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PRECAUTIONS

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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. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which 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 the SR section.
- Do not 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:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT 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 three minutes before performing any service.

Precaution for Work

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.
- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

PREPARATION

< PREPARATION >

PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000009757468	В
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The actual shape	e of the tools may	differ from those	e illustrated here.

Tool number (TechMate No.) Tool name		Description
— (J-46534) Trim Tool Set	AWJIA0483ZZ	Removing trim components

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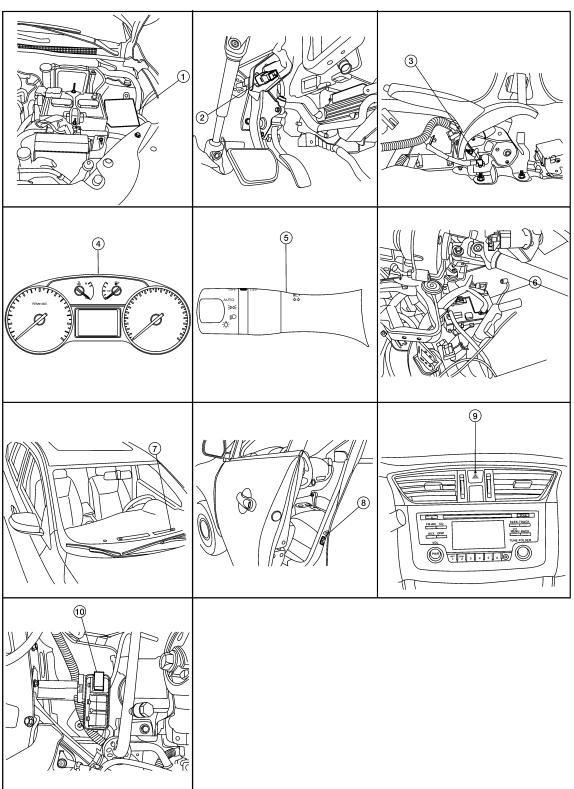
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SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

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AWLIA2057ZZ

COMPONENT PARTS

< SYSTEM DESCRIPTION >

Combination meter

- IPDM E/R, (Headlamp high relay, Headlamp low relay, Taillamp relay and Front fog lamp relay (if equipped))
- 2.
 - 5. Combination switch

Stop lamp switch

6. BCM (view with combination meter removed)

Parking brake switch

7. Optical sensor

- (lighting and turn signal switch) Front door switch LH (Other doors similar)
- Hazard switch 9.

3.

10. Daytime light relay (if equipped)

Component Description

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Part	Description		
BCM	Controls the exterior lighting system.		
Combination switch (Lighting & turn signal switch)	Refer to <u>BCS-9</u> , " <u>COMBINATION SWITCH READING SYSTEM</u> : <u>System Description</u> " (with Intelligent Key system) or <u>BCS-80</u> , " <u>COMBINATION SWITCH READING SYSTEM</u> : <u>System Description</u> " (without Intelligent Key system).		
IPDM E/R	Controls the integrated relays and supplies voltage to the load according to the request from the BCM via CAN communication.		
Stop lamp switch	Transmits power when the brake pedal is pressed to operate stop lamps.		
Combination meter	Refer to MWI-8, "METER SYSTEM: System Description".		
Daytime light relay (if equipped)	Sends power to the daytime lamp when operated by the IPDM E/R.		
Front door switch LH/RH	Transmits the deer one signal to the DCM		
Rear door switch LH/RH	Transmits the door open signal to the BCM.		
Optical sensor	Optical sensor converts the outside brightness (lux) to voltage and transmits the optical sensor signal to BCM to operate the autolight system.		
Parking brake switch	Transmits the parking brake switch signal to the combination meter to operate the autolight system.		
Hazard switch	Inputs the hazard switch signal to BCM.		

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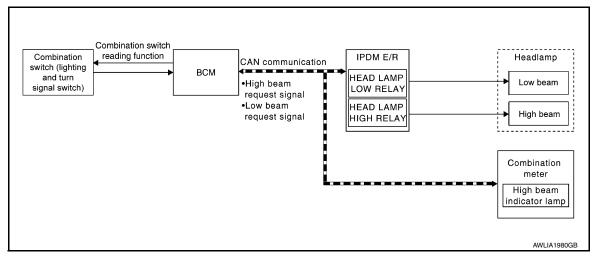
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EXL-7 Revision: October 2013 2014 Sentra NAM

SYSTEM HEADLAMP SYSTEM

HEADLAMP SYSTEM: System Diagram

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HEADLAMP SYSTEM: System Description

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LOW BEAM OPERATION

When the lighting switch is in 2nd position, the BCM receives input requesting the headlamps to illuminate. This input is communicated to the IPDM E/R across the CAN communication lines. The CPU of the IPDM E/R controls the headlamp low relay coil which supplies power to the low beam headlamps.

HIGH BEAM OPERATION/FLASH-TO-PASS OPERATION

With the lighting switch in the 2nd position and placed in HIGH position, the BCM receives input requesting the headlamp high beams to illuminate. The flash to pass feature can be used any time and also sends a signal to the BCM. This input is communicated to the IPDM E/R across the CAN communication lines. The CPU of the combination meter controls the ON/OFF status off the HIGH BEAM indicator. The CPU of the IPDM E/R controls the headlamp high relay coil which supplies power to the high beam headlamps.

The combination meter receives a high beam request signal (ON) through the CAN communication lines and turns the high beam indicator lamp ON.

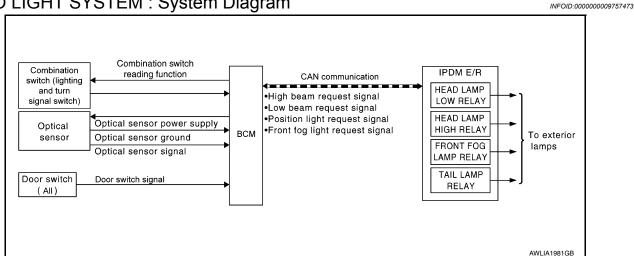
EXTERIOR LAMP BATTERY SAVER CONTROL

With the combination switch (lighting and turn signal switch) in the 2nd position and the ignition switch is turned from ON or ACC to OFF, the battery saver feature is activated.

Under this condition, the headlamps remain illuminated for a period of time, unless the lighting switch position is changed. If the lighting switch position is changed, then the headlamps are turned off.

AUTO LIGHT SYSTEM

AUTO LIGHT SYSTEM: System Diagram



AUTO LIGHT SYSTEM: System Description

INFOID:0000000009757474

- BCM (Body Control Module) controls auto light operation according to signals from optical sensor, lighting switch and ignition switch.
- IPDM E/R (Intelligent Power Distribution Module Engine Room) operates parking, license plate, tail, front fog lamps and headlamps according to CAN communication signals from BCM.
- Optical sensor detects ambient brightness of 800 to 2,500 lux. And optical sensor converts light (lux) to voltage, then sends the optical sensor signal to BCM.

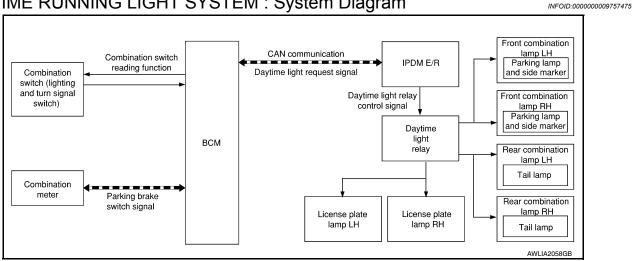
OUTLINE

The auto light control system has an optical sensor that detects outside brightness.

When the lighting switch is in AUTO position, it automatically turns ON/OFF the parking, license plate, tail, front fog lamps and headlamps in accordance with the ambient light. Sensitivity can be adjusted. For the details of the setting, Refer to EXL-19, "HEADLAMP: CONSULT Function (BCM - HEAD LAMP)".

DAYTIME RUNNING LIGHT SYSTEM

DAYTIME RUNNING LIGHT SYSTEM: System Diagram



DAYTIME RUNNING LIGHT SYSTEM: System Description

INFOID:0000000009757476

System Description

The daytime light system is equipped with a daytime light control that activates the daytime lights when the engine is operating. If the parking brake is applied, the daytime lights will turn OFF. The daytime lights will turn ON when the parking brake is released.

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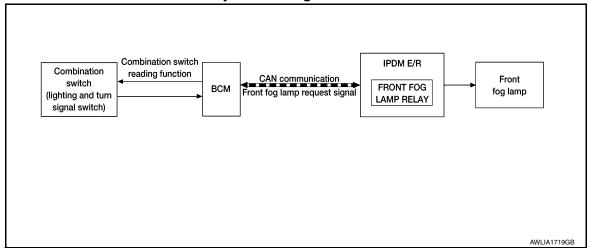
OPERATION

The BCM monitors inputs from the parking brake switch and the combination switch (lighting and turn signal switch) to determine when to operate the daytime light system. The BCM sends a daytime light request to the IPDM E/R via the CAN communication lines. The IPDM E/R grounds the daytime light relay which in turn, provides power to the daytime lights.

FRONT FOG LAMP SYSTEM

FRONT FOG LAMP SYSTEM: System Diagram

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FRONT FOG LAMP SYSTEM: System Description

INFOID:0000000009757478

The front fog lamps are activated with the combination switch (lighting and turn signal switch). The lighting switch signal to the BCM is monitored with the BCM combination switch reading function. When the fog lamps are turned ON with the lighting switch, the BCM sends a front fog lamp request signal via CAN communication lines to the IPDM E/R. The IPDM E/R grounds the front fog lamp relay coil to activate the front fog lamps.

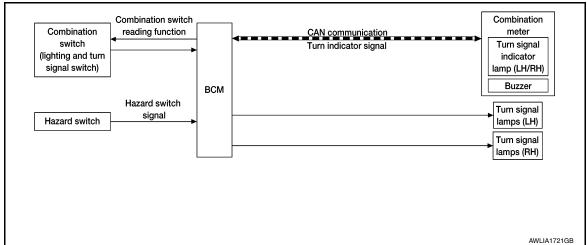
FRONT FOG LAMP OPERATION

When the lighting switch is in front fog lamp ON position and also in 1st or 2nd position or AUTO position (headlamp is ON), the BCM detects FR FOG ON and the HEAD LAMP 1, 2 ON or the AUTO LIGHT ON. The BCM sends a front fog lamp request ON signal via the CAN communication lines to the IPDM E/R. The IPDM E/R then turns ON the front fog lamp relay sending power to the front fog lamps.

TURN SIGNAL AND HAZARD WARNING LAMPS

TURN SIGNAL AND HAZARD WARNING LAMPS: System Diagram

INFOID:0000000009757479



TURN SIGNAL AND HAZARD WARNING LAMPS: System Description

INFOID:0000000009757480

TURN SIGNAL OPERATION

< SYSTEM DESCRIPTION >

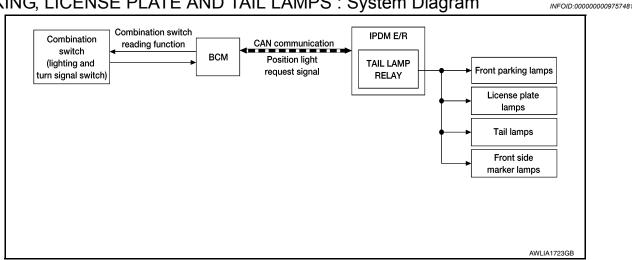
When the combination switch (lighting and turn signal switch) is in LH or RH turn position with the ignition switch in the ON position, the BCM receives input requesting the turn RH or turn LH lamps to illuminate. The BCM controls the turn signal power to the respective turn signal lamp. The BCM also sends a turn indicator signal ON request via the CAN communication lines to the combination meter. The combination meter then activates the appropriate turn signal indicator and audible buzzer.

HAZARD LAMP OPERATION

When the hazard switch is in the ON position, the BCM receives input requesting the hazard lamps illuminate. The BCM controls the turn signal power to both the LH and RH turn signal lamps. The BCM sends a hazard indicator signal ON request via the CAN communication lines to the combination meter. The combination meter then activates both the LH and RH turn signal indicators and audible buzzer.

PARKING, LICENSE PLATE AND TAIL LAMPS

PARKING, LICENSE PLATE AND TAIL LAMPS: System Diagram



PARKING, LICENSE PLATE AND TAIL LAMPS: System Description

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PARKING, LICENSE PLATE AND TAIL LAMPS OPERATION

When the lighting switch is in 1st or 2nd position, BCM detects the LIGHTING SWITCH 1st or 2nd POSITION ON. The BCM sends a parking light ON request via the CAN communication lines to the IPDM E/R. The IPDM E/R then activates the tail lamp relay which sends power to the parking and instrument illumination circuits.

EXTERIOR LAMP BATTERY SAVER CONTROL

With the combination switch (lighting and turn signal switch) in the 1st or 2nd position and the ignition switch is turned from ON or ACC to OFF, the battery saver feature is activated.

Under this condition, the exterior lamps remain illuminated for a period of time unless the lighting switch position is changed. If the lighting switch position is changed, then the exterior lamps are turned off.

COMBINATION SWITCH READING SYSTEM

COMBINATION SWITCH READING SYSTEM: System Diagram (With Intelligent Key

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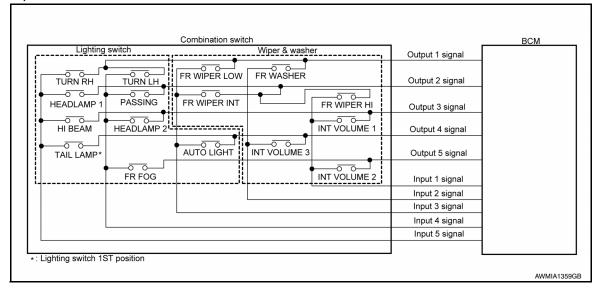
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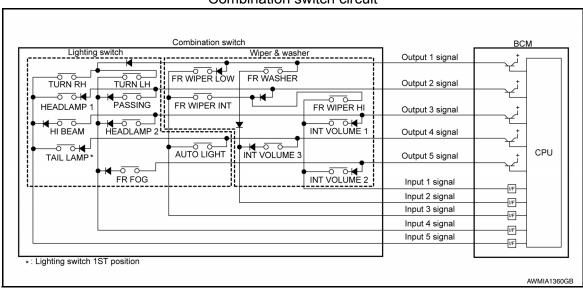
COMBINATION SWITCH READING SYSTEM: System Description (With Intelligent Key System)

OUTLINE

- BCM reads the status of the combination switch (light, turn signal, wiper and washer) and recognizes the status of each switch.
- BCM has a combination of 5 output terminals (OUTPUT 1 5) and 5 input terminals (INPUT 1 5). It reads a
 maximum of 20 switch states.

COMBINATION SWITCH MATRIX

Combination switch circuit



Combination switch INPUT-OUTPUT system list

System	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
OUTPUT 1	_	FR WASHER	FR WIPER LOW	TURN LH	TURN RH
OUTPUT 2	FR WIPER HI	_	FR WIPER INT	PASSING	HEADLAMP 1
OUTPUT 3	INT VOLUME 1	_	_	HEADLAMP 2	HI BEAM
OUTPUT 4	_	INT VOLUME 3	AUTO LIGHT	_	TAIL LAMP
OUTPUT 5	INT VOLUME 2	_	_	FR FOG	_

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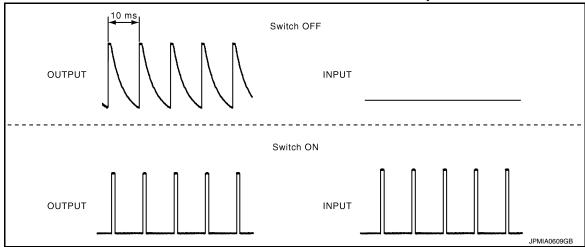
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COMBINATION SWITCH READING FUNCTION

Description

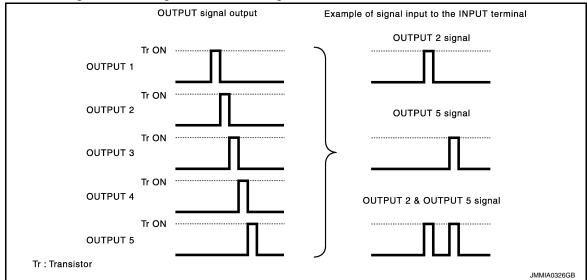
• BCM reads the status of the combination switch at 10 ms intervals normally.



NOTE:

BCM reads the status of the combination switch at 60 ms intervals when BCM is controlled at low power consumption control mode.

- BCM operates as follows and judges the status of the combination switch.
- It operates the transistor on OUTPUT side in the following order: OUTPUT 1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5, and outputs voltage waveform.
- The voltage waveform of OUTPUT corresponding to the formed circuit is input into the interface on INPUT side if any (1 or more) switches are ON.
- It reads this change of the voltage as the status signal of the combination switch.

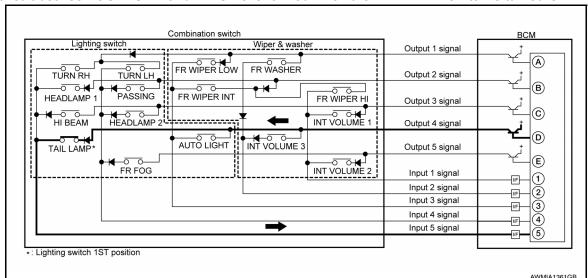


Operation Example

In the following operation example, the combination of the status signals of the combination switch is replaced as follows: INPUT 1 - 5 to "1 - 5" and OUTPUT 1 - 5 to "A - E".

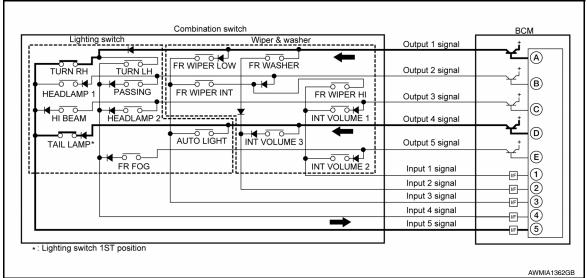
Example 1: When a switch (TAIL LAMP) is turned ON

• The circuit between OUTPUT 4 and INPUT 5 is formed when the TAIL LAMP switch is turned ON.



- BCM detects the combination switch status signal "5D" when the signal of OUTPUT 4 is input to INPUT 5.
- BCM judges that the TAIL LAMP switch is ON when the signal "5D" is detected.

Example 2: When some switches (TURN RH, TAIL LAMP) are turned ON
• The circuits between OUTPUT 1 and INPUT 5 and between OUTPUT 4 and INPUT 5 are formed when the TURN RH switch and TAIL LAMP switch are turned ON.



- BCM detects the combination switch status signal "5AD" when the signals of OUTPUT 1 and OUTPUT 4 are input to INPUT 5.
- BCM judges that the TURN RH switch and TAIL LAMP switch are ON when the signal "5AD" is detected.

WIPER INTERMITTENT DIAL POSITION

BCM judges the wiper intermittent dial 1 - 7 by the status of INT VOLUME 1, 2 and 3 switches.

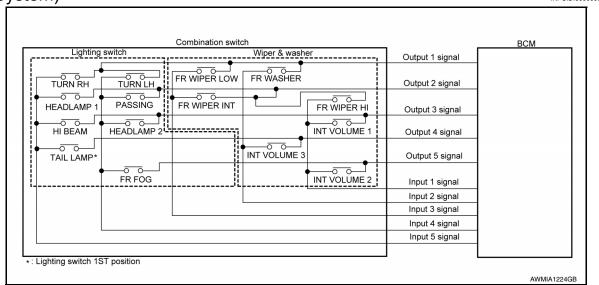
Wiper intermittent	Switch status			Switch status	
dial position	INT VOLUME 1	INT VOLUME 2	INT VOLUME 3		
1	ON	ON	ON		
2	ON	ON	OFF		
3	ON	OFF	OFF		
4	OFF	OFF	OFF		
5	OFF	OFF	ON		

Wiper intermittent	Switch status		
dial position	INT VOLUME 1	INT VOLUME 2	INT VOLUME 3
6	OFF	ON	ON
7	OFF	ON	OFF

NOTE:

For details of wiper intermittent dial position, refer to WW-8, "System Description".

COMBINATION SWITCH READING SYSTEM: System Diagram (Without Intelligent Key System)



COMBINATION SWITCH READING SYSTEM: System Description (Without Intelligent Key System)

OUTLINE

- BCM reads the status of the combination switch (light, turn signal, wiper and washer) and recognizes the status of each switch.
- BCM has a combination of 5 output terminals (OUTPUT 1 5) and 5 input terminals (INPUT 1 5). It reads a
 maximum of 20 switch states.

COMBINATION SWITCH MATRIX

Combination switch circuit Combination switch **BCM** Output 1 signal FR WASHER FR WIPER LOW TURN LH —o o— TURN RH Output 2 signal M—⊙ ⊙— PASSING FR WIPER HI FR WIPER INT HEADLAMP 1 Output 3 signal HEADLAMP 2 INT VOLUME 1 HI BEAM Output 4 signal INT VOLUME 3 CPU TAIL LAMP Output 5 signal INT VOLUME 2 FR FOG Input 1 signal Input 2 signal I/F Input 3 signal I/F Input 4 signal I/F Input 5 signal I/F *: Lighting switch 1ST position AWMIA1221GB

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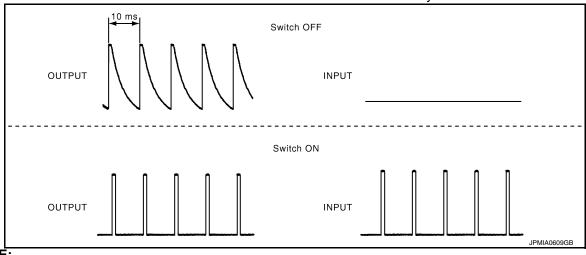
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Combination switch INF	Combination switch INPUT-OUTPUT system list									
System	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5					
OUTPUT 1	_	FR WASHER	FR WIPER LOW	TURN LH	TURN RH					
OUTPUT 2	FR WIPER HI	_	FR WIPER INT	PASSING	HEADLAMP 1					
OUTPUT 3	INT VOLUME 1	_	_	HEADLAMP 2	HI BEAM					
OUTPUT 4	_	INT VOLUME 3	_	_	TAIL LAMP					
OUTPUT 5	INT VOLUME 2	_	_	FR FOG	_					

COMBINATION SWITCH READING FUNCTION

Description

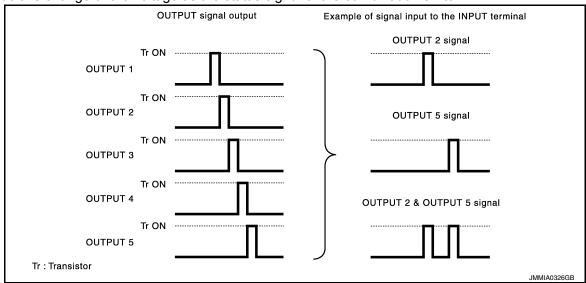
BCM reads the status of the combination switch at 10 ms intervals normally.



NOTE:

BCM reads the status of the combination switch at 60 ms intervals when BCM is controlled at low power consumption control mode.

- BCM operates as follows and judges the status of the combination switch.
- It operates the transistor on OUTPUT side in the following order: OUTPUT 1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5, and outputs voltage waveform.
- The voltage waveform of OUTPUT corresponding to the formed circuit is input into the interface on INPUT side if any (1 or more) switches are ON.
- It reads this change of the voltage as the status signal of the combination switch.

