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SECTION
LIGHTING SYSTEM

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PRECAUTIONS

PRECAUTIONS

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

EKS00IM8

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.**

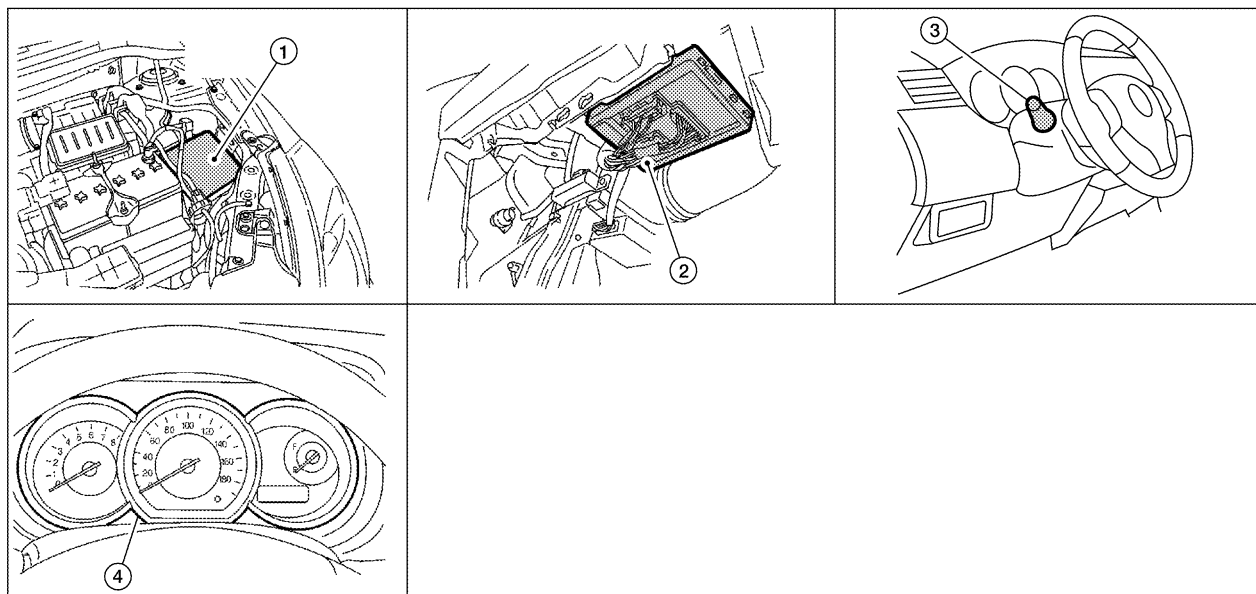
HEADLAMP (FOR USA)

HEADLAMP (FOR USA)

PFP:26010

Component Parts and Harness Connector Location

EKS00HVB



1. IPDM E/R E46, E47 and E48
2. BCM M18 and M20 (view with glove box removed)
3. Combination switch (lighting switch) M28
4. Combination meter M24

WKIA5469E

System Description

EKS00HVC

Headlamp operation is controlled by the BCM (body control module) based on inputs from the combination switch (lighting switch). When the lighting switch is placed in the 2ND position, the BCM receives an input signal requesting the headlamps (and tail lamps) illuminate. The BCM sends a signal, via the CAN communication lines, to the IPDM E/R (intelligent power distribution module engine room) requesting the headlamps be turned ON. The CPU (central processing unit) located in the IPDM E/R controls ground for the headlamp high and headlamp low relay coils. These relays direct power to the respective headlamps, which then illuminate.

OUTLINE

Power is supplied at all times

- to headlamp high relay RH and LH (located in IPDM E/R),
- to headlamp low relay (located in IPDM E/R),
- to ignition relay (located in IPDM E/R),
- through 15A fuse (No. 52, located in IPDM E/R) and
- through 20A fuse (No. 53, located in IPDM E/R)
- to CPU located in IPDM E/R,
- through 40A fusible link (letter **g**, located in fuse and fusible link block)
- to BCM terminal 70,
- through 10A fuse [No. 8, located in fuse block (J/B)]
- to BCM terminal 57, and
- through 10A fuse [No. 13, located in fuse block (J/B)]
- to combination meter terminal 27.

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

- to the ignition relay (located in IPDM E/R),
- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 38,
- through 10A fuse [No. 3, located in fuse block (J/B)]
- to combination meter terminal 28.

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HEADLAMP (FOR USA)

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

- through 10A fuse [No. 20, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 67
- to combination meter terminals 21, 22 and 23
- through grounds M57 and M61, and
- to IPDM E/R terminals 39 and 59
- through grounds E15 and E24.

HEADLAMP OPERATION

Low Beam Operation

With the lighting switch in 2ND position, the BCM receives an input signal requesting the headlamps to illuminate. The BCM then sends a signal, via the CAN communication lines, to the IPDM E/R requesting the low beam headlamps be turned ON. The CPU located in the IPDM E/R controls ground to the headlamp low relay coil, which when energized, directs power

- through 15A fuse (No. 41, located in IPDM E/R)
- through IPDM E/R terminal 54
- to headlamp RH terminal 3, and
- through 15A fuse (No. 40, located in IPDM E/R)
- through IPDM E/R terminal 52
- to headlamp LH terminal 3.

Ground is supplied

- to headlamp RH and LH terminals 2
- through 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 high beam switch in the HIGH position, the BCM receives an input signal requesting the headlamp high beams to illuminate. The flash to pass feature can be used any time and also sends a signal to the BCM. This input signal is then communicated to the IPDM E/R and the combination meter via the CAN communication. The CPU located in the IPDM E/R controls the headlamp high relays (LH and RH), which when energized, directs power

- through 10A fuse (No. 34, located in IPDM E/R)
- through IPDM E/R terminal 56
- to headlamp RH terminal 1, and
- through 10A fuse (No. 35, located in IPDM E/R)
- through IPDM E/R terminal 55
- to headlamp LH terminal 1.

Ground is supplied

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

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

The BCM sends a signal, via the CAN communication lines, to the combination meter requesting the high beam indicator lamp be turned ON.

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

EXTERIOR LAMP BATTERY SAVER CONTROL

Refer to [LT-78, "EXTERIOR LAMP BATTERY SAVER CONTROL"](#) .

CAN COMMUNICATION SYSTEM DESCRIPTION

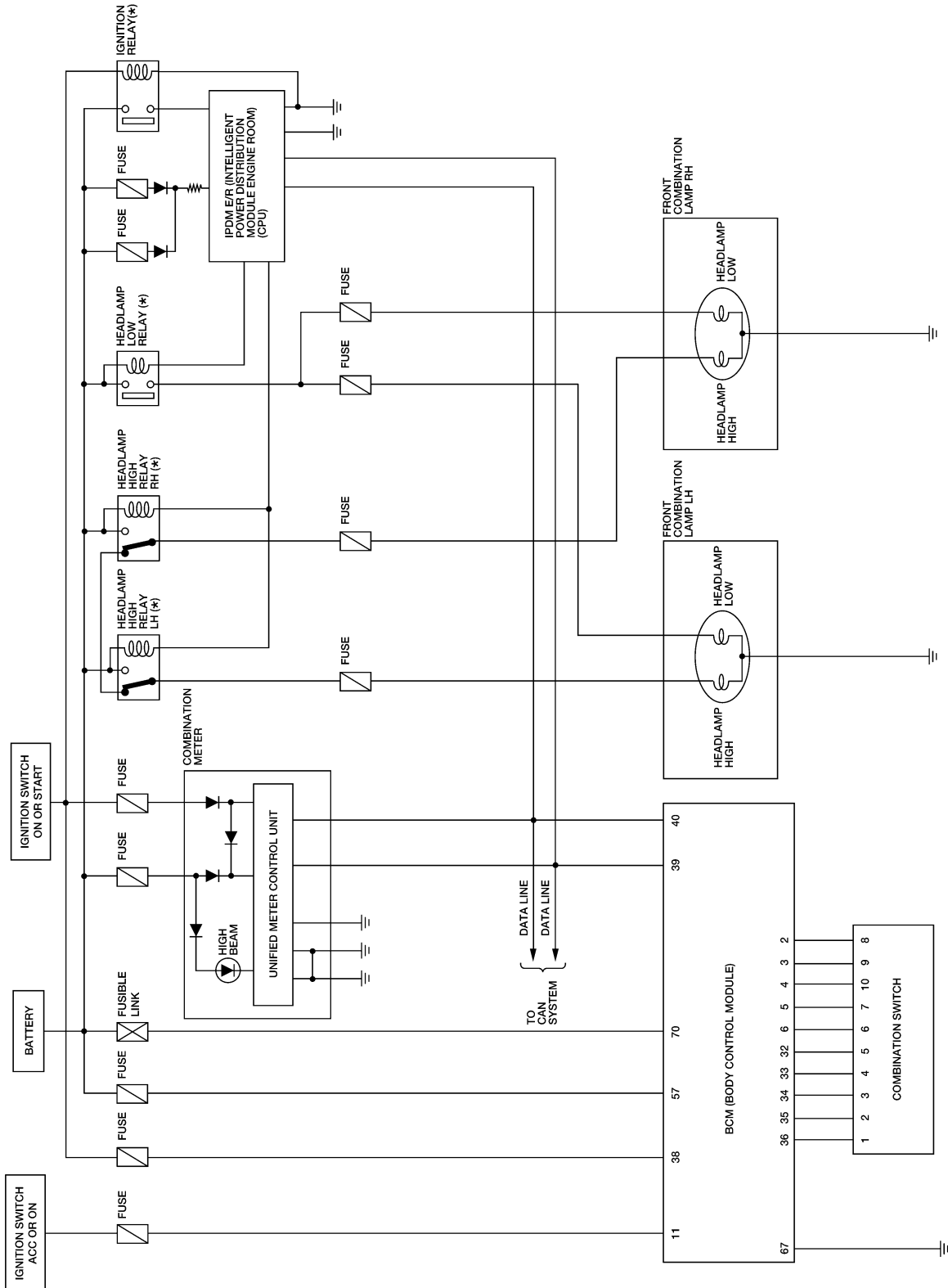
Refer to [LAN-4, "SYSTEM DESCRIPTION"](#) .

EKS00HVD

HEADLAMP (FOR USA)

Schematic

EKS001CC



* : THIS RELAY IS BUILT INTO THE IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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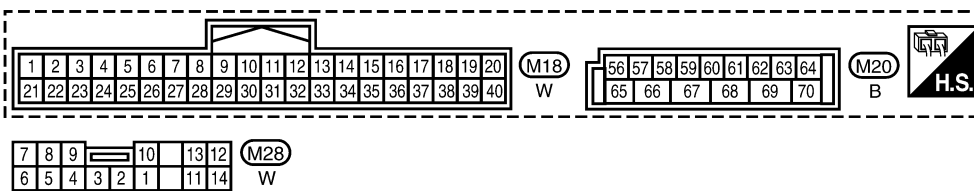
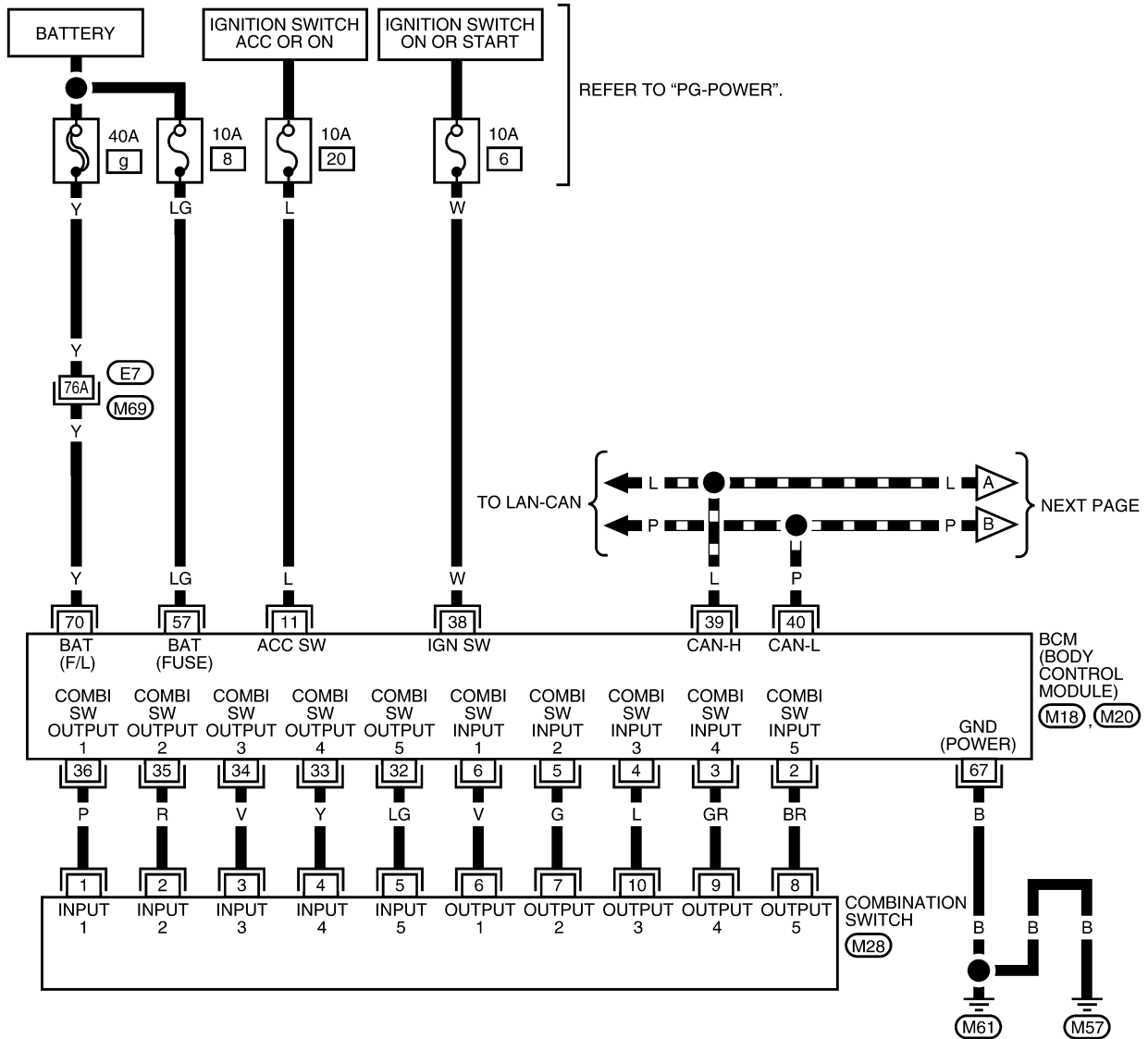
HEADLAMP (FOR USA)

Wiring Diagram

EKS00HVG

LT-H/LAMP-01

▬ : DATA LINE

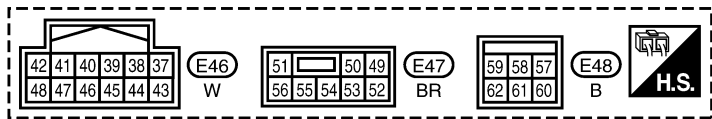
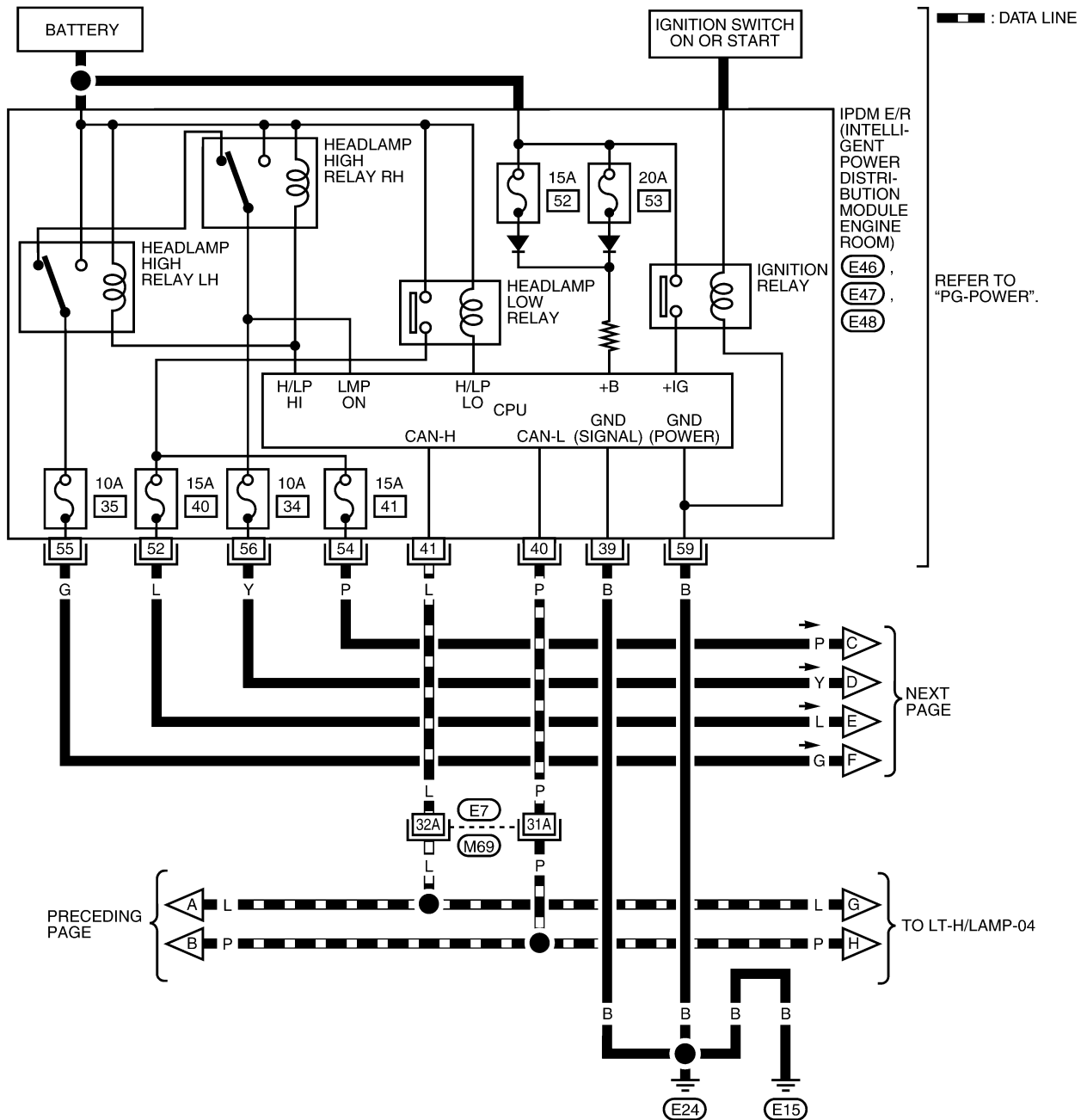


REFER TO THE FOLLOWING.
 (M69) - SUPER MULTIPLE JUNCTION (SMJ)

LKWA0318E

HEADLAMP (FOR USA)

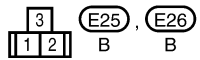
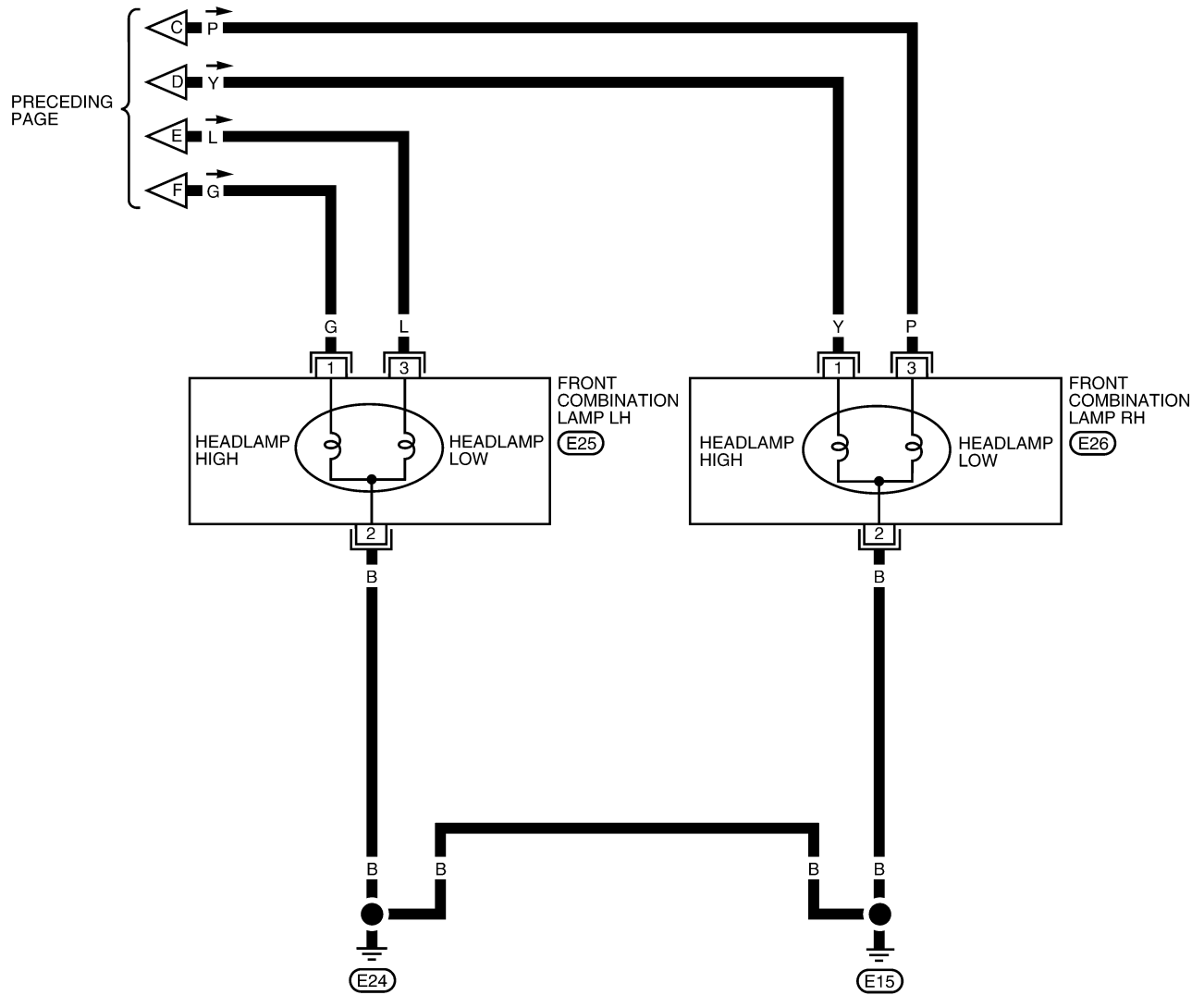
LT-H/LAMP-02



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

HEADLAMP (FOR USA)

LT-H/LAMP-03

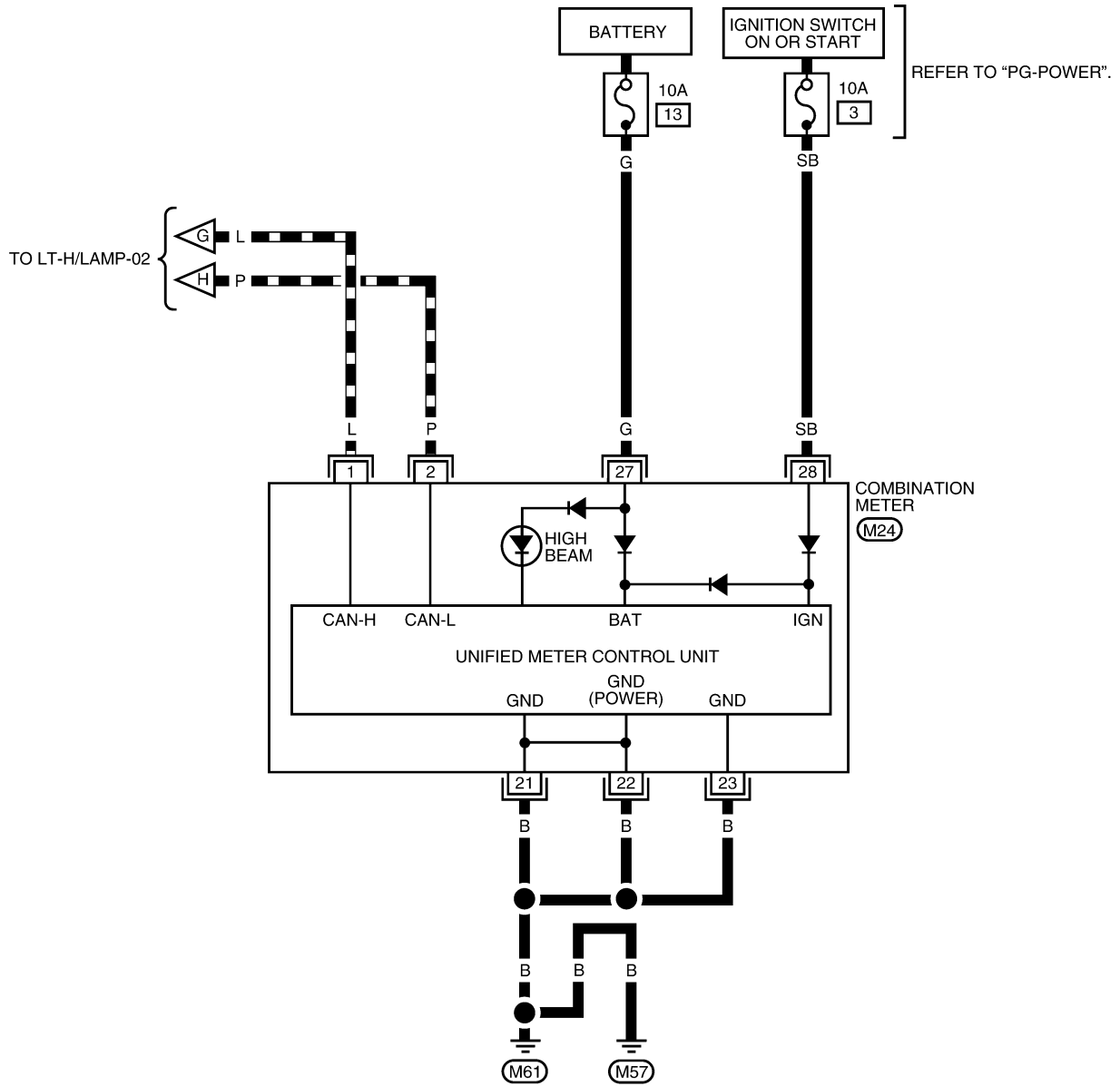


LKWA0320E

HEADLAMP (FOR USA)

LT-H/LAMP-04

▬ : DATA LINE



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HEADLAMP (FOR USA)

Terminals and Reference Values for BCM

EKS00HVH

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

Terminals and Reference Values for IPDM E/R

EKS00HVI

Refer to [PG-26, "Terminals and Reference Values for IPDM E/R"](#) .

How to Perform Trouble Diagnoses

EKS00HVJ

1. Confirm the symptom or customer complaint.
2. Understand operation, description and function description. Refer to [LT-5, "System Description"](#) .
3. Perform the Preliminary Check. Refer to [LT-12, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of the malfunction.
5. Do the headlamps operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

Preliminary Check

EKS00HVK

CHECK POWER SUPPLY AND GROUND CIRCUIT FOR BCM

Refer to [BCS-17, "BCM Power Supply and Ground Circuit Check"](#) .

CHECK POWER SUPPLY AND GROUND CIRCUIT FOR IPDM E/R

Refer to [PG-29, "IPDM E/R Power/Ground Circuit Inspection"](#) .

CONSULT-II Function (BCM)

EKS00IM9

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

BCM diagnostic test item	Diagnostic mode	Description
Inspection by part	WORK SUPPORT	Supports inspections and adjustments. Commands are transmitted to the BCM for setting the status suitable for required operation, input/output signals are received from the BCM and received data is displayed.
	DATA MONITOR	Displays BCM input/output data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
	SELF-DIAG RESULTS	Displays BCM self-diagnosis results.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
	ECU PART NUMBER	BCM part number can be read.
	CONFIGURATION	Performs BCM configuration read/write functions.

CONSULT-II START PROCEDURE

Refer to [BCS-19, "CONSULT-II START PROCEDURE"](#) .

WORK SUPPORT

Display Item List

Item	Description	CONSULT-II	Factory setting
BATTERY SAVER SET	Exterior lamp battery saver control mode can be changed in this mode. Selects exterior lamp battery saver control mode between ON/OFF.	ON	×
		OFF	—

DATA MONITOR

Display Item List

Monitor item	Contents
IGN ON SW	"ON/OFF" Displays "IGN position (ON)/OFF, ACC position (OFF)" judged from the ignition switch signal.
ACC ON SW	"ON/OFF" Displays "ACC (ON)/OFF, Ignition OFF (OFF)" status judged from ignition switch signal.
HI BEAM SW	"ON/OFF" Displays status (high beam switch: ON/Others: OFF) of high beam switch judged from lighting switch signal.

HEADLAMP (FOR USA)

Monitor item	Contents
HEAD LAMP SW 1 "ON/OFF"	Displays status (headlamp switch 1: ON/Others: OFF) of headlamp switch 2 judged 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.
LIGHT SW 1ST "ON/OFF"	Displays status (lighting switch 1st position: ON/Others: OFF) of lighting 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 lamp switch: ON/Others: OFF) of front fog lamp switch judged from lighting switch signal.
DOOR SW - DR "ON/OFF"	Displays status of the front door LH as judged from the front door switch LH signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - AS "ON/OFF"	Displays status of the front door RH as judged from the front door switch RH signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - RR "ON/OFF"	Displays status of the rear door as judged from the rear door switch (RH) signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - RL "ON/OFF"	Displays status of the rear door as judged from the rear door switch (LH) signal. (Door is open: ON/Door is closed: OFF)
BACK DOOR SW "ON/OFF"	Displays status of the back door as judged from the back door switch signal. (Door is open: ON/Door is closed: OFF)
TURN SIGNAL R "ON/OFF"	Displays status (Turn right: ON/Others: OFF) as judged from lighting switch signal.
TURN SIGNAL L "ON/OFF"	Displays status (Turn left: ON/Others: OFF) as judged from lighting switch signal.
ENGINE RUN ^{Note 1} "ON/OFF"	Displays status (Engine running: ON/Others: OFF) as judged from engine status signal.
PKB SW ^{Note 1} "ON/OFF"	Displays status (Parking brake switch: ON/Others: OFF) as judged from parking brake switch signal.

Note 1: Vehicles without daytime light system may display this item, but cannot monitor it.

ACTIVE TEST

Display Item List

Test item	Description
TAIL LAMP	Allows tail lamp relay to operate by switching ON-OFF.
HEAD LAMP	Allows headlamp relay (HI, LO) to operate by switching ON-OFF.
FR FOG LAMP	Allows fog lamp relay to operate by switching ON-OFF.

SELF-DIAGNOSTIC RESULTS

Display Item List

Monitored item	CONSULT-II display	Description
CAN communication	CAN communication [U1000]	Malfunction is detected in CAN communication.
CAN communication system	CAN communication system 1 to 6 [U1000]	Malfunction is detected in CAN system.

CONSULT-II Function (IPDM E/R)

EKS001MA

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

IPDM E/R diagnostic Mode	Description
SELF-DIAG RESULTS	Displays IPDM E/R self-diagnosis results.
DATA MONITOR	Displays IPDM E/R input/output data in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.

CONSULT-II START PROCEDURE

Refer to [BCS-19, "CONSULT-II START PROCEDURE"](#) .

HEADLAMP (FOR USA)

DATA MONITOR

All Items, Main Items, Select Item Menu

Item name	CONSULT-II screen display	Display or unit	Monitor item selection			Description
			ALL SIGNALS	MAIN SIGNALS	SELECTION FROM MENU	
Parking, license plate and tail lamps 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 lamps request	FR FOG REQ	ON/OFF	×	×	×	Signal status input from BCM
Daytime light request	DTRL REQ	ON/OFF	x	x	x	Signal status input from BCM

NOTE:

Perform monitoring of IPDM E/R data with the ignition switch ON. When the ignition switch is at ACC, the display may not be correct.

ACTIVE TEST

Test item	CONSULT-II screen display	Description
Tail lamp relay output	TAIL LAMP	Allows tail lamp relay to operate by switching operation ON-OFF at your option.
Headlamp relay (HI, LO) output	LAMPS	Allows headlamp relay (HI, LO) to operate by switching operation (OFF, HI, LO) 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.

Headlamp High Beam Does Not Illuminate (Both Sides)

EKS001MB

1. CHECK COMBINATION SWITCH INPUT SIGNAL

④ With CONSULT-II

- Select "BCM" on CONSULT-II. Select "HEAD LAMP" on "SELECT TEST ITEM" screen.
- Select "DATA MONITOR" on "SELECT DIAG MODE" screen. Make sure that "HI BEAM SW" turns ON-OFF linked with operation of lighting switch.

When lighting switch is high : HI BEAM SW ON position

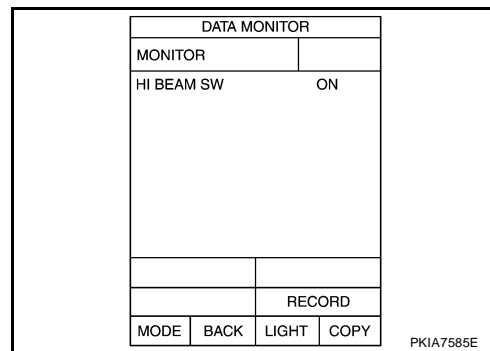
⊗ Without CONSULT-II

Refer to [LT-68, "Combination Switch Inspection"](#) .

OK or NG

OK >> GO TO 2.

NG >> Check combination switch (lighting switch). Refer to [LT-68, "Combination Switch Inspection"](#) .



HEADLAMP (FOR USA)

2. HEADLAMP ACTIVE TEST

④ With CONSULT-II

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

Headlamp high beam should operate (Headlamp high beam repeats ON-OFF every 2 seconds).

⊗ Without CONSULT-II

1. Start auto active test. Refer to [PG-21, "Auto Active Test"](#) .
2. Make sure headlamp high beam operates.

Headlamp high beam should operate.

OK or NG

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

ACTIVE TEST			
EXTERNAL LAMPS		OFF	
		TAIL	
LO		HI	
FOG			
MODE	BACK	LIGHT	COPY

PKIB0936E

3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II. Select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "HL HI REQ" turns ON when lighting switch is in high position.

When lighting switch is high : HL HI REQ ON position

OK or NG

- OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#) .
NG >> Replace BCM. Refer to [BCS-27, "Removal and Installation of BCM"](#) .

DATA MONITOR			
MONITOR			
HL HI REQ		ON	
		RECORD	
MODE	BACK	LIGHT	COPY

PKIB0696E

4. HEADLAMP HIGH BEAM FUSE INSPECTION

Inspect 10A fuse No. 34 (LH) and fuse No. 35 (RH).

OK or NG

- OK >> GO TO 5.
NG >> Repair harness.

5. BULB INSPECTION

Inspect inoperative headlamp bulbs.

OK or NG

- OK >> GO TO 6.
NG >> Replace headlamp bulb. [LT-25, "HEADLAMP \(HIGH/LOW\)"](#) .

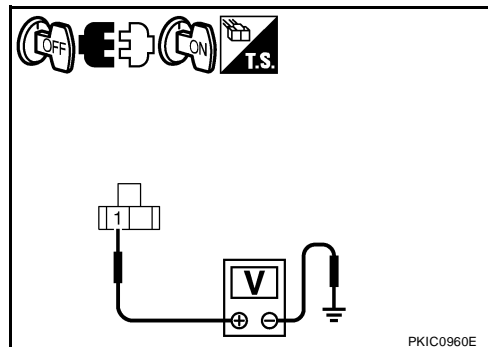
HEADLAMP (FOR USA)

6. CHECK HEADLAMP INPUT SIGNAL

④ With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect headlamp connector.
3. Select "IPDM E/R" on CONSULT-II. Select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "EXTERNAL LAMPS" on "SELECT TEST ITEM" screen.
5. Touch "HI" screen.
6. When headlamp high beam is operating, check voltage between headlamp harness connector and ground (Headlamp high beam repeats ON-OFF every 2 seconds).

Terminal				Voltage
(+)		(-)		
Headlamp connector	Terminal			
RH	E26	1	Ground	Battery voltage
LH	E25			



⊗ Without CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect headlamp connector.
3. Start auto active test. Refer to [PG-21, "Auto Active Test"](#).
4. When headlamp high beam is operating, check voltage between headlamp harness connector and ground.

Terminal				Voltage
(+)		(-)		
Headlamp connector	Terminal			
RH	E26	1	Ground	Battery voltage
LH	E25			

OK or NG

- OK >> GO TO 7.
 NG >> GO TO 8.

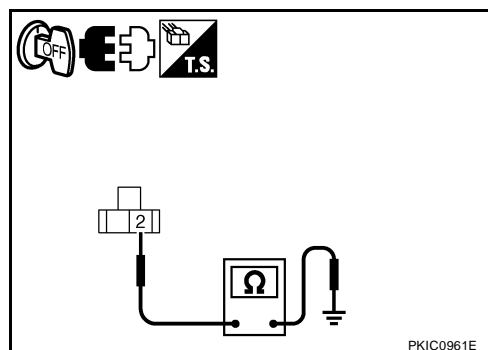
7. CHECK HEADLAMP GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between headlamp harness connector and ground.

Headlamp connector	Terminal	Ground	Continuity
RH	E26		2
LH	E25		

OK or NG

- OK >> Check front combination lamp connector for damage or poor connection. Repair as necessary.
 NG >> Repair harness.



HEADLAMP (FOR USA)

8. CHECK HEADLAMP CIRCUIT

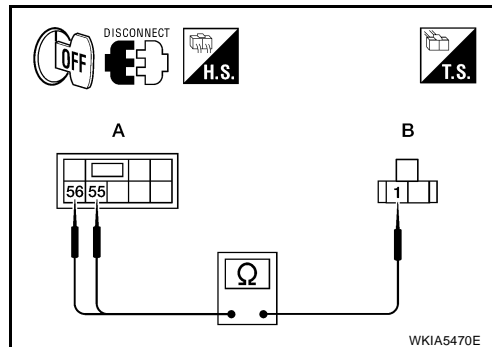
1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector (A) and headlamp harness connector (B).

Circuit	A		B		Continuity
	Connector	Terminal	Connector	Terminal	
RH	E47	56	E26	1	Yes
LH		55	E25		

OK or NG

OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#) .

NG >> Repair harness or connector.



Headlamp High Beam Does Not Illuminate (One Side)

EKS00IMC

1. HEADLAMP HIGH BEAM FUSE INSPECTION

Inspect 10A fuse No. 34 (LH) or fuse No. 35 (RH).

OK or NG

OK >> GO TO 2.

NG >> Repair harness.

2. CHECK BULB

Check headlamp bulb which does not illuminate.

OK or NG

OK >> GO TO 3.

NG >> Replace bulb. Refer to [LT-25, "HEADLAMP \(HIGH/LOW\)"](#) .

3. CHECK HEADLAMP INPUT SIGNAL

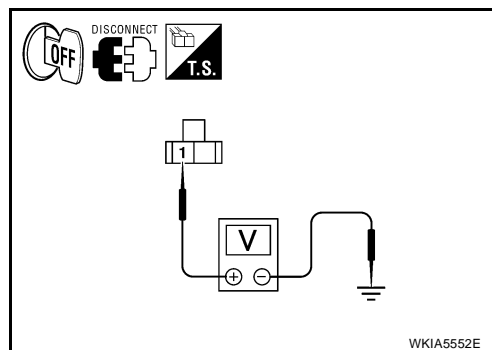
1. Turn ignition switch OFF.
2. Disconnect headlamp connector.
3. Lighting switch is turned to HIGH position.
4. Check voltage between headlamp harness connector and ground.

Terminal (+)		Terminal (-)	Voltage
Headlamp connector	Terminal		
RH	E26	1	Ground
LH	E25		

OK or NG

OK >> GO TO 4.

NG >> GO TO 5.



HEADLAMP (FOR USA)

2. CHECK HEADLAMP ACTIVE TEST

④ With CONSULT-II

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

Headlamp low beam should operate.

⊗ Without CONSULT-II

1. Start auto active test. Refer to [PG-21, "Auto Active Test"](#) .
2. Make sure headlamp low beam operates.

Headlamp low beam should operate.

ACTIVE TEST			
EXTERNAL LAMPS		OFF	
		TAIL	
LO		HI	
FOG			
MODE	BACK	LIGHT	COPY

PKIC0936E

OK or NG

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

3. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II. Select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "HL LO REQ" turns ON when lighting switch is in 2ND position.

When lighting switch is 2ND : HL LO REQ ON position

OK or NG

- OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#) .
NG >> Replace BCM. Refer to [BCS-27, "Removal and Installation of BCM"](#) .

