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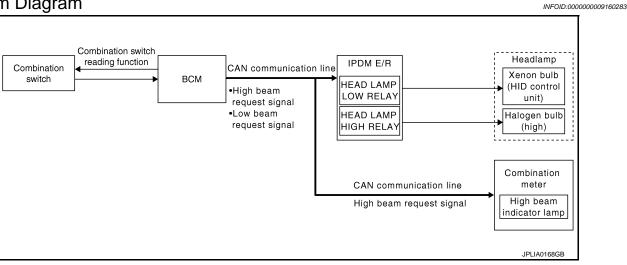
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SYSTEM DESCRIPTION

HEADLAMP SYSTEM

System Diagram



System Description

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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

- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgement
- IPDM E/R turns the integrated headlamp low relay ON, and turns the headlamp ON according to the low beam request signal.

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

- Lighting switch PASS
- Lighting switch HI and any of the following
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function on judgement
- Combination meter turns the high beam indicator lamp ON according to the high beam request signal.
- IPDM E/R turns the integrated headlamp high relay ON, and turns the headlamp ON according to the high beam request signal.

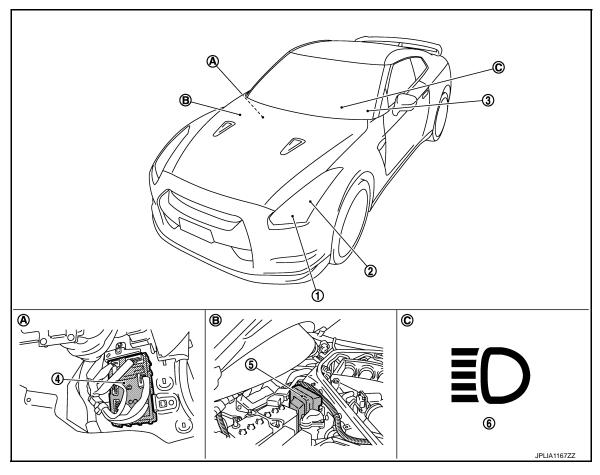
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- 1. Headlamp (HI)
- 4. BCM
- A. Dash side lower (passenger side)
- 2. Headlamp (LO)
- 5. IPDM E/R
- B. Engine room dash panel (RH)
- 3. Combination switch
- 6. High beam indicator lamp
- C. On the combination meter

Component Description

Part	Description		
BCM	 Detects each switch condition by the combination switch reading function. Judges that the headlamp is turned ON according to the vehicle condition. Requests the headlamp relay (High/Low) ON to IPDM E/R (with CAN communication). Requests the high beam indicator lamp ON to the combination meter (with CAN communication). 		
IPDM E/R	Controls the integrated 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-5, "System Diagram".		
Combination meter (High beam indicator lamp)	Turns the high beam indicator lamp ON according to the request from BCM (with CAN communication).		
Front combination lamp assembly • HID control unit • Xenon bulb	Refer to EXL-21, "Description".		

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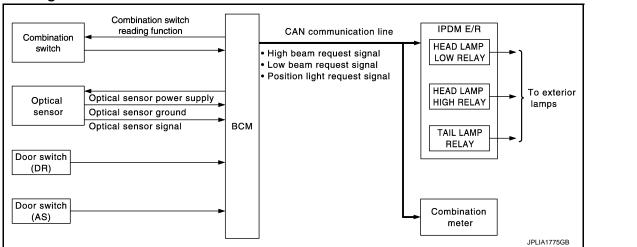
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AUTO LIGHT SYSTEM

System Diagram



System Description

OUTLINE

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

Control by BCM

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

Control by IPDM E/R

- Relay control function
- Auto light system has the auto light function and the delay timer function.
- Auto light function turns the exterior lamps* and each illumination ON/OFF automatically according to the outside brightness.
- When auto light system turns the exterior lamps ON with the ignition switch OFF, delay timer function turns the exterior lamps OFF depending on the vehicle condition with the auto light function after a certain period
- Headlamp (LO/HI), parking lamp, tail lamp, side marker lamp and license plate lamp.

Headlamp HI depend on the combination switch condition.

AUTO LIGHT FUNCTION

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

DELAY TIMER FUNCTION

BCM turns the exterior lamp OFF depending on the vehicle condition with the auto light function when the ignition switch is turned OFF.

- Turns the exterior lamp OFF 5 minutes after detecting that any door opens (Door switch ON).
- Turns the exterior lamp OFF a certain period of time* after closing all doors (Door switch ON→OFF).
- Turns the exterior lamp OFF with the ignition switch ACC or the light switch OFF.

NOTE:

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

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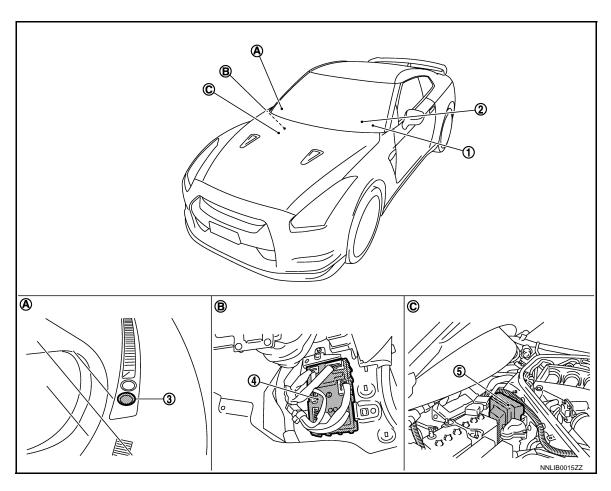
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- 1. Combination switch
- 4. BCM
- A. Instrument upper panel (RH)
- 2. Combination meter
- 5. IPDM E/R
- B. Dash side lower (passenger side)
- 3. Optical sensor
- C. Engine room dash panel (RH)

Component Description

Part	Description		
ВСМ	 Detects each switch condition by the combination switch reading function. Judges the outside brightness from the optical sensor signal. Judges the OFF timing according to the vehicle condition. Judges the ON/OFF status of the exterior lamp and each illumination according to the outside brightness and the vehicle condition. Requests ON/OFF of each relay to IPDM E/R (with CAN communication). 		
IPDM E/R	Controls the integrated 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-5, "System Diagram".		
Optical sensor	Refer to EXL-28, "Description".		

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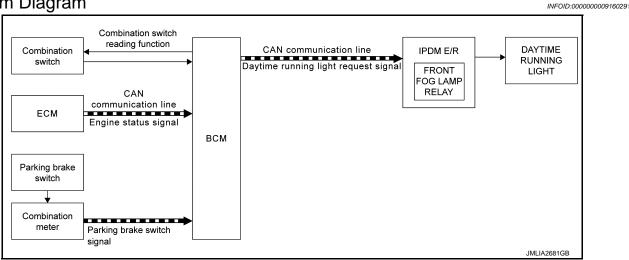
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DAYTIME RUNNING LIGHT SYSTEM

System Diagram



System Description

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OUTLINE

- Turns the following exterior lamps ON as the daytime running light.
- 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 daytime running 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
- Lighting switch OFF
- Parking brake switch OFF
- IPDM E/R turns the integrated front fog lamp relay ON, and turns the daytime running light ON according to the daytime running light request signal.

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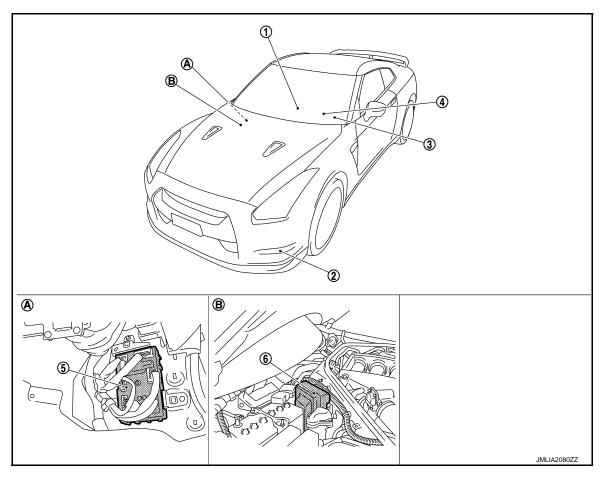
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- 1. Parking brake switch
- 4. Combination meter
- A. Dash side lower (passenger side)
- 2. Daytime running light
- 5. BCM
- B. Engine room dash panel (RH)
- 3. Combination switch
- 6. IPDM E/R

Component Description

Part	Description		
BCM	 Detects each switch condition with the combination switch reading function. Judges each lamps ON/OFF condition according to the vehicle condition. Requests the front fog lamp relay ON to IPDM E/R (with CAN communication). 		
IPDM E/R	Controls the 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-5, "System Diagram".		
Combination meter	Transmits the parking brake switch signal to BCM (with CAN communication).		

