

SECTION EXL

EXTERIOR LIGHTING SYSTEM

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[XENON TYPE]

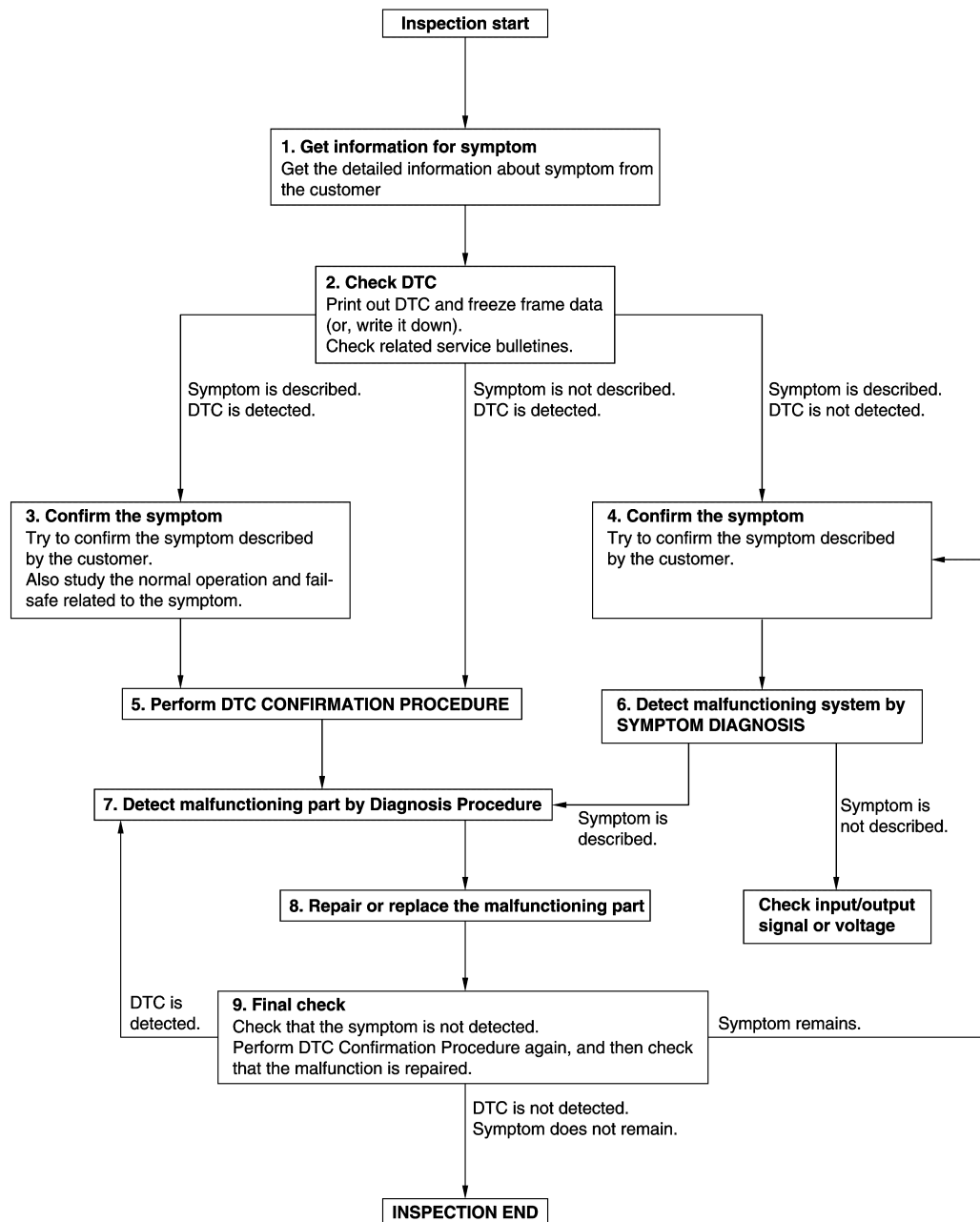
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000010576238

OVERALL SEQUENCE



DETAILED FLOW

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[XENON TYPE]

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).
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 5.

3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

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

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

>> GO TO 5.

4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

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

>> GO TO 6.

5.PERFORM DTC CONFIRMATION PROCEDURE

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

NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.
If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.

NO >> Check according to [GI-47. "Intermittent Incident"](#).

6.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

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

Is the symptom described?

YES >> GO TO 7.

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

7.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[XENON TYPE]

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-47. "Intermittent Incident"](#).

8.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 9.

9.FINAL CHECK

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

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

Is DTC detected and does symptom remain?

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

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

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

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< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000010576239

Perform levelizer adjustment when replacing the AFS control unit. (For details, refer to [EXL-8, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000010576240

1.LEVELIZER ADJUSTMENT

Perform levelizer adjustment. Refer to [EXL-8, "LEVELIZER ADJUSTMENT : Description"](#).

>> WORK END

LEVELIZER ADJUSTMENT

LEVELIZER ADJUSTMENT : Description

INFOID:0000000010576241

Perform levelizer adjustment when the following operation is performed. (For details, refer to [EXL-8, "LEVELIZER ADJUSTMENT : Special Repair Requirement"](#).)

- Replacing AFS control unit
- Removing, installing or replacing height sensor
- Adjusting, removing, installing or replacing suspension components

LEVELIZER ADJUSTMENT : Special Repair Requirement

INFOID:0000000010576242

1.CHECK VEHICLE CONDITION

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

>> GO TO 2.

2.LEVELIZER ADJUSTMENT

ⒶCONSULT WORK SUPPORT

1. Select "LEVELIZER ADJUSTMENT" of ADAPTIVE LIGHT work support item.
2. Select "START".
3. 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.

Is the levelizer adjustment completed?

YES >> GO TO 3.

NO >> Perform the levelizer adjustment again.

3.SELF-DIAGNOSIS RESULT CHECK

Perform self-diagnosis with CONSULT. Check that any DTC is not detected.

Is any DTC detected?

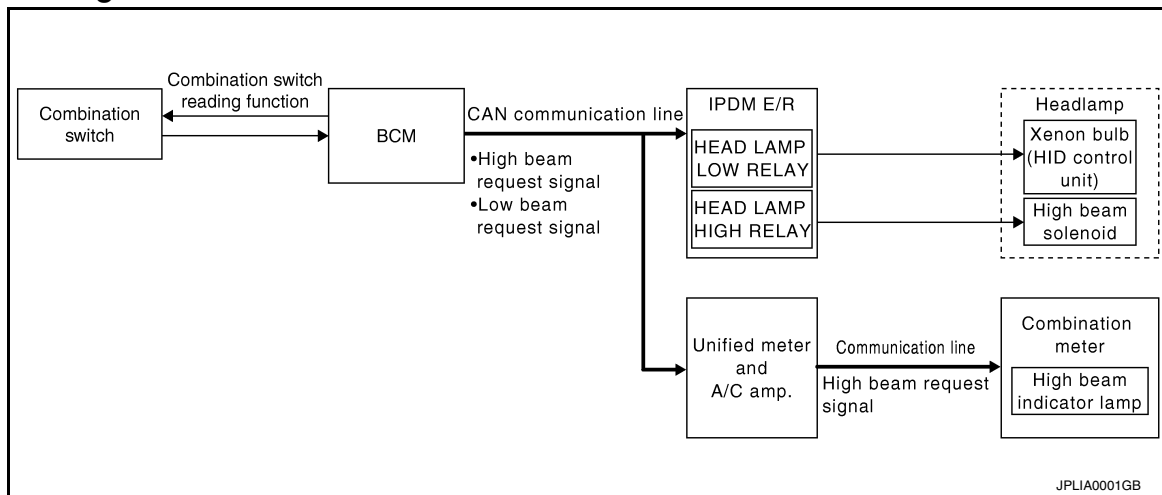
YES >> GO TO 2.

NO >> WORK END

SYSTEM DESCRIPTION

HEADLAMP SYSTEM

System Diagram



System Description

INFOID:0000000010576244

OUTLINE

- Mobile valve shade type is adopted. Xenon headlamp switches the high beam and the low beam with one xenon bulb each on right and left.
- Headlamp is controlled by combination switch reading function and headlamp control function of BCM, and relay control function of IPDM E/R.

HEADLAMP BASIC 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 ON condition.

Headlamp ON condition

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

HEADLAMP HI/LO SWITCHING 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 high beam switching condition.

High beam switching condition

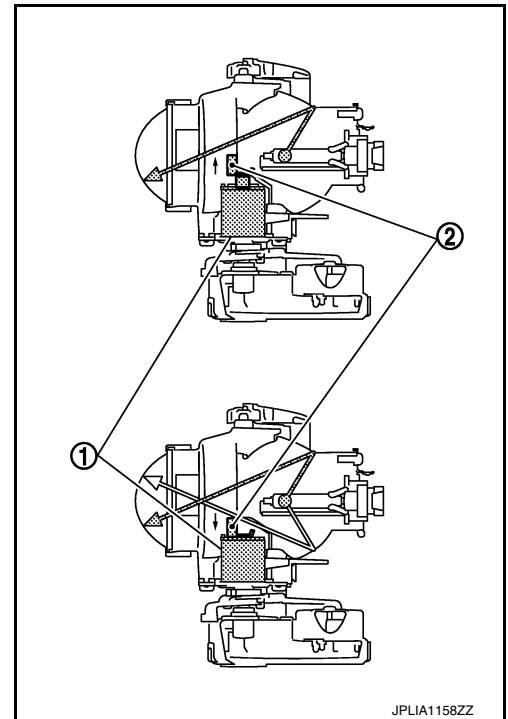
- Lighting switch HI with the headlamp ON
- Lighting switch PASS
- Combination meter turns the high beam indicator lamp ON according to the high beam request signal.
- IPDM E/R turns the integrated headlamp high relay ON, and turns the headlamp ON according to the high beam request signal.

HEADLAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

- When the headlamp high relay is turned ON, magnetic force is applied to the high beam solenoid (1) by a current. The mobile valve shade (2) is switched to the high beam position.
- When the headlamp high relay is turned OFF, the current stops. The mobile valve shade returns to the low beam position automatically.



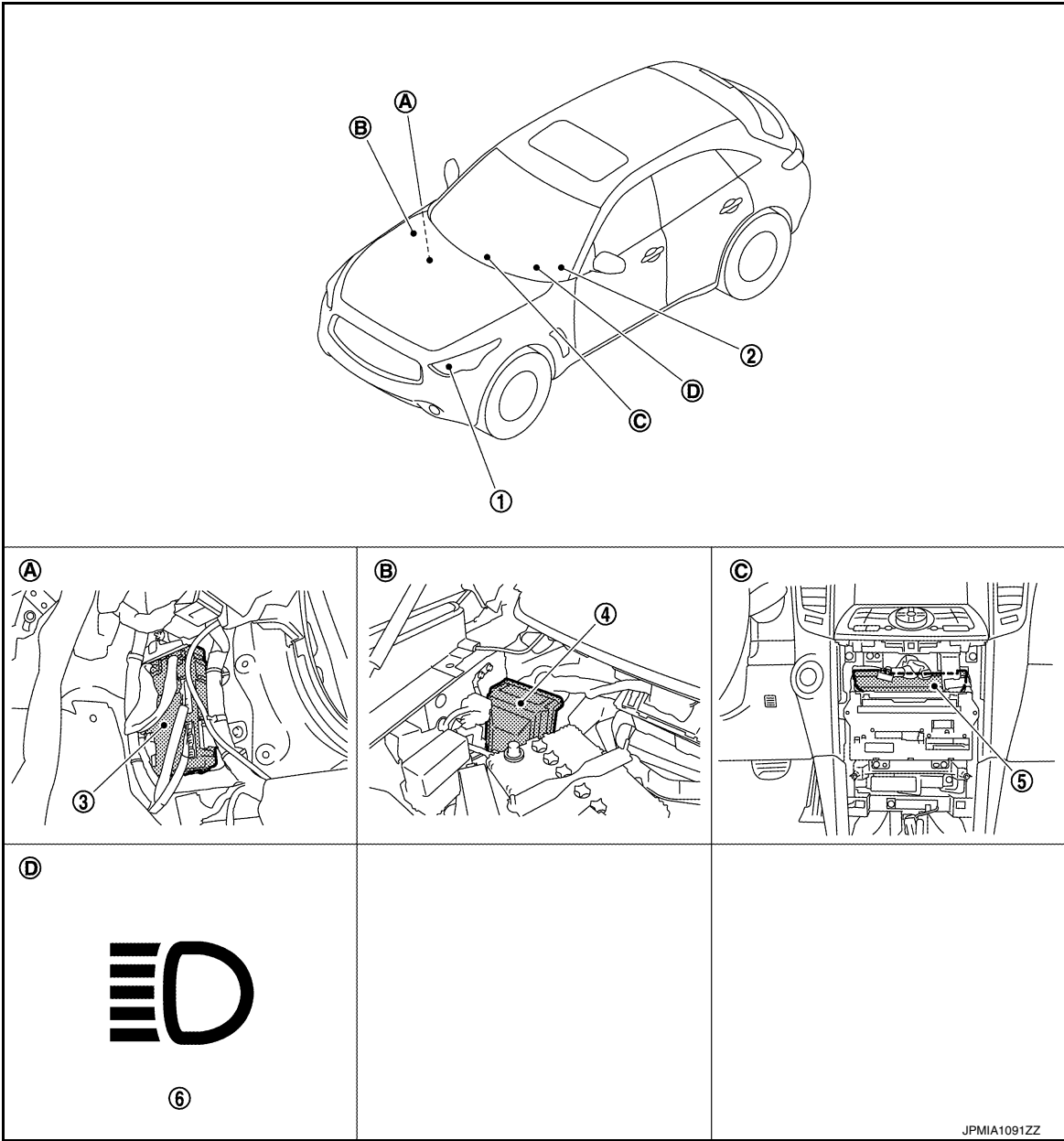
HEADLAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

INFOID:000000010576245



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

Component Description

INFOID:000000010576246

| Part | Description |
|----------|---|
| BCM | <ul style="list-style-type: none">• 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 the 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). |

HEADLAMP SYSTEM

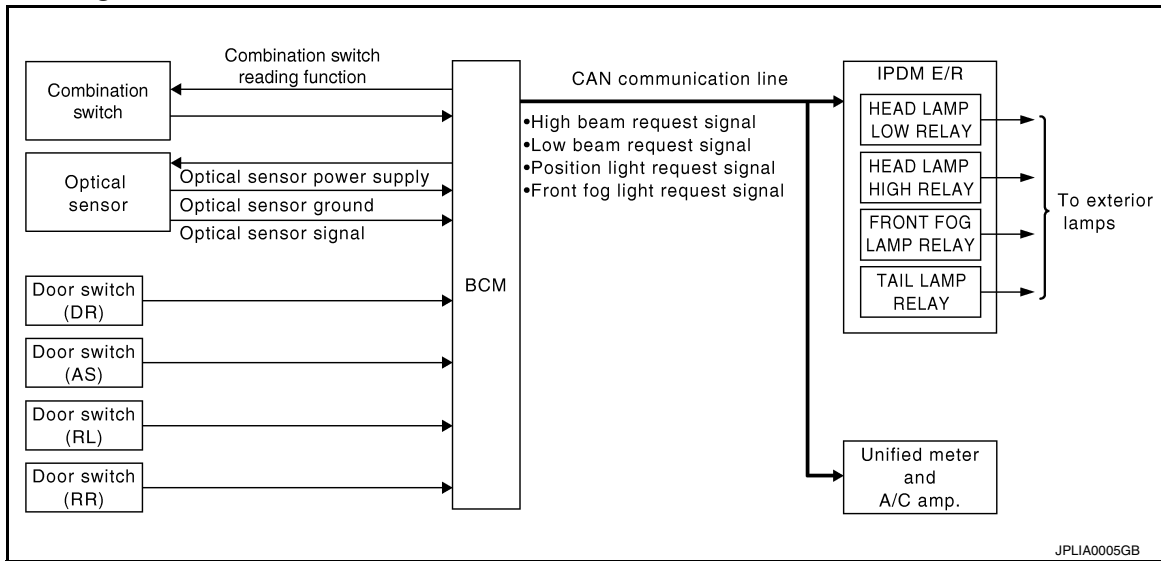
< SYSTEM DESCRIPTION >

[XENON TYPE]

| Part | | Description |
|---|---|--|
| Combination switch (Lighting & turn signal switch) | | Refer to BCS-11, "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 the unified meter and A/C amp.)]. |
| Headlamp assembly | <ul style="list-style-type: none">• HID control unit• Xenon bulb | Refer to EXL-72, "Description" . |
| | High beam solenoid | Refer to EXL-67, "Description" . |

AUTO LIGHT SYSTEM

System Diagram



System Description

INFOID:0000000010576248

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, side marker lamp, tail lamp, license plate 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).

AUTO LIGHT SYSTEM

[XENON TYPE]

< SYSTEM DESCRIPTION >

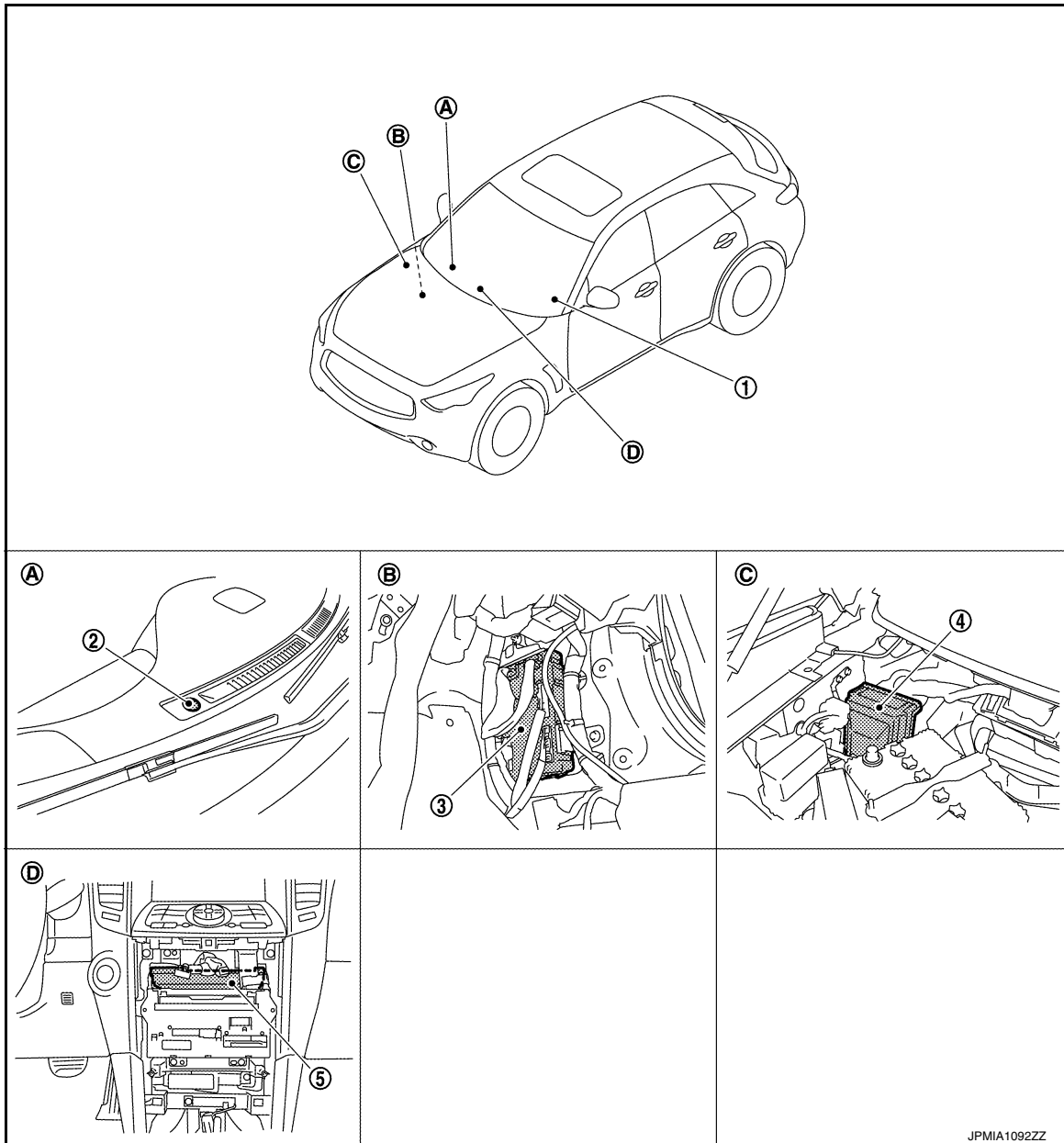
- Turns the exterior lamp OFF with the ignition switch ACC or the light switch OFF.
- *: The preset time is 45 seconds. The timer operating time can be set by CONSULT. Refer to [EXL-34, "HEAD-LAMP : CONSULT Function \(BCM - HEAD LAMP\)"](#).

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

INFOID:0000000010576249



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

AUTO LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Description

INFOID:0000000010576250

| Part | Description |
|---|--|
| BCM | <ul style="list-style-type: none">• Detects each switch condition by the combination switch reading function.• Judges the outside brightness from the optical sensor signal.• Judges the OFF timing according to the vehicle condition.• Judges the ON/OFF status of the exterior lamp and each illumination according to the outside brightness and the vehicle condition. Requests ON/OFF of each relay to IPDM E/R (with CAN communication). |
| IPDM E/R | Controls the integrated relay, and supplies voltage to the load according to the request from BCM (with CAN communication). |
| Combination switch (Lighting & turn signal switch) | Refer to BCS-11, "System Diagram" . |
| Optical sensor | Refer to EXL-84, "Description" . |

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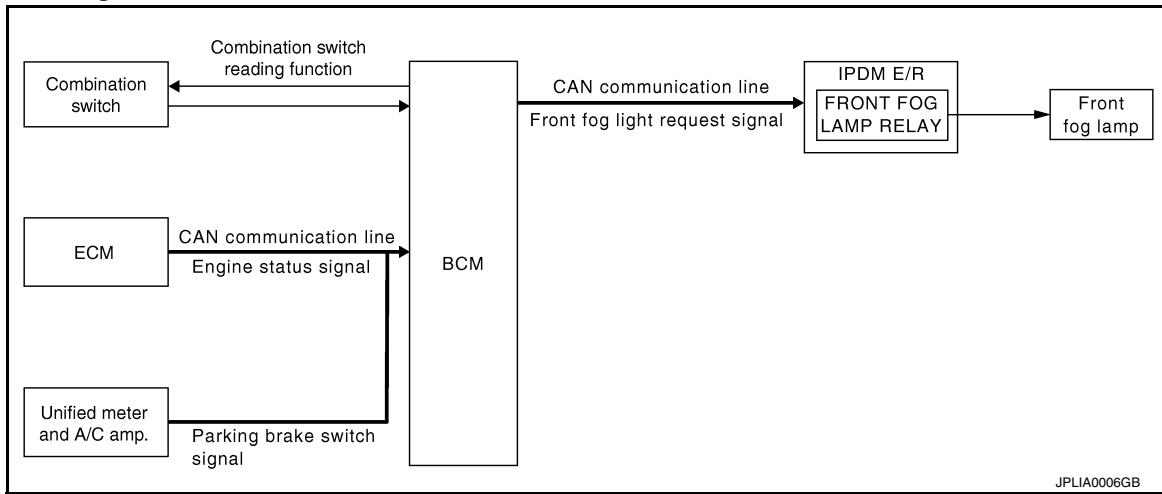
DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

DAYTIME RUNNING LIGHT SYSTEM

System Diagram



System Description

INFOID:0000000010576252

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.

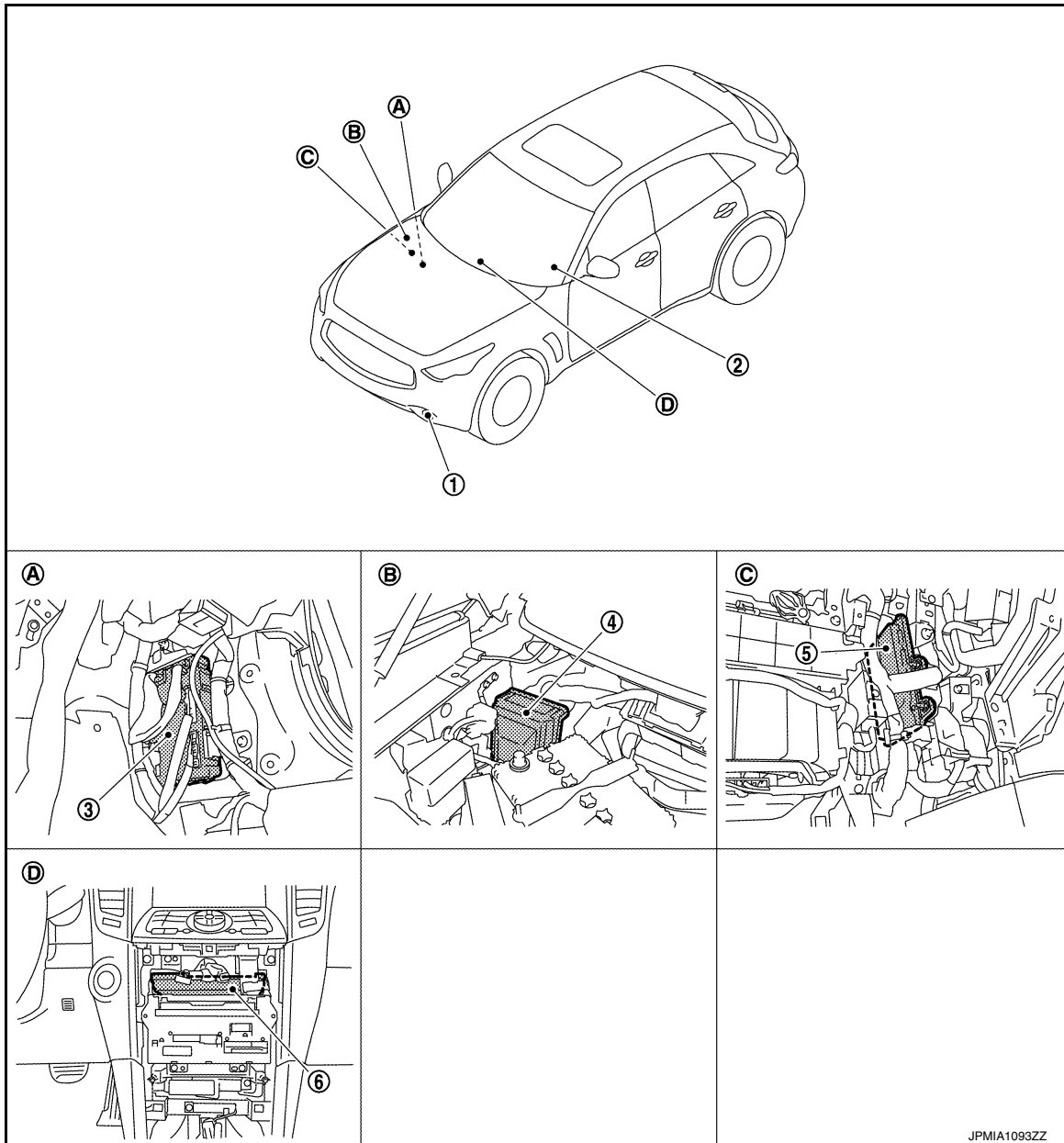
DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

INFOID:000000010576253



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|--|--------------------------------|-------------------------------|
| 1. Daytime running light (Front fog lamp) | 2. Combination switch | 3. BCM |
| 4. IPDM E/R | 5. ECM | 6. Unified meter and A/C amp. |
| A. Dash side lower (passenger side) | B. Engine room dash panel (RH) | C. Behind the glove box |
| D. Behind the cluster lid C | | |

Component Description

INFOID:000000010576254

| Part | Description |
|----------|---|
| BCM | <ul style="list-style-type: none"> • Detects 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-11, "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. |

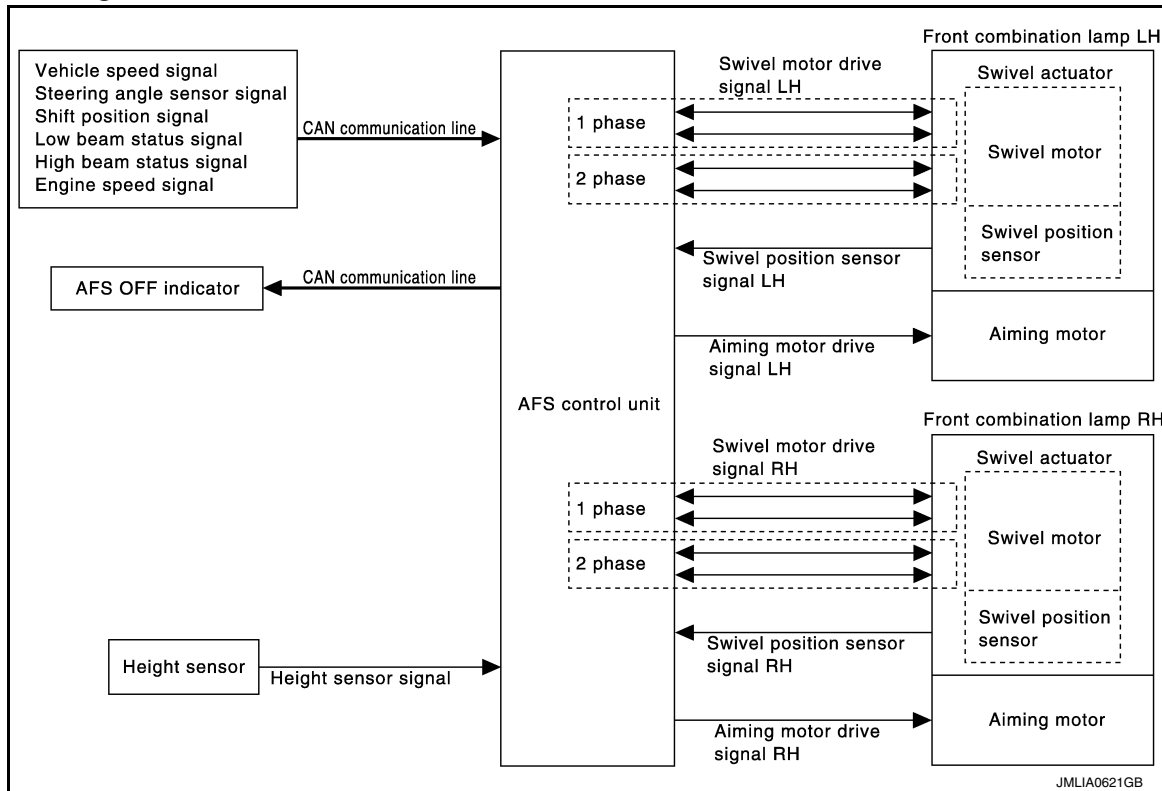
ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM

System Diagram



System Description

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.

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.

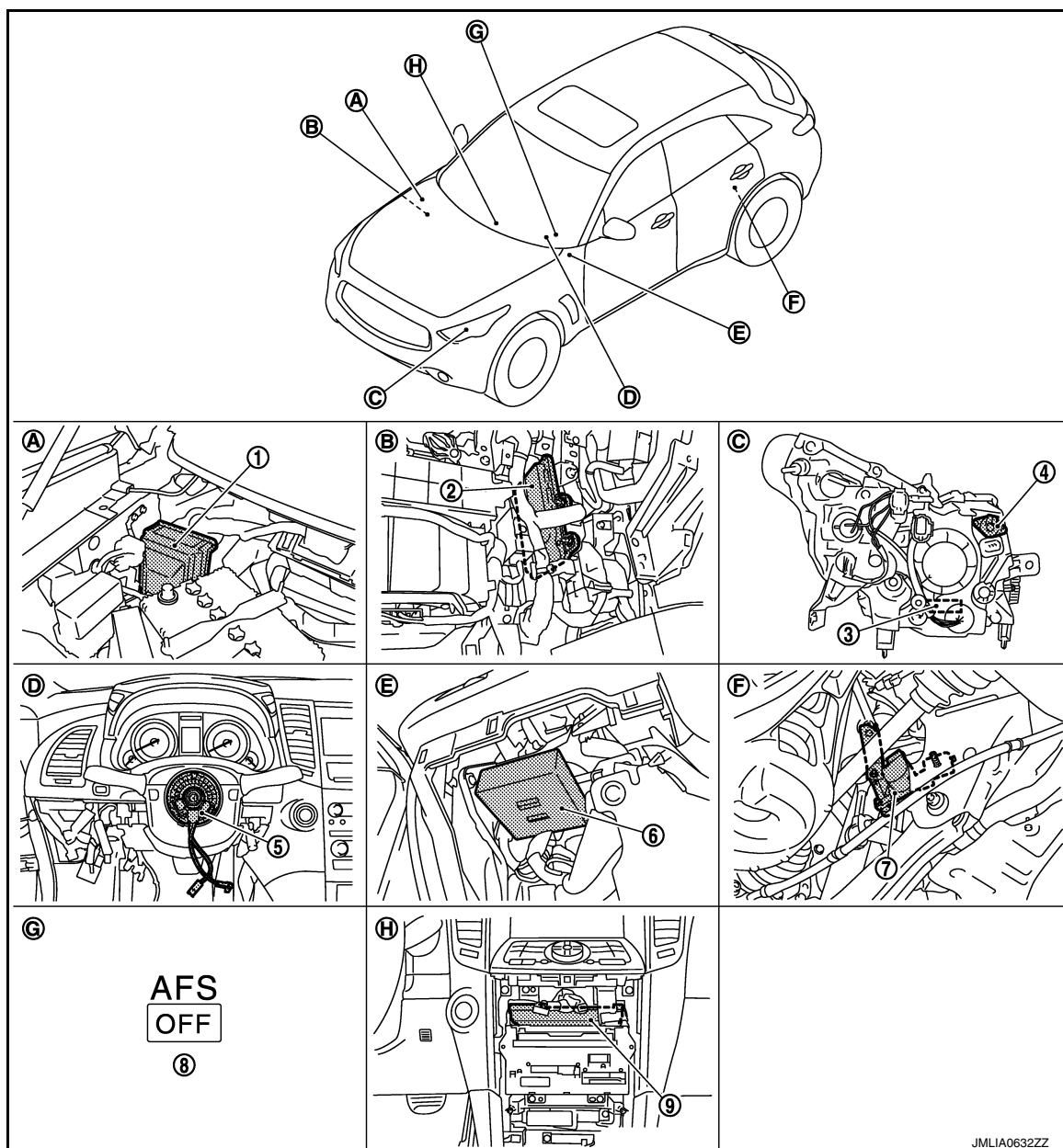
ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM

[XENON TYPE]

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000010576257



- | | | |
|-----------------------------------|---|----------------------------------|
| 1. IPDM E/R | 2. ECM | 3. Swivel actuator |
| 4. Aiming motor | 5. Steering angle sensor | 6. AFS control unit |
| 7. Height sensor | 8. AFS OFF indicator lamp | 9. Unified meter and A/C amp. |
| A. Engine room dash panel (RH) | B. Behind the glove box | C. Front combination lamp (back) |
| D. Steering column cover (inside) | E. Behind the instrument driver lower panel | F. Rear suspension member (LH) |
| G. On the combination meter | H. Behind the cluster lid C | |

Component Description

INFOID:000000010576258

| 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-74, "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 the unified meter and A/C amp.)]. |

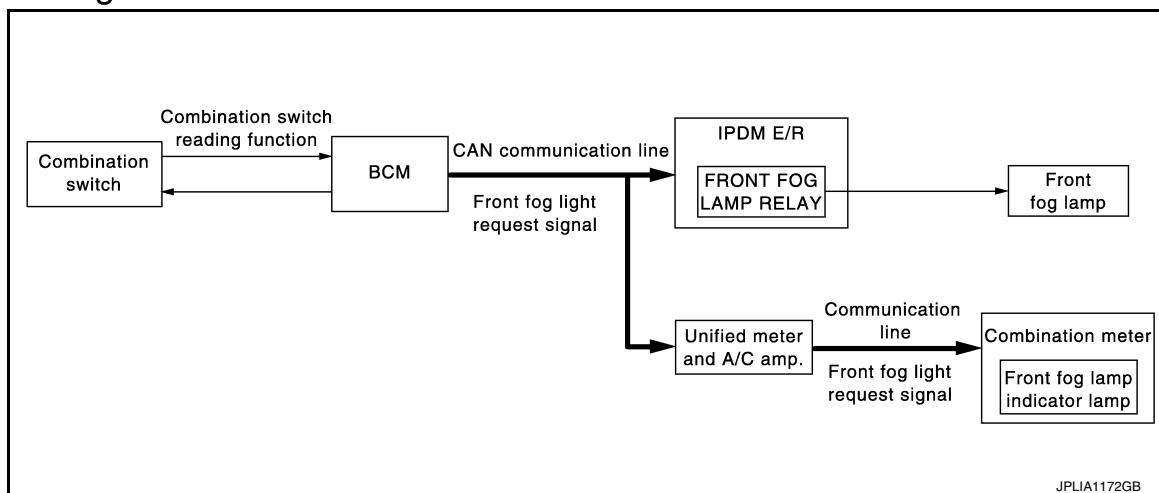
FRONT FOG LAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

FRONT FOG LAMP SYSTEM

System Diagram



System Description

INFOID:0000000010576260

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-16, "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 and the combination meter (through the unified meter and A/C amp.) 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.
- Combination meter turns the front fog lamp indicator lamp ON according to the front fog light request signal.

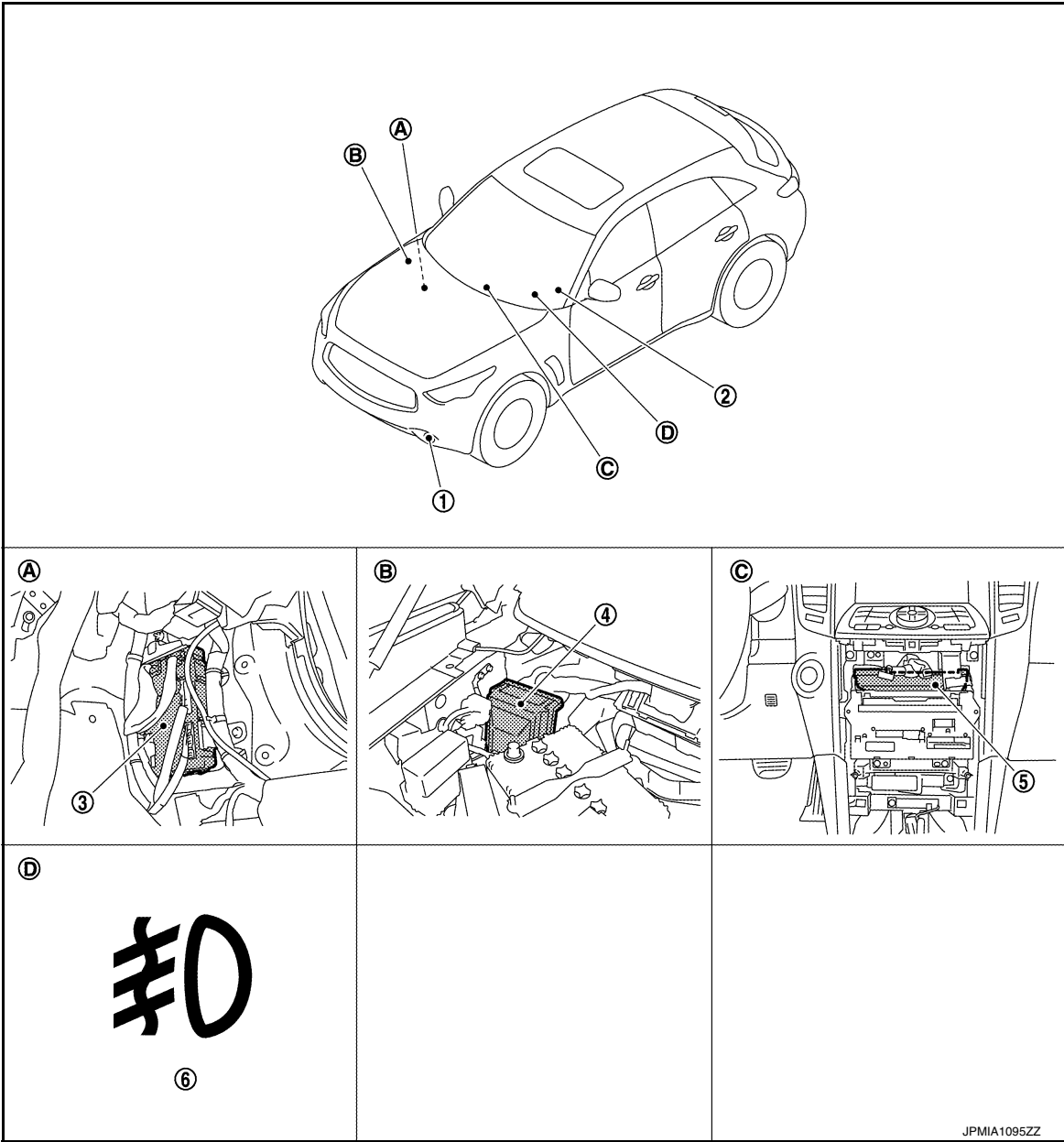
FRONT FOG LAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

INFOID:0000000010576261



- | | | |
|-------------------------------------|--------------------------------|----------------------------------|
| 1. Front fog lamp | 2. Combination switch | 3. BCM |
| 4. IPDM E/R | 5. Unified meter and A/C amp. | 6. Front fog lamp indicator lamp |
| A. Dash side lower (passenger side) | B. Engine room dash panel (RH) | C. Behind the cluster lid C |
| D. On the combination meter | | |

Component Description

INFOID:0000000010576262

| Part | Description |
|----------|--|
| BCM | <ul style="list-style-type: none">• Detects 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). |

FRONT FOG LAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

| Part | Description |
|---|---|
| Combination switch (Lighting & turn signal switch) | Refer to BCS-11, "System Diagram" . |
| Combination meter (Front fog lamp indicator lamp) | Turns the front fog 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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EXL

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

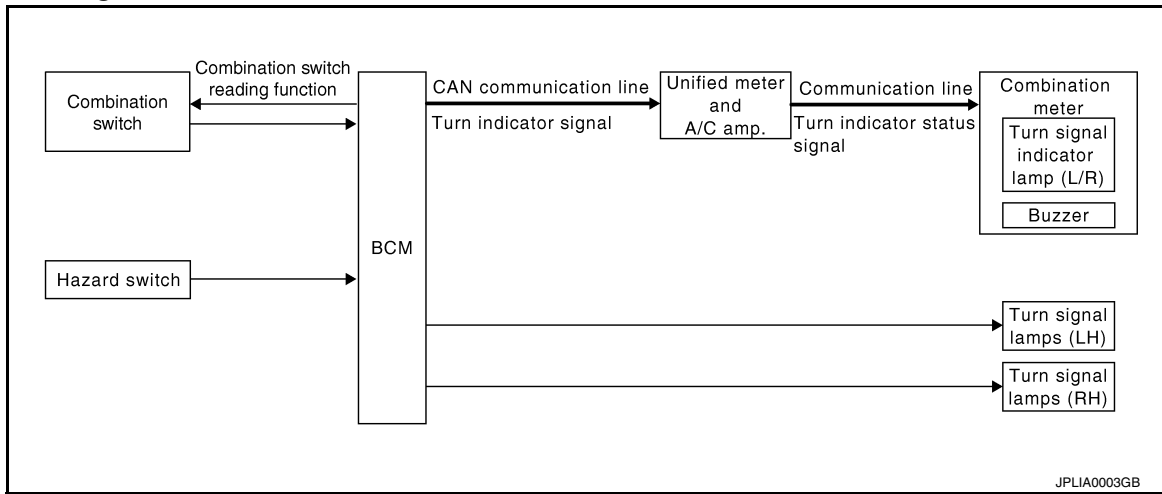
< SYSTEM DESCRIPTION >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

System Diagram

INFOID:0000000010576263



JPLIA0003GB

System Description

INFOID:0000000010576264

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 by the terminal current value.
- BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

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

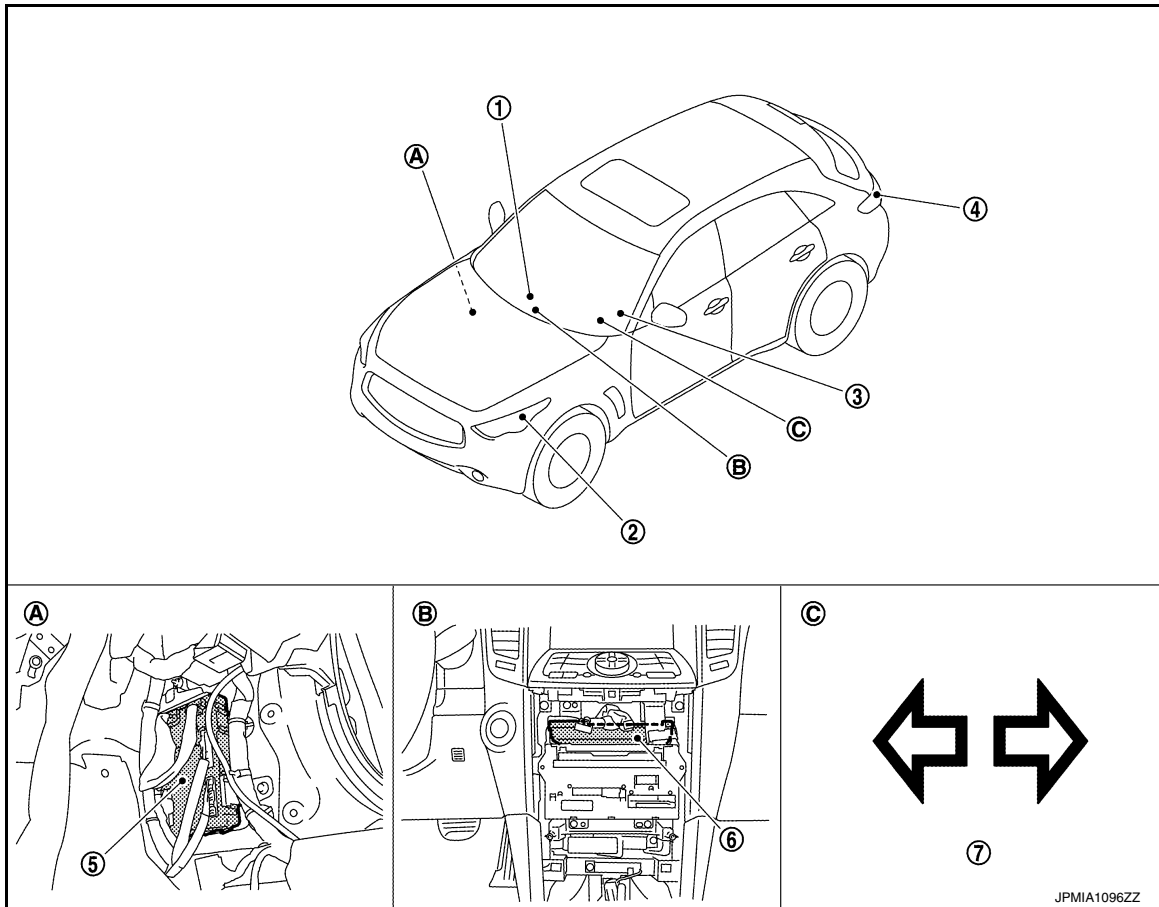
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

INFOID:0000000010576265



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

Component Description

INFOID:0000000010576266

| Part | Description |
|--|---|
| BCM | <ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges the blinks of the turn signal lamp and the hazard warning lamp from each switch status. The applicable turn signal lamp blinks. <p>Requests the turn signal indicator lamp blink to the combination meter (with CAN communication).</p> |
| Combination switch (Lighting & turn signal switch) | Refer to BCS-11, "System Diagram" . |
| Hazard switch (Multifunction switch) | Refer to EXL-87, "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 the unified meter and A/C amp.)]. |

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

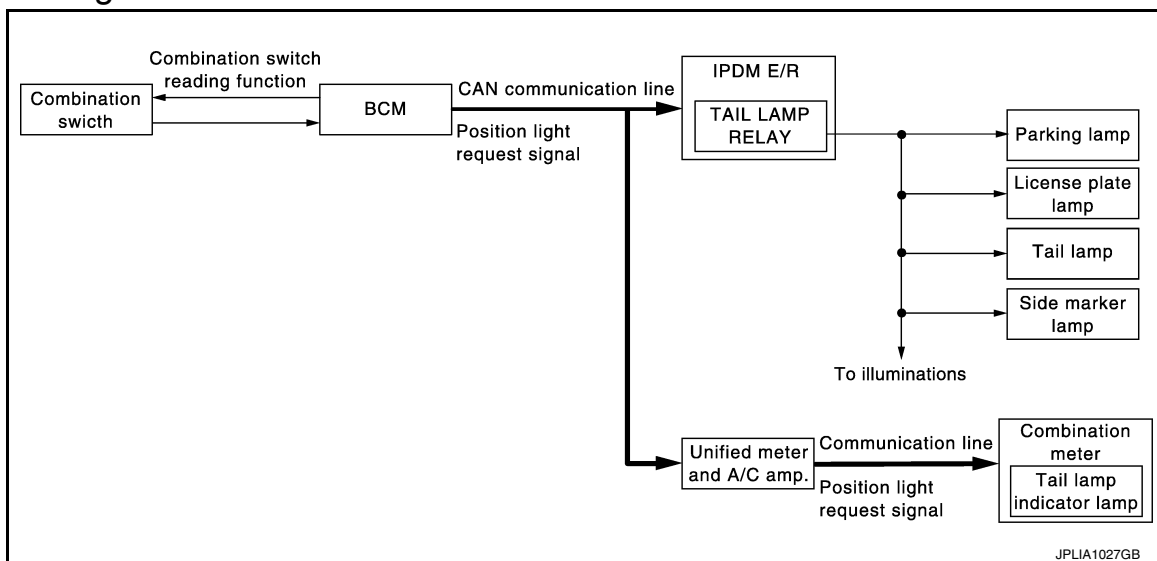
< SYSTEM DESCRIPTION >

[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

System Diagram

INFOID:0000000010576267



JPLIA1027GB

System Description

INFOID:0000000010576268

OUTLINE

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

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS OPERATION

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

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

- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment
- IPDM E/R turns the integrated tail lamp relay ON and turns the parking lamp, 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.

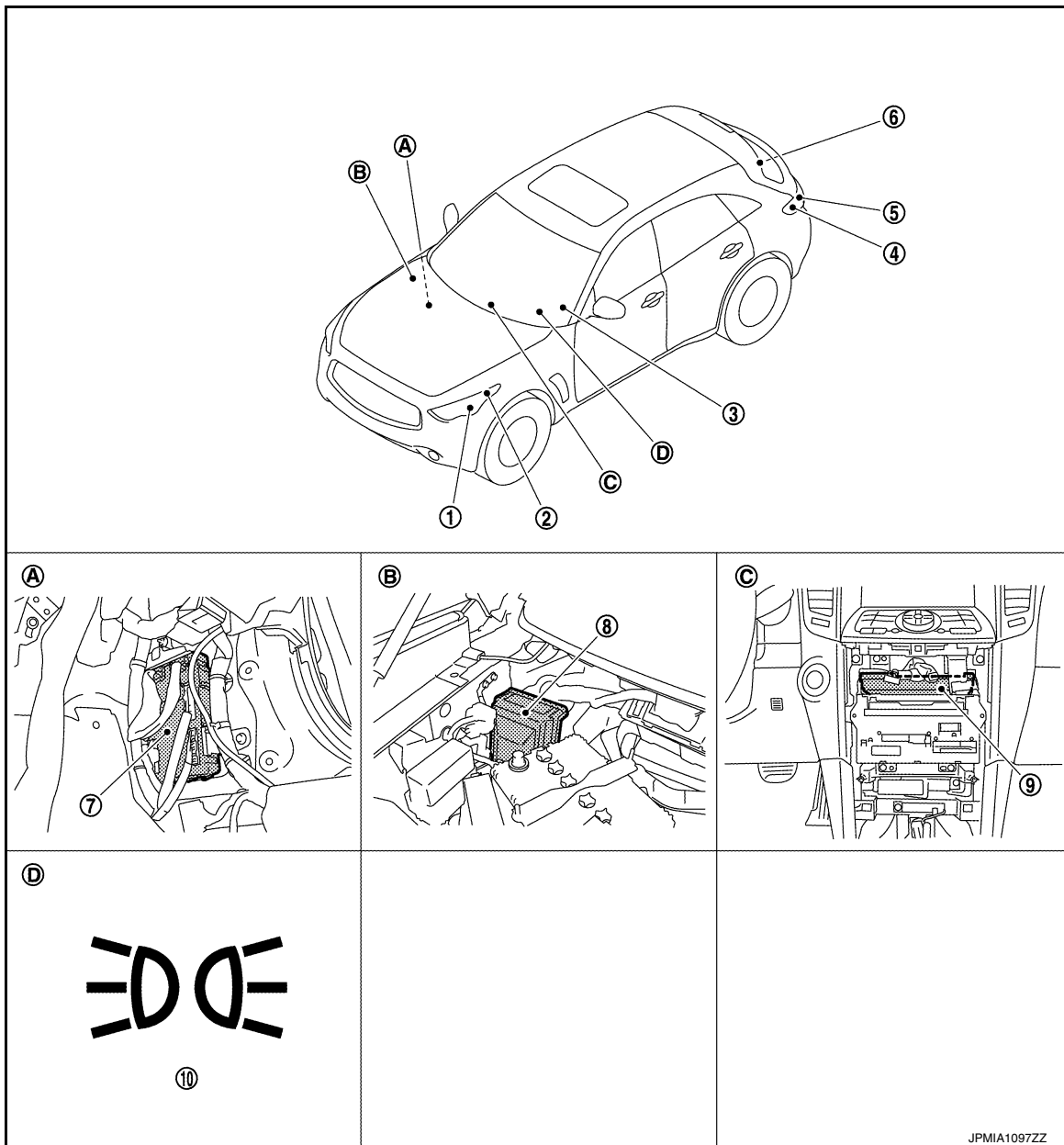
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

INFOID:000000010576269



- | | | |
|-------------------------------------|--------------------------------|-------------------------------|
| 1. Parking lamp | 2. Front side marker lamp | 3. Combination switch |
| 4. Rear side marker lamp | 5. Tail lamp | 6. License plate lamp |
| 7. BCM | 8. IPDM E/R | 9. Unified meter and A/C amp. |
| 10. Tail lamp indicator lamp | | |
| A. Dash side lower (passenger side) | B. Engine room dash panel (RH) | C. Behind the cluster lid C |
| D. On the combination meter | | |

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Description

INFOID:0000000010576270

| Part | Description |
|---|--|
| BCM | <ul style="list-style-type: none">• Detects each switch condition by the combination switch reading function.• Judges the ON/OFF status of the parking, 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-11, "System Diagram" . |
| Combination meter (Tail lamp indicator lamp) | Turn the tail lamp indicator lamp ON according to the request from BCM [with CAN communication (through the unified meter and A/C amp.)]. |

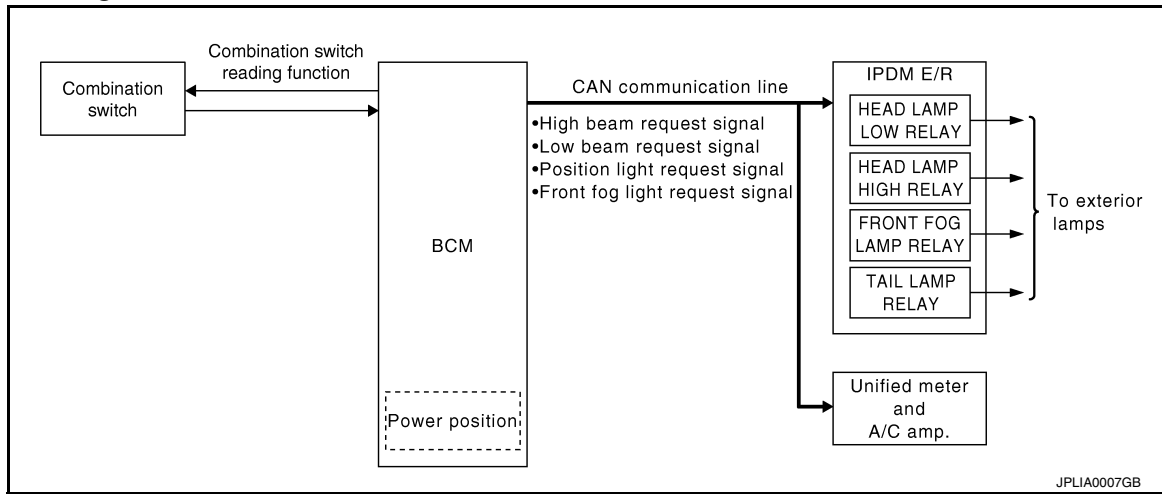
EXTERIOR LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

EXTERIOR LAMP BATTERY SAVER SYSTEM

System Diagram



System Description

INFOID:0000000010576272

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-13, "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 → 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.

