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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[XENON TYPE]

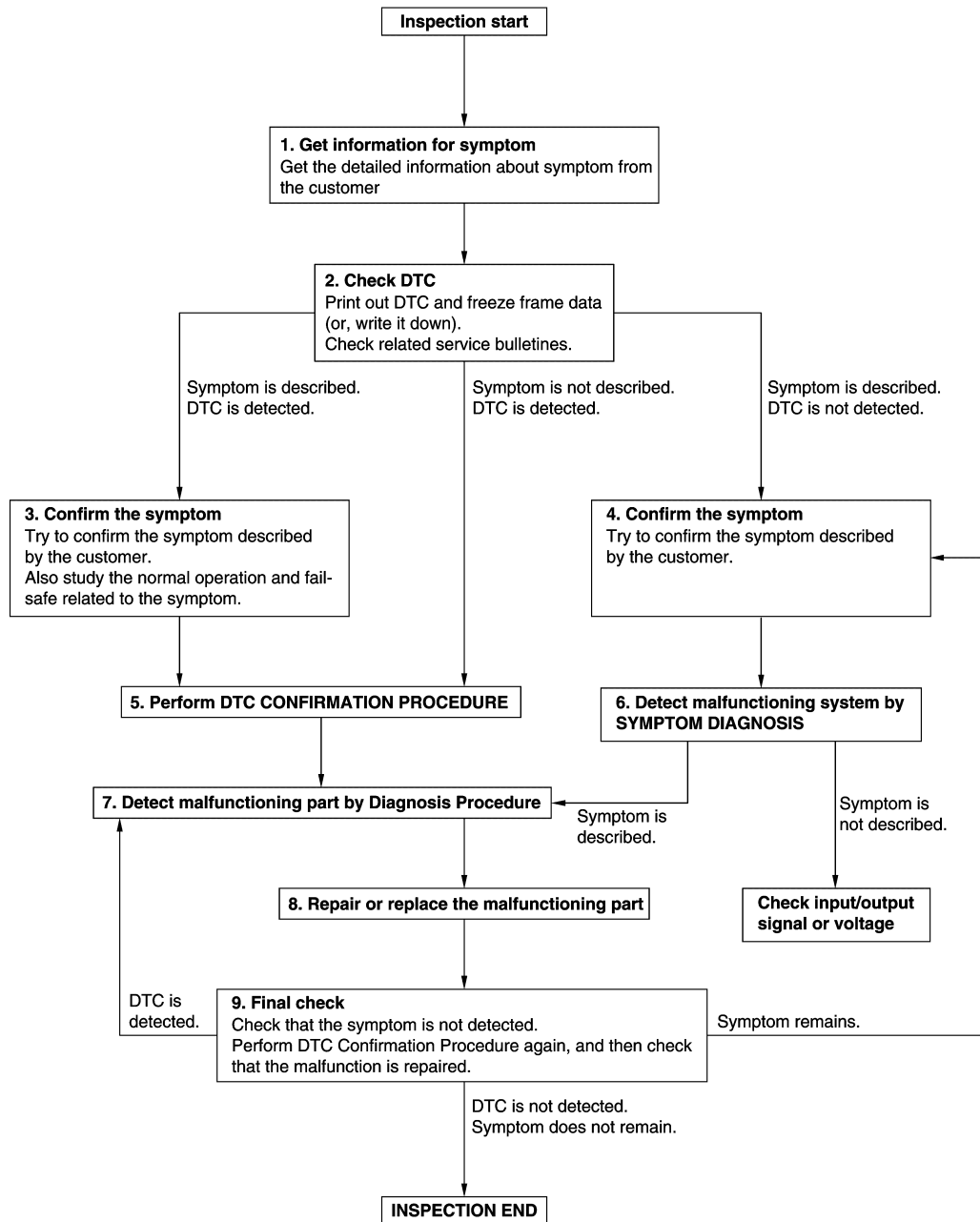
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000009722863

OVERALL SEQUENCE



JMKIA8652GB

DETAILED FLOW

Revision: 2013 August

EXL-6

2014 MURANO

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-44. "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

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DIAGNOSIS AND REPAIR WORK FLOW

[XENON TYPE]

< BASIC INSPECTION >

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-44. "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.

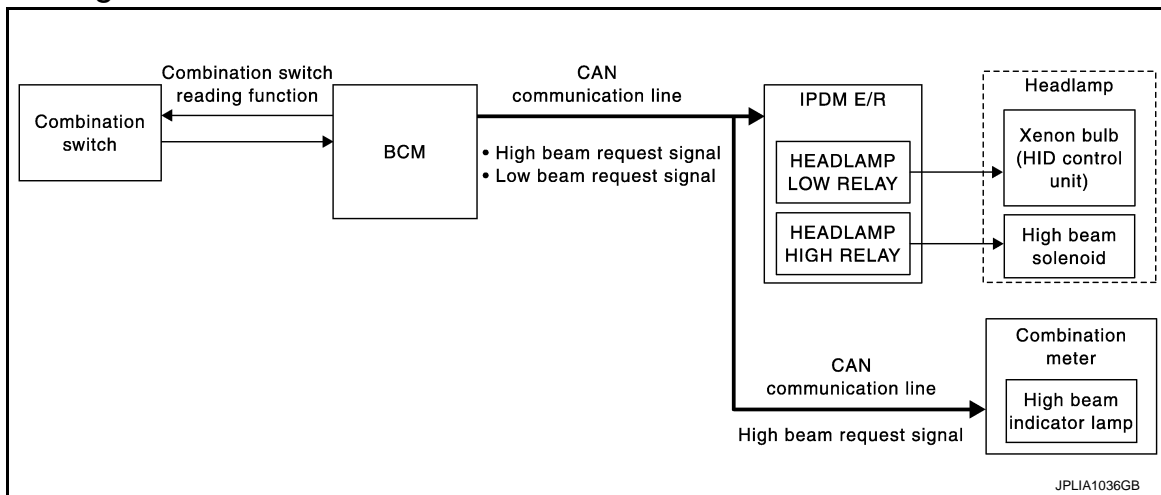
YES-2 >> Symptom remains: GO TO 4.

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

SYSTEM DESCRIPTION

HEADLAMP SYSTEM

System Diagram



System Description

INFOID:000000009722865

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 (With auto light system)
- 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 with CAN communication according to the high beam switching condition.

High beam switching condition

- Lighting switch HI with the lighting switch 2ND or AUTO (auto light function ON judgment)
- Lighting switch PASS
- Combination meter turns the high beam indicator lamp ON according to the high beam request signal.
- IPDM E/R turns the integrated headlamp high relay ON, and turns the headlamp ON according to the high beam request signal.

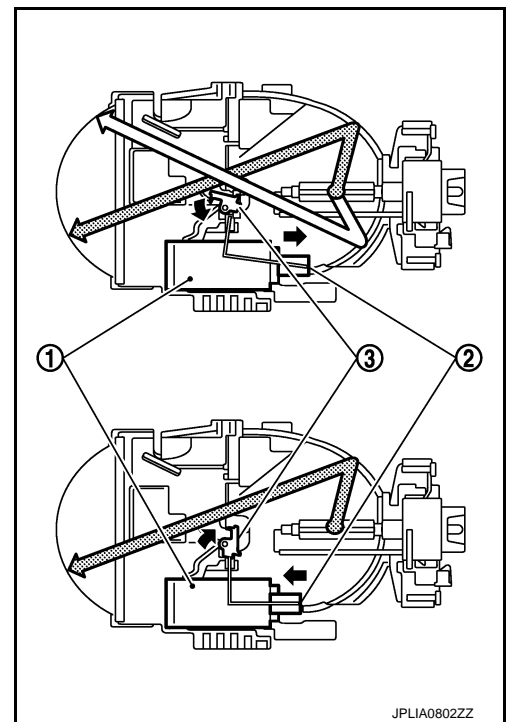
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HEADLAMP SYSTEM

[XENON TYPE]

< SYSTEM DESCRIPTION >

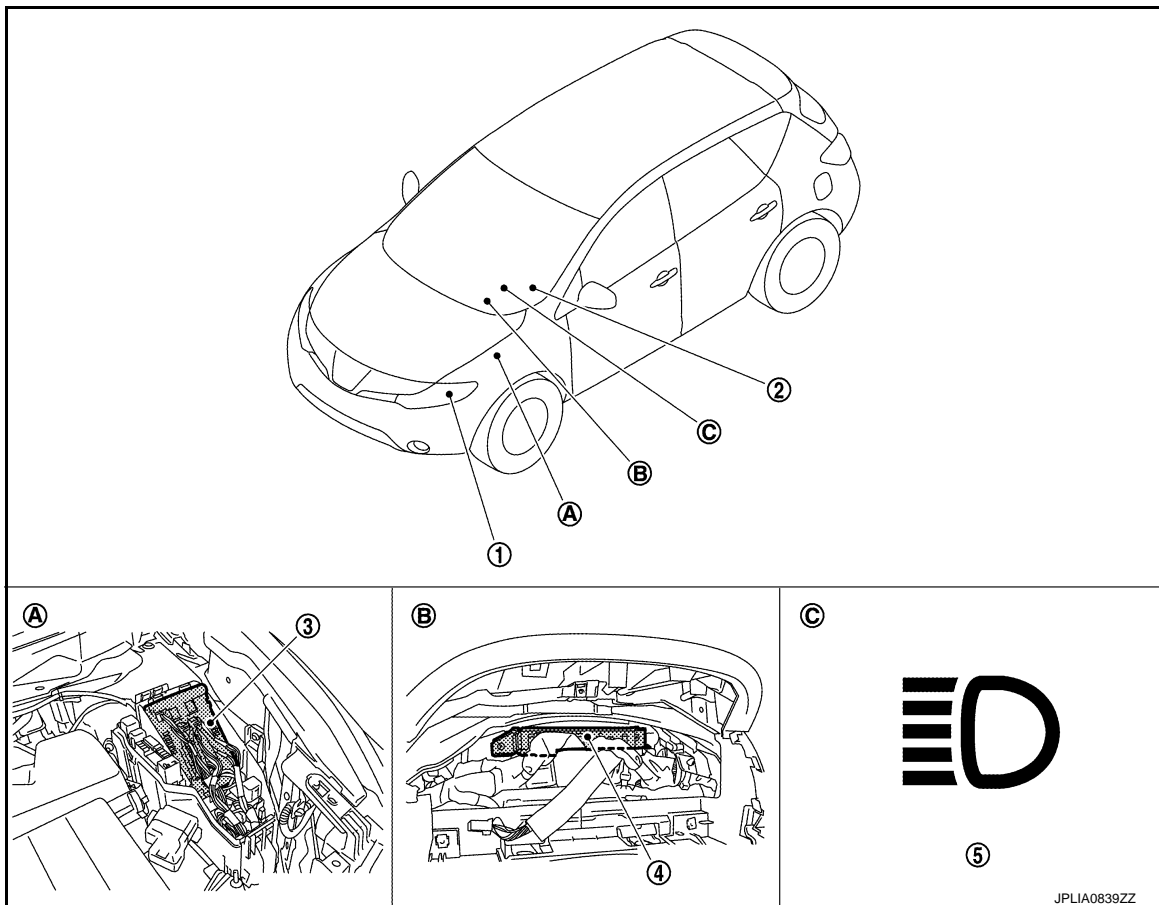
- When the headlamp high relay is turned ON, magnetic force is applied to the high beam solenoid (1) by a current. The mobile valve shade (3) is switched to the high beam position through the actuator rod (2).
- When the headlamp high relay is turned OFF, the current stops. The mobile valve shade returns to the low beam position automatically.



JPLIA0802ZZ

Component Parts Location

INFOID:000000009722866



JPLIA0839ZZ

- 1. Headlamp
- 4. BCM
- A. Engine room (LH)

- 2. Combination switch
- 5. High beam indicator lamp
- B. Behind the combination meter

- 3. IPDM E/R
- C. On the combination meter

HEADLAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Description

INFOID:000000009722867

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). 	
IPDM E/R	Controls the integrated relay, and supplies voltage to the load according to the request from BCM (with CAN communication).	
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Description" .	
Combination meter (High beam indicator lamp)	Turns the high beam indicator lamp ON according to the request from BCM (with CAN communication).	
Headlamp assembly	<ul style="list-style-type: none"> • HID control unit • Xenon bulb 	Refer to EXL-39, "Description" .
	High beam solenoid	Refer to EXL-36, "Description" .

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EXL

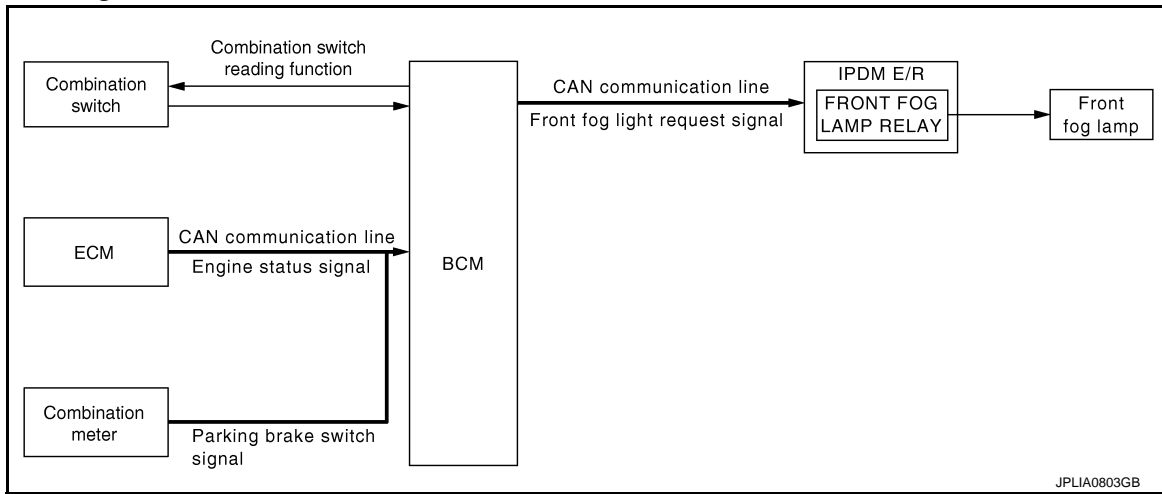
DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

DAYTIME RUNNING LIGHT SYSTEM

System Diagram



System Description

INFOID:000000009722869

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 combination meter with CAN communication)
- BCM transmits the front fog light request signal to IPDM E/R with CAN communication according to the daytime running light ON condition.

Daytime running light ON condition

- 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.

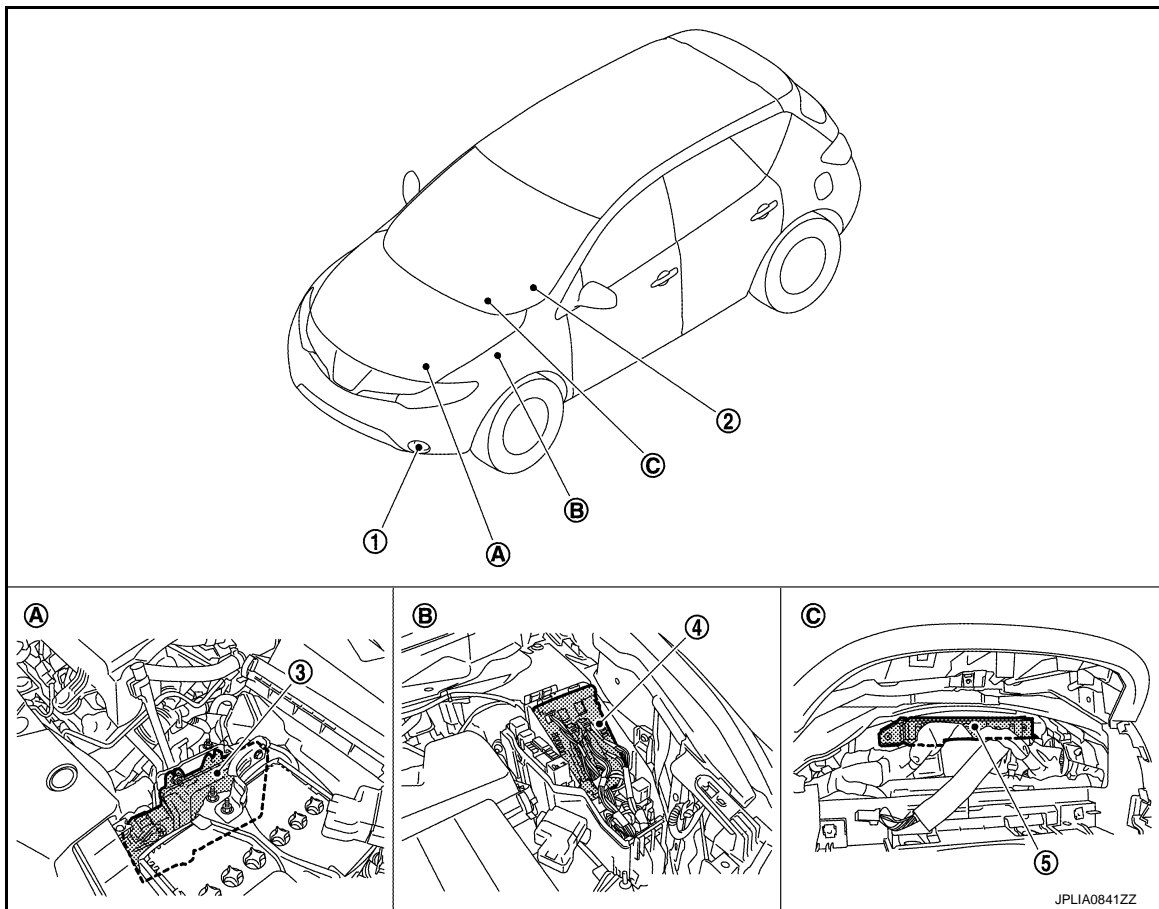
DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

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- | | | |
|---|-----------------------|---------------------------------|
| 1. Daytime running light (Front fog lamp) | 2. Combination switch | 3. ECM |
| 4. IPDM E/R | 5. BCM | |
| A. Engine room (LH) | B. Engine room (LH) | C. Behind the combination meter |

Component Description

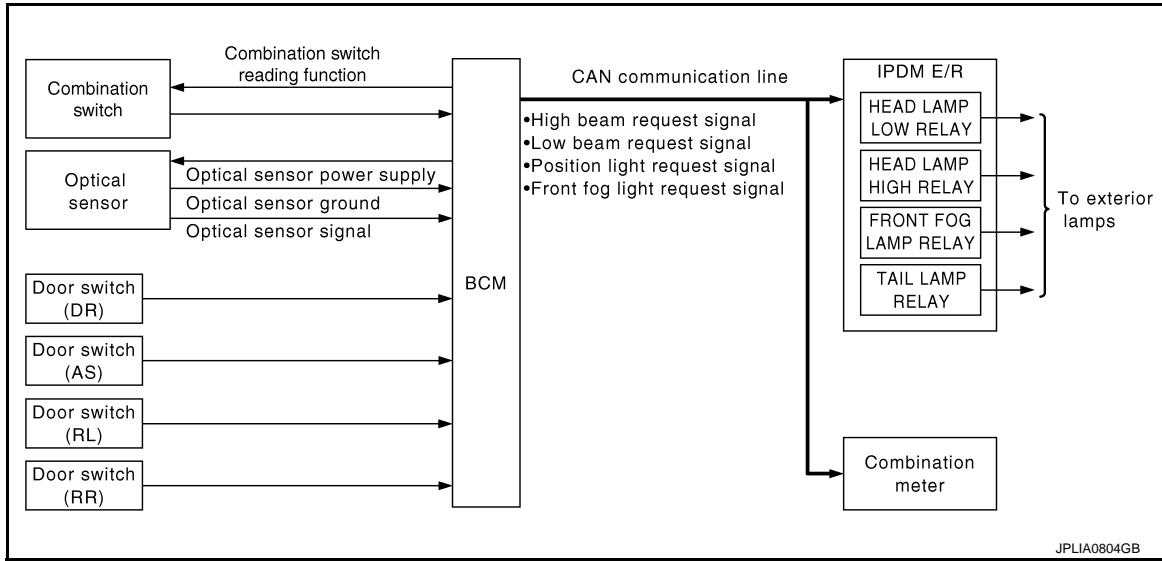
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Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition with the combination switch reading function. • Judges the headlamp ON/OFF status according to the vehicle condition. - Requests the front fog lamp relay ON to 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).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Description" .
ECM	Transmits the engine condition signal to BCM with CAN communication.
Combination meter	Transmits the parking brake switch signal to BCM with CAN communication.

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AUTO LIGHT SYSTEM

System Diagram



System Description

INFOID:000000009722873

OUTLINE

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

Control by BCM

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

Control by IPDM E/R

- Relay control function
- Auto light system has the auto light function and the delay timer function.
- Auto light function turns the exterior lamps* and each illumination ON/OFF automatically according to the outside brightness.
- When auto light system turns the exterior lamps ON with the ignition switch OFF, delay timer function turns the exterior lamps OFF depending on the vehicle condition with the auto light function after a certain period of time.

*: Headlamp (LO/HI), parking lamp, tail lamp, side marker 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-25, "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 >

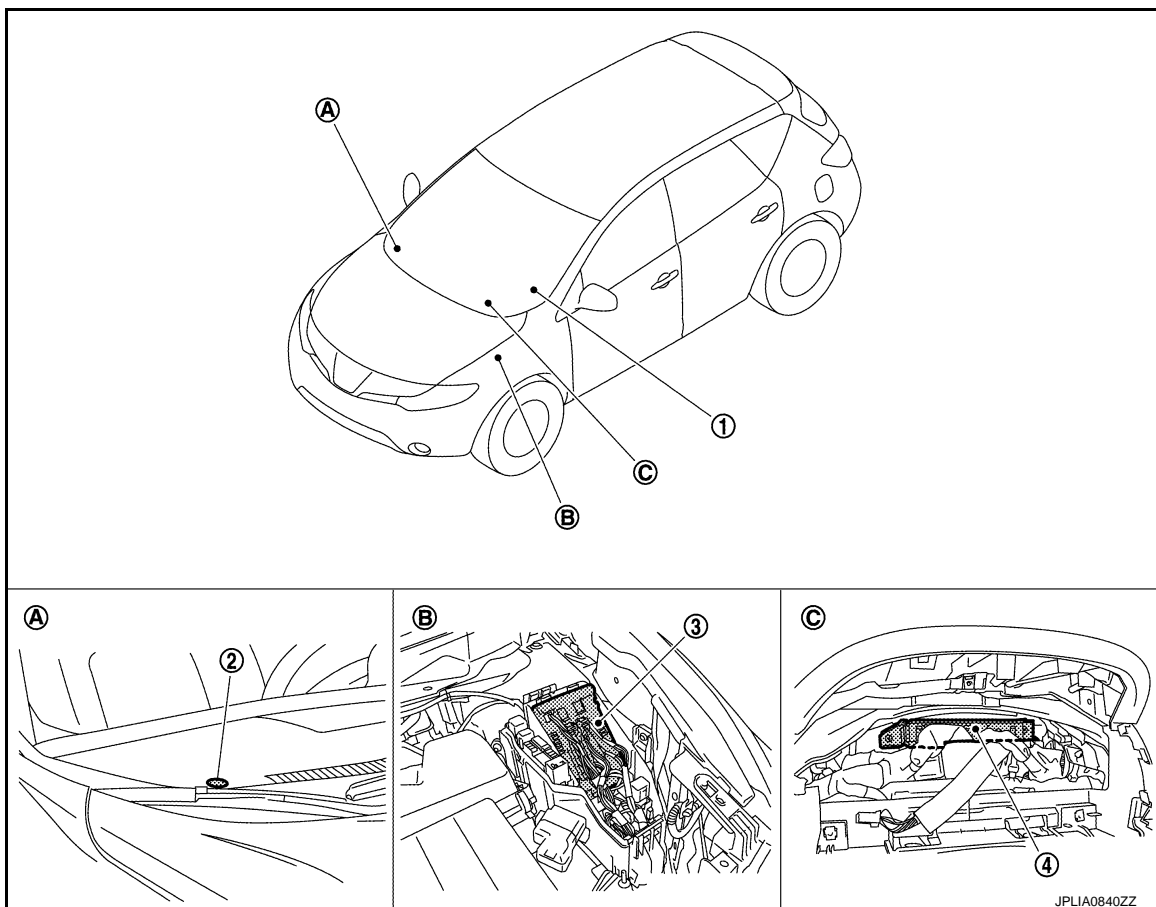
- Turns the exterior lamp OFF with the ignition switch ACC or the light switch OFF.
- *: The preset time is 45 seconds. The timer operating time can be set by CONSULT. Refer to [EXL-25, "HEAD-LAMP : CONSULT Function \(BCM - HEAD LAMP\)"](#).

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:000000009722874



- | | | |
|--------------------------------|---------------------|---------------------------------|
| 1. Combination switch | 2. Optical sensor | 3. IPDM E/R |
| 4. BCM | | |
| A. Instrument upper panel (RH) | B. Engine room (LH) | C. Behind the combination meter |

Component Description

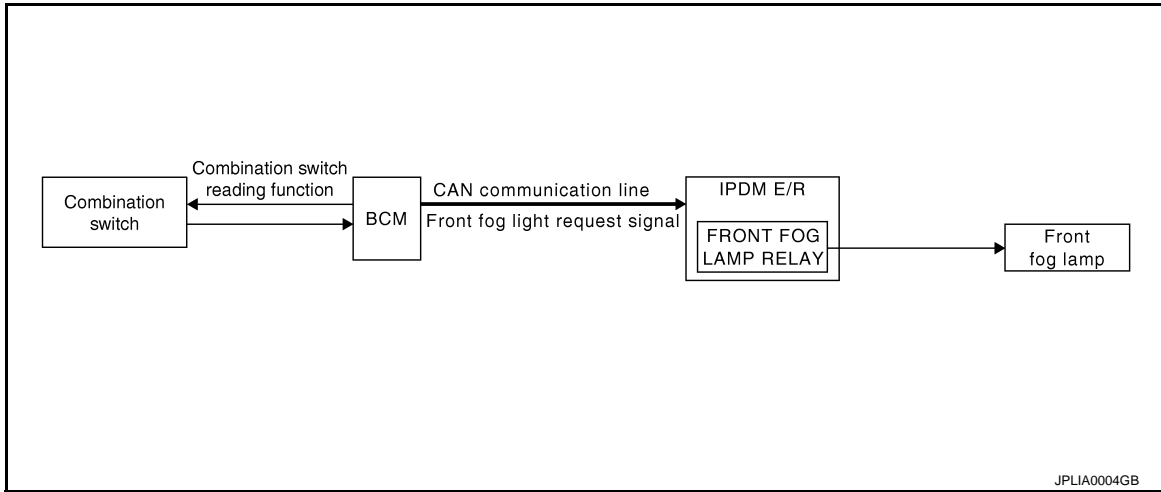
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Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges the outside brightness from the optical sensor signal. • Judges the OFF timing according to the vehicle condition. • 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-10, "System Description" .
Optical sensor	Refer to EXL-52, "Description" .

FRONT FOG LAMP SYSTEM

System Diagram

INFOID:000000009722876



System Description

INFOID:000000009722877

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.

FRONT FOG LAMP OPERATION

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

Front fog lamp ON condition

- Front fog lamp switch ON with 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.

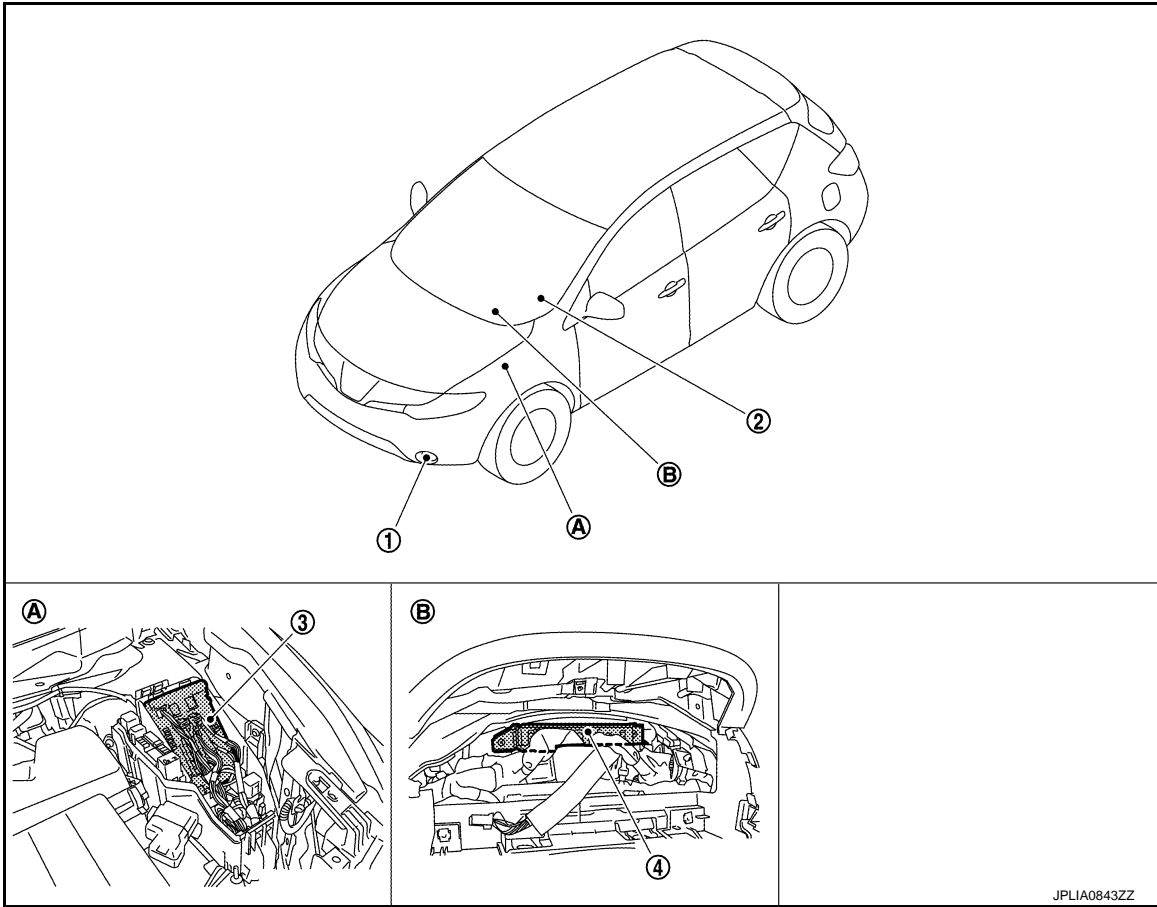
FRONT FOG LAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

INFOID:000000009722878



1. Front fog lamp

2. Combination switch

3. IPDM E/R

4. BCM

A. Engine room (LH)

B. Behind the combination meter

Component Description

INFOID:000000009722879

EXL

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).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Description" .

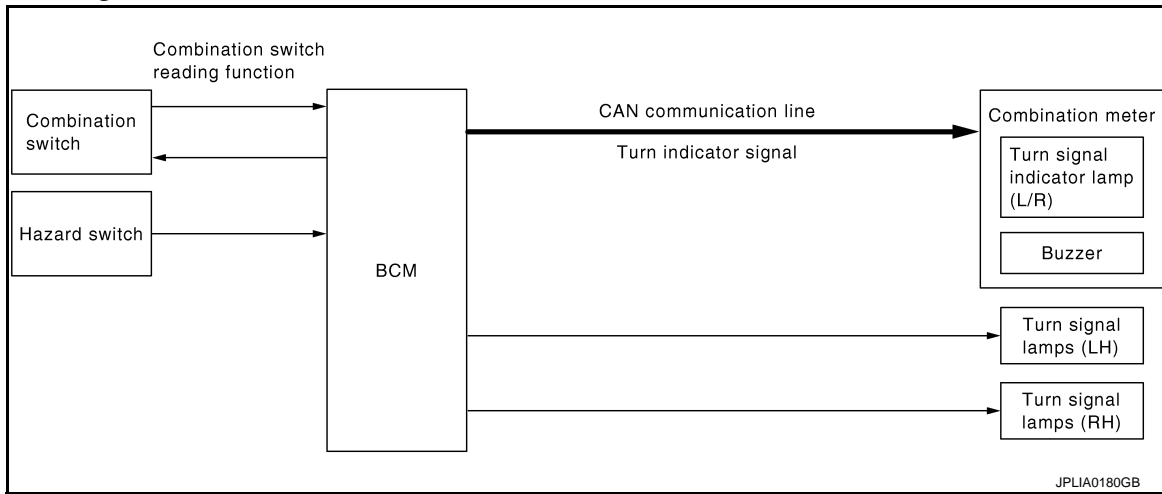
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

System Diagram



System Description

INFOID:000000009722881

OUTLINE

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

HIGH FLASHER OPERATION

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

NOTE:

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

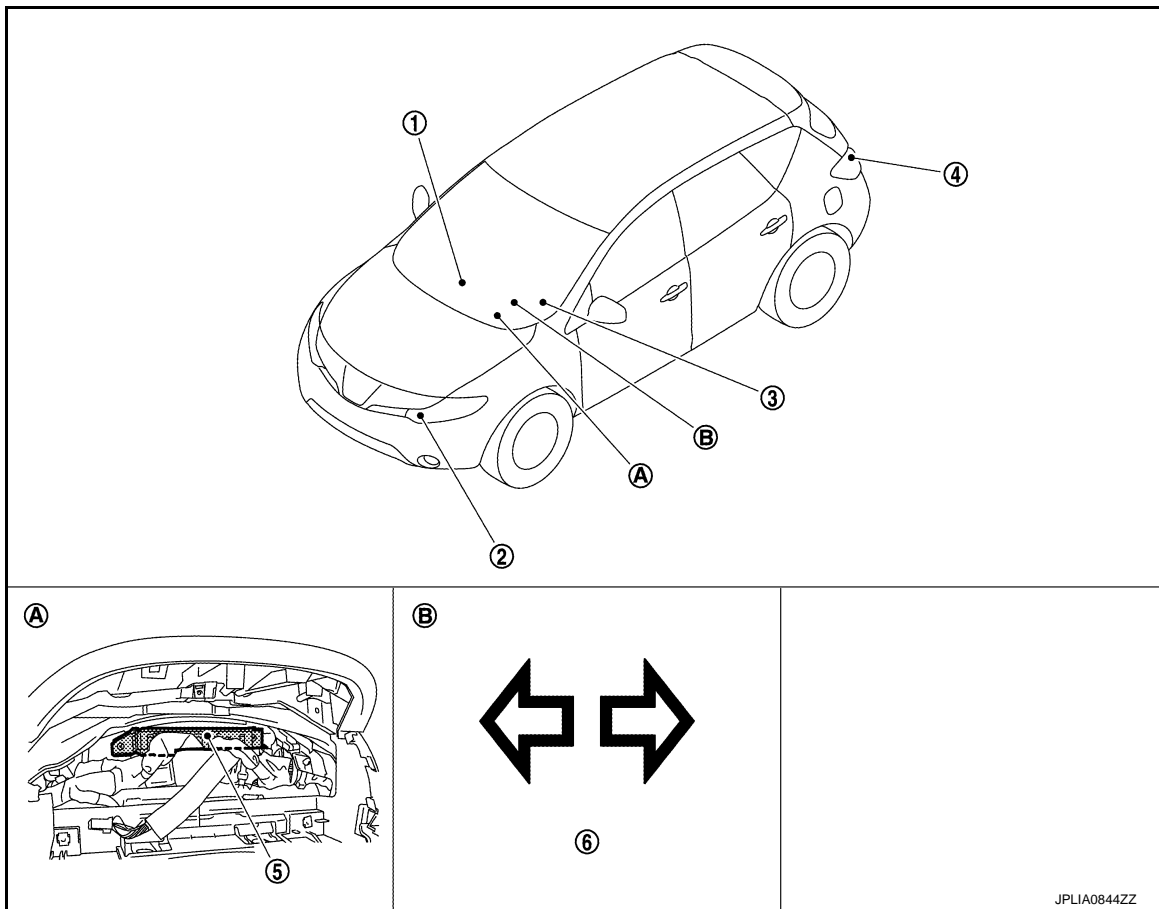
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

INFOID:000000009722882



- | | | |
|---------------------------------|-----------------------------|-------------------------------|
| 1. Hazard switch | 2. Front turn signal lamp | 3. Combination switch |
| 4. Rear turn signal lamp | 5. BCM | 6. Turn signal indicator lamp |
| A. Behind the combination meter | B. On the combination meter | |

Component Description

INFOID:000000009722883

EXL

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. - Requests the turn signal indicator lamp blink to the combination meter (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Description" .
Hazard switch	Inputs the hazard switch ON/OFF signal to BCM.
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).

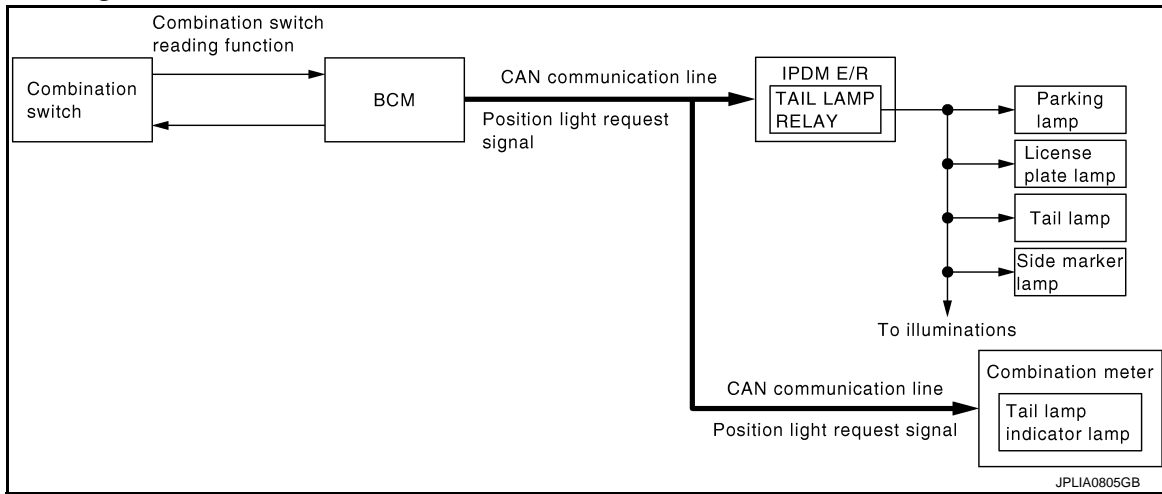
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

System Diagram



System Description

INFOID:000000009722885

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 and the combination meter 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
- 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.

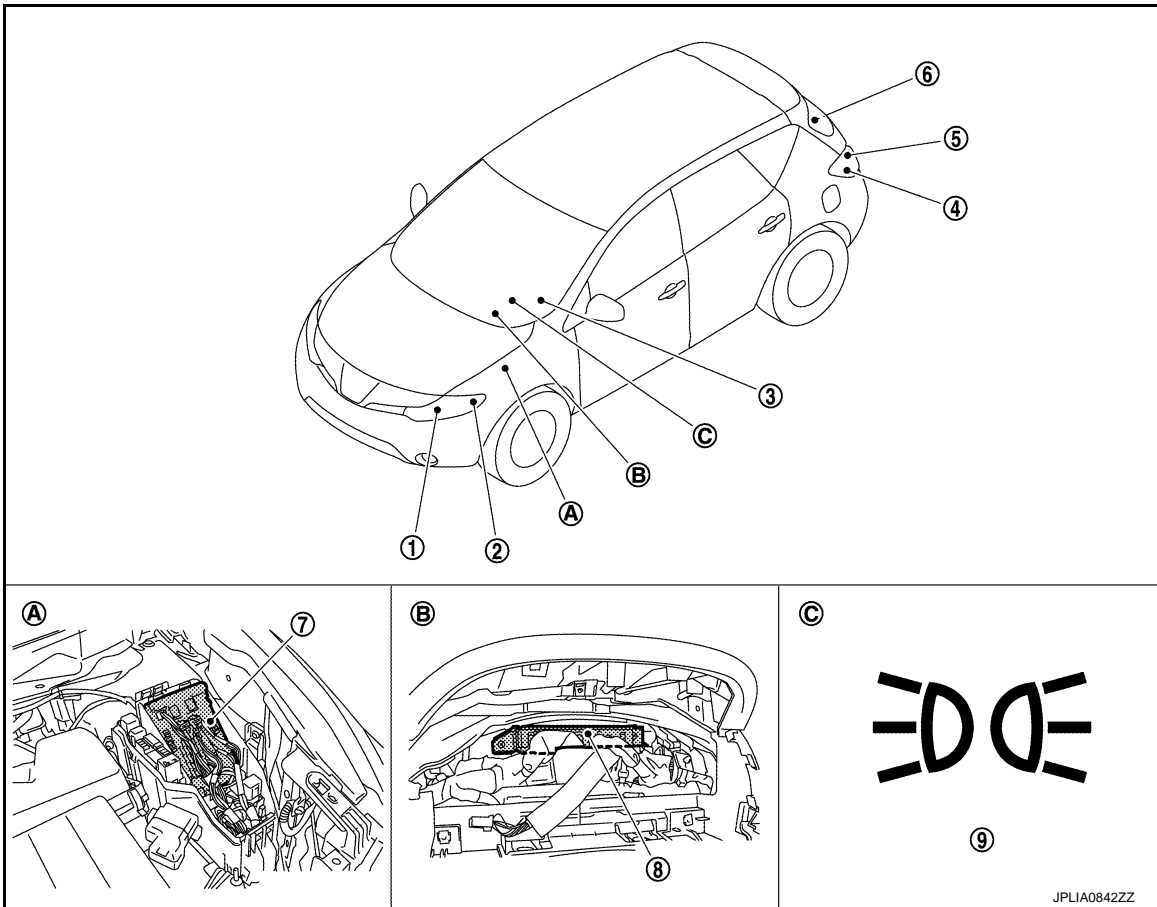
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

INFOID:000000009722886



- | | | |
|--------------------------|---------------------------------|-----------------------------|
| 1. Parking lamp | 2. Front side marker lamp | 3. Combination switch |
| 4. Rear side marker lamp | 5. Tail lamp | 6. License plate lamp |
| 7. IPDM E/R | 8. BCM | 9. Tail lamp indicator lamp |
| A. Engine room (LH) | B. Behind the combination meter | C. On the combination meter |

Component Description

INFOID:000000009722887

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 and tail lamps according to the vehicle condition. - Requests the tail lamp relay ON to IPDM E/R (with CAN communication). - Requests the tail lamp indicator lamp ON to the combination meter (with CAN communication).
IPDM E/R	Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Description" .
Combination meter (Tail lamp indicator lamp)	Turns the tail lamp indicator lamp ON according to the request from BCM (with CAN communication).

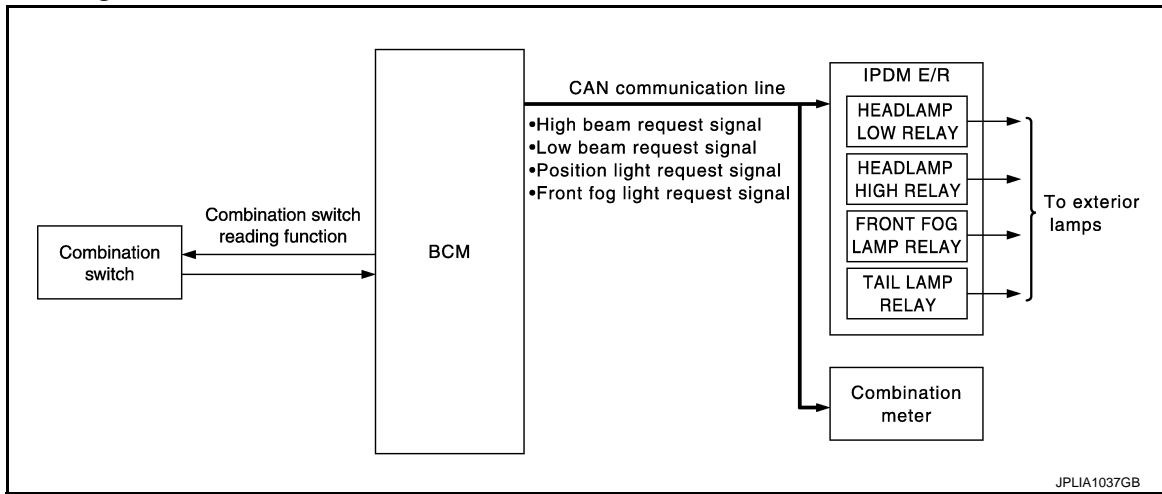
EXTERIOR LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

EXTERIOR LAMP BATTERY SAVER SYSTEM

System Diagram



System Description

INFOID:000000009722889

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, side marker lamp, tail lamp, license plate lamp and front fog lamp.

EXTERIOR LAMP BATTERY SAVER ACTIVATION

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

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.

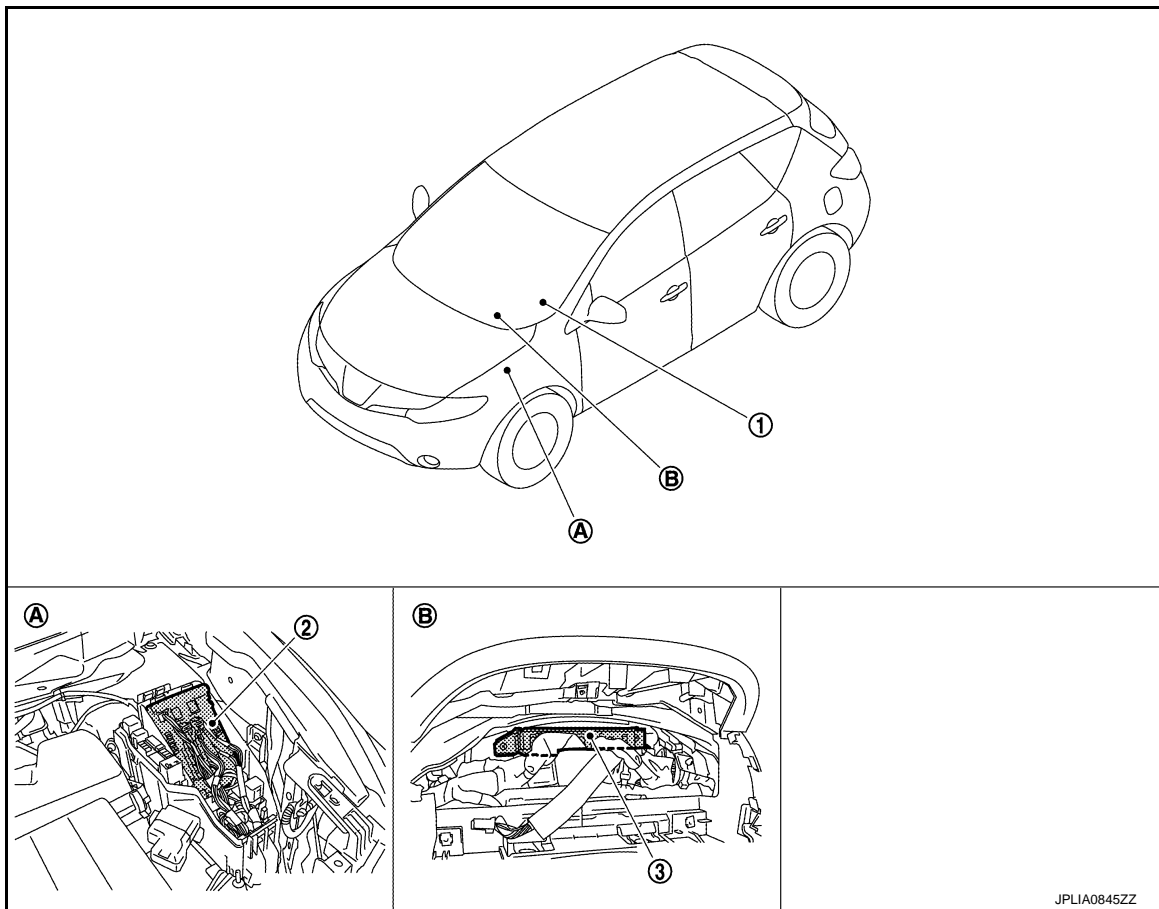
EXTERIOR LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

INFOID:000000009722890



1. Combination switch

2. IPDM E/R

3. BCM

A. Engine room (LH)

B. Behind the combination meter

Component Description

INFOID:000000009722891

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Activates the battery saver to turn the exterior lamps OFF according to the vehicle condition. - Requests each relay OFF to IPDM E/R (with CAN communication).
IPDM E/R	Controls the integrated relay according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10. "System Description" .

EXL

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DIAGNOSIS SYSTEM (BCM)

[XENON TYPE]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000010092627

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	×*1	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*2			
<ul style="list-style-type: none"> Intelligent Key system Engine start system 	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door opener system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE:

- *1: For models with rain sensor this mode is displayed, but is not used.
- *2: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)

DIAGNOSIS SYSTEM (BCM)

[XENON TYPE]

< SYSTEM DESCRIPTION >

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

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	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	<p>The number of times that ignition switch is turned ON after DTC is detected</p> <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:000000009722893

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[XENON TYPE]

Service item	Setting item	Setting	
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.	
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.)	

*: 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 combination meter 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 detects 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)

< SYSTEM DESCRIPTION >

[XENON TYPE]

Monitor item [Unit]	Description
RR FOG SW [On/Off]	NOTE: The item is indicated, but not monitored.
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	
DAYTIME RUNNING LIGHT	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:000000009722894

WORK SUPPORT

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

DIAGNOSIS SYSTEM (BCM)

[XENON TYPE]

< SYSTEM DESCRIPTION >

*: Factory setting

DATA MONITOR

NOTE:

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

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	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 status that BCM detects 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	RH	Outputs the voltage to blink the right side turn signal lamps.
	LH	Outputs the voltage to blink the left side turn signal lamps.
	Off	Stops the voltage to turn the turn signal lamps OFF.

DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

INFOID:000000010092775

AUTO ACTIVE TEST

Description

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

- Oil pressure warning lamp
- Front wiper (LO, HI)
- Parking lamps
- License plate lamps
- Side maker lamps
- Tail lamps
- Front fog lamps
- Headlamps (LO, HI)
- A/C compressor (magnet clutch)
- Cooling fan

Operation Procedure

1. Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation)
NOTE:
 When auto active test is performed with hood opened, sprinkle water on windshield beforehand.
2. Turn the ignition switch OFF.
3. Turn the ignition switch ON, and within 20 seconds, press the front door switch (driver side) 10 times. Then turn the ignition switch OFF.
CAUTION:
Close passenger door.
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 the ignition switch OFF.

CAUTION:

- **If auto active test mode cannot be actuated, check door switch system. Refer to [DLK-97, "WITH AUTOMATIC BACK DOOR : Component Function Check"](#).**
- **Do not start the engine.**

Inspection in Auto Active Test Mode

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

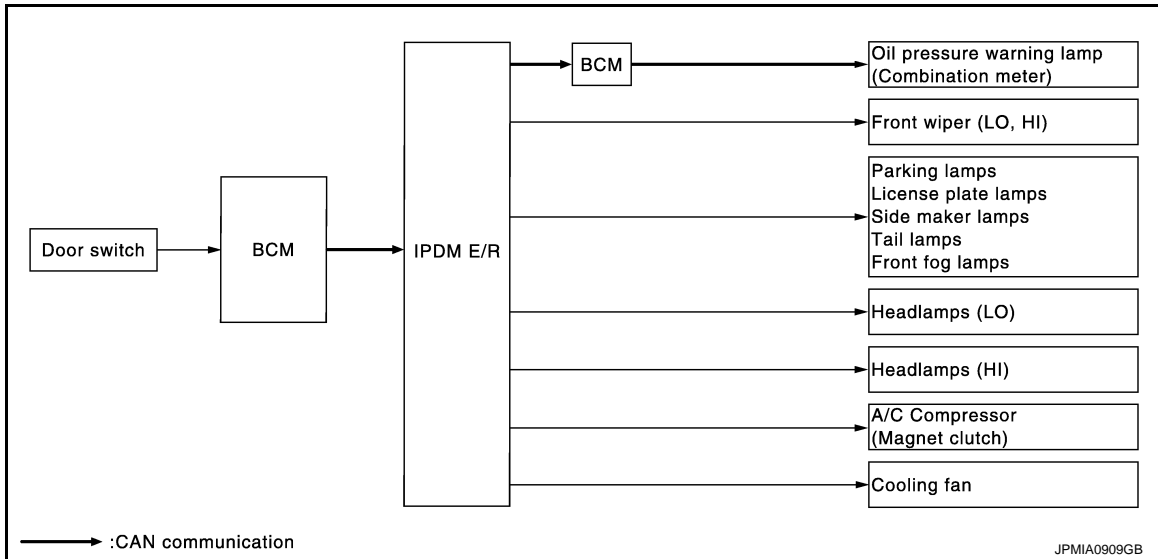
Operation sequence	Inspection location	Operation
1	Oil pressure warning lamp	Blinks continuously during operation of auto active test
2	Front wiper	LO for 5 seconds → HI for 5 seconds
3	<ul style="list-style-type: none"> • Parking lamps • License plate lamps • Side maker lamps • Tail lamps • Front fog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

DIAGNOSIS SYSTEM (IPDM E/R)

[XENON TYPE]

< SYSTEM DESCRIPTION >

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 maker lamps • Tail lamps • Front fog lamps • Headlamp (HI, LO) • Front wiper (HI, LO) 	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"> • A/C amp. signal input circuit • CAN communication signal between 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 combination meter • Combination meter

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[XENON TYPE]

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"> Harness or connector between IPDM E/R and cooling fan motor Harness or connector between IPDM E/R and cooling fan relay Cooling fan motor Cooling fan relay IPDM E/R

CONSULT Function (IPDM E/R)

INFOID:000000010092776

APPLICATION ITEM

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

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

SELF DIAGNOSTIC RESULT

Refer to [PCS-34, "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
MOTOR FAN REQ [1/2/3/4]	×	Displays the value of the cooling fan speed request signal received from ECM via CAN communication.
AC COMP REQ [Off/On]	×	Displays the status of the A/C compressor request signal received from ECM via CAN communication.
TAIL&CLR REQ [Off/On]	×	Displays the status of the position light request signal received from BCM via CAN communication.
HL LO REQ [Off/On]	×	Displays the status of the low beam request signal received from BCM via CAN communication.
HL HI REQ [Off/On]	×	Displays the status of the high beam request signal received from BCM via CAN communication.
FR FOG REQ [Off/On]	×	Displays the status of the front fog light request signal received from BCM via CAN communication.
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Displays the status of the front wiper request signal received from BCM via CAN communication.
WIP AUTO STOP [STOP P/ACT P]	×	Displays the status of the front wiper auto stop signal judged by IPDM E/R.
WIP PROT [Off/BLOCK]	×	Displays the status of the front wiper fail-safe operation judged by IPDM E/R.
IGN RLY1 -REQ [Off/On]		Displays the status of the ignition switch ON signal received from BCM via CAN communication.

DIAGNOSIS SYSTEM (IPDM E/R)

[XENON TYPE]

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	MAIN SIG- NALS	Description
IGN RLY [Off/On]	×	Displays the status of the ignition relay judged by IPDM E/R.
PUSH SW [Off/On]		Displays the status of the push-button ignition switch judged by IPDM E/R.
INTER/NP SW [Off/On]		Displays the status of the shift position judged by IPDM E/R.
ST RLY CONT [Off/On]		Displays the status of the starter relay status signal received from BCM via CAN communication.
IHBT RLY -REQ [Off/On]		Displays the status of the starter control relay signal received from BCM via CAN communication.
ST/INHI RLY [Off/ ST ON/INHI ON/UNKWN]		Displays the status of the starter relay and starter control relay judged by IPDM E/R.
DETENT SW [Off/On]		Displays the status of the CVT 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/On]		NOTE: The item is indicated, but not monitored.
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.
HOOD SW [Off/On]		NOTE: The item is indicated, but not monitored.
HL WASHER REQ [Off/On]		NOTE: The item is indicated, but not monitored.
THFT HRN REQ [Off/On]		Displays the status of the theft warning horn request signal received from BCM via CAN communication.
HORN CHIRP [Off/On]		Displays the status of the horn reminder signal received from BCM via CAN communication.
CRNRNG LMP REQ [Off/On]		NOTE: The item is indicated, but not monitored.

ACTIVE TEST

Test item	Operation	Description
CORNERING LAMP	Off	NOTE: The item is indicated, but cannot be tested.
	LH	
	RH	
HORN	On	Operates horn relay for 20 ms.
FRONT WIPER	Off	OFF
	Lo	Operates the front wiper relay.
	Hi	Operates the front wiper relay and front wiper high relay.
MOTOR FAN	1	OFF
	2	Operates the cooling fan relay-1.
	3	Operates the cooling fan relay-2.
	4	Operates the cooling fan relay-2 and cooling fan relay-3.
HEAD LAMP WASHER	On	NOTE: The item is indicated, but cannot be tested.

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[XENON TYPE]

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

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EXL

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000010092633

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:000000010092778

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	E
	50
	51

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

Terminals		Voltage (Approx.)
(+)	(-)	
IPDM E/R		Battery voltage
Connector	Terminal	
E9	1	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair the harness or connector.

3.CHECK GROUND CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E10	12		Existed
E11	41		

Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

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HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

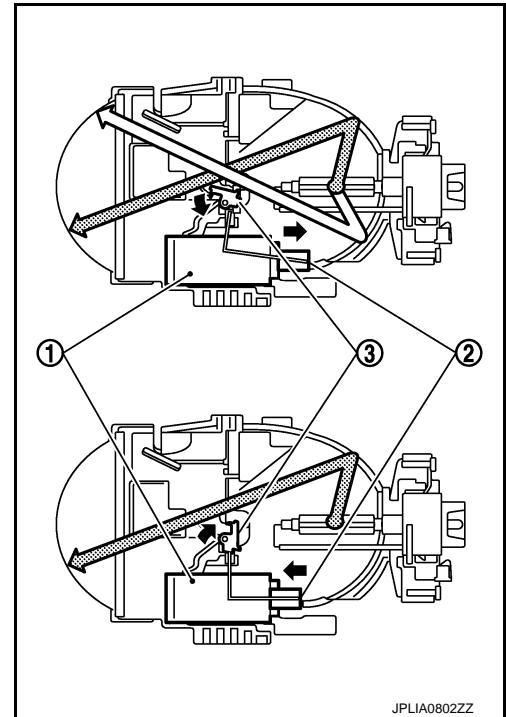
HEADLAMP (HI) CIRCUIT

Description

INFOID:000000009722901

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 (3) is switched to the high beam position through the actuator rod (2).
- 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:000000009722902

1. CHECK HEADLAMP (HI) OPERATION

⊗ IPDM E/R AUTO ACTIVE TEST

1. Start 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.

Does the headlamp switch to the high beam?

- YES >> Headlamp (HI) circuit is normal.
NO >> Refer to [EXL-36, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009722903

1. CHECK HEADLAMP (HI) OUTPUT VOLTAGE

Ⓟ CONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the high beam solenoid 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

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

Terminals			Test item	Voltage (Approx.)		
(+)	(-)					
IPDM E/R			EXTERNAL LAMPS			
Connector	Terminal					
RH	E345	89			Hi	Battery voltage
LH		90			Off	0 V
			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

- Turn the ignition switch OFF.
- Disconnect IPDM E/R connector.
- Check continuity between the IPDM E/R harness connector and the high beam solenoid harness connector.

IPDM E/R		High beam solenoid		Continuity
Connector	Terminal	Connector	Terminal	
RH	E345	89	E326	Existed
LH		90	E325	

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

3. CHECK HEADLAMP (HI) FUSE

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

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

Is the fuse fusing?

YES >> GO TO 4.

NO >> Replace IPDM E/R.

4. CHECK HEADLAMP (HI) SHORT CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E345		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.)

HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

5. CHECK HEADLAMP (HI) GROUND OPEN CIRCUIT

Check continuity between the high beam solenoid harness connector and the ground.

High beam solenoid		Ground	Continuity
Connector	Terminal		
RH	E326	2	Existed
LH	E325	2	

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP (LO) CIRCUIT

Description

INFOID:000000009722904

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-41, "Description"](#).

Component Function Check

INFOID:000000009722905

1. CHECK HEADLAMP (LO) OPERATION

IPDM E/R AUTO ACTIVE TEST

1. Start 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 (LO) is turned ON.

Lo : Headlamp (LO) ON

Off : Headlamp (LO) OFF

Is the headlamp (LO) turned ON?

YES >> Headlamp (LO) is normal.

NO >> Refer to [EXL-39, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009722906

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			EXTERNAL LAMPS	Battery voltage		
Connector	Terminal					
RH	E345	83			Lo	Battery voltage
		84			Off	0 V
LH	E345		84	Lo	Battery voltage	
		Off	0 V			

Is the measurement value normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK HEADLAMP (LO) OPEN CIRCUIT

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

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

IPDM E/R		Headlamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E345	E324	83	Existed
LH			E323	

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	E345	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	E324	2	Existed
LH	E323		

Does continuity exist?

YES >> Perform the xenon headlamp diagnosis. Refer to [EXL-41, "Description"](#).

NO >> Repair the harnesses or connectors.

XENON HEADLAMP

Description

INFOID:000000009722907

OUTLINE

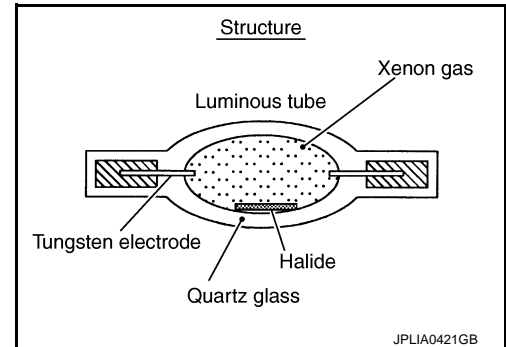
- The lamp light source is by the arch discharge by applying high voltage into the xenon gas-filled bulb instead of the halogen bulb filament.
- Sight becomes more natural and brighter because the amount of light are gained adequately and the color of light is sunshine-like white.
- The xenon bulb drops 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 lighting switch.**
- **Never work with wet hands.**

CAUTION:

- **Never perform HID control unit circuit diagnosis with a circuit tester or an equivalent.**
- **Temporarily install the headlamps 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:000000009722908

1. CHECK XENON BULB

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

Is the headlamp turned ON?

XENON HEADLAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

YES >> Replace HID control unit.

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

FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP CIRCUIT

Component Function Check

INFOID:000000009722909

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-43, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009722910

1. CHECK FRONT FOG LAMP FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuse is not fusing.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#58	15 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 connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E345	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

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

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	E345	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	E345	86	E402	1	Existed
LH		87	E331	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	E402	2	Ground	Existed
LH	E331	2		

Does continuity exist?

YES >> Replace the front fog lamp.

NO >> Repair the harnesses or connectors.

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

PARKING LAMP CIRCUIT

Component Function Check

INFOID:000000009722911

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-45, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009722912

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 parking lamp connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E346	91	Not existed
LH		92	

Does continuity exist?

- YES >> Repair the harnesses or connectors. And then replace the fuse.
NO >> Replace the fuse. (Replace IPDM E/R if fusing is found again.)

3. CHECK PARKING LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 4.
NO >> Replace the bulb.

4. CHECK PARKING LAMP OUTPUT VOLTAGE

CONSULT ACTIVE TEST

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

PARKING LAMP CIRCUIT

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

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	E346	91	TAIL	0 V
LH		92	TAIL	0 V
			Off	Battery voltage
			Off	0 V

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK PARKING LAMP OPEN CIRCUIT

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

IPDM E/R			Parking lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E346	91	E330	2	Existed
LH		92	E329	2	

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6. CHECK PARKING LAMP GROUND OPEN CIRCUIT

Check continuity between the parking lamp harness connector and the ground.

Parking lamp			Ground	Continuity
Connector	Terminal			
RH	E330	1	Ground	Existed
LH	E329	1		

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

FRONT SIDE MARKER LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT SIDE MARKER LAMP CIRCUIT

Component Function Check

INFOID:000000009722913

NOTE:

Check the parking lamp circuit if the parking lamp and the front side marker lamp are not turned ON. Refer to [EXL-45, "Component Function Check"](#).

1. CHECK FRONT SIDE MARKER 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 side marker 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 side marker lamp is turned ON.

TAIL : Front side marker lamp ON
Off : Front side marker lamp OFF

Is the front side marker lamp turned ON?

- YES >> Front side marker lamp circuit is normal.
NO >> Refer to [EXL-47, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009722914

1. CHECK FRONT SIDE MARKER LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Front side marker lamp	IPDM E/R	#52	10 A

Is the fuse fusing?

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

2. CHECK FRONT SIDE MARKER LAMP SHORT CIRCUIT

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

IPDM E/R			Ground	Continuity
Connector	Terminal			
RH	E346	91	Not existed	
LH		92		

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 FRONT SIDE MARKER LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 4.
NO >> Replace the bulb.

4. CHECK FRONT SIDE MARKER LAMP OUTPUT VOLTAGE

CONSULT ACTIVE TEST

1. Disconnect the front side marker lamp connector.

FRONT SIDE MARKER LAMP CIRCUIT

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

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			
RH	E346	91	TAIL	Battery voltage
LH		92	Off	0 V
			TAIL	Battery voltage

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK FRONT SIDE MARKER 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 side marker lamp harness connector.

IPDM E/R		Front side marker lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E346	E315	2	Existed
LH		E314	2	

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6. CHECK FRONT SIDE MARKER LAMP GROUND OPEN CIRCUIT

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

Front side marker lamp			Ground	Continuity
Connector	Terminal			
RH	E315	1	Ground	Existed
LH	E314	1		

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:000000009722915

BCM performs the high flasher operation if any bulb or harness of the turn signal lamp circuit is open.

NOTE:

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

Component Function Check

INFOID:000000009722916

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 is turned ON.

LH : Turn signal lamps (LH) ON

RH : Turn signal lamps (RH) ON

Off : Turn signal lamps OFF

Is the turn signal lamp turned ON?

YES >> Turn signal lamp circuit is normal.

NO >> Refer to [EXL-49, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009722917

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

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

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EXL

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Terminals			Condition	Voltage (Approx.)	
(+)	(-)				
BCM			Turn signal switch		
Connector	Terminal				
RH	M119	17	Ground	RH	
				OFF	0 V
LH	M119	18	Ground	LH	
				OFF	0 V

Is the measurement value normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-98, "Exploded View"](#).

3. CHECK TURN SIGNAL LAMP OPEN CIRCUIT

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

Front turn signal lamp

BCM		Front turn signal lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M119	17	E328	Existed
LH		18	E327	

Rear turn signal lamp

BCM		Rear combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M119	17	B59	Existed
LH		18	B80	

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.

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

A

B

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 5.

C

5. CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

Check continuity between the front turn signal lamp or the rear combination lamp and the ground.

D

Front turn signal lamp

Front turn signal lamp			Ground	Continuity
Connector		Terminal		Existed
RH	E328	2		
LH	E327			

E

F

Rear turn signal lamp

Rear combination lamp			Ground	Continuity
Connector		Terminal		Existed
RH	B59	1		
LH	B80			

G

H

Does continuity exist?

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

NO >> Repair the harnesses or connectors.

I

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OPTICAL SENSOR

Description

INFOID:000000009722918

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

Component Function Check

INFOID:000000009722919

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
		When shutting off light
		3.1 V or more *
		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-52, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009722920

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			
(+)	(-)		
Optical sensor		Ground	Voltage (Approx.)
Connector	Terminal		
M17	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			
(+)	(-)		
Optical sensor		Ground	Voltage (Approx.)
Connector	Terminal		
M17	3		
			0 V

Is the measurement value normal?

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

OPTICAL SENSOR

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

3. CHECK OPTICAL SENSOR SIGNAL OUTPUT

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

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
Optical sensor		Optical sensor	
Connector	Terminal		
M17	2	Ground	
		When illuminating	3.1 V or more *
		When shutting off light	0.6 V or less

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

Is the measurement value normal?

YES >> GO TO 7.

NO >> Replace the optical sensor.

4. CHECK OPTICAL SENSOR 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	
M17	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		
M17	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	
M17	3	M123	137	Existed

Does continuity exist?

YES >> Replace BCM.

NO >> Repair the harnesses or connectors.

7. CHECK OPTICAL SENSOR SIGNAL OPEN CIRCUIT

OPTICAL SENSOR

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

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	
M17	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		
M17	2		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HAZARD SWITCH

Component Function Check

INFOID:000000009722921

1.CHECK HAZARD SWITCH SIGNAL BY CONSULT

CONSULT DATA MONITOR

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

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

Is the item status normal?

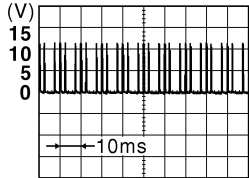
- YES >> Hazard switch circuit is normal.
 NO >> Refer to [EXL-55, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009722922

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	0 V
Connector	Terminal		
M122	110	ON	
		OFF	
		Ground	

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Is the measurement value normal?

- YES >> Replace BCM. Refer to [BCS-98, "Exploded View"](#).
 NO >> GO TO 2.

2.CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

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

Hazard switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M45	2	M122	110	Existed

Does continuity exist?

- YES >> GO TO 3.
 NO >> Repair the harnesses or connectors.

3.CHECK HAZARD SWITCH SIGNAL SHORT CIRCUIT

Check continuity between the hazard switch harness connector and the ground.

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	2		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 hazard switch harness connector and the ground.

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	1		Existed

Does continuity exist?

YES >> Replace the hazard switch.

NO >> Repair the harnesses or connectors.

TAIL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TAIL LAMP CIRCUIT

Component Function Check

INFOID:000000009722923

NOTE:

Check the license plate lamp circuit if the tail lamp and the license plate lamp are not turned ON. Refer to [EXL-59, "Component Function Check"](#).

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-57, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009722924

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
Tail 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		
E10	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.

TAIL LAMP CIRCUIT

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

2. Disconnect IPDM E/R connector.
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	E10	7	B59	4	Existed
LH			B80		

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	B59	1		Existed
LH	B80	1		

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:000000009722925

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-59, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009722926

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	E10	7	D163	1	Existed
LH			D162		

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	D163	2		Existed
LH	D162	2		

Does continuity exist?

YES >> Replace the license plate lamp.

NO >> Repair the harnesses or connectors.