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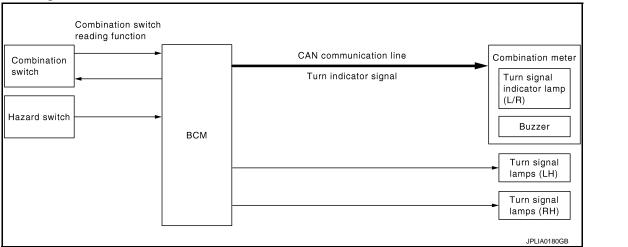
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

System Diagram



System Description

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OUTLINE

Turn signal and the 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 turned 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 circuit when the hazard switch is turned ON. BCM blinks the hazard warning lamp.

TURN SIGNAL INDICATOR LAMP AND TURN SIGNAL SOUND OPERATION

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

HIGH FLASHER OPERATION

- BCM detects the turn signal lamp circuit status by the terminal 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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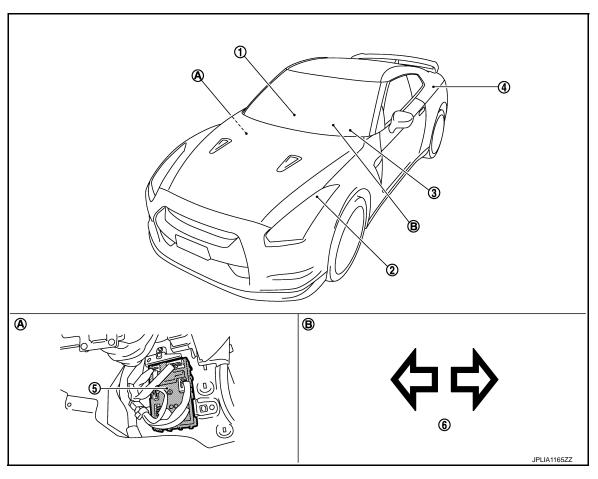
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EXL-9 Revision: 2012 November 2014 GT-R

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- 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

Part	Description		
ВСМ	 Detects each switch condition by the combination switch reading function. Judges the blinks of the turn signal lamp and the hazard warning lamp from each switch status. The applicable turn signal lamp blinks. Requests the turn signal indicator lamp blink to the combination meter (with CAN communication). 		
Combination switch (Lighting & turn signal switch)	Refer to BCS-5, "System Diagram".		
Hazard switch (Set-up switch)	Refer to EXL-23, "Description".		
Combination meter (Turn signal indicator lamp and 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).		

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

System Diagram

INFOID:0000000009160299 Combination switch reading function IPDM E/R CAN communication line Combination BCM TAIL LAMP Parking switch Position light request **RELAY** lamp signal License plate lamp Tail lamp Side marker lamp To illuminations Combination meter CAN communication line Position lamp Position light request signal indicator lamp JMLIA2550GB

System Description

INFOID:0000000009160300

OUTLINE

Parking, license plate, side marker and tail lamps are controlled by combination switch reading function and headlamp 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 transmits the position light request signal to IPDM E/R with CAN communication according to the ON/ OFF condition of the parking, license plate, side marker and tail lamps.

Parking, license plate, side marker and tail lamps ON condition

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

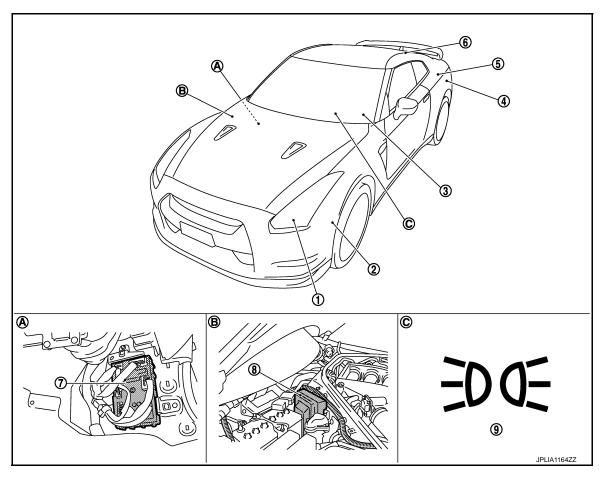
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- 1. Parking lamp
- 4. Rear side marker lamp
- 7. BCM
- A. Dash side lower (passenger side)
- 2. Front side marker lamp
- 5. Tail lamp
- 8. IPDM E/R
- B. Engine room dash panel (RH)
- 3. Combination switch
- 6. License plate lamp
- 9. Position lamp indicator lamp
- C. On the combination meter

Component Description

Part	Description
BCM	 Detects each switch condition by the combination switch reading function. Judges the ON/OFF status of the clearance, license plate, side marker and tail lamps according to the vehicle condition. Requests the tail lamp relay ON to IPDM E/R (with CAN communication).
IPDM E/R	Controls the integrated 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-5, "System Diagram".
Combination meter (Position lamp indicator lamp)	Turns the position lamp indicator lamp ON according to the request from BCM (with CAN communication).

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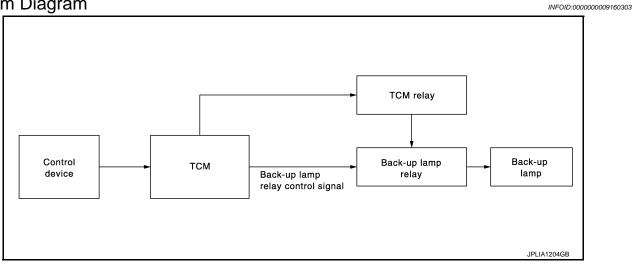
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BACK-UP LAMP SYSTEM

System Diagram



System Description

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OUTLINE

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

BACK-UP LAMP OPERATION

- TCM detects the control device condition.
- TCM turns the back-up lamp relay ON according to the back-up lamp ON condition.

Back-up lamp ON condition.

- Ignition switch ON
- Shift position "R"

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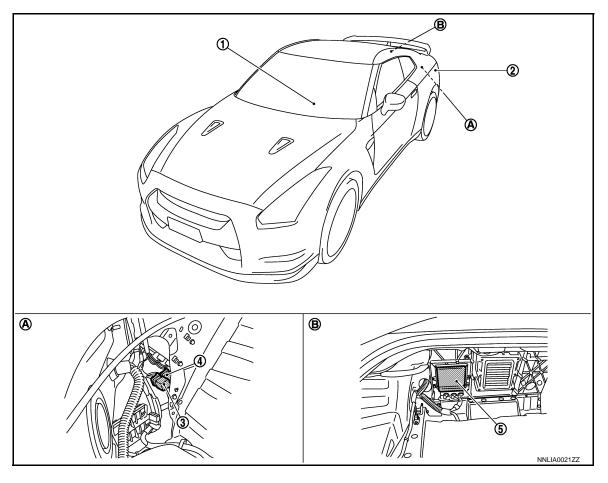
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Revision: 2012 November EXL-13 2014 GT-R

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- 1. Control device
- 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

Part	Description
TCM	 Detects the control device condition. Judges the back-up lamp relay ON/OFF by shift lever position status.

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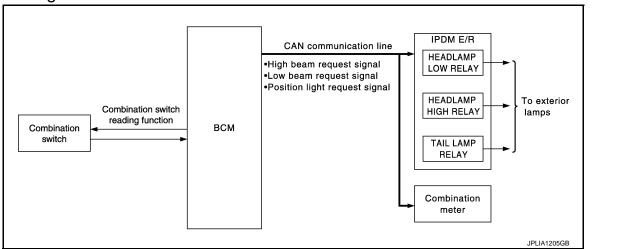
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EXTERIOR LAMP BATTERY SAVER SYSTEM

System Diagram



System Description

INFOID:0000000009160308

OUTLINE

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

Control by BCM

- Combination switch reading function
- Headlamp control function
- Exterior lamp battery saver function

Control by IPDM E/R

- Relay control function
- BCM turns the exterior lamp* OFF after a period of time to prevent the battery from over-discharge when the ignition switch is turned OFF with the exterior lamp ON.
- *: Headlamp (LO/HI), parking lamp, tail lamp, side marker lamp and license plate lamp.

