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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.

# General precautions for service operations

INFOID:0000000009463538

- Do not work with wet hands.
- The xenon headlamp system includes a high voltage generating part. Be sure to disconnect battery negative cable (negative terminal) or power fuse before removing, installing, or touching the xenon headlamp (including lamp bulb).
- Turn the lighting switch OFF before disconnecting and connecting the connector.
- When turning the xenon headlamp on and while it is illuminated, do not touch the harness, bulb, and socket of the headlamp.
- When checking the headlamp on/off operation, check it on vehicle and with the power connected to the vehicle-side connector.
- Do not touch the headlamp bulb glass surface with bare hands or allow oil or grease to get on it. Do not touch the headlamp bulb just after the headlamp is turned off, because it is very hot.
- Install the xenon headlamp bulb socket correctly. If it is installed improperly, high-voltage leak or corona discharge may occur that can melt the bulb, connector or housing. Do not illuminate the xenon headlamp bulb out of the headlamp housing. Doing so can cause fire and harm your eyes.
- When the bulb has burned out, wrap it in a thick vinyl bag and discard. Do not break the bulb.
- Leaving the bulb removed from the headlamp housing for a long period of time can deteriorate the performance of the lens and reflector (dirt, clouding). Always prepare a new bulb and have it on hand when replacing the bulb.
- When adjusting the headlamp aiming, turn the aiming adjustment screw only in the tightening direction. If it is necessary to loosen the screw, first fully loosen the screw, and then turn it in the tightening direction.
- Do not use organic solvent (paint thinner or gasoline) to clean lamps and to remove old sealant.



# **PRECAUTIONS**

## < PRECAUTION >

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.

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# **PREPARATION**

# < PREPARATION >

# **PREPARATION**

# **PREPARATION**

Special Service Tool

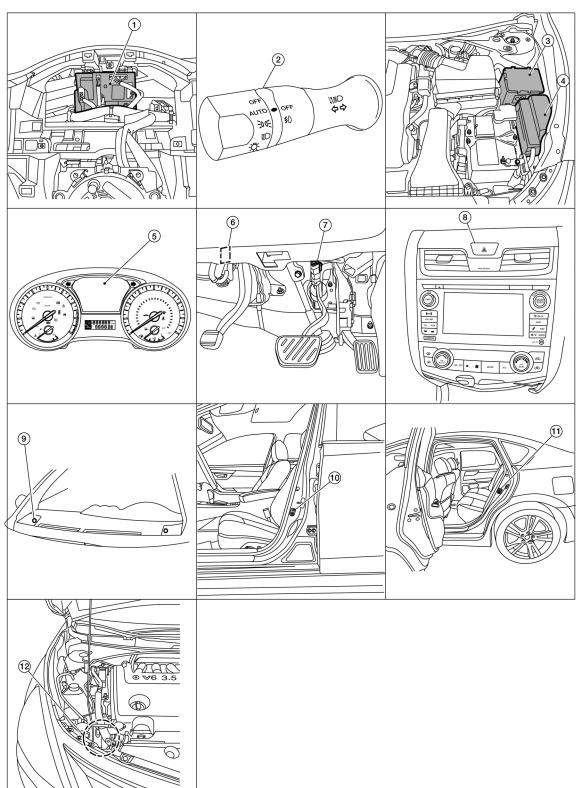
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The actual shapes of the tools may differ	from those illustrated here.	
Tool number (TechMate No.) Tool name		Description
(J-46534) Trim Tool Set	AWIIANAB377	Removing trim components

# SYSTEM DESCRIPTION

# **COMPONENT PARTS**

**Component Parts Location** 



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# **COMPONENT PARTS**

# < SYSTEM DESCRIPTION >

- BCM
  (view with combination meter removed)
- 4. Fuse, fusible link and relay box (Stop lamp relay)
- 7. Stop lamp switch
- Front door switch LH (RH similar)

- 2. Combination switch (lighting and turn signal switch)
- 5. Combination meter
- 8. Hazard switch
- 11. Rear door switch LH (RH similar)

- IPDM E/R, (Headlamp high relay, Headlamp low relay, Tail lamp relay and Front fog lamp relay (if equipped))
- 6. Parking brake switch
- 9. Optical sensor
- 12. 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 BCS-8, "COMBINATION SWITCH READING SYSTEM: System Description".
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 to the stop lamp relay when the brake pedal is pressed to operate stop lamps.
Combination meter	Refer to MWI-9, "METER SYSTEM: System Description".
Daytime light relay (if equipped)	Sends power to the daytime lamp when operated by the IPDM E/R.
Stop lamp relay	Transmits power to the stop lamps when the brake pedal is pressed.
Front door switch LH/RH	Transmits the deer area single 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 auto light system.
Parking brake switch	Transmits the parking brake switch signal to the combination meter to operate the auto light system.
Hazard switch	Inputs the hazard switch signal to BCM.