DATA MONITOR			
MONITOR			
HL LO REQ		ON	
		RECORD	
MODE	BACK	LIGHT	COPY

PKIA7644E

4. HEADLAMP LOW BEAM FUSE INSPECTION

Inspect 15A fuse No. 40 (LH) and fuse No. 41 (RH).

OK or NG

- OK >> GO TO 5.
NG >> Repair harness.

5. BULB INSPECTION

Inspect inoperative headlamp bulbs.

OK or NG

- OK >> GO TO 6.
NG >> Replace headlamp bulb. [LT-25, "HEADLAMP \(HIGH/LOW\)"](#) .

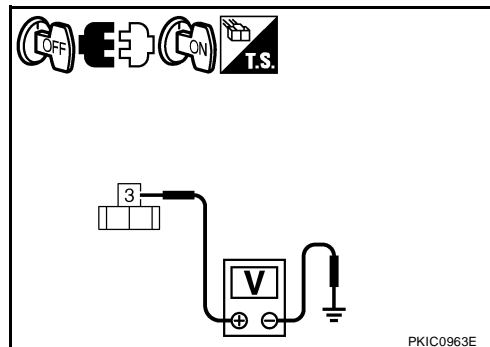
HEADLAMP (FOR USA)

6. CHECK HEADLAMP INPUT SIGNAL

④ With CONSULT-II

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

Terminal			Voltage	
(+)		(-)		
Headlamp connector	Terminal			
RH	E26	3	Ground	Battery voltage
LH	E25			



⊗ Without CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect headlamp connector.
3. Start auto active test. Refer to [PG-21, "Auto Active Test"](#) .
4. When headlamp low beam is operating, check voltage between headlamp harness connector and ground.

Terminal			Voltage	
(+)		(-)		
Headlamp connector	Terminal			
RH	E26	3	Ground	Battery voltage
LH	E25			

OK or NG

- OK >> GO TO 7.
 NG >> GO TO 8.

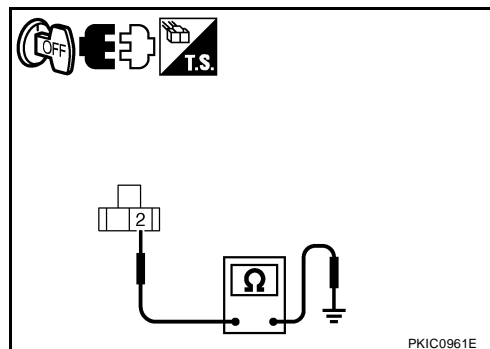
7. CHECK HEADLAMP GROUND CIRCUIT

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

Headlamp connector		Terminal	Continuity	
RH	E26	2	Ground	Yes
LH	E25			

OK or NG

- OK >> Check front combination lamp connector for damage or poor connection. Repair as necessary.
 NG >> Repair harness.



HEADLAMP (FOR USA)

8. CHECK HEADLAMP CIRCUIT

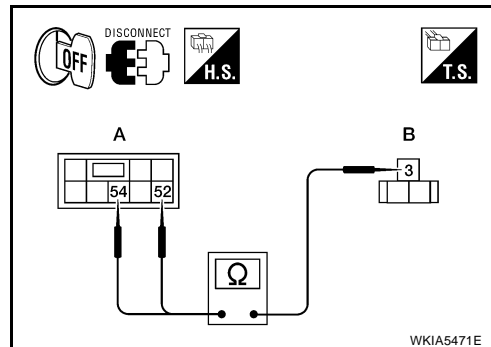
1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector (A) and headlamp harness connector (B).

Circuit	A		B		Continuity
	Connector	Terminal	Connector	Terminal	
RH	E47	54	E26	3	Yes
LH		52	E25		

OK or NG

OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#) .

NG >> Repair harness or connector.



Headlamp Low Beam Does Not Illuminate (One Side)

EKS00IME

1. HEADLAMP LOW BEAM FUSE INSPECTION

Inspect 15A fuse No. 40 (LH) and fuse No. 41 (RH).

OK or NG

OK >> GO TO 2.

NG >> Repair harness.

2. CHECK BULB

Check bulb of headlamp which does not illuminate.

OK or NG

OK >> GO TO 3.

NG >> Replace bulb. Refer to [LT-25, "HEADLAMP \(HIGH/LOW\)"](#) .

3. CHECK HEADLAMP INPUT SIGNAL

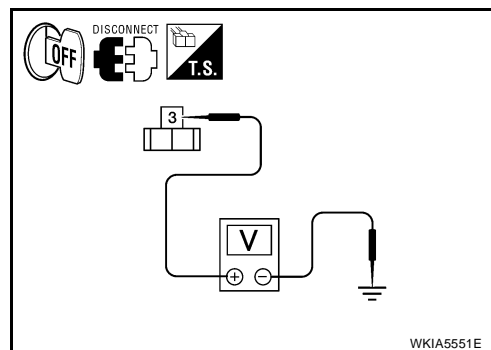
1. Turn ignition switch OFF.
2. Disconnect headlamp connector.
3. Lighting switch is turned to 2ND position.
4. Check voltage between headlamp harness connector and ground.

Terminal (+)			Terminal (-)	Voltage
Headlamp connector	Terminal			
RH	E26	3	Ground	Battery voltage
LH	E25			

OK or NG

OK >> GO TO 4.

NG >> GO TO 5.



WKIA551E

HEADLAMP (FOR USA)

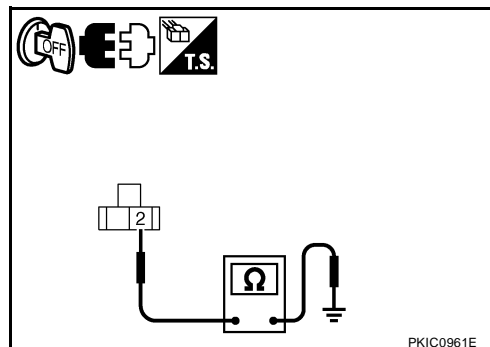
4. CHECK HEADLAMP GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between headlamp harness connector and ground.

Headlamp connector		Terminal	Ground	Continuity
RH	E26	2		Ground
LH	E25			

OK or NG

- OK >> Check condition of headlamp harness connector.
 NG >> Repair harness or connector.



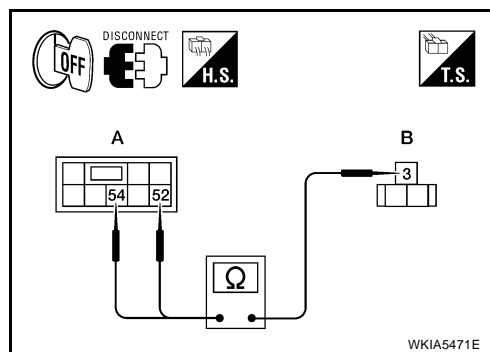
5. CHECK HEADLAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector (A) and headlamp harness connector (B).

Circuit	A		B		Continuity
	Connector	Terminal	Connector	Terminal	
RH	E47	54	E26	3	Yes
LH		52	E25		

OK or NG

- OK >> Replace IPDM E/R. Refer to [PG-29, "IPDM E/R Power/Ground Circuit Inspection"](#) .
 NG >> Repair harness or connector.



Headlamps Do Not Turn OFF

1. CHECK HEADLAMPS TURN OFF

Make sure that lighting switch is OFF. Make sure headlamp turns OFF when ignition switch is turned OFF.

OK or NG

- OK >> GO TO 3.
 NG >> GO TO 2.

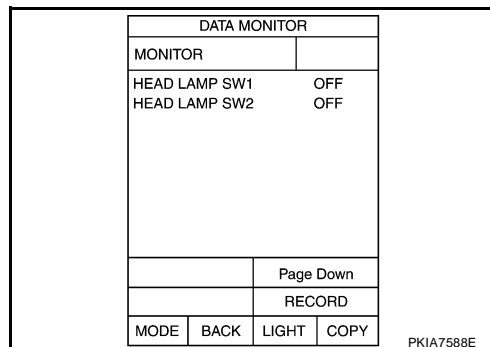
2. CHECK COMBINATION SWITCH INPUT SIGNAL

1. Select "BCM" on CONSULT-II. Select "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Select "DATA MONITOR" on "SELECT DIAG MODE" screen. Make sure that "HEAD LAMP SW 1" and "HEAD LAMP SW 2" turns ON-OFF linked with operation of lighting switch.

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

OK or NG

- OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#) .
 NG >> Check combination switch (lighting switch). Refer to [LT-68, "Combination Switch Inspection"](#) .



HEADLAMP (FOR USA)

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

Select "BCM" on CONSULT-II, and perform self-diagnosis for "BCM".

Display of self-diagnosis results

NO DTC>> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#).

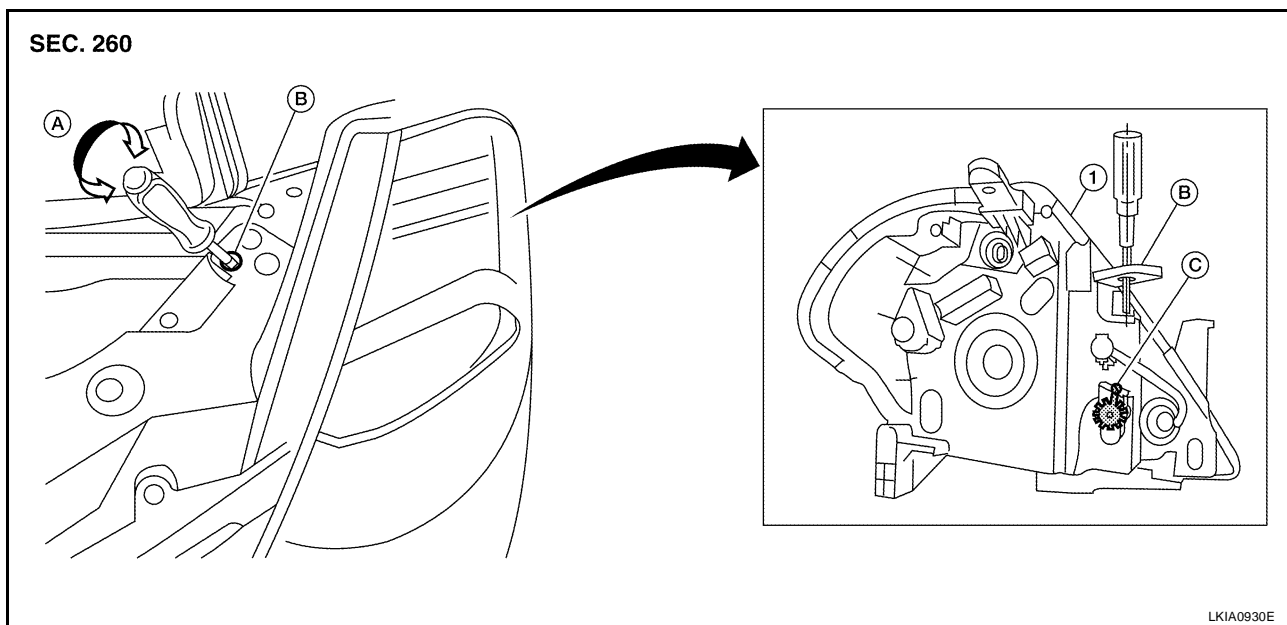
CAN COMM CIRCUIT>> Refer to [LAN-44, "TROUBLE DIAGNOSIS"](#).

SELF-DIAG RESULTS			
DTC RESULTS		TIME	
CAN COMM CIRCUIT [U1000]			
ERASE		PRINT	
MODE	BACK	LIGHT	COPY

PKIA7627E

Aiming Adjustment

EKS00IMG



1. Headlamp

A. Inner and outer adjustment

B. Adjusting screw access hole

C. Adjusting screw

PREPARATION BEFORE ADJUSTING

Before performing aiming adjustment, check the following.

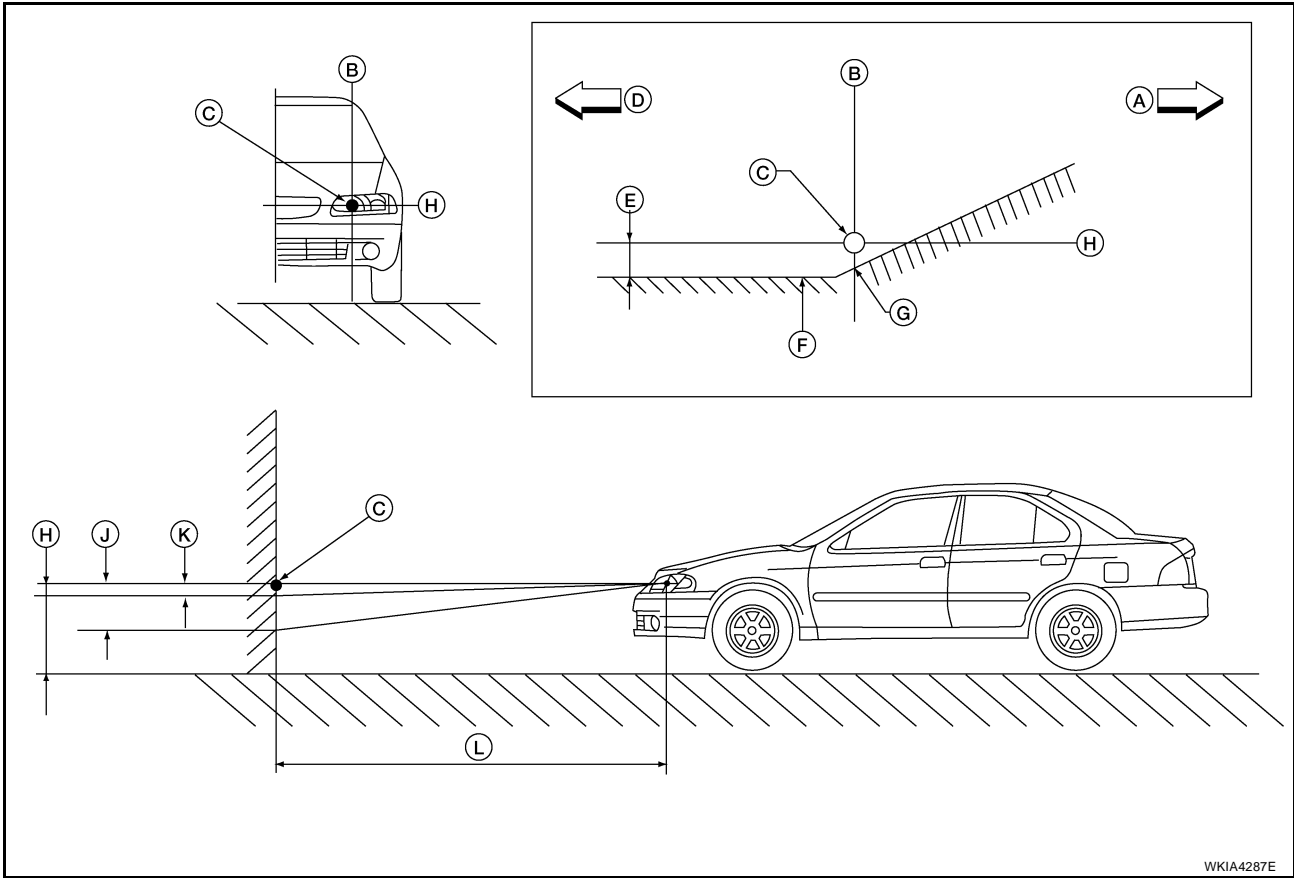
1. Keep all tires inflated to correct pressures.
2. Place vehicle on level surface.
3. See that there is no-load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant, engine oil filled up to correct level and full fuel tank, spare tire, jack and tools are properly stowed.

LOW BEAM AND HIGH BEAM

1. Turn headlamp low beam ON.
2. Use adjusting screw to perform aiming adjustment.
3. Insert the tool through the adjusting screw access hole to avoid damage to the adjusting screw.

HEADLAMP (FOR USA)

ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)



WKIA4287E

A.	Right	B.	Vertical center line of headlamp	C.	Horizontal aiming center line of headlamp
D.	Left	E.	Vertical aiming cutoff point	F.	Cutoff line for vertical aiming evaluation
G.	Acceptable vertical cutoff setting at horizontal aiming point	H.	Horizontal center line of headlamp	J.	Maximum acceptable vertical aiming point
K.	Minimum acceptable vertical aiming point	L.	Aiming distance from center of headlamp to aiming screen		

- Aim each headlamp individually and ensure other headlamp beam pattern is blocked from screen.
- For vertical headlamp aiming, adjust headlamp until beam pattern is positioned per specified dimensions.

Description	Halogen Headlamp
Vertical aiming cutoff point (E)	53.2 mm (2.094 in)
Minimum acceptable vertical aiming point (K)	13.3 mm (0.52 in)
Maximum acceptable vertical aiming point (J)	93.1 mm (3.67 in)
Aiming distance from center of headlamp to aiming screen (L)	7.62 m (25 ft)

HEADLAMP (FOR USA)

Bulb Replacement

EKS00IMH

CAUTION:

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

HEADLAMP (HIGH/LOW)

1. Turn lighting switch OFF.
2. Remove the headlamp. Refer to [LT-25, "Removal and Installation"](#).
3. Remove back cover.
4. Unlock retaining spring and remove bulb from headlamp.

PARKING (CLEARANCE) LAMP

1. Turn lighting switch OFF.
2. Remove the headlamp. Refer to [LT-25, "Removal and Installation"](#).
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.

FRONT TURN SIGNAL LAMP

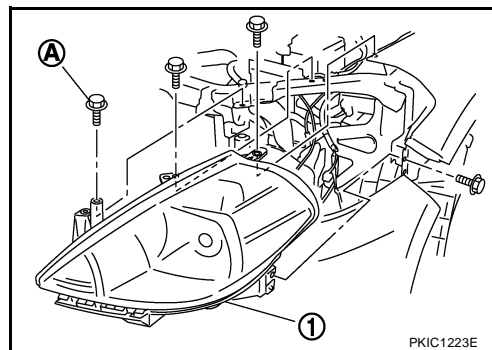
1. Turn lighting switch OFF.
2. Remove the headlamp. Refer to [LT-25, "Removal and Installation"](#).
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.

Removal and Installation

EKS00IMI

REMOVAL

1. Disconnect the negative battery terminal.
2. Remove front bumper fascia. Refer to [EI-14, "FRONT BUMPER"](#).
3. Remove headlamp bolts (A).
4. Pull headlamp (1) toward the vehicle front, disconnect connector, and remove headlamp.



INSTALLATION

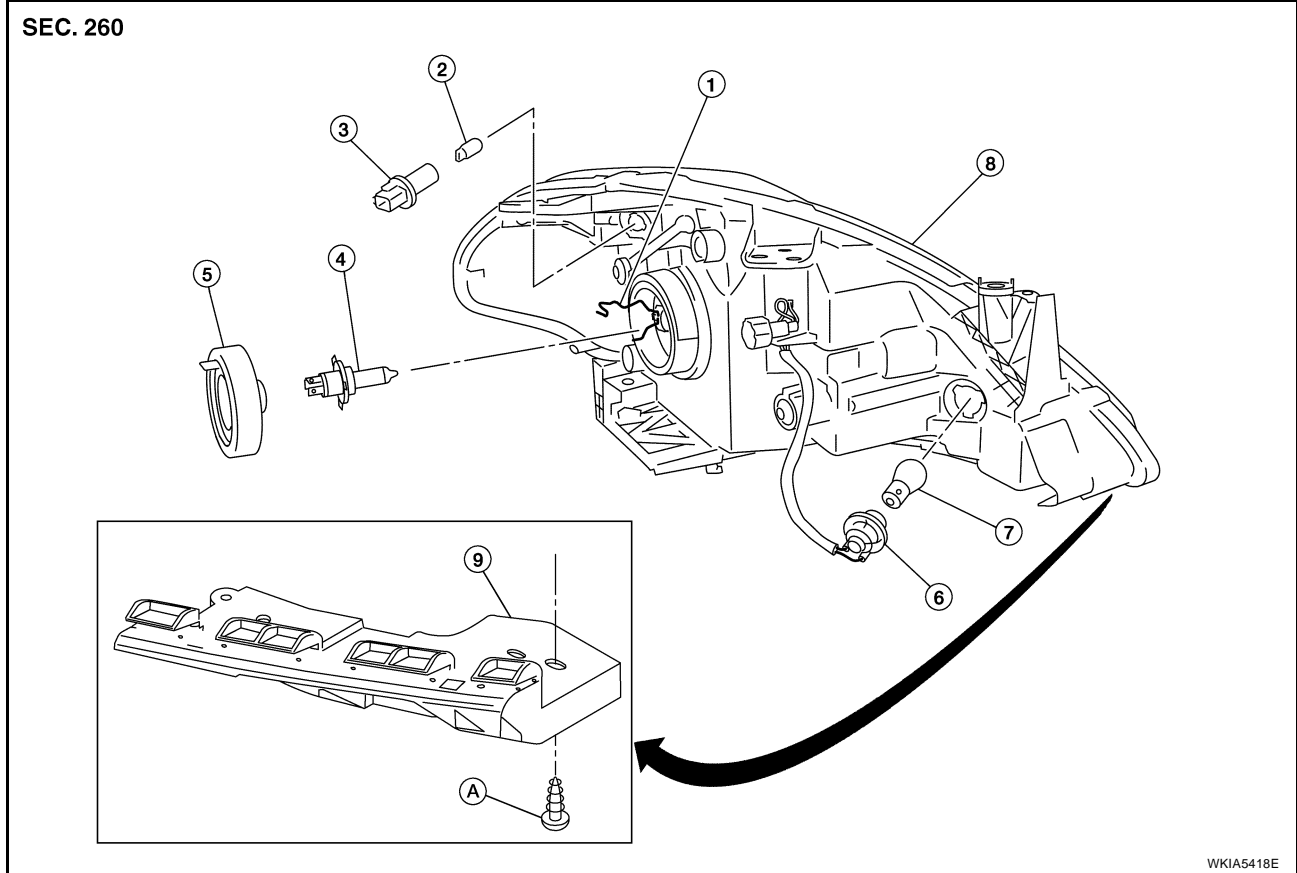
Installation is in the reverse order of removal.

- After installation, perform aiming adjustment. Refer to [LT-23, "Aiming Adjustment"](#).

HEADLAMP (FOR USA)

Disassembly and Assembly

EKS001MJ



WKIA5418E

- | | | |
|--------------------------------|----------------------------------|---|
| 1. Retaining spring | 2. Parking (clearance) lamp bulb | 3. Parking (clearance) lamp bulb socket |
| 4. Halogen bulb (High/Low) | 5. Back cover | 6. Front turn signal lamp bulb socket |
| 7. Front turn signal lamp bulb | 8. Headlamp housing assembly | 9. Bumper stay |
| A. Screw | | |

DISASSEMBLY

1. Remove back cover.
2. Unlock retaining spring and remove bulb (High/Low).
3. Turn parking (clearance) lamp bulb socket counterclockwise and unlock it.
4. Remove parking (clearance) lamp bulb from its socket.
5. Turn front turn signal lamp bulb socket counterclockwise and unlock it.
6. Remove front turn signal lamp bulb from its socket.
7. Remove the bumper stay.

ASSEMBLY

Assembly is in the reverse order of disassembly.

CAUTION:

- After installing bulb, be sure to install plastic cap securely to insure water tight seal.

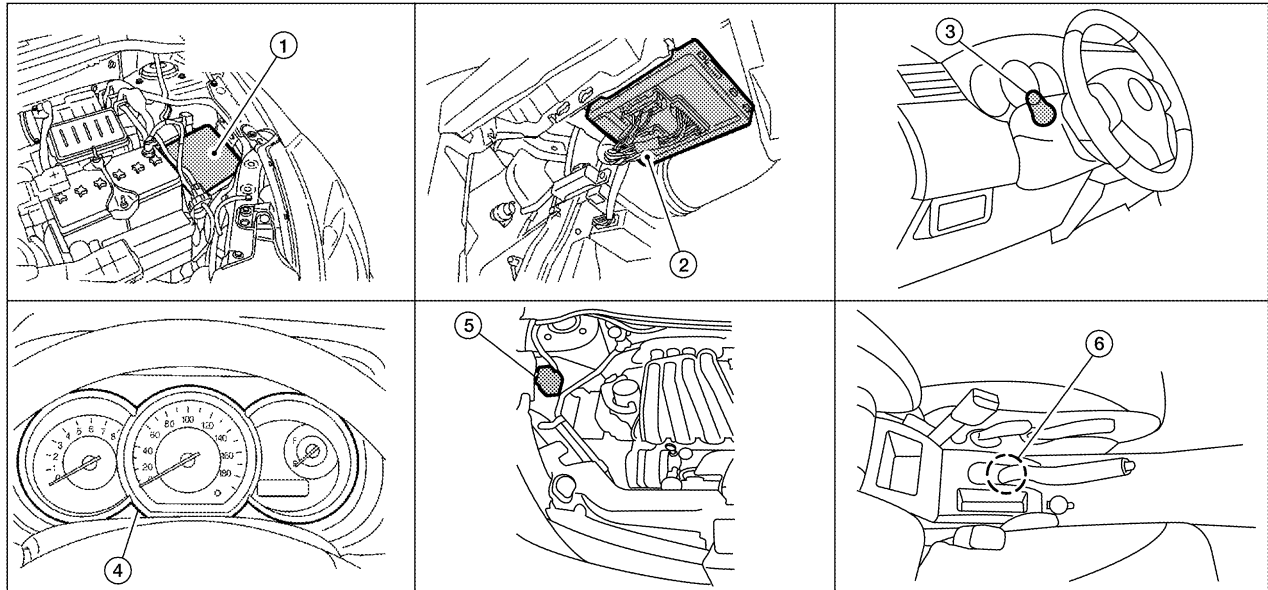
HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

PFP:26010

Component Parts and Harness Connector Location

EKS00ICD



1. IPDM E/R E43, E46, E47 and E48
2. BCM M18 and M20 (view with glove box removed)
3. Combination switch (lighting switch) M28
4. Combination meter M24
5. Daytime light relay 1 E37 and daytime light relay 2 E38
6. Parking brake switch M17

System Description

EKS00ICE

Headlamp operation is controlled by the BCM (body control module) based on inputs from the combination switch (lighting switch). When the lighting switch is placed in the 2ND position, the BCM receives an input signal requesting the headlamps (and tail lamps) illuminate. The request is then communicated to the IPDM E/R (intelligent power distribution module engine room) via the CAN communication lines. The CPU (central processing unit) located in the IPDM E/R controls ground for the headlamp high and headlamp low relay coils. These relays direct power to the respective headlamps, which then illuminate. When the headlamp switch is OFF or in the 1ST position (parking lamps ON), the parking brake is released and the engine is running, the IPDM E/R de-energizes the headlamp relays and supplies ground to the daytime light relay 1 to actuate the daytime light function.

OUTLINE

Power is supplied at all times

- to headlamp high relay RH and LH (located in IPDM E/R)
- to headlamp low relay (located in IPDM E/R) and
- to ignition relay (located in IPDM E/R)
- through 15A fuse (No. 52, located in IPDM E/R) and
- through 20A fuse (No. 53, located in IPDM E/R)
- to CPU located in IPDM E/R,
- through 40A fusible link (letter **g**, located in fuse and fusible link box)
- to BCM terminal 70,
- through 10A fuse [No. 8, located in fuse block (J/B)]
- to BCM terminal 57,
- through 10A fuse [No. 13, located in fuse block (J/B)]
- to combination meter terminal 27,
- through 10A fuse (No. 26, located in fuse and fusible link box)
- to the daytime light relay 1.

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

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

- to the ignition relay (located in IPDM E/R),
- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 38,
- through 10A fuse [No. 3, located in fuse block (J/B)]
- to combination meter terminal 28.

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

- through 10A fuse [No. 20, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 67 and
- to combination meter terminals 21, 22 and 23
- through grounds M57 and M61,
- to IPDM E/R terminals 39 and 59
- through grounds E15 and E24,

HEADLAMP OPERATION

Low Beam Operation

With the lighting switch in 2ND position, the BCM receives an input signal requesting the headlamps to illuminate. This input signal is communicated to the IPDM E/R via the CAN communication lines. The CPU located in the IPDM E/R controls the headlamp low relay coil, which when energized, directs power

- through 15A fuse (No. 41, located in IPDM E/R)
- through IPDM E/R terminal 54
- to daytime light relay 2 terminals 1 and 5 (energizing the relay),
- through daytime light relay 2 terminal 3
- to front combination lamp RH terminal 3, and
- through 15A fuse (No. 40, located in IPDM E/R)
- through IPDM E/R terminal 52
- to front combination lamp LH terminal 3.

Ground is supplied

- to front combination lamp LH terminal 2
- through grounds E15 and E24,
- to headlamp RH terminal 2 via
- daytime light relay 1 terminals 3 and 4
- through grounds E15 and E24.

With power and ground supplied, low beam headlamps illuminate.

High Beam/Flash-to-Pass Operation

With the lighting switch in 2ND position and high beam switch in the HIGH position, the BCM receives input signal requesting the headlamp high beams to illuminate. The flash-to-pass feature can be used any time and also sends a signal to the BCM. This input signal is communicated to the IPDM E/R and the combination meter via the CAN communication lines. The CPU located in the IPDM E/R controls the headlamp high relay coil, which when energized, directs power

- through 10A fuse (No. 34, located in IPDM E/R)
- through IPDM E/R terminal 56
- to front combination lamp RH terminal 1, and
- through 10A fuse (No. 35, located in IPDM E/R)
- through IPDM E/R terminal 55
- to front combination lamp LH terminal 1.

Ground is supplied

- to front combination lamp LH terminal 2
- through grounds E15 and E24, and

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

- to front combination lamp RH terminal 2 via
- daytime light relay 1 terminals 3 and 4
- through grounds E15 and E24.

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

The BCM sends a signal to the combination meter requesting the high beam indicator lamp to turn ON.

Daytime Light System Operation

With the lighting switch in the OFF or 1ST position (parking lamps ON), the BCM receives inputs requesting the headlights off. If the parking brake is released and the engine is running, the BCM then sends a signal, via the CAN communication lines, requesting the IPDM E/R to activate the daytime light system. The CPU located in the IPDM E/R controls the daytime light relay 1 coil, which when energized, directs power

- from daytime light relay 1 terminal 3
- to front combination lamp RH terminal 2,
- through front combination lamp RH high beam terminal 1
- to IPDM E/R terminal 56,
- through 10A fuse (No. 34, located in IPDM E/R) and
- through both de-energized headlamp high relays
- to 10A fuse (No. 35, located in IPDM E/R),
- through IPDM E/R terminal 55
- to front combination lamp LH terminal high beam 1.

Ground is supplied

- to front combination lamp LH terminal 2
- through grounds E15 and E24,
- to daytime light relay 1 terminal 1
- through IPDM E/R terminal 6.

With power and ground supplied, high beam headlamps illuminate at reduced intensity.

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

EXTERIOR LAMP BATTERY SAVER CONTROL

Refer to [LT-78, "EXTERIOR LAMP BATTERY SAVER CONTROL"](#) .

CAN Communication System Description

Refer to [LAN-4, "CAN Communication System"](#) .

A

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LT

EKS00ICF

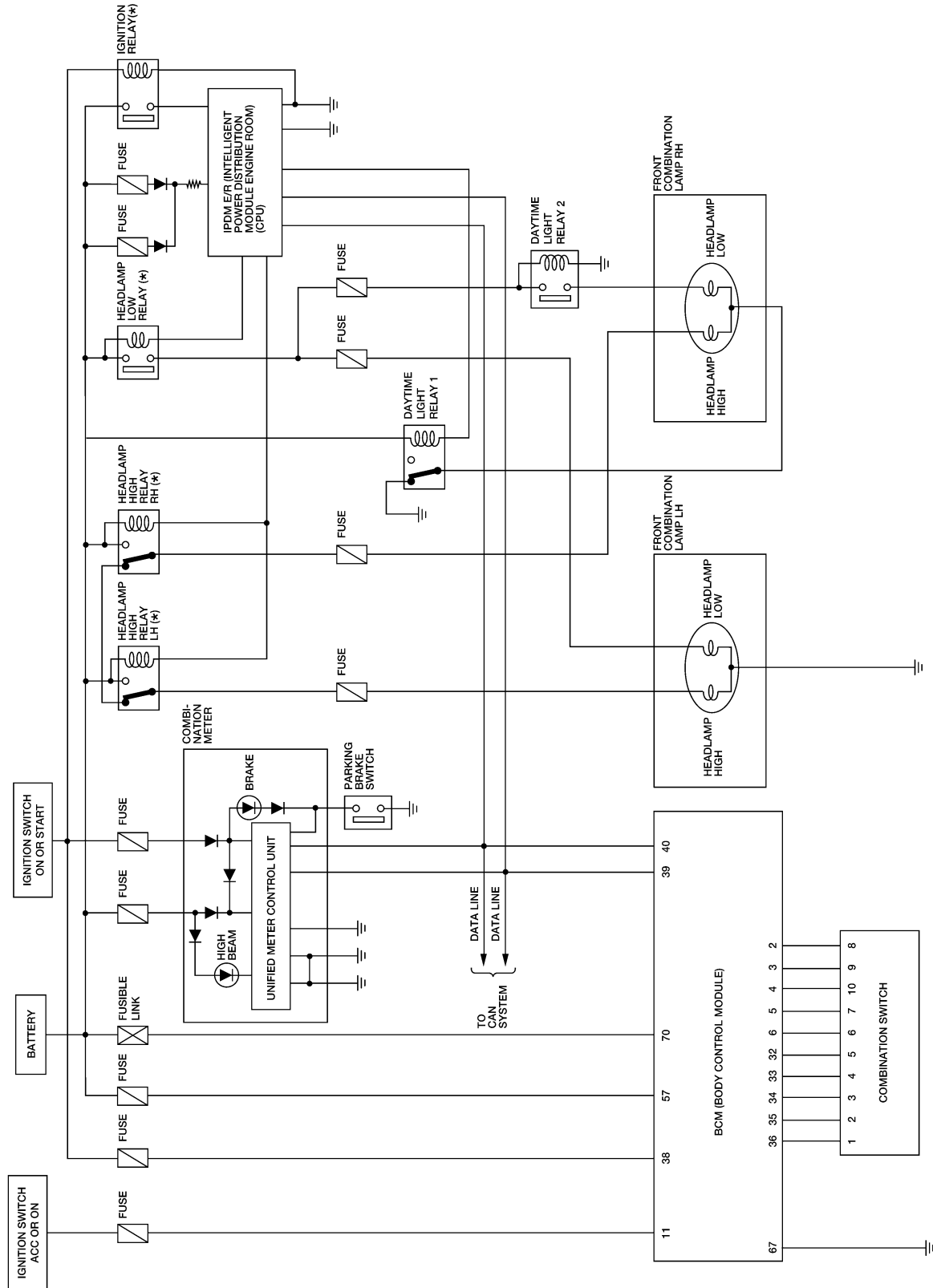
L

M

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

Schematic

EKS001CH



* : THIS RELAY IS BUILT INTO THE IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

WKWA4972E

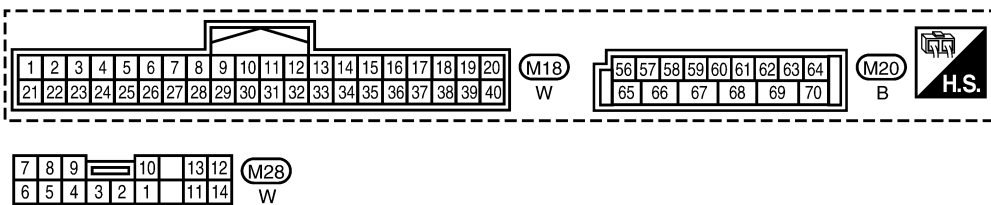
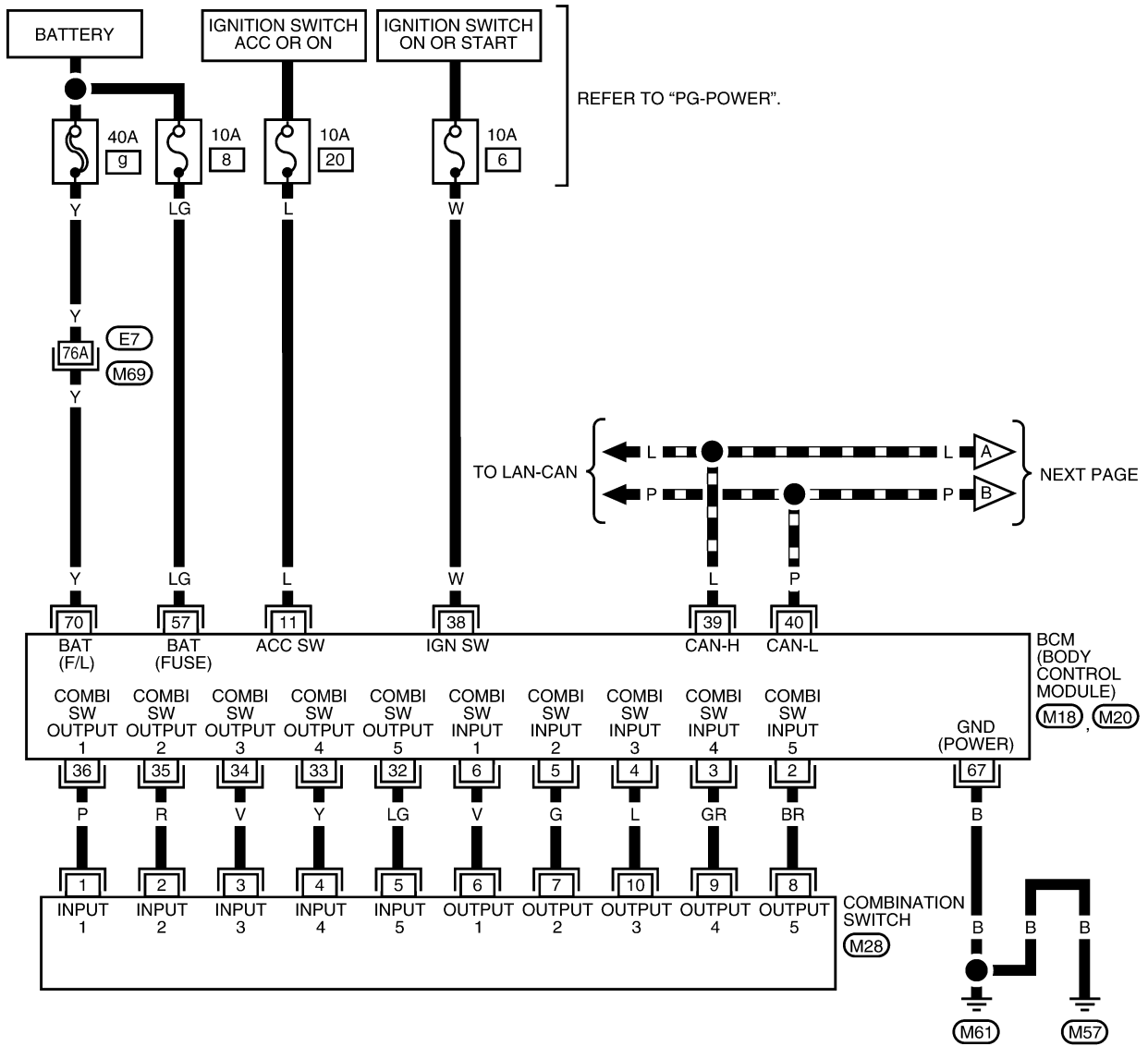
HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