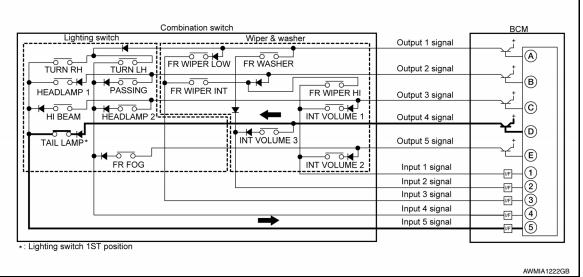


Operation Example

In the following operation example, the combination of the status signals of the combination switch is replaced as follows: INPUT 1 - 5 to "1 - 5" and OUTPUT 1 - 5 to "A - E".

Example 1: When a switch (TAIL LAMP) is turned ON

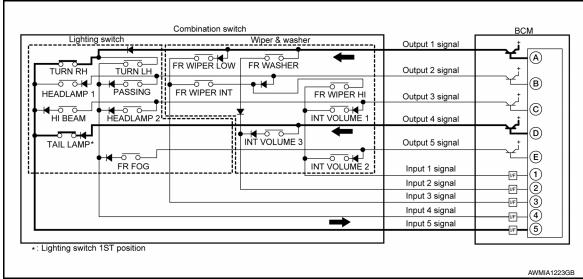
The circuit between OUTPUT 4 and INPUT 5 is formed when the TAIL LAMP switch is turned ON.



- BCM detects the combination switch status signal "5D" when the signal of OUTPUT 4 is input to INPUT 5.
- BCM judges that the TAIL LAMP switch is ON when the signal "5D" is detected.

Example 2: When some switches (TURN RH, TAIL LAMP) are turned ON

 The circuits between OUTPUT 1 and INPUT 5 and between OUTPUT 4 and INPUT 5 are formed when the TURN RH switch and TAIL LAMP switch are turned ON.



- BCM detects the combination switch status signal "5AD" when the signals of OUTPUT 1 and OUTPUT 4 are input to INPUT 5.
- BCM judges that the TURN RH switch and TAIL LAMP switch are ON when the signal "5AD" is detected.

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< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000010309869

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	 The vehicle specification can be read and saved. The vehicle specification can be written when replacing BCM.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions.

				Direct [Diagnosti	c Mode		
System	Sub System	ECU identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR
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 conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×	×		
Interior room lamp battery saver	BATTERY SAVER			×	×	×		
Trunk open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		

< SYSTEM DESCRIPTION >

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEAD LAMP)

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DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
ENGINE STATE [Stop/Stall/Crank/Run]	Indicates engine status received from ECM on CAN communication line.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.
TURN SIGNAL R [On/Off]	
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW 1 [On/Off]	Indicates condition of combination switch.
HEAD LAMP SW 2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicates condition of trunk switch.
OPTI SEN (DTCT) [V]	Indicates outside brightness voltage signal from optical sensor.
OPTI SEN (FILT) [V]	Indicates outside brightness voltage signal from optical sensor filtered by BCM.

ACTIVE TEST

Test Item	Description
FR FOG LAMP	This test is able to check front fog lamp operation [On/Off].
HEAD LAMP	This test is able to check head lamp operation [Hi/Low/Off].
ILL DIM SIGNAL	This test is able to check head lamp illumination dimming operation [On/Off].
TAIL LAMP	This test is able to check tail lamp operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
	MODE 1*	With twilight ON custom & with wiper INT, LO and HI
	MODE 2	Witt twilight ON custom & with wiper LO and HI
AUTO LIGHT LOGIC SET	MODE 3	With twilight ON custom & without
AUTO EIGITI EOGIC SET	MODE 4	Without twilight ON custom & with wiper INT, LO and HI
	MODE 5	Without twilight ON custom & with wiper LO and HI
	MODE 6	Without twilight ON custom & without
BATTERY SAVER SET	On*	Exterior lamp battery saver function ON.
DATTENT SAVENSET	Off	Exterior lamp battery saver function OFF.
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< SYSTEM DESCRIPTION >

Support Item Setting		tting	Description				
	MODE 1*		Normal				
CUSTOM A/LIGHT SETTING	MODE 2		More sensitive setting than normal setting (Turns ON earlier than normal operation)				
COSTONI A/LIGITI SETTING	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)				
	MODE 8	180 sec.					
	MODE 7	150 sec.					
	MODE 6	120 sec.					
ILL DELAY SET	MODE 4	60 sec.	Sets delay timer function operation time				
ILL DELAY SET	MODE 5	90 sec.	(All doors closed).				
	MODE 3	30 sec.					
	MODE 2	OFF					
	MODE 1*	45 sec.					

^{*:} Initial setting

FLASHER

FLASHER: CONSULT Function (BCM - FLASHER)

INFOID:0000000010309868

DATA MONITOR

Monitor Item [Unit]	Description				
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.				
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.				
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.				
TURN SIGNAL R [On/Off]	Indicates condition of turn signal function of combination switch.				
TURN SIGNAL L [On/Off]	indicates condition of turn signal function of combination switch.				
HAZARD SW [On/Off]	Indicates condition of hazard switch.				
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.				
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.				
RKE-PANIC [On/Off]	Indicates condition of panic alarm signal from Intelligent Key.				

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation [Off/LH/RH].

WORK SUPPORT

Support Item	Support Item Setting Description				
HAZARD ANSWER BACK	Lock/Unlock*	Hazard warning lamp activation when doors are locked or unlocked with Intelligent Key.			
	Unlock Only	Hazard warning lamp activation when doors are unlocked with Intelligent Key.			
	Lock Only	Hazard warning lamp activation when doors are locked with Intelligent Key.			
	Off	No hazard warning lamp activation when doors are locked or unlocked with Intelligent Key.			

^{*:} Initial setting

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000010308705

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	 The vehicle specification can be read and saved. The vehicle specification can be written when replacing BCM.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions.

				Direct D	Diagnosti	c Mode		
System	Sub System	ECU identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×			
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Remote keyless entry system	MULTI REMOTE ENT			×	×	×		
Exterior lamp	HEAD LAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Air conditioner	AIR CONDITIONER			×				
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×		×	×		
Interior room lamp battery saver	BATTERY SAVER			×	×	×		
Trunk open	TRUNK			×				
RAP system	RETAINED PWR			×		×		
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		
Panic alarm system	PANIC ALARM				×			

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< SYSTEM DESCRIPTION >

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEAD LAMP)

INFOID:0000000010308710

DATA MONITOR

Monitor Item [Unit]	Description		
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.		
ACC ON SW [On/Off]	Indicates condition of ignition switch ACC position.		
HI BEAM SW [On/Off]			
HEAD LAMP SW 1 [On/Off]			
HEAD LAMP SW 2 [On/Off]	Indicates condition of combination switch.		
TAIL LAMP SW [On/Off]	indicates condition of combination switch.		
PASSING SW [On/Off]			
FR FOG SW [On/Off]			
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.		
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.		
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.		
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.		
TURN SIGNAL R [On/Off]	Indicates condition of combination switch.		
TURN SIGNAL L [On/Off]	indicates condition of combination switch.		
KEY ON SW [On/Off]	Indicates condition of key switch.		
KEYLESS LOCK [On/Off]	Indicates condition of lock signal from keyfob.		
PKB SW [On/Off]	Indicates park brake switch signal received from combination meter on CAN communic tion line.		
ENGINE RUN [On/Off]	Indicates engine run signal received from ECM on CAN communication line.		
VEHICLE SPEED [km/h/mph]	Indicates vehicle speed signal received from combination meter on CAN communication line.		

ACTIVE TEST

Test Item	Description
TAIL LAMP	This test is able to check tail lamp operation [On/Off].
HEAD LAMP	This test is able to check head lamp operation [Hi/Low/Off].
FR FOG LAMP	This test is able to check front fog lamp operation [On/Off].
ILL DIM SIGNAL	This test is able to check head lamp illumination dimming operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
BATTERY SAVER SET	On*	Exterior lamp battery saver function ON.
BATTERT SAVER SET	Off	Exterior lamp battery saver function OFF.

< SYSTEM DESCRIPTION >

Support Item	Setting		Description	-
	MODE 8	180 sec.		_
	MODE 7	150 sec.		
	MODE 6	120 sec.		
ILL DELAY SET	MODE 4	60 sec.	Sets delay timer function operation time	
ILL DELAT SET	MODE 5	90 sec.	(All doors closed).	
	MODE 3	30 sec.		
	MODE 2	OFF		
	MODE 1*	45 sec.		

^{* :} Initial setting

FLASHER

FLASHER: CONSULT Function (BCM - FLASHER)

INFOID:0000000010308709

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DATA MONITOR

Monitor Item [Unit]	Description	
HAZARD SW [On/Off]	Indicates condition of hazard switch.	
TURN SIGNAL R [On/Off]	Indicates condition of turn signal function of combination switch.	
TURN SIGNAL L [On/Off]	- indicates condition of turn signal function of combination switch.	

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation [Off/LH/RH].

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< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (IPDM E/R) (WITH INTELLIGENT KEY SYSTEM)

Diagnosis Description

INFOID:0000000010287618

AUTO ACTIVE TEST

Description

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

- Front wiper (LO, HI)
- Parking lamp
- License plate lamp
- Tail lamp
- Front fog lamp (if equipped)
- Headlamp (LO, HI)
- A/C compressor (magnet clutch)
- Cooling fan

Operation Procedure

NOTE:

Never perform auto active test in the following conditions.

- · Passenger door is open
- CONSULT is connected
- Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation)

NOTE:

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

- 2. Turn the ignition switch OFF.
- 3. Turn the ignition switch ON, and within 20 seconds, press the driver door switch 10 times. Then turn the ignition switch OFF.
- 4. Turn the ignition switch ON within 10 seconds. After that the horn sounds once and the auto active test starts.
- 5. After a series of the following operations is repeated 3 times, auto active test is completed.

NOTE

- When auto active test has to be cancelled halfway through test, turn the ignition switch OFF.
- When auto active test is not activated, door switch may be the cause. Check door switch. Refer to <u>DLK-103</u>, <u>"Component Inspection"</u>.

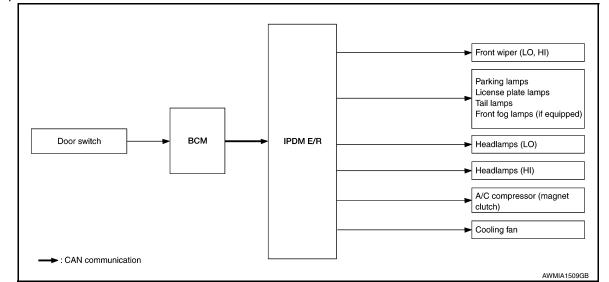
Inspection in Auto Active Test

When auto active test is actuated, the following operation sequence is repeated 3 times.

Operation sequence	Inspection location	Operation
1	Front wiper	LO for 5 seconds → HI for 5 seconds
2	Parking lamp License plate lamp Tail lamp Front fog lamp (if equipped)	10 seconds
3	Headlamp	LO for 10 seconds →HI ON ⇔ OFF 5 times
4	A/C compressor (magnet clutch)	ON ⇔ OFF 5 times
5	Cooling fan	LO for 5 seconds \rightarrow MID for 3 seconds \rightarrow HI for 2 seconds

< SYSTEM DESCRIPTION >

Concept of Auto Active Test



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

Diagnosis Chart in Auto Active Test

Symptom	Inspection contents		Possible cause
Any of the following components do not operate • Parking lamp		YES	BCM signal input circuit
 License plate lamp Tail lamp Front fog lamp (if equipped) 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	BCM signal input circuit CAN communication signal between BCM 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	ECM signal input circuit CAN communication signal between ECM and IPDM E/R
Cooling fan does not operate	Does the cooling fan operate?	NO	Cooling fan motor Harness or connector between IPDM E/R and cooling fan motor IPDM E/R

CONSULT Function (IPDM E/R)

INFOID:0000000010287619

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APPLICATION ITEM

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

Direct Diagnostic Mode	Description
Ecu Identification	The IPDM E/R part number is displayed.
Self Diagnostic Result	The IPDM E/R self diagnostic results are displayed.
Data Monitor	The IPDM E/R input/output data is displayed in real time.

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< SYSTEM DESCRIPTION >

Direct Diagnostic Mode	Description
Active Test	The IPDM E/R activates outputs to test components.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

The IPDM E/R part number is displayed.

SELF DIAGNOSTIC RESULT

Refer to PCS-20, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Main Signals	Description	
MOTOR FAN REQ [%]	×	Indicates cooling fan speed signal received from ECM on CAN communication line	
AC COMP REQ [On/Off]	×	Indicates A/C compressor request signal received from ECM on CAN communication line	
TAIL&CLR REQ [On/Off]	×	Indicates position light request signal received from BCM on CAN communication line	
HL LO REQ [On/Off]	×	Indicates low beam request signal received from BCM on CAN communication line	
HL HI REQ [On/Off]	×	Indicates high beam request signal received from BCM on CAN communication line	
FR FOG REQ [On/Off]	×	Indicates front fog light request signal received from BCM on CAN communication line	
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Indicates front wiper request signal received from BCM on CAN communication line	
WIP AUTO STOP [STOP P/ACT P]	×	Indicates condition of front wiper auto stop signal	
WIP PROT [Off/BLOCK]	×	Indicates condition of front wiper fail-safe operation	
IGN RLY1 -REQ [On/Off]		Indicates ignition switch ON signal received from BCM on CAN communication line	
IGN RLY [On/Off]	×	Indicates condition of ignition relay	
PUSH SW [On/Off]		Indicates condition of push-button ignition switch	
INTER/NP SW [On/Off]		Indicates condition of CVT shift position	
ST RLY CONT [On/Off]		Indicates starter relay status signal received from BCM on CAN communication line	
IHBT RLY -REQ [On/Off]		Indicates starter control relay signal received from BCM on CAN communication line	
ST/INHI RLY [Off/ ST /INHI]		Indicates condition of starter relay and starter control relay	
DETENT SW [On/Off]		Indicates condition of CVT shift selector (park position switch)	
DTRL REQ [Off]		Indicates daytime light request signal received from BCM on CAN communication line	
THFT HRN REQ [On/Off]		Indicates theft warning horn request signal received from BCM on CAN communication line	
HORN CHIRP [On/Off]		Indicates horn reminder signal received from BCM on CAN communication line	

ACTIVE TEST

Test item	Description
HORN	This test is able to check horn operation [On].
REAR DEFOGGER	This test is able to check rear window defogger operation [On/Off].
FRONT WIPER	This test is able to check wiper motor operation [Hi/Lo/Off].

< SYSTEM DESCRIPTION >

Test item	Description
MOTOR FAN	This test is able to check cooling fan operation [4/3/2/1].
EXTERNAL LAMPS	This test is able to check external lamp operation [Fog/Hi/Lo/TAIL/Off].

CAN DIAG SUPPORT MNTR

Refer to LAN-13, "CAN Diagnostic Support Monitor".

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< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (IPDM E/R) (WITHOUT INTELLIGENT KEY SYSTEM)

Diagnosis Description

INFOID:0000000010287620

AUTO ACTIVE TEST

Description

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

- Front wiper (LO, HI)
- · Parking lamp
- License plate lamp
- Tail lamp
- Front fog lamp (if equipped)
- · Headlamp (LO, HI)
- A/C compressor (magnet clutch) (if equipped)
- Cooling fan

Operation Procedure

NOTE:

Never perform auto active test in the following conditions.

- Passenger door is open
- CONSULT is connected
- 1. Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation)

NOTE:

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

- 2. Turn the ignition switch OFF.
- 3. Turn the ignition switch ON, and within 20 seconds, press the driver door switch 10 times. Then turn the ignition switch OFF.
- 4. Turn the ignition switch ON within 10 seconds. After that the horn sounds once and the auto active test starts.
- 5. After a series of the following operations is repeated 3 times, auto active test is completed.

NOTE

- When auto active test has to be cancelled halfway through test, turn the ignition switch OFF.
- When auto active test is not activated, door switch may be the cause. Check door switch. Refer to <u>DLK-255</u>, "Component Inspection".

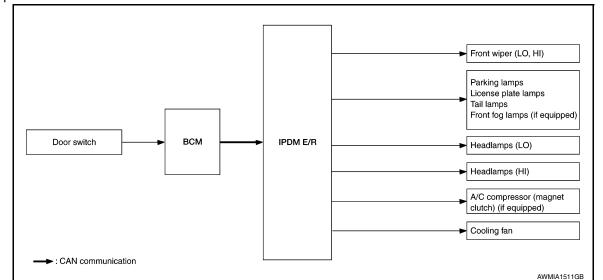
Inspection in Auto Active Test

When auto active test is actuated, the following operation sequence is repeated 3 times.

Operation sequence	Inspection location	Operation
1	Front wiper	LO for 5 seconds → HI for 5 seconds
2	Parking lampLicense plate lampTail lampFront fog lamp (if equipped)	10 seconds
3	Headlamp	LO for 10 seconds →HI ON ⇔ OFF 5 times
4	A/C compressor (magnet clutch) (if equipped)	ON ⇔ OFF 5 times
5	Cooling fan	LO for 5 seconds → MID for 3 seconds → HI for 2 seconds

< SYSTEM DESCRIPTION >

Concept of Auto Active Test



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

Diagnosis Chart in Auto Active Test

Symptom	Inspection contents		Possible cause
Any of the following components do not operate		YES	BCM signal input circuit
 Parking lamp License plate lamp Tail lamp Front fog lamp (if equipped) Headlamp (HI, LO) Front wiper (HI, LO) 	Perform auto active test. Does the applicable system operate?	NO	Lamp or motor Lamp or motor ground circuit Harness or connector between IPDM E/R and applicable system IPDM E/R
A/C compressor does not operate	Perform auto active test. Does the magnet clutch oper-	YES	BCM signal input circuit CAN communication signal between BCM and ECM CAN communication signal between ECM and IPDM E/R
	ate?	NO	Magnet clutch Harness or connector between IPDM E/R and magnet clutch IPDM E/R
	Perform auto active test	YES	ECM signal input circuit CAN communication signal between ECM and IPDM E/R
Cooling fan does not operate	Does the cooling fan operate?	NO	Cooling fan motor Harness or connector between IPDM E/R and cooling fan motor IPDM E/R

CONSULT Function (IPDM E/R)

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APPLICATION ITEM

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

Direct Diagnostic Mode	Description
Ecu Identification	The IPDM E/R part number is displayed.
Self Diagnostic Result	The IPDM E/R self diagnostic results are displayed.
Data Monitor	The IPDM E/R input/output data is displayed in real time.

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< SYSTEM DESCRIPTION >

Direct Diagnostic Mode	Description
Active Test	The IPDM E/R activates outputs to test components.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

The IPDM E/R part number is displayed.

SELF DIAGNOSTIC RESULT

Refer to PCS-48, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Main Signals	Description
MOTOR FAN REQ [%]	×	Indicates cooling fan speed signal received from ECM on CAN communication line
AC COMP REQ [On/Off]	×	Indicates A/C compressor request signal received from ECM on CAN communication line
TAIL&CLR REQ [On/Off]	×	Indicates position light request signal received from BCM on CAN communication line
HL LO REQ [On/Off]	×	Indicates low beam request signal received from BCM on CAN communication line
HL HI REQ [On/Off]	×	Indicates high beam request signal received from BCM on CAN communication line
FR FOG REQ [On/Off]	×	Indicates front fog light request signal received from BCM on CAN communication line
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Indicates front wiper request signal received from BCM on CAN communication line
WIP AUTO STOP [STOP P/ACT P]	×	Indicates condition of front wiper auto stop signal
WIP PROT [Off/BLOCK]	×	Indicates condition of front wiper fail-safe operation
IGN RLY1 -REQ [On/Off]		Indicates ignition switch ON signal received from BCM on CAN communication line
IGN RLY [On/Off]	×	Indicates condition of ignition relay
PUSH SW [On/Off]		Indicates condition of push-button ignition switch
INTER/NP SW [On/Off]		Indicates condition of CVT shift position
ST RLY CONT [On/Off]		Indicates starter relay status signal received from BCM on CAN communication line
IHBT RLY -REQ [On/Off]		Indicates starter control relay signal received from BCM on CAN communication line
ST/INHI RLY [Off/ ST /INHI]		Indicates condition of starter relay and starter control relay
DETENT SW [On/Off]		Indicates condition of CVT shift selector (park position switch)
DTRL REQ [Off]		Indicates daytime light request signal received from BCM on CAN communication line
THFT HRN REQ [On/Off]		Indicates theft warning horn request signal received from BCM on CAN communication line
HORN CHIRP [On/Off]		Indicates horn reminder signal received from BCM on CAN communication line

ACTIVE TEST

Test item	Description
HORN	This test is able to check horn operation [On].
REAR DEFOGGER	This test is able to check rear window defogger operation [On/Off].
FRONT WIPER	This test is able to check wiper motor operation [Hi/Lo/Off].

< SYSTEM DESCRIPTION >

Test item	Description
MOTOR FAN	This test is able to check cooling fan operation [4/3/2/1].
EXTERNAL LAMPS	This test is able to check external lamp operation [Fog/Hi/Lo/TAIL/Off].

CAN DIAG SUPPORT MNTR

Refer to LAN-13, "CAN Diagnostic Support Monitor".

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ECU DIAGNOSIS INFORMATION

BCM, IPDM E/R

List of ECU Reference

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ECU	Reference	
	BCS-29, "Reference Value"	
DCM (with Intelligent Key eyetem)	BCS-46, "Fail-safe"	
BCM (with Intelligent Key system)	BCS-48, "DTC Inspection Priority Chart"	
	BCS-49, "DTC Index"	
	BCS-97, "Reference Value"	
PCM (without Intelligent Key eyetem)	BCS-108, "Fail-safe"	
BCM (without Intelligent Key system)	BCS-108, "DTC Inspection Priority Chart"	
	BCS-109, "DTC Index"	
	PCS-13, "Reference Value"	
IPDM E/R (with Intelligent Key system)	PCS-19, "Fail-safe"	
	PCS-20, "DTC Index"	
	PCS-41, "Reference Value"	
IPDM E/R (without Intelligent Key system)	PCS-47, "Fail-Safe"	
	PCS-48, "DTC Index"	

WIRING DIAGRAM Α **HEADLAMP** Wiring Diagram INFOID:0000000009757498 В $\frac{\langle IK \rangle}{\langle OK \rangle}; WITH INTELLIGENT KEY SYSTEM$ С JOINT CONNECTOR-E02 (E2) JOINT CONNECTOR-M01 (M31) IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) (E43), (E46), (E47), (E48) D M2 E4 12 IGNITION RELAY-1 Е W CPU FRONT COMBI-NATION LAMP RH F 88 88 HEAD-LAMP LOW 15A 44 \$ \$ \$ \$ \$ \$ HEADLAMP LOW RELAY Н JOINT CONNECTOR-M03 (M53) 15A HEADLAMP HIGH RELAY HEAD-LOW LOW ₫ 4 HEAD-CLAMP HIGH ₹ 45 J K COMBI-NATION METER M24 IGNITION SWITCH ON OR START . 10 √ EXL JOINT CONNECTOR-M06 (M60) \bigotimes M (M85) H BEAM (BLUE) 5 2 8 14 12 13 10 7 9 1 COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH) (MZB) M84 W20 Ν BCM (BODY CONTROL MODULE) 12 15 0 (2) E4 HEADLAMP BATTERY Р W92

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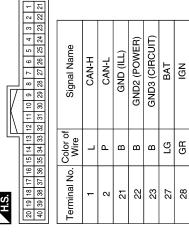
HEADLAMP CONNECTORS

MZ

	_						
0	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)	WHITE	70 69 68 67 66 65 70 69 69 70 70 70 70 70 70 70 7	Signal Name	BATTERY (FUSE)	GND	BATTERY (F/L)
. M20			104 G	Color of Wire	0	В	Υ
Connector No.	Connector Name	Connector Color	南 H.S.	Terminal No.	63	65	20

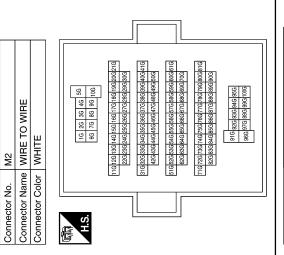
Signal Name	BATTERY (FUSE)	GND	BATTERY (F/L)
Color of Wire	0	В	Υ
Terminal No.	63	65	70

Connector Name COMBINATION METER Connector Color WHITE	Connector No.	M24
Connector Color WHITE	Connector Name	COMBINATION METER
	Connector Color	WHITE



Signal Name	1	_	1
Color of Wire	>	Ь	Γ
Terminal No. Wire	10G	95G	100G

Signal Name	COMBINATION SW INPUT 2	COMBINATION SW INPUT 1	COMBINATION SW OUTPUT 5	COMBINATION SW OUTPUT 4	COMBINATION SW OUTPUT 3	COMBINATION SW OUTPUT 2	COMBINATION SW OUTPUT 1	CAN-H	CAN-L
Color of Wire	0	>	Б	>	>	Œ	SB	Т	۵
Terminal No.	5	9	32	33	34	35	36	68	40



M21 BCM (B BCM (B Connector Name MODUL INTELL Connector Color WHITE MACOL MHITE MACOL MHITE MACOL MHITE MACOL MHITE MACOL MHITE MACOL MHITE MACOL MACOL	M21	Connector Name MODULE) (WITHOUT MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)	ИНТЕ	2 2 22 24 25 26 27 28 29 30 31 32 33 34 35 38 37 38 39 40	of Signal Name
Connector No Connector Na Connector Co H.S. H.S. Terminal No.		we	lor	6 7 8	Color (Wire
	Connector No.	Connector Na	Connector Co	H.S. 1 2 3 4 5 1 2 12 22 23 24 25 51	Terminal No.

