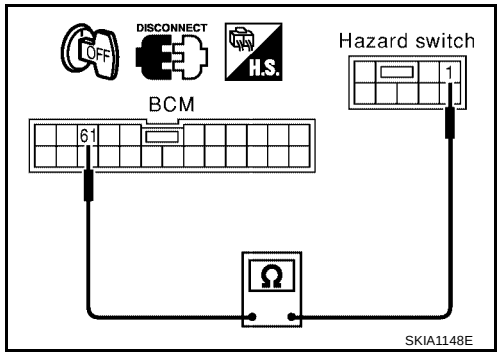
3. INSPECTION 2 BETWEEN HAZARD SWITCH AND BCM

1. Disconnect BCM connector and hazard switch connector.
2. Check continuity between harness connector terminal of BCM and harness connector terminal of hazard switch.

Terminals				Continuity
BCM		Hazard switch		
Connector	Terminal (wire color)	Connector	Terminal (wire color)	
M18	61 (G/R)	M55	1 (G/R)	Yes

OK or NG

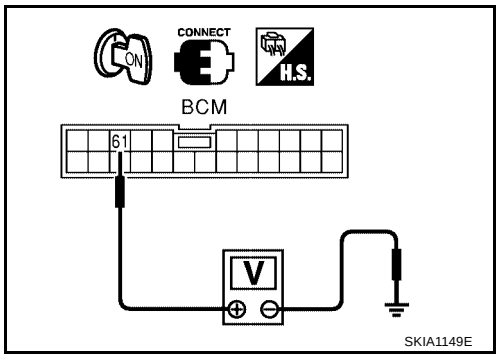
OK >> Connect connectors. GO TO 4.
NG >> Check for short circuit or open circuit in harness between BCM and hazard switch. Repair as necessary.



4. INSPECTION BCM

Check voltage between BCM terminal and body ground.

Terminals			Voltage
BCM (+)		Body ground (–)	1.6V or more
Connector	Terminal (wire color)		
M18	61 (G/R)		



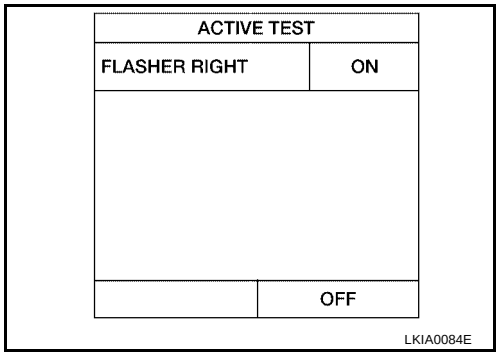
OK or NG

OK >> Replace hazard switch. Refer to LT-91, "Removal and Installation" .

NG >> Replace BCM.

5. INSPECTION 1 BETWEEN BCM AND TURN SIGNAL LAMPS

1. Select “BCM” on CONSULT-II. Select “FLASHER” active test.
2. Check that “FLASHER RIGHT” and “FLASHER LEFT” operate.



OK or NG

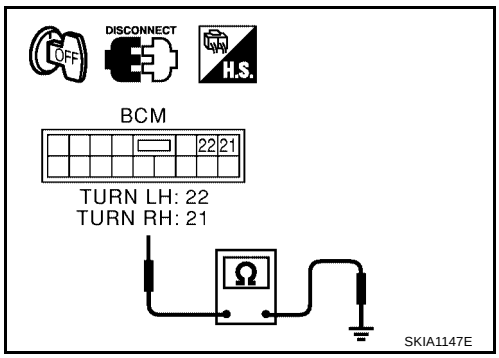
OK >> Replace BCM.

NG >> GO TO 6.

6. INSPECTION 2 BETWEEN BCM AND TURN SIGNAL LAMPS

1. Disconnect BCM connector and all turn signal lamp connectors.
2. Check continuity between harness connectors of BCM and body ground.

Terminals			Continuity
BCM		Body ground	No
Connector		Terminal (wire color)	
Right	M20	21 (G/Y)	
Left	M20	22 (G/B)	



OK or NG

OK >> Replace BCM.

NG >> Check for short circuit in harnesses between BCM and each turn signal. Repair as necessary.

Turn Signal Indicator Lamp Does Not Operate

EKS003DK

1. BULB INSPECTION

Inspect turn signal indicator lamp bulb.

OK or NG

OK >> Replace combination meter. Refer to DI-17, "Removal and Installation of Combination Meter" .

NG >> Replace indicator bulb.

Bulb Replacement

EKS003DL

FRONT TURN SIGNAL LAMP

Refer to LT-28, "Bulb Replacement" .

REAR TURN SIGNAL LAMP

Refer to LT-116, "TAIL LAMP" .

Removal and Installation

EKS003DM

FRONT TURN SIGNAL LAMP

Refer to LT-29, "Removal and Installation" .

REAR TURN SIGNAL LAMP

Refer to LT-116, "REAR COMBINATION LAMP" .

LIGHTING AND TURN SIGNAL SWITCH

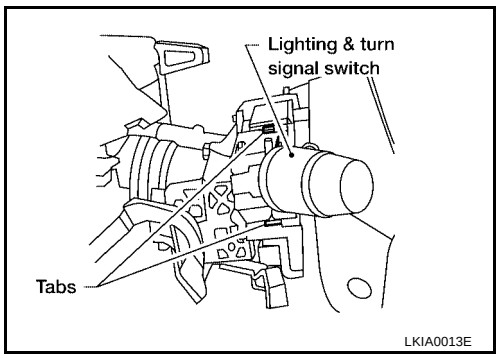
PFP:25540

Removal and Installation

EKS003DN

1. Remove the steering column cover. Refer to PS-9, "STEERING COLUMN" .
2. Pinch tabs and slide out lighting and turn signal switch (combination switch).

Installation is in the reverse order of removal.



Switch Circuit Inspection

EKS003DO

Refer to BCS-12, "Combination Switch Inspection According to Self-Diagnostic Results" .

HAZARD SWITCH

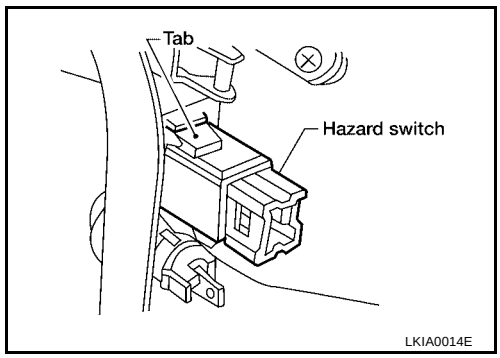
PFP:25290

Removal and Installation

EKS003DP

1. Remove center console storage compartment. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY" .
2. Depress hazard switch tab and remove hazard switch.

Installation is in the reverse order of removal.



COMBINATION SWITCH

PFP:25567

Combination Switch Reading Function

EKS003DQ

Refer to BCS-3, "COMBINATION SWITCH READING FUNCTION" .

CONSULT-II Function (BCM)

EKS003DR

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

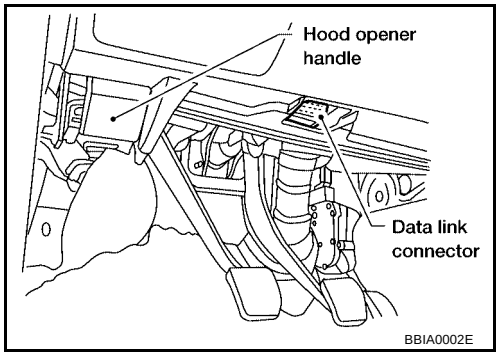
BCM diagnosis part	Check item, diagnosis mode	Description
Combination switch	Data monitor	Displays BCM input data in real time.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.

CONSULT-II BASIC OPERATION

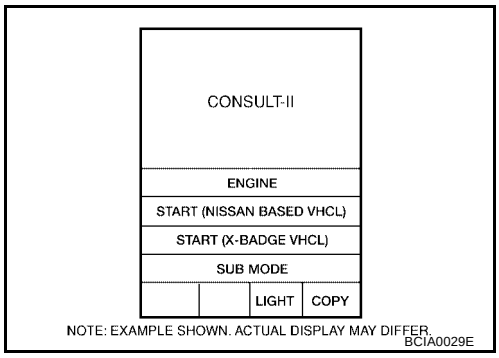
CAUTION:

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

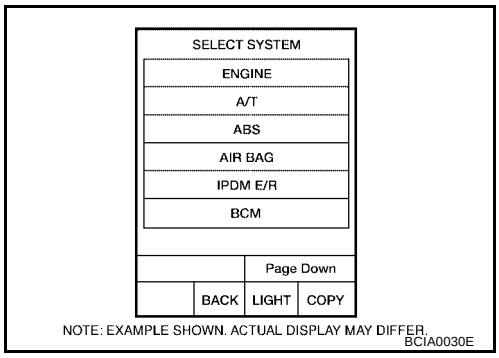
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn ignition switch ON.



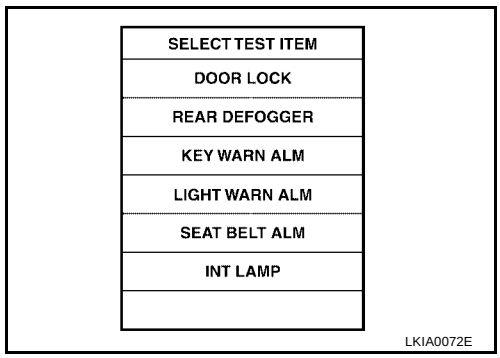
2. Touch “START (NISSAN BASED VEHICLE)”.



3. Touch “BCM” on “SELECT SYSTEM” screen.
If "BCM" is not indicated, go to GI-37, "CONSULT-II Data Link Connector (DLC) Circuit" .



4. Select the desired part to be diagnosed on the “SELECT TEST ITEM” screen.



DATA MONITOR

Operation Procedure

1. Touch “COMB SW” on “SELECT TEST ITEM” screen.
2. Touch “DATA MONITOR” on “SELECT DIAG MODE” screen.
3. Touch either “ALL SIGNALS” or “SELECTION FROM MENU” on “DATA MONITOR” screen.

All signals	Monitors all the signals.
Selection from menu	Selects and monitors individual signal.

4. Touch “START”.
5. When “SELECTION FROM MENU” is selected, touch items to be monitored. When “ALL SIGNALS” is selected, all the signals will be monitored.
6. Touch “RECORD” while monitoring, then the status of the monitored item can be recorded. To stop recording, touch “STOP”.

Display Item List

Monitor item name “OPERATION OR UNIT”		Contents
TAIL LAMP SW	“ON/OFF”	Displays status (lighting switch 1st position: ON/Others: OFF) of lighting switch judged from lighting switch signal.
HEAD LAMP SW 1	“ON/OFF”	Displays “Headlamp Switch 1 (ON)/Other (OFF)” status, determined from lighting switch signal.
HEAD LAMP SW 2	“ON/OFF”	Displays status (headlamp switch 2: ON/Others: OFF) of headlamp switch 2 judged from lighting switch signal.
HI BEAM SW	“ON/OFF”	Displays status (high beam switch: ON/Others: OFF) of high beam switch judged from lighting switch signal.
PASSING SW	“ON/OFF”	Displays status (flash-to-pass switch: ON/Others: OFF) of flash-to-pass switch judged from lighting switch signal.
AUTO LIGHT SW[Note]	“ON/OFF”	Displays status of the lighting switch as judged from the lighting switch signal. (AUTO position: ON/Other than AUTO position: OFF)
FR FOG SW	“ON/OFF”	Displays status (front fog switch: ON/Others: OFF) of front fog switch judged from lighting switch signal.
FR WIPER HI	“ON/OFF”	Displays “Front Wiper HI (ON)/Other (OFF)” status, determined from wiper switch signal.
FR WIPER LO	“ON/OFF”	Displays “Front Wiper LOW (ON)/Other (OFF)” status, determined from wiper switch signal.
FR WIPER INT	“ON/OFF”	Displays “Front Wiper INT (ON)/Other (OFF)” status, determined from wiper switch signal.
INT VOLUME	[1 - 7]	Displays intermittent operation knob setting (1 - 7), determined from wiper switch signal.
FR WASHER SW	“ON/OFF”	Displays “Front Washer Switch (ON)/Other (OFF)” status, determined from wiper switch signal.
TURN SIGNAL R	“ON/OFF”	Displays “Turn Right (ON)/Other (OFF)” status, determined from lighting switch signal.
TURN SIGNAL L	“ON/OFF”	Displays “Turn Left (ON)/Other (OFF)” status, determined from lighting switch signal.

NOTE:
For vehicles without auto light, item will be displayed but monitoring is not possible.

Removal and Installation

EKS003DS

For details, refer to LT-90, "Removal and Installation" .

Switch Circuit Inspection

EKS003DT

For details, refer to BCS-12, "Combination Switch Inspection According to Self-Diagnostic Results" .

