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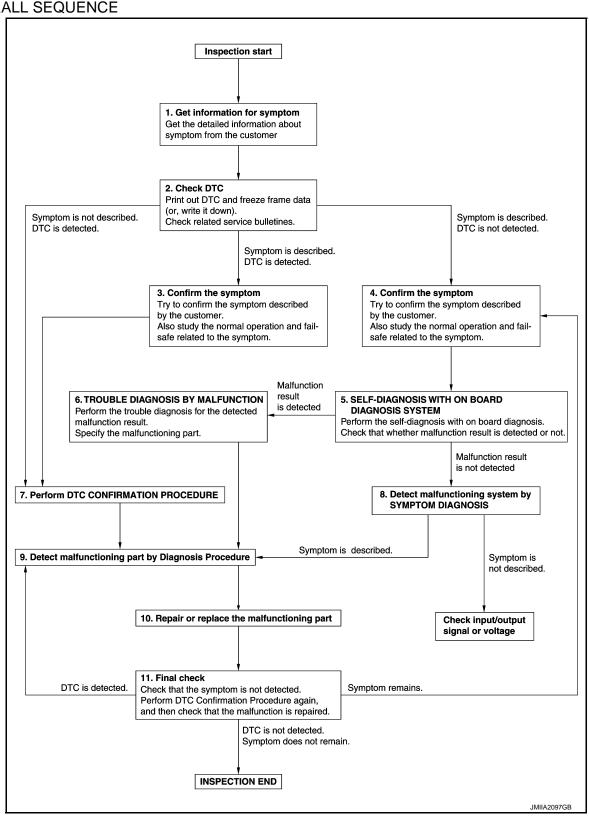
[XENON TYPE] < BASIC INSPECTION >

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow INFOID:0000000007460189 В

OVERALL SEQUENCE



DETAILED FLOW

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION > [XENON TYPE]

1.GET INFORMATION FOR SYMPTOM

- Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
- 2. 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.)
- Erase DTC
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
- 3. 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 7.

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 7.

4. 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.

5. SELF-DIAGNOSIS WITH ON BOARD DIAGNOSIS SYSTEM

Perform the self-diagnosis with on board diagnosis. Check that whether malfunction result is detected or not. <u>Is malfunction result detected?</u>

YES >> GO TO 6. NO >> GO TO 8.

6. TROUBLE DIAGNOSIS BY MALFUNCTION

Perform the trouble diagnosis for the detected malfunction result. Specify the malfunctioning part.

>> GO TO 9.

7.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 this check.

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?

DIAGNOSIS AND REPAIR WORKFLOW

[XENON TYPE] < BASIC INSPECTION > YES >> GO TO 9. NO >> Check according to GI-42, "Intermittent Incident". Α f 8.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step В 4, and determine the trouble diagnosis order based on possible causes and symptom. Is the symptom described? YES >> GO TO 9. NO >> Monitor input data from related sensors or check voltage of related module terminals using CON-SULT. 9. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE D Inspect according to Diagnosis Procedure of the system. Is malfunctioning part detected? Е YES >> GO TO 10. NO >> Check according to GI-42, "Intermittent Incident". 10. REPAIR OR REPLACE THE MALFUNCTIONING PART Repair or replace the malfunctioning part. 2. Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replacement. Check DTC. If DTC is detected, erase it. >> GO TO 11. Н 11. 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 9. YES-2 >> Symptom remains: GO TO 4. >> Before returning the vehicle to the customer, always erase DTC. NO K

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Revision: 2014 October EXL-9 2012 EX

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION > [XENON TYPE]

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (AFS CONTROL UNIT)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (AFS CONTROL

UNIT): Description

Perform "LEVELIZER ADJUSTMENT" with CONSULT when replacing the AFS control unit.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (AFS CONTROL

UNIT): Special Repair Requirement

INFOID:0000000007460191

1.LEVELIZER ADJUSTMENT

Perform "LEVELIZER ADJUSTMENT".

>> Refer to EXL-10, "LEVELIZER ADJUSTMENT: Special Repair Requirement".

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (HEIGHT SENSOR)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (HEIGHT SENSOR):

Description

NPCOID: CONTROL UNIT (HEIGHT SENSOR)

Perform "LEVELIZER ADJUSTMENT" with CONSULT when replacing the height sensor.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (HEIGHT SENSOR): Special Repair Requirement

1.LEVELIZER ADJUSTMENT

Perform "LEVELIZER ADJUSTMENT".

>> Refer to EXL-10, "LEVELIZER ADJUSTMENT : Special Repair Requirement".

LEVELIZER ADJUSTMENT

LEVELIZER ADJUSTMENT : Description

INFOID:0000000007460194

Perform "LEVELIZER ADJUSTMENT" when installing, removing, and replacing the height sensor and the suspension components.

LEVELIZER ADJUSTMENT : Special Repair Requirement

INFOID:0000000007460195

1. CHECK VEHICLE CONDITION

- 1. Park the vehicle in the straight-forward position.
- Unload the vehicle (no passenger aboard).

>> GO TO 2.

2.LEVELIZER ADJUSTMENT

(P)CONSULT WORK SUPPORT

- 1. Select "LEVELIZER ADJUSTMENT" of ADAPTIVE LIGHT work support item.
- Select "START".
- When "ADJUSTMENT IS COMPLETED", select "END". CAUTION:

If "CAN NOT BE TESTED" is indicated, AFS control unit detects that the height sensor signal changes. The levelizer adjustment is cancelled. In this case, turn the ignition switch OFF to prevent the vehicle from the height change. Perform the levelizer adjustment again.

INSPECTION AND ADJUSTMENT	[XENON TYPE]
< BASIC INSPECTION >	[AERON III E]
Is the levelizer adjustment completed? YES >> GO TO 3.	A
NO >> Perform the levelizer adjustment again.	,
3.self-diagnosis result check	
Perform self-diagnosis with CONSULT. Check that any DTC is not detected.	E
Is any DTC detected?	
YES >> GO TO 2.	(
NO >> Levelizer adjustment completed	
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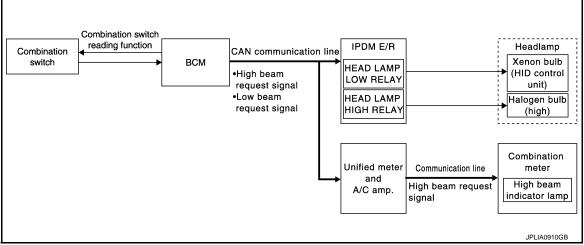
Revision: 2014 October EXL-11 2012 EX

SYSTEM DESCRIPTION

HEADLAMP SYSTEM

System Diagram

INFOID:0000000007460196



System Description

INFOID:0000000007460197

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
- IPDM E/R turns the integrated headlamp low relay ON, and turns the headlamp ON according to the low beam request signal.

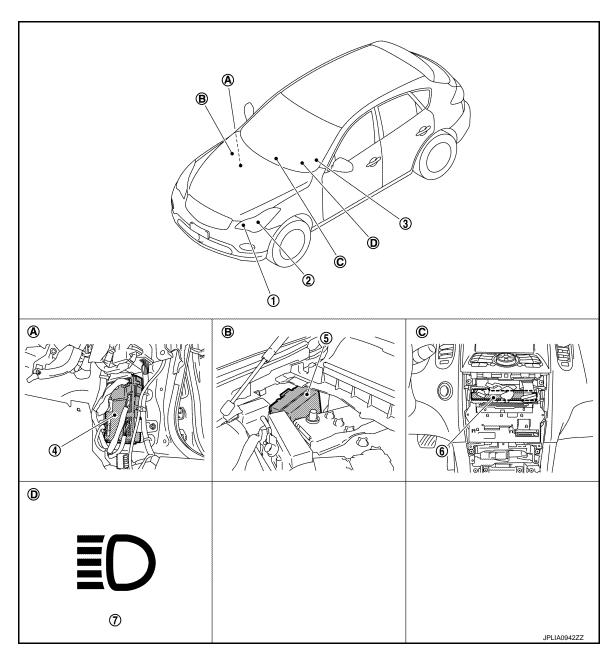
HEADLAMP (HI) OPERATION

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

Headlamp (HI) ON condition

- Lighting switch HI with the lighting switch 2ND
- Lighting switch PASS
- 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.

INFOID:0000000007460198



- 1. Headlamp (HI)
- 4. BCM
- 7. High beam indicator lamp
- A. Dash side lower (Passenger side)
- D. On the combination meter
- 2. Headlamp (LO)
- 5. IPDM E/R
- B. Engine room dash panel (RH)
- 3. Combination switch
- 6. Unified meter and A/C amp.
- C. Behind the cluster lid C

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HEADLAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

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 (HI/LO) ON to IPDM E/R (with CAN communication). Requests the high beam indicator lamp ON to the combination meter [with CAN communication (through unified meter and A/C amp.)].
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-10, "System Diagram".
Combination meter (High beam indicator lamp)	Turns the high beam indicator lamp ON according to the request from BCM [with CAN communication (through unified meter and A/C amp.)].
Front combination lamp assembly • HID control unit • Xenon bulb	Refer to EXL-71, "Description".

[XENON TYPE]

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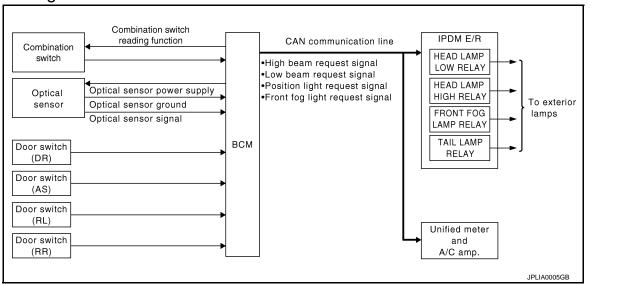
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AUTO LIGHT SYSTEM

System Diagram



System Description

INFOID:000000000746020

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 of time.
- *: Headlamp (LO/HI), parking lamp, tail lamp, and front fog lamp (Headlamp HI and front fog lamp 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.

NOTE:

ON/OFF timing differs based on the sensitivity from the setting. The setting can be set by CONSULT. Refer to EXL-34, "HEADLAMP: CONSULT Function (BCM - HEAD LAMP)".

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).

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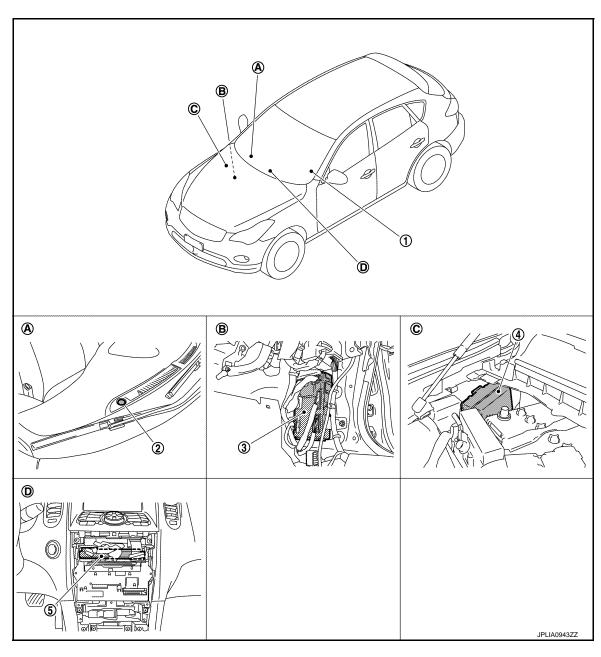
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- Turns the exterior lamp OFF with the ignition switch ACC or the light switch OFF.
- *: The preset time is 45 seconds. The timer operating time can be set by CONSULT. Refer to <u>EXL-34</u>, "<u>HEAD-LAMP</u>: CONSULT Function (BCM HEAD LAMP)".

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.

Component Parts Location



- 1. Combination switch
- 4. IPDM E/R
- A. Instrument upper panel (RH)
- D. Behind the cluster lid C
- 2. Optical sensor
- 5. Unified meter and A/C amp.
- B. Dash side lower (Passenger side)
- 3. BCM
- C. Engine room dash panel (RH)

AUTO LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Description

INFOID:0000000007460203

Part	Description
BCM	 Judges 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-10, "System Diagram".
Optical sensor	Refer to EXL-80, "Description".

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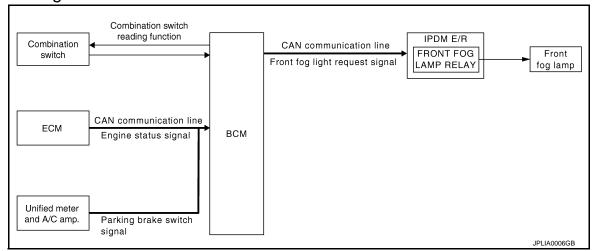
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[XENON TYPE]

DAYTIME RUNNING LIGHT SYSTEM

System Diagram

INFOID:0000000007460204



System Description

INFOID:0000000007460205

OUTLINE

- Turns the front fog lamp 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 vehicle condition depending on the following signals.
- Engine condition signal (received from ECM with CAN communication)
- Parking brake switch signal (received from unified meter and A/C amp. 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

While the engine running with the parking brake released

Daytime running light OFF condition

- Éngine stopped
- Headlamp ON (Passing included)
- IPDM E/R turns the integrated front fog lamp relay ON and turns the front fog lamp ON according to the front fog light request signal.

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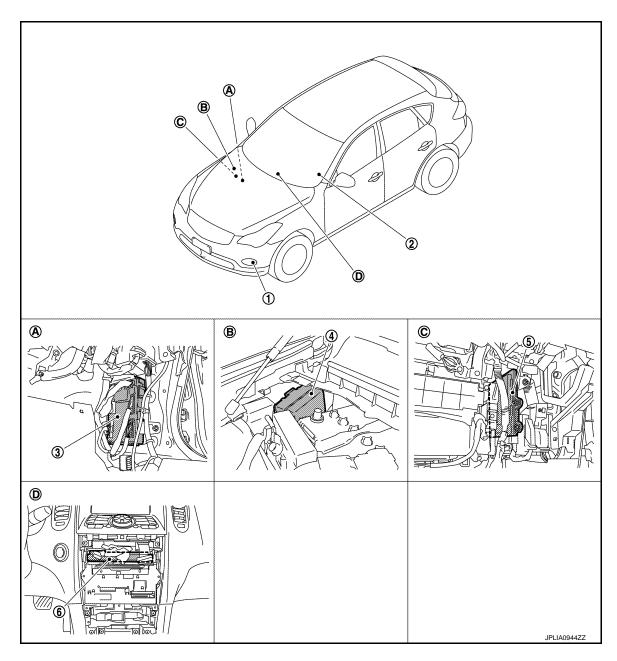
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- Daytime running light (Front fog lamp)
- 4. IPDM E/R
- A. Dash side lower (Passenger side)
- D. Behind the cluster lid C
- 2. Combination switch
- 5. ECM
- B. Engine room dash panel (RH)
- 3. BCM
- 6. Unified meter and A/C amp.
- C. Behind the glove box

Component Description

Part	Description
ВСМ	 Judges each switch condition with the combination switch reading function. Judges the headlamp ON/OFF status according to the vehicle condition. Requests the front fog 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).

DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Part	Description
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram".
ECM	Transmits the engine condition signal to BCM with CAN communication.
Unified meter and A/C amp.	Transmits the parking brake switch signal to BCM with CAN communication.

[XENON TYPE]

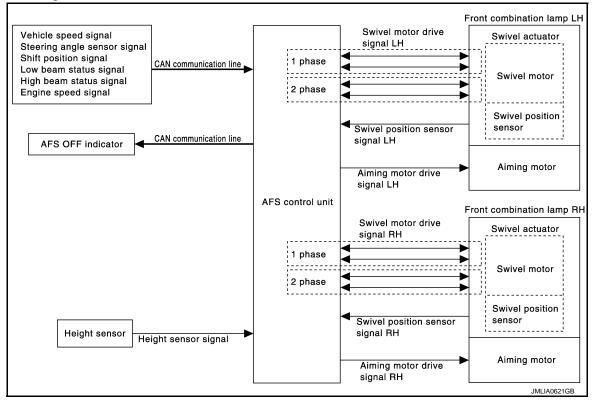
ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM

System Diagram

INFOID:0000000007460208

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System Description

INFOID:0000000007460209

OUTLINE

- AFS (ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM) is controlled by AFS control unit.
- AFS has AFS control (swivel control) and the headlamp auto aiming control.
- AFS control swivels the headlamp to the steering direction.
- Headlamp auto aiming control moves the headlamp light axis up/down according to the vehicle height.

AFS (ADAPTIVE FRONT-LIGHTING SYSTEM)

AFS Control Description

- AFS control controls the headlamp (right) only when the steering wheel is turned rightward, and the headlamp (left) only when the steering wheel is turned leftward.
- AFS control unit detects the vehicle condition necessary for AFS control with the following signals.
- Steering angle sensor signal (received from steering angle sensor with CAN communication)
- Engine speed signal (received from ECM with CAN communication)
- Shift position signal (received from TCM with CAN communication)
- Low beam status and high beam status (received from IPDM E/R with CAN communication)
- Vehicle speed signal (received from unified meter and A/C amp. with CAN communication)
- When the operation conditions are satisfied, AFS control unit controls the swivel angle depending on the steering angle and the vehicle speed.

AFS operation condition

- Swivel actuator initialization completed
- Headlamp ON
- While the engine running
- Selector lever position other than "P" or "R"
- Vehicle speed approximately 25 km/h (15.5 MPH) or more (left swivel only; Right swivel activates regardless of the vehicle speed.)

Swivel Actuator Initialization

AFS control unit performs the swivel actuator initialization when detecting that the engine starts.

EXL-21 Revision: 2014 October 2012 EX

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ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM

[XENON TYPE]

< SYSTEM DESCRIPTION >

- Swivels the headlamp to the vehicle-center side until it hits the stopper.
- Returns the swivel angle from the stopper. Completes the initialization with regarding the returned position as the swivel angle 0° (straight-forward position).

Swivel Operation

- AFS control unit transmits the drive signal to the swivel actuator when activation conditions are satisfied.
 And swivels the headlamp.
- The swivel starts after steering approximately 20° or more from straight-forward position.

NOTE:

The steering angle differs between right turn and left turn.

- The swivel angle becomes the maximum angle toward the driving direction if the steering angle is approximately 90° or more depending on the vehicle speed. The swivel angle is maintained by shutting off the drive signal.
- The swivel starts, and returns to the swivel angle 0° (straight-forward position) when the steering is returned to the straight-forward position.
- AFS control unit returns the swivel angle to the straight-forward position, and stops the swivel regardless of the steering angle if the operation condition is not satisfied while the swivel angle is 0°.

AFS OFF Indicator Lamp

- AFS control unit transmits AFS OFF indicator lamp signal to the combination meter (through the unified meter and A/C amp.) with CAN communication.
- Combination meter turns AFS OFF indicator lamp ON/OFF/blinking according to AFS OFF indicator lamp signal.
- AFS OFF indicator lamp is turned ON for 1 second for the AFS OFF indicator lamp bulb check when the ignition switch is turned ON. AFS OFF indicator lamp is turned OFF within 1 second when the engine starts.
- AFS OFF indicator lamp blinks (1 second each) if AFS control unit detects a specific DTC.
 NOTE:

Combination meter blinks AFS OFF indicator lamp (approximately 1 second each) if AFS OFF indicator lamp signal is not received from AFS control unit.

HEADLAMP AUTO AIMING

Headlamp Auto Aiming Control Description

- Headlamp auto aiming control controls the headlamp light axis height appropriately according to the vehicle height.
- AFS control unit detects the vehicle condition necessary for headlamp auto aiming control with the following signals.
- Height sensor signal
- Engine speed signal (received from ECM with CAN communication)
- Low beam status signal and high beam status signal (received from IPDM E/R with CAN communication)
- Vehicle speed signal (received from unified meter and A/C amp. with CAN communication)
- When the operation conditions are satisfied, AFS control unit transmits the aiming motor drive signal for adjusting the headlamp axis height.

Headlamp auto aiming operation condition

- Headlamp ON
- While the engine running
- Vehicle speed (Control mode is switched according to the driving condition.)

Headlamp Auto Aiming Operation

 AFS control unit calculates the vehicle pitch angle from the height sensor signal. AFS control unit judges the angle for adjusting the axis gap from the preset position.
 CAUTION:

Adjusted axis position may differ from the preset position although the headlamp auto aiming activates properly if the suspension is replaced or worn.

- AFS control unit controls the headlamp axis by changing the aiming motor drive signal output according to the vehicle-rearward height when detecting the following vehicle condition. Output is maintained if other condition than following is detected.
- Engine starts.
- Headlamp is turned ON.
- Vehicle posture becomes stable after changing the vehicle posture change is detected with the headlamp ON and the vehicle stopped.
- Vehicle speed is maintained with the headlamp ON and the vehicle driven.

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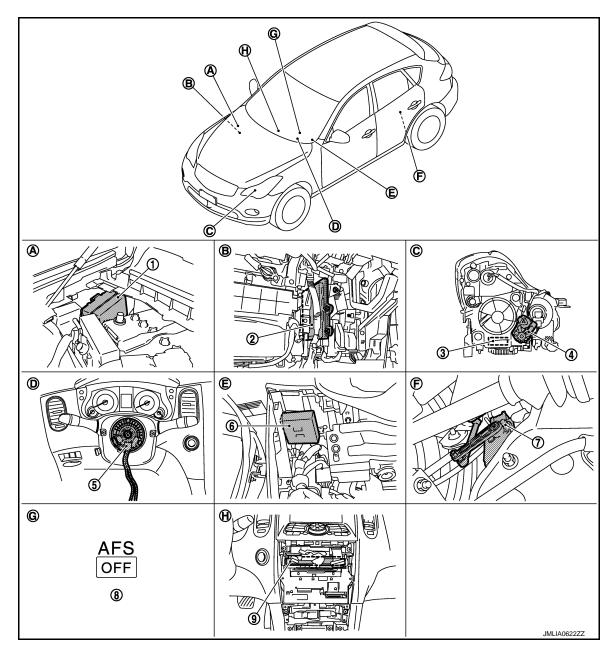
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- 1. IPDM E/R
- 4. Aiming motor
- 7. Height sensor
- A. Engine room dash panel (RH)
- D. Steering column cover (inside)
- G. On the combination meter

- 2. ECM
- 5. Steering angle sensor
- 8. AFS OFF indicator lamp
- B. Behind the glove box
- E. Behind the instrument driver lower panel
- H. Behind the cluster lid C

- Swivel actuator
- 6. AFS control unit
- 9. Unified meter and A/C amp.
- C. Front combination lamp (back)
- F. Rear suspension member (LH)

Component Description

Part	Description
AFS control unit	Refer to EXL-57, "Description".
Swivel actuator	Refer to EXL-45, "Description".

ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Part	Description			
Aiming motor	Refer to EXL-72, "Description".			
Height sensor	Refer to EXL-51, "Description".			
Steering angle sensor	Refer to EXL-60, "Description".			
IPDM E/R	Transmits the headlamp (LO) ON signal and the headlamp (HI) ON signal to AFS control unit with CAN communication.			
ECM	Transmits the engine speed signal to AFS control unit with CAN communication.			
TCM	Refer to EXL-54, "Description".			
Unified meter and A/C amp.	Refer to EXL-55, "Description".			
Combination meter	Turns AFS OFF indicator lamp ON/OFF/blinking according to AFS control unit request [with CAN communication (through unified meter and A/C amp.)].			

[XENON TYPE]

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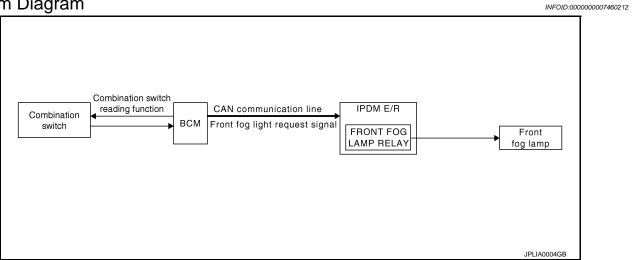
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FRONT FOG LAMP SYSTEM

System Diagram



System Description

INFOID:0000000007460213

OUTLINE

Front fog lamp is controlled by combination switch reading function and front fog lamp control function of BCM, and relay control function of IPDM E/R.

NOTE:

For Canada models, the front fog lamp is turned ON as the daytime running light. Refer to EXL-18. "System Diagram" for the detail.

FRONT FOG LAMP OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits the front fog light request signal to IPDM E/R with CAN communication according to the front fog lamp ON condition.

Front fog lamp ON condition

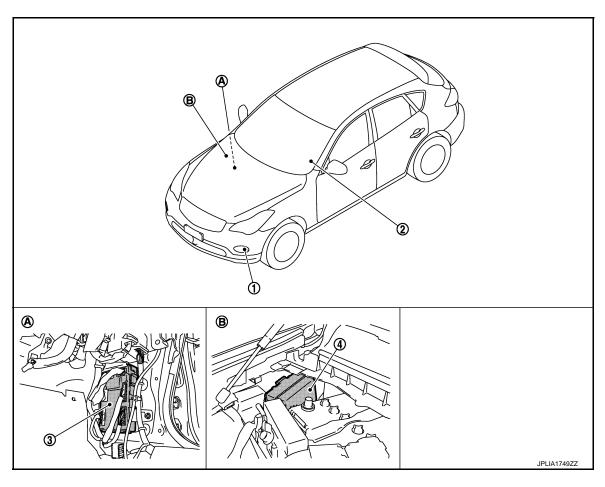
- Front fog lamp switch ON with the headlamp ON (except for the high beam ON)
- IPDM E/R turns the integrated front fog lamp relay ON, and turns the front fog lamp ON according to the front fog light request signal.

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- 1. Front fog lamp
- 4. IPDM E/R
- A. Dash side lower (Passenger side)
- 2. Combination switch
- 3. BCM
- B. Engine room dash panel (RH)

Component Description

Part	Description		
BCM	 Judges each switch condition by the combination switch reading function. Judges the front fog lamp ON/OFF status according to the vehicle condition. Requests the front fog 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 requestrom BCM (with CAN communication).		
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram".		

[XENON TYPE]

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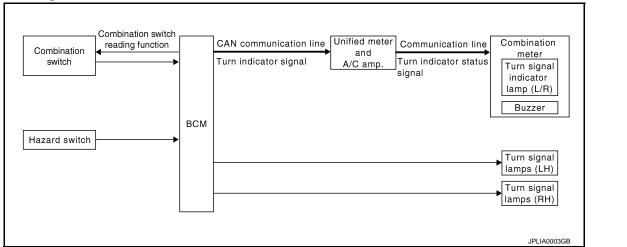
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

System Diagram



System Description

INFOID:0000000007460217

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 (through the unified meter and A/C amp.) 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 (FAIL-SAFE)

- 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.

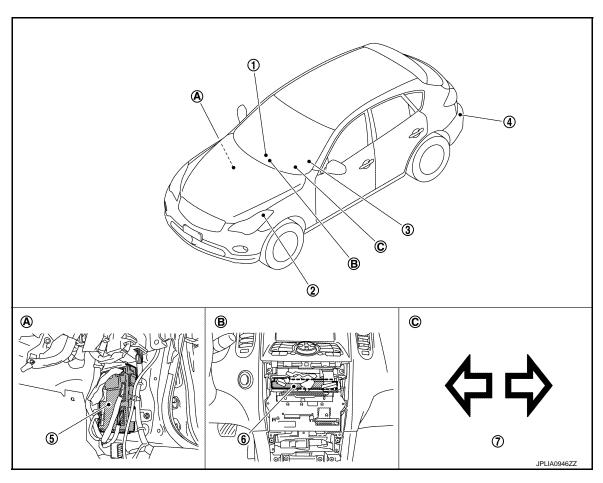
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- 1. Hazard warning switch
- 4. Rear turn signal lamp
- 7. Turn signal indicator lamp
- A. Dash side lower (Passenger side)
- 2. Front turn signal lamp
- 5. BCM
- B. Behind the cluster lid C
- 3. Combination switch
- 6. Unified meter and A/C amp.
- C. On the combination meter

Component Description

Part	Description			
ВСМ	 Judges 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-10, "System Diagram".			
Hazard switch (Multifunction switch)	Refer to EXL-83, "Description".			
Combination meter (Turn signal indicator lamp & buzzer)	Blinks the turn signal indicator lamp and outputs the turn signal operating sound w integrated buzzer according to the request from BCM [with CAN communication (through unified meter and A/C amp.)].			

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

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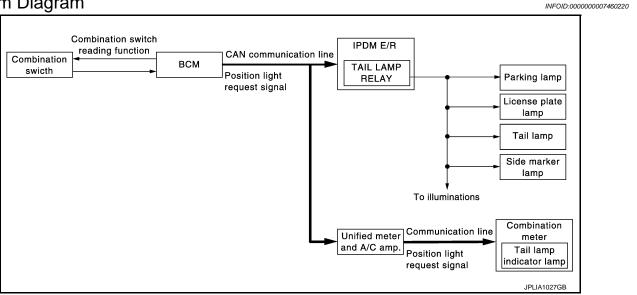
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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

System Diagram



System Description

INFOID:0000000007460221

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 (with auto light system)
- 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 turns the tail lamp indicator lamp ON according to the position light request signal.

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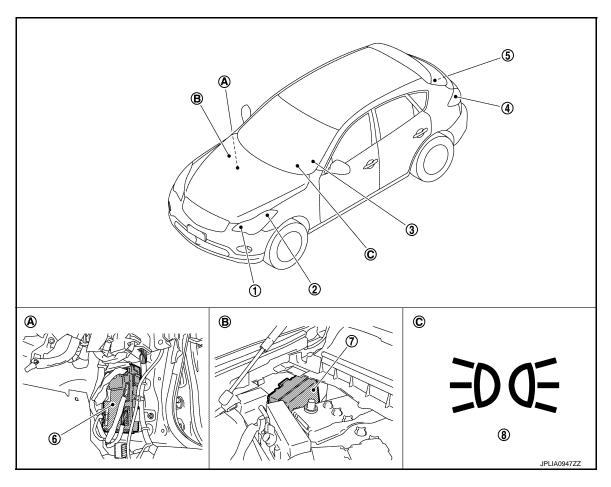
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- 1. Parking lamp
- 4. Tail lamp and side marker lamp
- 7. IPDM E/R
- A. Dash side lower (Passenger side)
- 2. Side marker lamp
- 5. License plate lamp
- 8. Tail lamp indicator lamp
- B. Engine room dash panel (RH)
- 3. Combination switch
- 6. BCM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

Component Description

Part	Description		
ВСМ	 Judges 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-10, "System Diagram".		
Combination meter (Tail lamp indicator lamp)	Turns the tail lamp indicator lamp ON according to the request from BCM [with CAN communication (through the unified meter and A/C amp.)].		

[XENON TYPE]

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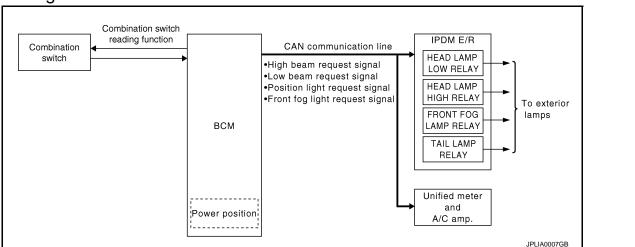
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EXTERIOR LAMP BATTERY SAVER SYSTEM

System Diagram



System Description

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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, license plate lamp and front fog lamp **NOTE:**

When the lighting switch is turned AUTO, the exterior lamp battery saver switches to the auto light system. Refer to <u>EXL-15</u>, "System Diagram".

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 \rightarrow 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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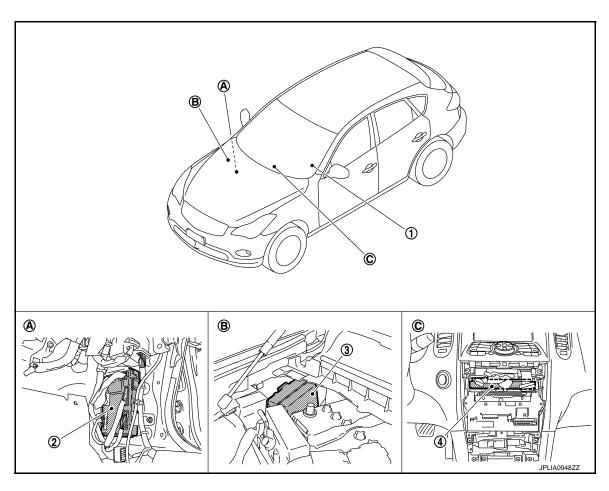
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- 1. Combination switch
- 4. Unified meter and A/C amp.
- A. Dash side lower (Passenger side)
- 2. BCM
- B. Engine room dash panel (RH)
- 3. IPDM E/R
- C. Behind the cluster lid C

Component Description

Part	Description		
BCM	 Judges 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-10, "System Diagram".		

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[XENON TYPE]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

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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	 Read and save the vehicle specification. Write the vehicle specification when replacing BCM. 		

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.

×: Applicable item

System	Cub avotom poloction 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 systemEngine start system	INTELLIGENT KEY	×	×	×	
Combination switch	COMB SW		×		
Body control system	BCM	×			
IVIS - NATS	IMMU		×	×	
Interior room lamp battery saver	BATTERY SAVER	×	×	×	
Back door open system	TRUNK		×	×	
Vehicle security system	THEFT ALM	×	×	×	
RAP system	RETAINED PWR		×		
Signal buffer system	SIGNAL BUFFER		×	×	
TPMS	AIR PRESSURE MONITOR	×	×	×	

NOTE:

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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^{*:} This item is displayed, but is not used.

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 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" (Except emergency stop operation)	
	CRANK>RUN		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	Power supply position status of the moment a	While turning power supply position from "OFF" to "LOCK"*	
Vehicle Condition	OFF>ACC	particular DTC is de-	While turning power supply position from "OFF" to "ACC"	
	ON>CRANK	tected*	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"*	
	OFF		Power supply position is "OFF" (Ignition switch OFF)	
	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	 The number of times that ignition switch is turned ON after DTC is detected The number is 0 when a malfunction is detected now. The number increases like 1 → 2 → 338 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. 		

NOTE:

- *: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met.
- · Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

HEADLAMP

HEADLAMP: CONSULT Function (BCM - HEAD LAMP)

INFOID:0000000007460229

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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

^{*:} Initial setting

DATA MONITOR

Monitor item [Unit]	Description		
PUSH SW [On/Off]	The switch status input from push-button ignition switch		
ENGINE STATE [Stop/Stall/Crank/Run]	The engine status received from ECM with CAN communication		
VEH SPEED 1 [km/h]	The value of the vehicle speed received from unified meter and A/C amp. with CAN communication		
KEY SW-SLOT [On/Off]	Key switch status input from key slot		
TURN SIGNAL R [On/Off]			
TURN SIGNAL L [On/Off]			
TAIL LAMP SW [On/Off]			
HI BEAM SW [On/Off]			
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]			
RR FOG SW [On/Off]	NOTE: The item is indicated, but not monitored.		

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Monitor item [Unit]	Description	
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)	
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)	
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH	
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH	
DOOR SW-BK [On/Off]	The switch status input from back door switch.	
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 with CAN communication to turn the tail lamp ON.	
	Off	Stops the position light request signal transmission.	
	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).	
HEAD LAMP	Low	Transmits the low beam request signal with CAN communication to turn the headlamp (LO).	
	Off	Stops the high & low beam request signal transmission.	
FR FOG LAMP	On	Transmits the front fog light request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.	
	Off	Stops the front fog light request signal transmission.	
RR FOG LAMP	On	NOTE:	
KKT OG LAWIF	Off	The item is indicated, but cannot be tested.	
DAYTIME RUNNING LIGHT	On	NOTE:	
DAT TIME RONNING LIGHT	Off	The item is indicated, but cannot be tested.	
	RH		
CORNERING LAMP	LH	NOTE: The item is indicated, but cannot be tested.	
	Off		
ILL DIM SIGNAL	On	NOTE:	
ILL DIW SIGNAL	Off	The item is indicated, but cannot be tested.	

FLASHER

FLASHER: CONSULT Function (BCM - FLASHER)

INFOID:0000000007460230

WORK SUPPORT

Service item	Setting item	Setting	
HAZARD ANSWER BACK	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 fob.
	Unlk Only	With unlocking only	
	Lock/Unlk	With locking/unlocking	
	Off	Without the function	

^{*:} Initial setting

DIAGNOSIS SYSTEM (BCM)

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Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from the request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from the request switch (passenger side)
PUSH SW [On/Off]	The switch status input from the push-button ignition switch
TURN SIGNAL R [On/Off]	Fach quitch condition that DCM indeed from the combination quitch 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]	Lock signal status received from the remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from the remote keyless entry receiver
RKE-PANIC [On/Off]	Panic alarm signal status received from the remote keyless entry receiver

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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[XENON TYPE]

DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

INFOID:0000000007740090

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.

- Oil pressure warning lamp
- Front wiper (LO, HI)
- Parking lamps
- License plate lamps
- Side maker lamps
- Tail lamps
- Front fog 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 front door switch (driver side) 10 times. Then turn the ignition switch OFF.

CAUTION:

Close passenger door.

- Turn the ignition switch ON within 10 seconds. After that the horn sounds once and the auto active test starts.
- 5. The oil pressure warning lamp starts blinking when the auto active test starts.
- 6. 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-67</u>, "Component Function Check".
- Do not start the engine.

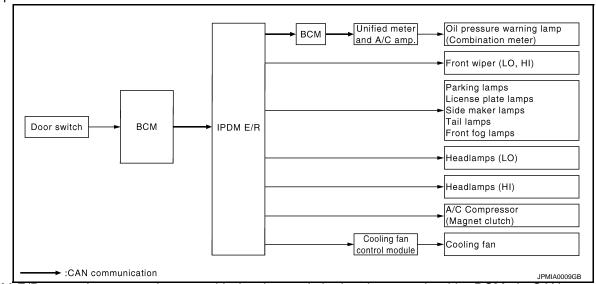
Inspection in Auto Active Test Mode

When auto active test mode is actuated, the following 6 steps are repeated 3 times.

Operation sequence	Inspection location	Operation
1	Oil pressure warning lamp	Blinks continuously during operation of auto active test
2	Front wiper	LO for 5 seconds → HI for 5 seconds
3	 Parking lamps License plate lamps Side maker lamps Tail lamps Front fog lamps 	10 seconds
4	Headlamps	LO 10 seconds HI ON ⇔ OFF 5 times
5	A/C compressor (magnet clutch)	ON ⇔ OFF 5 times
6*	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.

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 maker lamps Tail lamps Front fog 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 operate?	YES	 Unified meter and A/C amp. signal input circuit CAN communication signal between unified meter and A/C amp. and ECM CAN communication signal between ECM and IPDM E/R
		NO	Magnet clutch Harness or connector between IPDM E/R and magnet clutch IPDM E/R
	Perform auto active test. Does the oil pressure warning lamp blink?	YES	Harness or connector between IPDM E/R and oil pressure switch Oil pressure switch IPDM E/R
Oil pressure warning lamp does not operate		NO	CAN communication signal between IPDM E/R and BCM CAN communication signal between BCM and unified meter and A/C amp. Combination meter

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DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[XENON TYPE]

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:0000000007740091

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 EXL-184, "DTC Index".

DATA MONITOR

Monitor item

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 light 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 auto stop signal judged by IPDM E/R.
WIP PROT [Off/BLOCK]	×	Displays the status of the front wiper fail-safe operation judged by IPDM E/R.

DIAGNOSIS SYSTEM (IPDM E/R)

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Monitor Item [Unit]	MAIN SIG- NALS	Description
IGN RLY1 -REQ [Off/On]		Displays the status of the ignition switch ON signal received from BCM via CAN communication.
IGN RLY [Off/On]	X	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 received from BCM via CAN communication. NOTE: For models without steering lock unit, this item is not monitored.
S/L STATE [LOCK/UNLOCK/UNKWN]		Displays the status of the steering lock judged by IPDM E/R. NOTE: For models without steering lock unit, this item is not monitored.
DTRL REQ [Off/On]		NOTE: The item is indicated, but not monitored.
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.
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

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.	

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[XENON TYPE]

Test item	Operation	Description
	1	OFF
MOTOR FAN	2	Outputs 50% pulse duty signal (PWM signal) to the cooling fan control module.
MOTOR FAN	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.
	Off	OFF
EXTERNAL LAMPS	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.

[XENON TYPE]

DIAGNOSIS SYSTEM (AFS)

CONSULT Function (ADAPTIVE LIGHT)

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APPLICATION ITEM

Diagnostic mode	Description
ECU Identification	Allows confirmation of auto levelizer control unit part number.
Self Diagnostic Result	Displays the diagnosis results judged by AFS control unit.
Work support	Sets each sensor.
Data monitor	Indicates AFS control unit input data in real time.
Active test	Provides the drive signal to the load. Checks operation.

WORK SUPPORT

Service item	Description
ST ANG SEN ADJUSTMENT*	_
LEVELIZER ADJUSTMENT	Adjusts the height sensor signal output value (AFS control unit recognized) in the unloaded vehicle condition.

^{*:} Adjusts the steering angle sensor neutral position on ABS actuator and electrical unit (control unit) side. Refer to BRC-9, "ADJUST-MENT OF STEERING ANGLE SENSOR NEUTRAL POSITION: Special Repair Requirement".

DATA MONITOR

Monitor item [Unit]	Description
STR ANGLS SIG [deg]	The steering angle value judged by the steering angle sensor signal received from the steering angle sensor with CAN communication
VHCL SPD [km/h]	The vehicle speed signal value from the unified meter and A/C amp. with CAN communication
SLCT LVR POSI [P - 1]	The selector lever status judged by the position indicator signal received from TCM with CAN communication
HEAD LAMP [On/Off]	The headlamp On/Off status judged by the low beam headlamp (ON) signal received from IPDM E/R with CAN communication
AFS SW [On/Off]	NOTE: The item is indicated, but not monitored.
HI SEN OTP RR [V]	The height sensor signal voltage value input from the height sensor
LEV ACTR VLTG [%]	The ratio value to the battery voltage generated by the levelizer activation signal control value judged by AFS control unit
SWVL SEN RH [*] [deg]	The head lamp swivel angle value judged by AFS control unit received from the swiv-
SWVL SEN LH [*] [deg]	el position sensor signal input from the swivel actuator
SWVL ANGLE RH [*] [deg]	The publical control command value to the publical mater indeed by AFO
SWVL ANGLE LH * [deg]	The swivel angle command value to the swivel motor judged by AFS control unit

^{*:} The swivel angle "0°" (feedback value) of the swivel position sensor signal may differ from the swivel angle "0°" of the swivel motor (AFS control unit command value). This causes that the swivel motor initializes the value based on the step number from the stopper.

ACTIVE TEST

CAUTION:

Start the engine when using "ACTIVE TEST".

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Test item	Operation Item	Description
	Origin Fast	Swivels the right headlamp to the swivel angle 0° in the normal speed.
	Peak Fast	Swivels the right headlamp to the swivel angle approximately 15° in the normal speed.
LOW BEAM TEST RIGHT	Origin Slow	Swivels the right headlamp to the swivel angle 0° in the speed at the initialization.
	Peak Slow	Swivels the right headlamp to the swivel angle approximately 15° in the speed at the initialization.
	Origin Fast	Swivels the left headlamp to the swivel angle 0° in the normal speed.
	Peak Fast	Swivels the left headlamp to the swivel angle approximately 17° in the normal speed.
LOW BEAM TEST LEFT	Origin Slow	Swivels the left headlamp to the swivel angle 0° in the speed at the initialization.
	Peak Slow	Swivels the left headlamp to the swivel angle approximately 17° in the speed at the initialization.
LEVELIZER TEST	Origin	Changes the aiming motor drive signal to approximately 70% of the battery voltage. Moves the headlamp upward and downward.
LLVLLIZLIN TEST	Peak	Changes the aiming motor drive signal to approximately 15% of the battery voltage. Moves the headlamp upward and downward.

NOTE:

[&]quot;Fast" operation speed is as three times fast as "Slow".

< DTC/CIRCUIT DIAGNOSIS >

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DTC/CIRCUIT DIAGNOSIS

B2503, B2504 SWIVEL ACTUATOR

Description INFOID:0000000007460234

SWIVEL ACTUATOR

The swivel actuator is installed in the headlamp unit. The swivel actuator consists of the swivel motor and the swivel position sensor.

SWIVEL MOTOR

- The swivel motor is the two-phase step motor.
- The swivel motor drives headlamp by exciting the two drive coils according to the drive signal from AFS control unit.
- The rotation direction of the swivel motor is changeable by changing the exciting pattern.

SWIVEL POSITION SENSOR

The swivel position sensor detects the headlamp swivel angle to transmit the swivel position sensor signal to AFS control unit.

DTC Logic INFOID:000000007460235

DTC DETECTION LOGIC

- [B2503] Swivel actuator [RH]
- [B2504] Swivel actuator [LH]

			-
DTC detection condition	DTC erase condition	Possible cause	
 AFS control unit indicates an applicable DTC when detecting any of the following conditions continuously for 2 seconds or more. AFS control unit-recognized swivel position differs extremely from the swivel position sensor-input value while the swivel operating.* The swivel position sensor signal does not change even though AFS control unit transmits the swivel motor driving signal while the swivel operating*. The swivel motor short and open is detected while the swivel operating*. The swivel position sensor power supply is 6 V or more, or 4 V or less. The swivel position sensor signal is 0.25 V or less, or 4.75 V or more. 	Ignition switch OFF	Swivel position sensor Swivel position sensor Harness and connector AFS control unit Swivel motor Swivel motor Harness and connector AFS control unit	J

^{*:} Initialization is not included.

DTC CONFIRMATION PROCEDURE

1.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

2. CONFIRMATION DTC SELECTION

Select "B2503" or "B2504" for confirmation.

Which DTC is confirmation?

B2503 >> GO TO 3.

B2504 >> GO TO 4.

3.DTC CONFIRMATION (B2503)

- 1. Steer to the straight-forward position.
- 2. Start the engine.
- 3. Turn the headlamp ON.
- Shift the selector lever to "N".
- 5. Steer to the right. (Rotate it once or more.)
- 6. Perform the self-diagnosis with CONSULT.

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< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Is "B2503" detected?

YES >> Refer to EXL-46, "Diagnosis Procedure".

NO >> Refer to GI-42, "Intermittent Incident".

4.DTC CONFIRMATION (B2504)

- 1. Steer to the straight-forward position.
- 2. Start the engine.
- 3. Turn the headlamp ON.
- Drive at 25 km/h (15.5 MPH) or more.
- 5. Steer to the left. (Rotate it once or more.)
- 6. Stop the vehicle.
- 7. Perform the self-diagnosis with CONSULT.

Is "B2504" detected?

YES >> Refer to EXL-46, "Diagnosis Procedure".

NO >> Refer to GI-42, "Intermittent Incident".

Diagnosis Procedure

INFOID:0000000007460236

1. CHECK SWIVEL POSITION SENSOR SIGNAL INPUT

- 1. Turn the ignition switch ON.
- 2. Check the voltage between the AFS control unit harness connector and the ground.

	Terminals				
	(+) (-)				
	AFS control	unit		(Approx.)	
C	Connector Terminal		Ground		
RH	M16	9	Ground	0.25 - 4.75 V	
LH	IVITO	29		0.23 - 4.73 V	

Is the measurement value within the standard value?

YES >> GO TO 2.

Less than the standard value >>GO TO 6.

Higher than the standard value>>GO TO 9.

2.check swivel motor

Check the swivel motor. EXL-49, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace the front combination lamp.

3. CHECK SWIVEL MOTOR OPEN CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect AFS control unit connector and the headlamp swivel actuator connector.
- Check continuity between the AFS control unit harness connector and the headlamp swivel actuator harness connector.

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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AFS control unit		Headlamp swivel actuator		Continuity	
Connector		Terminal	Connector Terminal		
		11		8	
DЦ	RH M16	13	E29	7	Existed
КΠ		32		3	
		34		4	
		15	E59	3	Existed
LH		17		4	
		36		8	
		38		7	

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK SWIVEL MOTOR SHORT CIRCUIT

Check continuity between the AFS control unit harness connector and the ground.

	AFS contro	l unit		Continuity
	Connector Termin			Continuity
		11		
RH		13		
КΠ	КП	32	Ground	Not existed
	M16	34		
	IVITO	15		Not existed
LH		17		
LN		36		
		38		

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 5.

5. CHECK SWIVEL MOTOR CIRCUIT VOLTAGE OUTPUT

- 1. Connect AFS control unit connector.
- 2. Turn the ignition switch ON.
- 3. Turn the headlamp ON.
- 4. Select "LOW BEAM TEST RIGHT" or "LOW BEAM TEST LEFT" of ADAPTIVE LIGHT active test item.
- 5. With operating the test item, check the voltage between the AFS control unit harness connector and the ground.

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		Terminals		Condition		
	(+)	(+) (-)		Condition	Voltage	
/	AFS control unit			Swivel motor	(Approx.)	
Con	nector	Terminal		Swiver motor		
RH		11				
ΙΝΠ		32			(V) 15	
		15			10 5	
LH	M16	36	Ground	Active	0 → 100µs SKIB2408J 8 - 12 V	
RH		13				
LH	34		Stop	9.5 - 11.5 V		
	17		Зюр	9.5 - 11.5 V		
LII		38				

Is the measurement value within the standard value?

YES >> Replace the front combination lamp.

NO >> Replace AFS control unit.

6.CHECK SWIVEL POSITION SENSOR SIGNAL OUTPUT

Check the voltage between the AFS control unit harness connector and the ground.

	Terminals				
	(+) (-)				
	AFS contro	l unit	Ground	Voltage (Approx.)	
	Connector	Terminal			
RH	M16	4	Glound	5 V	
LH	IVITO	24		3 V	

Is the measurement value normal?

YES >> GO TO 7.

NO >> GO TO 9.

7.check swivel position sensor power supply circuit input voltage

- Turn the ignition switch OFF.
- 2. Disconnect the headlamp swivel actuator connector.
- 3. Turn the ignition switch ON.
- 4. Check the voltage between the headlamp swivel actuator harness connector and the ground.

	Voltage				
	Headlamp swive	el actuator	Ground	(Approx.)	
	Connector	Terminal			
RH	E29	2	Giodila	5 V	
LH	E59	2		3 V	

Is the measurement value normal?

YES >> GO TO 8.

NO >> Repair the harnesses or connectors.

8. CHECK SWIVEL POSITION SENSOR SIGNAL SHORT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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- 1. Turn the ignition switch OFF.
- 2. Disconnect AFS control unit connector.
- Check continuity between the AFS control unit harness connector and the headlamp swivel actuator harness connector.

Continuity	Headlamp swivel actuator		AFS control unit		
Continuity	Terminal	Connector	Terminal	nnector	Со
Existed	1	E29	9	M16	RH
LXISIEU	1	E59	29	IVITO	LH

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

9. CHECK SWIVEL POSITION SENSOR GROUND CIRCUIT VOLTAGE OUTPUT

Check the voltage between the AFS control unit harness connector and the ground.

	Terminals				
	(+) (-)				
	AFS control	l unit	Ground	(Approx.)	
	Connector	Terminal			
RH	M16	2		0 V	
LH	IVITO	27		_	

Is the measurement value normal?

YES >> GO TO 10.

NO >> Replace AFS control unit.

10. CHECK SWIVEL POSITION SENSOR SHORT GROUND CIRCUIT

- 1. Turn the ignition switch OFF.
- Disconnect AFS control unit connector and the headlamp swivel actuator connector.
- Check continuity between the AFS control unit harness connector and the headlamp swivel actuator harness connector.

AFS control unit		Headlamp s	Continuity		
Co	nnector	Terminal	Connector Terminal		Continuity
RH	M16	2	E29	6	Existed
LH	IVITO	27	E59	6	LAISIGU

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

Component Inspection

1. CHECK SWIVEL MOTOR SINGLE PART

- 1. Disconnect the swivel actuator connector.
- Check the resistance among each swivel actuator connector terminal.

Swivel	actuator	Resistance
Terminal	Terminal	(Approx.)
3	7	7.2 Ω
4	8	7.2 Ω
3	4	10 M Ω or more

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< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Is the measurement value normal?

YES >> Swivel actuator is normal.

NO >> Replace the front combination lamp.

B2514 HEIGHT SENSOR UNUSUAL [RR]

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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B2514 HEIGHT SENSOR UNUSUAL [RR]

Description INFOID:0000000007460238

The height sensor is installed to the rear suspension arm. The height sensor detects the suspension arm displacement as the vehicle height change. The height sensor transmits the height sensor signal to AFS control unit.

NOTE:

The sensor angle of the unloaded vehicle position is the reference value.

DTC Logic INFOID:0000000007460239

DTC DETECTION LOGIC

[B2514] Height sensor unusual [RR]

DTC detection condition	DTC erase condition	Possible cause
 An applicable DTC is indicated when any of the following conditions is detected continuously for 2 seconds or more. The height sensor power supply is 6 V or more, or 4 V or less. The height sensor signal is 0.25 V or less, or 4.75 V or more. 	Ignition switch OFF	Height sensor • Height sensor • Harness and connector • AFS control unit

DTC CONFIRMATION PROCEDURE

1.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

2.DTC CONFIRMATION

- Start the engine.
- Turn the headlamp ON.
- Select the self-diagnosis with CONSULT.
- Check the self-diagnosis result. Refer to <u>EXL-196</u>, "<u>DTC Index</u>".

Is "B2514" detected?

YES >> Refer to EXL-51, "Diagnosis Procedure".

>> Refer to GI-42, "Intermittent Incident". NO

Diagnosis Procedure

1. CHECK HEIGHT SENSOR POWER SUPPLY OUTPUT

- Turn the ignition switch ON.
- Check the voltage between the AFS control unit harness connector and the ground.

Terminals			
(+) (-)		(-)	Voltage
AFS control unit			(Approx.)
Connector Terminal		Ground	
M16	6		5 V

Is the measurement value within the standard value?

YES >> GO TO 2.

NO >> Replace AFS control unit.

2.CHECK HEIGHT SENSOR POWER SUPPLY INPUT

Check the voltage between the AFS control unit harness connector and the ground.

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B2514 HEIGHT SENSOR UNUSUAL [RR]

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Terminals			
(+) (-)			Voltage
AFS control unit			(Approx.)
Connector	Terminal	Ground	
M16	28		0.25 - 4.75 V

Is the measurement value within the standard value?

YES >> Replace AFS control unit.

Less than the standard value >>GO TO 3.

Higher than the standard value>>GO TO 6.

3.check height sensor power supply circuit output voltage

- 1. Turn the ignition switch OFF.
- 2. Disconnect the height sensor connector.
- 3. Turn the ignition switch ON.
- Check the voltage between the height sensor harness connector and the ground.

Terminals			
(+)		(-)	Voltage
Height sensor			(Approx.)
Connector	Terminal	Ground	
B32	1		5 V

Is the measurement value within the standard value?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK HEIGHT SENSOR SIGNAL OPEN CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect AFS control unit connector.
- Check continuity between the AFS control unit harness connector and the height sensor harness connector.

AFS co	AFS control unit		Height sensor	
Connector	Terminal	Connector	Terminal	Continuity
M16	28	B32	2	Existed

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

${f 5.}$ CHECK HEIGHT SENSOR SIGNAL SHORT CIRCUIT

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

Height	Height sensor		Continuity
Connector	Terminal	Ground	Continuity
B32	2		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace the height sensor.

6.CHECK HEIGHT SENSOR GROUND

Check the voltage between the AFS control unit harness connector and the ground.

B2514 HEIGHT SENSOR UNUSUAL [RR]

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Terminals			
(+) (-)			Voltage
AFS control unit			(Approx.)
Connector	Terminal	Ground	
M16	8		0 V

Is the measurement value within the standard value?

YES >> GO TO 7.

NO >> Replace AFS control unit.

7.check height sensor ground circuit

- 1. Turn the ignition switch OFF.
- 2. Disconnect AFS control unit connector and the height sensor connector.
- Check continuity between the AFS control unit harness connector and the height sensor harness connector.

AFS control unit		Height sensor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M16	8	B32	3	Existed

Does continuity exist?

YES >> Replace the height sensor.

NO >> Repair the harnesses or connectors.

Component Inspection

1. CHECK HEIGHT SENSOR

- 1. Remove the height sensor (the height sensor connector is connected).
- 2. Start the engine.
- 3. Turn the light switch 2ND.
- Select "HI SEN OTP RR" of AFS data monitor item.
- 5. With moving the sensor lever, check the monitor status.

Monitor item	Condition		Monitor status [Standard value (Approx.)]
		Contact with stopper	0.9 V
HI SEN OTP RR	Sensor lever position	Moving be- tween two posi- tions	Smooth move- ment
		90° from stopper	4.5 V

Is the output value normal?

YES >> Height sensor is normal.

NO >> Replace the height sensor.

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[XENON TYPE]

B2516 SHIFT SIGNAL [P, R]

Description INFOID:000000007460242

AFS control unit receives the shift position signal from TCM with CAN communication.

DTC Logic

DTC DETECTION LOGIC

[B2516] Shift signal [P, R]

DTC detection condition	DTC erase condition	Possible causes
The shift position signal is not received.	Ignition switch OFF	TCM AFS control unit

DTC CONFIRMATION PROCEDURE

1.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

2.DTC CONFIRMATION

- 1. Turn ignition ON.
- 2. Select the self-diagnosis with CONSULT.
- Check the self-diagnosis result. Refer to <u>EXL-196</u>, "<u>DTC Index</u>".

Is "B2516" detected?

YES >> Refer to EXL-54, "Diagnosis Procedure".

NO >> Refer to GI-42, "Intermittent Incident".

Diagnosis Procedure

INFOID:0000000007460244

1.TCM SELF-DIAGNOSIS

Check the self-diagnosis result with CONSULT. Check that TCM does not detect any DTCs.

Is any DTC detected?

YES >> Check TCM. Refer to TM-154, "DTC Index".

NO >> GO TO 2.

2.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

Is the memory erased?

YES >> Inspection end.

NO >> Replace AFS control unit.

B2517 VEHICLE SPEED SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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B2517 VEHICLE SPEED SIGNAL

Description INFOID:0000000007460245

AFS control unit receives the vehicle speed signal from the unified meter and A/C amp. with CAN communication.

DTC Logic

DTC DETECTION LOGIC

[B2517] Vehicle speed signal

DTC detection condition	DTC erase condition	Possible causes
The vehicle speed signal is not received.	Ignition switch OFF	Unified meter and A/C amp. AFS control unit

DTC CONFIRMATION PROCEDURE

1.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

2.DTC CONFIRMATION

- 1. Turn ignition ON.
- 2. Select the self-diagnosis with CONSULT.
- Check the self-diagnosis result. Refer to <u>EXL-196, "DTC Index"</u>.

Is "B2517" detected?

YES >> Refer to EXL-55, "Diagnosis Procedure".

NO >> Refer to GI-42, "Intermittent Incident".

Diagnosis Procedure

1. UNIFIED METER AND A/C AMP. SELF-DIAGNOSIS

Check the self-diagnosis result with CONSULT. Check that the unified meter and A/C amp. does not detect any DTCs.

Is any DTC detected?

YES >> Check the unified meter and A/C amp. Refer to MWI-107, "DTC Index".

NO >> GO TO 2.

2.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

Is the memory erased?

YES >> Inspection end.

NO >> Replace AFS control unit.

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B2519 LEVELIZER CALIBRATION

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

B2519 LEVELIZER CALIBRATION

Description INFOID:000000007460248

AFS control unit transmits the height sensor signal from the height sensor.

DTC Logic INFOID:0000000007460249

[B2519] Levelizer calibration

DTC detection condition	DTC erase condition	Possible causes
The height sensor adjustment position is not recognized.	When the levelizer adjust- ment is completed	AFS control unit

Diagnosis Procedure

INFOID:0000000007460250

1.LEVELIZER ADJUSTMENT

Perform the levelizer adjustment.

>> Refer to EXL-10, "LEVELIZER ADJUSTMENT : Special Repair Requirement".

[XENON TYPE]

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B2521 ECU CIRCUIT

Description INFOID:0000000007460251

AFS control unit judges the vehicle condition from each signal. AFS control unit controls AFS function and the headlamp aiming.

DTC Logic INFOID:0000000007460252

DTC DETECTION LOGIC

[B2521] ECU circuit

Error detection condition	DTC erase condition	Possible cause
 AFS control unit indicates an applicable DTC when detecting any of the following conditions continuously for 2 seconds or more. The swivel position sensor is shorted to the power supply or the ground. The swivel position sensor signal is shorted to the ground. The height sensor power supply is shorted to the power supply or the ground. The height sensor signal is shorted to the ground. AFS control unit RAM/ROM error 	Ignition switch OFF	Swivel position sensor Swivel position sensor Harness and connector AFS control unit Height sensor Height sensor Harness and connector AFS control unit AFS control unit AFS control unit (RAM/ROM) AFS control unit

DTC CONFIRMATION PROCEDURE

1.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

2.DTC CONFIRMATION PROCEDURE

- Turn ignition ON.
- 2. Select the self-diagnosis with CONSULT.
- Check the self-diagnosis result. Refer to EXL-196. "DTC Index".

Is "B2521" detected?

YES >> Refer to EXL-57, "Diagnosis Procedure".

>> Refer to GI-42, "Intermittent Incident".

Diagnosis Procedure

1. CHECK EACH SENSOR POWER SUPPLY

Turn the ignition switch ON.

Check the voltage between the AFS control unit harness connector and the ground.

Terminals			
(+) (-)			Voltage
AFS co	ntrol unit		(Approx.)
Connector	Terminal		
	4	Ground	
M16	6		5 V
	24		

Is the measurement value within the standard value?

>> GO TO 2.

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Less than the standard value >>GO TO 3.

Higher than the standard value>>GO TO 4.

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2.CHECK EACH SENSOR SIGNAL

Check the voltage between the AFS control unit harness connector and the ground.

Terminals			
(+) (-)			Voltage
AFS control unit			(Approx.)
Connector	Terminal		
	9	Ground	
M16	28		0.25 - 4.75 V
	29		

Is the measurement value within the standard value?

YES >> Replace AFS control unit.

Less than the standard value >>GO TO 5.

Higher than the standard value>>GO TO 6.

3.check each sensor power supply short circuit

- 1. Turn the ignition switch OFF.
- Disconnect AFS control unit connector.
- 3. Check continuity between the AFS control unit harness connector and the ground.

AFS control unit			Continuity
Connector	Terminal	Continuity	Continuity
	4	Ground	
M16	6		Not existed
	24		

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace AFS control unit.

f 4.CHECK EACH SENSOR POWER SUPPLY CIRCUIT

- Turn the ignition switch OFF.
- 2. Disconnect AFS control unit connector.
- 3. Check the voltage between the AFS control unit harness connector and the ground.

Terminals			
(+) (-)			Voltage
AFS control unit			(Approx.)
Connector	Terminal		
	4	Ground	
M16	6		0 V
	24		

Is the measurement value normal?

YES >> Replace AFS control unit.

NO >> Repair the harnesses or connectors.

5. CHECK EACH SENSOR SIGNAL SHORT CIRCUIT

- Turn the ignition switch OFF.
- 2. Disconnect AFS control unit connector.
- 3. Check continuity between the AFS control unit harness connector and the ground.

B2521 ECU CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AFS co	ntrol unit		Continuity
Connector	Terminal		Continuity
	9	Ground	
M16	28		Not existed
	29		

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace AFS control unit.

6. CHECK EACH SENSOR SIGNAL SHORT CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect AFS control unit connector.
- 3. Turn the ignition switch ON.
- 4. Check the voltage between the AFS control unit harness connector and the ground.

Terminals			
(+) (-)			Voltage
AFS control unit			(Approx.)
Connector	Terminal		
	9	Ground	
M16	28		0 V
	29		

Is the measurement value normal?

YES >> Replace AFS control unit.

NO >> Repair the harnesses or connectors.

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C0126 STEERING ANGLE SENSOR SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

C0126 STEERING ANGLE SENSOR SIGNAL

Description INFOID:000000007460254

AFS control unit receives the steering angle sensor signal from the steering angle sensor with CAN communication.

DTC Logic

DTC DETECTION LOGIC

[C0126] Steering angle sensor signal

DTC detection condition	DTC erase condition	Possible causes
In any of the following conditions The steering angle sensor signal is not received. The steering angle sensor signal error is received. Out-of-standard signal (-900°- +900°) is received.	The ignition switch OFF	Steering angle sensor AFS control unit

DTC CONFIRMATION PROCEDURE

1.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

2. DTC CONFIRMATION

- 1. Start the engine.
- 2. Turn the steering wheel to the maximum right/left.
- Select the self-diagnosis with CONSULT.
- 4. Check the self-diagnosis result. Refer to EXL-196, "DTC Index".

Is "C0126" detected?

YES >> Refer to <u>EXL-60</u>, "<u>Diagnosis Procedure</u>". NO >> Refer to <u>GI-42</u>, "<u>Intermittent Incident</u>".