	9 10 11 12 13 14 15 16 17 18 19 20	36 37 38 39 40				
	8	က				
	111	37		_	_	
	191	98	Je	COMBINATION SW INPUT 5	COMBINATION SW INPUT 4	COMBINATION SW INPUT 3
	15	မ္တ	lan	 	F5	F5
	14	용	<u> </u>	르	르	≧⊵
	13	22 23 24 25 26 27 28 29 30 31 32 33 34 35	Signal Name	OMBINATION SW INPUT 5	OMBINATION SW INPUT 4	OMBINATION SW INPUT 3
117	12	32	Ś	Öω	Ďω	ပြွတ်
W	Ξ	31				-
IΝ	2	ဗ္ဂ				
$ \Box$	6	83	<u></u>			
_	8	88	Solor o Wire		l ac	m
	7	27	∺		GR	BR
	9	92	0			
	2	25	9			
	4	24	=			
3	3	83	Ĭ.	7	က	4
	2	52	Terminal No. Wire			
•	ᄕ	21	<u> </u>			

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or No.	M31	_							
or Name JOINT CONNECTOR-M01	or	Ξ	0	Ó	Z	EC	Ϊ́	Ä	-M01
or Color GRAY	GF	ΙŽ							
<u></u>	6 0	8	7	9	5	4	က	2	-
	20 19 18 17 16 15 14 13 12 11	18	17	16	15	14	13	12	
			II	II	Ш		II	II	ī

Signal Name	-	ı	1	ı	1	1
Color of Wire	Ь	Ь	Д	T	_	Τ
Terminal No. Color of Wire	5	6	10	15	19	20

Signal Name	ı	I	1	1	-	1
Color of Wire	Ж	Y	SB	8	LG	0
Terminal No. Wire	6	10	11	12	13	14

_	COMBINATION SWITCH	<u> </u>	101 11 14 6 6 1 14 14 15 15 14 15 15	Signal Name	ı	ı	-	1
MZ8	me COI	lor WH	7 8 9	Color of Wire	GR	BR	۸	٦
Connector No.	Connector Name	Connector Color WHITE	原 H.S.	Terminal No.	2	5	7	8

Connector No.	. M60	
Connector Na	Connector Name JOINT CONNECTOR-M06	-M06
Connector Color BLUE	ilor BLUE	
雨 H.S.	10 9 8 7 6 5 4 3 2 1	
Terminal No. Wire	Color of Signal Name Wire	e
2	- re	
ď	741	

Connector No.	o. M53		
Connector Na	ame JOII	Connector Name JOINT CONNECTOR-M03	0
Connector Color	olor PINK	~	<u> U</u>
			J
F	10 9	8 7 6 5 4 3 2 1	
H.S.	20 19 18	18 17 16 15 14 13 12 11	
Terminal No. Wire	Color of Wire	Signal Name	<u> </u>
14	۵	ı	<u> </u>
15	۵	I	
19	٦	ı	l
20		ı	

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Connector No. M84	Terminal No.		Signal Name	ပိ	Connector No.	. M85	
BCM (BODY CONTROL Connector Name MODULE) (WITH INTELLIGENT KEY SYSTEM)	4	wire BR	COMBINATION SW INPUT 3	<u> </u>	Connector Name		BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color BLACK	5	0	COMBINATION SW INPUT 2	8	Connector Color	lor WHITE	ш
	9	>	COMBINATION SW INPUT 1			88 68	89 88 87 86 85 84 83 82 81 80 85 84 83 82 81 80
HS	32	D LG	COMBINATION SW OUTPUT 5	7	H.S.		
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 28 27 28 29 30 31 32 33 34 38 36 37 38 38 40	33	>	COMBINATION SW OUTPUT 4				
olor of	34	>	COMBINATION SW OUTPUT 3			olor of	
Signal N	35	Œ	COMBINATION	<u> </u>	S	Wire	Signal Name
2 L COMBINATION SW INPUT 5	ć	5	COMBINATION		88	0 ;	BATTERY (FUSE)
3 GR COMBINATION	9 8	g –	SW OUTPUT 1		93	> B	GND (POWER)
	60 4	1 0	CAN-L				
Connector No. E2	Connector No.			T _E	Terminal No.	Color of	Signal Name
Connector Name JOINT CONNECTOR-E02	Connector Name		WIRE TO WIRE		10G	e o	1
		┪	1		95G	۵	1
					100G	Г	1
H.S. (12 11 10 9 8 7 6 5 4 3 2 1	H.S.		56 46 36 26 16 106 96 86 76 66				
Terminal No. Color of Wire		21G20G18	21G 20G 19G 18G 17G 16G 15G 14G 13G 12G 11G				
-							
2		41G40G36	41G40G39G38G37G36G35G34G33G32G31G 50G49G48G47G46G45G44G43G42G				
I &							
12 P		61G60G50 70G60	61 G 60 G 59 G 58 G 57 G 56 G 55 G 54 G 53 G 52 G 51 G 70 G 69 G 68 G 67 G 66 G 65 G 64 G 63 G 62 G				
		1,000	0.55				
		8008	81G80G89G89G87G86G85G84G83G82G				
ARI IA588			95G 94G 93G 92G 91G 100G 99G 98G 97G 96G				
MACR.							

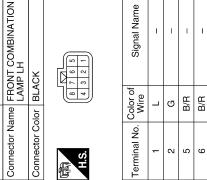
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MBINATION	Connector No. E43 Connector Name POWEF MODUL	Connector No. E43 IPDM E/R (INTELLIGENT Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM)

Connector No. E21

Revision: October 2013

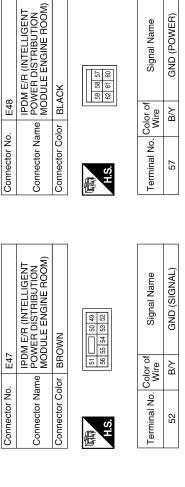
9 8 7 6 6 6 6 6 7 8 18 17 16 15 14 13 12 11 10	Signal Name	H/LAMP HI RH	H/LAMP HI LH	H/LAMP LO LH	H/LAMP LO RH
9 8 17	Color of Wire	>	В	_	Ь
H.S.	erminal No. Wire	5	9	7	8



	FRONT COMBINATION LAMP RH	CK	3 2 1	Signal Name	I	_	-	1
. E20		lor BLACK	8 4	Color of Wire	Ъ	Υ	В	В
Connector No.	Connector Name	Connector Color	டி H.S.	Terminal No.	1	2	5	9

E48	IPDM E/R (INTELLIGENT POWER DISTRIBITION
Connector No.	om of A reposition
E47	IPDM E/R (INTELLIGENT POWER DISTRIBUTION
Connector No.	omoly votocoaco

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Connector No. Connector Name Connector Color		E46 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) WHITE
原动 H.S.	42 41	42 41 40 39 38 37 46 45 44 43
Terminal No. Wire	color of Wire	Signal Name
40	۵	CAN-L
71	_	H-NAC

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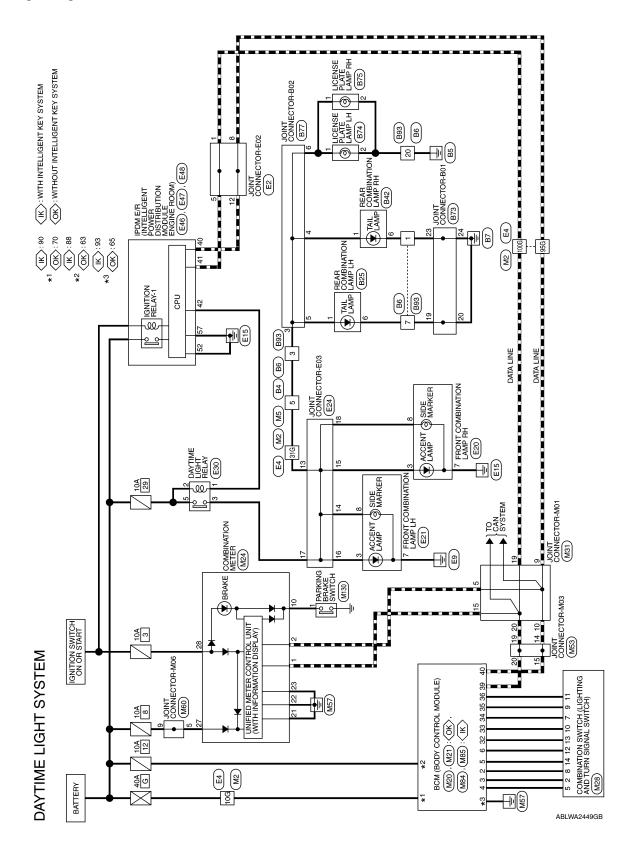
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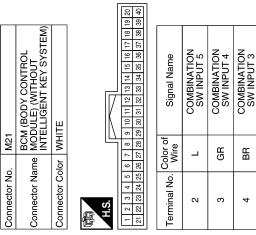
Wiring Diagram



DAYTIME LIGHT SYSTEM CONNECTORS

	M5	WIRE TO WIRE	WHITE		7 6 5 4 3 2 1	14 13 12 11 10		or of Signal Name	1				
	Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE			ď		Terminal No. Wire	2				
	Signal Name		-	1	1	ı							
	Terminal No. Color of Sir		>	^	<u>a</u>								
2	Termina		10G	31G	956	100G							
	M2	ie WIRE TO WIRE	WHITE			16 26 36 46 56	6G 7G 8G 9G 10G 10	226236249259266279286289306	31G32G33G34G35G36G37G38G39G40G41G 42G43G44G45G46G47G48G49G50G	51 G 62 G 63 G 64 G 65	71G72G73G74G75G76G77G78G79G89G89G89G89G83G83G89G88G88G88G89G	0.01 0.05 0.	
	Connector No.	Connector Name WIRE TO	Connector Color WHITE			O II	5]

Terminal No. Wire	Color of Wire	Signal Name
5	0	COMBINATION SW INPUT 2
9	Μ	COMBINATION SW INPUT 1
32	97	COMBINATION SW OUTPUT 5
33	Å	COMBINATION SW OUTPUT 4
34	۸	COMBINATION SW OUTPUT 3
35	В	COMBINATION SW OUTPUT 2
36	SB	COMBINATION SW OUTPUT 1
39	Т	CAN-H
40	Ы	CAN-L



Connector	Connector	H.S.	1 2 3 4 21 22 23 24	Terminal N	5	ı	က	
BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)	WHITE			lor of Signal Name	O BATTERY (FUSE)	B GND	Y BATTERY (F/L)	

Signal Name	BATTERY (FUSE)	GND	BATTERY (F/L)	
Color of Wire	0	В	>	
Terminal No.	63	99	20	

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Connector Name Connector Color

Connector No.

Γ	M01																						
	Connector Name JOINT CONNECTOR-MO1 Connector Color GRAY	7 16 15 14 13 12	Signal Name	ı	1	1	ı	1	I														
FON	me JOINT	10 9 8 6 01 18 18 18 1	Color of Wire	۵	Ь	۵	٦	Γ	٦														
N votocaco	Connector Name Connector Color	原 H.S.	Terminal No.	S.	6	10	15	19	20														
															90W								
	MAITE	10 11 12 13 14	Signal Name	1	1	1	I	1	ı	1	1	1	1		JOINT CONNECTOR-M06			6 5 4 3 2 1 16 15 14 13 12 11	Signal Name	I	1		
OCA4		1 2 8 6 9 9	Color of Wire	GR	BB	>	_	Œ	>	SB	W	9	0			or BLUE		9 8 7	Color of Wire	9	M		
2000	Connector Name Connector Color	南 H.S.	Terminal No.	2	2	7	∞	6	10	11	12	13	41	Connector No.	Connector Name	Connector Color		H.S.	Terminal No.	.c	6		
		2	ZZ ZJ																				
	M24 COMBINATION METER WHITE	00 8 0 0 8 0 0 0 8 0 0 0 8 0 0 0 8 0 0 0 0	30 29 28 27 26 25 24 23	CAN-H	CAN-L	PKB SW	GND (ILL)	GND2 (POWER)	GND3 (CIRCUIT)	BAT	NSI				JOINT CONNECTOR-M03	>		10 9 8 7 6 5 4 3 2 1	Signal Name	ı	ı	ı	
V CVV	9 5	15 14 13 12 11	36 35 34 33 32 31 32 00 00 00 00 00 00 00 00 00 00 00 00 00	-	۵	SB	Ф	В	Ф	ГG	GR					lor PINK	╟	10 9 8 7 20 19 18 17	Color of Wire	۵	۵	_	 -
N N	stor Name	19	al No.											ctor No.	tor Name	tor Color	L		al No.				

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Connector No.). M85	2
Connector Name		BCM (BODY CONTROL MODULE) (WITH INTELLI- GENT KEY SYSTEM)
Connector Color	olor WHITE	里
南 H.S.		S9 88 87 86 85 84 83 82 81 95 94 83 92 91 90
Terminal No.	Color of Wire	Signal Name
88	0	BATTERY (FUSE)
06	Υ	BATTERY (F/L)
93	В	GND (POWER)

						_	_
Signal Name	COMBINATION SW OUTPUT 5	COMBINATION SW OUTPUT 4	COMBINATION SW OUTPUT 3	COMBINATION SW OUTPUT 2	COMBINATION SW OUTPUT 1	CAN-H	CAN-L
Color of Wire	re	٨	^	н	SB	٦	4
Terminal No.	32	33	34	35	36	39	40

			18 19 20 38 39 40						
4	BCM (BODY CONTROL MODULE) (WITH INTELLI- GENT KEY SYSTEM)	BLACK	9 10 11 12 13 14 15 16 17 1 29 30 31 32 33 34 35 36 37 3	Signal Name	COMBINATION SW INPUT 5	COMBINATION SW INPUT 4	COMBINATION SW INPUT 3	COMBINATION SW INPUT 2	COMBINATION SW INPUT 1
. M84		Н	6 7 8 8 28 27 28 8	Color of Wire	_	GR	BR	0	>
Connector No.	Connector Name	Connector Color	H.S. 1 2 3 4 5 21 22 23 24 25	Terminal No.	2	ε	4	5	9

	ú	7	COMBINATION
	0	\$	SW INPUT 1
1			
	Connector No	M130	30

	Connector Name PARKING BRAKE SWITCH	Color BLACK	-
000000	Connector Name	Connector Color	H.S.

Signal Name	1
Color of Wire	SB
Terminal No.	1

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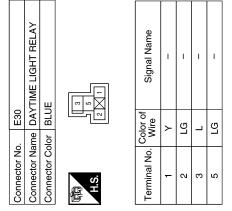
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Signal Name	1	1	1	ı								JOINT CONNECTOR-E03 BLACK	8 7 6 5 4 13 20 19 18 17 16 15 14 13	Signal Name	1	1	I	ı	1
Color of Wire	ŋ	ш	۵	7							o. E24		24 23 22 21 20	Color of Wire	æ	_	٦	_	_
Terminal No.	10G	31G	95G	100G							Connector No.	Connector Name	H.S.	Terminal No.	13	14	15	16	17
E4 WIBE TO WIBE				56 46 36 26 16	10G 9G 8G 7G 6G	216/206/196/176/166/156/146/136/126/116	30G 29G 28G 27G 25G 25G 23G 22G	416406396386376366356346336336316	50G 49G 48G 47G 46G 45G 44G 43G 42G	61G60G59G58G57G56G55G54G53G52G51G		FRONT COMBINATION LAMP LH BLACK	8 7 6 5	Signal Name	ı	ı	1		
Connector Name WIRE	Connector Color WHITE	_		S		2162061	3008	4164063	5064	6196095	Connector No. E21	Connector Name FRONT LAMP L Connector Color BLACK	H.S.	Terminal No. Wire	3	7 B/R	8 8		
JOINT CONNECTOR-E02				7 6 5 4 3 2 1		Signal Name	1	1	1	1		FRONT COMBINATION LAMP RH BLACK	8 3 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Signal Name	ı	ı	ı		
Connector Name JOIN	_	_		12 11 10 9 8		Color of Wire	_	_	۵	А	lo. E20			Color of Wire	_	В	7		
< Z	Connector Color			E S		Terminal No.	_	5	ω	12	Connector No.	Connector Name Connector Color	S. E.S.	Terminal No.	8	7	8		

Connector No.	. E47	
Connector Name		IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	lor BROWN	NWC
喃 H.S.	العاعا	56 55 54 53 52
Terminal No.	Color of Wire	Signal Name
52	В/	GND (SIGNAL)

	Connector No.	E47	
TELLIGENT RIBUTION SINE ROOM)	Connector Nar	ne POV MOE	Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM)
	Connector Color BROWN	or BRC	NWO
37	 所.S.H	لقاقا	55 55 54 53 52
nal Name	Terminal No. Wire	Color of Wire	Signal Name
CAN-L	52	Β/Y	GND (SIGNAL)

	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	ІТЕ	41 40 39 38 37 47 46 45 44 43	Signal Name	CAN-L	CAN-H	DTRL RLY
. E46		lor WHITE	488	Color of Wire	Ь	٦	Υ
Connector No.	Connector Name	Connector Color	斯 H.S.	Terminal No.	40	41	42



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2		0								
Connector Name WIRE TO WIRE	me	WIF	ĒT	0	×	분				
Connector Color WHITE	ō	MH	쁘							
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管	9	5	4	Щ		\vdash	m	2	-	
	٤	Ş	13	12	12 11	9	6	c	١	
	8	2	18	17	17 16 15	15	14	0	,	

l				-	7					
				2	8	Signal Name				
l				е е	9 41	Ň	1	ı	1	1
l	ä			П	1 10	igna				
l	0			Ш	12 11 17 16	S				
	ΞŢ	빝		4	13					
	WIRE TO WIRE	WHITE		rc.	19	r of æ		۲5		
1	Connector Name	Connector Color		9	20	Color of Wire	-	LG	0	В
	r Na	ပို	'							
	ecto	əcto	١,			Terminal No.	_	က	7	20
	onne	onne		信	1	ermi				,,
	Ŏ	Ŏ			•	<u> </u>				

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			9	15	
	ш		2	13 14	
	Æ		4	13	
	>			10 11 12	
	2		Ш	#	
	ш.	쁘	3	10	
4	WIRE TO WIRE	WHITE	2	6	
B4	>	>	-	8	
	ame	olor			,

RE TO WIRE	ITE		3 8 4 5 6 10 11 12 13 14 15			Signal Na	1
	_		1 8			Color of Wire	ГG
Connector Na	Connector Co	 		j E		Terminal No.	2
	Connector Name WIRE TO WIRE			WIRE TO WIRE WHITE 1 2 3 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	WHITE WHITE 2 3 4 5	WHRE TO WIRE WHITE 2 3 4 5 5 6 6 6 6 6 6 6 6	WHITE WHITE 2 4 5

	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	CK	23 88 85 29 88 21 80 80 80 80 80 80 80 80 80 80 80 80 80	Signal Name	GND (POWER)
. E48		lor BL⊅		Color of Wire	В/У
Connector No.	Connector Name	Connector Color BLACK	原 H.S.	Terminal No.	22

0)	GI	
Color of Wire	B/Y	
Terminal No.	25	

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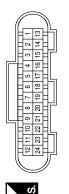
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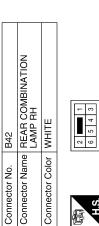


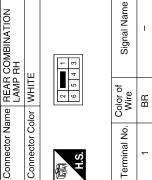
Signal Name	I	I	ı	I
Color of Wire	В	В	٦	В
Terminal No.	19	50	23	24

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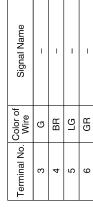




	REAR COMBINATION LAMP LH	111	<u>-</u> 0	Signal Name	ı
629	ne REAR LAMP	v WHITE	2 9 2 4	Color of Wire	LG
connector No.	Sonnector Name	Connector Color	H.S.	Ferminal No.	-





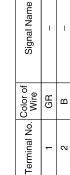


Connector Name LICENSE PLATE L	BROWN	
Connector Name	Connector Color	南

AMP RH

Connector No. B75











B74

Connector No.