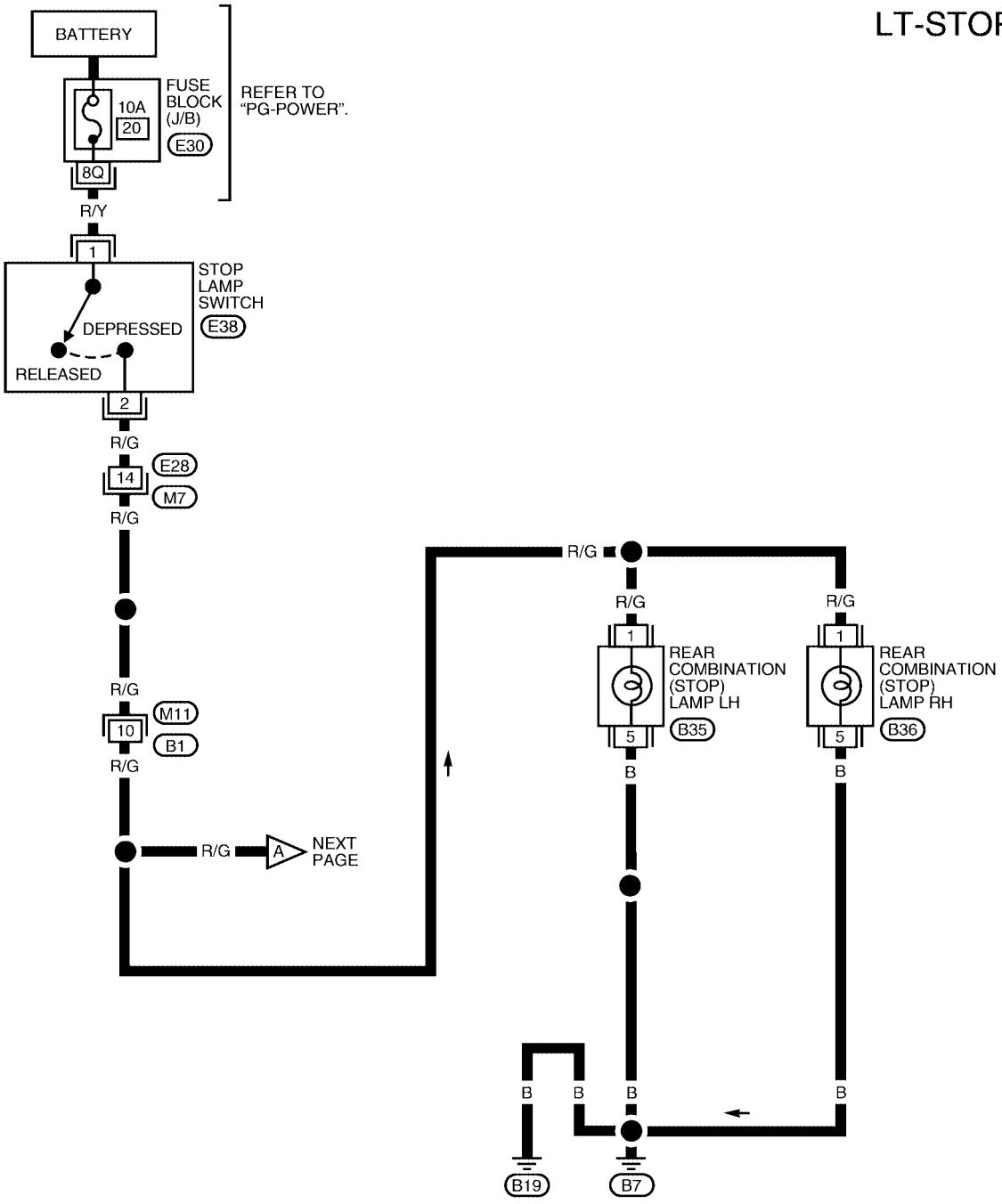
STOP LAMP

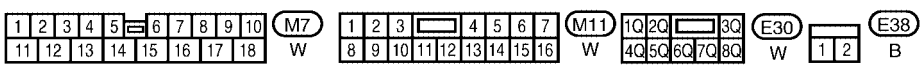
PFP:26550

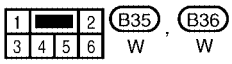
Wiring Diagram — STOP/L —

EKS003DU

LT-STOP/L-01

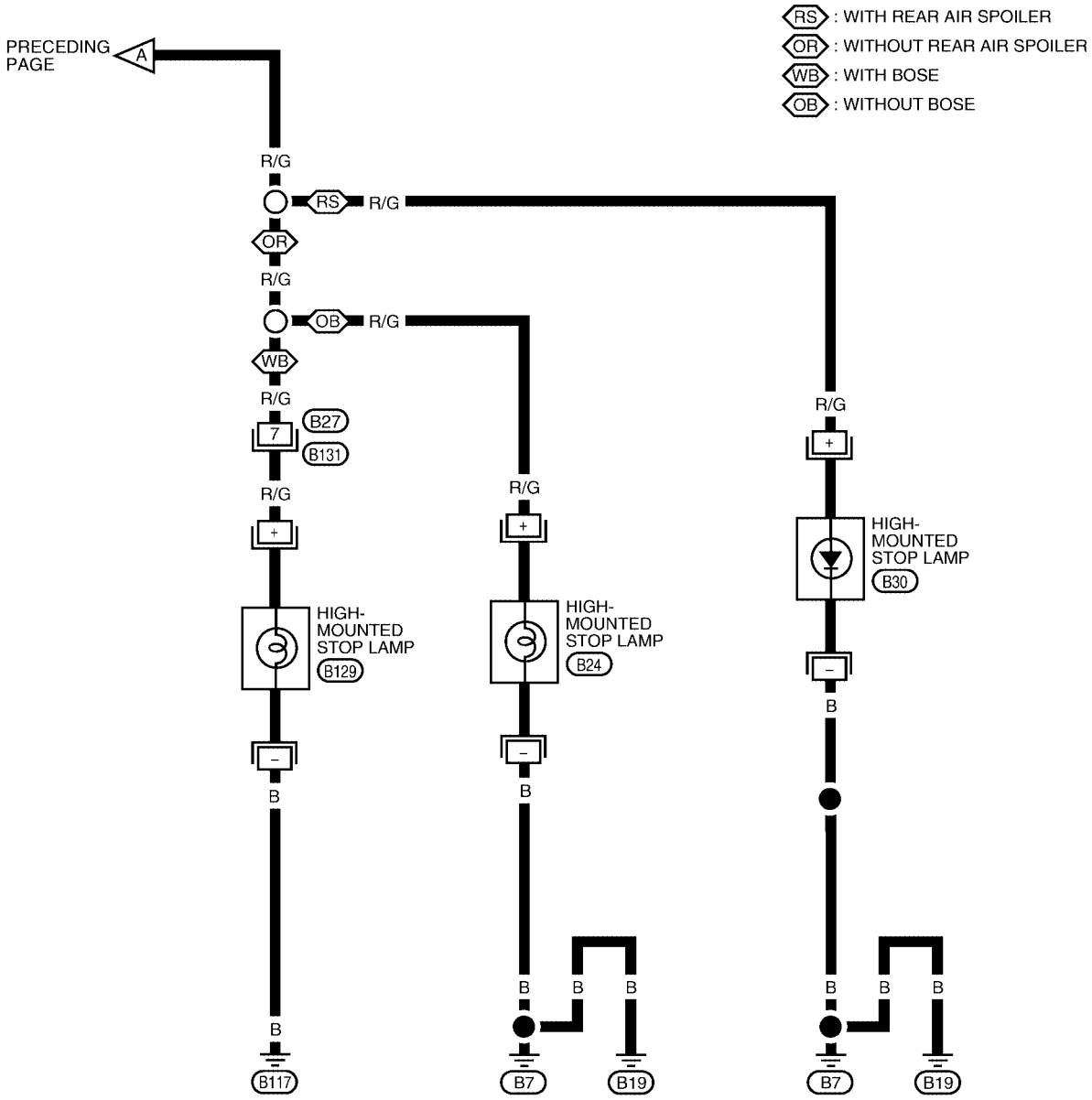


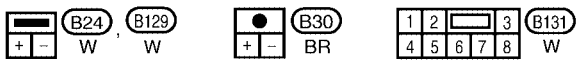




WKWA0898E

LT-STOP/L-02





WKWA0899E

Bulb Replacement for High-mounted Stop Lamp

EKS003DV

WITH REAR SPOILER

When this vehicle is equipped with a rear spoiler, the high-mounted stop lamp uses an LED circuit board instead of a bulb. The LED circuit board is not serviceable and must be replaced as an assembly.

WITHOUT REAR SPOILER

1. Remove high-mounted stop lamp assembly. Refer to LT-97, "Removal and Installation for High-mounted Stop Lamp" .
2. Turn bulb socket counterclockwise to unlock and remove from lamp assembly.
3. Turn bulb counterclockwise to remove from socket.

Installation is in the reverse order of removal.

Bulb Replacement for Rear Combination Lamp

EKS003DW

1. Remove rear combination lamp. Refer to LT-97, "Removal and Installation for Rear Combination Lamp" .
2. Turn bulb socket counterclockwise to unlock and remove from combination lamp assembly.
3. Turn bulb counterclockwise to remove from bulb socket.

Installation is in the reverse order of removal.

Removal and Installation for High-mounted Stop Lamp

EKS003DX

WITH REAR SPOILER

When this vehicle is equipped with a rear spoiler, the high-mounted stop lamp uses an LED circuit board instead of a bulb. The LED circuit board is not serviceable and must be replaced as an assembly.

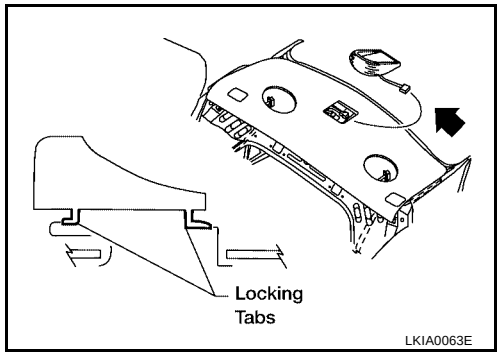
1. From trunk, disconnect electrical connector.
2. Remove screws and high-mounted stop lamp assembly.

Installation is in the reverse order of removal.

WITHOUT SPOILER

1. Slide high-mounted stop lamp assembly rearward on parcel shelf to give clearance to front tabs.
2. Lift front of lamp assembly up and bring forward to give clearance to rear tabs.
3. Disconnect connector, and remove from vehicle.

Installation is in the reverse order of removal.



Removal and Installation for Rear Combination Lamp

EKS003DY

1. Displace trunk room trim as needed. Refer to EI-35, "Removal and Installation" .
2. From trunk, remove nuts securing rear combination lamp assembly.
3. Disconnect connectors and remove assembly.

Installation is in the reverse order of removal.

Rear combination lamp mounting nut:

: 2.5 - 3.7 N·m (0.25 - 0.38 kg-m, 22 - 33 in-lb)

STEP LAMP

PFP:26420

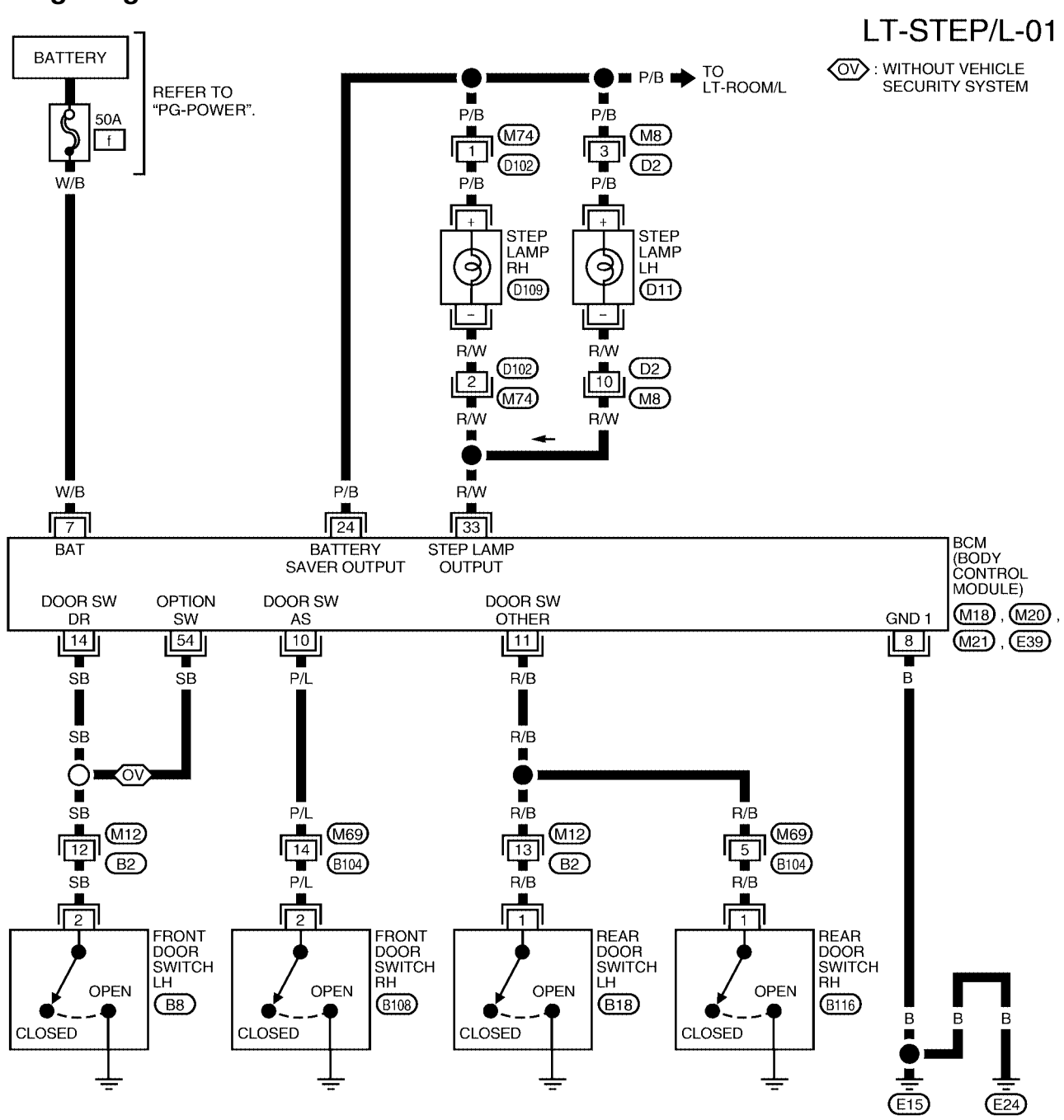
System Description

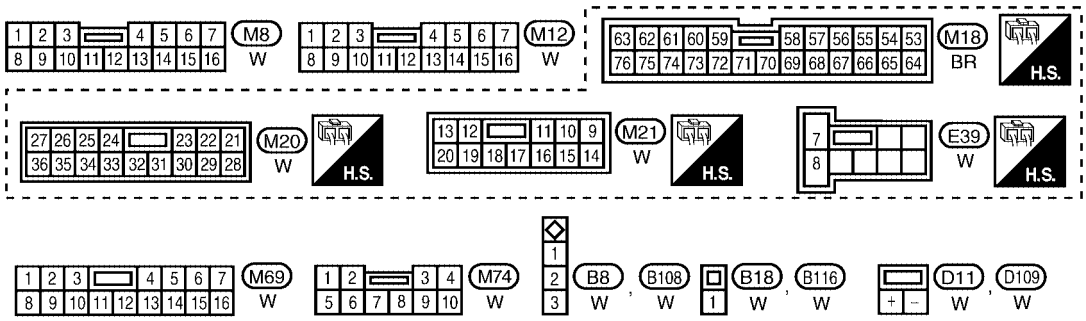
EKS003DZ

Step lamp turns ON at time when driver door, passenger door, RH rear door, or LH rear door is opened (door switch ON). Lamp turns OFF when all doors are closed (all door switches OFF).

Wiring Diagram — STEP/L —

EKS003E0





WKWA0900E

Terminals and Reference Value for BCM

EKS003E1

Terminal No.	Wire color	Signal name	Measuring condition			Standard (V) (Approx.)
			Ignition switch	Operation or condition		
7	W/B	Battery power supply	OFF	—		12
8	B	Ground	ON	—		0
10	P/L	Front door switch RH signal	OFF	Front door switch RH	ON (open)	0
					OFF (closed)	12
11	R/B	Rear door switch (LH and RH) signal	OFF	Rear door switch (LH and RH)	ON (open)	0
					OFF (closed)	12
14	SB	Front door switch LH signal	OFF	Front door switch LH	ON (open)	0
					OFF (closed)	12V
24	P/B	Battery saver output signal	OFF	Any door switch	ON (open)	0[Note]
					OFF (closed)	12V
33	R/W	Step lamp signal	OFF	Any door is open (ON)		0
				All doors are closed (OFF)		12

Note: Becomes battery voltage approximately 30 seconds after any door is opened.

Step Lamp Does Not Operate

EKS003E2

1. CHECK BULBS

Check bulbs.

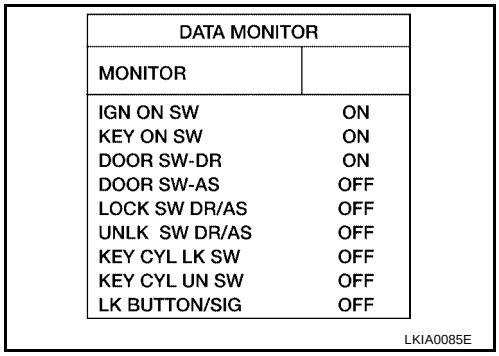
OK or NG

OK >> GO TO 2.
NG >> Replace bulbs.

2. INSPECTION 1 BETWEEN EACH DOOR SWITCH AND BCM

Select "BCM" on CONSULT-II. Use “INT LAMP” data monitor to check that switches listed below turn ON-OFF according to switch operation.

Switch name	CONSULT screen
Driver door switch	DOOR SW - DR
Each door switch	DOOR SW - AS

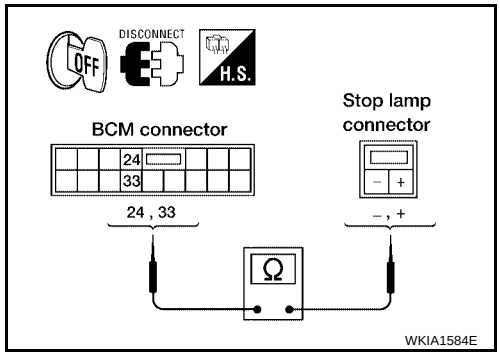


OK or NG

OK >> GO TO 3.
NG >> Inspect malfunctioning switch system. Repair as necessary.

3. INSPECTION 1 BETWEEN BCM AND STEP LAMP

1. Disconnect BCM connector and left/right step lamp connectors.
2. Check continuity between harness connector terminal of BCM and harness connector terminal of left/right step lamps.



Terminals				Continuity
BCM		Step lamp		
Connector	Terminal (wire color)	Connector	Terminal (wire color)	
M20	24 (P/B)	D109	+ (P/B)	Yes
	24 (P/B)	D11	+ (P/B)	
	33 (R/W)	D109	– (R/W)	
	33 (R/W)	D11	– (R/W)	

OK or NG

OK >> Replace BCM.
NG >> Repair harness between BCM and step lamp. Repair as necessary.

Bulb Replacement

EKS003E3

1. Pry lens cover from lamp assembly.
2. Push and turn bulb to remove.

Installation is in the reverse order of removal.

Removal and Installation

EKS003E4

1. Carefully pry lens from door finisher.
2. Disconnect electrical connector.

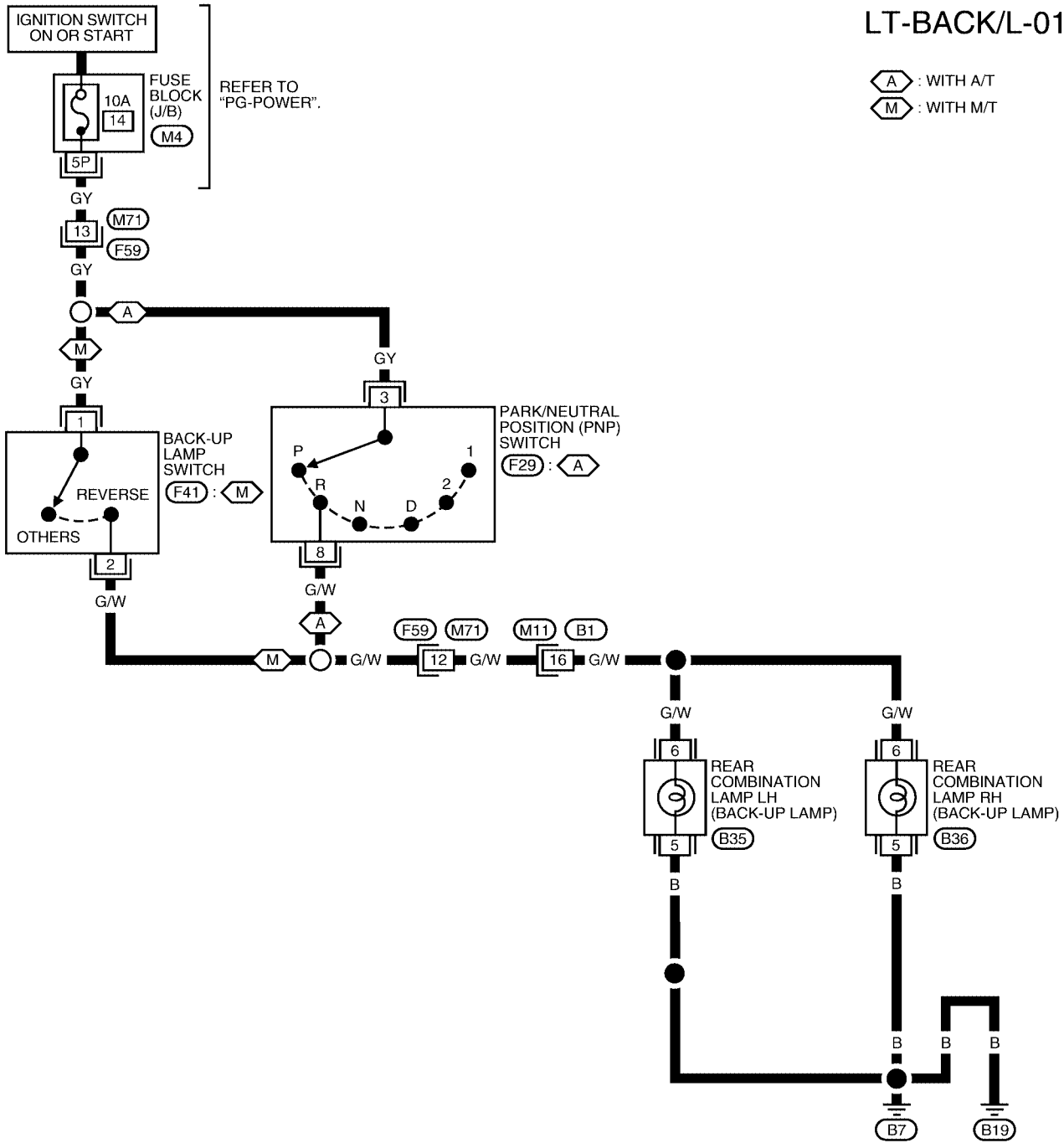
Installation is in the reverse order of removal.