# SYSTEM

# **HEADLAMP SYSTEM**

**HEADLAMP SYSTEM: System Diagram** 

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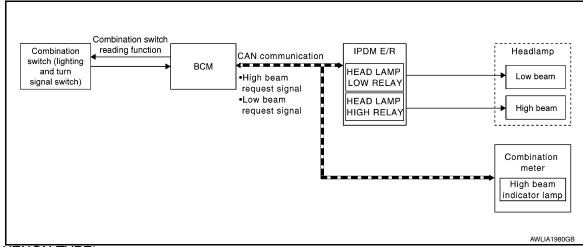
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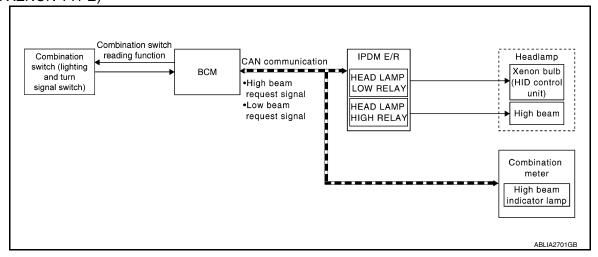
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# (WITHOUT XENON TYPE)



(WITH XENON TYPE)



# **HEADLAMP SYSTEM: System Description**

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### XENON HEADLAMP

A Xenon type headlamp is adapted to the low beam headlamps. Xenon bulbs do not use a filament. Instead, they produce light when a high voltage current is passed between two tungsten electrodes through a mixture of xenon (an inert gas) and certain other metal halides. In addition to added lighting power, electronic control of the power supply gives the headlamps stable quality and tone color.

Following are some of the many advantages of the xenon type headlamp.

- The light produced by the headlamps is a white color comparable to sunlight that is easy on the eyes.
- Light output is nearly double that of halogen headlamps, affording increased area of illumination.
- The light features a high relative spectral distribution at wavelengths to which the human eye is most sensitive. This means that even in the rain, more light is reflected back from the road surface toward the vehicle, for added visibility.
- Power consumption is approximately 25 percent less than halogen headlamps, reducing battery load.

## 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.

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## 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

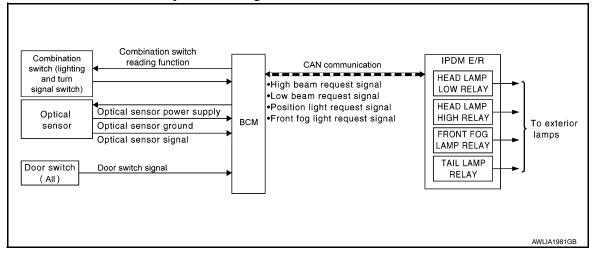
With the combination switch (lighting and turn signal switch) in the 2nd position and the ignition switch is turned from ON or ACC to OFF, the battery saver feature is activated.

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

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# AUTO LIGHT SYSTEM: System Description

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- 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.

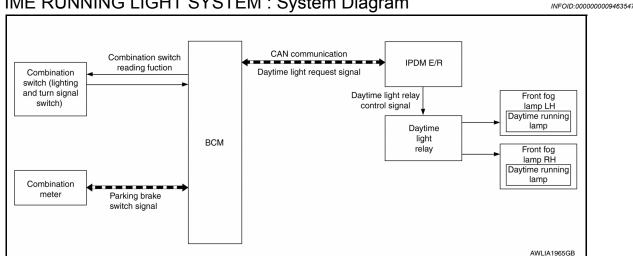
# **OUTLINE**

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 <a href="https://example.com/BCS-19">BCS-19</a>, "HEADLAMP: CONSULT Function (BCM - HEADLAMP)".

# DAYTIME RUNNING LIGHT SYSTEM

# DAYTIME RUNNING LIGHT SYSTEM: System Diagram



# DAYTIME RUNNING LIGHT SYSTEM: System Description

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# System Description

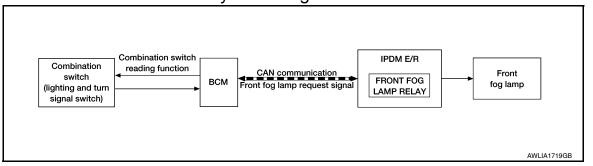
The daytime light system is equipped with a daytime light control that activates the daytime lights within the front fog lamp assembly when the engine is operating. If the parking brake is applied, the daytime lights will turn OFF. The daytime lights will turn ON when the parking brake is released.

### **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



# FRONT FOG LAMP SYSTEM: System Description

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INFOID:0000000009463549

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

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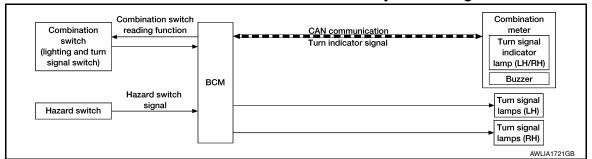
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# TURN SIGNAL AND HAZARD WARNING LAMPS: System Diagram

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# TURN SIGNAL AND HAZARD WARNING LAMPS: System Description

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### TURN SIGNAL OPERATION

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.