NOTE:

When the lighting switch is turned AUTO, the exterior lamp battery saver switches to the auto light system. Refer to EXL-5, "System Description".

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.

NOTE:

- Headlamp control function turns the exterior lamps ON normally when the ignition switch is turned ACC or the engine started (both before and after the exterior lamp battery saver is turned OFF).
- The timer starts at the time that the lighting switch is turned from OFF \rightarrow 1ST or 2ND with the exterior lamp OFF.

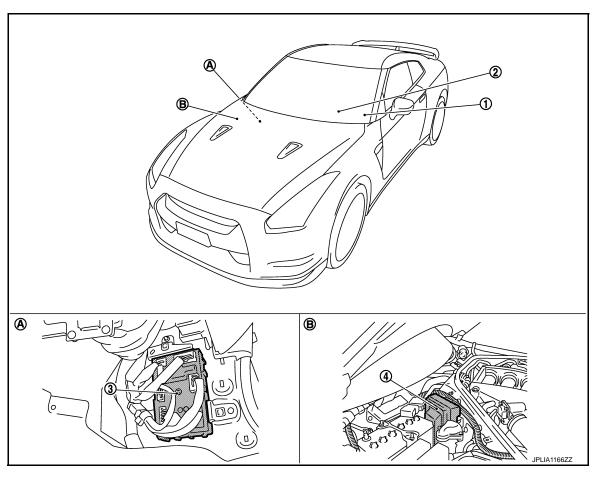
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- 1. Combination switch
- 2. Combination meter
- 3. BCM

- 4. IPDM E/R
- A. Dash side lower (passenger side)
- B. Engine room dash panel (RH)

Component Description

Part	Description		
BCM	 Detects each switch condition by the combination switch reading function. Judges the exterior lamp OFF according to the vehicle condition. Requests each relay OFF to IPDM E/R (with CAN communication). 		
IPDM E/R	Controls the integrated relay according to the request from BCM (with CAN communication).		
Combination switch (Lighting & turn signal switch)	Refer to BCS-5, "System Diagram".		

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[XENON TYPE]

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
- Headlamps (LO, HI)
- A/C compressor (magnet clutch)
- Cooling fan (cooling fan control module)

Operation Procedure

1. 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.
- 3. 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 DLK-44, <a href="mailto:"Component Function Check".
- 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	Parking lamps License plate lamps Side marker lamps Tail lamps	10 seconds
3	Headlamps	LO ⇔ HI 5 times
4	A/C compressor (magnet clutch)	ON ⇔ OFF 5 times
5*	Cooling fan	MID for 5 seconds → HI for 5 seconds

^{*:} Outputs duty ratio of 50% for 5 seconds \rightarrow duty ratio of 100% for 5 seconds on the cooling fan control module.

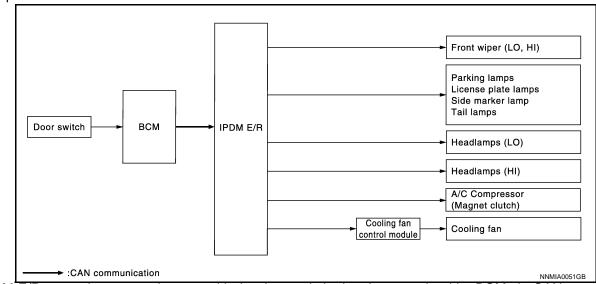
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Concept of auto active test



- 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	
Any of the following components do not operate		YES	BCM signal input circuit	
Parking lamps License plate lamps Side marker lamps Tail lamps Headlamp (HI, LO) Front wiper (HI, LO)	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	
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	
	ate?	NO	Magnet clutch Harness or connector between IPDM E/R and magnet clutch IPDM E/R	
Cooling fan does not operate		YES	ECM signal input circuit CAN communication signal between ECM and IPDM E/R	
	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	

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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.

Terminals			
(+)		(-)	Voltage (Approx.)
ВСМ			
Connector	Terminal	Ground	
M118	1	Glound	Battery voltage
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	Terminal	Ground	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 >

[XENON TYPE]

2014 GT-R

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.

(1	+)	(-)	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	Ground	Continuity
E5	12	Ground	Existed
E6	41		LAISIEU

Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

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XENON HEADLAMP

Description INFOID:000000009160323

OUTLINE

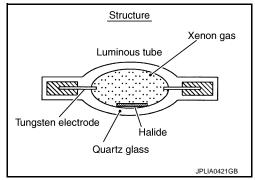
- The lamp light source is by the arch discharge by applying high voltage into the xenon gas-filled bulb instead
 of the halogen bulb filament.
- Sight becomes more natural and brighter because the amount of light are gained adequately and the color of light is sunshine-like white.
- The xenon bulb drops the amount of light, repeats blinking, and illuminates in red if the bulb reaches the service life.

ILLUMINATION PRINCIPLE

- Discharging starts in high voltage pulse between bulb electrodes.
- Xenon gas is activated by current between electrodes. Pale light is emitted.
- 3. The luminous tube (bulb) temperature elevates. Evaporated halide is activated by discharge. The color of light changes into white.

NOTE:

- Brightness and the color of light may change slightly immediately after the headlamp turned ON until the xenon bulb becomes stable. This is not malfunction.
- Illumination time lag may occur between right and left. This is not malfunction.



PRECAUTIONS FOR TROUBLE DIAGNOSIS

Representative malfunction examples are; "Light does not turn ON", "Light blinks", and "Brightness is inadequate". The cause often be the xenon bulb. Such malfunctions, however, are occurred occasionally by HID control unit malfunction or lamp case malfunction. Specify the malfunctioning part with diagnosis procedure.

WARNING.

- Never touch the harness, HID control unit, the inside and metal part of lamp when turning the headlamp ON or operating the light switch.
- Never work with wet hands.

CAUTION:

- Never perform HID control unit circuit diagnosis with a circuit tester or an equivalent.
- Temporarily install the headlamp on the vehicle. Connect the battery 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.
- When water infiltrated by the damage of the headlamp housing in the lamp inside, and then water is stuck in the HID control unit connector part, HID control unit detect a power supply short circuit and stop the headlamp function. therefore inspect outside of headlamp for cracks, serious damage or install the resin cap and the bulb socket securely.

NOTE:

- Turn the switch OFF once before turning ON, if the ON/OFF is inoperative.
- The xenon bulb drops the amount of light, repeats blinking, and illuminates in red if the bulb reaches the service life.

Diagnosis Procedure

1. CHECK XENON BULB

Install the normal bulb to the applicable headlamp. Check that the xenon bulb is turned ON.

Is the headlamp turned ON?

YES >> Replace the xenon bulb.

NO >> GO TO 2.

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2.check inside of xenon headlamp housing

Check the inside of applicable headlamp (upper surface of HID control unit) for exist the water or trace of the water intrusion.

Are there trace of the water intrusion in the headlamp?

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

3. CHECK OUTSIDE OF XENON HEADLAMP HOUSING

Check the outside of applicable headlamp for cracks, serious damage or install the resin cap and the bulb socket securely.

Is the outside of headlamp housing abnormality?

YES >> Replace the front combination lamp.

NO >> Dry water fully and then check that the lighting switch is turned ON. Refer to <u>EXL-48</u>. "Inspection <u>After Installation (HID Control Unit)"</u>.

4. CHECK HID CONTROL UNIT

Install the normal HID control unit to the applicable headlamp. Check that the lamp is turned ON.

Is the headlamp turned ON?

YES >> Replace HID control unit.

NO >> GO TO 5.

5.CHECK XENON HEADLAMP HOUSING ASSEMBLY

Install the normal xenon headlamp housing assembly to the applicable headlamp. Check that the xenon headlamp is turned ON.

Is the headlamp turned ON?

YES >> Replace the front combination lamp. (Xenon headlamp housing voltage converter malfunctions.)

NO >> Xenon headlamp is normal. Check the headlamp control system.

HAZARD SWITCH

Description INFOID:000000009160334

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

Diagnosis Procedure

INFOID:0000000009160336

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1. CHECK HAZARD SWITCH SIGNAL INPUT

With operating the hazard switch, check the voltage between the BCM harness connector and the ground.