Wiring Diagram — DTRL —

EKS001C1

LT-DTRL-01

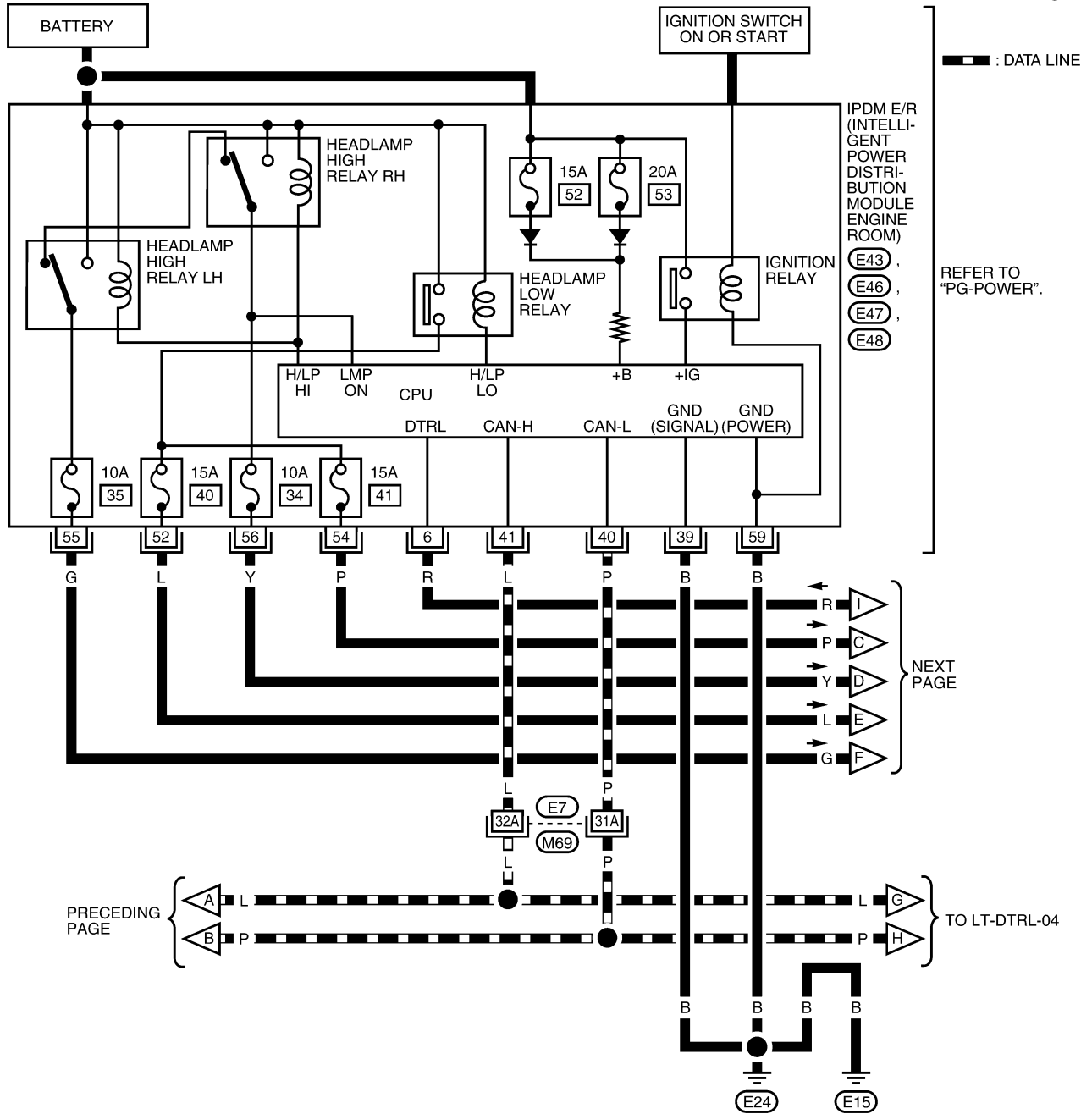
▬ : DATA LINE



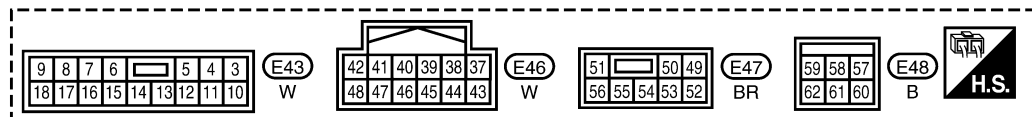
LKWA0322E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

LT-DTRL-02



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

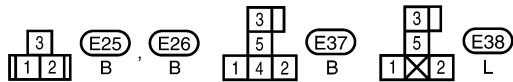
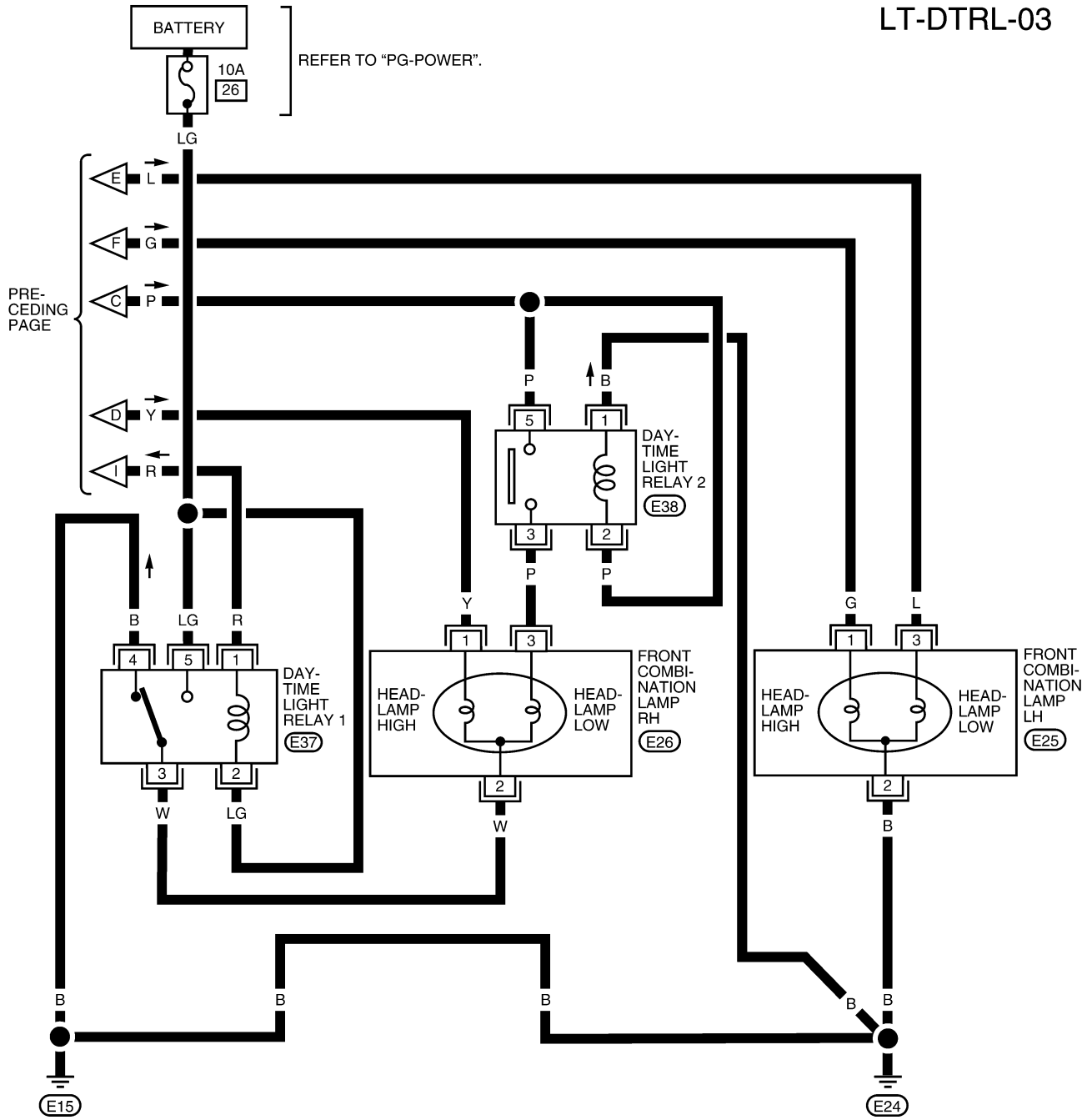


LKWA0323E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

LT-DTRL-03

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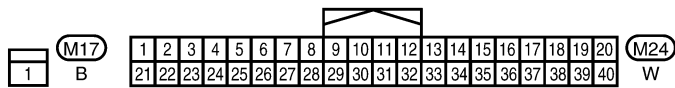
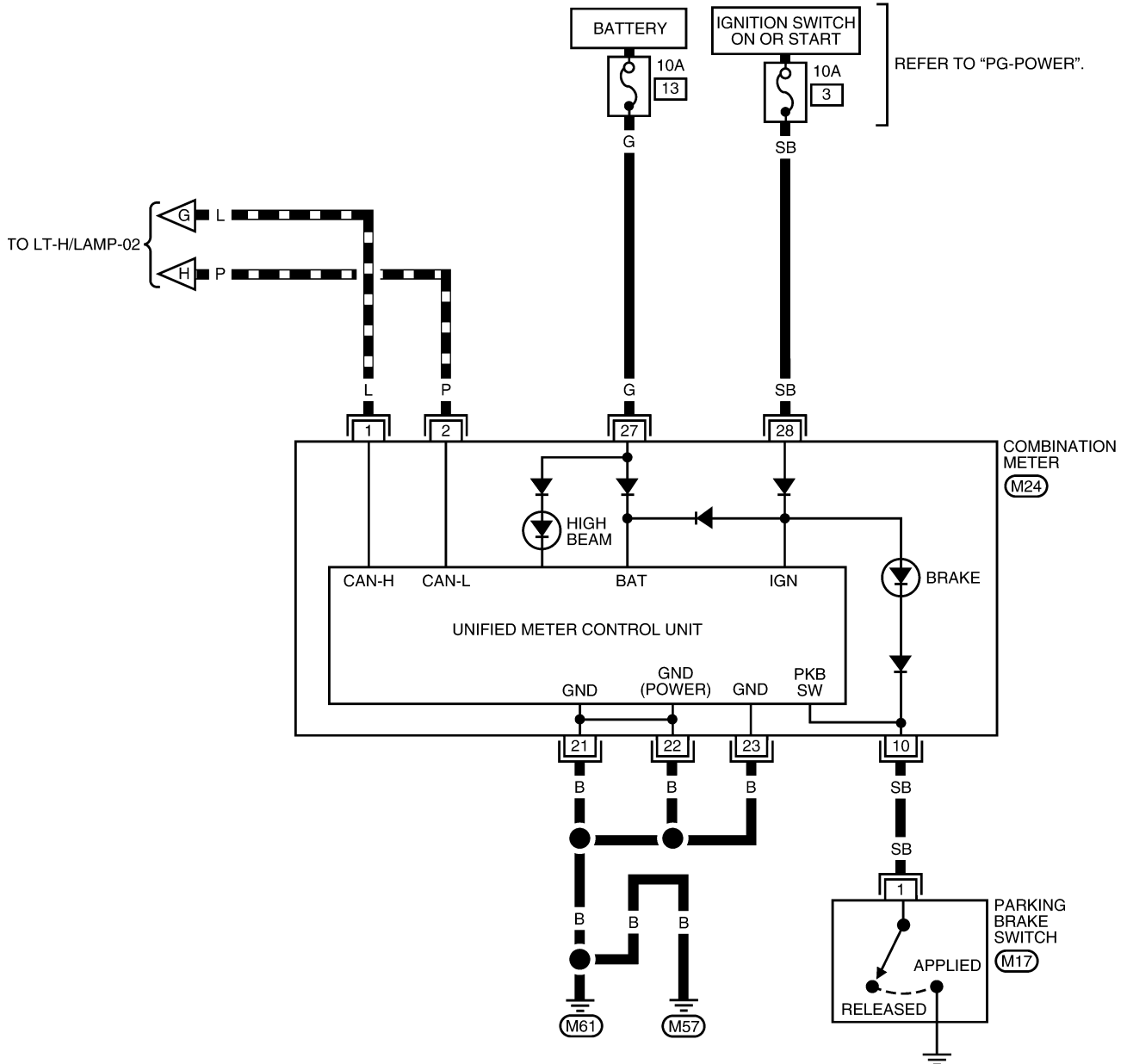
LKWA0324E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

LT-DTRL-04

▬ : DATA LINE

REFER TO "PG-POWER".



LKWA0325E

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

Terminals and Reference Values for BCM

EKS00ICJ

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#)

A

Terminals and Reference Values for IPDM E/R

EKS00ICK

Refer to [PG-26, "Terminals and Reference Values for IPDM E/R"](#) .

B

How to Perform Trouble Diagnoses

EKS00ICL

1. Confirm the symptom or customer complaint.
2. Understand operation, description and function description. Refer to [LT-27, "System Description"](#) .
3. Perform the Preliminary Check. Refer to [LT-35, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of the malfunction.
5. Does the daytime light system operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

C

D

E

Preliminary Check

EKS00IM0

CHECK BCM CONFIGURATION

1. CHECK BCM CONFIGURATION

F

Confirm BCM configuration for "DTRL" is set to "WITH". Refer to [BCS-21, "READ CONFIGURATION PROCEDURE"](#) .

G

OK or NG

- OK >> Continue preliminary check. Refer to [BCS-17, "BCM Power Supply and Ground Circuit Check"](#) .
- NG >> Change BCM configuration for "DTRL" to "WITH". Refer to [BCS-23, "WRITE CONFIGURATION PROCEDURE"](#) .

H

CHECK POWER SUPPLY AND GROUND CIRCUIT FOR BCM

Refer to [BCS-17, "BCM Power Supply and Ground Circuit Check"](#) .

I

CHECK POWER SUPPLY AND GROUND CIRCUIT FOR IPDM E/R

Refer to [PG-29, "IPDM E/R Power/Ground Circuit Inspection"](#) .

J

CONSULT-II Function (BCM)

EKS00IM1

Refer to [LT-12, "CONSULT-II Function \(BCM\)"](#) .

LT

CONSULT-II Function (IPDM E/R)

EKS00IM2

Refer to [LT-13, "CONSULT-II Function \(IPDM E/R\)"](#) .

L

Daytime Light Control Does Not Operate Properly (High Beam Headlamps Operate Properly)

EKS00IM3

1. CHECK DAYTIME LIGHT RELAY 1 FUSE

M

Inspect daytime light relay fuse 10A fuse (No. 26, located in the fuse and fusible link box).

OK or NG

- OK >> GO TO 2.
- NG >> Repair harness.

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

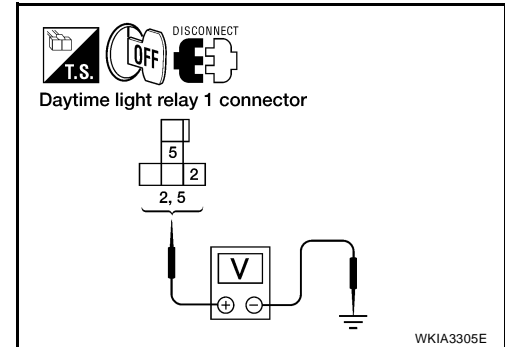
2. CHECK DAYTIME LIGHT RELAY 1 POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Remove daytime light relay 1.
3. Check voltage between daytime light relay 1 harness connector E37 terminals 2, 5 and ground.

2, 5 - Ground : Battery voltage should exist.

OK or NG

- OK >> GO TO 3.
 NG >> Repair harness or connector.



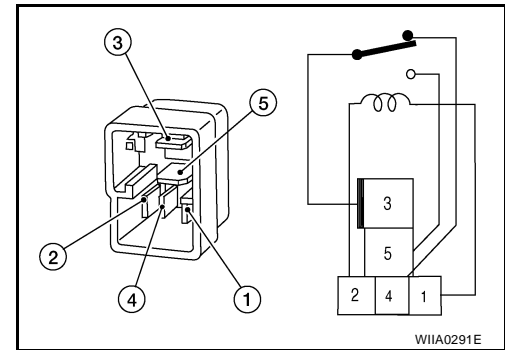
3. CHECK DAYTIME LIGHT RELAY 1

1. Apply battery voltage to daytime light relay 1 terminal 2 and supply ground to terminal 1.
2. Check continuity between terminals 3 and 5.

3 - 5 : Continuity should exist.

OK or NG

- OK >> GO TO 4.
 NG >> Replace daytime light relay 1.



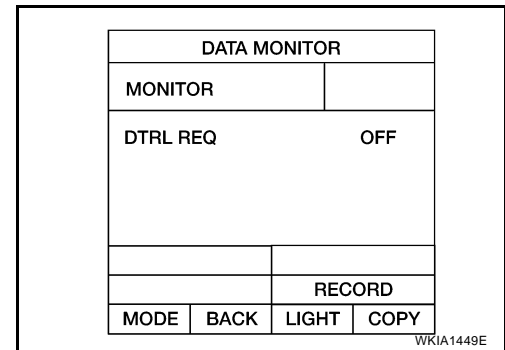
4. CHECK INPUT SIGNAL

1. Connect daytime light relay 1.
2. Start engine and release parking brake. Headlamp switch OFF.
3. Select "IPDM E/R" on CONSULT-II. With DATA MONITOR, make sure "DTRL REQ" turns ON-OFF linked with operation of parking brake switch.

Parking brake ON : DTRL REQ ON
Parking brake OFF : DTRL REQ OFF

OK or NG

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



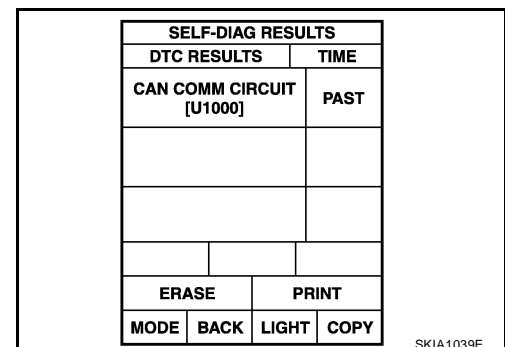
5. CHECKING CAN COMMUNICATIONS

Select "BCM" on CONSULT-II and perform self-diagnosis for BCM.

Displayed self-diagnosis results

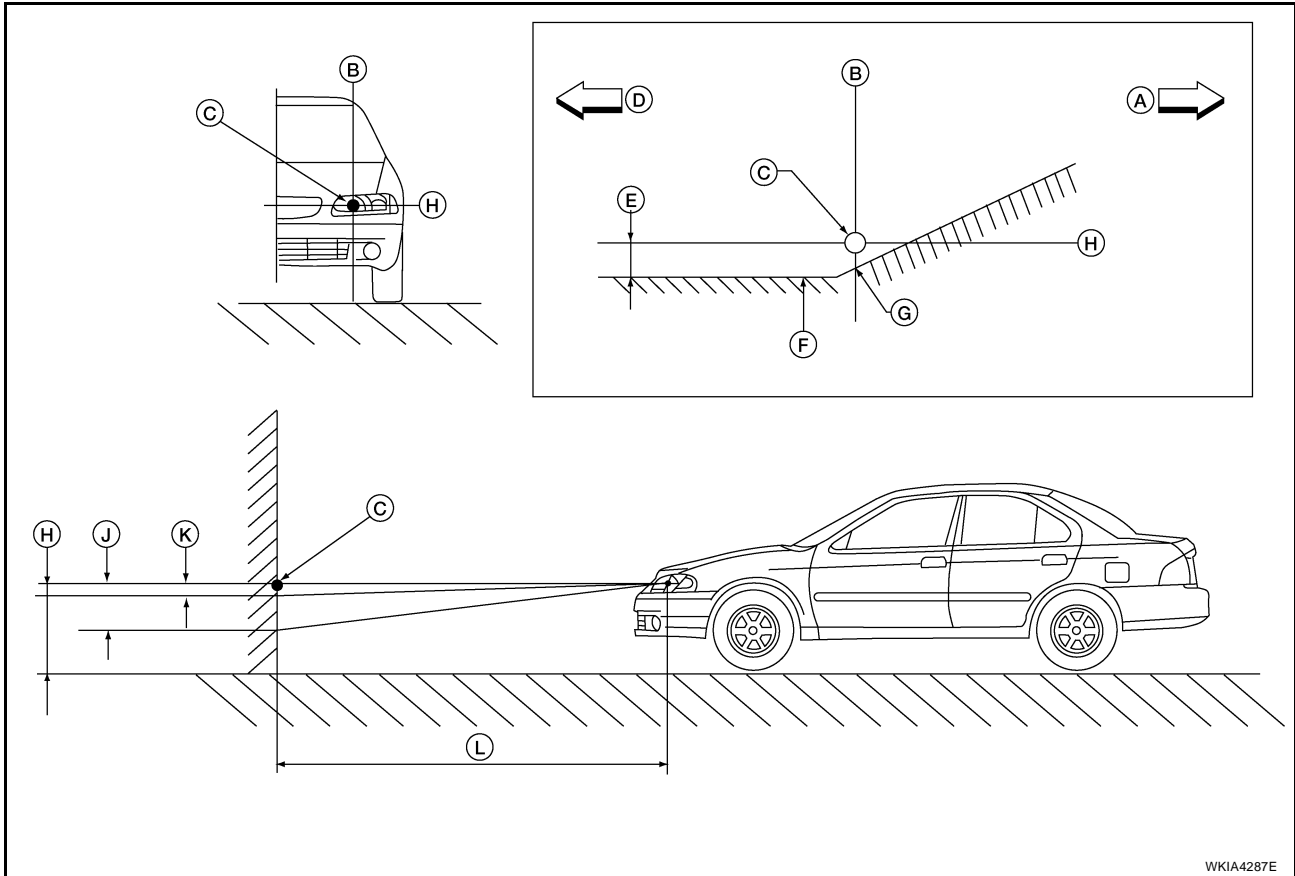
NO DTC>>Replace BCM. Refer to [BCS-27, "Removal and Installation of BCM"](#) .

CAN COMM CIRCUIT>> Check BCM CAN communication system. Refer to [LAN-44, "TROUBLE DIAGNOSIS"](#) .



HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)



WKIA4287E

A.	Right	B.	Vertical center line of headlamp	C.	Horizontal aiming center line of headlamp
D.	Left	E.	Vertical aiming cutoff point	F.	Cutoff line for vertical aiming evaluation
G.	Acceptable vertical cutoff setting at horizontal aiming point	H.	Horizontal center line of headlamp	J.	Maximum acceptable vertical aiming point
K.	Minimum acceptable vertical aiming point	L.	Aiming distance from center of headlamp to aiming screen		

- Aim each headlamp individually and ensure other headlamp beam pattern is blocked from screen.
- For vertical headlamp aiming, adjust headlamp until beam pattern is positioned per specified dimensions.

Description	Halogen Headlamp
Vertical aiming cutoff point (E)	53.2 mm (2.094 in)
Minimum acceptable vertical aiming point (K)	13.3 mm (0.52 in)
Maximum acceptable vertical aiming point (J)	93.1 mm (3.67 in)
Aiming distance from center of headlamp to aiming screen (L)	7.62 m (25 ft)

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

Bulb Replacement

EKS001M5

CAUTION:

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

HEADLAMP (HIGH/LOW)

1. Turn lighting switch OFF.
2. Remove the headlamp. Refer to [LT-25, "Removal and Installation"](#).
3. Remove back cover.
4. Unlock retaining spring and remove bulb from headlamp.

PARKING (CLEARANCE) LAMP

1. Turn lighting switch OFF.
2. Remove the headlamp. Refer to [LT-25, "Removal and Installation"](#).
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.

FRONT TURN SIGNAL LAMP

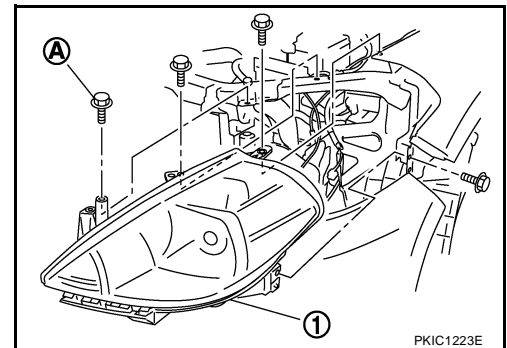
1. Turn lighting switch OFF.
2. Remove the headlamp. Refer to [LT-25, "Removal and Installation"](#).
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from its socket.

Removal and Installation

EKS001M6

REMOVAL

1. Disconnect the negative battery terminal.
2. Remove front bumper fascia. Refer to [EI-14, "FRONT BUMPER"](#).
3. Remove headlamp bolts (A).
4. Pull headlamp (1) toward the vehicle front, disconnect connector, and remove headlamp.



INSTALLATION

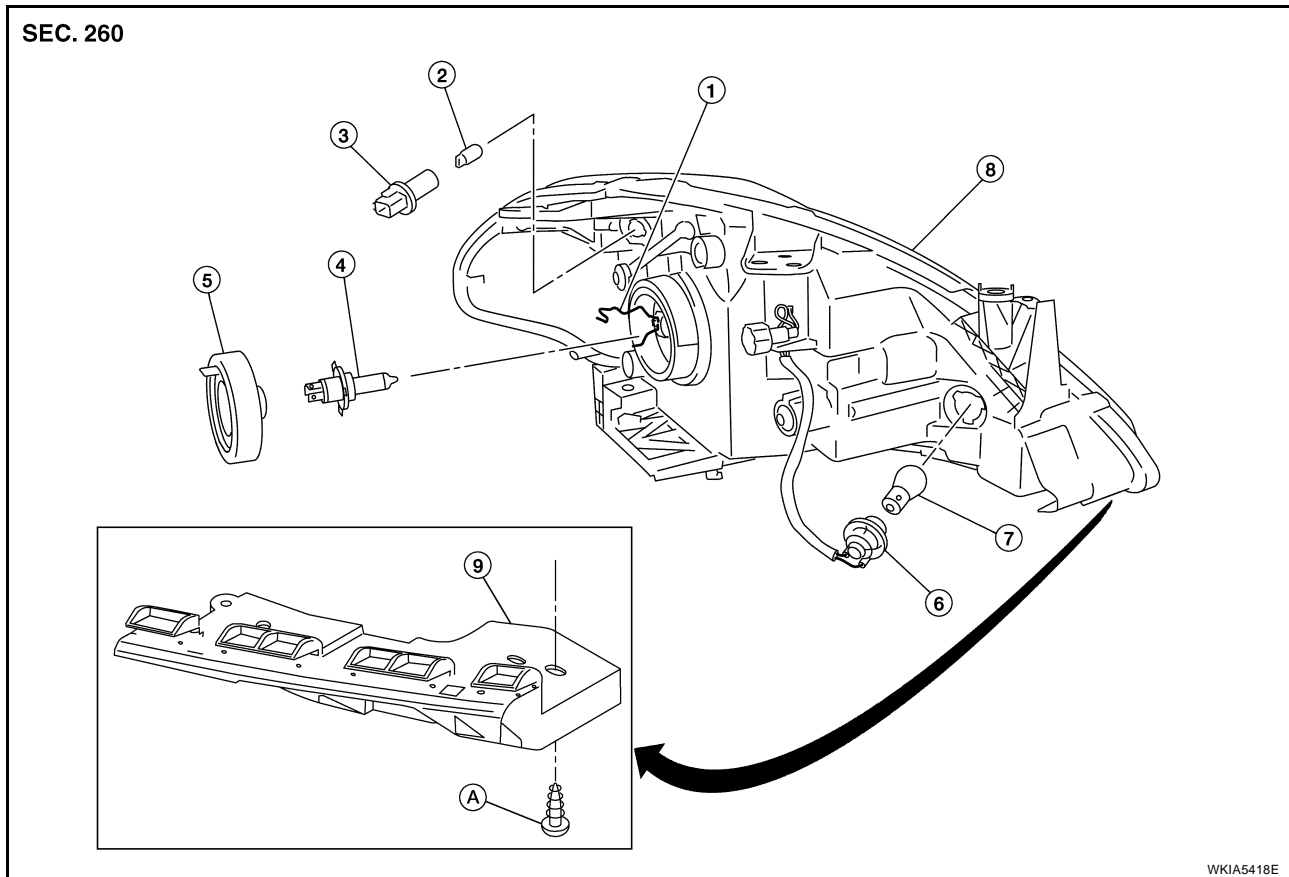
Installation is in the reverse order of removal.

- After installation, perform aiming adjustment. Refer to [LT-37, "Aiming Adjustment"](#).

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

Disassembly and Assembly

EKS00IM7



- | | | |
|--------------------------------|----------------------------------|---|
| 1. Retaining spring | 2. Parking (clearance) lamp bulb | 3. Parking (clearance) lamp bulb socket |
| 4. Halogen bulb (High/Low) | 5. Back cover | 6. Front turn signal lamp bulb socket |
| 7. Front turn signal lamp bulb | 8. Headlamp housing assembly | 9. Bumper stay |
| A. Screw | | |

DISASSEMBLY

1. Remove back cover.
2. Unlock retaining spring and remove bulb (High/Low).
3. Turn parking (clearance) lamp bulb socket counterclockwise and unlock it.
4. Remove parking (clearance) lamp bulb from its socket.
5. Turn front turn signal lamp bulb socket counterclockwise and unlock it.
6. Remove front turn signal lamp bulb from its socket.
7. Remove the bumper stay.

ASSEMBLY

Assembly is in the reverse order of disassembly.

CAUTION:

- After installing bulb, be sure to install plastic cap securely to insure water tight seal.

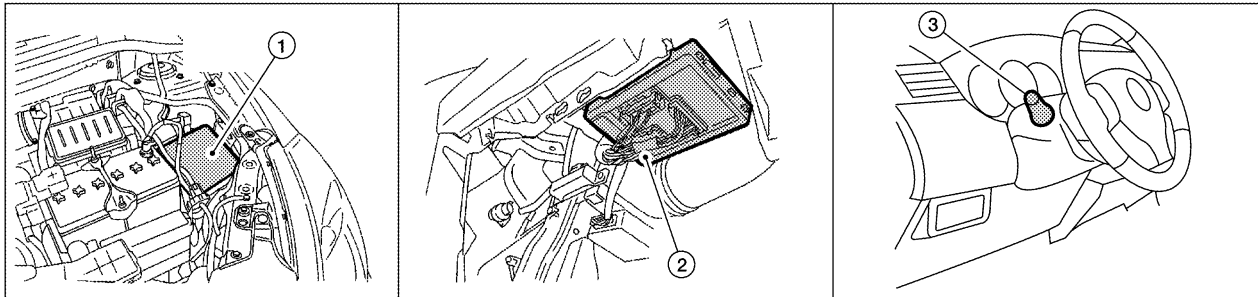
FRONT FOG LAMP

PFP:26150

FRONT FOG LAMP

Component Parts and Harness Connector Location

EKS00HX5



WKIA5554E

1. IPDM E/R E46, E47 and E48

2. BCM M18 and M20 (viewed with glove box removed)

3. Combination switch (lighting switch) M28

System Description

EKS00HX6

The front fog lamps are controlled by lighting switch inputs to the BCM (body control module). The lighting switch must be in the 1ST or 2ND position with the high beams OFF before the BCM will request the IPDM E/R (intelligent power distribution module engine room) to turn the front fog lamps on. The BCM requests the front fog lamps over the CAN communication lines to the IPDM E/R. The CPU (central processing unit) of the IPDM E/R controls the front fog lamp relay coil ground. When energized, the relay directs power to the front fog lamps.

OUTLINE

Power is supplied at all times:

- to front fog lamp relay (located in IPDM E/R),
- to ignition relay (located in IPDM E/R),
- through 15A fuse (No. 52, located in IPDM E/R) and
- through 20A fuse (No. 53, located in IPDM E/R)
- to CPU located in IPDM E/R,
- through 40A fusible link (letter **g** , located in the fuse and fusible link box)
- to BCM terminal 70,
- through 10A fuse [No. 8, located in fuse block (J/B)]
- to BCM terminal 57,
- through 10A fuse [No. 13, located in fuse block (J/B)]
- to combination meter terminal 27.

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

- to ignition relay (located in IPDM E/R),
- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 38.

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

- through 10A fuse [No. 20, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 67
- through grounds M57 and M61,
- to IPDM E/R terminals 39 and 59
- through grounds E15 and E24.

FRONT FOG LAMP

FOG LAMP OPERATION

The front fog lamp switch is built into the lighting switch. The lighting switch must be in 1ST position or 2ND position and front fog lamp switch must be ON position for front fog lamp operation. The fog lamp will not operate with the high beam headlamps ON.

When the front fog lamp switch is in the ON position, the BCM sends a request, via the CAN communication lines, to the CPU of the IPDM E/R to ground the coil side of the front fog lamp relay. The front fog lamp relay then directs power

- through 15A fuse (No. 56, located in IPDM E/R)
- through IPDM E/R terminal 50
- to front fog lamp LH terminal 1, and
- through IPDM E/R terminal 51
- to front fog lamp RH terminal 1.

Ground is supplied

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

With power and grounds supplied, front fog lamps illuminate.

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

EXTERIOR LAMP BATTERY SAVER CONTROL

Refer to [LT-78, "EXTERIOR LAMP BATTERY SAVER CONTROL"](#) .

CAN Communication System Description

Refer to [LAN-4, "CAN Communication System"](#) .

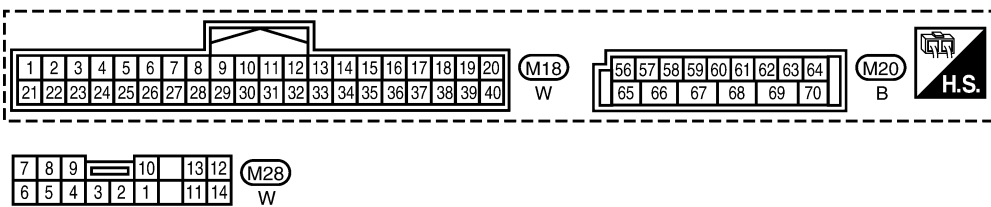
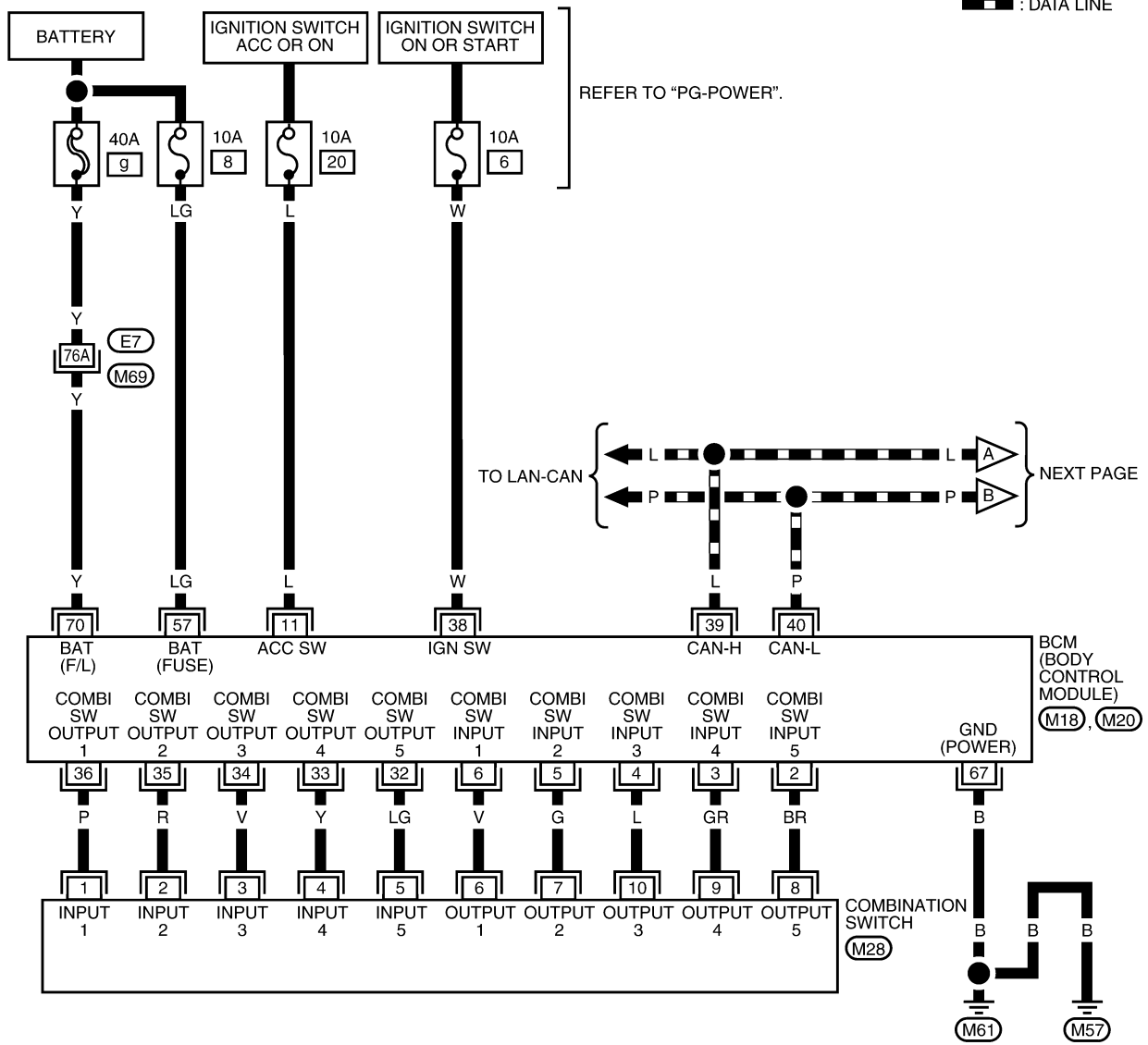
EKS00HX7

FRONT FOG LAMP

Wiring Diagram — F/FOG —

EKS00HXA

LT-F/FOG-01

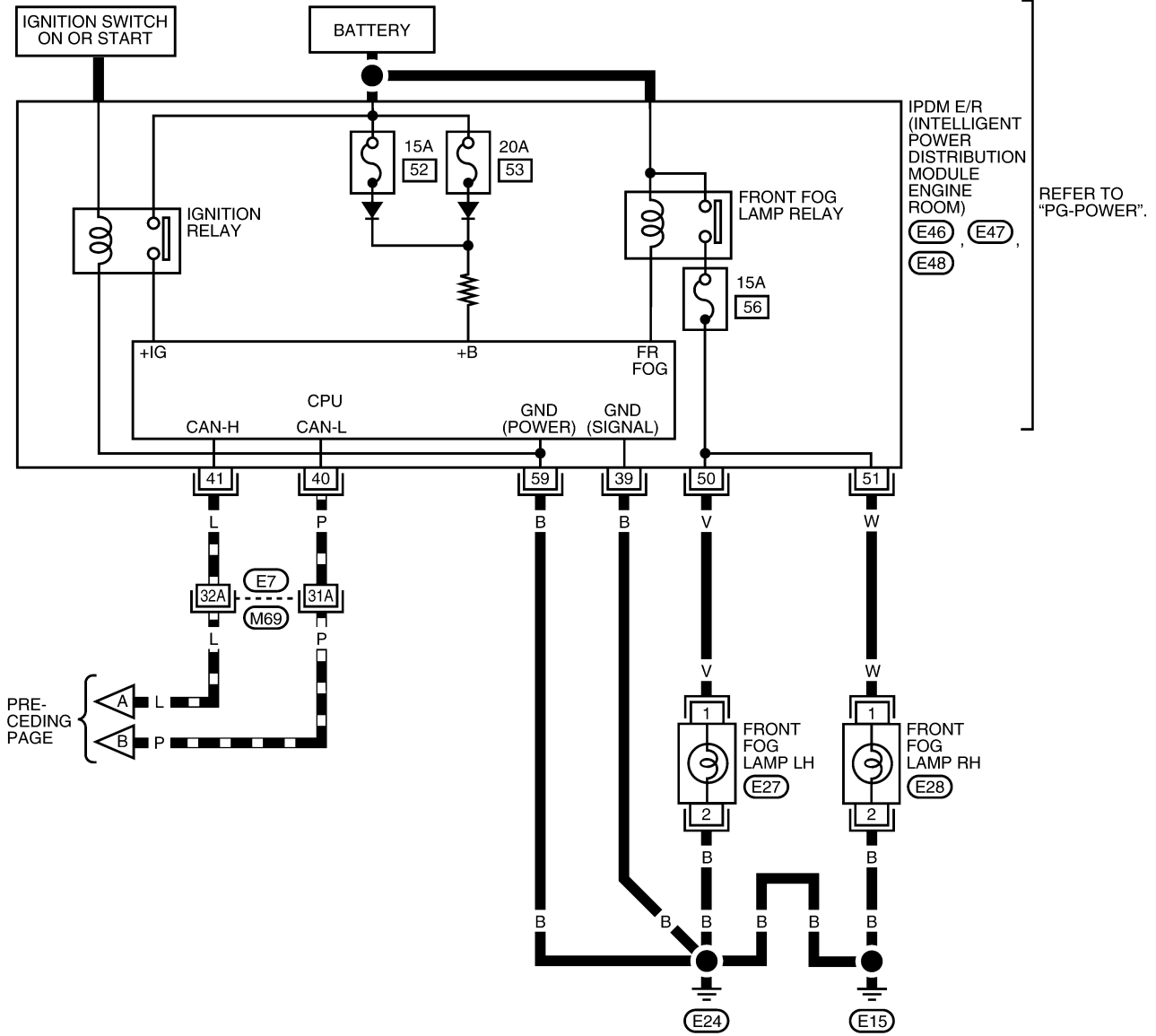


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FRONT FOG LAMP

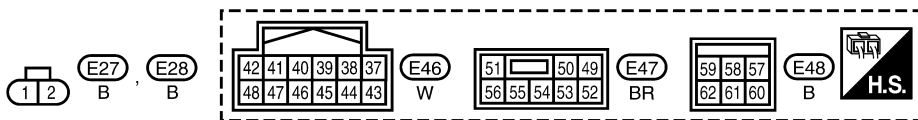
LT-F/FOG-02

▬ : DATA LINE



PRE-
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PAGE

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



LKWA0327E

FRONT FOG LAMP

Terminals and Reference Values for BCM

EKS00HXB

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

Terminals and Reference Values for IPDM E/R

EKS00HXC

Refer to [PG-26, "Terminals and Reference Values for IPDM E/R"](#) .