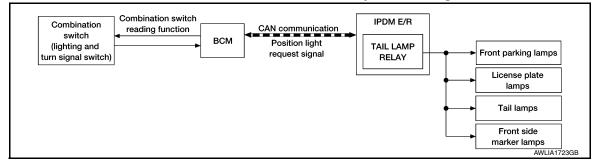
## HAZARD LAMP OPERATION

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

INFOID:0000000009463553



# PARKING, LICENSE PLATE AND TAIL LAMPS: System Description

INFOID:0000000009463554

## 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.

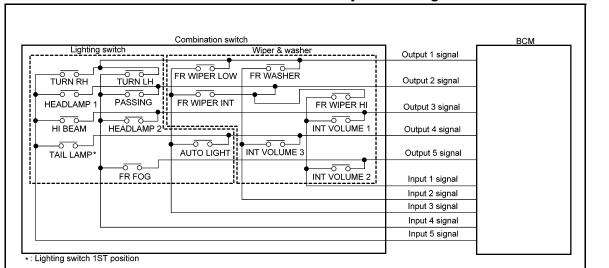
# EXTERIOR LAMP BATTERY SAVER CONTROL

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



# COMBINATION SWITCH READING SYSTEM: System Description

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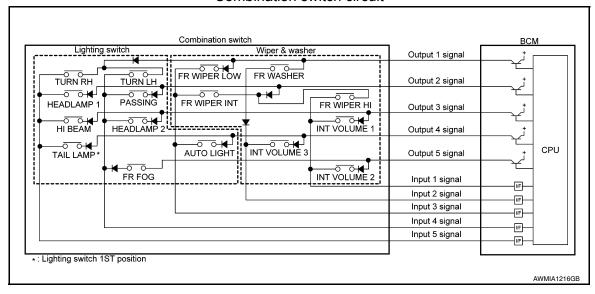
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## **OUTLINE**

- 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) and 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	_

### COMBINATION SWITCH READING FUNCTION

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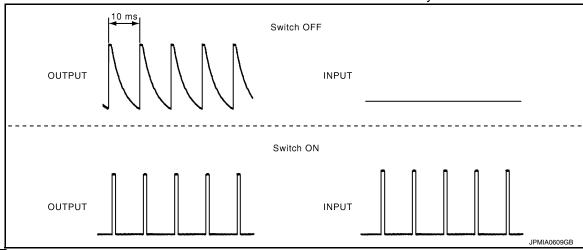
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### Description

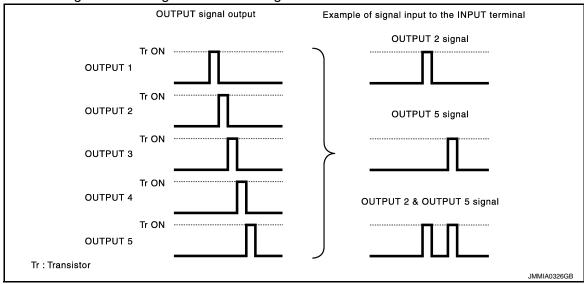
BCM reads the status of the combination switch at 10 ms intervals normally.



### 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.

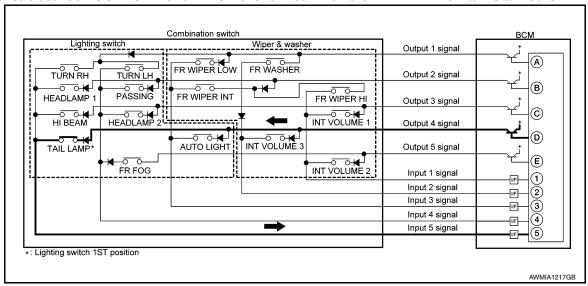


## Operation Example

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

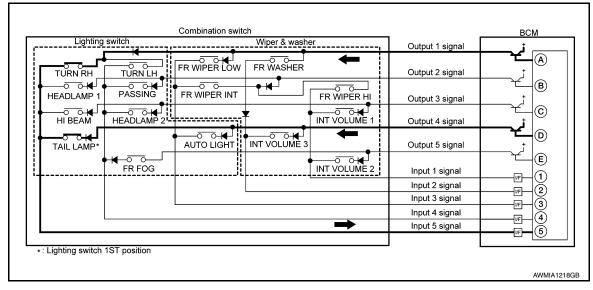
The circuit between OUTPUT 4 and INPUT 5 is formed when the TAIL LAMP switch is turned ON.



- 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 SETTING

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

Wiper intermittent	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				

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# **SYSTEM**

# < SYSTEM DESCRIPTION >

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

## < SYSTEM DESCRIPTION >

# **DIAGNOSIS SYSTEM (BCM)**

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

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# **CAUTION:**

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF  $\rightarrow$  ON (for at least 5 seconds)  $\rightarrow$  OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and a no-start condition.

### 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	<ul> <li>The vehicle specification can be read and saved.</li> <li>The vehicle specification can be written when replacing BCM.</li> </ul>
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

## SYSTEM APPLICATION

BCM can perform the following functions.

		Direct Diagnostic 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	HEADLAMP			×	×	×		
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	ВСМ	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Trunk open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		

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# < SYSTEM DESCRIPTION >

		Direct Diagnostic Mode						
System	Sub System	Ecu Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		

# **HEADLAMP**

HEADLAMP: CONSULT Function (BCM - HEADLAMP)

### INFOID:0000000009956425

### **CAUTION:**

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF  $\rightarrow$  ON (for at least 5 seconds)  $\rightarrow$  OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and a no-start condition.

## **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].
DAYTIME RUNNING LIGHT	This test is able to check daytime running lamp operation [On/Off].
ILL DIM SIGNAL	This test is able to check head lamp illumination dimming operation [On/Off].