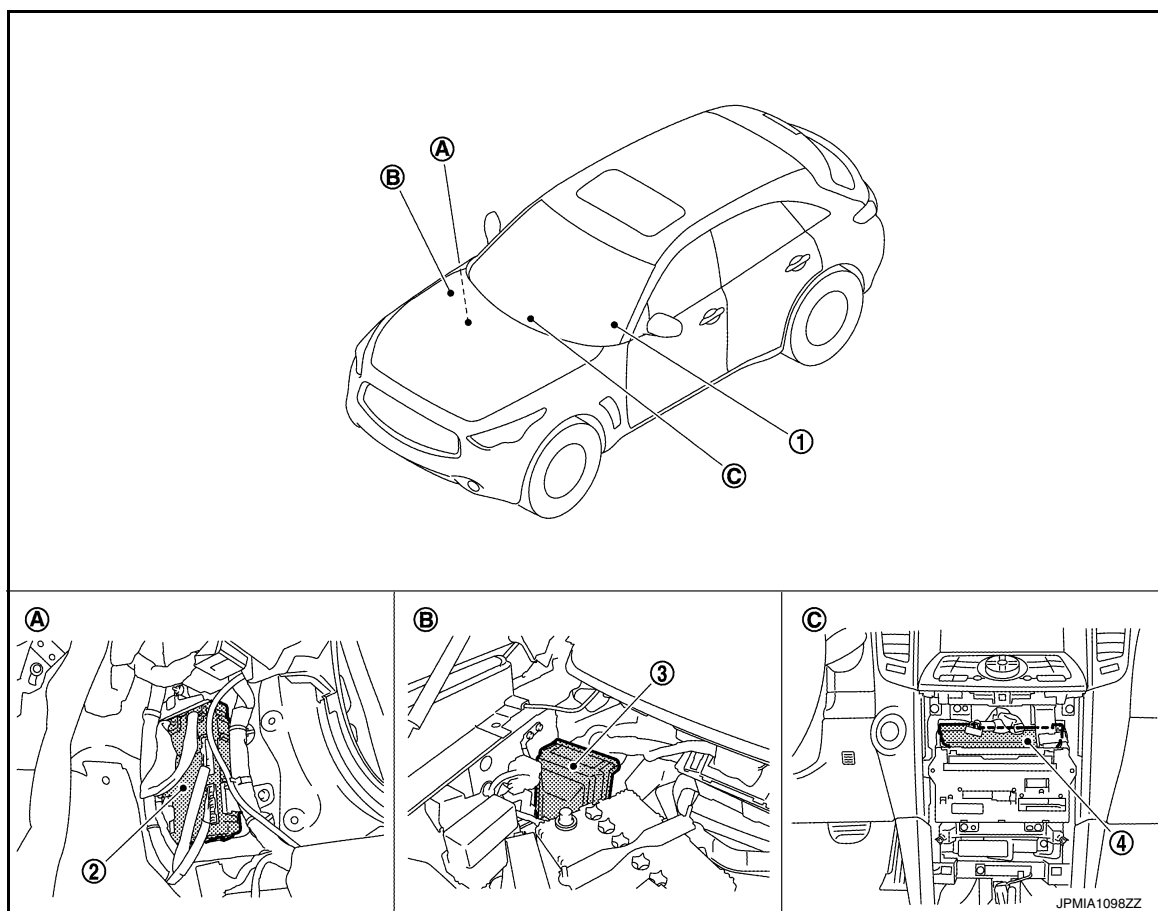
EXTERIOR LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

INFOID:0000000010576273



1. Combination switch

2. BCM

3. IPDM E/R

4. Unified meter and A/C amp.

A. Dash side lower (passenger side)

B. Engine room dash panel (RH)

C. Behind cluster lid C

Component Description

INFOID:0000000010576274

| Part | Description |
|---|---|
| BCM | <ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges the exterior lamp OFF according to the vehicle condition. Requests each relay OFF to IPDM E/R (with CAN communication). |
| IPDM E/R | Controls the integrated relay according to the request from BCM (with CAN communication). |
| Combination switch (Lighting & turn signal switch) | Refer to BCS-11, "System Diagram" . |

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[XENON TYPE]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011009262

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

| Diagnosis mode | Function Description |
|--------------------------|---|
| Work Support | Changes the setting for each system function. |
| Self Diagnostic Result | Displays the diagnosis results judged by BCM. |
| CAN Diag Support Monitor | Monitors the reception status of CAN communication viewed from BCM. |
| Data Monitor | The BCM input/output signals are displayed. |
| Active Test | The signals used to activate each device are forcibly supplied from BCM. |
| Ecu Identification | The BCM part number is displayed. |
| Configuration | <ul style="list-style-type: none"> 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 | Sub system selection item | Diagnosis mode | | |
|---|---------------------------|----------------|--------------|-------------|
| | | Work Support | Data Monitor | Active Test |
| Door lock | DOOR LOCK | × | × | × |
| Rear window defogger | REAR DEFOGGER | | × | × |
| Warning chime | BUZZER | | × | × |
| Interior room lamp timer | INT LAMP | × | × | × |
| Exterior lamp | HEAD LAMP | × | × | × |
| Wiper and washer | WIPER | × | × | × |
| Turn signal and hazard warning lamps | FLASHER | × | × | × |
| — | AIR CONDITONER* | | | |
| <ul style="list-style-type: none"> Intelligent Key system Engine 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 | TRUNK | | × | × |
| Vehicle security system | THEFT ALM | × | × | × |
| RAP system | RETAINED PWR | | × | |
| Signal buffer system | SIGNAL BUFFER | | × | × |

NOTE:

*: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)

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

DIAGNOSIS SYSTEM (BCM)

[XENON TYPE]

< SYSTEM DESCRIPTION >

| 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 | |
| Vehicle Condition | SLEEP>LOCK | Power position status of the moment a particular DTC is detected* | While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK"*) |
| | SLEEP>OFF | | While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".) |
| | LOCK>ACC | | While turning power supply position from "LOCK" to "ACC" |
| | ACC>ON | | While turning power supply position from "ACC" to "IGN" |
| | RUN>ACC | | While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.) |
| | 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 | | While turning power supply position from "OFF" to "LOCK"* |
| | 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 <ul style="list-style-type: none"> • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 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:0000000010576276

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[XENON TYPE]

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

*: Factory setting

DATA MONITOR

NOTE:

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

| Monitor item [Unit] | Description |
|--|--|
| PUSH SW [On/Off] | 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] | Each switch status that BCM judges from the combination switch reading function |
| TURN SIGNAL L [On/Off] | |
| TAIL LAMP SW [On/Off] | |
| HI BEAM SW [On/Off] | |
| HEAD LAMP SW1 [On/Off] | |
| HEAD LAMP SW2 [On/Off] | |
| PASSING SW [On/Off] | |
| AUTO LIGHT SW [On/Off] | |
| FR FOG SW [On/Off] | |
| | |

DIAGNOSIS SYSTEM (BCM)

[XENON TYPE]

< SYSTEM DESCRIPTION >

| 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] | NOTE: The item is indicated, but not monitored. |
| OPTICAL SENSOR [V] | The value of exterior brightness voltage input from the optical sensor |

ACTIVE TEST

| Test item | Operation | Description |
|----------------|-----------|--|
| TAIL LAMP | On | Transmits the position light request signal to IPDM E/R with CAN communication to turn the tail lamp ON. |
| | Off | Stops the position light request signal transmission. |
| HEAD LAMP | Hi | Transmits the high beam request signal with CAN communication to turn the headlamp (HI). |
| | 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: The item is indicated, but cannot be tested. |
| | Off | |
| CORNERING LAMP | RH | NOTE: The item is indicated, but cannot be tested. |
| | LH | |
| | Off | |
| ILL DIM SIGNAL | On | NOTE: The item is indicated, but cannot be tested. |
| | Off | |

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

INFOID:0000000010576277

WORK SUPPORT

| Service item | Setting item | Setting | |
|--------------------|--------------|------------------------|--|
| HAZARD ANSWER BACK | Lock/Unlk* | With locking/unlocking | 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 Only | With locking only | |
| | Off | Without the function | |

*: Factory setting

DATA MONITOR

NOTE:

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[XENON TYPE]

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

| Monitor item [Unit] | Description |
|---------------------------|--|
| REQ SW-DR [On/Off] | 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 switch condition that BCM judges from the combination switch reading function |
| TURN SIGNAL L [On/Off] | |
| HAZARD SW [On/Off] | The switch status input from the hazard 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 |
|-----------|-----------|--|
| FLASHER | Off | Stops the voltage to turn the turn signal lamps OFF. |
| | LH | Outputs the voltage to blink the left side turn signal lamps. |
| | RH | Outputs the voltage to blink the right side turn signal lamps. |

DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

INFOID:0000000011009263

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 marker 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 driver door switch 10 times. Then turn the ignition switch OFF.

CAUTION:

Close passenger door.

4. Turn the ignition switch ON within 10 seconds. After that the horn sounds once and the auto active test starts.
5. 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 ignition switch OFF.

CAUTION:

- If auto active test mode cannot be actuated, check door switch system. Refer to [DLK-107, "Component Function Check"](#).
- Do not start the engine.

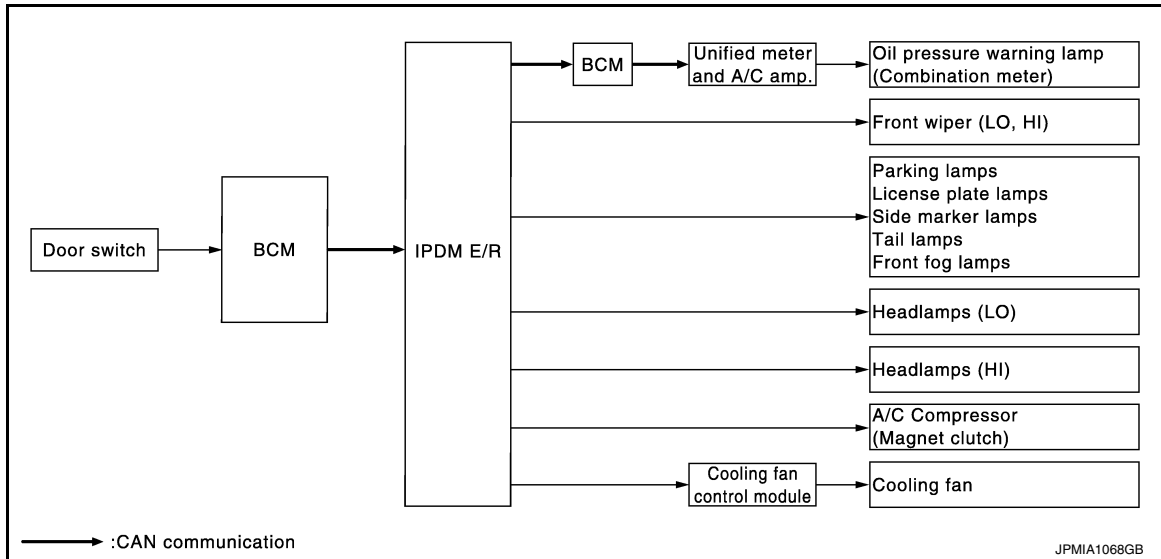
Inspection in Auto Active Test Mode

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

| Operation sequence | Inspection location | Operation |
|--------------------|--|--|
| A | Oil pressure warning lamp | Blinks continuously during operation of auto active test |
| 1 | Front wiper | LO for 5 seconds → HI for 5 seconds |
| 2 | <ul style="list-style-type: none"> • Parking lamps • License plate lamps • Side marker lamps • Tail lamps • Front fog lamps | 10 seconds |
| 3 | Headlamps | <ul style="list-style-type: none"> • LO 10 seconds • HI ON ⇔ OFF 5 times |
| 4 | A/C compressor (magnet clutch) | ON ⇔ OFF 5 times |
| 5* | Cooling fan | MID for 5 seconds → HI for 5 seconds |

*: Outputs duty ratio of 50% for 5 seconds → 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 <ul style="list-style-type: none"> • Parking lamps • License plate lamps • Side marker lamps • Tail lamps • Front fog lamps • Headlamp (HI, LO) • Front wiper | Perform auto active test. Does the applicable system operate? | YES BCM signal input circuit |
| | | NO <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Magnet clutch • Harness or connector between IPDM E/R and magnet clutch • IPDM E/R |
| Oil pressure warning lamp does not operate | Perform auto active test. Does the oil pressure warning lamp blink? | YES <ul style="list-style-type: none"> • Harness or connector between IPDM E/R and oil pressure switch • Oil pressure switch • IPDM E/R |
| | | NO <ul style="list-style-type: none"> • 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)

[XENON TYPE]

< SYSTEM DESCRIPTION >

| Symptom | Inspection contents | | Possible cause |
|------------------------------|--|-----|--|
| Cooling fan does not operate | Perform auto active test. Does the cooling fan operate? | YES | <ul style="list-style-type: none"> ECM signal input circuit CAN communication signal between ECM and IPDM E/R |
| | | NO | <ul style="list-style-type: none"> 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:0000000011009264

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-194. "DTC Index"](#).

DATA MONITOR

NOTE:

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

| Monitor Item [Unit] | MAIN SIG- NALS | Description |
|----------------------------------|-------------------|--|
| RAD FAN REQ [%] | × | Displays the value of the cooling fan speed signal received from ECM via CAN communication. |
| AC COMP REQ [Off/On] | × | Displays the status of the A/C compressor request signal received from ECM via CAN communication. |
| TAIL&CLR REQ [Off/On] | × | Displays the status of the position light request signal received from BCM via CAN communication. |
| HL LO REQ [Off/On] | × | Displays the status of the low beam request signal received from BCM via CAN communication. |
| HL HI REQ [Off/On] | × | Displays the status of the high beam request signal received from BCM via CAN communication. |
| FR FOG REQ [Off/On] | × | Displays the status of the front fog 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 stop position signal judged by IPDM E/R. |

DIAGNOSIS SYSTEM (IPDM E/R)

[XENON TYPE]

< SYSTEM DESCRIPTION >

| Monitor Item [Unit] | MAIN SIG- NALS | Description |
|--------------------------------------|-------------------|---|
| WIP PROT [Off/BLOCK] | × | Displays the status of the front wiper fail-safe operation judged by IPDM E/R. |
| IGN RLY1 -REQ [Off/On] | | Displays the status of the ignition switch ON signal received from BCM via CAN communication. |
| IGN RLY [Off/On] | × | Displays the status of the ignition relay judged by IPDM E/R. |
| PUSH SW [Off/On] | | Displays the status of the push-button ignition switch judged by IPDM E/R. |
| INTER/NP SW [Off/On] | | Displays the status of the shift position judged by IPDM E/R. |
| ST RLY CONT [Off/On] | | Displays the status of the starter relay status signal received from BCM via CAN communication. |
| IHBT RLY -REQ [Off/On] | | Displays the status of the starter control relay signal received from BCM via CAN communication. |
| ST/INHI RLY [Off/ ST /INHI/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] | | NOTE: The item is indicated, but not monitored. |
| S/L STATE [LOCK/UNLOCK/UNKWN] | | NOTE: The item is indicated, but not monitored. |
| DTRL REQ [Off] | | 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] | | 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] | | NOTE: The item is indicated, but not monitored. |

ACTIVE TEST

Test item

| Test item | Operation | Description |
|----------------|-----------|--|
| CORNERING LAMP | Off | NOTE: The item is indicated, but cannot be tested. |
| | LH | |
| | RH | |
| HORN | On | Operates horn relay 1 and horn relay 2 for 20 ms. |
| FRONT WIPER | Off | OFF |
| | 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 |
|------------------|-----------|---|
| MOTOR FAN | 1 | OFF |
| | 2 | Outputs 50% pulse duty signal (PWM signal) to the cooling fan control module. |
| | 3 | Outputs 80% pulse duty signal (PWM signal) to the cooling fan control module. |
| | 4 | Outputs 100% pulse duty signal (PWM signal) to the cooling fan control module. |
| HEAD LAMP WASHER | On | NOTE: The item is indicated, but cannot be tested. |
| EXTERNAL LAMPS | Off | OFF |
| | TAIL | Operates the tail lamp relay. |
| | Lo | Operates the headlamp low relay. |
| | Hi | Operates the headlamp low relay and ON/OFF the headlamp high relay at 1 second intervals. |
| | Fog | Operates the front fog lamp relay. |

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (AFS)

CONSULT Function (ADAPTIVE LIGHT)

INFOID:000000010576280

APPLICATION ITEM

| Diagnostic mode | Description |
|------------------------|--|
| ECU Identification | Allows confirmation of AFS 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. "ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION : Special Repair Requirement"](#).

DATA MONITOR

NOTE:

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

| Monitor item [Unit] | Description |
|--------------------------|--|
| STR ANGLE SIG [°] | 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* [°] | The head lamp swivel angle value judged by AFS control unit received from the swivel position sensor signal input from the swivel actuator |
| SWVL SEN LH* [°] | |
| SWVL ANGLE RH* [°] | The swivel angle command value to the swivel motor judged by AFS control unit |
| SWVL ANGLE LH * [°] | |

*: 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.

DIAGNOSIS SYSTEM (AFS)

< SYSTEM DESCRIPTION >

[XENON TYPE]

ACTIVE TEST

CAUTION:

Start the engine when using “ACTIVE TEST”.

| Test item | Operation Item | Description |
|---------------------|----------------|--|
| LOW BEAM TEST RIGHT | 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. |
| | 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. |
| LOW BEAM TEST LEFT | 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. |
| | 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. |
| | Peak | Changes the aiming motor drive signal to approximately 15% of the battery voltage. Moves the headlamp upward and downward. |

NOTE:

“Fast” operation speed is as three times fast as “Slow”.

DTC/CIRCUIT DIAGNOSIS**B2503, B2504 SWIVEL ACTUATOR****Description**

INFOID:0000000010576281

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:0000000010576282

DTC DETECTION LOGIC

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

| DTC detection condition | DTC erase condition | Possible cause |
|--|---------------------|---|
| <p>AFS control unit indicates an applicable DTC when detecting any of the following conditions continuously for 2 seconds or more.</p> <ul style="list-style-type: none"> • 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 | <p>Swivel position sensor</p> <ul style="list-style-type: none"> • Swivel position sensor • Harness and connector <p>AFS control unit</p> <p>Swivel motor</p> <ul style="list-style-type: none"> • Swivel motor • Harness and connector • AFS control unit |

*: 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.
4. Shift the selector lever to "N".
5. Steer to the right. (Rotate it once or more.)
6. Perform the self-diagnosis with CONSULT.

B2503, B2504 SWIVEL ACTUATOR

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

Is "B2503" detected?

- YES >> Refer to [EXL-46, "Diagnosis Procedure"](#).
NO >> Refer to [GI-47, "Intermittent Incident"](#).

4. DTC CONFIRMATION (B2504)

1. Steer to the straight-forward position.
2. Start the engine.
3. Turn the headlamp ON.
4. 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-47, "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:0000000010576283

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 | | | | Voltage (Approx.) |
|------------------|-----|----------|--------|----------------------|
| (+) | | | (-) | |
| AFS control unit | | | Ground | |
| Connector | | Terminal | | |
| RH | M16 | 9 | | |
| LH | | 29 | | |
| | | | | 0.25 - 4.75 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. Refer to [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.
3. Check continuity between the AFS control unit harness connector and the headlamp swivel actuator harness connector.

B2503, B2504 SWIVEL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

| AFS control unit | | | Headlamp swivel actuator | | Continuity |
|------------------|-----|----------|--------------------------|----------|------------|
| Connector | | Terminal | Connector | Terminal | |
| RH | M16 | 11 | E29 | 8 | Existed |
| | | 13 | | 7 | |
| | | 32 | | 3 | |
| | | 34 | | 4 | |
| LH | | 15 | E59 | 3 | |
| | | 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 control unit | | Ground | Continuity | |
|------------------|----------|--------|-------------|----|
| Connector | Terminal | | Not existed | |
| RH | M16 | | | 11 |
| | | | | 13 |
| | | | | 32 |
| | | | | 34 |
| LH | | | | 15 |
| | | | | 17 |
| | | | | 36 |
| | | | | 38 |

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 5.

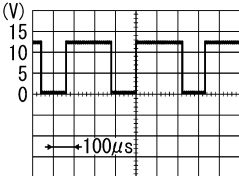
5.CHECK SWIVEL MOTOR CIRCUIT VOLTAGE OUTPUT

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.

B2503, B2504 SWIVEL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

| Terminals | | | Condition | Voltage (Approx.) |
|------------------|----------|------|--------------|--|
| (+) | | (-) | | |
| AFS control unit | | | Swivel motor | |
| Connector | Terminal | | | |
| RH | M16 | 11 | Active |  |
| | | 32 | | |
| | | 15 | | |
| LH | | 36 | | |
| | | Stop | 8 - 12 V | |
| | | | | 13 |
| 34 | | | | |
| RH | | | | 17 |
| | | 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 | | | | Voltage (Approx.) |
|------------------|-----|----------|--------|----------------------|
| (+) | | | (-) | |
| AFS control unit | | | | |
| Connector | | Terminal | Ground | 5 V |
| RH | M16 | 4 | | |
| LH | | 24 | | |

Is the measurement value normal?

YES >> GO TO 7.

NO >> GO TO 9.

7.CHECK SWIVEL POSITION SENSOR POWER SUPPLY CIRCUIT INPUT VOLTAGE

1. 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.

| Terminals | | | | Voltage (Approx.) |
|--------------------------|-----|----------|--------|----------------------|
| (+) | | | (-) | |
| Headlamp swivel actuator | | | Ground | |
| Connector | | Terminal | | |
| RH | E29 | 2 | | |
| LH | E59 | 2 | | |
| | | | | 5 V |

Is the measurement value normal?

YES >> GO TO 8.

NO >> Repair the harnesses or connectors.

8.CHECK SWIVEL POSITION SENSOR SIGNAL SHORT CIRCUIT

B2503, B2504 SWIVEL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

| AFS control unit | | Headlamp swivel actuator | | Continuity |
|------------------|----------|--------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| RH | M16 | E29 | 1 | Existed |
| LH | | E59 | 1 | |

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 | | | | Voltage (Approx.) |
|----------------------|-----|----------|--------|----------------------|
| (+) AFS control unit | | | (-) | |
| Connector | | Terminal | Ground | |
| RH | M16 | 2 | | |
| LH | | 27 | | |
| | | | | 0 V |

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.
2. Disconnect AFS control unit connector and the headlamp swivel actuator connector.
3. Check continuity between the AFS control unit harness connector and the headlamp swivel actuator harness connector.

| AFS control unit | | Headlamp swivel actuator | | Continuity |
|------------------|----------|--------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| RH | M16 | E29 | 6 | Existed |
| LH | | E59 | 6 | |

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

Component Inspection

INFOID:0000000010576284

1.CHECK SWIVEL MOTOR SINGLE PART

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

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

B2503, B2504 SWIVEL ACTUATOR

< 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]

B2514 HEIGHT SENSOR UNUSUAL [RR]

Description

INFOID:0000000010576285

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:0000000010576286

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. <ul style="list-style-type: none">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 <ul style="list-style-type: none">Height sensorHarness and connectorAFS 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 [EXL-207. "DTC Index"](#).

Is "B2514" detected?

YES >> Refer to [EXL-51. "Diagnosis Procedure"](#).

NO >> Refer to [GI-47. "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:0000000010576287

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 (Approx.) | |
|------------------|----------|-------|----------------------|--------|
| (+) | | (-) | | |
| AFS control unit | | | | Ground |
| Connector | Terminal | | | |
| 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.

B2514 HEIGHT SENSOR UNUSUAL [RR]

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

| Terminals | | | Voltage (Approx.) |
|------------------|----------|--------|----------------------|
| (+) | | (-) | |
| AFS control unit | | Ground | |
| Connector | Terminal | | |
| 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.
4. Check the voltage between the height sensor harness connector and the ground.

| Terminals | | | Voltage (Approx.) |
|---------------|----------|--------|----------------------|
| (+) | | (-) | |
| Height sensor | | Ground | |
| Connector | Terminal | | |
| 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.
3. 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 | |
| M16 | 28 | B32 | 2 | Existed |

Does continuity exist?

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

5. CHECK HEIGHT SENSOR SIGNAL SHORT CIRCUIT

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

| Height sensor | | Ground | Continuity |
|---------------|----------|--------|-------------|
| Connector | Terminal | | |
| 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 (Approx.) |
|------------------|----------|--------|----------------------|
| (+) | | (-) | |
| AFS control unit | | Ground | |
| Connector | Terminal | | |
| 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.
3. 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 | |
| M16 | 8 | B32 | 3 | Existed |

Does continuity exist?

YES >> Replace the height sensor.

NO >> Repair the harnesses or connectors.

Component Inspection

INFOID:0000000010576288

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.
4. 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.)] |
|---------------|-----------------------|------------------------------|---|
| HI SEN OTP RR | Sensor lever position | Contact with stopper | 0.9 V |
| | | Moving between two positions | Smooth movement |
| | | 90° from stopper | 4.5 V |

Is the output value normal?

YES >> Height sensor is normal.

NO >> Replace the height sensor.

B2516 SHIFT SIGNAL [P, R]

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

B2516 SHIFT SIGNAL [P, R]

Description

INFOID:0000000010576289

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

DTC Logic

INFOID:0000000010576290

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 | <ul style="list-style-type: none">• 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 the ignition ON.
2. Select the self-diagnosis with CONSULT.
3. Check the self-diagnosis result. Refer to [EXL-207, "DTC Index"](#).

Is "B2516" detected?

- YES >> Refer to [EXL-54, "Diagnosis Procedure"](#).
NO >> Refer to [GI-47, "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:0000000010576291

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-140, "Reference Value"](#).
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]

B2517 VEHICLE SPEED SIGNAL

Description

INFOID:0000000010576292

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

DTC Logic

INFOID:0000000010576293

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 | <ul style="list-style-type: none">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 the ignition ON.
2. Select the self-diagnosis with CONSULT.
3. Check the self-diagnosis result. Refer to [EXL-207, "DTC Index"](#).

Is "B2517" detected?

- YES >> Refer to [EXL-55, "Diagnosis Procedure"](#).
NO >> Refer to [GI-47, "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:0000000010576294

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-95, "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.

B2519 LEVELIZER CALIBRATION

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

B2519 LEVELIZER CALIBRATION

Description

INFOID:0000000010576295

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

DTC Logic

INFOID:0000000010576296

[B2519] Levelizer calibration

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

Diagnosis Procedure

INFOID:0000000010576297

1.LEVELIZER ADJUSTMENT

Perform the levelizer adjustment.

>> Refer to [EXL-8, "LEVELIZER ADJUSTMENT : Description"](#).

B2521 ECU CIRCUIT

Description

INFOID:0000000010576298

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

DTC Logic

INFOID:0000000010576299

DTC DETECTION LOGIC

[B2521] ECU circuit

| Error detection condition | DTC erase condition | Possible cause |
|--|---------------------|---|
| <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Swivel position sensor Harness and connector AFS control unit Height sensor <ul style="list-style-type: none"> Height sensor Harness and connector AFS control unit AFS control unit (RAM/ROM) <ul style="list-style-type: none"> 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 the ignition ON.
- Select the self-diagnosis with CONSULT.
- Check the self-diagnosis result. Refer to [EXL-207. "DTC Index"](#).

Is "B2521" detected?

YES >> Refer to [EXL-57. "Diagnosis Procedure"](#).

NO >> Refer to [GI-47. "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:0000000010576300

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 (Approx.) |
|------------------|----------|----------------------|
| (+) | (-) | |
| AFS control unit | | 5 V |
| Connector | Terminal | |
| M16 | 4 | |
| | 6 | |
| | 24 | |

Is the measurement value within the standard value?

YES >> GO TO 2.

Less than the standard value >>GO TO 3.

Higher than the standard value>>GO TO 4.

2.CHECK EACH SENSOR SIGNAL

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

| Terminals | | | Voltage (Approx.) |
|------------------|----------|---------------|----------------------|
| (+) | | (-) | |
| AFS control unit | | Ground | |
| Connector | Terminal | | |
| M16 | 9 | | |
| | 28 | | |
| | 29 | | |
| | | 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 5.

Higher than the standard value>>GO TO 6.

3.CHECK EACH SENSOR POWER SUPPLY SHORT CIRCUIT

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

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

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace AFS control unit.

4.CHECK EACH SENSOR POWER SUPPLY CIRCUIT

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

Is the measurement value normal?

YES >> Replace AFS control unit.

NO >> Repair the harnesses or connectors.

5.CHECK EACH SENSOR SIGNAL SHORT CIRCUIT

1. 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 control unit | | Ground | Continuity |
|------------------|----------|--------|-------------|
| Connector | Terminal | | |
| M16 | 9 | Ground | Not existed |
| | 28 | | |
| | 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 (Approx.) |
|------------------|----------|----------------------|
| (+) | (-) | |
| AFS control unit | | 0 V |
| Connector | Terminal | |
| M16 | 9 | |
| | 28 | |
| | 29 | |

Is the measurement value normal?

YES >> Replace AFS control unit.

NO >> Repair the harnesses or connectors.

A
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EXL

C0126 STEERING ANGLE SENSOR SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

C0126 STEERING ANGLE SENSOR SIGNAL

Description

INFOID:0000000010576301

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

DTC Logic

INFOID:0000000010576302

DTC DETECTION LOGIC

[C0126] Steering angle sensor signal

| DTC detection condition | DTC erase condition | Possible causes |
|---|-------------------------|--|
| In any of the following conditions <ul style="list-style-type: none">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 | <ul style="list-style-type: none">Steering angle sensorAFS 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.
3. Select the self-diagnosis with CONSULT.
4. Check the self-diagnosis result. Refer to [EXL-207, "DTC Index"](#).

Is "C0126" detected?

- YES >> Refer to [EXL-60, "Diagnosis Procedure"](#).
NO >> Refer to [GI-47, "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:0000000010576303

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 [BRC-120, "DTC 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]

C0428 STEERING ANGLE SENSOR CALIBRATION

Description

INFOID:0000000010576304

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

DTC Logic

INFOID:0000000010576305

[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:0000000010576306

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 [BRC-9, "ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION : Description"](#).

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000010576307

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-35. "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:0000000010576308

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:0000000010576309

1. PERFORM SELF DIAGNOSTIC

1. Turn the ignition switch ON and wait for 2 seconds or more.
2. Select the self-diagnosis with CONSULT.
3. Check the self-diagnosis result.

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to [LAN-25. "Trouble Diagnosis Flow Chart"](#).
 NO >> Refer to [GI-47. "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:0000000010576310

DTC DETECTION LOGIC

[U1000] CAN communication circuit

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

Diagnosis Procedure

INFOID:0000000010576311

1.REPLACE AFS CONTROL UNIT

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

>> Replace AFS control unit.

EXL

POWER SUPPLY AND GROUND CIRCUIT

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:0000000011009265

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 | L |
| | 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.
3. Check voltage between BCM harness connector and ground.

| Terminals | | Voltage (Approx.) |
|-----------|----------|-------------------------------|
| (+) | (-) | |
| BCM | | Ground Battery voltage |
| Connector | Terminal | |
| M118 | 1 | |
| M119 | 11 | |

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.

| BCM | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| 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

INFOID:0000000011009266

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 >

[XENON TYPE]

| Signal name | Fuses and fusible link No. |
|----------------------|----------------------------|
| Battery power supply | D |
| | 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 ground.

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

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

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

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

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

AFS CONTROL UNIT

AFS CONTROL UNIT : Diagnosis Procedure

INFOID:0000000010576314

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

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair the harness or connector.

3.CHECK GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Check continuity between the AFS control unit harness connectors and the ground.

| AFS control unit | | Ground | Continuity |
|------------------|----------|--------|------------|
| Connector | Terminal | | |
| M16 | 25 | | Existed |

Does continuity exist?

YES >> Repair the harness or connector.

NO >> Power supply and ground circuit are normal.

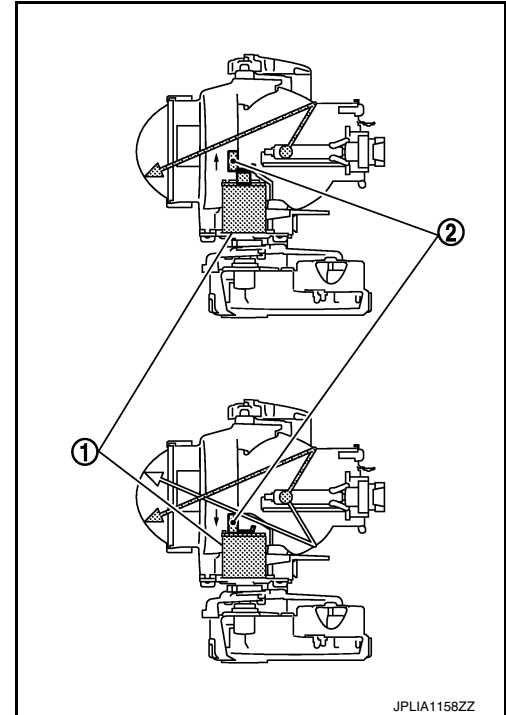
HEADLAMP (HI) CIRCUIT

Description

INFOID:000000010576317

The high beam solenoid drives the mobile valve shade. And the mobile valve shade switches the high beam and low beam of headlamp.

- When the headlamp high relay is turned ON, magnetic force is applied to the high beam solenoid (1) by a current. The mobile valve shade (2) is switched to the high beam position.
- When the headlamp high relay is turned OFF, the current stops. The mobile valve shade returns to the low beam position automatically.



Component Function Check

INFOID:000000010576318

1.CHECK HEADLAMP (HI) OPERATION

⊗ IPDM E/R AUTO ACTIVE TEST

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

Ⓟ CONSULT ACTIVE TEST

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

Hi : Headlamp switches to the high beam.

Off : Headlamp OFF

NOTE:

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

Does the headlamp switch to the high beam?

- YES >> Headlamp (HI) circuit is normal.
 NO >> Refer to [EXL-67. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000010576319

1.CHECK HEADLAMP (HI) OUTPUT VOLTAGE

Ⓟ 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.

HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

| Terminals | | | | Test item | Voltage (Approx.) |
|-----------|----|----------|--------|--------------------|----------------------|
| (+) | | (-) | | | |
| IPDM E/R | | | Ground | EXTERNAL LAMPS | |
| Connector | | Terminal | | | |
| RH | E8 | 89 | | Hi | Battery voltage |
| | | | | | Off |
| LH | E8 | 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.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

| IPDM E/R | | Front combination lamp | | Continuity |
|-----------|----------|------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| RH | E8 | E28 | 1 | Existed |
| LH | | E58 | 1 | |

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 FRONT COMBINATION 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 | | Ground | Continuity |
|-----------|----------|--------|-------------|
| Connector | Terminal | | |
| RH | E8 | 89 | Not existed |
| LH | | 90 | |

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.)

HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

5.CHECK HEADLAMP (HI) GROUND OPEN CIRCUIT

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

| Front combination lamp | | | Ground | Continuity |
|------------------------|-----|----------|--------|------------|
| Connector | | Terminal | | |
| RH | E28 | 3 | | Existed |
| LH | E58 | 3 | | |

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

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HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP (LO) CIRCUIT

Description

INFOID:0000000010576320

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-72, "Description"](#).

Component Function Check

INFOID:0000000010576321

1.CHECK HEADLAMP (LO) OPERATION

⊗IPDM E/R AUTO ACTIVE TEST

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

ⓅCONSULT ACTIVE TEST

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

Low : Headlamp ON

Off : Headlamp OFF

Is the headlamp turned ON?

YES >> Headlamp (LO) is normal.

NO >> Refer to [EXL-70, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000010576322

1.CHECK HEADLAMP (LO) OUTPUT VOLTAGE

ⓅCONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the headlamp 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 | Voltage (Approx.) |
|-----------|----|----------|--------|----------------|-------------------|
| (+) | | | (-) | | |
| IPDM E/R | | | Ground | EXTERNAL LAMPS | |
| Connector | | Terminal | | | |
| RH | E8 | 83 | | Low | Battery voltage |
| | | | | Off | 0 V |
| LH | | 84 | | Low | Battery voltage |
| | | | | Off | 0 V |

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.
3. Check continuity between the IPDM E/R harness connector and the headlamp harness connector.

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

| IPDM E/R | | Headlamp | | Continuity |
|-----------|----------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| RH | E8 | E25 | 1 | Existed |
| LH | | | | |

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 | | Ground | Continuity |
|-----------|----------|--------|-------------|
| Connector | Terminal | | |
| RH | E8 | 83 | Not existed |
| LH | | | |

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

Check continuity between the headlamp harness connector and the ground.

| Headlamp | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| RH | E25 | 2 | Existed |
| LH | E55 | | |

Does continuity exist?

YES >> Perform the xenon headlamp diagnosis. Refer to [EXL-72, "Description"](#).

NO >> Repair the harnesses or connectors.

XENON HEADLAMP

Description

INFOID:0000000010576323

OUTLINE

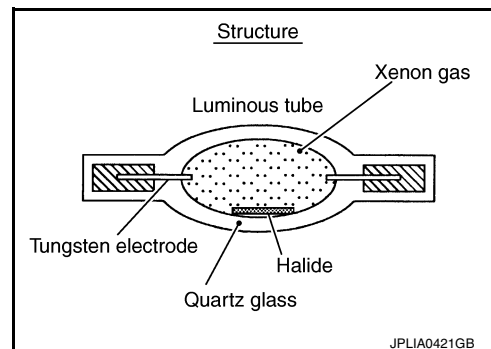
- The lamp light source is by the arch discharge by applying high voltage into the xenon gas-filled bulb instead of the halogen bulb filament.
- Sight becomes more natural and brighter because the amount of light are gained adequately and the color of light is sunshine-like white.
- The xenon bulb drops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

ILLUMINATION PRINCIPLE

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

NOTE:

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



PRECAUTIONS FOR TROUBLE DIAGNOSIS

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

WARNING:

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

CAUTION:

- **Never perform HID control unit circuit diagnosis with a circuit tester or an equivalent.**
- **Temporarily install the headlamp on the vehicle. Connect the battery to the connector (vehicle side) when checking ON/OFF status.**
- **Disconnect the battery negative terminal before disconnecting the lamp socket connector or the harness connector.**
- **Check for fusing of the fusible link(s), open around connector, short, disconnection if the symptom is caused by electric error.**

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

INFOID:0000000010576324

1.CHECK XENON BULB

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

Is the headlamp turned ON?

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

2.CHECK HID CONTROL UNIT

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

Is the headlamp turned ON?

XENON HEADLAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

YES >> Replace HID control unit.

NO >> GO TO 3.

3.CHECK XENON HEADLAMP HOUSING ASSEMBLY

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

Is the headlamp turned ON?

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

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

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HEADLAMP LEVELIZER CIRCUIT

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

HEADLAMP LEVELIZER CIRCUIT

Description

INFOID:0000000010576325

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:0000000010576326

1.CHECK AIMING MOTOR OPERATION

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 (Reference value) | 10 m (32.8 ft)-forward light axis change refer- ence quantity (Approx.) |
|----------------|---------------------------------------|--|
| LEVELIZER TEST | | |
| Origin | 0° | — |
| Peak | 2.5° | 450 mm (17.9 in) |

Is the operation normal?

- YES >> Headlamp levelizer circuit is normal.
NO >> Refer to [EXL-74. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000010576327

1.CHECK AIMING MOTOR DRIVE SIGNAL OUTPUT

CONSULT ACTIVE TEST

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

| Terminals | | | | Test item | Voltage (Approx.) |
|------------------|-----|----------|--|----------------|----------------------|
| (+) | | (-) | | | |
| AFS control unit | | | | LEVELIZER TEST | |
| Connector | | Terminal | | | |
| RH | M16 | 19 | | Origin | 8.8 V |
| | | | | Peak | 1.9 V |
| LH | | 40 | | Origin | 8.8 V |
| | | | | 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

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

HEADLAMP LEVELIZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

| AFS control unit | | Aiming motor | | Continuity |
|------------------|----------|--------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| RH | M16 | E26 | 2 | Existed |
| LH | | E56 | 2 | |

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses and connectors.

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 the AFS control unit harness connector and the ground.

| AFS control unit | | | Ground | Continuity |
|------------------|-----|----------|--------|-------------|
| Connector | | Terminal | | |
| RH | M16 | 19 | | Not existed |
| LH | | 40 | | |

Does continuity exist?

YES >> Repair the harness and connectors.

NO >> Replace AFS control unit.

FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP CIRCUIT

Component Function Check

INFOID:0000000010576328

1.CHECK FRONT FOG LAMP OPERATION

⊗ IPDM E/R AUTO ACTIVE TEST

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

Ⓟ CONSULT 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-76, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000010576329

1.CHECK FRONT FOG LAMP FUSE

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

| Unit | Location | Fuse No. | Capacity |
|----------------|----------|----------|-----------|
| Front fog lamp | IPDM E/R | #58 | 10 A/15A* |

*: TYPE 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 | | | Ground | Continuity |
|-----------|----|----------|--------|-------------|
| Connector | | Terminal | | |
| RH | E8 | 86 | | Not existed |
| LH | | 87 | | |

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

Ⓟ CONSULT ACTIVE TEST

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

FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

| Terminals | | | Test item | Voltage (Approx.) |
|-----------|----|----------|-------------------|----------------------|
| (+) | | (-) | | |
| IPDM E/R | | | EXTERNAL LAMPS | Battery voltage |
| Connector | | Terminal | | |
| RH | E8 | 86 | Fog | Battery voltage |
| LH | | 87 | Off | 0 V |
| | | | 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.
- Check continuity between the IPDM E/R harness connector and the front fog lamp harness connector.

| IPDM E/R | | | Front fog lamp | | Continuity |
|-----------|----|----------|----------------|----------|------------|
| Connector | | Terminal | Connector | Terminal | |
| RH | E8 | 86 | E34 | 1 | Existed |
| LH | | 87 | E64 | 1 | |

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 lamp | | | Ground | Continuity |
|----------------|-----|----------|--------|------------|
| Connector | | Terminal | | |
| RH | E34 | 2 | | Existed |
| LH | E64 | 2 | | |

Does continuity exist?

YES >> Replace the front fog lamp.

NO >> Repair the harnesses or connectors.

PARKING LAMP CIRCUIT

Component Function Check

INFOID:0000000010576330

1.CHECK PARKING LAMP OPERATION

⊗ IPDM E/R AUTO ACTIVE TEST

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

Ⓜ 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-78, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000010576331

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.

TYPE A

| IPDM E/R | | Ground | Continuity |
|-----------|----------|--------|-------------|
| Connector | Terminal | | |
| RH | 91 | | Not existed |
| LH | 92 | | |

TYPE B

| IPDM E/R | | Ground | Continuity |
|-----------|----------|--------|-------------|
| Connector | Terminal | | |
| E9 | 91 | | 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 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.

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

4.CHECK PARKING LAMP OUTPUT VOLTAGE

CONSULT ACTIVE TEST

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

TYPE A

| Terminals | | | | Test item | Voltage (Approx.) |
|-----------|----|----------|--------|-------------------|----------------------|
| (+) | | | (-) | | |
| IPDM E/R | | | Ground | EXTERNAL LAMPS | |
| Connector | | Terminal | | | |
| RH | E9 | 91 | | TAIL | Battery voltage |
| | | | | Off | 0 V |
| LH | | 92 | | TAIL | Battery voltage |
| | | | Off | 0 V | |

TYPE B

| Terminals | | | Test item | Voltage (Approx.) |
|-----------|----------|-----|----------------|-------------------|
| (+) | | (-) | | |
| IPDM E/R | | | EXTERNAL LAMPS | Battery voltage |
| Connector | Terminal | | | |
| E9 | 91 | | TAIL | 0 V |
| | | | 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.

TYPE A

| IPDM E/R | | | Front combination lamp | | Continuity |
|-----------|----------|----|------------------------|----------|------------|
| Connector | Terminal | | Connector | Terminal | |
| RH | E9 | 91 | E28 | 4 | Existed |
| LH | | 92 | E58 | 4 | |

TYPE B

| IPDM E/R | | | Front combination lamp | | Continuity |
|-----------|----------|----|------------------------|----------|------------|
| Connector | Terminal | | Connector | Terminal | |
| RH | E9 | 91 | E28 | 4 | Existed |
| LH | | | E58 | 4 | |

Does continuity exist?

- YES >> GO TO 6.
NO >> Repair the harnesses or connectors.

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

6. CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

| Front combination lamp | | | Ground | Continuity |
|------------------------|-----|----------|--------|------------|
| Connector | | Terminal | | |
| RH | E28 | 3 | | Existed |
| LH | E58 | 3 | | |

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL LAMP CIRCUIT

Description

INFOID:0000000010576332

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:0000000010576333

1.CHECK TURN SIGNAL LAMP

Ⓐ 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-81, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000010576334

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

Ⓑ CONSULT ACTIVE TEST

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

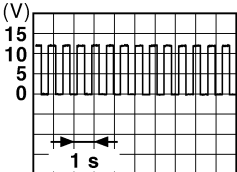
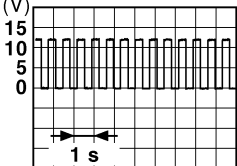
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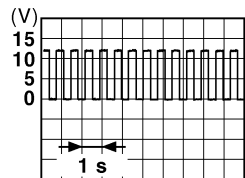
TURN SIGNAL LAMP CIRCUIT

[XENON TYPE]

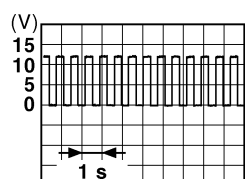
< DTC/CIRCUIT DIAGNOSIS >

Front

| Terminals | | | Test item | Voltage (Approx.) | |
|-----------|------|----------|-----------|---|---|
| (+) | | (-) | | | |
| BCM | | | FLASHER | | |
| Connector | | Terminal | | | |
| RH | M119 | 17 | Ground |  PKID0926E | |
| | | | | Off | 0 V |
| LH | | | | 18 |  PKID0926E |
| | | | | | |

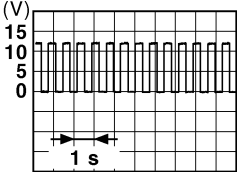
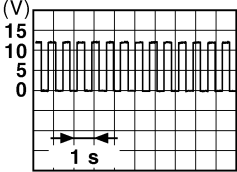


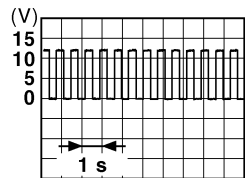
PKID0926E



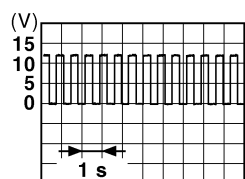
PKID0926E

Rear

| Terminals | | | Test item | Voltage (Approx.) | |
|-----------|------|----------|-----------|---|---|
| (+) | | (-) | | | |
| BCM | | | FLASHER | | |
| Connector | | Terminal | | | |
| RH | M120 | 20 | Ground |  PKID0926E | |
| | | | | Off | 0 V |
| LH | | | | 25 |  PKID0926E |
| | | | | | Off |



PKID0926E



PKID0926E

Is the measurement value normal?

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.

TURN SIGNAL LAMP CIRCUIT

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

Front turn signal lamp

| BCM | | Front combination lamp | | Continuity |
|-----------|----------|------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| RH | M119 | 17 | E28 | Existed |
| LH | | 18 | E58 | |

Rear turn signal lamp

| BCM | | Rear combination lamp | | Continuity |
|-----------|----------|-----------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| RH | M120 | 20 | B232 | Existed |
| LH | | 25 | B60 | |

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.

Front

| BCM | | Ground | Continuity |
|-----------|----------|--------|-------------|
| Connector | Terminal | | |
| RH | M119 | 17 | Not existed |
| LH | | 18 | |

Rear

| BCM | | Ground | Continuity |
|-----------|----------|--------|-------------|
| Connector | Terminal | | |
| RH | M120 | 20 | Not existed |
| LH | | 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.

Front turn signal lamp

| Front combination lamp | | Ground | Continuity |
|------------------------|----------|--------|------------|
| Connector | Terminal | | |
| RH | E28 | 3 | Existed |
| LH | E58 | 3 | |

Rear turn signal lamp

| Rear combination lamp | | Ground | Continuity |
|-----------------------|----------|--------|------------|
| Connector | Terminal | | |
| RH | B232 | 4 | Existed |
| LH | B60 | 4 | |

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:0000000010576335

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

Component Function Check

INFOID:0000000010576336

1.CHECK OPTICAL SENSOR SIGNAL BY CONSULT

CONSULT DATA MONITOR

1. Turn the ignition switch ON.
2. 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 SENSOR | Optical sensor | When illuminating | 3.1 V or more * |
| | | When shutting off light | 0.6 V or less |

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

Is the item status normal?

- YES >> Optical sensor is normal.
 NO >> Refer to [EXL-84, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000010576337

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.

| Terminals | | | Voltage (Approx.) |
|----------------|----------|--------|----------------------|
| (+) | | (-) | |
| Optical sensor | | Ground | |
| Connector | Terminal | | |
| 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.

| Terminals | | | Voltage (Approx.) |
|----------------|----------|--------|----------------------|
| (+) | | (-) | |
| Optical sensor | | Ground | |
| Connector | Terminal | | |
| M94 | 3 | | 0 V |

Is the measurement value normal?

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

3.CHECK OPTICAL SENSOR SIGNAL OUTPUT

OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

| Terminals | | Condition | Voltage (Approx.) |
|----------------|----------|----------------|-------------------------|
| (+) | (-) | | |
| Optical sensor | | Optical sensor | |
| Connector | Terminal | | |
| M94 | 2 | Ground | When illuminating |
| | | | When shutting off light |

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

Is the measurement value normal?

YES >> GO TO 7.

NO >> Replace the optical sensor.

4.CHECK OPTICAL SENSOR OPEN CIRCUIT

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

| Optical sensor | | BCM | | Continuity |
|----------------|----------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| 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 | | Ground | Continuity |
|----------------|----------|--------|-------------|
| Connector | Terminal | | |
| M94 | 1 | | Not existed |

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

6.CHECK OPTICAL SENSOR GROUND OPEN CIRCUIT

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

| Optical sensor | | BCM | | Continuity |
|----------------|----------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| M94 | 3 | M123 | 137 | Existed |

Does continuity exist?

YES >> Replace BCM.

NO >> Repair the harnesses or connectors.

7.CHECK OPTICAL SENSOR SIGNAL OPEN CIRCUIT

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

OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

| Optical sensor | | BCM | | Continuity |
|----------------|----------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| 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 | | Ground | Continuity |
|----------------|----------|--------|-------------|
| Connector | Terminal | | |
| M94 | 2 | | Not existed |

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HAZARD SWITCH

Description

INFOID:0000000010576338

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

Component Function Check

INFOID:0000000010576339

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 | On |
| | | While not pressing the switch | Off |

Is the item status normal?

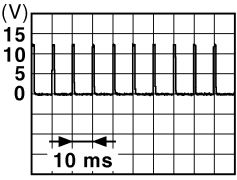
- YES >> Hazard switch circuit is normal.
NO >> Refer to [EXL-87, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000010576340

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.) |
|-----------|----------|-------------------------------|--|
| (+) | (-) | | |
| BCM | | Hazard switch | |
| Connector | Terminal | While pressing the switch | 0 V |
| | | While not pressing the switch |  |
| M122 | 110 | Ground | |

JPMIA0012GB

Is the measurement value normal?

- YES >> Replace BCM.
NO >> GO TO 2.

2.CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

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

| Multifunction switch | | BCM | | Continuity |
|----------------------|----------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| M72 | 16 | M122 | 110 | Existed |

Does continuity exist?

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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.

| Multifunction switch | | Ground | Continuity |
|----------------------|----------|--------|-------------|
| Connector | Terminal | | |
| 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.

| Multifunction switch | | Ground | Continuity |
|----------------------|----------|--------|------------|
| Connector | Terminal | | |
| 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:0000000010576341

1.CHECK TAIL LAMP OPERATION

☒ IPDM E/R AUTO ACTIVE TEST

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

☐ CONSULT 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.

TAIL : Tail lamp ON

Off : Tail lamp OFF

Is the tail lamp turned ON?

YES >> Tail lamp circuit is normal.

NO >> Refer to [EXL-89, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000010576342

1.CHECK TAIL LAMP FUSE

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

| Unit | Location | Fuse No. | Capacity |
|--|----------|----------|----------|
| <ul style="list-style-type: none">• Tail lamp• Rear side marker lamp• License plate lamp | IPDM E/R | #53 | 10 A |

Is the fuse fusing?

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

NO >> GO TO 2.

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

| Terminals | | Test item | Voltage (Approx.) |
|-----------|----------|----------------|-------------------|
| (+) | (-) | | |
| IPDM E/R | | EXTERNAL LAMPS | Battery voltage |
| Connector | Terminal | | |
| E5 | 7 | TAIL | 0 V |
| | | Off | |

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.

TAIL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

| IPDM E/R | | | Rear combination lamp | | Continuity |
|-----------|----|----------|-----------------------|----------|------------|
| Connector | | Terminal | Connector | Terminal | |
| RH | E5 | 7 | B232 | 1 | Existed |
| LH | | | B60 | 1 | |

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 combination lamp | | | Ground | Continuity |
|-----------------------|------|----------|--------|------------|
| Connector | | Terminal | | |
| RH | B232 | 4 | | 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

INFOID:0000000010576343

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-10, "Diagnosis Description"](#).
2. Check that the license plate lamp is turned ON.

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-91, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000010576344

1.CHECK LICENSE PLATE LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

2.CHECK LICENSE PLATE LAMP OPEN CIRCUIT

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

| IPDM E/R | | License plate lamp | | Continuity |
|-----------|----------|--------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| RH | E5 | D117 | 1 | Existed |
| LH | | | 1 | |

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 lamp | | | Ground | Continuity |
|--------------------|----------|---|--------|------------|
| Connector | Terminal | | | |
| RH | D117 | 2 | | Existed |
| LH | D112 | 2 | | |

Does continuity exist?

YES >> Replace the license plate lamp.

NO >> Repair the harnesses or connectors.

HEADLAMP SYSTEM

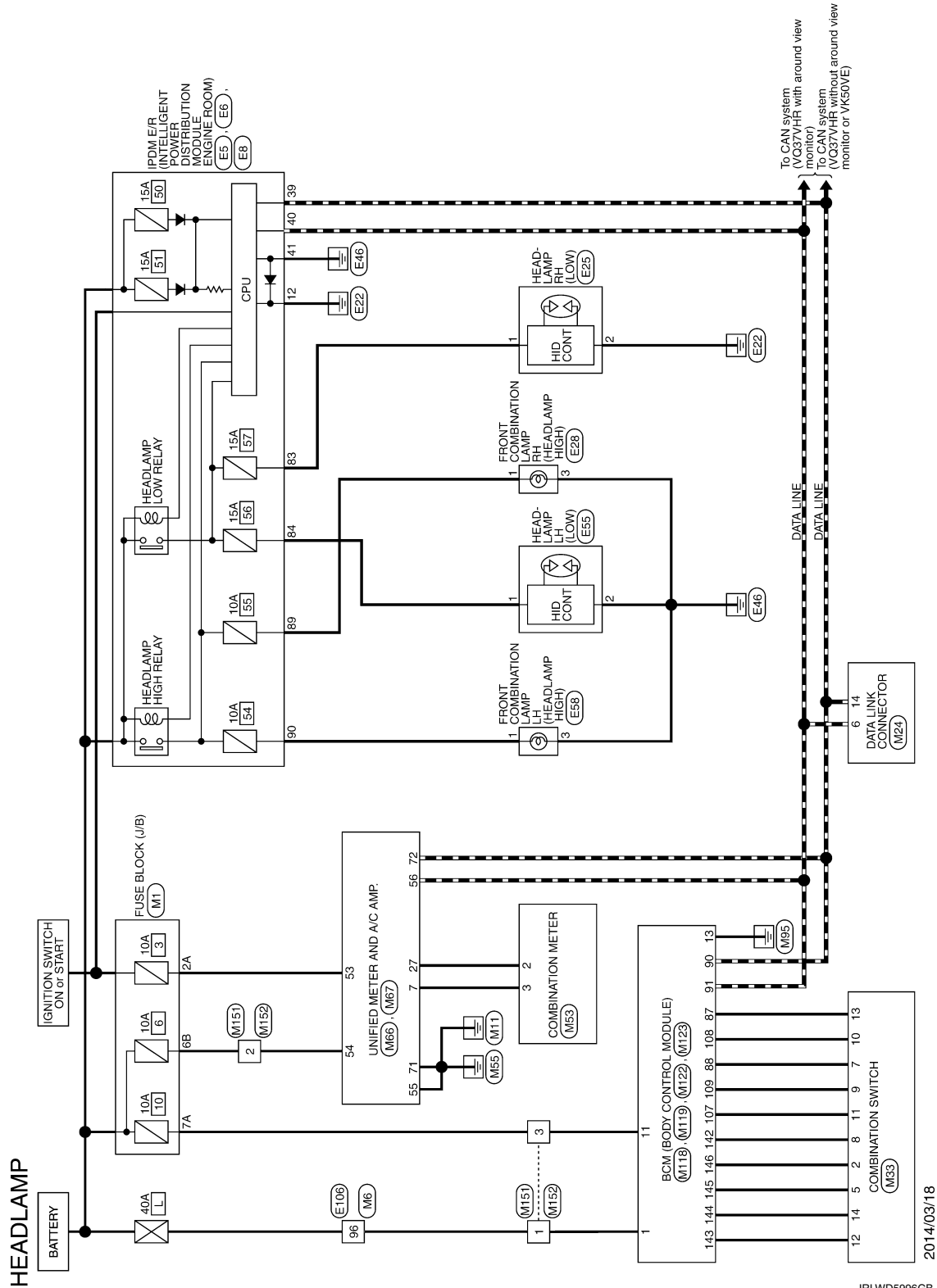
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP SYSTEM

Wiring Diagram - HEADLAMP -

INFOID:0000000010576345



HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

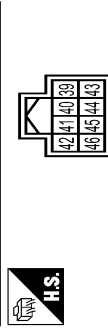
HEADLAMP

| | |
|----------------|--|
| Connector No. | E5 |
| Connector Name | IPOMER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | TH80FW-CS12-M4-1V |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 4 | V | - |
| 5 | L | - |
| 7 | R | - |
| 10 | SB | - |
| 12 | B | - |
| 13 | Y | - |
| 16 | LG | - |
| 19 | W | - |
| 25 | G | - |
| 26 | R | - |
| 27 | Y | - |
| 28 | BG | - |
| 30 | GR | - |
| 36 | G | - |

| | |
|----------------|--|
| Connector No. | E6 |
| Connector Name | IPOMER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | TH80FW-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 39 | P | - |
| 40 | L | - |
| 41 | B | - |
| 42 | Y | - |
| 43 | SB | - |

| | | |
|----|----|---|
| 44 | W | - |
| 45 | G | - |
| 46 | BR | - |

| | |
|----------------|--|
| Connector No. | E8 |
| Connector Name | IPOMER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | NS08FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 83 | R | - |
| 84 | P | - |
| 86 | W | - |
| 88 | G | - |
| 89 | BR | - |
| 90 | Y | - |

| | |
|----------------|-------------|
| Connector No. | E25 |
| Connector Name | HEADLAMP RH |
| Connector Type | E02FGY-RS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | B | - |

| | |
|----------------|---------------------------|
| Connector No. | E28 |
| Connector Name | FRONT COMBINATION LAMP RH |
| Connector Type | RS04FB-PR |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | BR | - |
| 2 | V | - |
| 3 | B | - |
| 4 | P | - |

| | |
|----------------|-------------|
| Connector No. | E55 |
| Connector Name | HEADLAMP LH |
| Connector Type | E02FGY-RS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | - |
| 2 | B | - |

| | |
|----------------|---------------------------|
| Connector No. | E58 |
| Connector Name | FRONT COMBINATION LAMP LH |
| Connector Type | RS04FB-PR |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | Y | - |
| 2 | G | - |
| 3 | B | - |
| 4 | BG | - |

| | |
|----------------|-----------------|
| Connector No. | E106 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | BG | - |
| 3 | SB | - |
| 4 | LG | - |
| 5 | Y | - |
| 6 | W | - |
| 7 | G | - |
| 8 | V | - |
| 9 | R | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |

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HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP

| | | |
|----|--------|-----------------|
| 16 | SB | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | W | - [With ICC] |
| 20 | Y | - [Without ICC] |
| 21 | BR | - |
| 22 | R | - [With ICC] |
| 22 | V | - [Without ICC] |
| 23 | G | - |
| 24 | L | - [With ICC] |
| 24 | P | - [Without ICC] |
| 25 | L | - [Without ICC] |
| 25 | Y | - [With ICC] |
| 26 | SHIELD | - |
| 28 | G | - |
| 29 | LG | - |
| 30 | BG | - |
| 32 | W | - |
| 32 | Y | - |
| 33 | Y | - |
| 34 | BG | - |
| 37 | Y | - |
| 38 | GR | - |
| 39 | LG | - |
| 41 | LG | - |
| 42 | V | - |
| 43 | R | - |
| 44 | G | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | SB | - |
| 50 | BR | - |
| 51 | B | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | R | - |
| 55 | SB | - |
| 59 | P | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | LG | - |
| 64 | L | - |
| 65 | BG | - |
| 69 | L | - |
| 70 | SHIELD | - |
| 71 | G | - |
| 72 | G | - |

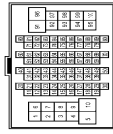
| | | |
|-----|--------|---|
| 73 | R | - |
| 74 | BR | - |
| 76 | L | - |
| 77 | W | - |
| 78 | Y | - |
| 80 | SB | - |
| 81 | L | - |
| 82 | W | - |
| 83 | LG | - |
| 84 | GR | - |
| 85 | G | - |
| 86 | P | - |
| 87 | W | - |
| 88 | BG | - |
| 89 | LG | - |
| 90 | BR | - |
| 91 | GR | - |
| 92 | BR | - |
| 93 | SB | - |
| 95 | Y | - |
| 96 | W | - |
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|------------------|
| Connector No. | M1 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS06FTW-M2 |



| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color Of Wire | Signal Name [Specification] |
| 1A | BG | - |
| 2A | G | - |
| 3A | L | - |
| 4A | R | - |
| 5A | V | - |
| 6A | Y | - |
| 7A | R | - |
| 8A | L | - |

| | |
|----------------|-----------------|
| Connector No. | M6 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH06MW-CS16-TM4 |



| | | |
|--------------|---------------|------------------------------|
| Terminal No. | Color Of Wire | Signal Name [Specification] |
| 1 | G | - |
| 2 | BG | - |
| 3 | LG | - [Without Auto aircon seat] |
| 3 | SB | - [With Auto aircon seat] |
| 4 | LG | - |
| 5 | GR | - |
| 6 | W | - |
| 7 | G | - |
| 8 | W | - |
| 9 | P | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | BR | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | GR | - [Without ICC] |
| 20 | W | - [With ICC] |
| 21 | BR | - [Without ICC] |
| 21 | R | - [With ICC] |
| 22 | L | - [Without ICC] |
| 22 | R | - [With ICC] |
| 23 | G | - |
| 24 | L | - [With ICC] |
| 24 | P | - [Without ICC] |
| 25 | W | - [Without ICC] |
| 25 | Y | - [With ICC] |
| 26 | SHIELD | - |
| 28 | GR | - |
| 29 | V | - |
| 30 | BG | - |
| 32 | W | - |

| | | |
|----|--------|---|
| 33 | Y | - |
| 34 | L | - |
| 37 | G | - |
| 38 | R | - |
| 39 | G | - |
| 41 | L | - |
| 42 | W | - |
| 43 | R | - |
| 44 | LG | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | BG | - |
| 50 | LG | - |
| 51 | SB | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | BR | - |
| 55 | SB | - |
| 59 | SB | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | R | - |
| 64 | L | - |
| 65 | BG | - |
| 69 | V | - |
| 70 | SHIELD | - |
| 71 | BG | - |
| 72 | GR | - |
| 73 | W | - |
| 74 | SB | - |
| 76 | V | - |
| 77 | V | - |
| 78 | Y | - |
| 80 | BG | - |
| 81 | L | - |
| 82 | W | - |
| 83 | Y | - |
| 84 | L | - |
| 85 | P | - |
| 86 | BR | - |
| 87 | P | - |
| 88 | V | - |
| 89 | G | - |
| 90 | P | - |
| 91 | R | - |
| 92 | R | - |
| 93 | GR | - |

HEADLAMP SYSTEM

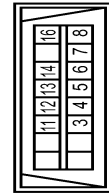
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP

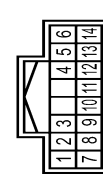
| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 95 | G | - | - |
| 96 | W | - | - |
| 97 | W | - | - |
| 98 | SHELD | - | - |
| 100 | Y | - | - |

| Connector No. | M24 |
|----------------|---------------------|
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |

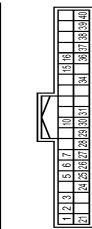


| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 3 | LG | - | - |
| 4 | B | - | - |
| 5 | B | - | - |
| 6 | L | - | - |
| 7 | GR | - | - |
| 8 | G | - | - |
| 11 | SB | - | - |
| 12 | P | - | - |
| 13 | L | - | - |
| 14 | P | - | - |
| 16 | BG | - | - |

| Connector No. | M33 |
|----------------|--------------------|
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |



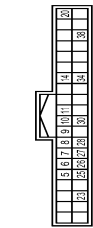
| Connector No. | M53 |
|----------------|-------------------|
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|--|
| 1 | BG | - | BATTERY POWER SUPPLY |
| 2 | LG | - | COMMUNICATION SIGNAL (METER->AMP) |
| 3 | GR | - | COMMUNICATION SIGNAL (AMP->METER) |
| 5 | B | - | GROUND |
| 6 | W | - | ALTERNATOR SIGNAL |
| 7 | P | - | AIR BAG SIGNAL |
| 10 | G | - | SECURITY INDICATOR SIGNAL |
| 15 | B | - | GROUND |
| 16 | B | - | METER CONTROL SWITCH GROUND |
| 21 | R | - | IGNITION SIGNAL |
| 24 | BR | - | COMMUNICATION SIGNAL (LCD->AMP) |
| 25 | Y | - | COMMUNICATION SIGNAL (AMP->LCD) |
| 26 | R | - | VEHICLE SPEED SIGNAL (8-PULSE) |
| 27 | V | - | PARKING BRAKE SWITCH SIGNAL |
| 28 | W | - | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 29 | SB | - | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 30 | G | - | PASSENGER SEAT BELT WARNING SIGNAL |
| 31 | L | - | WASHER LEVEL SWITCH SIGNAL |

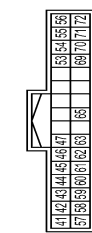
| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|--|
| 34 | B | - | ILLUMINATION CONTROL SIGNAL |
| 36 | LG | - | SELECT SWITCH SIGNAL |
| 37 | SB | - | ENTER SWITCH SIGNAL |
| 38 | L | - | TRIP AB RESET SWITCH SIGNAL |
| 39 | P | - | ILLUMINATION CONTROL SWITCH SIGNAL (-) |
| 40 | BG | - | ILLUMINATION CONTROL SWITCH SIGNAL (+) |

| Connector No. | M66 |
|----------------|----------------------------|
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH40FW-NH |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|--|
| 5 | L | - | MANUAL MODE SHIFT UP SIGNAL |
| 6 | BG | - | PADDLE SHIFTER UP SIGNAL |
| 7 | GR | - | COMMUNICATION SIGNAL (AMP->METER) |
| 8 | L | - | VEHICLE SPEED SIGNAL (2-PULSE) |
| 9 | SB | - | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 10 | W | - | MANUAL MODE SIGNAL |
| 11 | G | - | NON-MANUAL MODE SIGNAL |
| 14 | BR | - | COMMUNICATION SIGNAL (LCD->AMP) |
| 20 | L | - | ION SENSOR SIGNAL |
| 23 | Y | - | AT SNOW SWITCH SIGNAL |
| 25 | V | - | MANUAL MODE SHIFT DOWN SIGNAL |
| 26 | G | - | PADDLE SHIFTER DOWN SIGNAL |
| 27 | LG | - | COMMUNICATION SIGNAL (METER->AMP) |
| 28 | R | - | VEHICLE SPEED SIGNAL (8-PULSE) |
| 30 | V | - | PARKING BRAKE SWITCH SIGNAL |
| 34 | Y | - | COMMUNICATION SIGNAL (AMP->LCD) |
| 38 | L | - | BLOWER MOTOR CONTROL SIGNAL |

| Connector No. | M67 |
|----------------|----------------------------|
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH32FW-NH |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|---------------------------------|
| 41 | V | - | ACC POWER SUPPLY |
| 42 | Y | - | FUEL LEVEL SENSOR SIGNAL |
| 43 | R | - | INTAKE SENSOR SIGNAL |
| 44 | LG | - | IN-VEHICLE SENSOR SIGNAL |
| 45 | P | - | AMBIENT SENSOR SIGNAL |
| 46 | BG | - | SUNLOAD SENSOR SIGNAL |
| 47 | V | - | GAS SENSOR SIGNAL |
| 53 | G | - | IGNITION POWER SUPPLY |
| 54 | BG | - | BATTERY POWER SUPPLY |
| 55 | B | - | GROUND |
| 56 | L | - | CANH |
| 57 | W | - | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 58 | B | - | FUEL LEVEL SENSOR GROUND |
| 59 | GR | - | INTAKE SENSOR GROUND |
| 60 | L | - | IN-VEHICLE SENSOR GROUND |
| 61 | BR | - | AMBIENT SENSOR GROUND |
| 62 | SB | - | SUNLOAD SENSOR GROUND |
| 63 | R | - | ION MODE SIGNAL |
| 65 | BG | - | ECV SIGNAL |
| 69 | L | - | A/C LAN SIGNAL |
| 70 | R | - | EACH DOOR MOTOR POWER SUPPLY |
| 71 | B | - | GROUND |
| 72 | P | - | CAN-L |

HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

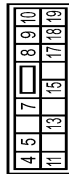
HEADLAMP

| | |
|----------------|---------------------------|
| Connector No. | M118 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | M03FW-LC |



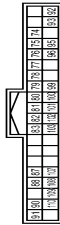
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------|
| 1 | W | BAT (F/L) |
| 2 | Y | POWER WINDOW POWER SUPPLY (BAT) |
| 3 | BG | POWER WINDOW POWER SUPPLY (PAP) |

| | |
|----------------|---------------------------|
| Connector No. | M119 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | M03FW-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-------------------------------------|
| 4 | P | INT ROOM LAMP PWR SUPPLY (BAT SAVE) |
| 5 | V | PASSENGER DOOR UNLOCK OUTPUT |
| 7 | Y | STEP LAMP OUTPUT |
| 8 | V | ALL DOOR, FUEL LID LOCK OUTPUT |
| 9 | G | DRIVER DOOR, FUEL LID UNLOCK OUTPUT |
| 10 | BR | REAR DOOR UNLOCK OUTPUT |
| 11 | R | BAT (FUSE) |
| 13 | B | GROUND |
| 15 | Y | ACC IND |
| 17 | W | TURN SIGNAL RH (FRONT) |
| 18 | BG | TURN SIGNAL LH (FRONT) |
| 19 | SB | ROOM LAMP TIMER |

| | |
|----------------|---------------------------|
| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-------------------------------------|
| 74 | SB | PASSENGER DOOR ANT- |
| 75 | BR | PASSENGER DOOR ANT+ |
| 76 | V | DRIVER DOOR ANT- |
| 77 | LG | DRIVER DOOR ANT+ |
| 78 | V | ROOM ANT1 |
| 79 | BR | ROOM ANT1+ |
| 80 | GR | NATS ANT AMP- |
| 81 | W | NATS ANT AMP+ |
| 82 | P | IGN RELAY (F/B) CONT |
| 83 | GR | KEYLESS ENTRY RECEIVER SIGNAL |
| 87 | BR | COMBI SW INPUT 5 |
| 88 | V | COMBI SW INPUT 3 |
| 90 | P | CANL |
| 91 | L | CANH |
| 92 | LG | KEY SLOT ILL |
| 93 | V | ON IND |
| 95 | BG | ACC RELAY CONT |
| 96 | GR | ANT SHIFT SELECTOR POWER SUPPLY |
| 99 | R | SHIFT P |
| 100 | G | PASSENGER DOOR REQUEST SW |
| 101 | SB | DRIVER DOOR REQUEST SW |
| 102 | BG | BLOWER FAN MOTOR RELAY CONT |
| 103 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 107 | LG | COMBI SW INPUT 1 |
| 108 | R | COMBI SW INPUT 4 |
| 109 | Y | COMBI SW INPUT 2 |
| 110 | G | HAZARD SW |

| | |
|----------------|---------------------------|
| Connector No. | M123 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FC-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|----------------------------------|
| 112 | GR | RAIN SENSOR SERIAL LINK |
| 113 | P | OPTICAL SENSOR |
| 116 | BR | STOP LAMP SW 1 |
| 118 | P | STOP LAMP SW 2 |
| 119 | SB | DR DOOR UNLOCK SENSOR |
| 121 | BR | KEY SLOT SW |
| 123 | W | IGN P/B |
| 124 | LG | PASSENGER DOOR SW |
| 132 | BG | POWER WINDOW SW COMM |
| 134 | GR | LOCK IND |
| 137 | B | RECEIVER/SENSOR GND |
| 138 | Y | SENSOR POWER SUPPLY |
| 140 | R | SHIFT NP |
| 141 | G | SECURITY INDICATOR OUTPUT |
| 142 | BG | COMBI SW OUTPUT 5 |
| 143 | P | COMBI SW OUTPUT 1 |
| 144 | G | COMBI SW OUTPUT 2 |
| 145 | L | COMBI SW OUTPUT 3 |
| 146 | SB | COMBI SW OUTPUT 4 |
| 150 | GR | DRIVER DOOR SW |
| 151 | G | REAR WINDOW DEFROGGER RELAY CONT |

| | |
|----------------|--------------|
| Connector No. | M151 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M03FW-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | Y | - |
| 3 | R | - |

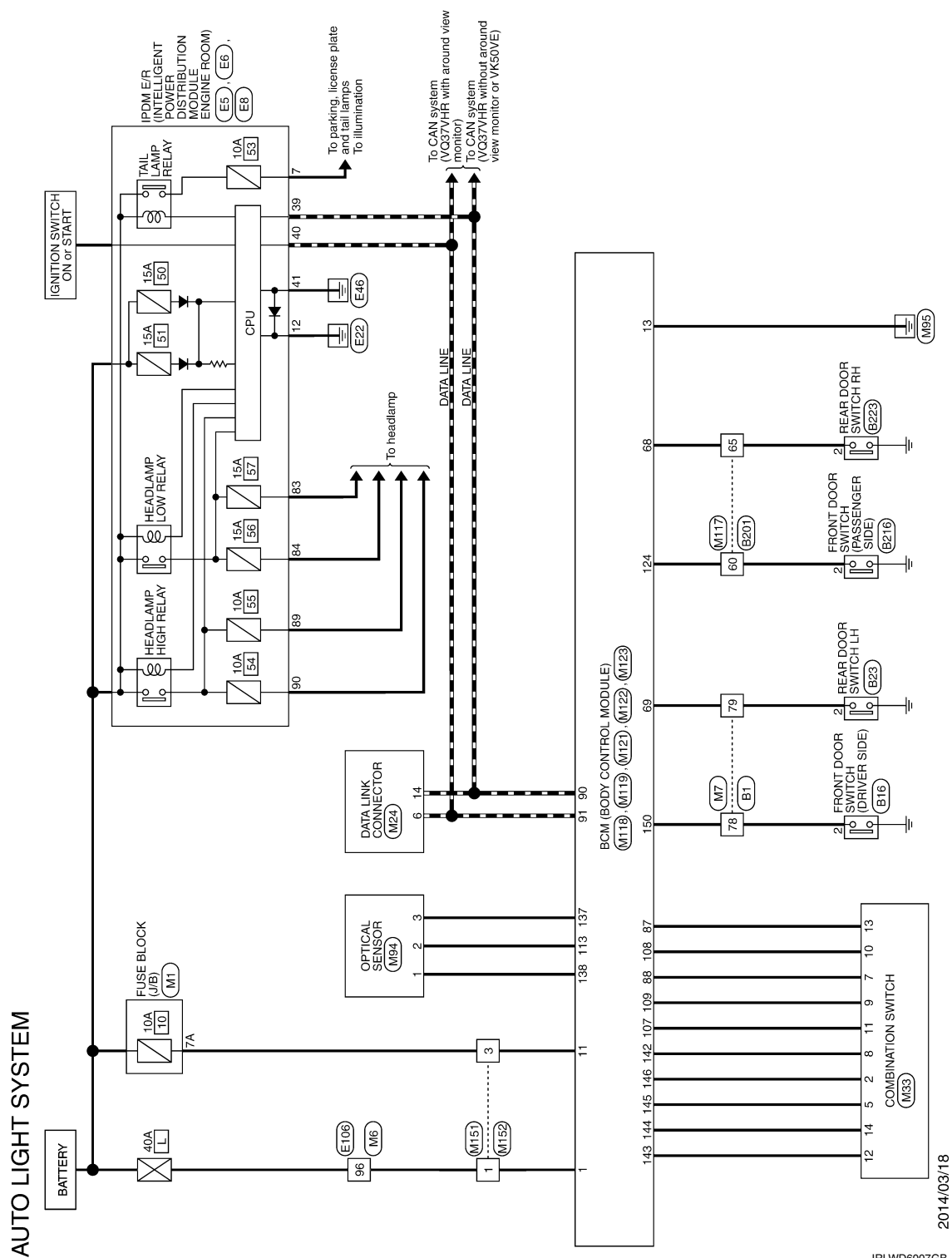
| | |
|----------------|--------------|
| Connector No. | M152 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M03MW-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | Y | - |
| 3 | R | - |

Wiring Diagram - AUTO LIGHT SYSTEM -

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JRLWD6007GB

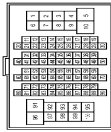
AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

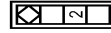
AUTO LIGHT SYSTEM

| | |
|----------------|-----------------|
| Connector No. | B1 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |



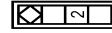
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | L | - |
| 3 | W | - |
| 4 | G | - |
| 5 | P | - |
| 6 | B | - |
| 7 | SB | - |
| 8 | GR | - |
| 9 | SB | - |
| 10 | B | - |
| 11 | G | - |
| 12 | R | - |
| 13 | W | - |
| 14 | SHIELD | - |
| 15 | L | - |
| 16 | P | - |
| 17 | SB | - |
| 18 | GR | - |
| 19 | SB | - |
| 20 | B | - |
| 21 | V | - |
| 22 | P | - |
| 23 | BR | - |
| 24 | GR | - |
| 25 | B | - |
| 26 | W | - |
| 27 | SB | - |
| 28 | B | - |
| 29 | SB | - |
| 30 | GR | - |
| 31 | SB | - |
| 32 | GR | - |
| 33 | SB | - |
| 34 | L | - |
| 35 | P | - |
| 36 | L | - |
| 37 | P | - |
| 38 | L | - |
| 39 | P | - |
| 40 | LG | - |
| 41 | V | - |
| 42 | Y | - |
| 43 | B | - |
| 44 | BR | - |
| 45 | G | - |
| 46 | SHIELD | - |
| 47 | B | - |
| 48 | P | - |
| 49 | R | - |
| 50 | G | - |
| 51 | W | - |
| 52 | SHIELD | - |
| 53 | BR | - |
| 54 | Y | - |
| 55 | SHIELD | - |

| | |
|----------------|---------------------------------|
| Connector No. | B16 |
| Connector Name | FRONT DOOR SWITCH (DRIVER SIDE) |
| Connector Type | A03FW |



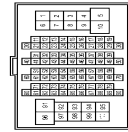
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | GR | - |
| 2 | GR | - |

| | |
|----------------|---------------------|
| Connector No. | B23 |
| Connector Name | REAR DOOR SWITCH LH |
| Connector Type | A03FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | W | - |

| | |
|----------------|-----------------|
| Connector No. | B201 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | R | - |
| 3 | BR | - |
| 4 | SB | - |
| 5 | B | - |
| 6 | GR | - |
| 7 | W | - |
| 8 | G | - |
| 9 | SHIELD | - |
| 10 | L | - |
| 11 | P | - |
| 12 | GR | - |
| 13 | SB | - |
| 14 | L | - |
| 15 | P | - |
| 16 | L | - |
| 17 | P | - |
| 18 | LG | - |
| 19 | V | - |
| 20 | Y | - |
| 21 | SHIELD | - |
| 22 | W | - |
| 23 | GR | - |
| 24 | SB | - |
| 25 | L | - |
| 26 | P | - |
| 27 | L | - |
| 28 | P | - |
| 29 | LG | - |
| 30 | V | - |
| 31 | Y | - |
| 32 | B | - |
| 33 | BR | - |
| 34 | G | - |
| 35 | SHIELD | - |
| 36 | B | - |
| 37 | W | - |
| 38 | SHIELD | - |
| 39 | W | - |
| 40 | R | - |
| 41 | G | - |
| 42 | SHIELD | - |
| 43 | B | - |
| 44 | P | - |
| 45 | R | - |
| 46 | G | - |
| 47 | SHIELD | - |
| 48 | B | - |
| 49 | L | - |
| 50 | P | - |
| 51 | R | - |
| 52 | G | - |
| 53 | SHIELD | - |
| 54 | W | - |
| 55 | SHIELD | - |
| 56 | R | - |
| 57 | G | - |

AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AUTO LIGHT SYSTEM

| | | |
|----|----|---|
| 54 | L | - |
| 55 | SB | - |
| 60 | GR | - |
| 61 | LG | - |
| 62 | SB | - |
| 63 | P | - |
| 64 | BR | - |
| 65 | BG | - |
| 66 | Y | - |
| 67 | W | - |
| 69 | G | - |
| 71 | SB | - |
| 72 | V | - |
| 73 | LG | - |
| 74 | W | - |
| 75 | BR | - |
| 76 | V | - |
| 77 | LG | - |
| 80 | BG | - |
| 82 | P | - |
| 83 | Y | - |
| 84 | R | - |
| 85 | SB | - |
| 86 | GR | - |
| 87 | L | - |
| 91 | V | - |
| 92 | W | - |
| 93 | R | - |
| 94 | LG | - |
| 95 | GR | - |
| 96 | W | - |
| 97 | G | - |
| 98 | BG | - |
| 99 | L | - |

| | |
|----------------|------------------------------------|
| Connector No. | B216 |
| Connector Name | FRONT DOOR SWITCH (PASSENGER SIDE) |
| Connector Type | A03FW |



| | |
|-----------------------------|----|
| Terminal No. | 2 |
| Color | GR |
| Wire | - |
| Signal Name [Specification] | - |

| | |
|----------------|---------------------|
| Connector No. | B223 |
| Connector Name | REAR DOOR SWITCH RH |
| Connector Type | A03FW |



| | |
|-----------------------------|----|
| Terminal No. | 2 |
| Color | BG |
| Wire | - |
| Signal Name [Specification] | - |

| | |
|----------------|---|
| Connector No. | E5 |
| Connector Name | POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | TH20FW-CS12-M4-1V |



| Terminal No. | Color Of Wire | Signal Name (Specification) |
|--------------|---------------|-----------------------------|
| 4 | V | - |
| 5 | L | - |
| 7 | R | - |
| 10 | SB | - |
| 12 | B | - |
| 13 | Y | - |
| 16 | LG | - |
| 19 | W | - |
| 25 | G | - |
| 26 | R | - |
| 27 | Y | - |
| 28 | BG | - |
| 30 | GR | - |
| 36 | G | - |

| | |
|----------------|---|
| Connector No. | E6 |
| Connector Name | POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | TH88FW-M4 |



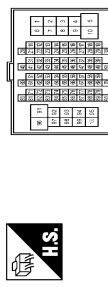
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 39 | P | - |
| 40 | L | - |
| 41 | B | - |
| 42 | Y | - |
| 43 | SB | - |
| 44 | W | - |
| 45 | G | - |
| 46 | BR | - |

| | |
|----------------|---|
| Connector No. | E8 |
| Connector Name | POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | NS08FW-CS |



| Terminal No. | Color Of Wire | Signal Name (Specification) |
|--------------|---------------|-----------------------------|
| 83 | R | - |
| 84 | P | - |
| 86 | W | - |
| 88 | G | - |
| 89 | BR | - |
| 90 | Y | - |

| | |
|----------------|-----------------|
| Connector No. | E106 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 1 | G | - | |
| 2 | BG | - | |
| 3 | SB | - | |
| 4 | LG | - | |
| 5 | Y | - | |
| 6 | W | - | |
| 7 | G | - | |
| 8 | V | - | |
| 9 | R | - | |
| 10 | BR | - | |
| 11 | B | - | |
| 12 | G | - | |
| 13 | R | - | |
| 14 | W | - | |

A
B
C
D
E
F
G
H
I
J
K
EXL
M
N
O
P

AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AUTO LIGHT SYSTEM

| | | |
|----|--------|-----------------|
| 15 | SHIELD | - |
| 16 | SB | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | W | - [With ICC] |
| 20 | Y | - [Without ICC] |
| 21 | BR | - |
| 22 | R | - [With ICC] |
| 22 | V | - [Without ICC] |
| 23 | G | - |
| 24 | L | - [With ICC] |
| 24 | P | - [Without ICC] |
| 25 | L | - [Without ICC] |
| 25 | Y | - [With ICC] |
| 26 | SHIELD | - |
| 28 | G | - |
| 29 | LG | - |
| 30 | BG | - |
| 32 | W | - |
| 33 | Y | - |
| 34 | BG | - |
| 37 | Y | - |
| 38 | GR | - |
| 39 | LG | - |
| 41 | LG | - |
| 42 | V | - |
| 43 | R | - |
| 44 | G | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | SB | - |
| 50 | BR | - |
| 51 | B | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | R | - |
| 55 | SB | - |
| 59 | P | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | LG | - |
| 64 | L | - |
| 65 | BG | - |
| 69 | L | - |
| 70 | SHIELD | - |
| 71 | G | - |

| | | |
|-----|--------|---|
| 72 | G | - |
| 73 | R | - |
| 74 | BR | - |
| 76 | L | - |
| 77 | W | - |
| 78 | Y | - |
| 80 | SB | - |
| 81 | L | - |
| 82 | W | - |
| 83 | LG | - |
| 84 | GR | - |
| 85 | G | - |
| 86 | P | - |
| 87 | W | - |
| 88 | BG | - |
| 89 | LG | - |
| 90 | BR | - |
| 91 | GR | - |
| 92 | BR | - |
| 93 | SB | - |
| 95 | Y | - |
| 96 | W | - |
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|------------------|
| Connector No. | M1 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS06FM-M2 |



| | | |
|--------------|------|-----------------------------|
| Terminal No. | Wire | Signal Name [Specification] |
| 1A | BG | - |
| 2A | G | - |
| 3A | L | - |
| 4A | R | - |
| 5A | V | - |
| 6A | Y | - |
| 7A | R | - |
| 8A | L | - |

| | |
|----------------|-----------------|
| Connector No. | M6 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH00MV-CS16-TM4 |



| | | |
|--------------|---------------|------------------------------|
| Terminal No. | Color Of Wire | Signal Name [Specification] |
| 1 | G | - |
| 2 | BG | - |
| 3 | LG | - [Without Auto aircon seat] |
| 3 | SB | - [With Auto aircon seat] |
| 4 | LG | - |
| 5 | GR | - |
| 6 | W | - |
| 7 | G | - |
| 8 | W | - |
| 9 | P | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | BR | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | GR | - [Without ICC] |
| 20 | W | - [With ICC] |
| 21 | BR | - [Without ICC] |
| 21 | R | - [With ICC] |
| 22 | L | - [Without ICC] |
| 22 | R | - [With ICC] |
| 23 | G | - |
| 24 | L | - [Without ICC] |
| 24 | P | - [With ICC] |
| 25 | W | - [Without ICC] |
| 25 | Y | - [With ICC] |
| 26 | SHIELD | - |
| 28 | GR | - |
| 29 | V | - |
| 30 | BG | - |
| 32 | W | - |

| | | |
|----|--------|---|
| 33 | Y | - |
| 34 | L | - |
| 37 | G | - |
| 38 | R | - |
| 39 | G | - |
| 41 | L | - |
| 42 | W | - |
| 43 | R | - |
| 44 | LG | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | BG | - |
| 50 | LG | - |
| 51 | SB | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | BR | - |
| 55 | SB | - |
| 59 | SB | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | R | - |
| 64 | L | - |
| 65 | BG | - |
| 69 | V | - |
| 70 | SHIELD | - |
| 71 | BG | - |
| 72 | GR | - |
| 73 | W | - |
| 74 | SB | - |
| 76 | V | - |
| 77 | V | - |
| 78 | Y | - |
| 80 | BG | - |
| 81 | L | - |
| 82 | W | - |
| 83 | Y | - |
| 84 | L | - |
| 85 | P | - |
| 86 | BR | - |
| 87 | P | - |
| 88 | V | - |
| 89 | G | - |
| 90 | P | - |
| 91 | R | - |
| 92 | R | - |
| 93 | GR | - |

AUTO LIGHT SYSTEM

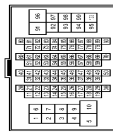
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AUTO LIGHT SYSTEM

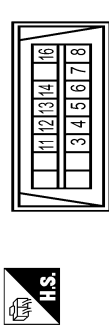
| | | |
|-----|--------|---|
| 95 | G | - |
| 96 | W | - |
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|-----------------|
| Connector No. | M7 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



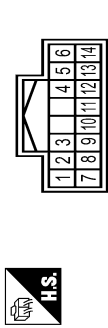
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|------------------------------|
| 1 | G | - [With Auto aircon seat] |
| 1 | Y | - [Without Auto aircon seat] |
| 2 | B | - |
| 3 | W | - |
| 6 | P | - |
| 7 | V | - |
| 8 | BG | - |
| 10 | W | - |
| 11 | BG | - |
| 12 | B | - |
| 13 | G | - |
| 14 | R | - |
| 15 | W | - |
| 16 | SHIELD | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | R | - |
| 21 | LG | - |
| 23 | V | - |
| 24 | P | - |
| 25 | BR | - |
| 26 | GR | - |
| 27 | BG | - |
| 28 | W | - |
| 38 | B | - |
| 39 | B | - |
| 43 | SB | - |
| 44 | W | - |

| | |
|----------------|---------------------|
| Connector No. | M24 |
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 3 | LG | - |
| 4 | B | - |
| 5 | B | - |
| 6 | L | - |
| 7 | GR | - |
| 8 | G | - |
| 11 | SB | - |
| 12 | P | - |
| 13 | L | - |
| 14 | P | - |
| 16 | BG | - |

| | |
|----------------|--------------------|
| Connector No. | M33 |
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-AH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | FR WASHER (-) |
| 2 | SB | OUTPUT 4 |
| 3 | BG | FR WASHER (+) |
| 4 | G | IGN |
| 5 | L | OUTPUT 3 |
| 6 | B | GROUND |
| 7 | V | INPUT 3 |
| 8 | BG | OUTPUT 5 |
| 9 | Y | INPUT 2 |

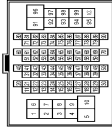
| | | |
|----|----|----------|
| 10 | R | INPUT 4 |
| 11 | LG | INPUT 1 |
| 12 | P | OUTPUT 1 |
| 13 | BR | INPUT 5 |
| 14 | G | OUTPUT 2 |

| | |
|----------------|----------------|
| Connector No. | M94 |
| Connector Name | OPTICAL SENSOR |
| Connector Type | TK03FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | Y | POWER |
| 2 | P | OUTPUT |
| 3 | B | GROUND |

| | |
|----------------|-----------------|
| Connector No. | M117 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | GR | - |
| 2 | BR | - |
| 3 | V | - |
| 4 | SB | - |
| 6 | Y | - |
| 7 | B | - |
| 8 | W | - |
| 10 | W | - |
| 11 | SHIELD | - |
| 20 | R | - |

AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AUTO LIGHT SYSTEM

| | | |
|----|--------|-----------------|
| 21 | G | - |
| 22 | GR | - |
| 23 | V | - |
| 24 | W | - |
| 25 | R | - |
| 26 | P | - |
| 27 | L | - |
| 28 | SHIELD | - |
| 31 | W | - |
| 32 | W | - |
| 33 | SB | - |
| 36 | L | - |
| 37 | P | - |
| 38 | L | - |
| 39 | P | - |
| 40 | V | - |
| 41 | SB | - [With ICC] |
| 42 | V | - [Without ICC] |
| 43 | B | - [With ICC] |
| 44 | R | - [Without ICC] |
| 45 | G | - [With ICC] |
| 46 | BG | - [Without ICC] |
| 47 | B | - [With ICC] |
| 48 | P | - [Without ICC] |
| 49 | G | - [With ICC] |
| 50 | SHIELD | - |
| 51 | BG | - |
| 52 | GR | - |
| 53 | G | - |
| 54 | L | - |
| 55 | P | - |
| 60 | LG | - |
| 61 | R | - |
| 62 | SB | - |
| 63 | V | - |
| 64 | Y | - |
| 65 | BR | - |
| 66 | BG | - |
| 67 | W | - |
| 69 | G | - |
| 71 | SB | - |
| 72 | V | - |

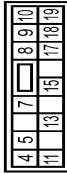
| | | |
|----|----|---|
| 73 | V | - |
| 74 | LG | - |
| 75 | BR | - |
| 76 | V | - |
| 77 | LG | - |
| 80 | R | - |
| 82 | Y | - |
| 83 | BG | - |
| 84 | W | - |
| 85 | SB | - |
| 86 | B | - |
| 87 | P | - |
| 91 | L | - |
| 92 | L | - |
| 93 | G | - |
| 94 | BG | - |
| 95 | V | - |
| 96 | G | - |
| 97 | G | - |
| 98 | L | - |
| 99 | LG | - |

| | |
|----------------|---------------------------|
| Connector No. | M118 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | M03FB-LC |



| | |
|--------------|---------------------------------|
| Terminal No. | Signal Name [Specification] |
| 1 | BAT (F/L) |
| 2 | POWER WINDOW POWER SUPPLY (BAT) |
| 3 | POWER WINDOW POWER SUPPLY (RAP) |

| | |
|----------------|---------------------------|
| Connector No. | M119 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS16FW-CS |



| | |
|--------------|-----------------------------|
| Terminal No. | Signal Name [Specification] |
| 4 | P |
| 5 | P |
| 7 | Y |
| 8 | V |
| 9 | G |
| 10 | BR |
| 11 | R |
| 13 | B |
| 15 | Y |
| 17 | W |
| 18 | BG |
| 19 | SB |

| | |
|----------------|---------------------------|
| Connector No. | M121 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FGY-NH |



| | | |
|----|----|------------------------------|
| 64 | L | I-KEY WARN BUZZER (ENG ROOM) |
| 65 | BG | REAR WIPER STOP POSITION |
| 66 | LG | BACK DOOR SW |
| 67 | P | BACK DOOR OPENER SW |
| 68 | BR | REAR RH DOOR SW |
| 69 | R | REAR LH DOOR SW |

| | |
|----------------|---------------------------|
| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |



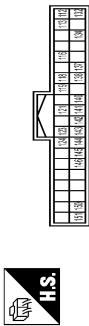
AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AUTO LIGHT SYSTEM

| | |
|----------------|---------------------------|
| Connector No. | M123 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FG-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|----------------------------------|
| 112 | GR | RAIN SENSOR SERIAL LINK |
| 113 | P | OPTICAL SENSOR |
| 116 | BR | STOP LAMP SW 1 |
| 118 | P | STOP LAMP SW 2 |
| 119 | SB | DR DOOR UNLOCK SENSOR |
| 121 | BR | KEY SLOT SW |
| 123 | W | IGN F/B |
| 124 | LG | PASSENGER DOOR SW |
| 132 | BG | POWER WINDOW SW COMM |
| 134 | GR | LOCK IND |
| 137 | B | RECEIVER/SENSOR GND |
| 138 | Y | SENSOR POWER SUPPLY |
| 140 | R | SHIFT NP |
| 141 | G | SECURITY INDICATOR OUTPUT |
| 142 | BG | COMBI SW OUTPUT 5 |
| 143 | P | COMBI SW OUTPUT 1 |
| 144 | G | COMBI SW OUTPUT 2 |
| 145 | L | COMBI SW OUTPUT 3 |
| 146 | SB | COMBI SW OUTPUT 4 |
| 150 | GR | DRIVER DOOR SW |
| 151 | G | REAR WINDOW DEFROGGER RELAY CONT |

| | |
|----------------|--------------|
| Connector No. | M151 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M03FW-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | Y | - |
| 3 | R | - |

| | |
|----------------|--------------|
| Connector No. | M152 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M03MW-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | Y | - |
| 3 | R | - |

JRLWD6013GB

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P

EXL

HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

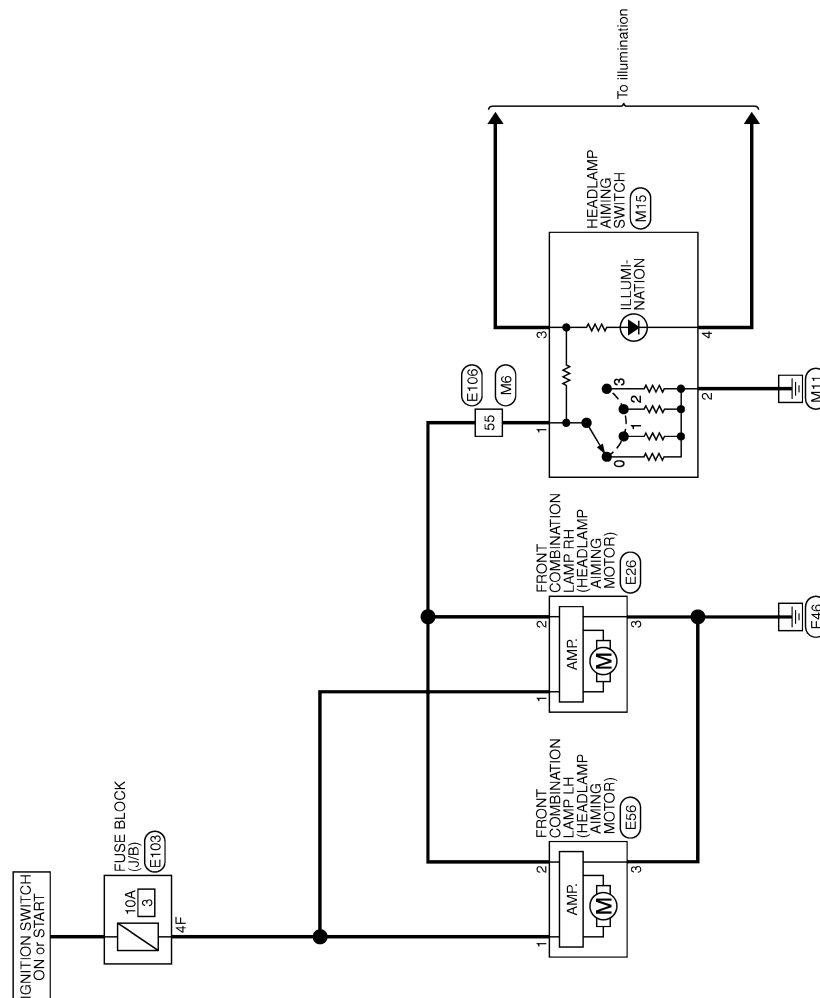
Description

INFOID:0000000010576347

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

Wiring Diagram - HEADLAMP AIMING CONTROL SYSTEM (MANUAL) - INFOID:0000000010576348

HEADLAMP AIMING CONTROL (MANUAL)



2009/07/29

JCLWA3825GB

HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

< DTC/CIRCUIT DIAGNOSIS >

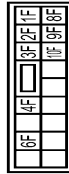
[XENON TYPE]

HEADLAMP AIMING CONTROL (MANUAL)

| | |
|----------------|---------------------------|
| Connector No. | E28 |
| Connector Name | FRONT COMBINATION LAMP RH |
| Connector Type | RK03FB |



| | |
|----------------|------------------|
| Connector No. | E103 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS16FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | SB | - |
| 3 | B | - |

| | |
|----------------|---------------------------|
| Connector No. | E56 |
| Connector Name | FRONT COMBINATION LAMP LH |
| Connector Type | RK03FB |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | BG | - |
| 3 | B | - |

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 10F | L | - |
| 1F | SB | - |
| 2F | W | - |
| 3F | Y | - |
| 4F | G | - |
| 6F | BG | - |
| 8F | L | - |
| 9F | R | - |

| | |
|----------------|-----------------|
| Connector No. | E106 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | BG | - |
| 3 | SB | - |
| 4 | LG | - |
| 5 | Y | - |
| 6 | W | - |
| 7 | G | - |
| 8 | V | - |
| 9 | R | - |
| 10 | BR | - |
| 11 | B | - |

| | | |
|----|--------|-----------------|
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | SB | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | W | - [Without ICC] |
| 21 | Y | - [Without ICC] |
| 22 | BR | - [With ICC] |
| 23 | V | - [Without ICC] |
| 24 | L | - [With ICC] |
| 25 | P | - [Without ICC] |
| 26 | Y | - [Without ICC] |
| 27 | W | - [With ICC] |
| 28 | SHIELD | - |
| 29 | G | - |
| 30 | LG | - |
| 31 | BG | - |
| 32 | W | - |
| 33 | Y | - |
| 34 | BG | - |
| 37 | Y | - |
| 38 | GR | - |
| 39 | LG | - |
| 41 | LG | - |
| 42 | V | - |
| 43 | R | - |
| 44 | G | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | SB | - |
| 50 | BR | - |
| 51 | B | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | R | - |
| 55 | SB | - |
| 59 | P | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | LG | - |
| 64 | L | - |

| | | |
|-----|--------|---|
| 65 | BG | - |
| 69 | L | - |
| 71 | G | - |
| 72 | G | - |
| 73 | R | - |
| 74 | BR | - |
| 76 | L | - |
| 77 | W | - |
| 78 | Y | - |
| 80 | SB | - |
| 81 | L | - |
| 82 | W | - |
| 83 | LG | - |
| 84 | GR | - |
| 85 | G | - |
| 86 | P | - |
| 87 | W | - |
| 88 | BG | - |
| 89 | LG | - |
| 90 | BR | - |
| 91 | GR | - |
| 92 | BR | - |
| 93 | SB | - |
| 95 | Y | - |
| 96 | W | - |
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|-----------------|
| Connector No. | M6 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|------------------------------|
| 1 | G | - |
| 2 | BG | - |
| 3 | LG | - [Without Auto aircon seat] |
| 3 | SB | - [With Auto aircon seat] |

HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP AIMING CONTROL (MANUAL)

| | | |
|----|--------|---------------------------------|
| 4 | LG | - |
| 5 | GR | - |
| 6 | W | - |
| 7 | G | - |
| 8 | W | - |
| 9 | P | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | BR | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | GR | - [Without ICC] - [With ICC] |
| 21 | BR | - [Without ICC] - [With ICC] |
| 22 | L | - [Without ICC] - [With ICC] |
| 23 | G | - |
| 24 | L | - [Without ICC] - [With ICC] |
| 25 | W | - [Without ICC] - [With ICC] |
| 26 | SHIELD | - |
| 28 | GR | - |
| 29 | V | - |
| 30 | BG | - |
| 32 | W | - |
| 33 | Y | - |
| 34 | L | - |
| 37 | G | - |
| 38 | R | - |
| 39 | G | - |
| 41 | L | - |
| 42 | W | - |
| 43 | R | - |
| 44 | LG | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | BG | - |
| 50 | LG | - |
| 51 | SB | - |
| 52 | Y | - |
| 53 | BG | - |

| | | |
|-----|--------|---|
| 54 | BR | - |
| 55 | SB | - |
| 59 | SB | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | R | - |
| 64 | L | - |
| 65 | BG | - |
| 69 | V | - |
| 70 | SHIELD | - |
| 71 | BG | - |
| 72 | GR | - |
| 73 | W | - |
| 74 | SB | - |
| 76 | V | - |
| 77 | V | - |
| 78 | Y | - |
| 80 | BG | - |
| 81 | L | - |
| 82 | W | - |
| 83 | Y | - |
| 84 | L | - |
| 85 | P | - |
| 86 | BR | - |
| 87 | P | - |
| 88 | V | - |
| 89 | G | - |
| 90 | P | - |
| 91 | R | - |
| 92 | R | - |
| 93 | GR | - |
| 95 | G | - |
| 96 | W | - |
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|------------------------|
| Connector No. | M15 |
| Connector Name | HEADLAMP AIMING SWITCH |
| Connector Type | A04FW |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 1 | SB | - | - |
| 2 | B | - | - |
| 3 | R | - | - |
| 4 | R | - | - |

Component Inspection

1. CHECK HEADLAMP AIMING SWITCH

1. Remove the headlamp aiming switch.

JRLWD6023GB

INFOID:0000000010576349

HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

< DTC/CIRCUIT DIAGNOSIS >

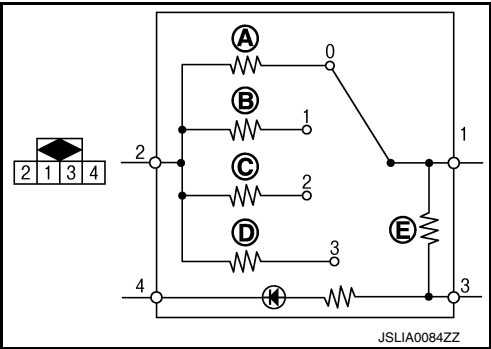
[XENON TYPE]

2. Check the resistance among each headlamp aiming switch terminal.

| Headlamp aiming switch | | Condition | Resistance (Approx.) |
|------------------------|---|-----------------|-------------------------|
| Terminal | | Switch position | |
| 1 | 2 | 0 | A: 910 Ω |
| | | 1 | B: 680 Ω |
| | | 2 | C: 510 Ω |
| | | 3 | D: 390 Ω |
| | 3 | — | E: 390 Ω |

Is the measurement value normal?

- YES
- >> Headlamp aiming switch is normal.
- NO
- >> Replace the headlamp aiming switch.



A
B
C
D
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EXL

[XENON TYPE]

Wiring Diagram - DAYTIME LIGHT SYSTEM -

[illegible]

2014/03/18

DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

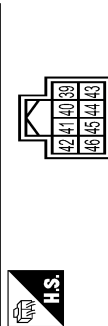
DAYTIME RUNNING LIGHT SYSTEM

| | |
|----------------|---|
| Connector No. | E5 |
| Connector Name | (POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)) |
| Connector Type | TH89FW-CS12-M4-1V |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 4 | V | - |
| 5 | L | - |
| 7 | R | - |
| 10 | SB | - |
| 12 | B | - |
| 13 | Y | - |
| 16 | LG | - |
| 19 | W | - |
| 25 | G | - |
| 26 | R | - |
| 27 | Y | - |
| 28 | BG | - |
| 30 | GR | - |
| 36 | G | - |

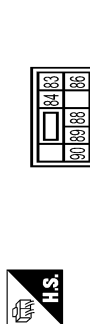
| | |
|----------------|---|
| Connector No. | E6 |
| Connector Name | (POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)) |
| Connector Type | TH89FW-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 39 | P | - |
| 40 | L | - |
| 41 | B | - |
| 42 | Y | - |
| 43 | SB | - |

| | | |
|----|----|---|
| 44 | W | - |
| 45 | G | - |
| 46 | BR | - |

| | |
|----------------|---|
| Connector No. | E8 |
| Connector Name | (POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)) |
| Connector Type | NS08FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 83 | R | - |
| 84 | P | - |
| 86 | W | - |
| 88 | G | - |
| 89 | BR | - |
| 90 | Y | - |

| | |
|----------------|-------------------|
| Connector No. | E34 |
| Connector Name | FRONT FOG LAMP RH |
| Connector Type | FH202FB |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | BW | - |

| | |
|----------------|-------------------|
| Connector No. | E64 |
| Connector Name | FRONT FOG LAMP LH |
| Connector Type | FH202FB |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------|
| 1 | GR | - [Without around view monitor] |
| 1 | L | - [With around view monitor] |
| 2 | BW | - [Without around view monitor] |
| 2 | GR | - [With around view monitor] |

| | |
|----------------|--------------|
| Connector No. | E66 |
| Connector Name | WIRE TO WIRE |
| Connector Type | RS08FB-FR |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | GR | - |
| 2 | L | - |
| 3 | Y | - |
| 4 | R | - |
| 5 | BW | - |
| 6 | BR | - |
| 7 | W | - |
| 8 | SHIELD | - |

| | |
|----------------|-----------------|
| Connector No. | E106 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH89FW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | BG | - |
| 3 | SB | - |
| 4 | LG | - |
| 5 | Y | - |
| 6 | W | - |
| 7 | G | - |
| 8 | V | - |
| 9 | R | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | SB | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | W | - [With ICC] |
| 20 | Y | - [Without ICC] |
| 21 | BR | - |
| 22 | R | - [With ICC] |
| 22 | V | - [Without ICC] |
| 23 | G | - |
| 24 | L | - [With ICC] |
| 24 | P | - [Without ICC] |
| 25 | L | - [Without ICC] |
| 25 | Y | - [With ICC] |
| 26 | SHIELD | - |
| 28 | G | - |
| 28 | LG | - |
| 30 | BG | - |
| 32 | W | - |
| 33 | Y | - |

DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

DAYTIME RUNNING LIGHT SYSTEM

| | | |
|----|--------|---|
| 34 | BG | - |
| 37 | Y | - |
| 38 | GR | - |
| 39 | LG | - |
| 41 | LG | - |
| 42 | V | - |
| 43 | R | - |
| 44 | G | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | SB | - |
| 50 | BR | - |
| 51 | B | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | R | - |
| 55 | SB | - |
| 59 | P | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | LG | - |
| 64 | L | - |
| 65 | BG | - |
| 69 | L | - |
| 70 | SHIELD | - |
| 71 | G | - |
| 72 | G | - |
| 73 | R | - |
| 74 | BR | - |
| 76 | L | - |
| 77 | W | - |
| 78 | Y | - |
| 80 | SB | - |
| 81 | L | - |
| 82 | W | - |
| 83 | LG | - |
| 84 | GR | - |
| 85 | G | - |
| 86 | P | - |
| 87 | W | - |
| 88 | BG | - |
| 89 | LG | - |
| 90 | BR | - |
| 91 | GR | - |
| 92 | BR | - |
| 93 | SB | - |
| 95 | Y | - |

| | | |
|-----|--------|---|
| 96 | W | - |
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|----------------------|
| Connector No. | E107 |
| Connector Name | PARKING BRAKE SWITCH |
| Connector Type | TB01FW |



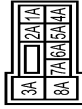
| | |
|-----------------------------|----|
| Terminal No. | 1 |
| Color | LG |
| Wire | - |
| Signal Name [Specification] | - |

| | |
|----------------|--------------|
| Connector No. | E151 |
| Connector Name | WIRE TO WIRE |
| Connector Type | RS08MB-PR |



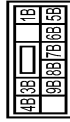
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | L | - |
| 2 | SHIELD | - |
| 3 | L | - |
| 4 | R | - |
| 5 | GR | - |
| 6 | G | - |
| 7 | W | - |

| | |
|----------------|------------------|
| Connector No. | M1 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS08FM-M2 |



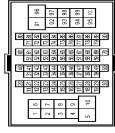
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1A | BG | - |
| 2A | G | - |
| 3A | L | - |
| 4A | R | - |
| 5A | V | - |
| 6A | Y | - |
| 7A | R | - |
| 8A | L | - |

| | |
|----------------|------------------|
| Connector No. | M2 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS10FM-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1B | LG | - |
| 3B | P | - |
| 4B | G | - |
| 5B | BG | - |
| 6B | Y | - |
| 7B | L | - |
| 8B | R | - |
| 9B | RO | - |

| | |
|----------------|-----------------|
| Connector No. | M6 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH08MW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name (Specification) |
|--------------|---------------|------------------------------|
| 1 | W | - |
| 2 | BG | - |
| 3 | LG | - [Without Auto aircon seat] |
| 4 | SB | - [With Auto aircon seat] |
| 5 | GR | - |
| 6 | W | - |
| 7 | G | - |
| 8 | W | - |
| 9 | P | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | BR | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | GR | - [Without ICC] |
| 20 | W | - [With ICC] |
| 21 | BR | - [Without ICC] |
| 21 | R | - [With ICC] |
| 22 | L | - [Without ICC] |
| 22 | R | - [With ICC] |
| 23 | G | - |
| 24 | L | - [Without ICC] |
| 24 | P | - [With ICC] |
| 25 | W | - [Without ICC] |
| 25 | Y | - [With ICC] |
| 26 | SHIELD | - |
| 28 | GR | - |
| 29 | V | - |
| 30 | BG | - |

JRLWD6003GB

DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

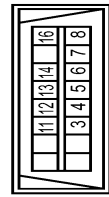
[XENON TYPE]

DAYTIME RUNNING LIGHT SYSTEM

| | | | | | |
|----|--------|---|---|---|---|
| 33 | Y | - | - | - | - |
| 34 | L | - | - | - | - |
| 37 | G | - | - | - | - |
| 38 | R | - | - | - | - |
| 39 | G | - | - | - | - |
| 41 | L | - | - | - | - |
| 42 | W | - | - | - | - |
| 43 | R | - | - | - | - |
| 44 | LG | - | - | - | - |
| 45 | GR | - | - | - | - |
| 46 | W | - | - | - | - |
| 47 | L | - | - | - | - |
| 48 | P | - | - | - | - |
| 49 | BG | - | - | - | - |
| 50 | LG | - | - | - | - |
| 51 | SB | - | - | - | - |
| 52 | Y | - | - | - | - |
| 53 | BG | - | - | - | - |
| 54 | BR | - | - | - | - |
| 55 | SB | - | - | - | - |
| 59 | SB | - | - | - | - |
| 60 | SB | - | - | - | - |
| 61 | V | - | - | - | - |
| 62 | P | - | - | - | - |
| 63 | R | - | - | - | - |
| 64 | L | - | - | - | - |
| 65 | BG | - | - | - | - |
| 69 | V | - | - | - | - |
| 70 | SHIELD | - | - | - | - |
| 71 | BG | - | - | - | - |
| 72 | GR | - | - | - | - |
| 73 | W | - | - | - | - |
| 74 | SB | - | - | - | - |
| 76 | V | - | - | - | - |
| 77 | V | - | - | - | - |
| 78 | Y | - | - | - | - |
| 80 | BG | - | - | - | - |
| 81 | L | - | - | - | - |
| 82 | W | - | - | - | - |
| 83 | Y | - | - | - | - |
| 84 | L | - | - | - | - |
| 85 | P | - | - | - | - |
| 86 | BR | - | - | - | - |
| 87 | P | - | - | - | - |
| 88 | V | - | - | - | - |
| 89 | G | - | - | - | - |
| 90 | P | - | - | - | - |
| 91 | R | - | - | - | - |
| 92 | R | - | - | - | - |
| 93 | GR | - | - | - | - |

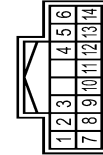
| | | |
|-----|--------|---|
| 95 | G | - |
| 96 | W | - |
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|---------------------|
| Connector No. | M24 |
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |



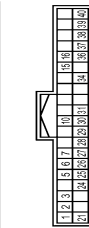
| | | | |
|--------------|-------|------|-----------------------------|
| Terminal No. | Color | Wire | Signal Name [Specification] |
| 3 | LG | - | - |
| 4 | B | - | - |
| 5 | B | - | - |
| 6 | L | - | - |
| 7 | GR | - | - |
| 8 | G | - | - |
| 11 | SB | - | - |
| 12 | P | - | - |
| 13 | L | - | - |
| 14 | P | - | - |
| 16 | BG | - | - |

| | |
|----------------|--------------------|
| Connector No. | M33 |
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |



| | | | |
|--------------|-------|------|-----------------------------|
| Terminal No. | Color | Wire | Signal Name [Specification] |
| 1 | P | - | FR WASHER (-) |
| 2 | SB | - | OUTPUT 4 |
| 3 | BG | - | FR WASHER (+) |
| 4 | G | - | IGN |
| 5 | L | - | OUTPUT 3 |
| 6 | B | - | GROUND |
| 7 | V | - | INPUT 3 |
| 8 | BG | - | OUTPUT 5 |
| 9 | Y | - | INPUT 2 |
| 10 | R | - | INPUT 4 |
| 11 | LG | - | INPUT 1 |
| 12 | P | - | OUTPUT 1 |
| 13 | BR | - | INPUT 5 |
| 14 | G | - | OUTPUT 2 |

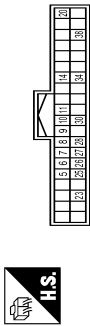
| | |
|----------------|-------------------|
| Connector No. | M55 |
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |



| | | | |
|--------------|-------|------|--|
| Terminal No. | Color | Wire | Signal Name [Specification] |
| 1 | BG | - | BATTERY POWER SUPPLY |
| 2 | LG | - | COMMUNICATION SIGNAL (METER->AMP) |
| 3 | GR | - | COMMUNICATION SIGNAL (AMP->METER) |
| 5 | B | - | GROUND |
| 6 | W | - | ALTERNATOR SIGNAL |
| 7 | P | - | AIR BAG SIGNAL |
| 10 | G | - | SECURITY INDICATOR SIGNAL |
| 15 | B | - | GROUND |
| 16 | B | - | METER CONTROL SWITCH GROUND |
| 21 | R | - | IGNITION SIGNAL |
| 24 | BR | - | COMMUNICATION SIGNAL (LCD->AMP) |
| 25 | Y | - | COMMUNICATION SIGNAL (AMP->LCD) |
| 26 | R | - | VEHICLE SPEED SIGNAL (8-PULSE) |
| 27 | V | - | PARKING BRAKE SWITCH SIGNAL |
| 28 | W | - | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 29 | SB | - | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 30 | G | - | PASSENGER SEAT BELT WARNING SIGNAL |
| 31 | L | - | WASHER LEVEL SWITCH SIGNAL |

| | | | |
|----|----|---|--|
| 34 | B | - | ILLUMINATION CONTROL SIGNAL |
| 36 | LG | - | SELECT SWITCH SIGNAL |
| 37 | SB | - | ENTER SWITCH SIGNAL |
| 38 | L | - | TRIP AIR RESET SWITCH SIGNAL |
| 39 | P | - | ILLUMINATION CONTROL SWITCH SIGNAL (-) |
| 40 | BG | - | ILLUMINATION CONTROL SWITCH SIGNAL (+) |

| | |
|----------------|----------------------------|
| Connector No. | M66 |
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH40FW-NH |



| | | | |
|--------------|-------|------|--|
| Terminal No. | Color | Wire | Signal Name [Specification] |
| 5 | L | - | MANUAL MODE SHIFT UP SIGNAL |
| 6 | BG | - | PADDLE SHIFTER UP SIGNAL |
| 7 | GR | - | COMMUNICATION SIGNAL (AMP->METER) |
| 8 | L | - | VEHICLE SPEED SIGNAL (2-PULSE) |
| 9 | SB | - | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 10 | W | - | MANUAL MODE SIGNAL |
| 11 | G | - | NON-MANUAL MODE SIGNAL |
| 14 | BR | - | COMMUNICATION SIGNAL (LCD->AMP) |
| 20 | L | - | ION SENSOR SIGNAL |
| 23 | Y | - | AT SNOW SWITCH SIGNAL |
| 25 | V | - | MANUAL MODE SHIFT DOWN SIGNAL |
| 26 | G | - | PADDLE SHIFTER DOWN SIGNAL |
| 27 | LG | - | COMMUNICATION SIGNAL (METER->AMP) |
| 28 | R | - | VEHICLE SPEED SIGNAL (8-PULSE) |
| 30 | V | - | PARKING BRAKE SWITCH SIGNAL |
| 34 | Y | - | COMMUNICATION SIGNAL (AMP->LCD) |
| 38 | L | - | BLOWER MOTOR CONTROL SIGNAL |

A
B
C
D
E
F
G
H
I
J
K
EXL
M
N
O
P

DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

DAYTIME RUNNING LIGHT SYSTEM

| | |
|----------------|----------------------------|
| Connector No. | M67 |
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH32FW-NH |



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DAYTIME RUNNING LIGHT SYSTEM

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[XENON TYPE]

DAYTIME RUNNING LIGHT SYSTEM

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| Connector No. | M151 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M03FW-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
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| Connector No. | M152 |
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| Connector Type | M03MW-LC |



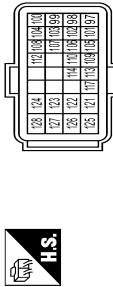
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| Connector No. | M160 |
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| Connector Type | RH24FGY-R28-R-LH-Z |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------------|
| 97 | R | ENGINE SPEED SIGNAL OUTPUT |
| 98 | G | SENSOR POWER SUPPLY Y |
| 99 | L | SENSOR POWER SUPPLY L |
| 100 | P | CAN COMMUNICATION LINE |
| 101 | SB | ASC/DC STEERING SWITCH |
| 102 | R | ACCELERATOR PEDAL POSITION SENSOR 1 |
| 103 | L | CAN COMMUNICATION LINE |
| 104 | P | IGNITION SWITCH |
| 105 | P | STOP LAMP SWITCH |
| 106 | V | SENSOR GROUND |
| 107 | LG | FUEL PUMP CONTROL MODULE (FFCM) CHECK |
| 108 | GR | DATA LINK CONNECTOR |
| 109 | GR | SENSOR GROUND |
| 110 | G | TRANSMISSION RANGE SWITCH |
| 111 | BR | ASC/DC BRAKE SWITCH |
| 112 | R | POWER SUPPLY FOR ECM (BACK-UP) |
| 113 | W | SENSOR GROUND |
| 114 | W | FUEL TANK TEMPERATURE SENSOR |
| 115 | GR | POWER SUPPLY FOR ECM |
| 116 | B | ECM GROUND |
| 117 | R | FUEL PUMP CONTROL MODULE (FFCM) |
| 118 | B | ECM GROUND |

| | |
|----------------|--------------------|
| Connector No. | M164 |
| Connector Name | ECM |
| Connector Type | RH24FGY-R28-R-LH-Z |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---|
| 97 | R | ACCELERATOR PEDAL POSITION SENSOR 1 |
| 98 | P | ACCELERATOR PEDAL POSITION SENSOR 2 (WITH NAVI) |
| 99 | Y | ACCELERATOR PEDAL POSITION SENSOR 3 (WITH NAVI) |
| 100 | G | SENSOR POWER SUPPLY (WITH NAVI) |
| 101 | L | SENSOR POWER SUPPLY (WITH NAVI) |
| 102 | W | SENSOR GROUND |
| 103 | SB | ASC/DC STEERING SWITCH |
| 104 | LG | EVAP CONTROL SYSTEM PRESSURE SENSOR |
| 105 | G | SENSOR POWER SUPPLY (WITH NAVI) |
| 106 | L | SENSOR POWER SUPPLY (WITH NAVI) |
| 107 | BR | SENSOR GROUND (WITH NAVI) |
| 108 | GR | REFRIGERANT PRESSURE SENSOR |
| 109 | W | FUEL TANK TEMPERATURE SENSOR |
| 110 | BG | SENSOR POWER SUPPLY |
| 111 | V | SENSOR GROUND |
| 112 | G | PNP SIGNAL |
| 113 | R | ENGINE SPEED OUTPUT SIGNAL |
| 114 | V | ENGINE SPEED OUTPUT SIGNAL |
| 115 | W | ENGINE SPEED OUTPUT SIGNAL |
| 116 | P | CAN COMMUNICATION LINE |
| 117 | L | CAN COMMUNICATION LINE |
| 118 | GR | DATA LINK CONNECTOR |
| 119 | LG | EVAP CANISTER VENT CONTROL VALVE |
| 120 | P | STOP LAMP SWITCH |
| 121 | B | ECM GROUND |
| 122 | B | ECM GROUND |
| 123 | GR | POWER SUPPLY FOR ECM |
| 124 | BR | ASC/DC BRAKE SWITCH |
| 125 | B | ECM GROUND |
| 126 | B | ECM GROUND |
| 127 | B | ECM GROUND |
| 128 | B | ECM GROUND |