Signal Nar	ı	1
Color of Wire	Ь	В
Terminal No.	-	2



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Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE		E VI	

Signal Name	ı	-	-	ı
Color of Wire	Г	Э	В	В
Terminal No. Wire	1	8	2	20

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ç	20		Signal Name				
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=	16		S				
2	14 15 16 17						
20	4						
c	0		olor of Vire	_	മ	В	В
٢	-		<u>8</u>				
			Terminal No. Wire	-	3	7	20

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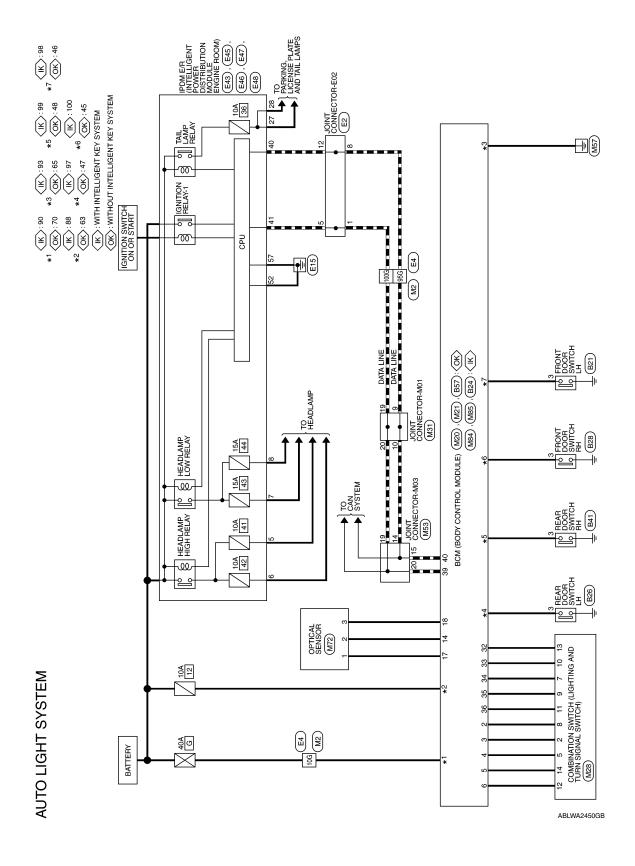
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AUTO LIGHT SYSTEM

Wiring Diagram



Connector No.	M20
Connector Name	Connector Name MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color WHITE	WHITE

Signal Name

Terminal No. Wire

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10G 95G 100G

64 63 62 61 60 59 58 57 5 70 69 68 67 66 65	9		1
64 63 62 61 60 59 58 5 70 69 68 67 66	7 5	99	l
64 63 62 61 60 59 70 69 68 67	58 5	99	
64 63 62 61 60 70 69 68	29	29	l
64 63 62 61 70 69 68	8		
64 63 62 70 69	9	39	l
70	62	69	l
	64 63	0/	
		_	J

Signal Name	BATTERY (FUSE)	GND	BATTERY (F/L)
Color of Wire	0	В	Υ
Terminal No.	69	99	20

omeN lenging		COMBINATION SW OUTPUT 2	COMBINATION SW OUTPUT 1	CAN-H	CAN-L
Color of	Wire	æ	SB	٦	۵
Terminal No Color of		35	98	68	40

Signal Name	COMBINATION SW INPUT 2	COMBINATION SW INPUT 1	AUTO LIGHT SENSOR INPUT 1 (& 2)	AUTO LIGHT SENSOR POWER SUPPLY OUTPUT	KEYLESS & AUTO LIGHT SENSOR GND	COMBINATION SW OUTPUT 5	COMBINATION SW OUTPUT 4	COMBINATION SW OUTPUT 3
Color of Wire	0	M	SB	Y	^	LG	\	۸
Terminal No. Color of Wire	5	9	41	17	18	32	33	34

16 26 36 46 56 86 75 86 96 106	11G12G13G14G15G16G17G18G19G20G21G 22G23G24G25G26G27G28G23G30G	31G 32G 32G 32G 35G 35G 35G 37G 39G 39G 40G 41G 42G 43G 44G 45G 45G 47G 48G 49G 50G	\$10\\$20\\$30\\$40\\$50\\$60\\$70\\$80\\$90\\$10\\$ \\$20\\$30\\$40\\$50\\$60\\$70\\$80\\$90\\$70	71G72G73G74G75G78G77G78G78G89G81G 82G83G84G85G86G87G885G89G90G	910 gzc) 920 gyc) gyc) gyc 960 gyc) 990 gyc) gyc) gyc

	Connector Na	BCN Ime MOI	Connector Name MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)	
	Connector Color WHITE	lor WHI	ПЕ	
	麻 H.S.			
	1 2 3 4 5 21 22 23 24 25	6 7 8 26 27 28 2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 20 30 31 32 33 34 35 38 37 38 39 40	8 8
'				
	Terminal No. Wire	Color of Wire	Signal Name	
	5	٦	COMBINATION SW INPUT 5	
	е	GR	COMBINATION SW INPUT 4	
	4	BR	COMBINATION SW INPUT 3	

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AUTO LIGHT SYSTEM CONNECTORS

Connector No. M2
Connector Name WIRE TO WIRE
Connector Color WHITE

EXL-47 2014 Sentra NAM Revision: October 2013

Connector No.

Connector No. M31	. M3	1	Connector No. M53	o. M5	3
connector Na	Ime JOI	Connector Name JOINT CONNECTOR-M01	Connector N	ame JOI	Connector Name JOINT CONNECTOR-M03
Connector Color GRAY	olor GR	AY	Connector Color PINK	olor PIN	XI.
·E	10 9 19 19	9 8 7 6 5 4 3 2 1 19 18 17 16 15 14 13 12 11	(中)	10 9 8 7 20 19 18 1	10 9 8 7 6 5 4 3 2 1
Terminal No. Wire	Color of Wire	Signal Name	Terminal No. Wire	Color of Wire	Signal Name
6	Д	ı	14	۵	1
10	₾	ı	15	۵	ı
19	_	ı	19	_	ı

Connector Name COMBINATION SWITCH

M28

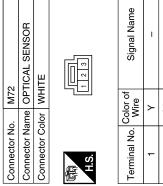
Connector No.

Connector Color WHITE

9 10 11 12 13 14	Signal Name	ı	ı	1	-	I	-	ı	I	_	-	
7 8	Color of Wire	GR	BR	۸	٦	Н	Å	SB	M	рп	0	
S. T	rminal No.	2	5	7	8	6	10	11	12	13	14	

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Signal Name	ı	-	-
Color of Wire	\	SB	۸
Terminal No. Wire	-	2	8

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Signal Name	COMBINATION SW OUTPUT 2	COMBINATION SW OUTPUT 1	CAN-H	CAN-L
Color of Wire	В	SB	Τ	Ь
Terminal No.	35	98	39	40

Signal Name	COMBINATION SW INPUT 2	COMBINATION SW INPUT 1	AUTO LIGHT SENSOR INPUT	AUTO LIGHT SENSOR POWER SUPPLY OUTPUT	KEYLESS TUNER, AUTO LIGHT SENSOR GND	COMBINATION SW OUTPUT 5	COMBINATION SW OUTPUT 4	COMBINATION SW OUTPUT 3
Color of Wire	0	8	SB	\	^	ГС	\	>
Terminal No.	5	9	14	17	18	32	33	34

	. ‡			16 17 18 19 20 36 37 38 39 40			_	_
	BCM (BODY CONTROL MODULE) (WITH INTELI GENT KEY SYSTEM)	X		12 13 14 15 32 33 34 35	Signal Name	COMBINATION SW INPUT 5	COMBINATION SW INPUT 4	COMBINATION SW INPUT 3
. M84		lor BLACK		6 7 8 9 10 11 26 27 28 29 30 31	Color of Wire	_	GR	BB
Connector No.	Connector Name	Connector Color	同 H.S.	1 2 3 4 5 21 22 23 24 25 2	Terminal No.	2	e	4

Connector No. E2 Connector Name JOINT CONNECTOR-E02 Connector Color BLUE	Connector Name
	Connector Color BLUE
BLUE	
JOINT CONNECTOR-E0	Connector Name
E2	
	Connector No

Connector Name JOINT CONNECTOR-	BLUE	8 7 8 8 7 8 8 2 8 8 8 8 8 8 8 8 8 8 8 8	Color of Signal Name	1	1	ا م
Connector Name	Connector Color	(中) (12 11 10 H.S.	Terminal No.	-	2	8

M85	BCM (BODY CONTROL MODULE) (WITH INTELLI- GENT KEY SYSTEM)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	

Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELI GENT KEY SYSTEM)
Connector Color WHITE	WHITE
原 H.S.	89 88 87 86 85 84 83 82 81 80 85 84 85 84 85 84 85 85

H.S.		
Terminal No. Color of Wire	Color of Wire	Signal Nam
88	0	BATTERY (FL
06	У	BATTERY (F
93	В	GND (POWE

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COILIECTOI NO.	Connector Name POWER DISTRIBUTION	-	Connector Color WHITE	9 8 7 6 6 5 4 3 18 17 16 15 14 13 12 11 10	Terminal No. Color of Signal Name	>-	6 G H/LAMP HI LH	ı a		Connector No. E47	Gennector Name POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Color BROWN		rme Terminal No. Color of Signal Name	. 52 B/Y GND (SIGNAL)
	1	ı	ı							9	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	WHITE	42 41 40 39 38 37 48 47 46 45 44 43	f Signal Name	CAN-L
2	g	Ъ	_							o. E46			48	Color of Wire	۵
	10G	95G	100G							Connector No.	Connector Name	Connector Color	(南京) H.S.	Terminal No.	40
			Г						= $ $						
WIRE TO WIRE				56 46 36 26 16 106 96 86 76 66	21G20G19G18G17G16G15G14G13G12G11G 30G29G28G27G26G25G24G23G22G	41G40G39G38G37G36G35G34G33G32G31G	619 600 600 600 600 600 600 600 600 600 60	70G69G68G67G66G65G64G63G62G			IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENEGINE ROOM)	NWO	34 33 32 31 30	Signal Name	CLEARANCE/L RH
Connector Name WIR		-		8)2	216206190	416406396	619609590	706690		E45		or BROWN	36 28 [38 35 3	Color of Wire	_
á	Connector Color									Connector No.	Connector Name	Connector Color		Terminal No.	

Connector No. B24 Connector Name MODULE) (WITH MODULE) (WITH INTELLIGENT KEY SYSTEM) Connector Color BLACK Intelrigenting (100 100 100 100 100 100 100 100 100 10	Terminal No. Color of Wire Signal Name 97 GR DOOR SW (RL) 98 Y DOOR SW (DR) 99 P DOOR SW (RR) 100 R DOOR SW (AR)	Connector No. B41 Connector Name REAR DOOR SWITCH RH Connector Color WHITE	Terminal No. Color of Signal Name 3 P – –
Connector No. B21 Connector Name FRONT DOOR SWITCH LH Connector Color WHITE	Terminal No. Color of Signal Name 3 Y -	Connector No. B28 Connector Name FRONT DOOR SWITCH RH Connector Color WHITE	Terminal No. Color of Signal Name 3 R -
Connector No. E48 Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color BLACK SS S S S S S S S S S S S S S S S S S	Terminal No. Color of Wire Signal Name 57 B/Y GND (POWER)	Connector No. B26 Connector Name REAR DOOR SWITCH LH Connector Color WHITE	Terminal No. Color of Wire 3 GR –

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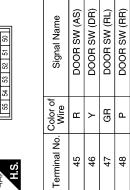
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< WIRING DIAGRAM > FRONT FOG LAMP Α Wiring Diagram INFOID:0000000009757501 *3 OK): 65 : 65 В С JOINT CONNECTOR-D ⟨IK⟩: WITH INTELLIGENT KEY SYSTEM ⟨QK⟩: WITHOUT INTELLIGENT KEY SYSTEM JOINT CONNECTOR-M01 M31 Е oll IGNITION 1000G MZ CPU F IGNITION SWITCH ON OR START ത G JOINT CONNECTOR-M03 (M53) Н 15A 40 J Κ #2 BCM (BODY CONTROL MODULE) (M84) .(M85). (M20) .(W2) COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH) (M28) EXL M 12 45 10G MZ MZ \$<u>0</u> Ν BATTERY FRONT FOG LAMP

- Till (19)

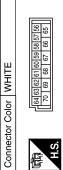
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FRONT FOG LAMP CONNECTORS



Connector No.	M2	1≝
Connector Name WIRE TO WIRE	WIRE TO WIRE	:
Connector Color WHITE	WHITE	
	\[\frac{\sqrt{\sq}\sqrt{\sq}}}}}}}}}}}\signt{\sqrt{\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	



Connector Name MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)

Connector No.

Signal Name

Color of Wire

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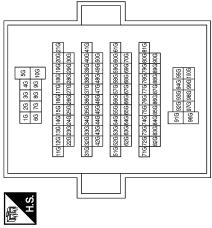
Signal Name	BATTERY (FUSE)	GND	BATTERY (F/L)	
Color of Wire	0	В	>	
Terminal No.	63	65	20	

Signal Name	BATTERY (FUSE)	GND	BATTERY (F/L)	
Color of Wire	0	В	>	
Terminal No.	63	65	70	

ctor No. M28	Connector Name COMBINATION SWITCH	Connector Color WHITE	7 8 9 10 11 12 13 14	Color of
Connector No.	Connector Na	Connector Co	H.S.	

	9 3 10 11 12 13 14	Signal Name	-	-	ı	1	ı	-	ı	ı	ı	
I MUID	1 2 8 8 9 9	Color of Wire	GR	BR	>	_	ш	Υ	SB	×	LG	C
COLILIECTOR COLOR	原 H.S.	Terminal No.	2	5	7	8	6	10	11	12	13	14

Signal Name	COMBINATION SW INPUT 1	COMBINATION SW OUTPUT 5	COMBINATION SW OUTPUT 4	COMBINATION SW OUTPUT 3	COMBINATION SW OUTPUT 2	COMBINATION SW OUTPUT 1	CAN-H	CAN-L
Color of Wire	8	re	\	^	В	SB	_	Ь
Terminal No.	9	32	33	34	35	36	39	40



			19 20 39 40					
M21 BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)	WHITE		8 9 10 11 12 13 14 15 16 17 18 19 28 29 30 31 32 33 34 35 36 37 38 39	Signal Name	COMBINATION SW INPUT 5	COMBINATION SW INPUT 4	COMBINATION SW INPUT 3	COMBINATION SW INPUT 2
2	-		6 7 26 27	Color of Wire	_	GR	BB	0
Connector No. Connector Name	Connector Color	E. H.S.	1 2 3 4 5 21 22 23 24 25	Terminal No.	2	က	4	5

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Connector Name | JOINT CONNECTOR-M03

Connector Name | JOINT CONNECTOR-M01

M31

Connector No.

Connector Color GRAY

M53

Connector No.

Connector Color PINK

Connector No.). M85	2
Connector Name	me MOI	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	olor WHITE	ITE
献 H.S.	89 88 87 86 95 94 9	189 89 77 86 85 84 83 82 81
Ferminal No.	Color of Wire	Signal Name
88	0	BATTERY (FUSE)
06	>	BATTERY (F/L)
93	В	GND (POWER)

Signal Name	-	-	ı	1
Color of Wire	Д	Ь	_	٦
Terminal No. Color of Wire	14	15	19	20

Signal Name

Color of Wire ۵ ۵

Terminal No.

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ı	1	ı	1		Signal Name	COMBINATION SW INPUT 1	COMBINATION SW OUTPUT 5	COMBINATION SW OUTPUT 4	COMBINATION SW OUTPUT 3	COMBINATION SW OUTPUT 2	COMBINATION SW OUTPUT 1	CAN-H	CAN-L
 Ъ	Ь	Г	Τ		Color of Wire	M	ГG	\	^	В	SB	٦	Ь
14	15	19	20		Terminal No.	9	32	33	34	35	36	39	40

10	Ь	_
19		_
20	٦	-
Connector No	M84	

Connector No.	M84
Connector Name	Connector Name MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color BLACK	BLACK
原。 A.S.	
1 2 3 4 5 6 21 22 23 24 25 26	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 20 27 28 29 30 31 32 33 34 35 36 37 38 39 40
Č	70,70

Signal Name	COMBINATION SW INPUT 5	COMBINATION SW INPUT 4	COMBINATION SW INPUT 3	COMBINATION SW INPUT 2
Color of Wire	٦	GR	BR	0
Terminal No. Wire	2	3	4	5

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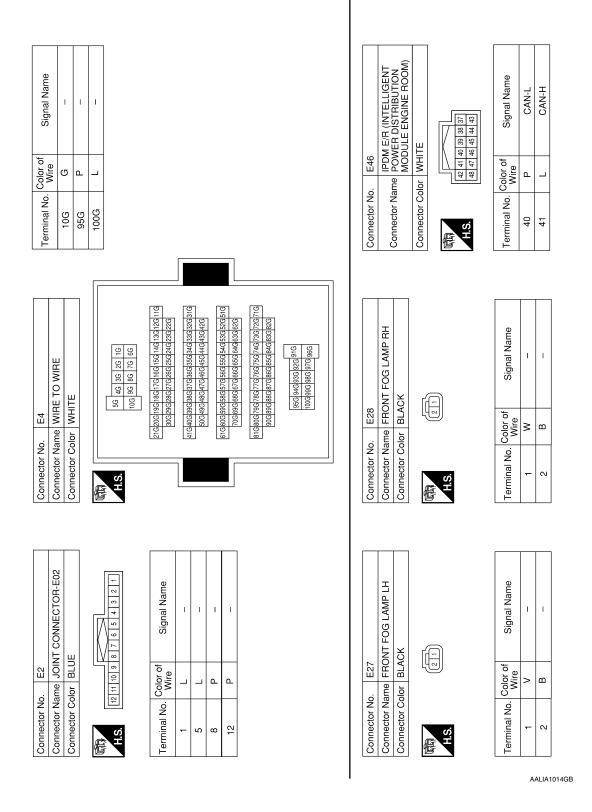
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E48	Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM)	BLACK	
Connector No.	Connector Name	Connector Color BLACK	



00 00 00 00 00 00 00 00 00 00 00 00 00	Signal Name	GND (POWER)
	Color of Wire	В/У
H.S.	Terminal No.	25

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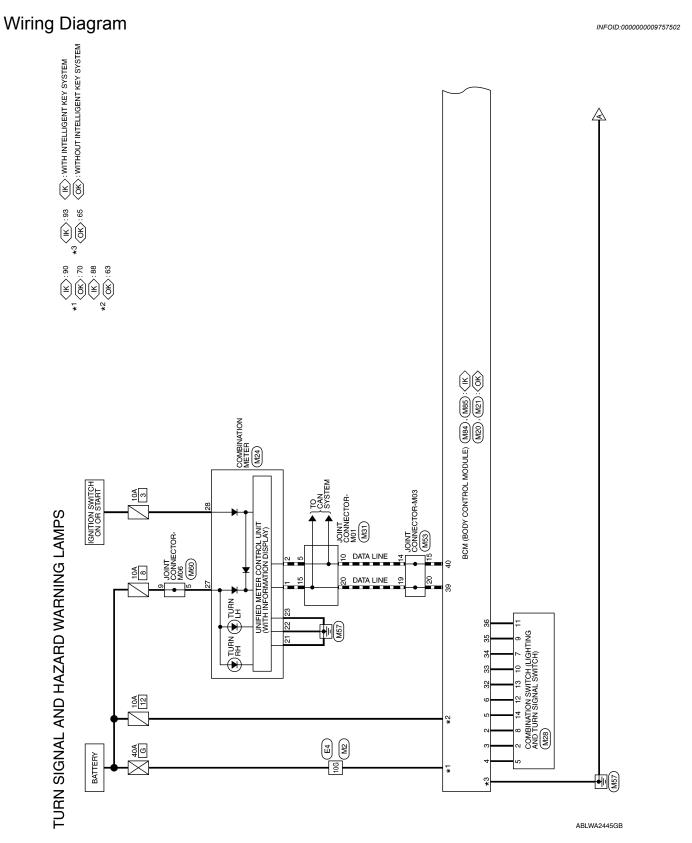
Connector No.	E47
Connector Name	Connector Name POWER DISTRIBUTI MODULE ENGINE R
Connector Color BROWN	BROWN

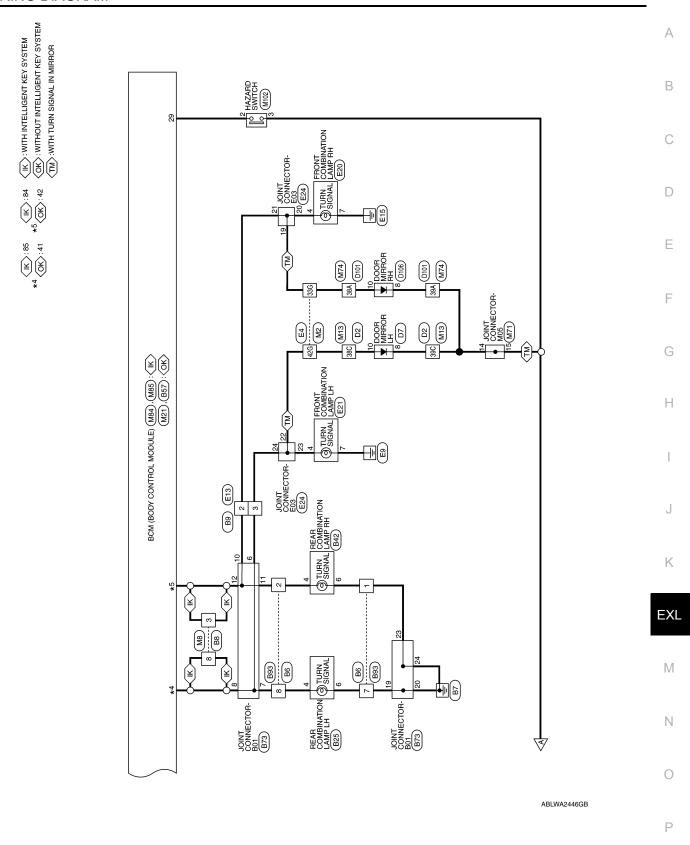






Signal Name	GND (SIGNA	FR FOG/L R	FR FOG/L LI		
Color of Wire	Color of Wire B/Y		^		
Terminal No.	25	23	54		





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BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM) BATTERY (FUSE) BATTERY (F/L) Signal Name Signal Name Connector Name WIRE TO WIRE Connector Color WHITE WHITE M20 Color of Wire Color of Wire ≥ 0 0 Connector Name Connector Color Connector No. Connector No. Terminal No. Terminal No. 65 65 က ω Signal Name Signal Name Τ TURN SIGNAL AND HAZARD WARNING LAMPS CONNECTORS Color of Wire Color of Wire > ≥ ≥ Ш Terminal No. Ferminal No. 10G 33G 42G 38C 39C 10 20 30 40 50 60 70 80 90 100 110 120 130 140 71G72G73G74G75G76G77G78G79G80G8 82G83G84G85G86G87G88G89G90G 31G32G33G34G35G36G37G38G39G4 42G43G44G45G46G47G48G49G5 1G 2G 3G 4G 5G 6G 7G 8G 9G 10G 91G 92G 93G 94G 95G 96G 97G 98G 99G100G Connector Name | WIRE TO WIRE Connector Name | WIRE TO WIRE MHITE Connector Color WHITE M13 M2 Connector Color Connector No. Connector No. H.S. E AALIA1038GB

< WIRING DIAGRAM >

Connector No. M24

Signal Name	CAN-H	CAN-L	GND (ILL)	GND2 (POWER)	GND3 (CIRCUIT)	BAT	IGN	
Color of Wire		۵	В	В	В	ГG	GR	
Terminal No.	1	2	21	22	23	22	28	

Connector No.	. M31		
onnector Na	ume JOII	Connector Name JOINT CONNECTOR-M01	
Connector Color	olor GRAY	\.	
H.S.	10 9 8 20 19 18	7 6 5 4 3 2 1 17 16 15 14 13 12 11	
Terminal No.	Color of Wire	Signal Name	
5	Ь	ı	
10	Ь	1	
15	٦	ı	
20	_	ı	

Signal Name	HAZARD SW	COMBINATION SW OUTPUT 5	COMBINATION SW OUTPUT 4	COMBINATION SW OUTPUT 3	COMBINATION SW OUTPUT 2	COMBINATION SW OUTPUT 1	CAN-H	CAN-L
Color of Wire	SB	LG	\	>	В	SB	_	۵
Terminal No. Wire	29	32	33	34	32	98	39	40

Signal Name	HAZARD SW	COMBINATION SW OUTPUT 5	COMBINATION SW OUTPUT 4	COMBINATION SW OUTPUT 3	COMBINATION SW OUTPUT 2	COMBINATION SW OUTPUT 1	CAN-H	CAN-L
Color of Wire	SB	LG	Y	>	В	SB	_	Ь
Terminal No. Color of Wire	29	32	33	34	32	98	39	40

BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)

Connector Name Connector Color

M21

Connector No.

WHITE

5	C,	Ö		
	٦	Δ.		
	39	40		

COMBINATION SW INPUT 5 COMBINATION SW INPUT 4

GR BB 0

Signal Name

Terminal No. N က COMBINATION SW INPUT 3 COMBINATION SW INPUT 2

2

COMBINATION SW INPUT 1		
>		. M28
9		Connector No.

Connector Name | COMBINATION SWITCH

Connector Color WHITE

Signal Name

Terminal No.