Diagnosis Procedure

INFOID:0000000007460256

${f 1.}$ ABS ACTUATOR AND ELECTRICAL UNIT (CONTROL UNIT) SELF-DIAGNOSIS

Check the self-diagnosis result with CONSULT. Check that ABS actuator and electrical unit (control unit) does not detect any DTCs.

Is any DTC detected?

YES >> Check ABS actuator and electrical unit (control unit).Refer to <u>BRC-109</u>, "DTC No. Index".

NO >> GO TO 2.

2.DTC ERASE

Erase DTC memory of AFS with CONSULT.

Is the memory erased?

YES >> Inspection end.

NO >> Replace AFS control unit.

C0428 STEERING ANGLE SENSOR CALIBRATION

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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C0428 STEERING ANGLE SENSOR CALIBRATION

Description INFOID:0000000007460257

AFS control unit receives the steering angle sensor signal from the steering angle sensor with CAN communication.

DTC Logic

[C0428] Steering angle sensor calibration

DTC detection condition	DTC erase condition	Possible causes
The steering angle sensor neutral position is not recognized.	When the steering angle sensor neutral position registration is completed	Steering angle sensor

Diagnosis Procedure

INFOID:0000000007460259

1. STEERING ANGLE SENSOR NEUTRAL POSITION ADJUSTMENT

Perform the steering angle sensor neutral position adjustment.

CAUTION:

Perform the steering angle sensor neutral position adjustment on VDC side. VDC may activate incorrectly.

>> Refer to <u>BRC-9</u>, "ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION : Special Repair Requirement".

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U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

U1000 CAN COMM CIRCUIT

Description INFOID:000000007460260

CAN (Controller Area Network) is the serial transmission for real time application. CAN is the multiplex communication for the vehicle with superior data transmission speed and error detection ability. Many electronic control units are equipped on the vehicle. These control units do not operate individually, but associates with other control units by sharing information. In CAN communication, each control unit is connected with two communication lines (CAN-H and CAN-L). Much information is transmitted with fewer communication lines than before. Each control unit transmits/receives data and reads the necessary data only. CAN Communication Signal Chart. Refer to LAN-25, "CAN Communication Signal Chart".

DTC Logic

DTC DETECTION LOGIC

[U1000] CAN communication circuit

DTC detection condition	DTC erase condition	Possible causes
When AFS control unit does not transmit/receive CAN communication signal continuously for 2 seconds or more	Ignition switch OFF	CAN communication system

Diagnosis Procedure

INFOID:0000000007460262

1. PERFORM SELF DIAGNOSTIC

- 1. Turn ignition switch ON and wait for 2 seconds or more.
- 2. Check "Self Diagnostic Result".

Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to LAN-16, "Trouble Diagnosis Flow Chart".

NO >> Refer to GI-42, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

U1010 CONTROL UNIT (CAN)

DTC Logic

DTC DETECTION LOGIC

[U1000] CAN communication circuit

DTC	CONSULT display de- scription	DTC detection condition	Possible causes
U1010	CONTROL UNIT (CAN)	AFS control unit detected internal CAN communication circuit malfunction.	AFS control unit

Diagnosis Procedure

INFOID:0000000007460264

1. REPLACE AFS CONTROL UNIT

When DTC [U1010] is detected, replace AFS control unit.

>> Replace AFS control unit.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

POWER SUPPLY AND GROUND CIRCUIT BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE): Diagnosis Procedure

INFOID:0000000007740103

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	К
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.
- Disconnect BCM connectors.
- Check voltage between BCM harness connector and ground.

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

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	СМ		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.

POWER SUPPLY AND GROUND CIRCUIT

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[XENON TYPE]

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

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

Terminals			
(-	+)	, voltas	
IPDN	Л 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 IPDM E/R harness connectors and the ground.

IPDM I	IPDM E/R		Continuity
Connector	Terminal	Ground	Continuity
E5	12	Ground	Existed
E6	41		LXISIEU

Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

AFS CONTROL UNIT

AFS CONTROL UNIT: Diagnosis Procedure

1. FUSE INSPECTION

Check that the following fuses are not fusing.

Signal name	Connection position	Fuse No.	Capacity
Ignition power supply	FUSE BLOCK (J/B)	3	10 A

Is the fuse fusing?

YES >> Repair the applicable circuit. And then replace the fuse.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect AFS control unit harness connector.
- 3. Turn ignition switch ON.
- Check voltage between AFS control unit harness connector and ground.

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POWER SUPPLY AND GROUND CIRCUIT

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[XENON TYPE]

(+) (-)			Voltage
AFS control unit			(Approx.)
Connector	Terminal	Ground	
M16	1		Battery voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.

2. Check continuity between AFS control unit harness connectors and ground.

AFS control unit			Continuity	
Connector Terminal		Ground	Continuity	
M16	25		Existed	

Does continuity exist?

YES >> Power supply and ground circuit are normal.

NO >> Repair harness or connector.

HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP (HI) CIRCUIT

Component Function Check

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1. CHECK HEADLAMP (HI) OPERATION

PIPDM E/R AUTO ACTIVE TEST

- 1. Activate IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- 2. Check that the headlamp switches to the high beam.

PCONSULT ACTIVE TEST

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

Hi : Headlamp (HI) ON
Off : Headlamp (HI) OFF

NOTE:

ON/OFF is repeated 1 second each.

Is the headlamp (HI) turned ON?

YES >> Headlamp (HI) circuit is normal.

NO >> Refer to EXL-67, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460271

1. CHECK HEADLAMP (HI) OUTPUT VOLTAGE

©CONSULT ACTIVE TEST

- 1. Turn the ignition switch OFF.
- Disconnect the front combination lamp connector.
- Turn the ignition switch ON.
- Select "EXTERNAL LAMPS" of IPDM E/R active test item.
- 5. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals			Condition				
(+)		(-)	Ooridition	Voltage			
	IPDM E	/R		External	(Approx.)		
Cor	nector	Terminal		lamp			
RH		89	89 Ground	Hi	Battery voltage		
	E8			Off	0 V		
LH	LO	90	90			Hi	Battery voltage
			Off	0 V			

Is the measurement value normal?

YES >> GO TO 2. NO >> GO TO 3.

2. CHECK HEADLAMP (HI) OPEN CIRCUIT

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

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	IPDM E/R		Front combination lamp		Continuity
Coni	nector	Terminal	Connector	Terminal	Continuity
RH	E8	89	E28	7	Existed
LH	LO	90	E58	7	LAISIEU

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

3.CHECK HEADLAMP (HI) FUSE

- 1. Turn the ignition switch OFF.
- 2. 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)	IPDM E/R	#54	10 A

Is the fuse fusing?

YES >> GO TO 4.

NO >> Replace IPDM E/R.

4. CHECK HEAD LAMP (HI) SHORT CIRCUIT

- 1. Disconnect IPDM E/R connector.
- 2. Check continuity between the IPDM E/R harness connector terminal and the ground.

IPDM E/R				Continuity
Connector Terminal			Ground	Continuity
RH	E8	89	Cround	Not existed
LH		90		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors. And then replace the fuse.

NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

5. CHECK HEAD LAMP (HI) GROUND OPEN CIRCUIT

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

Fro	nt combinat	ion lamp		Continuity
Connector		Terminal	Ground	Continuity
RH E28		2	Giodila	Existed
LH	LH E58			LAISIEU

Does continuity exist?

YES >> Replace the headlamp (HI) bulb. (Bulb socket is abnormally.)

NO >> Repair the harnesses or connectors.

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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HEADLAMP (LO) CIRCUIT

Description INFOID:0000000007460272

Headlamp (LO) circuit is connected to HID control unit integrated in the headlamp. Headlamp (LO) circuit turns xenon headlamp ON.

For the details of HID control unit and the xenon headlamp, refer to EXL-71, "Description".

Component Function Check

1. CHECK HEADLAMP (LO) OPERATION

PIPDM E/R AUTO ACTIVE TEST

- Activate IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- Check that the headlamp is turned ON.

PCONSULT ACTIVE TEST

- Select "EXTERNAL LAMPS" of IPDM E/R active test item.
- With operating the test items, check that the headlamp (LO) is turned ON.

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

Is the headlamp (LO) turned ON?

YES >> Headlamp (LO) is normal.

>> Refer to EXL-69, "Diagnosis Procedure". NO

Diagnosis Procedure

1. CHECK HEADLAMP (LO) OUTPUT VOLTAGE

(P)CONSULT ACTIVE TEST

- 1. Turn the ignition switch OFF.
- Disconnect the front combination lamp connector.
- Turn the ignition switch ON.
- Select "EXTERNAL LAMPS" of IPDM E/R active test item.
- With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals				Test item		
	(-	+)	(-)	rest item	Voltage	
	IPDN	/I E/R		EXTERNAL	(Approx.)	
Connector Terminal			LAMP			
RH		83	Ground	Lo	Battery voltage	
IXII	E8	03	Giodila	Off	0 V	
LH	LO	84		Lo	Battery voltage	
				Off	0 V	

Is the measurement value normal?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK HEADLAMP (LO) OPEN CIRCUIT

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

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< DTC/CIRCUIT DIAGNOSIS >

IPDM E/R			Front comb	Continuity	
Connector		Terminal	Connector Terminal		Continuity
RH	E8	83	E28	5	Existed
LH	LO	84	E58	5	LAISIGU

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

3.CHECK HEADLAMP (LO) FUSE

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

Unit	Lotion	Fuse No.	Capacity
Headlamp LO (RH)	IPDM E/R	#57	15 A
Headlamp LO (LH)	IPDM E/R	#56	15 A

Is the fuse fusing?

YES >> GO TO 4.

NO >> Replace IPDM E/R.

4. CHECK HEADLAMP (LO) SHORT CIRCUIT

- 1. Disconnect IPDM E/R connector.
- 2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R				Continuity	
Connector Terminal			Ground	Continuity	
RH	E8	83	Cround	Not existed	
LH	LO	84			

Does continuity exist?

YES >> Repair the harnesses or connectors. And then replace the fuse.

NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

5. CHECK HEADLAMP (LO) GROUND OPEN CIRCUIT

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

F	ront comb	ination lamp		Continuity
Connector Terminal		Ground	Continuity	
RH E28		3	Glound	Existed
LH	LH E58 3			LAISIEU

Does continuity exist?

YES >> Perform the xenon headlamp diagnosis. Refer to EXL-71, "Diagnosis Procedure".

NO >> Repair the harnesses or connectors.

[XENON TYPE]

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XENON HEADLAMP

Description INFOID:000000007460275

OUTLINE

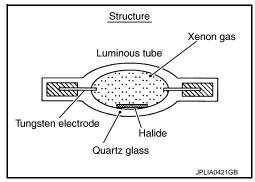
- The lamp light source is by the arch discharge by applying high voltage into the xenon gas-filled bulb instead
 of the halogen bulb filament.
- Sight becomes more natural and brighter because the amount of light are gained adequately and the color of light is sunshine-like white.
- The xenon bulb drops 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.
- 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.

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 >> Check the headlamp control system, replace the xenon headlamp assembly if normal.

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INFOID:0000000007460276

HEADLAMP LEVELIZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP LEVELIZER CIRCUIT

Description INFOID.000000007460277

The headlamp levelizer adjusts the headlamp light axis upward and downward with the aiming motor integrated in the front combination lamp.

Component Function Check

INFOID:0000000007460278

1. CHECK AIMING MOTOR OPERATION

(P)CONSULT ACTIVE TEST

- 1. Start the engine.
- 2. Turn the lighting switch 2ND.
- 3. Select "LEVELIZER TEST" of ADAPTIVE LIGHT active test item.
- 4. With operating the test item, check the operation.

Test item	Light axis angle	10 m (32.8 ft)-forward light axis change reference quantity (Approx.)	
LEVELIZER TEST	(Reference value)		
Origin	0°	_	
Peak	2.5°	450 mm (17.9 in)	

Is the operation normal?

YES >> Headlamp levelizer circuit is normal.

NO >> Refer to EXL-72, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460279

1. CHECK AIMING MOTOR DRIVE SIGNAL OUTPUT

©CONSULT ACTIVE TEST

- 1. Start the engine.
- Turn the light switch 2ND.
- Select "LEVELIZER TEST" of ADAPTIVE LIGHT active test item.
- With operating the test item, check the voltage between the AFS control unit harness connector and the ground.

(+) (-) Voltage (Approx.) AFS control unit LEVELIZER TEST Voltage (Approx.) Connector Terminal Origin 8.8 V Peak 1.9 V Origin 8.8 V Peak 1.9 V Peak 1.9 V	Terminals				Test item	
Connector Terminal RH 19 Ground Origin 8.8 V Peak 1.9 V Origin 8.8 V		(+)		(-)	rest item	Voltage
Connector Terminal RH 19 Ground Origin 8.8 V Peak 1.9 V Origin 8.8 V	Α	FS con	trol unit		LEVELIZED TEST	(Approx.)
RH	Con	nector	Terminal		LL VLLIZLIX 1L31	
M16 Peak 1.9 V LH 40 Origin 8.8 V	ВH		10	Ground	Origin	8.8 V
LH 40 Origin 8.8 V	IXII	M16	19	Ground	Peak	1.9 V
	ΙШ	IVITO			Origin	8.8 V
	LII	1 40			Peak	1.9 V

Is the measurement value normal?

YES >> GO TO 2. NO >> GO TO 3.

2.CHECK AIMING MOTOR DRIVE SIGNAL CIRCUIT INPUT

- Turn the ignition switch OFF.
- 2. Disconnect AFS control unit connector and aiming motor connector.
- Check continuity between AFS control unit harness connector and the aiming motor harness connector.

HEADLAMP LEVELIZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Continuity	g motor	Aiming	AFS control unit		
Continuity	Connector Terminal		Terminal	Connector	
Existed	1	E26	19	M16	RH
LXISIEU	1	E56	40	IVITO	LH

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses and connectors.

${f 3.}$ CHECK AIMING MOTOR DRIVE SIGNAL SHORT CIRCUIT

1. Turn the ignition switch OFF.

2. Disconnect AFS control unit connector and aiming motor connector.

3. Check continuity between AFS control unit harness connector and ground.

AFS control unit				Continuity
Con	nector	Terminal	Ground	Continuity
RH	M16	19	Giodila	Not existed
LH	IVITO	40		Not existed

Does continuity exist?

YES >> Repair the harness and connectors.

NO >> Replace AFS control unit.

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FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP CIRCUIT

Component Function Check

INFOID:0000000007460280

1. CHECK FRONT FOG LAMP OPERATION

®IPDM E/R AUTO ACTIVE TEST

- 1. Activate IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- Check that the front fog lamp is turned ON.

PCONSULT ACTIVE TEST

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

Fog : Front fog lamp ON
Off : Front fog lamp OFF

Is the front fog lamp turned ON?

YES >> Front fog lamp circuit is normal.

NO >> Refer to EXL-74, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460281

1. CHECK FRONT FOG LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#58	10 A

Is the fuse fusing?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK FRONT FOG LAMP SHORT CIRCUIT

- 1. Disconnect IPDM E/R connector and the front fog lamp connector.
- 2. Check continuity between the IPDM E/R harness connector and the ground.

	IPDM E	/R		Continuity
Conr	nector	Terminal	Ground	Continuity
RH	E8	86	Giodila	Not existed
LH	EO	87		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors. And then replace the fuse.

NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

3.CHECK FRONT FOG LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 4.

NO >> Replace the bulb.

4. CHECK FRONT FOG LAMP OUTPUT VOLTAGE

PCONSULT ACTIVE TEST

- Disconnect the front fog lamp connector.
- Turn the ignition switch ON.
- Select "EXTERNAL LAMPS" of IPDM E/R active test item.

FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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4. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

	Т	erminals		Test item	
(+)			(-)	restitem	Voltage
	IPDM E	/R		EXTERNAL	(Approx.)
Cor	nnector	Terminal		LAMP	
RH	E8	86 Ground	86 Ground	Fog	Battery voltage
			Orouna	Off	0 V
LH		87		Fog	Battery voltage
				Off	0 V

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK FRONT FOG LAMP OPEN CIRCUIT

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

Continuity	g lamp	Front foo	IPDM E/R		
Continuity	Connector Terminal		Terminal	Connector	
Existed	1	E34	86	E8	RH
LXISIEU	1	E64	87	LO	LH

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6.CHECK FRONT FOG LAMP GROUND CIRCUIT OPEN CIRCUIT

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

	Front fog la	amp		Continuity
Connector		Terminal	Ground	Continuity
RH	E34	2	Giodila	Existed
LH	E64	2		Existed

Does continuity exist?

YES >> Replace the front fog lamp.

NO >> Repair the harnesses or connectors.

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PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

PARKING LAMP CIRCUIT

Component Function Check

INFOID:0000000007460282

1. CHECK PARKING LAMP OPERATION

PIPDM E/R AUTO ACTIVE TEST

- 1. Activate IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- Check that the parking lamp is turned ON.

(P)CONSULT ACTIVE TEST

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

TAIL : Parking lamp ON
Off : Parking lamp OFF

Is the parking lamp turned ON?

YES >> Parking lamp circuit is normal.

NO >> Refer to EXL-76, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460283

1. CHECK PARKING LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Parking lamp	IPDM E/R	#52	10 A

Is the fuse fusing?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK PARKING LAMP SHORT CIRCUIT

- 1. Disconnect IPDM E/R connector and the front combination lamp connector.
- 2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R				Continuity
Conr	nector	Terminal	Ground	Continuity
RH	E9	91	Ground	Not existed
LH	£9	92		INOL EXISTED

Does continuity exist?

YES >> Repair the harnesses or connectors. And then replace the fuse.

NO >> Replace the fuse. (Replace IPDM E/R if fusing is found again.)

3. CHECK PARKING LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 4.

NO >> Replace the bulb.

4. CHECK PARKING LAMP OUTPUT VOLTAGE

(R)CONSULT ACTIVE TEST

- 1. Disconnect the front combination lamp connector.
- Turn the ignition switch ON.
- Select "EXTERNAL LAMPS" of IPDM E/R active test item.

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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4. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

	Т	erminals	Test item			
	(+)			iest item	Voltage	
IPDM E/R			EXTERNAL	(Approx.)		
Cor	nector	Terminal		LAMP		
RH	91	91 Ground	TAIL	Battery voltage		
	FO	Cround		E9	Off	0 V
LH	92		TAIL	Battery voltage		
				Off	0 V	

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK PARKING LAMP OPEN CIRCUIT

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

IPDM E/R			Front combin	Continuity	
Connec	Connector Terminal		Connector	Terminal	Continuity
RH	E9	91	E28	8	Existed
LH	LJ	92	E58	8	LAISIEU

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6.CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

Fro	nt combinat	ion lamp		Continuity
Conr	Connector Terminal		Ground	Continuity
RH	E28	4	Ground	Existed
LH	E58	4		EXISTECT

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

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TURN SIGNAL LAMP CIRCUIT

Description INFOID:000000007460284

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

NOTE:

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

Component Function Check

INFOID:0000000007460285

1. CHECK TURN SIGNAL LAMP

(P)CONSULT ACTIVE TEST

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

LH: Turn signal lamp LH blinking
RH: Turn signal lamp RH blinking
Off: The turn signal lamp OFF

Does the turn signal lamp blink?

YES >> Turn signal lamp circuit is normal.

NO >> Refer to EXL-78. "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460286

1. CHECK TURN SIGNAL LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

2.CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

PCONSULT ACTIVE TEST

- 1. Turn the ignition switch OFF.
- 2. Disconnect the front combination lamp connector or the rear combination lamp connector.
- Turn the ignition switch ON.
- Select "FLASHER" of BCM (FLASHER) active test item.
- With operating the turn signal switch, check the voltage between the BCM harness connector and the ground.

Terminals		Test item				
	(+)		(-)	rest item	Voltage (Approx.)	
	ВСМ			FLASHER	voltage (Approx.)	
Conne	ector	Terminal		TEASILIN		
Front RH		17			(V) 15 10 hannannannann	
Front LH	M119	18	Ground	LH or RH	5 0 1 s PKID0926E	
Rear RH	M120	20		Off	0.1/	
Rear LH	IVITZU	25		Oll	0 V	

Is the measurement value normal?

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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YES >> GO TO 3.

NO >> Replace BCM.

3.check turn signal lamp open circuit

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

ВСМ			Front combination lamp/ Rear combination lamp		Continuity
Conr	nector	Terminal	Connector Terminal		
Front RH	M119	17	E28	6	
Front LH	IVITIS	18	E58	6	Existed
Rear RH	M120	20	B261	1	Existed
Rear LH	W1120	25	B260	1	

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK TURN SIGNAL LAMP SHORT CIRCUIT

Check continuity between the BCM harness connector and the ground.

	BCM			Continuity
Connector		Terminal		Continuity
Front RH	M119	17	Ground	
Front LH	IVIII	18	Gloulia	Not existed
Rear RH	M120	20		Not existed
Rear LH	IVITZU	25		l

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 5.

5. CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

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

	t combination or combination	•		Continuity	
Connector Terminal					
Front RH	E28	4	Ground		
Front LH	E58	4		Existed	
Rear RH	B261	2		Existed	
Rear LH	B260	2			

Does continuity exist?

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

NO >> Repair the harnesses or connectors. **EXL**

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[XENON TYPE]

OPTICAL SENSOR

Description INFOID:000000007460287

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

Component Function Check

INFOID:0000000007460288

1. CHECK OPTICAL SENSOR SIGNAL BY CONSULT

(P)CONSULT DATA MONITOR

- 1. Turn the ignition switch ON.
- Select "OPTICAL SENSOR" of BCM (HEADLAMP) data monitor item.
- 3. Turn the lighting switch AUTO.
- 4. With the optical sensor illuminating, check the monitor status.

Monitor item	Condition		Voltage (Approx.)
	Optical	When illuminating	3.1 V or more *
OPTICAL SENSOR	sensor	When shutting off light	0.6 V or less

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

Is the item status normal?

YES >> Optical sensor is normal.

NO >> Refer to EXL-80, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460289

1.CHECK OPTICAL SENSOR POWER SUPPLY INPUT

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

(-	+)	(-)	Voltage (Approx.)
Optica	sensor		(Approx.)
Connector	Terminal	Ground	
M94	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 (Approx.)
Optica	sensor		(Approx.)
Connector	Terminal	Ground	
M94	3		0 V

Is the measurement value normal?

YES >> GO TO 3.

NO >> GO TO 6.

3.CHECK OPTICAL SENSOR SIGNAL OUTPUT

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< DTC/CIRCUIT DIAGNOSIS >

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

	Terminals		Condition		
(+	.)	(-)	Contaition	Voltage	
Optical sensor			Optical sensor	(Approx.)	
Connector	Terminal		Optical serisor		
		Ground	When illuminating	3.1 V or more *	
M94 2			When shutting off light	0.6 V or less	

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

Is the measurement value normal?

YES >> GO TO 7.

NO >> Replace the optical sensor.

4. CHECK OPTICAL SENSOR OPEN CIRCUIT

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

Optical sensor		В	Continuity	
Connector	Terminal	Connector Terminal		Continuity
M94	1	M123	138	Existed

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

5.CHECK OPTICAL SENSOR SHORT CIRCUIT

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

Optica	l sensor		Continuity
Connector	Terminal	Ground	Continuity
M94	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. 2.
- Check continuity between the optical sensor harness connector and the BCM harness connector.

Optical	sensor	BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M94	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.
- 2. Disconnect the optical sensor connector and BCM connector.
- Check continuity between the optical sensor harness connector and the BCM harness connector.

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Optical	sensor	ВСМ		Continuity
Connector	Terminal	Connector Terminal		Continuity
M94	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	
M94	2		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

INFOID:0000000007460291

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HAZARD SWITCH

Description INFOID:000000007460290

Hazard switch is integrated in the multifunction switch. Hazard switch inputs the signals to BCM when pressing the switch.

Component Function Check

1. CHECK HAZARD SWITCH SIGNAL BY CONSULT

©CONSULT DATA MONITOR

- 1. Turn the ignition switch ON.
- 2. Select "HAZARD SW" of BCM (FLASHER) data monitor item.
- 3. With operating the hazard switch, check the monitor status.

Monitor item	Condition		Monitor status
HAZARD SW	Hazard switch	While pressing the switch	
TINZ/IIID OW	Tiazara Switch	While not pressing the switch	Off

Is the item status normal?

YES >> Hazard switch circuit is normal.

NO >> Refer to EXL-83, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK HAZARD SWITCH SIGNAL INPUT

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

	Terminals		Condition	Voltage (Approx.)	
(+	·)	(-)	Condition		
ВС	M		Hazard switch		
Connector	Terminal		Tiazaid Switch		
			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 BCM.

NO >> GO TO 2.

2.check hazard switch signal open circuit

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

INFOID:0000000007460292

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Multifunction switch		ВСМ		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M72	16	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 multifunction switch harness connector and the ground.

Multifunc	tion switch		Continuity
Connector	Terminal	Ground	
M72	16		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 multifunction switch harness connector and the ground.

Multifunct	tion switch		Continuity
Connector	Terminal	Ground	Continuity
M72	1		Existed

Does continuity exist?

YES >> Replace the hazard switch (multifunction switch).

NO >> Repair the harnesses or connectors.

TAIL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TAIL LAMP CIRCUIT

Component Function Check

INFOID:0000000007460293

1. CHECK TAIL LAMP OPERATION

®IPDM E/R AUTO ACTIVE TEST

- Activate IPDM E/R auto active test. Refer to <u>PCS-9</u>, "<u>Diagnosis Description</u>".
- Check that the tail lamp is turned ON.

PCONSULT ACTIVE TEST

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

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TAIL: Tail lamp ON
Off: Tail lamp OFF

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Is the tail lamp turned ON?

YES >> Tail lamp circuit is normal.

NO >> Refer to EXL-85, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460294

1. CHECK TAIL LAMP FUSE

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

	=	_	
Unit	Location	Fuse No.	Capacity

Tail lamp
Rear side marker lamp
License plate lamp
IPDM E/R #53
#53

- 1

Is the fuse fusing?

YES >> Repair the malfunctioning part before replacing the fuse.

NO >> GO TO 2.

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2. CHECK TAIL LAMP OUTPUT VOLTAGE

CONSULT ACTIVE TEST

- 1. Disconnect the rear combination lamp connector.
- 2. Turn the ignition switch ON.
- 3. Select "EXTERNAL LAMPS" of IPDM E/R active test item.
- With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

	Terriniais		Test item		
(-	+)	(-)	rest item	Voltage (Approx.)	
IPDN	/I E/R		EXTERNAL		
Connector	Terminal	Ground	LAMP		
E5	7	Oround	TAIL	Battery voltage	
LJ	,		Off	0 V	

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Is the measurement value normal?

YES >> GO TO 3.

NO >> Replace IPDM E/R.

3.CHECK TAIL LAMP OPEN CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect IPDM E/R connector.

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TAIL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

Continuity	Rear combination lamp		IPDM E/R		
Continuity	Terminal	Connector	Terminal	Connector	C
Existed	1	B232	7	E5	RH
	1	B60	,	E3	LH

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK TAIL LAMP GROUND OPEN CIRCUIT

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

	Rear combinat	ion lamp		Continuity
	Connector	Terminal	Ground	
RH	B232	4	Glound	Existed
LH	B60	4		

Does continuity exist?

YES >> Replace the rear combination lamp.

NO >> Repair the harnesses or connectors.

LICENSE PLATE LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

LICENSE PLATE LAMP CIRCUIT

Component Function Check

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NOTE:

Check the tail lamp circuit if the tail lamp and the license plate lamp are not turned ON.

1. CHECK LICENSE PLATE LAMP OPERATION

PIPDM E/R AUTO ACTIVE TEST

- 1. Activate IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- Check that the license plate lamp is turned ON.

(P)CONSULT ACTIVE TEST

- 1. Select "EXTERNAL LAMPS" of IPDM E/R active test item.
- 2. With operating the lighting switch, check that the license plate lamp is turned ON.

TAIL : License plate lamp ON
Off : License plate lamp OFF

Is the license plate lamp turned ON?

YES >> License plate lamp circuit is normal.

NO >> Refer to EXL-87, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460296

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

- 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	D117	7	E5	RH
	1	D112	,	LJ	LH

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

3.check license plate lamp ground open circuit

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

	License plate	alamp		Continuity
	Connector	Terminal	Ground	Continuity
RH	D117	2	Ground	Existed
LH	D112	2		LAISIEU

Does continuity exist?

YES >> Replace the license plate lamp.

NO >> Repair the harnesses or connectors.

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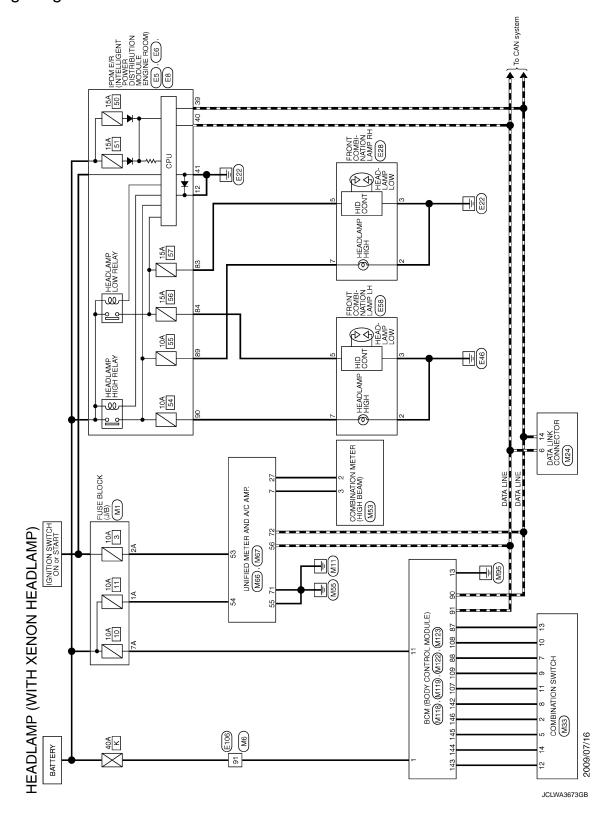
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HEADLAMP SYSTEM

Wiring Diagram - HEADLAMP -



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																																														- [With ICC]	- [Without ICC]	- [With ICC]
	۵	^	SB	>	BG .	1	>	9	۵	>	>	Μ	9	BG	w	В	œ	9	SHIELD	^	BR	98	*	9	BR	W		Ь		BG	BR	>	91	9	SB	× 0	2 (9 0	SHIFID	>	. હ	3	2	>	8	BR	-	9
	15	16	17	18	20	77	22	53	24	52	56	27	28	31	32	33	34	32	36	37	38	39	41	42	43	45	49	20	21	54	23	29	9	3	29	63	4 2	6 3	8 6	3	8 8	9	71	72	73	74	74	75
	Connector No. E58	Connector Name FRONT COMBINATION LAMP LH		Connector Type RS08FB-PR	Œ.				4 6 7 8	7			Terminal Color Of Signal Name (Specification)	No. Wire	2 B .	3 8/7	4 B/W	· · ·	. 9	7 p	8 86			Connector No. E106	Γ	Connector Name WIRE TO WIRE	Connector Type TH80FW-CS16-TM4			2 8	2	マ 中 国 国 国 国 国 国 国 国 国 国 国 国 国 国 国 国 国 国			-	Signal Name [Specification]	NO. WIFE		3 8	Ŧ	+	ł	F	╀	H	12 86 .	13 1.	14 R
	46 R -			Connector No. E8	Connector Name IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	T	Connector Type NSO8FW-CS	1	[]			88 88 88 89				Terminal Color Of Signal Name (Specification)	No. Wire against value [apecinication]	83 86 .	H		. 1 28	88 GR	H	- d 06			Connector No. E28	Connector Name BDONT COMBINATION LAND BH		Connector Type RS08FB-PR	Q	国		(8 2 8 7			Torminal Color Of		$^{+}$	× «	t	86	╀	7 BR -	- d 8		
HEADLAMP (WITH XENON HEADLAMP)	ES	IPOM E/R DIVITELLIGENT POWER DISTINBUTION MODULE ENGINE ROOM		TH20FW-CS12-M4-1V					4 5 7 14 18 18				Signal Name (Specification)	- Charles and Char		,														93	IPDW E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)		TH08FW-NH		K		41 40 39	AE 44 42	40 44 42			Signal Name [Specification]						,
ADLAMF	Connector No.	Connector Name		Connector Type			v	3)	Wire	>	7	ж	B/W	H	91	┝	9	┞	╀	H	æ	H			Connector No.	Connector Name		Connector Type			e/i	3				Terminal Color Of	Wire	+	╀	B/W	Н	H	9
HE/	Conne	Connec		Connet	Ą	手	Ě						Terminal	No.	4	2	7	12	13	16	19	25	26	27	28	30	36			Conne	Connec		Conne	Ą	车						Termir	No.	39	40	41	43	44	45

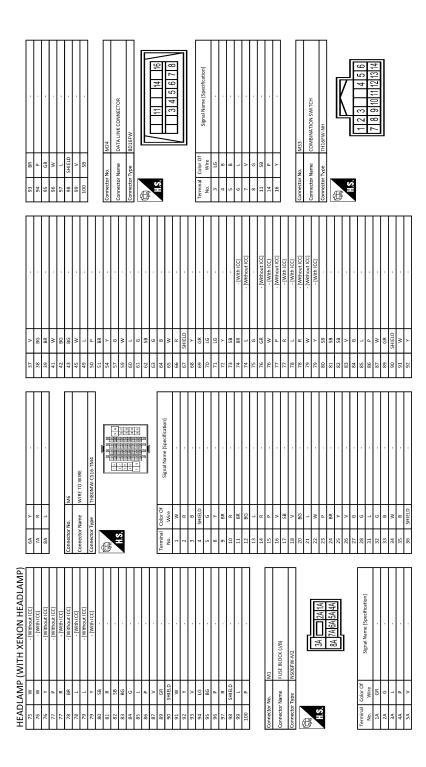
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HEADLAMI Terminal Color Of	P (WITH XENON	29	8	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)	Connector No		M67	Connector No.	M118
	Signal Name [Specification]	30	9	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)		Γ			Γ
1 P	FR WASHER(-)	31	_	WASHER LEVEL SWITCH SIGNAL	Connector Name		UNIFIED METER AND A/C AMP.	Connector Name	BCM (BODY CONTROL MODULE)
SB SB		33	8	ILLUMINATION CONTROL SIGNAL	Connector Type	Г	TH32FW-NH	Connector Type	M03FB-LC
3 GR	R WASHER(+)	36	9	SELECT SWITCH SIGNAL	Į (
4 6		37	SB	ENTER SWITCH SIGNAL	E C			Œ	
2 r	OUTPUT3	38	_	TRIP A/B RESET SWITCH SIGNAL	e E			É	Ī
9 9		39	۵	ILLUMINATION CONTROL SWITCH SIGNAL (-)	2		24 20 20 20 20 20 20 20 20 20 20 20 20 20	2	
╀		40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (+)			į		
8 BG							5/15815916016162163 65 168 / 10 / 11 / 12		7
╁	INPUT 2								
10 R		Connector No.	or No.	M66					
11 16		Connect	One Manage	ON ON OUR OSCIOLATION OF SAME	Terminal	Color Of	Control Name (Consideration)	Terminal Color Of	r Of Simul Name (Specification)
12 P	OUTPUT1	COLLECT	al Marrie	UNITIED METER AND A/C AMP.	No.	Wire	ognalivame [specification]	No. W	Wire Signal Name (Specification)
13 BR		Connector Type	or Type	TH40FW-NH	41	۸	ACC POWER SUPPLY	1	W BAT (F/L)
14 G	OUTPUT 2	(42	>	FUEL LEVEL SENSOR SIGNAL	2 \	W POWER WINDOW POWER SUPPLY(BAT)
					43	ч	INTAKE SENSOR SIGNAL	3	POWER WINDOW POWER SUPPLY(RAP)
		ŧ			44	91	IN-VEHICLE SENSOR SIGNAL		
Connector No.	M53	2		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	45	Ь	AMBIENT SENSOR SIGNAL		
Connector Name	ON THE PROPERTY OF THE PROPERT			P	46	BG	SUNLOAD SENSOR SIGNAL	Connector No.	M119
all Mallic				000 000	47	9	EXHAUST GAS / OUTSIDE ODOR DETECTING SENSOR SIGNAL	Connector Name	IS III GOVE I COTINGO VICTORIA MADA
Connector Type	TH40FW-NH				53	9	IGNITION POWER SUPPLY	Connector Nam	
,					24	>	BATTERY POWER SUPPLY	Connector Type	NS16FW-CS
		Terminal	II Color Of	Cinnal Massa [Considination]	22	8	GROUND	Į.	
_	[No.	Wire	oignal value [operindation]	99	_	CAN-H		
ė.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	'n	-	MANUAL MODE SHIFT UP SIGNAL	57	*	BRAKE FLUID LEVEL SWITCH SIGNAL	ŧ	
	24 25 27 26 27 26 20 20 20 20 20 20 20 20 20 20 20 20 20	7	GR	COMMUNICATION SIGNAL (AMP>METER)	28	BR	FUEL LEVEL SENSOR GROUND	ŽĮ.	4 2 / C 4
		80	٦	VEHICLE SPEED SIGNAL (2-PULSE)	59	GR	INTAKE SENSOR GROUND		11 13 14 15 17 18 19
		6	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)	09	1	IN-VEHICLE SENSOR GROUND		
		10	8	MANUAL MODE SIGNAL	61	BR	AMBIENT SENSOR GROUND		
Terminal Color Of	- Of Signal Name [Snecification]	11	9	NON-MANUAL MODE SIGNAL	62	SB	SUNLOAD SENSOR GROUND		
Wire	010000000000000000000000000000000000000	14	æ	COMMUNICATION SIGNAL (LCD->AMP.)	63	œ		Jal	r Of Signal Name (Specification)
g	BATTERY POV	20	_	ION ON/OFF SIGNAL	99	BG	ECV SIGNAL	No. W	Wire
91	\dashv	23	>	AT SNOW SWITCH SIGNAL	69	-	A/C LAN SIGNAL	4 L	LG INTERIOR ROOM LAMP POWER SUPPLY
GR	R COMMUNICATION SIGNAL (AMP>METER)	25	>	MANUAL MODE SHIFT DOWN SIGNAL	70	Я	EACH DOOR MOTOR POWER SUPPLY	2	- PASSENGER DOOR UNLOCK OUTPUT
8	GROUND	27	97	COMMUNICATION SIGNAL (METER->AMP.)	71	8	GROUND	7	/ STEP LAMP CONT
۵	ALTERNATOR SIGNAL	28	æ	VEHICLE SPEED SIGNAL (8-PULSE)	72	۵	CAN-L	00	/ ALL DOOR, FUEL LID LOCK OUTPUT
BR	AIR BAG SIGNAL	30	>	PARKING BRAKE SWITCH SIGNAL				6	G DRIVER DOOR, FUEL LID UNLOCK OUTPUT
9	SECURITY SIGNAL	34	>	COMMUNICATION SIGNAL (AMP>LCD)				10 B	BR REAR DOOR UNLOCK OUTPUT
8	L	38	۵	BLOWER MOTOR CONTROL SIGNAL				11	R BAT (FUSE)
16 B	METER CONTROL!							L	B GROUND
8								┝	W PUSH-BUTTON IGNITION SWILL GND
~								15	ACCIND
98	S IGNITION SIGNAL							17 \	W TURN SIGNAL RH (FRONT)
8	GROUND							18	BG TURN SIGNAL LH (FRONT)
24 BR	COMMUNICATION SIGNAL (LCD->AMP.)							19	/ INT ROOM LAMP CONT
>	COMMUNICATION SIGNAL (AMP>LCD)								
œ	VEHICLE SPEED SIGNAL (8-PULSE)								
>	PARKING BRAKE SWITCH SIGNAL								
28 W	BRAKE FLUID LEVE								

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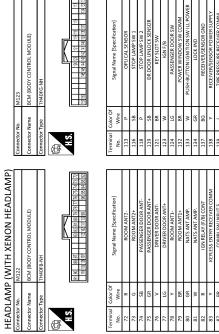
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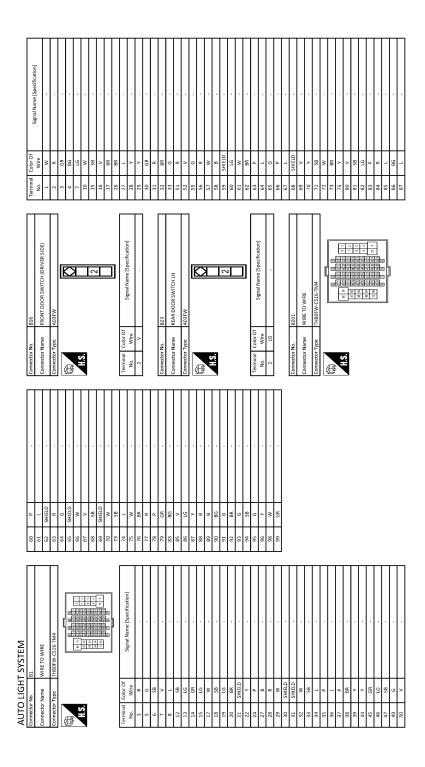
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Signal Name (Specification) ROOM ANTZ ROOM ANTZ PASSENGER ROOM ANT PROSE ROOM ANT PROPER ROOM ANT ROOM ANTT ROOM SEE RIVER ECTUVER COMM COMB SW INPUT 3 COMPL CAN-L CA				۵		Τ		Г	П	П	_	_
DIOGNA DIOGNA DI DEGRA DI DEGR	PUDDLE LAWIP LONI	PUDDLE LAMP CONT	ACC RELAY CONT	A/T SHIFT SELECTOR POWER SUPPLY SHIFT P	PASSENGER DOOR REQUEST SW	DRIVER DOOR REQUEST SW	BLOWER FAN MOTOR RELAY CONT	KEYLESS ENTRY RECEIVER POWER SUPPLY	T LINANI MS IBWOO	COMBI SW INPUT 4	COMBI SW INPUT 2	WS GRAZAH
Wire Wire Wire Wire Wire Wire Wire Wire Wire SB SB SB SB SB Wire Wir	- 8	٨	98	g 2	9	SB	BG	91	91	æ	٨	9
No. 172 73 73 74 74 75 75 77 77 77 78 80 80 81 82 82 83 88 88 89 90 90 91 91 91 91 91 91 91 91 91 91 91 91 91	¥ 8	94	95	96	100	101	102	103	107	108	109	110

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AUTO LIGHT SYSTEM Α Wiring Diagram - AUTO LIGHT SYSTEM -INFOID:0000000007460298 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) (ES), (E6), To parking, license plate and tail lamps To illumination В To CAN system C IGNITION SWITCH ON or START D To headlamp (With xenon headlamp)
To headlamp (With halogen headlamp) 15A 50 Е CPU 15A 51 - III F DATA LINE HEADLAMP LOW RELAY 15A 57 G 26 15A 56 FRONT DOOR SWITCH (PASSENGER SIDE) (8216) Н M117 B201 HEADLAMP HIGH RELAY 10A 55 10A عف SWITCH LH (B23) BCM (BODY CONTROL MODULE) (M118), (M12), (M123), (M123) DATA LINK CONNECTOR (M24) J 86 FRONT DOOR SWITCH (DRIVER SIDE) K [B] [\frac{\pi}{2}] OPTICAL SENSOR (M94) EXL M



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AUTO LIC	AUTO LIGHT SYSTEM								
88		Connector No.	E5	Connector No.	E8	16	>		
91 V		Connector Name	PDM 6/9 INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM	Connector Name	I POM FJE (INTRILIGENT POWER DISTRIBUTION MODILLE PAGINE BOOM)	17	SB		
92 R	•					18	>	-	
94 R		Connector Type	TH20FW-CS12-M4-1V	Connector Type	NS08FW-CS	20	98		
95 SB						21			
╀		Œ		₫ E		22	>		
╀		李		卖		2			
$^{+}$: S	12 13 26262728 30	:S		24			
8			148		20 00 00	36	. ,		
$^{+}$					30 00 00 00	3 %	- >		
						22	, VI		
						× ×	ş (c		
Connector No	R316	Terminal Colo	Color Of	Tarminal Color Of		2 5	98		
	Т		Signal Name [Specification]	_	Signal Name [Specification]	1	3		
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)	t		t		33 25	: «		
T contract of	2111000	,		+		3			
collinector Type		^		+		96	ž,		
q	E	+	χ.	%e w		35	9		
季	2	\dashv	B/W	87 L		36	SHIELD		
Ę	1	13		88 GR		37	^		
ė.		16 L	. 91	89 BR		38	BR		
	٥	19	. ·	9 06		33	98		
	<u>1</u>	H				41	^		
		H				42	9		
]]	ł		Connector No	F106	43	88		
		+	2	200	2077	:	5 3		
<u>-</u>	Of Signal Name [Specification]	+		Connector Name	WIRE TO WIRE	45	8		
No. Wire		+	GR .		П	49	_		
2 L		36 (Connector Type	TH80FW-CS16-TM4	20	Ь	-	
				(51	7		
				13		24	98		
Connector No.	B223	Connector No.	93		- 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	57	BR		
	Г		Γ	2.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	29	*		
Connector Name	REAR DOOR SWITCH RH	Connector Name	PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)			09	91		
Connector Type	A03FW	Connector Type	TH08FW-NH		2 C H H H H H H H H H H H H H H H H H H	19	U		
	L		1			G	9		
Œ	K	Œ				3	e w		
生力	K	李	K	Toursiant		3			
S.		S		_	Signal Name [Specification]	5 4			
	I		41 40 39	+		8	,		
	7		27 27 27	× ;		90	¥ 0000		
			40 45 44 43	+		à	SHIELD		
				3 B		89	>		
]			4 GR		69	10	-	
Terminal Color Of	10 -	Terminal Colo	Color Of Sirend Name (Secrification)	S GR		70	Μ		
No. Wire	Signal reality	No. W	Wire Specification	8		7.1	æ		
2 BR		39	- ·	9 BR		72	۰		
		40		10 BG		73	8		
		41 B/		11 SB		74	BR	- [With ICC]	
		H		12 BG		74	_	- [Without ICC]	
		H		13		75	9	- [With ICC]	
		┝		14 R		75	*	- [Without ICC]	
		F		H		26	×	- [With ICC]	
		$\frac{1}{2}$					1	f==-1	

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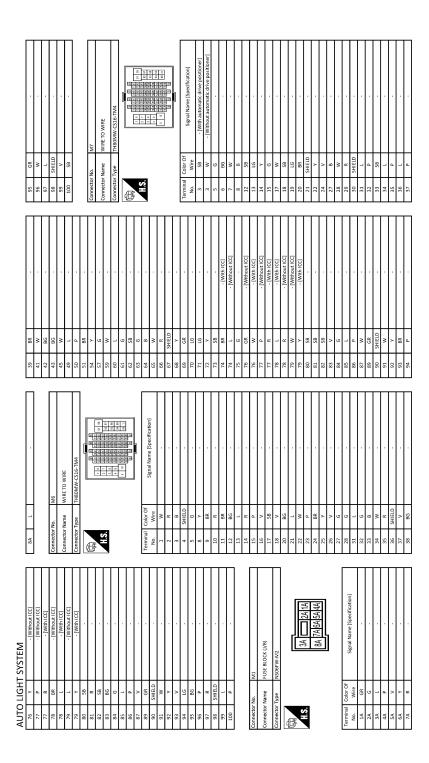
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	>	>	æ	BR	9	œ	-	3	≥	89	œ	ی	CHED	>	2	88	_	97	8	æ	۸	SHIELD	^	٨	SB	Α	9	Μ	>	SB	>	۵	~	-	g .	-	د ه	, ,	9 (3	s (c		٨	> 8	> 88 a	> 8 ° >	> 8 9 > -	> 88 9 > 1 88	> 8 ° > ¬ 8	> 88 a > - 8
	59	30	31	32	33	51	Ç	1	ñ	26	23	ŭ	8 2	9	19	62	63	64	9	99	29	89	69	70	7.1	72	73	7.5	80	81	82	83	84	ŝ	g t	ò	8 8	1 6	76	, y	8 8		46	98	98 89	98 99	99 99 100	98 99 99 100 100	98 99 99 100	97 99 99 100 100
	OUTPUT1	INPUTS	OUTPUT 2			M94		OPTICAL SENSOR		TK03FW			[0 0	6 7 1			Committee Constitution	Description of the second of t	POWER	OUTPUT	GROUND			M117	W/IRE TO WIRE		TH80MW-CS16-TM4			1 6 (12) May 128 11 60 12 12 12 12 12 12 12 12 12 12 12 12 12	2 (1) 2 (2) 2 (3) 2 (3) 2 (3) 2 (4) 2 (4)		10 20 20 20 20 20 20 20 20 20 20 20 20 20			Signal Name [Specification]												
	۵	BR	9					Name		Type									Color Of	Wire	٨	Ь	8			Ш	Name		Type								Color Of	Wire	- 1	, ,	9 8		SB	SB W	S ≥ ≥	W W SB	SB W W SB >	SS × × SS	SB W W SB V V BR	SB W W SB N N N N N N N N N N N N N N N N N N
	17	13	14			Connector No.		Connector Name		Connector Type		Œ	事	2					Terminal	No.	1	2	3			Connector No.	Connector Name		Connector Type	þ	彦	Ę					Torminal	S S	NO.	,	7 6		4	7	7 10	4 7 10 15	4 7 10 15	4 7 10 15 16 17	4 7 10 15 16 17 26	4 7 10 15 16 17 26 27
	Connector No. M24	Connector Name DATA LINK CONNECTOR		Connector Type BD16FW				11 14 16 1		3 4 5 6 7 8	7 0 0 4			Terminal Color Of		t	4 B	- B		7 v 7	. 9 8	11 S8 .	14 P .	16 Y -			Connector No. M33	HOTING MORNINGTON SWITCH		Connector Type TH16FW-NH	ń	 		123 456	7 0 0 7 77 77 77 77 77 77 77 77 77 77 77			Toursian Color Of		t			GR	GR	GR G	GR G L L	8 0 J A >	G G R B B B B B B B B B B B B B B B B B	7 8 8 V V B B V V V V V V V V V V V V V V	8
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AUTO LIGHT SYSTEM	38 BR	39 Y	_	Н	L	. SB .	╀	+	4		┡	S2 SHIFID	+	╀	_	_	_	_	9 SHIELD -							Н	Ц	Ц	Ц	Ц	4	4	4	4	4	4	+	4	2 >	4	+		4	4	4	4	1	4	_	

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AUTO	EE EE	AUTO LIGHT SYSTEM									
Connector No.	No.	M118	Connector No.	or No.	M121	78	*	ROOM ANT1-	137 BG	9	RECEIVER/SENSOR GND
	l omeg	CONTROL NOON FOOD	Consideration of	Nome of	ISTRICT NOCESTAGE	79	BR	ROOM ANT1+	138 Y	L	RECEIVER/SENSOR POWER SUPPLY
Connector Name	Name		Connecto	or Name	BCIM (BOOT COINTROL MICHOLE)	80	GR	NATS ANT AMP.	139		TIRE PRESSURE RECEIVER COMM
Connector Type	Type	M03FB-LC	Connector Type	r Type	TH40FGY-NH	81	*	NATS ANT AMP.	140 GR	~	SHIFT N/P
			[82	œ	IGN RELAY (F/B) CONT	141 G		SECURITY IND LAMP CONT
			E			83	>	KEYLESS ENTRY RECEIVER COMM	142 BG	9	COMBI SW OUTPUT 5
Į			ł			87	BR	COMBI SW INPUT 5	143 P	L	COMBI SW OUTPUT 1
2 =		1.3	2			88	>	COMBI SW INPUT 3	144 G		COMBI SW OUTPUT 2
		٦,			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	96	۵	CAN+L	145	l.	COMBI SW OUTPUT 3
		7			26 00 00 00 00 00 00 00	91	_	CAN-H	146 SB		COMBI SW OUTPUT 4
]				92	91	KEY SLOT I LL CONT	150 1.6	(2)	DRIVER DOOR SW
						93	>	ONINO	151 6	<u></u>	REAR WINDOW DEFOGGER RELAY CONT
Terminal	Color Of		Terminal	I Color Of	3	94	>	PUDDLE LAMP CONT			
Ñ.	Wire	olgnai Name [opecification]	No.	Wire	ognal Name [opecification]	95	BG	ACC RELAY CONT			
1	*	BAT (F/L)	34	SB	LUGGAGE ROOM ANT-	96	GR	A/T SHIFT SELECTOR POWER SUPPLY			
2	>	POWER WINDOW POWER SUPPLY(BAT)	35	>	LUGGAGE ROOM ANT+	66	œ	SHIFTP			
m	>	POWER WINDOW POWER SUPPLY(RAP)	38	8	BACK DOOR ANT-	100	ø	PASSENGER DOOR REQUEST SW			
			39	Μ	BACK DOOR ANT+	101	8S	DRIVER DOOR REQUEST SW			
			47	٨	IGN RELAY (IPDM E/R) CONT	102	BG	BLOWER FAN MOTOR RELAY CONT			
Connector No.	No.	M119	52	SB	STARTER RELAY CONT	103	91	KEYLESS ENTRY RECEIVER POWER SUPPLY			
Connector Name	Nama	BCM (BODY CONTROL MODILIE)	09	BR	PUSH SW	107	91	COMBI SW INPUT 1			
			61	Μ	BACK DOOR OPENER REQUEST SW	108	æ	COMBI SW INPUT 4			
Connector Type	Type	NS16FW-CS	64	۸	I-KEY WARN BUZZER (ENG ROOM)	109	٨	COMBI SW INPUT 2			
			65	BG	REAR WIPER STOP POSITION	110	9	HAZARD SW			
_			99	œ	BACK DOOR SW						
Ĕ		1 2 2 0 10 10 10 10 10 10 10 10 10 10 10 10 1	67	g	BACK DOOR OPENER SW						
2]	89	BR	REAR RH DOOR SW	Connector No.	r No.	M123			
		11 13 14 15 17 18 19	69	œ	REAR LH DOOR SW	Connector Name	- Name	BCM (BODY CONTROL MODILLE)			
						Connector lype	r Iype	TH40FG-NH			
	ľ		Connector No.	or No.	M122	ą	_				
Terminal	Color Of Wire	Signal Name [Specification]	Connector Name	or Name	BCM (BODY CONTROL MODULE)	厚					
į -	9	INTERIOR ROOM LAMP POWER SLIPPLY	Connector Type	yr Type	TH40FB-NH	HS					
2	_	PASSENGER DOOR UNLOCK OUTPUT						21 21 21 21 21 21 21 21 21 21 21 21 21 2			
_	>	STEP LAMP CONT	4					D1138 144 145 144 145 141 141 135 135 151 154 135 145			
	>	ALL DOOR, FUEL LID LOCK OUTPUT	The state of the s								
6	U	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	2	_							
10	BR	REAR DOOR UNLOCK OUTPUT			71 C4 L5 L5 L6 L7	Terminal	Color Of	Landing Street Street Street			
11	~	BAT (FUSE)			756 (cd 456 (cd) 256 (cd) (c	No.	Wire	ognalivante (specification)			
13	8	GROUND				113	۵	OPLICAL SENSOR			
14	*	PUSH-BUTTON IGNITION SWILL GND				116	SB	STOP LAMP SW 1			
15	٨	ACCIND	Terminal	I Color Of	Circul Mamo [Concilination]	118	Ь	STOP LAMP SW 2			
17	W	TURN SIGNAL RH (FRONT)	No.	Wire	O'Busine Checunoanni	119	8S	DR DOOR UNLOCK SENSOR			
18	BG	TURN SIGNAL LH (FRONT)	72	œ	ROOM ANT2-	121	BR	KEY SLOT SW			
19	>	INT ROOM LAMP CONT	73	9	ROOM ANT2+	123	Μ	IGN F/B			
			74	SB	PASSENGER DOOR ANT-	124	SJ.	PASSENGER DOOR SW			
			75	GR.	PASSENGER DOOR ANT+	132	æ	POWER WINDOW SW COMM			
			26	>	DRIVER DOOR ANT-	133	≥	PUSH-BUTTON IGNITION SWILL POWER			
			77	9	DRIVER DOOR ANT+	134	æ	LOCKIND			

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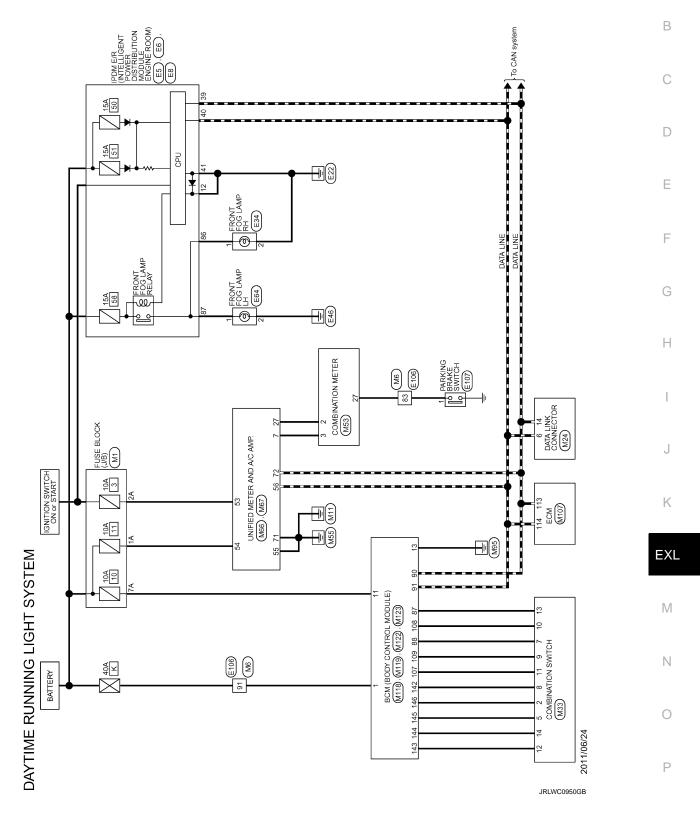
[XENON TYPE]

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DAYTIME RUNNING LIGHT SYSTEM

Wiring Diagram - DAYTIME LIGHT SYSTEM -



31	+	22 V	╀	╀	26 V	27 W .	28 G .	H	4	+	+	35 G	t	H	39 BG -	41 W -	42 G .	43 BR -	45 W -	+	50 P -	+	54 BG .	+	╀	╁	H	63 W -	\dashv	+	1	67 SHIELD -	. A 89	╁	H	72 Y -	8	74 BR - [With ICC]	. 1	75 G - [With ICC]	75 W - (Without ICC)	W		d.	77 R - [With ICC]
Connactor No Eco	T	Connector Name FRONT FOG LAMP LH	Connector Type FHZ02FB	1		•)			Terminal Color Of Signal Name (Specification)	$^{+}$	2 B/W -			Connector No. E106	Connector Name WIRE TO WIRE		Connector Type TH80FW-CS16-TM4	L			28 62	2 0 1 END (2			Terminal Color Of Sinnel Name (Specification)	9	1 R	+	+	- GK	+	9 BR	10 BG .	11 SB .	12 86 .	13 L	14 R -	15 P .	Н	\dashv	\dashv	20 86 -
9 9	4		Connector No.		Connector Name IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type NS08FW-CS	4]-	98 88 82 89			Terminal Color Of Change (Consideration)	No. Wire Signariyanic Lopecincatorij	83 8G .	84 V		87 L	-	+	90 P		Connector No E34	Ι	Connector Name FRONT FOG LAMP RH	Connector Type FHZ02FB		唐	Ę					Terminal Color Of Col	No. Wire signal Name [Specification]	1 W .	2 B/W							
DAYTIME RUNNING LIGHT SYSTEM	OTTRECTOR INO.	Connector Name 1PPDM E/R () NITELLIGENT POWER DISTURBUTION MODULE ENGINE ROOM!	Connector Type TH20FW-CS12-M4-1V				30	4 5 7 14 19 11 38				Terminal Color Of Signal Name [Specification]	+		Н	12 B/W -	13 Y .	16 LG .	4	_	4	4		+	+		Connector No. E6	Connector Name Industrie Date Inches Poster months and in the property		Connector Type TH08FW-NH	á	B			46 45 44 43	1		Terminal Color Of Simpl Name (Specification)	Wire	39 р	40 L	Н	43 SB -	4	45 G -

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DAYTIME RUNNING LIGHT SYSTEM

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:	M	d.	77 R - [With ICC]	ı	78 R - [Without ICC]	*	. >	-	+	81 SB -	82 S8			p) -	+	- d 98		89 GR	ŝ	w 16	┞	ł	ś	_ 0	¥5	M	+	R	۸ 66	100 SB .			Connector No. M24	Connector Name DATA LINK CONNECTOR	T	Connector Type BD16FW	1	AND	14 14 16 1		3 4 5 6 7 8	2 0 0			Terminal Color Of Sirved Manage (Specification)	No. Wire Signarian Capeting Control of the Capeting Co	3 16	4 B	8	1	7 V 7	9	SB	
F					•				•																											,	-	,												- [With ICC]	- [Without ICC]		- [Without ICC]	
ŀ	+	+	+	+	20 BG	H	100	+	+	24 BR	25 Y	76 V	╀	$^{+}$	28	31 L	32 6	33 B	H	H	36 SHIELD	t	+	+	+	+	42 BG	\dashv	45 W	49 L	Н	51 BR	Н	57 G	W 65	+	+	+	63 G	+	W 59	┪	67 SHIELD	Н	R9 GR	20 10	H	72 Y	73 SB	┝	H	75 G	╀	
	IMI	FUSE BLOCK (J/B)		NS06FW-M2		[IJ	34 70 14		8A 7A 6A 5A 4A					Signal Name [Specification]	0												M6	SOM OLIGINA	WIRE IO WIRE	TH80MW-CS16-TM4			8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8						Signal Name [Specification]						•								
:	Connector No.	Connector Name		Connector Type	_			2/	1						_	Wire	GR	9	H	۵	┞	ł	+	+	,			Connector No.	Connector Masso	all is all in	Connector Type	•		2	9				- 1	9	Wire	*	Я	8	SHIELD	9	>	BR	H	┢		L	╀	
١	Connex	Connec		Connec	[1	T.	SI.							Terminal	No.	1.4	2A	3A	44	Ϋ́	49	5 5	40	Ψ×		 -	Connec	00000		Connec		F	VI.						Terminal	No	#	2	ж	4	S	00	6	10	11	12	13	14	
DAYTIME RUNNING LIGHT SYSTEM	- [without ICC]	- [With ICC]	- [Without ICC]	- [With ICC]					•																					E107	PARKING BRAKE SWITCH		TB01FW			€	<u>F</u>	=)			Signal Name (Specification)												
TIME R	ž	_	-	>	88	æ	8	9	9g	U	_	۵	>	$^{+}$	+	SHIELD	Μ	>-	>	H	BG	+	+	+	SHIELD	4	Ь			or No.	Connector Name	200	Connector Type				9					70	-	96										
DAY	×	78	79	79	80	81	5	70	83	84	82	86	5	6	89	90	91	95	93	94	95	96	3	6	88	66	100			Connector No.	monte	Tana a	onnect.	1	B	Æ						ermina	No.	1										