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INFOID:0000000009956483

## < SYSTEM DESCRIPTION >

# **WORK SUPPORT**

Support Item Setting		Description		
TWILIGHT ON	MODE2*	Autolamp function ON.		
I WILIGHT ON	MODE1	Autolamp function OFF.		
	MODE4	This mode is not used.		
WIPER LINK	MODE3*	Wiper link function operates in INT, LOW and HI.		
WIFER LINK	MODE2	Wiper link function operates in LOW and HI.		
	MODE1	Wiper link function OFF.		
	MODE4	Less sensitive than normal setting (turns ON later).		
CUSTOM A/LIGHT SETTING	MODE3	More sensitive than MODE2.		
COSTOM A/LIGHT SETTING	MODE2	More sensitive than normal setting (turns ON earlier).		
	MODE1*	Normal setting.		
	MODE 8			
	MODE 7	-		
	MODE 6	-		
ILL DELAY SET	MODE 4	Autolomo dolov timor		
ILL DELAT SET	MODE 5	Autolamp delay timer.		
	MODE 3			
	MODE 2	-		
	MODE 1*	_		

<sup>\*:</sup> Initial setting

# FLASHER

FLASHER: CONSULT Function (BCM - FLASHER)

# ,

### CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF  $\rightarrow$  ON (for at least 5 seconds)  $\rightarrow$  OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and a no-start condition.

### 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 unock 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].

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## < SYSTEM DESCRIPTION >

**COMB SW** 

COMB SW: CONSULT Function (BCM - COMB SW)

INFOID:0000000009956484

### **CAUTION:**

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF  $\rightarrow$  ON (for at least 5 seconds)  $\rightarrow$  OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and a no-start condition.

### DATA MONITOR

Monitor Item [Unit]	Description
FR WIPER HI [On/Off]	
FR WIPER LOW [On/Off]	Indicates condition of winer energtion of combination quitab
FR WASHER SW [On/Off]	Indicates condition of wiper operation of combination switch.
FR WIPER INT [On/Off]	
INT VOLUME [1 - 7]	Indicates condition of intermittent wiper operation of combination switch.
TURN SIGNAL R [On/Off]	Indicates condition of right turn signal operation of combination switch.
TURN SIGNAL L [On/Off]	Indicates condition of left turn signal operation of combination switch.
TAIL LAMP SW [On/Off]	Indicates condition of tail lamp switch operation of combination switch.
HI BEAM SW [On/Off]	Indicates condition of Hi beam switch operation of combination switch.
HEAD LAMP SW 1 [On/Off]	Indicates condition of head lamp switch 1 operation of combination switch.
HEAD LAMP SW 2 [On/Off]	Indicates condition of head lamp switch 2 operation of combination switch.
PASSING SW [On/Off]	Indicates condition of passing switch operation of combination switch.
AUTO LIGHT SW [On/Off]	Indicates condition of auto light switch operation of combination switch.
FR FOG SW [On/Off]	Indicates condition of front fog lamp switch operation of combination switch.

# **BATTERY SAVER**

BATTERY SAVER: CONSULT Function (BCM - BATTERY SAVER)

INFOID:0000000009956486

### CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF  $\rightarrow$  ON (for at least 5 seconds)  $\rightarrow$  OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and a no-start condition.

### 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 push-button ignition switch.
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor.
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.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.

# < SYSTEM DESCRIPTION >

Description	
Indicates condition of unlock signal from door key cylinder switch.	
Indicates condition of trunk room lamp switch.	
Indicates condition of lock signal from Intelligent Key.	
Indicates condition of unlock signal from Intelligent Key.	
	Indicates condition of trunk room lamp switch.  Indicates condition of lock signal from Intelligent Key.

# **ACTIVE TEST**

Test item	Description
BATTERY SAVER	This test is able to check battery saver operation [On/Off].

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## < SYSTEM DESCRIPTION >

# DIAGNOSIS SYSTEM (IPDM E/R)

# **Diagnosis Description**

### INFOID:0000000009956487

## **AUTO ACTIVE TEST**

### Description

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

- Front wiper (LO, HI)
- Front fog lamps
- Parking lamps
- Side marker lamps
- Tail lamps
- License plate lamps
- Daytime running lamps
- Headlamps (LO, HI)
- A/C compressor
- Cooling fans (LO, HI)

## Operation Procedure

### **CAUTION:**

# Do not start the engine.

### NOTE:

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

### NOTE:

- If auto active test mode cannot be actuated, check door switch system. Refer to <u>DLK-100, "Component Function Check"</u>.
- When auto active test mode has to be cancelled halfway through test, turn ignition switch OFF.
- 1. Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation)
- 2. Turn ignition switch OFF.
- Turn the ignition switch ON, and within 20 seconds, press the front door switch LH 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.

# Inspection in Auto Active Test Mode

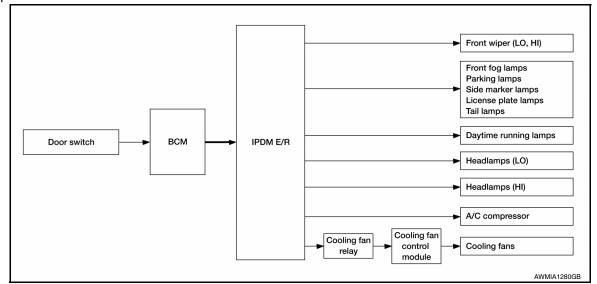
When auto active test mode is actuated, the following operation sequence is repeated 3 times.