	Terminals		Condition	
(-	+)	(-)	Condition	Voltage (Approx.)
ВС	CM		Hazard switch	Voltage (Approx.)
Connector	Terminal		Tiazaiù Switcii	
			While pressing the switch	0 V
M122	110	Ground	While not pressing the switch	(V) 15 10 5 0 10 ms JPMIA0012GB

Is the measurement value normal?

YES >> Replace the BCM.

NO >> GO TO 2.

2. CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

- Turn the ignition switch OFF.
- Disconnect the set-up switch connector and BCM connector.
- 3. Check continuity between the set-up switch harness connector and the BCM harness connector.

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

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

3.check hazard switch signal short circuit

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

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

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 4.

4. CHECK HAZARD SWITCH GROUND OPEN CIRCUIT

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

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HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

Does continuity exist?

YES >> Replace the hazard switch (set-up switch).

NO >> Repair the harnesses or connectors.

REAR SIDE MARKER LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

REAR SIDE MARKER LAMP CIRCUIT

Diagnosis Procedure

INFOID:0000000009160340

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1. CHECK REAR SIDE MARKER LAMP OPEN CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect the rear combination lamp connector and the rear side marker lamp connector.
- 3. Check continuity between the rear combination lamp harness connector and the rear side marker lamp harness connector.

Continuity	Rear side marker lamp		Rear combination lamp		ı
Continuity	Terminal	Connector	Terminal	Connector	C
Existed	1	B372	5	B240	RH
Existed	1	B371	5	B57	LH

Does continuity exist?

YES >> GO TO 2.

NO >> Repair the harnesses or connectors.

2.CHECK REAR SIDE MARKER LAMP GROUND OPEN CIRCUIT

Check continuity between the rear combination lamp harness connector and the rear side marker lamp.

Continuity	Rear side marker lamp		Rear combination lamp		F
Continuity	Terminal	Connector	Terminal	Connector	C
Existed	2	B372	3	B240	RH
LAISIGU	2	B371	3	B57	LH

Does continuity exist?

YES >> Replace the rear side marker lamp assembly.

NO >> Repair the harnesses or connectors.

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BACK-UP LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

BACK-UP LAMP CIRCUIT

Component Inspection

INFOID:0000000009160343

1. CHECK BACK-UP LAMP RELAY EXCITATION COIL SIDE

- 1. Turn the ignition switch OFF.
- 2. Remove the back-up lamp relay.
- 3. Check continuity of the back-up lamp relay excitation coil side.

Back-up I	Continuity	
Tern	Continuity	
1	2	Existed

Does continuity exist?

YES >> GO TO 2.

NO >> Replace the back-up lamp relay.

2.CHECK BACK-UP LAMP RELAY CONTACT SIDE

- 1. Apply battery voltage to the back-up lamp relay between terminals 1 and 2.
- 2. Check continuity of the back-up lamp relay contact side.

Back-up	lamp relay	Condition	Continuity
Teri	minal	Voltage	Continuity
6	7	Apply	Existed
0	,	Not apply	Not existed

Is the measurement value normal?

YES >> Back-up lamp relay is normal.

NO >> Replace the back-up lamp relay.

LICENSE PLATE LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

LICENSE PLATE LAMP CIRCUIT

Diagnosis Procedure

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1. CHECK LICENSE PLATE LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

2.CHECK LICENSE PLATE LAMP OPEN CIRCUIT

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

Continuity	License plate lamp		IPDM E/R		
Continuity	Terminal	Connector	Terminal	onnector	С
Existed	1	B154	7	E5	RH
LAISIEU	1	B152	,	LJ	LH

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

${f 3.}$ CHECK LICENSE PLATE LAMP GROUND OPEN CIRCUIT

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

Continuity		License plate lamp		
Continuity	Ground	Terminal		
Existed	Ground	2	B154	RH
LXISTEG		2	B152	LH

Does continuity exist?

YES >> Replace the license plate lamp.

NO >> Repair the harnesses or connectors.

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OPTICAL SENSOR

Description INFOID.000000009160346

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

Diagnosis Procedure

INFOID:0000000009160348

1. CHECK OPTICAL SENSOR POWER SUPPLY INPUT

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

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

Is the measurement value normal?

YES >> GO TO 2.

NO >> GO TO 4.

2. CHECK OPTICAL SENSOR GROUND INPUT

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

(-	Voltage		
Optica	sensor		(Approx.)
Connector	Terminal	Ground	
M97	3		0 V

Is the measurement value normal?

YES >> GO TO 3.

NO >> GO TO 6.

3.CHECK OPTICAL SENSOR SIGNAL OUTPUT

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

Terminals			Condition	
(-	(+)		Condition	Voltage
Optical	Optical sensor		Optical sen-	(Approx.)
Connector	Terminal		sor	
M97	2	Ground	When illumi- nating	3.1 V or more *
IVI 3 T	2		When shut- ting off light	0.6 V or less

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

Is the measurement value normal?

YES >> GO TO 7.

NO >> Replace the optical sensor.

4. CHECK OPTICAL SENSOR OPEN CIRCUIT

1. Turn the ignition switch OFF.

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

Optical sensor		BCM		Continuity
Connector	Terminal	Connector Terminal		Continuity
M97	1	M123	138	Existed

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

${f 5.}$ CHECK OPTICAL SENSOR SHORT CIRCUIT

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

Optical sensor			Continuity
Connector	Terminal	Ground	Continuity
M97	1		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

$\mathsf{6}.$ CHECK OPTICAL SENSOR GROUND OPEN CIRCUIT

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

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

Does continuity exist?

YES >> Replace BCM.

NO >> Repair the harnesses or connectors.

7.CHECK OPTICAL SENSOR SIGNAL OPEN CIRCUIT

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

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

Does continuity exist?

YES >> GO TO 8.

NO >> Repair the harnesses or connectors.

8.CHECK OPTICAL SENSOR SHORT CIRCUIT

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

Optical sensor			Continuity
Connector	Terminal	Ground	Continuity
M97	2		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

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NO >> Replace BCM.

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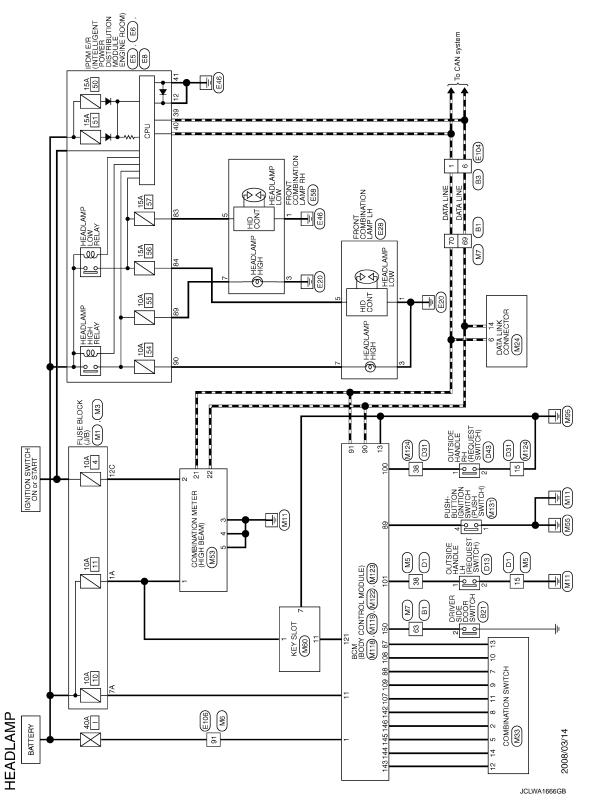
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HEADLAMP SYSTEM

