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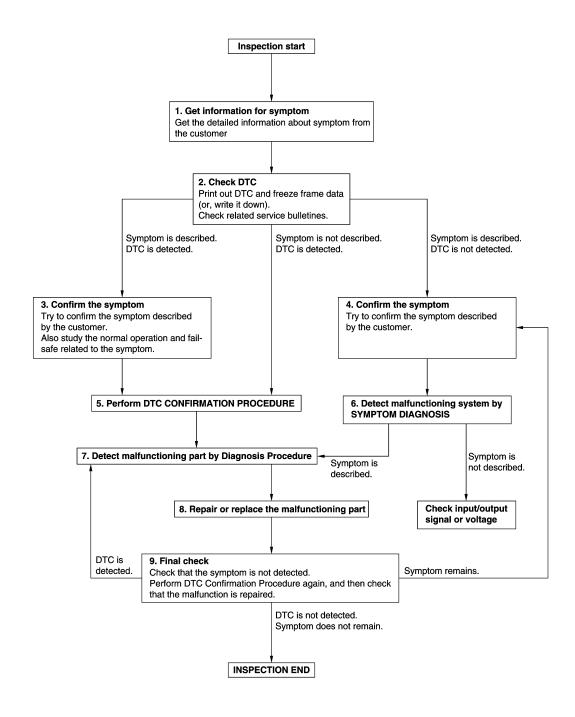
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# **BASIC INSPECTION**

## DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

**OVERALL SEQUENCE** 



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### DIAGNOSIS AND REPAIR WORK FLOW

[LED HEADLAMP] < BASIC INSPECTION >

# 1.GET INFORMATION FOR SYMPTOM

- 1 Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
- Check operation condition of the function that is malfunctioning.

>> GO TO 2.

# 2. CHECK DTC

- 1. Check DTC.
- 2. Perform the following procedure if DTC is detected.
- Record DTC and freeze frame data (Print them out using CONSULT.)
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
- Check related service bulletins for information.

### Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.

Symptom is described, DTC is not detected>>GO TO 4.

Symptom is not described, DTC is detected>>GO TO 5.

### ${f 3.}$ CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

Also study the normal operation and fail-safe related to the symptom.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

### f 4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

### 5. PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time. If two or more DTCs are detected, refer to DTC INSPECTION PRIORITY CHART, and determine trouble diagnosis order.

#### NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during

If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIR-MATION PROCEDURE.

#### Is DTC detected?

YES >> GO TO 7.

NO >> Check according to GI-39, "Intermittent Incident".

## $\mathsf{6}.$ DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

#### Is the symptom described?

YES >> GO TO 7.

NO >> Monitor input data from related sensors or check voltage of related module terminals using CON-

### .DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

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### DIAGNOSIS AND REPAIR WORK FLOW

### < BASIC INSPECTION > [LED HEADLAMP]

Inspect according to Diagnosis Procedure of the system.

### Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to GI-39, "Intermittent Incident".

# 8.repair or replace the malfunctioning part

- 1. Repair or replace the malfunctioning part.
- Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replacement.
- 3. Check DTC. If DTC is detected, erase it.

>> GO TO 9.

# 9. FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.

When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

#### Is DTC detected and does symptom remain?

YES-1 >> DTC is detected: GO TO 7.

YES-2 >> Symptom remains: GO TO 4.

NO >> Before returning the vehicle to the customer, always erase DTC.

### LED HEADLAMP OPERATION INSPECTION

[LED HEADLAMP] < BASIC INSPECTION >

# LED HEADLAMP OPERATION INSPECTION

Work Procedure INFOID:0000000011489856

# 1. CHECK START

- In the cool LED status (wait for more than 10 minutes after turning headlamp OFF), turn ON and turn OFF headlamp for the several times. Check that headlamp operates normally each time.
- In the cool LED status, turn headlamp ON, wait until headlamp enters to the stable status (approximately 5 minutes after turning headlamp ON), and then check that headlamp operates normally without blinking or flickering.
- 3. In the warm LED status (turn headlamp ON for more than 15 minutes and wait for 1 minute after turning OFF), turn ON and turn OFF headlamp for the several times. Check that headlamp operates normally
- 4. Turn headlamp ON for approximately 30 minutes, and then check that headlamp operates normally without difference in brightness between LH and RH, blinking or flickering.

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to EXL-159, "Symptom Table".

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EXL-7 Revision: 2015 June GT-R

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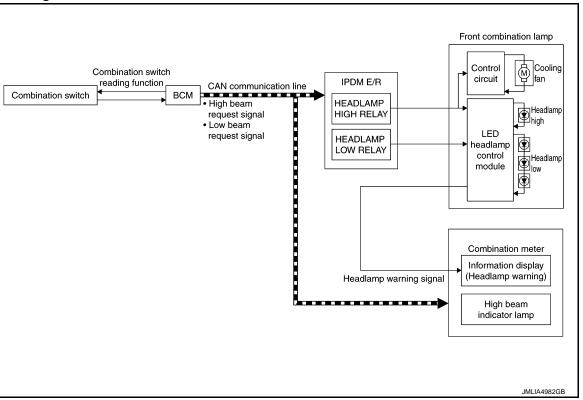
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# SYSTEM DESCRIPTION

### **HEADLAMP SYSTEM**

System Diagram

INFOID:0000000011489857



# System Description

INFOID:0000000011489858

#### OUTLINE

Headlamp is controlled by combination switch reading function and headlamp control function of BCM, and relay control function of IPDM E/R.

#### **HEADLAMP (LO) OPERATION**

- BCM detects the combination switch condition with the combination switch reading function.
- BCM transmits the low beam request signal to IPDM E/R with CAN communication according to the headlamp (LO) ON condition.

Headlamp (LO) ON condition (When any of the following conditions are satisfied)

- Lighting switch 2ND
- Lighting switch AUTO with the ignition switch ON (auto light function ON judgment)
- Lighting switch PASS
- IPDM E/R turns the integrated headlamp low relay ON according to low beam request signal and supplies power supply to LED headlamp control module.
- LED headlamp control module turns the headlamp (LO) ON according to the power supply from IPDM E/R.

#### **HEADLAMP (HI) OPERATION**

 BCM transmits the high beam request signal to IPDM E/R and the combination meter with CAN communication according to the headlamp (HI) ON condition.

Headlamp (HI) ON condition (When any of the following conditions are satisfied)

- Lighting switch HI with the lighting switch 2ND
- Lighting switch HI with the lighting switch AUTO and ignition switch ON (auto light function ON judgment)
- Lighting switch PASS
- Combination meter turns the high beam indicator lamp ON according to the high beam request signal.

#### **HEADLAMP SYSTEM**

### < SYSTEM DESCRIPTION >

[LED HEADLAMP]

- IPDM E/R turns the integrated headlamp high relay ON and supplies a power source to the LED headlamp control module and control circuit in the front combination lamp, according to high beam request signal.
- LED headlamp control module turns the headlamp (HI) ON according to the power supply from IPDM E/R.
- When the power source is supplied by the control circuit in the front combination lamp, the voltage is converted to 5 V, and then the cooling fan assembled with the headlamp (HI) operates to cool the headlamp.

#### HEADLAMP WARNING OPERATION

- BCM transmits the low beam request signal to combination meter with CAN communication when headlamp (LO) ON judgment.
- · When LED headlamp control module detects a malfunction of headlamp (LO) circuit, headlamp warning signal is output to combination meter.
- When the ignition switch is ON and the low beam request signal is received, if the headlamp warning signal is input, the headlamp warning is displayed on the information display. NOTE:

When the headlamp warning signal is received, the most likely cause is a malfunction of the following.

- Headlamp (LO) power supply/ground circuit
- Headlamp warning signal circuit
- Front combination lamp internal circuit
- LED (Headlamp low)
- LED headlamp control module
- Harness

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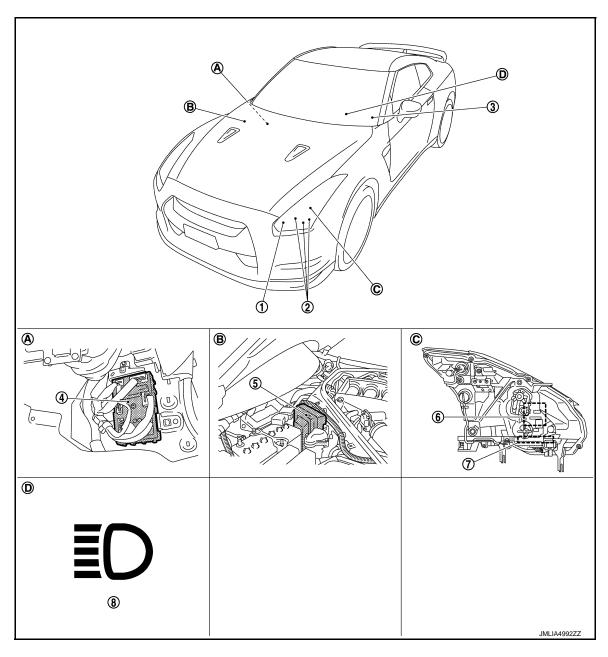
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EXL-9 Revision: 2015 June GT-R

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# **Component Parts Location**

INFOID:0000000011489859



- 1. Headlamp high
- 4. BCM
- 7. LED headlamp control module
- A. Dash side lower (passenger side)
- D. On the combination meter
- 2. Headlamp low
- 5. IPDM E/R
- 8. High beam indicator lamp
- B. Engine room dash panel (RH)
- 3. Combination switch
- 6. Cooling fan
- C. Front combination lamp (back)

### **HEADLAMP SYSTEM**

## < SYSTEM DESCRIPTION >

[LED HEADLAMP]

# Component Description

INFOID:0000000011489860

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	Part	Description
BCM		<ul> <li>Detects each switch condition by the combination switch reading function.</li> <li>Judges that the headlamp is turned ON according to the vehicle condition.</li> <li>Requests the headlamp relay (High/Low) ON to IPDM E/R (with CAN communication).</li> <li>Requests the high beam indicator lamp ON to the combination meter (with CAN communication).</li> </ul>
IPDM E/R		Controls the integrated relay, and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination meter (High beam indicate	or lamp)	<ul> <li>Turns the high beam indicator lamp ON according to the request from BCM (with CAN communication).</li> <li>Inputs headlamp warning signal from LED headlamp control module and turns headlamp warning ON.</li> </ul>
Combination switch (Lighting & turn sign		Refer to BCS-9. "System Description".
	LED headlamp	Refer to EXL-43, "Description".
Front combination	Cooling fan	Cool the LED headlamp by operating when the headlamp high ON.
lamp	LED headlamp control module	Refer to EXL-43, "Description".

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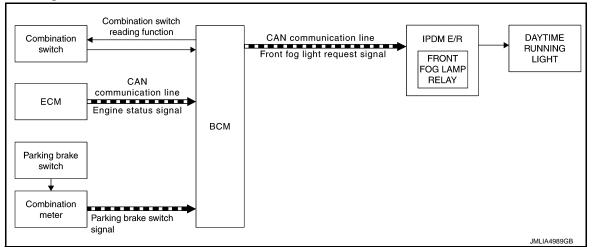
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[LED HEADLAMP]

### DAYTIME RUNNING LIGHT SYSTEM

### System Diagram

INFOID:0000000011489861



## System Description

INFOID:0000000011489862

#### **OUTLINE**

Daytime running light is controlled by daytime running light control function and combination switch reading function of BCM, and relay control function of IPDM E/R.

#### DAYTIME RUNNING LIGHT OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM detects the engine condition by the engine status signal received from ECM with CAN communication.
- BCM detects the parking brake condition by the parking brake switch signal received from combination meter with CAN communication.
- BCM transmits the front fog light request signal to IPDM E/R with CAN communication according to the daytime running light ON condition.

#### Daytime running light ON condition

- Engine running with the parking brake released, and any of the following conditions are satisfied
- Lighting switch OFF
- Lighting switch AUTO, and the auto light function OFF judgement
- IPDM E/R turns the integrated front fog lamp relay ON, and turns the daytime running light ON according to the front fog light request signal.

# **Component Parts Location**

INFOID:0000000011489863

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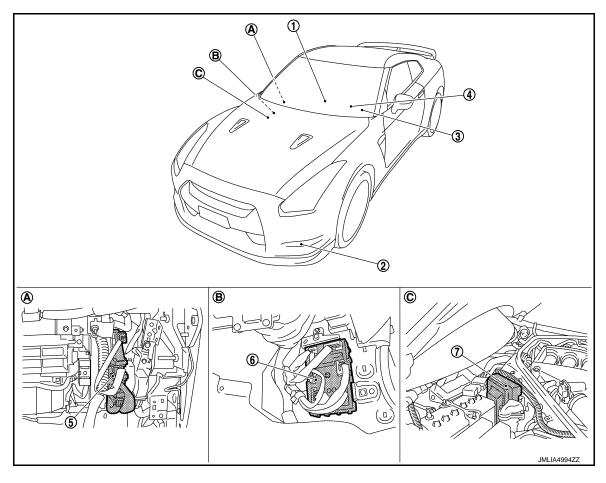
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- 1. Parking brake switch
- 4. Combination meter
- 7. IPDM E/R
- A. Over the glove box
- 2. Daytime running light
- 5. ECM
- B. Dash side lower (passenger side)
- 3. Combination switch
- BCM
- C. Engine room dash panel (RH)

# Component Description

INFOID:0000000011489864

Part	Description
BCM	<ul> <li>Detects each switch condition with the combination switch reading function.</li> <li>Judges that the daytime running light is turned ON according to the vehicle condition.</li> <li>Requests the front fog lamp relay ON to IPDM E/R (with CAN communication).</li> </ul>
IPDM E/R	Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication).
ECM	Transmits the engine status signal to BCM (with CAN communication).
Combination meter	Transmits the parking brake switch signal to BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-9, "System Description".

Revision: 2015 June EXL-13 GT-R

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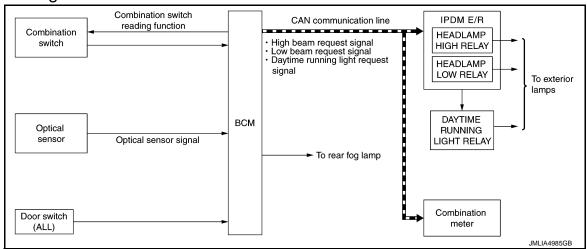
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### **AUTO LIGHT SYSTEM**

### System Diagram

INFOID:0000000011489865



#### NOTE:

Rear fog lamp is not used.

### System Description

INFOID:0000000011489866

#### OUTLINE

Auto light system is controlled by each function of BCM and IPDM E/R.

#### Control by BCM

- Combination switch reading function
- Auto light function
- Delay timer function

#### Control by IPDM E/R

- Relay control function
- Auto light function automatically turns ON/OFF the exterior lamps\*, depending on the outside brightness.
- Headlamp (LO/HI), parking lamp, license plate lamp, side marker lamp and tail lamp.

#### NOTE:

Headlamp (HI) depend on the combination switch condition.

### **AUTO LIGHT FUNCTION**

#### Description

- BCM detects the combination switch condition with the combination switch reading function.
- BCM supplies voltage to the optical sensor when the ignition switch is turned ON.
- Optical sensor converts outside brightness (lux) to voltage and transmits the optical sensor signal to BCM.
- When ignition switch is turned ON, BCM detects outside brightness from the optical sensor signal and judges ON/OFF condition of each exterior lamp, depending on the outside brightness condition.
- BCM transmits each request signal to IPDM E/R and combination meter via CAN communication, according to ON/OFF condition by the auto light function.

#### NOTE:

As to ON/OFF timing, the sensitivity depends on settings. The settings can be changed using CONSULT. Refer to EXL-28, "HEADLAMP: CONSULT Function (BCM - HEAD LAMP)".

### **DELAY TIMER FUNCTION**

- BCM turns the headlamp (LO) OFF depending on the vehicle condition with the auto light function when the ignition switch is turned OFF.
- Turns the headlamp (LO) OFF 5 minutes after the ignition switch is turned OFF.
- Turns the headlamp (LO) OFF 5 minutes after detecting that any door opens. (Door switch ON).
- Turns the headlamp (LO) OFF a certain period of time\* after closing all doors. (Door switch ON  $\rightarrow$  OFF).
- Delay timer function turns OFF, when the ignition switch is other than OFF or the lighting switch is other than AUTO.
- \*: The preset time is 45 seconds. The timer operating time can be set by CONSULT. Refer to <a href="EXL-28">EXL-28</a>, "HEAD-LAMP: CONSULT Function (BCM HEAD LAMP)".

#### NOTE:

When any position other than the lighting switch AUTO is set, the auto light system function switches to the exterior lamp battery saver function.

## **Component Parts Location**

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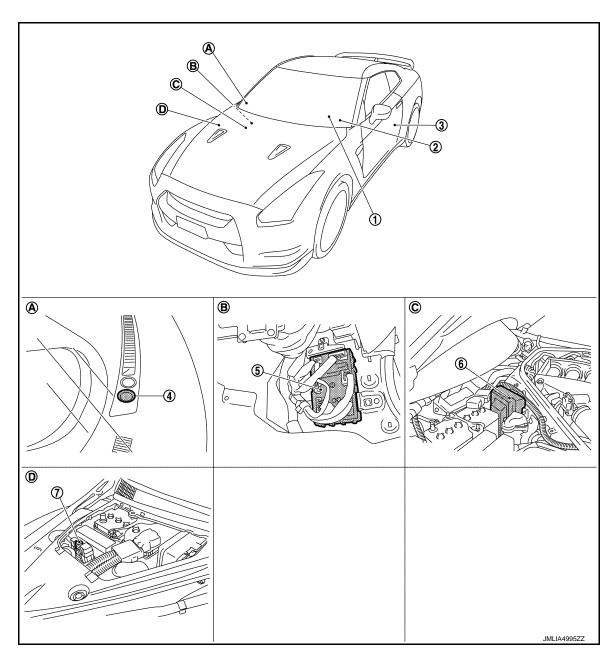
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- 1. Combination meter
- 4. Optical sensor
- 7. Daytime running light relay
- A. Instrument upper panel (RH)
- D. Engine room dash panel (RH)
- 2. Combination switch
- 5. BCM
- B. Dash side lower (passenger side)
- 3. Door switch
- 6. IPDM E/R
- C. Engine room dash panel (RH)

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### **AUTO LIGHT SYSTEM**

## < SYSTEM DESCRIPTION >

[LED HEADLAMP]

# Component Description

INFOID:0000000011489868

Part	Description
BCM	<ul> <li>Detects each switch condition by the combination switch reading function.</li> <li>Judges the outside brightness from the optical sensor signal.</li> <li>Judges the ON/OFF status of the exterior lamp according to the outside brightness and the vehicle condition.</li> <li>Requests ON/OFF of each relay to IPDM E/R (with CAN communication).</li> </ul>
IPDM E/R	Controls the integrated relay and daytime running light relay, and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-9, "System Description".
Door switch	Detects door open/close condition.
Optical sensor	Refer to EXL-62, "Description".
Daytime running light relay	Supplies the voltage to the load with the controlled by IPDM E/R.

[LED HEADLAMP]

INFOID:0000000011489869

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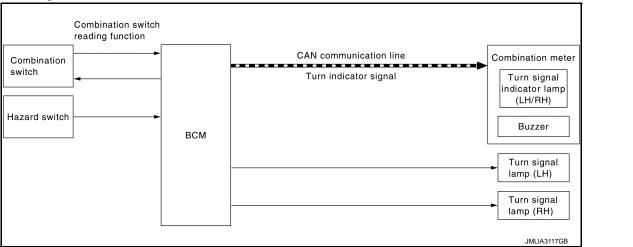
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### TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

### System Diagram



## System Description

INFOID:0000000011489870

#### **OUTLINE**

Turn signal lamp and hazard warning lamp is controlled by combination switch reading function and the flasher control function of BCM.

#### TURN SIGNAL LAMP OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM supplies voltage to the right (left) turn signal lamp circuit when the ignition switch is ON and the turn signal switch is in the right (left) position. BCM blinks the turn signal lamp.

#### HAZARD WARNING LAMP OPERATION

BCM supplies voltage to both turn signal lamp circuits when the hazard switch is ON. BCM blinks the hazard warning lamp.

#### TURN SIGNAL INDICATOR LAMP AND TURN SIGNAL OPERATION

- BCM transmits the turn indicator signal to the combination meter using CAN communication while the turn signal lamp and the hazard warning lamp are operating.
- Combination meter outputs the turn signal sound with the integrated buzzer while blinking the turn signal indicator lamp according to the turn indicator signal.

#### 3-TIME FLASHER FUNCTION

- By a short touch of the turn signal lever, BCM blinks the turn signal lamps 3 times in the selected direction.
- · Cancels the operation when short touch of the turn signal lever in the reverse direction during the 3-time flasher function operation.

#### HIGH FLASHER OPERATION

- BCM detects the turn signal lamp circuit status from the current value.
- BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

#### NOTE:

The blinking speed is normal while operating the hazard warning lamp.

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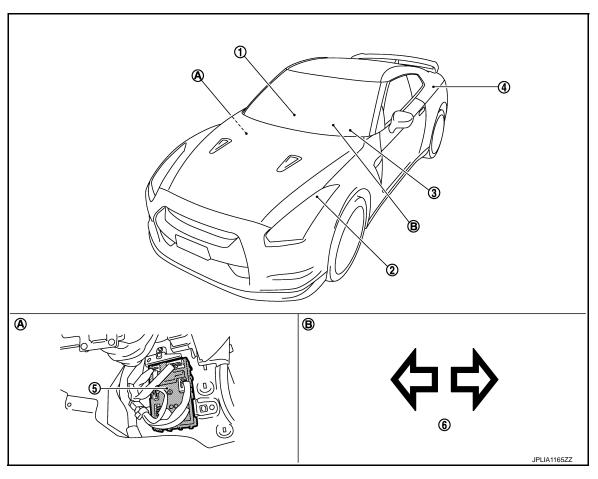
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**EXL-17** Revision: 2015 June GT-R

# **Component Parts Location**

INFOID:0000000011489871



- 1. Hazard switch
- 4. Rear turn signal lamp
- A. Dash side lower (Passenger side)
- 2. Front turn signal lamp
- 5. BCM
- B. On the combination meter
- 3. Combination switch
- 6. Turn signal indicator lamp

# Component Description

INFOID:0000000011489872

Part	Description
всм	<ul> <li>Detects each switch condition by the combination switch reading function.</li> <li>Judges the blinks of the turn signal lamp and the hazard warning lamp from each switch status. The applicable turn signal lamp blinks.</li> <li>Requests the turn signal indicator lamp blink to the combination meter (with CAN communication).</li> </ul>
Combination meter (Turn signal indicator lamp & buzzer)	Blinks the turn signal indicator lamp and outputs the turn signal operating sound with integrated buzzer according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-9, "System Description".
Hazard switch (Set-up switch)	Refer to EXL-65, "Description".

# PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

[LED HEADLAMP]

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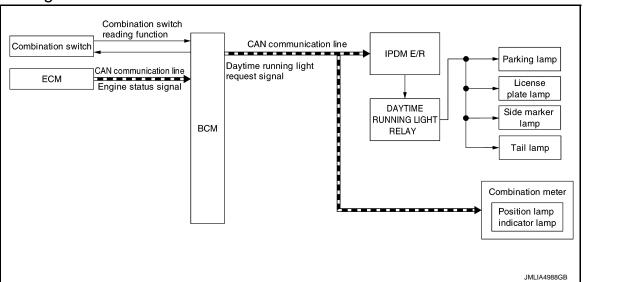
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## PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS SYSTEM

System Diagram



## System Description

INFOID:0000000011489874

#### **OUTLINE**

Parking, license plate, side marker and tail lamps are controlled by combination switch reading function and parking, license plate, side marker and tail lamps control function of BCM, and relay control function of IPDM E/R.

#### PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM detects vehicle condition depending on the engine status signal (received from ECM via CAN communication).
- BCM transmits the daytime running light request signal to IPDM E/R and the combination meter via CAN communication according to the parking, license plate, side marker and tail lamps ON condition.

Parking, license plate, side marker and tail lamps ON condition (When any of the following conditions are satisfied)

- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO with the ignition switch ON (auto light function ON judgment)
- Engine running
- IPDM E/R turns the daytime running light relay ON and turns the parking, license plate, side marker and tail lamps ON according to the daytime running light request signal.
- Combination meter turns the position lamp indicator lamp ON according to the daytime running light request signal.

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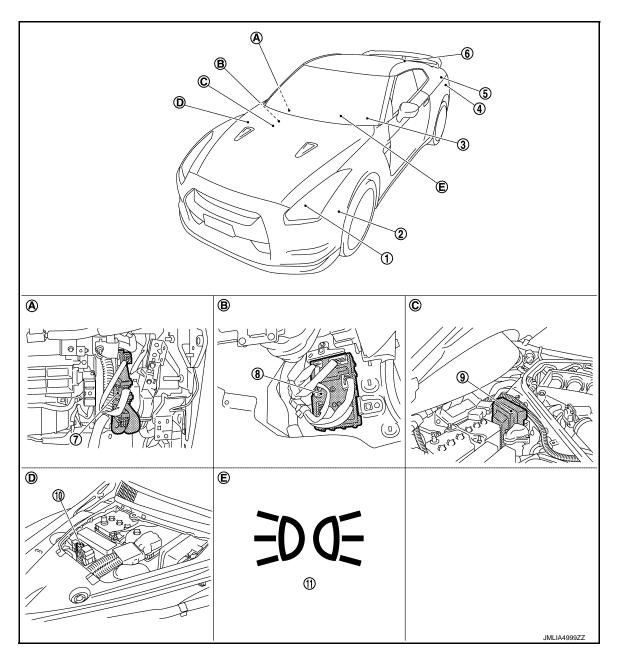
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**EXL-19** Revision: 2015 June GT-R

INFOID:0000000011489875

# **Component Parts Location**



- 1. Parking lamp
- 4. Rear side marker lamp
- 7. ECM
- 10. Daytime running light relay
- A. Over the glove box
- D. Engine room dash panel (RH)
- 2. Front side marker lamp
- 5. Tail lamp
- 8. BCM
- 11. Position lamp indicator lamp
- B. Dash side lower (passenger side)
- E. On the combination meter
- Combination switch
- 6. License plate lamp
- 9. IPDM E/R
- C. Engine room dash panel (RH)

## PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS SYSTEM [LED HEADLAMP]

< SYSTEM DESCRIPTION >

Component Description

INFOID:0000000011489876

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Part	Description
BCM	<ul> <li>Detects each switch condition by the combination switch reading function.</li> <li>Judges the ON/OFF status of the parking, license plate, side marker and tail lamps according to the vehicle condition.</li> <li>Requests the daytime running light relay ON to IPDM E/R (with CAN communication).</li> <li>Requests the position lamp indicator lamp ON to the combination meter (with CAN communication).</li> </ul>
IPDM E/R	Controls the daytime running light relay and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination meter (Position lamp indicator lamp)	Turns the position lamp indicator lamp ON according to the request from BCM (with CAN communication).
ECM	ECM transmits engine status signal to BCM via CAN communication.
Combination switch (Lighting & turn signal switch)	Refer to BCS-9, "System Description".
Daytime running light relay	Supplies the voltage to the load with the controlled by IPDM E/R.

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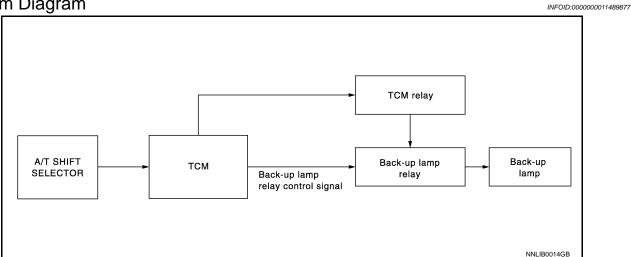
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[LED HEADLAMP]

### **BACK-UP LAMP SYSTEM**

# System Diagram



## System Description

INFOID:0000000011489878

#### **OUTLINE**

Back-up lamp is controlled by back-up lamp relay control function of TCM.

### **BACK-UP LAMP OPERATION**

- TCM detects the A/T shift selector condition.
- TCM turns the back-up lamp relay ON according to the back-up lamp ON condition.

Back-up lamp ON condition (When all of the following conditions are satisfied)

- Ignition switch ON
- Shift position "R"

## [LED HEADLAMP]

# **Component Parts Location**

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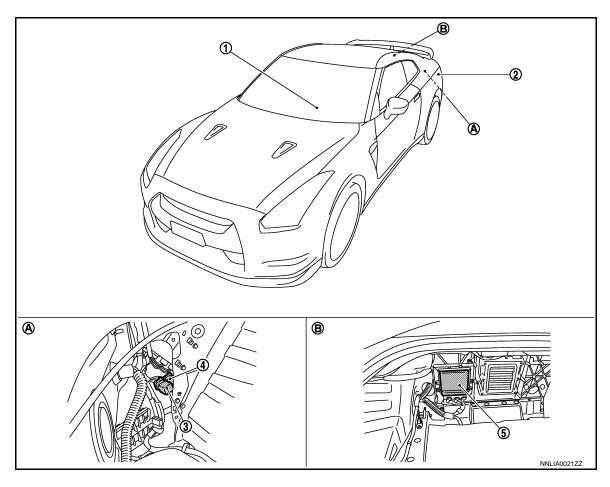
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- 1. A/T shift selector
- 4. Back-up lamp relay
- A. Inside of rear wheel house finisher (LH)
- 2. Back-up lamp
- 5. TCM
- B. Inside of trunk front finisher

3. TCM relay

# Component Description

INFOID:0000000011489880

Part	Description
TCM	<ul> <li>Detects the A/T shift selector condition.</li> <li>Judges the back-up lamp relay ON/OFF by shift lever position status.</li> </ul>
A/T shift selector	Refer to TM-23, "Main Device (GT-R certified NISSAN dealer)".

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### **EXTERIOR LAMP BATTERY SAVER SYSTEM**

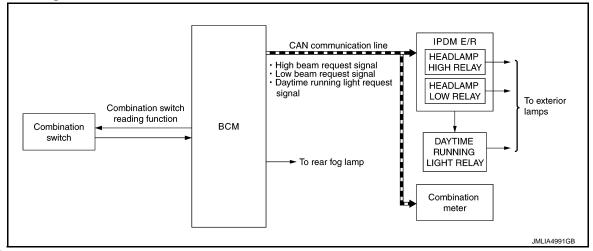
< SYSTEM DESCRIPTION >

[LED HEADLAMP]

### EXTERIOR LAMP BATTERY SAVER SYSTEM

System Diagram

INFOID:0000000011489881



NOTE:

Rear fog lamp is not used.

### System Description

INFOID:0000000011489882

#### OUTLINE

• Exterior lamp battery saver system is controlled by each function of BCM and IPDM E/R.

#### Control by BCM

- Combination switch reading function
- Exterior lamp battery saver function

#### Control by IPDM E/R

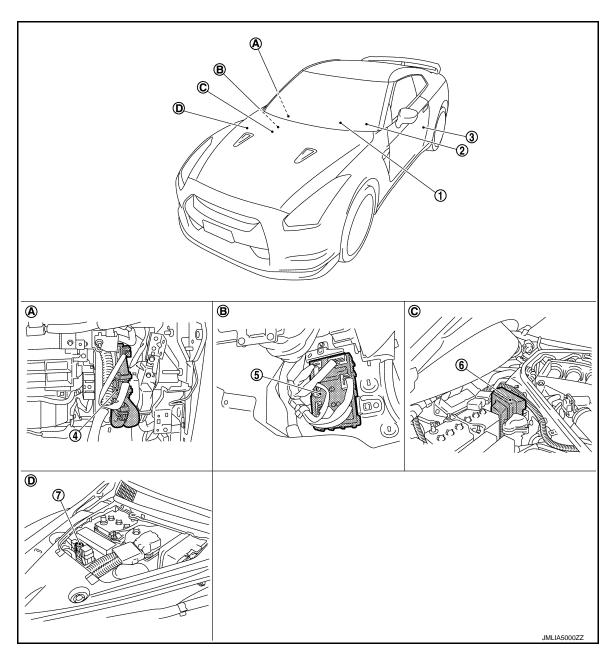
- Relay control function
- BCM turns the exterior lamp OFF\*, according to the vehicle status when ignition switch is turned OFF while
  exterior lamp is ON, for preventing battery discharge.
- Headlamp (LO/HI), parking lamp, license plate lamp, side marker lamp and tail lamp.

#### EXTERIOR LAMP BATTERY SAVER ACTIVATION

- BCM activates the timer and turns the exterior lamp OFF 5 minutes after the ignition switch is turned from ON→OFF with the exterior lamps ON.
- When in any of following conditions (after the exterior lamp battery saver is activated), exterior lamps can be turned ON.
- Ignition switch is turned from OFF→ACC/ON
- Lighting switch is changed

**Component Parts Location** 

INFOID:0000000011489883



- Combination meter
- IPDM E/R
- A. Dash side lower (Passenger side)
- Combination switch
- Daytime running light relay
- B. Engine room dash panel (RH)
- 3. BCM
- C. Engine room dash panel (RH)

# Component Description

INFOID:0000000011489884

Part	Description
BCM	<ul> <li>Detects each switch condition by the combination switch reading function.</li> <li>Judges the exterior lamp OFF according to the vehicle condition. Requests each relay OFF to IPDM E/R (with CAN communication).</li> </ul>
IPDM E/R	Controls the integrated relay and daytime running light relay according to the request from BCM (with CAN communication).

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### **EXTERIOR LAMP BATTERY SAVER SYSTEM**

### < SYSTEM DESCRIPTION >

[LED HEADLAMP]

Part	Description
Combination switch (Lighting & turn signal switch)	Refer to BCS-9, "System Description".
Daytime running light relay	Supplies the voltage to the load with the controlled by IPDM E/R.

< SYSTEM DESCRIPTION >

[LED HEADLAMP]

# **DIAGNOSIS SYSTEM (BCM)**

**COMMON ITEM** 

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011795855

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#### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	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	<ul> <li>Read and save the vehicle specification.</li> <li>Write the vehicle specification when replacing BCM.</li> </ul>

#### 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.

x: Applicable item

System	Sub system selection item	Diagnosis mode		
System	Sub system selection item	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 CONDITONER*			
Intelligent Key system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	ВСМ	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk lid opener system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×

<sup>\*:</sup> This item is displayed, but is not used.

### FREEZE FRAME DATA (FFD)

The BCM records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT.

