

SECTION **EXL**

EXTERIOR LIGHTING SYSTEM

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

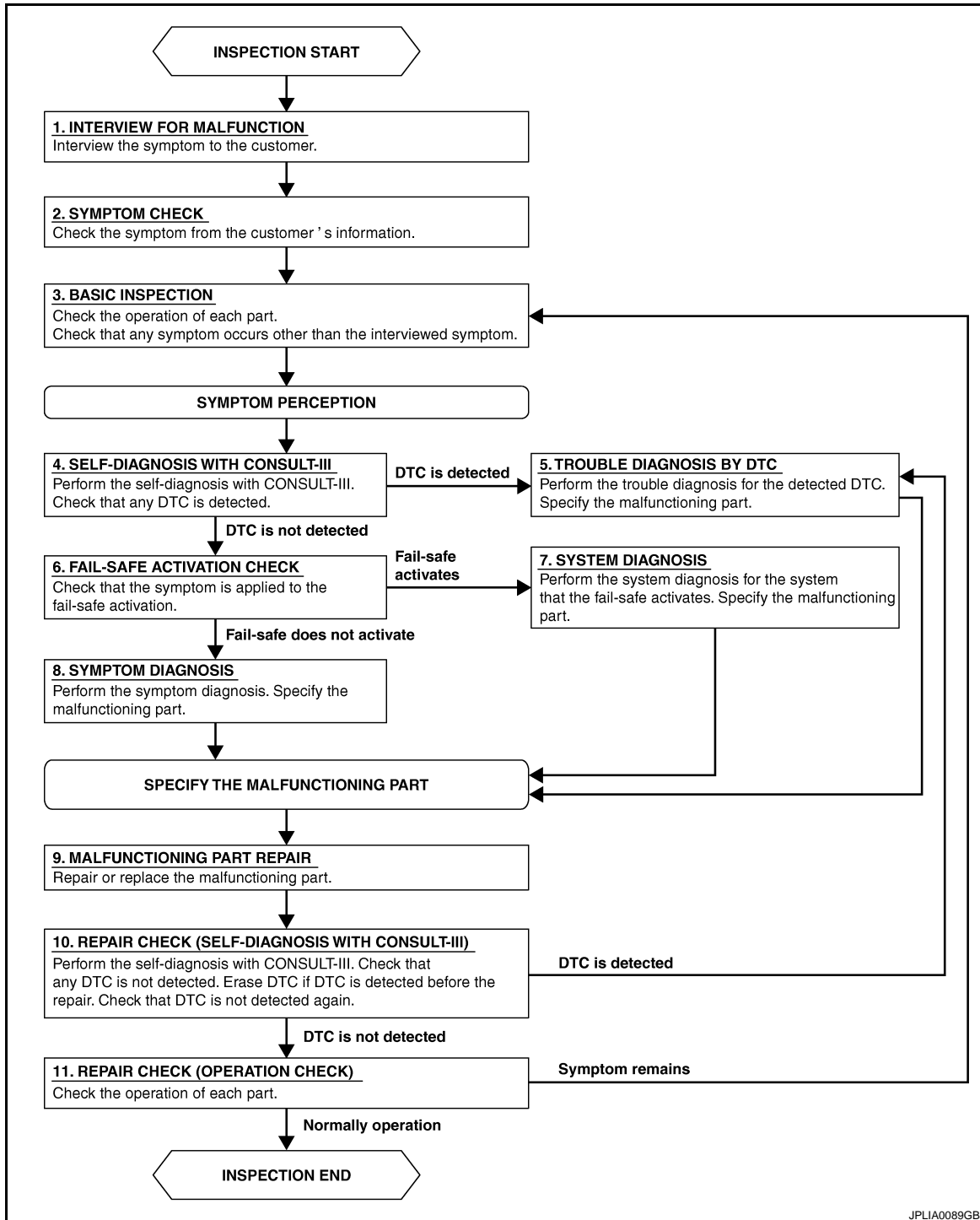
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000001608236

OVERALL SEQUENCE



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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

DETAILED FLOW

1. INTERVIEW FOR MALFUNCTION

Find out what the customer's concerns are.

>> GO TO 2

2. SYMPTOM CHECK

Verify the symptom from the customer's information.

>> GO TO 3

3. BASIC INSPECTION

Check the operation of each part. Check that any concerns occur other than those mentioned in the customer interview.

>> GO TO 4

4. SELF-DIAGNOSIS WITH CONSULT-III

Perform the self diagnosis with CONSULT-III. Check that any DTC is detected.

Is any DTC detected?

YES >> GO TO 5

NO >> GO TO 6

5. TROUBLE DIAGNOSIS BY DTC

Perform the trouble diagnosis for the detected DTC. Specify the malfunctioning part.

>> GO TO 9

6. FAIL-SAFE ACTIVATION CHECK

Determine if the customer's concern is related to fail-safe activation.

Does the fail-safe activate?

YES >> GO TO 7

NO >> GO TO 8

7. SYSTEM DIAGNOSIS

Perform the system diagnosis for the system in which the fail-safe activates. Specify the malfunctioning part.

>> GO TO 9

8. SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 9

9. MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 11

10. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT-III)

Perform the self diagnosis with CONSULT-III. Verified that no DTCs are detected. Erase all DTCs detected prior to the repair. Verify that DTC is not detected again.

Is any DTC detected?

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

YES >> GO TO 5

NO >> GO TO 11

11. REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

Does it operate normally?

YES >> INSPECTION END

NO >> GO TO 3

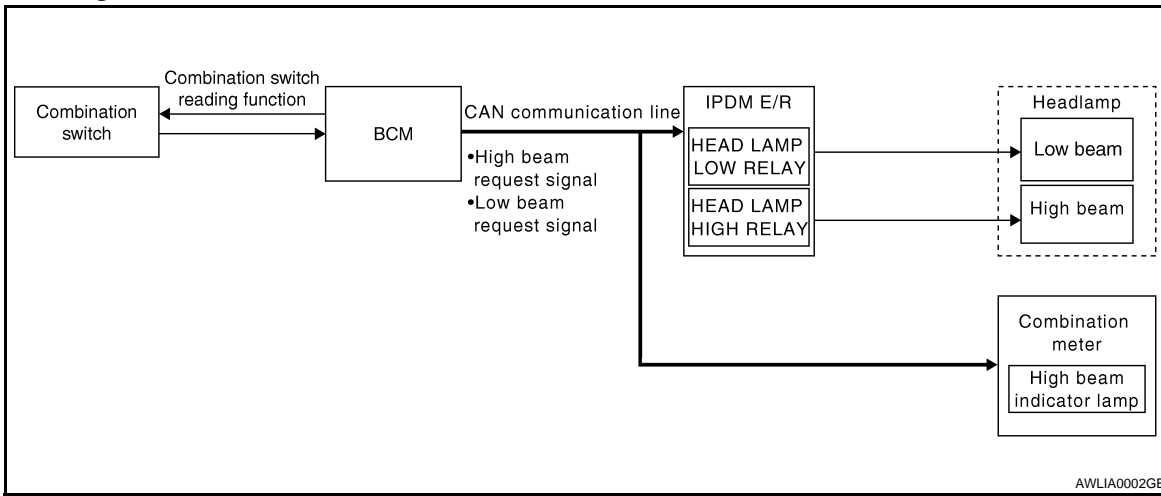
HEADLAMP (HALOGEN TYPE)

< FUNCTION DIAGNOSIS >

FUNCTION DIAGNOSIS

HEADLAMP (HALOGEN TYPE)

System Diagram



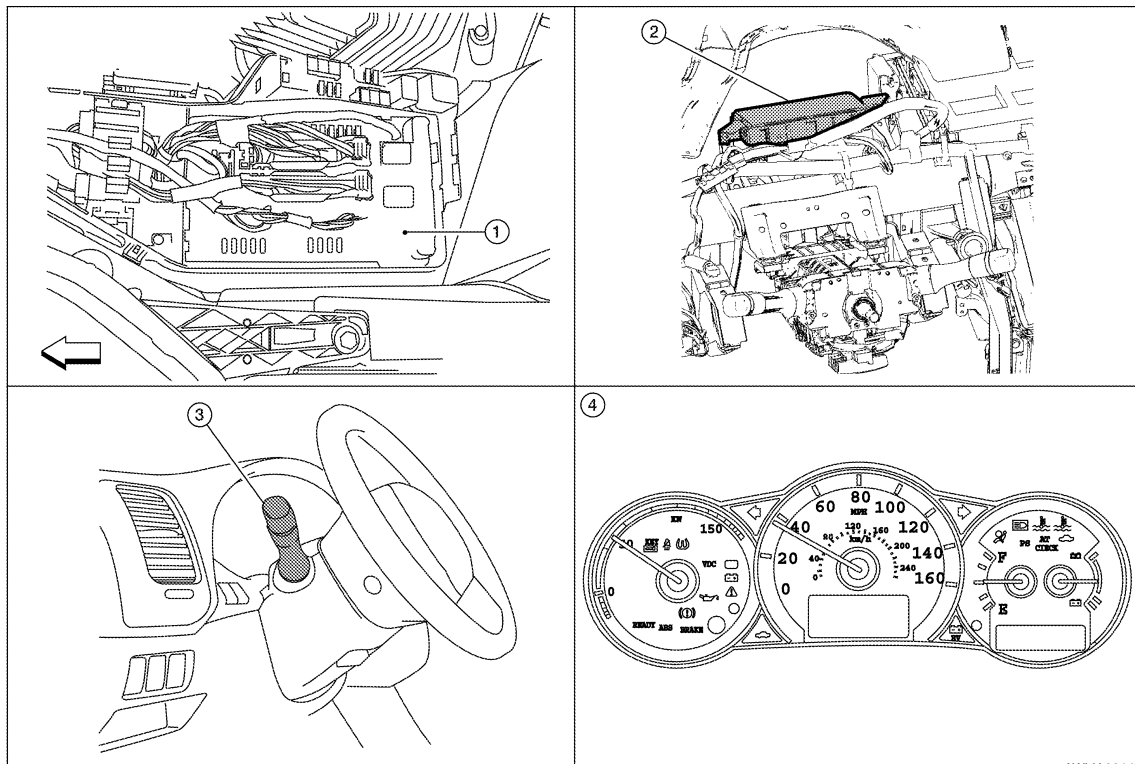
System Description

INFOID:000000001608238

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

Component Parts Location

INFOID:000000001608239



HEADLAMP (HALOGEN TYPE)

< FUNCTION DIAGNOSIS >

1. IPDM E/R E17, E18, E200
2. BCM M16, M17, M18, M19 (view with instrument panel removed)
3. Combination switch M28
4. Combination meter M24

Component Description

INFOID:000000001608240

LOW BEAM OPERATION

When the lighting switch is in 2ND position, the BCM receives input requesting the headlamps to illuminate. This input is communicated to the IPDM E/R across the CAN communication lines. The CPU of the IPDM E/R controls the headlamp low relay coil which supplies power to the low beam headlamps.

HIGH BEAM OPERATION/FLASH-TO-PASS OPERATION

With the lighting switch in the 2ND position and placed in HIGH position, the BCM receives input 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 is communicated to the IPDM E/R across the CAN communication lines. The CPU of the combination meter controls the ON/OFF status of the HIGH BEAM indicator. The CPU of the IPDM E/R controls the headlamp high relay coil which supplies power to the high beam headlamps.

The combination meter receives a high beam request signal (ON) through the CAN communication lines and turns the high beam indicator lamp ON.

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-8. "System Description"](#).

AUTO LIGHT OPERATION

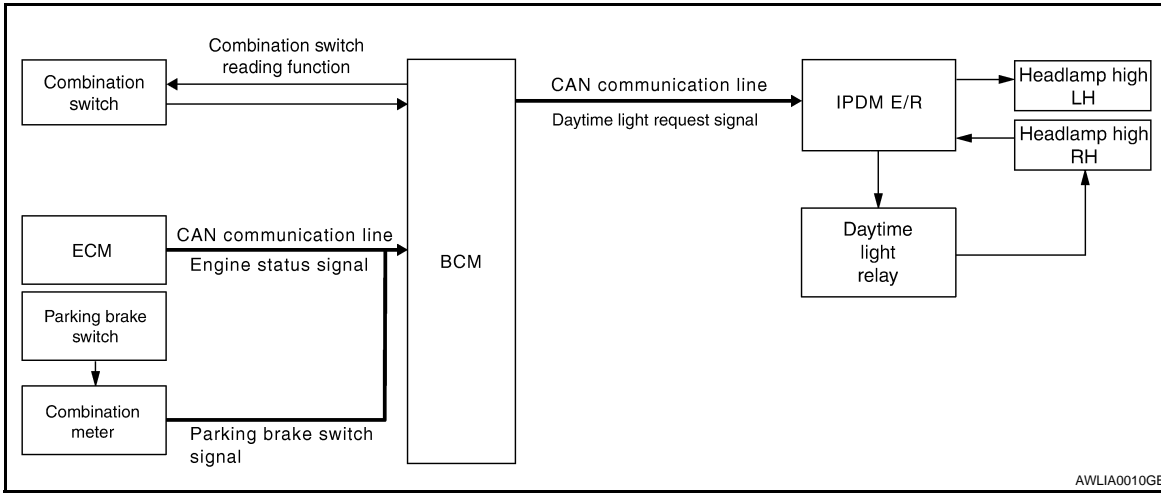
Refer to [EXL-12. "System Description"](#).

DAYTIME RUNNING LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

DAYTIME RUNNING LIGHT SYSTEM

System Diagram



System Description

INFOID:000000001608242

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

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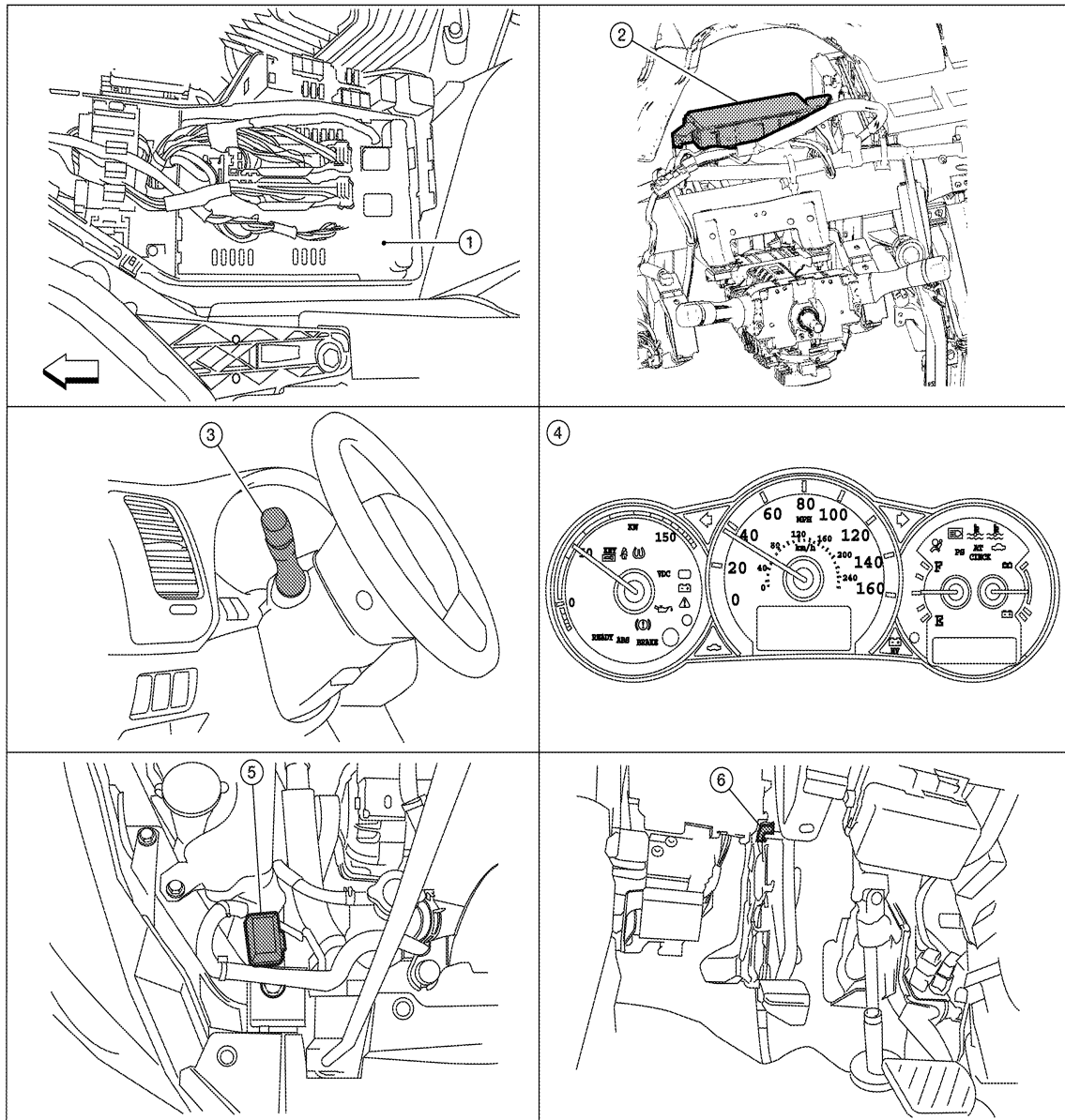
EXL

DAYTIME RUNNING LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000001608243



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- | | | |
|---------------------------|--|-----------------------------|
| 1. IPDM E/R E17, E18, E20 | 2. BCM M16, M17, M18, M19 (view with instrument panel removed) | 3. Combination switch M28 |
| 4. Combination meter M24 | 5. Daytime running light relay E228 | 6. Parking brake switch M73 |

Component Description

INFOID:000000001608244

After starting the hybrid system with the parking brake released and the lighting switch in the OFF or 1ST position, the headlamp high beam automatically turns on. With the lighting switch in the 2nd position or with auto-lamps ON, the headlamps function the same as conventional light systems.

DAYTIME RUNNING LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

OPERATION

The BCM monitors inputs from the parking brake switch and the combination switch to determine when to activate the daytime light system. The BCM sends a daytime light request to the IPDM E/R via the CAN communication lines. The IPDM E/R grounds the daytime light relay which in turn, provides power to the ground side of the RH high beam lamp. Power flows backward through the RH high beam lamp to the IPDM E/R, through the high beam fuses, through the LH high beam lamp circuit to the LH high beam lamp and on to ground. The high beam lamps are wired in series which causes them to illuminate at a reduced intensity.

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

- Hi: "HIGH BEAM" position
- Lo: "LOW BEAM" position
- P: "FLASH TO PASS" position
- ×: Lamp "ON"
- -: Lamp "OFF"
- ●: Lamp dims. (Added functions)
- *: When starting the engine with the parking brake released, the daytime lights will operate.
When starting the engine with the parking brake pulled, the daytime lights will not operate.

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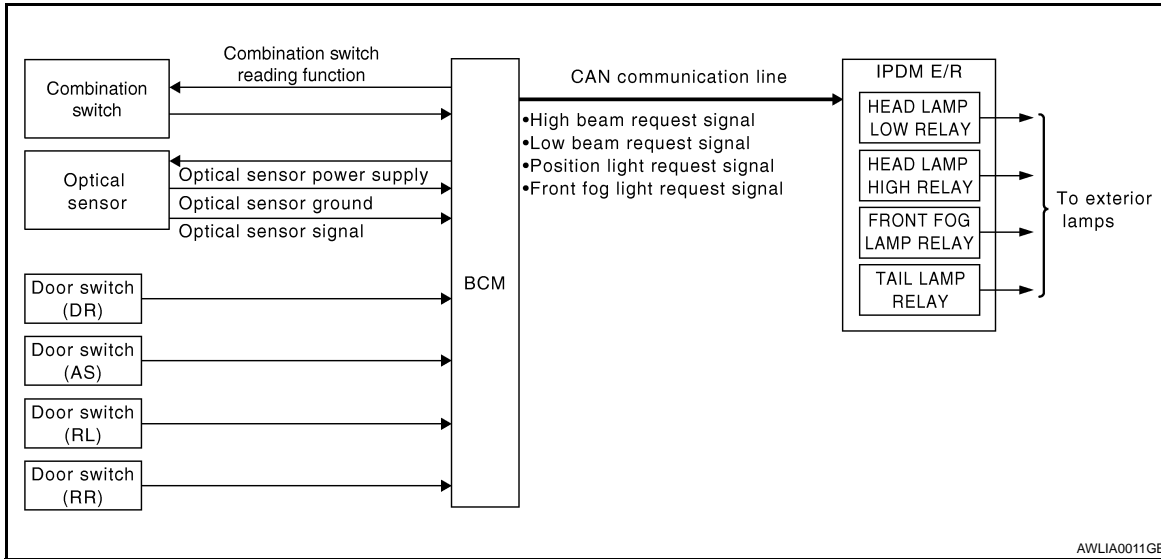
EXL

AUTO LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

AUTO LIGHT SYSTEM

System Diagram



System Description

INFOID:000000001608246

- BCM (Body Control Module) controls auto light operation according to signals from optical sensor, lighting switch and ignition switch.
- IPDM E/R (Intelligent Power Distribution Module Engine Room) operates parking, license plate, tail, front fog lamps and headlamps according to CAN communication signals from BCM.
- Optical sensor detects ambient brightness of 800 to 2,500 lux. And optical sensor converts light (lux) to voltage, then sends the optical sensor signal to BCM.

OUTLINE

The auto light control system has an optical sensor that detects outside brightness.

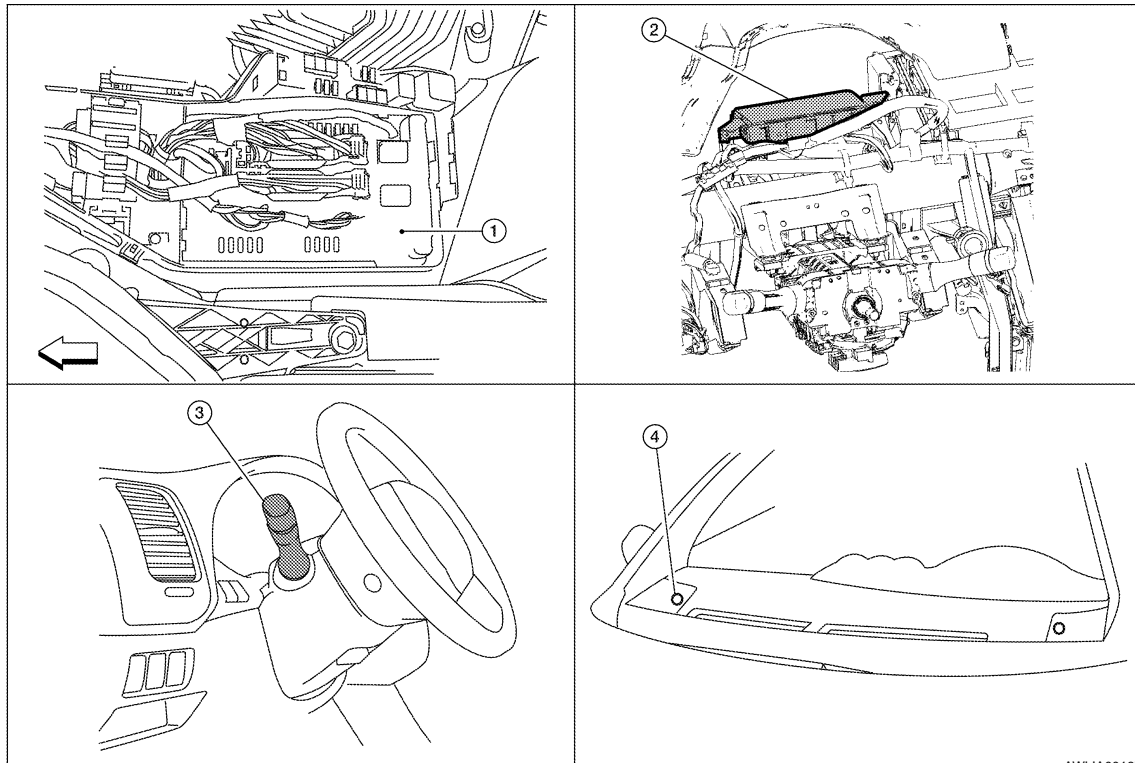
When the lighting switch is in AUTO position, it automatically turns ON/OFF the parking, license plate, tail, front fog lamps and headlamps in accordance with the ambient light. Sensitivity can be adjusted in four steps. For the details of the setting, Refer to [BCS-19, "EXTERNAL LAMP : CONSULT-III Function"](#).

AUTO LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000001608247



1. IPDM E/R E17, E18, E200
2. BCM M16, M17, M18, M19, M21 (view with instrument panel removed)
3. Combination switch M28
4. Optical sensor M66

Component Description

INFOID:000000001608248

AUTO LIGHT OPERATION

Applicable lamps

- Low beam headlamp
- Parking, license plate and tail lamps
- High beam headlamp (with the lighting switch in HIGH BEAM position)
- Front fog lamp (with the lighting switch in front fog lamp ON position)

When the lighting switch is in AUTO position with the ignition switch in ON position, BCM detects the AUTO LIGHT (ON) by BCM combination switch reading function. BCM turns automatically ON/OFF the applicable lamps according to ambient brightness depending on the following condition.

- It turns ON applicable lamps in 3 seconds when ambient brightness is less than 1250 lux.
- The lighted lamps are turned OFF in 5 seconds when ambient brightness becomes 2500 lux or higher.

Releasing Function:

- Turn ignition switch to the OFF position, or
- Change lighting switch to the OFF, 1ST, 2ND position.

NOTE:

Timing for when lamps turn ON/OFF can be changed by the function setting of CONSULT-III. Refer to [BCS-19, "EXTERNAL LAMP : CONSULT-III Function"](#).

COMBINATION SWITCH READING FUNCTION

Refer to [BCS-8, "System Description"](#).

HEADLAMP LOW AND HIGH OPERATION

Refer to [EXL-7, "System Description"](#).

FRONT FOG LAMP OPERATION

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AUTO LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

Refer to [EXL-15, "System Description"](#).