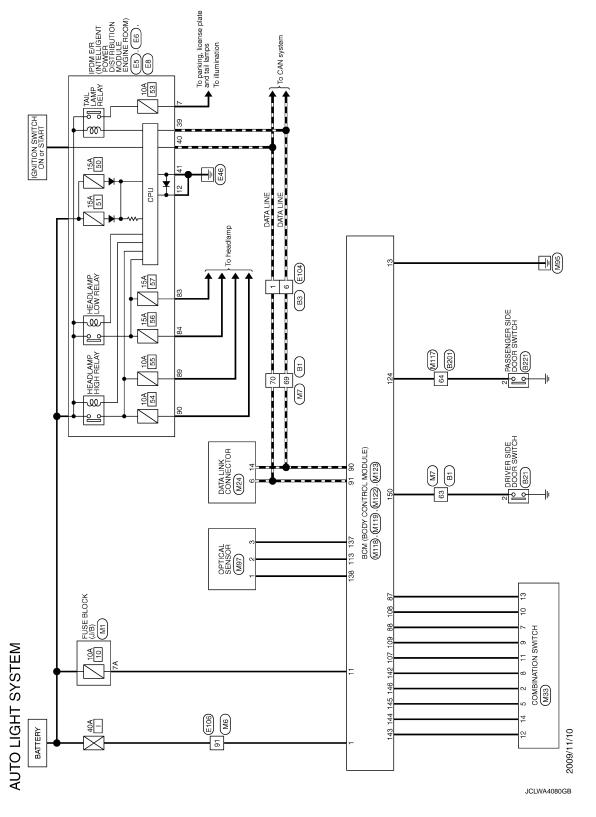
Wiring Diagram - HEADLAMP -



AUTO LIGHT SYSTEM

Wiring Diagram - AUTO LIGHT SYSTEM -

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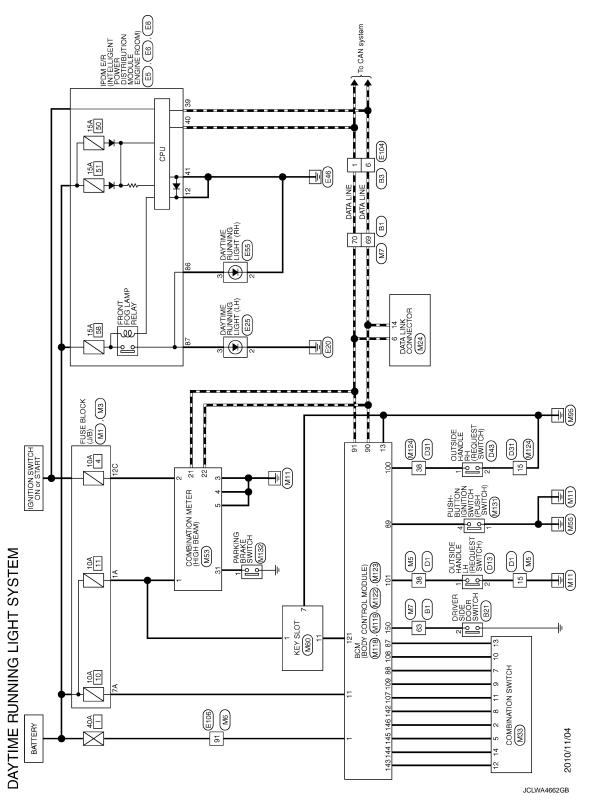
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DAYTIME RUNNING LIGHT SYSTEM

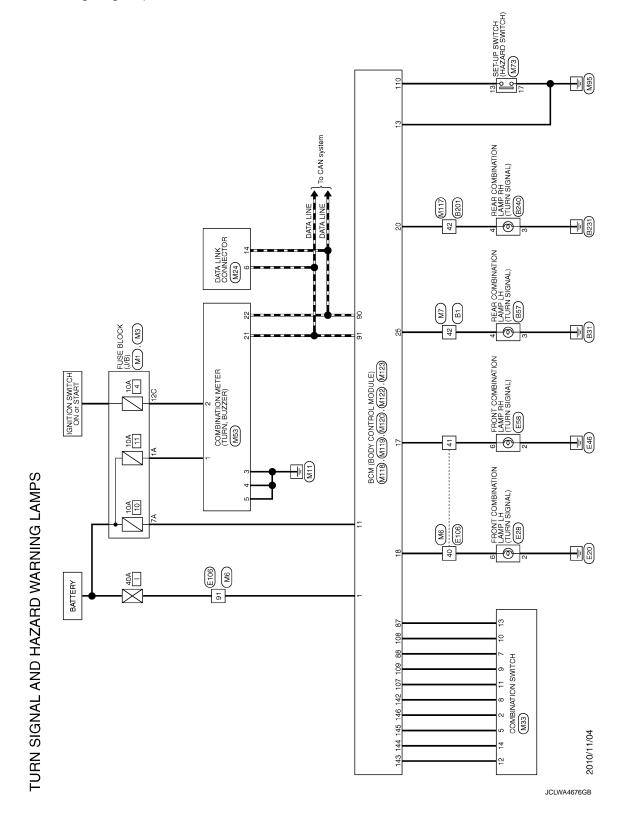
Wiring Diagram - DAYTIME LIGHT SYSTEM -



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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

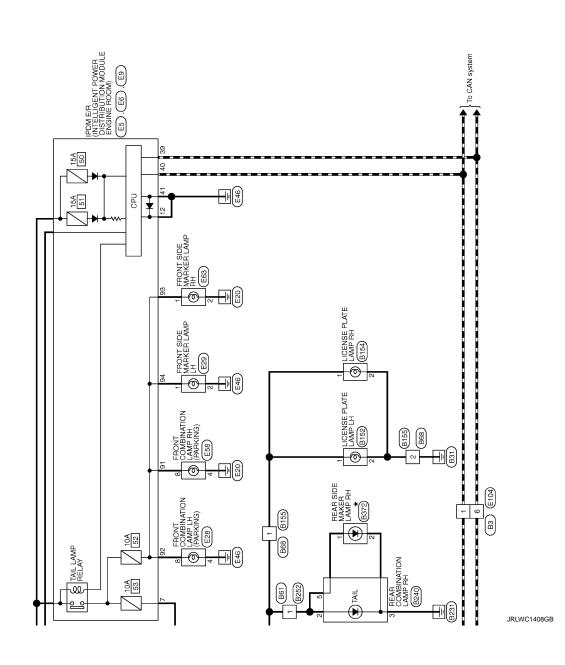
Wiring Diagram - TURN AND HAZARD WARNING LAMPS -



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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Α Wiring Diagram - PARKING LICENSE PLATE AND TAIL LAMPS -INFOID:0000000009160353 For connector terminal arrangements, harness layouts, and alphabets in a (option abbreviation; if not В described in wiring diagram), refer to GI-12, "Connector Information". C FUSE BLOCK (J/B) (M1), (M3), M3 D REAR COMBINATION LAMP LH (B57) *: This connector is not shown in "Harness Layout". Е F IGNITION SWITCH ON or START DATA LINK CONNECTOR (M24) COMBINATION METER (TAIL LAMP) Н ₹ |-KEY SLOT J PUSH-BUTTON SWITCH (PUSH SWITCH) (M131) K PARKING, LICENSE PLATE AND TAIL LAMPS EXL [2] BCM (BODY CONTROL MODULE) (M118), (M129), (M123) M \$[0] Ν COMBINATION SWITCH 0 Ρ 2011/10/12



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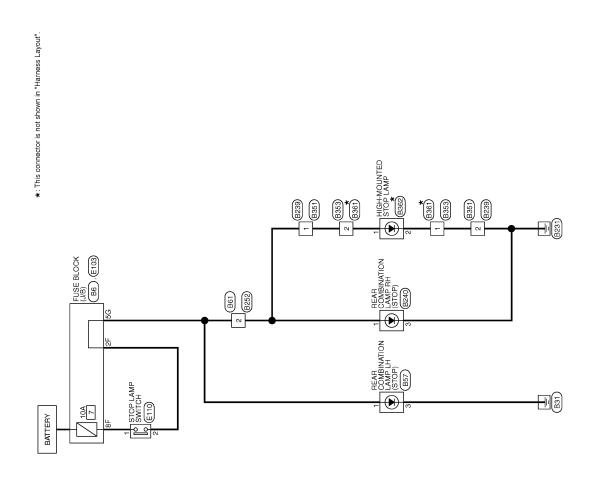
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STOP LAMP

Wiring Diagram - STOP LAMP -

For connector terminal arrangements, harness layouts, and alphabets in a (option abbreviation; if not

described in wiring diagram), refer to GI-12, "Connector Information".