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CONSULT screen item	Indication/Unit	Description		
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected		
Odo/Trip Meter	km	Total mileage (Odometer	r value) of the moment a particular DTC is detected	
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK")	
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	
	LOCK>ACC		While turning power supply position from "LOCK" to "ACC"	
	ACC>ON		While turning power supply position from "ACC" to "IGN"	
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and shift lever is except P position.)	
	CRANK>RUN	Power position status of the moment a particular DTC is detected	While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)	
	ACC>OFF		While turning power supply position from "ACC" to "OFF"	
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"	
Vehicle Condition	OFF>ACC		While turning power supply position from "OFF" to "ACC"	
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"	
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode	
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode	
	LOCK		Power supply position is "LOCK" (Ignition switch OFF with steering is locked.)	
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)	
	ACC	-	Power supply position is "ACC" (Ignition switch ACC)	
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)	
	CRANKING		Power supply position is "CRANKING" (At engine cranking)	
IGN Counter	0 - 39	<ul> <li>The number of times that ignition switch is turned ON after DTC is detected</li> <li>The number is 0 when a malfunction is detected now.</li> <li>The number increases like 1 → 2 → 338 → 39 after returning to the normal condition whenever ignition switch OFF → ON.</li> <li>The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.</li> </ul>		

# **HEADLAMP**

# HEADLAMP: CONSULT Function (BCM - HEAD LAMP)

INFOID:0000000011489886

## **WORK SUPPORT**

Service item	Setting item	Setting
	MODE 1*	Normal
CUSTOM A/LIGHT SET-	MODE 2	More sensitive setting than normal setting (Turns ON earlier than normal operation.)
TING	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.)
BATTERY SAVER SET	On*	With the exterior lamp battery saver function
	Off	Without the exterior lamp battery saver function

### < SYSTEM DESCRIPTION >

[LED HEADLAMP]

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Service item	Setting item	Setting	
	MODE 1*	45 sec.	
ILL DELAY SET	MODE 2	Without the function	
	MODE 3	30 sec.	
	MODE 4	60 sec.	Sets delay timer function timer operation time. (All doors closed)
	MODE 5	90 sec.	- (All doors closed)
	MODE 6	120 sec.	
	MODE 7	150 sec.	
	MODE 8	180 sec.	

<sup>\*:</sup> Factory setting

### **DATA MONITOR**

### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description		
PUSH SW [On/Off]	Indicates [ON/OFF] condition of push-button ignition switch		
ENGINE STATE [Stop/Stall/Crank/Run]	Indicates [STOP/STALL/CRANK/RUN] condition of engine states		
VEH SPEED 1 [km/h]	Display the vehicle speed signal received from combination meter by numerical value [Km/h]		
KEY SW -SLOT [On/Off]	Indicates [ON/OFF] condition of key slot		
TURN SIGNAL R [On/Off]			
TURN SIGNAL L [On/Off]			
TAIL LAMP SW [On/Off]			
HI BEAM SW [On/Off]	Face quite status that POM indeed from the combination quite and the first in-		
HEAD LAMP SW1 [On/Off]	Each switch status that BCM judges from the combination switch reading function		
HEAD LAMP SW2 [On/Off]			
PASSING SW [On/Off]			
AUTO LIGHT SW [On/Off]			
FR FOG SW [On/Off]	NOTE: This item is displayed, but cannot be monitored		
RR FOG SW [On/Off]	NOTE: This item is displayed, but cannot be monitored		
DOOR SW-DR [On/Off]	Indicated [ON/OFF] condition of driver side door switch		
DOOR SW-AS [On/Off]	Indicated [ON/OFF] condition of passenger side door switch		
DOOR SW-RR [On/Off]	NOTE: This item is displayed, but cannot be monitored		

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### < SYSTEM DESCRIPTION >

[LED HEADLAMP]

Monitor item [Unit]	Description
DOOR SW-RL [On/Off]	NOTE: This item is displayed, but cannot be monitored
DOOR SW-BK [On/Off]	NOTE: This item is displayed, but cannot be monitored
OPTICAL SENSOR [V]	The value of exterior brightness voltage input from the optical sensor

### **ACTIVE TEST**

Test item	Operation	Description
TAIL LAMP	On	Transmits the position light request signal to IPDM E/R and combination meter with CAN communication to turn the illumination ON
	Off	Stops the position light request signal transmission
	Hi	Transmits the high beam request signal to IPDM E/R and combination meter with CAN communication to turn the headlamp (HI) and high beam indicator lamp
HEAD LAMP	Low	Transmits the low beam request signal to IPDM E/R with CAN communication to turn the headlamp (LO)
	Off	Stops the high & low beam request signal transmission
RR FOG LAMP	On	NOTE:
RR FOG LAWIP	Off	This item is displayed, but cannot be tested
	RH	
CORNERING LAMP	LH	NOTE: This item is displayed, but cannot be tested
	Off	This term is displayed, sat samet so tested
ILL DIM CICNAL	On	NOTE:
ILL DIM SIGNAL	Off	This item is displayed, but cannot be tested

# **FLASHER**

# FLASHER: CONSULT Function (BCM - FLASHER)

INFOID:0000000011489887

### **WORK SUPPORT**

Service item	Setting item	Setting		
	Lock Only	With locking only	Sets the hazard warning lamp answer back function when the door is lock/unlock with the request switch or the key	
HAZARD ANSWER BACK	Unlk Only	With unlocking only		
	Lock/Unlk*	With locking/unlocking	fob	
	Off	Without the function		

<sup>\*:</sup> Factory setting

### **DATA MONITOR**

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description
REQ SW -DR [On/Off]	Indicated [ON/OFF] condition of door request switch (driver side)
REQ SW -AS [On/Off]	Indicated [ON/OFF] condition of door request switch (passenger side)

### < SYSTEM DESCRIPTION >

## [LED HEADLAMP]

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Monitor item [Unit]	Description
PUSH SW [On/Off]	Indicates [ON/OFF] condition of push-button ignition switch.
TURN SIGNAL R [On/Off]	Food quitab condition that DCM independent to combination quitab reading function
TURN SIGNAL L [On/Off]	Each switch condition that BCM judges from the combination switch reading function
HAZARD SW [On/Off]	The switch status input from the hazard switch
RKE-LOCK [On/Off]	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key
RKE-UNLOCK [On/Off]	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key
RKE-PANIC [On/Off]	Indicates [ON/OFF] condition of PANIC button of Intelligent Key

### **ACTIVE TEST**

Test item	Operation	Description
	RH	Outputs the voltage to blink the right side turn signal lamps
FLASHER	LH	Outputs the voltage to blink the left side turn signal lamps
	Off	Stops the voltage to turn the turn signal lamps OFF

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< SYSTEM DESCRIPTION >

[LED HEADLAMP]

# DIAGNOSIS SYSTEM (IPDM E/R)

### **Diagnosis Description**

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#### **AUTO ACTIVE TEST**

#### Description

In auto active test mode, the IPDM E/R sends a drive signal to the following systems to check their operation.

- Front wiper (LO, HI)
- Parking lamps
- License plate lamps
- Side marker lamps
- Tail lamps
- Daytime running light
- Headlamps (LO, HI)
- A/C compressor (magnet clutch)
- Cooling fan (cooling fan control module)

#### **Operation Procedure**

 Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation)

#### NOTE:

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

- 2. Turn the ignition switch OFF.
- Turn the ignition switch ON, and within 20 seconds, press the driver door switch 10 times. Then turn the ignition switch OFF.

#### **CAUTION:**

#### Close passenger door.

- 4. Turn the ignition switch ON within 10 seconds. After that the horn sounds once and the auto active test starts.
- 5. After a series of the following operations is repeated 3 times, auto active test is completed.

#### NOTE:

When auto active test mode has to be cancelled halfway through test, turn the ignition switch OFF. **CAUTION:** 

- If auto active test mode cannot be actuated, check door switch system. Refer to <u>DLK-63</u>, <u>"Component Function Check"</u>.
- Do not start the engine.

Inspection in Auto Active Test Mode

When auto active test mode is actuated, the following 5 steps are repeated 3 times.

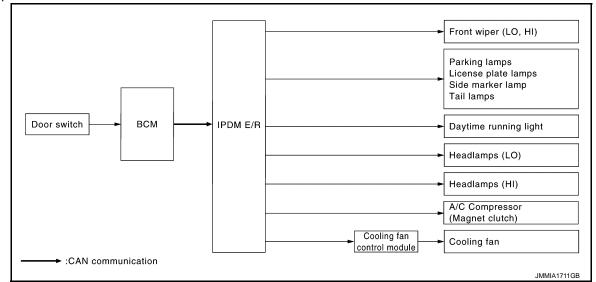
Operation sequence	Inspection location	Operation		
1	Front wiper	LO for 5 seconds → HI for 5 seconds		
2	<ul> <li>Parking lamps</li> <li>License plate lamps</li> <li>Side marker lamps</li> <li>Tail lamps</li> <li>Daytime running light</li> </ul>	10 seconds		
3	Headlamps	LO ⇔ HI 5 times		
4	A/C compressor (magnet clutch)	ON ⇔ OFF 5 times		
5 <sup>*</sup>	Cooling fan	MID for 5 seconds → HI for 5 seconds		

<sup>\*:</sup> Outputs duty ratio of 50% for 5 seconds  $\rightarrow$  duty ratio of 100% for 5 seconds on the cooling fan control module.

#### < SYSTEM DESCRIPTION >

[LED HEADLAMP]

Concept of auto active test



- IPDM E/R starts the auto active test with the door switch signals transmitted by BCM via CAN communication. Therefore, the CAN communication line between IPDM E/R and BCM is considered normal if the auto active test starts successfully.
- The auto active test facilitates troubleshooting if any systems controlled by IPDM E/R cannot be operated.

Diagnosis chart in auto active test mode

Symptom	Inspection contents		Possible cause
		YES	BCM signal input circuit
Any of the following components do not operate  Headlamp (HI, LO)  Front wiper (HI, LO)  Daytime running light	Perform auto active test. Does the applicable system operate?	NO	Lamp or motor     Lamp or motor ground circuit     Harness or connector between IPDM E/R and applicable system     IPDM E/R
		YES	BCM signal input circuit
Any of the following components do not operate  Parking lamps License plate lamps Tail lamps Side marker lamps	Perform auto active test. Does the applicable system operate?	NO	Lamp Lamp ground circuit Harness or connector between daytime running light relay and applicable system Harness or connector between IPDM E/R and daytime running relay Daytime running relay power supply circuit IPDM E/R Daytime running light relay
A/C compressor does not operate	Perform auto active test. Does the magnet clutch oper-	YES	A/C amp. signal input circuit     CAN communication signal between A/C amp. and ECM     CAN communication signal between ECM and IPDM E/R
A C compressor does not operate	ate?	NO	Magnet clutch     Harness or connector between IPDM E/R and magnet clutch     IPDM E/R

**EXL-33** Revision: 2015 June GT-R

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< SYSTEM DESCRIPTION >

[LED HEADLAMP]

Symptom	Inspection contents		Possible cause
		YES	ECM signal input circuit     CAN communication signal between ECM and IPDM E/R
Cooling fan does not operate	Perform auto active test.  Does the cooling fan operate?	NO	Cooling fan Harness or connector between cooling fan and cooling fan control module Cooling fan control module Harness or connector between IPDM E/R and cooling fan control module Cooling fan relay Harness or connector between IPDM E/R and cooling fan relay IPDM E/R

## CONSULT Function (IPDM E/R)

INFOID:0000000011795857

### APPLICATION ITEM

CONSULT 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.

### SELF DIAGNOSTIC RESULT

Refer to PCS-32, "DTC Index".

### **DATA MONITOR**

### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item [Unit]	MAIN SIG- NALS	Description
RAD FAN REQ [%]	×	Displays the value of the cooling fan speed signal received from ECM via CAN communication.
AC COMP REQ [Off/On]	×	Displays the status of the A/C compressor request signal received from ECM via CAN communication.
TAIL&CLR REQ [Off/On]	×	Displays the status of the position light request signal received from BCM via CAN communication.
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 lamp request signal received from BCM via CAN communication.
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Displays the status of the front wiper request signal received from BCM via CAN communication.
WIP AUTO STOP [STOP P/ACT P]	×	Displays the status of the front wiper stop position signal judged by IPDM E/R.

### < SYSTEM DESCRIPTION >

[LED HEADLAMP]

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Monitor Item [Unit]	MAIN SIG- NALS	Description
WIP PROT [Off/BLOCK]	×	Displays the status of the front wiper fail-safe operation judged by IPDM E/R.
IGN RLY1 -REQ [Off/On]		Displays the status of the ignition switch ON signal received from BCM via CAN communication.
IGN RLY [Off/On]	×	Displays the status of the ignition relay judged by IPDM E/R.
PUSH SW [Off/On]		Displays the status of the push-button ignition switch judged by IPDM E/R.
INTER/NP SW [Off/On]		Displays the status of the shift position judged by IPDM E/R.
ST RLY CONT [Off/On]		Displays the status of the starter relay status signal received from BCM via CAN communication.
IHBT RLY -REQ [Off/On]		Displays the status of the starter control relay signal received from BCM via CAN communication.
ST/INHI RLY [Off/ ST ON/INHI ON/UNKWN]		Displays the status of the starter relay and starter control relay judged by IPDM E/R.
DETENT SW [Off/On]		Displays the status of the A/T shift selector (detention switch) judged by IPDM E/R.
S/L RLY -REQ [Off/On]		Displays the status of the steering lock relay request signal received from BCM via CAN communication.
S/L STATE [LOCK/UNLOCK/UNKWN]		Displays the status of the steering lock judged by IPDM E/R.
DTRL REQ [Off/On]	×	Displays the status of the daytime running light request signal received from BCM via CAN communication.
OIL P SW [Open/Close]		NOTE: The item is indicated, but not monitored.
HOOD SW [Off/On]		Displays the status of the hood switch judged by IPDM E/R.
HL WASHER REQ [Off/On]		NOTE: The item is indicated, but not monitored.
THFT HRN REQ [Off/On]		Displays the status of the theft warning horn request signal received from BCM via CAN communication.
HORN CHIRP [Off/On]		Displays the status of the horn reminder signal received from BCM via CAN communication.
CRNRNG LMP REQ [Off/On]		NOTE: The item is indicated, but not monitored.

### **ACTIVE TEST**

Test item	Operation	Description	
	Off		
CORNERING LAMP	LH	NOTE: The item is indicated, but cannot be tested.	
	RH		
HORN	On	Operates horn relay 1 and horn relay 2 for 20 ms.	
	Off	OFF	
FRONT WIPER	Lo	Operates the front wiper relay.	
	Hi	Operates the front wiper relay and front wiper high relay.	

### < SYSTEM DESCRIPTION >

[LED HEADLAMP]

Test item	Operation	Description
MOTOR FAN	1	OFF
	2	Outputs 50% pulse duty signal (PWM signal) to the cooling fan control module.
	3	Outputs 80% pulse duty signal (PWM signal) to the cooling fan control module.
	4	Outputs 100% pulse duty signal (PWM signal) to the cooling fan control module.
HEAD LAMP WASHER	On	NOTE: The item is indicated, but cannot be tested.
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

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

# DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE): Diagnosis Procedure

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# 1. CHECK FUSE AND FUSIBLE LINK

Check that the following fuse and fusible link are not blown.

Signal name	Fuse and fusible link No.
Battery power supply	I
battery power suppry	10

### Is the fuse fusing?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.

NO >> GO TO 2.

# 2.CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connectors.
- Check voltage between BCM harness connector and ground.

(	+)	(-)	Voltage	
В	СМ		(Approx.)  Battery voltage	
Connector	Terminal	Ground		
M118	1	Glound		
M119	11		Dattery Voltage	

### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

# 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Connector Terminal		Continuity	
M119	13		Existed	

#### Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

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

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

# 1. CHECK FUSES AND FUSIBLE LINK

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

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# POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

Signal name	Fuses and fusible link No.
	С
Battery power supply	50
	51

### Is the fuse fusing?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.

NO >> GO TO 2.

# 2.CHECK POWER SUPPLY CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect IPDM E/R connector.
- 3. Check voltage between the IPDM E/R harness connector and the ground.

(	+)	(-)	Voltage	
IPDM E/R		(-)	(Approx.)	
Connector Terminal		Ground		
E4	1	Giodila	Battery voltage	

### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair the harness or connector.

# 3. CHECK GROUND CIRCUIT

Check continuity between the IPDM E/R harness connectors and the ground.

IPDM E/R			Continuity
Connector	Terminal	Cround	Continuity
E5	12	Ground	Existed
E6	41		LAISIEU

### Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

# **HEADLAMP (HI) CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

### [LED HEADLAMP]

INFOID:0000000011489892

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# HEADLAMP (HI) CIRCUIT

# Component Function Check

# 1. CHECK HEADLAMP (HI) OPERATION

# (P)With CONSULT

- Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R" using CONSULT.
- 2. With operating the test items, check that the headlamp (HI) blinks.

Hi : Headlamp (HI) blinks (ON/OFF is repeated

1 second each.)

Off : Headlamp (HI) OFF

### 

- 1. Start IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- Check that the headlamp (HI) blinks.

### Is the inspection result normal?

YES >> Headlamp (HI) circuit is normal.

NO >> Refer to EXL-39, "Diagnosis Procedure".

# Diagnosis Procedure

# 1. CHECK HEADLAMP (HI) FUSE

- Turn ignition switch OFF.
- Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp HI (RH)	IPDM E/R	#55	10 A
Headlamp HI (LH)	II DIVI L/IX	#54	10 A

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

# 2.CHECK HEADLAMP (HI) OUTPUT VOLTAGE

#### (P)With CONSULT

- 1. Disconnect front combination lamp connector.
- Turn ignition switch ON.
- Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R" using CONSULT.
- With operating the test items, check voltage between IPDM E/R harness connector and ground.

	+ IPDM E/R		-	- Test item		Voltage (Approx.)			
Conr	nector	Terminal				(11 - )			
RH		89	89	- Ground EXTERNAL LAMPS				Hi	Battery voltage (Repeated 1 second)
	E8		Crawad		EXTERNAL	Off	0 V		
LH	90	90	90		Giouna		LAMPS	Hi	Battery voltage (Repeated 1 second)
							1	Off	0 V

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace IPDM E/R. Refer to PCS-35, "Removal and Installation".

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Revision: 2015 June EXL-39 GT-R

# **HEADLAMP (HI) CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

# 3. CHECK HEADLAMP (HI) POWER SUPPLY CIRCUIT

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

	IPDM E/R		Front comb	Continuity		
Conr	nector	Terminal	Connector Terminal		Continuity	
RH	E8	89	E59	7	Existed	
LH	LO	90	E40	,	EXISTEC	

### Is the inspection result normal?

YES >> Perform the LED headlamp diagnosis. Refer to EXL-43, "Diagnosis Procedure".

# **HEADLAMP (LO) CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

### [LED HEADLAMP]

# HEADLAMP (LO) CIRCUIT

# Component Function Check

### INFOID:0000000011489894

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# 1. CHECK HEADLAMP (LO) OPERATION

# - CHECK HEADLAMP (LO) OPERATION

### (II) With CONSULT

- 1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R" using CONSULT.
- With operating the test items, check that the headlamp (LO) is turned ON.

Lo : Headlamp (LO) ON
Off : Headlamp (LO) OFF

### Without CONSULT

- 1. Start IPDM E/R auto active test. Refer to <a href="PCS-9">PCS-9</a>, "Diagnosis Description".
- Check that the headlamp (LO) is turned ON.

### Is the inspection result normal?

YES >> Headlamp (LO) circuit is normal.

NO >> Refer to EXL-41, "Diagnosis Procedure".

# Diagnosis Procedure

#### INFOID:0000000011489895

# 1. CHECK HEADLAMP (LO) FUSE

- 1. Turn ignition switch OFF.
- Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp LO (RH)	IPDM E/R	#57	15 A
Headlamp LO (LH)	IF DIVI L/IX	#56	13 A

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

# 2.CHECK HEADLAMP (LO) OUTPUT VOLTAGE

#### (P)With CONSULT

- Disconnect front combination lamp connector.
- 2. Turn ignition switch ON.
- Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R" using CONSULT.
- With operating the test items, check voltage between IPDM E/R harness connector and ground.

	+ IPDM E/R		-	Test item		Voltage (Approx.)		
Conr	nector	Terminal				(, , , , , , , , , , , , , , , , , , ,		
RH		83			Lo	Battery voltage		
ΝП	E8	00	Ground	EXTERNAL	Off	0 V		
LH	EO	84	0.4	0.4	Giodila	LAMPS	Lo	Battery voltage
LH					Off	0 V		

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace IPDM E/R. Refer to PCS-35, "Removal and Installation".

# 3.check headlamp (LO) power supply circuit

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

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# **HEADLAMP (LO) CIRCUIT**

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

	IPDM E/R		Front combination lamp		Continuity	
Conr	nector	Terminal	Connector Terminal		Continuity	
RH	E8	83	E59	5	Evietod	
LH	E0	84	E40	5	Existed	

# Is the inspection result normal?

YES >> Perform the LED headlamp diagnosis. Refer to EXL-43, "Diagnosis Procedure".

[LED HEADLAMP]

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## LED HEADLAMP

Description INFOID:0000000011489896

LED HEADLAMP В

#### Outline

- Semiconductor device (Light emitting diode: LED), which is illuminated when forward bias electric voltage is applied, is adopted as the source of light instead of halogen bulb or xenon bulb.
- Comparing to halogen headlamp or xenon headlamp, LED headlamp is electrically power saving, durable, and is illuminated in the similar color to the sunlight. Bright, natural, and eye-friendly visibility can be obtained.

#### PRECAUTIONS FOR TROUBLE DIAGNOSIS

Representative malfunction examples are; "Light does not turn ON", "Light blinks", and "Brightness is inadequate." Such malfunctions, however, occasionally by occur LED control module malfunction or lamp case malfunction. Specify the malfunctioning part with diagnosis procedure.

#### **CAUTION:**

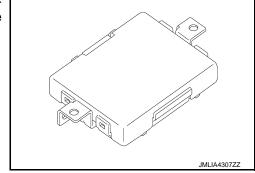
NOTE:

- Never touch the harness, LED headlamp control module, the inside and metal part of lamp when turning the headlamp ON or operating the lighting switch, for preventing electrical shock.
- Never work with wet hands, for preventing electrical shock.
- Never perform LED headlamp control module circuit diagnosis with a circuit tester or an equivalent.
- Temporarily install the headlamps on the vehicle. Always connect power supply to the connector (vehicle side) when checking ON/OFF status.
- Disconnect the battery negative terminal before disconnecting the lamp socket connector or the harness connector.
- Check for fusing of the fusible link(s), open around connector, short, disconnection if the symptom is caused by electric error.
- Always check for deformation or hole of headlamp housing and engagement of bulb cover. Otherwise, water may enter into headlamp because of damage of headlamp housing and contact to LED headlamp control module connector. The normal operation may be inhibited when short circuit to power supply is detected.

Turn the switch OFF once before turning ON, if the ON/OFF is inoperative.

#### LED HEADLAMP CONTROL MODULE

- LED headlamp control module is integrated in the front combination lamp and turns the LED headlamp ON according to the request from IPDM E/R.
- Outputs the headlamp warning signal to the combination meter.



# Diagnosis Procedure

1. CHECK LED HEADLAMP GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect front combination lamp connector. 2.
- Check continuity between front combination lamp harness connector and ground.

Front combination lamp				Continuity
Conr	Connector Terminal		_	Continuity
RH	E59	1	Ground	Existed
LH	E40	I	Glound	LXISIEU

**EXL-43** Revision: 2015 June GT-R

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INFOID:0000000011489897

# **LED HEADLAMP**

### < DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

# 2. CHECK LED HEADLAMP

Install the normal front combination lamp to the applicable headlamp. Check that the headlamp is turned ON. Refer to <a href="EXL-7">EXL-7</a>, "Work Procedure".

### Is the headlamp turned ON?

YES >> Replace front combination lamp. Refer to EXL-171, "Removal and Installation".

NO >> LED headlamp is normal.

# **HEADLAMP WARNING**

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

# **HEADLAMP WARNING**

# Component Function Check

#### INFOID:0000000011489898

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# 1.CHECK HEADLAMP WARNING OPERATION

- 1. Turn ignition switch ON.
- 2. Check that headlamp warning on combination meter is not displayed when lighting switch is turned 2ND.

### Is the inspection result normal?

YES >> Headlamp warning is normal.

NO >> Refer to EXL-45, "Diagnosis Procedure".

# Diagnosis Procedure

#### INFOID:0000000011489899

# 1. CHECK HEADLAMP WARNING LAMP SIGNAL CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect front combination lamp connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between front combination lamp harness connector and ground.

+			_	Voltage (Approx.)
Front combination lamp				(Approx.)
Connector Termina		Terminal		
RH	E59	3	Ground	12 V
LH	E40	3		

### Is the inspection result normal?

YES >> Replace front combination lamp. Refer to EXL-171, "Removal and Installation".

NO >> GO TO 2.

# 2.CHECK HEADLAMP WARNING LAMP SIGNAL CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect combination meter connector.
- Check continuity between combination meter harness connector and front combination lamp harness connector.

Combination meter			Front comb	Continuity	
Conr	nector	Terminal	Connector	Terminal	Continuity
RH	M53	16	E59	2	Existed
LH	IVIOS	39	E40	3	LAISIEU

#### Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-114, "Removal and Installation".

NO >> Repair or replace harness.

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### DAYTIME RUNNING LIGHT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

# DAYTIME RUNNING LIGHT CIRCUIT

# Component Function Check

INFOID:0000000011489900

# 1. CHECK DAYTIME RUNNING LIGHT OPERATION

### (P)With CONSULT

- Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R" using CONSULT.
- With operating the test items, check that the daytime running light is turned ON.

Fog : Daytime running light ON
Off : Daytime running light OFF

## Without CONSULT

- 1. Start IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- Check that the daytime running light is turned ON.

#### Is the measurement normal?

YES >> Daytime running light circuit is normal.
NO >> Refer to <u>EXL-46</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000011489901

# 1.CHECK DAYTIME RUNNING LIGHT FUSE

- Turn ignition switch OFF.
- 2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Daytime running light	IPDM E/R	#58	15 A

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

# 2.CHECK FRONT FOG LIGHT REQUEST SIGNAL

### (P)With CONSULT

- 1. Turn ignition switch ON.
- Select "FR FOG REQ" in "Data Monitor" mode of "IPDM E/R" using CONSULT.
- 3. With operating the daytime running light ON condition, check the monitor status.

Monitor item	Con	Monitor status	
FR FOG REQ	Daytime run-	ON condition	On
	ning light	OFF condition	Off

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to BCS-89, "Removal and Installation".

# 3.check daytime running light output voltage

### (P)With CONSULT

- 1. Turn ignition switch OFF.
- 2. Disconnect daytime running light connector.
- Turn ignition switch ON.
- Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R" using CONSULT.
- 5. With operating the test items, check the voltage between IPDM E/R harness connector and ground.

# **DAYTIME RUNNING LIGHT CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

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	+ IPDM E/R		-	- Test item		Voltage (Approx.)	
Conr	nector	Terminal			(, tpp:ox.)		
RH		86			Fog	Battery voltage	
KH		86	00		EXTERNAL	Off	0 V
1.11	LH 87	97	Ground	LAMPS	LAMPS	Fog	Battery voltage
LH		87			Off	0 V	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace IPDM E/R. Refer to PCS-35, "Removal and Installation".

# 4. CHECK DAYTIME RUNNING LIGHT POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R connector.
- 3. Check continuity between IPDM E/R harness connector and daytime running light harness connector.

IPDM E/R			Daytime running light		Continuity
Conr	nector	Terminal	Connector	Terminal	Continuity
RH	E8	86	E54	2	Existed
LH	Ε0	87	E24	_ 3	Existed

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# 5. CHECK DAYTIME RUNNING LIGHT GROUND CIRCUIT

Check continuity between daytime running light harness connector and ground.

Daytime running light			_	Continuity
Connector Te		Terminal		Continuity
RH	E54	2	Ground	Existed
LH	E24	2	Giouna	Existed

### Is the inspection result normal?

YES >> Replace daytime running light. Refer to EXL-174, "Removal and Installation".

NO >> Repair or replace harness.

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### DAYTIME RUNNING LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

# DAYTIME RUNNING LIGHT RELAY CIRCUIT

# Component Function Check

INFOID:0000000011489902

# ${f 1}$ .CHECK DAYTIME RUNNING LIGHT RELAY OPERATION

Check that parking, license plate, side marker, and tail lamps are turned ON when lighting switch is turned 1ST.

### Is the inspection result normal?

>> Daytime running light relay circuit is normal. >> Refer to EXL-48, "Diagnosis Procedure". YES

NO

# Diagnosis Procedure

INFOID:0000000011489903

# 1.CHECK DAYTIME RUNNING LIGHT RELAY FUSE AND FUSIBLE LINK

- Turn ignition switch OFF and lighting switch OFF.
- Check that the following fuse and fusible link are not fusing.

Unit	Location	Fuse No.	Capacity
Daytime running light relay	IPDM E/R	#59	10 A

### Is the inspection result normal?

YES >> GO TO 2.

>> Replace the blown fuse after repairing the affected circuit if a fuse or fusible link is blown. NO

# 2.CHECK DAYTIME RUNNING LIGHT RELAY POWER SUPPLY

- Remove daytime running light relay.
- 2. Check voltage between daytime running light relay harness connector and ground.

+ Daytime running light relay		-	Voltage (Approx.)	
Connector	Terminal		11 - 7	
E86	1 3	Ground	Battery voltage	

#### Is the inspection result normal?

>> GO TO 4. YES

>> GO TO 3. NO

# 3.CHECK DAYTIME RUNNING LIGHT RELAY POWER SUPPLY CIRCUIT

- Disconnect IPDM E/R connector.
- Check continuity between IPDM E/R harness connector and daytime running light relay harness connector.

IPDI	M E/R	Daytime running light relay		Continuity
Connector	Terminal	Connector	Terminal	Continuity
E5	6	E86	1	Existed
LJ	O	200	3	LXISIEU

#### Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-35, "Removal and Installation".

NO >> Repair or replace harness.

# 4.CHECK DAYTIME RUNNING LIGHT RELAY

Check daytime running light relay. Refer to EXL-49, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5.

### DAYTIME RUNNING LIGHT RELAY CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

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NO >> Replace daytime running light relay.

# ${f 5.}$ CHECK DAYTIME RUNNING LIGHT RELAY CONTROL SIGNAL CIRCUIT

Check continuity between IPDM E/R harness connector and daytime running light relay harness connector.

IPDI	IPDM E/R		Daytime running light relay	
Connector	Terminal	Connector Terminal		Continuity
E9	105	E86	2	Existed

### Is the inspection result normal?

>> Replace IPDM E/R. Refer to PCS-35, "Removal and Installation". YES

NO >> Repair or replace harness.

# Component Inspection

INFOID:0000000011489904

# 1. CHECK DAYTIME RUNNING LIGHT RELAY

- Turn ignition switch OFF.
- 2. Remove daytime running light relay.
- 3. Apply battery voltage to daytime running light relay between terminals 1 and 2.
- Check continuity of daytime running light relay terminals.

Daytime running light relay		Condition		0
Terminal				Continuity
3	3 5		Apply	Existed
3	3	Battery voltage	Not apply	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace daytime running light relay.

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**EXL-49** Revision: 2015 June GT-R

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# **PARKING LAMP CIRCUIT**

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

# PARKING LAMP CIRCUIT

# Component Function Check

INFOID:0000000011489905

# 1. CHECK PARKING LAMP OPERATION

Check that parking lamp is turned ON when lighting switch is turned 1ST.

### Is the inspection result normal?

YES >> Parking lamp circuit is normal.

NO >> Refer to EXL-50, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000011489906

# 1. CHECK PARKING LAMP POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF and lighting switch OFF.
- 2. Remove daytime running light relay.
- 3. Disconnect front combination lamp connector.
- Check continuity between daytime running light relay harness connector and front combination lamp harness connector.

Daytime running light relay		Front combination lamp		Continuity		
Coni	nector	Terminal	Connector Terminal		Continuity	
RH	E86	F	E59	0	Existed	
LH	E00	5	E40	0	Existed	

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

# 2. CHECK PARKING LAMP GROUND CIRCUIT

Check continuity between front combination lamp harness connector and ground.

Front combination lamp				Continuity
Conr	nector	Terminal	_	Continuity
RH	E59	4	Ground	Existed
LH	E40	4	Ground	LXISIEU

#### Is the inspection result normal?

YES >> Replace front combination lamp. Refer to EXL-171, "Removal and Installation".

# FRONT SIDE MARKER LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

# FRONT SIDE MARKER LAMP CIRCUIT

# Component Function Check

INFOID:0000000011489907

# 1. CHECK FRONT SIDE MARKER LAMP OPERATION

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Check that front side marker lamp is turned ON when lighting switch is turned 1ST.

### Is the inspection result normal?

YES >> Front side marker lamp circuit is normal.

NO >> Refer to EXL-51, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000011489908

# 1. CHECK FRONT SIDE MARKER LAMP BULB

- 1. Turn ignition switch OFF and lighting switch OFF.
- 2. Check the applicable front side marker lamp bulb.

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace bulb. Refer to EXL-176, "Replacement".

# 2.CHECK FRONT SIDE MARKER LAMP POWER SUPPLY CIRCUIT

- Remove daytime running light relay.
- 2. Disconnect front side marker lamp connector.
- Check continuity between daytime running light relay harness connector and front side marker lamp harness connector.

Daytime running light relay			Front side r	Continuity	
Connec	ctor	Terminal	Connector	Terminal	Continuity
RH	E86	5	E68	1	Existed
LH		3	E53	'	LAISIEU

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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# 3.CHECK FRONT SIDE MARKER LAMP GROUND CIRCUIT

Check continuity between front side marker lamp harness connector and ground.

Front side marker lamp				Continuity
Connector Terminal		_	Continuity	
RH	E68	2	Ground	Existed
LH	E53	2	Glound	LXISIEU

#### Is the inspection result normal?

YES >> Check corresponding front side marker lamp bulb socket. Repair or replace if necessary.

NO >> Repair or replace harness.

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### TAIL LAMP CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

# TAIL LAMP CIRCUIT

# Component Function Check

INFOID:0000000011489909

# 1. CHECK TAIL LAMP OPERATION

Check that tail lamp is turned ON when lighting switch is turned 1ST.

# Is the inspection result normal?

YES >> Tail lamp circuit is normal.

NO >> Refer to EXL-52, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000011489910

# 1. CHECK TAIL LAMP POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF and lighting switch OFF.
- 2. Remove daytime running light relay.
- 3. Disconnect rear combination lamp connector.
- Check continuity between daytime running light relay harness connector and rear combination lamp harness connector.

Daytime running light relay		Rear combination lamp		Continuity		
Conr	nector	Terminal	Connector Terminal		Continuity	
RH	E86	E	B240	2	Existed	
LH	_ ⊏00	5	B57	2	Existed	

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

# 2. CHECK TAIL LAMP GROUND CIRCUIT

Check continuity between rear combination lamp harness connector and ground.

Rear combination lamp				Continuity
Conr	nector	Terminal	_	Continuity
RH	B240	2	Ground	Existed
LH	B57	3	Ground	LXISIEU

#### Is the inspection result normal?

YES >> Replace rear combination lamp. Refer to EXL-181, "Removal and Installation".

# REAR SIDE MARKER LAMP CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

# REAR SIDE MARKER LAMP CIRCUIT

# Component Function Check

#### INFOID:0000000011489911

# 1. CHECK REAR SIDE MARKER LAMP OPERATION

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Check that rear side marker lamp is turned ON when lighting switch is turned 1ST.

# Is the inspection result normal?

YES >> Rear side marker lamp circuit is normal.

NO >> Refer to EXL-53, "Diagnosis Procedure".

# Diagnosis Procedure

### INFOID:0000000011489912

# 1. CHECK REAR SIDE MARKER LAMP POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF and lighting switch OFF.
- 2. Remove daytime running light relay.
- 3. Disconnect rear side marker lamp connector.
- 4. Check continuity between daytime running light relay harness connector and rear side marker lamp harness connector.