FRONT FOG LAMP SYSTEM

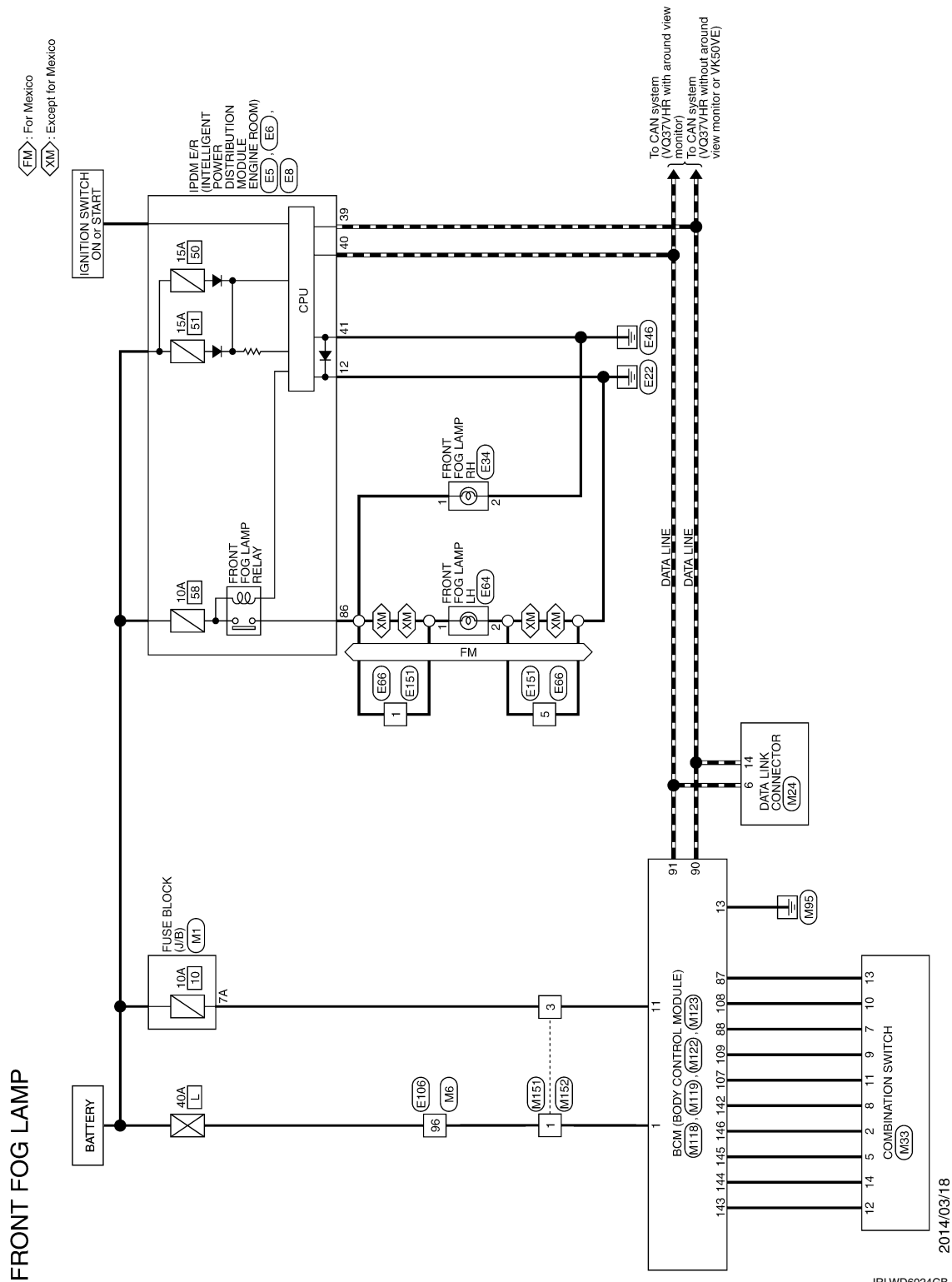
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP SYSTEM

Wiring Diagram - FRONT FOG LAMP -

INFOID:0000000010576351



FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP

| | |
|----------------|---|
| Connector No. | E5 |
| Connector Name | (POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)) |
| Connector Type | TH89FW-CS12-M4-1V |

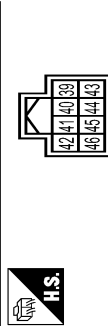


| | |
|----------------|---|
| Connector No. | E8 |
| Connector Name | (POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)) |
| Connector Type | NS08FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 4 | V | - |
| 5 | L | - |
| 7 | R | - |
| 10 | SB | - |
| 12 | B | - |
| 13 | Y | - |
| 16 | LG | - |
| 19 | W | - |
| 25 | G | - |
| 26 | R | - |
| 27 | Y | - |
| 28 | BG | - |
| 30 | GR | - |
| 36 | G | - |

| | |
|----------------|---|
| Connector No. | E6 |
| Connector Name | (POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)) |
| Connector Type | TH89FW-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 39 | P | - |
| 40 | L | - |
| 41 | B | - |
| 42 | Y | - |
| 43 | SB | - |

| | |
|----------------|-------------------|
| Connector No. | E64 |
| Connector Name | FRONT FOG LAMP LH |
| Connector Type | FH202FB |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------|
| 1 | GR | - [Without around view monitor] |
| 1 | L | - [With around view monitor] |
| 2 | BW | - [Without around view monitor] |
| 2 | GR | - [With around view monitor] |

| | |
|----------------|--------------|
| Connector No. | E66 |
| Connector Name | WIRE TO WIRE |
| Connector Type | RS08FB-FR |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | GR | - |
| 2 | L | - |
| 3 | Y | - |
| 4 | R | - |
| 5 | BW | - |
| 6 | BR | - |
| 7 | W | - |
| 8 | SHIELD | - |

| | |
|----------------|-----------------|
| Connector No. | E106 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH89FW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | BG | - |
| 3 | SB | - |
| 4 | LG | - |
| 5 | Y | - |
| 6 | W | - |
| 7 | G | - |
| 8 | V | - |
| 9 | R | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | SB | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | W | - [With ICC] |
| 20 | Y | - [Without ICC] |
| 21 | BR | - |
| 22 | R | - [With ICC] |
| 22 | V | - [Without ICC] |
| 23 | G | - |
| 24 | L | - [With ICC] |
| 24 | P | - [Without ICC] |
| 25 | L | - [With ICC] |
| 25 | Y | - [Without ICC] |
| 26 | SHIELD | - |
| 28 | G | - |
| 28 | LG | - |
| 30 | BG | - |
| 32 | W | - |
| 33 | Y | - |

FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP

| | | | | | | | | | | | |
|----|--------|---|-----|--------|---|----|---|---|----|--------|---|
| 34 | BG | - | 96 | W | - | 8A | L | - | 29 | V | - |
| 37 | Y | - | 97 | W | - | | | | 30 | BG | - |
| 38 | GR | - | 98 | SHIELD | - | | | | 32 | W | - |
| 39 | LG | - | 100 | Y | - | | | | 33 | Y | - |
| 41 | LG | - | | | | | | | 34 | L | - |
| 42 | V | - | | | | | | | 37 | G | - |
| 43 | R | - | | | | | | | 38 | R | - |
| 44 | G | - | | | | | | | 39 | G | - |
| 45 | GR | - | | | | | | | 41 | L | - |
| 46 | W | - | | | | | | | 42 | W | - |
| 47 | L | - | | | | | | | 43 | R | - |
| 48 | P | - | | | | | | | 44 | LG | - |
| 49 | SB | - | | | | | | | 45 | GR | - |
| 50 | BR | - | | | | | | | 46 | W | - |
| 51 | B | - | | | | | | | 47 | L | - |
| 52 | Y | - | | | | | | | 48 | P | - |
| 53 | BG | - | | | | | | | 49 | BG | - |
| 54 | R | - | | | | | | | 50 | LG | - |
| 55 | SB | - | | | | | | | 51 | SB | - |
| 59 | P | - | | | | | | | 52 | Y | - |
| 60 | SB | - | | | | | | | 55 | BG | - |
| 61 | V | - | | | | | | | 54 | BR | - |
| 62 | P | - | | | | | | | 55 | SB | - |
| 63 | LG | - | | | | | | | 59 | SB | - |
| 64 | L | - | | | | | | | 60 | SB | - |
| 65 | BG | - | | | | | | | 61 | V | - |
| 69 | L | - | | | | | | | 62 | P | - |
| 70 | SHIELD | - | | | | | | | 63 | R | - |
| 71 | G | - | | | | | | | 64 | L | - |
| 72 | G | - | | | | | | | 65 | BG | - |
| 73 | R | - | | | | | | | 69 | V | - |
| 74 | BR | - | | | | | | | 70 | SHIELD | - |
| 76 | L | - | | | | | | | 71 | BG | - |
| 77 | W | - | | | | | | | 72 | GR | - |
| 78 | Y | - | | | | | | | 73 | W | - |
| 80 | SB | - | | | | | | | 74 | SB | - |
| 81 | L | - | | | | | | | 76 | V | - |
| 82 | W | - | | | | | | | 77 | V | - |
| 83 | LG | - | | | | | | | 78 | Y | - |
| 84 | GR | - | | | | | | | 80 | BG | - |
| 85 | G | - | | | | | | | 81 | L | - |
| 86 | P | - | | | | | | | 82 | W | - |
| 87 | W | - | | | | | | | 83 | Y | - |
| 88 | BG | - | | | | | | | 84 | L | - |
| 89 | LG | - | | | | | | | 85 | P | - |
| 90 | BR | - | | | | | | | 86 | BR | - |
| 91 | GR | - | | | | | | | 87 | P | - |
| 92 | BR | - | | | | | | | 88 | V | - |
| 93 | SB | - | | | | | | | 89 | G | - |
| 95 | Y | - | | | | | | | 90 | P | - |

| | |
|----------------|-----------------|
| Connector No. | M6 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CST6-TM4 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|----|---|----|----|---|---|---|---|----|----|----|----|----|--------|----|----|----|----|---------------------------------|----|---------------------------------|----|----|---------------------------------|----|----|--------|
| Terminal No. | 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 | 28 | |
| Color | G | BG | LG | LG | GR | W | G | W | P | BR | B | G | R | W | SHIELD | BR | L | P | G | GR | W | R | L | G | L | P | W | SHIELD |
| Off Wire | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Signal Name [Specification] | - | - | - [Without Auto aircon seat] - [With Auto aircon seat] | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - [Without ICC] - [With ICC] | - | - [Without ICC] - [With ICC] | - | - | - [Without ICC] - [With ICC] | - | - | |

| | |
|----------------|--------------|
| Connector No. | E151 |
| Connector Name | WIRE TO WIRE |
| Connector Type | RS08MB-PR |

| | | | | | | | |
|-----------------------------|---|--------|---|---|----|---|---|
| Terminal No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Color | L | SHIELD | L | R | GR | G | W |
| Off Wire | - | - | - | - | - | - | - |
| Signal Name [Specification] | - | - | - | - | - | - | - |

| | |
|----------------|------------------|
| Connector No. | M1 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS08FW-M2 |

| | | | | | | | |
|-----------------------------|----|----|----|----|----|----|----|
| Terminal No. | 1A | 2A | 3A | 4A | 5A | 6A | 7A |
| Color | BG | G | L | R | Y | Y | R |
| Off Wire | - | - | - | - | - | - | - |
| Signal Name [Specification] | - | - | - | - | - | - | - |

JRLWD6026GB

FRONT FOG LAMP SYSTEM

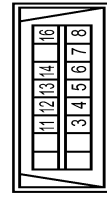
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP

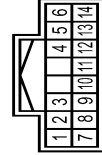
| | | |
|-----|--------|---|
| 91 | R | - |
| 92 | R | - |
| 93 | GR | - |
| 95 | G | - |
| 96 | W | - |
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|---------------------|
| Connector No. | M24 |
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 3 | LG | - |
| 4 | B | - |
| 5 | B | - |
| 6 | L | - |
| 7 | GR | - |
| 8 | G | - |
| 11 | SB | - |
| 12 | P | - |
| 13 | L | - |
| 14 | P | - |
| 16 | BG | - |

| | |
|----------------|--------------------|
| Connector No. | M33 |
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FM-NH |



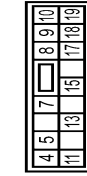
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | FR WASHER (-) |
| 2 | SB | OUTPUT 4 |
| 3 | BG | FR WASHER (+) |
| 4 | G | IGN |
| 5 | L | OUTPUT 3 |
| 6 | B | GROUND |
| 7 | V | INPUT 3 |
| 8 | BG | OUTPUT 5 |
| 9 | Y | INPUT 2 |
| 10 | R | INPUT 4 |
| 11 | LG | INPUT 1 |
| 12 | P | OUTPUT 1 |
| 13 | BR | INPUT 5 |
| 14 | G | OUTPUT 2 |

| | |
|----------------|---------------------------|
| Connector No. | M118 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | M03FB-LC |



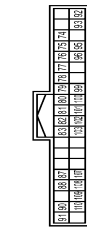
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------|
| 1 | W | BAT (E/L) |
| 2 | V | POWER WINDOW POWER SUPPLY (BAT) |
| 3 | BG | POWER WINDOW POWER SUPPLY (CAP) |

| | |
|----------------|---------------------------|
| Connector No. | M119 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS16FM-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|------------------------------------|
| 4 | P | INT BCM LAMP PWR SUPPLY (BAT SAME) |
| 5 | V | PASSENGER DOOR UNLOCK OUTPUT |
| 7 | Y | STEP LAMP OUTPUT |
| 8 | V | ALL DOOR FUEL ID LOCK OUTPUT |
| 9 | G | DRIVER DOOR FUEL ID LOCK OUTPUT |
| 10 | BR | REAR DOOR UNLOCK OUTPUT |
| 11 | R | BAT (FUSE) |
| 13 | B | GROUND |
| 15 | Y | ACC IND |
| 17 | W | TURN SIGNAL RH (FRONT) |
| 18 | BG | TURN SIGNAL LH (FRONT) |
| 19 | SB | ROOM LAMP TIMER |

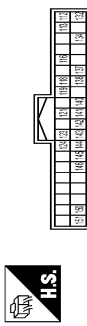
| | |
|----------------|---------------------------|
| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 74 | SB | PASSENGER DOOR ANT- |
| 75 | BR | PASSENGER DOOR ANT+ |
| 76 | V | DRIVER DOOR ANT- |
| 77 | LG | DRIVER DOOR ANT+ |
| 78 | Y | ROOM ANT- |
| 79 | BR | ROOM ANT+ |
| 80 | GR | NAT'S ANT AMP. |
| 81 | W | NAT'S ANT AMP. |

| | | |
|-----|----|-------------------------------------|
| 82 | P | IGN RELAY (F/B) CONT |
| 83 | GR | KEYLESS ENTRY RECEIVER SIGNAL |
| 87 | BR | COMBI SW INPUT 5 |
| 88 | V | COMBI SW INPUT 3 |
| 90 | P | CAN-L |
| 91 | L | CAN-H |
| 92 | LG | KEY SLOT ILL |
| 93 | V | ON IND |
| 95 | BG | ACC RELAY CONT |
| 96 | GR | AT SHIFT SELECTOR POWER SUPPLY |
| 99 | R | SHIFT P |
| 100 | G | PASSENGER DOOR REQUEST SW |
| 101 | SB | DRIVER DOOR REQUEST SW |
| 102 | BG | BLOWER FAN MOTOR RELAY CONT |
| 103 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 107 | LG | COMBI SW INPUT 1 |
| 108 | R | COMBI SW INPUT 4 |
| 109 | Y | COMBI SW INPUT 2 |
| 110 | G | HAZARD SW |

| | |
|----------------|---------------------------|
| Connector No. | M123 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FG-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 112 | GR | RAIN SENSOR SERIAL LINK |
| 113 | P | OPTICAL SENSOR |
| 116 | BR | STOP LAMP SW 1 |
| 118 | P | STOP LAMP SW 2 |
| 119 | SB | DR DOOR UNLOCK SENSOR |
| 121 | BR | KEY SLOT SW |
| 123 | W | IGN F/B |
| 124 | LG | PASSENGER DOOR SW |
| 132 | BG | POWER WINDOW SW COMM |
| 134 | GR | LOCK IND |
| 137 | B | RECEIVER SENSOR GND |
| 138 | Y | SENSOR POWER SUPPLY |
| 140 | R | SHIFT NP |
| 141 | G | SECURITY INDICATOR OUTPUT |
| 142 | BG | COMBI SW OUTPUT 5 |

FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP

| | | |
|-----|----|----------------------------------|
| 143 | P | COMBI SW OUTPUT 1 |
| 144 | G | COMBI SW OUTPUT 2 |
| 145 | L | COMBI SW OUTPUT 3 |
| 146 | SB | COMBI SW OUTPUT 4 |
| 150 | GR | DRIVER DOOR SW |
| 151 | G | REAR WINDOW DEFROGGER RELAY CONT |

| | |
|----------------|--------------|
| Connector No. | M151 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M03FW-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | Y | - |
| 3 | R | - |

| | |
|----------------|--------------|
| Connector No. | M152 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M03MW-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | Y | - |
| 3 | R | - |

JRLWD6028GB

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

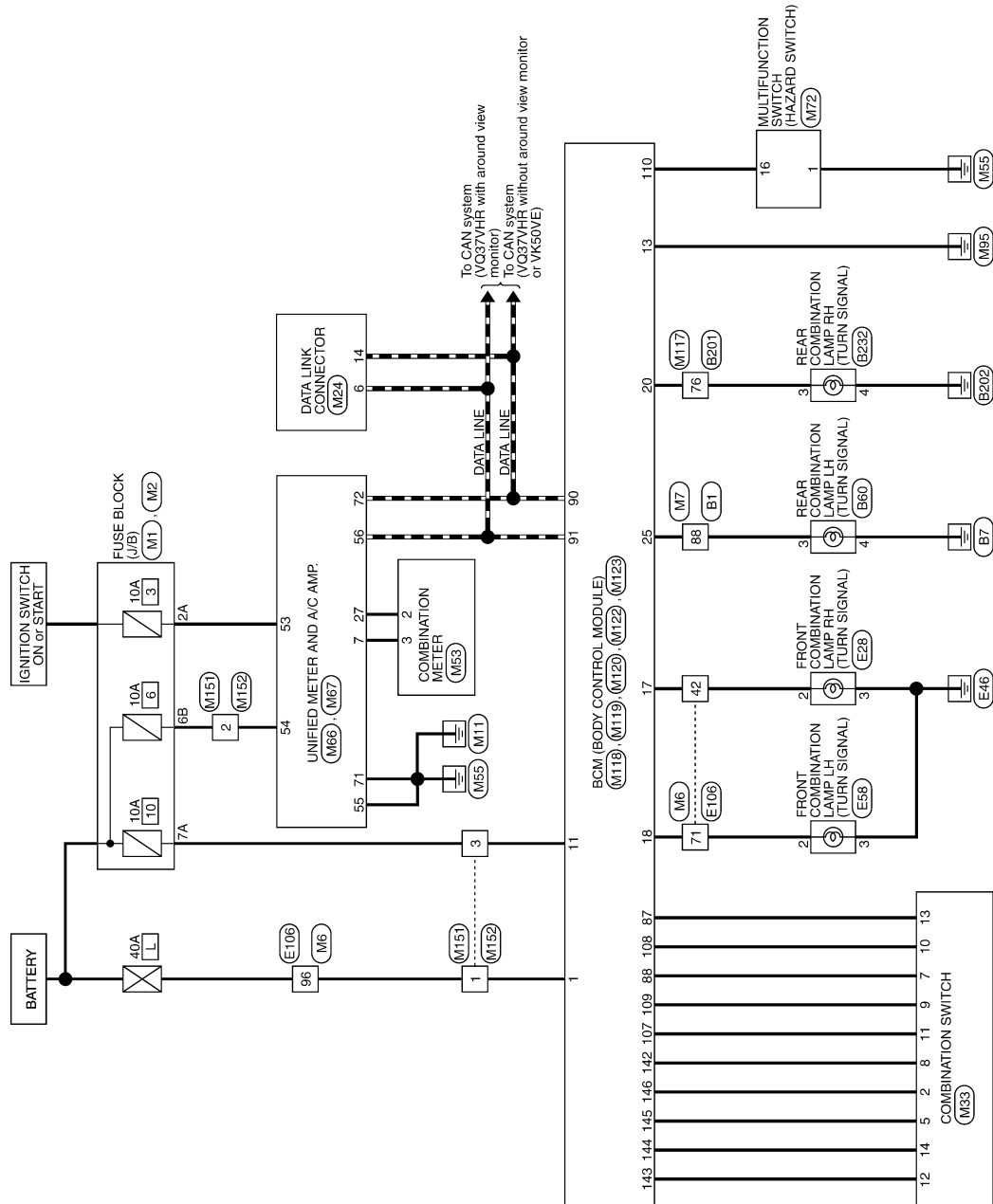
[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

Wiring Diagram - TURN AND HAZARD WARNING LAMPS -

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TURN SIGNAL AND HAZARD WARNING LAMPS



2014/03/18

JRLWD6029GB

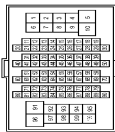
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

| | |
|----------------|-----------------|
| Connector No. | B1 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | L | - |
| 3 | W | - |
| 6 | G | - |
| 7 | P | - |
| 8 | B | - |
| 10 | SB | - |
| 11 | SB | - |
| 12 | B | - |
| 13 | G | - |
| 14 | R | - |
| 15 | W | - |
| 16 | SHIELD | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | Y | - |
| 21 | W | - |
| 23 | V | - |
| 24 | P | - |
| 25 | BR | - |
| 26 | GR | - |
| 27 | B | - |
| 28 | W | - |
| 38 | B | - |
| 39 | B | - |
| 43 | SB | - |
| 44 | V | - |
| 45 | GR | - |
| 51 | V | - |
| 52 | SB | - |
| 53 | SHIELD | - |
| 54 | BR | - |
| 55 | Y | - |
| 56 | SHIELD | - |

| | |
|----------------|--------------------------|
| Connector No. | B60 |
| Connector Name | REAR COMBINATION LAMP LH |
| Connector Type | TH4MMV-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | LG | - |
| 3 | G | - |
| 4 | B | - |

| | |
|----------------|-----------------|
| Connector No. | B201 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | R | - |
| 3 | BR | - |
| 4 | SB | - |
| 6 | B | - |
| 7 | GR | - |
| 8 | W | - |
| 10 | G | - |
| 11 | SHIELD | - |
| 20 | L | - |
| 21 | P | - |
| 22 | GR | - |
| 23 | LG | - |
| 24 | W | - |
| 25 | V | - |

| | | |
|----|--------|-----------------|
| 26 | G | - |
| 27 | Y | - |
| 28 | SHIELD | - |
| 31 | W | - |
| 32 | GR | - |
| 33 | SB | - |
| 36 | L | - |
| 37 | P | - |
| 38 | L | - |
| 39 | P | - |
| 40 | LG | - [With ICC] |
| 40 | V | - [Without ICC] |
| 41 | SB | - [With ICC] |
| 41 | Y | - [Without ICC] |
| 42 | V | - [With ICC] |
| 42 | W | - [Without ICC] |
| 43 | B | - [With ICC] |
| 43 | BR | - [Without ICC] |
| 44 | R | - [With ICC] |
| 45 | G | - |
| 46 | B | - [With ICC] |
| 46 | SHIELD | - [Without ICC] |
| 47 | B | - [With ICC] |
| 47 | L | - [Without ICC] |
| 48 | P | - [With ICC] |
| 48 | R | - [Without ICC] |
| 49 | G | - [With ICC] |
| 49 | W | - [Without ICC] |
| 50 | SHIELD | - |
| 51 | W | - |
| 52 | R | - |
| 53 | G | - |
| 54 | L | - |
| 55 | SB | - |
| 60 | GR | - |
| 61 | LG | - |
| 62 | SB | - |
| 63 | P | - |
| 64 | BR | - |
| 65 | B | - |
| 66 | Y | - |
| 67 | W | - |
| 69 | G | - |
| 71 | SB | - |
| 72 | V | - |
| 73 | LG | - |
| 74 | W | - |
| 75 | BR | - |
| 76 | V | - |

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

| | |
|----------------|--------------------------|
| Connector No. | B232 |
| Connector Name | REAR COMBINATION LAMP RH |
| Connector Type | TH44MW-NH |

| | |
|----------------|---------------------------|
| Connector No. | E28 |
| Connector Name | FRONT COMBINATION LAMP RH |
| Connector Type | RS44FB-FR |



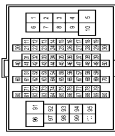
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | BR | - |
| 2 | V | - |
| 3 | B | - |
| 4 | P | - |

| | |
|----------------|---------------------------|
| Connector No. | E58 |
| Connector Name | FRONT COMBINATION LAMP LH |
| Connector Type | RS44FB-FR |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | Y | - |
| 2 | G | - |
| 3 | B | - |
| 4 | BG | - |

| | |
|----------------|-----------------|
| Connector No. | E106 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FM-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | BG | - |
| 3 | SB | - |
| 4 | LG | - |
| 5 | Y | - |
| 6 | W | - |
| 7 | G | - |
| 8 | V | - |
| 9 | R | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | SB | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | W | - [With ICC] |
| 21 | Y | - [Without ICC] |
| 22 | BR | - [With ICC] |
| 23 | V | - [Without ICC] |
| 24 | L | - [With ICC] |
| 25 | P | - [Without ICC] |
| 26 | Y | - [Without ICC] |
| 27 | SHIELD | - [With ICC] |
| 28 | G | - |
| 29 | LG | - |
| 30 | BG | - |
| 31 | W | - |
| 32 | Y | - |
| 33 | W | - |
| 34 | BG | - |

| | | |
|----|--------|---|
| 37 | Y | - |
| 38 | GR | - |
| 39 | LG | - |
| 41 | LG | - |
| 42 | V | - |
| 43 | R | - |
| 44 | G | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | SB | - |
| 50 | BR | - |
| 51 | B | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | R | - |
| 55 | SB | - |
| 58 | P | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | LG | - |
| 64 | L | - |
| 65 | BG | - |
| 69 | L | - |
| 70 | SHIELD | - |
| 71 | G | - |
| 72 | G | - |
| 73 | R | - |
| 74 | BR | - |
| 76 | L | - |
| 77 | W | - |
| 78 | Y | - |
| 80 | SB | - |
| 81 | L | - |
| 82 | W | - |
| 83 | LG | - |
| 84 | GR | - |
| 85 | G | - |
| 86 | P | - |
| 87 | W | - |
| 88 | BG | - |
| 89 | LG | - |
| 90 | BR | - |
| 91 | GR | - |
| 92 | BR | - |
| 93 | SB | - |
| 95 | Y | - |
| 96 | W | - |

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

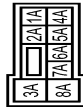
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

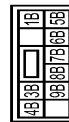
| | | |
|-----|--------|---|
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|------------------|
| Connector No. | M1 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS08FW-M2 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1A | BG | - |
| 2A | G | - |
| 3A | L | - |
| 4A | R | - |
| 5A | V | - |
| 6A | Y | - |
| 7A | R | - |
| 8A | L | - |

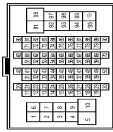
| | |
|----------------|------------------|
| Connector No. | M2 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS10FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1B | LG | - |
| 3B | P | - |
| 4B | G | - |
| 5B | BG | - |
| 6B | Y | - |
| 7B | L | - |
| 8B | R | - |

| | | |
|----|----|---|
| 9B | BR | - |
|----|----|---|

| | |
|----------------|-----------------|
| Connector No. | M6 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|------------------------------|
| 1 | G | - |
| 2 | BG | - |
| 3 | LG | - [Without Auto aircon seat] |
| 4 | SB | - [With Auto aircon seat] |
| 5 | SB | - |
| 6 | GR | - |
| 7 | W | - |
| 8 | W | - |
| 9 | P | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | BR | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | GR | - [Without ICC] |
| 21 | BR | - [With ICC] |
| 22 | L | - [Without ICC] |
| 23 | R | - [With ICC] |
| 24 | L | - |
| 25 | P | - [Without ICC] |
| 26 | W | - [With ICC] |
| 27 | SHIELD | - |
| 28 | GR | - |

| | | |
|----|--------|---|
| 29 | V | - |
| 30 | BG | - |
| 32 | W | - |
| 33 | Y | - |
| 34 | L | - |
| 37 | G | - |
| 38 | R | - |
| 39 | G | - |
| 41 | L | - |
| 42 | W | - |
| 43 | R | - |
| 44 | LG | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | BG | - |
| 50 | LG | - |
| 51 | SB | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | BR | - |
| 55 | SB | - |
| 59 | SB | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | R | - |
| 64 | L | - |
| 65 | BG | - |
| 69 | V | - |
| 70 | SHIELD | - |
| 71 | BG | - |
| 72 | GR | - |
| 73 | W | - |
| 74 | SB | - |
| 76 | V | - |
| 77 | V | - |
| 78 | Y | - |
| 80 | BG | - |
| 81 | L | - |
| 82 | W | - |
| 83 | Y | - |
| 84 | L | - |
| 85 | P | - |
| 86 | BR | - |
| 87 | P | - |
| 88 | V | - |
| 89 | G | - |
| 90 | P | - |

| | | |
|-----|--------|---|
| 91 | R | - |
| 92 | R | - |
| 93 | GR | - |
| 95 | G | - |
| 96 | W | - |
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|-----------------|
| Connector No. | M7 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|------------------------------|
| 1 | G | - [With Auto aircon seat] |
| 1 | Y | - [Without Auto aircon seat] |
| 2 | B | - |
| 3 | W | - |
| 6 | P | - |
| 7 | V | - |
| 8 | BG | - |
| 10 | W | - |
| 11 | BG | - |
| 12 | B | - |
| 13 | G | - |
| 14 | R | - |
| 15 | W | - |
| 16 | SHIELD | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | R | - |
| 21 | LG | - |
| 23 | V | - |
| 24 | P | - |
| 25 | BR | - |
| 26 | GR | - |
| 27 | BG | - |
| 28 | W | - |
| 38 | B | - |

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

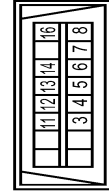
[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 39 | B | - |
| 43 | SB | - |
| 44 | W | - |
| 45 | B | - |
| 51 | V | - |
| 52 | LG | - |
| 53 | SHIELD | - |
| 54 | BR | - |
| 55 | Y | - |
| 56 | SHIELD | - |
| 57 | P | - |
| 58 | L | - |
| 59 | SHIELD | - |
| 60 | L | - |
| 61 | BR | - |
| 62 | R | - |
| 63 | Y | - |
| 64 | L | - |
| 65 | W | - |
| 66 | V | - |
| 67 | LG | - |
| 68 | Y | - |
| 69 | G | - |
| 70 | V | - |
| 71 | W | - |
| 72 | B | - |
| 73 | W | - |
| 74 | LG | - |
| 75 | P | - |
| 76 | LG | - |
| 77 | SB | - |
| 78 | GR | - |
| 79 | R | - |
| 80 | L | - |
| 81 | P | - |
| 82 | L | - |
| 83 | P | - |
| 84 | SB | - |
| 85 | W | - |
| 86 | Y | - |
| 87 | B | - |
| 88 | G | - |
| 89 | BG | - |
| 91 | R | - |
| 92 | BG | - |
| 93 | BR | - |
| 94 | V | - |
| 96 | BG | - |
| 97 | W | - |
| 98 | R | - |

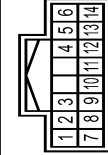
| | | |
|----|----|---|
| 99 | BG | - |
|----|----|---|

| | |
|----------------|---------------------|
| Connector No. | M24 |
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 3 | LG | - |
| 4 | B | - |
| 5 | B | - |
| 6 | L | - |
| 7 | GR | - |
| 8 | G | - |
| 11 | SB | - |
| 12 | P | - |
| 13 | L | - |
| 14 | P | - |
| 16 | BG | - |

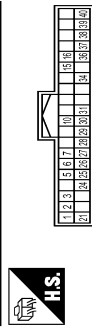
| | |
|----------------|--------------------|
| Connector No. | M33 |
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | FR WASHER (-) |
| 2 | SB | OUTPUT 4 |
| 3 | BG | FR WASHER (+) |
| 4 | G | IGN |
| 5 | L | OUTPUT 3 |
| 6 | B | GROUND |

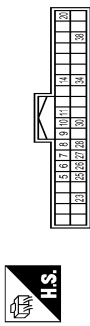
| | | |
|----|----|----------|
| 7 | V | INPUT 3 |
| 8 | BG | OUTPUT 5 |
| 9 | Y | INPUT 2 |
| 10 | R | INPUT 4 |
| 11 | LG | INPUT 1 |
| 12 | P | OUTPUT 1 |
| 13 | BR | INPUT 5 |
| 14 | G | OUTPUT 2 |

| | |
|----------------|-------------------|
| Connector No. | M53 |
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|--|
| 1 | BG | BATTERY POWER SUPPLY |
| 2 | LG | COMMUNICATION SIGNAL (METER->AMP.) |
| 3 | GR | COMMUNICATION SIGNAL (AMP->METER) |
| 5 | B | GROUND |
| 6 | W | ALTERNATOR SIGNAL |
| 7 | P | AIR BAG SIGNAL |
| 10 | G | SECURITY INDICATOR SIGNAL |
| 15 | B | GROUND |
| 16 | B | METER CONTROL SWITCH GROUND |
| 21 | R | IGNITION SIGNAL |
| 24 | BR | COMMUNICATION SIGNAL (LCD->AMP.) |
| 25 | Y | COMMUNICATION SIGNAL (AMP->LCD) |
| 26 | R | VEHICLE SPEED SIGNAL (8-PULSE) |
| 27 | V | PARKING BRAKE SWITCH SIGNAL |
| 28 | W | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 29 | SB | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 30 | G | PASSENGER SEAT BELT WARNING SIGNAL |
| 31 | L | WASHER LEVEL SWITCH SIGNAL |
| 34 | B | ILLUMINATION CONTROL SIGNAL |
| 36 | LG | ENTER SWITCH SIGNAL |
| 37 | SB | SELECT SWITCH SIGNAL |
| 38 | L | TRIP AIR RESET SWITCH SIGNAL |
| 39 | P | ILLUMINATION CONTROL SWITCH SIGNAL (-) |
| 40 | BG | ILLUMINATION CONTROL SWITCH SIGNAL (+) |

| | |
|----------------|----------------------------|
| Connector No. | M66 |
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH40FW-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|--|
| 5 | L | MANUAL MODE SHIFT UP SIGNAL |
| 6 | BG | PADDLE SHIFTER UP SIGNAL |
| 7 | GR | COMMUNICATION SIGNAL (AMP->METER) |
| 8 | L | VEHICLE SPEED SIGNAL (2-PULSE) |
| 9 | SB | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 10 | W | MANUAL MODE SIGNAL |
| 11 | G | NON-MANUAL MODE SIGNAL |
| 14 | BR | COMMUNICATION SIGNAL (LCD->AMP.) |
| 20 | L | ION SENSOR SIGNAL |
| 23 | Y | AT SNOW SWITCH SIGNAL |
| 25 | V | MANUAL MODE SHIFT DOWN SIGNAL |
| 26 | G | PADDLE SHIFTER DOWN SIGNAL |
| 27 | LG | COMMUNICATION SIGNAL (METER->AMP.) |
| 28 | R | VEHICLE SPEED SIGNAL (8-PULSE) |
| 30 | V | PARKING BRAKE SWITCH SIGNAL |
| 34 | Y | COMMUNICATION SIGNAL (AMP->LCD) |
| 38 | L | BLOWER MOTOR CONTROL SIGNAL |

| | |
|----------------|----------------------------|
| Connector No. | M67 |
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH32FW-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 41 | V | ACC POWER SUPPLY |
| 42 | Y | FUEL LEVEL SENSOR SIGNAL |
| 43 | R | INTAKE SENSOR SIGNAL |

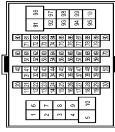
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

| Terminal No. | Signal Name [Specification] |
|--------------|-----------------------------|
| 44 | IN-VEHICLE SENSOR SIGNAL |
| 45 | P |
| 46 | BG |
| 47 | V |
| 53 | G |
| 54 | BG |
| 55 | B |
| 56 | L |
| 57 | W |
| 58 | B |
| 59 | GR |
| 60 | L |
| 61 | BR |
| 62 | SB |
| 63 | R |
| 65 | BG |
| 69 | L |
| 70 | R |
| 71 | B |
| 72 | P |



| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| M117 | WIRE TO WIRE |
| M117 | WIRE TO WIRE |
| M117 | WIRE TO WIRE |

| Terminal No. | Signal Name [Specification] |
|--------------|-----------------------------|
| 46 | SHIELD |
| 47 | B |
| 48 | P |
| 49 | R |
| 50 | G |
| 51 | W |
| 52 | SHIELD |
| 53 | BG |
| 54 | GR |
| 55 | G |
| 56 | L |
| 57 | P |
| 58 | LG |
| 59 | R |
| 60 | SB |
| 61 | V |
| 62 | Y |
| 63 | BR |
| 64 | W |
| 65 | GR |
| 66 | BG |
| 67 | W |
| 68 | GR |
| 69 | G |
| 70 | SB |
| 71 | V |
| 72 | V |
| 73 | V |
| 74 | LG |
| 75 | BR |
| 76 | V |
| 77 | LG |
| 80 | R |
| 82 | Y |
| 83 | BG |
| 84 | W |
| 85 | SB |
| 86 | B |
| 87 | P |
| 91 | L |
| 92 | L |
| 93 | G |
| 94 | BG |
| 95 | V |
| 96 | G |
| 97 | G |
| 98 | L |
| 99 | LG |



| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| M118 | BCM (BODY CONTROL MODULE) |
| M118 | BCM (BODY CONTROL MODULE) |
| M118 | BCM (BODY CONTROL MODULE) |

| Terminal No. | Signal Name [Specification] |
|--------------|-----------------------------|
| 1 | GR |
| 2 | BR |
| 3 | V |
| 4 | SB |
| 6 | Y |
| 7 | B |
| 8 | W |
| 10 | W |
| 11 | SHIELD |
| 20 | R |
| 21 | G |
| 22 | GR |
| 23 | V |
| 24 | W |
| 25 | R |
| 26 | P |
| 27 | L |
| 28 | SHIELD |
| 31 | W |
| 32 | W |
| 33 | SB |
| 36 | L |
| 37 | P |
| 38 | L |
| 39 | P |
| 40 | V |
| 41 | SB |
| 42 | V |
| 43 | B |
| 44 | R |
| 45 | G |
| 46 | BG |

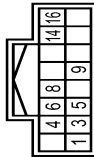


| Terminal No. | Signal Name [Specification] |
|--------------|-----------------------------|
| 46 | SHIELD |
| 47 | B |
| 48 | P |
| 49 | R |
| 50 | G |
| 51 | W |
| 52 | SHIELD |
| 53 | BG |
| 54 | GR |
| 55 | G |
| 56 | L |
| 57 | P |
| 58 | LG |
| 59 | R |
| 60 | SB |
| 61 | V |
| 62 | Y |
| 63 | BR |
| 64 | W |
| 65 | GR |
| 66 | BG |
| 67 | W |
| 68 | GR |
| 69 | G |
| 70 | SB |
| 71 | V |
| 72 | V |
| 73 | V |
| 74 | LG |
| 75 | BR |
| 76 | V |
| 77 | LG |
| 80 | R |
| 82 | Y |
| 83 | BG |
| 84 | W |
| 85 | SB |
| 86 | B |
| 87 | P |
| 91 | L |
| 92 | L |
| 93 | G |
| 94 | BG |
| 95 | V |
| 96 | G |
| 97 | G |
| 98 | L |
| 99 | LG |

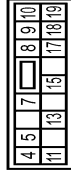


| Terminal No. | Signal Name [Specification] |
|--------------|-----------------------------|
| 1 | W |
| 2 | Y |
| 3 | BG |

| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| M72 | MULTIFUNCTION SWITCH |
| M72 | MULTIFUNCTION SWITCH |
| M72 | MULTIFUNCTION SWITCH |



| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| M119 | BCM (BODY CONTROL MODULE) |
| M119 | BCM (BODY CONTROL MODULE) |
| M119 | BCM (BODY CONTROL MODULE) |



| Terminal No. | Signal Name [Specification] |
|--------------|-----------------------------|
| 1 | B |
| 3 | V |
| 4 | R |
| 5 | R |
| 6 | SB |
| 8 | LG |
| 9 | BR |
| 14 | SB |
| 16 | G |



| Terminal No. | Signal Name [Specification] |
|--------------|-----------------------------|
| 4 | P |
| 5 | V |
| 7 | Y |
| 8 | V |
| 9 | G |
| 10 | BR |
| 11 | R |
| 13 | B |
| 15 | Y |
| 17 | W |
| 18 | BG |
| 19 | SB |

JRLWLD6034GB

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

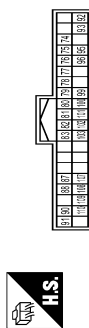
TURN SIGNAL AND HAZARD WARNING LAMPS

| | |
|----------------|---------------------------|
| Connector No. | M120 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | MS12FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 20 | V | TURN SIGNAL RH (REAR) |
| 25 | G | TURN SIGNAL LH (REAR) |
| 26 | P | REAR WIPER OUTPUT |

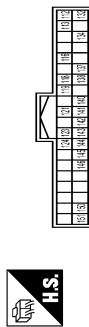
| | |
|----------------|---------------------------|
| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FE-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-------------------------------|
| 74 | SB | PASSENGER DOOR ANT- |
| 75 | BR | PASSENGER DOOR ANT+ |
| 76 | V | DRIVER DOOR ANT- |
| 77 | LG | DRIVER DOOR ANT+ |
| 78 | Y | ROOM ANT1- |
| 79 | BR | ROOM ANT1+ |
| 80 | GR | NATS ANT AMP |
| 81 | W | NATS ANT |
| 82 | P | IGN RELAY (FBI) CONT |
| 83 | GR | KEYLESS ENTRY RECEIVER SIGNAL |
| 87 | BR | COMBI SW INPUT 5 |
| 88 | V | COMBI SW INPUT 3 |
| 90 | P | CAN-L |
| 91 | L | CAN-H |
| 92 | LG | KEY SLOT ILL |
| 93 | V | ON IND |
| 95 | BG | ACC RELAY CONT |

| | | |
|-----|----|-------------------------------------|
| 96 | GR | AT SHIFT SELECTOR POWER SUPPLY |
| 99 | R | SHIFT P |
| 100 | G | PASSENGER DOOR REQUEST SW |
| 101 | SB | DRIVER DOOR REQUEST SW |
| 102 | BG | BLOWER FAN MOTOR RELAY CONT |
| 103 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 107 | LG | COMBI SW INPUT 1 |
| 108 | R | COMBI SW INPUT 4 |
| 109 | Y | COMBI SW INPUT 2 |
| 110 | G | HAZARD SW |

| | |
|----------------|---------------------------|
| Connector No. | M123 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FC-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------|
| 112 | GR | RAIN SENSOR SERIAL LINK |
| 113 | P | OPTICAL SENSOR |
| 116 | BR | STOP LAMP SW 1 |
| 118 | P | STOP LAMP SW 2 |
| 119 | SB | DR DOOR UNLOCK SENSOR |
| 121 | BR | KEY SLOT SW |
| 123 | W | IGN F/B |
| 124 | LG | PASSENGER DOOR SW |
| 132 | BG | POWER WINDOW SW COMM |
| 134 | GR | LOCK IND |
| 137 | B | RECEIVER SENSOR GND |
| 138 | Y | SENSOR POWER SUPPLY |
| 140 | R | SHIFT NIP |
| 141 | G | SECURITY INDICATOR OUTPUT |
| 142 | BG | COMBI SW OUTPUT 5 |
| 143 | P | COMBI SW OUTPUT 1 |
| 144 | G | COMBI SW OUTPUT 2 |
| 145 | L | COMBI SW OUTPUT 3 |
| 146 | SB | COMBI SW OUTPUT 4 |
| 150 | GR | DRIVER DOOR SW |
| 151 | G | REAR WINDOW DEFOGGER RELAY CONT |

| | |
|----------------|--------------|
| Connector No. | M151 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M03FW-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | Y | - |
| 3 | R | - |

| | |
|----------------|--------------|
| Connector No. | M152 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M03MW-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | Y | - |
| 3 | R | - |

JRLWLD6035GB

[XENON TYPE]

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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| | |
|----------------|--------------|
| Connector No. | B4 |
| Connector Name | WIRE TO WIRE |
| Connector Type | NS12FW-CS |



| | | | | | | |
|----|----|-------------|---|---|---|---|
| 5 | 4 | <div></div> | 3 | 2 | 1 | |
| 12 | 11 | 10 | 9 | 8 | 7 | 6 |

| | |
|----------------|--------------|
| Connector No. | B28 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH32MW-AH |



| | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 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 |

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | R | - |
| 3 | SHIELD | - |
| 4 | L | - |
| 5 | G | - |
| 6 | R | - |
| 7 | R | - |
| 8 | B | - |
| 9 | LG | - |
| 10 | BR | - |
| 11 | BG | - |
| 12 | GR | - |

| | |
|----------------|--------------|
| Connector No. | B27 |
| Connector Name | WIRE TO WIRE |
| Connector Type | MO8MW-GY-LC |



| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | B | - |
| 3 | W | - |
| 4 | B | - |
| 6 | BR | - |
| 7 | G | - |
| 8 | SHIELD | - |

| | |
|----------------|--------------------------|
| Connector No. | B60 |
| Connector Name | REAR COMBINATION LAMP LH |
| Connector Type | TH4MMV-AH |



| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | LG | - |
| 3 | G | - |
| 4 | B | - |

| | |
|----------------|--------------|
| Connector No. | B67 |
| Connector Name | WIRE TO WIRE |
| Connector Type | NS16MBR-CS |



| | | | | | | | | |
|---|---|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | BR | - |
| 2 | G | - |
| 3 | SHIELD | - |
| 5 | G | - |
| 8 | BR | - |
| 9 | G | - |
| 10 | SHIELD | - |
| 11 | L | - |
| 12 | GR | - |
| 13 | R | - |
| 14 | R | - |

| | |
|----------------|--------------------------|
| Connector No. | B232 |
| Connector Name | REAR COMBINATION LAMP RH |
| Connector Type | TH4MMV-AH |



| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | - |
| 2 | LG | - |
| 3 | V | - |
| 4 | B | - |

| | |
|----------------|--------------|
| Connector No. | B241 |
| Connector Name | WIRE TO WIRE |
| Connector Type | NS16FBR-CS |



| | | | | | | | | |
|----|----|----|----|-------------|----|----|---|---|
| 7 | 6 | 5 | 4 | <div></div> | 3 | 2 | 1 | |
| 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 |

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | BR | - |
| 2 | G | - |
| 3 | SHIELD | - |
| 5 | G | - |
| 8 | LY | - |
| 9 | L/B | - |
| 10 | SHIELD | - |
| 11 | L | - |
| 12 | W | - |
| 13 | P | - |
| 14 | R | - |

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

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| | |
|----------------|--------------|
| Connector No. | D101 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M08FW-GY-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | B | - |
| 3 | R | - |
| 4 | GR | - |
| 6 | L/W | - |
| 7 | L/B | - |
| 8 | SHIELD | - |

| | |
|----------------|--------------|
| Connector No. | D102 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH32FW-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | L | - |
| 3 | Y | - |
| 4 | SHIELD | - |
| 5 | R | - |
| 6 | G | - |
| 7 | Y | - |
| 8 | L | - |
| 9 | W | - |
| 10 | SHIELD | - |
| 11 | G | - |
| 12 | W | - |

| | | |
|----|----|---|
| 14 | LG | - |
| 15 | BG | - |
| 16 | G | - |
| 17 | W | - |
| 18 | LG | - |
| 19 | BR | - |
| 20 | R | - |
| 21 | V | - |
| 22 | LG | - |
| 23 | P | - |
| 24 | BG | - |
| 25 | BG | - |
| 26 | GR | - |
| 27 | L | - |
| 32 | BG | - |

| | |
|----------------|-----------------------|
| Connector No. | D112 |
| Connector Name | LICENSE PLATE LAMP LH |
| Connector Type | TK02FBR |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | - |
| 2 | B | - |

| | |
|----------------|-----------------------|
| Connector No. | D117 |
| Connector Name | LICENSE PLATE LAMP RH |
| Connector Type | TK02FER |



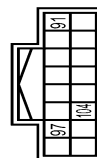
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | - |
| 2 | B | - |

| | |
|----------------|--|
| Connector No. | E5 |
| Connector Name | PCM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | TH20FW-CS12-M4-TV |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 4 | V | - |
| 5 | L | - |
| 7 | R | - |
| 10 | SB | - |
| 12 | B | - |
| 13 | Y | - |
| 16 | LG | - |
| 19 | W | - |
| 25 | G | - |
| 26 | R | - |
| 27 | Y | - |
| 28 | BG | - |
| 30 | GR | - |
| 36 | G | - |

| | |
|----------------|---|
| Connector No. | E9 |
| Connector Name | POM-ER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | TH16FW-NH |



| Terminal No. | Color Of Wire | Signal Name (Specification) |
|--------------|---------------|-----------------------------|
| 91 | P | - |
| 97 | V | - |
| 104 | LG | |

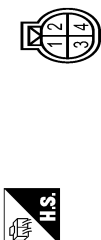
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< DTC/CIRCUIT DIAGNOSIS >

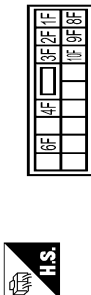
[XENON TYPE]

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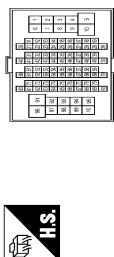
| | |
|----------------|---------------------------|
| Connector No. | E28 |
| Connector Name | FRONT COMBINATION LAMP RH |
| Connector Type | RSM4FB-PR |



| | |
|----------------|------------------|
| Connector No. | E103 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS16FW-CS |

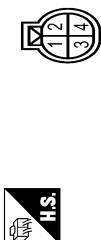


| | |
|----------------|-----------------|
| Connector No. | E106 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |



| | |
|--------------|-----------------------------|
| Terminal No. | Signal Name [Specification] |
| 1 | BR |
| 2 | V |
| 3 | B |
| 4 | P |

| | |
|----------------|---------------------------|
| Connector No. | E56 |
| Connector Name | FRONT COMBINATION LAMP LH |
| Connector Type | RSM4FB-PR |



| | |
|--------------|-----------------------------|
| Terminal No. | Signal Name [Specification] |
| 1 | Y |
| 2 | G |
| 3 | B |
| 4 | BG |

| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color Of Wire | Signal Name [Specification] |
| 10F | L | - |
| 1F | SB | - |
| 2F | W | - |
| 3F | Y | - |
| 4F | G | - |
| 6F | BG | - |
| 8F | L | - |
| 9F | R | - |

| | |
|----------------|--------------|
| Connector No. | E104 |
| Connector Name | WIRE TO WIRE |
| Connector Type | NS12MW-CS |



| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color Of Wire | Signal Name [Specification] |
| 1 | W | - |
| 2 | BR | - |
| 3 | L | - |
| 4 | Y | - |
| 5 | R | - |
| 6 | P | - |
| 7 | R | - |
| 8 | SHIELD | - |
| 9 | LG | - |
| 10 | BR | - |
| 11 | BG | - |
| 12 | GR | - |

| | | |
|----|--------|---|
| 37 | Y | - |
| 38 | GR | - |
| 39 | LG | - |
| 41 | LG | - |
| 42 | V | - |
| 43 | R | - |
| 44 | G | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | SB | - |
| 50 | BR | - |
| 51 | B | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | R | - |
| 55 | SB | - |
| 56 | P | - |
| 58 | P | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | LG | - |
| 64 | L | - |
| 65 | BG | - |
| 66 | L | - |
| 69 | L | - |
| 70 | SHIELD | - |
| 71 | G | - |
| 72 | G | - |
| 73 | R | - |
| 74 | BR | - |
| 76 | L | - |
| 77 | W | - |
| 78 | Y | - |
| 80 | SB | - |
| 81 | L | - |
| 82 | W | - |
| 83 | LG | - |
| 84 | GR | - |
| 85 | G | - |
| 86 | P | - |
| 87 | W | - |
| 88 | BG | - |
| 89 | LG | - |
| 90 | BR | - |
| 91 | GR | - |
| 92 | BR | - |
| 93 | SB | - |
| 95 | Y | - |
| 96 | W | - |

| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color Of Wire | Signal Name [Specification] |
| 1 | G | - |
| 2 | BG | - |
| 3 | SB | - |
| 4 | LG | - |
| 5 | Y | - |
| 6 | W | - |
| 7 | G | - |
| 8 | V | - |
| 9 | R | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | SB | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | W | - [With ICC] |
| 21 | Y | - [Without ICC] |
| 22 | R | - [With ICC] |
| 23 | V | - [Without ICC] |
| 24 | L | - [With ICC] |
| 25 | P | - [Without ICC] |
| 26 | Y | - [Without ICC] |
| 27 | SHIELD | - [With ICC] |
| 28 | LG | - |
| 29 | BR | - |
| 30 | BG | - |
| 32 | W | - |
| 33 | Y | - |
| 34 | BG | - |

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< DTC/CIRCUIT DIAGNOSIS >

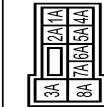
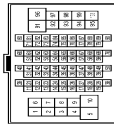
[XENON TYPE]

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| | | |
|-----|--------|---|
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | | |
|----|----|---|
| 99 | BR | - |
|----|----|---|

| | |
|----------------|-----------------|
| Connector No. | M6 |
| Connector Name | WIPE TO WIRE |
| Connector Type | TH60MW-CS16-TM4 |



| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color Of Wire | Signal Name [Specification] |
| 1A | BG | - |
| 2A | G | - |
| 3A | L | - |
| 4A | R | - |
| 5A | V | - |
| 6A | Y | - |
| 7A | R | - |
| 8A | L | - |

| | |
|----------------|------------------|
| Connector No. | M2 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS10FW-CS |

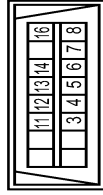


| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color Of Wire | Signal Name [Specification] |
| 1B | LG | - |
| 3B | P | - |
| 4B | G | - |
| 5B | BG | - |
| 6B | Y | - |
| 7B | L | - |
| 8B | R | - |

| | | |
|----|--------|---|
| 29 | V | - |
| 30 | BG | - |
| 32 | W | - |
| 33 | Y | - |
| 34 | L | - |
| 37 | G | - |
| 38 | R | - |
| 39 | G | - |
| 41 | L | - |
| 42 | W | - |
| 43 | R | - |
| 44 | LG | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | BG | - |
| 50 | LG | - |
| 51 | SB | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | BR | - |
| 55 | SB | - |
| 59 | SB | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | R | - |
| 64 | L | - |
| 65 | BG | - |
| 69 | V | - |
| 70 | SHIELD | - |
| 71 | BG | - |
| 72 | GR | - |
| 73 | W | - |
| 74 | SB | - |
| 76 | V | - |
| 77 | V | - |
| 78 | Y | - |
| 80 | BG | - |
| 81 | L | - |
| 82 | W | - |
| 83 | Y | - |
| 84 | L | - |
| 85 | P | - |
| 86 | BR | - |
| 87 | P | - |
| 88 | V | - |
| 89 | G | - |
| 90 | P | - |

| | | |
|-----|--------|---|
| 91 | R | - |
| 92 | R | - |
| 93 | GR | - |
| 95 | G | - |
| 96 | W | - |
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|---------------------|
| Connector No. | M24 |
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |



| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color Of Wire | Signal Name [Specification] |
| 3 | LG | - |
| 4 | B | - |
| 5 | B | - |
| 6 | L | - |
| 7 | GR | - |
| 8 | G | - |
| 11 | SB | - |
| 12 | P | - |
| 13 | L | - |
| 14 | P | - |
| 16 | BG | - |

JRLWD6048GB

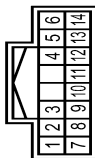
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< DTC/CIRCUIT DIAGNOSIS >

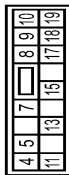
[XENON TYPE]

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| | |
|----------------|--------------------|
| Connector No. | M433 |
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |



| | |
|----------------|---------------------------|
| Connector No. | M119 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS16FW-CS |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 1 | P | | FR WASHER (-) |
| 2 | SB | | OUTPUT 4 |
| 3 | BG | | FR WASHER (+) |
| 4 | G | | IGN |
| 5 | L | | OUTPUT 3 |
| 6 | B | | GROUND |
| 7 | V | | INPUT 3 |
| 8 | BG | | OUTPUT 5 |
| 9 | Y | | INPUT 2 |
| 10 | R | | INPUT 4 |
| 11 | LG | | INPUT 1 |
| 12 | P | | OUTPUT 1 |
| 13 | BR | | INPUT 5 |
| 14 | G | | OUTPUT 2 |

| | |
|----------------|---------------------------|
| Connector No. | M118 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | M03FW-LC |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|---------------------------------|
| 1 | W | | BAT (E/L) |
| 2 | V | | POWER WINDOW POWER SUPPLY (BAT) |
| 3 | BG | | POWER WINDOW POWER SUPPLY (PAP) |

| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-------------------------------------|
| 4 | P | | INT ROOM LAMP PWR SUPPLY (BAT SAME) |
| 5 | V | | PASSENGER DOOR UNLOCK OUTPUT |
| 7 | Y | | STEP LAMP OUTPUT |
| 8 | V | | ALL DOOR FUEL ID LOCK OUTPUT |
| 9 | G | | DRIVER DOOR FUEL ID LOCK OUTPUT |
| 10 | BR | | REAR DOOR UNLOCK OUTPUT |
| 11 | R | | BAT (FUSE) |
| 13 | B | | GROUND |
| 15 | Y | | ACC IND |
| 17 | W | | TURN SIGNAL RH (FRONT) |
| 18 | BG | | TURN SIGNAL LH (FRONT) |
| 19 | SB | | ROOM LAMP TIMER |

| | |
|----------------|---------------------------|
| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |



| | | |
|-----|----|-------------------------------------|
| 82 | P | IGN RELAY (F/B) CONT |
| 83 | GR | KEYLESS ENTRY RECEIVER SIGNAL |
| 87 | BR | COMBI SW INPUT 5 |
| 88 | V | COMBI SW INPUT 3 |
| 90 | P | CAN-L |
| 91 | L | CAN-H |
| 92 | LG | KEY SLOT ILL |
| 93 | V | ON IND |
| 95 | BG | ACC RELAY CONT |
| 96 | GR | AT SHIFT SELECTOR POWER SUPPLY |
| 99 | R | SHIFT P |
| 100 | G | PASSENGER DOOR REQUEST SW |
| 101 | SB | DRIVER DOOR REQUEST SW |
| 102 | BG | BLOWER FAN MOTOR RELAY CONT |
| 103 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 107 | LG | COMBI SW INPUT 1 |
| 108 | R | COMBI SW INPUT 4 |
| 109 | Y | COMBI SW INPUT 2 |
| 110 | G | HAZARD SW |

| | |
|----------------|---------------------------|
| Connector No. | M123 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FG-NH |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 112 | GR | | RAIN SENSOR SERIAL LINK |
| 113 | P | | OPTICAL SENSOR |
| 116 | BR | | STOP LAMP SW 1 |
| 118 | P | | STOP LAMP SW 2 |
| 119 | SB | | DR DOOR UNLOCK SENSOR |
| 121 | BR | | KEY SLOT SW |
| 123 | W | | IGN F/B |
| 124 | LG | | PASSENGER DOOR SW |
| 132 | BG | | POWER WINDOW SW COMM |
| 134 | GR | | LOCK IND |
| 137 | B | | RECEIVER SENSOR GND |
| 138 | Y | | SENSOR POWER SUPPLY |
| 140 | R | | SHIFT NP |
| 141 | G | | SECURITY INDICATOR OUTPUT |
| 142 | BG | | COMBI SW OUTPUT 5 |

| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 1 | W | | - |
| 2 | Y | | - |
| 3 | R | | - |

| | | |
|-----|----|----------------------------------|
| 143 | P | COMBI SW OUTPUT 1 |
| 144 | G | COMBI SW OUTPUT 2 |
| 145 | L | COMBI SW OUTPUT 3 |
| 146 | SB | COMBI SW OUTPUT 4 |
| 150 | GR | DRIVER DOOR SW |
| 151 | G | REAR WINDOW DEFROGGER RELAY CONT |

| | |
|----------------|--------------|
| Connector No. | M151 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M03FW-LC |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 1 | W | | - |
| 2 | Y | | - |
| 3 | R | | - |

| | |
|----------------|--------------|
| Connector No. | M152 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M03MW-LC |



JRLWD6049GB

STOP LAMP

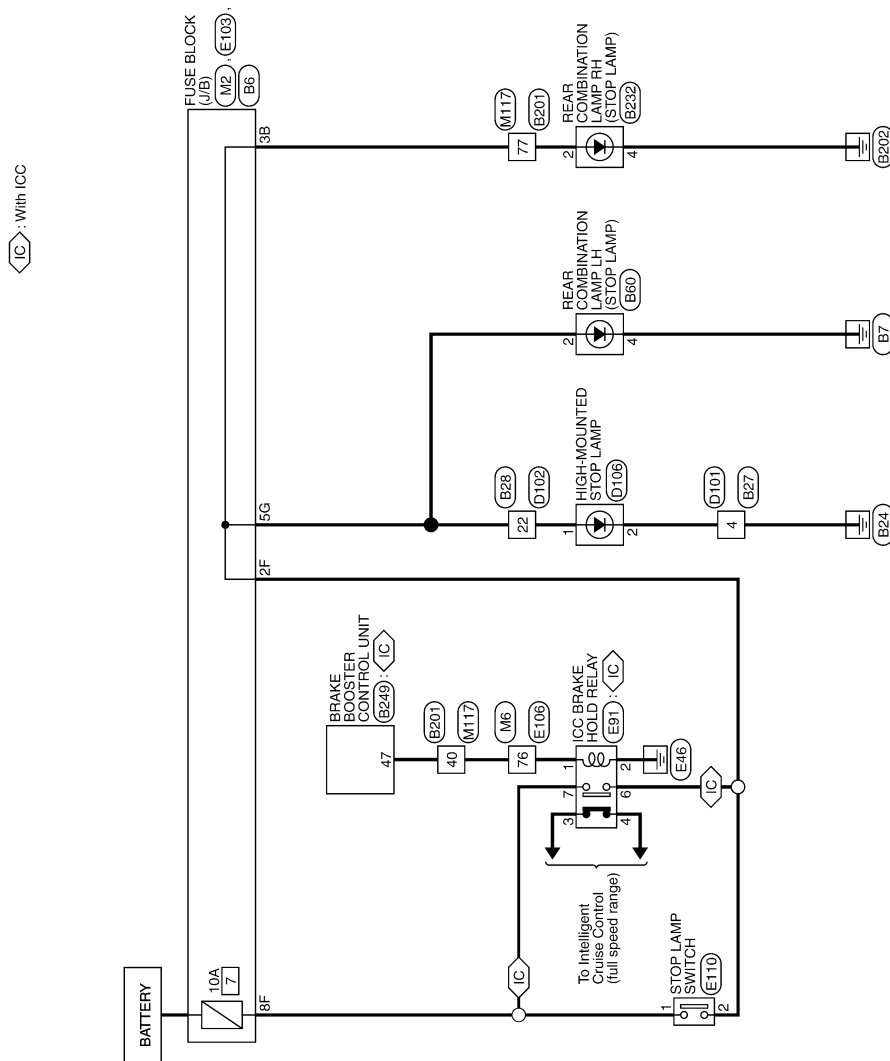
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

