

CONTENTS

XENON TYPE	System Description18	F
	Component Parts Location19	
BASIC INSPECTION4	Component Description19	
DIAGNOSIS AND REPAIR WORKFLOW 4	TURN SIGNAL AND HAZARD WARNING	G
Work Flow4	LAMP SYSTEM20	
	System Diagram20	
INSPECTION AND ADJUSTMENT 6	System Description20	Н
ADDITIONAL SERVICE WHEN REPLACING	Component Parts Location21	
CONTROL UNIT6	Component Description21	
ADDITIONAL SERVICE WHEN REPLACING	PARKING, LICENSE PLATE AND TAIL	
CONTROL UNIT: Description6	LAMPS SYSTEM22	
ADDITIONAL SERVICE WHEN REPLACING	System Diagram	
CONTROL UNIT : Special Repair Requirement6	System Description22	J
LEVELIZER ADJUSTMENT6	Component Parts Location23	
LEVELIZER ADJUSTMENT : Description	Component Description23	
LEVELIZER ADJUSTMENT : Description		K
quirement6	EXTERIOR LAMP BATTERY SAVER SYS-	
quilottotti	TEM24	
SYSTEM DESCRIPTION7	System Diagram24	ΕX
LICADI AND CVCTEM	System Description24	
HEADLAMP SYSTEM7	Component Parts Location25	
System Diagram	Component Description25	M
System Description7 Component Parts Location9	DIAGNOSIS SYSTEM (BCM)26	
Component Description9	·	
Component Description	COMMON ITEM26	Ν
AUTO LIGHT SYSTEM11	COMMON ITEM : CONSULT-III Function (BCM -	
System Diagram11	COMMON ITEM)26	
System Description11	HEADLAMP27	0
Component Parts Location13	HEADLAMP : CONSULT-III Function (BCM -	
Component Description14	HEAD LAMP)27	
DAYTIME RUNNING LIGHT SYSTEM15		Р
System Diagram15	FLASHER29	
System Description15	FLASHER: CONSULT-III Function (BCM -	
Component Parts Location16	FLASHER)29	
Component Description17	DIAGNOSIS SYSTEM (IPDM E/R)31	
FRONT FOOL AMP CYCTEM	Diagnosis Description31	
FRONT FOG LAMP SYSTEM18	CONSULT-III Function (IPDM E/R)33	
System Diagram18		

D

Е

DTC/CIRCUIT DIAGNOSIS	36	WITHOUT DAYTIME RUNNING LIGHT SYSTEM	
=V==DIAD AMD =UAE		: Component Function Check	60
EXTERIOR LAMP FUSE		WITHOUT DAYTIME RUNNING LIGHT SYSTEM	
Diagnosis Procedure	36	: Diagnosis Procedure	60
HEADLAMP (HI) CIRCUIT	. 37	WITH DAYTIME RUNNING LIGHT SYSTEM	61
Description	37	WITH DAYTIME RUNNING LIGHT SYSTEM:	
Component Function Check	37	Component Function Check	61
Diagnosis Procedure		WITH DAYTIME RUNNING LIGHT SYSTEM : Di-	
•		agnosis Procedure	61
HEADLAMP (LO) CIRCUIT			
Description		LICENSE PLATE LAMP CIRCUIT	. 63
Component Function Check		WITHOUT DAYTIME RUNNING LIGHT SYSTEM	63
Diagnosis Procedure	40	WITHOUT DAYTIME RUNNING LIGHT SYSTEM	00
XENON HEADLAMP	42	: Component Function Check	63
Description		WITHOUT DAYTIME RUNNING LIGHT SYSTEM	
Diagnosis Procedure		: Diagnosis Procedure	63
DAYTIME RUNNING LIGHT RELAY CIRCUIT		WITH DAYTIME RUNNING LIGHT SYSTEM	61
		WITH DAYTIME RUNNING LIGHT SYSTEM:	04
	. 44	Component Function Check	64
Component Function Check		WITH DAYTIME RUNNING LIGHT SYSTEM : Di-	
Diagnosis Procedure		agnosis Procedure	
Component Inspection	45	•	
FRONT FOG LAMP CIRCUIT	47	HEADLAMP SYSTEM	
Component Function Check	47	Wiring Diagram - HEADLAMP	66
Diagnosis Procedure	47	AUTO LIGHT SYSTEM	72
PARKING LAMP CIRCUIT	40	Wiring Diagram - AUTO LIGHT SYSTEM	
PARKING LAWF CIRCUIT	49		
WITHOUT DAYTIME RUNNING LIGHT SYSTEM	49	DAYTIME RUNNING LIGHT SYSTEM	
WITHOUT DAYTIME RUNNING LIGHT SYSTEM		Wiring Diagram - DAYTIME LIGHT SYSTEM	80
: Component Function Check	49	FRONT FOC LAMP SYSTEM	-00
WITHOUT DAYTIME RUNNING LIGHT SYSTEM		FRONT FOG LAMP SYSTEM	
: Diagnosis Procedure	49	Wiring Diagram - FRONT FOG LAMP	88
WITH DAYTIME RUNNING LIGHT SYSTEM	5 0	TURN SIGNAL AND HAZARD WARNING	
WITH DATTIME RONNING LIGHT STSTEM	30	LAMP SYSTEM	. 93
Component Function Check	5 0	Wiring Diagram - TURN AND HAZARD WARN-	
WITH DAYTIME RUNNING LIGHT SYSTEM : Di-	30	ING LAMPS	93
agnosis Procedure	51		
agriosis i roccoure	31	PARKING, LICENSE PLATE AND TAIL	
TURN SIGNAL LAMP CIRCUIT	52	LAMPS SYSTEM	. 99
Description	52	Wiring Diagram - PARKING LICENSE PLATE	
Component Function Check		AND TAIL LAMPS	99
Diagnosis Procedure	52	STOP LAMP	106
OPTICAL SENSOR	E E	Wiring Diagram - STOP LAMP	
Description			
Component Function Check		BACK-UP LAMP	108
Diagnosis Procedure		Wiring Diagram - BACK-UP LAMP	108
•		ECU DIACNOSIS INFORMATION	446
HAZARD SWITCH		ECU DIAGNOSIS INFORMATION	112
Description		BCM (BODY CONTROL MODULE)	.112
Component Function Check		Reference Value	
Diagnosis Procedure	58	Wiring Diagram - BCM	
TAIL LAMP CIRCUIT	60	Fail-safe	
TAIL LAWIF CIRCUIT	. 60	DTC Inspection Priority Chart	
WITHOUT DAYTIME RUNNING LIGHT SYSTEM	60	DTC Index	

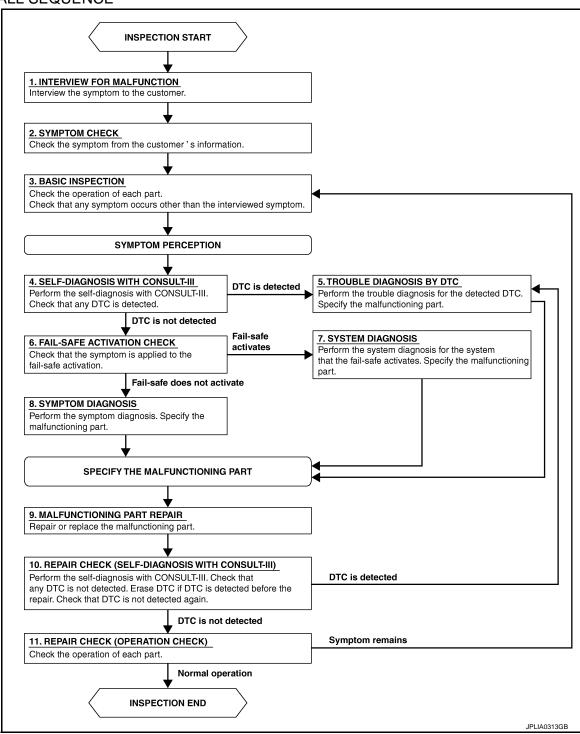
IPDM E/R (INTELLIGENT POWER DISTRI-	PERIODIC MAINTENANCE172
BUTION MODULE ENGINE ROOM)148	HEADLAND AIMING AD HIGHMENT
Reference Value148	HEADLAMP AIMING ADJUSTMENT172
Wiring Diagram - IPDM E/R155	Description
Fail-safe158	Aiming Adjustment Procedure173
DTC Index160	FRONT FOG LAMP AIMING ADJUSTMENT . 174
SYMPTOM DIAGNOSIS161	Description
3 TWIP TOWN DIAGNOSIS161	Aiming Adjustment Procedure174
EXTERIOR LIGHTING SYSTEM SYMPTOMS. 161	REMOVAL AND INSTALLATION176
WITHOUT DAYTIME RUNNING LIGHT SYSTEM 161	
WITHOUT DAYTIME RUNNING LIGHT SYSTEM	FRONT COMBINATION LAMP176
: Symptom Table161	Exploded View176
	Removal and Installation177
WITH DAYTIME RUNNING LIGHT SYSTEM 162	Replacement177
WITH DAYTIME RUNNING LIGHT SYSTEM :	Disassembly and Assembly178
Symptom Table162	
NODMAL ODEDATING CONDITION	FRONT FOG LAMP179
NORMAL OPERATING CONDITION165	Exploded View179
Description165	Removal and Installation179
BOTH SIDE HEADLAMPS DO NOT SWITCH	Replacement179
TO HIGH BEAM166	OPTICAL SENSOR181
Description	Exploded View
Diagnosis Procedure166	Removal and Installation181
BOTH SIDE HEADLAMPS (LO) ARE NOT	LIGHTING & TURN SIGNAL SWITCH 182
TURNED ON167	Exploded View182
Description	Exploded view162
Diagnosis Procedure	HAZARD SWITCH183
Diagnosis Procedure167	Exploded View183
PARKING, LICENSE PLATE, SIDE MARKER	·
AND TAIL LAMPS ARE NOT TURNED ON 168	STEERING ANGLE SENSOR184
	Removal and Installation184
WITHOUT DAYTIME RUNNING LIGHT SYSTEM 168	DEAD COMPINATION LAMB
WITHOUT DAYTIME RUNNING LIGHT SYSTEM	REAR COMBINATION LAMP185
: Description 168	Exploded View185
WITHOUT DAYTIME RUNNING LIGHT SYSTEM	Removal and Installation185
: Diagnosis Procedure168	Replacement185
•	
WITH DAYTIME RUNNING LIGHT SYSTEM 168	HIGH-MOUNTED STOP LAMP187
WITH DAYTIME RUNNING LIGHT SYSTEM : De-	Exploded View
scription	Removal and Installation187
WITH DAYTIME RUNNING LIGHT SYSTEM : Di-	BACK-UP LAMP188
agnosis Procedure168	Exploded View188
BOTH SIDE EDONT FOO I AMPS ARE NOT	Removal and Installation188
BOTH SIDE FRONT FOG LAMPS ARE NOT	
TURNED ON170	Replacement188
Description170	LICENSE PLATE LAMP190
Diagnosis Procedure170	Exploded View190
DDECALITION :	Removal and Installation190
PRECAUTION171	Replacement190
PRECAUTIONS171	ποριασειπετιτ190
	SERVICE DATA AND SPECIFICATIONS
Precaution for Supplemental Restraint System	(SDS)192
(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	(000)192
SIONER"	SERVICE DATA AND SPECIFICATIONS
Precautions For Xenon Headlamp Service 171	(SDS)192
	Bulb Specifications
	Duid Specifications192

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



DETAILED FLOW

1.INTERVIEW FOR MALFUNCTION

Interview the symptom to the customer.

DIAGNOSIS AND REPAIR WORKFLOW

DIAGNOSIS AND REPAIR WORKFLOW
< BASIC INSPECTION > [XENON TYPE]
>> GO TO 2.
2.symptom check
Check the symptom from the customer's information.
00.70.0
>> GO TO 3.
3.BASIC INSPECTION
Check the operation of each part. Check that any symptom occurs other than the interviewed symptom.
>> GO TO 4.
4.self-diagnosis with consult-iii
Perform the self-diagnosis with CONSULT-III. Check that any DTC is detected.
Is any DTC detected?
YES >> GO TO 5.
NO >> GO TO 6.
5.TROUBLE DIAGNOSIS BY DTC
Perform the trouble diagnosis for the detected DTC. Specify the malfunctioning part.
>> GO TO 9.
6. FAIL-SAFE ACTIVATION CHECK
Check that the symptom is applied to the fail-safe activation.
Does the fail-safe activate?
YES >> GO TO 7.
NO >> GO TO 8. 7. SYSTEM DIAGNOSIS
Perform the system diagnosis for the system that the fail-safe activates. Specify the malfunctioning part.
>> GO TO 9.
8.SYMPTOM DIAGNOSIS
Perform the symptom diagnosis. Specify the malfunctioning part.
>> GO TO 9.
9.MALFUNCTION PART REPAIR
Repair or replace the malfunctioning part.
>> GO TO 10.
10. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT-III)
Perform the self-diagnosis with CONSULT-III. Check that any DTC is not detected. Erase DTC if DTC is detected before the repair. Check that DTC is not detected again.
Is any DTC detected?
YES >> GO TO 5.
NO >> GO TO 11.
11. REPAIR CHECK (OPERATION CHECK)
Check the operation of each part.
Does it operate normally?
YES >> INSPECTION END NO >> GO TO 3.
110 // 00 10 0.

Revision: 2011 November EXL-5 2011 G Sedan

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION > [XENON TYPE]

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

INFOID:0000000006209380

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

1.LEVELIZER ADJUSTMENT

Perform "LEVELIZER ADJUSTMENT".

>> Refer to EXL-6, "LEVELIZER ADJUSTMENT: Special Repair Requirement".

LEVELIZER ADJUSTMENT

LEVELIZER ADJUSTMENT : Description

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

LEVELIZER ADJUSTMENT : Special Repair Requirement

INFOID:0000000006209383

INFOID:0000000006209382

1. CHECK VEHICLE CONDITION

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

>> GO TO 2.

2.LEVELIZER ADJUSTMENT

(P)CONSULT-III WORK SUPPORT

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

CAUTION:

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

Is the levelizer adjustment completed?

YES >> GO TO 3.

NO >> Perform the levelizer adjustment again.

${f 3.}$ SELF-DIAGNOSIS RESULT CHECK

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

Is any DTC detected?

YES >> GO TO 2.

NO >> Levelizer adjustment completed

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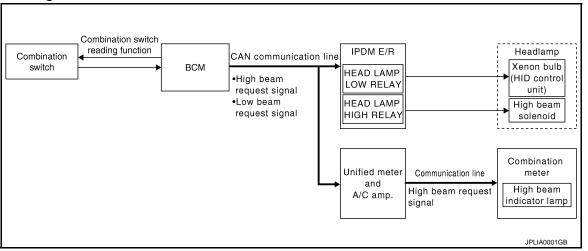
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SYSTEM DESCRIPTION

HEADLAMP SYSTEM

System Diagram



System Description

INFOID:0000000006209385

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 (through unified meter and A/C amp.) with CAN communication according to the high beam switching condition.

High beam switching condition

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

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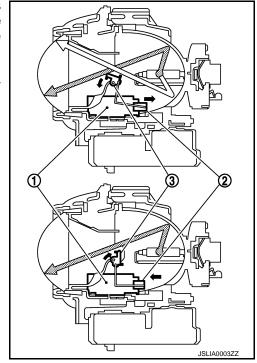
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HEADLAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

- When the headlamp high relay is turned ON, magnetic force is applied to the high beam solenoid (1) by a current. The mobile valve shade (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.



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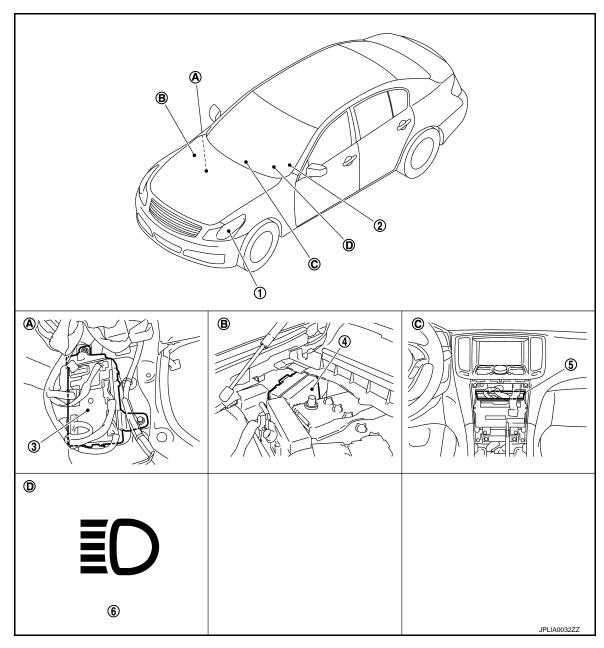
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- 1. Headlamp
- 4. IPDM E/R
- A. Dash side lower (passenger side)
- D. On the combination meter
- 2. Combination switch
- 5. Unified meter and A/C amp.
- B. Engine room dash panel (RH)
- 3. BCM
- 6. High beam indicator lamp
- C. Behind the cluster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

Component Description

INFOID:0000000006209387

Part	Description
ВСМ	 Detects each switch condition by the combination switch reading function. Judges that the headlamp is turned ON according to the vehicle condition. Requests the headlamp relay (HI/LO) ON to IPDM E/R (with CAN communication). Requests the high beam indicator lamp ON to the combination meter [with CAN communication (through unified meter and A/C amp.)].
IPDM E/R	Controls the integrated relay, and supplies voltage to the load according to the request from BCM (with CAN communication).

HEADLAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

	Part	Description
Combination switch (Lighting & turn sign		Refer to BCS-7, "System Diagram".
Combination meter (High beam indicate		Turns the high beam indicator lamp ON according to the request from BCM [with CAN communication (through unified meter and A/C amp.)].
Headlamp assem- bly	HID control unit Xenon bulb	Refer to EXL-42, "Description".
Diy	High beam solenoid	Refer to EXL-37, "Description".

AUTO LIGHT SYSTEM

System Diagram

INFOID:0000000006209388

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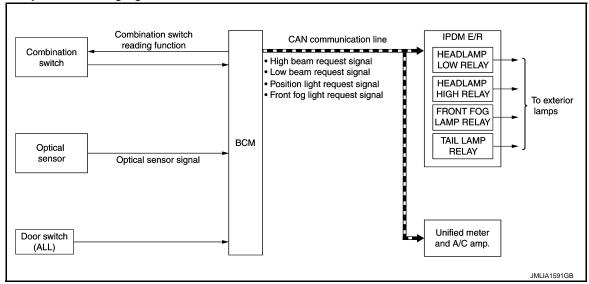
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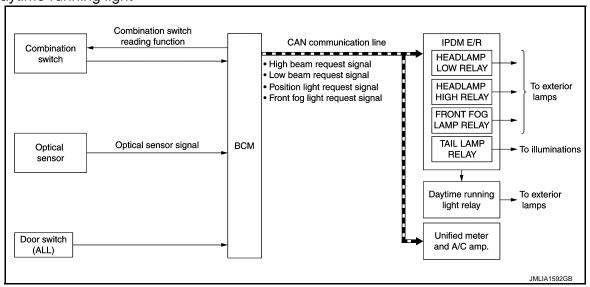
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Without daytime running light



With daytime running light



System Description

INFOID:0000000006209389

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.

Revision: 2011 November

AUTO LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

- 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 maker 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-III. Refer to EXL-27, "HEADLAMP: CONSULT-III Function (BCM - HEAD LAMP)".

DELAY TIMER FUNCTION

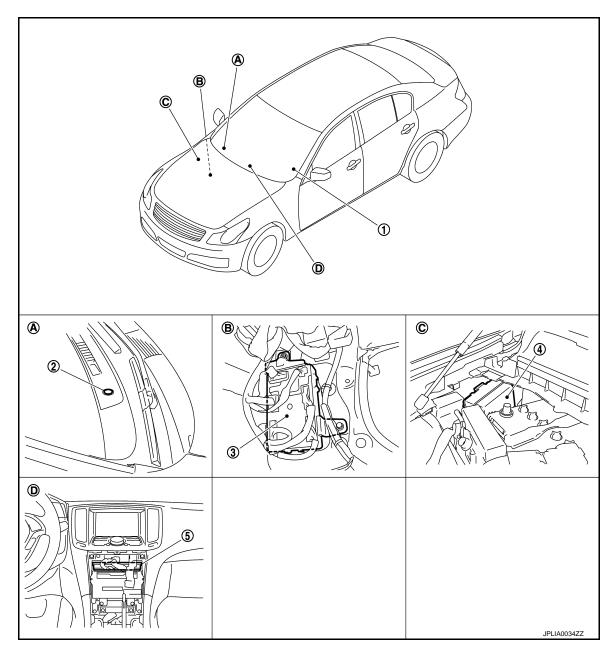
BCM turns the exterior lamp OFF depending on the vehicle condition with the auto light function when the ignition switch is turned OFF.

- Turns the exterior lamp OFF 5 minutes after detecting that any door opens (Door switch ON).
- Turns the exterior lamp OFF a certain period of time* after closing all doors (Door switch ON→OFF).
- Turns the exterior lamp OFF with the ignition switch ACC or the light switch OFF.
- *: The preset time is 45 seconds. The timer operating time can be set by CONSULT-III. Refer to <u>EXL-27</u>, "HEADLAMP: CONSULT-III 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.

INFOID:0000000006209390



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

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AUTO LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Description

INFOID:0000000006209391

Part	Description
BCM	 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-7, "System Diagram".
Optical sensor	Refer to EXL-55, "Description".

[XENON TYPE]

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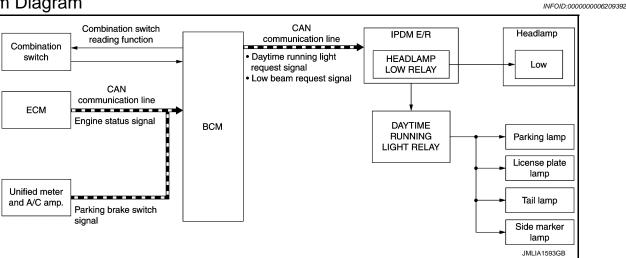
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DAYTIME RUNNING LIGHT SYSTEM

System Diagram



System Description

INFOID:0000000006209393

OUTLINE

- Turns the following exterior lamps ON as the daytime running light.
- Headlamp (LO)
- Parking, tail, license plate and side marker lamps.
- 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 vehicle condition depending on the following signals.
- Engine condition signal (received from ECM with CAN communication).
- Parking brake switch signal (received from unified meter and A/C amp. with CAN communication)
- BCM transmits the daytime running light request signal and low beam 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.
- Lighting switch OFF
- IPDM E/R turns the integrated headlamp low relay and daytime running light relay ON according to the daytime running light request signal and low beam request signal. And it turns each lamp ON.

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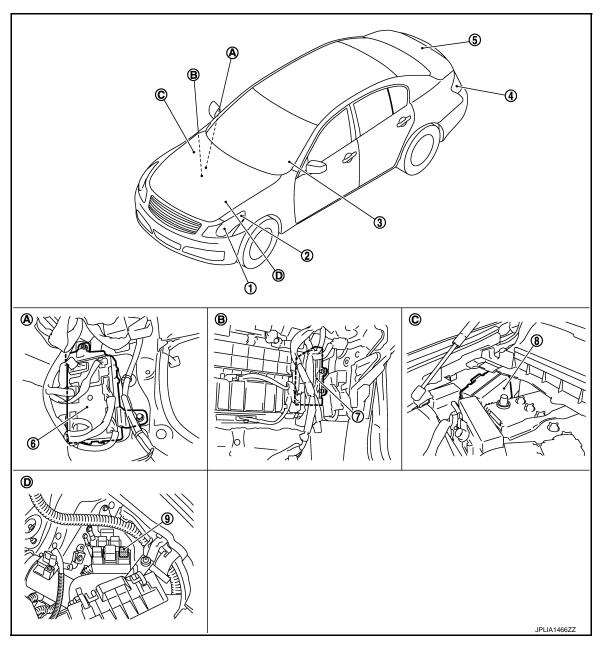
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Revision: 2011 November EXL-15 2011 G Sedan

INFOID:0000000006209394



- 1. Headlamp (LO)
- 4. Tail lamp
 - · Rear side marker lamp
- 7. ECN
- A. Dash side lower (Passenger side)
- D. Engine room (LH)

- 2. Parking lamp
 - Front side marker lamp
- 5. License plate lamp
- 8. IPDM E/R
- B. Over the glove box

- 3. Combination switch
- 6. BCM
- 9. Daytime running light relay
- C. Engine room dash panel (RH)

DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Description

INFOID:0000000006209395

Part	Description
ВСМ	 Detects each switch condition with the combination switch reading function. Judges each lamps ON/OFF condition according to the vehicle condition. Requests the each 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-7, "System Diagram".
ECM	Transmits the engine status signal to BCM with CAN communication.

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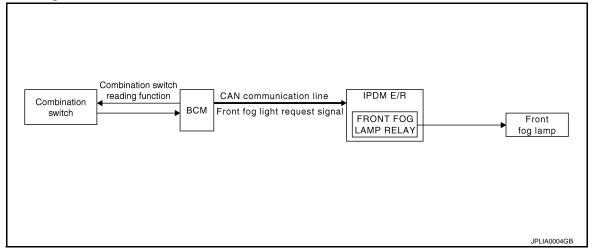
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[XENON TYPE]

FRONT FOG LAMP SYSTEM

System Diagram

INFOID:0000000006209396



System Description

INFOID:0000000006209397

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.

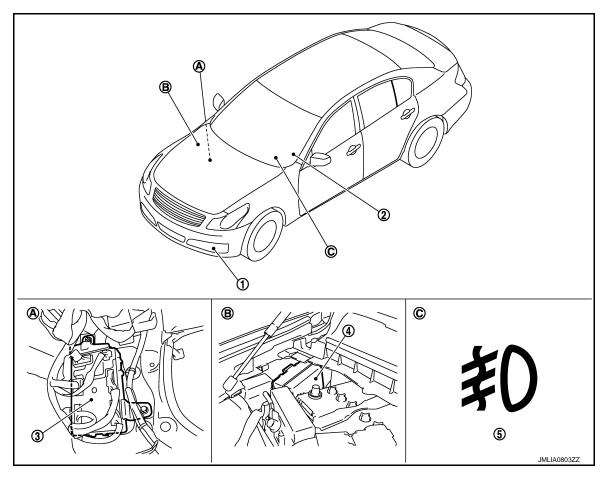
FRONT FOG LAMP OPERATION

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

INFOID:0000000006209398



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

Component Description

INFOID:0000000006209399

Part	Description
BCM	 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-7, "System Diagram".

Revision: 2011 November EXL-19 2011 G Sedan

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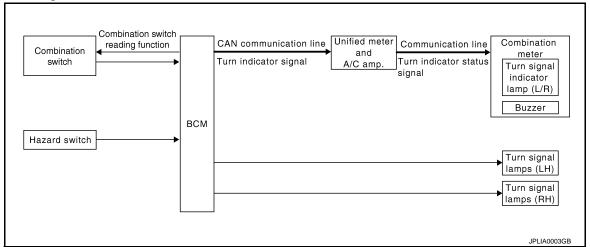
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

System Diagram

INFOID:0000000006209400



System Description

INFOID:0000000006209401

OUTLINE

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

TURN SIGNAL LAMP OPERATION

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

HAZARD WARNING LAMP OPERATION

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

TURN SIGNAL INDICATOR LAMP AND TURN SIGNAL SOUND OPERATION

- BCM transmits the turn indicator signal to the combination meter (through unified meter and A/C amp.) with CAN communication while the turn signal lamp and the hazard warning lamp operating.
- Combination meter outputs the turn signal sound with the integrated buzzer while blinking the turn signal indicator lamp according to the turn indicator status signal.

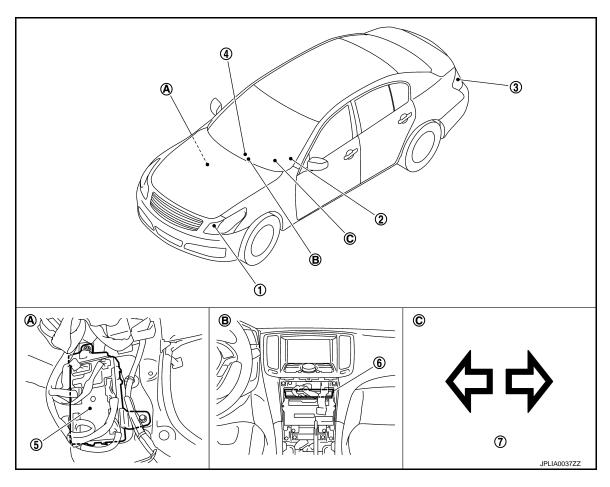
HIGH FLASHER OPERATION

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

NOTE:

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

INFOID:0000000006209402



- Front turn signal lamp
- Hazard warning switch
- Turn signal indicator lamp
- Dash side lower (passenger side)
- Combination switch
- **BCM**
- B. Behind the cluster lid C
- Rear turn signal lamp
- Unified meter and A/C amp.
- C. On the combination meter

Component Description

INFOID:0000000006209403

Part	Description
ВСМ	 Detects each switch condition by the combination switch reading function. Judges the blinks of the turn signal lamp and the hazard warning lamp from each switch status. The applicable turn signal lamp blinks. Requests the turn signal indicator lamp blink to the combination meter (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-7, "System Diagram".
Hazard switch (Multifunction switch)	Refer to EXL-58, "Description".
Combination meter (Turn signal indicator lamp & buzzer)	Blinks the turn signal indicator lamp and outputs the turn signal operating sound with integrated buzzer according to the request from BCM [with CAN communication (through unified meter and A/C amp.)].