Continuity	Rear side marker lamp		Daytime running light relay		
Continuity	Terminal	Connector	Terminal	nector	Conr
Existed	1	E372	E	E86	RH
Existed	<b>1</b>	E371	5	LH	

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

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# 2.CHECK REAR SIDE MARKER LAMP GROUND CIRCUIT

Check continuity between rear side marker lamp harness connector and ground.

Rear side marker lamp				Continuity	
Coni	nector	Terminal	_	Continuity	
RH	E372	2	Ground	Existed	
LH	E371	2	Glound	LAISIEU	

#### Is the inspection result normal?

YES >> Replace rear side marker lamp. Refer to EXL-183, "Removal and Installation".

NO >> Repair or replace harness.

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### LICENSE PLATE LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

# LICENSE PLATE LAMP CIRCUIT

# Component Function Check

INFOID:0000000011489913

# 1. CHECK LICENSE PLATE LAMP OPERATION

Check that license plate lamp is turned ON when lighting switch is turned 1ST.

### Is the inspection result normal?

YES >> License plate lamp circuit is normal.

NO >> Refer to EXL-54, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000011489914

# 1. CHECK LICENSE PLATE LAMP BULB

- 1. Turn ignition switch OFF and lighting switch OFF.
- Check the applicable license plate lamp bulb.

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace bulb. Refer to EXL-186, "Replacement".

# 2. CHECK LICENSE PLATE LAMP POWER SUPPLY CIRCUIT

- Remove daytime running light relay.
- 2. Disconnect license plate lamp connector.
- Check continuity between daytime running light relay harness connector and license plate lamp harness connector.

Daytime running light relay		License plate lamp		Continuity	
Conr	nector	Terminal	Connector	Terminal	Continuity
RH	E86	Б	B154	1	Existed
LH	LOO	3	B152	1	Existed

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK LICENSE PLATE LAMP GROUND CIRCUIT

Check continuity between license plate lamp harness connector and ground.

License plate lamp				Continuity
Conr	nector	Terminal	_	Continuity
RH	B154	2	Ground	Existed
LH	B152	2	Glound	LXISIEU

#### Is the inspection result normal?

YES >> Check corresponding license plate lamp bulb socket. Repair or replace if necessary.

# **BACK-UP LAMP CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

### [LED HEADLAMP]

# BACK-UP LAMP CIRCUIT

# Component Function Check

### INFOID:0000000011489915

# 1. CHECK BACK-UP LAMP OPERATION

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### With CONSULT

- Turn ignition switch ON.
- Select "REVERSE LAMP RELAY" in "Active Test" mode of "TRANSMISSION" using CONSULT.
- With operating the test items, check that the back-up lamp is turned ON.

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: Back-up lamp ON On Off : Back-up lamp OFF

### Is the inspection result normal?

YES >> Back-up lamp circuit is normal.

>> Refer to EXL-55, "Diagnosis Procedure". NO

# Diagnosis Procedure

### INFOID:0000000011489916

# 1.CHECK BACK-UP LAMP BULB

- Turn ignition switch OFF.
- Check the applicable back-up lamp bulb.

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace bulb. Refer to EXL-182, "Replacement".

# 2.CHECK FUSE

Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Back-up lamp relay	Fuse block (J/B)	#4	10 A
TCM	T use block (3/B)	#9	10 A

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

# 3.CHECK BACK-UP LAMP RELAY POWER SUPPLY

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## (P)With CONSULT

- Turn ignition switch ON.
- Select "REVERSE LAMP RELAY" in "Active Test" mode of "TRANSMISSION" using CONSULT.
- With operating the test items, check voltage between back-up lamp relay harness connector and ground.

Back-up	+ lamp relay	-	Test item		Voltage (Approx.)
Connector	Terminal				(11 - )
B55	7	7 Ground	REVERSE	On	Battery voltage
	, i		LAMP RELAY		0 V

### Is the inspection result normal?

YES >> GO TO 9.

NO >> GO TO 4.

# f 4 .CHECK BACK-UP LAMP RELAY POWER SUPPLY

- Turn ignition switch OFF.
- Remove back-up lamp relay.

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[LED HEADLAMP]

Turn ignition switch ON.

< DTC/CIRCUIT DIAGNOSIS >

Check voltage between back-up lamp relay harness connector and ground.

	+			
Back-up	lamp relay	-	Voltage	
Connector	Terminal			
B55	1	Ground	Battery voltage	
В33	6	Giodila	Ballery Vollage	

### Is the inspection result normal?

YES >> GO TO 7.

NO-1 >> When the back-up lamp relay terminal 1 is abnormal: GO TO 5.

NO-2 >> When the back-up lamp relay terminal 6 is abnormal: Repair or replace harness.

# 5.CHECK TCM RELAY POWER SUPPLY

Turn ignition switch OFF.

2. Remove TCM relay.

Turn ignition switch ON.

Check voltage between TCM relay harness connector and ground.

٠				
		+		
	TCM relay		-	Voltage
	Connector	Terminal		
	B54	5	Ground	Battery voltage

# Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

# 6.CHECK BACK-UP LAMP RELAY POWER SUPPLY CIRCUIT

Check continuity between TCM relay harness connector and back-up lamp relay harness connector.

TCM	TCM relay		Back-up lamp relay		
Connector	Terminal	Connector	Connector Terminal		
B54	3	B55	1	Existed	

### Is the inspection result normal?

YES >> Replace TCM relay.

NO >> Repair or replace harness.

# 7.CHECK BACK-UP LAMP RELAY CONTROL SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect TCM connector.
- Check continuity between back-up lamp relay harness connector and TCM harness connector.

Back-up lamp relay		T	Continuity		
Connector	Terminal	Connector Terminal		Continuity	
B55	2	B45	10	Existed	

### Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness.

# $oldsymbol{8}$ .CHECK BACK-UP LAMP RELAY

Check back-up lamp relay. Refer to EXL-57, "Component Inspection".

#### Is the inspection result normal?

# **BACK-UP LAMP CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

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YES >> Replace TCM. Refer to TM-373, "Removal and Installation (GT-R certified NISSAN dealer)".

NO >> Replace back-up lamp relay.

# 9.CHECK BACK-UP LAMP POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Remove back-up lamp relay.
- 3. Disconnect rear combination lamp connector.
- 4. Check continuity between back-up lamp relay harness connector and rear combination lamp harness connector.

Continuity	ination lamp	Rear comb	Back-up lamp relay		
Continuity	Terminal	Connector	Terminal	nector	Conr
Existed	6	B240	7	B55	RH
LXISIEU	0	B57	,	LH B55	LH

### Is the inspection result normal?

YES >> GO TO 10.

NO >> Repair or replace harness.

# 10. CHECK BACK-UP LAMP GROUND CIRCUIT

Check continuity between rear combination lamp harness connector and ground.

Rear combination lamp				Continuity	
Conr	nector	Terminal	_	Continuity	
RH	B240	2	Ground	Existed	
LH	B57	3	Giodila	Existed	

#### Is the inspection result normal?

YES >> Check corresponding back-up lamp bulb socket and harness. Repair or replace if necessary.

NO >> Repair or replace harness.

# Component Inspection

# 1. CHECK BACK-UP LAMP RELAY

- 1. Turn ignition switch OFF.
- 2. Remove back-up lamp relay.
- Apply battery voltage to back-up lamp relay between terminals 1 and 2.
- 4. Check continuity of back-up lamp relay terminals.

Back-up lamp relay		Condition		O-atia-it-
Terminal				Continuity
6	6 7		Apply	Existed
6	,	Battery voltage	Not apply	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back-up lamp relay.

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< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

# TURN SIGNAL LAMP CIRCUIT

# Component Function Check

#### INFOID:0000000011489918

# 1. CHECK TURN SIGNAL LAMP

### (P)With CONSULT

- 1. Select "FLASHER" of "BCM" using CONSULT.
- Select "FLASHER" in "Active Test" mode.
- 3. With operating the test items, check that the turn signal lamps blink.

RH : Turn signal lamps (RH) blink
LH : Turn signal lamps (LH) blink
Off : Turn signal lamps OFF

### Is the inspection result normal?

YES >> Turn signal lamp circuit is normal.

NO >> Refer to EXL-58, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000011489919

# 1. CHECK TURN SIGNAL LAMP BULB

Check the applicable turn signal lamp bulb.

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace bulb. Refer to <u>EXL-172</u>, "<u>Replacement</u>" (front turn signal lamp) or <u>EXL-182</u>, "<u>Replacement</u>" (rear turn signal lamp).

# 2.CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

### (P)With CONSULT

- 1. Turn ignition switch OFF.
- 2. Disconnect the following connectors.
- Front combination lamp
- Rear combination lamp
- 3. Turn ignition switch ON.
- Select "FLASHER" of "BCM" using CONSULT.
- 5. Select "FLASHER" in "Active Test" mode.
- 6. With operating the test items, check voltage between BCM harness connector and ground.

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

	+						
	BCM		_	Tes	t item	Voltage	
Con	nector	Terminal				(Approx.)	
RH		17			RH	(V) 15 10 5 0 1 s PKID0926E	
	M119		Ground	FLASHER	Оп	0 V	
LH		18			LH	(V) 15 10 5 0 PKID0926E	
					Off	0 V	
Rear turn	signal lamp	•		<b>'</b>	-		
	+						
	ВСМ		-	- Test item		Voltage (Approx.)	
Con	nector	Terminal					
RH		20			RH	(V) 15 10 5 0 PKID0926E	
RH	- M120	20	Ground	FLASHER	RH Off	1 s	

Is the inspection result normal?

YES >> GO TO 4. NO >> GO TO 3.

3.CHECK TURN SIGNAL LAMP POWER SUPPLY CIRCUIT (SHORT)

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Check continuity between BCM harness connector and ground.

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Front turn sign	nal lamp				
	BCM		Continuity		
Con	Connector			_	
RH	M119	17	Ground	Not existed	
LH	- WITT9	18	Ground	INOL EXISTED	
Rear turn sigr	nal lamp				
	ВСМ		Continuity		
Con	Connector			Continuity	
RH	M120	20	Ground	Not existed	
	IVITZU		Giodila	INOL EXISTED	

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### Is the inspection result normal?

LH

YES >> Check each bulb socket for internal short circuit, and if check result is normal, replace BCM. Refer to BCS-89, "Removal and Installation".

NO >> Repair or replace harness.

# 4. CHECK TURN SIGNAL LAMP POWER SUPPLY CIRCUIT (OPEN)

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Check continuity between BCM harness connector and front combination lamp or rear combination lamp harness connector.

Front turn signal lamp

ВСМ			Front comb	Continuity			
Conr	nector	Terminal	Connector	Terminal	Continuity		
RH	M119	17	E59	6	Existed		
LH	WITTE	18	E40				
Rear turn signa	Rear turn signal lamp						
	BCM			ination lamp	0 11 11		

BCM			Rear comb	Continuity	
Conr	nector	Terminal	Connector	Terminal	Continuity
RH	M120	20	B240	4	Existed
LH	IVI 120	25	B57	4	

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# 5. CHECK TURN SIGNAL LAMP GROUND CIRCUIT

Check continuity between front combination lamp or rear combination lamp harness connector and ground.

### Front turn signal lamp

Front combination lamp				Continuity
Conr	nector	Terminal	_	Continuity
RH	E59	2	Ground	Existed
LH	E40	2	Giodila	LAISIEU

#### Rear turn signal lamp

Rear combination lamp				Continuity
Conr	nector	Terminal	_	Continuity
RH	B240	3	Ground	Existed
LH	B57	3	Glound	Existed

### Is the inspection result normal?

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

YES >> Check corresponding rear turn signal lamp bulb socket and harness. Repair or replace if neces-

sary.

NO >> Repair or replace harness.

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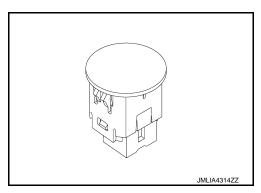
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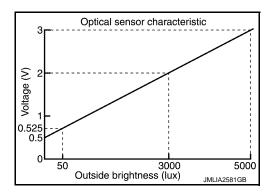
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# **OPTICAL SENSOR**

**Description** 

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





# Component Function Check

INFOID:0000000011489921

# 1. CHECK OPTICAL SENSOR SIGNAL BY CONSULT

### (I) With CONSULT

- 1. Turn ignition switch ON.
- 2. Select "HEAD LAMP" of "BCM" using CONSULT.
- 3. Select "OPTI SEN (DTCT)" in "Data Monitor" mode.
- 4. Turn lighting switch AUTO.
- With the optical sensor illuminating, check the monitor status.

Monitor item	Condition		Condition		Voltage (Approx.)
OPTI SEN (DTCT)	Ontical sensor	When illuminat- ing	3.1 V or more*		
	Optical sensor	When shutting off light	0.6 V or less		

<sup>\*:</sup> Illuminates the optical sensor. The value may be less than the standard value if brightness is weak.

#### Is the inspection result normal?

YES >> Optical sensor is normal.

NO >> Refer to EXL-62, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000011489922

# 1. CHECK OPTICAL SENSOR POWER SUPPLY INPUT

- 1. Turn ignition switch ON.
- Turn lighting switch AUTO.
- Check voltage between optical sensor harness connector and ground.

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+			Million
Optical sensor		-	Voltage (Approx.)
Connector	Terminal		, , , ,
M97	1	Ground	5 V

Is the inspection result normal?

>> GO TO 2. YES NO >> GO TO 4.

2.CHECK OPTICAL SENSOR GROUND INPUT

Check voltage between optical sensor harness connector and ground.

	+		Voltago	
Optical sensor		-	Voltage (Approx.)	
Connector	Terminal		,	
M97	3	Ground	0 V	

Is the inspection result normal?

YES >> GO TO 3. NO >> GO TO 6.

3.check optical sensor signal output

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

+ Optical sensor		-	Condition		Voltage (Approx.)
Connector	Terminal				(/ (pp.c/)
M97	2	Ground Optical sensor		When illuminat- ing	3.1 V or more*
W97	2			When shutting off light	0.6 V or less

<sup>\*:</sup> Illuminate the optical sensor. The value may be less than the standard if brightness is weak.

### Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace optical sensor. Refer to EXL-178, "Removal and Installation".

# 4. CHECK OPTICAL SENSOR POWER SUPPLY CIRCUIT (OPEN)

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

	Optica	l sensor	BCM		Continuity
Coni	nector	Terminal	Connector	Terminal	Continuity
N	97	1	M123	138	Existed

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# CHECK OPTICAL SENSOR POWER SUPPLY CIRCUIT (SHORT)

Check continuity between optical sensor harness connector and ground.

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Optica	Optical sensor		Continuity
Connector	Terminal		Continuity
M97	1	Ground	Not existed

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-89, "Removal and Installation".

NO >> Repair or replace harness.

# 6. CHECK OPTICAL SENSOR GROUND CIRCUIT

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

Optical	Optical sensor		BCM	
Connector	Terminal	Connector	Terminal	Continuity
M97	3	M123	137	Existed

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-89, "Removal and Installation".

NO >> Repair or replace harness.

# 7.CHECK OPTICAL SENSOR SIGNAL CIRCUIT (OPEN)

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

Optical	sensor	BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M97	2	M123	113	Existed

### Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness.

# 8. CHECK OPTICAL SENSOR SIGNAL CIRCUIT (SHORT)

Check continuity between optical sensor harness connector and ground.

Optical	Optical sensor		Continuity
Connector	Terminal	_	Continuity
M97	2	Ground	Not existed

# Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-89</u>. "Removal and Installation".

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# HAZARD SWITCH

Description INFOID:000000011489923

Hazard switch is integrated in the set-up switch. Hazard switch inputs the signals to BCM when pressing the switch.

# Component Function Check

# 1. CHECK HAZARD SWITCH SIGNAL BY CONSULT

# (P)With CONSULT

- 1. Turn ignition switch ON.
- 2. Select "FLASHER" of "BCM" using CONSULT.
- 3. Select "HAZARD SW" in "Data Monitor" mode.
- 4. With operating the hazard switch, check the monitor status.

Monitor item	Condition		Monitor status
HAZARD SW	Hazard switch	ON	On
	Hazard Switch	OFF	Off

### Is the inspection result normal?

YES >> Hazard switch circuit is normal.

NO >> Refer to EXL-65. "Diagnosis Procedure".

# Diagnosis Procedure

# 1. CHECK HAZARD SWITCH SIGNAL INPUT

- 1. Turn ignition switch OFF.
- 2. Disconnect set-up switch connector.
- Check voltage between set-up switch connector and ground.

	+ o switch	-	Voltage (Approx.)										
Connector	Terminal		(πρριολ.)										
M73	13	Ground	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V										

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK HAZARD SWITCH SIGNAL CIRCUIT (OPEN)

- 1. Disconnect BCM connector.
- Check continuity between set-up switch harness connector and BCM harness connector.

Set-up	switch	BO	CM	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M73	13	M122	110	Existed

Is the inspection result normal?

### **HAZARD SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.check hazard switch signal circuit (short)

Check continuity between set-up switch harness connector and ground.

Set-up	switch		Continuity
Connector	Terminal		Continuity
M73	13	Ground	Not existed

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-89, "Removal and Installation".

NO >> Repair or replace harness.

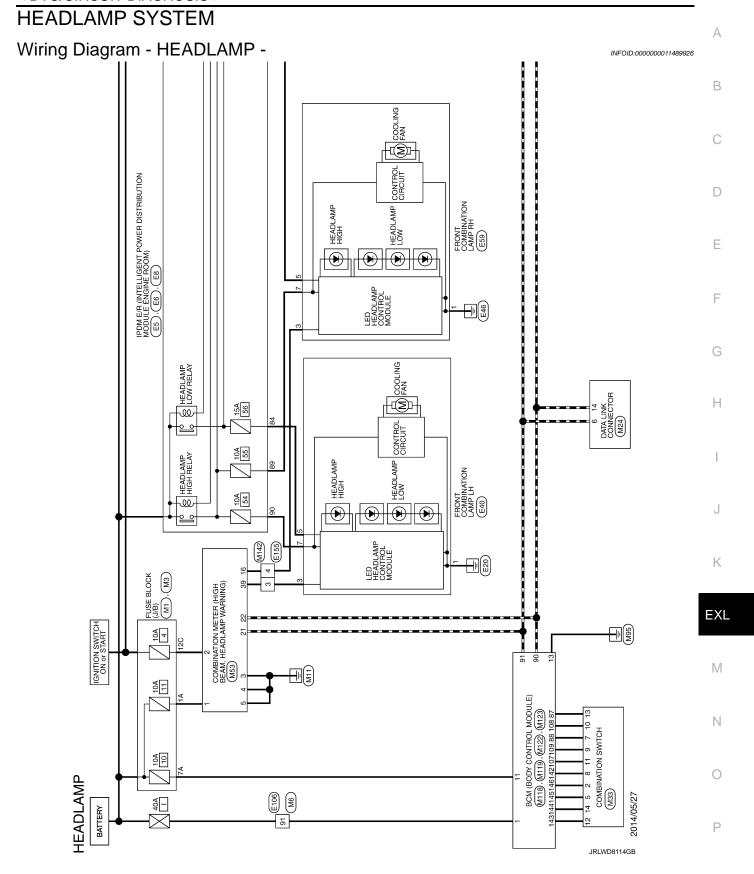
# 4. CHECK HAZARD SWITCH GROUND CIRCUIT

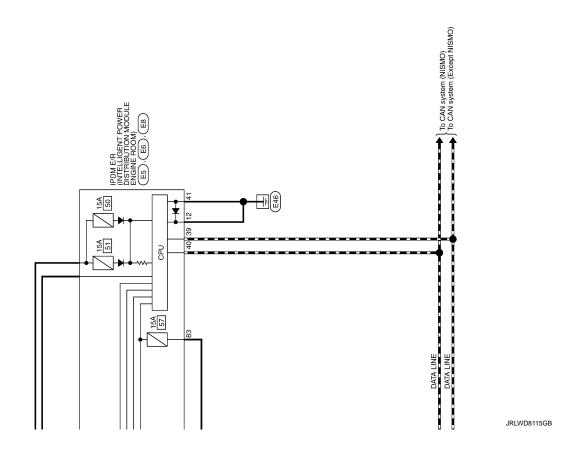
Check continuity between set-up switch harness connector and ground.

Set-up	switch	_	Continuity
Connector	Terminal		Continuity
M73	17	Ground	Existed

### Is the inspection result normal?

YES >> Replace set-up switch. Refer to IP-13, "Removal and Installation".





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Cornector No.   E40   Cornector No.   E40   Cornector No.   E106   Stroke					36	ŋ		
Corrector Name   FRONT COMBINATION LAMP LH   Corrector Type   RS08FB-PR   Corrector Type   Corrector	٠.		Connector No.		37	λ		
Commercial Parameter Name   FRONT COMBINATION LAMP LH   Commercial Parameter Name   FRONT COMBINATION LAMP LH   Commercial Parameter Name	. e	Connector	E40		38	SB		
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No.   Wire   Signal Name [Specification]   1   V	W		No. Wire	cification]	3 2	HE		_
Signal Name (Specification)         2         B/G         7         7           5         P         P         P         P         7           5         P         P         P         P         P	‡		Signal Name [Specification]		5			_
Sgnal Name [Specification]         1 BW         3 BG         61           4 BP         7 BP         7 BP         77           5 PP         7 BG         74         74           6 PP         7         7         7           7 BP         7         7         7           8 PP         8         7         7           9 PP         7         7         7           10 PP         10 PP         10 PP         10 PP           10 PP         10 PP         10 PP         10 PP<		9			Pa	1		_
Signal Name (Specification)         2         B/G         4         B/G         71           4         B/P         -         6         P         -         74           5         P         -         -         74         -         74           6         P         -         -         -         74         -           7         B         -         -         -         -         -         -           7         B         -		-	3 BG		61			_
3 Y	Cional Mamo IC	2	- 4 BG		7	PC		_
4         B/P         .         6         P         .         74           5         P         .         6         BG         .         75	Olginal Name [O	3			72	SB		_
7 BG		4	9		74	۵.		_
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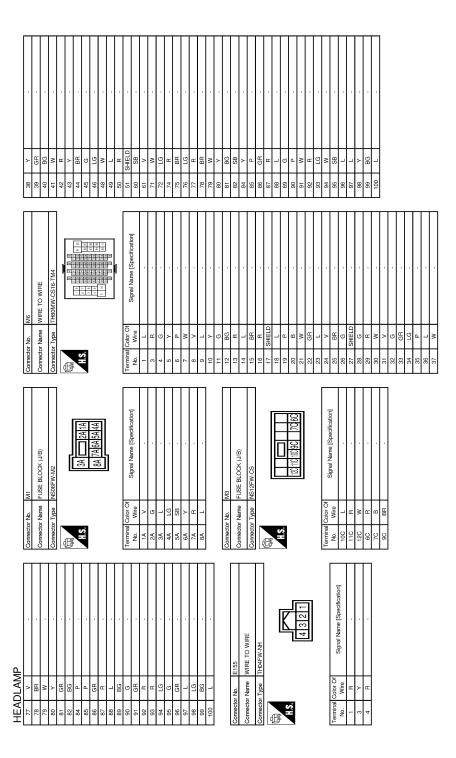
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M122	16 BCM (BODY CONTROL MODULE)	e TH40FB-NH			91 90 89 88 87 1 68 82 81 80 73 78 77 78 75 72	[111] 116] 116] 116] 116] 116] 116] 116]			Of Signal Name [Specification]			HOUM ANIZ+				ROOM ANT1-	ROOM ANT1+	R IMMOBI ANTENNA CONTROL	IMMOBI ANTENNA SIGNAL		KEYLES		COM	PUSHSW		KEY SL			A/T SHIFT.		S/L(	SHET P	+	DRIVER DOOR REQUEST SW	ť	+	-					S/L UNIT COMM		
Connector No.	Connector Name	Connector Type	AF	ž	2				la D	^	+	73 62	47 N	+	77 LG	γ λ	79 BR	80 GR	81 L		+	87 BR	+	88 88	+	92 LG	H	H	96 SB	+	+	98	+	101	+	+	ļ	+	+	4	110	11		
LED HEAD LAMP (LH) WARNING SIGNAL	ILLUMINATION CONTROL C		M118	BCM (BODY CONTROL MODULE)	M03FB-LC			1 3		3			Signal Name [Specification]	BAT (F/L)	POWER WINDOW POWER SUPPLY(BAT)	POWER WINDOW POWER SUPPLY(RAP)			M119	BCM (BODY CONTROL MODULE)		NS16FW-CS			4 5 7 0 8 9	11 12 14 15 17 18 10	/ 10			Signal Name [Specification]		INTERIOR ROOM LAMP POWER SUPPLY	TASSEINGEN DOON UNEOCK COLLOI	STEP LAMP	ALL DOOR, FUEL LID LOOK COITED	DRIVER DOOK, FUEL LID UNLOCK OUTPUT	GND	ONO I II WO NOTE IN OND I I OND	FUSH-BUTTON IGNITION SWITE GIND	ACC IND	TURN SIGNAL RH (FRONT) OUTPUT	TURN SIGNAL LH (FRONT) OUTPUT	ROOM LAMP TIMER CONTROL	
. ∀	40 V			Connector Name	Connector Type			<b>2</b> 2				orania O locimos	No Wire	t	2 B	W W			Connector No.	Connector Name	Т	Connector Type		_	H.S.					曺	<u>}</u>	4 u	+	× ×	> (	+	╀	+	+	+	+	4	19 /	
		M53	COMBINATION METER	SAB40FW	8		00 0 10 1 0 1 0 1 0 1 0 1	27 22 23 34 23 86 27 28 28 29 31 32 28 35 35 55			201-10	Miro Signal Name [Specification]	VIGGIS GENERAL VIGORIA	T	B GROUND	B ILLUMINATION GROUND	B GROUND	W METER CONTROL SWITCH GROUND	Y AC AUTO AMP. CONNECTION RECOGNITION SIGNAL	AMBIENT SENSOR GROUND		_	1	B OIL PRESSURE SENSOR GROUND	I FD HFAD	T	R OIL LEVEL SENSOR GROUND	W OIL LEVEL SENSOR SIGNAL	CAN-H	CAN-L	ILLUMINATION CONTROL SWITCH SIGNAL (-)	BR ILLUMINATION CONTROL SWITCH SIGNAL (+)	+	BG ENTER SWITCH SIGNAL	-	COLOR PROPERTY.	T	t	t	ñ	+	+	4	BG FUEL LEVEL SENSOR SIGNAL
41		Connector No.	Connector Name	Connector Type	ą.	事	Š				Hamming	e minai	9 -	- 2	က	4	2	9	7	80	6	12	13	4 1	0 9	18	19	50	7	22	R.	24 12	22	28	ù 8	ę ę	3 8	3 8	5 8	35	8	34	33	38
HEADLAMP Connector No.   M24	Connector Name DATA LINK CONNECTOR	Connector Type BD16FW		91 71 111		3 4 5 6 7 8			la la	Wire	+	20 0	n -			H	14 P	16 Y			Connector No. M33	Connector Name COMBINATION SWITCH		Connector type THIBEW-INH			1.5	7	7 8 9 10 11 12 13 14			Ferminal Color Of Signal Name [Specification]	Ť		+		+	$^{+}$		+	+	7	+	13 BR -

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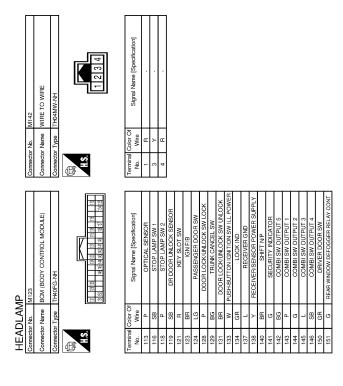
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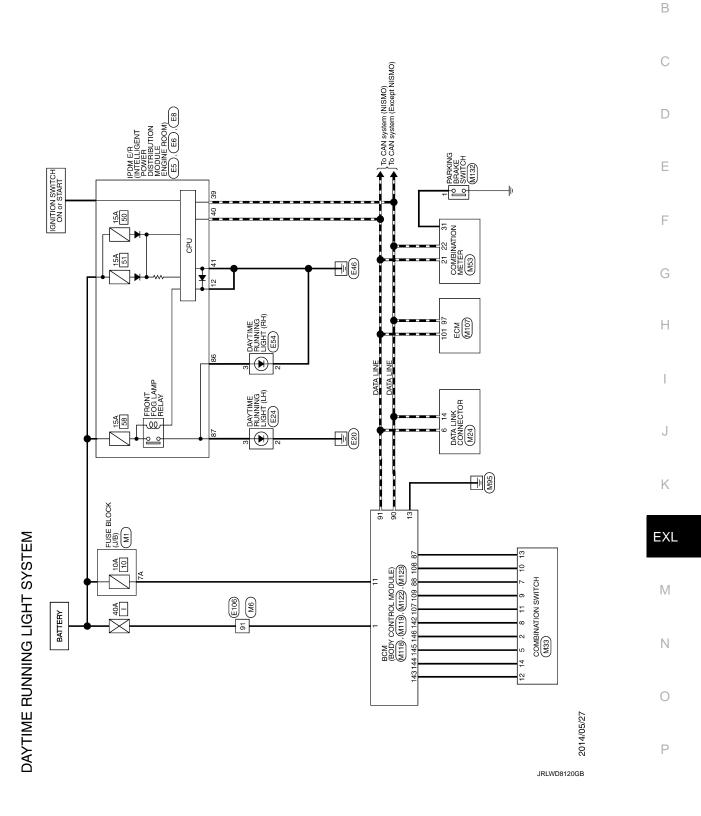
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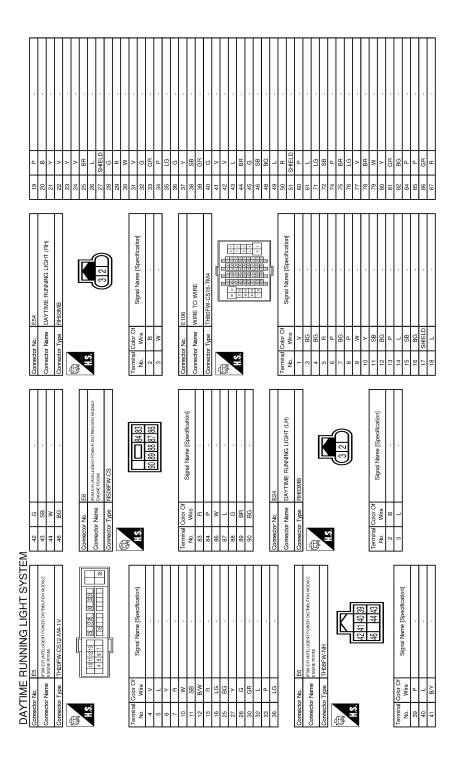
### DAYTIME RUNNING LIGHT SYSTEM

Wiring Diagram - DAYTIME RUNNING LIGHT SYSTEM -

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#### **DAYTIME RUNNING LIGHT SYSTEM**

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Corrector No. M24 Corrector Name DATA LINK CONNECTOR Corrector Type BD16FW	HS.	Terminal Color Off Signal Name [Specification] No. Wire Signal Name [Specification] 4 B 5 B 6 L 7 V	16   Y	Terminal Color Of Nurse Signal Name (Specification) No. Wire 1 LG 2 SB 5	
38 Y 39 GR 40 BG	44 BB 45 G 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	SHED SB SB V W W HB BR C C C C C C C C C C C C C C C C C C		100 L	
Connector No. M6 Connector Name WIRE TC Connector Type TH80MW	\$\frac{1}{2}\$	Terminal Color Of Signal Name (Specification) Wire Wire 1	110 G G	25 BR	
DAYTIME RUNNING LIGHT SYSTEM	98 GG GR 68 GG GR 78 GG 69 GG GR 78 GG 69 GG GR 78 GG 69 GG	In Indian Processing Cor Type NSOGEWAIZ		8A L	
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Revision: 2015 June EXL-75 GT-R