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SB

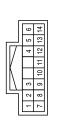
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Signal Name	ı	1	ı	-
Color of Wire	GR	BR	>	٦
Terminal No.	2	2	7	8

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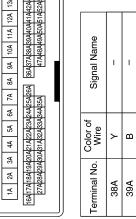
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Connector No. M71	Connector Name JOINT CONNECTOR-M05	Connector Color PINK	H.S.	Terminal No. Color of Signal Name Wire	14 B -	15 B -		
. M60	Connector Name JOINT CONNECTOR-M06	lor BLUE	10 9 8 7 6 5 4 3 2 1 20 19 18 17 16 15 14 13 12 11	Color of Signal Name Wire	- FG	- M		
Connector No.	Connector Na	Connector Color BLUE	H.S.	Terminal No.	5	6		
	CONNECTOR-M03		5 4 4 15 12 11 12 12 11 1	Signal Name	ı	I	ı	
M53	me JOINT	lor PINK	8 7 6 18 17 16	Color of Wire	۵	Д		
Connector No.	Connector Name JOINT CO	Connector Color PINK	H.S.	Terminal No.	14	15	19	

	WHIE	A 5A 6A 7A 8A 9A 10A 11A 12A 13A 14A 15A	AEZABSAREAN BEARSTABBARBAHONATARZAKSANAHARAKEA AFZARSANSANSEN ATAKARAHONEONETAEZAKSAREANESA AFZARSANSANSEN ATAKARAHONEONETAEZAKSANSEN
		5A	4224234244 4324334344
Connector No.	Connector Color	1A 2A 3A 4A	isakiralisakiaakonkirakeakeakeakeake Errakeakeakeakeakeakeakeakeakeakeakeakeakea



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< WIRING DIAGRAM >

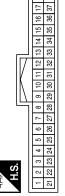
Sonnector No.	M85
Connector Name	Sonnector Name MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color WHITE	WHITE



				_	
Signal Name	FLASHER OUTPUT (RIGHT)	FLASHER OUTPUT (LEFT)	BATTERY (FUSE)	BATTERY (F/L)	GND (POWER)
Color of Wire	>	>	0	>	В
Terminal No. Wire	84	85	88	06	66

Signal Name	HAZARD SW	COMBINATION SW OUTPUT 5	COMBINATION SW OUTPUT 4	COMBINATION SW OUTPUT 3	COMBINATION SW OUTPUT 2	COMBINATION SW OUTPUT 1	CAN-H	CAN-L
Color of Wire	SB	LG	Y	>	В	SB	٦	Ь
Terminal No.	29	32	33	34	35	36	39	40

Connector Name MODULE) (WITH INTELLIGENT KEY SYSTEM) Connector Color BLACK	Connector No.	M84
Connector Color BLACK	Connector Name N	SCM (BODY CONTROL MODULE) (WITH NTELLIGENT KEY SYSTEM)
	Connector Color E	3LACK



Signal Name	COMBINATION SW INPUT 5	COMBINATION SW INPUT 4	COMBINATION SW INPUT 3	COMBINATION SW INPUT 2	COMBINATION SW INPUT 1	
Color of Wire	٦	GR	BR	0	W	
Terminal No. Wire	2	3	4	5	9	

COMBINATION SW INPUT 5	COMBINATION SW INPUT 4	COMBINATION SW INPUT 3	COMBINATION SW INPUT 2	COMBINATION SW INPUT 1	20	HAZARD SWITCH	ITE
L	GR	BR	0	W	M102		or WH
2	3	4	5	9	Connector No.	Connector Name	Connector Color WHITE





Signal Name	-	_
Color of Wire	SB	В
Terminal No.	2	3

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Connector No. E13	ctor No	Terminal No. Wire Signal Name 20 Y - 20 Y - 21 X X X X X X X X X X X X X X X X X X	22 V – 23 V – 24 V –
Signal Name	E21 LAMP LH BLACK	Signal Name	
Oolor of Wire Virginia A			
10G 10G 33G 42G	Connector No. Connector Color	Terminal No.	
E4 WIRE TO WIRE So WHITE So 40 30 20 10	E20 LAMP RH BLACK	0 0	
20. E4 ame WIRE TO alor WHITE 56 46 100 99			
Connector No. Connector Name Connector Color H.S. H134	Connector No. Connector Color	Terminal No.	
	1	А	ABLIA5856GB

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Revision: October 2013 EXL-65 2014 Sentra NAM

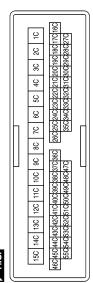
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	RE TO WIRE	ПЕ	4 6	10 11 12 13 19 20 15 16 17 18 19 20		Signal Name	ı	_	I	1
. B93	me WIF	lor WH	2 3	8 14	Color of	Wire	_	В	В	a
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	L SH	<u>'</u>		l erminal No.	-	2	7	α

Signal Name	-	1
Color of Wire	Э	B/W
Terminal No.	38C	39C

tor No. B73	Connector Name JOINT CONNECTOR-B01	Connector Color BLACK	12 11 10 9 8 7 6 5 4 12 1 1 1 1 1 1 1 1
Connector No.	Connector	Connector	原。 H.S.

Signal Name	1	1	1	1	_	1	ı	_	1	_
Color of Wire	SB	BR	LG	\	В	0	В	В	٦	В
Terminal No.	9	7	8	10	11	12	19	50	23	24

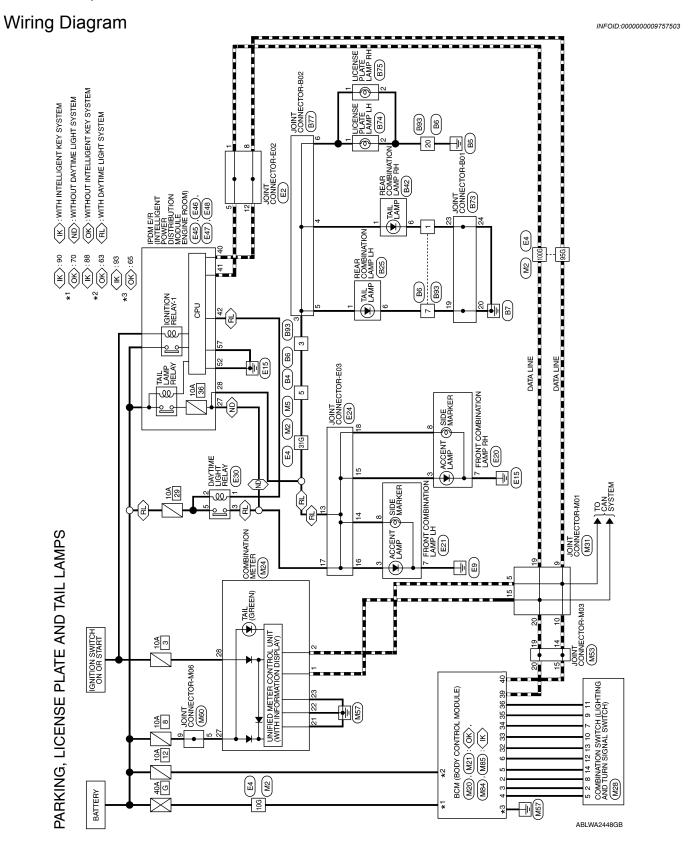
D2	WIRE TO WIRE	WHITE	
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	



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TO WIRE September Signal Name Signal	G
Connector No. D101 Connector Name WIRE TO WIRE Connector Color WHITE Tisa I tal Ital Ital Ital Ital Ital Ital It	Н
Connector No. Connector No. Connector Colo Terminal No. Connector Colo 15A 14A 13A 38A 39A 39A	I
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Signal Name	EXL
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ctor Non- ctor Name ctor Color No.	N
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Revision: October 2013 EXL-67 2014 Sentra NAM



15 16 17 18 19 20 15 18 20 40					CAN-L		COMBINATION SW OUTPUT 1				COMBINATION SW OUTPUT 5	or of Signal Name		1	or of Signal Name	4 13 12 11 10 9 8	3 2 2	WHITE	M5 WIRE TO WIRE
1 1 1 1 1 1 1 1 1 1							36 SB	35 R	34 V	33	32 LG	Terminal No. Wire		2	Terminal No. Wire				Je L
								36 37 38 39 40	16 17 18 19 20										
	(COMBINATION SW INPUT 2 COMBINATION SW INPUT 1	SOMBINATION SW INPUT 3 COMBINATION SW INPUT 2	SOMBINATION	SW INPUT 4	SOMBINATION SW INPUT 5	Signal Name	7 28 29 30 31 32 33 34 35			BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)					ı	1 1	1 1	Signal Name
(a)							Color of Wire	22 23 24 25 26	6 4 7	-								+	I No. Wire
Terminal No. Col 10G 10G 10G 10G 10G 100G		n o	4 7	4	က	2	Terminal	H.S.		Connecto	Connecto	Connecto			F	100G	95G	316	Terminal
PLATE AND TAIL O WIRE O WIRE	E				ERY (F/L)	GND	gnal Name		22		JONI RUL THOUT KEY SYSTEM)		708808909000 70878908008103 70878908008103 708808909000	76486496506	76186196206216 76286296306	4G 5G	[Щ
Connector No. M2 Connector Name WIRE TO WIRE Connector Color WHITE Connector Name WIRE TO WIRE Connector Name WIRE WIRE WIRE WIRE WIRE WIRE WIRE WIRE	ı						FAG		59 58 57	_			11 G 200 G	4264364464564664	229249249269269 229239249269269	16 26 36			M2 ne WIRE TO WIR
Connector No. Connector Name Connector Color Connector No. Connector No. Connector No. Connector No. Connector No. Connector Color Connector No. Co					70	65				Connector Col	Connector Na	Connector No.				H.S.		Connector Col	Connector No.

Connector No.	Jo. M24	4	Connector No.	Jo. M28		Connector No.	lo. M31		
Connector Name COMBINATI	lame COI	MBINATION METER	Connector	Jame CON	Connector Name COMBINATION SWITCH	Connector N	lame JOIN	Connector Name JOINT CONNECTOR-M01	
Connector Color WHITE	color WH	ITE	Connector Color WHITE	color WHI	TE	Connector Color	color GRAY	>-	
				-		F	10 9	8 7 6 5 4 3 2 1 18 17 16 15 14 13 12 11	
2 ₽	느니의	11 10 9 8 7 6 5 4 3 2	S. S.	ν ω	10 11 12 13	K.	11		
40 39 38 37 36	38 37 36 35 34 33 3	32 31 30 29 28 27 26 25 24 23 22 3	[2]						
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	
-	7	CAN-H	2	GR	1	2	۵	ı	
0	۵	CAN-L	2	BB	ı	6	۵	ı	
21	В	GND (ILL)	7	>	ı	10	۵	ı	
22	В	GND2 (POWER)	8	_	ı	15	_	I	
23	В	GND3 (CIRCUIT)	6	ш	ı	19	٦	ı	
27	ГG	BAT	10	>	ı	20	_	I	
28	GR	IGN	1	SB	ı				
			12	M	ı				
			13	ГG	ı				
			41	0	ı				
Connector No.	No. M53	3	Connector No.	No. M60					
Connector Name		JOINT CONNECTOR-M03	Connector Name		JOINT CONNECTOR-M06				
Connector Color	Solor PINK	¥	Connector Color	Solor BLUE	Æ				
Ą	IL		ą.						
H.S.	10 9 8 7 20 19 18 17	7 16 15 14 13 12 11	H.S.H	10 9 8 7 20 19 18 17	6 5 4 3 2 1 1 16 15 14 13 12 11				
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name				
14	Ь	ı	2	ΓG	ı				
15	Д	ı	б	Μ	ı				
19	٦	ı							
20	l	ı							

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< WIRING DIAGRAM >

Connector No.). M85	9
Connector Name		BCM (BODY CONTROL MODULE) (WITH INTELLI- GENT KEY SYSTEM)
Connector Color	olor WHITE	11
雨 H.S.	88 98	S9 88 87 86 85 84 83 82 81 95 94 83 92 91 90
Terminal No.	Color of Wire	Signal Name
88	0	BATTERY (FUSE)
06	У	BATTERY (F/L)
93	В	GND (POWER)

Signal Name	COMBINATION SW OUTPUT 5	COMBINATION SW OUTPUT 4	COMBINATION SW OUTPUT 3	COMBINATION SW OUTPUT 2	COMBINATION SW OUTPUT 1	CAN-H	CAN-L
Color of Wire	ГG	>	^	В	SB	٦	Д
Terminal No.	32	33	34	35	36	39	40

			19 20 39 40						
4	BCM (BODY CONTROL MODULE) (WITH INTELLI- GENT KEY SYSTEM)	BLACK	9 10 11 12 13 14 15 16 17 18	Signal Name	COMBINATION SW INPUT 5	COMBINATION SW INPUT 4	COMBINATION SW INPUT 3	COMBINATION SW INPUT 2	COMBINATION SW INPUT 1
. M84			6 7 8 26 27 28	Color of Wire	_	GR	BB	0	×
Connector No.	Connector Name	Connector Color	H.S. 1 2 3 4 5 21 22 23 24 25	Terminal No.	Ø	ю	4	5	9

Connector No.	E2	
Connector Name		JOINT CONNECTOR-E02
Connector Color	or BLUE	E
H.S.	11 10 9 8	7 6 5 4 3 2 1
Terminal No.	Color of Wire	Signal Name
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5	7	ı
8	Ъ	ı
12	۵	1

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Connector No. E20 Connector Name FRONT COMBINATION LAMP RH Connector Color BLACK ##S. Terminal No. Wire 3 L - 7 B - 8 L - 8 L - 8 L -	Connector No. E30 Connector Name DAYTIME LIGHT RELAY Connector Color BLUE Signal Name 1
Terminal No. Color of Wire Signal Name 10G G - 21G P - 100G L - 10	Connector No. E24 Connector Name JOINT CONNECTOR-E03 Connector Color BLACK LS
Connector No. E4 Connector Name WIRE TO WIRE Connector Color WHITE SG MG 76 66 16 16 16 16 16 16	Connector No. E21 Connector Name FRONT COMBINATION LAMP LH Connector Color BLACK H.S. Terminal No. Color of Signal Name 3 L - 7 B/R - 8 L - 8 L - 8 L - 8 L - 1

PARKING, LICENSE PLATE AND TAIL LAMPS

< WIRING DIAGRAM >

			. ,		
	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	BROWN	51	Signal Name	(IVNE) GNE
. E47				Color of Wire	ΡV
Connector No.	Connector Name	Connector Color	原 H.S.	Terminal No.	65

Connector No.	. E46	
Connector Name		IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color WHITE	lor	ΠE
雨 H.S.	4 4 8 8	41 40 39 38 37 47 46 45 44 43
Terminal No.	Color of Wire	Signal Name
40	۵	CAN-L
41	٦	CAN-H
42	٨	DTRL RLY

	POWER DISTRIBUTION MODULE ENGINE ROOM	BROWN	34 33 32 31 30	Signal Name	CLEARANCE/L RH	TAIL 1
. E45		_	36 35 34	Color of Wire	_	œ
Connector No.	Connector Name	Connector Color	响 H.S.	Terminal No.	27	28

Connector No.	Ţ.	Be								
Connector Name WIRE TO WIRE	ame	WIF	₹ T	0	MF	띘				
Connector Color WHITE	jo	M	빝							
										١,
	9	2	4	ш				2	-	
Ç.	20	19	13 12 11	2	Ξ	9	6		7	
			18 17 16 15	_	16	2	4			_

Connector No.). B4	
Connector Name		WIRE TO WIRE
Connector Color	olor WHITE	III.
(可) H.S.	8 1 2 8	3
Terminal No. Wire	Color of Wire	Signal Name
5	97	1

Connector No.	. E48	
Connector Name		IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color BLACK	lor BLA	CK
原 H.S.		29 28 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25
Terminal No.	Color of Wire	Signal Name
57	В/У	GND (POWER)

Terminal No.	Color of Wire	Signal Nam
22	J/B	GND (POWE

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PARKING, LICENSE PLATE AND TAIL LAMPS

< WIRING DIAGRAM >





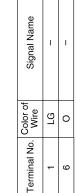
Signal Name	ı	_	1	ı
Color of Wire	В	В	Γ	В
Terminal No. Color of Wire	19	20	23	24







Connector No.	B25
Connector Name	Connector Name REAR COMBINATION LAMP LH
Connector Color WHITE	WHITE



Signal Name

Color of Wire BR

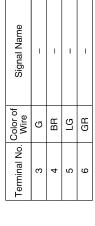
Terminal No.

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Signal Name	ı	-	ı	I	
Color of Wire	В	В	Г	В	
nal No.	6	0	3	4	

B77	nector Name JOINT CONNECTOR-B02	YELLOW	
nector No.	nector Name	nnector Color YELLOW	





Connector No.	B75
Connector Name	Connector Name LICENSE PLATE LAMP RH
Connector Color BROWN	BROWN



Signal Nam	ı	I
Color of Wire	GR	В
Ferminal No.	-	2

Connector Name LICENSE PLATE LAN Connector Color BROWN
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B74

Connector No.



Signal Name	ı	I
Color of Wire	۵	В
Terminal No.		2



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PARKING, LICENSE PLATE AND TAIL LAMPS

< WIRING DIAGRAM >

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	Connector No. B93 Connector Name WIRE TO WIRE		Connector Name WIRE TO W Connector Color WHITE					10 11 12	14 15 16 17 18
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		WIRE				က	Ī	6	14
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		lame				-		7	`
	Connector N	Connector No. Connector Nan Connector Cola	Connector C				ê		

Signal Name	1	1	1	ı
Color of Wire	٦	9	В	В
Terminal No. Wire	-	3	7	20

	Signal Name	ı	-	1	ı
	Color of Wire	Г	9	В	В
J	Terminal No. Wire	ļ	8	2	20

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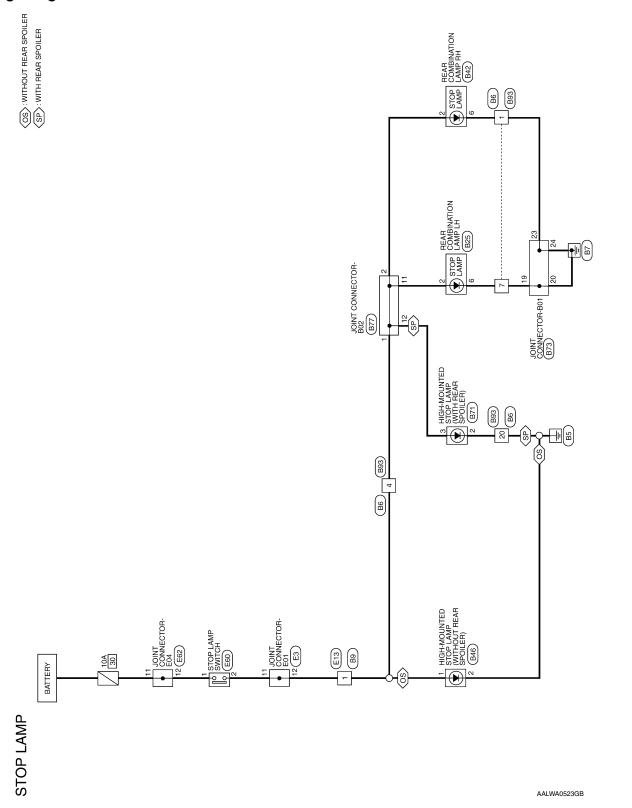
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STOP LAMP

Wiring Diagram



Connector Name STOP LAMP SWITCH Connector Color WHITE

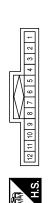
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Connector No.

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E13	WIRE TO WIRE	WHITE	
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	
E3	Connector Name JOINT CONNECTOR-E01	BLUE	
onnector No.	connector Name	connector Color BLUE	



Signal Name	ı	ı
Color of Wire	SB	as
Terminal No. Wire	11	12

Signal Name	ı	1		
Color of Wire	M	SB		
Terminal No. Wire	1	2		
			•	
Name	1			

Signal Name	_	
Color of Wire	SB	
Ferminal No.	1	

Signal Name	1	
Color of Wire	SB	
Terminal No.	٦	
	Color of Wire	Color of Wire SB

Signal Name	ı	
Color of Wire	SB	
Terminal No.	1	
	Color of Wire	Color of Wire SB

Signal Name	-	_	
Color of Wire	SB	SB	
Terminal No.	11	12	

Connector No.). B9	
Connector Name		WIRE TO WIRE
Connector Color WHITE	olor WH	ITE
H.S.	24 23 22 21	22 23 22 21 20 19 18 17 16 15 14 13
Terminal No.	Color of Wire	Signal Name
-	۵	ı

Connector No.	Be	
Connector Name	_	WIRE TO WIRE
Connector Color WHITE	olor WHI	里
·····································	5 4	3 2 1
_	20 19 13	12 11 10 9 8 7 17 16 15 14 8 7
Terminal No.	Color of Wire	Signal Name
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4	Ь	_
7	0	-
20	В	_

E62	inector Name JOINT CONNECTOR-E04	BLACK	12 11 10 9 8 7 6 5 4 8 2 1 24 25 22 22 20 10 19 18 17 16 15 14 13
nector No.	nector Name	nector Color BLACK	S. 1282

	JOINT CONNECTOR-E04	SK.	2 20 19 18 17 16 15 14 13	Signal Name	ı	ı
. E62		lor BLACK	24 23 22 2	Color of Wire	>	>
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.		12

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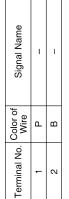
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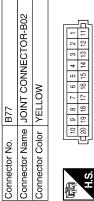
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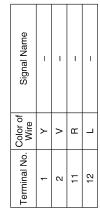
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Connector No. B46	HIGH-MOUNTED STOP Connector Name LAMP (WITHOUT REAR	SPOILER)	Sonnector Color BLACK
Con	ATION LAMP		Con

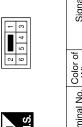


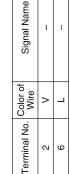


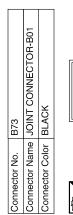


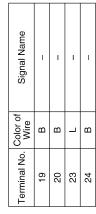


Connector No.	B42
Connector Name	Connector Name REAR COMBINATION LA
Connector Color WHITE	WHITE







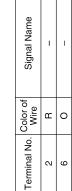




Connector No.