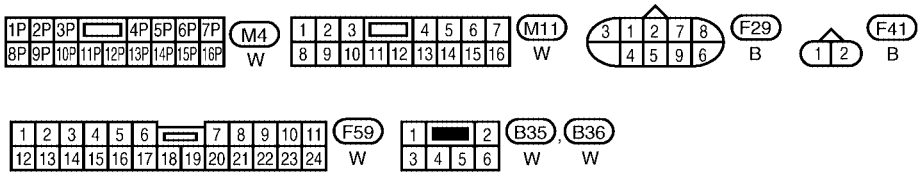
BACK-UP LAMP

PFP:26550

Wiring Diagram — BACK/L —

EKS003E5





WKWA0901E

Bulb Replacement

EKS003E6

1. Remove rear combination lamp. Refer to LT-97, "Removal and Installation for Rear Combination Lamp" .
2. Turn bulb socket counterclockwise to unlock and remove.
3. Pull bulb from socket to remove.

Installation is in the reverse order of removal.

Removal and Installation

EKS003E7

The back-up lamp is part of the rear combination lamp assembly. For removal and installation, refer to LT-97, "Removal and Installation for Rear Combination Lamp" .

PARKING, LICENSE PLATE AND TAIL LAMPS

PFP:26550

System Description

EKS003E8

Control of the parking, license plate, and tail lamp operation is dependent upon the position of the lighting switch (combination switch). When the lighting switch is placed in the 1ST position, the BCM (body control module) receives input signal requesting the parking, license plate, and tail lamps to illuminate. This input signal is communicated to the IPDM E/R (intelligent power distribution module engine room) across the CAN communication lines. The central processing unit of the IPDM E/R controls the tail lamp relay coil. When energized, this relay directs power to the parking, license plate, and tail lamps, which then illuminate.
Power is supplied at all times

- to tail lamp relay, located in the IPDM E/R
- through 10A fuse (No. 41, located in the IPDM E/R).

Power is also supplied at all times

- to BCM terminal 7
- through 50A fusible link (letter **f** , located in the fuse and fusible link box).

With the ignition switch in the ON or START position, power is supplied

- to BCM erminal 35
- through 10A fuse [No. 12, located in the fuse block (J/B)].

With the ignition switch in the ACC or ON position, power is supplied

- to BCM terminal 36
- through 10A fuse [No. 6, located in the fuse block (J/B)].

Ground is supplied

- to BCM terminals 8, 27, and 63
- through body grounds F14 (QR25DE models), M57, M61, E15, and E24.

OPERATION BY LIGHTING SWITCH

With the lighting switch in the 1st or 2nd position (or if the auto light system is activated), the BCM receives input signal requesting the parking, license plate, and tail lamps to illuminate. This input signal is communicated to the IPDM E/R across the CAN communication lines. The central processing unit of the IPDM E/R controls the tail lamp relay coil. When energized, this relay directs power

- through terminal 22 of the IPDM E/R
- to front turn signal lamp LH terminal 1,
- to front turn signal lamp RH terminal 1,
- to rear combination lamp LH terminal 2,
- to rear combination lamp RH terminal 2,
- to license lamp LH terminal +, and
- to license lamp RH terminal +.

Ground is supplied at all times

- to front turn signal lamp LH terminal 2,
- through body grounds E15 and E24, and
- to front turn signal lamp RH terminal 2,
- through body grounds E15 and E24, and
- to rear combination lamp LH terminal 5
- through body grounds B7 and B19, and
- to rear combination lamp RH terminal 5
- through body grounds B7 and B19, and
- to license lamp LH terminal –,
- through body grounds B7 and B19, and
- to license lamp RH terminal –
- through body grounds B7 and B19.

With power and ground supplied, the parking, license and tail lamps illuminate.

BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the 1ST (or 2ND) position, and the ignition switch is turned from ON or ACC to OFF, the battery saver control feature is activated.
Under this condition, the parking, license plate, and tail lamps remain illuminated for 5 minutes, unless the combination switch (lighting switch) position is changed. If the combination switch (lighting switch) position is changed, then the parking, license plate and tail lamps are turned off.

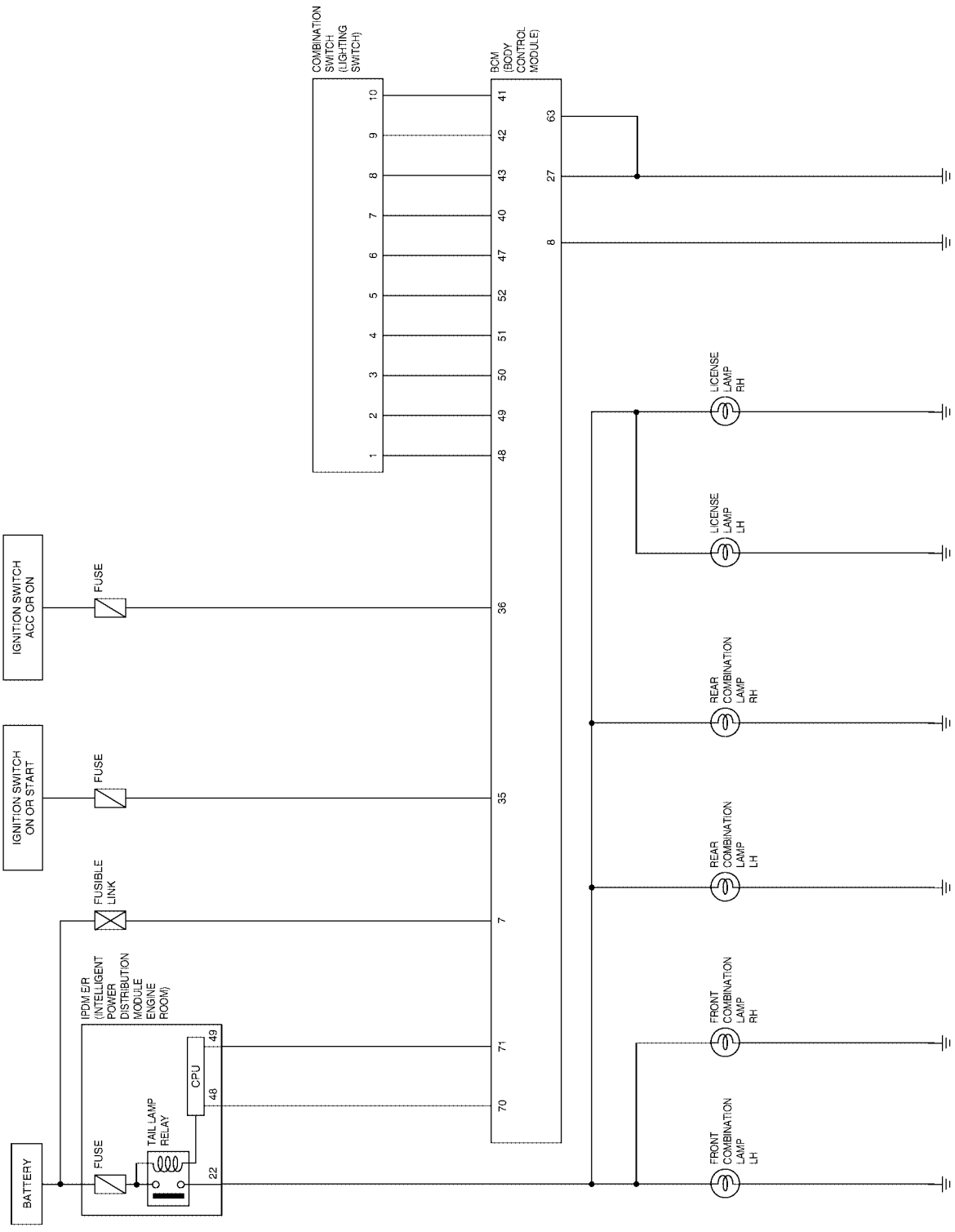
CAN Communication System Description

EKS003E9

Refer to LAN-4, "CAN COMMUNICATION" .