STOP LAMP

Wiring Diagram - STOP LAMP -

INFOID:0000000010576354



STOP LAMP

2014/03/18

JRLWD6036GB

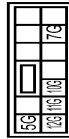
STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

STOP LAMP

| | |
|----------------|-----------------|
| Connector No. | B6 |
| Connector Name | FUSE BLOCK (UB) |
| Connector Type | NS12FBR-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 10G | W | - |
| 11G | W | - |
| 12G | GR | - |
| 13G | LG | - |
| 14G | BG | - |

| | |
|----------------|--------------|
| Connector No. | B27 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M08MM-GY-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | B | - |
| 3 | W | - |
| 4 | B | - |
| 6 | BR | - |
| 7 | G | - |
| 8 | SHIELD | - |

| | |
|----------------|--------------|
| Connector No. | B28 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH32MW-AH |



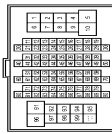
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | B | - |
| 3 | W | - |
| 4 | SHIELD | - |
| 5 | G | - |
| 6 | L | - |
| 7 | R | - |
| 8 | SHIELD | - |
| 9 | W | - |
| 10 | B | - |
| 11 | G | - |
| 12 | L | - |
| 13 | W | - |
| 14 | LG | - |
| 15 | BG | - |
| 16 | G | - |
| 17 | BG | - |
| 18 | V | - |
| 19 | W | - |
| 20 | B | - |
| 21 | G | - |
| 22 | LG | - |
| 23 | R | - |
| 24 | BG | - |
| 25 | BR | - |
| 26 | GR | - |
| 27 | L | - |
| 32 | BG | - |

| | |
|----------------|--------------------------|
| Connector No. | B60 |
| Connector Name | REAR COMBINATION LAMP LH |
| Connector Type | TH04MW-AH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | LG | - |
| 3 | G | - |
| 4 | B | - |

| | |
|----------------|-----------------|
| Connector No. | B201 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH60FW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | R | - |
| 3 | BR | - |
| 4 | SB | - |
| 6 | BG | - |
| 7 | GR | - |
| 8 | W | - |
| 10 | G | - |
| 11 | SHIELD | - |
| 20 | P | - |
| 21 | P | - |
| 22 | GR | - |
| 23 | LG | - |
| 24 | W | - |
| 25 | V | - |

| | | |
|----|--------|-----------------|
| 26 | G | - |
| 27 | Y | - |
| 28 | SHIELD | - |
| 31 | W | - |
| 32 | GR | - |
| 33 | SB | - |
| 36 | L | - |
| 37 | P | - |
| 38 | L | - |
| 39 | P | - |
| 40 | LG | - [With ICC] |
| 40 | V | - [Without ICC] |
| 41 | SB | - [With ICC] |
| 41 | Y | - [Without ICC] |
| 42 | V | - [With ICC] |
| 42 | W | - [Without ICC] |
| 43 | B | - [With ICC] |
| 43 | BR | - [Without ICC] |
| 44 | R | - |
| 45 | G | - |
| 46 | BG | - [With ICC] |
| 46 | SHIELD | - [Without ICC] |
| 47 | B | - [With ICC] |
| 47 | L | - [Without ICC] |
| 48 | P | - [With ICC] |
| 48 | R | - [Without ICC] |
| 49 | G | - [With ICC] |
| 49 | W | - [Without ICC] |
| 50 | SHIELD | - |
| 51 | W | - |
| 52 | R | - |
| 53 | G | - |
| 54 | L | - |
| 55 | SB | - |
| 60 | GR | - |
| 61 | LG | - |
| 62 | SB | - |
| 63 | P | - |
| 64 | BR | - |
| 65 | BG | - |
| 66 | Y | - |
| 67 | W | - |
| 69 | G | - |
| 71 | SB | - |
| 72 | V | - |
| 73 | LG | - |
| 74 | W | - |
| 75 | BR | - |
| 76 | V | - |

STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

STOP LAMP

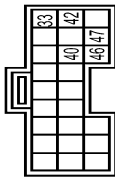
| | | |
|----|----|---|
| 77 | LG | - |
| 80 | BG | - |
| 82 | P | - |
| 83 | Y | - |
| 84 | R | - |
| 85 | SB | - |
| 86 | GR | - |
| 87 | L | - |
| 91 | V | - |
| 92 | W | - |
| 93 | R | - |
| 94 | LG | - |
| 95 | GR | - |
| 96 | W | - |
| 97 | G | - |
| 98 | BG | - |
| 99 | L | - |

| | |
|----------------|--------------------------|
| Connector No. | B232 |
| Connector Name | REAR COMBINATION LAMP RH |
| Connector Type | TH4AMW-AH |



| | | |
|-----------------------|------|-----------------------------|
| Terminal Color Of No. | Wire | Signal Name [Specification] |
| 1 | P | - |
| 2 | LG | - |
| 3 | V | - |
| 4 | B | - |

| | |
|----------------|----------------------------|
| Connector No. | B249 |
| Connector Name | BRAKE BOOSTER CONTROL UNIT |
| Connector Type | TK24FGY |



| | | |
|-----------------------|------|-----------------------------|
| Terminal Color Of No. | Wire | Signal Name [Specification] |
| 33 | G | IGNITION |
| 40 | SB | IBA OFF SW |
| 42 | G | IGNITION |
| 46 | B | GROUND |
| 47 | LG | BRAKE HOLD RLY DRIVE SIGNAL |

| | |
|----------------|--------------|
| Connector No. | D101 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M08FW-GY-LC |



| | | |
|-----------------------|--------|-----------------------------|
| Terminal Color Of No. | Wire | Signal Name [Specification] |
| 1 | G | - |
| 2 | B | - |
| 3 | R | - |
| 4 | GR | - |
| 6 | L/W | - |
| 7 | L/B | - |
| 8 | SHIELD | - |

| | |
|----------------|--------------|
| Connector No. | D102 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH32FM-AH |



| | | |
|-----------------------|--------|-----------------------------|
| Terminal Color Of No. | Wire | Signal Name [Specification] |
| 1 | G | - |
| 2 | L | - |
| 3 | Y | - |
| 4 | SHIELD | - |
| 5 | R | - |
| 6 | G | - |
| 7 | Y | - |
| 8 | L | - |
| 9 | W | - |
| 10 | SHIELD | - |
| 11 | G | - |
| 12 | L | - |
| 13 | W | - |
| 14 | LG | - |
| 15 | BG | - |
| 16 | G | - |
| 17 | W | - |
| 18 | LG | - |
| 19 | BR | - |
| 20 | R | - |
| 21 | V | - |
| 22 | LG | - |
| 23 | P | - |
| 24 | BG | - |
| 25 | BG | - |
| 26 | GR | - |
| 27 | L | - |
| 32 | BG | - |

| | |
|----------------|------------------------|
| Connector No. | D106 |
| Connector Name | HIGH-MOUNTED STOP LAMP |
| Connector Type | TB02MW |



| | | |
|-----------------------|------|-----------------------------|
| Terminal Color Of No. | Wire | Signal Name [Specification] |
| 1 | LG | - |
| 2 | B | - |

| | |
|----------------|----------------------|
| Connector No. | E91 |
| Connector Name | ICC BRAKE HOLD RELAY |
| Connector Type | M08FGY-RUS |



| | | |
|-----------------------|------|-----------------------------|
| Terminal Color Of No. | Wire | Signal Name [Specification] |
| 1 | L | - |
| 2 | B | - |
| 3 | G | - |
| 4 | G | - |
| 6 | W | - |
| 7 | L | - |

JRLW06038GB

STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

STOP LAMP

| | |
|----------------|------------------|
| Connector No. | IE103 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS16FW-CS |



| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| 16F | 14F | 13F | 12F | 11F | 10F | 9F | 8F | 7F | 6F | 5F | 4F | 3F | 2F | 1F | 1B |
|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 10F | L | - |
| 1F | SB | - |
| 2F | W | - |
| 3F | Y | - |
| 4F | G | - |
| 6F | BG | - |
| 8F | L | - |
| 9F | R | - |

| | |
|----------------|-----------------|
| Connector No. | IE106 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-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| 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 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 518 | 519 | 520 | 521 | 522 | 523 | 524 | 525 | 526 | 527 | 528 | 529 | 530 | 531 | 532 | 533 | 534 | 535 | 536 | 537 | 538 | 539 | 540 | 541 | 542 | 543 | 544 | 545 | 546 | 547 | 548 | 549 | 550 | 551 | 552 | 553 | 554 | 555 | 556 | 557 | 558 | 559 | 560 | 561 | 562 | 563 | 564 | 565 | 566 | 567 | 568 | 569 | 570 | 571 | 572 | 573 | 574 | 575 | 576 | 577 | 578 | 579 | 580 | 581 | 582 | 583 | 584 | 585 | 586 | 587 | 588 | 589 | 590 | 591 | 592 | 593 | 594 | 595 | 596 | 597 | 598 | 599 | 600 | 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 610 | 611 | 612 | 613 | 614 | 615 | 616 | 617 | 618 | 619 | 620 | 621 | 622 | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 630 | 631 | 632 | 633 | 634 | 635 | 636 | 637 | 638 | 639 | 640 | 641 | 642 | 643 | 644 | 645 | 646 | 647 | 648 | 649 | 650 | 651 | 652 | 653 | 654 | 655 | 656 | 657 | 658 | 659 | 660 | 661 | 662 | 663 | 664 | 665 | 666 | 667 | 668 | 669 | 670 | 671 | 672 | 673 | 674 | 675 | 676 | 677 | 678 | 679 | 680 | 681 | 682 | 683 | 684 | 685 | 686 | 687 | 688 | 689 | 690 | 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 723 | 724 | 725 | 726 | 727 | 728 | 729 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 738 | 739 | 740 | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | 750 | 751 | 752 | 753 | 754 | 755 | 756 | 757 | 758 | 759 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 770 | 771 | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 780 | 781 | 782 | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 790 | 791 | 792 | 793 | 794 | 795 | 796 | 797 | 798 | 799 | 800 | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 810 | 811 | 812 | 813 | 814 | 815 | 816 | 817 | 818 | 819 | 820 | 821 | 822 | 823 | 824 | 825 | 826 | 827 | 828 | 829 | 830 | 831 | 832 | 833 | 834 | 835 | 836 | 837 | 838 | 839 | 840 | 841 | 842 | 843 | 844 | 845 | 846 | 847 | 848 | 849 | 850 | 851 | 852 | 853 | 854 | 855 | 856 | 857 | 858 | 859 | 860 | 861 | 862 | 863 | 864 | 865 | 866 | 867 | 868 | 869 | 870 | 871 | 872 | 873 | 874 | 875 | 876 | 877 | 878 | 879 | 880 | 881 | 882 | 883 | 884 | 885 | 886 | 887 | 888 | 889 | 890 | 891 | 892 | 893 | 894 | 895 | 896 | 897 | 898 | 899 | 900 | 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 | 909 | 910 | 911 | 912 | 913 | 914 | 915 | 916 | 917 | 918 | 919 | 920 | 921 | 922 | 923 | 924 | 925 | 926 | 927 | 928 | 929 | 930 | 931 | 932 | 933 | 934 | 935 | 936 | 937 | 938 | 939 | 940 | 941 | 942 | 943 | 944 | 945 | 946 | 947 | 948 | 949 | 950 | 951 | 952 | 953 | 954 | 955 | 956 | 957 | 958 | 959 | 960 | 961 | 962 | 963 | 964 | 965 | 966 | 967 | 968 | 969 | 970 | 971 | 972 | 973 | 974 | 975 | 976 | 977 | 978 | 979 | 980 | 981 | 982 | 983 | 984 | 985 | 986 | 987 | 988 | 989 | 990 | 991 | 992 | 993 | 994 | 995 | 996 | 997 | 998 | 999 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | 1012 | 1013 | 1014 | 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1158 | 1159 | 1160 | 1161 | 1162 | 1163 | 1164 | 1165 | 1166 | 1167 | 1168 | 1169 | 1170 | 1171 | 1172 | 1173 | 1174 | 1175 | 1176 | 1177 | 1178 | 1179 | 1180 | 1181 | 1182 | 1183 | 1184 | 1185 | 1186 | 1187 | 1188 | 1189 | 1190 | 1191 | 1192 | 1193 | 1194 | 1195 | 1196 | 1197 | 1198 | 1199 | 1200 | 1201 | 1202 | 1203 | 1204 | 1205 | 1206 | 1207 | 1208 | 1209 | 1210 | 1211 | 1212 | 1213 | 1214 | 1215 | 1216 | 1217 | 1218 | 1219 | 1220 | 1221 | 1222 | 1223 | 1224 | 1225 | 1226 | 1227 | 1228 | 1229 | 1230 | 1231 | 1232 | 1233 | 1234 | 1235 | 1236 | 1237 | 1238 | 1239 | 1240 | 1241 | 1242 | 1243 | 1244 | 1245 | 1246 | 1247 | 1248 | 1249 | 1250 | 1251 | 1252 | 1253 | 1254 | 1255 | 1256 | 1257 | 1258 | 1259 | 1260 | 1261 | 1262 | 1263 | 1264 | 1265 | 1266 | 1267 | 1268 | 1269 | 1270 | 1271 | 1272 | 1273 | 1274 | 1275 | 1276 | 1277 | 1278 | 1279 | 1280 | 1281 | 1282 | 1283 | 1284 | 1285 | 1286 | 1287 | 1288 | 1289 | 1290 | 1291 | 1292 | 1293 | 1294 | 1295 | 1296 | 1297 | 1298 | 1299 | 1300 | 1301 | 1302 | 1303 | 1304 | 1305 | 1306 | 1307 | 1308 | 1309 | 1310 | 1311 | 1312 | 1313 | 1314 | 1315 | 1316 | 1317 | 1318 | 1319 | 1320 | 1321 | 1322 | 1323 | 1324 | 1325 | 1326 | 1327 | 1328 | 1329 | 1330 | 1331 | 1332 | 1333 | 1334 | 1335 | 1336 | 1337 | 1338 | 1339 | 1340 | 1341 | 1342 | 1343 | 1344 | 1345 | 1346 | 1347 | 1348 | 1349 | 1350 | 1351 | 1352 | 1353 | 1354 | 1355 | 1356 | 1357 | 1358 | 1359 | 1360 | 1361 | 1362 | 1363 | 1364 | 1365 | 1366 | 1367 | 1368 | 1369 | 1370 | 1371 | 1372 | 1373 | 1374 | 1375 | 1376 | 1377 | 1378 | 1379 | 1380 | 1381 | 1382 | 1383 | 1384 | 1385 | 1386 | 1387 | 1388 | 1389 | 1390 | 1391 | 1392 | 1393 | 1394 | 1395 | 1396 | 1397 | 1398 | 1399 | 1400 | 1401 | 1402 | 1403 | 1404 | 1405 | 1406 | 1407 | 1408 | 1409 | 1410 | 1411 | 1412 | 1413 | 1414 | 1415 | 1416 | 1417 | 1418 | 1419 | 1420 | 1421 | 1422 | 1423 | 1424 | 1425 | 1426 | 1427 | 1428 | 1429 | 1430 | 1431 | 1432 | 1433 | 1434 | 1435 | 1436 | 1437 | 1438 | 1439 | 1440 | 1441 | 1442 | 1443 | 1444 | 1445 | 1446 | 1447 | 1448 | 1449 | 1450 | 1451 | 1452 | 1453 | 1454 | 1455 | 1456 | 1457 | 1458 | 1459 | 1460 | 1461 | 1462 | 1463 | 1464 | 1465 | 1466 | 1467 | 1468 | 1469 | 1470 | 1471 | 1472 | 1473 | 1474 | 1475 | 1476 | 1477 | 1478 | 1479 | 1480 | 1481 | 1482 | 1483 | 1484 | 1485 | 1486 | 1487 | 1488 | 1489 | 1490 | 1491 | 1492 | 1493 | 1494 | 1495 | 1496 | 1497 | 1498 | 149 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-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STOP LAMP

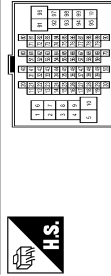
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

STOP LAMP

| | | | | | | | | | | | |
|----|--------|-----------------|-----|--------|---|----|--------|-----------------|----|----|---|
| 12 | G | - | 65 | BG | - | 7 | B | - | 66 | BG | - |
| 13 | R | - | 69 | V | - | 8 | W | - | 67 | W | - |
| 14 | W | - | 70 | SHIELD | - | 10 | W | - | 69 | G | - |
| 15 | SHIELD | - | 71 | BG | - | 11 | SHIELD | - | 71 | SB | - |
| 16 | BR | - | 72 | GR | - | 20 | R | - | 72 | V | - |
| 17 | L | - | 73 | W | - | 21 | G | - | 73 | V | - |
| 18 | P | - | 74 | SB | - | 22 | GR | - | 74 | LG | - |
| 19 | G | - | 76 | V | - | 23 | V | - | 75 | BR | - |
| 20 | GR | - [Without ICC] | 77 | V | - | 24 | W | - | 76 | V | - |
| 21 | BR | - [With ICC] | 78 | Y | - | 25 | R | - | 77 | LG | - |
| 22 | R | - [Without ICC] | 80 | BG | - | 26 | P | - | 80 | R | - |
| 23 | G | - [With ICC] | 81 | L | - | 27 | L | - | 82 | Y | - |
| 24 | L | - [Without ICC] | 82 | W | - | 28 | SHIELD | - | 83 | BG | - |
| 25 | W | - [With ICC] | 83 | Y | - | 31 | W | - | 84 | W | - |
| 26 | Y | - [Without ICC] | 84 | L | - | 32 | W | - | 85 | SB | - |
| 27 | SHIELD | - [With ICC] | 85 | P | - | 33 | SB | - | 86 | B | - |
| 28 | GR | - [Without ICC] | 86 | BR | - | 36 | L | - | 87 | P | - |
| 29 | V | - [With ICC] | 87 | P | - | 37 | P | - | 91 | L | - |
| 30 | BG | - [Without ICC] | 88 | V | - | 38 | L | - | 92 | L | - |
| 31 | W | - [With ICC] | 89 | G | - | 39 | P | - | 93 | G | - |
| 32 | W | - | 90 | P | - | 40 | V | - | 94 | BG | - |
| 33 | Y | - | 91 | R | - | 41 | SB | - [With ICC] | 95 | V | - |
| 34 | L | - | 92 | R | - | 42 | Y | - [Without ICC] | 96 | G | - |
| 35 | G | - | 93 | GR | - | 43 | W | - [With ICC] | 97 | G | - |
| 36 | R | - | 95 | G | - | 44 | R | - [Without ICC] | 98 | L | - |
| 37 | G | - | 96 | W | - | 45 | G | - [With ICC] | 99 | LG | - |
| 38 | R | - | 97 | W | - | 46 | BG | - [Without ICC] | | | |
| 39 | G | - | 98 | SHIELD | - | 47 | SHIELD | - [With ICC] | | | |
| 40 | L | - | 100 | Y | - | 48 | L | - [Without ICC] | | | |
| 41 | W | - | | | - | 49 | W | - [With ICC] | | | |
| 42 | W | - | | | - | 50 | SHIELD | - [Without ICC] | | | |
| 43 | R | - | | | - | 51 | BG | - | | | |
| 44 | LG | - | | | - | 52 | GR | - | | | |
| 45 | GR | - | | | - | 53 | G | - | | | |
| 46 | W | - | | | - | 54 | L | - | | | |
| 47 | L | - | | | - | 55 | P | - | | | |
| 48 | P | - | | | - | 60 | LG | - | | | |
| 49 | BG | - | | | - | 61 | R | - | | | |
| 50 | LG | - | | | - | 62 | SB | - | | | |
| 51 | SB | - | | | - | 63 | V | - | | | |
| 52 | Y | - | | | - | 64 | Y | - | | | |
| 53 | BG | - | | | - | 65 | BR | - | | | |
| 54 | BR | - | | | - | | | - | | | |
| 55 | SB | - | | | - | | | - | | | |
| 59 | SB | - | | | - | | | - | | | |
| 60 | SB | - | | | - | | | - | | | |
| 61 | V | - | | | - | | | - | | | |
| 62 | P | - | | | - | | | - | | | |
| 63 | R | - | | | - | | | - | | | |
| 64 | L | - | | | - | | | - | | | |

| | |
|----------------|-----------------|
| Connector No. | M117 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | GR | - |
| 2 | BR | - |
| 3 | V | - |
| 4 | SB | - |
| 6 | Y | - |

BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

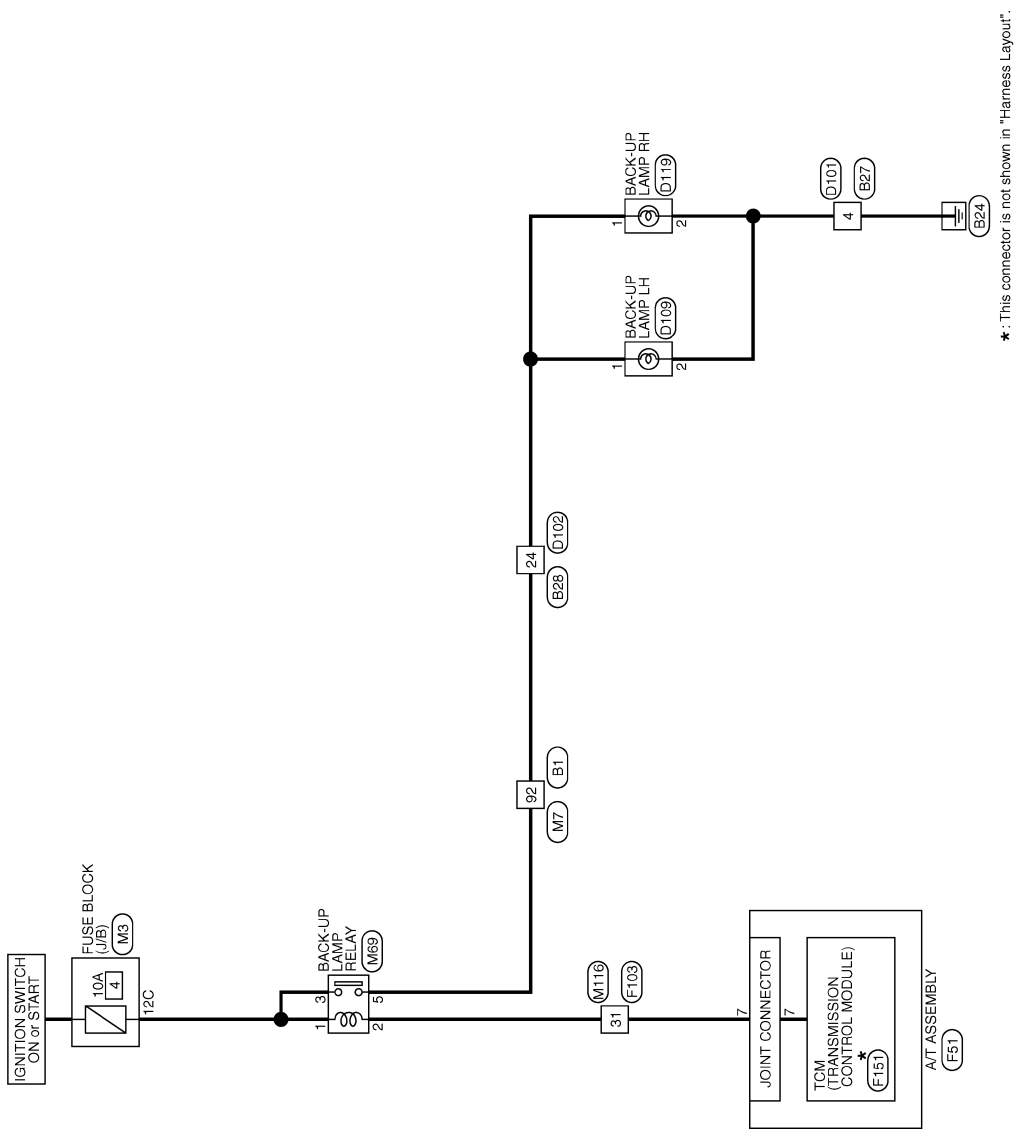
[XENON TYPE]

BACK-UP LAMP

Wiring Diagram - BACK-UP LAMP -

INFOID:0000000010576355

BACK-UP LAMP



2010/10/27

JCLWA4844GB

EXL

A
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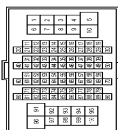
BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

BACK-UP LAMP

| | |
|----------------|-----------------|
| Connector No. | B1 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH8/FW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | L | - |
| 3 | W | - |
| 4 | G | - |
| 5 | P | - |
| 6 | B | - |
| 7 | LG | - |
| 8 | SB | - |
| 9 | SB | - |
| 10 | R | - |
| 11 | W | - |
| 12 | SHIELD | - |
| 13 | L | - |
| 14 | P | - |
| 15 | B | - |
| 16 | Y | - |
| 17 | G | - |
| 18 | W | - |
| 19 | GR | - |
| 20 | W | - |
| 21 | W | - |
| 22 | V | - |
| 23 | P | - |
| 24 | BR | - |
| 25 | GR | - |
| 26 | W | - |
| 27 | B | - |
| 28 | W | - |
| 29 | B | - |
| 30 | SB | - |
| 31 | V | - |
| 32 | GR | - |
| 33 | W | - |
| 34 | W | - |
| 35 | SHIELD | - |
| 36 | Y | - |
| 37 | SHIELD | - |

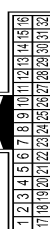
| | | |
|----|--------|---|
| 57 | P | - |
| 58 | L | - |
| 59 | SHIELD | - |
| 60 | L | - |
| 61 | P | - |
| 62 | GR | - |
| 63 | G | - |
| 64 | B | - |
| 65 | W | - |
| 66 | V | - |
| 67 | LG | - |
| 68 | Y | - |
| 69 | G | - |
| 70 | GR | - |
| 71 | G | - |
| 72 | B | - |
| 73 | W | - |
| 74 | V | - |
| 75 | RG | - |
| 76 | LG | - |
| 77 | L | - |
| 78 | GR | - |
| 79 | W | - |
| 80 | L | - |
| 81 | P | - |
| 82 | L | - |
| 83 | P | - |
| 84 | SB | - |
| 85 | R | - |
| 86 | Y | - |
| 87 | B | - |
| 88 | G | - |
| 89 | BR | - |
| 90 | R | - |
| 91 | RG | - |
| 92 | BR | - |
| 93 | V | - |
| 94 | V | - |
| 95 | B | - |
| 96 | W | - |
| 97 | W | - |
| 98 | GR | - |
| 99 | W | - |

| | |
|----------------|--------------|
| Connector No. | B27 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M08MW-GY-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | B | - |
| 3 | W | - |
| 4 | B | - |
| 5 | BR | - |
| 6 | G | - |
| 7 | SHIELD | - |

| | |
|----------------|--------------|
| Connector No. | B28 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH82MW-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | B | - |
| 3 | W | - |
| 4 | SHIELD | - |
| 5 | G | - |
| 6 | L | - |
| 7 | R | - |
| 8 | SHIELD | - |
| 9 | W | - |
| 10 | B | - |
| 11 | G | - |
| 12 | L | - |

| | | |
|----|----|---|
| 13 | W | - |
| 14 | LG | - |
| 15 | B | - |
| 16 | G | - |
| 17 | B | - |
| 18 | V | - |
| 19 | W | - |
| 20 | B | - |
| 21 | G | - |
| 22 | LG | - |
| 23 | R | - |
| 24 | B | - |
| 25 | BR | - |
| 26 | GR | - |
| 27 | L | - |
| 32 | B | - |

| | |
|----------------|--------------|
| Connector No. | D101 |
| Connector Name | WIRE TO WIRE |
| Connector Type | M08PW-GY-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | B | - |
| 3 | R | - |
| 4 | GR | - |
| 6 | L/W | - |
| 7 | L/B | - |
| 8 | SHIELD | - |

JRLWD6041GB

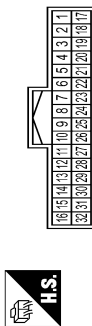
BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

BACK-UP LAMP

| | |
|----------------|--------------|
| Connector No. | D102 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH32FW-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | L | - |
| 3 | Y | - |
| 4 | SHIELD | - |
| 5 | R | - |
| 6 | G | - |
| 7 | Y | - |
| 8 | L | - |
| 9 | W | - |
| 10 | SHIELD | - |
| 11 | G | - |
| 12 | L | - |
| 13 | W | - |
| 14 | LG | - |
| 15 | BG | - |
| 16 | G | - |
| 17 | W | - |
| 18 | LG | - |
| 19 | BR | - |
| 20 | R | - |
| 21 | V | - |
| 22 | LG | - |
| 23 | P | - |
| 24 | BG | - |
| 25 | BG | - |
| 26 | GR | - |
| 27 | L | - |
| 32 | BG | - |

| | |
|----------------|-----------------|
| Connector No. | D109 |
| Connector Name | BACK-UP LAMP LH |
| Connector Type | TB02FW-IV |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | BG | - |
| 2 | B | - |

| | |
|----------------|-----------------|
| Connector No. | D119 |
| Connector Name | BACK-UP LAMP RH |
| Connector Type | TB02FW-IV |



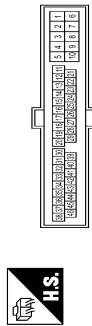
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | BG | - |
| 2 | B | - |

| | |
|----------------|--------------|
| Connector No. | F151 |
| Connector Name | A/T ASSEMBLY |
| Connector Type | RK10FG-DGY |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------------|
| 1 | Y | IGNITION POWER SUPPLY |
| 2 | R | BATTERY POWER SUPPLY (MEMORY BACK-UP) |
| 3 | L | CAN-H |
| 4 | V | CAN-L |
| 5 | B | GROUND |
| 6 | Y | IGNITION POWER SUPPLY |
| 7 | R | BACK-UP LAMP RELAY |
| 8 | P | CAN-L |
| 9 | GR | STARTER RELAY (With VQ engine) |
| 9 | LG | STARTER RELAY (With VK engine) |
| 10 | B | GROUND |

| | |
|----------------|--------------|
| Connector No. | F103 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK38FW-AS10 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 2 | G | - |
| 3 | W | - |
| 4 | GR | - |
| 4 | R | - [With VK engine] |
| 5 | B | - [With VQ engine] |
| 5 | R | - [With VK engine] |
| 7 | B | - [With VK engine] |
| 9 | W | - [With VK engine] |
| 9 | Y | - [With VQ engine] |

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 10 | GR | - [With VQ engine] |
| 10 | L | - [With VK engine] |
| 19 | O | - |
| 20 | Y | - |
| 27 | L | - |
| 28 | B | - |
| 29 | LG | - |
| 31 | R | - |
| 34 | LG | - |
| 35 | BR | - |
| 36 | W | - |
| 37 | Y | - |
| 38 | Y | - |
| 43 | P | - |
| 44 | L | - |
| 45 | Y | - |
| 46 | V | - |

| | |
|----------------|--------|
| Connector No. | F151 |
| Connector Name | TCM |
| Connector Type | SP10FG |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------------|
| 1 | W | IGNITION POWER SUPPLY |
| 2 | B | BATTERY POWER SUPPLY (MEMORY BACK-UP) |
| 3 | R | CAN-H |
| 4 | O | CAN-L |
| 5 | G | GROUND |
| 6 | GR | IGNITION POWER SUPPLY |
| 7 | L | BACK-UP LAMP RELAY |
| 8 | BR | CAN-L |
| 9 | Y | STARTER RELAY |
| 10 | W/B | GROUND |

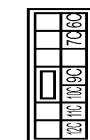
BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

BACK-UP LAMP

| | |
|----------------|------------------|
| Connector No. | M3 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS12FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 10C | L | - |
| 11C | LG | - |
| 12C | R | - |
| 6C | P | - |
| 7C | B | - |
| 9C | BG | - |

| | |
|----------------|-----------------|
| Connector No. | M7 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH60MW-CS16-TM4 |

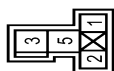


| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|------------------------------|
| 1 | G | - [With Auto aircon seat] |
| 2 | Y | - [Without Auto aircon seat] |
| 3 | W | - |
| 6 | P | - |
| 7 | V | - |
| 8 | BG | - |
| 10 | W | - |
| 11 | BG | - |
| 12 | B | - |
| 13 | G | - |
| 14 | R | - |
| 15 | W | - |
| 16 | SHIELD | - |

| | | |
|----|--------|---|
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | R | - |
| 21 | LG | - |
| 23 | V | - |
| 24 | P | - |
| 25 | BR | - |
| 26 | GR | - |
| 27 | BG | - |
| 28 | W | - |
| 38 | B | - |
| 39 | B | - |
| 43 | SB | - |
| 44 | W | - |
| 45 | B | - |
| 51 | V | - |
| 52 | LG | - |
| 53 | SHIELD | - |
| 54 | BR | - |
| 55 | V | - |
| 56 | SHIELD | - |
| 57 | P | - |
| 58 | L | - |
| 59 | SHIELD | - |
| 60 | L | - |
| 61 | BR | - |
| 62 | R | - |
| 63 | Y | - |
| 64 | L | - |
| 65 | W | - |
| 66 | V | - |
| 67 | LG | - |
| 68 | Y | - |
| 69 | G | - |
| 70 | V | - |
| 71 | W | - |
| 72 | B | - |
| 73 | W | - |
| 74 | LG | - |
| 75 | P | - |
| 76 | LG | - |
| 77 | SB | - |
| 78 | GR | - |
| 79 | R | - |
| 80 | L | - |
| 81 | P | - |
| 82 | L | - |
| 83 | P | - |
| 84 | SB | - |

| | | |
|----|----|---|
| 85 | W | - |
| 86 | Y | - |
| 87 | B | - |
| 88 | G | - |
| 89 | BG | - |
| 91 | R | - |
| 92 | BG | - |
| 93 | BR | - |
| 94 | V | - |
| 96 | BG | - |
| 97 | W | - |
| 98 | R | - |
| 99 | BG | - |

| | |
|----------------|--------------------|
| Connector No. | M69 |
| Connector Name | BACK-UP LAMP RELAY |
| Connector Type | MS02FL-M2-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | W | - |
| 3 | R | - |
| 5 | BG | - |

| | |
|----------------|--------------|
| Connector No. | M116 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK36MW-NS10 |



BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000011009267

VALUES ON THE DIAGNOSIS TOOL

NOTE:

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

CONSULT MONITOR ITEM

| Monitor Item | Condition | Value/Status |
|----------------|---|----------------------------|
| FR WIPER HI | Other than front wiper switch HI | Off |
| | Front wiper switch HI | On |
| FR WIPER LOW | Other than front wiper switch LO | Off |
| | Front wiper switch LO | On |
| FR WASHER SW | Front washer switch OFF | Off |
| | Front washer switch ON | On |
| FR WIPER INT | Other than front wiper switch INT/AUTO | Off |
| | Front wiper switch INT/AUTO | On |
| FR WIPER STOP | Front wiper is not in STOP position | Off |
| | Front wiper is in STOP position | On |
| INT VOLUME | Wiper volume dial is in a dial position 1 - 7 | Wiper volume dial position |
| RR WIPER ON | Other than rear wiper switch ON | Off |
| | Rear wiper switch ON | On |
| RR WIPER INT | Other than rear wiper switch INT | Off |
| | Rear wiper switch INT | On |
| RR WASHER SW | Rear washer switch OFF | Off |
| | Rear washer switch ON | On |
| RR WIPER STOP | Rear wiper is in STOP position | Off |
| | Rear wiper is not in STOP position | On |
| TURN SIGNAL R | Other than turn signal switch RH | Off |
| | Turn signal switch RH | On |
| TURN SIGNAL L | Other than turn signal switch LH | Off |
| | Turn signal switch LH | On |
| TAIL LAMP SW | Other than lighting switch 1ST and 2ND | Off |
| | Lighting switch 1ST or 2ND | On |
| HI BEAM SW | Other than lighting switch HI | Off |
| | Lighting switch HI | On |
| HEAD LAMP SW 1 | Other than lighting switch 2ND | Off |
| | Lighting switch 2ND | On |
| HEAD LAMP SW 2 | Other than lighting switch 2ND | Off |
| | Lighting switch 2ND | On |
| PASSING SW | Other than lighting switch PASS | Off |
| | Lighting switch PASS | On |
| AUTO LIGHT SW | Other than lighting switch AUTO | Off |
| | Lighting switch AUTO | On |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Monitor Item | Condition | Value/Status |
|---------------|---|--------------|
| FR FOG SW | Front fog lamp switch OFF | Off |
| | Front fog lamp switch ON | On |
| RR FOG SW | NOTE: The item is indicated, but not monitored. | Off |
| DOOR SW-DR | Driver door closed | Off |
| | Driver door opened | On |
| DOOR SW-AS | Passenger door closed | Off |
| | Passenger door opened | On |
| DOOR SW-RR | Rear RH door closed | Off |
| | Rear RH door opened | On |
| DOOR SW-RL | Rear LH door closed | Off |
| | Rear LH door opened | On |
| DOOR SW-BK | Back door closed | Off |
| | Back door opened | On |
| CDL LOCK SW | Other than power door lock switch LOCK | Off |
| | Power door lock switch LOCK | On |
| CDL UNLOCK SW | Other than power door lock switch UNLOCK | Off |
| | Power door lock switch UNLOCK | On |
| KEY CYL LK-SW | Other than driver door key cylinder LOCK position | Off |
| | Driver door key cylinder LOCK position | On |
| KEY CYL UN-SW | Other than driver door key cylinder UNLOCK position | Off |
| | 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 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 |
| | 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 Intelligent Key is not pressed | Off |
| | LOCK button of the Intelligent Key is pressed | On |
| RKE-UNLOCK | UNLOCK button of the Intelligent Key is not pressed | Off |
| | UNLOCK button of the Intelligent Key is pressed | On |
| RKE-TR/BD | NOTE: The item is indicated, but not monitored. | Off |
| RKE-PANIC | PANIC button of the Intelligent Key is not pressed | Off |
| | PANIC button of the Intelligent Key is pressed | On |
| RKE-P/W OPEN | UNLOCK button of the Intelligent Key is not pressed | Off |
| | UNLOCK button of the Intelligent Key is pressed and held | On |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Monitor Item | Condition | Value/Status |
|----------------|--|--------------|
| RKE-MODE CHG | LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously | Off |
| | LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously | On |
| OPTICAL SENSOR | Bright outside of the vehicle | Close to 5 V |
| | Dark outside of the vehicle | Close to 0 V |
| REQ SW -DR | Driver door request switch is not pressed | Off |
| | Driver door request switch is pressed | On |
| REQ SW -AS | Passenger door request switch is not pressed | Off |
| | 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 |
| | 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 |
| 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 |
| BRAKE SW 1 | The brake pedal is depressed when No. 7 fuse is blown | Off |
| | 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 |
| | The brake pedal is depressed | On |
| DETE/CANCL SW | Selector lever in P position | Off |
| | Selector lever in any position other than P | On |
| SFT PN/N SW | Selector lever in any position other than P and N | Off |
| | 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 |
| | 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 |
| IGN 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 |
| | Selector lever in P or N position | On |

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Monitor Item | Condition | Value/Status |
|----------------|--|--|
| SFT P -MET | Selector lever in any position other than P | Off |
| | Selector lever in P position | On |
| SFT N -MET | Selector lever in any position other than N | Off |
| | Selector lever in N position | On |
| ENGINE STATE | Engine stopped | Stop |
| | While the engine stalls | Stall |
| | 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 speedometer reading |
| VEH SPEED 2 | While driving | Equivalent to speedometer reading |
| DOOR STAT-DR | Driver door is locked | LOCK |
| | Wait with selective UNLOCK operation (5 seconds) | READY |
| | Driver door is unlocked | UNLOCK |
| DOOR STAT-AS | Passenger door is locked | LOCK |
| | 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 (Selector lever is in the P position) | Reset |
| | Ignition switch ON | Set |
| PRMT ENG STRT | The engine start is prohibited | Reset |
| | The engine start is permitted | Set |
| PRMT RKE STRT | NOTE: The item is indicated, but not monitored. | Reset |
| KEY SW -SLOT | The Intelligent Key is not inserted into key slot | Off |
| | The Intelligent Key is inserted into key slot | On |
| RKE OPE COUN1 | During the operation of the Intelligent Key | Operation frequency of the Intelligent Key |
| RKE OPE COUN2 | NOTE: The item is indicated, but not monitored. | — |
| CONFIRM ID ALL | The key ID that the key slot receives is not recognized by any key ID registered to BCM. | Yet |
| | 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 is not recognized by the fourth key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by the fourth key ID registered to BCM. | Done |
| CONFIRM ID3 | The key ID that the key slot receives is not recognized by the third key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by the third key ID registered to BCM. | Done |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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

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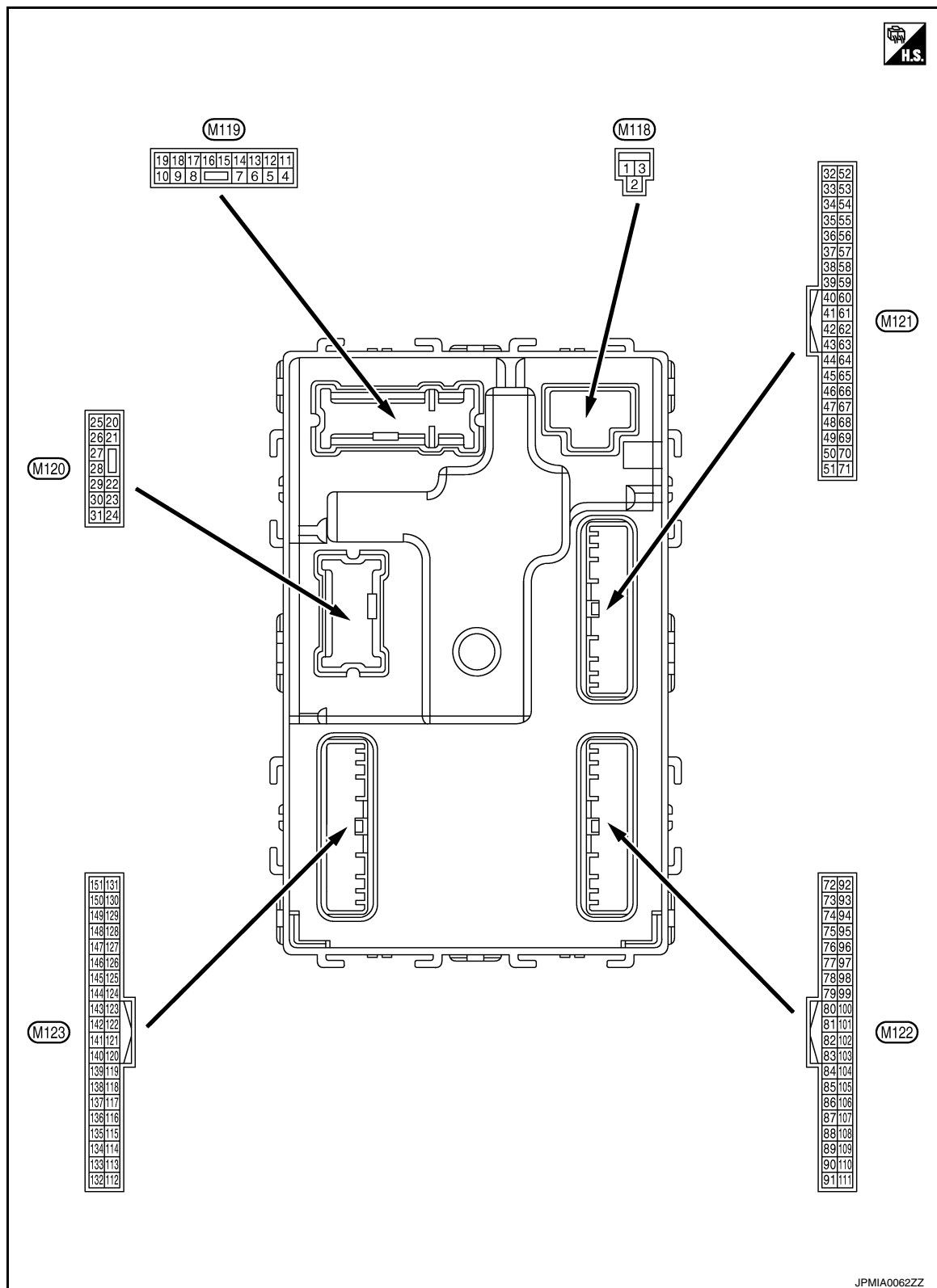
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

TERMINAL LAYOUT

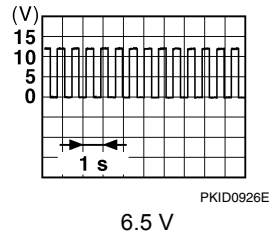


PHYSICAL VALUES

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

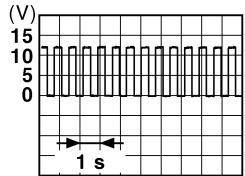
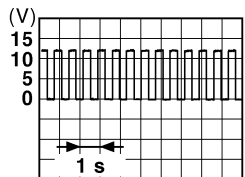
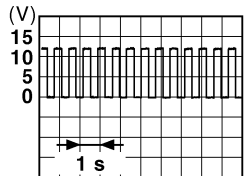
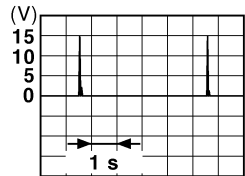
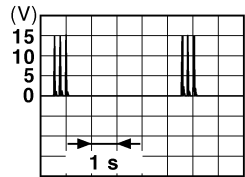
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|--|------------------|---|--|---|
| + | - | Signal name | Input/ Output | | | |
| 1 (W) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 2 (Y) | Ground | P/W power supply (BAT) | Output | Ignition switch OFF | | 12 V |
| 3 (BG) | Ground | P/W power supply (IGN) | Output | Ignition switch ON | | 12 V |
| 4 (P) | Ground | Interior room lamp power supply | Output | Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply) | | 0 V |
| | | | | Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply) | | 12 V |
| 5 (V) | Ground | Passenger door UN- LOCK | Output | Passenger door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 7 (Y) | Ground | Step lamp control | Output | Step lamp | ON | 0 V |
| | | | | | OFF | 12 V |
| 8 (V) | Ground | All doors, fuel lid LOCK | Output | All doors, fuel lid | LOCK (Actuator is activated) | 12 V |
| | | | | | Other than LOCK (Actuator is not activated) | 0 V |
| 9 (G) | Ground | Driver door, fuel lid UNLOCK | Output | Driver door, fuel lid | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 10 (BR) | Ground | Rear RH door and rear LH door UN- LOCK | Output | Rear RH door and rear LH door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | 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 |
| 15 (Y) | Ground | ACC indicator lamp | Output | Ignition switch | OFF (LOCK indicator is not illuminated) | Battery voltage |
| | | | | | ACC or ON | 0 V |
| 17 (W) | Ground | Turn signal RH (Front) | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch RH |  |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

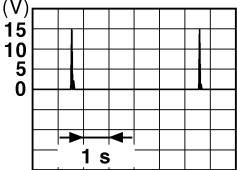
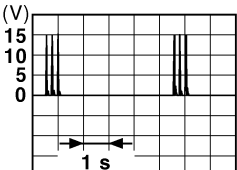
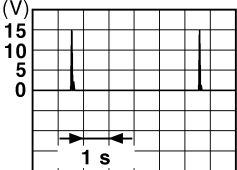
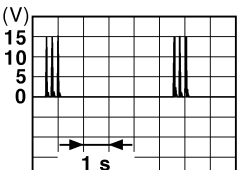
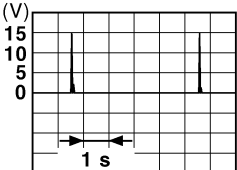
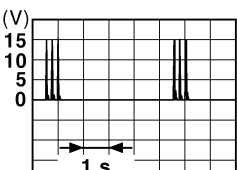
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|-------------------------------|------------------|---|--|--|
| + | - | Signal name | Input/ Output | | | |
| 18 (BG) | Ground | Turn signal LH (Front) | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch LH |  <p>PKID0926E</p> |
| 19 (SB) | Ground | Interior room lamp control | Output | Other than under condition | | 5.0 V |
| | | | | <ul style="list-style-type: none"> Interior room lamp timer is activated. (Door is unlocked. etc...) Welcome light function is activated. | | 0 V |
| 20 (V) | Ground | Turn signal RH (Rear) | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch RH |  <p>PKID0926E</p> |
| 25 (G) | Ground | Turn signal LH (Rear) | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch LH |  <p>PKID0926E</p> |
| 26 (P) | Ground | Rear wiper | Output | Rear wiper | OFF (Stopped) | 0 V |
| | | | | | ON (Operated) | 12 V |
| 34 (SB) | Ground | Luggage room anten- na (-) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compart- ment |  <p>JMKIA0062GB</p> |
| | | | | | When Intelligent Key is not in the passenger com- partment |  <p>JMKIA0063GB</p> |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|-----------------------------------|------------------|---|---|--|
| + | - | Signal name | Input/ Output | | | |
| 35 (V) | Ground | Luggage room antenna (+) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compartment |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the passenger compartment |  JMKIA0063GB |
| 38 (B) | Ground | Back door antenna (-) | Output | When the back door opener request switch is operated with ignition switch OFF | When Intelligent Key is in the antenna detection area |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the antenna detection area |  JMKIA0063GB |
| 39 (W) | Ground | Back door antenna (+) | Output | When the back door opener request switch is operated with ignition switch OFF | When Intelligent Key is in the antenna detection area |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the antenna detection area |  JMKIA0063GB |
| 47 (Y) | Ground | Ignition relay (IPDM E/R) control | Output | Ignition switch | OFF or ACC | 12 V |
| | | | | | ON | 0 V |

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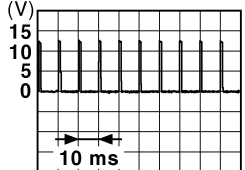
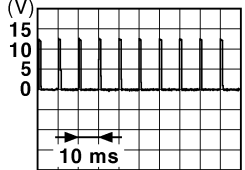
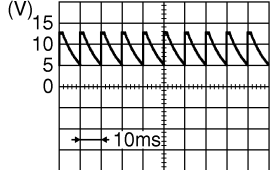
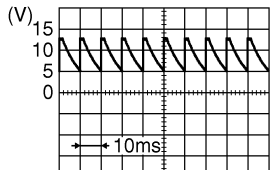
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BCM (BODY CONTROL MODULE)

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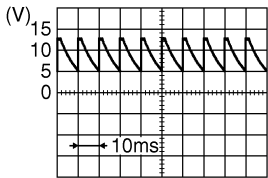
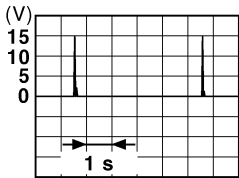
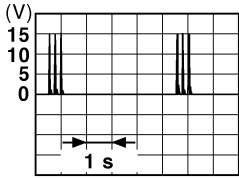
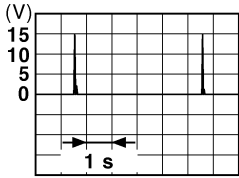
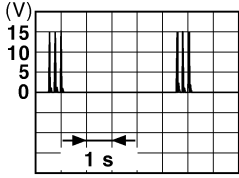
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|--|------------------|--|--|---|
| + | - | Signal name | Input/ Output | | | |
| 52 (LG) | Ground | Starter relay control | Output | Ignition switch ON | When selector lever is in P or N position | 12 V |
| | | | | | When selector lever is not in P or N position | 0 V |
| 60 (SB) | Ground | Push-button ignition switch (Push switch) | Input | Push-button ig- nition switch (Push switch) | Pressed | 0 V |
| | | | | | Not pressed | 12 V |
| 61 (W) | Ground | Back door opener re- quest switch | Input | Back door re- quest switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) |  <p>JPMIA0016GB</p> <p>1.0 V</p> |
| 64 (L) | Ground | Intelligent Key warn- ing buzzer (Engine room) | Output | Intelligent Key warning buzzer (Engine room) | Sounding | 0 V |
| | | | | | Not sounding | 12 V |
| 65 (BG) | Ground | Rear wiper stop posi- tion | Input | Rear wiper | In stop position |  <p>JPMIA0016GB</p> <p>1.0 V</p> |
| | | | | | Not in stop position | 0 V |
| 66 (LG) | Ground | Back door switch | Input | Back door switch | OFF (Door close) | 12 V |
| | | | | | ON (Door open) | 0 V |
| 67 (P) | Ground | Back door opener switch | Input | Back door open- er switch | Pressed | 0 V |
| | | | | | Not pressed |  <p>JPMIA0594GB</p> <p>8.5 - 9.0 V</p> |
| 68 (BR) | Ground | Rear RH door switch | Input | Rear RH door switch | OFF (Door close) |  <p>JPMIA0594GB</p> <p>8.5 - 9.0 V</p> |
| | | | | | ON (Door open) | 0 V |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

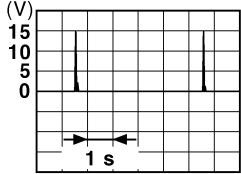
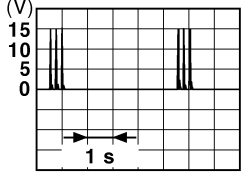
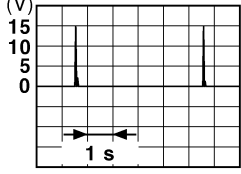
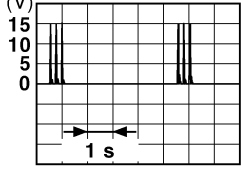
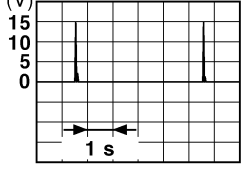
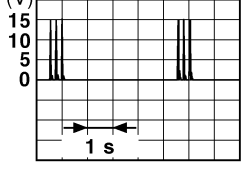
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|----------------------------|------------------|---|---|--|
| + | - | Signal name | Input/ Output | | | |
| 69 (R) | Ground | Rear LH door switch | Input | Rear LH door switch | OFF (Door close) |  8.5 - 9.0 V |
| | | | | | ON (Door open) | 0 V |
| 74 (SB) | 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 |  |
| | | | | | When Intelligent Key is not in the antenna detection area |  |
| 75 (BR) | 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 |  |
| | | | | | When Intelligent Key is not in the antenna detection area |  |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

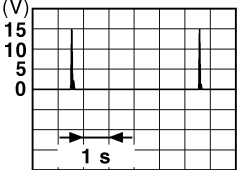
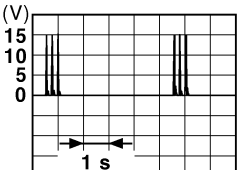
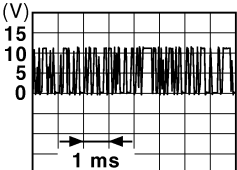
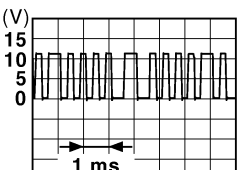
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|--|------------------|--|---|--|
| + | - | Signal name | Input/ Output | | | |
| 76 (V) | Ground | Driver door antenna (-) | Output | When the driver door request switch is operat- ed with ignition switch OFF | When Intelligent Key is in the antenna detection area |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the antenna detec- tion area |  JMKIA0063GB |
| 77 (LG) | Ground | Driver door antenna (+) | Output | When the driver door request switch is operat- ed with ignition switch OFF | When Intelligent Key is in the antenna detection area |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the antenna detec- tion area |  JMKIA0063GB |
| 78 (Y) | Ground | Room antenna (-) (Instrument panel) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compart- ment |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the passenger compart- ment |  JMKIA0063GB |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

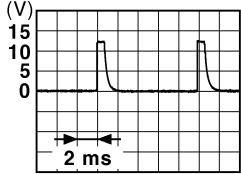



[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|------------------|------------------------|---|--|
| + | - | Signal name | Input/ Output | | | |
| 79 (BR) | Ground | Room antenna (+) (Instrument panel) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compart- ment |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the passenger com- partment |  JMKIA0063GB |
| 80 (GR) | Ground | NATS antenna amp. | Input/ Output | During waiting | Ignition switch is pressed while inserting the Intelli- gent 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 Intelli- gent Key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 82 (P) | Ground | Ignition relay [Fuse block (J/B)] control | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | 12 V |
| 83 (GR) | Ground | Remote keyless entry receiver communica- tion | Input/ Output | | During waiting |  JMKIA0064GB |
| | | | | | When operating either button on the Intelli- gent Key |  JMKIA0065GB |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

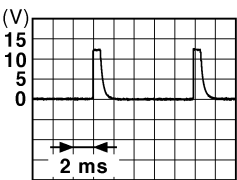
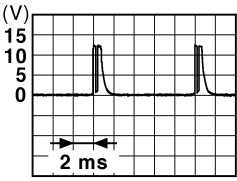
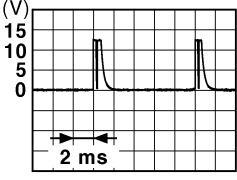
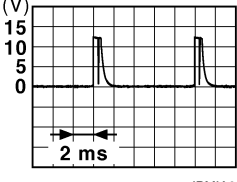
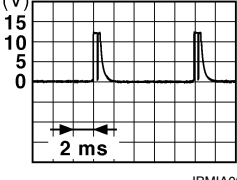
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|-------------------------------|------------------|--|--|
| + | - | Signal name | Input/ Output | | |
| 87 (BR) | Ground | Combination switch INPUT 5 | Input | Combination switch |  <p>1.4 V</p> |
| | | | | Front fog lamp switch ON (Wiper volume dial 4) |  <p>1.3 V</p> |
| | | | | Rear wiper switch ON (Wiper volume dial 4) |  <p>1.3 V</p> |
| | | | | Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7 |  <p>1.3 V</p> |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|-------------------------------|------------------|-----------------------|--|
| + | - | Signal name | Input/ Output | | |
| 88 (V) | Ground | Combination switch INPUT 3 | Input | Combination switch | All switches OFF (Wiper volume dial 4)  1.4 V |
| | | | | | Lighting switch HI (Wiper volume dial 4)  1.3 V |
| | | | | | Lighting switch 2ND (Wiper volume dial 4)  1.3 V |
| | | | | | Rear washer switch ON (Wiper volume dial 4)  1.3 V |
| | | | | | Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3  1.3 V |
| 90 (P) | Ground | CAN-L | Input/ Output | — | — |
| 91 (L) | Ground | CAN-H | Input/ Output | — | — |

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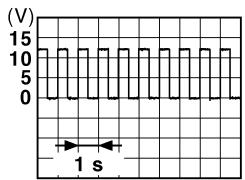
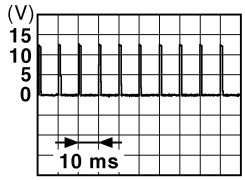
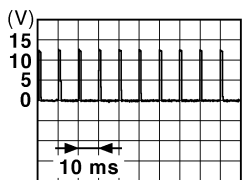
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