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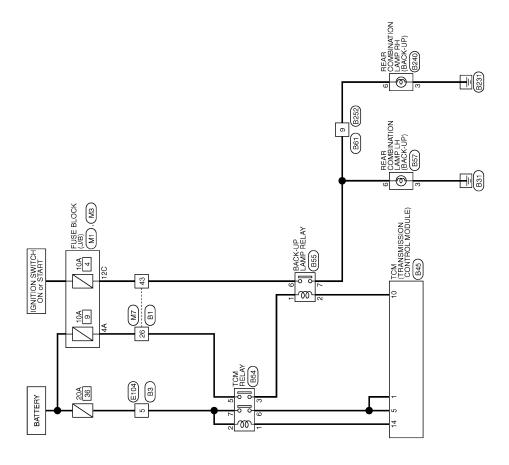
STOP LAMP

BACK-UP LAMP

Wiring Diagram - BACK-UP LAMP -

INFOID:0000000009160355

For connector terminal arrangements, harness layouts, and alphabets in a (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".



BACK-UP LAMP

JCTMV1683CB 2008/03/14

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

SYMPTOM DIAGNOSIS

NORMAL OPERATING CONDITION

Description INFOID:000000000160366

XENON HEADLAMP

- Brightness and the color of light may change slightly immediately after turning the headlamp ON until the xenon bulb becomes stable. This is normal.
- Illumination time lag may occur between right and left. This is normal.

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 the control difference. This is normal.

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PRECAUTIONS

< PRECAUTION > [XENON TYPE]

PRECAUTION

PRECAUTIONS

Precaution for Working Range at a Regular Dealership

INFOID:0000000009164366

CAUTION:

The service items unmentioned on this manual are recommended to be performed by a GT-R certified NISSAN dealer. Because those service items require special equipment and a GT-R certified technical staff who completed special training.

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

INFOID:0000000009160374

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 Necessary for Steering Wheel Rotation After Battery Disconnection

INFOID:0000000009160375

CAUTION:

Comply with the following cautions to prevent any error and malfunction.

- Before removing and installing any control units, first turn the ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

PRECAUTIONS [XENON TYPE] < PRECAUTION > For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned. Α If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation. OPERATION PROCEDURE В Connect both battery cables. NOTE: Supply power using jumper cables if battery is discharged. 2. Turn the ignition switch to ACC position. (At this time, the steering lock will be released.) Disconnect both battery cables. The steering lock will remain released with both battery cables discon-D nected and the steering wheel can be turned. Perform the necessary repair operation. 5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn Е the ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the ignition switch is turned to LOCK position.) 6. Perform self-diagnosis check of all control units using CONSULT. F Precautions For Xenon Headlamp Service INFOID:0000000009160376 **WARNING:** Comply with the following warnings to prevent any serious accident. Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts. Never work with wet hands. Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.) Never touch the bulb glass immediately after turning it OFF. It is extremely hot. **CAUTION:** Comply with the following cautions to prevent any error and malfunction.

Install the xenon bulb securely. (Insufficient bulb socket installation may melt the bulb, the connector, the housing, etc. by high-voltage leakage or corona discharge.)

Never perform HID circuit inspection with a tester.

- Never touch the xenon bulb glass with hands. Never put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Never wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

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PERIODIC MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Description INFOID:0000000009160377

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.

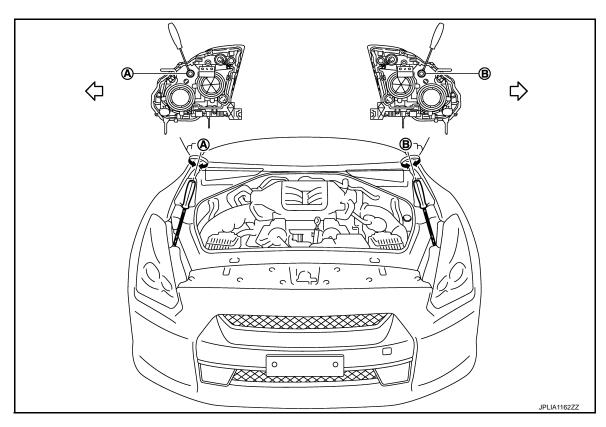
Wipe out dirt on the headlamp.

CAUTION:

Never use organic solvent (thinner, gasoline etc.)

Ride alone on the driver seat.

AIMING ADJUSTMENT SCREW



- Headlamp (RH) UP/DOWN adjustment screw

B. Headlamp (LH) UP/DOWN adjustment screw

HEADLAMP AIMING ADJUSTMENT

[XENON TYPE]

Adjustment screw		Screw driver rotation	Facing direction
^	Headlamp (RH) UP/DOWN	Clockwise	DOWN
Α		Counterclockwise	UP
_	Headlamp (LH) UP/DOWN	Clockwise	DOWN
В		Counterclockwise	UP

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Aiming Adjustment Procedure

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:

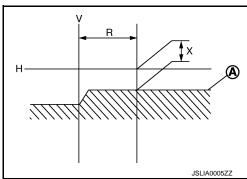
Shut off the headlamp light with the board to prevent from illuminating the adjustment screen. **CAUTION:**

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 ± 175 mm (13.78 ± 6.89 in) range (R)

Low beam distribution on the screen

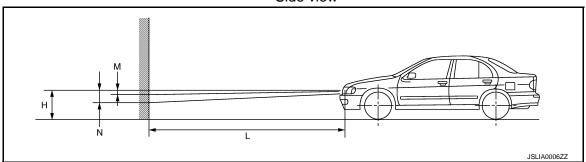


5. Adjust the cutoff line height (X) with the aiming adjustment screw so as to enter in the adjustment range (M–N) according to the horizontal center line of headlamp (H).

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



Revision: 2012 November EXL-43 2014 GT-R

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HEADLAMP AIMING ADJUSTMENT

[XENON TYPE]

2014 GT-R

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

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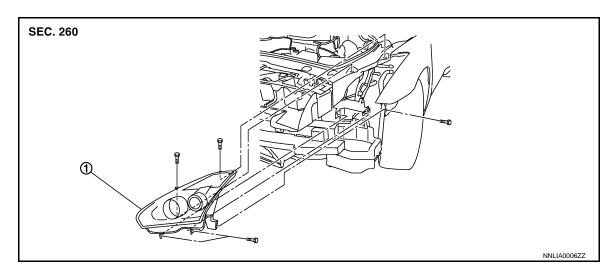
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REMOVAL AND INSTALLATION

FRONT COMBINATION LAMP

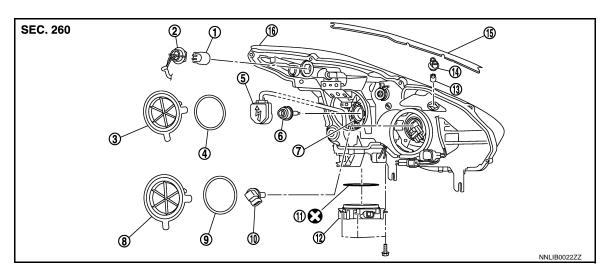
Exploded View INFOID:0000000009160379

REMOVAL



1. Front combination lamp

DISASSEMBLY



- Front turn signal lamp bulb
- Seal packing
- Retaining spring
- Halogen bulb (HI)
- Parking lamp bulb
- 16. Headlamp housing assembly

Refer to GI-4, "Components" for symbols in the figure.

- Front turn signal lamp bulb socket
- Xenon bulb socket
- Resin cap
- 11. Seal packing
- 14. Parking lamp bulb socket
- 3. Resin cap
- 6. Xenon bulb (LO)
- Seal packing
- 12. HID control unit
- 15. Rubber seal

Removal and Installation

REMOVAL

CAUTION:

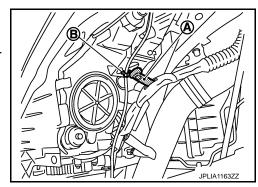
Disconnect the battery negative terminal or remove the fuse.

EXL-45 Revision: 2012 November 2014 GT-R

INFOID:0000000009160380

< REMOVAL AND INSTALLATION >

- Remove front bumper fascia. Refer to <u>EXT-14</u>, "<u>Exploded View</u>".
- 2. Remove the headlamp mounting bolts.
- Remove the harness clip (A) and the washer tube (B)*.
 *: Left side only
- 4. Pull out the headlamp assembly forward the vehicle.
- Disconnect the connector before removing the headlamp housing assembly.

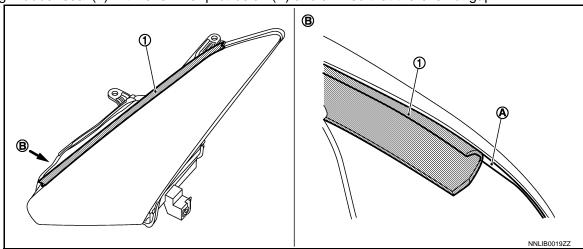


INSTALLATION

Install in the reverse order of removal.