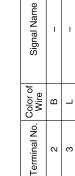


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	Connector Name LAMP (WITH REAR SPOILER)	巴	
tor No. B71	HIGH tor Name LAMF SPOI	Connector Color WHITE	
Connector No.	Connec	Connec	







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Connector No.	B93
Connector Name WIRE TO WIRE	WIRE TO WIRE
Connector Color WHITE	WHITE

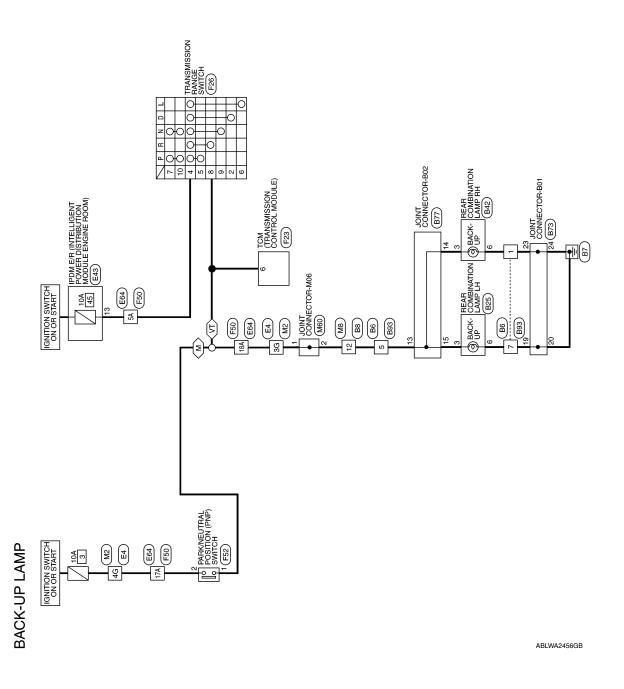
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	9	15
3	6	14
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Signal Name	1	-	ı	-
Color of Wire	Г	Y	В	В
Terminal No. Wire	-	4	7	20

BACK-UP LAMP

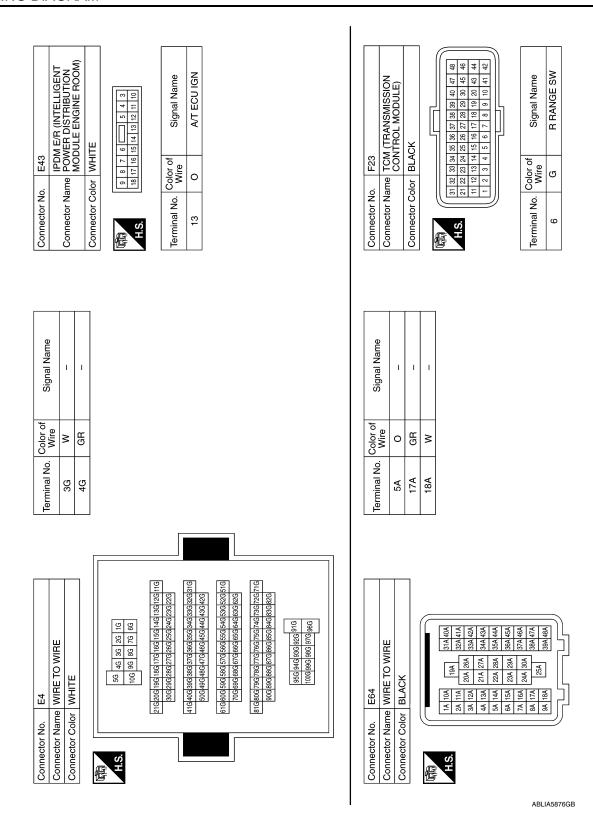
Wiring Diagram





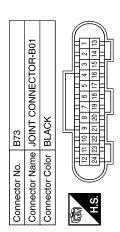
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	VIRE			3 2 1	Signal Name	1										В
8W	WIRE TO V	WHITE		5 4 11 10 9	Color of Wire	<u>«</u>										С
Connector No	ЭС	Connector Color WHITE				12 GR										D
Conne	Conne	Conne		H.S.	Terminal No.											Е
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	Signal Name	ı	ı													G
Jo 10	Wire	SB	GR													Н
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2					G20G21G G30G	G40G41G G50G G60G61G	G 70G G 80G 81G G 90G			TOR-M06	2 1 1 11 1	Signal Name				EX
	Connector Name WIRE TO WIRE	HTE		1G 2G 3G 4G 5G 6G 7G 8G 9G 10G	11G12G13G14G15G16G17G18G19G20G21G 22G23G24G2SG26G27G28G29G30G	31G22C633C9J4Q133C928C637C98C139C94T064T6 42C643C944C9C9EC647C948C49C950C 51G52C92C9C9C9C9C9C9C9C9C9C9C9C9C9C9C9C9C9C	62G63G64G65G66G67G68G66G6G70G 71G72G73G74G75G76G77G78G78G90G81G 82G83G84G65G66G87G88G89G90G	91G 92G 93G 94G 95G 96G 97G 98G 99G 100G	0	Connector Name JOINT CONNECTOR-M06 Connector Color BLUE	10 9 8 7 6 5 4 3 2 1 20 19 18 17 16 15 14 18 12 11			1		M
I No	or Name WII	Connector Color WHITE			116126136	316 326 336 426 436 516 526 536	716726736 826836		or No. M60	Connector Name JOINT	109 8	No. Color of Wire	SB	GR		N
Connector No M2	Connecto	Connecto		H.S.					Connector No.	Connecto	雨 H.S.	Terminal No.	-	2		0
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Connector No. F26 Connector Name TRANSMISSION RANGE	Connector No.	Connector No. F50 Connector Name WIRE TO WIRE			Terminal No.	Color of Wire	Signal Name	ıme	
SWITCH	Connector Color	or BLACK			5A	re	1		
Connector Color BLACK					17A	SB	1		
					18A	5	I		
H.S. 10 9 8 7	H.S.	40A 31A 41A 32A 42A 33A 72A 21A	10a 1a 11a 2a 12a 3a 12a 4a						
Color of		28A 22A	14A 5A						
lerminal No. Wire Signal Name		29A 23A	15A 6A						
_		٨	16A 7A 17A 8A						
- B 8		25A	18A 9A						
Connector No. F52	Connector No.	B6			Connector No.). B8	L		
	Connector Name WIHE I	Connector Name WIRE 10 WIRE Connector Color WHITE	Ш		Connector Name WIRE IO WIRE Connector Color WHITE	ame WIRE	IO WIRE		
Connector Color GHEEN									
H.S.	N.S.	0 5 4 5 10 10 10			H.S.	6 7 8	6 7 8 9 10 11 12		
			4						
Terminal No. Color of Wire Signal Name	Terminal No.	Color of Sign	Signal Name		Terminal No.	Color of Wire	Signal Name	ıme	
1 6	-		ì		12	8	1		
2 SB –	S	M	1						
	7	0							
EX M	J	F	G	F	E		C	Е	A
Χ Ι	J								4

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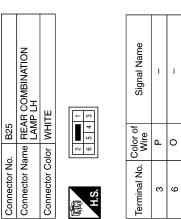


Signal Name	ı	_	_	1
Color of Wire	В	В	٦	В
Terminal No.	19	20	23	24





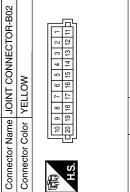
Signal Name	ı	-	
Color of Wire	SB	Γ	
Terminal No.	3	9	



Connector No.	Š.	B93	3					
Connector Name WIRE TO WIRE	lame	₹	띪	⊘	RE			
Connector Color WHITE	Ser	₹	뿌					
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υ	ç	2		Signal Name			
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_	12	17		igi			
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e e	6	4					
2	c	0		Color of Wire	٦	>	a
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	211			Terminal No.	,	5	7

Connector No.	Š.	H	B77								
Connector Name JOINT CONNECTOR-B02	Name	-	₫	Ξ	0	Ö	ş	Щ	Ĕ	<u>-</u>	302
Connector Color YELLOW	Color	<u> </u>	Æ	\vdash	8	>					
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	유	တ	8	7	9	2	4	က	2	-	
SH	20 19 18 17 16 15 14 13 12 11	19	18	17	16	15	14	13	12	Ξ,	
										1	



Signal Name	ı	ı	=
Color of Wire	>	SB	Ь
Terminal No.	13	14	15

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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

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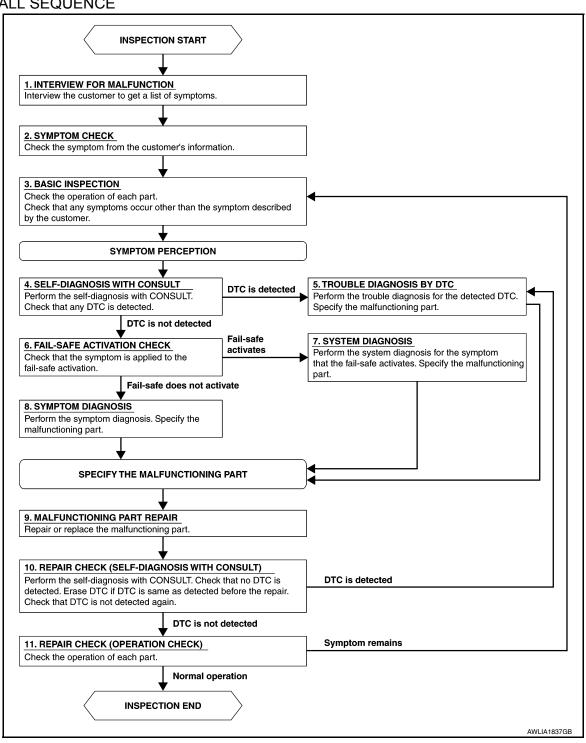
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OVERALL SEQUENCE



DETAILED FLOW

1.INTERVIEW FOR MALFUNCTION

Find out what the customer's concerns are.

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

>> GO TO 2

2.symptom check

Verify the symptom from the customer's information.

>> GO TO 3

3.BASIC INSPECTION

Check the operation of each part. Check that any concerns occur other than those mentioned in the customer interview.

>> GO TO 4

4. SELF-DIAGNOSIS WITH CONSULT

Perform the self diagnosis with CONSULT. 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

Determine if the customer's concern is related to fail-safe activation.

Does the fail-safe activate?

>> GO TO 7 YES

NO >> GO TO 8

7. SYSTEM DIAGNOSIS

Perform the system diagnosis for the system in which 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)

Perform the self diagnosis with CONSULT. Verify that no DTCs are detected. Erase all DTCs detected prior to the repair. Verify 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?

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

YES	>> Inspection End.
NO	>> GO TO 3

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HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

HEADLAMP (HI) CIRCUIT

Description INFOID:0000000009757507

The IPDM E/R (intelligent power distribution module engine room) controls the headlamp high relay based on inputs from the BCM over the CAN communication lines. When the headlamp high relay is energized, power flows through fuses 41 and 42, located in the IPDM E/R. Power then flows to the front combination lamps to the headlamp high beam.

Component Function Check

INFOID:0000000009757508

1. CHECK HEADLAMP (HI) OPERATION

NWITHOUT CONSULT

- Start IPDM E/R auto active test. Refer to <u>EXL-24, "Diagnosis Description"</u> (with Intelligent Key system) or <u>EXL-28, "Diagnosis Description"</u> (without Intelligent Key system).
- Check that the headlamp switches to the high beam.

NOTE:

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

CONSULT

- 1. Select EXTERNAL LAMP of IPDM E/R active test item.
- While operating the test items, check that the headlamp switches to the high beam.

HI: Headlamp switches to the high beam.

OFF : Headlamp OFF

Is the inspection result normal?

YES >> Headlamp (HI) circuit is normal.

NO >> Refer to EXL-88, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000009757509

Regarding Wiring Diagram information, refer to EXL-33, "Wiring Diagram".

1. CHECK HEADLAMP (HI) FUSES

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

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	42	10A
Headlamp HI (RH)	IPDM E/R	41	10A

Is the fuse blown?

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

NO >> GO TO 2.

2.CHECK HEADLAMP (HI) OUTPUT VOLTAGE

(P)CONSULT ACTIVE TEST

- Turn the ignition switch OFF.
- 2. Disconnect the front combination lamp harness connector in question.
- Turn the ignition switch ON.
- Select EXTERNAL LAMP of IPDM E/R active test item.
- With EXTERNAL LAMP ON, check the voltage between the combination lamp connector and ground.

HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

	(+)		()	Voltago
	Connector	Terminal	(-)	Voltage
RH	E20	2	Ground	Battery voltage
LH	E21	2	Ground	Battery Voltage

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.CHECK HEADLAMP (HI) CIRCUIT FOR OPEN

- 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.

	IPDM E/F	2	Front combination lamp		Continuity
Coni	nector	Terminal	Connector	Terminal	Continuity
RH	E43	5	E20	2	Yes
LH	- ⊑43	6	E21	2	ies

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to <u>PCS-30</u>, "Removal and Installation" (with Intelligent Key system) or <u>PCS-58</u>, "Removal and Installation" (without Intelligent Key system).

NO >> Repair or replace the harness or connector.

4. CHECK FRONT COMBINATION LAMP (HI) GROUND CIRCUIT

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

Connector		Terminal	_	Continuity
RH	E20	6	Ground	Yes
LH	E21	0	Glound	163

Is the inspection result normal?

YES >> Inspect the headlamp bulb.

NO >> Repair or replace the harness or connector.

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Revision: October 2013 EXL-89 2014 Sentra NAM

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

HEADLAMP (LO) CIRCUIT

Description INFOID:000000009757510

The IPDM E/R (intelligent power distribution module engine room) controls the headlamp low relay based on inputs from the BCM over the CAN communication lines. When the headlamp low relay is energized, power flows through fuses 43 and 44, located in the IPDM E/R. Power then flows to the front combination lamps to the headlamp low beam.

Component Function Check

INFOID:0000000009757511

1. CHECK HEADLAMP (LO) OPERATION

NWITHOUT CONSULT

- Start IPDM E/R auto active test. Refer to <u>EXL-24, "Diagnosis Description"</u> (with Intelligent Key system) or <u>EXL-28, "Diagnosis Description"</u> (without Intelligent Key system).
- Check that the headlamp is turned ON.

NOTE:

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

(P)CONSULT

- 1. Select EXTERNAL LAMP of IPDM E/R active test item.
- 2. While operating the test items, check that the headlamp is turned ON.

LO: Headlamp ON
OFF: Headlamp OFF

Is the inspection result normal?

YES >> Headlamp (LO) is normal.

NO >> Refer to EXL-90, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000009757512

Regarding Wiring Diagram information, refer to EXL-33, "Wiring Diagram".

1. CHECK HEADLAMP (LO) FUSES

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

Unit	Location	Fuse No.	Capacity
Headlamp LO (RH)	IPDM E/R	44	15A
Headlamp LO (LH)	IPDM E/R	43	15A

Is the fuse blown?

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

NO >> GO TO 2.

2.CHECK HEADLAMP (LO) OUTPUT VOLTAGE

(P)CONSULT

- Turn the ignition switch OFF.
- 2. Disconnect the front combination lamp harness connector in question.
- Turn the ignition switch ON.
- Select EXTERNAL LAMP of IPDM E/R active test item.
- With EXTERNAL LAMP ON, check the voltage between the combination lamp connector and ground.

(+)		(-)	Voltage
Connector Terminal		(-)	voltage

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

RH	E20	1	Ground	Rattery voltage
LH	E21	'	Ground	Battery Voltage

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.CHECK HEADLAMP (LO) CIRCUIT FOR OPEN

- 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.

	IPDM E/R		Front combination lamp		Continuity
Coni	nector	Terminal	Connector	Terminal	Continuity
RH	E43	8	E20	1	Yes
LH	E43	7	E21	'	165

Is the inspection result normal?

>> Replace IPDM E/R. Refer to PCS-30, "Removal and Installation" (with Intelligent Key system) or YES PCS-58, "Removal and Installation" (without Intelligent Key system).

NO >> Repair or replace the harness or connector.

4. CHECK FRONT COMBINATION LAMP (LO) GROUND CIRCUIT

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

Connector		Terminal	_	Continuity
RH	E20	5	Ground	Yes
LH	E21	3	Ground	

Is the inspection result normal?

YES >> Inspect the headlamp bulb.

>> Repair or replace the harness or connector. NO

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DAYTIME LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DAYTIME LIGHT RELAY CIRCUIT

Description INFOID:000000009757513

The BCM sends a daytime light request to the IPDM E/R via the CAN communication lines. The power flows through fuse 29 located in fuse block J/B to the daytime light relay coil. When the IPDM E/R operates the daytime light relay, power is sent to the daytime lamps.

Diagnosis Procedure

INFOID:0000000009757514

Regarding Wiring Diagram information, refer to EXL-38. "Wiring Diagram".

1. CHECK DAYTIME LIGHT RELAY VOLTAGE SUPPLY

- 1. Turn the ignition switch OFF.
- 2. Remove the daytime light relay.
- 3. Check the voltage between the daytime light relay harness connector and ground.

Daytime	light relay	()	Voltago	
Connector	Terminal	(-)	Voltage	
E30	2	Ground	Rattery voltage	
E30	5	Giouna	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK DAYTIME LIGHT RELAY FUSE

Check that the following fuses are not blown.

Unit	Location	Fuse No.	Capacity
Daytime light	Fuse block J/B	29	10A

Is the fuse blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> Repair or replace the harness or connector.

3.check daytime light relay control circuit

Check continuity between the IPDM E/R harness connector and the daytime light relay harness connector.

Daytime light relay	IPDM E/R			Continuity	
Connector	Terminal	Connector Terminal		Continuity	
E30	1	E46	42	Yes	

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

Connector	Terminal	_	Continuity
E30	1	Ground	No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the harness or connector.

4. CHECK DAYTIME LIGHT RELAY

Check the daytime light relay. Refer to EXL-93, "Component Inspection".

DAYTIME LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace relay.

$5.\mathsf{check}$ daytime light circuit (open or short to ground)

Check continuity between the daytime light relay harness connector and the front combination lamp harness connector.

Daytime light relay		Front combination lamp		Continuity	
Connector	Terminal		Connector	Terminals	Continuity
E30	2	LH	E21	2.0	Yes
E30	3	RH	E20	3, 8	res

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

Daytime lig	Daytime light relay		Continuity	
Connector	Terminal	(-)	Continuity	
E30	3	Ground	No	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the harness or connector.

6.CHECK DAYTIME LIGHT GROUND CIRCUIT FOR OPEN

Disconnect front combination lamp connector in question.

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

Connector	Terminal	_	Continuity
LH E21	7	Ground	Yes
RH E20	'	Ground	163

Is the inspection result normal?

YES >> Inspect daytime light bulb.

NO >> Repair or replace the harness or connector.

Component Inspection

1. CHECK DAYTIME LIGHT RELAY

Turn ignition switch OFF.

Remove daytime light relay.

Check the continuity between daytime light relay terminals 3 and 5 when voltage is supplied between terminals 1 and 2.

Terminals	Condition	Continuity
3 and 5	12V direct current supply between terminals 1 and 2	Yes
5 and 5	No current supply	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace daytime light relay.

INFOID:0000000009757515

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FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

FRONT FOG LAMP CIRCUIT

Description INFOID:000000009757516

The IPDM E/R (intelligent power distribution module engine room) controls the front fog lamp relay based on inputs from the BCM over the CAN communication lines. When the front fog lamp relay is energized, power flows from the front fog lamp relay in the IPDM E/R to the front fog lamps.

Component Function Check

INFOID:0000000009757517

1.CHECK FRONT FOG LAMP OPERATION

NWITHOUT CONSULT

- 1. Activate IPDM E/R auto active test. Refer to EXL-24, "Diagnosis Description" (with Intelligent Key system) or EXL-28, "Diagnosis Description" (without Intelligent Key system).
- 2. Check that the front fog lamp is turned ON.

(I) WITH CONSULT

- 1. Select EXTERNAL LAMP of IPDM E/R active test item.
- 2. While operating the test items, check that the front fog lamp is turned ON.

FOG : Front fog lamp ON
OFF : Front fog lamp OFF

Is the inspection result normal?

YES >> Front fog lamp circuit is normal.

NO >> Refer to EXL-94, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000009757518

Regarding Wiring Diagram information, refer to EXL-53, "Wiring Diagram".

1. CHECK FRONT FOG LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	40	15A

Is the fuse blown?

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

NO >> GO TO 2.

2. CHECK FRONT FOG LAMP OUTPUT VOLTAGE

(P)CONSULT

- 1. Disconnect the front fog lamp harness connector in question.
- Turn the ignition switch ON.
- 3. Turn the front fog lamps ON.
- Check the voltage between the front fog lamp harness connector and ground.

(+)			(_)	Voltage
C	onnector	Terminal	(-)	vollage
LH	E27	1	Ground	Battery voltage
RH	E28	, i	Ground	Ballery Vollage

Is the inspection result normal?

YES >> GO TO 4.

FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

NO >> GO TO 3.

3.CHECK FRONT FOG LAMP OPEN CIRCUIT

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

	IPDM E/R		Front fog lamp		Continuity
Coni	nector	Terminal	Connector	Terminal	Continuity
RH	E47	53	E28	1	Yes
LH	E47	54	E27	1	165

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to <u>PCS-30</u>, "Removal and Installation" (with Intelligent Key system) or <u>PCS-58</u>, "Removal and Installation" (without Intelligent Key system).

NO >> Repair or replace the harness or connector.

4. CHECK FRONT FOG LAMP GROUND CIRCUIT

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

Conr	nector	Terminal	_	Continuity
RH	E28	2	Ground	Yes
LH	E27	2	Ground	163

Is the inspection result normal?

YES >> Inspect the fog lamp bulb.

NO >> Repair or replace the harness or connector.

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PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

PARKING LAMP CIRCUIT

Description INFOID:000000009757519

The IPDM E/R (intelligent power distribution module engine room) controls the tail lamp relay based on inputs from the BCM over the CAN communication lines. When the tail lamp relay is energized, power flows through fuse 36, located in the IPDM E/R. Power then flows to the front and rear combination lamps, license plate lamps.

Component Function Check

INFOID:0000000009757520

1. CHECK PARKING LAMP OPERATION

NWITHOUT CONSULT

- 1. Activate IPDM E/R auto active test. Refer to EXL-24, "Diagnosis Description" (with Intelligent Key system).
- Check that the parking lamp is turned ON.

(P)WITH CONSULT

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

TAIL : Parking lamp ON OFF : Parking lamp OFF

Is the inspection result normal?

YES >> Parking lamp circuit is normal.

NO >> Refer to EXL-96, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000009757521

Regarding Wiring Diagram information, refer to EXL-68. "Wiring Diagram".

1. CHECK PARKING LAMP FUSES

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

Unit	Location	Fuse No.	Capacity
Parking lamps	IPDM E/R	36	10A

Is the fuse blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2.CHECK TAIL LAMP RELAY OUTPUT (VOLTAGE)

- 1. Disconnect the front or rear combination lamp connector or license plate lamp connector in question.
- 2. Turn the ignition switch ON.
- Turn the parking lamps ON.
- With the parking lamps ON, check voltage between the front combination lamp front (parking) connector and ground.

(+)		(-)	Voltage (Approx.)	
	Connector	Terminal	()	(Approx.)
LH	E21	3	Ground	Battery voltage
RH	E20	3	Ground	Dattery Voltage

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

With the parking lamps ON, check voltage between the front combination lamp (side marker) connector and ground.

(+)		(-)	Voltage	
	Connector	Terminal		(Approx.)
LH	E21	0	Ground	Pottony voltago
RH	E20	0	Ground	Battery voltage

6. With the parking lamps ON, check voltage between the rear combination lamp connector and ground.

(+)		(-)	Voltage (Approx.)	
	Connector	Terminal	(-)	(Approx.)
LH	B25	1	Ground	Patton, voltago
RH	B42	1	Giodila	Battery voltage

With the parking lamps ON, check voltage between the license plate lamp connector and ground.

(+)		(-)	Voltage	
	Connector	Terminal (-)		(Approx.)
LH	B74	1	Ground	Battery voltage
RH	B75	"	Ground	Dattery Voltage

Are the inspection results normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.CHECK PARKING LAMP CIRCUIT (OPEN)

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

IPDM E/R			Front combination lam	Continuity	
Conne	ector	Terminal	Connector	Terminal	Continuity
LH	E45	27	E21	2	Yes
RH	E43	21	E20	3	165

Check continuity between the IPDM E/R harness connector and the front combination lamp (side marker) harness connector.

	IPDM E/R		Front combination	Continuity	
Со	nnector	Terminal	Connector	Terminal	Continuity
LH	E45	27	E21	0	Yes
RH	⊏45	21	E20	8	

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

IPDM E/R	Rear combina	Continuity		
Connector	Terminal	Connector	Terminal	Continuity

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PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

LH	E45	28	B25	1	Vas
RH	E45		B42	'	ies

6. Check continuity between the IPDM E/R harness connector and license plate lamp connector.

IPDM E/R			License	Continuity	
	Connector	Terminal	Connector	Terminal	Continuity
LH	E45	20	B74	1	Yes
RH	E45	28	B75	1	

Are the inspection results normal?

YES >> Replace IPDM E/R. Refer to <u>PCS-30</u>, "<u>Removal and Installation</u>" (with Intelligent Key system) or <u>PCS-58</u>, "<u>Removal and Installation</u>" (without Intelligent Key system).