Operation sequence	Inspection Location	Operation
1	Front wiper	LO for 3 seconds → HI for 3 seconds
2	<ul><li>Front fog lamps</li><li>Parking lamps</li><li>Side marker lamps</li><li>Tail lamps</li><li>License plate lamps</li></ul>	10 seconds
3	Daytime running lamps	10 seconds
4	Headlamps	LO ⇔ HI 5 times
5	A/C compressor	ON ⇔ OFF 5 times
6 <sup>*</sup>	Cooling fans	LO for 5 seconds → HI for 5 seconds

<sup>\*:</sup> Outputs duty ratio of 50% for 5 seconds → duty ratio of 100% for 5 seconds on the cooling fan control module.

## < SYSTEM DESCRIPTION >

Concept of auto active test



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

Diagnosis chart in auto active test mode

Symptom	Inspection contents		Possible cause
Any of the following components do not operate		YES	BCM signal input circuit
<ul> <li>Front fog lamps</li> <li>Parking lamps</li> <li>Side marker lamps</li> <li>License plate lamps</li> <li>Tail lamps</li> <li>Daytime running lamps</li> <li>Headlamp (HI, LO)</li> <li>Front wiper</li> </ul>	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
Cooling fans do not operate		YES	ECM signal input circuit     CAN communication signal between ECM and IPDM E/R
	Perform auto active test. Do the cooling fans operate?	NO	Cooling fans Harness or connectors between cooling fans and cooling fan control module Cooling fan control module Harness or connectors between cooling fan relay and cooling fan control module Cooling fan relay Harness or connectors between IPDM E/R and cooling fan relay IPDM E/R

# CONSULT Function (IPDM E/R)

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### **CAUTION:**

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF  $\rightarrow$  ON (for at least 5 seconds)  $\rightarrow$  OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and a no-start condition.

# < SYSTEM DESCRIPTION >

# **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.
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
HOOD SW [On/Off]		Indicates condition of hood switch
THFT HRN REQ [On/Off]		Indicates theft warning horn request signal received from BCM on CAN communication line

# < SYSTEM DESCRIPTION >

Monitor Item [Unit]	Main Signals	Description
HORN CHIRP [On/Off]		Indicates horn reminder signal received from BCM on CAN communication line
HOOD SW 2 [On/Off]		Indicates condition of hood switch 2

# **ACTIVE TEST**

Test item	Description
HORN	This test is able to check horn operation [On].
FRONT WIPER	This test is able to check wiper motor operation [Hi/Lo/Off].
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-15. "CAN Diagnostic Support Monitor".

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# **ECU DIAGNOSIS INFORMATION**

BCM, IPDM E/R

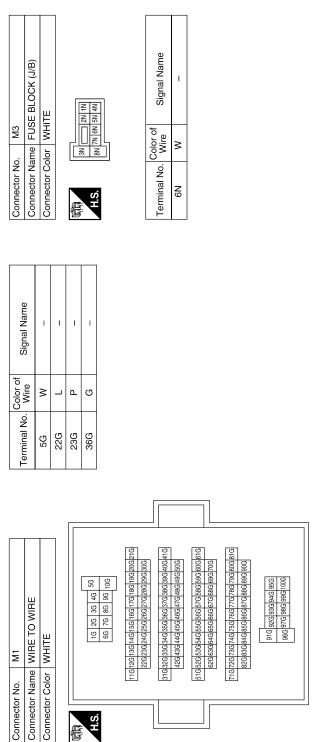
List of ECU Reference

INFOID:0000000009463564

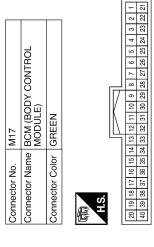
ECU	Reference
	BCS-31, "Reference Value"
BCM	BCS-50, "Fail Safe"
BCIVI	BCS-50, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"
	PCS-12, "Reference Value"
IPDM E/R	PCS-19, "Fail Safe"
	PCS-20, "DTC Index"

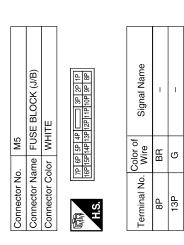
## **WIRING DIAGRAM** Α **HEADLAMP** Wiring Diagram - Halogen INFOID:0000000009463565 В IPDM E/R (NWELLGENT (NWELLGENT (NWELLGENT DISTRIBUTION MODULE ENGINE ROOM) (E18), (E63), (E200) TO CAN SYSTEM С JOINT CONNECTOR-M06 IGNITION RELAY-1 D E30 ₩ w Е CPU JOINT CONNECTOR-E03 (E21) JOINT CONNECTOR-M05 (M89) DATA LINE F FRONT COMBI-NATION LAMP RH E222 HEAD-LAMP LOW 15A 36 HEADLAMP LOW RELAY Н HEAD-LAMP HIGH 15A 37 ىلە FRONT COMBI-NATION LAMP LH (E212), HEAD-COW LOW HEADLAMP HIGH RELAY 10A J JOINT CONNECTOR-M08 (M157) JOINT CONNECTOR-M07 (M156) HEAD-LAMP HIGH 10A Κ COMBINATION METER (M24) MS (Jabel MS) (Jabel MS) (MS) EXL IGNITION SWITCH ON OR START 31 31 UNIFIED METER CONTROL UNITOR (WITH INFORMATION DISPLAY) M BCM (BODY CONTROL MODULE) (M17). (M18). (M21) COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH) (M28) H BEAM Ν **HEADLAMP - HALOGEN** M57 0 40<u>−</u> M M M Р 40A |-BATTERY ABLWA2232GB