Schematic

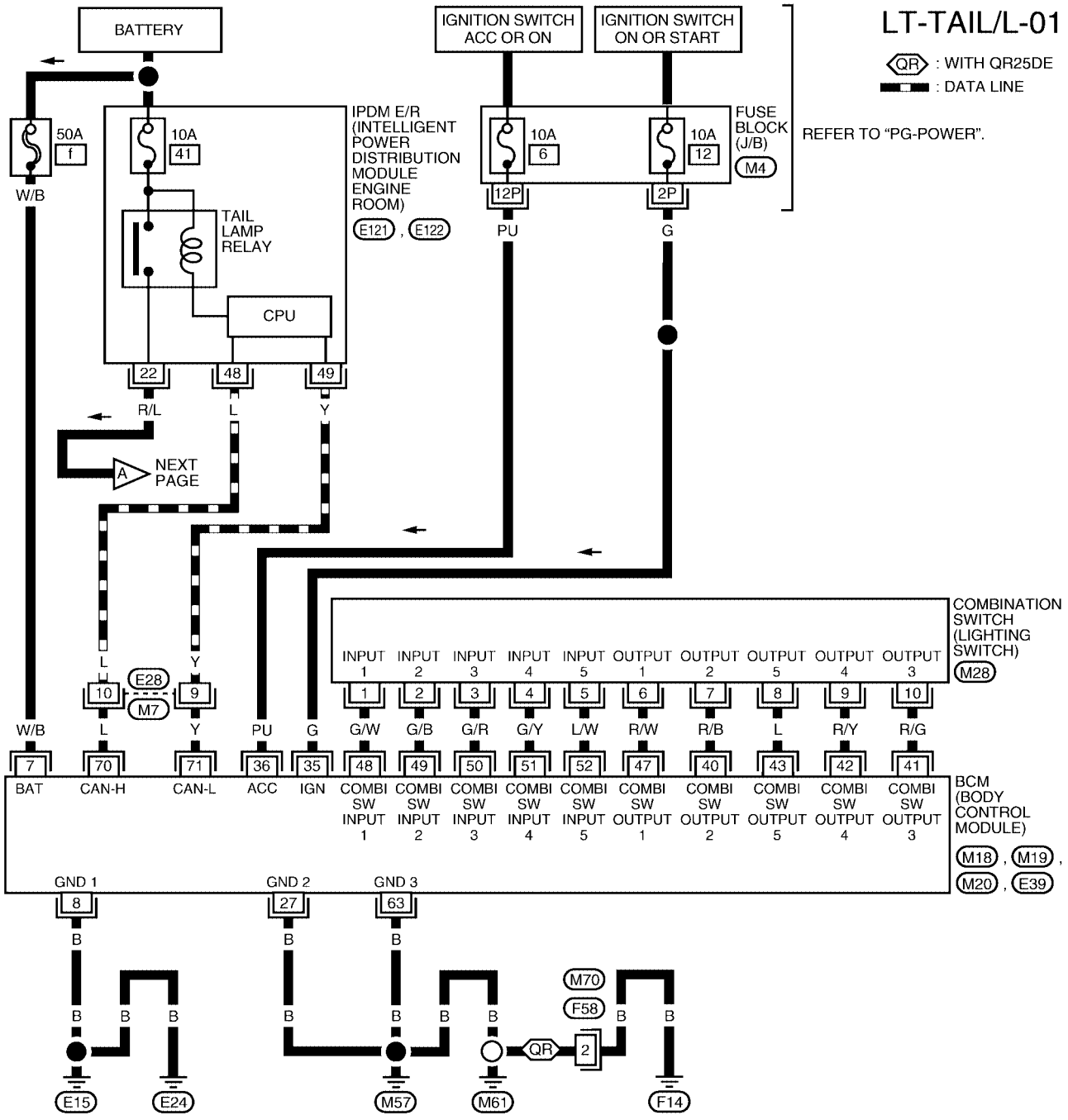
EKS003EA



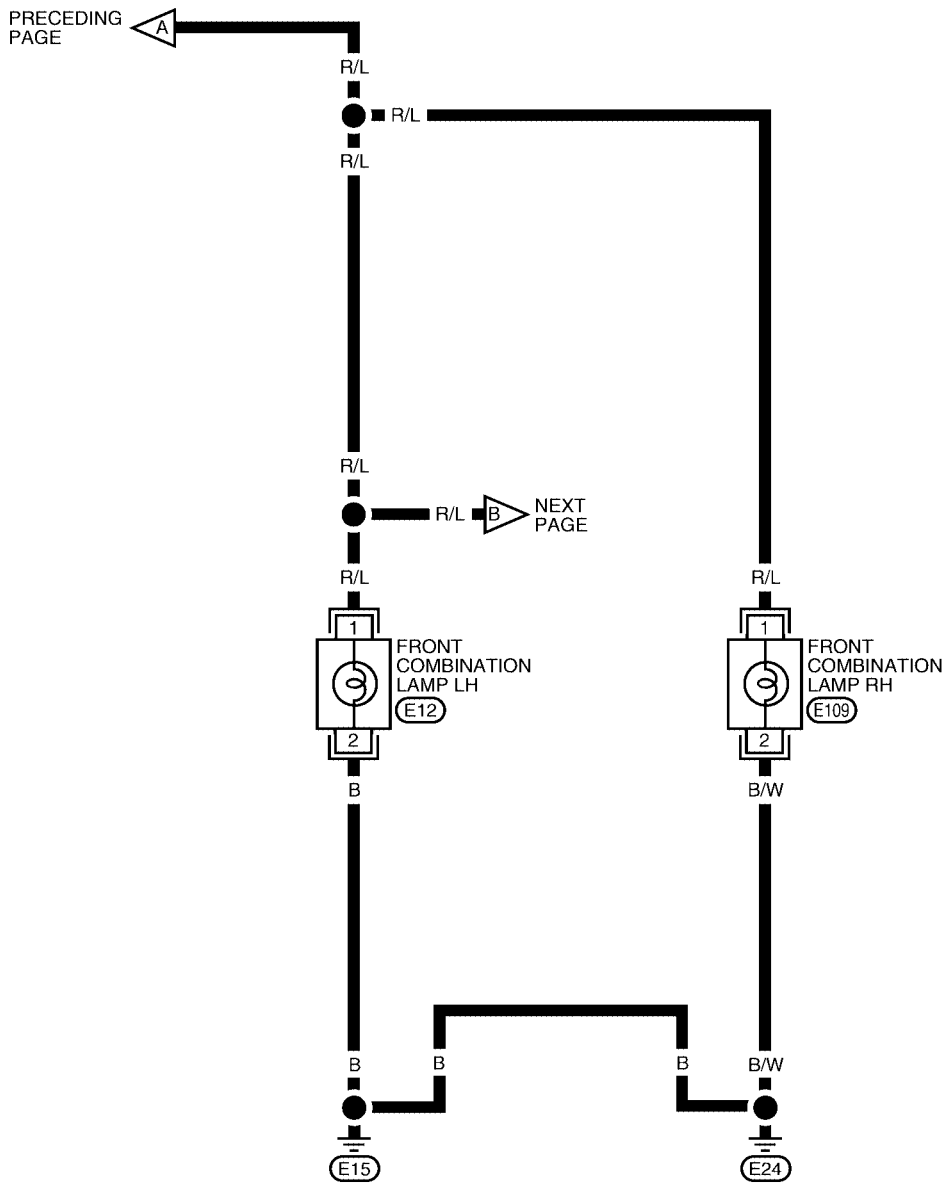
WKWA0902E

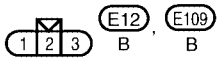
Wiring Diagram — TAIL/L —

EKS003EB

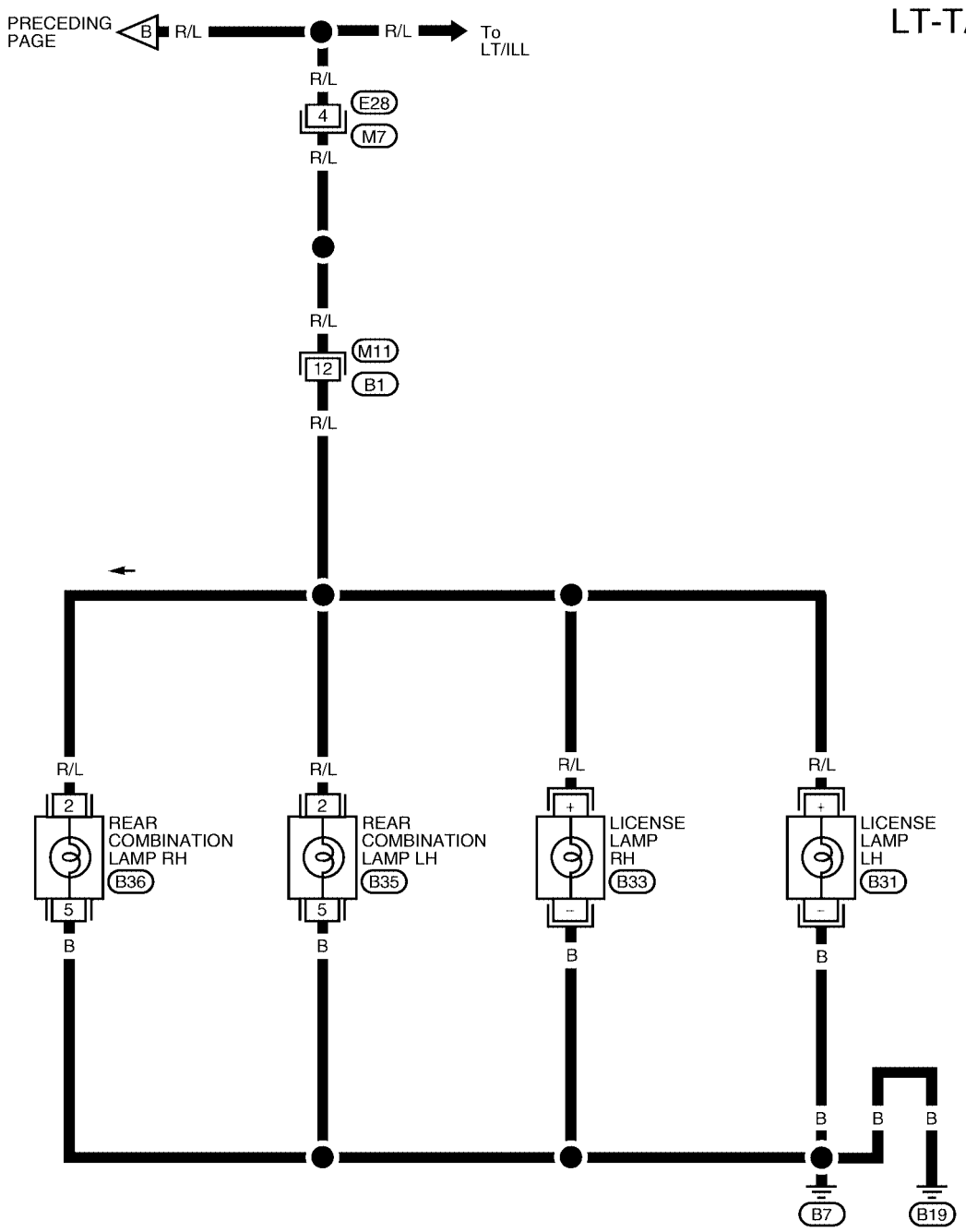


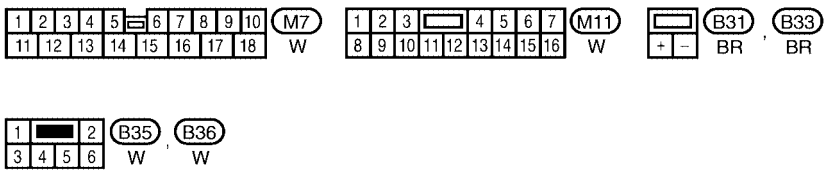
LT-TAIL/L-02





WKWA0193E


LT-TAIL/L-03
PRECEDING PAGE
B
R/L
R/L
To LT/ILL
R/L
E28
4
M7
R/L
R/L
M11
12
B1
R/L
R/L
2
REAR COMBINATION LAMP RH
B36
5
B
R/L
2
REAR COMBINATION LAMP LH
B35
5
B
R/L
+
LICENSE LAMP RH
B33
–
B
R/L
+
LICENSE LAMP LH
B31
–
B
B
B
B
B7
B19


1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18
M7
W
1 2 3 4 5 6 7
8 9 10 11 12 13 14 15 16
M11
W
B31
BR
B33
BR
1 2
3 4 5 6
B35
W
B36
W

WKWA0904E

Terminals and Reference Value for BCM

EKS007P7

Terminal No.	Wire color	Item	Measuring condition		Voltage (Approx.)
			Ignition switch	Operation or condition	
7	W/B	Battery power supply	OFF	—	Battery voltage
8	B	Ground	—	—	—
27	B	Ground	—	—	—
35	G	Ignition power supply	ON	—	Battery voltage
36	PU	Ignition power supply	ACC	—	Battery voltage
40	R/B	Combination switch output 2	—	—	2V → 10V
41	R/G	Combination switch output 3	—	—	2V → 10V
42	R/Y	Combination switch output 4	—	—	2V → 10V
43	L	Combination switch output 5	—	—	2V → 10V
47	R/W	Combination switch output 1	—	—	2V → 10V
48	G/W	Combination switch input 1	—	—	1.5V → 10V
49	G/B	Combination switch input 2	—	—	1.5V → 10V
50	G/R	Combination switch input 3	—	—	1.5V → 10V
51	G/Y	Combination switch input 4	—	—	1.5V → 10V
52	L/W	Combination switch input 5	—	—	1.5V → 10V
63	B	Ground	—	—	—
70	L	CAN - H	—	—	1V → 3V
71	Y	CAN - L	—	—	1V → 3V

Terminals and Reference Values for IPDM E/R

EKS007P8

Terminal No.	Wire color	Signal name	Measuring condition			Reference value (Approx.)
			Ignition switch	Operation or condition		
22	R/L	Parking, license and tail lamp	ON	Lighting switch 1ST position	OFF	0V
					ON	Battery voltage
48	L	CAN - H	—	—		—
49	Y	CAN - L	—	—		—

How to Proceed With Trouble Diagnosis

EKS007P4

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to LT-104, "System Description" .
3. Perform the Preliminary Check. Refer to LT-111, "Preliminary Check" .
4. Check symptom and repair or replace the cause of malfunction.
5. Does the front fog lamp operate normally? If YES: GO TO 6. If NO: GO TO 4.
6. Inspection End.

Preliminary Check

EKS007P5

CHECK POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSES OR FUSIBLE LINK

Check for blown fuses or fusible link.

Unit	Power source	Fuse No.
BCM	Battery	f
	Ignition switch ON or START position	12
	Ignition switch ACC or ON position	6
IPDM E/R	Battery	41

Refer to LT-107, "Wiring Diagram — TAIL/L —" .

OK or NG

OK >> Inspection End.
NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-4, "POWER SUPPLY ROUTING CIRCUIT" .

CONSULT-II Functions

EKS007P6

Refer to LT-14, "CONSULT-II Function (BCM)" in HEADLAMP (FOR USA).
Refer to LT-17, "CONSULT-II Function (IPDM E/R)" in HEADLAMP (FOR USA).

Parking, License Plate and/or Tail Lamps Do Not Illuminate

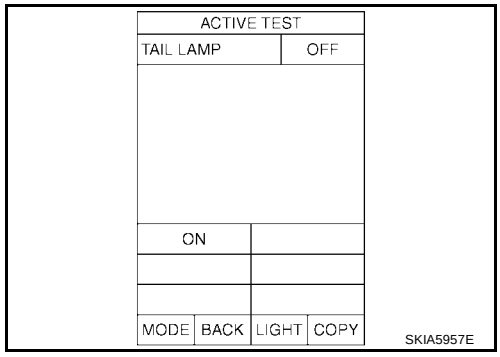
EKS007P9

1. ACTIVE TEST

With CONSULT-II

1. Select “IPDM E/R” on CONSULT-II and select “ACTIVE TEST” on “SELECT DIAG MODE” screen.
2. Select “TAIL LAMP” on “SELECT TEST ITEM” screen.
3. Touch “ON”.
4. Make sure parking, license plate and tail lamp operate.

Parking, license plate and tail lamp should operate



Without CONSULT-II

1. Start auto active test. Refer to PG-21, "Auto Active Test" .
2. Make sure parking, license plate and tail lamp operate.

Parking, license plate and tail lamp should operate

OK or NG

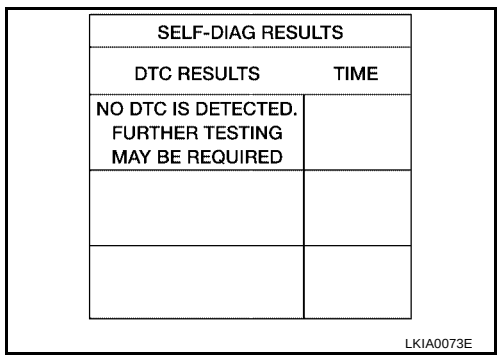
OK >> GO TO 2.
NG >> GO TO 4.

2. INSPECTION 1 BETWEEN COMBINATION SWITCH AND BCM

Carry out BCM C/U self-diagnosis.

Displayed results of self-diagnosis

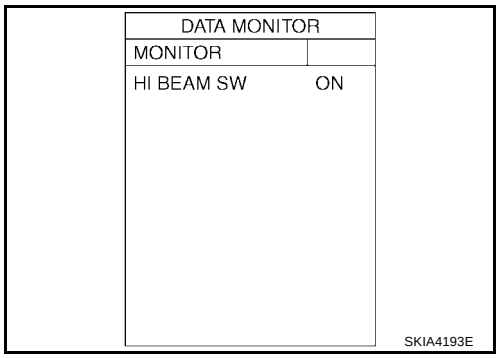
NO MALFUNCTION DETECTED>> GO TO 3.
CAN COMMUNICATION OR CAN SYSTEM>> Inspect the BCM CAN communications system. Refer to LAN-4, "CAN COMMUNICATION" .
OPEN DETECT 1 - 5>> Inspect combination switch system. Refer to BCS-12, "Combination Switch Inspection According to Self-Diagnostic Results" .



3. INSPECTION 2 BETWEEN COMBINATION SWITCH AND BCM

Select “BCM” on CONSULT-II. With “HEAD LAMP” data monitor, make sure “HI BEAM SW” turns ON-OFF linked with operation of lighting switch.

When lighting switch is in 1ST position : TAIL LAMP SW ON



OK or NG

OK >> Replace BCM.
NG >> Replace lighting switch. Refer to LT-94, "Removal and Installation" .

4. CHECK INPUT SIGNAL

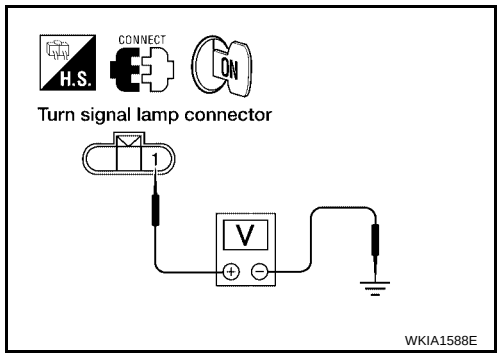
With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front combination lamp, license plate lamp and rear combination lamp connectors.
3. Select “IPDM E/R” on CONSULT-II and select “ACTIVE TEST” on “SELECT DIAG MODE” screen.
4. Select “TAIL LAMP” on “SELECT TEST ITEM” screen.
5. Touch “ON” screen.
6. When tail lamp is operating, check voltage between front combination lamp, license plate lamp, rear combination lamp harness connector and ground.

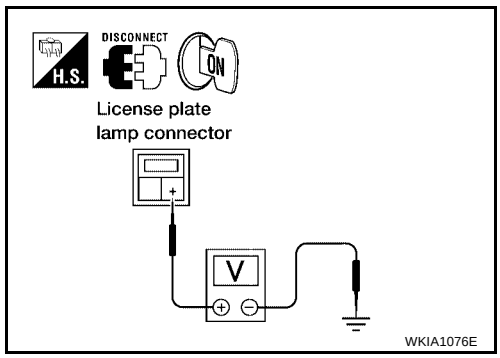
Without CONSULT-II

1. Turn ignition switch OFF.
2. Start auto active test. Refer to PG-21, "Auto Active Test" .
3. When tail lamp is operating, check voltage between front combination lamp, license plate lamp, rear combination lamp harness connector and ground.

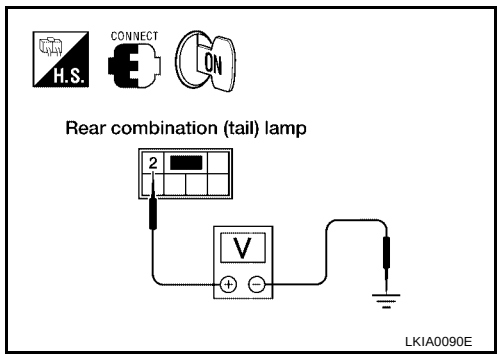
Terminals				Voltage
Front combination lamp (+)			(-)	
Connector		Terminal (Wire color)		
RH	E109	1 (R/L)	Ground	Battery voltage
LH	E12			



Terminals				Voltage
License plate lamp (+)			(-)	
Connector		Terminal (Wire color)		
RH	B33	+ (R/L)	Ground	Battery voltage
LH	B31			



Terminals				Voltage
Rear combination lamp (+)			(-)	
Connector		Terminal (Wire color)		
RH	B36	2 (R/L)	Ground	Battery voltage
LH	B35			



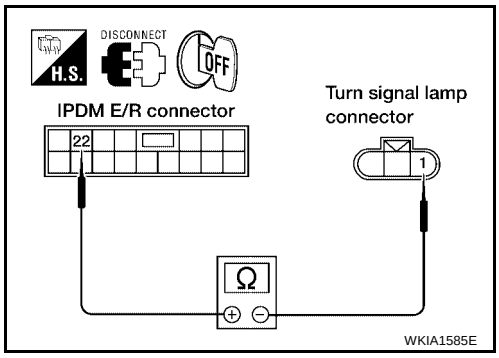
OK or NG

OK >> GO TO 6.
NG >> GO TO 5.

5. CHECK PARKING, LICENSE PLATE AND TAIL LAMP CIRCUIT

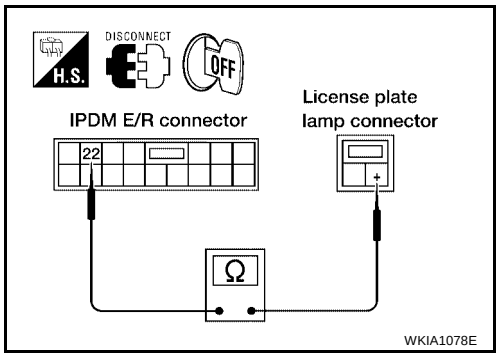
1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector and front side marker lamp harness connector.

Terminals					Continuity
IPDM E/R		Front combination lamp			
Connector	Terminal (Wire color)	Connector		Terminal (Wire color)	
E122	22 (R/L)	RH	E109	1 (R/L)	Yes
		LH	E12		



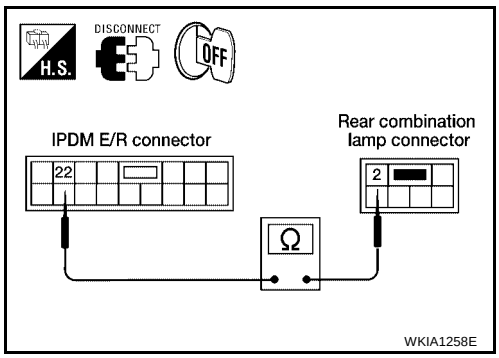
4. Check continuity between IPDM E/R harness connector and license plate lamp harness connector.

Terminals					Continuity
IPDM E/R		License plate lamp			
Connector	Terminal (Wire color)	Connector		Terminal (Wire color)	
E122	22 (R/L)	RH	B33	+ (R/L)	Yes
		LH	B31		



5. Check continuity between IPDM E/R harness connector and rear combination lamp harness connector.

Terminals					Continuity
IPDM E/R		Rear combination lamp			
Connector	Terminal (Wire color)	Connector		Terminal (Wire color)	
E122	22 (R/L)	RH	B36	2 (R/L)	Yes
		LH	B35		



OK or NG

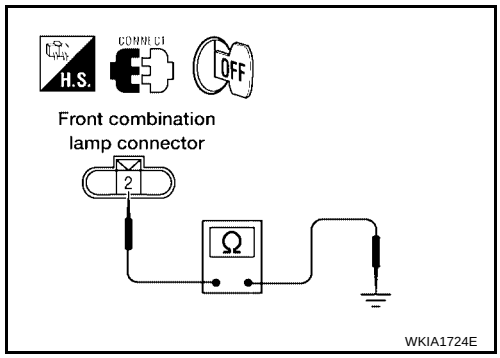
OK >> Replace IPDM E/R. Refer to PG-27, "Removal and Installation of IPDM E/R" .