How to Proceed With Trouble Diagnosis

EKS00HXD

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-41, "System Description"](#) .
3. Perform the Preliminary Check. Refer to [LT-45, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of the malfunction.
5. Do the front fog lamps operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END.

Preliminary Check

EKS00HXE

CHECK POWER SUPPLY AND GROUND CIRCUIT FOR BCM

Refer to [BCS-17, "BCM Power Supply and Ground Circuit Check"](#) .

CHECK POWER SUPPLY AND GROUND CIRCUIT FOR IPDM E/R

Refer to [PG-29, "IPDM E/R Power/Ground Circuit Inspection"](#) .

CONSULT-II Function (BCM)

EKS00HXF

Refer to [BCS-19, "CONSULT-II Function \(BCM\)"](#) .

CONSULT-II Function (IPDM E/R)

EKS00HXC

Refer to [PG-19, "CONSULT-II Function \(IPDM E/R\)"](#) .

Front Fog lamps Do Not Illuminate (Both Sides)

EKS00HXC

1. INSPECT FOG LAMP FUSE

Inspect fog lamp 15A fuse No. 56 in IPDM E/R.

OK or NG

- OK >> GO TO 2.
- NG >> Repair harness.

2. CHECK COMBINATION SWITCH INPUT SIGNAL

1. Select "BCM" on CONSULT-II. Select "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Select "DATA MONITOR" on "SELECT DIAG MODE" screen. Make sure that "FR FOG SW" turns ON-OFF linked with operation of fog lamp switch.

When fog lamp switch is ON : FR FOG SW ON

☑ With CONSULT-II

Select "BCM" on CONSULT-II. With "HEAD LAMP" data monitor, make sure "FR FOG SW" turns ON-OFF linked with operation of front fog lamp switch.

☒ Without CONSULT-II

Refer to [LT-68, "Combination Switch Inspection"](#) .

OK or NG

- OK >> GO TO 3.
- NG >> Check combination switch (lighting switch). Refer to [LT-68, "Combination Switch Inspection"](#) .

DATA MONITOR			
MONITOR			
FR FOG SW	ON		
RECORD			
MODE	BACK	LIGHT	COPY

PKIA7598E

FRONT FOG LAMP

3. FOG LAMP ACTIVE TEST

① With CONSULT-II

1. Select "IPDM E/R" on CONSULT-II. Select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "EXTERNAL LAMPS" on "SELECT TEST ITEM" screen.
3. Touch "FOG" screen.
4. Make sure front fog lamp operates.

Front fog lamp should operate.

⊗ Without CONSULT-II

1. Start auto active test. Refer to [PG-21, "Auto Active Test"](#) .
2. Make sure front fog lamp operates.

Front fog lamp should operate.

ACTIVE TEST			
EXTERNAL LAMPS		OFF	
		TAIL	
LO		HI	
FOG			
MODE	BACK	LIGHT	COPY

PKIC0936E

OK or NG

- OK >> GO TO 4.
 NG >> GO TO 5.

4. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II. Select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "FR FOG REQ" turns ON when front fog lamp switch is in ON position.

When front fog lamp switch : FR FOG REQ ON is ON position

OK or NG

- OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#) .
- NG >> Replace BCM. Refer to [BCS-27, "Removal and Installation of BCM"](#) .

DATA MONITOR			
MONITOR			
FR FOG REQ		ON	
		Page Down	
RECORD			
MODE	BACK	LIGHT	COPY

SKIA5898E

FRONT FOG LAMP

5. CHECK FOG LAMP INPUT SIGNAL

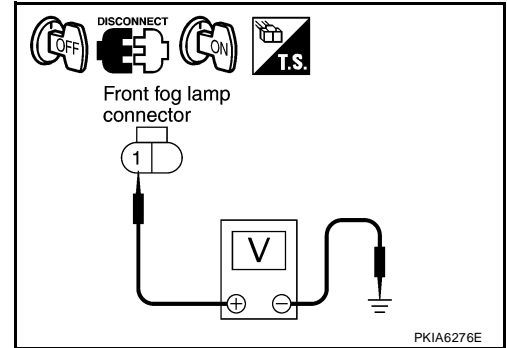
④ With CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front fog lamp connector.
3. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
4. Select "EXTERNAL LAMPS" on "SELECT TEST ITEM" screen.
5. Touch "FOG" screen.
6. When front fog lamp relay is operating, check voltage between front fog lamp harness connector and ground.

(+)		Terminal	(-)	Voltage
Front fog lamp connector				
RH	E28	1	Ground	Battery voltage
LH	E27			

⊗ Without CONSULT-II

1. Turn ignition switch OFF.
2. Disconnect front fog lamp connector.
3. Start auto active test. Refer to [PG-21, "Auto Active Test"](#) .
4. When front fog lamp relay is operating, check voltage between front fog lamp harness connector and ground.



(+)		Terminal	(-)	Voltage
Front fog lamp connector				
RH	E28	1	Ground	Battery voltage
LH	E27			

OK or NG

- OK >> GO TO 7.
NG >> GO TO 6.

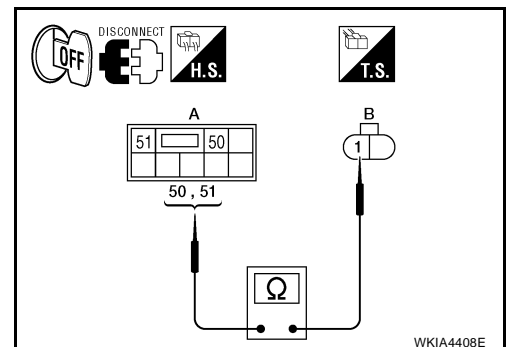
6. CHECK FOG LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector (A) and front fog lamp harness connector (B).

Circuit	A		B		Continuity
	Connector	Terminal	Connector	Terminal	
RH	E47	51	E28	1	Yes
LH		50	E27		

OK or NG

- OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#) .
NG >> Repair harness or connector.



FRONT FOG LAMP

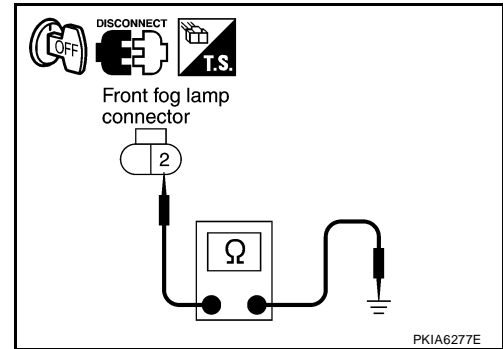
7. CHECK FOG LAMP GROUND

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

Front fog lamp connector		Terminal	Ground	Continuity
RH	E28	2		Ground
LH	E27			

OK or NG

- OK >> Check front fog lamp bulbs.
 NG >> Repair harness or connector.



Front Fog Lamp Does Not Illuminate (One Side)

EKS00HXI

1. CHECK BULB

Check bulb of lamp which does not illuminate.

OK or NG

- OK >> GO TO 2.
 NG >> Replace front fog lamp bulb.

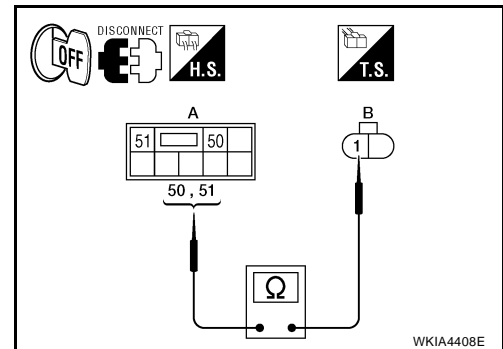
2. CHECK FOG LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector and front fog lamp connector.
3. Check continuity between IPDM E/R harness connector (A) and front fog lamp harness connector (B).

Circuit	A		B		Continuity
	Connector	Terminal	Connector	Terminal	
RH	E47	51	E28	1	Yes
LH		50	E27		

OK or NG

- OK >> GO TO 3.
 NG >> Repair harness or connector.



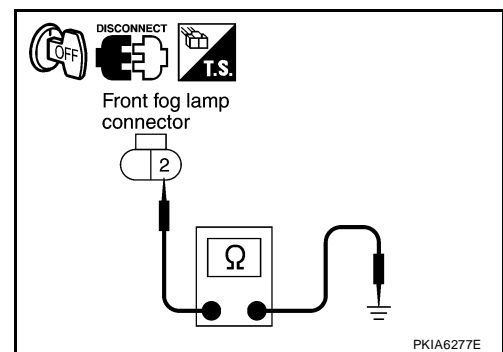
3. CHECK FOG LAMP GROUND

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

Front fog lamp connector		Terminal	Ground	Continuity
RH	E28	2		Ground
LH	E27			

OK or NG

- OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#) .
 NG >> Repair harness or connector.



FRONT FOG LAMP

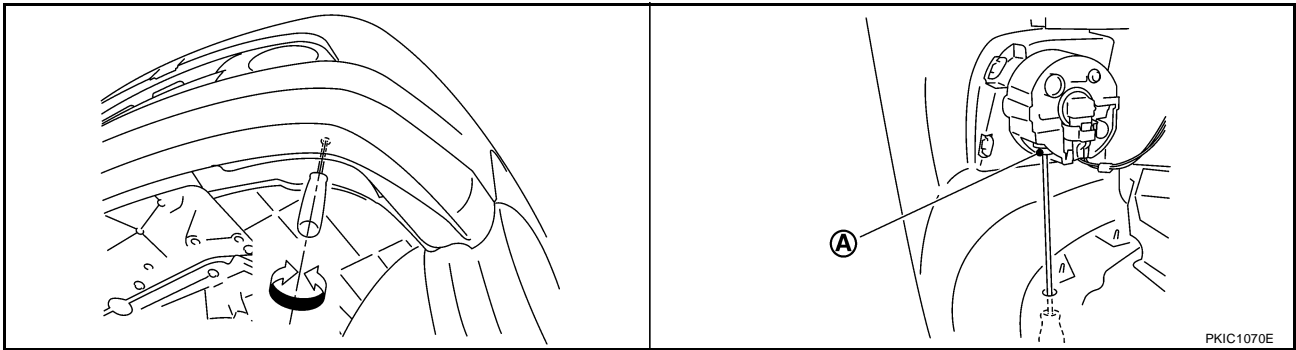
EKS00HXJ

Aiming Adjustment

The front 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 surface.
- Set that there is no-load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant, engine oil filled up to correct level and full fuel tank, spare tire, jack and tools are properly stowed.

Adjust aiming in the vertical direction by turning the adjusting screw (A).

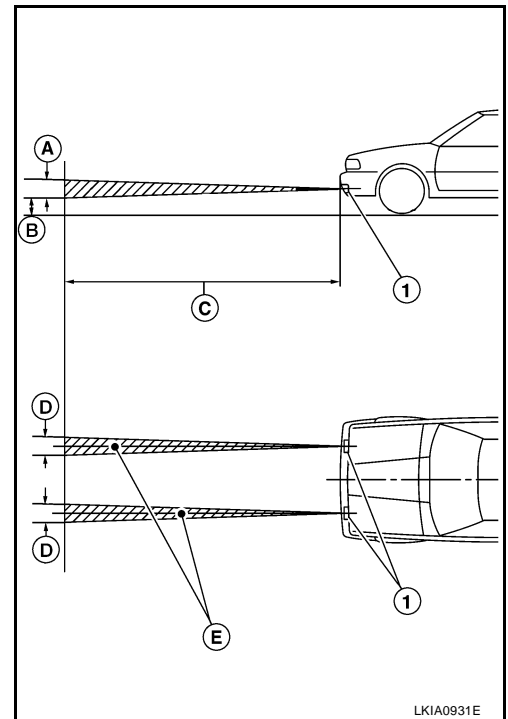


1. Set the distance (C) between the screen and the center of front fog lamp lens (E) as shown.
2. Turn front fog lamps (1) to ON.
3. Adjust front fog lamps using adjusting screw so that the top edge of the high intensity zone (A) is as shown.

Aiming distance from center of fog lamp to screen (C)	25,000 mm (984.3 in)
Foglamp beam width (D)	870 mm (34.3 in)
Horizontal distance from ground to bottom edge of high intensity zone (B)	220 mm (8.7 in)
Horizontal distance from bottom edge to top edge of high intensity zone (A)	21.75 mm (0.9 in)

NOTE:

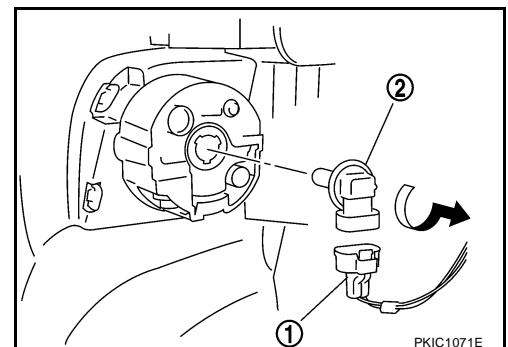
When performing adjustment, if necessary, cover the headlamps and opposite front fog lamp.



Bulb Replacement

EKS00HXK

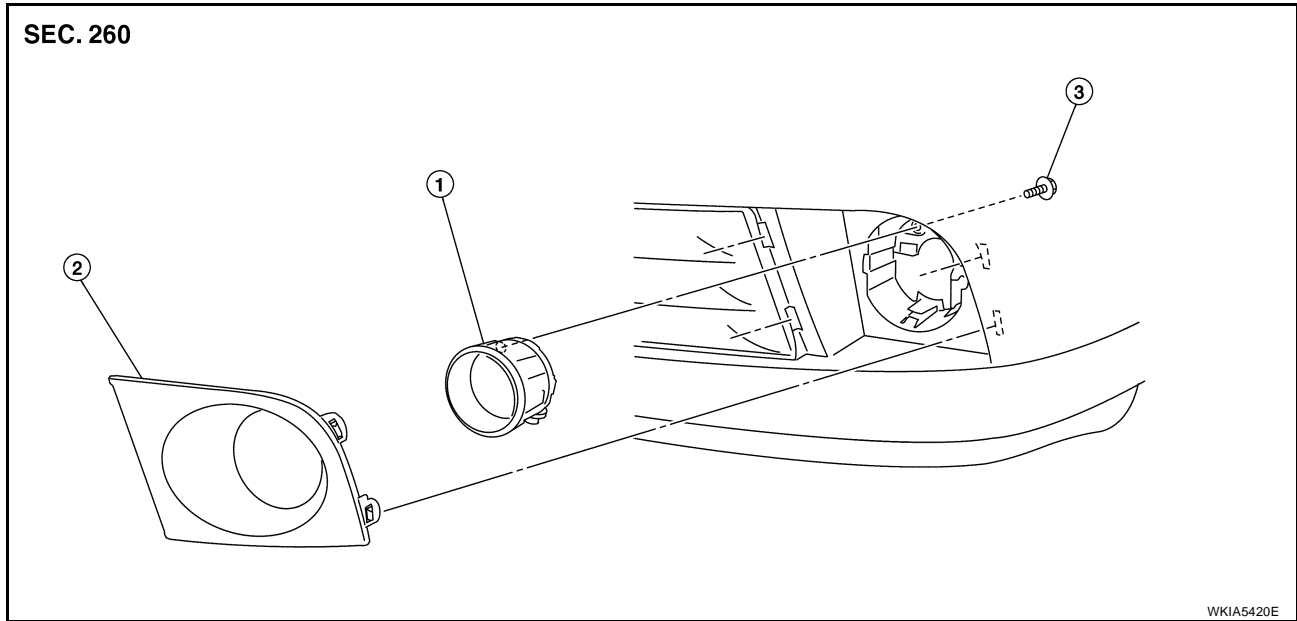
1. Turn lighting switch OFF.
2. Turn off the fender protector (front) to obtain work space between the fender protector and fender.
3. Disconnect front fog lamp connector (1).
4. Turn bulb socket (2) counterclockwise unlock and remove it.
5. Remove bulb from its socket.



FRONT FOG LAMP

Removal and Installation

EKS00HXL



1. Front fog lamp

2. Front bumper finisher

3. Bolt

REMOVAL

1. Turn over the fender protector and undercover to obtain work space between the fender protector and fender.
2. Disconnect front fog lamp connector.
3. Remove pawl, and front bumper finisher from front bumper.
4. Remove bolt and remove front fog lamp from bracket.

INSTALLATION

Installation is in the reverse order of removal.

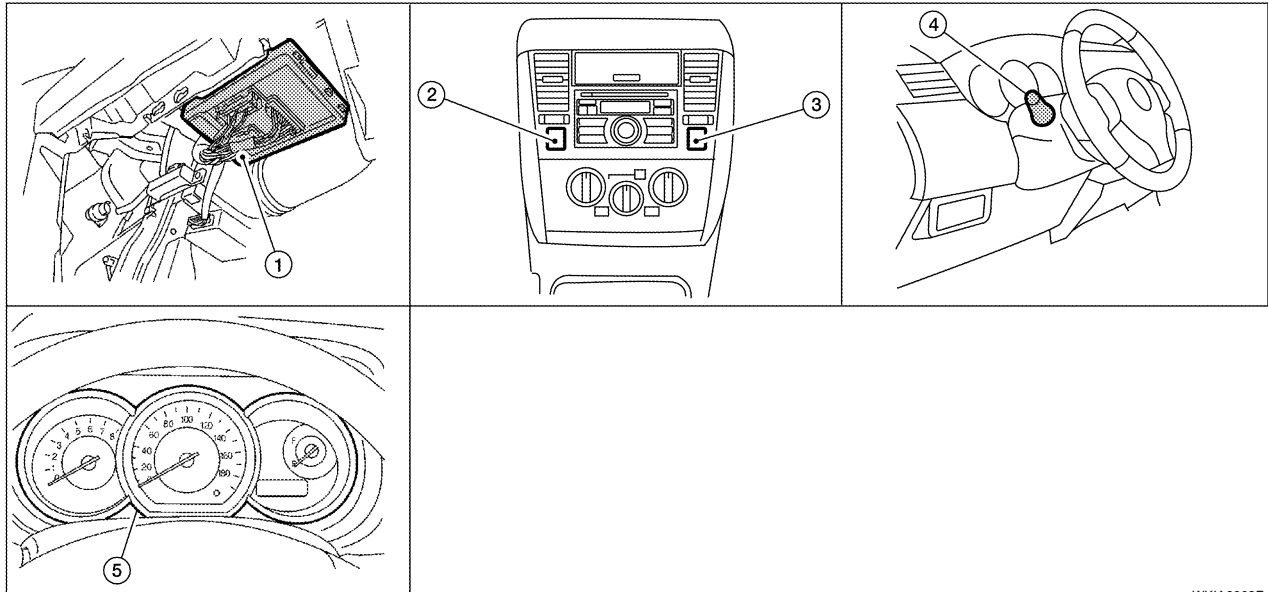
TURN SIGNAL AND HAZARD WARNING LAMPS

PF26120

EKS00HXZ

TURN SIGNAL AND HAZARD WARNING LAMPS

Component Parts and Harness Connector Location



WKIA6002E

1. BCM M18 and M20 (view with glove box removed)
2. Hazard switch M55 (late production)
3. Hazard switch M55 (early production)
4. Combination switch (lighting switch)
5. Combination meter M24

System Description TURN SIGNAL OPERATION

EKS00HY0

Power is supplied at all times

- through 40A fusible link (letter **g** , located in the fuse and fusible link box)
- to BCM (body control module) terminal 70,
- through 10A fuse [No. 8, located in the fuse block (J/B)]
- to BCM terminal 57,
- through 10A fuse [No. 13, located in the fuse block (J/B)]
- to combination meter terminal 27.

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

- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 38,
- through 10A fuse [No. 3, located in fuse block (J/B)]
- to combination meter terminal 28.

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

- through 10A fuse [No. 20, located in the fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 67 and
- to combination meter terminals 21, 22 and 23
- through grounds M57 and M61.

LH Turn Signal Lamp

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

- through BCM terminal 60
- to front combination lamp LH terminal 4 and

TURN SIGNAL AND HAZARD WARNING LAMPS

- to rear combination lamp LH terminal 6.

Ground is supplied

- to front combination lamp LH terminal 5
- through grounds E15 and E24,
- to rear combination lamp LH terminal 1
- through grounds B7 and B19.

The BCM also sends a request, via the CAN communication lines, to the combination meter to flash the left turn signal indicator. The unified meter control unit in the combination meter supplies ground to the left turn signal indicator lamp and activates the audible turn signal indicator.

With power, ground and input supplied, the BCM controls the flashing of the turn signal lamps.

RH Turn Signal Lamp

When turn signal switch is moved to the right turn position, the BCM receives an input signal requesting right turn signals to flash. The BCM then supplies power

- through BCM terminal 61
- to front combination lamp RH terminal 4 and
- to rear combination lamp RH terminal 6.

Ground is supplied

- to front combination lamp RH terminal 5
- through grounds E15 and E24,
- to rear combination lamp RH terminal 1
- through grounds B117, B132 (all models) and D402 (with hatchback).

The BCM also sends a request, via the CAN communication lines, to the combination meter to flash the right turn signal indicator. The unified meter control unit in the combination meter supplies ground to the right turn signal indicator lamp and activates the audible turn signal indicator.

With power, ground and input supplied, the BCM controls the flashing of the turn signal lamps.

HAZARD LAMP OPERATION

Power is supplied at all times

- through 40A fusible link (letter **g** , located in fuse, fusible link and relay box)
- to BCM terminal 70,
- through 10A fuse [No. 8, located in fuse block (J/B)]
- to BCM terminal 57,
- through 10A fuse [No. 13, located in fuse block (J/B)]
- to combination meter terminal 27.

Ground is supplied

- to hazard switch terminal 1,
- to BCM terminal 67, and
- to combination meter terminals 21, 22 and 23
- through grounds M57 and M61.

When hazard switch is depressed, ground is supplied

- through hazard switch terminal 2
- to BCM terminal 29.

BCM then supplies power

- to front combination lamp LH terminal 4 and
- to rear combination lamp LH terminal 6
- through BCM terminal 60,
- to front combination lamp RH terminal 4 and
- to rear combination lamp RH terminal 6
- through BCM terminal 61.

Ground is supplied

- to front combination lamp LH and RH terminal 5

TURN SIGNAL AND HAZARD WARNING LAMPS

- through grounds E15 and E24,
- to rear combination lamp LH terminal 1
- through grounds B7 and B19,
- to rear combination lamp RH terminal 1
- through grounds B117, B132 and D402 (hatchback).

The BCM also supplies input to combination meter across the CAN communication lines. This input is processed by unified meter control unit in combination meter, which in turn supplies ground to the left and right turn signal indicator lamps.

With power and input supplied, BCM controls flashing of hazard warning lamps.

REMOTE KEYLESS ENTRY SYSTEM OPERATION

Power is supplied at all times

- through 40A fusible link (letter **g** , located in fuse, fusible link and relay box)
- to BCM terminal 70,
- through 10A fuse [No. 13, located in fuse block (J/B)]
- to combination meter terminal 27.

Ground is supplied

- to BCM terminal 67 and
- to combination meter terminals 21, 22 and 23
- through grounds M57 and M61.

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

- through BCM terminal 60
- to front combination lamp LH terminal 4 and
- to rear combination lamp LH terminal 6,
- through BCM terminal 61
- to front turn signal lamp RH terminal 4 and
- to rear combination lamp RH terminal 6.

Ground is supplied

- to front combination lamp LH and RH terminals 5
- through grounds E15 and E24,
- to rear combination lamp LH terminal 1
- through grounds B7 and B19,
- to rear combination lamp RH terminal 1
- through grounds B117, B132 (all models) and D402 (with hatchback).

The BCM also supplies input to combination meter via the CAN communication lines. This input is processed by the unified meter control unit in combination meter, which in turn supplies ground to the left and right turn signal indicator lamps.

With power and ground supplied, BCM controls flashing of hazard warning lamps when keyfob is used to activate remote keyless entry system.

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

CAN Communication System Description

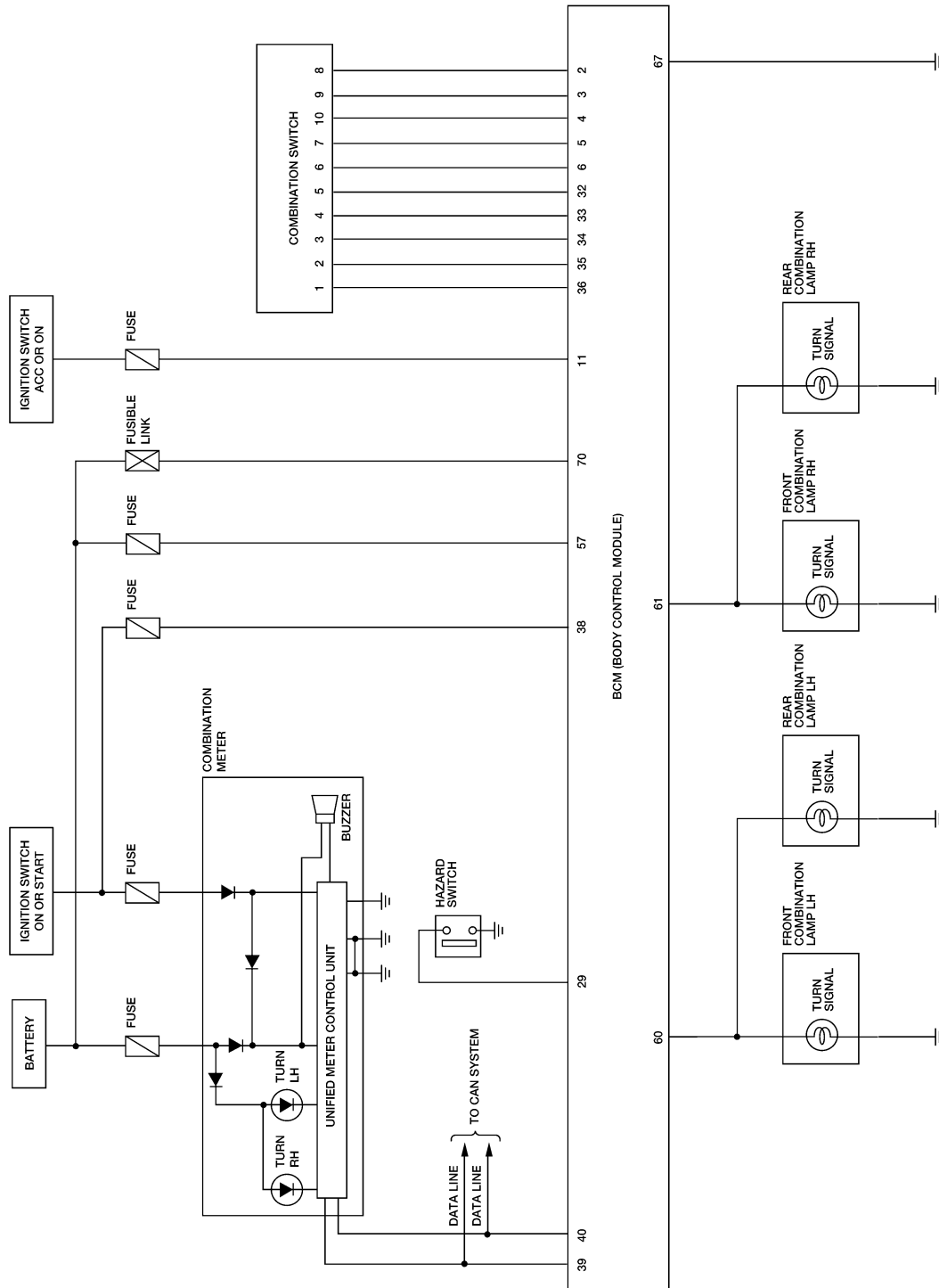
Refer to [LAN-4, "CAN Communication System"](#) .

EKS00HY1

TURN SIGNAL AND HAZARD WARNING LAMPS

Schematic

EKS00HY3



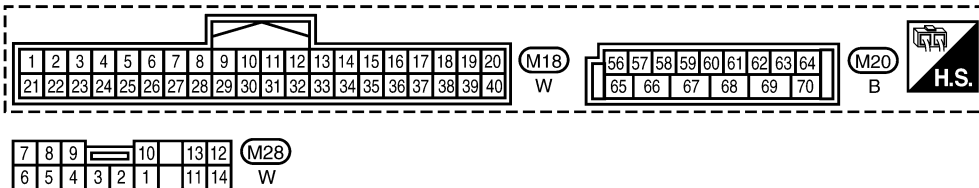
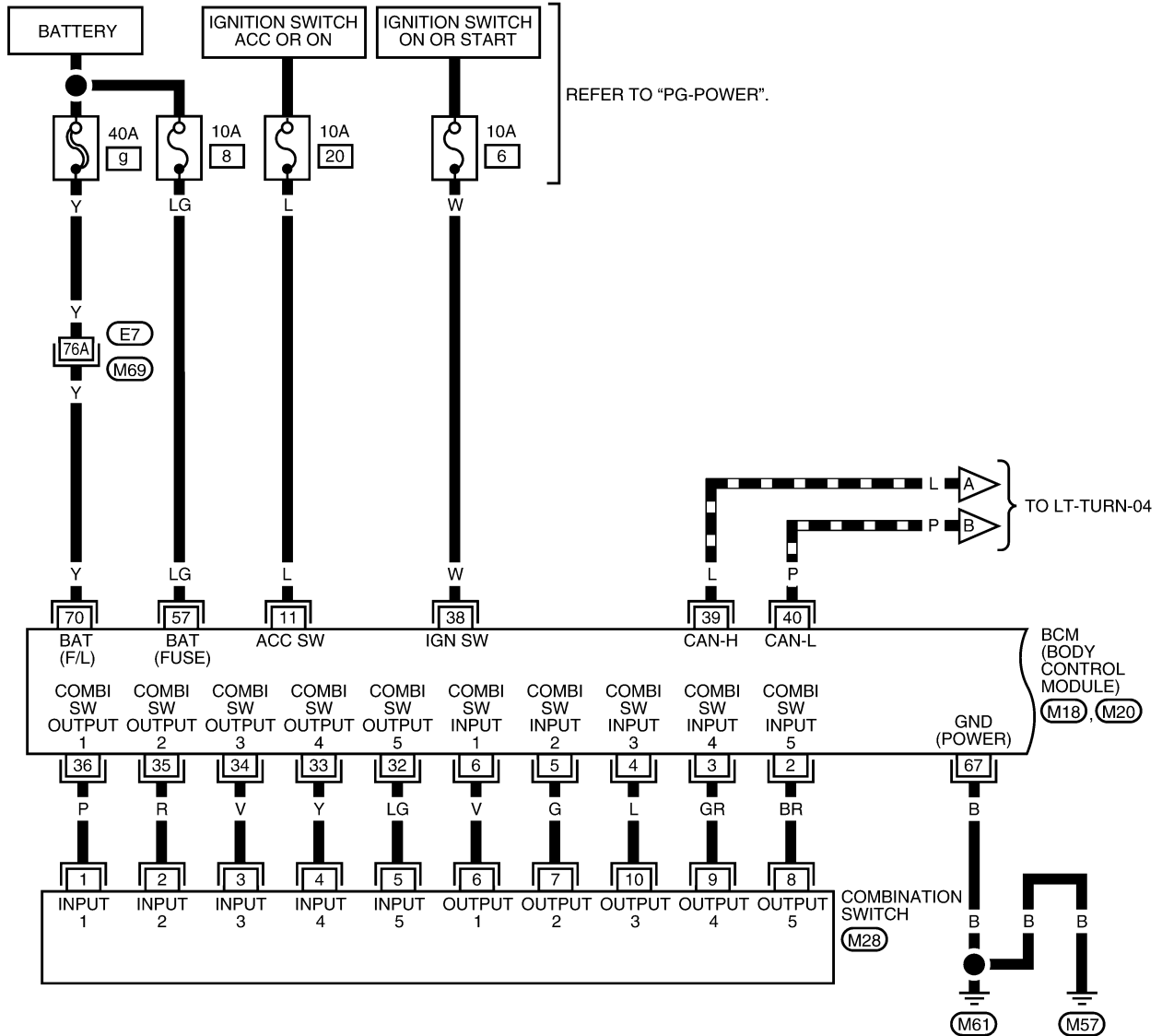
TURN SIGNAL AND HAZARD WARNING LAMPS

Wiring Diagram — TURN —

EKS00HY4

LT-TURN-01

▬ : DATA LINE



REFER TO THE FOLLOWING.

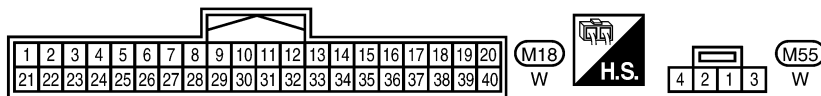
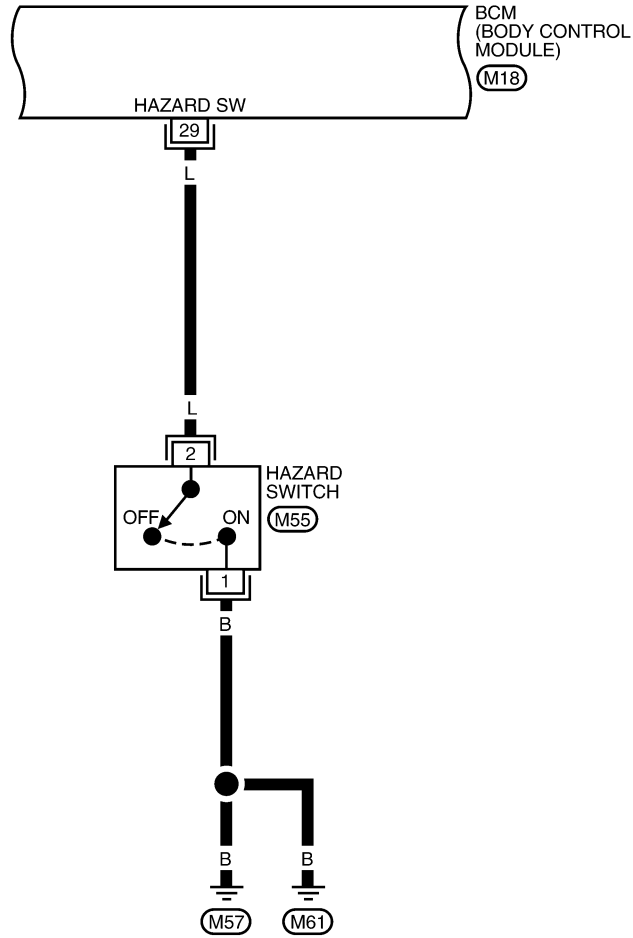
(M69) - SUPER MULTIPLE JUNCTION (SMJ)



LKWA0329E

TURN SIGNAL AND HAZARD WARNING LAMPS

LT-TURN-02

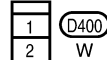
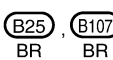
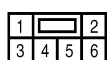
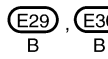
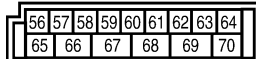
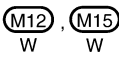
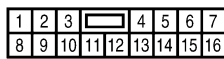
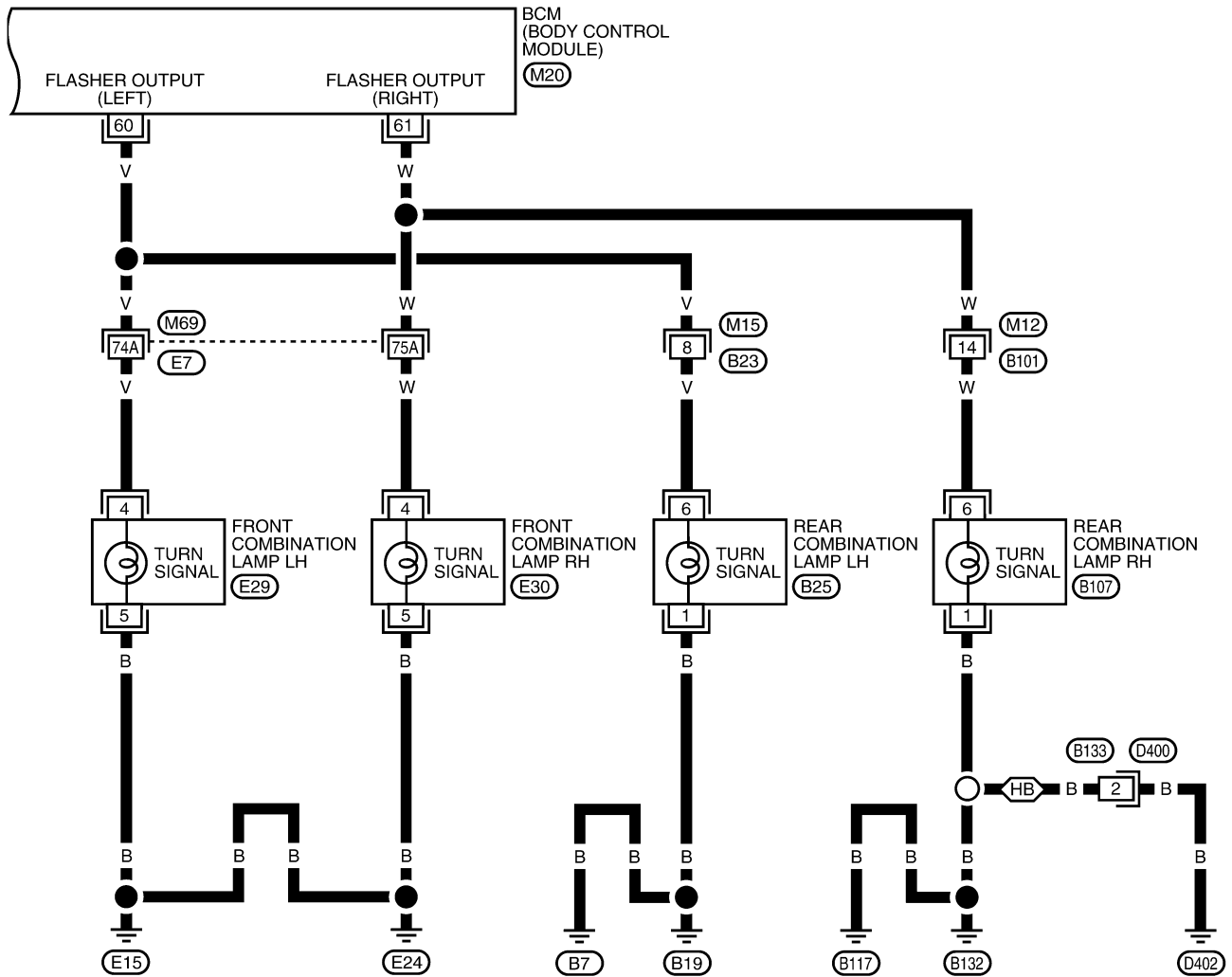


LKWA0330E

TURN SIGNAL AND HAZARD WARNING LAMPS

LT-TURN-03

HB : WITH HATCHBACK

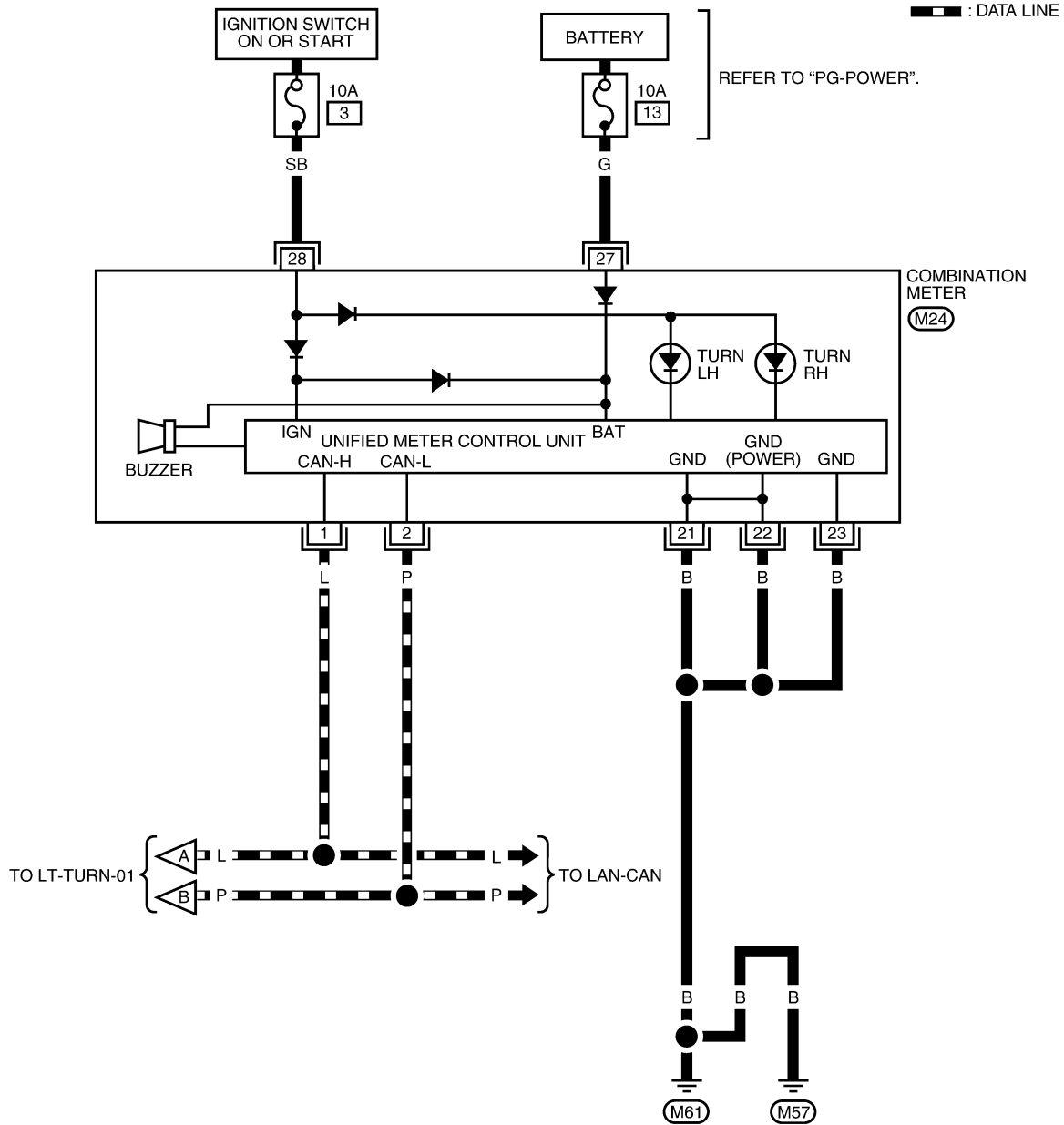


REFER TO THE FOLLOWING.
 (M69) - SUPER MULTIPLE JUNCTION (SMJ)

WKWA5808E

TURN SIGNAL AND HAZARD WARNING LAMPS

LT-TURN-04



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	(M24)
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	W

LKWA0332E

TURN SIGNAL AND HAZARD WARNING LAMPS

Terminals and Reference Values for BCM

EKS00HY5

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

How to Proceed With Trouble Diagnosis

EKS00HY6

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-51, "System Description"](#) .
3. Perform the preliminary check. Refer to [LT-59, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of the malfunction.
5. Do turn signal and hazard warning lamps operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

Preliminary Check

EKS00HY7

CHECK POWER SUPPLY AND GROUND CIRCUIT FOR BCM

Refer to [BCS-17, "BCM Power Supply and Ground Circuit Check"](#) .