PARKING, LICENSE PLATE AND TAIL LAMPS OPERATION

Refer to [EXL-19, "System Description"](#).

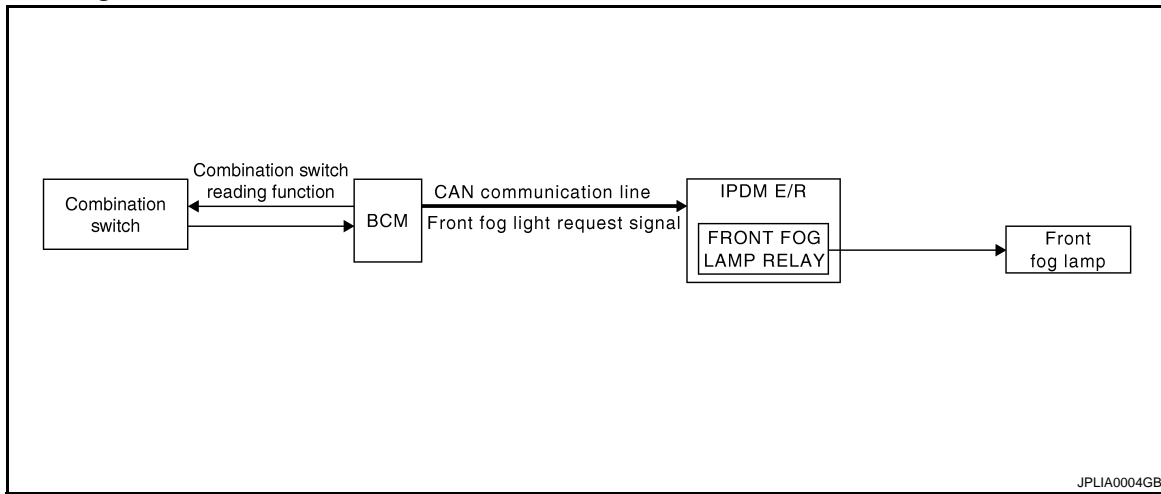
FRONT FOG LAMP

< FUNCTION DIAGNOSIS >

FRONT FOG LAMP

System Diagram

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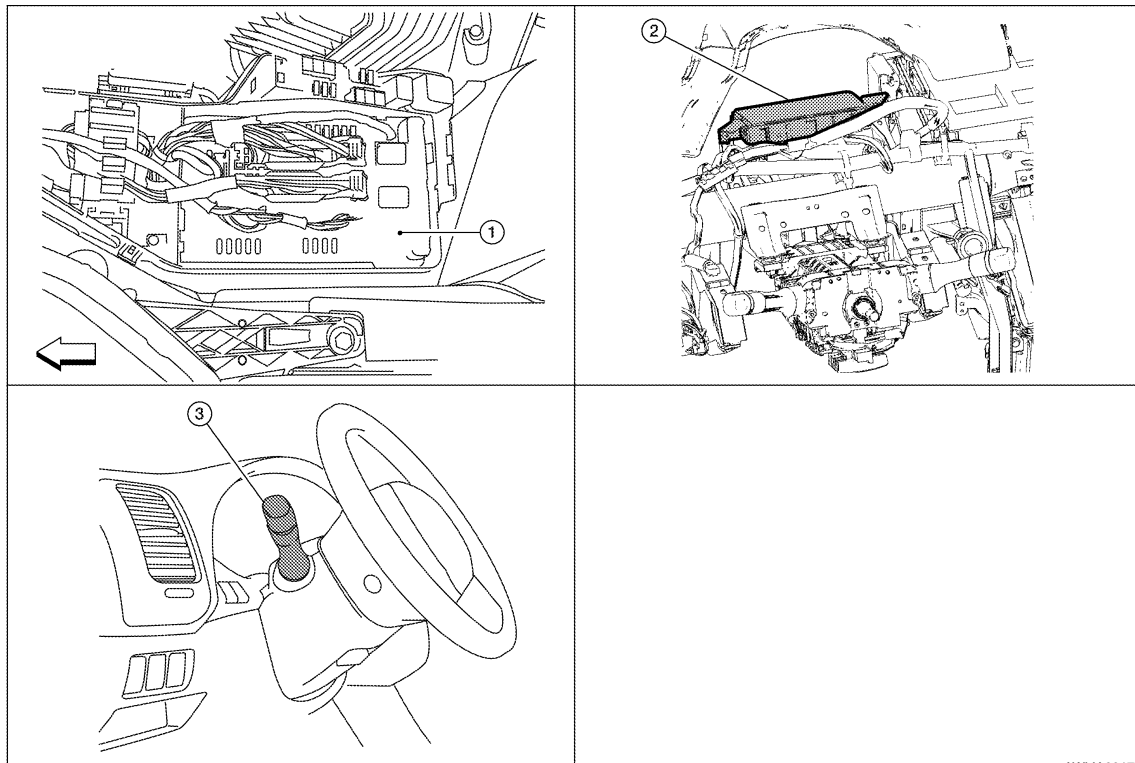
System Description

INFOID:000000001608250

- BCM (Body Control Module) controls front fog lamp operation.
- IPDM E/R (Intelligent Power Distribution Module Engine Room) operates front fog lamp according to CAN communication signals from BCM.
- Combination meter operates front fog lamp indicator according to inputs via the CAN communication lines.

Component Parts Location

INFOID:000000001608251



1. IPDM E/R E17, E18, E20

2. BCM M16, M17, M18, M19 (view with instrument panel removed)

3. Combination switch M28

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FRONT FOG LAMP

< FUNCTION DIAGNOSIS >

Component Description

INFOID:000000001608252

FRONT FOG LAMP OPERATION

When the lighting switch is in front fog lamp ON position and also in 1ST or 2ND position or AUTO position (headlamp is ON), the BCM detects FR FOG ON and the HEAD LAMP1, 2 ON or the AUTO LIGHT ON. The BCM sends a front fog lamp request ON signal through the CAN communication lines to the IPDM E/R. The IPDM E/R then turns ON the front fog lamp relay sending power to the front fog lamps.

The combination meter also receives a front fog lamp request ON signal through the CAN communication lines at which time it turns the front fog indicator ON.

COMBINATION SWITCH READING FUNCTION

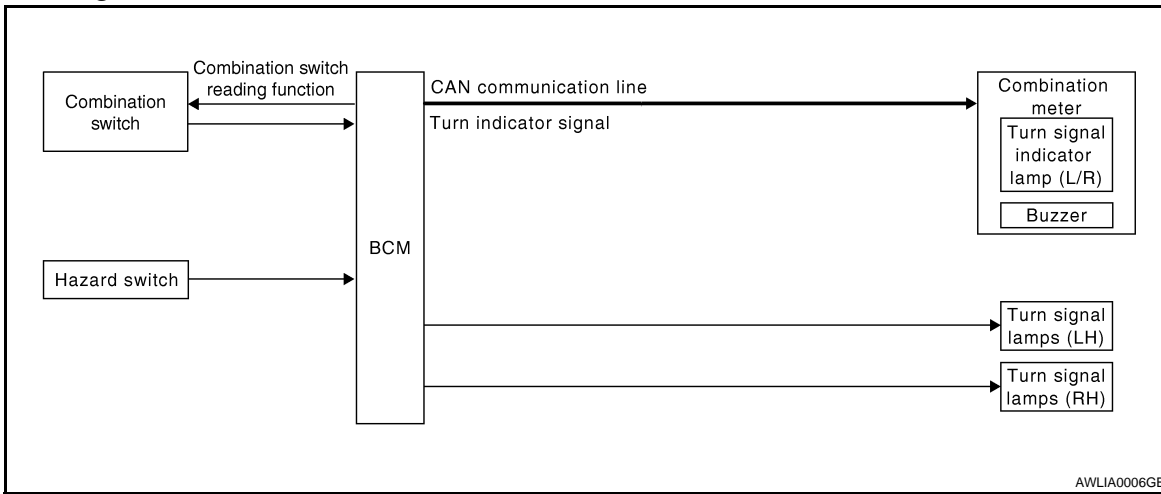
Refer to [EXL-21, "System Description"](#).

TURN SIGNAL AND HAZARD WARNING LAMPS

< FUNCTION DIAGNOSIS >

TURN SIGNAL AND HAZARD WARNING LAMPS

System Diagram



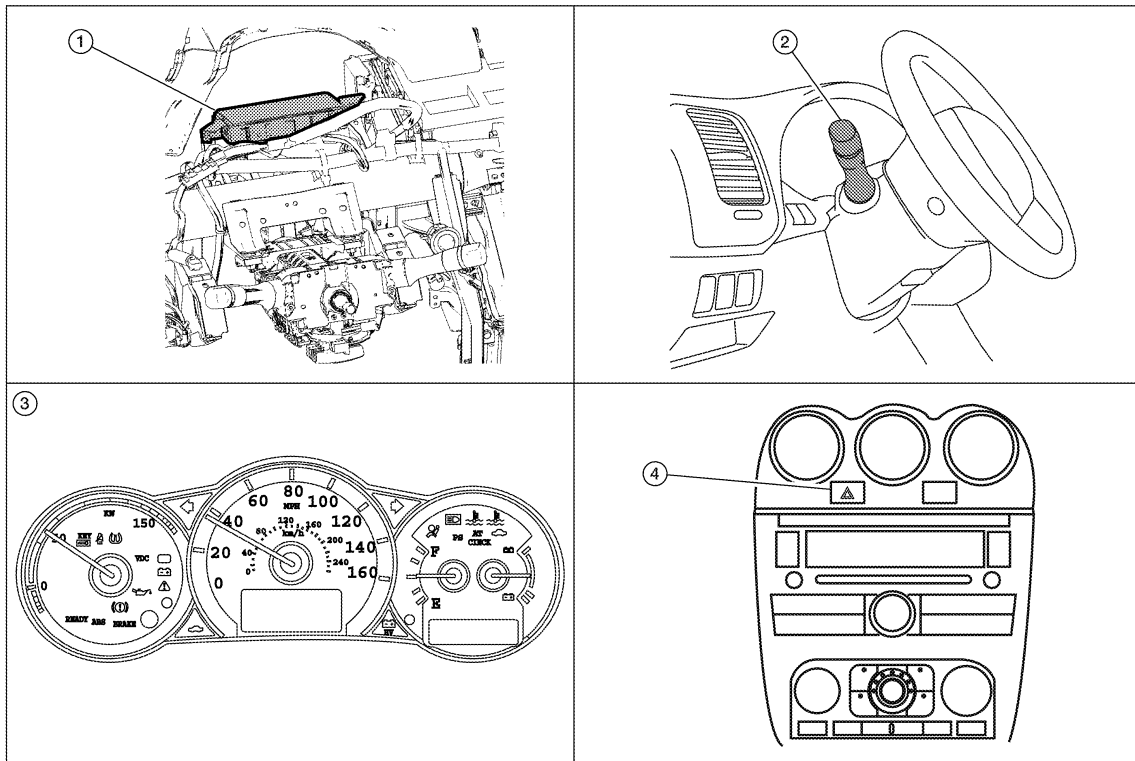
System Description

INFOID:000000001608254

- BCM (Body Control Module) controls turn signal lamp (RH and LH) and hazard warning lamp operation.
- Combination meter operates turn (RH and LH) indicator according to CAN communication signals from BCM.

Component Parts Location

INFOID:000000001608255



1. BCM M17, M18, M19, M21 (view with instrument panel removed)
2. Combination switch M25
3. Combination meter M24
4. Hazard switch

TURN SIGNAL AND HAZARD WARNING LAMPS

< FUNCTION DIAGNOSIS >

Component Description

INFOID:000000001608256

TURN SIGNAL OPERATION

When the turn signal switch is in LH or RH position with the ignition switch in ON position, the BCM detects the TURN RH or TURN LH ON request. The BCM outputs the flasher output signal to the respective turn signal lamp. The BCM sends a turn indicator signal ON request through the CAN communication lines to the combination meter. The combination meter then activates the appropriate turn signal indicator and audible buzzer.

HAZARD LAMP OPERATION

When the hazard switch is in ON position, the BCM detects the hazard switch signal ON. The BCM outputs the flasher output signal (right and left). The BCM sends a hazard indicator signal ON request through the CAN communication lines to the combination meter. The combination meter then activates the hazard indicator and audible buzzer.

REMOTE KEYLESS ENTRY OPERATION

The remote keyless entry receiver transmits Intelligent Key signal to BCM, then BCM controls hazard lamps. Refer to [BCS-6, "System Description"](#).

COMBINATION SWITCH READING FUNCTION

Refer to [EXL-21, "System Description"](#).

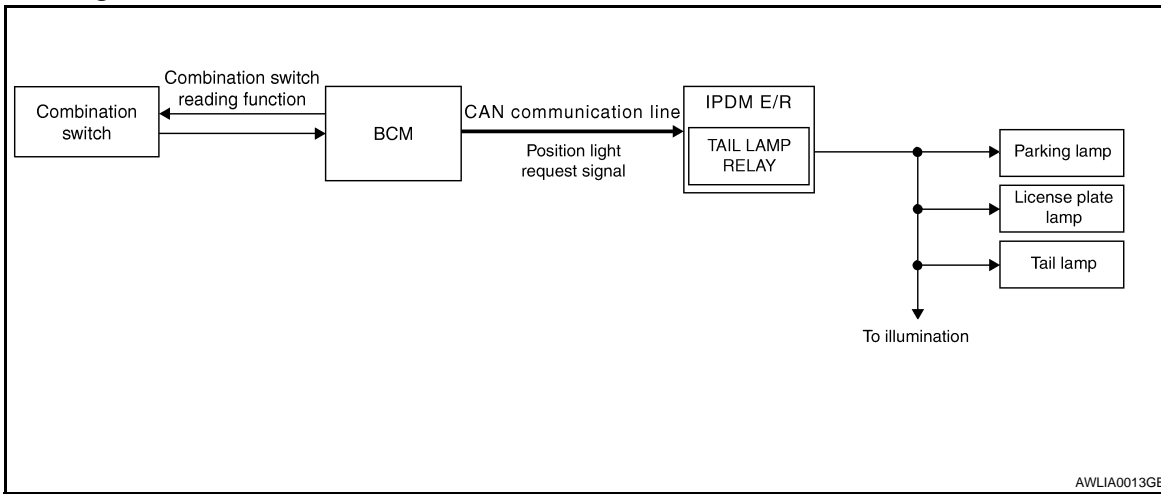
PARKING, LICENSE PLATE AND TAIL LAMPS

< FUNCTION DIAGNOSIS >

PARKING, LICENSE PLATE AND TAIL LAMPS

System Diagram

INFOID:000000001608257



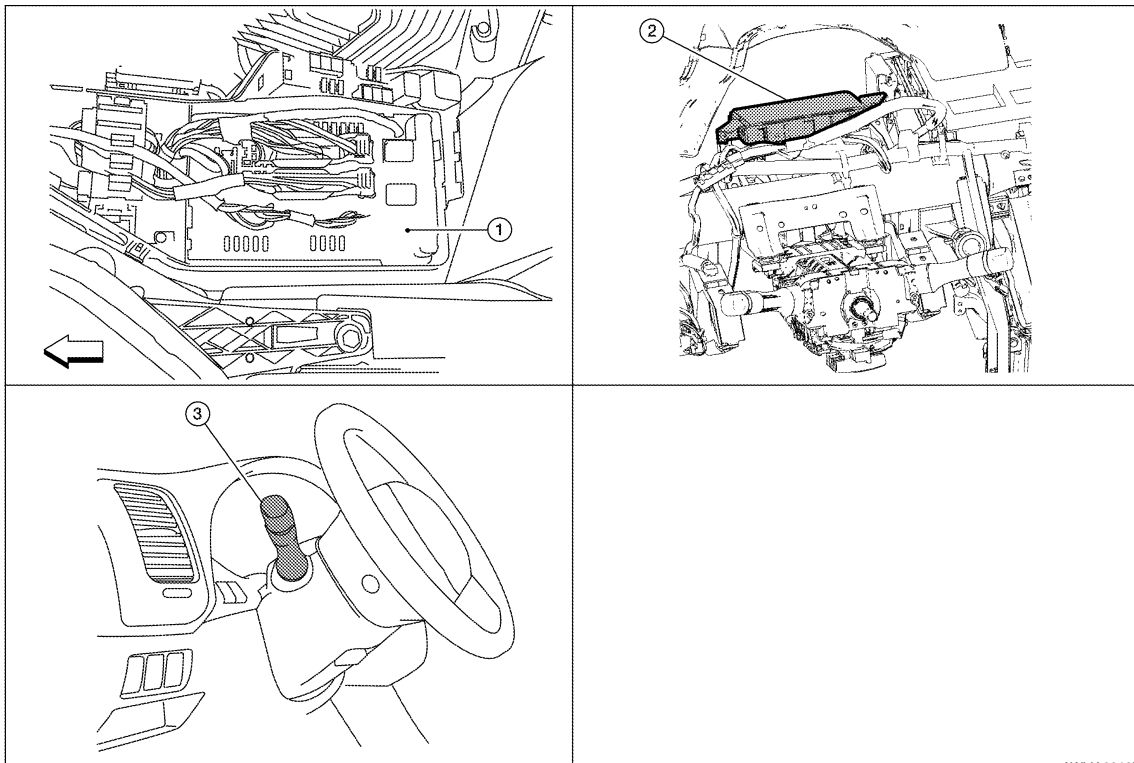
System Description

INFOID:000000001608258

- BCM (Body Control Module) controls parking, license plate and tail lamps operation.
- IPDM E/R (Intelligent Power Distribution Module Engine Room) operates parking, license plate and tail lamps according to CAN communication signals from BCM.

Component Parts Location

INFOID:000000001608259



1. IPDM E/R E17, E18, E201

2. BCM M16, M17, M18, M19 (view with instrument panel removed)

3. Combination switch M28

PARKING, LICENSE PLATE AND TAIL LAMPS

< FUNCTION DIAGNOSIS >

Component Description

INFOID:000000001608260

PARKING, LICENCE PLATE AND TAIL LAMPS OPERATION

When the lighting switch is in 1ST position, BCM detects the LIGHTING SWITCH 1ST POSITION ON. The BCM sends a parking light ON request through the CAN communication lines to the IPDM E/R. The IPDM E/R then activates the tail lamp relay which sends power to the parking and instrument illumination circuits.

COMBINATION SWITCH READING FUNCTION

Refer to [EXL-21, "System Description"](#).

EXTERIOR LAMP BATTERY SAVER CONTROL

With the lighting switch (combination switch) in the 2nd position and the ignition switch is turned from ON or ACC to OFF, the battery saver feature is activated.

Under this condition, the headlamps remain illuminated for 5 minutes unless the lighting switch position is changed. If the lighting switch position is changed, then the headlamps are turned off.

This setting can be changed by CONSULT-III. Refer to [EXL-23, "EXTERNAL LAMP : CONSULT-III Function"](#).

COMBINATION SWITCH

< FUNCTION DIAGNOSIS >

COMBINATION SWITCH

System Description

INFOID:000000001608261

For information regarding the combination switch, refer to [EXL-21. "System Description"](#).

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DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (BCM) COMMON ITEM

COMMON ITEM : Diagnosis Description

INFOID:000000001608262

BCM CONSULT-III FUNCTION

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from BCM.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.
ECU IDENTIFICATION	The BCM part number is displayed.
CONFIGURATION	This function is not used even though it is displayed.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

System	Sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
BCM	BCM	×		
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk open	TRUNK		×	
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

COMMON ITEM : CONSULT-III Function

INFOID:000000001608263

ECU IDENTIFICATION

Displays the BCM part No.

SELF-DIAG RESULT

Refer to [BCS-74, "DTC Index"](#).

EXTERNAL LAMP

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

EXTERNAL LAMP : CONSULT-III Function

INFOID:000000001608264

WORK SUPPORT

Service item	Setting item	Setting	
BATTERY SAVER SET	ON ¹	With the exterior lamp battery saver function	
	OFF	Without the exterior lamp battery saver function	
ILL DELAY SET ²	MODE 1 ¹	45 sec.	Sets delay timer function timer operation time (All doors closed)
	MODE 2	Without the function	
	MODE 3	30 sec.	
	MODE 4	60 sec.	
	MODE 5	90 sec.	
	MODE 6	120 sec.	
	MODE 7	150 sec.	
	MODE 8	180 sec.	
CUSTOM A/LIGHT SETTING ²	MODE 1 ¹	Normal	
	MODE 2	More sensitive setting than normal setting (Turns ON earlier than normal operation.)	
	MODE 3	More sensitive setting than MODE 2 (Turns ON earlier than MODE 2.)	
	MODE 4	Less sensitive setting than normal setting (Turns ON later than normal operation.)	

1 : Initial setting

*2 : With auto light system

DATA MONITOR

Monitor item [Unit]	Description
PUSH SW [ON/OFF]	The switch status input from push-button ignition switch
ENGINE STATE [STOP/STALL/CRANK/RUN]	The engine status received from ECM with CAN communication
VEH SPEED 1 [km/h]	The value of the vehicle speed received from combination meter with CAN communication
KEY SW-SLOT [ON/OFF]	Key switch status input from key slot

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

Monitor item [Unit]	Description
TURN SIGNAL R [ON/OFF]	Each switch status that BCM judges from the combination switch reading function
TURN SIGNAL L [ON/OFF]	
TAIL LAMP SW [ON/OFF]	
HI BEAM SW [ON/OFF]	
HEAD LAMP SW1 [ON/OFF]	
HEAD LAMP SW2 [ON/OFF]	
PASSING SW [ON/OFF]	
AUTO LIGHT SW [ON/OFF]	
FR FOG SW [ON/OFF]	
DOOR SW-DR [ON/OFF]	The switch status input from front door switch LH
DOOR SW-AS [ON/OFF]	The switch status input from front door switch RH
DOOR SW-RR [ON/OFF]	The switch status input from rear door switch RH
DOOR SW- RL [ON/OFF]	The switch status input from rear door switch LH
DOOR SW-BK ¹ [ON/OFF]	—
OPTICAL (LIGHT) SENSOR [V] ²	The value of exterior brightness voltage input from the optical sensor

*1: The item is indicated, not monitored

*2: With auto light system

ACTIVE TEST

Test item	Operation	Description
TAIL LAMP	ON	Transmits the position light request signal to IPDM E/R with CAN communication to turn the tail lamp ON.
	OFF	Stops the tail lamp request signal transmission.
HEAD LAMP	HI	Transmits the high beam request signal with CAN communication to turn the headlamp (HI)
	LO	Transmits the low beam request signal with CAN communication to turn the headlamp (LO).
	OFF	Stops the high & low beam request signal transmission.
FR FOG LAMP	ON	Transmits the front fog lamp light request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.
	OFF	Stops the front fog lamp request signal transmission.
DAYTIME RUNNING LIGHT ¹	ON	Transmits the daytime running light system request signal to IPDM E/R
	OFF	Stops the daytime running light request signal transmission

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

Test item	Operation	Description
CORNERING LAMP ²	RH	—
	LH	
	OFF	
ILL DIM SIGNAL ²	ON	—
	OFF	
RR FOG LAMP ²	ON	—
	OFF	

1: With daytime running light system.

2: The item is indicated, not monitored.

FLASHER

FLASHER : CONSULT-III Function (BCM - FLASHER)

INFOID:000000001608265

WORK SUPPORT

Service item	Setting item	Setting
HAZARD ANSWER BACK	LOCK ONLY*	With locking only
	UNLK ONLY	With unlocking only
	LOCK/UNLK	With locking/unlocking
	OFF	Without the function
		Sets the hazard warning lamp answer back function when the door is lock/unlock with the request switch or the keyfob.

*: Initial setting

DATA MONITOR

Monitor item [Unit]	Description
TURN SIGNAL R [ON/OFF]	Each switch condition that BCM judges from the combination switch reading function
TURN SIGNAL L [ON/OFF]	
HAZARD SW [ON/OFF]	The switch status input from the hazard warning switch
RKE LOCK [ON/OFF]	The lock signal status received from the keyless receiver
RKE UNLOCK [ON/OFF]	The unlock signal status received from the keyless receiver
RKE PANIC [ON/OFF]	The panic alarm signal status received from the keyless receiver

ACTIVE TEST

Test item	Operation	Description
FLASHER	RH	Blinks right turn signal lamp.
	LH	Blinks left turn signal lamp.
	OFF	Turns turn signal lamps (right and left) OFF.

DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (IPDM E/R)

CONSULT - III Function (IPDM E/R)

INFOID:000000001608266

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with IPDM E/R.

Diagnosis mode	Description
Ecu Identification	Allows confirmation of IPDM E/R part number.
Self Diagnostic Result	Displays the diagnosis results judged by IPDM E/R.
Data Monitor	Displays the real-time input/output data from IPDM E/R input/output data.
Active Test	IPDM E/R can provide a drive signal to electronic components to check their operations.
CAN Diag Support Monitor	The results of transmit/receive diagnosis of CAN communication can be read.

DATA MONITOR

Monitor item

Monitor Item [Unit]	MAIN SIG- NALS	Description
HL LO REQ [Off/On]	×	Displays the status of the low beam request signal received from BCM via CAN communication.
HL HI REQ [Off/On]	×	Displays the status of the high beam request signal received from BCM via CAN communication.
FR FOG REQ [Off/On]	×	Displays the status of the front fog light request signal received from BCM via CAN communication.
PUSH SW [Off/On]		Displays the status of the push-button ignition switch judged by IPDM E/R.
DTRL REQ [Off]		NOTE: The item is indicated, but not monitored.

ACTIVE TEST

Test item

Test item	Operation	Description
EXTERNAL LAMPS	Off	OFF
	TAIL	Operates the tail lamp relay.
	Lo	Operates the headlamp low relay.
	Hi	Operates the headlamp low relay and ON/OFF the headlamp high relay at 1 second intervals.
	Fog	Operates the front fog lamp relay.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000001608267

For BCM power supply and ground circuit information, refer to [BCS-34. "Diagnosis Procedure"](#).

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

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

INFOID:000000001608268

For IPDM E/R power supply and ground circuit information, refer to [PCS-38. "System Description"](#) .