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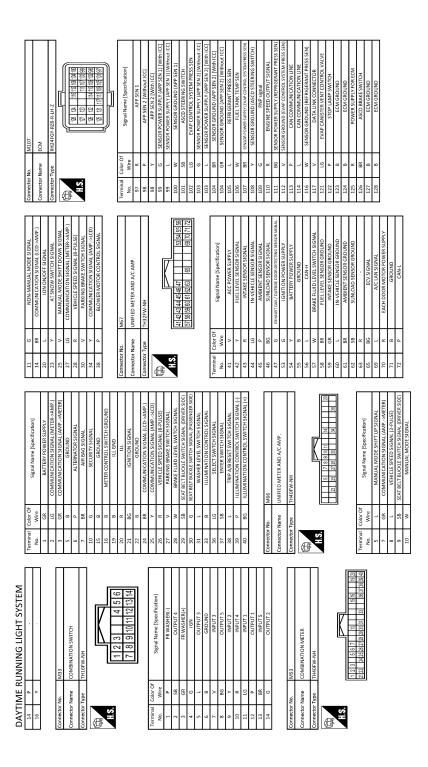
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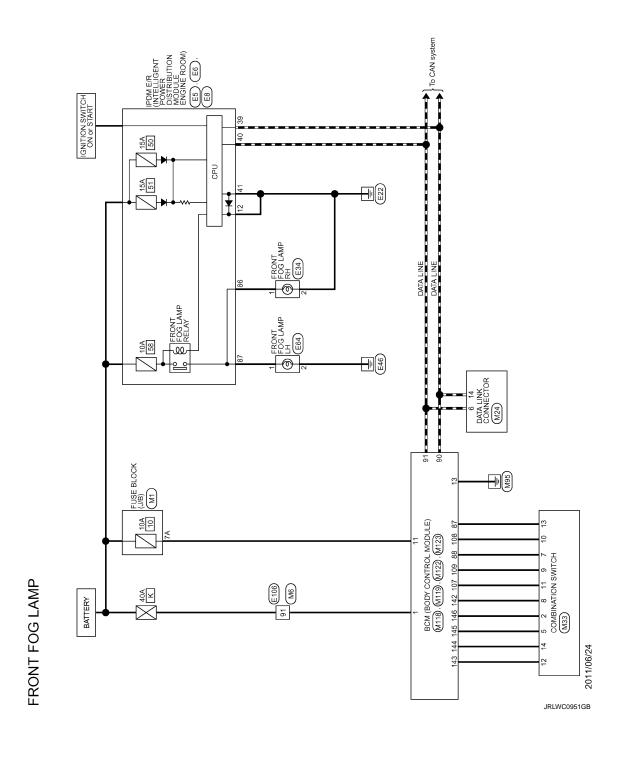
DAYT	MER	DAYTIME RUNNING LIGHT SYSTEM						
Connector No.	No.	M118	Connector No.	No.	M122	Con	Connector No.	M123
Connector Name	Name	BCM (BODY CONTROL MODULE)	Connector Name	Name	BCM (BODY CONTROL MODULE)	Conr	Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	Type	M03FB-LC	Connector Type	Type	TH40FB-NH	Conr	Connector Type	TH40FG-NH
H.S.		13	€ S:			E T	v <u>i</u>	日本 日本 日本 日本 日本 日本 日本 日本
Terminal No.	Color Of Wire	Signal Name [Specification]	Terminal No.	Color Of Wire	Signal Name [Specification]	Terr	rerminal Color Of No. Wire	of Signal Name [Specification]
1	Μ	BAT (F/L)	72	æ	ROOM ANT2-	1	113 P	OPLICAL SENSOR
2	^	POWER WINDOW POWER SUPPLY(BAT)	73	9	ROOM ANT2+	1	116 SB	STOP LAMP SW 1
3	>	POWER WINDOW POWER SUPPLY(RAP)	7.4	SB	PASSENGER DOOR ANT:	1	118 P	STOP LAMP SW 2
			75	GR	PASSENGER DOOR ANT+	1	119 SB	DR DOOR UNLOCK SENSOR
			76	>	DRIVER DOOR ANT-	1	11 BR	KEY SLOT SW
Connector No.	No.	M119	7.7	97	DRIVER DOOR ANT+	1	123 W	IGN F/B
Connector Name	Name	BCM (BODY CONTROL MODILIE)	78	٨	ROOM ANT1-	1	Н	PASSENGER DOOR SW
		Con (Con Con Con Con Con Con Con Con Con Con	79	BR	ROOM ANT1+	1	132 BR	POWER WINDOW SW COMM
Connector Type	Type	NS16FW-CS	80	GR	NATS ANT AMP.	1	133 W	PUSH-BUTTON IGNITION SWILL POWER
6			81	W	NATS ANT AMP.	1.	134 GR	LOCK IND
ß			82	ч	IGN RELAY (F/B) CONT	1	87 86	RECEIVER/SENSOR GND
ŧ		-	83	٨	KEYLESS ENTRY RECEIVER COMM	1	138 Y	RECEIVER/SENSOR POWER SUPPLY
Ċ		4 5 7 6 8 9 10	87	BR	COMBI SW INPUT 5	1	139 L	TIRE PRESSURE RECEIVER COMM
		11 13 14 15 17 18 10	88	۸	COMBI SW INPUT 3	1	140 GR	SHIFT N/P
		21 12	06	Ь	CAN-L	1	141 G	SECURITY IND LAMP CONT
			91	7	CAN-H	1	142 BG	COMBI SW OUTPUT 5
			95	97	KEY SLOT ILL CONT	1	143 P	COMBI SW OUTPUT 1
Terminal	Color Of	[acitorificaci) concly leaning	93	۸	GNINO	1	144 G	COMBI SW OUTPUT 2
No.	Wire	ogna warre (opermeator)	94	γ	PUDDLE LAMP CONT	1	145 L	COMBI SW OUTPUT 3
4	91	INTERIOR ROOM LAMP POWER SUPPLY	56	BG	ACC RELAY CONT	1	146 SB	COMBI SW OUTPUT 4
2	٦	PASSENGER DOOR UNLOCK OUTPUT	96	GR	A/T SHIFT SELECTOR POWER SUPPLY	1	150 LG	DRIVER DOOR SW
7	٠	STEP LAMP CONT	66	ď	SHIFTP	1	151 G	REAR WINDOW DEFOGGER RELAY CONT
∞	>	ALL DOOR, FUEL LID LOCK OUTPUT	100	9	PASSENGER DOOR REQUEST SW			
6	U	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	101	SB	DRIVER DOOR REQUEST SW			
10	BR	REAR DOOR UNLOCK OUTPUT	102	BG	BLOWER FAN MOTOR RELAY CONT			
11	Я	BAT (FUSE)	103	97	KEYLESS ENTRY RECEIVER POWER SUPPLY			
13	8	GROUND	107	97	COMBI SW INPUT 1			
14	M	PUSH-BUTTON IGNITION SWILL GND	108	Я	COMBI SW INPUT 4			
15	٨	ACCIND	109	٨	COMBI SW INPUT 2			
17	>	TURN SIGNAL RH (FRONT)	110	9	HAZARD SW			
18	98	TURN SIGNAL LH (FRONT)						
٤	> L	TIACO COALLAND COALT						

FRONT FOG LAMP SYSTEM

Wiring Diagram - FRONT FOG LAMP -

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-			2 0				. 9				× 0	D I I	^	BR -		. · ·	. 9			-	٥.		288		. 91		SB	M 8			SHIELD -		. 91		x >	- 0	BR - IWith ICCI		G - [With ICC]		w - [With ICC]	Y - [Without ICC]		R - [With ICC]
21	7	22	57	72	26	27	28	31	32	33	# S	36	37	38	39	41	42	43	45	49	20	51	ž 12	65	09	61	29	64	65	99	-67	89	69	0 2	72	7 22	74	7.4	75	7.5	2/2	26	77	7.7
EEA	Eb4	FRONT FOG LAMP LH	EHZOZEB			Ę						Signal Name [Specification]	,	,			E106	WIRE TO WIRE		TH80FW-CS16-TM4		M						Signal Name [Specification]			,													
Connector No	connector No.	Connector Name	Connector Tyne	and the second	Œ	VE.	e l				Torminal Color Of	_	t	2 B/W			Connector No.	Connector Name		Connector Type	q	唐	H.S.				-	Terminal Color Of No. Wire	1 R	2 W	+	+	S GR	+	10 Br	+	+	╀	14 R	15 P	16 V	17 SB	18 V	20 BG
9. AA	4		Connector No		Connector Name PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type NS08FW-CS	á			00000	90 / 98 88 86			Terminal Color Of Circul Mana (Concification)	No. Wire Signal Name [Specification]	83 8G .	84 V		+	+	+	- d 06		Connector No. E34	Connector Name FRONT FOG I AMP RH	Ι	Connector Type FHZ02FB)		-	Ierminal Color Of Signal Name [Specification] No Wire	$^{+}$	2 B/W	┨						
FRONT FOG LAMP	ED	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	TH20EW-C512-M4-1V	110010000000000000000000000000000000000		- Coloniana	213 (28/82/128 (3))	4 5 7 18 18 8				Signal Name [Specification]															E6	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	TH08FW-NH			K	41 40 39	46.46.43	刞			Signal Name [Specification]						
FRONT FC	mector No.	Connector Name	Connector Type		4	ě a E	2				Torminal Color Of	No Wire	$^{+}$	2 r	7 R	12 B/W	Н	+	\dashv	+	26 R	27 BG	9 9	╀			Connector No.	Connector Name	Connector Type		昼	Ě	2				Terminal Color Of	No Wire	39 P	40	Н	43 SB	\dashv	45 G

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FRONT FOG LAMP	AP - [Without ICC]	Connector No.	or No.	Мб	43	BG		П	98 SHIELD	·	
	- [with ICC]			0.000	45	┝		Ľ	۸ 66		
1	- [Without ICC]	Connecto	Connector Name	WIRE ID WIRE	49	H		- 	100 SB		
Ĺ	- [With ICC]	Connector Type	or Type	TH80MW-CS16-TM4	20	۵] 			
1					15	88					
l		1			54	·		Š	Connector No.	M24	
1				1 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	57	9				COLUMN CONTRACTOR CONT	
ı		Ä.			59	*		5	connector ivame	DATALINACONNECTOR	
1				20 H H H H H H H H H H H H H H H H H H H	09	╀		ē	Connector Type	BD16FW	
1				5/8	61	9]L			
1				8 8	62	H	,		_		
1					63	┞			Ţ	lt	
1	,	Terminal	I Color Of	3	64	H			Į.	11 14 16 1	
1		No.		Signal Name [Specification]	9	┞		<u> </u>		- 0 - 1	
1		1	*		99	╀				1 3 4 5 6 7 8	
1		2	~		67	7 SHIELD	,				
1		m	۵	,	89	×	,	I			
L		4	CHIFID		69	as a		Ī	Terminal Color Of		
1			9		3 5	+		T	_	Signal Name [Specification]	
1			,		1	$^{+}$		i T	$^{+}$		
1		۰	- :		1	+		 	1		
-1		ō	BR		72	+			4 B		
		10	œ		73	SB SB			S B		
		11	BR		74	t BR	- [With ICC]		T 9		
ı		12	BG		74	1	- [Without ICC]		۸ /		
1		13	_		75	9			9		
		14	œ		9/	ľ	- [Without ICC]	L T	11 SB		
1		15	۵	•	9/	H	- [With ICC]	<u> </u>	H		
L		16	>		77	╀	- [Without ICC]	L	16 Y		
ě	FUSE BLOCK (J/B)	17	88	٠	17	- Y	- [With ICC]] 	-		
19	NS06FW-M2	18	>	,	78	-	- [With ICC]	Ι			
1		20	. g		782	~	- [Without ICC]	ē	Connector No.	M33	
		21	-		79	ŀ	- [Without ICC]	 			
		1 2	, }		2 2	+	- Daith ICC	5	Connector Name	COMBINATION SWITCH	
	3A 2A 1A	23 23	۵		8		(500,000)	ū	Connector Tone	TH165W-NH	
	15	2.0	a		10	ł] 			
	8A / A 0A 0A 4A	;	,			+		₫ <u>E</u>	•		
		C7	-			+		手	•		
		56	>	•	88	+	,	<u> </u>	ě	7	
		27	O		84	9		•	2		
	Cianal Namo (Sportfication)	28	g		85		•			1 2 3 4 5 6	
	organisative (observingation)	31	٦		98	9 E				7 8 0 10 11 12 13 14	
ı	,	32	9	,	87	Α				0 10 11 14 10	
1		33	æ	,	88	H	,	I			
1		34	3	4	ş	7		Ļ	Terminal Color Of	L	
1		i c	: 0		3 2	t		Ī	_	Signal Name [Specification]	
1		3	4			+		I	+		
- 1		36	SHIELD		92	+		 	1 P	4	
		37	>		93	BR BR			2 SB		
		38	98		94	d t	•		3 GR	FR WASHER(+)	
		39	BR		95	S GR			4 G	NSI	
1		41	Μ		96	M S			7 5	OUTPUT 3	
		42	BG		6	7			9	GROUND	

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- KON I FOG LAIMP		13	æ	GROUND	109	,	COMBI SW INPUT 2
- 1	OUTPUT 5	14	≽	PUSH-BUTTON IGNITION SWILL GND	110	9	HAZARD SW
- 1	INPUT 2	15	>	ACCIND			
- 1	INPUT 4	17	≥	TURN SIGNAL RH (FRONT)			
9	INPUT1	18	BG	TURN SIGNAL LH (FRONT)	Connector No.	No.	M123
- 1	OUTPUT 1	19	>	INT ROOM LAMP CONT	Connector Name	Name	BCM (BODY CONTROL MODULE)
BB c	INPUTS				Connector Type	Type	TH40EG-NH
1		Connector No.	. No.	M122			
- 1	74140	Connector Name	. Name	BCM (BODY CONTROL MODULE)	厚		
1	PITTO	Connector Type	Type	TH40FB-NH	HS		7
- 1	BCM (BODY CONTROL MODULE)	₫					155 158 118 118 118 118 118 118 118 118
1	Mosteric	SH					
	1			91 90 88 87 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 70 70 70 70 70 70 70 70 70 70 70 70 70	Terminal No.	Color Of Wire	Signal Name [Specification]
					113	۵	OPLICAL SENSOR
	7				116	SB	STOP LAMP SW 1
]	Terminal	Color Of	Signal Name (Specification)	118	۵	STOP LAMP SW 2
- 1		No.	Wire		119	SB	DR DOOR UNLOCK SENSOR
Color Of	Signal Name [Specification]	72	æ (ROOM ANT2-	121	# H	KEY SLOT SW
3	BAT(E/I)	22	9	DASSENGER DOOR ANT.	134	: 2	DASSENGED CW
: ≥	POWER WINDOW POWER SUPPLY(BAT)	1 52	8 8	PASSENGER DOOR ANT+	132	8 8	POWER WINDOW SW COMM
ı	POWER WINDOW POWER SUPPLY(RAP)	76	>	DRIVER DOOR ANT-	133	М	PUSH-BUTTON IGNITION SW ILL POWER
l		7.7	97	DRIVER DOOR ANT+	134	GR	LOCKIND
		78	٨	ROOM ANT1-	137	BG	RECEIVER/SENSOR GND
П	M119	79	BR	ROOM ANT1+	138	٠	RECEIVER/SENSOR POWER SUPPLY
Connector Name	BCM (BODY CONTROL MODULE)	80	GR	NATS ANT AMP.	139	٦	TIRE PRESSURE RECEIVER COMM
١		81	≽	NATS ANT AMP.	140	GR	SHIFT N/P
- 1	NS16FW-CS	82	œ	IGN RELAY (F/B) CONT	141	g	SECURITY IND LAMP CONT
		83	>	KEYLESS ENTRY RECEIVER COMM	142	BG	COMBI SW OUTPUT 5
		87	BR	COMBI SW INPUT 5	143	۵	COMBI SW OUTPUT 1
	7 7 7 8 0 40	88	>	COMBI SW INPUT 3	144	g	COMBI SW OUTPUT 2
]	06	۵	CAN-L	145	٦	COMBI SW OUTPUT 3
	11 13 14 15 17 18 19	91	٦	CAN-H	146	SB	COMBI SW OUTPUT 4
		95	P7	KEY SLOT ILL CONT	150	91	DRIVER DOOR SW
		93	۸	GNINO	151	9	REAR WINDOW DEFOGGER RELAY CONT
- 1		94	٨	PUDDLE LAMP CONT			
Color Of	Signal Name (Specification)	95	BG	ACC RELAY CONT			
Wire	Transaction of the same	96	g	A/T SHIFT SELECTOR POWER SUPPLY			
9	INTERIOR ROOM LAMP POWER SUPPLY	66	۳	SHIFT P			
	PASSENGER DOOR UNLOCK OUTPUT	100	9	PASSENGER DOOR REQUEST SW			
	STEP LAMP CONT	101	SB	DRIVER DOOR REQUEST SW			
^	ALL DOOR, FUEL LID LOCK OUTPUT	102	BG	BLOWER FAN MOTOR RELAY CONT			
ŋ	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	103	ΓC	KEYLESS ENTRY RECEIVER POWER SUPPLY			
BR	REAR DOOR UNLOCK OUTPUT	107	97	COMBI SW INPUT 1			
<u>~</u>	BAT (FUSE)	108	œ	COMBI SW INPUT 4			

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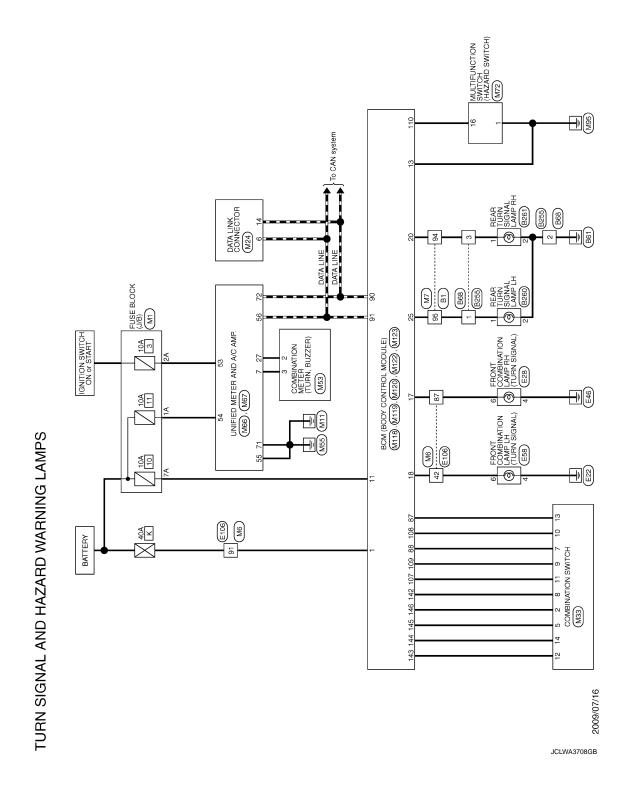
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

Wiring Diagram - TURN AND HAZARD WARNING LAMPS -

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

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No. READ LUMP LH Type HS0124G-W Color Of Signal Name [Specification] Where REAT LUM SIGNAL LAMP RH Name REAR LUM SIGNAL LAMP RH Type HS0124G-W Type HS01	(B C
Connector No. Connector No. Connector No. Connector Type Connector No. N	I	Е
No. B68 No.		F
Connector No. Connector No.	ŀ	Н
		l J
MAPS Columbia Col	ı	K
TURN SIGNAL AND HAZARD WARNING LAMPS Connector Name Wift TO WHE 65 Connector		XL VI
TURN SIGNA Connector Nu.	1	N
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I UKN SIGNAL AND HAZAKD WAKNING LAMPS	AMPS				ŀ					
E28	Connec	Connector No.	E106	43	\dashv		┪	æ		
Connector Name FRONT COMBINATION LAMP RH	Connect	Connector Name	WIRE TO WIRE	45	≱ -		86 8	SHIELD		
Connector Tune DS08ER.DD	Connect	Connector Tune	THROEM.CS16-TM4	24 07			99	1 0		
1		1	100.000	3 2	+		No.			
[Œ	_	버님	24	. g					
	i i		66 91 SEC	57	┝		Connector No.	. M1		
2 3 4	Ĉ.	<i>7</i>		59	H					
			지원 경향	9	91	,	Connector Name	IME FUSE BLUCK (J/B)		
				61	H		Connector Type	pe NS06FW-M2		
				62	H			1		
			h	63	+		£	L		
Terminal Color Of	Terminal	nal Color Of	3	9	В			ć		
Wire Signal Name (Specification)	No.		Signal Name [Specification]	9	U		Ś	SA.	ZA 1A	
	-	œ		99	-			V 0	72 62 52 42	
	2	≯		29	SHIELD			No	U+ U0 U0 U1	
B/W	m	8		89	t					
	4	GR		69	91					
	'n	g		70	┞		Terminal	Color Of	Control Brown Street	
	∞	>		71	œ		No.	Wire	oignai Name (opecification)	
	6	BR		72	>		ΙV	GR		
	10	BG		73	8		ZA	9	1	
	11	L		74	F	- [With ICC]	3A	-		
E58	12	BG		74	1	- [Without ICC]	44	Ь		
U I GAMA I MOLT COMMENTATION I MANDELLI	13	٦		75	9	- [With ICC]	SA	۸		
TROIN COINIBINATION	14	~		75	>	- [Without ICC]	6A	*		
Connector Type RS08FB-PR	15	d		9/	Μ	- [With ICC]	7.A	R		
	16	۸		9/	γ	- [Without ICC]	8A	1		
[17	SB		77	Ь	- [Without ICC]				
	18	>		77	ď	- [With ICC]				
(2 3 4)	20	BG		78	BR	- [Without ICC]	Connector No.	». M6		
6 7 9	21	1		78	7	- [With ICC]	Connector Name	WIRE TO WIRE		
-	22	>		79	٦	- [Without ICC]				
)	23	9	-	79	_	- [With ICC]	Connector Type	pe TH80MW-CS16-TM4	A4	
	24	۵		80	SB		þ			
Terminal Color Of Signal Name (Specification)	52	*		81	-	•	B	Ē	8 8 8 8	
	26	>		82			Ę	0 1	(S)	
	27	*		83	BG		Ċ	- 0	3	
V8	28	9		84	9			0 4	300	
	31	BG		82	-			2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Λ.	32	L		98	Ь			_		
	33	8		87	>					
	34	œ	4	88	S.		Terminal	Color Of	977	
	32	9		90	SHIELD		No.	Wire	olgnal Name (opecification)	
	36	SHIELD		91	>		1	W		
	37	>		92	÷		2	82		
	38	BR		93	>		8	8		
	39	BG		94	91		4	SHIELD		
	41	*		95	H		t	9		
	42	g		96	╀		00	>-		

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

[XENON TYPE] < DTC/CIRCUIT DIAGNOSIS >

											Ī													F	34	0 +	8 2 8	-			ecification]																										В
				•																	DATA LINK CONNECTOR	6FW			ļ		3 4 5 6 7				Signal Name [Specification]	ľ																									С
8 V2	75 W	+	Н	79 GR	+	+	╁	Н	89 BR	+	91 6	F	H	95 6	Н	+	99 R		Connector No		Connector Name DAT	onnector Type BD16F],	43		ė			_	Terminal Color Of		t	┢	H	1 9	t	ı	H	ı	ı																	D
		_ _	П	_		_ _		П	_ _	_ _		<u> </u>	_			_	ᆜ _	_		3	ĭ	Š	J L		_	_	_	_	_	L		_	<u></u>	_	_	_	_		_) 		_	7													Е
	nal Nar	With automatic drive positioner]				. .							,						.	. .			,								,		,				•																				F
	5	- [With																																																							G
Color Of	Wire	8 3	. 0	BG	≥ 4	a g	9	,	<u>ن</u>	3 8	9 5	88	SHIELD	,	>	8	*	~	SHIELD	۵ ا	. 55	3 -	۵	7	а	BR	>-	_ {	5 9	2 5	>	~	۵	_	SHIELD	œ	U	SHIELD	SB	>	91	SHIELD	≥ د	5													
Terminal	No.	m m		9	7	-	13	14	15	1	19	20	T	П	24	27	28	7	Ť	33	33	34	32	36	37	38	39	44	40	47	49	22	09	61	62	63	Т	Т	Г	Т	89	+	73	٦.													Н
Г	П		П	_		T		П		т Т	Ť	T	_ _	П						<u>.</u>	T	T	T	_	_ 	П		_ 7		Г	<u> </u>	_	T	1										_													
		- [With ICC]		- [Without ICC]	- [With ICC]	- [With ICC]	- [With ICC]	[Without ICC]	- [Without ICC]	- [with ICC]																							IM4		33 33 33 34 35	3 G G G G G G G G G G G G G G G G G G G		2	2 3 2 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2																	
																														M7		WIRE TO WIRE	TH80MW-CS16-TI				8	0	9	8 90	_																J
>	- SB	# -	ш	GR	4	┸	_	æ	× :	> {	9 5	8 8	>	9	٦	۵	× :	ď	SHIELD	>	· E	۵	GR	Α	1	SHIELD	>	2		r No.		ır Name	ır Type																								K
MPS	73	74	22	76	76	1	78	78	79	6 8	8 2	85	83	84	85	98	87	68	96 50	6	6	94	95	96	6	86	66	100		Connector No.		Connector Name	Connector				Ś																				11
WARNING LAMPS						T																																																		1	ΞXI
TURN SIGNAL AND HAZARD									1.																	,	,															M
SIGNAL	<u>د</u> ا	RG BR		œ	دا ۵) g	>	BG	_ ;	۱ م	- 8	 -	>	9	9	_	9		× 0	SHIFID		. 92	BR	M	36	96	≥	1	L G	5 >	5	>	L	9	SB	9	_	*	~	JETO	>	£ 5	9 9	2													Ν
JRN SI	01	111	Н	+	15	+	18	Н	+	+	24	+	╀	27	Н	+	32						+	+	Н	Н	+	+	00 12	+	+	╀	╀	⊢	⊢	⊢	+	t	Н	t	Н	$^{+}$	0, 12	1													
≓L	П	1	Ц			1	Ľ	Ц	1	Ι΄	1	Ľ	Ľ	Ц		1		1	Ι	<u>T</u>	Γ	Ľ	Ľ	Ľ	Ĺ		1	<u>T</u>	Ι	Ľ	<u> </u>	Ľ	Ľ	Ĺ	Ĺ	Ĺ	Ľ	Ĺ	Ĺ	Ľ	Ĺ	1	Γ	ل													0
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TURN SIG	TURN SIGNAL AND HAZARD WARNING LAMPS	AMP	S							
Connector No.	M33	ľ	10 G	SECURITY SIGNAL	34	*	COMMUNICATION SIGNAL (AMP>LCD)	Connector No.	M72	П
Connector Name	HOTIMS NOITENIBLED	1	15 B	GROUND	38	Ь	BLOWER MOTOR CONTROL SIGNAL	Connector Name	HOLING NOTION ISLAND	
COIIIICCO IAGIIIC	COMBINETIONS AND THE	ľ	16 B	METER CONTROL SWITCH GROUND				COIIIIECTOI INGIII		
Connector Type	TH16FW-NH	ľ	19 B	ILL GND				Connector Type	TH16FW-NH	Г
[Ž	20 R	77	Connector No.		M67	[ı
E		21	.1 BG	IGNITION SIGNAL	Connector Name	Г	INITIAL ED METER AND A /C AND			
É	_ _ _ _	22	2 B	GROUND			WILLES WILLER AND A) C AUNIT.	É	[\ \ \	
2	1 2 3 4 5 8	24	4 BR	COMMUNICATION SIGNAL (LCD->AMP.)	Connector Type		TH32FW-NH	2	31 1/1	
	2 4	2	+	COMMUNICATION SIGNAL (AMP>LCD)	ą.					
	1 8 9 10 11 17 13 14	1	ZP K	VEHICLE SPEED SIGNAL (8-PULSE)	事				1 3 3 8	
		27	27 V	BDAKE SHIPLEVEL SWITCH SIGNAL	H.S.	ĮĽ.				
		1	+	DIGNET COLD LEVEL SWITCH SIGNAL		-	11 42 43 44 45 46 47	н	-	Г
No. Wire	Of Signal Name [Specification]	~[~	30 CG 28	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)			57 58 59 60 61 62 63 65 69 70 71 72	No. Wire	olor Of Signal Name [Specification]	
t	FR WASHER(-)	31	1	WASHER LEVEL SWITCH SIGNAL		J			B GROUND	Т
2 SB		33	8	ILLUMINATION CONTROL SIGNAL					/ ACC	Г
3 GR	FR WASHER(+)	m	36 LG	SELECT SWITCH SIGNAL	Terminal	Color Of	9.00	4	N 111	Г
4 6		37	.7 SB	ENTER SWITCH SIGNAL	No.	Wire	olgnar Name [opecification]	2	ILLCONT	Г
2	OUTPUT 3	88	- 8	TRIP A/B RESET SWITCH SIGNAL	41	>	ACC POWER SUPPLY	9	SB AV COMM (H)	Г
9	GROUND	m	39 P	ILLUMINATION CONTROL SWITCH SIGNAL (-)	42	>	FUEL LEVEL SENSOR SIGNAL		LG AV COMM (L)	Г
7	INPUT 3	4	40 BG	ILLUMINATION CONTROL SWITCH SIGNAL (+)	43	~	INTAKE SENSOR SIGNAL	6	B SW GND	Г
8 BG					44	91	IN-VEHICLE SENSOR SIGNAL	14	DISK EJECT SIGNAL	Г
H					45	۵	AMBIENT SENSOR SIGNAL	16	G HAZARD ON	Г
10 R	INPUT 4	Conn	Connector No.	M66	46	BG	SUNLOAD SENSOR SIGNAL			1
11 16	INPUT1	,		Control of the Contro	47	g	EXHAUST GAS / OUTSIDE ODOR DETECTING SENSOR SIGNAL			
12 P	OUTPUT1	Con	connector Name	UNIFIED METER AND A/C AMP.	23	g	IGNITION POWER SUPPLY	Connector No.	M118	Г
13 BR	INPUTS	Conn	Connector Type	TH40FW-NH	54	>	BATTERY POWER SUPPLY		Π	Т
H	OUTPUT 2	<u> </u>			55	8	GROUND	Connector Name	BCM (BODY CONTROL MODULE)	
		1	_		26	7	CAN-H	Connector Type	M03FB-LC	Г
			Ţ		57	*	BRAKE FLUID LEVEL SWITCH SIGNAL			1
Connector No.	M53	1	ń		288	æ	FUEL LEVEL SENSOR GROUND	To the state of th		
	CONTRA MOLTAMORACO			20 21 21 21 21 21 21 21 21 21 21 21 21 21	59	GR	INTAKE SENSOR GROUND		Ⅱ	
COLLINGTON INGLIE	COMBINATION METER			20 20 20 20 20 20 20 20 20 20 20 20 20 2	09	-	IN-VEHICLE SENSOR GROUND	Ż	1 3	
Connector Type	TH40FW-NH				61	æ	AMBIENT SENSOR GROUND			
ı					62	SB	SUNLOAD SENSOR GROUND		7	
IF		Tern	Ferminal Color Of	f Sinnal Mama [Constitution]	63	ď]	
Ę		No.	o. Wire		99	BG	ECV SIGNAL			
į	02 04 04 04 05 05 05 05 05 05 05 05 05 05 05 05 05		7 5	MANUAL MODE SHIFT UP SIGNAL	69	1	A/C LAN SIGNAL	Terminal Color Of	r Of	
	01 01 02 02 02 02 02 02 02 02 02 02 02 02 02	Ĺ	7 GR	COMMUNICATION SIGNAL (AMP.:>METER)	70	œ	EACH DOOR MOTOR POWER SUPPLY	No.	Wire Signal Name [Specification]	
	21 22 24 29 20 27 20 28 30 31 32 30 31 30 31 30 31 30 31	<u> </u> "	8	VEHICLE SPEED SIGNAL (2-PULSE)	7.1	9	GROUND	-	W BAT (F/L)	Т
		ľ	5	SEAT BELT BLICKLE SWITCH SIGNAL (DRIVER SIDE)	22	-	-NAC		POWER WIND	Т
		ľ	ł	MANITAL MODE SIGNAL		1			ļ	Т
Torminal Color Of		=	+	NON-MANIAL MODE SIGNAL				,		1
No.	Signal Name [Specification]	Γ	ŀ	COMMUNICATION SIGNAL (LCD->AMP.)						
t	BATTERY POWER SUPPLY	ľ	╀	ION ON/OFF SIGNAL						
2 16	COMMU	<u></u>	Z3 Y	AT SNOW SWITCH SIGNAL						
3 GR	COMMUNICATI	2	25 V	MANUAL MODE SHIFT DOWN SIGNAL						
H	J5	27	51 6	COMMUNICATION SIGNAL (METER->AMP.)						
H	۷	2	H	VEHICLE SPEED SIGNAL (8-PULSE)						
7 BR		m	30 V	PARKING BRAKE SWITCH SIGNAL						

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N C K	201	URIN SIGNAL AND HAZARD WARINING LAIVIPS	AMP 					
Connector No.	No.	M119	Connector No.	or No.	M122	Connector No.	No.	M123
Connector Name	Vame	BCM (BODY CONTROL MODULE)	Connect	Connector Name	BCM (BODY CONTROL MODULE)	Connector Name	ame	BCM (BODY CONTROL MODULE)
Connector Type	ype	NS16FW-CS	Connect	Connector Type	TH40FB-NH	Connector Type	ype	TH40FG-NH
Œ			Œ			12		
H.S.		4 5 7 2 8 9 10	Ĕ			H.S.		
		11 13 14 15 17 18 19			10 1 20 1 20 1 20 20 20 20 20 20 20 20 20 20 20 20 20			
Terminal No.	Color Of Wire	Signal Name [Specification]	Terminal No.	al Color Of Wire	Signal Name [Specification]	Terminal No.	Color Of Wire	Signal Name [Specification]
4	97	INTERIOR ROOM LAMP POWER SUPPLY	72	œ	ROOM ANT2-	113	Ь	OPLICAL SENSOR
2	٦	PASSENGER DOOR UNLOCK OUTPUT	73	9	ROOM ANT2+	116	SB	STOP LAMP SW 1
7	,	STEP LAMP CONT	74	SB	PASSENGER DOOR ANT:	118	Ь	STOP LAMP SW 2
00	>	ALL DOOR, FUEL LID LOCK OUTPUT	75	GR	PASSENGER DOOR ANT+	119	SB	DR DOOR UNLOCK SENSOR
6	U	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	9/	>	DRIVER DOOR ANT-	121	BR	KEY SLOT SW
10	HH.	REAR DOOR UNLOCK OUTPUT	77	P	DRIVER DOOR ANT+	123	≥	IGN F/B
11	œ	BAT (FUSE)	78	>	ROOM ANT1-	124	91	PASSENGER DOOR SW
13	8	GROUND	79	æ	ROOM ANT1+	132	æ	POWER WINDOW SW COMM
14	>	PUSH-BUTTON IGNITION SWILL GND	80	GR	NATS ANT AMP.	133	3	PUSH-BUTTON IGNITION SWILL POWER
15	>	ACCIND	81	8	NATS ANT AMP.	134	GR	LOCK IND
17	۸	TURN SIGNAL RH (FRONT)	82	æ	IGN RELAY (F/B) CONT	137	BG	RECEIVER/SENSOR GND
18	BG	TURN SIGNAL LH (FRONT)	83	>	KEYLESS ENTRY RECEIVER COMM	138	>	RECEIVER/SENSOR POWER SUPPLY
19	>	INT ROOM LAMP CONT	87	BR	COMBI SW INPUT 5	139	٦	TIRE PRESSURE RECEIVER COMM
			88	^	COMBI SW INPUT 3	140	GR	SHIFT N/P
			90	Ь	CAN-L	141	9	SECURITY IND LAMP CONT
Connector No.	No.	M120	91	٦	CAN-H	142	BG	COMBI SW OUTPUT 5
Connector Name	dame	BCM (BODY CONTROL MODILIE)	95	PI	KEY SLOT ILL CONT	143	۵	COMBI SW OUTPUT 1
		Con (Soci Control Moder)	93	>	ON IND	144	9	COMBI SW OUTPUT 2
Connector Type	ype	NS12FW-CS	94	>	PUDDLE LAMP CONT	145	_	COMBI SW OUTPUT 3
þ			95	BG	ACC RELAY CONT	146	SB	COMBI SW OUTPUT 4
国			96	GR	A/T SHIFT SELECTOR POWER SUPPLY	150	91	DRIVER DOOR SW
Ę		100	66	œ	SHIFTP	151	g	REAR WINDOW DEFOGGER RELAY CONT
Ż		C7	100	9	PASSENGER DOOR REQUEST SW			
		25.26	101	SB	DRIVER DOOR REQUEST SW			
			102	BG	BLOWER FAN MOTOR RELAY CONT			
			103	PI	KEYLESS ENTRY RECEIVER POWER SUPPLY			
			107	PI	COMBI SW INPUT 1			
e	Color Of	Signal Name [Snecification]	108	~	COMBI SW INPUT 4			
No.	Wire	object to the control of the control	109	^	COMBI SW INPUT 2			
20	۸	TURN SIGNAL RH (REAR)	110	9	HAZARD SW			
23	9	BACK DOOR OPEN OUTPUT						
25	9	TURN SIGNAL LH (REAR)						

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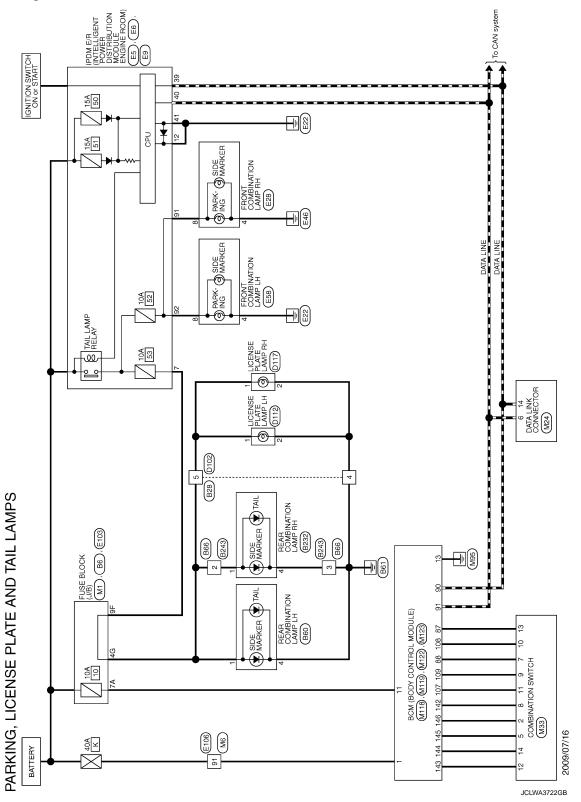
Revision: 2014 October EXL-113 2012 EX

[XENON TYPE]

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Wiring Diagram - PARKING, LICENSE PLATE AND TAIL LAMPS -



PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Connector Name FLUSE BLOCK (J/R) 20 Connector Type NS.12488-CS 22 22 23				
FUSE BLOCK (J/B) NS12FBR-CS				
NS12FBR-CS				WIRE TO WIRE
		Т	connector type	IHZ4FW-NH
77	í «	Connector Name REAR COMBINATION LAMP RH	Œ	
		Connector Type TH04MW-NH	_ 	/ /
	1	1	1211	110987654321
(28) 116 116 Connector No.		NHT)	20 10	27 21 20 10 18 17 16
Connector Name	ame REAR COMBINATION LAMP LH	HS.		11 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Connector Type	rpe TH04MW-NH	1 2 4		
Color Of Signal Name (Specification)) ler	[acitorificant] contly leaving
No. Wire			No. Wire	The state of the s
	K		1 GR	10
		la	3 8	
+	1 2 4	0	+	
4		1 K	+	
. 91 95		2 IG	+	
	L	4 8	E :	
lerminal Co	Color Of Signal Name [Specification]		14 [- [With around view monitor]
B28	Wife	Connector No. D243	14 SHIELD	- [without around view monitor]
Connector Name WIRE TO WIRE	2 5	Γ	- 9	- [With around view monitor]
Connector Type TH24MW-NH 4		Connector Name WIRE TO WIRE	╁	- [Without around view monitor]
1		Connector Type TH24FW-NH	17 6	- [Without around view monitor]
				- [With around view monitor]
Connector No.	o. B66		ş	
13. 12 2 4 5 5 7 8 0 10 11 11 12 Commenter Name	١,		19 LG	
7 00 00	П	12/11/10 9 8 7 6 5 4 3 2 1	_	
[13]14[13]10[17]18[13]20[21]23[24] Connector Type	rpe TH24MW-NH	ָ ק	-	
4		[51]41.[61]61]11.[81]81]12[17]27[57]47]	+	
多			23 BK	
No. Wire Signal Name [Specification]		Terminal Color Of	┨	
╁	23456/8910			
3 W	13 14 15 16 17 18 19 20 21 22 23 24	1 16		
4 B		2 R		
		3 B		
let	Color Of Signal Name [Specification]	13 L		
BR No.	Wire	14 W -		
R - [With around view monitor] 1		\dashv		
14 SHIELD - [Without around view monitor] 2	R	16 BR -		
B - [Without around view monitor]		4		
Y - [With around view monitor]		18 L ·		
16 W - 14				
L - [With around view monitor]				
R - [Without around view monitor]	BR -			
18 SHIELD - 17	. BG			

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PARKING, LICENSE PLATE AND TAIL LAMPS	ЛРS			
Connector No. D112	Connector No.	ES	Connector No. E9	Connector No. E58
Connector Name LICENSE PLATE LAMP LH	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Name IPDM E/R (INTELLGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Name FRONT COMBINATION LAMP LH
Connector Type TK02FBR	Connector Type	TH20FW-CS12-M4-1V	Connector Type TH16FW-NH	Connector Type RSO8FB-PR
H.S.	H.S.	S S S S S S S S S S	H.S. 97 (14)	#S 5 6 7 8
70	Te .	Signal Name (Specification)	Te	- a
au	No.		a	a:
2 B	2 4		92 BG	3 B/V
	7 R		H	4 B/W
1	°		104 LG .	+
Connector No. D11/	+			9 1
Connector Name LICENSE PLATE LAMP RH	16 LG		Connector No. E28	8 BG .
Connector Type TK02FBR	╀		Г	
	H		Connector Name FRONI COMBINATION LAMP RH	
	H		Connector Type RS08FB-PR	Connector No. E103
e	Н		d	Connector Name FLISE BLOCK (I/B)
	Н			
7 1	36			Connector Type NS16FW-CS
			_	
	Connector No.	93	2 6 7 8	
Terminal Color Of Signal Name [Specification]	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM))]-
+		110011		18 18
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	connector lype	IH08FW-NH	lerminal Color Uf Signal Name [Specification]	
+	15	E	+	
			3 8//	Terminal Color Of
	Ś	44 40 20	H	
		41140 38	5 BG	1F S8 .
		46 45 44 43	· ^ 9	L
			7 BR -	4F G .
				6F BR .
	le (Signal Name [Specification]		_
	^			9F R
	39 39			
	$^{+}$			
	41 B/W			
	H			
	┞			
	46 R	4		

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

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	9 BR -	11 BR -	12 86 .	_	L	- L	ł	. 87	3 >	20 86	 22 W	Н	24 BR -	\dashv	4	9	28 G	l,	32 G	8	34 W -	Т	36 SHIELD -	+	38 BG	+	+	+	+	+	1 0	51 BR	╀	H	H	- 1 09	H	62 SB -	H	H	H	┝	e7 SHIELD -	>	H	91	71 16	-
	97 R	Т	H			Connector No. M1	Ī	Connector Name FUSE BLOCK (J/B)	Connector Type NSD6FW-M2			NO TO THE PARTY OF	8A 7A 6A 5A 4A				Terminal Color Of Signal Name [Specification]	Wire	- 1	9	3A L -	Ь	5A V	+	7A R	8A L		Connector No.	T	Connector Name WIRE TO WIRE	Connector Type TH80MW-CS16-TM4					8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8				Color Of	No. Wire Signal Name (Specification)				SHIELD	9	2 >-	
		. 1				88						. 9		SHIELD .	>	91		ъ.	· ·		BR - [With ICC]				W - [With ICC]		P - [Without ICC]				/ (With ICC)					. 9	. 1			GR	SHIELD	w	>		. 91		22 a	
PARKING, LICENSE PLATE AND TAIL LAMPS	Danector No. E106 43	WIRE	onnector Type TH80FW-CS16-TM4 50		E E E	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0		Terminal Color Of Signal Manua (Specification) 64	Wire Spiral Name [Specification]	1 R			GR -	5 GR 70	\ \	BR			. Bg			15 P	> 8	+	> La	3 -		73 67 79		,	,	. ·	. 9	BG . 85		8	89	06	SHIELD - 91	٧ 92	BR			42 G - 96	
Ψ	<u>ت ۱</u>	<u> </u>	ಠ	ΙĽ	<u>111</u>	,	<u> </u>	J										_1		_1	_1	_1	_1			<u> </u>		1	1		1			1	ı						1		1		<u> </u>	1	1	L

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72	٨		Ter	Terminal Color Of	r Of Street Name (Specification)	Connector No.		M118	Connector No	r No.	M122
73	SB		_	No. Wire		Connector Manne	Г	(3 II IGOW TOGENOU AGOS) MUSS	Connector blame	o Momo	GILIGOPA LOGINACO AGOSTANOS
74	BR	- [With ICC]		3 10		Connecto		BUM (BODY CONTROL MODULE)	Connecto	n Name	BCINI (BODY CONTROL INIODOLE)
74	_	- [Without ICC]	L	4 B		Connector Type	Г	M03FB-LC	Connector Type	ır Type	TH40FB-NH
75	ŋ			2		[_				
76	GR	- [Without ICC]	L	T 9		ß			E		
92	W	- [With ICC]		7		*		ŀ			
1.1	Ь	- [Without ICC]	L	8	. 9	ĈĮ.		1 3	2		[ct ct 12] 25 25 25 25 25 25 25 25
7.2	Я	- [With ICC]		11 SE	- 88			<u> </u>			00 00 00 00 00 00
78	7	- [With ICC]	L	14 P	. d			7			MINI NI WANTE WATER
78	Я	- [Without ICC]		16 Y]			
62	W	- [Without ICC]									
79	,	- [With ICC]				Terminal	Color Of	[noistrafficons] concly leaning	Terminal	Color Of	[acitorijioon5] omely leani5
80	SB		ő	Connector No.	M33	No.	Wire	ognalivanie (operincation)	No.	Wire	ognania (operincation)
81	SB			Connector Name	HOLING ROLL OF	1	M	BAT (F/L)	72	В	ROOM ANT2-
82	SB	,	3	IIIECTOL INGILIE		2	Μ	POWER WINDOW POWER SUPPLY(BAT)	73	9	ROOM ANT2+
83	۸		S	Connector Type	TH16FW-NH	3	À	POWER WINDOW POWER SUPPLY(RAP)	74	SB	PASSENGER DOOR ANT-
84	9		16						75	GR	PASSENGER DOOR ANT+
85	_		I						9/	>	DRIVER DOOR ANT-
98	Ь		_	, E	7	Connector No.		M119	77	97	DRIVER DOOR ANT+
87	>			2	,	Consister Masses	Г	Call (GOAN LOGENOS AGOS) MOS	78	>	ROOM ANT1-
68	GR				1 2 3 4 5 6	Connecto		BCM (BODT CONTROL MODULE)	79	BR	ROOM ANT1+
Н	SHIELD	,			7 8 9 10 11 12 13 14	Connector Type		NS16FW-CS	80	GR	NATS ANT AMP.
91	W					(_		81	Μ	NATS ANT AMP.
92	٨								82	R	IGN RELAY (F/B) CONT
93	BR		Ter	rerminal Color Of	r Of Signal Name [Specification]	¥			83	٨	KEYLESS ENTRY RECEIVER COMM
94	Ь		_	No. Wire		Ĉ.		4 5 / 8 8 10	87	BR	COMBI SW INPUT S
95	GR		Ш	1 F	P FR WASHER(-)			11 13 14 15 17 18 19	88	Λ	COMBI SW INPUT 3
96	Μ		L	2 Si	SB OUTPUT4			2	96	d	CAN-L
6	٦			3 GR	R FR WASHER(+)				91	7	CAN-H
86	SHIELD		L	4 6	G IGN				95	97	KEY SLOT ILL CONT
66	^			2 r	OUTPUT 3	Terminal	Color Of	[noiterifficaci) concli lenni3	93	Λ	QNINO
100	SB		Ш	9 B	B GROUND	No.	Wire	ognalivanie [operincation]	94	٨	PUDDLE LAMP CONT
				7	/ INPUT3	4	PΠ	INTERIOR ROOM LAMP POWER SUPPLY	95	BG	ACC RELAY CONT
				8 BG	C	2	L	PASSENGER DOOR UNLOCK OUTPUT	96	GR	A/T SHIFT SELECTOR POWER SUPPLY
Connector No.		M24		λ 6	/ INPUT 2	7	٨	STEP LAMP CONT	66	æ	SHIFTP
Connector Name		DATA HINK CONNECTOR		10 R	R INPUT4	80	۸	ALL DOOR, FUEL LID LOCK OUTPUT	100	9	PASSENGER DOOR REQUEST SW
			_	11 LG	LG INPUT1	6	9	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	101	SB	DRIVER DOOR REQUEST SW
Connector Type		BD16FW	L	12 P	P OUTPUT1	10	BR	REAR DOOR UNLOCK OUTPUT	102	BG	BLOWER FAN MOTOR RELAY CONT
ú			L	13 BR	R INPUTS	11	~	BAT (FUSE)	103	91	KEYLESS ENTRY RECEIVER POWER SUPPLY
			_	14 G	G OUTPUT 2	13	8	GROUND	107	91	COMBI SW INPUT 1
\ \ 						14	Μ	PUSH-BUTTON IGNITION SWILL GND	108	æ	COMBI SW INPUT 4
Ċ		14 16 1				15	٨	ACC IND	109	γ	COMBI SW INPUT 2
						17	*	TURN SIGNAL RH (FRONT)	110	9	HAZARD SW
		3 4 5 6 7 8				18	BG	TURN SIGNAL LH (FRONT)			
						19	>	INT ROOM LAMP CONT			

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

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PARKING, L	PARKING, LICENSE PLATE AND TAIL LAMPS
Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
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Terminal	Color Of	[acitarijiaco] contil lenni2
No.	Wire	ognalivanie (opecincation)
113	d	OPLICAL SENSOR
116	SB	STOP LAMP SW 1
118	d	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	BR	KEY SLOT SW
123	Μ	IGN F/B
124	91	PASSENGER DOOR SW
132	BR	POWER WINDOW SW COMM
133	Μ	PUSH-BUTTON IGNITION SWILL POWER
134	BB	TOCK IND
137	98	RECEIVER/SENSOR GND
138	٨	RECEIVER/SENSOR POWER SUPPLY
139	7	TIRE PRESSURE RECEIVER COMM
140	GR	SHIFT N/P
141	9	SECURITY IND LAMP CONT
142	98	COMBI SW OUTPUT 5
143	Ь	COMBI SW OUTPUT 1
144	9	COMBI SW OUTPUT 2
145	7	COMBI SW OUTPUT 3
146	8S	COMBI SW OUTPUT 4
150	91	DRIVER DOOR SW
151	9	REAR WINDOW DEFOGGER RELAY CONT

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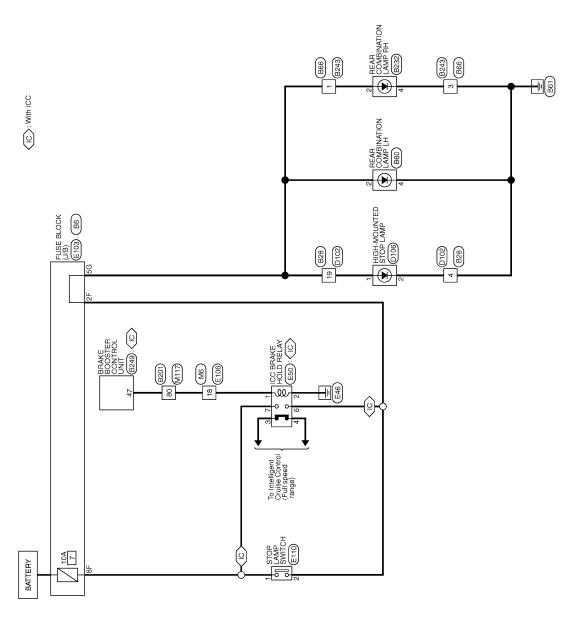
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STOP LAMP

Wiring Diagram - STOP LAMP -

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STOP LAMP

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ŀ	e8 SHIELD	- v 69	70 Y	71 SB -	72 W -	73 BR -	γ	80 v	81 SB .	82 LG .	83 р	84 R	\dashv	. BG 98	+	d. 2	92 8	ŀ	F	. 96 9		- R	д	100 L		-	Connector No. B232	Connector Name REAR COMBINATION LAMP RH	Connector Type TH04MW-NH	4			Ŀ	1 2 4			Terminal Color Of	No. Wire Signal Name [Specification]	1 R	2 16 .	4 B -					
ŀ	18 P			Connector No. B201	Connector Name Mille TO Mille		Connector Type TH80FW-CS16-TM4			8			9 (2) (2) (2) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4			Terminal Color Of Signal Name [Specification]	t	2 8	3 GR	4 BG	. 91 2	10 W	15 SB .	16 V	\dashv	BR .		28 Y	30 GR	Н	+	+	. × 10	25 V 55	╀	57 W		S9 SHIELD	. 91 09	61 W	62 BR -	63 Р			99	
ŀ	+	20 BG -	21 8 .	22 P -	23 BR -	24 R			Connector No. B60	Connector Name REAR COMBINATION LAMP I H		Connector Type TH04MW-NH	d		K		1 2 1			Terminal Color Of	No. Wire signal Name (specification)	1 R	2 1.6	4 B			Connector No. B66	Connector Name WIRE TO WIRE	Connector Type TH24MW-NH	d	医		1 2 3 4 5 6 7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22 23 24			Terminal Color Of	No. Wire Signal Name [Specification]	1 16	2 R	3 8	13 L	14 W -	15 8 .	16 BR .	17 BG .
Μ	Connector No. B6	Connector Name FLISE RLOCK (1/R)		Connector Type NS12FBR-CS			·	3040	201 201 201) lei	Wire	4	116 W	4G R	╀	-		Connector No. B28	Commitment Name of August Augu		Connector Type TH24MW-NH	ģ	[]		123456	13 14 15 16 17 18 19 20 21 22 23 24			Te	No. Wire	a w	╀	S R	. 9d 9	H	R	14 SHIELD - [Without around view monitor]	8	٨	w	1	17 R - [Without around view monitor]	18 SHIELD -

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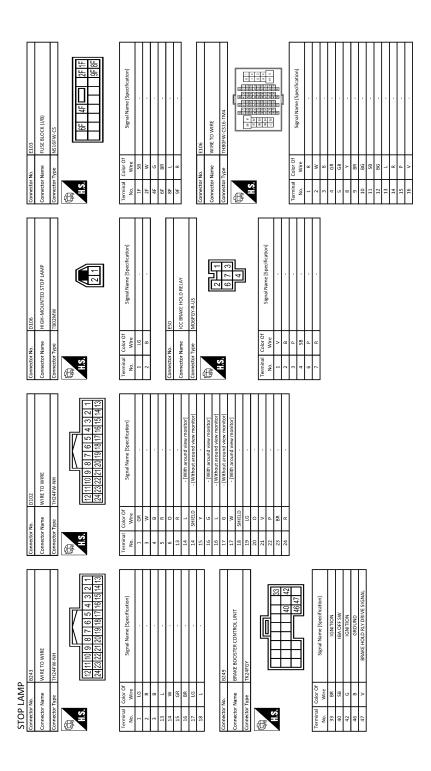
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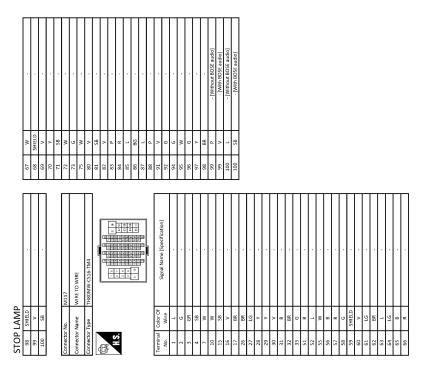
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BACK-UP LAMP

Wiring Diagram - BACK-UP LAMP -

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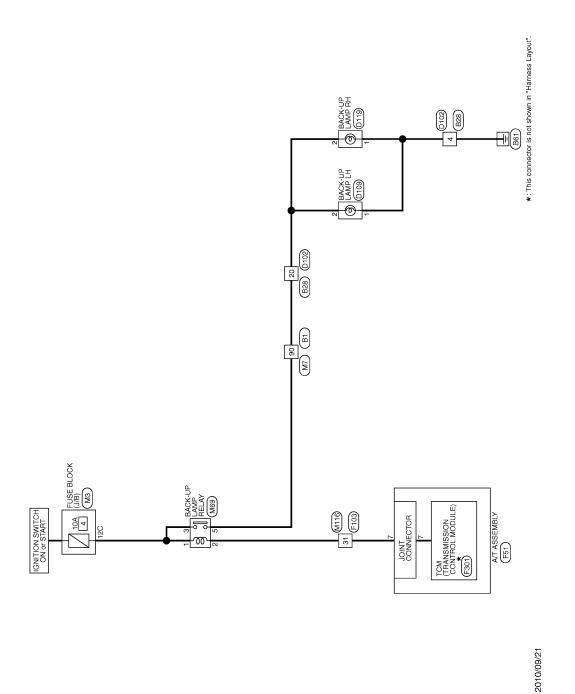
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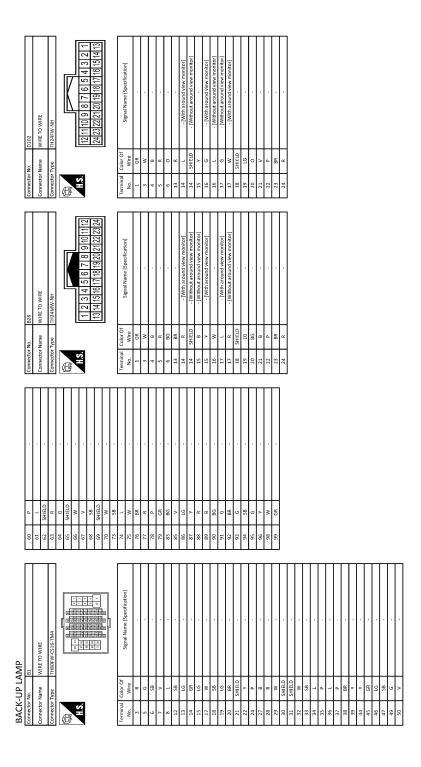
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BACK-UP LAMP



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Connector No. M3	9	Connector Type INSIPPA/CS	12C 11C 11C 10C 10C 10C 10C	Inal Color Of Signal Name [Specification]	- N - N - N - N - N - N - N - N - N - N	\mathbb{H}		1	Connector No. M7	Τ,	Т					85 Pd 2 P2		inal Color Of Signal Name [Specification]	t	W	9 2	ł	-	H	- 91	+	ي و	w 88	┝	Н
31 R		a > 0 o		Terminal Terminal Terminal Terminal No. No	TCM (TRANSMISSION CONTROL MODULE)	eccor type SP10FG	10 July 10 Jul	112 3 4 5	8 0 10			Wire Signal Name [Specification]	1 - VIGN	3 - CAN-H	K LINE	-	- REV LAMP RLY	S - CAN-L Terminal	GROUND		un d		8	12	13	14	12	1/4	19	20
Connector No. F51	e e		(5 4 3 2 1) (0 9 8 7 6)	Terminal Color Of Signal Name [Specification] No. Wire Signal Name [Specification]	1 Y		a >	. «	- E	+		Connector No. F103	Connector Name WIRE TO WIRE	Connector Type TK36FW-NS10			1.2 c * 3 2 1 1 2 1 2 1 2 2 1 1 1 1 1 1 1 1 1 1	AMMANANAMINI 1098			Terminal Color Of Signal Name [Specification]	t	3 W	4 R		+	GR	70 ×	28 8	Н
BACK-UP LAMP	e e	Connector Type NSSI2AWW-CS	211	Terminal Color Of Signal Name [Specification]	2 0				Connector Type NS02MW-CS		H.S.				Terminal Color Of Signal Name (Specification)	+	Н													

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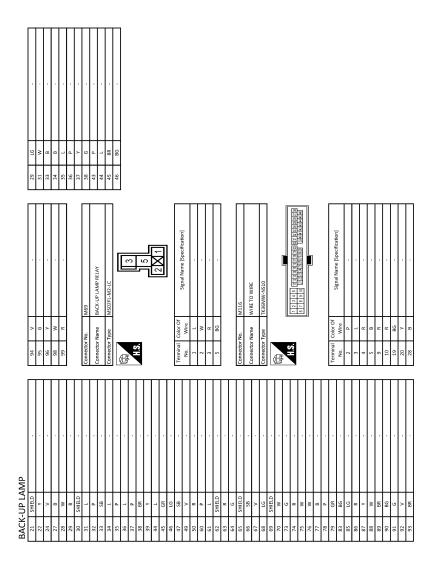
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ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status			
FR WIPER HI	Other than front wiper switch HI	Off			
I IX WIF LIX I II	Front wiper switch HI	On			
ED WIDER I OW	Other than front wiper switch LO	Off			
FR WIPER LOW	Front wiper switch LO	On			
ED WACHED CW	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 CTOD	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 dia position			
DD WIDED ON	Other than rear wiper switch ON	Off			
RR WIPER ON	Rear wiper switch ON	On			
DD WIDED INT	Other than rear wiper switch INT	Off			
RR WIPER INT	Rear wiper switch INT	On			
DD WAGUED OW	Rear washer switch OFF	Off			
RR WASHER SW	Rear washer switch ON	On			
DD WIDED OTOD	Rear wiper is in STOP position	Off			
RR WIPER STOP	Rear wiper is not in STOP position	On			
TUDNI CIONAL D	Other than turn signal switch RH	Off			
TURN SIGNAL R	Turn signal switch RH	On			
TUDNI CIONAL I	Other than turn signal switch LH	Off			
TURN SIGNAL L	Turn signal switch LH	On			
TAIL LAND CIAL	Other than lighting switch 1ST and 2ND	Off			
TAIL LAMP SW	Lighting switch 1ST or 2ND	On			
LILDEAM CVV	Other than lighting switch HI	Off			
HI BEAM SW	Lighting switch HI	On			
LIEAD LAMB CM/4	Other than lighting switch 2ND	Off			
HEAD LAMP SW 1	Lighting switch 2ND	On			
HEAD LAMP SW 2	Other than lighting switch 2ND	Off			
HEAD LAWP SW 2	Lighting switch 2ND	On			
DA CCINO CW	Other than lighting switch PASS	Off			
PASSING SW	Lighting switch PASS	On			
ALITO LICHT CW	Other than lighting switch AUTO	Off			
AUTO LIGHT SW	Lighting switch AUTO	On			
ED EOC CW	Front fog lamp switch OFF	Off			
FR FOG SW	Front fog lamp switch ON	On			

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
DOOD CW DD	Driver door closed	Off
DOOR SW-DR	Driver door opened	On
D00D 0W 40	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
	Rear RH door closed	Off
DOOR SW-RR	Rear RH door opened	On
	Rear LH door closed	Off
DOOR SW-RL	Rear LH door opened	On
	Back door closed	Off
DOOR SW-BK	Back door opened	On
	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
	Other than driver door key cylinder LOCK position	Off
KEY CYL LK-SW	Driver door key cylinder LOCK position	On
	Other than driver door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
14.74.DD 014/	Hazard switch is OFF	Off
HAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off
TR/BD OPEN SW	Back door opener switch OFF	Off
IN/BD OPEN SW	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the key is not pressed	Off
	LOCK button of the key is pressed	On
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off
THE ONLOOK	UNLOCK button of the key is pressed	On
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off
RKE-PANIC	PANIC button of the key is not pressed	Off
MAL-FAINIO	PANIC button of the key is pressed	On
DKE DW ODEN	UNLOCK button of the key is not pressed	Off
RKE-P/W OPEN	UNLOCK button of the key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Monitor Item	Condition	Value/Status					
ODTICAL SENSOR	Bright outside of the vehicle	Close to 5 V					
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V					
DEO CW. DD	Driver door request switch is not pressed	Off					
REQ SW -DR	Driver door request switch is pressed	On					
DEO 014/ AC	Passenger door request switch is not pressed	Off					
REQ SW -AS	Passenger door request switch is pressed	On					
REQ SW -RR	NOTE: The item is indicated, but not monitored.						
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off					
REQ SW -BD/TR	Back door request switch is not pressed	Off					
NEQ 3W -DD/TN	Back door request switch is pressed	On					
DITCH 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					
BRAKE SW 2	The brake pedal is not depressed	Off					
SIVINE OW Z	The brake pedal is depressed	On					
DETE/CANCL SW	Selector lever in P position	Off					
DETE/O/MINOL OVV	Selector lever in any position other than P	On					
SFT PN/N SW	Selector lever in any position other than P and N	Off					
51 1 1 14/14 6 4 4	Selector lever in P or N position	On					
S/L -LOCK	NOTE: The item is indicated, but not monitored.	Off					
S/L -UNLOCK	NOTE: The item is indicated, but not monitored.	Off					
S/L RELAY-F/B	NOTE: The item is indicated, but not monitored.	Off					
UNLK SEN -DR	Driver door is unlocked	Off					
J	Driver door is locked	On					
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off					
	Push-button ignition switch (push-switch) is pressed	On					
GN RLY1 -F/B	Ignition switch in OFF or ACC position	Off					
	Ignition switch in ON position	On					
DETE SW -IPDM	Selector lever in any position other than P	Off					
JETE OVV TIF DIVI	Selector lever in P position	On					
SFT PN -IPDM	Selector lever in any position other than P and N	Off					
OI I FIN -IFDIVI	Selector lever in P or N position	On					
SFT P -MET	Selector lever in any position other than P	Off					
OI I F -IVIE I	Selector lever in P position						

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Monitor Item	Condition	Value/Status	
SFT N -MET	Selector lever in any position other than N	Off	
SFI IN-IVIET	Selector lever in N position	On	
	Engine stopped	Stop	
ENGINE STATE	While the engine stalls	Stall	
ENGINE STATE	At engine cranking	Crank	
	Engine running	Run	
S/L LOCK-IPDM	NOTE: The item is indicated, but not monitored.	Off	
S/L UNLK-IPDM	NOTE: The item is indicated, but not monitored.	Off	
S/L RELAY-REQ	NOTE: The item is indicated, but not monitored.	Off	
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 FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset	
	Ignition switch ON	Set	
PRMT ENG STRT	The engine start is prohibited	Reset	
FIXIVIT LING STIXT	The engine start is permitted	Set	
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset	
KEY SW -SLOT	The key is not inserted into key slot	Off	
RET SW -SLOT	The key is inserted into key slot	On	
RKE OPE COUN1	During the operation of the key	Operation frequency of the key	
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_	
CONFRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet	
CONFRIMID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	Done	
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet	
CONTINUID4	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done	
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet	
CONFIRM ID3	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done	