EXL-21 Revision: 2011 November 2011 G Sedan

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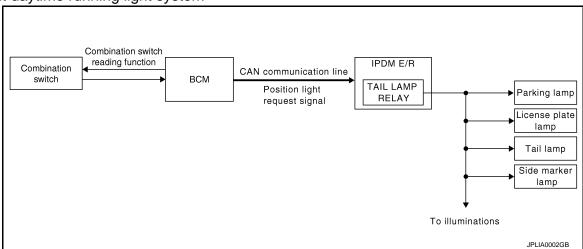
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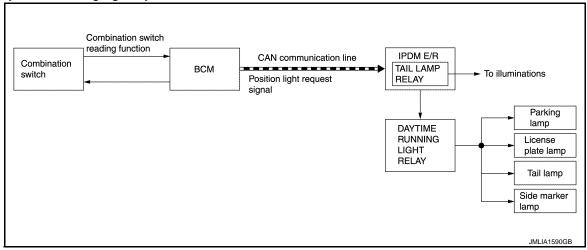
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

System Diagram

Without daytime running light system



With daytime running light system



System Description

INFOID:0000000006209405

OUTLINE

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

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS OPERATION

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

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

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

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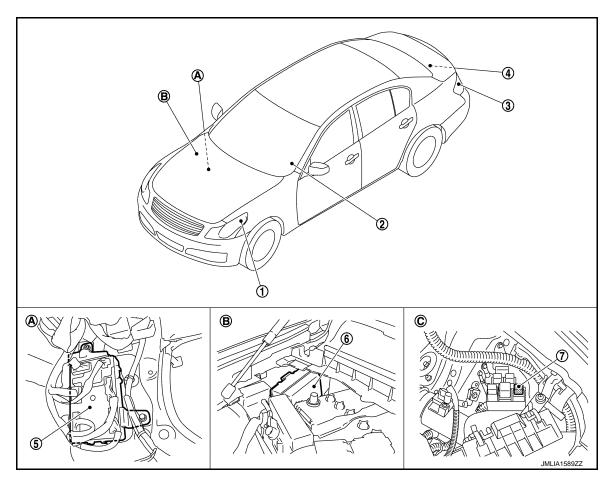
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- 1. Parking lamp
- Front side marker lamp
- 4. License plate lamp
- 7. Daytime running light relay*
- A. Dash side lower (passenger side)
- 2. Combination switch
- 5. BCM
- B. Engine room dash panel (RH)
- 3. Tail lamp
 - Rear side marker lamp
- 6. IPDM E/R
- C. Engine room dash panel (RH)

*: With daytime running light

Component Description

INFOID:0000000006209407

Part	Description
ВСМ	 Detects each switch condition by the combination switch reading function. Judges the ON/OFF status of the parking, license plate, side marker and tail lamps according to the vehicle condition. Requests the tail lamp relay ON to IPDM E/R (with CAN communication).
IPDM E/R	Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-7, "System Diagram".

Revision: 2011 November EXL-23 2011 G Sedan

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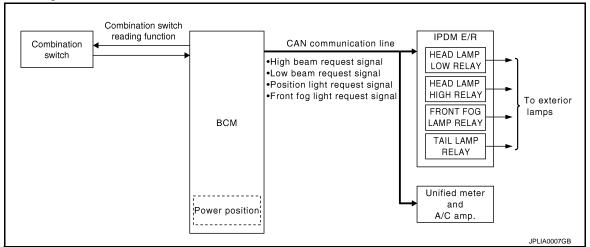
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EXTERIOR LAMP BATTERY SAVER SYSTEM

System Diagram

INFOID:0000000006209408



System Description

INFOID:0000000006209409

OUTLINE

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

Control by BCM

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

Control by IPDM E/R

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

When the lighting switch is turned AUTO, the exterior lamp battery saver switches to the auto light system. Refer to EXL-11, "System Diagram".

EXTERIOR LAMP BATTERY SAVER ACTIVATION

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

NOTE:

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

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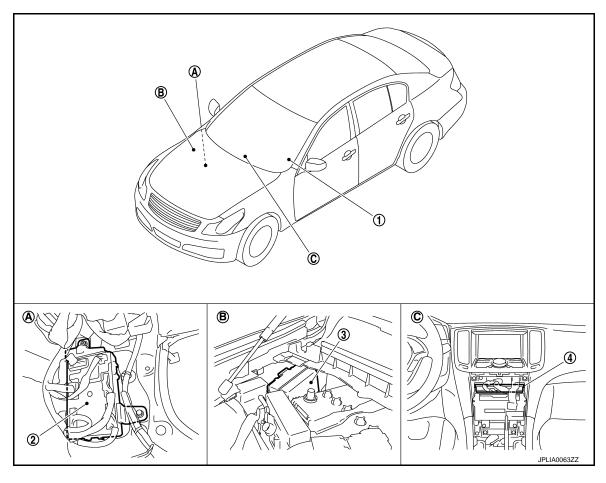
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- 1. Combination switch
- 4. Unified meter and A/C amp.
- A. Dash side lower (passenger side)
- 2. BCM
- B. Engine room dash panel (RH)
- 3. IPDM E/R
- C. Behind the cluster lid C

Component Description

INFOID:0000000006209411

Part	Description
ВСМ	 Detects each switch condition by the combination switch reading function. Judges the exterior lamp OFF according to the vehicle condition. Requests each relay OFF to IPDM E/R (with CAN communication).
IPDM E/R	Controls the integrated relay according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-7, "System Diagram".

Revision: 2011 November EXL-25 2011 G Sedan

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[XENON TYPE]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT-III Function (BCM - COMMON ITEM)

INFOID:0000000006209412

APPLICATION ITEM

CONSULT-III 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. Refer to CONSULT-III operation manual.
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	This function is not used even though it is displayed.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

x: Applicable item

System	Sub system selection item	Diagnosis mode		
System	Work Support		Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
_	AIR CONDITONER*			
Intelligent Key system Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk lid open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE

FREEZE FRAME DATA (FFD)

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

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[XENON TYPE]

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

HEADLAMP: CONSULT-III Function (BCM - HEAD LAMP)

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WORK SUPPORT

Service item	Setting item	Setting
BATTERY SAVER SET	On*	With the exterior lamp battery saver function
	Off	Without the exterior lamp battery saver function

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

^{*:} Factory setting

DATA MONITOR

Monitor item [Unit]	Description	
PUSH SW [On/Off]	The switch status input from push-button ignition switch	
ENGINE STATE [Stop/Stall/Crank/Run]	The engine status received from ECM with CAN communication	
VEH SPEED 1 [km/h]	The value of the vehicle speed received from unified meter and A/C amp. with CAN communication	
KEY SW-SLOT [On/Off]	Key switch status input from key slot	
TURN SIGNAL R [On/Off]		
TURN SIGNAL L [On/Off]		
TAIL LAMP SW [On/Off]		
HI BEAM SW [On/Off]		
HEAD LAMP SW1 [On/Off]	Each switch status that BCM judges from the combination switch reading fu	
HEAD LAMP SW2 [On/Off]		
PASSING SW [On/Off]		
AUTO LIGHT SW [On/Off]		
FR FOG SW [On/Off]		
RR FOG SW [On/Off]	NOTE: The item is indicated, but not monitored.	
DOOR SW-DR [On/Off]	The switch status input from driver side door switch	
DOOR SW-AS [On/Off]	The switch status input from passenger side door switch	

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[XENON TYPE]

Monitor item [Unit]	Description
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.	
	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).	
HEAD LAMP	Low	Transmits the low beam request signal with CAN communication to turn the headlamp (LO).	
	Off	Stops the high & low beam request signal transmission.	
FR FOG LAMP	On	Transmits the front fog light request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.	
	Off	Stops the front fog light request signal transmission.	
RR FOG LAMP	On	NOTE:	
RR FOG LAMP	Off	The item is indicated, but cannot be tested.	
DAYTIME RUNNING LIGHT	On	NOTE:	
DAT HIME RONNING LIGHT	Off	The item is indicated, but cannot be tested.	
	RH		
CORNERING LAMP	LH	NOTE: The item is indicated, but cannot be tested.	
	Off		
ILL DIM SIGNAL	On	NOTE:	
ILL DIIVI SIGNAL	Off	The item is indicated, but cannot be tested.	

FLASHER

FLASHER: CONSULT-III Function (BCM - FLASHER)

WORK SUPPORT

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

^{*:} Factory setting

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< SYSTEM DESCRIPTION >

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

ACTIVE TEST

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

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[XENON TYPE]

DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

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AUTO ACTIVE TEST

Description

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

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

Operation Procedure

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

NOTE:

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

- 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.
- The oil pressure warning lamp starts blinking when the auto active test starts.
- 6. After a series of the following operations is repeated 3 times, auto active test is completed.

NOTE:

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

- If auto active test mode cannot be actuated, check door switch system. Refer to <u>DLK-66</u>, "Component Function Check".
- Do not start the engine.

Inspection in Auto Active Test Mode

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

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

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

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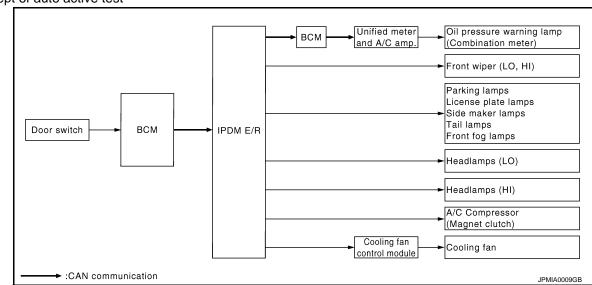
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Revision: 2011 November EXL-31 2011 G Sedan

Concept of auto active test



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

Diagnosis chart in auto active test mode

Symptom	Inspection contents		Possible cause	
Any of the following components do not operate		YES	BCM signal input circuit	
 Parking lamps License plate lamps Side maker lamps Tail lamps Front fog lamps Headlamp (HI, LO) Front wiper (HI, LO) 	Perform auto active test. Does the applicable system operate?	NO	Lamp or motor Lamp or motor ground circuit Harness or connector between IPDM E/R and applicable system IPDM E/R	
A/C compressor does not operate	Perform auto active test. Does the magnet clutch operate?	YES	Unified meter and A/C amp. signal input circuit CAN communication signal between unified meter and A/C amp. and ECM CAN communication signal between ECM and IPDM E/R	
		NO	Magnet clutch Harness or connector between IPDM E/R and magnet clutch IPDM E/R	
	Perform auto active test.	YES	Harness or connector between IPDM E/R and oil pressure switch Oil pressure switch IPDM E/R	
Oil pressure warning lamp does not operate	Does the oil pressure warning lamp blink?	NO	CAN communication signal between IPDM E/R and BCM CAN communication signal between BCM and unified meter and A/C amp. Combination meter	

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

CONSULT-III Function (IPDM E/R)

INFOID:0000000006833496

APPLICATION ITEM

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

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

SELF DIAGNOSTIC RESULT

Refer to EXL-160, "DTC Index".

DATA MONITOR

Monitor item

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

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< SYSTEM DESCRIPTION >

[XENON TYPE]

Monitor Item [Unit]	MAIN SIG- NALS	Description	
IGN RLY1 -REQ [Off/On]		Displays the status of the ignition switch ON signal received from BCM via CAN communication.	
IGN RLY [Off/On]	×	Displays the status of the ignition relay judged by IPDM E/R.	
PUSH SW [Off/On]		Displays the status of the push-button ignition switch judged by IPDM E/R.	
INTER/NP SW [Off/On]		Displays the status of the clutch interlock switch (M/T models) or shift position (A/T models) judged by IPDM E/R.	
ST RLY CONT [Off/On]		Displays the status of the starter relay status signal received from BCM via CAN communication.	
IHBT RLY -REQ [Off/On]		Displays the status of the starter control relay signal received from BCM via CAN communication.	
ST/INHI RLY [Off/ ST ON/INHI ON/UNKWN]		Displays the status of the starter relay and starter control relay judged by IPDM E/R.	
DETENT SW [Off/On]		Displays the status of the A/T shift selector (detention switch) judged by IPDM E/R.	
S/L RLY -REQ [Off/On]		Displays the status of the steering lock relay request received from BCM via CAN communication. NOTE: For models without steering lock unit, this item is not monitored.	
S/L STATE [LOCK/UNLOCK/UNKWN]		Displays the status of the steering lock judged by IPDM E/R. NOTE: For models without steering lock unit, this item is not monitored.	
DTRL REQ [Off/On]		NOTE: The item is indicated, but not monitored.	
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.	
HOOD SW [Off/On]		Displays the status of the hood switch judged by IPDM E/R.	
HL WASHER REQ [Off/On]		NOTE: The item is indicated, but not monitored.	
THFT HRN REQ [Off/On]		Displays the status of the theft warning horn request signal received from BCM via CAN communication.	
HORN CHIRP [Off/On]		Displays the status of the horn reminder signal received from BCM via CAN communication.	
CRNRNG LMP REQ [Off/On]		NOTE: The item is indicated, but not monitored.	

ACTIVE TEST

Test item

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

< SYSTEM DESCRIPTION >

[XENON TYPE]

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

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DTC/CIRCUIT DIAGNOSIS

EXTERIOR LAMP FUSE

Diagnosis Procedure

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1. CHECK FUSE

Check that the following fuses are not fusing.

Without daytime running light system

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#54	10 A
Headlamp HI (RH)	IPDM E/R	#55	10 A
Headlamp LO (LH)	IPDM E/R	#56	15 A
Headlamp LO (RH)	IPDM E/R	#57	15 A
Front fog lamp	IPDM E/R	#58	15 A
Parking lamp Front side marker lamp	IPDM E/R	#52	10 A
Tail lamp Rear side marker lamp License plate lamp	IPDM E/R	#53	10 A
Stop lamp	FUSE BLOCK (J/B)	#7	10 A
Back-up lamp	FUSE BLOCK (J/B)	#4	10 A

With daytime running light system

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#54	10 A
Headlamp HI (RH)	IPDM E/R	#55	10 A
Headlamp LO (LH)	IPDM E/R	#56	15 A
Headlamp LO (RH)	IPDM E/R	#57	15 A
Front fog lamp	IPDM E/R	#58	15 A
Tail lampParking lampSide marker lampLicense plate lamp	IPDM E/R	#59	10 A
Stop lamp	FUSE BLOCK (J/B)	#7	10 A
Back-up lamp	FUSE BLOCK (J/B)	#4	10 A

Is the fuse fusing?

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

NO >> The fuse is normal.

[XENON TYPE]

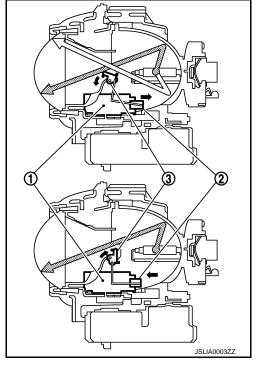
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HEADLAMP (HI) CIRCUIT

Description INFOID:0000000006209421

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 automati-



Component Function Check

1. CHECK HEADLAMP (HI) OPERATION

RIPDM E/R AUTO ACTIVE TEST

- Start IPDM E/R auto active test. Refer to PCS-10, "Diagnosis Description".
- Check that the headlamp switches to the high beam.

(P)CONSULT-III ACTIVE TEST

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

Ηi : Headlamp switches to the high beam.

Off : Headlamp OFF

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

Does the headlamp switch to the high beam?

YES >> Headlamp (HI) circuit is normal.

>> Refer to EXL-37, "Diagnosis Procedure". NO

Diagnosis Procedure

1. CHECK HEADLAMP (HI) OUTPUT VOLTAGE

(P)CONSULT-III ACTIVE TEST

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

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	Terminals			Test item		
	(+)		(-)	rest item	Voltage	
	IPDM E	/R		EXTERNAL	(Approx.)	
Cor	nnector	Terminal		LAMPS		
RH		89	Ground	Hi	Battery voltage	
	E8	8 90		Off	0 V	
LH				Hi	Battery voltage	
				Off	0 V	

Is the measurement value normal?

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

2.CHECK HEADLAMP (HI) OPEN CIRCUIT

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

ront combination lamp	E/R	IPDM E	
onnector Terminal	Terminal	nector	Coni
E28 7	89	E8	RH
E58 7	90	LO	LH

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

3.CHECK HEADLAMP (HI) FUSE

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

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

Is the fuse fusing?

YES >> GO TO 4.

NO >> Replace IPDM E/R.

4. CHECK FRONT COMBINATION LAMP (HI) SHORT CIRCUIT

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

IPDM E/R			Continuity	
Conr	nector	Terminal	Ground	Continuity
RH	E8	89	Giodila	Not existed
LH	LO	90		Not existed

Does continuity exist?

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

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

HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

$5. \mathsf{CHECK}$ HEADLAMP GROUND OPEN CIRCUIT

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

Front combination lamp				Continuity
Conr	nector	Terminal	Ground	Continuity
RH	E28	4	Ground	Existed
LH	E58	4		LXISIEU

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

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[XENON TYPE]

HEADLAMP (LO) CIRCUIT

Description INFOID:0000000006209424

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-42, "Description".

Component Function Check

INFOID:00000000006209425

1. CHECK HEADLAMP (LO) OPERATION

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

Lo : Headlamp ON Off : Headlamp OFF

Is the headlamp turned ON?

YES >> Headlamp (LO) is normal.

NO >> Refer to EXL-40, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000006209426

1.CHECK HEADLAMP (LO) OUTPUT VOLTAGE

(P)CONSULT-III ACTIVE TEST

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

Terminals			Test item		
(+)		(-)	TOST HOTT	Voltage	
	IPDM E	/R		EXTERNAL	(Approx.)
Cor	nector	Terminal		LAMPS	
RH		83	83 Ground	Lo	Battery voltage
	E8	Ε0		Off	0 V
LH	84		Lo	Battery voltage	
				Off	0 V

Is the measurement value normal?

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

$2.\mathsf{CHECK}$ HEADLAMP (LO) OPEN CIRCUIT

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

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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IPDM E/R		Front combination lamp		Continuity	
Conr	nector	Terminal	Connector	Terminal	Continuity
RH	E8	83	E28	5	Existed
LH	LO	84	E58	5	LAISIEU

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

3.CHECK HEADLAMP (LO) FUSE

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

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

Is the fuse fusing?

YES >> GO TO 4.

NO >> Replace IPDM E/R.

4.CHECK HEADLAMP (LO) SHORT CIRCUIT

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

IPDM E/R			Continuity	
Conr	nector	Terminal	Ground	Continuity
RH	E8	83	Ground	Not existed
LH	20	84		INOL EXISTED

Does continuity exist?

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

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

5.CHECK HEADLAMP GROUND OPEN CIRCUIT

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

Front combination lamp				Continuity
Con	nector	Terminal	Ground	Continuity
RH	E28	3	Ground	Existed
LH	E58	3		LXISIEU

Does continuity exist?

YES >> Perform the xenon headlamp diagnosis. Refer to <a>EXL-42, "Description".

NO >> Repair the harnesses or connectors.

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XENON HEADLAMP

Description

OUTLINE

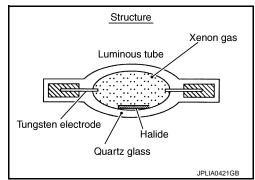
- The lamp light source is by the arch discharge by applying high voltage into the xenon gas-filled bulb instead
 of the halogen bulb filament.
- Sight becomes more natural and brighter because the amount of light are gained adequately and the color of light is sunshine-like white.
- The xenon bulb drops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

ILLUMINATION PRINCIPLE

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

NOTE:

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



PRECAUTIONS FOR TROUBLE DIAGNOSIS

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

WARNING.

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

CAUTION:

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

NOTE:

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

Diagnosis Procedure

INFOID:0000000006209428

1. CHECK XENON BULB

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

Is the headlamp turned ON?

YES >> Replace the xenon bulb.

NO >> GO TO 2.

2.CHECK HID CONTROL UNIT

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

Is the headlamp turned ON?

XENON HEADLAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

YES >> Replace HID control unit.

NO >> GO TO 3.

3.CHECK XENON HEADLAMP HOUSING ASSEMBLY

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

Is the headlamp turned ON?

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

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

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DAYTIME RUNNING LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

DAYTIME RUNNING LIGHT RELAY CIRCUIT

Component Function Check

INFOID:0000000006209429

1. CHECK DAYTIME RUNNING LIGHT OPERATION

RIPDM E/R AUTO ACTIVE TEST

- Activate IPDM E/R auto active test. Refer to PCS-10, "Diagnosis Description".
- 2. Check that the parking lamp and tail lamp are turned ON.

(P)CONSULT-III ACTIVE TEST

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

TAIL : Parking lamp and tail lamp ON
Off : Parking lamp and tail lamp OFF

Are parking lamp and tail lamp turned ON?

YES >> Daytime running light relay circuit is normal. NO >> Refer to EXL-44, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000006209430

1. CHECK DAYTIME RUNNING LIGHT RELAY FUSE

Check that the following fuse is not fusing.

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

Is the fuse fusing?

YES >> Replace the fuse after repairing the applicable circuit.

NO >> GO TO 2.

2.CHECK DAYTIME RUNNING LIGHT RELAY POWER SUPPLY

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

(Voltage			
Daytime runr	ning light relay		(Approx.)	
Connector	Terminal	Ground		
E13	1	Glound	Ratton, voltago	
£13	3		Battery voltage	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harnesses or connectors.

${f 3.}$ CHECK DAYTIME RUNNING LIGHT RELAY

Check the daytime running light relay. Refer to EXL-45, "Component Inspection".

Is the daytime running light relay normal?

YES >> GO TO 4.

NO >> Replace daytime running light relay.

4. CHECK DAYTIME RUNNING LIGHT RELAY CONTROL SIGNAL OUTPUT

®CONSULT-III ACTIVE TEST

- 1. Turn the ignition switch OFF.
- Install the daytime running light relay.

DAYTIME RUNNING LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

	Terminals	Test item		
(+)	(-)	iest iteiii	Voltage
IPDM E/R			EXTERNAL	(Approx.)
Connector	Terminal		LAMPS	
		Ground	TAIL	0 V
E9 105	105		Off	Battery voltage

Is the measurement value normal?

>> Check the parking lamp circuit. Refer to EXL-51, "WITH DAYTIME RUNNING LIGHT SYSTEM: YES Diagnosis Procedure".

Fixed at 0 V >> GO TO 5.

Fixed at battery voltage >> Replace IPDM E/R.

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

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

IPDM E/R		Daytime runr	Continuity	
Connector	Terminal	Connector Terminal		Continuity
E9	105	E13	2	Existed

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

$oldsymbol{\circ}$.CHECK DAYTIME RUNNING LIGHT RELAY CONTROL SIGNAL SHORT CIRCUIT

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

IPDN	Л E/R		Continuity
Connector	Connector Terminal		Continuity
E9	105		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace IPDM E/R.

Component Inspection

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

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

Daytime runi	Condition	Continuity	
Teri	Voltage	Continuity	
5	3	Apply	Existed
	3	Not Apply	Not existed

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INFOID:000000000620943:

DAYTIME RUNNING LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Does continuity exist?

YES >> Daytime running light relay is normal.

NO >> Replace daytime running light relay.

FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP CIRCUIT

Component Function Check

INFOID:0000000006209432

1. CHECK FRONT FOG LAMP OPERATION

PIPDM E/R AUTO ACTIVE TEST

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

PCONSULT-III ACTIVE TEST

- 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.

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

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Is the front fog lamp turned ON?

YES >> Front fog lamp circuit is normal.

>> Refer to EXL-47, "Diagnosis Procedure". NO

Diagnosis Procedure

1. CHECK FRONT FOG LAMP FUSE

INFOID:0000000006209433

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

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

Is the fuse fusing?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK FRONT FOG LAMP SHORT CIRCUIT

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

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

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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.

- 1. Disconnect the front fog lamp connector.
- Turn the ignition switch ON. 2.

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4. CHECK FRONT FOG LAMP OUTPUT VOLTAGE

(P)CONSULT-III ACTIVE TEST

Select "EXTERNAL LAMPS" of IPDM E/R active test item.

FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

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

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK FRONT FOG LAMP OPEN CIRCUIT

- 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	Continuity	
Conr	nector	Terminal	Connector	Terminal	Continuity
RH	E8	86	E20	1	Existed
LH	Lo	87	E19	1	LXISIEU

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				Continuity
Conr	nector	Terminal	Ground	Continuity
RH	E20	2	Giodila	Existed
LH	E19	2		Existed

Does continuity exist?

YES >> Refer to GI-43, "Intermittent Incident".

NO >> Repair the harnesses or connectors.

[XENON TYPE]

PARKING LAMP CIRCUIT

WITHOUT DAYTIME RUNNING LIGHT SYSTEM

WITHOUT DAYTIME RUNNING LIGHT SYSTEM: Component Function Check

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1. CHECK PARKING LAMP OPERATION

PIPDM E/R AUTO ACTIVE TEST

- 1. Activate IPDM E/R auto active test. Refer to EXL-31, "Diagnosis Description".
- Check that the parking lamp is turned ON.

(P)CONSULT-III ACTIVE TEST

- Select "EXTERNAL LAMPS" of IPDM E/R active test item.
- 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?

>> Parking lamp circuit is normal.

NO >> Refer to EXL-49, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure".

WITHOUT DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure

1. CHECK PARKING LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Parking lamp Front side marker 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

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

IPDM E/R				Continuity
Conr	nector	Terminal	Ground	Continuity
RH	E9	91	Glound	Not existed
LH	Ea	92		Not existed

Does continuity exist?

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

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

3.CHECK PARKING LAMP BULB AND FRONT SIDE MARKER LAMP

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 4.

NO >> Replace the bulb.

4. CHECK PARKING LAMP OUTPUT VOLTAGE

PCONSULT-III ACTIVE TEST

Disconnect the front combination lamp connector.

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< DTC/CIRCUIT DIAGNOSIS >

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

	Т	erminals		Test item	
(+)			(-)	rest item	Voltage
IPDM E/R				EXTERNAL	(Approx.)
Cor	nnector	Terminal		LAMPS	
RH		91	Ground	TAIL	Battery voltage
	E9 -			Off	0 V
		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		
Conr	nector	Terminal	Connector	Terminal	Continuity
RH	E9	91	E28	8	Existed
LH	LS	92	E58	8	LAISIEU

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6.CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

Front combination lamp				Continuity
Connector		Terminal	Ground	Continuity
RH	E28	4	Giodila	Existed
LH	E58	4		LAISIEU

Does continuity exist?

YES >> Check corresponding bulb socket and harness. Repair or replace if necessary.

NO >> Repair the harnesses or connectors.

WITH DAYTIME RUNNING LIGHT SYSTEM

1. CHECK PARKING LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST

- Activate IPDM E/R auto active test. Refer to <u>PCS-10, "Diagnosis Description"</u>.
- Check that the parking lamp is turned ON.

(P)CONSULT-III ACTIVE TEST

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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1. Select "EXTERNAL LAMPS" of IPDM E/R active test item.

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-51, "WITH DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure".

WITH DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure

INFOID:0000000006209435

1. CHECK PARKING LAMP BULB AND FRONT SIDE MARKER LAMP

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

2.CHECK PARKING LAMP OPEN CIRCUIT

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

Daytime running light relay		Front combin	Continuity		
Conr	nector	Terminal	Connector Terminal		Continuity
RH	E13	5	E28	8	Existed
LH	EIS	5	E58	8	LAISIEU

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

3.check parking lamp short circuit

Check continuity between the daytime running light relay harness connector and the ground.

Daytime runr	ning light relay		Continuity	
Connector Terminal		Ground	Continuity	
E13	5		Not existed	

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 4.

4. CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

Fro	nt combinat	ion lamp		Continuity	
Conr	nector	Terminal	Ground	Continuity	
RH	E28	4	Ground	Existed	
LH	E58	4		LXISIEU	

Does continuity exist?

Revision: 2011 November

YES >> Check corresponding bulb socket and harness. Repair or replace if necessary.

NO >> Repair the harnesses or connectors.

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL LAMP CIRCUIT

Description INFOID.0000000006209436

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

NOTE:

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

Component Function Check

INFOID:0000000006209437

1. CHECK TURN SIGNAL LAMP

(P)CONSULT-III ACTIVE TEST

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

LH: Turn signal lamp LH blinkingRH: Turn signal lamp RH blinkingOff: The turn signal lamp OFF

Does the turn signal lamp blink?