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EXTERIOR LAMP FUSE

< COMPONENT DIAGNOSIS >

EXTERIOR LAMP FUSE

Description

INFOID:000000001608269

Fuse list

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	48	10 A
Headlamp HI (RH)	IPDM E/R	49	10 A
Headlamp LO (LH)	IPDM E/R	51	15 A
Headlamp LO (RH)	IPDM E/R	52	15 A
Front fog lamp	IPDM E/R	53	15 A
Parking	IPDM E/R	46	10 A
<ul style="list-style-type: none">• Tail lamp• License plate lamp	IPDM E/R	47	10 A
Stop lamp	FUSE BLOCK (J/B)	7	10 A
Back-up lamp	FUSE BLOCK (J/B)	4	10 A

Diagnosis Procedure

INFOID:000000001608270

1. CHECK FUSE

Check that the following fuses are not open.

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	48	10 A
Headlamp HI (RH)	IPDM E/R	49	10 A
Headlamp LO (LH)	IPDM E/R	51	15 A
Headlamp LO (RH)	IPDM E/R	52	15 A
Front fog lamp	IPDM E/R	53	15 A
Parking	IPDM E/R	46	10 A
<ul style="list-style-type: none">• Tail lamp• License plate lamp	IPDM E/R	47	10 A
Stop lamp	FUSE BLOCK (J/B)	7	10 A
Back-up lamp	FUSE BLOCK (J/B)	4	10 A

Is the fuse open?

YES >> Repair the applicable circuit and replace the fuse.

NO >> The fuse is normal.

HEADLAMP (HI) CIRCUIT

< COMPONENT DIAGNOSIS >

HEADLAMP (HI) CIRCUIT

Description

INFOID:000000001608271

The IPDM E/R (intelligent power distribution module engine room) controls the headlamp high relay based on inputs from the BCM over the CAN communication lines. When the headlamp high relay is energized, power flows through fuses 48 and 49, located in the IPDM E/R. Power then flows to the front combination lamps to the headlamp high beam.

Component Function Check

INFOID:000000001608272

1. CHECK HEADLAMP (HI) OPERATION

⊗ WITHOUT CONSULT-III

1. Start IPDM E/R auto active test. Refer to [PCS-10, "Diagnosis Description"](#).
2. Check that the headlamp switches to the high beam.

NOTE:

HI/LO is repeated 1 second each when using the IPDM E/R auto active test.

Ⓜ CONSULT-III

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the headlamp switches to the high beam.

HI : Headlamp switches to the high beam.

OFF : Headlamp OFF

Does the headlamp switch to the high beam?

YES >> Headlamp (HI) circuit is normal.

NO >> Refer to [EXL-29, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001608273

1. CHECK HEADLAMP (HI) FUSES

1. Turn the ignition switch OFF.
2. Check that the following fuses are not open.

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	48	10 A
Headlamp HI (RH)	IPDM E/R	49	10 A

Is the fuse open?

YES >> Repair the harness and replace the fuse.

NO >> GO TO 2

2. CHECK HEADLAMP (HI) OUTPUT VOLTAGE

Ⓜ CONSULT-III ACTIVE TEST

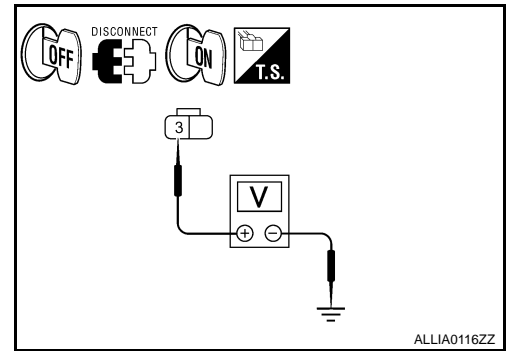
1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" of IPDM E/R active test item.

HEADLAMP (HI) CIRCUIT

< COMPONENT DIAGNOSIS >

- With EXTERNAL LAMP ON, check the voltage between the combination lamp connector and ground.

Terminals			Condition	Voltage
(+)		(-)		
Combination lamp			External lamp	Battery voltage
Connector	Terminal			
RH	E222	3	HI	Battery voltage
LH	E213	3	OFF	0 V



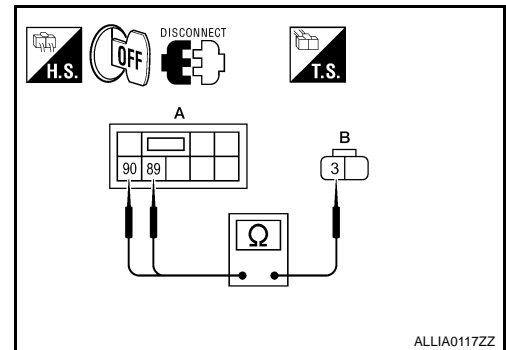
Is the measurement value normal?

- YES >> GO TO 4
 NO >> GO TO 3

3. CHECK HEADLAMP (HI) CIRCUIT FOR OPEN

- Turn the ignition switch OFF.
- Disconnect IPDM E/R connector.
- Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

A			B		Continuity
Connector	Terminal		Connector	Terminal	
RH	E200	89	E222	3	Yes
LH		90	E213	3	



Does continuity exist?

- YES >> GO TO 4
 NO >> Repair the harnesses or connectors.

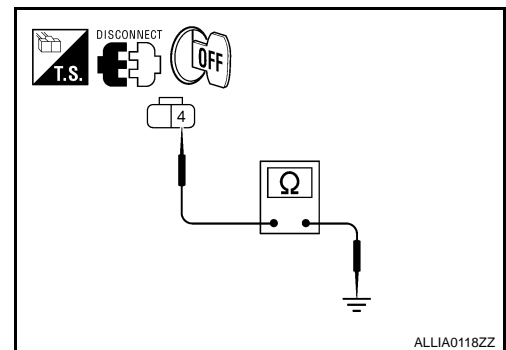
4. CHECK FRONT COMBINATION LAMP (HI) GROUND CIRCUIT

- Disconnect the front combination lamp connector.
- Check continuity between the front combination lamp harness connector terminal and ground.

Front combination lamp			Ground	Continuity
Connector	Terminal			
RH	E222	4	Ground	Yes
LH	E213	4		

Does continuity exist?

- YES >> Inspect the headlamp bulb.
 NO >> Repair the harness.



HEADLAMP (LO) CIRCUIT

< COMPONENT DIAGNOSIS >

HEADLAMP (LO) CIRCUIT

Description

INFOID:000000001608274

The IPDM E/R (intelligent power distribution module engine room) controls the headlamp low relay based on inputs from the BCM over the CAN communication lines. When the headlamp low relay is energized, power flows through fuses 51 and 52, located in the IPDM E/R. Power then flows to the front combination lamps to the headlamp low beam.

Component Function Check

INFOID:000000001608275

1. CHECK HEADLAMP (LO) OPERATION

⊗ WITHOUT CONSULT-III

1. Start IPDM E/R auto active test. Refer to [PCS-10, "Diagnosis Description"](#).
2. Check that the headlamp is turned ON.

NOTE:

HI/LO is repeated 1 second each when using the IPDM E/R auto active test.

Ⓜ CONSULT-III

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the headlamp is turned ON.

LO : Headlamp ON

OFF : Headlamp OFF

Is the headlamp turned ON?

YES >> Headlamp (LO) is normal.

NO >> Refer to [EXL-31, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001608276

1. CHECK HEADLAMP (LO) FUSES

1. Turn the ignition switch OFF.
2. Check that the following fuses are not open.

Unit	Location	Fuse No.	Capacity
Headlamp LO (LH)	IPDM E/R	51	15 A
Headlamp LO (RH)	IPDM E/R	52	15 A

Is the fuse open?

YES >> Repair the harness and replace the fuse.

NO >> GO TO 2

2. CHECK HEADLAMP (LO) OUTPUT VOLTAGE

Ⓜ CONSULT-III

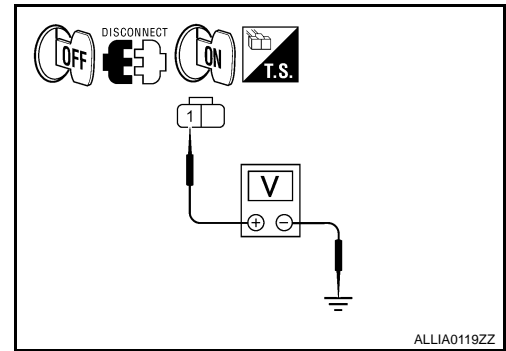
1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" of IPDM E/R active test item.

HEADLAMP (LO) CIRCUIT

< COMPONENT DIAGNOSIS >

- With EXTERNAL LAMP ON, check the voltage between the combination lamp connector and ground.

Terminals			Condition	Voltage
(+)		(-)		
Combination lamp			External lamp	Battery voltage
Connector	Terminal			
RH	E223	1	LO	Battery voltage
LH	E212	1	OFF	0 V



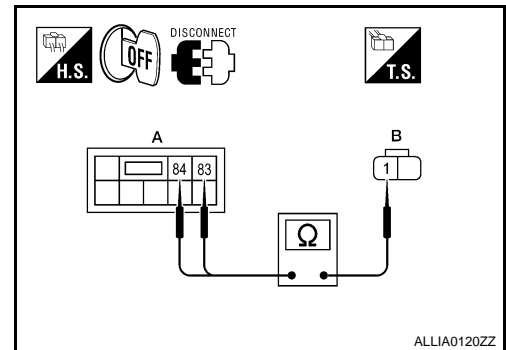
Is the measurement value normal?

- YES >> GO TO 4
 NO >> GO TO 3

3. CHECK HEADLAMP (LO) CIRCUIT FOR OPEN

- Turn the ignition switch OFF.
- Disconnect IPDM E/R connector.
- Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

A			B		Continuity
Connector	Terminal		Connector	Terminal	
RH	E200	83	E223	1	Yes
LH		84	E212	1	



Does continuity exist?

- YES >> GO TO 4
 NO >> Repair the harnesses or connectors.

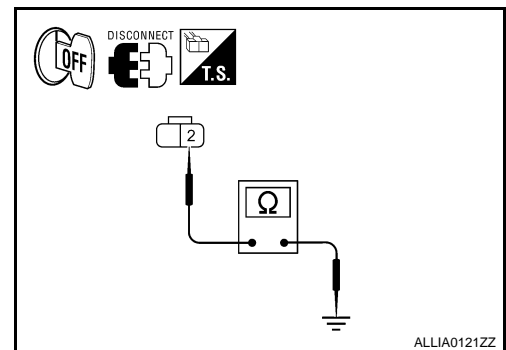
4. CHECK FRONT COMBINATION LAMP (LO) GROUND CIRCUIT

- Disconnect the front combination lamp connector.
- Check continuity between the front combination lamp harness connector terminal and ground.

Front combination lamp			Ground	Continuity
Connector	Terminal			
RH	E223	2	Ground	Yes
LH	E212	2		

Does continuity exist?

- YES >> Inspect the headlamp bulb.
 NO >> Repair the harness.



FRONT FOG LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

FRONT FOG LAMP CIRCUIT

Description

INFOID:000000001608277

The IPDM E/R (intelligent power distribution module engine room) controls the front fog lamp relay based on inputs from the BCM over the CAN communication lines. When the front fog lamp relay is energized, power flows from the front fog lamp relay in the IPDM E/R to the front fog lamps.

Component Function Check

INFOID:000000001608278

1. CHECK FRONT FOG LAMP OPERATION

⊗ WITHOUT CONSULT-III

1. Activate IPDM E/R auto active test. Refer to [PCS-10, "Diagnosis Description"](#).
2. Check that the front fog lamp is turned ON.

Ⓜ CONSULT-III

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, Check that the front fog lamp is turned ON.

FOG : Front fog lamp ON
OFF : Front fog lamp OFF

Is the front fog lamp turned ON?

- YES >> Front fog lamp circuit is normal.
 NO >> Refer to [EXL-33, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001608279

1. CHECK FRONT FOG LAMP FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuses are not open.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	53	15 A

Is the fuse open?

- YES >> Repair the harness and replace the fuse.
 NO >> GO TO 2

2. CHECK FRONT FOG LAMP OUTPUT VOLTAGE

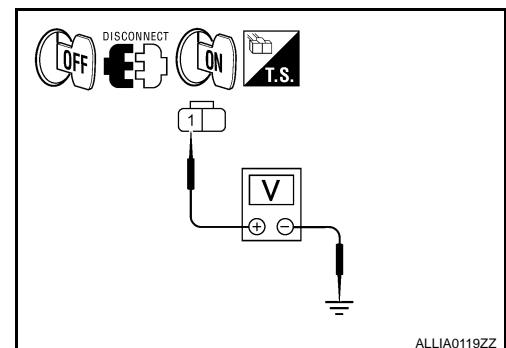
Ⓜ CONSULT-III

1. Turn the ignition switch OFF.
2. Disconnect the front fog lamp connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" of IPDM E/R active test item.
5. With EXTERNAL LAMP ON, check the voltage between the fog lamp connector and ground.

Terminals			Condition	Voltage
(+)		(-)		
Front fog lamp			Front fog lamp	Battery voltage
Connector	Terminal			
LH	E214	1	FOG	0 V
RH	E227	1	OFF	

Is the measurement value normal?

- YES >> GO TO 4



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FRONT FOG LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

NO >> GO TO 3

3. CHECK FRONT FOG LAMP OPEN CIRCUIT

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

A		B		Continuity
Connector	Terminal	Connector	Terminal	
RH	E200	86	E227	Yes
LH		87	E214	

Does continuity exist?

YES >> GO TO 4

NO >> Repair the harnesses or connectors.

4. CHECK FRONT FOG LAMP GROUND CIRCUIT

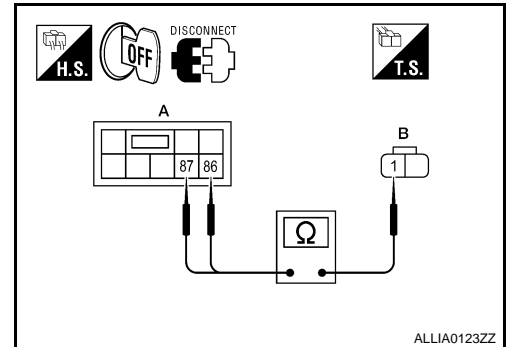
1. Disconnect the front fog lamp connector.
2. Check continuity between the front fog lamp harness connector terminal and ground.

Front fog lamp			Ground	Continuity
Connector	Terminal			
RH	E227	2	Yes	
LH	E214	2		

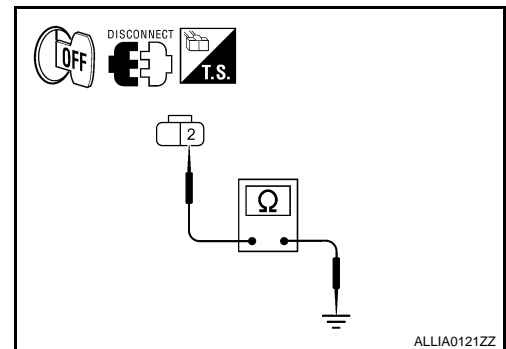
Does continuity exist?

YES >> Inspect the fog lamp bulb.

NO >> Repair the harness.



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PARKING LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

PARKING LAMP CIRCUIT

Description

INFOID:000000001608280

The IPDM E/R (intelligent power distribution module engine room) controls the tail lamp relay based on inputs from the BCM over the CAN communication lines. When the tail lamp relay is energized, power flows through fuses 46 and 47, located in the IPDM E/R. Power then flows to the front and rear combination lamps.

Component Function Check

INFOID:000000001608281

1. CHECK PARKING LAMP OPERATION

WITHOUT CONSULT-III

1. Activate IPDM E/R auto active test. Refer to [PCS-10, "Diagnosis Description"](#).
2. Check that the parking lamp is turned ON.

CONSULT-III

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the parking lamp is turned ON.

TAIL : Parking lamp ON
OFF : Parking lamp OFF

Is the parking lamp turned ON?

- YES >> Parking lamp circuit is normal.
NO >> Refer to [EXL-35, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001608282

1. CHECK PARKING LAMP FUSES

1. Turn the ignition switch OFF.
2. Check that the following fuses are not open.

Unit	Location	Fuse No.	Capacity
Parking lamps (front)	IPDM E/R	46	10A
Parking lamps (rear)	IPDM E/R	47	10A

Is the fuse open?

- YES >> Repair the harness and replace the fuse.
NO >> GO TO 2

2. CHECK TAIL LAMP RELAY OUTPUT (VOLTAGE)

CONSULT-III

PARKING LAMP CIRCUIT

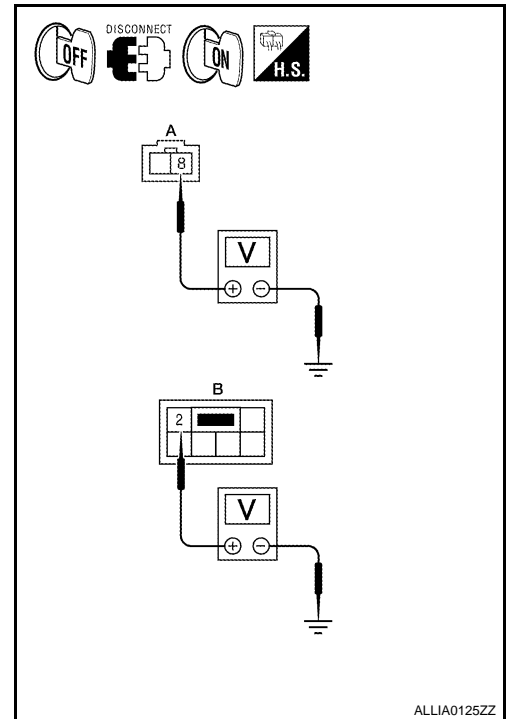
< COMPONENT DIAGNOSIS >

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" of IPDM E/R active test item.
5. With EXTERNAL LAMP ON, check the voltage between the combination lamp connector and ground.

Terminals			Condition	Voltage
(+)		(-)		
Combination lamp			External lamp	Battery voltage
Connector	Terminal			
Front	A: E218, E225	8	LO	Battery voltage
Rear	B: B30, B45	2	OFF	0 V

Is the measurement value normal?

- YES >> GO TO 4
 NO >> GO TO 3



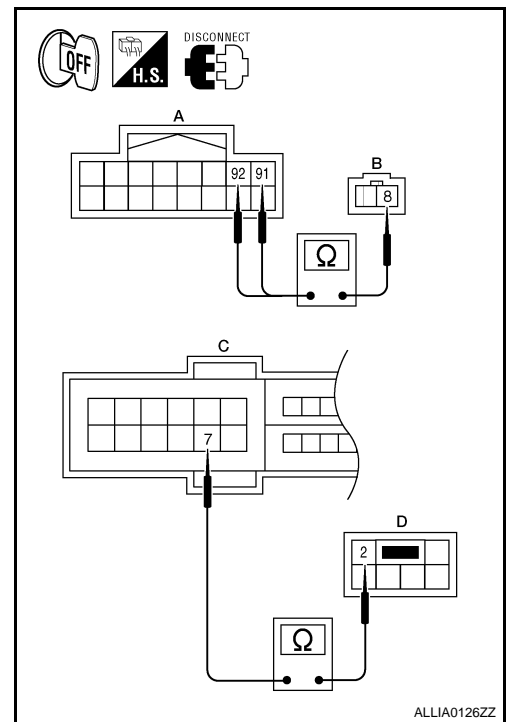
3. CHECK PARKING LAMP CIRCUIT (OPEN)

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

IPDM E/R		Combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
Front	A: E201	91, 92	B: E218, E225	Yes
Rear	C: E18	7	D: B30, B45	

Does continuity exist?

- YES >> GO TO 4
 NO >> Repair the harnesses or connectors.



4. CHECK PARKING LAMP GROUND CIRCUIT

PARKING LAMP CIRCUIT

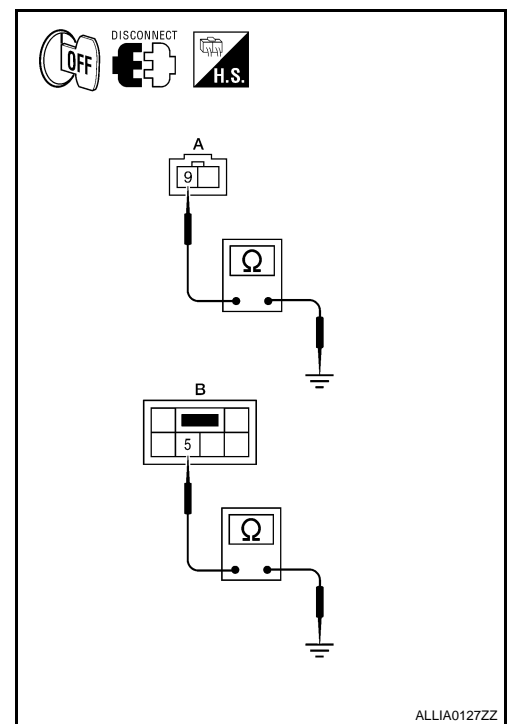
< COMPONENT DIAGNOSIS >

1. Disconnect the combination lamp connector.
2. Check continuity between the combination lamp harness connector terminal and ground.

Combination lamp			Ground	Continuity
Connector	Terminal			
Front	A: E218, E225	9	Yes	
Rear	B: B30, B45	5		

Does continuity exist?

- YES >> Inspect the parking lamp bulb.
 NO >> Repair the harness.



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EXL

TURN SIGNAL LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

TURN SIGNAL LAMP CIRCUIT

Description

INFOID:000000001608283

The BCM monitors inputs from the combination switch to determine when to activate the turn signals. The BCM outputs voltage direction to the left and right turn signals during turn signal operation or both during hazard warning operation. The BCM sends a turn signal indicator request to the combination meter via the CAN communication lines.

The BCM performs the fast flasher operation (fail-safe) if any bulb or harness of the turn signal lamp circuit is open.

NOTE:

Turn signal lamp blinks at normal speed when using the hazard warning lamp.

Component Function Check

INFOID:000000001608284

1. CHECK TURN SIGNAL LAMP

CONSULT-III

1. Select "FLASHER" of BCM (FLASHER) active test item.
2. With operating the test items, check that the turn signal lamp blinks.

- LH** : Turn signal lamp LH blinking
- RH** : Turn signal lamp RH blinking
- OFF** : The turn signal lamp OFF

Does the turn signal lamp blink?

- YES >> Turn signal lamp circuit is normal.
- NO >> Refer to [EXL-38. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001608285

1. CHECK TURN SIGNAL LAMP BULB

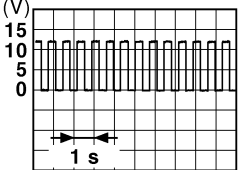
Check the applicable lamp bulb to be sure the proper bulb standard is in use and the bulb is not open.

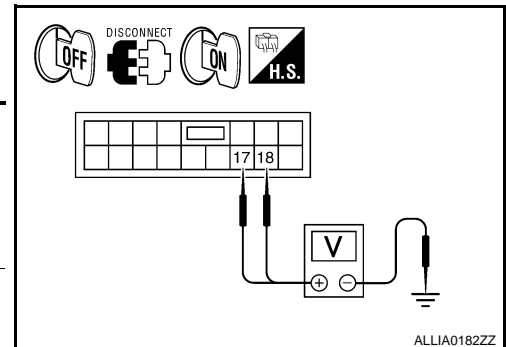
Is the bulb OK?

- YES >> GO TO 2
- NO >> Replace the bulb.

2. CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector or the rear combination lamp connector.
3. Turn the ignition switch ON.
4. With operating the turn signal switch, check the voltage between the BCM harness connector and the ground.

Terminals			Test item	Voltage
(+)	(-)			
BCM			FLASHER	
Connector	Terminal			
RH	M17	17	LH or RH	
LH	M17	18		



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PKID0926E

TURN SIGNAL LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

Is the measurement value normal?

- YES >> GO TO 3
 NO >> Replace BCM.

3. CHECK TURN SIGNAL LAMP CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect BCM connector.
3. Check the continuity between the BCM harness connector and the front combination lamp, the rear combination lamp harness connector or the door mirror connector (if equipped with turn signals in mirrors).

BCM		Terminal	Front combination lamp Rear combination lamp Door mirror		Continuity
Connector	Terminal		Connector	Terminal	
Rear LH	M17	18	B30	3	Yes
Front LH			E217	5	
Door mirror LH			D4	7	
Rear RH	M17	17	B45	3	
Front RH			E224	5	
Door mirror RH			D107	7	

Does continuity exist?

- YES >> GO TO 4
 NO >> Repair the harnesses or connectors.

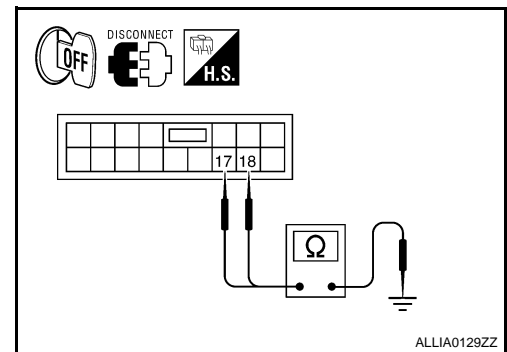
4. CHECK TURN SIGNAL LAMP SHORT CIRCUIT

Check continuity between the BCM harness connector and the ground.

BCM		Terminal	Ground	Continuity
Connector	Terminal			
LH	M17	18		No
RH		17		

Does continuity exist?

- YES >> Repair the harnesses or connectors.
 NO >> GO TO 5



5. CHECK TURN SIGNAL LAMP GROUND CIRCUIT

Check continuity between the front combination lamp, the rear combination lamp or the door mirror and ground (if equipped with turn signals in mirrors).

Front combination lamp Rear combination lamp Door mirror		Terminal	Ground	Continuity
Connector	Terminal			
Front RH	E224	7	Ground	Yes
Front LH	E217	7		
Rear RH	B45	5		
Rear LH	B30	5		
Door mirror RH	D107	8		
Door mirror LH	D4	8		

Does continuity exist?