CAUTION:

- After installation, perform aiming adjustment. Refer to EXL-42, "Description".
- After installation, check that headlamp lighting. Refer to EXL-48, "Inspection After Installation (HID Control Unit)".
- 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.
- 1. Align rubber seal (1) with lens inner protrusion (A) and affix so that there is not gap.



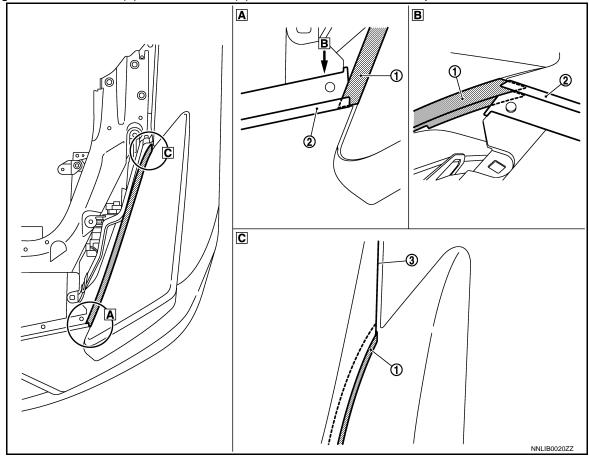
2. Align rubber seal edge (1) with hood seal assembly edge (2) and affix under hood seal assembly.

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



Replacement INFOID:0000000009160381

CAUTION:

- Disconnect the battery negative terminal or remove the fuse.
- After installing the bulb, install the resin cap and 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)

- Remove the front tire. Refer to WT-11, "Exploded View".
- Remove the fender protector. Keep a service area. Refer to EXT-29, "FENDER PROTECTOR: Exploded View".
- Rotate the resin cap counterclockwise and unlock it.
- Rotate the bulb socket counterclockwise and unlock it.
- Remove the retaining spring lock. Remove the bulb from the headlamp housing assembly.

Never break the xenon bulb ceramic tube when replacing the bulb.

HEADLAMP BULB (HI)

- Remove the front tire. Refer to WT-11, "Exploded View".
- Remove the fender protector. Keep a service area. Refer to EXT-29, "FENDER PROTECTOR: Exploded 2. View".
- Remove the washer tank inlet. Refer to <u>WW-15</u>, "Exploded View". *: When replace a left.
- 4. Rotate the resin cap counterclockwise and unlock it.

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Disconnect the headlamp bulb (HI) connector.

FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

- Rotate the bulb socket counterclockwise and unlock it.
- 7. Remove the bulb from the headlamp housing assembly.

PARKING LAMP BULB

- Rotate the bulb socket counterclockwise and unlock it.
- 2. Remove the bulb from the bulb socket.

FRONT TURN SIGNAL LAMP BULB

- 1. Remove the front tire. Refer to WT-11, "Exploded View".
- Remove the fender protector. Keep a service area. Refer to <u>EXT-29</u>, "<u>FENDER PROTECTOR</u>: <u>Exploded</u> View".
- 3. Rotate the bulb socket counterclockwise and unlock it.
- 4. Remove the bulb from the bulb socket.

Disassembly and Assembly

INFOID:0000000009160382

DISASSEMBLY

- 1. Rotate the resin cap counterclockwise and unlock it.
- 2. Rotate the xenon bulb socket counterclockwise and unlock it.
- 3. Remove the retaining spring lock. And then remove the xenon bulb.
- 4. Remove the HID control unit installation screw.
- Remove the HID control unit harness installation screw. And then disconnect the connector from HID control unit.
- 6. Pull out the xenon bulb socket from the headlamp housing assembly.
- 7. Rotate the resin cap counterclockwise and unlock it.
- 8. Disconnect the headlamp (HI) connector.
- 9. Rotate the halogen bulb socket counterclockwise and unlock it.
- 10. Remove the halogen bulb socket from the headlamp housing assembly.
- Rotate the parking lamp bulb socket counterclockwise and unlock it.
- 12. Remove the bulb from the parking lamp bulb socket.
- 13. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
- 14. Remove the bulb from the front turn signal lamp bulb socket.

ASSEMBLY

Assemble in the reverse order of disassembly.

CAUTION:

- Install HID control unit securely.
- After installing the bulb, install the resin cap and the bulb socket securely for watertightness.
- Seal packing cannot be reused.
- After installation, check that headlamp lighting. Refer to <u>EXL-48</u>, "Inspection After Installation (HID Control Unit)".

Inspection After Installation (HID Control Unit)

INFOID:0000000009160383

CAUTION:

Temporarily install the headlamp on the vehicle. Connect the battery to the connector (vehicle side) when checking ON/OFF status.

XENON HEADLAMP LIGHTING CHECK

When recycled HID control unit, check the following, when there is abnormality replace the HID control unit.

- 1. Xenon bulb is cold condition (turn OFF more than 10 minutes), and repetition does headlamp turned ON/ OFF, check that a headlamp illuminated it surely.
- 2. Headlamp is turn ON until the xenon bulb becomes stable condition (for about 5 minutes) from cold condition, check that there are not on and off light, abnormality such as blinking.
- 3. Xenon bulb is warm condition (turn ON more than 15 minutes and turn OFF for 1 minute), and repetition does headlamp turned ON/OFF, check that a headlamp illuminated it surely.

FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

4.	Headlamp is turn ON for about 30 minutes, check that there are not on and off light, abnormality such as
	blinking whether brightness of right and left does not have a difference.

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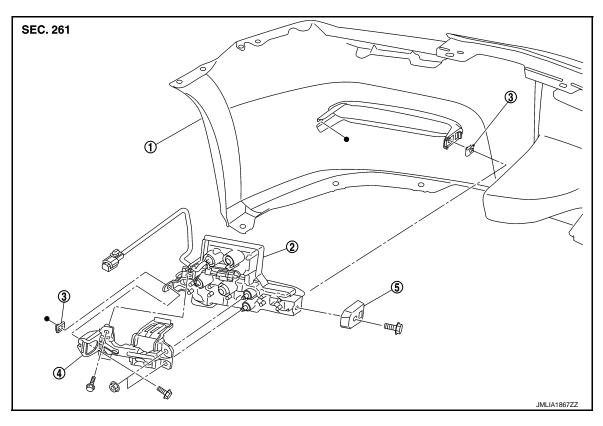
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DAYTIME RUNNING LIGHT

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

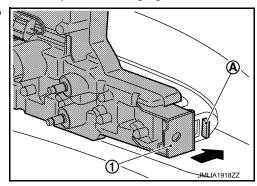
CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

Left side

- Remove engine under cover. <u>EXT-36</u>, "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 >

[XENON TYPE]

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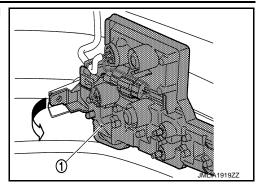
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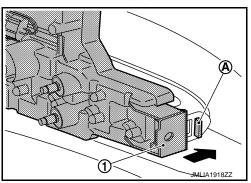
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Rotate daytime running light around center of rib portion and remove LED hyper day light.

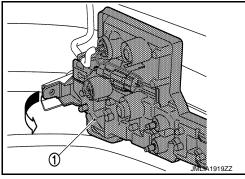


Right side

- 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).



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



INSTALLATION

Install in the reverse order of removal.

EXL

Revision: 2012 November EXL-51 2014 GT-R

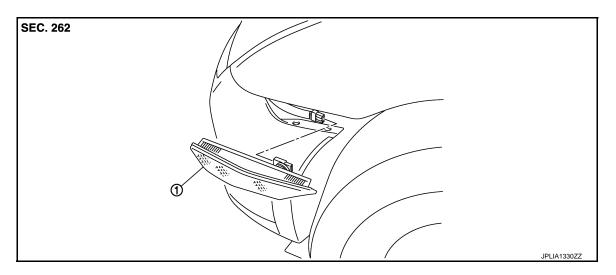
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FRONT SIDE MARKER LAMP

Exploded View



Front side marker lamp

Removal and Installation

INFOID:0000000009160387

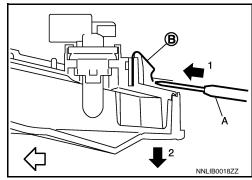
CAUTION:

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

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.