HEADLAMP SYSTEM

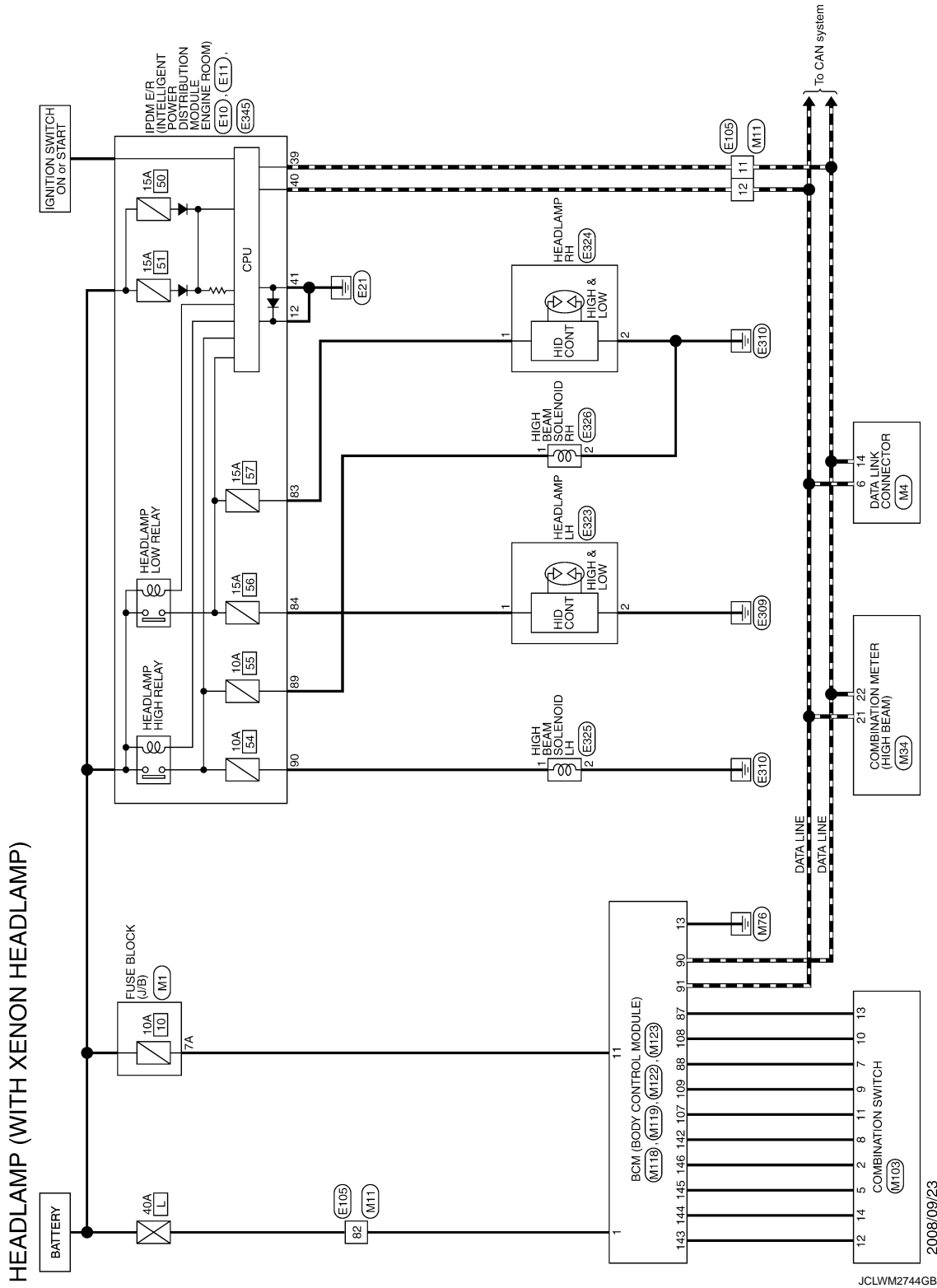
[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

HEADLAMP SYSTEM

Wiring Diagram - HEADLAMP -

INFOID:000000009722927



HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP(WITH XENON HEADLAMP)

Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Type	WIRE TO WIRE



Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	-
5	Y	-
7	GR	-
8	B	-
10	BR	-
12	B	-
13	SB	-
15	W	-
16	R	-
19	Y	-
20	L	-
21	O	-
22	SB	-
23	GR	-
24	G	-
25	GR	-
26	W	-
28	SB	-
30	BR	-
34	O	-
35	P	-
36	G	-
38	GR	-

Connector No.	E11
Connector Name	WIRE TO WIRE
Connector Type	WIRE TO WIRE



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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	WIRE TO WIRE



Terminal No.	Color Of Wire	Signal Name [Specification]
3	Y	-
5	LG	-
6	GR	-
8	G	-
11	P	-
12	L	-
14	O	-
15	BR	-
20	Y	-
21	BR	-

Terminal No.	Color Of Wire	Signal Name [Specification]
22	P	-
24	O	-
26	SB	-
28	W	-
30	Y	-
38	R	-
39	L	-
40	B	-
47	P	-
48	L	-
49	SB	-
50	GR	-
51	LG	-
52	SB	-
54	BR	-
55	Y	-
56	W/L	-
60	V	-
61	BR	-
62	O	-
63	L/O	-
64	SHIELD	-
65	W	-
67	BR	-
68	Y	-
69	SB	-
70	GR	-
72	SB	-
73	L	-
74	W	-
75	BR	-
76	GR	-
77	O	-
78	G	- [With iPod without navigation system]
79	V	- [Without iPod and navigation system]
79	Y	- [With navigation system]
80	R	-
81	W	-
82	LG	-
83	O	-

Connector No.	E323
Connector Name	HEADLAMP LH
Connector Type	HEADLAMP



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

Connector No.	E324
Connector Name	HEADLAMP RH
Connector Type	HEADLAMP



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

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A
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M
N
O
P

EXL

HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP(WITH XENON HEADLAMP)

Connector No.	E325
Connector Name	HIGH BEAM SOLENOID LH
Connector Type	RS20FE



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

Connector No.	E326
Connector Name	HIGH BEAM SOLENOID RH
Connector Type	RS20FE



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

Connector No.	E345
Connector Name	INTELLIGENT POWER DISTRIBUTION MOBILE ENGINE (P/ONE)
Connector Type	NS38FW-GS



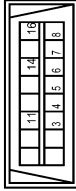
Terminal No.	Color Of Wire	Signal Name [Specification]
82	L	-
83	L	-
86	SB	-
87	GR	-
88	W	-
89	L	-
90	G	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS36FW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	Y	-
2A	G	-
3A	Y	-
4A	GR	-
7A	LG	-
8A	Y	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	GR	-
5	B	-
6	L	-
7	BR	-
8	G	-
11	SB	-
14	P	-
15	Y	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH38FW-SS10-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
3	P	-
5	BR	-
6	G	-
8	S	-
11	P	-
12	L	-
13	V	-
14	Y	-
15	R	-
20	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
20	Y	-
21	BR	-
22	LG	-
24	L	-
25	Y	-
28	BR	-
29	L	-
30	R	-
38	R	-
39	L	-
40	B	-
47	P	-
48	L	-
49	W	-
50	GR	-
51	LG	-
52	V	-
53	V	-
54	SB	-
55	P	-
56	LG	-
60	V	-
61	GR	-
62	BR	-
63	V	-
64	SHIELD	-
65	W	-
67	R	-
68	W	-
70	G	-
71	G	-
72	BR	-
73	L	-
74	W	-
75	BR	-
76	R	-
77	G	-
78	Y	-
79	G	-
80	R	-
81	W	-
82	W	-
83	BS	-

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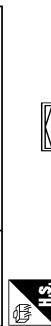
HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP(WITH XENON HEADLAMP)

Connector No.	M124
Connector Name	COMBINATION METER
Connector Type	TH16FW-NH



Terminal No.	Wire	Signal Name [Specification]
1	W	BATTERY POWER SUPPLY
2	LG	GROUND
3	B	GROUND
4	B	GROUND
5	SB	ILLUMINATION CONTROL SIGNAL
6	SB	TRIP RESET SIGNAL
7	W	SW ILL POWER
8	LG	METER CONTROL SWITCH GROUND
9	L	ENTER SWITCH SIGNAL
10	R	SELECT SWITCH SIGNAL
11	R	ENTER SWITCH SIGNAL
12	V	ILLUMINATION CONTROL SWITCH SIGNAL (C) (BATTERY CONTROL SWITCH SIGNAL (C) (BATTERY CONTROL SWITCH SIGNAL (C) (BATTERY CONTROL SWITCH SIGNAL (C))
13	GR	ILLUMINATION CONTROL SWITCH SIGNAL (C)
14	GR	ILLUMINATION CONTROL SWITCH SIGNAL (C)
15	BR	AIR BAG SIGNAL
16	L	AMBIENT SENSOR SIGNAL
17	P	AMBIENT SENSOR POWER
18	Y	AMBIENT SENSOR GROUND
19	Y	AMBIENT SENSOR GROUND
20	Y	AMBIENT SENSOR GROUND
21	Y	AMBIENT SENSOR GROUND
22	P	CAN-L
23	B	GROUND
24	W	FUEL LEVEL SENSOR GROUND
25	BR	ALTERNATOR SIGNAL
26	G	PARKING BRAKE SWITCH SIGNAL
27	V	BRAKE FLUID LEVEL SWITCH SIGNAL
28	R	WASHER LEVEL SWITCH SIGNAL
29	R	WASHER LEVEL SWITCH SIGNAL
30	P	VEHICLE SPEED SIGNAL (2-PULSE)
31	V	VEHICLE SPEED SIGNAL (2-PULSE)
32	LG	OVERDRIVE CONTROL SWITCH SIGNAL
33	LG	FUEL LEVEL SENSOR SIGNAL
34	G	SEAT BELT Buckle Switch Signal (Driver Side)
35	SB	SEAT BELT Buckle Switch Signal (Passenger Side)
36	R	SEAT BELT Buckle Switch Signal (Passenger Side)



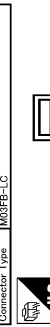
Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color	Wire	Signal Name [Specification]
1	G	P/W	INTERIOR ROOM LAMP POWER SUPPLY
2	W	P/W	INTERIOR ROOM LAMP POWER SUPPLY
3	W	P/W	INTERIOR ROOM LAMP POWER SUPPLY
4	W	P/W	INTERIOR ROOM LAMP POWER SUPPLY
5	V	W	ALL DOOR FUEL LID LOCK OUTPUT
6	B	W	REAR DOOR FUEL LID LOCK OUTPUT
7	GR	W	REAR DOOR UNLOCK OUTPUT
8	L	W	REAR DOOR UNLOCK OUTPUT
9	SB	W	REAR DOOR UNLOCK OUTPUT
10	P	W	REAR DOOR UNLOCK OUTPUT
11	LG	W	BAT (FUSE)
12	L	W	GROUND
13	B	W	GROUND
14	O	W	PUSH-BUTTON IGNITION SW ILL GND
15	L	W	ACC IND
16	G	W	TURN SIGNAL RH
17	G	W	TURN SIGNAL LH
18	BR	W	TURN SIGNAL LH
19	Y	W	INT ROOM LAMP CONT



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



Terminal No.	Color	Wire	Signal Name [Specification]
1	W	W	BAT (F/L)
2	GR	W	POWER WINDOW POWER SUPPLY (BAT)
3	L	W	POWER WINDOW POWER SUPPLY (IGN)

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



Terminal No.	Color	Wire	Signal Name [Specification]
4	P/W	W	INTERIOR ROOM LAMP POWER SUPPLY
5	W	W	INTERIOR ROOM LAMP POWER SUPPLY
6	W	W	INTERIOR ROOM LAMP POWER SUPPLY
7	W	W	INTERIOR ROOM LAMP POWER SUPPLY
8	V	W	ALL DOOR FUEL LID LOCK OUTPUT
9	G	W	DRIVER DOOR FUEL LID LOCK OUTPUT
10	P	W	REAR DOOR UNLOCK OUTPUT
11	LG	W	BAT (FUSE)
12	L	W	GROUND
13	B	W	GROUND
14	O	W	PUSH-BUTTON IGNITION SW ILL GND
15	L	W	ACC IND
16	G	W	TURN SIGNAL RH
17	G	W	TURN SIGNAL LH
18	BR	W	TURN SIGNAL LH
19	Y	W	INT ROOM LAMP CONT



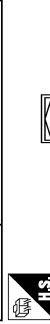
Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH46FB-NH



Terminal No.	Color	Wire	Signal Name [Specification]
7	W	W	ROOM ANT-
8	W	W	ROOM ANT+
9	Y	W	PASSENGER DOOR ANT-
10	Y	W	PASSENGER DOOR ANT+
11	V	W	DRIVER DOOR ANT-
12	P	W	DRIVER DOOR ANT+
13	SB	W	NATS ANT AMP

Terminal No.	Color	Wire	Signal Name [Specification]
81	O	W	NATS ANT AMP
82	BR	W	IGN
83	R	W	KEYLESS ENTRY RECEIVER COMM
84	R	W	KEYLESS ENTRY RECEIVER COMM
85	GR	W	COMBI SW INHBIT 5
86	GR	W	COMBI SW INHBIT 3
87	GR	W	COMBI SW INHBIT 3
88	GR	W	COMBI SW INHBIT 3
89	P	W	CAN-L
90	P	W	CAN-H
91	L	W	CAN-H
92	R	W	KEY SLOT ILL CONT
93	P	W	ON IND
94	L	W	ACC RELAY CONT
95	L	W	SHIFT P
96	Y	W	CVT SHIFT SELECTOR POWER SUPPLY
97	Y	W	SHIFT P
98	V	W	PASSENGER DOOR REQUEST SW
99	P	W	DRIVER DOOR REQUEST SW
100	P	W	DRIVER DOOR REQUEST SW
101	W	W	BLOWER RELAY CONT
102	Y	W	KEYLESS ENTRY RECEIVER COMM
103	Y	W	KEYLESS ENTRY RECEIVER COMM
104	D	W	COMBI SW INHBIT 1
105	D	W	COMBI SW INHBIT 1
106	P	W	COMBI SW INHBIT 4
107	P	W	COMBI SW INHBIT 4
108	SB	W	COMBI SW INHBIT 2
109	SB	W	COMBI SW INHBIT 2
110	G	W	HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH46FG-NH



Terminal No.	Color	Wire	Signal Name [Specification]
112	R	W	RAIN SENSOR SERIAL LINK
113	P/B	W	OPTICAL SENSOR
116	GR	W	STOP LAMP SW 1
118	L	W	STOP LAMP SW 2
119	W	W	DR DOOR UNLOCK SENSOR
121	Y	W	KEY SLOT SW
123	G	W	IGN F/B
124	GR	W	PASSENGER DOOR SW
125	GR	W	PASSENGER DOOR SW
126	GR	W	REAR DEFOGGER SW
127	GR	W	REAR DEFOGGER SW
132	G	W	POWER WINDOW SW COMM
133	W	W	PUSH-BUTTON IGNITION SW ILL POWER
134	R	W	LOCK IND
137	P	W	RECEIVER SENSOR GND
138	V	W	RECEIVER SENSOR POWER SUPPLY

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EXL

HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

HEADLAMP(WITH XENON HEADLAMP)

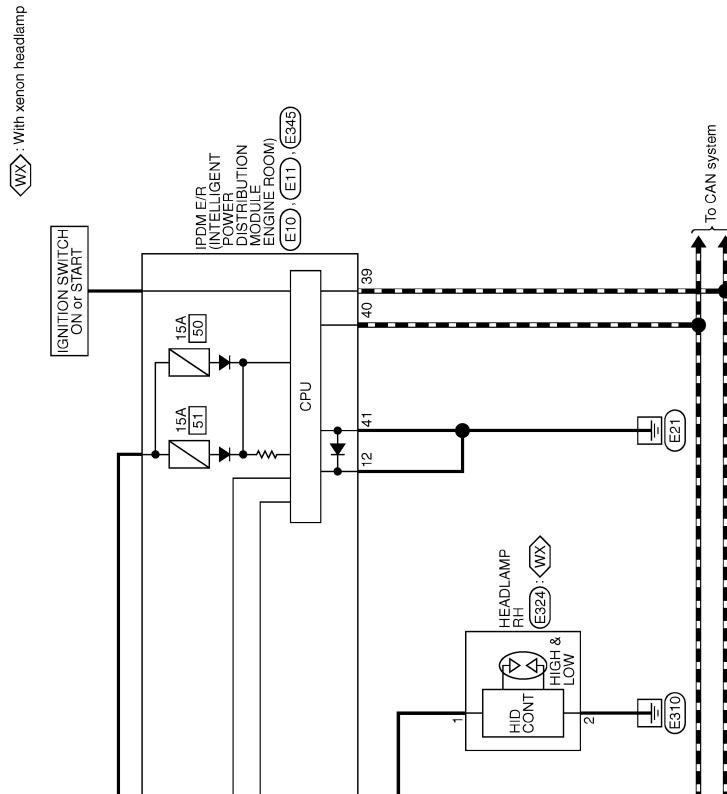
139	OR	TIRE PRESS. SENSOR COMM
140	GR	TRIP RESET
141	O	SECURITY IND. LAMP CONT
142	L	COMBI SW OUTPUT 5
143	W	COMBI SW OUTPUT 1
144	P	COMBI SW OUTPUT 2
145	V	COMBI SW OUTPUT 3
146	Y	COMBI SW OUTPUT 4
150	SB	DRIVER DOOR SW
151	G	REAR WINDOW DEFOGGER RELAY CONT

JRLWC9415GB

DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]



JCLWM2753GB

DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

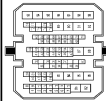
DAYTIME RUNNING LIGHT SYSTEM

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NIS/BMW-CS



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

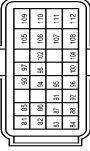
Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH/80MM-CS19



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	R/L	-

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

Connector No.	E16
Connector Name	ECM
Connector Type	RH24EP-R28-L-LH



Terminal No.	Color Of Wire	Signal Name [Specification]
81	W	ACCELERATOR PEDAL POSITION SENSOR 1
82	GR	ACCELERATOR PEDAL POSITION SENSOR 2
83	BR	SENSOR POWER SUPPLY
84	B	SENSOR GROUND
85	Y	ASC/D STEERING SWITCH
86	SB	EVAP CONTROL SYSTEM PRESSURE SENSOR
87	GR	SENSOR POWER SUPPLY
88	O	DATA LINK CONNECTOR
91	L	SENSOR POWER SUPPLY
92	BR	SENSOR GROUND
93	BR	IGNITION SWITCH
94	GR	ENGINE SPEED OUTPUT SIGNAL
95	Y	FUEL TANK TEMPERATURE SENSOR
96	GR	SENSOR GROUND
97	P	CAN COMMUNICATION LINE(CAN-L)
98	R	CAN COMMUNICATION LINE(CAN-H)
100	G	SENSOR GROUND
102	R	PMS SIGNAL
104	SB	SENSOR GROUND
105	V	POWER SUPPLY FOR ECM
106	SB	STOP LAMP SWITCH
107	B	ECM GROUND
108	B	ECM GROUND
109	W	EVAP CANISTER VENT CONTROL VALVE
110	G	ASC/D BRAKE SWITCH
111	B	ECM GROUND
112	B	ECM GROUND

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EXL

DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

DAYTIME RUNNING LIGHT SYSTEM

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	F01EB-A



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

Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS18BFW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	--
2	SB	--
3	L	--
4	R	--
5	L	--
6	P	--
7	L	--
8	B/W	--
9	SB	--
10	GR	--
11	R	--
12	B	--
13	W/L	--
14	V	--
15	Y	--
16	L	--

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH10MM-CS10-M3



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

67	BR	--
68	Y	--
69	SB	--
70	GR	--
71	SB	--
72	Y	--
73	L	--
74	W	--
75	BR	--
76	GR	--
77	O	--
78	G	-- [With iPod without navigation system]
79	V	-- [Without iPod and navigation system]
80	Y	-- [With navigation system]
81	R	--
82	W	--
83	LG	--
84	O	--

Connector No.	E320
Connector Name	HEADLAMP LOW LH
Connector Type	FHZ02FB



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

Connector No.	E321
Connector Name	HEADLAMP LOW RH
Connector Type	FHZ02FB



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

Connector No.	E323
Connector Name	HEADLAMP LH
Connector Type	E0ZFGV-RS



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

DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

DAYTIME RUNNING LIGHT SYSTEM

Connector No.	E324
Connector Name	HEADLAMP RH
Connector Type	E02EGY-RS



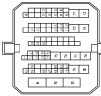
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	B	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD1BEW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	BR	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH0DFW-GS10-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
3	BR	-
4	GR	-
5	G	-
6	G	-
8	R	-
11	P	-
12	L	-
13	V	-
14	Y	-
15	R	-
20	W	- [Without colour display]
21	BR	- [With colour display]
22	LG	-
24	Y	-
25	BR	-
26	L	-
30	R	-
35	R	-
39	L	-
40	B	-
47	P	-
48	L	-
49	W	-
50	GR	-
51	LG	-
52	Y	-
53	Y	-
54	SB	-
55	LG	-
56	R	-
60	V	-
61	GR	-
82	BR	-
63	V	-

Terminal No.	Color Of Wire	Signal Name [Specification]
64	SHIELD	-
67	R	-
68	W	-
69	P	-
70	G	-
71	G	-
72	BR	-
73	L	-
74	W	-
75	BR	-
76	R	-
77	G	-
79	Y	-
81	W	-
82	W	-
83	RG	-

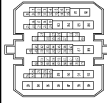
Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH0DFW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	BATTERY POWER SUPPLY
2	LG	IGN SIGNAL
3	B	GROUND
4	B	GROUND
5	SB	ILLUMINATION CONTROL SIGNAL
8	SB	TRIP RESET SIGNAL
9	W	SWILL POWER
10	LG	METER CONTROL SWITCH GROUND
11	P	TRIP RESET SIGNAL
12	B	SELECT SWITCH SIGNAL
13	V	ILLUMINATION CONTROL SWITCH SIGNAL (2-WIRE SYSTEM)
14	GR	ILLUMINATION CONTROL SWITCH SIGNAL (-)
15	BR	AIR BAG SIGNAL
18	L	AMBIENT SENSOR SIGNAL
19	P	AMBIENT SENSOR POWER

Terminal No.	Color Of Wire	Signal Name [Specification]
20	Y	AMBIENT SENSOR GROUND
21	L	AMBIENT SENSOR GROUND
22	P	AMBIENT SENSOR GROUND
23	B	GROUND
24	W	FUEL LEVEL SENSOR GROUND
25	BR	ALTERNATOR SIGNAL
26	G	PARKING BRAKE SWITCH SIGNAL
27	V	BRAKE FLUID LEVEL SWITCH SIGNAL
29	R	WASHER LEVEL SWITCH SIGNAL
30	P	VEHICLE SPEED SIGNAL (2-PULSE)
31	V	VEHICLE SPEED SIGNAL (8-PULSE)
32	LG	OVERDRIVE CONTROL SWITCH SIGNAL
34	G	FUEL LEVEL SENSOR SIGNAL
35	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
36	R	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH0DFW-CS19



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	W	-
4	R	-
6	W	-
7	G	-
8	SHIELD	-
9	W	-
10	R	-
11	G	-
12	B	-
13	P	-
14	P	-
15	SB	-
16	R	-
17	V	-
18	P	-
19	P	-
20	LG	-

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EXL

DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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DAYTIME RUNNING LIGHT SYSTEM

81	D	HATS ANT AMP
82	BR	IGN KEY FREQ CONT
82	R	KEYLESS ENTRY RECEIVER COMM
87	R	COMBI SW INPLT 5
88	GR	COMBI SW INPLT 3
90	P	CAN-L
91	L	CAN-H
92	R	KEY SLOT ILL CONT
93	P	ON IND
95	L	ACC RELAY CONT
96	Y	CVT SHIFT SELECTOR POWER SUPPLY
99	V	SHIFT P
100	P	PASSENGER DOOR REQUEST SW
101	W	DRIVER DOOR REQUEST SW
102	Y	BLOWER RELAY CONT
103	L	KEYLESS ENTRY RECEIVER POWER SUPPLY
103	L	COMBI SW INPLT 6
108	P	COMBI SW INPLT 4
108	SR	COMBI SW INPLT 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	R		RAIN SENSOR SERIAL LINK
113	P/B		OPTICAL SENSOR
116	GR		STOP LAMP SW 1
118	L		STOP LAMP SW 2
119	W		DR DOOR UNLOCK SENSOR
121	Y		KEY SLOT SW
123	G		IGN TP/S
124	BR		PASSENGER DOOR SW
130	B		REAR DEFOGGER SW
132	G		POWER WINDOW SW COMM
133	W		PUSH-BUTTON IGNITION SW ILL POWER
134	R		LOCK IND
137	P		RECEIVER SENSOR GND
138	V		RECEIVER SENSOR POWER SUPPLY

139	O	TRIP PRESS RECEIVER COMM
140	GR	SECURITY IND LAMP CONT
141	G	SECURITY IND LAMP CONT
142	L	COMBI SW OUTPUT 5
143	W	COMBI SW OUTPUT 1
144	P	COMBI SW OUTPUT 2
145	V	COMBI SW OUTPUT 3
146	Y	COMBI SW OUTPUT 4
150	SR	DRIVER DOOR SW
151	G	REAR WINDOW DEFOGGER RELAY CONT

EXL

AUTO LIGHT SYSTEM

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

AUTO LIGHT SYSTEM

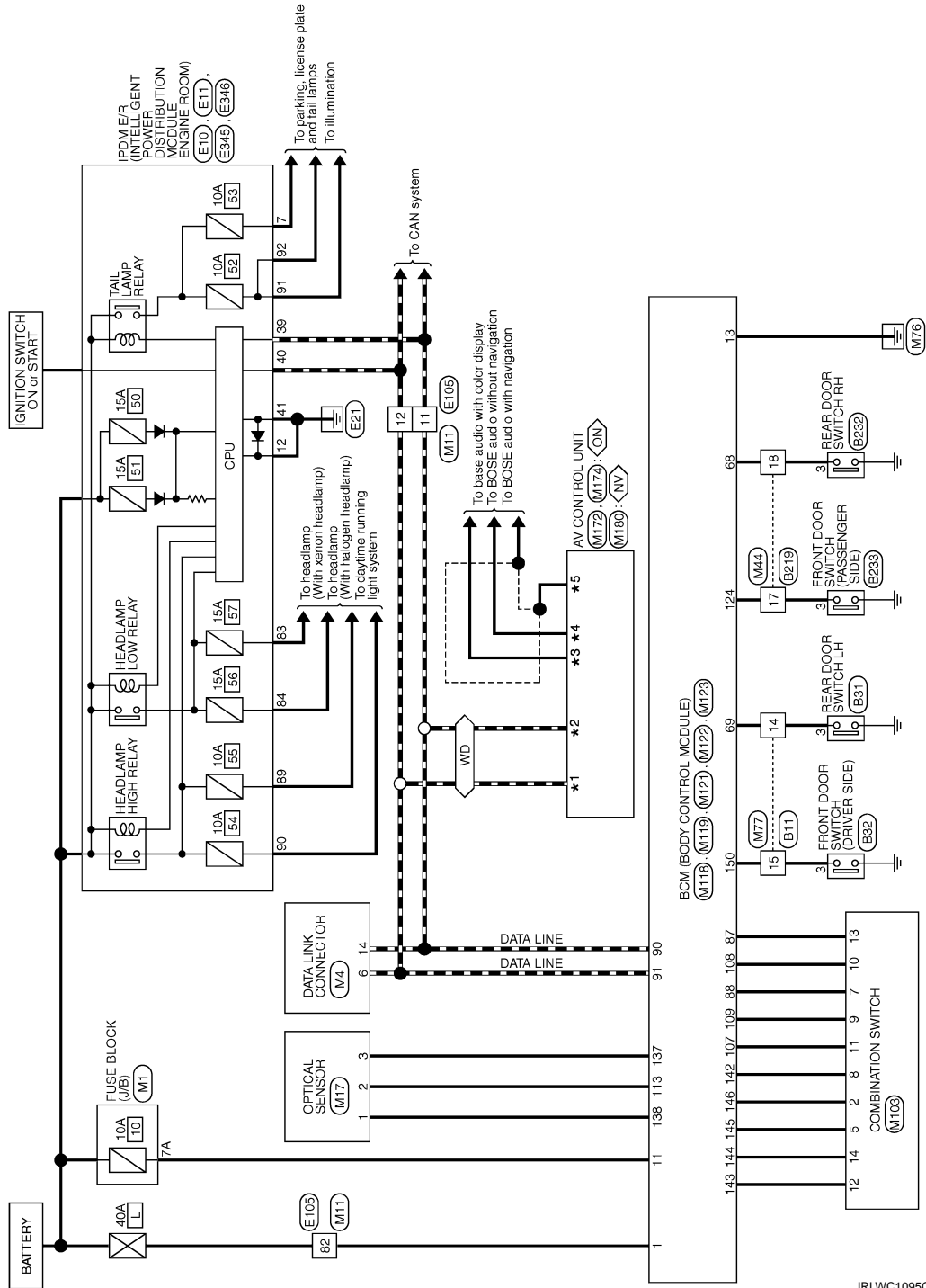
Wiring Diagram - AUTO LIGHT SYSTEM -

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- ★1 90: With navigation system
- 81: Without navigation system
- ★2 74: Without navigation system
- 80: Without navigation system
- ★3 89: With color display
- 39: Without navigation system
- ★4 73: Without navigation system
- 51: Without navigation system
- ★5 88: Without navigation system
- 52: Without navigation system

- With navigation system
- Without navigation system
- With color display

AUTO LIGHT SYSTEM



2011/07/28

JRLWC1095GB

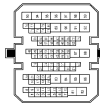
AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AUTO LIGHT SYSTEM

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH32MM-SS19



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

83	BR	
84	G	
85	G	
86	SB	
87	R	
88	G	
89	GR	
90	Y	
91	G	
92	BR	
93	G	
94	V	
95	BR	
96	GR	
97	R	
98	LG	
99	G	

Connector No.	B31
Connector Name	REAR DOOR SWITCH LH
Connector Type	TH42FW-NH



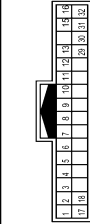
Terminal No.	Color Of Wire	Signal Name [Specification]
3	BR	

Connector No.	B32
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	TH42FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	

Connector No.	B213
Connector Name	WIRE TO WIRE
Connector Type	TH32MM-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W/R	
2	B/R	
3	SHIELD	
4	W/R	
5	B/R	
6	SHIELD	
7	GR/V	
8	W/L	
9	SHIELD	
10	GR/V	
11	W/L	
12	SHIELD	
13	SB	
16	Y	
17	R	
18	W	
29	G	

42	G	
43	LG	
44	SB	
47	V	
48	SHIELD	
49	B	
49	BR	
50	G	
50	R/W	
51	R	
51	R/L	
52	B	
53	LG	
54	BR	
55	BR	
56	L	
56	R	
59	R	
59	SHIELD	
60	B	
60	Y	
61	R/L	
62	R/W	
63	LG	
64	Y	
65	BR	
66	R	
66	V	
67	G	
67	GR	
68	BR	
68	R	
69	SHIELD	
70	W/R	
71	B/R	
72	Y	
73	LG	
74	SB	
75	L	
76	G	
76	B	
80	W	
81	R	
82	L	

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EXL

AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AUTO LIGHT SYSTEM

30	V	-	-
31	V	-	-
32	BR	-	-

Connector No.	B232
Connector Name	REAR DOOR SWITCH RH
Connector Type	TH05FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	-

Connector No.	B233
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	TH05FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-

Connector No.	E10
Connector Name	EMERGENCY POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH20EW-CS12-M4-1V



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

Connector No.	E11
Connector Name	EMERGENCY POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH05FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	GR	-
4	B	-
5	Y	-
6	SB	-
7	W/L	-
8	Y	-
9	W	-
10	W	-
11	O	-
12	O	-
13	BR	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH20MH-CS10-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	Y	-
3	Y	-
4	Y	-
5	LG	-
6	GR	-
7	G	-
8	GR	-
9	L	-
10	L	-
11	Y	-
12	O	-
13	Y	-
14	O	-
15	BR	-
16	Y	-
17	BR	-
18	P	-
19	P	-
20	Y	-
21	BR	-
22	P	-

24	L	-
25	O	-
26	SB	-
27	SB	-
28	W	-
29	Y	-
30	Y	-
31	R	-
32	R	-
33	L	-
34	L	-
35	B	-
36	P	-
37	P	-
38	L	-
39	SB	-
40	SB	-
41	GR	-
42	GR	-
43	GR	-
44	GR	-
45	GR	-
46	GR	-
47	GR	-
48	GR	-
49	GR	-
50	GR	-
51	LG	-
52	Y	-
53	L	-
54	GR	-
55	Y	-
56	W/L	-
57	W	-
58	W	-
59	W	-
60	W	-
61	BR	-
62	O	-
63	L/O	-
64	SHIELD	-
65	W	-
66	BR	-
67	BR	-
68	Y	-
69	SB	-
70	GR	-
71	GR	-
72	Y	-
73	L	-
74	W	-
75	BR	-
76	GR	-
77	O	-
78	G	-
79	Y	-
80	Y	-
81	Y	-
82	Y	-
83	Y	-

AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

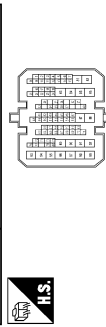
AUTO LIGHT SYSTEM

Connector No.	M44
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	
2	SHIELD	
3	SHIELD	
4	B	
5	W	
6	SHIELD	
7	L	
8	R	
9	SHIELD	
10	V	
11	LG	
12	SHIELD	
13	P	
14	LG	
15	S	
16	Y	
17	W	
18	W	
19	L	
20	B/G	
31	Y	
32	V	

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-GS19

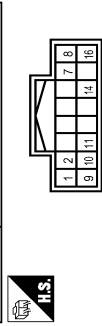


Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	
2	W	
3	W	
4	R	
5	W	
6	W	
7	G	
8	SHIELD	
9	W	
10	R	
11	G	
12	B	
13	P	
14	R	
15	SB	
16	Y	
17	Y	
18	P	
19	L	
20	LG	
21	Y	
22	BR	
23	LG	
24	SB	
25	Y	
27	Y	
28	R	
30	Y	
31	W	
32	GR	
34	Y	
35	B	
36	G	
37	Y	
40	BR	
41	LG	
42	SB	

46	G	
48	LG	
47	SB	
47	Y	
48	GR	
48	SHIELD	
49	BR	
49	R	
50	LG	
50	R	
51	R	
51	V	
52	B	
53	BR	
54	G	
55	P	
56	P	
57	L	
58	SB	
59	R	
59	SHIELD	
60	B	
60	Y	
61	R	
62	W	
63	LG	
64	Y	
65	R	
66	Y	
66	Y	
67	G	
67	W	
68	B/G	
68	G	
69	SHIELD	
70	L	
71	P	
72	LG	
73	Y	
74	R	
75	P	
76	W	
77	BR	
79	B	
80	W	
81	L	
82	L	
83	GR	
83	W	

84	R	
85	Y	
86	W	
87	R	
88	G	
89	B	
90	V	
91	G	
92	BR	
93	P	
94	Y	
95	W	
96	SB	
97	L	
98	LG	
99	Y	

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH18FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	
2	Y	OUTPUT 4
3	B/G	FR
4	W	IGN
5	V	OUTPUT 3
6	B	GROUND
7	GR	INPUT 3
8	L	OUTPUT 5
9	SB	INPUT 2
10	P	INPUT 4
11	W	INPUT 1
12	W	OUTPUT 1
13	R	INPUT 5
14	P	OUTPUT 2

AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

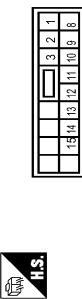
AUTO LIGHT SYSTEM

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



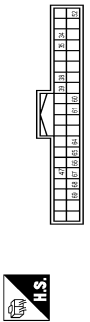
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (+)
2	GR	POWER WINDOW POWER SUPPLY (BAT)
3	E	POWER WINDOW POWER SUPPLY (GSV)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS1BFW-CS



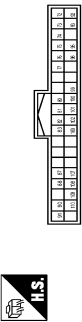
Terminal No.	Color Of Wire	Signal Name [Specification]
4	P/W	INTERIOR ROOM LAMP POWER SUPPLY
5	G	PASSENGER ROOM UNLOCK OUTPUT
7	W	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	P	REAR DOOR UNLOCK OUTPUT
11	LG	BAT (FUSE)
13	B	GROUND
14	O	PUSH-BUTTON IGNITION SW ILL GND
15	C	ACC INJ
16	G	TURBO INJ RH
17	GR	TURBO INJ LH
18	BR	TURB SIGNAL LH
19	Y	INT ROOM LAMP CONT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
38	B	LUGGAGE ROOM ANT-
39	L	REAR BUMPER ANT+
38	BR	REAR BUMPER ANT+
47	L	IGN RELAY (IDLE/RI) CONT
52	R	STARTER RELAY CONT
60	BR	PUSH SW
61	R	BACK DOOR OPENER REQUEST SW
64	GR	L-KEY WARN BUZZER
65	O	REAR WIPER STOP POSITION
66	Y	BACK DOOR SW
67	LG	BACK DOOR OPENER SW
68	W	REAR RH DOOR SW
68	R	REAR LH DOOR SW

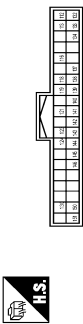
Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
72	B	ROOM ANT-
73	W	ROOM ANT+
74	Y	PASSENGER DOOR ANT-
75	LG	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	P	DRIVER DOOR ANT+

Terminal No.	Color Of Wire	Signal Name [Specification]
80	SB	NAIS ANT AMP
82	BR	IGN RELAY (E) CONT
83	P	KEYLESS ENTRY RECEIVER COMMI
87	R	COMBI SW INPUT 5
88	GR	COMBI SW INPUT 3
90	P	CAN-L
91	L	CAN-H
92	R	REV SLOT ILL CONT
93	P	ON IND
95	L	ACC RELAY CONT
96	Y	CVT SHIFT SELECTOR POWER SUPPLY
99	V	SHIFT P
100	P	PASSENGER DOOR REQUEST SW
101	W	DRIVER DOOR REQUEST SW
102	L	KEYLESS ENTRY RECEIVER POWER SUPPLY
103	L	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	O	COMBI SW INPUT 1
108	P	COMBI SW INPUT 4
109	SB	COMBI SW INPUT 2
110	G	HAZARD SW

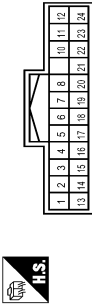
Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
112	R	RAIN SENSOR SERIAL LINK
113	P/B	OPTICAL SENSOR
116	GR	STOP LAMP SW 1
118	L	STOP LAMP SW 2
119	W	DR DOOR UNLOCK SENSOR
121	C	REV SLOT SW
124	B	PASSENGER DOOR SW
130	BR	REAR DEFROGGER SW
132	G	POWER WINDOW SW COMMI
133	W	POWER WINDOW SW ILL POWER
134	R	PUSH-BUTTON IGNITION SW ILL POWER
137	P	LOCK IND
		RECEIVER SENSOR GND

Terminal No.	Color Of Wire	Signal Name [Specification]
138	V	RECEIVER SENSOR POWER SUPPLY
139	GR	REAR COMMI
140	GR	TIRE PRESS MONITOR
141	O	SECURITY IND LAMP CONT
142	O	COMBI SW OUTPUT 5
143	W	COMBI SW OUTPUT 1
144	P	COMBI SW OUTPUT 2
145	V	COMBI SW OUTPUT 3
146	Y	COMBI SW OUTPUT 4
150	SB	DRIVER DOOR SW
151	G	REAR WINDOW DEFROGGER RELAY CONT

Connector No.	M172
Connector Name	AV CONTROL UNIT
Connector Type	TH2HFV-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
36	GR	SIGNAL VCC
37	SB	SIGNAL GND
38	G	COMMI (DISP- CONT)
39	O	COMMI (DISP- CONT)
40	W	RGB (RED) SIGNAL
41	SHIELD	SHIELD
42	B	RGB SYNC
43	G	RGB (RED) SIGNAL
44	L	RGB (GREEN) SIGNAL
45	Y	RGB (BLUE) SIGNAL
46	W	--
47	R	--
48	Y	INVERTER VCC
49	BR	INVERTER GND
50	R	VP
51	LG	--
52	SHIELD	SHIELD
58	B	--

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AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AUTO LIGHT SYSTEM

Connector No.	M174
Connector Name	AV CONTROL UNIT
Connector Type	TH3DFW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
70	LG	AV COMM (L)
71	SB	AV COMM (H)
72	LG	AV COMM (L)
73	SB	AV COMM (H)
74	P	CAN-L
75	V	SW GND
76	SHIELD	SHIELD
77	R	TEL VOICE SIGNAL (+)
78	L	TEL VOICE SIGNAL (-)
79	V	VEHICLE SPEED SIGNAL (θ-PULSE)
80	G	PARKING BRAKE (Without BOSE system)
81	SB	REVERSE
82	G	IGNITION
83	W	RISK SIGNAL
84	W	AUX SOUND SIGNAL GND
85	B	AUX SOUND SIGNAL LH (+)
86	R	AUX SOUND SIGNAL RH (+)

Connector No.	M180
Connector Name	AV CONTROL UNIT
Connector Type	TH3DFW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
65	LG	PARKING BRAKE
66	L	-
67	LG	-
68	LG	-
69	SB	SHIELD
70	B	MICROPHONE VCC
71	R	COMM (CONT- DISP)
72	P	CAN-L
73	LG	AV COMM (L)
74	SB	AV COMM (H)
75	R	ILLUMINATION SIGNAL
76	G	IGNITION
77	SB	REVERSE
78	V	VEHICLE SPEED SIGNAL (θ-PULSE)
79	B	MICROPHONE SIGNAL
80	W	-
81	L	CAN-H
82	SB	AV COMM (H)
83	SB	AV COMM (H)

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FRONT FOG LAMP SYSTEM

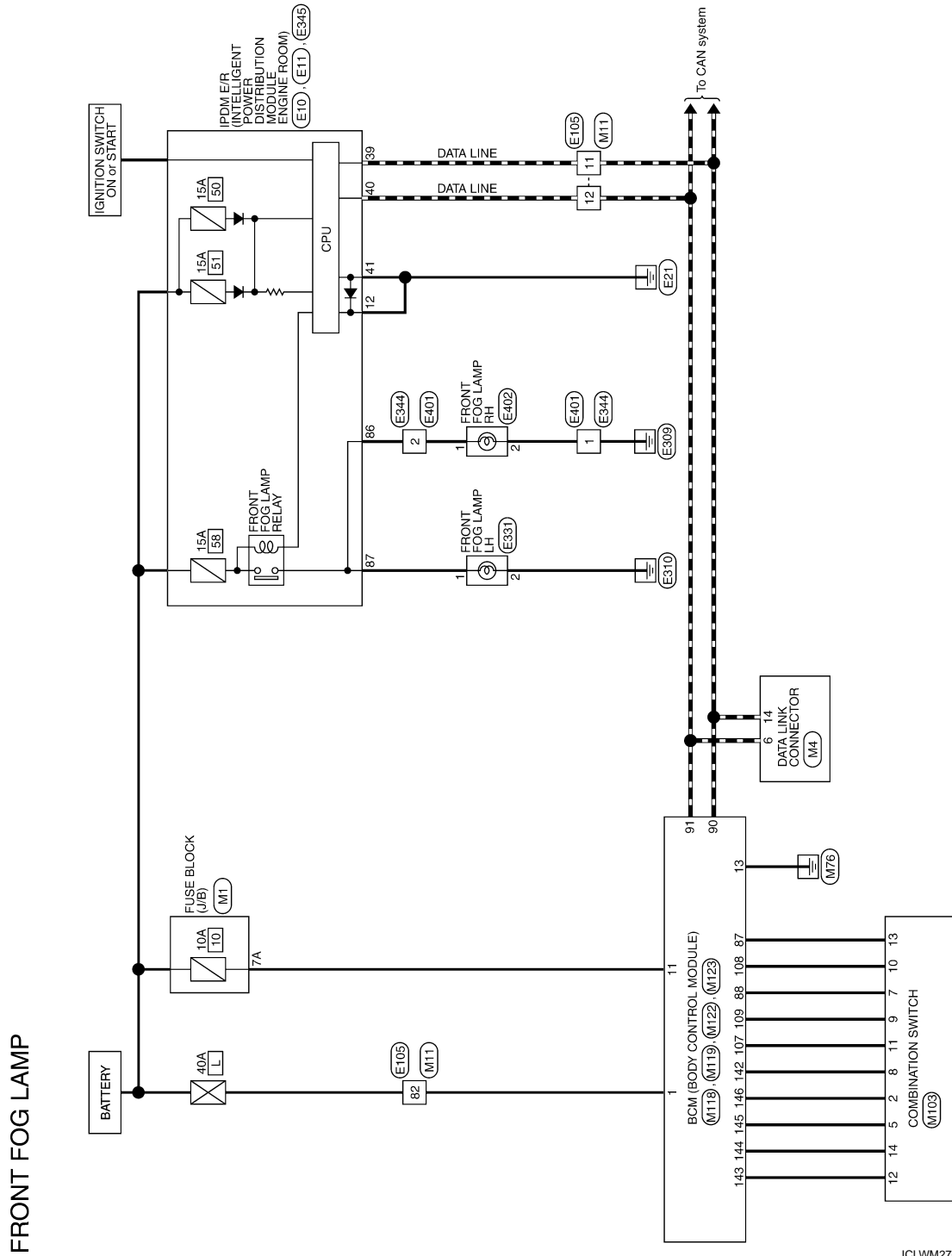
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP SYSTEM

Wiring Diagram - FRONT FOG LAMP -

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FRONT FOG LAMP

2008/09/23

JCLWM2764GB

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FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP

Connector No.	E10
Connector Name	RELAY FOR INTELLISIGHT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH20EW-CS12-MA-1V



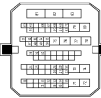
Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	--
5	Y	--
7	GR	--
10	BR	--
12	B	--
13	SB	--
15	W	--
16	R	--
19	Y	--
20	L	--
21	O	--
22	SB	--
23	GR	--
24	G	--
25	GR	--
26	W	--
27	W	--
28	SB	--
30	BR	--
34	O	--
35	P	--
36	G	--
38	GR	--

Connector No.	E11
Connector Name	RELAY FOR INTELLISIGHT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH85EW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
42	L	--
43	L	--
44	B	--
45	Y	--
46	O	--

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
3	Y	--
5	LG	--
8	GR	--
8	G	--
11	L	--
12	L	--
13	Y	--
14	O	--
15	BR	--
20	Y	--
21	BR	--

Connector No.	E331
Connector Name	FRONT FOG LAMP LH
Connector Type	FH20ZFB



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

Connector No.	E344
Connector Name	WIRE TO WIRE
Connector Type	RS02MGY



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

Terminal No.	Color Of Wire	Signal Name [Specification]
22	P	--
24	L	--
25	O	--
26	SB	--
28	W	--
30	Y	--
35	R	--
39	L	--
40	B	--
47	P	--
48	L	--
49	SB	--
50	GR	--
51	LG	--
52	L	--
53	GR	--
54	BR	--
55	Y	--
56	W/L	--
60	V	--
61	BR	--
62	O	--
63	L/O	--
64	SHIELD	--
66	W	--
67	BR	--
68	Y	--
69	SB	--
71	SB	--
72	Y	--
73	L	--
74	W	--
75	BR	--
76	GR	--
77	O	--
78	G	-- [With iPod without navigation system]
78	V	-- [Without iPod and navigation system]
79	Y	--
80	R	--
81	W	--
82	CO	--
83	O	--

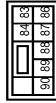
FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP

Connector No.	E243
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	NSDBFW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
83	Y	-
84	W	-
85	SB	-
86	GR	-
87	W	-
88	L	-
89	L	-
90	G	-

Connector No.	E401
Connector Name	WIRE TO WIRE
Connector Type	RSDFGY



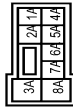
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	W	-

Connector No.	E402
Connector Name	FRONT FOG LAMP RH
Connector Type	FTZDFEB



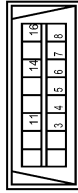
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	B	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSDBFW-AM



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	Y	-
2A	G	-
3A	Y	-
4A	GR	-
7A	LG	-
8A	Y	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	W	-
6	L	-
7	BR	-
8	G	-
11	SB	-
14	P	-
15	Y	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	THDBFW-CS10-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
3	P	-
5	BR	-
6	O	-
8	G	-
11	P	-
12	L	-
13	V	-
14	Y	-
15	R	-
20	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
20	Y	-
21	BR	-
22	LG	-
24	Y	-
25	Y	-
26	BR	-
29	L	-
30	R	-
38	R	-
39	L	-
40	B	-
47	P	-
48	L	-
49	W	-
50	GR	-
52	Y	-
53	V	-
54	SB	-
55	P	-
56	LG	-
60	V	-
61	GR	-
62	BR	-
63	Y	-
64	SHIELD	-
66	W	-
67	R	-
68	W	-
69	G	-
71	G	-
72	BR	-
73	L	-
74	W	-
75	BR	-
76	R	-
77	G	-
78	Y	-
79	G	-
80	R	-
81	W	-
82	W	-
83	BG	-

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FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH18FW-NH



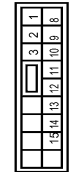
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	GROUND
2	W	OUTPUT 4
3	EG	FR
4	W	IGN
5	V	OUTPUT 3
6	B	GROUND
7	GR	INPUT 3
8	L	OUTPUT 5
9	SB	INPUT 2
10	P	INPUT 4
11	O	INPUT 1
12	W	OUTPUT 1
13	R	INPUT 5
14	P	OUTPUT 2

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



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (G/L)
2	GR	POWER WINDOW POWER SUPPLY (BAT)
3	L	POWER WINDOW POWER SUPPLY (IGN)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS18FW-GS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	INTERIOR ROOM LAMP POWER SUPPLY
2	O	PASSENGER DOOR UNLOCK OUTPUT
3	W	STEP LAMP CONT
4	V	ALL DOOR FUEL LID LOCK OUTPUT
5	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
6	P	REAR DOOR UNLOCK OUTPUT
7	LG	BAT / FUSE
8	B	GROUND
9	O	PUSH-BUTTON IGNITION SW ILL GND
10	L	ACC IND
11	G	TURN SIGNAL RH
12	BR	TURN SIGNAL LH
13	Y	INT ROOM LAMP CONT

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



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	ROOM ANT-
2	W	ROOM ANT+
3	W	ROOM ANT+
4	Y	PASSENGER DOOR ANT-
5	LG	PASSENGER DOOR ANT+
6	V	DRIVER DOOR ANT-
7	P	DRIVER DOOR ANT+
8	SB	NATS ANT-AMP

Terminal No.	Color Of Wire	Signal Name [Specification]
81	O	NATS ANT AMP
82	BR	IGN RELAY FEED CONT
83	P	KEYLESS ENTRY RECEIVER COMMI
87	R	COMBI SW INPUT 5
88	GR	COMBI SW INPUT 3
90	P	CAN-L
91	L	CAN-H
92	R	REV SLOT ILL CONT
93	P	ON IND
95	L	ACC RELAY CONT
96	Y	CVT SHIFT SELECTOR POWER SUPPLY
99	V	SHIFT P
100	P	PASSENGER DOOR REQUEST SW
101	W	DRIVER DOOR REQUEST SW
102	O	REAR DOOR REQUEST SW
103	L	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	O	COMBI SW INPUT 1
108	P	COMBI SW INPUT 4
109	SB	COMBI SW INPUT 2
110	G	HAZARD SW

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



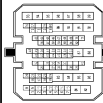
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TR88MM-CSI9



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

83	BR	-
84	G	-
85	G	-
86	SB	-
87	R	-
88	G	-
89	GR	-
90	Y	-
91	G	-
92	BR	-
93	G	-
94	V	-
95	BR	-
96	GR	-
98	LG	-
99	O	-

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS8MM-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B/W	[Without rear view camera]
2	BR	[With rear view camera]
3	P	
4	L	

Connector No.	B89
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS8MM-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	
2	G	
3	P	
4	L	

Connector No.	E8
Connector Name	WIRE TO WIRE
Connector Type	NS12MM-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3	GR	
4	SB	
5	O	
8	G	
9	W	
10	Y	
11	G	

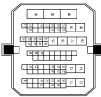
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	11770MM-CST0-M3



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

67	BR	-
68	SB	-
69	GR	-
70	GR	-
71	SB	-
72	Y	-
73	L	-
74	W	-
75	BR	-
76	GR	-
77	O	-
78	G	- [With iPod without navigation system]
79	V	- [Without iPod and navigation system]
80	Y	- [With navigation system]
81	R	-
82	W	-
83	LG	-
84	O	-

Connector No.	E318
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	Z03FER



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	
2	B	
3	Y	

Connector No.	E319
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	Z03FER



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

Connector No.	E327
Connector Name	FRONT TURN SIGNAL LAMP LH
Connector Type	RS02FEY



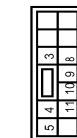
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	
2	B	

Connector No.	E328
Connector Name	FRONT TURN SIGNAL LAMP RH
Connector Type	RS02FEY



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

Connector No.	E338
Connector Name	WIRE TO WIRE
Connector Type	NS12FER-GS



Terminal No.	Color Of Wire	Signal Name [Specification]
3	O	
4	G	
5	O	
6	G	
7	W	
8	W	
9	Y	
10	Y	
11	R	

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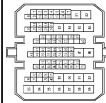
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

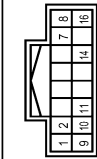
Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH8BFM-CS19



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

54	R	
55	Y	
56	W	
57	R	
58	G	
59	B	
60	V	
61	G	
62	BR	
63	P	
64	W	
65	SB	
66	L	
67	L	
68	B	
69	B	
70	LG	
71	L	
72	LG	
73	Y	
74	R	
75	P	
76	BR	
77	BR	
78	BR	
79	Y	

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH18BFM-NH



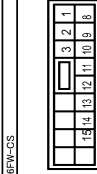
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	
2	Y	OUTPUT 4
3	BG	FR
4	W	IGN
5	V	OUTPUT 3
6	B	GROUND
7	GR	INPUT 3
8	L	OUTPUT 5
9	SB	INPUT 2
10	P	INPUT 4
11	W	INPUT 1
12	GR	INPUT 5
13	R	INPUT 3
14	P	OUTPUT 2

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FEL-CL



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (2/3)
2	GR	POWER WINDOW POWER SUPPLY (BAT)
3	L	POWER WINDOW POWER SUPPLY (IGN)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS18FV-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
4	P/W	INTERIOR ROOM LAMP POWER SUPPLY
5	G	PASSENGER DOOR UNLOCK OUTPUT
7	W	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	P	REAR DOOR UNLOCK OUTPUT
11	LG	BAT (FUSE)
13	B	GROUND
14	O	PUSH-BUTTON IGNITION SW LLL GND
15	L	ACC AND TUN SIGNAL RH
16	G	TUN SIGNAL LH
18	BR	
19	Y	INT ROOM LAMP CONT

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH48EB-NH



Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH48FG-NH



Terminal No.	Wire	Color	Off	Signal Name [Specification]
72	B			ROOM ANT-
73	W			ROOM ANT+
74	Y			PASSENGER DOOR ANT-
75	LG			PASSENGER DOOR ANT+
76	V			DRIVER DOOR ANT-
77	P			DRIVER DOOR ANT+
80	SB			NATS ANT AMP
81	O			NATS ANT AMP
82	BR			IGN RELAY (F/B) CONT
83	P			KEYLESS ENTRY RECEIVER COMM
87	R			COMBI SW INPUT 5
88	GR			COMBI SW INPUT 3
90	P			CAN-L
91	L			CAN-H
92	R			IGN IND
93	P			IGN IND
95	L			ACC-RELAY CONT
99	V			CVT SHIFT SELECTOR POWER SUPPLY
100	P			SHIFT P
101	W			PASSENGER DOOR REQUEST SW
101	W			DRIVER DOOR REQUEST SW
102	Y			BLOWER RELAY CONT
103	L			KEYLESS ENTRY RECEIVER POWER SUPPLY
107	O			COMBI SW INPUT 1
108	P			COMBI SW INPUT 4
109	SB			COMBI SW INPUT 2
110	G			HAZARD SW

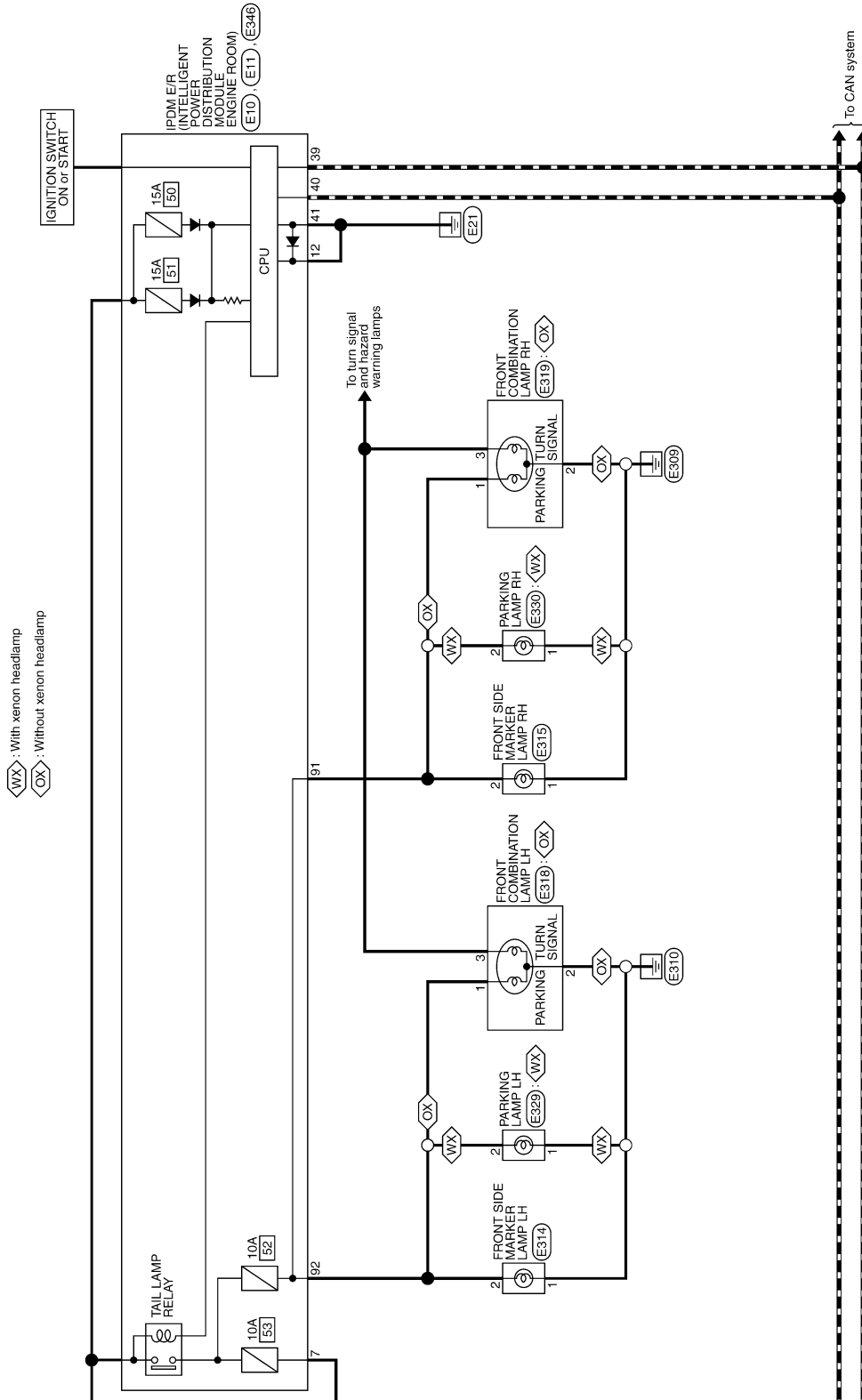
Terminal No.	Wire	Color	Off	Signal Name [Specification]
112	P/B			RAIN SENSOR SERIAL LINK
113	P/B			OFFICAL SENSOR
116	GR			STOP LAMP SW 1
118	L			STOP LAMP SW 2
119	W			DR DOOR UNLOCK SENSOR
121	Y			KEY SLOT SW
123	G			IGN F/B
124	R			PASSENGER DOOR SW
130	BR			REAR DEFOGGER SW
132	G			POWER WINDOW SW COMM
133	W			PUSH-BUTTON IGNITION SW ILL POWER
134	R			LOCK IND
137	P			RECEIVER SENSOR GND
138	O			RECEIVER SENSOR POWER SUPPLY
140	GR			TIRE PRESSURE COMM
141	O			SECURITY AND LAMP CONT
142	L			COMBI SW OUTPUT 5
143	W			COMBI SW OUTPUT 1
144	P			COMBI SW OUTPUT 2
145	V			COMBI SW OUTPUT 3
146	Y			COMBI SW OUTPUT 4
150	SB			DRIVER DOOR SW
151	G			REAR WINDOW DEFOGGER RELAY CONT

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

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[XENON TYPE]



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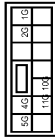
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

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[XENON TYPE]

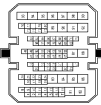
PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	B8
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12PBR-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	Y
2	P	Y
3	R	Y
4	SB	Y
5	R	Y
6	SB	Y
7	SB	Y
8	SB	Y

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS19



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

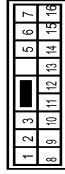
64	Y	
65	BR	
66	L	
67	V	
68	G	
69	GR	
70	BR	
71	R	
72	SHIELD	
73	W/R	
74	Y	
75	Y	
76	LG	
77	SB	
78	C	
79	G	
80	R	
81	R	
82	L	
83	BR	
84	O	
85	G	
86	S	
87	R	
88	G	
89	GR	
90	GR	
91	G	
92	BR	
93	G	
94	V	
95	BR	
96	GR	
97	R	
98	LG	
99	O	

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS18MM-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B/Y	Y
2	SB	Y
3	P	Y
4	L	Y

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	NS18MM-CS



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

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

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[XENON TYPE]

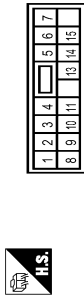
PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	E80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS3AMW-CS



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

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	NS18PW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	W	-
3	V	-
5	R	-
6	V	-
8	B	-
9	L	-
10	R	-
12	W	-
13	GR	-
14	G	-
15	O	-
16	BR	-

Connector No.	D162
Connector Name	LICENSE PLATE LAMP LH
Connector Type	TK02FBR



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

Connector No.	D163
Connector Name	LICENSE PLATE LAMP RH
Connector Type	TK02FBR



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

Connector No.	E10
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE FUSE
Connector Type	TH08PW-CS12-M4-1V



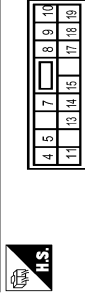
Terminal No.	Color Of Wire	Signal Name [Specification]
5	Y	-
7	GR	-
10	BR	-
12	B	-
13	SB	-
15	W	-
16	R	-
19	Y	-
20	L	-
21	O	-
22	SB	-
23	GR	-
24	G	-
26	Y	-
27	W	-
28	SB	-
30	BR	-
34	O	-
35	P	-
36	G	-
38	GR	-

Connector No.	E11
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE FUSE
Connector Type	TH08PW-NH



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

Connector No.	E103
Connector Name	FUSE BLOCK (J.B)
Connector Type	NS18PW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
11F	G	-
12F	V	-
1F	L	-
2F	LG	-
4F	BR	-
6F	Y	-
8F	R	-
9F	GR	-

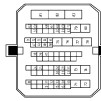
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	11770MM-CST0-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
5	GR	-
6	G	-
11	P	-
12	L	-
13	Y	-
14	O	-
15	BR	-
20	Y	-
21	BR	-
22	P	-
24	L	-
25	O	-
28	SB	-
30	Y	-
32	Y	-
38	R	-
39	L	-
40	B	-
47	P	-
48	L	-
49	SB	-
50	GR	-
51	LG	-
52	V	-
53	GR	-
54	BR	-
55	W	-
60	V	-
61	BR	-
62	O	-
63	L/O	-
64	SHIELD	-
65	W	-

67	BR	-
68	SB	-
70	GR	-
71	SB	-
72	Y	-
73	L	-
74	W	-
75	BR	-
76	GR	-
77	O	-
78	G	- [With iPod without navigation system]
78	V	- [Without iPod and navigation system]
79	Y	-
80	R	-
81	W	-
82	LG	-
83	O	-

Connector No.	E314
Connector Name	FRONT SIDE MARKER LAMP LH
Connector Type	RK02FGY



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

Connector No.	E315
Connector Name	FRONT SIDE MARKER LAMP RH
Connector Type	RK02FGY



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

Connector No.	E318
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	Z03FBR



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

Connector No.	E319
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	Z03FBR



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

Connector No.	E329
Connector Name	PARKING LAMP LH
Connector Type	RK02FGY



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

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< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	E339
Connector Name	PARKING LAMP-RH
Connector Type	RK02FCY



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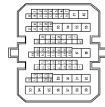
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[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS

Terminal No.	Color Of Wire	Signal Name [Specification]
20	Y	AMBIENT SENSOR GROUND
21	GR	CON-1
22	BR	SHIELD
23	B	CON-1
24	B	GROUND
25	Y	FUEL LEVEL SENSOR GROUND
26	BR	ALTERNATOR SIGNAL
27	V	PARKING BRAKE SWITCH SIGNAL
28	G	WASHER FLUID LEVEL SWITCH SIGNAL
29	R	WASHER LEVEL SWITCH SIGNAL
30	P	VEHICLE SPEED SIGNAL (2-PULSE)
31	V	VEHICLE SPEED SIGNAL (8-PULSE)
32	LG	OVERDRIVE CONTROL SWITCH SIGNAL
34	G	FUEL LEVEL SENSOR SIGNAL
35	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
36	R	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)

Connector No.	M177
Connector Name	WIRE TO WIRE
Connector Type	TH86FW-CS19

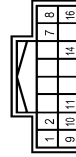


Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	
2	B	
3	W	
4	R	
6	W	
7	G	
8	SHIELD	
9	W	
10	R	
11	G	
12	B	
13	P	
14	B	
15	SB	
16	R	
17	V	
18	P	
19	P	
20	LG	

PARKING, LICENSE PLATE AND TAIL LAMPS

Terminal No.	Color Of Wire	Signal Name [Specification]
21	Y	
22	GR	
23	BR	
24	SB	
25	Y	
27	LG	
28	R	
30	Y	
31	W	
32	BR	
34	Y	
35	B	
36	G	
37	Y	
40	BR	
41	G	
42	SB	
43	W	
44	CS	
46	LG	
47	SB	
47	Y	
48	GR	
48	SHIELD	
49	BR	
49	R	
50	LG	
50	R	
51	R	
51	V	
52	G	
52	BR	
53	CS	
54	R	
55	G	
56	P	
57	L	
58	SB	
58	R	
59	SHIELD	
60	B	
60	Y	
61	R	
62	W	
63	LG	
64	V	
65	R	
66	L	
66	Y	
67	G	
67	W	

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
2	Y	OUTPUT 4
3	BG	FR
4	W	IGN
5	V	OUTPUT 3
6	B	GROUND
7	GR	INPUT 3
8	L	OUTPUT 5
9	SB	INPUT 2
10	P	INPUT 4
11	O	INPUT 1
12	W	OUTPUT 1
13	R	INPUT 5
14	P	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	GR	POWER WINDOW POWER SUPPLY (BAT)
3	L	POWER WINDOW POWER SUPPLY (IGN)

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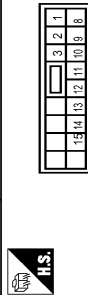
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS

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



Terminal No.	Color	Wire	Signal Name [Specification]
1	P/W	W	INTERIOR ROOM LAMP POWER SUPPLY
2	W	W	PASSENGER DOOR UNLOCK OUTPUT
3	W	W	SEAT LAMP CONT.
4	W	W	ALL DOOR FUEL LID LOCK OUTPUT
5	G	P	DRIVER DOOR FUEL LID UNLOCK OUTPUT
6	P	P	REAR DOOR UNLOCK OUTPUT
7	LG	B	BAT. (FUSE)
8	O	O	PUSH-BUTTON IGNITION SW ILL GND
9	G	G	ACC IND
10	G	G	TURN SIGNAL RH
11	BR	BR	TURN SIGNAL LH
12	Y	Y	INT. ROOM LAMP CONT.