YES >> Turn signal lamp circuit is normal.
NO >> Refer to <u>EXL-52</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000006209438

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

(P)CONSULT-III ACTIVE TEST

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

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Fron	τ					
Terminals				Test item		
	(+)		(-)	TOST HOTT	Voltage (Approx.)	
	ВСМ			FLASHER	voltage (Approx.)	
Co	nnector	Terminal		FLASHER		
RH		17	Ground	RH	(V) 15 10 5 0 1 s	
	M119		Ground	Off	0 V	
LH	WIII	18	18		(V) 15 10 5 0 1 s	
				Off	0 V	
Rea	r			•		
	Te	rminals				

Terminals				Test item		
	(+)		(-)		Voltage (Approx.)	
	BCM			FLASHER	voltage (Approx.)	
Co	nnector	Terminal		FLASHER		
RH		20	Ground	RH	(V) 15 10 5 0 PKID0926E	
	M120		Cround	Off	0 V	
LH	IVITZU	25		LH	(V) 15 10 5 0 1 s	
				Off	0 V	

Is the measurement value normal?

YES >> GO TO 3.

Revision: 2011 November

NO >> Replace BCM.

3.check turn signal lamp open circuit

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

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TURN SIGNAL LAMP CIRCUIT

SIGNAL LAWII CINCOII

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >
Front combination lamp

	BCM Front combin		ination lamp	Continuity	
Co	nnector	Terminal	Connector	Terminal	Continuity
RH	M11Q	17	E28	6	Existed
LH	M119	18	E58	6	LXISIEU

Rear combination lamp

	BCM Rear combination lamp		ination lamp	Continuity	
Co	nnector	Terminal	Connector Terminal		Continuity
RH	M120	20	B67	3	Existed
LH	WITZO	25	B60	3	LAISIGU

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK TURN SIGNAL LAMP SHORT CIRCUIT

Check continuity between the BCM harness connector and the ground.

Front

	ВСМ			Continuity	
Connector		Terminal	Ground	Continuity	
RH	M119	17	Glound	Not existed	
LH	IVITIS	18		NOT EXISTED	

Rear

	BCM			Continuity	
Connector		Terminal	Ground	Continuity	
RH	M120	20	Giodila	Not existed	
LH	IVITZU	25		Not existed	

Does continuity exist?

YES >> Check each bulb socket for internal short circuit, and if check result is normal, replace BCM.

NO >> GO TO 5.

5. CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

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

Front combination lamp

Front combination lamp				Continuity
Connector		Terminal	Ground	Continuity
RH	E28	4	Glound	Existed
LH	E58	4		LXISIEU

Rear combination lamp

Rear combination lamp				Continuity
Connector Terminal		Ground	Continuity	
RH	B67	4	Glound	Existed
LH	B60	4		LAISIEU

Does continuity exist?

YES >> Check corresponding bulb socket and harness. Repair or replace if necessary.

NO >> Repair the harnesses or connectors.

[XENON TYPE]

INFOID:0000000006209440

INFOID:0000000006209441

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OPTICAL SENSOR

Description INFOID:000000006209439

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

Component Function Check

1. CHECK OPTICAL SENSOR SIGNAL BY CONSULT-III

CONSULT-III DATA MONITOR

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

Monitor item	Con	Voltage (Approx.)	
OPTICAL SEN-	Optical sensor	When illuminat- ing	3.1 V or more *
SOR	Optical scrisor	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-55, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK OPTICAL SENSOR POWER SUPPLY INPUT

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

(-	+)	(-)	Voltage
Optica	l sensor		(Approx.)
Connector	Terminal	Ground	
M94	1		5 V

Is the measurement value normal?

YES >> GO TO 2.

NO >> GO TO 4.

2.CHECK OPTICAL SENSOR GROUND INPUT

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

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

Is the measurement value normal?

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

Revision: 2011 November

EXL-55

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3.check optical sensor signal output

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

	Terminals	Condition		
(-	+)	(-)	Condition	Voltage
Optical sensor			Optical sen-	(Approx.)
Connector	Terminal		sor	
M94	2	Ground	When illumi- nating	3.1 V or more *
WIST	2		When shut- ting off light	0.6 V or less

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

Is the measurement value normal?

YES >> GO TO 7.

NO >> Replace the optical sensor.

4. CHECK OPTICAL SENSOR OPEN CIRCUIT

- 1. Turn the ignition switch OFF.
- 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	Continuity
M94	1	M123	138	Existed

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

5.CHECK OPTICAL SENSOR SHORT CIRCUIT

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

Optica	sensor		Continuity
Connector Terminal		Ground	Continuity
M94	1		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

6.CHECK OPTICAL SENSOR GROUND OPEN CIRCUIT

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

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

Does continuity exist?

YES >> Replace BCM.

NO >> Repair the harnesses or connectors.

.CHECK OPTICAL SENSOR SIGNAL OPEN CIRCUIT

OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

Optical sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M94	2	M123	113	Existed

Does continuity exist?

YES >> GO TO 8.

NO >> Repair the harnesses or connectors.

8.CHECK OPTICAL SENSOR SHORT CIRCUIT

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

Optica	l sensor		Continuity
Connector Terminal		Ground	Continuity
M94	2		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

>> Replace BCM. NO

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EXL-57 Revision: 2011 November 2011 G Sedan

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[XENON TYPE]

HAZARD SWITCH

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

Component Function Check

INFOID:0000000006209443

1. CHECK HAZARD SWITCH SIGNAL BY CONSULT-III

(E)CONSULT-III DATA MONITOR

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

Monitor item	Condition		Monitor status
HAZARD SW	Hazard switch	While pressing the switch	On
TIAZAKO SW	Tiazaiu Switch	While not pressing the switch	Off

Is the item status normal?

YES >> Hazard switch circuit is normal.

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

Diagnosis Procedure

INFOID:0000000006209444

1. CHECK HAZARD SWITCH SIGNAL INPUT

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

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

Is the measurement value normal?

YES >> Replace BCM.

NO >> GO TO 2.

2. CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

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

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Multifunction switch		В	Continuity	
Connector	Terminal	Connector Terminal		Continuity
M72	16	M122	110	Existed

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

3.check hazard switch signal short circuit

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

Multifunction switch			Continuity
Connector	Terminal	Ground	Continuity
M72	16		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 4.

4. CHECK HAZARD SWITCH GROUND OPEN CIRCUIT

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

Multifunction switch			Continuity
Connector Terminal		Ground	Continuity
M72	1		Existed

Does continuity exist?

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

NO >> Repair the harnesses or connectors.

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EXL-59 Revision: 2011 November 2011 G Sedan

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TAIL LAMP CIRCUIT

WITHOUT DAYTIME RUNNING LIGHT SYSTEM

WITHOUT DAYTIME RUNNING LIGHT SYSTEM: Component Function Check

INFOID:0000000006782986

1. CHECK TAIL LAMP OPERATION

RIPDM E/R AUTO ACTIVE TEST

- Activate IPDM E/R auto active test. Refer to <u>EXL-31</u>, "<u>Diagnosis Description</u>".
- 2. Check that the tail lamp is turned ON.

(P)CONSULT-III 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-60, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure".

WITHOUT DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure INFOID.000000006782987

1. CHECK TAIL LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Tail lampRear side marker lampLicense plate lamp	IPDM E/R	#53	10 A

Is the fuse fusing?

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

NO >> GO TO 2.

2 .CHECK TAIL LAMP OUTPUT VOLTAGE

(P)CONSULT-III ACTIVE TEST

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

	Terminals	Test item	Voltage (Approx.)	
(+)		(-)		rest item
IPDM E/R				EXTERNAL
Connector	Terminal		LAMPS	
E5	7	Ground	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

TAIL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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Turn the ignition switch OFF.

Disconnect IPDM E/R connector.

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

IPDM E/R		Rear comb	Continuity		
С	connector	Terminal	Connector	Terminal	Continuity
RH	E5	7	B67	1	Existed
LH	LJ	,	B60	1	LAISIEU

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				Continuity
Connector Terminal		Ground	Continuity	
RH	B67	4	Ground	Existed
LH	B60	4		Existed

Does continuity exist?

YES >> Replace the rear combination lamp.

>> Repair the harnesses or connectors.

WITH DAYTIME RUNNING LIGHT SYSTEM

WITH DAYTIME RUNNING LIGHT SYSTEM: Component Function Check INFOID:000000000209445

1. CHECK TAIL LAMP OPERATION

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

CONSULT-III ACTIVE TEST

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

TAIL : Tail lamp ON Off : Tail lamp OFF

Is the tail lamp turned ON?

YES >> Tail lamp circuit is normal.

>> Refer to EXL-61, "WITH DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure".

WITH DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure

1. CHECK TAIL LAMP OPEN CIRCUIT

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

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INFOID:0000000006209446

< DTC/CIRCUIT DIAGNOSIS >

Daytime running light relay		Rear comb	Continuity		
C	Connector	Terminal	Connector Terminal		Continuity
RH	E13	5	B67	1	Existed
LH	LIS	3	B60	1	LAISIEU

Does continuity exist?

YES >> GO TO 2.

NO >> Repair the harnesses or connectors.

2.CHECK TAIL LAMP GROUND OPEN CIRCUIT

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

	Rear combinat	ion lamp		Continuity
	Connector Terminal		Ground	Continuity
RH	B67	4	Giodila	Existed
LH	B60	4		LAISIEU

Does continuity exist?

YES >> Replace the rear combination lamp.

NO >> Repair the harnesses or connectors.

[XENON TYPE]

LICENSE PLATE LAMP CIRCUIT

WITHOUT DAYTIME RUNNING LIGHT SYSTEM

WITHOUT DAYTIME RUNNING LIGHT SYSTEM: Component Function Check

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NOTE:

Check the tail lamp circuit if the tail lamp, the rear side marker lamp and the license plate lamp are not turned ON

1. CHECK LICENSE PLATE LAMP OPERATION

RIPDM E/R AUTO ACTIVE TEST

- 1. Activate IPDM E/R auto active test. Refer to EXL-31, "Diagnosis Description".
- 2. Check that the license plate lamp is turned ON.

(P)CONSULT-III 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-63, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure".

WITHOUT DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure

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.
- 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			late lamp	Continuity
С	onnector	Terminal	Connector	Terminal	Continuity
RH	E5	7	B93	1	Existed
LH	LJ	,	B92	1	LAISIEU

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				Continuity
Connector Terminal		Ground	Continuity	
RH	B93	2	Ground	Existed
LH	B92	2		LXISIEU

Does continuity exist?

Revision: 2011 November

EXL-63

YES >> Check corresponding bulb socket and harness. Repair or replace if necessary.

NO >> Repair the harnesses or connectors.

WITH DAYTIME RUNNING LIGHT SYSTEM

NOTE:

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

CHECK LICENSE PLATE LAMP OPERATION

PIPDM E/R AUTO ACTIVE TEST

< DTC/CIRCUIT DIAGNOSIS >

- Activate IPDM E/R auto active test. Refer to PCS-10, "Diagnosis Description".
- Check that the license plate lamp is turned ON.

CONSULT-III ACTIVE TEST

- Select "EXTERNAL LAMPS" of IPDM E/R active test item.
- 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?

>> License plate lamp circuit is normal.

NO >> Refer to EXL-64, "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure".

WITH DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure

INFOID:0000000006209448

[XENON TYPE]

1. CHECK LICENSE PLATE LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

2.check license plate lamp open circuit

- Turn the ignition switch OFF.
- Remove the daytime running light relay.
- Disconnect the license plate lamp connector.
- Check continuity between the daytime running light relay harness connector and the license plate lamp harness connector.

Daytime running light relay		License p	late lamp	Continuity	
С	Connector Terminal		Connector	Terminal	Continuity
RH	E13	5	B93	1	Existed
LH	LIS	3	B92	1	LXISIEU

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		Continuity	
Connector		Terminal	Ground	Continuity
RH	B93	2	Giodila	Existed
LH	B92	2		Existed

Does continuity exist?

LICENSE PLATE LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

YES >> Check corresponding bulb socket and harness. Repair or replace if necessary.

NO >> Repair the harnesses or connectors.

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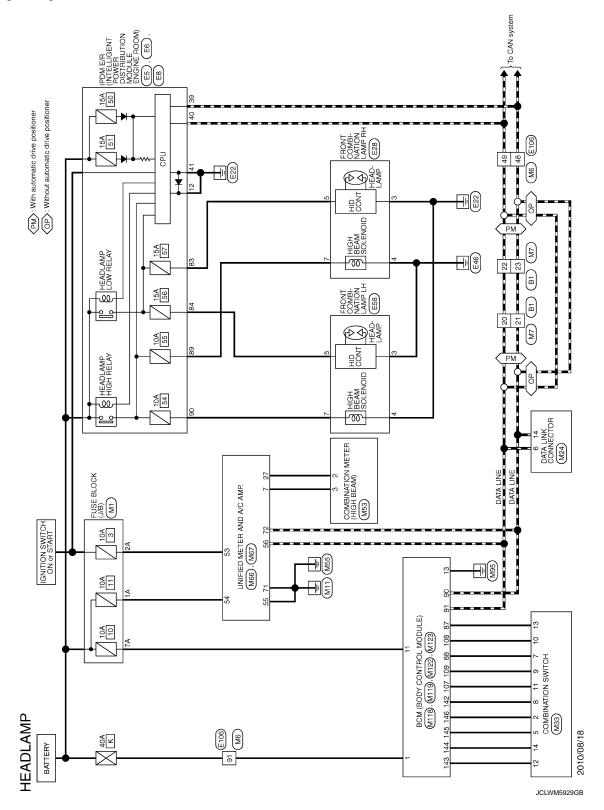
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HEADLAMP SYSTEM

Wiring Diagram - HEADLAMP -



HEADLAMP SYSTEM

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86 W	
16 LG C C C C C C C C C	
56 BR - 58 V - 69 SR - 61 W - 63 L - 64 Y - 65 SHIELD - 71 BG - 72 GR - 84 Y - 88 F - 89 Y - 80 SB - 90 SB - 91 BG - 92 BC - 93 SB - 94 SB - 90 GR - 90 SB - 90 GR - 90 SB - 90 GR - 90 GR - 100 GR - 100 GR -	
HEADLAMP Connector No. Bit Connector No. Bit Connector Name Wife TO WIFE	JCLWM5930GB

Revision: 2011 November EXL-67 2011 G Sedan

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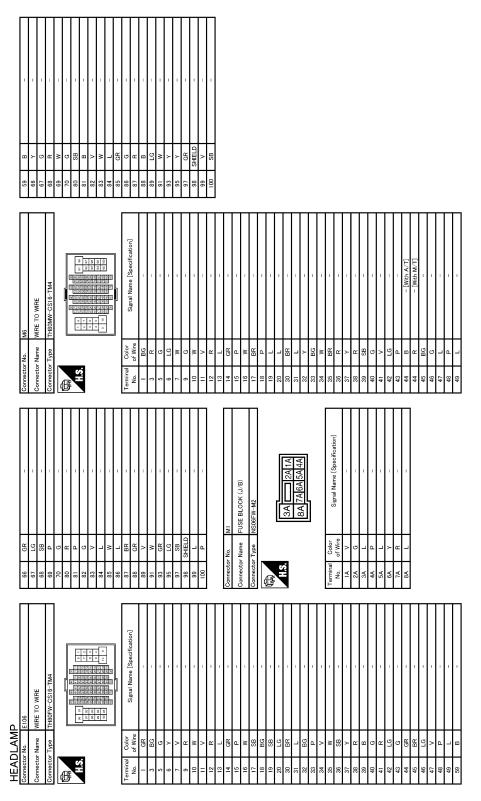
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FAOLAMP FAOL	6 W ALTERNATOR SIGNAL 1 LG AIR BAG AIR B	
WRE TO WIRE	M33 COMBINATION SWITC	
WIRE TO WIRE Section		M24 BD16FW 9 10 1
WRE TO WRE TH80MW-CS16-TM4	 	Total September 173
	TRE TO WIRE HBOMW-CS16-TM4	
Commett Comm	ΞП.П	
	HEAI Connecto Connecto	7 6 min si

EXL-69 2011 G Sedan Revision: 2011 November

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HEADLAMP					
Connector No. M66	^	nal	Signal Name [Specification]	97 L	S/L CONDITION 1
Connector Name UNIFIED METER AND A/C AMP.	>	e	Proposed and the second	+	
╛	G EXHAUST GA	+	INTERIOR ROOM LAMP POWER SUPPLY	+	
Connector I ype TH40FW-NH	× 5	+	PASSENGER DOOR UNLOCK OUTPUT	96 SS,	+
4	SB BALIER	+	SIEP LAMP OUIPUI	+	1
THE STATE OF THE S	n .	> \	ALL DOUR, FUEL LID LUCK OUTPUT	0 9	DRIVER DOOR REGUEST SW
T S	30 CANNET THE CANTON	5 C	PEAD BOOK HUEL LID UNEOCK DUTPUT	102 BG	į
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	2 >	╀	BAT (FISE)	Ŧ	t
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	. g	╀	GND	╀	L
	×	*	PUSH-BUTTON IGNITION SWILL GND	┞	
	61 B AMBIENT SENSOR GROUND	15 BG	ACC IND	W 601	COMBI SW INPUT 2
la l	SB	17 W	TURN SIGNAL RH (FRONT)	110 G	
e e	L ION CONTRC	18 BG	TURN SIGNAL LH (FRONT)	111 Y	S/L UNIT GOMM
4 G STOP LAMP SWITCH SIGNAL	65 BG ECV SIGNAL	> 6L	INT ROOM LAMP CONT		
6 RG PADDI F SHIFTER UP SIGNAL	R FACH DOC				
COMIN	GR	Connector No. M122	2		
Н	72 P CAN-L	9	BCM (BODY CONTROL MODILLE)		
9 SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)		П	(BOD) CON INCL MODOLE)		
м		Connector Type TH4	TH40FB-NH		
+	Connector No. M118	₫			
20 RD COMMUNICATION SIGNAL (LCD=/AMP.)	Connector Name BCM (BODY CONTROL MODULE)	ALT.			
A Y	Connector Type M03FB-I G	E S			
. >	1	91 90 89 88 87	86 85 84 83 82 81 80 79 78 77 76 75 74 73 72		
ŋ	修	111 110 109 108 107	105 105 104 103 102 101 100 199 198 197 196 195 194 193 192		
O P G	H.S.				
30 V DABKING BRAKE SWITCH SIGNAL	1 3	Tarminal			
ŏ - ≻		_	Signal Name [Specification]		
Ь]	72 R	ROOM ANT 2-		
		73 G	ROOM ANT 2+		
ı	la	+	PASSENGER DOOR ANT-		
Connector No. M67	re	7	PASSENGER DOOR ANT+		
Connector Name UNIFIED METER AND A/C AMP.	1 W BAT (F/L) 2 V DOWED WINDOW DOWED SLIED V (DAT)	y	DRIVER DOOR ANT=		
Connector Type TH30EW=NH	3 BC DOWER WINDOW DOWER SLIDDLY (RAD)	+	BOOM ANT 1-		
	3	79 BR	ROOM ANT 1+		
Œ		80 GR	NATS ANT AMP.		
	Connector No. M119	81 W	NATS ANT AMP.		
1	Connector Name BCM (BODY CONTROL MODILLE)	82 SB	IGN RELAY (F/B) CONT		
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 57 57 58 58 57 58 59 59 59	т	+	KEYLESS ENTRY RECEIVER COMM		
20	Connector Type NS16FW-CS	+	COMBI SW INPUT 5		
	4	58 BG	COMBI SW INPUT 3		
Torminal	AHIT	╀	10.55		
	4567 181910	╀	CAN-H		
41 L ACC POWER SUPPLY	12 13 17 15 16 17 18	92 LG	KEY SLOT ILL		
BR	0 0 0	+	ON IND		
43 BR INTAKE SENSOR SIGNAL 44 I.G IN-VEHICI E SENSOR SIGNAL		95 BG	ACC RELAY CONT A/T SHIFT SELECTOR POWER SLIPPLY		
5		5	/ I SHIFT SELECTION FOWER SUFFEE		

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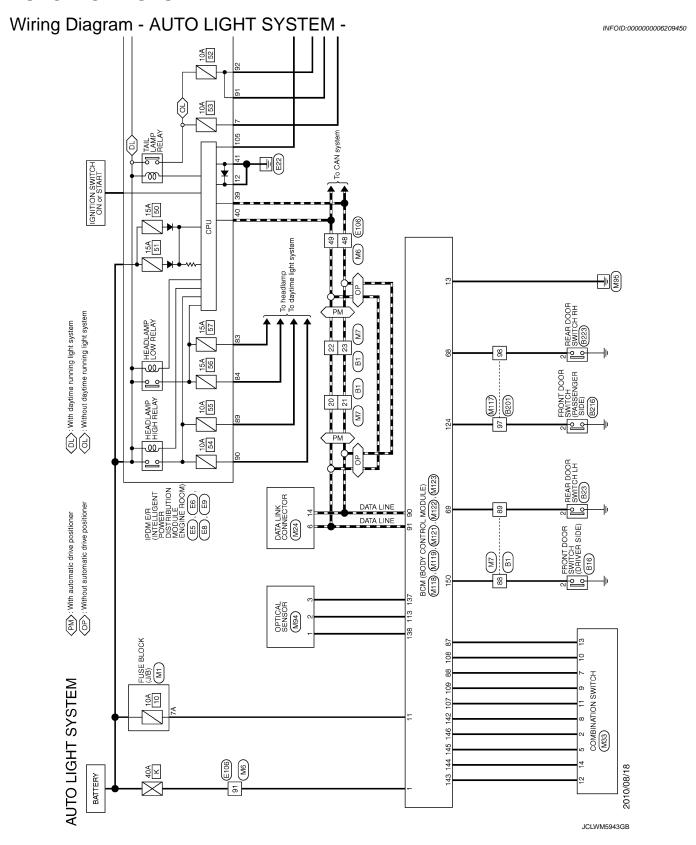
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Revision: 2011 November

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AUTO LIGHT SYSTEM



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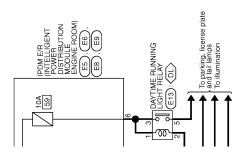
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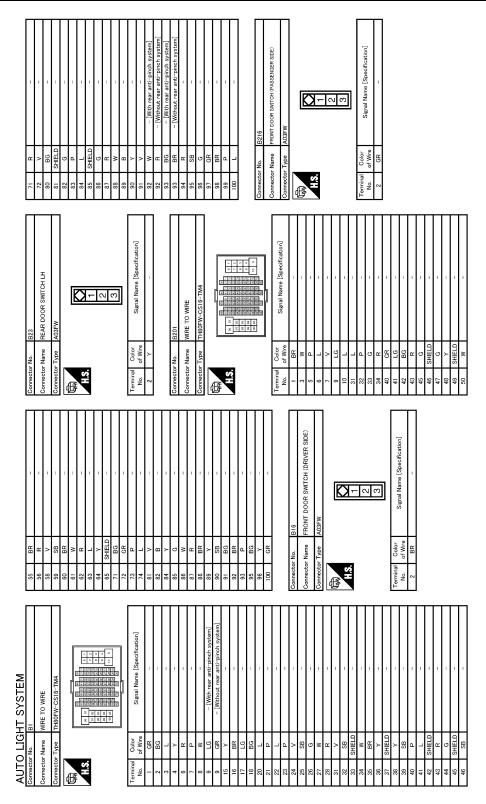
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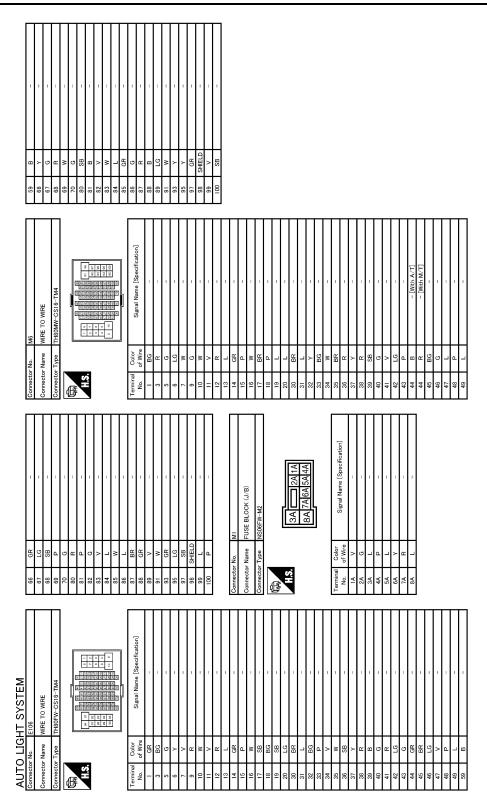
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1 SB	1 2 3 4 5 6 7 8 9 10 11 12 13 14	Color Signal I of Wire GR F	COUPUT 3 B	Connector No. M94 Connector Name OPTICAL SENSOR Connector Type TK03FW M.S.	Color Signal Name [Specification] Of Wire Signal Name [Specification] Y POWER BG OUTPUT B GNID
8 11 SI 11 S	H.S.	Terminal No. 1 2 5	6 0 1 10 10 113 113 114 114 114 114 114 114 114 114	Connector No. Connector Name Connector Type	Terminal No.
				1 1 1 1 1 1	Signal Name [Specification]
SHELD SHIELD SHI	> 0 8 > 3	# 21 88 82 R	R	Connector Name Connector Type H.S.	of Wire LG LG LG V
45 46 55 56 59 60 61 62 63	72 73 74 81	84 85 87 87 88	90 P P 91 B P 92 L 93 P 93 P 94 P 95 P P P 95 P P P 95 P P P P	Connecto	Terminal No. 3 4 4 5 6 6
AUTO LIGHT SYSTEM Connector No. MIT Connector Name THEOMAY-CISIG-TMA THEOMAY-CISIG-TMA THEOMAY-CISIG-TMA THEOMAY-CISIG-TMA THEOMAY-CISIG-TMA THEOMAY-CISIG-TMA THEOMAY-CISIG-TMA THEOMAY-CISIG-TMA THEOMAY-CISIG-TMA	ШШ	P - [Without automatic drive positioner] L			SS
AUTO LIG Connector Nu. Connector Type	9 1 1 1	++++	+++++++++		
Conne	Terminal No. 1 2 3	8 4 0 7 8 8	8 8 9 9 9 9 10 11 12 12 12 12 12 12 12 12 12 12 12 12	33 33 33 33 33 33 33 33 33 33 33 33 33	38 39 44 44 44 44

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EXL-77 2011 G Sedan Revision: 2011 November