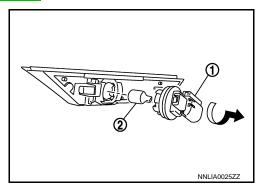
FRONT SIDE MARKER LAMP BULB

FRONT SIDE MARKER LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

- 1. Remove the front side marker lamp. Refer to EXL-52, "Exploded View".
- 2. Turn the bulb socket (1) counterclockwise and unlock it.
- 3. Remove the bulb (2) from the socket.



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LIGHTING & TURN SIGNAL SWITCH

< REMOVAL AND INSTALLATION >

[XENON TYPE]

LIGHTING & TURN SIGNAL SWITCH

Exploded View

The lighting & turn signal switch is integrated in the combination switch. BCS-21, "Exploded View".

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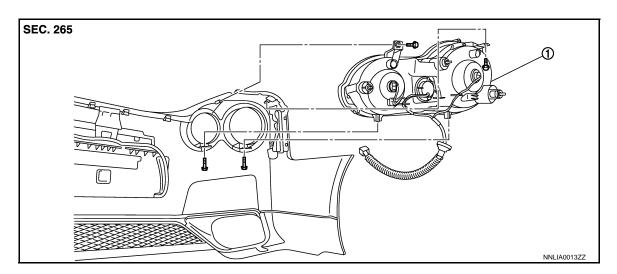
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REAR COMBINATION LAMP

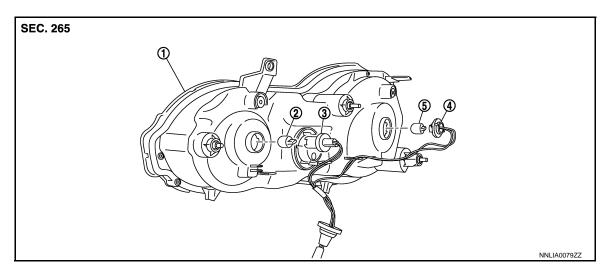
Exploded View INFOID:0000000009160391

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

INFOID:0000000009160392

Removal and Installation

Rear turn signal lamp bulb socket

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- 1. Remove the fascia rear bumper center. Refer to EXT-20, "Exploded View".
- 2. Remove the rear bumper fascia. Refer to EXT-20, "Exploded View".
- 3. Remove the rear combination lamp mounting bolts.
- 4. Disconnect the rear side marker lamp connector.
- Remove the rear combination lamp.

INSTALLATION

EXL-56 Revision: 2012 November 2014 GT-R

[XENON TYPE]

INFOID:0000000009160393

Install in the reverse order of removal.

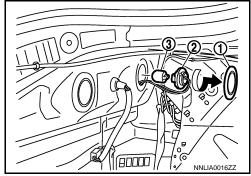
CAUTION:

Replacement

- 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.

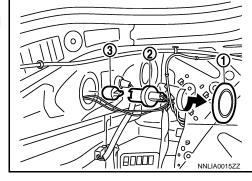
REAR TURN SIGNAL LAMP BULB

- 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

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



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EXL-57 Revision: 2012 November 2014 GT-R

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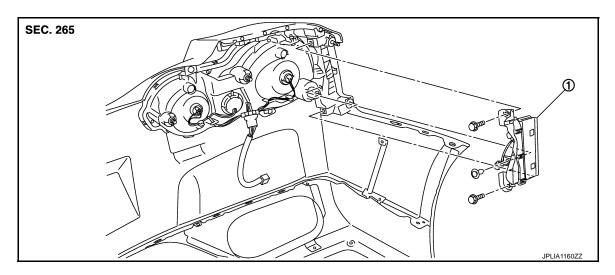
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REAR SIDE MARKER LAMP

Exploded View



1. Rear side marker lamp

Removal and Installation

INFOID:0000000009160395

REMOVAL

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

- 1. Remove the rear bumper fascia. Refer to EXT-20, "Exploded View".
- 2. Disconnect the rear side marker lamp connector.
- 3. Remove the rear side marker lamp mounting bolts and clip.
- 4. Remove the rear side marker lamp.

INSTALLATION

Install in the reverse order of removal.

[XENON TYPE]

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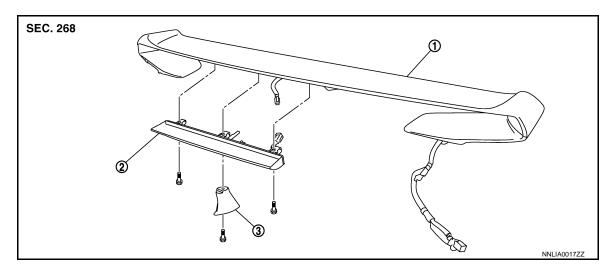
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INFOID:0000000009160397

HIGH-MOUNTED STOP LAMP

Exploded View



1. Rear wing

2. High-mounted stop lamp

3. Center leg bracket

Removal and Installation

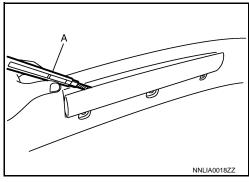
Removal and installation

REMOVAL

CAUTION:

Disconnect the battery negative terminal or the remove the fuse.

- Remove the rear wing. Refer to <u>EXT-52</u>, "<u>Exploded View</u>".
- 2. Remove the center leg bracket.
- 3. Remove the high-mounted stop lamp mounting screw. And then cut the two-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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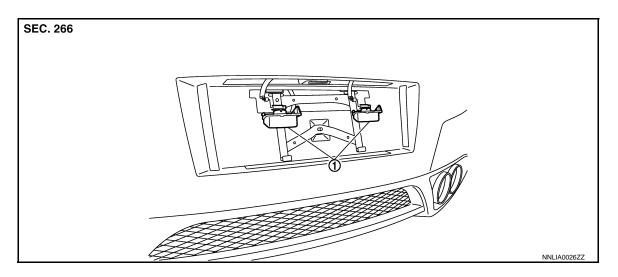
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LICENSE PLATE LAMP

Exploded View



1. License plate lamp

Removal and Installation

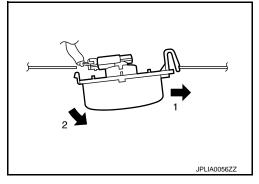
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CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- 1. 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 INFOID:000000009160400

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

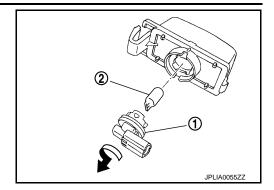
Remove license plate lamp. Refer to <u>EXL-60, "Exploded View"</u>.

LICENSE PLATE LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

- 2. Turn the bulb socket (1) counterclockwise and unlock it.
- 3. Remove the bulb (2) from the socket.



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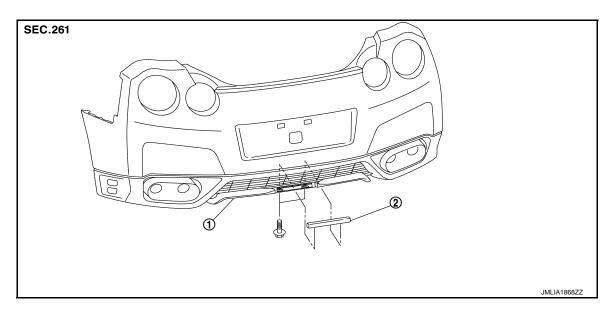
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[XENON TYPE]

REAR FOG LAMP

Exploded View

REMOVAL



1. Rear bumper fascia

2. Rear fog lamp assembly

Removal and Installation

INFOID:0000000009160402

CAUTION:

Disconnect battery negative terminal or remove the fuse.

REMOVAL

- 1. Remove rear fog lamp mounting bolts from rear diffuser under side.
- 2. Pull out rear fog lamp to vehicle rear, and then disconnect harness connector.
- 3. Remove rear fog lamp.

INSTALLATION

Installation is the reverse order of removal.

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[XENON TYPE]

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SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

	Item	Туре	Wattage (W)
	Headlamp (LO)	D2S (Xenon)	35
Front combination lamp	Headlamp (HI)	H9	65
Front combination lamp	Parking lamp	W5W	5
	Front turn signal lamp	7444NA	28
Daytime running light		LED	_
Front side marker lamp		W5W	5
	Stop lamp	LED	_
Dear 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	_
Rear fog lamp		LED	_

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