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FFB-NH

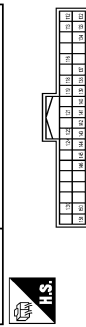


Terminal No.	Color	Wire	Signal Name [Specification]
72	B	W	ROOM ANT-
73	W	W	ROOM ANT+
74	Y	Y	PASSENGER DOOR ANT-
75	LG	G	PASSENGER DOOR ANT+
76	V	V	DRIVER DOOR ANT-
77	P	P	DRIVER DOOR ANT+
80	SB	SB	NATS ANT AMP

LAMPS

Terminal No.	Color	Wire	Signal Name [Specification]
83	BR	P	NATS ANT AMP
84	R	R	IGN RELAY (F) CONT
85	R	R	KEYLESS ENTRY RECEIVER COMM
86	GR	P	COMBI SW INPUT 3
87	GR	P	COMBI SW INPUT 5
88	GR	P	CAN-L
89	P	P	CAN-H
90	L	L	KEY SLOT ILL CONT
91	L	L	ACC RELAY CONT
92	R	R	ON IND
93	P	P	CVT SHIFT SELECTOR POWER SUPPLY
94	L	L	SHIFT P
95	Y	Y	PASSENGER DOOR REQUEST SW
96	V	V	DRIVER DOOR REQUEST SW
97	W	W	KEYLESS ENTRY RECEIVER COMM
98	W	W	KEYLESS ENTRY RECEIVER POWER SUPPLY
99	L	L	COMBI SW INPUT 1
100	L	L	COMBI SW INPUT 2
101	O	O	COMBI SW INPUT 3
102	P	P	COMBI SW INPUT 4
103	SB	SB	COMBI SW INPUT 5
104	G	G	HAZARD SW

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



Terminal No.	Color	Wire	Signal Name [Specification]
112	R	R	RAIN SENSOR SERIAL LINK
113	P/B	P/B	OPTICAL SENSOR
116	GR	GR	STOP LAMP SW 1
118	L	L	STOP LAMP SW 2
119	W	W	DR DOOR UNLOCK SENSOR
121	G	G	KEY SLOT SW
122	O	O	PASSENGER DOOR SW
123	R	R	REAR DEFROGGER SW
130	BR	BR	POWER WINDOW SW COMM
132	G	G	PUSH-BUTTON IGNITION SW ILL POWER
133	W	W	LOCK IND
134	R	R	LOCK IND
137	P	P	RECEIVER SENSOR GND
138	V	V	RECEIVER SENSOR POWER SUPPLY

Terminal No.	Color	Wire	Signal Name [Specification]
138	O	O	TIRE PRESS RECEIVER COMM
140	GR	GR	SECURITY ILL LAMP CONT
141	O	O	SECURITY ILL LAMP CONT
142	L	L	COMBI SW OUTPUT 5
143	W	W	COMBI SW OUTPUT 1
144	P	P	COMBI SW OUTPUT 2
145	V	V	COMBI SW OUTPUT 3
146	Y	Y	COMBI SW OUTPUT 4
150	SB	SB	DRIVER DOOR SW
151	G	G	REAR WINDOW DEFROGGER RELAY CONT

STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

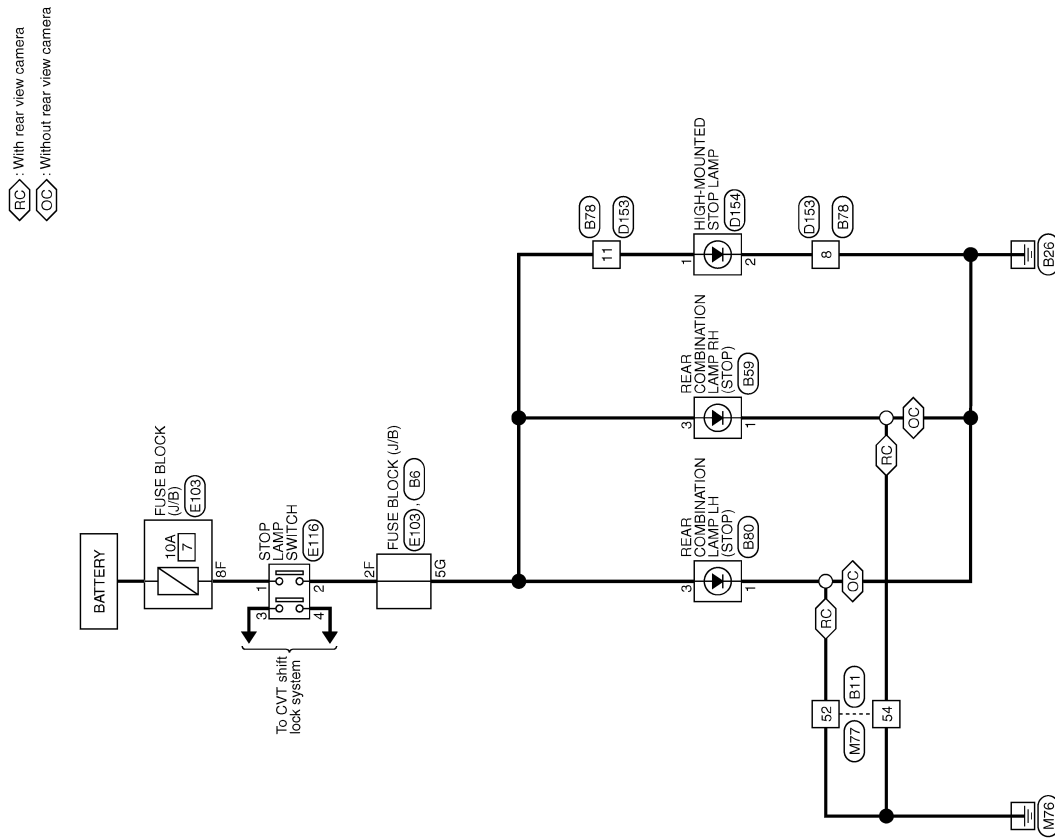
[XENON TYPE]

STOP LAMP

Wiring Diagram - STOP LAMP -

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STOP LAMP



2009/08/07

JCLWM4171GB

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STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

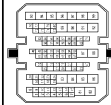
STOP LAMP

Connector No.	B8
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12PBR-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	4G	Y
2	SB	GR
3	LG	L
4	Y	P

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS19



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	
2	B	
3	R/L	
4	R/W	
5	P	
6	V	
7	Y	
8	SHIELD	
9	R/L	
10	Y/G	
11	W/L	
12	L	
13	L	
14	BR	

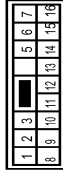
54	Y	
55	BR	
56	R	
57	L	
58	V	
59	G	
60	GR	
61	GR	
62	BR	
63	R	
64	SHIELD	
65	W/R	
66	B/R	
67	Y	
68	LG	
69	SB	
70	Y	
71	GR	
72	GR	
73	SB	
74	Y	
75	G	
76	R	
77	B	
78	W	
79	B	
80	W	
81	R	
82	L	
83	BR	
84	O	
85	G	
86	SB	
87	R	
88	G	
89	Y	
90	G	
91	G	
92	BR	
93	G	
94	V	
95	BR	
96	GR	
97	R	
98	LG	
99	O	

Connector No.	B79
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS18MM-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	W (Rear view camera)
2	BR	P (Rear view camera)
3	P	
4	L	

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	NS18MM-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	
2	Y	
3	SB	
4	R	
5	R	
6	V	
7	Y	
8	B	
9	L	
10	P	
11	S	
12	W	
13	GR	
14	G	
15	Y	
16	BR	

STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

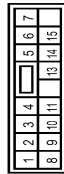
STOP LAMP

Connector No.	E88
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS18PW-CS



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

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	NS18PW-CS



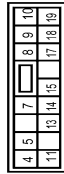
Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	W	-
3	V	-
5	R	-
6	V	-
8	B	-
9	L	-
10	R	-
11	O	-
13	GR	-
14	G	-
15	O	-
16	BR	-

Connector No.	D154
Connector Name	HIGH-MOUNTED STOP LAMP
Connector Type	YZK 332-1324-F



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

Connector No.	E103
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS18FW-CS



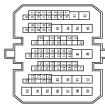
Terminal No.	Color Of Wire	Signal Name [Specification]
11F	G	-
12F	V	-
1F	L	-
2F	LG	-
4F	BR	-
6F	Y	-
8F	R	-
9F	GR	-

Connector No.	E116
Connector Name	STOP LAMP SWITCH
Connector Type	MB9FW-LC



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	1H9PW-CS19



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	W	-
4	R	-
6	W	-
7	G	-
8	SHIELD	-
9	W	-
10	R	-
11	B	-
12	B	-
13	P	-
14	R	-
15	SB	-
16	R	-
17	V	-

18	P	-
19	D	-
20	LG	-
21	Y	-
22	BR	-
23	LG	-
24	SB	-
25	Y	-
27	Y	-
28	R	-
30	Y	-
31	W	-
32	BR	-
34	Y	-
35	B	-
39	Q	-
40	BR	-
41	LG	-
42	SB	-
46	G	-
46	LG	-
47	SB	-
47	Y	-
48	GR	-
48	SHIELD	-
49	BR	-
49	R	-
60	LG	-
60	R	-
61	R	-
51	V	-
52	B	-
53	BR	-
54	B	-
55	G	-
56	P	-
57	L	-
58	SB	-
59	R	-
59	SHIELD	-
60	B	-
60	Y	-
61	W	-
62	W	-
63	LG	-
64	Y	-
65	R	-
65	V	-
66	L	-

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STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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66	T	-
67	W	-
68	BG	-
68	G	-
69	SHIELD	-
70	L	-
71	P	-
72	LG	-
73	Y	-
74	R	-
75	P	-
76	L	-
77	BR	-
78	B	-
80	W	-
81	L	-
82	L	-
83	GR	- [Without automatic drive positioner]
83	W	- [With automatic drive positioner]
84	R	-
85	V	-
86	W	-
87	R	-
88	G	-
89	B	-
90	V	-
91	G	-
92	BR	-
93	V	-
94	V	-
95	W	-
96	S5	-
97	L	-
98	LG	-
99	Y	-

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BACK-UP LAMP

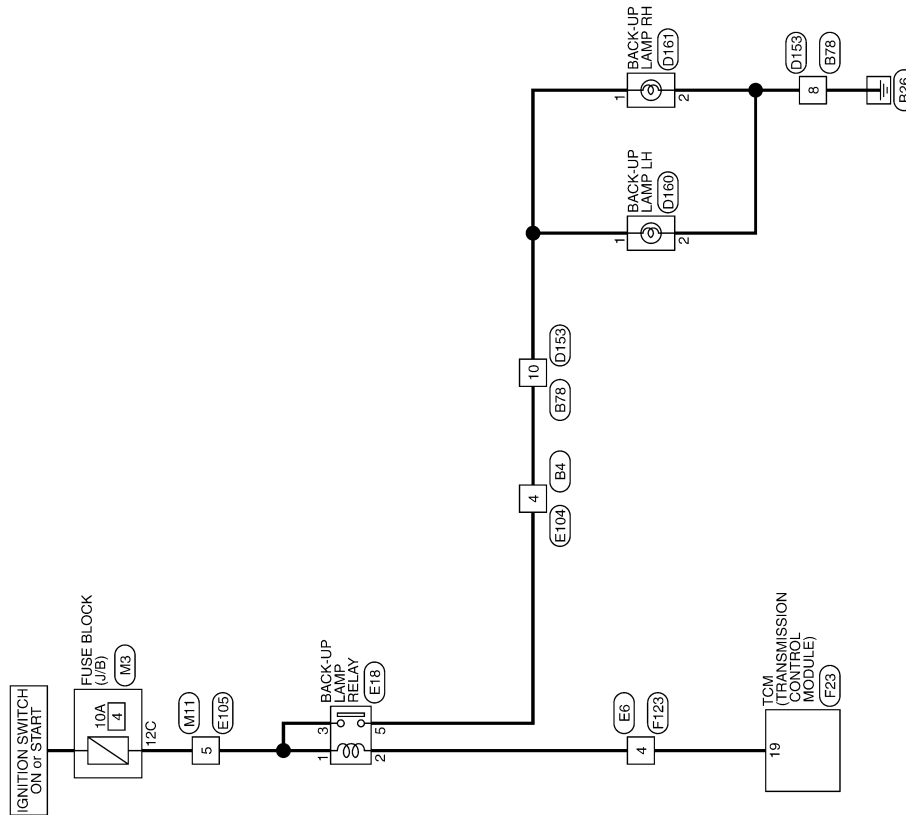
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

BACK-UP LAMP

Wiring Diagram - BACK-UP LAMP -

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BACK-UP LAMP

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BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

BACK-UP LAMP

Connector No. E4
 Connector Name WIRE TO WIRE
 Connector Type NS16BMW-CS

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GB	--
2	W	--
3	W	--
4	R	--
5	O	--
6	P	--
7	L	--
8	B	--
9	LG	--
10	V	--
11	L	--
12	BR	--
13	P	--
14	BR	--
15	O	--
16	G	--

Connector No. E18
 Connector Name BACK-UP LAMP RELAY
 Connector Type MS02EL-M2-LC

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	--
2	Y	--
3	R	--
4	GR	--
5	V	--
6	P	--
7	L	--
8	B	--
9	LG	--
10	R	--
11	O	--
12	W	--
13	GR	--
14	G	--
15	O	--
16	BR	--

Connector No. D160
 Connector Name BACK-UP LAMP LH
 Connector Type NS02MW-CS

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

Connector No. D161
 Connector Name BACK-UP LAMP RH
 Connector Type NS02MW-CS

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

Terminal No.	Color Of Wire	Signal Name [Specification]
5	R	--
6	Y	--
8	B	--
9	L	--
10	R	--
11	P	--
12	W	--
13	GR	--
14	G	--
15	Y	--
16	BR	--

Connector No. D153
 Connector Name WIRE TO WIRE
 Connector Type NS16FW-CS

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	--
2	V	--
3	R	--
4	V	--
5	R	--
6	V	--
8	B	--
9	L	--
10	R	--
11	O	--
12	W	--
13	GR	--
14	G	--
15	O	--
16	BR	--

Connector No. E18
 Connector Name BACK-UP LAMP RELAY
 Connector Type MS02EL-M2-LC

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	--
2	Y	--
3	R	--
4	GR	--
5	V	--
6	P	--
7	L	--
8	B	--
9	LG	--
10	R	--
11	O	--
12	W	--
13	GR	--
14	G	--
15	O	--
16	BR	--

Connector No. E4
 Connector Name WIRE TO WIRE
 Connector Type NS16BMW-CS

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GB	--
2	W	--
3	W	--
4	R	--
5	O	--
6	P	--
7	L	--
8	B	--
9	LG	--
10	V	--
11	L	--
12	BR	--
13	P	--
14	BR	--
15	O	--
16	G	--

Connector No. E18
 Connector Name BACK-UP LAMP RELAY
 Connector Type MS02EL-M2-LC

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	--
2	Y	--
3	R	--
4	GR	--
5	V	--
6	P	--
7	L	--
8	B	--
9	LG	--
10	R	--
11	O	--
12	W	--
13	GR	--
14	G	--
15	O	--
16	BR	--

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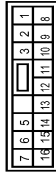
BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

BACK-UP LAMP

Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	SB	-
3	Y	-
4	R	-
5	L	-
6	P	-
7	L	-
8	B/W	-
9	SB	-
10	GR	-
11	R	-
12	W	-
13	P	-
14	V	-
15	Y	-
16	L	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH10MM-CSD1P-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
5	LG	-
6	GR	-
8	G	-

Terminal No.	Color Of Wire	Signal Name [Specification]
11	P	-
12	V	-
13	Y	-
14	O	-
15	BR	-
20	Y	-
21	BR	-
22	P	-
24	L	-
25	SB	-
28	SB	-
29	W	-
30	Y	-
35	R	-
37	B	-
38	P	-
41	P	-
42	L	-
43	L	-
48	SB	-
50	GR	-
51	LG	-
52	V	-
53	GR	-
54	BR	-
55	Y	-
56	W/L	-
60	V	-
61	BR	-
62	O	-
64	O	-
65	SHIELD	-
66	W	-
67	BR	-
68	Y	-
69	SB	-
70	GR	-
71	SB	-
72	Y	-
73	L	-
74	W	-
75	BR	-
76	GR	-
77	O	-
78	V	-
79	Y	-
80	R	-
81	W	-
82	LG	-

Connector No.	F23
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	RHMFB-R28-L-RH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P/B	TRANSMISSION RANGE SWITCH 2
2	P/B	TRANSMISSION RANGE SWITCH 3
3	O/G	TRANSMISSION RANGE SWITCH 4
4	GR	TRANSMISSION RANGE SWITCH 3 (MONITOR)
5	B	GROUND
7	W	SENSOR GROUND
8	O/W	CHIP SELECT (SEL 2)
9	L/R	CLOCK (SEL 1)
10	BR/R	DATA I/O (SEL 3)
11	BR/W	TRANSMISSION RANGE SWITCH 1
13	V	CVT FLUID TEMPERATURE SENSOR
14	W/W	PRIMARY PRESSURE SENSOR
15	Y/W	SECONDARY PRESSURE SENSOR
19	G/B	PRESSURE LAMP RELAY
20	R/B	STARTER RELAY
25	W/R	SENSOR GROUND
26	L/O	SENSOR POWER
27	R/G	STEP MOTOR D
28	R	STEP MOTOR C
29	O/B	STEP MOTOR B
30	O/R	STEP MOTOR A
31	P	CAN-L
32	L	CAN-H
33	LG	PRIMARY SPEED SENSOR
34	LG/R	SECONDARY SPEED SENSOR
37	V/R	LOCK-UP SELECT SOLENOID VALVE
38	W/B	TOYOTA LOCK-UP SOLENOID VALVE
39	W/B	SECONDARY PRESSURE SOLENOID VALVE
40	RY	LINE PRESSURE SOLENOID VALVE
42	B	GROUND
46	Y	POWER SUPPLY
47	L/R	POWER SUPPLY (MEMORY BACK-UP)
48	Y	POWER SUPPLY

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK18ECV-TV



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

Connector No.	M3
Connector Name	FUSE BLOCK (J.B)
Connector Type	NS18FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	SB	-
11C	R	-
12C	G	-
6C	BR	-
7C	R	-
8C	G	-
9C	GR	-

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BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

BACK-UP LAMP

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	THREEM-CSIJ-M3



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

64	SHIELD	-
65	W	-
66	R	-
67	R	-
68	W	-
69	P	-
70	G	-
71	G	-
72	BR	-
73	L	-
74	W	-
75	BR	-
76	R	-
77	G	-
78	G	-
79	G	-
80	S	-
81	W	-
82	W	-
83	BR	-

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000010092637

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 intermittent dial is in a dial position 1 - 7	Wiper intermittent 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: For models with BOSE audio system this item is not monitored.	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
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
RKE-LOCK	LOCK button of Intelligent Key is not pressed	Off
	LOCK button of Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of Intelligent Key is not pressed	Off
	UNLOCK button of Intelligent Key is pressed	On
RKE-TR/BD	BACK DOOR OPEN button of Intelligent Key is not pressed	Off
	BACK DOOR OPEN button of Intelligent Key is pressed	On
RKE-PANIC	PANIC button of Intelligent Key is not pressed	Off
	PANIC button of Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of Intelligent Key is not pressed	Off
	UNLOCK button of 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 Intelligent Key is not pressed and held simultaneously	Off	A
	LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	On	B
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V	C
	Dark outside of the vehicle	Close to 0 V	
REQ SW -DR	Driver door request switch is not pressed	Off	D
	Driver door request switch is pressed	On	
REQ SW -AS	Passenger door request switch is not pressed	Off	E
	Passenger door request switch is pressed	On	
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	F
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	G
REQ SW -BD/TR	Back door request switch is not pressed	Off	H
	Back door request switch is pressed	On	
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off	I
	Push-button ignition switch (push switch) is pressed	On	
IGN RLY2 -F/B	Ignition switch in OFF or ACC position	Off	J
	Ignition switch in ON position	On	
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off	K
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off	L
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off	M
	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	N
	Stop lamp switch 1 signal circuit is normal	On	
DETE/CANCL SW	Selector lever in P position	Off	O
	Selector lever in any position other than P	On	
SFT PN/N SW	Selector lever in any position other than P and N	Off	P
	Selector lever in P or N position	On	
S/L -LOCK	NOTE: The item is indicated, but not monitored.	Off	Q
S/L -UNLOCK	NOTE: The item is indicated, but not monitored.	Off	R
S/L RELAY-F/B	NOTE: The item is indicated, but not monitored.	Off	S
UNLK SEN -DR	Driver door is unlocked	Off	T
	Driver door is locked	On	
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off	U
	Push-button ignition switch (push-switch) is pressed	On	
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off	V
	Ignition switch in ON position	On	
DETE SW -IPDM	Selector lever in any position other than P	Off	W
	Selector lever in P position	On	

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Monitor Item	Condition	Value/Status
SFT PN -IPDM	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
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	Power supply position in LOCK position	Reset
	Power supply position in any position other than LOCK	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	Intelligent Key is not inserted into key slot	Off
	Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	—
CONFIRM ID ALL	The Intelligent Key ID that the key slot receives is not recognized by any Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the key slot receives is recognized by any Intelligent Key ID registered to BCM.	Done
CONFIRM ID4	The Intelligent Key ID that the key slot receives is not recognized by the fourth Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the key slot receives is recognized by the fourth Intelligent Key ID registered to BCM.	Done

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Monitor Item	Condition	Value/Status
CONFIRM ID3	The Intelligent Key ID that the key slot receives is not recognized by the third Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the key slot receives is recognized by the third Intelligent Key ID registered to BCM.	Done
CONFIRM ID2	The Intelligent Key ID that the key slot receives is not recognized by the second Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the key slot receives is recognized by the second Intelligent Key ID registered to BCM.	Done
CONFIRM ID1	The Intelligent Key ID that the key slot receives is not recognized by the first Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the key slot receives is recognized by the first Intelligent 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
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
BUZZER	Tire pressure warning alarm is not sounding	Off
	Tire pressure warning alarm is sounding	On

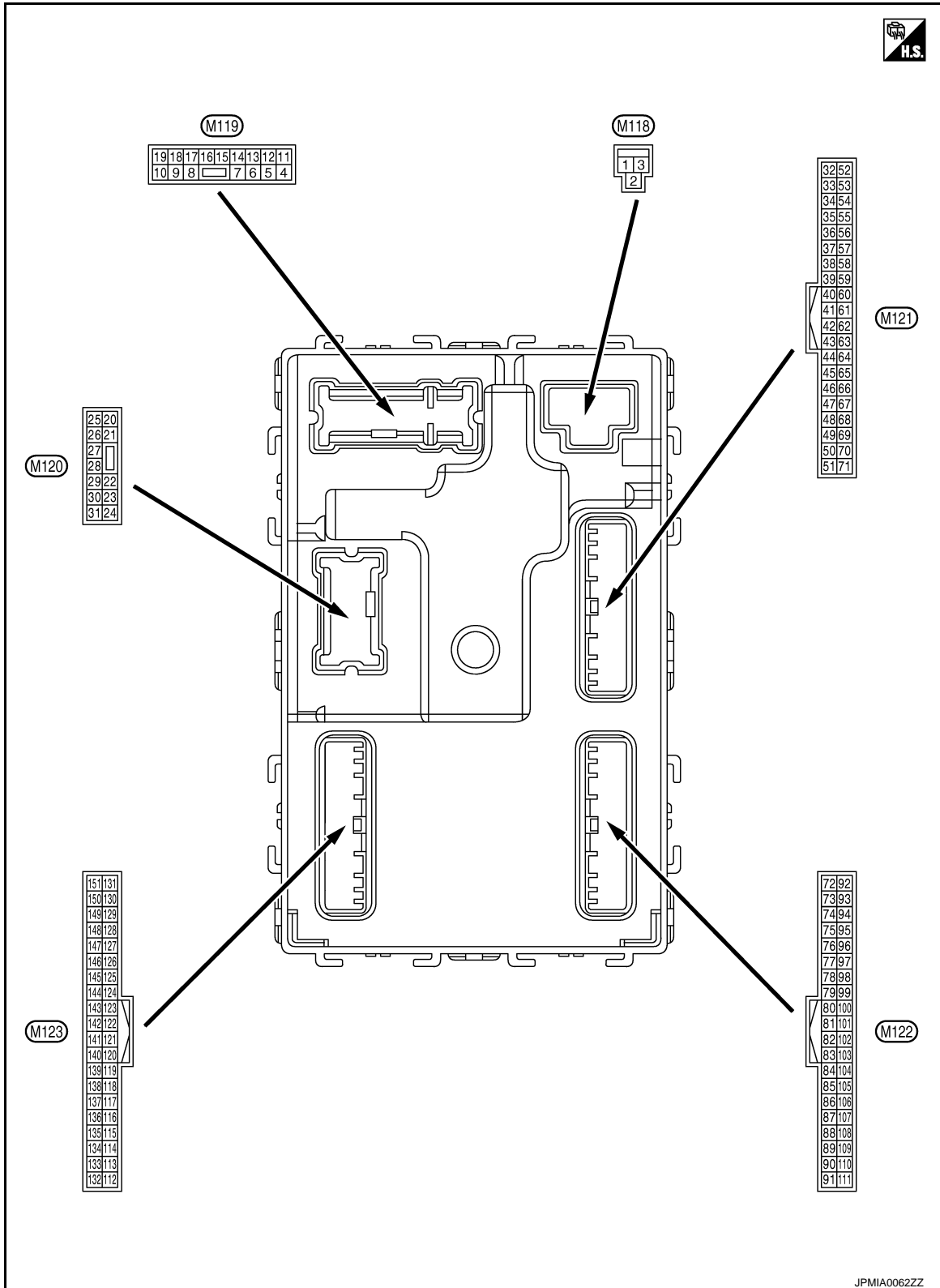
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[XENON TYPE]

TERMINAL LAYOUT

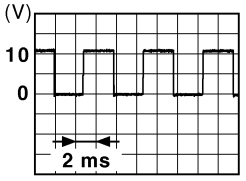


PHYSICAL VALUES

BCM (BODY CONTROL MODULE)

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[XENON TYPE]

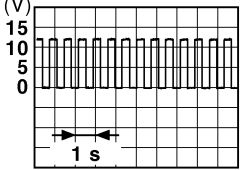
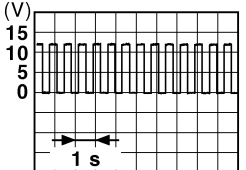
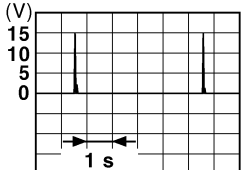
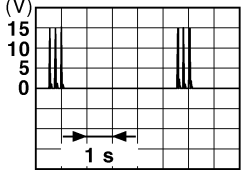
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-					
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (GR)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (L)	Ground	P/W power supply (IGN)	Output	Ignition switch ON		Battery voltage
4 (P/W)	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)		Battery voltage
5 (G)	Ground	Passenger door UN- LOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
7 (W)	Ground	Step lamp control	Output	Step lamp	ON	0 V
					OFF	Battery voltage
8 (V)	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
10 (P)	Ground	Rear RH door and rear LH door UN- LOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
11 (LG)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (O)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	<p>NOTE: When the illumination brightening/dimming level is in the neutral position</p>  <p style="text-align: right; font-size: small;">JSNIA0010GB</p>
15 (L)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK and ON indicator lamps are not illuminated.)	Battery voltage
					ACC	0 V

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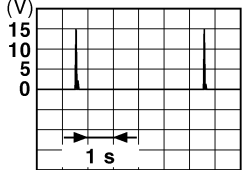
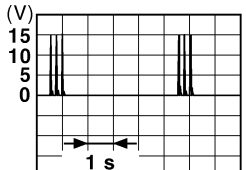
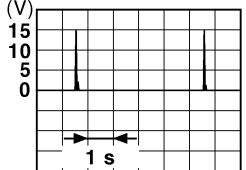
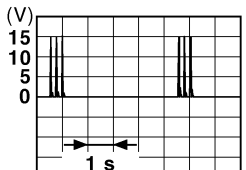
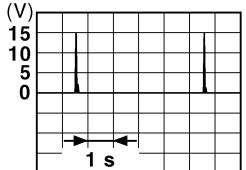
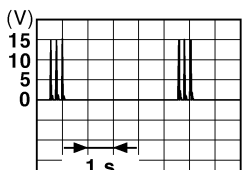
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
17 (G)	Ground	Turn signal RH	Output			Ignition switch OFF
				Ignition switch ON	Turn signal switch RH	 <p style="text-align: right; font-size: small;">PKID0926E</p>
18 (BR)	Ground	Turn signal LH	Output	Ignition switch OFF	0 V	
				Ignition switch ON	Turn signal switch LH	 <p style="text-align: right; font-size: small;">PKID0926E</p>
19 (Y)	Ground	Interior room lamp control	Output	Interior room lamp	OFF	Battery voltage
				ON	ON	0 V
23 (BR)	Ground	Back door open	Output	Back door	OPEN (Back door opener actuator is activated)	Battery voltage
				Other than OPEN (Back door opener actuator is not activated)	Other than OPEN (Back door opener actuator is not activated)	0 V
26 (G)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
				ON (Operated)	ON (Operated)	Battery voltage
34 (B)	Ground	Luggage room antenna (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is not in the passenger compartment	When Intelligent Key is not in the passenger compartment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
35 (W)	Ground	Luggage room antenna (+)	Output	Ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is in the passenger compartment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
38 (L)	Ground	Rear bumper antenna (-)	Output	When the back door request switch is operated with ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
39 (BR)	Ground	Rear bumper antenna (+)	Output	When the back door request switch is operated with ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
47 (L)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC
				ON	Battery voltage
					0 V

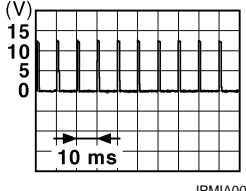
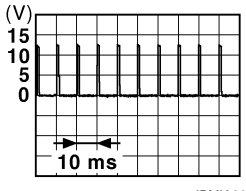
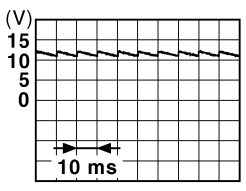
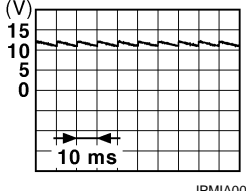
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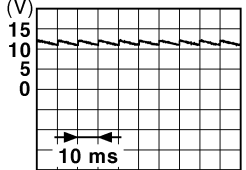
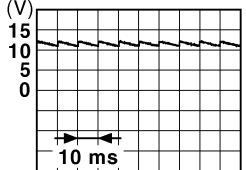
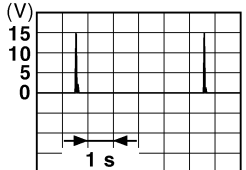
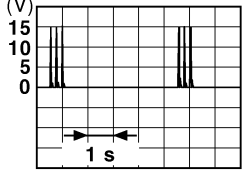
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
52 (R)	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	Battery voltage
					When selector lever is not in P or N position	0.3 V
				Ignition switch OFF		0 V
60 (BR)	Ground	Push-button ignition switch (push switch)	Input	Push-button igni- tion switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
61 (R)	Ground	Back door request switch	Input	Back door re- quest switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p style="text-align: center;">1.0 V</p>
64 (GR)	Ground	Intelligent key warn- ing buzzer control	Output	Warning buzzer	Sounding	0 V
					Not sounding	Battery voltage
65 (O)	Ground	Rear wiper stop posi- tion	Input	Rear wiper	In stop position	 <p style="text-align: center;">1.0 V</p>
					Not in stop position	0 V
66 (Y)	Ground	Back door switch	Input	Back door switch	OFF (When back door closes)	 <p style="text-align: center;">11.8 V</p>
					ON (When back door opens)	0 V
67 (LG)	Ground	Back door opener switch	Input	Back door opener switch	Pressed	0 V
					Not pressed	 <p style="text-align: center;">11.8 V</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
68 (W)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes)	 11.8 V
				Rear RH door switch	ON (When rear RH door opens)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	 11.8 V
				Rear LH door switch	ON (When rear LH door opens)	0 V
72 (B)	Ground	Room antenna (-) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
				Ignition switch OFF	When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB

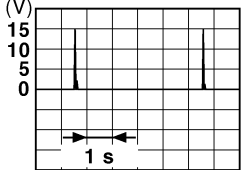
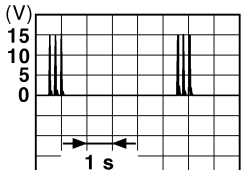
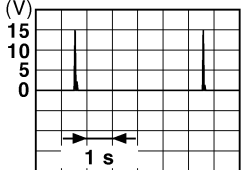
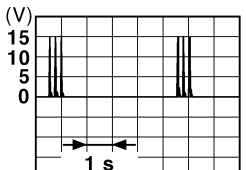
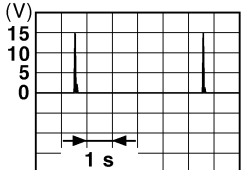
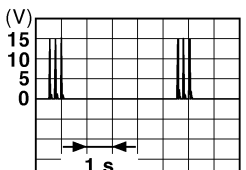
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BCM (BODY CONTROL MODULE)

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[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
73 (W)	Ground	Room antenna (+) (Center console)	Output	Ignition switch OFF	 <p style="text-align: right; font-size: small;">JMkia0062GB</p>
				When Intelligent Key is not in the passenger compart- ment	 <p style="text-align: right; font-size: small;">JMkia0063GB</p>
74 (Y)	Ground	Passenger door an- tenna (-)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	 <p style="text-align: right; font-size: small;">JMkia0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMkia0063GB</p>
75 (LG)	Ground	Passenger door an- tenna (+)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	 <p style="text-align: right; font-size: small;">JMkia0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMkia0063GB</p>

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 operated with ignition switch OFF	<p style="text-align: right; font-size: small;">JMKIA0062GB</p>	
				When Intelligent Key is not in the antenna detection area	<p style="text-align: right; font-size: small;">JMKIA0063GB</p>	
77 (P)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch OFF	<p style="text-align: right; font-size: small;">JMKIA0062GB</p>	
				When Intelligent Key is not in the antenna detection area	<p style="text-align: right; font-size: small;">JMKIA0063GB</p>	
80 (SB)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (O)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (BR)	Ground	Ignition relay [fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

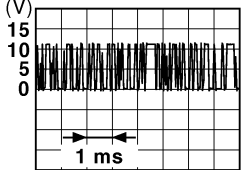
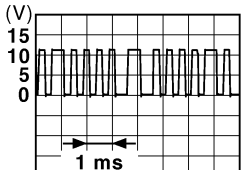

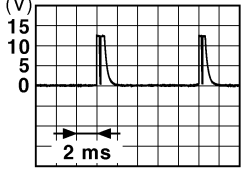

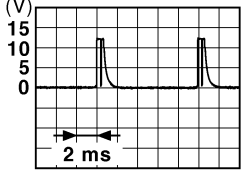
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

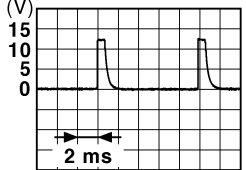
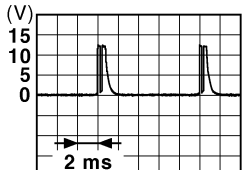

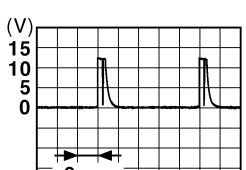

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
83 (P)	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting	 <small>JMKIA0064GB</small>
				When operating either button on Intelligent Key	 <small>JMKIA0065GB</small>
87 (R)	Ground	Combination switch INPUT 5	Input	All switches OFF (Wiper intermittent dial 4)	 <small>JPMIA0041GB</small> 1.4 V
				Front fog lamp switch ON (Wiper intermittent dial 4)	 <small>JPMIA0037GB</small> 1.3 V
				Rear wiper switch ON (Wiper intermittent dial 4)	 <small>JPMIA0039GB</small> 1.3 V
				Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7 	 <small>JPMIA0040GB</small> 1.3 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

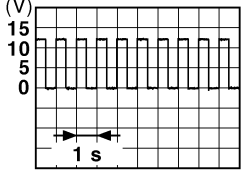
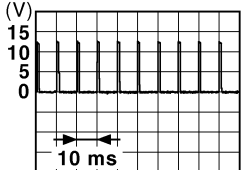
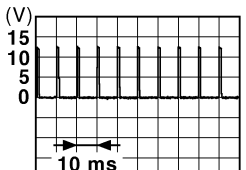
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
88 (GR)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 <small>JPMIA0041GB</small> 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)	 <small>JPMIA0036GB</small> 1.3 V
					Lighting switch 2ND (Wiper intermittent dial 4)	 <small>JPMIA0037GB</small> 1.3 V
					Rear washer switch ON (Wiper intermittent dial 4)	 <small>JPMIA0039GB</small> 1.3 V
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	 <small>JPMIA0040GB</small> 1.3 V
90 (P)	Ground	CAN-L	Input/ Output	—	—	
91 (L)	Ground	CAN-H	Input/ Output	—	—	

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BCM (BODY CONTROL MODULE)

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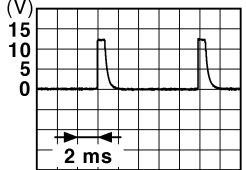
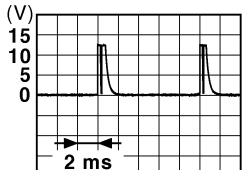

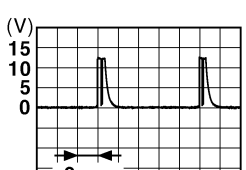

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
92 (R)	Ground	Key slot illumination	Output	Key slot illumination	OFF
				Blinking	0 V
					 <p style="text-align: right; font-size: small;">JPMIA0015GB</p>
					6.5 V
93 (P)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK and ACC indicator lamps are not illuminated.)
				ON	Battery voltage
95 (L)	Ground	ACC relay control	Output	Ignition switch	OFF
				ACC or ON	0 V
					Battery voltage
96 (Y)	Ground	CVT shift selector (detention switch) power supply	Output	—	Battery voltage
99 (V)	Ground	Selector lever P position switch	Input	Selector lever	P position
				Any position other than P	0 V
					Battery voltage
100 (P)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)
				OFF (Not pressed)	0 V
					 <p style="text-align: right; font-size: small;">JPMIA0016GB</p>
					1.0 V
101 (W)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)
				OFF (Not pressed)	0 V
					 <p style="text-align: right; font-size: small;">JPMIA0016GB</p>
					1.0 V
102 (Y)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC
				ON	0 V
					Battery voltage
103 (L)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF	Battery voltage

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

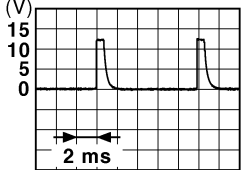
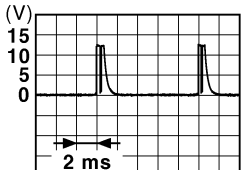
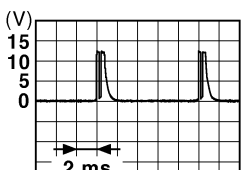
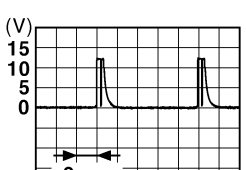
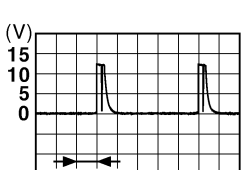
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
107 (O)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	 1.4 V
					Turn signal switch LH	 1.3 V
					Turn signal switch RH	 1.3 V
					Front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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

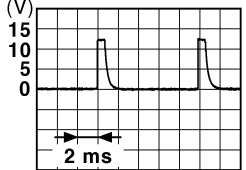
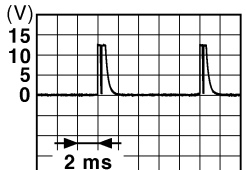

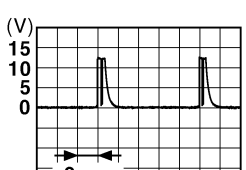

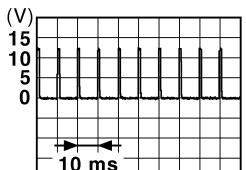
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
108 (P)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMA0041GB</p> <p style="text-align: center;">1.4 V</p>
					Lighting switch AUTO (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMA0038GB</p> <p style="text-align: center;">1.3 V</p>
					Lighting switch 1ST (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMA0036GB</p> <p style="text-align: center;">1.3 V</p>
					Rear wiper switch INT (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMA0040GB</p> <p style="text-align: center;">1.3 V</p>
					Any of the conditions below with all switches OFF	 <p style="text-align: right; font-size: small;">JPMA0039GB</p> <p style="text-align: center;">1.3 V</p>
					<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
109 (SB)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent 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

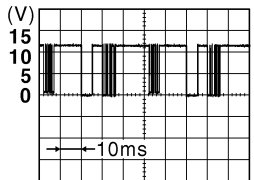
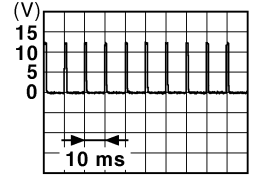
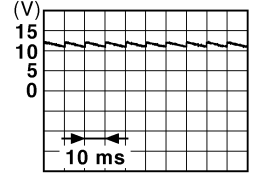
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

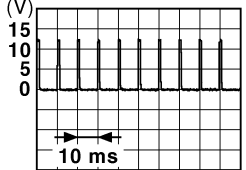
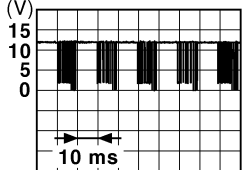
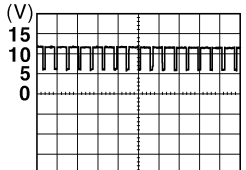
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
112 (R)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON	 8.7 V
113 (P/B)	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 (GR)	Ground	Stop lamp switch 1	Input	—	Battery voltage
118 (L)	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (Brake pedal is not depressed) 0 V
				—	ON (Brake pedal is depressed) Battery voltage
119 (W)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	 LOCK status (unlock sensor switch OFF) 1.1 V
				—	UNLOCK status (unlock sensor switch ON) 0 V
121 (Y)	Ground	Key slot switch	Input	When Intelligent Key is inserted into key slot	Battery voltage
				—	When Intelligent Key is not inserted into key slot 0 V
123 (G)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC 0 V
				—	ON Battery voltage
124 (R)	Ground	Passenger door switch	Input	Passenger door switch	 OFF (When passenger door closes) 11.8 V
				—	ON (When passenger door opens) 0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

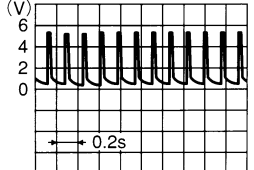

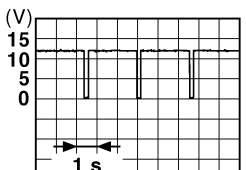
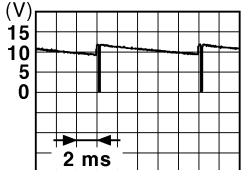
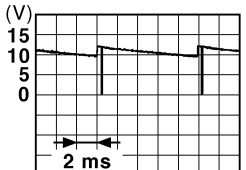
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
130 (BR)	Ground	Rear window defogger switch	Input	Ignition switch ON	Rear window defogger switch OFF	 1.1 V
				Rear window defogger switch ON		0 V
132 (G)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		 10.2 V
				Ignition switch OFF or ACC		Battery voltage
133 (W)	Ground	Push-button ignition switch illumination	Output	ON (When tail lamps OFF)	ON (When tail lamps ON)	9.5 V NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level.  0 V
				OFF		0 V
134 (R)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF (ACC and ON indicator lamps are not illuminated.)	Battery voltage
				ON		0 V
137 (P)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (V)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V

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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			
+	-					
139 (O)	Ground	Tire pressure receiver communication	Input/ Output	Ignition switch ON	Standby state	 <small>OCC3881D</small>
				When receiving the signal from the transmitter	 <small>OCC3880D</small>	
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	Battery voltage
				Except P and N positions	0 V	
141 (O)	Ground	Security indicator	Output	Security indicator	ON	0 V
				Blinking	 <small>JPMIA0014GB</small> 11.3 V	
				OFF	Battery voltage	
142 (L)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF	0 V
				Lighting switch 1ST	 <small>JPMIA0031GB</small> 10.7 V	
				Lighting switch HI		
				Lighting switch 2ND		
Turn signal switch RH	Turn signal switch RH	Turn signal switch RH				
143 (W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper intermittent dial 4)	0 V
				Front wiper switch HI (Wiper intermittent dial 4)	 <small>JPMIA0032GB</small> 10.7 V	
				Rear wiper switch INT (Wiper intermittent dial 4)		
				Any of the conditions below with all switches OFF		
<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7 	Any of the conditions below with all switches OFF	Any of the conditions below with all switches OFF				

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
144 (P)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	
					Rear wiper switch ON (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
					Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 	
145 (V)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	0 V
					Front wiper switch INT/ AUTO	
					Front wiper switch LO	
					Lighting switch AUTO	
146 (Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (SB)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closes)	
					ON (When driver door opens)	
151 (G)	Ground	Rear window defog- ger relay control	Output	Rear window de- fogger	Active	0 V
					Not activated	Battery voltage

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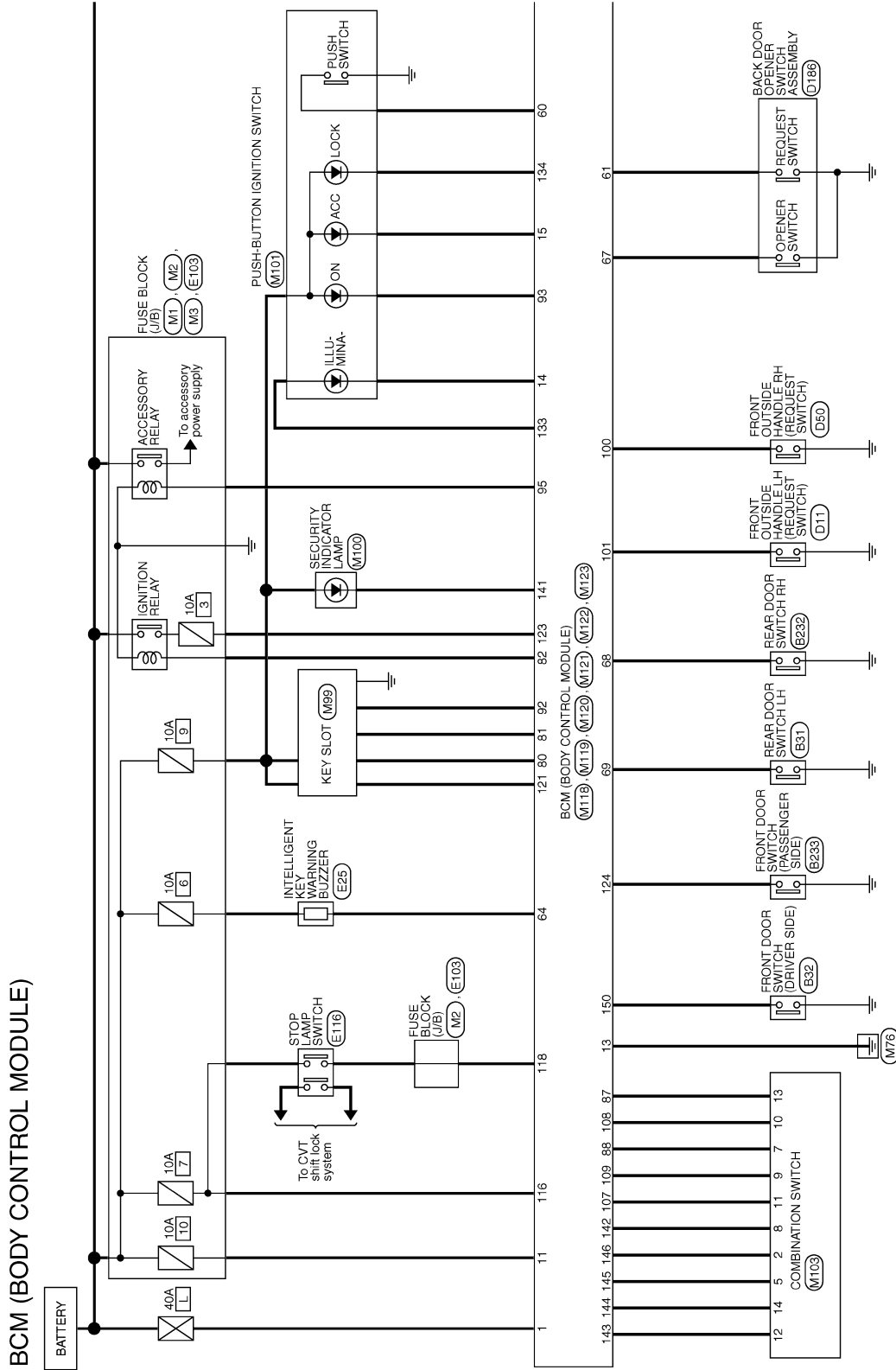
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Wiring Diagram - BCM -

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2011/07/28

JRMWC5024GB

BCM (BODY CONTROL MODULE)

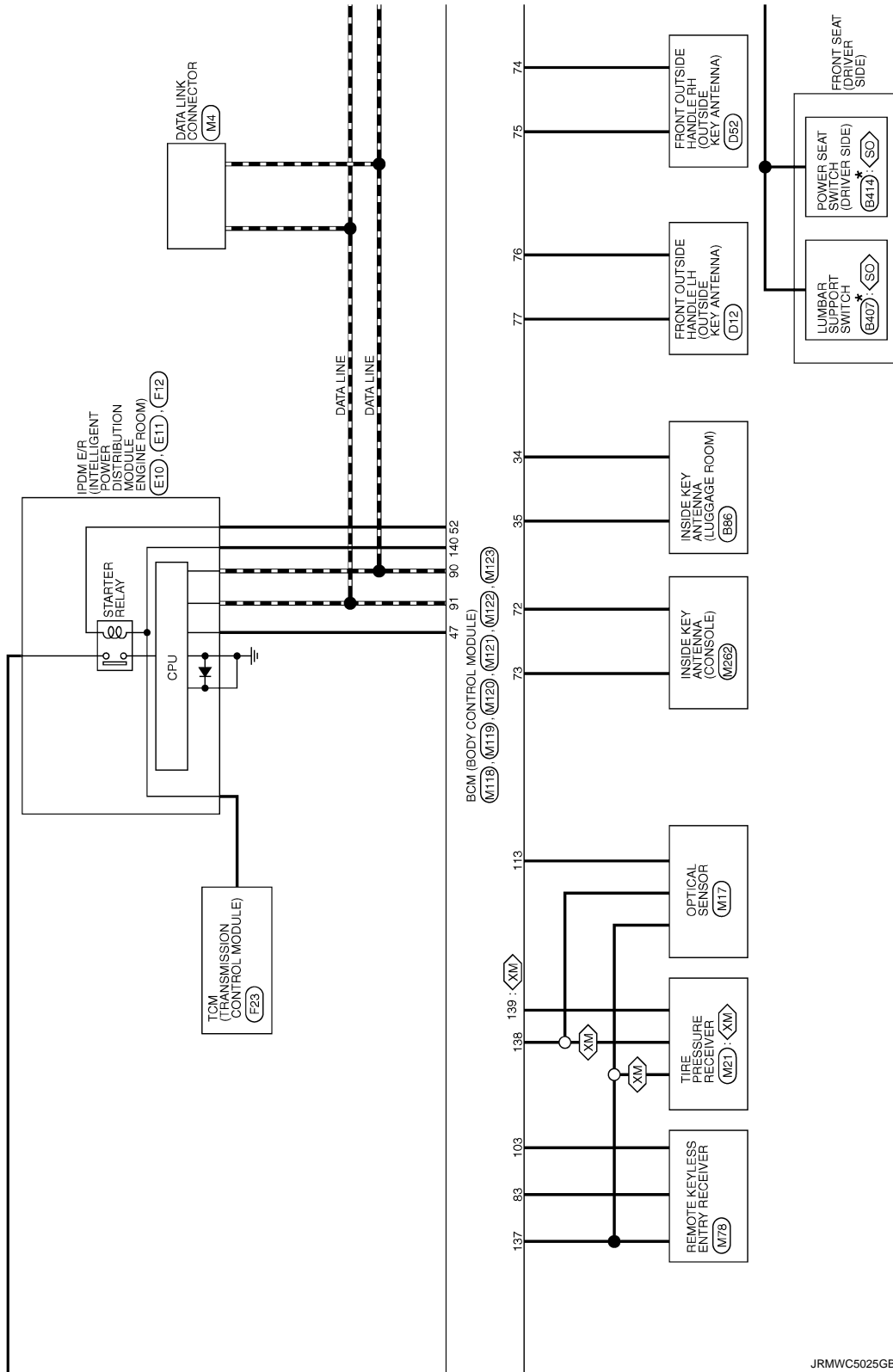
< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

XM: Except for Mexico

SO: With power seat without automatic drive positioner

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



JRMWC5025GB

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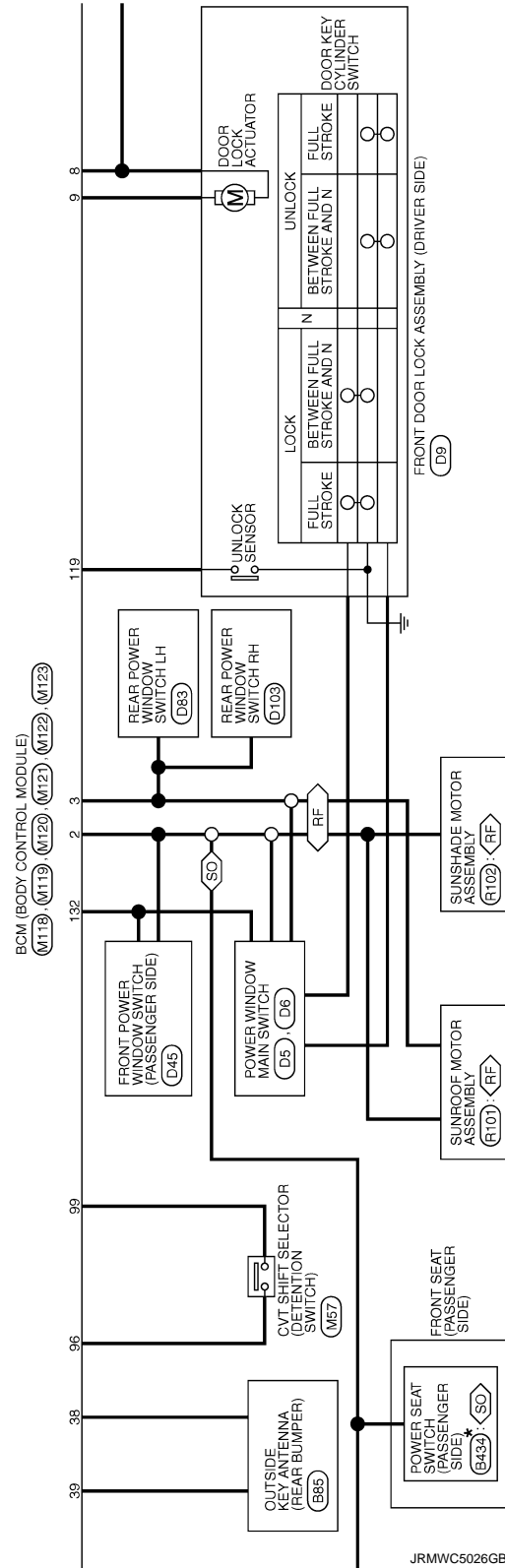
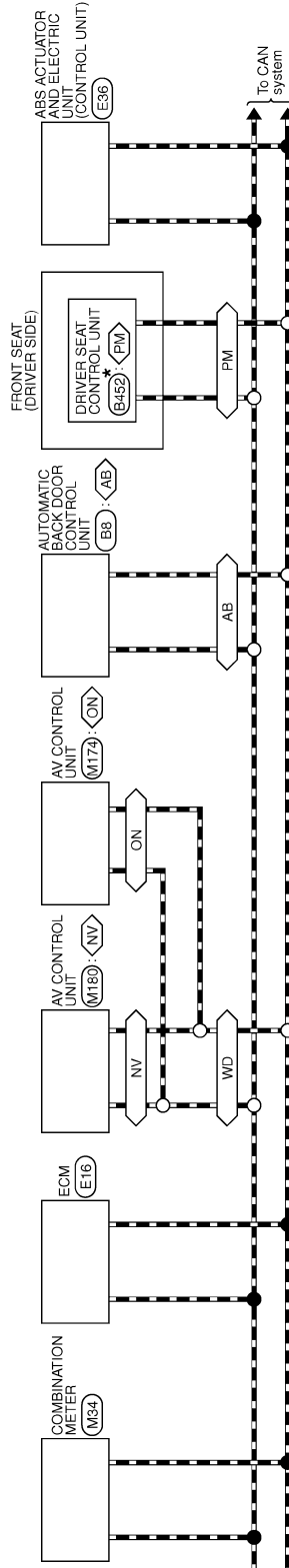
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

- <NV>: With navigation system
- <ON>: Without navigation system
- <RF>: With sunroof
- <PM>: With automatic drive positioner
- <SO>: With power seat without automatic drive positioner
- <AB>: With automatic back door
- <WD>: With color display

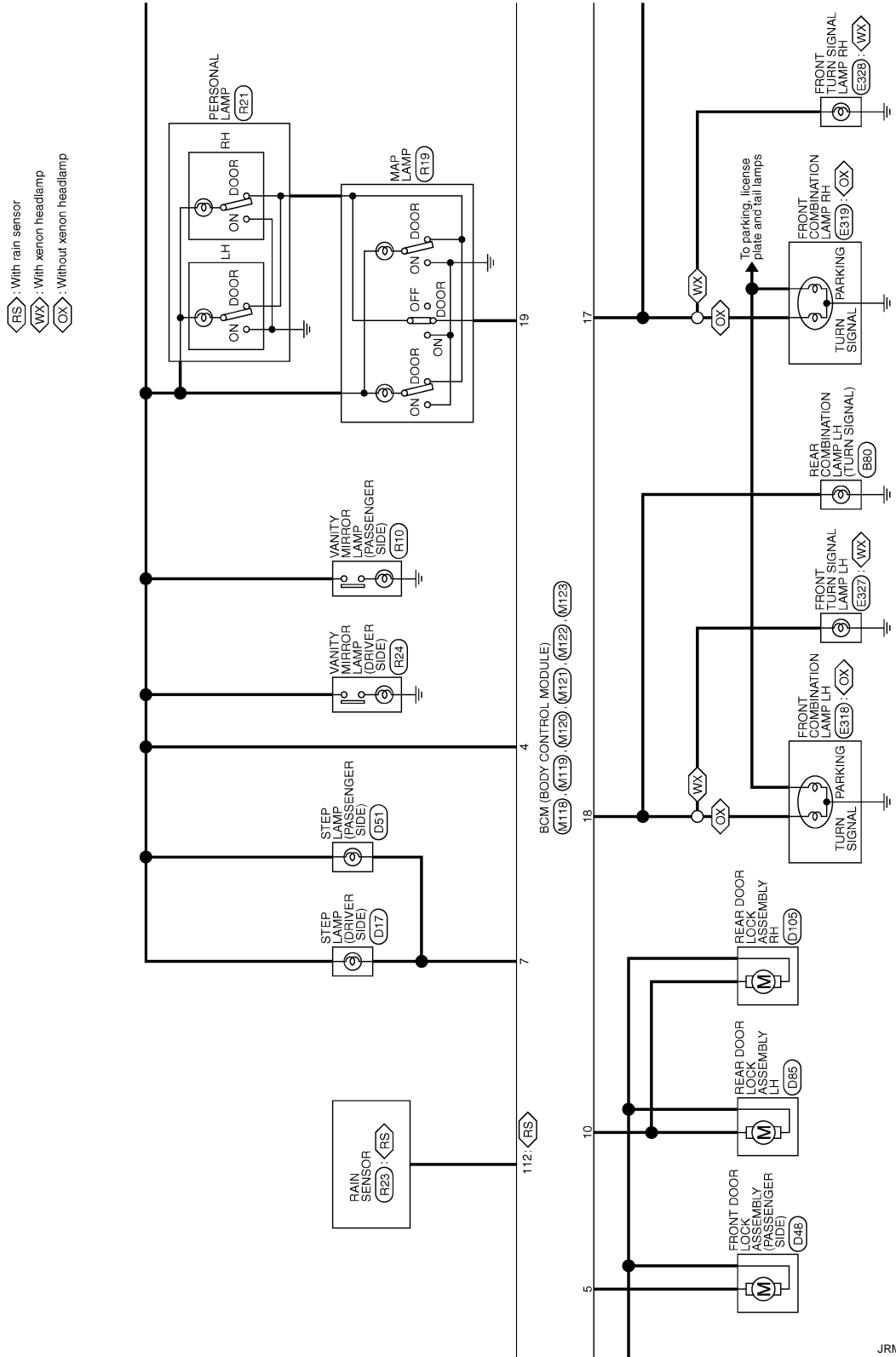
*: This connector is not shown in "Harness Layout".



BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]



JRMWC5027GB

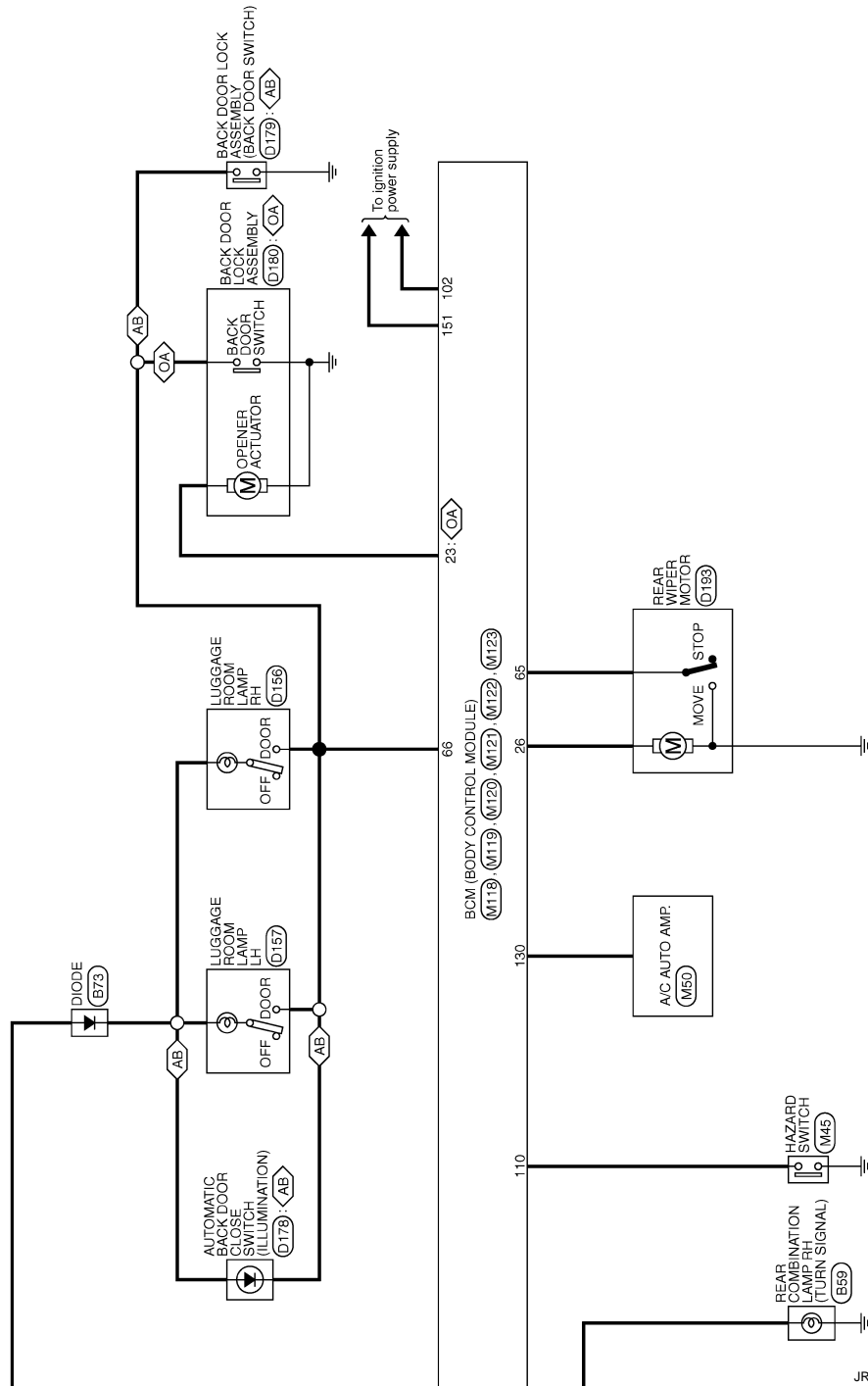
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

◊AB◊ : With automatic back door
 ◊OA◊ : Without automatic back door



JRMWC5028GB

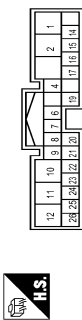
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

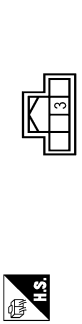
BCM (BODY CONTROL MODULE)

Connector No.	B8
Connector Name	AUTOMATIC BACK DOOR CONTROL UNIT
Connector Type	TH20FW-TB8



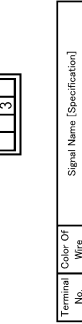
Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	BUZZER
2	Y	ABS CLOSE SW
3	Y	ABS CLOSE SW
4	L	CAN-H
5	P	CAN-L
6	LG	HALF LATCH SW
7	GR	IGN
8	SB	BAT
9	R	CLOSURE MTR (CLOSE)
10	V	CLOSURE MTR (OPEN)
11	R	TOUCH SENS LH
12	V	TOUCH SENS LH
13	O	TOUCH SENS GND
14	W	TOUCH SENS RH
15	W	TOUCH SENS RH
16	LG	MAIN SW
17	P	CLOSE SW
18	B	GROUND
19	B	GROUND
20	B	GROUND
21	B	GROUND
22	GR	GROUND
23	GR	GROUND
24	BR	ENCODER B
25	Y	ENCODER A
26	G	ENCODER PWR

Connector No.	B51
Connector Name	REAR DOOR SWITCH LH
Connector Type	TH64FW-NH



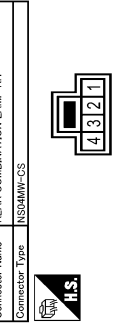
Terminal No.	Color Of Wire	Signal Name [Specification]
3	BR	-

Connector No.	B32
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	TH64FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	-

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS6AMW-CS



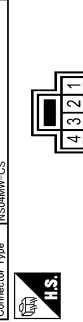
Terminal No.	Color Of Wire	Signal Name [Specification]
1	BL	- [Without rear view camera]
2	LG	- [With rear view camera]
3	BR	-
4	P	-
5	L	-

Connector No.	B72
Connector Name	DIODE
Connector Type	24335-C9802



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

Connector No.	B60
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS6AMW-CS



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

Connector No.	B85
Connector Name	OUTSIDE KEY ANTENNA (REAR BUMPER)
Connector Type	RK02FCY



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

Connector No.	B88
Connector Name	INSIDE KEY ANTENNA (LUGGAGE ROOM)
Connector Type	RK02FCY



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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

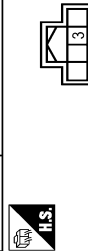
BCM (BODY CONTROL MODULE)

Connector No.	B232
Connector Name	REAR DOOR SWITCH RH
Connector Type	THREW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	--

Connector No.	B233
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	THREW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	--

Connector No.	B407
Connector Name	LUMBAR SUPPORT SWITCH
Connector Type	NSDFBR-CS



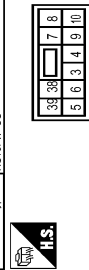
Terminal No.	Color Of Wire	Signal Name [Specification]
11	O	--
12	LG	--
13	Y/W	--
14	Y	--

Connector No.	B414
Connector Name	POWER SEAT SWITCH (DRIVER SIDE)
Connector Type	NSDFW-CS



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

Connector No.	B434
Connector Name	POWER SEAT SWITCH (PASSENGER SIDE)
Connector Type	NSDFW-CS



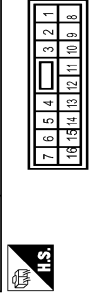
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	--
2	B	--
3	G	--
4	G/R	--
5	V	--
6	R/L	--

Connector No.	B452
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH2FPW



Terminal No.	Color Of Wire	Signal Name [Specification]
11	G/B	--
12	G/W	--
13	R/G	--
14	W/B	--
15	Y/B	--
16	V/B	--
17	LG/B	--
18	LG/R	--
19	G/Y	--
20	R/Y	--
21	L/Y	--
22	BR/Y	--
23	P	--
24	P/L	--
25	G/O	--
26	L/O	--
27	V	--
28	W	--
29	BR	--
31	BR/W	--
32	W/L	--
33	W	--

Connector No.	D5
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NSDFW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
2	GR	--
3	W	--
5	BR	--
4	L	--
5	SB	--
6	R	--
7	P	--
8	L	--
9	G	--
10	V	--
11	LG	--
13	Y	--
14	O	--
15	R	--

Connector No.	D6
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NSDFW-CS



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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	D9
Connector Name	FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE)
Connector Type	EBEGY-RS



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

Connector No.	D11
Connector Name	FRONT OUTSIDE HANDLE LH (REQUEST SWITCH)
Connector Type	PH02FB



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

Connector No.	D12
Connector Name	FRONT OUTSIDE HANDLE LH (OUTSIDE KEY ANTENNA)
Connector Type	PH02MGY



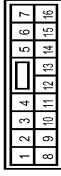
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	V	-

Connector No.	D17
Connector Name	STEP LAMP (DRIVER SIDE)
Connector Type	CO2FW



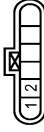
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	D45
Connector Name	FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
Connector Type	HS16FW-CS



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

Connector No.	D48
Connector Name	FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE)
Connector Type	EBEGY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
5	V	-
6	G	-

Connector No.	D50
Connector Name	FRONT OUTSIDE HANDLE RH (REQUEST SWITCH)
Connector Type	PH02EB



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

Connector No.	D51
Connector Name	STEP LAMP (PASSENGER SIDE)
Connector Type	CO2FW



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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	D152
Connector Name	FRONT OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA)
Connector Type	RK02M3GY



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

Connector No.	D183
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	--
2	P	--
3	SB	--
4	LG	--
5	L	--

Connector No.	D185
Connector Name	REAR DOOR LOCK ASSEMBLY LH
Connector Type	EB0E5Y-RS



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

Connector No.	D103
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	--
2	P	--
3	SB	--
4	LG	--
5	L	--

Connector No.	D185
Connector Name	REAR DOOR LOCK ASSEMBLY RH
Connector Type	EB0E5Y-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
3	G	--

Connector No.	D186
Connector Name	LUGGAGE ROOM LAMP RH
Connector Type	CJ0AFW



Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	--
4	LG	--

Connector No.	D187
Connector Name	LUGGAGE ROOM LAMP LH
Connector Type	CJ0AEW



Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	--
4	LG	--

Connector No.	D178
Connector Name	AUTOMATIC BACK DOOR CLOSE SWITCH
Connector Type	TK0BEFY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	O	--
2	B	--
3	W	--
4	LG	--

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	D179
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NSDFW-CS



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

Connector No.	D180
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NSDFW-CS



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

Connector No.	D188
Connector Name	BACK DOOR OPENER SWITCH ASSEMBLY
Connector Type	TRG4MW-NH



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

Connector No.	D183
Connector Name	REAR WIPER MOTOR
Connector Type	CJ04W-IV



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
3	GR	-
4	O	-

Connector No.	E10
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TRG2PW-CS12-M4-1V



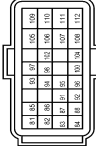
Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	-
7	GR	-
10	GR	-
12	B	-
13	SR	-
15	W	-
16	R	-
19	Y	-
20	L	-
21	O	-
22	SR	-
23	GR	-
24	G	-
25	GR	-
27	W	-
28	SR	-
30	BR	-
34	O	-
35	P	-
36	G	-
38	GR	-

Connector No.	E11
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TRG2PW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	B	-
42	SR	-
43	Y	-
44	W	-
45	O	-
46	BR	-

Connector No.	E16
Connector Name	ECM
Connector Type	IRH2PE-R28-L-LH



Terminal No.	Color Of Wire	Signal Name [Specification]
81	W	ACCELERATOR PEDAL POSITION SENSOR 1
82	O	ACCELERATOR PEDAL POSITION SENSOR 2
83	BR	SENSOR POWER SUPPLY
84	B	SENSOR GROUND
85	B	ASCO STEERING SWICH
87	SR	EVAP CANISTER PURGE FLOW SENSOR
88	GR	SENSOR POWER SUPPLY
88	O	DATA LINK CONNECTOR
81	L	SENSOR POWER SUPPLY
92	BR	SENSOR GROUND
93	BR	IGNITION SWITCH
94	GR	ENGINE SPEED OUTPUT SIGNAL

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

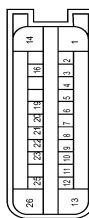
86	Y	FUEL TANK VAPOR LEAK SENSOR
87	GR	SENSOR GROUND
87	P	CAN COMMUNICATION LINE (CAN-L)
88	L	CAN COMMUNICATION LINE (CAN-H)
100	G	SENSOR GROUND
102	R	PNP SIGNAL
104	SB	SENSOR GROUND
105	V	POWER SUPPLY FOR ECM
106	SB	STOP LAMP SWITCH
107	B	ECM GROUND
108	B	ECM GROUND
109	W	EVAP CANISTER VENT CONTROL VALVE
110	G	ASSED BRAKE SWITCH
111	B	ECM GROUND
112	B	ECM GROUND

Connector No.	E25
Connector Name	INTELLIGENT KEY WARNING BUZZER
Connector Type	RK03FBR



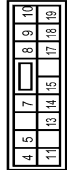
Terminal No.	1	3	GR
Color Of Wire	G	GR	
Signal Name [Specification]			

Connector No.	E36
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	AE22FB-AJ24-LH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	VALVE / ECU SUPPLY
2	Y	WSS RL SIG (-)
3	L	WSS RL PWR (+)
4	GR	CLUSTER SUPPLY
5	B	WSS FR PWR (+)
6	W	WSS FR SIG (-)
7	LG	LIS
8	V	WSS FL SIG (-)
9	W	WSS FL PWR (+)
10	SB	CLUSTER GND
11	P	WSS RR PWR (+)
12	P	WSS RR SIG (-)
13	W	ECU SUPPLY
14	B/W	ELIS
15	SB	ELIS
16	BR	CAN 2 H
17	BR	IGN
18	GR	CAN 1 L
19	GR	CAN 1 L
20	P	VDC OFF SW
21	Y	CAN 1 H
22	Y	CAN 1 H
23	L	CAN 2 L
24	W	CAN 2 L
25	B/W	VALVE / ECU GND
26	B/W	VALVE / ECU GND

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



Terminal No.	Color Of Wire	Signal Name [Specification]
11F	G	
12F	V	
2F	LG	
4F	BR	
8F	Y	
9F	R	
9F	GR	

Connector No.	E116
Connector Name	STOP LAMP SWITCH
Connector Type	MR0EW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	
2	LG	
3	G	
4	Y	

Connector No.	E318
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	Z05FBR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	
2	B	
3	Y	

Connector No.	E319
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	Z03FBR



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

Connector No.	E327
Connector Name	FRONT TURN SIGNAL LAMP LH
Connector Type	RS02FCY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	
2	B	

JRMWE5835GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	E228
Connector Name	FRONT TURN SIGNAL LAMP RH
Connector Type	HS2EGY



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

Connector No.	F12
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH2BFW-CS1Z-M4



Terminal No.	Color Of Wire	Signal Name [Specification]
48	W	-
49	R/B	-
51	LG	-
52	Y/G	-
53	R/W	-
54	G/W	-
55	W/L	-
56	R/Y	-
57	O	-
58	Y	-
59	W/B	-
60	R/B	-
72	R/B	-
75	LG	-
76	SB	-
77	GR	-
80	B	-

Connector No.	F23
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-E2B-L-RH



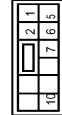
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P/B	TRANSMISSION RANGE SWITCH 2
2	P/B	TRANSMISSION RANGE SWITCH 2
3	G/D	TRANSMISSION RANGE SWITCH 3
4	GR	TRANSMISSION RANGE SWITCH 3 (MONITOR)
5	B	GROUND
7	W	SENSOR GROUND
8	G/W	CLOCK (SEL 2)
9	L/R	CHP SELECT (SEL 1)
10	BR/R	DATA I/O (SEL 3)
11	BR/W	TRANSMISSION RANGE SWITCH 1
13	V	O/V FLUID TEMPERATURE SENSOR
14	R/W	PRIMARY PRESSURE SENSOR
15	V/W	SECONDARY PRESSURE SENSOR
19	G/B	REVERSE LAMP-RELAY
20	R/B	STARTER RELAY
21	Y/B	STARTER RELAY
26	V/G	SENSOR POWER
27	R/G	STEP MOTOR D
28	R	STEP MOTOR C
29	O/B	STEP MOTOR B
30	G/R	STEP MOTOR A
31	P	CAN-H
32	L	CAN-L
33	LG	PRIMARY SPEED SENSOR
34	LG/R	SECONDARY SPEED SENSOR
37	V/R	LOCK-UP SELECT SOLENOID VALVE
38	L/W	TORQUE CONVERTER CLUTCH SOLENOID VALVE
39	W/B	SECONDARY PRESSURE SOLENOID VALVE
40	R/Y	LINE PRESSURE SOLENOID VALVE
42	Y	POWER SUPPLY
47	L/R	POWER SUPPLY (MEMORY BACK-UP)
48	Y	POWER SUPPLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS8BFW-M2



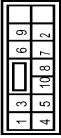
Terminal No.	Color Of Wire	Signal Name [Specification]
1A	Y	-
2A	Y	-
3A	Y	-
4A	GR	-
7A	LG	-
8A	Y	-

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



Terminal No.	Color Of Wire	Signal Name [Specification]
1B	W	-
3B	L	-
4B	G	-
5B	L	-
6B	Y	-
7B	R	-
8B	R	-
9B	GR	-

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



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	SB	-
11C	R	-
12C	G	-
6C	BR	-
7C	B	-
8C	G	-
9C	GR	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD1BFW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	BR	-
8	G	-
11	L	-
14	SB	-
16	Y	-

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	M17
Connector Name	OPTICAL SENSOR
Connector Type	TK09W



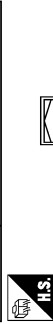
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	Y	-
3	P	-

Connector No.	M21
Connector Name	TIRE PRESSURE RECEIVER
Connector Type	TK09W



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	GROUND
2	O	SIGNAL
4	V	POWER

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	BATTERY POWER SUPPLY
2	LG	IGN SIGNAL
3	B	GROUND
4	B	GROUND
5	SB	ILLUMINATION CONTROL SIGNAL
8	SB	TRIP RESET SIGNAL
9	W	SW ILL POWER
10	LG	METER CONTROL SWITCH GROUND
11	L	ENTER SWITCH SIGNAL
12	R	SELECT SWITCH SIGNAL
13	V	ILLUMINATION CONTROL SWITCH SIGNAL (2-PULSE)
14	GR	ILLUMINATION CONTROL SWITCH SIGNAL (3)
15	BR	AIR BAG SIGNAL
16	G	AMBIENT SENSOR SIGNAL
17	Y	AMBIENT SENSOR SIGNAL
20	Y	AMBIENT SENSOR GROUND
21	L	CAN-H
22	P	CAN-L
23	B	GROUND
24	W	FUEL LEVEL SENSOR GROUND
25	BR	ALTERNATOR SIGNAL
26	G	PARKING BRAKE SWITCH SIGNAL
27	V	WASHER FLUID LEVEL SWITCH SIGNAL
29	R	WASHER LEVEL SWITCH SIGNAL
30	P	VEHICLE SPEED SIGNAL (2-PULSE)
31	V	VEHICLE SPEED SIGNAL (3-PULSE)
32	LG	OVERDRIVE CONTROL SWITCH SIGNAL
34	G	FUEL LEVEL SENSOR SIGNAL
35	B	SEAT BELT BUZZER CONTROL SWITCH SIGNAL
36	R	SEAT BELT BUZZER CONTROL SWITCH SIGNAL (PASSER'S SEAT)

Connector No.	M35
Connector Name	HAZARD SWITCH
Connector Type	TK09W



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

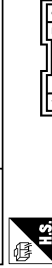
Connector No.	M50
Connector Name	A/C AUTO AMP
Connector Type	SA840FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	P	CAN-L
6	L	TX AMP SW & DISP
7	P	RX (SW AMP)
10	G	LAM SIG (Without colour display)
10	L	LAM SIG (With colour display)
11	R	WACTR
15	BR	SUN SENS
16	R	INTAKE SENS (Without colour display)
18	R	INTAKE SENS (With colour display)
19	B	GROUND
20	G	IGN
26	GR	RR DEF F/B
27	BR	RR DEF ON
32	L	FAN PWM
34	P	AMB POWER (With colour display)

34	Y	AMB POWER (Without colour display)
35	G	AMB SENS (Without colour display)
35	L	AMB SENS (With colour display)
36	LG	INCAR SENS
37	SB	SENS GND (Without colour display)
37	Y	SENS GND (With colour display)
39	B	GND (POWER)
40	Y	BAT

Connector No.	M57
Connector Name	CVT SHIFT SELECTOR
Connector Type	TK10PW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
4	B	-
6	P	-
7	B	-
8	Y	-
9	Y	-

Connector No.	M78
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Type	JAB04FB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	GROUND
2	P	SIGNAL
4	L	+12V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	M189
Connector Name	KEY SLOT
Connector Type	TH16FW-NH



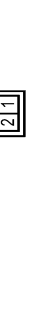
Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BAT
2	GB	CLCK
3	GR	CLAT
4	GR	ILL.BAT
6	R	ILL
7	B	GROUND
11	Y	KEY SWITCH SIGNAL

Connector No.	M100
Connector Name	SECURITY INDICATOR LAMP
Connector Type	TR02FBR



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

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	
2	Y	OUTPUT 4
3	BG	FR
4	W	IGN
6	R	OUTPUT 3
7	GR	IGN
8	L	OUTPUT 5
10	P	INPUT 4
11	O	INPUT 1
12	W	OUTPUT 1

Connector No.	M101
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TK08FBR



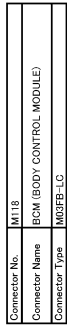
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	
2	W	
3	W	
4	BR	
5	R	
6	L	
7	P	
8	GR	

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	
2	Y	OUTPUT 4
3	BG	FR
4	W	IGN
6	R	OUTPUT 3
7	GR	IGN
8	L	OUTPUT 5
10	P	INPUT 4
11	O	INPUT 1
12	W	OUTPUT 1

Terminal No.	13	R	INPUT 5
Terminal No.	14	P	OUTPUT 2



Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M08FBE-LC

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (E/L)
2	GR	POWER WINDOW POWER SUPPLY (BAT)
3	L	POWER WINDOW POWER SUPPLY (IGN)

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



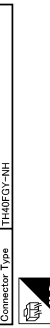
Terminal No.	Color Of Wire	Signal Name [Specification]
4	P/W	
5	G	INTERIOR ROOM LAMP POWER SUPPLY
6	G	PASSENGER DOOR UNLOCK OUTPUT
7	W	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	L	REAR DOOR UNLOCK OUTPUT
11	CS	GROUND
13	B	
14	O	PUSH-BUTTON IGNITION SW ILL GND
15	L	ACC IND
17	G	TURN SIGNAL RH
18	BR	TURN SIGNAL LH
19	Y	INT ROOM LAMP CONT

Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
23	BR	BACK DOOR OPEN OUTPUT
28	G	REAR WIPER OUTPUT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH46FCY-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
34	B	LUGGAGE ROOM ANT-
35	W	LUGGAGE ROOM ANT+
38	L	REAR BUMPER ANT-
39	BR	REAR BUMPER ANT+
47	L	IGN RELAY (PDM E/R) CONT
52	R	STARTER RELAY CONT
60	BR	PUSH SW
61	R	BACK DOOR OPENER REQUEST SW
65	O	REAR WIPER STOP POSITION
66	Y	BACK DOOR SW
67	L	BACK DOOR SW
68	W	REAR LH DOOR SW
69	R	REAR RH DOOR SW

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH46FCY-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
34	B	LUGGAGE ROOM ANT-
35	W	LUGGAGE ROOM ANT+
38	L	REAR BUMPER ANT-
39	BR	REAR BUMPER ANT+
47	L	IGN RELAY (PDM E/R) CONT
52	R	STARTER RELAY CONT
60	BR	PUSH SW
61	R	BACK DOOR OPENER REQUEST SW
65	O	REAR WIPER STOP POSITION
66	Y	BACK DOOR SW
67	L	BACK DOOR SW
68	W	REAR LH DOOR SW
69	R	REAR RH DOOR SW

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JRMWE5838GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

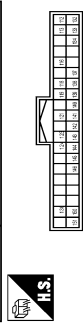
[XENON TYPE]

BCM (BODY CONTROL MODULE)

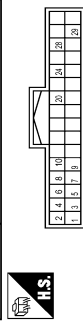
Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH48PB-NH



Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH48FG-NH



Connector No.	M174
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

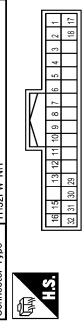


Terminal No.	Color Of Wire	Signal Name [Specification]
72	B	ECOM ANT-
73	W	ECOM ANT+
74	Y	PASSENGER DOOR ANT-
75	LG	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	P	DRIVER DOOR ANT+
80	SB	NATS ANT AMP
81	O	NATS ANT AMP
82	BR	IGN RELAY (F/B) CONT
83	P	KEYLESS ENTRY RECEIVER COMM
87	R	COMBI SW INPUT 5
88	GR	COMBI SW INPUT 3
90	P	CAN-L
91	L	CAN-H
92	P	IGN IND
93	P	ACC RELAY CONT
95	L	CVT SHIFT SELECTOR POWER SUPPLY
99	V	SHIFT P
100	P	PASSENGER DOOR REQUEST SW
101	W	DRIVER DOOR REQUEST SW
102	Y	BLOWER RELAY CONT
103	L	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	O	COMBI SW INPUT 1
108	P	COMBI SW INPUT 4
109	SB	COMBI SW INPUT 2
110	G	HAZARD SW

Terminal No.	Color Of Wire	Signal Name [Specification]
112	P/B	RAIN SENSOR SERIAL LINK
113	GR	OFF-GAS SENSOR
116	GR	STOP LAMP SW 1
118	L	STOP LAMP SW 2
119	W	DR DOOR UNLOCK SENSOR
121	Y	KEY SLOT SW
123	G	IGN F/B
124	R	PASSENGER DOOR SW
130	BR	REAR DEFOGGER SW
132	G	POWER WINDOW SW COMM
133	W	PUSH-BUTTON IGNITION SW ILL POWER
134	R	LOCK IND
137	P	RECEIVER SENSOR GND
138	O	RECEIVER SENSOR POWER SUPPLY
140	GR	TIRE PRESSURE MONITORING SYSTEM COMM
141	O	SECURITY IND LAMP CONT
142	L	COMBI SW OUTPUT 5
143	W	COMBI SW OUTPUT 1
144	P	COMBI SW OUTPUT 2
145	V	COMBI SW OUTPUT 3
146	Y	COMBI SW OUTPUT 4
150	SB	DRIVER DOOR SW
151	G	REAR WINDOW DEFOGGER RELAY CONT

Terminal No.	Color Of Wire	Signal Name [Specification]
85	SB	AV COMM (L)
86	SB	AV COMM (H)
78	LG	AV COMM (L)
79	SB	AV COMM (L)
80	P	CAN-L
81	L	CAN-H
82	V	SW GND
83	L	SHIELD
87	R	TEL VOICE SIGNAL (-)
88	L	TEL VOICE SIGNAL (+)
92	V	VEHICLE SPEED SIGNAL (8-PULSE)
93	G	PARKING BRAKE (Without EDS system)
94	SB	REVERSE
95	G	IGNITOR
96	W	REVERSE
102	W	AVX SOUND SIGNAL GND
103	B	AVX SOUND SIGNAL LH (+)
104	R	AVX SOUND SIGNAL RH (-)

Connector No.	M180
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
65	LG	PARKING BRAKE
67	LG	-
68	LG	-
71	SHIELD	-
72	B	MICROPHONE VCC
73	R	COMM (CONT- DISP)
74	P	CAN-L
75	LG	AV COMM (L)
76	LG	AV COMM (L)
79	R	ILLUMINATION SIGNAL
80	G	IGNITION
81	SB	REVERSE
82	V	VEHICLE SPEED SIGNAL (8-PULSE)
87	W	MICROPHONE SIGNAL
88	B	-
89	W	-
90	L	CAN-H
91	SB	AV COMM (H)
92	SB	AV COMM (H)

Connector No.	M262
Connector Name	INSIDE KEY ANTENNA (CONSOLE)
Connector Type	IR02PGY



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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	R18
Connector Name	VANITY MIRROR LAMP (PASSENGER SIDE)
Connector Type	MCA02FW



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

Connector No.	R19
Connector Name	MAP LAMP
Connector Type	TK0BEFY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P/W	-
2	Y	-
3	B	-
4	SB	-
5	R/Y	-
6	R/L	-

Connector No.	R21
Connector Name	PERSONAL LAMP
Connector Type	TH04FW-NH



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

Connector No.	R23
Connector Name	RAIN SENSOR
Connector Type	LA000FB



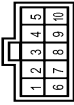
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y/R	-
2	R	-
3	B	-

Connector No.	R24
Connector Name	VANITY MIRROR LAMP (DRIVER SIDE)
Connector Type	MCA02FW



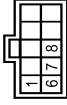
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	P/W	-

Connector No.	R101
Connector Name	SUNROOF MOTOR ASSEMBLY
Connector Type	YEADFGY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	O	GROUND
3	L	IGN
4	Y	PUSH SW
5	LG	OPEN SW
6	R	BAT
7	P	COMM
8	BR	VEHICLE SPEED (2-PULSE)
9	W	2ND SW
10	V	CLOSE SW

Connector No.	R102
Connector Name	SUNSHADE MOTOR ASSEMBLY
Connector Type	YEADFGY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
6	D	COMM
7	D	COMM
8	BR	VEHICLE SPEED (2-PULSE)

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none">• Starter control relay signal• Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none">• Starter motor 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 motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

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

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/AUTO 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

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

DTC Inspection Priority Chart

INFOID:0000000110092640

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Priority	DTC	
1	B2562: LOW VOLTAGE	A
2	<ul style="list-style-type: none"> • U1000: CAN COMM • U1010: CONTROL UNIT(CAN) 	B
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 	C
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 SW • B2605: PNP SW • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: ACC RELAY CIRC • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY CIRC • B2617: STARTER RELAY CIRC • B2618: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG 	D E F G H I
	<ul style="list-style-type: none"> • C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1734: CONTROL UNIT 	J K
5		EXL
6	<ul style="list-style-type: none"> • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA 	M N

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-24. "COMMON ITEM : CONSULT Function \(BCM - COMMON ITEM\)"](#).