NG >> Repair harness or connector.

6. CHECK GROUND

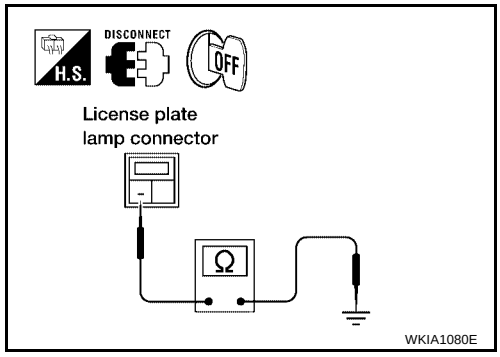
1. Check continuity between front combination lamp harness connector and ground.

Terminals			Ground	Continuity
Front combination lamp				
Connector		Terminal (Wire color)		
RH	E109	2 (B/W)		Yes
LH	E12	2 (B)		



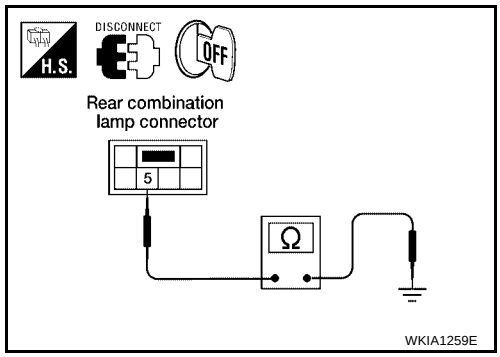
2. Check continuity between license lamp plate harness connector and ground.

Terminals			Ground	Continuity
License plate lamp				
Connector		Terminal (Wire color)		
RH	B33	- (B)		Yes
LH	B31			



3. Check continuity between rear combination lamp harness connector and ground.

Terminals			Ground	Continuity
Rear combination lamp				
Connector		Terminal (Wire color)		
RH	B36	5 (B)		Yes
LH	B35			



OK or NG

OK >> Check bulbs.
NG >> Repair harness or connector.

Parking, License Plate and Tail Lamps Do Not Turn OFF (After Approx. 10 Minutes)

EKS007PA

1. CHECK IPDM E/R

1. Turn ignition switch ON. Turn the combination switch (lighting switch) to the OFF position. Turn ignition switch OFF.
2. Verify that the parking, license plate, and tail lamps turn on and off after approximately 10 minutes.

OK or NG

OK >> Ignition relay malfunction. Refer to PG-16, "Function of Detecting Ignition Relay Malfunction" .
NG >> Inspection End.

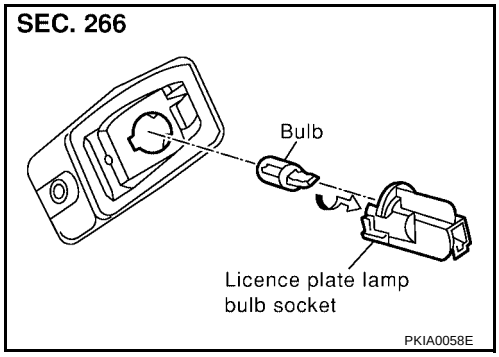
Bulb Replacement

EKS003EE

LICENSE PLATE LAMP

1. From trunk, turn bulb socket counterclockwise to unlock and remove.
2. Pull bulb to remove from socket.

License plate lamp : 12V 5W



FRONT TURN SIGNAL (PARKING) LAMP

For bulb replacement, refer to LT-29, "FRONT TURN SIGNAL LAMP" .

TAIL LAMP

1. Remove rear combination lamp. Refer to LT-97, "Removal and Installation for Rear Combination Lamp" .
2. Turn bulb socket counterclockwise to unlock and remove.
3. Pull bulb to remove from socket.

Tail lamp : 12V 7W

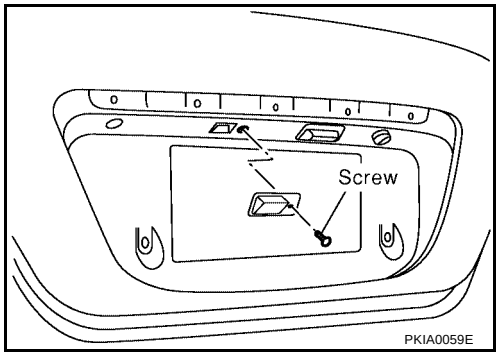
Removal and Installation

EKS003EF

LICENSE PLATE LAMP

Removal

1. Remove the license plate finisher. Refer to EI-22, "Removal and Installation" .
2. Disconnect the license plate lamp connector.
3. Remove the license plate lamp mounting screw and remove the license plate lamp from the vehicle.



Installation

Install in the reverse order of removal.

License plate lamp mounting screw:

: 1.3 - 1.8 N·m (0.13 - 0.18 kg-m, 11 - 16 in-lb)

FRONT TURN SIGNAL (PARKING) LAMP

For front turn signal (parking) lamp removal and installation procedures, refer to LT-29, "Removal and Installation" .

REAR COMBINATION LAMP

Removal

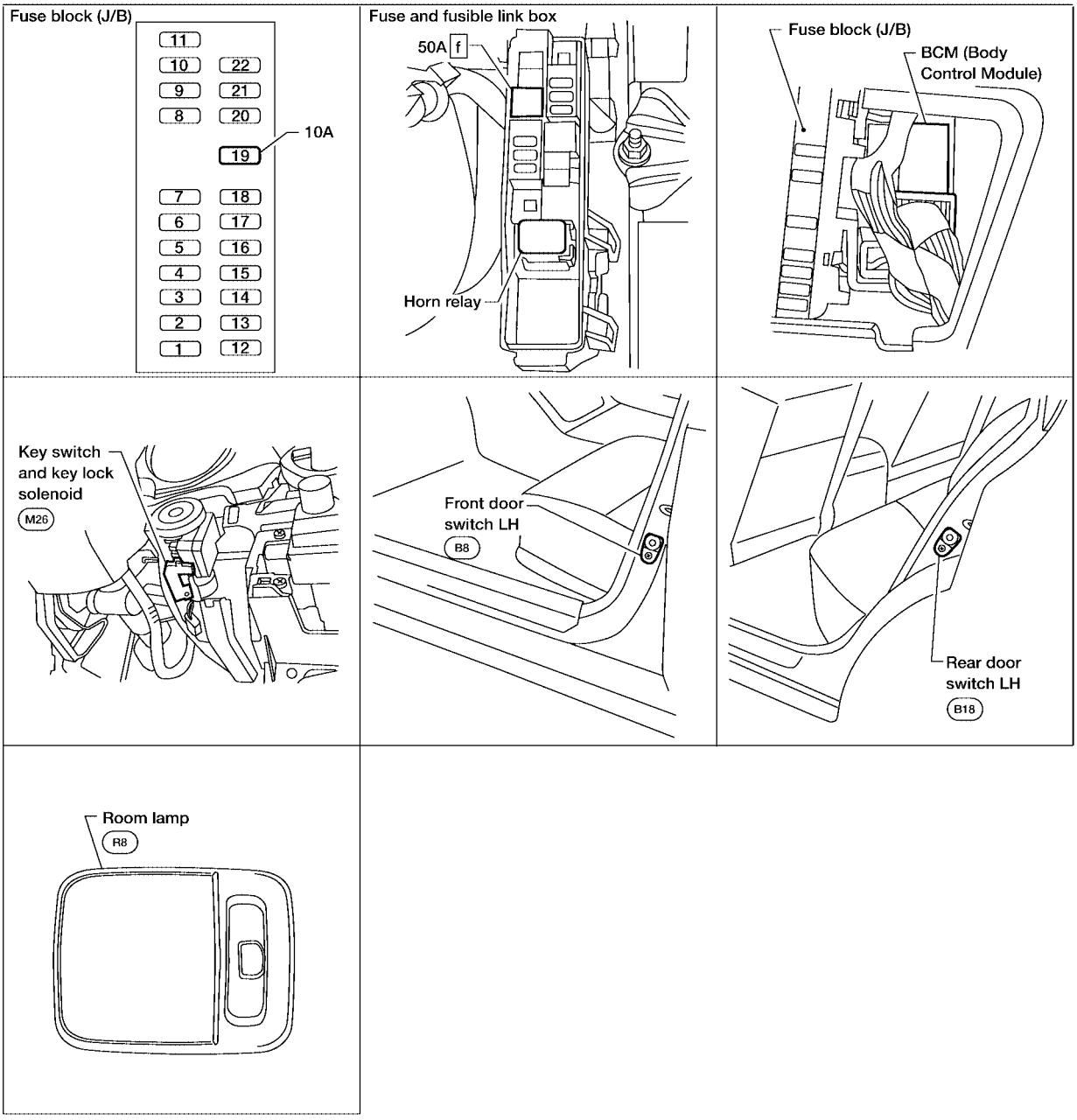
For rear combination lamp removal and installation procedures, refer to LT-97, "Removal and Installation for Rear Combination Lamp" .

INTERIOR ROOM LAMP

PFP:26410

Component Parts and Harness Connector Location

EKS003EH



WKIA1589E

System Description

EKS003EG

When room lamp switch is in DOOR position, room lamp ON/OFF is controlled by timer according to signals from switches including key detection switch, driver door switch, driver door lock switch.
When room lamp turns ON, there is a gradual brightening over 1 second. When room lamp turns OFF, there is a gradual dimming over 1 second
The interior room lamp timer is controlled by the BCM (body control module).
Interior room lamp timer control settings can be changed with CONSULT-II.

INTERIOR LAMP TIMER OPERATION

When room lamp switch is in DOOR position, and when all conditions below are met, BCM performs timer control (maximum 30 seconds) for interior lamp ON/OFF.
In addition, when lamp turns ON or OFF there is gradual brightening or dimming over 1 second.
Power is supplied

- to 10A fuse [No. 19, located in the fuse block (J/B)]
- to key switch and key lock solenoid terminal 3.

When all doors are closed (all door switches OFF) and key is removed from key cylinder (key detection switch OFF), power will not be supplied to BCM terminal 62.
When driver door lock switch is turned ON (unlocked),
Ground is supplied

- from BCM terminal 30
- to front door lock actuator LH terminal 1.

At this time, BCM detects that driver door is unlocked. It determines that interior lamp timer operation conditions are met, and turns the interior lamp ON for 30 seconds.
When all doors are closed (all door switches OFF) and key is in key cylinder (key detection switch ON),
Power is supplied

- through key switch and key lock solenoid terminal 4
- to BCM terminal 62.

When key is removed from key switch and key lock solenoid (key detection switch OFF), power supply to BCM terminal 62 is terminated. BCM detects that key has been removed, determines that interior lamp timer conditions are met, and turns the interior lamp ON for 30 seconds.
When driver door closes, and the key is not inserted in the key switch and key lock solenoid (key detection switch OFF), BCM terminal 14 or 54 changes from 0V (door open) to 12V (door closed). The BCM determines that conditions for interior lamp operation are met and turns the interior lamp ON for 30 seconds.
Timer control is canceled under the following conditions.

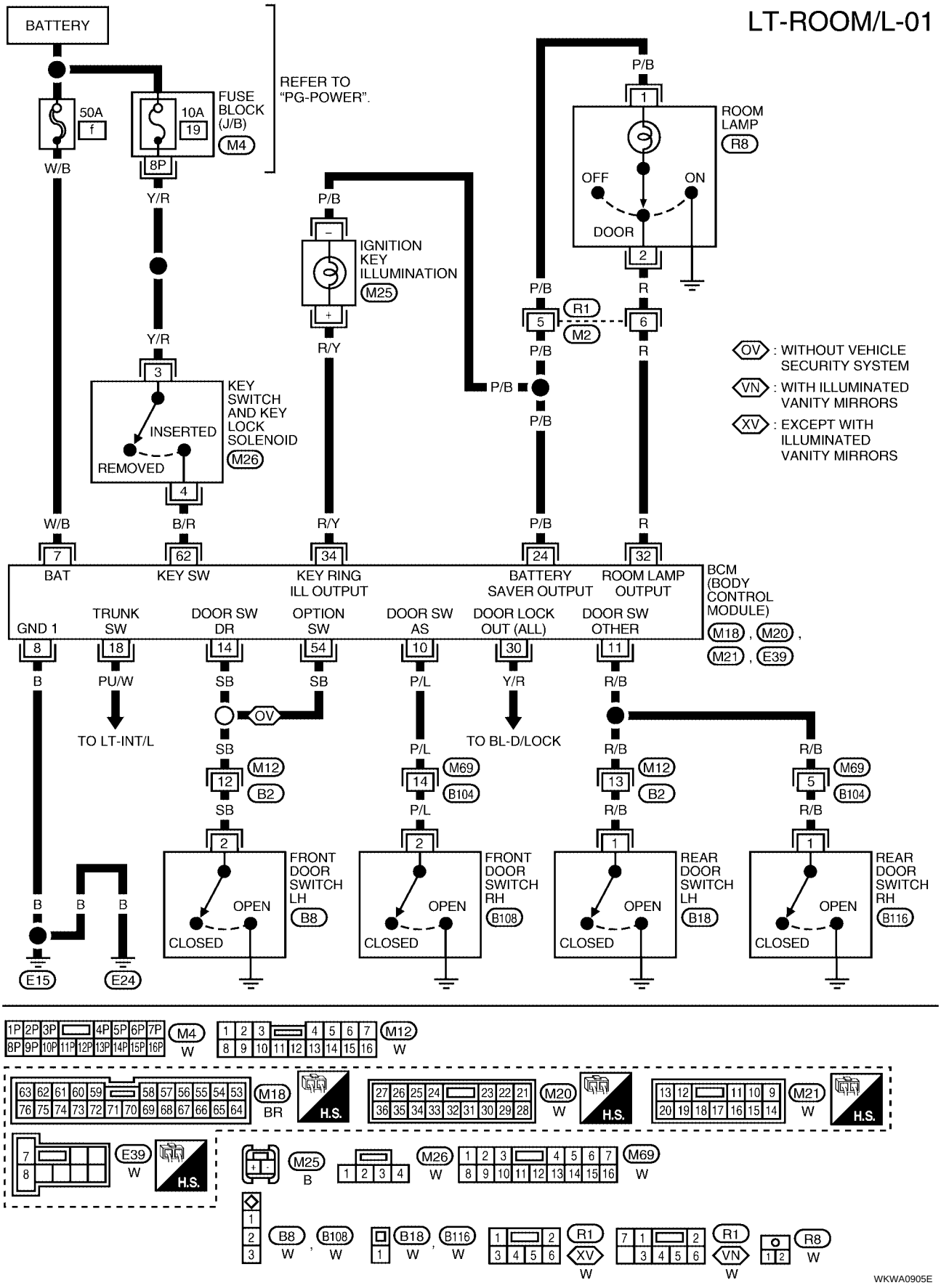
- Driver door is locked (driver door lock switch turns OFF)
- Driver door is opened (driver door switch turns ON)
- Ignition switch ON.

BATTERY SAVER

If the interior room lamp remains illuminated by the door switch open signal, or if the room lamp switch is in the ON position for more than 30 minutes after the ignition switch is turned to the OFF position, the BCM will automatically turn off the interior room lamp(s).

Wiring Diagram — ROOM/L —

EKS003EI



WKWA0905E

Terminals and Reference Value for BCM

EKS003EJ

Terminal No.	Wire color	Signal name	Measuring condition						Standard (V) (Approx.)
			Ignition switch	Operation or condition					
7	W/B	Battery power supply	OFF	—					12
8	B	Ground	ON	—					0
10	P/L	Front door switch RH signal	OFF	Front door switch RH		ON (open)			0
						OFF (closed)			12
11	R/B	Rear door switch (LH and RH) signal	OFF	Rear door switch (LH and RH)		ON (open)			0
						OFF (closed)			12
14	SB	Front door switch LH signal	OFF	Front door switch LH		ON (open)			0
						OFF (closed)			12
32	R	Interior lamp signal	OFF	Interior lamp switch: DOOR position	Key is inserted.	Any door switch	ON (open)		0
							OFF (closed)		12
			—	Interior lamp switch: DOOR position	All doors are closed.	Vehicle key is removed after being fully inserted.			0 Note
						Turn ignition switch to ON.			12
30	Y/R	Driver door lock signal	OFF	Door is unlocked. (SW ON)					0
				Door is locked. (SW OFF)					5
62	B/R	Key detection switch signal	OFF	Vehicle key is removed.					0
				Vehicle key is inserted.					12

Note: Becomes approximately 12V approximately 30 seconds after key is removed.

CONSULT-II Function (BCM)

EKS003EK

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

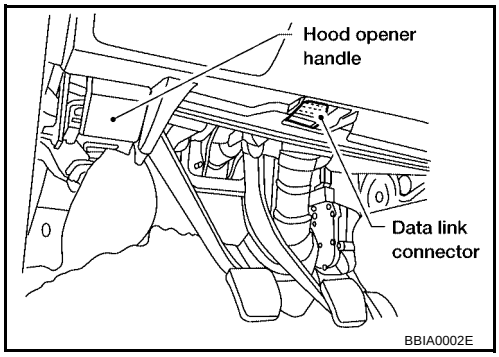
BCM diagnosis part	Check item, diagnosis mode	Description
INTERIOR LAMP	Work support	Changes the setting for each function.
	Data monitor	Displays BCM input data in real time.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
	Active test	Operation of electrical loads can be checked by sending driving signal to them.