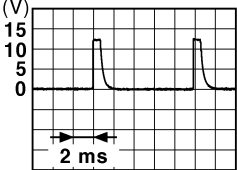

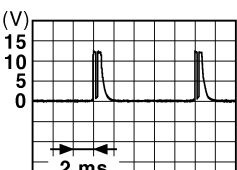
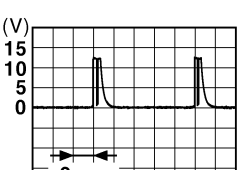
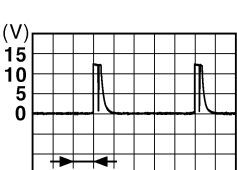
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|--|------------------|-------------------------------|---|--|
| + | - | Signal name | Input/ Output | | | |
| 92 (LG) | Ground | Key slot illumination | Output | Key slot illumination | OFF | 12 V |
| | | | | | Blinking |  <p>JPMIA0015GB</p> |
| | | | | | ON | 0 V |
| 93 (V) | Ground | ON indicator lamp | Output | Ignition switch | OFF (LOCK indicator is not illuminated) | Battery voltage |
| | | | | | ON or ACC | 0 V |
| 95 (BG) | Ground | ACC relay control | Output | Ignition switch | OFF | 0 V |
| | | | | | ACC or ON | 12 V |
| 96 (GR) | Ground | A/T shift selector (Detention switch) power supply | Output | — | — | 12 V |
| 99 (R) | Ground | Selector lever P position switch | Input | Selector lever | P position | 0 V |
| | | | | | Any position other than P | 12 V |
| 100 (G) | Ground | Passenger door request switch | Input | Passenger door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) |  <p>JPMIA0016GB</p> |
| 101 (SB) | Ground | Driver door request switch | Input | Driver door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) |  <p>JPMIA0016GB</p> |
| 102 (BG) | Ground | Blower fan motor relay control | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | 12 V |
| 103 (BR) | Ground | Remote keyless entry receiver power supply | Output | Ignition switch OFF | — | 12 V |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

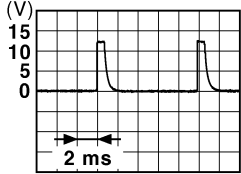




| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|-------------------------------|------------------|---|--|
| + | - | Signal name | Input/ Output | | |
| 107 (LG) | Ground | Combination switch INPUT 1 | Input | Combination switch (Wiper volume dial 4) | <p>All switches OFF</p>  <p>1.4 V</p> |
| | | | | | <p>Turn signal switch LH</p>  <p>1.3 V</p> |
| | | | | | <p>Turn signal switch RH</p>  <p>1.3 V</p> |
| | | | | | <p>Front wiper switch LO</p>  <p>1.3 V</p> |
| | | | | | <p>Front washer switch ON</p>  <p>1.3 V</p> |

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

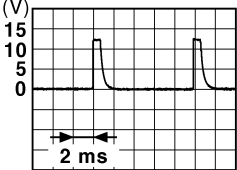

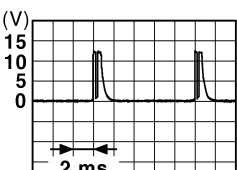
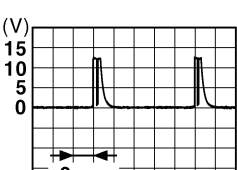
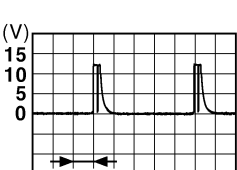
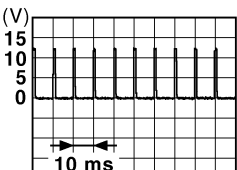
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|-------------------------------|------------------|---|--|
| + | - | Signal name | Input/ Output | | |
| 108 (R) | Ground | Combination switch INPUT 4 | Input | Combination switch |  <p>1.4 V</p> |
| | | | | Lighting switch AUTO (Wiper volume dial 4) |  <p>1.3 V</p> |
| | | | | Lighting switch 1ST (Wiper volume dial 4) |  <p>1.3 V</p> |
| | | | | Rear wiper switch INT (Wiper volume dial 4) |  <p>1.3 V</p> |
| | | | | Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6 |  <p>1.3 V</p> |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|-------------------------------|------------------|---|---|
| + | - | Signal name | Input/ Output | | |
| 109 (Y) | Ground | Combination switch INPUT 2 | Input | Combination switch (Wiper volume dial 4) | All switches OFF  1.4 V |
| | | | | | Lighting switch PASS  1.3 V |
| | | | | | Lighting switch 2ND  1.3 V |
| | | | | | Front wiper switch INT/ AUTO  1.3 V |
| | | | | | Front wiper switch HI  1.3 V |
| | | | | | ON 0 V |
| 110 (G) | Ground | Hazard switch | Input | Hazard switch | OFF  1.1 V |

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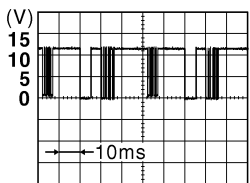
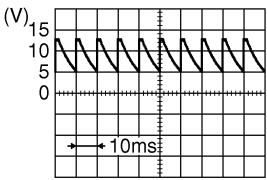
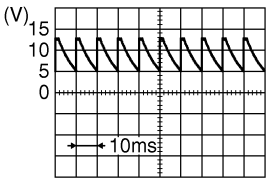
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

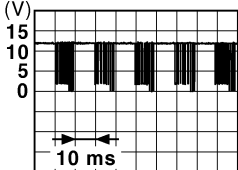
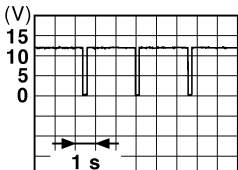
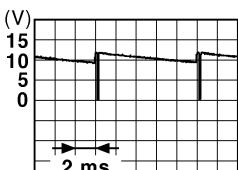
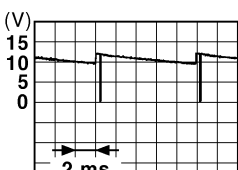
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|--|--|--|--|
| + | − | Signal name | Input/ Output | | | |
| 112 (GR) | Ground | Rain sensor serial link | Input/ Output | Ignition switch ON | | <div><p>JPMIA0156GB</p><p>8.7 V</p></div> |
| 113 (P) | Ground | Optical sensor | Input | Ignition switch ON | When bright outside of the vehicle | Close to 5 V |
| | | | | | When dark outside of the vehicle | Close to 0 V |
| 116 (BR) | Ground | Stop lamp switch 1 | Input | — | | Battery voltage |
| 118 (P) | Ground | Stop lamp switch 2 (Without ICC) | Input | Stop lamp switch | OFF (Brake pedal is not depressed) | 0 V |
| | | | | | ON (Brake pedal is depressed) | Battery voltage |
| | | Stop lamp switch 2 (With ICC) | Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF | | 0 V | |
| | | | Stop lamp switch ON (Brake pedal is depressed) or ICC brake 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) | <div><p>JPMIA0594GB</p><p>8.5 - 9.0 V</p></div> |
| | | | | | UNLOCK status (Unlock switch sensor ON) | 0 V |
| 121 (BR) | Ground | Key slot switch | Input | When the Intelligent Key is inserted into key slot | | 12 V |
| | | | | When the Intelligent Key is not inserted into key slot | | 0 V |
| 123 (W) | Ground | IGN feedback | Input | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | Battery voltage |
| 124 (LG) | Ground | Passenger door switch | Input | Passenger door switch | OFF (Door close) | <div><p>JPMIA0594GB</p><p>8.5 - 9.0 V</p></div> |
| | | | | | ON (Door open) | 0 V |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

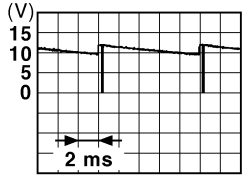
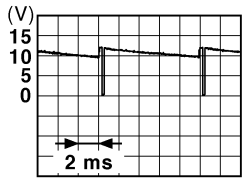
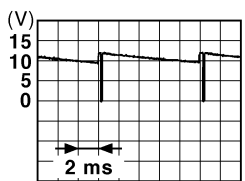
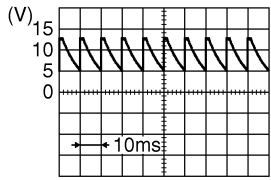
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|--------------------------------------|------------------|---|---|--|
| + | - | Signal name | Input/ Output | | | |
| 132 (BG) | Ground | Power window switch communication | Input/ Output | Ignition switch ON | |  JPMIA0013GB 10.2 V |
| | | | | Ignition switch OFF or ACC | | 12 V |
| 134 (GR) | Ground | LOCK indicator lamp | Output | LOCK indicator lamp | OFF | Battery voltage |
| | | | | | ON | 0 V |
| 137 (B) | Ground | Receiver and sensor ground | Input | Ignition switch ON | | 0 V |
| 138 (Y) | Ground | Sensor power supply | Output | Ignition switch | OFF | 0 V |
| | | | | | ACC or ON | 5.0 V |
| 140 (R) | Ground | Selector lever P/N position | Input | Selector lever | P or N position | 12 V |
| | | | | | Except P and N positions | 0 V |
| 141 (G) | Ground | Security indicator lamp | Output | Security indica- tor lamp | ON | 0 V |
| | | | | | Blinking |  JPMIA0014GB 11.3 V |
| | | | | | | OFF |
| 142 (BG) | Ground | Combination switch OUTPUT 5 | Output | Combination switch (Wiper volume dial 4) | All switches OFF | 0 V |
| | | | | | Lighting switch 1ST |  JPMIA0031GB 10.7 V |
| | | | | | Lighting switch HI | |
| | | | | | Lighting switch 2ND | |
| | | | | | Turn signal switch RH | |
| 143 (P) | Ground | Combination switch OUTPUT 1 | Output | Combination switch | All switches OFF (Wiper volume dial 4) | 0 V |
| | | | | | Front wiper switch HI (Wiper volume dial 4) |  JPMIA0032GB 10.7 V |
| | | | | | Rear wiper switch INT (Wiper volume dial 4) | |
| | | | | | Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 • Wiper volume dial 6 • Wiper volume dial 7 | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|------------------|---|---|---|
| + | - | Signal name | Input/ Output | | | |
| 144 (G) | Ground | Combination switch OUTPUT 2 | Output | Combination switch | All switches OFF (Wiper volume dial 4) | 0 V |
| | | | | | Front washer switch ON (Wiper volume dial 4) |  <p>JPMIA0033GB</p> |
| | | | | | Rear wiper switch ON (Wiper volume dial 4) | |
| | | | | | Rear washer switch ON (Wiper volume dial 4) | |
| | | | | | Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6 | 10.7 V |
| 145 (L) | Ground | Combination switch OUTPUT 3 | Output | Combination switch (Wiper volume dial 4) | All switches OFF | 0 V |
| | | | | | Front wiper switch INT/ AUTO |  <p>JPMIA0034GB</p> |
| | | | | | Front wiper switch LO | |
| | | | | | Lighting switch AUTO | 10.7 V |
| 146 (SB) | Ground | Combination switch OUTPUT 4 | Output | Combination switch (Wiper volume dial 4) | All switches OFF | 0 V |
| | | | | | Front fog lamp switch ON |  <p>JPMIA0035GB</p> |
| | | | | | Lighting switch 2ND | |
| | | | | | Lighting switch PASS | |
| | | | | | Turn signal switch LH | 10.7 V |
| 150 (GR) | Ground | Driver door switch | Input | Driver door switch | OFF (Door close) |  <p>JPMIA0594GB</p> <p>8.5 - 9.0 V</p> |
| | | | | | ON (Door open) | 0 V |
| 151 (G) | Ground | Rear window defog- ger relay control | Output | Rear window de- fogger | Active | 0 V |
| | | | | | Not activated | Battery voltage |

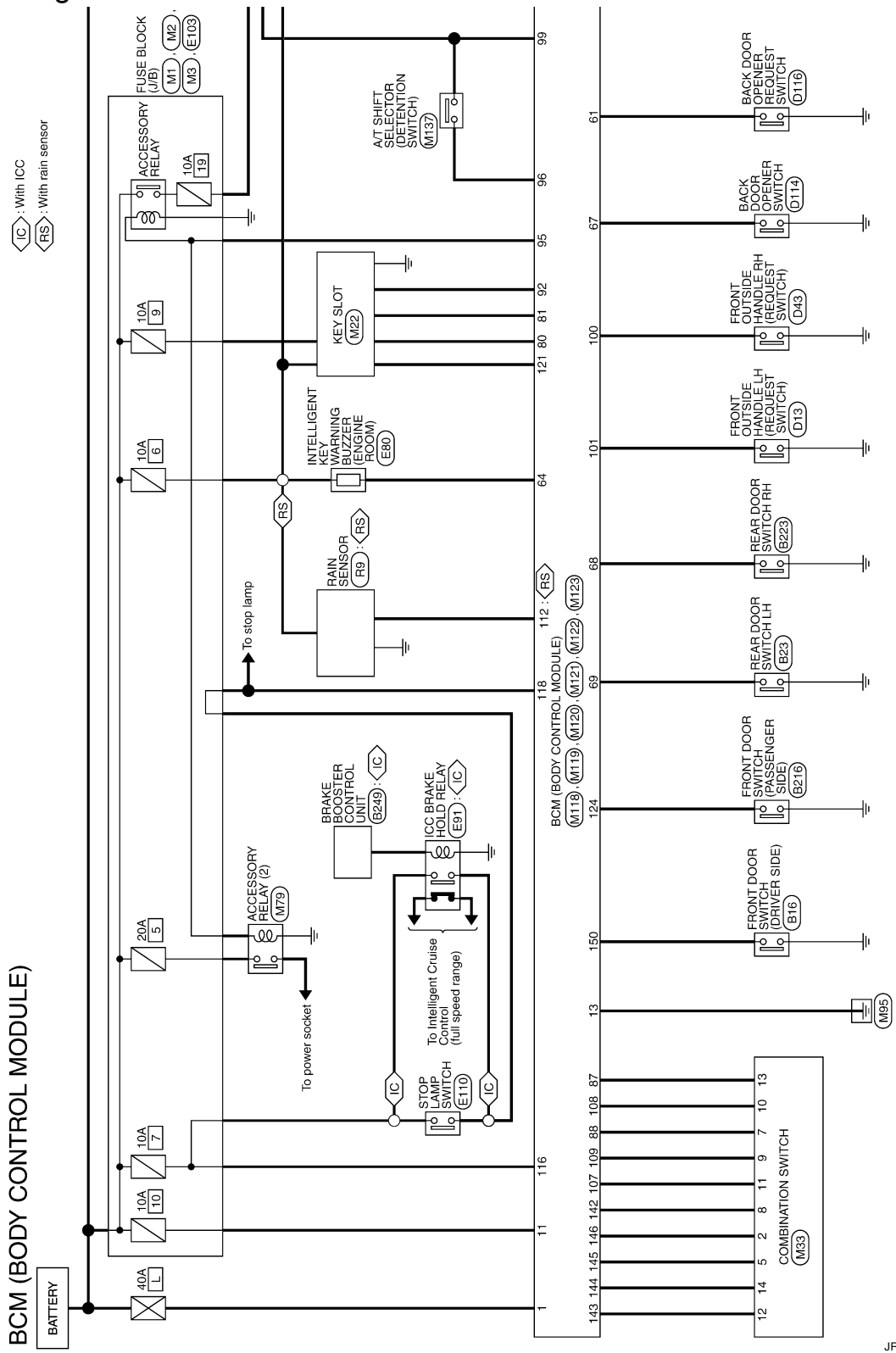
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Wiring Diagram - BCM -

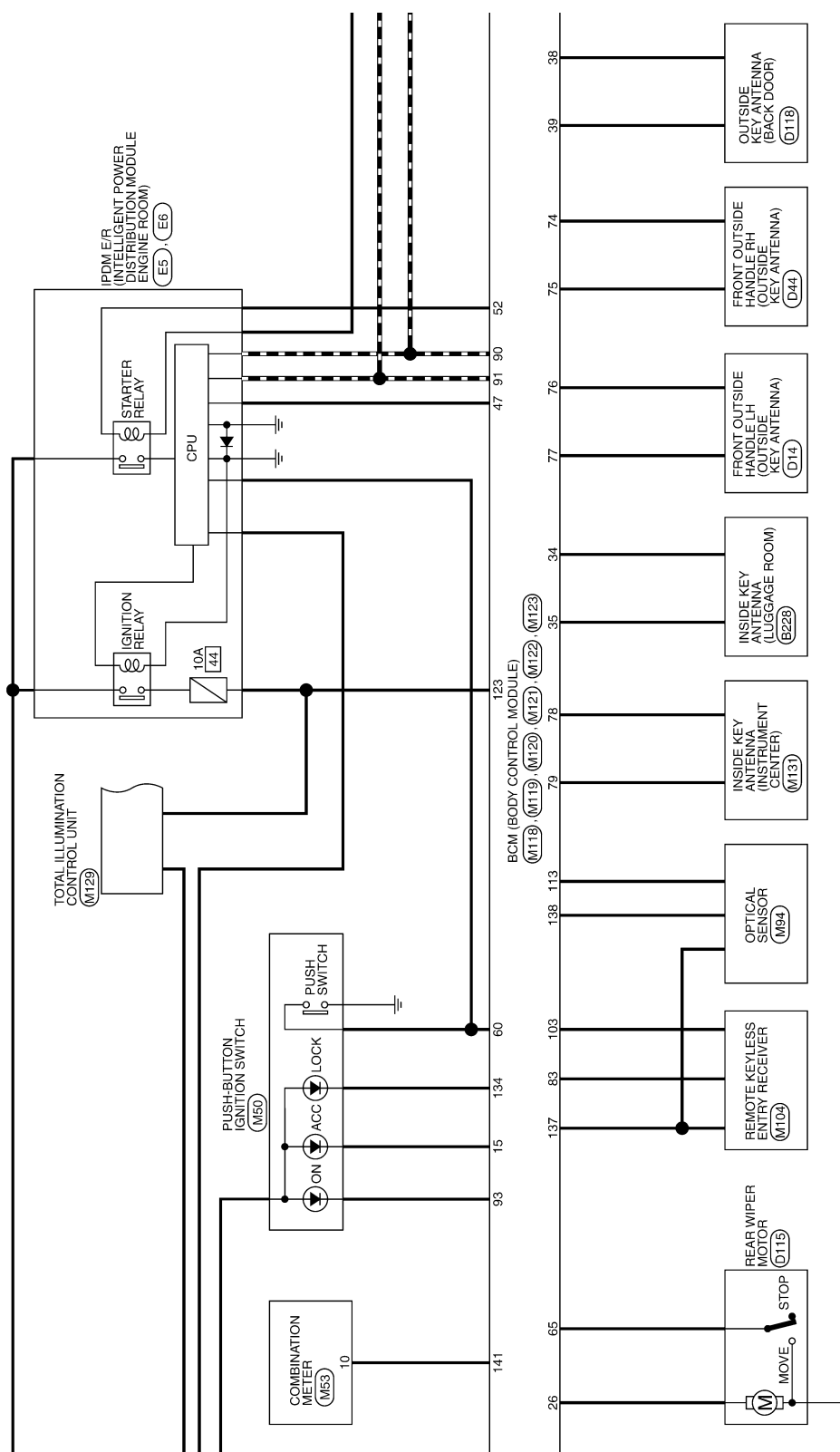
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]



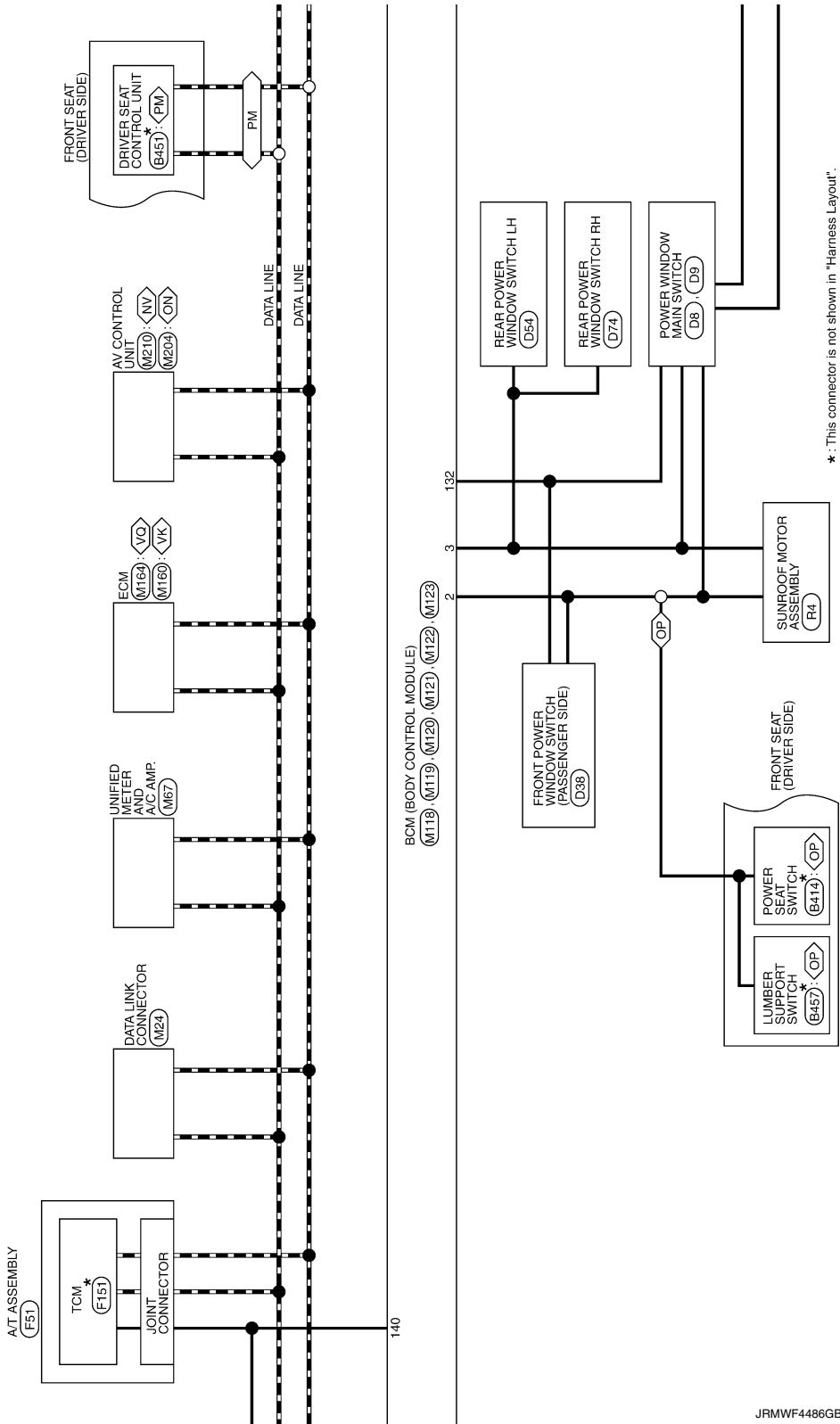
JRMWF4485GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

- VQ : With VQ engine
- VK : With VK engine
- NV : With NAVI
- ON : Without NAVI
- PM : With automatic drive positioner
- OP : Without automatic drive positioner



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

JRMWF4486GB

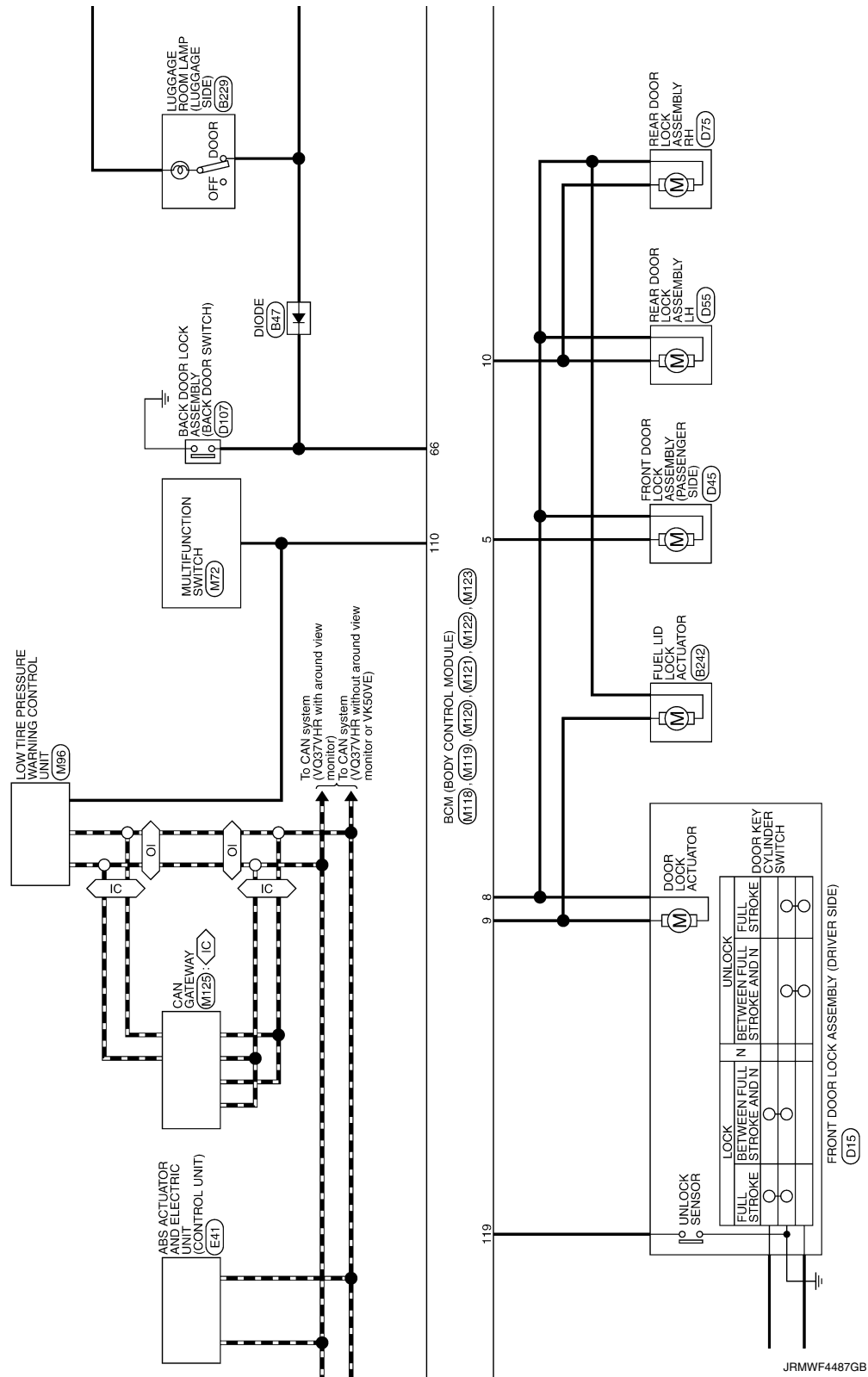
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

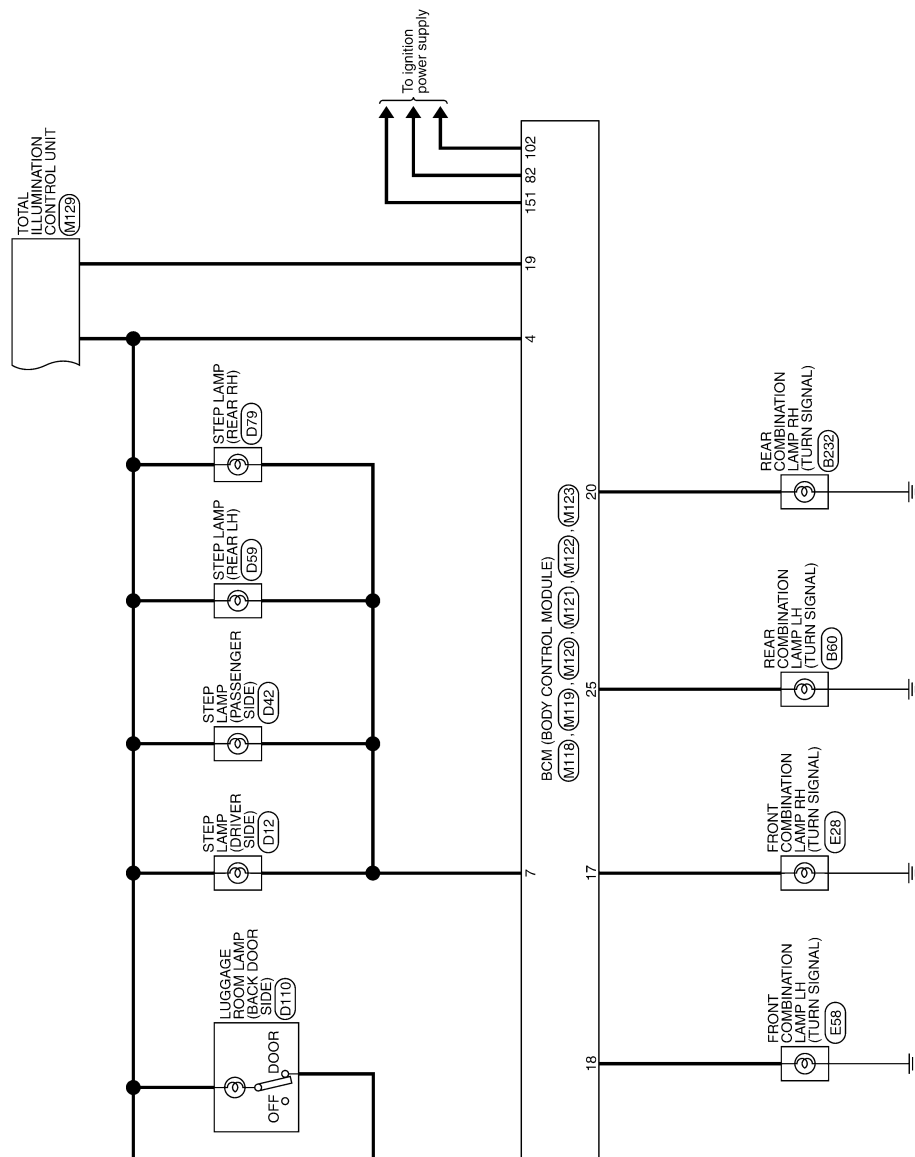
IC : With ICC
OI : Without ICC



BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]



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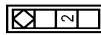
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

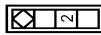
BCM (BODY CONTROL MODULE)

| Connector No. | Signal Name [Specification] |
|----------------|---------------------------------|
| B16 | FRONT DOOR SWITCH (DRIVER SIDE) |
| Connector Name | |
| Connector Type | A03FW |



| Terminal No. | Wire | Signal Name [Specification] |
|--------------|------|-----------------------------|
| 2 | GR | - |

| Connector No. | Signal Name |
|----------------|---------------------|
| B23 | REAR DOOR SWITCH LH |
| Connector Name | |
| Connector Type | A03FW |



| Terminal No. | Wire | Signal Name [Specification] |
|--------------|------|-----------------------------|
| 2 | W | - |

| Connector No. | Signal Name |
|----------------|-------------|
| B47 | DIODE |
| Connector Name | |
| Connector Type | 24335_C9000 |



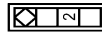
| Terminal No. | Wire | Signal Name [Specification] |
|--------------|------|-----------------------------|
| 1 | GR | - |
| 2 | V | - |

| Connector No. | Signal Name |
|----------------|--------------------------|
| B60 | REAR COMBINATION LAMP LH |
| Connector Name | |
| Connector Type | TH04MW-NH |



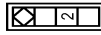
| Terminal No. | Wire | Signal Name [Specification] |
|--------------|------|-----------------------------|
| 1 | R | - |
| 2 | LG | - |
| 3 | G | - |
| 4 | B | - |

| Connector No. | Signal Name |
|----------------|------------------------------------|
| B216 | FRONT DOOR SWITCH (PASSENGER SIDE) |
| Connector Name | |
| Connector Type | A03FW |



| Terminal No. | Wire | Signal Name [Specification] |
|--------------|------|-----------------------------|
| 2 | GR | - |

| Connector No. | Signal Name |
|----------------|---------------------|
| B223 | REAR DOOR SWITCH RH |
| Connector Name | |
| Connector Type | A03FW |



| Terminal No. | Wire | Signal Name [Specification] |
|--------------|------|-----------------------------|
| 2 | BG | - |

| Connector No. | Signal Name |
|----------------|-----------------------------------|
| B228 | INSIDE KEY ANTENNA (LUGGAGE ROOM) |
| Connector Name | RKG2FGY |
| Connector Type | |



| Terminal No. | Wire | Signal Name [Specification] |
|--------------|------|-----------------------------|
| 1 | V | - |
| 2 | SB | - |

| Connector No. | Signal Name |
|----------------|----------------------------------|
| B229 | LUGGAGE ROOM LAMP (LUGGAGE SIDE) |
| Connector Name | |
| Connector Type | TK03FW |



| Terminal No. | Wire | Signal Name [Specification] |
|--------------|------|-----------------------------|
| 1 | W | - |
| 2 | L | - |

| Connector No. | Signal Name |
|----------------|--------------------------|
| B232 | REAR COMBINATION LAMP RH |
| Connector Name | |
| Connector Type | TH04MW-NH |



| Terminal No. | Wire | Signal Name [Specification] |
|--------------|------|-----------------------------|
| 1 | P | - |
| 2 | LG | - |
| 3 | V | - |
| 4 | B | - |

JRMWF4489GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

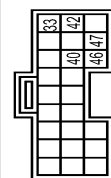
BCM (BODY CONTROL MODULE)

| | |
|----------------|------------------------|
| Connector No. | B242 |
| Connector Name | FUEL LID LOCK ACTUATOR |
| Connector Type | MD4FW-LC |



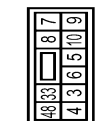
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | V | - |

| | |
|----------------|----------------------------|
| Connector No. | B249 |
| Connector Name | BRAKE BOOSTER CONTROL UNIT |
| Connector Type | TK2AFGY |



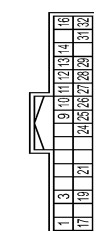
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 33 | G | IGNITION |
| 40 | SB | IBA OFF SW |
| 42 | G | IGNITION |
| 46 | B | GROUND |
| 47 | LG | BRAKE HOLD RLY DRIVE SIGNAL |

| | |
|----------------|-------------------|
| Connector No. | B414 |
| Connector Name | POWER SEAT SWITCH |
| Connector Type | NS10FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 3 | GY | - |
| 4 | P | - |
| 5 | W | - |
| 6 | V | - |
| 7 | LY | - |
| 8 | L | - |
| 9 | L/R | - |
| 10 | GW | - |
| 33 | R | - |
| 48 | B | - |

| | |
|----------------|--------------------------|
| Connector No. | B451 |
| Connector Name | DRIVER SEAT CONTROL UNIT |
| Connector Type | TH32FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | LW | RX |
| 3 | RY | CANH |
| 9 | W/G | PULSE (RECLINING) |
| 10 | P/B | PULSE (RR LIFTING) |
| 11 | BR | SLIDING SW (BACKWARD) |
| 12 | SB | RECLINING SW (BACKWARD) |
| 13 | LG/R | FRONT LIFTING SW (DOWNWARD) |
| 14 | GB | REAR LIFTING SW (DOWNWARD) |
| 16 | O | VCC |
| 17 | Y/R | TX |

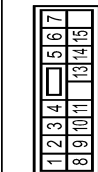
| | | |
|----|-----|---------------------------|
| 19 | V | CAN-L |
| 21 | LY | P RANGE SW |
| 24 | R | PULSE (SLIDING) |
| 25 | Y/B | PULSE (RR LIFTING) |
| 26 | Y | SLIDING SW (FORWARD) |
| 27 | R/G | RECLINING SW (FORWARD) |
| 28 | W/B | FRONT LIFTING SW (UPWARD) |
| 29 | P/L | REAR LIFTING SW (UPWARD) |
| 31 | GR | SENSOR GND |
| 32 | B/W | GND (SIGNAL) |

| | |
|----------------|-----------------------|
| Connector No. | B457 |
| Connector Name | LUMBAR SUPPORT SWITCH |
| Connector Type | NS04FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 33 | R | - |
| 48 | B | - |
| 57 | W | - |
| 58 | L | - |

| | |
|----------------|--------------------------|
| Connector No. | D8 |
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS16FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | LG | - |
| 3 | GR | - |
| 4 | V | - |

| | | |
|----|----|---|
| 5 | SB | - |
| 6 | Y | - |
| 7 | BR | - |
| 8 | L | - |
| 9 | W | - |
| 10 | O | - |
| 11 | G | - |
| 13 | P | - |
| 14 | V | - |
| 15 | W | - |

| | |
|----------------|--------------------------|
| Connector No. | D9 |
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS03FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 17 | B | - |
| 19 | Y | - |

| | |
|----------------|-------------------------|
| Connector No. | D12 |
| Connector Name | STEP LAMP (DRIVER SIDE) |
| Connector Type | TB02FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | LG | - |
| 2 | SB | - |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

| | |
|----------------|--|
| Connector No. | D13 |
| Connector Name | FRONT OUTSIDE HANDLE LH (REQUEST SWITCH) |
| Connector Type | RK02FL-B |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | B | - |

| | |
|----------------|---|
| Connector No. | D14 |
| Connector Name | FRONT OUTSIDE HANDLE LH (OUTSIDE KEY ANTENNA) |
| Connector Type | RK02MGY |



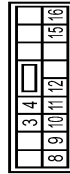
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | - |
| 2 | V | - |

| | |
|----------------|--|
| Connector No. | D15 |
| Connector Name | FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) |
| Connector Type | E06FGY-RS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | LG | - |
| 2 | R | - |
| 3 | G | - |
| 4 | B | - |
| 5 | V | - |
| 6 | V | - |

| | |
|----------------|--|
| Connector No. | D38 |
| Connector Name | FRONT POWER WINDOW SWITCH (PASSENGER SIDE) |
| Connector Type | NS16FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 3 | LG | - |
| 4 | W | - |
| 8 | L | - |
| 9 | G | - |
| 10 | Y | - |
| 11 | B | - |
| 12 | P | - |
| 15 | R | - |
| 16 | V | - |

| | |
|----------------|----------------------------|
| Connector No. | D42 |
| Connector Name | STEP LAMP (PASSENGER SIDE) |
| Connector Type | TB02FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | SB | - |
| 2 | R | - |

| | |
|----------------|--|
| Connector No. | D43 |
| Connector Name | FRONT OUTSIDE HANDLE RH (REQUEST SWITCH) |
| Connector Type | RK02FL-B |



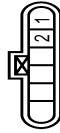
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | B | - |

| | |
|----------------|---|
| Connector No. | D44 |
| Connector Name | FRONT OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA) |
| Connector Type | RK02MGY |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | - |
| 2 | W | - |

| | |
|----------------|---|
| Connector No. | D45 |
| Connector Name | FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE) |
| Connector Type | E06FGY-RS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | LG | - |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

| | |
|----------------|-----------------------------|
| Connector No. | D54 |
| Connector Name | REAR POWER WINDOW SWITCH LH |
| Connector Type | NS08FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | L | - |
| 3 | R | - |
| 4 | L | - |
| 5 | G | - |
| 6 | L | - |
| 7 | B | - |

| | |
|----------------|----------------------------|
| Connector No. | D55 |
| Connector Name | REAR DOOR LOCK ASSEMBLY LH |
| Connector Type | E06FGY-RS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | V | - |
| 2 | G | - |

| | |
|----------------|---------------------|
| Connector No. | D59 |
| Connector Name | STEP LAMP (REAR LH) |
| Connector Type | TB02FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | L | - |
| 2 | O | - |

| | |
|----------------|-----------------------------|
| Connector No. | D74 |
| Connector Name | REAR POWER WINDOW SWITCH RH |
| Connector Type | NS08FW-CS |



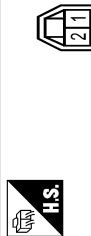
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | P | - |
| 3 | R | - |
| 4 | L | - |
| 5 | G | - |
| 6 | L | - |
| 7 | B | - |

| | |
|----------------|----------------------------|
| Connector No. | D75 |
| Connector Name | REAR DOOR LOCK ASSEMBLY RH |
| Connector Type | E06FGY-RS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | L | - |

| | |
|----------------|---------------------|
| Connector No. | D79 |
| Connector Name | STEP LAMP (REAR RH) |
| Connector Type | TB02FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | L | - |
| 2 | O | - |

| | |
|----------------|-------------------------|
| Connector No. | D107 |
| Connector Name | BACK DOOR LOCK ASSEMBLY |
| Connector Type | NS08FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | LW | - |
| 2 | LB | - |
| 3 | G | - |
| 4 | L | - |
| 5 | W | - |
| 6 | LG | - |
| 7 | GR | - |
| 8 | GR | - |

| | |
|----------------|------------------------------------|
| Connector No. | D110 |
| Connector Name | LUGGAGE ROOM LAMP (BACK DOOR SIDE) |
| Connector Type | TK03FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | GR | - |
| 2 | L | - |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

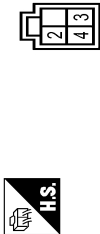
BCM (BODY CONTROL MODULE)

| | |
|----------------|-------------------------|
| Connector No. | D114 |
| Connector Name | BACK DOOR OPENER SWITCH |
| Connector Type | TK02MBR-P |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | B | - |

| | |
|----------------|------------------|
| Connector No. | D115 |
| Connector Name | REAR WIPER MOTOR |
| Connector Type | CJ04FM-IV |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 2 | G | - |
| 3 | BG | - |
| 4 | B | - |

| | |
|----------------|---------------------------------|
| Connector No. | D116 |
| Connector Name | BACK DOOR OPENER REQUEST SWITCH |
| Connector Type | TK02MBR-P |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | V | - |
| 2 | B | - |

| | |
|----------------|---------------------------------|
| Connector No. | D118 |
| Connector Name | OUTSIDE KEY ANTENNA (BACK DOOR) |
| Connector Type | RK02EGY |



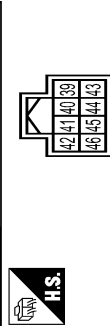
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | BR | - |
| 2 | R | - |

| | |
|----------------|---|
| Connector No. | E5 |
| Connector Name | IPDM/ER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | TH02FM-LCS12-M4-1V |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 4 | V | - |
| 5 | L | - |
| 7 | R | - |
| 10 | SB | - |
| 12 | B | - |
| 13 | Y | - |
| 16 | LG | - |
| 19 | W | - |
| 25 | G | - |
| 26 | R | - |
| 27 | Y | - |
| 28 | BG | - |
| 30 | GR | - |
| 36 | G | - |

| | |
|----------------|---|
| Connector No. | E6 |
| Connector Name | IPDM/ER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | TH03FM-AH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 39 | P | - |
| 40 | L | - |
| 41 | B | - |
| 42 | Y | - |
| 43 | SB | - |
| 44 | W | - |

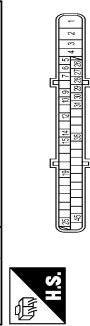
| | |
|----|----|
| 45 | G |
| 46 | BR |

| | |
|----------------|---------------------------|
| Connector No. | E28 |
| Connector Name | FRONT COMBINATION LAMP RH |
| Connector Type | RS04FB-PR |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | BR | - |
| 2 | V | - |
| 3 | B | - |
| 4 | P | - |

| | |
|----------------|---|
| Connector No. | E41 |
| Connector Name | ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) |
| Connector Type | BAA42FB-AH24-LH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | B | GROUND |
| 2 | G | LBWR |
| 3 | R | LBVR |
| 4 | B | GROUND |
| 5 | Y | DS FL |
| 6 | BG | DP RL |
| 7 | BR | DP BR |
| 9 | B | DP FR |
| 10 | W | DS FR |
| 12 | L | VAC |
| 14 | P | CANL |
| 15 | SHIELD | AGND |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| 19 P | UST |
| 25 Y | BUS-L |
| 26 R | DP FL |
| 27 GR | DS RL |
| 28 G | UZ |
| 29 LG | DS RR |
| 30 SB | BLS |
| 31 R | VDC OFF SW |
| 35 L | CANH |
| 45 B | BUS-H |

| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| E58 | FRONT COMBINATION LAMP LH |
| ES04E8-FR | |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | Y | - |
| 2 | G | - |
| 3 | B | - |
| 4 | BG | - |

| Connector No. | Signal Name [Specification] |
|---------------|--|
| E80 | INTELLIGENT KEY WARNING BUZZER (BUZZER ROOM) |
| RK03FBR | |



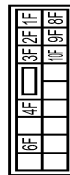
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | LG | +BAT (VOL SMALL) |
| 3 | GR | BUZZER SIGNAL |

| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| E91 | ICC BRAKE HOLD RELAY |
| M06FGY-R-US | |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | L | - |
| 2 | B | - |
| 3 | G | - |
| 4 | G | - |
| 6 | W | - |
| 7 | L | - |

| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| E103 | FUSE BLOCK (J/B) |
| NS16FW-CS | |



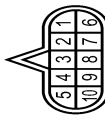
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 10F | L | - |
| 2F | SB | - |
| 3F | W | - |
| 4F | Y | - |
| 6F | G | - |
| 8F | BG | - |
| 9F | R | - |

| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| E110 | STOP LAMP SWITCH |
| M04FW-LC | |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | L | - |
| 2 | W | - |
| 3 | G | - |
| 4 | BR | - |

| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| F51 | AT ASSEMBLY |
| RK10FG-DGY | |



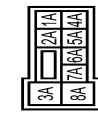
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------------|
| 1 | Y | IGNITION POWER SUPPLY |
| 2 | R | BATTERY POWER SUPPLY (MEMORY BACK-UP) |
| 3 | L | CANH |
| 4 | V | K-LINE |
| 5 | B | GROUND |
| 6 | Y | IGNITION POWER SUPPLY |
| 7 | R | BACK-UP LAMP RELAY |
| 8 | P | CANL |
| 9 | GR | STARTER RELAY (With VQ engine) |
| 9 | LG | STARTER RELAY (With VK engine) |
| 10 | B | GROUND |

| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| F151 | TCM |
| SP10FG | |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------------|
| 1 | W | IGNITION POWER SUPPLY |
| 2 | B | BATTERY POWER SUPPLY (MEMORY BACK-UP) |
| 3 | R | CANH |
| 4 | O | K-LINE |
| 5 | G | GROUND |
| 6 | GR | IGNITION POWER SUPPLY |
| 7 | L | BACK-UP LAMP RELAY |
| 8 | BR | CANL |
| 9 | Y | STARTER RELAY |
| 10 | W/B | GROUND |

| Connector No. | Signal Name [Specification] |
|---------------|-----------------------------|
| M1 | FUSE BLOCK (J/B) |
| NS08FM-M2 | |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1A | BG | - |
| 2A | G | - |
| 3A | L | - |
| 4A | R | - |
| 5A | V | - |
| 6A | Y | - |
| 7A | R | - |
| 8A | L | - |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

| | |
|----------------|------------------|
| Connector No. | M2 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS10FW-CS |



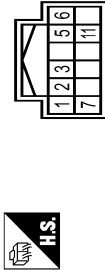
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1B | LG | - |
| 3B | P | - |
| 4B | G | - |
| 5B | BG | - |
| 6B | Y | - |
| 7B | L | - |
| 8B | R | - |
| 9B | BR | - |

| | |
|----------------|------------------|
| Connector No. | M3 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS12FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 10C | L | - |
| 11C | LG | - |
| 12C | R | - |
| 6C | P | - |
| 7C | B | - |
| 9C | BG | - |

| | |
|----------------|-----------|
| Connector No. | M22 |
| Connector Name | KEY SLOT |
| Connector Type | TH12FW-AH |



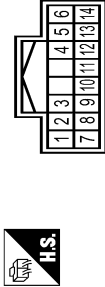
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | BAT |
| 2 | GR | CLOCK |
| 3 | W | DATA |
| 4 | Y | ILL BAT |
| 5 | LG | ILL |
| 6 | L | GROUND |
| 7 | B | KEY SWITCH SIGNAL |
| 11 | BR | - |

| | |
|----------------|---------------------|
| Connector No. | M24 |
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |



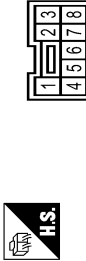
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 3 | LG | - |
| 4 | B | - |
| 5 | B | - |
| 6 | L | - |
| 7 | GR | - |
| 8 | G | - |
| 11 | SB | - |
| 12 | P | - |
| 13 | L | - |
| 14 | P | - |
| 16 | BG | - |

| | |
|----------------|--------------------|
| Connector No. | M33 |
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-AH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | FR WASHER (-) |
| 2 | SB | OUTPUT 4 |
| 3 | BG | FR WASHER (+) |
| 4 | G | IGN |
| 5 | L | OUTPUT 3 |
| 6 | B | GROUND |
| 7 | V | INPUT 3 |
| 8 | BG | OUTPUT 5 |
| 9 | Y | INPUT 2 |
| 10 | R | INPUT 4 |
| 11 | LG | INPUT 1 |
| 12 | P | OUTPUT 1 |
| 13 | BR | INPUT 5 |
| 14 | G | OUTPUT 2 |

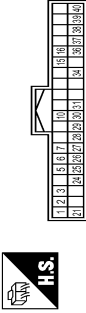
| | |
|----------------|-----------------------------|
| Connector No. | M50 |
| Connector Name | PUSH-BUTTON IGNITION SWITCH |
| Connector Type | TK08FBR |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | B | - |
| 2 | R | - |
| 3 | BG | - |
| 4 | SB | - |
| 5 | GR | - |
| 6 | Y | - |

| | |
|---|---|
| 7 | V |
| 8 | P |

| | |
|----------------|-------------------|
| Connector No. | M53 |
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-AH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|--|
| 1 | BG | BATTERY POWER SUPPLY |
| 2 | LG | COMMUNICATION SIGNAL (METER-AMP) |
| 3 | GR | COMMUNICATION SIGNAL (AMP->METER) |
| 4 | B | GROUND |
| 5 | W | ALTERNATOR SIGNAL |
| 6 | P | AIR BAG SIGNAL |
| 7 | G | SECURITY INDICATOR SIGNAL |
| 15 | B | GROUND |
| 16 | B | METER CONTROL SWITCH GROUND |
| 21 | R | IGNITION SIGNAL |
| 24 | BR | COMMUNICATION SIGNAL (LCD-AMP) |
| 25 | Y | COMMUNICATION SIGNAL (AMP->LCD) |
| 26 | R | VEHICLE SPEED SIGNAL (8-PULSE) |
| 27 | V | PARKING BRAKE SWITCH SIGNAL |
| 28 | W | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 29 | SB | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 30 | G | PASSENGER SEAT BELT WARNING SIGNAL |
| 31 | L | WASHER LEVEL SWITCH SIGNAL |
| 34 | B | ILLUMINATION CONTROL SIGNAL |
| 36 | LG | SELECT SWITCH SIGNAL |
| 37 | SB | ENTER SWITCH SIGNAL |
| 38 | L | TRIP AB RESET SWITCH SIGNAL |
| 39 | P | ILLUMINATION CONTROL SWITCH SIGNAL (-) |
| 40 | BG | ILLUMINATION CONTROL SWITCH SIGNAL (+) |

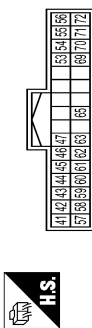
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

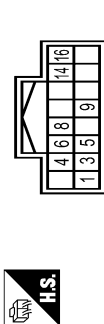
BCM (BODY CONTROL MODULE)

| | |
|----------------|----------------------------|
| Connector No. | M67 |
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH32FW-NH |



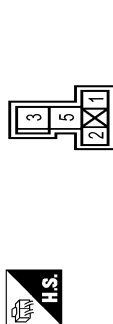
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------|
| 41 | V | ACC POWER SUPPLY |
| 42 | Y | FUEL LEVEL SENSOR SIGNAL |
| 43 | R | INTAKE SENSOR SIGNAL |
| 44 | LG | IN-VEHICLE SENSOR SIGNAL |
| 45 | P | AMBIENT SENSOR SIGNAL |
| 46 | BG | SUNLOAD SENSOR SIGNAL |
| 47 | V | GAS SENSOR SIGNAL |
| 53 | G | IGNITION POWER SUPPLY |
| 54 | BG | BATTERY POWER SUPPLY |
| 55 | B | GROUND |
| 56 | L | CANH |
| 57 | W | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 58 | B | FUEL LEVEL SENSOR GROUND |
| 59 | GR | INTAKE SENSOR GROUND |
| 60 | L | IN-VEHICLE SENSOR GROUND |
| 61 | BR | AMBIENT SENSOR GROUND |
| 62 | SB | SUNLOAD SENSOR GROUND |
| 63 | R | ION MODE SIGNAL |
| 65 | BG | ECV SIGNAL |
| 69 | L | A/C LAN SIGNAL |
| 70 | R | EACH DOOR MOTOR POWER SUPPLY |
| 71 | B | GROUND |
| 72 | P | CANH |

| | |
|----------------|----------------------|
| Connector No. | M72 |
| Connector Name | MULTIFUNCTION SWITCH |
| Connector Type | TH16FM-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | B | GROUND |
| 3 | V | ACC |
| 4 | R | ILL |
| 5 | R | ILL CONT |
| 6 | SB | AV COMM (H) |
| 8 | LG | AV COMM (L) |
| 9 | BR | SW GND |
| 14 | SB | DISK EJECT SIGNAL |
| 16 | G | HAZARD ON |

| | |
|----------------|---------------------|
| Connector No. | M79 |
| Connector Name | ACCESSORY RELAY (2) |
| Connector Type | MS02FL-M2-LC |



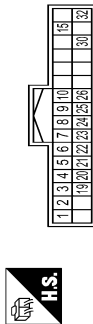
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | B | - |
| 3 | LG | - |
| 5 | L | - |

| | |
|----------------|----------------|
| Connector No. | M94 |
| Connector Name | OPTICAL SENSOR |
| Connector Type | TK03FW |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | Y | POWER |
| 2 | P | OUTPUT |
| 3 | B | GROUND |

| | |
|----------------|--|
| Connector No. | M96 |
| Connector Name | LOW TIRE PRESSURE WARNING CONTROL UNIT |
| Connector Type | TH02FM-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | CAN+ (L) |
| 2 | L | CAN+ (H) |
| 3 | BG | RR TUNER (SIG) |
| 4 | L | RL TUNER (SIG) |
| 5 | R | FR TUNER (SIG) |
| 6 | P | FL TUNER (SIG) |
| 7 | SB | RR TUNER (VCC) |
| 8 | R | RL TUNER (VCC) |
| 9 | GR | FR TUNER (VCC) |
| 10 | G | FL TUNER (VCC) |
| 15 | Y | IGN |
| 19 | W | RR TUNER (RSSI) |
| 20 | BR | RL TUNER (RSSI) |
| 21 | LG | FR TUNER (RSSI) |
| 22 | V | FL TUNER (RSSI) |
| 23 | B | RR TUNER (GND) |
| 24 | Y | RL TUNER (GND) |

| | | |
|----|----|----------------|
| 25 | W | FR TUNER (GND) |
| 26 | P | FL TUNER (GND) |
| 30 | LG | BCM FLASHER |
| 32 | B | GROUND |

| | |
|----------------|-------------------------------|
| Connector No. | M104 |
| Connector Name | REMOTE KEYLESS ENTRY RECEIVER |
| Connector Type | JAB04FB |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | B | GROUND |
| 2 | GR | SIGNAL OUTPUT |
| 4 | BR | BATTERY |

| | |
|----------------|---------------------------|
| Connector No. | M118 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | IM03FB-LC |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------|
| 1 | W | BAT (F/L) |
| 2 | Y | POWER WINDOW POWER SUPPLY (BAT) |
| 3 | BG | POWER WINDOW POWER SUPPLY (RAP) |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

| | |
|----------------|---------------------------|
| Connector No. | M119 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS16FW-CS |



| | | | | | |
|----|----|----|----|----|----|
| 4 | 5 | 7 | 8 | 9 | 10 |
| 11 | 13 | 15 | 17 | 18 | 19 |

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-------------------------------------|
| 4 | P | INT ROOM LAMP PWR SUPPLY (BAT SAVE) |
| 5 | V | PASSENGER DOOR UNLOCK OUTPUT |
| 7 | Y | STEP LAMP OUTPUT |
| 8 | V | ALL DOOR FUEL LID LOCK OUTPUT |
| 9 | G | DRIVER DOOR FUEL LID UNLOCK OUTPUT |
| 10 | BR | REAR DOOR UNLOCK OUTPUT |
| 11 | R | BAT (FUSE) |
| 13 | B | GROUND |
| 15 | Y | ACC IND |
| 17 | W | TURN SIGNAL RH (FRONT) |
| 18 | BG | TURN SIGNAL LH (FRONT) |
| 19 | SB | ROOM LAMP TIMER |

| | |
|----------------|---------------------------|
| Connector No. | M120 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS12FW-CS |



| | | |
|----|----|----|
| 20 | 25 | 26 |
|----|----|----|

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 20 | V | TURN SIGNAL RH (REAR) |
| 25 | G | TURN SIGNAL LH (REAR) |
| 26 | P | REAR WIPER OUTPUT |

| | |
|----------------|---------------------------|
| Connector No. | M121 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FG-NH |



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| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 34 | SB | LUGGAGE ROOM ANT- |
| 35 | V | LUGGAGE ROOM ANT+ |
| 38 | B | BACK DOOR ANT- |
| 39 | W | BACK DOOR ANT+ |
| 47 | Y | IGN RELAY (PRM FIB) CONT |
| 52 | LG | STARTER RELAY CONT |
| 60 | SB | END START SW |
| 61 | W | TRUNK REQUEST SW |
| 64 | L | LKEY WARN BUZZER (ENG ROOM) |
| 65 | BG | REAR WIPER STOP POSITION |
| 66 | LG | BACK DOOR SW |
| 67 | P | BACK DOOR OPENER SW |
| 68 | BR | REAR RH DOOR SW |
| 69 | R | REAR LH DOOR SW |

| | |
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| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |



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| 91 | 90 | 88 | 87 | | | | | 83 | 82 | 81 | 80 | 79 | 78 | 77 | 76 | 75 | 74 | | | |
| 110 | 108 | 106 | 107 | | | | | 109 | 108 | 107 | 100 | 99 | | | 96 | 95 | | | 93 | 92 |

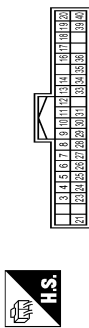
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

| | |
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| Connector No. | M123 |
| Connector Name | TOTAL ILLUMINATION CONTROL UNIT |
| Connector Type | TH40FW-NH |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 3 | V | | DDL2 |
| 4 | L | | TAIL LAMP SIGNAL |
| 5 | V | | ACC SIGNAL |
| 6 | P | | BAT SAVING SIGNAL |
| 7 | W | | IGN SIGNAL |
| 8 | G | | DOOR SW (AS) |
| 9 | B | | DOOR SW (RL) |
| 10 | SB | | MOOD LAMP (FR ARMREST RH) |
| 11 | Y | | MOOD LAMP (RR ARMREST RH) |
| 12 | P | | MAP LAMP (AS) |
| 13 | G | | PERSONAL LAMP (LH) |
| 14 | R | | PERSONAL LAMP (RH) |
| 16 | GR | | FOOT LAMP (RH) |
| 17 | LG | | HSPL ILLUMINATIONS |
| 18 | L | | MAP LAMP (DR) |
| 19 | R | | PUSH ENG START SW LED |
| 20 | Y | | AMBIENCE LAMP |
| 21 | R | | BAT POWER SUPPLY |
| 23 | B | | GROUND |
| 24 | B | | ILL CONT INPUT |
| 25 | BR | | DOOR SW (RR) |
| 26 | BR | | MAP LAMP SW (DOOR) |
| 27 | R | | MAP LAMP SW (ALL ON) |
| 28 | SB | | ROOM LAMP TIMER |
| 29 | GR | | DOOR SW (DR) |
| 30 | LG | | MOOD LAMP (FR ARMREST LH) |
| 31 | B | | MOOD LAMP (RR ARMREST LH) |
| 33 | W | | HSPL POWER SUPPLY 3 |
| 34 | R | | HSPL POWER SUPPLY 2 |
| 35 | V | | HSPL POWER SUPPLY 1 |
| 36 | L | | FOOT LAMP (LH) |
| 39 | B | | PUDDLE LAMP (RH) |
| 40 | B | | PUDDLE LAMP (LH) |

| | |
|----------------|--|
| Connector No. | M131 |
| Connector Name | INSIDE KEY ANTENNA (INSTRUMENT CENTER) |
| Connector Type | RK02MGY |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 1 | BR | | - |
| 2 | Y | | - |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 1 | W | | - |
| 2 | V | | - |
| 3 | L | | - |
| 4 | B | | - |
| 5 | G | | - |
| 7 | B | | - |
| 8 | SB | | - |
| 9 | B | | - |
| 10 | GR | | - |
| 11 | R | | - |

| | |
|----------------|------------------|
| Connector No. | M160 |
| Connector Name | ECM |
| Connector Type | RH24FGY-R28-LH-Z |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|---------------------------------------|
| 97 | R | | ENGINE SPEED SIGNAL OUTPUT |
| 99 | G | | SENSOR POWER SUPPLY |
| 100 | L | | SENSOR POWER SUPPLY |
| 101 | P | | CAN COMMUNICATION LINE |
| 102 | SB | | ASCD/CC STEERING SWITCH |
| 104 | R | | ACCELERATOR PEDAL POSITION SENSOR 1 |
| 105 | L | | CAN COMMUNICATION LINE |
| 106 | P | | IGNITION SWITCH |
| 108 | P | | ACCELERATOR PEDAL POSITION SENSOR 2 |
| 110 | P | | STOP LAMP SWITCH |
| 111 | V | | SENSOR GROUND |
| 112 | LG | | FUEL PUMP CONTROL MODULE (FFCM) CHECK |
| 114 | GR | | DATA LINK CONNECTOR |
| 115 | GR | | SENSOR GROUND |
| 116 | G | | TRANSMISSION RANGE SWITCH |
| 117 | BR | | ASCD/CC BRAKE SWITCH |
| 118 | R | | POWER SUPPLY FOR ECM (BACK-UP) |
| 119 | W | | SENSOR GROUND |
| 120 | W | | FUEL TANK TEMPERATURE SENSOR |
| 121 | GR | | POWER SUPPLY FOR ECM |
| 123 | B | | ECM GROUND |
| 125 | R | | FUEL PUMP CONTROL MODULE (FFCM) |
| 128 | B | | ECM GROUND |

| | |
|----------------|------------------|
| Connector No. | M164 |
| Connector Name | ECM |
| Connector Type | RH24FGY-R28-LH-Z |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|---|
| 97 | R | | ACCELERATOR PEDAL POSITION SENSOR 1 |
| 98 | P | | ACCELERATOR PEDAL POSITION SENSOR 2 |
| 99 | Y | | ACCELERATOR PEDAL POSITION SENSOR 3 |
| 98 | G | | SENSOR POWER SUPPLY (With NAVI) |
| 99 | L | | SENSOR POWER SUPPLY (Without NAVI) |
| 100 | W | | SENSOR GROUND |
| 101 | SB | | ASCD/CC STEERING SWITCH |
| 102 | LG | | EVAP CONTROL SYSTEM PRESSURE SENSOR |
| 103 | G | | SENSOR POWER SUPPLY (Without NAVI) |
| 103 | L | | SENSOR POWER SUPPLY (With NAVI) |
| 104 | BR | | SENSOR GROUND (Without NAVI) |
| 105 | L | | REFRIGERANT PRESSURE SENSOR |
| 106 | W | | FUEL TANK TEMPERATURE SENSOR |
| 107 | B | | SENSOR POWER SUPPLY |
| 108 | V | | SENSOR GROUND |
| 109 | G | | PNP SIGNAL |
| 110 | R | | ENGINE SPEED OUTPUT SIGNAL |
| 112 | V | | ENGINE CANISTER VENT CONTROL SYSTEM PRESSURE SENSOR |
| 112 | W | | ENGINE CANISTER VENT CONTROL SYSTEM PRESSURE SENSOR |
| 113 | P | | CAN COMMUNICATION LINE |
| 114 | L | | CAN COMMUNICATION LINE |
| 117 | GR | | DATA LINK CONNECTOR |
| 121 | LG | | EVAP CANISTER VENT CONTROL VALVE |
| 122 | P | | STOP LAMP SWITCH |
| 123 | B | | ECM GROUND |
| 124 | B | | ECM GROUND |
| 125 | GR | | POWER SUPPLY FOR ECM |
| 126 | BR | | ASCD/CC BRAKE SWITCH |
| 127 | B | | ECM GROUND |
| 128 | B | | ECM GROUND |


BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

| | |
|----------------|-----------------|
| Connector No. | M204 |
| Connector Name | AV CONTROL UNIT |
| Connector Type | TH22FW-NH |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| B2608: STARTER RELAY | Inhibit engine cranking | 500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> Starter relay control signal Starter relay status signal (CAN) |
| B260A: IGNITION RELAY | Inhibit engine cranking | 500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Power position changes to ACC Receives engine status signal (CAN) |
| B2617: STARTER RELAY CIRC | Inhibit engine cranking | 1 second after the starter 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 |

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

- BCM judges the rain sensor serial link error by the rain sensor serial link condition and detects the rain sensor malfunction by rain sensor malfunction signal.
- When BCM detects the rain sensor serial link error or the rain sensor malfunction while front wiper AUTO operation, BCM operates a fail-safe control.