- YES >> Replace the front combination lamp or the rear combination lamp.

TURN SIGNAL LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

NO >> Repair the harnesses or connectors.

OPTICAL SENSOR

< COMPONENT DIAGNOSIS >

OPTICAL SENSOR

Description

INFOID:000000001608286

The optical sensor converts the outside brightness (lux) to voltage and transmits the optical sensor signal to the BCM.

Component Function Check

INFOID:000000001608287

1. CHECK OPTICAL SENSOR SIGNAL BY CONSULT-III

CONSULT-III

1. Turn the ignition switch ON.
2. Select "OPTICAL SENSOR" of BCM (HEAD LAMP) DATA MONITOR item.
3. Turn the lighting switch to AUTO.
4. With the optical sensor illuminating, check the monitor status.

Monitor item	Condition	Voltage
OPTICAL SENSOR	When illuminating	3.1 V or more *
	When shutting off light	0.6 V or less

*: Illuminates the optical sensor. The value may be less than the standard value if brightness is weak.

Is the item status normal?

- YES >> Optical sensor is normal.
 NO >> Refer to [EXL-41, "Diagnosis Procedure"](#).

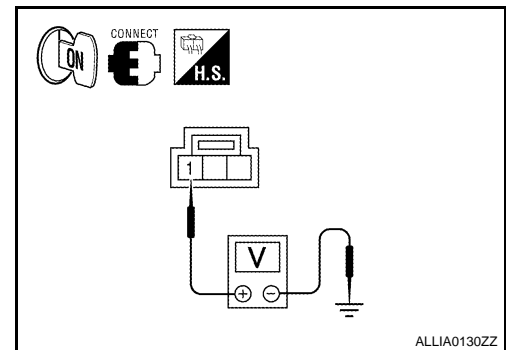
Diagnosis Procedure

INFOID:000000001608288

1. CHECK OPTICAL SENSOR POWER SUPPLY INPUT

1. Turn the ignition switch ON.
2. Turn the lighting switch to AUTO.
3. Check the voltage between the optical sensor harness connector and ground.

Terminals		Voltage
(+)	(-)	
Optical sensor		Ground
Connector	Terminal	
M66	1	



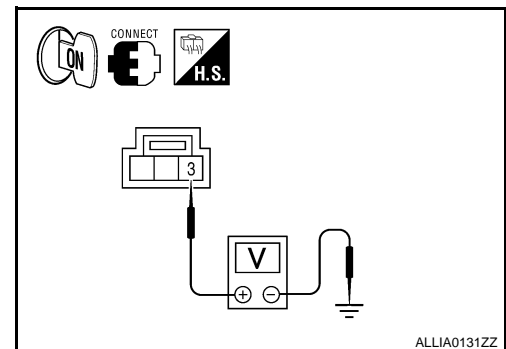
Is the measurement value normal?

- YES >> GO TO 2
 NO >> GO TO 4

2. CHECK OPTICAL SENSOR GROUND INPUT

Check the voltage between the optical sensor harness connector and ground.

Terminals		Voltage
(+)	(-)	
Optical sensor		Ground
Connector	Terminal	
M66	3	



Is the measurement value normal?

- YES >> GO TO 3
 NO >> GO TO 6

OPTICAL SENSOR

< COMPONENT DIAGNOSIS >

3. CHECK OPTICAL SENSOR SIGNAL OUTPUT

With the optical sensor illuminating, check voltage between the optical sensor harness connector and ground.

Terminals		Condition	Voltage
(+)	(-)		
Optical sensor		Optical sensor	Voltage
Connector	Terminal		
M66	2	When illuminating	3.1 V or more *
		When shutting off light	0.6 V or less

*: Illuminate the optical sensor. The value may be less than the standard if brightness is weak.

Is the measurement value normal?

YES >> GO TO 7

NO >> Replace the optical sensor.

4. CHECK OPTICAL SENSOR POWER SUPPLY FOR OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the optical sensor connector and BCM connector.
3. Check continuity between the optical sensor harness connector and the BCM harness connector.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M66	1	M18	46	Yes

Does continuity exist?

YES >> GO TO 5

NO >> Repair the harnesses or connectors.

5. CHECK OPTICAL SENSOR POWER SUPPLY FOR SHORT CIRCUIT

Check the continuity between the optical sensor harness connector and the ground.

Optical sensor		Ground	Continuity
Connector	Terminal		
M66	1		No

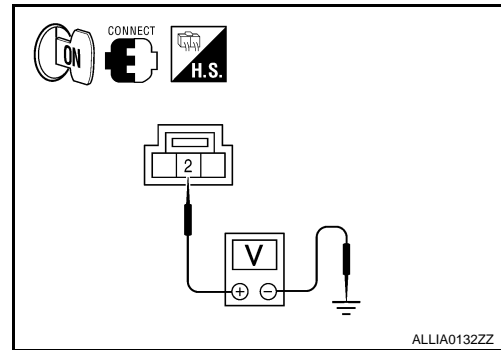
Does continuity exist?

YES >> Repair the harnesses or connectors.

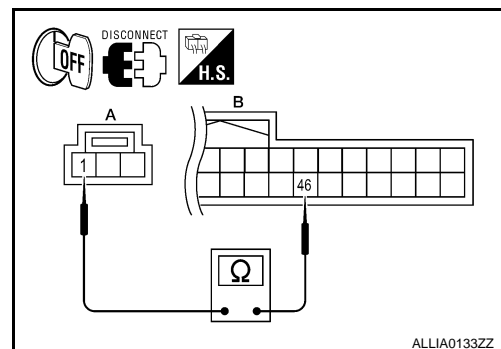
NO >> Replace BCM. Refer to [BCS-78. "Removal and Installation"](#).

6. CHECK OPTICAL SENSOR GROUND FOR OPEN CIRCUIT

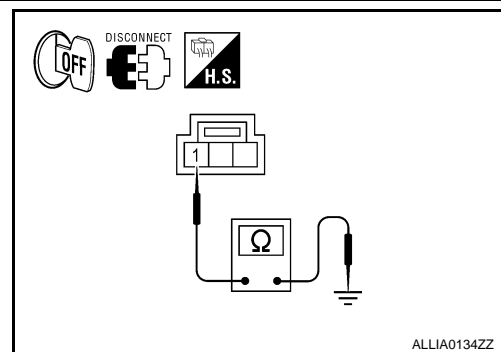
1. Turn the ignition switch OFF.
2. Disconnect the optical sensor connector and BCM connector.



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OPTICAL SENSOR

< COMPONENT DIAGNOSIS >

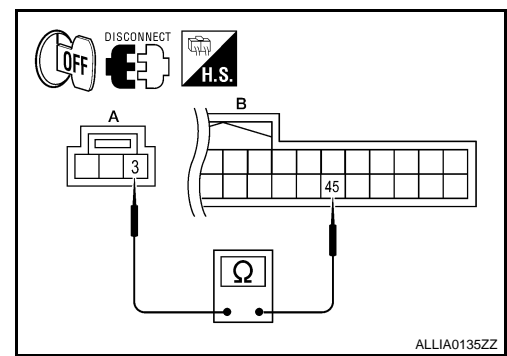
- Check continuity between the optical sensor harness connector and the BCM harness connector.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M66	3	M18	45	Yes

Does continuity exist?

YES >> Replace BCM. Refer to [BCS-78. "Removal and Installation"](#).

NO >> Repair the harnesses or connectors.



7. CHECK OPTICAL SENSOR SIGNAL FOR OPEN CIRCUIT

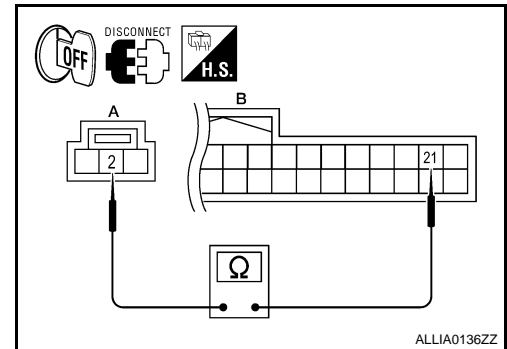
- Turn the ignition switch OFF.
- Disconnect the optical sensor connector and BCM connector.
- Check continuity between the optical sensor harness connector and the BCM harness connector.

Optical sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M66	2	M18	21	Yes

Does continuity exist?

YES >> GO TO 8

NO >> Repair the harnesses or connectors.



8. CHECK OPTICAL SENSOR SIGNAL FOR SHORT CIRCUIT

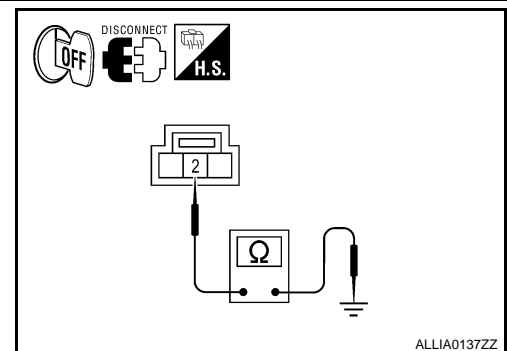
Check the continuity between the optical sensor harness connector and the ground.

Optical sensor		Ground	Continuity
Connector	Terminal		
M66	2		No

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM. Refer to [BCS-78. "Removal and Installation"](#).



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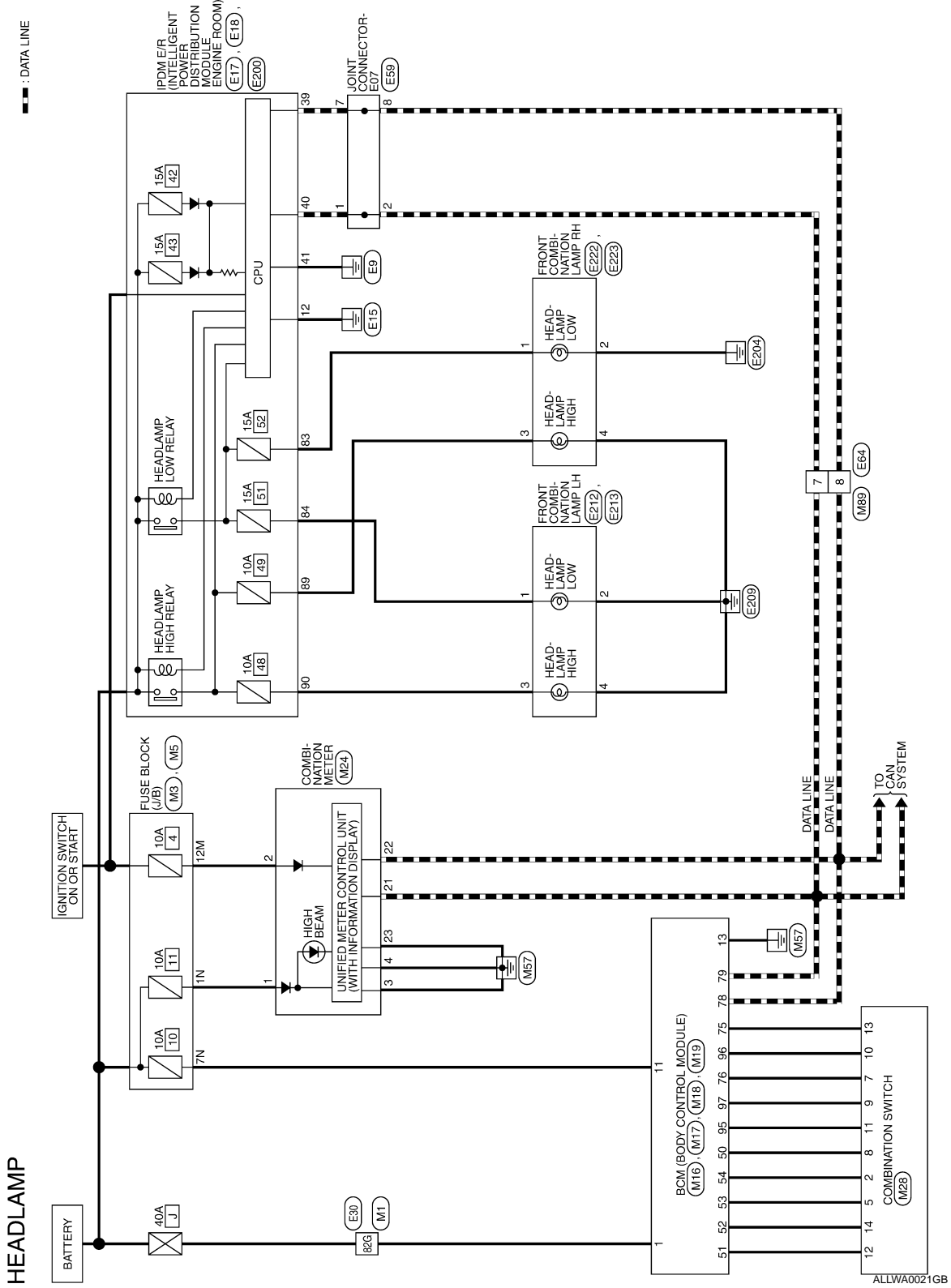
HEADLAMP

< COMPONENT DIAGNOSIS >

HEADLAMP

Wiring Diagram

INFOID:000000001608289

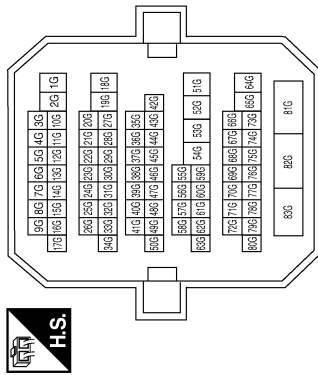


HEADLAMP

< COMPONENT DIAGNOSIS >

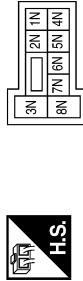
HEADLAMP CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



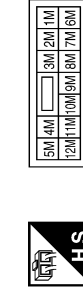
Terminal No.	82G	Color of Wire	W/B	Signal Name	—
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Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	1N	Color of Wire	W/L	Signal Name	—
7N	Y/R	Y/R	—	—	—

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	12M	Color of Wire	P	Signal Name	—
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Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



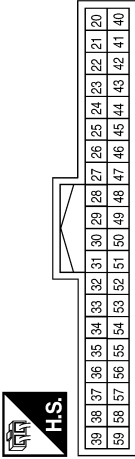
Terminal No.	1	Color of Wire	W/B	Signal Name	BAT_POWER_F/L
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Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	11	Color of Wire	Y/R	Signal Name	BAT_BCM_FUSE
13	B	B	GND1	—	—

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



Terminal No.	50	Color of Wire	LG/B	Signal Name	INPUT_5
51	L/W	L/W	INPUT_1	—	—
52	G/B	G/B	INPUT_2	—	—
53	LG/R	LG/R	INPUT_3	—	—
54	G/Y	G/Y	INPUT_4	—	—

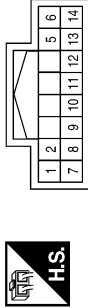
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HEADLAMP

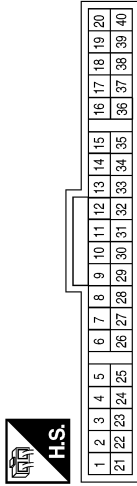
< COMPONENT DIAGNOSIS >

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE



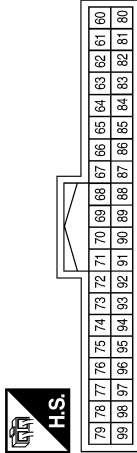
Terminal No.	Color of Wire	Signal Name
2	G/Y	OUTPUT_4
5	LG/R	OUTPUT_3
7	R/G	INPUT_3
8	LG/B	OUTPUT_5
9	R/B	INPUT_2
10	P/B	INPUT_4
11	R/W	INPUT_1
12	L/W	OUTPUT_1
13	R/Y	INPUT_5
14	G/B	OUTPUT_2

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



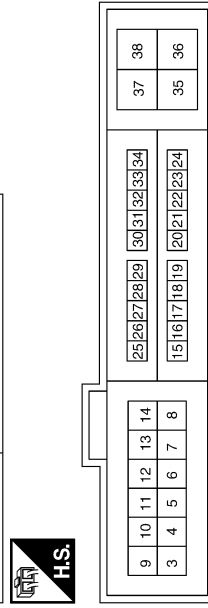
Terminal No.	Color of Wire	Signal Name
1	W/L	BATT
2	O	IGN
3	B	GND
4	B	GND
21	L	CAN-H
22	P	CAN-L
23	B	GND

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



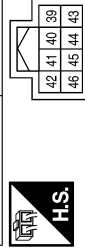
Terminal No.	Color of Wire	Signal Name
75	R/Y	OUTPUT_5
76	R/G	OUTPUT_3
78	P	CAN-L
79	L	CAN-H
95	R/W	OUTPUT_1
96	P/B	OUTPUT_4
97	R/B	OUTPUT_2

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



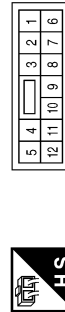
Terminal No.	Color of Wire	Signal Name
12	B	P-GND

Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	S-GND

Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Color	WHITE



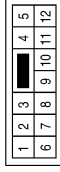
Terminal No.	Color of Wire	Signal Name
7	L	-
8	P	-

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HEADLAMP

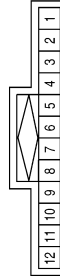
< COMPONENT DIAGNOSIS >

Connector No.	E64
Connector Name	WIRE TO WIRE
Connector Color	WHITE



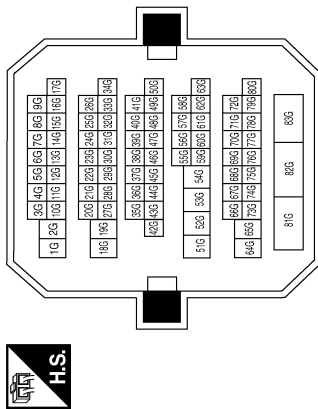
Terminal No.	Color of Wire	Signal Name
7	L	—
8	P	—

Connector No.	E59
Connector Name	JOINT CONNECTOR-E07
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	L	—
2	L	—
7	P	—
8	P	—

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
82G	W/B	—

Connector No.	E213
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
3	G	H/L LH HI
4	B	GND

Connector No.	E212
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	L	H/L LH LO
2	B	GND

Connector No.	E200
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
83	R/Y	HEADLAMP_LO RH
84	L	HEADLAMP_LO LH
89	L/W	HEADLAMP_HI RH
90	G	HEADLAMP_HI LH

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HEADLAMP

< COMPONENT DIAGNOSIS >

Connector No.	E223
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R/Y	H/L RH LO
2	B	GND

Connector No.	E222
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
3	L/W	H/L RH HI
4	B	GND

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DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

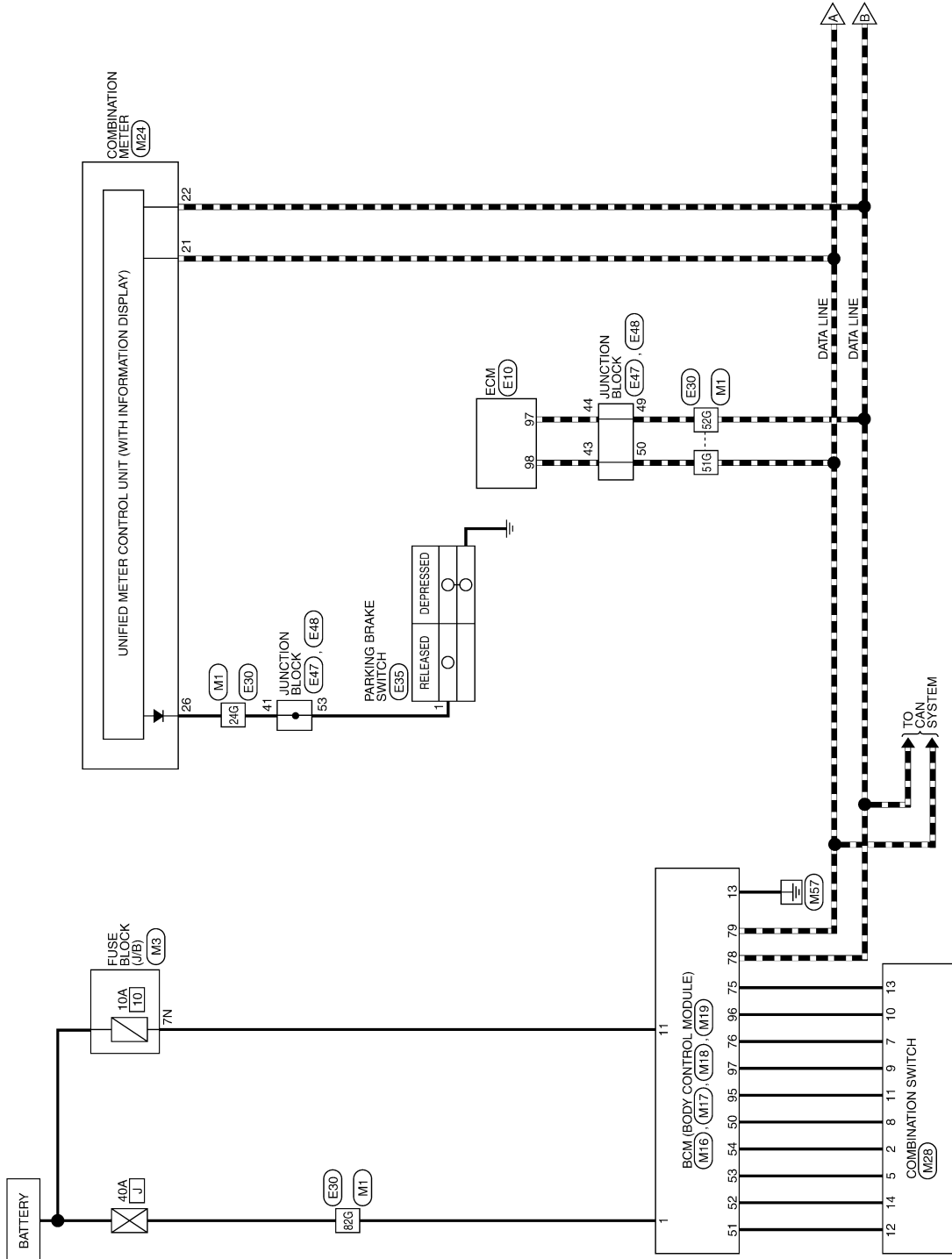
DAYTIME RUNNING LIGHT SYSTEM HEADLAMP

HEADLAMP : Wiring Diagram

INFOID:000000001608290

--- : DATA LINE

DAYTIME LIGHT SYSTEM



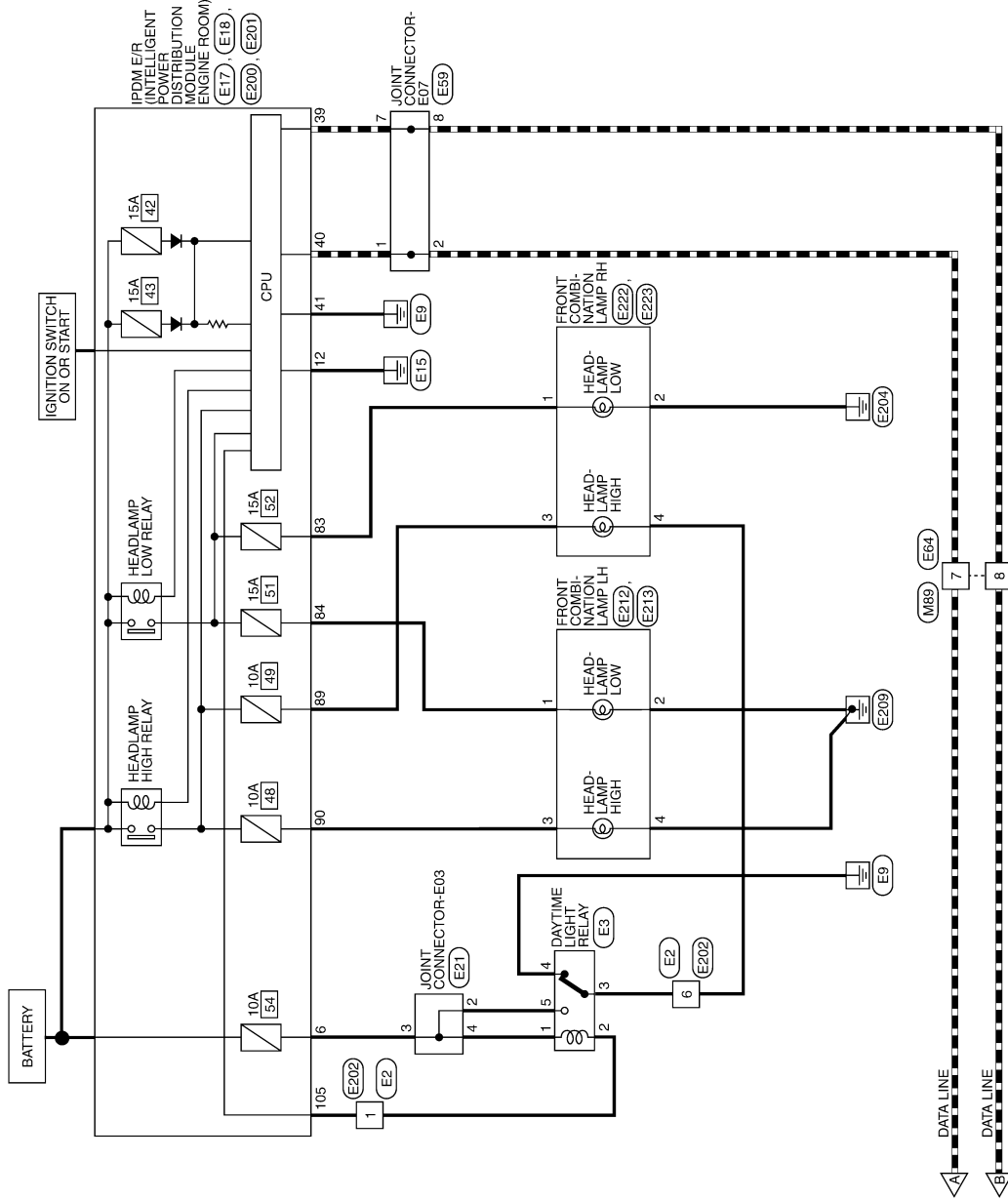
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DAYTIME RUNNING LIGHT SYSTEM