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AUTO LIG	AUTO LIGHT SYSTEM		ŀ		[
Connector No.	M117	93 W - [Without rear anti-pinch system]	15 BG	_	<u>'</u>	+		
Connector Name	WIRE TO WIRE	94 Y –	17 W			77 LG	DR	
The second second		95 G –	18 BG	_	15	78 Y	ROOM ANT 1-	
Connector Type	TH80MW-CS16-TM4	- 5 96	۸ 61	INT ROOM LAMP CONT		79 BR	ROOM ANT 1+	
 - -		97 R			<u> </u> "	80 GR	NATS ANT AMP.	
		- BG				W 18	NATS ANT AMP.	
	13 13 13 13 13 13 13 13 13 13 13 13 13 1	H	Connector No.	M121	Ľ	82 SB	IGN RELAY (F/B) CONT	
ė E		- 1 001	-	CHICON COTTION YOUR		H	KEYL	
	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		Connector Name			87 Y	COMBI SW INPUT 5	
	1123		Connector Type	TH40FGY-NH	Ľ	88 BG	COMBI SW INPUT 3	
	20 E	Connector No. M118	١		Ľ	H	PUSH SW	
		O INDEX NO. O O O O O O O O O O O O O O O O O O	E		<u> </u>	90 P	CAN-L	
Terminal Color	Cimel Money Constitution		E		<u>ٿ</u>	91 L	CAN-H	
No. of Wire	oighai Naine Lobechicacon	Connector Type M03FB-LC	2		<u> </u>	92 LG	KEY SLOT ILL	
1 LG		ď	51 50	49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32	٥	93 GR	ON IND	
3 SB	-		71 70	69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52	<u>"</u>	95 BG	ACC RELAY CONT	
5 P	ı				<i>"</i>	96 GR	A/T SHIFT	
6 G	1	7			<u>"</u>	97 L	S/L CONDITION 1	
7 SB	1		nal	or Signal Name [Specification]	<u>"</u>	\dashv	S/L CONDITION 2	
9 FC	ı	7	No. of Wire		<u>"</u>	┨	4	
\dashv	ı]	34 SB		<u>"</u>	99 BR	4	
\dashv	1		_		_	_	PASSENGER DOOR REQUEST SW	
32 LG	-	lal	38 B	REAR BUMPER ANT-	_	101 P	DRIVER DOOR REQUEST SW	
33 SB	1	No. of Wire Signar Name Lopechicator I	39 W	REAR BUMPER ANT+	_	102 BG	BLOWER FAN MOTOR RELAY CONT	
H	1	1 W BAT (F/L)	47 Y	IGN RELAY (IPDM E/R) CONT	Ē	103 P	KEYLESS ENTRY RECEIVER POWER SUPPLY	
40 Y	1	2 Y POWER WINDOW POWER SUPPLY (BAT)	50 BG	TRUNK ROOM LAMP SW	Ē	106 SB	S/L UNIT POWER SUPPLY	
41 G	1	3 BG POWER WINDOW POWER SUPPLY (RAP)	52 R	STARTER RELAY CONT	Ē	107 LG	COMBI SW INPUT 1	
42 LG	1		61 SB	3 TRUNK LID OPENER REQUEST SW	_	108 R	COMBI SW INPUT 4	
43 R	1		64 G	I-KEY WARN BUZZER (ENG ROOM)	_	W 601	COMBI SW INPUT 2	
L	1	Connector No. M119	67 GR	TRUNK LID OPENER SW		110 G	HAZARD SW	
46 SHIELD	1	Г	H	BEAR RH DOOR SW		١١١ ٢	S/L UNIT COMM	
T	1	Connector Name BCM (BODY CONTROL MODULE)	╀]			
+	1	Connector Type NS16FW-CS						
49 SHIELD	1	1						
t	1	46	Connector No.	M122	_			
71 R	1			Г				
H	ı	4567 8910	Connector Name	e BCM (BODY CONTROL MODULE)				
W 08	1	10 10 17 15 15	Connector Type	TH40FB-NH				
81 SHIELD	1	13 14 13 10 17 10	4		1			
82 P	1		修					
83 L	1		Ę					
84 G	1	Terminal Color	2					
85 SHIELD	1	No. of Wire Signal Name [Specification]	91 80	89 88 87 86 85 84 83 82 81 80 79 78 77 76 75 74 73 72				
t	1	4 LG INTERIOR ROOM LAMP POWER SUPPLY	311 111	109 109 107 106 105 104 103 102 101 100 99 98 97 96 95 94 93 92				
ŀ	1	H						
┞	1	SB						
H		ALLDO	Terminal Color		_			
╀	1	. g	_	Signal Name [Specification]				
9۱ ۸	1	۵	t	ROOM ANT 2-	_			
92 BR	- [With rear anti-pinch system]	α.	┞		_			
┝	- [Without rear anti-pinch system]		ľ	PASS	_			
93 ^	- [With rear enti-ninch evetem]	W PISH-BILL	╀		_			
4	[Micrisea and pinci system]		┨		7			

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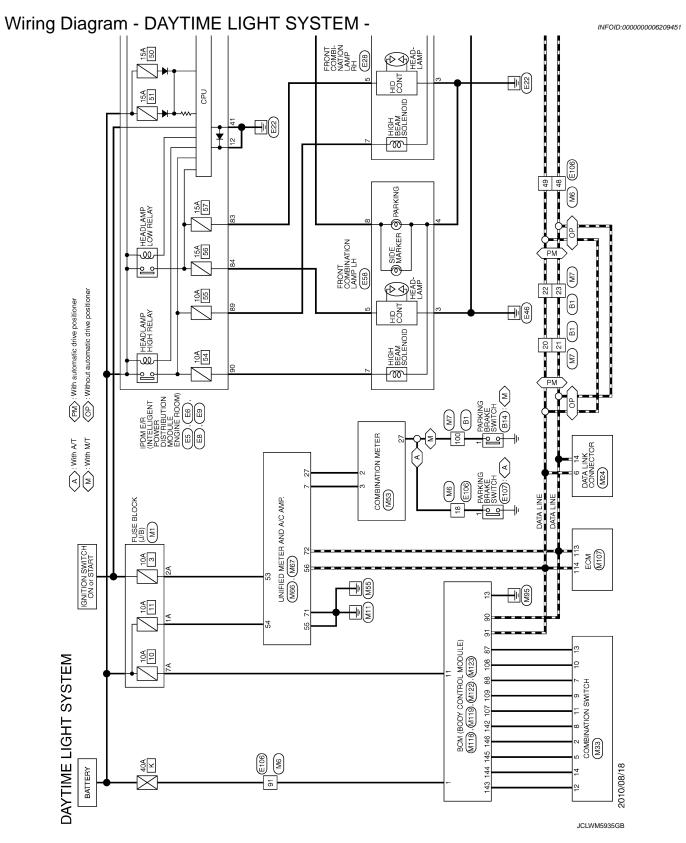
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Page	Terminal	Color	3 3 3
R	No.	of Wire	Signal Name [Specification]
BO OPTIOAL, SENORR	112	œ	SERIAL
R	113	BG	OPTICAL SENSOR
SE	114	~	
BR STOPL LAMP SN 2	116	SB	
SB DR DOOR UNLOCK SENSO	118	BR	STOP LAMP SW 2
NEW SLOT SW V	119	SB	DR DOOR UNLOCK SENSOR
V PASSENGER DOOR SW	121	SB	KEY SLOT SW
R	123	^	IGN F/B
BG TRIMK LID OPPERE CANCEL LG PUSH-BOUTON ISAITION SW LID LG PUSH-BOUTON ISAITION SW LID LG RECEIVER / SENSOR DOWER SI L TIRE PRESSINE RECEIVER OF SENSOR DOWER SI L TIRE PRESSINE RECEIVER OF SENSOR DOWER SI W SECURITY INDICATOR LAW BR COMBIS SW OUTPUT S C C C C C C C C C C C C C C C C C C	124	ď	PASSENGER DOOR SW
V POWER WINDOW SW COMM	129	ÐВ	
L	132	۸	POWER WINDOW SW COMM
9 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9	133	٦	PUSH-BUTTON IGNITION SWILL POWER
SB > 1 B × B × C O D SB × C O O SB × C O O O O O O O O O O O O O O O O O O	134	57	LOCK IND
>	137	BG	
	138	^	RECEIVER / SENSOR POWER SUPPLY
88 SB C C D B SB ≪ B	139	٦	TIRE PRESSURE RECEIVER COMM
× 88 89 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	140	8	SHIFT N/P
88 S C C P BR	141	W	SECURITY INDICATOR LAMP
GR SB C	142	BR	
G SB SB	143	Д	COMBI SW OUTPUT 1
J SB SB	144	9	COMBI SW OUTPUT 2
S S S	145	7	
g 0	146	SB	
5	150	ЫD	DRIVER DOOR SW
	151	5	REAR WINDOW DEFOGGER RELAY CONT

DAYTIME RUNNING LIGHT SYSTEM



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B64 REAR COMBINATION LAMP RH (B67) SIDE TAIL WARKER REAR COMBINATION LAMP LH (B60) 40<u>†</u> CPU SIDE PARKING JCLWM5936GB

BR R R R R R R R R R R R R R R R R R R		With ELV WHEE 58
[입장 리니> 미> [의 조막점 > 명입점 점 다입 > 1명 1월 1월 1일 1일 1일 1일 1일 1일		71 72 74 74 75 74 74 74 74 74

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DAYTIME RUNNING LIGHT SYSTEM

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Connector No. E28 Connector No. Color RISOFE -PR Connector Name RISOFE -PR Connector Name Specification Color Connector Name Specification Connector Name RRONT COMBINATION LAMP LH Connector No. Color RISOFE -PR Connector No. Color	A B C
Connector No. E9 Connector No. E9 Connector Name E9 E9 E9 E9 E9 E9 E9 E	E F G
Connector No. Es Connector No. Es Connector No. Es Connector Type THOSPW-NH	H J K
Connector Name Color Signal Name Specification Color Connector Name Color Connector Name Color Connector Name Color Co	M N
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Revision: 2011 November EXL-83 2011 G Sedan

Control Direct	Connector No. E106		99	GR	1	Connector No.	r No. MI		18	Ь	-	_
Thirty of the control of the contr			67	97	1		١.	(0) (0) (0)	19	_	1	_
The Part of State Half The Part of State H			89	SB	1	Connector		USE BLOCK (J/B)	20	٦	1	
Signature Secretarion Signature Secr		-TM4	69	Ь	-	Connector		S06FW-M2	30	BR	-	
Signature Secretication Signature Secretication Signature Secretication Signature Secretication Signature Signature Secretication Signature			02	9	1	q			31	-	ĬÎ.	_
Signate Name Specification Colored Fig. Color	100		8	۳	1	手			32	>		_
Signat Name (Secretariotics) 2	8	11111	5 S	٥	1	E S		34	8 3	BG ::		_
Spent Note (Secrification) Color	20 00 00	1212	8 88	5 >				SA IA	45 46	≥ 8		_
Signal Name (Specification) Sign	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0	3 3	.[.				8A 7A 6A 5A 4A	3	á		Т
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Signal Name (Specification) 10			8 5	8		Tominual	, olo		8 8	2		_
10 10 10 10 10 10 10 10		Name [Specification]	ò	á			of Wire	Signal Name [Specification]	9 8	3 (_
10 10 10 10 10 10 10 10		1	8 8	<u></u>		t	>		₹ 4	>	1	_
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10 10 10 10 10 10 10 10		1	83	: 8	1	¥,	,	1	43	1	1	_
10 Signature		1	95	5		44	۵		44	œ	- [With A/T]	г
Signature Sign			97	SS		5A	-		44	œ	- [With M/T]	Т
100 P P P P P P P P P	~		86	SHELD		Ψ9	>		45	BG		Т
Connector No. E. 107 Connector No. E.	M	1	66	-		7.4	œ	1	46	c	1	_
Connector No. Connector No		1	90	۵		8A	_	1	47	-	1	Т
Connector Name E107 Connector Name E107 Connector Name E107 Connector Name Co		1							48	۵	1	Т
Connector Name Conn		1							49	_	1	Г
Connector Name PARIMIG BPARE SWITCH Connector Type TBOI FW		1	Connec	Г	E107	Connector		9	59	œ	1	Т
Connector Name Prevalue Brouke Swit Cat		1	c	Π	TOTAL DESCRIPTION OF THE PERSON OF THE PERSO			LORN CE LO	99	>	1	_
Connector Type TB0 FW		ı	Connec	tor Name	PARKING BRAKE SWILCH	Connector		IRE TO WIRE	67	g	1	_
Terminal Color Family Color		-	Connec	tor Type	TB01FW	Connector	П	180MW-CS16-TM4	68	ч	-	_
Harding Color Co			þ			4			69	W	_	
High color		1	F			厚			70	g	1	
Terminal Calor		1	Ĕ	,	(\ \ \			80	SB	1	_
Terminal Color No. of Wire Signal Name (Specification) Prof. Wire Prof. Wir		1		9	(11 22 23 23 23 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	81	В	ı	
Terminal Color No. of Wire Signal Name (Specification) No. of Wire No. of Wire Signal Name (Specification) No. of Wire								12 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2	82	>	1	_
Terminal Color Signal Name [Specification] Forminal Color No. of Wire Signal Name [Specification] No. of Wire No. of W		-]			102 33 51 51 51 51 51 51 51 51 51 51 51 51 51	83	W	-	
Terminal Color No. of Wire Signal Name [Specification] No. of Wire Signal Name [Specification] No. of Wire Of Wi		-							84	7		_
Color Signal Name [Specification] Color No. of Wire		1					4		82	GR		
Off Wine		1	Termin		[N O	Terminal	Color	[minimum of minimum o	86	5		
1 BG		1	No.	of Wire	orginal Marine Lopecinication	Š	of Wire	Oignal Marile [Opecinication]	87	4	ı	
C		1	-	BG	-	-	BG	1	88	В	ì	
C		1				3	ď	1	88	57 F0	1	_
Color Colo		1				9	5	1	91	*	1	_
W 95 X 97 97		1				9	ΓC	1	83	>	1	_
10 W		1				7	×	1	92	>	п	_
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DAYTIME RUNNING LIGHT SYSTEM

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	YTIME	DAYTIME LIGHT SYSTEM			-			-	[}		г
Con	Connector No.	M7	42	SHELD	gn.	1	ω ;	- 5	T	м ⁽ .	ALTERNATOR SIGNAL	_
Conr	Connector Name	WIRE TO WIRE	4 5 7	" ≥	n .	T	- 4	1 1 2	Τ	, LD	SECLIBITY SIGNAL	_
Conn	Connector Type	TH80MW-CS16-TM4	26	B :		1	╁	- 2	Τ	: @	GROUND	_
<u> </u>			28	۸		1				BR	METER CONTROL SWITCH GROUND	
医	_	S S S S S S S S S S	20	<u>~ </u>		1	2	Γ	ſ	+	ILL GND	_
7	ςį Έ		8 5	> 3			Connector INC	T	Τ	n a	ILL GND	_
	l	5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	62	2		1	Connector Name	me COMBINATION SWITCH		╀	IGNITION SIGNAL	_
		40 00 00 00 00 00 00 00 00 00 00 00 00 0	63	g		1	Connector Ty	ype TH16FW-NH		В	GROUND	
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	64		6	1	4			BR	COMMUNICATION SIGNAL (LCD->AMP.)	
Į.	-		92	SHELD	a		THE THE			> 0	COMMUNICATION SIGNAL (AMP.=>LCD)	_
No.	o. of Wire	or Signal Name [Specification]	- 62	> <u>a</u>		T	H.S.	/ / \ 		+	PARKING BRAKE SWITCH SIGNAL	_
Ľ	t		73	SB				123 456		. gs	BRAKE FLUID LEVEL SWITCH	_
	2 P	-	74	>		-		9 10 11 12		۵	SEAT BELT BUCKLE SW SIGNAL (DRIVER SIDE	I o
Ľ	3 SB	- [With automatic drive positioner]	81	>		1		21 -1 21 2		G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE	l o
3	В	- [Without automatic drive positioner]	82	BR		_				31 L WA	WASHER LEVEL SWITCH SIGNAL	
4	>	1	84	LG	(T		lal	Color Signal Name [Specification]		œ	JMINATION CONTROL SIGNAL	_
9	+	1	82	BG		1	No.	e.		LG	SELECT SWITCH SIGNAL	_
	+		98	g		1	-		T	>	ENTER SWITCH SIGNAL	_
εω	+	4	87	9			+	SB OUTPUT 4	T	Т	P A/B RESET SWITCH SIGNAL	_
Ф	+	'	88	æ			2	L OUTPUT 3		۵	ILLUMINATION CONTROL SWITCH SIGNAL (-	्रा
6	4	4	88	1		1	9			40 BG ILLUMIN	ATION CONTROL SWITCH SIGNAL (+	ন
~′	<u>ໆ</u>	[Without rear anti-pinch system]	90	۵.		1	7	BG INPUT 3				
-	\dashv	1	91	BG	(1)	1	8					
_	16 BR	1	95	٦ _		_	6	W INPUT 2				
	7 P	-	93	Ь		1	10					
	/ 81	1	92	BG	CT.	1	11	LG INPUT 1				
2	20 L	-	96	>		_	12	P OUTPUT 1				
21	1 P	1	100	Ь		1	13					
2	22 L	1					14	G OUTPUT 2	1			
2	+	1										
2	+	1	Connector No.	tor No.	M24			-	ſ			
2	+	1	Connec	Connector Name	DATA LINK CONNECTOR	CTOR	Connector No.	r. M53	1			
2	26 BR	1			П		Connector Name	COMBINATION METER				
2	+	-	Connec	Connector Type	BD16FW-P							
2	+	1	þ				Connector Type	pe SAB40FW				
31	1	1	事	Ľ			ą					
32	2 LG	1	Ü	,			手					
్	7	- 0		1	/ 9 10 11 12 13	14 15 16	Š					
"	34 GR				10915	8 2 8	_	018171818141616111010181818181818181818181818181818	[00			
9	8 BR	-		_	+ 0 7		IN	21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	19			
က	36	1		_			IJ		1			
"	Ś			L								
9	38 SB		Terminal	al Color		Signal Name [Specification]	L	-	[
."	7	-	o N	ě			a L	Color Signal Name [Specification]				
40	+	'	es	2		1	No.	of Wire	T			
14	7		4	۱		1	+	+				
4	ار	-	c ·	4		1	2	LG COMMUNICATION SIGNAL (METER=>AMP.	AMP.)			
4	43 R	1	9	_		1	┥	┪	ETER)			
4	\dashv	1	7	^		1	9	B GROUND				
JC												
CLV												
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DAYTI	DAYTIME LIGHT SYSTEM	STEM								
Connector No.	No. M66		45	>	AMBIENT SENSOR SIGNAL	117	>	KLINE	+	PUSH-BUTTON IGNITION SW ILL GND
Connector Name	Name UNIFIED METER AND A/C AMP	ND A/C AMP.	46	T	SUNLOAD SENSOR SIGNAL	121	FG	CDCV	7	ACC IND
- Actoring	Т		47	T	EXHAUST GAS / OUTSIDE ODOR DETECTING SENSOR SIGNAL	122	ء ا	BRAKE	× 5	TURN SIGNAL RH (FRONT)
Connector	٦.		25	× 0	DATTED DOWER SUPPLY	123	ם מ	GNO	81 PG	INT BOOM LAMB CONT
Œ			22	3	GROUND	125		VBR	2	
\ \tag{2}			56	-	CAN-H	126	BB	BNC SW		
2			57	57	BRAKE FLUID LEVEL SWITCH	127	ш	GND		
. 16	3 4 5 6 7 8	14 15 16 17 18 19	58	>	FUEL LEVEL SENSOR GROUND	128	В	GND		
ᆁ	21 22 23 24 29 20 21 28 28 30 31	1 32 33 34 35 36 37 36 38 40	+	æ :	INTAKE SENSOR GROUND					
			09	s a	AMBIENT SENSOR GROUND	N actornoo	No.	0,111		
Terminal	Color		+	o 8%	SLINI OAD SENSOR GROUND		0 100	0		
		Signal Name [Specification]	╁	╁	ION CONTROL MODE OUTPUT SIGNAL	Connect	Connector Name	BCM (BODY CONTROL MODULE)		
4	G STOP LAN	STOP LAMP SWITCH SIGNAL	65	BG	ECV SIGNAL	Connect	Connector Type	M03FB-LC		
2	Ц	MANUAL MODE SHIFT UP SIGNAL	69	۵	A/C LAN SIGNAL	þ				
9	┪	PADDLE SHIFTER UP SIGNAL	1	4	EACH DOOR MOTOR POWER SUPPLY	厚				
7	GR COMMUNICATION	COMMUNICATION SIGNAL (AMP>METER)	\dashv	GR	GROUND					
89	┪	VEHICLE SPEED SIGNAL (2-PULSE)	72	а	CAN-L		•	13		
6 (SB SEAT BELT BUCKLE	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)								
2 :	1	MANUAL MODE SIGNAL	Connector No	M107				7		
41	+	COMMINICATION SIGNAL (LCD->AMP)		Т						
50	╀	ION ON / OFF SIGNAL	Connector Name	ame ECM	Σ	Termina	Color			
23	L	AT SNOW SWITCH SIGNAL	Connector Type	Т	RH24FGY-RZ8-R-LH-Z	ò	_	Signal Name [Specification]		
25	V MANUAL MOD.	MANUAL MODE SHIFT DOWN SIGNAL	ľ	1		-	м	BAT (F/L)		
56	G PADDLE SHI	PADDLE SHIFTER DOWN SIGNAL	F	Ų		2	⋆	POWER WINDOW POWER SUPPLY (BAT)		
27	H	COMMUNICATION SIGNAL (METER->AMP.)	<u>ا</u>	Ξ	128 124 1201116111211081104100	8	BG	POWER WINDOW POWER SUPPLY (RAP)		
28	+	VEHICLE SPEED SIGNAL (8-PULSE)		_	123 119 115 111					
30	\dagger	PARKING BRAKE SWITCH SIGNAL			126 122 118 114 110 106 102 98					
38 34	P COMMUNICATION P BLOWER MOT	COMMUNICATION SIGNAL (AMP>LCD) BLOWER MOTOR CONTROL SIGNAL		∄	125 121 117 113 109 105 101 97	Connector No.	or No.	M119		
	ł			וע		Connect	Connector Name	BCM (BODY CONTROL MODULE)		
			nal	Color	Signal Name [Specification]	Connect	Connector Type	NS16FW-CS		
Connector No.	No. M67		7	of Wire	From the state of	1				
Connector Name	Name UNIFIED METER AND A/C AMP	AND A/C AMP.	97	× (APS I	事				
- 1000	Т		86	1 -	APS 2	H.S.	٢			
Connector Type	I MSZFW-NH		ß 2	J 3	AVCC-APS I		_) / o c		
1			╀	- 8%	ASCIDSW			11 12 13 14 15 16 17 18 19		
2			┞	9	FTPRS		J			
2			103	GR	AVCC-APS 2					
	44 45 46 47 48	51	104	>	GND-APS 2	Terminal	⊢	Cirmal Mama [Concification]		
_	57 58 59 60 61 62 63 64 65	5 66 67 68 69 70 71 72	105	_	PDPRESS	No.	of Wire	Ogran value Lopechicado		
			┥	*	TF	4	ΓG	INTERIOR ROOM LAMP POWER SUPPLY		
			+	GR	AVCC-FTPRS	2	۵	PASSENGER DOOR UNLOCK OUTPUT		
Terminal	Color Signal Na	Signal Name [Specification]	80 5	> c	GNDA ASCD	~ o	8 >	STEP LAMP OUTPUT		
t		ACC BOWED SLIBBLY	3 5	, .	TACHO C	a	٠ (DRIVER DOOD FILE IN INN OCK OLITRIT		
42	RR FIELLEVE	FIEL LEVEL SENSOR SIGNAL	112	<u> </u>	ND-A	ç	, a	REAR DOOR LINE OCK OUTPUT		
43	ļ	INTAKE SENSOR SIGNAL	113		VEHCAN-I 1	=	. a	BAT (FISE)		
44	L	IN-VEHICLE SENSOR SIGNAL	411		VEHCAN-H 1	13	: m	GND		

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DAYTIME LIGHT SYSTEM

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	Connector No.	r No.	M123
	Connector Name	r Name	BCM (BODY CONTROL MODULE)
	Connector Type	r Type	TH40FG-NH
	图		
74 73 72 94 93 92		151 150 129 1	151 (50) (20) (20) (20) (20) (20) (20) (20) (2
-	Terminal No.	Color of Wire	Signal Name [Specification]
	112	œ	RAIN SENSOR SERIAL LINK
	113	BG	OPTICAL SENSOR
-	114	۳	CLUTCH INTERLOCK SW
+	116	SB	STOP LAMP SW 1
	118	BR	STOP LAMP SW 2
	119	SB	DR DOOR UNLOCK SENSOR
	121	SB	KEY SLOT SW
	123	۸	IGN F/B
	124	ч	PASSENGER DOOR SW
	129	BG	TRUNK LID OPENER CANCEL SW
	132	^	POWER WINDOW SW COMM
MMOC	133	٦	PUSH-BUTTON IGNITION SW ILL POWER
	134	57	TOCK IND
	137	BG	RECEIVER / SENSOR GND
	138	۸	RECEIVER / SENSOR POWER SUPPLY
	139	٦	TIRE PRESSURE RECEIVER COMM
	140	В	SHIFT N/P
	171	W	CECTIDITY MIDICATOR AMB

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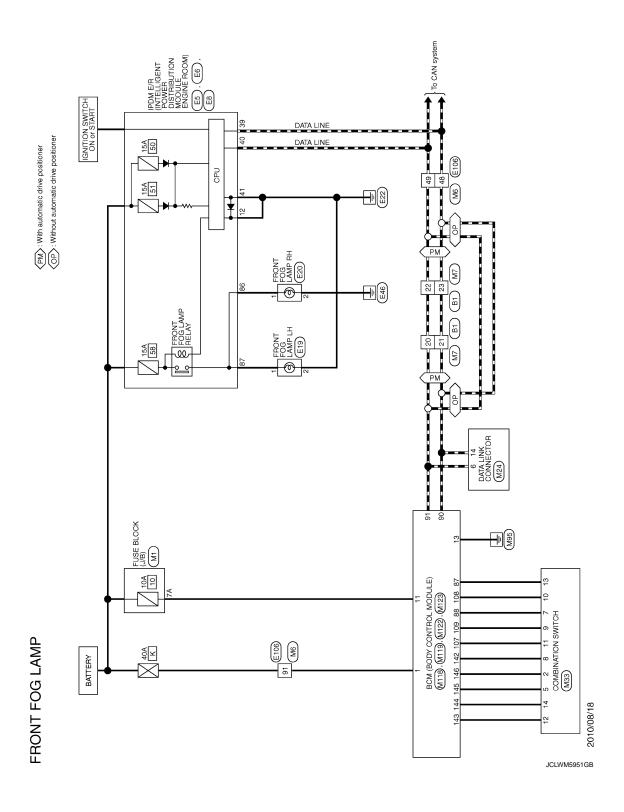
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Revision: 2011 November EXL-87 2011 G Sedan

FRONT FOG LAMP SYSTEM

Wiring Diagram - FRONT FOG LAMP -

INFOID:0000000006209452



FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

prigon	А
E19 FRONT FOG LAMP LH FH202FB Signal Name [Specification] Signal Name [Specification] Signal Name [Specification]	В
E20 HHZ02FB	С
86 W 87 L 88 G 89 G 8	D
morrow woova.	Е
E6 10-2	F
	G
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CSIZ-MA-IV CSIZ-MATING GENERATES ST SS	I
H20FW H20FW 10 2 2 2 2 2 2 2 2 2	J
N	K
255 266 267 267 267 267 273 274 287 287 287 287 288 287 288 287 288 288	EVI
Wife -OS16-TM4 -OS16-TM4 Signal Name [Specification] Signal Name [Specification]	M
WIRE TO WIRE THEODY-CSIG-TM4 THEODY-CSIG-TM4 Signal Nam Signal	N
Connector Name WIRE TO WIRE	0
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FRON	FRONT FOG LAMP									
Connector	4o. E106	99	GR	1	Connector No.	M6	29	В	-	
Connector N	Connector Name WIRE TO WIRE	67	9 8		Connector Name	ne WIRE TO WIRE	99	≻ ¢		
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		88	GR	-	No. of V		87	Н	1	
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2	J .	93	g :	'	+		16	+		
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13					L	-	<u> </u>			
14	GR –	Connector No.	tor No.	M1	Н	GR -				
15		Connect	Connector Name	FLISE BLOCK (L/B)		Р –				
16		50	CO Maille	OSE BECOM (9/B)	16 V					
17	- SB	Connec:	Connector Type	NS06FW-M2	\dashv	BR -				
18	BG -	ą			+	п п				
19	- SB	唐			\dashv	T				
20	- FG	S :			+					
90	BR -		1	3A 3A 3A 1A	+	~				
31	_			8A 7A 6A 5A 4A	+					
32	- BG				32) d				
34 8	- >				╁					
35	- M	Terminal	_		╁	BR -				
36	SB -	No.	of Wire	Signal Name [Specification]	Н					
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39	- 8	3A	_	-	+					
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44	GR	8 8	_	1	+	'	_			
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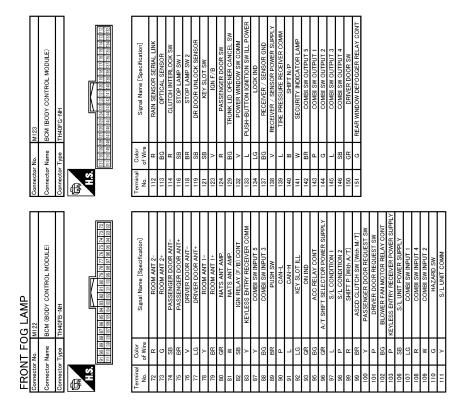
FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

E) Iden Id	А
BCM (BODY CONTROL MODULE) NS 16FW-CS 11 12 13 14 15 16 17 18 19 Signal Name (Specification) NITERIOR BOOM LAWE POWER SUPPLY ALL DOOR, FUEL LID LOOK OUTPUT REAR DOOR PULL COK OUTPUT REAR DOOR PULL COK OUTPUT TURN SIGNAL RH (FRONT) TURN SIGNAL LH (FRONT) NITROOM LAMP CONT	В
Name BCM (BODY	С
Connector Name Connector Name Connector Name Connector Type Conn	D
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	F
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I 12 [13 [4 [5] [6] 18 19 19 19 19 19 19 19	I
MA2 MA2 DATA LINK CONNECTOR BD16FW-P 1 2 3 4 5 6 7 8 Signal Name [Specificati	J
	K
45 SH 46 SH	
Signal Name (Specification) Signal Name (Specification) Signal Name (Specification) Without rear anti-pinch system) - (With near anti-pinch system) - (With rear anti-pinch system) - (With rear anti-pinch system) - (Without rear anti-pinch system)	EXL M
	N
Connector Name Miles	0
ACTAM92	
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Revision: 2011 November EXL-91 2011 G Sedan



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[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