DAY	DAYTIME RUNNING	<b>NING LIGHT SYSTEM</b>	_								
14	9		39	T	LED HEAD LAMP (LH) WARNING SIGNAL	Connector No.		M118	Connector No.	or No.	M122
			40	>	ILLUMINATION CONTROL	Connector Name		BCM (BODY CONTROL MODULE)	Connect	Connector Name	BCM (BODY CONTROL MODULE)
Connector No.	No. M53					Connector Type	т	M03FB-LC	Connect	Connector Type	TH40FB-NH
Connector Name		COMBINATION METER	Connector No.	П	M107	₫.			Œ		
Connector Type	Type SAB40FW		Connector Name		ECM	手			事		
€.			Connector Type		RH24FGY-RZ8-R-LH-Z	2		13	2	_	91 99 89 88 87 8 88 82 81 80 78 78 77 78 75 74 73 72
H.S.	12345	5 6 7 8 9 1 12 13 14 15 16 18 18 18 20	偃 图		00   10						जित्त है। जित्त है। जित्त महिता है। जित्त महिता है। जित्त है। जित्त है। जित्त है।
	212223242	26 [26 [27] 2명 29 30 [31 [32] 33 [34 [35] ] 3명 29 40]			127 721 118114 1101 113 99	Torminal	Oolor Of		Tormina	Color	
					201 117 113 116 116 110 97			Signal Name [Specification]	e e		Signal Name [Specification]
						-	$\neg$	BAT (F/L)	72	œ	ROOM ANT2-
Terminal Color Of		Signal Name (Specification)		Ī		2	T	POWER WINDOW POWER SUPPLY(BAT)	73	g	ROOM ANT2+
Ö	Wire		ā	Color Of	Signal Name [Specification]	ო	>	POWER WINDOW POWER SUPPLY(RAP)	74	g	PASSENGER DOOR ANT-
-		BATTERY POWER SUPPLY	ė !	Wire					72	띪 :	PASSENGER DOOR ANT+
5 .		IGNITION POWER SUPPLY	97	а 6	CAN COMMUNICATION LINE		1		9/	> 9	DRIVER DOOR ANT-
,	1	GROUND	SS &	3 8	SENSOR POWER SUPPLY	Connector No.	1	- STLM	` F	2 >	DRIVER DOOR ANI+
t u	0 0	CEOMINAL TON GROUND	00.	<u>-</u>	SeliSON POWER SUPPLY	Connector Name		BCM (BODY CONTROL MODULE)	2 0	- 8	POOM ANTH:
0	+	METER CONTROL PARTIES OF THE PROPERTY OF THE P	5 5	,	ACCOUNTING CHARLES	1000000	Т	Nictorial Co.	0 8	5 8	+I INA MICONI PARA I
م ہ	t	S CONTROL SWITCH GROUND	201	5 8	SENSOB OBOLIND	Connector Type	٦.	VOIDEW-CO	8 5	<u>-</u>	IMMOBI ANTENNA CONTROL
- α	t	AMBIENT SENSOB GROUND	100	5 0	ACCEL EDATOR DEDAIL POSITION SENSOR 1	Œ			6		ISN BELAY (F/B) CONT
0		AMBIENT SENSOR SIGNAL	ž č	. 1	FOM DELAY (SELESHIT-DEE)	ET.			8 8	>	MENI ESS ENTEN DECENDED
12 9	VEH	VEHICLE SPEED SIGNAL (2-PULSE)	106	N S	IGNITION SWITCH	H.S.		4 5 7 8 9	8 2	- 8	COMBLSW INPLT 5
5	V VEHICL		107	BG	SENSOR GROUND			11 12 14 15 17 18 10	88	>	COMBI SW INPUT 3
14	B OIL PR		108	_	ACCELERATOR PEDAL POSITION SENSOR 2			2	88	BB	PUSH SW
15	œ	AIR BAG SIGNAL	109	_	SAVALVERLY				06	۵	CAN-L
16	R LED HEAD	LED HEAD LAMP (RH) WARNING SIGNAL	110	Ь	STOP LAMP SWITCH				91	7	CAN·H
18	L FUEL	FUEL LEVEL SENSOR GROUND	111	GR	PNP SIGNAL	Terminal	Ferminal Color Of	Signal Nama (Specification)	85	LG	KEY SLOT ILL OUTPUT
19	_	OIL LEVEL SENSOR GROUND	113	SB	ENGINE SPEED OUTPUT SIGNAL	S	Wire	ogna rame [openication]	93	>	ON IND
20	M ·	OIL LEVEL SENSOR SIGNAL	114	> 1	DATA LINK CONNECTOR	4	۰ س	INTERIOR ROOM LAMP POWER SUPPLY	92	g ;	ACC RELAY CONT
21	7	CAN'H	117	œ j	ASCD BRAKE SWITCH	2	σ :	PASSENGER DOOR UNLOCK OUTPUT	96	g .	A/T SHIFT SELECTOR POWER SUPPLY
22 62	A 0	CAN-L	8 5	≥ 0	POWER SUPPLY FOR ECM (BACK-UP)	\ 0	> >	ALL POOR ELIEL LINLOCK OLITRIE	6		S/L CONDITION 1
3 5	+	ILLEGATION CONTROL SWITCH SIGNAL (1)	2 5	á a	MOD BOD NED STANDS	0	Ť	PRICE DOOR SHELLING THE STATE OF THE STATE O	8 8	= 0	SHIELD
52	+	TRIP A/B RESET SWITCH SIGNAL	122	>	POWER SUPPLY FOR ECM	÷ =	T	BAT (FUSE)	100	>	PASSENGER DOOR REQUEST SW
g	F	ENTER SWITCH SIGNAL	124	α	ECM GBOLIND	ç	ď	UNE	101	>	DRIVER DOOR BEOLIEST SW
27		SELECT SWITCH SIGNAL	126	_	FUEL PUMP RELAY	41	۵	PUSH-BUTTON IGNITION SW ILL GND	102	B	BLOWER FAN MOTOR RELAY CONT
58		ALTERNATOR	127	ŋ	THROTTLE CONTROL MOTOR RELAY	15	>	ACC IND	103	P	KEYLESS ENTRY RECEIVER POWER SUPPLY
53	G SEAT BELT B	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)	128	В	ECM GROUND	17	Μ	TURN SIGNAL RH (FRONT) OUTPUT	106	۵	S/L UNIT POWER SUPPLY
30	LG SEAT BELT	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE).				18	BG	TURN SIGNAL LH (FRONT) OUTPUT	107	ΓG	COMBI SW INPUT 1
31	V PARKI	PARKING BRAKE SWITCH SIGNAL				19	>	ROOM LAMP TIMER CONTROL	108	œ	COMBI SW INPUT 4
32	V BRAKE	BRAKE FLUID LEVEL SWITCH SIGNAL							109	>	COMBI SW INPUT 2
33	+	WASHER LEVEL SWITCH SIGNAL							110	g	HAZARD SW
34	+	PRESSURE SENSOR POWER							=======================================	>	S/L UNIT COMM
32	W OIL P	OIL PRESSURE SENSOR SIGNAL									
ρg	4	EL LEVEL SENSOR SIGNAL									

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#### **DAYTIME RUNNING LIGHT SYSTEM**

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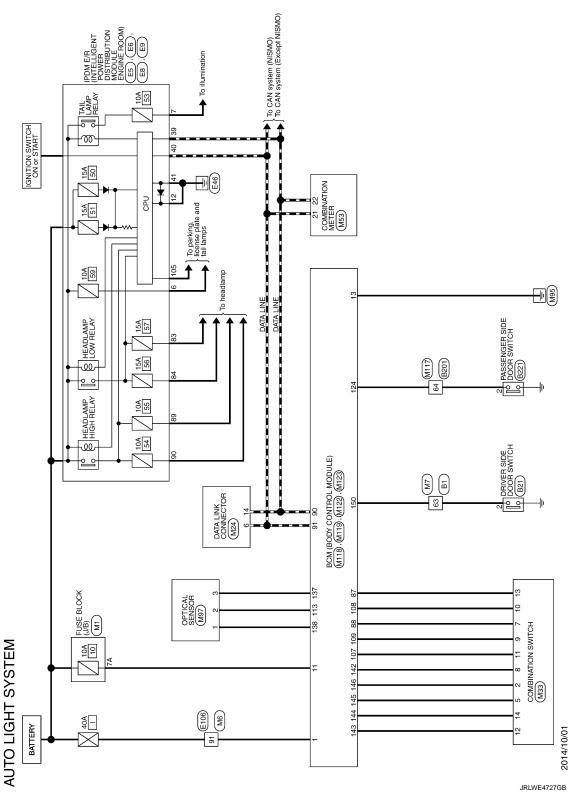
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M132 PARKING BRAKE SWITCH POTEBA		Of Signal Name [Specification]																							
Connector No. Connector Name Connector Type	H.S.	Terminal Color Of No. Wire	1																						
DAYTIME RUNNING LIGHT SYSTEM Zemector No. MI23 Domector Name BOM (BODY CONTROL MODULE) Zomector Type TH40FG-NH		Signal Name [Specification]	OPTICAL SENSOR	STOP LAMP SW 1	STOP LAMP SW 2	DR DOOR UNLOCK SENSOR	KEY SLOT SW	IGN F/B	PASSENGER DOOR SW	DOOR LOCK/UNLOCK SW LOCK	TRUNK CANCEL SW	DOOR LOCK/UNLOCK SW UNLOCK	PUSH-BUTTON IGNITION SW ILL POWER	LOCK IND	RECEIVER GND	RECEIVER/SENSOR POWER SUPPLY	SHIFT N/P	SECURITY INDICATOR	COMBI SW OUTPUT 5	COMBI SW OUTPUT 1	COMBI SW OUTPUT 2	COMBI SW OUTPUT 3	COMBI SW OUTPUT 4	DRIVER DOOR SW	TACC VALUE OF COOLING MODIFIES DATE
TIME r Name		Terminal Color Of No. Wire	Ь	SB	۵.	SB	ж	BR	LG	۵	BG	BR	×	GR	L	Υ	BR	G	BG	Р	G	L	SB	GR	C
DAYTIME Connector No. Connector Name Connector Type	es.H.S.	Terminal No.	113	116	118	119	121	123	124	128	129	131	133	134	137	138	140	141	142	143	144	145	146	150	454

## **AUTO LIGHT SYSTEM**

Wiring Diagram - AUTO LIGHT SYSTEM -

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100   100	100   100	Connector No.	B1	49	>		4		42	>	
Signat Name   Specification   Signature   Specification   Specif	Signature   Sign	Connector Name		20	SHELD		$\dashv$		51	SB	
Transport Osine Table   Fig. 18   Fig. 19	The Propertical Market   1969   196	CONTROLL INCHES		51	SB				52	G	
Simple   Converted Name   Converted Na	Second   Control of the control of	Connector Type		25	В	•			23	BB	•
1	1			23	œ		Connector No		54	>	
Second	Second   Second Name   Secon	俘	22 See 15	54	В		Connector Na	me DRIVER SIDE DOOR SWITCH	09	ш	
Check of Segrati Name (Secretarized)   Check of Segrati Name (Segration Name (Segra	Control   Cont	ě		26	œ				61	Д	
Color of C	Control   Cont	ė		22	9		Connector Ty	oe A03FW	62	7	
Color   Colo	Color Of   Signat Name (SpordCardico)   Signat Name (SpordC		2 S	28	G		[	[	83	ല	
Control   Signat Manne (Specification)   S	Control   Cont		(2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	29	æ		E	K	64	GB	
Control   Cont	Color of C			9	æ			<u>K</u>	69	۵	
Control	Control			9	>		2		20	_	
1	1			69	SHE			c	7.4	α	
1	1			3				<u> 1</u>	8	-	
1	1	†		3	2				8	,	
V   V   V   V   V   V   V   V   V   V	V   V   V   V   V   V   V   V   V   V	+		49	œ			]		88	
V   V   V   V   V   V   V   V   V   V	V   V   V   V   V   V   V   V   V   V			92	g				85	>	
W         W         Po         Po <td>  Winder   W</td> <td></td> <td></td> <td>99</td> <td>æ</td> <td></td> <td>Terminal Col</td> <td></td> <td>88</td> <td>В</td> <td></td>	Winder   W			99	æ		Terminal Col		88	В	
Y   Y   Y   Y   Y   Y   Y   Y   Y   Y	Y   Y   Y   Y   Y   Y   Y   Y   Y   Y			67	BG				84	>	
Y   Y   Y   Y   Y   Y   Y   Y   Y   Y	Y   Y   Y   Y   Y   Y   Y   Y   Y   Y	_		69	а		_		982	BR	
National Color Office   Color Offi	National Section of the control and section of	F		20	L		┨		98	SHELD	
17   SHELD   With active rose control until   22   SHELD   With active rose control until   23   SHELD   With active rose control until   24   SHELD	12   SHELD   Without active rosies control until   22   SHELD   Without active rosies control until   23   SHELD   Without active rosies control until   24   SHELD   Without active rosies control until   25   SHELD   Signal Name   Shoothcairol   25   SHELD   Signal Name   Shoothcairol   25   SHELD   Signal Name   Shoothcairol   25   Shell   Shell	╀		7 5	, I				2 6	N N	
Corrector Nume   Corrector of the control of the	Signature   Commence of the Property of the	+		. 2	CHED	ľ	Connector No	Г	90	: >	
Signature   173   Signature   174   Signature   175   Signature	State   Stat	+		1	2 2	1		Τ	8 8	- 8	
Fig. 10   Fig.	Fig. 19   Fig.	+		7 0	> 5	- [with active hoise control unit	Connector Na		S S	2 8	
Name	No.   No.	+		2	200			7	S	Y.	
R	R	+		76	œ		Connector Ty		100	>	10
National active moise control until   National active moise ac	National active noise control until   National active noise active	$\dashv$		77	SB		þ				
Fig. 10   Fig.	W   W   W   W   W   W   W   W   W   W			78	g		B				
Fig. 10   Fig.	Fig. 10   Fig.			79	٨		É		Connect		B221
Control of the cont	Control of Color Of	-		80	œ		ė.				LICENSO GOOD TOO GEOMETOOA
SB   SB   SB   SWithout active noise control until active noise control until active noise control until SG   SB   SB   SB   SB   SB   SB   SB	SE   SE   SE   C   C   C   Without active noise control util   Termial Coin of C   C   C   C   C   C   C   C   C   C	┝		8	G			9 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Connect		PASSENGER SIDE DOOR SWITCH
W   W   With active noise control unit   No.   Wire   Signal Name (Specification)   No.   No.   Wire   Signal Name (Specification)   No.	W   W   W   With active roise control until   BG   SB   W   With active roise control until   No.   Wire   Signal Name   Specification   No.   Wire   SB   W   With active roise control until   No.   Wire   SB   W   With active roise control until   No.   Wire   SB   W   With active roise control until   SG   C   C   C   C   C   C   C   C   C	H		S	æ	- [Without active noise control unit]		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Connect	Т	Ansew
G   C   C   C   C   C   C   C   C   C	G   G   G   G   G   G   G   G   G   G	╀		S		Mith option poice control mit				7	
Fig. 1   Fig. 2   Fig. 3   Fig. 4   F	Fig. 1   F	$^{+}$		8	3 6	With active lose control diff.			Œ		E
Fig. 19   Fig.	Harman   State   Sta	+		8 8	ε ;	- [vvitri active noise control unit]		·	李		2
CR   CR   CR   CR   CR   CR   CR   CR	CR   CR   CR   CR   CR   CR   CR   CR	+		3	-	1	ie illia				
Second of the control of the contr	Second   S	+		8 8	SHELD		+			_	1
BG   SB   - Without active noise control util   F   V   V   C	BG   SB   - Without active noise control until   7   V   SB   SF   SF   SF   SF   SF   SF   SF	+		82	>		+		_		2
Car	BG   BG   BG   BG   BG   BG   BG   BG			86	SB	<ul> <li>[Without active noise control unit]</li> </ul>	_				
CGR	CGR			98	8	- [With active noise control unit]					]
10   10   10   10   10   10   10   10	10   10   10   10   10   10   10   10	H		87	_		L				]
V V         V	No.   No.	H		ä	۵		ŀ		Tarmina	Color Of	
BG   C   C   C   C   C   C   C   C   C	BG   State	╀		8 8	- 1		+		2	Wire	Signal Name [Specification]
BG   S   S   S   S   S   S   S   S   S	BG   S   S   S   S   S   S   S   S   S	+		80	SPIELD		+		į	2	
CG   SB   SB   SB   SB   SB   SB   SB   S	C   C   C   C   C   C   C   C   C   C	$\dashv$		90	>		+		5	GR	
C	1 C			92	8		-				
Y   Y	X   X   X   X   X   X   X   X   X   X	_		66	SB		_				
SB     .     95     BG     .     41       P     .     96     Y     .     42       R     .     97     Y     .     42       B     .     96     LG     .     43	SB   SB   C   C   SB   C   C   C   C   C   C   C   C   C	H		94	GB		H				
258   1	25	+		5			+		_		
96 Y 97 Y 8	96 Y Y	+		S	g :		+	ı.			
B	B · · · 97 · Y · · · · 43 · · · · · · · · · · · · · ·	+		96	>		4		_		
88 LG · · · 84	P			97	>		43				
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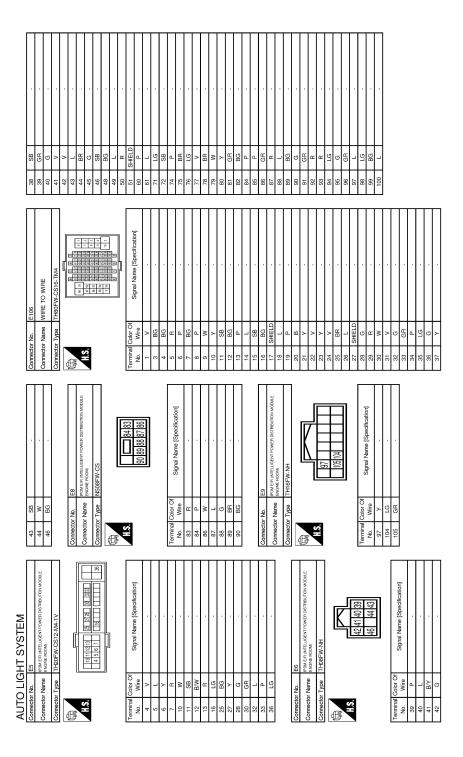
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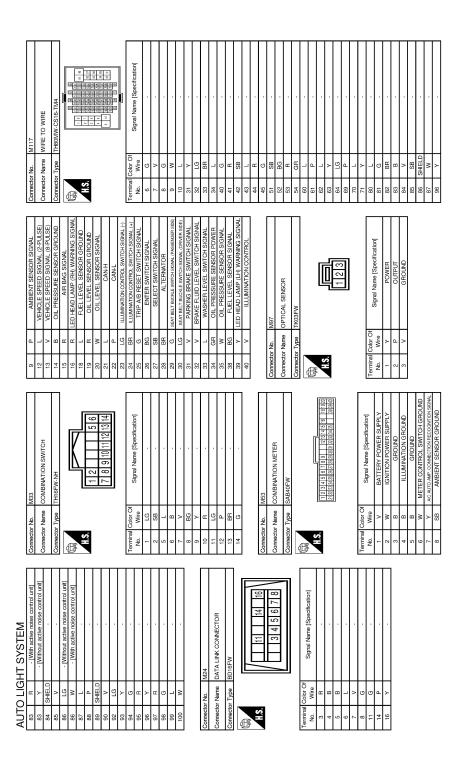
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Corrector No. M123 Corrector Name BCM (BODY CONTROL MODULE) Corrector Type TH40FG-NH		Terminal Color Of   Signal Name [Specification]   No.   Wire   OPTICAL SENSOR	116 SB STOP LAMP SW 1 118 P STOP LAMP SW 2	119 SB DR DOOR UNLOCK SENSOR	r HB	124 LG PASSENGER DOOR SW 128 P DOOR LOCK/IN OCK SW LOCK	BG	BB	133 W PUSH-BUTTON IGNITION SWILL POWER 134 GR LOCK IND	_	138 Y RECEIVER/SENSOR POWER SUPPLY 140 BR SHIFT NP	G SECUI	4	143 F COMBISWOUPULL		SB	GB.	151 G REAR WINDOW DEFOGGER RELAY CONT										
MI22 BOM (BODY CONTROL MODULE) TH40FB-NH	日本   日本   日本   日本   日本   日本   日本   日本	Signal Name [Specification] ROOM ANT2-	ROOM ANT2+ PASSENGER DOOR ANT-	PASSENGER DOOR ANT+	DRIVER DOOR ANT+	ROOM ANT1- ROOM ANT1+	IMMOBI ANTENNA CONTROL	IMMOBI ANTENNA SIGNAL	IGN RELAY (F/B) CONT KEYLESS ENTRY RECEIVER COMM	COMBI SW INPUT 5	COMBI SW INPUT 3	CAN-L	CAN-H	ONIND	ACC RELAY CONT	A/T SHIFT SELECTOR POWER SUPPLY	S/L CONDITION 1	S/L CONDITION 2	PASSENGER DOOR REQUEST SW	DRIVER DOOR REQUEST SW	BLOWER FAN MOTOR RELAY CONT	KEYLESS ENTRY RECEIVER POWER SUPPLY	S/L UNIT POWER SUPPLY	COMBI SW INPUT 4	COMBLSW INPUT 2	HAZARD SW	S/L UNIT COMM	
Connector No. Connector Name Connector Type	H.S.	Terminal Color Of No. Wire 72 R	73 G 74 SB	75 BR	77 LG	78 Y	+	Н	83 82 ×	H	> 88 SB SB	$\vdash$	+	92 N	95 BG	BS 96	+	88 00 88 00	+	V 101	H	_	106 P	100	+	110 G	111 Y	
89 C C C C C C C C C C C C C C C C C C C	BODY CONTROL MODULE)	13	]	Signal Name (Specification)	BAT (F/L)	POWER WINDOW POWER SUPPLY(BAT)			M119	BCM (BODY CONTROL MODULE)	NS16FW-CS		45 7 3 8 9 1	10 11 12	14 10 11 10			Signal Name [Specification]	INTERIOR ROOM LAMP POWER SUPPLY	PASSENGER DOOR UNLOCK OUTPUT	STEP LAMP	ALL DOOR, FUEL LID LOCK OUTPUT	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	DAI (FUSE)	DISHBUTTON IGNITION SWILL GND	ACC IND	П	TURN SIGNAL LH (FRONT) OUTPUT
AUTO LIG	e e	s:		Terminal Color Of	t	2 S	+			. [	Connector Type	優	<u>د</u>	1				erminal Color Of No Wire	+	5 G	۷ /	+	o :	r a	+	15 Y	Н	18 BG

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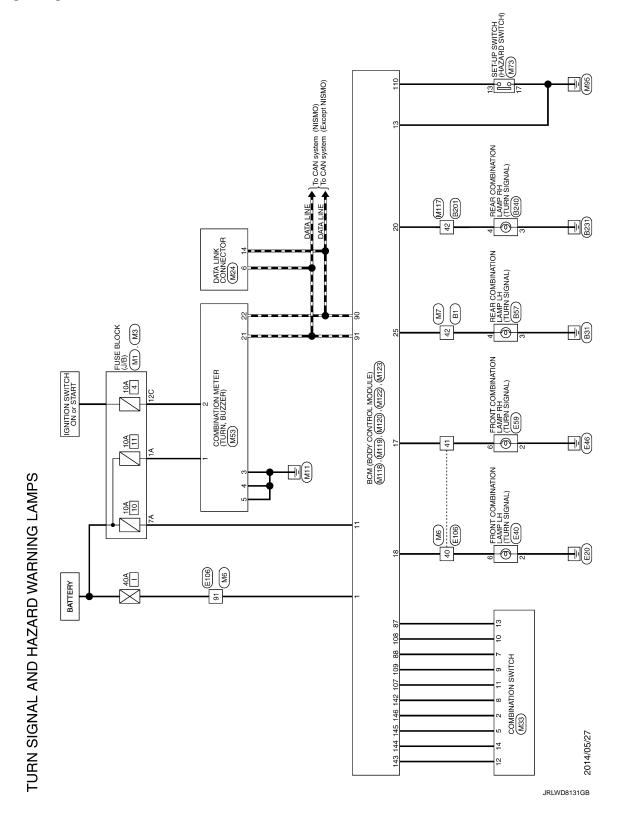
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[LED HEADLAMP]

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### TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

Wiring Diagram - TURN SIGNAL AND HAZARD WARNING LAMPS -



< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

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0000	Connector Name WIRE TO WIRE	RE	50	SHIELD		100 G	41 GR
Connector Type	Type TH80FW-CS16-TM4	16-TM4	25	9 0			43 Y .
6	1		23	œ		Connector No. B57	Н
厚	-		54	a c		Connector Name REAR COMBINATION LAMP LH	45 W .
H.S.	18		22	5		Connector Type NS06MW-CS	+
	2 2		28	g		4	Н
	聚		29	œ		<b>                                      </b>	
	_		9 3	H :		1.5	80 R
			+	- į		- (	+
2	Wire	Signal Name [Specification]	+	9		2 3 4 5	+
	-		8 2	3 a			23 29
1 6	, a		. Y				+
9	. >		99	BB e		Terminal Color Of	╀
7	W		29	88		No. Wire Signal Name [Specification]	71 B
80	Μ		69	۵			┢
6	Α.		20	-		2 R -	81 SB -
10	а		П	SHIELD			
Ξ	>-	1	П	SHIELD	<ul> <li>[Without active noise control unit]</li> </ul>	$\dashv$	83 B
12	GR		72	>	<ul> <li>[With active noise control unit]</li> </ul>	+	$\dashv$
13	BG		73	SB		, ,	┪
14	<b>&gt;</b>		76	œ			ά
12	BR		77	SB			+
16	œ	Û	78	G	•	Connector No. B201	- A 96
17	M		79	>		Connector Name WIRE TO WIRE	. BG .
<u>@</u>	BR		8	۳		╗	+
20	GR		18	G		Connector Type TH80FW-CS16-TM4	100 W
21	SB		85	HH HH	<ul> <li>[Without active noise control unit]</li> </ul>		
22	M	•	82	g	<ul> <li>[With active noise control unit]</li> </ul>	88 88 88 88 88	ſ
23	9		83	œ	ctive noise c	8	Connector No. B240
24	BG	-		>	<ul> <li>[Without active noise control unit]</li> </ul>	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Consector Name   DEAD COMBINATION   AMP BH
25	٦			SHIELD			3
56	<b>a</b>	i	82	>			Connector Type NS06MW-CS
27	GR		98	SB	<ul> <li>[Without active noise control unit]</li> </ul>		ľ
28	BG	,	98	Μ	<ul> <li>[With active noise control unit]</li> </ul>		
31	GR		87	_			
32		,	П	۵		No. Wire Signal Name (Specification)	9
33	>		68	SHELD		5 9	0 3 / 5
34	BG		Г	>		_	0 + 0 7
39	G		92	88		H	
40	2		8	57		*	
7 17	? >		8 8	3 8		$^{+}$	Color Of
5	. g		5 4	5 8		+	No Wire Signal Name [Specification]
42 4	3 a		8 8	3 >			>
2 1	-		2 2	- ;		2 8	- 0
/4/	r		/6	-		+	W 1
48	В		98	P.		34 L	3 B

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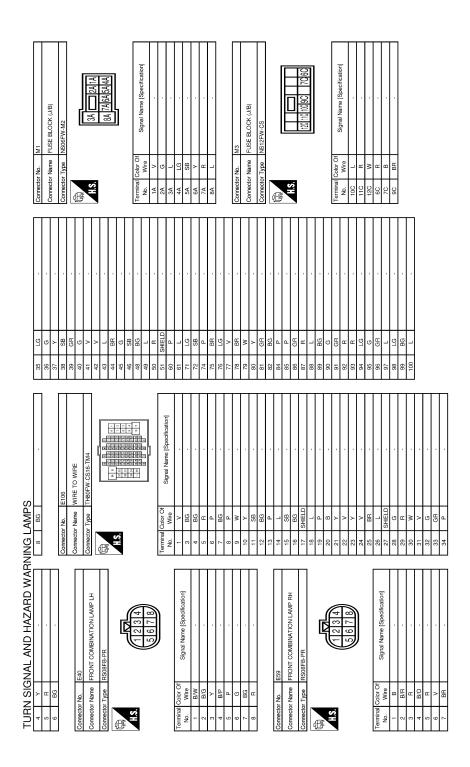
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[LED HEADLAMP]



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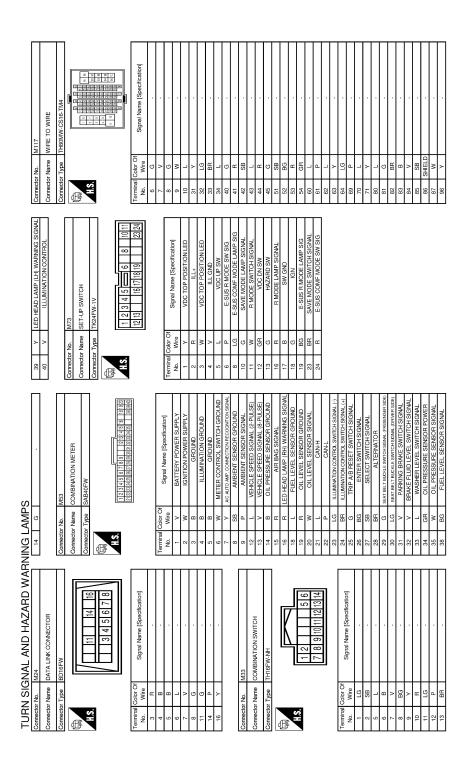
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[LED HEADLAMP]

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les control unit   control unit   se control unit	В
- (Without active noise control until   With active noise control until   With active noise control until   Without active noise control until   Without active noise control until   Without active noise control until     Without active noise control until	С
50   54   54   55   55   55   55   55	D
(cations)	Е
WIRE TO WIRE THEOMAN-CSI G-TM4  THEOMAN-CSI G-TM4  THEOMAN-CSI G-TM4  THEOMAN-CSI G-TM4  THEOMAN-CSI G-TM4  Signal Name (Specification)	F
Corrector No. Min. Corrector No. Min. Corrector Name Will Correcto	G H
	1
	J
C LAMPS   S	К
WAN O	EX
Corrector No.   Mile	M
TURN SIGNA SIGNA Connector No. Mis Connector No. Mis Connector No. Mis No. Wite No. Mis No. Mi	N
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[LED HEADLAMP]



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[LED HEADLAMP] < DTC/CIRCUIT DIAGNOSIS >

TURNS	TURN SIGNAL AND HAZARD WARNING LAMPS	NING	LAMP	S							
Н		Connector No.	tor No.	M120	91	_	CAN-H	142	BG	COMBI SW OUTPUT 5	_
A 66		Connect	Connector Name	BCM (BODY CONTROL MODILLE)	95	ΓG	KEY SLOT ILL OUTPUT	143	۵	COMBI SW OUTPUT 1	_
100 W					93	>	ON IND	144	ŋ	COMBI SW OUTPUT 2	_
		Connect	Connector Type	NS12FW-CS	92	BG	ACC RELAY CONT	145	_	COMBI SW OUTPUT 3	_
		[			96	SB	A/T SHIFT SELECTOR POWER SUPPLY	146	SB	COMBI SW OUTPUT 4	
Connector No.	M118				6	_	S/L CONDITION 1	150	GR	DRIVER DOOR SW	
		Ŧ			86	æ	S/L CONDITION 2	151	Ø	REAR WINDOW DEFOGGER RELAY CONT	Γ.
Connector Name	ne BCM (BODY CONTROL MODULE)	2	_	20 23	66	g	SHIFT P				1
Connector Type	e M03FB-LC			25	100	Ν	PASSENGER DOOR REQUEST SW				
				00	101	>	DRIVER DOOR REQUEST SW				
E					102	BG	BLOWER FAN MOTOR RELAY CONT				
i i					103	9	KEYLESS ENTRY RECEIVER POWER SUPPLY				
SIS.	~	Torminal	Color Of		106	۵	VIDELS SHAMOR TINIT IVS				
	2	2		Signal Name [Specification]	2 2	- 9	COMPLEMENT 4				
		6	8	FIGHIO (GADA) LIGINATION OF THE	2	3 0	COMBLEW INDITA				
	]	S S	9 0	TOTAL SIGNAL MIT (NEAR) COLFO	9 9	: :	+ IO-NI ME IONO				
		3 5	5 :	THOUSEN COLUMN	20 5	- (	COMBI SW INFO				
		Q	}	I DHIN SIGNAL EN (NEAR) COLLO	2	5	WCARD SW				
E D	Signal Name (Specification)	30	g	TRUNK ROOM LAMP OUTPUT	Ξ	>	S/L UNIT COMM				
No.											
+	7					-					
2 B	POWER WINDOW POWER SUPPLY(BAT)	Connector No.	tor No.	M122	Connector No.		M123				
3 M	/ POWER WINDOW POWER SUPPLY(RAP)	Connect	Connector Name	BCM (BODY CONTROL MODULE)	Connect	Connector Name	BCM (BODY CONTROL MODULE)				
							(======================================				
		Connect	Connector Type	TH40FB-NH	Connect	Connector Type	TH40FG-NH				
Connector No.	M119				_						
Compartor Namo	BCM (BODY CONTBO! MOBILE)	B			B						
COIIIECIOI IVAII		ŧ			¥						
Connector Type	e NS16FW-CS	2		191 an 89 88 87	2		[24] [24] [25] [25] [25] [25] [25] [25] [25]				
Q				52 52 53 56 57 58 58 50 101 101 101 101 101 101 101 101 101			19 150 14 14 14 14 14 14 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15				
子											
HS.	45 7 89										
		Tomorpho	JO solos Of		Tosonino	o volo					
	11 1131415 1711819	e e	Wire	Signal Name [Specification]	S.	Wire	Signal Name [Specification]				
		72	œ	ROOM ANT2-	113	۵	OPTICAL SENSOR				
		73	G	ROOM ANT2+	116	SB	STOP LAMP SW 1				
Terminal Color Of		74	SB	PASSENGER DOOR ANT-	118	۵	STOP LAMP SW 2				
No. Wire	ognal Name [Specification]	75	BB	PASSENGER DOOR ANT+	119	SB	DR DOOR UNLOCK SENSOR				
4	Т	9/	>	DRIVER DOOR ANT-	121	а	KEY SLOT SW				
H	PASSENGER DOOR UNLOCK OUTPUT	11	9	DRIVER DOOR ANT+	123	BB	IGN F/B				
┞	Т	78	>	ROOM ANT1-	124	97	PASSENGER DOOR SW				
8	ALL DOOR. FUEL LID LOCK OUTPUT	6/	88	ROOM ANT1+	128	۵	DOOR LOCK/UNLOCK SW LOCK				
0	DRIVER DOOR ELE	æ	ą	IMMOBI ANTENNA CONTROL	120	ű	WS IBJURG ANITE				
╀	BAT (	8 20	-	IMMOBI ANTENNA SIGNAL	£	8 8	DOOR LOCK/IN OCK SW IN OCK				
13 B		8	æ	IGN BELAY (F/B) CONT	133	8	PUSH-BUTTON IGNITION SW II I POWER				
╀	PUSHBITTON	83	>	KEYLESS ENTRY BECEIVER COMM	134	g	ONI XCC				
╁	t	2	8	COMB SW INDITE	137	-	BECEIVER GND				
- 42	THE IMPOSITE THE	6		C IN IN IN INCO	5	راً إ	VIEDELIA GENERALI GINDE				
+	+	8 8	> 8	DISH SW	9 9	- 00	PECEIVER/SENSOR FOWER SUFFEY				
+	I UNIN SIGNAL LI	8	E (	rush sw	9 :	5	AN LUIDO				
19	ROOM LAMP TIMER CONTROL	90	_	CAN-L	141	9	SECURITY INDICATOR				

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**EXL-89** GT-R Revision: 2015 June

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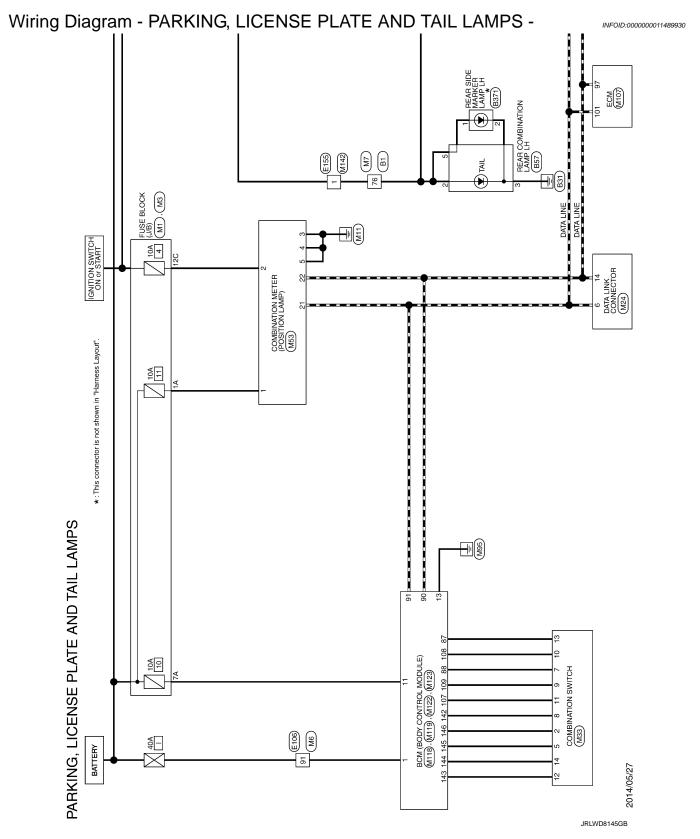
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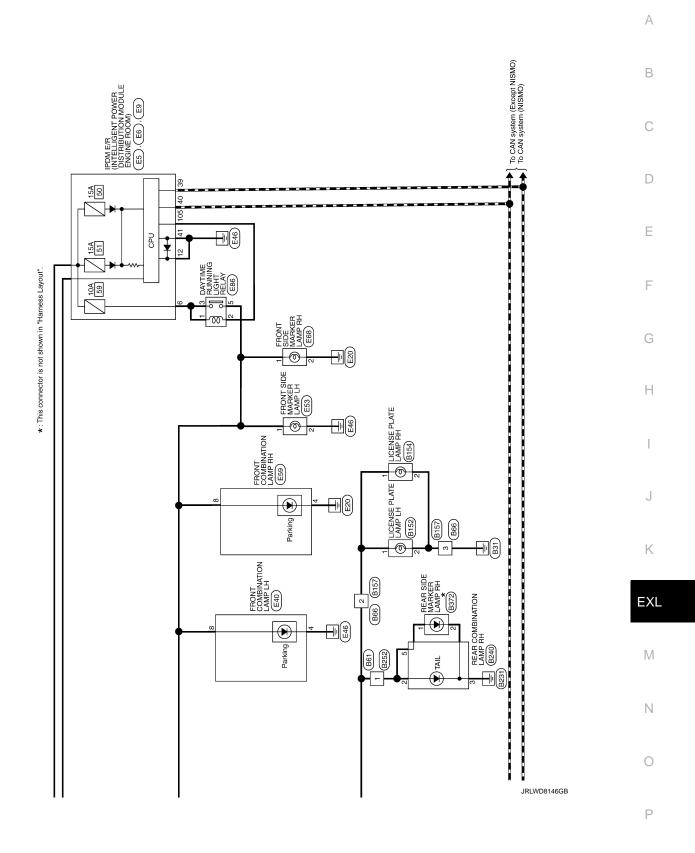
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## PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS SYSTEM





### PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS SYSTEM [LED HEADLAMP]

PAR	KING,	PARKING, LICENSE PLATE AND TAIL LAMPS	AIL L	AMP	(C)					
Connector No.	r No.	B1	49	П			66	$\dashv$		10 GR .
Connecto	Connector Name	WIRE TO WIRE	200	SHIELD	۾ او		100	5		11 LG .
Connector Type	Т	TH80FW-CS16-TM4	25	+						
ą			53	H			Conne	Connector No.	B57	Connector No. B66
厚			2 %	# (f	_		Conne	Connector Name	REAR COMBINATION LAMP LH	Connector Name WIRE TO WIRE
Š			57	+		,	Connec	otor Type	Connector Type NS06MW-CS	Connector Type RH10MB
			28	Н			[ {			á
			29	+			逐			
			9 6	器 >	m		HS.		1 6	0
Terminal	Terminal Color Of	Ö	62	SHIELD	9.			ı	2 3 4 5	(12345)
No.	Wire	Signal Name [Specification]	83	3 LG	(5)				6 + 6 3	(0)   8   2   9   10
2	٦		64	Н						
ო	۵		65	$\dashv$						
9	>		99	$\dashv$	m		Termir	Ferminal Color Of	Signal Name [Specification]	E C
7	×		67	_	<u>~</u>		ġ	Wire	from and a make	Wire
80	>		99	а.			-	Μ		
6	>		20	╛			~	œ	-	3 B
10	œ		71				က	В		4
Ξ	>-		72	SHIELD	İ	[Without active noise control unit]	4	SB		. B
12	GR		72	-		<ul> <li>[With active noise control unit]</li> </ul>	S	œ		
13	g		73	+	m		9	>		+
14	>		9/	$\dashv$						8 B
15	BB		77	2 SB	m	,				$\neg$
16	œ		78	5			Conne	Connector No.	B61	10 SHIELD -
17	Μ		79	۸ ۲			Jacob	Apr Name	Oppositor Name WIRE TO WIRE	
8	BB		8	$\dashv$			3			- 1
20	GR		8	_			Conne	Connector Type	TH12FW-NH	Connector No. B152
21	SB		85	7	'	[Without active noise control unit]	ą			Connector Name   LICENSE PLATE LAMP LH
22	> 0		85	+	4	[With active noise control unit]	B		<u> </u>	
3 2	5 8		2 8	r >	1	- [with active hoise control unit]		7	F	Connector Type HRUZEBH
54	g -		28 2	× 1		[Without active noise control unit]			6 5 4 3 2 1	<b>₹</b>
28	٦ ۵		8 8	$\top$	9.				12 11 10 9 8 7	Athle.
27	GR		88	SB	Ĺ	· [Without active noise control unit]			2	<u> </u>
28	BG		98	H		- [With active noise control unit]				-1
31	GR		8,	_			Termir	Terminal Color Of	Carried Misses Of America	[[5]]
32	٦		88	П			No	Wire	oigilai ivairie [opecification]	•
33	۸	•	88	3 SHIELD	GT:	-	-	В	•	
34	BG		90	^			2	W		la
39	5		92	Н	~	•	က	G		No. Wire Ognarivane [Specification]
40	ΓG		93		e .		4	G		1 R
41	>-		94	$\dashv$	o-		S	>		2 B ·
45	SB		95	_	(T)		9	Μ		
43	۵		96	+			_	>		
47	œ		97	+			∞	-		
48	9		88	E LG		•	6	BG		

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# PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS SYSTEM

[LED HEADLAMP] < DTC/CIRCUIT DIAGNOSIS >

Cornector No.   E5	(
Corrector No. B371  Corrector Type RS02MBR  Torrival Color Of Signal Name Specification)  Corrector Name REAR SIDE MARKER LAMP RH  Torrival Color Of Signal Name (Specification)  No. Wire Signal Name (Specification)  1	
Corrector Name   REAR COMBINATION LAMP RH	
Connector Name   Coord Name   Connector Name   Connecto	E
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**EXL-93** GT-R Revision: 2015 June

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PARKING, LICENSE PLATE AND TAIL LAMPS			П	Connector No.	E106
_		Connector Name FRONT SIDE MARKER LAMP RH		tor Name	
	Connector Type RK02FBR-DGY	Connector Type RK02FBR-DGY	Connec	Connector Type	TH80FW-CS16-TM4
	H.S.	H.S.	H.S.		
	₽				
	Terminal Color Of Signal Name [Specification]	Terminal Color Of Signal Name [Specification]	Terminal No.	al Color Of Wire	Signal Name [Specification]
	H	H	-	>	
	2 B/W .	2 B .	8	BG	
			4	BG	
	Compositor No.	Commoder No Eoc	2	m 0	•
1			I	- E	
0	Connector Name FRONT COMBINATION LAMP RH	Connector Name   DAYTIME RUNNING LIGHT RELAY	AY 8	<u>a</u>	
_	Connector Type RS08FB-PR	Connector Type MS02FL-M2-LC	6	Μ	
L			10	<b>\</b>	
F		· <b> </b>	Ξ	SB	
_		2	12	BG	
•	7	22	13	۵.	
	(5 6 7 8)		± #	- g	
			19	g S	
			17	SHIELD	
Ē	nal	lal		_	
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L	t	t	22	- >	
L	F	┝	23	>	,
	5 R		24	>	
_			25	ВВ	,
_	7 BR .		26	_	
Ш	8 BG .		27	SHELD	
			88	g	
			5	œ 3	
			90	≥ :	
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			32	ΓG	
			36	g	
			37	>	

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### PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS SYSTEM [LED HEADLAMP]

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							1													-																					-							-										
	Т	굜	18 L	+	9 37	$^{+}$	- GH	+	24 V	25 BR	2e G	ō	T	$\dashv$	29 R	H	ł	> 0	+	33 GR	34 LG	35 P	L	+	M > 60	+	39 GR	+		42 B	H	ŀ	+	5 5	$\dashv$		H	- G	Т	2	60 SB	V   V	71 W	$^{+}$	77 F.G	+	$\dashv$	76 LG		H	20 02	+	$\dashv$		╀	+	$\dashv$	85 P
	Connector No. M3	Connector Name FUSE BLOCK (J/B)		Connector Type INST2FW-CS	€	Atth			1,201,01,000					Lerminal Color Of Signal Name (Specification)		L			4	_	_	9C BR	1		- N	Τ	Connector Name WIRE TO WIRE		Connector Type TH80MW-CS16-TM4						2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	の 第			) o solo	<u></u>	No. Wire		a ~	: 0	+		٠ •	7 W -	^ 8		ł	<b>-</b>	o o	BG	a	ς .	$\dashv$	15 BR
AIL LAMPS	Connector No. E155	Connector Name   WIRE TO WIRE	E F	Connector Type TH04FW-NH	Œ	A STATE OF THE PROPERTY OF THE	<u> </u>		4 3 2 1					Lerminal Color Of   Sinnal Name [Specification]			>	- 4	4 н			Connector No. M1		Connector Name FUSE BLOCK (J/B)	CALL MICHAEL TO THE CALL OF TH	Collifector Type INSUGEWY-INIZ	<b>1</b>	_	[   			Ϋ́	_				No. Wire Signal Name [Specification]	٧ م						3 >		/A R	8A L											
PARKING, LICENSE PLATE AND TAIL LAMPS	38 SB	39 GR	0 2	41 V	, or		. SH	45 G	46 SB -	48 BG ·	- 49 L	a .		51 SHIELD	- d 09		2		/2 SB	74 P	75 BR	- TG P	. ^ 22	- BB	. w. v.	M 8/	× 08	81 GR	82 BG .	84 P	- S	90		. H /8	- T 88	89 BG	· ·	gt GB	5 0	92 H	93 R		- Yo	5 0	- DS	- T /6	98 TG	- BG BG	100 L									

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**EXL-95** Revision: 2015 June GT-R

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### PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS SYSTEM [LED HEADLAMP]

< DTC/CIRCUIT DIAGNOSIS >

	Connector No. M33	COMBINIATION SMITCH		Connector Type TH16FW-NH	ó			0 F	7	7 8 9 10 11 12 13 14			Terminal Color Of	No. Wire Signal harne [Specification]	1 LG .	2 SB .	$\dashv$	. B 9	+	-	_	10 R		$\dashv$	+	14 G		١	Connector No. M53	Connector Name   COMBINATION METER		Connector Type   SAB40FW	₫.	HHA		123456789	[21] 22[23] 24[25] 25[27] 25[25] 33[31] 25[33] 34[35] [ 35[33] 40]				힏	No. Wire	1 V BATTERY POWER SUPPLY	W IGNITION	3 B GROUND	4 B ILLUMINATION GROUND	5 B GROUND	6 W METER CONTROL SWITCH GROUND	A'C AU	8 SB AMBIENT SENSOR GROUND
	-	•	<ul> <li>[Without active noise control unit]</li> </ul>	- [With active noise control unit]		-	- 0		-										-	M24	DATA LINK CONNECTOR		BD16FW			11 14 16	]	3 4 5 6 7 8	· ^ ^ +			Signal Name (Specification)						,			•									
	SHIELD	>	re	Μ	Т	۵	SHIELD	۸	ΡΠ	Υ	g	œ	>	ш	9	Н	≥			Connector No.	Connector Name		Connector Type   BD16FW			7	9					Ferminal Color Of	wire	<u> </u>	a	<u>.</u>	<b>-</b>  ;	>	5	+	۵.	>								
	84	82	98	98	87	88	88	90	92	93	94	92	96	97	98	66	100			Conne	Come		Conne	ą	B		į					Termir	S	m	4	n ·	ا م	\	ю	Ξ	4	9								
		-																																				- [Without active noise control unit]	- [With active hoise control unit]				-		-		<ul> <li>[Without active noise control unit]</li> </ul>	<ul> <li>[With active noise control unit]</li> </ul>	<ul> <li>[With active noise control unit]</li> </ul>	- [Without active noise control unit]
MPS	BB	_	re	W	ш	GR	٦	^	BG	W	BG	Œ	>	Α	9	œ	>	SHELD	SB	В	œ	В	œ	G	g	Œ	EE	>	SHELD	GR	œ	ڻ ا	E 8	<u></u>	۵.	-	SHELD	NELD 3	> !	ഉ	æ	g	g	>	ш	9	BB	ŋ	ш	>
IL LAI	24	52	56	27	28	31	32	33	34	39	40	41	42	43	47	48	49	20	51	25	23	24	26	24	28	29	9	61	62	83	4	92	99	29	g i	Q ;	< i	2/ 52	7/	73	9/	77	78	79	80	81	82	85	83	88
PARKING, LICENSE PLATE AND TAIL LAMPS		-																M7	WIBE TO WIBE		TH80MW-CS16-TM4			8 S S S S S S S S S S S S S S S S S S S	5	98 PK	200 日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日			Of Signal Name [Specification]	,												-							
<b>ARKINC</b>	86 GR	37 R		39 G	Н	M W	Н	_	34 W	Н		97 L	∀	99 BG	100 L			Connector No.	Connector Name		Connector Type	•	•	Ě	2					큠	No.	+	+	+	+	+	+	2 3	+	+	13 G	$\dashv$		Н	4	H	20 GR	J L	22 R	Н
<u></u>	8	8	8	8	6	6	6	6	Ó	6	6	6	6	ြ	ĭ			Ö	S		S	þ	3	7	1					Terr	2		Π,	_							_	-	_	-	_	1	2	2	2	2

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	GB.	_	œ	Y KEYLES	BR	88 V COMBI SW INPUT 3	BR	90 P CAN-L	91 L CAN-H	92 LG KEY SLOT ILL OUTPUT	DNI NO A S6	95 BG ACC RELAY CONT	96 SB A/T SHIFT SELECTOR POWER SUPPLY	97 L S/L CONDITION 1	98 R S/L CONDITION 2	g	W	>	BG	LG KEYLE	P S/I	re	œ	>	5	111 Y S/L UNIT COMM	Commenced In Mitch	Connector No. INTES	Connector Name BCM (BODY CONTROL MODULE)	Connector Type TH40FG-NH	<u> </u>	SI		Terminal Color Of Signal Name [Specification]	+	116 SB STOP LAMP SW 1	Ь	119 SB DR DOOR UNLOCK SENSOR	R.	+	128 P DOOR LOCK/UNLOCK SW LOCK
	Connector No. M119	Connector Name BCM (BODY CONTROL MODULE)	П	Connector Type NS16FW-CS	á			) \ \ \	11 13 14 15 17 18 19	0.1			Terminal Color Of Simpl Nama (Specification)	No. Wire ognarivanie opecinication	4 R INTERIOR ROOM LAMP POWER SUPPLY	5 G PASSENGER DOOR UNLOCK OUTPUT	>	>	G DRIVER DOOR,	R BA	В	P PUSH-BUTTON	>	>	BG ⊥	19 V ROOM LAMP TIMER CONTROL		Connector No. IM 122	Connector Name BCM (BODY CONTROL MODULE)	Connector Type TH40FB-NH	₫.	II.S	20 20 20 20 20 20 20 20 20 20 20 20 20 2	Terminal Color Of Signal Name [Specification]	$^{+}$	9	SB	75 BR PASSENGER DOOR ANT+	> !	3	79 BR ROOM ANT1+
	W ECM F	FIG	BG	L ACCELEPATO	7	110 P STOP LAMP SWITCH		113 SB ENGINE SPEED OUTPUT SIGNAL	114 V DATA LINK CONNECTOR	117 R ASCD BRAKE SWITCH	118 W POWER SUPPLY FOR ECM (BACK-UP)	120 BR SAPMPRLY	121 P POWER SUPPLY FOR ECM	122 V POWER SUPPLY FOR ECM	124 B ECM GROUND		G THROTTLE	128 B ECM GROUND		-	Connector No. M118	Connector Name BCM (BODY CONTROL MODULE)	_	Connector Type M03FB-LC	á		1 3	<u>L</u> 6 F	<u> </u>		la	1 W BAT (F/L) 2 R POWER WINDOW POWER SUPPLYBAT)	: >								
PARKING, LICENSE PLATE AND TAIL LAMPS	AMBIENT SENSOR SIGNAL	VEHICLE SPEED SIGNAL (2-PULSE)	VEHICLE SPEED SIGNAL (8-PULSE)	OIL PRESSURE SENSOR GROUND	AIR BAG SIGNAL		FUEL LEVEL SENSOR GROUND	OIL LEVEL SENSOR GROUND	OIL LEVEL SENSOR SIGNAL	CAN-H	CAN-L	ILLUMINATION CONTROL SWITCH SIGNAL (-)	ILLUMINATION CONTROL SWITCH SIGNAL (+)	TRIP A/B RESET SWITCH SIGNAL	ENTER SWITCH SIGNAL	SELECT SWITCH SIGNAL				0)		WASHER LEVEL SWITCH SIGNAL	OIL PRESSURE SENSOR POWER	OIL PRESSURE SENSOR SIGNAL		LED HEAD LAMP (LH) WARNING SIGNAL ILLUMINATION CONTROL			M107	ECM	Connector Type RH24FGY-RZ8-R-LH-Z	[00 ptd 801   100 ptd 805   100 ptd 10	127 127 118 114 115 115 115 115 115 115 115 115 115		Signal Name [Specification]	CAN COMMUNICATION LINE	SENSOR POWER SUPPLY	SENSOR POWER SUPPLY	CAN COMMUNICATION LINE	ASCU STEERING SWITCH	ACCELERATOR PEDAL POSITION SENSOR 1
PARKING	<u>а</u>	12 L	13 V	$\dashv$		16 R	18 L	19 R	20 W	21 L	22 P	23 LG	24 BR	25 G	$\dashv$	+	_	+	30 Re	31	32 ^	┥	+	+		39 Y			Connector No.	Connector Name	Connector Type	匮	E.S.	Tarminal Color Of	No. Wire	97 P	Н	100 BR	+	+	104 P

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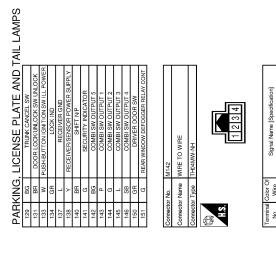
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**EXL-97** Revision: 2015 June GT-R



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## **BACK-UP LAMP**

Wiring Diagram - BACK-UP LAMP -

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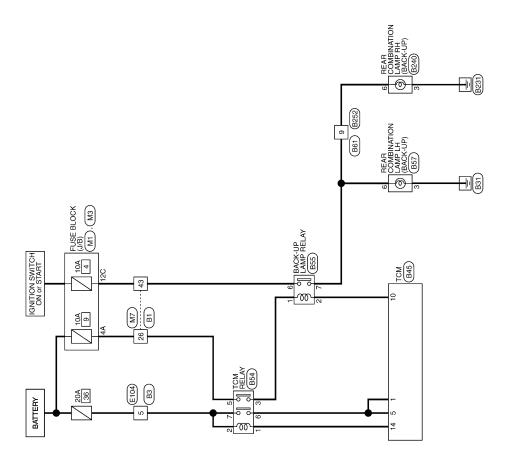
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**BACK-UP LAMP** 

BACK-L	H-X	BACK-UP LAMP	49	3		8		ıc	8	POWER SLIPPLY (MEMORY BACK-LIP):3
8	2	_	2 6	SHE		+		0 1	. a	GBOINN
Connect	Connector Name	WIRE TO WIRE	5	88		1		- ω	В	GROUND
Connect	Connector Type	TH80FW-CS16-TM4	52	В				6	Ь	POWER SUPPLY (MEMORY BACK-UP)-1
4		ľ	53	Œ		Connector No.	B3	10	LG	BACK-UP LAMP SIGNAL
F			24	В		Connector Name	WIBE TO WIBE	11	L	CAN-H
			26	۳ ا			_	14	>	POWER OFF
		(7) (8) (8) (8) (8) (8) (8) (8) (8) (8) (8	2/2	<u>ه</u> ا		Connector Type	NS12FW-CS	5 5	d i	CAN-L
			8 6	5 0		<b>1</b>		0 1	× >	STOP LAMP SWITCH SIGNAL
			8	E #		4		- 6	GB	STARTER RELAY SIGNAL
			61	>		S:	5 4 3 2 1	23	BR	AUTO/MANUAL RANGE CHANGE SWITCH 1 SIGNAL
Terminal	U	Momo (Specification)	62	SHIELD	- 01		12 11 10 9 8 7 6	22	L	RANGE SENSOR POWER SOURCE 1
Š	Wire	Olylidi Ivali	63	PI			2	56	FG	RANGE SENSOR POWER SOURCE 2
2	_		64	ш				27	G	RANGE SENSOR NO SIGNAL
က	۵		92	ŋ				28	۸	AUTOMANUAL RANGE CHANGE SWITCH 2 SIGNAL
9	^		99	BR		Terminal Color Of	Of Signal Name (Specification)	31	SB	ENGINE SPEED SIGNAL
7	Μ		67	BG		No. Wire		33	۸	RANGE SENSOR NO.1 SIGNAL
80	Μ		69	Д		1 L		34	BG	SAVE MODE SWITCH SIGNAL
6	*		20	٦		2 BG		35	g	RANGE SENSOR NO.3 SIGNAL
10	ш		7.1	SHIELD	- OT	3 BR		37	GR	R MODE SWITCH SIGNAL
11	Υ		72	SHIELD	LD - [Without active noise control unit]	Α Υ		38	В	RANGE SENSOR NO.2 SIGNAL
12	GR		72	>	- [With active noise control unit]	5 R		39	۸	PADDLE SHIFTER (SHIFT-UP SWITCH) SIGNAL
13	BG		73	SB		9		42	٦	PADDLE SHIFTER (SHIFT-DOWN SWITCH) SIGNAL
14	>		9/	œ		M		43	Ы	RANGE SENSOR NO.4 SIGNAL
15	BB		77	SB		8 SB		44	GR	RANGE SENSOR NO.5 SIGNAL
16	œ		78	g		97 6		45	BG	R MODE LAMP SIGNAL
17	Α		79	>		10 V		46	W	SHIFT LOCK SOLENOID CONTROL SIGNAL
18	BB		8	Œ		11 GR		47	g	SAVE MODE LAMP SIGNAL
20	GR		<u>8</u>	g		12 G				
21	SB		85	BB	- [Without active noise control unit]					
22	>	,	85	Ø				Connector No.	l	B54
23	g		8	Œ	- [With active noise control unit]	Connector No.	B45			X 10 10 1
54	BB		8	>	- [Without active noise control unit]	-	T C	Connector Name	Name	I OW RELAT
52	_		84	SHELD		Connector Name		Connector Type	Type	M06FBR-R-LC
56	۵		82	>		Connector Type	BH40FB-RZ8-L-LH-Z	4		
27	GR		98	SB	J-	4	[	匮		
58	BG		98	8	<ul> <li>[With active noise control unit]</li> </ul>	B		Ę		
31	GR		87	_		Š	44 28 16 8 4	5		
35	-		88	۵		ė.	47 43 39 35 31 27 23 19 15 11 7 3			
33	>		88	SHELD	-		46 42 38 34 26 14 10			6
8	BG		96	>			45 3733 25 17 9 5 1			
39	g		92	BB						
40	<sub>9</sub>		83	SB				Terminal Color Of	Solor Of	3
41	>		94	GR		Terminal Color Of		o N	Wire	Signal Name [Specification]
45	SB		32	BG		No. Wire	signal Name [Specification]	-	>	
43	a.		96	>		, M	POWER SUPPLY (MEMORY BACK-UP)-2	2	ш	
47	α		97	>		3 B	Т	က	G	
48	В		88	FG		4 B		S	BG	
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	. PJ 6	V -	12 H			9	Connector Type NS06FW-M2		H.S. 3A2A14	OA 74 64 54 44	Tracking tracking to the control of	]	Tourism Calax Of	Signal Name [Specification]	+	2A G	┞	4A LG .	5A SB .	$\dashv$	7A R			Connector No. M3	Connector Name FUSE BLOCK (J/B)	Opening of the NEGOTIA OF	Commercial type Institution		Hs.	OP 07 100 111 001	$\mathbb{H}$			룓	INO. WIRE	300	-	L	Н	Co Co
	Connector No. B252	Connector Name WIRE TO WIRE	Connector Type TH12MW-NH		了 【	H.S.	7 8 9 10 11 12		Terminal Color Of Signal Name [Specification]	╁	2 Y .	+	Q :	+			┝	10 GR	11 LG .	12 SHIELD .		ı	Connector No. E104	Connector Name WIRE TO WIRE	Connector Type NS12MW-CS	1		123 45	6 7 8 9 10 11 12			E O	No. Wire	+	> G	VG >	+	H	Н	α
	Connector No. B61	Connector Name WIRE TO WIRE	Connector Type TH12FW-NH			H.S.	11 10 9		Terminal Color Of Signal Name [Specification]	╁	2 W .	+	Q :	+		. 8	BB 6	10 GR	11 LG .		Connector No B240	Τ	Connector Name REAR COMBINATION LAMP RH	Connector Type NS06MW-CS	1	MHIT	H.S.	2 3 4 5			lal C	No. Wire	+	+	8 >	- O	+	ł		
BACK-UP LAMP		7 B -		Connector No. B55	Connector Name BACK-UP LAMP RELAY	Connector Type M06FBR-R-LC		SE SE				E E		$^{+}$		╁			Connector No. B57	Connector Name   REAR COMBINATION LAMP LH	Compositor Tuno NSCRMM-Ce	7				2 3 4 5			Terminal Color Of Signal Name [Specification]	+	2 B ·	+	+	+						

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			i	
Connector No.	M7	9	SHIELD	
Connector Name	e WIRE TO WIRE	21	SB	
		25	В	
Connector Type	TH80MW-CS16-TM4	53	œ	•
ı		54	В	
Œ	2	26	œ	
		22	G	,
ES.		28	Ø	
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		09	BB	
		61	>	
		9	SHELD	
Terminal Color Of		5	a	•
No. Wire	Signal Name [Specification]	3 2	6	
H		92	g	
6		99	HH	
7 9		29	BG	
7 W		69	۵	
8		70	_	
		71	SHIELD	
H		72	SHIELD	- [Without active noise control unit]
W 11		72	>	- [With active noise control unit]
12 SB		73	P	
13 G		9/	Œ	
14 W		77	SB	
15 BR		78	១	
	•	79	٨	-
_		80	н	
18 SB	-	81	5	
H		82	BR	<ul> <li>[Without active noise control unit]</li> </ul>
		82	g	<ul> <li>[With active noise control unit]</li> </ul>
22 R		83	œ	- [With active noise control unit]
		83	>	- [Without active noise control unit]
F		84	SHIELD	
H		98	>	
26 LG		98	97	- [Without active noise control unit]
H		98	>	- [With active noise control unit]
28 R		87	_	
31 GR		88	۵	
_		88	SHELD	
33		06	>	
F		92	P	
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# STOP LAMP

Wiring Diagram - STOP LAMP -

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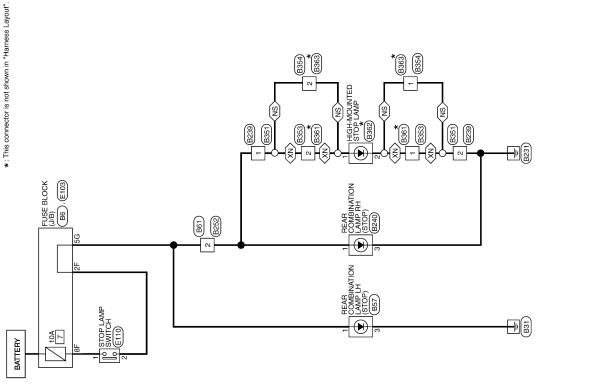
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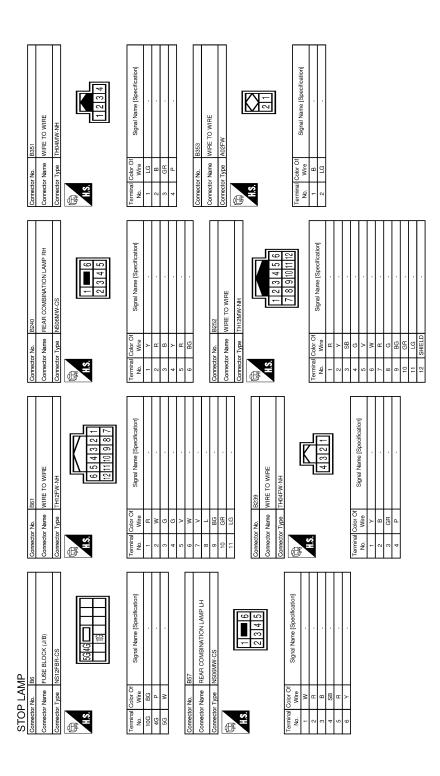
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[LED HEADLAMP]

# **ECU DIAGNOSIS INFORMATION**

# **BCM (BODY CONTROL MODULE)**

Reference Value

#### VALUES ON THE DIAGNOSIS TOOL

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

#### CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
FK WIFEK III	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
ED WACHED OW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
ED WIDED INT	Other than front wiper switch INT	Off
FR WIPER INT	Front wiper switch INT	On
ED WIDED STOD	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
TURN SIGNAL R	Other than turn signal switch RH	Off
TORN SIGNAL R	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
TAIL LAIVIP SVV	Lighting switch 1ST or 2ND	On
LII DEAM CW	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
LIEAD LAMB CVALA	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
LIEAD LAMB CM/ 2	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
AUTU LIGHT SW	Lighting switch AUTO	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
DOOK SW-DK	Driver door opened	On
DOOR SW AS	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOR SW-RR	NOTE: The item is indicated, but not monitored.	Off

# **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS INFORMATION >

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Monitor Item	Condition	Value/Status
DOOR SW-RL	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off
CDL LOCK SW	Other than power door lock switch LOCK	Off
CDL LOCK SVV	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
SDE UNLOCK SW	Power door lock switch UNLOCK	On
KEY CYL LK-SW	NOTE: The item is indicated, but not monitored.	Off
KEY CYL UN-SW	NOTE: The item is indicated, but not monitored.	Off
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is not pressed	Off
<u></u>	Hazard switch is pressed	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
H/L WSR SW	NOTE: The item is indicated, but not monitored.	Off
TR CANCEL SW	Trunk lid opener cancel switch OFF	Off
TH O/HVOLL OW	Trunk lid opener cancel switch ON	On
TR/BD OPEN SW	Trunk lid opener switch OFF	Off
THOSE OF ENGINE	While the trunk lid opener switch is turned ON	On
TRNK/HAT MNTR	Trunk lid closed	Off
	Trunk lid opened	On
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of Intelligent Key is not pressed	Off
KKL-LOOK	LOCK button of Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of Intelligent Key is not pressed	Off
TAINE-UNLOUN	UNLOCK button of Intelligent Key is pressed	On
RKE-TR/BD	TRUNK OPEN button of Intelligent Key is not pressed	Off
	TRUNK OPEN button of Intelligent Key is pressed	On
RKE-PANIC	PANIC button of Intelligent Key is not pressed	Off
	PANIC button of Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of Intelligent Key is not pressed	Off
THE I /W OI LIN	UNLOCK button of Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	Off
E MODE ON	LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
REQ SW-DR	Driver door request switch is not pressed	Off
YEA OAA-DIY	Driver door request switch is pressed	On
REQ SW-AS	Passenger door request switch is not pressed	Off
NEW OVV-AU	Passenger door request switch is pressed	On

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## **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS INFORMATION >

[LED HEADLAMP]

Monitor Item	Condition	Value/Status
REQ SW-RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW-RR	NOTE: The item is indicated, but not monitored.	Off
DEO SW DD/TD	Trunk lid opener request switch is not pressed	Off
REQ SW-BD/TR	Trunk lid opener request switch is pressed	On
DUCH CW	Push-button ignition switch (push switch) is not pressed	Off
PUSH SW	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	NOTE: The item is indicated, but not monitored.	Off
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
DDAKE OM 2	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
DETE/CANIOL OW	Shift lever in P position	Off
DETE/CANCL SW	Shift lever in any position other than P	On
OFT DAI/ALOVA/	Shift lever in any position other than P and N	Off
SFT PN/N SW	Shift lever in P or N position	On
S/I LOCK	Steering is unlocked	Off
S/L -LOCK	Steering is locked	On
S/L -UNLOCK	Steering is locked	Off
S/L -UNLOCK	Steering is unlocked	On
C/L DELAVE/D	Ignition switch in OFF or ACC position	Off
S/L RELAY-F/B	Ignition switch in ON position	On
LINILIZ CENLDD	Driver door is unlocked	Off
UNLK SEN-DR	Driver door is locked	On
DITCH CW IDDM	Push-button ignition switch (push-switch) is not pressed	Off
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
IGN KLTT-F/B	Ignition switch in ON position	On
DETE OW IDDM	Shift lever in any position other than P	Off
DETE SW -IPDM	Shift lever in P position	On
SET DN JDDM	Shift lever in any position other than P and N	Off
SFT PN -IPDM	Shift lever in P or N position	On
CET D MET	Shift lever in any position other than P	Off
SFT P -MET	Shift lever in P position	On
SET N. MET	Shift lever in any position other than N	Off
SFT N -MET	Shift lever in N position	On

< ECU DIAGNOSIS INFORMATION >

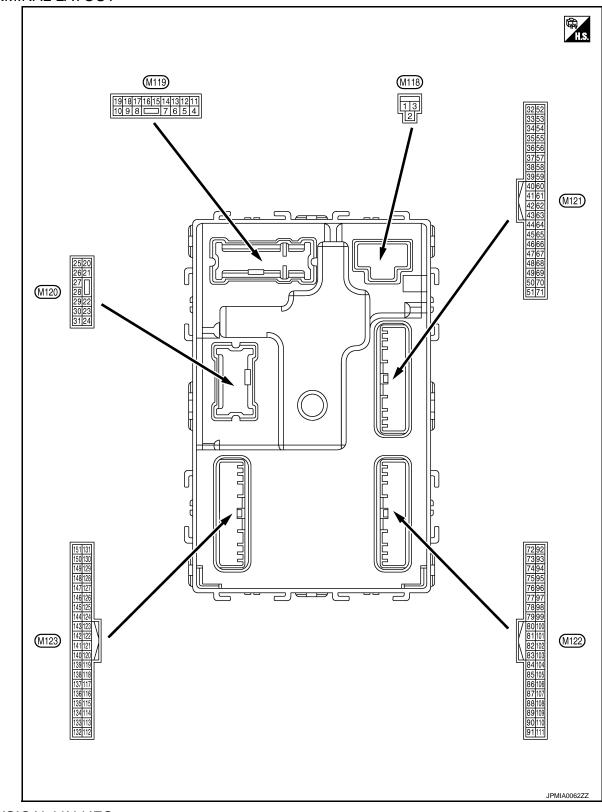
Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
LINGINE STATE	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
3/L LOCK-IPDIVI	Steering is locked	On
C/L LINII IZ IDDM	Steering is locked	Off
S/L UNLK-IPDM	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
3/L RELAT-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK EL AC	Steering is locked	Reset
ID OK FLAG	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
PRIVIT ENG STRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEN SW. SLOT	Intelligent Key is not inserted into key slot	Off
KEY SW -SLOT	Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
CONFRIVI ID ALL	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIDM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIDM ID2	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done

## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
CONFIRM ID2	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
COM INWIDT	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
17 4	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
1173	The ID of third Intelligent Key is registered to BCM	Done
TD 0	The ID of second Intelligent Key is not registered to BCM	Yet
TP 2	The ID of second Intelligent Key is registered to BCM	Done
TD 4	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	The ID of first Intelligent Key is registered to BCM	Done

[LED HEADLAMP]