NO >> Repair or replace the harness or connector.

4. CHECK PARKING LAMP GROUND CIRCUITS

1. Check continuity between the front combination lamp (parking) harness connector and ground.

(+)			()	Continuity
	Connector	Terminal	(-)	Continuity
LH	E21	7	Ground	Yes
RH	E20	,	Glound	ies

2. Check continuity between the front combination lamp (side marker) harness connector and ground.

(+)			()	Continuity	
	Connector 7		(-)	Continuity	
LH	E21	7	Ground	Yes	
RH	E20	,			

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

(+)			(-)	Continuity	
Connector		Terminal	(-)	Continuity	
LH	B25	6	Ground	Yes	
RH	B42	0	Ground		

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

(+)			(-)	Continuity	
Connector		Terminal	(-)	Continuity	
LH	B74	2	Ground	Yes	
RH	B75	2	Ground	res	

Are the inspection results normal?

YES >> Inspect the parking lamp bulb.

NO >> Repair or replace the harness or connector.

< DTC/CIRCUIT DIAGNOSIS >

TURN SIGNAL LAMP CIRCUIT

Description

The BCM monitors inputs from the combination switch to determine when to activate the turn signals. The BCM outputs voltage direction to the left and right turn signals during turn signal operation or both during hazard warning operation. The BCM sends a turn signal indicator request to the combination meter via the CAN communication lines.

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

NOTE:

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

Component Function Check

1. CHECK TURN SIGNAL LAMP

(P)CONSULT

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 lamps (LH) ON
RH: Turn signal lamps (RH) ON
OFF: The turn signal lamps OFF

Does the turn signal lamp blink?

YES >> Turn signal lamp circuit is normal.

NO >> Refer to EXL-99, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to EXL-58, "Wiring Diagram".

1. CHECK TURN SIGNAL LAMP BULB

Check the applicable lamp bulb to be sure the proper bulb standard is in use and the bulb is not open.

Is the bulb OK?

YES >> GO TO 2.

NO >> Replace the bulb.

2.CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

Turn the ignition switch OFF.

- 2. Disconnect the front or rear combination lamp harness connector or the door mirror harness connector (if equipped with turn signal in mirror) in question.
- 3. Turn the ignition switch ON.
- Operate the turn signal switch.
- While the turn signal is operating, check the voltage between the front combination lamp harness connector and ground.

(+)		()	Voltage	
Connector Term		(-)	(Approx.)	

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< DTC/CIRCUIT DIAGNOSIS >

RH	E20			
LH	E21	4	Ground	(V) 15 10 5 0 1 s

While the turn signal is operating, check the voltage between the rear combination lamp harness connector and ground.

	(+)		(-)	Voltage (Approx.)
	Connector	Terminal	(-)	(Approx.)
RH	B42			
LH	B25	4	Ground	(V) 15 10 5 0 1 s

7. While the turn signal is operating, check the voltage between the door mirror harness connector and ground.

	(+)		()	Voltage	
	Connector	Terminal	(-)	Voltage (Approx.)	
RH	D106				
LH	D7	10	Ground	(V) 15 10 5 0 1 s	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 3.

3.CHECK TURN SIGNAL LAMP CIRCUIT FOR OPEN

- 1. Turn the ignition switch OFF.
- 2. Disconnect BCM harness connector in question.
- Check continuity between the BCM harness connector and the front combination lamp harness connector.
 With Intelligent Key

BCM			Front combinati	Continuity	
Cor	nnector	Terminal	Connector	Terminal	Continuity
LH	M85	85	E21	4	Yes
RH		84	E20	4	165

Without Intelligent Key

ВСМ			Front combinati	Continuity	
Connector		Terminal	Connector Terminal		Continuity
LH	B57	41	E21	4	Yes
RH	637	42	E20	4	165

< DTC/CIRCUIT DIAGNOSIS >

Check continuity between the BCM harness connector and the rear combination lamp harness connector. With Intelligent Key

BCM			Rear combinat	Continuity	
Connector		Terminal	Connector	Terminal	Continuity
LH	M85	85	B25	4	Yes
RH		84	B42	4	165

Without Intelligent Key

ВСМ			Rear combination lamp		Continuity
Connector		Terminal	Connector	Terminal	Continuity
LH	P57	41	B25	4	Yes
RH	B57	42	B42	4	165

Check continuity between the BCM harness connector and the door mirror harness connector in question. With Intelligent Key

BCM			Rear combinati	Continuity	
Connector		Terminal	Connector	Terminal	Continuity
LH	M85	85	D7	10	Yes
RH		84	D106	10	165

Without Intelligent Key

ВСМ			Rear combinat	Continuity	
Connector		Terminal	Connector	Terminal	Continuity
LH	B57	41	D7	10	Yes
RH		42	D106	10	165

Is the inspection results normal?

YES >> GO TO 4.

NO >> Repair or replace the harness or connectors.

4.CHECK TURN SIGNAL LAMP SHORT CIRCUIT

Check continuity between the BCM harness connector and ground.

BCM			Continuity	
Connector	Terminal		Continuity	
M85 (with Intelligent	84	Ground		
Key)	85	Ground	No	
B57 (without Intelli-	41		INO	
gent Key)	42			

Are the inspection results normal?

YES >> Replace BCM. Refer to BCS-73. "Removal and Installation" (with Intelligent Key system) or BCS-126, "Removal and Installation" (without Intelligent Key system).

NO >> Repair or replace the harness or connectors.

5. CHECK TURN SIGNAL LAMP GROUND CIRCUIT

- Turn the ignition switch OFF.
- Check continuity between the front combination lamp harness connector or the rear combination lamp harness connector or the door mirror harness connector in question and ground.

Front combination lamp	()	Continuity	
Connector Terminal		(-)	Continuity

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< DTC/CIRCUIT DIAGNOSIS >

LH	E21	7	Ground	Vos
RH	E20	,	Giodila	Yes

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

	Rear combination lamp	()	Continuity	
Connector		Terminal		(-)
LH	B25	6	Ground	Yes
RH	B42	0	Giouna	165

4. Check continuity between the door mirror harness connector and ground.

	Door mirror	()	Continuity	
Connector		Terminal		(-)
LH	D7	Q	Ground	Yes
RH	D106	0	Giouna	165

Are the inspection results normal?

YES >> Replace the malfunctioning lamp.

NO >> Repair or replace the harness or connectors.

OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

OPTICAL SENSOR

Description INFOID:0000000009757525

The optical sensor measures ambient light and transmits the optical sensor signal to the BCM.

Component Function Check

INFOID:0000000009757526

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1. CHECK OPTICAL SENSOR SIGNAL BY CONSULT

(P)CONSULT

Turn the ignition switch ON.

- Select OPTI SEN of BCM (HEAD LAMP) DATA MONITOR item.
- Turn the lighting switch to AUTO.

Monitor item	Condition	Voltage
OPTI SEN (DTCT)	When outside of vehicle is bright	3.1V or more *
	When outside of vehicle is dark	0.6V or less

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

Is the inspection result normal?

YES >> Optical sensor is normal.

NO >> Refer to EXL-103, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000009757527

Regarding Wiring Diagram information, refer to EXL-53, "Wiring Diagram".

1. CHECK OPTICAL SENSOR POWER SUPPLY INPUT

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

(+)		(-)	Voltage (Approx.)
Connector	Terminal	()	(Approx.)
M72	1	Ground	5 V

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK OPTICAL SENSOR GROUND CIRCUIT

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

(+)		(-)	Continuity	
Connector	Terminal	(-)	Continuity	
M72	3	Ground	Yes	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

3.check optical sensor power supply for open circuit

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OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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

Optica	Optical sensor		BCM	
Connector	Terminal	Connector	Terminal	Continuity
M72	1	M84	17	Yes

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

(+)		(-)	Continuity	
Connector	Terminal	(-)	Continuity	
M72	1	Ground	No	

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-73, "Removal and Installation".

NO >> Repair or replace the harness or connectors.

4.CHECK OPTICAL SENSOR SIGNAL OPEN CIRCUIT

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

Optical sensor		ВСМ		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M72	2	M84	14	Yes

Check continuity between optical sensor harness connector and ground.

Connector	Terminal	(-)	Continuity
M72	2	Ground	No

Is the inspection result normal?

YES >> Replace the optical sensor. Refer to EXL-130, "Removal and Installation".

NO >> Repair or replace harness or connectors.

${f 5}.$ CHECK OPTICAL SENSOR GROUND FOR OPEN CIRCUIT

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

Optica	l sensor	В	CM	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M72	3	M84	18	Yes

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-73, "Removal and Installation".

NO >> Repair or replace harness or connector.

< DTC/CIRCUIT DIAGNOSIS >

HAZARD SWITCH

Component Function Check

INFOID:0000000009757528

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1. CHECK HAZARD SWITCH SIGNAL BY CONSULT

(E)CONSULT DATA MONITOR

- Turn ignition switch ON.
- Select HAZARD SW of BCM (FLASHER) Data Monitor item.
- While operating the hazard switch, check the monitor status.

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

Is the inspection result normal?

YES >> Hazard switch circuit is normal.

NO >> Refer to EXL-105, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000009757529

Regarding Wiring Diagram information, refer to EXL-58, "Wiring Diagram".

1. CHECK HAZARD SWITCH SIGNAL INPUT

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

-	(+) Hazard switch		ard switch (–)		Voltage (Approx.)	
Connector	Terminal					
M102	2	Ground	(V) 15 10 5 010ms JPMIA0154GB			

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2.check hazard switch signal open circuit

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

Hazaro	d switch	BCM		BCM Continuity		Continuity
Connector	Terminal	Connector	Terminal	Continuity		
M102	2	M85 (with Intelligent Key) M21 (without Intelligent Key)	29	Yes		

Is the inspection result normal?

>> GO TO 3. YES

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HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

3.check hazard switch signal short circuit

Check continuity between hazard switch harness connector and ground.

Hazard switch			Continuity
Connector	Terminal	Ground	Continuity
M102	2		No

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-73</u>, "Removal and Installation" (with Intelligent Key system) or <u>BCS-126</u>, "Removal and Installation" (without Intelligent Key system).

NO >> Repair or replace harness or connector.

4. CHECK HAZARD SWITCH GROUND OPEN CIRCUIT

Check continuity between hazard switch harness connector and ground.

Hazard switch			Continuity
Connector	Terminal	Ground	Continuity
M102	3		Yes

Is the inspection result normal?

YES >> Replace hazard switch. Refer to EXL-129, "Removal and Installation".

NO >> Repair or replace harness or connector.

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

CAUTION:

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

Symptom		Possible cause	Inspection item
Headlamp does not switch to the high beam.	One side	Bulb Fuse Harness between IPDM E/R and the front combination lamp IPDM E/R	Headlamp (HI) circuit Refer to <u>EXL-88</u> .
	Both sides	_	Symptom diagnosis "BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM" Refer to EXL-110.
High beam indicator lamp is not turned ON. (Headlamp switches to the high beam.)		Combination meter BCM	Combination meter. Data monitor "HI-BEAM IND" BCM (HEAD LAMP) Active test "HEADLAMP"
Headlamp does not switch to the low beam.	One side	Bulb Fuse Harness between IPDM E/R and the front combination lamp IPDM E/R	Headlamp (HI) circuit Refer to <u>EXL-88</u> .
	Both sides	Combination switch (lighting and turn signal switch) Harness between the combination switch (lighting and turn signal switch) and BCM BCM	Combination switch (lighting and turn signal switch) Refer to <u>EXL-12</u> (with Intelligent Key system) or <u>EXL-15</u> (without Intelligent Key system).
		High beam request signal BCM IPDM E/R	IPDM E/R Data monitor "HL HI REQ"
Headlamp does not turn ON.	One side	Fuse Bulb Harness between IPDM E/R and the front combination lamp Harness between the front combination lamp and ground IPDM E/R	Headlamp (LO) circuit Refer to EXL-90
	Both sides	_	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-112.
Headlamp does not turn OFF.	When the ignition switch is turned ON	BCM Combination switch (lighting and turn signal switch)	Combination switch (lighting and turn signal switch) Refer to <u>EXL-12</u> (with Intelligent Key system) or <u>EXL-15</u> (without Intelligent Key system).
	The ignition switch is turned OFF (After activating the battery saver).	IPDM E/R	_

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EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

Symptom		Possible cause	Inspection item
Headlamp is not turned ON/OFF with the lighting switch AUTO.		Combination switch (lighting and turn signal switch) Harness between the combination switch (lighting and turn signal switch) and BCM BCM IPDM E/R	Combination switch (lighting and turn signal switch) Refer to EXL-12 (with Intelligent Key system) or EXL-15 (without Intelligent Key system).
		Optical sensor Harness between the optical sensor and BCM BCM	Optical sensor Refer to EXL-103.
Daytime light system does not activate.		_	Symptom diagnosis "DAYTIME LIGHT SYSTEM INOP ERATIVE" Refer to EXL-111.
Front fog lamp is not turned ON.	One side	Front fog lamp bulb Harness between IPDM E/R and the front fog lamp Harness between the front fog lamp and ground IPDM E/R	Front fog lamp circuit Refer to <u>EXL-94</u> .
	Both side	_	Symptom diagnosis "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to EXL-114.
Parking lamp is not turned ON.	One side	Fuse Parking lamp bulb Harness between IPDM E/R and the front/rear combination lamp Harness between the front/rear combination lamp and ground IPDM E/R	Parking lamp circuit Refer to <u>EXL-96</u> .
	Both sides	_	Symptom diagnosis "PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-113.
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 Door mirror (if equipped with turn signals in the door mirrors)	Turn signal lamp circuit Refer to <u>EXL-99</u> .
Turn signal indicator lamp does not blink.	One side	Combination meter	_
	Both sides (Always)	Turn signal indicator lamp signal Combination meter BCM	Combination meter. Data monitor "TURN IND" BCM (FLASHER) Active test "FLASHER"
	Both sides (Does blink 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 circu Refer to MWI-52.
 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-105.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description A

AUTO LIGHT SYSTEM

The auto light system may not turn the headlamp ON/OFF immediately after passing a dark area or a bright area (short tunnel, sky bridge, shadowed area etc.). This is normal.

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BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

< SYMPTOM DIAGNOSIS >

BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

Description INFOID:0000000097575332

The headlamps (both sides) do not switch to high beam when the lighting switch is in the HI or PASS setting.

Diagnosis Procedure

INFOID:0000000009757533

1.combination switch (Lighting and turn signal switch) inspection

Check the combination switch (lighting and turn signal switch). Refer to <u>BCS-72, "Symptom Table"</u> (with Intelligent Key system) or <u>BCS-125, "Symptom Table"</u> (without Intelligent Key system).

Is the inspection results normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

(P)CONSULT DATA MONITOR

- I. Select HL HI REQ of IPDM E/R DATA MONITOR item.
- 2. While operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL HI REQ	Lighting switch	HI or PASS	ON
TIE TII NEQ	(2nd)	Except for HI or PASS	OFF

Is the inspection results normal?

YES >> GO TO 3

NO >> Replace BCM. Refer to <u>BCS-73</u>, "Removal and Installation" (with Intelligent Key system) or <u>BCS-126</u>, "Removal and Installation" (without Intelligent Key system).

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to EXL-88, "Diagnosis Procedure".

Is the inspection results normal?

YES >> Replace IPDM E/R. Refer to <u>PCS-30</u>, "<u>Removal and Installation</u>" (with Intelligent Key system) or <u>PCS-58</u>, "<u>Removal and Installation</u>" (without Intelligent Key system).

NO >> Repair or replace the malfunctioning part.

DAYTIME LIGHT SYSTEM INOPERATIVE

< SYMPTOM DIAGNOSIS >

DAYTIME LIGHT SYSTEM INOPERATIVE

Description INFOID:000000009757534

The daytime light system is inoperative even though the combination switch (lighting and turn signal switch) and parking brake switch are in the normal setting, also whenever engine is operating.

Diagnosis Procedure

1. CHECK DAYTIME LIGHT OPERATION

- Perform BCM(HEADLAMP) DAYTIME RUNNING LIGHT active test. Refer to EXL-19, "HEADLAMP: CONSULT Function (BCM - HEAD LAMP)" (with Intelligent Key system) or EXL-22, "HEADLAMP : CON-SULT Function (BCM - HEAD LAMP)" (without Intelligent Key system).
- Check that the daytime lights turn on.

Is the inspection results normal?

>> Replace BCM. Refer to BCS-73, "Removal and Installation" (with Intelligent Key system) or BCS-YES 126, "Removal and Installation" (without Intelligent Key system).

NO >> GO TO 2.

2.CHECK DAYTIME LIGHT RELAY FUSE

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

Unit	Fuse No.	Capacity
Daytime light	29	10 A

Is the fuse blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 3.

3.CHECK DAYTIME LIGHT BULBS

Check the daytime light bulbs are not open.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace the bulbs.

f 4 .PERFORM DAYTIME LIGHT CIRCUIT INSPECTION

Check the daytime light circuit. Refer to <a>EXL-92, "Diagnosis Procedure".

Is the inspection results normal?

YES >> Replace IPDM E/R. Refer to PCS-30, "Removal and Installation" (with Intelligent Key system) or PCS-58, "Removal and Installation" (without Intelligent Key system).

NO >> Repair or replace the malfunctioning part.

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BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description INFOID:0000000009757538

The headlamps (both sides) do not turn ON in any lighting switch setting.

Diagnosis Procedure

INFOID:0000000009757537

1. CHECK COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)

Check the combination switch (lighting and turn signal switch). Refer to <u>BCS-72, "Symptom Table"</u> (with Intelligent Key system) or <u>BCS-125, "Symptom Table"</u> (without Intelligent Key system).

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT

®CONSULT DATA MONITOR

- Select HL LO REQ of IPDM E/R DATA MONITOR item.
- 2. While operating the lighting switch, check the monitor status.

Monitor item	Con	dition	Monitor status
HL LO REQ	Lighting switch	2nd	ON
TIE EO NEQ	Lighting Switch	OFF	OFF

Is the inspection result normal?

YES >> GO TO 3

NO >> Replace BCM. Refer to <u>BCS-73</u>, "Removal and Installation" (with Intelligent Key system) or <u>BCS-126</u>, "Removal and Installation" (without Intelligent Key system).

3.HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to EXL-90, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to <u>PCS-30</u>, "<u>Removal and Installation</u>" (with Intelligent Key system) or <u>PCS-58</u>, "<u>Removal and Installation</u>" (without Intelligent Key system).

NO >> Repair or replace the malfunctioning part.

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

·

The parking, license plate and tail lamps do not turn ON in with any lighting switch setting.

Diagnosis Procedure

Description

1.combination switch (Lighting and turn signal switch) inspection

Check the combination switch (lighting and turn signal switch). Refer to <u>BCS-72, "Symptom Table"</u> (with Intelligent Key system) or <u>BCS-125, "Symptom Table"</u> (without Intelligent Key system).

Is the inspection results normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part.

2.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

(P)CONSULT DATA MONITOR

- Select TAIL & CLR REQ of IPDM E/R DATA MONITOR item.
- 2. While operating the lighting switch, check the monitor status.

Monitor item	Con	dition	Monitor status
TAIL & CLR REQ	Lighting switch	1st	ON
TAIL & OLIVINEQ	Lighting switch	OFF	OFF

Is the inspection results normal?

YES >> GO TO 3

NO >> Replace BCM. Refer to <u>BCS-73</u>, "Removal and Installation" (with Intelligent Key system) or <u>BCS-126</u>, "Removal and Installation" (without Intelligent Key system).

3.PARK LAMP CIRCUIT INSPECTION

Check the parking lamp circuit. Refer to EXL-96, "Diagnosis Procedure".

Is the inspection results normal?

YES >> Replace IPDM E/R. Refer to <u>PCS-30</u>, "Removal and Installation" (with Intelligent Key system) or <u>PCS-58</u>, "Removal and Installation" (without Intelligent Key system).

NO >> Repair or replace the malfunctioning part.

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Revision: October 2013 EXL-113 2014 Sentra NAM

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description INFOID:0000000009757540

The front fog lamps do not turn ON in any setting.

Diagnosis Procedure

INFOID:0000000009757541

1. COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH) INSPECTION

Check the combination switch (lighting and turn signal switch). Refer to <u>BCS-72, "Symptom Table"</u> (with Intelligent Key system) or <u>BCS-125, "Symptom Table"</u> (without Intelligent Key system).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

(P)CONSULT DATA MONITOR

- Select FR FOG REQ of IPDM E/R DATA MONITOR item.
- 2. While operating the front fog lamp switch, check the monitor status.

Monitor item	Condition		Monitor status
FR FOG REQ	Front fog lamp switch	ON	ON
TRIOGREQ	(Lighting switch 3rd)	OFF	OFF

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to <u>BCS-73</u>, "Removal and Installation" (with Intelligent Key system) or <u>BCS-126</u>, "Removal and Installation" (without Intelligent Key system).

3. FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to EXL-94, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to <u>PCS-30</u>, "<u>Removal and Installation</u>" (with Intelligent Key system) or <u>PCS-58</u>, "<u>Removal and Installation</u>" (without Intelligent Key system).

NO >> Repair or replace the malfunctioning part.

PERIODIC MAINTENANCE

HEADLAMP

Aiming Adjustment

INFOID:0000000009757542

PREPARATION BEFORE ADJUSTING

Before performing aiming adjustment, check the following:

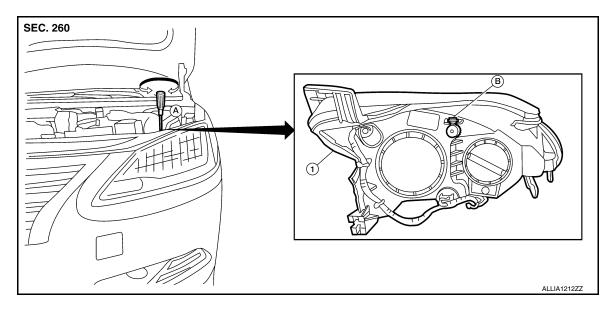
- Ensure all tires are inflated to correct pressure.
- Place vehicle and screen on level surface.
- Ensure there is no load in vehicle other than the driver (or equivalent weight placed in driver's position).
- Coolant and engine oil filled to correct level, and fuel tank full.
- Remove cargo and/or luggage to maintain an unloaded vehicle condition.
- · Confirm spare tire, jack and tools are properly stowed.
- · Carefully wipe off any dirt from headlamp lens.

CAUTION:

Do not use organic solvent (thinner, gasoline etc.)

- Place a driver or equivalent weight of 68.5 kg (150 lb) on the driver seat.
- By hand, bounce the front and rear of the vehicle to settle the suspension and eliminate any static load.
- Place the front tires in the straight ahead position.
- Aim each headlamp individually and ensure other headlamp beam pattern is blocked from screen.

- · For headlamp aiming details, refer to regulations in your area.
- By regulation, no means for horizontal aim adjustment is provided from the factory; only vertical aim is adiustable.
- · Use adjusting screw to perform aiming adjustment.
- · Perform headlamp aiming if:
- The vehicle front body has been repaired.
- The front combination lamp has been removed or replaced.
- Any outfitting has been installed.
- The vehicle's standard load condition has been substantially increased.



- Front combination lamp
- Suitable tool (for aiming adjustment) B. Adjusting screw

Aiming Adjustment procedure

1. Position the screen.

NOTE:

- · Stop the vehicle facing the screen.
- Place the screen on a plain road vertically.
- Face the screen with the vehicle. Maintain 10 m (33 ft) between the headlamp bulb center and the screen.
- Start the engine. Turn the headlamp (LO) ON.