CONSULT-II BASIC OPERATION

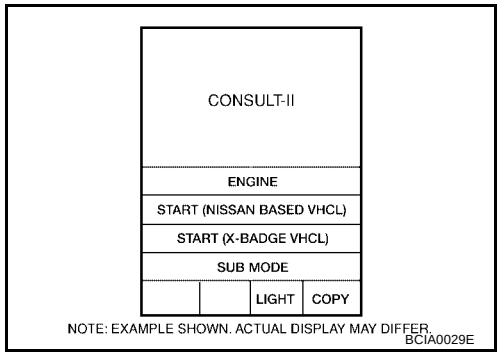
CAUTION:

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

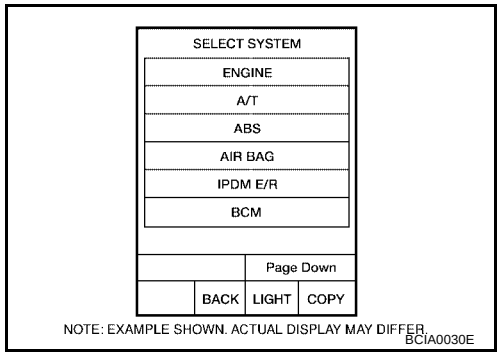
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn ignition switch ON.



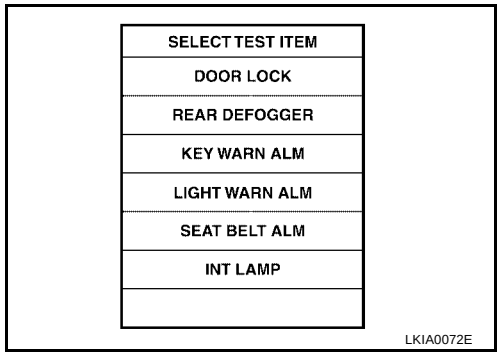
2. Touch “START (NISSAN BASED VEHICLE)”.



3. Touch “BCM” on “SELECT SYSTEM” screen.
If "BCM" is not indicated, go to GI-37, "CONSULT-II Data Link Connector (DLC) Circuit" .



4. Select the desired part to be diagnosed on the “SELECT TEST ITEM” screen.



WORK SUPPORT

Operation Procedure

1. Touch “INT LAMP” on “SELECT TEST ITEM” screen.
2. Touch “WORK SUPPORT” on “SELECT DIAG MODE” screen.
3. Touch “ROOM LAMP TIMER SET” on “SELECT WORK ITEM” screen.
4. Touch “START”.
5. Touch “CHANGE SETT”.
6. The setting will be changed and “CUSTOMIZING COMPLETED ” will be displayed.
7. Touch “END”.

Display Item List

Item	Description	CONSULT-II	Factory setting
Room lamp timer setting	Interior lamp ON/OFF can be selected for when driver door lock is released (unlocked).	ON	ON
		OFF	—

DATA MONITOR

Operation Procedure

1. Touch “INT LAMP” on “SELECT TEST ITEM” screen.
2. Touch “DATA MONITOR” on “SELECT DIAG MODE” screen.
3. Touch either “ALL SIGNALS” or “SELECTION FROM MENU” on “DATA MONITOR” screen.

All signals	Monitors all the signals.
Selection from menu	Selects and monitors the individual signal.

4. Touch “START”.
5. When “SELECTION FROM MENU” is selected, touch items to be monitored. When “ALL SIGNALS” is selected, all the items will be monitored.
6. Touch “RECORD” while monitoring, then the status of the monitored item can be recorded. To stop recording, touch “STOP”.

Display Item List

Monitor item name “OPERATION OR UNIT”		Contents
IG ON SW	“ON/OFF”	“IGN position (ON)/OFF, ACC position (OFF)” judged from the ignition switch signal is displayed.
KEY ON SW	“ON/OFF”	Displays “Key inserted (ON)/key removed (OFF)” status judged from the key reminder detection switch signal.
DOOR SW - DR	“ON/OFF”	Displays status of the driver door as judged from the driver door switch signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - AS	“ON/OFF”	Displays “Door open (ON)/Door closed (OFF)” status, determined from passenger door switch signal.
LOCK SW DR/AS	“ON/OFF”	Displays “Door locked (ON)/Door unlocked (OFF) status, determined from locking detection switch in driver door.
KEY CYL LK SW	“ON/OFF”	Displays “Door locked (ON) status, determined from key cylinder lock switch in driver door.
KEY CYL UN SW	“ON/OFF”	Displays “Door unlocked (OFF) status, determined from key cylinder lock switch in driver door.
LK BUTTON/SIG	“ON/OFF”	Displays “Locked (ON)/Other (OFF)” status, determined from lock signal.
UN BUTTON/SIG	“ON/OFF”	Displays “Unlocked (ON)/Other (OFF)” status, determined from unlock signal.
DOOR SW - RR	“ON/OFF”	Displays “Door open (ON)/Door closed (OFF)” status, determined from rear door switch signals.

ACTIVE TEST

Operation Procedure

1. Touch “INT LAMP” on “SELECT TEST ITEM” screen.
2. Touch “ACTIVE TEST” on “SELECT DIAG MODE” screen.
3. Touch item to be tested and check operation of the selected item.
4. During the operation check, touching “BACK” deactivates the operation.

Display Item List

Test item	Display on CONSULT-II screen	Description
Interior lamp output	INT LAMP	Interior lamp can be operated by any ON-OFF operations.

Interior Lamp Control Does Not Operate

EKS003EL

1. CHECK BULBS

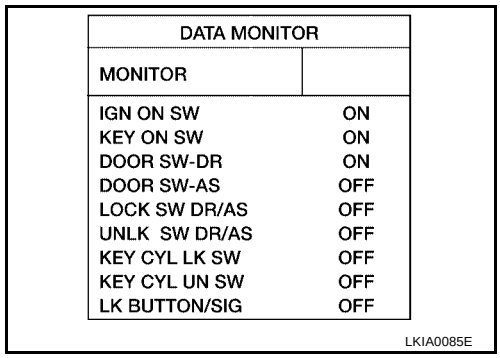
Check bulbs.

OK or NG

OK >> GO TO 2.
NG >> Replace bulbs.

2. INSPECTION 1 BETWEEN EACH SWITCH AND BCM

Select "BCM" on CONSULT-II. Use “INT LAMP” data monitor to check that switches listed in display item list turn ON-OFF linked with switch operation. Refer to LT-122, "Display Item List" for switches and their functions.

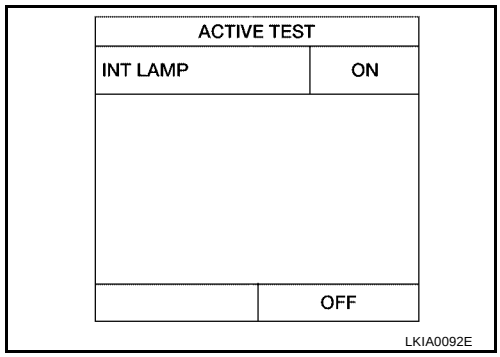


OK or NG

OK >> GO TO 3.
NG >> Inspect malfunctioning switch system and repair as necessary.

3. INSPECTION 1 BETWEEN BCM AND ROOM LAMP

1. Select “BCM” on CONSULT-II. Select “INT LAMP” active test.
2. When room lamp switch is in DOOR position, use active test to verify that room lamp operates.



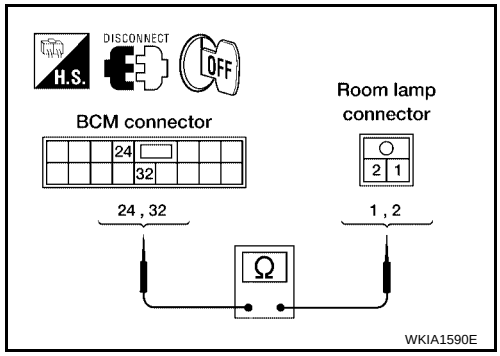
OK or NG

OK >> Replace BCM.
NG >> GO TO 4.

4. INSPECTION 2 BETWEEN BCM AND ROOM LAMP

1. Disconnect BCM connector and room lamp connector.
2. Check for continuity in wiring harness between BCM and room lamp.

Terminals				Continuity
(+)		(–)		
Connector	Terminal (wire color)	Connector	Terminal (wire color)	
M20	24 (P/B)	R8	1 (P/B)	Yes
	32 (R)	R8	2 (R)	



OK or NG

OK >> Replace BCM.
NG >> Check for short circuit or open circuit in harness between BCM and room lamp. Repair as necessary.

Bulb Replacement

EKS003EM

MAP LAMP

Map Lamp

1. Insert a thin screwdriver in the notch and remove the lens.
2. Remove the screw and remove the shade.
3. Remove the bulb.

Map lamp : 12V 10W

Removal and Installation

EKS003EN

ROOM LAMP

1. Open the front interior lamp box and remove the screw.

2. Insert a clip driver or a suitable tool and disengage the metal clip fittings of the front interior lamp.
3. Disconnect the connector and remove the front interior lamp.

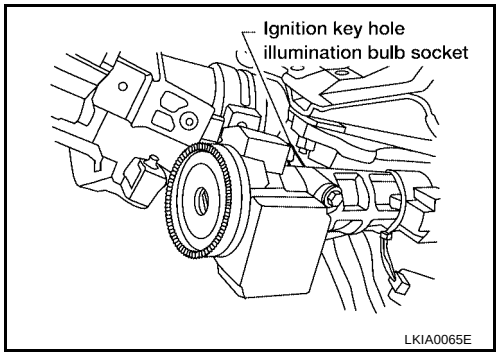
Room lamp mounting screw:

: 2.5 - 3.4 N·m (0.25 - 0.35 kg-m, 22 - 30 in-lb)

IGNITION KEY HOLE ILLUMINATION LAMP

1. Remove the lower instrument panel (driver side). Refer to IP-12, "Instrument Lower Cover LH" .
2. Turn the bulb socket counterclockwise and unlock it.

Ignition key hole illumination lamp : 12V 0.74W



ILLUMINATION

PFP:27545

System Description

EKS003EO

Control of the illumination lamps operation is dependent upon the position of the lighting switch (combination switch). When the lighting switch is placed in the 1ST or 2ND position (or if the auto light system is activated) the BCM (body control module) receives input requesting the illumination lamps to illuminate. This input is communicated to the IPDM E/R (intelligent power distribution module engine room) across the CAN communication lines. The central processing unit of the IPDM E/R controls the tail lamp relay coil. When energized, this relay directs power to the illumination lamps, which then illuminate.
Power is supplied at all times

- to tail lamp relay, located in the IPDM E/R
- through 10A fuse (No. 41, located in the IPDM E/R).

Power is also supplied at all times

- to BCM terminal 7
- through 50A fusible link (letter **f** , located in the fuse and fusible link box).

With the ignition switch in the ON or START position, power is supplied

- to BCM terminal 35
- through 10A fuse [No. 12, located in the fuse block (J/B)].

With the ignition switch in the ACC or ON position, power is supplied

- to BCM terminal 36
- through 10A fuse [No. 6, located in the fuse block (J/B)].

Ground is supplied

- to BCM terminals 8, 27, and 63
- through body grounds F14 (QR25DE models), M57, M61, E15, and E24.

ILLUMINATION OPERATION BY LIGHTING SWITCH

With the lighting switch in the 1ST or 2ND position (or if the auto light system is activated), the BCM receives input requesting the illumination lamps to illuminate. This input is communicated to the IPDM E/R across the CAN communication lines. The central processing unit of the IPDM E/R controls the tail lamp relay coil, which when energized, directs power

- through terminal 22 of the IPDM E/R
- to illumination control switch terminal 1,
- to A/T device terminal 3,
- to TCS ON/OFF switch terminal 3,
- to audio unit terminal 8,
- to hazard switch terminal 5,
- to rear window defogger switch terminal 5,
- to heated seat switch LH terminal 2,
- to heated seat switch RH terminal 2,
- to A/C control unit terminal 7 (with manual A/C),
- to A/C auto amplifier terminal 24 (with auto A/C),
- to combination meter terminal 48, and
- to glove box lamp terminal +.

With the ignition switch in ON or START, power is supplied

- to auto anti-dazzling inside mirror terminal +,
- through 10A fuse [No. 14, located in the fuse block (J/B)], and
- to BCM terminal 35,
- through 10A fuse [No. 12, located in the fuse block (J/B)].

With the ignition switch in ON or START, power is also supplied

- to main power window and door lock/unlock switch terminal 12 (with left front only power window anti-pinch system) or terminal 17 (with left and right front power window anti-pinch system),

- to front power window switch RH terminal 5 (with left front only power window anti-pinch system) or terminal 13 (with left and right front power window anti-pinch system),
- to rear power window switch RH terminal 5,
- to rear power window switch LH terminal 5,
- through BCM terminal 29.

Ground is supplied at all times

- to illumination control switch terminal 3,
- to glove box lamp terminal –, and
- to auto anti-dazzling inside mirror terminal –
- through body grounds F14 (QR25DE), M57 and M61, and
- to rear power window switch RH terminal 8,
- through body ground B117, and,
- to rear power window switch LH terminal 8,
- through body grounds B7 and B19.

The main power window and door lock/unlock switch and the front power window switch RH illumination circuits are case grounded.
Controlled ground is supplied

- to A/T device terminal 4,
- to TCS ON/OFF switch terminal 4,
- to audio unit terminal 7,
- to hazard switch terminal 4,
- to rear window defogger switch terminal 6,
- to heated seat switch LH terminal 1,
- to heated seat switch RH terminal 1,
- to A/C control unit terminal 8 (with manual A/C),
- to A/C auto amplifier terminal 25 (with auto A/C), and
- to combination meter terminal 47
- from illumination control switch terminal 2.

With power and ground supplied, illumination lamps illuminate.

BATTERY SAVER CONTROL

When the combination switch (lighting switch) is in the 1ST or 2ND position (or if auto light system is activated), and the ignition switch is turned from ON or ACC to OFF, the battery saver control feature is activated. Under this condition, the illumination lamps remain illuminated for 30 minutes, unless the combination switch (lighting switch) position is changed. If the combination switch (lighting switch) position is changed, then the illumination lamps are turned off after a 30 second delay.
When the lighting switch is turned from OFF to 1ST or 2ND position (or if auto light system is activated) after illumination lamps have been turned off by the battery saver control, the illumination lamps illuminate again.

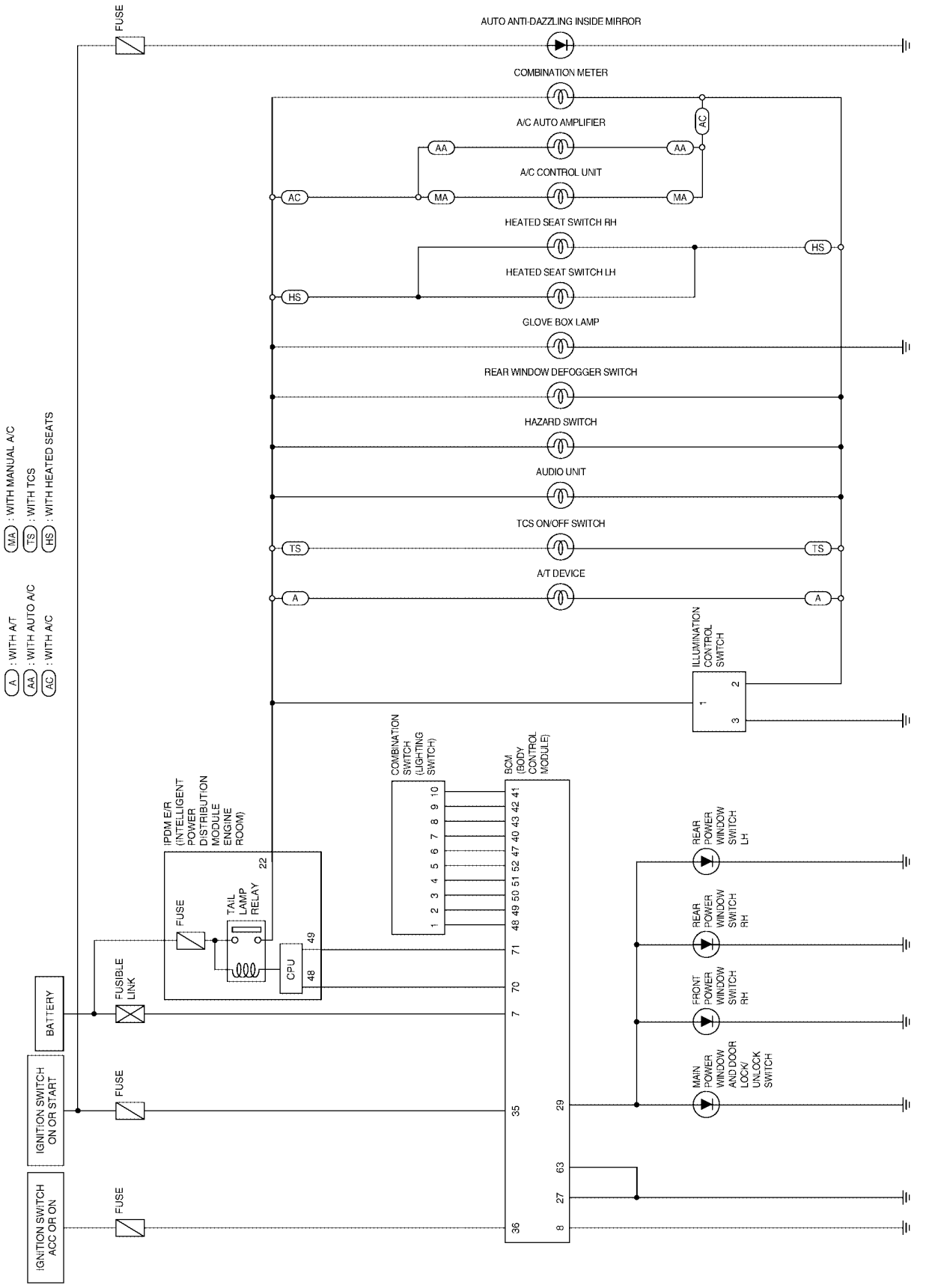
CAN Communication System Description

EKS003EP

Refer to LAN-4, "CAN COMMUNICATION" .