TERMINAL LAYOUT



PHYSICAL VALUES

Α

В

С

D

Е

F

G

Н

K

EXL

M

Ν

0

Р

Signal name	Term	inal No.	Description				
Count   Coun				Input/		Condition	
Ground   G	+	_	Signal name	Output			(, tpp:ox.)
Ground   Gear   Ground   Gear   Gea		Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
Ground   Interior room lamp power supply   Output   Any other time after passing the interior room lamp battery saver operation time   O V		Ground		Output	Ignition switch OFF		Battery voltage
A count   Co	_	Ground		Output	Ignition switch ON		Battery voltage
Any other time after passing the interior room lamp battery voltage    Section   Passenger door UNLOCK   Output LOCK   Output LO	4	Crownd	Interior room lamp	Output		nterior room lamp battery sav-	0 V
Passenger door UN-LOCK   Passenger door UN-LOCK   Passenger door   Valed   Output after is not activated   O V	(R)	Ground	power supply	Output			Battery voltage
Other than UNLOCK (Actuator is not activated)  7 (Y) Ground (Y) Ground (V) Gr	5	Cround	Passenger door UN-	Output	December door	*	Battery voltage
Ground   Ground   Ground   County   C	(G)	Ground	LOCK	Output	Passenger door	,	0 V
Company   Comp	7	Ground	Step lamp control sig-	Output	Stop Jamp	ON	0 V
Section of the property of t	(Y)	Ground	nal	Output	Step lamp	OFF	Battery voltage
Company   Comp	8	Crownd	All doors, fuel lid	Output All doors, fuel lid	,	Battery voltage	
9 Ground UNLOCK    Driver door, fuel lid UNLOCK   Driver door, fuel lid   Output   Driver door, fuel lid   Other than UNLOCK (Actuator is not activated)   O V	(V)	Ground	LOCK		All doors, fuer lid		0 V
Ground   Ground   Ground   Battery power supply   Input   Ignition switch OFF   Battery voltage	9	01	Driver door, fuel lid	0 1 1	Driver door, fuel	*	Battery voltage
Company   Comp	(G)	Ground		Output	· ·	,	0 V
Ground   G		Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
Push-button ignition switch illumination ground  Push-button ignition switch illumination ground  Output Tail lamp  ON  OFF (LOCK indicator is not illuminated)  Battery voltage		Ground	Ground	_	Ignition switch ON	1	0 V
Push-button ignition switch illumination ground  Push-button ignition switch illumination ground  Output Tail lamp  ON  When the illumination brightening/dimming level is in the neutral position  (V)  10  2 ms  JSNIA0010GB  Battery voltage						OFF	0 V
(P) Ground switch illumination ground Output Iail lamp ON  10  2 ms  JSNIA0010GB  Battery voltage	1.4		Push-button ignition				When the illumination brighten- ing/dimming level is in the neutral position
15 (Y) Ground ACC indicator lamp Output Ignition switch illuminated)		Ground		Output	Tail lamp	ON	10 0 2 ms
(1)		Ground	ACC indicator lamp	Output	Ignition switch	1	Battery voltage
	(Y)					ACC or ON	0 V

## < ECU DIAGNOSIS INFORMATION >

Signal name Output Output   Input/Output   Input/Ou		inal No.	Description		_		Value	^
Turn signal switch RH		_	Signal name			Condition		А
Turn signal switch RH    Sound   Turn signal RH (Front)   Output   Ignition switch   ON   Turn signal switch RH   Ignition switch   ON   Ignition switch   ON   Ignition switch   Ignition switc						Turn signal switch OFF		В
Turn signal LH (Front)   Coutput   Interior room lamp (V)   Ground   Turn signal RH (Rear)   Coutput   Interior room lamp (N)   Interior room la		Ground		Output		Turn signal switch RH	15 10 5 0	
Turn signal switch LH   Turn						Turn signal switch OFF	6.5 V	Е
19   Ground   Interior room lamp control signal   Output   Interior room lamp		Ground		Output		Turn signal switch LH	15 10 5 0 1 s	
Control signal  witch OFF  Control signal  witch OFF  Control signal switc		Ground		Output	Interior room	OFF		Н
Ground Turn signal RH (Rear)  Output Ignition switch ON  Turn signal switch RH  Output Trunk lid opener actuator is not activated)  Ground Turn signal LH (Rear)  Output Ignition switch ON  Turn signal switch RH  Open (Trunk lid opener actuator is activated)  Close (Trunk lid opener actuator is not activated)  Turn signal switch OFF  Ov  M  Turn signal switch LH  Ov  Turn signal switch LH  Ov  Ov  N  Ov  Ov  N  Ov  Ov  Ov  Ov	(V)	Giodila	control signal	Output	lamp	ON	0 V	
23 Ground Trunk lid open Output Trunk lid tuator is activated)  Close (Trunk lid opener actuator is not activated)  Turn signal switch OFF  Output Ignition switch ON  Turn signal switch LH  Output Ignition switch ON  Turn signal switch LH  Output Ignition switch ON  OUTput Ignition switch OFF  OUTput Ignition switc		Ground		Output		-	(V) 15 10 5 0 PKID0926E	
Turn signal switch OFF  O V  M  Output  Output  Output  ON  Turn signal switch OFF  O V  M  N  Output  Output  ON  ON  ON  ON  ON  ON  O  O  O  O  O		Ground	Trunk lid open	Output	Trunk lid	tuator is activated)  Close (Trunk lid opener ac-		EXL
25 (V) Ground Turn signal LH (Rear) Output Ignition switch ON Turn signal switch LH  Turn signal switch LH  ON  ON  ON  ON  OV  PKID0926E 6.5 V	-						0 V	M
30 Ground Trunk room lamp Output Trunk room lamp		Ground	Turn signal LH (Rear)	Output		-	(V) 15 10 5 0	N
Ground Ground Output Trunk room lamp	30	_	Trunk room lamp			ON		Р
		Ground		Output	Trunk room lamp	OFF	Battery voltage	

## < ECU DIAGNOSIS INFORMATION >

	ninal No. e color)	Description			Condition	Value			
+	_	Signal name	Input/ Output		Condition	(Approx.)			
34	4 Cround Trunk room antenna Qutout Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB						
(P)	Ground	(-)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0  JMKIA0063GB			
35	Ground	Trunk room antenna	le				Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(L)	Ciouna	(+)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB			
38	Ground	Rear bumper anten-		When the trunk lid opener re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB			
(R)	Ground	na (-)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB			

### < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
39		Rear bumper anten-		When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(BR)	Ground	na (+)	Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
47	0	Ignition relay (IPDM	0 1 1	1	OFF or ACC	Battery voltage
(Y)	Ground	E/R) control	Output	Ignition switch	ON	0 V
50 (R)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (Trunk is open)	0 V
52	Crown	Ctartar raisu asstr-1	Outtook	Ignition switch	When shift lever is in P or N position	Battery voltage
(SB)	Ground	Starter relay control	Output	ŎN	When shift lever is not in P or N position	0 V
					ON (Pressed)	0 V
61 (W)	Ground	Trunk lid opener request switch	Input	Trunk lid opener request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
64		Intelligent Key warn-		Intelligent Key	Sounding	0 V
(BG)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	Battery voltage

### < ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			O Itt	Value		
+	-	Signal name	Input/ Output		Condition	(Approx.)		
67 (G)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed  Not pressed	0 V  (V) 15 10 5 0 JPMIA0011GB 11.8 V		
72	Ground	Room antenna 2 (-)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB		
(R)		(Center console)	V		OFF	OH		(V) 15 10 5 0 1 s JMKIA0063GB
73	Ground	Room antenna 2 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB		
(G)	Ciouna	(Center console)	Culput	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB		

## < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
74		Passenger door an-		When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(SB)	Ground	tenna (-)	Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 1
75	Ground	Passenger door an-	Output	When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s  JMKIA0062GB
(BR)	Ground	tenna (+)	Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
76	Ground	Driver door antenna	Output	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(V)	Giound	(-)	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB

#### < ECU DIAGNOSIS INFORMATION >

	<i>-</i>	NOSIS INFORMAT				[223 :127 (327 (1111 ]
	inal No.	Description	T			Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
77	Ground	Driver door antenna	Output	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(LG)	Clound	(+)	Cutput	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
78	Ground	Room antenna 1 (-)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(Y)	Glound	(Instrument panel)	Output	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
79	Constant	Room antenna 1 (+)	0.1.1	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 JMKIA0062GB
(BR)	Ground	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB

## < ECU DIAGNOSIS INFORMATION >

[LED HEADLAMP]

e color)				0 ""	Value
	Signal name	Input/ Output		Condition	(Approx.)
Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
Ground	Ignition relay [fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V Battery voltage
Ground	Remote keyless entry receiver communica-	Input/	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB
	tion	Output	When operating e	ither button on Intelligent Key	(V) 15 10 5 1 ms  JMKIA0065GB
Ground	Combination switch	Input	Combination	All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
Sibulid	INPUT 5	input	switch	Any of the conditions below with all switches OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 6  • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V
	Ground	Ground Ignition relay [fuse block (J/B)] control  Remote keyless entry receiver communication  Combination switch	Ground Remote keyless entry receiver communication Input/Output  Cround Combination switch Input/	Ground Ignition relay [fuse block (J/B)] control Output Ignition switch  Ground Remote keyless entry receiver communication Untput When operating e	Ground   NATS antenna amp.   Toput   Output   Output

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### < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
88	Ground	Combination switch	Input	Combination	Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
(V)	Glodina	INPUT 3	mput	switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
					Any of the conditions below with all switches OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V
89	Ground	Push-button ignition	Input	Push-button igni- tion switch (push	Pressed	0 V
(BR)	Cround	switch (push switch)		switch)	Not pressed	Battery voltage
90 (P)	Ground	CAN - L	Input/ Output		_	_
91 (L)	Ground	CAN - H	Input/ Output		_	
					OFF	Battery voltage
92 (LG)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB
					ON	6.5 V 0 V
	1				-	

### < ECU DIAGNOSIS INFORMATION >

[LED HEADLAMP]

	inal No.	Description				Value
(Wire	e color) –	Signal name	Input/ Output		Condition	(Approx.)
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(v)					ON or ACC	0 V
95	Craund	ACC relevision trel	Outroit	lanition quitab	OFF	0 V
(BG)	Ground	ACC relay control	Output	Ignition switch	ACC or ON	Battery voltage
96 (SB)	Ground	A/T shift selector (detention switch) power supply	Output		_	Battery voltage
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V
(L)	Ground	tion No. 1	Input	Steering lock	UNLOCK status	Battery voltage
98	Ground	Steering lock condi-	Innut	Ota a sina sa la ala	LOCK status	Battery voltage
(R)	Giouria	tion No. 2	Input	Steering lock	UNLOCK status	0 V
99	Ground	Shift lever P position	Innut	Shift lever	P position	0 V
(G)	Giouna	switch	Input	Stillt level	Any position other than P	Battery voltage
					ON (Pressed)	0 V
100 (W)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 10 10 ms  JPMIA0016GB 1.0 V
					ON (Pressed)	0 V
101 (V)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
102		Blower fan motor re-	0 :		OFF or ACC	0 V
(BG)	Ground	lay control	Output	Ignition switch	ON	Battery voltage
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OF	F	Battery voltage
106	Ground	Steering lock unit	Outout	Ignition switch	OFF or ACC	Battery voltage
(P)	Giouria	power supply	Output	Ignition switch	ON	0 V

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### < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V

### < ECU DIAGNOSIS INFORMATION >

[LED HEADLAMP]

	inal No.	Description				Value	А
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	^
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	B C
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms	E
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch		1.3 V	G
					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	Н
					Any of the conditions below with all switches OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 5  • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	J K

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### < ECU DIAGNOSIS INFORMATION >

[LED HEADLAMP]

GT-R

	inal No.	Description				Value
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB
					Pressed	0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB

## < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)
					LOCK status	Battery voltage
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	10 50 50 ms
					For 15 seconds after UN- LOCK	Battery voltage
					15 seconds or later after UNLOCK	0 V
113	Ground	Optical concer	Innut	Ignition switch	When bright outside of the vehicle	Close to 5 V
(P)	Giouria	Optical sensor	Input	ON	When dark outside of the vehicle	Close to 0 V
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
118	Ground	Oten Jemp quitab 2	lanut	Chan lama avvitah	OFF (Brake pedal is not depressed)	0 V
(P)	Giouna	Stop lamp switch 2	Input	Stop lamp switch	ON (Brake pedal is de- pressed)	Battery voltage
119 (SB)	Ground	Driver side door lock actuator (Unlock sen- sor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 10 ms JPMIA0011GB
					UNLOCK status (Unlock sensor switch ON)	0 V
121		и		When Intelligent K	Yey is inserted into key slot	Battery voltage
(R)	Ground	Key slot switch	Input	When Intelligent K	ey is not inserted into key slot	0 V
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
(BR)	2.300			J	ON	Battery voltage
124 (LG)		Passenger door switch	Input	Passenger door switch	OFF (When passenger door closes)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (When passenger door opens)	0 V

## < ECU DIAGNOSIS INFORMATION >

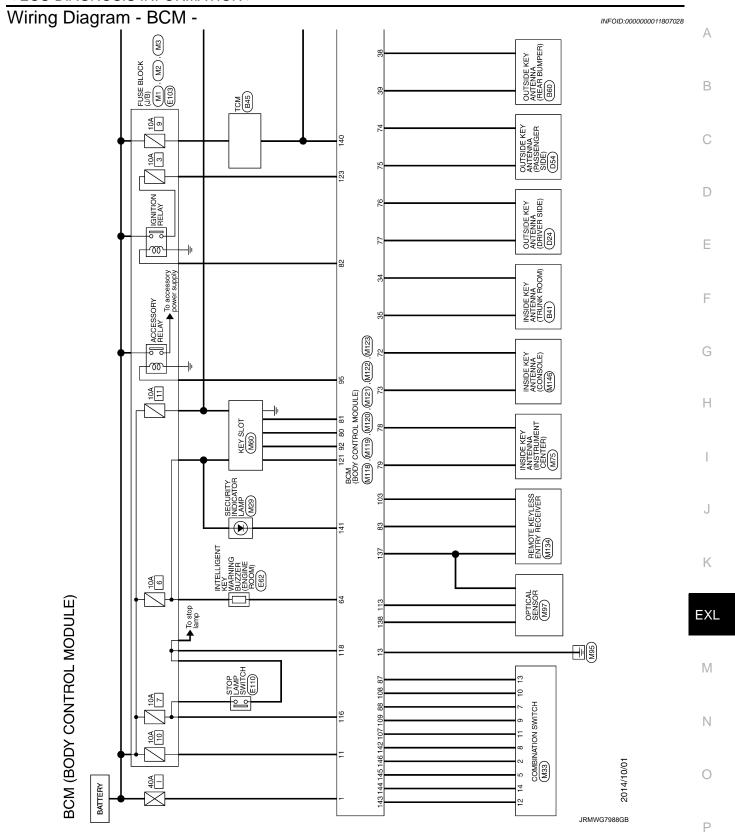
		Description			Condition	Value				
+	rminal No. Vire color)  8 Ground  Ground  Ground  Ground	Signal name	Input/ Output		Condition	(Approx.)				
128 (P)	Ground	Door lock and unlock switch LOCK	Input	Door lock and un- lock switch (pow- er window main switch or power window sub- switch)	NEUTRAL position	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB				
					LOCK position	0 V				
129 (BG)	Ground	Trunk lid opener can- cel switch	name   Input/ Output   Do loc er sw wir sw   Input   Do loc er sw wir sw   Input   Trucal   Input   Do loc er sw wir sw   Input   Do loc er sw wir sw   Input   Do loc er sw wir sw   Input   Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB				
					ON	0 V				
131 (BR)	Ground	Door lock and unlock switch UNLOCK	nd unlock OCK Input lock switch windov	Door lock and un- lock switch (pow- er window main switch or power window sub- switch)	NEUTRAL position	(V) 15 10 5 0 10 ms JPMIA0011GB				
					LOCK position	0 V				
					ON (When tail lamps OFF)	5.5 V				
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (When tail lamps ON)	NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level.  (V) 15 10 5				
						JPMIA0159GB				
					OFF	0 V				
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	ON OFF	0 V  Battery voltage				
137 (L)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V				
138 (Y) Ground Sensor power supply Output Ignition switch OFF 0 V ACC or ON 5.0 V	0 V									
	5.0 V									
140	Ground	Ground Sensor power supply Output Ignition switch  ACC or ON  5.0 V  Ground Shift lever P/N posi- Input Shift lever  P or N position  12 V	12 V							
(BR)	Cround	tion	Input	Jim lovoi	Except P and N positions	0 V				

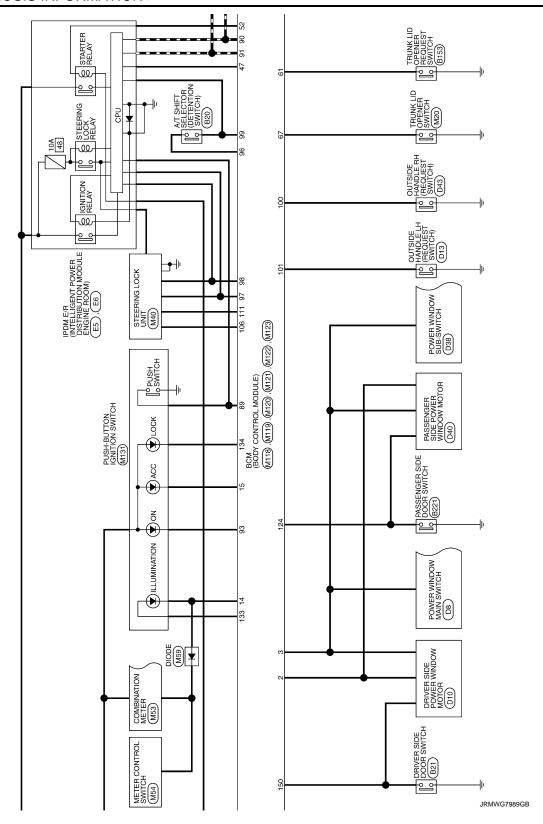
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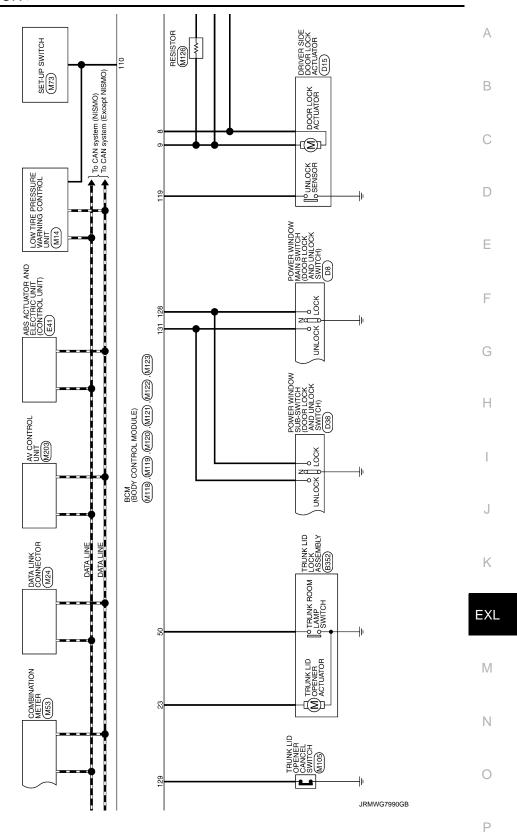
	inal No.	Description				Value	Λ
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
					ON	0 V	В
141 (G)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB	C
					OFF	Battery voltage	_
-					All switches OFF	0 V	Е
					Lighting switch 1ST		
				O a mala i se sti	Lighting switch HI	(V) 15	F
142 (BG)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	15 10 5 0	G
					Turn signal switch RH	2 ms	
						JPMIA0031GB 10.7 V	
					All switches OFF		Н
					(Wiper intermittent dial 4)	0 V	
					Front wiper switch HI		
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	(Wiper intermittent dial 4)  Any of the conditions below with all switches OFF  Wiper intermittent dial 1  Wiper intermittent dial 2  Wiper intermittent dial 3  Wiper intermittent dial 6  Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0032GB 10.7 V	J K
					All switches OFF (Wiper intermittent dial 4)	0 V	
					Front washer switch ON		EXI
					(Wiper intermittent dial 4)	(V)	
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions below with all switches OFF  Wiper intermittent dial 1  Wiper intermittent dial 5	15 10 5 0	M
					Wiper intermittent dial 6	JPMIA0033GB	1./
						10.7 V	
					All switches OFF	0 V	0
					Front wiper switch INT	(10)	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	Front wiper switch LO  Lighting switch AUTO	(V) 15 10 5 0 2 ms	Ρ
				İ	İ	леміа0034gв 10.7 V	

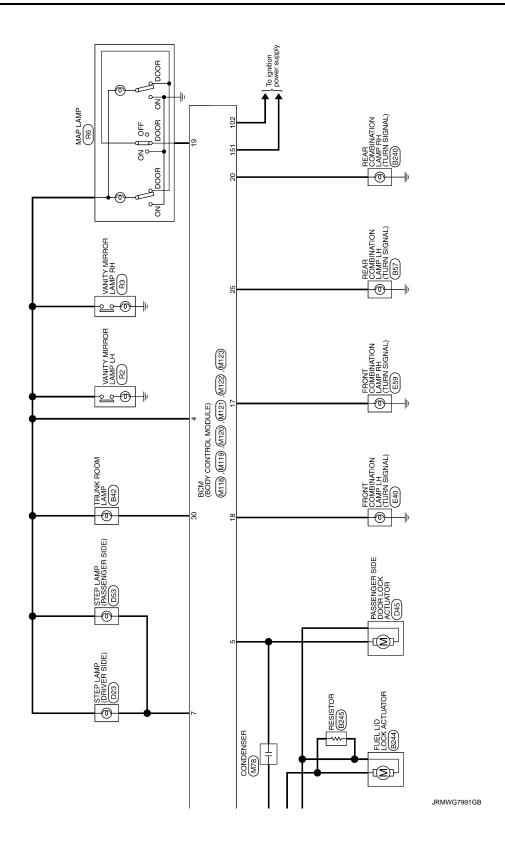
#### < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value					
+	e color)	Signal name	Input/ Output		Condition	(Approx.)					
	Ground				All switches OFF	0 V					
					Lighting switch 2ND						
				Combination	Lighting switch PASS	(V)					
146 (SB)	Ground	Combination switch OUTPUT 4	Output	switch (Wiper intermit- tent dial 4)	Turn signal switch LH	10 5 0 JPMIA0035GI					
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closes)	(V) 15 10 5 0 10 ms JPMIA0011GE					
					ON (When driver door opens)	0 V					
151	Ground	Rear window defog-	Output	Rear window de-	Active	0 V					
(G)	Giouila	ger relay control	Output	fogger	Not activated	Battery voltage					









< ECU DIAGNOSIS INFORMATION >

### [LED HEADLAMP]

27   G			
Corrector No. B42 Connector Name TTRUM: ROOM LAMP Connector Type StgPW  H.S.	Terminal   Color Ol   Signal Name   Specification   1   1   1   1   1   1   1   1   1		
Connector No. B21 Connector Name DRIVER SIDE DOOR SWITCH Connector Type Augstw  18.5	Termical Color Col  Corrector Name   Signal Name   Specification   Corrector Name   NSIDE KEY ANTENNA, (TRUNK, ROOM)  Corrector Type   RR02FGY  AS   Part	BCM (BODY CONTROL MODULE)  Cornector No. 820  Cornector Name AT SHIFT SELECTOR  Cornector Type ITP64FWAH  AS  123 56 8 10 12  1314 1516 17118 20 21 22 23 24	No.   Wire   Signal Name [Spealination]     1

**EXL-133** GT-R Revision: 2015 June

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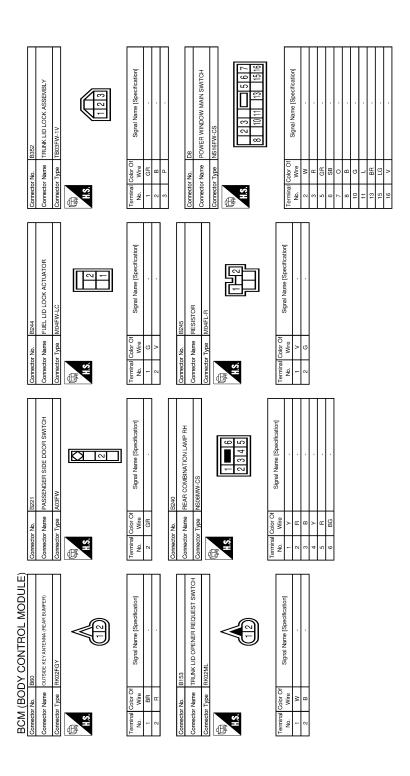
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< ECU DIAGNOSIS INFORMATION >

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OWER WANDOW MOTOR	Specification)	В
	Signal Name [Specification]  Dua  Ourside Levinole File (Reduest switch)  Rightal Name [Specification]  Signal Name [Specification]	С
Corrector No. D40 Corrector Name PASSENGER Corrector Type NU08FD03	Terminal Color Of No. Wire 1	D
WER SDE)	SWITCH   15 6 7   14 15 16   7   15 16   7	Е
D24 OUTSDE KEY ANTENNA, IDRIVER SDE) RKGZMG Y	Terminal Color Of Number   Signal Name   Specification   1	F
Corrector No. D24 Corrector Name OutsDE KI Corrector Type RK02M/G	No.   Wire   Signa   No.   Wire     No.   Wire       No.	G H
СК АСТИАТОВ	offication)  DE)	I
DIS DRIVER SIDE DOOR LOCK ACTUATOR RESAFEY-PR	Signal Name (Specification)  D23 STEP LAMP (DRIVER SIDE)  COZEFW  Signal Name (Specification)  Signal Name (Specification)	J
Connector No. D16 Connector Name DRIVER SIDE Connector Type RSOAFGY-PR  LLS	Terminal Color Of   No. Wire   No. Wire	К
MODULE)	ofication]	EXL
OY CONTROL Dio DRIVER SIDE POWER W NASSFDGV	Signal Name [Specification]  OUTSDE HARDLE LH (REQUEST SWITCH)  Signal Name [Specification]  Signal Name [Specification]	M
BCM (BODY CONTROL MODULE)  Corrector Name DRIVER SIDE POWER WINDOW MOTOR Corrector Type NU03FDGY  A.S.	Terminal Color Of Nate   Signal Name (Specification)   1	N
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Revision: 2015 June EXL-135 GT-R

Connector No. E41	Connector Name ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)	Connector Type AEZ43FB-AJZ4	<b>E</b>	15. 47 (19.00)	Terminal Color Of Signal Name [Specification] No.	œ :	3 GB VDC OFF SW	M	6 G VDC UP SW	λ	15 P CAN-L	В	Μ	BR G SENSC	BG.	7	BG	<b>X</b>	<u></u>	Y VDC TO	30 L	: >	39 G G SENSOR POWER	^	PI	SB VDC TOF	w		47 B GROUND							
Connector No.	Connector Name PROM ER (NTELLICENT POWER DISTRIBUTION MODULE BROINE ROOM)	Connector Type TH08FW-NH		42 41 40 39 46 44 43	Terminal Color Of Signal Name [Specification]	39 P	40 L :	╁	43 SB .	Н	46 BG -		- 1	Connector No. E40	Connector Name FRONT COMBINATION LAMP LH		Connector Type RS08FB-PR	<b>a</b>	(HAT)		(1 2 3 4)	(5 6 7 8 /			E E		1 B/W	2 B/G -	. >-	_	$\dashv$	+	7			
Connector No.   D54	Connector Name OUTSDE KEY ANTENNA (PASSENGER SIDE)	Connector Type RK02MGY	<b>昼</b>		Terminal Color Of Signal Name [Specification] No.	1 LG .	· · · · · · · · · · · · · · · · · · ·		Connector No. E5	Connector Name POWER DISTRIBUTION MODULE		Connector Type TH20FW-CS12-M4-1V	þ			10 11 12 13 62 612	88			T	No Wire Signal Name [Specification]	t	. ·		7 R		11 SB .	12 B/W .	$\dashv$	+	25 BG .	+	+	30 GR	33 P	36 LG
BCM (BODY CONTROL MODULE) Connector No. 1045	Connector Name PASSENGER SIDE DOOR LOCK ACTUATOR	Connector Type RS04FGY-PR	Œ.		Terminal Color Of Signal Name [Specification]	Н			Connector No. D53	Connector Name STEP LAMP (PASSENGER SIDE)		Connector Type C02FW	ď	医	<u> </u>		2 1			T	No Wire Signal Name [Specification]	t	-													

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< ECU DIAGNOSIS INFORMATION >

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Connector No. Mis Connector Name FUSE BLOCK (J/B) Connector Type NST2FW-CS  H.S. III III III III III III III III III	Terminal Color Of   Signal Name [Specification]		
Corrector No. M1 Connector Name FUSE BLOCK (JUB) Corrector Type NSOGFW-M2    1.3	Torminal Color Ol   Signal Name   Specification   No.   Wire   Signal Name   Specification   No.   Wire   Signal Name   Specification   No.	Connector No. E103  Connector Name F-USE BLOCK (J/B)  Connector Type NST6FW-CS  IS 4F 2F 1F  IS 4F 1F 1F 1F 1F 1F 1F 1F 1F 1F 1F 1F 1F 1F	Terminal Color Ol Signal Name [Specification]  10F GR
BCM (BODY CONTROL MODULE)  Corrector Na. E59  Corrector Name FRONT COMBINATION LAMP RH  Corrector Type RISIBEB-RR  LIS. (5 6 7 8)	Terminal Color Of   Signal Name [Specification]		

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**EXL-137** GT-R Revision: 2015 June

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24 P   CELIFOR LAMB CELE MARRIES CICAMA	r.	+	19 H OIL LEVEL SENSOR GROUND	<u> </u>	۵.	PI	BB III	25 G IRIP A/B HESET SWITCH SIGNAL	28 88	BB	29 G SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)	I.G. SE	>	\ B		GR	M &	38 BG FUEL LEVEL SEINSON SIGNAL	- >		Connector No M54		Connector Name   METER CONTROL SWITCH	Connector Type TH12FW-NH			654321	7 8 7		la O		-	+	7	4	2	9	_	8 8	T		<u></u>
O-marter N	Τ	Connector Name STEERING LOCK UNIT	Community Free THOSEM NIL	Collector type Tricor W-1411				3 2 1	8 7 6 5		nal		1 BR S/L 12V (MECHANICAL)	2 Y S/L (K LINE)	L SYLCC	<b>a</b>		A B S/L IZV(CPU)	-		Connector No. Miss	Connector Name   COMBINATION METER	Connector Type SAB40FW	Œ	Addition	123456789 123466 1818	21 22 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25		Terminal Color Of	No. Wire Signal Name [Specification]	4	W IGNITION		B ILLUMI	m	7	+	88	۵.	12 L VEHICLE SPEED SIGNAL (2-PULSE)	+	
4	+	14 P			Connector No. M29	Connector Name   SECURITY INDICATOR LAMP	- 1	Connector Type TK02FBR				1 2	]			亘	No. Wire	- 0	1		Connector No. Miss	Connector Name   COMBINATION SWITCH	Connector Type TH16FW-NH	Œ		2	07 07		Terminal Color Of	No. Wire Signal Name [Specification]	1 LG .	2 SB .	+	. В 9	+	7	+	+	7		- PH	
BCM (BODY CONTROL MODULE)		G FL TUNER (RSSI)		L FB TUNER (GND)	26 BR FL TUNER (GND)		B GROUND		Connector No. M20	COTING OBENED SIMILAR	COLINATION LID OFFICE SWILLOW	Connector Type TK04FW					4 3 2 1			Ferminal Color Of Signal Name [Specification]	allw.					Connector No. M24	Connector Name DATA LINK CONNECTOR	Connector Type BD16FW			11   14   16	9 4 5 6 7 8	7 0 0 +			Terminal Color Of Signal Name (Specification)	o o	cc				

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< ECU DIAGNOSIS INFORMATION >

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NCEL SWITCH	MODULE)  MODULE)  MER SUPPLY(RAP)  ER SUPPLY(RAP)	В
MIOS TRUMK LID OPENER CANCEL SWITCH SOZEW	Signal Name (Specification)  M116  BOM (BODY CONTROL MODULE)  M03FB-LC  Signal Name (Specification)  BM (FIL)  POWER WINDOW POWER SUPPLYRAX)  POWER WINDOW POWER SUPPLYRAXI  POWER WINDOW POW	С
Corrector No. M. Corrector Name TTP Corrector Type SQ H.S.	Terminal Color Of   No.   Wire   No.   Wire	D
		Е
VSER I	Signal Name (Specification)	F
o. M78 ame CONDENSER ppe M02FW-LC	M97 TROSE TROUGH TO THE TROSE TROUGH TO THE TROSE TROUGH TO THE TROSE TROUGH TO THE TROSE TROUGH TO THE TROSE TROUGH TO THE TROSE TROUGH TO THE TROSE TROUGH TO THE TROSE TROUGH TO THE	G
Connector No. Connector Name Connector Type	Terminal Color Ol Wire No. Wire Connector No. Connector No. Connector No. Connector No. No. Wire No. Wire No. Wire V S. 2 P Y S. 3 V V S. 3 V V	Н
H 6 8 10 11 17 18 19	Signal Name (Specification)  VIDC TOP POSITION LED  ULL GIND  ULL GIND  ULL GIND  ULL GIND  ULL GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  ULC GIND  UCC DIN SWI  NOCE LAMP SIGN  E-SUS RANDE SIGNAL  SWAE MODE LAMP SIGN  E-SUS COMF MODE SWI SIG  M75  E-SUS RINDE SWITCH SIGNAL  SWAE MODE CAMP SIGNAL  SWAE MODE CAMP SIGNAL  SWAE MODE CAMP SIGNAL  SWAE MODE CAMP SIGNAL  SWAE MODE CAMP SIGNAL  E-SUS COMF MODE SW SIG  M75  FROZFGY  SGD13 Name (Specification)	I
3 4 5	Signal Name  VOC TOP PY  VOC TOP PY  VOC TOP PY  VOC TOP PY  VOC TOP PY  VOC TOP PY  RESUS RANGE  SAVE MODEE  E-SUS RANGE  SAVE MODEE  E-SUS RANGE  SAVE MODEE  E-SUS RANGE  SAVE MODEE  E-SUS RANGE  SAVE MODEE  F-SUS RANGE  SAVE MODEE  F-SUS RANGE  SAVE MODEE  F-SUS RANGE  SAVE MODEE  F-SUS RANGE  SAVE MODEE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  SAVE MODEE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  SAVE MODEE  F-SUS RANGE  F-SUS RANGE  SAVE MODEE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  SAVE MODEE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  SAVE MODEE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  F-SUS RANGE  SAVE MODEE  F-SUS RANGE  F-SUS RANGE  SAVE MODEE  F-SUS RANGE  F-SUS	J
Connector No. Connector Name Connector Type	Terminal Color Of Terminal Col	K
MODULE	pe offication)  15 GNAL  1 SIGNAL	EXL
DY CONTROL Miss DIODE 24355. C3900	Signal Name (Specification)  KEY SLOT  THI 2 3 5 6  THI 2 3 5 6  ZLOCK  DATA  ILL BAT  ILL BAT  ILL BAT  GND  KEY SWITCH SIGNAL.  GND  KEY SWITCH SIGNAL.	M
BCM (BODY CONTROL Comedor No. M59 Connector Name DIODE Connector Type 24335 C9900	Terminal Color Of No. Wire   No	Ν
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Revision: 2015 June EXL-139 GT-R