< ECU DIAGNOSIS INFORMATION >

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Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet
CONFIRM ID2	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet
CONFIRMIDI	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done
TD 4	The ID of fourth key is not registered to BCM	Yet
TP 4	The ID of fourth key is registered to BCM	Done
TD 0	The ID of third key is not registered to BCM	Yet
TP 3	The ID of third key is registered to BCM	Done
TD 0	The ID of second key is not registered to BCM	Yet
TP 2	The ID of second key is registered to BCM	Done
TP 1	The ID of first key is not registered to BCM	Yet
IFI	The ID of first key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID DECOT EL 4	ID of front LH tire transmitter is registered	Done
ID REGST FL1	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
ID REGOT FRI	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
ID REGOT RRT	ID of rear RH tire transmitter is not registered	Yet
ID DECCT DL 4	ID of rear LH tire transmitter is registered	Done
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
WARINING LAWP	Tire pressure indicator ON	On
DUZZED	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

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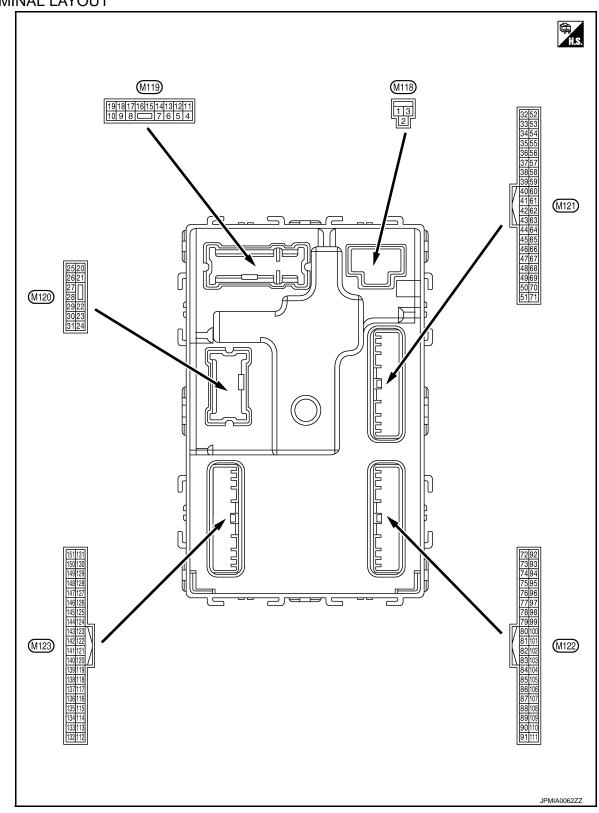
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TERMINAL LAYOUT



PHYSICAL VALUES

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)				0 10	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch OF	F	Battery voltage
3 (Y)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
4		lata da a a a a a la a a a		Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
4 (LG)	Ground	Interior room lamp power supply	Output	ed.	battery saver is not activator room lamp power supply)	Battery voltage
5	Ground	Passenger door UN-	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
(L)	Giouria	LOCK	Output	Passenger door	Other than UNLOCK (Actuator is not activated)	0 V
7	Ground	Step lamp	Output	Step lamp	ON	0 V
(Y)	Giodila	Olep lamp	Output	Olep lallip	OFF	Battery voltage
8	Ground	All doors, fuel lid	Output	All doors	LOCK (Actuator is activated)	Battery voltage
(V)	Giodila	LOCK	Output	All doors	Other than LOCK (Actuator is not activated)	0 V
9	Driver door, fuel lid		Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
(G)	Ground	UNLOCK	Output	Driver door	Other than UNLOCK (Actuator is not activated)	0 V
10	Ground	Rear RH door and rear LH door UN-	Output	Rear RH door	UNLOCK (Actuator is activated)	Battery voltage
(BR)	Giodila	LOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON	I	0 V
					OFF	0 V
14 (W)	Ground	Push-button ignition switch illumination ground			ON	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 2 ms JSNIA0010GB
15	_		_		OFF or ON	Battery voltage
(Y)	Ground	ACC indicator lamp	Output	Ignition switch	ACC	0 V

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			Condition	Value		
+	-	Signal name	Input/ Output		Condition	(Approx.)		
					Turn signal switch OFF	0 V		
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	10 5 0 1 s PKID0926E 6.5 V		
					Turn signal switch OFF	0 V		
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V		
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage		
(•)				шпр	ON Turn signal switch OFF	0 V 0 V		
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V		
23	Ground	Back door open	Output	Back door	OPEN (Back door opener actuator is activated)	Battery voltage		
(G)	Ground	Back door open	Output	Back door	Other than OPEN (Back door opener actuator is not activated)	0 V		
					Turn signal switch OFF	0 V		
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s		
					OFF (Charact)	6.5 V		
26 (G)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped) ON (Operated)	0 V Battery voltage		
(=)					On (Operated)	ballery voltage		

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value	Λ
(Wir	e color)	Signal name	Input/ Output		Condition	value (Approx.)	Α
34		Luggage room anten-		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	В
(SB)		na (–)	Output	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	E F
35	Od	Luggage room anten-	0.4.4	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	G H
(V)	Ground	na (+)	Output	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	J K
38	Ground	Back door antenna (-	Output	When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M
(B)	(B) Ground)		round Back door antenna (– Output door op quest s' operate nition se		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	O

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			Condition	Value		
+	-	Signal name	Input/ Output		Condition	(Approx.)		
39	Ground	Back door antenna	Output	When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB		
(W)	Glound	(+)	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		
47	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	Battery voltage		
(Y)	Ground	E/R) control	Output	igilition switch	ON	0 V		
52	Ground	Starter relay control	Output	Ignition switch	When selector lever is in P or N position	Battery voltage		
(SB)	Cround	Clartor rolly control	Output	ON	When selector lever is not in P or N position	0 V		
60	0	Push-button ignition	lanat	Push-button igni-	Pressed	0 V		
(BR)	Ground	switch (Push switch)	Input	tion switch (push switch)	Not pressed	Battery voltage		
					ON (Pressed)	0 V		
61 (W)	Ground	Back door opener request switch	Input	Back door opener request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V		
		Intelligent Key warn-		Intelligent Key	Sounding	0 V		
64 (V)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	Battery voltage		
65 (BG)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	(V) 15 10 5 0 10 ms JPMIA0016GB		
					Not in stan position	1.0 V 0 V		
					Not in stop position	υV		

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+ (Wire	-	Signal name	Input/			Value
			Output	Condition		(Approx.)
66 (R)	Ground	Back door switch	Input	Back door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V
					Pressed	0 V
67 (GR)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
					ON (Door open)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close) ON (Door open)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V

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	inal No. e color)	Description		Condition		Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
72	Ground	Room antenna 2 (–) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
(R)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	
73	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
(G)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	
74	Ground	Passenger door antenna (-)		When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(SB)			Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value	
(Wir	e color)	Signal name	Input/ Output			(Approx.)	
75		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	
75 (GR)	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 1 1 1 1 1 1 1 1 1	
76	Ground	Driver door antenna	Outside	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(V)	Ground	(-)	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	
77	Ground	Driver door antenna	Quitout	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	
(LG)	Ground	(+)	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description		Condition		Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
78	Ground	Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
(Y)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	
79	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
(BR)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s JMKIA0063GB	
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
82 (B)	Ground	Ignition relay [Fuse	Output	Ignition switch	OFF or ACC	0 V	
(R)		block (J/B)] control			ON	Battery voltage	

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		0		Value	
+	- COIOT)	Signal name	Input/ Output		Condition	(Approx.)	
83		Remote keyless entry receiver communica- tion	Input/ Output	During waiting		(V) 15 10 5 1 ms 1 ms	
(Y)	Ground			When operating either button on the key		(V) 15 10 5 0 1 ms JMKIA0065GB	
87 (BR)		Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	
	Ground				Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMIA0037GB 1.3 V	
					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	
					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	

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description		0		Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms 1.3 V	
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB	
					Rear washer switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB	
					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	
90 (P)	Ground	CAN-L	Input/ Output	_			
91 (L)	Ground	CAN-H	Input/ Output	_		_	

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value
-	e color) –	Signal name	Input/ Output		Condition	(Approx.)
					OFF	Battery voltage
92 (LG)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 1 s 1 s JPMIA0015GB
					ON	0 V
93	_				OFF or ACC	Battery voltage
(V)	Ground	ON indicator lamp	Output	Ignition switch	ON	0 V
94		5	•	5	OFF	Battery voltage
(Y)	Ground	Puddle lamp control	Output	Puddle lamp	ON	0 V
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(BG)	Giouna	ACC Telay CUTILIOI	Output	IGHILIOH SWILCH	ACC or ON	Battery voltage
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	_		Battery voltage
99	Ground	Selector lever P posi-	Input	Selector lever	P position	0 V
(R)	Ground	tion switch	Input	Selector level	Any position other than P	Battery voltage
					ON (Pressed)	0 V
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms 10 ms JPMIA0016GB
					ON (Pressed)	0 V
101 (SB)	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-			OFF or ACC	1.0 V 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		Battery voltage

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description	I			Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
					(V) 15 10 2 ms 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 1.3 V
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	А
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α.
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	ВС
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB	E
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	G H
					Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	J K
					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	M
							0

	inal No.	Description				Value						
+	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						
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB						
					ON	0 V						
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V						

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value						
	e color)	Signal name	Input/ Output		Condition	(Approx.)						
113	Ground	Optical sensor	Innut	Ignition switch	When bright outside of the vehicle	Close to 5 V						
(P)	Giouna	Optical serisor	Input	ON	When dark outside of the vehicle	Close to 0 V						
116 (SB)	Ground	Stop lamp switch 1	Input	_		Battery voltage						
		Stop lamp switch 2		Stop lamp switch	OFF (Brake pedal is not depressed)	0 V						
118	Ground	(Without ICC)	Input	Stop lamp switch ON (Brake pedal is depressed) Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON		Battery voltage						
(P)	Giodila	Stop lamp switch 2	iliput			0 V						
		(With ICC)				Battery voltage						
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 10 ms JPMIA0012GB						
					UNLOCK status (Unlock switch sensor ON)	0 V						
121	Ground	Key slot switch	Input	When the key is inserted into key slot Battery voltage								
(BR)	Ground	itey slot switch	IIIput	When the key is not inserted into key slot 0 V								
123	Ground	IGN feedback	Input	Ignition switch	0 V							
(W)	Ordana	TOTATOGGE	трис	ignition ownon	ON	Battery voltage						
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB						
					ON (Door open)	0 V						
132 (BR)	Ground	Power window switch communication	Input/ Output	Ignition switch ON	I	15 10 5 0 10 ms						
						JPMIA0013GB 10.2 V						
				Ignition switch OF	F or ACC	Battery voltage						

< ECU DIAGNOSIS INFORMATION >

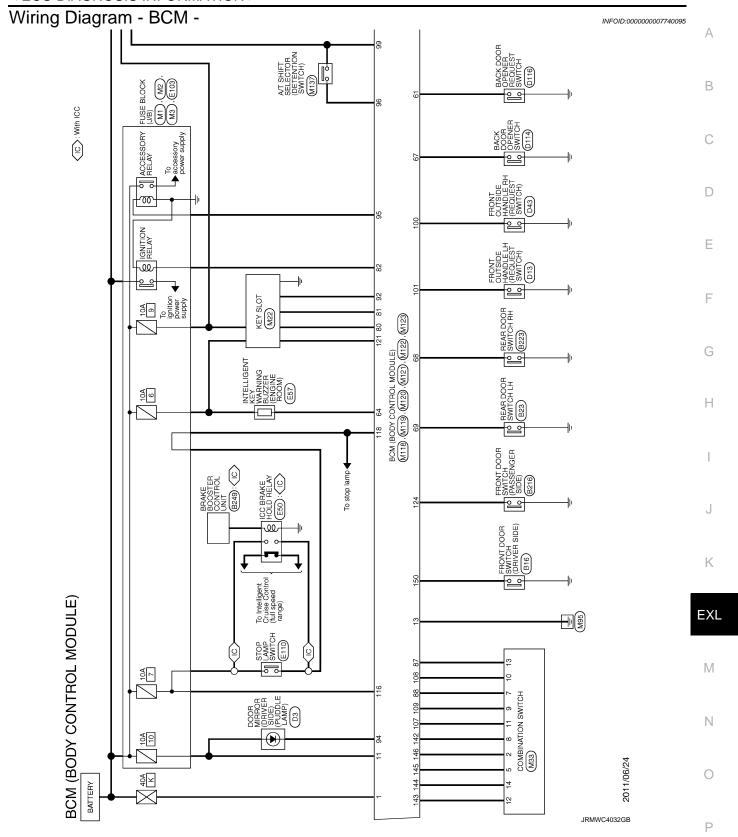
	nal No. color)	Description			0 100	Value					
+	-	Signal name	Input/ Output		Condition	(Approx.)					
					ON (Tail lamps OFF)	9.5 V NOTE: The pulse width of this wave is					
133 (W)	Ground	Ground Push-button ignition switch illumination Output Push-button ignition ition switch illumination		ON (Tail lamps ON)	varied by the illumination bright- ening/dimming level. (V) 15 10 5 0 JPMIA0159GB						
					OFF OFF	0 V					
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	ON	Battery voltage 0 V					
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V					
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V					
(Y)		power supply	•		ACC or ON	5.0 V					
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 ** 0.2s OCC3881D					
(L)		er communication	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					
140 (GR)	Ground	Selector lever P/N	Input	Selector lever	P or N position	Battery voltage					
(GK)		position			Except P and N positions ON	0 V					
141 (G)	Ground	nd Security indicator Output Security indicat		Security indicator	Blinking	0 V (V) 15 10 5 0 JPMIA0014GB 11.3 V					
					OFF	Battery voltage					

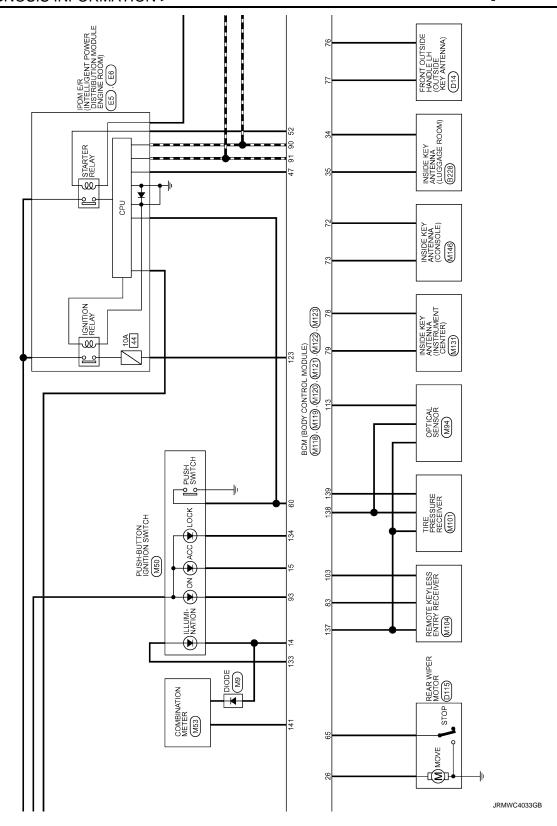
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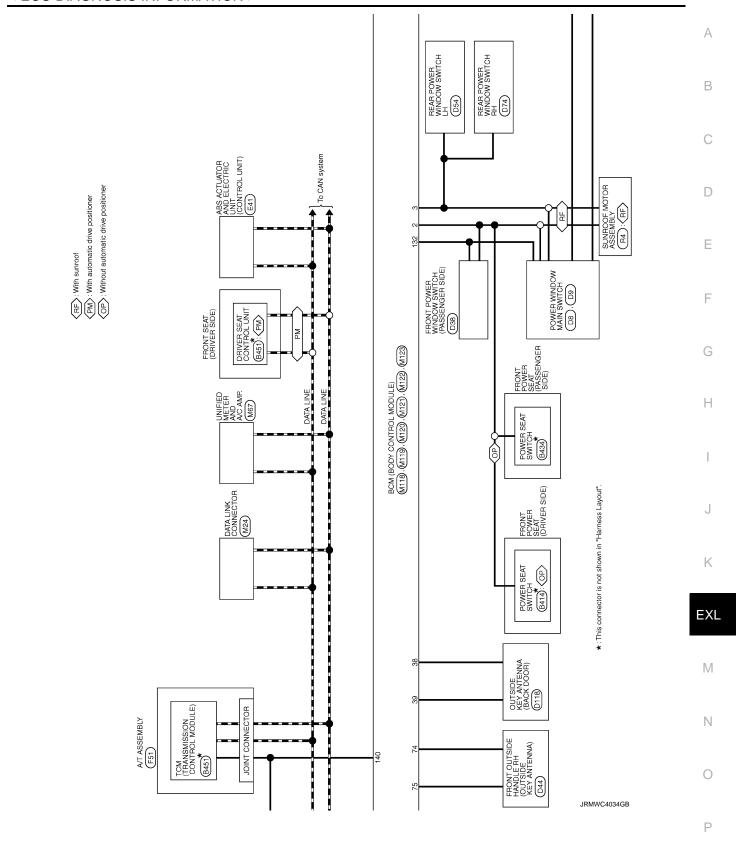
Terminal No. (Wire color)		Description				Value
(Wir	e color)	Signal name	Input/ Output		Condition	(Approx.)
142 (BG)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH	0 V (V) 15 10 5 0 JPMIA0031GB
					All switches OFF (Wiper intermittent dial 4) Front wiper switch HI	10.7 V 0 V
143		Combination switch		Combination	(Wiper intermittent dial 4) Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10
143 (P)	Ground	OUTPUT 1	Output	switch	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	10 0 10 10.7 V 10.7 V
					All switches OFF (Wiper intermittent dial 4)	0 V
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Front washer switch ON (Wiper intermittent dial 4) Rear wiper switch ON (Wiper intermittent dial 4) Rear washer switch ON (Wiper intermittent dial 4) Any of the conditions below	(V) 15 10 5
					with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6	2 ms JPMIA0033GB
					All switches OFF Front wiper switch INT	0 V
145	Ground	Combination switch	Output	Combination switch	Front wiper switch LO	(V) 15 10 5
(L)	Ground	OUTPUT 3	Output	(Wiper intermit- tent dial 4)	Lighting switch AUTO	0

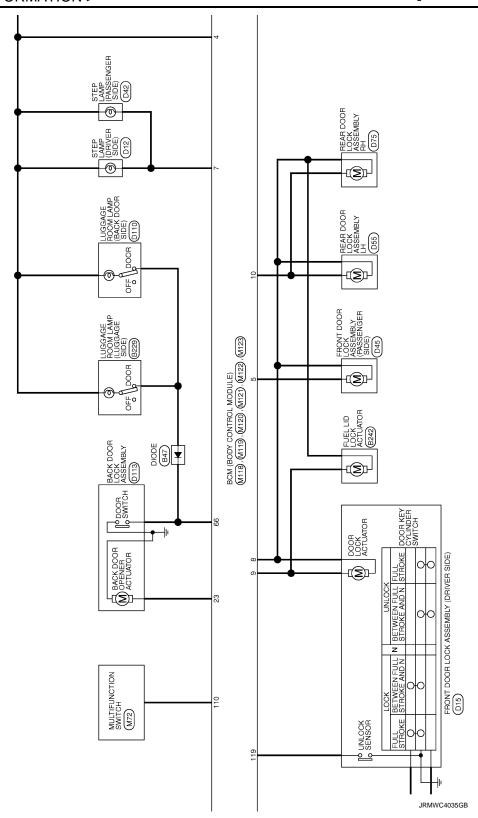
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	inal No.	Description				Value					
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)					
-					All switches OFF	0 V					
					Front fog lamp switch ON						
				Combination	Lighting switch 2ND	(V)					
146	Ground	Combination switch	Output	switch	Lighting switch PASS	10					
(SB)	Ground	OUTPUT 4	Guipat	(Wiper intermit- tent dial 4)	Turn signal switch LH	0 JPMIA0035GB 10.7 V					
150 (LG)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB					
				ON (Door open)	0 V						
151	Ground	Rear window defog-		Active	0 V						
(G)	Ground	ger relay control Output Rear window delog- fogger			Not activated	Battery voltage					







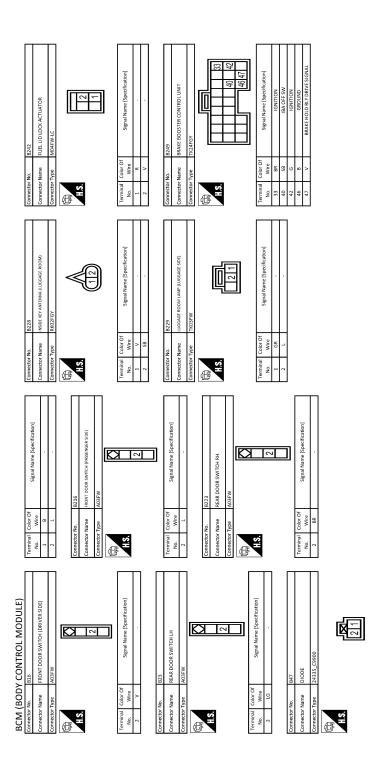


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D Е ON DOOR LAMP RH F G PERSONAL LAMP LH Н REAR TURN SIGNAL LAMP RH (B261) ON DOOR ROOF MODULE OR OFF (BCM (BODY CONTROL MODULE) (M118) (M119) (M120) (M123) (M123) J REAR TURN SIGNAL LAMP LH (8260) K FRONT COMBINATION LAMP RH (TURN SIGNAL) EXL \mathbb{N} FRONT COMBINATION LAMP LH (TURN SIGNAL) Ν <u></u> 0 JRMWC4036GB Ρ



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Сопиестот No. D3 Сопиестот Луре Int/24/AVV-AH (12 [7] 10 7 6 5 3 2 24/23 [2] [2] [1] [1] [1]	Terminal Color Of Signal Name Specification No. Wire Signal Name Specification Signal Name Specification Signal Name Specification Signal Name Specification Signal Name Specification S	
Connector No. 8453. Connector Name DRIVER SEAT CONTROL UNIT Connector Type 11432PW 11 3 1 9 10 11 12 13 14 18 17 119 21 24 25 26 27 18 28 31 31 32	Terrintal Cofor Of Signal Name Specification No.	
Connector No. 8414	Terminal Coffer Of Signal Name Specification No. Wire Signal Name Specification No. Wire Signal Name Specification Signal Name Signal Name Specification Signal Name Specification Signal Name Specification Signal Name Specification Signa	
BCM (BODY CONTROL MODULE) Connector No. Connector Name REAR TURN SIGNAL LAND LH Connector Type H50276 W	Terminal Color Of Nore Signal Name (Specification) 1	

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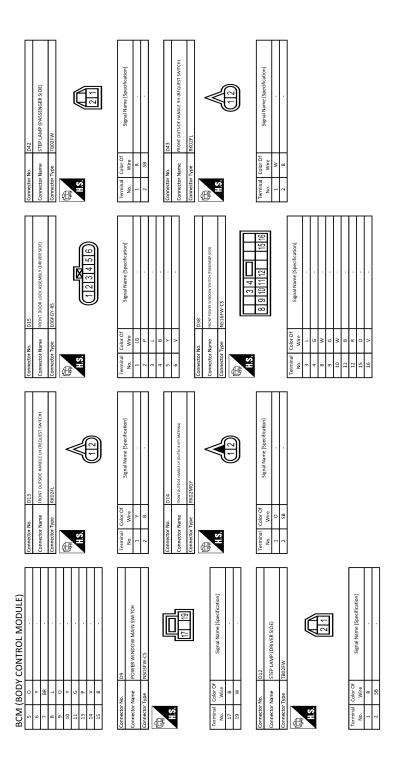
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Connector No. D110 Connector Name Luccucs Rook LAVR (BACK DOOR SDE) Connector Type TYOSPEW A 1.5.	Terminal Color Of Signal Name Specification 1	
Connector No. Connector Name REAR POWER WINDOW SWITCH BH Connector Type MSJ8FW CS THE T	Terminal Color Of Signal Name Specification No. Wire Signal Name Specification No. Wire Signal Name Specification Signal Name Specification Signal Name Specification No. Wire Signal Name Specification No. Wire No. Wire Signal Name Specification Signal Name Specification No. Wire No. Wire Signal Name Specification Specifica	
Connector No. DS4 Connector Name REAR POWER WINDOW SWITCH LH Connector Type Connector Type THS.	Terminal Color Of Signal Name Specification	
BCM (BODY CONTROL MODULE) Gumeeror No. Ded Connector Name Innovacious usual aujumate cr. namow Connector Type RKCZNKGY	Terminal Coles Of Signal Name Specification No. No. P	

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D116 Connector No. 65 FIGUREST SWITCH Connector Name Pack Conne	0 or 0f	17-008 1
	Signal Name Specification Terminal Name	Connector Name Signal Name Specification
	Signal Name [Specification] No. Wire October No. Wire October Oc	Signal Name (Specification) No. Wore 1 SR - SR - R

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Connector No. M1	Connector Name FUSE BLOCK (J/B)	Connector Type NS06FW-M2			H.S. 3A 11 12A 1A	84 74 64 54 44	Na kakaka ya		Terminal Color Of Signal Name (Specification)	+	╄	H		. SA V	+	7A R	8A L		Connector No. M2	Connector Name FUSE BLOCK (J/B)	T	Connector Type NS10FW-CS						Terminal Color Of	No. Wire Signal Name [Specification]	38 р	Н	. B8 B6	4	+	ec (. 95
Connector No. E110	Connector Name STOP LAMP SWITCH	Connector Type M04FW-LC]		H.S.		7		Terminal Color Of Signal Name [Specification]	+	2 w	з ү	4 58 .		١	Connector No. F51	Connector Name A/T ASSEMBLY	Connector Type RK10FG-DGY		●		((5 4 3 2 1)	(9 2 8 6 01)		Terminal Color Of		1 Y C	1 2	4 v	. 8 S		7 R -	+	+	10 8	
Connector No. E58	Connector Name FRONT COMBINATION LAMP LH	Connector Type RSO8FB-PR			HS.	-			Terminal Color Of Signal Name [Specification]	+	3 8/	4 B/W	· · · · · · · · · · · · · · · · · · ·	. 9	+	8 BG .		Connector No. E103			Connector Type NS16FW-CS]-	9F 8F		Tarminal Calar Of		1F SB .	\dashv	Н	6F BR .	+	9F R		
黔	29 LG DSRR	+	_	45 B BUS-H		Connector No. E50	Connector Name ICC BRAKE HOLD RELAY	Connector Type M06FGY-R-US	<u></u>	1 2 1 1	S	0 / 3]		-e	No. Wire	2 8	3 b	Н	- d 9	7 R		Connector No. E57	Connector Name INTELLIGENT KEY WARNING BUZZER (ENGINE ROOM)	Connector Type RK03FBR	•	Matte		((1 3)				т Т	No. Wire	3 V

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BCM (BODY CONTROL MODULE)			ſ	
Connector No. M3	Connector No. M22	Connector No. M27	Connector No. MISU	
Connector Name FUSE BLOCK (J/B)	Connector Name KEY SLOT	Connector Name FOOT LAMP (DRIVER SIDE)	Connector Name PUSH-BUTTON IGNITION SWITCH	
Connector Type NS12FW-CS	Connector Type TH12FW-NH	Connector Type A02FW	Connector Type TK08FBR	
₫.	4	₫ <u></u>	4	
Arth	A STATE OF THE STA			·
1	1 2 3 5 6		7	
[120] 110] 110] 12d [17d] [17d] [17d]) =	2 1	4 5 6 7 8	
lar	lal	lal	lal	tion
Wire	n:	aı	g;	
10C L	1 K BAI	1 K		
╀	5 3	┨	***	T
777 N	* >		88	
╀	. 51	Connector No. M33	ł	
╀	99		╁	
ł	KEYS	Connector Name COMBINATION SWITCH	- v 2	
	-	Connector Type TH16FW-NH	- d 8	
Connector No. M9		á		
Connector Name DIODE	Connector No. M24	F	0.00	
Connector Type 24335 C9900	Connector Name DATA LINK CONNECTOR] .		T
1	Connector Type BD16FW	2		
唐	đị.	7 8 9 10 11 12 13 14	Connector Type TH40FW-NH	
	医		₫£	
1 2	H.S.	Terminal Color Of	Arth	
]	2 2 2		S S	les les l
	4	1 P FR WASHER(-)	7 2 3 5 6 7 10	15 16 19 20
			loo	25 00 00 00
Terminal Color Of Signal Name [Specification]		GR FRV		
NO. WIFE	No Wire Signal Name [Specification]	A G IGN	Terminal Color Of	
2 w	۲			tion]
1	4 8	7 V INPUT3	1 GR BATTERY POWER SUPPLY	PLY
		8 BG OUTPUTS	COMMU	ETER->AMP.)
	1 9	9 Y INPUT2	3 GR COMMUNICATION SIGNAL (AMP>METER)	MP>METER)
	- · · ·	10 R INPUT 4	H	
	. 9 8	11 LG INPUT1	6 P ALTERNATOR SIGNAL	١,
	11 SB .	12 P OUTPUT1	7 BR AIR BAG SIGNAL	
	14 P	BR	10 G SECURITY SIGNAL	
	16 Y -	14 G OUTPUT 2	8	
			B METER CONT	GROUND
			ac a	
			20 K	T
			58	_

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BCM (BODY CO	BCM (BODY CONTROL MODULE)			Ī		Ī
8	GROUND	+	A/C LAN SI GNAL	Connector No. M101		Connector No. M113
BR	COMMUNICATION SIGNAL (LCD->AMP.)	\dashv	EACH DOOR MOTOR POWER SUPPLY	Connector Name TIRE PRESSURE RECEIVER	CEIVER	Connector Name FOOT LAMP (PASSENGER SIDE)
٨		71 8	GROUND			
×	VEHICLE SPEED SIGNAL (8-PULSE)	72 P	CAN-L	Connector Type TK04FW		Connector Type A02FW
^	PARKING BRAKE SWITCH SIGNAL			4		4
28 W E	BRAKE FLUID LEVEL SWITCH SIGNAL			B		
SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)	Connector No. M	M72	O E		K
5		Connector Name M	MULTI FUNCTION SWITCH			K
+	WASHER LEVEL SWITCH SIGNAL	Ī		•	1 2 4	2 1
+	ILLUMINATION CONTROL SIGNAL	connector lype	HI6FW-NH	J		
+	SELECT SWITCH SIGNAL	ą				
37 SB	ENTER SWITCH SIGNAL	逐	[- 1		- 1
	TRIP A/B RESET SWITCH SIGNAL	Ě		Il Color Of	Signal Name (Specification)	- -
۵	ILLUMINATION CONTROL SWITCH SIGNAL (-)	io i	4 6 8 14 16			No. Wire
40 BG ILLUN	ILLUMINATION CONTROL SWITCH SIGNAL (+)		,	1 BG	GROUND	
			135 9	2 L	SIGNAL	2 BR -
ſ					BALLERT	
Connector No. M67		ь				١
Connector Name UNIFIE	UNIFIED METER AND A/C AMP.	Terminal Color Of	Signal Name [Specification]			Connector No. M118
1		No.		Connector No. M104		Connector Name BCM (BODY CONTROL MODULE)
Connector Type TH32FW-NH	HN-W	+	GROUND	Connector Name REMOTE KEYLESS ENTRY RECEIVER	ENTRY RECEIVER	Ī
ģ		>	ACC	1		Connector Type M03FB-LC
医		4 R	III	Connector Type JAB04FB		ģ
2		> <	ILL CONT	4		
	E	9 SB	AV COMM (H)	B		Ŧ
82 62	57 FO EO	91 8	AV COMM (L)	*		113
1001/0	8	9 B	SW GND	2	[-	
		+	DISK EJECT SIGNAL	_	4 7	7
		Ib G	HAZARD ON			
Terminal Color Of	Signal Name [Specification]					Touched Colon Of
$^{+}$	VIBBILS STATES 22A	Connector No	1074	Torminal Color Of		
A2 41	CHELLEVEL SENSOR SIGNAL	Τ	***	Wire	Signal Name [Specification]	+
43 R	INTAKE SENSOR SIGNAL	Connector Name OF	OPTICAL SENSOR	t	GROUND	POWER WINDO
╀	IN-VEHICLE SENSOR SIGNAL	Connector Type TK	TKO3FW		SIGNAL OUTPUT	H
\vdash	AMBIENT SENSOR SIGNAL			4 1.6	BATTERY	
46 BG	SUNLOAD SENSOR SIGNAL					
9	EXHAUST GAS / OUTSIDE ODOR DETECTING SENSOR SIGNAL	Ě				
53 6	IGNITION POWER SUPPLY	Ž				
54 Y	BATTERY POWER SUPPLY		1 2 3			
55 B	GROUND		0.31			
7 9S	CAN-H					
N 22	BRAKE FLUID LEVEL SWITCH SIGNAL					
58 BR	FUEL LEVEL SENSOR GROUND	Terminal Color Of	Signal Name (Specification)			
59 GR	INTAKE SENSOR GROUND	No. Wire	ognalivanie jopecinicationij			
\dashv	IN-VEHICLE SENSOR GROUND	1	POWER			
61 BR	AMBIENT SENSOR GROUND	-	OUTPUT			
+	SUNLOAD SENSOR GROUND	3	GROUND			
63 R						
65 BG	ECV SIGNAL					

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BCM (BOD)	BCM (BODY CONTROL MODULE)	Ŀ						-	-		
Connector No.	M119	Connector No.	١	M121	78	>	ROOM ANT1-	137	2	RECEIVER/SENSOR GND	
Connector Name	BCM (BODY CONTROL MODULE)	Connector Name	r Name	BCM (BODY CONTROL MODULE)	79	BR	ROOM ANT1+	138	>	RECEIVER/SENSOR POWER SUPPLY	
					80	GR	NATS ANT AMP.	139	-	TIRE PRESSURE RECEIVER COMM	
Connector Type	NS16FW-CS	Connector Type	r Type	TH40FGY-NH	81	W	NATS ANT AMP.	140	GR	SHIFT N/P	
[ا	_		82	œ	IGN RELAY (F/B) CONT	141	9	SECURITY IND LAMP CONT	
Œ		E			83	>	KEYLESS ENTRY RECEIVER COMM	142	BG	COMBI SW OUTPUT 5	
Į	֓֞֝֟֝֟֝֟֝֟֝֟֝֟֝֟֝֟֟֓֓֟֟֓֓֓֟֟֓֓֓֟֟֓֓֟֟֓֓֟	Į			87	BR.	COMBI SW INPUT 5	143	۵	COMBI SW OUTPUT 1	
Ĉ.	4 5 / 8 8 10	2			88	>	COMBI SW INPUT 3	144	9	COMBI SW OUTPUT 2	
	11 13 14 15 17 18 10			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	06	۵	CAN-L	145	_	COMBI SW OUTPUT 3	
	2			26 00 00 00 00 00 00 00 00 00 00 00 00 00	91	_	CAN-H	146	88	COMBI SW OUTPUT 4	
					92	91	KEY SLOT ILL CONT	150	91	DRIVER DOOR SW	
					93	>	ONIND	151	U	REAR WINDOW DEFOGGER RELAY CONT	
Terminal Color Of		Terminal	Color Of		94	>	PUDDLE LAMP CONT				
	Signal Name [Specification]	No.		Signal Name [Specification]	95	BG	ACC RELAY CONT				
t	INTERIOR ROOM LAMP POWER SUPPLY	34	SB	LUGGAGE ROOM ANT-	96	GR	A/T SHIFT SELECTOR POWER SUPPLY	Connector No.		M131	
2	PASSENGER DOOR UNLOCK OUTPUT	35	>	LUGGAGE ROOM ANT+	66	~	SHIFTP		Γ		
7	STEP LAMP CONT	38	8	BACK DOOR ANT-	100	g	PASSENGER DOOR REQUEST SW	Connector Name		INSIDE KEY ANTENNA (INSTRUMENT CENTER)	
>	ALL DOOR, FUEL LID LOCK OUTPUT	39	×	BACK DOOR ANT+	101	SB	DRIVER DOOR REQUEST SW	Connector Type	Γ	RKO2FGY	
6	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	47	>	IGN RELAY (IPDM E/R) CONT	102	88	BLOWER FAN MOTOR RELAY CONT				
H	REAR DOOR UNLOCK OUTPUT	52	88	STARTER RELAY CONT	103	9	KEYLESS ENTRY RECEIVER POWER SUPPLY	€		<	
┝	BAT (FUSE)	09	BR	PUSH SW	107	91	COMBI SW INPUT 1			≪	
ŀ	GBOLIND	19	Μ	MACK DOOR OPENER BEOLIFST SW	108	~	COMBI SW INPLIT 4	Š.		*	
╁	PUSH-BUTTON IGNITION SW ILL GND	64	>	I-KEY WARN BUZZER (ENG ROOM)	109	>	COMBI SW INPUT 2			EF.	
╀	GNICO	55	BG	REAR WIPER STOP POSITION	110	e	HAZARD SW				
17 W	THOUSING INCOME.	99	3 0	BACK DOOR SW		,)	
+	THIRN SIGNAL HI (FROMT)	200	2 8	BACK DOOR OPENER SW							
+	INT BOOM LAMP CONT	89	8	REAR RH DOOR SW	Connector No.		M123	Terminal	Color Of		
		9	٥	WS GOOD III GVIG		Τ		No.	Win	Signal Name [Specification]	
		60	×	REAR LIT DOOR SW	Connector Name		BCM (BODY CONTROL MODULE)	$^{+}$	a a		
Connector No.	M120				Connector Type	Ť	TH40FG-NH	2	<u> </u>		
		Connector No	l	M122		1			1		
Connector Name	BCM (BODY CONTROL MODULE)			7771/1	Œ						
Connector Tyme	NC13EW-CS	Connector Name	r Name	BCM (BODY CONTROL MODULE)	手			Connector No	l	24127	
colliferrol 19pe	NS12FW-C3			i de la constante de la consta	Š			COILLECTO		137	
Æ.		connecto	adkı	IH40FB-NH			113 113 113 113 113 114 115 113 113 113 113 113 113 113 113 113	Connector Name		A/T SHIFT SELECTOR	
生力		€					छत्र । स्व स्व स्थान्य नद्याना भवन्य छ। । । । । । । । । । ।	Connector Tune	Т	LIN WESTER	
H.S.		新							1	177 00-171	
	30 30	H.S.		7				Œ			
	07 07			91 90 88 87 83 82 81 80 73 73 72 74 73 72	Torminal	Color Of		T.		7	
				110 106 108 117 118 100 101 101 698 96 95 94 93 92		Wire	Signal Name [Specification]	H.S.			
					113	۵	OPLICAL SENSOR			1 2 3 4 5	
Terminal Color Of					116	SB	STOP LAMP SW 1			7 8 9 10 11	
No. Wire	Signal Name [Specification]	Terminal	Color Of		118	۵	STOP LAMP SW 2			11 0 0 0	
20 v	TURN SIGNAL RH (REAR)	No.	Wire	Signal Name [Specification]	119	SB	DR DOOR UNLOCK SENSOR				
23 6	BACK DOOR OPEN OUTPUT	72	~	ROOM ANT2-	121	æ	KEY SLOT SW	Terminal	Color Of		
25 G	TURN SIGNAL LH (REAR)	73	9	ROOM ANT2+	123	×	IGN F/8	No.	Wire	ognal Name (opecification)	
26 G	REAR WIPER OUTPUT	74	SB	PASSENGER DOOR ANT-	124	91	PASSENGER DOOR SW	1	3		
		75	GR	PASSENGER DOOR ANT+	132	88	POWER WINDOW SW COMM	2	>		
		76	^	DRIVER DOOR ANT-	133	*	PUSH-BUTTON IGNITION SWILL POWER	9			
		77	97	DRIVER DOOR ANT+	134	S.	FOCKIND	4	8		

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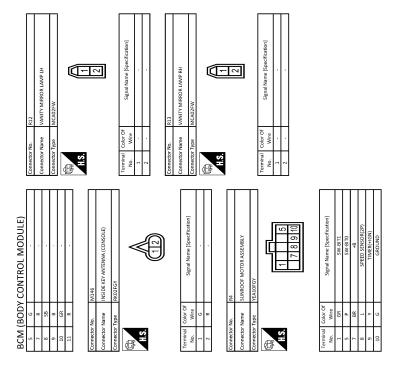
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JRMWG8107GB

INFOID:0000000007740096

FAIL-SAFE CONTROL BY DTC

Fail-safe

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

[XENON TYPE]

Display contents of CONSULT	Fail-safe	Cancellation
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
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
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)
B260A: IGNITION RELAY Inhibit engine cranking 500 ms after the follo IGN relay (IPDM E. Ignition ON signal		 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B2617: STARTER RELAY CIRC	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
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.

When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

- 1. More than 1 minute is passed after the rear wiper stops.
- 2. Turn rear wiper switch OFF.
- 3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

INFOID:0000000007740097

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Priority	DTC	۸
	 B2553: IGNITION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION 	В
	 B2601: SHIFT FOSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW 	С
4	B2608: STARTER RELAY B260A: IGNITION RELAY B260F: ENG STATE SIG LOST B2614: ACC RELAY CIRC	D
	B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM	Е
	 B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR 	F
	U0415: VEHICLE SPEED SIG	G
	 C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL 	Н
5	 C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL C1716: [PRESSDATA ERR] FL 	I
	 C1710: [FRESSDATA ERR] FE C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL C1734: CONTROL UNIT 	J
6	B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	K

DTC Index EXL

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 BCS-18, "COM-MON ITEM: CONSULT Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_		_	_
U1000: CAN COMM CIRCUIT	_	_	_	_	BCS-37
U1010: CONTROL UNIT (CAN)	_	_	_	_	BCS-38
U0415: VEHICLE SPEED SIG	_	_	_	_	BCS-39

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CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2190: NATS ANTENNA AMP	×	_	_	_	SEC-40
B2191: DIFFERENCE OF KEY	×	_	_	_	SEC-43
B2192: ID DISCORD BCM-ECM	×	_	_	_	SEC-44
B2193: CHAIN OF BCM-ECM	×	_	_	_	<u>SEC-45</u>
B2195: ANTI SCANNING	×	_	_	_	SEC-46
B2553: IGNITION RELAY	_	×	_	_	PCS-48
B2555: STOP LAMP	_	×	_	_	SEC-47
B2556: PUSH-BTN IGN SW	_	×	×	_	SEC-49
B2557: VEHICLE SPEED	×	×	×	_	SEC-51
B2560: STARTER CONT RELAY	×	×	×	_	SEC-52
B2562: LOW VOLTAGE	_	×	_	_	BCS-40
B2601: SHIFT POSITION	×	×	×	_	SEC-53
B2602: SHIFT POSITION	×	×	×	_	SEC-56
B2603: SHIFT POSI STATUS	×	×	×	_	SEC-59
B2604: PNP SW	×	×	×	_	SEC-62
B2605: PNP SW	×	×	×	_	<u>SEC-64</u>
B2608: STARTER RELAY	×	×	×	_	SEC-66
B260A: IGNITION RELAY	×	×	×	_	PCS-50
B260F: ENG STATE SIG LOST	×	×	×	_	SEC-68
B2614: ACC RELAY CIRC	_	×	×	_	PCS-52
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-55
B2616: IGN RELAY CIRC	_	×	×	_	PCS-58
B2617: STARTER RELAY CIRC	×	×	×	_	SEC-71
B2618: BCM	×	×	×	_	PCS-61
B261A: PUSH-BTN IGN SW	_	×	×	_	SEC-73
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-76</u>
B2621: INSIDE ANTENNA	_	×	_	_	DLK-60
B2622: INSIDE ANTENNA	_	×	_	_	DLK-62
B2623: INSIDE ANTENNA	_	×	_	_	DLK-64
B26E1: ENG STATE NO RES	×	×	×	_	SEC-69
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	<u>SEC-70</u>
C1704: LOW PRESSURE FL	_	_	_	×	
C1705: LOW PRESSURE FR	_	_	_	×	M/T 00
C1706: LOW PRESSURE RR	_	_	_	×	<u>WT-23</u>
C1707: LOW PRESSURE RL	_	_	_	×	
C1708: [NO DATA] FL	_	_	_	×	
C1709: [NO DATA] FR	_	_	_	×	M/T OF
C1710: [NO DATA] RR	_	_	_	×	<u>WT-25</u>
C1711: [NO DATA] RL	_	_	_	×	

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1716: [PRESSDATA ERR] FL	_	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	_	×	WT-28
C1718: [PRESSDATA ERR] RR	_	_	_	×	<u>VV 1-20</u>
C1719: [PRESSDATA ERR] RL	_	_	_	×	
C1729: VHCL SPEED SIG ERR	_	_	_	×	<u>WT-30</u>
C1734: CONTROL UNIT	_	_	_	×	WT-32

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< ECU DIAGNOSIS INFORMATION >

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

Reference Value INFOID:0000000007740099

VALUES ON THE DIAGNOSIS TOOL

Monitor Item		Condition	Value/Status
RAD FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation 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		Off
IAILACLK REQ	Lighting switch 1ST, 2ND, HI or	AUTO (Light is illuminated)	On
HL LO REQ	Lighting switch OFF		Off
nl lo keq	Lighting switch 2ND HI or AUTO) (Light is illuminated)	On
III III DEO	Lighting switch OFF		Off
HL HI REQ	Lighting switch HI		On
		Front fog lamp switch OFF	Off
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	 Front fog lamp switch ON Daytime running light activated (Only for Canada) 	On
		Front wiper switch OFF	Stop
FR WIP REQ	Inviting quital ON	Front wiper switch INT	1LOW
	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	ACT P
		Front wiper operates normally	Off
WIP PROT	Ignition switch ON	Front wiper stops at fail-safe operation	BLOCK
IGN RLY1 -REQ	Ignition switch OFF or ACC		Off
IGN KEIT -KEQ	Ignition switch ON		On
IGN RLY	Ignition switch OFF or ACC		Off
IGN KLI	Ignition switch ON		On
PUSH SW	Release the push-button ignition	n switch	Off
I USIT SVV	Press the push-button ignition s	witch	On
INTER/NP SW	Ignition switch ON	Selector lever in any position other than P or N	Off
		Selector lever in P or N position	On
ST RLY CONT	Ignition switch ON		Off
OT INCH COM	At engine cranking		On
IHBT RLY -REQ	Ignition switch ON		Off
וווטו ערנו -עבע	At engine cranking		On

< ECU DIAGNOSIS INFORMATION >

Monitor Item		Condition	Value/Status		
	Ignition switch ON		Off		
	At engine cranking		$INHI\;ON\toST\;ON$		
ST/INHI RLY		tarter control relay cannot be recognized by n, etc. when the starter relay is ON and the	UNKWN		
DETENT SW	Ignition switch ON	 Press the selector button with selector lever in P position Selector lever in any position other than P 	Off		
	Release the selector button w	vith selector lever in P position	On		
S/L RLY -REQ	NOTE: The item is indicated, but not	monitored.	Off		
S/L STATE	NOTE: The item is indicated, but not	monitored.	UNLOCK		
DTRL REQ	NOTE: The item is indicated, but not	Off			
OIL P SW	Ignition switch OFF, ACC or engine running		Ignition switch OFF, ACC or engine running		Open
OIL P SW	Ignition switch ON		Close		
HOOD SW	Close the hood		Off		
HOOD SW	Open the hood		On		
HL WASHER REQ	NOTE: The item is indicated, but not	monitored.	Off		
	Not operation		Off		
THFT HRN REQ	Panic alarm is activated Horn is activated with VEHI TEM	CLE SECURITY (THEFT WARNING) SYS-	On		
HORN CHIRP	Not operating		Off		
HUNN CHIRP	Door locking with Intelligent K	(ey (horn chirp mode)	On		
CRNRNG LMP REQ	NOTE: The item is indicated, but not	monitored.	Off		

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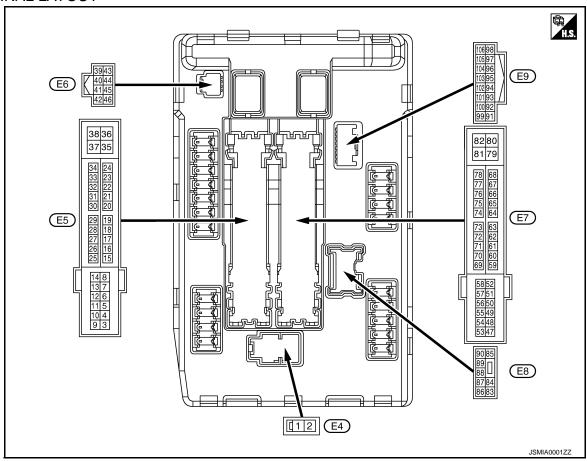
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< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

	inal No.	Description				Value
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition swi	itch OFF	Battery voltage
2 (L)	Ground	Battery power supply	Input	Ignition swi	itch OFF	Battery voltage
4	Craund	Frant winer I O	Outrout	Ignition	Front wiper switch OFF	0 V
(V)	Ground	Front wiper LO	Output	switch ON	Front wiper switch LO	Battery voltage
5	Ground	Front winer III	Output	Ignition	Front wiper switch OFF	0 V
(L)	C Ground Front wiper HI		Output	switch ON	Front wiper switch HI	Battery voltage
7	0	Tail, license plate lamps &	0	Ignition	Lighting switch OFF	0 V
(R)	Ground	interior lamps	Output	switch ON Lighting switch 1ST		Battery voltage
12 (B/W)	Ground	Ground	_	Ignition swi	itch ON	0 V
13				Approximately 1 second or more after turning the ignition switch ON		0 V
(Y)	Ground	Fuel pump power supply	Output		nately 1 second after turning on switch ON unning	Battery voltage
16				Ignition	Front wiper stop position	0 V
(LG)	Ground	Front wiper auto stop	Input	switch ON	Any position other than front wiper stop position	Battery voltage

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description			• ""	Value
+ (vvire	e color)	Signal name	Input/ Output	Condition		(Approx.)
19	Cravind	Ignition relay power supply	Output	Ignition switch OFF		0 V
(W)	Ground			Ignition switch ON		Battery voltage
25	0	126	0.1.1	Ignition switch OFF		0 V
(G)	Ground	Ignition relay power supply	Output	Ignition switch ON		Battery voltage
26*	0	I maidi an and an an ann an an an an	0	Ignition switch OFF Ignition switch ON		0 V
(R)	Ground	Ignition relay power supply	Output			Battery voltage
27	Craund	126	la a st	Ignition switch OFF or ACC		Battery voltage
(BG)	Ground	Ignition relay monitor	Input	Ignition switch ON		0 V
28	0	Push-button ignition	la d	Press the push-button ignition switch		0 V
(L)	Ground	switch	Input	Release the push-button ignition switch		Battery voltage
30 (GR)	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any position other than P or N	0 V
					Selector lever P or N	Battery voltage
36 (G)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
39 (P)	_	CAN-L	Input/ Output	_		
40 (L)	_	CAN-H	Input/ Output	_		_
41 (B/W)	Ground	Ground	_	Ignition switch ON		0 V
42	Ground	Cooling fan relay control	Input	Ignition switch OFF or ACC		0 V
(Y)			прис	Ignition switch ON		0.7 V
43 (SB)	Ground	A/T shift selector (Detention switch)	Input	Ignition switch ON	 Press the selector button (Selector lever P) Selector lever in any position other than P 	Battery voltage
					Release the selector but- ton (selector lever P)	0 V
44	0	Horn relay control	Input	The horn is deactivated		Battery voltage
(BR)	Ground			The horn is activated		0 V
45	Ground	Anti theft horn relay control	Input	The horn is deactivated		Battery voltage
(G)				The horn is activated		0 V
46	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any position other than P or N	0 V
(R)					Selector lever P or N	Battery voltage
					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
49 (BG)	Ground	ECM relay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V
				 Ignition switch ON Ignition switch OFF (For a few seconds after turning ignition switch OFF) 		Battery voltage

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< ECU DIAGNOSIS INFORMATION >

Terminal No.		Description				Value
(Wire color) + - Signal name		Signal name	Input/ Output	Condition		(Approx.)
51		1	0	Ignition switch OFF		0 V
(Y) Groun		Ignition relay power supply	Output	Ignition switch ON		Battery voltage
53 (W)		ECM relay power supply	Output	Ignition swi (More than ignition swi	a few seconds after turning	0 V
	Ground			 Ignition switch ON Ignition switch OFF (For a few seconds after turning ignition switch OFF) 		Battery voltage
54 (P)		Throttle control motor re- lay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V
	Ground			 Ignition switch ON Ignition switch OFF (For a few seconds after turning ignition switch OFF) 		Battery voltage
55 (SB)	Ground	ECM power supply	Output	Ignition switch OFF		Battery voltage
56 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
	Ground			Ignition switch ON		Battery voltage
57	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
(G)	Giodila			Ignition switch ON		Battery voltage
58	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
(V)	Giodila	ignition relay power supply	Output	Ignition switch ON		Battery voltage
69 (BR)	Ground	ECM relay control	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage
				Ignition switch ON Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0 – 1.5 V
70 (BG)	Ground	Throttle control motor re- lay control	Output	Ignition switch ON → OFF		0 − 1.0 V ↓ Battery voltage ↓ 0 V
				Ignition switch ON		0 – 1.0 V
74	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
(P)	Giouria			Ignition swi	tch ON	Battery voltage
75	Ground	Oil pressure switch	Input	Ignition	Engine stopped	0 V
(SB)	Ciodila			switch ON	Engine running	Battery voltage

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Description				Value	٨
+ (Wire	e color)	Signal name	Input/ Output	Condition		(Approx.)	Α
	Ground	Power generation command signal	Output	Ignition switch ON		(V) 6 4 2 0 2 2 ms JPMIA0001GB 6.3 V	B C
76 (Y)				40% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		(V) 6 4 2 0 2 ms JPMIA0002GB	E
				80% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		3.8 V (V) 6 4 2 0 JPMIA0003GB 1.4 V	G H
77 (R)	Ground	Fuel pump relay control	Output	Approximately 1 second after turning the ignition switch ON Engine running Approximately 1 second or more after turning the ignition switch ON		0 – 1.0 V	J
						Battery voltage	K
80 (W)	Ground	Starter motor	Output	At engine cranking		Battery voltage	
83 (BG)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF Lighting switch 2ND	0 V Battery voltage	EX
84 (V)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF Lighting switch 2ND Front fog lamp switch OFF	0 V Battery voltage 0 V	M
86 (W)	Ground	Front fog lamp (RH)	Output	Lighting ut switch 2ND	 Front fog lamp switch ON Daytime running light activated (Only for Canada) 	Battery voltage	N
	Ground	d Front fog lamp (LH) Outpu		Lighting Output switch 2ND	Front fog lamp switch OFF	0 V	
87 (L)			Output		 Front fog lamp switch ON Daytime running light activated (Only for Canada) 	Battery voltage	Р
88 (GR)	Ground	Washer pump power supply	Output	Ignition switch ON		Battery voltage	

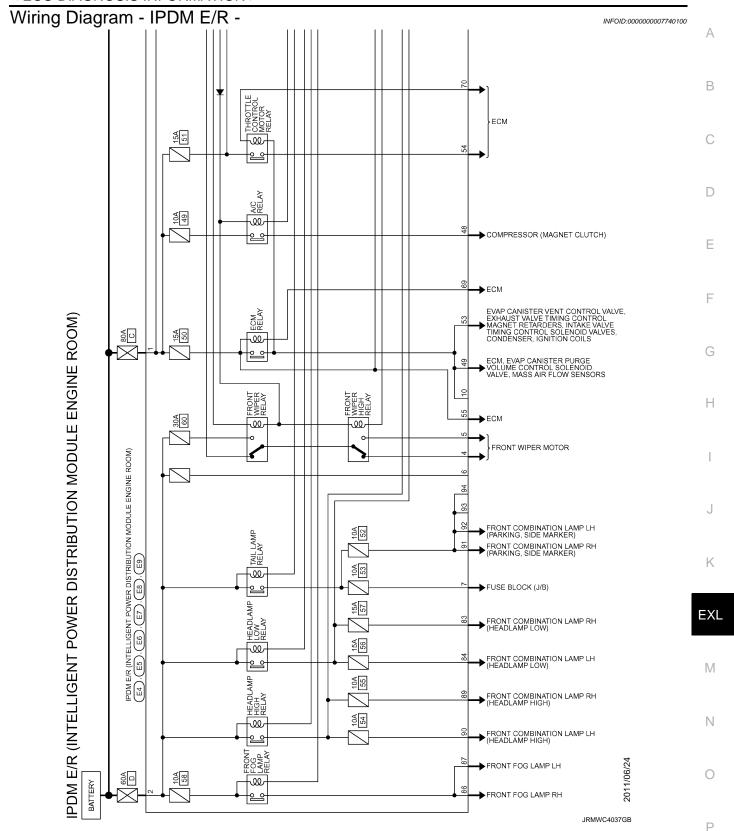
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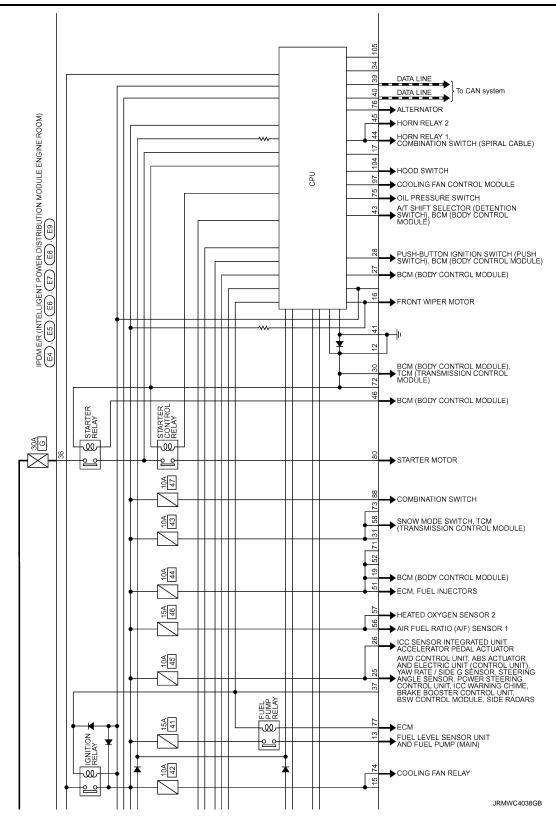
< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
89				Ignition switch ON	Lighting switch OFF	0 V
(BR)	Ground	Headlamp HI (RH)	Output		Lighting switch HI Lighting switch PASS	Battery voltage
00	Ground	Headlamp HI (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
90 (P)					Lighting switch HI Lighting switch PASS	Battery voltage
91	Cround	ning Parking lamp (RH) Clifblit S	Ignition	tion Lighting switch OFF	0 V	
(P)	Ground		Output	switch ON	Lighting switch 1ST	Battery voltage
92	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
(BG)					Lighting switch 1ST	Battery voltage
97 (V)	Ground	Cooling fan control	Output	Engine idling		0 – 5 V
104	Ground	und Hood switch Inpu	Innut	Close the hood		Battery voltage
(LG)			mput	Open the hood		0 V

^{*:} Only for the models with ICC system

< ECU DIAGNOSIS INFORMATION >

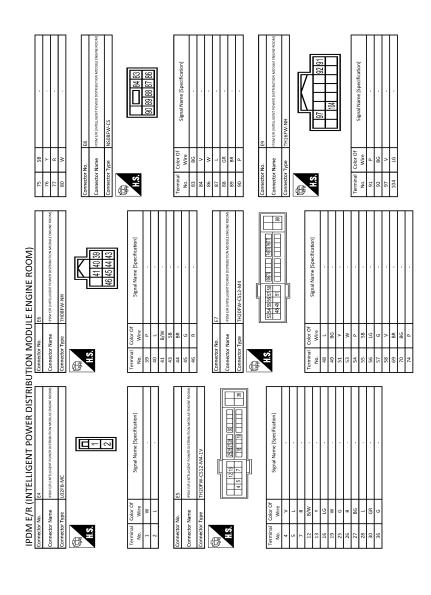




IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) [XENON TYPE]

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JRMWG8116GB

Fail-safe INFOID:0000000007740101

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

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) [XENON TYPE]

< ECU DIAGNOSIS INFORMATION >

Control part	Fail-safe operation
Cooling fan	 Outputs the pulse duty signal (PWM signal) 100% when the ignition switch is turned ON Outputs the pulse duty signal (PWM signal) 0% when the ignition switch is turned OFF
A/C compressor	A/C relay OFF
Alternator	Outputs the power generation command signal (PWM signal) 0%

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If No CAN Communication Is Available With BCM

Control part	Fail-safe operation
Headlamp	 Turns ON the headlamp low relay when the ignition switch is turned ON Turns OFF the headlamp low relay when the ignition switch is turned OFF Headlamp high relay OFF
Parking lampsLicense plate lampsSide maker lampsIlluminationsTail lamps	 Turns ON the tail lamp relay when the ignition switch is turned ON Turns OFF the tail lamp relay when the ignition switch is turned OFF
Front wiper	 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. 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.
Front fog lamps	Front fog lamp relay OFF
Horn	Horn relay OFF
Ignition relay	The status just before activation of fail-safe is maintained.
Starter motor	Starter control 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 for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

Voltage	iudgment		
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	Detects DTC "B2098: IGN RELAY ON" Turns ON the tail lamp relay for 10 minutes
OFF	ON	Ignition relay OFF stuck	Detects DTC "B2099: IGN RELAY OFF"

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.

Ignition switch	Front wiper switch	Front wiper stop position signal
ON	OFF	The front wiper stop position signal (stop position) cannot be input for 10 seconds.
ON	ON	The front wiper stop position signal does not change for 10 seconds.