CONSULT-II Function (BCM)

EKS00HY8

Refer to [LT-12, "CONSULT-II Function \(BCM\)"](#) .

Turn Signals Do Not Operate

EKS00HY9

1. CHECK COMBINATION SWITCH INPUT SIGNAL

④ With CONSULT-II

1. Select "BCM" on CONSULT-II. Select "FLASHER" on "SELECT TEST ITEM" screen.
2. Select "DATA MONITOR" on "SELECT DIAG MODE" screen. Make sure that "TURN SIGNAL R" and "TURN SIGNAL L" turns ON-OFF linked with operation of lighting switch.

**When turn signal switch is : TURN SIGNAL R ON
right position**

**When turn signal switch is : TURN SIGNAL L ON
left position**

DATA MONITOR			
MONITOR			
TURN SIGNAL R	ON		
TURN SIGNAL L	ON		
RECORD			
MODE	BACK	LIGHT	COPY

PKIA7600E

⊗ Without CONSULT-II

Refer to [LT-68, "Combination Switch Inspection"](#) .

OK or NG

OK >> Replace the BCM. [BCS-27, "Removal and Installation of BCM"](#)

NG >> Check combination switch (lighting switch). Refer to [LT-68, "Combination Switch Inspection"](#) .

Front Turn Signal Lamp Does Not Operate

EKS00IXB

1. CHECK BULB

Verify the bulb standard of each turn signal lamp is correct. Refer to [LT-119, "Exterior Lamp"](#) .

OK or NG

OK >> GO TO 2.

NG >> Replace turn signal lamp bulb. Refer to [LT-64, "Bulb Replacement of Front Turn Signal Lamp"](#) .

TURN SIGNAL AND HAZARD WARNING LAMPS

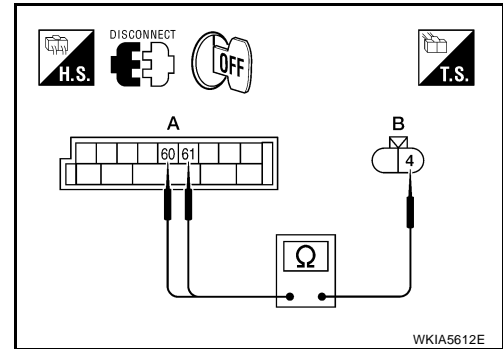
2. CHECK FRONT TURN SIGNAL LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and front combination lamp LH or RH connector.
3. Check continuity between BCM harness connector M20 (A) terminal 60 and front combination lamp LH harness connector E29 (B) terminal 4.

60 - 4 : Continuity should exist.

4. Check continuity between BCM harness connector M20 terminal 61 (A) and front combination lamp RH harness connector E30 (B) terminal 4.

61 - 4 : Continuity should exist.



OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

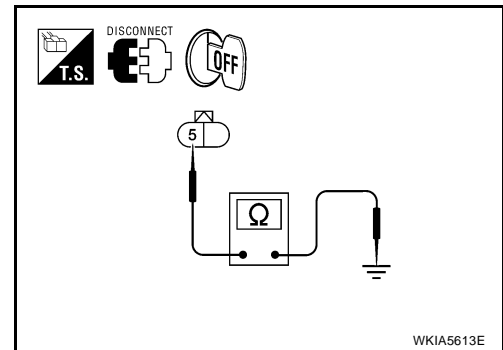
3. CHECK GROUND CIRCUIT

1. Check continuity between front combination lamp LH harness connector E29 terminal 5 and ground.

5 - Ground : Continuity should exist.

2. Check continuity between front combination lamp RH harness connector E30 terminal 5 and ground.

5 - Ground : Continuity should exist.



OK or NG

OK >> Inspect connection at front combination lamp.

NG >> Repair harness.

Rear Turn Signal Lamp Does Not Operate

EKS00XC

1. CHECK BULB

Verify the bulb standard of each turn signal lamp is correct. Refer to [LT-119, "Exterior Lamp"](#) .

OK or NG

OK >> GO TO 2.

NG >> Replace turn signal lamp bulb. Refer to [LT-64, "Bulb Replacement of Rear Turn Signal Lamp"](#) .

TURN SIGNAL AND HAZARD WARNING LAMPS

2. CHECK REAR TURN SIGNAL LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and rear combination lamp LH or RH connector.
3. Check continuity between BCM harness connector M20 (A) terminal 60 and rear combination lamp LH harness connector B25 (B) terminal 6.

60 - 6 : Continuity should exist.

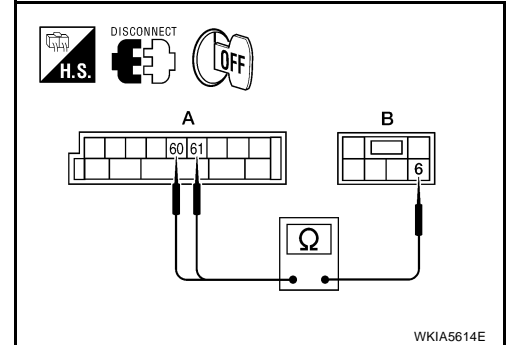
4. Check continuity between BCM harness connector M20 (A) terminal 61 and rear combination lamp RH harness connector B107 (B) terminal 6.

61 - 6 : Continuity should exist.

OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.



3. CHECK GROUND CIRCUIT

1. Check continuity between rear combination lamp LH harness connector B25 terminal 1 and ground.

1 - Ground : Continuity should exist.

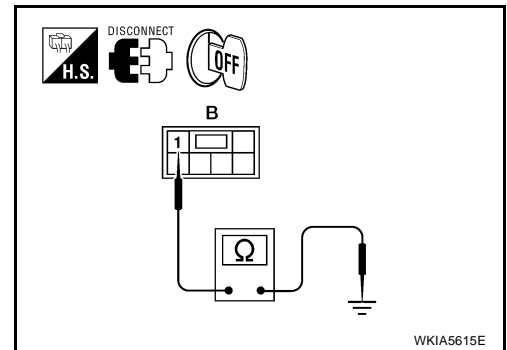
2. Check continuity between rear combination lamp RH harness connector B107 terminal 1 and ground.

1 - Ground : Continuity should exist.

OK or NG

OK >> Check rear combination lamp connector for proper connection. Repair as necessary.

NG >> Repair harness or connector.



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TURN SIGNAL AND HAZARD WARNING LAMPS

Hazard Warning Lamp Does Not Operate But Turn Signal Lamp Operates

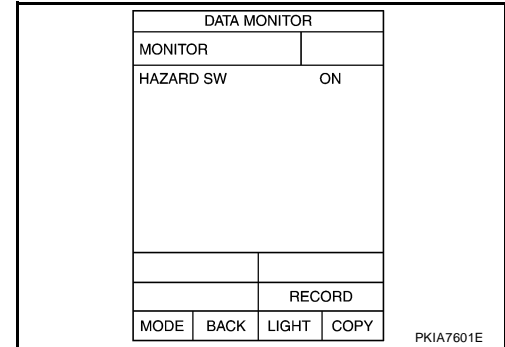
EKS00HYA

1. CHECK HAZARD SWITCH INPUT SIGNAL

② With CONSULT-II

1. Select "BCM" on CONSULT-II. Select "FLASHER" on "SELECT TEST ITEM" screen.
2. Select "DATA MONITOR" on "SELECT DIAG MODE" screen. Make sure that "HAZARD SW" turns ON-OFF linked with operation of hazard switch.

When hazard switch is in ON position : HAZARD SW ON



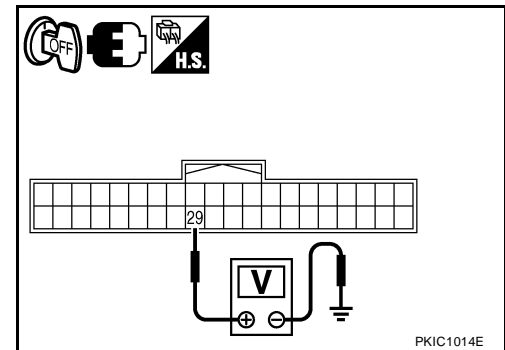
⊗ Without CONSULT-II

Check voltage between BCM harness connector and ground.

Terminal (+)		Terminal (-)	Condition	Voltage
BCM connector	Terminal			
M18	29	Ground	Hazard switch is ON	0V
			Hazard switch is OFF	Battery voltage

OK or NG

- OK >> Replace BCM. Refer to [BCS-27, "Removal and Installation of BCM"](#) .
- NG >> GO TO 2.



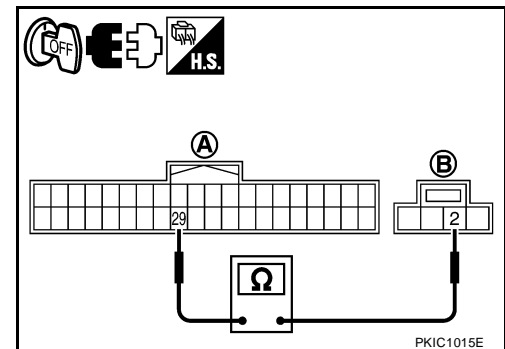
2. CHECK HAZARD SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and hazard switch connector.
3. Check continuity BCM harness connector M18 (A) and hazard switch harness connector M55 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M18	29	M55	2	Yes

OK or NG

- OK >> GO TO 3.
- NG >> Repair harness or connector.



TURN SIGNAL AND HAZARD WARNING LAMPS

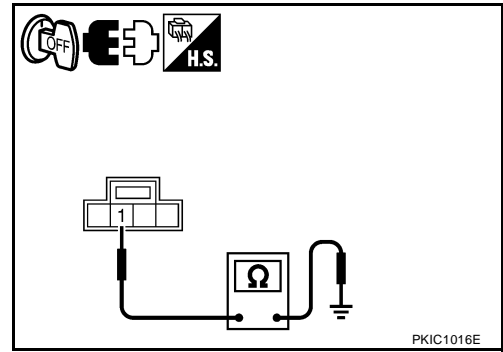
3. CHECK GROUND CIRCUIT

Check continuity between hazard switch harness connector M55 terminal 1 and ground.

1 – Ground : Continuity should exist.

OK or NG

- OK >> GO TO 4.
- NG >> Repair harness or connector.



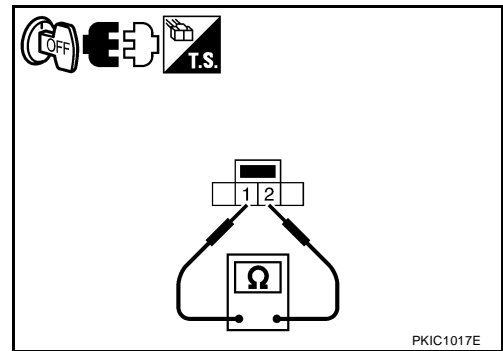
4. CHECK HAZARD SWITCH

1. Disconnect hazard switch connector.
2. Check continuity hazard switch terminals.

Terminal		Condition	Continuity
Hazard switch			
1	2	Hazard switch is ON	Yes
		Hazard switch is OFF	No

OK or NG

- OK >> Replace BCM if hazard warning lamps do not operate after setting the connector again. Refer to [BCS-27, "Removal and Installation of BCM"](#) .
- NG >> Replace hazard switch.



Turn Signal Indicator Lamp Does Not Operate

EKS00JBH

1. CHECK CAN COMMUNICATION SYSTEM

Check CAN communication. Refer to [LAN-44, "TROUBLE DIAGNOSIS"](#) .

OK or NG

- OK >> Replace combination meter. Refer to [DI-23, "Removal and Installation"](#) .
- NG >> Repair as necessary.

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TURN SIGNAL AND HAZARD WARNING LAMPS

Bulb Replacement of Front Turn Signal Lamp

EKS00HYB

Refer to [LT-25, "Bulb Replacement"](#) .

Bulb Replacement of Rear Turn Signal Lamp

EKS00HYC

Refer to [LT-91, "Bulb Replacement"](#) .

Removal and Installation of Front Turn Signal Lamp

EKS00HYE

Refer to [LT-25, "Removal and Installation"](#) .

Removal and Installation of Rear Turn Signal Lamp

EKS00HYF

Refer to [LT-92, "Removal and Installation"](#) .

LIGHTING AND TURN SIGNAL SWITCH

LIGHTING AND TURN SIGNAL SWITCH

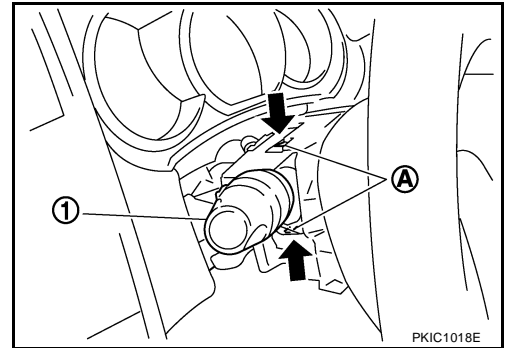
PF25540

Removal and Installation

EKS00HYH

REMOVAL

1. Remove steering column cover. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
2. While pressing pawls (A) in direction as shown, pull lighting and turn signal switch (1) toward LH door and disconnect from the base.



INSTALLATION

Installation is in the reverse order of removal.

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HAZARD SWITCH

PF2:25290

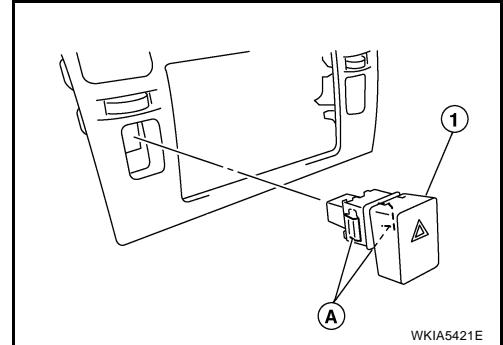
HAZARD SWITCH

Removal and Installation

EKS00HYI

REMOVAL

1. Remove cluster lid C. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
2. Disconnect hazard switch connector.
3. Press pawl (A) on reverse side and remove the hazard switch (1).



INSTALLATION

Installation is in the reverse order of removal.

COMBINATION SWITCH

PFP:25567

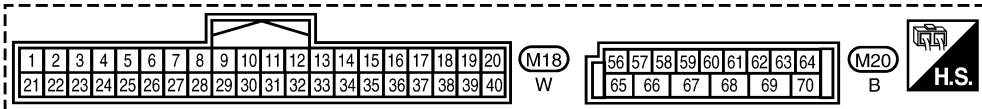
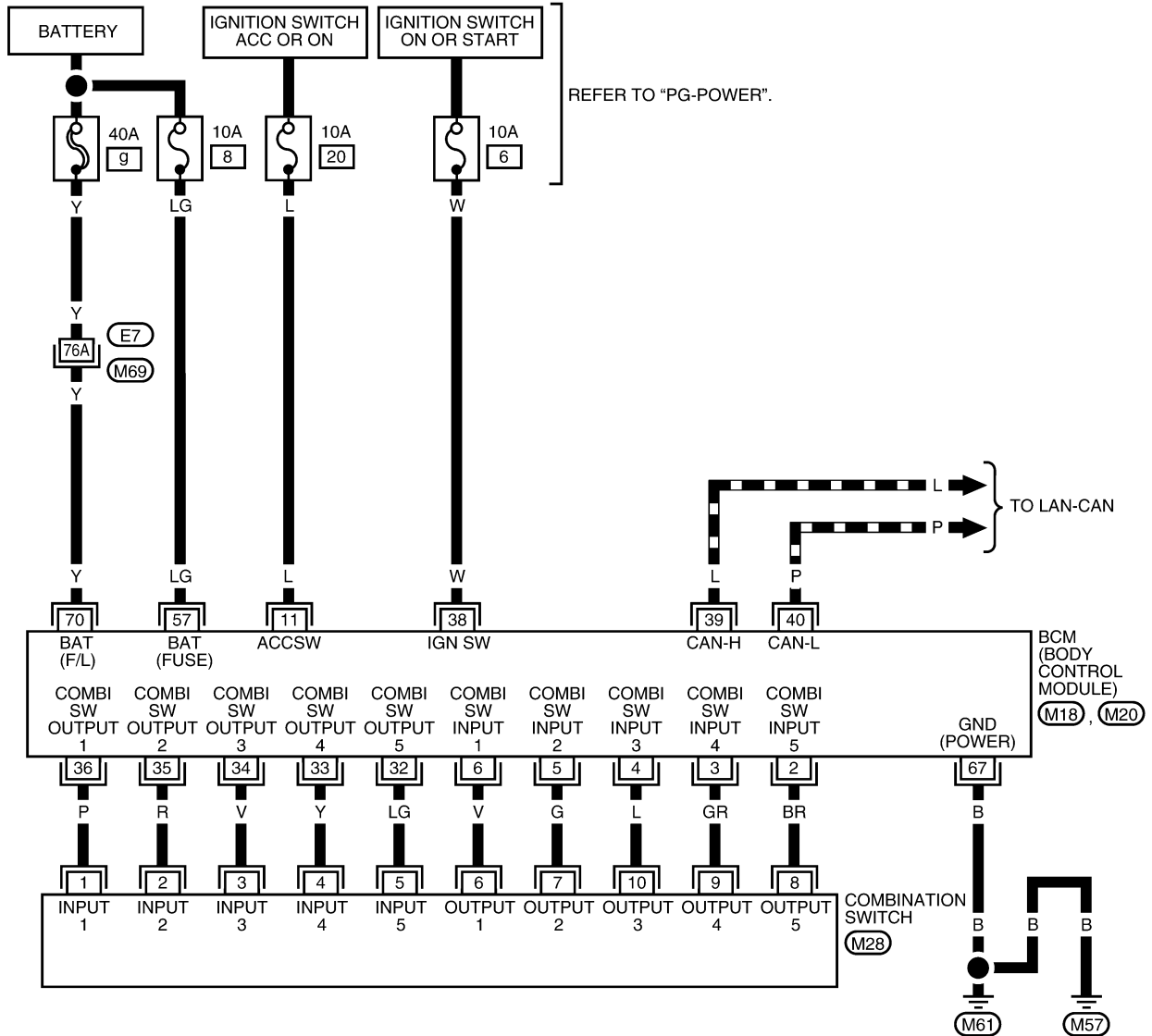
EKS00HYJ

COMBINATION SWITCH

Wiring Diagram — COMBSW —

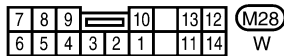
LT-COMBSW-01

▬ : DATA LINE



REFER TO THE FOLLOWING.

(M69) - SUPER MULTIPLE JUNCTION (SMJ)



LKWA0333E

COMBINATION SWITCH

Combination Switch Reading Function

EKS00HYK

For details, refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

Terminals and Reference Values for BCM

EKS00HYL

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

CONSULT-II Function (BCM)

EKS00HYN

Refer to [LT-12, "CONSULT-II Function \(BCM\)"](#) .

Combination Switch Inspection

EKS00HYO

1. SYSTEM CHECK

Referring to table below, check which system malfunctioning switch belongs to.

System 1	System 2	System 3	System 4	System 5
—	FRONT WASHER	FRONT WIPER LO	TURN LH	TURN RH
FRONT WIPER HI	—	FRONT WIPER INT	PASSING	HEAD LAMP 1
INT VOLUME 1	—	—	HEAD LAMP 2	HI BEAM
—	INT VOLUME 3	—	—	LIGHT SW 1ST
INT VOLUME 2	—	—	FRONT FOG	—

>> Check the system to which the switch belongs, and GO TO 2.

2. SYSTEM CHECK

☐ With CONSULT-II

CAUTION:

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

1. Connect CONSULT-II, and select "COMB SW" on "SELECT TEST ITEM" screen.
2. Select "DATA MONITOR".
3. Select "START", and confirm that other switches in the system operate normally.
Example: When turn signal LH is inoperative, confirm that PASSING, HEAD LAMP 2 or FRONT FOG (if equipped) turn ON-OFF normally.

DATA MONITOR			
MONITOR			
TURN SIGNAL R	OFF		
TURN SIGNAL L	OFF		
HIBEAM SW	OFF		
HEAD LAMP SW1	OFF		
HEAD LAMP SW2	OFF		
LIGHT SW 1ST	OFF		
PASSING SW	OFF		
AUTO LIGHT SW	OFF		
FR FOG SW	OFF		
		Page Down	
RECORD			
MODE	BACK	LIGHT	COPY

PKIA7602E

⊗ Without CONSULT-II

Operating combination switch, and confirm that other switches in the system operate normally.

Example: When a turn signal switch is inoperative, confirm that FRONT WIPER LO or FRONT WIPER INT turn ON-OFF normally.

Check results

Other switches in the system operate normally.>>Replace lighting switch or wiper switch.

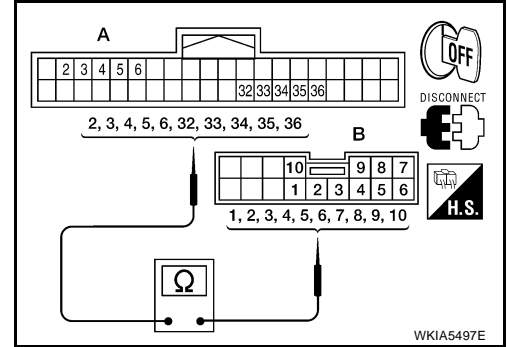
Other switches in the system do not operate normally.>>GO TO 3.

COMBINATION SWITCH

3. HARNESS INSPECTION

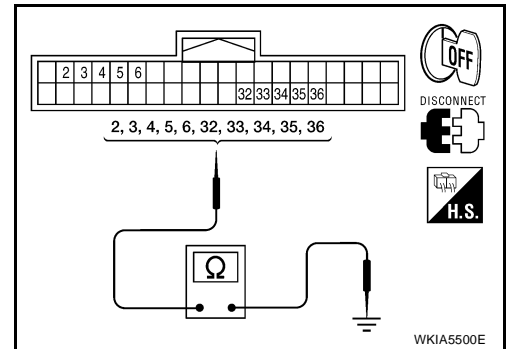
1. Turn ignition switch OFF.
2. Disconnect BCM connector and combination switch connector.
3. Check for continuity between BCM harness connector of the suspect system and the corresponding combination switch harness connector.

Suspect system	A		B		Continuity	
	Connector	Terminal	Connector	Terminal		
1	M18	Input 1	6	M28	6	Yes
		Output 1	36		1	
2		Input 2	5		7	
		Output 2	35		2	
3		Input 3	4		10	
		Output 3	34		3	
4		Input 4	3		9	
		Output 4	33		4	
5		Input 5	2		8	
		Output 5	32		5	



4. Check for continuity between of BCM harness connector in suspect system and ground.

Suspect system	BCM		Continuity		
	Connector	Terminal			
1	M18	Input 1	6	Ground	No
		Output 1	36		
2		Input 2	5		
		Output 2	35		
3		Input 3	4		
		Output 3	34		
4		Input 4	3		
		Output 4	33		
5		Input 5	2		
		Output 5	32		



OK or NG

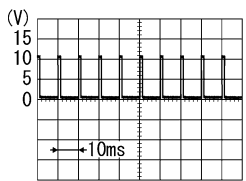
OK >> GO TO 4.

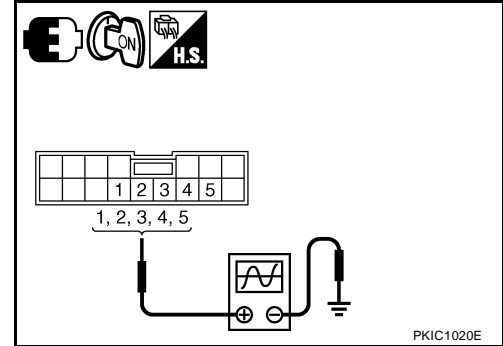
NG >> Check harness between BCM and combination switch for open or short circuit.

COMBINATION SWITCH

4. CHECK BCM OUTPUT TERMINAL

1. Connect BCM and combination switch connectors.
2. Turn ignition switch ON.
3. Turn lighting switch and wiper switch to OFF position.
4. Set wiper dial position 4.
5. Check BCM output terminal voltage waveform of suspect system.

Suspect system	Terminal			Reference value
	(+)		(-)	
	Combination switch connector	Terminal		
1	M28	1	Ground	 PKIB4958J 1.2V
2		2		
3		3		
4		4		
5		5		



OK or NG

- OK >> Open circuit in combination switch, GO TO 5.
- NG >> Replace BCM. Refer to [BCS-27, "Removal and Installation of BCM"](#) .

5. COMBINATION SWITCH INSPECTION

Referring to table below, perform combination switch inspection.

Procedure									
1	2	3	4	5	6	7			
Replace lighting switch	Confirm check results	OK	INSPECTION END	Confirm check results	OK	INSPECTION END	Confirm check results	OK	INSPECTION END
		NG	Replace wiper switch		NG	Replace switch base		NG	Confirm symptom again

>> INSPECTION END

Removal and Installation

Refer to [LT-65, "LIGHTING AND TURN SIGNAL SWITCH"](#) .

EKS00HYP

STOP LAMP

PF:26550

STOP LAMP

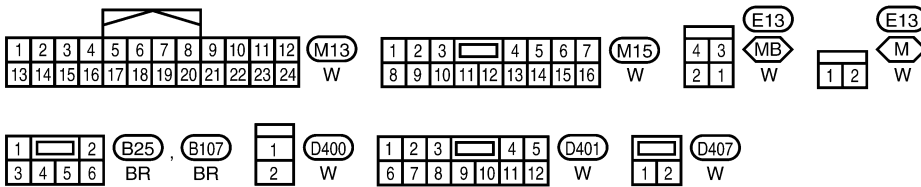
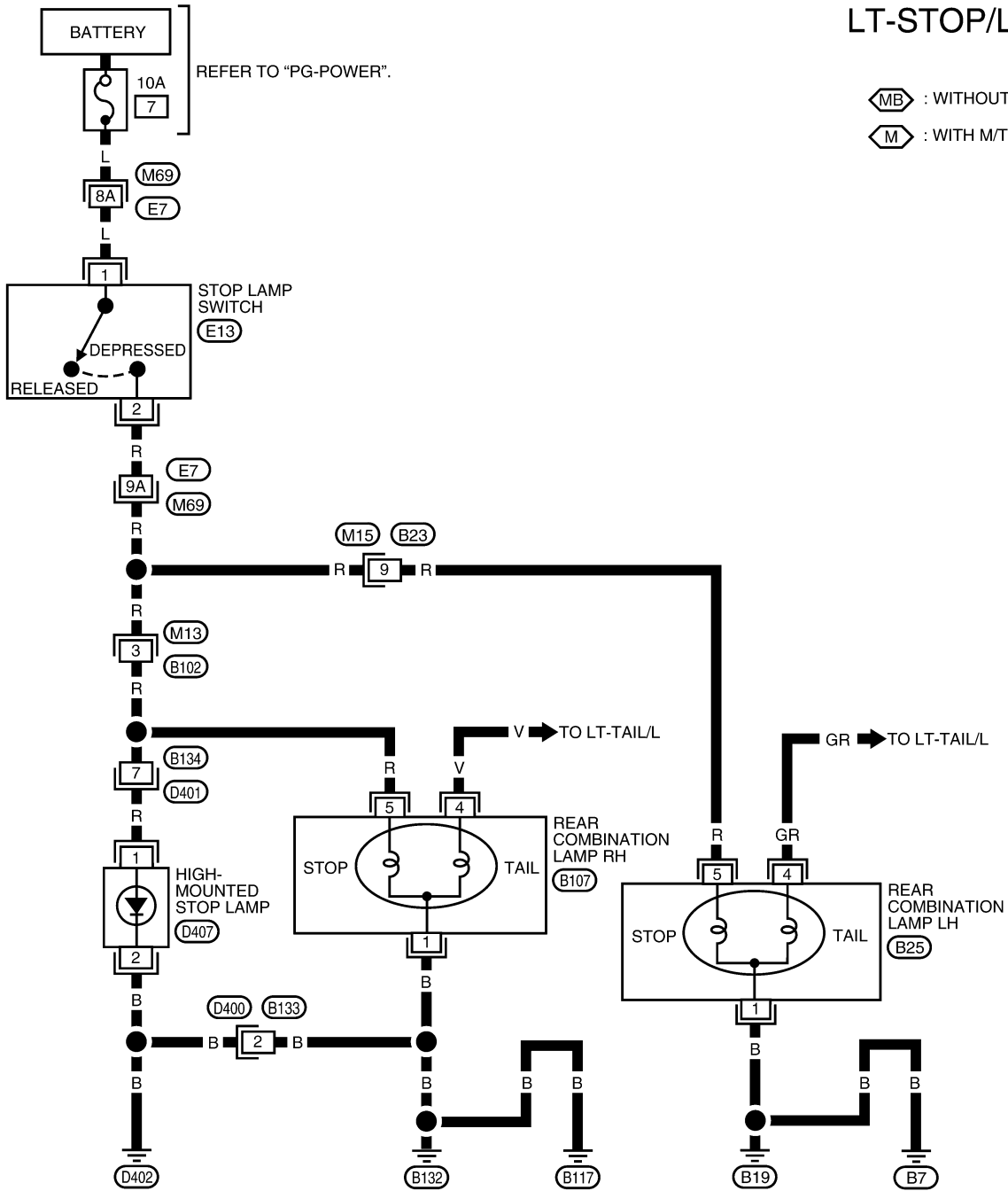
Wiring Diagram — STOP/L HATCHBACK

EKS00HYQ

LT-STOP/L-01

◻MB : WITHOUT M/T

◻M : WITH M/T



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

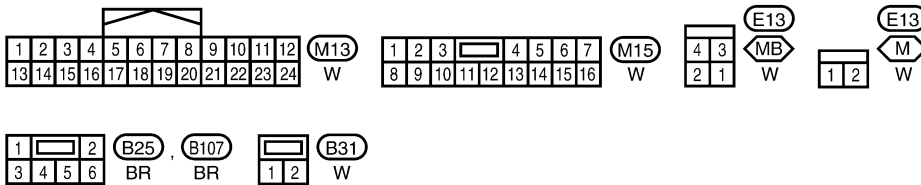
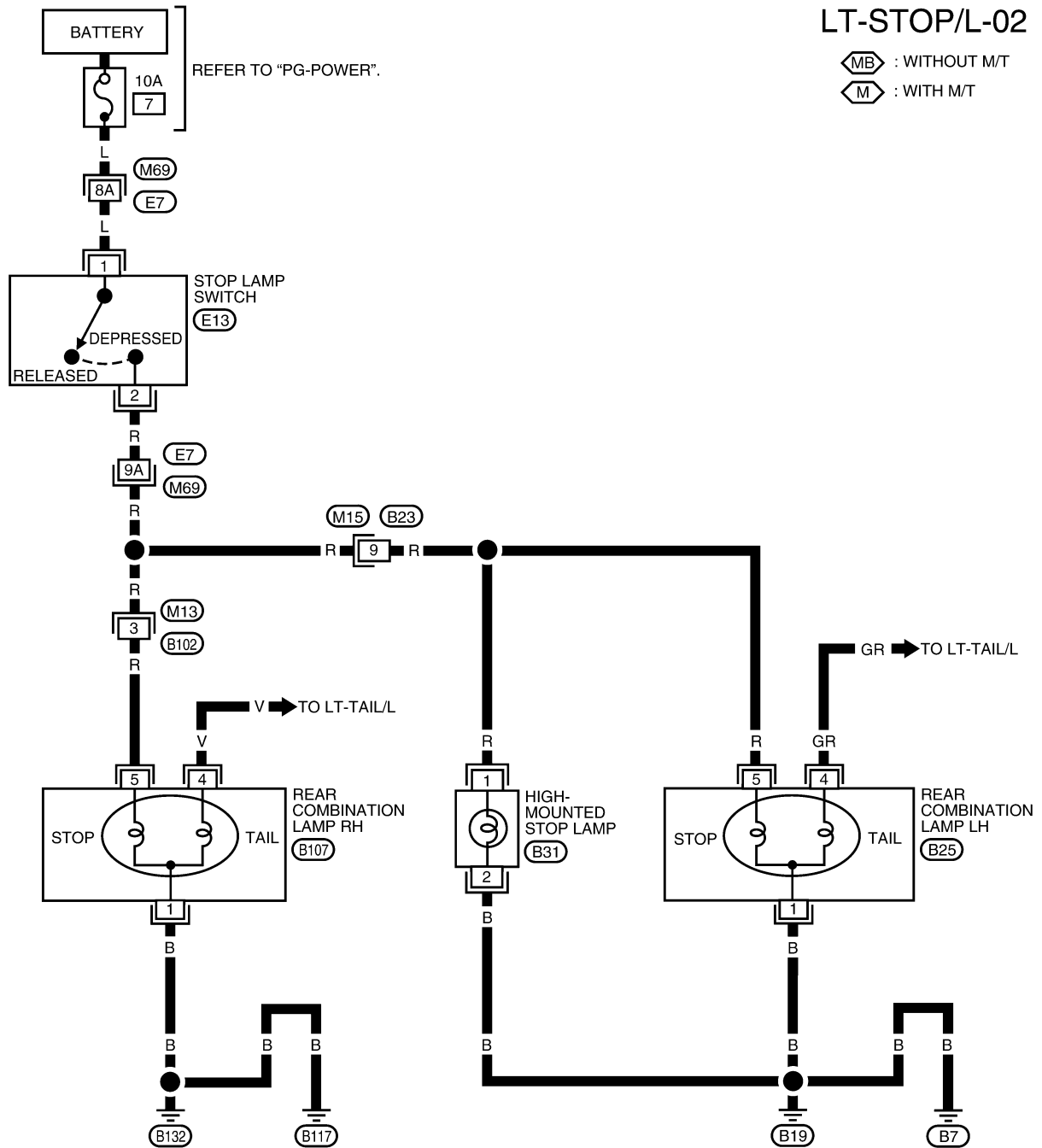
STOP LAMP

EKS00L4S

Wiring Diagram — STOP/L SEDAN

LT-STOP/L-02

MB : WITHOUT M/T
M : WITH M/T



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

WKWA5809E

STOP LAMP

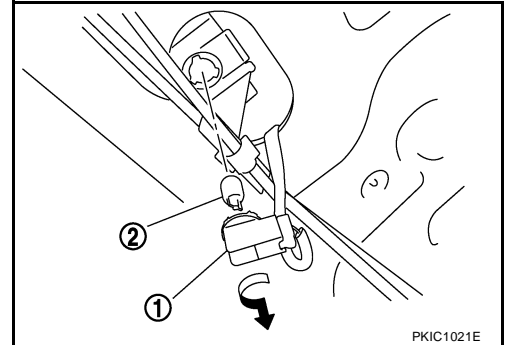
Bulb Replacement of High-Mounted Stop Lamp HATCHBACK

EKS00HYR

The LED element is not serviced separately, the high-mounted stop lamp must be replaced as an assembly. Refer to [LT-73, "Removal and Installation of High-Mounted Stop Lamp"](#) .

SEDAN

1. Remove the high-mounted stop lamp bulb socket (1) and remove the high-mounted stop lamp (2).



2. Installation is in the reverse order of removal.

Bulb Replacement of Rear Combination Lamp for Stop Lamp

EKS00HYS

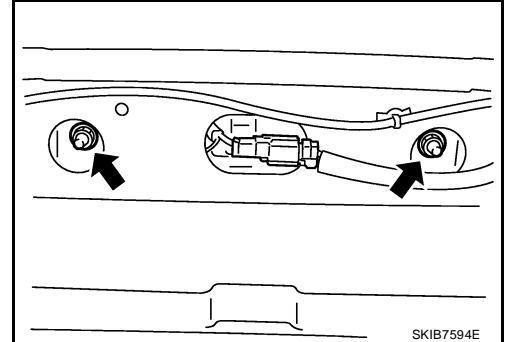
Refer to [LT-91, "Bulb Replacement"](#) .

Removal and Installation of High-Mounted Stop Lamp HATCHBACK

EKS00HYT

Removal

1. Remove the rear hatch finish panel. Refer to [EI-53, "LUGGAGE FLOOR TRIM"](#) .
2. Disconnect the high-mounted stop lamp connector.
3. Remove the nuts and remove the high-mounted stop lamp from rear hatch.



Installation

Installation is in the reverse order of removal.

CAUTION:

Properly seal the high-mounted stop lamp base to the rear hatch to prevent water leaks.

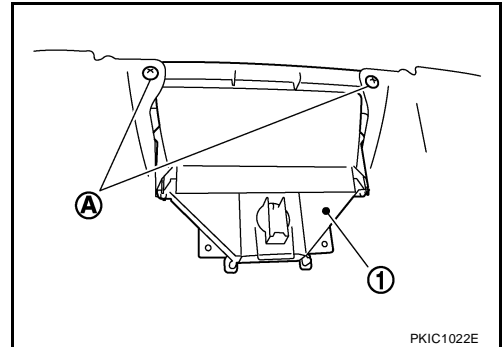
SEDAN

Removal

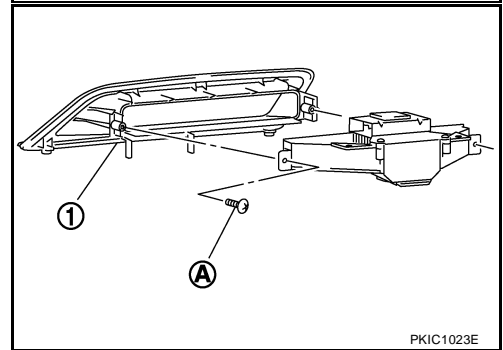
1. Remove the rear parcel shelf. Refer to [EI-43, "Removal and Installation"](#) .

STOP LAMP

2. Remove the high-mounted stop lamp screws (A) and remove the high-mounted stop lamp (1).



3. Remove the high-mounted stop lamp finisher screws (A) and remove the high-mounted stop lamp finisher (1).



Installation

Installation is in the reverse order of removal.

Removal and Installation of Rear Combination Lamp for Stop Lamp

EKS00HYU

Refer to [LT-92, "Removal and Installation"](#) .

BACK-UP LAMP

Bulb Replacement

EKS00HYW

Refer to [LT-91, "Bulb Replacement"](#) .