IGN RELAY (F/B) CONT 133 W PUSHBUTTON IGNITION SW ILL POWER	COMM 134 GR	137 L	COMBLISM INPUT 3 138 Y RECEIVER/SENSOR POWER SUPPLY	140 BH 141 G SECU	142 BG	KEY SLOT ILL OUTPUT 143 P COMBI SW OUTPUT 1	144 G	145 L	ER SUPPLY 146 SB C	150 GR	S/L CONDITION 2 151 G REAR WINDOW DEFOGGER RELAY CONT	PASSENGER DOOR REQUEST SW	DRIVER DOOR REQUEST SW Connector No. M126	BLOWER FAN MOTOR RELAY CONT Connector Name RESISTOR	KEYLESS ENITY RECEIVER POWER SUPPLY S/I INIT DOWED SIDDLY Oversofor Tune MAKEL D	add a she	COMBI SW INPUT 4	П 2		S/L UNIT COMM			TROL MODULE) Terminal Color Of Signal Name [Specification]			Ī	Connector No.   M131		Connector Type TK08FBR	Simal Nama (Snavilination)	8 6 3 1	OPTICAL SENSOR	STOF EARINF 3W 1	STOP LAWIP SW 2	ON DINECORN SENSON	Terminal Color Of		PASSENGER DOOR SW No. WIFE	OCK 1 B
82 R IGNRELA	>	В :	88 V COMBI	£ a		92 LG KEY SLOT	^	BG	SB	7	98 R S/LCO	>	101 V DRIVER DOC	BG	103 LG REYLESS ENIRY RE	- 97	В	>	<b>5</b>	111 Y S/LUN		Connector No. M123	Connector Name BCM (BODY CONTROL MODULE)	Connector Type TH40FG-NH	Œ	Milita		19 19 19 19 19 19 19 19 19 19 19 19 19 1		nal Color Of	Wire	113 P OPTICA	9 0	L 8	9 0	- H	0		2 0
Connector No. M121	Connector Name BCM (BODY CONTBOL MODILIE)	$\neg$	Connector Type TH40FGY-NH	<b>a</b>		Sol   Sol	33				Terminal Color Of Signal Name [Specification]	t	Г	ac	39 BH REAR BUMPER ANI +	- @	SB	Α	BG I-KEY	67 G TRUNK LID OPENER SW		Connector No. M122	Connector Name BCM (BODY CONTROL MODULE)	Connector Type TH40FB-NH	1		Colonsoles or   Colonsoles or	27 S 50 C 50 C 50 C 50 C 50 C 50 C 50 C 50		la C	Wire	72 R ROOM ANT2-	5	1	£ >	PI			BR
BCM (BODY CONTROL MODULE) Connector No. M119	Connector Name   BCM (BODY CONTBOL MODILLE)		Connector Type NS16FW-CS			4 5 7	11 13 14 15 17 18 19			-	Terminal Color Of Signal Name [Specification]	T	PASSENGER DO	>- 3	8 V ALL DOUR, FUEL LID LOCK OUI PUI	3 ac	В	P PUSH-BUTTON	> }	17 W TURN SIGNAL RH (FRONT) OUTPUT 18 BG TURN SIGNAL LH (FRONT) OUTPUT	>		Connector No M120	ءِ ا	Commonder Trans MICADEM OF	ector Type	<b>E</b>	H.S. [20]	25		70 - 01 - 1	Terminal Color Of Signal Name (Specification)	+	TELLINICLIE	N THOUSINGING	- g			

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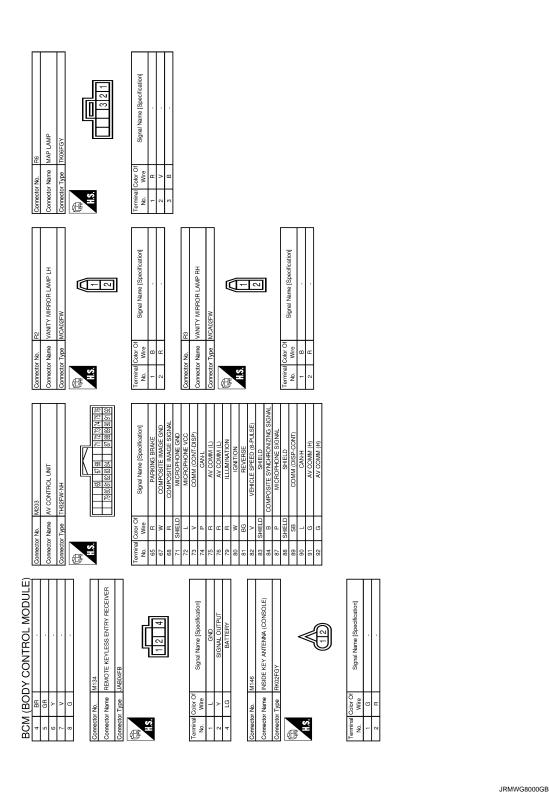
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Fail-safe INFOID:0000000011807029 Р

#### FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

**EXL-141** Revision: 2015 June GT-R

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Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent  • Starter control relay signal  • Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	<ul> <li>500 ms after the following signal reception status becomes consistent</li> <li>Shift lever P position switch signal</li> <li>P range signal (CAN)</li> </ul>
B2602: SHIFT POSITION	Inhibit steering lock	<ul> <li>5 seconds after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Shift lever P position switch signal: Except P position (Battery voltage)</li> <li>Vehicle speed: 4 km/h (2.5 MPH) or more</li> </ul>
B2603: SHIFT POSI STATUS	Inhibit steering lock	<ul> <li>500 ms after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Shift lever P position switch signal: Except P position (Battery voltage)</li> <li>Shift lever P/N position signal: Except P and N positions (0 V)</li> </ul>
B2604: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled  • Status 1  - Ignition switch is in the ON position  - Shift lever P/N position signal: P and N position (Battery voltage)  - P range signal or N range signal (CAN): ON  • Status 2  - Ignition switch is in the ON position  - Shift lever P/N position signal: Except P and N positions (0 V)  - P range signal and N range signal (CAN): OFF
B2605: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled  • Ignition switch is in the ON position  - Power position: IGN  - Shift lever P/N position signal: Except P and N positions (0 V)  - Interlock/PNP switch signal (CAN): OFF  • Status 2  - Ignition switch is in the ON position  - Shift lever P/N position signal: P or N position (Battery voltage)  - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status becomes consistent</li> <li>Steering lock relay signal (Request signal)</li> <li>Steering lock relay signal (Condition signal)</li> </ul>
B2607: S/L RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status becomes consistent</li> <li>Steering lock relay signal (Request signal)</li> <li>Steering lock relay signal (Condition signal)</li> </ul>

## < ECU DIAGNOSIS INFORMATION >

[LED HEADLAMP]

Display contents of CONSULT	Fail-safe	Cancellation					
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent  • Starter motor relay control signal  • Starter relay status signal (CAN)					
B2609: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status					
B260A: IGNITION RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following conditions are fulfilled</li> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>					
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	<ul> <li>When any of the following conditions are fulfilled</li> <li>Power position changes to ACC</li> <li>Receives engine status signal (CAN)</li> </ul>					
B2612: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	<ul> <li>When any of the following conditions are fulfilled</li> <li>Steering lock unit status signal (CAN) is received normally</li> <li>The BCM steering lock control status matches the steering lock tractions status recognized by the steering lock unit status signal (CA from IPDM E/R)</li> </ul>					
B2617: BCM	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal					
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal					
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal					
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization					
B26E9: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit and receives LOCK response signal from steering lock unit, the following conditions are fulfilled  • Steering condition No. 1 signal: LOCK (0 V)  • Steering condition No. 2 signal: LOCK (Battery voltage)					

### DTC Inspection Priority Chart

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If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

cnart.			<b>=</b>	EXL
Priority		DTC		
1	B2562: LOW VOLTAGE			M
2	U1000: CAN COMM U1010: CONTROL UNIT (CAN)			1 7 1
3	B2190: NATS ANTENNA AMP     B2191: DIFFERENCE OF KEY     B2192: ID DISCORD BCM-ECM     B2193: CHAIN OF BCM-ECM			N
	B2195: ANTI-SCANNING			0

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[LED HEADLAMP]

Priority	DTC
Priority 4	• B2013: ID DISCORD BCM-S/L  • B2014: CHAIN OF S/L-BCM  • B2553: IGNITION RELAY  • B2555: STOP LAMP  • B2556: PUSH-BTN IGN SW  • B2557: VEHICLE SPEED  • B2560: STARTER CONT RELAY  • B2601: SHIFT POSITION  • B2603: SHIFT POSITION  • B2603: SHIFT POSITION  • B2603: SHIFT POSITION  • B2604: PNP/CLUTCH SW  • B2606: S/L RELAY  • B2606: S/L RELAY  • B2607: S/L RELAY  • B2608: STARTER RELAY  • B2608: STARTER RELAY  • B2609: S/L STATUS  • B2604: IGNITION RELAY  • B2605: STEERING LOCK UNIT  • B260C: STEERING LOCK UNIT  • B260C: STEERING LOCK UNIT  • B260C: STEERING LOCK UNIT  • B260F: ENG STATE SIG LOST  • B2614: BCM  • B2616: BCM  • B2616: BCM  • B2616: BCM  • B2617: BCM  • B2618: DCM  • B2618: VEHICLE TYPE  • B2629: S/L STATUS
	U0415: VEHICLE SPEED
5	B2621: INSIDE ANTENNA     B2622: INSIDE ANTENNA     B2623: INSIDE ANTENNA
6	B26E7: TPMS CAN COMM

DTC Index

#### NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <a href="BCS-17">BCS-17</a>, "COM-MON ITEM: CONSULT Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data  •Vehicle Speed  •Odo/Trip Meter  •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
No DTC is detected. Further testing may be required.	_	_	_	_
U1000: CAN COMM	_	_	_	BCS-36
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-37
U0415: VEHICLE SPEED	_	_	_	BCS-38
B2013: ID DISCORD BCM-S/L	×	×	_	SEC-48
B2014: CHAIN OF S/L-BCM	×	×	_	SEC-49
B2190: NATS ANTENNA AMP	×	_	_	<u>SEC-40</u>

# **BCM (BODY CONTROL MODULE)**

< ECU DIAGNOSIS INFORMATION >

[LED HEADLAMP]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
B2191: DIFFERENCE OF KEY	×	_	_	SEC-43
B2192: ID DISCORD BCM-ECM	×	_	_	SEC-44
B2193: CHAIN OF BCM-ECM	×	_	_	SEC-46
B2195: ANTI-SCANNING	×	_	_	SEC-47
B2553: IGNITION RELAY	_	×	_	PCS-50
B2555: STOP LAMP	_	×	_	<u>SEC-52</u>
B2556: PUSH-BTN IGN SW	_	×	×	SEC-54
B2557: VEHICLE SPEED	×	×	×	SEC-56
B2560: STARTER CONT RELAY	×	×	×	SEC-57
B2562: LOW VOLTAGE	_	×	_	BCS-39
B2601: SHIFT POSITION	×	×	×	<u>SEC-58</u>
B2602: SHIFT POSITION	×	×	×	SEC-61
B2603: SHIFT POSI STATUS	×	×	×	<u>SEC-63</u>
B2604: PNP/CLUTCH SW	×	×	×	<u>SEC-65</u>
B2605: PNP/CLUTCH SW	×	×	×	SEC-67
B2606: S/L RELAY	×	×	×	SEC-69
B2607: S/L RELAY	×	×	×	SEC-70
B2608: STARTER RELAY	×	×	×	SEC-72
B2609: S/L STATUS	×	×	×	SEC-74
B260A: IGNITION RELAY	×	×	×	PCS-52
B260B: STEERING LOCK UNIT	_	×	×	SEC-78
B260C: STEERING LOCK UNIT	_	×	×	SEC-79
B260D: STEERING LOCK UNIT	_	×	×	SEC-80
B260F: ENG STATE SIG LOST	×	×	×	SEC-81
B2612: S/L STATUS	×	×	×	SEC-84
B2614: BCM	_	×	×	PCS-54
B2615: BCM	_	×	×	PCS-56
B2616: BCM	_	×	×	PCS-58
B2617: BCM	×	×	×	SEC-88
B2618: BCM	×	×	×	PCS-60
B2619: BCM	×	×	×	SEC-90
B261A: PUSH-BTN IGN SW	_	×	×	SEC-91
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	SEC-93
B2621: INSIDE ANTENNA	_	×	_	DLK-56
B2622: INSIDE ANTENNA	_	×	_	<u>DLK-58</u>
B2623: INSIDE ANTENNA	_	×	_	DLK-60
B26E7: TPMS CAN COMM	_	_	_	BCS-40
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	SEC-82
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	SEC-83

**EXL-145** GT-R Revision: 2015 June

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

< ECU DIAGNOSIS INFORMATION >

[LED HEADLAMP]

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

Reference Value

## VALUES ON THE DIAGNOSIS TOOL

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item		Condition				
RAD FAN REQ	Engine idle speed  Changes depending on engine temperature, air conditioner op status, vehicle speed, etc.		0 - 100 %			
		A/C switch OFF	Off			
AC COMP REQ	Engine running	A/C switch ON (Compressor is operating)	On			
TAIL&CLR REQ	Lighting switch OFF	Lighting switch OFF				
TAILOCLINICQ	Lighting switch 1ST, 2ND or	HI	On			
HL LO REQ	Lighting switch OFF	Lighting switch OFF				
HL LO REQ	Lighting switch 2ND or HI	Lighting switch 2ND or HI				
III III DEO	Lighting switch OFF	Lighting switch OFF				
HL HI REQ	Lighting switch HI		On			
ED 500 D50	Daytime running light system	Daytime running light system is not operated				
FR FOG REQ	Daytime running light system	aytime running light system is operated				
		Front wiper switch OFF	Stop			
ED WID DEO	1 20 20.1. ON	Front wiper switch INT	1LOW			
FR WIP REQ	Ignition switch ON	Front wiper switch LO	Low			
		Front wiper switch HI	Hi			
		Front wiper stop position	STOP P			
WIP AUTO STOP	Ignition switch ON	Any position other than front wiper stop position				
WID DOOT	Leading and CNI	Front wiper operates normally	Off			
WIP PROT	Ignition switch ON	Front wiper stops at fail-safe operation	BLOCK			
ION DIVA DEO	Ignition switch OFF or ACC	nition switch OFF or ACC				
IGN RLY1 -REQ	Ignition switch ON	ch ON				
IONIBLY	Ignition switch OFF or ACC		Off			
IGN RLY	Ignition switch ON		On			
DUOLLOW/	Release the push-button ign	ition switch	Off			
PUSH SW	Press the push-button ignition	on switch	On			
INTER/NP SW	Ignition switch ON	Shift lever in any position other than P or N	Off			
	Ignition switch ON	Shift lever in P or N position	On			
OT DLY CONT	Ignition switch ON		Off			
ST RLY CONT	At engine cranking		On			
HIRT BLV. BEG	Ignition switch ON		Off			
IHBT RLY -REQ	At engine cranking		On			

< ECU DIAGNOSIS INFORMATION >

Monitor Item	C	condition	Value/Status	- A		
	Ignition switch ON	Ignition switch ON				
	At engine cranking	At engine cranking				
ST/INHI RLY		·				
DETENT SW	Ignition switch ON	Press the knob button with shift lever in P position Shift lever in any position other than P	Off	С		
	Release the knob button with shift	lever in P position	On	D		
	None of the conditions below are p	resent	Off	=		
S/L RLY -REQ	(for a few seconds)	<ul> <li>Open the driver door after the ignition switch is turned OFF (for a few seconds)</li> <li>Press the push-button ignition switch when the steering lock is activated</li> </ul>				
	Steering lock is activated		LOCK	-		
S/L STATE	Steering lock is deactivated		UNLOCK	F		
	[DTC: B210A] is detected		UNKWN	=		
DTRL REQ	Lighting switch OFF		Off	G		
DIKL KEQ	Lighting switch 1ST, 2ND, HI or AU	JTO (Light is illuminated)	On			
OIL P SW	NOTE: The item is indicated, but not monit	tored.	Open	Н		
HOOD CM	Close the hood		Off	=		
HOOD SW	Open the hood		On	=		
HL WASHER REQ	NOTE: The item is indicated, but not monit	NOTE: The item is indicated, but not monitored.				
	Not operating	Off	-			
THFT HRN REQ	Panic alarm is activated     Horn is activated with VEHICLE S	SECURITY (THEFT WARNING) SYSTEM	On	- J		
	Not operating		Off	<u> </u>		
HORN CHIRP	<ul><li>Door locking with Intelligent Key</li><li>Door locking with key fob (horn of</li></ul>		On	- K		
CRNRNG LMP REQ	NOTE: The item is indicated, but not monit	tored.	Off	EX		

M

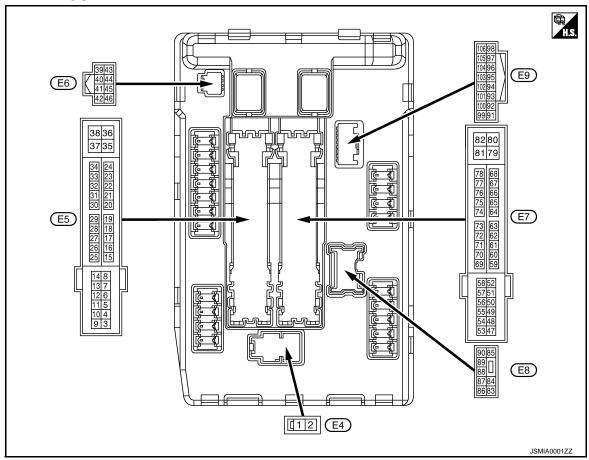
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< ECU DIAGNOSIS INFORMATION >

# **TERMINAL LAYOUT**



## PHYSICAL VALUES

	inal No.	Description				Value
+ (VVire	e color)	Signal name	Input/ Condition Output		(Approx.)	
1 (W)	Ground	Battery power supply	Input	Ignition switch C	)FF	Battery voltage
2 (Y)	Ground	Battery power supply	Input	Ignition switch C	)FF	Battery voltage
4	Ground	Front winer I O	Output	Ignition switch	Front wiper switch OFF	0 V
(V)	Ground	Front wiper LO	Output	ON	Front wiper switch LO	Battery voltage
5	Ground	Front winer UI	Output	Output Ignition switch	Front wiper switch OFF	0 V
(L)	Ground	round Front wiper HI	Output	ON	Front wiper switch HI	Battery voltage
6	Cround	round Daytime running light relay power supply Input ON	la a cat	Ignition switch	Lighting switch OFF	Battery voltage
(Y)	Ground		ON	Lighting switch 1ST	0 V	
7	Ground	Illuminations	ations Output Ignition switch		Lighting switch OFF	0 V
(R)	Ground	Illuminations	Output	ON	Lighting switch 1ST	Battery voltage
10		(More than a fe	Ignition switch C (More than a few nition switch OF	v seconds after turning ig-	0 V	
(W)	Ground	ECM relay power supply	Output	Ignition switch     Ignition switch     (For a few sec switch OFF)		Battery voltage

< ECU DIAGNOSIS INFORMATION >

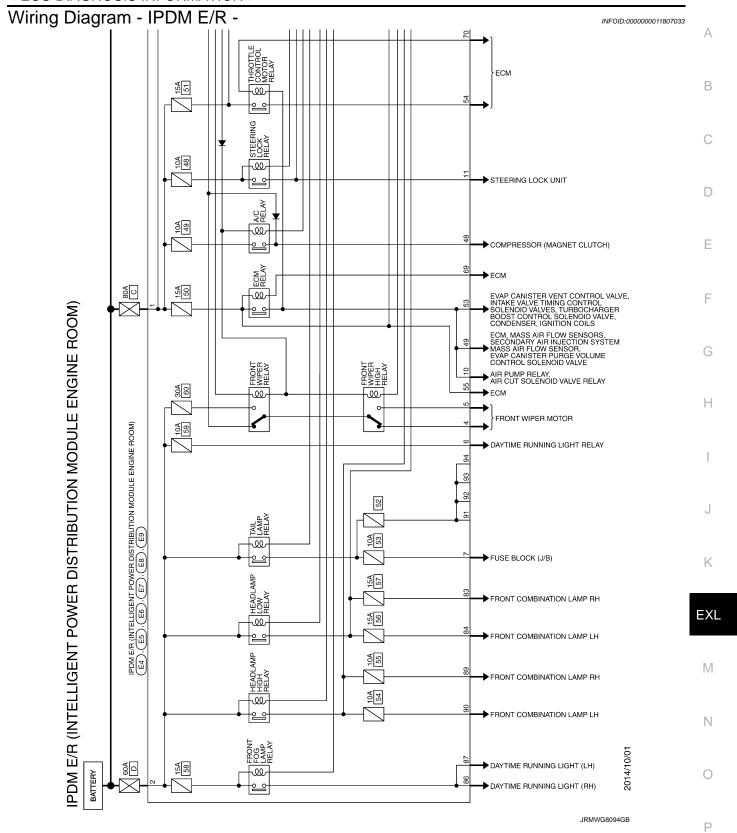
	inal No.	Description		Va		Value
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
				Ignition switch OFF	A few seconds after opening the driver door	Battery voltage
11 (SB)	Ground	Steering lock unit power supply	Output	Ignition switch LOCK	Press the push-button ignition switch	Battery voltage
				Ignition switch A	ACC or ON	0 V
12 (B/W)	Ground	Ground	_	Ignition switch (	ON	0 V
13				Ignition switch C	OFF	0 V
(R)	Ground	Fuel pump power supply	Output	<ul><li>Ignition switch</li><li>Engine runnir</li></ul>		Battery voltage
16	Ground	Front wiper stop position	Input	Ignition switch	Front wiper stop position	0 V
(LG)	Ground	From wiper stop position	прис	ON	Any position other than front wiper stop position	Battery voltage
25	Ground	Ignition relay power supply	Output	Ignition switch C	OFF	0 V
(O)	Ground	Ignition relay power supply	Output	Ignition switch C	N	Battery voltage
27	Ground	Ignition relay monitor	Input	Ignition switch (	OFF or ACC	Battery voltage
(Y)	2.ound			Ignition switch (	ON	0 V
28	Ground	Push-button ignition	Input	Press the push-	button ignition switch	0 V
(G)		switch	,		sh-button ignition switch	Battery voltage
30 (GR)	Ground	Starter relay control	Input	Shift lever in any (Ignition switch	position other than P or NON)	0.4 V
(0.1)				Shift lever P or I	N (Ignition switch ON)	Battery voltage
32	Ground	Steering lock unit condi-	Input	Steering lock is	activated	0 V
(L)	Cround	tion-1	mput	Steering lock is	deactivated	Battery voltage
33	Ground	Steering lock unit condi-	Input	Steering lock is	activated	Battery voltage
(P)	Cround	tion-2	Прис	Steering lock is	deactivated	0 V
36 (LG)	Ground	Battery power supply	Input	Ignition switch C	OFF	Battery voltage
39 (P)	_	CAN-L	Input/ Output		_	_
40 (L)	_	CAN-H	Input/ Output		_	_
41 (B/Y)	Ground	Ground	_	Ignition switch ON		0 V
42	Ground	Cooling fan relay control	Input	Ignition switch (	OFF or ACC	Battery voltage
(G)	Cround	Cooming fair rolay control	put	Ignition switch ON		0.7 V
43 (SB)	Ground	A/T shift selector (Detention switch)	Input	Ignition switch	Press the knob button (Shift lever P)     Shift lever in any position other than P	Battery voltage
					Release the knob but- ton (Shift lever P)	0 V
44	Ground	Horn relay control	Input	The horn is dea	ctivated	Battery voltage
(W)	Cround	Hom rolay control	put	The horn is active	vated	0 V
46 (O)	Ground	Starter relay control	Input	Shift lever in any (Ignition switch	position other than P or NON)	0 V
(0)				Shift lever P or I	N (Ignition switch ON)	Battery voltage

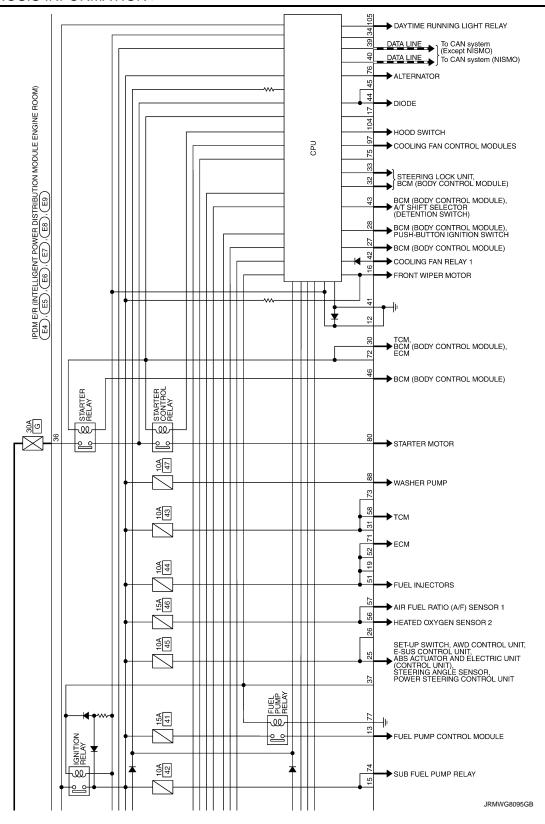
**EXL-149** GT-R Revision: 2015 June

	inal No.	Description				Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					A/C switch OFF	0 V	
48 (L)	Ground	A/C relay power supply	Output	Engine running	A/C switch ON (A/C compressor is operating)	Battery voltage	
40				Ignition switch C (More than a fev nition switch OF	v seconds after turning ig-	0 V	
49 (P)	Ground	ECM relay power supply	Output	Ignition switch     Ignition switch     (For a few sec switch OFF)		Battery voltage	
51	Ground	Ignition roley newer aupply	Output	Ignition switch C	FF	0 V	
(LG)	Giouria	Ignition relay power supply	Output	Ignition switch C	N	Battery voltage	
53				Ignition switch C (More than a fev nition switch OF	v seconds after turning ig-	0 V	
(SB)	Ground	ECM relay power supply	Output	Ignition switch     Ignition switch     (For a few sec switch OFF)		Battery voltage	
ΕΛ		Throttle control motor re-	Th (4)		Ignition switch C (More than a fev nition switch OF	v seconds after turning ig-	0 V
54 (W)	Ground	lay power supply	Output	Ignition switch     Ignition switch     (For a few sec switch OFF)		Battery voltage	
55 (O)	Ground	ECM power supply	Output	Ignition switch C	)FF	Battery voltage	
56	Cround	Ignition relay power supply	Output	Ignition switch C	FF	0 V	
(R)	Ground	ignition relay power supply	Output	Ignition switch C	N	Battery voltage	
57	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V	
(G)	Ciouna	ignition relay power supply	Output	Ignition switch C	N	Battery voltage	
58	Ground	Ignition relay power supply	Output	Ignition switch C	)FF	0 V	
(Y)	O. Garra	·g·····o··· roiay porroi ouppi,	O ditp dit	Ignition switch C	N	Battery voltage	
60				Ignition switch C (More than a fev nition switch OF	v seconds after turning ig-	Battery voltage	
69 (O)	Ground	ECM relay control	Output	Ignition switch     Ignition switch     (For a few sec switch OFF)		0 - 1.5 V	
						0 -1.0 V	
70 (G)	Ground	Throttle control motor re- lay control	Output	Ignition switch C	DN  o OFF	↓ Battery voltage ↓ 0 ∨	
				Ignition switch C	N	0 - 1.0 V	
71	Ground	Ignition relay power supply	Output	Ignition switch C	FF	0 V	
(SB)	Cround	ignition rolay power supply	Carput	Ignition switch C	N	Battery voltage	

	inal No.	Description				Mal .	
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)	А
74	0	126	0 1 1	Ignition switch C	)FF	0 V	Б
(LG)	Ground	Ignition relay power supply	Output	Ignition switch C	ON	Battery voltage	В
				Ignition switch C	NO	(V) 6 4 2 0 2 ms JPMIA0001GB 6.3 V	C D
76 (P)	Ground	Power generation command signal	Output	40% is set on "A NATOR DUTY"	ACTIVE TEST", "ALTER- of "ENGINE"	(V) 6 4 2 0 ► 2ms JPMIA0002GB 3.8 V	F
				80% is set on "A NATOR DUTY"	ACTIVE TEST", "ALTER- of "ENGINE"	(V) 6 4 2 0 2 ms JPMIA0003GB 1.4 V	H
77 (B/W)	Ground	Fuel pump relay control	Output	<ul><li>Ignition switch</li><li>Engine running</li></ul>		0 V	IZ.
80 (W)	Ground	Starter motor	Output	At engine cranki	ing	Battery voltage	K
83 (R)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF Lighting switch 2ND	0 V Battery voltage	EXL
84				Ignition switch	Lighting switch OFF	0 V	
(P)	Ground	Headlamp LO (LH)	Output	ON	Lighting switch 2ND	Battery voltage	$\mathbb{N}$
86 <sup>*</sup> (W)	Ground	Daytime running light (RH)	Output	Daytime run- ning light sys-	Not operated Operated	0 V Battery voltage	
				tem  Daytime run-	-	0 V	Ν
87 <sup>*</sup> (L)	Ground	Daytime running light (LH)	Output	ning light sys- tem	Not operated Operated	Battery voltage	
88 (G)	Ground	Washer pump power supply	Output	Ignition switch C	DN	Battery voltage	0
-		•		120	Lighting switch OFF	0 V	Р
89 (BR)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	Lighting switch HI     Lighting switch PASS	Battery voltage	
				Ignition overteb	Lighting switch OFF	0 V	
90 (O)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	<ul><li>Lighting switch HI</li><li>Lighting switch PASS</li></ul>	Battery voltage	

	nal No.	Description		(Approx.)				Volue
+	color)	Signal name	Input/ Output					
97 (Y)	Ground	Cooling fan control	Output	Engine idling		0 - 5 V		
104	(Fround Hood switch	Input	Close the hood		Battery voltage			
(LG)	Cround Trood Switch		iliput	Open the hood		0 V		
105	Cround	Daytime running light relay	Daytime running light relay , , Igr	Ignition switch	Lighting switch OFF	Battery voltage		
(GR)	Ground	control	Input	ON	Lighting switch 1ST	0 V		

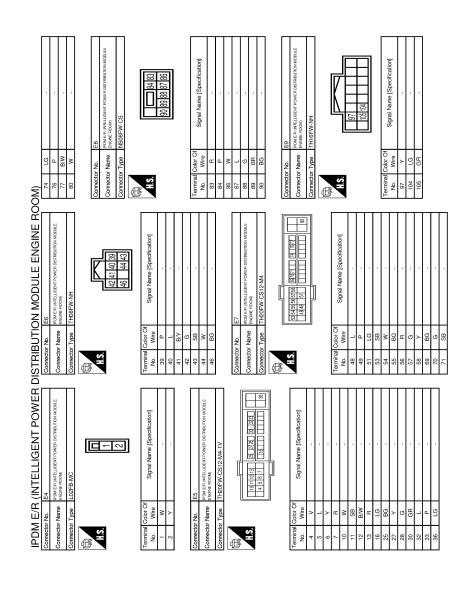




< ECU DIAGNOSIS INFORMATION >

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**EXL-155** GT-R Revision: 2015 June



JRMWG8015GB

Fail-safe INFOID:0000000011807034

## CAN COMMUNICATION CONTROL

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If No CAN Communication Is Available With ECM

< ECU DIAGNOSIS INFORMATION >

Control part	Fail-safe operation
Cooling fan	<ul> <li>Outputs the pulse duty signal (PWM signal) 100% when the ignition switch is turned ON</li> <li>Outputs the pulse duty signal (PWM signal) 0% when the ignition switch is turned OFF</li> </ul>
A/C compressor	A/C relay OFF

#### If No CAN Communication Is Available With BCM

Control part	Fail-safe operation			
Headlamp	<ul> <li>Turns ON the headlamp low relay when the ignition switch is turned ON</li> <li>Turns OFF the headlamp low relay when the ignition switch is turned OFF</li> <li>Headlamp high relay OFF</li> </ul>			
Illuminations	<ul> <li>Turns ON the tail lamp relay when the ignition switch is turned ON</li> <li>Turns OFF the tail lamp relay when the ignition switch is turned OFF</li> </ul>			
Front wiper	<ul> <li>The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed.</li> <li>The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating.</li> </ul>			
Horn	Horn OFF			
Ignition relay	The status just before activation of fail-safe is maintained.			
Starter motor	Starter control relay OFF			
Steering lock unit	Steering lock relay OFF			
<ul><li>Parking lamps</li><li>License plate lamps</li><li>Side marker lamps</li><li>Tail lamps</li></ul>	Daytime running light relay OFF			
Daytime running light	Front fog lamp relay OFF			

#### IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay and daytime running light relay\* for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

Voltage	judgment		
Ignition relay contact side	Ignition relay excitation coil side	IPDM E/R judgment	Operation
ON	ON	Ignition relay ON normal	_
OFF	OFF	Ignition relay OFF normal	_
ON	OFF	Ignition relay ON stuck	<ul> <li>Detects DTC "B2098: IGN RELAY ON CIRC"</li> <li>Turns ON the tail lamp relay and day-time running light relay for 10 minutes</li> </ul>
OFF	ON	Ignition relay OFF stuck	Detects DTC "B2099: IGN RELAY OFF CIRC"

<sup>\*:</sup> With daytime running light system

#### FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper stop position signal.

When a front wiper stop position signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 seconds activation and 20 seconds stop five times.

**EXL-157** Revision: 2015 June GT-R

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Front wiper switch

**OFF** 

ON

< ECU DIAGNOSIS INFORMATION >

Ignition switch

ON

Front wiper stop position signal
The front wiper stop position signal (stop position) cannot be input for 10 seconds.

The front wiper stop position signal does

not change for 10 seconds.

## NOTE:

This operation status can be confirmed on the IPDM E/R "Data Monitor" that displays "BLOCK" for the item "WIP PROT" while the wiper is stopped.

## STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

DTC Index INFOID:0000000011807035

#### NOTE:

- The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.
- IGN counter is displayed on FFD (Freeze Frame data).
- The number is 0 when is detected now.
- The number increases like 1 ightarrow 2  $\cdots$  38 ightarrow 39 after returning to the normal condition whenever IGN OFF ightarrow
- The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

×: Applicable

CONSULT display	Fail-safe	Refer to
No DTC is detected. further testing may be required.	_	_
U1000: CAN COMM CIRCUIT	×	PCS-14
B2098: IGN RELAY ON CIRC	×	PCS-15
B2099: IGN RELAY OFF CIRC	_	PCS-17
B2108: S/L RELAY ON	_	<u>SEC-94</u>
B2109: S/L RELAY OFF	_	<u>SEC-95</u>
B210A: S/L STATE SW	_	<u>SEC-96</u>
B210B: STR CONT RLY ON CIRC	_	SEC-100
B210C: STR CONT RLY OFF CIRC	_	<u>SEC-101</u>
B210D: STARTER RLY ON CIRC	_	SEC-102
B210E: STARTER RLY OFF CIRC	-	<u>SEC-103</u>
B210F: INTRLCK/PNP SW ON	_	<u>SEC-105</u>
B2110: INTRLCK/PNP SW OFF	_	<u>SEC-107</u>

## **EXTERIOR LIGHTING SYSTEM SYMPTOMS**

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

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# SYMPTOM DIAGNOSIS

# **EXTERIOR LIGHTING SYSTEM SYMPTOMS**

Symptom Table INFOID:0000000011489942

## NOTE:

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

Symptom		Possible cause	Inspection item	
Headlamp (HI) is not turned ON	One side	Fuse Headlamp (HI) power supply circuit Front combination lamp internal circuit LED (headlamp high) LED headlamp control module Harness IPDM E/R	Headlamp (HI) circuit Refer to EXL-39, "Component Function Check".	
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (HI) AR Refer to EXL-163, "Diagnosis Proces		
High beam indicator lamp is [Headlamp (HI) is turned Ol		Combination meter	Combination meter     Data monitor "HI-BEAM IND"     BCM (HEAD LAMP)     Active test "HEAD LAMP"	
Headlamp (LO) is not turned ON	One side	Fuse     Headlamp (LO) power supply circuit     Front combination lamp internal circuit     LED (headlamp low)     LED headlamp control module     Harness     IPDM E/R	Headlamp (LO) circuit Refer to EXL-41, "Component Function Check".	
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) AF Refer to EXL-164, "Diagnosis Proces		
Headlamp (HI) and (LO) is not turned ON		LED headlamp ground circuit     Front combination lamp internal circuit     LED headlamp control module     Harness	LED headlamp Refer to EXL-43, "Diagnosis Procedure".	
Headlamp warning remains ON [Headlamp (LO) is turned ON]		LED headlamp warning signal circuit Front combination lamp internal circuit LED headlamp control module Harness Combination meter	Headlamp warning Refer to EXL-45, "Component Function Check".	
Each lamp is not turned ON/OFF with lighting switch AUTO		Combination switch input/output signal circuit     Combination switch     BCM	Combination switch Refer to BCS-86, "Symptom Table".	
		Optical sensor power supply/ ground/signal circuit     Optical sensor     BCM	Optical sensor Refer to EXL-62, "Component Function Check".	

**EXL-159** Revision: 2015 June GT-R

# **EXTERIOR LIGHTING SYSTEM SYMPTOMS**

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

Symp	otom	Possible cause	Inspection item
Parking lamp is not turned C	NO	Parking lamp power supply/ ground circuit     Front combination lamp internal circuit     LED (parking lamp)     Harness	Parking lamp circuit Refer to EXL-50, "Component Func- tion Check".
Front side marker lamp is no	ot turned ON	Front side marker lamp power supply/ground circuit     Bulb (front side marker lamp)	Front side marker lamp circuit Refer to EXL-51, "Component Func- tion Check".
Tail lamp is not turned ON		Tail lamp power supply/ground circuit     Rear combination lamp internal circuit     LED (tail lamp)     Harness	Tail lamp circuit Refer to EXL-52, "Component Function Check".
Rear side marker lamp is no	ot turned ON	Rear side marker lamp power supply/ground circuit     Rear side marker lamp	Rear side marker lamp circuit Refer to EXL-53, "Component Func- tion Check".
License plate lamp is not tur	rned ON	License plate lamp power supply/ ground circuit Bulb (license plate lamp) Bulb socket (license plate lamp)	License plate lamp circuit Refer to EXL-54, "Component Func- tion Check".
Parking, license plate, side r not turned ON	marker and tail lamps are	Symptom diagnosis "PARKING, LICENSE PLATE, SIDE I TURNED ON" Refer to EXL-165, "Diagnosis Procee	MARKER AND TAIL LAMPS ARE NOT
Position lamp indicator is not turned ON (Parking lamp, license plate lamp, side marker lamp and tail lamp are turned ON)		Combination meter	Combination meter     Data monitor "LIGHT IND"     BCM (HEAD LAMP)     Active test "TAIL LAMP"
Back-up lamp is not turned (	ON	Fuse     Back-up lamp relay     Back-up lamp relay power supply/control signal circuit     TCM relay     TCM relay power supply circuit     Back-up lamp power supply/ground circuit     Bulb (back-up lamp)     Bulb socket/harness (back-up lamp)     TCM	Back-up lamp circuit Refer to EXL-55, "Component Func- tion Check".
Turn signal lamp does not blink	Indicator lamp is normal (Applicable side per- forms high flasher activa- tion)	Front turn signal lamp     Front turn signal lamp power supply/ground circuit     Bulb (front turn signal lamp)     Bulb socket (front turn signal lamp)     Rear turn signal lamp     Rear turn signal lamp power supply/ground circuit     Bulb (rear turn signal lamp)     Bulb socket/harness (rear turn signal lamp)	Turn signal lamp circuit Refer to EXL-58, "Component Function Check".
	Indicator lamp is included	Combination switch input/output signal circuit     Combination switch     BCM	Combination switch Refer to BCS-86, "Symptom Table".

# **EXTERIOR LIGHTING SYSTEM SYMPTOMS**

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

Symptom		Possible cause	Inspection item
	One side	Combination meter	<del></del>
Turn signal indicator lamp does not blink (Turn signal lamp is normal)	Both sides (Always)	Turn indicator signal BCM Combination meter	Combination meter     Data monitor "TURN IND"     BCM (FLASHER)     Active test "FLASHER"
	Both sides (Only when activating hazard warning lamp with ignition switch OFF)	Combination meter power supply/ ground circuit     Combination meter	Combination meter Power supply and ground circuit Refer to MWI-68, "COMBINATION METER: Diagnosis Procedure".
Hazard warning lamp doe (Turn signal is normal)     Hazard warning lamp con		Hazard switch signal/ground circuit     Set-up switch (hazard switch)     BCM	Hazard switch Refer to EXL-65, "Component Function Check".
Daytime running light is not turned ON		<ul> <li>Fuse</li> <li>Daytime running light power supply/ground circuit</li> <li>Daytime running light</li> <li>IPDM E/R</li> <li>BCM</li> <li>ECM</li> <li>Combination meter</li> </ul>	<ul> <li>Daytime running light circuit Refer to EXL-46, "Component Function Check".</li> <li>BCM (HEAD LAMP) Data monitor "ENGINE STATE"</li> <li>Combination meter Data monitor "PKB SW"</li> </ul>

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## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

# NORMAL OPERATING CONDITION

Description INFOID:000000011489943

## LED HEADLAMP

- LED brightness and color may slightly change until the temperature becomes stable. This is not malfunction.
- Illumination time lag may occur between right and left. This is not malfunction.
- Brightness may be reduced due to aged deterioration of LED.

## **AUTO LIGHT SYSTEM**

The headlamp may not be turned ON/OFF immediately after passing dark area or bright area (short tunnel, sky bridge, shadowed area etc.) while using the auto light system. This causes for the control difference. This is normal.

## **BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON**

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

# BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

Description INFOID:0000000011489944

Both side headlamps (HI) are not turned ON when setting to the lighting switch HI or PASS.

# Diagnosis Procedure

INFOID:0000000011489945

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# 1.COMBINATION SWITCH INSPECTION

Check combination switch. Refer to BCS-86, "Symptom Table".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

# 2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

## (P)With CONSULT

- Select "HL HI REQ" in "Data Monitor" mode of "IPDM E/R" using CONSULT.
- With operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL HI REQ	Lighting switch	HI or PASS	On
	(2ND)	LO	Off

## Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-35, "Removal and Installation".

>> Replace BCM. Refer to BCS-89, "Removal and Installation". NO

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**EXL-163** Revision: 2015 June GT-R

**EXL** 

## **BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON**

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

# BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description INFOID:0000000011489946

Both side headlamps (LO) are not turned ON in any condition.

## Diagnosis Procedure

INFOID:0000000011489947

# 1. CHECK COMBINATION SWITCH

Check combination switch. Refer to BCS-86, "Symptom Table".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

# 2.CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT

## (I) With CONSULT

- 1. Select "HL LO REQ" in "Data Monitor" mode of "IPDM E/R" using CONSULT.
- 2. With operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL LO REQ Lighting switch	2ND	On	
	Lighting Switch	OFF	Off

## Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-35, "Removal and Installation".

NO >> Replace BCM. Refer to BCS-89, "Removal and Installation".

# PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

INFOID:0000000011489949

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# PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON

Description INFOID:0000000011489948

The parking, license plate, side marker and tail lamps are not turned ON in any condition.

Diagnosis Procedure

# 1.COMBINATION SWITCH INSPECTION

Check combination switch. Refer to BCS-86, "Symptom Table".

## Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

## 2.CHECK DAYTIME RUNNING LIGHT REQUEST SIGNAL INPUT

## (P)With CONSULT

- Select "DTRL REQ" in "Data Monitor" mode of "IPDM E/R" using CONSULT.
- With operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
DTRI REO	DTRL REQ Lighting switch	1ST	On
DINENEQ		OFF	Off

## Is the inspection result normal?

YES >> Perform the daytime running light relay circuit diagnosis. Refer to <u>EXL-48</u>, "Component Function Check".

NO >> Replace BCM. Refer to BCS-89, "Removal and Installation".

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Revision: 2015 June EXL-165 GT-R

< PRECAUTION > [LED HEADLAMP]

# **PRECAUTION**

## **PRECAUTIONS**

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

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 AIR BAG" and "SEAT BELT" of this Service Manual.

#### WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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 WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

#### **WARNING:**

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the
  ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with
  a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing
  serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

# Precaution for Battery Service

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

# Precautions for Removing Battery Terminal

 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

#### NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

• For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

## NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

BATTERY

INFOID:0000000011489951

INFOID:0000000011489952

After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
 NOTE:

The removal of 12V battery may cause a DTC detection error.

[LED HEADLAMP]

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# PERIODIC MAINTENANCE

# HEADLAMP AIMING ADJUSTMENT

Description NNFOID:000000011489953 B

#### PREPARATION BEFORE ADJUSTING

#### NOTE:

- For details, refer to the regulations in your own country.
- Perform aiming if the vehicle front body has been repaired and/or the headlamp assembly has been replaced.

Before performing aiming adjustment, check the following.

- Adjust the tire pressure to the specification.
- Fill with fuel, engine coolant and each oil.
- Maintain the unloaded vehicle condition. (Remove luggage from the passenger compartment and the trunk room.)

#### NOTE:

Do not remove the temporary tire, jack and on-vehicle tool.

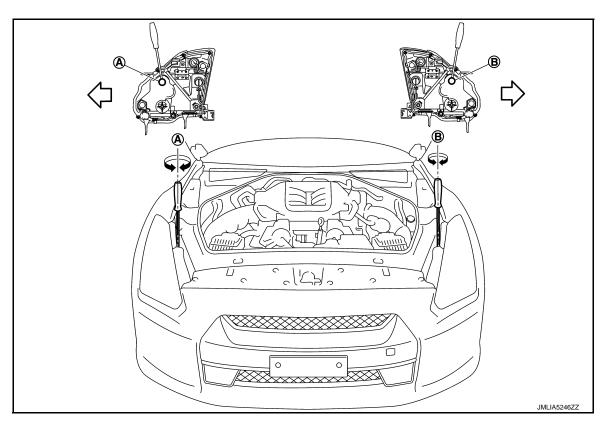
Wipe out dirt on the headlamp.

#### **CAUTION:**

Never use organic solvent (thinner, gasoline etc.)

· Ride alone on the driver seat.

#### AIMING ADJUSTMENT SCREW



A Headlamp (RH) UP/DOWN adjustment screw

JP/DOWN B. Headlamp (LH) UP/DOWN adjustment screw

: Vehicle center

Revision: 2015 June EXL-167 GT-R

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## **HEADLAMP AIMING ADJUSTMENT**

< PERIODIC MAINTENANCE >

[LED HEADLAMP]

	Adjustment screw	Screw driver rotation	Facing direction
	Headlamp (RH) UP/DOWN	Clockwise	DOWN
A	A Headlamp (RH) UP/DOWN	Counterclockwise	UP
В	Headlems /LH) LID/DOWN	Clockwise	DOWN
B Headlamp (LH) UP/DOWN		Counterclockwise	UP

# Aiming Adjustment Procedure

INFOID:0000000011489954

1. Place the screen.

#### NOTE:

- Stop the vehicle facing the wall.
- Place the board on a plain road vertically.
- 2. Face the vehicle with the screen. Maintain 10 m (32.8 ft) between the headlamp center and the screen.
- 3. Start the engine. Turn the headlamp (LO) ON.

#### NOTE:

Shut off the headlamp light with the board to prevent from illuminating the adjustment screen.

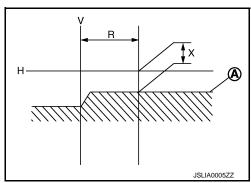
#### **CAUTION:**

## Never cover the lens surface with a tape etc. The lens is made of resin.

4. Measure the distance (X) between the horizontal center line of headlamp (H) and the cutoff line (A) within the light axis measurement range (R) from the vertical center line ahead of headlamp (V).

Light axis measurement : 350  $\pm$  175 mm (13.78  $\pm$  6.89 in) range (R)

Low beam distribution on the screen



5. Adjust the cutoff line height (X) with the aiming adjustment screw so as to enter in the adjustment range (M–N) according to the horizontal center line of headlamp (H).

unit: mm (in)

Horizontal center line of headlamp (H)	Highest cutoff line height (M)	Lowest cutoff line height (N)
700 (27.56) or less	4 (0.16)	30 (1.18)
701(27.60) – 800 (31.50)	4 (0.16)	30 (1.18)
801 (31.54) or more	17 (0.67)	44 (1.73)

## Side view

## **HEADLAMP AIMING ADJUSTMENT**

< PERIODIC MAINTENANCE >

[LED HEADLAMP]

Distance between the headlamp : 10 m (32.8 ft) center and the screen (L)

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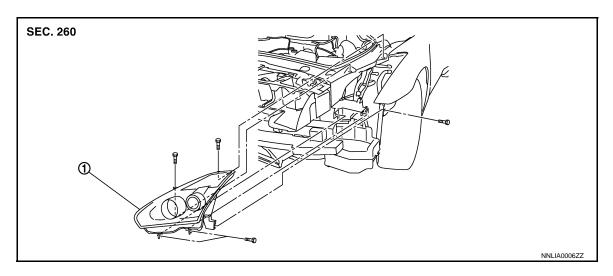
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# REMOVAL AND INSTALLATION

# FRONT COMBINATION LAMP

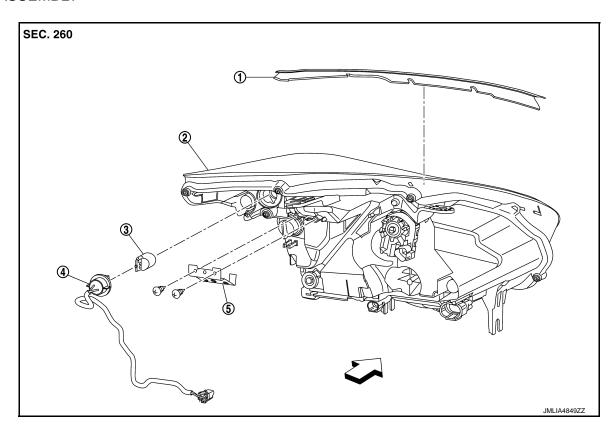
**Exploded View** INFOID:0000000011489955

**REMOVAL** 



1. Front combination lamp

## **DISASSEMBLY**



- Seal rubber
- Front turn signal lamp bulb socket
- : Vehicle front

- Headlamp housing assembly
- Headlamp bracket A
- 3. Front turn signal lamp bulb

[LED HEADLAMP]

## Removal and Installation

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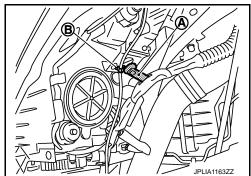
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## **REMOVAL**

#### **CAUTION:**

Disconnect the battery negative terminal or remove the fuse.

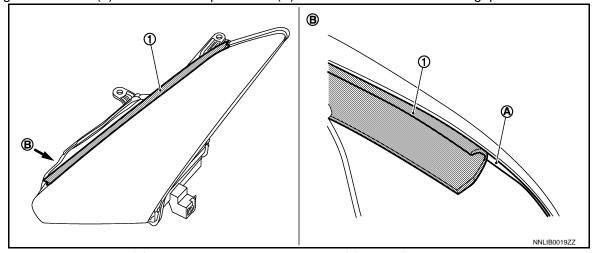
- Remove front bumper fascia. Refer to EXT-15, "Removal and Installation".
- Remove the headlamp mounting bolts.
- 3. Remove the harness clip (A) and the washer tube (B)\*. \*: Left side only
- 4. Pull out the headlamp assembly forward the vehicle.
- 5. Disconnect the connector before removing the headlamp housing assembly.



## **INSTALLATION**

Note the following items, Install in the reverse order of removal.

- After installation, perform aiming adjustment. Refer to <u>EXL-167</u>, "<u>Description</u>".
- When the front combination lamp on one side is replaced, and rubber seal is not installed to the front combination lamp on the side that is not replaced, install a rubber seal to the front combination lamp that is not replaced as per the following procedure.
- Always clean the front combination lamp surface where rubber seal is affixed.
- Align rubber seal (1) with lens inner protrusion (A) and affix so that there is not gap.



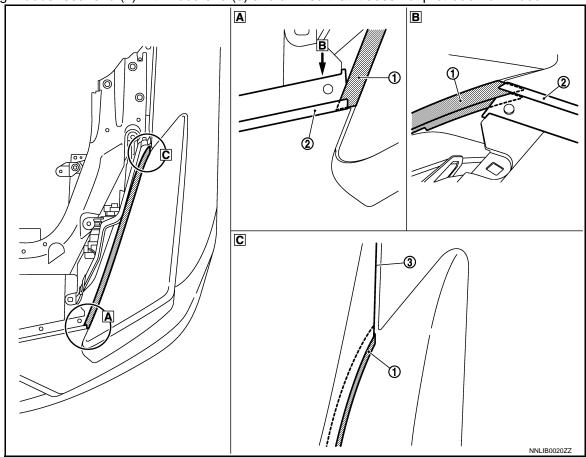
Align rubber seal edge (1) with hood seal assembly edge (2) and affix under hood seal assembly.

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3. Align rubber seal end (1) with hood end (3) and affix so that it does not protrude from hood.



Replacement

#### **CAUTION:**

- Disconnect the battery negative terminal or remove the fuse.
- After installing the bulb, install the bulb socket securely for watertightness.
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.

#### **HEADLAMP BULB (LO)**

#### **CAUTION:**

Replacement of a single part is not possible due to the adoption of LED bulb. For replacement, replace front combination lamp as a set.

## **HEADLAMP BULB (HI)**

#### **CAUTION:**

Replacement of a single part is not possible due to the adoption of LED bulb. For replacement, replace front combination lamp as a set.

## PARKING LAMP BULB

#### **CAUTION:**

Replacement of a single part is not possible due to the adoption of LED bulb. For replacement, replace front combination lamp as a set.

#### FRONT TURN SIGNAL LAMP BULB

- Remove the front tire. Refer to <u>WT-75, "Removal and Installation"</u>.
- Remove the fender protector. Keep a service area. Refer to <u>EXT-32</u>, "<u>FENDER PROTECTOR</u>: Removal and Installation".
- Rotate the bulb socket counterclockwise and unlock it.

## FRONT COMBINATION LAMP

## < REMOVAL AND INSTALLATION >

[LED HEADLAMP]

4. Remove the bulb from the bulb socket.

# Disassembly and Assembly

INFOID:0000000011489958

## DISASSEMBLY

- 1. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
- Remove the bulb from the front turn signal lamp bulb socket.
- 3. Remove the headlamp bracket A fixing screws, and then remove headlamp bracket A.

# C

## **ASSEMBLY**

Assemble in the reverse order of disassembly.

## **CAUTION:**

• After installing the bulb, install the bulb socket securely for watertightness.

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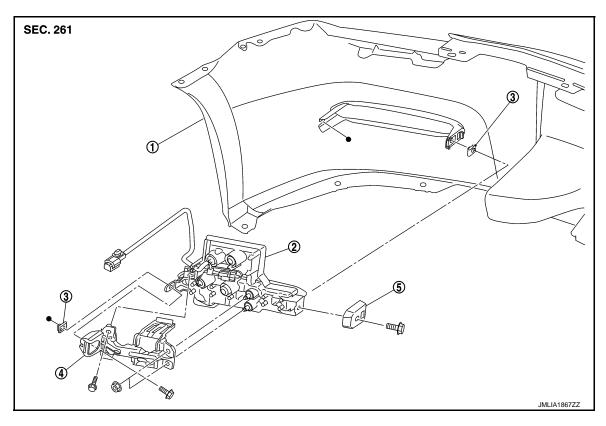
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# DAYTIME RUNNING LIGHT

Exploded View



- 1. Bumper fascia
- 4. Daytime running light bracket A
- 2. Daytime running light
- 5. Daytime running light bracket B
- 3. U nut

## Removal and Installation

INFOID:0000000011489960

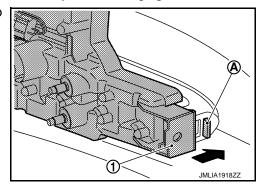
#### **CAUTION:**

Disconnect the battery negative terminal or remove the fuse.

## **REMOVAL**

## Left side

- 1. Remove engine under cover. EXT-39, "ENGINE UNDER COVER: Removal and Installation".
- 2. Remove washer tank mounting bolt, and then keep a service area.
- 3. Disconnect daytime running light harness connector.
- 4. Remove daytime running light mounting bolt and nut, and then remove daytime running light bracket.
- 5. Move daytime running light (1) until it contacts bumper fascia rib portion (A).



## **DAYTIME RUNNING LIGHT**

## < REMOVAL AND INSTALLATION >

[LED HEADLAMP]

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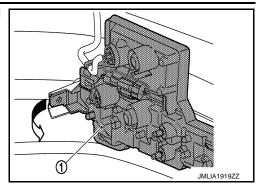
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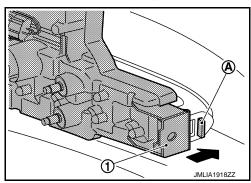
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Rotate daytime running light around center of rib portion and remove LED hyper day light.

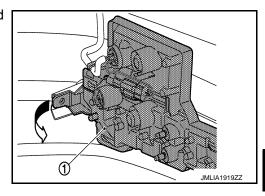


## Right side

- 1. Remove bumper fascia. Refer to EXT-15, "Removal and Installation".
- 2. Remove daytime running light mounting bolt and nut, and then remove daytime running light bracket.
- 3. Move daytime running light (1) until it contacts bumper fascia rib portion (A).



4. Rotate daytime running light around center of rib portion and remove LED hyper day light.



## **INSTALLATION**

Install in the reverse order of removal.

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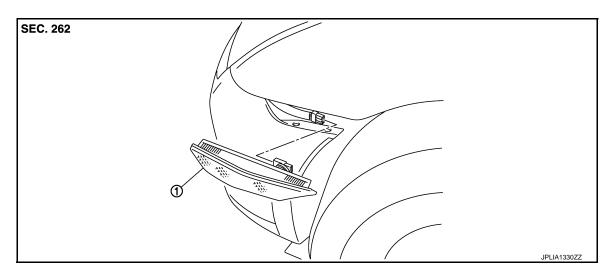
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## FRONT SIDE MARKER LAMP

Exploded View



Front side marker lamp

#### Removal and Installation

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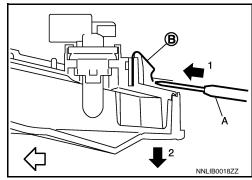
#### **CAUTION:**

Disconnect the battery negative terminal or remove the fuse.

## **REMOVAL**

- 1. Insert any appropriate tool (A) into the gap between the side turn signal lamp and fender protector.
- Pull the side turn signal lamp toward vehicle outside while pushing metal clip (B) toward vehicle front, and then remove side turn signal lamp from vehicle.

: Vehicle front



3. Disconnect the side turn signal lamp connector. Remove the side turn signal lamp.

#### NOTE:

Support the vehicle-side harness of the side turn signal lamp with tape so that it does not drop inside the front fender.

#### INSTALLATION

- 1. Connect the side turn signal lamp connector.
- 2. Fix the pawl side. And then push the clip side.

Replacement INFOID:0000000011489963

#### **CAUTION:**

- Disconnect the battery negative terminal or remove the fuse.
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.

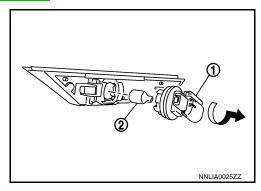
## FRONT SIDE MARKER LAMP BULB

## FRONT SIDE MARKER LAMP

## < REMOVAL AND INSTALLATION >

[LED HEADLAMP]

- 1. Remove the front side marker lamp. Refer to EXL-176, "Exploded View".
- 2. Turn the bulb socket (1) counterclockwise and unlock it.
- 3. Remove the bulb (2) from the socket.



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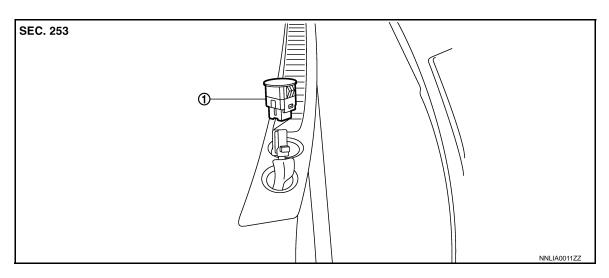
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[LED HEADLAMP]

# **OPTICAL SENSOR**

Exploded View



Optical sensor

## Removal and Installation

INFOID:0000000011489965

## **REMOVAL**

- 1. Insert an appropriate tool between the optical sensor and the instrument upper panel. Pull out the optical sensor upward.
- 2. Disconnect the optical sensor connector and then remove the optical sensor.

## **INSTALLATION**

Install in the reverse order of removal.

## **LIGHTING & TURN SIGNAL SWITCH**

< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

# **LIGHTING & TURN SIGNAL SWITCH**

Exploded View

The lighting & turn signal switch is integrated in the combination switch. <u>BCS-90</u>, "Exploded View".

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## **HAZARD SWITCH**

< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

HAZARD SWITCH

Exploded View

The hazard switch is integrated in the set-up switch. Refer to IP-12, "Exploded View".

[LED HEADLAMP]

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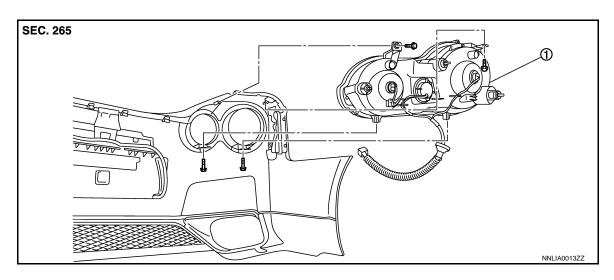
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# **REAR COMBINATION LAMP**

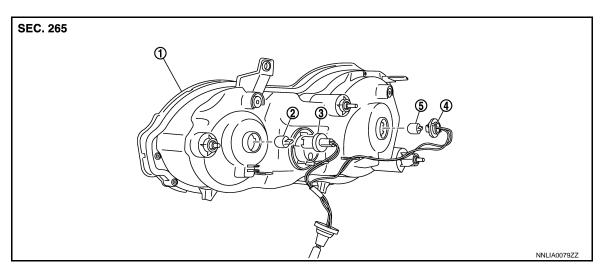
**Exploded View** 

**REMOVAL** 



1. Rear combination lamp assembly

## **DISASSEMBLY**



- Rear combination lamp
- 2. Back-up lamp bulb
- Rear turn signal lamp bulb
- Back-up lamp bulb socket

## Removal and Installation

Rear turn signal lamp bulb socket

## **CAUTION:** Disconnect the battery negative terminal or remove the fuse.

## **REMOVAL**

- Remove the rear bumper fascia. Refer to EXT-22, "Removal and Installation".
- Remove the rear combination lamp mounting bolts.
- 3. Disconnect the rear side marker lamp connector.
- 4. Remove the rear combination lamp.

## **INSTALLATION**

Install in the reverse order of removal.

**EXL-181** Revision: 2015 June GT-R

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INFOID:0000000011489969

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## **REAR COMBINATION LAMP**

< REMOVAL AND INSTALLATION >

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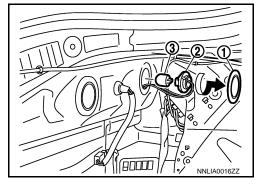
Replacement INFOID:000000011489970

#### **CAUTION:**

- Disconnect the battery negative terminal or remove the fuse.
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- · Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.

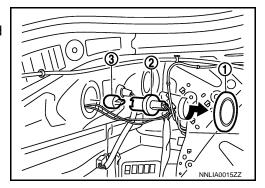
## REAR TURN SIGNAL LAMP BULB

- 1. Remove the trunk lid finisher. Refer to INT-29, "Removal and Installation".
- 2. Remove the rubber cover (1).
- 3. Turn the rear turn signal lamp bulb socket (2) counterclockwise and unlock it.
- 4. Remove the bulb (3) from the rear turn signal lamp bulb socket.



## **BACK-UP LAMP BULB**

- 1. Remove the trunk lid finisher. Refer to <a href="INT-29">INT-29</a>, "Removal and Installation".
- 2. Remove the rubber cover (1).
- 3. Turn the back-up lamp bulb socket (2) counterclockwise and unlock it.
- 4. Remove the bulb (3) from the back-up lamp bulb socket.



[LED HEADLAMP]

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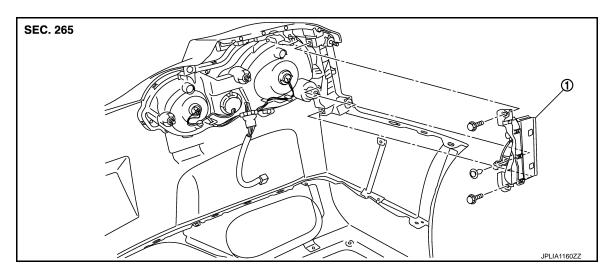
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# REAR SIDE MARKER LAMP

Exploded View



1. Rear side marker lamp

## Removal and Installation

INFOID:0000000011489972

## **REMOVAL**

#### **CAUTION:**

Disconnect the battery negative terminal or remove the fuse.

- 1. Remove the rear bumper fascia. Refer to EXT-22, "Removal and Installation".
- 2. Disconnect the rear side marker lamp connector.
- 3. Remove the rear side marker lamp mounting bolts and clip.
- Remove the rear side marker lamp.

#### INSTALLATION

Install in the reverse order of removal.

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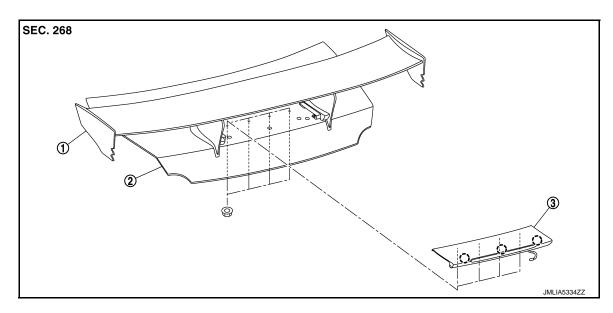
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# **HIGH-MOUNTED STOP LAMP**

Exploded View

## **GT-R NISMO**



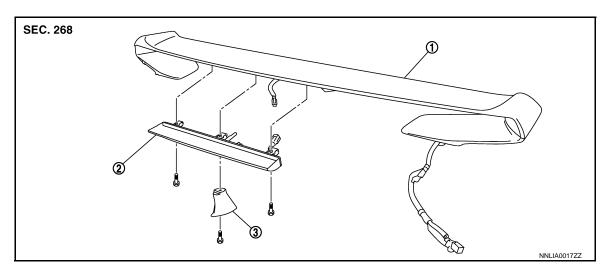
1. Rear wing

2. Trunk lid panel

3. Rear wing cover (with high-mounted stop lamp)

( ) : Clip

## **EXCEPT FOR GT-R NISMO**



1. Rear wing

- 2. High-mounted stop lamp
- 3. Center leg bracket

## Removal and Installation

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## **REMOVAL**

## **CAUTION:**

Disconnect the battery negative terminal or the remove the fuse.

GT-R NISMO

Remove rear wing cover. Refer to <u>EXT-56</u>, "Removal and Installation". **NOTE**:

## **HIGH-MOUNTED STOP LAMP**

## < REMOVAL AND INSTALLATION >

[LED HEADLAMP]

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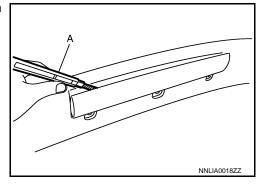
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The high-mounted stop lamp is an integral part of the rear wing cover. If the replacement of the high-mounted stop lamp is necessary, replace the rear wing cover.

Except For GT-R NISMO

- 1. Remove the rear wing. Refer to EXT-56, "Removal and Installation".
- 2. Remove the center leg bracket.
- 3. Remove the high-mounted stop lamp mounting screw. And then cut the double-sided tape by the any appropriate tool (A).



4. Disconnect the connector. And then remove the high-mounted stop lamp from the rear wing.

#### INSTALLATION

Install in the reverse order of removal.

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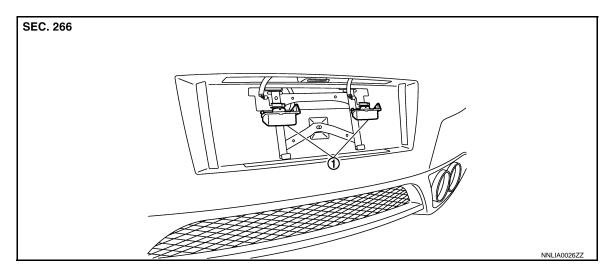
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## LICENSE PLATE LAMP

Exploded View



1. License plate lamp

## Removal and Installation

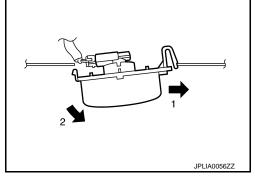
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#### **CAUTION:**

Disconnect the battery negative terminal or remove the fuse.

#### **REMOVAL**

- Remove the license plate lamp in numerical order shown in the figure.
- 2. Disconnect the connector.
- 3. Remove license plate lamp.



#### **INSTALLATION**

- 1. Connect the connector.
- 2. Fix the pawl side. And then push the resin clip side.

Replacement

## **CAUTION:**

- Disconnect the battery negative terminal or remove the fuse.
- · Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- · Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.

#### LICENSE PLATE LAMP BULB

Remove license plate lamp. Refer to <u>EXL-186</u>, "Exploded View".

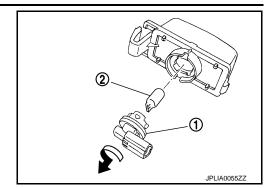
## LICENSE PLATE LAMP

# < REMOVAL AND INSTALLATION >

[LED HEADLAMP]

2. Turn the bulb socket (1) counterclockwise and unlock it.

3. Remove the bulb (2) from the socket.



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# SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[LED HEADLAMP]

# SERVICE DATA AND SPECIFICATIONS (SDS)

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# **Bulb Specifications**

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	Item	Туре	Wattage (W)
	Headlamp (LO)	LED	_
En al control de la la control de la control	Headlamp (HI)	LED	_
Front combination lamp	Parking lamp	LED	_
	Front turn signal lamp	WY21W (Amber)	21
Daytime running light		LED	_
Front side marker lamp		W5W	5
	Stop lamp	LED	_
Deer combination laws	Tail lamp	LED	_
Rear combination lamp	Rear turn signal lamp	WY21W (Amber)	21
	Back-up lamp	W16W	16
Rear side marker lamp		LED	_
License plate lamp		W5W	5
High-mounted stop lamp		LED	_