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) [XENON TYPE]

< ECU DIAGNOSIS INFORMATION >

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:0000000007740102

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	Reference
No DTC is detected. further testing may be required.	_	_
U1000: CAN COMM CIRCUIT	×	PCS-14
B2098: IGN RELAY ON	×	PCS-15
B2099: IGN RELAY OFF	_	PCS-16
B210B: START CONT RLY ON	_	<u>SEC-77</u>
B210C: START CONT RLY OFF	_	SEC-78
B210D: STARTER RELAY ON	_	SEC-79
B210E: STARTER RELAY OFF	_	SEC-80
B210F: INTRLCK/PNP SW ON	_	<u>SEC-82</u>
B2110: INTRLCK/PNP SW OFF		SEC-84

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AFS CONTROL UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

Monitor Item	Condition	1	Value/Status
STR ANGLE SIG	Steering	Straight-forward	Approx. 0°
STR ANGLE SIG	Steering	Steering	Approx900° - +900°
VHCL SPD	Driving at 40 km/h (25 MPH)		40 km/h
SLCT LVR POSI	Selector lever operation		P - 1
LICADIAMD	Links quitab	2ND	On
HEAD LAMP	Light switch	Other than 2ND	Off
AFS SW	NOTE: The item is indicated, but not monitored		On
		Unloaded vehicle condition	Approx. 2.5 V
HI SEN OTP RR	Vehicle rear height	Low (Leveling operation downward edge)	Approx. 1.6 V
		Unloaded vehicle condition	Approx. 70.0%
LEV ACTR VLTG	Headlamp leveling	Low (Leveling operation	Approx. 35.4% (With 17-inch wheel)
		downward edge)	Approx. 32.1% (With 18-inch wheel)
SWVL SEN RH	Dight had diam's autical activation	Standard position	Approx. 0°
2MAT 2EN KU	Right headlamp swivel activation	Activation	Positive degree (+°)
SWVL SEN LH	Left has disconnectively activation	Standard position	Approx. 0°
SVV VL SEIV LIT	Left headlamp swivel activation	Activation	Positive degree (+°)
	Dight handlegen out to location	Standard position	Approx. 0°
SWVL ANGLE RH	Right headlamp swivel activation	Activation	Positive degree (+°)
NANA ANGLE III	Left has allown assistant activation	Standard position	Approx. 0°
SWVL ANGLE LH	Left headlamp swivel activation	Activation	Positive degree (+°)

TERMINAL LAYOUT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 JPLIA0176ZZ

PHYSICAL VALUES

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	nal No. e color)	Description				Value
+	-	Signal name	Input/ output	Condition	on	(Approx.)
1 (Y)	Ground	Ignition power supply	Input	The ignition switch ON	N	Battery voltage
2 (LG)	Ground	Right swivel position sensor ground	Input	The ignition switch ON	N	0 V
4 (Y)	Ground	Right swivel position sensor power supply	Output	The ignition switch ON	N	5 V
6 (W)	Ground	Height sensor power supply	Output	The ignition switch ON	N	5 V
7 (P)	Ground	CAN-L	Input/ output	_		_
8 (B)	Ground	Height sensor ground	Input	The ignition switch ON	١	0 V
9	Ground	Right swivel position sensor	Output	Right headlamp	0°	0.7 V
(GR)	Ground	signal	Output	swivel angle	15°	2.8 V
11 (R)	Ground	Right swivel motor 1-phase (–)	Output	Right headlamp swivel	Activation	Reference waveform (V) 15 10 5 0 SKIB2408J 8 - 12 V
13 (B)	Ground	Right swivel motor 2-phase (–)	Output	Right headlamp swivel	Stopped	9.5 - 11.5 V
15 (G)	Ground	Left swivel motor 1-phase (+)	Output	Left headlamp swivel	Activation	Reference waveform (V) 15 0 +100µs SKIB2408J 8 - 12 V
17 (W)	Ground	Left swivel motor 2-phase (+)	Output	Left headlamp swivel	Stopped	9.5 - 11.5 V
					Unloaded vehicle condition	8.8 V
19 (SB)	Ground	Right levelizer signal	Output	Right headlamp lev- eling	Leveling operation down-	4.4 V (With 17-inch wheel)
					ward edge	4.0 V (With 18-inch wheel)
24 (V)	Ground	Left swivel position sensor power supply	Output	The ignition switch ON	N	5 V
25 (B)	Ground	Ground	_	The ignition switch ON	N	0 V
27 (BR)	Ground	Left swivel position sensor ground	Input	The ignition switch ON	N	0 V

AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

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	inal No. e color)	Description		Conditio	20	Value
+	_	Signal name	Input/ output	Condition	on	(Approx.)
					Unloaded vehicle condition	2.5 V
28 (SB)	Ground	Height sensor signal	Output	Vehicle rear height	Low (Leveling operation downward edge)	1.6 V
29	Ground	Left swivel position sensor sig-	Output	Left headlamp swivel	0°	0.7 V
(O)		nal		angle	17°	3.0 V
30 (L)	Ground	CAN-H	Input/ output	_		_
32 (G)	Ground	Right swivel motor 2-phase (+)	Output	Right headlamp swivel	Activation	Reference waveform (V) 15 10 5 0 SKIB2408J 8 - 12 V
34 (W)	Ground	Right swivel motor 1-phase (+)	Output	Right headlamp swivel	Stopped	9.5 - 11.5 V
36 (R)	Ground	Left swivel motor 2-phase (-)	Output	Left headlamp swivel	Activation	Reference waveform (V) 15 0 +-100µs SKIB2408J 8 - 12 V
38 (B)	Ground	Left swivel motor 1-phase (-)	Output	Left headlamp swivel	Stopped	9.5 - 11.5 V
					Unloaded vehicle condition	8.8 V
40 (L)	Ground	Left levelizer signal	Output	Right headlamp lev- eling	Leveling oper- ation down-	4.4 V (With 17-inch wheel)
					ward edge	4.0 V (With 18-inch wheel)

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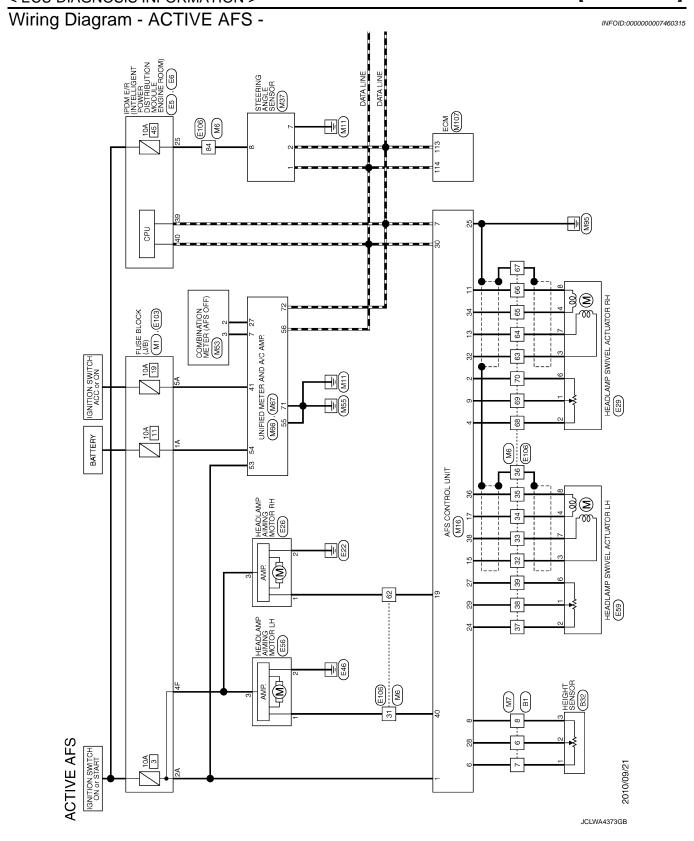
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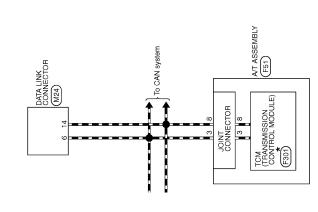
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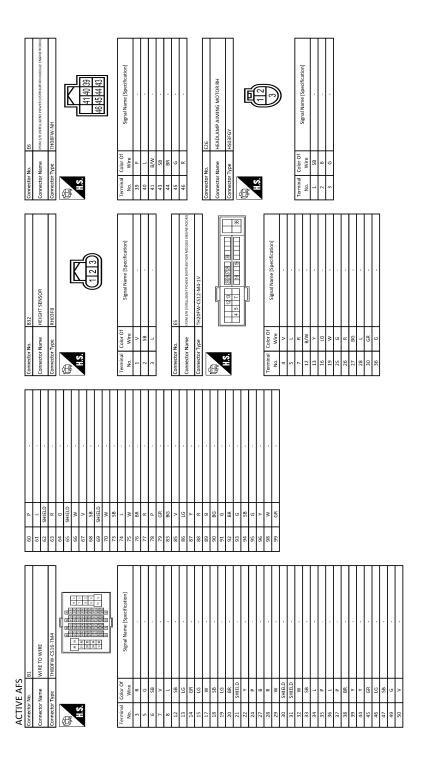
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★: This connector is not shown in "Harness Layout".

Revision: 2014 October EXL-189 2012 EX



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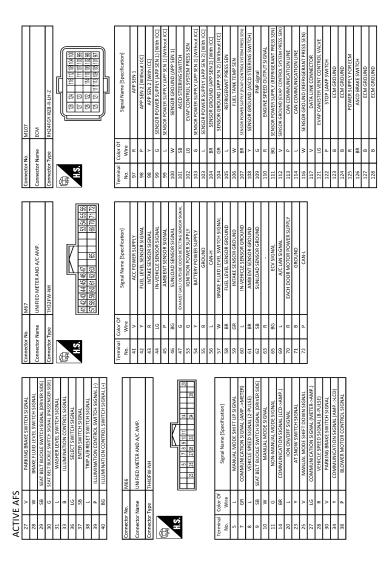
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Fail-Safe

DTC	Fail-safe	AFS OFF indica- tor lamp	Cancellation
CAN COMM CIRCUIT [U1000]	 Right and left swivel motors stop at the position when DTC is detected. Right and left aiming motors stop at the position when DTC is detected. 	Blinks 1 second each.	Ignition switch OFF
CONTROL UNIT (CAN) [U1010]	 Right and left swivel motors stop at the position when DTC is detected. Right and left aiming motors stop at the position when DTC is detected. 	Blinks 1 second each.	Ignition switch OFF
SWIVEL ACTUATOR [RH, LH] [B2503, B2504]	 Right and left swivel motors stop at the position when DTC is detected. The signal, approximately 2 V decreased from the levelizer signal when DTC detected, is output. 	Blinks 1 second each.	Ignition switch OFF
HI SEN UNUSUAL [RR] [B2514]	Right and left aiming motors stop at the position when DTC is detected.	_	Ignition switch OFF
ST ANG SEN SIG [C0126]	Right and left swivel motor swivel angle returns to 0° and fixed.	Blinks 1 second each.	Ignition switch OFF
SHIFT SIG [P, R] [B2516]	Right and left swivel motor swivel angle returns to 0° and fixed.	Blinks 1 second each.	Ignition switch OFF
VEHICLE SPEED SIG [B2517]	 Right and left swivel motor swivel angle returns to 0° and fixed. Right and left aiming motors stop at the position when DTC is detected. 	Blinks 1 second each.	Ignition switch OFF
LEVELIZER CALIB [B2519]	Right and left aiming motors stop at the position when DTC is detected.	_	When the levelizer adjustment is completed.
ST ANGLE SEN CALIB [C0428]	Right and left swivel motor swivel angle returns to 0° and fixed.	Blinks 1 second each.	When the steering angle sensor neutral position registration is competed
ECU CIRC [B2521]	 Right and left swivel motors stop at the position when DTC is detected. Right and left aiming motors stop at the position when DTC is detected. 	Blinks 1 second each.	Ignition switch OFF

DTC Inspection Priority Chart

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

NOTE:

- If DTC U1000 is displayed with other DTC, first perform the trouble diagnosis for DTC U1000.
- If DTC U1010 is displayed with other DTC, first perform the trouble diagnosis for DTC U1010.

Priority	Detected items (DTC)
1	U1000 CAN COMM CIRCUIT U1010 CONTROL UNIT (CAN)
2	B2519 LEVELIZER CALIB B2521 ECU CIRC C0428 ST ANG SEN CALIB
3	B2503 SWIVEL ACTUATOR [RH] B2504 SWIVEL ACTUATOR [LH] B2514 HI SEN UNUSUAL [RR] B2516 SHIFT SIG [P, R] B2517 VEHICLE SPEED SIG C0126 ST ANG SEN SIG

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AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

DTC Index

×: Applicable

CONSULT indication	Fail-safe	AFS OFF indicator lamp	Reference
U1000: CAN COMM CIRCUIT	×	×	EXL-62, "Description"
U1010: CONTROL UNIT (CAN)	×	×	EXL-63, "DTC Logic"
B2503, B2504: SWIVEL ACTUATOR [RH, LH]	×	×	EXL-45, "Description"
B2514: HI SEN UNUSUAL [RR]	×		EXL-51, "Description"
B2516: SHIFT SIG [P, R]	×	×	EXL-54, "Description"
B2517: VEHICLE SPEED SIG	×	×	EXL-55, "Description"
B2519: LEVELIZER CALIB	×		EXL-56, "Description"
B2521: ECU CIRC	×	×	EXL-57, "Description"
C0126: ST ANG SEN SIG	×	×	EXL-60, "Description"
C0428: ST ANGLE SEN CALIB	×	×	EXL-61, "Description"

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

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SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

CAUTION:

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.		Fuse Halogen bulb (HI) Harness between IPDM E/R and the headlamp high IPDM E/R	Headlamp (HI) circuit Refer to <u>EXL-67</u> .	
	Both sides	Symptom diagnosis		
Headlamp (HI) is not	When ignition switch is turned ON.	"BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON" Refer to EXL-200.		
turned OFF.	When ignition switch is turned OFF.	IPDM E/R	_	
High beam indicator lam [The headlamp (HI) is tu		Combination meter	Combination meter Data monitor "HI-BEAM IND" BCM (HEAD LAMP) Active test "HEADLAMP"	
Headlamp (LO) is not turned ON.		Fuse Xenon bulb (LO) Harness between IPDM E/R and the headlamp low IPDM E/R	Headlamp (LO) circuit Refer to EXL-69.	
	Both sides	Symptom diagnosis		
Headlamp (LO) is not	When ignition switch is turned ON.	"BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to <u>EXL-201</u> .		
turned OFF.	When ignition switch is turned OFF.	IPDM E/R	_	
Headlamp is not turned ON/OFF with the lighting switch AUTO.		Combination switch Harness between the combination switch and BCM BCM	Combination switch Refer to BCS-89.	
		Optical sensor Harness between the optical sensor and BCM BCM	Optical sensor Refer to <u>EXL-80</u> .	
Front fog lamp is not turned ON.	One side	Front fog lamp bulb Harness between IPDM E/R and the front combination lamp Front combination lamp IPDM E/R	Front fog lamp circuit Refer to EXL-74.	
	Both side	Symptom diagnosis		
Front fog lamp is not turned ON.		"BOTH SIDE FRONT FOG LAMPS Refer to <u>EXL-203</u> .	S ARE NOT TURNED ON"	
Parking lamp is not turned ON.		Fuse Parking lamp bulb Harness between IPDM E/R and the front combination lamp Front combination lamp IPDM E/R	Parking lamp circuit Refer to <u>EXL-76</u> .	

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EXL-197 Revision: 2014 October 2012 EX

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

Symp	otom	Possible cause	Inspection item
Tail lamp is not turned ON.		Harness between IPDM E/R and the rear combination lamp Rear combination lamp	Tail lamp circuit Refer to EXL-85.
License plate lamp is not to	urned ON.	Harness between IPDM E/R and the license plate lamp License plate lamp	License plate lamp circuit Refer to EXL-87.
Tail lamp and the license p ON.	late lamp are not turned	Fuse Harness between IPDM E/R and the rear combination lamp IPDM E/R	Tail lamp circuit Refer to <u>EXL-85</u> .
 Parking lamp, the tail lam lamp are not turned ON. Parking lamp, the tail lam lamp are not turned OFF (Each illumination is turned) 	np and the license plate	Symptom diagnosis "PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-202.	
Turn signal lamp does not blink.	Indicator lamp is normal. (The applicable side performs the high flasher activation.)	Harness between BCM and each turn signal lamp Turn signal lamp bulb	Turn signal lamp circuit Refer to EXL-78.
DIIIK.	Indicator lamp is included	Combination switch Harness between the combination switch and BCM BCM	Combination switch Refer to <u>BCS-89</u> .
	One side	Combination meter	_
Turn signal indicator lamp does not blink. (The turn signal indicator	Both sides (Always)	 Turn signal indicator lamp signal Unified meter and A/C amp. BCM Combination meter 	Unified meter and A/C amp. Data monitor "TURN IND" BCM (FLASHER) Active test "FLASHER"
lamp is normal.)	Both sides (Only when activating the hazard warning lamp with the ignition switch OFF)	The combination meter power supply and the ground circuit Combination meter	Combination meter Power supply and the ground circuit Refer to MWI-55.
 Hazard warning lamp does not activate. Hazard warning lamp continues activating. (Turn signal is normal.) 		Hazard switch Harness between the hazard switch and BCM BCM	Hazard switch Refer to <u>EXL-83</u> .
Headlamp auto aiming does not activate. (AFS is normal.)		Harness between AFS control unit and aiming motor Front combination lamp (Aiming motor) AFS control unit	Headlamp levelizer circuit Refer to EXL-72.
AFS OFF indicator lamp is not turned ON.		 AFS OFF indicator lamp signal Unified meter and A/C amp. AFS control unit Combination meter 	Unified meter and A/C amp. Data monitor "AFS OFF IND"

NORMAL OPERATING CONDITION

[XENON TYPE] < SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Α Description INFOID:0000000007460320

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 for the control difference. This is normal.

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BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS > [XENON TYPE]

BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

Description INFOID:000000007460321

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

Diagnosis Procedure

INFOID:0000000007460322

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to BCS-89, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

(E) CONSULT DATA MONITOR

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

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

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to BCS-92, "Exploded View".

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to EXL-67, "Component Function Check".

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON [XENON TYPE] < SYMPTOM DIAGNOSIS > BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON Α Description INFOID:0000000007460323 The headlamps (both sides) are not turned ON in any condition. В Diagnosis Procedure INFOID:0000000007460324 CHECK COMBINATION SWITCH Check the combination switch. Refer to BCS-89, "Symptom Table". Is the combination switch normal? D YES >> GO TO 2. NO >> Repair or replace the malfunctioning part. 2.CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT Е **©CONSULT DATA MONITOR** Select "HL LO REQ" of IPDM E/R data monitor item. With operating the lighting switch, check the monitor status. F Monitor item Condition Monitor status 2ND On **HL LO REQ** Lighting switch OFF Off Is the item status normal? Н YES >> GO TO 3. NO >> Replace BCM. 3.HEADLAMP (LO) CIRCUIT INSPECTION Check the headlamp (LO) circuit. Refer to EXL-69, "Description".

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Revision: 2014 October

Is the headlamp (LO) circuit normal?

>> Replace IPDM E/R.

>> Repair or replace the malfunctioning part.

YES

NO

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

Description INFOID:000000007460325

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

Diagnosis Procedure

INFOID:0000000007460326

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to BCS-89, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

PCONSULT DATA MONITOR

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

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

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

3. TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to EXL-85, "Component Function Check".

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON [XENON TYPE] < SYMPTOM DIAGNOSIS > BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON Α Description INFOID:0000000007460327 The front fog lamps are not turned ON in any condition. В Diagnosis Procedure INFOID:0000000007460328 1.COMBINATION SWITCH INSPECTION Check the combination switch. Refer to BCS-89, "Symptom Table". Is the combination switch normal? D YES >> GO TO 2. NO >> Repair or replace the malfunctioning part. 2.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT Е **©CONSULT DATA MONITOR** Select "FR FOG REQ" of IPDM E/R data monitor item. With operating the front fog lamp switch, check the monitor status. F

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

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

3. FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to EXL-74, "Component Function Check".

Is the front fog lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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PRECAUTIONS

< PRECAUTION > [XENON TYPE]

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.

Precautions For Xenon Headlamp Service

INFOID:0000000007460330

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.).

[XENON TYPE]

PERIODIC MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Description INFOID:000000007460331

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.

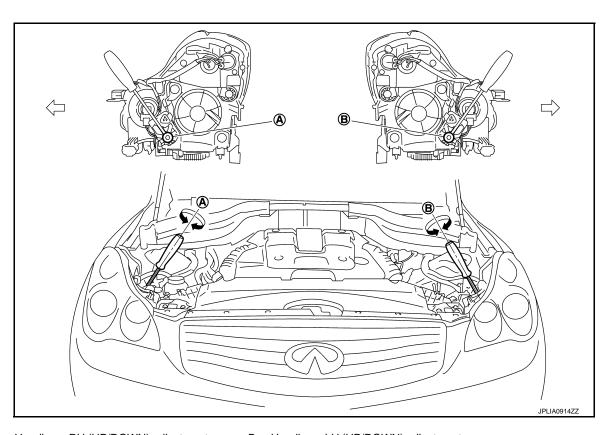
Wipe out dirt on the headlamp.

CAUTION:

Never use organic solvent (thinner, gasoline etc.)

Ride alone on the driver seat.

AIMING ADJUSTMENT SCREW



A Headlamp RH (UP/DOWN) adjustment screw B. Headlamp LH (UP/DOWN) adjustment screw

∀
 : Vehicle center

NOTE:

The figure is the vehicle without AFS. Each adjustment screw is applied to the vehicle with AFS.

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

Aiming Adjustment Procedure

INFOID:0000000007460332

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.

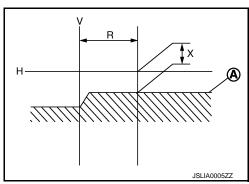
CAUTION:

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 range (R) : 350 \pm 175 mm (13.78 \pm 6.89 in)

Low beam distribution on the screen

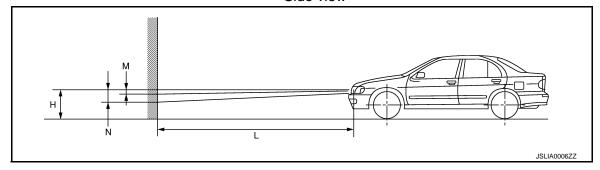


5. Adjust the cutoff line height (X) with the aiming adjustment screw so as to enter in the adjustment range (M–N) according to the horizontal center line of headlamp (H).

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



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

FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

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FRONT FOG LAMP AIMING ADJUSTMENT

Description INFOID:0000000007460333

PREPARATION BEFORE ADJUSTING

- 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

Turn the aiming adjusting screw for adjustment.

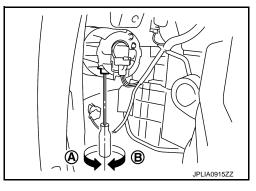
A: UP

B: DOWN

 For the position and direction of the adjusting screw, refer to the figure.

NOTE:

A screwdriver or hexagonal wrench [6 mm (0.24 in)] can be used for adjustment.



INFOID:0000000007460334

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 front fog lamp center and the screen.
- Start the engine. Turn the front fog lamp 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. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 200 mm (7.87 in).

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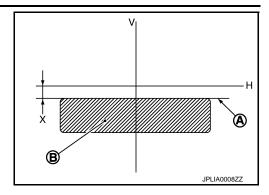
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FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

Front fog lamp light distribution on the screen



A : Cutoff line

B : High illuminance area

H : Horizontal center line of front fog lampV : Vertical center line of front fog lamp

X : Cutoff line height

[XENON TYPE]

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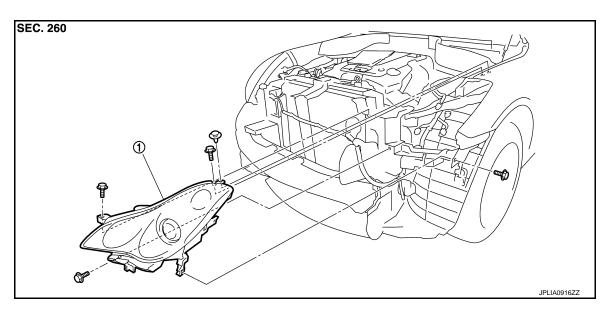
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REMOVAL AND INSTALLATION

FRONT COMBINATION LAMP

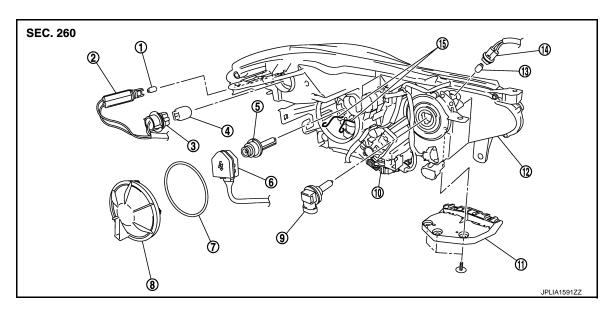
Exploded View

REMOVAL



1. Front combination lamp

DISASSEMBLY



- 1. Front side marker lamp bulb
- 4. Front turn signal lamp bulb
- 7. Seal packing
- 10. HID control unit
- 13. Parking lamp bulb

- 2. Front side marker lamp bulb socket
- 5. Xenon bulb
- 8. Resin cap
- 11. Bumper bracket
- 14. Parking lamp bulb socket
- 3. Front turn signal lamp bulb socket
- 6. Xenon bulb socket
- 9. Headlamp (HI) bulb
- 12. Headlamp housing assembly
- 15. Retaining spring

CAUTION:

HID control unit and xenon bulb socket cannot be disassembled.

Removal and Installation

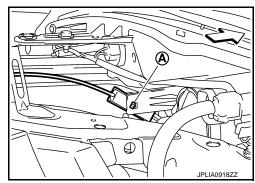
INFOID:0000000007460336

REMOVAL

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

- Remove the front bumper fascia. Refer to EXT-12, "Exploded View".
- Remove the headlamp mounting bolts and clips.
- Remove the harness clip and the holding clip (A)*.
 *: Left side only.
- 4. Pull out the headlamp assembly forward the vehicle.
- 5. Disconnect the connector before removing the headlamp assembly.



INSTALLATION

Install in the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to EXL-205, "Description".

Replacement INFOID:000000007460337

CAUTION:

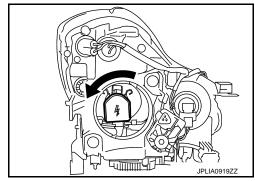
- Disconnect the battery negative terminal or remove the fuse.
- After installing the bulb, install the resin cap and the bulb socket securely for watertightness.
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it. Never touch bulb by hand while it is lit 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)

- 1. Remove the fender rubber protector in the engine room. Keep a service area.
- 2. Rotate the resin cap counterclockwise and unlock it.
- Rotate the bulb socket counterclockwise and unlock it.
- Remove the retaining spring lock. And then remove the bulb from the headlamp housing assembly.

CAUTION:

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



HEADLAMP BULB (HI)

- Remove the washer tank inlet^{*}. Refer to <u>WW-111, "Exploded View"</u>.
 *:When replace a right.
- 2. Disconnect the headlamp (HI) bulb connector.
- 3. Rotate the bulb socket counterclockwise and unlock it.
- 4. Remove the bulb socket from the headlamp housing assembly.

PARKING LAMP BULB

Rotate the bulb socket counterclockwise and unlock it.

FRONT COMBINATION LAMP [XENON TYPE] < REMOVAL AND INSTALLATION > Remove the bulb from the bulb socket. Α FRONT TURN SIGNAL LAMP BULB 1. Remove the fender rubber protector in the engine room. Keep a service area. Rotate the bulb socket counterclockwise and unlock it. В Remove the bulb from the bulb socket. FRONT SIDE MARKER LAMP BULB 1. Remove the fender rubber protector in the engine room. Keep a service area. 2. Rotate the bulb socket counterclockwise and unlock it. Remove the bulb from the bulb socket. D Disassembly and Assembly INFOID:0000000007460338 **CAUTION:** Е HID control unit and xenon bulb socket cannot be disassembled. DISASSEMBLY F 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. Remove the xenon bulb. Remove the bumper bracket. 5. Rotate the parking lamp bulb socket counterclockwise and unlock it. 6. Remove the bulb from the parking lamp bulb socket. Н Rotate the front turn signal lamp bulb socket counterclockwise and unlock it. 8. Remove the bulb from the front turn signal lamp bulb socket. 9. Rotate the front side marker lamp bulb socket counterclockwise and unlock it. 10. Remove the bulb from the front side marker lamp bulb socket. 11. Rotate the headlamp (HI) bulb socket counterclockwise and unlock it. 12. Remove the bulb socket from the headlamp housing assembly. **ASSEMBLY** Assemble in the reverse order of disassembly. K CAUTION: After installing the bulb, install the resin cap and the bulb socket securely for watertightness. EXL

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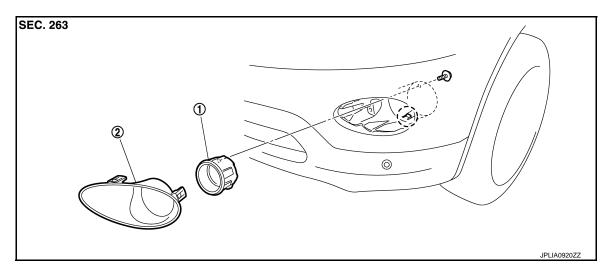
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FRONT FOG LAMP

Exploded View



- Front fog lamp
- ? : Pawl

Front fog lamp finisher

Removal and Installation

INFOID:0000000007460340

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- Remove the front fender protector. Keep a service area. Refer to <u>EXT-25</u>, "<u>FENDER PROTECTOR</u>: Exploded View".
- 2. Remove the front fog lamp finisher.
- 3. Remove the front fog lamp connector.
- 4. Remove the screw.
- 5. Disengage the pawl. And then remove the front fog lamp.

INSTALLATION

Installation is the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to EXL-207, "Description"

Replacement INFOID:000000007460341

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 FOG LAMP BULB

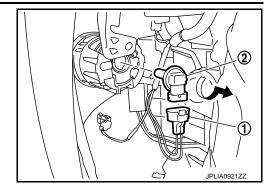
1. Remove the front fender protector. Keep the service area. Refer to EXT-25, "FENDER PROTECTOR: Exploded View".

FRONT FOG LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

- 2. Remove the front fog lamp bulb connector (1).
- 3. Rotate the bulb (2) counterclockwise and unlock it.



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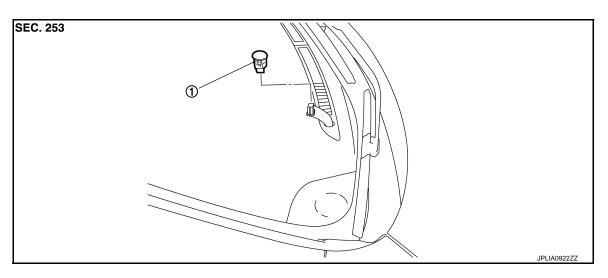
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OPTICAL SENSOR

Exploded View



Optical sensor

Removal and Installation

INFOID:0000000007460343

REMOVAL

- 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 AND TURN SIGNAL SWITCH

< REMOVAL AND INSTALLATION >

[XENON TYPE]

LIGHTING AND TURN SIGNAL SWITCH

Exploded View

Lighting and turn signal switch is integrated in the combination switch. BCS-93, "Exploded View".

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HAZARD SWITCH

< REMOVAL AND INSTALLATION >

[XENON TYPE]

HAZARD SWITCH

Exploded View

The hazard warning switch is integrated in the multifunction switch. Refer to AV-135, "Exploded View".

[XENON TYPE]

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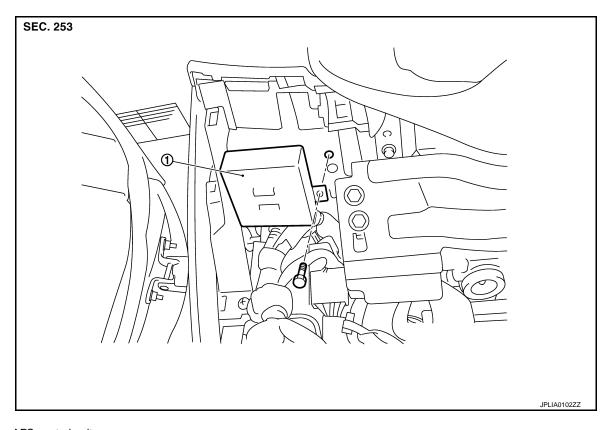
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INFOID:0000000007460347

AFS CONTROL UNIT

Exploded View



1. AFS control unit

Removal and Installation

REMOVAL

- 1. Remove the instrument lower panel LH. Refer to IP-12, "Exploded View".
- 2. Remove the AFS control unit mounting bolt.
- 3. Disconnect the AFS control unit connector.
- 4. Remove the AFS control unit.

INSTALLATION

Install in the reverse order of removal.

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STEERING ANGLE SENSOR

< REMOVAL AND INSTALLATION >

[XENON TYPE]

STEERING ANGLE SENSOR

Removal and Installation

INFOID:0000000007460348

Refer to SR-14, "Removal and Installation".

[XENON TYPE]

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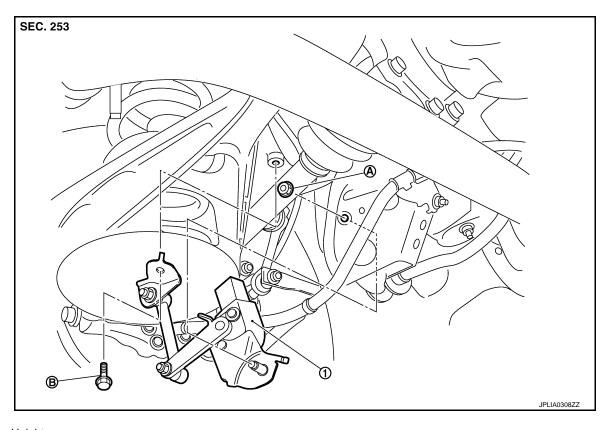
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HEIGHT SENSOR

Exploded View



- 1. Height sensor
- A Height sensor mounting nut
- Height sensor lever link bracket mounting bolt

Removal and Installation

INFOID:0000000007460350

REMOVAL

- 1. Remove the height sensor mounting nut.
- 2. Remove the height sensor lever link bracket mounting bolt.
- 3. Disconnect the height sensor connector.
- 4. Remove the height sensor.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Perform the levelizer adjustment when removing the height sensor. Refer to <u>EXL-10</u>, "<u>LEVELIZER ADJUSTMENT</u>: Special Repair Requirement".

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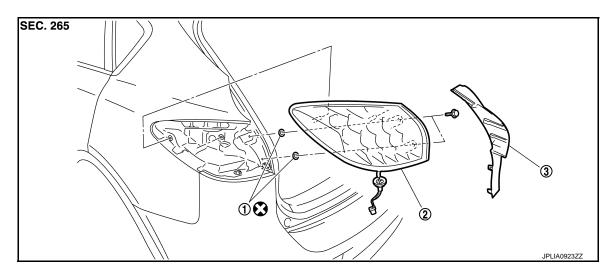
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REAR COMBINATION LAMP

Exploded View



Seal packing

- 2. Rear combination lamp
- 3. Rear combination lamp finisher

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

Removal and Installation

INFOID:0000000007460352

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- 1. Remove the luggage side finisher lower. Refer to INT-36, "Exploded View".
- 2. Remove the rear combination lamp finisher.
- 3. Remove the rear combination lamp mounting bolts.
- 4. Disconnect the rear combination lamp connector.
- 5. Pull the rear combination lamp toward outside of the vehicle. Remove the rear combination lamp.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Seal packing cannot be reused.

[XENON TYPE]

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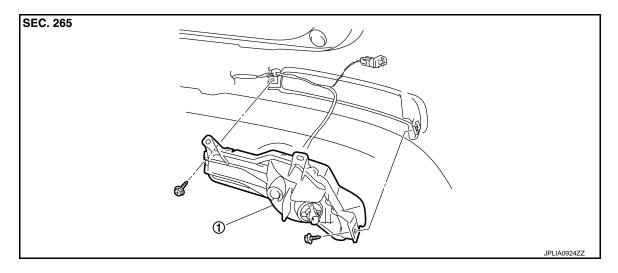
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REAR TURN SIGNAL LAMP

Exploded View



Rear turn signal lamp

Removal and Installation

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- 1. Remove the rear bumper fascia. Refer to EXT-16, "Exploded View".
- 2. Remove the rear turn signal lamp.

INSTALLATION

Install in the reverse order of removal.

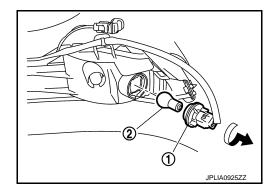
Replacement INFOID:000000007460355

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



EXL

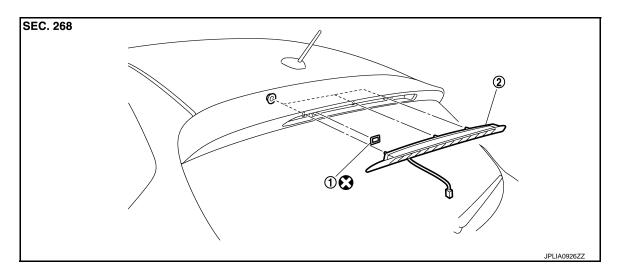
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HIGH-MOUNTED STOP LAMP

Exploded View



1. Seal packing

2. High-mounted stop lamp

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

Removal and Installation

INFOID:0000000007460357

REMOVAL

- 1. Remove the back door finisher inner. Refer to INT-40, "Exploded View".
- 2. Remove the high-mounted stop lamp mounting nuts.
- 3. Disconnect the high-mounted stop lamp connector. And then remove the rear washer tube.
- 4. Pull the high-mounted stop lamp toward rear of the vehicle.
- 5. Remove the high-mounted stop lamp.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Seal packing cannot be reused.

[XENON TYPE]

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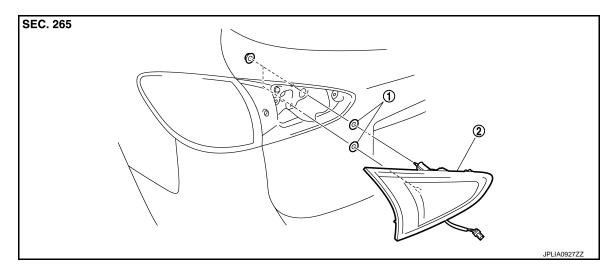
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BACK-UP LAMP

Exploded View



Seal packing

Back-up lamp

Removal and Installation

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- Remove the back door finisher inner. Refer to <u>INT-40, "Exploded View"</u>.
- 2. Remove the back-up lamp mounting nuts.
- 3. Disconnect the back-up lamp connector. And then remove the back-up lamp.

INSTALLATION

Install in the reverse order of removal.

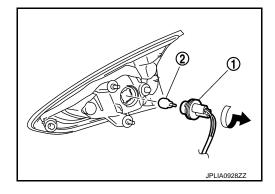
Replacement INFOID:000000007460360

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.

BACK-UP LAMP BULB

- 1. Remove the back-up lamp. Refer to EXL-223, "Exploded View".
- 2. Turn the bulb socket (1) counterclockwise and unlock it.
- Remove the bulb (2) from the socket.



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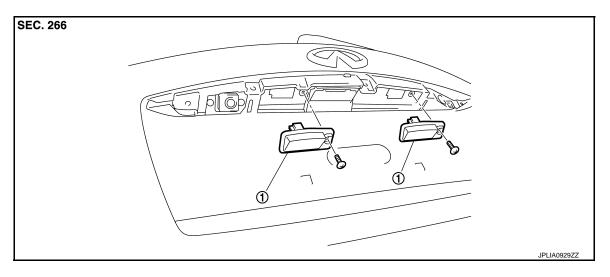
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LICENSE PLATE LAMP

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 door handle cover. Refer to EXT-48, "Exploded View".
- Remove the screw. And then remove the license plate lamp.
- 3. Disconnect the license plate lamp connector.

INSTALLATION

Install in the reverse order of removal.

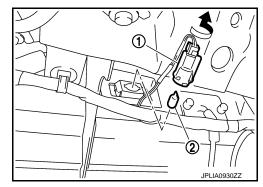
Replacement INFOID:000000007460363

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

- 1. Remove the back door finisher inner. Refer to INT-40, "Exploded View".
- 2. Turn the bulb socket (1) counterclockwise and unlock it.
- 3. Remove the bulb (2) from the socket.



SERVICE DATA AND SPECIFICATIONS (SDS)

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[XENON TYPE]

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SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

Item		Туре	Wattage (W)	
	Headlamp (HI)	H9 (Halogen)	65	
	Headlamp (LO)	D2S (XENON)	35	
Front combination lamp	Front turn signal lamp	W21W	21	
	Parking lamp	W5W	5	
	Front side marker lamp	W5W	5	
Front fog lamp		H8	35	
Dear combination laws	Stop lamp/Tail lamp	LED	_	
Rear combination lamp	Rear side marker lamp	LED	_	
Rear turn signal lamp		PY21W (Amber)	21	
Back-up lamp		W16W	16	
License plate lamp		W5W	5	
High-mounted stop lamp		LED	_	

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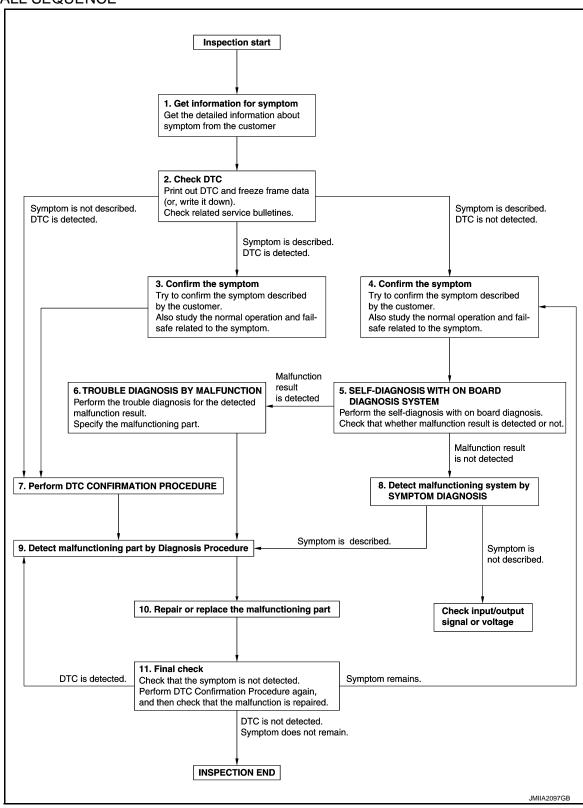
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



DIAGNOSIS AND REPAIR WORKFLOW

[HALOGEN TYPE] < 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 7.

${f 3.}$ 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 7.

f 4.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.

${f 5.}$ SELF-DIAGNOSIS WITH ON BOARD DIAGNOSIS SYSTEM

Perform the self-diagnosis with on board diagnosis. Check that whether malfunction result is detected or not. Is malfunction result detected?

YES >> GO TO 6.

NO >> GO TO 8.

6.TROUBLE DIAGNOSIS BY MALFUNCTION

Perform the trouble diagnosis for the detected malfunction result. Specify the malfunctioning part.

>> GO TO 9.

7. 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 this check.

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?

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION > [HALOGEN TYPE]

YES >> GO TO 9.

NO >> Check according to GI-42, "Intermittent Incident".

f 8.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 9.

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

9. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 10.

NO >> Check according to GI-42, "Intermittent Incident".

10. REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 11.

11. 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 9.

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

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

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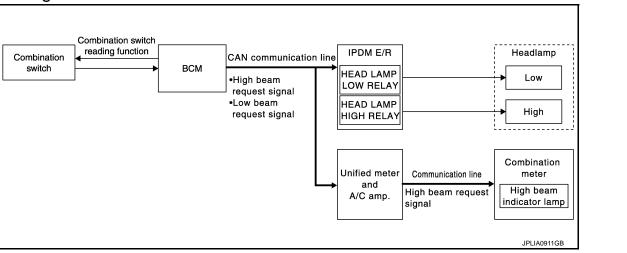
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SYSTEM DESCRIPTION

HEADLAMP SYSTEM

System Diagram



System Description

INFOID:0000000007460367

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
- 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 (through unified meter and A/C amp.) with CAN communication according to the headlamp (HI) ON condition.

Headlamp (HI) ON condition

- Lighting switch HI with the lighting switch 2ND
- Lighting switch PASS
- 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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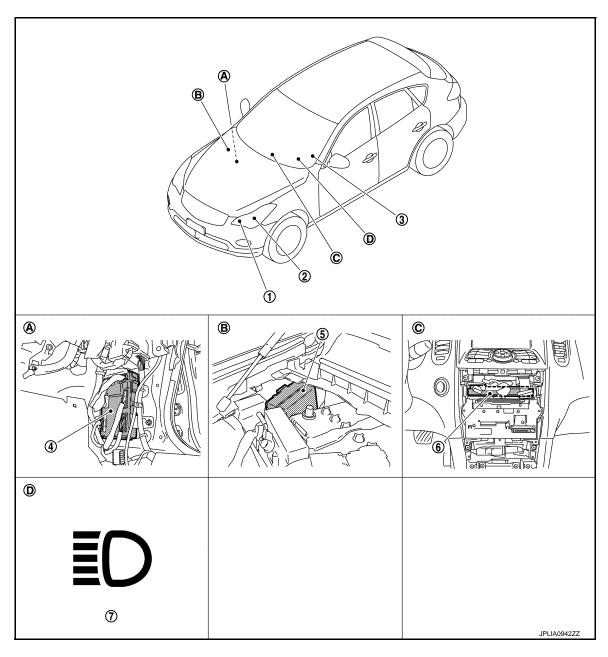
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Component Parts Location

INFOID:0000000007460368



- 1. Headlamp (HI)
- 4. BCM
- 7. High beam indicator lamp
- A. Dash side lower (Passenger side)
- D. On the combination meter
- 2. Headlamp (LO)
- 5. IPDM E/R
- B. Engine room dash panel (LH)
- 3. Combination switch
- 6. Unified meter and A/C amp.
- C. Behind the cluster lid c

HEADLAMP SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Component Description

INFOID:0000000007460369

Part	Description 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 (HI/LO) ON to IPDM E/R (with CAN communication). Requests the high beam indicator lamp ON to the combination meter (with CAN communication).		
ВСМ			
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-10, "System Diagram".		
Combination meter (High beam indicator lamp)	Turns the high beam indicator lamp ON according to the request from BCM [(with CAN communication (through unified meter and A/C amp.)].		

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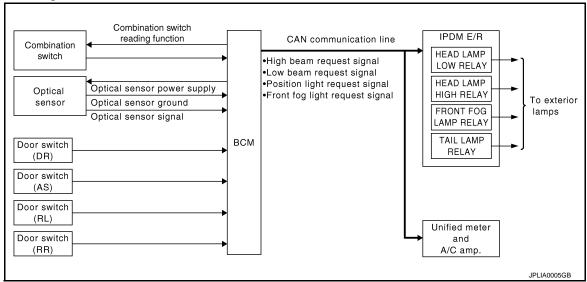
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AUTO LIGHT SYSTEM

System Diagram

INFOID:0000000007460370



System Description

INFOID:0000000007460371

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
 of time.
- *: Headlamp (LO/HI), parking lamp, tail lamp, and front fog lamp (Headlamp HI and front fog lamp 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.

NOTE:

ON/OFF timing differs based on the sensitivity from the setting. The setting can be set by CONSULT. Refer to EXL-247, "HEADLAMP: CONSULT Function (BCM - HEAD LAMP)".

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.
- *: The preset time is 45 seconds. The timer operating time can be set by CONSULT. Refer to <u>EXL-247</u>, <u>"HEADLAMP : CONSULT Function (BCM HEAD LAMP)"</u>.

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.

Component Parts Location

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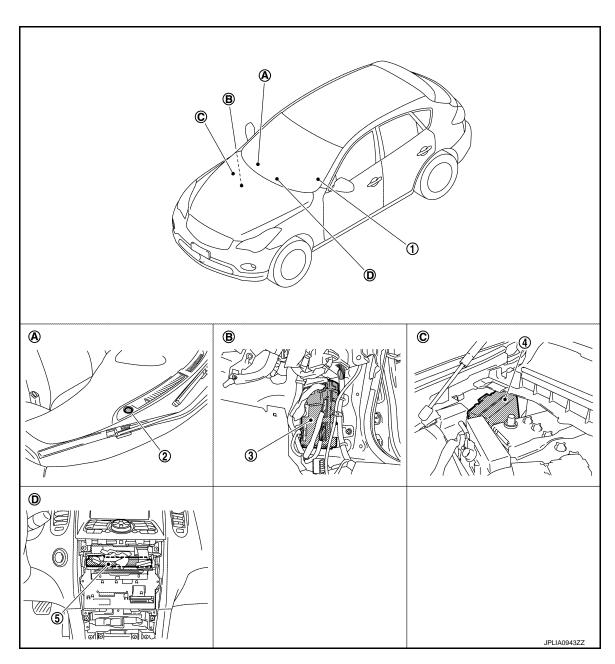
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- 1. Combination switch
- 4. IPDM E/R
- A. Instrument upper panel (RH)
- D. Behind the cluster lid C
- 2. Optical sensor
- 5. Unified meter and A/C amp.
- B. Dash side lower (Passenger side)
- 3. BCM
- C. Engine room dash panel (RH)

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AUTO LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Component Description

INFOID:0000000007460373

Part	Description Judges 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).		
ВСМ			
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-10, "System Diagram".		
Optical sensor	Refer to EXL-268, "Description".		

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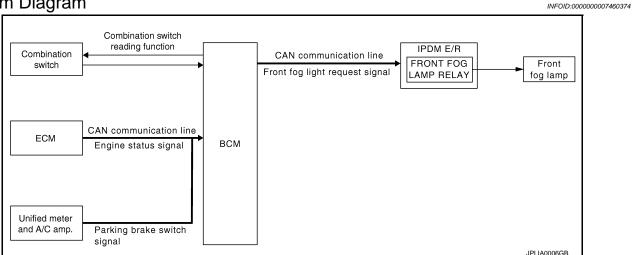
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DAYTIME RUNNING LIGHT SYSTEM

System Diagram



System Description

INFOID:0000000007460375

OUTLINE

- Turns the front fog lamp 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 vehicle condition depending on the following signals.
- Engine condition signal (received from ECM with CAN communication)
- Parking brake switch signal (received from unified meter and A/C amp. 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

While the engine running with the parking brake released

Daytime running light OFF condition

- Engine stopped
- Headlamp ON (Passing included)
- IPDM E/R turns the integrated front fog lamp relay ON and turns the front fog lamp ON according to the front fog light request signal.

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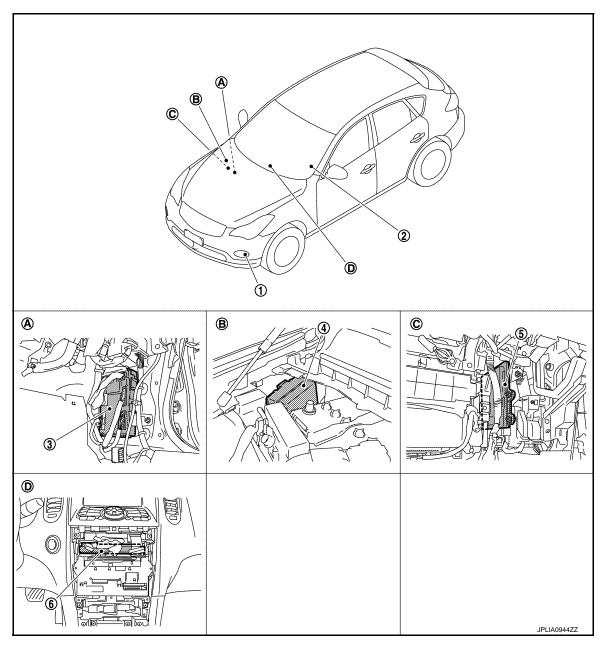
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Component Parts Location

INFOID:0000000007460376



- Daytime running light (Front fog lamp)
- 4. IPDM E/R
- A. Dash side lower (Passenger side)
- D. Behind the cluster lid C
- 2. Combination switch
- 5. ECM
- B. Engine room dash panel (RH)
- 3. BCM
- 6. Unified meter and A/C amp.
- C. Behind the glove box

Component Description

INFOID:0000000007460377

Part	Description	
BCM	 Judges each switch condition with the combination switch reading function. Judges the headlamp ON/OFF status according to the vehicle condition. Requests the front fog 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).	

DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Part	Description	
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram".	
ECM	Transmits the engine condition signal to BCM with CAN communication.	
Unified meter and A/C amp. Transmits the parking brake switch signal to BCM with CAN communication		

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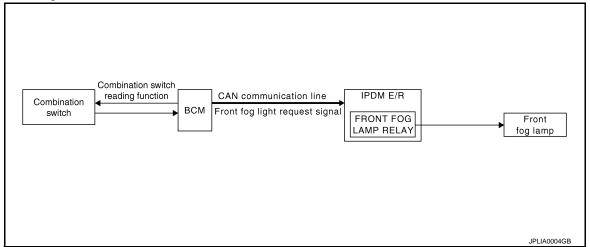
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[HALOGEN TYPE]

FRONT FOG LAMP SYSTEM

System Diagram

INFOID:0000000007460378



System Description

INFOID:0000000007460379

OUTLINE

Front fog lamp is controlled by combination switch reading function and front fog lamp control function of BCM, and relay control function of IPDM E/R.

NOTE:

For Canada models, the front fog lamp is turned ON as the daytime running light. Refer to <u>EXL-235</u>, "System <u>Diagram"</u> for the detail.

FRONT FOG LAMP OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits the front fog light request signal to IPDM E/R with CAN communication according to the front fog lamp ON condition.

Front fog lamp ON condition

- Front fog lamp switch ON with the headlamp ON (except for the high beam ON)
- IPDM E/R turns the integrated front fog lamp relay ON, and turns the front fog lamp ON according to the front fog light request signal.

Component Parts Location

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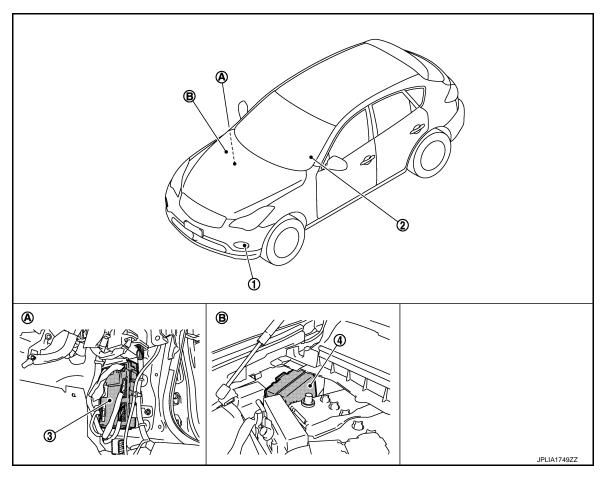
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- 1. Front fog lamp
- 4. IPDM E/R
- A. Dash side lower (Passenger side)
- 2. Combination switch
- 3. BCM
- B. Engine room dash panel (RH)

Component Description

INFOID:0000000007460381

Part	Description	
BCM	 Judges each switch condition by the combination switch reading function. Judges the front fog lamp ON/OFF status according to the vehicle condition. Requests the front fog 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-10, "System Diagram".	

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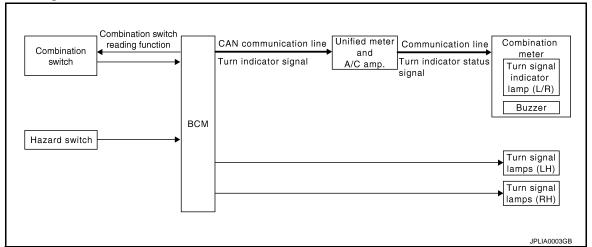
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

System Diagram

INFOID:0000000007460382



System Description

INFOID:0000000007460383

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 (through the unified meter and A/C amp.) 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 (FAIL-SAFE)

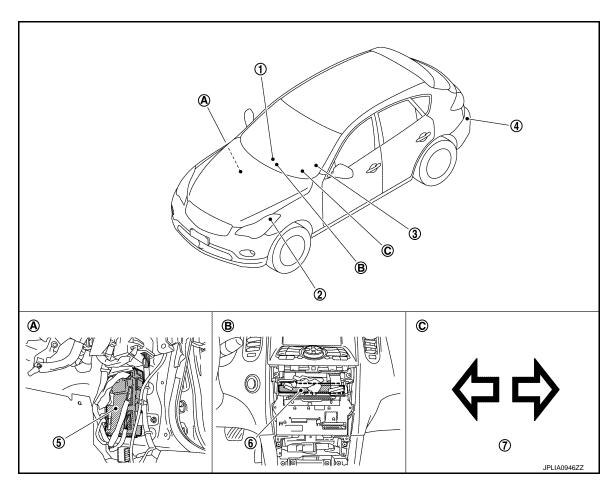
- BCM detects the turn signal lamp circuit status from the current value.
- BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

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

Component Parts Location

INFOID:0000000007460384



- 1. Hazard warning switch
- 4. Rear turn signal lamp
- 7. Turn signal indicator lamp
- A. Dash side lower (Passenger side)
- 2. Front turn signal lamp
- 5. BCM
- B. Behind the cluster lid C
- 3. Combination switch
- 6. Unified meter and A/C amp.
- C. On the combination meter

Component Description

INFOID:0000000007460385

Part	Description		
ВСМ	Judges 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-10, "System Diagram".		
Hazard switch (Multifunction switch)	Refer to EXL-271, "Description".		
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 (through unified meter and A/C amp.)].		

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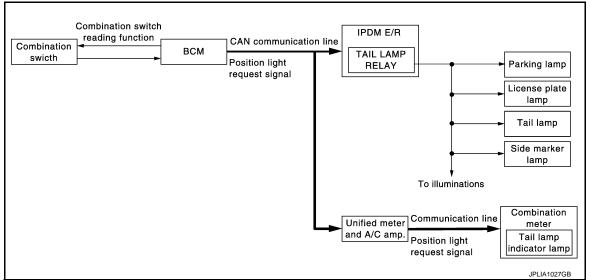
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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

System Diagram

INFOID:0000000007460386



System Description

INFOID:0000000007460387

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

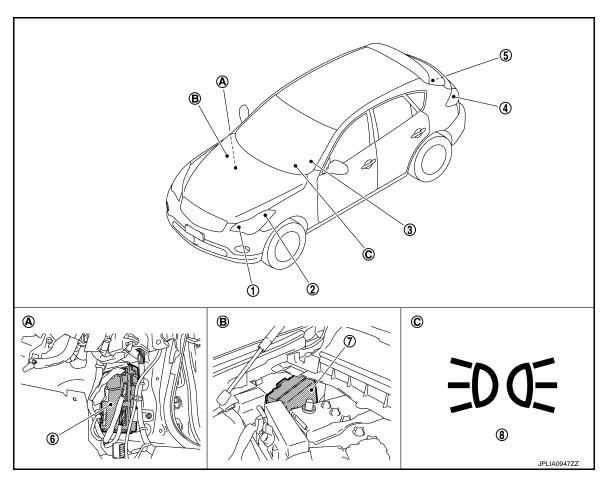
- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits the position light request signal to IPDM E/R with CAN communication according to the ON/ OFF condition of the parking, license plate, side marker and tail lamps.

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 (with auto light system)
- 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 turns the tail lamp indicator lamp ON according to the position light request signal.

Component Parts Location

INFOID:0000000007460388



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

Component Description

INFOID:0000000007460389

Part	Description
всм	 Judges 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-10, "System Diagram".
Combination meter (Tail lamp indicator lamp)	Turns the tail lamp indicator lamp ON according to the request from BCM [with CAN communication (through the unified meter and A/C amp.)].

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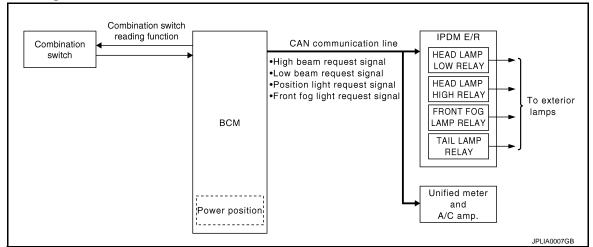
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EXTERIOR LAMP BATTERY SAVER SYSTEM

System Diagram

INFOID:0000000007460390



System Description

INFOID:0000000007460391

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, license plate lamp and front fog lamp **NOTE:**

When the lighting switch is turned AUTO, the exterior lamp battery saver switches to the auto light system. Refer to EXL-232, "System Diagram".

EXTERIOR LAMP BATTERY SAVER ACTIVATION

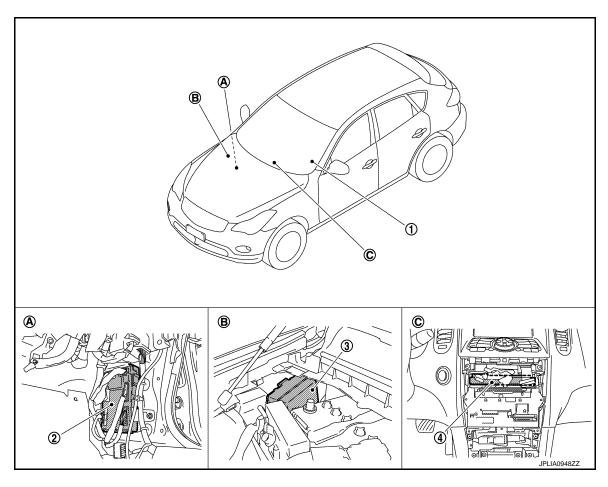
BCM activates the timer and turns the exterior lamp OFF 5 minutes after the ignition switch is turned from ON \rightarrow OFF with the exterior lamps ON.

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 → 1ST or 2ND with the exterior lamp OFF.

Component Parts Location

INFOID:0000000007460392



- 1. Combination switch
- 4. Unified meter and A/C amp.
- A. Dash side lower (Passenger side)
- 2. BCM
- B. Engine room dash panel (RH)
- 3. IPDM E/R
- C. Behind the cluster lid C

Component Description

INFOID:0000000007460393

Part	Description	
BCM	 Judges 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-10, "System Diagram".	

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[HALOGEN TYPE]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000007740105

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	Read and save the vehicle specification.Write the vehicle specification when replacing BCM.		

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 Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	ВСМ	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

NOTE

FREEZE FRAME DATA (FFD)

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

^{*:} This item is displayed, but is not used.

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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 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" (Except emergency stop operation)	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	
	RUN>URGENT	Power supply position status of the moment a particular DTC is detected*	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"*	
	OFF		Power supply position is "OFF" (Ignition switch OFF)	
	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	 The number of times that ignition switch is turned ON after DTC is detected The number is 0 when a malfunction is detected now. The number increases like 1 → 2 → 338 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. 		

NOTE:

*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met.

- · Closing door
- · Opening door
- · Door is locked using door request switch
- · Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

HEADLAMP

HEADLAMP: CONSULT Function (BCM - HEAD LAMP)

INFOID:0000000007460395

WORK SUPPORT

Service item	Setting item	Setting			
BATTERY SAVER SET	On*	With the exterior lamp battery saver function			
DATTERT SAVER SET	Off	Without the exterior lamp battery saver function			
ILL DELAY SET	MODE 1*	45 sec.			
	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.			
	MODE 6	120 sec.			
	MODE 7	150 sec.			
	MODE 8	180 sec.			
	MODE 1*	Normal			
CUSTOM A/LIGHT SET- TING	MODE 2	More sensitive setting than normal setting (Turns ON earlier than normal operation.)			
	MODE 3	More sensitive setting than MODE 2 (Turns ON earlier than MODE 2.)			
	MODE 4	Less sensitive setting than normal setting (Turns ON later than normal operation.)			

^{*:} Initial setting

DATA MONITOR

Monitor item [Unit]	Description			
PUSH SW [On/Off]	The switch status input from push-button ignition switch			
ENGINE STATE [Stop/Stall/Crank/Run]	The engine status received from ECM with CAN communication			
VEH SPEED 1 [km/h]	The value of the vehicle speed received from unified meter and A/C amp. with CAN communication			
KEY SW-SLOT [On/Off]	Key switch status input from key slot			
TURN SIGNAL R [On/Off]				
TURN SIGNAL L [On/Off]				
TAIL LAMP SW [On/Off]				
HI BEAM SW [On/Off]				
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]				
RR FOG SW [On/Off]	NOTE: The item is indicated, but not monitored.			

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Monitor item [Unit]	Description		
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)		
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)		
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH		
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH		
DOOR SW-BK [On/Off]	The switch status input from back door switch.		
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 with CAN communication to turn the tail lamp ON.		
	Off	Stops the position light request signal transmission.		
	Hi	Transmits the high beam request signal with CAN communication to to the headlamp (HI).		
HEAD LAMP	Low	Transmits the low beam request signal with CAN communication to turn the headlamp (LO).		
	Off	Stops the high & low beam request signal transmission.		
FR FOG LAMP	On	Transmits the front fog light request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.		
	Off	Stops the front fog light request signal transmission.		
RR FOG LAMP	On	NOTE:		
RR FOG LAMP	Off	The item is indicated, but cannot be tested.		
DAYTIME RUNNING LIGHT	On	NOTE:		
DAYTIME RUNNING LIGHT	Off	The item is indicated, but cannot be tested.		
	RH			
CORNERING LAMP	LH	NOTE: The item is indicated, but cannot be tested.		
	Off	The term is indicated, but edilinet be tested.		
III. DIM CIONAL	On	NOTE:		
ILL DIM SIGNAL	Off	The item is indicated, but cannot be tested.		

FLASHER

FLASHER: CONSULT Function (BCM - FLASHER)

WORK SUPPORT

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

^{*:} Initial setting

DATA MONITOR

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< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description		
REQ SW-DR [On/Off]	The switch status input from the request switch (driver side)		
REQ SW-AS [On/Off]	The switch status input from the request switch (passenger side)		
PUSH SW [On/Off]	The switch status input from the push-button ignition switch		
TURN SIGNAL R [On/Off]	Each quitch condition that BCM judges from the combination quitch reading fund		
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]	Lock signal status received from the remote keyless entry receiver		
RKE-UNLOCK [On/Off]	Unlock signal status received from the remote keyless entry receiver		
RKE-PANIC [On/Off]	Panic alarm signal status received from the remote keyless entry receiver		

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.	

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[HALOGEN 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.

- Oil pressure warning lamp
- Front wiper (LO, HI)
- Parking lamps
- License plate lamps
- Side maker lamps
- Tail lamps
- Front fog 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.

- Turn the ignition switch OFF.
- 3. Turn the ignition switch ON, and within 20 seconds, press the front door switch (driver side) 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.
- The oil pressure warning lamp starts blinking when the auto active test starts.
- 6. 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-67</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 6 steps are repeated 3 times.

Operation sequence	Inspection location	Operation
1	Oil pressure warning lamp	Blinks continuously during operation of auto active test
2	Front wiper	LO for 5 seconds → HI for 5 seconds
3	 Parking lamps License plate lamps Side maker lamps Tail lamps Front fog lamps 	10 seconds
4	Headlamps	LO 10 seconds HI ON ⇔ OFF 5 times
5	A/C compressor (magnet clutch)	ON ⇔ OFF 5 times
6*	Cooling fan	MID for 5 seconds → HI for 5 seconds

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

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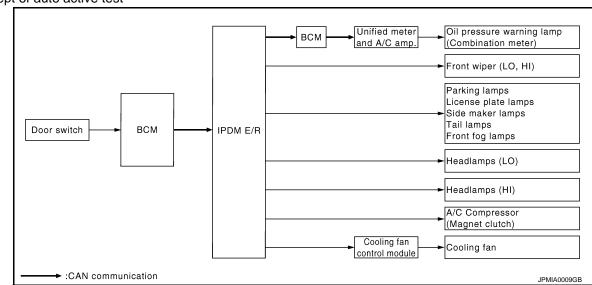
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Concept of auto active test



- 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 maker lamps Tail lamps Front fog 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 operate?	YES	Unified meter and A/C amp. signal input circuit CAN communication signal between unified meter and A/C amp. and ECM CAN communication signal between ECM and IPDM E/R
			Magnet clutch Harness or connector between IPDM E/R and magnet clutch IPDM E/R
	Perform auto active test.	YES	Harness or connector between IPDM E/R and oil pressure switch Oil pressure switch IPDM E/R
Oil pressure warning lamp does not operate	Does the oil pressure warning lamp blink?	NO	CAN communication signal between IPDM E/R and BCM CAN communication signal between BCM and unified meter and A/C amp. Combination meter

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

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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:0000000007740107

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 EXL-372, "DTC Index".