Wiring Diagram - TURN AND HAZARD WARNING LAMPS -

Α INFOID:0000000006209453 В MULTIFUNCTION SWITCH (HAZARD SWITCH) C D W855 Е F Н J Κ

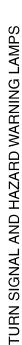
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REAR COMBINATION LAMP RH (TURN SIGNAL) (B67) DATA LINK CONNECTOR (M24) REAR COMBINATION LAMP LH (TURN SIGNAL) FUSE BLOCK (J/B) M1 B IGNITION SWITCH ON or START FRONT COMBINATION LAMP RH (TURN SIGNAL) UNIFIED METER AND A/C AMP. (M66), (M67) BCM (BODY CONTROL MODULE) (M118) , (M119) , (M129) , (M123) COMBINATION METER (TURN, BUZZER) (M53) 10A ₹ 10 FRONT COMBINATION LAMP LH (TURN SIGNAL) (E58) ₽ 10 4 Ş Ş V BATTERY COMBINATION SWITCH 2010/08/18 JCLWM5956GB

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

ation) Systemi systemi coo coo coo coo coo coo coo coo coo co	Connector Name Bit Connector Name Connector Name	D WARNING LAMPS Commercial Model BR7.7 Commercial Model E58	Connector Name	SB - Connector Type NSQ4PW-CS - FR - Connector Type NSQ4PW-CS	Н		SHIFT - 1 2 3 4 5 6 7		72 GR -	73 P - Terminal Golor Sieral Name (Seecification) Tr	74 L - 07 Wire No. of Wire	A A B A B A B A B A B A B A B A B A B A				R		٨ 68	30 88 06 F	BR I	┝	BG		۱ د	/ 0	Connector No. B60	Terminal	No. of Wire	CONNECCOT 1996 NSG4FW-US		9		8 6 -		Terminal Color Comment Comment	of Wire		2 LG -	3 88 -	4 B		
	Wife To Wife THEOFW-CSIG-TM4 THEOFW-CSIG-TM4 THEOFW-CSIG-TM4 Signal Name (Specification) - [Without rear anti-pinch system]	LAMPS	₩	Н	Н	Н	T	Т	Н	Н	+	╀	╀	╀	H	Н	\dashv	+	+	+	┝	Н	Н	4		onnector No.	onnector Name	ŀ	onnector Type	13	<u>د</u>	2					->	\dashv	\dashv	4 B		

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

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Vegicon J	Е
WIRE TO WIRE THEOMW-CSI 6-TM4 THEOMY-CSI 6-TM4	F
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Connector No. Connector No. Connector No. Connector Type Connect	Н
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WIRE TO WIRE THOUGH-CS16-TMA Signal Nom	N
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EXL-95 Revision: 2011 November 2011 G Sedan

[XENON TYPE]

TUR	V SIGN	TURN SIGNAL AND HAZARD WARNING LAMPS	NGL	AMPS							
Connector	r No.	M7		45 SHIELD	CTD	8	- 5		9	W	ALTERNATOR SIGNAL
Connector Name		WIRE TO WIRE		+	SB -	_	- as		7	ΓC	AIR BAG SIGNAL
	╛			\dashv	M	14			10	м	SECURITY SIGNAL
Connector Type		TH80MW-CS16-TM4		-	B	16			15	В	GROUND
Q				_					16	BR	METER CONTROL SWITCH GROUND
唐				26	1		ſ		82	æ	ILL GND
) He		9 10 10 10 10 10 10 10 10 10 10 10 10 10		, 09	-	Connector No.	M33		19	В	ILL GND
		95		\dashv	M	Connector Name	COMBINATION SWITCH		20	œ	ILL
		88 22 23 23 23 23 23 23 23 23 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25		\dashv			П		21	ŋ	IGNITION SIGNAL
		6 10 10 10 10 10 10 10 10 10 10 10 10 10		\dashv	- 5	Connector Type	be TH16FW-NH		22	В	GROUND
				64 E	- В	á			24	ä	COMMUNICATION SIGNAL (LCD->AMP.)
				65 SHIELD	ELD -	厚			22	>	COMMUNICATION SIGNAL (AMP>LCD)
Terminal	Color	Simal Name [Seedification]		1.	/	Į.	7		26	ж	VEHICLE SPEED SIGNAL (8-PULSE)
No.	of Wire	oignal Marine Lopechication		72 F		2			27	Ь	PARKING BRAKE SWITCH SIGNAL
-	GR	1		73 SI	SB -		1 2 3 4 5 6		28	SB	BRAKE FLUID LEVEL SWITCH
2	d			74 V			7 8 9 10 11 12 13 14		59	Ь	SEAT BELT BUCKLE SW SIGNAL (DRIVER SIDE)
3	SB	- [With automatic drive positioner]		81 W					30	9	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
ဗ	۵	- [Without automatic drive positioner]	Ĺ	82 Bi	BR -				31	_	WASHER LEVEL SWITCH SIGNAL
4	۶	1	Ĺ	84 L(Terminal	Color		33	œ	ILLUMINATION CONTROL SIGNAL
9	_	1	Ĺ	H	Bg	No. of	of Wire Signal Name Lopecincation		36	PC	SELECT SWITCH SIGNAL
7	М	1	Ĺ	86 SI	SB	-	GR FR WASHER (-)		37	Υ	ENTER SWITCH SIGNAL
8	9	- [With rear anti-pinch system]		87 G	- 9	2	SB OUTPUT 4		38	9	TRIP A/B RESET SWITCH SIGNAL
8	Å	- [Without rear anti-pinch system]	L	15 88	GR -	2	L 0UTPUT 3		39	Р	ILLUMINATION CONTROL SWITCH SIGNAL (-)
6	Α	- [With rear anti-pinch system]	Ĺ	H	1	9	GND		40	Г	ILLUMINATION CONTROL SWITCH SIGNAL (+)
6	5	- [Without rear anti-pinch system]	<u> </u>	90 P		7	BG INPUT 3				
15	œ	1	Ľ	H	BG -	88	BR OUTPUT 5				
16	BR	ı	Ĺ	92 L	1	6	W INPUT 2				
17	۵	1	Ĺ	L		10	R INPUT 4				
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20	٦	1	Ĺ	λ 96		12	P OUTPUT 1				
21	Ь	1	Ľ	100		13	Y INPUT 5				
22	٦	1				14	G OUTPUT 2				
23	Ь	1									
24	>	1	So	Connector No.	M24						
25	ΡΠ	-	[.	N de conce	DATA LINIK CONNECTOR	Connector No.	M53				
56	BR	-	5	ingono ingi		Connector Name	COMBINATION METER				
27	BG	-	Cor	Connector Type	e BD16FW-P	DOLLING OF THE					
28	FG	-	[4			Connector Type	e SAB40FW				
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42	CHIE	1	L		1		COMMINICATION SIGNAL (METER-) AMP	S->AMD)			
43	1 0		L	+		╁	t	METER)			
44	ے د		L	+	1	+	+	, III			
ţ	,		_			+]			

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

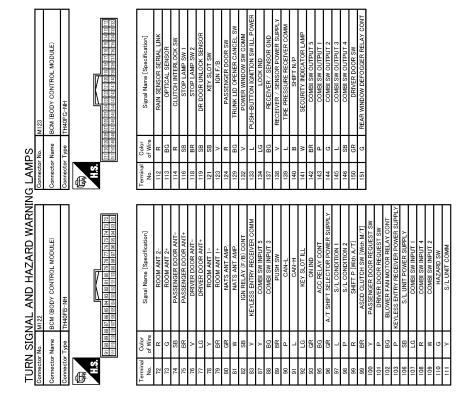
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[XENON TYPE]

In the second se	А
NS12PW-05 NS12PW-05 Signal Name Specification TURN SIGNAL IN (FEAR) TURN SIGNAL IN (FEAR) TURN SIGNAL IN (FEAR) TRUNK ROOM LAMP TRUNK ROOM ROOM ROOM TRUNK ROOM ROOM ROOM TRUNK ROOM ROOM ROOM ROOM ROOM ROOM ROOM ROO	В
NS128 NS12	С
Connector No. Connector No. Connector Type Connector Type Connector Type Terminal Color No. 23 V 23 V 30 P 70	D
odule) R Supely (BAP) R Supe	Е
BOW (BODY CONTROL MODULE) WOJFB-LC Signal Name [Specification] BOWER WINDOW POWER SUPPLY (RAD) POWER WINDOW POWER SUPPLY (RAD) BOWER WINDOW POWER SUPPLY PASSENGER DOOR UNLOCK OUTPUT ALL DOOR PLEIL LID UNLOCK OUTPUT ALL DOOR PLEIL LID UNLOCK OUTPUT ALL DOOR PLEIL LID UNLOCK OUTPUT BRYCE DOOR PLEIL LID UNLOCK OUTPUT ALL DOOR PLEIL LID UNLOCK OUTPUT ALL DOOR PLEIL LID UNLOCK OUTPUT BRYCE DOOR PLEIL LID UNLOCK OUTPUT ALL DOOR PLEIL LID UNLOCK OUTPUT ALL DOOR PLEIL LID UNLOCK OUTPUT BRYCE DOOR PLEIL LID UNLOCK OUTPUT ALL DOOR PLEIL LID	F
Name Name	G
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NG LAMPS	K
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TURN SIGNAL AND HAZARD WARNI Jonnector No. M66 Missing M	M
IGNAL AND HAZARE M66 M10	Ν
Connector Name Conn	0
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EXL-97 Revision: 2011 November 2011 G Sedan

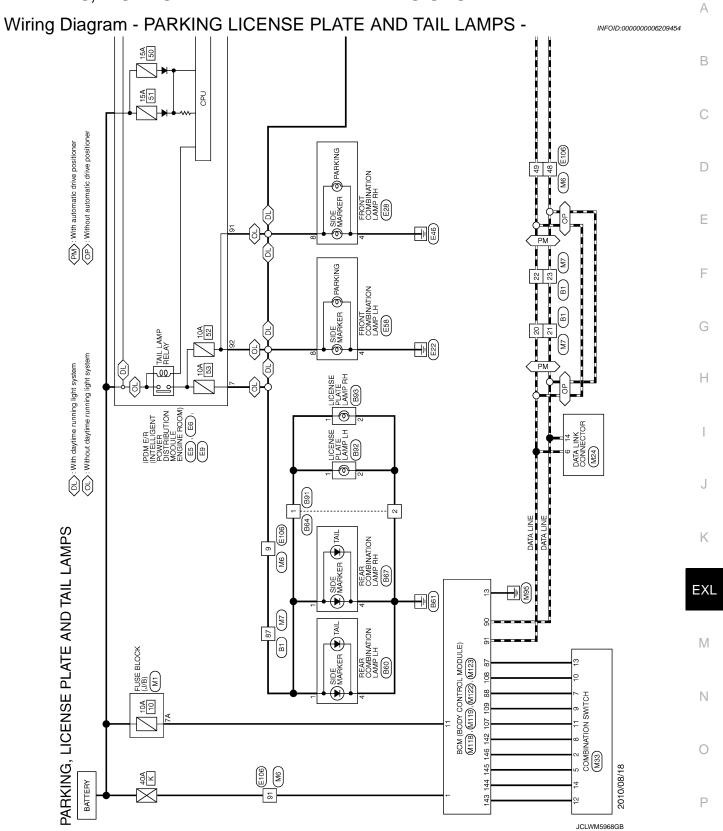
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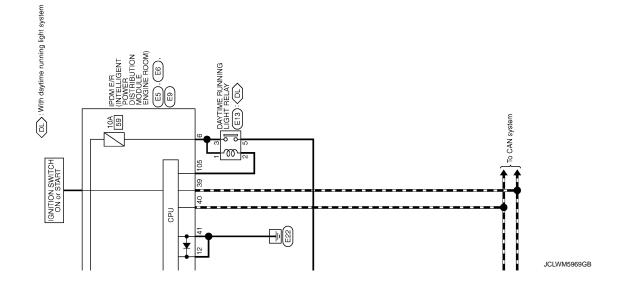


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[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM





[XENON TYPE] < DTC/CIRCUIT DIAGNOSIS >

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Signal Name [Specification] Signal Name [Specification] Signal Name [Specification] Signal Name [Specification]	В
LICENSE B93 RV02FBB RV02FBB	С
1 2 - 3 -	D
ification]	Е
BEST REAR COMBINATION LAMP RH NSO4FW-CS NSGral Name [Specification] Signal Name [Specification] Signal Name [Specification] Signal Name [Specification]	F
No.	G
Connector No.	Н
MEINATION LAMP LH CS Signal Name [Specification]	I
BBG BBG NSOMPW	J
S S S S S S S S S S	K
IL AMP	ΓVI
AND TA	EXL
WIRE CSIG-TM4 WIRE CSIG-TM4 Signal Name (Specification) Signal Name (Specification) With rear anti-pinch system Without rear anti-pinch system """" """ """ """ """ """ """	M
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Connector Name Conn	0
PART PA	J
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EXL-101 Revision: 2011 November 2011 G Sedan

Connector No. E28 Connector Name FRONT COMBINATION LAMP RH Connector Type RS08FB-PR	Terminal Color Signal Name (Specification) No. of Wire S B	6 V V C C C C C C C C C C C C C C C C C	Connector None FRONT COMBINATION LAMP LH Connector Trace Described		Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification] 4	
AMPS	14.5. 98 97 96 95 94 93 92 91 106 105 104 108 102 101 100 99	Terminal Color Signal Name [Specification] No. of Wire 91 G -	- 100 T T 100 T T T T T T T T T T T T T T T T T T	Connector No. E13 Connector Name DAYTIME RUNNING LIGHT RELAY Connector Type MS02FL-M2-LC	Terminal Color Terminal Color No. of Wire 2	
PARKING, LICENSE PLATE AND TAIL Connector No. E5 Connector Name South E SHILLING TOWN SOUTH SOUT	Color Signal Name [Specification]		G G P	ية 1 م د الا ال		Color Signal Name [Specification] of Wire P
PARKING Connector No. Connector Type Connector Type HS	<u> </u>	111 V 13 B. 16 L 16 L	+++	27 B 28 G 30 G 33 F 33 F	Connector Name Connector Type	Terminal Co No. of V 39 F 40 H 41 B 42 G 43 (0

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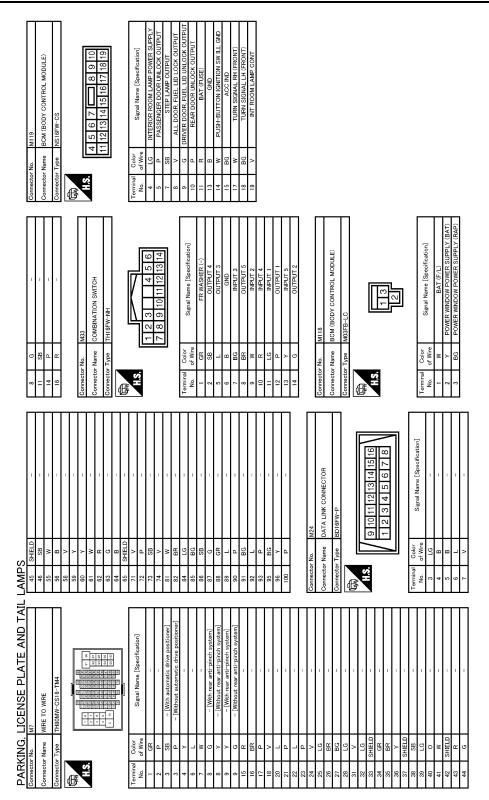
[XENON TYPE] < DTC/CIRCUIT DIAGNOSIS >

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ഗြ	+	88 SB	+	╁	- B	82 G	Н	L	85 W	П	П		۸ 68	┑	┪	┪	T	+	88	┨		Connector No.		Connector Name	Connector Type	1	唐	S.	l					No of Wire		╀	╀	44 P	╀	L	7A R	Н																
IAL Y	T	I	1	<u> </u>				<u> </u>			Г		П	_ T	_ T	_ T	_ T	_ T	T	J T	Τ	J	I	3	ŏ		T	- T	, T	Τ	Τ	Τ	T	T	T	T	T	T	I	l	 	П		П	П	1	П										ŀ	
PARKING, LICENSE PLATE AND TAIL					- 1	-10	0 4	2 2	_		Lacification	pecilication																																														
NSE PLA	WIDE	WIRE	TH80FW-CS16-TM4		850 800 440 500 1111 1111 1111 1111 1111 1111				31 00 00 00 00 00 00 00 00 00 00 00 00 00		Simal Name [Seedification]	olgilai Naille [o]	1	1		1	1	1				1	1	-	-	-	1	1	1	1	1			1 1		1	1		1	1	=	1	1	ı	1		1											
3, LICEN	MIDE TO WIDE		٦.			5 8	8	8 5	8				~		_				1	1	 											+	1	_	_		_					~		4.7		1	Ц											
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EXL-103 Revision: 2011 November 2011 G Sedan

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]



JCLWM5973GB

[XENON TYPE] < DTC/CIRCUIT DIAGNOSIS >

PAR	PARKING,	LICENSE PLATE AND TAIL	- LAMPS	S	
Connector No.	or No.	M122	Connector No.	r No.	M123
Connector Name	or Name	BCM (BODY CONTROL MODULE)	Connector Name	r Name	BCM (BODY CONTROL MODULE)
Connector Type	or Type	TH40FB-NH	Connector Type	r Type	TH40FG-NH
·····································			修		
	91 90 89	88 87 86 88 84 83 82 81 80 73 77 75 75 74 72 77 77 78 74 72 72 72 74 72 72 74 72 74 72 74 72 74 72 74 72 74 72 74 72 74 72 74 72 74 72 74 72 74 72 74 72 74 72 74 72 74 72 74 72 74 74 74 74 74 74 74 74 74 74 74 74 74		151 150 149 1	조한 10년
Terminal	Color	Signal Name [Specification]	Terminal	Color	Signal Name [Specification]
72	~	BOOM ANT 2-	112	2	RAIN SENSOR SERIAL LINK
73	g	ROOM ANT 2+	113	BG	OPTICAL SENSOR
74	SB	PASSENGER DOOR ANT-	114	œ	CLUTCH INTERLOCK SW
75	BR	PASSENGER DOOR ANT+	116	SB	STOP LAMP SW 1
9/	>	DRIVER DOOR ANT-	118	BR	STOP LAMP SW 2
77	2	DRIVER DOOR ANT+	119	SB	DR DOOR UNLOCK SENSOR
78	>	ROOM ANT 1-	121	SB	KEY SLOT SW
79	BB	ROOM ANT 1+	123	>	IGN F/B
8	g.	NATS ANT AMP.	124	œ	PASSENGER DOOR SW
81	× 6	NATS ANT AMP.	129	BG	TRUNK LID OPENER CANCEL SW
7.9	g :	IGN RELAY (F/B) CON I	132	> .	POWER WINDOW SW COMM
8 2	>	COMBLEM INDITE	133	ا ا	PUSH-BOLLON IGNITION SWITE POWER
5 8	-	S IO MI WO IOMOO	5	2 2	GNI NOCI
8 8	2 a	COMBI SW INFOL S	138	2 >	RECEIVER / SENSOR DOWER SUPPLY
06	۵	CAN-L	139	_	TIRE PRESSURE RECEIVER COMM
91	_	CAN-H	140	m	SHIFT N/P
95	57	KEY SLOT ILL	141	М	SECURITY INDICATOR LAMP
93	GR	ON IND	142	BR	COMBI SW OUTPUT 5
92	BG	ACC RELAY CONT	143	۵	COMBI SW OUTPUT 1
96	æ	A/T SHIFT SELECTOR POWER SUPPLY	144	g	COMBI SW OUTPUT 2
97	_	S/L CONDITION 1	145	٦	COMBI SW OUTPUT 3
86	۵	S/L CONDITION 2	146	SB	COMBI SW OUTPUT 4
66	œ	SHIFT P [With A/T]	150	GR	DRIVER DOOR SW
66	æ	ASCD CLUTCH SW [With M/T]	151	g	REAR WINDOW DEFOGGER RELAY CONT
00 3	> 1	PASSENGER DOOR REQUEST SW			
5	2 8	DRIVER DOOR REGUEST SW			
103	3 0	KEYLESS ENTRY RECEIVER DOWER SLIPPLY			
109	. gg	S/L UNIT POWER SUPPLY			
107	5J	COMBI SW INPUT 1			
108	۳	COMBI SW INPUT 4			
109	Μ	COMBI SW INPUT 2			
110	g	HAZARD SW			
Ξ	>	S/L UNIT COMM			

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EXL-105 Revision: 2011 November 2011 G Sedan

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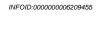
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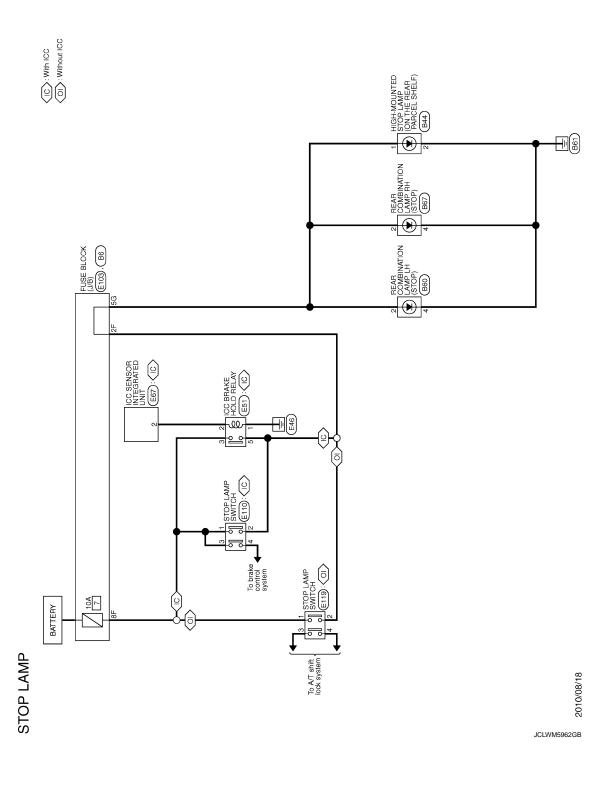
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STOP LAMP

Wiring Diagram - STOP LAMP -





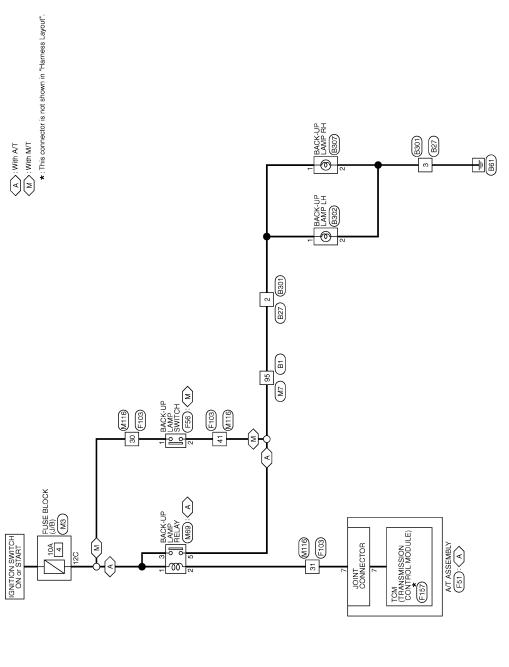
pecification]	A
Connector Name STOP LAMP SWTCH	С
Connector No. of Terminal Connector Type Connector	D
ocification] SETIF Selfication] ecification]	Е
100 SENSOR INTEGRATED UNIT RSJ067B-PR	F
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MBINATION LAMP RH CS CS Signal Name [Specification] Signal Name [Specification]	I
B67 REAR COMBINATION LAMP RH NSG4FW-CS Signal Name [Specifical Signal Name [Specifical	J
1	K
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P B6	M
NS12EBR-05 NS1	N
STOP LAN Gonnector No. Connector Name Connector Type Terminal Color No. of Wire SG. LG IG W IIG W II	0
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Revision: 2011 November EXL-107 2011 G Sedan

BACK-UP LAMP

Wiring Diagram - BACK-UP LAMP -

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BACK-UP LAMP

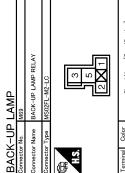
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BACK-UP LAMP	Connector Name	Connector Type	H.S.	No. Color No. Color No. Color No. Color 1 Color 2 E Color 3 Color 1 Color 1 Color 2 Color 3 Color 1 Color 4 Color 5 Color 6 Color 7 Color 8 Color 9 Color 10 Color 10 Color 11 Color 12 Color 13 Color 14 Color 15 Color 16 Color 17 Color 18 Color 19 Color 10 Color 10 Color 11 Color 12 Color 13 Color 14 Color 15 Color 16 Color 17 Color 18 Color 19 Color 10 Color 10 Color 10 Color 11 Color 12 Color 13 Color 14 Color 15 Color 16 Color 17 Color 18 Color 19 Color 10 Color 10 Color 11 Color 12 Color 13 Color 14 Color 15 Color 16 Color 17 Color 18 Color 19 Color 10 Color 10 Color 10 Color 11 Color 12 Color 13 Color 14 Color 15 Color 16 Color 17 Color 18 Color 19 Color 10 Color 10 Color 11 Color 12 Color 13 Color 14 Color 15 Color 16 Color 17 Color 18 Color 18 Color 19 Color 10 Color 10 Color 10 Color 11 Color 12 Color 13 Color 14 Color 15 Color 16 Color 17 Color 18 Color 18 Color 19 Color 10 Color 10 Color 10 Color 10 Color 11 Color 12 Color 13 Color 14 Color 15 Color 16 Color 17 Color 18 Color 18 Color 19 Color 10 Color	JCLWM5965GB	
P LAMP	e WIRE TO WIRE	: TH80FW-CS16-TM4		1 ISS	M N	
u	56	82	60 62 63 64 65 71	72 GR 73 GR 74 Connector Name Connec		
8	<u>΄</u> α >	SB	BR W R L L Y SHIELD BG	WIRE TO WISHING TO 10 10 10 10 10 10 10 10 10 10 10 10 10	K	
		1			J	
F	14 W	1	Connector No. B3 Connector Name WI Connector Type NS	1	G H	
	1 1		B301 WRE TO WRE NSIGFW-CS	16 14 13 2 1 16 15 14 13 12 11 10 9 8 14 15 12 11 10 9 8 15 15 15 15 15 15 15	E	
Comercia No Boo	e e	Connector Type NS02FW-CS	H.S.	Terminal Color No. of Wire BG ES BG Connector No. of Wire	D	
	BACK-UP LAMP RH	302FW-CS		Signal Name (Specification) A/T ASSEMBLY RKIOFG-DGY Signal Name (Specification) Signal Name (Specification) - [With VQ25HR engine] - [With VQ37HR engine] -	В	
				ication]	Α	

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		1	1		1			M7	CIAI	WIRE TO WIRE		TH80MW-CS16-TM4			1	11 12 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13		3 (4) 3 (4) 3 (4) 3 (4) 3 (4)	8 N 2 N	200			Signal Name [Specification]		1	1	 [With automatic drive positioner] 	 [Without automatic drive positioner] 	1	1	1	- [With rear anti-pinch system]	- [Without rear anti-pinch system]	- With rear anti-pinch evetem	- [Without rear anti-pinch system]	_				1	1	1	1	1	1	1	_	1	ı	1	1	1	1		1	1
3	× 0	BG	7	LG	g			Connector No	2	Connector Name		Connector Type	1				7					L	al Color	a Mile	¥5	Ь	SB	Ь	Υ	٦	W	9	٨	,		0	- 00	á	. ;	>	_	۵	_	Ь	>	ΓĠ	BR	BG	ΓG	>	PT PT	SHIELD	GR	BR	¥	SHIELD
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ŀ	5 (0	42 BR –	43 P -	44 L –	45 Y – [With VQ25HR engine]	5	>	4			Connector No. F157	T	Connector Name TCM (TRANSMISSION CONTROL MODULE)		Connector Type SP10FG		4			10345	- i	18 8 19		ŀ	E	No. of Wire	1 - VIGN	2 - BATT	3 - CAN-H	4 - K-LINE	S - GND	NDIA - 9	- BEV	S - CAN-I	TIS -				I	Connector No. M3	Connector Name FUSE BLOCK (J/B)	Т	Connector Type NS12FW-CS	4	45		50 40 30 20 10	0000				la	No. of Wire ognai Name Lopecincation.	SB	7C B –
BACK-UP LAMP		Connector Name BACK-UP LAMP SWITCH		Connector Type RK02FB			<	≪	4)		L	la	No. of Wire olginal manue Copecinication.	-	-	,		Connector No E109	ı	Connector Name WIRE TO WIRE	C. C	╗				_	48 55 44 50 52 51 50 50 52 52 52 52 52 52 52 52 52 52 52 52 52				Terminal Color		t	2 3	╀	< 0	<u></u>	5	×	_	HB.	+	19 O : [Except for VD25HP crypter with left and right, resolizion temperature resembling control system)	20 Y –	28 B -	- PJ 6	30 R	H	33 B	- 8	35 L –	п п	37 Y –