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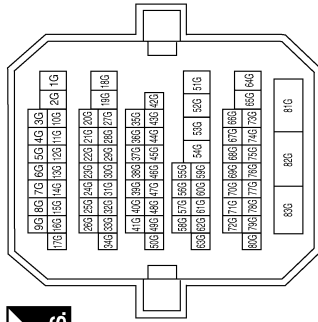
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DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

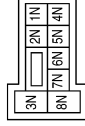
DAYTIME LIGHT SYSTEM CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
24G	G/R	—
51G	L	—
52G	P	—
82G	W/B	—

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7N	Y/R	—

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT BCM_FUSE
13	B	GND1

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



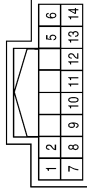
Terminal No.	Color of Wire	Signal Name
50	LG/B	INPUT 5
51	L/W	INPUT 1
52	G/B	INPUT 2
53	LG/R	INPUT 3
54	G/Y	INPUT 4

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DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE



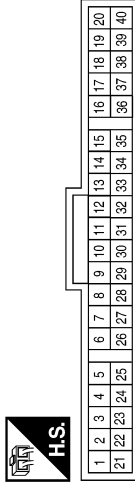
Terminal No.	Color of Wire	Signal Name
2	G/Y	OUTPUT_4
5	LG/R	OUTPUT_3
7	R/G	INPUT_3
8	LG/B	OUTPUT_5
9	R/B	INPUT_2
10	P/B	INPUT_4
11	R/W	INPUT_1
12	L/W	OUTPUT_1
13	R/Y	INPUT_5
14	G/B	OUTPUT_2

Connector No.	E3
Connector Name	DAYTIME LIGHT RELAY
Connector Color	BLACK



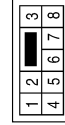
Terminal No.	Color of Wire	Signal Name
1	SB	—
2	V	—
3	GR/R	—
4	B	—
5	SB	—

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



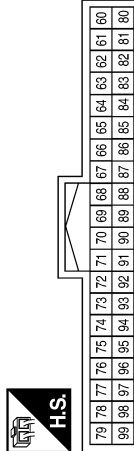
Terminal No.	Color of Wire	Signal Name
21	L	CAN-H
22	P	CAN-L
26	G/R	PKB

Connector No.	E2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



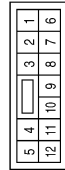
Terminal No.	Color of Wire	Signal Name
1	V	—
6	GR/R	—

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
75	R/Y	OUTPUT_5
76	R/G	OUTPUT_3
78	P	CAN-L
79	L	CAN-H
95	R/W	OUTPUT_1
96	P/B	OUTPUT_4
97	R/B	OUTPUT_2

Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Color	WHITE

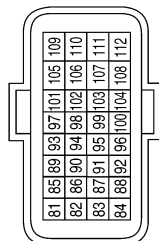


Terminal No.	Color of Wire	Signal Name
7	L	—
8	P	—

DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

Connector No.	E10
Connector Name	ECM
Connector Color	BLACK



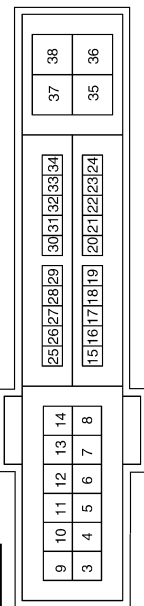
Terminal No.	Color of Wire	Signal Name
97	P	CAN-L
98	L	CAN-H

Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	S-GND

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



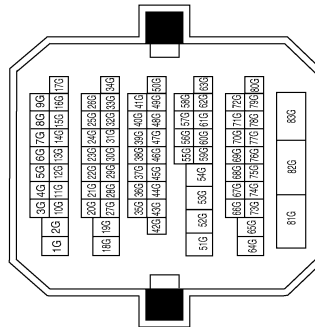
Terminal No.	Color of Wire	Signal Name
6	SB	DTRL
12	B	P-GND

Connector No.	E21
Connector Name	JOINT CONNECTOR-E03
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
2	SB	-
3	SB	-
4	SB	-

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
24G	GR	-
51G	L	-
52G	P	-
82G	W/B	-

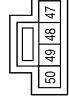
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DAYTIME RUNNING LIGHT SYSTEM

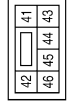
< COMPONENT DIAGNOSIS >

Connector No.	E48
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
49	P	—
50	L	—
53	G/R	—

Connector No.	E47
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



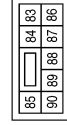
Terminal No.	Color of Wire	Signal Name
41	G/R	—
43	L	—
44	P	—

Connector No.	E35
Connector Name	PARKING BRAKE SWITCH
Connector Color	BLACK

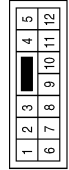


Terminal No.	Color of Wire	Signal Name
1	G/R	—

Connector No.	E200
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

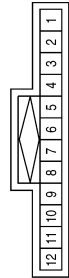


Connector No.	E64
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
83	R/Y	HEADLAMP_LO_RH
84	L	HEADLAMP_LO_LH
89	L/W	HEADLAMP_HI_RH
90	G	HEADLAMP_HI_LH

Connector No.	E59
Connector Name	JOINT CONNECTOR-E07
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	L	—
2	L	—
7	P	—
8	P	—

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DAYTIME RUNNING LIGHT SYSTEM

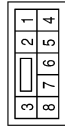
< COMPONENT DIAGNOSIS >

Connector No.	E212
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	BLACK



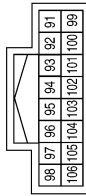
Terminal No.	Color of Wire	Signal Name
1	L	H/L LH LO
2	B	GND

Connector No.	E202
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	V	—
6	GR/R	—

Connector No.	E201
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
105	V	DTRL RLY

Connector No.	E223
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R/Y	H/L RH LO
2	B	GND

Connector No.	E222
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
3	L/W	H/L RH HI
4	GR/R	GND

Connector No.	E213
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
3	G	H/L LH HI
4	B	GND

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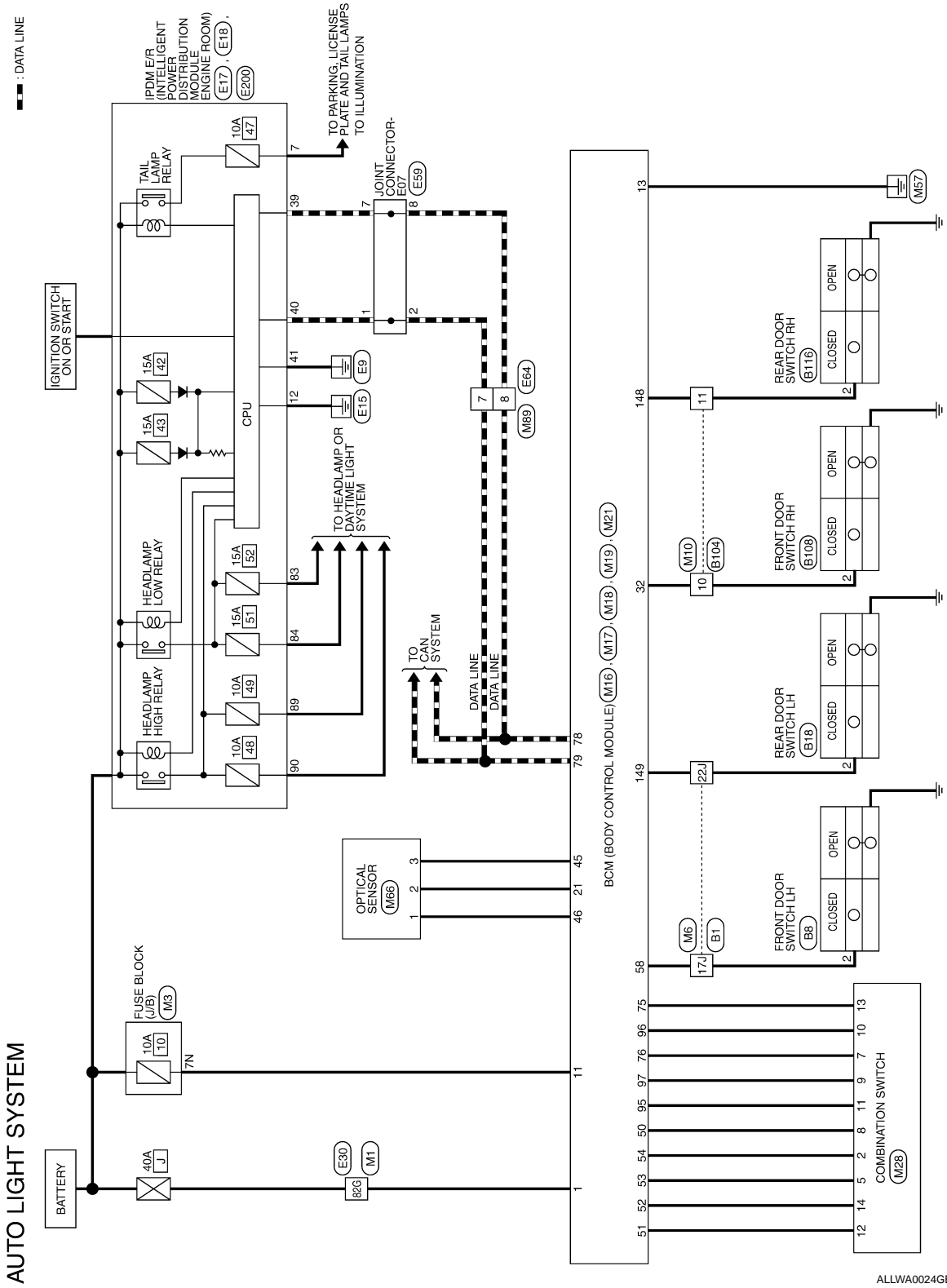
AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

AUTO LIGHT SYSTEM

Wiring Diagram

INFOID:000000001608291



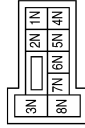
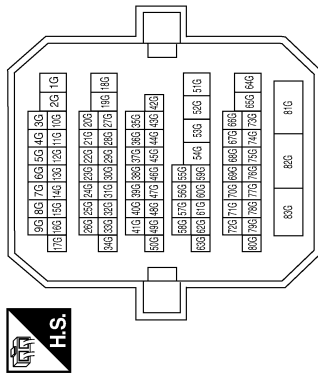
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AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

AUTO LIGHT SYSTEM CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE

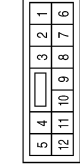
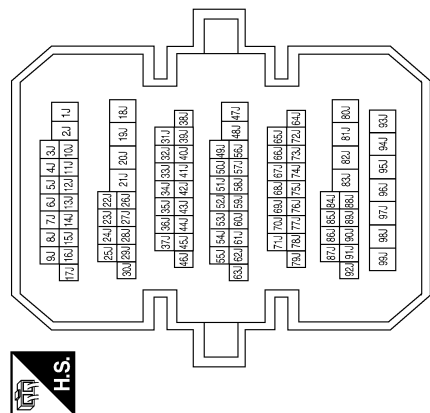


Terminal No.	82G	Color of Wire	W/B	Signal Name
				—

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

Terminal No.	7N	Color of Wire	Y/R	Signal Name
				—

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	17J 22J	Color of Wire	SB R/B	Signal Name
				—

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	BROWN

Terminal No.	10 11	Color of Wire	R/B R/W	Signal Name
				—

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AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40

Terminal No.	Color of Wire	Signal Name
21	P/B	AUTO_LIGHT_SENDO R_INPUT1
32	R/B	AS_DOOR_SW
45	P	GND_RF2_AVL
46	V/W	AL_SENS_KEYLESS_ TUNER_POWER_ SUPPLY
50	LG/B	INPUT_5
51	L/W	INPUT_1
52	G/B	INPUT_2
53	LG/R	INPUT_3
54	G/Y	INPUT_4
58	SB	DR_DOOR_SW

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



4	5	6	7	8	9	10		
11	12	13	14	15	16	17	18	19

Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

Terminal No.	Color of Wire	Signal Name
75	R/Y	OUTPUT_5
76	R/G	OUTPUT_3
78	P	CAN-L
79	L	CAN-H
95	R/W	OUTPUT_1
96	P/B	OUTPUT_4
97	R/B	OUTPUT_2

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



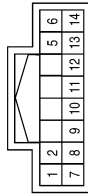
79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
89	88	87	86	85	84	83	82	81	80										

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AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE



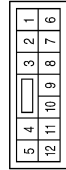
Terminal No.	Color of Wire	Signal Name
2	G/Y	OUTPUT_4
5	LG/R	OUTPUT_3
7	R/G	INPUT_3
8	LG/B	OUTPUT_5
9	R/B	INPUT_2
10	P/B	INPUT_4
11	R/W	INPUT_1
12	L/W	OUTPUT_1
13	R/Y	INPUT_5
14	G/B	OUTPUT_2

Connector No.	M66
Connector Name	OPTICAL SENSOR
Connector Color	WHITE

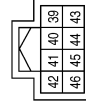


Terminal No.	Color of Wire	Signal Name
1	V/W	POWER
2	P/B	OUTPUT
3	P	GND

Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Color	WHITE



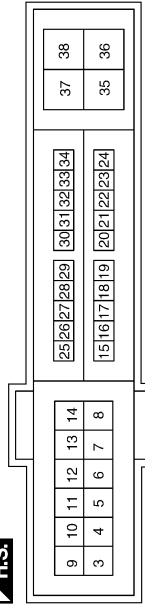
Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	L	-
8	P	-

Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	S-GND

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	R/L	TAIL/ILLUMI
12	B	P-GND

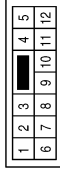
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AUTO LIGHT SYSTEM

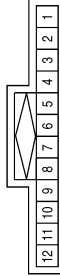
< COMPONENT DIAGNOSIS >

Connector No.	E64
Connector Name	WIRE TO WIRE
Connector Color	WHITE



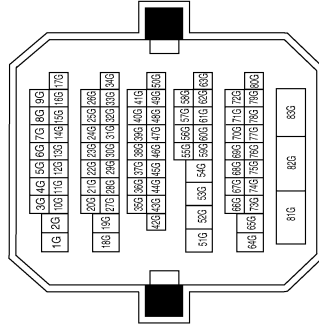
Terminal No.	Color of Wire	Signal Name
7	L	—
8	P	—

Connector No.	E59
Connector Name	JOINT CONNECTOR-E07
Connector Color	BLUE



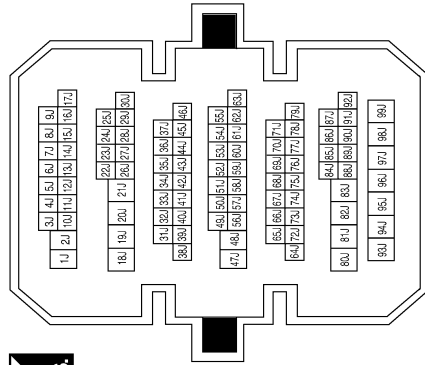
Terminal No.	Color of Wire	Signal Name
1	L	—
2	L	—
7	P	—
8	P	—

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



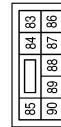
Terminal No.	Color of Wire	Signal Name
82G	W/B	—

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
17J	SB	—
22J	R/B	—

Connector No.	E200
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
83	R/Y	HEADLAMP_LO RH
84	L	HEADLAMP_LO LH
89	L/W	HEADLAMP_HI RH
90	G	HEADLAMP_HI LH

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AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Color	BROWN

1	2	3	4	5
6	7	8	9	10
			11	12



Terminal No.	Color of Wire	Signal Name
10	R/B	—
11	R/W	—

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE

◇	1	2	3
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Terminal No.	Color of Wire	Signal Name
2	R/B	DOOR SW(RL)

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE

◇	1	2	3
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Terminal No.	Color of Wire	Signal Name
2	SB	DOOR SW(DR)

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE

◇	1	2	3
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Terminal No.	Color of Wire	Signal Name
2	R/W	DOOR SW (RR)

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE

◇	1	2	3
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Terminal No.	Color of Wire	Signal Name
2	R/G	DOOR SW (AS)

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FRONT FOG LAMP SYSTEM

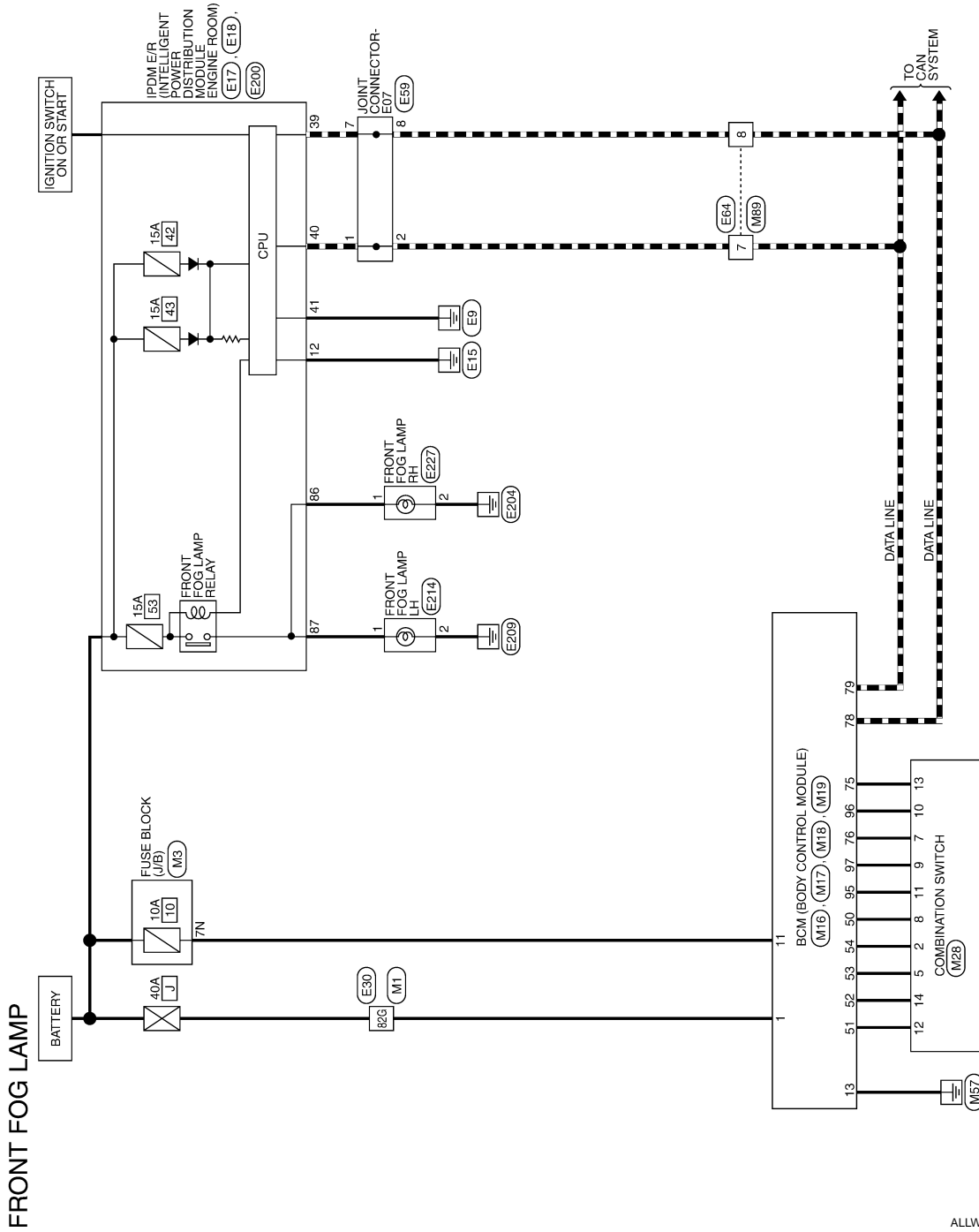
< COMPONENT DIAGNOSIS >

FRONT FOG LAMP SYSTEM

Wiring Diagram

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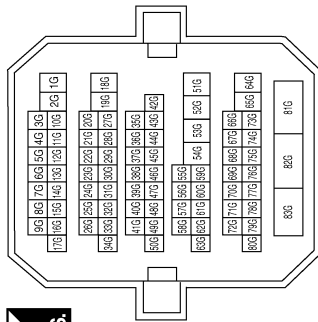
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FRONT FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

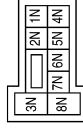
FRONT FOG LAMP CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	82G	Color of Wire	W/B	Signal Name	—
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Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

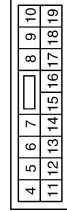


Terminal No.	7N	Color of Wire	Y/R	Signal Name	—
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Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK

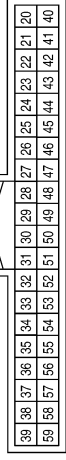


Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	1	Color of Wire	W/B	Signal Name	BAT_POWER_FL
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Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



Terminal No.	50	Color of Wire	LG/B	Signal Name	INPUT 5
51	L/W	INPUT 1			
52	G/B	INPUT 2			
53	LG/R	INPUT 3			
54	G/Y	INPUT 4			

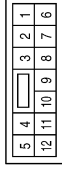
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FRONT FOG LAMP SYSTEM

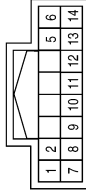
< COMPONENT DIAGNOSIS >

Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	L	---
8	P	---

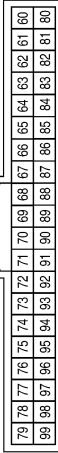
Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	G/Y	OUTPUT_4
5	LG/R	OUTPUT_3
7	R/G	INPUT_3
8	LG/B	OUTPUT_5
9	R/B	INPUT_2
10	P/B	INPUT_4
11	R/W	INPUT_1
12	L/W	OUTPUT_1
13	R/Y	INPUT_5
14	G/B	OUTPUT_2

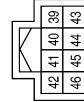
Terminal No.	12
Color of Wire	B
Signal Name	P-GND

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



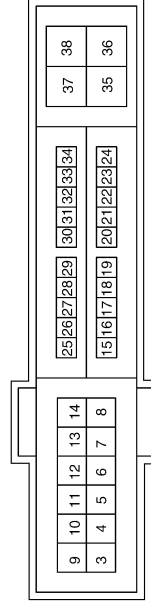
Terminal No.	Color of Wire	Signal Name
75	R/Y	OUTPUT_5
76	R/G	OUTPUT_3
78	P	CAN-L
79	L	CAN-H
95	R/W	OUTPUT_1
96	P/B	OUTPUT_4
97	R/B	OUTPUT_2

Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	S-GND

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

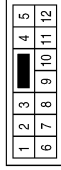


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FRONT FOG LAMP SYSTEM

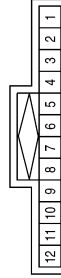
< COMPONENT DIAGNOSIS >

Connector No.	E64
Connector Name	WIRE TO WIRE
Connector Color	WHITE



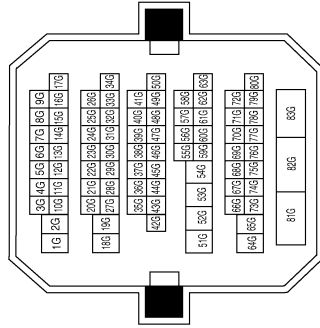
Terminal No.	Color of Wire	Signal Name
7	L	—
8	P	—

Connector No.	E59
Connector Name	JOINT CONNECTOR-E07
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	L	—
2	L	—
7	P	—
8	P	—

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
82G	W/B	—

Connector No.	E227
Connector Name	FRONT FOG LAMP RH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	W/R	FR_FOG_RLY
2	B	GND

Connector No.	E214
Connector Name	FRONT FOG LAMP LH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	L/Y	FR_FOG_RLY
2	B	GND

Connector No.	E200
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
86	W/R	FR_FOG_LAMP_RH
87	L/Y	FR_FOG_LAMP_LH

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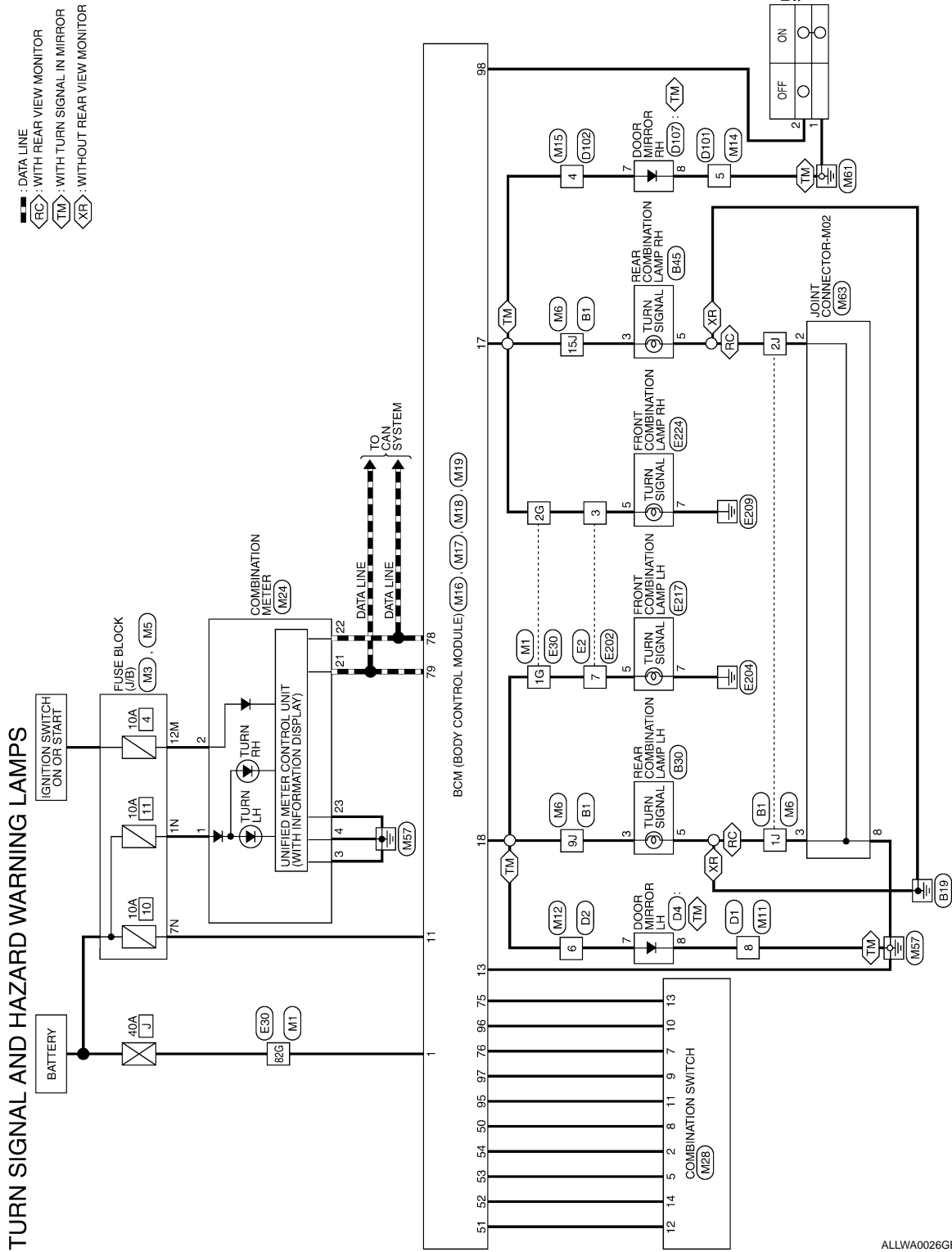
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