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 warning lamp ON	Tire pressure monitor warning lamp ON	Reference
No DTC is detected. further testing may be required.	—	—	—	—	—
U1000: CAN COMM	—	—	—	—	BCS-42
U1010: CONTROL UNIT(CAN)	—	—	—	—	BCS-43
U0415: VEHICLE SPEED SIG	—	—	—	—	BCS-44
B2190: NATS ANTENNA AMP	×	—	—	—	SEC-42
B2191: DIFFERENCE OF KEY	×	—	—	—	SEC-45
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-46
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-48
B2195: ANTI SCANNING	×	—	—	—	SEC-49
B2553: IGNITION RELAY	—	×	—	—	PCS-50
B2555: STOP LAMP	—	×	—	—	SEC-50
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-52
B2557: VEHICLE SPEED	×	×	×	—	SEC-54
B2560: STARTER CONT RELAY	×	×	×	—	SEC-55
B2562: LOW VOLTAGE	—	×	—	—	BCS-45
B2601: SHIFT POSITION	×	×	×	—	SEC-56
B2602: SHIFT POSITION	×	×	×	—	SEC-59
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-61
B2604: PNP SW	×	×	×	—	SEC-64
B2605: PNP SW	×	×	×	—	SEC-66
B2608: STARTER RELAY	×	×	×	—	SEC-68
B260A: IGNITION RELAY	×	×	×	—	PCS-52
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-70
B2614: ACC RELAY CIRC	—	×	×	—	PCS-54
B2615: BLOWER RELAY CIRC	—	×	×	—	PCS-57
B2616: IGN RELAY CIRC	—	×	×	—	PCS-60
B2617: STARTER RELAY CIRC	×	×	×	—	SEC-72
B2618: BCM	×	×	×	—	PCS-63
B261A: PUSH-BTN IGN SW	—	×	×	—	SEC-75
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	SEC-78
B2622: INSIDE ANTENNA	—	×	—	—	DLK-91
B2623: INSIDE ANTENNA	—	×	—	—	DLK-93
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	SEC-71
C1704: LOW PRESSURE FL	—	—	—	×	WT-23
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	

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 warning lamp ON	Tire pressure monitor warning lamp ON	Reference
C1708: [NO DATA] FL	—	—	—	×	WT-25
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-28
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-29
C1734: CONTROL UNIT	—	—	—	×	WT-30

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EXL

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

INFOID:000000010124931

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
MOTOR FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	1/2/3/4
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
		<ul style="list-style-type: none"> • 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 ON → ST ON
	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	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	NOTE: The item is indicated, but not monitored.	Off
HL WASHER REQ	NOTE: The item is indicated, but not monitored.	Off
THFT HRN REQ	Not operating	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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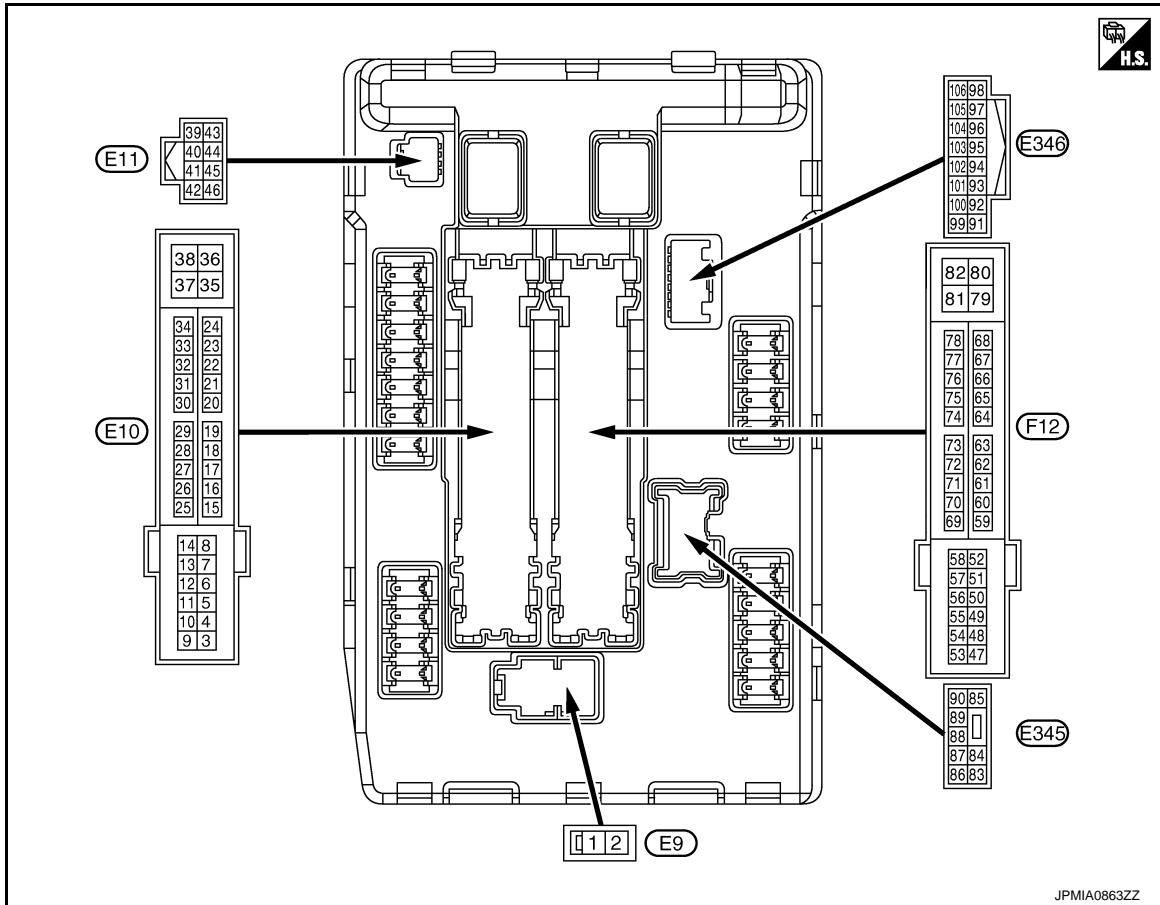
EXL

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

TERMINAL LAYOUT



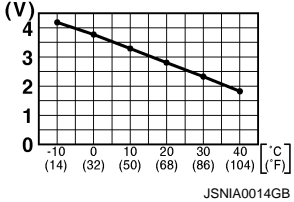
PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (L)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
4 (LG)	Ground	Front wiper LO	Output	Ignition switch OFF	Front wiper switch OFF	0 V
				Ignition switch ON	Front wiper switch LO	Battery voltage
5 (Y)	Ground	Front wiper HI	Output	Ignition switch OFF	Front wiper switch OFF	0 V
				Ignition switch ON	Front wiper switch HI	Battery voltage
7 (GR)	Ground	Tail, license plate lamps & illuminations	Output	Ignition switch OFF	Lighting switch OFF	0 V
				Ignition switch ON	Lighting switch 1ST	Battery voltage
10 (BR)	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 ignition 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 (SB)	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
15 (W)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
16 (R)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
					Any position other than front wiper stop position	Battery voltage
19 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
20 (L)	Ground	Ambient sensor ground	Output	Ignition switch ON		0 V
21 (O)	Ground	Ambient sensor	Input	Ignition switch ON NOTE: Changes depending to ambient temperature		 <p style="text-align: right; font-size: small;">JSNIA0014GB</p>
22 (SB)	Ground	Refrigerant pressure sensor ground	Output	Engine running	<ul style="list-style-type: none"> Warm-up condition Idle speed 	0 V
23 (GR)	Ground	Refrigerant pressure sensor	Output	Engine running	<ul style="list-style-type: none"> Warm-up condition Both A/C switch and blower fan motor switch ON (Compressor operates) 	1.0 - 4.0 V
24 (G)	Ground	Refrigerant pressure sensor power supply	Input	Ignition switch OFF		0 V
				Ignition switch ON		5.0 V
25 (GR)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
26*1 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
27 (W)	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		0 V
28 (SB)	Ground	Push-button ignition switch	Input	Press the push-button ignition switch		0 V
				Release the push-button ignition switch		Battery voltage
30 (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
34 (O)	Ground	Cooling fan relay-3 control	Input	Cooling fan stopped		Battery voltage
				Cooling fan at HI operation		0 V
35 (P)	Ground	Cooling fan relay-1 power supply	Input	Cooling fan stopped		Battery voltage
				Cooling fan at LO operation		6.0 V
36 (G)	Ground	Battery power supply	Input	Ignition switch OFF		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			
38 (GR)	Ground	Cooling fan relay-1 power supply	Output	Cooling fan not operating	0 V	
				Cooling fan at LO operation	6.0 V	
39 (P)	—	CAN-L	Input/ Output	—	—	
40 (L)	—	CAN-H	Input/ Output	—	—	
41 (B)	Ground	Ground	—	Ignition switch ON	0 V	
42 (SB)	Ground	Cooling fan relay-2 control	Input	Cooling fan stopped	Battery voltage	
				<ul style="list-style-type: none"> • Cooling fan MID operating • Cooling fan HI operating 	0 V	
43 (Y)	Ground	CVT 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	Horn switch	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 (W)	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
49 (R/B)	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 ignition switch OFF) 	Battery voltage	
51 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0 V	
				Ignition switch ON	Battery voltage	
52 (Y/G)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0 V	
				Ignition switch ON	Battery voltage	
53 (R/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 ignition switch OFF) 	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		
54 (G/W)	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 (W/L)	Ground	ECM power supply	Output	Ignition switch OFF	Battery voltage
56 (R/Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0 V
				Ignition switch ON	Battery voltage
57 (O)	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/B)	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 (O)	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
72 (R/B)	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any posi- tion other than P or N 0 V
				Ignition switch ON	Selector lever P or N Battery voltage
75 (LG)	Ground	Oil pressure switch	Input	Ignition switch ON	Engine stopped 0 V
				Ignition switch ON	Engine running 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			
76 (SB)	Ground	Power generation command signal	Output	Ignition switch ON		<p style="text-align: right;">JPMIA0001GB</p> <p style="text-align: center;">6.3 V</p>
				40% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		<p style="text-align: right;">JPMIA0002GB</p> <p style="text-align: center;">3.8 V</p>
				80% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		<p style="text-align: right;">JPMIA0003GB</p> <p style="text-align: center;">1.4 V</p>
77 (GR)	Ground	Fuel pump relay control	Output	<ul style="list-style-type: none"> Approximately 1 second after turning the ignition switch ON Engine running 		0 - 1.5 V
				Approximately 1 second or more after turning the ignition switch ON		Battery voltage
80 (B)	Ground	Starter motor	Output	At engine cranking		Battery voltage
83 (Y)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
84 (L)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
86 (SB)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					<ul style="list-style-type: none"> Front fog lamp switch ON Daytime running light activated (Only for Canada) 	Battery voltage
87 (GR)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					<ul style="list-style-type: none"> Front fog lamp switch ON Daytime running light activated (Only for Canada) 	Battery voltage
88 (W)	Ground	Washer pump power supply	Output	Ignition switch ON		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			
89 (L)	Ground	Headlamp HI (RH)	Output	Ignition switch OFF		0 V
				Ignition switch ON	<ul style="list-style-type: none"> Lighting switch HI Lighting switch PASS 	Battery voltage
90 (G)	Ground	Headlamp HI (LH)	Output	Ignition switch OFF		0 V
				Ignition switch ON	<ul style="list-style-type: none"> Lighting switch HI Lighting switch PASS 	Battery voltage
91 (R)	Ground	Parking lamp (RH)	Output	Ignition switch OFF		0 V
				Ignition switch ON	Lighting switch 1ST	Battery voltage
92 (LG)	Ground	Parking lamp (LH)	Output	Ignition switch OFF		0 V
				Ignition switch ON	Lighting switch 1ST	Battery voltage
99 (BR)	Ground	Ambient sensor ground	Input	Ignition switch ON		0 V
100 (SB)	Ground	Ambient sensor	Output	Ignition switch ON		<p>(V)</p> <p>4 3 2 1 0</p> <p>-10 0 10 20 30 40 [°C] (14) (32) (50) (68) (86) (104) [°F]</p> <p>JSNIA0014GB</p>
				Ignition switch ON NOTE: Changes depending to ambient temperature		
101 (L)	Ground	Refrigerant pressure sensor ground	Input	Engine running	<ul style="list-style-type: none"> Warm-up condition Idle speed 	0 V
102 (B)	Ground	Refrigerant pressure sensor	Input	Engine running	<ul style="list-style-type: none"> Warm-up condition Both A/C switch and blower fan motor switch ON (Compressor operates) 	1.0 - 4.0 V
103 (P)	Ground	Refrigerant pressure sensor power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		5.0 V

*1: AWD models only

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EXL

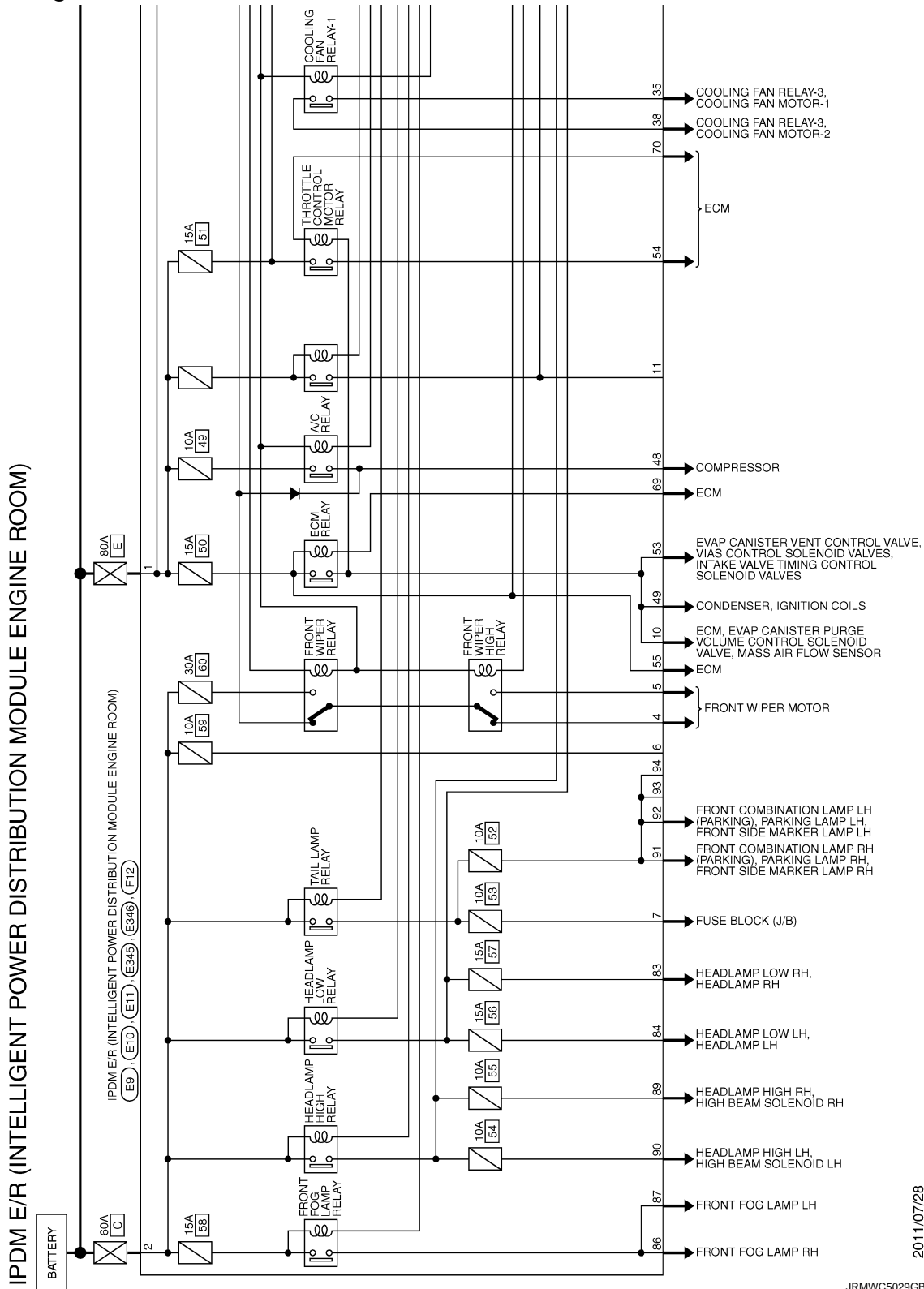
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Wiring Diagram - IPDM E/R -

INFOID:000000010124932



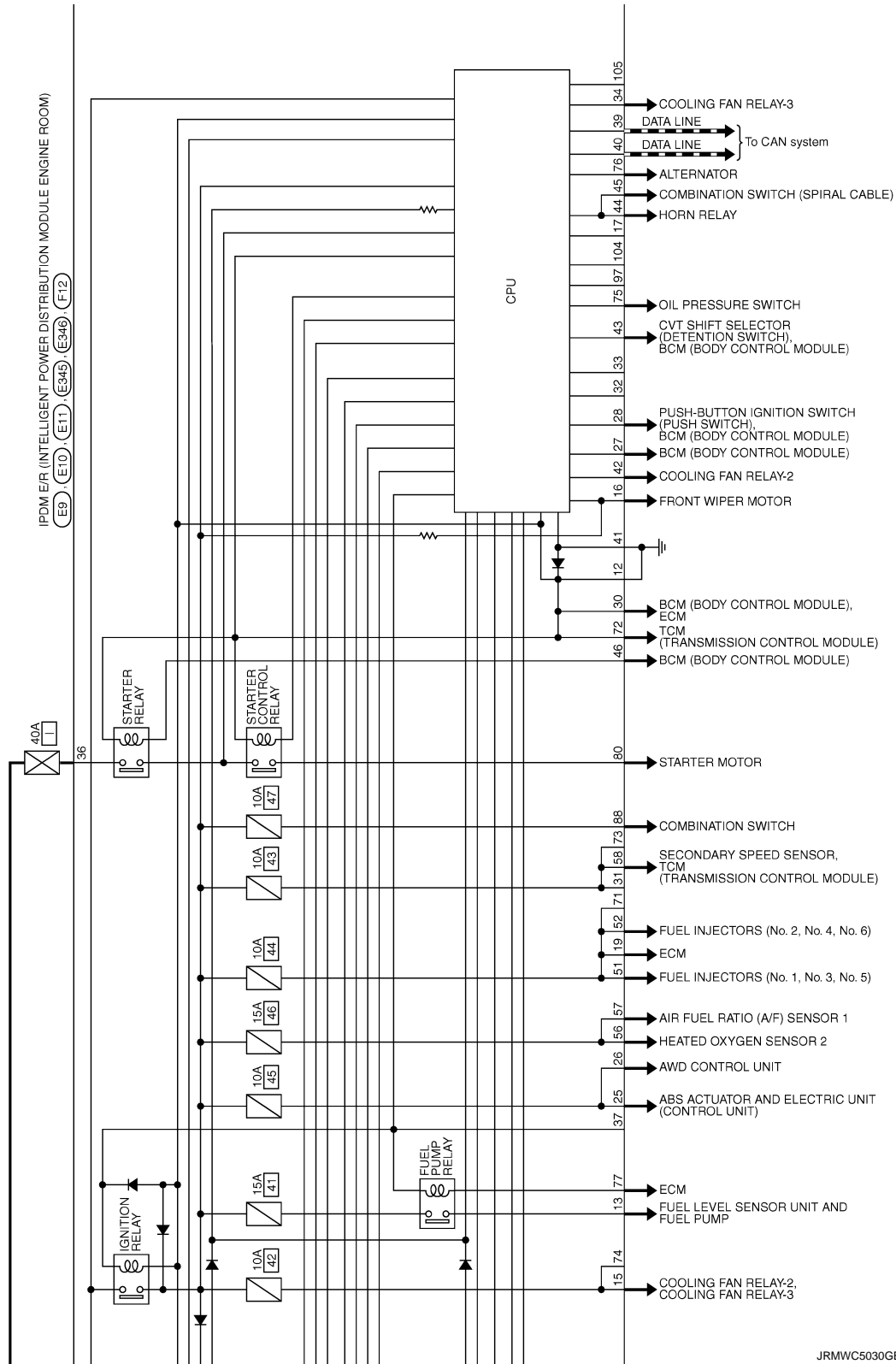
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JRMWC5029GB

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

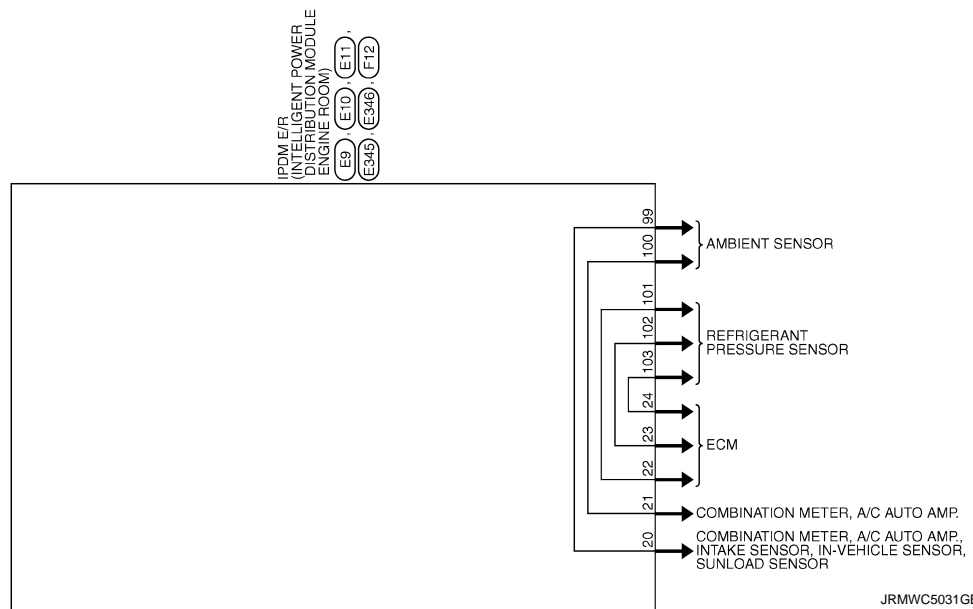
< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]



JRMWC5030GB

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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"> • Turns ON the cooling fan relay-2 and the cooling fan relay-3 when ignition switch is turned ON (Cooling fan operates at HI) • Turns OFF the cooling fan relay-1, the cooling fan relay-2 and the cooling fan relay-3 when the ignition switch is turned OFF (Cooling fan does not operate)
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/AUTO 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 auto stop 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 auto stop 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:000000010124934

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	Refer to
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-79
B210C: STR CONT RLY OFF CIRC	—	SEC-80
B210D: STARTER RLY ON CIRC	—	SEC-81
B210E: STARTER RLY OFF CIRC	—	SEC-83
B210F: INTRLCK/PNP SW ON	—	SEC-85
B2110: INTRLCK/PNP SW OFF	—	SEC-87

EXL

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:000000009722944

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-36 .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM" Refer to EXL-166 .	
High beam indicator lamp is not turned ON. (The headlamp switches to the high beam.)		Combination meter	<ul style="list-style-type: none"> Combination meter Data monitor "HI-BEAM IND" BCM (HEAD LAMP) Active test "HEADLAMP"
Headlamp does not switch to the low beam.	One side	Front combination lamp (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-94 .
		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-39 .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-166 .	
Headlamp is not turned OFF.	When ignition switch is turned ON	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-166 .	
	Ignition switch is turned OFF.	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-94 .
	<ul style="list-style-type: none"> Optical sensor Harness between the optical sensor and BCM BCM 		Optical sensor Refer to EXL-52 .

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 • Front fog lamp • IPDM E/R 	Front fog lamp circuit Refer to EXL-43 .
	Both side	Symptom diagnosis "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to EXL-169 .	
Front fog lamp is not turned ON.		<ul style="list-style-type: none"> • Parking lamp bulb • Harness between IPDM E/R and the parking lamp • IPDM E/R 	Parking lamp circuit Refer to EXL-45 .
Parking lamp is not turned ON.		<ul style="list-style-type: none"> • Front side marker lamp bulb • Harness between IPDM E/R and the front side marker lamp • IPDM E/R 	Front side marker lamp circuit Refer to EXL-47 .
Front side marker lamp is not turned ON.		<ul style="list-style-type: none"> • Fuse • Harness between IPDM E/R and the front combination lamp • IPDM E/R 	Parking lamp circuit Refer to EXL-45 .
Parking lamp and front side marker lamp are 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-57 .
Tail lamp is not turned ON.		<ul style="list-style-type: none"> • License plate lamp bulb • Harness between IPDM E/R and the license plate lamp • License plate lamp 	License plate lamp circuit Refer to EXL-59 .
License plate lamp is not turned ON.		<ul style="list-style-type: none"> • Fuse • Harness between IPDM E/R and the rear combination lamp • IPDM E/R 	License plate lamp circuit Refer to EXL-59 .
Tail lamp and license plate lamp are not turned ON.		Symptom diagnosis "PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-168 .	
<ul style="list-style-type: none"> • Parking lamp, tail lamp, side marker lamp and license plate lamp are not turned ON. • Parking lamp, tail lamp, side marker lamp and license plate lamp are not turned OFF. (Each illumination is turned ON/OFF.) 			
Turn signal lamp does not blink.	Indicator lamp is normal. (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-49 .
	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-94 .

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EXL

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

Symptom		Possible cause	Inspection item
Turn signal indicator lamp does not blink. (Turn signal indicator lamp is normal.)	One side	Combination meter	—
	Both sides (Always)	<ul style="list-style-type: none"> • Turn indicator signal - Combination meter - BCM • Combination meter 	<ul style="list-style-type: none"> • Combination meter Data monitor "TURN IND" • BCM (FLASHER) Active test "FLASHER"
	Both sides (Only when activating hazard warning lamp with the ignition switch OFF)	<ul style="list-style-type: none"> • Combination meter power supply and the ground circuit • Combination meter 	Combination meter Power supply and the ground circuit Refer to MWI-44 .
<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-55 .

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

NORMAL OPERATING CONDITION

Description

INFOID:000000009722945

XENON HEADLAMP

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

AUTO LIGHT SYSTEM

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

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BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

Description

INFOID:000000009722946

The headlamp (both sides) does not switch to the high beam when setting to the lighting switch HI or PASS.

Diagnosis Procedure

INFOID:000000009722947

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-94, "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. Refer to [BCS-98, "Exploded View"](#)

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to [EXL-36, "Component Function Check"](#).

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description

INFOID:000000009722948

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

Diagnosis Procedure

INFOID:000000009722949

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-94, "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. Refer to [BCS-98, "Exploded View"](#).

3.HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to [EXL-39, "Component Function Check"](#).

Is the headlamp (LO) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

Description

INFOID:000000009722950

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

Diagnosis Procedure

INFOID:000000009722951

1.CHECK FUSE

Check that the following fuse is fusing.

Unit	Location	Fuse No.	Capacity
<ul style="list-style-type: none">• Parking lamp• Front side marker lamp	IPDM E/R	#52	10 A
<ul style="list-style-type: none">• Tail lamp• License plate lamp• Rear side marker lamp		#53	10 A

Is the fuse fusing?

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

NO >> GO TO 2.

2.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-94. "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning part.

3.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 4.

NO >> Replace BCM. Refer to [BCS-98. "Exploded View"](#).

4.TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to [EXL-57. "Component Function Check"](#).

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description

INFOID:000000009722952

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

Diagnosis Procedure

INFOID:000000009722953

1.CHECK FUSE

Check that the following fuse is fusing.

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

Is the fuse fusing?

- YES >> Repair the applicable circuit. And then replace the fuse.
- NO >> GO TO 2.

2.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-94, "Symptom Table"](#).

Is the combination switch normal?

- YES >> GO TO 3.
- NO >> Repair or replace the malfunctioning part.

3.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 (With lighting switch 1ST)	ON On
		OFF Off

Is the item status normal?

- YES >> GO TO 4.
- NO >> Replace BCM. Refer to [BCS-98, "Exploded View"](#).

4.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to [EXL-43, "Component Function Check"](#).

Is the front fog lamp circuit normal?

- YES >> Replace IPDM E/R.
- NO >> Repair or replace the malfunctioning part.

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PRECAUTION**PRECAUTIONS****FOR USA AND CANADA****FOR USA AND CANADA : Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"**

INFOID:000000009722954

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.

FOR USA AND CANADA : Precautions For Xenon Headlamp Service

INFOID:000000010028708

WARNING:

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.)
- Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

CAUTION:

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

- Install the xenon bulb securely. (Insufficient bulb socket installation may melt the bulb, the connector, the housing, etc. by high-voltage leakage or corona discharge.)
- Never perform HID circuit inspection with a tester.
- Never touch the xenon bulb glass with hands. Never put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Never wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

PRECAUTIONS

< PRECAUTION >

[XENON TYPE]

FOR USA AND CANADA : Precautions for Removing of Battery Terminal

INFOID:000000010028702

- 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.

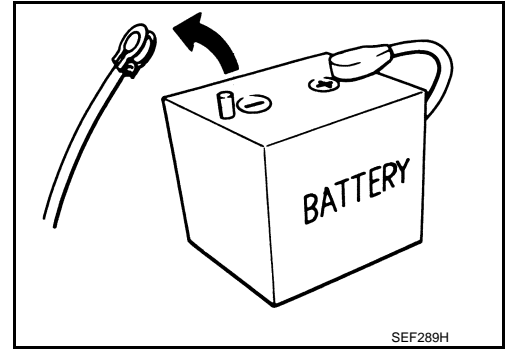
NOTE:

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.



FOR MEXICO

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

INFOID:000000009722955

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. 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.

FOR MEXICO : Precautions For Xenon Headlamp Service

INFOID:000000010028707

WARNING:

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.)

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PRECAUTIONS

< PRECAUTION >

[XENON TYPE]

- 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.).

FOR MEXICO : Precautions for Removing of Battery Terminal

INFOID:000000010028703

- 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.

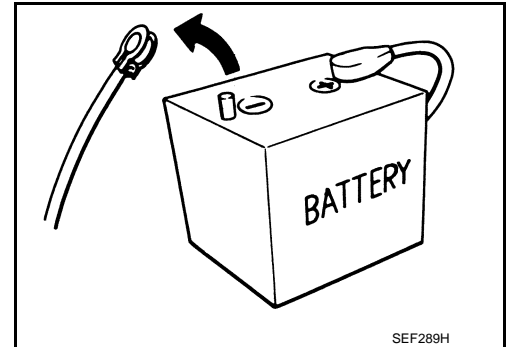
NOTE:

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.



HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

PERIODIC MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Description

INFOID:000000009722957

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 front combination lamp 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.

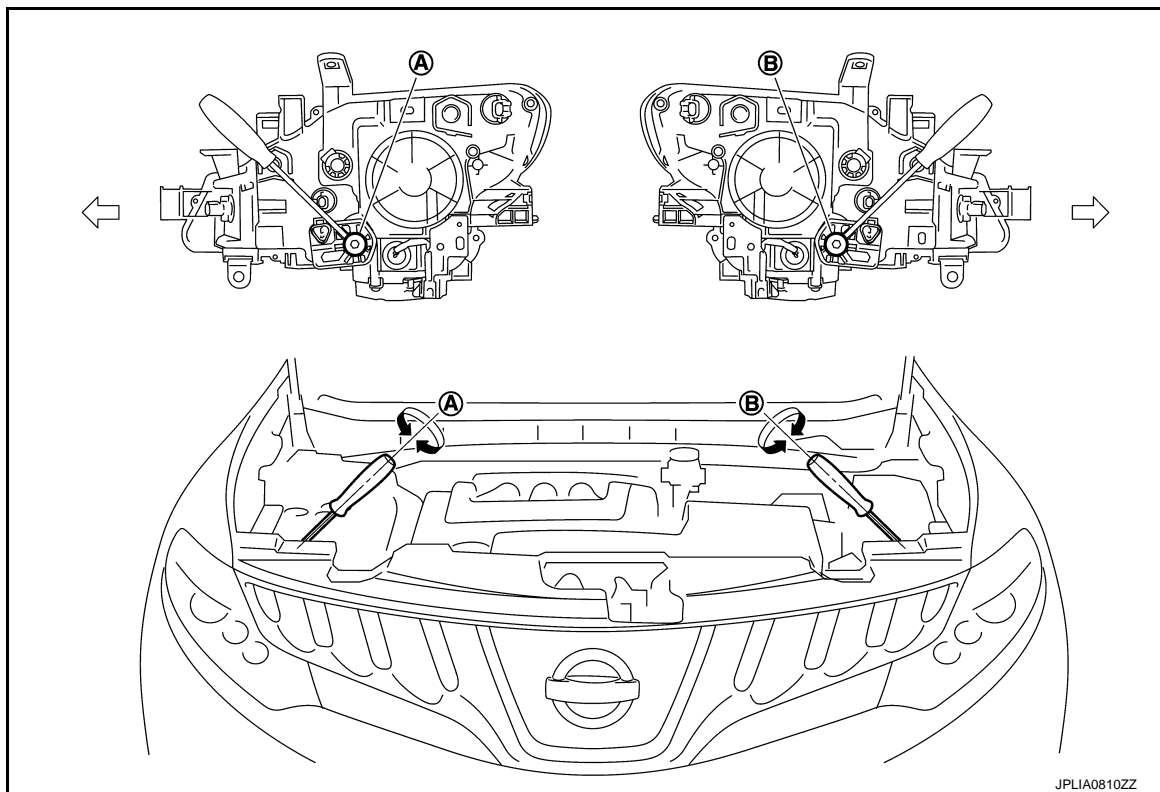
- Wipe out dirt on the headlamp.

CAUTION:

Never use organic solvent (thinner, gasoline etc.)

- Ride alone on the driver seat.
- Headlamp aiming switch sets to "0".

AIMING ADJUSTMENT SCREW



A. Headlamp RH (UP/DOWN) adjustment screw

B. Headlamp LH (UP/DOWN) adjustment screw

↔: Vehicle center

HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

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

Aiming Adjustment Procedure

INFOID:000000009722958

- 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 bulb center and the screen.
- Start the engine. Turn the headlamp (LO) ON.

NOTE:

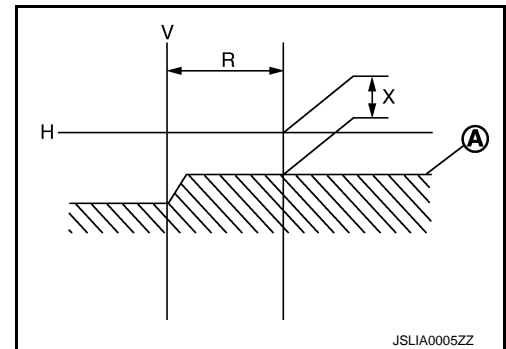
Shut off the headlamp light with the board to prevent from illuminating the adjustment screen.

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

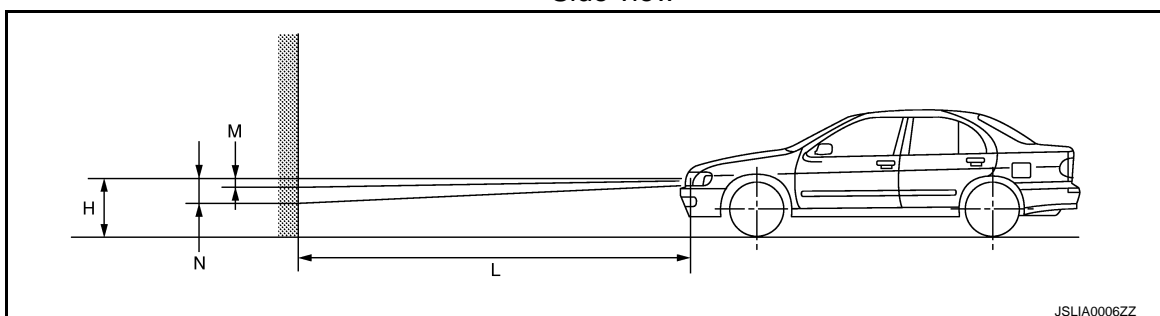


- Adjust the cutoff line height (X) with the aiming adjustment screw so as to enter in the adjustment range (M–N) according to the horizontal center line of headlamp (H).

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



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HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

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

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FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

FRONT FOG LAMP AIMING ADJUSTMENT

Description

INFOID:000000009722959

PREPARATION BEFORE ADJUSTING

NOTE:

- For details, refer to the regulations in your own country.

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.

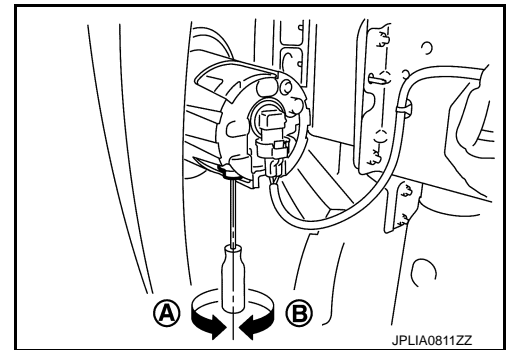
A: UP

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:000000009722960

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. Illuminate the front fog lamp.

CAUTION:

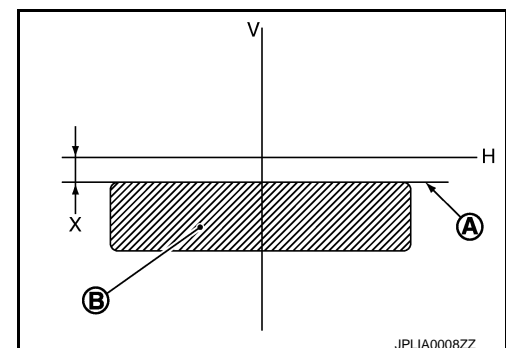
Never cover the lens surface with a tape etc. The lens is made of resin.

NOTE:

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

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 light distribution on the screen



FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

- 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]

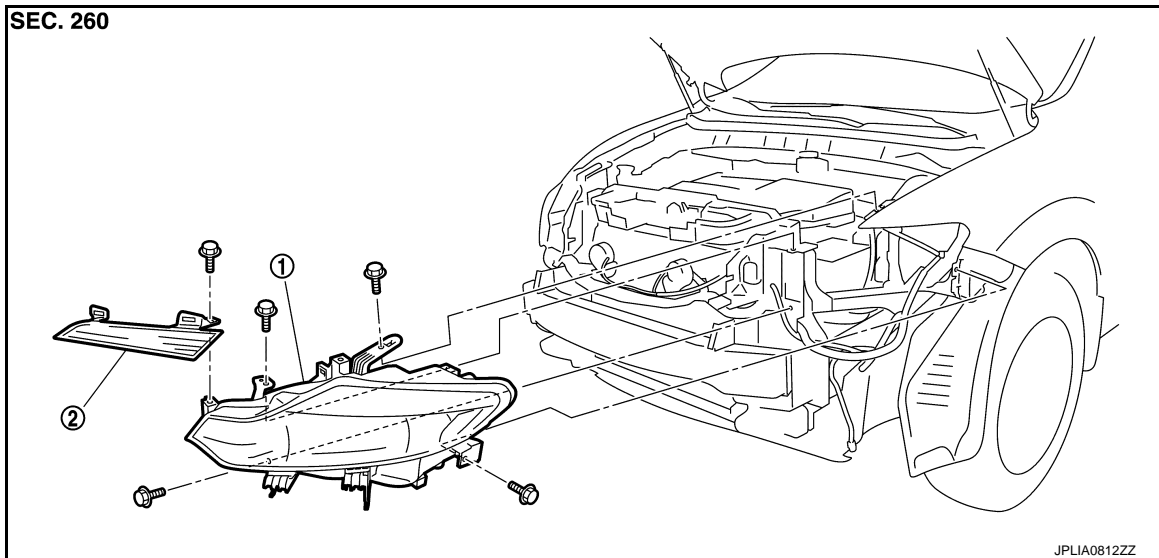
REMOVAL AND INSTALLATION

FRONT COMBINATION LAMP

Exploded View

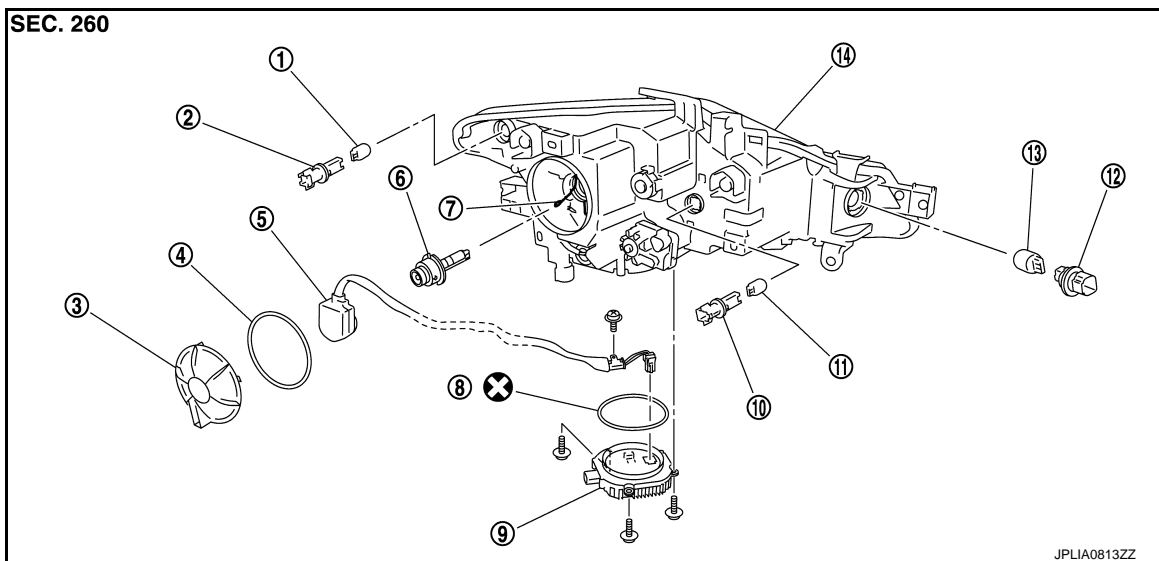
INFOID:000000009722961

REMOVAL



1. Front combination lamp
2. Headlamp extension panel

DISASSEMBLY



1. Front side marker lamp bulb
2. Front side marker lamp bulb socket
3. Resin cap
4. Seal packing
5. Xenon bulb socket (Starter)
6. Xenon bulb
7. Retaining spring
8. Seal packing
9. HID control unit (Inverter)
10. Parking lamp bulb socket
11. Parking lamp bulb
12. Front turn signal lamp bulb socket
13. Front turn signal lamp bulb
14. Headlamp housing assembly

Refer to [GI-4, "Components"](#) for symbols in the figure.

FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

Removal and Installation

INFOID:000000009722962

REMOVAL

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

1. Remove the front grille. Refer to [EXT-21, "Exploded View"](#).
2. Remove the headlamp extension panel.
3. Remove the front bumper fascia. Refer to [EXT-14, "Exploded View"](#).
4. Remove the headlamp mounting bolts.
5. Remove the harness clips from headlamp housing assembly.
6. Pull out the headlamp assembly forward the vehicle.
7. 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-173, "Description"](#).

Replacement

INFOID:000000009722963

CAUTION:

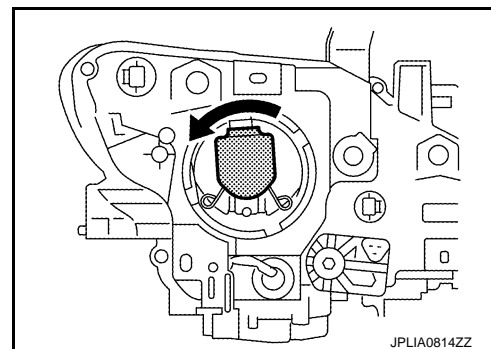
- Disconnect the battery negative terminal or remove the fuse.
- After installing the bulb, install the resin cap and the bulb socket securely for watertightness.
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- Never touch bulb by hand while it is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

HEADLAMP BULB

1. Remove the fender rubber protector in engine room.
2. Rotate the resin cap counterclockwise and unlock it.
3. Rotate the bulb socket counterclockwise and unlock it.
4. Unlock the retaining spring. And then remove the bulb from the headlamp housing assembly.

CAUTION:

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



PARKING LAMP BULB

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

FRONT TURN SIGNAL LAMP BULB

1. Remove the front grille.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the bulb socket.

FRONT SIDE MARKER LAMP BULB

1. Remove the fender rubber protector in engine room.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the bulb socket.

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EXL

FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

Disassembly and Assembly

INFOID:000000009722964

DISASSEMBLY

1. Rotate the resin cap counterclockwise and unlock it.
2. Rotate the xenon bulb socket counterclockwise and unlock it.
3. Unlock the retaining spring. And then remove the xenon bulb.
4. Remove the HID control unit installation screw.
5. Remove the screw. And then disconnect the connector from HID control unit.
6. Remove the xenon bulb socket from headlamp housing assembly.
7. Rotate the parking lamp bulb socket counterclockwise and unlock it.
8. Remove the bulb from parking lamp bulb socket.
9. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
10. Remove the bulb from front turn signal lamp bulb socket.
11. Rotate the front side marker lamp bulb socket counterclockwise and unlock it.
12. Remove the bulb from 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.**

FRONT FOG LAMP

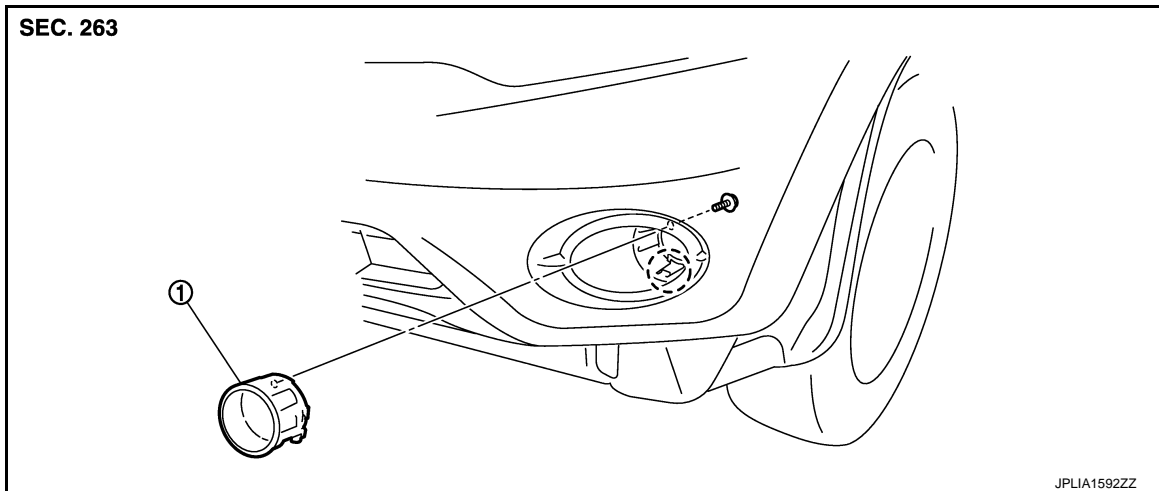
< REMOVAL AND INSTALLATION >

[XENON TYPE]

FRONT FOG LAMP

Exploded View

INFOID:000000009722965



1. Front fog lamp

2. Pawl

Removal and Installation

INFOID:000000009722966

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

1. Remove the front fender protector. Keep a service area. Refer to [EXT-26, "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

Installation is the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to [EXL-176, "Description"](#)

Replacement

INFOID:000000009722967

CAUTION:

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

FRONT FOG LAMP BULB

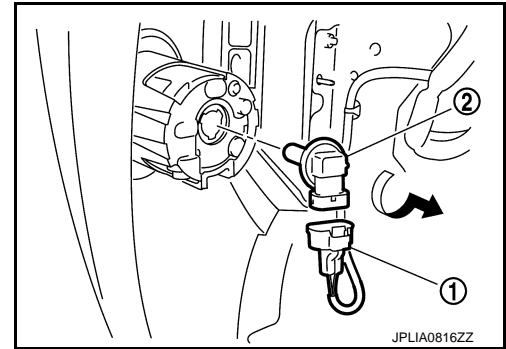
1. Remove the front fender protector. Keep the service area. Refer to [EXT-26, "FENDER PROTECTOR : Exploded View"](#).

FRONT FOG LAMP

[XENON TYPE]

< REMOVAL AND INSTALLATION >

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



OPTICAL SENSOR

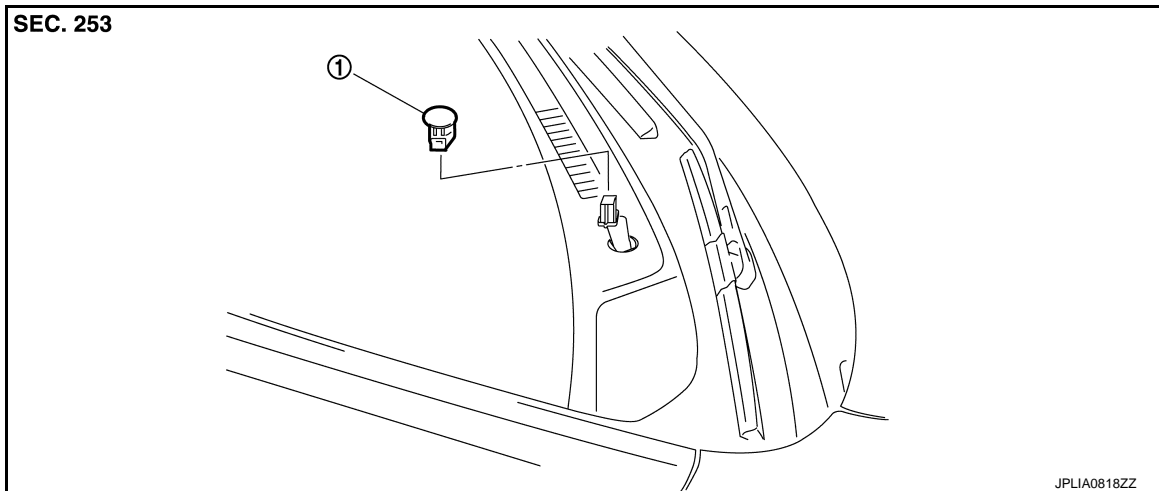
< REMOVAL AND INSTALLATION >

[XENON TYPE]

OPTICAL SENSOR

Exploded View

INFOID:000000009722968



1. Optical sensor

Removal and Installation

INFOID:000000009722969

REMOVAL

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

INSTALLATION

Install in the reverse order of removal.

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LIGHTING & TURN SIGNAL SWITCH

< REMOVAL AND INSTALLATION >

[XENON TYPE]

LIGHTING & TURN SIGNAL SWITCH

Exploded View

INFOID:000000009722970

Removal and Installation

INFOID:000000009722971

Lighting & turn signal switch is integrated in the combination switch. Refer to [BCS-99, "Exploded View"](#).

HAZARD SWITCH

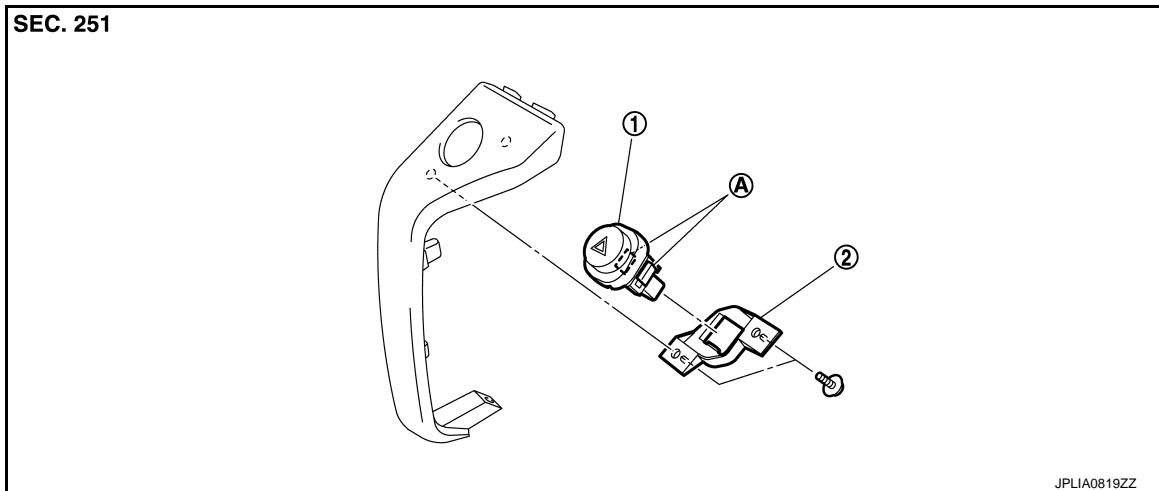
< REMOVAL AND INSTALLATION >

[XENON TYPE]

HAZARD SWITCH

Exploded View

INFOID:000000009722972



- 1. Hazard switch
- 2. Switch bracket
- A. Pawls

Removal and Installation

INFOID:000000009722973

REMOVAL

1. Remove the instrument stay cover (RH). Refer to [IP-14. "Exploded View"](#).
2. Remove the screws. And then remove the switch bracket from the instrument stay cover.
3. Remove the hazard switch.

INSTALLATION

Install in the reverse order of removal.

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HEADLAMP AIMING SWITCH

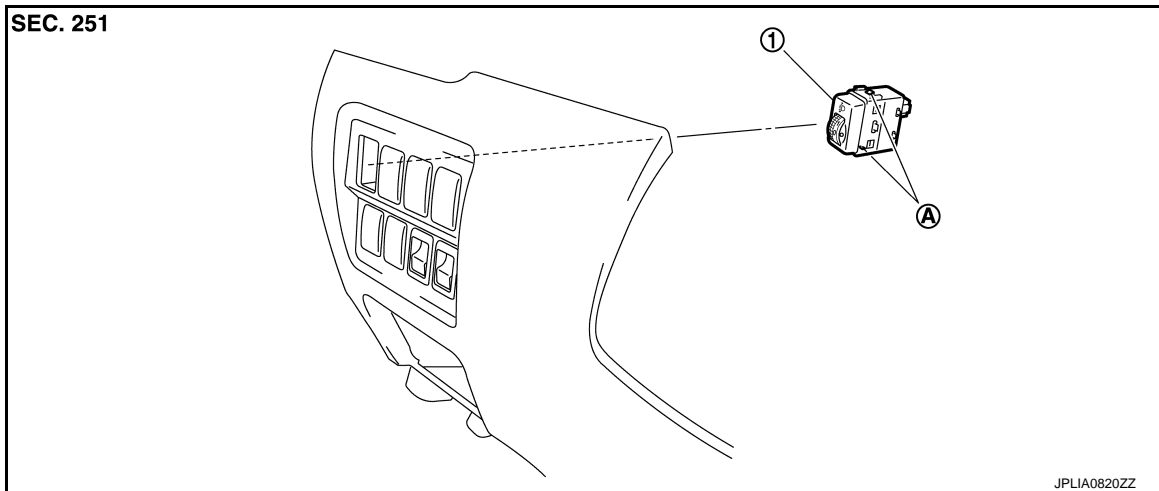
< REMOVAL AND INSTALLATION >

[XENON TYPE]

HEADLAMP AIMING SWITCH

Exploded View

INFOID:000000009722974



- 1. Headlamp aiming switch
- A. Pawls

Removal and Installation

INFOID:000000009722975

REMOVAL

1. Remove the instrument driver lower panel. Refer to [IP-14, "Exploded View"](#).
2. Disengage the pawls. And remove the headlamp aiming switch.

INSTALLATION

Install in the reverse order of removal.

REAR COMBINATION LAMP

< REMOVAL AND INSTALLATION >

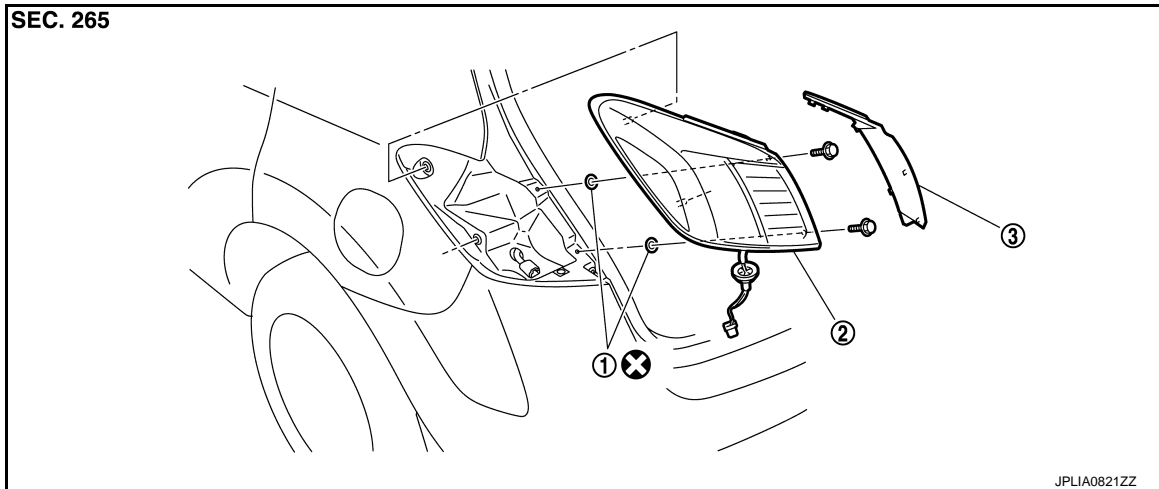
[XENON TYPE]

REAR COMBINATION LAMP

Exploded View

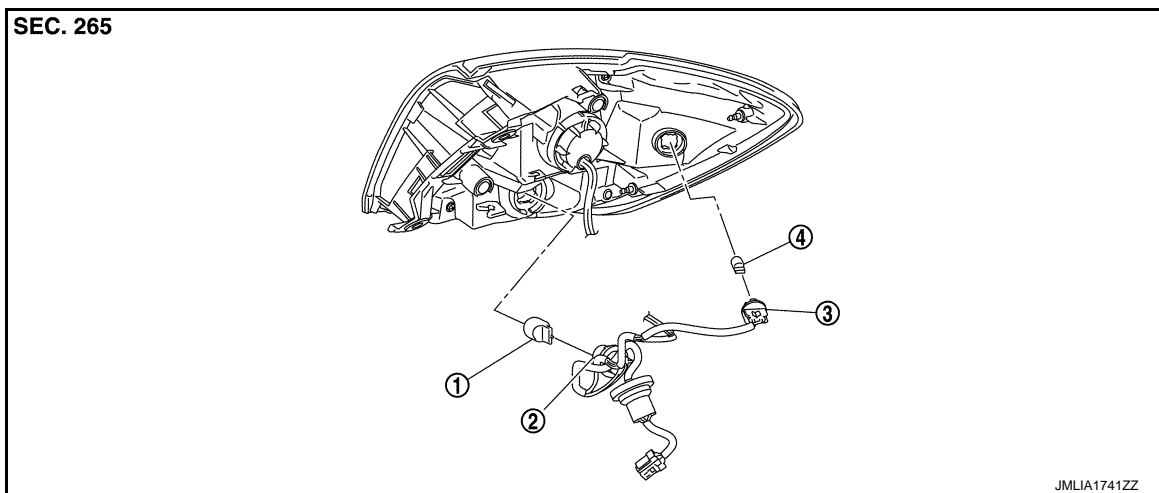
INFOID:000000009722976

REMOVAL



1. Seal packing
 2. Rear combination lamp
 3. Rear combination lamp finisher
- Refer to [GI-4, "Components"](#) for symbols in the figure.

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:000000009722977

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

REMOVAL

1. Remove the rear combination lamp finisher.
2. Remove the rear combination lamp mounting bolts.

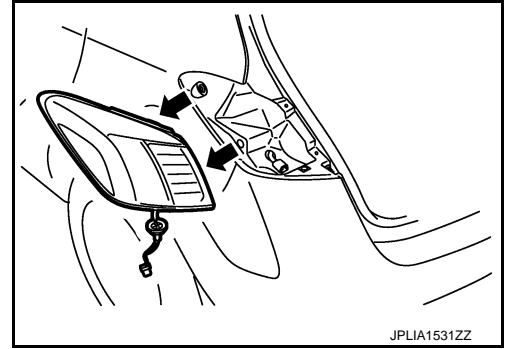
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REAR COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

3. Pull the rear combination lamp toward outside of the vehicle (←). Remove the rear combination lamp.
4. Disconnect the rear combination lamp connector.



INSTALLATION

Install in the reverse order of removal.

Replacement

INFOID:000000009722978

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. Refer to [EXL-187. "Exploded View"](#).

REAR SIDE MARKER LAMP BULB

1. Remove the rear combination lamp. Refer to [EXL-187. "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-187. "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

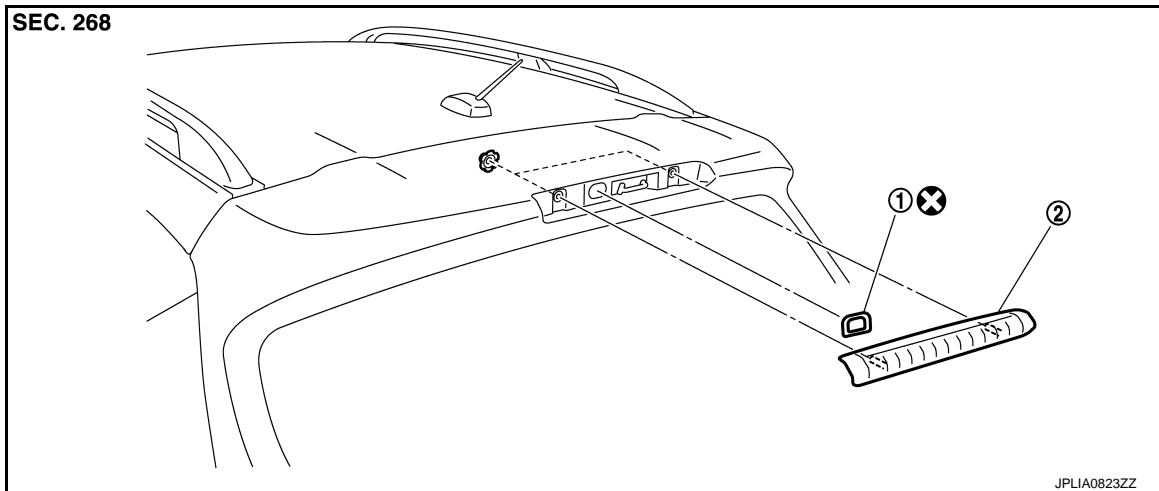
< REMOVAL AND INSTALLATION >

[XENON TYPE]

HIGH-MOUNTED STOP LAMP

Exploded View

INFOID:000000009722979



1. Seal packing
2. High-mounted stop lamp

Refer to [GI-4, "Components"](#) for symbols in the figure.

Removal and Installation

INFOID:000000009722980

CAUTION:

Disconnect battery negative terminal or remove the fuse.

REMOVAL

1. Remove the back door plate. Refer to [INT-38, "Exploded View"](#).
2. Remove the high-mounted stop lamp mounting nuts and connector.
3. Pull the high-mounted stop lamp toward rear of the vehicle. Remove the rear washer tube.
4. Disconnect the high-mounted stop lamp connector.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Seal packing cannot be reused.

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BACK-UP LAMP

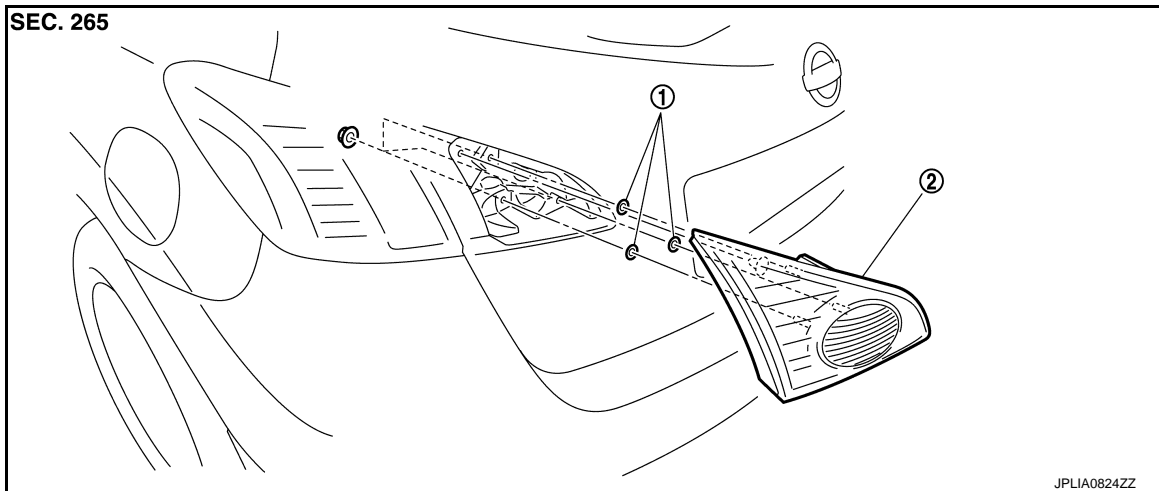
< REMOVAL AND INSTALLATION >

[XENON TYPE]

BACK-UP LAMP

Exploded View

INFOID:000000009722981



1. Seal packing
2. Back-up lamp

Refer to [GI-4. "Components"](#) for symbols in the figure.

Removal and Installation

INFOID:000000009722982

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

1. Remove the back door finisher inner. Refer to [INT-38. "Exploded View"](#).
2. Remove the back-up lamp mounting nuts and clip.
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:000000009722983

CAUTION:

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

BACK-UP LAMP BULB

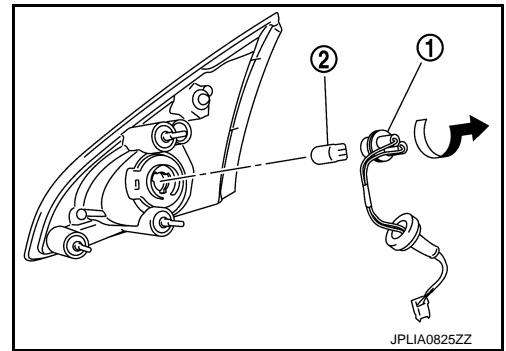
1. Remove the back-up lamp. Refer to [EXL-190. "Exploded View"](#).

BACK-UP LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

2. Disconnect the connector, rotate the back-up lamp bulb socket (1) counterclockwise and unlock it.
3. Remove the bulb (2) from the back-up lamp bulb socket.



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LICENSE PLATE LAMP

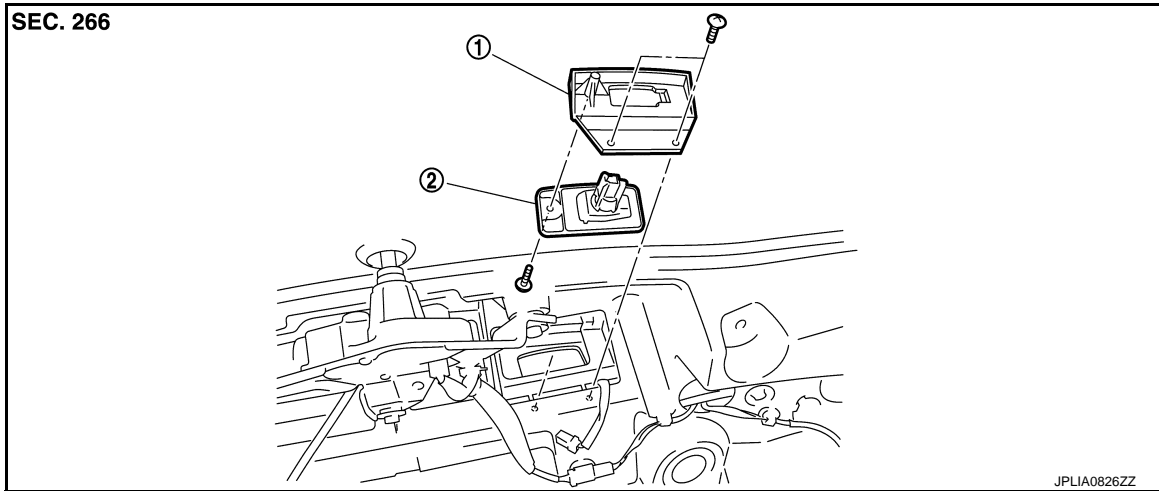
< REMOVAL AND INSTALLATION >

[XENON TYPE]

LICENSE PLATE LAMP

Exploded View

INFOID:000000009722984



1. License plate lamp bracket
2. License plate lamp

Removal and Installation

INFOID:000000009722985

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

1. Remove the back door finisher inner. Refer to [INT-38, "Exploded View"](#).
2. Remove the screw. And then disconnect the license plate lamp connector.
3. Remove the license plate lamp.
4. Remove the screw. And then remove the license plate lamp bracket.