DATA MONITOR

Monitor item

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 light 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 auto stop signal judged by IPDM E/R.	
WIP PROT [Off/BLOCK]	×	Displays the status of the front wiper fail-safe operation judged by IPDM E/R.	

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DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Monitor Item [Unit]	MAIN SIG- NALS	Description
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 received from BCM via CAN communication. NOTE: For models without steering lock unit, this item is not monitored.
S/L STATE [LOCK/UNLOCK/UNKWN]		Displays the status of the steering lock judged by IPDM E/R. NOTE: For models without steering lock unit, this item is not monitored.
DTRL REQ [Off/On]		NOTE: The item is indicated, but not monitored.
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.
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

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.	

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Test item	Operation	Description
	1	OFF
MOTOR FAN	2	Outputs 50% pulse duty signal (PWM signal) to the cooling fan control module.
WOTOR FAIN	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.
Off		OFF
	TAIL	Operates the tail lamp relay.
EXTERNAL LAMPS	EXTERNAL LAMPS 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.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN 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	К
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		
BCM			(Approx.)
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.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

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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 IPDM E/R harness connector and the ground.

Terminals			
(+)		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 IPDM E/R harness connectors and the ground.

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

Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

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HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP (HI) CIRCUIT

Component Function Check

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1. CHECK HEADLAMP (HI) OPERATION

®IPDM E/R AUTO ACTIVE TEST

- 1. Activate IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- 2. Check that the headlamp switches to the high beam.

(P)CONSULT ACTIVE TEST

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

Hi : Headlamp (HI) ON
Off : Headlamp (HI) OFF

NOTE:

ON/OFF is repeated 1 second each.

Is the headlamp (HI) turned ON?

YES >> Headlamp (HI) circuit is normal.

NO >> Refer to EXL-258, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460404

1. CHECK HEADLAMP (HI) OUTPUT VOLTAGE

®CONSULT ACTIVE TEST

- 1. Turn the ignition switch OFF.
- 2. Disconnect the headlamp high connector.
- 3. Turn the ignition switch ON.
- Select "EXTERNAL LAMPS" of IPDM E/R active test item.
- 5. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

	Т	erminals		Condition	
(+)			(-)	Condition	Voltage
IPDM E/R			External	(Approx.)	
Connector		Terminal	Ground	lamp	
RH	89	Hi		Battery voltage	
EΩ	E8		Glound	Off	0 V
LH	Lo	90		Hi	Battery voltage
				Off	0 V

Is the measurement value normal?

YES >> GO TO 2. NO >> GO TO 3.

2.CHECK HEADLAMP (HI) OPEN CIRCUIT

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

HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

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IPDM E/R		Front combination lamp		Continuity	
Conr	nector	Terminal	Connector	Terminal	Continuity
RH	E8	89	E28	7	Existed
LH	EO	90	E58	7	LAISIEU

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

3.CHECK HEADLAMP (HI) FUSE

- 1. Turn the ignition switch OFF.
- 2. 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)	IPDM E/R	#54	10 A

Is the fuse fusing?

YES >> GO TO 4.

NO >> Replace IPDM E/R.

4.CHECK HEADLAMP (HI) SHORT CIRCUIT

- 1. Disconnect IPDM E/R connector.
- 2. Check continuity between the IPDM E/R harness connector terminal and the ground.

IPDM E/R				Continuity
Connector		Terminal	Ground	Continuity
RH	E8	89	Ground	Not existed
LH	60	90		INOL EXISTED

Does continuity exist?

YES >> Repair the harnesses or connectors. And then replace the fuse.

NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

5.check headlamp (HI) ground open circuit

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

Fro	nt combinat	ion lamp		Continuity	
Connector		Terminal	Ground	Continuity	
RH	E28	2	Ground	Existed	
LH	E58	2		LAISIEU	

Does continuity exist?

YES >> Replace the headlamp (HI) bulb. (Bulb socket is abnormally.)

NO >> Repair the harnesses or connectors.

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[HALOGEN TYPE]

HEADLAMP (LO) CIRCUIT

Component Function Check

INFOID:0000000007460405

1. CHECK HEADLAMP (LO) OPERATION

RIPDM E/R AUTO ACTIVE TEST

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

(R)CONSULT ACTIVE TEST

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

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

Is the headlamp (LO) turned ON?

YES >> Headlamp (LO) is normal.

NO >> Refer to EXL-260, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460406

1. CHECK HEADLAMP (LO) OUTPUT VOLTAGE

(P)CONSULT ACTIVE TEST

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

	Terminals	Test item					
(+)			iest item	Voltage			
IPDM E/R			External	(Approx.)			
ector	Terminal		lamp				
RH	83	83	83	83	83 Ground	Lo	Battery voltage
		Glound	Off	0 V			
LH	9.4		Lo	Battery voltage			
	04		Off	0 V			
	IPDN	(+) IPDM E/R ector Terminal 83	(+) (-) IPDM E/R ector Terminal 83 Ground E8	(+) (-) Test item IPDM E/R External lamp ector Terminal Lo B3 Ground Off Lo Lo			

Is the measurement value normal?

YES >> GO TO 2. NO >> GO TO 3.

2.CHECK HEADLAMP (LO) OPEN CIRCUIT

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

Connector Terminal Connector Terminal RH E8 83 E28 5 LH E8 84 E58 5 Existed	IPDM E/R		Front combination lamp		Continuity	
Existed	Connector Terminal		Connector	Terminal	Continuity	
	RH	EΩ	83	E28	5	Evieted
	LH		84	E58	5	LAISIGU

Does continuity exist?

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

3.CHECK HEADLAMP (LO) FUSE

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

Unit	Lotion	Fuse No.	Capacity
Headlamp LO (RH)	IPDM E/R	#57	15 A
Headlamp LO (LH)	IPDM E/R	#56	15 A

Is the fuse fusing?

YES >> GO TO 4.

NO >> Replace IPDM E/R.

4. CHECK HEADLAMP (LO) SHORT CIRCUIT

- Disconnect IPDM E/R connector.
- 2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R				Continuity
Connector Termin		Terminal	Ground	Continuity
RH	E8	83	Glound	Not existed
LH	LO	84		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors. And then replace the fuse.

NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

5. CHECK HEADLAMP (LO) GROUND OPEN CIRCUIT

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

Front combination lamp				Continuity
Connector Terminal		Ground	Continuity	
RH	E28	3	Glound	Existed
LH	E58	3		LXISIEG

Does continuity exist?

YES >> Replace the headlamp (LO) bulb. (Bulb socket is abnormally.)

NO >> Repair the harnesses or connectors.

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FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

FRONT FOG LAMP CIRCUIT

Component Function Check

INFOID:0000000007460407

1. CHECK FRONT FOG LAMP OPERATION

®IPDM E/R AUTO ACTIVE TEST

- 1. Activate IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- 2. Check that the front fog lamp is turned ON.

(P)CONSULT ACTIVE TEST

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

Fog : Front fog lamp ON
Off : Front fog lamp OFF

Is the front fog lamp turned ON?

YES >> Front fog lamp circuit is normal.

NO >> Refer to EXL-262, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460408

1. CHECK FRONT FOG LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#58	10 A

Is the fuse fusing?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK FRONT FOG LAMP SHORT CIRCUIT

- 1. Disconnect IPDM E/R connector and the front fog lamp connector.
- 2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R				Continuity
Connector T		Terminal	Ground	Continuity
RH	E8	86	Giodila	Not existed
LH	EO	87		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors. And then replace the fuse.

NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

3.CHECK FRONT FOG LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 4.

NO >> Replace the bulb.

4. CHECK FRONT FOG LAMP OUTPUT VOLTAGE

PCONSULT ACTIVE TEST

- Disconnect the front fog lamp connector.
- Turn the ignition switch ON.
- Select "EXTERNAL LAMPS" of IPDM E/R active test item.

FRONT FOG LAMP CIRCUIT

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With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

	Terminals					
(+)			(-)	Test item	Voltage	
IPDM E/R			EXTERNAL	(Approx.)		
Cor	nector	Terminal		LAMP		
RH		86	Ground	Fog	Battery voltage	
	E8	Giodila	Off	0 V		
LH	LO	87		Fog	Battery voltage	
				Off	0 V	

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK FRONT FOG LAMP OPEN CIRCUIT

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

Continuity	g lamp	Front foo	IPDM E/R		
Continuity	Terminal	Connector	Terminal	Connector Term	
Existed	1	E34	86	E8	RH
LXISIEU	1	E64	87	LO	LH

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6.CHECK FRONT FOG LAMP GROUND CIRCUIT OPEN CIRCUIT

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

	Front fog la	amp		Continuity
Connector		Terminal	Ground	Continuity
RH	E34	2	Giodila	Existed
LH	E64	2		Existed

Does continuity exist?

YES >> Replace the front fog lamp.

NO >> Repair the harnesses or connectors. **EXL**

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EXL-263 Revision: 2014 October 2012 EX

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

INFOID:0000000007460409

INFOID:0000000007460410

PARKING LAMP CIRCUIT

Component Function Check

1.CHECK PARKING LAMP OPERATION

PIPDM E/R AUTO ACTIVE TEST

- Activate IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- Check that the parking lamp is turned ON.

PCONSULT ACTIVE TEST

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

TAIL : Parking lamp ON
Off : Parking lamp OFF

Is the parking lamp turned ON?

YES >> Parking lamp circuit is normal.

NO >> Refer to EXL-264, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK PARKING LAMP FUSE

1. Turn the ignition switch OFF.

2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Parking lamp	IPDM E/R	#52	10 A

Is the fuse fusing?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK PARKING LAMP SHORT CIRCUIT

- 1. Disconnect IPDM E/R connector and the front combination lamp connector.
- 2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R				Continuity
Connector		Terminal	Ground	Continuity
RH	E9	91	Giodila	Not existed
LH	⊑ 9	92		inoi existed

Does continuity exist?

YES >> Repair the harnesses or connectors. And then replace the fuse.

NO >> Replace the fuse. (Replace IPDM E/R if fusing is found again.)

3.CHECK PARKING LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 4.

NO >> Replace the bulb.

4. CHECK PARKING LAMP OUTPUT VOLTAGE

(R)CONSULT ACTIVE TEST

- 1. Disconnect the front combination lamp connector.
- Turn the ignition switch ON.
- Select "EXTERNAL LAMPS" of IPDM E/R active test item.

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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4. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

	Т	erminals	Test item		
	(+)			163t item	Voltage
IPDM E/R				EXTERNAL	(Approx.)
Cor	nnector	Terminal		LAMP	
RH	91	Ground	TAIL	Battery voltage	
	E9	FO	Journa	Off	0 V
LH	L9	92		TAIL	Battery voltage
				Off	0 V

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK PARKING LAMP OPEN CIRCUIT

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

IPDM E/R		Front combin	Continuity		
Conr	Connector Terminal		Connector Terminal		Continuity
RH	E9	91	E28	8	Existed
LH	E 9	92	E58	8	LAISIGU

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6.CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

Fro	nt combinat	ion lamp		Continuity
Connector		Terminal	Ground	Continuity
RH	E28	4	Ground	Existed
LH	E58	4		EXISTECT

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

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TURN SIGNAL LAMP CIRCUIT

Description INFOID:000000007460411

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

NOTE:

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

Component Function Check

INFOID:0000000007460412

1. CHECK TURN SIGNAL LAMP

PCONSULT ACTIVE TEST

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

LH: Turn signal lamp LH blinking
RH: Turn signal lamp RH blinking
Off: The turn signal lamp OFF

Does the turn signal lamp blink?

YES >> Turn signal lamp circuit is normal.

NO >> Refer to EXL-266, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460413

1. CHECK TURN SIGNAL LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

2. CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

PCONSULT ACTIVE TEST

- 1. Turn the ignition switch OFF.
- 2. Disconnect the front combination lamp connector or the rear combination lamp connector.
- Turn the ignition switch ON.
- Select "FLASHER" of BCM (FLASHER) active test item.
- With operating the turn signal switch, check the voltage between the BCM harness connector and the ground.

Terminals				Test item		
	(+)		(-)	1630 116111	Voltage (Approx.)	
	ВСМ			FLASHER	voltage (Approx.)	
Conne	ector	Terminal		TEASILIN		
Front RH		17			(V) 15 10 hannannannann	
Front LH	M119	18	Ground	LH or RH	5 0 1 s PKID0926E	
Rear RH	M120	20		Off	0.1/	
Rear LH	IVITZU	25	Oll	0 V		

Is the measurement value normal?

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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YES >> GO TO 3.

NO >> Replace BCM.

3.check turn signal lamp open circuit

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

всм			Front comb Rear comb	Continuity	
Connector		Terminal	Connector	Terminal	
Front RH	M119	17	E28	6	
Front LH	IVITIE	18	E58	6	Existed
Rear RH	M120	20	B261	1	Existed
Rear LH	M120	25	B260	1	

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK TURN SIGNAL LAMP SHORT CIRCUIT

Check continuity between the BCM harness connector and the ground.

	BCM			Continuity
Connector		Terminal		Continuity
Front RH	M119	M110	Ground	Not existed
Front LH	WITTE	18	Ground	
Rear RH	M120	20		
Rear LH	IVI 12U	25		

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 5.

5. CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

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

	t combinatior r combination			Continuity	
Con	nector	Terminal			
Front RH	E28	4	Ground	Existed	
Front LH	E58	4			
Rear RH	B261	2			
Rear LH	B260	2			

Does continuity exist?

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

NO >> Repair the harnesses or connectors.

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OPTICAL SENSOR

Description INFOID:000000007460414

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

Component Function Check

INFOID:0000000007460415

[HALOGEN TYPE]

1. CHECK OPTICAL SENSOR SIGNAL BY CONSULT

(P)CONSULT DATA MONITOR

- 1. Turn the ignition switch ON.
- Select "OPTICAL SENSOR" of BCM (HEADLAMP) data monitor item.
- 3. Turn the lighting switch AUTO.
- 4. With the optical sensor illuminating, check the monitor status.

Monitor item	Condition		Voltage (Approx.)
	Optical	When illuminating	3.1 V or more *
OPTICAL SENSOR	sensor	When shutting off light	0.6 V or less

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

Is the item status normal?

YES >> Optical sensor is normal.

NO >> Refer to EXL-268, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460416

1.CHECK OPTICAL SENSOR POWER SUPPLY INPUT

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

(-	+)	(-)	Voltage (Approx.)
Optica	sensor		(Approx.)
Connector	Terminal	Ground	
M94	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 (Approx.)		
Optica	sensor		(Approx.)
Connector	Terminal	Ground	
M94	3		0 V

Is the measurement value normal?

YES >> GO TO 3.

NO >> GO TO 6.

3.CHECK OPTICAL SENSOR SIGNAL OUTPUT

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< DTC/CIRCUIT DIAGNOSIS >

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

Terminals			Condition			
(+)	(+)		(+)		Condition	Voltage
Optical s	ensor	Optical sensor (Approx.)		(Approx.)		
Connector	Terminal		Optical serisor			
		Ground	When illuminating	3.1 V or more *		
M94	2		When shutting off light	0.6 V or less		

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

Is the measurement value normal?

YES >> GO TO 7.

NO >> Replace the optical sensor.

4. CHECK OPTICAL SENSOR OPEN CIRCUIT

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

Optical sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M94	1	M123	138	Existed

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

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
M94	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. 2.
- Check continuity between the optical sensor harness connector and the BCM harness connector.

Optical sensor		ВСМ		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M94	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.
- 2. Disconnect the optical sensor connector and BCM connector.
- Check continuity between the optical sensor harness connector and the BCM harness connector.

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OPTICAL SENSOR

[HALOGEN TYPE]

Optical sensor		В	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M94	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	l sensor		Continuity
Connector	Connector Terminal		Continuity
M94	2		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

INFOID:0000000007460418

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HAZARD SWITCH

Description INFOID:0000000007460417

Hazard switch is integrated in the multifunction switch. Hazard switch inputs the signals to BCM when pressing the switch.

Component Function Check

1. CHECK HAZARD SWITCH SIGNAL BY CONSULT

©CONSULT DATA MONITOR

- 1. Turn the ignition switch ON.
- 2. Select "HAZARD SW" of BCM (FLASHER) data monitor item.
- 3. With operating the hazard switch, check the monitor status.

Monitor item	С	Monitor status	
HAZARD SW	Hazard switch	While pressing the switch	On
TIAZARD OW	Tiazaiu Switch	While not pressing the switch	Off

Is the item status normal?

YES >> Hazard switch circuit is normal.

NO >> Refer to EXL-271, "Diagnosis Procedure".

Diagnosis Procedure

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	М		Hazard switch	voltage (Approx.)	
Connector	Terminal		Hazard Switch		
			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 BCM.

NO >> GO TO 2.

2. CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

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

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Multifunction switch		ВСМ		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M72	16	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 multifunction switch harness connector and the ground.

Multifunc	tion switch		Continuity
Connector	Terminal	Ground	Continuity
M72	16		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 multifunction switch harness connector and the ground.

Multifunc	tion switch		Continuity
Connector	Terminal	Ground	Continuity
M72	1		Existed

Does continuity exist?

YES >> Replace the hazard switch (multifunction switch).

NO >> Repair the harnesses or connectors.

TAIL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

TAIL LAMP CIRCUIT

Component Function Check

INFOID:0000000007460420

1. CHECK TAIL LAMP OPERATION

■IPDM E/R AUTO ACTIVE TEST

- Activate IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- 2. Check that the tail lamp is turned ON.

(P)CONSULT ACTIVE TEST

- Select "EXTERNAL LAMPS" of IPDM E/R active test item.
- With operating the test items, check that the tail lamp is turned ON.

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TAIL : Tail lamp ON Off : Tail lamp OFF

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Is the tail lamp turned ON?

YES >> Tail lamp circuit is normal.

>> Refer to EXL-273, "Diagnosis Procedure". NO

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Diagnosis Procedure

INFOID:0000000007460421

1. CHECK TAIL LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
			' '

· Tail lamp · Rear side marker lamp IPDM E/R #53 10 A · License plate lamp

Is the fuse fusing?

YES >> Repair the malfunctioning part before replacing the fuse.

NO >> GO TO 2.

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2.CHECK TAIL LAMP OUTPUT VOLTAGE

©CONSULT ACTIVE TEST

- Disconnect the rear combination lamp connector.
- Turn the ignition switch ON.
- Select "EXTERNAL LAMPS" of IPDM E/R active test item.
- With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

	Ierminals		Test item	
(-	+)	(-)	rest item	Voltage
IPDN	/I E/R		EXTERNAL	(Approx.)
Connector	Terminal	Ground	LAMP	
E5	7	Ground	TAIL	Battery voltage
LJ	,		Off	0 V

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Is the measurement value normal?

YES >> GO TO 3.

NO >> Replace IPDM E/R.

3.CHECK TAIL LAMP OPEN CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect IPDM E/R connector.

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EXL-273 Revision: 2014 October 2012 EX

TAIL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

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

	IPDM E	/R	Rear comb	ination lamp	Continuity
C	Connector	Terminal	Connector	Terminal	Continuity
RH	E5	7	B232	1	Existed
LH	E3	,	B60	1	Existed

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK TAIL LAMP GROUND OPEN CIRCUIT

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

	Rear combinat	ion lamp		Continuity
	Connector	Terminal	Ground	Continuity
RH	B232	4	Ground	Existed
LH	B60	4		Existed

Does continuity exist?

YES >> Replace the rear combination lamp.

NO >> Repair the harnesses or connectors.

LICENSE PLATE LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

LICENSE PLATE LAMP CIRCUIT

Component Function Check

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NOTE:

Check the tail lamp circuit if the tail lamp and the license plate lamp are not turned ON.

1. CHECK LICENSE PLATE LAMP OPERATION

®IPDM E/R AUTO ACTIVE TEST

- 1. Activate IPDM E/R auto active test. Refer to PCS-9, "Diagnosis Description".
- Check that the license plate lamp is turned ON.

(P)CONSULT ACTIVE TEST

- 1. Select "EXTERNAL LAMPS" of IPDM E/R active test item.
- 2. With operating the lighting switch, check that the license plate lamp is turned ON.

TAIL : License plate lamp ON
Off : License plate lamp OFF

Is the license plate lamp turned ON?

YES >> License plate lamp circuit is normal.

NO >> Refer to EXL-275, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000007460423

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

- 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	late lamp	License p	/R	IPDM E	
Continuity	Terminal	Connector	Terminal	onnector	С
Existed	1	D117	7	E5	RH
LXISIGU	1	D112	,	LJ	LH

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

3.check license plate lamp ground open circuit

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

	License plate	amp		Continuity
	Connector	Terminal	Ground	Continuity
RH	D117	2	Ground	Existed
LH	D112	2		LAISIEU

Does continuity exist?

YES >> Replace the license plate lamp.

NO >> Repair the harnesses or connectors.

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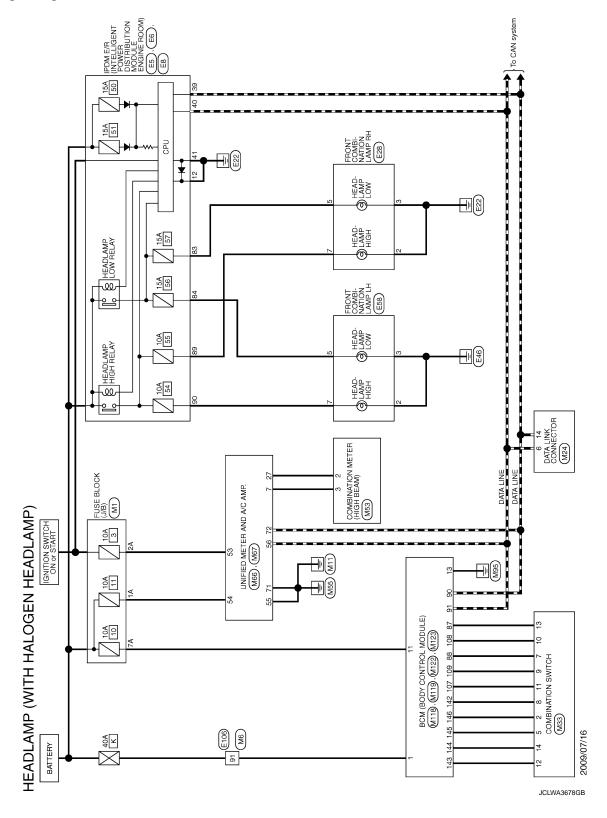
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HEADLAMP SYSTEM

Wiring Diagram - HEADLAMP -



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15 P	v 316	17 SB	Н	20 BG .	22 V	23 G	24 P	26 V .		28 6	H	H	34 R .	Н	£	+	+	39 BG .	+	+	╀	49 L -	50 P	51 1	+	H	. 91 09	61 G	\perp		Н		+	67 SHIELD -		- 91 69	H	┢	72 Y	73 8 -	74 BR - [With ICC]
Connector No. E58	Γ	Connector Name FRONT COMBINATION LAMP LH	Connector Type RS08FB-PR			_ 	2 6 7 8)	- 1	Terminal Color Of Signal Name [Specification]	$^{+}$	3 B/Y .	4 B/W		. 9	+	. se		Connector No. E106	Τ	Connector Name WIRE TO WIRE	Connector Type TH80FW-CS16-TM4			N N N N N N N N N N	다 보기 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전				lal	No. Wire Ognarianie Operational		+	з в	4 GR -	5 GR -	· ~	9 BR	10 BG .	H	Н
				IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)				84 83	89 88 87 86]		Signal Name (Specification)	Decingani														Ą	2 4	·	_			-								
46 R			Connector No. E8	Connector Name IPDM E/R (INTELLIGENT	Connector Type NS08FW-CS	4	A STATE OF THE STA	H.S.	68 06			Terminal Color Of Signal Name	No. Wire	\exists	+	χ.	+	98 GR		4		Connector No. E28	Connector Name FRONT COMBINATION LAMP RH	Commenter Tune	1		Į.		2 6 7 8	/ 0)	- 1	Jar O	O.	2 B .	3 8/4	4 B/W	. BG	┞	7 BR -	- d 8

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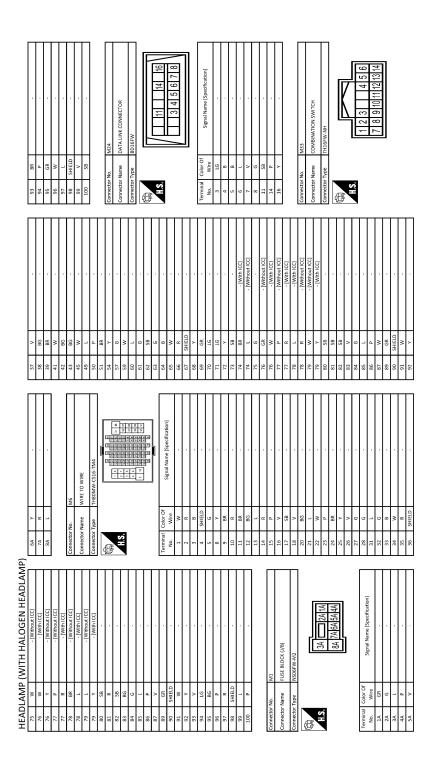
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Orange Commence	Connector No. M118	Connector Name BCM (BODY CONTROL MODULE)	Connector Type M03FB-LC	4	国	F	!		3		- 1-	Signal Name (Specification)	$^{+}$	╀	3 Y POWER WINDOW POWER SUPPLY(RAP)			Connector No. M119	GNAL Connector Name BCM (BODY CONTROL MODULE)	T	Connector Lype NS16FW-CS	€		4 5 7 0 8 9 10	11 13 14 15 17 18 19		1	Torminal Color Of	_	4 LG INTERIOR ROOM LAMP POWER SUPPLY	5 L PASSENGER DOOR UNLOCK OUTPUT	7 Y STEP LAMP CONT	8 V ALL DOOR, FUEL LID LOCK OUTPUT	G DRIV	10 BR REAR DOOR UNLOCK OUTPUT	11 R BAT (FUSE)		14 W PUSH-BUTTON IGNITION SWILL GND	15 Y ACCIND	17 W TURN SIGNAL RH (FRONT)	18 BG TURN SIGNAL LH (FRONT)	19 V INTROOM LAMP CONT			
FR WASHER!	M67	UNIFIED METER AND A/C AMP.	TH32FW-NH				41 42 43 44 45 46 47 53 54 55 56	89				Signal Name [Specification]	ACC POWER SLIPPLY	FUEL LEVEL SENSOR SIGNAL	INTAKE SENSOR SIGNAL	IN-VEHICLE SENSOR SIGNAL	AMBIENT SENSOR SIGNAL	SUNLOAD SENSOR SIGNAL	EXHAUST GAS / OUTSIDE ODOR DETECTING SENSOR SI	IGNITION POWER SUPPLY	BATTERY POWER SUPPLY GROLIND	CANAL	BRAKE FLUID LEVEL SWITCH SIGNAL	FUEL LEVEL SENSOR GROUND	INTAKE SENSOR GROUND	IN-VEHICLE SENSOR GROUND	AMBIENT SENSOR GROUND	SONLOAD SENSOR GROUND	ECV SIGNAL	A/C LAN SIGNAL	EACH DOOR MOTOR POWER SUPPLY	GROUND	CAN-L												
Communication Color Colo	nnector No.	nnector Name	nnector Type	A	E	Į.	2				-		$^{+}$	42 Y	┞	Н	Н	\dashv	+	+	+	+	+	╀	Н	\dashv	+	+	+	H	L	L	Н												
MITTER COMMUNICATIONS SIGNAL Name SIGN	29 SB SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)	G SEAT BUCKLE SWITCH SIGNAL (PASSENGER SIDE) L WASHER LEVEL SWITCH SIGNAL	B ILLUMINATION CONTROL SIGNAL	91	SB	_	a. 5	Sg.					Ī	1			1.3.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		•	Color Of	Wire	-	╁	٦	SB	*	o 8	á -	>	>	97	В	>	>	d									
ADLAMP ADLAMP	(WITH HALOGEN HEADLAN.	FR WASHER(-)	OUTPUT 4	FR WASHER(+)	IGN	OUTPUT3	GROUND	INPUI 3	OUIPUIS	INPUT 2	INPUI 4	INPULI	INPITS	OUTPUT 2			A53	OMBINATION METER		H40FW-NH			\	1 2 3 5 6 7 10 15 16 19 20	1 22 24 25 25 25 25 25 25 25 25 25 25 25 25 25			Signal Name [Specification]	BATTERY POWER SUPPLY	COMMUNICATION SIGNAL (METER->AMP.)	COMMUNICATION SIGNAL (AMP>METER)		ALTERNATOR SIGNAL	AIR BAG SIGNAL	SECURITY SIGNAL	GROUND	METER CONTROL SWITCH GROUND	ILL GND	III	IGNITION SIGNAL		COMMUNICATION SIGNAL (LCD->AMP.)	COMMUNICATION SIGNAL (AMP>LCD)	VEHICLE SPEED SIGNAL (8-PULSE)	PARKET CONTRACTOR OF THE PERSON OF THE PERSO
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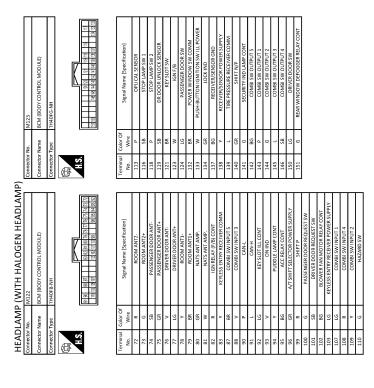
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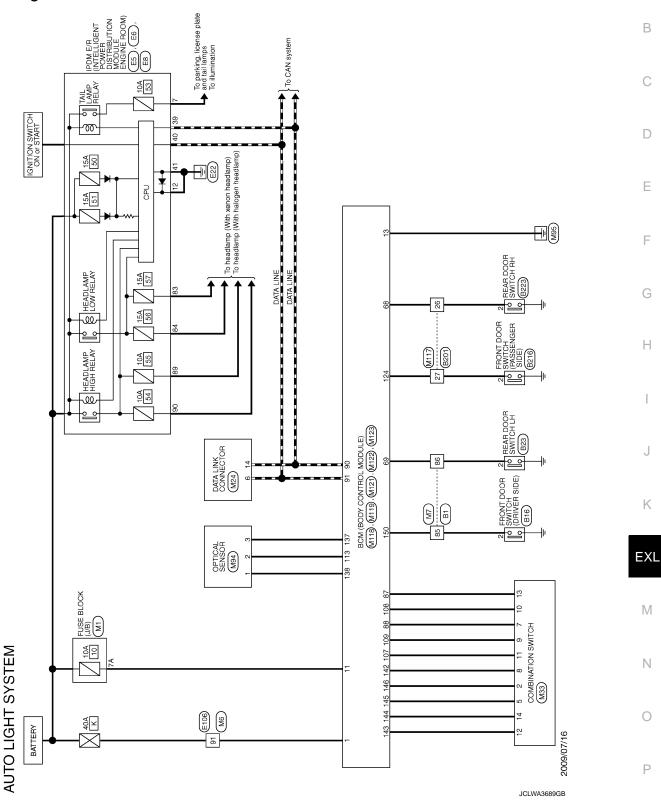
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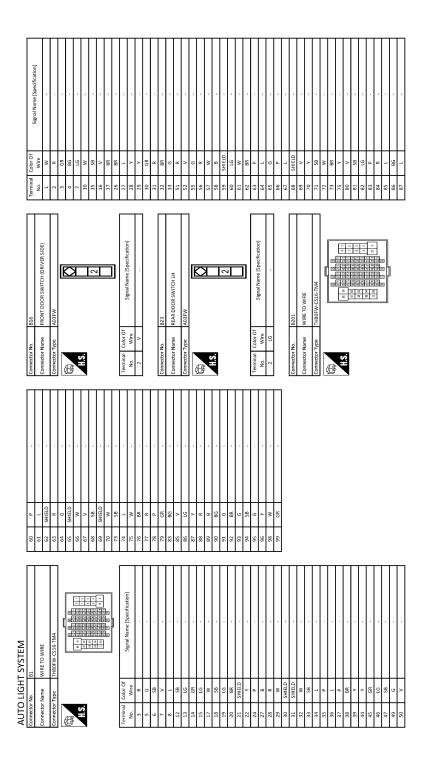
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AUTO LIGHT SYSTEM

Wiring Diagram - AUTO LIGHT SYSTEM -





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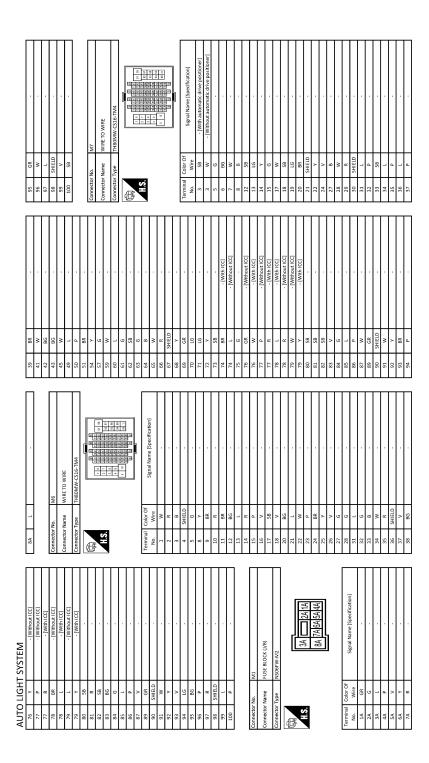
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`\	S.		OPTICAL SENSOR	25 25	. ^	
		Connector Type TK03FW	3FW	26	8	
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				65	SHIELD	
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-	No.	Wire Ognativative (Specification)	1 2 3	61	97	
	<u>_</u>	. 91	2	62	BR	
	4			63	7	
	2			64	91	
9		L - Terminal Color Of	Signal Name (Specification)	9	В	-
7	H	V . Wire	Description of the second of t	99	æ	
∞	\dashv		POWER	67	^	٠
17	\dashv	. 2	OUTPUT	89	SHIELD	
14	+	. 3 B	GROUND	69	>	
16	\dashv			70	>	
				7.1	SB	
		Connector No. M117	7	72	Μ	•
Connector No.	or No.	M33 Connector Name WIRE	WIRETOWIRE	73	9	
Connector Name	Na.	COMBINATION SWITCH		75	Μ	
		Connector Type	TH80MW-CS16-TM4	80	^	
Connector Type	tor Typ	TH16FW-NH		81	SB	
¢		B		82	^	-
				83	Ь	
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				88	۵	
		Terminal Color Of	4	91	>	
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No.	_	Wire Signal Name (Specification) 1 L		94	9	·
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cr	Ł	FR WASHFR(+)		47	>	
	+	L NET		8	8	
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ı	+	TIM-DI 2		100	-	found acout policy
ı	+	17		100	SB	- [With BOSE audio]
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- 1	+	INPUT 4				
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AUT	H9I1 C	AUTO LIGHT SYSTEM										
Connector No.	or No.	M118	Connector No.		M121	78	٨	ROOM ANT1-	137	98	RECEIVER/SENSOR GND	_
	۱	10 11 10 10 10 10 10 10 10 10 10 10 10 1	,	Г		79	BR	ROOM ANT1+	138	>	RECEIVER/SENSOR POWER SUPPLY	_
Connect	Connector Name	BCM (BODY CONTROL MODULE)	Connector Name		BCM (BODY CONTROL MODULE)	80	GR	NATS ANT AMP.	139	_	TIRE PRESSURE RECEIVER COMM	_
Connector Type	or Type	M03FB-LC	Connector Type	Г	TH40FGY-NH	81	*	NATS ANT AMP.	140	GR	SHIFT N/P	_
][-		[82	œ	IGN RELAY (F/B) CONT	141	9	SECURITY IND LAMP CONT	_
1			1			83	>	KEYLESS ENTRY RECEIVER COMM	142	BG	COMBI SW OUTPUT 5	_
ŧ			Į			87	BR	COMBI SW INPUT 5	143	۵	COMBI SW OUTPUT 1	_
2		1.3	2	_		88	>	COMBI SW INPUT 3	144	9	COMBI SW OUTPUT 2	_
					2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	90	۵	CAN-L	145	_	COMBI SW OUTPUT 3	_
		7			00 01 00 00 00	91	_	CAN-H	146	88	COMBI SW OUTPUT 4	_
]				92	97	KEY SLOT ILL CONT	150	91	DRIVER DOOR SW	_
						93	>	ON IND	151	U	REAR WINDOW DEFOGGER RELAY CONT	_
Terminal	I Color Of	L	Terminal	I Color Of	3	94	*	PUDDLE LAMP CONT				_
No.		Signal Name (Specification)	No.	Wire	Signal Name [Specification]	95	BG	ACC RELAY CONT				
1	>	BAT (F/L)	34	SB	LUGGAGE ROOM ANT-	96	GR	A/T SHIFT SELECTOR POWER SUPPLY				
2	>	POWER WINDOW POWER SUPPLY(BAT)	35	>	LUGGAGE ROOM ANT+	66	~	SHIFTP				
۳	>-	POWER WINDOW POWER SUPPLY(RAP)	38	8	BACK DOOR ANT-	100	g	PASSENGER DOOR REQUEST SW				
			39	*	BACK DOOR ANT+	101	SB	DRIVER DOOR REQUEST SW				
			47	>	IGN RELAY (IPDM E/R) CONT	102	BG	BLOWER FAN MOTOR RELAY CONT				
Connector No.	λr No.	M119	25	SB	STARTER RELAY CONT	103	91	KEYLESS ENTRY RECEIVER POWER SUPPLY				
			09	BR	PUSH SW	107	91	COMBI SW INPUT 1				
Connect	Connector Name	BCM (BODY CONTROL MODULE)	61	Α	BACK DOOR OPENER REQUEST SW	108	œ	COMBI SW INPUT 4				
Connector Type	ν Type	NS16FW-CS	64	>	I-KEY WARN BUZZER (ENG ROOM)	109	>	COMBI SW INPUT 2				
			9	BG	REAR WIPER STOP POSITION	110	9	HAZARD SW				
Œ			99	ď	BACK DOOR SW							
		֓֟֝֟֝֟֝֟֝֟֝֟֝֟֝֟֟֟֝֟֟֟֝֟֟֟֟֟֟֟֟֟֝֟֟֟֟֟֝֟֟֟֝֟֟֟֟	67	S.	BACK DOOR OPENER SW							
2		4 5 7 8 9 10	89	BR	REAR RH DOOR SW	Connector No.		M123				
		11 13 14 15 17 18 19	69	×	REAR LH DOOR SW	Constant Money	Г	Call GOAN COSTNOON MODE				
		2				COLLIECTO		CM (BOD) CON INCL MODOLE)				
						Connector Type		TH40FG-NH				
			Connector No.		M1ZZ							
Terminal	I Color Of		,		(a)	Œ						
No.		Signal Name [Specification]	Connector Name		BCM (BODY CONTROL MODULE)							
4	91	INTERIOR ROOM LAMP POWER SUPPLY	Connector Type		TH40FB-NH	2. -	L					
s	_	PASSENGER DOOR UNLOCK OUTPUT		1			13	ELL 201 81 81 81 82 82 87 87 87 87 87 87 87 87 87 87 87 87 87				
_	>	STEP LAMP CONT	Œ					201238 TACHES HAR HAR HAG HT HAR LOS TOT 124 125 TAC				
00	>	ALL DOOR, FUEL LID LOCK OUTPUT	•									
6	g	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	2	_	or lore to the lore for the lor							
10	BR	REAR DOOR UNLOCK OUTPUT			00 00 00 10 10 10 10 10 10 10 10 10 10 1	Terminal	Color Of	(management)				
11	~	BAT (FUSE)			76 08 46 08 06 Self/ in land i	No.	Wire	Signal Name [Specification]				
13	8	GROUND				113	۵	OPLICAL SENSOR				
14	>	PUSH-BUTTON IGNITION SWILL GND				116	SB	STOP LAMP SW 1				
15	>	ACCIND	Terminal	I Color Of	Crand Manue [Consideration]	118	_	STOP LAMP SW 2				
17	*	TURN SIGNAL RH (FRONT)	No.	Wire	olgnal ivame (opecification)	119	SB	DR DOOR UNLOCK SENSOR				
18	BG	TURN SIGNAL LH (FRONT)	72	~	ROOM ANT2-	121	BR	KEY SLOT SW				
19	>	INT ROOM LAMP CONT	73	9	ROOM ANT2+	123	*	IGN F/8				
			74	SB	PASSENGER DOOR ANT-	124	91	PASSENGER DOOR SW				
			75	S.	PASSENGER DOOR ANT+	132	BR	POWER WINDOW SW COMM				
			26	>	DRIVER DOOR ANT-	133	*	PUSH-BUTTON IGNITION SWILL POWER				
			77	91	DRIVER DOOR ANT+	134	S.	LOCKIND				

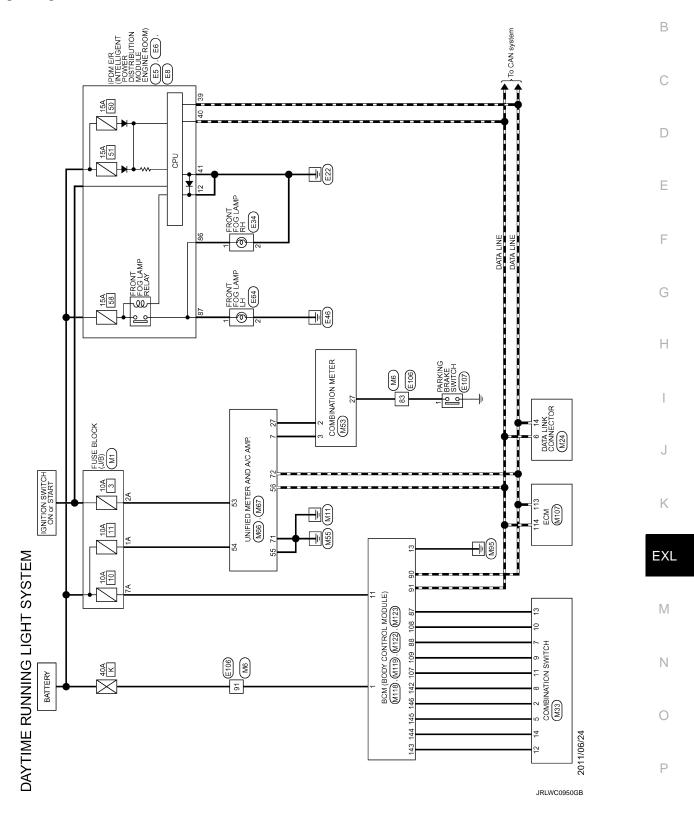
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DAYTIME RUNNING LIGHT SYSTEM

Wiring Diagram - DAYTIME LIGHT SYSTEM -



-	+	22 V	o a.	25 Y -	>		╀	H	33 B · ·	R	1	SHIELD	> (XX 2	+	: 0	L	15 W -		۵		BR	- M 69	\exists	+	SB	≫ 0	+) 60	R	. A 80	Н	-	4	72 Y -	8	BR	. 1	75 G - [With ICC]	w	w	٨	77 R - [With ICC]
Connector No. F64	507	Connector Name FRONT FOG LAMP LH 22	Connector Type FHZ02FB 24		14th		((21)))	33	34	tal Color Of Signal Name (Specification)			38 : 38	33	Connector No. E106 42	TOWN CT TOWN		Connector Type TH80FW-CS16-TM4 49					100円の 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			Terminal Color Of Signal Name [Specification] 63				4 GR 68		· ·	BR	BG		12 BG - 74		14 R - 75	15 P 75	16 V 76		 20 BG - 77
				PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)				[2]	\$ 4	87 86	1			ification]																				[
46 R	4		Connector No. E8	Connector Name IPDM E/R (INTELLIGENT POWER DI	1	Connector Type NSUSFW-CS				78 88 88 88			-	No Mico	83 BG	╀	. M 98	. 1 28	88 GR	+	30 A		Connector No. E34	Connector Name FRONT FOG LAMP RH	Π	Connector Type FHZ02FB	4	E.		((2 1))				Jar D		+	2 B/W -						

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DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

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Connector Name Code Col Code		- [Without ICC]	Connector No.	lo. M1	15	Ь		76	×	- [With ICC]
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Connector Type Conn		- [Without ICC]	Connector		17	SB.		77	œ	- [With ICC]
The content of the		- [With ICC]	Connector	Γ	18	H	,	78	_	- [With ICC]
The contract of the contract				1	20	╀		282	œ	- [Without ICC]
Ferminal Color Of Ferminal C			Œ		21	ł		79	3	- [Without ICC]
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Figure F	1400	1000000	Connector T	Γ	20	L] 		
Terminal Color Of Name (Specification) 25	LING BRAN	E SWITCH	[]	25	H				
Terminal Color Of Term	TB01FW		Œ		54	>		Connect	or No.	M24
13. 1.					22	╀	,			000000000000000000000000000000000000000
Terminal Color Of Color Of			Ź		59			Connect	or ivame	DATA LINK CONNECTOR
Terminal Color Of No. Color Of N		Ć			9	_		Connect	or Type	BD16FW
Terminal Color Of Signal Name (Specification) 1		1			61	F				
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K - Without ICC			14		9/	F	- [Without ICC]	11	8S	

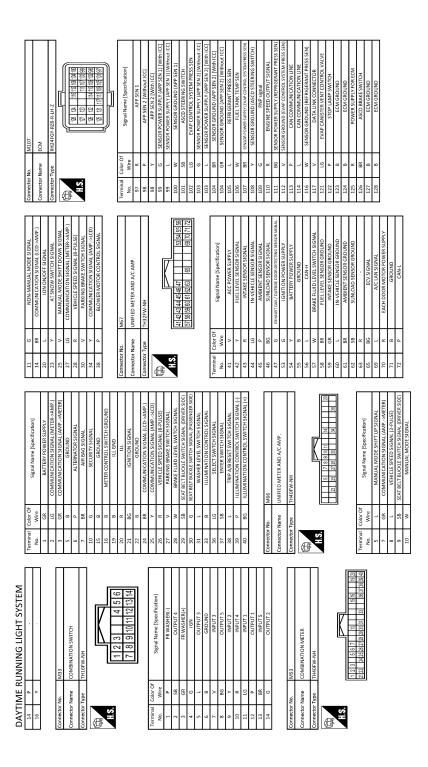
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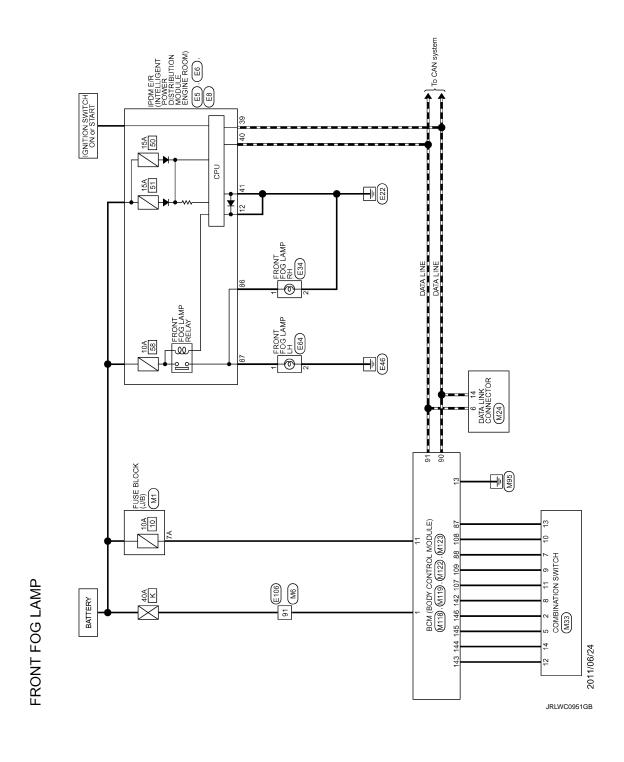
DAY	TIMEF	DAYTIME RUNNING LIGHT SYSTEM						
Connector No.	or No.	M118	Connector No.	No.	M122	Connector No.		M123
Connecto	Connector Name	BCM (BODY CONTROL MODULE)	Connector Name	Name	BCM (BODY CONTROL MODULE)	Connector Name		BCM (BODY CONTROL MODULE)
Connector Type	or Type	M03FB-LC	Connector Type	Type	TH40FB-NH	Connector Type	Г	TH40FG-NH
修			E .			售		
2		13	Ċ		91 90 88 67 8 83 62 81 80 73 77 78 75 74 73 77 75 75 74 75 77 75 75 75 75 75 75 75 75 75 75 75	2		
Terminal No.	d Color Of Wire	Signal Name [Specification]	Terminal No.	Color Of Wire	Signal Name [Specification]	Terminal C	Color Of Wire	Signal Name [Specification]
1	*	BAT (F/L)	7.2	æ	ROOM ANT2-	113	_	OPLICAL SENSOR
2	*	POWER WINDOW POWER SUPPLY(BAT)	73	9	ROOM ANT2+	116	SB	STOP LAMP SW 1
	γ	POWER WINDOW POWER SUPPLY(RAP)	74	SB	PASSENGER DOOR ANT-	118	Ь	STOP LAMP SW 2
			75	GR	PASSENGER DOOR ANT+	119	SB	DR DOOR UNLOCK SENSOR
			26	۸	DRIVER DOOR ANT-	121	BR	KEY SLOT SW
Connector No.	or No.	M119	77	LG	DRIVER DOOR ANT+	123	W	IGN F/B
Connects	Connector Name	BOM (BODY CONTROL MODILIE)	78	γ	ROOM ANT1-	124	ΓG	PASSENGER DOOR SW
		Con (SOC) CONTROL MODELL	79	BR	ROOM ANT1+	132	BR	POWER WINDOW SW COMM
Connector Type	or Type	NS16FW-CS	80	GR	NATS ANT AMP.	133	W	PUSH-BUTTON IGNITION SWILL POWER
4			81	W	NATS ANT AMP.	134	GR	LOCK IND
			82	ж	IGN RELAY (F/B) CONT	137	BG	RECEIVER/SENSOR GND
Ě			83	٨	KEYLESS ENTRY RECEIVER COMM	138	+	RECEIVER/SENSOR POWER SUPPLY
2		1 S S I I	87	BR	COMBI SW INPUT 5	139	٦	TIRE PRESSURE RECEIVER COMM
		11 13 14 15 17 18 19	88	۸	COMBI SW INPUT 3	140	GR	SHIFT N/P
		01 11	90	Ь	CAN-L	141	9	SECURITY IND LAMP CONT
			91	٦	CAN-H	142	BG	COMBI SW OUTPUT 5
			95	97	KEY SLOT ILL CONT	143	Ь	COMBI SW OUTPUT 1
Terminal	al Color Of	Simple Constitution	93	۸	ONINO	144	9	COMBI SW OUTPUT 2
No.	Wire	ogna ivalite [opecification]	94	٨	PUDDLE LAMP CONT	145	7	COMBI SW OUTPUT 3
4	91	INTERIOR ROOM LAMP POWER SUPPLY	56	BG	ACC RELAY CONT	146	SB	COMBI SW OUTPUT 4
2	٦	PASSENGER DOOR UNLOCK OUTPUT	96	GR	A/T SHIFT SELECTOR POWER SUPPLY	150	91	DRIVER DOOR SW
7	٨	STEP LAMP CONT	66	В	SHIFTP	151	9	REAR WINDOW DEFOGGER RELAY CONT
80	۸	ALL DOOR, FUEL LID LOCK OUTPUT	100	9	PASSENGER DOOR REQUEST SW			
6	9	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	101	SB	DRIVER DOOR REQUEST SW			
10	BR	REAR DOOR UNLOCK OUTPUT	102	BG	BLOWER FAN MOTOR RELAY CONT			
11	В	BAT (FUSE)	103	LG	KEYLESS ENTRY RECEIVER POWER SUPPLY			
13	8	GROUND	107	LG	COMBI SW INPUT 1			
14	W	PUSH-BUTTON IGNITION SW ILL GND	108	R	COMBI SW INPUT 4			
15	^	ACCIND	109	٨	COMBI SW INPUT 2			
17	Μ	TURN SIGNAL RH (FRONT)	110	9	HAZARD SW			
18	BG	TURN SIGNAL LH (FRONT)						
19	>	INT ROOM LAMP CONT						

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FRONT FOG LAMP SYSTEM

Wiring Diagram - FRONT FOG LAMP -

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	21 L	+	23 G -	\mathbb{H}	26 V -	+	H	+	34 8	-	36 SHIELD .	Н	\exists		+	+	+	45 W		+	54 86 -	+	H	H	61 6	+	+			67 SHIELD -	\dashv	+	+	72 v	27.	+	š -	J (5)	» »	^	^	77 P - [Without ICC]
	Connector No. E64	Connector Name FRONT FOG LAMP LH	Connector Tyne EH203EB	1	Meth)		Terminal Color Of	No. Wire Signal Name (Specification)	1 L	2 B/W ·		-	Connector No. E106	Connector Name WIRE TO WIRE	T	Connector Type TH80FW-CS16-TM4				の の の の の の の の の の の の の の の の の の の			Terminal Color Of		1 R	2 W -	з в	+	4	+	Sa Cr	+	+	+	- At - At -	╀	16 V	17 S8 .	18 ^
ŀ	46 R -		Connector No	e e	Connector Tune McDetM.FC	1		S 1 87 83	0000	00 00 60			Jal C	Wire	-	+	%	+	88 GR	+			Connector No. E34	Connector Name FRONT FOG LAMP RH	T	7)		-	Signal Name [Specification]	$^{+}$	2 B/W	3.16					
		POW EPR () NITELLIGENT POWER DISTRIBUTION MODILLE ENGINE ROOM!	THOO ENGLOSION FRANCIS	00000		12 13 25262728 30 11				(magazine of magazine of	ognalivanie (operincation)									,					2		IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	TH08FW-NH			K	41 40 39	90 00 00 00	ŧΠ			Signal Name [Specification]	,				,
FRONT FOG LAMP	ES	Connector Name IPDM E/R	Connector Type	1	L			J		Color Of	Wire	>		œ	B/W	_	2	>	9 0	× 5	a -	E E	9	1	Γ	Т	Connector Name	Connector Type								Terminal Color Of	Wise	2 4	<u> </u>	B/W	SB	~

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FRONT	FRONT FOG LAMP										
H	BR	- [Without ICC]	Conne	Connector No.	M6	43	98		86	SHIELD	
78		- [with ICC]	Conne	Connector Name	WURE TO WURE	45	Μ		66	^	
79	1	- [Without ICC]				49	-		100	SB	
79	*	- [With ICC]	Conne	Connector Type	TH80MW-CS16-TM4	20	۵				
H	8S][51	æ				
81	R		E	•		54	٨		Connector No.	r No.	M24
82	SB		_	·	8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	57	b		Constant Nome	Momo	GOTTO IMMOOD VINIT AT ACC
H	98		1	ė		59	Μ		n n	DIIIDA	DATA LINA CONNECTION
H	9				20 00 00 00 00 00 00 00 00 00 00 00 00 0	9	_		Connector Type	r Type	BD16FW
\$28					F 98 HE 100 100 100 100 100 100 100 100 100 10	61	o				
86	а					62	SB		E		
┞	>					63	┞				
t	GR		Terminal	inal Color Of		64	┝		. S.		11 14 16 /
90 SH	SHIELD		No.		Signal Name [Specification]	9	┞				- 0 - 1
t	M		ľ	×		99	H				3 4 5 6 7 8
┝	>	,	2	H		29	SHIELD	,			
93	>		m	8		99	>				
╀	91		4	£		69	GR		Termina	Color Of	
╀	58		<u>ا</u>	t		2	╀		Š	_	Signal Name [Specification]
$^{+}$	3 4			ł			ł		۰	2	
20			9	$^{+}$		1 1	+		1	3 4	
†	×		'n	+		7/	+		4	٥	
98 SH	SHIELD		10	+		73	+		S	80	
66	7		11	l BR		74	BR	- [With ICC]	9	_	
100	Ь		12	BG i		74	1	- [Without ICC]	7	>	
			13	٦		75	9		∞	9	
			14	æ		2/2	RB.	- [Without ICC]	11	SB	
Connector No.	M1		15	۵.		16	*	- [With ICC]	14	۵	
	Г		16	>		77	۵	- [Without ICC]	16	>	
Connector Name	ne FUSE BLOCK (J/B)	1/8)	17	88		77	~	- [With ICC]			
Connector Type	e NS06FW-M2		18	H		78	٦	- [With ICC]			
	1		20	98		78	œ	- [Without ICC]	Connector No.	r No.	M33
Œ	1	ſ	21	H		79	ŀ	- [Without ICC]			
主		Ш	2	*		52	╀	- [With ICC]	Connector Name	r Name	COMBINATION SWITCH
S. Y		3A 2A1A	1 2	ł		8	. 9	(2011)	Connector Type	r Tvne	TH16PW.NH
		Ŀ	1	$^{+}$		3	+			2	
		8A / A DA DA 4A	7	+		100	+		qĮ.		
	-1		1	+		70	+		季		
			ş	+		82	+				7
	-		27	-		84	U			_	,
_		Signal Name (Specification)	78	υ 		82	_				1 2 3 4 5 6
\dashv			31	_		86	a.				7 8 9 10 11 12 13 14
_	GR		32	9		87	Α				2
Н	9		33	8 B		88	GR				
3A	_		34	W		90	SHIELD		Terminal	Color Of	Cinnal Manne [Consideration]
44	Ь		32	۳ د		91	W		No.	Wire	oglidi Nallie (opesmeassen)
5A	^		36	SHIELD		92	٨		1	d	FR WASHER(-)
6A	Y		37	^		93	BR		2	SB	OUTPUT 4
7A	2		38	BG BG		94	۵		3	GR	FR WASHER(+)
8A			39	88		95	S.		4	ŋ	IGN
			41	H		96	H		S	_	OUTPUT 3
			42	F		97	-		9	80	GROUND

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FKOIN FOG LAIMP	INPUT 3	13	8 3	GROUND PISH-RITTON IGNITION SWILL GND	110	> 4	COMBI SW INPUT 2
	INPUT 2	15	>	POSH-BOTTON IGNITION SWITE GND	TTO	9	HAZARU SW
	INPUT 4	17	>	TURN SIGNAL RH (FRONT)			
	INPUT 1	18	BG	TURN SIGNAL LH (FRONT)	Connector No.	No.	M123
	OUTPUT1	19	>	INT ROOM LAMP CONT	Connector Name	Name	BOM (BODY CONTRO! MOD!!! E)
	INPUTS				Connector Type	Type	TH406G-NH
		Connector No.	No.	M122			
- 1	M118	Connector Name	r Name	BCM (BODY CONTROL MODULE)	售		
1	BCM (BODY CONTROL MODILE)	Connector Type	r Type	TH40FB-NH	Ę.Ś.		
- 1	M03EP-IC	€					151 158 141 141 141 141 141 141 141 141 141 14
		HS.					
	<u>+</u>			91 90 88 87 8 83 87 18 18 18 7 7 18 7 7 18 7 2 7 7 18 7 7 18 7 1 7 18 7 2 7 1 18 7 7 1 18 7 1 18 7 18 7	Terminal No.	Color Of Wire	Signal Name [Specification]
					113	۵	OPLICAL SENSOR
	7				116	SB	STOP LAMP SW 1
]	Terminal	2	Signal Name [Specification]	118	d	STOP LAMP SW 2
- 13		No.	Wire	40000	119	88	DR DOOR UNLOCK SENSOR
Wire	Signal Name [Specification]	73	ں ی	ROOM ANIZ-	121	¥ ×	IGN E/8
.1	BAT (F/L)	74	SB	PASSENGER DOOR ANT-	124	91	PASSENGER DOOR SW
1	POWER WINDOW POWER SUPPLY(BAT)	75	GR	PASSENGER DOOR ANT+	132	BR	POWER WINDOW SW COMM
	POWER WINDOW POWER SUPPLY(RAP)	76	^	DRIVER DOOR ANT-	133	Μ	PUSH-BUTTON IGNITION SWILL POWER
		77	97	DRIVER DOOR ANT+	134	GR	LOCKIND
- 1		78	>	ROOM ANT1-	137	BG	RECEIVER/SENSOR GND
	M119	79	BR	ROOM ANT1+	138	>	RECEIVER/SENSOR POWER SUPPLY
	BCM (BODY CONTROL MODILIE)	80	GR	NATS ANT AMP.	139	1	TIRE PRESSURE RECEIVER COMM
- 1	(22222222222222222222222222222222222222	81	≯	NATS ANT AMP.	140	GR	SHIFT N/P
- 1	NS16FW-CS	82	œ	IGN RELAY (F/B) CONT	141	g	SECURITY IND LAMP CONT
		83	>	KEYLESS ENTRY RECEIVER COMM	142	98	COMBI SW OUTPUT 5
		87	BR	COMBI SW INPUT 5	143	۵	COMBI SW OUTPUT 1
	1/15 7 7 10 0 10 10	88	>	COMBI SW INPUT 3	144	9	COMBI SW OUTPUT 2
]	06	Ь	CAN-L	145	٦	COMBI SW OUTPUT 3
	11 13 14 15 17 18 19	91	٦	CAN-H	146	SB	COMBI SW OUTPUT 4
	2.1	92	97	KEY SLOT ILL CONT	150	91	DRIVER DOOR SW
		93	۸	ONIND	151	9	REAR WINDOW DEFOGGER RELAY CONT
		94	>	PUDDLE LAMP CONT			
Color Of	Signal Name [Concification]	95	BG	ACC RELAY CONT			
Wire	ognalivanie lopecincationi	96	GR	A/T SHIFT SELECTOR POWER SUPPLY			
91	INTERIOR ROOM LAMP POWER SUPPLY	66	ч	SHIFTP			
1	PASSENGER DOOR UNLOCK OUTPUT	100	9	PASSENGER DOOR REQUEST SW			
	STEP LAMP CONT	101	SB	DRIVER DOOR REQUEST SW			
1	ALL DOOR, FUEL LID LOCK OUTPUT	102	BG	BLOWER FAN MOTOR RELAY CONT			
₀	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	103	91	KEYLESS ENTRY RECEIVER POWER SUPPLY			
BR	REAR DOOR UNLOCK OUTPUT	107	P7	COMBI SW INPUT 1			
	BAT (FUSE)	108	œ	COMBI SW INPUT 4			

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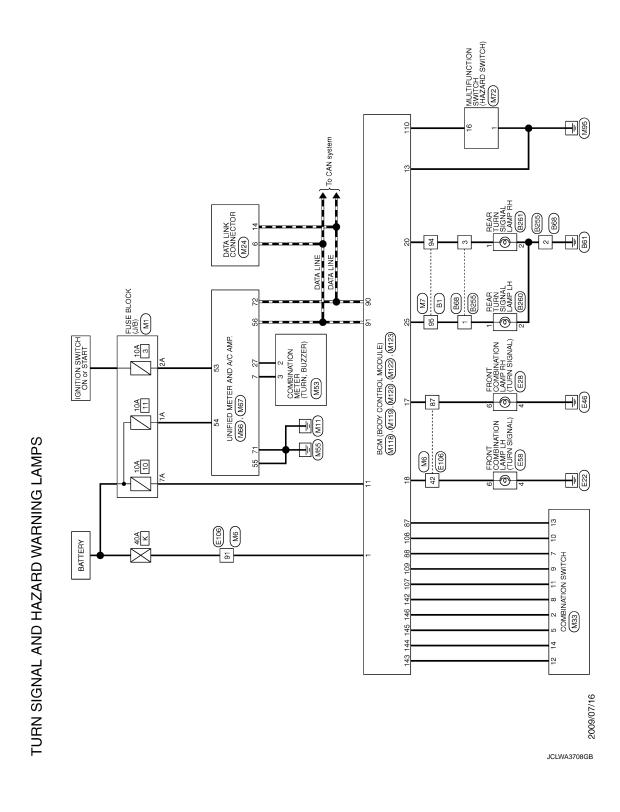
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