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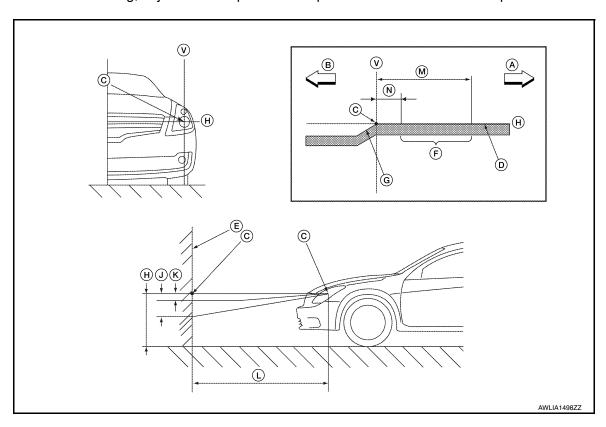
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CAUTION:

Do not cover the lens surface with tape, etc. The lens is made of resin. NOTE:

- Aim each headlamp individually and ensure other headlamp beam pattern is blocked from screen.
- For horizontal aiming, adjust headlamp until beam pattern is at horizontal center point.



- A. Right
- B. Left
- E. Screen
- D. Cutoff lineG. Step
- L. 10 m (33 ft)
- K. 4 mm (0.16 in)N. 160 mm (6.30 in)
- H. Horizontal center line of head lamp
- V. Vertical center line of headlamp
- C. Center of headlamp bulb (H-V point)
- F. Aim evaluation segment
- J. 30 mm (1.18 in)
- M. 480 mm (18.90 in)
- Basic illuminating area for adjustment should be within the range shown on the aiming chart. Adjust headlamps accordingly.

FRONT FOG LAMP

< PERIODIC MAINTENANCE >

FRONT FOG LAMP

Aiming Adjustment

INFOID:0000000009757543

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PREPARATION BEFORE ADJUSTING

The fog lamp is a semi-sealed beam type which uses a replaceable halogen bulb. Before performing aiming adjustment procedure, check the following:

- Ensure all tires are inflated to correct pressure.
- · Place vehicle and screen on level surface.
- Ensure there is no load in vehicle other than the driver (or equivalent weight placed in driver's position).
- Coolant and engine oil filled to correct level, and fuel tank full.
- Remove cargo and/or luggage to maintain an unloaded vehicle condition.
- Confirm spare tire, jack and tools are properly stowed.
- Carefully wipe off any dirt from headlamp lens.

CAUTION:

Do not use organic solvent (thinner, gasoline etc.)

- Place a driver or equivalent weight of 68.5 kg (150 lb) on the driver seat.
- By hand, bounce the front and rear of the vehicle to settle the suspension and eliminate any static load.
- Place the front tires in the straight ahead position.
- Aim each headlamp individually and ensure other headlamp beam pattern is blocked from screen.

NOTE

- For headlamp aiming details, refer to regulations in your area.
- By regulation, no means for horizontal aim adjustment is provided from the factory; only vertical aim is adjustable.
- · Use adjusting screw to perform aiming adjustment.
- Perform headlamp aiming if:
- The vehicle front body has been repaired.
- The front combination lamp has been removed or replaced.
- Any outfitting has been installed.
- The vehicle's standard load condition has been substantially increased.

Aiming Adjustment Procedure

1. Place the screen.

NOTE:

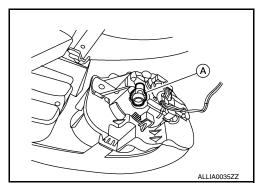
- Stop the vehicle facing the wall.
- Place the board on a plain road vertically.
- 2. Face the vehicle with the screen. Maintain 7.62 m (25.0 ft) between the front fog lamp center and the screen.
- 3. Start the engine. Turn the front fog lamp ON.

NOTE:

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

Do not cover the lens surface with tape etc. The lens is made of resin.

4. Adjust aiming in the vertical direction by turning the adjusting screw (A).



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FRONT FOG LAMP

< PERIODIC MAINTENANCE >

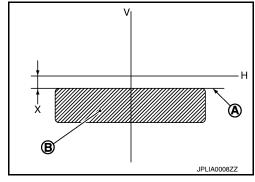
5. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 100 mm (4 in).

A : Cutoff line

B : High illuminance area

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

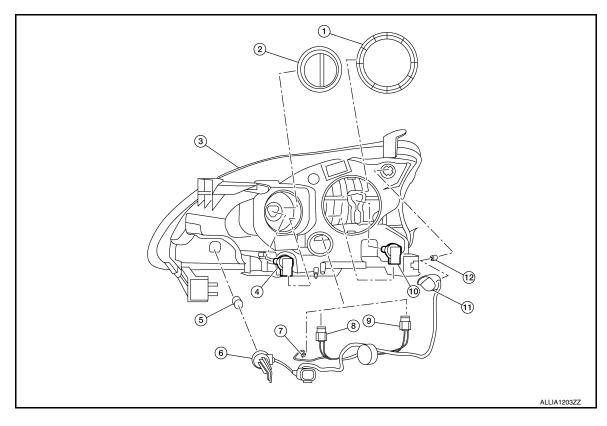
X : Cutoff line height



REMOVAL AND INSTALLATION

FRONT COMBINATION LAMP

Exploded View



- 1. Large cover (not serviceable)
- 4. Halogen lamp bulb (high beam)
- 7. LED harness connector
- 10. Halogen lamp bulb (low beam)
- 2. Small cover (not serviceable)
- 5. Turn signal lamp bulb
- 8. Halogen lamp bulb (high beam) harness connector
- 11. Side marker lamp bulb socket
- 3. Front combination lamp
- 6. Turn signal lamp bulb socket
- Halogen lamp bulb (low beam) harness connector
- 12. Side marker lamp bulb

Removal and Installation

REMOVAL

1. Remove the front bumper fascia. Refer to EXT-17, "Removal and Installation".

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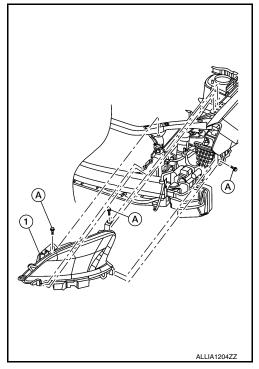
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FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

- 2. Remove the front combination lamp bolts (A).
- 3. Pull the front combination lamp (1) forward.
- 4. Disconnect the harness connectors from the front combination lamp (1).



INSTALLATION

Installation is in the reverse order of removal.

After installation, perform headlamp aiming adjustment. Refer to EXL-115, "Aiming Adjustment".

Bulb Replacement

INFOID:0000000009757546

WARNING:

Do not touch bulb by hand while it is lit or right after being turned off. Burning may result. **CAUTION**:

- Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave the bulb out of the lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of the lamp.

HEADLAMP HIGH BEAM

Removal

- 1. Remove the core support cover. Refer to <a>EXT-23, <a>"Exploded View".
- 2. Rotate the plastic cover counterclockwise and remove.
- 3. Rotate the headlamp high beam lamp counterclockwise and remove.
- 4. Disconnect the harness connector from the headlamp high beam lamp.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing, be sure to install the cover securely to ensure watertightness.

HEADLAMP LOW BEAM

Removal

- 1. Remove the core support cover. Refer to <a>EXT-23, "Exploded View".
- Rotate the plastic cover counterclockwise and remove.
- 3. Rotate the headlamp low beam sockets counterclockwise and remove.
- 4. Disconnect the harness connector from the headlamp low beam lamp.

Installation

Installation is in the reverse order of removal.

FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

CAUTION:

After installing, be sure to install the cover securely to ensure watertightness.

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SIDE MARKER LAMP

Removal

- 1. Remove the core support cover. Refer to EXT-23, "Exploded View".
- 2. Rotate the side marker lamp bulb socket counterclockwise and remove.
- 3. Remove the side marker bulb from the side marker bulb socket.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing, be sure to install the bulb socket securely to ensure watertightness.

TURN SIGNAL LAMP

Removal

- 1. Remove the core support cover. Refer to EXT-23, "Exploded View".
- 2. Rotate the turn signal lamp bulb socket counterclockwise and remove.
- 3. Remove the turn signal bulb from the turn signal bulb socket.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing, be sure to install the bulb socket securely to ensure watertightness.

Park Lamp

The park lamp LED bulb is integrated into the front combination lamp and is serviced as an assembly. Refer to <u>EXL-119</u>, "Removal and Installation".

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Revision: October 2013 EXL-121 2014 Sentra NAM

FRONT FOG LAMP

< REMOVAL AND INSTALLATION >

FRONT FOG LAMP

Removal and Installation

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FOG LAMP

Removal

- Position the fender protector aside. Refer to <u>EXT-28</u>, "<u>FENDER PROTECTOR</u>: Removal and <u>Installation</u> <u>Front Fender Protector</u>".
- 2. Disconnect the harness connector from the front fog lamp.
- Remove the screws and the front fog lamp.

Installation

Installation is in the reverse order of removal.

NOTE:

After installing, perform fog lamp aiming adjustment. Refer to EXL-117, "Aiming Adjustment".

FRONT FOG LAMP BULB

Removal

WARNING:

Do not touch bulb by hand while it is lit or right after being turned off. Burning may result. **CAUTION**:

- Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave the bulb out of the lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of the lamp.
- 1. Position the front fender protector aside. Refer to EXT-28, "FENDER PROTECTOR: Removal and Installation Front Fender Protector".
- 2. Disconnect the harness connector from the front fog lamp bulb.
- 3. Rotate the front fog lamp bulb socket counterclockwise and remove.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing, be sure to install the bulb socket securely to ensure watertightness.

DOOR MIRROR TURN SIGNAL LAMP

< REMOVAL AND INSTALLATION >

DOOR MIRROR TURN SIGNAL LAMP

Removal and Installation

The door mirror side turn signal lamp is integrated into the door mirror assembly and is serviced as an assembly. Refer to MIR-18, "Exploded View".

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HIGH-MOUNTED STOP LAMP

< REMOVAL AND INSTALLATION >

HIGH-MOUNTED STOP LAMP

Removal and Installation

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HIGH-MOUNTED STOP LAMP - WITH REAR SPOILER

Removal

- 1. Remove the rear air spoiler. Refer to EXT-46, "Removal and Installation".
- 2. Remove the screws and the high-mount stop lamp from the rear air spoiler.

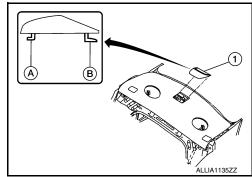
Installation

Installation is in the reverse order of removal.

HIGH-MOUNTED STOP LAMP - WITHOUT REAR SPOILER

Removal

- 1. Slide high-mounted stop lamp (1) rearward on parcel shelf to provide clearance for front tabs (A).
- 2. Lift front of lamp assembly up and pull forward to provide clearance for rear tabs (B).



3. Disconnect the harness connector from the high-mounted stop lamp and remove.

Installation

Installation is in the reverse order of removal.

Bulb Replacement

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HIGH-MOUNTED STOP LAMP - WITH REAR SPOILER

The high-mounted stop lamp LED bulb is integrated into the high-mounted stop lamp and is serviced as an assembly. Refer to EXL-124, "Removal and Installation".

HIGH-MOUNTED STOP LAMP - WITHOUT REAR SPOILER

The high-mounted stop lamp LED bulb is integrated into the high-mounted stop lamp and is serviced as an assembly. Refer to EXL-124, "Removal and Installation".

LICENSE PLATE LAMP

< REMOVAL AND INSTALLATION >

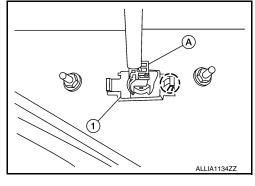
LICENSE PLATE LAMP

Removal and Installation

REMOVAL

- Remove the license lamp finisher. Refer to <u>EXT-44</u>, "Removal and Installation".
- 2. Disconnect the harness connector (A) from the license plate lamp (1).
- 3. Release pawl and remove.

(): Pawl



INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

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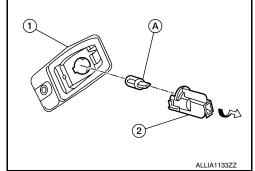
Do not touch bulb while it is lit or right after being turned off. Burning may result.

CAUTION:

- Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave the bulb out of the lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of the lamp.

REMOVAL

- 1. Position trunk lid finisher aside. Refer to INT-45, "Removal and Installation".
- 2. Rotate license plate lamp bulb socket (2) counterclockwise and remove from license plate lamp (1).
- 3. Remove license plate lamp bulb (A) from license plate lamp bulb socket (2).



INSTALLATION

Installation is in the reverse order of removal.

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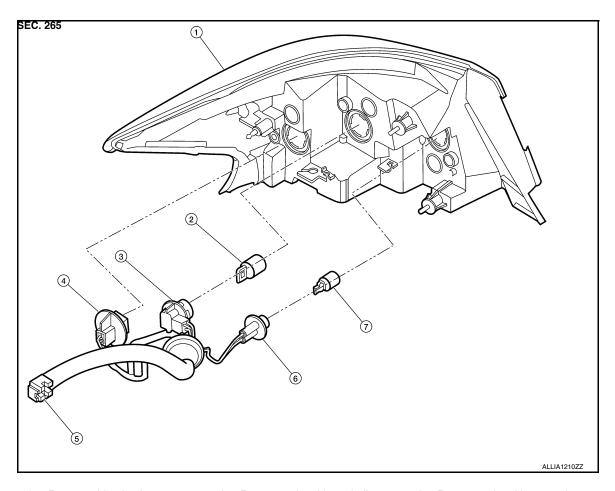
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Revision: October 2013 EXL-125 2014 Sentra NAM

REAR COMBINATION LAMP

Exploded View INFOID:0000000009757553

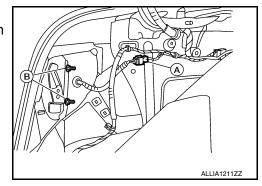


- 1. Rear combination lamp
- LED lamp harness connector
- 7. Back-up lamp bulb
- 2. Rear turn signal lamp bulb
- 5. Rear combination lamp harness 6. Back-up lamp bulb socket connector
- 3. Rear turn signal lamp socket

Removal and Installation

Removal

- Partially remove trunk side finisher. Refer to INT-43, "TRUNK SIDE FINISHER: Removal and Installation".
- Remove the rear combination lamp nuts (B).
- Disconnect the harness connector (A) from the rear combination lamp.



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Pull the rear combination lamp rearward and remove.

REAR COMBINATION LAMP < REMOVAL AND INSTALLATION > Installation Α Installation is the reverse order of removal. Bulb Replacement INFOID:000000009757555 В WARNING: Do not touch bulb while it is lit or right after being turned off. Burning may result. **CAUTION:** Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb. Do not leave the bulb out of the lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of the lamp. D REAR TURN SIGNAL LAMP BULB Removal Е Remove the rear combination lamp. Refer to EXL-126, "Removal and Installation". Rotate the rear turn signal lamp bulb socket counterclockwise and remove. 3. Remove the rear turn signal lamp bulb from bulb socket. Installation Installation is in the reverse order of removal. **CAUTION:** After installing, be sure to install the bulb socket securely to ensure watertightness. STOP/TAIL LAMP The stop/tail lamp is integrated into the rear combination lamp and is serviced as an assembly. Refer to EXL-126, "Removal and Installation". **BACK-UP LAMP BULB** Removal Remove the rear combination lamp. Refer to EXL-126, "Removal and Installation". Rotate the back-up lamp bulb socket counterclockwise and remove. Remove the back-up lamp bulb from bulb socket. Installation K

Installation is in the reverse order of removal.

CAUTION:

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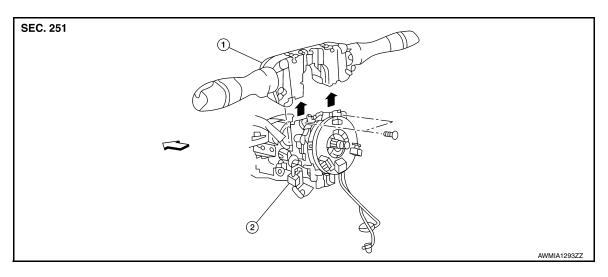
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After installing, be sure to install the bulb socket securely to ensure watertightness.

COMBINATION SWITCH

Exploded View



- 1. Combination switch
- 2. Combination switch harness connector
- <□ Front

NOTE:

Shown with the steering wheel removed for clarity only.

Removal and Installation

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REMOVAL

CAUTION:

- Before servicing, turn the ignition switch OFF, disconnect both battery terminals and wait at least three minutes.
- Do not use air or electric tools when removing or installing the combination switch.
- 1. Disconnect both the negative and positive battery terminals, then wait at least three minutes. Refer to PG-50, "Removal and Installation (Battery)".
- Remove the steering column covers. Refer to <u>IP-16, "Removal and Installation"</u>.
- 3. Rotate steering wheel clockwise to access first combination switch bolt and remove.
- 4. Rotate steering wheel counter-clockwise to access second combination switch bolt and remove.
- 5. Disconnect the harness connector from the combination switch and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- After the work is completed, make sure no system malfunction is detected by air bag warning lamp.
- In case a malfunction is detected by the air bag warning lamp, reset with the self-diagnosis function and delete the memory with CONSULT.
- If a malfunction is still detected after the above operation, perform self-diagnosis to repair malfunctions. Refer to SRC-41, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

HAZARD SWITCH

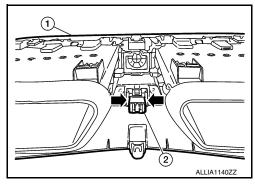
< REMOVAL AND INSTALLATION >

HAZARD SWITCH

Removal and Installation

REMOVAL

- 1. Remove cluster lid C (1). Refer to <u>IP-20, "Removal and Installation Cluster Lid C"</u>.
- Release pawls at (←) and remove hazard switch (2).



INSTALLATION

Installation is in the reverse order of removal.

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OPTICAL SENSOR

< REMOVAL AND INSTALLATION >

OPTICAL SENSOR

Removal and Installation

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REMOVAL

- 1. Remove the defroster grille (LH) using a suitable tool.
- 2. Disconnect the harness connector from the optical sensor.
- 3. Release the pawls and remove the optical sensor.

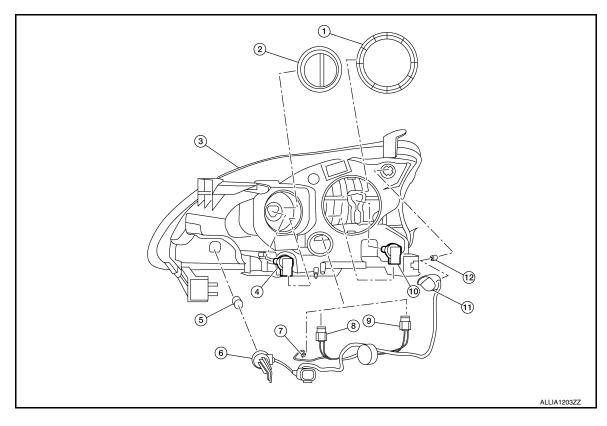
INSTALLATION

Installation is in the reverse order of removal.

UNIT DISASSEMBLY AND ASSEMBLY

FRONT COMBINATION LAMP

Exploded View



- 1. Large cover (not serviceable)
- 4. Halogen lamp bulb (high beam)
- LED harness connector
- 10. Halogen lamp bulb (low beam)
- Small cover (not serviceable)
- Turn signal lamp bulb
- Halogen lamp bulb (high beam) harness connector
- 11. Side marker lamp bulb socket
- Front combination lamp
- Turn signal lamp bulb socket
- Halogen lamp bulb (low beam) harness connector
- 12. Side marker lamp bulb

Disassembly and Assembly

DISSASSEMBLY

Revision: October 2013

WARNING:

Do not touch bulb while it is lit or right after being turned off. Burning may result. **CAUTION:**

- Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave the bulb out of the lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of the lamp.
- Remove front combination lamp. Refer to EXL-119, "Removal and Installation".
- Rotate the covers counterclockwise and remove.
- Rotate the halogen lamp bulb (low beam) counterclockwise and remove.
- 4. Disconnect the harness connector from the halogen lamp bulb (low beam) and remove.
- Rotate the halogen lamp bulb (high beam) counterclockwise and remove.
- 6. Disconnect the harness connector from the halogen lamp bulb (high beam) and remove.
- 7. Rotate the side marker bulb socket counterclockwise and remove.
- Remove the side marker bulb from the side marker bulb socket.

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FRONT COMBINATION LAMP

< UNIT DISASSEMBLY AND ASSEMBLY >

- 9. Rotate the turn signal bulb socket counterclockwise and remove.
- 10. Remove the turn signal bulb from the turn signal bulb socket.
- 11. Disconnect the harness connector from the LED circuit board and remove the harness.

ASSEMBLY

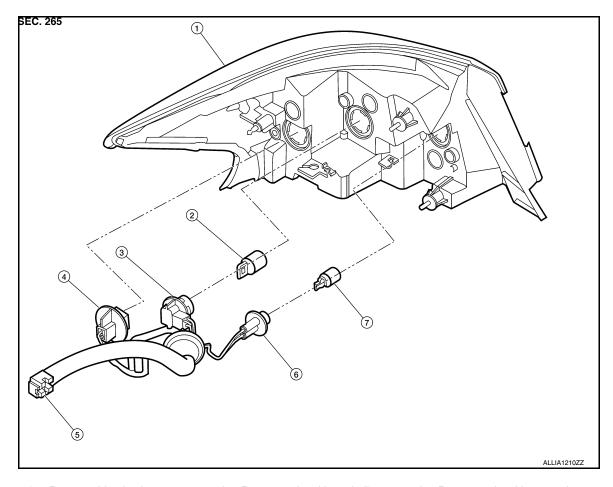
Assembly is in the reverse order of disassembly.

CAUTION:

After installing, be sure to install the bulb sockets securely to ensure watertightness.

REAR COMBINATION LAMP

Exploded View INFOID:0000000009757562



- 1. Rear combination lamp
- LED lamp harness connector
- Back-up lamp bulb
- 2. Rear turn signal lamp bulb
- 5. Rear combination lamp harness connector
- 3. Rear turn signal lamp socket
- 6. Back-up lamp bulb socket

Disassembly and Assembly

DISASSEMBLY

WARNING:

Do not touch bulb while it is lit or right after being turned off. Burning may result.

- **CAUTION:**
- Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave the bulb out of the lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of the lamp.
- Remove rear combination lamp. Refer to EXL-126, "Removal and Installation". 1.
- 2. Rotate rear turn signal lamp bulb socket counterclockwise to remove from rear combination lamp.
- 3. Remove the rear turn signal lamp bulb from bulb socket.
- Rotate back-up lamp bulb socket counterclockwise to remove from rear combination lamp.
- 5. Remove the back-up lamp bulb from bulb socket.
- Disconnect the harness connector from the LED lamp.

ASSEMBLY

EXL-133 Revision: October 2013 2014 Sentra NAM

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REAR COMBINATION LAMP

< UNIT DISASSEMBLY AND ASSEMBLY >

Assembly is in the reverse order of disassembly. **CAUTION:**

After installing, be sure to install the bulb sockets securely to ensure watertightness.

SERVICE DATA AND SPECIFICATIONS (SDS)

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SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

Item		Wattage (W)*	
	Low beam	55	
Front combination lamp	High beam	65	
	Side marker lamp	3.8	
	Turn signal lamp	28	
	Park	LED	
Door mirror side turn signal lamp (if equipped)		LED	
Rear combination lamp	Stop/Tail lamp	LED	
	Turn signal lamp (amber)	21	
	Back-up lamp	16	
Fog lamp (if equipped)		55	
License plate lamp		5	
High-mounted stop lamp	Without rear spoiler	LED	
	With rear spoiler	LED	

^{*:} Always check with the Parts Department for the latest parts information.

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