INSTALLATION

Install in the reverse order of removal.

Replacement

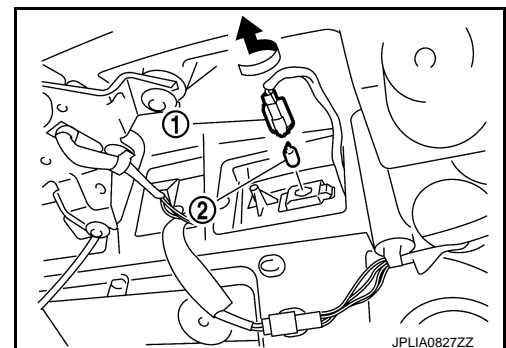
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CAUTION:

- 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-38, "Exploded View"](#).
2. Turn the license plate lamp bulb socket (1) counterclockwise and unlock it.
3. Remove the bulb (2) from the license plate lamp bulb 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:000000009722987

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	WY5W (Amber)	5
Front fog lamp	H8	35	
Rear combination lamp	Stop lamp	LED	—
	Tail lamp	LED	—
	Rear turn signal lamp	WY21W (Amber)	21
	Rear side marker lamp	W5W	5
Back-up lamp	W16W	16	
License plate lamp	W5W	5	
High-mounted stop lamp	LED	—	

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EXL

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[HALOGEN TYPE]

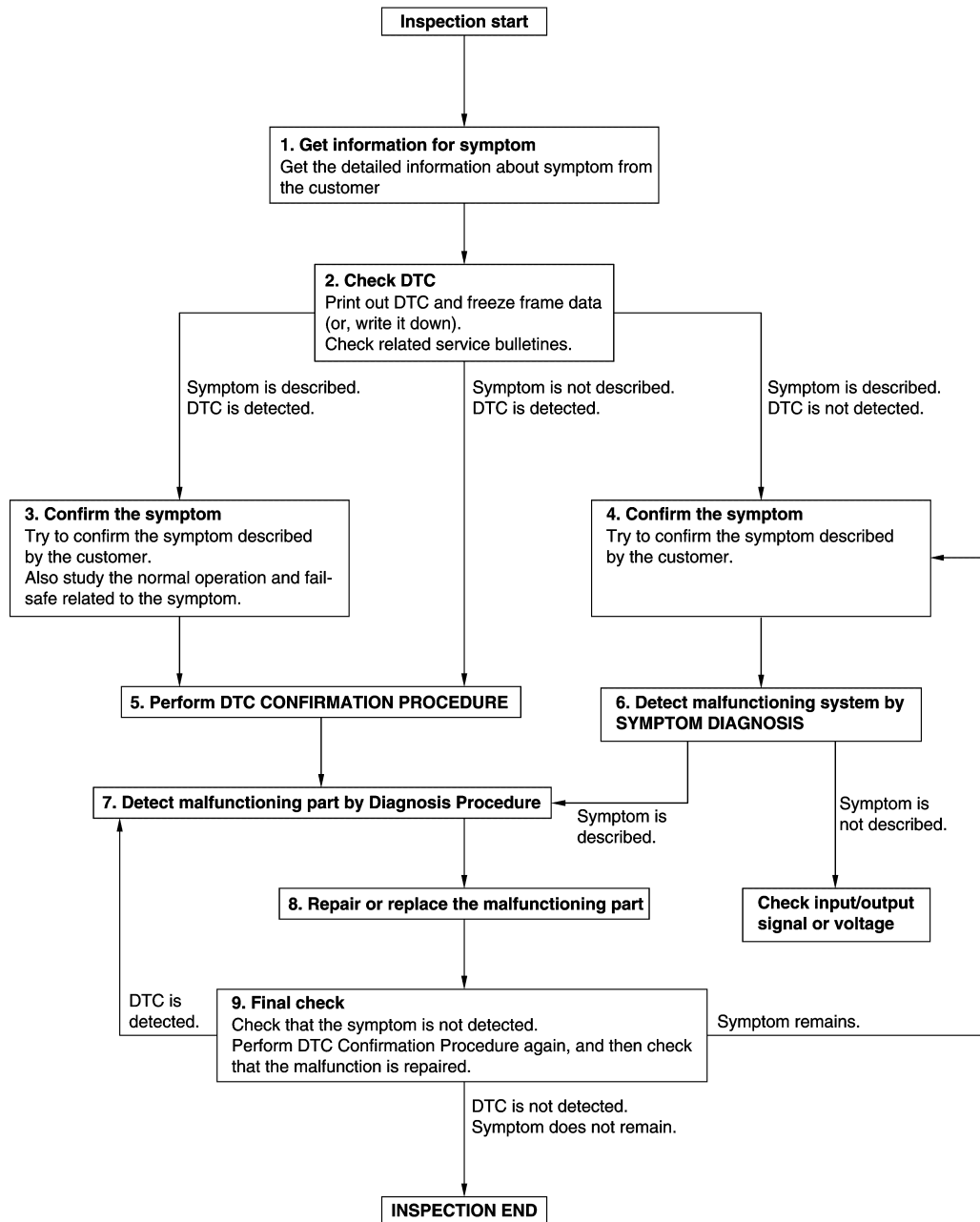
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000009722988

OVERALL SEQUENCE



JMKIA8652GB

DETAILED FLOW

Revision: 2013 August

EXL-194

2014 MURANO

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[HALOGEN 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-44. "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

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DIAGNOSIS AND REPAIR WORK FLOW

[HALOGEN TYPE]

< BASIC INSPECTION >

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-44. "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.

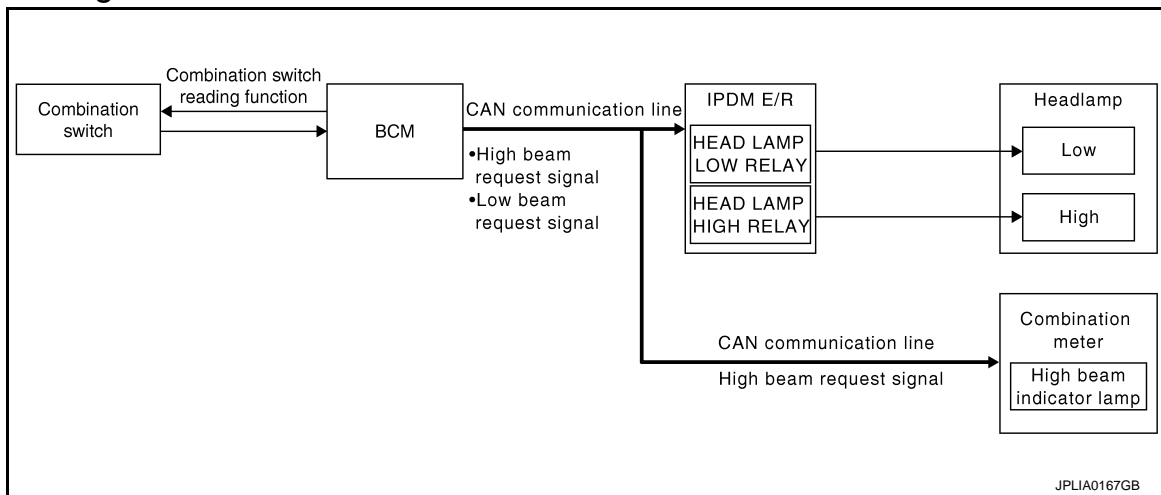
YES-2 >> Symptom remains: GO TO 4.

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

SYSTEM DESCRIPTION

HEADLAMP SYSTEM

System Diagram



System Description

INFOID:000000009722990

OUTLINE

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

HEADLAMP (LO) OPERATION

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

Headlamp (LO) ON condition

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

HEADLAMP (HI) OPERATION

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

Headlamp (HI) ON condition

- Lighting switch HI with the lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (With auto light system)
- 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.

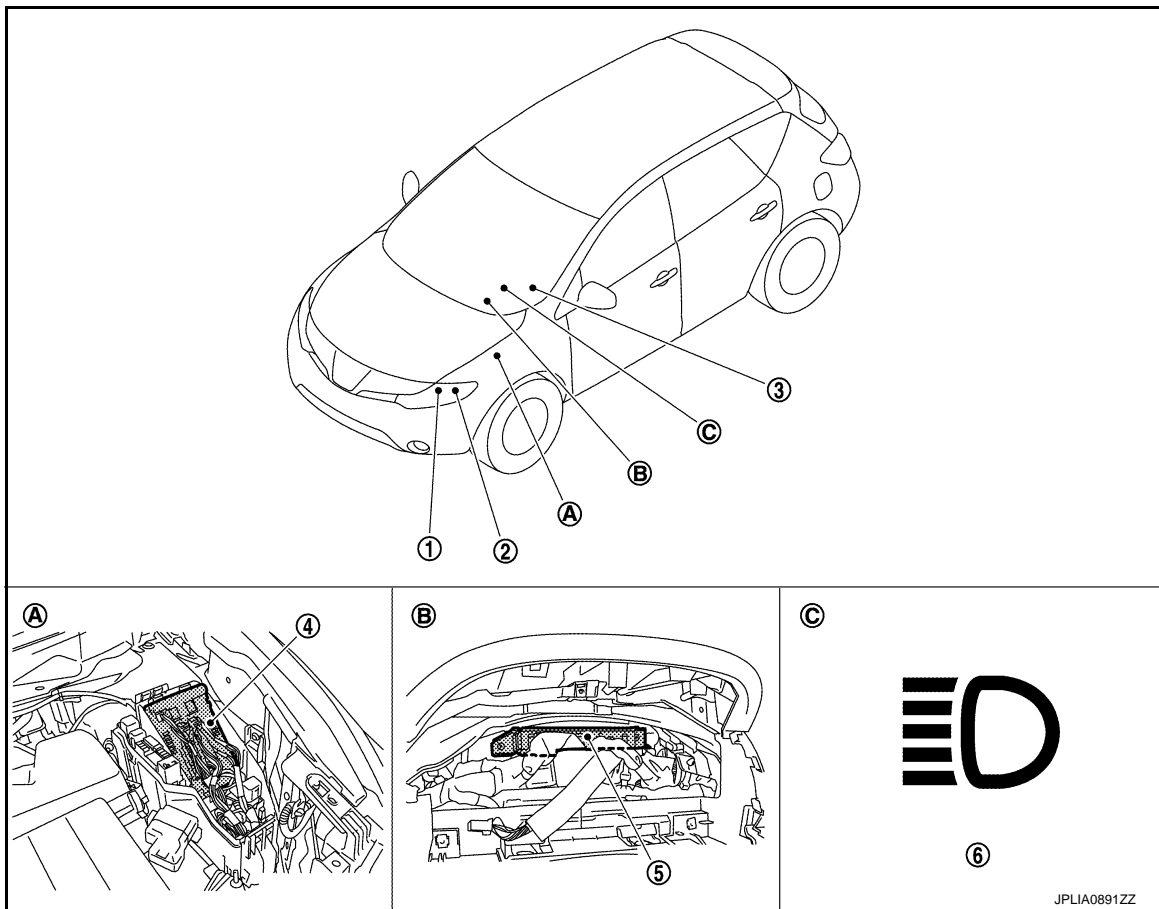
HEADLAMP SYSTEM

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000009722991



- | | | |
|---------------------|---------------------------------|-----------------------------|
| 1. Headlamp (HI) | 2. Headlamp (LO) | 3. Combination switch |
| 4. IPDM E/R | 5. BCM | 6. High beam indicator lamp |
| A. Engine room (LH) | B. Behind the combination meter | C. On the combination meter |

Component Description

INFOID:000000009722992

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).
IPDM E/R	Controls the integrated relay, and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Description" .
Combination meter (High beam indicator lamp)	Turns the high beam indicator lamp ON according to the request from BCM (with CAN communication).

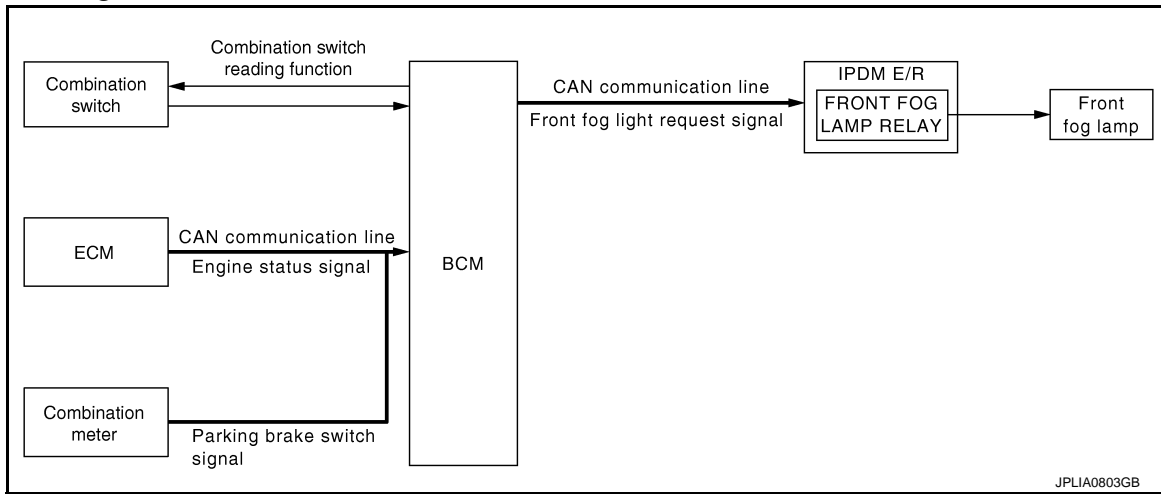
DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

DAYTIME RUNNING LIGHT SYSTEM

System Diagram



System Description

INFOID:000000009722994

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 combination meter with CAN communication)
- BCM transmits the front fog light request signal to IPDM E/R with CAN communication according to the daytime running light ON condition.

Daytime running light ON condition

- 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.

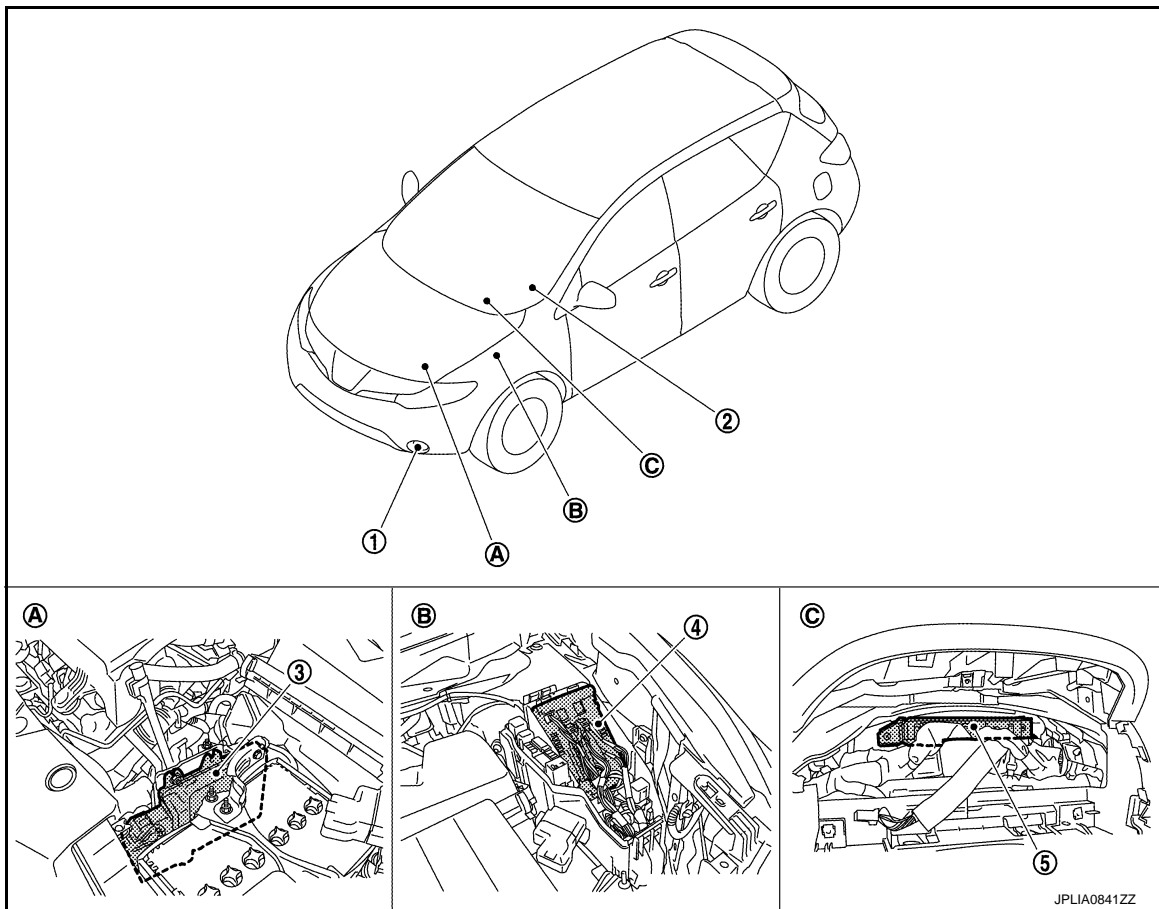
DAYTIME RUNNING LIGHT SYSTEM

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000009722995



- | | | |
|---|-----------------------|---------------------------------|
| 1. Daytime running light (Front fog lamp) | 2. Combination switch | 3. ECM |
| 4. IPDM E/R | 5. BCM | |
| A. Engine room (LH) | B. Engine room (LH) | C. Behind the combination meter |

Component Description

INFOID:000000009722996

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).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10. "System Description" .
ECM	Transmits the engine condition signal to BCM with CAN communication.
Combination meter	Transmits the parking brake switch signal to BCM with CAN communication.

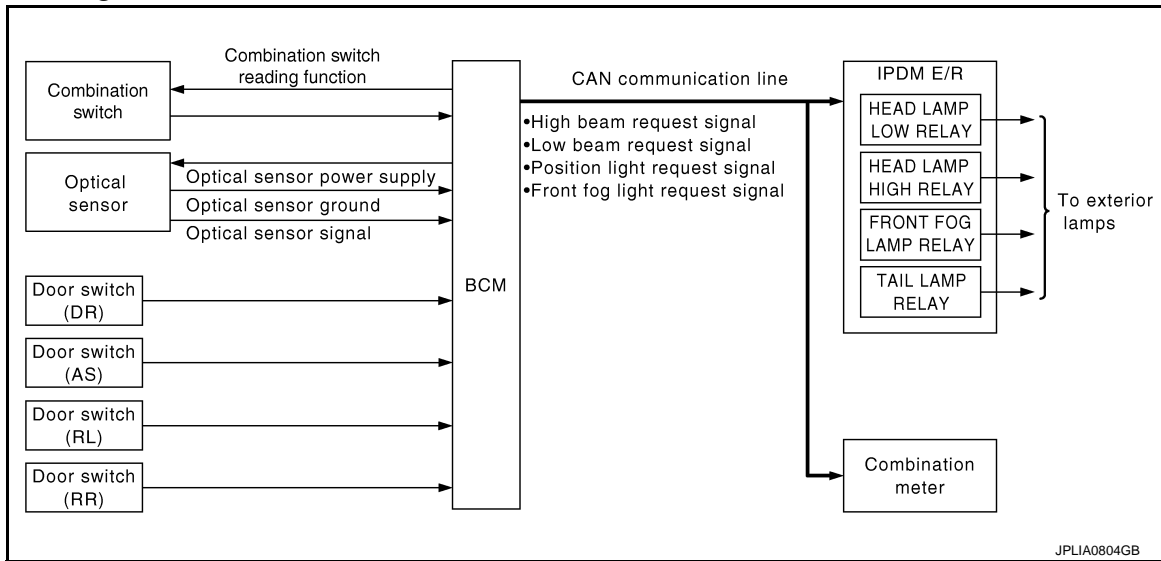
AUTO LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

AUTO LIGHT SYSTEM

System Diagram



System Description

INFOID:000000009722998

OUTLINE

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

Control by BCM

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

Control by IPDM E/R

- Relay control function
- Auto light system has the auto light function and the delay timer function.
- Auto light function turns the exterior lamps* and each illumination ON/OFF automatically according to the outside brightness.
- When auto light system turns the exterior lamps ON with the ignition switch OFF, delay timer function turns the exterior lamps OFF depending on the vehicle condition with the auto light function after a certain period of time.

*: Headlamp (LO/HI), parking lamp, tail lamp, side marker 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-212. "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

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

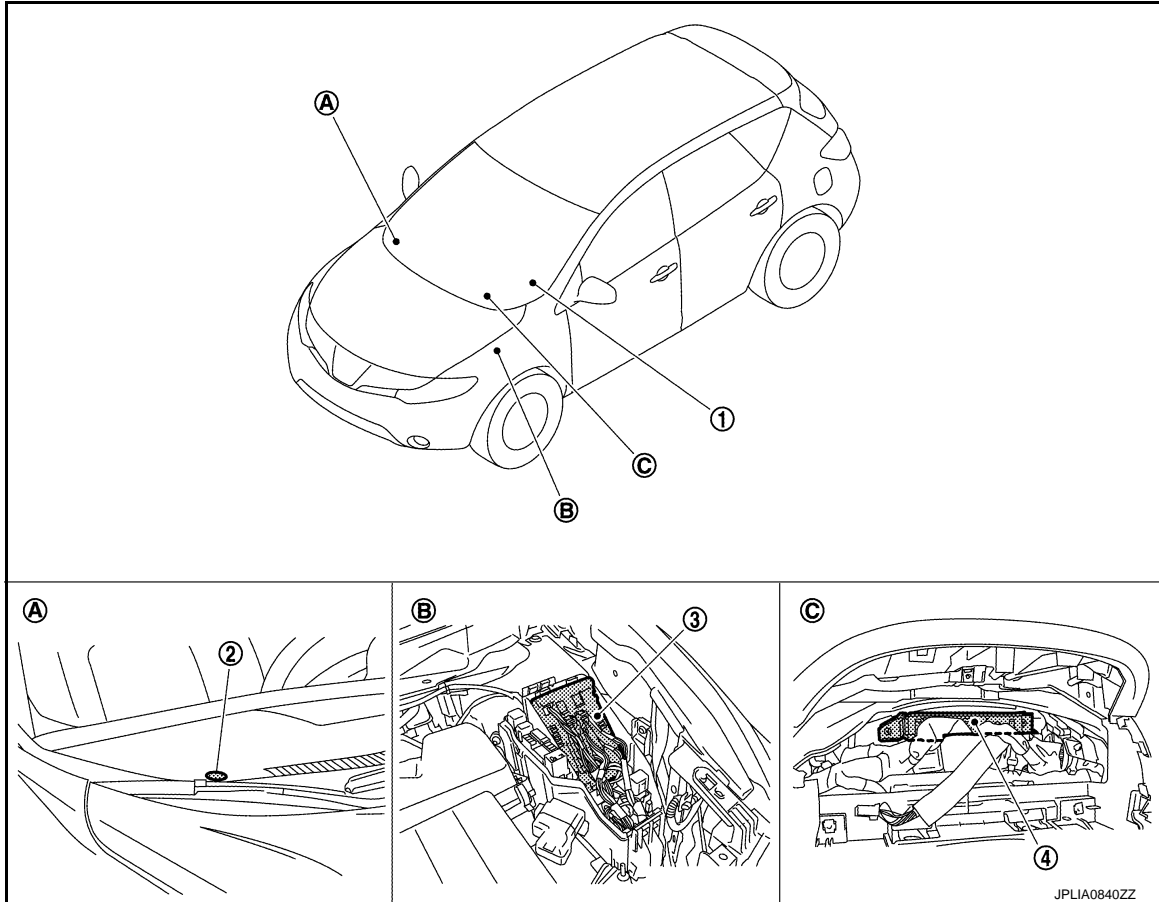
- Turns the exterior lamp OFF with the ignition switch ACC or the light switch OFF.
- *: The preset time is 45 seconds. The timer operating time can be set by CONSULT. Refer to [EXL-212, "HEADLAMP : CONSULT Function \(BCM - HEAD LAMP\)"](#).

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:000000009722999



- | | | |
|--------------------------------|---------------------|---------------------------------|
| 1. Combination switch | 2. Optical sensor | 3. IPDM E/R |
| 4. BCM | | |
| A. Instrument upper panel (RH) | B. Engine room (LH) | C. Behind the combination meter |

Component Description

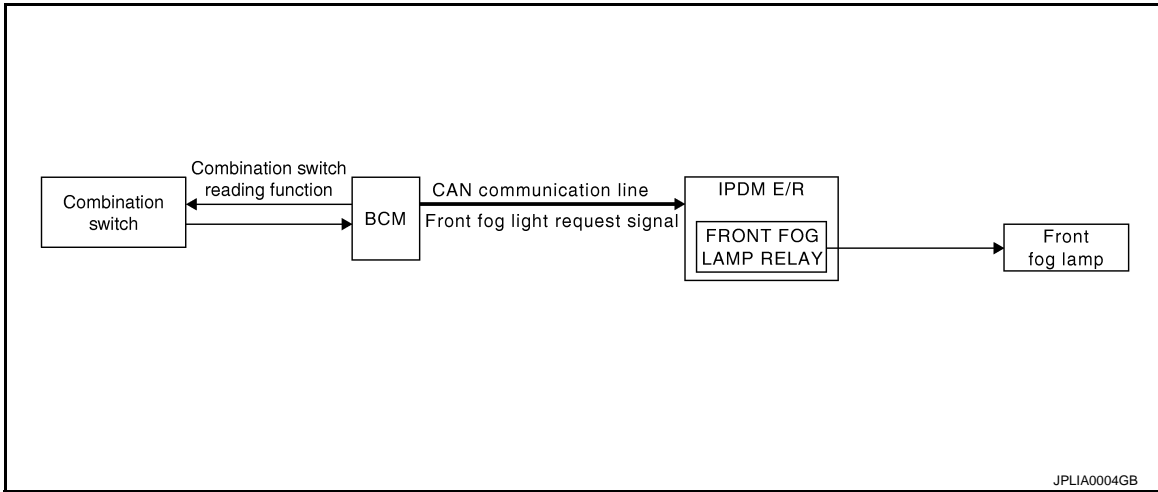
INFOID:000000009723000

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-10, "System Description" .
Optical sensor	Refer to EXL-236, "Description" .

FRONT FOG LAMP SYSTEM

System Diagram

INFOID:000000009723001



System Description

INFOID:000000009723002

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.

FRONT FOG LAMP OPERATION

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

Front fog lamp ON condition

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

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EXL

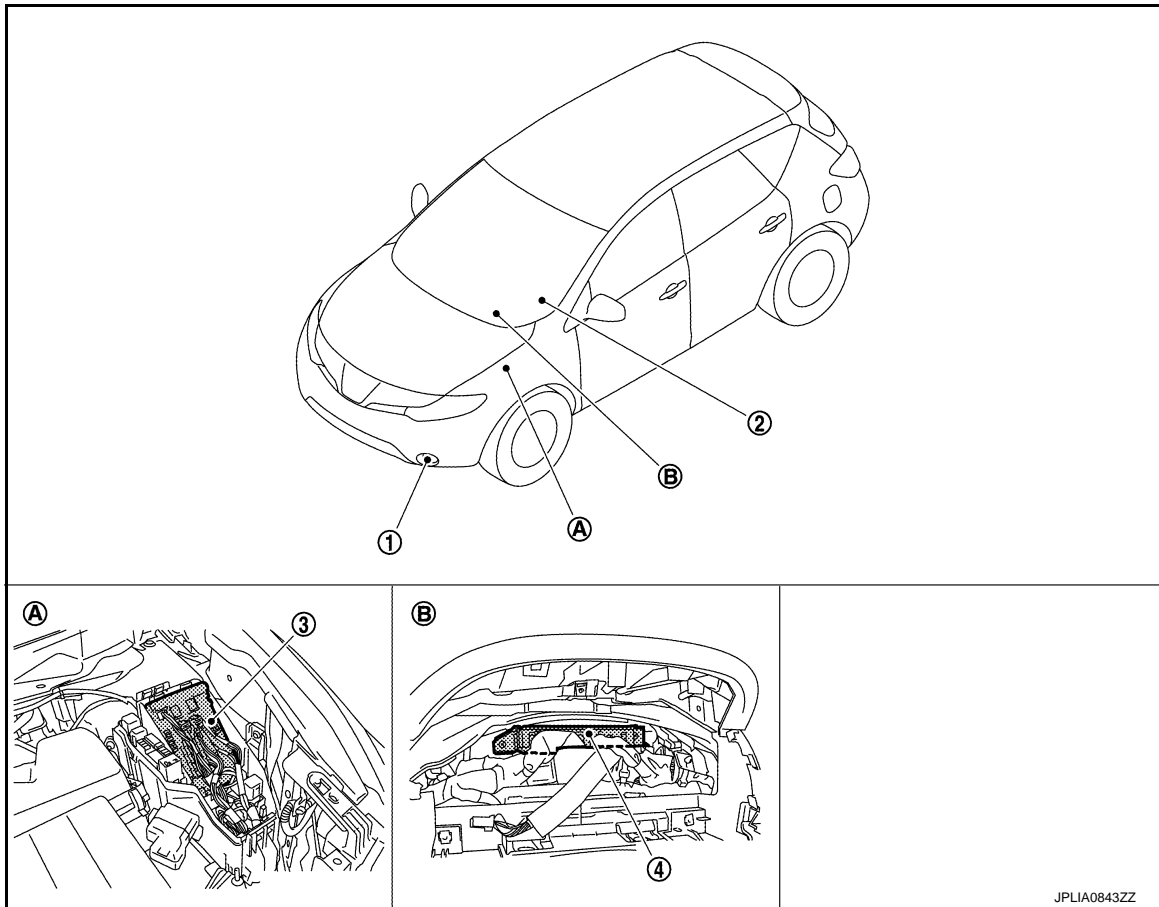
FRONT FOG LAMP SYSTEM

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000009723003



1. Front fog lamp

4. BCM

A. Engine room (LH)

2. Combination switch

B. Behind the combination meter

3. IPDM E/R

Component Description

INFOID:000000009723004

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).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Description" .

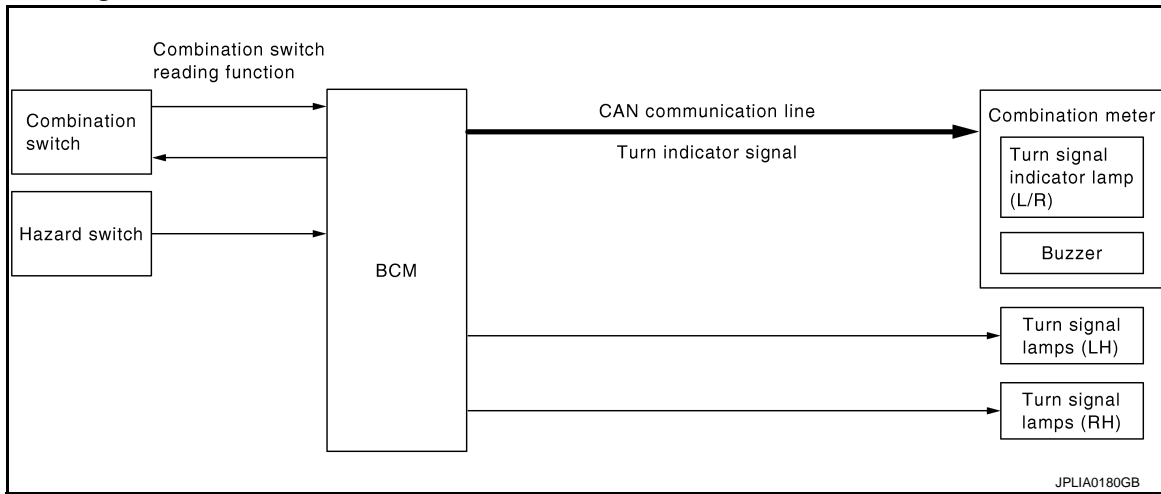
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

System Diagram



System Description

INFOID:000000009723006

OUTLINE

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

HIGH FLASHER OPERATION

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

NOTE:

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

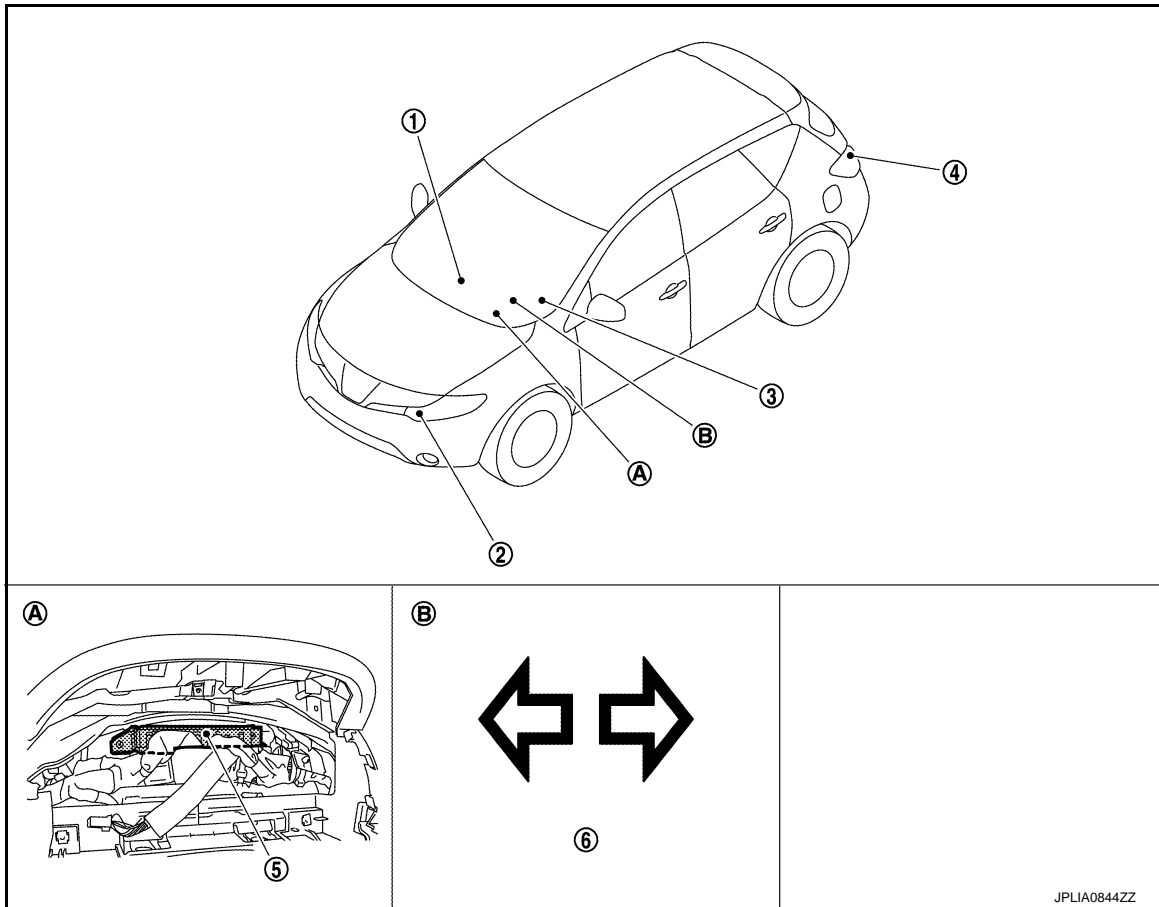
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Component Parts Location

INFOID:000000009723007



- | | | |
|---------------------------------|-----------------------------|-------------------------------|
| 1. Hazard switch | 2. Front turn signal lamp | 3. Combination switch |
| 4. Rear turn signal lamp | 5. BCM | 6. Turn signal indicator lamp |
| A. Behind the combination meter | B. On the combination meter | |

Component Description

INFOID:000000009723008

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. - Requests the turn signal indicator lamp blink to the combination meter (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Description" .
Hazard switch	Inputs the hazard switch ON/OFF signal to BCM.
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).

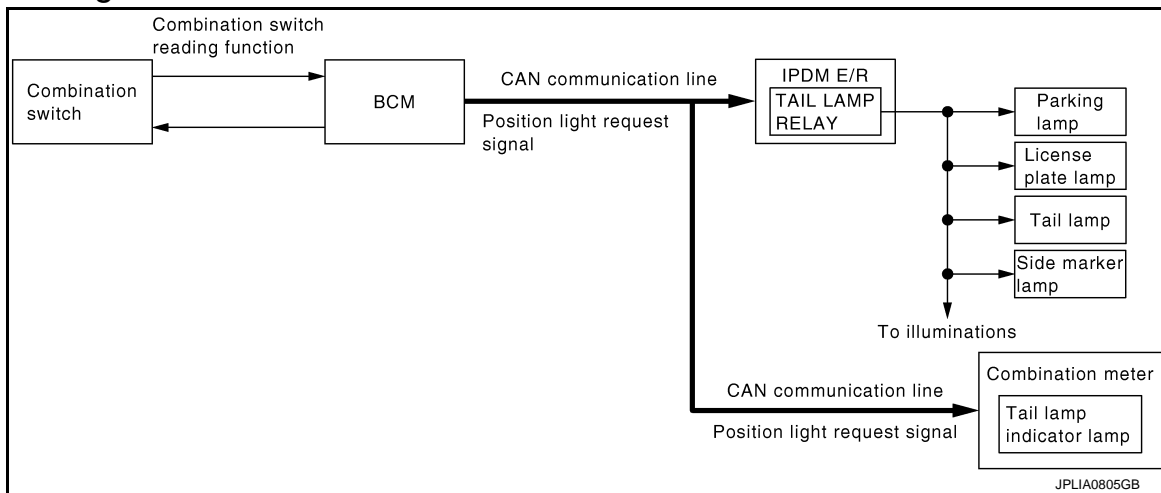
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

System Diagram



System Description

INFOID:000000009723010

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 and the combination meter 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
- 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.

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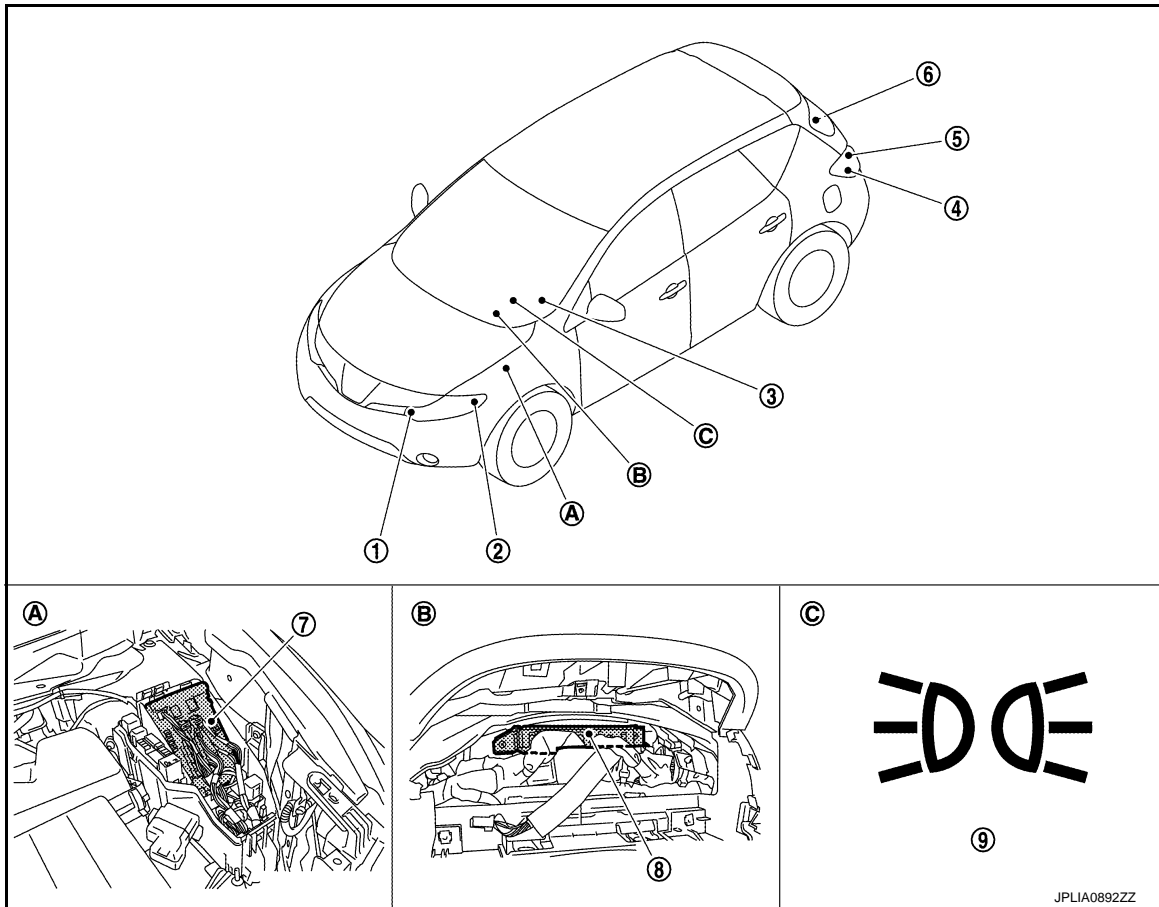
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Component Parts Location

INFOID:000000009723011



- | | | |
|--------------------------|---------------------------------|-----------------------------|
| 1. Parking lamp | 2. Front side marker lamp | 3. Combination switch |
| 4. Rear side marker lamp | 5. Tail lamp | 6. License plate lamp |
| 7. IPDM E/R | 8. BCM | 9. Tail lamp indicator lamp |
| A. Engine room (LH) | B. Behind the combination meter | C. On the combination meter |

Component Description

INFOID:000000009723012

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 and tail lamps according to the vehicle condition. - Requests the tail lamp relay ON to IPDM E/R (with CAN communication). - Requests the tail lamp indicator lamp ON to the combination meter (with CAN communication).
IPDM E/R	Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Description" .
Combination meter (Tail lamp indicator lamp)	Turns the tail lamp indicator lamp ON according to the request from BCM (with CAN communication).

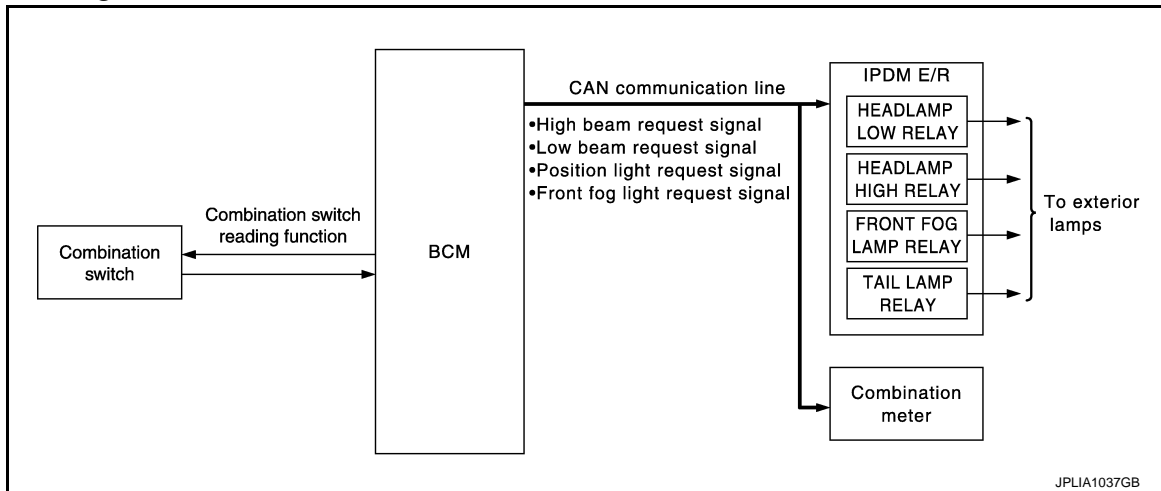
EXTERIOR LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

EXTERIOR LAMP BATTERY SAVER SYSTEM

System Diagram



System Description

INFOID:000000009723014

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, side marker lamp, tail lamp, license plate lamp and front fog lamp.

EXTERIOR LAMP BATTERY SAVER ACTIVATION

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

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.

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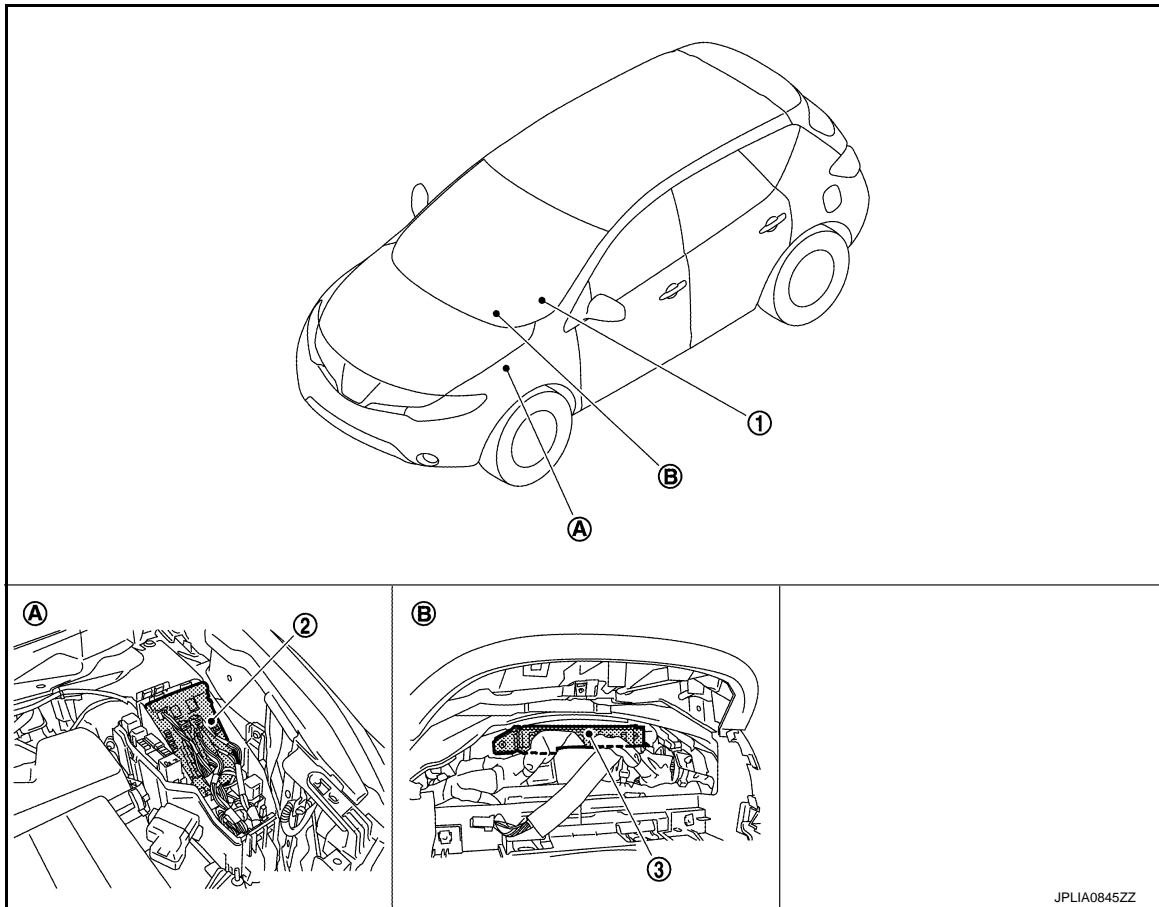
EXTERIOR LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Component Parts Location

INFOID:000000009723015



1. Combination switch

2. IPDM E/R

3. BCM

A. Engine room (LH)

B. Behind the combination meter

Component Description

INFOID:000000009723016

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Activates the battery saver to turn the exterior lamps OFF according to the vehicle condition. - Requests each relay OFF to IPDM E/R (with CAN communication).
IPDM E/R	Controls the integrated relay according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10. "System Description" .

DIAGNOSIS SYSTEM (BCM)

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000010092628

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	×*1	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*2			
<ul style="list-style-type: none"> Intelligent Key system Engine start system 	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door opener system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE:

- *1: For models with rain sensor this mode is displayed, but is not used.
- *2: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)

DIAGNOSIS SYSTEM (BCM)

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

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

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:000000009723018

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Service item	Setting item	Setting
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.
	MODE 2	Without the function
	MODE 3	30 sec.
	MODE 4	60 sec.
	MODE 5	90 sec.
	MODE 6	120 sec.
	MODE 7	150 sec.
	MODE 8	180 sec.
CUSTOM A/LIGHT SETTING	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.)

*: 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 combination meter 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 detects 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)

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
RR FOG SW [On/Off]	NOTE: The item is indicated, but not monitored.
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	
DAYTIME RUNNING LIGHT	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:000000009723019

WORK SUPPORT

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

DIAGNOSIS SYSTEM (BCM)

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

*: Factory setting

DATA MONITOR

NOTE:

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

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	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 status that BCM detects 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	RH	Outputs the voltage to blink the right side turn signal lamps.
	LH	Outputs the voltage to blink the left side turn signal lamps.
	Off	Stops the voltage to turn the turn signal lamps OFF.

EXL

DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

INFOID:000000010092781

AUTO ACTIVE TEST

Description

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

- Oil pressure warning lamp
- Front wiper (LO, HI)
- Parking lamps
- License plate lamps
- Side maker lamps
- Tail lamps
- Front fog lamps
- Headlamps (LO, HI)
- A/C compressor (magnet clutch)
- Cooling fan

Operation Procedure

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

NOTE:

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

2. Turn the ignition switch OFF.
3. Turn the ignition switch ON, and within 20 seconds, press the front door switch (driver side) 10 times. Then turn the ignition switch OFF.

CAUTION:

Close passenger door.

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 the ignition switch OFF.

CAUTION:

- **If auto active test mode cannot be actuated, check door switch system. Refer to [DLK-97, "WITH AUTOMATIC BACK DOOR : Component Function Check"](#).**
- **Do not start the engine.**

Inspection in Auto Active Test Mode

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

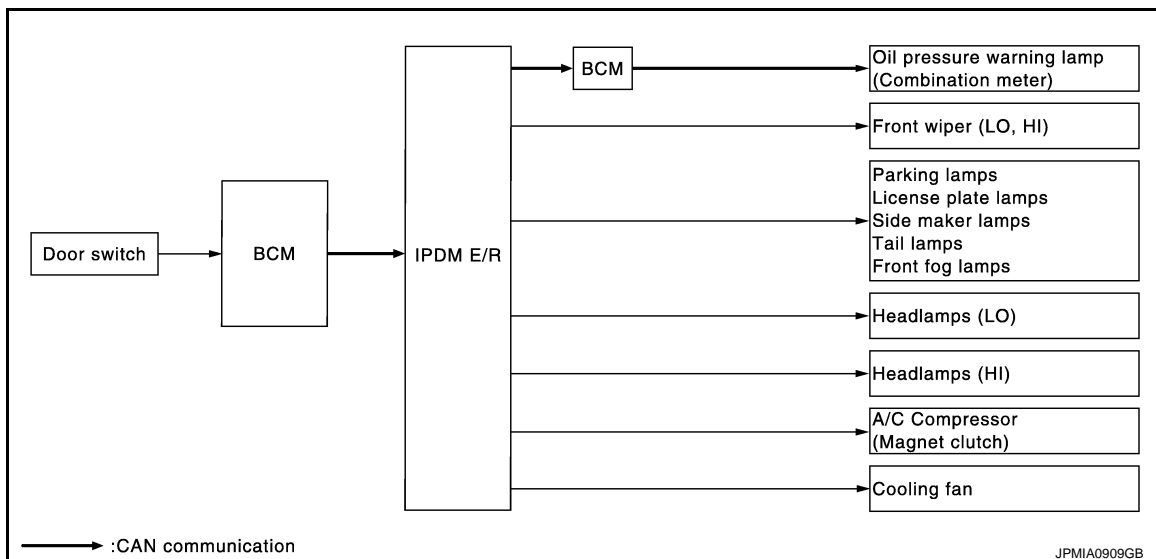
Operation sequence	Inspection location	Operation
1	Oil pressure warning lamp	Blinks continuously during operation of auto active test
2	Front wiper	LO for 5 seconds → HI for 5 seconds
3	<ul style="list-style-type: none"> • Parking lamps • License plate lamps • Side maker lamps • Tail lamps • Front fog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

DIAGNOSIS SYSTEM (IPDM E/R)

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

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 maker lamps • Tail lamps • Front fog lamps • Headlamp (HI, LO) • Front wiper (HI, LO) 	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"> • A/C amp. signal input circuit • CAN communication signal between 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 combination meter • Combination meter

DIAGNOSIS SYSTEM (IPDM E/R)

[HALOGEN 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"> • Harness or connector between IPDM E/R and cooling fan motor • Harness or connector between IPDM E/R and cooling fan relay • Cooling fan motor • Cooling fan relay • IPDM E/R

CONSULT Function (IPDM E/R)

INFOID:000000010092782

APPLICATION ITEM

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

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

SELF DIAGNOSTIC RESULT

Refer to [PCS-34, "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
MOTOR FAN REQ [1/2/3/4]	×	Displays the value of the cooling fan speed request signal received from ECM via CAN communication.
AC COMP REQ [Off/On]	×	Displays the status of the A/C compressor request signal received from ECM via CAN communication.
TAIL&CLR REQ [Off/On]	×	Displays the status of the position light request signal received from BCM via CAN communication.
HL LO REQ [Off/On]	×	Displays the status of the low beam request signal received from BCM via CAN communication.
HL HI REQ [Off/On]	×	Displays the status of the high beam request signal received from BCM via CAN communication.
FR FOG REQ [Off/On]	×	Displays the status of the front fog light request signal received from BCM via CAN communication.
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Displays the status of the front wiper request signal received from BCM via CAN communication.
WIP AUTO STOP [STOP P/ACT P]	×	Displays the status of the front wiper auto stop signal judged by IPDM E/R.
WIP PROT [Off/BLOCK]	×	Displays the status of the front wiper fail-safe operation judged by IPDM E/R.
IGN RLY1 -REQ [Off/On]		Displays the status of the ignition switch ON signal received from BCM via CAN communication.

DIAGNOSIS SYSTEM (IPDM E/R)

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	MAIN SIG- NALS	Description
IGN RLY [Off/On]	×	Displays the status of the ignition relay judged by IPDM E/R.
PUSH SW [Off/On]		Displays the status of the push-button ignition switch judged by IPDM E/R.
INTER/NP SW [Off/On]		Displays the status of the shift position judged by IPDM E/R.
ST RLY CONT [Off/On]		Displays the status of the starter relay status signal received from BCM via CAN communication.
IHBT RLY -REQ [Off/On]		Displays the status of the starter control relay signal received from BCM via CAN communication.
ST/INHI RLY [Off/ ST ON/INHI ON/UNKWN]		Displays the status of the starter relay and starter control relay judged by IPDM E/R.
DETENT SW [Off/On]		Displays the status of the CVT 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/On]		NOTE: The item is indicated, but not monitored.
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.
HOOD SW [Off/On]		NOTE: The item is indicated, but not monitored.
HL WASHER REQ [Off/On]		NOTE: The item is indicated, but not monitored.
THFT HRN REQ [Off/On]		Displays the status of the theft warning horn request signal received from BCM via CAN communication.
HORN CHIRP [Off/On]		Displays the status of the horn reminder signal received from BCM via CAN communication.
CRNRNG LMP REQ [Off/On]		NOTE: The item is indicated, but not monitored.

ACTIVE TEST

Test item	Operation	Description
CORNERING LAMP	Off	NOTE: The item is indicated, but cannot be tested.
	LH	
	RH	
HORN	On	Operates horn relay for 20 ms.
FRONT WIPER	Off	OFF
	Lo	Operates the front wiper relay.
	Hi	Operates the front wiper relay and front wiper high relay.
MOTOR FAN	1	OFF
	2	Operates the cooling fan relay-1.
	3	Operates the cooling fan relay-2.
	4	Operates the cooling fan relay-2 and cooling fan relay-3.
HEAD LAMP WASHER	On	NOTE: The item is indicated, but cannot be tested.

DIAGNOSIS SYSTEM (IPDM E/R)

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000010092635

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:000000010092784

1. CHECK FUSES AND FUSIBLE LINK

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

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

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

Terminals		Voltage (Approx.)
(+)	(-)	
IPDM E/R		Battery voltage
Connector	Terminal	
E9	1	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair the harness or connector.

3.CHECK GROUND CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E10	12		Existed
E11	41		

Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP (HI) CIRCUIT

Component Function Check

INFOID:000000009723026

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 (HI) is turned ON.

Hi : Headlamp (HI) ON

Off : Headlamp (HI) OFF

NOTE:

ON/OFF is repeated 1 second each.

Is the headlamp (HI) turned ON?

YES >> Headlamp (HI) circuit is normal.

NO >> Refer to [EXL-223, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009723027

1. CHECK HEADLAMP (HI) OUTPUT VOLTAGE

CONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the headlamp high connector.
3. Turn the ignition switch ON.
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			EXTERNAL LAMPS	Battery voltage	
Connector	Terminal				
RH	E345	89			Hi
LH		90			Off
			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 headlamp high harness connector.

HEADLAMP (HI) CIRCUIT

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

IPDM E/R		Headlamp high		Continuity
Connector	Terminal	Connector	Terminal	
RH	E345	E317	89	Existed
LH			90	

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

3. CHECK HEADLAMP (HI) FUSE

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

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

Is the fuse fusing?

YES >> GO TO 4.

NO >> Replace IPDM E/R.

4. CHECK HEADLAMP HIGH (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	E345	89	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 (HI) GROUND OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the headlamp high connector.
3. Check continuity between the headlamp high harness connector and ground.

Headlamp high		Ground	Continuity
Connector	Terminal		
RH	E317	2	Existed
LH	E316		

Does continuity exist?

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

NO >> Repair the harnesses or connectors.

HEADLAMP (LO) CIRCUIT

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

HEADLAMP (LO) CIRCUIT

Component Function Check

INFOID:000000009723028

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 (LO) is turned ON.

Lo : Headlamp (LO) ON

Off : Headlamp (LO) OFF

Is the headlamp (LO) turned ON?

YES >> Headlamp (LO) is normal.

NO >> Refer to [EXL-225, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009723029

1. CHECK HEADLAMP (LO) OUTPUT VOLTAGE

Ⓜ CONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the headlamp low 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			EXTERNAL LAMPS	Battery voltage	
Connector	Terminal	Ground			
RH	E345		83	Lo	Battery voltage
					Off
LH	E345		84	Lo	Battery voltage
				Off	0 V

Is the measurement value normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK HEADLAMP (LO) OPEN CIRCUIT

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 low harness connector.

IPDM E/R		Headlamp low		Continuity
Connector	Terminal	Connector	Terminal	
RH	E345	83	E321	Existed
LH		84	E320	

Does continuity exist?

EXL

HEADLAMP (LO) CIRCUIT

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

- 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	E345	83	Not existed
LH		84	

Does continuity exist?

- YES >> Repair the harnesses or connectors. And then replace the fuse.
NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

5.CHECK HEADLAMP (LO) GROUND OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the headlamp low connector.
3. Check continuity between the headlamp low harness connector and ground.

Headlamp low		Ground	Continuity
Connector	Terminal		
RH	E321	2	Existed
LH	E320	2	

Does continuity exist?

- YES >> Replace the headlamp (LO) bulb. (Bulb socket is abnormally.)
NO >> Repair the harnesses or connectors.

FRONT FOG LAMP CIRCUIT

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

FRONT FOG LAMP CIRCUIT

Component Function Check

INFOID:000000009723030

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-227, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009723031

1. CHECK FRONT FOG LAMP FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuse is not fusing.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#58	15 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 connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E345	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

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

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	E345	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

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

IPDM E/R			Front fog lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E345	86	E402	1	Existed
LH		87	E331	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	E402	2	Ground	Existed
LH	E331	2		

Does continuity exist?

- YES >> Replace the front fog lamp.
 NO >> Repair the harnesses or connectors.

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

PARKING LAMP CIRCUIT

Component Function Check

INFOID:000000009723032

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-229, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009723033

1. CHECK PARKING LAMP FUSE

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

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

Is the fuse fusing?

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

2. CHECK PARKING LAMP SHORT CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E346	91	Not existed
LH		92	

Does continuity exist?

- YES >> Repair the harnesses or connectors. And then replace the fuse.
NO >> Replace the fuse. (Replace IPDM E/R if fusing is found again.)

3. CHECK PARKING LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 4.
NO >> Replace the bulb.

4. CHECK PARKING LAMP OUTPUT VOLTAGE

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.

PARKING LAMP CIRCUIT

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

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	E346	91	TAIL	0 V
LH		92	TAIL	Battery voltage
			Off	0 V

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK PARKING LAMP OPEN CIRCUIT

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

IPDM E/R		Front combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E346	E319	1	Existed
LH		E318	1	

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6. CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

Front combination lamp			Ground	Continuity
Connector	Terminal			
RH	E319	2	Ground	Existed
LH	E318	2		

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

FRONT SIDE MARKER LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

FRONT SIDE MARKER LAMP CIRCUIT

Component Function Check

INFOID:000000009723034

NOTE:

Check the parking lamp circuit if the parking lamp and the front side marker lamp are not turned ON. Refer to [EXL-229, "Component Function Check"](#).

1.CHECK FRONT SIDE MARKER 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 side marker 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 side marker lamp is turned ON.

TAIL : Front side marker lamp ON
Off : Front side marker lamp OFF

Is the front side marker lamp turned ON?

- YES >> Front side marker lamp circuit is normal.
NO >> Refer to [EXL-231, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009723035

1.CHECK FRONT SIDE MARKER LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Front side marker lamp	IPDM E/R	#52	10 A

Is the fuse fusing?

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

2.CHECK FRONT SIDE MARKER LAMP SHORT CIRCUIT

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

IPDM E/R			Ground	Continuity
Connector	Terminal			
RH	E346	91	Not existed	
LH		92		

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 FRONT SIDE MARKER LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 4.
NO >> Replace the bulb.

4.CHECK FRONT SIDE MARKER LAMP OUTPUT VOLTAGE

CONSULT ACTIVE TEST

1. Disconnect the front side marker lamp connector.

FRONT SIDE MARKER LAMP CIRCUIT

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

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			
RH	E346	91	TAIL	Battery voltage
LH		92	Off	0 V
			TAIL	Battery voltage
			Off	0 V

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK FRONT SIDE MARKER 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 side marker lamp harness connector.

IPDM E/R		Front side marker lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E346	E315	2	Existed
LH		E314	2	

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6. CHECK FRONT SIDE MARKER LAMP GROUND OPEN CIRCUIT

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

Front side marker lamp			Ground	Continuity
Connector	Terminal			
RH	E315	1	Ground	Existed
LH	E314	1		

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

TURN SIGNAL LAMP CIRCUIT

Description

INFOID:000000009723036

BCM performs the high flasher operation if any bulb or harness of the turn signal lamp circuit is open.

NOTE:

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

Component Function Check

INFOID:000000009723037

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 is turned ON.

LH : Turn signal lamps (LH) ON

RH : Turn signal lamps (RH) ON

Off : Turn signal lamps OFF

Is the turn signal lamp turned ON?

YES >> Turn signal lamp circuit is normal.

NO >> Refer to [EXL-233, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009723038

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

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

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TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

Terminals			Condition	Voltage (Approx.)	
(+)	(-)				
BCM			Turn signal switch		
Connector	Terminal				
RH	M119	17	Ground	RH	
		OFF		0 V	
LH	M119	18	Ground	LH	
		OFF		0 V	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-98, "Exploded View"](#).

3. CHECK TURN SIGNAL LAMP OPEN CIRCUIT

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

Front turn signal lamp

BCM		Front combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M119	E319	3	Existed
LH		17		
		E318		

Rear turn signal lamp

BCM		Rear combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M119	B59	2	Existed
LH		17		
		B80		

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.

TURN SIGNAL LAMP CIRCUIT

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

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

A

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Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 5.

C

5. CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

Check continuity between the front combination lamp, or the rear combination lamp and the ground.

D

Front turn signal lamp

Front combination lamp			Ground	Continuity
Connector		Terminal		Existed
RH	E319	2		
LH	E318			

E

F

Rear turn signal lamp

Rear combination lamp			Ground	Continuity
Connector		Terminal		Existed
RH	B59	1		
LH	B80			

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H

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:000000009723039

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

Component Function Check

INFOID:000000009723040

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-236, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009723041

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		5 V
Connector	Ground	
M17		

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		0 V
Connector	Ground	
M17		

Is the measurement value normal?

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

OPTICAL SENSOR

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

3. CHECK OPTICAL SENSOR SIGNAL OUTPUT

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

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
Optical sensor		Optical sensor	
Connector	Terminal		
M17	2	Ground	
		When illuminating	3.1 V or more *
		When shutting off light	0.6 V or less

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

Is the measurement value normal?

YES >> GO TO 7.

NO >> Replace the optical sensor.

4. CHECK OPTICAL SENSOR 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	
M17	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		
M17	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	
M17	3	M123	137	Existed

Does continuity exist?

YES >> Replace BCM.

NO >> Repair the harnesses or connectors.

7. CHECK OPTICAL SENSOR SIGNAL OPEN CIRCUIT

OPTICAL SENSOR

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

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	
M17	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		
M17	2		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

HAZARD SWITCH

Component Function Check

INFOID:000000009723042

1.CHECK HAZARD SWITCH SIGNAL BY CONSULT

CONSULT DATA MONITOR

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

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

Is the item status normal?

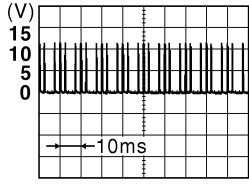
- YES >> Hazard switch circuit is normal.
 NO >> Refer to [EXL-239, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009723043

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	0 V
Connector	Terminal		
M122	110	ON	
		OFF	
		Ground	

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Is the measurement value normal?

- YES >> Replace BCM. Refer to [BCS-98, "Exploded View"](#).
 NO >> GO TO 2.

2.CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

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

Hazard switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M45	2	M122	110	Existed

Does continuity exist?

- YES >> GO TO 3.
 NO >> Repair the harnesses or connectors.

3.CHECK HAZARD SWITCH SIGNAL SHORT CIRCUIT

Check continuity between the hazard switch harness connector and the ground.

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HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	2		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 hazard switch harness connector and the ground.

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	1		Existed

Does continuity exist?

YES >> Replace the hazard switch.

NO >> Repair the harnesses or connectors.

TAIL LAMP CIRCUIT

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

TAIL LAMP CIRCUIT

Component Function Check

INFOID:000000009723044

NOTE:

Check the license plate lamp circuit if the tail lamp and the license plate lamp are not turned ON. Refer to [EXL-243, "Component Function Check"](#).

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-241, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009723045

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
Tail 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		
E10	7	TAIL	Battery voltage
		Off	0 V

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.

TAIL LAMP CIRCUIT

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

2. Disconnect IPDM E/R connector.
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	E10	7	B59	4	Existed
LH			B80		

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	B59	1		Existed
LH	B80	1		

Does continuity exist?

YES >> Replace the rear combination lamp.

NO >> Repair the harnesses or connectors.

LICENSE PLATE LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

LICENSE PLATE LAMP CIRCUIT

Component Function Check

INFOID:000000009723046

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-243, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000009723047

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	E10	7	D163	1	Existed
LH			D162		

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	D163	2	Ground	Existed
LH	D162	2		

Does continuity exist?

YES >> Replace the license plate lamp.

NO >> Repair the harnesses or connectors.