Wiring Diagram - TURN AND HAZARD WARNING LAMPS -

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

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г		\neg						7	_			7							_		ı																					
	PLH		ia ia			Signal Name [Specification]				HB di			J	र्स	(12))		Signal Name [Specification]																								В
	REAR TURN SIGNAL LAMP LH	HS02FG-W	냭	U		Signal Name				BEAR THRN SIGNAL LAMP RH	2FG.M		ļ	뷧	J	J		Signal Name																								С
Councilor No.	ne .	Connector Type HS0	- C			Terminal Color Of No. Wire	1 e	8	Connector No R263	9		ocul add page		ΞS				Terminal Color Of	No. Wire	2 B																						D
	8 8	8	E			P.		J 	[3	1	8 8		F					Te	1			T																				Е
				1 2 3 4 5 6 7 8		Signal Name [Specification]										K		7 2 2			Signal Name [Specification]					,																F
9,0		RHOSMB	·	<u> </u>			9 8	SB	~			8255	e WIRE TO WIRE	RHOSFB	-		`	ىك	_		Color Of Signa		B	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	м 8	~																G
Mychochec	Connector Name	Connector Type	匮			Terminal Color Of No. Wire	1 0	3 8	4 4			Connector No.	Connector Name	Connector Type	ą	F	H.S.				Terminal Colo	No.	2 E	+	9	Н																Н
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	L J SHEID	\boldsymbol{T}	\$	> 88 CHIED	N 88	-l M	88 0	۵.	GR	3 >	PT ^	- «	ao 2	+	Н	+	9 0	→ 3	+	4																						K
AMPS	3 6 8	63	65 64	69 69	73	74	75	78	79	8 8	86	8	8 8	91	95	93	98	96	8 8	3																						
TURN SIGNAL AND HAZARD WARNING LAMPS			1 0 1-1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	8 0 0 0		cification]																																			i	ΞX
ND HAZARC	WIRE TO WIRE	TH80FW-CS16-TM4				Signal Name [Specification]				,					•					,		. ,				,		٠														M
N SIGNAL A	Connector Name WIRE			9		al Color Of Wire	œ U	S 8	> -	SB .	91	┿	H	Т	BR	_	- а					N SS	_	۵ -		Ш		ш	91 8													Ν
TUR	Connect	Connector Type	唇			Terminal No.	m u	9	r 00	12	13	15	17	19	20	21	24	27	87 2	8	31	33	34	35	37	38	39	45	46	49	R											0
																																			15	RLWE	:AP4:	7CP				0
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Control Dietal Cont	TURN SIGNAL AND HAZARD WARNING LAMPS Connector No. [228	AMPS Connector No.	, E106	43	BR		97 R	
Separation Connector There Milt Milt			T	:	+		t	
Special time Secretar Paper Transfer	FRONT COMBINATION LAMP RH	Connector Na		49	+		$^{+}$	
Signal future [Sociolation] Sign	RS08FB-PR	Connector Tv	Γ	25	╀		ŀ	
Signature			1	15	-			
Signal Name Scientification 1		Œ		54	H			
Signal Name Specification Frenched Connector Yape Connector Yap	ď	\ <u>-</u>		57	Н		П	
Signal Name Specification From the Control of Cont	က	2	2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	59	_			(8/11/8)
Signal Name Specification 1	 		R 0 8 0 8 0 8 0 8 0 8 0 8 0	09	Н			(a (c) wa
Signal Name (Specification) Training Code Cod	-			61	9			M2
Figure F)			62	H			
Figure Continue				63	┞		Œ	
Signit Name Specification No. Wire Signat Name Specification No. Wire No. Wi		_		64	H		in the second se	
1 R R R R R R R R R	Signal Name			9	╀		ES.	3A 2A 1A
1		t		9	╀			O. 7. C. E. 4.
1		2		29	t			A# 10 10 17 A8
Signal Name (Specification) Sign		~	: ===	89	t			
Signal Name Specification Signal Name Signal Name Specification Signal Name Signal Name Specification Signal Name Signal Name		1	83	8 9	+			
ESE FROM TOWN LAWP LH FROM TOWN CANDING LAW FR		, .		60 60	+		-	
Fig. 10 Fig.		n ,		2 1	+		_	Signal Name [Specification]
15 15 15 15 15 15 15 15		00 0		T	+		$^{+}$	
10 86 10 10 10 10 10 10 10 1		'n		7/	+		+	
11 5 5 7 7 1 1 1 1 1 1 1 1		10	BG .	73	+		4	
13		11		74		- [With ICC]	3A L	-
From the Life From the Lif	E58	12	BG .	74	1	- [Without ICC]		-
14 R R R R R R R R R	LI GAAA I MOITANI GAAOO TAGGO	13		75		- [With ICC]	SA V	-
15 P P P P P P P P P		14		75	L	- [Without ICC]	6A Y	
15 5 4 1 1 1 1 1 1 1 1 1	RSO8FB-PR	15		9/		- [With ICC]		
17 R		16	۸	9/	L	- [Without ICC]	8A L	
18 V 19 19 19 19 19 19 19		17		77	L	- [Without ICC]		
1		18	^	77	L	- [With ICC]		
Signal Name Specification 2.3 1	~	20		78	┞	- [Without ICC]	Γ	
Signal Name (Specification) 22	1	21		78	╀	- [With ICC]		
Signal Name Specification 25	/	22		5 5	-	- [Without ICC]		WIRE
Signal Name (Specification) 25.4 V RS 5.8 P		23		79	>	- (With ICC)	Γ	-CS16-TM4
Signal Name (Specification) 25 Y RS1 R R ALS 26 V RS3 BG - - ALS 32 W R R C - R 32 W R R - R R - 32 W R R R R R - R 32 W R		24		8	╀		1	
Signal Name (Specification) 26 V CR CR <th< td=""><td></td><td>22</td><td>*</td><td>8</td><td>╀</td><td></td><td>4</td><td>2 2</td></th<>		22	*	8	╀		4	2 2
1	Signal Name	26		82	H			10 11 11 11 11 11 11 11 11 11 11 11 11 1
128 6G 12 12 12 13 13 14 15 15 15 15 15 15 15		27		83	┞		H.S.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
31 86 1 1 1 1 1 1 1 1 1		28		84	+			8 H H H H H H H H H H H H H H H H H H H
32 W 9 9 9 9 9 9 9 9 9		31	98	55	╀			10 E E E E E E E E E E E E E E E E E E E
8 8 7 4 8 8 8 8 8 8 8 8 8		33	200	8 8	ł	,		
R R CR CR CR CR CR CR		2 00		2 2	+			
SHIELD STATE STA		2.0		8	╀		-	
SMEQ 91 MRGU 1 MG V 92 V 2 2 2 2 2 3 4 4 3 3 3 4 3 3 4 4 3 4		i i	= 4	8	t		_	Signal Name [Specification]
SHRIO . 92 Y . 2 V . 93 Y . 2 BG . 94 1G . 3 W . 94 1G . 4 SG . 96 F . 6 G . 96 F . 8		†		8	†		+	
W . 93 V . 3 BG . 94 LG . 4 W . 95 BG . 4 T . 95 BG . 6 G . 96 P . 8		+	HIELD .	91	+			
BR . 93 V . 3 BG . . 94 I.G . 4 W . 95 BG . 6 G . 96 . 8		37		92	\dashv		+	
BG . 94 IG . 4 W . 95 BG . 4 G . 96 P . 8		38	BR .	93				-
8		39	BG .	94	-		_	-
. 96 P		41		95	_			
		42	9	96	H		> 00	

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

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TON [16] [16] [17] [16] [18] [19] [19] [19] [19] [19] [19] [19] [19	В
M24 DATA LINK CONNEC BID16FW Signal N	С
74 R R 75 R R 75 R R 75 R R 77 R 8 8 8 8 8 8 8 8 8	D
ignal Name (Specification) The automatic drive positioner] The automatic drive positionery	E
Mi- Milliam	G
No.	Н
- (Weel CC) - (Wethout ICC) -	I
11:BOMW IR TO WIRE TO	J
AMMPS 71	К
TURN SIGNAL AND HAZARD WARNING LAMPS 10	EXL
AL AND HAZA	М
TURN SIGNA 1	N
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TUR	N SIGN	TURN SIGNAL AND HAZARD WARNING LAMPS	AMPS						
Connector No	r No.	M33	10	9	SECURITY SIGNAL	34 Y	COMMUNICATION SIGNAL (AMP>LCD)	Connector No.	M72
Connector Name	Name	HOLIWIS NOTENIAMOO	15	8	GROUND	38 P	BLOWER MOTOR CONTROL SIGNAL	Connector Name	HOLING NOTION SHALL
			16	8	METER CONTROL SWITCH GROUND				
Connector Type	r Type	TH16FW-NH	19	В	ITT GND			Connector Type	TH16FW-NH
ą	_		20	œ	III	Connector No.	M67	q	
逐		[21	BG	IGNITION SIGNAL	Connector Name	UNIFIED METER AND A/C AMP.	图	[
) E			22	ю 8	GROUND			S	4
	_	1 2 3 4 5 6	24	ž,	COMMUNICATION SIGNAL (LCD->AMP.)	Connector Type	TH32FW-NH		4 6 8 14 16
		7 8 9 10 11 12 13 14	26	- «	VEHICLE SPEED SIGNAL (8-PULSE)	€			3.5
		2 1 10	27	>	PARKING BRAKE SWITCH SIGNAL	=			3
			28	3	BRAKE FLUID LEVEL SWITCH SIGNAL		44 40 42 44 45 45 ES		
Terminal	_	If Signal Name [Specification]	59	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)		5 6) al	f Signal Name (Specification)
No.	Wire		30	U	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)		~ ~ ~ ~	No. Wire	
1	۵	FR WASHER(-)	31	_	WASHER LEVEL SWITCH SIGNAL			1 B	GROUND
2	SB	OUTPUT 4	33	В	ILLUMINATION CONTROL SIGNAL			3	ACC
3	GR	FR WASHER(+)	36	LG	SELECT SWITCH SIGNAL	Terminal Color Of	Of Signal Name (Specification)	4 R	ILL
4	9	IGN	37	SB	ENTER SWITCH SIGNAL	No. Wire		>	ILLCONT
2	_	OUTPUT 3	38	٦	TRIP A/B RESET SWITCH SIGNAL	41 V	ACC POWER SUPPLY	6 SB	AV COMM (H)
9	В	GROUND	39	Ь	ILLUMINATION CONTROL SWITCH SIGNAL (-)	42 Y	FUEL LEVEL SENSOR SIGNAL	8 10	AV COMM (L)
7	۸	INPUT 3	40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (+)	43 R		9 B	SW GND
×	BG	OUTPUTS				44 LG	IN-VEHICLE SENSOR SIGNAL	14 Y	DISK EJECT SIGNAL
6	٠	INPUT 2				45 P	AMBIENT SENSOR SIGNAL	16 G	HAZARD ON
10	ж	INPUT 4	Connector No.		M66	46 BG	SUNLOAD SENSOR SIGNAL		
11	FIG.	INPUT1	Connector Name		LINIEIEN METER AND A /C AMP	47 G	EXHAUST GA		
12	Ь	OUTPUT1	TO THE COLUMN		DIVILLED INCLES AND ACCOUNT.	53 6		Connector No.	M118
13	BR	INPUTS	Connector Type		TH40FW-NH	54 Y	BATTERY POWER SUPPLY	Connector Name	RCM (BODY CONTROL MOBILIE)
14	9	OUTPUT 2	4			55 B			
			医			26 L	CAN-H	Connector Type	M03FB-LC
			Į.		[\dashv	BRV	þ	
Connector No.	r No.	M53	1	_	5 7 8 9 10 14 14	\dashv	Ξ	B	
Connector Name	r Name	COMBINATION METER			23 25 27 28 30 32 32	59 GR	4	Ě	
				_		+	_		1 3
Connector Type	r Type	TH40FW-NH				\dashv			
ģ	_					-	SUNLOAD SENSOR GROUND		7
厚			le l	Color Of	Signal Name [Specification]	+			
S II			No.	Wire		65 BG			
		1 2 3 5 6 7 10 15 16 19 20	ı,	-	MANUAL MODE SHIFT UP SIGNAL	+	1	<u>e</u>	Signal Name [Specification]
		21 22 24 25 26 27 28 29 30 31 33 36 37 38 39 40	,	¥5 .	COMMUNICATION SIGNAL (AMP.:->METER)	+	EACH DOOR MOTOR POWER SUPPLY	No. Wire	
			20	-	VEHICLE SPEED SIGNAL (Z-PULSE)	/1 8	1	M	BA1 (F/L)
			6	88	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)	72 P	CAN-L	2 W	POWER WINDOW POWER SUPPLY(BAT)
			10	>	MANUAL MODE SIGNAL			3	POWER WINDOW POWER SUPPLY(RAP)
Terminal	_	ff Signal Name [Specification]	11	9	NON-MANUAL MODE SIGNAL				
No.	Wire	,	14	æ	COMMUNICATION SIGNAL (LCD->AMP.)				
1	æ	BATTERY POWER SUPPLY	20	_	ION ON/OFF SIGNAL				
2	2	COMMUNICATION SIGNAL (METER->AMP.)	23	>	AT SNOW SWITCH SIGNAL				
e	g	COMMUNICATION SIGNAL (AMP>METER)	25	>	MANUAL MODE SHIFT DOWN SIGNAL				
2	8	GROUND	27	97	COMMUNICATION SIGNAL (METER->AMP.)				
9 1	a 6	ALTERNATOR SIGNAL	58	∝ :	VEHICLE SPEED SIGNAL (8-PULSE)				
7	BR		30	>	PARKING BRAKE SWITCH SIGNAL				

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N C	5 2	ONN SIGNAL AND HAZARD WARNING LAIVIPS	Ä					
Connector No.	No.	MII9	Š	Connector No.	M122	Connector No.	١	M123
Connector Name	. Name	BCM (BODY CONTROL MODULE)	Conn	Connector Name	BCM (BODY CONTROL MODULE)	Connector Name	ame	BCM (BODY CONTROL MODULE)
Connector Type	Type	NS16FW-CS	Conn	Connector Type	TH40FB-NH	Connector Type	,be	TH40FG-NH
Œ			Œ			匮		
2		4 5 7 6 8 9 10 11 13 14 15 17 18 19		2	27 (27 1-7 1-7 1-7 1-7 1-7 1-7 1-7 1-7 1-7 1-	Ž		
Terminal	Color Of	Ginnal Name (Snerification)	Terminal	inal Color Of	Gianal Name (Gearification)	Terminal	Color Of	Ginnal Namo (Gnorification)
No.	Wire	INTERIOR ROOM IAMA DOWER CIDDIN	No.	Wire	POOM ANT2-	No.	Wire	Opinion censor
	3 -	PASSENGER DOOR LINI OCK OUTPUT		ł	ROOM ANT2+	116	. 85	STOP I AMP SW 1
7	>	STEP LAMP CONT	74	H	PASSENGER DOOR ANT-	118	۵	STOP LAMP SW 2
80	>	ALL DOOR, FUEL LID LOCK OUTPUT	75	H	PASSENGER DOOR ANT+	119	SB	DR DOOR UNLOCK SENSOR
6	9	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	76	>	DRIVER DOOR ANT-	121	BR	KEY SLOT SW
10	BR	REAR DOOR UNLOCK OUTPUT	77	97	DRIVER DOOR ANT+	123	W	IGN F/B
11	В	BAT (FUSE)	78	٨	ROOM ANT1-	124	PI	PASSENGER DOOR SW
13	8	GROUND	79	BR	ROOM ANT1+	132	BR	POWER WINDOW SW COMM
14	Μ	PUSH-BUTTON IGNITION SWILL GND	80		NATS ANT AMP.	133	W	PUSH-BUTTON IGNITION SWILL POWER
15	*	ACC IND	81	Λ.	NATS ANT AMP.	134	GR	LOCK IND
17	Μ	TURN SIGNAL RH (FRONT)	82	R	IGN RELAY (F/B) CONT	137	BG	RECEIVER/SENSOR GND
18	BG	TURN SIGNAL LH (FRONT)	83	Н	KEYLESS ENTRY RECEIVER COMM	138	٨	RECEIVER/SENSOR POWER SUPPLY
19	^	INT ROOM LAMP CONT	87	BR	COMBI SW INPUT 5	139	L	TIRE PRESSURE RECEIVER COMM
			88	۸	COMBI SW INPUT 3	140	GR	SHIFT N/P
			96	Ь	CAN-L	141	G	SECURITY IND LAMP CONT
Connector No.	.No.	M120	91	1	CAN-H	142	BG	COMBI SW OUTPUT 5
Connector Name	Name	RCM (BODY CONTROL MODILLE)	92	97	KEY SLOT ILL CONT	143	Ь	COMBI SW OUTPUT 1
		(33000)	6	>	ONIND	144	g	COMBI SW OUTPUT 2
Connector Type	Type	NS12FW-CS	94	\dashv	PUDDLE LAMP CONT	145	_	COMBI SW OUTPUT 3
Q			95	+	ACC RELAY CONT	146	SB	COMBI SW OUTPUT 4
生			96	+	A/T SHIFT SELECTOR POWER SUPPLY	150	2	DRIVER DOOR SW
Ě		ر ا	66	+	SHIFTP	151	9	REAR WINDOW DEFOGGER RELAY CONT
		07	100	υ E	PASSENGER DOOR REQUEST SW			
		07 07	1 6	+	BLOWER FAN MOTOR RELAY CONT			
			103	╀	KEYLESS ENTRY RECEIVER POWER SUPPLY			
			107	┝	COMBI SW INPUT 1			
Terminal	Color Of	Sianal Name (Sparification)	108	8	COMBI SW INPUT 4			
No.	Wire	ogual annual characteristic	109	۸	COMBI SW INPUT 2			
20	^	TURN SIGNAL RH (REAR)	110	9 0	HAZARD SW			
23	ŋ	BACK DOOR OPEN OUTPUT						
25	9	TURN SIGNAL LH (REAR)						
56	ŋ	REAR WIPER OUTPUT						

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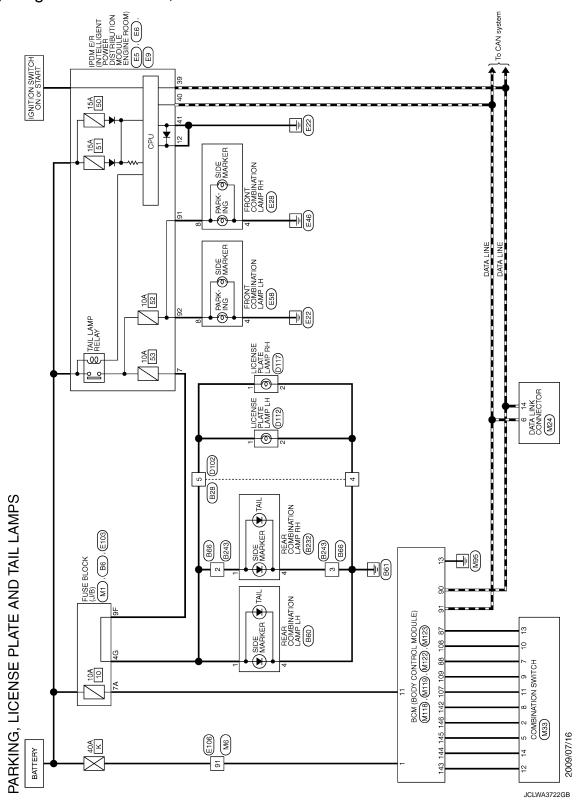
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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Wiring Diagram - PARKING, LICENSE PLATE AND TAIL LAMPS -



PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Connector No. D102 Connector Name WIRE TO WIRE	Соливског туре 112 (11 100 9 8 7 7 6 5 4 3 2 1 1 24 23 22 22 (20 19) 18 17 16) 15 14 13	Mire Wire Wire GR GR GR GR COLOT Of COLOT Of CR	15 1	
18 P	Connector No. 19232 Connector Name REAK COMBINATION LAMP RH CONNECTOR THOSAWANH	Terminal Color Of Signal Name Specification No. Wire Signal Name Specification No. Vive Signal Name Specification	11	Terminal Color Of Signal Name Specification
19	22 P P 2 23 BR 24 24 BR Connector No. BIGO	. of	Connector No. Biblio Connector Name WIRE TO WIRE COnnector Type Tri2.1MM 4NH	Terminal Color Of Signal Name [Specification] Terminal Color Of Signal Name [Specification] 1
PARKING, LICENSE PLATE AND TAIL LAMPS Connector No. 86 Connector Name FUSE BLOCK (J/B)	Connector Type	5		Color Off Signal Name [Specification]

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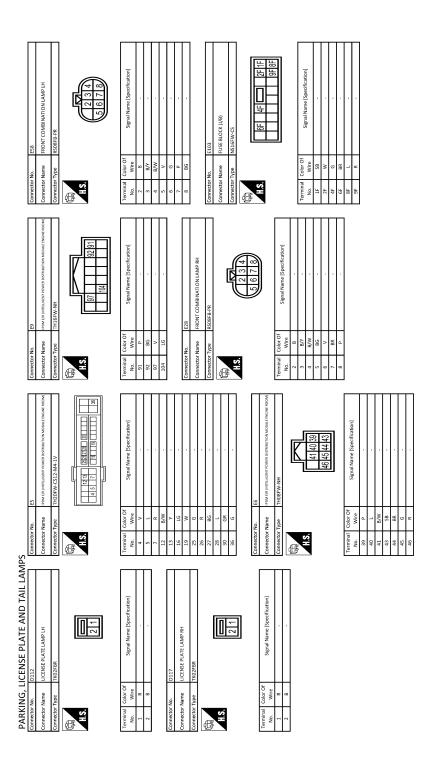
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Т	43	* 3		60	× 100		6 £	H o	
Connector Name WIRE TO WIRE	9	s -		+	SHIELD		1 12	۵ ۵	
Connector Type TH80FW-CS16-TM4	20	, a	,	100	1 4		17	98	,
	51	_			_		2	-	,
11 _1	54	BG					14	œ	•
20 2 2 3 2 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3	57	BR		Connector No.	o. M1		15	۵	
	29	×		Connector Name	ame FLISE BLOCK (1/B)	K(1/B)	16	۸	٠
व्याद	09	PI			T	(- (-)	17	SB	
I all a	<u> </u>	9		Connector D	ype NS06FW-M	12	≅	>	
	3 2	38		ą			9 5	g -	
30-1-0	6 3	8 0		手		$\ $	17 6	, ,	
No Mire Signal Name [Specification]	ŧ	٥		\ <u>\</u>		3A 2A 1A	77 6	3 0	
2	8	, ,					62	. 8	
4 3	00 0	2 10 10				8A /Ababa4A	47	ď >	
* (à	SHIELD					ç k		
n (2 2	- 9					97	> 0	
+	â	2 3			201110		۶	,	
¥5 ;	2	8 6		ē	_	Signal Name [Specification]	27	, .	
	7 6	¥ ;		No.	wire		7 8	. ,	
DK.	7/	-		¥ ;	No.		32	9	
28	5 1	20 6	Total County	V	. و		2	n :	
+	4/	ž	- [with ICC]	3A	, ,		35	8	
28	4	1 0	- (Without Icc.)	44	2 3		a 2	× 1	
4	22	9	- [With ICC]	SA	>		g.	SHIELD	
×	75	*	- [Without ICC]	94 94	>	,	37	>	
4	76	>	- [With ICC]	Α/	~		8	8	•
4	76	>	- [Without ICC]	8A	٦		39	BR	
17 SB .	77	۵	- [Without ICC]				41	×	
18 V -	77	ď	- [With ICC]				42	9g	
4	78	BR	- [Without ICC]	Connector No.	o. M6		43	BG	
4	78	٦	- [With ICC]	Connector Name	ame WIRE TO WIRE	381	42	Α	-
Н	79	٦	- [Without ICC]		T		49		
4	79	٨	- [With ICC]	Connector Type	ype TH80MW-CS16	S16-TM4	20	Ь	-
Ь	80	SB		¢	L		51	BR	
_	81	œ		ß			54	>	
	82	SB		ŧ			22	9	
27 W -	83	BG		Ź		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	23	×	
H	84	9					09	1	
98	85	_				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	61	U	
**	98					2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9	g	1
: @	22	. >			7		63	0	
0 (ò	> 6			201110		6	,	
* '	£ :	YS.	4	lerminal	_	Signal Name [Specification]	\$	n :	
╅	06	SHIELD		O			65	3	•
┪	91	Α		1	*		99	œ	
	95	*		2	ч		29	SHIELD	
88	93	>		60	8		89	>	
98	94			t	SHIFID		9	ď	
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Н	٨		Ter	Terminal Color Of	r Of Signal Name (Specification)	Connector No.		M118	Connector No.	or No.	M122	
	SB		_	No. Wire		Connector Mame		BCM (BODY CONTROL MODILIE)	Connect	Connector Name	RCM IRODY CONTROL MODILIES	
H	BR	- [With ICC]	L	3 10				CINI (BOD) CONTROL MODOLE)		o marine	BCM (BOD) CONTROLINODOLE)	
74	_	- [Without ICC]	L	4 B		Connector Type	Г	M03FB-LC	Connect	Connector Type	TH40FB-NH	
_	9			9 S		C C						
H	GR	- [Without ICC]	L	1 9		E			E			
_	w	- [With ICC]		۷ /		¥		Ī	ŧ			
7.7	4	- [Without ICC]	L	8		ė E		13	2	_	To look 100 to 1	
7.7	~	- [With ICC]	L	11 SB							21 57 H 27 G 1 G 1 G 1 G 1 G 1 G 1 G 1 G 1 G 1 G	
78	-	- [With ICC]		14 P				7		_	10 10 10 10 10 10 10 10 10 10 10 10 10 1	
H	R	- [Without ICC]	L	16 Y]				
H	×	- [Without ICC]										
79	٨	- [With ICC]				Terminal	Color Of	Cinni Nama (Specification)	Terminal	II Color Of	Constitution (Constitution)	
Н	SB		Con	Connector No.	M33	No.	Wire	olgitat ivanie [openitration]	No.	Wire	ogial ivanie (operiicatori)	
_	SB		2	Connector Mame	HOLING MODITALION	1	W	BAT (F/L)	7.5	В	ROOM ANT2-	
_	SB		3	IIIECTOI MAINE		2	W	POWER WINDOW POWER SUPPLY(BAT)	73	9	ROOM ANT2+	
83	^		Con	Connector Type	TH16FW-NH	3	λ	POWER WINDOW POWER SUPPLY(RAP)	74	SB	PASSENGER DOOR ANT-	
	9		4						75	GR	PASSENGER DOOR ANT+	
85	L 1		ß						26	۸	DRIVER DOOR ANT-	
_	l d		•	ŝ	7	Connector No.		M119	77	97	DRIVER DOOR ANT+	
Н	w		•	į	2 7	Connector Name		GILIGOM IOGUNOS KOR	78	٨	ROOM ANT1-	
H	SR				ۍ 4			CIM (BOD) CONTROL MODOLE)	79	BR	ROOM ANT1+	
П	SHIELD				7 8 9 10 11 12 13 14	Connector Type		NS16FW-CS	80	GR	NATS ANT AMP.	
H	W					C			81	Μ	NATS ANT AMP.	
92	٨					ß			82	æ	IGN RELAY (F/B) CONT	
H	BR		Ter	rerminal Color Of	r Of	Ę			83	γ	KEYLESS ENTRY RECEIVER COMM	
Н	Ь		_	No. Wire		2		7 C 4	87	BR	COMBI SW INPUT S	
Н	GR			1 P	FR WASHER(-)			11 13 14 15 17 18 19	88	۸	COMBI SW INPUT 3	
96	w			2 SB	B OUTPUT 4			2	90	Ь	CAN-L	
6	7			3 GR	R FR WASHER(+)				91	7	CAN-H	
98 SH	SHIELD			4 G	IGN				92	10	KEY SLOT ILL CONT	
	۸			1 5	OUTPUT 3	Terminal	Color Of	Signal Namo (Specification)	93	۸	ON IND	
Н	SB			9 B	3 GROUND	No.	Wire	organism is a present carrons	94	γ	PUDDLE LAMP CONT	
				7 V	/ INPUT3	4	PT	INTERIOR ROOM LAMP POWER SUPPLY	56	BG	ACC RELAY CONT	
				8 BG	0	2	٦	PASSENGER DOOR UNLOCK OUTPUT	96	GR	A/T SHIFT SELECTOR POWER SUPPLY	
Connector No.	M24	124		λ 6	INPUT 2	7	٨	STEP LAMP CONT	66	В	SHIFTP	
Connector Mamo		OTOSINO SANTATOR		10 R		80	>	ALL DOOR, FUEL LID LOCK OUTPUT	100	9	PASSENGER DOOR REQUEST SW	
Di localitico		TO TOTAL COLUMN	<u> </u>	11 LG	3 INPUT1	6	9	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	101	SB	DRIVER DOOR REQUEST SW	
Connector Type		BD16FW	L	12 P	OUTPUT 1	10	BR	REAR DOOR UNLOCK OUTPUT	102	98	BLOWER FAN MOTOR RELAY CONT	
ı			L	13 BR	R INPUTS	11	~	BAT (FUSE)	103	91	KEYLESS ENTRY RECEIVER POWER SUPPLY	
· · · · · · · · · · · · · · · · · · ·				14 G	S OUTPUT 2	13	8	GROUND	107	91	COMBI SW INPUT 1	
É						14	W	PUSH-BUTTON IGNITION SW ILL GND	108	æ	COMBI SW INPUT 4	
Ċ		11 14 16 1				15	γ	ACCIND	109	γ	COMBI SW INPUT 2	
						17	W	TURN SIGNAL RH (FRONT)	110	9	HAZARD SW	
		3 4 5 6 7 8				18	BG	TURN SIGNAL LH (FRONT)				
		2				19	^	INT ROOM LAMP CONT				
	_											

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

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Connector No.	M123	
Connector Name	BCM (BODY CONTROL MODULE)	
Connector Type	TH40FG-NH	
语 H.S.		

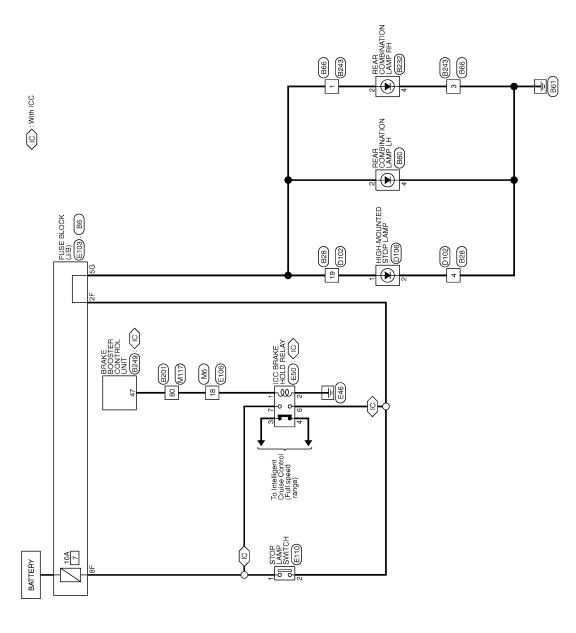
Terminal No.	Color Of Wire	Signal Name [Specification]
113	Ь	OPLICAL SENSOR
116	SB	STOP LAMP SW 1
118	d	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	BR	KEY SLOT SW
123	Μ	IGN F/B
124	91	PASSENGER DOOR SW
132	BR	POWER WINDOW SW COMM
133	Μ	PUSH-BUTTON IGNITION SWILL POWER
134	GR	TOCK IND
137	BG	RECEIVER/SENSOR GND
138	٨	RECEIVER/SENSOR POWER SUPPLY
139	٦	TIRE PRESSURE RECEIVER COMM
140	GR	SHIFT N/P
141	9	SECURITY IND LAMP CONT
142	BG	COMBI SW OUTPUT 5
143	Ь	COMBI SW OUTPUT 1
144	9	COMBI SW OUTPUT 2
145	7	COMBI SW OUTPUT 3
146	88	COMBI SW OUTPUT 4
150	91	DRIVER DOOR SW
151	e	Treature and and and an

Revision: 2014 October EXL-307 2012 EX

STOP LAMP

Wiring Diagram - STOP LAMP -

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STOP LAMP

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- A	\mid		Connector No B201	Т	Connector Name WIRE TO WIRE	Connector Dans Tuescrat Cost Than					F 10 P				Terminal Color Of Slopal Name [Specification]	No. Wire	1 W	2 R .	3 GR	4 BG -	7 16	10 W -	15 SB .	16 v -	Н	26 BR -	27 L	28 Y	30 GR	Н	+	53 G	╀	+	H		. B 85	S9 SHIELD -	· 91 09	61 W ·	62 BR ·	63 Р	64 L -		. d 99	- 1 L9
10	+	+	23 0		+	$\frac{1}{2}$		- N	Τ	Connector Name REAR COMBINATION LAMP LH	Connector Tune Tundahani-Nu	add: Jac				1 2 4				Jal C	No. Wire	1 R	2 LG .	4 B			Connector No. B66	Connector Name WIRE TO WIRE	Connector Type TH24MW-NH	á		1	456/89	13 14 15 16 17 18 19 20 21 22 23 24			Terminal Color Of Signal Magas (Saccification)	No. Wire Signal Name (Specification)	1 LG .	2 R .	3 B	13 L	\dashv	\dashv	16 BR .	17 8G .
AP	00	FUSE BLOCK (J/B)	NS13EBB-CS	N312FBN-C3			2040	000	126 116 106				Signal Name [Specification]								B28	WIRETOWIRE		TH24MW-NH				7 8	13 14 15 16 17 18 19 20 21 22 23 24			Of Signal Name [Specification]		,					- [With around view monitor]	Ц			+	- [With around view monitor]	- [Without around view monitor]	01
STOP LAMP	COLLEGED NO.	Connector Name	Connector Type	connector type	Œ	生子	¦S.					Terminal Color Of		10G W	Н	12G GR	\dashv	2G LG			Connector No.	Connector Name		Connector Type	ģ	国	J.	e E				Ierminal Color Of No. Wire	$^{+}$	3 W	4 8	5 R	9 9	Н	14 R	14 SHIELD	15 B	15 Y	16 W	17 L	17 R	18 SHIELD

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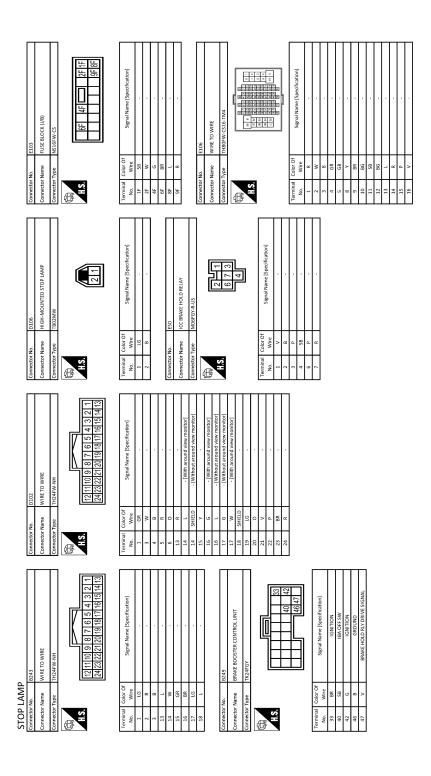
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17 R 1904-1000 Commetor Name Wire To	Q	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- (Wareh ICC)	Connector Name Connector Type	RE TO V	45 49 50 51	8 7 9 8 8 8 9 1 8 8 8 8 9 1 8 8 8 9 1 8 8 8 9 1 8 8 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9	
19 19 19 19 19 19 19 19	q q	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	Connector Type	WIRE TO WIRE TH80MW-CS16-TM4	49 50 51	a . % :	
19 1		 	Day Have) Company Co	Connector Type	TH80MW-CS16-TM4	51	۵ %	
10 10 10 10 10 10 10 10	Q		- [Without ICC] - [With ICC]	匮		51	BR	
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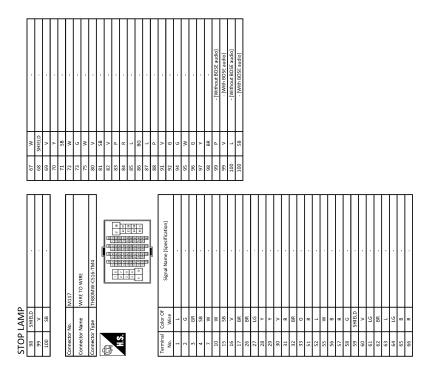
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BACK-UP LAMP

Wiring Diagram - BACK-UP LAMP -

INFOID:0000000007740135

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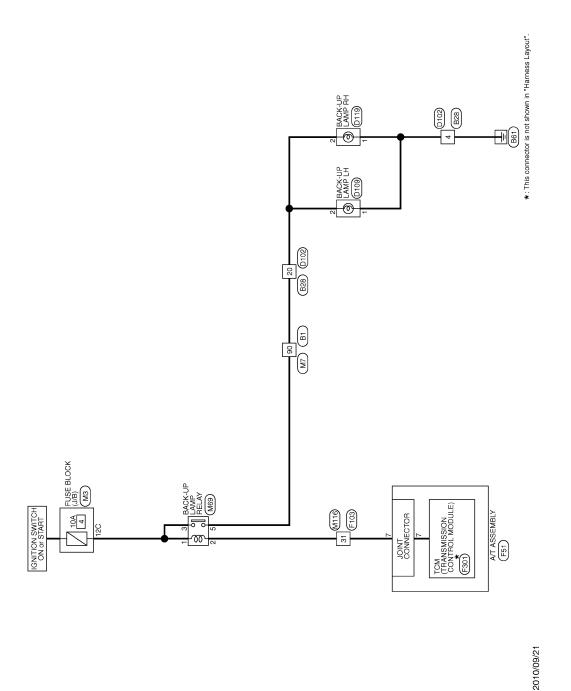
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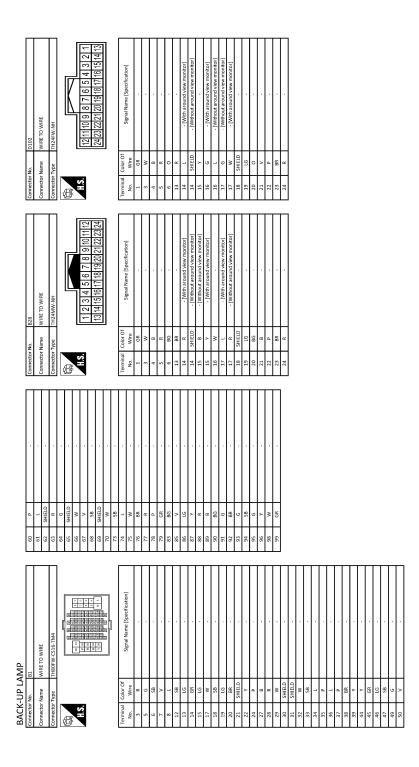
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BACK-UP LAMP

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Connector No. M3	Connector Name FUSE BLOCK (J/B)	Connector Type NS12FW-CS	H.S. [22] 112] 112] 123 112] 125 125 125 125 125 125 125 125 125 125	Teminal Color Of Signal Name (Specification) No. Wire No. Wire 110C L 111C R 11	H	1	Connector No. M7	Connector Name WIRE TO WIRE	Connector Type TH80MW-CS16-TM4		H.S.		\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		Terminal Color Of Signal Name [Specification]	t	ľ	\dashv	. BG	A 44	F	╀	H	15 6 .	Н	4	19 LG
31 R	33 B		35 P P P P P P P P P P P P P P P P P P P	Connector No. F301 Connector Name ICAN (TRANSMISSON CONTROL MODULE) Connector Type SP10FG	₩ E	HS.	016878		Terminal Color Of Signal Name [Specification]	NSIN -	2 - BATT 3 - CAN-H	4 . KUNE	NGNOOND - 9	- RE	8 - CAN-L							,					•
Connector No. F51	Connector Name A/T ASSEMBLY	Connector Type RK10FG-DGY	H.S. (10 9 8 7 5)	Terminal Color Of Signal Name Specification No. Wire V Y Z BR Z BR Z BR Z BR Z Z Z Z Z Z Z Z Z		$^{\rm H}$	+	10 8 .	Connector No E103	T,	T	₫.		S N I N I N I N I N I N I N I N I N I N	494414439 (chalcheledeledel) 10918			nal C	a	2 8 8		╁	· - 6	10 GR -	19 BG -	+	28 B
BACK-UP LAMP Connector No. D109	Connector Name BACK-UP LAMP LH	Connector Type NS02MW-CS	HS.	Terminal Color Of Signal Name Specification No. Wire 1 8	П	Connector Name BACK-UP LAMP RH	actor 1ype		ė.	[21]		Terminal Color Of Signal Name (Specification)	+	2 0 -													

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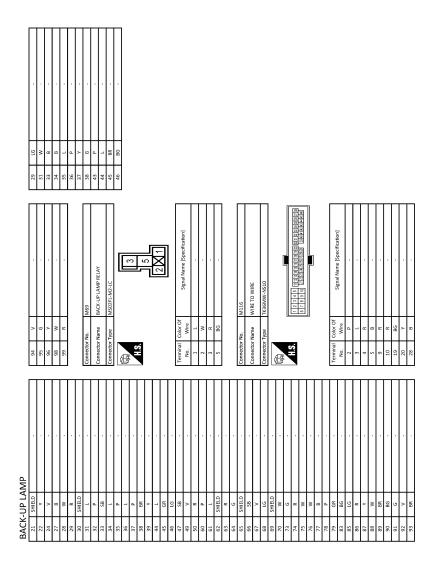
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ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value INFOID:0000000007740111

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
FR WIPER HI	Front wiper switch HI	On
ED WIDED I OW	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
ED WACHED CW	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 dia position
DD WIDED ON	Other than rear wiper switch ON	Off
RR WIPER ON	Rear wiper switch ON	On
	Other than rear wiper switch INT	Off
RR WIPER INT	Rear wiper switch INT	On
DD WAQUED OW	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
DD WIDED CTOD	Rear wiper is in STOP position	Off
RR WIPER STOP	Rear wiper is not in STOP position	On
TUDNI CIONIAL D	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
TUDNI CIONIAL I	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
TAIL LAMP OW	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
LILDEAM CVV	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
LIEAD LAND OVALA	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
LIEAD LAMB CW/ 2	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
DA CCINIC CIA/	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
ALITO LIGHT CW	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
ED EOC CW	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status
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
DOOD CW AC	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOD OW DD	Rear RH door closed	Off
DOOR SW-RR	Rear RH door opened	On
DOOD OW DI	Rear LH door closed	Off
DOOR SW-RL	Rear LH door opened	On
DOOD CW DV	Back door closed	Off
DOOR SW-BK	Back door opened	On
	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
(=) (0) (1) · · · · · · · · · · · · · · · · · ·	Other than driver door key cylinder LOCK position	Off
KEY CYL LK-SW	Driver door key cylinder LOCK position	On
	Other than driver door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
HAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off
TR/BD OPEN SW	Back door opener switch OFF	Off
IIVBB OF LIN SW	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the key is not pressed	Off
TARE LOOK	LOCK button of the key is pressed	On
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off
THE ONLOOK	UNLOCK button of the key is pressed	On
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off
RKE-PANIC	PANIC button of the key is not pressed	Off
AINE-FAINIO	PANIC button of the key is pressed	On
DKE DW ODEN	UNLOCK button of the key is not pressed	Off
RKE-P/W OPEN	UNLOCK button of the key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On

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Monitor Item	Condition	Value/Status
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
OF HUAL SENSUK	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
REQ SW -DR	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
NEW SW -AS	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Back door request switch is not pressed	Off
KEQ OW BB/TK	Back door request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
	Push-button ignition switch (push switch) is pressed	On
GN 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
BRAKE SW 2	The brake pedal is not depressed	Off
SIVINE OW Z	The brake pedal is depressed	On
DETE/CANCL SW	Selector lever in P position	Off
DETE/CANCE OW	Selector lever in any position other than P	On
SFT PN/N SW	Selector lever in any position other than P and N	Off
SI I FIN/IN SW	Selector lever in P or N position	On
S/L -LOCK	NOTE: The item is indicated, but not monitored.	Off
S/L -UNLOCK	NOTE: The item is indicated, but not monitored.	Off
S/L RELAY-F/B	NOTE: The item is indicated, but not monitored.	Off
JNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
GN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	Selector lever in any position other than P and N	Off
Ji i i N -ii Divi	Selector lever in P or N position	On
SFT P -MET	Selector lever in any position other than P	Off
OI I TIVILI	Selector lever in P position	On

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[HALOGEN TYPE]

Monitor Item	Condition	Value/Status	
CET N. MET	Selector lever in any position other than N	Off	
SFT N -MET	Selector lever in N position	On	
	Engine stopped	Stop	
ENCINE STATE	While the engine stalls	Stall	
ENGINE STATE	At engine cranking	Crank	
	Engine running	Run	
S/L LOCK-IPDM	NOTE: The item is indicated, but not monitored.	Off	
S/L UNLK-IPDM	NOTE: The item is indicated, but not monitored.	Off	
S/L RELAY-REQ	NOTE: The item is indicated, but not monitored.	Off	
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 FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset	
	Ignition switch ON	Set	
PRMT ENG STRT	The engine start is prohibited	Reset	
TRIVIT ENG STRI	The engine start is permitted	Set	
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset	
KEY SW -SLOT	The key is not inserted into key slot	Off	
RET SW -SLOT	The key is inserted into key slot	On	
RKE OPE COUN1	During the operation of the key	Operation frequency o the key	
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_	
CONFRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet	
CONTINUED ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	Done	
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet	
CONTINUED	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done	
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet	
CONTINIVI IDS	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done	

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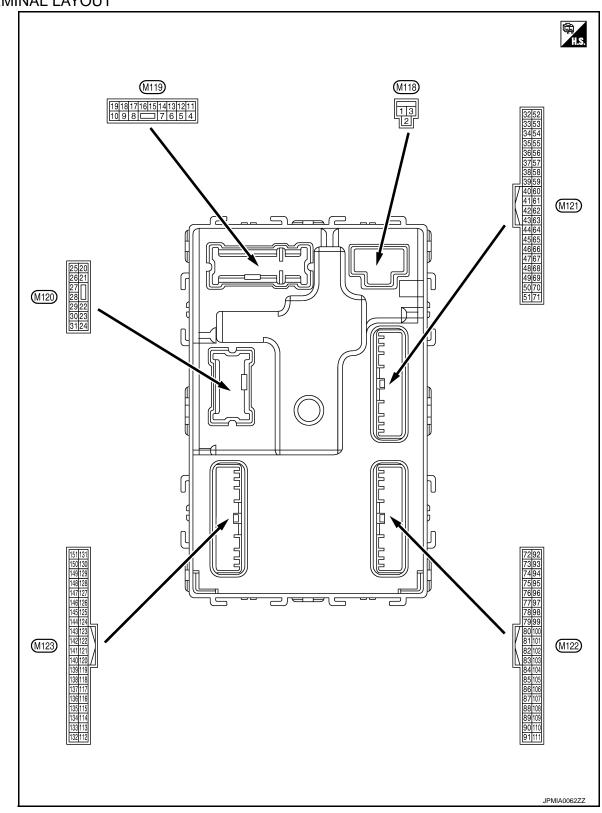
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Monitor Item	Condition	Value/Status	
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet	
CONFIRMIDZ	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done	
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet	
CONTINUED	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done	
TP 4	The ID of fourth key is not registered to BCM	Yet	
17 4	The ID of fourth key is registered to BCM	Done	
TP 3	The ID of third key is not registered to BCM	Yet	
IF 3	The ID of third key is registered to BCM	Done	
TP 2	The ID of second key is not registered to BCM	Yet	
IF Z	The ID of second key is registered to BCM	Done	
TP 1	The ID of first key is not registered to BCM	Yet	
IF I	The ID of first key is registered to BCM	Done	
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire	
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire	
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire	
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire	
ID DECST EL 1	ID of front LH tire transmitter is registered	Done	
ID REGST FL1	ID of front LH tire transmitter is not registered	Yet	
ID REGST FR1	ID of front RH tire transmitter is registered	Done	
ID REGST FRT	ID of front RH tire transmitter is not registered	Yet	
ID REGST RR1	ID of rear RH tire transmitter is registered	Done	
ID VEROLI VVI	ID of rear RH tire transmitter is not registered	Yet	
ID DECCT DI 1	ID of rear LH tire transmitter is registered	Done	
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet	
WARNING LAMP	Tire pressure indicator OFF	Off	
WARNING LAMP	Tire pressure indicator ON	On	
DUZZED	Tire pressure warning alarm is not sounding	Off	
BUZZER	Tire pressure warning alarm is sounding	On	

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TERMINAL LAYOUT



PHYSICAL VALUES

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. Description (Wire color)					Value	
+	-	Signal name	Input/ Output	Condition		(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (Y)	Ground	P/W power supply (RAP)	Output	Ignition switch ON	I	Battery voltage
		Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V	
(LG) Ground			Interior room lamp power supply	Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		Battery voltage
5 (L) Ground	Cround	Passenger door UN- LOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
	Giouria				Other than UNLOCK (Actuator is not activated)	0 V
7 Cround	Cton lamp	Outout	Stan James	ON	0 V	
(Y)	Ground	Step lamp	Output	Step lamp	OFF	Battery voltage
8 (V) Ground	All doors, fuel lid	Output	All doors	LOCK (Actuator is activated)	Battery voltage	
	Giodila	LOCK	Output	All doors	Other than LOCK (Actuator is not activated)	0 V
9 (G) Ground	Driver door, fuel lid	Outout	Deixon de	UNLOCK (Actuator is activated)	Battery voltage	
	Giodila	UNLOCK	Output	Driver door	Other than UNLOCK (Actuator is not activated)	0 V
10 (BR) Ground	Ground	Rear RH door and rear LH door UN- LOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	Battery voltage
	Giodila				Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON		0 V
		Push-button ignition switch illumination ground			OFF	0 V
14 (W)	Ground		Output	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 2 ms JSNIA0010GB
15		ound ACC indicator lamp		Ignition switch	OFF or ON	Battery voltage
(Y) Ground	Output		ACC		0 V	

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[HALOGEN TYPE]

Terminal No. (Wire color) Signal name Input Condition Value (Approx.)	< ECU	< ECU DIAGNOSIS INFORMATION >							
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17 Ground Groun		-	Signal name		Condition				
Turn signal switch OFF Second Ground Grou		Ground		Output		,	(V) 15 10 5 11 1 s PKID0926E		
18 (BG) Ground Turn signal LH (Front) Output Ignition switch ON Turn signal switch LH Interior room OFF Battery voltage						Turn signal switch OFF			
Control Cont		Ground		Output			(V) 15 10 5 11 1 s PKID0926E		
Control Cont		Ground		Output			Battery voltage		
Company Comp	(V)		control		lamp				
Ground Back door open Output Back door Other than OPEN (Back door opener actuator is activated) Other than OPEN (Back door opener actuator is not activated) Turn signal switch OFF Output Ignition switch ON Turn signal switch LH Output Ignition switch ON Output Ignition switch ON Output Ignition switch ON Output Ignition switch ON ON OFF (Stopped) OFF (Stopped)		Ground		Output		-	(V) 15 10 5 0 1 s		
Other than OPEN (Back door opener actuator is not activated) Turn signal switch OFF Output Output Output Output Output Output OFF (Stopped) OFF (Stopped) OV OV OFF (Stopped) OV OV OFF (Stopped)		Ground	Back door open	Output	Back door	(Back door opener actuator	Battery voltage		
Ground Turn signal LH (Rear) Output Ignition switch ON Turn signal switch LH Turn signal switch LH OFF (Stopped) OFF (Stopped) OV						(Back door opener actuator	0 V		
25 (G) Ground Turn signal LH (Rear) Output Ignition switch ON Turn signal switch LH Turn signal switch LH Output Rear wiper OFF (Stopped) OFF (Stopped) OV						Turn signal switch OFF	0 V		
Ground Rear wiper Output Rear wiper		Ground	Turn signal LH (Rear)	Output		Turn signal switch LH	15 10 5 0 1 s PKID0926E		
(G) ON (Operated) Battery voltage		Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V		
	(G)					ON (Operated)	Battery voltage		

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	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
34	Canada	Luggage room anten-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(SB) Groun	Ground	na (–)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
35		Luggage room anten-		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 S S S S S S S S S
35 (V)	Ground	na (+)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
38	Ground	Back door antenna (–	Output	When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(B)	Ground		,	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

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	inal No.	Description				Value
+ (VVire	e color)	Signal name	Input/ Output		Condition	(Approx.)
39	Ground	Back door antenna	Output	When the back door 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
(W)	Glound	(+)	Guipur		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 11 1 s JMKIA0063GB
47	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	Battery voltage
(Y)	Ordana	E/R) control	Catpat	ignition owner	ON	0 V
52	Ground	Starter relay control	Output	Ignition switch	When selector lever is in P or N position	Battery voltage
(SB)	Cround	Clarior rolay control		ON	When selector lever is not in P or N position	0 V
60	Craund	Push-button ignition	lanut	Push-button igni-	Pressed	0 V
(BR)	Ground	switch (Push switch)	Input	tion switch (push switch)	Not pressed	Battery voltage
61 (W)	Ground	Back door opener request switch	Input	Back door opener request switch	ON (Pressed) OFF (Not pressed)	0 V (V) 15 10 10 ms JPMIA0016GB 1.0 V
64		Intelligent Key warn-	0	Intelligent Key	Sounding	0 V
(V)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	Battery voltage
65 (BG)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V
					Not in stop position	0 V
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	inal No.	Description				Value
+	e color) –	Signal name	Input/ Output		Condition	(Approx.)
66 (R)	Ground	Back door switch	Input	Back door switch	OFF (Door close)	(V) 15 10 5 0 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
					Pressed	0 V
67 (GR)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close) ON (Door open)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V 0 V
					, , ,	
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	(V) 15 10 5 0 10 ms 10 ms 11.8 V
					ON (Door open)	0 V

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< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
72	Ground	Room antenna 2 (–) (Center console)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(R)				OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
73	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(G)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
74	Ground	Passenger door antenna (–)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s
(SB)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
75		Passenger door an-		When the pas- senger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(GR)	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 JMKIA0063GB
76	76 Ozwad Driver door antenna		When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
76 (V)	Ground	(-)	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
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 JMKIA0062GB
(LG)	Ground	(+)	, ,	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 >

	inal No. e color)	Description			0 100	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
78	Ground	Room antenna 1 (–)		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(Y)	Glound	(Instrument panel)	Guiput	off OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
79	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(BR)	Ground				When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s JMKIA0063GB
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (B)	Ground	Ignition relay [Fuse	Output	Ignition switch	OFF or ACC	0 V
(R)		block (J/B)] control	•		ON	Battery voltage

< ECU DIAGNOSIS INFORMATION >

	ninal No. e color)	Description	T		O a region	Value
+	- -	Signal name	Input/ Output		Condition	(Approx.)
83		Remote keyless entry	Input/	During waiting		(V) 15 10 5 1 ms JMKIA0064GB
(Y)	Ground	receiver communication	Output	When operating either button on the key		(V) 15 10 5 0 1 ms JMKIA0065GB
		Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
87	Ground				Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMIA0037GB
67 (BR)					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V
					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

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description	ı			Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms 1.3 V
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB
					Rear washer switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB
					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
90 (P)	Ground	CAN-L	Input/ Output	_		
91 (L)	Ground	CAN-H	Input/ Output	_		_

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)
					OFF	Battery voltage
92 (LG)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB
					ON	0 V
					OFF or ACC	Battery voltage
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	ON	0 V
					OFF	Battery voltage
94 (Y)	Ground	Puddle lamp control	Output	Puddle lamp	ON	0 V
					OFF	0 V
95 (BG)	Ground	ACC relay control	Output	Ignition switch	ACC or ON	Battery voltage
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	_	1.00 0. 0.1	Battery voltage
99	0	Selector lever P posi-	la a cat	Sologtor lover	P position	0 V
(R)		Input	Selector lever	Any position other than P	Battery voltage	
					ON (Pressed)	0 V
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V
					ON (Pressed)	0 V
101 (SB)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
102		Blower fan motor re-	•		OFF or ACC	1.0 V 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

< ECU DIAGNOSIS INFORMATION >

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

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description				Value	А
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	С
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB	E
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	G H
					Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	J K
					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	M
							0

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
+	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
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB
					ON	0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms 1.1 V

< ECU DIAGNOSIS INFORMATION >

Term	inal No.	Description				
	e color)	Signal name	Input/ Output		Condition	Value (Approx.)
113	Crownd	Ontical concer	lanut	Ignition switch	When bright outside of the vehicle	Close to 5 V
(P)	Ground	Optical sensor	Input	ON	When dark outside of the vehicle	Close to 0 V
116 (SB)	Ground	Stop lamp switch 1	Input	_		Battery voltage
		Stop lamp switch 2		Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
118	Ground	(Without ICC)	Input	Otop lamp switch	ON (Brake pedal is depressed)	Battery voltage
(P)	Oround	Stop lamp switch 2	при		OFF (Brake pedal is not de- brake hold relay OFF	0 V
		(With ICC)			ON (Brake pedal is de- rake hold relay ON	Battery voltage
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 10 ms JPMIA0012GB
					UNLOCK status (Unlock switch sensor ON)	0 V
121	Ground	Key slot switch	Innut	When the key is in	nserted into key slot	Battery voltage
(BR)	Giodila	Key Slot Switch	Input	When the key is n	ot inserted into key slot	0 V
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
(W)	Sibulia	1314 TOGUDAGN	трис	iginaon switch	ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V
132 (BR)	Ground	Power window switch communication	Input/ Output	Ignition switch ON	I	(V) 15 10 5 0
						JPMIA0013GB 10.2 V
				Ignition switch OF	F or ACC	Battery voltage

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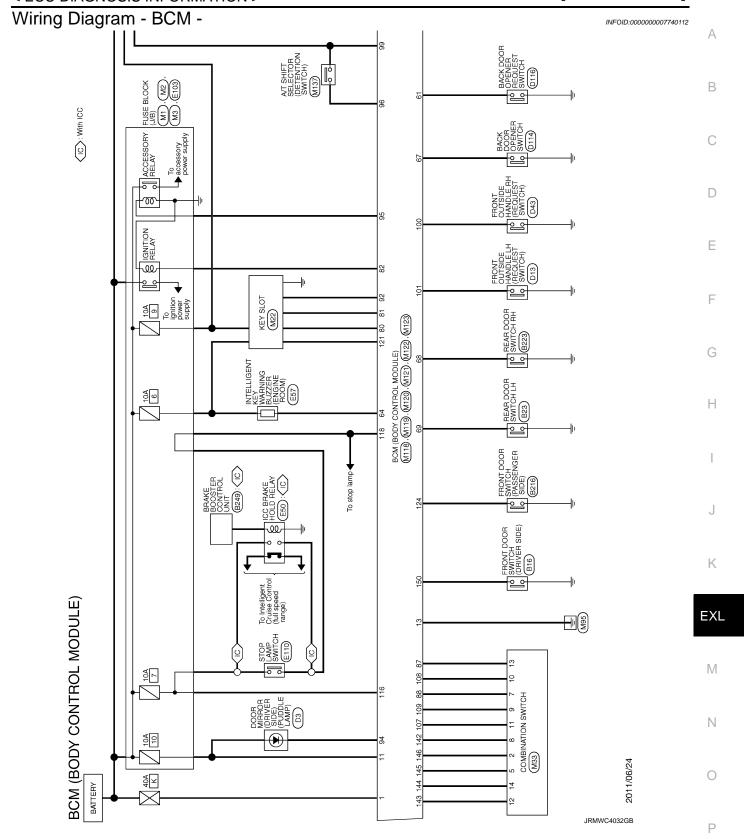
	nal No. color)	Description			0 199	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					ON (Tail lamps OFF)	9.5 V NOTE :
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps ON)	The pulse width of this wave is varied by the illumination brightening/dimming level. (V) 15 10 5 U JPMIA0159GB
					OFF	0 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF ON	Battery voltage 0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON	<u> </u>	0 V
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V
(Y)	Ground	power supply	Output	igilition switch	ACC or ON	5.0 V
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 + 0.2s OCC3881D
(L)	Ground	er communication	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position Except P and N positions	Battery voltage 0 V
+					ON CONTRACTOR OF THE PROPERTY	0 V
141 (G)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s
						11.3 V

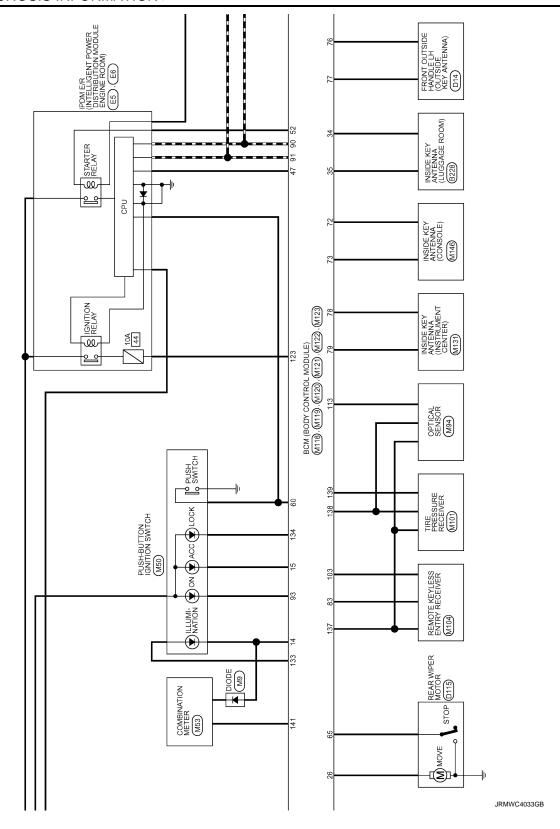
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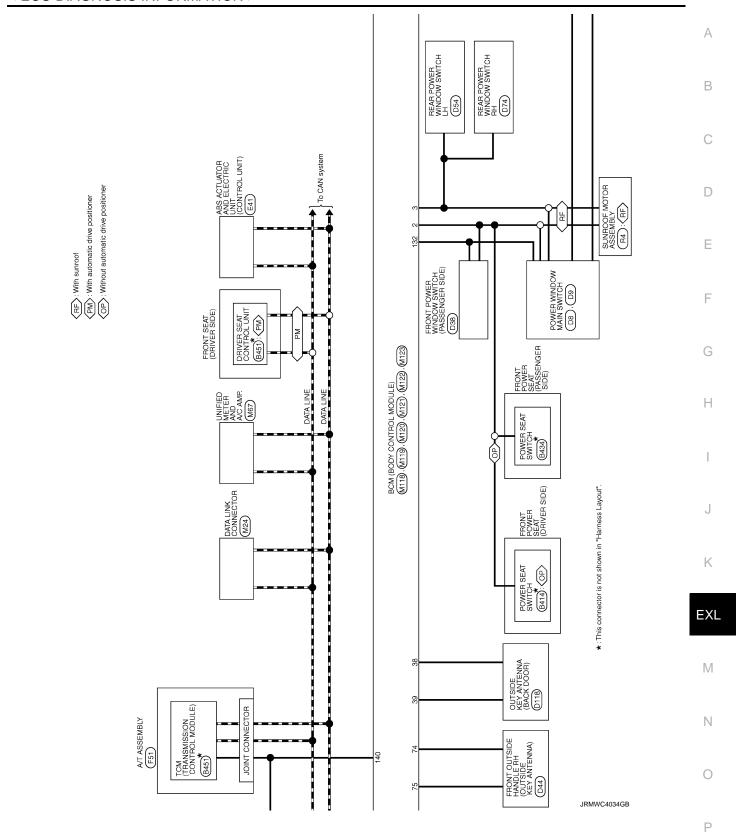
	inal No.	Description				Value
(Wir	e color)	Signal name	Input/ Output		Condition	(Approx.)
142 (BG)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH	0 V (V) 15 10 5 0 JPMIA0031GB
					All switches OFF (Wiper intermittent dial 4) Front wiper switch HI	10.7 V 0 V
143		Combination switch		Combination	(Wiper intermittent dial 4) Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10
(P)	Ground	OUTPUT 1	Output	switch	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	10 0 10 10.7 V 10.7 V
					All switches OFF (Wiper intermittent dial 4)	0 V
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Front washer switch ON (Wiper intermittent dial 4) Rear wiper switch ON (Wiper intermittent dial 4) Rear washer switch ON (Wiper intermittent dial 4) Any of the conditions below	(V) 15 10 5
					with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6	2 ms JPMIA0033GB
					All switches OFF Front wiper switch INT	0 V
145	Ground	Combination switch	Output	Combination switch	Front wiper switch LO	(V) 15 10 5
(L)	Ground	OUTPUT 3	Output	(Wiper intermit- tent dial 4)	Lighting switch AUTO	0