Removal and Installation

EKS00HYX

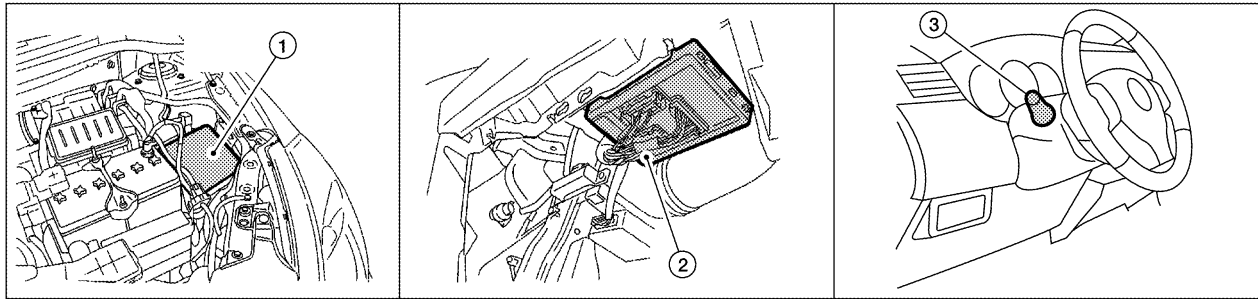
Refer to [LT-92, "Removal and Installation"](#) .

PARKING, LICENSE PLATE AND TAIL LAMPS

PF26550

Component Parts and Harness Connector Location

EKS00HY2



WKIA554E

1. IPDM E/R E45, E46 and E48

2. BCM M18 and M20 (view with glove box removed)

3. Combination switch (lighting switch) M28

System Description

EKS00HY2

The control of the parking, license plate and tail lamp operation is dependent upon the position of lighting 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) via the CAN communication lines. The CPU (central processing unit) located in the IPDM E/R controls the tail lamp relay coil. This relay, when energized, directs power to parking, license plate and tail lamps, which then illuminate.

Power is supplied at all times

- to ignition relay located in IPDM E/R,
- to tail lamp relay located in IPDM E/R,
- through 15A fuse (No. 52, located in IPDM E/R) and
- through 20A fuse (No. 53, located in IPDM E/R)
- to the CPU located in the IPDM E/R,
- through 40A fusible link (letter **g**, located in fuse and fusible link block)
- to BCM terminal 70,
- through 10A fuse [No. 8, located in fuse block (J/B)],
- to BCM terminal 57.

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

- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 38,
- to ignition relay located in IPDM E/R and
- through the ignition relay
- to the CPU of the IPDM E/R.

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

- through 10A fuse [No. 20, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 67
- through grounds M20 and M61,
- to IPDM E/R terminals 59 and 39
- through grounds E15 and E24.

OPERATION BY LIGHTING SWITCH

With the lighting switch in the 1ST or 2ND position, the BCM receives an input signal requesting parking, license plate and tail lamps to illuminate. This input signal is communicated to the IPDM E/R via the CAN communication lines. The CPU, located in the IPDM E/R, controls the tail lamp relay coil. When energized, the tail lamp relay directs power

PARKING, LICENSE PLATE AND TAIL LAMPS

- through 10A fuse (No. 37, located in IPDM E/R),
- through IPDM E/R terminal 26
- to front combination lamp LH terminal 6, and
- through IPDM E/R terminal 27
- to front combination lamp RH terminal 6,
- through IPDM E/R terminal 28
- to rear combination lamp LH terminal 4 and
- to license plate lamp LH and RH terminal 1,
- through IPDM E/R terminal 29
- to rear combination lamp RH terminal 4.

Ground is supplied

- to front combination lamp LH and RH terminal 7
- through grounds E15 and E24,
- to rear combination lamp LH terminal 1 and
- to license plate lamp LH and RH terminal 2
- through grounds B7 and B19, and
- to rear combination lamp RH terminal 1
- through grounds B117, B132 (all models) and D402 (with hatchback).

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

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#) .

EXTERIOR LAMP 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 and tail lamps remain illuminated for 5 minutes, then the parking, license plate and tail lamps are turned off.

Exterior lamp battery saver control mode can be changed by the function setting of CONSULT-II.

CAN Communication System Description

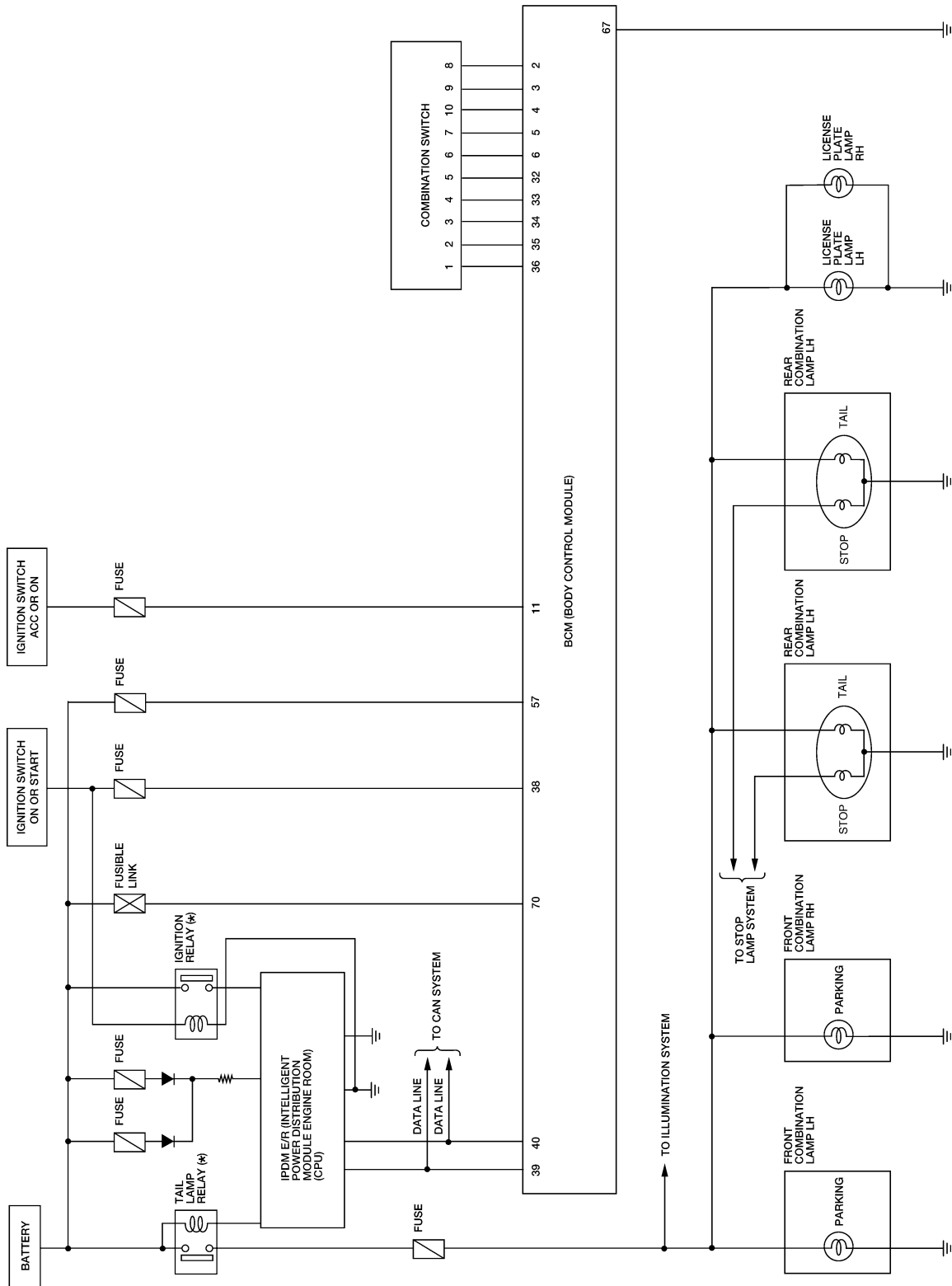
EKS00HZ0

Refer to [LAN-4, "CAN Communication System"](#) .

PARKING, LICENSE PLATE AND TAIL LAMPS

Schematic

EKS00HZ2



* THIS RELAY IS BUILT INTO THE IPDM/E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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

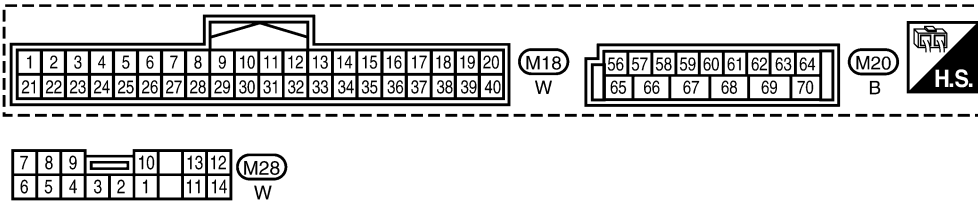
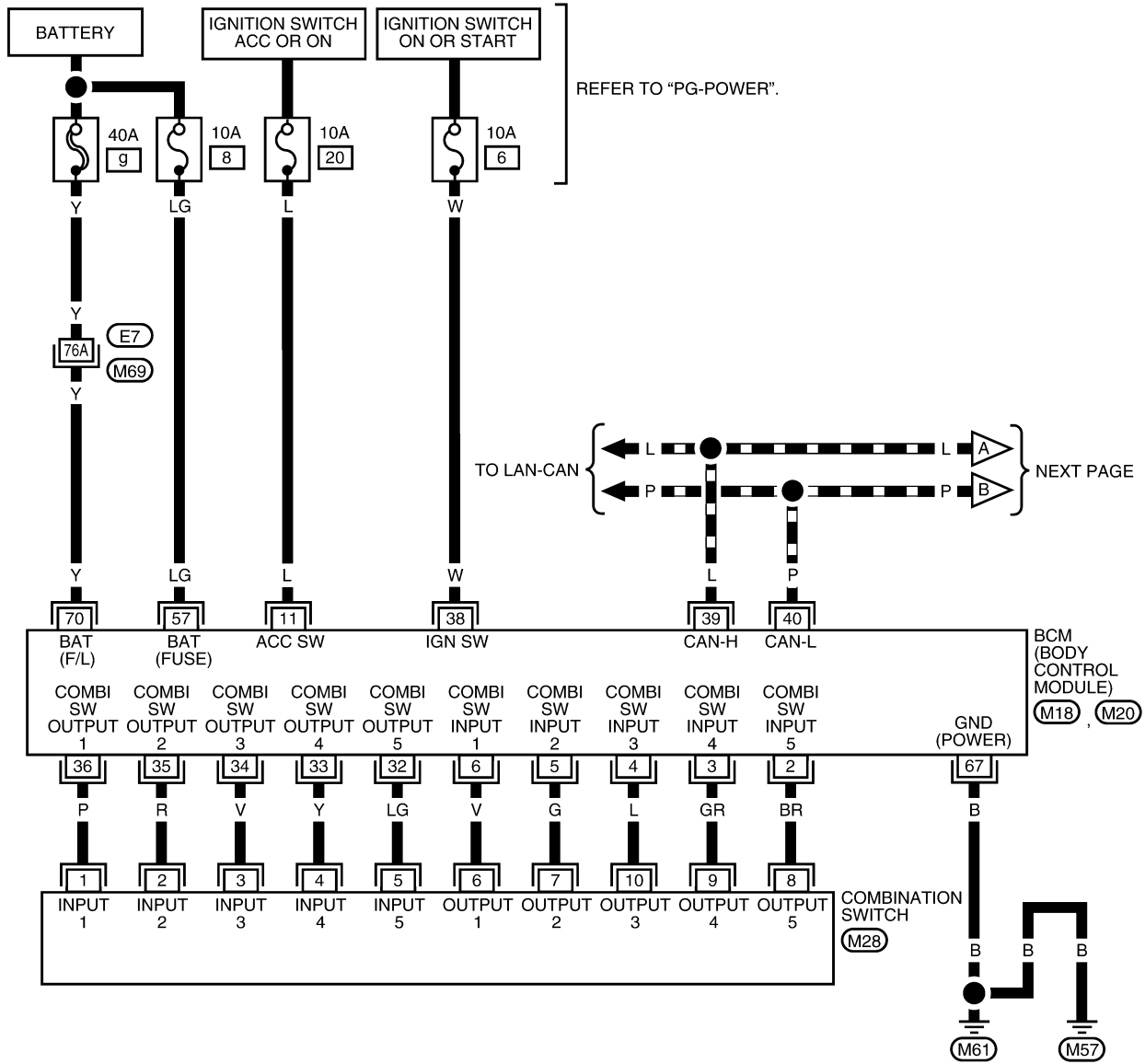
PARKING, LICENSE PLATE AND TAIL LAMPS

EKS00HZ3

Wiring Diagram — TAIL/L —

LT-TAIL/L-01

— : DATA LINE



REFER TO THE FOLLOWING.

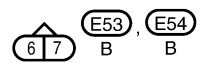
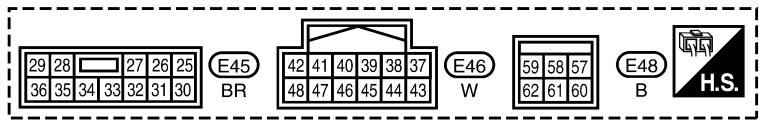
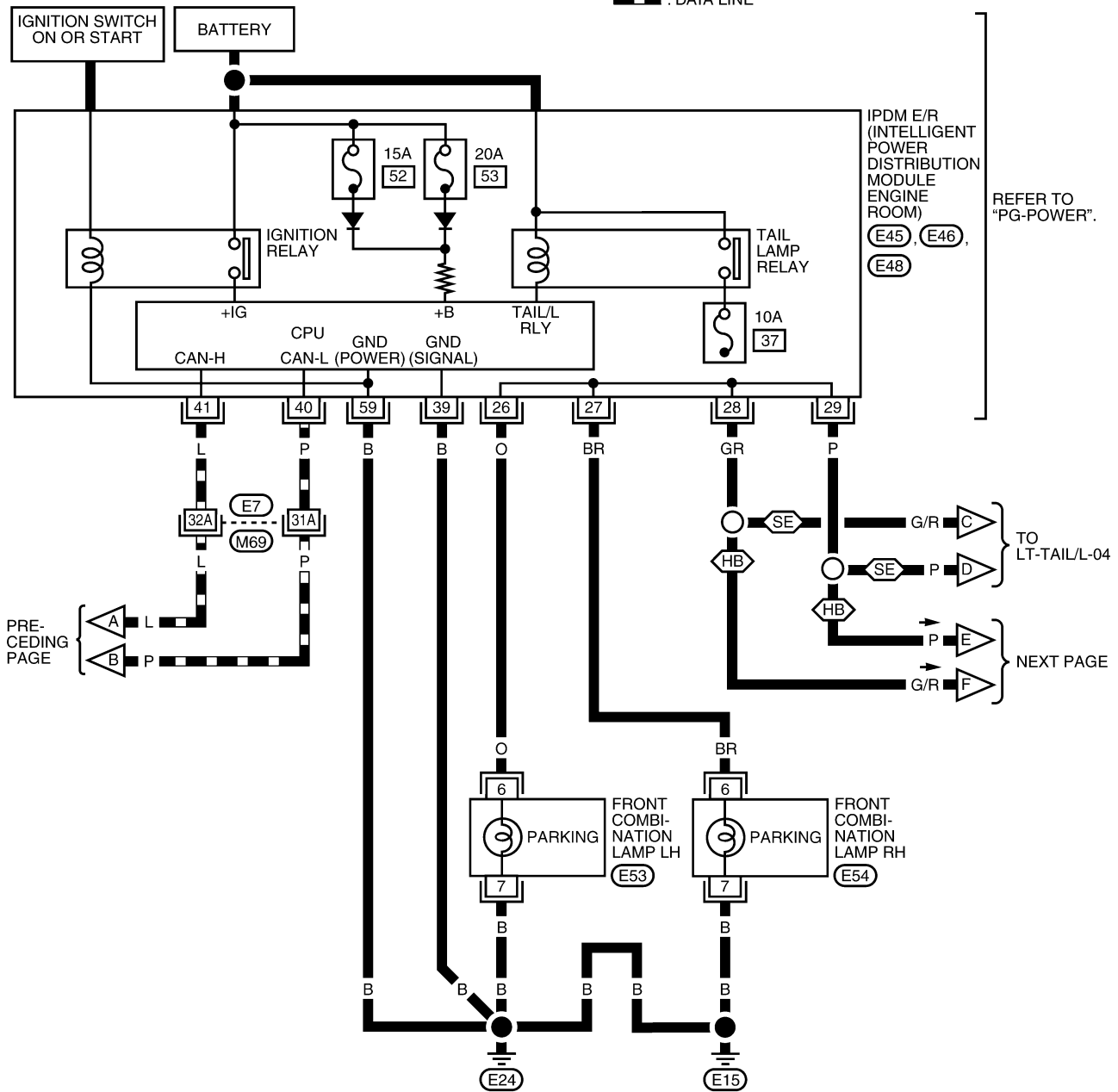
(M69) - SUPER MULTIPLE JUNCTION (SMJ)

LKWA0336E

PARKING, LICENSE PLATE AND TAIL LAMPS

LT-TAIL/L-02

HB : WITH HATCHBACK
SE : WITH SEDAN
 : DATA LINE



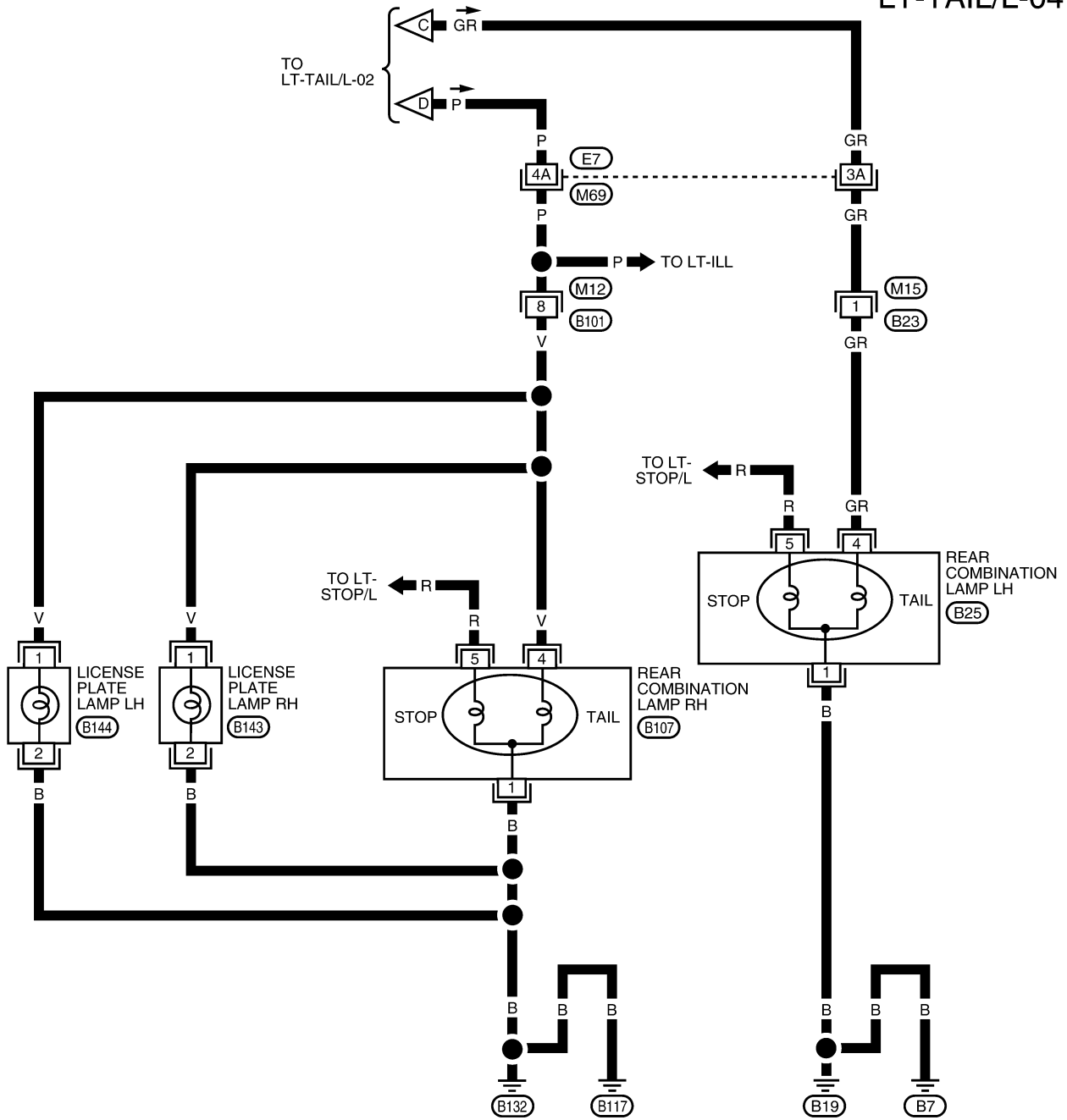
REFER TO THE FOLLOWING.
M69 - SUPER MULTIPLE JUNCTION (SMJ)

WVWA3014E WKWA5817E

PARKING, LICENSE PLATE AND TAIL LAMPS

Sedan

LT-TAIL/L-04



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

PARKING, LICENSE PLATE AND TAIL LAMPS

Terminals and Reference Values for BCM

EKS00HZ4

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

Terminals and Reference Values for IPDM E/R

EKS00HZ5

Refer to [PG-26, "Terminals and Reference Values for IPDM E/R"](#) .

How to Proceed With Trouble Diagnosis

EKS00HZ6

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-77, "System Description"](#) .
3. Perform the preliminary check. Refer to [LT-84, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of the malfunction.
5. Do the parking, license plate and tail lamps operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. Inspection End.

Preliminary Check

EKS00HZ7

CHECK POWER SUPPLY AND GROUND CIRCUIT FOR BCM

Refer to [BCS-17, "BCM Power Supply and Ground Circuit Check"](#) .

CHECK POWER SUPPLY AND GROUND CIRCUIT FOR IPDM E/R

Refer to [PG-29, "IPDM E/R Power/Ground Circuit Inspection"](#) .

CONSULT-II Function (BCM)

EKS00HZ8

Refer to [LT-12, "CONSULT-II Function \(BCM\)"](#) .

CONSULT-II Function (IPDM E/R)

EKS00HZ9

Refer to [LT-13, "CONSULT-II Function \(IPDM E/R\)"](#) .

Parking, License Plate and Tail Lamps Do Not Illuminate

EKS00HZA

1. CHECK TAIL LAMP FUSE

Inspect tail lamp 10A fuse (No. 37, located in IPDM E/R).

OK or NG

- OK >> GO TO 2.
NG >> Repair harness.

2. CHECK COMBINATION SWITCH INPUT SIGNAL

④ With CONSULT II

1. Select "BCM" on CONSULT-II. Select "HEAD LAMP" on "SELECT TEST ITEM" screen.
2. Select "DATA MONITOR" on "SELECT DIAG MODE" screen. Make sure "LIGHT SW 1ST" turns ON-OFF linked with operation of lighting switch.

When lighting switch is 1ST : LIGHT SW 1ST ON position

⊗ Without CONSULT II

Refer to [LT-68, "Combination Switch Inspection"](#) .

OK or NG

- OK >> GO TO 3.
NG >> Check combination switch (lighting switch). Refer to [LT-68, "Combination Switch Inspection"](#) .

DATA MONITOR			
MONITOR			
LIGHT SW 1ST	ON		
		RECORD	
MODE	BACK	LIGHT	COPY

PKIA7607E

PARKING, LICENSE PLATE AND TAIL LAMPS

3. ACTIVE TEST

☐ With CONSULT-II

1. Select "IPDM E/R" on CONSULT-II, and select "ACTIVE TEST" on "SELECT DIAG MODE" screen.
2. Select "EXTERNAL LAMPS" on "SELECT TEST ITEM" screen.
3. Touch "TAIL" on "ACTIVE TEST" screen.
4. Make sure parking, license plate and tail lamps operate.

Parking, license plate and tail lamps 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 lamps operate.

Parking, license plate and tail lamps should operate.

OK or NG

- OK >> GO TO 4.
 NG >> GO TO 5.

4. CHECK IPDM E/R

1. Select "IPDM E/R" on CONSULT-II, and select "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Make sure "TAIL&CLR REQ" turns ON when lighting switch is in 1ST position.

When lighting switch is 1ST : TAIL&CLR REQ ON position

OK or NG

- OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#) .
 NG >> Replace BCM. Refer to [BCS-27, "Removal and Installation of BCM"](#) .

ACTIVE TEST			
EXTERNAL LAMPS		OFF	
		TAIL	
LO		HI	
FOG			
MODE	BACK	LIGHT	COPY

PKIC0936E

DATA MONITOR			
MONITOR			
TAIL&CLR REQ		ON	
		RECORD	
MODE	BACK	LIGHT	COPY

SKIA5958E

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

PARKING, LICENSE PLATE AND TAIL LAMPS

5. CHECK INPUT SIGNAL

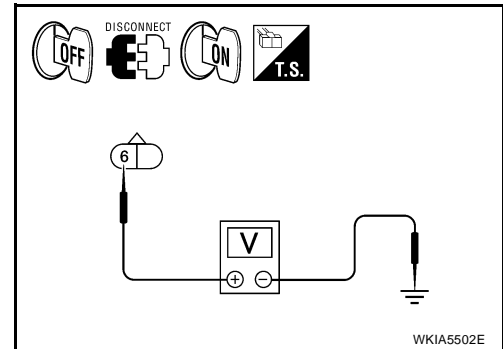
④ With CONSULT-II

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 "EXTERNAL LAMPS" on "SELECT TEST ITEM" screen.
5. Touch "TAIL" on "ACTIVE TEST" screen.
6. When tail lamp relay is operating, check voltage between front combination lamp, license plate lamp and rear combination lamp harness connector and ground.

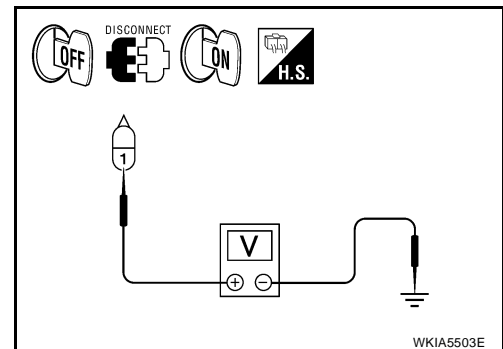
④ Without CONSULT-II

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

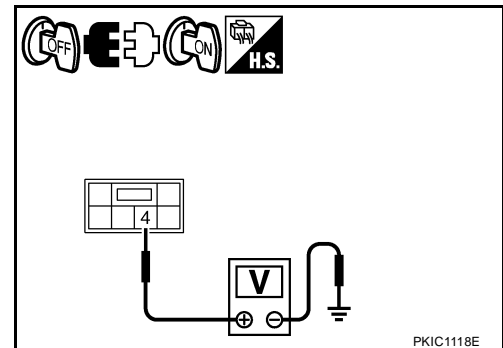
Terminal		Terminal	(-)	Voltage
(+)				
Front combination lamp connector		6	Ground	Battery voltage
RH	E54			
LH	E53			



Terminal		Terminal	(-)	Voltage
(+)				
License plate lamp connector		1	Ground	Battery voltage
RH	B17 (Hatchback) B144 (Sedan)			
LH	B16 (Hatchback) B143 (Sedan)			



Terminal		Terminal	(-)	Voltage
(+)				
Rear combination lamp connector (Tail lamp)		4	Ground	Battery voltage
RH	B107			
LH	B25			



OK or NG

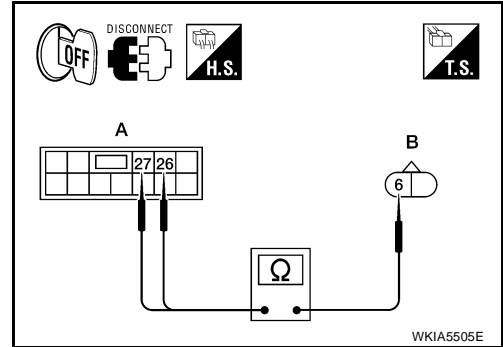
- OK >> GO TO 7.
 NG >> GO TO 6.

PARKING, LICENSE PLATE AND TAIL LAMPS

6. CHECK PARKING, LICENSE PLATE AND TAIL LAMP CIRCUIT

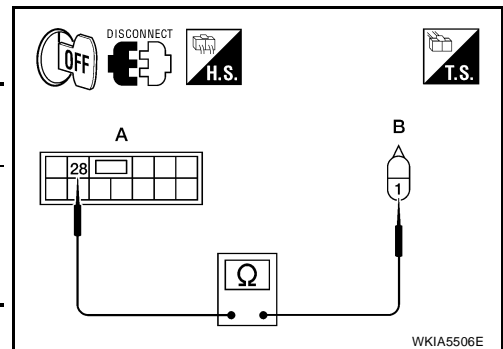
1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector (A) and front combination lamp harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
E45	27	RH	E54	Yes
	26	LH	E53	



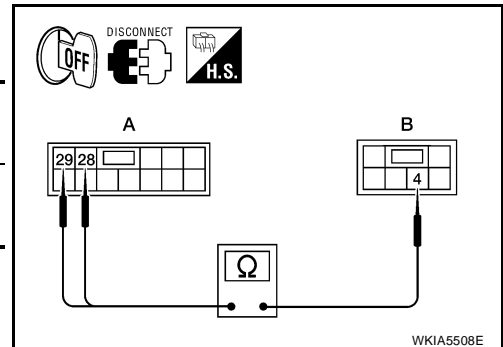
4. Check continuity between IPDM E/R harness connector (A) and license plate lamp harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
E45	28	RH	B17 (Hatchback) B144 (Sedan)	Yes
		LH	B16 (Hatchback) B143 (Sedan)	



5. Check continuity between IPDM E/R harness connector (A) and rear combination lamp harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
E45	29	RH	B107	Yes
	28	LH	B25	



OK or NG

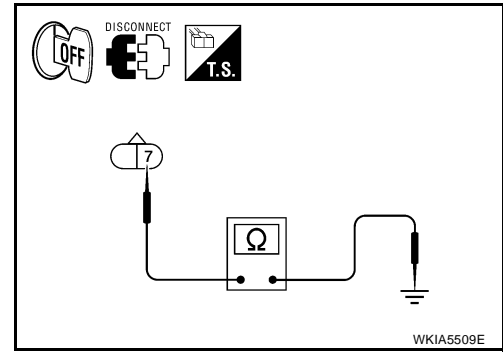
- OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#) .
- NG >> Repair harness or connector.

PARKING, LICENSE PLATE AND TAIL LAMPS

7. CHECK PARKING, LICENSE PLATE AND TAIL LAMPS GROUND CIRCUIT

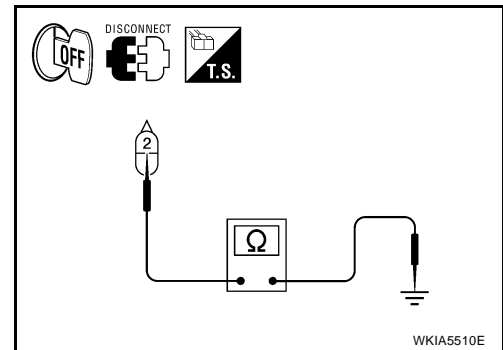
1. Check continuity between front combination lamp harness connector and ground.

Front combination lamp connector		Terminal	Ground	Continuity
RH	E54	7		Yes
LH	E53			



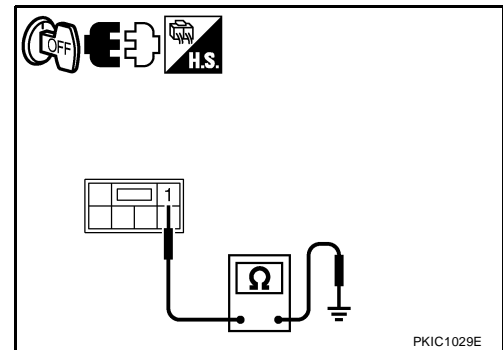
2. Check continuity between license plate lamp harness connector and ground.

License plate lamp connector		Terminal	Ground	Continuity
RH	B17 (Hatchback) B144 (Sedan)	2		Yes
LH	B16 (Hatchback) B143 (Sedan)			



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

Rear combination lamp connector		Terminal	Ground	Continuity
RH	B107	1		Yes
LH	B25			



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)

EKS00HZB

- This symptom is related to the ignition relay in IPDM E/R. Refer to [PG-18, "Function of Detecting Ignition Relay Malfunction"](#).
- Select "BCM" on CONSULT-II. Select "HEADLAMP" on "SELECT TEST ITEM" screen and select "DATA MONITOR" on "SELECT DIAG MODE" screen. If "LIGHT SW 1ST" is OFF when lighting switch is OFF, replace IPDM E/R.

PARKING, LICENSE PLATE AND TAIL LAMPS

EKS00HZC

Bulb Replacement

PARKING LAMP

Refer to [LT-91, "Bulb Replacement"](#) .

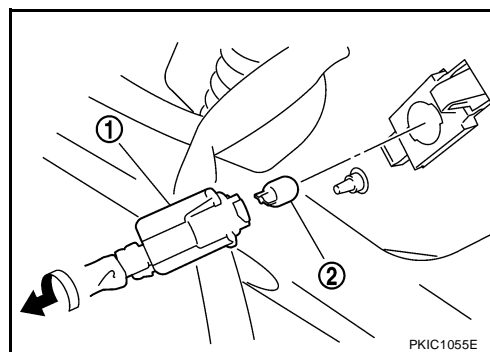
LICENSE PLATE LAMP

Hatchback

1. Remove the license plate lamp. Refer to [LT-89, "LICENSE PLATE LAMP-HATCHBACK"](#) .
2. Turn bulb socket counterclockwise and unlock it.
3. Remove bulb from the socket.
4. Installation is in the reverse order of removal.

Sedan

1. Remove the trunk lid finisher. Refer to [EI-31, "Removal and Installation"](#) .
2. Remove the license plate lamp bulb socket (1) and remove the license plate lamp bulb (2).
3. Installation is in the reverse order of removal.



TAIL LAMP

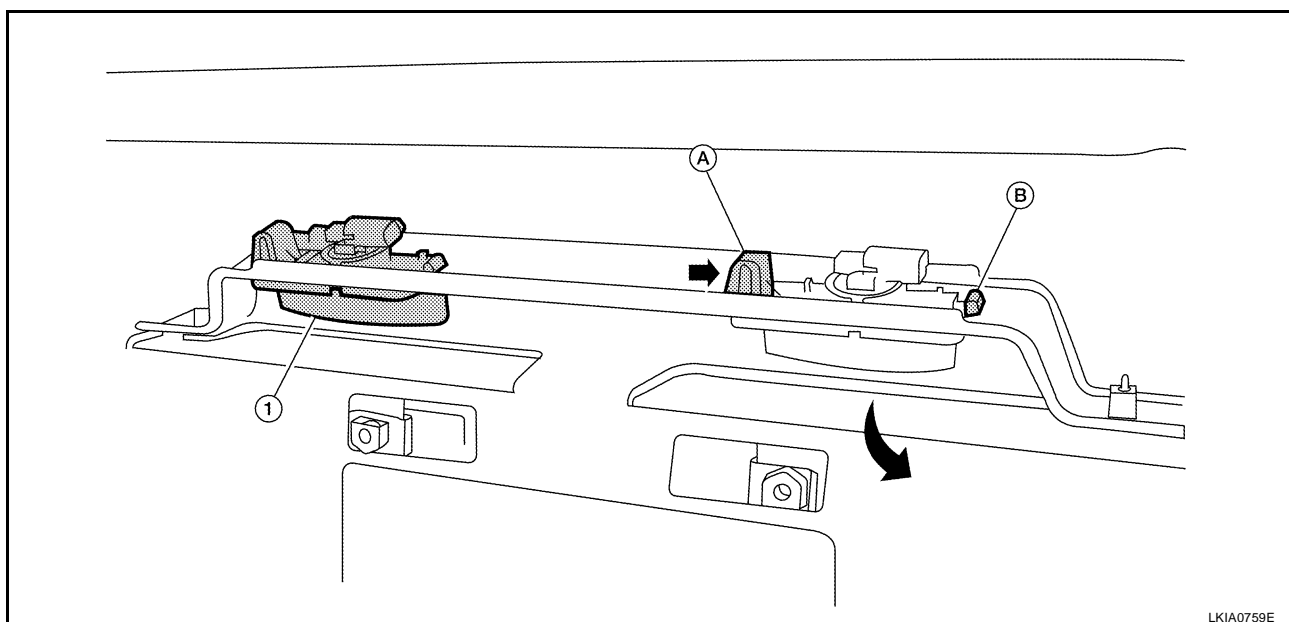
Refer to [LT-91, "Bulb Replacement"](#) .

Removal and Installation

PARKING LAMP

Refer to [LT-92, "Removal and Installation"](#) .

LICENSE PLATE LAMP-HATCHBACK



1. License plate lamp

A. Pawl

B. Hook

Removal

1. Press the license plate lamp pawl on the side of the rear bumper fascia, then swing the license plate lamp down to release the license plate lamp hook from the rear bumper fascia.
2. Disconnect the license plate lamp connector and remove the licence plate lamp.

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PARKING, LICENSE PLATE AND TAIL LAMPS

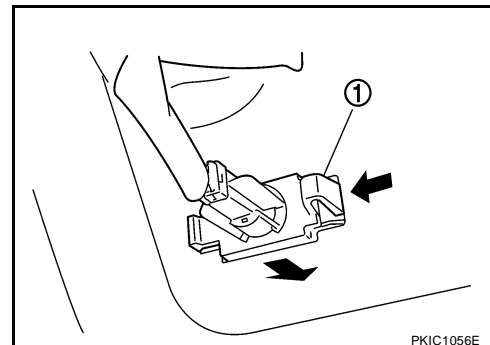
Installation

Installation is in the reverse order of removal.

LICENSE PLATE LAMP-SEDAN

Removal

1. Remove the license plate lamp finisher. Refer to [EI-55, "Removal and Installation"](#).
2. Remove the license plate lamp assembly (1).



Installation

Installation is in the reverse order of removal.

TAIL LAMP

Refer to [LT-92, "Removal and Installation"](#).

REAR COMBINATION LAMP

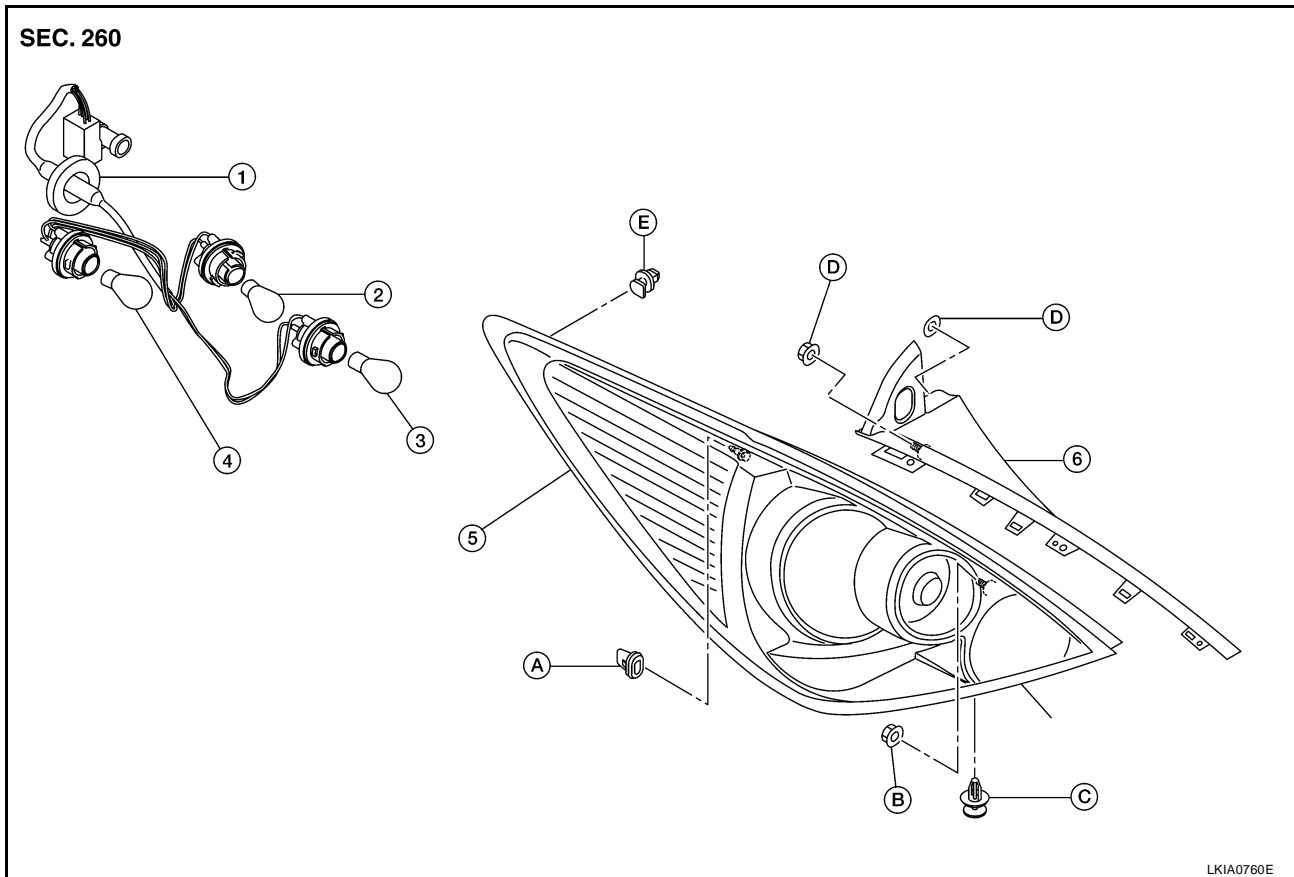
REAR COMBINATION LAMP

PF2:26554

Components

EKS001BB

Hatchback



- | | | |
|----------------------------------|---|----------------------|
| 1. Rear combination lamp harness | 2. Turn signal lamp bulb | 3. Back-up lamp bulb |
| 4. Stop/tail lamp bulb | 5. Rear combination lamp housing assembly | 6. Bumper stay |
| A. Grommet | B. Nut | C. Clip |
| D. Nuts | E. Clip | |

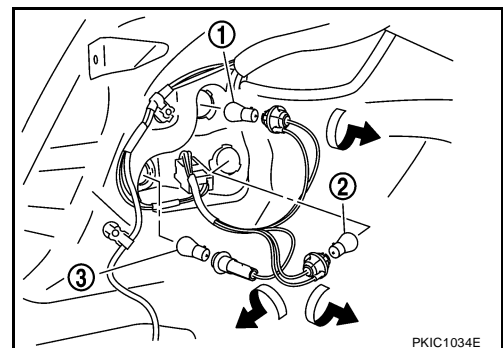
Bulb Replacement HATCHBACK

EKS00HZE

1. Remove the rear combination lamp. Refer to [LT-92, "Removal and Installation"](#).
2. Turn bulb socket counterclockwise and unlock it.
3. Remove bulb.
4. Installation is in the reverse order of removal.