HEADLAMP SYSTEM

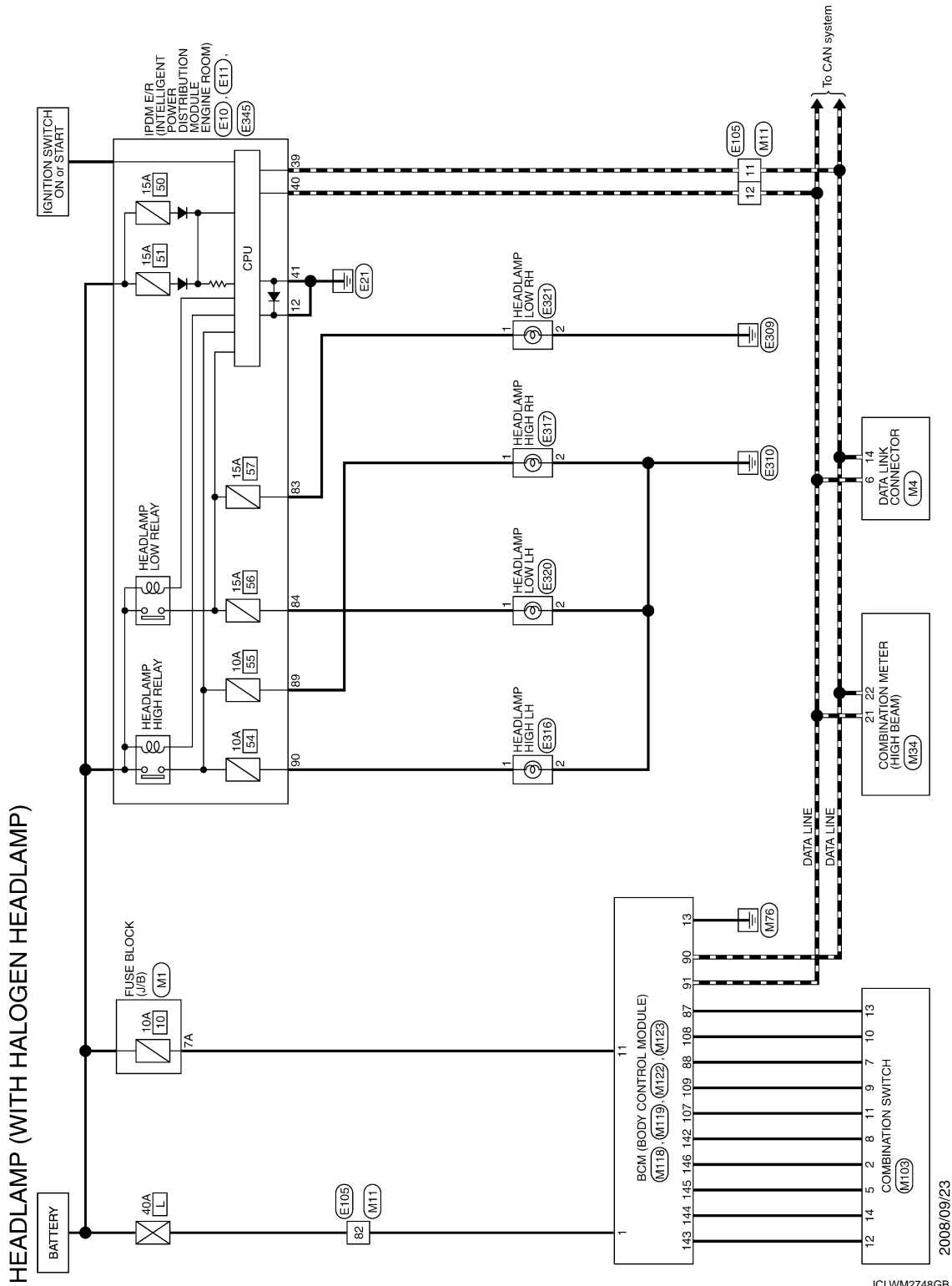
< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP SYSTEM

Wiring Diagram - HEADLAMP -

INFOID:000000009723056



HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP(WITH HALOGEN HEADLAMP)

Connector No.	E10
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH20FW-CS12-M4-1V



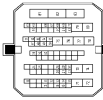
Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	-
5	Y	-
7	GR	-
8	B	-
10	BR	-
12	B	-
13	SB	-
15	W	-
16	R	-
19	Y	-
20	L	-
21	O	-
22	SB	-
23	GR	-
24	G	-
25	GR	-
26	W	-
28	SB	-
30	BR	-
34	O	-
35	P	-
36	G	-
38	GR	-

Connector No.	E11
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH08FW-NH



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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MM-CS10-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
3	Y	-
5	LG	-
6	GR	-
8	G	-
11	P	-
12	L	-
14	O	-
15	BR	-
20	Y	-
21	BR	-

Connector No.	E316
Connector Name	HEADLAMP HIGH LH
Connector Type	U02FB



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

Connector No.	E317
Connector Name	HEADLAMP HIGH RH
Connector Type	U02FB



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

22	P	-
24	O	-
26	SB	-
28	W	-
30	Y	-
38	R	-
39	L	-
40	B	-
47	P	-
48	L	-
49	SB	-
50	GR	-
51	LG	-
52	SB	-
54	BR	-
55	Y	-
56	W/L	-
60	V	-
61	BR	-
82	O	-
83	L/O	-
84	SHIELD	-
86	W	-
67	BR	-
68	Y	-
69	SB	-
70	GR	-
72	SB	-
73	L	-
74	W	-
75	BR	-
76	GR	-
77	O	-
78	G	- [With iPod without navigation system]
79	V	- [Without iPod and navigation system]
79	Y	- [With navigation system]
80	R	-
81	W	-
82	LG	-
83	O	-

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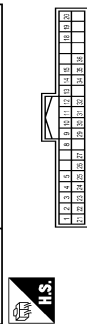
HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

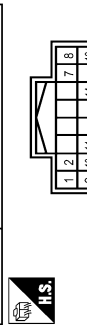
[HALOGEN TYPE]

HEADLAMP(WITH HALOGEN HEADLAMP)

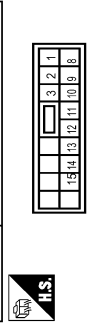
Connector No.	M124
Connector Name	COMBINATION METER
Connector Type	TH16FW-NH



Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	HS16FW-CS



81	O	NATS ANT AMP
82	BR	IGN
83	R	KEYLESS ENTRY RECEIVER COMM
87	R	COMBI SW INHIT 5
88	GR	COMBI SW INHIT 3
90	P	CAN-L
91	L	CAN-H
92	R	KEY SLOT ILL CONT
93	P	ON IND
95	L	ACC RELAY CONT
96	Y	CVT SHIFT SELECTOR POWER SUPPLY
99	V	SHIFT P
100	P	PASSENGER DOOR REQUEST SW
101	W	DRIVER DOOR REQUEST SW
102	Y	BLOWER RELAY CONT
103	Y	KEYLESS ENTRY RECEIVER POWER SUPPLY
105	D	COMBI SW INHIT 1
106	P	COMBI SW INHIT 4
108	SB	COMBI SW INHIT 2
110	G	HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH16FG-NH



1	W	BATTERY POWER SUPPLY
2	LG	GROUND
3	B	GROUND
4	B	GROUND
5	SB	ILLUMINATION CONTROL SIGNAL
6	SB	TRIP RESET SIGNAL
9	W	SW ILL POWER
10	LG	METER CONTROL SWITCH GROUND
11	L	ENTER SWITCH SIGNAL
12	R	SELECT SWITCH SIGNAL
13	V	ILLUMINATION CONTROL SWITCH SIGNAL (C)
14	GR	ILLUMINATION CONTROL SWITCH SIGNAL (C)
15	BR	AIR BAG SIGNAL
18	L	AMBIENT SENSOR SIGNAL
19	P	AMBIENT SENSOR POWER
20	Y	AMBIENT SENSOR GROUND
21	L	CAN-L
22	P	CAN-H
23	B	GROUND
24	W	FUEL LEVEL SENSOR GROUND
25	BR	ALTERNATOR SIGNAL
26	G	PARKING BRAKE SWITCH SIGNAL
27	V	BRAKE FLUID LEVEL SWITCH SIGNAL
29	R	WASHER LEVEL SWITCH SIGNAL
30	P	VEHICLE SPEED SIGNAL (2-PULSE)
31	V	VEHICLE SPEED SIGNAL (8-PULSE)
32	LG	OVERDRIVE CONTROL SWITCH SIGNAL
34	G	FUEL LEVEL SENSOR SIGNAL
35	SB	SEAT BELT Buckle Switch Signal (Driver Side)
36	R	SEAT BELT Buckle Switch Signal (Passenger Side)

Terminal No.	Color	Wire	Signal Name [Specification]
1	G	P/W	INTERIOR ROOM LAMP POWER SUPPLY
2	W	W	PASSENGER DOOR LOCK OUTPUT
3	W	W	STEERING LAMP CONT
4	W	W	ALL DOOR FUEL LID LOCK OUTPUT
8	G	G	DRIVER DOOR FUEL LID LOCK OUTPUT
10	P	P	REAR DOOR UNLOCK OUTPUT
11	LG	LG	BAT (FUSE)
13	B	B	GROUND
14	O	O	PUSH-BUTTON IGNITION SW ILL GND
15	L	L	ACC IND
17	G	G	TURN SIGNAL RH
18	BR	BR	TURN SIGNAL LH
19	Y	Y	INT ROOM LAMP CONT

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M33FB-LG



Terminal No.	Color	Wire	Signal Name [Specification]
1	W	W	BAT (F/L)
2	GR	GR	POWER WINDOW POWER SUPPLY (BAT)
3	L	L	POWER WINDOW POWER SUPPLY (IGN)

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH16FB-NH



Terminal No.	Color	Wire	Signal Name [Specification]
12	W	W	ROOM ANT-
14	Y	Y	ROOM ANT+
74	LG	LG	PASSENGER DOOR ANT-
75	V	V	PASSENGER DOOR ANT+
76	V	V	DRIVER DOOR ANT-
77	P	P	DRIVER DOOR ANT+
80	SB	SB	NATS ANT AMP

Terminal No.	Color	Wire	Signal Name [Specification]
112	R	R	RAIN SENSOR SERIAL LINK
113	P/B	P/B	OPTICAL SENSOR
116	GR	GR	STOP LAMP SW 1
118	L	L	STOP LAMP SW 2
119	W	W	DR DOOR UNLOCK SENSOR
121	Y	Y	KEY SLOT SW
123	G	G	IGN F/B
124	BR	BR	PASSENGER DOOR SW
130	ER	ER	REAR DEFROGGER SW
132	G	G	POWER WINDOW SW COMM
133	W	W	PUSH-BUTTON IGNITION SW ILL POWER
134	R	R	LOCK IND
137	P	P	RECEIVER SENSOR GND
138	V	V	RECEIVER SENSOR POWER SUPPLY

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH16FG-NH



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HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP(WITH HALOGEN HEADLAMP)

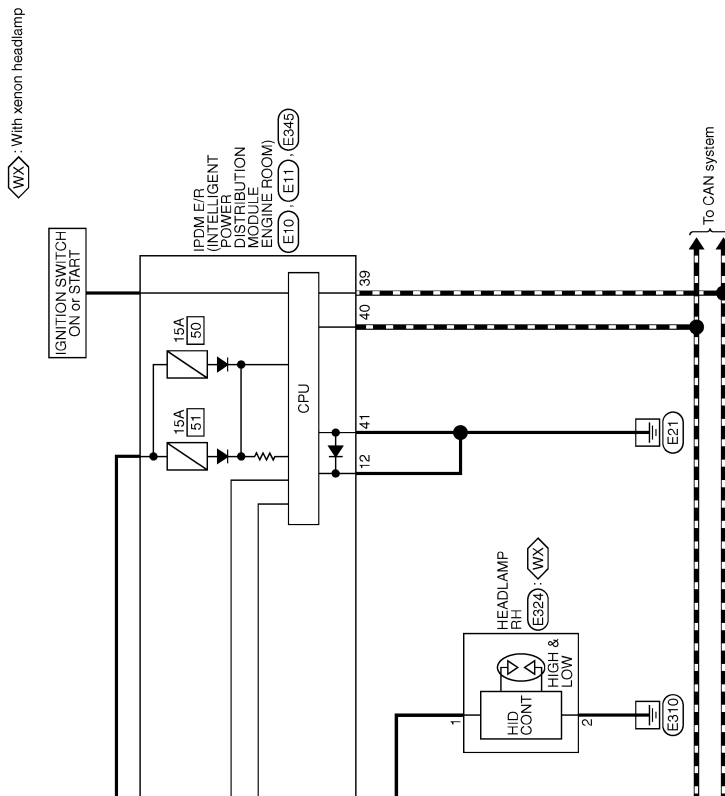
139	CP	TIRE PRESS. REGISTER COMM
140	CP	RECALL
141	O	SECURITY IND. LAMP CONT
142	L	COMBI SW OUTPUT 5
143	W	COMBI SW OUTPUT 1
144	P	COMBI SW OUTPUT 2
145	V	COMBI SW OUTPUT 3
146	Y	COMBI SW OUTPUT 4
150	SB	DRIVER DOOR SW
151	G	REAR WINDOW DEFOGGER RELAY CONT

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DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]



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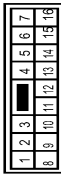
DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

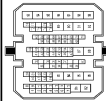
DAYTIME RUNNING LIGHT SYSTEM

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NIS/BMW-CS



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

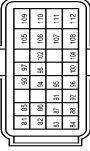
Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH/80MM-CS19



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	R/L	-

Terminal No.	Color Of Wire	Signal Name [Specification]
56	P	-
57	R	-
58	R	-
59	SHIELD	-
60	B	-
61	Y/G	-
62	R/L	-
63	LG	-
64	Y	-
65	BR	-
66	R	-
67	SHIELD	-
68	R	-
69	SHIELD	-
70	W/R	-
71	B/R	-
72	Y	-
73	LG	-
74	SB	-
75	L	-
76	G	-
77	R	-
78	B	-
79	R	-
80	R	-
81	L	-
82	L	-
83	BR	-
84	O	-
85	G	-
86	S/B	-
87	R	-
88	G	-
89	GR	-
90	Y	-
91	G	-
92	BR	-
93	Y	-
94	BR	-
95	GR	-
96	P	-
97	B	-
98	R	-
99	L	-
100	G	-
101	G	-
102	L	-
103	BR	-
104	O	-
105	V	-
106	SB	-
107	B	-
108	B	-
109	W	-
110	G	-
111	B	-
112	B	-

Connector No.	E16
Connector Name	ECM
Connector Type	RH24EP-R28-L-LH



Terminal No.	Color Of Wire	Signal Name [Specification]
81	W	ACCELERATOR PEDAL POSITION SENSOR 1
82	GR	ACCELERATOR PEDAL POSITION SENSOR 2
83	BR	SENSOR POWER SUPPLY
84	B	SENSOR GROUND
85	Y	ASC/D STEERING SWITCH
86	SB	EVAP CONTROL SYSTEM PRESSURE SENSOR
87	GR	SENSOR POWER SUPPLY
88	O	DATA LINK CONNECTOR
91	L	SENSOR POWER SUPPLY
92	BR	SENSOR GROUND
93	BR	IGNITION SWITCH
94	GR	ENGINE SPEED OUTPUT SIGNAL
95	Y	FUEL TANK TEMPERATURE SENSOR
96	GR	SENSOR GROUND
97	P	CRUISE CONTROL LINE(CAN-L)
98	G	CRUISE CONTROL LINE(CAN-H)
100	G	SENSOR GROUND
102	R	PMS SIGNAL
104	SB	SENSOR GROUND
105	V	POWER SUPPLY FOR ECM
106	SB	STOP LAMP SWITCH
107	B	ECM GROUND
108	B	ECM GROUND
109	W	EVAP CANISTER VENT CONTROL VALVE
110	G	ASC/D BRAKE SWITCH
111	B	ECM GROUND
112	B	ECM GROUND

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DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

DAYTIME RUNNING LIGHT SYSTEM

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	F01EB-A



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

Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS18BFW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	--
2	SB	--
3	L	--
4	R	--
5	L	--
6	P	--
7	L	--
8	B/W	--
9	SB	--
10	GR	--
11	R	--
12	B	--
13	W/L	--
14	V	--
15	Y	--
16	L	--

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH10MM-CS10-M3



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

67	BR	--
68	Y	--
69	SB	--
70	GR	--
71	SB	--
72	Y	--
73	L	--
74	W	--
75	BR	--
76	GR	--
77	O	--
78	G	-- [With iPod without navigation system]
79	V	-- [Without iPod and navigation system]
80	Y	-- [With navigation system]
81	R	--
82	W	--
83	LG	--
84	O	--

Connector No.	E320
Connector Name	HEADLAMP LOW LH
Connector Type	FHZ0ZF8



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

Connector No.	E321
Connector Name	HEADLAMP LOW RH
Connector Type	FHZ0ZF8



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

Connector No.	E323
Connector Name	HEADLAMP LH
Connector Type	E0ZFGV-RS



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

DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

DAYTIME RUNNING LIGHT SYSTEM

Connector No.	E324
Connector Name	HEADLAMP RH
Connector Type	E02EGY-RS



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

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD1BFW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	BR	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-GS10-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
3	BR	-
4	GR	-
5	G	-
6	G	-
8	R	-
11	P	-
12	L	-
13	V	-
14	Y	-
15	R	-
20	W	- [Without colour display]
21	BR	- [With colour display]
22	LG	-
24	Y	-
25	BR	-
26	L	-
30	R	-
35	R	-
39	L	-
40	B	-
47	P	-
48	L	-
49	W	-
50	GR	-
51	LG	-
52	Y	-
53	Y	-
54	SB	-
55	LG	-
56	R	-
60	V	-
61	GR	-
82	BR	-
63	V	-

Terminal No.	Color Of Wire	Signal Name [Specification]
64	SHIELD	-
67	R	-
68	W	-
69	P	-
70	G	-
71	G	-
72	BR	-
73	L	-
74	W	-
75	BR	-
76	R	-
77	G	-
79	Y	-
81	W	-
82	W	-
83	RG	-

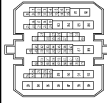
Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH00FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	BATTERY POWER SUPPLY
2	LG	IGN SIGNAL
3	B	GROUND
4	B	ILLUMINATION CONTROL SIGNAL
5	SB	TRIP RESET SIGNAL
8	W	SWILL POWER
9	LG	METER CONTROL SWITCH GROUND
10	P	SELECT SWITCH SIGNAL
12	B	ILLUMINATION CONTROL SWITCH SIGNAL (-)
13	V	ILLUMINATION CONTROL SWITCH SIGNAL (+) (With colour display)
14	GR	AIR BAG SIGNAL
15	BR	AMBIENT SENSOR SIGNAL
18	L	AMBIENT SENSOR POWER
19	P	AMBIENT SENSOR POWER

Terminal No.	Color Of Wire	Signal Name [Specification]
20	Y	AMBIENT SENSOR GROUND
21	P	COM-1
22	B	GROUND
23	B	GROUND
24	W	FUEL LEVEL SENSOR GROUND
25	BR	ALTERNATOR SIGNAL
26	G	PARKING BRAKE SWITCH SIGNAL
27	V	BRAKE FLUID LEVEL SWITCH SIGNAL
29	R	WASHER LEVEL SWITCH SIGNAL
30	P	VEHICLE SPEED SIGNAL (2-PULSE)
31	V	VEHICLE SPEED SIGNAL (8-PULSE)
32	LG	OVERDRIVE CONTROL SWITCH SIGNAL
34	G	FUEL LEVEL SENSOR SIGNAL
35	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
36	R	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS19



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	W	-
4	R	-
6	W	-
7	G	-
8	SHIELD	-
9	W	-
10	R	-
11	G	-
12	B	-
13	P	-
14	P	-
15	SB	-
16	R	-
17	V	-
18	P	-
19	P	-
20	LG	-

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EXL

DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

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DAYTIME RUNNING LIGHT SYSTEM

81	D	HATS ANT AMP
82	BR	IGN KEY F/CONT
82	R	KEYLESS ENTRY RECEIVER COMM
87	R	COMBI SW INPLT 5
88	GR	COMBI SW INPLT 3
90	P	CAN-L
91	L	CAN-H
92	R	KEY SLOT ILL CONT
93	P	ON IND
95	L	ACC RELAY CONT
96	Y	CVT SHIFT SELECTOR POWER SUPPLY
99	V	SHIFT P
100	P	PASSENGER DOOR REQUEST SW
101	W	DRIVER DOOR REQUEST SW
102	Y	BLOWER RELAY CONT
103	L	KEYLESS ENTRY RECEIVER POWER SUPPLY
103	L	COMBI SW INPLT 1
108	P	COMBI SW INPLT 4
108	SR	COMBI SW INPLT 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	R	R	RAIN SENSOR SERIAL LINK
113	P/B	P/B	OPTICAL SENSOR
116	GR	GR	STOP LAMP SW 1
118	L	L	STOP LAMP SW 2
119	W	W	DR DOOR UNLOCK SENSOR
121	Y	Y	KEY SLOT SW
123	G	G	IGN TP/S
124	BR	BR	PASSENGER DOOR SW
130	BR	BR	REAR DEFOGGER SW
132	G	G	POWER WINDOW SW COMM
133	W	W	PUSH-BUTTON IGNITION SW ILL POWER
134	R	R	LOCK IND
137	P	P	RECEIVER SENSOR GND
138	V	V	RECEIVER SENSOR POWER SUPPLY

139	O	O	TRIP PRESS RECEIVER COMM
140	GR	GR	SECURITY IND LAMP CONT
141	G	G	SECURITY IND LAMP CONT
142	L	L	COMBI SW OUTPUT 5
143	W	W	COMBI SW OUTPUT 1
144	P	P	COMBI SW OUTPUT 2
145	V	V	COMBI SW OUTPUT 3
146	Y	Y	COMBI SW OUTPUT 4
150	SR	SR	DRIVER DOOR SW
151	G	G	REAR WINDOW DEFOGGER RELAY CONT

EXL

AUTO LIGHT SYSTEM

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

AUTO LIGHT SYSTEM

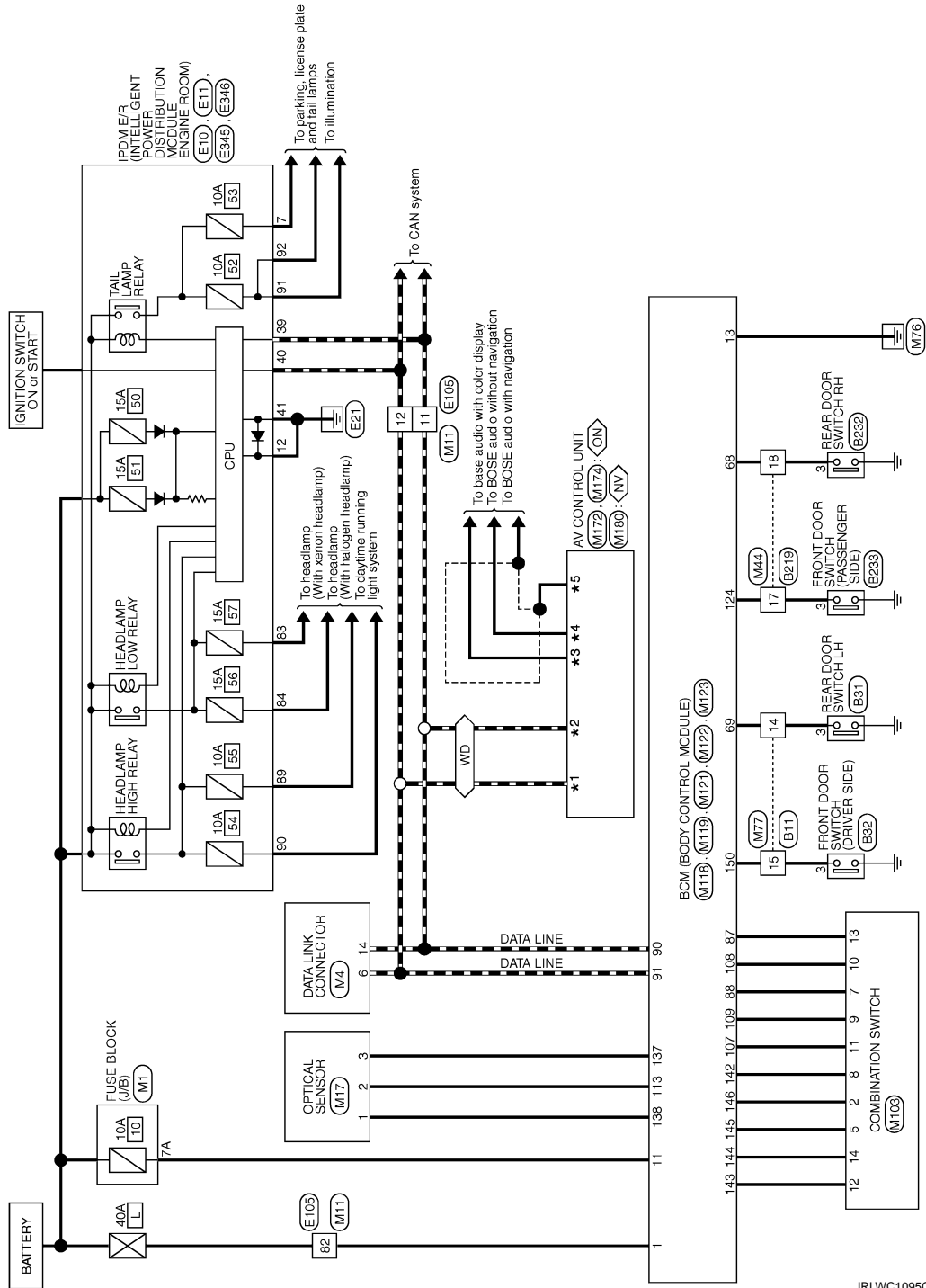
Wiring Diagram - AUTO LIGHT SYSTEM -

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- ★1 90: Without navigation system
- 81: With navigation system
- ★2 74: Without navigation system
- 80: With navigation system
- ★3 89: Without navigation system
- 39: With navigation system
- ★4 73: Without navigation system
- 51: With navigation system
- ★5 88: Without navigation system
- 52: With navigation system

- : With navigation system
- : Without navigation system
- : With color display

AUTO LIGHT SYSTEM



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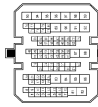
AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

AUTO LIGHT SYSTEM

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CSI9



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

42	G	
43	BR	
44	G	
45	G	
46	SB	
47	V	
48	GR	
49	SHIELD	
49	B	
49	BR	
50	G	
50	R/W	
53	G	
54	R	
55	R/L	
56	B	
57	L	
58	R	
59	R	
59	SHIELD	
60	B	
60	Y	
61	R/L	
62	R/W	
63	LG	
64	Y	
65	BR	
66	R	
66	L	
67	G	
67	GR	
68	BR	
68	R	
69	SHIELD	
70	W/R	
71	B/R	
72	Y	
73	LG	
74	SB	
75	L	
76	G	
76	B	
80	W	
81	R	
82	L	

Connector No.	B31
Connector Name	REAR DOOR SWITCH LH
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	BR	

Connector No.	B32
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	

Connector No.	B219
Connector Name	WIRE TO WIRE
Connector Type	TH32MM-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W/R	
2	B/R	
3	SHIELD	
4	W/R	
5	B/R	
6	SHIELD	
7	GR/V	
8	W/L	
9	SHIELD	
10	GR/V	
11	W/L	
12	SHIELD	
13	SB	
16	Y	
17	R	
18	W	
29	G	

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AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

AUTO LIGHT SYSTEM

30	V		
31	Y		
32	BR		

Connector No.	B232
Connector Name	REAR DOOR SWITCH RH
Connector Type	TH05FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	

Connector No.	B233
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	TH05FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	

Connector No.	E10	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Name		
Connector Type	TH20EW-CS12-M4-LV	



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

Connector No.	E11	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Name		
Connector Type	TH05FW-NH	



Terminal No.	Color Of Wire	Signal Name [Specification]
42	L	
43	Y	
44	B	
45	W	
46	BR	

Connector No.	E105	WIRE TO WIRE
Connector Name		
Connector Type	TH20MH-CS10-M3	



Terminal No.	Color Of Wire	Signal Name [Specification]
3	Y	
5	LG	
6	GR	
8	G	
11	L	
12	L	
13	Y	
14	O	
15	BR	
20	Y	
21	BR	
22	P	

24	L	
25	O	
26	SB	
28	SB	
29	W	
30	Y	
38	R	
39	L	
40	B	
47	P	
48	L	
49	SB	
50	GR	
51	LG	
52	Y	
53	L	
54	GR	
55	Y	
56	W/L	
60	V	
61	BR	
62	O	
63	L/O	
64	SHIELD	
66	W	
67	BR	
68	Y	
69	SB	
70	GR	
71	SB	
72	Y	
73	L	
74	W	
75	BR	
76	GR	
77	O	
78	G	
78	Y	
78	Y	
79	Y	
80	R	
81	W	
82	LG	
83	O	

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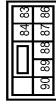
AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

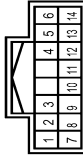
AUTO LIGHT SYSTEM

Connector No.	E345
Connector Name	FROM I/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
83	Y	-
84	L	-
86	SB	-
87	GR	-
88	W	-
89	L	-
90	G	-

Connector No.	E346
Connector Name	FROM I/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH10FW-NH



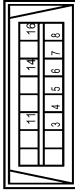
Terminal No.	Color Of Wire	Signal Name [Specification]
91	R	-
92	LG	-
99	BR	-
100	SB	-
101	L	-
102	B	-
103	P	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS36FW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	Y	-
2A	G	-
3A	Y	-
4A	GR	-
7A	LG	-
8A	Y	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD10FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	BR	-
8	G	-
11	SB	-
14	Y	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH10FW-CS (P-M3)



Terminal No.	Color Of Wire	Signal Name [Specification]
3	BR	-
4	PL	-
5	DO	-
6	G	-
8	R	-
11	P	-
12	L	-
13	V	-
14	Y	-
15	R	-
20	W	-(Without colour display)
20	Y	-(With colour display)
21	BR	-
22	LG	-
24	Y	-
26	BR	-
29	L	-
30	R	-
38	R	-
39	L	-
40	B	-
47	P	-
48	L	-
49	W	-
50	GR	-
51	LG	-
52	Y	-
53	SB	-
54	PL	-
56	LG	-
60	V	-
61	GR	-
62	BR	-
63	V	-

64	SHIELD	-
69	W	-
69	W	-
69	W	-
69	W	-
69	P	-
70	G	-
71	G	-
72	BR	-
73	L	-
74	W	-
75	BR	-
76	R	-
77	G	-
78	Y	-
79	G	-
80	W	-
81	W	-
82	W	-
83	EG	-

Connector No.	M17
Connector Name	OPTICAL SENSOR
Connector Type	TR03FW



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

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AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

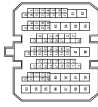
AUTO LIGHT SYSTEM

Connector No.	M44
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	—
2	SHIELD	—
3	SHIELD	—
4	B	—
5	W	—
6	SHIELD	—
7	L	—
8	R	—
9	SHIELD	—
10	V	—
11	LG	—
12	SHIELD	—
13	P	—
14	LG	—
15	S	—
16	Y	—
17	W	—
18	W	—
29	L	—
30	B/G	—
31	Y	—
32	V	—

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH82FW-GS19

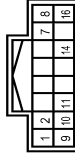


Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	—
2	SHIELD	—
3	W	—
4	R	—
6	W	—
7	G	—
8	SHIELD	—
9	W	—
10	R	—
11	G	—
12	B	—
13	P	—
14	R	—
15	SB	—
16	Y	—
17	Y	—
18	P	—
19	P	—
20	LG	—
21	Y	—
22	BR	—
23	LG	—
24	SB	—
25	Y	—
27	Y	—
28	R	—
30	Y	—
31	BR	—
32	GR	—
34	Y	—
35	B	—
36	G	—
37	Y	—
40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

46	G	—
48	LG	—
47	SB	—
47	Y	—
48	GR	—
48	SHIELD	—
49	BR	—
49	R	—
50	LG	—
50	R	—
51	R	—
51	V	—
52	B	—
53	BR	—
54	G	—
55	P	—
56	P	—
57	L	—
58	SB	—
59	R	—
59	SHIELD	—
60	B	—
60	Y	—
61	R	—
62	W	—
63	LG	—
64	Y	—
65	R	—
66	Y	—
66	Y	—
67	G	—
67	W	—
68	B/G	—
68	G	—
69	SHIELD	—
70	L	—
71	P	—
72	LG	—
73	Y	—
74	R	—
75	P	—
76	BR	—
77	BR	—
79	B	—
80	W	—
81	L	—
82	L	—
83	GR	—
83	W	—

84	R	—
85	V	—
86	W	—
87	R	—
88	G	—
89	B	—
90	V	—
91	G	—
92	BR	—
93	P	—
94	V	—
95	W	—
96	SB	—
97	L	—
98	LG	—
99	Y	—

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH18FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	—
2	Y	OUTPUT 4
3	B/G	FR
4	W	IGN
5	V	OUTPUT 3
6	B	GROUND
7	GR	INPUT 3
8	L	OUTPUT 5
9	SB	INPUT 2
10	P	INPUT 4
11	W	INPUT 1
12	W	OUTPUT 1
13	R	INPUT 5
14	P	OUTPUT 2

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AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

AUTO LIGHT SYSTEM

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



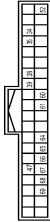
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (+)
2	GR	POWER WINDOW POWER SUPPLY (BAT)
3	E	POWER WINDOW POWER SUPPLY (GSV)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS1BFW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
4	P/W	INTERIOR ROOM LAMP POWER SUPPLY
5	G	PASSENGER DOOR UNLOCK OUTPUT
7	W	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	P	REAR DOOR UNLOCK OUTPUT
11	LG	BAT (FUSE)
13	B	GROUND
14	O	PUSH-BUTTON IGNITION SW ILL GND
15	C	ACC INJ
16	GR	TURN SIGNAL RH
18	BR	TURN SIGNAL LH
19	Y	INT ROOM LAMP CONT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
38	B	LUGGAGE ROOM ANT-
39	L	REAR BUMPER ANT+
38	BR	REAR BUMPER ANT+
47	L	IGN RELAY (R/DLE/RI) CONT
52	R	STARTER RELAY CONT
60	BR	PUSH SW
61	R	BACK DOOR OPENER REQUEST SW
64	GR	L-KEY WARN BUZZER
65	O	REAR WIPER STOP POSITION
66	Y	BACK DOOR SW
67	LG	BACK DOOR OPENER SW
68	W	REAR RH DOOR SW
68	R	REAR LH DOOR SW

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



Terminal No.	Color Of Wire	Signal Name [Specification]
72	B	ROOM ANT-
73	W	ROOM ANT+
74	Y	PASSENGER DOOR ANT-
75	LG	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	P	DRIVER DOOR ANT+

Terminal No.	Color Of Wire	Signal Name [Specification]
80	SB	NAIS ANT AMP
82	BR	IGN RELAY (E) CONT
83	P	KEYLESS ENTRY RECEIVER COMMI
87	R	COMBI SW INPUT 5
88	GR	COMBI SW INPUT 3
90	P	CAN-L
91	L	CAN-H
92	R	REV SLOT ILL CONT
93	P	ON IND
95	L	ACC RELAY CONT
96	Y	CVT SHIFT SELECTOR POWER SUPPLY
99	V	SHIFT P
100	P	PASSENGER DOOR REQUEST SW
101	W	DRIVER DOOR REQUEST SW
102	L	KEYLESS ENTRY RECEIVER POWER SUPPLY
103	L	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	O	COMBI SW INPUT 1
108	P	COMBI SW INPUT 4
109	SB	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	R	RAIN SENSOR SERIAL LINK
113	P/B	OPTICAL SENSOR
116	GR	STOP LAMP SW 1
118	L	STOP LAMP SW 2
119	W	DR DOOR UNLOCK SENSOR
121	C	REV SLOT SW
124	B	PASSENGER DOOR SW
130	BR	REAR DEFROGGER SW
132	G	POWER WINDOW SW COMMI
133	W	POWER WINDOW SW ILL POWER
134	R	PUSH-BUTTON IGNITION SW ILL POWER
137	P	LOCK IND
		RECEIVER SENSOR GND

Terminal No.	Color Of Wire	Signal Name [Specification]
138	V	RECEIVER SENSOR POWER SUPPLY
139	GR	TIRE PRESS MONITOR
140	CR	SECURITY IND LAMP CONT
141	O	SECURITY IND LAMP CONT
142	W	COMBI SW OUTPUT 5
143	W	COMBI SW OUTPUT 1
144	P	COMBI SW OUTPUT 2
145	V	COMBI SW OUTPUT 3
146	Y	COMBI SW OUTPUT 4
150	SB	DRIVER DOOR SW
151	G	REAR WINDOW DEFROGGER RELAY CONT

Connector No.	M172
Connector Name	AV CONTROL UNIT
Connector Type	TH2HFV-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
36	GR	SIGNAL VCC
37	SB	SIGNAL GND
38	G	COMMI (DISP- CONT)
39	L	COMMI (DISP- CONT)
40	W	REAR WIPER SW SIGNAL
41	SHIELD	SHIELD
42	B	RGB SYNC
43	G	RGB (RED) SIGNAL
44	L	RGB (GREEN) SIGNAL
45	Y	RGB (BLUE) SIGNAL
46	W	--
47	R	--
48	Y	INVERTER VCC
49	BR	INVERTER GND
50	R	VP
51	LG	--
52	SHIELD	SHIELD
58	B	--

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AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

AUTO LIGHT SYSTEM

Connector No.	M174
Connector Name	AV CONTROL UNIT
Connector Type	TH3DFW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
70	LG	AV COMM (L)
71	SB	AV COMM (H)
72	LG	AV COMM (L)
73	SB	AV COMM (H)
74	P	CAN-L
75	L	CAN-H
76	V	SW GND
77	R	SHIELD
78	L	TEL VOICE SIGNAL (-)
79	V	TEL VOICE SIGNAL (+)
80	G	VEHICLE SPEED SIGNAL (θ-PULSE)
81	G	PARKING BRAKE (Without BOSE system)
82	SB	REVERSE
83	W	IGNITION
84	W	RISK SIGNAL
85	W	AUX SOUND SIGNAL GND
86	B	AUX SOUND SIGNAL LH (+)
87	R	AUX SOUND SIGNAL RH (+)

Connector No.	M180
Connector Name	AV CONTROL UNIT
Connector Type	TH3DFW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
65	LG	PARKING BRAKE
66	L	-
67	LG	-
68	LG	-
69	L	-
70	SB	SHIELD
71	B	MICROPHONE VCC
72	R	COMM (CONT- DISP)
73	P	CAN-L
74	P	CAN-L
75	LG	AV COMM (L)
76	LG	AV COMM (L)
77	R	ILLUMINATION SIGNAL
78	R	IGNITION
79	G	REVERSE
80	SB	REVERSE
81	V	VEHICLE SPEED SIGNAL (θ-PULSE)
82	G	VEHICLE SPEED SIGNAL (θ-PULSE)
83	B	VEHICLE SPEED SIGNAL (θ-PULSE)
84	W	MICROPHONE SIGNAL
85	W	-
86	B	-
87	W	-
88	B	-
89	W	-
90	L	CAN-H
91	SB	AV COMM (H)
92	SB	AV COMM (H)

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FRONT FOG LAMP SYSTEM

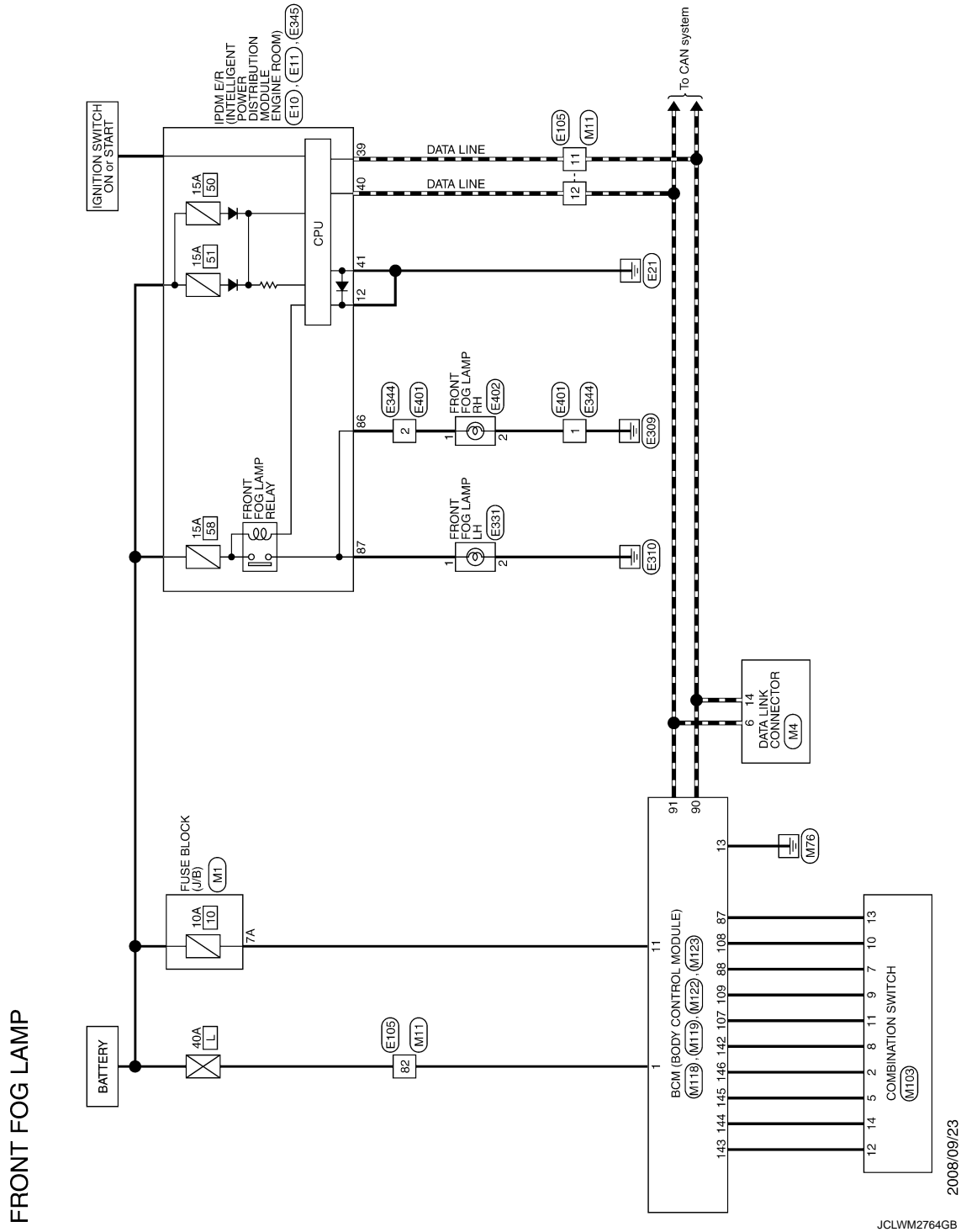
< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

FRONT FOG LAMP SYSTEM

Wiring Diagram - FRONT FOG LAMP -

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FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

FRONT FOG LAMP

Connector No.	E10
Connector Name	RELAY FOR INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH20EW-CS12-MA-1V



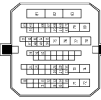
Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	--
5	Y	--
7	GR	--
10	BR	--
12	B	--
13	SB	--
15	W	--
16	R	--
19	Y	--
20	L	--
21	O	--
22	SB	--
23	GR	--
24	G	--
25	GR	--
26	W	--
27	W	--
28	SB	--
30	BR	--
34	O	--
35	P	--
36	G	--
38	GR	--

Connector No.	E11
Connector Name	RELAY FOR INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH8BEW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
42	L	--
43	L	--
44	B	--
46	SB	--
48	Y	--
44	W	--
45	O	--
46	BR	--

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
3	Y	--
5	LG	--
8	GR	--
8	G	--
12	L	--
13	Y	--
14	O	--
15	BR	--
20	Y	--
21	BR	--

Connector No.	E331
Connector Name	FRONT FOG LAMP LH
Connector Type	FH20ZFB



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

Connector No.	E344
Connector Name	WIRE TO WIRE
Connector Type	RS02MGY



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

Terminal No.	Color Of Wire	Signal Name [Specification]
22	P	--
24	L	--
25	O	--
26	SB	--
28	W	--
30	Y	--
35	R	--
35	L	--
40	B	--
47	P	--
48	L	--
49	SB	--
50	GR	--
51	LG	--
52	GR	--
54	BR	--
55	Y	--
56	W/L	--
60	V	--
61	BR	--
62	O	--
63	L/O	--
64	SHIELD	--
66	W	--
67	BR	--
68	Y	--
69	SB	--
71	SB	--
72	Y	--
73	L	--
74	W	--
75	BR	--
76	GR	--
77	O	--
78	G	-- [With iPod without navigation system]
78	V	-- [Without iPod and navigation system]
79	Y	--
80	R	--
81	W	--
82	CO	--
83	O	--

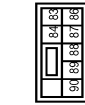
FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

FRONT FOG LAMP

Connector No.	E243
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	NSDBFW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
83	Y	-
84	W	-
85	SB	-
86	GR	-
87	GR	-
88	W	-
89	L	-
90	G	-

Connector No.	E401
Connector Name	WIRE TO WIRE
Connector Type	RSDFGY



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

Connector No.	E402
Connector Name	FRONT FOG LAMP RH
Connector Type	FTZDFEB



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

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSDBFW-AM



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	Y	-
2A	G	-
3A	Y	-
4A	GR	-
7A	LG	-
8A	Y	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	W	-
5	B	-
6	L	-
7	BR	-
8	G	-
11	SB	-
14	P	-
15	Y	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	THDBFW-CS10-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
3	P	-
5	BR	-
6	O	-
8	G	-
11	P	-
12	L	-
13	V	-
14	Y	-
15	R	-
20	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
20	Y	-
21	BR	-
22	LG	-
24	Y	-
25	Y	-
26	BR	-
29	L	-
30	R	-
38	R	-
39	L	-
40	B	-
47	P	-
48	L	-
49	W	-
50	GR	-
52	Y	-
53	V	-
54	SB	-
55	P	-
56	LG	-
60	V	-
61	GR	-
62	BR	-
63	Y	-
64	SHIELD	-
66	W	-
67	R	-
68	W	-
69	G	-
71	G	-
72	BR	-
73	L	-
74	W	-
75	BR	-
76	R	-
77	G	-
78	Y	-
79	G	-
80	R	-
81	W	-
82	W	-
83	BG	-

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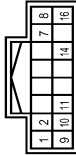
FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

FRONT FOG LAMP

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH18FW-NH



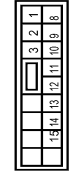
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	IGN
2	G	GROUND
3	EG	OUTPUT 4
4	W	IGN
5	V	OUTPUT 3
6	B	GROUND
7	GR	INPUT 3
8	L	OUTPUT 5
9	SB	INPUT 2
10	P	INPUT 4
11	O	INPUT 1
12	W	OUTPUT 1
13	R	INPUT 5
14	P	OUTPUT 2

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	GR	POWER WINDOW POWER SUPPLY (BAT)
3	L	POWER WINDOW POWER SUPPLY (IGN)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS18FW-GS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	INTERIOR ROOM LAMP POWER SUPPLY
2	O	PASSENGER DOOR UNLOCK OUTPUT
3	W	STEP LAMP CONT
4	V	ALL DOOR FUEL LID LOCK OUTPUT
5	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
6	P	REAR DOOR UNLOCK OUTPUT
7	LG	BAT / FUSE
8	L	GROUND
9	O	PUSH-BUTTON IGNITION SW ILL GND
10	L	ACC IND
11	G	TURN SIGNAL RH
12	BR	TURN SIGNAL LH
13	Y	INT ROOM LAMP CONT

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



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	ROOM ANT-
2	W	ROOM ANT+
3	Y	PASSENGER DOOR ANT-
4	LG	PASSENGER DOOR ANT+
5	V	DRIVER DOOR ANT-
6	P	DRIVER DOOR ANT+
7	P	NATS. ANT. AMP.

Terminal No.	Color Of Wire	Signal Name [Specification]
81	O	NATS. ANT. AMP.
82	BR	IGN RELAY (E/B) CONT
83	P	KEYLESS ENTRY RECEIVER COMMI
87	R	COMBI SW INPUT 5
88	GR	COMBI SW INPUT 3
90	P	CAN-L
91	L	CAN-H
92	R	REV. SLOT ILL CONT
93	P	ON IND
95	L	ACC RELAY CONT
96	Y	CVT SHIFT SELECTOR POWER SUPPLY
99	V	SHIFT P
100	P	PASSENGER DOOR REQUEST SW
101	W	DRIVER DOOR REQUEST SW
102	O	REAR DOOR REQUEST SW
103	L	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	O	COMBI SW INPUT 1
108	P	COMBI SW INPUT 4
109	SB	COMBI SW INPUT 2
110	G	HAZARD SW

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



TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

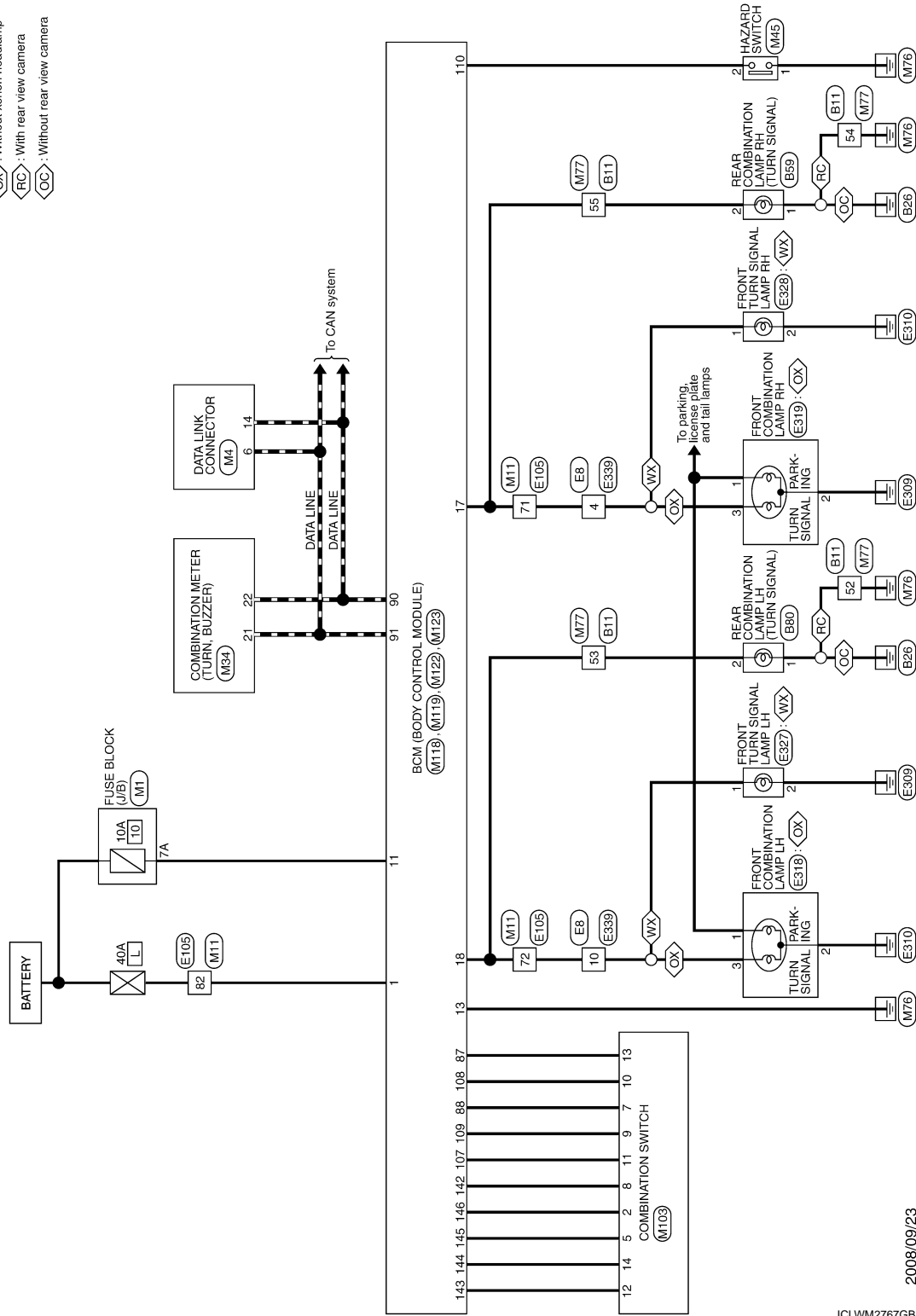
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

Wiring Diagram - TURN AND HAZARD WARNING LAMPS -

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TURN SIGNAL AND HAZARD WARNING LAMPS

- : With xenon headlamp
- : Without xenon headlamp
- : With rear view camera
- : Without rear view camera



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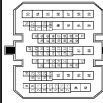
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH88MM-C519



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

83	BR	-
84	G	-
85	G	-
86	SB	-
87	R	-
88	GR	-
89	GR	-
90	Y	-
91	G	-
92	BR	-
93	G	-
94	V	-
95	BR	-
96	GR	-
98	LG	-
99	O	-

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS8MM-C5



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B/W	[Without rear view camera]
2	BR	[With rear view camera]
3	P	
4	L	

Connector No.	B89
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS8MM-C5



Terminal No.	Color Of Wire	Signal Name [Specification]
2	G	
3	P	
4	L	

Connector No.	E8
Connector Name	WIRE TO WIRE
Connector Type	NS12MM-C5



Terminal No.	Color Of Wire	Signal Name [Specification]
3	GR	
4	SB	
5	O	
8	G	
9	W	
10	Y	
11	G	

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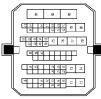
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	11770MM-CST0-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
3	Y	
4	L	
5	GR	
6	G	
8	LG	
11	P	
12	L	
13	Y	
14	O	
15	BR	
20	Y	
21	BR	
22	P	
24	L	
25	O	
28	SB	
29	Y	
30	Y	
38	R	
39	L	
40	P	
47	B	
48	L	
49	SB	
50	GR	
51	LG	
52	V	
53	GR	
54	BR	
55	W	
60	V	
61	BR	
62	O	
63	L/O	
64	SHIELD	
65	W	
66	W	

67	BR	-
68	SB	-
70	GR	-
71	SB	-
72	Y	-
73	L	-
74	W	-
75	BR	-
76	GR	-
77	O	-
78	G	- [With iPod without navigation system]
78	V	- [Without iPod and navigation system]
79	Y	-
80	R	-
81	W	-
82	LG	-
83	O	-

Connector No.	E318
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	Z03FER



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	
2	B	
3	Y	

Connector No.	E319
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	Z03FER



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

Connector No.	E327
Connector Name	FRONT TURN SIGNAL LAMP LH
Connector Type	RS02FEY



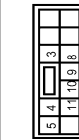
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	
2	B	

Connector No.	E328
Connector Name	FRONT TURN SIGNAL LAMP RH
Connector Type	RS02FEY



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

Connector No.	E338
Connector Name	WIRE TO WIRE
Connector Type	NS12FER-GS



Terminal No.	Color Of Wire	Signal Name [Specification]
3	O	
4	G	
5	O	
8	G	
9	W	
10	Y	
11	R	

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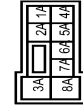
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	M11
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSRBEW-M2

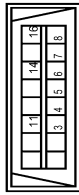


Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH09FW-GS10-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	Y	-
2A	G	-
3A	Y	-
4A	GR	-
7A	LG	-
8A	Y	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD1EFW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	BR	-
8	G	-
11	SB	-
14	R	-
16	Y	-

Terminal No.	Color Of Wire	Signal Name [Specification]
64	SHIELD	-
66	W	-
67	R	-
68	W	-
69	P	-
70	G	-
71	G	-
72	BR	-
73	L	-
74	W	-
75	BR	-
76	R	-
77	G	-
78	Y	-
79	W	-
80	S	-
81	W	-
82	W	-
83	RG	-

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH09FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	BATTERY POWER SUPPLY
2	LG	IGN SIGNAL
3	B	GROUND
4	B	GROUND
5	SB	ILLUMINATION CONTROL SIGNAL
8	SB	TRIP RESET SIGNAL
9	W	SWILL POWER
10	W	SWILL POWER GROUND
11	L	METER SELECT SWITCH SIGNAL
12	R	SELECT SWITCH SIGNAL
13	V	ILLUMINATION CONTROL SWITCH SIGNAL (-)
14	GR	ILLUMINATION CONTROL SWITCH SIGNAL (-)
15	BR	AIR BAG SIGNAL
18	L	AMBIENT SENSOR SIGNAL
19	P	AMBIENT SENSOR POWER

Terminal No.	Color Of Wire	Signal Name [Specification]
20	Y	AMBIENT SENSOR GROUND
21	Y	CAN-L
22	P	CAN-R
23	B	GROUND
24	W	FUEL LEVEL SENSOR GROUND
25	BR	ALTERNATOR SIGNAL
26	G	PARKING BRAKE SWITCH SIGNAL
27	V	BRAKE FLUID LEVEL SWITCH SIGNAL
29	R	WASHER LEVEL SWITCH SIGNAL
30	P	VEHICLE SPEED SIGNAL (2-PULSE)
31	V	VEHICLE SPEED SIGNAL (8-PULSE)
32	LG	OVERDRIVE CONTROL SWITCH SIGNAL
34	G	FUEL LEVEL SENSOR SIGNAL
35	SB	S&A BELT BUZZLE SWITCH SIGNAL (DRIVER SIDE)
38	R	S&A BELT BUZZLE SWITCH SIGNAL (PASSENGER SIDE)

Connector No.	M45
Connector Name	HAZARD SWITCH
Connector Type	TK09FW



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

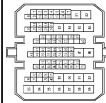
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

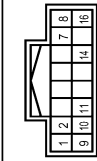
Connector No.	M177
Connector Name	WIRE TO WIRE
Connector Type	TH8BFM-CS19



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

54	R	
55	Y	
56	W	
57	R	
58	G	
59	B	
60	V	
61	G	
62	BR	
63	P	
64	Y	
65	W	
66	SB	
67	L	
68	LG	
69	L	
70	Y	

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH18BFM-NH



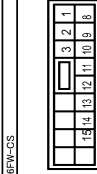
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	
2	Y	OUTPUT 4
3	BG	FR
4	W	IGN
5	V	OUTPUT 3
6	B	GROUND
7	GR	INPUT 3
8	L	OUTPUT 5
9	SB	INPUT 2
10	P	INPUT 4
11	W	INPUT 1
12	BR	INPUT 5
13	R	INPUT 3
14	P	OUTPUT 2

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FEL-CL



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (2/3)
2	GR	POWER WINDOW POWER SUPPLY (BAT)
3	L	POWER WINDOW POWER SUPPLY (IGN)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS18FV-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
4	P/W	INTERIOR ROOM LAMP POWER SUPPLY
5	G	PASSENGER DOOR UNLOCK OUTPUT
7	W	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	P	REAR DOOR UNLOCK OUTPUT
11	LG	BAT (FUSE)
13	B	GROUND
14	O	PUSH-BUTTON IGNITION SW LLL GND
15	L	ACC RD
16	G	TURN SIGNAL RH
17	BR	TURN SIGNAL LH
18	BR	
19	Y	INT ROOM LAMP CONT

46	G	
47	G	
48	SB	
49	Y	
49	GR	
49	SHIELD	
49	BR	
49	R	
50	LG	
50	R	
51	R	
51	V	
52	B	
53	BR	
54	B	
55	G	
56	P	
57	L	
58	SB	
59	R	
59	SHIELD	
60	B	
60	Y	
61	R	
62	W	
63	LG	
64	Y	
65	R	
66	V	
67	Y	
68	Y	
69	G	
69	W	
69	BG	
69	G	
69	SHIELD	
70	L	
71	P	
72	LG	
73	Y	
74	R	
75	P	
76	BR	
77	BR	
78	BR	
80	W	
81	L	
82	L	
83	GR	
83	W	

- [Without automatic drive positioner]
- [With automatic drive positioner]

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



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



Terminal No.	Wire	Color	Signal Name [Specification]
72	B		ROOM ANT-
73	W		ROOM ANT+
74	Y		PASSENGER DOOR ANT-
75	LG		PASSENGER DOOR ANT+
76	V		DRIVER DOOR ANT-
77	P		DRIVER DOOR ANT+
80	SB		NATS ANT AMP
81	O		NATS ANT AMP
82	BR		IGN RELAY (F/B) CONT
83	P		KEYLESS ENTRY RECEIVER COMM
87	R		COMBI SW INPUT 5
88	GR		COMBI SW INPUT 3
90	P		IGN-L
91	L		IGN-H
92	R		IGN-CONT
93	P		IGN IND
95	L		ACC-RELAY CONT
99	V		CVT SHIFT SELECTOR POWER SUPPLY
100	P		SHIFT P
101	W		PASSENGER DOOR REQUEST SW
101	W		DRIVER DOOR REQUEST SW
102	Y		BLOWER RELAY CONT
103	L		KEYLESS ENTRY RECEIVER POWER SUPPLY
107	O		COMBI SW INPUT 1
108	P		COMBI SW INPUT 4
109	SB		COMBI SW INPUT 2
110	G		HAZARD SW

Terminal No.	Wire	Color	Signal Name [Specification]
112	P/B		RAIN SENSOR SERIAL LINK
113	P/B		OFFICAL SENSOR
116	GR		STOP LAMP SW 1
118	L		STOP LAMP SW 2
119	W		DR DOOR UNLOCK SENSOR
121	Y		KEY SLOT SW
123	G		IGN F/B
124	R		PASSENGER DOOR SW
130	BR		REAR DEFOGGER SW
132	G		POWER WINDOW SW COMM
133	W		PUSH-BUTTON IGNITION SW ILL POWER
134	R		LOCK IND
137	P		RECEIVER SENSOR GND
138	O		RECEIVER SENSOR POWER SUPPLY
140	GR		TIRE PRESSURE COMM
141	O		SECURITY AND LAMP CONT
142	L		COMBI SW OUTPUT 5
143	W		COMBI SW OUTPUT 1
144	P		COMBI SW OUTPUT 2
145	V		COMBI SW OUTPUT 3
146	Y		COMBI SW OUTPUT 4
150	SB		DRIVER DOOR SW
151	G		REAR WINDOW DEFOGGER RELAY CONT

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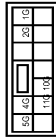
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

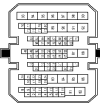
PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	B8
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12PBR-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10G	Y	-
11G	Y	-
12G	Y	-
13G	SB	-
2G	GR	-
4G	L	-
5G	P	-

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH85MM-CS19



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

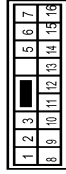
64	Y	-
65	BR	-
66	L	-
67	V	-
68	G	-
69	GR	-
70	BR	-
71	R	-
72	SHIELD	-
73	W/R	-
74	Y	-
75	Y	-
76	LG	-
77	BR	-
78	SB	-
79	L	-
80	GR	-
81	Y	-
82	Y	-
83	GR	-
84	O	-
85	G	-
86	G	-
87	R	-
88	R	-
89	GR	-
90	GR	-
91	G	-
92	BR	-
93	G	-
94	V	-
95	BR	-
96	GR	-
97	R	-
98	LG	-
99	O	-

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS18MM-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B/Y	- [Without rear view camera]
2	EG	- [With rear view camera]
3	P	-
4	L	-

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	NS18MM-CS



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

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

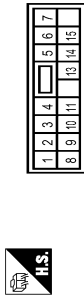
PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	E89
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS3AMW-CS



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

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	NS18PW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	W	-
3	V	-
5	R	-
6	V	-
8	B	-
9	L	-
10	R	-
12	W	-
13	GR	-
14	G	-
15	O	-
16	BR	-

Connector No.	D162
Connector Name	LICENSE PLATE LAMP LH
Connector Type	TK02FBR



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

Connector No.	D163
Connector Name	LICENSE PLATE LAMP RH
Connector Type	TK02FBR



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

Connector No.	E18
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE FUSE
Connector Type	TH08PW-CS12-M4-1V



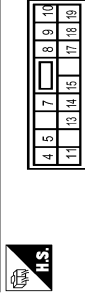
Terminal No.	Color Of Wire	Signal Name [Specification]
5	V	-
7	GR	-
10	BR	-
12	B	-
13	SB	-
15	W	-
16	R	-
19	Y	-
20	L	-
21	O	-
22	SB	-
23	GR	-
24	G	-
26	V	-
27	W	-
28	SB	-
30	BR	-
34	O	-
35	P	-
36	G	-
38	GR	-

Connector No.	E11
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE FUSE
Connector Type	TH08PW-NH



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

Connector No.	E103
Connector Name	FUSE BLOCK (J.B)
Connector Type	NS18PW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
11F	G	-
12F	V	-
1F	L	-
2F	LG	-
4F	BR	-
6F	Y	-
8F	R	-
9F	GR	-

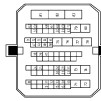
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	1177MM-CST0-M3



Terminal No.	Color Of Wire	Signal Name [Specification]
3	Y	-
4	LG	-
5	GR	-
6	GR	-
8	GR	-
11	P	-
12	L	-
13	Y	-
14	O	-
15	BR	-
20	Y	-
21	BR	-
22	P	-
24	L	-
25	O	-
28	SB	-
29	Y	-
30	Y	-
38	R	-
39	L	-
40	B	-
47	P	-
48	L	-
49	SB	-
50	GR	-
51	LG	-
52	V	-
53	GR	-
54	BR	-
55	W	-
56	V	-
61	BR	-
62	O	-
63	L/O	-
64	SHIELD	-
65	W	-
66	W	-

67	BR	-
68	SB	-
70	GR	-
71	SB	-
72	Y	-
73	L	-
74	W	-
75	BR	-
76	GR	-
77	O	-
78	G	- [With iPod without navigation system]
78	V	- [Without iPod and navigation system]
79	Y	-
80	R	-
81	W	-
82	LG	-
83	O	-

Connector No.	E314
Connector Name	FRONT SIDE MARKER LAMP LH
Connector Type	RK02FGY



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

Connector No.	E315
Connector Name	FRONT SIDE MARKER LAMP RH
Connector Type	RK02FGY



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

Connector No.	E318
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	Z03FBR



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

Connector No.	E319
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	Z03FBR



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

Connector No.	E329
Connector Name	PARKING LAMP LH
Connector Type	RK02FGY



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

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

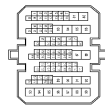
< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS

Terminal No.	Color Of Wire	Signal Name [Specification]
20	Y	AMBIENT SENSOR GROUND
21	GR	CON-1
22	BR	SHIELD
23	B	CON-1
24	SB	GROUND
25	Y	FUEL LEVEL SENSOR GROUND
26	BR	ALTERNATOR SIGNAL
27	V	PARKING BRAKE SWITCH SIGNAL
28	G	WASHER FLUID LEVEL SWITCH SIGNAL
29	R	WASHER LEVEL SWITCH SIGNAL
30	P	VEHICLE SPEED SIGNAL (2-PULSE)
31	V	VEHICLE SPEED SIGNAL (6-PULSE)
32	LG	OVERDRIVE CONTROL SWITCH SIGNAL
34	G	FUEL LEVEL SENSOR SIGNAL
35	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
36	R	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)

Connector No.	M177
Connector Name	WIRE TO WIRE
Connector Type	TH86FW-CS19

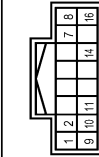


Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	
2	B	
3	W	
4	R	
6	W	
7	G	
8	SHIELD	
9	W	
10	R	
11	G	
12	B	
13	P	
14	B	
15	SB	
16	R	
17	V	
18	P	
19	P	
20	LG	

PARKING, LICENSE PLATE AND TAIL LAMPS

Terminal No.	Color Of Wire	Signal Name [Specification]
88	BG	
89	SHIELD	
90	L	
91	Y	
92	P	
93	LG	
94	V	
95	R	
96	P	
97	Y	
98	W	
99	Y	

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



PARKING, LICENSE PLATE AND TAIL LAMPS

Terminal No.	Color Of Wire	Signal Name [Specification]
2	Y	OUTPUT 4
3	BG	FR
4	W	IGN
5	V	OUTPUT 3
6	B	GROUND
7	GR	INPUT 3
8	L	OUTPUT 5
9	SB	INPUT 2
10	P	INPUT 4
11	O	INPUT 1
12	W	OUTPUT 1
13	R	INPUT 5
14	P	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	GR	POWER WINDOW POWER SUPPLY (BAT)
3	L	POWER WINDOW POWER SUPPLY (IGN)

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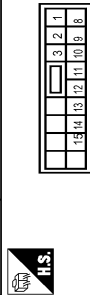
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

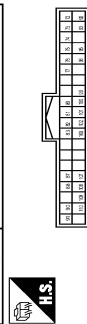
PARKING, LICENSE PLATE AND TAIL LAMPS

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



Terminal No.	Color	Wire	Signal Name [Specification]
1	P/W	W	INTERIOR ROOM LAMP POWER SUPPLY
2	W	W	PASSENGER DOOR UNLOCK OUTPUT
3	W	W	SEAT LAMP CONT.
4	W	W	ALL DOOR FUEL LID LOCK OUTPUT
5	G	P	DRIVER DOOR FUEL LID UNLOCK OUTPUT
6	P	G	REAR DOOR UNLOCK OUTPUT
7	LG	B	BAT. (FUSE)
8	O	L	PUSH-BUTTON IGNITION SW LLL GND
9	G	L	ACC IND.
10	G	L	TURN SIGNAL RH
11	BR	LH	TURN SIGNAL LH
12	Y	Y	INT. ROOM LAMP CONT.

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH4MFB-NH

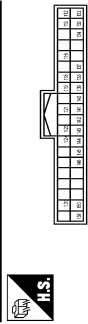


Terminal No.	Color	Wire	Signal Name [Specification]
72	B	W	ROOM ANT-
73	W	W	ROOM ANT+
74	Y	Y	PASSENGER DOOR ANT-
75	LG	G	PASSENGER DOOR ANT+
76	V	V	DRIVER DOOR ANT-
77	P	P	DRIVER DOOR ANT+
80	SB	SB	NATS ANT AMP

LAMPS

Terminal No.	Color	Wire	Signal Name [Specification]
83	BR	R	NATS ANT AMP
84	O	P	IGN RELAY (F) CONT.
85	R	R	KEYLESS ENTRY RECEIVER COMM
86	GR	L	COMBI SW INPUT 3
87	GR	L	COMBI SW INPUT 3
88	GR	L	CAN-L
89	P	L	CAN-H
90	L	L	KEY SLOT ILL CONT.
91	L	L	ON IND.
92	R	R	ACC RELAY CONT.
93	P	P	CVT SHIFT SELECTOR POWER SUPPLY
94	L	L	SHIFT P
95	Y	Y	PASSENGER DOOR REQUEST SW
96	V	V	DRIVER DOOR REQUEST SW
97	W	W	KEYLESS ENTRY RECEIVER COMM
98	W	W	KEYLESS ENTRY RECEIVER POWER SUPPLY
99	L	L	COMBI SW INPUT 1
100	L	L	COMBI SW INPUT 2
101	O	P	COMBI SW INPUT 3
102	L	L	COMBI SW INPUT 4
103	P	P	COMBI SW INPUT 5
104	SB	SB	HAZARD SW
105	G	G	HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH4MFG-NH



Terminal No.	Color	Wire	Signal Name [Specification]
112	R	R	RAIN SENSOR SERIAL LINK
113	P/B	P/B	OPTICAL SENSOR
116	GR	GR	STOP LAMP SW 1
118	L	L	STOP LAMP SW 2
119	W	W	DR DOOR UNLOCK SENSOR
121	G	G	KEY SLOT SW
122	O	O	PASSENGER DOOR SW
123	R	R	REAR DEFOGGER SW
130	BR	BR	POWER WINDOW SW COMM
132	G	G	PUSH-BUTTON IGNITION SW ILL POWER
133	W	W	LOCK IND.
134	R	R	LOCK IND.
137	P	P	RECEIVER SENSOR GND
138	V	V	RECEIVER SENSOR POWER SUPPLY

Terminal No.	Color	Wire	Signal Name [Specification]
138	O	O	TIRE PRESS RECEIVER COMM
140	GR	GR	SECURITY INCL LAMP CONT
141	O	O	SECURITY INCL LAMP CONT
142	L	L	COMBI SW OUTPUT 5
143	W	W	COMBI SW OUTPUT 1
144	P	P	COMBI SW OUTPUT 2
145	V	V	COMBI SW OUTPUT 3
146	Y	Y	COMBI SW OUTPUT 4
150	SB	SB	DRIVER DOOR SW
151	G	G	REAR WINDOW DEFOGGER RELAY CONT.

STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

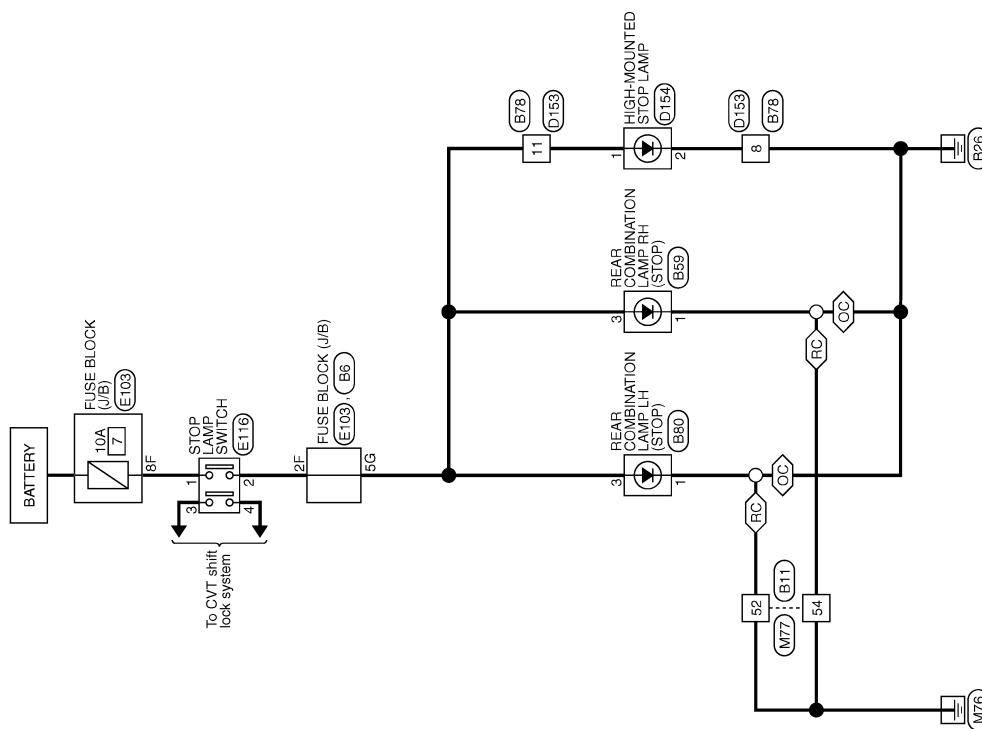
STOP LAMP

Wiring Diagram - STOP LAMP -

INFOID:0000000110092675

STOP LAMP

RC : With rear view camera
 CC : Without rear view camera



2009/08/07

JCLWM4171GB

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STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

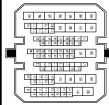
STOP LAMP

Connector No.	B8
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12PBR-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	4G	—
2	4G	—
3	LG	—
4	LG	—
5	Y	—
6	Y	—
7	Y	—
8	LG	—

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TR80MM-CS19



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	—
2	B	—
3	R/L	—
4	R/W	—
5	P	—
6	Y	—
7	Y	—
8	SHIELD	—
9	Y/L	—
10	Y/G	—
11	Y/L	—
12	W/L	—
13	L	—
14	BR	—

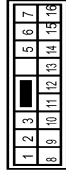
54	Y	—
55	BR	—
56	R	—
57	L	—
58	V	—
59	G	—
60	GR	—
61	GR	—
62	BR	—
63	R	—
64	SHIELD	—
65	W/R	—
66	B/R	—
67	Y	—
68	LG	—
69	SB	—
70	G	—
71	Y	—
72	Y	—
73	LG	—
74	SB	—
75	G	—
76	G	—
77	R	—
78	B	—
79	B	—
80	W	—
81	R	—
82	L	—
83	BR	—
84	O	—
85	G	—
86	SB	—
87	R	—
88	G	—
89	Y	—
90	Y	—
91	G	—
92	BR	—
93	G	—
94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

Connector No.	B39
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS18MM-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	— [Rear view camera]
2	BR	— [Rear view camera]
3	P	—
4	L	—

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	NS18MM-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	—
2	Y	—
3	SB	—
5	R	—
6	V	—
8	B	—
9	L	—
10	P	—
12	W	—
13	GR	—
14	G	—
15	Y	—
16	BR	—

STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

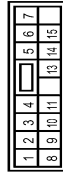
STOP LAMP

Connector No.	E88
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS18PW-CS



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

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	NS18PW-CS



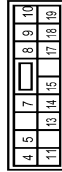
Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	W	-
3	V	-
5	R	-
6	V	-
8	B	-
9	L	-
10	R	-
11	O	-
13	GR	-
14	G	-
15	O	-
16	BR	-

Connector No.	D154
Connector Name	HIGH-MOUNTED STOP LAMP
Connector Type	YZK 332-1324-F



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

Connector No.	E103
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS18FW-CS



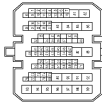
Terminal No.	Color Of Wire	Signal Name [Specification]
11F	G	-
12F	V	-
1F	L	-
2F	LG	-
4F	BR	-
6F	Y	-
8F	R	-
9F	GR	-

Connector No.	E116
Connector Name	STOP LAMP SWITCH
Connector Type	MB9FW-LC



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	1H9PW-CS19



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	W	-
4	R	-
6	W	-
7	G	-
8	SHIELD	-
9	W	-
10	R	-
11	B	-
12	B	-
13	P	-
14	R	-
15	SB	-
16	R	-
17	V	-

18	P	-
19	P	-
20	LG	-
21	Y	-
22	BR	-
23	LG	-
24	SB	-
25	Y	-
27	Y	-
28	R	-
30	Y	-
31	W	-
32	BR	-
34	Y	-
35	B	-
39	Y	-
40	BR	-
41	LG	-
42	SB	-
46	G	-
46	LG	-
47	SB	-
47	Y	-
48	GR	-
48	SHIELD	-
49	BR	-
49	R	-
60	LG	-
60	R	-
61	R	-
51	V	-
52	B	-
53	BR	-
54	B	-
55	G	-
56	P	-
57	L	-
58	SB	-
59	R	-
59	SHIELD	-
60	B	-
60	Y	-
61	W	-
62	W	-
63	LG	-
64	Y	-
65	R	-
65	V	-
66	L	-

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STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

STOP LAMP		
66	T	-
67	W	-
68	BG	-
68	G	-
69	SHIELD	-
70	L	-
71	P	-
72	LG	-
73	Y	-
74	R	-
75	P	-
76	L	-
77	BR	-
78	B	-
80	W	-
81	L	-
82	L	-
83	GR	- [Without automatic drive positioner]
83	W	- [With automatic drive positioner]
84	R	-
85	V	-
86	W	-
87	R	-
88	G	-
89	B	-
90	V	-
91	G	-
92	BR	-
93	V	-
94	V	-
95	W	-
96	S5	-
97	L	-
98	LG	-
99	Y	-

JRLWC9441GB

BACK-UP LAMP

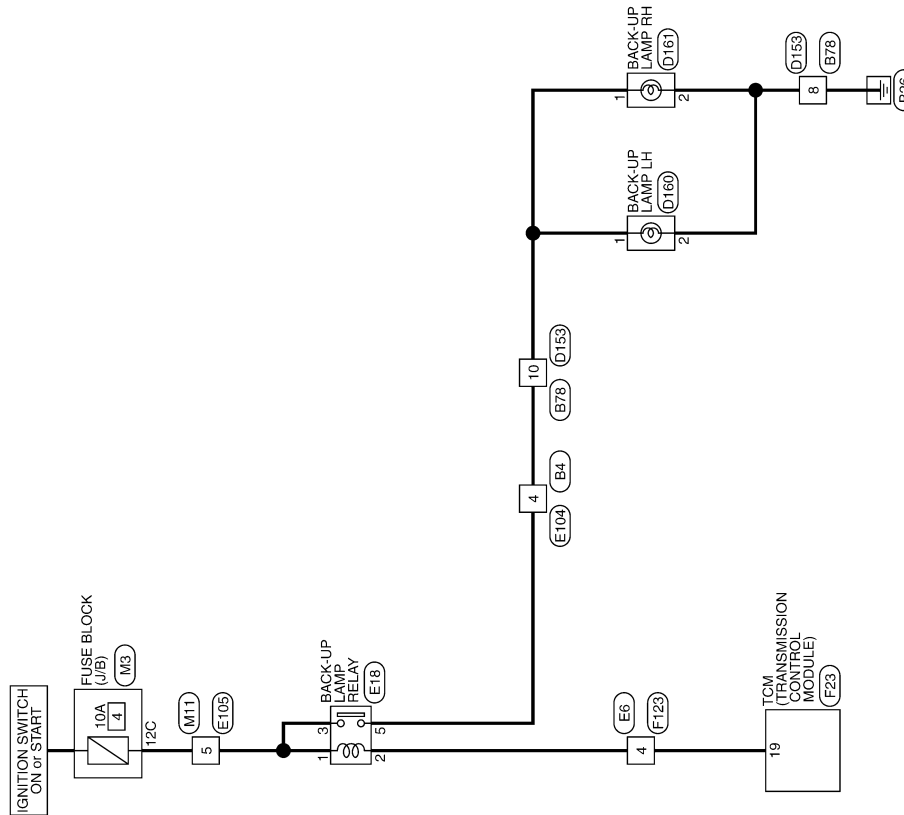
< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

BACK-UP LAMP

Wiring Diagram - BACK-UP LAMP -

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BACK-UP LAMP

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JCLWM2777GB

BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >


[HALOGEN TYPE]

BACK-UP LAMP

Connector No. E4

Connector Name WIRE TO WIRE

Connector Type NS16BMV-CS



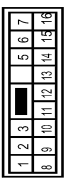
H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GB	-
2	W	-
3	W	-
4	R	-
5	O	-
6	P	-
7	L	-
8	B	-
9	LG	-
10	V	-
11	L	-
12	BR	-
13	P	-
14	BR	-
15	O	-
16	G	-

Connector No. E78

Connector Name WIRE TO WIRE

Connector Type NS16BMV-CS




H.S.