Wiring Diagram

INFOID:000000001608293



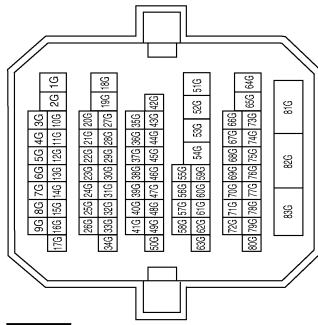
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

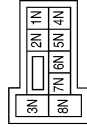
TURN SIGNAL AND HAZARD WARNING LAMPS CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1G	G/B	—
2G	G/Y	—
82G	W/B	—

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

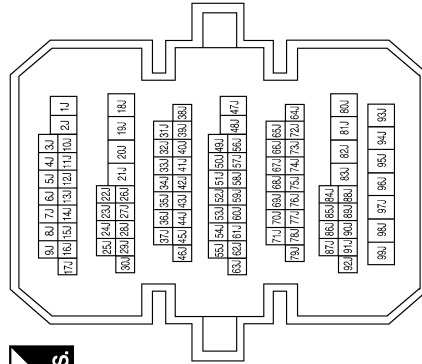


Terminal No.	Color of Wire	Signal Name
1N	W/L	—
7N	Y/R	—

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
12M	P	—

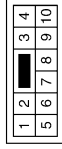
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

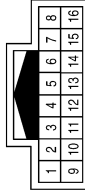
< COMPONENT DIAGNOSIS >

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE



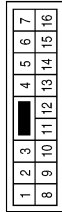
Terminal No.	5	Color of Wire	B	Signal Name	—
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Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	6	Color of Wire	G/Y	Signal Name	—
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Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	8	Color of Wire	B	Signal Name	—
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Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



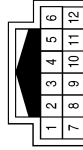
Terminal No.	11	Color of Wire	Y/R	Signal Name	BAT_BCM_FUSE
	13		B		GND1
	17		G/B		FR_FLASHER
	18		G/Y		FL_FLASHER

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	1	Color of Wire	W/B	Signal Name	BAT_POWER_F/L
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Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Color	WHITE




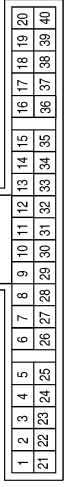
Terminal No.	4	Color of Wire	G/B	Signal Name	—
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM


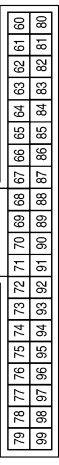
< COMPONENT DIAGNOSIS >

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE


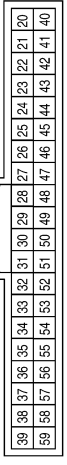
Terminal No.	Color of Wire	Signal Name
1	W/L	BATT
2	O	IGN
3	B	GND
4	B	GND
21	L	CAN-H
22	P	CAN-L
23	B	GND

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK


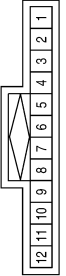
Terminal No.	Color of Wire	Signal Name
75	R/Y	OUTPUT_5
76	R/G	OUTPUT_3
78	P	CAN-L
79	L	CAN-H
95	R/W	OUTPUT_1
96	P/B	OUTPUT_4
97	R/B	OUTPUT_2
98	G/O	HAZARD_SW

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN


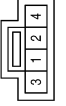
Terminal No.	Color of Wire	Signal Name
50	LG/B	INPUT_5
51	L/W	INPUT_1
52	G/B	INPUT_2
53	LG/R	INPUT_3
54	G/Y	INPUT_4

Connector No.	M63
Connector Name	JOINT CONNECTOR-M02
Connector Color	BLUE


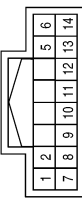
Terminal No.	Color of Wire	Signal Name
2	B	—
3	B	—
8	B	—

Connector No.	M54
Connector Name	HAZARD SWITCH
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	G/O	HAZARD_SW

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
2	G/Y	OUTPUT_4
5	LG/R	OUTPUT_3
7	R/G	INPUT_3
8	LG/B	OUTPUT_5
9	R/B	INPUT_2
10	P/B	INPUT_4
11	R/W	INPUT_1
12	L/W	OUTPUT_1
13	R/Y	INPUT_5
14	G/B	OUTPUT_2

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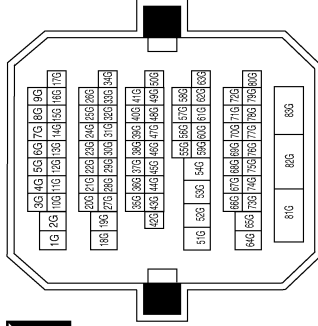
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

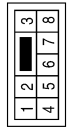
< COMPONENT DIAGNOSIS >

Terminal No.	Color of Wire	Signal Name
1G	G/B	—
2G	G/Y	—
82G	W/B	—

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	E2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	G/B	—
7	G/Y	—

Connector No.	E224
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	GRAY



Connector No.	E217
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	GRAY



Connector No.	E202
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	G/B	FLASHER_OUT_PUT (RIGHT)
7	B	GND

Terminal No.	Color of Wire	Signal Name
5	G/Y	FLASHER_OUT_PUT (LEFT)
7	B	GND

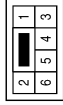
Terminal No.	Color of Wire	Signal Name
3	G/B	—
7	G/Y	—

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

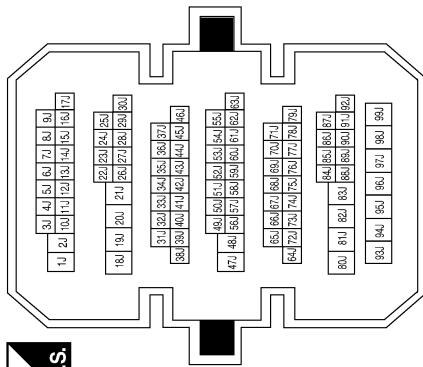
Connector No.	B30
Connector Name	REAR COMBINATION LAMP
Connector Color	WHITE



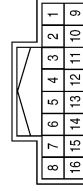
Terminal No.	Color of Wire	Signal Name
3	G/Y	FLASHER_OUT_PUT (LEFT)
5	B	GND

Terminal No.	Color of Wire	Signal Name
1J	B	—
2J	B/R	—
9J	G/Y	—
15J	G/B	—

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE

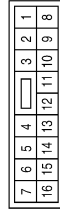


Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



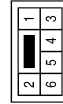
Terminal No.	Color of Wire	Signal Name
6	G/Y	—

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
8	B	—

Connector No.	B45
Connector Name	REAR COMBINATION LAMP
Connector Color	WHITE



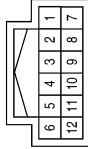
Terminal No.	Color of Wire	Signal Name
3	G/B	FLASHER_OUT_PUT (RIGHT)
5	B/R	GND (WITH REAR VIEW MONITOR)
5	B	GND (WITHOUT REAR VIEW MONITOR)

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

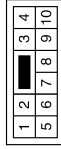
< COMPONENT DIAGNOSIS >

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



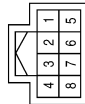
Terminal No.	4	Color of Wire	G/B	Signal Name	—
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Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



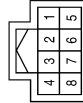
Terminal No.	5	Color of Wire	B	Signal Name	—
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Connector No.	D4
Connector Name	DOOR MIRROR LH
Connector Color	WHITE



Terminal No.	7	Color of Wire	G/Y	Signal Name	TURN(+)
8	B	TURN(-)			

Connector No.	D107
Connector Name	DOOR MIRROR RH
Connector Color	WHITE



Terminal No.	7	Color of Wire	G/B	Signal Name	TURN(+)
8	B	TURN(-)			

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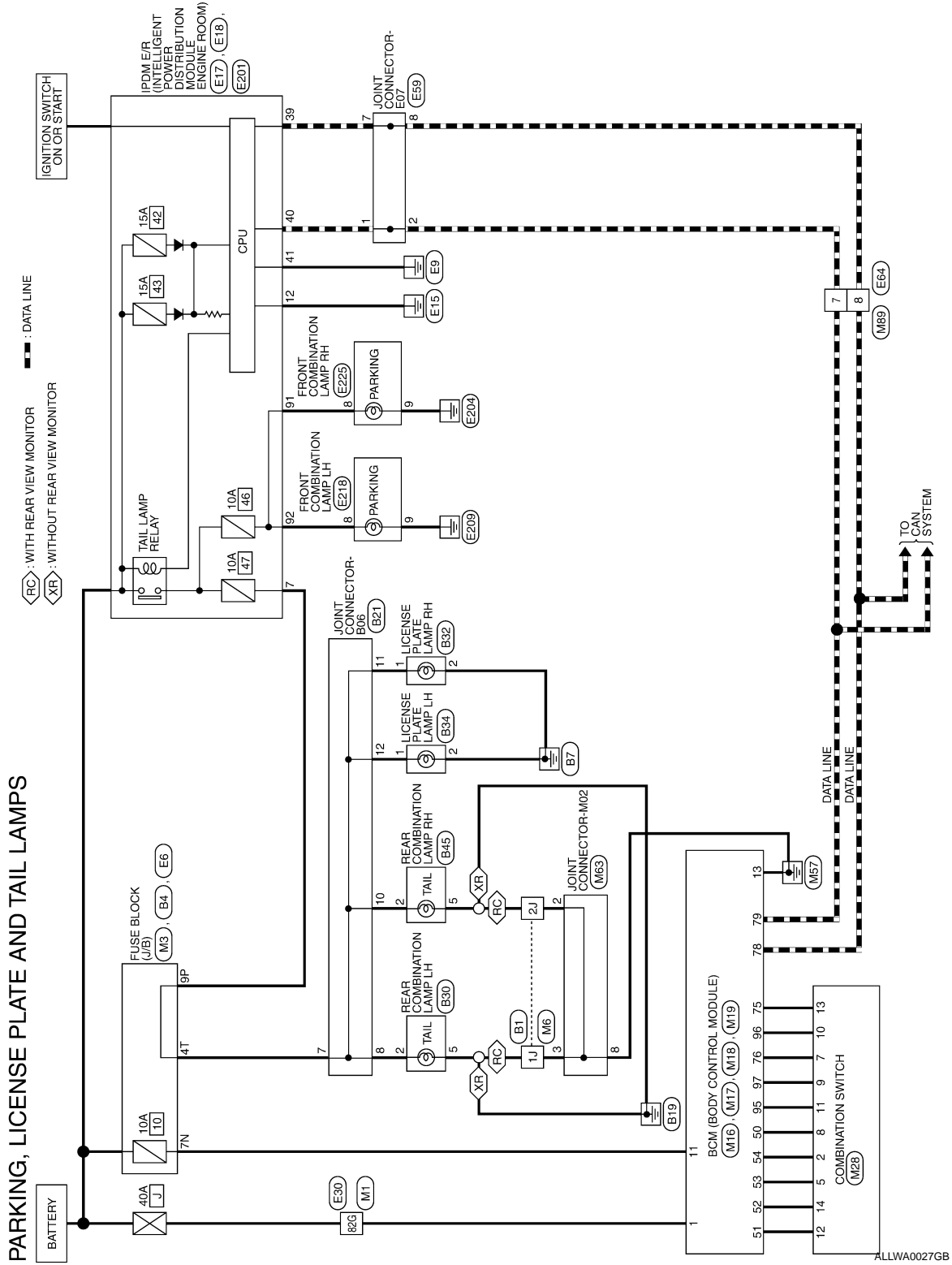
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Wiring Diagram

INFOID:000000001608294



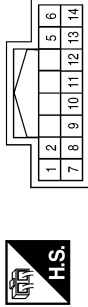
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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

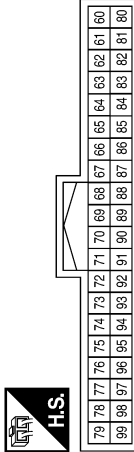
< COMPONENT DIAGNOSIS >

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE



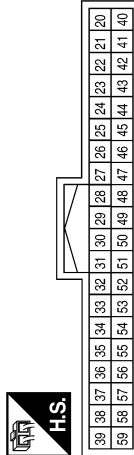
Terminal No.	Color of Wire	Signal Name
2	G/Y	OUTPUT 4
5	LG/R	OUTPUT 3
7	R/G	INPUT 3
8	LG/B	OUTPUT 5
9	R/B	INPUT 2
10	P/B	INPUT 4
11	R/W	INPUT 1
12	L/W	OUTPUT 1
13	R/Y	INPUT 5
14	G/B	OUTPUT 2

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



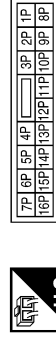
Terminal No.	Color of Wire	Signal Name
75	R/Y	OUTPUT 5
76	R/G	OUTPUT 3
78	P	CAN-L
79	L	CAN-H
95	R/W	OUTPUT 1
96	P/B	OUTPUT 4
97	R/B	OUTPUT 2

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



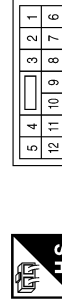
Terminal No.	Color of Wire	Signal Name
50	LG/B	INPUT 5
51	L/W	INPUT 1
52	G/B	INPUT 2
53	LG/R	INPUT 3
54	G/Y	INPUT 4

Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9P	R/L	—

Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	L	—
8	P	—

Connector No.	M63
Connector Name	JOINT CONNECTOR-M02
Connector Color	BLUE



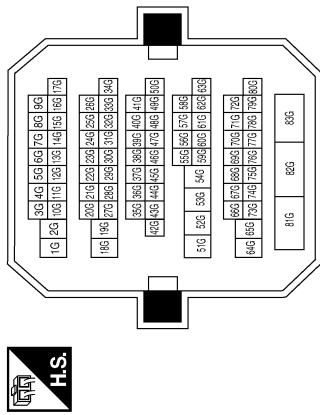
Terminal No.	Color of Wire	Signal Name
2	B	—
3	B	—
8	B	—

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

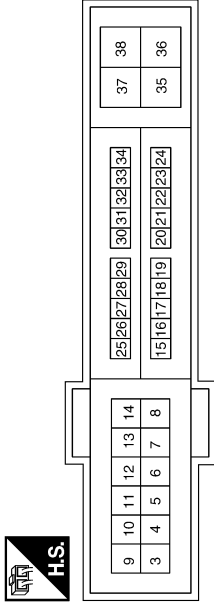
< COMPONENT DIAGNOSIS >

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



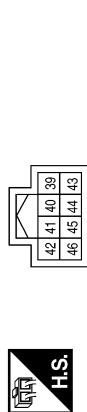
Terminal No.	Color of Wire	Signal Name
82G	W/B	—

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



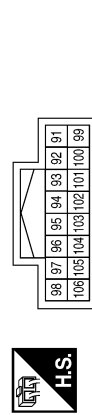
Terminal No.	Color of Wire	Signal Name
6	SB	DTRL
12	B	P-GND

Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	S-GND

Connector No.	E201
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
91	LG/R	CLEARANCE_RH
92	LG/B	CLEARANCE_LH

Connector No.	E64
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	L	—
8	P	—

Connector No.	E59
Connector Name	JOINT CONNECTOR-E07
Connector Color	BLUE



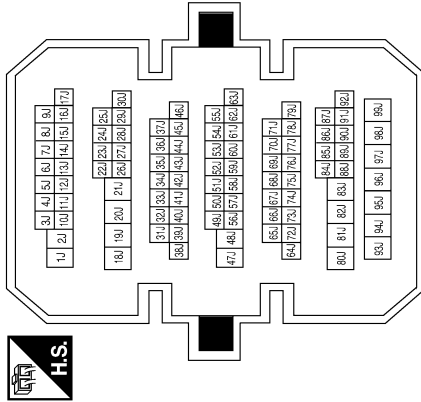
Terminal No.	Color of Wire	Signal Name
1	L	—
2	L	—
7	P	—
8	P	—

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1J	B	—
2J	B/R	—

Connector No.	E225
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	BLACK



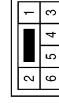
Terminal No.	Color of Wire	Signal Name
8	LG/R	CLEARANCE
9	B	GND

Connector No.	E218
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
8	LG/B	CLEARANCE
9	B	GND

Connector No.	B30
Connector Name	REAR COMBINATION LAMP LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	L/R	TAIL LAMP
5	B	GND

Connector No.	B21
Connector Name	JOINT CONNECTOR-B06
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
7	L/R	—
8	L/R	—
10	L/R	—
11	L/R	—
12	L/R	—

Connector No.	B4
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
4T	L/R	—

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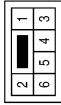
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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

Connector No.	B45
Connector Name	REAR COMBINATION LAMP RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	L/R	TAIL_LAMP
5	B/R	GND (WITH REAR VIEW MONITOR)
5	B	GND (WITHOUT REAR VIEW MONITOR)

Connector No.	B34
Connector Name	LICENSE PLATE LAMP LH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	L/R	TAIL_LAMP
2	B	GND

Connector No.	B32
Connector Name	LICENSE PLATE LAMP RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	L/R	TAIL_LAMP
2	B	GND

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STOP LAMP

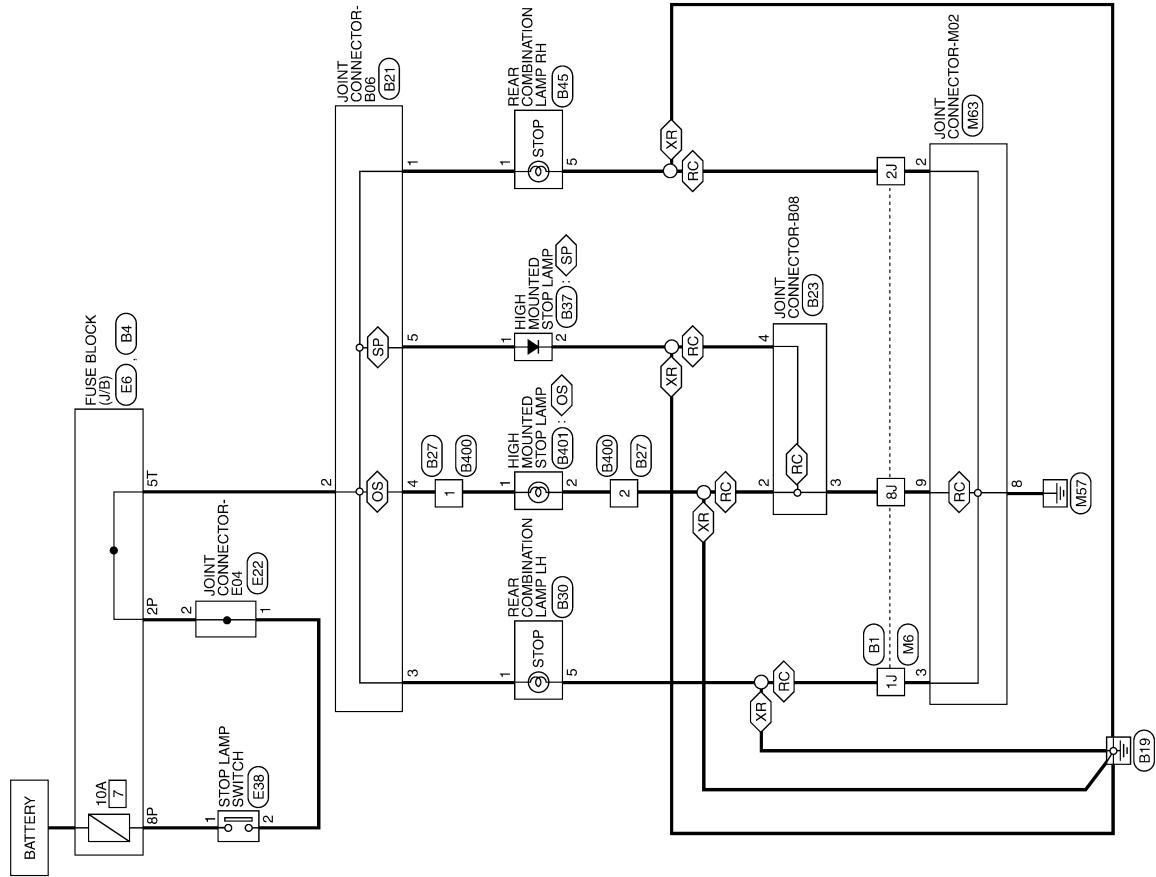
< COMPONENT DIAGNOSIS >

STOP LAMP

Wiring Diagram

INFOID:000000001608295

- OS : WITHOUT REAR SPOILER
- RC : WITH REAR VIEW MONITOR
- SP : WITH REAR SPOILER
- XR : WITHOUT REAR VIEW MONITOR



STOP LAMP

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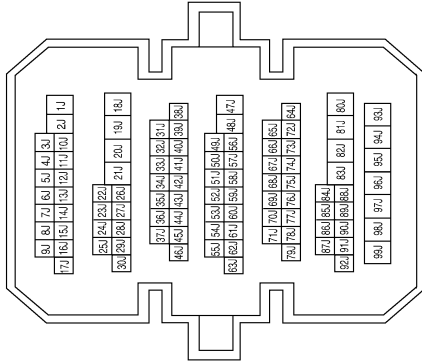
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STOP LAMP

< COMPONENT DIAGNOSIS >

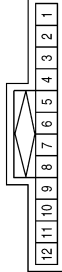
STOP LAMP CONNECTOR

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1J	B	—
2J	B	—
8J	B	—

Connector No.	M63
Connector Name	JOINT CONNECTOR-M02
Connector Color	BLUE



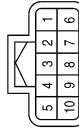
Terminal No.	Color of Wire	Signal Name
2	B	—
3	B	—
8	B	—
9	B	—

Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2P	R/G	—
8P	Y/R	—

Connector No.	E22
Connector Name	JOINT CONNECTOR-E04
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R/G	—
2	R/G	—

Connector No.	E38
Connector Name	STOP LAMP SWITCH
Connector Color	WHITE

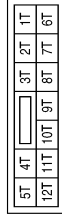


Terminal No.	Color of Wire	Signal Name
1	Y/R	—
2	R/G	—

STOP LAMP

< COMPONENT DIAGNOSIS >

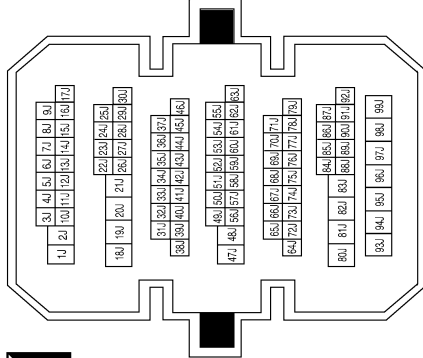
Connector No.	B4
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
5T	O	—

Terminal No.	Color of Wire	Signal Name
1J	B	—
2J	B/R	—
8J	B	—

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE

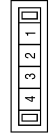


Connector No.	B27
Connector Name	WIRE TO WIRE
Connector Color	WHITE



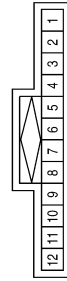
Terminal No.	Color of Wire	Signal Name
1	O	—
2	B	—

Connector No.	B23
Connector Name	JOINT CONNECTOR-B08
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	B	—
3	B	—
4	B	—

Connector No.	B21
Connector Name	JOINT CONNECTOR-B06
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	O	—
2	O	—
3	O	—
4	O	—
5	O	—

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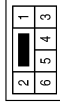
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STOP LAMP

< COMPONENT DIAGNOSIS >

Connector No.	B45
Connector Name	REAR COMBINATION LAMP RH
Connector Color	WHITE



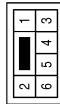
Terminal No.	Color of Wire	Signal Name
1	O	STOP_LAMP
5	B/R	GND (WITH REAR VIEW MONITOR)
5	B	GND (WITHOUT REAR VIEW MONITOR)

Connector No.	B37
Connector Name	HIGH MOUNTED STOP LAMP
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	O	STOP_LAMP
2	B	GND

Connector No.	B30
Connector Name	REAR COMBINATION LAMP LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	O	STOP_LAMP
5	B	GND

Connector No.	B401
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	O	—
2	B	—

Connector No.	B400
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	O	—
2	B	—