SEDAN

1. Remove trunk side finisher. Refer to [EI-55, "Removal and Installation"](#).
2. Turn bulb socket counterclockwise and unlock it.
3. Remove the stop/tail lamp bulb (1), turn signal lamp bulb (2), and the back-up lamp bulb (3).
4. Installation is in the reverse order of removal.



REAR COMBINATION LAMP

EKS00HZF

Removal and Installation

HATCHBACK

Removal

1. Remove rear combination lamp nuts.
2. Pull the rear combination lamp toward rear of the vehicle and remove from the vehicle.
3. Disconnect rear combination lamp connector, and remove rear combination lamp.

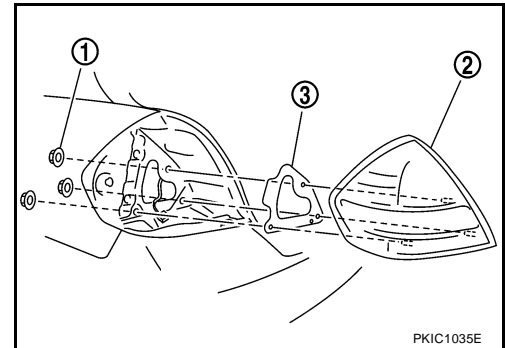
Installation

Installation is in the reverse order of removal.

SEDAN

Removal

1. Remove trunk side finisher. Refer to [EI-53, "Removal and Installation"](#).
2. Remove the rear combination lamp nuts (1).
3. Remove the rear combination lamp (2).
4. Remove the rear combination lamp seal (3).



Installation

Installation is in the reverse order of removal.

Disassembly and Assembly

DISSASSEMBLY

1. Remove the rear combination lamp harness.
2. Remove the bulbs from the rear combination lamp harness, as necessary.
3. Remove the bumper stay (hatchback only).
4. Remove the rear combination lamp seal (sedan only).

EKS00IBC

ASSEMBLY

Assembly is in the reverse order of disassembly.

INTERIOR LAMP

PFP:28491

EKS00HZH

INTERIOR LAMP

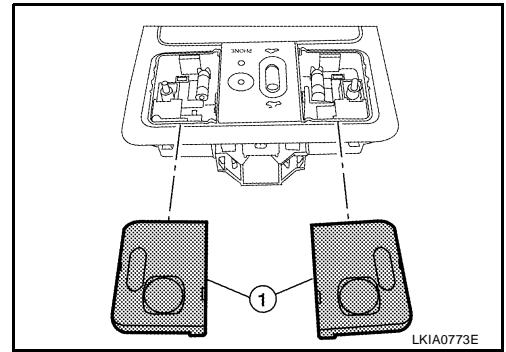
Map lamp BULB REPLACEMENT

1. Remove the map lamp lens (1).
2. Remove the bulb from lamp.

NOTE:

Pull bulb end from Y-shaped connector first to remove.

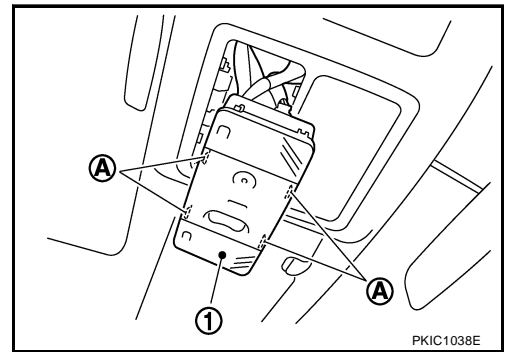
3. Installation is in the reverse order of removal.
 - Install the map lamp lens (1) so the round lens is positioned to the front of the vehicle as shown. There is a tab on the lens to prevent incorrect installation of the lens.



REMOVAL AND INSTALLATION

Removal

1. Insert a suitable tool and disengage the pawl (A) fittings the map lamp (1).
2. Disconnect map lamp connector and remove map lamp (1).



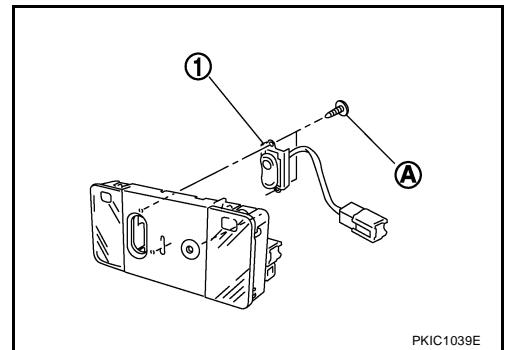
Installation

Installation is in the reverse order of removal.

DISASSEMBLY AND ASSEMBLY

Disassembly

1. Remove screw (A).
2. Remove sunroof switch (1).



Assembly

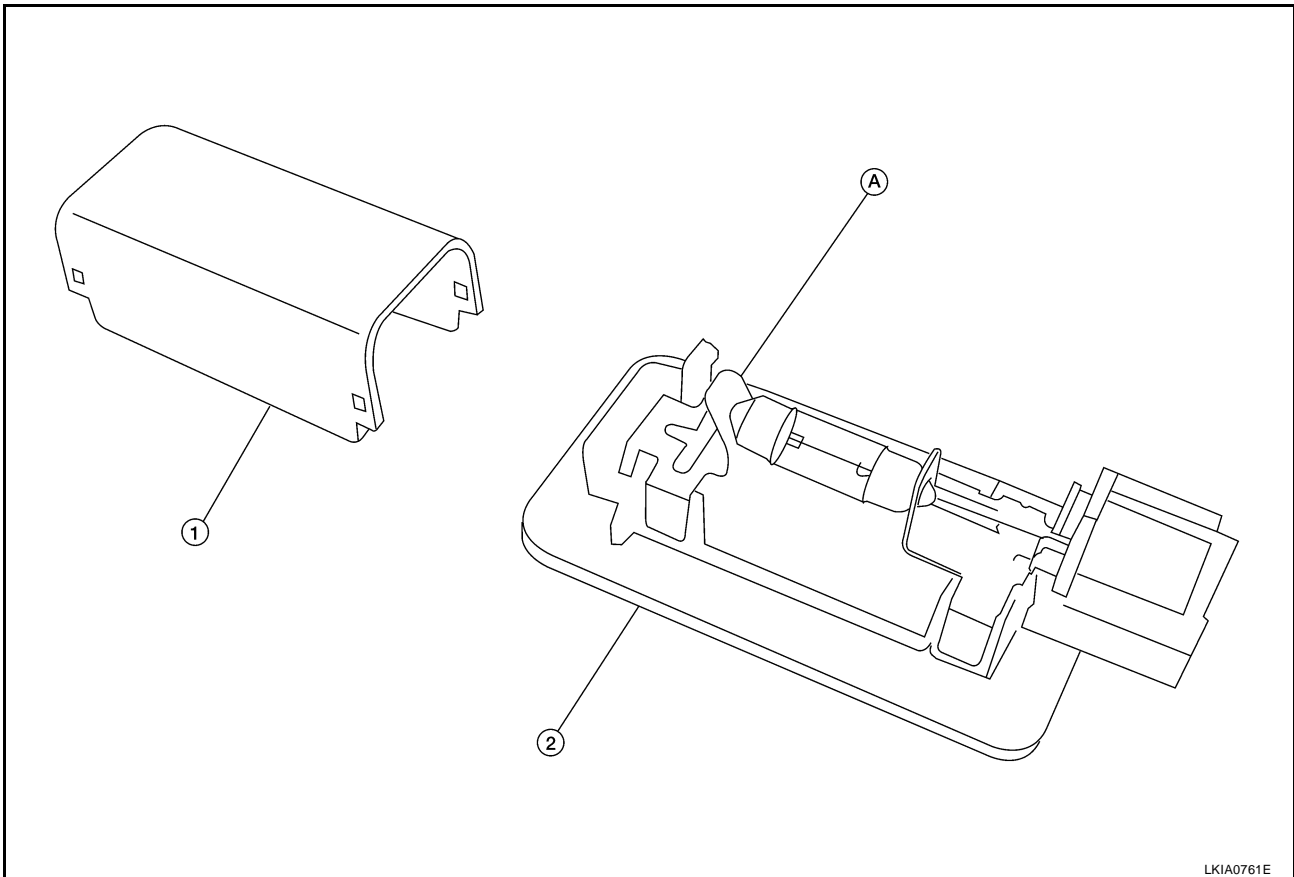
Assembly is in the reverse order of disassembly.

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INTERIOR LAMP

Luggage Compartment Lamp BULB REPLACEMENT

EKS00HZI



LKIA0761E

1. Luggage compartment lamp bulb cover 2. Luggage compartment lamp A. Tab A

1. Remove luggage compartment lamp cover.
2. Press tab A and remove the bulb.
3. Installation is in the reverse order of removal.

REMOVAL AND INSTALLATION

Removal

1. Remove luggage compartment lamp from the luggage side finisher LH.
2. Disconnect luggage compartment lamp connector.

Installation

Installation is in the reverse order of removal.

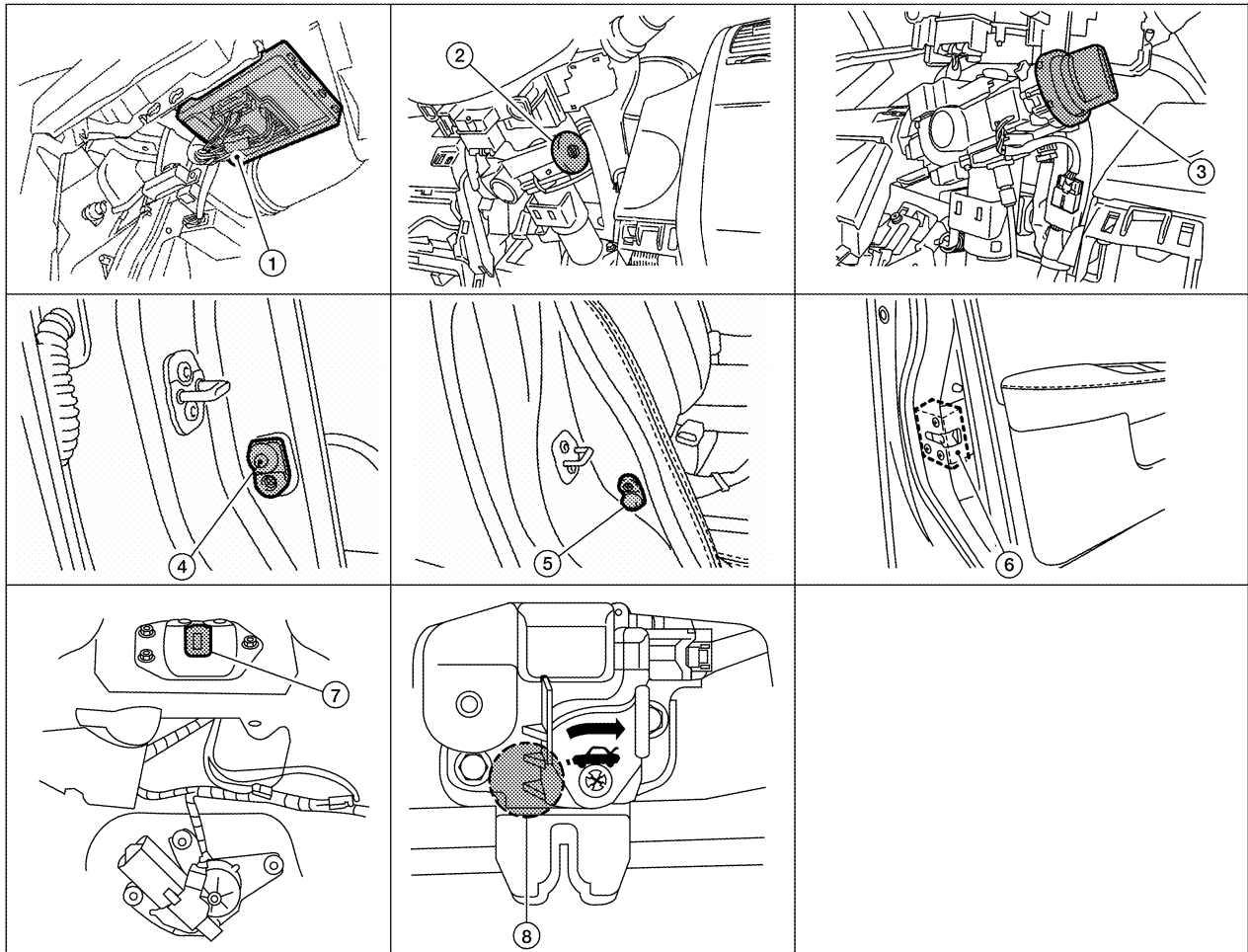
INTERIOR ROOM LAMP

PFP:26410

EKS00HZJ

INTERIOR ROOM LAMP

Component Parts and Harness Connector Location



1. BCM M18, M19 and M20 (view with glove box removed)
2. Key switch and key lock solenoid (without Intelligent Key) M27
3. Key switch and ignition knob switch (with Intelligent Key) M73
4. Front door switch LH B8 and RH B108
5. Rear door switch LH B6 and RH B116
6. Front door key cylinder switch LH D14
7. Back door lock assembly D405 (hatchback)
8. Trunk lamp switch and trunk release solenoid B127 (sedan)

LT1A2936E

System Description

EKS00HZK

When room lamp switch is in DOOR position, room lamp ON/OFF is controlled by timer according to signals from switches including key switch, front door switch LH, unlock signal from keyfob, door lock and unlock switch, key cylinder lock and unlock switch, ignition 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.

Interior room lamp timer is controlled by BCM (body control module).

Interior room lamp timer control settings can be changed with CONSULT-II.

POWER SUPPLY AND GROUND

Power is supplied at all times (without Intelligent Key system)

- through 10A fuse [No. 14, located in fuse block (J/B)]
- to key switch and key lock solenoid terminal 2,
- through 10A fuse [No. 8, located in fuse block (J/B)]
- to BCM terminal 57,
- through 40A fusible link (letter **g** , located in fuse and fusible link box)

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INTERIOR ROOM LAMP

- to BCM terminal 70.

Power is supplied at all times (with Intelligent Key system)

- through 10A fuse (No. 31, located in fuse and fusible link box)
- to key switch and ignition knob switch terminals 2 and 4,
- through 10A fuse [No. 8, located in fuse block (J/B)]
- to BCM terminal 57,
- through 40A fusible link (letter **g** , located in fuse and fusible link box)
- to BCM terminal 70.

When key is inserted in the key switch and key lock solenoid, power is supplied (without Intelligent Key system)

- through key switch and key lock solenoid terminal 1
- to BCM terminal 37.

When key is inserted in the key switch and ignition knob switch, power is supplied (with Intelligent Key system)

- through key switch and ignition knob switch terminal 1
- to BCM terminal 37.

When ignition knob switch is pushed, power is supplied (with Intelligent Key system)

- through key switch and ignition knob switch terminal 3
- to Intelligent Key unit terminal 27.

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

- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 38.

Ground is supplied

- to BCM terminal 67
- through grounds M57 and M61.

When front door LH is opened, ground is supplied

- to BCM terminal 47
- through front door switch LH terminal 2
- through case ground of front door switch LH.

When front door RH is opened, ground is supplied

- to BCM terminal 12
- through front door switch RH terminal 2
- through case ground of front door switch RH.

When rear door LH is opened, ground is supplied

- to BCM terminal 48
- through rear door switch LH terminal 1
- through case ground of rear door switch LH.

When rear door RH is opened, ground is supplied

- to BCM terminal 13
- through rear door switch RH terminal 1
- through case ground of rear door switch RH.

When back door (hatchback) is opened, ground is supplied

- to BCM terminal 43
- through back door lock assembly (back door switch) terminal 3
- through back door lock assembly (back door switch) terminal 4
- through grounds B117, B132 and D402.

When trunk lid (sedan) is opened, ground is supplied

- to BCM terminal 42
- through trunk lamp switch and trunk release solenoid terminal 3
- through trunk lamp switch and trunk release solenoid terminal 1

INTERIOR ROOM LAMP

- through grounds B117 and B132.

When front door LH is unlocked by front door key cylinder switch LH, the BCM receives a ground signal

- to BCM terminal 7
- through front door key cylinder switch LH terminal 3
- through front door key cylinder switch LH terminal 2
- through grounds M57 and M61.

When a signal, or combination of signals is received by BCM, ground is supplied

- to room lamp terminal 2
- through map lamp terminals 5 and 2 (with map lamp)
- through BCM terminal 63.

With power and ground supplied, the interior room lamp illuminates.

SWITCH OPERATION

When map lamp switch is ON (with map lamp), ground is supplied

- through grounds M57 and M61.
- to map lamp terminal 1

Power is supplied

- through BCM terminal 56
- to map lamp terminal 4.

When interior room lamp switch is ON, ground is supplied

- to interior room lamp terminal 1
- through map lamp (with map lamp) terminal 7
- through map lamp (with map lamp) terminal 1
- through grounds M57 and M61.

Power is supplied

- through BCM terminal 56
- through map lamp (with map lamp) terminal 4
- through map lamp (with map lamp) terminal 6
- to room lamp terminal 3.

INTERIOR ROOM LAMP TIMER OPERATION

Without Intelligent Key System

When room lamp switch is in DOOR position, and when all conditions below are met, BCM performs timer control (maximum 30 seconds) for room lamp ON/OFF.

In addition, when the interior room lamp turns ON or OFF there is gradual brightening or dimming over 1 second.

Power is supplied

- through 10A fuse [No. 14, located in fuse block (J/B)]
- to key switch and key lock solenoid terminal 2.

When the key is removed from ignition key cylinder (key switch OFF), power will not be supplied to BCM terminal 37.

When front door key cylinder switch LH is unlocked, ground is supplied

- to BCM terminal 7
- through front door key cylinder switch LH terminal 3
- through front door key cylinder switch LH terminal 2
- through grounds M57 and M61.

At the time that front door LH is opened, BCM detects that front door LH is unlocked. It determines that interior room lamp timer operation condition is met, and turns the room lamp ON for 30 seconds.

When key is in ignition key cylinder (key switch ON),

Power is supplied

- through key switch and key lock solenoid terminal 1
- to BCM terminal 37.

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INTERIOR ROOM LAMP

When key is removed from key switch and key lock solenoid (key switch OFF), the power supply to BCM terminal 37 is terminated. BCM detects that key has been removed, determines that interior room lamp timer conditions are met, and turns the room lamp ON for 30 seconds.

When front door LH opens → closes, and the key is not inserted in the key switch and key lock solenoid (key switch OFF), voltage at BCM terminal 47 changes between 0V (door open) → 12V (door closed). The BCM determines that conditions for room lamp operation are met and turns the room lamp ON for 30 seconds.

Interior room lamp timer control is canceled under the following conditions:

- Front door LH is locked (locked front door key cylinder switch LH).
- Front door LH is opened (front door switch LH).
- Ignition switch ON.

With Intelligent Key System

When the room lamp switch is in DOOR position, and when all conditions below are met, BCM performs timer control (maximum 30 second) for room lamp ON/OFF.

In addition, when interior room lamp turns ON or OFF there is gradual brightening or dimming over 1 second. Power is supplied

- through 10A fuse (No. 31, located in fuse and fusible link box)
- to key switch and ignition knob switch terminals 2 and 4.

When key is removed from ignition key cylinder (key switch OFF), power will not be supplied to BCM terminal 37.

When the ignition knob switch is released, power will not be supplied to Intelligent Key unit terminal 27.

When front door key cylinder switch LH is unlocked, ground is supplied

- to BCM terminal 7
- through front door key cylinder switch LH terminal 3
- through front door key cylinder switch LH terminal 2
- through grounds M57 and M61.

At the time the front door LH is opened, the BCM detects the front door LH is unlocked. It determines that the interior room lamp timer operation conditions are met, and interior room lamp ON for 30 seconds.

When the key is in ignition key cylinder (key switch ON), or ignition knob switch is pushed, power is supplied

- through key switch and ignition knob switch terminal 1
- to BCM terminal 37, or
- through key switch and ignition knob switch terminal 3
- to Intelligent Key unit terminal 27.

When the key is removed from key switch (key switch OFF), power supply to BCM terminal 37 is terminated. When the ignition knob switch is released, power supply to intelligent key unit is terminated. The BCM detects that the key has been removed, determines that interior room lamp timer conditions are met, and turns room lamp ON for 30 seconds.

When the front door LH opens → closes, and key is not inserted in key switch (or ignition knob switch is released), BCM terminal 47 changes between 0V (door open) → 12V (door closed). BCM determines that conditions for room lamp operation are met, and turns room lamp ON for 30 seconds.

Interior room lamp timer control is canceled under the following conditions:

- Front door LH is locked (with keyfob or front door key cylinder switch LH).
- Front door LH is opened (front door switch LH).
- Ignition switch ON.

INTERIOR LAMP BATTERY SAVER CONTROL

If an interior room lamp is left ON, it will not be turned OFF even when door is closed.

BCM turns off interior lamp automatically to save battery 30 minutes after ignition switch is turned off.

After lamps are turned OFF by the battery saver system, the lamps illuminate again when

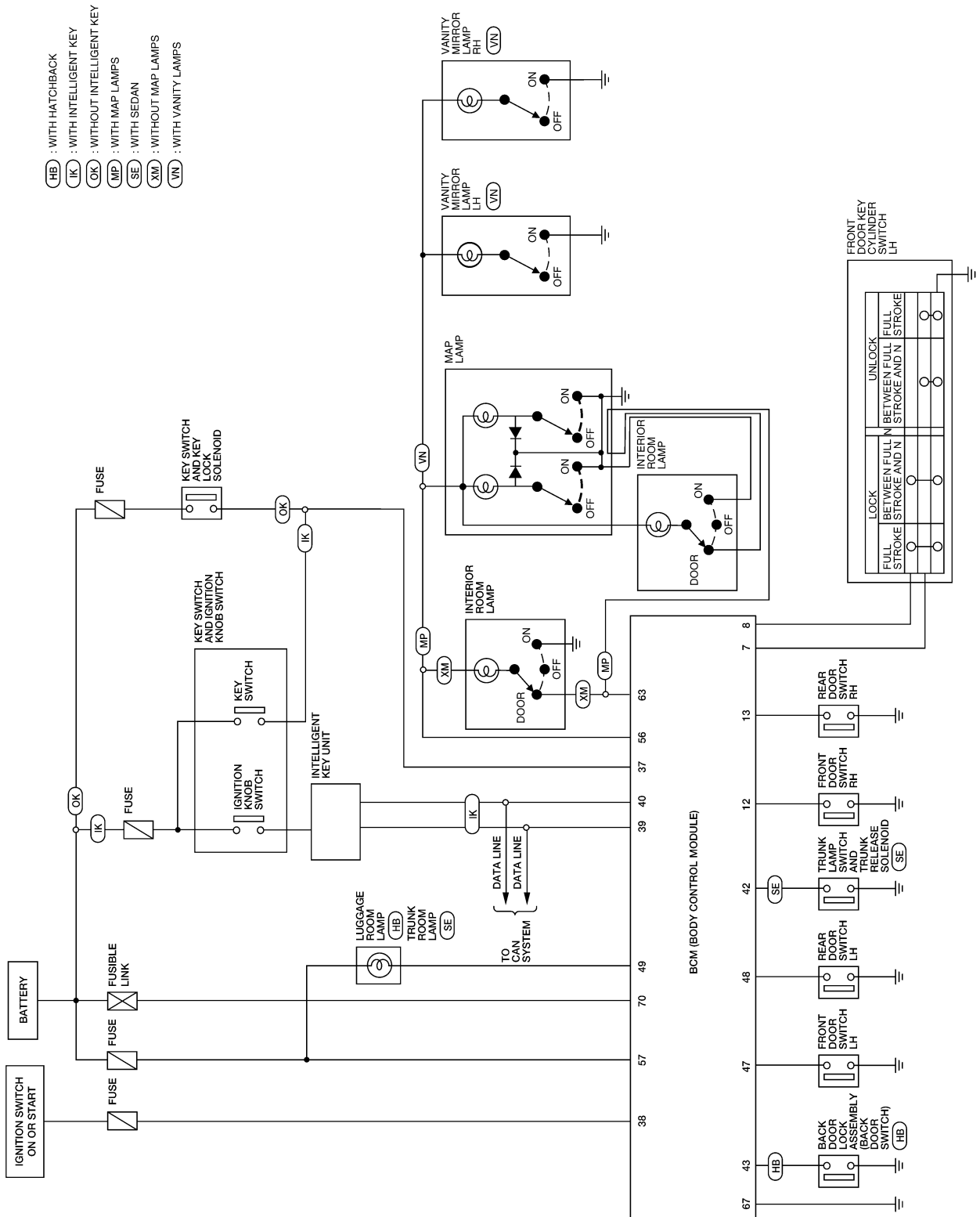
- front door key cylinder switch LH is locked or unlocked
- door is opened or closed
- key is removed from ignition key cylinder or inserted in ignition key cylinder, or the ignition knob switch is pushed or released.

Interior lamp battery saver control time period can be changed by the function setting of CONSULT-II.

INTERIOR ROOM LAMP

EKS00HZL

Schematic



- HB : WITH HATCHBACK
- IK : WITH INTELLIGENT KEY
- OK : WITHOUT INTELLIGENT KEY
- MP : WITH MAP LAMPS
- SE : WITH SEDAN
- XM : WITHOUT MAP LAMPS
- VN : WITH VANITY LAMPS

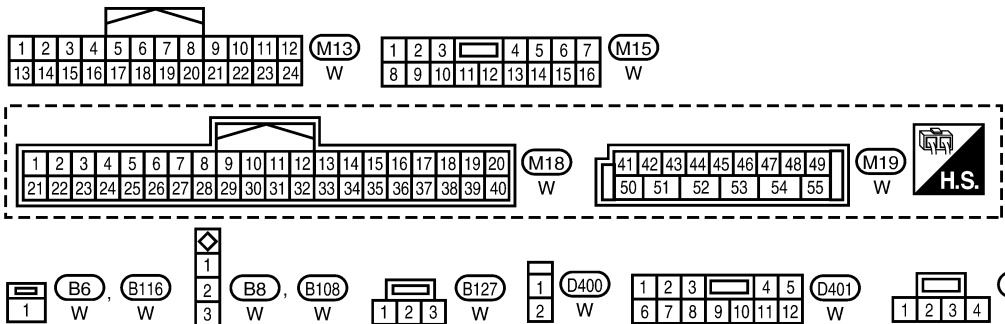
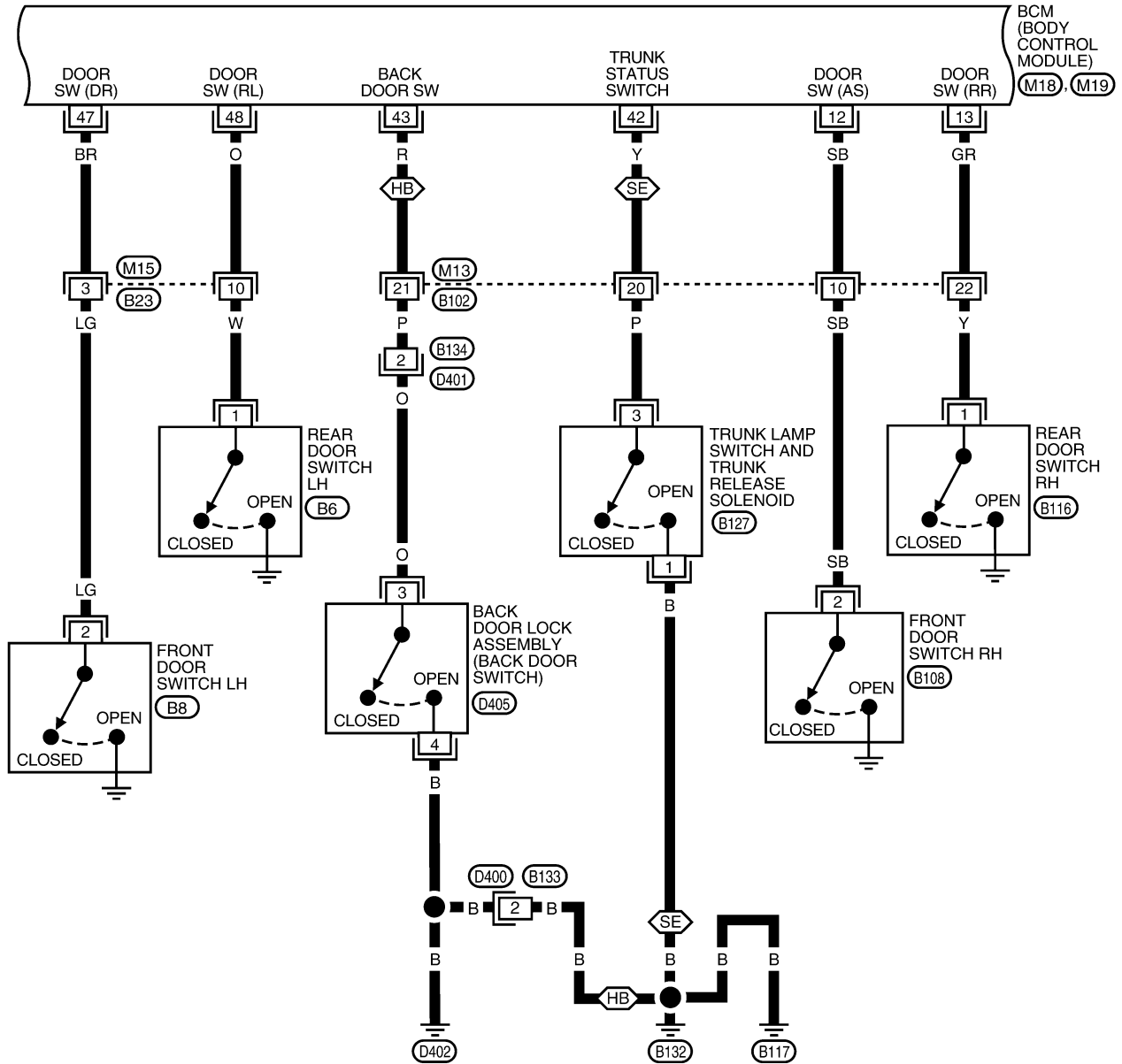
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INTERIOR ROOM LAMP

LT-INTL/L-02

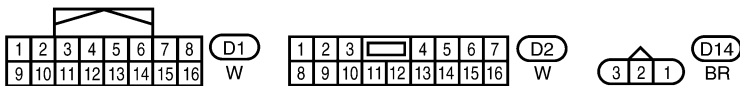
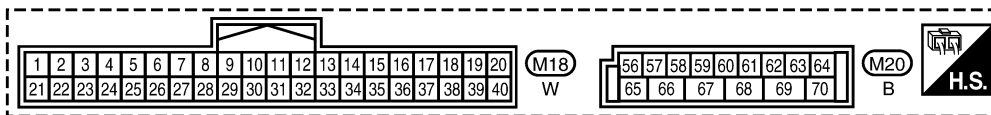
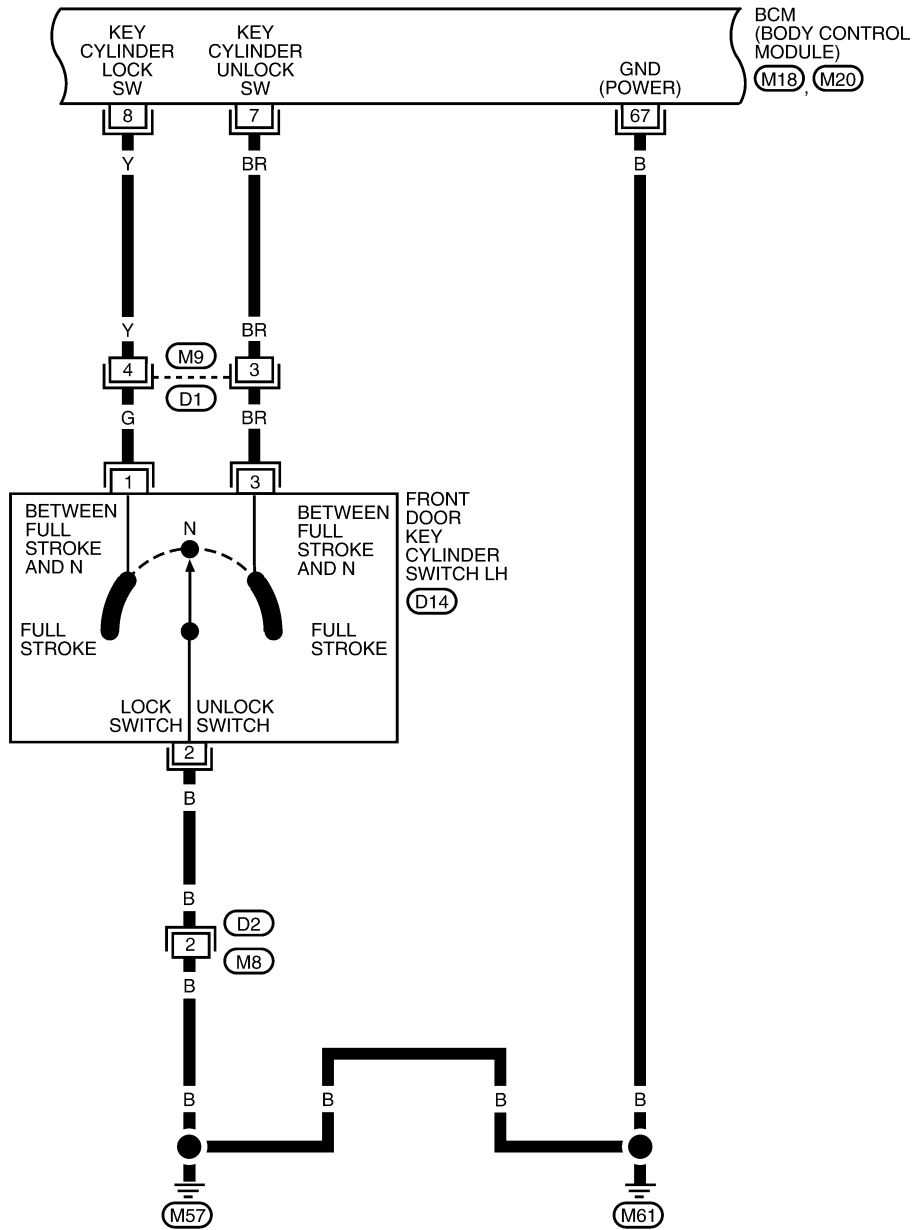
HB : WITH HATCHBACK
SE : WITH SEDAN



WKWA5814E

INTERIOR ROOM LAMP

LT-INT/L-03

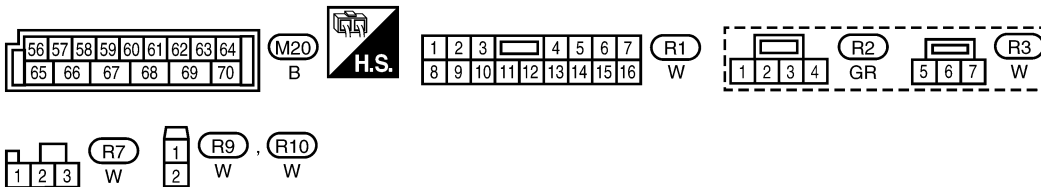
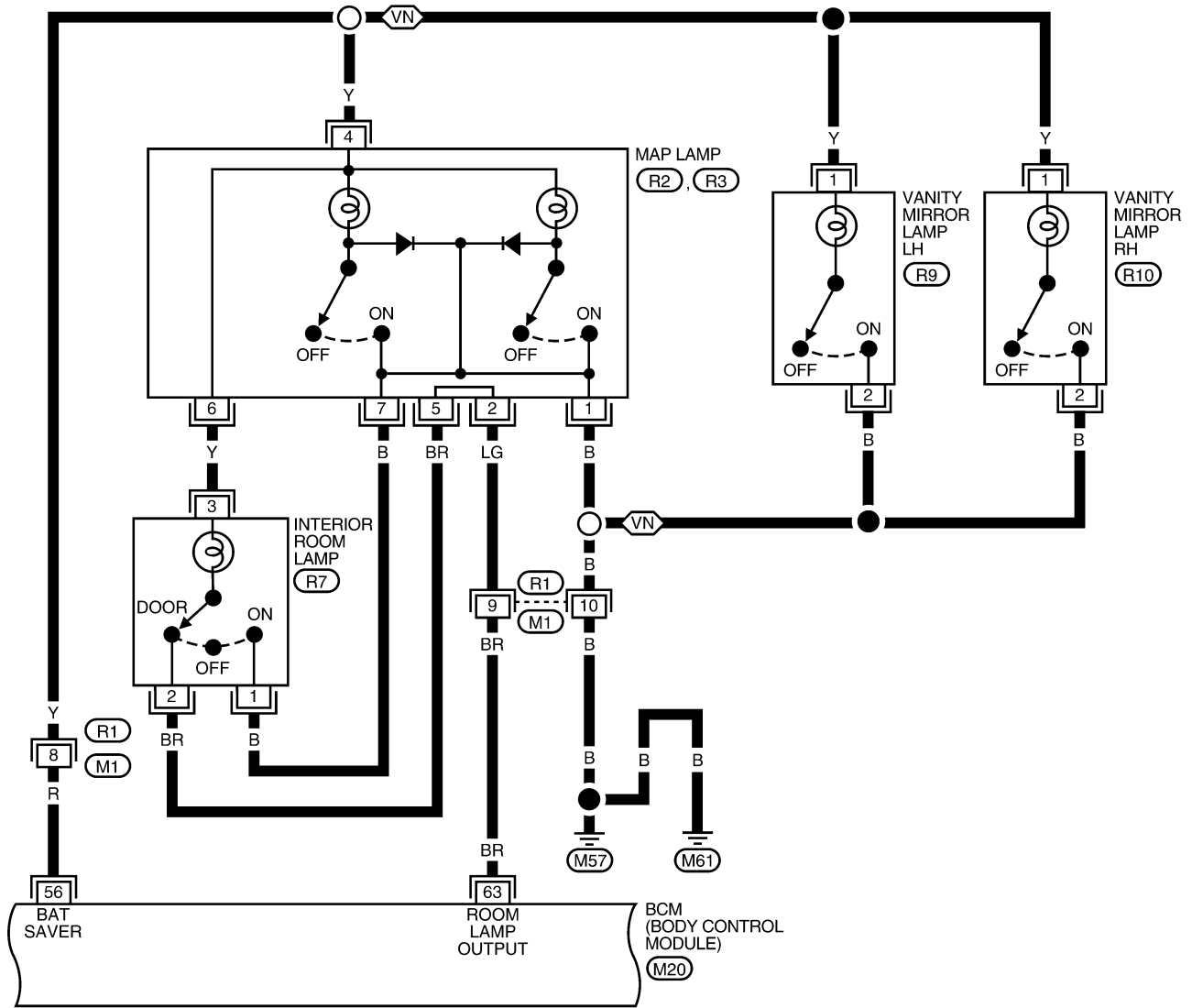


LKWA0341E

INTERIOR ROOM LAMP

LT-INT/L-05

: WITH VANITY LAMPS



LKWA0343E

INTERIOR ROOM LAMP

Terminals and Reference Values for BCM

EKS00HZN

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

How to Proceed With Trouble Diagnosis

EKS00HZO

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-95, "System Description"](#) .
3. Perform the preliminary check. Refer to [LT-105, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of the malfunction.
5. Does the interior room lamp operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. Inspection End

Preliminary Check

EKS00HZZ

CHECK POWER SUPPLY AND GROUND CIRCUIT FOR BCM

Refer to [BCS-17, "BCM Power Supply and Ground Circuit Check"](#) .