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Signal Name [Specification]	-	-	_		M116	WIRE TO WIRE	TK36MW-NS10	
of Wire	ď	W	LG	BG	· No.	. Name	. Type	7 2 3 4 9 9 4
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	Signal Name [Specification]		-					=		=	=		_	_	_	_			-
	Color of Wire	М	BG	Ь	В	æ	æ	BG	Υ	В	5 LG	PC	W	В	В	٦	Ь	æ	SB
-	Terminal No.	7	3	4	9	6	01	61	70	87	58	30	31	33	34	32	98	37	38

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[XENON TYPE]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
FR WIFER HI	Front wiper switch HI	On
ED WIDED LOW	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
ED WIDED INT	Other than front wiper switch INT/AUTO	Off
FR WIPER INT	Front wiper switch INT/AUTO	On
ED WIDED STOD	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial position
TUDNI CIONAL D	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
TUDNI CIONALI	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
TAIL LAMB CVA	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
LILDEAM CVA	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
LIEAD LAMD CVV 4	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
LIEAD LAMD CW/ 2	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
DA COINIO CVA	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
ALITO LICUIT CW	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
ED EOO OW	Front fog lamp switch OFF	Off
FR FOG SW	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
DOOR SW-DR	Driver door opened	On
DOOD CW AC	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOD OW DD	Rear RH door closed	Off
DOOR SW-RR	Rear LH door opened	On

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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Monitor Item	Condition	Value/Status
DOOR SW-RL	Rear LH door closed	Off
DOOK SW-KL	Rear LH door opened	On
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off
CDL LOCK SW	Other than power door lock switch LOCK	Off
DDE LOCK SW	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
DE UNLOCK 3W	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK	Off
CET CTE ER-SW	Driver door key cylinder LOCK	On
(EY CYL UN-SW	Other than driver door key cylinder UNLOCK	Off
ET CTL ON-SW	Driver door key cylinder LOCK	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
AZARD SW	Hazard switch is OFF	Off
IAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
R CANCEL SW	Trunk lid opener cancel switch OFF	Off
R CANCEL SW	Trunk lid opener cancel switch ON	On
R/BD OPEN SW	Trunk lid opener switch OFF	Off
R/DD OPEN SW	While the trunk lid opener switch is turned ON	On
RNK/HAT MNTR	Trunk lid closed	Off
KINDHAI WINIK	Trunk lid opened	On
KE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
INE-LOCK	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
KKE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On
DVE TD/DD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is pressed	On
DIVE DANIC	PANIC button of the Intelligent Key is not pressed	Off
RKE-PANIC	PANIC button of the Intelligent Key is pressed	On
DICE DAM ODEN	UNLOCK button of the Intelligent Key is not pressed	Off
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
ODTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V
DEO SW. DD	Driver door request switch is not pressed	Off
REQ SW -DR	Driver door request switch is pressed	On
DEO SW. AS	Passenger door request switch is not pressed	Off
REQ SW -AS	Passenger door request switch is pressed	On

Revision: 2011 November EXL-113 2011 G Sedan

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
DEO SW. BD/TD	Trunk lid opener request switch is not pressed	Off
REQ SW -BD/TR	Trunk lid opener request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
FUSH SW	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	Ignition switch in OFF or ACC position	Off
ION ICETZ -17D	Ignition switch in ON position	On
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCITOM	The clutch pedal is not depressed	Off
CLUCH SW	The clutch pedal is depressed	On
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
	 Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models) 	Off
DETE/CANCL SW	 Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models) 	On
OFT DAVALOVA	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
S/I LOCK	Steering is unlocked	Off
S/L -LOCK	Steering is locked	On
S/L -UNLOCK	Steering is locked	Off
3/L -UNLOCK	Steering is unlocked	On
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off
3/L RELAT-F/D	Ignition switch in ON position	On
UNLK SEN -DR	Driver door is unlocked	Off
UNLK SEN -DR	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
FOSITOW -IFDIVI	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
IGN KLTT-F/B	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
DETE OW -II DIW	Selector lever in P position	On
SET DN IDDM	 Selector lever in any position other than P and N (Except M/T models) The clutch pedal is not depressed (M/T models) 	Off
SFT PN -IPDM	 Selector lever in P or N position (Except M/T models) The clutch pedal is depressed (M/T models) 	On
CET D MET	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
CET N. MET	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
LINGINE STATE	At engine cranking	Crank
	Engine running	Run
C/L L OCK IDDM	Steering is unlocked	Off
S/L LOCK-IPDM	Steering is locked	On
C/L LINIL K IDDM	Steering is locked	Off
S/L UNLK-IPDM	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
5/L RELAT-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
NET OW -OLOT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
CONTINUED ALL	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIDM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIDMIDO	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done

Revision: 2011 November EXL-115 2011 G Sedan

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
CONTINUID2	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
CONFINITIO	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
174	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
1173	The ID of third Intelligent Key is registered to BCM	Done
TD 2	The ID of second Intelligent Key is not registered to BCM	Yet
TP 2	The ID of second Intelligent Key is registered to BCM	Done
TD 4	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	The ID of first Intelligent Key is registered to BCM	Done
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 REGST FLT	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
ID REGST FRT	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
ID REGOT KRT	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
ID VEGO! KT!	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
DUZZED	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

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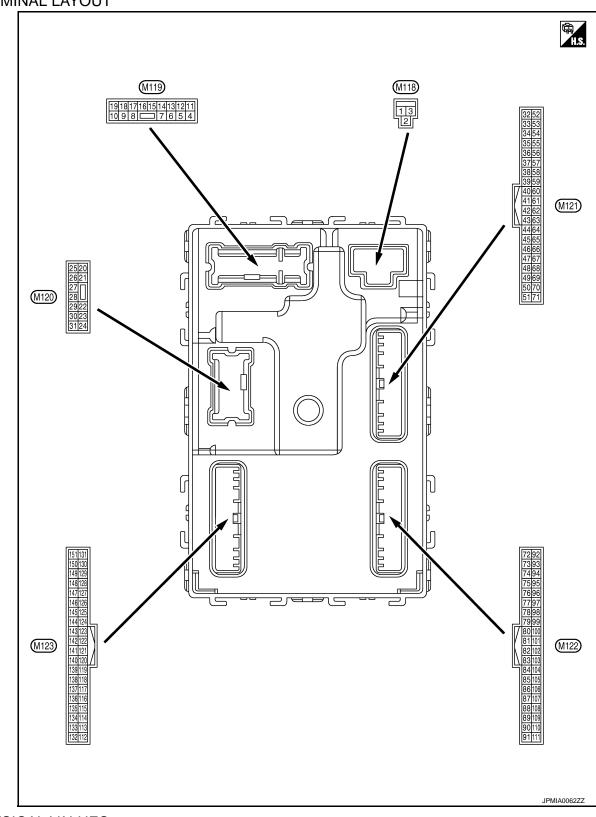
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TERMINAL LAYOUT



PHYSICAL VALUES

	nal No. color)	Description			0 100	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch (OFF	Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch (OFF	12 V
3 (BG)	Ground	P/W power supply (RAP)	Output	Ignition switch C	NC	12 V
					mp battery saver is activated. or room lamp power supply)	0 V
4 (LG)	Ground	Interior room lamp power supply	Output	vated.	mp battery saver is not acti- erior room lamp power sup-	12 V
5		Passenger door UN-		Passenger	UNLOCK (Actuator is activated)	12 V
(P)	Ground	LOCK	Output	door	Other than UNLOCK) Actuator is not activated	0 V
7	0	0	0 1 1	Otro Lanca	ON	0 V
(SB)	Ground	Step lamp	Output	Step lamp	OFF	12 V
8	Cravad	All doors, fuel lid	Outerist	All doors, fuel	LOCK (Actuator is activated)	12 V
(V)	Ground	LOCK	Output	lid	Other than LOCK (Actuator is not activated)	0 V
9	Crownd	Driver door, fuel lid	Outerut	Driver door,	UNLOCK (Actuator is activated)	12 V
(G)	Ground	UNLOCK	Output	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V
10	01	Rear RH door and	0 1 1	Rear RH door	UNLOCK (Actuator is activated)	12 V
(P)	Ground	rear LH door UN- LOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch (DFF	Battery voltage
13 (B)	Ground	Ground		Ignition switch (ON	0 V
-					OFF	0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position
					05541008777	0 2 ms JSNIA0010GB
15 (BG)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC	0 V

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF Turn signal switch RH	0 V
					Turn signal switch OFF	1 s PKID0926E 6.5 V 0 V
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF ON	12 V 0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF Turn signal switch RH	0 V (V) 15 10 5 0 PKID0926E 6.5 V
23 (LG)	Ground	Trunk lid open	Output	Trunk lid	OPEN (Trunk lid opener actuator is activated) Other than OPEN (Trunk lid opener actuator is not activated)	12 V 0 V
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF Turn signal switch LH	0 V (V) 15 10 5 0 PKID0926E 6.5 V
					1	

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
34	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(SB)	Glound	(-)	Сири	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
35	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(V)	Clound	(+)	Сири	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
38	Ground	Rear bumper anten-	Output	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(B)	Ground	na (–)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

(Mira color)		Description			O Pri	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
39		Rear bumper anten-		When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(W)	Ground	na (+)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0
47	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	JMKIA0063GB
(Y)		E/R) control	,		ON	0 V
50 (BG)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
				<u> </u>	ON (Trunk lid is opened)	0 V
				Ignition switch ON (A/T mod-	When selector lever is in P or N position	12 V
52	Ground	Starter relay control	Output	els)	When selector lever is not in P or N position	0 V
(R)	Ground	Starter relay control	Output	Ignition switch	When the clutch pedal is depressed	Battery voltage
				ON (M/T mod- els)	When the clutch pedal is not depressed	0 V
					ON (Pressed)	0 V
61 (SB)	Ground	Trunk lid opener request switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 5 0
		Intelligent Key warn-		Intelligent Key	Sounding	1.0 V 0 V
64	it.	ing buzzer (Engine	Output	warning buzzer	_	

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
+ (VVire	color)	Signal name	Input/ Output		Condition	(Approx.)
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Pressed Not pressed	0 V (V) 15 10 5 0 10 ms JPMIA0011GB
68 (BG)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes) ON (When rear RH door	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					opens)	U V
69 (L)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (When rear LH door opens)	0 V
72	Ground	Room antenna 2 (–) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(R)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
73		Room antenna 2 (+)		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(G)	Ground	(Center console)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
74		Passenger door an-		When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(SB)	Ground	tenna (–)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
75	Ground	Passenger door an-	Output	When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(BR)	Ground	tenna (+)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
76	Ground	Driver door antenna	Output	When the driver door request switch is oper-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(V)	Clound	(-)	Cuput	ated with ignition switch	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
77	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	(V) 15 10 5 0 JMKIA0062GB
(LG)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
78	Ground	Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(Y)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

	Terminal No. Description (Wire color)					Value	
+	COIOF)	Signal name	Input/ Output		Condition	(Approx.)	
79	9 Room antenna 1 (+)		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB		
(BR)	Ground	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
82 (SB)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V 12 V	
83	Ground	Remote keyless entry receiver communication	Input/	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB	
(Y)	Ground		Output	When operating gent Key	g either button on the Intelli-	(V) 15 10 5 0 1 ms JMKIA0065GB	

Revision: 2011 November EXL-125 2011 G Sedan

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB
					Any of the conditions below with all switches OFF Wiper volume dial 1 Wiper volume dial 2 Wiper volume dial 6 Wiper volume dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
88 (BG) Gro	Crowned	Combination switch	Input	Combination switch	Lighting switch HI (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
	Ground	INPUT 3			Lighting switch 2ND (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
					Any of the conditions below with all switches OFF Wiper volume dial 1 Wiper volume dial 2 Wiper volume dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V
89	0	Push-button ignition	1	Push-button ig-	Pressed	0 V
(BR)	Ground	switch (Push switch)	Input	nition switch (push switch)	Not pressed	Battery voltage
90 (P)	Ground	CAN-L	Input/ Output		_	_
91 (L)	Ground	CAN-H	Input/ Output		_	_
					OFF	0 V
92 (LG)	Ground	Key slot illumination	Output	Key slot illumi- nation	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB
					011	6.5 V
					ON	12 V

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Volus
(Wire	color)	Signal name	Input/ Output		Condition	Value (Approx.)
93 (GR)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(011)					ON	0 V
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(BG)	Cround	7100 Tolay obilition	Output	ignition switch	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output		_	12 V
97	Ground	Steering lock condi-	Input	Input Steering lock L	LOCK status	0 V
(L)	Cround	tion No. 1	трис	Olooning look	UNLOCK status	12 V
98	Ground	Steering lock condi-	Input	ut Steering lock -	LOCK status	12 V
(P)	Ground	tion No. 2	mput		UNLOCK status	0 V
		Selector lever P posi-			P position	0 V
		tion switch (A/T models)		Selector lever	Any position other than P	12 V
99		ASCD clutch switch (M/T models without ICC)	Input	ASCD clutch switch	OFF (Clutch pedal is depressed)	0 V
(R)* ¹ (BR)* ²	Ground				ON (Clutch pedal is not depressed)	12 V
		ICC clutch switch (M/		ICC clutch	OFF (Clutch pedal is depressed)	0 V
		T models with ICC)		switch	ON (Clutch pedal is not depressed)	12 V
					ON (Pressed)	0 V
100 (Y)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016G
					ON (Pressed)	0 V
101 (P)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016G
102	C=====================================	Blower fan motor re-	O : :	Ignition assistati	OFF or ACC	0 V
(BG)	Ground	lay control	Output	Ignition switch	ON	12 V
103 (P)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch (DFF	12 V
106	Ground	Steering lock unit	Outout	Ignition quitab	OFF or ACC	12 V
(SB)	Ground	power supply	Output	Ignition switch	ON	0 V

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Termina		Description				Value
(Wire c	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB

2011 G Sedan

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
			1 Input	Combination switch	All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 JPMIA0041GB 1.4 V
108		Combination switch			Lighting switch AUTO (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB
(R)		INPUT 4			Lighting switch 1ST (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
					Any of the conditions below with all switches OFF Wiper volume dial 1 Wiper volume dial 5 Wiper volume dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
109 (W)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper volume dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch INT/ AUTO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB
					ON	0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
					LOCK status	12 V
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 5 0 JMKIA0066GB
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
112 (R)	Ground	Light and rain sensor serial link	Input/ Output	Ignition switch C	DN	(V) 15 10 5 0 JPMIA0156GB 8.7 V
113				Ignition switch	When bright outside of the vehicle	Close to 5 V
(BG)	Ground	Optical sensor	Input	ON	When dark outside of the vehicle	Close to 0 V
114	Ground	Clutch interlock	Input Clu	Clutchinterlock	OFF (Clutch pedal is not depressed)	0 V
(R)	Ground	switch	Input	switch	ON (Clutch pedal is depressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
		Stop lamp switch 2		Stop lamp	OFF (Brake pedal is not depressed)	0 V
118	Ground	(Without ICC)	Innut	switch	ON (Brake pedal is depressed)	Battery voltage
(BR)	Ground	Stop lamp switch 2	Input		h OFF (Brake pedal is not ICC brake hold relay OFF	0 V
		(With ICC)			h ON (Brake pedal is de- brake hold relay ON	Battery voltage
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 10 ms JPMIA0012GB
					UNLOCK status (Unlock switch sensor ON)	0 V

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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	nal No.	Description				Value				
+ (Wire	color)	Signal name	Input/ Output		Condition	Value (Approx.)				
121	Ground	Key slot switch	Input	When the Intellig	gent Key is inserted into key	12 V				
(SB)		,		When the Intelliq	gent Key is not inserted into	0 V				
123 (V)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V				
124 (R)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	Battery voltage (V) 15 10 5 0 JPMIA0011GB 11.8 V				
					ON (Door open)	0 V				
129 (BG)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 10 ms JPMIA0012GB				
					ON	0 V				
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch C	NO	(V) 15 10 5 0 10 ms JPMIA0013GB				
				Ignition switch C	OFF or ACC	10.2 V				
				ignition switch C	ON (Tail lamps OFF)	9.5 V				
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps ON)	NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level. (V) 15 10 5 0 JPMIA0159GB				
					OFF OFF	0 V				
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage 0 V				
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch C	DN	0 V				

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value				
+ (vvire	e color)	Signal name	Input/ Output		Condition	(Approx.)				
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V				
(V)	Giodila	power supply	Output	ignition switch	ACC or ON	5.0 V				
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 ••• 0.2s				
(L)		er communication	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V				
(B)	Cround	position	трис	Coloctor level	Except P and N positions	0 V				
141 (W)	Ground	Security indicator	Output	Security indicator	ON	0 V (V) 15 10 5 0 JPMIA0014GB				
					OFF	12 V				
142 (BR)	Ground	Combination switch OUTPUT 5	Output Combination switch (Wiper volume dial 4)		All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH	0 V (V) 15 10 2 ms JPMIA0031GB 10.7 V				
143 (P)	Ground	Combination switch OUTPUT 1	Output Combination switch		All switches OFF (Wiper volume dial 4) Front wiper switch HI (Wiper volume dial 4) Any of the conditions below with all switches OFF Wiper volume dial 1 Wiper volume dial 2 Wiper volume dial 3 Wiper volume dial 6 Wiper volume dial 7	0 V (V) 15 10 5 0 2 ms JPMIA0032GB 10.7 V				

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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EXL

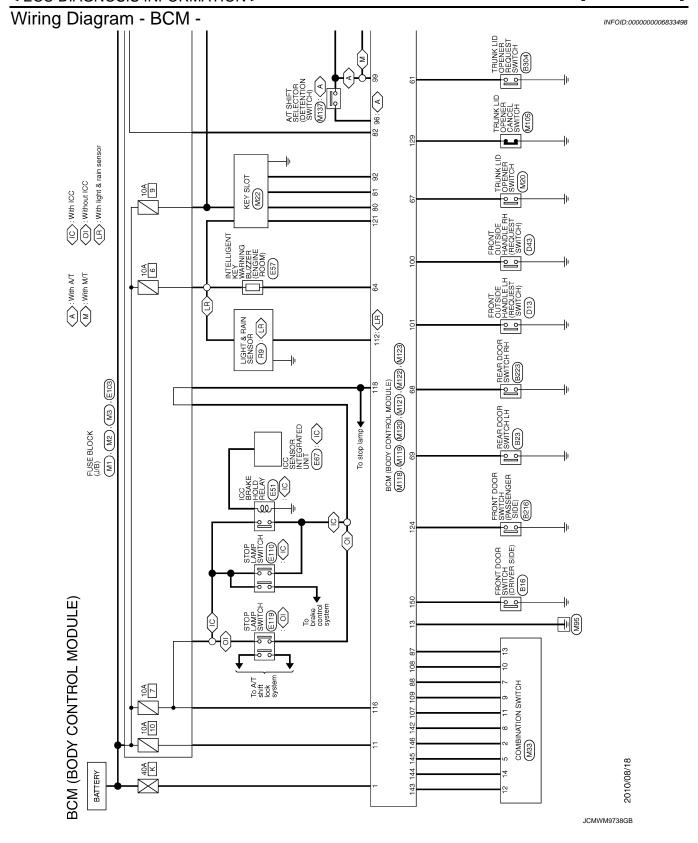
	nal No. color)	Description			O IV	Value				
+	-	Signal name	Input/ Output		Condition	(Approx.)				
					All switches OFF (Wiper volume dial 4)	0 V				
					Front washer switch ON (Wiper volume dial 4)	(V)				
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions below with all switches OFF Wiper volume dial 1 Wiper volume dial 5 Wiper volume dial 6	10 5 0 2 ms JPMIA0033GB				
					All switches OFF	0 V				
					Front wiper switch INT/ AUTO	(V)				
145		Combination switch OUTPUT 3		Combination switch (Wiper volume dial 4)	Front wiper switch LO	15				
(L)	Ground		Output		Lighting switch AUTO	2 ms JPMIA0034GB				
		Combination switch		Combination switch	All switches OFF	0 V				
			Output		Front fog lamp switch ON					
					Lighting switch 2ND	(V)				
146	Ground				Lighting switch PASS	10				
(SB)	Glodila	OUTPUT 4	Output	(Wiper volume dial 4)	Turn signal switch LH	0				
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB				
					ON (Door open)	0 V				
151	Ground	Rear window defog-	Output	Rear window	Active	0 V				
(G)	Cidana	ger relay control	Carpat	defogger	Not activated	Battery voltage				

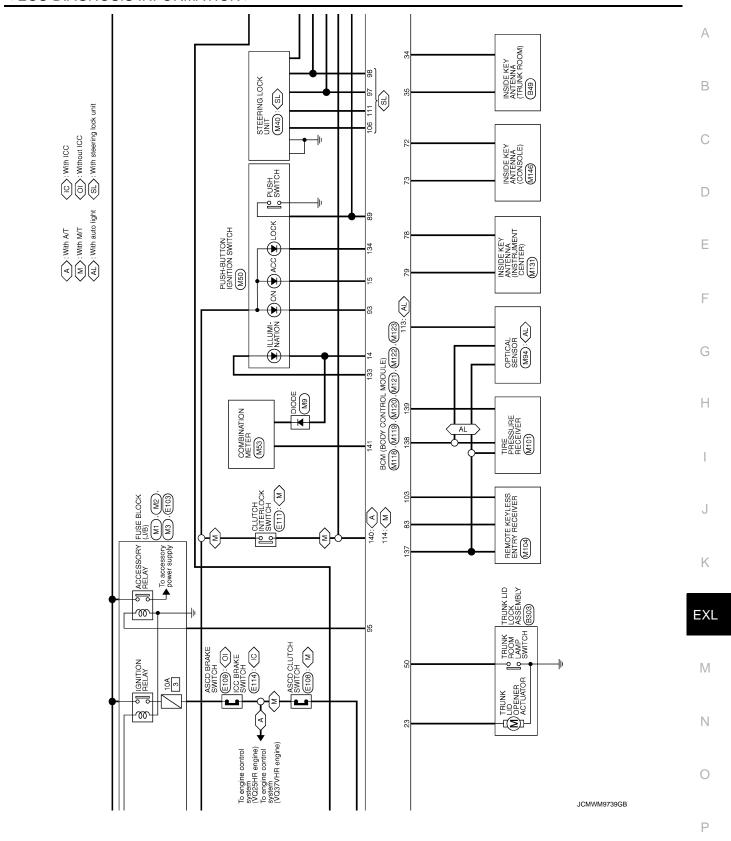
^{• *1:} A/T models

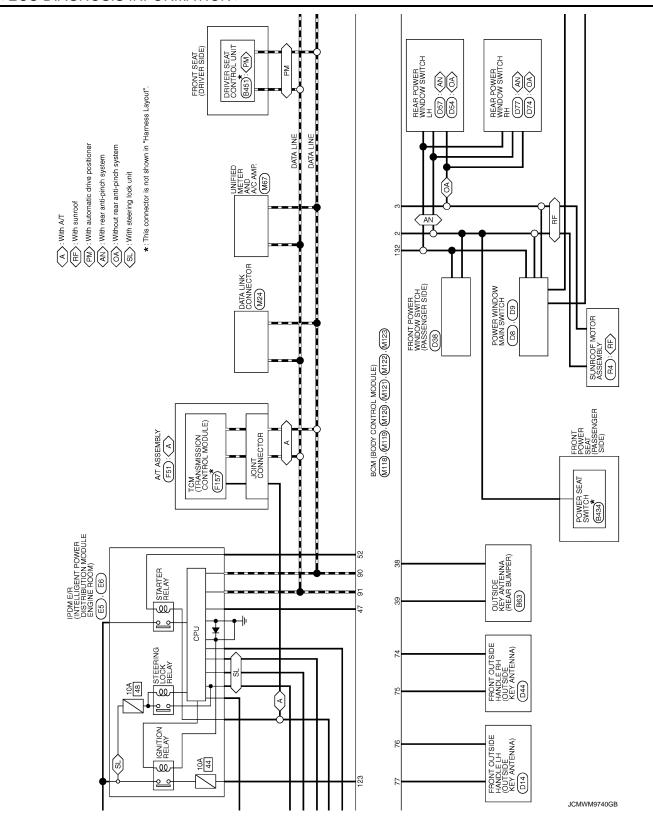
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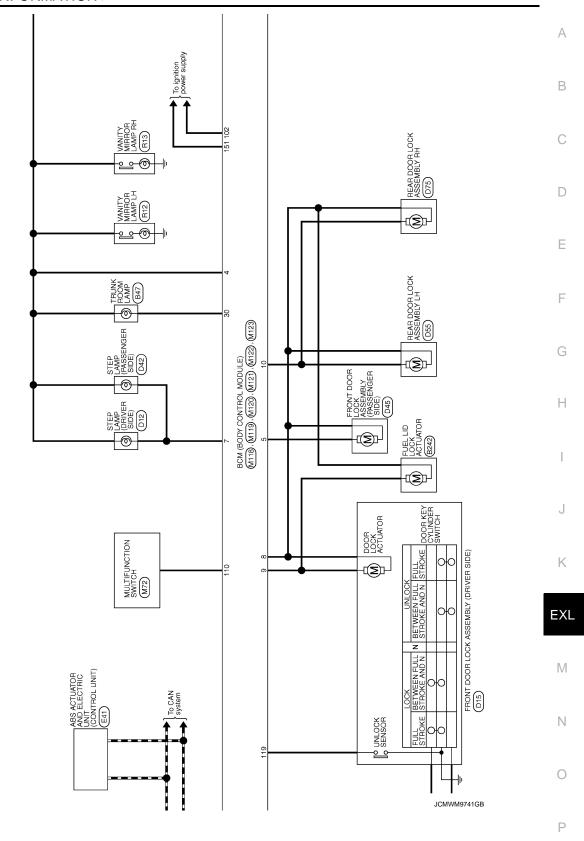
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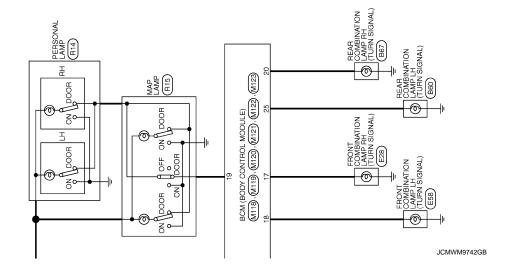
^{• *2:} M/T models









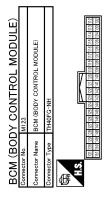


< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

NIT R COMM SET SUPPLY THE SUPPLY NER SUPPLY	Α
IGN RELAY (F/B) CONT KEVLESS ENTRY RECEIVER COMM COMBI SWI INPUT 3 COMBI SWI INPUT 3 COMPL CAN-I KEV SGLOT (ILL ON IND ACC BELAY CONT ACT SHIFT SELECTOR POWER SUPPLY S./L CONDITION 1 S./L CONDITION 2 SHETP ID (Web. A.T.) ASCD CLUTCH SWI (Web. M.T.) FASSENGER DOOR RECUEST SWI BELOWER FAN MOTTOR RECUEY FOWER SUPPLY COMBI SWI INPUT 1 COMBI SWI INPUT 1 COMBI SWI INPUT 2 COMBI SWI INPUT 2 COMBI SWI INPUT 3 S./L UNIT COMMI S./L	В
SB SB SB SB SB SB SB SB	С
8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3	D
CODULE	Е
Name ECM (BODY CONTROL MODULE)	F
Name No. Name No. No	G
	Н
Signal Name (Specification)	I
10 10 10 10 10 10 10 10	J
Connector No. M Connector No. M	K
	EXL
Connector Name	M
	Ν
Connector No. Color No. Connector No. Connector No. Color No	0
JCMWM9743GB	

Revision: 2011 November EXL-141 2011 G Sedan



Signal Name [Specification]	RAIN SENSOR SERIAL LINK	OPTICAL SENSOR	CLUTCH INTERLOCK SW	STOP LAMP SW 1	STOP LAMP SW 2	DR DOOR UNLOCK SENSOR	KEY SLOT SW	IGN F/B	PASSENGER DOOR SW	TRUNK LID OPENER CANCEL SW	POWER WINDOW SW COMM	PUSH-BUTTON IGNITION SWILL POWER	LOCK IND	RECEIVER / SENSOR GND	RECEIVER / SENSOR POWER SUPPLY	TIRE PRESSURE RECEIVER COMM	SHIFT N/P	SECURITY INDICATOR LAMP	COMBI SW OUTPUT 5	COMBI SW OUTPUT 1	COMBI SW OUTPUT 2	COMBI SW OUTPUT 3	COMBI SW OUTPUT 4	DRIVER DOOR SW	REAR WINDOW DEFOGGER RELAY CONT
Color of Wire	Я	BG	Я	SB	BR	SB	SB	^	ч	BG	۸	٦	ΓG	BG	^	L	В	W	BR	Ь	9	L	SB	GR	9
Terminal No.	112	113	114	116	118	119	121	123	124	129	132	133	134	137	138	139	140	141	142	143	144	145	146	150	151

JCMWM9744GB

INFOID:0000000006833499

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent Starter control relay signal Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent • Selector lever P position switch signal • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are ful- filled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (12 V) Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (12 V) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Ignition switch is in the ON position - Selector lever P/N position signal: P and N position (12 V) - P range signal or N range signal (CAN): ON • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - P range signal and N range signal (CAN): OFF
B2605: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (12 V) - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has becomes consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Display contents of CONSULT	Fail-safe	Cancellation						
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN) 						
B2609: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status						
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (12 V) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) 						
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled Power position changes to ACC Receives engine status signal (CAN)						
B2612: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)						
B2617: BCM	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal						
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal						
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal						
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization						
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled • Status 1 - Clutch switch signal (CAN from ECM): ON - Clutch interlock switch signal: OFF (0 V) • Status 2 - Clutch switch signal (CAN from ECM): OFF - Clutch interlock switch signal: ON (Battery voltage)						
B26E9: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No. 1 signal: LOCK (0 V) Steering condition No. 2 signal: LOCK (12 V)						

DTC Inspection Priority Chart

INFOID:0000000006833500

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

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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Priority	DTC	
	B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP	
	 B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION 	
	 B2603: SHIFT POSI STATUS B2604: PNP/CLUTCH SW B2605: PNP/CLUTCH SW B2606: S/L RELAY B2607: S/L RELAY 	
4	 B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS B260A: IGNITION RELAY B260B: STEERING LOCK UNIT 	
7	 B260C: STEERING LOCK UNIT B260D: STEERING LOCK UNIT B260F: ENG STATE SIG LOST B2612: S/L STATUS B2614: BCM 	
	B2615: BCMB2616: BCMB2617: BCMB2618: BCM	
	 B2619: BCM B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26E8: CLUTCH SW B26E9: S/L STATUS B26EA: KEY REGISTRATION 	
	C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED	
	 C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL 	
5	 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 	
6	C1734: CONTROL UNIT B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA	
	B2623: INSIDE ANTENNA	

NOTE:

The details of time display are as follows.