# **HEADLAMP CONNECTORS - HALOGEN**



Signal Name	COMBI SW IN 5	COMBI SW IN 4	COMBI SW IN 3	COMBI SW IN 2	COMBI SW IN 1
Color of Wire	M	BG	M	9	Ь
Terminal No.	10	11	12	13	14





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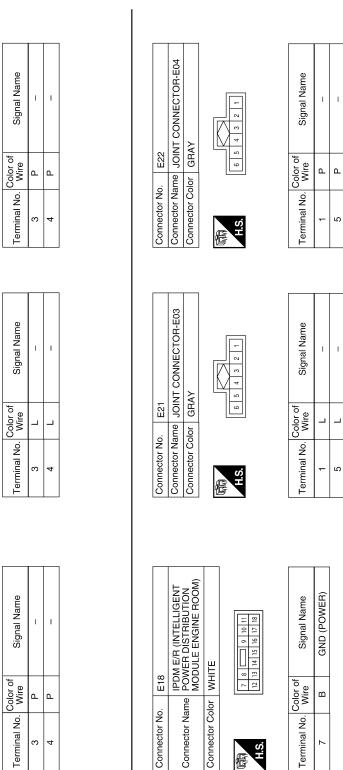
MODULE   Connector Name   Connector Na	COMBINATION METER WHITE	33 32 31 30 29 28 27 26 25 24 23 22 21 32 32 32 33 32 34 35 35 35 35 35 35 35 35 35 35 35 35 35	r of Signal Name	GND1	GND2	NBI	BAT	CAN-L	CAN-H			M89	JOINT CONNECTOR-M05	WHITE		4 3 2 1				r of Signal Name	ı	1	
White Signal Name GND1  With Signal Name GND2  W BAT BCM FUSE GND1  W BAT BCM FUSE GND1  W BAT POWER F/L  B GND2  W GND2  W BAT BCM FUSE GND1  W GND2  W		17     16     15     14       37     36     35     34		В	В	BF	g	<u> </u>	_					+	_	4					<u> </u>		_
MADDUE   M	Connecte Connecte	20 19 18 40 39 38	Terminal	-	2	21	22	38	39			Connecto	Connecto	Connecto		E	Ų.			Terminal	က	4	
MADDUE   M								]															
	(BODY CONTROL ULE)  TE  Sileziaisisis		Signal Name	BAT BCM FUSE	GND2	BAT POWER F/L	GND1					O CONTRACTOR	Olgilai Maille	ı	ı	I	ı	ı	ı	1	1		
Terminal No.  Terminal No.  131  134  139  143  10  10  11  11  11  11  11  11  11  1			Color of Wire	Μ	В	Μ	В					Color of	Wire	Œ	Μ	Ь	>	5	Ъ	BG	5		
	Connector Na Connector Cc		Terminal No.	131	134	139	143					- I constant		7	8	6	10	=	12	13	4-		
	n (BODY CONTROL JULE) CK	2 51 50 68 67 66 65 64 63 62 64 63 62 64 63 62 64 63 62 64 63 62 64 63 63 63 64 63 63 64 63 63 64 63 63 64 63 63 64 63 63 64 63 63 64 63 63 64 63 6	Signal Name	CAN-L	CAN-H	IGN USM OUT 1	COMBI SW OUT 5	COMBI SW OUT 4	COMBI SW OUT 3	COMBI SW OUT 2	COMBI SW OUT 1	3	MBINATION SWITCH	ITE			4 5 6	10 11 12 13 14		Signal Name	ı	ı	
(BODY CONTROL DULE)	4.	55 54 53	Color of Wire	Ь		5	BG	M	Œ	۵	ŋ			+-	_		1 2 3	7 8 9 1		Color of Wire	BG	*	
BLACK   BLACK   BLACK   BLACK   Signal Name   CAN-L   CAN-H   CAN-H		57 56	Terminal No.					92		78		Connector No.	Connector Name	Connector Color		ı				Terminal No.			

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Connector No. M156	M156	Connector No. M157	M157
Connector Name	Connector Name JOINT CONNECTOR-M07	Connector Name	Connector Name JOINT CONNECTOR-M08
Connector Color WHITE	WHITE	Connector Color WHITE	WHITE
			,
	U  4   3   2   1   U		4 3 2 1 1
S		H.S.	