NOTE:

If rain sensor malfunction is detected when ignition switch is turned OFF ⇒ ON and front wiper switch is INT position, BCM operates a fail-safe control.

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

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

DTC Inspection Priority Chart

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

| Priority | DTC |
|----------|---|
| 1 | B2562: LOW VOLTAGE |
| 2 | <ul style="list-style-type: none"> U1000: CAN COMM U1010: CONTROL UNIT(CAN) |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Priority | DTC |
|----------|--|
| 3 | <ul style="list-style-type: none"> • B2190: NATS ANTENNA AMP • B2191: DIFFERENCE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2195: ANTI SCANNING |
| 4 | <ul style="list-style-type: none"> • B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP/CLUTCH SW • B2605: PNP/CLUTCH SW • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: BCM • B2615: BCM • B2616: BCM • B2617: BCM • B2618: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26EA: KEY REGISTRATION • U0415: VEHICLE SPEED SIG |
| 5 | <ul style="list-style-type: none"> • B2621: INSIDE ANTENNA • B2623: INSIDE ANTENNA |
| 6 | B26E7: TPMS CAN COMM |

DTC Index

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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 [EXL-33, "COMMON ITEM : CONSULT Function \(BCM - COMMON ITEM\)"](#).

| CONSULT display | Fail-safe | Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition | Intelligent Key warn- ing lamp ON | Reference |
|--|-----------|--|--------------------------------------|------------------------|
| No DTC is detected. Further testing may be required. | — | — | — | — |
| U1000: CAN COMM | — | — | — | BCS-39 |
| U1010: CONTROL UNIT(CAN) | — | — | — | BCS-40 |
| U0415: VEHICLE SPEED SIG | — | — | — | BCS-41 |
| B2190: NATS ANTENNA AMP | × | — | — | SEC-47 |
| B2191: DIFFERENCE OF KEY | × | — | — | SEC-50 |
| B2192: ID DISCORD BCM-ECM | × | — | — | SEC-51 |
| B2193: CHAIN OF BCM-ECM | × | — | — | SEC-53 |
| B2195: ANTI SCANNING | × | — | — | SEC-54 |
| B2553: IGNITION RELAY | — | × | — | PCS-53 |
| B2555: STOP LAMP | — | × | — | SEC-55 |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| CONSULT display | Fail-safe | Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition | Intelligent Key warn- ing lamp ON | Reference |
|---------------------------|-----------|--|--------------------------------------|-------------------------|
| B2556: PUSH-BTN IGN SW | — | × | × | SEC-57 |
| B2557: VEHICLE SPEED | × | × | × | SEC-59 |
| B2560: STARTER CONT RELAY | × | × | × | SEC-60 |
| B2562: LOW VOLTAGE | — | × | — | BCS-42 |
| B2601: SHIFT POSITION | × | × | × | SEC-61 |
| B2602: SHIFT POSITION | × | × | × | SEC-64 |
| B2603: SHIFT POSI STATUS | × | × | × | SEC-66 |
| B2604: PNP/CLUTCH SW | × | × | × | SEC-69 |
| B2605: PNP/CLUTCH SW | × | × | × | SEC-71 |
| B2608: STARTER RELAY | × | × | × | SEC-73 |
| B260A: IGNITION RELAY | × | × | × | PCS-55 |
| B260F: ENG STATE SIG LOST | × | × | × | SEC-75 |
| B2614: BCM | — | × | × | PCS-57 |
| B2615: BCM | — | × | × | PCS-59 |
| B2616: BCM | — | × | × | PCS-61 |
| B2617: BCM | × | × | × | SEC-77 |
| B2618: BCM | × | × | × | PCS-63 |
| B261A: PUSH-BTN IGN SW | — | × | × | SEC-79 |
| B261E: VEHICLE TYPE | × | × | × (Turn ON for 15 seconds) | SEC-82 |
| B2621: INSIDE ANTENNA | — | × | — | DLK-101 |
| B2623: INSIDE ANTENNA | — | × | — | DLK-103 |
| B26E7: TPMS CAN COMM | — | — | — | BCS-43 |
| B26EA: KEY REGISTRATION | — | × | × (Turn ON for 15 seconds) | SEC-76 |

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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

Reference Value

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VALUES ON THE DIAGNOSIS TOOL

NOTE:

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

| Monitor Item | Condition | | Value/Status |
|---------------|---|--|--------------|
| RAD FAN REQ | Engine idle speed | Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc. | 0 – 100 % |
| AC COMP REQ | Engine running | A/C switch OFF | Off |
| | | A/C switch ON (Compressor is operating) | On |
| TAIL&CLR REQ | Lighting switch OFF | | Off |
| | Lighting switch 1ST, 2ND, HI or AUTO (light is illuminated) | | On |
| HL LO REQ | Lighting switch OFF | | Off |
| | Lighting switch 2ND HI or AUTO (light is illuminated) | | On |
| HL HI REQ | Lighting switch OFF | | Off |
| | Lighting switch HI | | On |
| FR FOG REQ | Lighting switch 2ND or AUTO (light is illuminated) | Front fog lamp switch OFF | Off |
| | | • Front fog lamp switch ON • Daytime running light activated (Only for Canada) | On |
| FR WIP REQ | Ignition switch ON | Front wiper switch OFF | Stop |
| | | Front wiper switch INT | 1LOW |
| | | Front wiper switch LO | Low |
| | | Front wiper switch HI | Hi |
| WIP AUTO STOP | Ignition switch ON | Front wiper stop position | STOP P |
| | | Any position other than front wiper stop position | ACT P |
| WIP PROT | Ignition switch ON | Front wiper operates normally | Off |
| | | Front wiper stops at fail-safe operation | BLOCK |
| IGN RLY1 -REQ | Ignition switch OFF or ACC | | Off |
| | Ignition switch ON | | On |
| IGN RLY | Ignition switch OFF or ACC | | Off |
| | Ignition switch ON | | On |
| PUSH SW | Release the push-button ignition switch | | Off |
| | Press the push-button ignition switch | | 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 |
| | At engine cranking | | On |

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Monitor Item | Condition | | Value/Status |
|----------------|--|--|--------------|
| IHBT RLY -REQ | Ignition switch ON | | Off |
| | At engine cranking | | On |
| ST/INHI RLY | Ignition switch ON | | Off |
| | At engine cranking | | INHI → ST |
| | The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF | | UNKWN |
| DETENT SW | Ignition switch ON | <ul style="list-style-type: none"> Press the selector button with selector lever in P position Selector lever in any position other than P | Off |
| | Release the selector button with 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 monitored. | | Off |
| OIL P SW | Ignition switch OFF, ACC or engine running | | Open |
| | Ignition switch ON | | Close |
| HOOD SW | Close the hood | | Off |
| | Open the hood | | On |
| HL WASHER REQ | NOTE: The item is indicated, but not monitored. | | Off |
| THFT HRN REQ | Not operation | | Off |
| | <ul style="list-style-type: none"> Panic alarm is activated Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM | | On |
| HORN CHIRP | Not operating | | Off |
| | Door locking with Intelligent Key (horn chirp mode) | | On |
| CRNRNG LMP REQ | NOTE: The item is indicated, but not monitored. | | Off |

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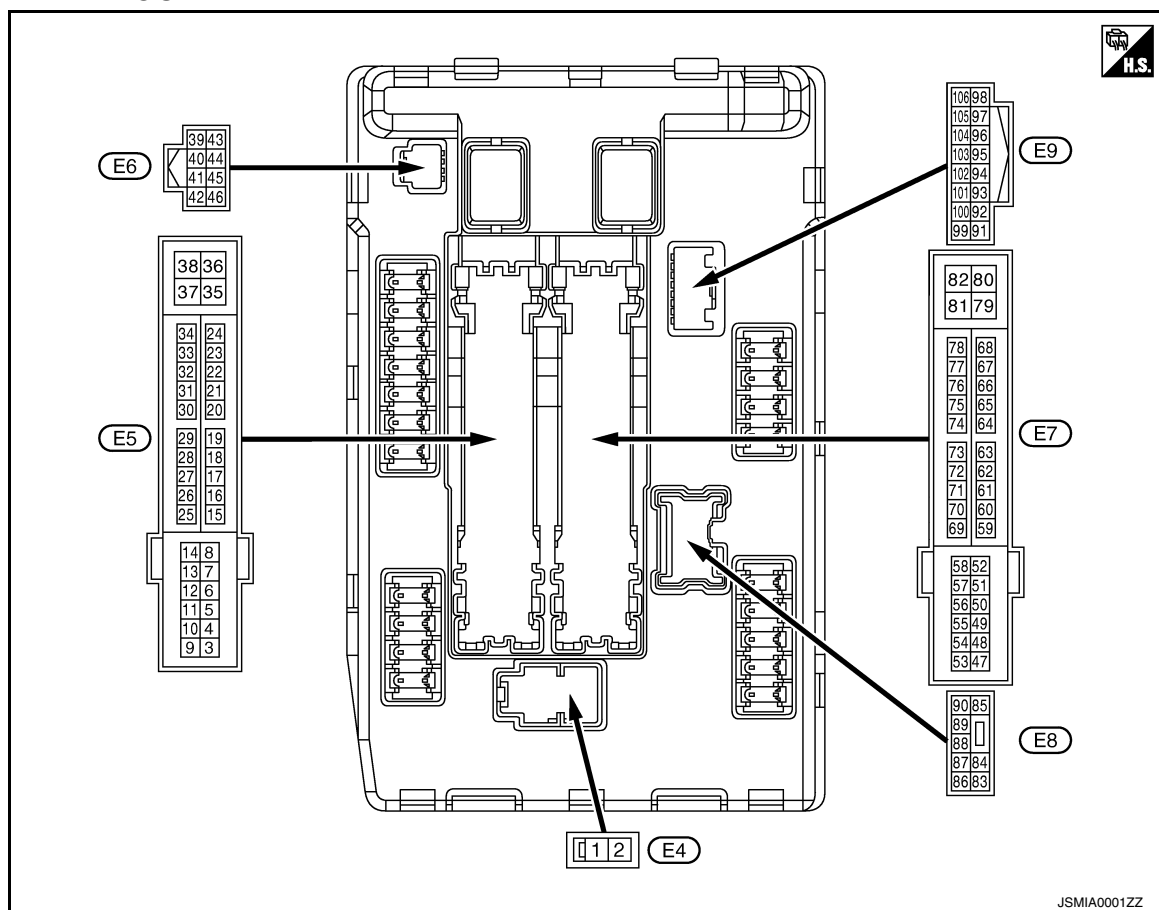
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

TERMINAL LAYOUT



PHYSICAL VALUES

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|------------------|---|------------------------|--------------------|
| + | - | Signal name | Input/ Output | | | |
| 1 (W) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 2 (L) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 4 (V) | Ground | Front wiper LO | Output | Ignition switch ON | Front wiper switch OFF | 0 V |
| | | | | | Front wiper switch LO | Battery voltage |
| 5 (L) | Ground | Front wiper HI | Output | Ignition switch ON | Front wiper switch OFF | 0 V |
| | | | | | Front wiper switch HI | Battery voltage |
| 7 (R) | Ground | Tail, license plate lamps & interior lamps | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 10*1 (SB) | Ground | ECM relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | <ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning igni- tion switch OFF) | | Battery voltage |
| 12 (B) | Ground | Ground | — | Ignition switch ON | | 0 V |

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---------------------------------------|------------------|---|---|--------------------|
| + | - | Signal name | Input/ Output | | | |
| 13 (Y) | Ground | Fuel pump power supply | Output | Approximately 1 second or more after turning the ignition switch ON | | 0 V |
| | | | | <ul style="list-style-type: none"> Approximately 1 second after turning the ignition switch ON Engine running | | Battery voltage |
| 16 (LG) | Ground | Front wiper stop position | Input | Ignition switch ON | Front wiper stop position | 0 V |
| | | | | | Any position other than front wiper stop position | Battery voltage |
| 19 (W) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 25 (G) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 26*2 (R) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 27 (Y) | Ground | Ignition relay monitor | Input | Ignition switch OFF or ACC | | Battery voltage |
| | | | | Ignition switch ON | | 0 V |
| 28 (BG) | Ground | Push-button ignition switch | Input | Press the push-button ignition switch | | 0 V |
| | | | | 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) | Ground | Ground | — | Ignition switch ON | | 0 V |
| 42 (Y) | Ground | Cooling fan relay control | Input | Ignition switch OFF or ACC | | 0 V |
| | | | | Ignition switch ON | | 0.7 V |
| 43 (SB) | Ground | A/T shift selector (Detention switch) | Input | Ignition switch ON | <ul style="list-style-type: none"> Press the selector button (Selector lever P) Selector lever in any position other than P | Battery voltage |
| | | | | | Release the selector button (selector lever P) | 0 V |
| 44 (W) | Ground | Horn relay control | Input | The horn is deactivated | | Battery voltage |
| | | | | The horn is activated | | 0 V |
| 45 (G) | Ground | Anti theft horn relay control | Input | The horn is deactivated | | Battery voltage |
| | | | | The horn is activated | | 0 V |
| 46 (BR) | 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 |
| 48 (L) | Ground | A/C relay power supply | Output | Engine running | A/C switch OFF | 0 V |
| | | | | | A/C switch ON (A/C compressor is operating) | Battery voltage |

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

< ECU DIAGNOSIS INFORMATION >

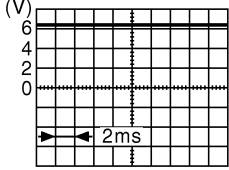
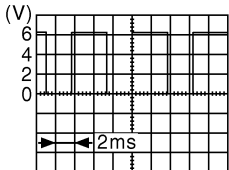
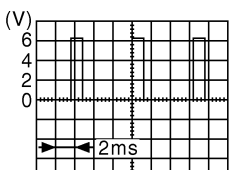
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|--|------------------|---|---|
| + | - | Signal name | Input/ Output | | |
| 49 (W)*1 (SB)*3 | Ground | ECM relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | 0 V |
| | | | | <ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning igni- tion switch OFF) | Battery voltage |
| 51 (G) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V |
| | | | | Ignition switch ON | Battery voltage |
| 52 (W) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V |
| | | | | Ignition switch ON | Battery voltage |
| 53 (W) | Ground | ECM relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | 0 V |
| | | | | <ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning igni- tion switch OFF) | Battery voltage |
| 54 (R) | Ground | Throttle control motor re- lay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | 0 V |
| | | | | <ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning igni- tion switch OFF) | Battery voltage |
| 55 (BR) | Ground | ECM power supply | Output | Ignition switch OFF | Battery voltage |
| 56 (BG)*1 (V)*3 | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V |
| | | | | Ignition switch ON | Battery voltage |
| 57 (LG) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V |
| | | | | Ignition switch ON | Battery voltage |
| 58 (Y) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V |
| | | | | Ignition switch ON | Battery voltage |
| 69 (W) | Ground | ECM relay control | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | Battery voltage |
| | | | | <ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning igni- tion 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 (G) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V |
| | | | | Ignition switch ON | Battery voltage |
| 75 (Y) | Ground | Oil pressure switch | Input | Ignition switch ON | 0 V |
| | | | | Engine stopped Engine running | Battery voltage |

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|--|--------|---------------------------------|------------------|---|--|
| + | - | Signal name | Input/ Output | | |
| 76 (P) ^{*1} (V) ^{*3} | Ground | Power generation command signal | Output | Ignition switch ON |  <p>JPMIA0001GB</p> <p>6.3 V</p> |
| | | | | 40% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE" |  <p>JPMIA0002GB</p> <p>3.8 V</p> |
| | | | | 80% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE" |  <p>JPMIA0003GB</p> <p>1.4 V</p> |
| 77 (B) ^{*1} (L) ^{*3} | Ground | Fuel pump relay control | Output | <ul style="list-style-type: none"> Approximately 1 second after turning the ignition switch ON Engine running | 0 – 1.0 V |
| | | | | Approximately 1 second or more after turning the ignition switch ON | Battery voltage |
| 80 (W) | Ground | Starter motor | Output | At engine cranking | Battery voltage |
| 83 (R) | Ground | Headlamp LO (RH) | Output | Ignition switch OFF | 0 V |
| | | | | Lighting switch 2ND | Battery voltage |
| 84 (P) | Ground | Headlamp LO (LH) | Output | Ignition switch OFF | 0 V |
| | | | | Lighting switch 2ND | Battery voltage |
| 86 (W) | Ground | Front fog lamp | Output | <ul style="list-style-type: none"> Front fog lamp switch ON Daytime running light activated (Only for Canada) | Battery voltage |
| | | | | Front fog lamp switch OFF | 0 V |
| 88 (G) | Ground | Washer pump power supply | Output | Ignition switch ON | Battery voltage |
| 89 (BR) | Ground | Headlamp HI (RH) | Output | <ul style="list-style-type: none"> Lighting switch HI Lighting switch PASS | Battery voltage |
| | | | | Lighting switch OFF | 0 V |
| 90 (Y) | Ground | Headlamp HI (LH) | Output | <ul style="list-style-type: none"> Lighting switch HI Lighting switch PASS | Battery voltage |
| | | | | Lighting switch OFF | 0 V |

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---------------------|------------------|-----------------------|---------------------|--------------------|
| + | – | Signal name | Input/ Output | | | |
| 91 (P) | Ground | Parking lamp | Output | Ignition switch ON | Lighting switch 1ST | Battery voltage |
| | | | | | Lighting switch OFF | 0 V |
| 97 (V) | Ground | Cooling fan control | Output | Engine idling | | 0 – 5 V |
| 104 (LG) | Ground | Hood switch | Input | Close the hood | | Battery voltage |
| | | | | Open the hood | | 0 V |

*1: VK engine models

*2: Only for the models with ICC system

*3: VQ engine models

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

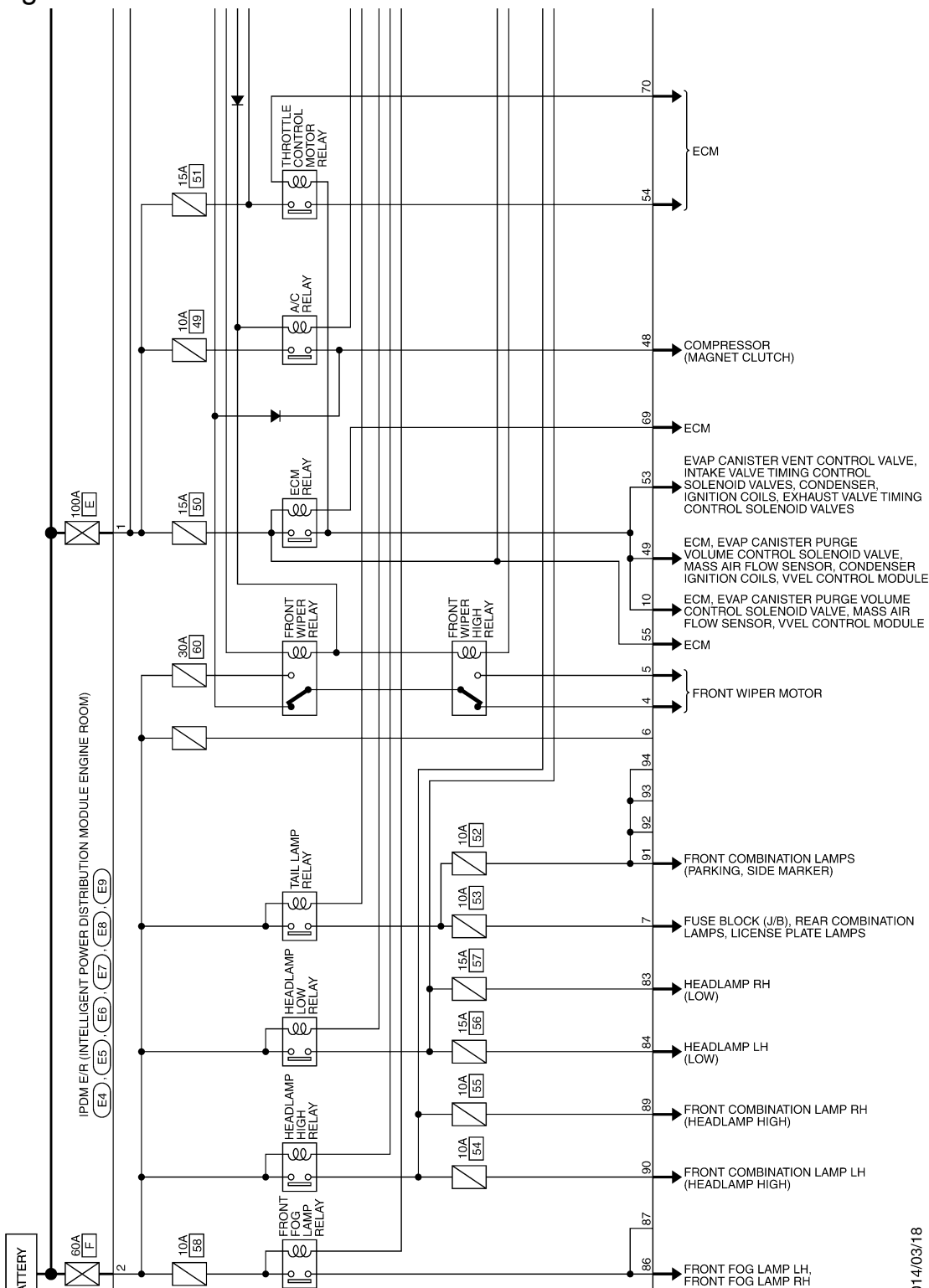
< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Wiring Diagram - IPDM E/R -

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



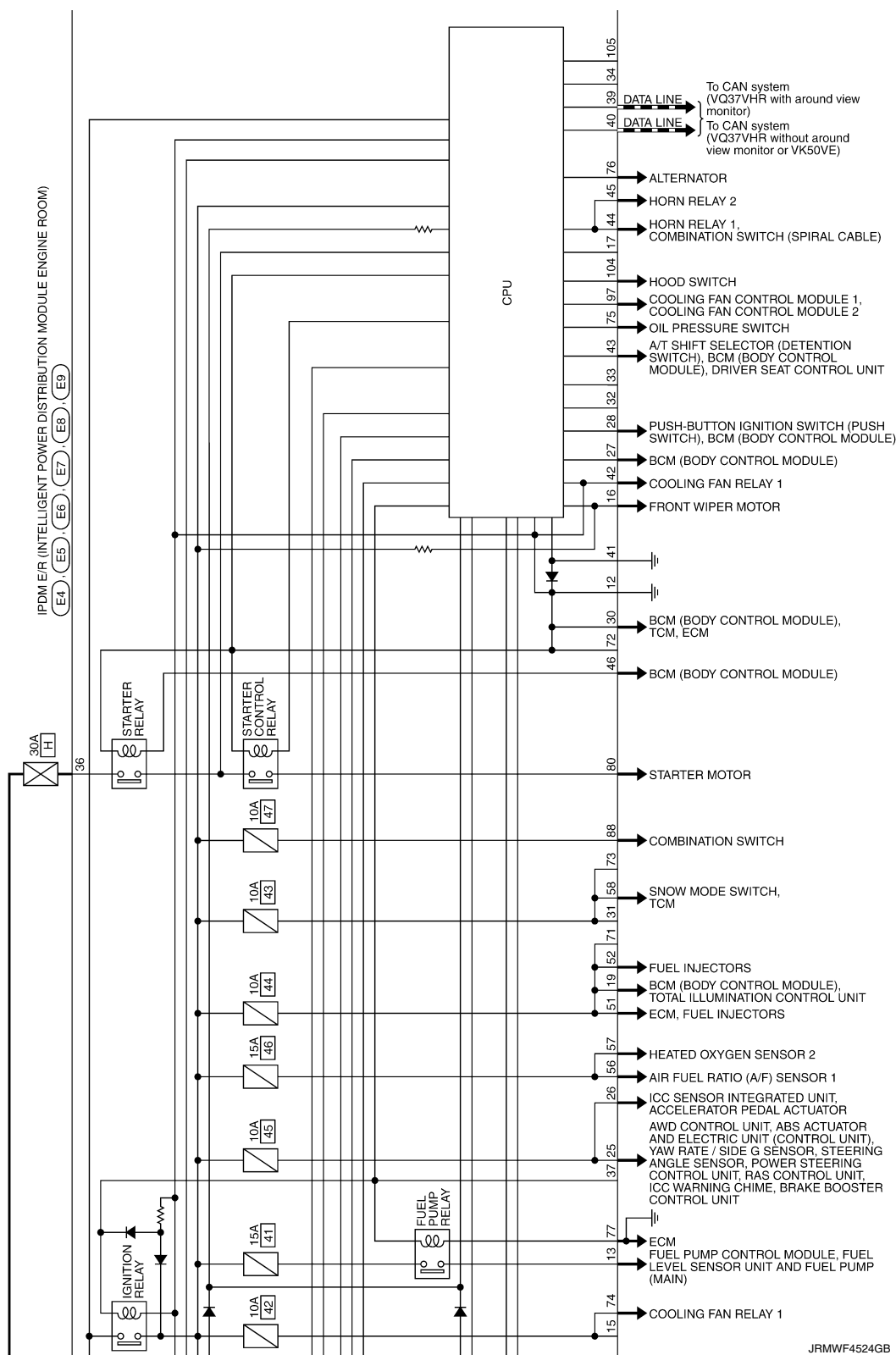
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JRMWF4523GB

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]



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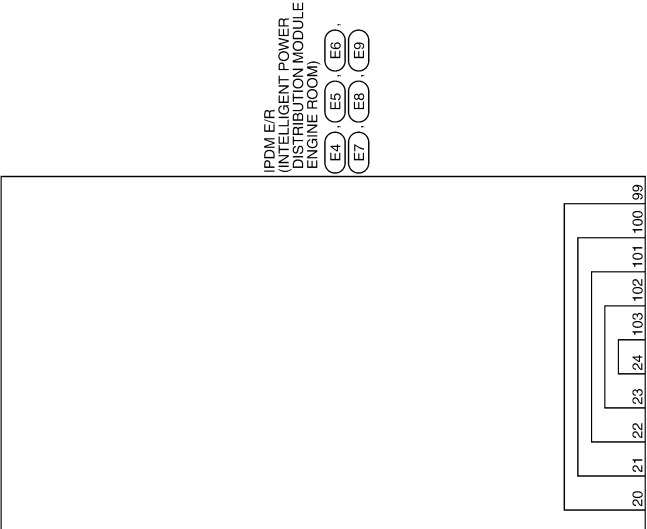
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JRMWF4525GB

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Control part | Fail-safe operation |
|----------------|---|
| Cooling fan | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 |
| <ul style="list-style-type: none"> Parking lamps License plate lamps Side marker lamps Illuminations Tail lamps | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 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 judgment | | IPDM E/R judgment | Operation |
|-----------------------------|-------------------------------------|---------------------------|--|
| Ignition relay contact side | Ignition relay excitation coil side | | |
| ON | ON | Ignition relay ON normal | — |
| OFF | OFF | Ignition relay OFF normal | — |
| ON | OFF | Ignition relay ON stuck | <ul style="list-style-type: none"> 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 | The front wiper stop position signal does not change for 10 seconds. |

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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:0000000011009275

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 → 2 ... 38 → 39 after returning to the normal condition whenever IGN OFF → ON.
 - 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-15 |
| B2098: IGN RELAY ON CIRC | × | PCS-16 |
| B2099: IGN RELAY OFF CIRC | — | PCS-18 |
| B210B: STR CONT RLY ON CIRC | — | SEC-83 |
| B210C: STR CONT RLY OFF CIRC | — | SEC-84 |
| B210D: STARTER RLY ON CIRC | — | SEC-86 |
| B210E: STARTER RLY OFF CIRC | — | SEC-88 |
| B210F: INTRLCK/PNP SW ON | — | SEC-90 |
| B2110: INTRLCK/PNP SW OFF | — | SEC-92 |

AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

AFS CONTROL UNIT

Reference Value

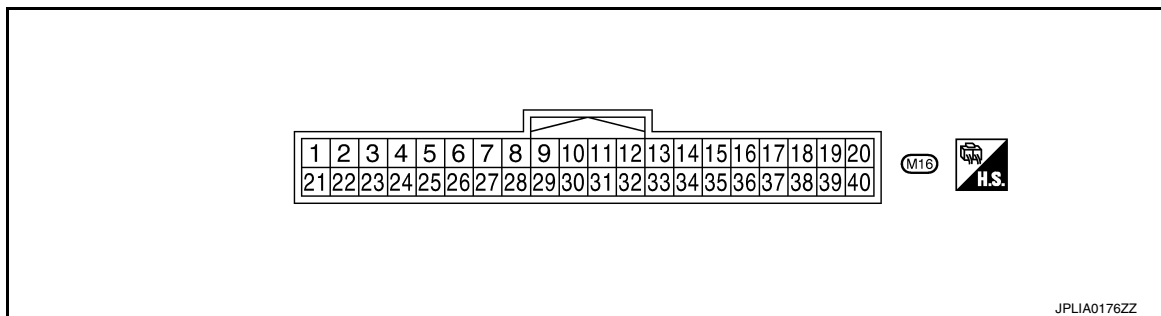
INFOID:000000010576365

VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

| Monitor Item | Condition | | Value/Status |
|---------------|---|--|---------------------------------------|
| STR ANGLE SIG | Steering | Straight-forward | Approx. 0° |
| | | Steering | Approx. -900° - +900° |
| VHCL SPD | Driving at 40 km/h (25 MPH) | | 40 km/h |
| SLCT LVR POSI | Selector lever operation | | P - 1 |
| HEAD LAMP | Light switch | 2ND | On |
| | | Other than 2ND | Off |
| AFS SW | NOTE: The item is indicated, but not monitored. | | |
| HI SEN OTP RR | Vehicle rear height | Unloaded vehicle condition | Approx. 2.5 V |
| | | Low (Leveling operation downward edge) | Approx. 1.6 V (With 20-inch wheel) |
| | | | Approx. 1.8 V (With 21-inch wheel) |
| LEV ACTR VLTG | Headlamp leveling | Unloaded vehicle condition | Approx. 70.0% |
| | | Low (Leveling operation downward edge) | Approx. 40.8% (With 20-inch wheel) |
| | | | Approx. 41.8% (With 21-inch wheel) |
| SWVL SEN RH | Right headlamp swivel activation | Standard position | Approx. 0° |
| | | Activation | Positive degree (+°) |
| SWVL SEN LH | Left headlamp swivel activation | Standard position | Approx. 0° |
| | | Activation | Positive degree (+°) |
| SWVL ANGLE RH | Right headlamp swivel activation | Standard position | Approx. 0° |
| | | Activation | Positive degree (+°) |
| SWVL ANGLE LH | Left headlamp swivel activation | Standard position | Approx. 0° |
| | | Activation | Positive degree (+°) |

TERMINAL LAYOUT

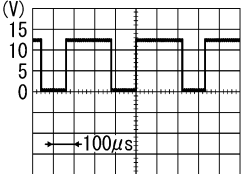
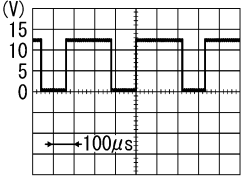


PHYSICAL VALUES

AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

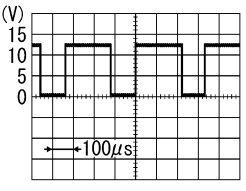
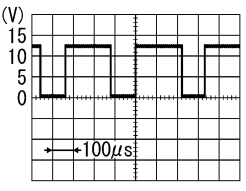
[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|------------------|-----------------------------|----------------------------------|--|
| + | — | Signal name | Input/ output | | | |
| 1 (Y) | Ground | Ignition power supply | Input | Ignition switch ON | | Battery voltage |
| 2 (LG) | Ground | Right swivel position sensor ground | Input | Ignition switch ON | | 0 V |
| 4 (Y) | Ground | Right swivel position sensor power supply | Output | Ignition switch ON | | 5 V |
| 6 (W) | Ground | Height sensor power supply | Output | Ignition switch ON | | 5 V |
| 7 (P) | Ground | CAN-L | Input/ output | — | | — |
| 8 (B) | Ground | Height sensor ground | Input | Ignition switch ON | | 0 V |
| 9 (GR) | Ground | Right swivel position sensor signal | Output | Right headlamp swivel angle | 0° | 0.7 V |
| | | | | | 15° | 2.8 V |
| 11 (R) | Ground | Right swivel motor 1-phase (—) | Output | Right headlamp swivel | Activation | <div>Reference waveform</div> <div></div> <div>8 - 12 V</div> |
| | | | | | | 13 (B) |
| 15 (G) | Ground | Left swivel motor 1-phase (+) | Output | Left headlamp swivel | Activation | <div>Reference waveform</div> <div></div> <div>8 - 12 V</div> |
| | | | | | | 17 (W) |
| 19 (SB) | Ground | Right levelizer signal | Output | Right headlamp leveling | Unloaded vehicle condition | 8.8 V |
| | | | | | Leveling operation downward edge | 5.1 V (With 20-inch wheel) |
| | | | | | | 5.2 V (With 21-inch wheel) |
| 24 (V) | Ground | Left swivel position sensor power supply | Output | Ignition switch ON | | 5 V |
| 25 (B) | Ground | Ground | — | Ignition switch ON | | 0 V |
| 27 (BR) | Ground | Left swivel position sensor ground | Input | Ignition switch ON | | 0 V |

AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|------------------------------------|------------------|----------------------------|--|---|
| + | - | Signal name | Input/ output | | | |
| 28 (SB) | Ground | Height sensor signal | Output | Vehicle rear height | Unloaded vehicle condition | 2.5 V |
| | | | | | Low (Leveling operation downward edge) | 1.6 V (With 20-inch wheel) |
| | | | | | | 1.8 V (With 21-inch wheel) |
| 29 (BG) | Ground | Left swivel position sensor signal | Output | Left headlamp swivel angle | 0° | 0.7 V |
| | | | | | 17° | 3.0 V |
| 30 (L) | Ground | CAN-H | Input/ output | — | | — |
| 32 (G) | Ground | Right swivel motor 2-phase (+) | Output | Right headlamp swivel | Activation | <p>Reference waveform</p>  <p>8 - 12 V</p> |
| 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 | <p>Reference waveform</p>  <p>8 - 12 V</p> |
| 38 (B) | Ground | Left swivel motor 1-phase (-) | Output | Left headlamp swivel | Stopped | 9.5 - 11.5 V |
| 40 (BG) | Ground | Left levelizer signal | Output | Right headlamp leveling | Unloaded vehicle condition | 8.8 V |
| | | | | | Leveling operation downward edge | 5.1 V (With 20-inch wheel) |
| | | | | | | 5.2 V (With 21-inch wheel) |

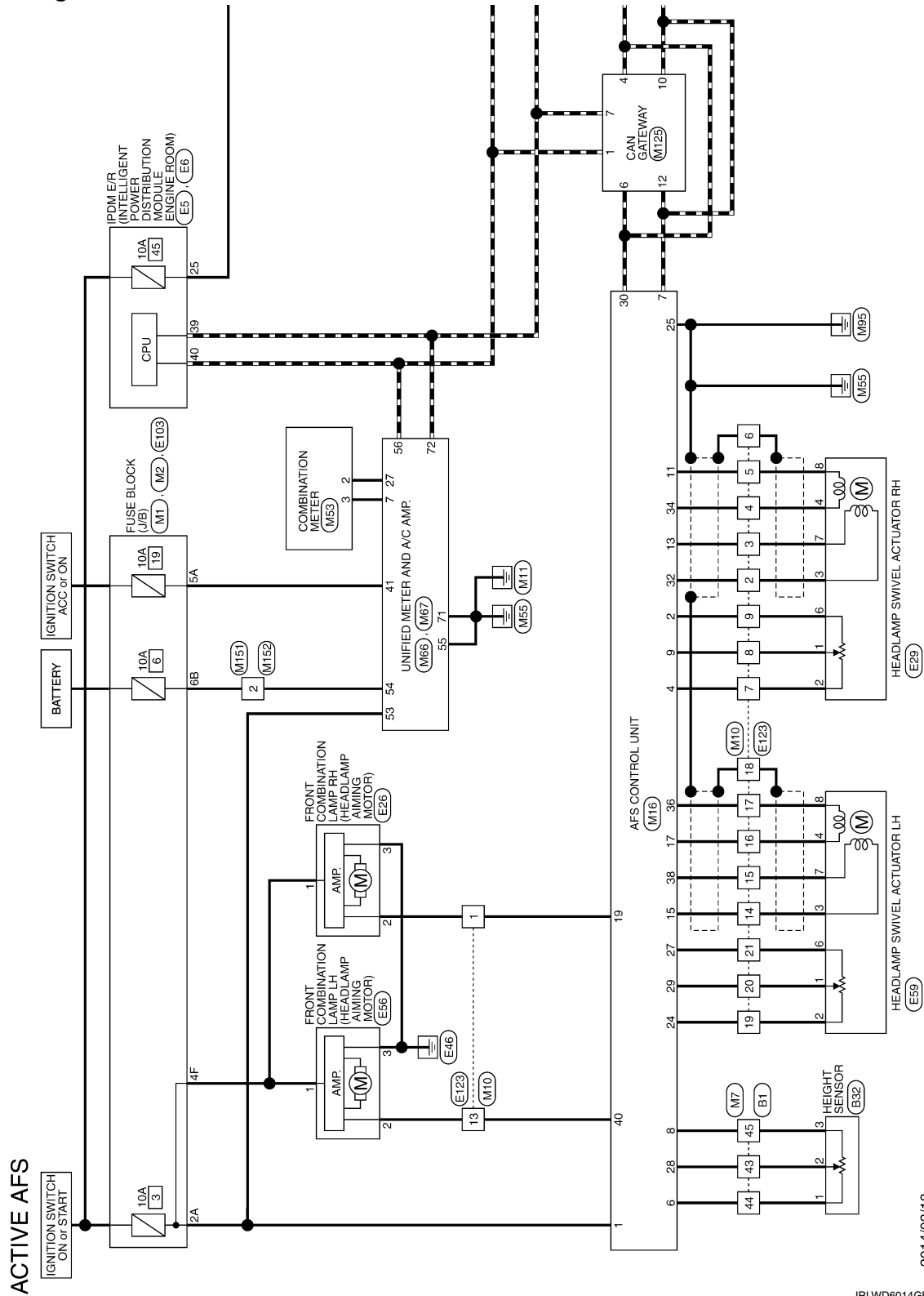
AFS CONTROL UNIT

[XENON TYPE]

< ECU DIAGNOSIS INFORMATION >

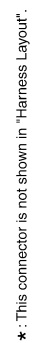
Wiring Diagram - ACTIVE AFS -

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2014/03/18

JRLWD6014GB



2015 QX70

EXL

A
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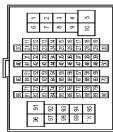
AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

ACTIVE AFS

| | |
|----------------|-----------------|
| Connector No. | B1 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |



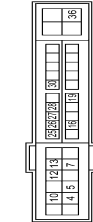
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | L | - |
| 3 | W | - |
| 4 | G | - |
| 5 | P | - |
| 6 | BG | - |
| 7 | SB | - |
| 8 | R | - |
| 9 | W | - |
| 10 | SHIELD | - |
| 11 | L | - |
| 12 | P | - |
| 13 | B | - |
| 14 | G | - |
| 15 | W | - |
| 16 | SHIELD | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | Y | - |
| 21 | W | - |
| 22 | V | - |
| 23 | P | - |
| 24 | BR | - |
| 25 | GR | - |
| 26 | BG | - |
| 27 | W | - |
| 28 | B | - |
| 29 | SB | - |
| 30 | V | - |
| 31 | G | - |
| 32 | SHIELD | - |
| 33 | BR | - |
| 34 | Y | - |
| 35 | SHIELD | - |

| | |
|----------------|---------------|
| Connector No. | B32 |
| Connector Name | HEIGHT SENSOR |
| Connector Type | RH03FB |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | V | - |
| 2 | SB | - |
| 3 | GR | - |

| | |
|----------------|---|
| Connector No. | E5 |
| Connector Name | AFS INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | TH20FW-CS12-M4-1V |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 4 | V | - |
| 5 | L | - |
| 7 | R | - |
| 10 | SB | - |
| 12 | B | - |
| 13 | Y | - |
| 16 | LG | - |
| 19 | W | - |
| 25 | G | - |
| 26 | R | - |
| 27 | Y | - |
| 28 | BG | - |
| 30 | GR | - |
| 36 | G | - |

| | |
|----------------|---|
| Connector No. | E6 |
| Connector Name | AFS INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | TH08FW-AH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 39 | P | - |
| 40 | L | - |
| 41 | B | - |
| 42 | Y | - |
| 43 | SB | - |
| 44 | W | - |
| 45 | G | - |
| 46 | BR | - |

| | |
|----------------|---------------------------|
| Connector No. | E26 |
| Connector Name | FRONT COMBINATION LAMP RH |
| Connector Type | RK03FB |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | SB | - |
| 3 | B | - |

JRLW6016GB

AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

ACTIVE AFS

| | |
|----------------|-----------------------------|
| Connector No. | E29 |
| Connector Name | HEAD-AMP SWIVEL ACTUATOR RH |
| Connector Type | RS08FGY-PR |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | GR | - |
| 2 | Y | - |
| 3 | G | - |
| 4 | W | - |
| 6 | LG | - |
| 7 | B | - |
| 8 | R | - |

| | |
|----------------|---------------------------|
| Connector No. | E56 |
| Connector Name | FRONT COMBINATION LAMP LH |
| Connector Type | FK03FB |



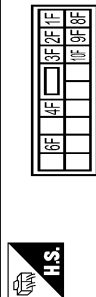
| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | BG | - |
| 3 | B | - |

| | |
|----------------|-----------------------------|
| Connector No. | E59 |
| Connector Name | HEAD-AMP SWIVEL ACTUATOR LH |
| Connector Type | RS08FGY-PR |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | BG | - |
| 2 | V | - |
| 3 | R | - |
| 4 | G | - |
| 6 | BR | - |
| 7 | W | - |
| 8 | B | - |

| | |
|----------------|------------------|
| Connector No. | E103 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS16FM-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 10F | L | - |
| 1F | SB | - |
| 2F | W | - |
| 3F | Y | - |
| 4F | G | - |
| 6F | BG | - |
| 8F | L | - |
| 9F | R | - |

| | |
|----------------|-----------------|
| Connector No. | E106 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH09FM-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | G | - |
| 2 | BG | - |
| 3 | SB | - |
| 4 | LG | - |
| 5 | Y | - |
| 6 | W | - |
| 7 | G | - |
| 8 | V | - |
| 9 | R | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | SB | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | W | - [With ICC] |
| 20 | Y | - [Without ICC] |
| 21 | BR | - [With ICC] |
| 22 | R | - [Without ICC] |
| 22 | V | - [Without ICC] |
| 23 | G | - |
| 24 | L | - [With ICC] |
| 24 | P | - [Without ICC] |
| 25 | L | - [Without ICC] |
| 25 | Y | - [With ICC] |
| 26 | SHIELD | - |
| 28 | G | - |
| 28 | LG | - |
| 30 | BR | - |
| 30 | BG | - |
| 32 | W | - |
| 33 | Y | - |
| 34 | BG | - |

| | | |
|----|--------|---|
| 37 | Y | - |
| 38 | GR | - |
| 39 | LG | - |
| 41 | LG | - |
| 42 | V | - |
| 43 | R | - |
| 44 | G | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | SB | - |
| 50 | BR | - |
| 51 | B | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | R | - |
| 55 | SB | - |
| 58 | P | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | LG | - |
| 64 | L | - |
| 65 | BG | - |
| 69 | L | - |
| 70 | SHIELD | - |
| 71 | G | - |
| 72 | G | - |
| 73 | R | - |
| 74 | BR | - |
| 76 | L | - |
| 77 | W | - |
| 78 | Y | - |
| 80 | SB | - |
| 81 | L | - |
| 82 | W | - |
| 83 | LG | - |
| 84 | GR | - |
| 85 | G | - |
| 86 | P | - |
| 87 | W | - |
| 88 | BG | - |
| 89 | LG | - |
| 90 | BR | - |
| 91 | GR | - |
| 92 | BR | - |
| 93 | SB | - |
| 95 | Y | - |
| 96 | W | - |

AFS CONTROL UNIT

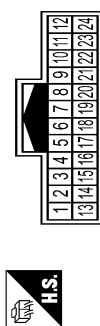
< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

ACTIVE AFS

| | | |
|-----|--------|---|
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

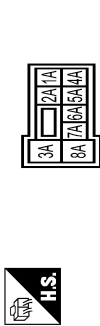
| | |
|----------------|--------------|
| Connector No. | E123 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH24MW-NH |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | SB | - |
| 2 | G | - |
| 3 | B | - |
| 4 | W | - |
| 5 | R | - |
| 6 | SHIELD | - |
| 7 | Y | - |
| 8 | GR | - |
| 9 | LG | - |
| 10 | BR | - |
| 11 | W | - |
| 13 | BG | - |
| 14 | R | - |
| 15 | W | - |
| 16 | G | - |
| 17 | B | - |
| 18 | SHIELD | - |
| 19 | V | - |
| 20 | BG | - |
| 21 | BR | - |
| 22 | R | - |
| 23 | SHIELD | - |

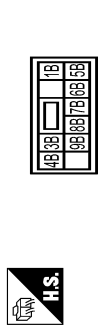
| | | |
|----|-----|--------|
| 10 | W/B | GROUND |
|----|-----|--------|

| | |
|----------------|------------------|
| Connector No. | M1 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS06FW-MZ |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1A | BG | - |
| 2A | G | - |
| 3A | L | - |
| 4A | R | - |
| 5A | V | - |
| 6A | Y | - |
| 7A | R | - |
| 8A | L | - |

| | |
|----------------|------------------|
| Connector No. | M2 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS10FW-CS |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1B | LG | - |
| 3B | P | - |
| 4B | G | - |
| 5B | BG | - |
| 6B | Y | - |
| 7B | L | - |
| 8B | R | - |
| 9B | BR | - |

| | |
|----------------|-----------------|
| Connector No. | M6 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|------------------------------|
| 1 | G | - |
| 2 | BG | - |
| 3 | LG | - [Without Auto aircon seat] |
| 4 | SB | - [With Auto aircon seat] |
| 5 | LG | - |
| 6 | GR | - |
| 7 | W | - |
| 8 | G | - |
| 9 | P | - |
| 10 | BR | - |
| 11 | B | - |
| 12 | G | - |
| 13 | R | - |
| 14 | W | - |
| 15 | SHIELD | - |
| 16 | BR | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | GR | - [Without ICC] |
| 21 | W | - [With ICC] |
| 22 | BR | - [Without ICC] |
| 23 | R | - [With ICC] |
| 24 | L | - [Without ICC] |
| 25 | P | - [Without ICC] |
| 26 | W | - [Without ICC] |
| 27 | Y | - [With ICC] |
| 28 | SHIELD | - |
| 29 | GR | - |
| 30 | V | - |
| 31 | BG | - |
| 32 | W | - |

JRLWD6018GB

AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

ACTIVE AFS

| | | |
|----|--------|---|
| 33 | Y | - |
| 34 | L | - |
| 37 | G | - |
| 38 | R | - |
| 39 | G | - |
| 41 | L | - |
| 42 | W | - |
| 43 | R | - |
| 44 | LG | - |
| 45 | GR | - |
| 46 | W | - |
| 47 | L | - |
| 48 | P | - |
| 49 | BG | - |
| 50 | LG | - |
| 51 | SB | - |
| 52 | Y | - |
| 53 | BG | - |
| 54 | BR | - |
| 55 | SB | - |
| 59 | SB | - |
| 60 | SB | - |
| 61 | V | - |
| 62 | P | - |
| 63 | R | - |
| 64 | L | - |
| 65 | BG | - |
| 69 | V | - |
| 70 | SHIELD | - |
| 71 | BG | - |
| 72 | GR | - |
| 73 | W | - |
| 74 | SB | - |
| 76 | V | - |
| 77 | V | - |
| 78 | Y | - |
| 80 | BG | - |
| 81 | L | - |
| 82 | W | - |
| 83 | Y | - |
| 84 | L | - |
| 85 | P | - |
| 86 | BR | - |
| 87 | P | - |
| 88 | V | - |
| 89 | G | - |
| 90 | P | - |
| 91 | R | - |
| 92 | R | - |
| 93 | GR | - |

| | | |
|-----|--------|---|
| 95 | G | - |
| 96 | W | - |
| 97 | W | - |
| 98 | SHIELD | - |
| 100 | Y | - |

| | |
|----------------|-----------------|
| Connector No. | M7 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH60MW-CS16-TM4 |



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|------------------------------|
| 1 | G | - [With Auto aircon seat] |
| 1 | Y | - [Without Auto aircon seat] |
| 2 | B | - |
| 3 | W | - |
| 6 | P | - |
| 7 | V | - |
| 8 | BG | - |
| 10 | W | - |
| 11 | BG | - |
| 12 | B | - |
| 13 | G | - |
| 14 | R | - |
| 15 | W | - |
| 16 | SHIELD | - |
| 17 | L | - |
| 18 | P | - |
| 19 | G | - |
| 20 | R | - |
| 21 | LG | - |
| 23 | V | - |
| 24 | P | - |
| 25 | BR | - |
| 26 | GR | - |
| 27 | BG | - |
| 28 | W | - |
| 38 | B | - |
| 39 | B | - |
| 43 | SB | - |
| 44 | W | - |

| | | |
|----|--------|---|
| 45 | B | - |
| 51 | V | - |
| 52 | LG | - |
| 53 | SHIELD | - |
| 54 | BR | - |
| 55 | Y | - |
| 56 | SHIELD | - |
| 57 | P | - |
| 58 | L | - |
| 59 | SHIELD | - |
| 60 | L | - |
| 61 | BR | - |
| 62 | R | - |
| 63 | Y | - |
| 64 | L | - |
| 65 | W | - |
| 66 | V | - |
| 67 | LG | - |
| 68 | Y | - |
| 69 | G | - |
| 70 | V | - |
| 71 | W | - |
| 72 | B | - |
| 73 | W | - |
| 74 | LG | - |
| 75 | P | - |
| 76 | LG | - |
| 77 | SB | - |
| 78 | GR | - |
| 79 | R | - |
| 80 | L | - |
| 81 | P | - |
| 82 | L | - |
| 83 | P | - |
| 84 | SB | - |
| 85 | W | - |
| 86 | Y | - |
| 87 | B | - |
| 88 | G | - |
| 89 | BG | - |
| 91 | R | - |
| 92 | BG | - |
| 93 | BR | - |
| 94 | V | - |
| 96 | BG | - |
| 97 | W | - |
| 98 | R | - |
| 99 | BG | - |

| | |
|----------------|--------------|
| Connector No. | M10 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH24FW-NH |



| | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|
| 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 |

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | SB | - |
| 2 | G | - |
| 3 | B | - |
| 4 | W | - |
| 5 | R | - |
| 6 | SHIELD | - |
| 7 | Y | - |
| 8 | GR | - |
| 9 | LG | - |
| 10 | B | - |
| 11 | W | - |
| 13 | BG | - |
| 14 | G | - |
| 15 | B | - |
| 16 | W | - |
| 17 | R | - |
| 18 | SHIELD | - |
| 19 | V | - |
| 20 | BG | - |
| 21 | BR | - |
| 22 | R | - |
| 23 | SHIELD | - |

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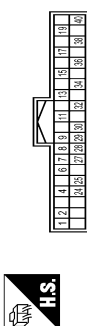
AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

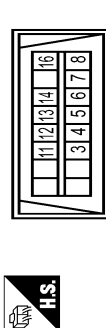
[XENON TYPE]

ACTIVE AFS

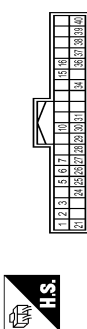
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|----------------|------------------|
| Connector No. | M16 |
| Connector Name | AFS CONTROL UNIT |
| Connector Type | TH40FW-NH |



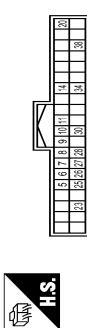
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| Connector No. | M24 |
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |



| | |
|----------------|-------------------|
| Connector No. | M53 |
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |



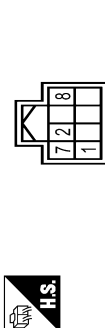
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|----------------|----------------------------|
| Connector No. | M66 |
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH40FW-NH |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|-----------|-----------------------------|
| 1 | Y | IGN | |
| 2 | LG | PSG-R | |
| 4 | Y | PSV-R | |
| 6 | W | HSV-R | |
| 7 | P | CAN-L | |
| 8 | B | HSG-R | |
| 9 | GR | PSR | |
| 11 | R | SMR-1 (-) | |
| 13 | B | SMR-2 (-) | |
| 15 | G | SMR-1 (+) | |
| 17 | W | SMR-2 (+) | |
| 19 | SB | AMDS-R | |
| 24 | V | PSV-L | |
| 25 | B | GROUND | |
| 27 | BR | PSG-L | |
| 28 | SB | HSR | |
| 29 | BG | PS-L | |
| 30 | L | CAN-H | |
| 32 | G | SMR-2 (+) | |
| 34 | W | SMR-1 (-) | |
| 36 | R | SMR-2 (-) | |
| 38 | B | SMR-1 (+) | |
| 40 | BG | AMDS-L | |

| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 3 | LG | - | |
| 4 | B | - | |
| 5 | B | - | |
| 6 | L | - | |
| 7 | GR | - | |
| 8 | G | - | |
| 11 | SB | - | |
| 12 | P | - | |
| 14 | P | - | |
| 16 | BG | - | |

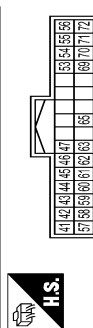
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|----------------|-----------------------|
| Connector No. | M37 |
| Connector Name | STEERING ANGLE SENSOR |
| Connector Type | TH40FW-NH |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|--|-----------------------------|
| 1 | BG | BATTERY POWER SUPPLY | |
| 2 | LG | COMMUNICATION SIGNAL (METER->AMP) | |
| 3 | GR | COMMUNICATION SIGNAL (AMP->METER) | |
| 5 | B | GROUND | |
| 6 | W | AIR FURNITURE SIGNAL | |
| 7 | P | AIR BAG SIGNAL | |
| 10 | G | SECURITY INDICATOR SIGNAL | |
| 15 | B | METER CONTROL SWITCH GROUND | |
| 16 | B | IGNITION SIGNAL | |
| 21 | R | COMMUNICATION SIGNAL (LCD->AMP) | |
| 24 | BR | COMMUNICATION SIGNAL (AMP->LCD) | |
| 25 | Y | VEHICLE SPEED SIGNAL (8-PULSE) | |
| 26 | R | PARKING BRAKE SWITCH SIGNAL | |
| 27 | V | VEHICLE SPEED SIGNAL (8-PULSE) | |
| 28 | W | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) | |
| 29 | SB | PASSENGER SEAT BELT WARNING SIGNAL | |
| 30 | G | WASHER LEVEL SWITCH SIGNAL | |
| 31 | L | ILLUMINATION CONTROL SIGNAL | |
| 34 | B | SELECT SWITCH SIGNAL | |
| 36 | LG | ENTER SWITCH SIGNAL | |
| 37 | SB | TRIP A/B RESET SWITCH SIGNAL | |
| 38 | L | ILLUMINATION CONTROL SWITCH SIGNAL (-) | |
| 39 | P | ILLUMINATION CONTROL SWITCH SIGNAL (+) | |
| 40 | BG | | |

| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 1 | L | | CAN-H |
| 2 | P | | CAN-L |
| 7 | B | | GROUND |
| 8 | GR | | IGN |

| | |
|----------------|----------------------------|
| Connector No. | M67 |
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH32FW-NH |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 41 | V | | ACC POWER SUPPLY |
| 42 | Y | | FUEL LEVEL SENSOR SIGNAL |
| 43 | R | | INTAKE SENSOR SIGNAL |

AFS CONTROL UNIT

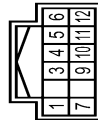
< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

ACTIVE AFS

| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|---------------------------------|
| 44 | LG | | IN-VEHICLE SENSOR SIGNAL |
| 45 | P | | AMBIENT SENSOR SIGNAL |
| 46 | BG | | SUNLOAD SENSOR SIGNAL |
| 47 | V | | GAS SENSOR SIGNAL |
| 53 | G | | IGNITION POWER SUPPLY |
| 54 | BG | | BATTERY POWER SUPPLY |
| 55 | B | | GROUND |
| 56 | L | | CANH |
| 57 | W | | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 58 | B | | FUEL LEVEL SENSOR SIGNAL |
| 59 | GR | | INTAKE SENSOR GROUND |
| 60 | L | | IN-VEHICLE SENSOR GROUND |
| 61 | BR | | AMBIENT SENSOR GROUND |
| 62 | SB | | SUNLOAD SENSOR GROUND |
| 63 | R | | IGN MODE SIGNAL |
| 65 | BG | | ECV SIGNAL |
| 69 | L | | A/C LAMP SIGNAL |
| 70 | R | | EACH DOOR MOTOR POWER SUPPLY |
| 71 | B | | GROUND |
| 72 | P | | CANL |

| Connector No. | M125 |
|----------------|-------------|
| Connector Name | CAN GATEWAY |
| Connector Type | TH12FW-NH |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 1 | L | | CANH |
| 3 | GR | | BATTERY |
| 4 | L | | CANH |
| 5 | B | | GROUND |
| 6 | L | | CANH |
| 7 | P | | CANL |
| 9 | LG | | IGNITION |
| 10 | P | | CANL |
| 11 | B | | GROUND |
| 12 | P | | CANL |

| Connector No. | M151 |
|----------------|--------------|
| Connector Name | WIRE TO WIRE |
| Connector Type | M03FW-LC |