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

Connector No. E18

Connector Name WIRE TO WIRE

Connector Type TK16MG3-1V




H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	Y	-
3	Y	-
4	R	-
5	GR	-
6	V	-
8	P	-
10	W	-
11	G	-
12	BR	-
13	SB	-
14	B	-

Connector No. E18

Connector Name BACK-UP LAMP RELAY

Connector Type MS02EL-M2-LC




H.S.

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

Connector No. D160

Connector Name BACK-UP LAMP LH

Connector Type NS02ZW-CS




H.S.

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

Connector No. D161

Connector Name BACK-UP LAMP RH

Connector Type NS02ZW-CS



H.S.

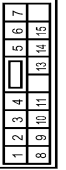
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-

Terminal No.	Color Of Wire	Signal Name [Specification]
5	R	-
8	V	-
9	B	-
10	R	-
11	P	-
12	W	-
13	GR	-
14	G	-
15	Y	-
16	BR	-

Connector No. D153

Connector Name WIRE TO WIRE

Connector Type NS16FW-CS



H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	V	-
3	R	-
4	V	-
5	R	-
6	V	-
8	L	-
9	L	-
10	R	-
11	O	-
12	W	-
13	GR	-
14	G	-
15	O	-
16	BR	-

JRLWC9442GB

BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

BACK-UP LAMP

Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	
2	Y	
3	SB	
4	O	
5	R	
6	P	
7	L	
8	B/W	
9	SB	
10	GR	
11	R	
12	W	
13	P	
14	V	
15	Y	
16	L	

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH10MM-CSD1P-M3

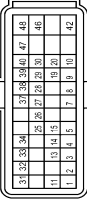


Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	
5	LG	
6	GR	
8	G	

Terminal No.	Color Of Wire	Signal Name [Specification]
11	P	
12	Y	
13	O	
14	Y	
15	BR	
20	Y	
21	BR	
22	P	
24	L	
25	SB	
28	SB	
29	W	
30	Y	
35	R	
37	B	
38	P	
41	P	
42	L	
43	L	
48	SB	
50	GR	
51	LG	
52	V	
53	GR	
54	BR	
55	Y	
56	W/L	
60	V	
62	O	
64	O	
65	SHIELD	
66	W	
67	BR	
68	Y	
69	SB	
70	GR	
71	SB	
72	Y	
73	L	
74	W	
75	BR	
76	GR	
77	O	
78	V	
79	Y	
80	R	
81	W	
82	LG	

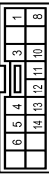
83	O	
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Connector No.	F23
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	RHMFB-R28-L-RH



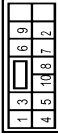
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P/B	TRANSMISSION RANGE SWITCH 2
2	P/L	TRANSMISSION RANGE SWITCH 3
3	O/V	TRANSMISSION RANGE SWITCH 4
4	GR	TRANSMISSION RANGE SWITCH 3 (MONITOR)
5	B	GROUND
7	W	SENSOR GROUND
8	O/W	CHIP SELECT (SEL 2)
9	L/R	CLOCK (SEL 1)
10	BR/R	DATA I/O (SEL 3)
11	BR/W	TRANSMISSION RANGE SWITCH 1
13	V	CVT FLUID TEMPERATURE SENSOR
14	W/W	PRIMARY PRESSURE SENSOR
15	Y/W	SECONDARY PRESSURE SENSOR
19	G/B	PRESSURE LAMP RELAY
20	R/B	STARTER RELAY
25	W/R	SENSOR GROUND
26	L/O	SENSOR POWER
27	R/G	STEP MOTOR D
28	R	STEP MOTOR C
29	O/B	STEP MOTOR B
30	O/R	STEP MOTOR A
31	P	CAN-L
32	L	CAN-H
33	LG	PRIMARY SPEED SENSOR
34	LG/R	SECONDARY SPEED SENSOR
37	V/R	LOCK-UP SELECT SOLENOID VALVE
38	W/B	TOYOTA LOCK-UP SOLENOID VALVE
39	W/B	SECONDARY PRESSURE SOLENOID VALVE
40	RY	LINE PRESSURE SOLENOID VALVE
42	B	GROUND
46	Y	POWER SUPPLY
47	L/R	POWER SUPPLY (MEMORY BACK-UP)
48	Y	POWER SUPPLY

Connector No.	F23
Connector Name	WIRE TO WIRE
Connector Type	TK18ECV-TV



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G/R	
2	G/R	
3	GR	
5	R	
6	L/R	
8	P	
10	Y/B	
11	BR/W	
12	BR	
13	G	
14	B	

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS18FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	SB	
11C	R	
12C	G	
6C	BR	
7C	R	
8C	G	
9C	GR	

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EXL

BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

BACK-UP LAMP

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	THREEM-CSIJ-M3



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

64	SHIELD	—
65	W	—
66	R	—
67	R	—
68	W	—
69	P	—
70	G	—
71	G	—
72	BR	—
73	L	—
74	W	—
75	BR	—
76	R	—
77	G	—
78	G	—
79	G	—
80	S	—
81	W	—
82	W	—
83	BR	—

JRLWC9444GB

BCM (BODY CONTROL MODULE)

[HALOGEN TYPE]

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000010092644

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 intermittent dial is in a dial position 1 - 7	Wiper intermittent 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 >

[HALOGEN 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: For models with BOSE audio system this item is not monitored.	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
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
RKE-LOCK	LOCK button of Intelligent Key is not pressed	Off
	LOCK button of Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of Intelligent Key is not pressed	Off
	UNLOCK button of Intelligent Key is pressed	On
RKE-TR/BD	BACK DOOR OPEN button of Intelligent Key is not pressed	Off
	BACK DOOR OPEN button of Intelligent Key is pressed	On
RKE-PANIC	PANIC button of Intelligent Key is not pressed	Off
	PANIC button of Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of Intelligent Key is not pressed	Off
	UNLOCK button of Intelligent Key is pressed and held	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status	
RKE-MODE CHG	LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	Off	A
	LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	On	B
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V	C
	Dark outside of the vehicle	Close to 0 V	
REQ SW -DR	Driver door request switch is not pressed	Off	D
	Driver door request switch is pressed	On	
REQ SW -AS	Passenger door request switch is not pressed	Off	E
	Passenger door request switch is pressed	On	
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	F
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	G
REQ SW -BD/TR	Back door request switch is not pressed	Off	H
	Back door request switch is pressed	On	
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off	I
	Push-button ignition switch (push switch) is pressed	On	
IGN RLY2 -F/B	Ignition switch in OFF or ACC position	Off	J
	Ignition switch in ON position	On	
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off	K
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off	EXL
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off	M
	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	N
	Stop lamp switch 1 signal circuit is normal	On	
DETE/CANCL SW	Selector lever in P position	Off	O
	Selector lever in any position other than P	On	
SFT PN/N SW	Selector lever in any position other than P and N	Off	P
	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	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status
SFT PN -IPDM	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
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	Power supply position in LOCK position	Reset
	Power supply position in any position other than LOCK	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	Intelligent Key is not inserted into key slot	Off
	Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	—
CONFIRM ID ALL	The Intelligent Key ID that the key slot receives is not recognized by any Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the key slot receives is recognized by any Intelligent Key ID registered to BCM.	Done
CONFIRM ID4	The Intelligent Key ID that the key slot receives is not recognized by the fourth Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the key slot receives is recognized by the fourth Intelligent Key ID registered to BCM.	Done

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status	
CONFIRM ID3	The Intelligent Key ID that the key slot receives is not recognized by the third Intelligent Key ID registered to BCM.	Yet	A
	The Intelligent Key ID that the key slot receives is recognized by the third Intelligent Key ID registered to BCM.	Done	B
CONFIRM ID2	The Intelligent Key ID that the key slot receives is not recognized by the second Intelligent Key ID registered to BCM.	Yet	C
	The Intelligent Key ID that the key slot receives is recognized by the second Intelligent Key ID registered to BCM.	Done	D
CONFIRM ID1	The Intelligent Key ID that the key slot receives is not recognized by the first Intelligent Key ID registered to BCM.	Yet	E
	The Intelligent Key ID that the key slot receives is recognized by the first Intelligent Key ID registered to BCM.	Done	F
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet	G
	The ID of fourth Intelligent Key is registered to BCM	Done	H
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet	I
	The ID of third Intelligent Key is registered to BCM	Done	J
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet	K
	The ID of second Intelligent Key is registered to BCM	Done	L
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet	M
	The ID of first Intelligent Key is registered to BCM	Done	N
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire	O
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire	P
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire	Q
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire	R
ID REGST FL1	ID of front LH tire transmitter is registered	Done	S
	ID of front LH tire transmitter is not registered	Yet	T
ID REGST FR1	ID of front RH tire transmitter is registered	Done	U
	ID of front RH tire transmitter is not registered	Yet	V
ID REGST RR1	ID of rear RH tire transmitter is registered	Done	W
	ID of rear RH tire transmitter is not registered	Yet	X
ID REGST RL1	ID of rear LH tire transmitter is registered	Done	Y
	ID of rear LH tire transmitter is not registered	Yet	Z
WARNING LAMP	Tire pressure indicator OFF	Off	AA
	Tire pressure indicator ON	On	AB
BUZZER	Tire pressure warning alarm is not sounding	Off	AC
	Tire pressure warning alarm is sounding	On	AD

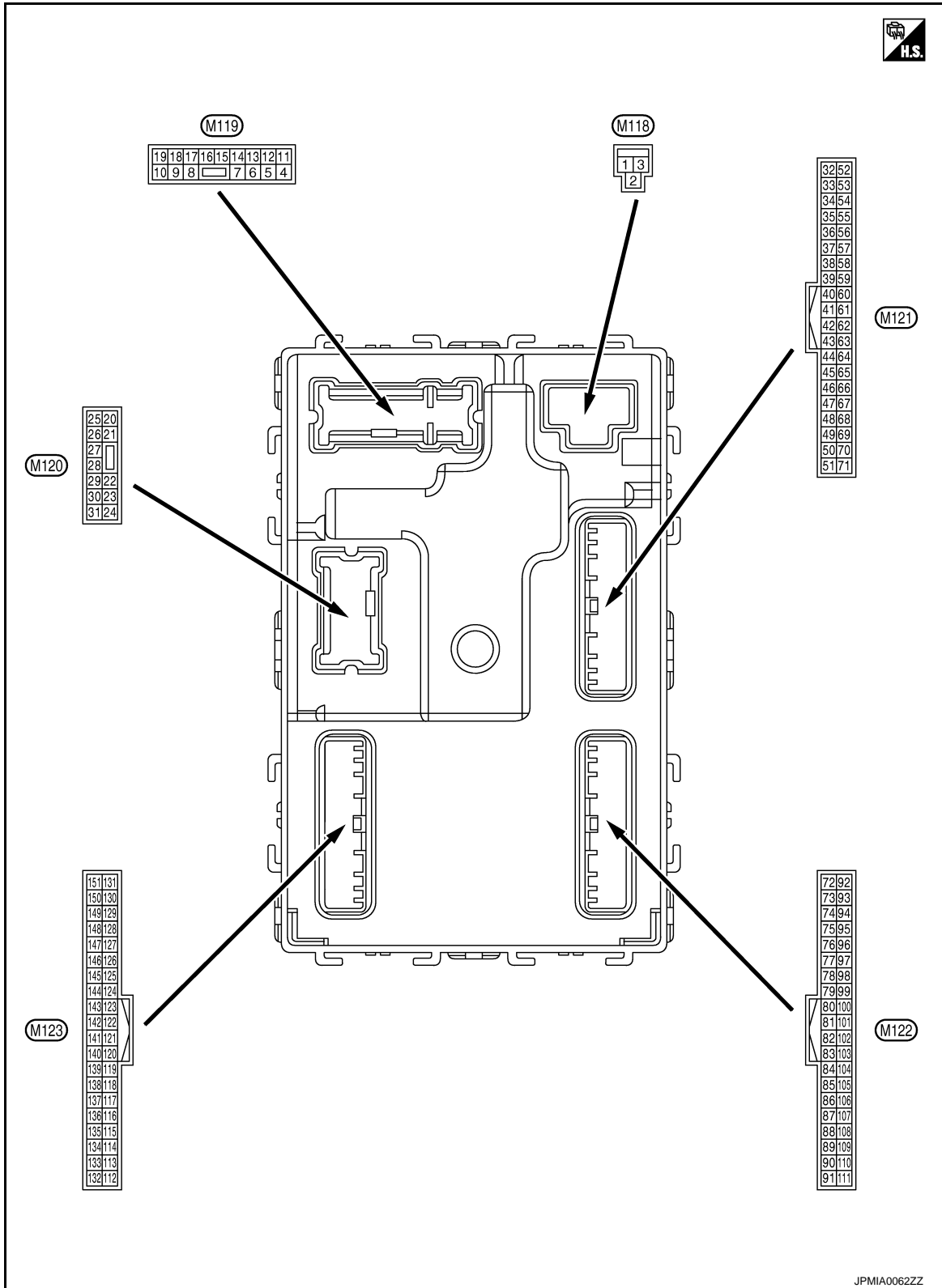
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BCM (BODY CONTROL MODULE)

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[HALOGEN TYPE]

TERMINAL LAYOUT

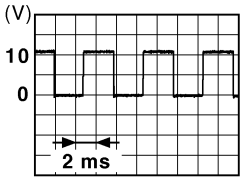


PHYSICAL VALUES

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

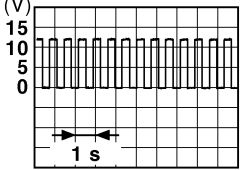
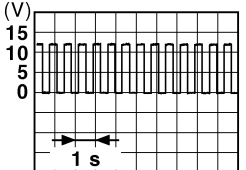
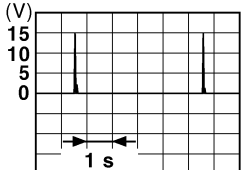
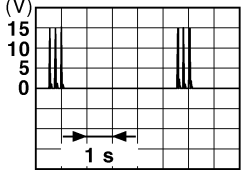
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-					
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (GR)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (L)	Ground	P/W power supply (IGN)	Output	Ignition switch ON		Battery voltage
4 (P/W)	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)		Battery voltage
5 (G)	Ground	Passenger door UN- LOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
7 (W)	Ground	Step lamp control	Output	Step lamp	ON	0 V
					OFF	Battery voltage
8 (V)	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
10 (P)	Ground	Rear RH door and rear LH door UN- LOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
11 (LG)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (O)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	<p>NOTE: When the illumination brightening/dimming level is in the neutral position</p>  <p style="text-align: right; font-size: small;">JSNIA0010GB</p>
15 (L)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK and ON indicator lamps are not illuminated.)	Battery voltage
					ACC	0 V

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
17 (G)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch OFF Turn signal switch RH
				0 V	 <p style="text-align: right; font-size: small;">PKID0926E</p>
18 (BR)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF Turn signal switch LH
				0 V	 <p style="text-align: right; font-size: small;">PKID0926E</p>
19 (Y)	Ground	Interior room lamp control	Output	Interior room lamp	OFF ON
				Battery voltage 0 V	
23 (BR)	Ground	Back door open	Output	Back door	OPEN (Back door opener actuator is activated) Other than OPEN (Back door opener actuator is not activated)
				Battery voltage 0 V	
26 (G)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped) ON (Operated)
				0 V Battery voltage	
34 (B)	Ground	Luggage room anten- na (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment
				0 V	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
					When Intelligent Key is not in the passenger compart- ment
					 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
35 (W)	Ground	Luggage room antenna (+)	Output	Ignition switch OFF	
				When Intelligent Key is not in the passenger compartment	
38 (L)	Ground	Rear bumper antenna (-)	Output	When the back door request switch is operated with ignition switch OFF	
				When Intelligent Key is not in the antenna detection area	
39 (BR)	Ground	Rear bumper antenna (+)	Output	When the back door request switch is operated with ignition switch OFF	
				When Intelligent Key is not in the antenna detection area	
47 (L)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	Battery voltage
				OFF or ACC	0 V

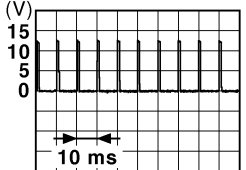
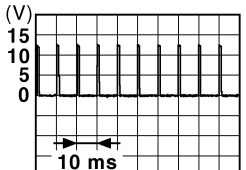
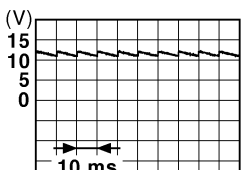
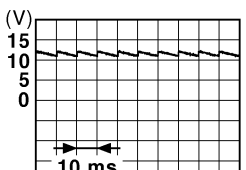
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BCM (BODY CONTROL MODULE)

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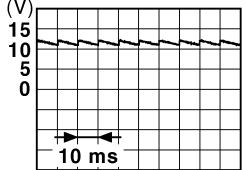
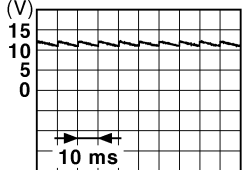
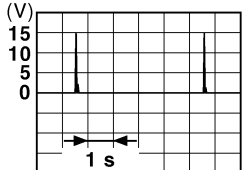
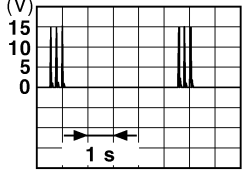
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
52 (R)	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	Battery voltage
					When selector lever is not in P or N position	0.3 V
				Ignition switch OFF		0 V
60 (BR)	Ground	Push-button ignition switch (push switch)	Input	Push-button igni- tion switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
61 (R)	Ground	Back door request switch	Input	Back door re- quest switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p style="text-align: right; font-size: small;">JPMA0016GB</p>
64 (GR)	Ground	Intelligent key warn- ing buzzer control	Output	Warning buzzer	Sounding	0 V
					Not sounding	Battery voltage
65 (O)	Ground	Rear wiper stop posi- tion	Input	Rear wiper	In stop position	 <p style="text-align: right; font-size: small;">JPMA0016GB</p>
					Not in stop position	0 V
66 (Y)	Ground	Back door switch	Input	Back door switch	OFF (When back door closes)	 <p style="text-align: right; font-size: small;">JPMA0011GB</p>
					ON (When back door opens)	0 V
67 (LG)	Ground	Back door opener switch	Input	Back door opener switch	Pressed	0 V
					Not pressed	 <p style="text-align: right; font-size: small;">JPMA0011GB</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
68 (W)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes)	 <p style="text-align: right; font-size: small;">JPMIA0011GB</p>
					ON (When rear RH door opens)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	 <p style="text-align: right; font-size: small;">JPMIA0011GB</p>
					ON (When rear LH door opens)	0 V
72 (B)	Ground	Room antenna (-) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
					When Intelligent Key is not in the passenger compartment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

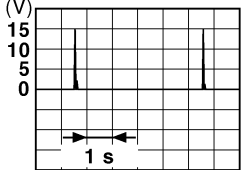
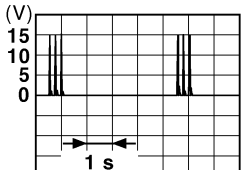
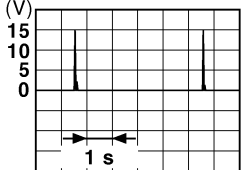
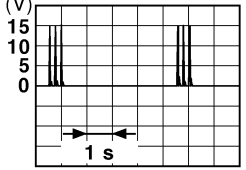
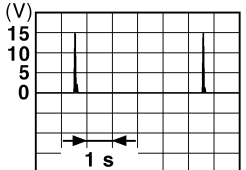
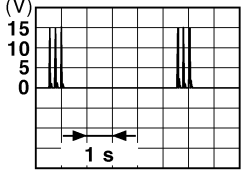
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

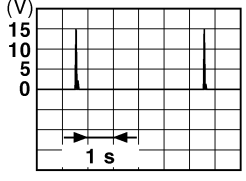
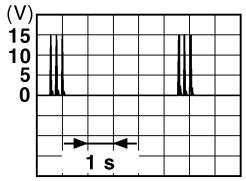
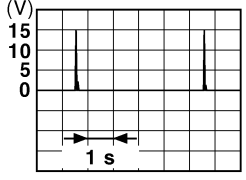
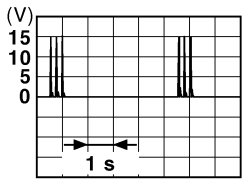
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
73 (W)	Ground	Room antenna (+) (Center console)	Output	Ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is not in the passenger compart- ment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
74 (Y)	Ground	Passenger door an- tenna (-)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detec- tion area	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
75 (LG)	Ground	Passenger door an- tenna (+)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detec- tion area	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

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[HALOGEN 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 operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	
				When Intelligent Key is not in the antenna detection area		
77 (P)	Ground	Driver door antenna (+)	Output	When the driver 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		
80 (SB)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (O)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (BR)	Ground	Ignition relay [fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

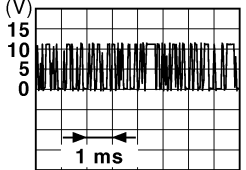
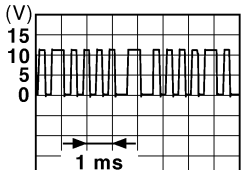

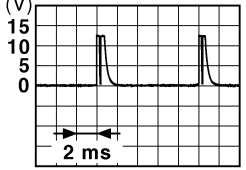

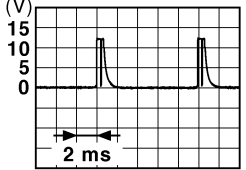
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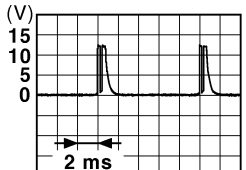

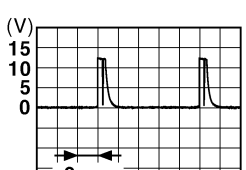


[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
83 (P)	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting	 <small style="display: block; text-align: right;">JMKIA0064GB</small>
				When operating either button on Intelligent Key	 <small style="display: block; text-align: right;">JMKIA0065GB</small>
87 (R)	Ground	Combination switch INPUT 5	Input	All switches OFF (Wiper intermittent dial 4)	 <small style="display: block; text-align: right;">JPMIA0041GB</small> 1.4 V
				Front fog lamp switch ON (Wiper intermittent dial 4)	 <small style="display: block; text-align: right;">JPMIA0037GB</small> 1.3 V
				Rear wiper switch ON (Wiper intermittent dial 4)	 <small style="display: block; text-align: right;">JPMIA0039GB</small> 1.3 V
				Any of the conditions below with all switches OFF	 <small style="display: block; text-align: right;">JPMIA0040GB</small> 1.3 V

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[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
88 (GR)	Ground	Combination switch INPUT 3	Input		
				All switches OFF (Wiper intermittent dial 4)	<div style="display: flex; flex-direction: column; align-items: center;">  <p style="margin-top: 5px;">1.3 V</p> </div>
				Lighting switch HI (Wiper intermittent dial 4)	<div style="display: flex; flex-direction: column; align-items: center;">  <p style="margin-top: 5px;">1.3 V</p> </div>
				Lighting switch 2ND (Wiper intermittent dial 4)	<div style="display: flex; flex-direction: column; align-items: center;">  <p style="margin-top: 5px;">1.3 V</p> </div>
				Rear washer switch ON (Wiper intermittent dial 4)	<div style="display: flex; flex-direction: column; align-items: center;">  <p style="margin-top: 5px;">1.3 V</p> </div>
				Any of the conditions below with all switches OFF <ul style="list-style-type: none"> Wiper intermittent dial 1 Wiper intermittent dial 2 Wiper intermittent dial 3 	<div style="display: flex; flex-direction: column; align-items: center;">  <p style="margin-top: 5px;">1.3 V</p> </div>
90 (P)	Ground	CAN-L	Input/ Output	—	—
91 (L)	Ground	CAN-H	Input/ Output	—	—

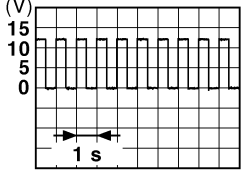
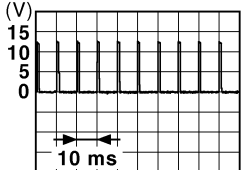
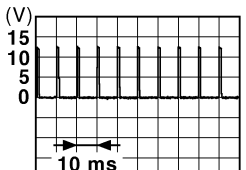
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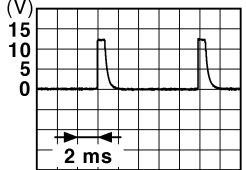
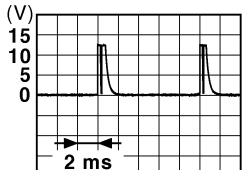

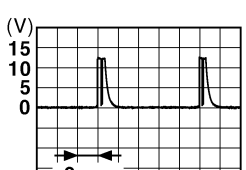

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
92 (R)	Ground	Key slot illumination	Output	Key slot illumination	OFF	0 V
					Blinking	 <p style="text-align: right; font-size: small;">JPMIA0015GB</p>
					ON	Battery voltage
93 (P)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK and ACC indicator lamps are not illuminated.)	Battery voltage
					ON	0 V
95 (L)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
96 (Y)	Ground	CVT shift selector (detention switch) power supply	Output	—	Battery voltage	
99 (V)	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	Battery voltage
100 (P)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p style="text-align: right; font-size: small;">JPMIA0016GB</p>
101 (W)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p style="text-align: right; font-size: small;">JPMIA0016GB</p>
102 (Y)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
103 (L)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF	Battery voltage	

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[HALOGEN TYPE]

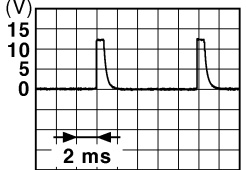
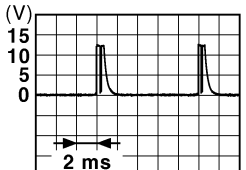
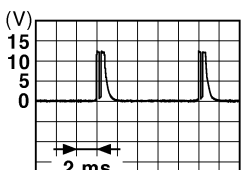
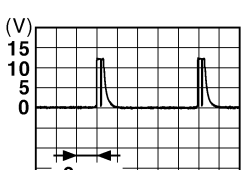
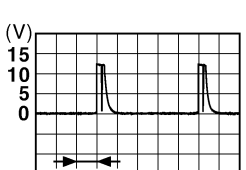
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
107 (O)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	 <p style="text-align: right; font-size: small;">JPMA0041GB</p> <p style="text-align: center;">1.4 V</p>
					Turn signal switch LH	 <p style="text-align: right; font-size: small;">JPMA0037GB</p> <p style="text-align: center;">1.3 V</p>
					Turn signal switch RH	 <p style="text-align: right; font-size: small;">JPMA0036GB</p> <p style="text-align: center;">1.3 V</p>
					Front wiper switch LO	 <p style="text-align: right; font-size: small;">JPMA0038GB</p> <p style="text-align: center;">1.3 V</p>
					Front washer switch ON	 <p style="text-align: right; font-size: small;">JPMA0039GB</p> <p style="text-align: center;">1.3 V</p>

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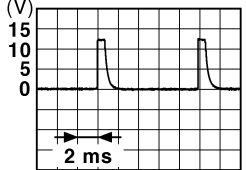
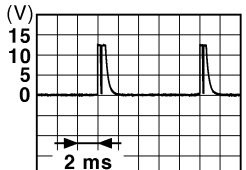

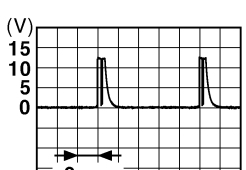

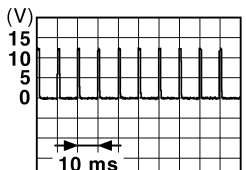
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
108 (P)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMA0041GB</p> <p style="text-align: center;">1.4 V</p>
					Lighting switch AUTO (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMA0038GB</p> <p style="text-align: center;">1.3 V</p>
					Lighting switch 1ST (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMA0036GB</p> <p style="text-align: center;">1.3 V</p>
					Rear wiper switch INT (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMA0040GB</p> <p style="text-align: center;">1.3 V</p>
					Any of the conditions below with all switches OFF	<ul style="list-style-type: none"> Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6  <p style="text-align: right; font-size: small;">JPMA0039GB</p> <p style="text-align: center;">1.3 V</p>

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[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
109 (SB)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent 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

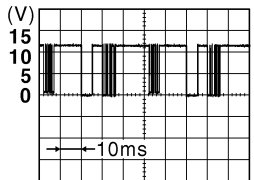
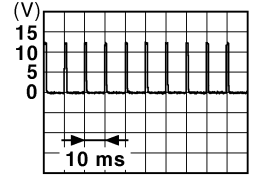
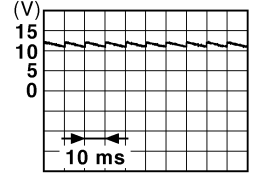
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[HALOGEN TYPE]

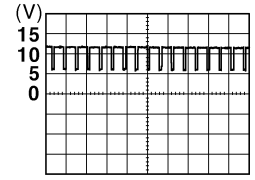
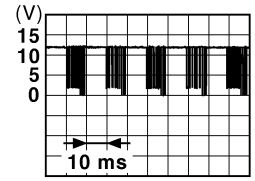
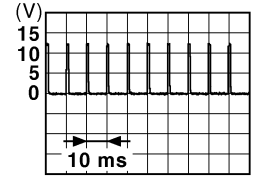
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
112 (R)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		 8.7 V
113 (P/B)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
116 (GR)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (L)	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is depressed)	Battery voltage
119 (W)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (unlock sensor switch OFF)	 1.1 V
					UNLOCK status (unlock sensor switch ON)	0 V
121 (Y)	Ground	Key slot switch	Input	When Intelligent Key is inserted into key slot		Battery voltage
				When Intelligent Key is not inserted into key slot		0 V
123 (G)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
124 (R)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closes)	 11.8 V
					ON (When passenger door opens)	0 V

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< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
130 (BR)	Ground	Rear window defogger switch	Input	Ignition switch ON	Rear window defogger switch OFF
				Rear window defogger switch ON	Rear window defogger switch ON
132 (G)	Ground	Power window switch communication	Input/ Output	Ignition switch ON	1.1 V
				Ignition switch OFF or ACC	0 V
133 (W)	Ground	Push-button ignition switch illumination	Output	ON (When tail lamps OFF)	9.5 V
				ON (When tail lamps ON)	<p>NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level.</p>
134 (R)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	Battery voltage
				OFF (ACC and ON indicator lamps are not illuminated.)	0 V
137 (P)	Ground	Receiver and sensor ground	Input	Ignition switch ON	0 V
138 (V)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF
				ACC or ON	5.0 V

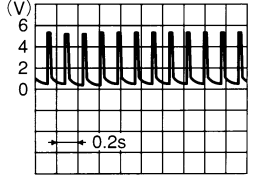
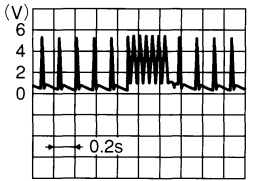
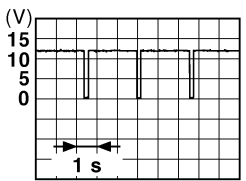
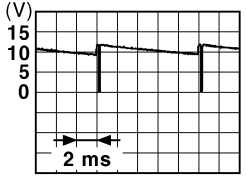
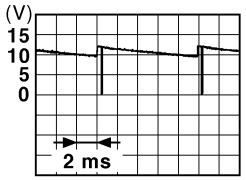


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[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
139 (O)	Ground	Tire pressure receiver communication	Input/ Output	Ignition switch ON	Standby state  OCC3881D
				When receiving the signal from the transmitter  OCC3880D	
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position Battery voltage
				Except P and N positions	0 V
141 (O)	Ground	Security indicator	Output	Security indicator	ON 0 V
				Blinking  JPMA0014GB 11.3 V	
				OFF Battery voltage	
142 (L)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF 0 V
				Lighting switch 1ST	Lighting switch HI Lighting switch 2ND  JPMA0031GB 10.7 V
				Lighting switch 2ND	
				Turn signal switch RH	
143 (W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper intermittent dial 4) 0 V
				Front wiper switch HI (Wiper intermittent dial 4)	Rear wiper switch INT (Wiper intermittent dial 4)  JPMA0032GB 10.7 V
				Rear wiper switch INT (Wiper intermittent dial 4)	
				Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	

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[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
144 (P)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	
					Rear wiper switch ON (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
					Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 	
145 (V)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	0 V
					Front wiper switch INT/ AUTO	
					Front wiper switch LO	
					Lighting switch AUTO	
146 (Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (SB)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closes)	
					ON (When driver door opens)	11.8 V
151 (G)	Ground	Rear window defog- ger relay control	Output	Rear window de- fogger	Active	0 V
					Not activated	Battery voltage

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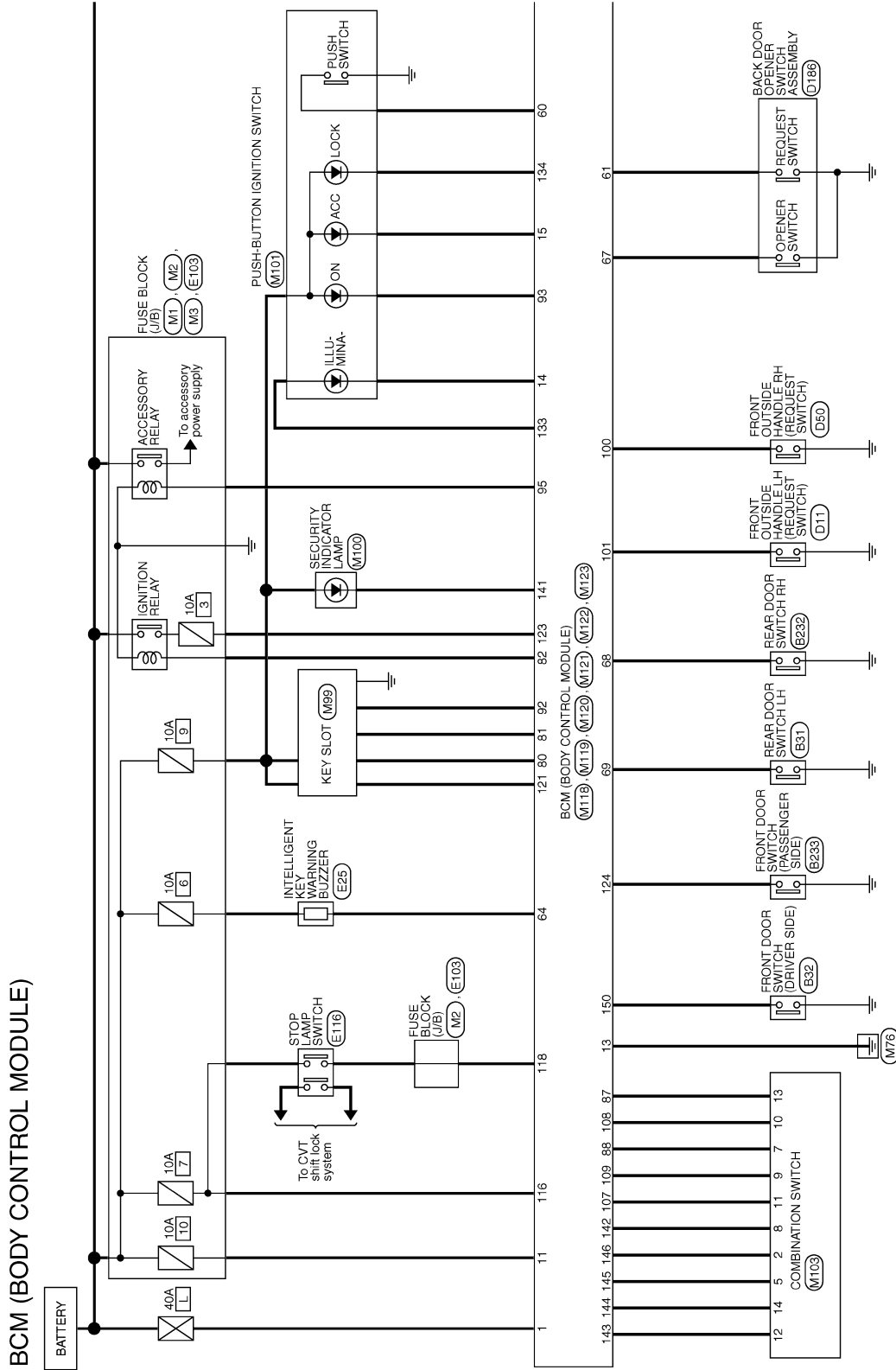
BCM (BODY CONTROL MODULE)

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[HALOGEN TYPE]

Wiring Diagram - BCM -

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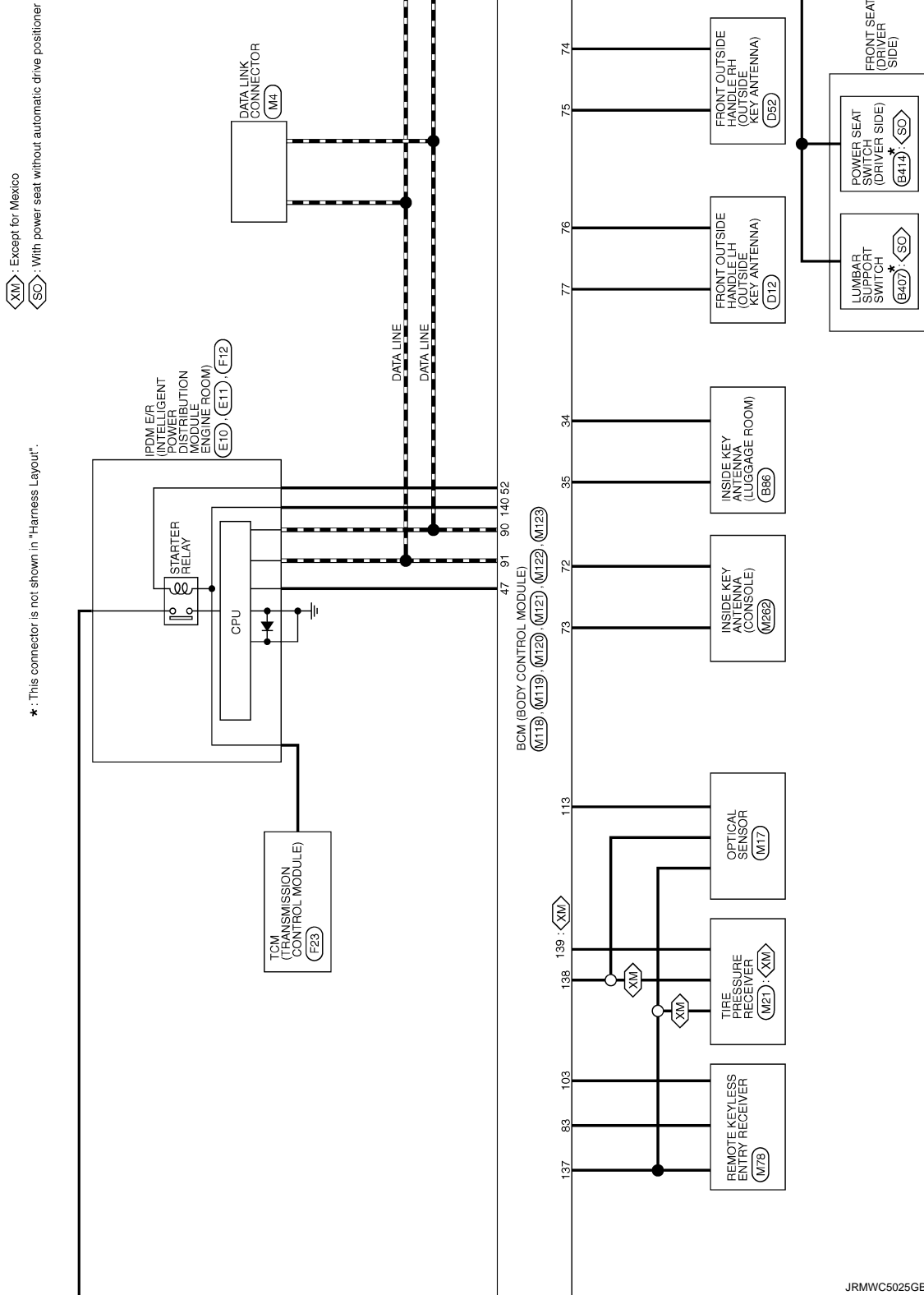
2011/07/28

JRMWC5024GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]



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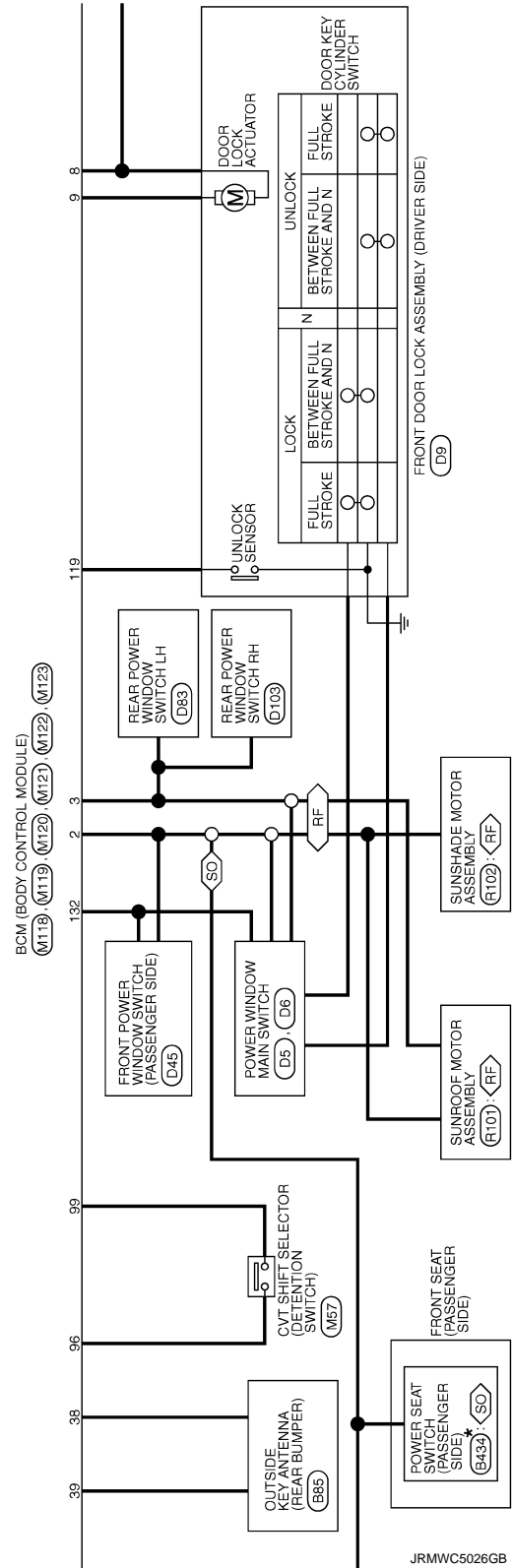
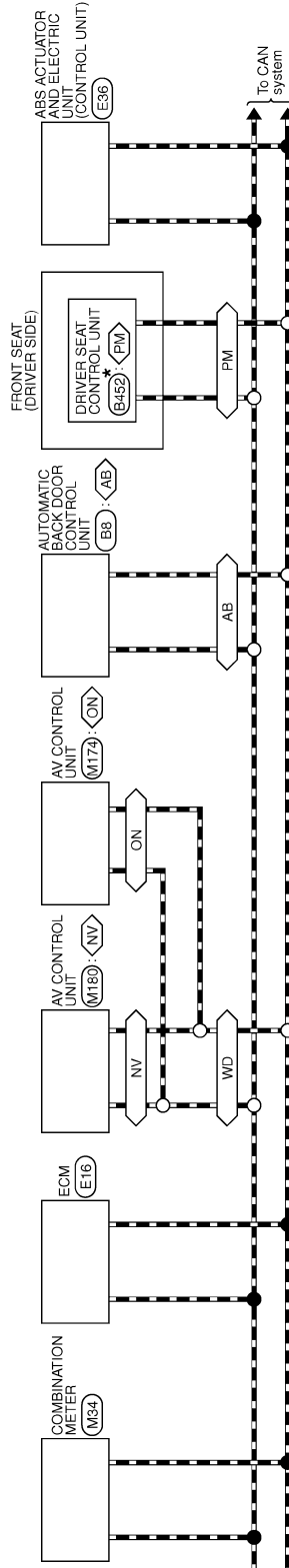
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

- ◊NV◊ : With navigation system
- ◊ON◊ : Without navigation system
- ◊RF◊ : With sunroof
- ◊PM◊ : With automatic drive positioner
- ◊SO◊ : With power seat without automatic drive positioner
- ◊AB◊ : With automatic back door
- ◊WD◊ : With color display

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

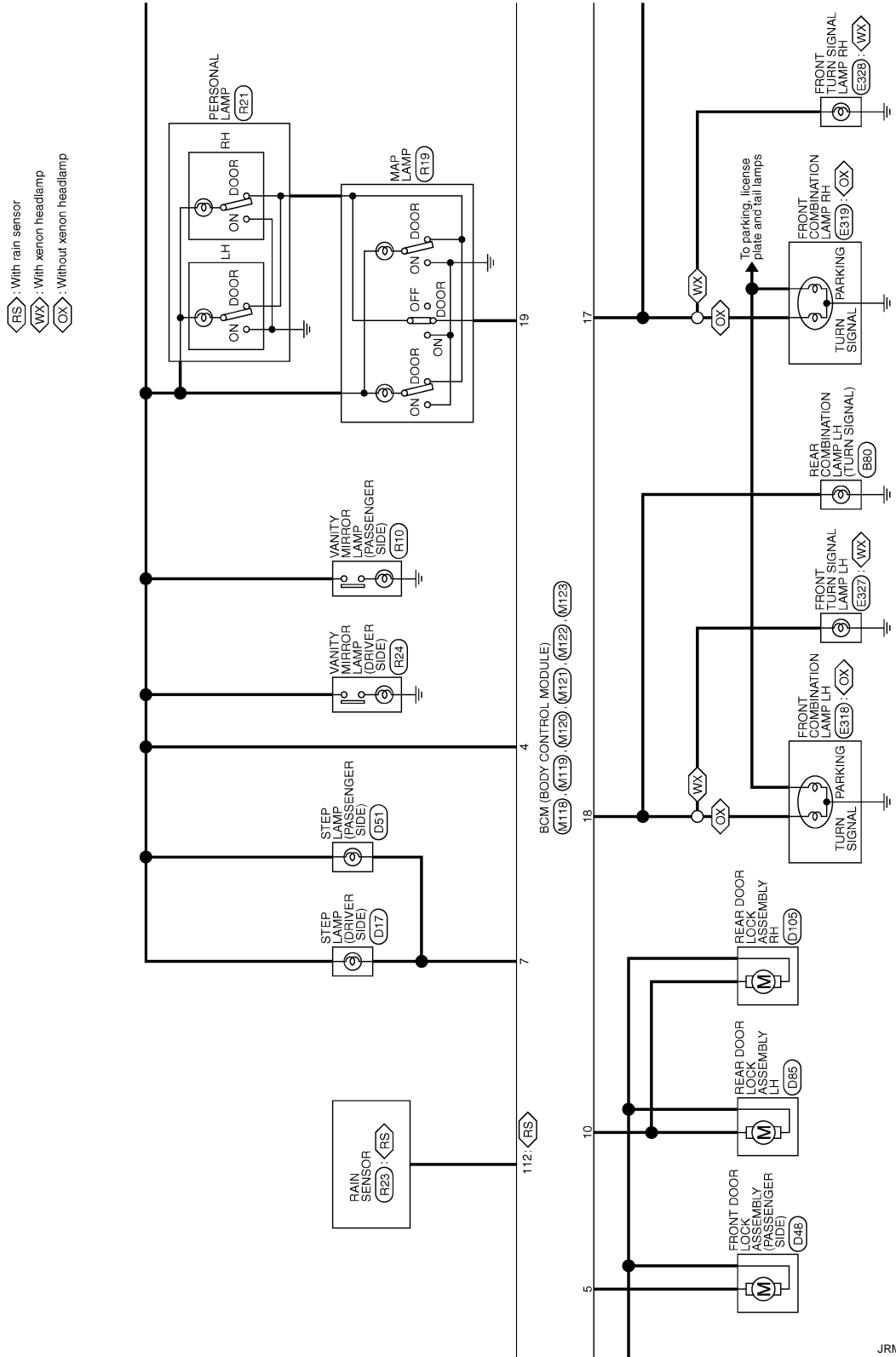


JRMWC5026GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]



JRMWC5027GB

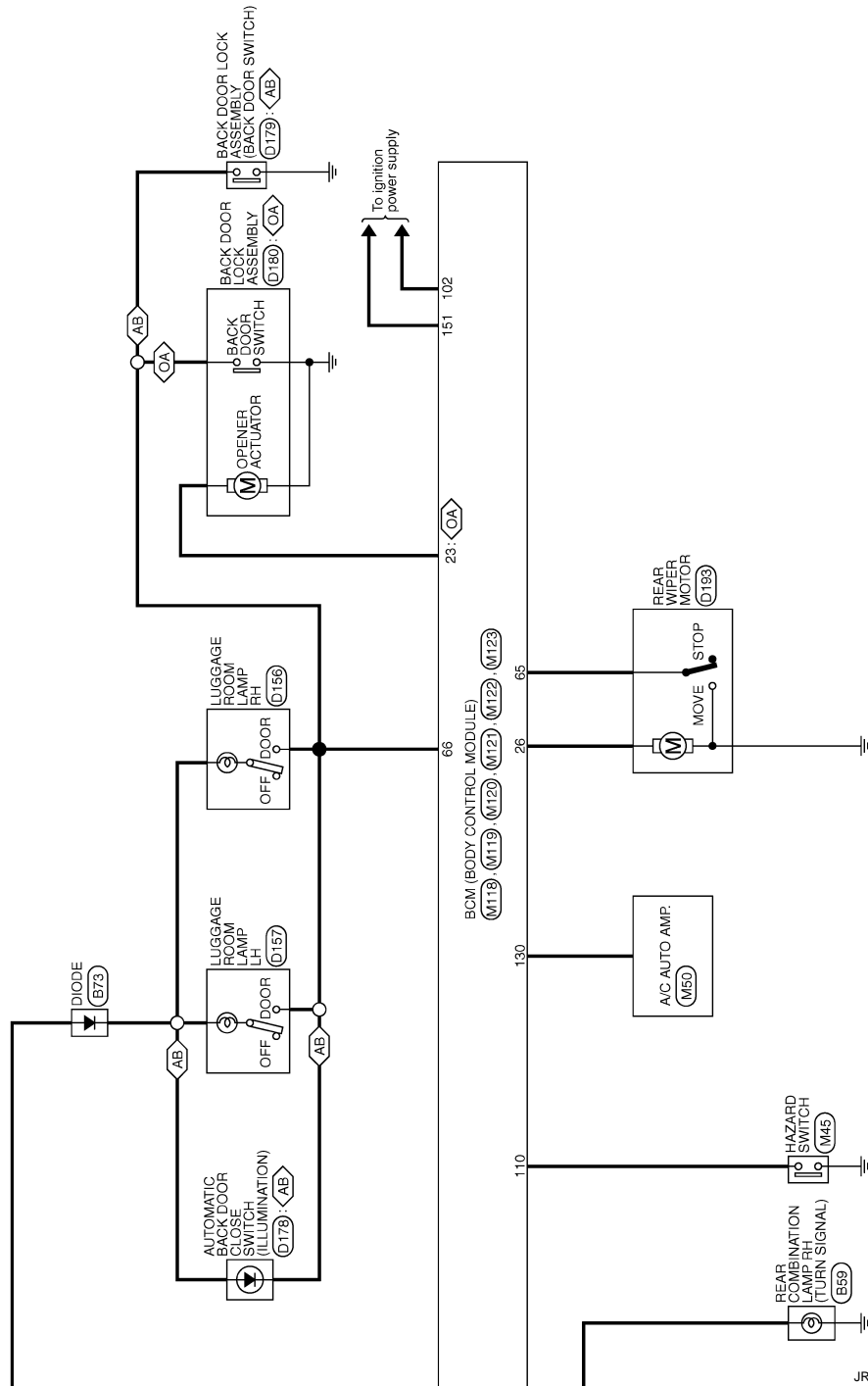
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

◊AB◊ : With automatic back door
 ◊OA◊ : Without automatic back door



JRMWC5028GB

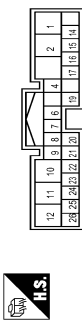
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

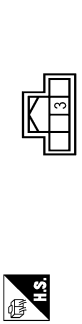
BCM (BODY CONTROL MODULE)

Connector No.	B8
Connector Name	AUTOMATIC BACK DOOR CONTROL UNIT
Connector Type	TH20FW-TB6



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	BUZZER
2	Y	ABS CLOSE SW
3	Y	ABS CLOSE SW
4	L	CAN-H
5	P	CAN-L
6	LG	HALF LATCH SW
7	GR	IGN
8	SB	BAT
9	R	CLOSURE MTR (CLOSE)
10	V	CLOSURE MTR (OPEN)
11	R	TOUCH SENS LH
12	V	TOUCH SENS LH
13	O	TOUCH SENS GND
14	W	TOUCH SENS RH
15	W	TOUCH SENS RH
16	W	MAIN SW
17	LG	CLOSE SW
18	P	CLOSE SW
19	B	GROUND
20	B	GROUND
21	B	GROUND
22	B	GROUND
23	GR	ENCODER B
24	BR	ENCODER A
25	Y	ENCODER PWR
26	G	ENCODER PWR

Connector No.	B51
Connector Name	REAR DOOR SWITCH LH
Connector Type	TH64FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	BR	-

Connector No.	B32
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	TH64FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	-

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS6AMW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BL	- [Without rear view camera]
2	LG	- [With rear view camera]
3	BR	-
4	P	-
5	L	-

Connector No.	B72
Connector Name	DIODE
Connector Type	24335-C9802



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

Connector No.	B60
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS6AMW-CS



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

Connector No.	B85
Connector Name	OUTSIDE KEY ANTENNA (REAR BUMPER)
Connector Type	RK02FCY



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

Connector No.	B88
Connector Name	INSIDE KEY ANTENNA (LUGGAGE ROOM)
Connector Type	RK02FCY



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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

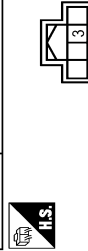
BCM (BODY CONTROL MODULE)

Connector No.	B232
Connector Name	REAR DOOR SWITCH RH
Connector Type	THREW-NH



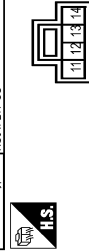
Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	-

Connector No.	B233
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	THREW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-

Connector No.	B407
Connector Name	LUMBAR SUPPORT SWITCH
Connector Type	NSDFBR-CS



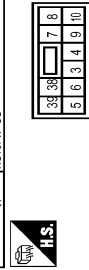
Terminal No.	Color Of Wire	Signal Name [Specification]
11	O	-
12	LG	-
13	Y/W	-
14	Y	-

Connector No.	B414
Connector Name	POWER SEAT SWITCH (DRIVER SIDE)
Connector Type	NSDFW-CS



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

Connector No.	B434
Connector Name	POWER SEAT SWITCH (PASSENGER SIDE)
Connector Type	NSDFW-CS



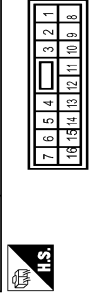
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	G	-
4	G/R	-
5	V	-
6	R/L	-

Connector No.	B452
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH2FPW



Terminal No.	Color Of Wire	Signal Name [Specification]
11	G/B	-
12	G/W	-
13	R/G	-
14	W/B	-
15	Y/B	-
16	V/B	-
17	LG/B	-
18	LG/R	-
19	G/Y	-
20	R/Y	-
21	L/Y	-
22	BR/Y	-
23	P	-
24	P/L	-
25	G/O	-
26	L/O	-
27	V	-
28	W	-
29	GR	-
30	BR	-
31	BR/W	-
32	W/L	-
33	W	-

Connector No.	D5
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NSDFW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
2	GR	-
3	W	-
5	BR	-
4	L	-
5	SB	-
6	R	-
7	P	-
8	L	-
9	G	-
10	V	-
11	LG	-
13	Y	-
14	O	-
15	R	-

Connector No.	D6
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NSDFW-CS



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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	D9
Connector Name	FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE)
Connector Type	EBEGY-RS



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

Connector No.	D11
Connector Name	FRONT OUTSIDE HANDLE LH (REQUEST SWITCH)
Connector Type	RH02FB



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

Connector No.	D12
Connector Name	FRONT OUTSIDE HANDLE LH (OUTSIDE KEY ANTENNA)
Connector Type	RH02MGY



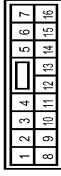
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	V	-

Connector No.	D17
Connector Name	STEP LAMP (DRIVER SIDE)
Connector Type	CO2FW



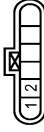
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	D45
Connector Name	FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
Connector Type	HS16FW-CS



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

Connector No.	D48
Connector Name	FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE)
Connector Type	EBEGY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
5	V	-
6	G	-

Connector No.	D50
Connector Name	FRONT OUTSIDE HANDLE RH (REQUEST SWITCH)
Connector Type	RH02EB



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

Connector No.	D51
Connector Name	STEP LAMP (PASSENGER SIDE)
Connector Type	CO2FW



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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	D82
Connector Name	FRONT OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA)
Connector Type	RK02M3Y



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

Connector No.	D83
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	--
2	P	--
3	SB	--
4	LG	--
5	L	--

Connector No.	D85
Connector Name	REAR DOOR LOCK ASSEMBLY LH
Connector Type	EB0EY-RS



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

Connector No.	D103
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Type	NS08FW-CS



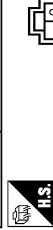
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	--
2	P	--
3	SB	--
4	LG	--
5	L	--

Connector No.	D105
Connector Name	REAR DOOR LOCK ASSEMBLY RH
Connector Type	EB0EY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
3	G	--

Connector No.	D155
Connector Name	LUGGAGE ROOM LAMP RH
Connector Type	CJ0FW



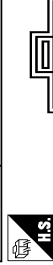
Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	--
4	LG	--

Connector No.	D157
Connector Name	LUGGAGE ROOM LAMP LH
Connector Type	CJ0HEW



Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	--
4	LG	--

Connector No.	D178
Connector Name	AUTOMATIC BACK DOOR CLOSE SWITCH
Connector Type	TK0BEFY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	O	--
2	B	--
3	W	--
4	LG	--

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	D179
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NSDFW-CS



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

Connector No.	D180
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NSDFW-CS



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

Connector No.	D188
Connector Name	BACK DOOR OPENER SWITCH ASSEMBLY
Connector Type	TH64MW-NH



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

Connector No.	D183
Connector Name	REAR WIPER MOTOR
Connector Type	C04HW-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
3	GR	-
4	O	-

Connector No.	E10
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH30FW-CS12-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	-
7	GR	-
10	GR	-
12	B	-
13	SR	-
15	W	-
16	R	-
19	Y	-
20	L	-
21	O	-
22	SR	-
23	GR	-
24	G	-
25	GR	-
27	W	-
28	SR	-
30	BR	-
34	O	-
35	P	-
36	G	-
38	GR	-

Connector No.	E11
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH08FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	B	-
42	SR	-
43	Y	-
44	W	-
45	O	-
46	BR	-

Connector No.	E16
Connector Name	ECM
Connector Type	HR20FE-R28-1-LH



Terminal No.	Color Of Wire	Signal Name [Specification]
81	W	ACCELERATOR PEDAL POSITION SENSOR 1
82	O	ACCELERATOR PEDAL POSITION SENSOR 2
83	BR	SENSOR POWER SUPPLY
84	B	SENSOR GROUND
85	B	ASCO STEERING SWICH
86	SR	EVAP CANISTER PURGE SENSOR
87	GR	SENSOR POWER SUPPLY
88	O	DATA LINK CONNECTOR
81	L	SENSOR POWER SUPPLY
92	BR	SENSOR GROUND
93	BR	IGNITION SWITCH
94	GR	ENGINE SPEED OUTPUT SIGNAL

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

BCM (BODY CONTROL MODULE)

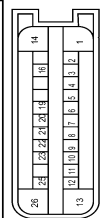
Terminal No.	Color Of Wire	Signal Name [Specification]
86	Y	FUEL TANK LEVEL/RESERVE SENSOR
87	GR	SENSOR GROUND
87	P	CAN COMMUNICATION LINE (CAN-L)
88	L	CAN COMMUNICATION LINE (CAN-H)
100	G	SENSOR GROUND
102	R	PNP SIGNAL
104	SB	SENSOR GROUND
105	V	POWER SUPPLY FOR ECM
106	SB	STOP LAMP SWITCH
107	B	ECM GROUND
108	B	ECM GROUND
109	W	EVAP CANISTER VENT CONTROL VALVE
110	G	ASSED BRAKE SWITCH
111	B	ECM GROUND
112	B	ECM GROUND

Connector No.	Connector Name	Connector Type
E25	INTELLIGENT KEY WARNING BUZZER	RK03FBR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
3	GR	-

Connector No.	Connector Name	Connector Type
E36	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)	AE222FB-AJ24-LH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	VALVE / ECU SUPPLY
2	L	WSS RL SIG (-)
3	L	WSS RL PWR (+)
4	GR	CLUSTER SUPPLY
5	B	WSS FR PWR (+)
6	W	WSS FR SIG (-)
7	LG	LIS
8	V	WSS FL SIG (-)
9	W	WSS FL PWR (+)
10	SB	CLUSTER GND
11	P	WSS RR PWR (+)
12	P	WSS RR SIG (-)
13	B/W	MOTORS SUPPLY
14	SB	ELIS
18	BR	CAN 2 H
20	GR	IGN
21	P	CAN 1 L
22	Y	VDC OFF SW
23	L	CAN 1 H
25	W	CAN 2 L
26	B/W	VALVE / ECU GND

Connector No.	Connector Name	Connector Type
E103	FUSE BLOCK (J/B)	NS167W-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
11F	G	-
12F	V	-
2F	LG	-
4F	BR	-
8F	Y	-
9F	R	-
9F	GR	-

Connector No.	Connector Name	Connector Type
E116	STOP LAMP SWITCH	MR0EW-LC



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

Connector No.	Connector Name	Connector Type
E318	FRONT COMBINATION LAMP LH	Z03FBR



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

Connector No.	Connector Name	Connector Type
E319	FRONT COMBINATION LAMP RH	Z03FBR



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

Connector No.	Connector Name	Connector Type
E327	FRONT TURN SIGNAL LAMP LH	RS02FCY



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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	E228
Connector Name	FRONT TURN SIGNAL LAMP RH
Connector Type	HS2RECY



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

Connector No.	F12
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH2BFW-CS1Z-M4



Terminal No.	Color Of Wire	Signal Name [Specification]
48	W	-
49	R/B	-
51	LG	-
52	Y/G	-
53	R/W	-
54	G/W	-
55	W/L	-
56	R/Y	-
57	O	-
58	Y	-
59	W/B	-
60	R/B	-
72	R/B	-
75	LG	-
76	SB	-
77	GR	-
80	B	-

Connector No.	F23
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-E2B-L-RH



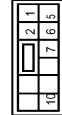
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P/B	TRANSMISSION RANGE SWITCH 2
2	G/D	TRANSMISSION RANGE SWITCH 3
3	G/D	TRANSMISSION RANGE SWITCH 3
4	GR	TRANSMISSION RANGE SWITCH 3 (MONITOR)
5	B	GROUND
7	W	SENSOR GROUND
8	G/W	CLOCK (SEL 2)
9	L/R	CHP SELECT (SEL 1)
10	BR/R	DATA I/O (SEL 3)
11	BR/W	TRANSMISSION RANGE SWITCH 1
13	V	O/V FLUID TEMPERATURE SENSOR
14	R/W	PRIMARY PRESSURE SENSOR
15	V/W	SECONDARY PRESSURE SENSOR
19	G/B	REVERSE LAMP-RELAY
20	R/B	STARTER RELAY
21	Y/G	SENSOR POWER
26	Y/G	SENSOR POWER
27	R/G	STEP MOTOR D
28	R	STEP MOTOR C
29	O/B	STEP MOTOR B
30	G/R	STEP MOTOR A
31	P	CAN-H
32	L	CAN-L
33	LG	PRIMARY SPEED SENSOR
34	LG/R	SECONDARY SPEED SENSOR
37	V/R	LOCK-UP SELECT SOLENOID VALVE
38	L/W	TORQUE CONVERTER CLUTCH SOLENOID VALVE
39	W/B	SECONDARY PRESSURE SOLENOID VALVE
40	R/Y	LINE PRESSURE SOLENOID VALVE
42	Y	POWER SUPPLY
47	L/R	POWER SUPPLY (MEMORY BACK-UP)
48	Y	POWER SUPPLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS8BFW-M2



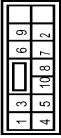
Terminal No.	Color Of Wire	Signal Name [Specification]
1A	Y	-
2A	Y	-
3A	Y	-
4A	GR	-
7A	LG	-
8A	Y	-

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



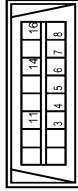
Terminal No.	Color Of Wire	Signal Name [Specification]
1B	W	-
3B	L	-
4B	G	-
5B	L	-
6B	Y	-
7B	R	-
8B	R	-
9B	GR	-

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



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	SB	-
11C	R	-
12C	G	-
6C	BR	-
7C	B	-
8C	G	-
9C	GR	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD1BFW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	BR	-
8	G	-
11	L	-
14	SB	-
16	Y	-

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	M17
Connector Name	OPTICAL SENSOR
Connector Type	TK09W



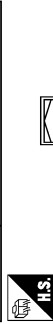
Terminal No.	Color	Wire	Signal Name [Specification]
1	Y	Y	-
2	Y	Y	-
3	P	P	-

Connector No.	M21
Connector Name	TIRE PRESSURE RECEIVER
Connector Type	TK09W



Terminal No.	Color	Wire	Signal Name [Specification]
1	P	P	GROUND
2	O	O	SIGNAL
4	V	V	POWER

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



Terminal No.	Color	Wire	Signal Name [Specification]
1	G	G	BATTERY POWER SUPPLY
2	LG	LG	IGN SIGNAL
3	B	B	GROUND
4	B	B	GROUND
5	SB	SB	ILLUMINATION CONTROL SIGNAL
8	SB	SB	TRIP RESET SIGNAL
9	W	W	SW ILL POWER
10	LG	LG	METER CONTROL SWITCH GROUND
11	L	L	ENTER SWITCH SIGNAL
12	R	R	SELECT SWITCH SIGNAL
13	V	V	ILLUMINATION CONTROL SWITCH SIGNAL (2-PULSE)
14	GR	GR	ILLUMINATION CONTROL SWITCH SIGNAL (3)
15	BR	BR	AIR BAG SIGNAL
16	G	G	AMBIENT SENSOR SIGNAL
17	Y	Y	AMBIENT SENSOR SIGNAL
20	Y	Y	AMBIENT SENSOR GROUND
21	L	L	CAN-H
22	P	P	CAN-L
23	B	B	GROUND
24	W	W	FUEL LEVEL SENSOR GROUND
25	BR	BR	ALTERNATOR SIGNAL
26	G	G	PARKING BRAKE SWITCH SIGNAL
27	V	V	BRAKE FLUID LEVEL SWITCH SIGNAL
29	R	R	WASHER LEVEL SWITCH SIGNAL
30	P	P	VEHICLE SPEED SIGNAL (2-PULSE)
31	V	V	VEHICLE SPEED SIGNAL (3-PULSE)
32	LG	LG	OVERDRIVE CONTROL SWITCH SIGNAL
34	G	G	FUEL LEVEL SENSOR SIGNAL
35	B	B	SEAT BELT BUZZER CONTROL SWITCH SIGNAL
36	R	R	SEAT BELT BUZZER CONTROL SWITCH SIGNAL (PASSenger SEAT)

Connector No.	M35
Connector Name	HAZARD SWITCH
Connector Type	TK09W



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

Connector No.	M50
Connector Name	A/C AUTO AMP
Connector Type	SA840FW



Terminal No.	Color	Wire	Signal Name [Specification]
1	L	L	CAN-H
2	P	P	CAN-L
6	L	L	TX AMP SW & DISP
7	P	P	RX (SW AMP)
10	G	G	LAN SIG (Without colour display)
10	L	L	LAN SIG (With colour display)
11	R	R	WACTR
15	BR	BR	SUN SENS
16	GR	GR	INTAKE SENS (Without colour display)
18	GR	GR	INTAKE SENS (With colour display)
19	B	B	GROUND
20	G	G	IGN
26	GR	GR	RR DEF F/B
27	BR	BR	RR DEF ON
32	L	L	FAN PWM
34	P	P	AMB POWER (With colour display)

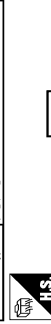
34	Y	Y	AMB POWER (Without colour display)
35	G	G	AMB SENS (Without colour display)
35	L	L	AMB SENS (With colour display)
36	LG	LG	INCAR SENS
37	SB	SB	SENS GND (Without colour display)
37	Y	Y	SENS GND (With colour display)
39	B	B	GND (POWER)
40	Y	Y	BAT

Connector No.	M57
Connector Name	CVT SHIFT SELECTOR
Connector Type	TK10PW



Terminal No.	Color	Wire	Signal Name [Specification]
1	LG	LG	-
4	B	B	-
6	P	P	-
7	B	B	-
8	Y	Y	-
9	Y	Y	-

Connector No.	M78
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Type	JAB04FB



Terminal No.	Color	Wire	Signal Name [Specification]
1	P	P	GROUND
2	P	P	SIGNAL
4	L	L	+12V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

BCM (BODY CONTROL MODULE)

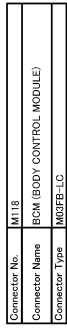
Connector No.	M189
Connector Name	KEY SLOT
Connector Type	TH18FW-NH



Connector No.	M101
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TK08FBR



Terminal No.	13	R	INPUT 5
Terminal No.	14	P	OUTPUT 2



Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS12FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BAT
2	GB	CLCK
3	GR	CLAT
4	GR	ILL.BAT
5	R	ILL
6	R	GROUND
7	B	KEY SWITCH SIGNAL
11	Y	GROUND

Connector No.	M100
Connector Name	SECURITY INDICATOR LAMP
Connector Type	TK02FBR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	—
2	W	—
3	W	—
4	BR	—
5	R	—
6	L	—
7	P	—
8	GR	—

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH18FW-NH



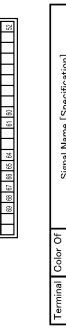
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (E/L)
2	GR	POWER WINDOW POWER SUPPLY (BAT)
3	L	POWER WINDOW POWER SUPPLY (IGN)

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



Terminal No.	Color Of Wire	Signal Name [Specification]
23	BR	BACK DOOR OPEN OUTPUT
28	G	REAR WIPER OUTPUT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH48FCY-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	—
2	O	—

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	—
2	Y	OUTPUT 4
3	BG	FR
4	W	IGN
5	W	OUTPUT 3
6	GR	IGN
7	GR	OUTPUT 3
8	L	OUTPUT 5
9	SB	INPUT 2
10	P	INPUT 4
11	O	INPUT 1
12	W	OUTPUT 1

Terminal No.	Color Of Wire	Signal Name [Specification]
4	P/W	INTERIOR ROOM LAMP POWER SUPPLY
5	G	PASSENGER DOOR UNLOCK OUTPUT
7	W	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	L	REAR DOOR UNLOCK OUTPUT
11	CS	GROUND
13	B	GROUND
14	O	PUSH-BUTTON IGNITION SW ILL GND
15	L	ACC IND
17	G	TURN SIGNAL RH
18	BR	TURN SIGNAL LH
19	Y	INT ROOM LAMP CONT

Terminal No.	Color Of Wire	Signal Name [Specification]
34	B	LUGGAGE ROOM ANT-
35	W	LUGGAGE ROOM ANT+
38	L	REAR BUMPER ANT-
39	BR	REAR BUMPER ANT+
47	L	IGN RELAY (PDM E/R) CONT
52	R	STARTER RELAY CONT
60	BR	PUSH SW
61	R	BACK DOOR OPENER REQUEST SW
65	O	REAR WIPER STOP POSITION
66	Y	BACK DOOR SW
67	L	BACK DOOR SW
68	W	REAR LH DOOR SW
69	R	REAR RH DOOR SW

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

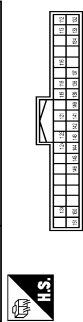
[HALOGEN TYPE]

BCM (BODY CONTROL MODULE)

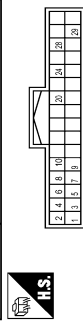
Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH48PB-NH



Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH48FG-NH



Connector No.	M174
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

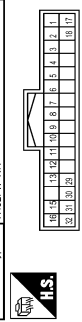


Terminal No.	Color	Wire	Signal Name [Specification]
72	B	P	ECM ANT-
73	W	Y	ECM ANT+
74	Y	Y	PASSENGER DOOR ANT-
75	LG	Y	PASSENGER DOOR ANT+
76	V	P	DRIVER DOOR ANT-
77	P	P	DRIVER DOOR ANT+
80	SB	O	NATS ANT AMP
81	O	O	NATS ANT AMP
82	BR	R	IGN RELAY (F/B) CONT
83	P	R	KEYLESS ENTRY RECEIVER COMM
87	R	R	COMBI SW INPUT 5
88	GR	R	COMBI SW INPUT 3
90	P	L	CAN-L
91	L	L	KEY ON CONT
92	P	P	IGN IND
93	P	P	ACC RELAY CONT
95	L	Y	CVT SHIFT SELECTOR POWER SUPPLY
99	V	V	SHIFT P
100	P	P	PASSENGER DOOR REQUEST SW
101	W	W	DRIVER DOOR REQUEST SW
102	Y	Y	BLOWER RELAY CONT
103	L	L	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	O	O	COMBI SW INPUT 1
108	P	P	COMBI SW INPUT 4
109	SB	SB	COMBI SW INPUT 2
110	G	G	HAZARD SW

Terminal No.	Color	Wire	Signal Name [Specification]
112	P	B	RAIN SENSOR SERIAL LINK
113	P	B	OFF-GAS SENSOR
116	GR	Y	STOP LAMP SW 1
118	L	L	STOP LAMP SW 2
119	W	W	DR DOOR UNLOCK SENSOR
121	Y	Y	KEY SLOT SW
123	G	G	IGN F/B
124	R	R	PASSENGER DOOR SW
130	BR	BR	REAR DEFOGGER SW
132	G	G	POWER WINDOW SW COMM
133	W	W	PUSH-BUTTON IGNITION SW ILL POWER
134	R	R	LOCK IND
137	P	P	RECEIVER SENSOR GND
138	O	O	RECEIVER SENSOR POWER SUPPLY
140	GR	GR	TIRE PRESSURE MONITORING SYSTEM COMM
141	O	O	SECURITY IND LAMP CONT
142	L	L	COMBI SW OUTPUT 5
143	W	W	COMBI SW OUTPUT 1
144	P	P	COMBI SW OUTPUT 2
145	V	V	COMBI SW OUTPUT 3
146	Y	Y	COMBI SW OUTPUT 4
150	SB	SB	DRIVER DOOR SW
151	G	G	REAR WINDOW DEFOGGER RELAY CONT

Terminal No.	Color	Wire	Signal Name [Specification]
75	SB	SB	AV COMM (L)
76	LG	LG	AV COMM (L)
78	LG	LG	AV COMM (L)
79	SB	SB	AV COMM (H)
80	P	P	CAN-H
81	L	L	KEY SW GND
82	V	V	SW GND
85	L	L	SHIELD
87	R	R	TEL VOICE SIGNAL (-)
88	L	L	TEL VOICE SIGNAL (+)
92	V	V	VEHICLE SPEED SIGNAL (8-PULSE)
93	G	G	PARKING BRAKE (Without EDS system)
94	SB	SB	REVERSE
95	G	G	IGNITOR
99	W	W	REVERSE
100	W	W	REVERSE
103	B	B	AVX SOUND SIGNAL LH (+)
104	R	R	AVX SOUND SIGNAL RH (-)

Connector No.	M180
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH



Terminal No.	Color	Wire	Signal Name [Specification]
65	LG	LG	PARKING BRAKE
67	LG	LG	-
68	LG	LG	-
71	SHIELD	SHIELD	SHIELD
72	B	B	MICROPHONE VCC
73	R	R	COMM (CONT- DISP)
74	P	P	CAN-L
75	LG	LG	AV COMM (L)
76	LG	LG	AV COMM (L)
79	R	R	ILLUMINATION SIGNAL
80	G	G	IGNITION
81	SB	SB	REVERSE
82	V	V	VEHICLE SPEED SIGNAL (8-PULSE)
87	W	W	MICROPHONE SIGNAL
88	B	B	-
89	W	W	-
90	L	L	CAN-H
91	SB	SB	AV COMM (H)
92	SB	SB	AV COMM (H)

Connector No.	M262
Connector Name	INSIDE KEY ANTENNA (CONSOLE)
Connector Type	IR02PGY



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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	R18
Connector Name	VANITY MIRROR LAMP (PASSENGER SIDE)
Connector Type	MCAD2FW



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

Connector No.	R19
Connector Name	MAP LAMP
Connector Type	TK0BF0Y



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P/W	-
2	Y	-
3	B	-
4	SB	-
5	R/Y	-
6	R/L	-

Connector No.	R21
Connector Name	PERSONAL LAMP
Connector Type	TK04FW-NH



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

Connector No.	R23
Connector Name	RAIN SENSOR
Connector Type	LAAB03FB



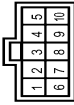
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y/R	-
2	R	-
3	B	-

Connector No.	R24
Connector Name	VANITY MIRROR LAMP (DRIVER SIDE)
Connector Type	MCAD2FW



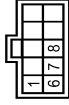
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	P/W	-

Connector No.	R101
Connector Name	SUNROOF MOTOR ASSEMBLY
Connector Type	YEARDFGY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	O	GROUND
3	L	IGN
4	Y	PUSH SW
5	LG	OPEN SW
6	R	BAT
7	P	COMM
8	BR	VEHICLE SPEED (2-PULSE)
9	W	2ND SW
10	V	CLOSE SW

Connector No.	R102
Connector Name	SUNSHADE MOTOR ASSEMBLY
Connector Type	YEARDFGY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
6	D	COMM
7	D	COMM
8	BR	VEHICLE SPEED (2-PULSE)

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none">• Starter control relay signal• Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none">• Starter motor 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 motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

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

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/AUTO 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

1. More than 1 minute is passed after the rear wiper stop.
2. Turn rear wiper switch OFF.
3. 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.