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

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-15, "COM-MON ITEM: CONSULT-III Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
No DTC is detected. further testing may be required.	_	_	_	_	_
U1000: CAN COMM	_	_	_	_	BCS-34
U1010: CONTROL UNIT(CAN)	_	_	_	_	BCS-35
U0415: VEHICLE SPEED	_	_	_	_	BCS-36
B2013: ID DISCORD BCM-S/L	×	×	_	_	<u>SEC-55</u>
B2014: CHAIN OF S/L-BCM	×	×	_	_	SEC-56
B2190: NATS ANTENNA AMP	×	_	_	_	SEC-47
B2191: DIFFERENCE OF KEY	×	_	_	_	<u>SEC-50</u>
B2192: ID DISCORD BCM-ECM	×	_	_	_	<u>SEC-51</u>
B2193: CHAIN OF BCM-ECM	×	_	_	_	SEC-53
B2195: ANTI-SCANNING	×	_	_	_	<u>SEC-54</u>
B2553: IGNITION RELAY	_	×	_	_	PCS-49
B2555: STOP LAMP	_	×	_	_	<u>SEC-59</u>
B2556: PUSH-BTN IGN SW	_	×	×	_	SEC-61
B2557: VEHICLE SPEED	×	×	×	_	<u>SEC-63</u>
B2560: STARTER CONT RELAY	×	×	×	_	<u>SEC-64</u>
B2562: LOW VOLTAGE	_	×	_	_	BCS-37
B2601: SHIFT POSITION	×	×	×	_	<u>SEC-65</u>
B2602: SHIFT POSITION	×	×	×	_	SEC-68
B2603: SHIFT POSI STATUS	×	×	×	_	<u>SEC-70</u>
B2604: PNP/CLUTCH SW	×	×	×	_	<u>SEC-73</u>
B2605: PNP/CLUTCH SW	×	×	×	_	<u>SEC-75</u>
B2606: S/L RELAY	×	×	×	_	<u>SEC-77</u>
B2607: S/L RELAY	×	×	×	_	<u>SEC-78</u>
B2608: STARTER RELAY	×	×	×	_	SEC-80
B2609: S/L STATUS	×	×	×	_	SEC-82
B260A: IGNITION RELAY	×	×	×	_	PCS-51
B260B: STEERING LOCK UNIT	_	×	×	_	SEC-86
B260C: STEERING LOCK UNIT	_	×	×	_	<u>SEC-87</u>
B260D: STEERING LOCK UNIT	_	×	×	_	<u>SEC-88</u>
B260F: ENG STATE SIG LOST	×	×	×	_	SEC-89
B2612: S/L STATUS	×	×	×	_	<u>SEC-94</u>
B2614: BCM	_	×	×	_	PCS-53
B2615: BCM	_	×	×	_	PCS-55
B2616: BCM	_	×	×	_	PCS-57
B2617: BCM	×	×	×	_	<u>SEC-98</u>
B2618: BCM	×	×	×	_	PCS-59
B2619: BCM	×	×	×	_	SEC-100
B261A: PUSH-BTN IGN SW	_	×	×	_	PCS-60
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	SEC-101

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	Refer- ence page	А
B2621: INSIDE ANTENNA	_	×	_	_	DLK-59	В
B2622: INSIDE ANTENNA	_	×	_	_	DLK-61	
B2623: INSIDE ANTENNA	_	×	_	_	DLK-63	
B26E8: CLUTCH SW	×	×	×	_	SEC-90	С
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	_	SEC-92	
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	SEC-93	D
C1704: LOW PRESSURE FL	_	_	_	×		_
C1705: LOW PRESSURE FR	_	_	_	×	VA/T-04	Е
C1706: LOW PRESSURE RR	_	_	_	×	WT-24	
C1707: LOW PRESSURE RL	_	_	_	×	-	F
C1708: [NO DATA] FL	_	_	_	×		
C1709: [NO DATA] FR	_	_	_	×	M/T OC	
C1710: [NO DATA] RR	_	_	_	×	<u>WT-26</u>	G
C1711: [NO DATA] RL	_	_	_	×	-	
C1716: [PRESSDATA ERR] FL	_	_	_	×		Н
C1717: [PRESSDATA ERR] FR	_	_	_	×	W/T 00	
C1718: [PRESSDATA ERR] RR	_	_	_	×	<u>WT-29</u>	
C1719: [PRESSDATA ERR] RL	_	_	_	×	-	
C1729: VHCL SPEED SIG ERR	_	_	_	×	<u>WT-30</u>	
C1734: CONTROL UNIT	_	_	_	×	<u>WT-31</u>	1

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< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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

Reference Value

VALUES ON THE DIAGNOSIS TOOL

	Value/Status	
Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 - 100 %
	A/C switch OFF	Off
Engine running	A/C switch ON (Compressor is operating)	On
Lighting switch OFF		Off
Lighting switch 1ST, 2ND, HI or	AUTO (Light is illuminated)	On
Lighting switch OFF		Off
Lighting switch 2ND HI or AUTC	(Light is illuminated)	On
Lighting switch OFF		Off
Lighting switch HI		On
	Front fog lamp switch OFF	Off
Lighting switch 2ND or AUTO (Light is illuminated)	 Front fog lamp switch ON Daytime running light activated (Only for Canada) 	On
	Front wiper switch OFF	Stop
Ignition switch ON	Front wiper switch INT	1LOW
	Front wiper switch LO	Low
	Front wiper switch HI	Hi
	Front wiper stop position	STOP P
Ignition switch ON	Any position other than front wiper stop position	ACT P
	Front wiper operates normally	Off
Ignition switch ON	Front wiper stops at fail-safe operation	BLOCK
Ignition switch OFF or ACC		Off
Ignition switch ON	On	
Ignition switch OFF or ACC		Off
Ignition switch ON		On
Release the push-button ignition	switch	Off
Press the push-button ignition s	witch	On
Ignition switch ON	Selector lever in any position other than P or N (A/T models)	Off
	Release clutch pedal (M/T models)	
Ignition switch ON	Selector lever in P or N position (A/ T models)	On
Ignition switch ON	Depress duton pedal (M/T models)	Off
ignition switch ON	Oil	
	Engine idle speed Engine running Lighting switch OFF Lighting switch 1ST, 2ND, HI or Lighting switch OFF Lighting switch 2ND HI or AUTO Lighting switch 2ND or AUTO (Light is illuminated) Ignition switch ON Ignition switch ON Ignition switch OFF or ACC Ignition switch ON Ignition switch ON Release the push-button ignition sylights on the push-button ignition sylights of the push-button ignition sylights on th	Engine idle speed coolant temperature, air conditioner operation status, vehicle speed, etc. A/C switch OFF A/C switch ON (Compressor is operating) Lighting switch OFF Lighting switch 1ST, 2ND, HI or AUTO (Light is illuminated) Lighting switch 2ND HI or AUTO (Light is illuminated) Lighting switch 2ND OF Lighting switch OFF Lighting switch 2ND or AUTO (Light is illuminated) Front fog lamp switch OFF Front wiper switch ON Only for Canada) Front wiper switch INT Front wiper switch HI Front wiper switch NO Front wiper stop position Any position other than front wiper stop position Any position switch ON Ignition switch ON Ignition switch OFF or ACC Ignition switch ON Release the push-button ignition switch Press the push-button ignition switch Ignition switch ON Ignition switch ON Release clutch pedal (M/T models) Selector lever in P or N position (A/T models) Depress clutch pedal (M/T models)

< ECU DIAGNOSIS INFORMATION >

Revision: 2011 November

Monitor Item		Condition	Value/Status
IUDT DI V. DEO	Ignition switch ON	Off	
IHBT RLY -REQ	At engine cranking		On
	Ignition switch ON		Off
	At engine cranking		$INHI\;ON\toST\;ON$
ST/INHI RLY		rter control relay cannot be recognized by etc. when the starter relay is ON and the	UNKWN
DETENT SW	Ignition switch ON	Press the selector button with selector lever in P position Selector lever in any position other than P	Off
	Release the selector button wit NOTE: Fixed On for M/T models	h selector lever in P position	On
S/L RLY -REQ	None of the conditions below a	re present	Off
NOTE: For models without steering lock unit, this item is not monitored.	 Open the driver door after the seconds) Press the push-button ignitioned Depress the clutch pedal who 	On	
S/L STATE	Steering lock is activated		LOCK
NOTE: For models without steering	Steering lock is deactivated		UNLOCK
lock unit, this item is not mon- itored.	[DTC: B210A] is detected	UNKWN	
DTRL REQ	NOTE: The item is indicated, but not m	onitored.	Off
OIL P SW	Ignition switch OFF, ACC or en	gine running	Open
JIL P 3VV	Ignition switch ON	Close	
HOOD SW	Close the hood		Off
HOOD 3W	Open the hood		On
HL WASHER REQ	NOTE: The item is indicated, but not m	onitored.	Off
	Not operation		Off
THFT HRN REQ	Panic alarm is activated Horn is activated with VEHIC TEM	On	
HODN CHIDD	Not operating		Off
HORN CHIRP	Door locking with Intelligent Ke	y (horn chirp mode)	On
CRNRNG LMP REQ	NOTE: The item is indicated, but not m	onitored.	Off

EXL-149 2011 G Sedan 0

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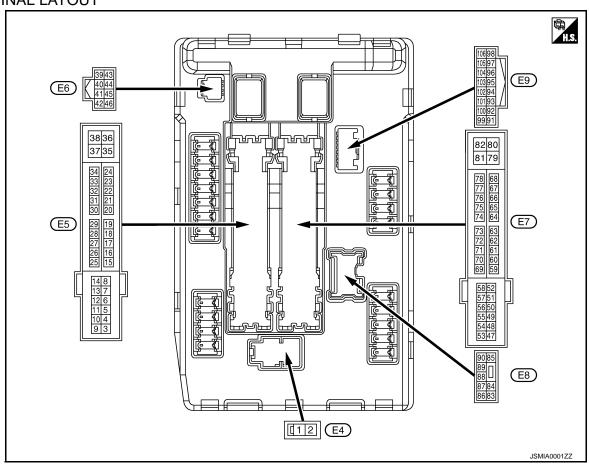
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< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

	inal No.	Description				Value	
+	e color)	Signal name	Input/ Output	Condition		(Approx.)	
1 (W)	Ground	Battery power supply	Input	Ignition switch C	OFF	Battery voltage	
2 (L)	Ground	Battery power supply	Input	Ignition switch C)FF	Battery voltage	
4	Ground	Front wiper LO	Output	Ignition switch	Front wiper switch OFF	0 V	
(V)	Ground	Front wiper LO	Output	ON	Front wiper switch LO	Battery voltage	
5	Ground	Front wiper HI	Ignition switch		Front wiper switch OFF	0 V	
(L)	Ground Front wiper Hi	Output	ON	Front wiper switch HI	Battery voltage		
6* ⁴ (SB)	Ground	Daytime running light relay	Input	Ignition switch C	DFF	Battery voltage	
7	Ground	Tail, license plate	Output	Ignition switch	Lighting switch OFF	0 V	
(P)	Giodila	lamps & interior lamps	Output	ON	Lighting switch 1ST	Battery voltage	
				Ignition switch OFF	A few seconds after opening the driver door	Battery voltage	
11* ⁵ (W)	Ground	Steering lock unit pow- er supply	Output	Ignition switch LOCK	Press the push-button ig- nition switch	Battery voltage	
				Ignition switch ACC or ON		0 V	
12 (B/W)	Ground	Ground		Ignition switch ON		0 V	

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value										
+	e color)	Signal name	Input/ Output		Condition	(Approx.)										
13		Fuel pump power sup-		Approximately 1 ing the ignition s	second or more after turn- switch ON	0 V										
(Y)		Output	Approximately ignition switchEngine running		Battery voltage											
16				Ignition switch	Front wiper stop position	0 V										
(LG)	Ground	Front wiper auto stop	Input	ON ON	Any position other than front wiper stop position	Battery voltage										
19	Ground	Ignition relay power	Output	Ignition switch C)FF	0 V										
(R)	Ground	supply	Output	Ignition switch C	DN	Battery voltage										
25	Ground	Ignition relay power	Output	Ignition switch C	OFF	0 V										
(G)	Ground	supply	Output	Ignition switch C	DN	Battery voltage										
26* ¹	Ground	Ignition relay power	Output	Ignition switch C	OFF	0 V										
(Y)	Ground	supply	Output	Ignition switch C	N	Battery voltage										
27	Ground	Ignition relay manitor	Input	Ignition switch C	OFF or ACC	Battery voltage										
(BG)	Ground	Ignition relay monitor	Input	Ignition switch C	N	0 V										
28	Ground	Push-button ignition	Innut	Press the push-	button ignition switch	0 V										
(L)	Ground	switch	Input	Release the pus	sh-button ignition switch	Battery voltage										
		nd Starter relay control												A/T models	Selector lever in any position other than P or N (Ignition switch ON)	0 V
30 (GR)	Ground		Input		Selector lever P or N (Ignition switch ON)	Battery voltage										
				Material	Release the clutch pedal	0 V										
				M/T models	Depress the clutch pedal	Battery voltage										
32* ⁵		Steering lock unit con-		Steering lock is activated		0 V										
(V)	Ground	dition-1	Input	Steering lock is	deactivated	Battery voltage										
33* ⁵		Steering lock unit con-		Steering lock is	activated	Battery voltage										
(P)	Ground	dition-2	Input	Steering lock is	deactivated	0 V										
36 (G)	Ground	Battery power supply	Input	Ignition switch C	DFF	Battery voltage										
39 (P)	_	CAN-L	Input/ Output		_	_										
40 (L)	_	CAN-H	Input/ Output		_	_										
41 (B/W)	Ground	Ground	_	Ignition switch C	DN	0 V										
42	Ground	Cooling fan relay con-	Input	Ignition switch OFF or ACC		0 V										
(GR)	Cround	trol	put	Ignition switch ON		0.7 V										
					Press the selector button (selector lever P)	Battery voltage										
43* ² (G)	Caronna	ound A/T shift selector (Detention switch)	Input	put Ignition switch ON	Selector lever in any position other than P Release the selector button (selector lever P)	0 V										
44				The horn is dea	, ,	Battery voltage										
(LG)	Ground	Horn relay control	Input	The horn is activ	/ated	0 V										

EXL-151 Revision: 2011 November 2011 G Sedan

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value											
+	e color)	Signal name	Input/ Output	Condition		(Approx.)											
45	Ground	Anti theft horn relay	Input	The horn is deactivat	ctivated	Battery voltage											
(V)	Ground	control	Input	The horn is activ	vated	0 V											
				A/T models	Selector lever in any position other than P or N (Ignition switch ON)	0 V											
46 (SB)		Starter relay control	Input		Selector lever P or N (Ignition switch ON)	Battery voltage											
				M/T models	Release the clutch pedal	0 V											
				W/ Tillodels	Depress the clutch pedal	Battery voltage											
					A/C switch OFF	0 V											
48 (L)	Ground	A/C relay power supply	Output	Engine running	A/C switch ON (A/C compressor is operating)	Battery voltage											
49		ECM relevaneurs aus		Ignition switch C (More than a fev tion switch OFF)	v seconds after turning igni-	0 V											
(BG)	Ground	ECM relay power sup- ply	Output	Ignition switch Ignition switch (For a few second switch OFF)		Battery voltage											
51	Ground	Ignition relay power	Output	Ignition switch C)FF	0 V											
(Y)	Giodila	supply	Output	Ignition switch ON		Battery voltage											
52	53 (W) Ground ECM relay power supply		ECM roley power our	ECM rolay power cup	ECM rolay power sup-	ECM relay nower sun-	FCM relay nower sun-	FCM relay nower sun-	FCM relay nower sun-	relay power sup-	Ignition switch C (More than a few tion switch OFF)	v seconds after turning igni-	0 V				
(W)			Output	Ignition switch Ignition switch (For a few second switch OFF)		Battery voltage											
E 1		Throttle central meter		Ignition switch C (More than a fev tion switch OFF)	v seconds after turning igni-	0 V											
54 (P)	Ground	Throttle control motor relay power supply	Output	Ignition switch Ignition switch (For a few second switch OFF)		Battery voltage											
55 (SB)	Ground	ECM power supply	Output	Ignition switch C	DFF	Battery voltage											
56	Ground	Ignition relay power	Output	Ignition switch C)FF	0 V											
(BR)	Ciddid	supply	Jacpac	Ignition switch C	DN	Battery voltage											
57	Ground	Ignition relay power	Output	Ignition switch C)FF	0 V											
(G)		supply	- 11. 41.	Ignition switch C		Battery voltage											
58* ²	Ground	Ignition relay power	Output	Ignition switch C		0 V											
(GR)		supply		Ignition switch C		Battery voltage											
69				Ignition switch C (More than a fev tion switch OFF)	v seconds after turning igni-	Battery voltage											
69 (BR) Ground		ECM relay control	Output	Ignition switchIgnition switch(For a few sec switch OFF)		0 - 1.5 V											

EXL-152 Revision: 2011 November 2011 G Sedan

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	
70 (BG)	Ground	Throttle control motor relay control	Output	Ignition switch C	ON → OFF	0 -1.0 V ↓ Battery voltage ↓ 0 V	
				Ignition switch C	N	0 - 1.0 V	
73* ³	Craund	Ignition relay power	Outrut	Ignition switch C)FF	0 V	
(P)	Ground	supply	Output	Ignition switch C	N	Battery voltage	
74	Ground	Ignition relay power	Output	Ignition switch C)FF	0 V	
(G)	Cround	supply	Output	Ignition switch C	DN	Battery voltage	
75 (CD)	Ground	Oil pressure switch	Input	Ignition switch	Engine stopped	0 V	
(SB)		,		ON	Engine running	Battery voltage	
				Ignition switch ON		(V) 6 4 2 0 ■ 2ms JPMIA0001GB	
76 (Y) Ground	Power generation command signal		40% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		(V) 6 4 2 0 2 ms JPMIA0002GB 3.8 V		
				80% is set on "A TOR DUTY" of "	ACTIVE TEST", "ALTERNA- 'ENGINE"	(V) 6 4 2 0 2ms JPMIA0003GB 1.4 V	
77 (R)	Ground	Fuel pump relay con-	Output	ignition switch • Engine runnin	ng	0 - 1.0 V	
		-		Approximately 1 second or more after turning the ignition switch ON		Battery voltage	
80 (W)	Ground	Starter motor	Output	At engine crank		Battery voltage	
83	Ground	Headlamp LO (RH)	Output	Ignition switch	Lighting switch OFF	0 V	
(R)	Giound	Headianip LO (KD)	Output	ON	Lighting switch 2ND	Battery voltage	
84	Ground	Headlamp LO (LH)	Output	Ignition switch	Lighting switch OFF	0 V	
(V)	Cidana		Carpat	ON	Lighting switch 2ND	Battery voltage	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
+ (Wire	e color)	Signal name	Input/ Output	Condition		(Approx.)
					Front fog lamp switch OFF	0 V
86 (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	Front fog lamp switch ON Daytime running light activated (Only for Canada)	Battery voltage
					Front fog lamp switch OFF	0 V
87 (L)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	Front fog lamp switch ON Daytime running light activated (Only for Canada)	Battery voltage
88 (G)	Ground	Washer pump power supply	Output	Ignition switch C	И	Battery voltage
89				Ignition switch	Lighting switch OFF	0 V
(BR)	Ground	Headlamp HI (RH)	Output	ON	Lighting switch HI Lighting switch PASS	Battery voltage
90				Ignition switch	Lighting switch OFF	0 V
(P)	Ground	Headlamp HI (LH)	Output	ON	Lighting switch HI Lighting switch PASS	Battery voltage
91	Ground	Parking lamp (RH)	Output	Ignition switch	Lighting switch OFF	0 V
(G)	Ground	raiking lamp (KH)	Output	ON	Lighting switch 1ST	Battery voltage
92	Ground	Parking lamp (LH)	Output	Ignition switch	Lighting switch OFF	0 V
(BG)	Ground	r arking lamp (Em)	Output	ON	Lighting switch 1ST	Battery voltage
97 (V)	Ground	Cooling fan control	Output	Engine idling		0 - 5 V
104	Ground	Hood switch	Input	Close the hood		Battery voltage
(LG)	Siouria	1 1000 SWILOIT	IIIput	Open the hood		0 V
A		Davidina a marchael Pala		Parking lamp	Turned OFF	Battery voltage
105* ⁴ (L)	Ground	Daytime running light relay control	Output	• Liconso plato	Turned ON	0 V

^{*1:} Only for the models with ICC system

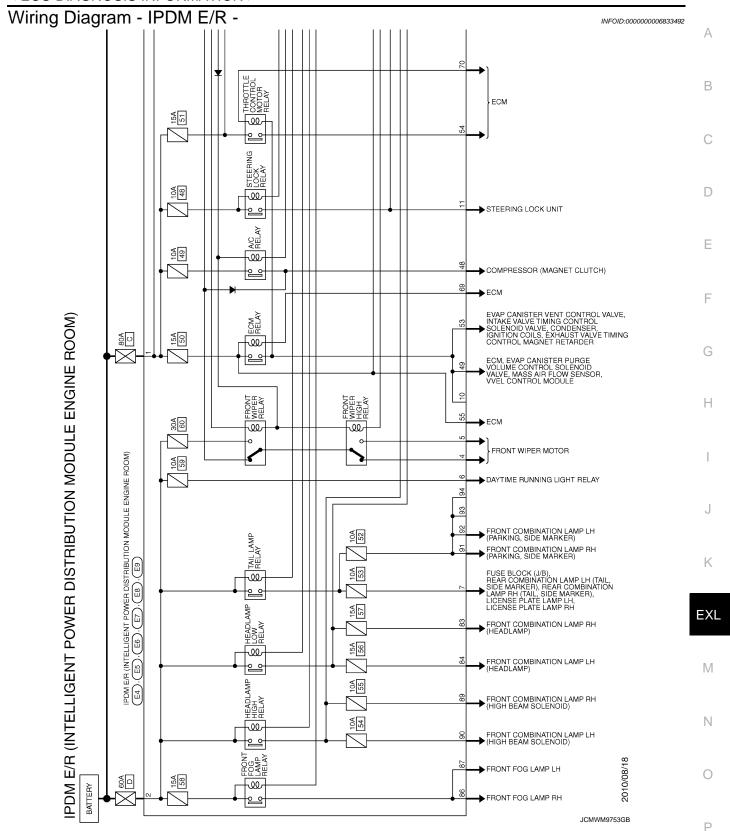
^{*2:} A/T models only

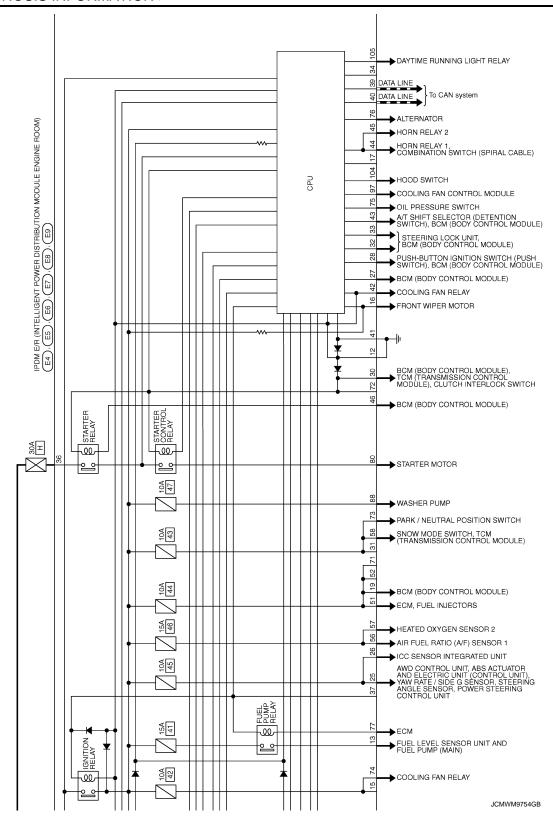
^{*3:} M/T models only

^{*4:} Models with daytime running light system

^{*5:} Models with steering lock unit

< ECU DIAGNOSIS INFORMATION >

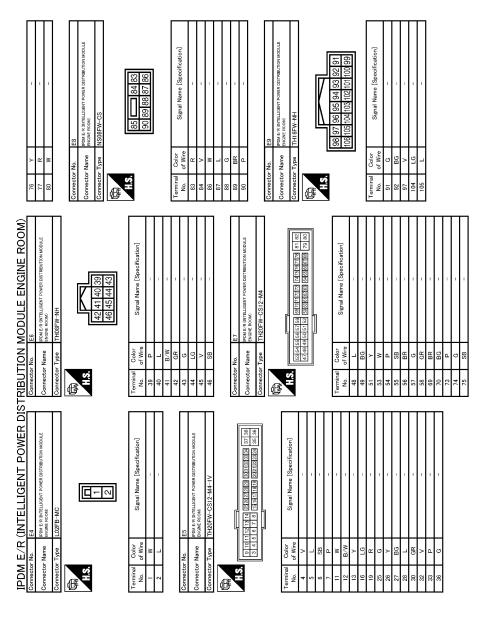




< ECU DIAGNOSIS INFORMATION >

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EXL-157 Revision: 2011 November 2011 G Sedan



JCMWM9756GB

INFOID:0000000006833493

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

< ECU DIAGNOSIS INFORMATION >

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

If No CAN Communication Is Available With BCM

Control part	Fail-safe operation
Headlamp	 Turns ON the headlamp low relay when the ignition switch is turned ON Turns OFF the headlamp low relay when the ignition switch is turned OFF Headlamp high relay OFF
Parking lampsSide maker lampLicense plate lampsIlluminationsTail lamps	 Turns ON the tail lamp relay when the ignition switch is turned ON Turns OFF the tail lamp relay when the ignition switch is turned OFF
Front wiper	 The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed. The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating.
Horn	Horn relay OFF
Ignition relay	The status just before activation of fail-safe is maintained.
Starter motor	Starter control relay OFF
Steering lock unit*	Steering lock relay OFF

^{*:} For models with steering lock unit

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				
Ignition relay contact side	Ignition relay excitation coil side	IPDM E/R judgment	Operation	
ON	ON	Ignition relay ON normal	_	
OFF	OFF	Ignition relay OFF normal	_	
ON	OFF	Ignition relay ON stuck	Detects DTC "B2098: IGN RELAY ON" Turns ON the tail lamp relay for 10 minutes	
OFF	ON	Ignition relay OFF stuck	Detects DTC "B2099: IGN RELAY OFF"	

FRONT WIPER CONTROL

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

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

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

NOTE:

EXL-159 Revision: 2011 November 2011 G Sedan

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< ECU DIAGNOSIS INFORMATION >

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:0000000006833494

NOTE:

- The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.
- IGN counter is displayed on FFD (Freeze Frame data).
- The number is 0 when is detected now.
- The number increases like 1 ightarrow 2 \cdots 38 ightarrow 39 after returning to the normal condition whenever IGN OFF ightarrowON.
- 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	×	PCS-16
B2099: IGN RELAY OFF	_	PCS-17
B2108: STRG LCK RELAY ON*	_	<u>SEC-104</u>
B2109: STRG LCK RELAY OFF*	_	<u>SEC-106</u>
B210A: STRG LCK STATE SW*	_	<u>SEC-107</u>
B210B: START CONT RLY ON	_	<u>SEC-111</u>
B210C: START CONT RLY OFF	_	SEC-112
B210D: STARTER RELAY ON	_	SEC-113
B210E: STARTER RELAY OFF	_	SEC-114
B210F: INTRLCK/PNP SW ON	_	<u>SEC-116</u>
B2110: INTRLCK/PNP SW OFF	_	SEC-118

^{*:} For models without steering lock unit, this DTC is not applied.