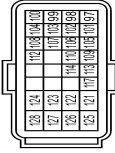
| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 1 | W | | - |
| 2 | Y | | - |
| 3 | R | | - |

| Connector No. | M152 |
|----------------|--------------|
| Connector Name | WIRE TO WIRE |
| Connector Type | M03MW-LC |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|-----------------------------|
| 1 | W | | - |
| 2 | Y | | - |
| 3 | R | | - |

| Connector No. | M164 |
|----------------|-----------------|
| Connector Name | ECM |
| Connector Type | RH24FY-R28-LH-Z |



| Terminal No. | Color | Wire | Signal Name [Specification] |
|--------------|-------|------|--|
| 97 | R | | ACCELERATOR PEDAL POSITION SENSOR 1 |
| 98 | P | | ACCELERATOR PEDAL POSITION SENSOR 2 (With NAVI) |
| 98 | Y | | ACCELERATOR PEDAL POSITION SENSOR 2 (Without NAVI) |
| 99 | G | | SENSOR POWER SUPPLY (With NAVI) |
| 99 | L | | SENSOR POWER SUPPLY (Without NAVI) |
| 100 | W | | SENSOR GROUND |
| 101 | SB | | ASC/DCC STEERING SWITCH |
| 102 | LG | | EVAP CONTROL SYSTEM PRESSURE SENSOR |
| 103 | G | | SENSOR POWER SUPPLY (Without NAVI) |
| 103 | L | | SENSOR POWER SUPPLY (With NAVI) |
| 104 | BR | | SENSOR GROUND (Without NAVI) |
| 105 | GR | | REFRIGERANT PRESSURE SENSOR |
| 106 | W | | FUEL TANK TEMPERATURE SENSOR |
| 107 | BG | | SENSOR POWER SUPPLY |
| 108 | V | | SENSOR GROUND |
| 109 | G | | PNP SIGNAL |
| 110 | R | | ENGINE SPEED OUTPUT SIGNAL |
| 112 | V | | ENGINE SPEED OUTPUT SIGNAL |
| 113 | W | | ENGINE SPEED OUTPUT SIGNAL |
| 113 | P | | CAN COMMUNICATION LINE |
| 114 | L | | CAN COMMUNICATION LINE |
| 117 | GR | | DATA LINK CONNECTOR |
| 121 | LG | | EVAP CANISTER VENT CONTROL VALVE |
| 122 | P | | STOP LAMP SWITCH |
| 123 | B | | ECM GROUND |
| 124 | B | | ECM GROUND |
| 125 | GR | | POWER SUPPLY FOR ECM |
| 126 | BR | | ASC/DCC BRAKE SWITCH |
| 127 | B | | ECM GROUND |
| 128 | B | | ECM GROUND |

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AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Fail-Safe

INFOID:000000010576367

| DTC | Fail-safe | AFS OFF indicator lamp | Cancellation |
|---|--|------------------------|---|
| CAN COMM CIRCUIT [U1000] | <ul style="list-style-type: none"> 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] | <ul style="list-style-type: none"> 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] | <ul style="list-style-type: none"> 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] | <ul style="list-style-type: none"> Right and left aiming motors stop at the position when DTC is detected. | — | Ignition switch OFF |
| ST ANG SEN SIG [C0126] | <ul style="list-style-type: none"> Right and left swivel motor swivel angle returns to 0° and fixed. | Blinks 1 second each. | Ignition switch OFF |
| SHIFT SIG [P, R] [B2516] | <ul style="list-style-type: none"> Right and left swivel motor swivel angle returns to 0° and fixed. | Blinks 1 second each. | Ignition switch OFF |
| VEHICLE SPEED SIG [B2517] | <ul style="list-style-type: none"> 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] | <ul style="list-style-type: none"> Right and left aiming motors stop at the position when DTC is detected. | — | When the levelizer adjustment is completed. |
| ST ANGLE SEN CALIB [C0428] | <ul style="list-style-type: none"> 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 completed |
| ECU CIRC [B2521] | <ul style="list-style-type: none"> 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

INFOID:000000010576368

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 | <ul style="list-style-type: none"> U1000 CAN COMM CIRCUIT U1010 CONTROL UNIT (CAN) |
| 2 | <ul style="list-style-type: none"> B2519 LEVELIZER CALIB B2521 ECU CIRC C0428 ST ANG SEN CALIB |
| 3 | <ul style="list-style-type: none"> 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 |

AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

DTC Index

INFOID:0000000010576369

×: 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" |

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EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000010576370

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 does not switch to the high beam. | One side | <ul style="list-style-type: none"> Fuse Harness between IPDM E/R and the front combination lamp Front combination lamp (High beam solenoid) IPDM E/R | Headlamp (HI) circuit Refer to EXL-67 . |
| | Both sides | Symptom diagnosis "BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM" Refer to EXL-212 . | |
| High beam indicator lamp is not turned ON. (Headlamp switches to the high beam.) | | <ul style="list-style-type: none"> Combination meter Unified meter and A/C amp. | <ul style="list-style-type: none"> Unified meter and A/C amp. Data monitor "HI-BEAM IND" BCM (HEAD LAMP) Active test "HEADLAMP" |
| Headlamp does not switch to the low beam. | One side | Front combination lamp (High beam solenoid) | — |
| | Both sides | <ul style="list-style-type: none"> Combination switch Harness between the combination switch and BCM BCM | Combination switch Refer to BCS-90 . |
| | | High beam request signal | IPDM E/R Data monitor "HL HI REQ" |
| | | IPDM E/R | — |
| Headlamp is not turned ON. | One side | <ul style="list-style-type: none"> Fuse Xenon bulb Harness between IPDM E/R and the front combination lamp Front combination lamp (xenon headlamp) IPDM E/R | Headlamp (LO) circuit Refer to EXL-70 . |
| | Both sides | Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-213 . | |
| Headlamp is not turned OFF. | When the ignition switch is turned ON | | |
| | The ignition switch is turned OFF (After activating the battery saver.) | IPDM E/R | — |
| Headlamp is not turned ON/OFF with the lighting switch AUTO. | | <ul style="list-style-type: none"> Combination switch Harness between the combination switch and BCM BCM | Combination switch Refer to BCS-90 . |
| | | <ul style="list-style-type: none"> Optical sensor Harness between the optical sensor and BCM BCM | Optical sensor Refer to EXL-84 . |

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

| Symptom | | Possible cause | Inspection item |
|---|--|--|---|
| Front fog lamp is not turned ON. | One side | <ul style="list-style-type: none"> Front fog lamp bulb Harness between IPDM E/R and the front fog lamp IPDM E/R | Front fog lamp circuit Refer to EXL-76 . |
| | Both side | Symptom diagnosis "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to EXL-215 . | |
| Front fog lamp is not turned ON. | | | |
| Front fog lamp indicator lamp is not turned ON. (Front fog lamp is turned ON.) | | <ul style="list-style-type: none"> Combination meter Unified meter and A/C amp. | <ul style="list-style-type: none"> Unified meter and A/C amp. Data monitor "FR FOG IND" BCM (HEAD LAMP) Active test "FR FOG LAMP" |
| Parking lamp is not turned ON. | | <ul style="list-style-type: none"> 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 EXL-78 . |
| Tail lamp is not turned ON. | | <ul style="list-style-type: none"> Harness between IPDM E/R and the rear combination lamp Rear combination lamp | Tail lamp circuit Refer to EXL-89 . |
| License plate lamp is not turned ON. | | <ul style="list-style-type: none"> Harness between IPDM E/R and the license plate lamp License plate lamp | License plate lamp circuit Refer to EXL-91 . |
| Tail lamp and license plate lamp are not turned ON. | | <ul style="list-style-type: none"> Fuse Harness between IPDM E/R and the rear combination lamp IPDM E/R | Tail lamp circuit Refer to EXL-89 . |
| <ul style="list-style-type: none"> Parking lamp, side marker lamp, tail lamp and license plate lamp are not turned ON. Parking lamp, side marker lamp, tail lamp and 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-214 . | |
| Tail lamp indicator lamp is not turned ON. (Parking and tail lamps are turned ON.) | | <ul style="list-style-type: none"> Combination meter Unified meter and A/C amp. | <ul style="list-style-type: none"> Unified meter and A/C amp. Data monitor "LIGHT IND" BCM (HEAD LAMP) Active test "TAIL LAMP" |
| Turn signal lamp does not blink. | Indicator lamp is normal. (The applicable side performs the high flasher activation.) | <ul style="list-style-type: none"> Harness between BCM and each turn signal lamp Turn signal lamp bulb | Turn signal lamp circuit Refer to EXL-81 . |
| | Indicator lamp is included | <ul style="list-style-type: none"> Combination switch Harness between the combination switch and BCM BCM | Combination switch Refer to BCS-90 . |
| Turn signal indicator lamp does not blink. (The turn signal indicator lamp is normal.) | One side | Combination meter | — |
| | Both sides (Always) | <ul style="list-style-type: none"> Turn signal indicator lamp signal - Unified meter and A/C amp. - BCM Combination meter | <ul style="list-style-type: none"> Unified meter and A/C amp. Data monitor "TURN IND" BCM (FLASHER) Active test "FLASHER" |
| | Both sides (Only when activating the hazard warning lamp with the ignition switch OFF.) | <ul style="list-style-type: none"> The combination meter power supply and the ground circuit Combination meter | Combination meter Power supply and the ground circuit Refer to MWI-58 . |

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EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

| Symptom | Possible cause | Inspection item |
|---|--|---|
| <ul style="list-style-type: none">• Hazard warning lamp does not activate.• Hazard warning lamp continues activating. (Turn signal is normal.) | <ul style="list-style-type: none">• Hazard switch• Harness between the hazard switch and BCM• BCM | Hazard switch Refer to EXL-87 . |
| Headlamp auto aiming does not activate. (AFS is normal.) | <ul style="list-style-type: none">• Harness between AFS control unit and aiming motor• Front combination lamp (Aiming motor)• AFS control unit | Headlamp levelizer circuit Refer to EXL-74 . |
| AFS OFF indicator lamp is not turned ON. | <ul style="list-style-type: none">• 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

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

NORMAL OPERATING CONDITION

Description

INFOID:0000000010576371

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 DO NOT SWITCH TO HIGH BEAM

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

Description

INFOID:0000000010576372

The headlamp (both sides) does not switch to the high beam when setting to the lighting switch HI or PASS.

Diagnosis Procedure

INFOID:0000000010576373

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-90, "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

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 (2ND) | HI or PASS | On |
| | | Except for HI or PASS | Off |

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to [EXL-67](#).

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

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description

INFOID:0000000010576374

The headlamps (both sides) are not turned ON in any condition.

Diagnosis Procedure

INFOID:0000000010576375

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-90. "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

1. Select "HL LO REQ" of IPDM E/R data monitor item.

2. With operating the lighting switch, check the monitor status.

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

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

3.HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to [EXL-70](#).

Is the headlamp (LO) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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EXL

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:0000000010576376

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

Diagnosis Procedure

INFOID:0000000010576377

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-90, "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

CONSULT DATA MONITOR

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

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

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

3.TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to [EXL-89](#).

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

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description

INFOID:0000000010576378

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

Diagnosis Procedure

INFOID:0000000010576379

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-90, "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

1. Select "FR FOG REQ" of IPDM E/R data monitor item.

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

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

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

3.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to [EXL-76](#).

Is the front fog lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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PRECAUTION

PRECAUTIONS

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

INFOID:0000000010576380

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

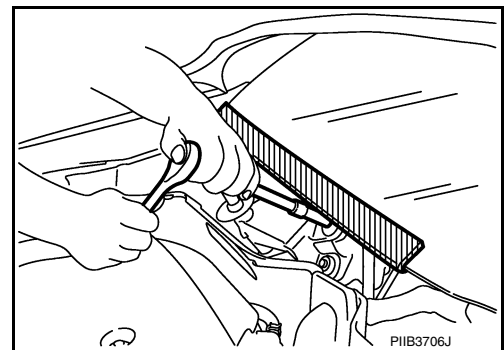
Always observe the following items for preventing accidental activation.

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

Precaution for Procedure without Cowl Top Cover

INFOID:0000000011008273

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc to prevent damage to windshield.



Precautions For Xenon Headlamp Service

INFOID:0000000010576381

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.

PRECAUTIONS

< PRECAUTION >

[XENON TYPE]

(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.).

Precautions for Removing Battery Terminal

INFOID:000000010755187

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

NOTE:

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

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

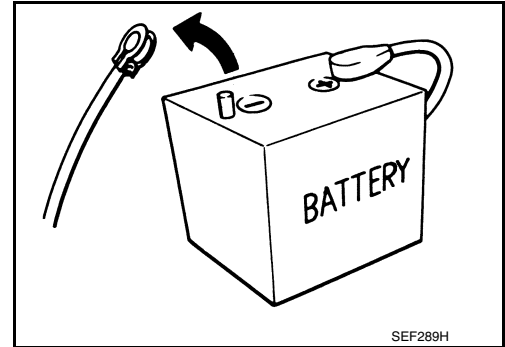
NOTE:

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

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

NOTE:

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



SEF289H

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HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

PERIODIC MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Description

INFOID:0000000010576382

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 luggage room.)

NOTE:

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

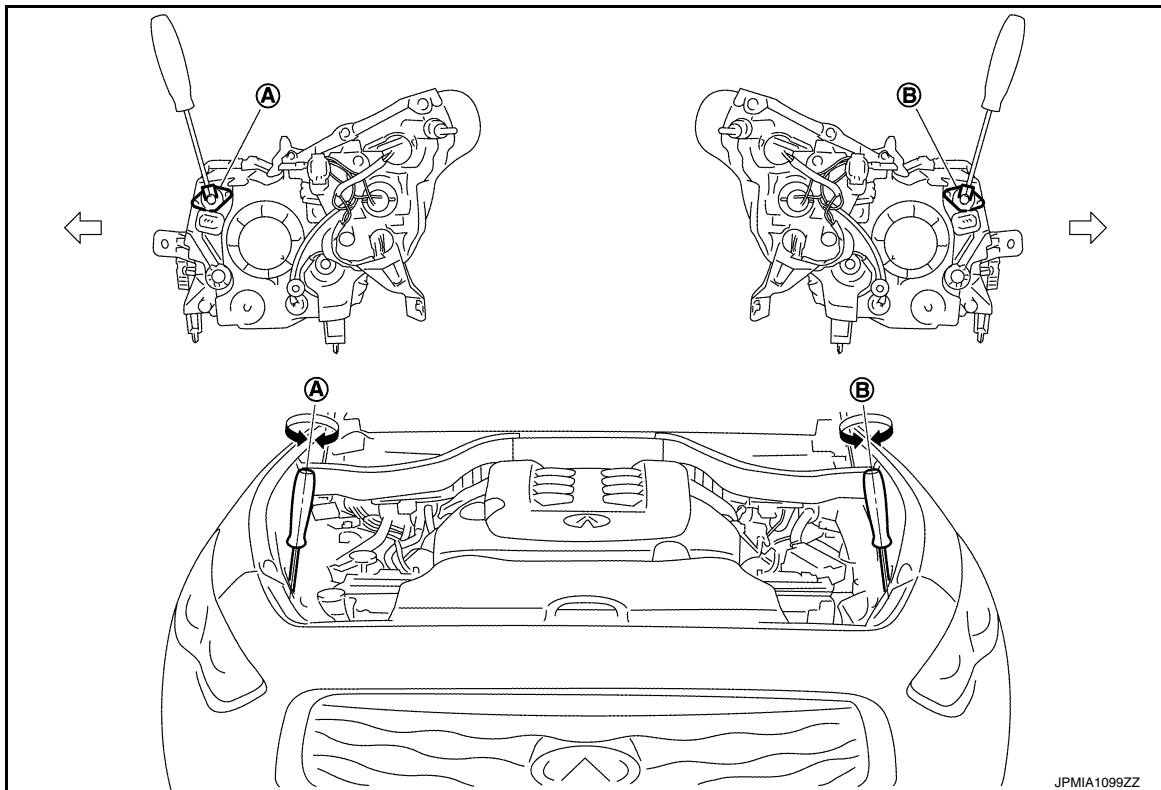
- Wipe out dirt on the headlamp.

CAUTION:

Never use organic solvent (thinner, gasoline etc.)

- Ride alone on the driver seat.
- Headlamp aiming switch sets to "0". (with manual headlamp aiming control system.)

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.

HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

| Adjustment screw | | Screw driver rotation | Facing direction |
|------------------|-----------------------|-----------------------|------------------|
| A | Headlamp RH (UP/DOWN) | Clockwise | UP |
| | | Counterclockwise | DOWN |
| B | Headlamp LH (UP/DOWN) | Clockwise | UP |
| | | Counterclockwise | DOWN |

Aiming Adjustment Procedure

INFOID:0000000010576383

- Place the screen.

NOTE:

- Stop the vehicle facing the wall.
- Place the board on a plain road vertically.

- Face the vehicle with the screen. Maintain 10 m (32.8 ft) between the headlamp center and the screen.
- Start the engine. Turn the headlamp (LO) ON.

NOTE:

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

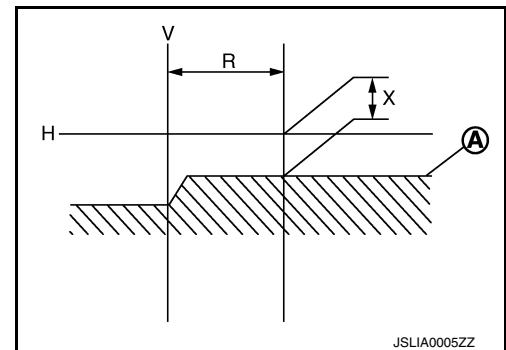
CAUTION:

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

- 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 ± 175 mm (13.78 ± 6.89 in)

Low beam distribution on the screen

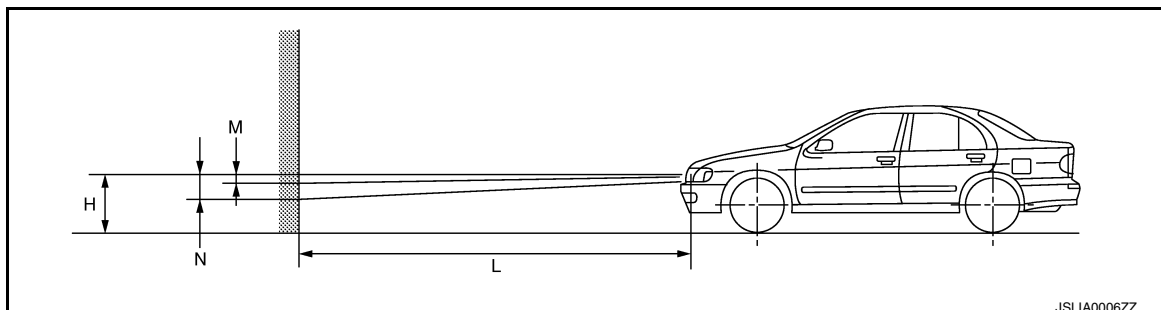


- Adjust the cutoff line height (X) with the aiming adjustment screw so as to enter in the adjustment range (M–N) according to the horizontal center line of headlamp (H).

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 >

[XENON TYPE]

FRONT FOG LAMP AIMING ADJUSTMENT

Description

INFOID:0000000010576384

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 luggage 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.

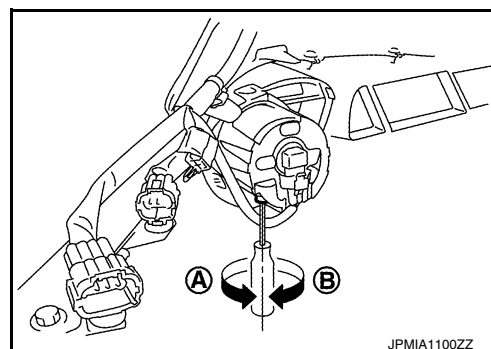
A: UP

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.



Aiming Adjustment Procedure

INFOID:0000000010576385

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.

3. Start the engine. Turn the front fog lamp ON.

NOTE:

Shut off the front fog lamp 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.

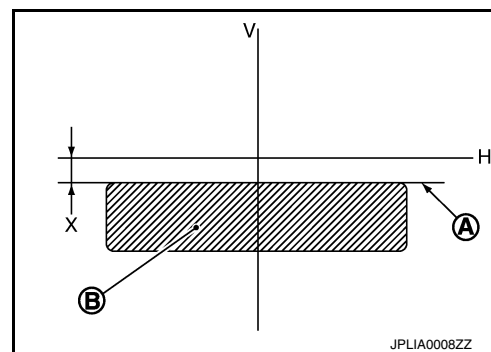
4. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 200 mm (7.87 in).

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 lamp
- V : Vertical center line of front fog lamp
- X : Cutoff line height

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FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

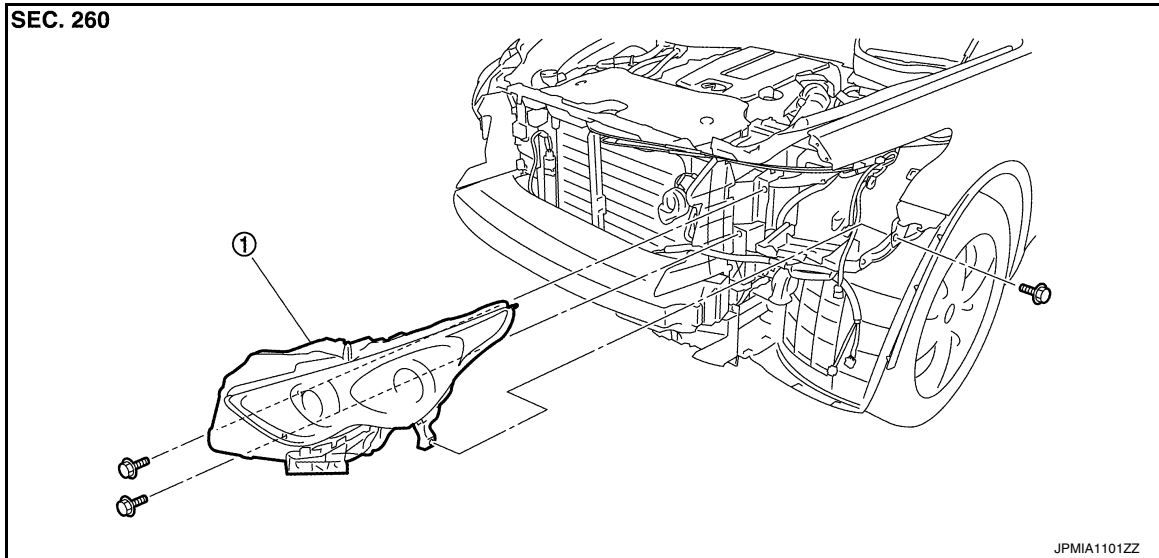
REMOVAL AND INSTALLATION

FRONT COMBINATION LAMP

Exploded View

INFOID:000000010576386

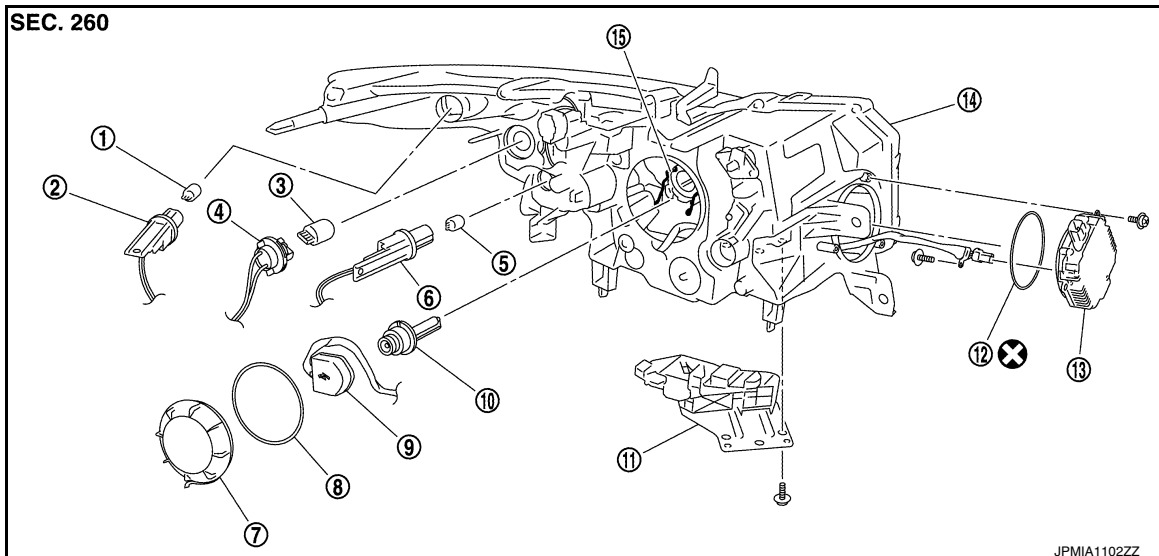
REMOVAL



1. Front combination lamp

DISASSEMBLY

Without AFS



- | | | |
|---------------------------------------|---------------------------------------|--------------------------------|
| 1. Front side marker lamp bulb | 2. Front side marker lamp bulb socket | 3. Front turn signal lamp bulb |
| 4. Front turn signal lamp bulb socket | 5. Parking lamp bulb | 6. Parking lamp bulb socket |
| 7. Resin cap | 8. Seal packing | 9. Xenon bulb socket |
| 10. Xenon bulb | 11. Bumper bracket | 12. Seal packing |
| 13. HID control unit | 14. Headlamp housing assembly | 15. Retaining spring |

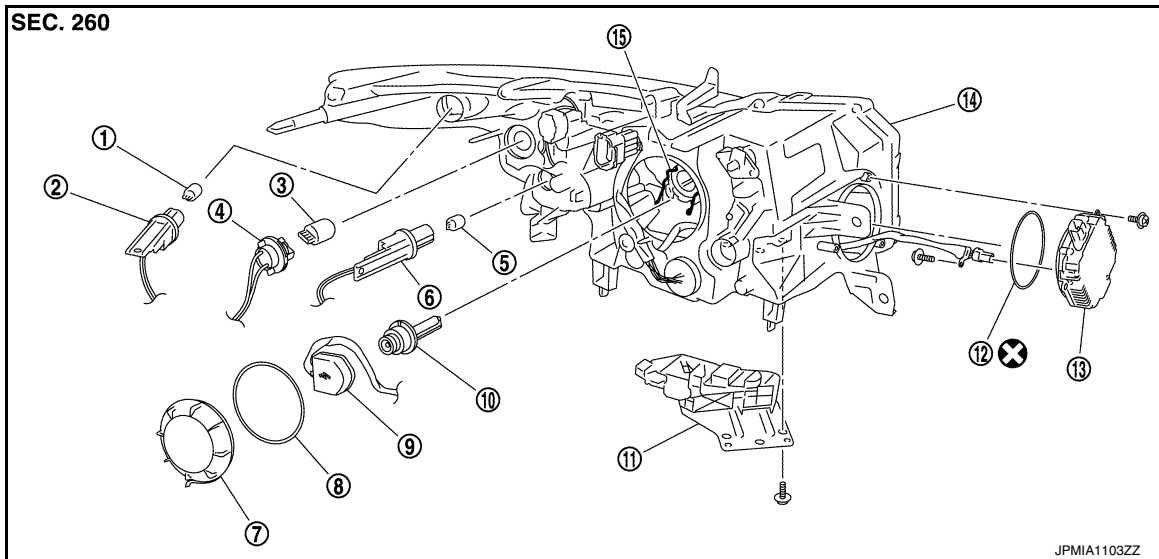
⊗ : Always replace after every disassembly.

With AFS

FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]



- | | | |
|---------------------------------------|---------------------------------------|--------------------------------|
| 1. Front side marker lamp bulb | 2. Front side marker lamp bulb socket | 3. Front turn signal lamp bulb |
| 4. Front turn signal lamp bulb socket | 5. Parking lamp bulb | 6. Parking lamp bulb socket |
| 7. Resin cap | 8. Seal packing | 9. Xenon bulb socket |
| 10. Xenon bulb | 11. Bumper bracket | 12. Seal packing |
| 13. HID control unit | 14. Headlamp housing assembly | 15. Retaining spring |

⊗ : Always replace after every disassembly.

Removal and Installation

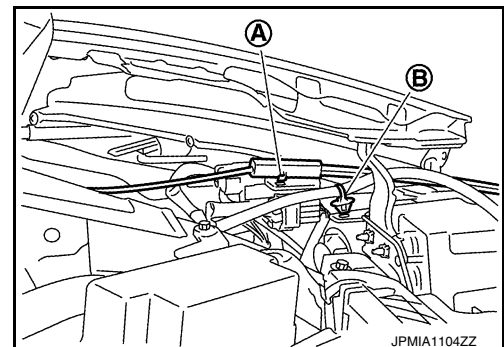
INFOID:0000000010576387

REMOVAL

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

1. Remove the front bumper fascia. Refer to [EXT-12, "Exploded View"](#).
2. Remove the headlamp mounting bolts.
3. Remove the holding clip (A)* and the harness clip (B).
*: 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-218, "Description"](#).

Replacement

INFOID:0000000010576388

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.

FRONT COMBINATION LAMP

[XENON TYPE]

< REMOVAL AND INSTALLATION >

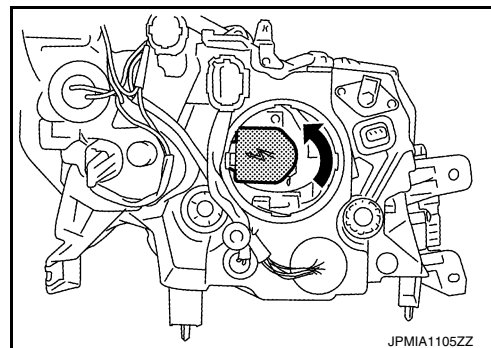
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

HEADLAMP BULB

1. Remove the engine room cover*. Refer to [EM-184, "Exploded View"](#).
* : VK Engine Models
2. Remove the fender rubber protector. Keep a service area.
3. Rotate the resin cap counterclockwise and unlock it.
4. Rotate the bulb socket counterclockwise and unlock it.
5. Remove the retaining spring lock. Remove the bulb from the headlamp.

CAUTION:

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



PARKING LAMP BULB

1. Remove the engine room cover*. Refer to [EM-184, "Exploded View"](#).
* : VK Engine Models
2. Remove the fender rubber protector. Keep a service area.
3. Rotate the bulb socket counterclockwise and unlock it.
4. Remove the bulb from the bulb socket.

FRONT TURN SIGNAL LAMP BULB

1. Remove the engine room cover*. Refer to [EM-184, "Exploded View"](#).
* : VK Engine Models
2. Remove the fender rubber protector. Keep a service area.
3. Rotate the bulb socket counterclockwise and unlock it.
4. Remove the bulb from the bulb socket.

FRONT SIDE MARKER LAMP BULB

1. Remove the engine room cover*. Refer to [EM-184, "Exploded View"](#).
* : VK Engine Models
2. Remove the fender rubber protector. Keep a service area.
3. Rotate the bulb socket counterclockwise and unlock it.
4. Remove the bulb from the bulb socket.

Disassembly and Assembly

INFOID:0000000010576389

DISASSEMBLY

1. Rotate the resin cap counterclockwise and unlock it.
2. Rotate the xenon bulb socket counterclockwise and unlock it.
3. Remove the retaining spring lock. Remove the xenon bulb.
4. Remove the bumper bracket.
5. Remove the HID control unit installation screw.
6. Remove the screw. Disconnect the connector from HID control unit.
7. Pull out the xenon bulb socket from the headlamp housing assembly.
8. Rotate the parking lamp bulb socket counterclockwise and unlock it.
9. Remove the bulb from the parking lamp bulb socket.
10. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
11. Remove the bulb from the front turn signal lamp bulb socket.

FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

12. Rotate the front side marker lamp bulb socket counterclockwise and unlock it.
13. Remove the bulb from the front side marker lamp bulb socket.

ASSEMBLY

Assemble in the reverse order of disassembly.

CAUTION:

- Install HID control unit securely.
- After installing the bulb, install the resin cap and the bulb socket securely for watertightness.

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FRONT FOG LAMP

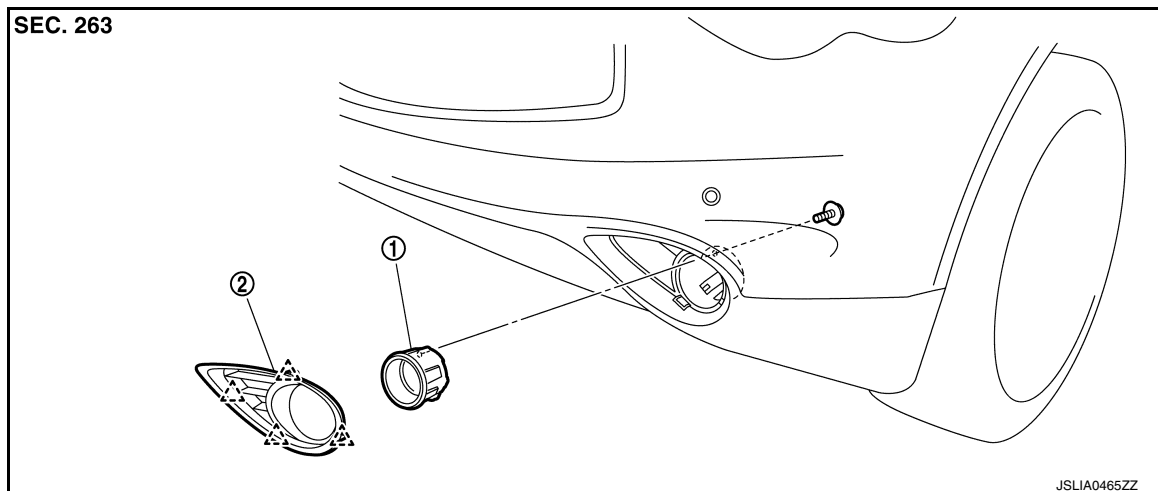
< REMOVAL AND INSTALLATION >

[XENON TYPE]

FRONT FOG LAMP

Exploded View

INFOID:0000000010576390



1. Front fog lamp
2. Front fog lamp finisher

△ : Pawl

Removal and Installation

INFOID:0000000010576391

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 connector.
3. Remove the screw.
4. Disengage the pawl. And then remove the front fog lamp.

INSTALLATION

Install in the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to [EXL-220, "Description"](#).

Replacement

INFOID:0000000010576392

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

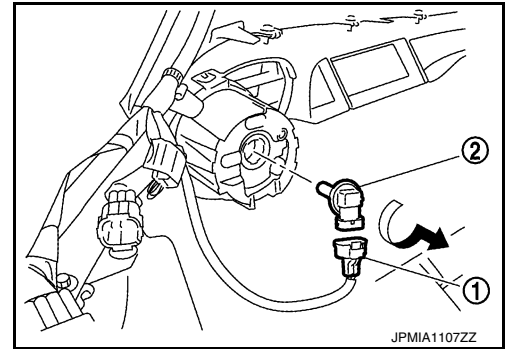
1. Remove the front fender protector. Keep a service area. Refer to [EXT-25, "FENDER PROTECTOR : Exploded View"](#).

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.

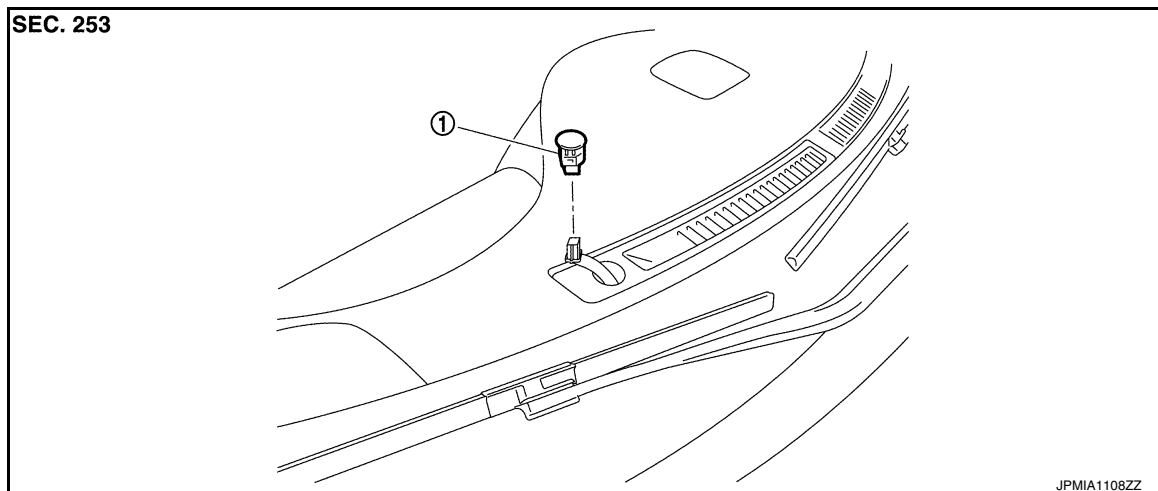


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OPTICAL SENSOR

Exploded View

INFOID:0000000010576393



1. Optical sensor

Removal and Installation

INFOID:0000000010576394

REMOVAL

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

INSTALLATION

Install in the reverse order of removal.

LIGHTING & TURN SIGNAL SWITCH

< REMOVAL AND INSTALLATION >

[XENON TYPE]

LIGHTING & TURN SIGNAL SWITCH

Exploded View

INFOID:0000000010576395

The lighting & turn signal switch is integrated in the combination switch. [BCS-94, "Exploded View"](#).

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HEADLAMP AIMING SWITCH

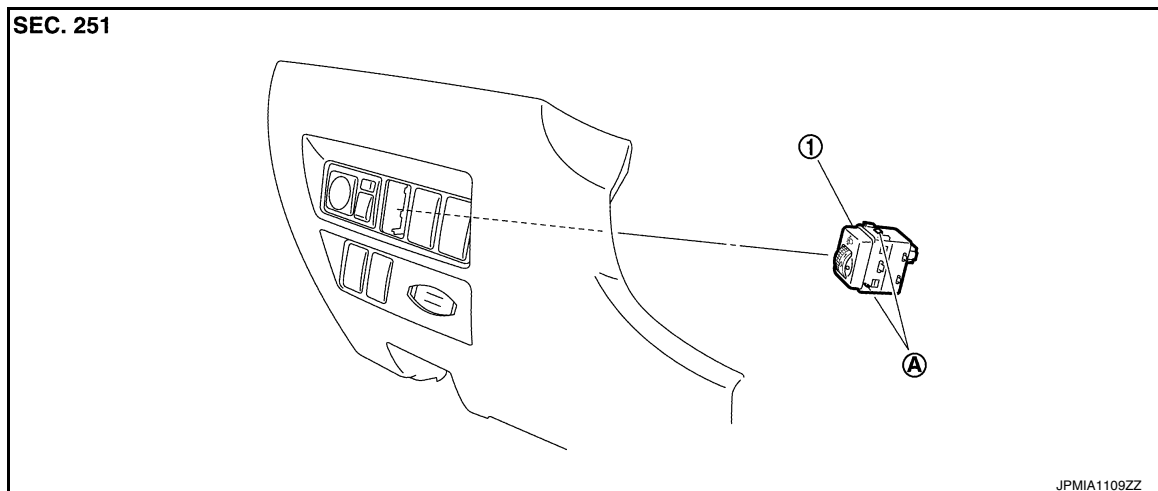
< REMOVAL AND INSTALLATION >

[XENON TYPE]

HEADLAMP AIMING SWITCH

Exploded View

INFOID:0000000010576396



1. Headlamp aiming switch

A. Pawls

Removal and Installation

INFOID:0000000010576397

REMOVAL

1. Remove the instrument driver lower panel. Refer to [IP-12, "Exploded View"](#).
2. Disengage the pawls. And then remove the headlamp aiming switch.

INSTALLATION

Install in the reverse order of removal.

HAZARD SWITCH

Exploded View

INFOID:0000000010576398

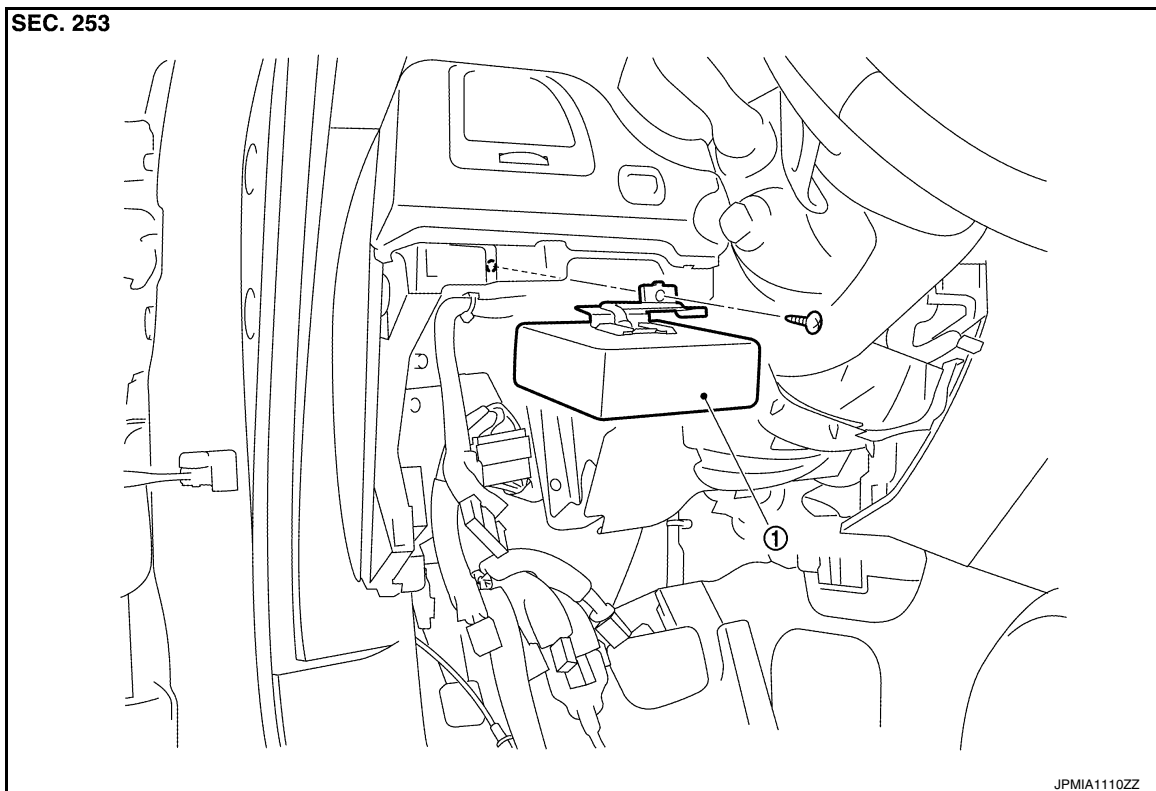
The hazard switch is integrated in the multifunction switch. Refer to [AV-142, "Exploded View"](#).

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AFS CONTROL UNIT

Exploded View

INFOID:0000000010576399



1. AFS control unit

Removal and Installation

INFOID:0000000010576400

REMOVAL

1. Remove the instrument driver lower panel. 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.

STEERING ANGLE SENSOR

Removal and Installation

INFOID:0000000010576401

Refer to [SR-14. "Removal and Installation"](#).

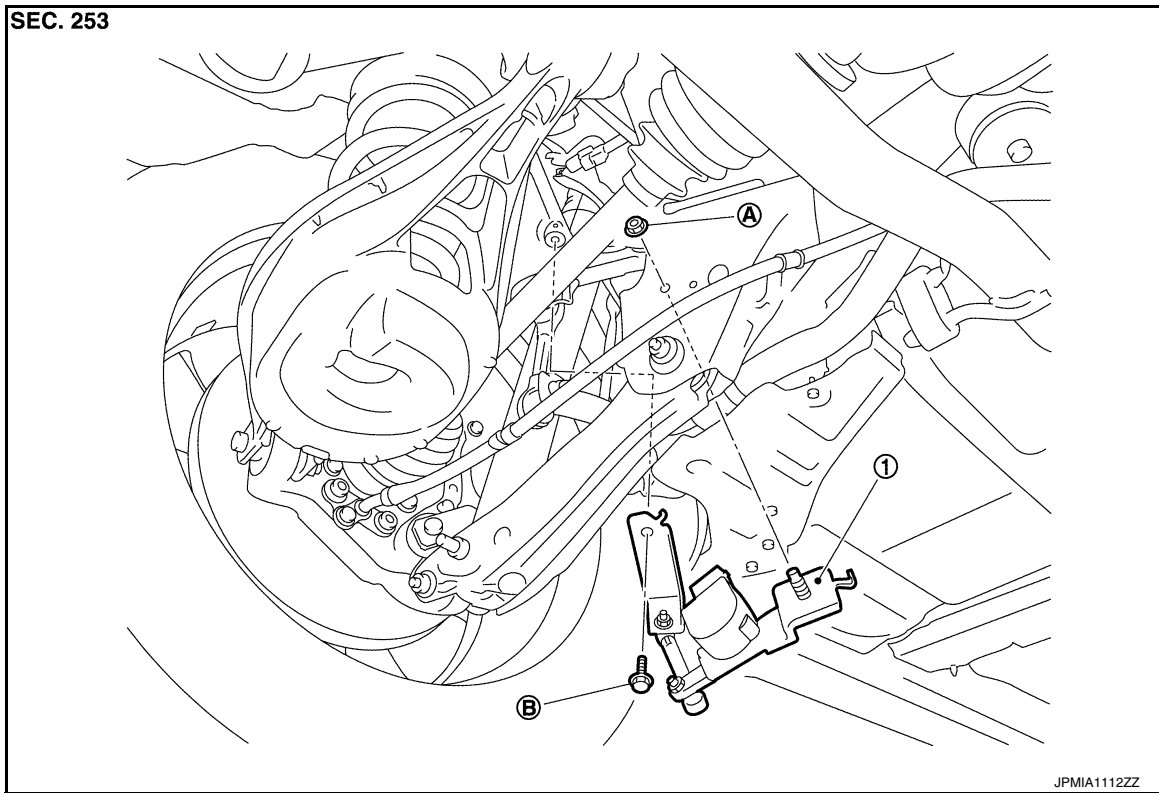
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EXL

HEIGHT SENSOR

Exploded View

INFOID:0000000010576402



1. Height sensor

A. Height sensor mounting nut

B. Height sensor lever link bracket mounting bolt

Removal and Installation

INFOID:0000000010576403

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 [EXL-8. "LEVELIZER ADJUSTMENT : Special Repair Requirement"](#).

REAR COMBINATION LAMP

< REMOVAL AND INSTALLATION >

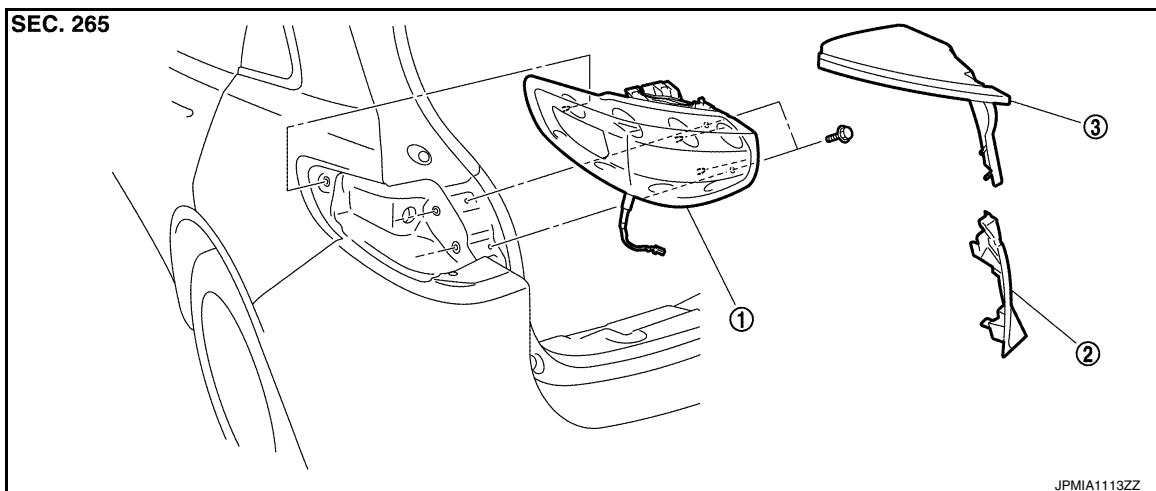
[XENON TYPE]

REAR COMBINATION LAMP

Exploded View

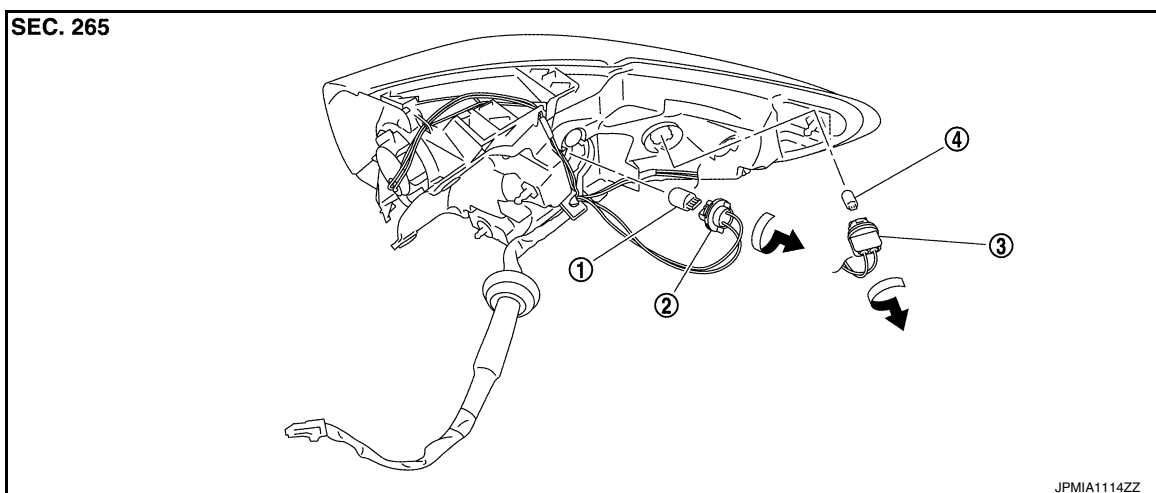
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REMOVAL



1. Rear combination lamp 2. Rear combination lamp lower finisher 3. Rear combination lamp upper finisher

DISASSEMBLY



1. Rear turn signal lamp bulb 2. Rear turn signal lamp bulb socket 3. Rear side marker lamp bulb socket
4. Rear side marker lamp bulb

Removal and Installation

INFOID:0000000010576405

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

1. Remove the rear combination lamp lower and upper finisher.
2. Remove the rear combination lamp mounting bolts.
3. Disconnect the rear combination lamp connector.
4. Pull the rear combination lamp toward outside of the vehicle. Remove the rear combination lamp.

INSTALLATION

Install in the reverse order of removal.

REAR COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

Replacement

INFOID:0000000010576406

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.

STOP/TAIL LAMP

Replacement integral with rear combination lamp assembly. Refer to [EXL-235, "Exploded View"](#).

REAR SIDE MARKER LAMP BULB

1. Remove the rear combination lamp. Refer to [EXL-235, "Exploded View"](#).
2. Rotate the rear side marker lamp bulb socket counterclockwise and unlock it.
3. Remove the bulb from the rear side marker lamp bulb socket.

REAR TURN SIGNAL LAMP BULB

1. Remove the rear combination lamp. Refer to [EXL-235, "Exploded View"](#).
2. Rotate the rear turn signal lamp bulb socket counterclockwise and unlock it.
3. Remove the bulb from the rear turn signal lamp bulb socket.

HIGH-MOUNTED STOP LAMP

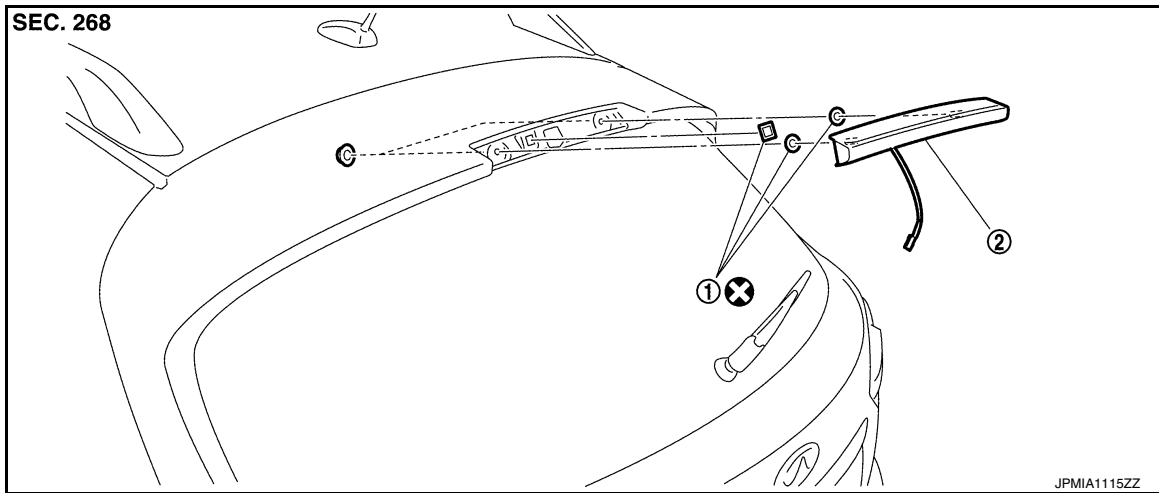
< REMOVAL AND INSTALLATION >

[XENON TYPE]

HIGH-MOUNTED STOP LAMP

Exploded View

INFOID:0000000010576407



1. Seal packing
2. High-mounted stop lamp

⊗ : Always replace after every disassembly.

Removal and Installation

INFOID:0000000010576408

REMOVAL

1. Remove the back door plate. Refer to [INT-34, "Exploded View"](#).
2. Remove the high-mounted stop lamp mounting nuts.
3. Disconnect the high-mounted stop lamp connector.
4. Pull the high-mounted stop lamp toward rear of the vehicle. Remove the high-mounted stop lamp.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Seal packing cannot be reused.

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BACK-UP LAMP

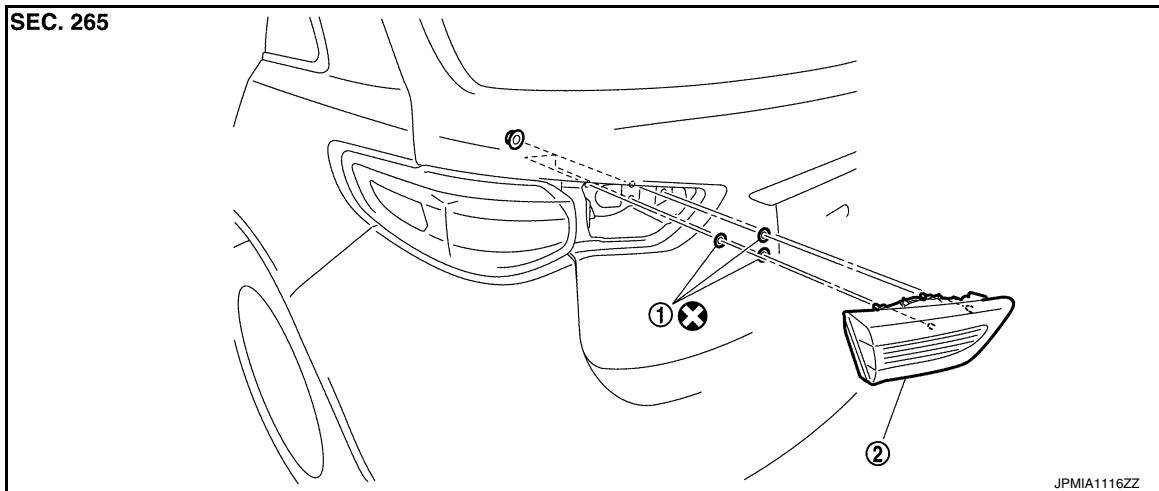
< REMOVAL AND INSTALLATION >

[XENON TYPE]

BACK-UP LAMP

Exploded View

INFOID:0000000010576409



1. Seal packing 2. Back-up lamp

⊗ : Always replace after every disassembly.

Removal and Installation

INFOID:0000000010576410

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

1. Remove the back door finisher inner. Refer to [INT-34, "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.

CAUTION:

Seal packing cannot be reused.

Replacement

INFOID:0000000010576411

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

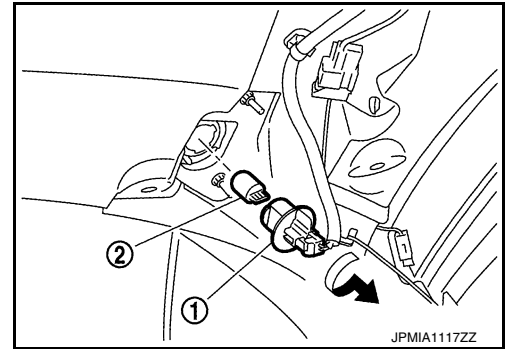
1. Remove the back door finisher inner. Refer to [INT-34, "Exploded View"](#).

BACK-UP LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

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



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LICENSE PLATE LAMP

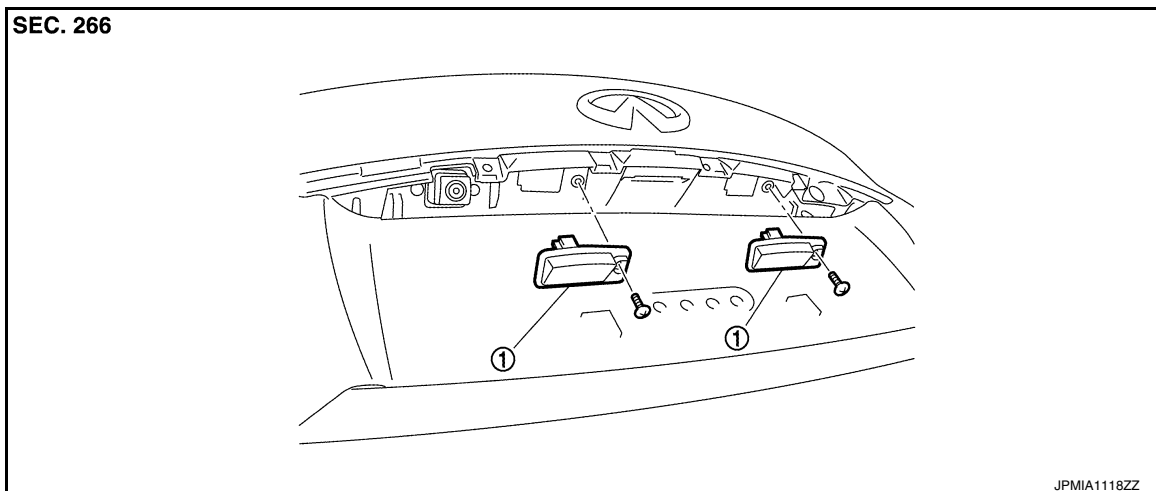
< REMOVAL AND INSTALLATION >

[XENON TYPE]

LICENSE PLATE LAMP

Exploded View

INFOID:0000000010576412



1. License plate lamp

Removal and Installation

INFOID:0000000010576413

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

1. Remove the door handle cover. Refer to [EXT-50, "Exploded View"](#).
2. 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

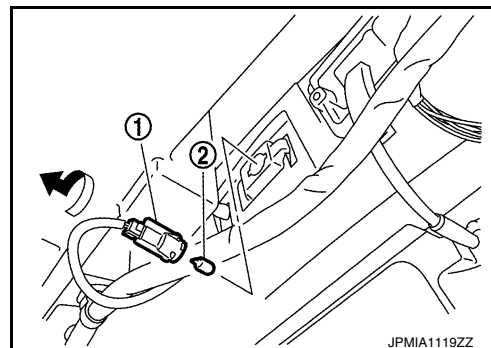
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CAUTION:

- **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-34, "Exploded View"](#).
2. Rotate the bulb socket (1) counterclockwise and unlock it.
3. Remove the bulb (2) from the socket.



SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[XENON TYPE]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:0000000010576415

| Item | | Type | Wattage (W) |
|------------------------|------------------------|---------------|-------------|
| Front combination lamp | Headlamp (HI/LO) | D2S (Xenon) | 35 |
| | Front turn signal lamp | WY21W (Amber) | 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 turn signal lamp | W21W | 21 |
| | Rear side marker lamp | W5W | 5 |
| Back-up lamp | | W21W | 21 |
| License plate lamp | | W5W | 5 |
| High-mounted stop lamp | | LED | — |

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