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BACK-UP LAMP

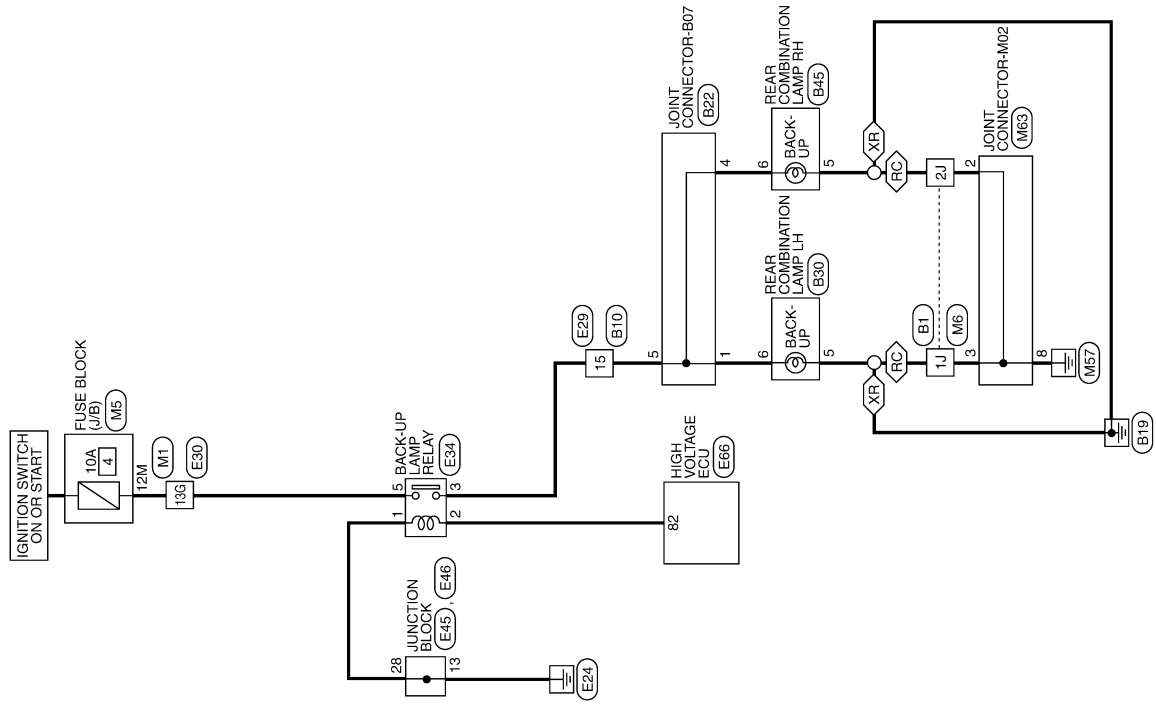
< COMPONENT DIAGNOSIS >

BACK-UP LAMP

Wiring Diagram

INFOID:000000001608296

RC : WITH REAR VIEW MONITOR
XR : WITHOUT REAR VIEW MONITOR



BACK-UP LAMP

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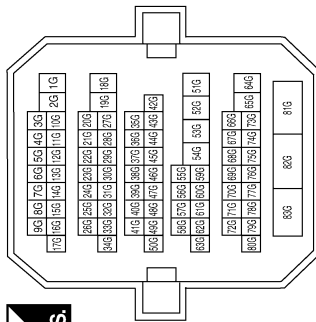
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BACK-UP LAMP

< COMPONENT DIAGNOSIS >

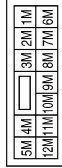
BACK-UP LAMP

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



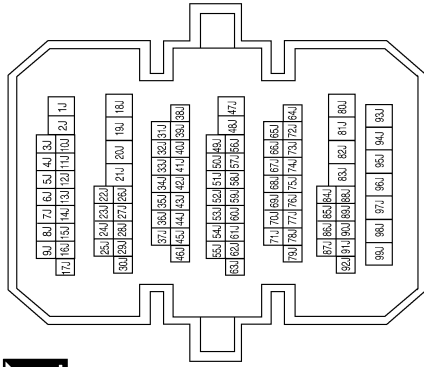
Terminal No.	13G	Color of Wire	O	Signal Name	—
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Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	12M	Color of Wire	P	Signal Name	—
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Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



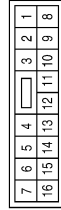
Terminal No.	1J	Color of Wire	B	Signal Name	—
	2J		B		—

Connector No.	M63
Connector Name	JOINT CONNECTOR-M02
Connector Color	BLUE



Terminal No.	2	Color of Wire	B	Signal Name	—
	3		B		—
	8		B		—

Connector No.	E29
Connector Name	WIRE TO WIRE
Connector Color	WHITE

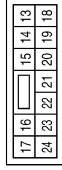


Terminal No.	15	Color of Wire	P/B	Signal Name	—
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BACK-UP LAMP

< COMPONENT DIAGNOSIS >

Connector No.	E45
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



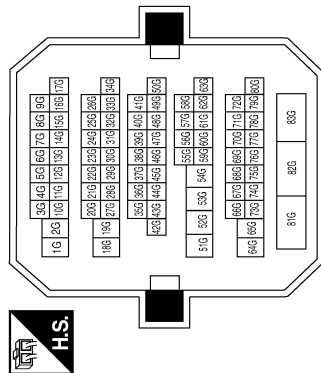
Terminal No.	Color of Wire	Signal Name
13	GR	—

Connector No.	E34
Connector Name	BACK-UP LAMP RELAY
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	O/B	—
2	Y	—
3	P/B	—
5	O	—

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13G	O	—

Connector No.	E46
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
28	O/B	—

Connector No.	E66
Connector Name	HIGH VOLTAGE ECU
Connector Color	BLACK



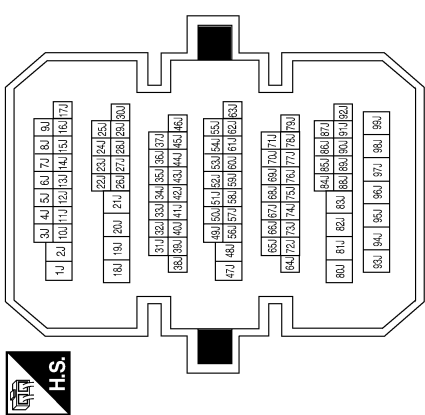
168	167	166	165	164	163	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61
174	173	172	171	170	169	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95
180	179	178	177	176	175	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
186	185	184	183	182	181	145	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129
						162	161	160	159	158	157	156	155	154	153	152	151	150	149	148	147	146

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BACK-UP LAMP

< COMPONENT DIAGNOSIS >

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



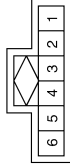
Terminal No.	Color of Wire	Signal Name
1J	B	—
2J	B/R	—

Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



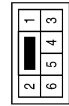
Terminal No.	Color of Wire	Signal Name
15	P/B	—

Connector No.	B22
Connector Name	JOINT CONNECTOR - B07
Connector Color	GRAY



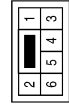
Terminal No.	Color of Wire	Signal Name
1	P/B	—
4	P/B	—
5	P/B	—

Connector No.	B30
Connector Name	REAR COMBINATION LAMP LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	B	GND
6	P/B	REV_LAMP

Connector No.	B45
Connector Name	REAR COMBINATION LAMP RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	B/R	GND (WITH REAR VIEW MONITOR)
5	B	GND (WITHOUT REAR VIEW MONITOR)
6	P/B	REV_LAMP

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Description

INFOID:000000001608297

REFERENCE VALUES FOR BCM

For BCM reference values, refer to [BCS-39, "Reference Value"](#).

TERMINAL LAYOUT FOR BCM

For the terminal layout for the BCM, refer to [BCS-43, "Terminal Layout"](#).

PHYSICAL VALUES FOR BCM

For physical values for the BCM, refer to [BCS-44, "Physical Values"](#).

WIRING DIAGRAM - BCM

For the BCM wiring diagram, refer to [BCS-62, "Wiring Diagram"](#).

FAIL SAFE - BCM

For BCM fail safe information, refer to [BCS-70, "Fail Safe"](#).

DTC INSPECTION PRIORITY CHART - BCM

For the BCM DTC inspection priority chart, refer to [BCS-72, "DTC Inspection Priority Chart"](#).

DTC INDEX - BCM

For the BCM DTC index, refer to [BCS-74, "DTC Index"](#).

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

< ECU DIAGNOSIS >

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

Description

INFOID:000000001608298

REFERENCE VALUES FOR IPDM E/R

For IPDM E/R reference values, refer to [PCS-19, "Reference Value"](#).

TERMINAL LAYOUT FOR IPDM E/R

For the terminal layout for the IPDM E/R, refer to [PCS-20, "Terminal Layout"](#).

PHYSICAL VALUES FOR IPDM E/R

For physical values for the IPDM E/R, refer to [PCS-20, "Physical Values"](#).

WIRING DIAGRAM - IPDM E/R

For the IPDM E/R wiring diagram, refer to [PCS-25, "Wiring Diagram"](#).

FAIL SAFE - IPDM E/R

For IPDM E/R fail safe information, refer to [PCS-30, "Fail Safe"](#).

DTC INSPECTION PRIORITY CHART - IPDM E/R

For the IPDM E/R DTC inspection priority chart, refer to

DTC INDEX - IPDM E/R

For the IPDM E/R DTC index, refer to [PCS-32, "DTC Index"](#).

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:000000001608299

CAUTION:

Perform the self-diagnosis with CONSULT-III before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom		Possible cause	Inspection item
Headlamp does not switch to the high beam.	One side	<ul style="list-style-type: none"> • Fuse • Harness between IPDM E/R and the front combination lamp • Front combination lamp (High beam relay) • IPDM E/R 	Headlamp (HI) circuit Refer to EXL-29 .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM" Refer to EXL-92 .	
High beam indicator lamp is not turned ON. (Headlamp switches to the high beam.)		<ul style="list-style-type: none"> • Combination meter • BCM 	<ul style="list-style-type: none"> • Combination meter. Data monitor "HI-BEAM IND" • BCM (HEAD LAMP) Active test "HEADLAMP"
Headlamp does not switch to the low beam.	One side	Front combination lamp (Low beam relay)	—
	Both sides	<ul style="list-style-type: none"> • Combination switch • Harness between the combination switch and BCM • BCM 	Combination switch Refer to BCS-37 .
		High beam request signal	IPDM E/R Data monitor "HL HI REQ"
		IPDM E/R	—
Headlamp does not turn ON.	One side	<ul style="list-style-type: none"> • Fuse • Bulb • Harness between IPDM E/R and the front combination lamp • Front combination lamp • IPDM E/R 	Headlamp (LO) circuit Refer to EXL-31 .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-93 , " Description ".	
Headlamp does not turn OFF.	When the ignition switch is turned ON	<ul style="list-style-type: none"> • BCM • Combination switch 	Combination switch Refer to BCS-37 , " Diagnosis Procedure ".
	The ignition switch is turned OFF (After activating the battery saver).	IPDM E/R	—
Headlamp is not turned ON/OFF with the lighting switch AUTO.	<ul style="list-style-type: none"> • Combination switch • Harness between the combination switch and BCM • BCM 		Combination switch Refer to BCS-37 .
	<ul style="list-style-type: none"> • Optical sensor • Harness between the optical sensor and BCM • BCM 		Optical sensor Refer to EXL-41 .

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

Symptom	Possible cause	Inspection item	
Daytime light system does not activate.	<ul style="list-style-type: none"> • Either high beam bulb • Parking brake switch • Combination switch • BCM • IPDM E/R • Daytime light relay • Harness between IPDM E/R and daytime light relay. 	Daytime light system description. Refer to EXL-9. "System Description" .	
Front fog lamp is not turned ON.	One side	<ul style="list-style-type: none"> • Front fog lamp bulb • Harness between IPDM E/R and the front combination lamp • Front combination lamp • IPDM E/R Front fog lamp circuit Refer to EXL-33 .	
	Both side	Symptom diagnosis "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to EXL-95 .	
Parking lamp is not turned ON.	One side	<ul style="list-style-type: none"> • Fuse • Parking lamp bulb • Harness between IPDM E/R and the front/rear combination lamp • Front/rear combination lamp • IPDM E/R Parking lamp circuit Refer to EXL-35 .	
	Both sides	Symptom diagnosis "PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-94 .	
Turn signal lamp does not blink.	Indicator lamp is normal. (The applicable side performs the high flasher activation).	<ul style="list-style-type: none"> • Harness between BCM and each turn signal lamp • Turn signal lamp bulb • Door mirror (if equipped with turn signals in the door mirrors) Turn signal lamp circuit Refer to EXL-38 .	
Turn signal indicator lamp does not blink.	One side	Combination meter	
	Both sides (Always)	<ul style="list-style-type: none"> • Turn signal indicator lamp signal • Combination meter • BCM 	<ul style="list-style-type: none"> • Combination meter. • Data monitor "TURN IND" • BCM (FLASHER) • Active test "FLASHER"
	Both sides (Does blink when activating the hazard warning lamp with the ignition switch OFF)	<ul style="list-style-type: none"> • The combination meter power supply and the ground circuit • Combination meter 	Combination meter Power supply and the ground circuit Refer to MWI-20. "COMBINATION METER : Diagnosis Procedure" .

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

INFOID:000000001608300

AUTO LIGHT SYSTEM

The auto light system may not turn the headlamp ON/OFF immediately after passing a dark area or a bright area (short tunnel, sky bridge, shadowed area etc.). This is normal.

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BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

< SYMPTOM DIAGNOSIS >

BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

Description

INFOID:000000001608301

The headlamps (both sides) do not switch to high beam when the lighting switch is in the HI or PASS setting.

Diagnosis Procedure

INFOID:000000001608302

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [EXL-92, "Diagnosis Procedure"](#).

Is the combination switch normal?

- YES >> GO TO 2
- NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

ⓑCONSULT-III DATA MONITOR

1. Select "HL HI REQ" of IPDM E/R DATA MONITOR item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL HI REQ	Lighting switch (2ND)	HI or PASS	ON
		Except for HI or PASS	OFF

Is the item status normal?

- YES >> GO TO 3
- NO >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to [EXL-29, "Description"](#).

Is the headlamp (HI) circuit normal?

- YES >> Replace IPDM E/R. Refer to [PCS-34, "Removal and Installation"](#).
- NO >> Repair or replace the malfunctioning part.

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description

INFOID:000000001608303

The headlamps (both sides) do not turn ON in any lighting switch setting.

Diagnosis Procedure

INFOID:000000001608304

1. CHECK COMBINATION SWITCH

Check the combination switch. Refer to [BCS-8, "System Description"](#).

Is the combination switch normal?

- YES >> GO TO 2
- NO >> Repair or replace the malfunctioning part.

2. CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT

Ⓜ CONSULT-III DATA MONITOR

1. Select "HL LO REQ" of IPDM E/R DATA MONITOR item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL LO REQ	Lighting switch	2ND	ON
		OFF	OFF

Is the item status normal?

- YES >> GO TO 3
- NO >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

3. HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to [EXL-31, "Description"](#).

Is the headlamp (LO) circuit normal?

- YES >> Replace IPDM E/R. Refer to [PCS-34, "Removal and Installation"](#).
- NO >> Repair or replace the malfunctioning part.

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EXL

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

Description

INFOID:000000001608305

The parking, license plate and tail lamps do not turn ON in with any lighting switch setting.

Diagnosis Procedure

INFOID:000000001608306

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-8, "System Description"](#).

Is the combination switch normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part.

2.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

ⓅCONSULT-III DATA MONITOR

1. Select "TAIL & CLR REQ" of IPDM E/R DATA MONITOR item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition	Monitor status	
TAIL & CLR REQ	Lighting switch	1ST	ON
		OFF	OFF

Is the item status normal?

YES >> GO TO 3

NO >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

3.PARK LAMP CIRCUIT INSPECTION

Check the parking lamp circuit. Refer to [EXL-35, "Description"](#).

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R. Refer to [PCS-34, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description

INFOID:000000001608307

The front fog lamps do not turn ON in any setting.

Diagnosis Procedure

INFOID:000000001608308

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-8, "System Description"](#).

Is the combination switch normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part.

2.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

 CONSULT-III DATA MONITOR

1. Select "FR FOG REQ" of IPDM E/R DATA MONITOR item.

2. With operating the front fog lamp switch, check the monitor status.

Monitor item	Condition	Monitor status	
FR FOG REQ	Front fog lamp switch (Lighting switch 2ND)	ON	ON
		OFF	OFF

Is the item status normal?

YES >> GO TO 3

NO >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

3.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to [EXL-33, "Description"](#).

Is the front fog lamp circuit normal?

YES >> Replace IPDM E/R. Refer to [PCS-34, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

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EXL

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000001608309

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.

Precautions For High-Voltage System

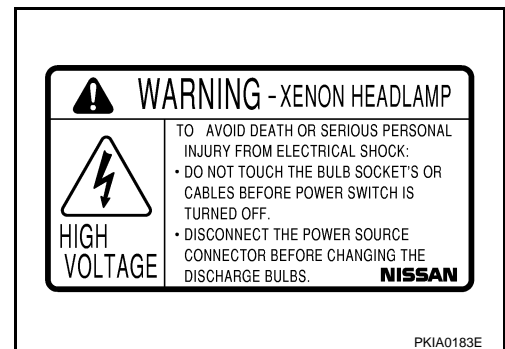
INFOID:000000001608310

Refer to [HBB-92. "Precautions For High-Voltage System"](#).

General precautions for service operations

INFOID:000000001608311

- Never work with wet hands.
- The xenon headlamp system includes a high voltage generating part. Be sure to disconnect battery negative cable (negative terminal) or power fuse before removing, installing, or touching the xenon headlamp (including lamp bulb).
- Turn the lighting switch OFF before disconnecting and connecting the connector.
- When turning the xenon headlamp on and while it is illuminated, never touch the harness, bulb, and socket of the headlamp.
- When checking the headlamp on/off operation, check it on vehicle and with the power connected to the vehicle-side connector.
- Do not touch the headlamp bulb glass surface with bare hands or allow oil or grease to get on it. Do not touch the headlamp bulb just after the headlamp is turned off, because it is very hot.
- Install the xenon headlamp bulb socket correctly. If it is installed improperly, high-voltage leak or corona discharge may occur that can melt the bulb, connector, and housing. Do not illuminate the xenon headlamp bulb out of the headlamp housing. Doing so can cause fire and harm your eyes.
- When the bulb has burned out, wrap it in a thick vinyl bag and discard. Do not break the bulb.
- Leaving the bulb removed from the headlamp housing for a long period of time can deteriorate the performance of the lens and reflector (dirt, clouding). Always prepare a new bulb and have it on hand when replacing the bulb.
- When adjusting the headlamp aiming, turn the aiming adjustment screw only in the tightening direction. (If it is necessary to loosen the screw, first fully loosen the screw, and then turn it in the tightening direction.)
- Do not use organic solvent (paint thinner or gasoline) to clean lamps and to remove old sealant.



HEADLAMP (HALOGEN TYPE)

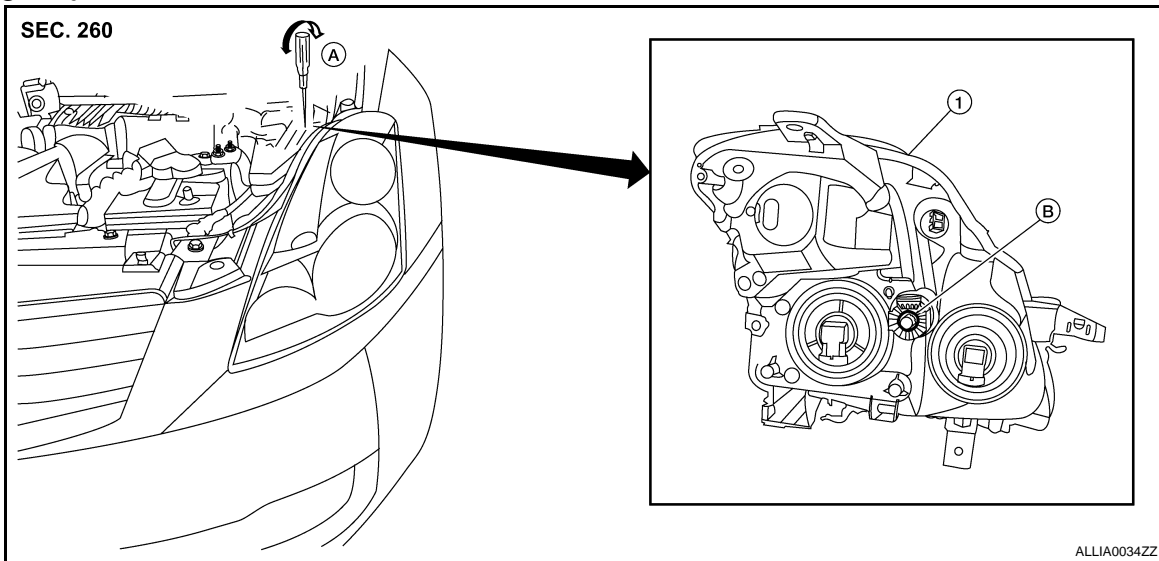
< ON-VEHICLE MAINTENANCE >

ON-VEHICLE MAINTENANCE

HEADLAMP (HALOGEN TYPE)

Aiming Adjustment

INFOID:000000001608312



For details, refer to the regulations in your area.

Headlamp Aiming

NOTE:

- If the vehicle front body has been repaired and/or the headlamp assembly has been replaced, check headlamp aiming.
- Before performing headlamp aiming adjustment, check the following:
 - Confirm which type of headlamp is in vehicle.
 - Ensure all tires are inflated to correct pressure.
 - Place vehicle and screen on level surface.
 - Ensure there is no load in vehicle other than the driver (or equivalent weight placed in driver's position).
 - Ensure engine coolant and engine oil are filled to correct level and fuel tank is full.
 - Confirm spare tire, jack and tools are properly stowed.

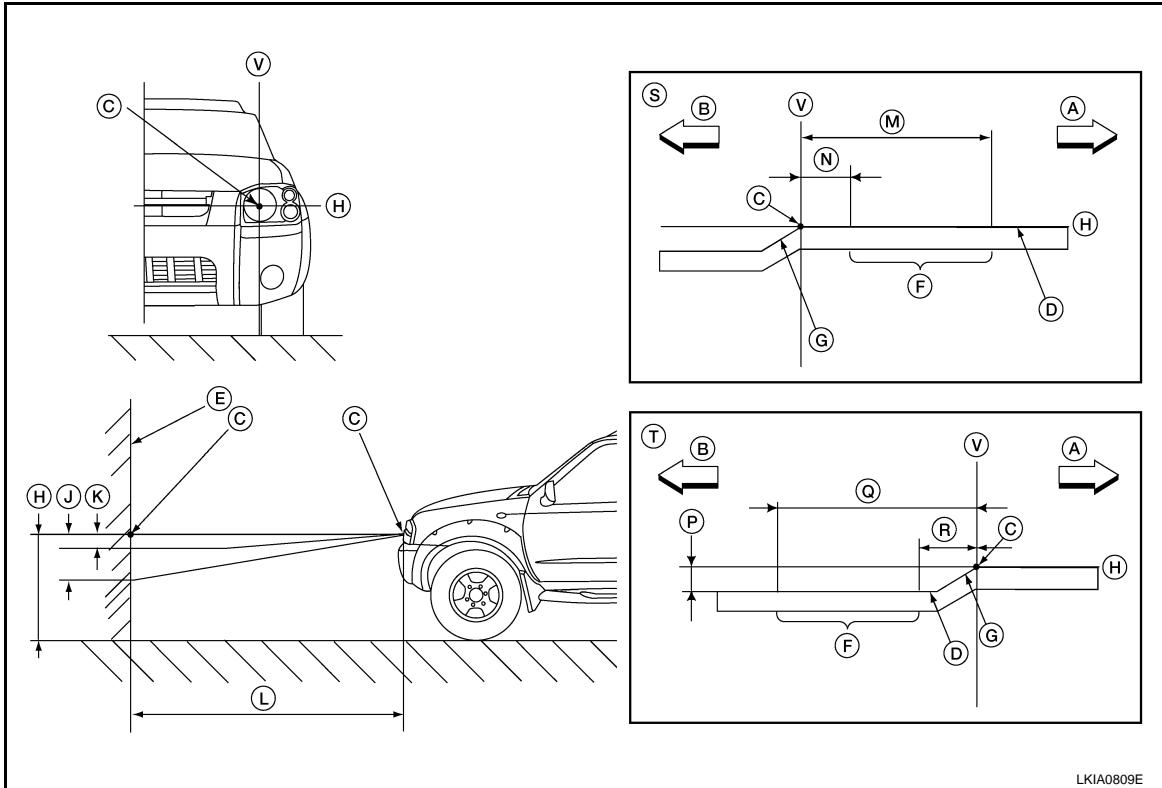
AIMING ADJUSTMENT

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EXL

HEADLAMP (HALOGEN TYPE)

< ON-VEHICLE MAINTENANCE >



LKIA0809E

- | | | |
|---|---------------------------------------|---|
| A. Right | B. Left | C. Center of headlamp bulb (H-V point) |
| D. Cutoff line | E. Screen | F. Aim evaluation segment |
| G. Step | H. Horizontal center line of headlamp | J. RH: 53.2 mm (2.09 in)
LH: 93.1 mm (3.67 in) |
| K. RH: -13.3 mm (-0.52 in)
LH: 13.3 mm (0.52 in) | L. 7.62 m (25 ft) | M. 399 mm (15.71 in) |
| N. 133 mm (5.24 in) | P. 53.2 mm (2.09 in) | Q. 466 mm (18.35 in) |
| R. 200 mm (7.87 in) | S. RH headlamp aiming screen | T. LH headlamp aiming screen |

- **Basic illuminating area for adjustment should be within the range shown on the aiming chart. Adjust headlamps accordingly.**
- **First loosen the adjusting screw all the way and then make adjustment by tightening the screw.**
 1. Turn headlamp low beam on.
 2. Use adjusting screws to perform aiming adjustment.