Schematic

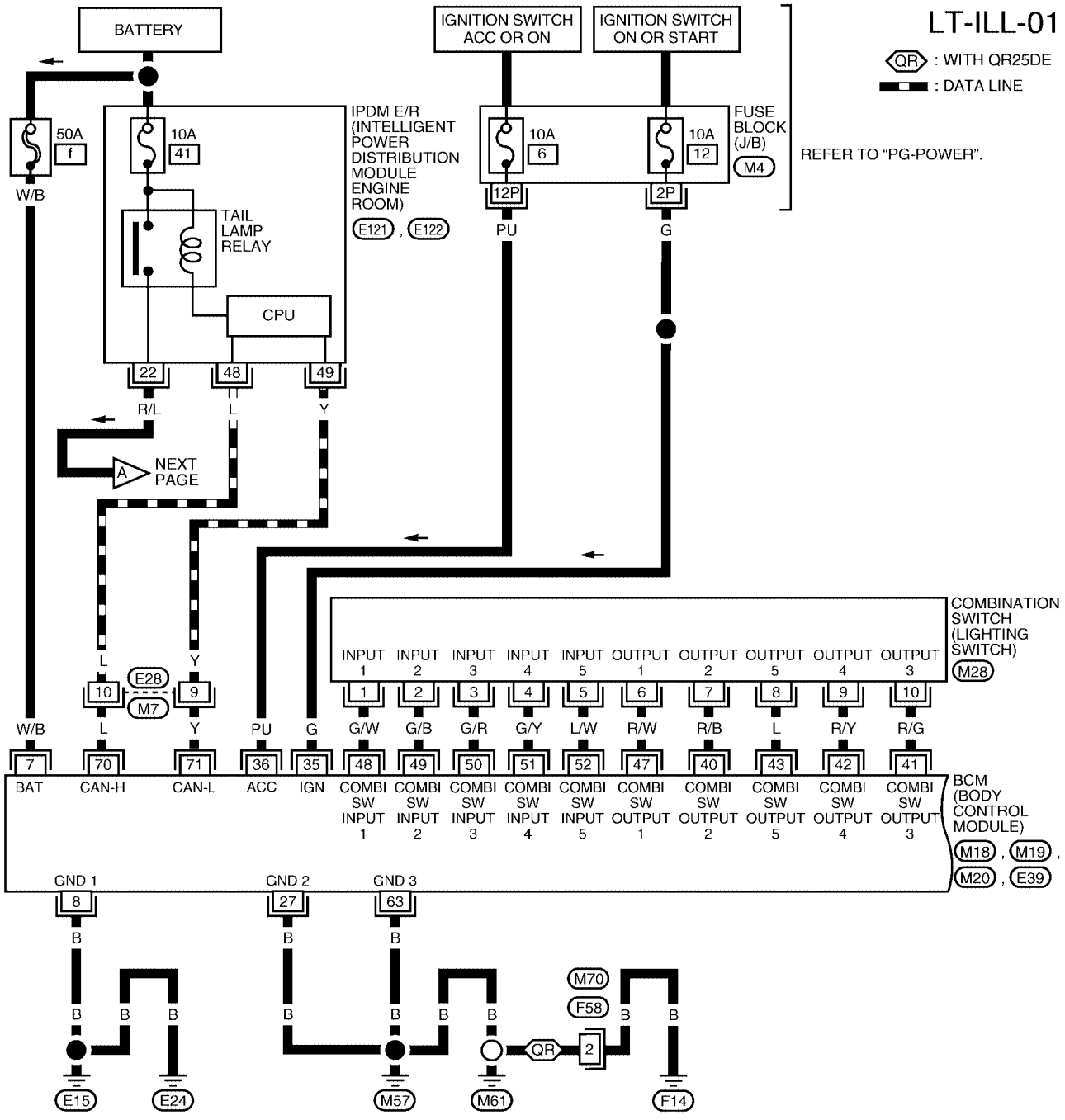
EKS003EQ

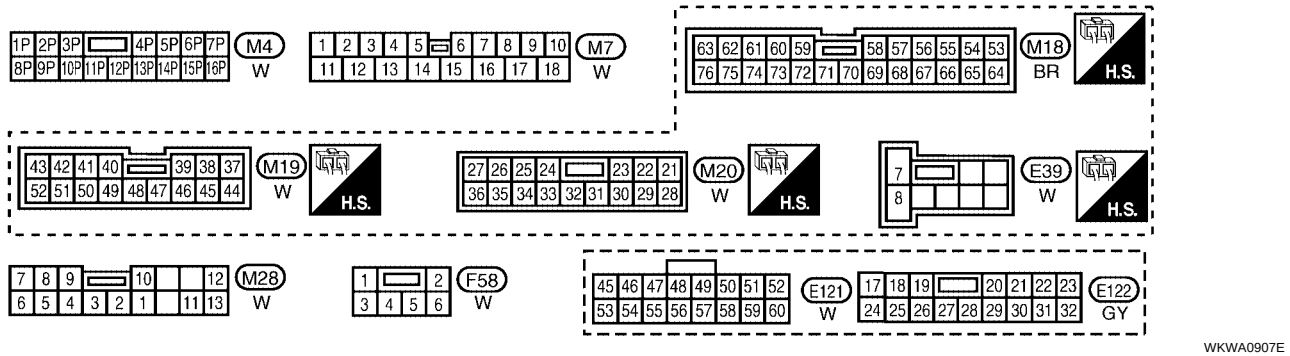


WKWA0906E

Wiring Diagram — ILL —

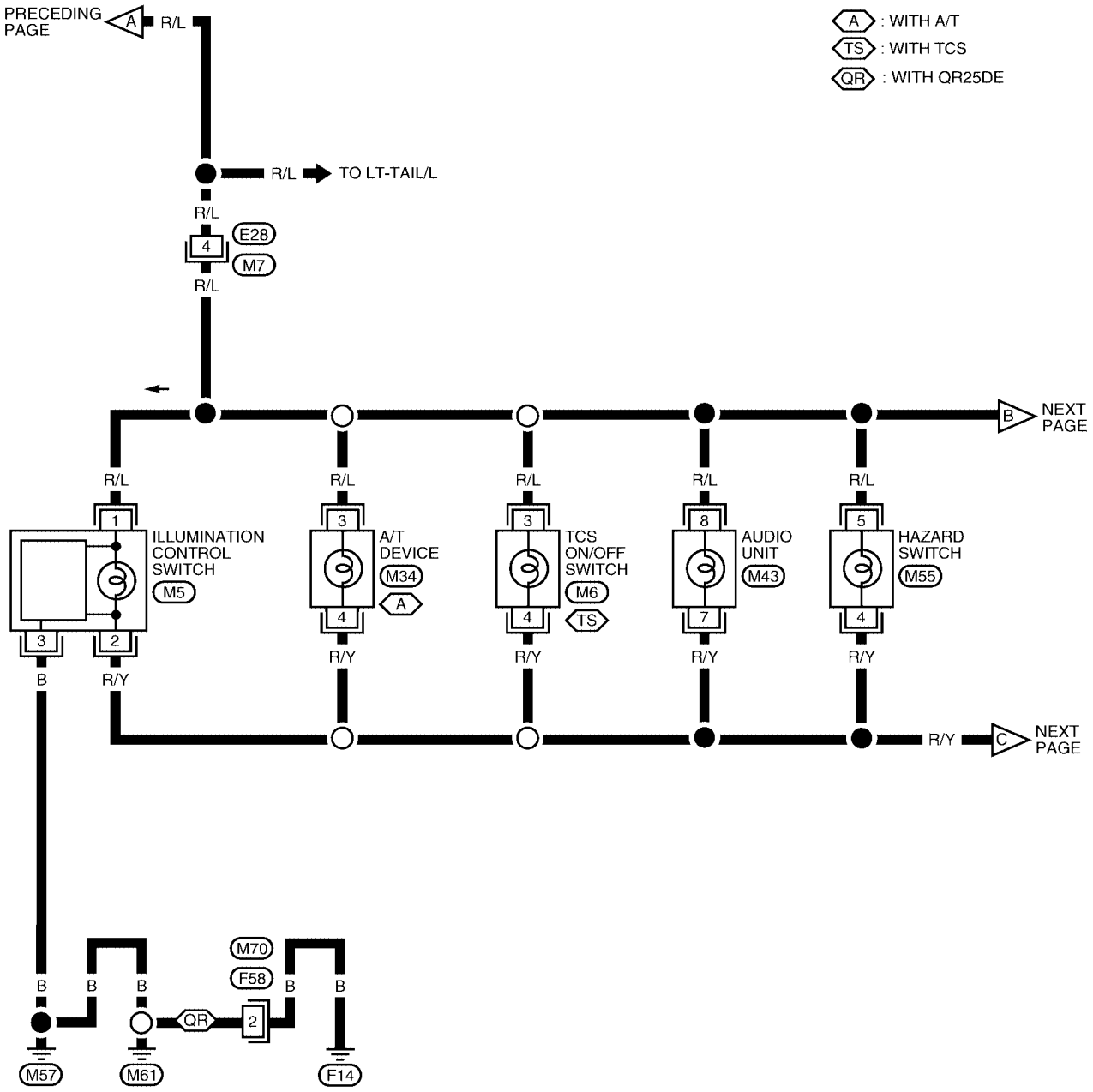
EKS003ER

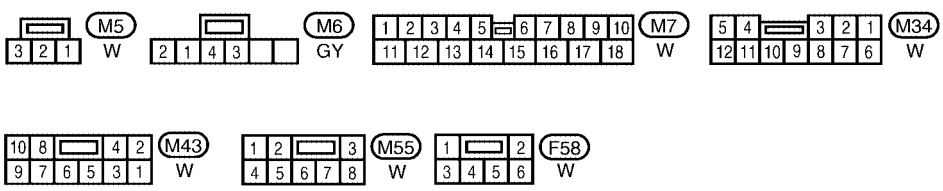




WKWA0907E

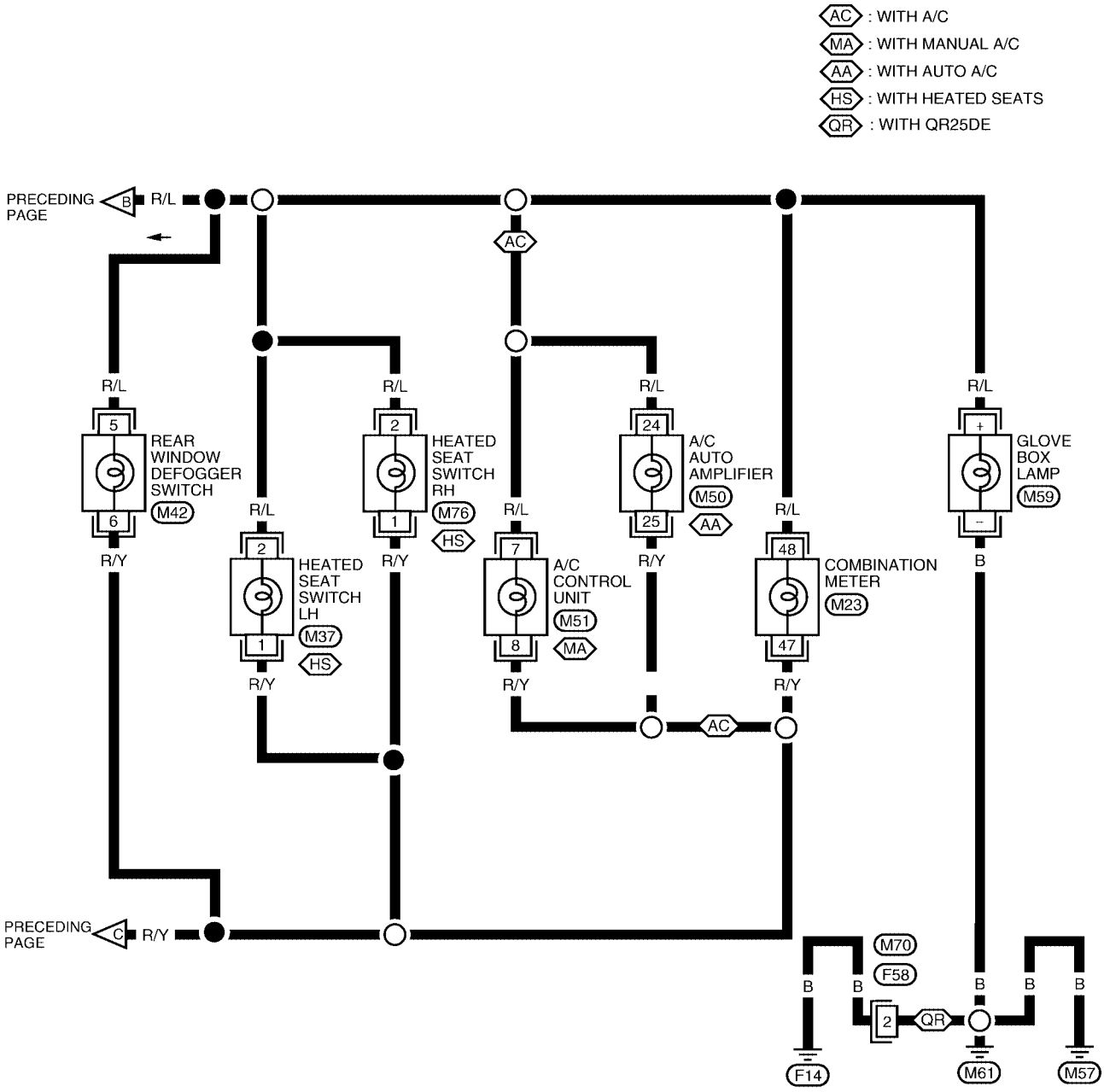
LT-ILL-02

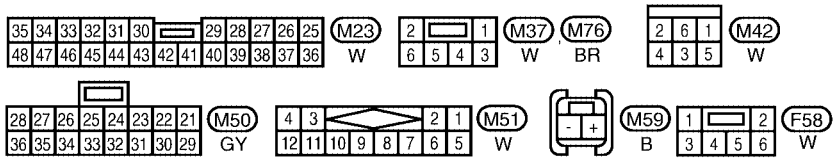




WKWA0908E

LT-ILL-03





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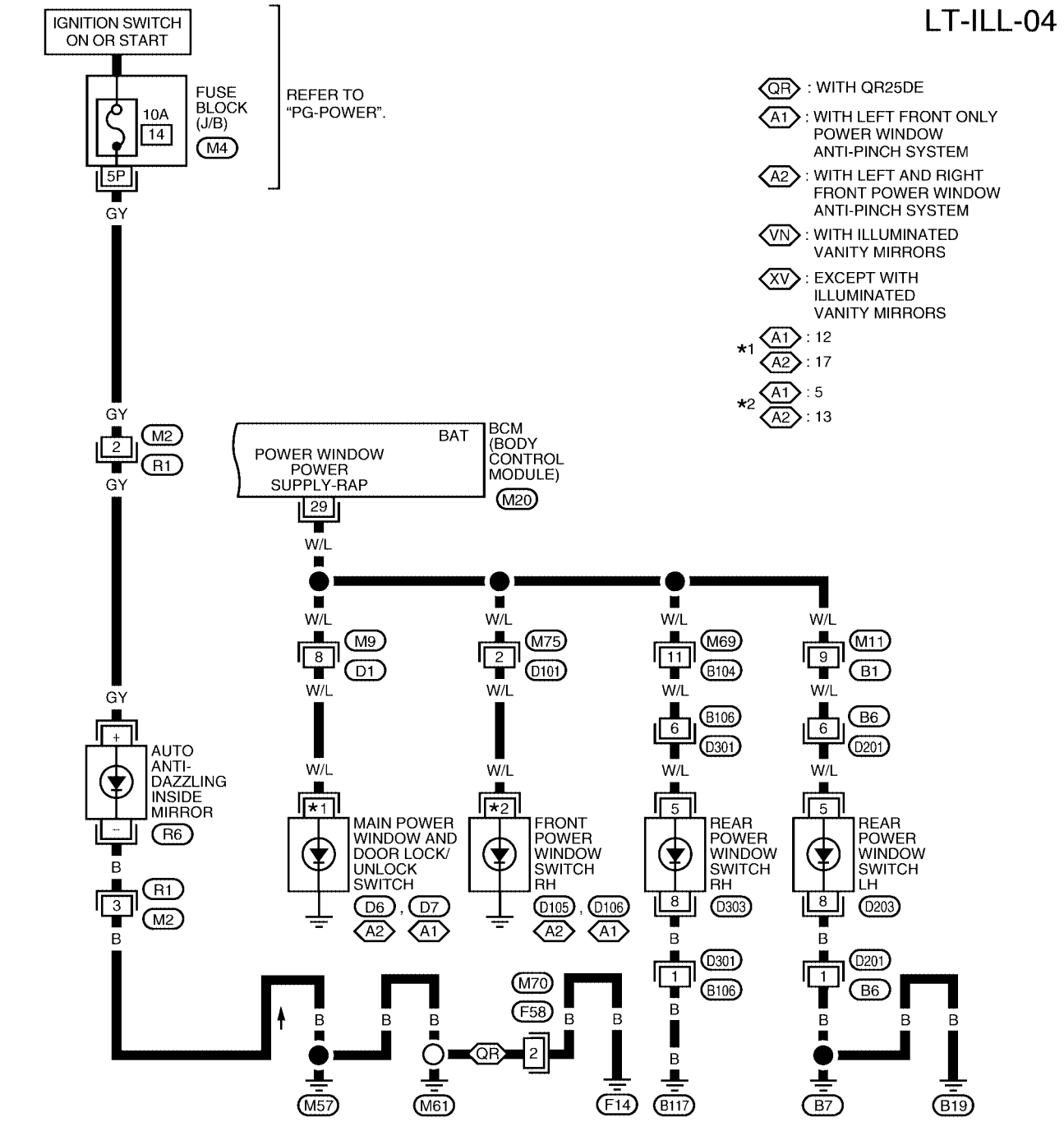
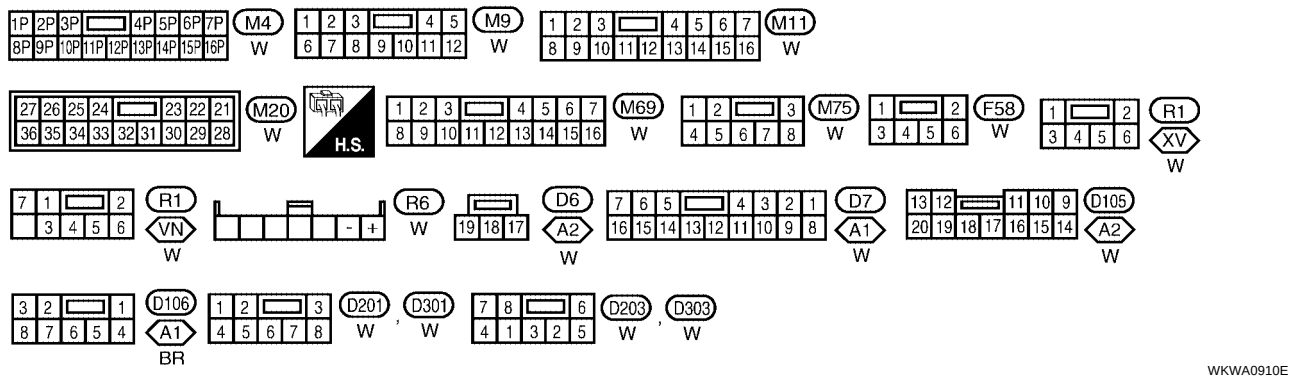
LT-ILL-04





WKWA0910E

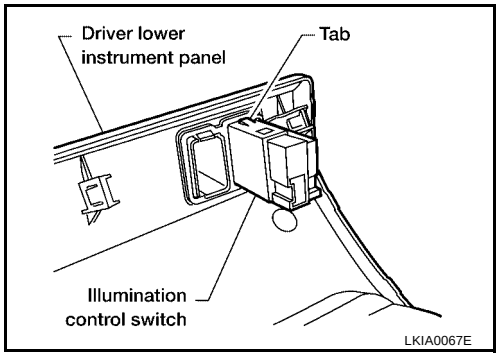
Removal and Installation

EKS003ES

ILLUMINATION CONTROL SWITCH

1. Remove driver lower instrument panel. Refer to IP-12, "Instrument Lower Cover LH" .
2. Press the illumination control switch retaining tabs and remove the unit from the driver lower instrument panel.

Installation is in the reverse order of removal.



GLOVE BOX LAMP

1. Through the passenger air bag connector access in the top of the glove box, remove bulb socket by turning counterclockwise.
2. Pull the bulb from the socket to remove.

Glove box lamp : 12V 3.4W

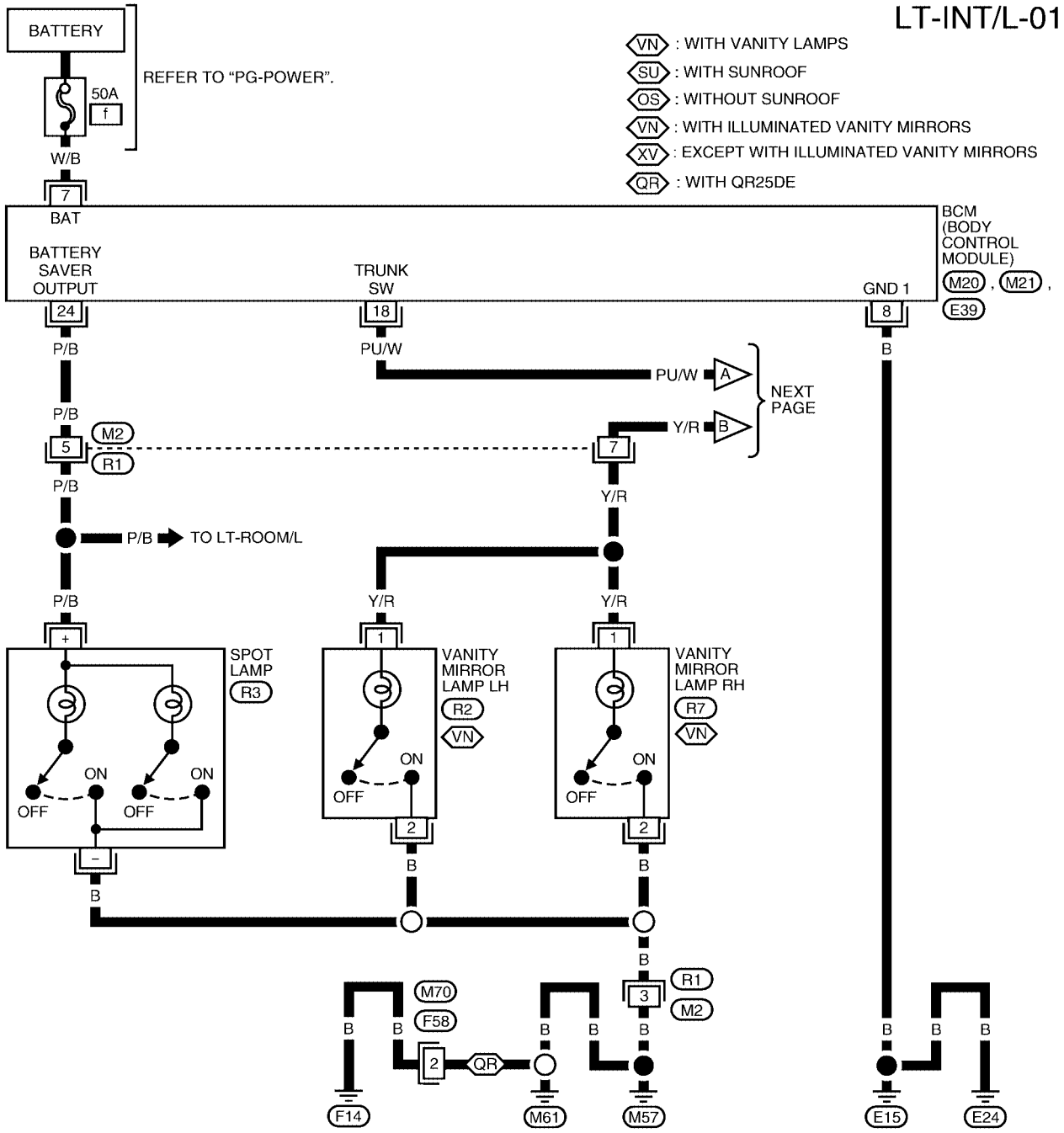
Installation is in the reverse order of removal.

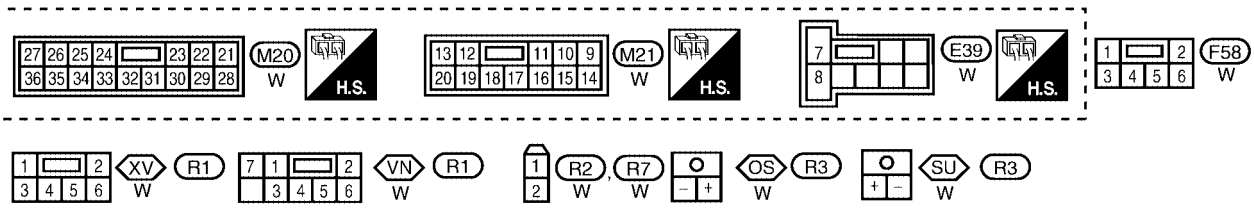
VANITY MIRROR AND TRUNK ROOM LAMPS

PFP:26470

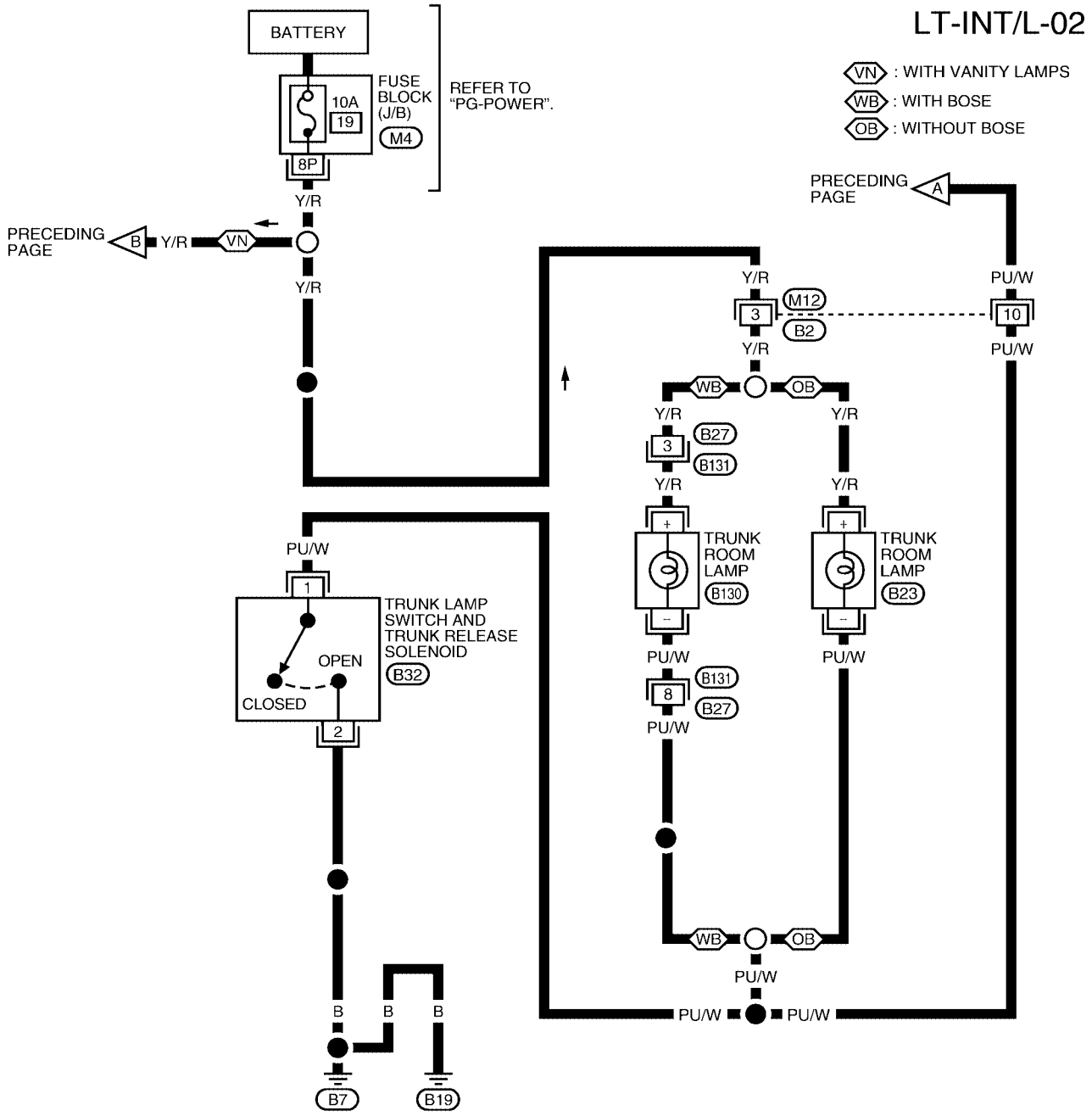
Wiring Diagram — INT/L —

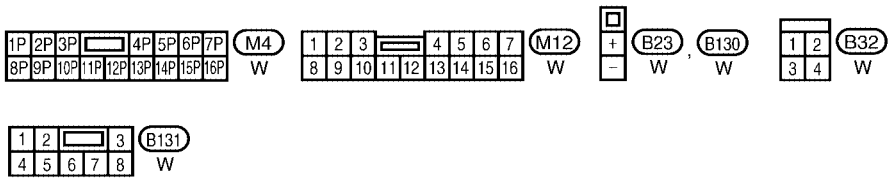
EKS003ET





WKWA0911E


LT-INT/L-02
VN : WITH VANITY LAMPS
WB : WITH BOSE
OB : WITHOUT BOSE
BATTERY
FUSE BLOCK (J/B)
M4
10A
19
8P
REFER TO "PG-POWER".
PRECEDING PAGE
A
B
VN
Y/R
PU/W
M12
B2
3
10
WB
OB
B27
B131
TRUNK ROOM LAMP
B130
B23
TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID
B32
OPEN
CLOSED
1
2
8
B
B7
B19


M4
M12
B23
B130
B32
B131
W

WKWA0912E

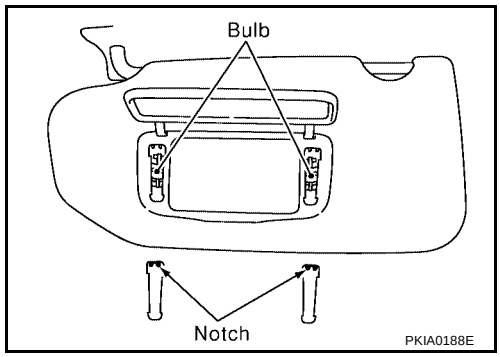
Bulb Replacement for Vanity Mirror Lamp

EKS003EU

1. Insert a thin screwdriver in the notch and remove the lens.
2. Remove the bulb.

Vanity mirror lamp : 14V 1.4W

Installation is in the reverse order of removal.



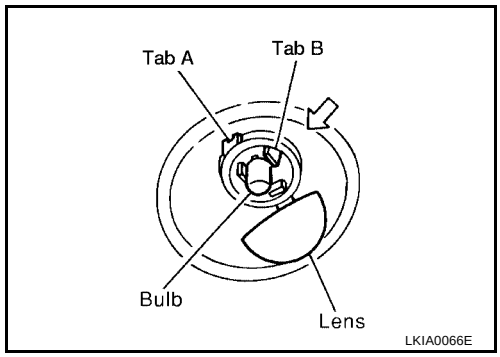
Bulb Replacement, Removal and Installation for Trunk Room Lamp

EKS003EV

1. Unfold tab A and remove the lens.
2. Remove the trunk room lamp while pressing tab B in the direction of the arrow.
3. Disconnect the trunk room lamp connector.
4. Pull bulb from socket to remove.

Trunk room lamp : 12V 3.4W

Installation is in the reverse order of removal.



BULB SPECIFICATIONS

PFP:26297

Headlamp

EKS003EW

Item	Wattage (W)*
Low (halogen)	55 (H1)
Low (xenon)	35 (D2R)
High	60W (HB3)

*: Always check with the Parts Department for the latest parts information.

Exterior Lamp

EKS003EX

Item		Wattage (W)*
Front combination lamp	Turn signal lamp/parking lamp	27/8 (amber)
Rear combination lamp	Stop/Tail lamp	27/7
	Turn signal lamp	27
	Back-up lamp	13
	Side marker lamp	5
Fog lamp		55
License plate lamp		5
High-mounted stop lamp (parcel shelf mount)		18
High-mounted stop lamp (rear air spoiler mount)		*

*: Always check with the Parts Department for the latest parts information.

Interior Lamp/Illumination

EKS003EY

Item	Wattage (W)*
Glove box lamp	3.4
Ignition key hole illumination lamp	0.74
Map lamp	10
Room lamp	8
Step lamp	3.4
Trunk room lamp	3.4
Vanity mirror lamp	1.4

*: Always check with the Parts Department for the latest parts information.