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS WITHOUT DAYTIME RUNNING LIGHT SYSTEM

WITHOUT DAYTIME RUNNING LIGHT SYSTEM: Symptom Table

INFOID:0000000006782990

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CAUTION:

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

Symp	otom	Possible cause	Inspection item
Headlamp does not switch to the high beam.	One side	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-37.
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM" Refer to EXL-166.	
High beam indicator lamp (Headlamp switches to the		Combination meter Unified meter and A/C amp.	Unified meter and A/C amp. Data monitor "HI-BEAM IND" BCM (HEAD LAMP) Active test "HEADLAMP"
	One side	Front combination lamp (High beam solenoid)	_
Headlamp does not switch to the low beam.	Both sides	Combination switch Harness between the combination switch and BCM BCM	Combination switch Refer to BCS-79.
		High beam request signal BCM IPDM E/R	IPDM E/R Data monitor "HL HI REQ"
		IPDM E/R	_
Headlamp is not turned ON.	One side	Fuse Xenon bulb Harness between IPDM E/R and the front combination lamp IPDM E/R	Headlamp (LO) circuit Refer to EXL-40.
	Both sides When the ignition switch is turned ON	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) A Refer to EXL-167.	RE NOT TURNED ON"
Headlamp is not turned OFF.	The ignition switch is turned OFF (After activating the battery saver).	IPDM E/R	_
Headlamp is not turned ON/OFF with the lighting switch AUTO.		Combination switch Harness between the combination switch and BCM BCM	Combination switch Refer to BCS-79.
		Optical sensor Harness between the optical sensor and BCM BCM	Optical sensor Refer to <u>EXL-55</u> .

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[XENON TYPE]

Symp	otom	Possible cause	Inspection item		
Front fog lamp is not turned ON.	One side	Front fog lamp bulb Harness between IPDM E/R and the front fog lamp IPDM E/R	Front fog lamp circuit Refer to <u>EXL-47</u> .		
	Both side	Symptom diagnosis	A DE MOT TUDNED ON		
Front fog lamp is not turne	d ON.	"BOTH SIDE FRONT FOG LAMPS Refer to <u>EXL-170</u> .	S ARE NOT TURNED ON"		
Parking lamp is not turned	Parking lamp is not turned ON.		Parking lamp circuit Refer to EXL-49.		
Tail lamp is not turned ON.		Harness between IPDM E/R and the rear combination lamp Rear combination lamp	Tail lamp circuit Refer to EXL-60.		
License plate lamp is not to	urned ON.	License plate lamp bulb Harness between IPDM E/R and the license plate lamp	License plate lamp circuit Refer to EXL-63.		
Tail lamp and the license p ON.	Tail lamp and the license plate lamp are not turned ON.		Tail lamp circuit Refer to <u>EXL-60</u> .		
lamp are not turned ON.Parking lamp, the tail lar lamp are not turned OFF	 Parking lamp, the tail lamp and the license plate lamp are not turned ON. Parking lamp, the tail lamp and the license plate lamp are not turned OFF. (Each illumination is turned ON/OFF.) 		Symptom diagnosis "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-168.		
Turn signal lamp does not blink.	Indicator lamp is normal. (The applicable side performs the high flasher activation.)	Harness between BCM and each turn signal lamp Turn signal lamp bulb	Turn signal lamp circuit Refer to EXL-52.		
Dillin.	Indicator lamp is included	Combination switch Harness between the combination switch and BCM BCM	Combination switch Refer to <u>BCS-79</u> .		
	One side	Combination meter	_		
Turn signal indicator lamp does not blink. (The turn signal indicator	Both sides (Always)	 Turn signal indicator lamp signal Unified meter and A/C amp. BCM Combination meter 	Unified meter and A/C amp. Data monitor "TURN IND" BCM (FLASHER) Active test "FLASHER"		
lamp is normal.)	Both sides (Only when activating the hazard warning lamp with the ignition switch OFF)	The combination meter power supply and the ground circuit Combination meter	Combination meter Power supply and the ground circuit Refer to MWI-51.		
 Hazard warning lamp does not activate. Hazard warning lamp continues activating. (Turn signal is normal.) 		Hazard switch Harness between the hazard switch and BCM BCM	Hazard switch Refer to <u>EXL-58</u> .		

WITH DAYTIME RUNNING LIGHT SYSTEM

WITH DAYTIME RUNNING LIGHT SYSTEM: Symptom Table

INFOID:0000000006209466

CAUTION:

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

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

Sym	ptom	Possible cause	Inspection item
Headlamp does not switch to the high beam.	One side	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 <u>EXL-37</u> .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM Refer to EXL-166.	
High beam indicator lamp (Headlamp switches to the		Combination meter Unified meter and A/C amp.	 Unified meter and A/C amp. Data monitor "HI-BEAM IND" BCM (HEAD LAMP) Active test "HEADLAMP"
	One side	Front combination lamp (High beam solenoid)	_
Headlamp does not switch to the low beam.		Combination switch Harness between the combination switch and BCM BCM	Combination switch Refer to BCS-79.
	Both sides	High beam request signal BCM IPDM E/R	IPDM E/R Data monitor "HL HI REQ"
Headlamp is not turned One side ON.		PDM E/R Fuse Xenon bulb Harness between IPDM E/R and the front combination lamp IPDM E/R	Headlamp (LO) circuit Refer to <u>EXL-40</u> .
	Both sides	Symptom diagnosis	
	When the ignition switch is turned ON	"BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to <u>EXL-167</u> .	
Headlamp is not turned OFF.	The ignition switch is turned OFF (After activating the battery saver).	IPDM E/R	_
Headlamp is not turned O	N/OFF with the lighting	Combination switch Harness between the combination switch and BCM BCM	Combination switch Refer to <u>BCS-79</u> .
switch AUTO.		Optical sensor Harness between the optical sensor and BCM BCM	Optical sensor Refer to <u>EXL-55</u> .
Front fog lamp is not turned ON.		Front fog lamp bulb Harness between IPDM E/R and the front fog lamp IPDM E/R	Front fog lamp circuit Refer to EXL-47.
	Both side	Symptom diagnosis	
Front fog lamp is not turne	ed ON.	"BOTH SIDE FRONT FOG LAMPS Refer to <u>EXL-170</u> .	S ARE NOT TURNED ON"
Parking lamp is not turned ON.		Parking lamp bulb Harness between daytime running light relay and the front combination lamp	Parking lamp circuit Refer to EXL-50.

Revision: 2011 November EXL-163 2011 G Sedan

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EXTERIOR LIGHTING SYSTEM SYMPTOMS

[XENON TYPE]

Symp	tom	Possible cause	Inspection item
Tail lamp is not turned ON.		Harness between daytime run- ning light relay and the rear combination lamp Rear combination lamp	Tail lamp circuit Refer to EXL-61.
License plate lamp is not to	urned ON.	License plate lamp bulb Harness between daytime running light relay and the license plate lamp	License plate lamp circuit Refer to EXL-64.
Tail lamp and the license p ON.	late lamp are not turned	Fuse Harness between daytime running light relay and the rear combination lamp	Tail lamp circuit Refer to EXL-61.
 Parking lamp, the tail lamp and the license plate lamp are not turned ON. Parking lamp, the tail lamp and the license plate lamp are not turned OFF. (Each illumination is turned ON/OFF.) 		Symptom diagnosis "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-168.	
Turn signal lamp does not blink.	Indicator lamp is normal. (The applicable side performs the high flasher activation.)	Harness between BCM and each turn signal lamp Turn signal lamp bulb	Turn signal lamp circuit Refer to EXL-52.
DIITIK.	Indicator lamp is included	Combination switch Harness between the combination switch and BCM BCM	Combination switch Refer to <u>BCS-79</u> .
	One side	Combination meter	_
Turn signal indicator lamp does not blink. (The turn signal indicator	Both sides (Always)	 Turn signal indicator lamp signal Unified meter and A/C amp. BCM Combination meter 	Unified meter and A/C amp. Data monitor "TURN IND" BCM (FLASHER) Active test "FLASHER"
lamp is normal.)	Both sides (Only when activating the hazard warning lamp with the ignition switch OFF)	The combination meter power supply and the ground circuit Combination meter	Combination meter Power supply and the ground circuit Refer to MWI-51.
 Hazard warning lamp does not activate. Hazard warning lamp continues activating. (Turn signal is normal.) 		Hazard switch Harness between the hazard switch and BCM BCM	Hazard switch Refer to EXL-58.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS > [XENON TYPE]

NORMAL OPERATING CONDITION

Description INFOID:000000006209467

XENON HEADLAMP

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

AUTO LIGHT SYSTEM

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

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BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

Description INFOID:0000000000209468

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

Diagnosis Procedure

INFOID:0000000006209469

1. COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to BCS-79, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

(E)CONSULT-III 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
	Lighting switch	HI or PASS	On
HL HI REQ	(2ND)	Except for HI or PASS	Off

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

3. HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to EXL-37.

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON [XENON TYPE] < SYMPTOM DIAGNOSIS > BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON Α Description INFOID:0000000006209470 The headlamps (both sides) are not turned ON in any condition. В Diagnosis Procedure INFOID:0000000006209471 1.COMBINATION SWITCH INSPECTION Check the combination switch. Refer to BCS-79, "Symptom Table". Is the combination switch normal? D YES >> GO TO 2. NO >> Repair or replace the malfunctioning part. 2.CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT Е **©CONSULT-III DATA MONITOR** Select "HL LO REQ" of IPDM E/R data monitor item. With operating the lighting switch, check the monitor status. F Monitor item Condition Monitor status 2ND On **HL LO REQ** Lighting switch OFF Off Is the item status normal? Н YES >> GO TO 3. NO >> Replace BCM. 3.HEADLAMP (LO) CIRCUIT INSPECTION Check the headlamp (LO) circuit. Refer to EXL-40. Is the headlamp (LO) circuit normal?

YES

NO

>> Replace IPDM E/R.

>> Repair or replace the malfunctioning part.

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Revision: 2011 November EXL-167 2011 G Sedan

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

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

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

WITHOUT DAYTIME RUNNING LIGHT SYSTEM

WITHOUT DAYTIME RUNNING LIGHT SYSTEM: Description

INFOID:0000000006782992

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

WITHOUT DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure

INFOID:00000000006782

1. COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to BCS-79. "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2. CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

(P)CONSULT-III DATA MONITOR

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

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

Is the item status normal?

YES >> Replace IPDM E/R.

NO >> Replace BCM.

WITH DAYTIME RUNNING LIGHT SYSTEM

WITH DAYTIME RUNNING LIGHT SYSTEM: Description

INFOID:0000000006209472

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

WITH DAYTIME RUNNING LIGHT SYSTEM: Diagnosis Procedure

INFOID:0000000006209473

1.SYMPTOM CONFIRMATION

Turn the lighting switch 1ST.

Are each illumination turned ON?

YES >> GO TO 4.

NO >> GO TO 2.

2.combination switch inspection

Check the combination switch. Refer to BCS-79, "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

(P)CONSULT-III DATA MONITOR

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

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

< SYMPTOM DIAGNOSIS > [XENON TYPE]

Monitor item	Con	dition	Monitor status		
TAIL & CLR	Lighting switch	1ST	On		
REQ	Lighting Switch	OFF	Off		
Is the item state	us normal?				
	place IPDM E/F place BCM.	₹.			
4. DAYTIME R	UNNING LIGHT	RELAY CIRC	JIT INSPECTIO	N	
Check the dayt	ime running ligh	nt relay circuit. F	Refer to EXL-44	, "Component Function Check".	
Is the daytime	running light rela	ay circuit norma	<u>ll?</u>		
			efer to EXL-51.	"WITH DAYTIME RUNNING LIGHT SYSTEM:	
	agnosis Procedu pair or replace t		ng part.		

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BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS > [XENON TYPE]

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description

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

Diagnosis Procedure

INFOID:0000000006209475

1. COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to BCS-79, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

(P)CONSULT-III 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	ON	On
TRTOGREQ	(Lighting switch 2ND)	OFF	Off

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

3.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to EXL-47.

Is the front fog lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

PRECAUTIONS

< PRECAUTION > [XENON TYPE]

PRECAUTION

PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

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

Precautions For Xenon Headlamp Service

WARNING:

Comply with the following warnings to prevent any serious accident.

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

CAUTION:

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

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

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Revision: 2011 November EXL-171 2011 G Sedan

PERIODIC MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Description INFOID:0000000006209478

PREPARATION BEFORE ADJUSTING

NOTE:

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

Before performing aiming adjustment, check the following.

• Adjust the tire pressure to the specification.

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

NOTE:

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

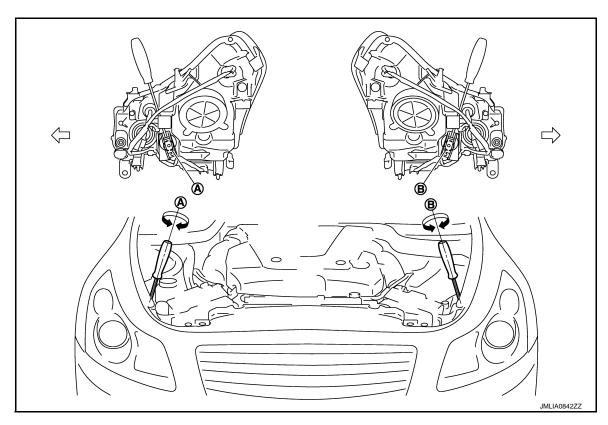
Wipe out dirt on the headlamp.

CAUTION:

Never use organic solvent (thinner, gasoline etc.)

Ride alone on the driver seat.

AIMING ADJUSTMENT SCREW



Headlamp (RH) adjustment screw

B. Headlamp (LH) adjustment screw

	Adjustment screw	Screw driver rotation	Facing direction
	A Headleren (DH)	Clockwise	UP
A	Headlamp (RH)	Counterclockwise	DOWN

HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

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

Aiming Adjustment Procedure

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

NOTE:

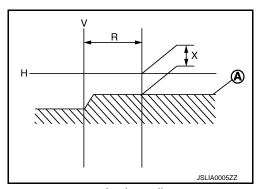
Shut off the headlamp light with the board to prevent from illuminating the adjustment screen. **CAUTION:**

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

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

Light axis measurement range (R) : 350 ± 175 mm (13.78 ± 6.89 in)

Low beam distribution on the screen

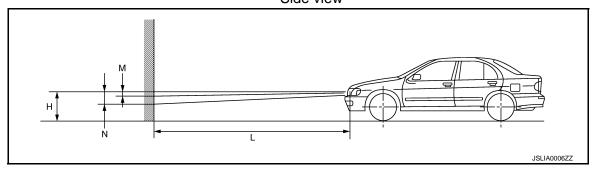


5. Adjust the cutoff line height (X) with the aiming adjustment screw so as to enter in the adjustment range (M–N) according to the horizontal center line of headlamp (H).

unit: mm (in)

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

Side view



Distance between the headlamp center and the screen (L)

: 10 m (32.8 ft)

Revision: 2011 November EXL-173 2011 G Sedan

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[XENON TYPE]

FRONT FOG LAMP AIMING ADJUSTMENT

Description INFOID:0000000000209480

PREPARATION BEFORE ADJUSTING

NOTE:

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

Before performing aiming adjustment, check the following.

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

NOTE:

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

· Wipe out dirt on the headlamp.

CAUTION:

Never use organic solvent (thinner, gasoline etc.)

· Ride alone on the driver seat.

AIMING ADJUSTMENT SCREW

• Turn the aiming adjusting screw for adjustment.

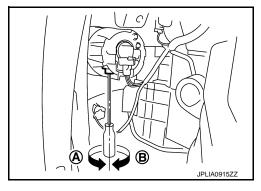
A: UP

B: DOWN

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

NOTE:

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



INFOID:0000000006209481

Aiming Adjustment Procedure

1. Place the screen.

NOTE:

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

NOTE:

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

CAUTION:

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

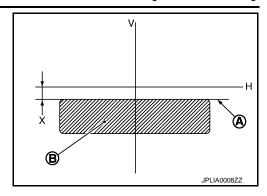
4. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 200 mm (7.87 in).

FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

Front fog lamp light distribution on the screen



A : Cutoff line

B : High illuminance area

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

X : Cutoff line height

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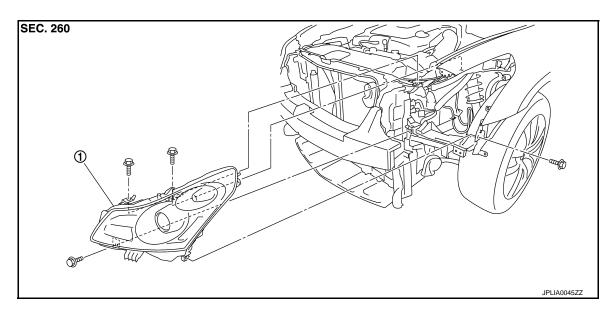
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REMOVAL AND INSTALLATION

FRONT COMBINATION LAMP

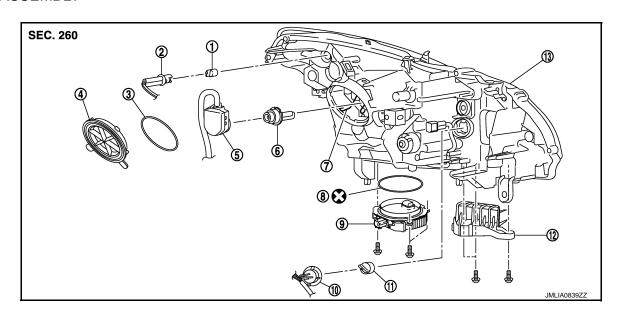
Exploded View

REMOVAL



1. Front combination lamp

DISASSEMBLY



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

Refer to GI-4, "Components" for symbols not described above.

Removal and Installation

INFOID:0000000006209483

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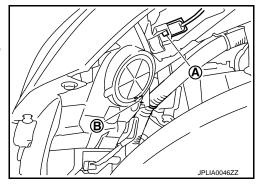
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REMOVAL

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

- 1. Remove the front bumper fascia. Refer to EXT-12, "Exploded View".
- 2. Remove the headlamp mounting bolts.
- 3. Remove the holding clip (A)* and the harness clip (B).
 *: Left side only
- 4. Pull out the headlamp assembly forward the vehicle.
- 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-172, "Description".

Replacement

CAUTION:

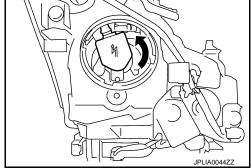
- Disconnect the battery negative terminal or remove the fuse.
- After installing the bulb, install the resin cap and the bulb socket securely for watertightness.
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- · Never touch bulb by hand while it is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

HEADLAMP BULB

- 1. Remove the fender protector. Refer to <u>EXT-27</u>, <u>"FENDER PROTECTOR: Exploded View"</u>. Keep a service area.
- 2. Rotate the resin cap counterclockwise and unlock it.
- 3. Rotate the bulb socket counterclockwise and unlock it.
- 4. Remove the retaining spring lock. Remove the bulb from the headlamp housing.

CAUTION:

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



PARKING/FRONT SIDE MARKER LAMP BULB

- 1. Remove the fender protector. Refer to <u>EXT-27</u>, "FENDER PROTECTOR: Exploded View". Keep a service area.
- 2. Rotate the bulb socket counterclockwise and unlock it.
- 3. Remove the bulb from the bulb socket.

FRONT TURN SIGNAL LAMP BULB

Remove the air cleaner case. Refer to <u>EM-182, "Exploded View"</u>.

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FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

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

Disassembly and Assembly

INFOID:0000000006209485

DISASSEMBLY

- 1. Rotate the resin cap counterclockwise and unlock it.
- 2. Rotate the xenon bulb socket counterclockwise and unlock it.
- 3. Remove the retaining spring lock. Remove the xenon bulb.
- Remove the HID control unit installation screw.
- 5. Disconnect the HID control unit harness, and then remove the HID control unit.
- 6. Rotate the parking/front side marker lamp bulb socket counterclockwise and unlock it.
- 7. Remove the bulb from the parking/front side marker lamp bulb socket.
- 8. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
- 9. Remove the bulb from the front turn signal lamp bulb socket.
- Remove the bulb socket from the headlamp housing assembly.

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.

[XENON TYPE]

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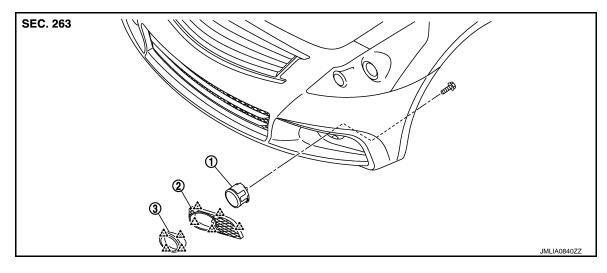
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FRONT FOG LAMP

Exploded View INFOID:0000000006209486



Front fog lamp : Pawl

Bumper grille (Sports bumper)

Bumper finisher

INFOID:0000000006209487

Removal and Installation

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- Remove the engine lower cover. Refer to <u>EXT-32</u>, "Removal and Installation".
- Remove the bumper grille (Sports bumper). Refer to EXT-12, "Exploded View".
- 3. Remove the bumper finisher. Refer to EXT-12, "Exploded View".
- Disconnect the fog lamp harness connector.
- Remove the mounting bolt.
- 6. 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-174, "Description"

Replacement INFOID:0000000006209488

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

Remove the front fender protector. Keep the service area. Refer to EXT-27, "FENDER PROTECTOR: Removal and Installation".

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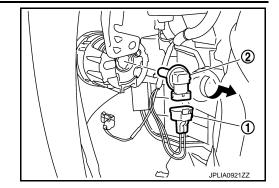
EXL-179 Revision: 2011 November 2011 G Sedan

FRONT FOG LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

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



[XENON TYPE]

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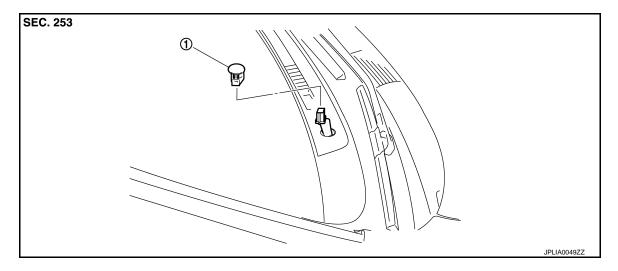
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OPTICAL SENSOR

Exploded View



1. Optical sensor

Removal and Installation

INFOID:0000000006209490

REMOVAL

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

The lighting & turn signal switch is integrated in the combination switch. BCS-83, "Exploded View".

HAZARD SWITCH [XENON TYPE] < REMOVAL AND INSTALLATION > HAZARD SWITCH Exploded View INFOID:0000000006209492 The hazard switch is integrated in the multifunction switch. Refer to AV-98, "Exploded View".

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STEERING ANGLE SENSOR

< REMOVAL AND INSTALLATION >

[XENON TYPE]

STEERING ANGLE SENSOR

Removal and Installation

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

[XENON TYPE]

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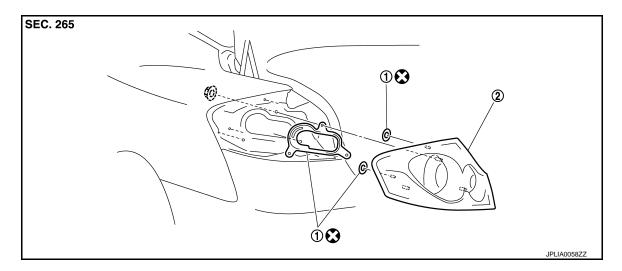
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REAR COMBINATION LAMP

Exploded View INFOID:0000000006209494



Seal packing

Rear combination lamp

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

Removal and Installation

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- Remove the rear wheel house finisher. Refer to EXT-28, "REAR WHEEL HOUSE PROTECTOR: Exploded View".
- 2. Disconnect the rear combination lamp connector.
- Remove the rear combination lamp mounting nuts.
- Pull the rear combination lamp toward rear of the vehicle. Remove the rear combination lamp.

INSTALLATION

Install in the reverse order of removal.

Replacement INFOID:00000000006209496

CAUTION:

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

REAR TURN SIGNAL LAMP BULB

Remove the rear wheel house finisher. Refer to EXT-28, "REAR WHEEL HOUSE PROTECTOR : Exploded View".

EXL-185

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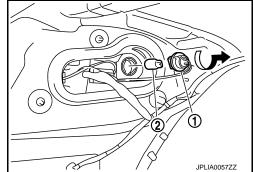
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REAR COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

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



[XENON TYPE]

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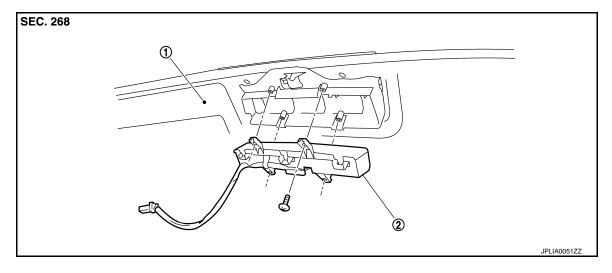
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HIGH-MOUNTED STOP LAMP

Exploded View



- 1. Rear parcel shelf finisher
- 2. High-mounted stop lamp

Removal and Installation

INFOID:0000000006209498

REMOVAL

- 1. Remove the rear parcel shelf finisher. Refer to INT-20, "Exploded View".
- 2. Remove the screws. And then remove the high-mounted stop lamp from the rear parcel shelf finisher.

INSTALLATION

Install in the reverse order of removal.

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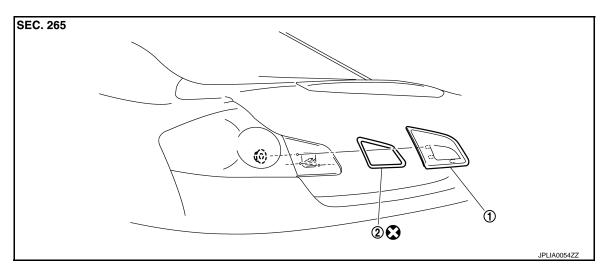
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BACK-UP LAMP

Exploded View



Back-up lamp

Seal packing

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

Removal and Installation

INFOID:0000000006209500

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- 1. Remove the trunk lid finisher inner. Refer to EXT-41, "Exploded View".
- 2. Disconnect the back-up lamp connector.
- Remove the back-up lamp mounting nuts. And then remove the back-up lamp.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Seal packing cannot be reused.

Replacement

CAUTION:

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

BACK-UP LAMP BULB

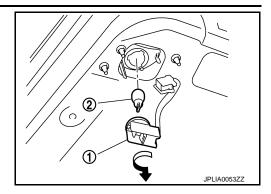
- Remove the trunk lid finisher inner. Refer to EXT-41, "Exploded View".
- Disconnect the back-up lamp connector.

BACK-UP LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

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



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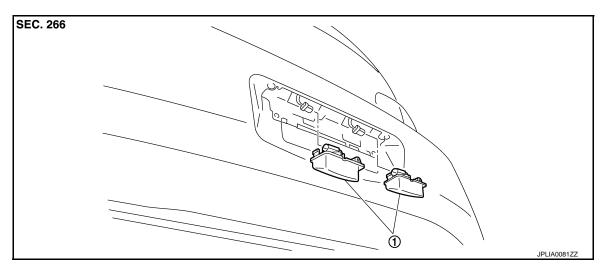
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LICENSE PLATE LAMP

Exploded View



License plate lamp

Removal and Installation

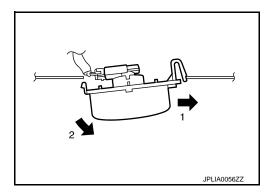
INFOID:0000000006209503

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

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



INSTALLATION

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

Replacement

CAUTION:

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

LICENSE PLATE LAMP BULB

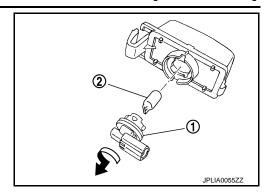
Remove the license plate lamp.

LICENSE PLATE LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

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



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SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[XENON TYPE]

INFOID:0000000006209505

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

Item		Type	Wattage (W)
Front combination lamp	Headlamp (HI/LO)	D2S (Xenon)	35
	Front turn signal lamp	WY21W (Amber)	21
	Parking/front side marker lamp	WY5W (Amber)	5
Front fog lamp		H8	35
Rear combination lamp	Stop/tail lamp	LED	_
	Rear turn signal lamp	W21W	21
	Rear side marker lamp	LED	_
	Back-up lamp	W16W	16
License plate lamp		W5W	5
High-mounted stop lamp		LED	_