CHECK POWER SUPPLY AND GROUND CIRCUIT FOR IPDM E/R

Refer to [LT-12, "CHECK POWER SUPPLY AND GROUND CIRCUIT FOR IPDM E/R"](#) .

CONSULT-II Function (BCM)

EKS00HZQ

Refer to [LT-12, "CONSULT-II Function \(BCM\)"](#) .

CONSULT-II START PROCEDURE

Refer to [BCS-19, "CONSULT-II START PROCEDURE"](#) .

WORK SUPPORT

Display Item List

Item	Description	CONSULT-II
SET I/L D-UNLCK INTCON	The 30 second operating function of the interior room lamps can be selected when the front door LH is released (unlocked).	ON/OFF
ROOM LAMP ON TIME SET	The time in order to escalate illumination can be adjusted when interior room lamps are turned on.	MODE 1 – 7
ROOM LAMP OFF TIME SET	The time in order to diminish illumination can be adjusted when interior room lamps are turned off.	MODE 1 – 7

Reference between "MODE" and "TIME" for "TURN ON/OFF"

MODE	1	2	3	4	5	6	7
Time (sec.)	0.5	1	2	3	4	5	0

DATA MONITOR

Display Item List

Monitor item	Contents
IGN ON SW	"ON/OFF" Displays "IGN position (ON)/OFF, ACC position (OFF)" judged from ignition switch signal.
KEY ON SW	"ON/OFF" Displays "Key inserted (ON)/key removed (OFF)" status judged from key switch signal.
DOOR SW - DR	"ON/OFF" Displays status of front door LH as judged from front door switch LH signal. (Door is open: ON/Door is closed: OFF)
DOOR SW - AS	"ON/OFF" Displays "Door open (ON)/Door closed (OFF)" status, determined from front door switch RH signal.
DOOR SW - RR	"ON/OFF" Displays "Door open (ON)/Door closed (OFF)" status, determined from rear door switch RH signal.
DOOR SW - RL	"ON/OFF" Displays "Door open (ON)/Door closed (OFF)" status, determined from rear door switch LH signal.
TRUNK	"ON/OFF" Displays "Back door/Trunk open (ON)/closed (OFF)" status, determined from the back door switch (hatchback) or the trunk lamp switch (sedan).

INTERIOR ROOM LAMP

Monitor item	Contents
LOCK STATUS	"ON/OFF" Display status (door is locked: ON/door is unlocked: OFF) of front door lock actuator LH (unlock sensor) judged from the front door lock actuator LH (unlock sensor) signal.
CDL LOCK SW	"ON/OFF" Displays "Door locked (ON)/Door unlocked (OFF) status, determined from locking detection switch in the front door LH.
CDL UNLOCK SW	"ON/OFF" Displays "Door unlocked (OFF)" status, determined from locking detection switch in front door RH.
I- KEY LOCK ^{NOTE}	"ON/OFF" Displays "Locked (ON)/Other (OFF)" status, determined from lock signal.
I- KEY UNLOCK ^{NOTE}	"ON/OFF" Displays "Unlocked (ON)/Other (OFF)" status, determined from unlock signal.

NOTE:

Vehicles without intelligent key system display this item, but cannot be monitored.

ACTIVE TEST

Display Item List

Test item	Description
INT LAMP	Interior room lamp can be operated by any ON-OFF operations.

WORK SUPPORT

Display Item List

Item	Description	CONSULT-II
ROOM LAMP TIMER SET	Interior room lamp battery saver timer setting can be changed.	MODE 1: 30 min. MODE 2: 60 min.
ROOM LAMP BAT SAV SET	Interior room lamp battery saver control mode can be changed in this mode. Select interior room lamp battery saver control mode between ON and OFF.	ON/OFF

Interior Room Lamp Control Does Not Operate (With Map Lamp)

EKS00HZR

1. CHECK EACH SWITCH

Select "BCM" on CONSULT-II. With "INT LAMP" data monitor, make sure switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-105, "Display Item List"](#) for switches and their functions.

OK or NG

- OK >> GO TO 2.
- NG >> Inspect malfunctioning switch system.

DATA MONITOR			
MONITOR			
IGN ON SW	ON		
KEY ON SW	OFF		
DOOR SW-DR	ON		
DOOR SW-AS	OFF		
DOOR SW-RR	OFF		
DOOR SW-RL	OFF		
LOCK STATUS	ON		
CDL LOCK SW	OFF		
CDL UNLOCK SW	OFF		
		Page Down	
		RECORD	
MODE	BACK	LIGHT	COPY

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2. ACTIVE TEST

1. Select "BCM" on CONSULT-II. Select "INT LAMP" active test.
2. When room lamp switch is in DOOR position, make sure room lamp operates.

Room lamp should operate.

OK or NG

- OK >> Replace BCM. Refer to [BCS-27, "Removal and Installation of BCM"](#).
- NG >> GO TO 3.

ACTIVE TEST	
INT LAMP	ON
	OFF

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INTERIOR ROOM LAMP

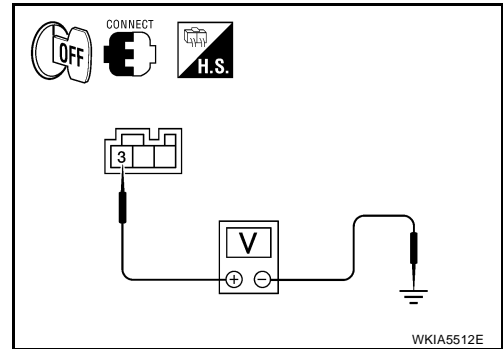
3. CHECK ROOM LAMP INPUT VOLTAGE

1. Turn ignition switch OFF.
2. Check voltage between interior room lamp harness connector R7 terminal 3 and ground.

3 - Ground : **Battery voltage.**

OK or NG

- OK >> GO TO 6.
 NG >> GO TO 4.



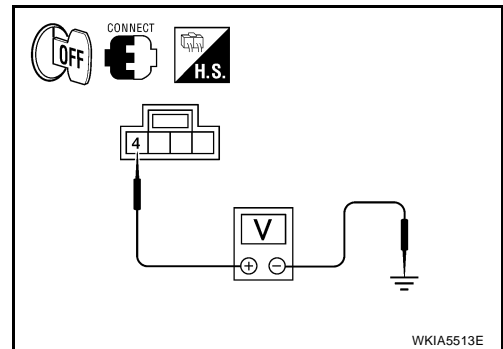
4. CHECK MAP LAMP INPUT CIRCUIT

1. Map lamp switch is in OFF position.
2. Check voltage between map lamp harness connector R2 terminal 4 and ground.

4 - Ground : **Battery voltage.**

OK or NG

- OK >> GO TO 5.
 NG >> Repair harness or connector.



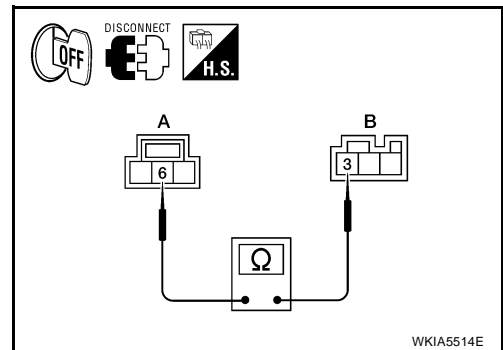
5. CHECK ROOM LAMP INPUT CIRCUIT

1. Disconnect map lamp connector and interior room lamp connector.
2. Check continuity between map lamp harness connector R3 (A) terminal 6 and interior room lamp harness connector R7 (B) terminal 3.

6 - 3 : **Continuity should exist.**

OK or NG

- OK >> Replace map lamp.
 NG >> Repair harness or connector.



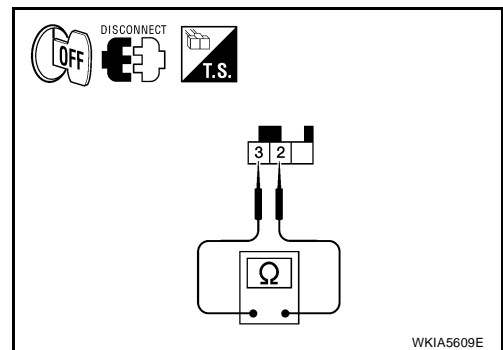
6. CHECK ROOM LAMP

1. Disconnect interior room lamp connector.
2. Check continuity between interior room lamp terminals.

Terminal		Condition	Continuity
Interior room lamp			
2	3	Room lamp switch is in DOOR position	Yes
		Room lamp switch is in OFF position	No

OK or NG

- OK >> GO TO 7.
 NG >> Check bulb. If OK, replace interior room lamp.



INTERIOR ROOM LAMP

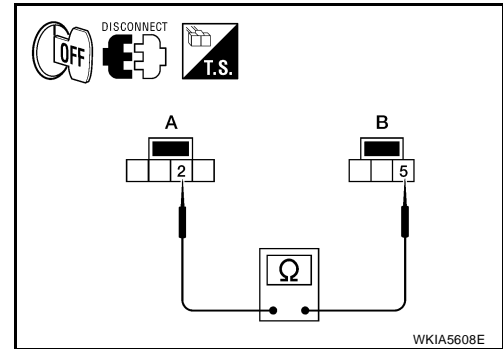
7. CHECK MAP LAMP

1. Disconnect map lamp connectors.
2. Check continuity between map lamp terminals.

2 - 5 : Continuity should exist.

OK or NG

- OK >> GO TO 8.
 NG >> Replace map lamp.



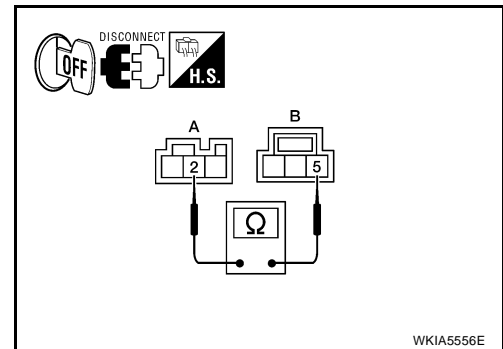
8. CHECK CIRCUIT BETWEEN ROOM LAMP AND MAP LAMP

Check continuity between interior room lamp harness connector R7 (A) terminal 2 and map lamp harness connector R3 (B) terminal 5.

2 - 5 : Continuity should exist.

OK or NG

- OK >> GO TO 9.
 NG >> Repair harness or connector.



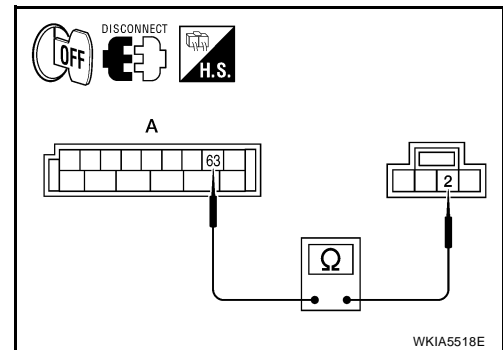
9. CHECK CIRCUIT BETWEEN MAP LAMP AND BCM

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector M20 (A) terminal 63 and map lamp harness connector R2 (B) terminal 2.

63 - 2 : Continuity should exist.

OK or NG

- OK >> Replace BCM if room lamp does not work after setting the connector again. Refer to [BCS-27, "Removal and Installation of BCM"](#) .
 NG >> Repair harness or connector.



Interior Room Lamp Control Does Not Operate (Without Map Lamp)

EKS00IMK

1. CHECK EACH SWITCH

Select "BCM" on CONSULT-II. With "INT LAMP" data monitor, make sure switches listed in display item list turn ON-OFF linked with switch operation. Refer to [LT-105, "Display Item List"](#) for switches and their functions.

OK or NG

- OK >> GO TO 2.
 NG >> Inspect malfunctioning switch system.

DATA MONITOR	
MONITOR	
IGN ON SW	ON
KEY ON SW	OFF
DOOR SW-DR	ON
DOOR SW-AS	OFF
DOOR SW-RR	OFF
DOOR SW-RL	OFF
LOCK STATUS	ON
CDL LOCK SW	OFF
CDL UNLOCK SW	OFF
Page Down	
RECORD	
MODE	BACK
LIGHT	COPY

PKIB0263E

INTERIOR ROOM LAMP

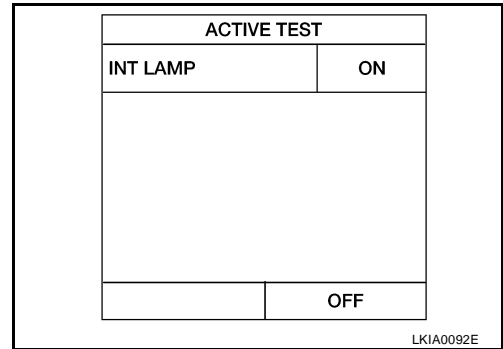
2. ACTIVE TEST

1. Select "BCM" on CONSULT-II. Select "INT LAMP" active test.
2. When room lamp switch is in DOOR position, make sure room lamp operates.

Room lamp should operate.

OK or NG

- OK >> Replace BCM. Refer to [BCS-27, "Removal and Installation of BCM"](#) .
- NG >> GO TO 3.



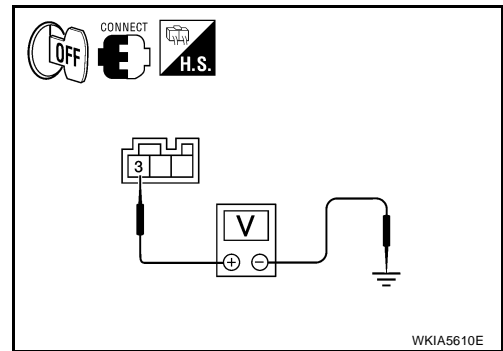
3. CHECK ROOM LAMP INPUT VOLTAGE

1. Turn ignition switch OFF.
2. Check voltage between interior room lamp harness connector R7 terminal 3 and ground.

3 - Ground : Battery voltage should exist.

OK or NG

- OK >> GO TO 4.
- NG >> GO TO 6.



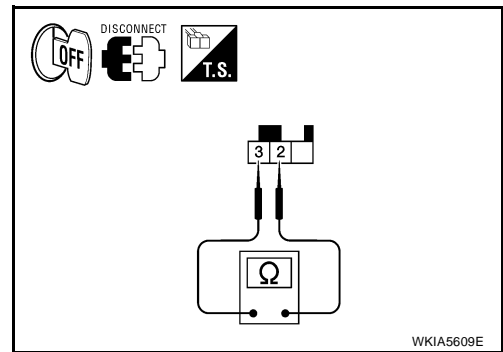
4. CHECK ROOM LAMP

1. Disconnect room lamp connector.
2. Check continuity between room lamp terminals.

Room lamp		Condition	Continuity
Terminal			
2	3	Room lamp switch is in DOOR position	Yes
		Room lamp switch is in OFF position	No

OK or NG

- OK >> GO TO 5.
- NG >> Check bulb. If OK, replace room lamp. Refer to [LT-110, "ROOM LAMP"](#) .



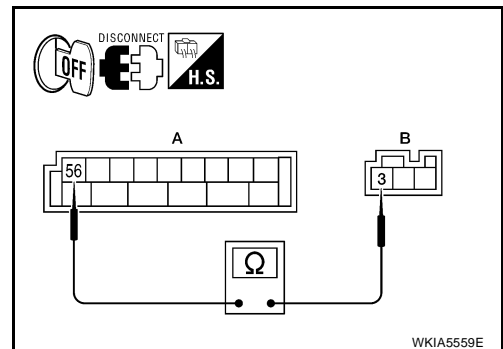
5. CHECK ROOM LAMP CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector M20 (A) terminal 56 and room lamp harness connector R7 (B) terminal 3.

56 - 3 : Continuity should exist.

OK or NG

- OK >> GO TO 6.
- NG >> Repair harness or connector.



INTERIOR ROOM LAMP

6. CHECK ROOM LAMP CIRCUIT

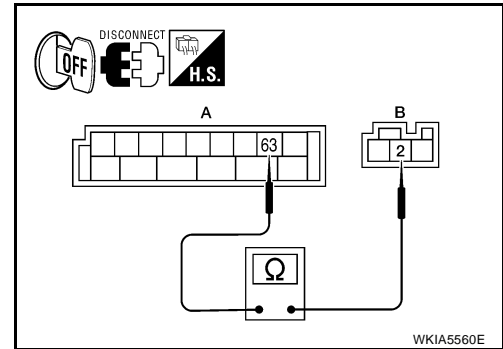
1. Disconnect BCM connector and room lamp connector.
2. Check continuity between BCM harness connector M20 (A) terminal 63 and room lamp harness connector R7 (B) terminal 2.

63 - 2 : Continuity should exist.

OK or NG

OK >> Replace BCM if interior lamp does not work after setting the connector again. Refer to [BCS-27, "Removal and Installation of BCM"](#) .

NG >> Repair harness or connector.



WKIA5560E

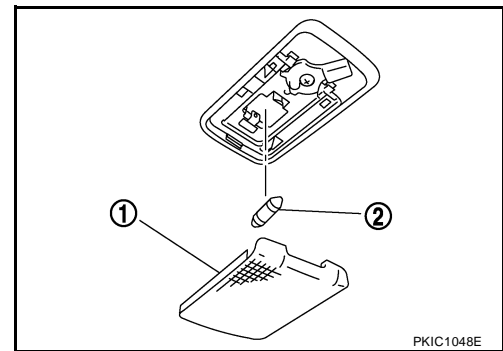
EKS00HZS

Bulb Replacement ROOM LAMP

1. Remove lens (1) by inserting suitable tool and releasing LH (switch side) first).
2. Remove bulb (2).
3. Installation is in the reverse order of removal.

NOTE:

Insert the lens hook end RH side first to install lens.



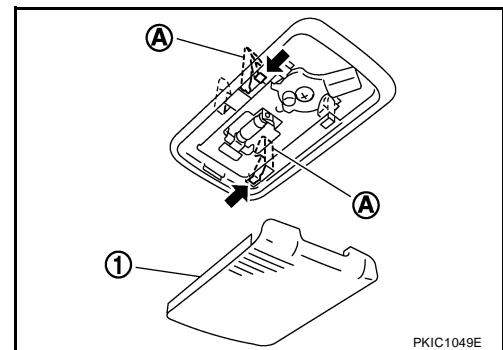
PKIC1048E

EKS00HZZ

Removal and Installation ROOM LAMP

Removal

1. Remove lens (1) and remove the room lamp by pulling down to release the room lamp metal clips (A).
2. Disconnect connector and remove room lamp.



PKIC1049E

Installation

Installation is in the reverse order of removal.

ILLUMINATION**System Description**

EKS00HZU

The control of the illumination lamps operation is dependent upon the position of the lighting switch. When the lighting switch is placed in the 1ST or 2ND position, the BCM (body control module) receives input signal requesting the illumination lamps to illuminate. This input signal is communicated to IPDM E/R (intelligent power distribution module engine room) across CAN communication lines. CPU (central processing unit) located in the IPDM E/R controls the tail lamp relay coil. This relay, when energized, directs power to the illumination lamps, which then illuminate.

Power is supplied at all times

- to ignition relay, located in IPDM E/R,
- to tail lamp relay, located in IPDM E/R,
- through 15A fuse (No. 52, located in IPDM E/R) and
- through 20A fuse (No. 53, located in IPDM E/R)
- to CPU located in IPDM E/R,
- through 40A fusible link (letter **g** , located in fuse and fusible link box)
- to BCM terminal 70, and
- through 10A fuse [No. 8, located in fuse block (J/B)]
- to BCM terminal 57.

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

- to ignition relay, located in IPDM E/R, and
- through 10A fuse [No. 6, located in fuse block (J/B)]
- to BCM terminal 38.

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

- through 10A fuse [No. 20, located in fuse block (J/B)]
- to BCM terminal 11.

Ground is supplied

- to BCM terminal 67
- through grounds M57 and M61, and
- to IPDM E/R terminals 39 and 59
- through grounds E15 and E24.

ILLUMINATION OPERATION BY LIGHTING SWITCH

With the lighting switch in the 1ST or 2ND position, BCM receives input signal requesting the illumination lamps to illuminate. This input signal is communicated to IPDM E/R across CAN communication lines. CPU located in the IPDM E/R controls the tail lamp relay coil, which, when energized, directs power

- through 10A fuse (No. 37, located in IPDM E/R)
- through IPDM E/R terminal 29
- to microphone terminal 3 (with Bluetooth)
- to illumination control switch terminal 1
- to glove box lamp terminal 1 (with glovebox lamp)
- to audio unit terminal 9
- to front air control terminal 5
- to A/T device terminal 3 (with 4-speed A/T)
- to CVT device terminal 3 (with CVT)
- to hazard switch terminal 3
- to combination meter terminal 12
- to door mirror remote control switch terminal 16, and
- to main power window and door lock/unlock switch terminal 4 (with hatchback early production).

Ground is supplied

- to microphone terminal 2 (with Bluetooth)

ILLUMINATION

- to glove box lamp terminal 2 (with glove box lamp), and
- to illumination control switch terminal 3
- through grounds M57 and M61.

The illumination control switch controls illumination intensity by varying the ground to the following

- through illumination control switch terminal 2
- to audio unit terminal 8
- to front air control terminal 6
- to A/T device terminal 4 (with 4-speed A/T)
- to CVT device terminal 3 (with CVT)
- to hazard switch terminal 4
- to combination meter terminal 13,
- to door mirror remote control switch terminal 15,
- to main power window and door lock/unlock switch terminal 14 (with hatchback early production).

With power and ground supplied, illumination lamps illuminate.

EXTERIOR LAMP BATTERY SAVER CONTROL

Refer to [LT-78, "EXTERIOR LAMP BATTERY SAVER CONTROL"](#) .

CAN Communication System Description

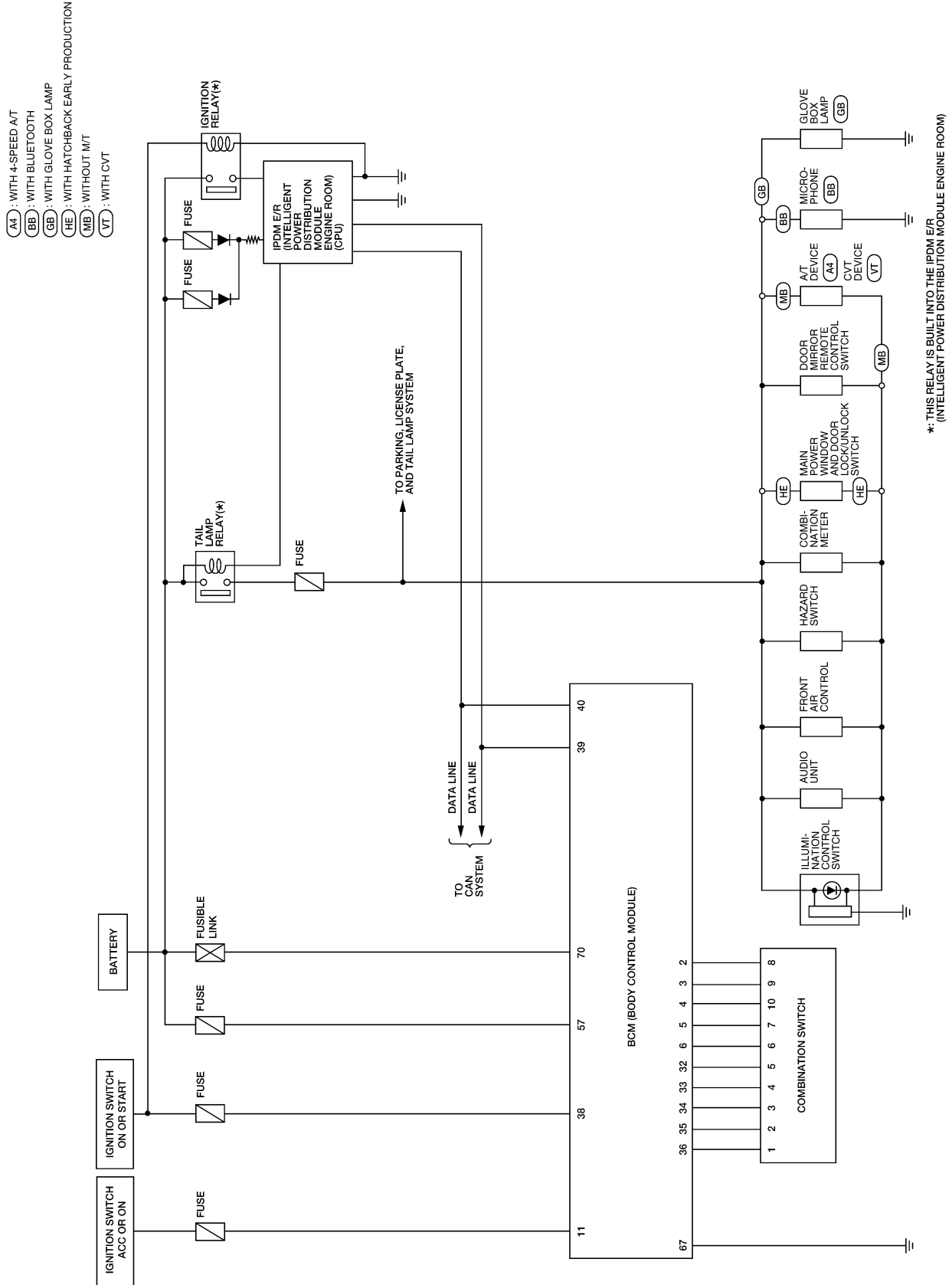
Refer to [LAN-4, "CAN Communication System"](#) .

EKS00HZV

ILLUMINATION

Schematic

EKS00HZX



WKWA5815E

A
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LT

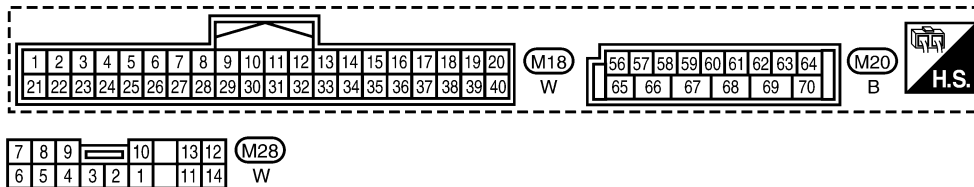
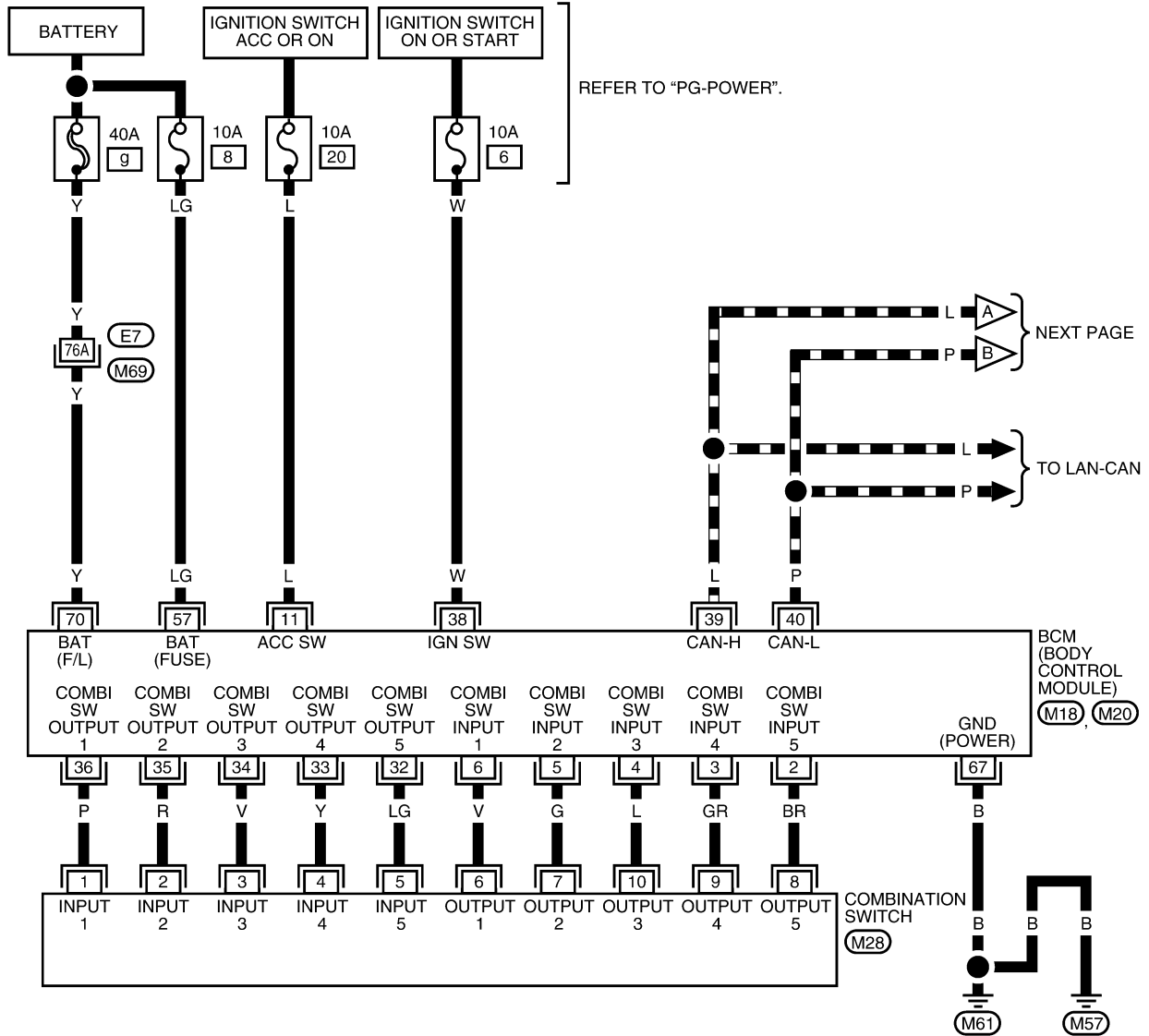
ILLUMINATION

Wiring Diagram — ILL —

EKS00HZY

LT-ILL-01

— : DATA LINE



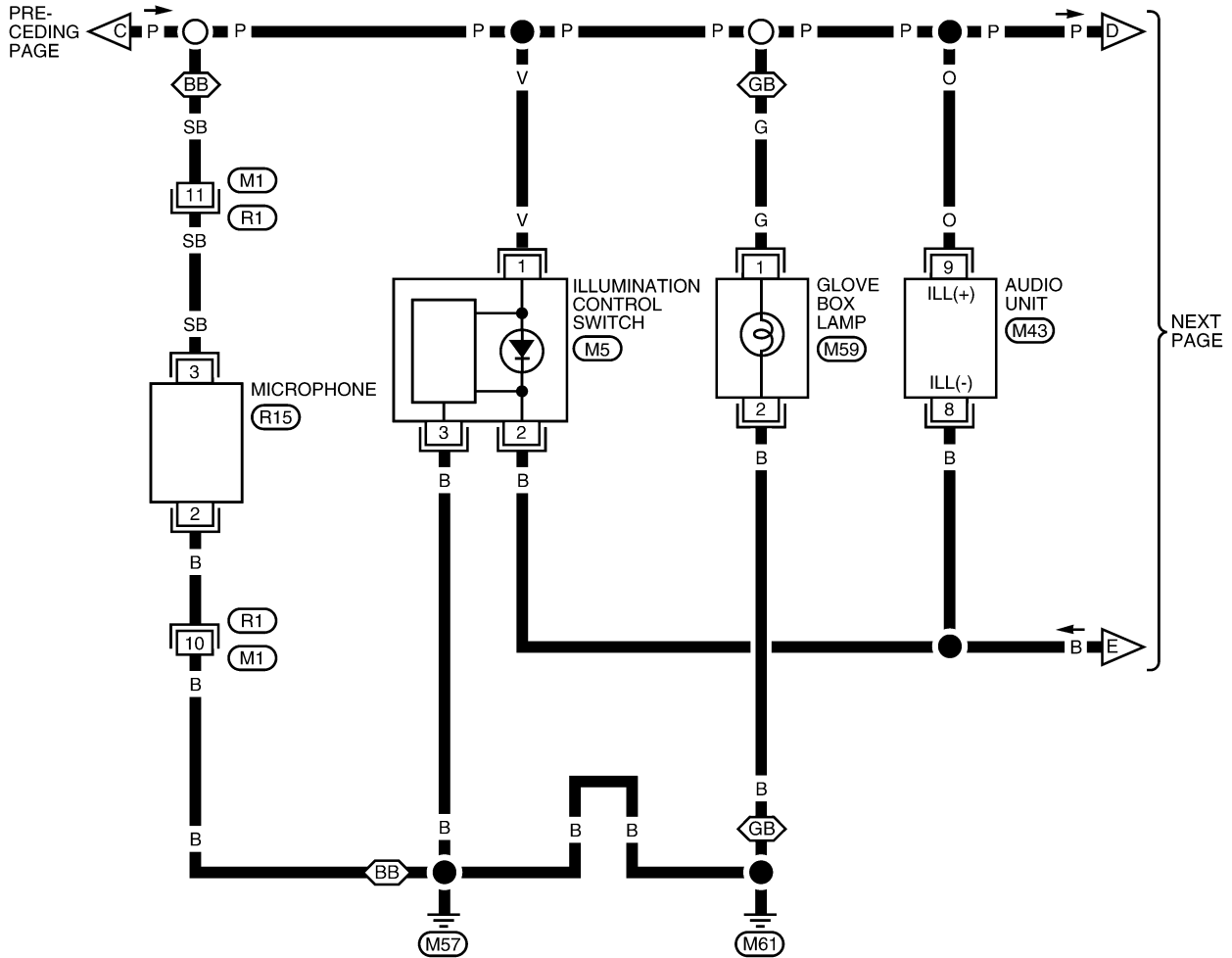
REFER TO THE FOLLOWING.
 (M69) - SUPER MULTIPLE JUNCTION (SMJ)

LKWA0344E

ILLUMINATION

LT-ILL-03

BB : WITH BLUETOOTH
GB : WITH GLOVE BOX LAMP

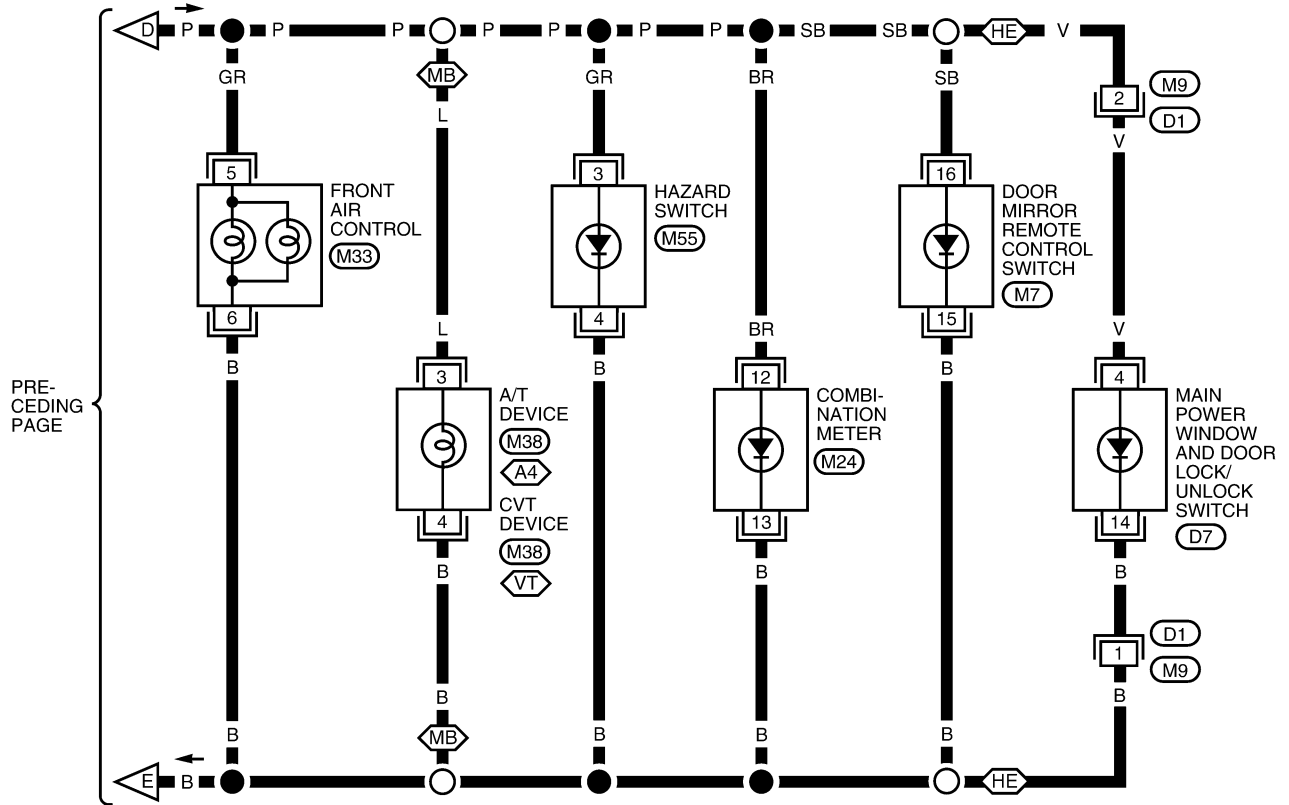


LKWA0346E

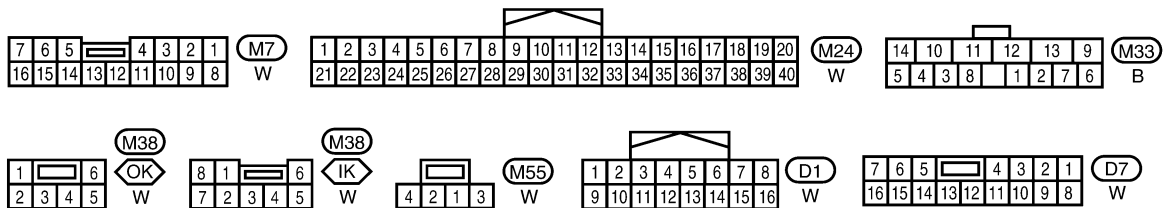
ILLUMINATION

LT-ILL-04

- ⬡A4 : WITH 4-SPEED A/T
- ⬡HE : WITH HATCHBACK EARLY PRODUCTION
- ⬡IK : WITH INTELLIGENT KEY
- ⬡MB : WITHOUT M/T
- ⬡OK : WITHOUT INTELLIGENT KEY
- ⬡VT : WITH CVT



PRE-
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PAGE



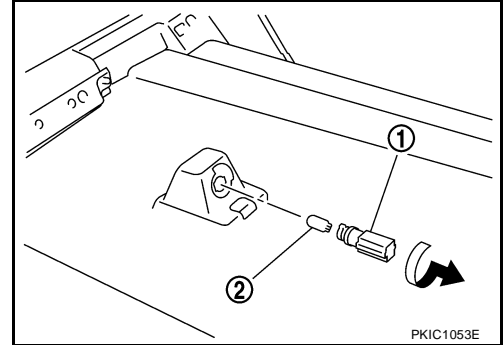
WKWA5816E

ILLUMINATION

EKS00HZZ

Bulb Replacement GLOVE BOX LAMP

1. Remove glove box assembly. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
2. Turn bulb socket (1) counterclockwise and remove it.
3. Remove bulb (2).



BULB SPECIFICATIONS

BULB SPECIFICATIONS

PFP:26297

Headlamp

EKS00100

Item	Wattage (W)
High/Low (Halogen type)	60/55 (HB2)

Exterior Lamp

EKS00101

Item	Wattage (W)	
Front combination lamp	Turn signal lamp	21 (amber)
	Parking (clearance) lamp	5
Rear combination lamp	Stop/Tail lamp	21/5
	Turn signal lamp	21 (amber)
	Back-up lamp	21
Front fog lamp	35 (H8)	
License plate lamp	5	
High-mounted stop lamp	Hatchback	LED
	Sedan	16

Interior Lamp/Illumination

EKS00102

Item	Wattage (W)
Glove box lamp	1.4
Map lamp	8
Room lamp	8
Luggage compartment lamp	5

A
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D
E
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M

LT

BULB SPECIFICATIONS