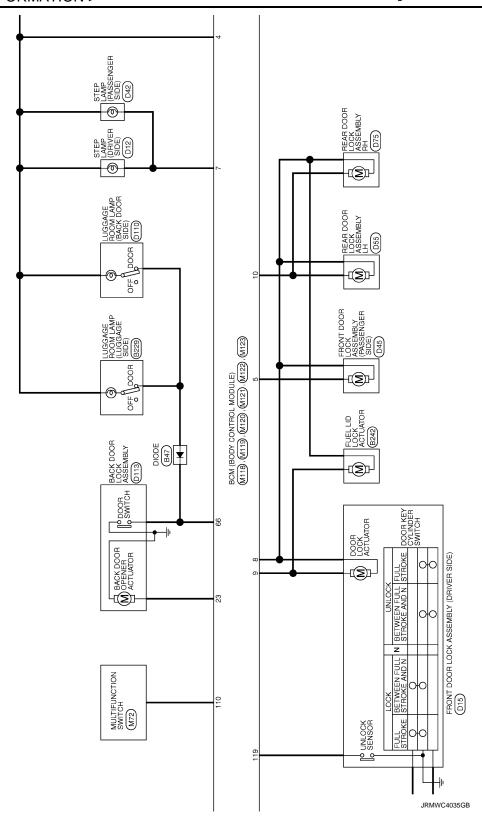
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	inal No.	Description				Value					
+ (VVire	e color)	Signal name	Input/ Output		Condition	(Approx.)					
					All switches OFF	0 V					
					Front fog lamp switch ON						
				Combination	Lighting switch 2ND	(V)					
146	Ground	Combination switch	Output	switch	Lighting switch PASS	10					
(SB)	Ground	OUTPUT 4	Guiput	(Wiper intermit- tent dial 4)	Turn signal switch LH	JPMIA0035GB					
150 (LG)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB					
					ON (Door open)	0 V					
151	Cround	Rear window defog-	Output	Rear window de-	Active	0 V					
(G)	Ground	ger relay control	Output	fogger	Not activated	0 V Battery voltage					









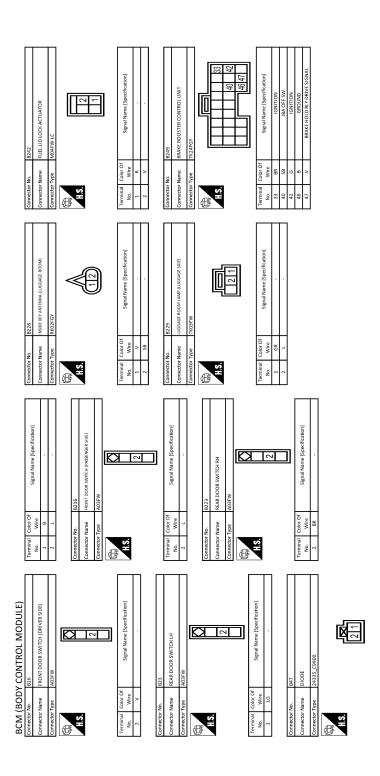
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Е ON DOOR LAMP RH F G PERSONAL LAMP LH Н REAR TURN SIGNAL LAMP RH (B261) ON DOOR ROOF MODULE OR OFF C BCM (BODY CONTROL MODULE) (M118) (M119) (M120) (M123) (M123) J REAR TURN SIGNAL LAMP LH (8260) K FRONT COMBINATION LAMP RH (TURN SIGNAL) EXL \mathbb{N} FRONT COMBINATION LAMP LH (TURN SIGNAL) Ν <u></u> 0 JRMWC4036GB Ρ



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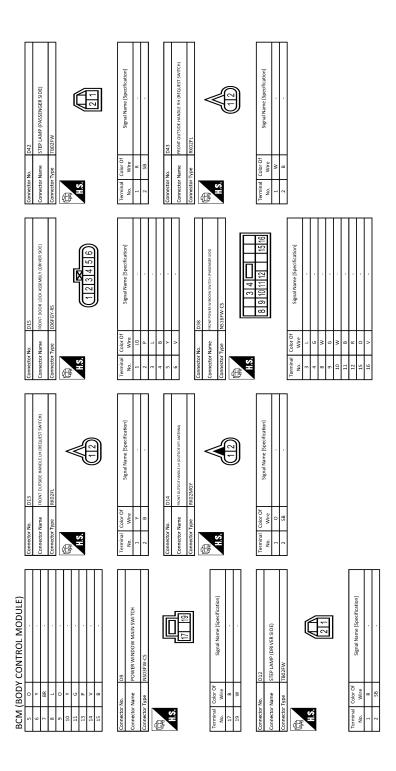
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Connector No. D110 Connector Name Luckacide RODM LANP (BACK DDORN SIDE) Connector Type TWO3FW	#S.	Terminal Color Of Signal Name (Specification) No. Wire		Connector No. D113 Connector Name BACK DOOR LOCK ASSEMBLY Connector Type NSOAFW-CS	43.21	Terminal Color Of Signal Name (Specification) No. Wire	
Connector No. D74 Connector Name REAR POWER WINDOW SWITCH RH Connector Type INSSERV.CS	HS. 23451	Terminal Color Of Signal Name Specification No. Wire W V V V V V V V V V	3 G	الماه	Connector No. 1075 Connector Name Rické DODR (LOCK ASSENBLY PH Connector Type E006 FGY 45		Terminal Color Of Signal Name Specification Wire
Connector Nane REAR POWER WINDOW SWITCH LH Connector Type NSG8FW CS	HS. 2 3 4 5 1	Terminal Color Of Signal Mame [Specification] Wire Wire Y Y Y Y Y Y Y Y Y	3 6	₈ _∞	Connector No. DSS Connector Name REAR DOOR LOCK ASSEMBLY LH Connector Type (506/67/18)	12	Terminal Cobr Of Signal Name [Specification] No. Wire
BCM (BODY CONTROL MODULE) Connector Name Insort control constant in control control Connector Type ROZNGY	#S	Terminal Color Of Signal Name [Specification] No. Wife P		Connector No. D45 Connector Name reown dook look ASSIMATE SIDE) Connector Type E06FGF-RS	#\$ #\$	Terminal Color Of Signal Name (Specification) No. Write 1 P	1

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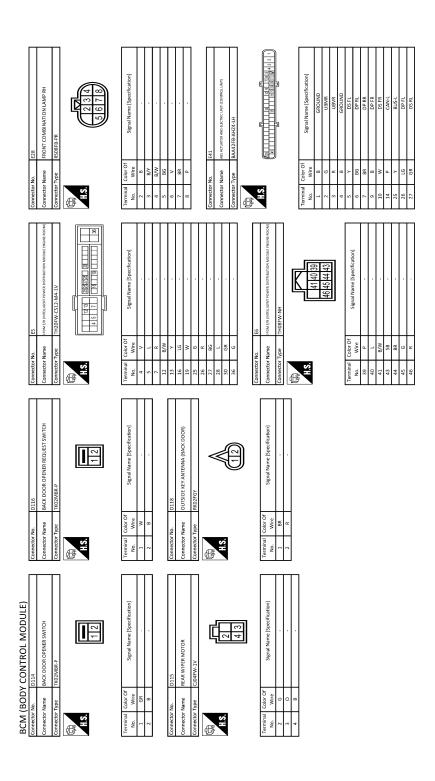
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Connector No. M1	Connector Name FUSE BLOCK (J/B)	Connector Type NS06FW-M2	1		H.S. 3A	8A 7A 6A 5A 4A			lal	No. Wire	+	╀		. SA V	+	7A R	8A L		Connector No. M2	Connector Name FUSE BLOCK (J/B)	Connector Type NS10FW-CS			48 38	98/88/78/68/58			le le	Wire	d	+	58 BG		+		ł
Connector No. [E110	Connector Name STOP LAMP SWITCH	Connector Type M04FW-LC	1		H.S.	0	<u> </u>		lal	No. Wire	2 W	. > 2	4 SB -			Connector No. F51	Connector Name A/T ASSEMBLY	Connector Type RK10FG-DGY	4	●	THS.	√	9 2 8 5 8 7 6		le O	No. Wire	2 BR	3 1	\dashv	+	. 9	+	+	a Ot	+	
Connector No. E58	Connector Name FRONT COMBINATION LAMP LH	Connector Type RS08FB-PR		E	HS.	F 6 7 8			la	No. Wire	2 B V	4 B/W	· · · · · · · · · · · · · · · · · · ·	. 9 9	+	. BG 8		Connector No. E103	Connector Name FLISE BLOCK (1/B)	П	add the		H.S. 6F 4F 12F 1F	18 190			Terminal Color Of		+	+	+	6F BR		4		
BCM (BODY CONTROL MODULE)	29 LG DSRR	R VDC	1	45 В ВИЗ-Н		Connector No. E50	Connector Name ICC BRAKE HOLD RELAY	Connector Type M06FGY-R-US		LI-C	H.S.	0 / 3	<u>L</u>]		Terminal Color Of Signal Name [Specification]	wire ^	2 8	3 Р	4 \$8	+		Connector No	Π	n:	Connector Type RK03FBR			₹ -	((1 3)))		+	3 v

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Connector No. MSD Connector Name PUSH-BUTTON IGNITION SWITCH Connector Type TYGETS	Terminal Color Of Signal Name [Specification 1 1 1 1 1 1 1 1 1	Connector No. MK3	Terminal Color Of Signal Name Specification No Wire Name Specification 1
Connector No. NA27 Connector Name POOTLAMP (DRIVER SIDE) Connector Type A02FW H.S.	Terminal Color Of Signal Name Specification	1.2 3 4 5 6	10 0 1 4 1 0 1 4 1 0 1 1 1 1 1 1 1 1 1 1
Солиести No. M22 Солиести Name RFY SLOT Солиести Туре IN12 FW AN 1 2 3 5 6 7 1 11	Ferminal Cobr Of Signal Name Specification No. Wirel Signal Name Specification 1 R Str. ClOCK 2 GR CLOCK 3 W DATA CLOCK 5 Y ILL BAT CLOCK CLOC	Connector No. M24 Connector Name DATA LINK CONNECTOR Connector Type 8016FW	Winds Signal Name (Specification)
BCM (BODY CONTROL MODULE) Connector Name Lust BLOCK U/8	Terminal Color Of Signal Name Specification No. Wire Signal Name Specification 10C No.	or Of	++-

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Connector No. M101 Connector No. M113	me TIRE PRESSURE RECEIVER	TK04FW Connector Type	4]		Terminal Color Of Signal Name [Specification] Terminal Color Of Signal Name [Specification] No. Wire Signal Name [Specification]	BG GROUND 1	2 L SIGNAL 2 BR -		П	۱,	, [Connector Type JAB04FB	L	<u>-</u>	[7]		Terminal	Terminal Color Of Signal Name [Specification] No. Wire Signal Name [Specification] 1 Wire RAITE(1)	BG GROUND 2 W	y S16	4 LG BALLENY								Γ	
69 A/CIAN SIGNAI	R EACH DOC	71 B GROUND 72 P CAN-L	-	Connector No. M72	Connector Name MULTIFUNCTION SWITCH	Connector Type TH16FW-NH		人	H.S.	0	1351911		Terminal Color Of Signal Name [Specification]	H	^	5 Y ILLCONT	- SB	8 LG AVCOMM(L) 9 R SWGND	,	IB G HAZAKDON		Т	Connector Name OPTICAL SENSOR	Connector Type TK03FW				123			la l	No. Wire	TIGHTIO C	
BCM (BODY CONTROL MODULE)	COMMUNICATION SIGNAL (LCD->AMP.)	COMMUNICATION SIGNAL (AMP>LCD) VEHICLE SPEED SIGNAL (8-PULSE)		SEAT BELT BUCKLE SWITCH SIGNAL SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE) WASHER LEVEL SWITCH SIGNAL		SELECT SWITCH SIGNAL	ENTER SWITCH SIGNAL	ILLUMINATION CONTROL SWITCH SIGNAL (-)	ILLUMINATION CONTROL SWITCH SIGNAL (+)		M67	UNIFIED METER AND A/C AMP.	TH32FW-NH				57 58 59 60 61 62 63 65 69 70 71 72			iš	ACC POWER SUPPLY ELIEL LEVEL SENSOR SIGNAL	INTAKE SENSOR SIGNAL	IN-VEHICLE SENSOR SIGNAL	SUNLOAD SENSOR SIGNAL	EXHAUST GAS / OUTSIDE ODOR DETECTING SENSOR SIGNAL	IGNITION POWER SUPPLY RATTERY POWER SUPPLY	GROUND	CAN-H	BRAKE FLUID LEVEL SWITCH SIGNAL	FUEL LEVEL SENSOR GROUND	INTAKE SENSOR GROUND IN-VEHICLE SENSOR GROUND	CINI COO GOODLO ENTIGERA	AIVIDIENT SENSOR GROUND
	HH H	> 2	-	× 8	ر ا ق		2	g.	_ _	88		Connector No.	Connector Name	Connector Type						Color Of	Wire	> >	œ	91	- 88	v	ပ >	- 0	_	>	BR.	g _	8	ğ

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CM (BOD	BCM (BODY CONTROL MODULE)				;	:				
Connector No.	M119	Connector No.	-	M121	78	>	ROOM ANT1-	137	BG	RECEIVER/SENSOR GND
Connector Name	RCM (BODY CONTROL MODILIE)	Connector Name		BCM (RODY CONTROL MODILIE)	79	BR	ROOM ANT1+	138	٨	RECEIVER/SENSOR POWER SUPPLY
					80	GR	NATS ANT AMP.	139	L	TIRE PRESSURE RECEIVER COMM
Connector Type	NS16FW-CS	Connector Type	Type	TH40FGY-NH	81	W	NATS ANT AMP.	140	GR	d/N LHHS
[0			82	~	IGN RELAY (F/B) CONT	141	9	SECURITY IND LAMP CONT
•		£			83	>	KEYLESS ENTRY RECEIVER COMM	142	BG	COMBI SW OUTPUT 5
	֓֞֜֝֟֝֜֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֟֓֓֓֓֓֟֓֓֓֟֓֓	Į			87	HR.	COMBI SW INPUT 5	143	Ь	COMBI SW OUTPUT 1
į. E	7 2 3 9 70	Ŷ			88	>	COMBI SW INPUT 3	144	9	COMBI SW OUTPUT 2
	11 13 1/1 15 17 18 10			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	06	۵	CAN-L	145	-	COMBI SW OUTPUT 3
	-			20 00 01 00 00 00 00 00 00 00 00 00 00 00	91	_	CAN-H	146	88	COMBI SW OUTPUT 4
					92	91	KEY SLOT ILL CONT	150	91	DRIVER DOOR SW
					93	>	ONINO	151	9	REAR WINDOW DEFOGGER RELAY CONT
Terminal Color Of		Terminal	Color Of		76	>	PLIDDLE LAMP CONT			
	Signal Name [Specification]	No		Signal Name [Specification]	56	. BG	ACCRETAYCONT			
91	INTERIOR ROOM LAMP POWER SUPPLY	34	SB	LUGGAGE ROOM ANT-	96	GR	A/T SHIFT SELECTOR POWER SUPPLY	Connector No.		M131
_	PASSENGER DOOR UNLOCK OUTPUT	35	>	LUGGAGE ROOM ANT+	66	~	SHIFTP		Ι.	
>-	STEP LAMP CONT	38		BACK DOOR ANT:	100	g	PASSENGER DOOR REQUEST SW	Connector Name	Name	INSIDE KET ANTENNA (INSTRUMENT CENTER)
>	ALL DOOR, FUEL LID LOCK OUTPUT	39	M	BACK DOOR ANT+	101	SB	DRIVER DOOR REQUEST SW	Connector Type	Type	RKOZFGY
Ø	DRIVER DOOR, FUEL LID UNLOCK OUTPUT	47	>	IGN RELAY (IPDM E/R) CONT	102	88	BLOWER FAN MOTOR RELAY CONT			
10 BR	REAR DOOR UNLOCK OUTPUT	52	SB	STARTER RELAY CONT	103	97	KEYLESS ENTRY RECEIVER POWER SUPPLY	Œ		<
~	BAT (FUSE)	09	BR	PUSH SW	107	9	COMBI SW INPUT 1	(≪
8	GROUND	61	Μ	BACK DOOR OPENER REQUEST SW	108	œ	COMBI SW INPUT 4	Ė		
>	PUSH-BUTTON IGNITION SWILL GND	64	>	I-KEY WARN BUZZER (ENG ROOM)	109	>	COMBI SW INPUT 2			(112)
>	ACCIND	65	BG	REAR WIPER STOP POSITION	110	v	HAZARD SW			
Μ	TURN SIGNAL RH (FRONT)	99	ď	BACK DOOR SW						
BG	TURN SIGNAL LH (FRONT)	29	GR	BACK DOOR OPENER SW						
^	INT ROOM LAMP CONT	89	BR	REAR RH DOOR SW	Connector No.		M123	Terminal	Color Of	[aojecijisaaS] ameN [easiS
		69	ď	REAR LH DOOR SW	Connector Name		BCM (BODY CONTROL MODULE)	No.	Wire	
Connector No	14120				Connector Type	Ť	THADEG-NH	1 6	× ×	
	C-171	Connector No	l	MATO		1		,]	
Connector Name	BCM (BODY CONTROL MODULE)		Т	7771/1	Œ					
Connector Type	NS12FW-CS	Connector Name		BCM (BODY CONTROL MODULE)				Connector No.	l	M137
		Connector Type	- Type	TH40FB-NH	Ġ.	L		omen Name		4012131317V
		4				T≈I	3155 146 146 146 146 146 136 136 136 136 136 136 136 136 136 13	Connector Type		TH12FW-NH
Z Z	20 53							ą		
	25 26			91 90 88 87 88 82 81 80 73 78 77 76 75 74 73 72	- 1-			事		[
			_	Trick (108 117) 118 1100 1101 1001 1001 1001 1001 1001	Terminal C No.	Color Of Wire	Signal Name [Specification]	H.S.		
					Н	Ь	OPLICAL SENSOR			1 2 3 4 5
Terminal Color Of	f Sinnal Nama (Snarification)				116	SB	STOP LAMP SW 1			7 8 9 10 11
Wire		Terminal	٥	Signal Name [Specification]	118	Ь	STOP LAMP SW 2			
>	TURN SIGNAL RH (REAR)	No.	Wire	financia de la companya de la compan	119	SB	DR DOOR UNLOCK SENSOR			
9	BACK DOOR OPEN OUTPUT	72	R	ROOM ANT2-	121	BR	KEY SLOT SW	Terminal	Color Of	[acitolijaaq] amal launi
9	TURN SIGNAL LH (REAR)	73	9	ROOM ANT2+	123	W	IGN F/B	No.	Wire	delian ranne [abecimeanan]
9	REAR WIPER OUTPUT	74	SB	PASSENGER DOOR ANT-	124	PI	PASSENGER DOOR SW	1	W	
		75	GR	PASSENGER DOOR ANT+	132	BR	POWER WINDOW SW COMM	2	^	
		76	>	DRIVER DOOR ANT-	133	*	PUSH-BUTTON IGNITION SWILL POWER	3	-	
		11	97	DRIVER DOOR ANT+	134	SB	LOCKIND	4	œ	

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[HALOGEN TYPE]

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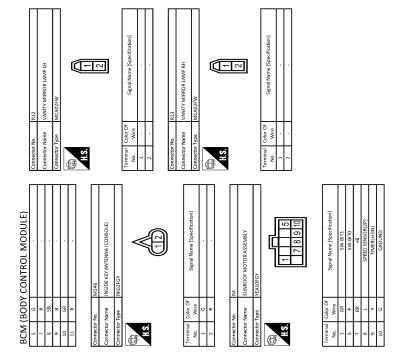
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INFOID:0000000007740113

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

B2190: NATS ANTENNA AMP Inhibit engine B2191: DIFFERENCE OF KEY Inhibit engine	cranking Erase DTC
B2191: DIFFERENCE OF KEY Inhibit engine	
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
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
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)
B260A: IGNITION RELAY Inhibit engine	cranking 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
	power supply ed at the time ion When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B2617: STARTER RELAY CIRC 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
B261E: VEHICLE TYPE Inhibit engine	cranking BCM initialization

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.

When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

- 1. More than 1 minute is passed after the rear wiper stops.
- 2. Turn rear wiper switch OFF.
- 3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

INFOID:0000000007740114

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Priority	DTC	Λ
	B2553: IGNITION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION	В
	 B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW 	С
4	 B2608: STARTER RELAY B260A: IGNITION RELAY B260F: ENG STATE SIG LOST B2614: ACC RELAY CIRC 	D
	 B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM 	Е
	 B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR 	F
	U0415: VEHICLE SPEED SIG	G
	 C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL 	Н
5	 C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL C1716: [PRESSDATA ERR] FL 	I
	 C1710: [FRESSDATA ERR] FR C1711: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL C1734: CONTROL UNIT 	J
6	B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	K

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 BCS-18, "COM-MON ITEM: CONSULT Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_		_	_
U1000: CAN COMM CIRCUIT	_	_	_	_	BCS-37
U1010: CONTROL UNIT (CAN)	_	_	_	_	BCS-38
U0415: VEHICLE SPEED SIG	_	_		_	BCS-39

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CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2190: NATS ANTENNA AMP	×	_	_	_	SEC-40
B2191: DIFFERENCE OF KEY	×	_	_	_	SEC-43
B2192: ID DISCORD BCM-ECM	×	_	_	_	SEC-44
B2193: CHAIN OF BCM-ECM	×	_	_	_	SEC-45
B2195: ANTI SCANNING	×	_	_	_	SEC-46
B2553: IGNITION RELAY	_	×	_	_	PCS-48
B2555: STOP LAMP	_	×	_	_	SEC-47
B2556: PUSH-BTN IGN SW	_	×	×	_	SEC-49
B2557: VEHICLE SPEED	×	×	×	_	SEC-51
B2560: STARTER CONT RELAY	×	×	×	_	SEC-52
B2562: LOW VOLTAGE	_	×	_	_	BCS-40
B2601: SHIFT POSITION	×	×	×	_	SEC-53
B2602: SHIFT POSITION	×	×	×	_	<u>SEC-56</u>
B2603: SHIFT POSI STATUS	×	×	×	_	<u>SEC-59</u>
B2604: PNP SW	×	×	×	_	SEC-62
B2605: PNP SW	×	×	×	_	SEC-64
B2608: STARTER RELAY	×	×	×	_	<u>SEC-66</u>
B260A: IGNITION RELAY	×	×	×	_	PCS-50
B260F: ENG STATE SIG LOST	×	×	×	_	SEC-68
B2614: ACC RELAY CIRC	_	×	×	_	PCS-52
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-55
B2616: IGN RELAY CIRC	_	×	×	_	PCS-58
B2617: STARTER RELAY CIRC	×	×	×	_	SEC-71
B2618: BCM	×	×	×	_	PCS-61
B261A: PUSH-BTN IGN SW	_	×	×	_	<u>SEC-73</u>
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	SEC-76
B2621: INSIDE ANTENNA	_	×	_	_	DLK-60
B2622: INSIDE ANTENNA	_	×	_	_	DLK-62
B2623: INSIDE ANTENNA	_	×	_	_	DLK-64
B26E1: ENG STATE NO RES	×	×	×	_	SEC-69
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	<u>SEC-70</u>
C1704: LOW PRESSURE FL	_	_	_	×	
C1705: LOW PRESSURE FR	_	_	_	×	M/T 00
C1706: LOW PRESSURE RR	_	_	_	×	<u>WT-23</u>
C1707: LOW PRESSURE RL	_	_	_	×	
C1708: [NO DATA] FL	_	_	_	×	
C1709: [NO DATA] FR	_	_	_	×	\A/T-05
C1710: [NO DATA] RR	_	_	_	×	<u>WT-25</u>
C1711: [NO DATA] RL	_	_	_	×	

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1716: [PRESSDATA ERR] FL	_	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	_	×	WT-28
C1718: [PRESSDATA ERR] RR	_	_	_	×	<u>VV 1-20</u>
C1719: [PRESSDATA ERR] RL	_	_	_	×	
C1729: VHCL SPEED SIG ERR	_	_	_	×	<u>WT-30</u>
C1734: CONTROL UNIT	_	_	_	×	WT-32

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) [HALOGEN TYPE]

< ECU DIAGNOSIS INFORMATION >

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

Reference Value INFOID:0000000007740116

VALUES ON THE DIAGNOSIS TOOL

Monitor Item		Value/Status	
RAD FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	
		A/C switch OFF	Off
AC COMP REQ	Engine running	A/C switch ON (Compressor is operating)	On
TAIL OOLD DEO	Lighting switch OFF	Off	
TAIL&CLR REQ	Lighting switch 1ST, 2ND, HI or	On	
ULLO BEO	Lighting switch OFF	Off	
HL LO REQ	Lighting switch 2ND HI or AUTO	On	
HL HI REQ	Lighting switch OFF		Off
HL HI KEQ	Lighting switch HI	On	
		Front fog lamp switch OFF	Off
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	 Front fog lamp switch ON Daytime running light activated (Only for Canada) 	On
	Ignition switch ON	Front wiper switch OFF	Stop
ED WID DEO		Front wiper switch INT	1LOW
FR WIP REQ		Front wiper switch LO	Low
		Front wiper switch HI	Hi
		Front wiper stop position	
WIP AUTO STOP	Ignition switch ON	Any position other than front wiper stop position	ACT P
		Front wiper operates normally	Off
WIP PROT	Ignition switch ON	Front wiper stops at fail-safe operation	BLOCK
IGN RLY1 -REQ	Ignition switch OFF or ACC	Off	
IGN REI I -REQ	Ignition switch ON		On
IGN RLY	Ignition switch OFF or ACC	Off	
IGN KLI	Ignition switch ON	On	
PUSH SW	Release the push-button ignition	switch	Off
1 0011 000	Press the push-button ignition s	On	
INTER/NP SW	Ignition switch ON	Selector lever in any position other than P or N	Off
		Selector lever in P or N position	On
ST RLY CONT	Ignition switch ON	Off	
OT INLI CONT	At engine cranking	On	
IUDT DIV DEO	Ignition switch ON	Off	
IHBT RLY -REQ	At engine cranking	On	

< ECU DIAGNOSIS INFORMATION >

Monitor Item		Value/Status	
	Ignition switch ON	Off	
	At engine cranking		$INHI\;ON\toST\;ON$
ST/INHI RLY		tarter control relay cannot be recognized by n, etc. when the starter relay is ON and the	UNKWN
DETENT SW	Ignition switch ON	 Press the selector button with selector lever in P position Selector lever in any position other than P 	Off
	Release the selector button w	vith selector lever in P position	On
S/L RLY -REQ	NOTE: The item is indicated, but not	monitored.	Off
S/L STATE	NOTE: The item is indicated, but not	monitored.	UNLOCK
DTRL REQ	NOTE: The item is indicated, but not	Off	
OIL P SW	Ignition switch OFF, ACC or e	Open	
OIL P SW	Ignition switch ON		Close
HOOD SW	Close the hood		Off
HOOD SW	Open the hood		On
HL WASHER REQ	NOTE: The item is indicated, but not	monitored.	Off
	Not operation		Off
THFT HRN REQ	Panic alarm is activated Horn is activated with VEHI TEM	On	
HORN CHIRP	Not operating		Off
HUNN CHIRP	Door locking with Intelligent K	(ey (horn chirp mode)	On
CRNRNG LMP REQ	NOTE: The item is indicated, but not	monitored.	Off

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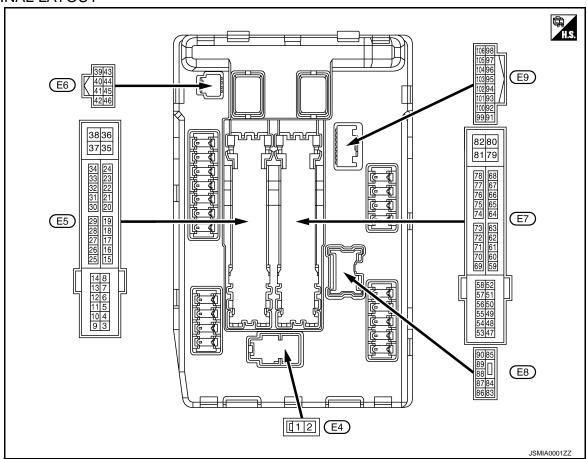
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< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

	inal No.	Description				Value	
+ (Wire	e color)	Signal name	Input/ Output	Condition		(Approx.)	
1 (W)	Ground	Battery power supply	Input	Ignition swi	itch OFF	Battery voltage	
2 (L)	Ground	Battery power supply	Input	Ignition swi	itch OFF	Battery voltage	
4	Craund	Frant winer I O	Outrout	Ignition	Front wiper switch OFF	0 V	
(V)	Ground	Front wiper LO	Output	switch ON	Front wiper switch LO	Battery voltage	
5	Cround	Front winer III	Output	Ignition	Front wiper switch OFF	0 V	
(L)	Ground	Front wiper HI	Output switch ON		Front wiper switch HI	Battery voltage	
7	0	Tail, license plate lamps &	0	Ignition	Lighting switch OFF	0 V	
(R)	Ground	interior lamps	Output	switch ON	Lighting switch 1ST	Battery voltage	
12 (B/W)	Ground	Ground	_	Ignition swi	itch ON	0 V	
13					tely 1 second or more after ignition switch ON	0 V	
(Y)	Ground	Fuel pump power supply	Output	 Approximately 1 second after turning the ignition switch ON Engine running 		Battery voltage	
16				Ignition	Front wiper stop position	0 V	
(LG)	Ground	Front wiper auto stop	Input Ignition switch ON		Any position other than front wiper stop position	Battery voltage	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)
19				Ignition swi	itch OFF	0 V
(W)	Ground	Ignition relay power supply	Output	Ignition swi	itch ON	Battery voltage
25				Ignition swi	itch OFF	0 V
(G)	Ground	Ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage
26*	0	126	0 1 1	Ignition swi	tch OFF	0 V
(R)	Ground	Ignition relay power supply	Output	Ignition swi	itch ON	Battery voltage
27	0	1	1	Ignition sw	itch OFF or ACC	Battery voltage
(BG)	Ground	Ignition relay monitor	Input	Ignition swi	itch ON	0 V
28	Cround	Push-button ignition	Innut	Press the p	oush-button ignition switch	0 V
(L)	Ground	switch	Input	Release th	e push-button ignition switch	Battery voltage
30 (GR)	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any position other than P or N	0 V
					Selector lever P or N	Battery voltage
36 (G)	Ground	Battery power supply	Input	Ignition sw	itch OFF	Battery voltage
39 (P)	_	CAN-L	Input/ Output		_	
40 (L)	_	CAN-H	Input/ Output	_		_
41 (B/W)	Ground	Ground	_	Ignition sw	itch ON	0 V
42	Cround	Cooling for roley central	Innut	Ignition swi	itch OFF or ACC	0 V
(Y)	Ground	Cooling fan relay control	Input	Ignition swi	itch ON	0.7 V
43 (SB)	Ground	A/T shift selector (Detention switch)	Input	Ignition switch ON	Press the selector button (Selector lever P) Selector lever in any position other than P	Battery voltage
					Release the selector but- ton (selector lever P)	0 V
44	0		1	The horn is	deactivated	Battery voltage
(BR)	Ground	Horn relay control	Input	The horn is	activated	0 V
45	Craund	Anti thaft have valou control	lanut	The horn is	deactivated	Battery voltage
(G)	Ground	Anti theft horn relay control	Input	The horn is	activated	0 V
46	Ground	Starter relay control	Input	Ignition	Selector lever in any position other than P or N	0 V
(R)		-	-	switch ON	Selector lever P or N	Battery voltage
					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 swi (More than ignition swi	a few seconds after turning	0 V
49 (BG)	Ground	ECM relay power supply	Output	Ignition s Ignition s (For a fe tion swite)	switch OFF w seconds after turning igni-	Battery voltage

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
51	Cround	Ignition relay newer aupply	Output	Ignition sw	itch OFF	0 V
(Y)	Ground	Ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage
53				Ignition sw (More than ignition sw	a few seconds after turning	0 V
(W)	Ground	ECM relay power supply	Output	Ignition s	w seconds after turning igni-	Battery voltage
54		Throttle control motor re-		Ignition sw (More than ignition sw	a few seconds after turning	0 V
(P)	Ground	lay power supply	Output	Ignition s	w seconds after turning igni-	Battery voltage
55 (SB)	Ground	ECM power supply	Output	Ignition sw	itch OFF	Battery voltage
56	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
(LG)	Giodila	ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage
57	Ground	Ignition relay power supply	Output	Ignition sw	itch OFF	0 V
(G)	Ground	ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage
58	Ground	Ignition relay power supply	Output	Ignition sw	itch OFF	0 V
(V)	Oroana	igiliadii idiay powol dappiy	Catpat	Ignition sw	itch ON	Battery voltage
69				Ignition sw (More than ignition sw	a few seconds after turning	Battery voltage
(BR)	Ground	ECM relay control	Output	 Ignition switch ON Ignition switch OFF (For a few seconds after turning ignition switch OFF) 		0 – 1.5 V
70 (BG)	Ground	Throttle control motor re- lay control	Output	Ignition switch ON → OFF		0 − 1.0 V ↓ Battery voltage ↓ 0 V
				Ignition switch ON		0 – 1.0 V
74	Cround	Ignition relevances are also	Out	Ignition sw	itch OFF	0 V
(P)	Ground	Ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage
75	Ground	Oil pressure switch	Input	Ignition	Engine stopped	0 V
(SB)	Giodila	On pressure switch	mput	switch ON	Engine running	Battery voltage

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	Δ.
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
				Ignition swi	tch ON	(V) 6 4 2 0 2ms JPMIA0001GB 6.3 V	B C
76 (Y)	Ground	Power generation command signal	Output		on "ACTIVE TEST", "AL- R DUTY" of "ENGINE"	(V) 6 4 2 0 	E F
					on "ACTIVE TEST", "AL- R DUTY" of "ENGINE"	(V) 6 4 2 0 2 2ms JPMIA0003GB 1.4 V	G H
77 (R)	Ground	Fuel pump relay control	Output	the ignition the Engine re	nately 1 second after turning on switch ON unning tely 1 second or more after	0 – 1.0 V	J
					ignition switch ON	Battery voltage	K
80 (W)	Ground	Starter motor	Output	At engine of	cranking	Battery voltage	
83 (BG)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V	EX
					Lighting switch 2ND Lighting switch OFF	Battery voltage 0 V	
84 (V)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch 2ND	Battery voltage	M
					Front fog lamp switch OFF	0 V	
86 (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	Front fog lamp switch ON Daytime running light activated (Only for Canada)	Battery voltage	N
					Front fog lamp switch OFF	0 V	
87 (L)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	 Front fog lamp switch ON Daytime running light activated (Only for Canada) 	Battery voltage	Р
88 (GR)	Ground	Washer pump power supply	Output	Ignition swi	tch ON	Battery voltage	

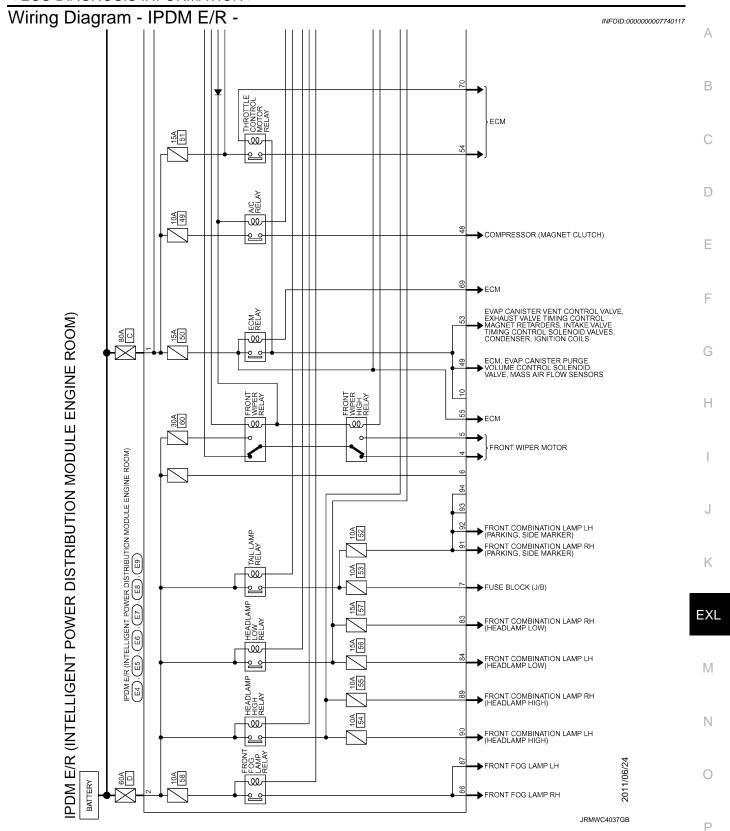
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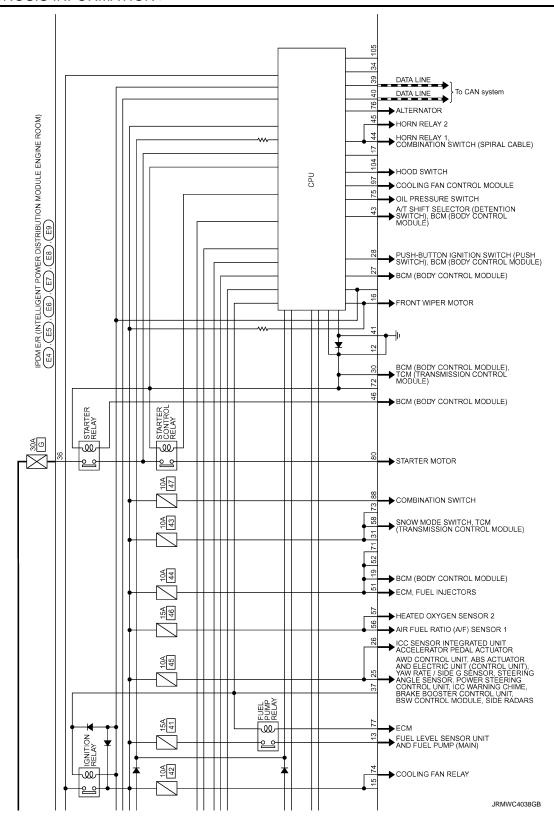
< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
89				Ignition	Lighting switch OFF	0 V
(BR)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	Lighting switch HI Lighting switch PASS	Battery voltage
				Ignition	Lighting switch OFF	0 V
90 (P)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	Lighting switch HI Lighting switch PASS	Battery voltage
91	Ground	Darking Ioma (DH)	Output	Ignition	Lighting switch OFF	0 V
(P)	Giouria	Parking lamp (RH)	Output	switch ON	Lighting switch 1ST	Battery voltage
92	Cround	Darking James (LU)	Output	Ignition	Lighting switch OFF	0 V
(BG)	Ground	Parking lamp (LH)	Output	switch ON	Lighting switch 1ST	Battery voltage
97 (V)	Ground	Cooling fan control	Output	Engine idlir	ng	0 – 5 V
104	Ground	Hood switch	Input	Close the h	nood	Battery voltage
(LG)	Giodila	11000 SWILCIT	input	Open the h	ood	0 V

^{*:} Only for the models with ICC system

< ECU DIAGNOSIS INFORMATION >





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

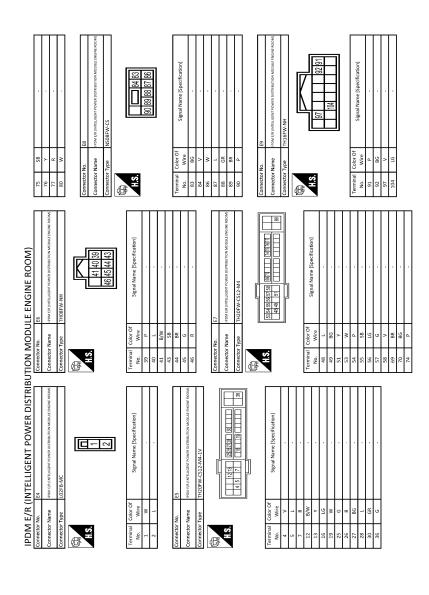
[HALOGEN TYPE] < ECU DIAGNOSIS INFORMATION > Α В С D Е F G Н Κ EXL M Ν

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JRMWC4039GB



JRMWG8116GB

Fail-safe INFOID:0000000007740118

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

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< ECU DIAGNOSIS INFORMATION >

Control part	Fail-safe operation
Cooling fan	 Outputs the pulse duty signal (PWM signal) 100% when the ignition switch is turned ON Outputs the pulse duty signal (PWM signal) 0% when the ignition switch is turned OFF
A/C compressor	A/C relay OFF
Alternator	Outputs the power generation command signal (PWM signal) 0%

If No CAN Communication Is Available With BCM

Control part	Fail-safe operation
Headlamp	 Turns ON the headlamp low relay when the ignition switch is turned ON Turns OFF the headlamp low relay when the ignition switch is turned OFF Headlamp high relay OFF
Parking lampsLicense plate lampsSide maker lampsIlluminationsTail lamps	 Turns ON the tail lamp relay when the ignition switch is turned ON Turns OFF the tail lamp relay when the ignition switch is turned OFF
Front wiper	 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. 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.
Front fog lamps	Front fog lamp relay OFF
Horn	Horn relay OFF
Ignition relay	The status just before activation of fail-safe is maintained.
Starter motor	Starter control 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 for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

Voltage j	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	Detects DTC "B2098: IGN RELAY ON" Turns ON the tail lamp relay for 10 minutes	
OFF	ON	Ignition relay OFF stuck	Detects DTC "B2099: IGN RELAY OFF"	

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.

Ignition switch	Front wiper switch	Front wiper stop position signal
ON .	OFF	The front wiper stop position signal (stop position) cannot be input for 10 seconds.
ON	ON	The front wiper stop position signal does not change for 10 seconds.

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< ECU DIAGNOSIS INFORMATION >

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:0000000007740119

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	Reference
No DTC is detected. further testing may be required.	_	_
U1000: CAN COMM CIRCUIT	×	PCS-14
B2098: IGN RELAY ON	×	PCS-15
B2099: IGN RELAY OFF	_	PCS-16
B210B: START CONT RLY ON	_	<u>SEC-77</u>
B210C: START CONT RLY OFF	_	<u>SEC-78</u>
B210D: STARTER RELAY ON	_	SEC-79
B210E: STARTER RELAY OFF	_	SEC-80
B210F: INTRLCK/PNP SW ON	_	<u>SEC-82</u>
B2110: INTRLCK/PNP SW OFF		SEC-84

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

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SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

CAUTION:

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

Syr	mptom	Possible cause	Inspection item	
Headlamp (HI) is not turned ON.		Fuse Halogen bulb (HI) Harness between IPDM E/R and the headlamp high Daytime running light relay (with daytime running light system) IPDM E/R	Headlamp (HI) circuit Refer to <u>EXL-258</u> .	
	Both sides	Symptom diagnosis		
Headlamp (HI) is not	When ignition switch is turned ON.	"BOTH SIDE HEADLAMPS (HI) A Refer to <u>EXL-376</u> .	RE NOT TURNED ON"	
turned OFF.	When ignition switch is turned OFF.	IPDM E/R	_	
High beam indicator lam [The headlamp (HI) is tu		Combination meter	Combination meter Data monitor "HI-BEAM IND" BCM (HEAD LAMP) Active test "HEADLAMP"	
Headlamp (LO) is not turned ON.	One side	Fuse Halogen bulb (LO) Harness between IPDM E/R and the headlamp low IPDM E/R	Headlamp (LO) circuit Refer to EXL-260.	
	Both sides	Symptom diagnosis		
Headlamp (LO) is not	When ignition switch is turned ON.	"BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-377.		
turned OFF.	When ignition switch is turned OFF.	IPDM E/R	_	
Headlamp is not turned (ON/OFF with the lighting	Combination switch Harness between the combination switch and BCM BCM	Combination switch Refer to <u>BCS-89</u> .	
switch AUTO.		Optical sensor Harness between the optical sensor and BCM BCM	Optical sensor Refer to <u>EXL-268</u> .	
Front fog lamp is not turned ON.	One side	Front fog lamp bulb Harness between IPDM E/R and the front combination lamp Front combination lamp IPDM E/R	Front fog lamp circuit Refer to <u>EXL-262</u> .	
Both side		Symptom diagnosis	A DE MOT TUDNES ON	
Front fog lamp is not turned ON.		"BOTH SIDE FRONT FOG LAMPS Refer to <u>EXL-379</u> .	S ARE NOT TURNED ON"	
Parking lamp is not turned ON.		Fuse Parking lamp bulb Harness between IPDM E/R and the front combination lamp Front combination lamp IPDM E/R	Parking lamp circuit Refer to <u>EXL-264</u> .	

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EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

Symp	tom	Possible cause	Inspection item
Tail lamp is not turned ON.		Harness between IPDM E/R and the rear combination lamp Rear combination lamp	Tail lamp circuit Refer to EXL-273.
License plate lamp is not to	urned ON.	Harness between IPDM E/R and the license plate lamp License plate lamp	License plate lamp circuit Refer to EXL-275.
Tail lamp and the license p	late lamp are not turned	Fuse Harness between IPDM E/R and the rear combination lamp IPDM E/R	Tail lamp circuit Refer to EXL-273.
 Parking lamp, the tail lamp and the license plate lamp are not turned ON. Parking lamp, the tail lamp and the license plate lamp are not turned OFF. (Each illumination is turned ON/OFF.) 		Symptom diagnosis "PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-378.	
Turn signal lamp does not blink.	Indicator lamp is normal. (The applicable side performs the high flasher activation.)	Harness between BCM and each turn signal lamp Turn signal lamp bulb	Turn signal lamp circuit Refer to EXL-266.
DIIIIK.	Indicator lamp is included	Combination switch Harness between the combination switch and BCM BCM	Combination switch Refer to BCS-89.
	One side	Combination meter	_
Turn signal indicator lamp does not blink. (The turn signal indicator	Both sides (Always)	 Turn signal indicator lamp signal Unified meter and A/C amp. BCM Combination meter 	Unified meter and A/C amp. Data monitor "TURN IND" BCM (FLASHER) Active test "FLASHER"
lamp is normal.)	Both sides (Only when activating the hazard warning lamp with the ignition switch OFF)	The combination meter power supply and the ground circuit Combination meter	Combination meter Power supply and the ground circuit Refer to MWI-55.
 Hazard warning lamp does not activate. Hazard warning lamp continues activating. (Turn signal is normal.) 		Hazard switch Harness between the hazard switch and BCM BCM	Hazard switch Refer to EXL-271.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

NORMAL OPERATING CONDITION

Description INFOID:000000007460442

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.

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BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

Description INFOID:000000007460443

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

Diagnosis Procedure

INFOID:0000000007460444

1. COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to BCS-89, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

(E) CONSULT DATA MONITOR

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

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

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to BCS-92, "Exploded View".

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to EXL-258, "Component Function Check".

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

[HALOGEN TYPE] < SYMPTOM DIAGNOSIS >

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description INFOID:0000000007460445

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

Diagnosis Procedure

CHECK COMBINATION SWITCH

Check the combination switch. Refer to BCS-89, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT

©CONSULT DATA MONITOR

- Select "HL LO REQ" of IPDM E/R data monitor item.
- With operating the lighting switch, check the monitor status.

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

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to BCS-92, "Exploded View".

3.HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to EXL-260, "Component Function Check".

Is the headlamp (LO) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

Description INFOID:000000007460447

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

Diagnosis Procedure

INFOID:0000000007460448

1. COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to BCS-89, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

PCONSULT DATA MONITOR

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

Monitor item	Condition		Monitor status
TAIL & CLR	Lighting switch	1ST	On
REQ	Lighting Switch	OFF	Off

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

3. TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to EXL-273, "Component Function Check".

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

[HALOGEN TYPE] < SYMPTOM DIAGNOSIS >

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description INFOID:0000000007460449

The front fog lamps are not turned ON in any condition.

Diagnosis Procedure

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to BCS-89, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

©CONSULT DATA MONITOR

- Select "FR FOG REQ" of IPDM E/R data monitor item.
- With operating the front fog lamp switch, check the monitor status.

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

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

3. FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to EXL-262, "Component Function Check".

Is the front fog lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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PRECAUTIONS

< PRECAUTION > [HALOGEN TYPE]

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.

[HALOGEN TYPE]

PERIODIC MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Description INFOID:0000000007460452

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.

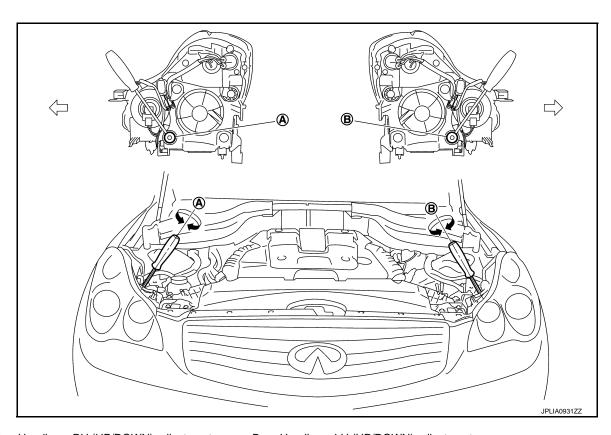
Wipe out dirt on the headlamp.

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

∀
 : Vehicle center

NOTE:

The figure is the vehicle without AFS. Each adjustment screw is applied to the vehicle with AFS.

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Adjustment screw		Screw driver rotation	Facing direction	
Α	Headlamp RH (UP/DOWN)	Clockwise	UP	
A	neadiamp Kn (0F/DOWN)	Counterclockwise	DOWN	
В	Headlems I H (LID/DOM/N)	Clockwise	UP	
Ь	Headlamp LH (UP/DOWN)	Counterclockwise	DOWN	

Aiming Adjustment Procedure

INFOID:0000000007460453

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.

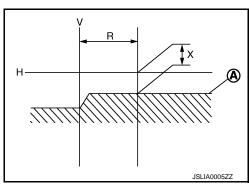
CAUTION:

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 range (R) : 350 \pm 175 mm (13.78 \pm 6.89 in)

Low beam distribution on the screen

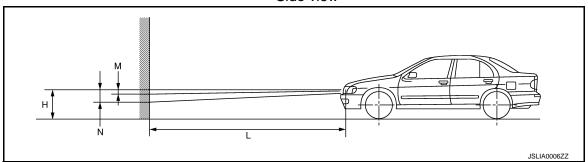


 Adjust the cutoff line height (X) with the aiming adjustment screw so as to enter in the adjustment range (M–N) according to the horizontal center line of headlamp (H).

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



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

FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN TYPE]

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FRONT FOG LAMP AIMING ADJUSTMENT

Description INFOID:0000000007460454

PREPARATION BEFORE ADJUSTING

- 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

Turn the aiming adjusting screw for adjustment.

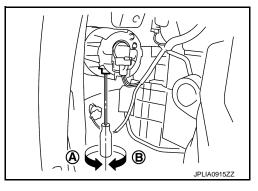
A: UP

B: DOWN

 For the position and direction of the adjusting screw, refer to the figure.

NOTE:

A screwdriver or hexagonal wrench [6 mm (0.24 in)] can be used for adjustment.



INFOID:0000000007460455

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 front fog lamp center and the screen.
- Start the engine. Turn the front fog lamp 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. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 200 mm (7.87 in).

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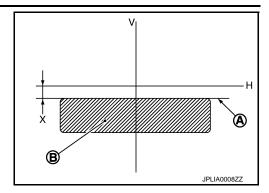
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FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN TYPE]

Front fog lamp light distribution on the screen



A : Cutoff line

B : High illuminance area

H : Horizontal center line of front fog lampV : Vertical center line of front fog lamp

X : Cutoff line height

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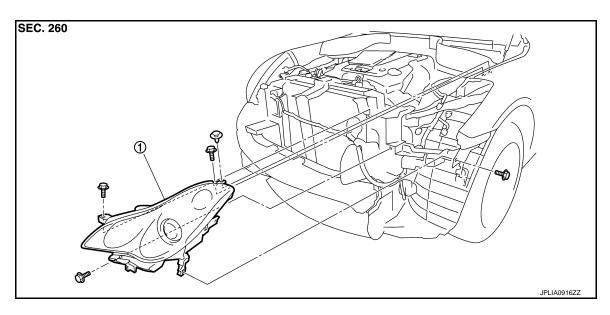
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REMOVAL AND INSTALLATION

FRONT COMBINATION LAMP

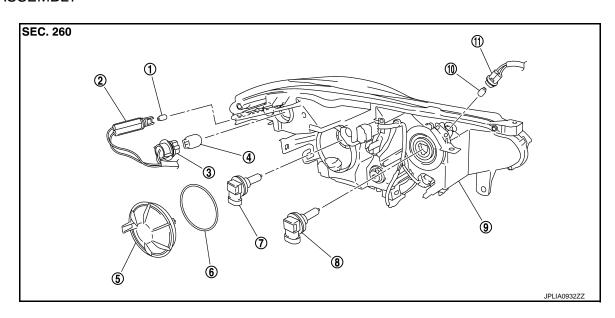
Exploded View

REMOVAL



1. Front combination lamp

DISASSEMBLY



- 1. Front side marker lamp bulb
- 4. Front turn signal lamp bulb
- 7. Halogen bulb (LO)
- 10. Parking lamp bulb

- 2. Front side marker lamp bulb socket
- 5. Resin cap
- 8. Halogen bulb (HI)
- 11. Parking lamp bulb socket
- 3. Front turn signal lamp bulb socket
- 6. Seal packing
- 9. Headlamp housing assembly

Removal and Installation

INFOID:0000000007460457

REMOVAL CAUTION:

FRONT COMBINATION LAMP

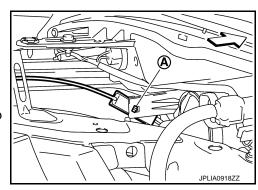
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

Disconnect the battery negative terminal or remove the fuse.

- Remove the front bumper fascia. Refer to <u>EXT-12</u>, "<u>Exploded View</u>".
- 2. Remove the headlamp mounting bolts and clips.
- 3. Remove the harness clip and the holding clip (A)*.
 *: Left side only.

- 4. Pull out the headlamp assembly forward the vehicle.
- Disconnect the connector before removing the headlamp assembly.



INSTALLATION

Install in the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to EXL-381, "Description".

Replacement

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)

- 1. Remove the fender rubber protector in the engine room. Keep a service area.
- 2. Rotate the resin cap counterclockwise and unlock it.
- Disconnect the headlamp (LO) bulb connector.
- 4. Rotate the bulb counterclockwise and unlock it.
- Remove the bulb from the headlamp housing assembly.

HEADLAMP BULB (HI)

- Remove the washer tank inlet^{*}. Refer to <u>WW-111, "Exploded View"</u>.
 *:When replace a right.
- 2. Disconnect the headlamp (HI) bulb connector.
- 3. Rotate the bulb socket counterclockwise and unlock it.
- Remove the bulb socket from the headlamp housing assembly.

PARKING LAMP BULB

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

FRONT TURN SIGNAL LAMP BULB

- 1. Remove the fender rubber protector in the engine room. Keep a service area.
- 2. Rotate the bulb socket counterclockwise and unlock it.
- Remove the bulb from the bulb socket.

FRONT SIDE MARKER LAMP BULB

- Remove the fender rubber protector in the engine room. Keep a service area.
- 2. Rotate the bulb socket counterclockwise and unlock it.
- 3. Remove the bulb from the bulb socket.

FRONT COMBINATION LAMP

REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

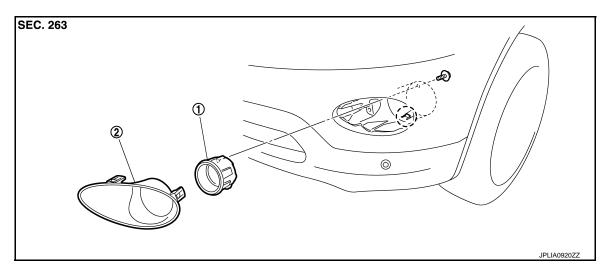
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< REMOVAL AND INSTALLATION >	[HALOGEN TYPE]
Disassembly and Assembly	INFOID:000000007460458
DISASSEMBLY	
Rotate the resin cap counterclockwise and unlock it.	
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, ,	
 Rotate the parking lamp bulb socket counterclockwise and unlock it. Remove the bulb from the parking lamp bulb socket. 	
, , ,	
Rotate the front turn signal lamp bulb socket counterclockwise and unlock it. Romave the bulb from the front turn signal lamp bulb socket.	
10. Remove the bulb from the front turn signal lamp bulb socket.	
11. Rotate the front side marker lamp bulb socket counterclockwise and unlock it.	
I2. Remove the bulb from the front side marker lamp bulb socket. ASSEMBLY	

Revision: 2014 October EXL-387 2012 EX

FRONT FOG LAMP

Exploded View



- 1. Front fog lamp
- つ: Pawl

2. Front fog lamp finisher

Removal and Installation

INFOID:0000000007460461

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- 1. Remove the front fender protector. Keep a service area. Refer to EXT-25, "FENDER PROTECTOR: Exploded View".
- 2. Remove the front fog lamp finisher.
- 3. Remove the front fog lamp connector.
- 4. Remove the screw.
- 5. Disengage the pawl. And then remove the front fog lamp.

INSTALLATION

Installation is the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to EXL-383, "Description"

Replacement INFOID:000000007460462

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 FOG LAMP BULB

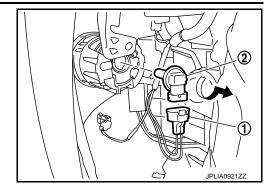
1. Remove the front fender protector. Keep the service area. Refer to EXT-25, "FENDER PROTECTOR: Exploded View".

FRONT FOG LAMP

< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

- 2. Remove the front fog lamp bulb connector (1).
- 3. Rotate the bulb (2) counterclockwise and unlock it.



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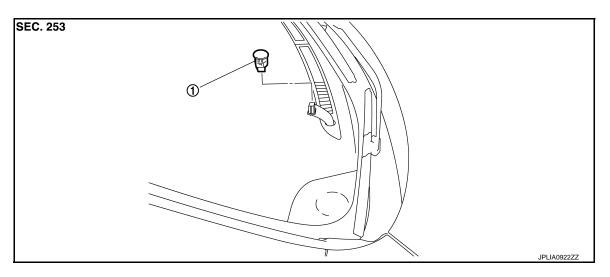
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OPTICAL SENSOR

Exploded View



Optical sensor

Removal and Installation

INFOID:000000007460464

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 AND TURN SIGNAL SWITCH

< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

LIGHTING AND TURN SIGNAL SWITCH

Exploded View

Lighting and turn signal switch is integrated in the combination switch. BCS-93, "Exploded View".

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HAZARD SWITCH

< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

HAZARD SWITCH

Exploded View

The hazard warning switch is integrated in the multifunction switch. Refer to AV-135, "Exploded View".

[HALOGEN TYPE]

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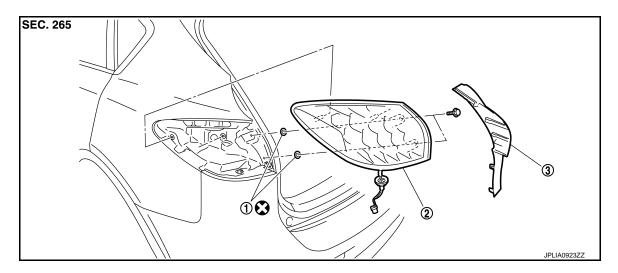
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INFOID:0000000007460468

REAR COMBINATION LAMP

Exploded View



Seal packing

- 2. Rear combination lamp
- 3. Rear combination lamp finisher

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

Removal and Installation

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- Remove the luggage side finisher lower. Refer to INT-36, "Exploded View".
- 2. Remove the rear combination lamp finisher.
- 3. Remove the rear combination lamp mounting bolts.
- 4. Disconnect the rear combination lamp connector.
- 5. Pull the rear combination lamp toward outside of the vehicle. Remove the rear combination lamp.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Seal packing cannot be reused.

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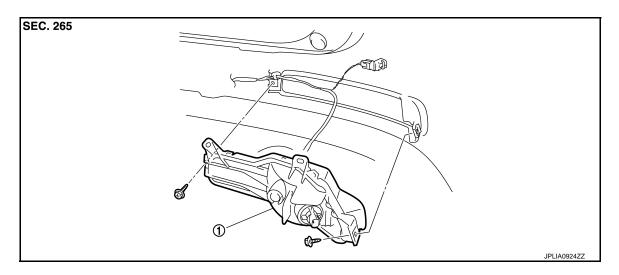
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REAR TURN SIGNAL LAMP

Exploded View



Rear turn signal lamp

Removal and Installation

INFOID:0000000007460470

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- 1. Remove the rear bumper fascia. Refer to EXT-16, "Exploded View".
- Remove the rear turn signal lamp.

INSTALLATION

Install in the reverse order of removal.

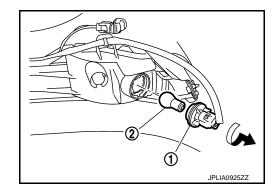
Replacement INFOID:000000007460471

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



[HALOGEN TYPE]

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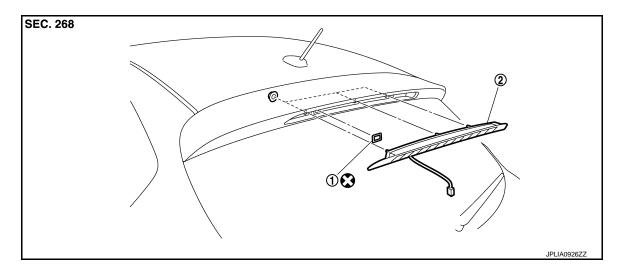
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INFOID:0000000007460473

HIGH-MOUNTED STOP LAMP

Exploded View



1. Seal packing

2. High-mounted stop lamp

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

Removal and Installation

REMOVAL

- Remove the back door finisher inner. Refer to <u>INT-40, "Exploded View"</u>.
- 2. Remove the high-mounted stop lamp mounting nuts.
- 3. Disconnect the high-mounted stop lamp connector. And then remove the rear washer tube.
- 4. Pull the high-mounted stop lamp toward rear of the vehicle.
- 5. Remove the high-mounted stop lamp.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Seal packing cannot be reused.

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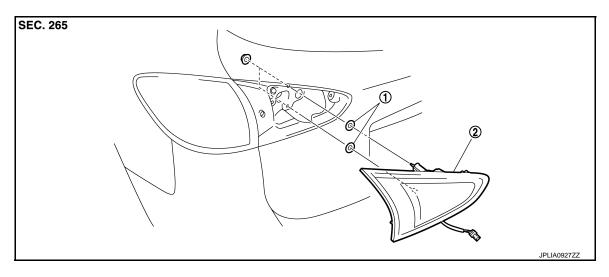
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BACK-UP LAMP

Exploded View



1. Seal packing

Back-up lamp

Removal and Installation

INFOID:0000000007460475

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- Remove the back door finisher inner. Refer to <u>INT-40</u>, "Exploded View".
- 2. Remove the back-up lamp mounting nuts.
- 3. Disconnect the back-up lamp connector. And then remove the back-up lamp.

INSTALLATION

Install in the reverse order of removal.

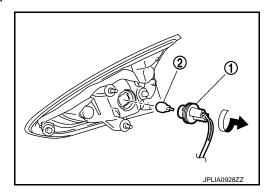
Replacement INFOID:000000007460476

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.

BACK-UP LAMP BULB

- 1. Remove the back-up lamp. Refer to EXL-396, "Exploded View".
- 2. Turn the bulb socket (1) counterclockwise and unlock it.
- Remove the bulb (2) from the socket.



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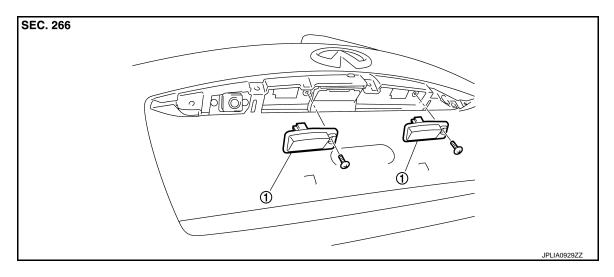
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INFOID:0000000007460478

LICENSE PLATE LAMP

Exploded View INFOID:0000000007460477



License plate lamp

Removal and Installation

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- Remove the door handle cover. Refer to <u>EXT-48</u>, "<u>Exploded View</u>".
- Remove the screw. And then remove the license plate lamp.
- Disconnect the license plate lamp connector.

INSTALLATION

Install in the reverse order of removal.

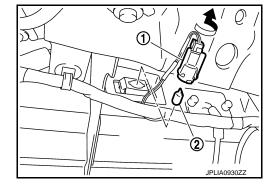
Replacement INFOID:0000000007460479

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

- 1. Remove the back door finisher inner. Refer to INT-40, "Exploded View".
- Turn the bulb socket (1) counterclockwise and unlock it. 2.
- Remove the bulb (2) from the socket.



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SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[HALOGEN TYPE]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:0000000007460480

	Item	Туре	Wattage (W)
	Headlamp (HI)	H9 (Halogen)	65
	Headlamp (LO)	H11 (Halogen)	55
Front combination lamp	Front turn signal lamp	W21W	21
	Parking lamp	W5W	5
	Front side marker lamp	W5W	5
Front fog lamp		H8	35
Rear combination lamp	Stop lamp/Tail lamp	LED	_
	Rear side marker lamp	LED	_
Rear turn signal lamp	<u>'</u>	PY21W (Amber)	21
Back-up lamp		W16W	16
License plate lamp		W5W	5
High-mounted stop lamp		LED	_