Connector No. M155
Connector Name JOINT CONNECTOR-M06

WHITE    4   3   2   1           or of Signal Name
Color of Wire
Connector Color WHITE  H.S.  Terminal No. Wire  3 P



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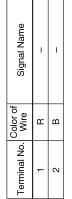
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POWER DISTRIBUTION	lame FRONT COMBINATION LAMP LH Solor BLACK  Color of Signal Name  Y B - B - B - Color of Signal Name  Y - B - Color of Signal Name - Color of Signal Name - B - Color of Signal Name -
Connector Name Connector Color  H.S. (19 20   2   2   2   2   2   2   2   2   2	Connector No. Connector Color Connector Color H.S.  1 Color 7 Color 7 Color 7 Color 7 Color 7 Color 7 Color
Signal Name	E212 LAMP LH (WITHOUT XENON HEADLAMP SYSTEM) BLACK   (21)  cof Signal Name
7 Terminal No. Wife 55 P 22 C L 23 G P 36 G L G	Connector No. E212 Connector Name LAMP LAMP LAMP LAMP LAMP LAMP LAMP LAMP
Connector Name   WIRE TO WIRE	Connector No. E200  Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM)  Connector Color WHITE  ALS.  Terminal No. Wire Signal Name  75 R HEADLAMP LO RH  76 P HEADLAMP LO LH  80 L HEADLAMP HI RH  81 Y HEADLAMP HI LH







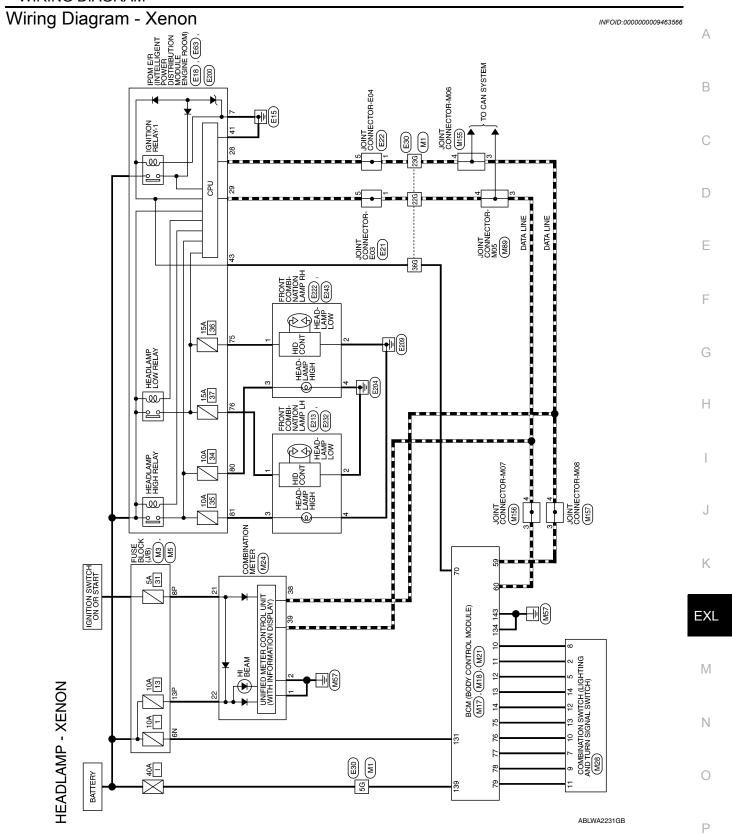


E222	Connector Name FRONT COMBINATION LAMP RH	BLACK	
Connector No.	Connector Name	Connector Color BLACK	

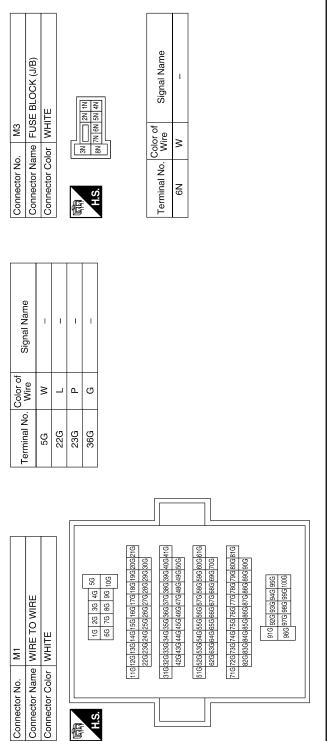


Signal Nam	_	=
Color of Wire	٦	В
Ferminal No.	3	4

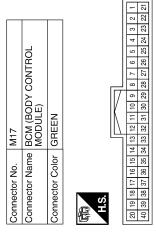
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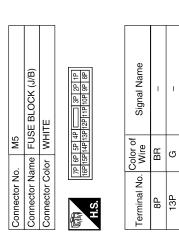


# HEADLAMP CONNECTORS - XENON



Signal Name	COMBI SW IN 5	COMBI SW IN 4	COMBI SW IN 3	COMBI SW IN 2	COMBI SW IN 1
Color of Wire	Μ	BG	Μ	5	Ь
Terminal No.	10	11	12	13	14





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BCM (BODY CONTROL	Signal Name  Signal Name  COMBI SW OUT 1  COMBI SW OUT 1  COMBI SW OUT 2  COMBI SW OUT 2  COMBI SW OUT 3  COMBI SW OUT 4  COMBI SW OUT 3  COMBI SW OUT 4  COMB	Connector Name BCM (BODY CONTROL Connector Name COMBINATION METER Connector Color WHITE	(中華) (中華) (中華) (中華) (中華) (中華) (中華) (中華)	20 19 18 17 16 15 14 18 12 11 10 9     8 7 6 5 4       40 39 38 37 36 38 37 38 38 37 38 38 37 38 38 38 38 38 38 38 38 38 38 38 38 38	Terminal No. Wire Signal Name Color of Signal Name Signal Name	131 W BAT BCM FUSE 1 B GND1	134 B GND2 2 B GND2	139 W BAT POWER F/L 21 BR IGN	143 B GND1 22 G BAT	38 P CAN-L	39 L CAN-H			Torminal No Color of Signal Name	Wire		- M 8	<u></u>	- 1 6 - 1	12 P –	14 G - 3 L -	- 4	 !	
	<del>                                      </del>	M (BODY CONTROL BULE) CK		51 50 49 48 47 46 45 44		CAN-L	CAN-H	IGN USM OUT 1		COMBI SW OUT 4		COMBI SW OUT 2	COMBI SW OUT 1	8	MBINATION SWITCH	HTE		5	12 13			1		