FRONT FOG LAMP

< ON-VEHICLE MAINTENANCE >

FRONT FOG LAMP

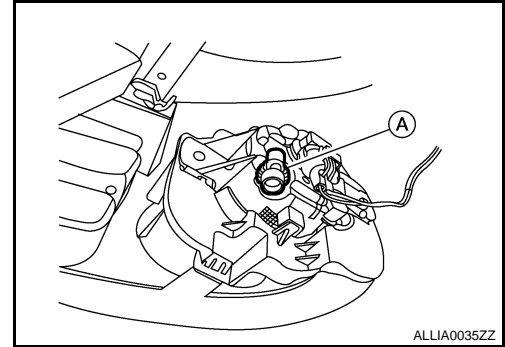
Aiming Adjustment

INFOID:000000001608313

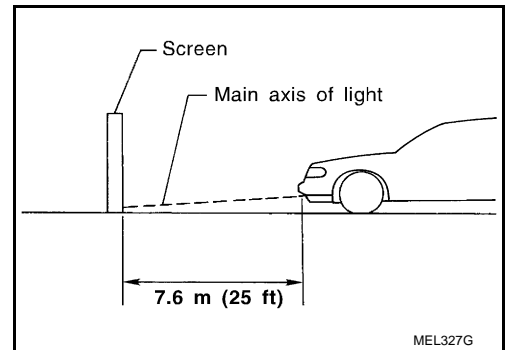
The fog lamp is a semi-sealed beam type which uses a replaceable halogen bulb. Before performing aiming adjustment, make sure of the following.

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

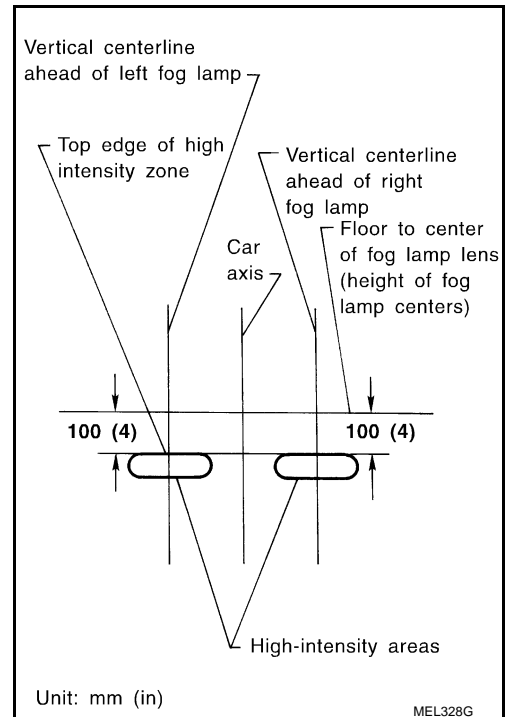
Adjust aiming in the vertical direction by turning the adjusting screw (A).



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



3. Adjust front fog lamps using adjusting screw so that the top edge of the high intensity zone is 100 mm (4 in) below the height of the fog lamp centers as shown.
- When performing adjustment, if necessary, cover the headlamps and opposite fog lamp.



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HEADLAMP (FOR USA)

< ON-VEHICLE REPAIR >

ON-VEHICLE REPAIR

HEADLAMP (FOR USA)

Bulb Replacement

INFOID:000000001608314

HEADLAMP

CAUTION:

Do not touch the glass of bulb directly by hand. Keep grease and other oily substances away from bulb. Do not touch bulb by hand while it is lit or right after being turned off, burning may result. Do not leave bulb out of fog lamp reflector for a long time, dust, moisture, and smoke may affect performance of fog lamp.

Removal

1. Disconnect 12-volt battery negative terminal.
2. Position the fender protector aside. Refer to [EXT-18. "Removal and Installation"](#).
3. Turn the headlamp bulb sockets counterclockwise to unlock and remove them.
4. Turn the high beam lamp bulb socket counterclockwise to unlock and remove it.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing a headlamp bulb, be sure to install the bulb socket securely to ensure watertightness.

FRONT TURN SIGNAL LAMP

Removal

1. Turn the bulb socket counterclockwise to unlock it.
2. Pull the bulb to remove it.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing a headlamp bulb, be sure to install the bulb socket securely to ensure watertightness.

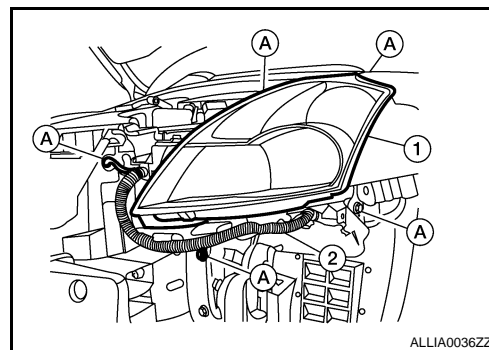
Removal and Installation

INFOID:000000001608315

COMBINATION LAMP

Removal

1. Disconnect 12-volt battery negative terminal.
2. Remove the front bumper fascia. Refer to [EXT-12. "Removal and Installation"](#).
3. Ensure lighting switch is OFF.
4. Remove the headlamp bolts (A).
5. Pull the headlamp assembly (1) toward the front of the vehicle, detach the headlamp harness (2) from the headlamp assembly (1), disconnect the bulb connectors and remove.



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Installation

Installation is in the reverse order of removal.

NOTE:

Confirm headlamp aiming adjustment. Refer to [EXL-97. "Aiming Adjustment"](#).

HEADLAMP (FOR USA)

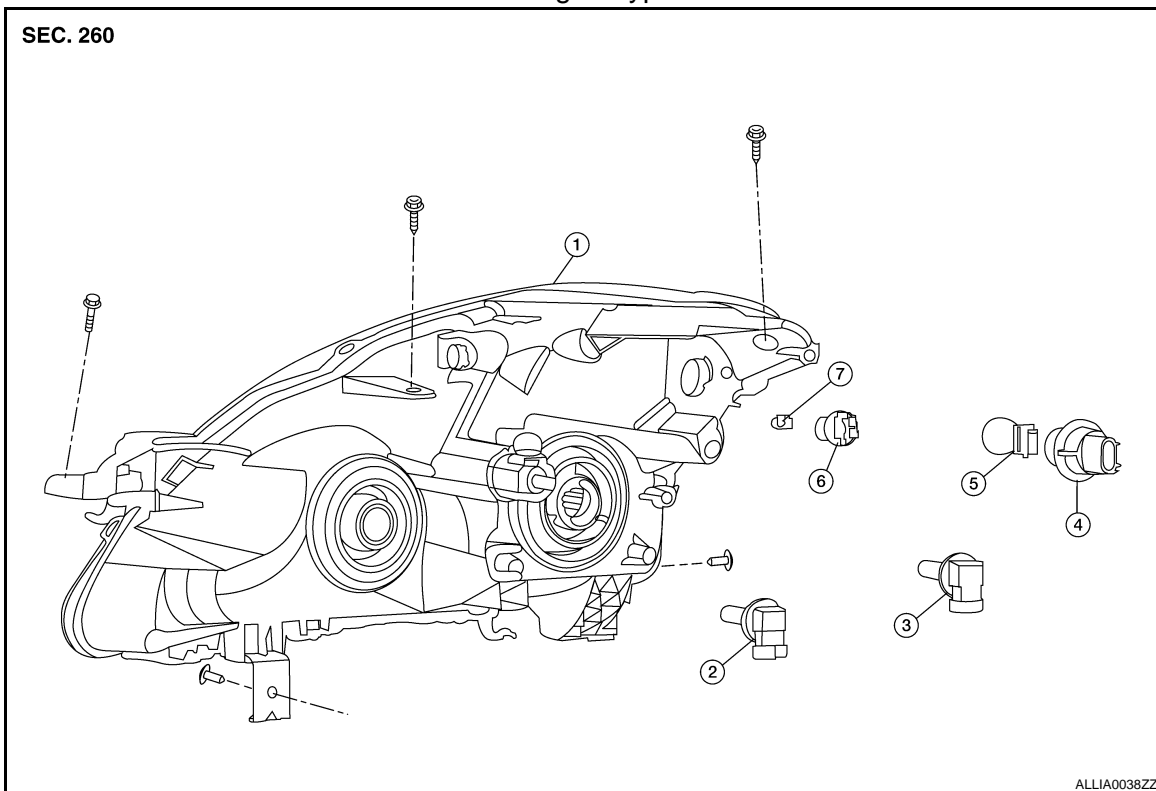
< ON-VEHICLE REPAIR >

Disassembly and Assembly

INFOID:000000001608316

COMBINATION LAMP

Halogen Type



- | | | |
|---------------------------------------|----------------------------------|--------------------------------------|
| 1. Headlamp assembly | 2. Halogen lamp bulb (high beam) | 3. Halogen lamp bulb (low beam) |
| 4. Front turn signal lamp bulb socket | 5. Front turn signal lamp bulb | 6. Park/side marker lamp bulb socket |
| 7. Park/side marker lamp bulb | | |

Disassembly

CAUTION:

- Do not touch the glass of the bulb directly by hand. Keep grease and other oily substances away from bulb. Do not touch bulb while it is lit or right after being turned off, burning may result.
- Do not leave bulb out of fog lamp reflector for a long time, dust, moisture, and smoke may affect performance of fog lamp.

1. Turn the halogen lamp bulb (low beam) counterclockwise to unlock and remove it.
2. Turn the halogen lamp bulb (high beam) socket counterclockwise to unlock and remove it.
3. Turn the front turn signal lamp bulb socket counterclockwise to unlock and remove it.
4. Pull the front turn signal lamp bulb from its socket.
5. Turn the park/side marker lamp bulb socket counterclockwise to unlock and remove it.
6. Pull the park/side marker lamp bulb from its socket.

Assembly

Assembly is in the reverse order of disassembly.

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

< ON-VEHICLE REPAIR >

HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -

Bulb Replacement

INFOID:000000001608317

Refer to [EXL-100, "Bulb Replacement"](#).

Disassembly and Assembly

INFOID:000000001608318

Refer to [EXL-101, "Disassembly and Assembly"](#).

FRONT FOG LAMP

< ON-VEHICLE REPAIR >

FRONT FOG LAMP

Bulb Replacement

INFOID:000000001608319

REMOVAL

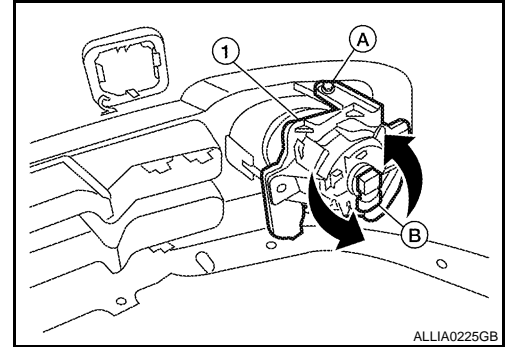
The fog lamp is a semi-sealed beam type which uses a replaceable halogen bulb.

CAUTION:

- Do not touch the glass of bulb directly by hand. Keep grease and other oily substances away from it. Do not touch bulb by hand while it is lit or right after being turned off. Burning may result.
- Do not leave bulb out of fog lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of fog lamp. When replacing bulb, be sure to replace it with new one.

1. Position the front fender protector aside. Refer to [EXT-18, "Removal and Installation"](#).
2. Disconnect the fog lamp electrical connector.
3. Turn the fog lamp bulb (B) counterclockwise to remove it.

- Fog lamp assembly (1)
- Fog lamp bolt (A)



INSTALLATION

Installation is in the reverse order of removal.

Removal and Installation

INFOID:000000001608320

REMOVAL

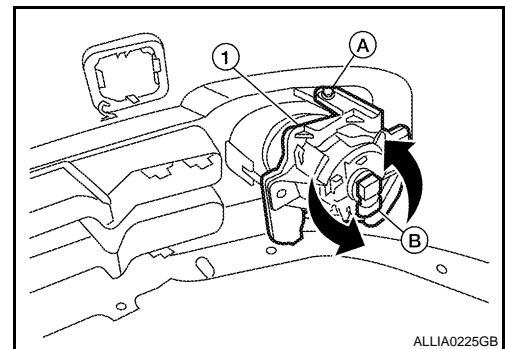
The fog lamp is a semi-sealed beam type which uses a replaceable halogen bulb.

CAUTION:

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

1. Remove inner splash shield.
2. Position the fender protector aside. Refer to [EXT-18, "Removal and Installation"](#).
3. Disconnect the fog lamp electrical connector.
4. Remove bolt (A) from top of the fog lamp (1).
5. Remove the fog lamp (1).

- Fog lamp bulb (B)



INSTALLATION

Installation is in the reverse order of removal.

Check fog lamp aiming adjustment. Refer to [EXL-99, "Aiming Adjustment"](#).

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EXL

TURN SIGNAL AND HAZARD WARNING LAMPS

< ON-VEHICLE REPAIR >

TURN SIGNAL AND HAZARD WARNING LAMPS

Bulb Replacement

INFOID:000000001608321

FRONT TURN SIGNAL LAMP

Refer to [EXL-104, "Bulb Replacement"](#).

REAR TURN SIGNAL LAMP

Refer to [EXL-110, "Removal and Installation"](#).

Removal and Installation

INFOID:000000001608322

FRONT TURN SIGNAL LAMP

Refer to [EXL-104, "Bulb Replacement"](#).

REAR TURN SIGNAL LAMP

Refer to [EXL-110, "Removal and Installation"](#).

STOP LAMP

< ON-VEHICLE REPAIR >

STOP LAMP

Bulb Replacement

INFOID:000000001608323

HIGH MOUNTED STOP LAMP

With Rear Air Spoiler

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

Without Rear Air Spoiler

1. Remove high-mounted stop lamp assembly. Refer to [EXL-105, "Removal and Installation"](#).
2. Turn bulb socket counterclockwise to unlock and remove from lamp assembly.
3. Pull bulb from socket to remove.
4. Installation is in the reverse order of removal.

STOP LAMP

Removal

1. Remove rear combination lamp. Refer to [EXL-105, "Removal and Installation"](#).
2. Turn bulb socket counterclockwise to unlock and remove from combination lamp assembly.
3. Turn bulb counterclockwise to remove from bulb socket.

Installation

Installation is in the reverse order of removal.

Removal and Installation

INFOID:000000001608324

HIGH-MOUNTED STOP LAMP - WITH REAR SPOILER

Removal

1. Remove the rear air spoiler. Refer to [EXL-105, "Removal and Installation"](#).
2. Remove the two screws and remove high mounted stop lamp from the rear air spoiler.

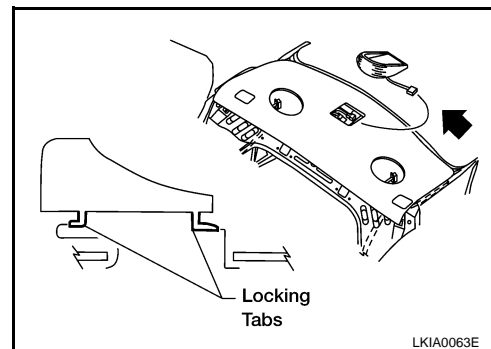
Installation

Installation is in the reverse order of removal.

HIGH-MOUNTED STOP LAMP - WITHOUT REAR AIR SPOILER

Removal

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



Installation

Installation is in the reverse order of removal.

REAR COMBINATION LAMP

Removal

1. Remove the trunk side finisher. Refer to [INT-22, "Removal and Installation"](#).
2. From trunk, remove the rear combination lamp assembly nuts.

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STOP LAMP

< ON-VEHICLE REPAIR >

3. Disconnect connectors and remove rear combination lamp assembly.

Installation

Installation is in the reverse order of removal.

BACK-UP LAMP

< ON-VEHICLE REPAIR >

BACK-UP LAMP

Bulb Replacement

INFOID:000000001608325

Removal

1. Remove rear combination lamp. Refer to [EXL-110, "Removal and Installation"](#).
2. Turn back-up bulb socket counterclockwise to unlock and remove.
3. Pull back-up bulb from socket to remove.

Installation

Installation is in the reverse order of removal.

Removal and Installation

INFOID:000000001608326

Refer to [EXL-107, "Removal and Installation"](#).

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PARKING, LICENSE PLATE AND TAIL LAMPS

< ON-VEHICLE REPAIR >

PARKING, LICENSE PLATE AND TAIL LAMPS

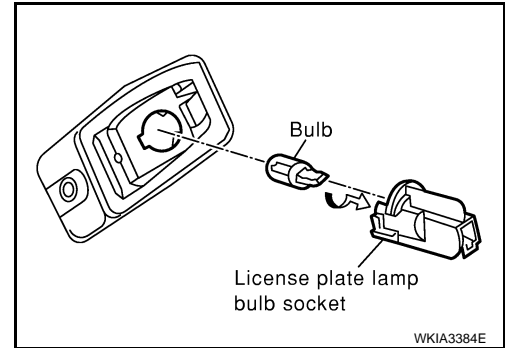
Bulb Replacement

INFOID:000000001608327

LICENSE PLATE LAMP

Removal

1. Position trunk lid finisher aside.
2. Turn license plate lamp bulb socket counterclockwise to unlock and remove.
3. Pull license plate lamp bulb to remove from socket.



Installation

Installation is in the reverse order of removal.

FRONT TURN SIGNAL (PARKING) LAMP

For bulb replacement, refer to [EXL-104, "Removal and Installation"](#).

TAIL LAMP

Removal

1. Remove rear combination lamp. Refer to [EXL-110, "Removal and Installation"](#).
2. Turn stop/tail lamp bulb socket counterclockwise to unlock and remove.
3. Pull stop/tail lamp bulb to remove from socket.

Installation

Installation is in the reverse order of removal.

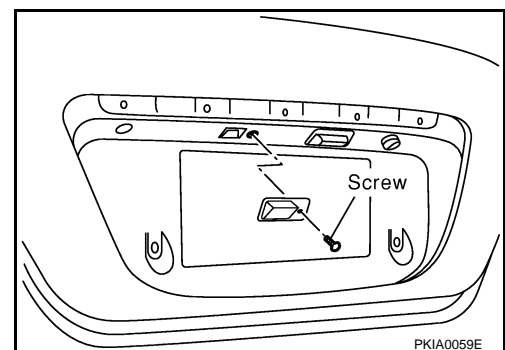
Removal and Installation

INFOID:000000001608328

LICENSE PLATE LAMP

Removal

1. Remove the license plate finisher. Refer to [EXL-108, "Removal and Installation"](#).
2. Disconnect the license plate lamp connector.
3. Remove the license plate lamp screw and remove the license plate lamp.



Installation

Installation is in the reverse order of removal.

FRONT TURN SIGNAL (PARKING) LAMP

For front turn signal (parking) lamp removal and installation procedures, refer to [EXL-104, "Removal and Installation"](#).

PARKING, LICENSE PLATE AND TAIL LAMPS

< ON-VEHICLE REPAIR >

REAR COMBINATION LAMP

For rear combination lamp removal and installation procedures, refer to [EXL-110. "Removal and Installation"](#).

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REAR COMBINATION LAMP

< ON-VEHICLE REPAIR >

REAR COMBINATION LAMP

Bulb Replacement

INFOID:000000001608329

REAR TURN SIGNAL LAMP

1. Remove the rear combination lamp. Refer to [EXL-110, "Removal and Installation"](#).
2. Turn the rear turn signal lamp bulb socket counterclockwise and remove it.
3. Remove the rear turn signal lamp bulb.
4. Installation is in the reverse order of removal.

STOP/TAIL LAMP

1. Remove the rear combination lamp. Refer to [EXL-110, "Removal and Installation"](#).
2. Turn the stop/tail lamp bulb socket counterclockwise and remove it.
3. Remove the stop/tail lamp bulb.
4. Installation is in the reverse order of removal.

BACK-UP LAMP

1. Remove the rear combination lamp. Refer to [EXL-110, "Removal and Installation"](#).
2. Turn the back-up lamp bulb socket counterclockwise and remove it.
3. Remove the back-up lamp bulb.
4. Installation is in the reverse order of removal.

SIDE MARKER LAMP

1. Remove the rear combination lamp. Refer to [EXL-110, "Removal and Installation"](#).
2. Turn the side marker lamp bulb socket counterclockwise and remove it.
3. Remove the side marker lamp bulb.
4. Installation is in the reverse order of removal.

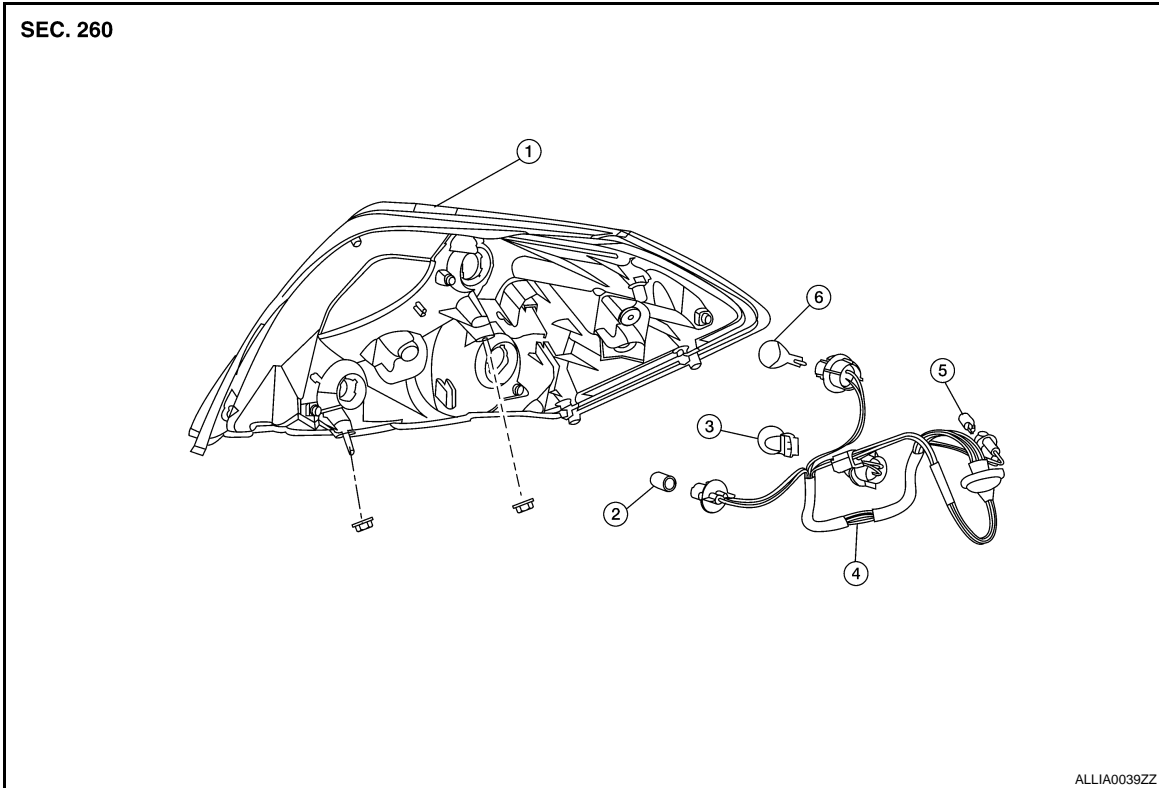
Removal and Installation

INFOID:000000001608330

COMPONENTS

REAR COMBINATION LAMP

< ON-VEHICLE REPAIR >



- | | | |
|-----------------------------------|--------------------------|-------------------------------|
| 1. Rear combination lamp assembly | 2. Back-up lamp bulb | 3. Stop/Tail lamp bulb |
| 4. Rear combination lamp harness | 5. Side marker lamp bulb | 6. Rear turn signal lamp bulb |

REMOVAL

1. Remove trunk side finisher. Refer to [INT-22. "Removal and Installation"](#).
2. Remove the rear combination lamp nuts.
3. Pull the rear combination lamp assembly toward rear of the vehicle and remove.

INSTALLATION

Installation is the reverse order of removal.

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LIGHTING AND TURN SIGNAL SWITCH

< ON-VEHICLE REPAIR >

LIGHTING AND TURN SIGNAL SWITCH

Removal and Installation

INFOID:000000001608331

Removal

1. Remove the spiral cable. Refer to [SRS-6. "Removal and Installation"](#).
2. Disconnect the lighting and turn signal switch connector and remove the lighting and turn signal switch.

Installation

Installation is in the reverse order of removal.

Switch Circuit Inspection

INFOID:000000001608332

Refer to [EXL-114. "Switch Circuit Inspection"](#).

HAZARD SWITCH

< ON-VEHICLE REPAIR >

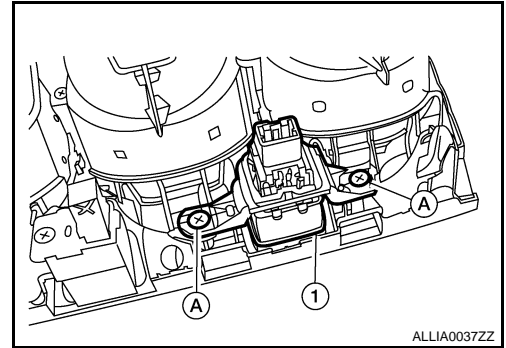
HAZARD SWITCH

Removal and Installation

INFOID:000000001608333

Removal

1. Remove the center ventilator grilles. Refer to [VTL-24. "CENTER VENTILATOR GRILLES : Removal and Installation"](#).
2. Remove CVT finisher. Refer to [IP-11. "Removal and Installation"](#).
3. Remove the hazard switch screws (A) and remove the hazard switch (1).



Installation

Installation is in the reverse order of removal.

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EXL

COMBINATION SWITCH

< ON-VEHICLE REPAIR >

COMBINATION SWITCH

Removal and Installation

INFOID:000000001608334

For details, refer to [EXL-112, "Removal and Installation"](#).

Switch Circuit Inspection

INFOID:000000001608335

For details, refer to [EXL-114, "Switch Circuit Inspection"](#).

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Headlamp

INFOID:000000001608336

Item	Wattage (W)*
Low	55 (H1)
High	60W (HB3)

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

Exterior Lamp

INFOID:000000001608337

Item	Wattage (W)*	
Front combination lamp	Turn signal lamp lamp	27 (amber)
	Park/side marker lamp	8
Rear combination lamp	Stop/Tail lamp	27/8
	Turn signal lamp	27
	Back-up lamp	13
	Side marker lamp	5
Fog lamp	55 (H11)	
License plate lamp	5	
High-mounted stop lamp (parcel shelf mount)	18	
High-mounted stop lamp (rear air spoiler mount)	LED	

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

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