BCM (BODY CONTROL MODULE)

[HALOGEN TYPE]

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
1	B2562: LOW VOLTAGE	A
2	<ul style="list-style-type: none"> • U1000: CAN COMM • U1010: CONTROL UNIT(CAN) 	B
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 	C
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 SW • B2605: PNP SW • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: ACC RELAY CIRC • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY CIRC • B2617: STARTER RELAY CIRC • B2618: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG 	D E F G H I
5	<ul style="list-style-type: none"> • C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1734: CONTROL UNIT 	J K EXL M
6	<ul style="list-style-type: none"> • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA 	N

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-211, "COMMON ITEM : CONSULT Function \(BCM - COMMON ITEM\)"](#).

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference
No DTC is detected. further testing may be required.	—	—	—	—	—
U1000: CAN COMM	—	—	—	—	BCS-42
U1010: CONTROL UNIT(CAN)	—	—	—	—	BCS-43
U0415: VEHICLE SPEED SIG	—	—	—	—	BCS-44
B2190: NATS ANTENNA AMP	×	—	—	—	SEC-42
B2191: DIFFERENCE OF KEY	×	—	—	—	SEC-45
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-46
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-48
B2195: ANTI SCANNING	×	—	—	—	SEC-49
B2553: IGNITION RELAY	—	×	—	—	PCS-50
B2555: STOP LAMP	—	×	—	—	SEC-50
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-52
B2557: VEHICLE SPEED	×	×	×	—	SEC-54
B2560: STARTER CONT RELAY	×	×	×	—	SEC-55
B2562: LOW VOLTAGE	—	×	—	—	BCS-45
B2601: SHIFT POSITION	×	×	×	—	SEC-56
B2602: SHIFT POSITION	×	×	×	—	SEC-59
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-61
B2604: PNP SW	×	×	×	—	SEC-64
B2605: PNP SW	×	×	×	—	SEC-66
B2608: STARTER RELAY	×	×	×	—	SEC-68
B260A: IGNITION RELAY	×	×	×	—	PCS-52
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-70
B2614: ACC RELAY CIRC	—	×	×	—	PCS-54
B2615: BLOWER RELAY CIRC	—	×	×	—	PCS-57
B2616: IGN RELAY CIRC	—	×	×	—	PCS-60
B2617: STARTER RELAY CIRC	×	×	×	—	SEC-72
B2618: BCM	×	×	×	—	PCS-63
B261A: PUSH-BTN IGN SW	—	×	×	—	SEC-75
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	SEC-78
B2622: INSIDE ANTENNA	—	×	—	—	DLK-91
B2623: INSIDE ANTENNA	—	×	—	—	DLK-93
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	SEC-71
C1704: LOW PRESSURE FL	—	—	—	×	WT-23
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference
C1708: [NO DATA] FL	—	—	—	×	WT-25
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-28
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-29
C1734: CONTROL UNIT	—	—	—	×	WT-30

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

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

Reference Value

INFOID:000000010092659

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
MOTOR FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	1/2/3/4
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
		<ul style="list-style-type: none"> • 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 >

[HALOGEN 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 ON → ST ON
	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	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	NOTE: The item is indicated, but not monitored.	Off
HL WASHER REQ	NOTE: The item is indicated, but not monitored.	Off
THFT HRN REQ	Not operating	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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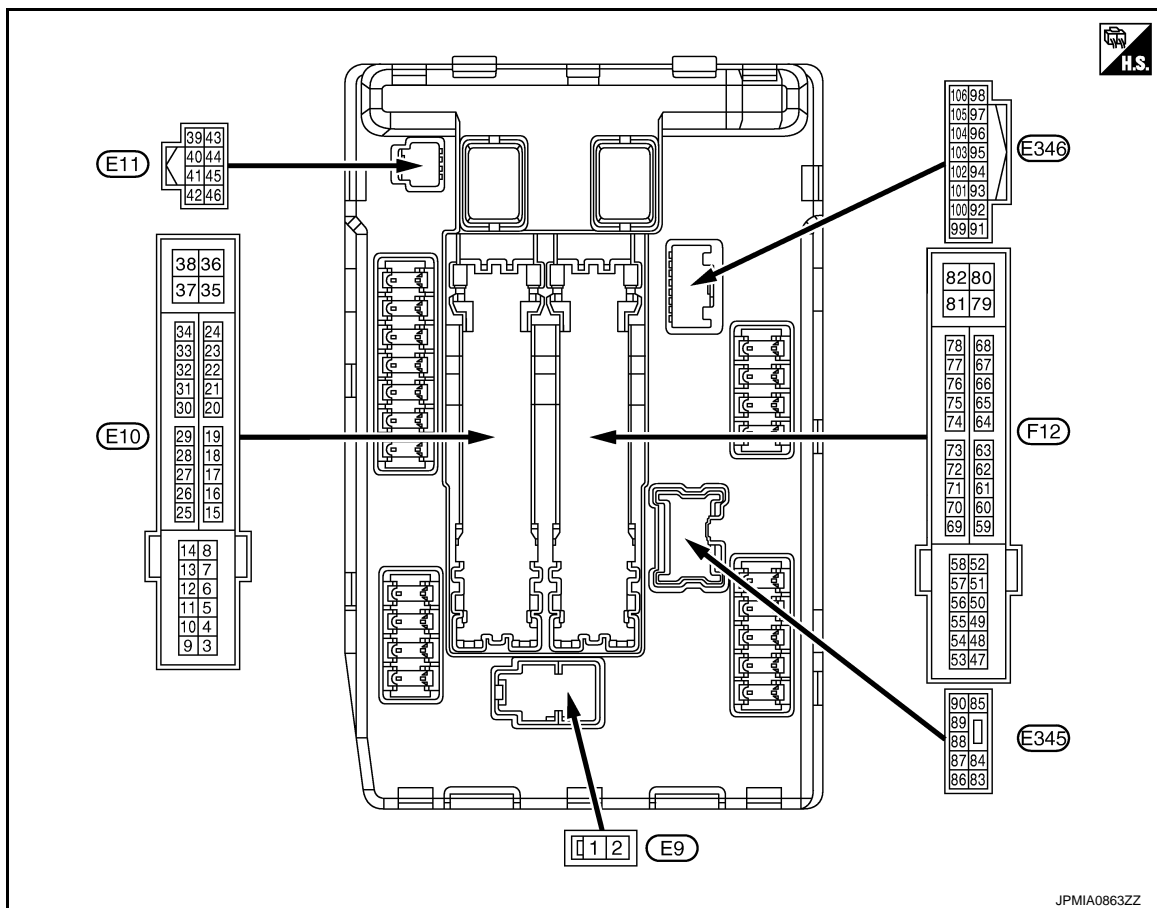
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (L)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
4 (LG)	Ground	Front wiper LO	Output	Ignition switch OFF	Front wiper switch OFF	0 V
				Ignition switch ON	Front wiper switch LO	Battery voltage
5 (Y)	Ground	Front wiper HI	Output	Ignition switch OFF	Front wiper switch OFF	0 V
				Ignition switch ON	Front wiper switch HI	Battery voltage
7 (GR)	Ground	Tail, license plate lamps & illuminations	Output	Ignition switch OFF	Lighting switch OFF	0 V
				Ignition switch ON	Lighting switch 1ST	Battery voltage
10 (BR)	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 ignition 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 >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
13 (SB)	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
15 (W)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
16 (R)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
					Any position other than front wiper stop position	Battery voltage
19 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
20 (L)	Ground	Ambient sensor ground	Output	Ignition switch ON		0 V
21 (O)	Ground	Ambient sensor	Input	Ignition switch ON NOTE: Changes depending to ambient temperature		<p style="text-align: center; font-size: small;">JSNIA0014GB</p>
22 (SB)	Ground	Refrigerant pressure sensor ground	Output	Engine running	<ul style="list-style-type: none"> • Warm-up condition • Idle speed 	0 V
23 (GR)	Ground	Refrigerant pressure sensor	Output	Engine running	<ul style="list-style-type: none"> • Warm-up condition • Both A/C switch and blower fan motor switch ON (Compressor operates) 	1.0 - 4.0 V
24 (G)	Ground	Refrigerant pressure sensor power supply	Input	Ignition switch OFF		0 V
				Ignition switch ON		5.0 V
25 (GR)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
26*1 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
27 (W)	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		0 V
28 (SB)	Ground	Push-button ignition switch	Input	Press the push-button ignition switch		0 V
				Release the push-button ignition switch		Battery voltage
30 (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
34 (O)	Ground	Cooling fan relay-3 control	Input	Cooling fan stopped		Battery voltage
				Cooling fan at HI operation		0 V
35 (P)	Ground	Cooling fan relay-1 power supply	Input	Cooling fan stopped		Battery voltage
				Cooling fan at LO operation		6.0 V
36 (G)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
38 (GR)	Ground	Cooling fan relay-1 power supply	Output	Cooling fan not operating	0 V	
				Cooling fan at LO operation	6.0 V	
39 (P)	—	CAN-L	Input/ Output	—	—	
40 (L)	—	CAN-H	Input/ Output	—	—	
41 (B)	Ground	Ground	—	Ignition switch ON	0 V	
42 (SB)	Ground	Cooling fan relay-2 control	Input	Cooling fan stopped	Battery voltage	
				<ul style="list-style-type: none"> • Cooling fan MID operating • Cooling fan HI operating 	0 V	
43 (Y)	Ground	CVT 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	Horn switch	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 (W)	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
49 (R/B)	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 ignition switch OFF) 	Battery voltage	
51 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0 V	
				Ignition switch ON	Battery voltage	
52 (Y/G)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0 V	
				Ignition switch ON	Battery voltage	
53 (R/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 ignition switch OFF) 	Battery voltage	

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

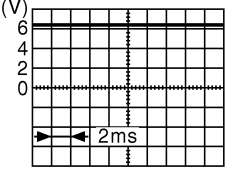
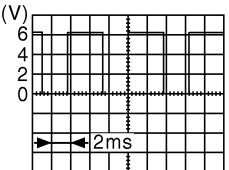
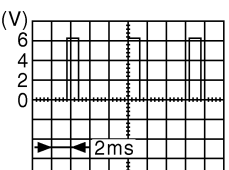
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
54 (G/W)	Ground	Throttle control motor re- lay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)	0 V
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (For a few seconds after turning igni- tion switch OFF) 	Battery voltage
55 (W/L)	Ground	ECM power supply	Output	Ignition switch OFF	Battery voltage
56 (R/Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0 V
				Ignition switch ON	Battery voltage
57 (O)	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/B)	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 (O)	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
72 (R/B)	Ground	Starter relay control	Input	Ignition switch ON	0 V
				Selector lever in any posi- tion other than P or N	Battery voltage
75 (LG)	Ground	Oil pressure switch	Input	Ignition switch ON	0 V
				Engine stopped	Battery voltage
				Engine running	Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

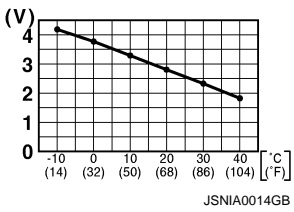
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
76 (SB)	Ground	Power generation command signal	Output	Ignition switch ON		 <small>JPMIA0001GB</small> 6.3 V
				40% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		 <small>JPMIA0002GB</small> 3.8 V
				80% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		 <small>JPMIA0003GB</small> 1.4 V
77 (GR)	Ground	Fuel pump relay control	Output	<ul style="list-style-type: none"> • Approximately 1 second after turning the ignition switch ON • Engine running 		0 - 1.5 V
				Approximately 1 second or more after turning the ignition switch ON		Battery voltage
80 (B)	Ground	Starter motor	Output	At engine cranking		Battery voltage
83 (Y)	Ground	Headlamp LO (RH)	Output	Ignition switch OFF	Lighting switch OFF	0 V
				Ignition switch ON	Lighting switch 2ND	Battery voltage
84 (L)	Ground	Headlamp LO (LH)	Output	Ignition switch OFF	Lighting switch OFF	0 V
				Ignition switch ON	Lighting switch 2ND	Battery voltage
86 (SB)	Ground	Front fog lamp (RH)	Output	Lighting switch OFF	Front fog lamp switch OFF	0 V
				Lighting switch 2ND	<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada) 	Battery voltage
87 (GR)	Ground	Front fog lamp (LH)	Output	Lighting switch OFF	Front fog lamp switch OFF	0 V
				Lighting switch 2ND	<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada) 	Battery voltage
88 (W)	Ground	Washer pump power supply	Output	Ignition switch ON		Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
89 (L)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					• Lighting switch HI • Lighting switch PASS	Battery voltage
90 (G)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					• Lighting switch HI • Lighting switch PASS	Battery voltage
91 (R)	Ground	Parking lamp (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
92 (LG)	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
99 (BR)	Ground	Ambient sensor ground	Input	Ignition switch ON		0 V
100 (SB)	Ground	Ambient sensor	Output	Ignition switch ON NOTE: Changes depending to ambient temperature		 <p style="text-align: right; font-size: small;">JSNIA0014GB</p>
101 (L)	Ground	Refrigerant pressure sensor ground	Input	Engine running	• Warm-up condition • Idle speed	0 V
102 (B)	Ground	Refrigerant pressure sensor	Input	Engine running	• Warm-up condition • Both A/C switch and blower fan motor switch ON (Compressor operates)	1.0 - 4.0 V
103 (P)	Ground	Refrigerant pressure sensor power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		5.0 V

*1: AWD models only

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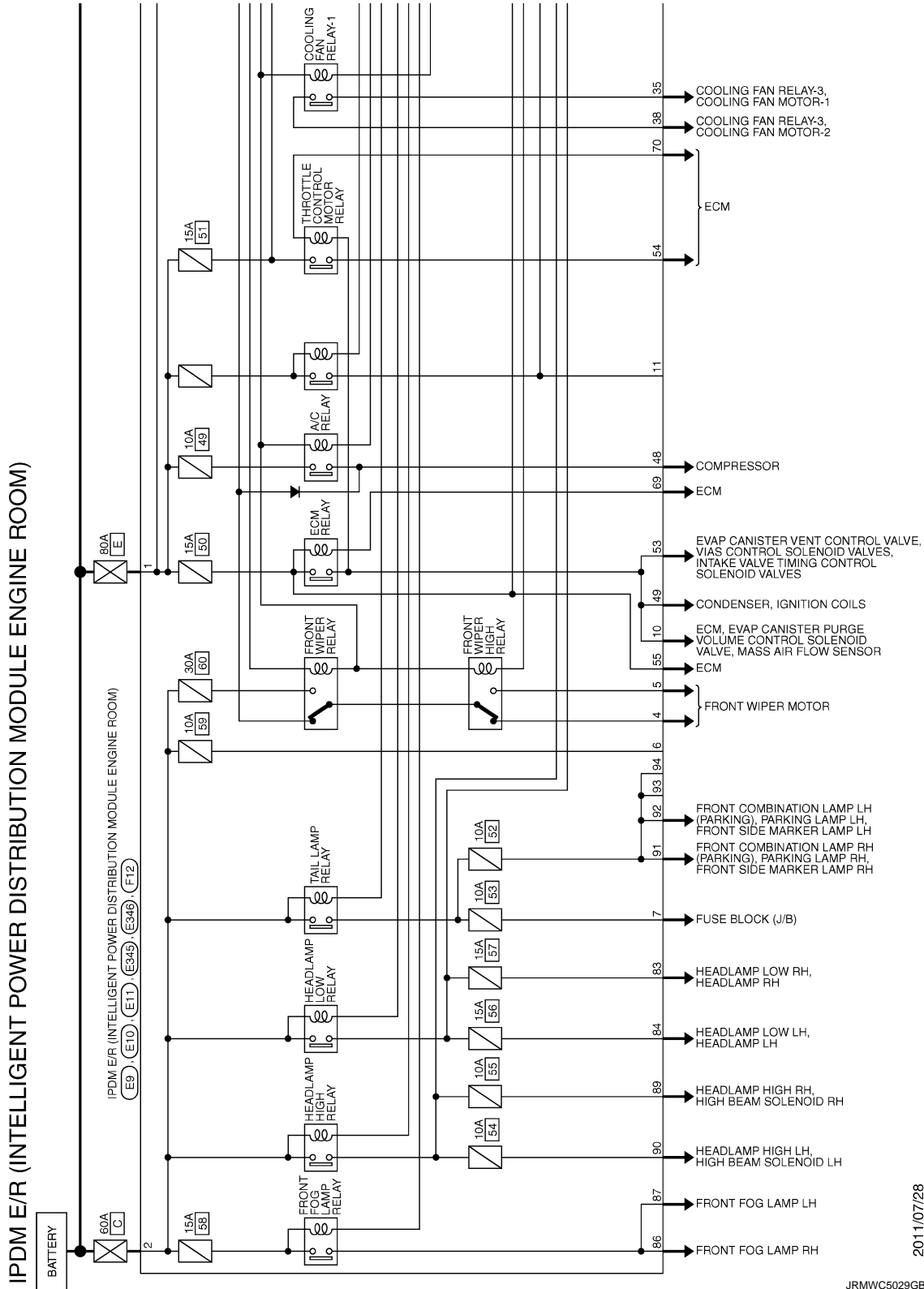
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Wiring Diagram - IPDM E/R -

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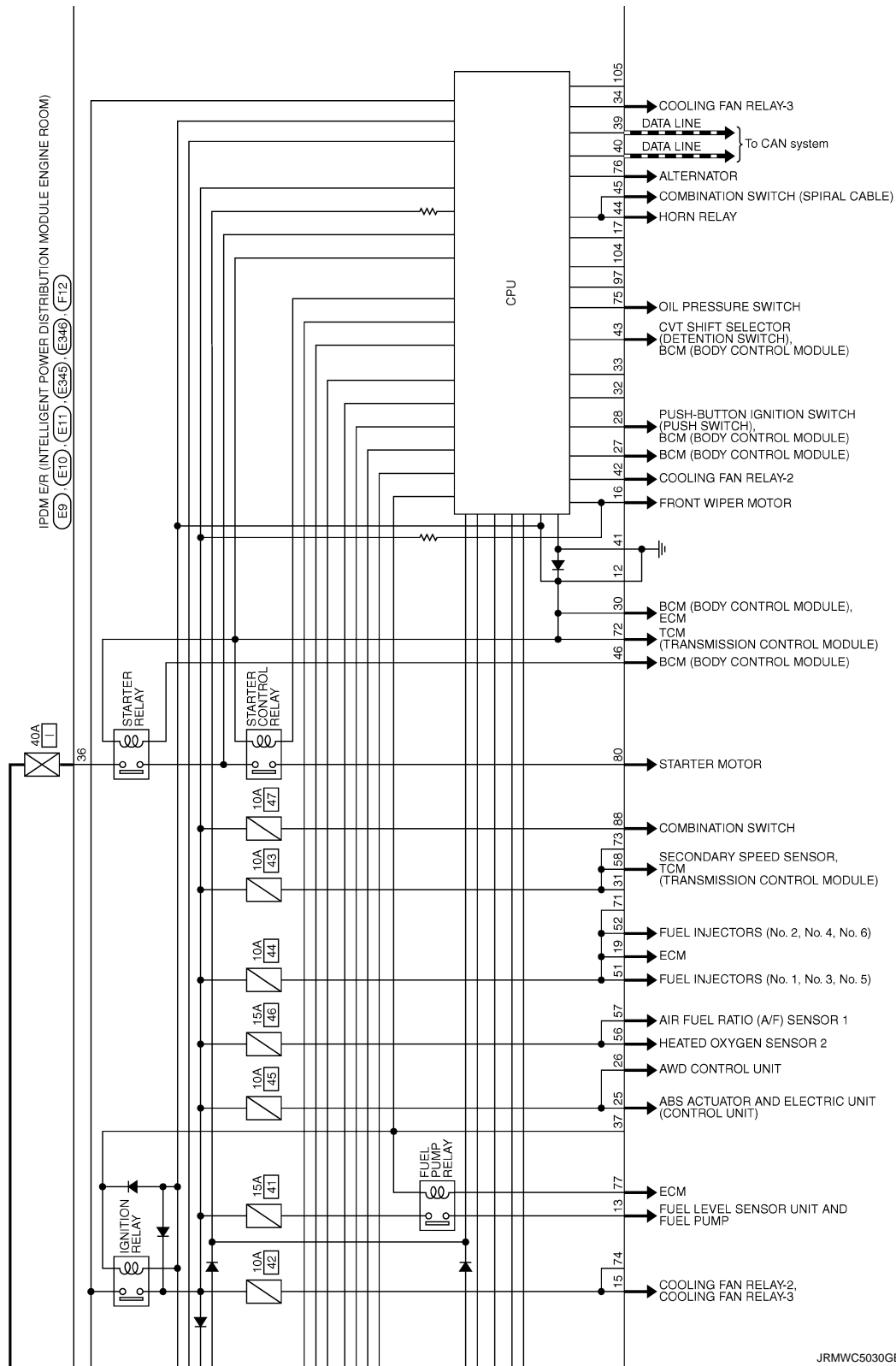
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JRMWC5029GB

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

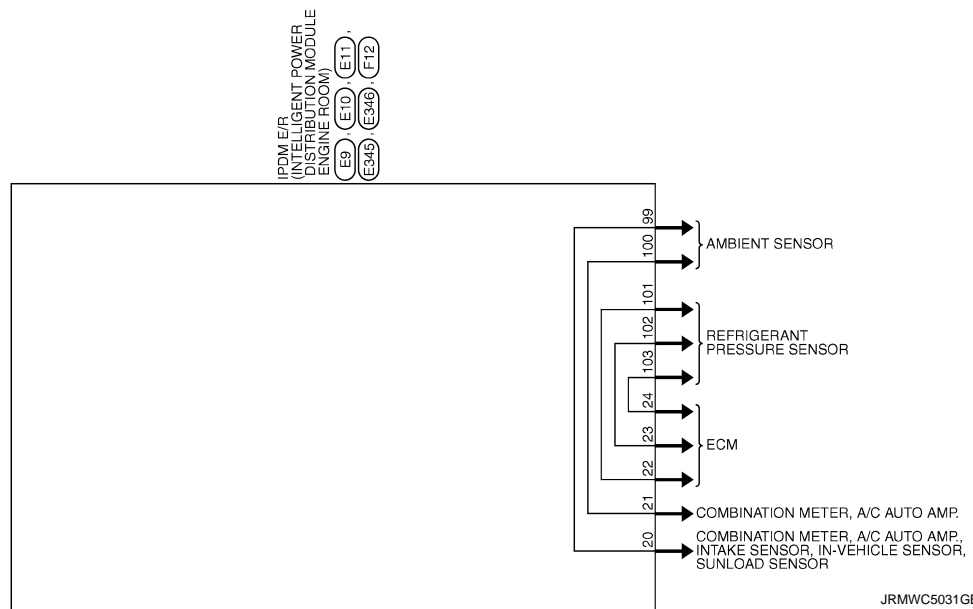
< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]



JRMWC5030GB

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

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

Connector No.	E9
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	LS2FB-3IC



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

Connector No.	E10
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH2BFW-CS1Z-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	-
5	Y	-
7	GR	-
10	BR	-
12	B	-
13	SB	-
15	W	-
16	R	-
19	Y	-
20	L	-
21	G	-
22	SP	-
23	GP	-
24	G	-
25	GR	-
26	Y	-
27	W	-

28	SB	-
29	GR	-
30	G	-
35	P	-
36	G	-
38	GR	-

Connector No.	E11
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH3BFW-NH



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

87	GR	-
88	Y	-
89	G	-

Connector No.	E346
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH1BFW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
91	R	-
92	LG	-
99	BR	-
100	SB	-
101	L	-
102	B	-
103	P	-

Connector No.	F12
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH3BFW-CS1Z-M4



Terminal No.	Color Of Wire	Signal Name [Specification]
49	R/B	-
51	LG	-
52	Y/G	-
53	R/W	-
54	G/W	-

55	W/L	-
59	R/L	-
58	Y	-
58	Y	-
69	W/B	-
70	O	-
72	R/B	-
75	LG	-
76	SB	-
77	GR	-
80	B	-

Fail-safe

CAN COMMUNICATION CONTROL

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

If No CAN Communication Is Available With ECM

JRMWE5847GB

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Control part	Fail-safe operation
Cooling fan	<ul style="list-style-type: none"> • Turns ON the cooling fan relay-2 and the cooling fan relay-3 when ignition switch is turned ON (Cooling fan operates at HI) • Turns OFF the cooling fan relay-1, the cooling fan relay-2 and the cooling fan relay-3 when the ignition switch is turned OFF (Cooling fan does not operate)
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/AUTO 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 auto stop 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 auto stop signal does not change for 10 seconds.

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN 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:0000000010092662

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	Refer to
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-79
B210C: STR CONT RLY OFF CIRC	—	SEC-80
B210D: STARTER RLY ON CIRC	—	SEC-81
B210E: STARTER RLY OFF CIRC	—	SEC-83
B210F: INTRLCK/PNP SW ON	—	SEC-85
B2110: INTRLCK/PNP SW OFF	—	SEC-87

EXL

EXTERIOR LIGHTING SYSTEM SYMPTOMS

[HALOGEN TYPE]

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:000000009723073

CAUTION:

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

Symptom		Possible cause	Inspection item
Headlamp (HI) is not turned ON.	One side	<ul style="list-style-type: none"> • Fuse • Halogen bulb (HI) • Harness between IPDM E/R and the headlamp high • IPDM E/R 	Headlamp (HI) circuit Refer to EXL-223 .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON" Refer to EXL-349 .	
Headlamp (HI) is not turned OFF.	When ignition switch is turned ON.		
	When ignition switch is turned OFF.	IPDM E/R	—
High beam indicator lamp is not turned ON. [The headlamp (HI) is turned ON.]		Combination meter	<ul style="list-style-type: none"> • Combination meter • Data monitor "HI-BEAM IND" • BCM (HEAD LAMP) • Active test "HEADLAMP"
Headlamp (LO) is not turned ON.	One side	<ul style="list-style-type: none"> • Fuse • Halogen bulb (LO) • Harness between IPDM E/R and the headlamp low • IPDM E/R 	Headlamp (LO) circuit Refer to EXL-225 .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-350 .	
Headlamp (LO) is not turned OFF.	When ignition switch is turned ON.		
	When ignition switch is turned OFF.	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-94 .
		<ul style="list-style-type: none"> • Optical sensor • Harness between the optical sensor and BCM • BCM 	Optical sensor Refer to EXL-236 .
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 • Front fog lamp • IPDM E/R 	Front fog lamp circuit Refer to EXL-227 .
	Both sides	Symptom diagnosis "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to EXL-352 .	
Front fog lamp is not turned ON.			
Parking lamp is not turned ON.		<ul style="list-style-type: none"> • 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-229 .

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

Symptom	Possible cause	Inspection item	
Front side marker lamp is not turned ON.	<ul style="list-style-type: none"> Front side marker lamp bulb Harness between IPDM E/R and the front side marker lamp IPDM E/R 	Front side marker lamp circuit Refer to EXL-231 .	
Parking lamp and front side marker lamp are not turned ON.	<ul style="list-style-type: none"> Fuse Harness between IPDM E/R and the front combination lamp IPDM E/R 	Parking lamp circuit Refer to EXL-229 .	
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-241 .	
License plate lamp is not turned ON.	<ul style="list-style-type: none"> License plate lamp bulb Harness between IPDM E/R and the license plate lamp License plate lamp 	License plate lamp circuit Refer to EXL-243 .	
Tail lamp and the 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 	License plate lamp circuit Refer to EXL-243 .	
<ul style="list-style-type: none"> Parking lamp, tail lamp, side marker lamp and license plate lamp are not turned ON. Parking lamp, tail lamp, side marker 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-351 .		
Tail lamp indicator is not turned ON. (Parking, tail lamps are turned ON.)	Combination meter	<ul style="list-style-type: none"> Combination meter Data monitor "LIGHT IND" BCM (HEAD LAMP) Active test "TAIL LAMP" 	
Turn signal lamp does not blink.	Indicator lamp is normal. (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 circuit Refer to EXL-233 .
	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-47 .
Turn signal indicator lamp does not blink. (Turn signal indicator lamp is normal.)	One side	Combination meter	—
	Both sides (Always)	<ul style="list-style-type: none"> Turn indicator signal - BCM Combination meter 	<ul style="list-style-type: none"> Combination meter Data monitor "TURN IND" BCM (FLASHER) Active test "FLASHER"
	Both sides (Only when activating hazard warning lamp with the ignition switch OFF)	<ul style="list-style-type: none"> Combination meter power supply and the ground circuit Combination meter 	Combination meter Power supply and the ground circuit Refer to MWI-44 .
<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-239 .	

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NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

NORMAL OPERATING CONDITION

Description

INFOID:000000009723074

AUTO LIGHT SYSTEM

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

BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

Description

INFOID:000000009723075

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

Diagnosis Procedure

INFOID:000000009723076

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-94, "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
		LO	Off

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-98, "Exploded View"](#).

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to [EXL-223, "Component Function Check"](#).

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description

INFOID:000000009723077

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

Diagnosis Procedure

INFOID:000000009723078

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-94, "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. Refer to [BCS-98, "Exploded View"](#).

3.HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to [EXL-225, "Component Function Check"](#).

Is the headlamp (LO) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

Description

INFOID:000000009723079

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

Diagnosis Procedure

INFOID:000000009723080

1. CHECK FUSE

Check that the following fuse is fusing.

Unit	Location	Fuse No.	Capacity
<ul style="list-style-type: none">• Parking lamp• Front side marker lamp	IPDM E/R	#52	10 A
<ul style="list-style-type: none">• Tail lamp• License plate lamp• Rear side marker lamp		#53	10 A

Is the fuse fusing?

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

NO >> GO TO 2.

2. COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-94. "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning part.

3. 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 4.

NO >> Replace BCM. Refer to [BCS-98. "Exploded View"](#).

4. TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to [EXL-241. "Component Function Check"](#).

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description

INFOID:000000009723081

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

Diagnosis Procedure

INFOID:000000009723082

1.CHECK FUSE

Check that the following fuse is fusing.

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

Is the fuse fusing?

- YES >> Repair the applicable circuit. And then replace the fuse.
NO >> GO TO 2.

2.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-94, "Symptom Table"](#).

Is the combination switch normal?

- YES >> GO TO 3.
NO >> Repair or replace the malfunctioning part.

3.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 (With lighting switch 1ST)	ON	On
		OFF	Off

Is the item status normal?

- YES >> GO TO 4.
NO >> Replace BCM. Refer to [BCS-98, "Exploded View"](#).

4.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to [EXL-227, "Component Function Check"](#).

Is the front fog lamp circuit normal?

- YES >> Replace IPDM E/R.
NO >> Repair or replace the malfunctioning part.

PRECAUTION

PRECAUTIONS
FOR USA AND CANADA

FOR USA AND CANADA : Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000009723083

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.

FOR USA AND CANADA : Precautions for Removing of Battery Terminal

INFOID:000000010028713

- 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.

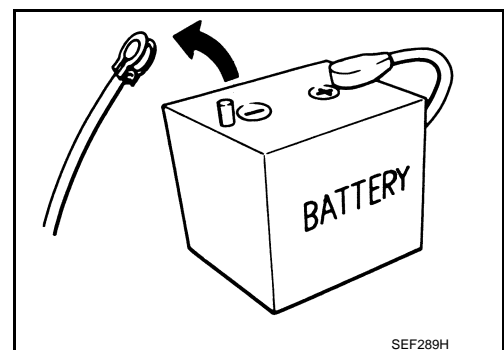
NOTE:

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.



FOR MEXICO

FOR MEXICO : Precaution for Supplemental Restraint System (SRS) "AIR BAG" and

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PRECAUTIONS

< PRECAUTION >

[HALOGEN TYPE]

"SEAT BELT PRE-TENSIONER"

INFOID:00000009723084

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. 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.

FOR MEXICO : Precautions for Removing of Battery Terminal

INFOID:000000010028714

- 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.

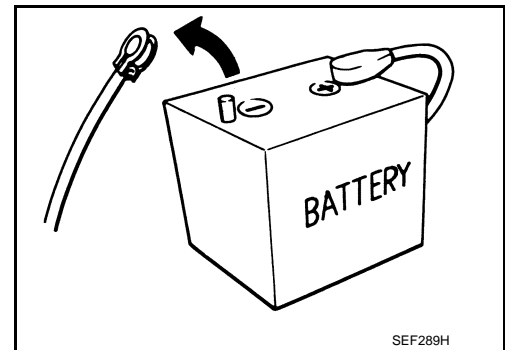
NOTE:

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.



HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN TYPE]

PERIODIC MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Description

INFOID:000000009723085

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 front combination lamp 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.

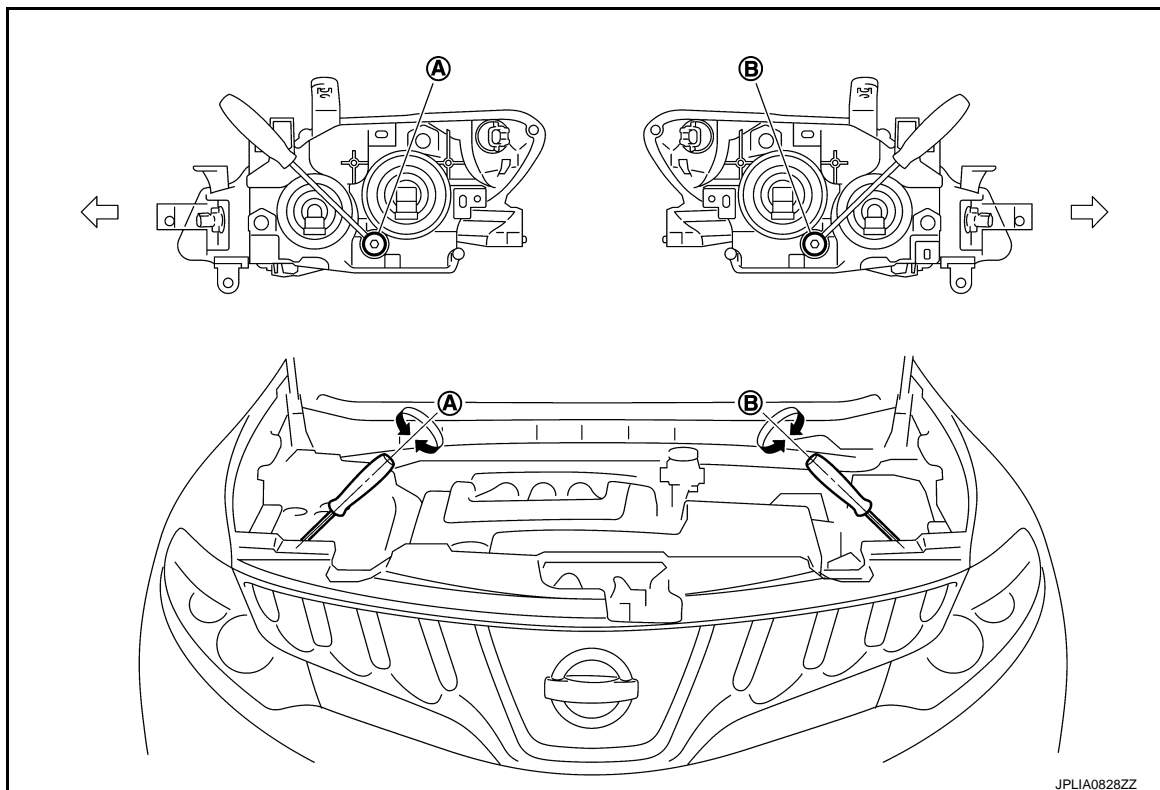
- Wipe out dirt on the headlamp.

CAUTION:

Never use organic solvent (thinner, gasoline etc.)

- Ride alone on the driver seat.

AIMING ADJUSTMENT SCREW



A. Headlamp RH (UP/DOWN) adjustment screw

B. Headlamp LH (UP/DOWN) adjustment screw

↔: Vehicle center

HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN TYPE]

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

Aiming Adjustment Procedure

INFOID:000000009723086

- 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 bulb center and the screen.
- Start the engine. Turn the headlamp (LO) ON.

NOTE:

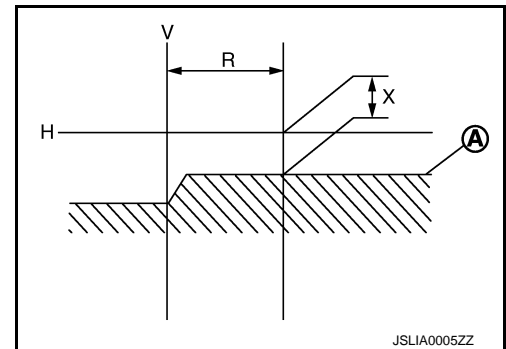
Shut off the headlamp light with the board to prevent from illuminating the adjustment screen.

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

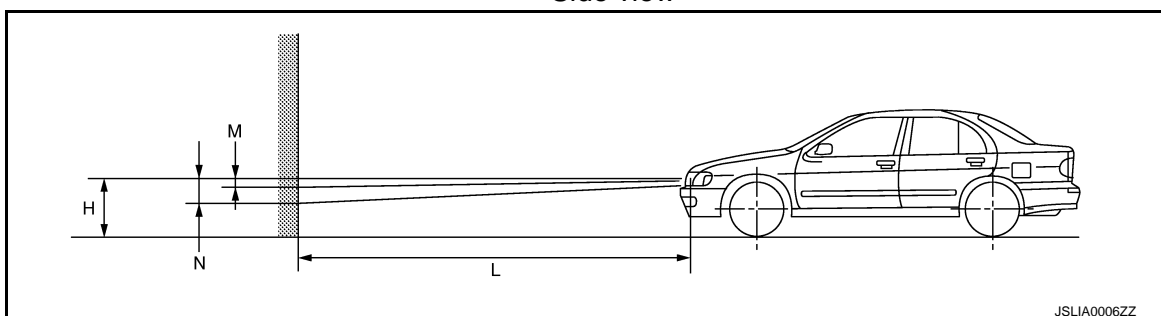


- Adjust the cutoff line height (X) with the aiming adjustment screw so as to enter in the adjustment range (M–N) according to the horizontal center line of headlamp (H).

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



HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN TYPE]

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

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FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN TYPE]

FRONT FOG LAMP AIMING ADJUSTMENT

Description

INFOID:000000009723087

PREPARATION BEFORE ADJUSTING

NOTE:

- For details, refer to the regulations in your own country.

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.

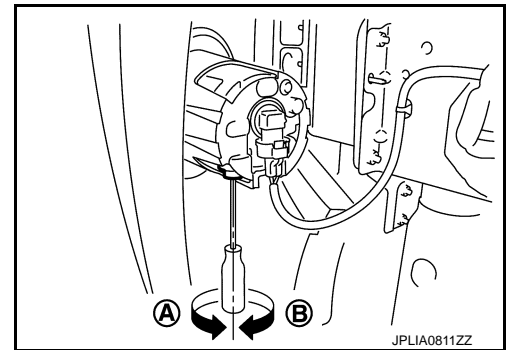
A: UP

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:000000009723088

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. Illuminate the front fog lamp.

CAUTION:

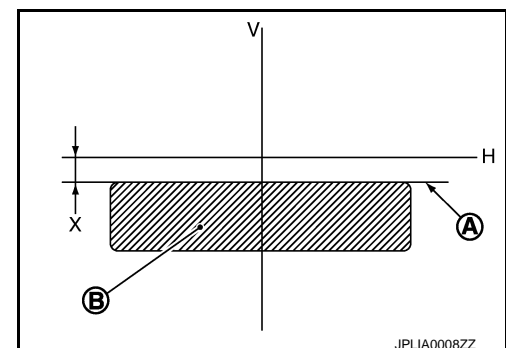
Never cover the lens surface with a tape etc. The lens is made of resin.

NOTE:

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

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 light distribution on the screen



FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN TYPE]

- 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 >

[HALOGEN TYPE]

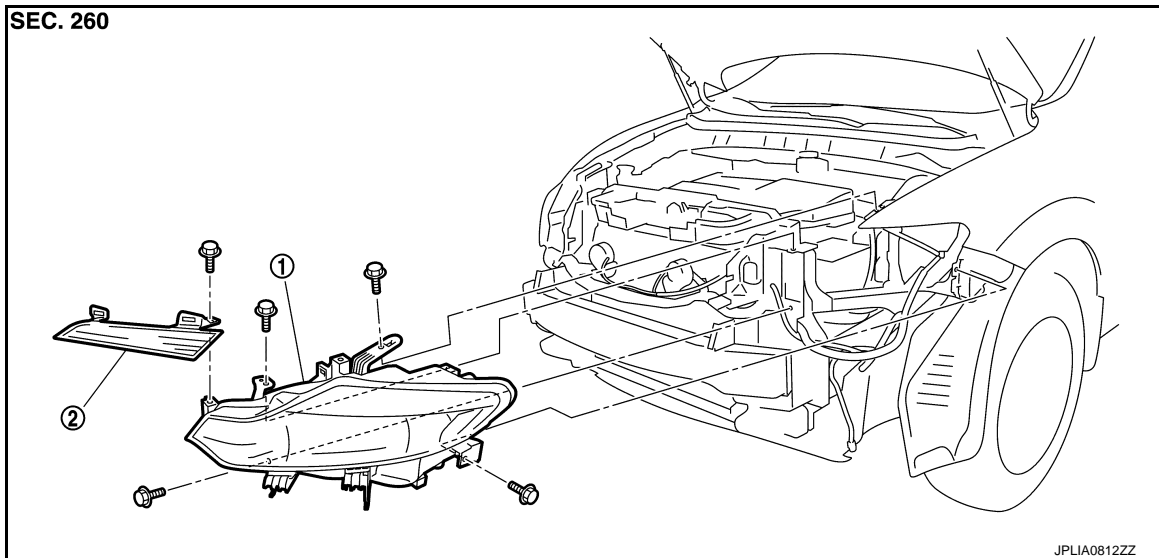
REMOVAL AND INSTALLATION

FRONT COMBINATION LAMP

Exploded View

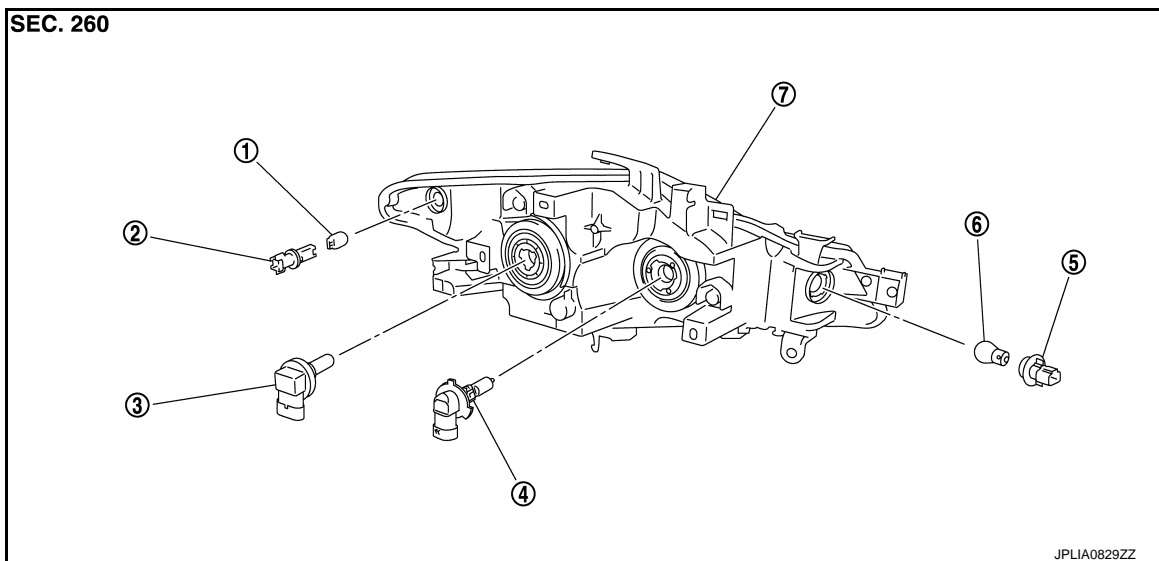
INFOID:000000009723089

REMOVAL



1. Front combination lamp
2. Headlamp extension panel

DISASSEMBLY



1. Front side marker lamp bulb
2. Front side marker lamp bulb socket
3. Halogen bulb (LO)
4. Halogen bulb (HI)
5. Front turn signal/parking lamp bulb socket
6. Front turn signal/parking lamp bulb
7. Headlamp housing assembly

Removal and Installation

INFOID:000000009723090

REMOVAL

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

FRONT COMBINATION LAMP

[HALOGEN TYPE]

< REMOVAL AND INSTALLATION >

1. Remove the front grille. Refer to [EXT-21. "Exploded View"](#).
2. Remove the headlamp extension panel.
3. Remove the front bumper fascia. Refer to [EXT-14. "Exploded View"](#).
4. Remove the headlamp mounting bolts.
5. Remove the harness clips from the headlamp housing.
6. Pull out the headlamp assembly forward the vehicle.
7. 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-355. "Description"](#).

Replacement

INFOID:000000009723091

CAUTION:

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

HEADLAMP BULB (LO)

1. Remove the fender rubber protector in the engine room.
2. Rotate the bulb counterclockwise and unlock it.
3. Disconnect the headlamp bulb connector.
4. Remove the bulb from the headlamp housing assembly.

HEADLAMP BULB (HI)

1. Rotate the bulb counterclockwise and unlock it.
2. Disconnect the headlamp bulb connector.
3. Remove the bulb from the headlamp housing assembly.

FRONT TURN SIGNAL/PARKING LAMP BULB

1. Remove the front grille. Refer to [EXT-21. "Exploded View"](#).
2. Rotate the front turn signal/parking lamp bulb socket counterclockwise and unlock it.
3. Remove the bulb from the front turn signal/parking lamp bulb socket.

FRONT SIDE MARKER LAMP BULB

1. Remove the fender rubber protector in the engine room.
2. Rotate the front side marker lamp bulb socket counterclockwise and unlock it.
3. Remove the bulb from the front side marker lamp bulb socket.

Disassembly and Assembly

INFOID:000000009723092

DISASSEMBLY

1. Rotate the headlamp bulb (LO) counterclockwise and unlock it
2. Disconnect the headlamp bulb (LO) connector. And remove the bulb from the headlamp housing assembly.
3. Rotate the headlamp bulb (HI) counterclockwise and unlock it
4. Disconnect the headlamp bulb (HI) connector. And remove the bulb from the headlamp housing assembly.
5. Rotate the front turn signal/parking lamp bulb socket counterclockwise and unlock it.
6. Remove the bulb from the front turn signal/parking lamp bulb socket.
7. Rotate the front side marker lamp bulb socket counterclockwise and unlock it.

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FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

8. Remove the bulb from the front side marker lamp bulb socket.

ASSEMBLY

Assemble in the reverse order of disassembly.

FRONT FOG LAMP

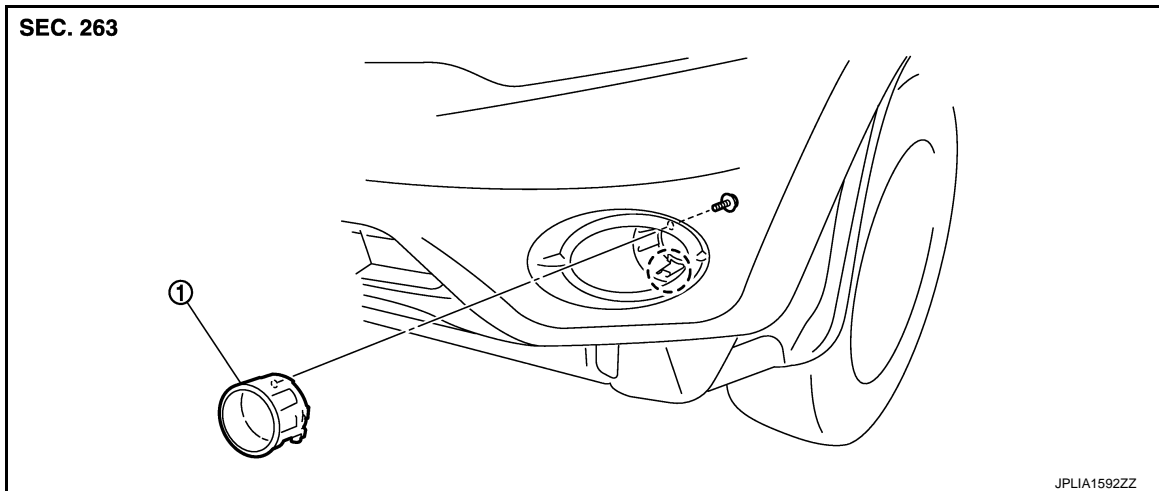
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

FRONT FOG LAMP

Exploded View

INFOID:000000009723093



1. Front fog lamp

2. Pawl

Removal and Installation

INFOID:000000009723094

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

1. Remove the front fender protector. Keep a service area. Refer to [EXT-26, "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

Installation is the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to [EXL-358, "Description"](#)

Replacement

INFOID:000000009723095

CAUTION:

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

FRONT FOG LAMP BULB

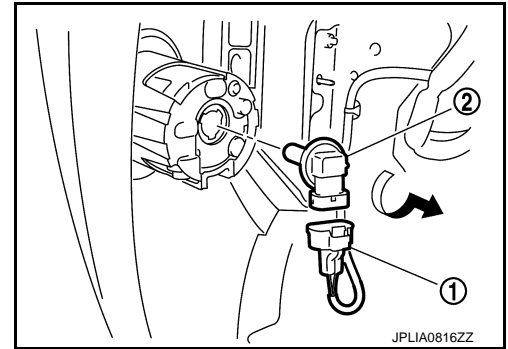
1. Remove the front fender protector. Keep the service area. Refer to [EXT-26, "FENDER PROTECTOR : Exploded View"](#).

FRONT FOG LAMP

< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

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



OPTICAL SENSOR

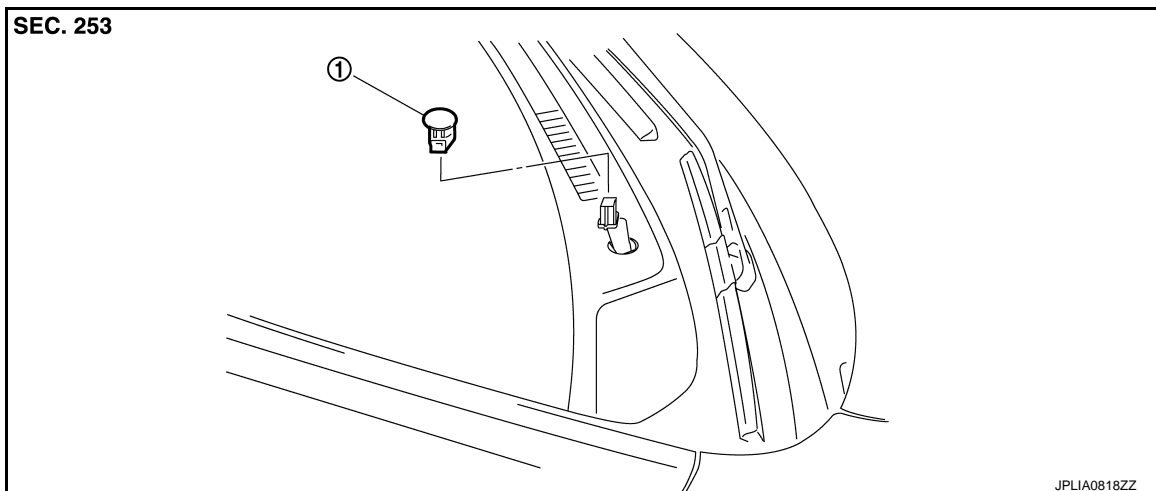
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

OPTICAL SENSOR

Exploded View

INFOID:000000009723096



1. Optical sensor

Removal and Installation

INFOID:000000009723097

REMOVAL

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

INSTALLATION

Install in the reverse order of removal.

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LIGHTING & TURN SIGNAL SWITCH

< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

LIGHTING & TURN SIGNAL SWITCH

Exploded View

INFOID:000000009723098

Removal and Installation

INFOID:000000009723099

Lighting & turn signal switch is integrated in the combination switch. Refer to [BCS-99, "Exploded View"](#).

HAZARD SWITCH

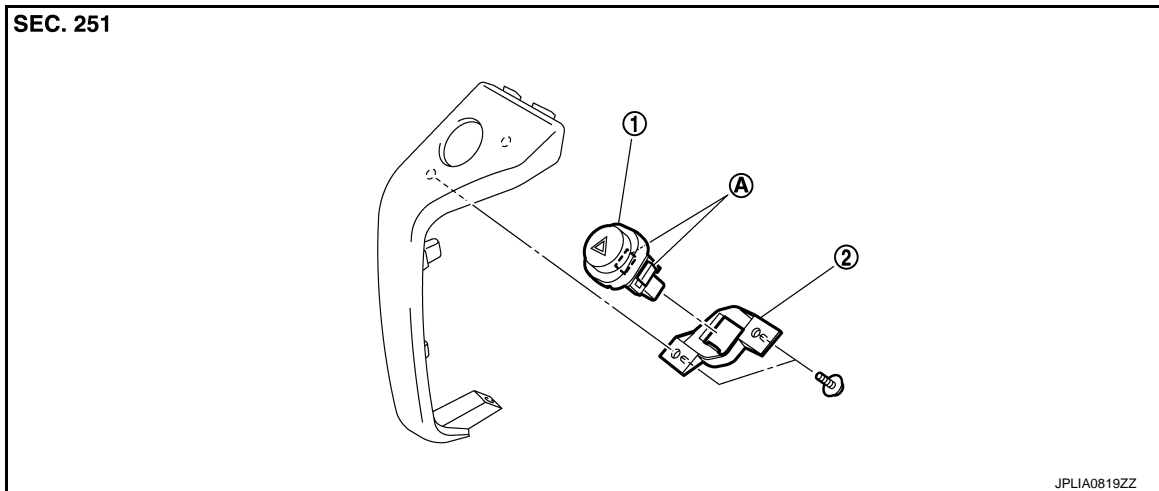
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

HAZARD SWITCH

Exploded View

INFOID:000000009723100



- 1. Hazard switch
- 2. Switch bracket
- A. Pawls

Removal and Installation

INFOID:000000009723101

REMOVAL

1. Remove the instrument stay cover (RH). Refer to [IP-14. "Exploded View"](#).
2. Remove the screws. And then remove the switch bracket from the instrument stay cover.
3. Remove the hazard switch.

INSTALLATION

Install in the reverse order of removal.

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REAR COMBINATION LAMP

< REMOVAL AND INSTALLATION >

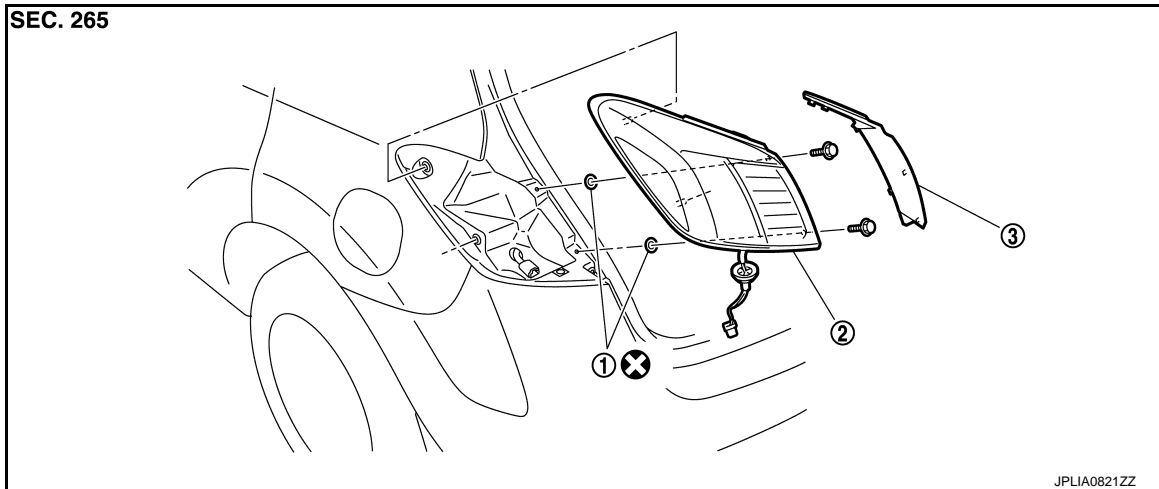
[HALOGEN TYPE]

REAR COMBINATION LAMP

Exploded View

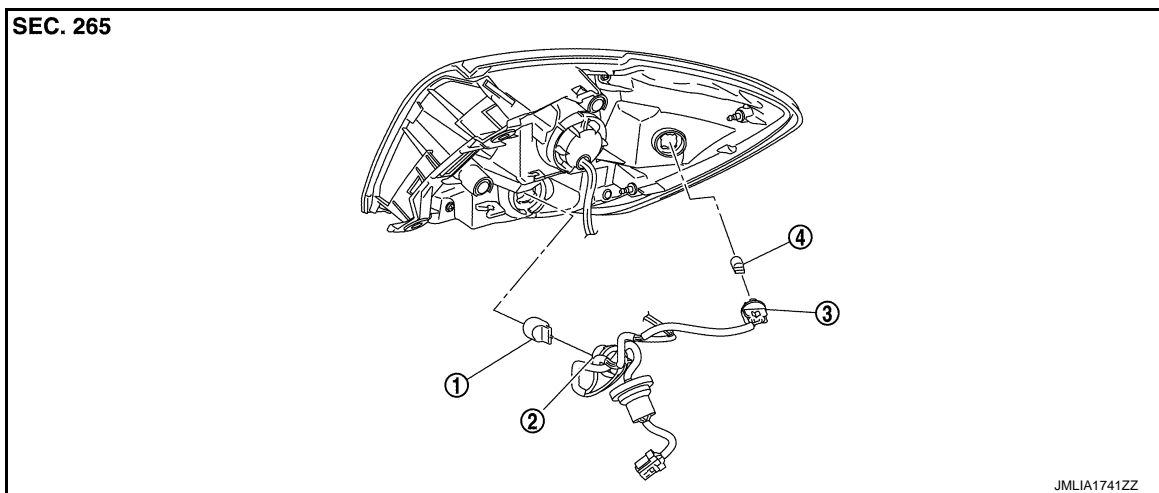
INFOID:000000009723102

REMOVAL



1. Seal packing
 2. Rear combination lamp
 3. Rear combination lamp finisher
- Refer to [GI-4, "Components"](#) for symbols in the figure.

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:000000009723103

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

REMOVAL

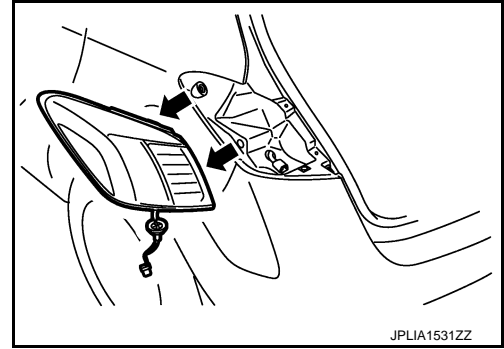
1. Remove the rear combination lamp finisher.
2. Remove the rear combination lamp mounting bolts.

REAR COMBINATION LAMP

[HALOGEN TYPE]

< REMOVAL AND INSTALLATION >

3. Pull the rear combination lamp toward outside of the vehicle (←). Remove the rear combination lamp.
4. Disconnect the rear combination lamp connector.



INSTALLATION

Install in the reverse order of removal.

Replacement

INFOID:000000009723104

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. Refer to [EXL-368. "Exploded View"](#).

REAR SIDE MARKER LAMP BULB

1. Remove the rear combination lamp. Refer to [EXL-368. "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-368. "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.

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HIGH-MOUNTED STOP LAMP

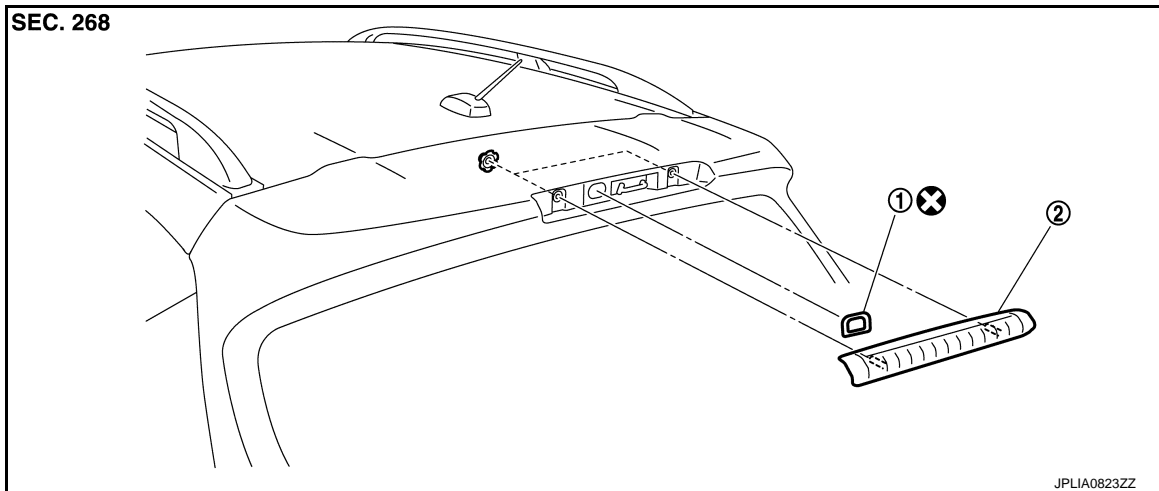
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

HIGH-MOUNTED STOP LAMP

Exploded View

INFOID:000000009723105



1. Seal packing
2. High-mounted stop lamp

Refer to [GI-4. "Components"](#) for symbols in the figure.

Removal and Installation

INFOID:000000009723106

CAUTION:

Disconnect battery negative terminal or remove the fuse.

REMOVAL

1. Remove the back door plate. Refer to [INT-38. "Exploded View"](#).
2. Remove the high-mounted stop lamp mounting nuts and connector.
3. Pull the high-mounted stop lamp toward rear of the vehicle. Remove the rear washer tube.
4. Disconnect the high-mounted stop lamp connector.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Seal packing cannot be reused.

BACK-UP LAMP

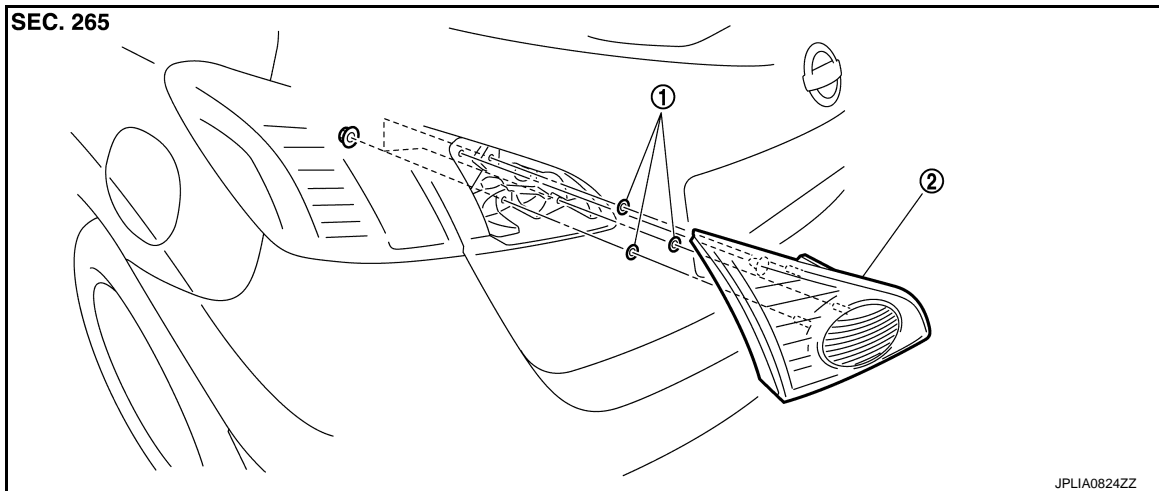
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

BACK-UP LAMP

Exploded View

INFOID:000000009723107



1. Seal packing
2. Back-up lamp

Refer to [GI-4, "Components"](#) for symbols in the figure.

Removal and Installation

INFOID:000000009723108

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

1. Remove the back door finisher inner. Refer to [INT-38, "Exploded View"](#).
2. Remove the back-up lamp mounting nuts and clip.
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:000000009723109

CAUTION:

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

BACK-UP LAMP BULB

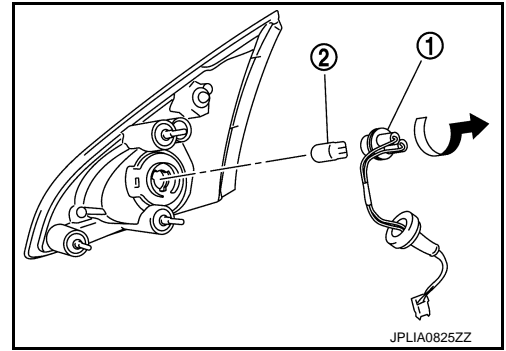
1. Remove the back-up lamp. Refer to [EXL-371, "Exploded View"](#).

BACK-UP LAMP

< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

2. Disconnect the connector, rotate the back-up lamp bulb socket (1) counterclockwise and unlock it.
3. Remove the bulb (2) from the back-up lamp bulb socket.



LICENSE PLATE LAMP

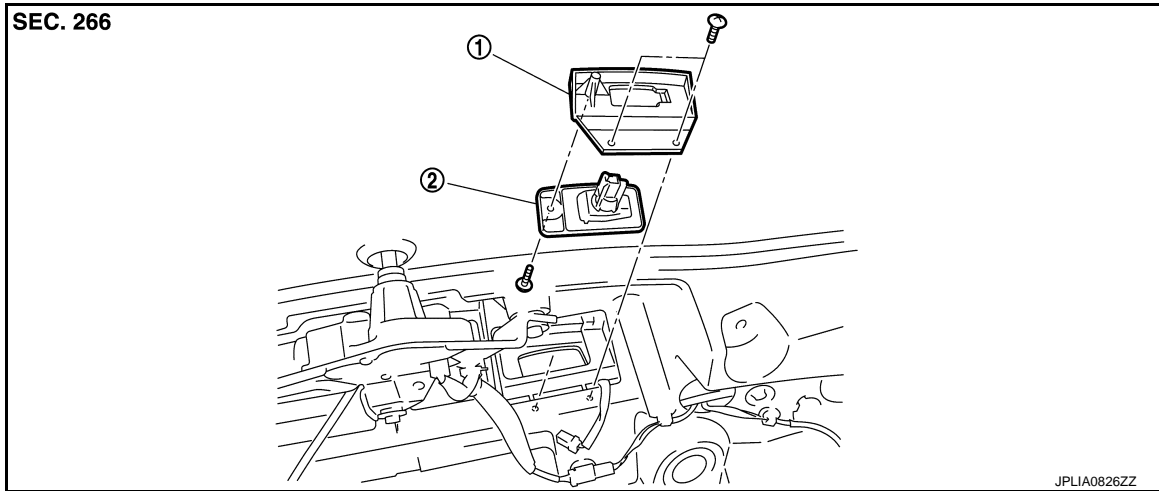
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

LICENSE PLATE LAMP

Exploded View

INFOID:000000009723110



1. License plate lamp bracket
2. License plate lamp

Removal and Installation

INFOID:000000009723111

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

REMOVAL

1. Remove the back door finisher inner. Refer to [INT-38, "Exploded View"](#).
2. Remove the screw. And then disconnect the license plate lamp connector.
3. Remove the license plate lamp.
4. Remove the screw. And then remove the license plate lamp bracket.

INSTALLATION

Install in the reverse order of removal.

Replacement

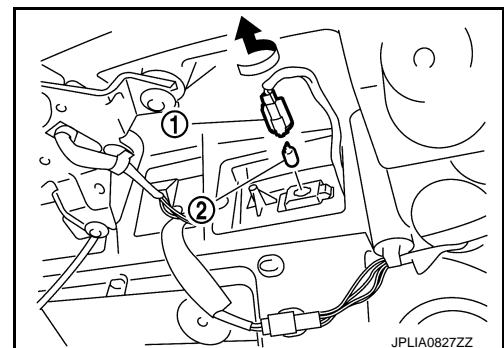
INFOID:000000009723112

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-38, "Exploded View"](#).
2. Turn the license plate lamp bulb socket (1) counterclockwise and unlock it.
3. Remove the bulb (2) from the license plate lamp bulb socket.



SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[HALOGEN TYPE]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:000000009723113

Item		Type	Wattage (W)
Front combination lamp	Headlamp (HI)	HB3	65
	Headlamp (LO)	H11	55
	Front turn signal/parking lamp	1157NA (Amber)	27/8
	Front side marker lamp	WY5W (Amber)	5
Front fog lamp		H8	35
Rear combination lamp	Stop lamp	LED	—
	Tail lamp	LED	—
	Rear turn signal lamp	WY21W (Amber)	21
	Rear side marker lamp	W5W	5
Back-up lamp		W16W	16
License plate lamp		W5W	5
High-mounted stop lamp		LED	—