Revision: November 2013 **EXL-35** 2014 Altima NAM

	CTOR-M08		Signal Name	1	1
M157	Connector Name JOINT CONNECTOR-M08 Connector Color WHITE	0 4 3 2 1 0		<u>a</u>	<u>a</u>
Connector No. M157	Connector Name JOINT (	原列 H.S.	Terminal No. Wire	က	4
	V07				
99	Connector Name JOINT CONNECTOR-M07 Connector Color WHITE	3 2 1 1	Signal Name	I	ı
M	ume JOII	4	Color of Wire	Т	Г
Connector No. M156	Connector Name JOINT C	H.S.	Terminal No. Wire	က	4
25	Connector Name JOINT CONNECTOR-M06 Connector Color WHITE	0 1 2 1 0 0 1 2 1 0	Signal Name	ı	1
Ε	lor WH	4	Color of Wire	۵	Д
Connector No. M155	Connector Name JOINT (	H.S.	Terminal No. Wire	က	4

	Connector Name JOINT CONNECTOR-E04	IAY	K	8 2 1	Signal Name	ı	I
E22	ne JO	or GF		9	Solor of Wire	۵	Д
Connector No.	Connector Nar	Connector Color GRAY		H.S.	Terminal No. Wire	-	5
1	Connector Name JOINT CONNECTOR-E03	ЗАY	K	4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Signal Name	ı	-
. E21	me JO	lor GF		9	Color of Wire	_	٦
Connector No.	Connector Na	Connector Color GRAY		H.S.	Terminal No. Wire	-	5
	M E/R (INTELLIGENT	POWER DISTRIBUTION MODULE ENGINE ROOM)		8       9   10   11   13   14   15   16   17   18	Signal Name	GND (POWER)	
E18		**************************************	WHITE	7 8 12 13	olor of Wire	В	

Connector Color WHITE

Connector Name

Connector No.

Color of Wire В

Terminal No.

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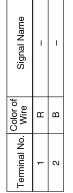
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H. C	POWER DISTRIBUTION	OULE ENGINE ROOM)	1		24 25 26 27 28	40 41 42 43 44 45 46 47 48 49	Signal Name	CAN-L	CAN-H	GND (SIGNAL)	IGN SIGNAL		5	FRONT COMBINATION LAMP RH	OK	Ú	(C) 4	Signal Name	1	1		
		-	or WHITE		20 21 22 23	36 37 38 39	Color of Wire	۵	_	В	Pl		. E222		or BLACK			Color of Wire	7	В		
	Connector Name		Connector Color	á	9	36 38 3	Terminal No.	28	29	41	43		Connector No.	Connector Name	Connector Color	1	H.S.	Terminal No.	ဗ	4		
Signal Name	1	ı	1	ı										FRONT COMBINATION LAMP LH	3	Ú	(4 s)	Signal Name	1	ı		
Wire	۵	_	۵	PC									. E213		lor BLACK			Color of Wire	>	В		
l erminal No.	5G	22G	23G	36G									Connector No.	Connector Name	Connector Color	Œ	H.S.	Terminal No.	3	4		
	Connector Value WIRE IO WIRE			56	96 86 7G	216 206 196 176 166 156 146 136 126 116		50G 49G 48G 47G 46G 45G 45G 45G 45G 45G 51G	61G 600G 59G 58G 57G 56G 55G 84G 53G 52G 51G	70G 69G 68G 67G 66G 65G 64G 63G 62G	81G80G79G78G77G76G75G74G73G72G71G	266 3476 3505 3505 3405 3605 3405 3605 3405 3605 3405 3605 3405 3605 3405 3405 3405 3405 3405 3405 3405 34	E200	IPDM E/R (INTELLIGENT POWER DISTRIBUTION	MODULE ENGINE ROOM)		74	ا Signal Name	HEADLAMP LO RH	HEADLAMP LO LH	HEADLAMP HI RH	HEADLAMP HI LH
Connector Name Land		_				216200	) 	500	616600	707	81G800				_	-		Color of Wire	ш	۵	٦	>
N votoo	Connector Color				ó								Connector No.	Connector Name	Connector Color		所 H.S.	Terminal No.	75	92	80	81

E243	FRONT COMBINATION LAMP RH (WITH XENON HEADLAMP SYSTEM)	GRAY
Connector No.	Connector Name	Connector Color   GRAY







E232	FRONT COMBINATION LAMP LH (WITH XENON HEADLAMP SYSTEM)	GRAY	
Connector No.	Connector Name	Connector Color GRAY	





Signal Name	ı	-
Color of Wire	Ь	В
Ferminal No.	1	2

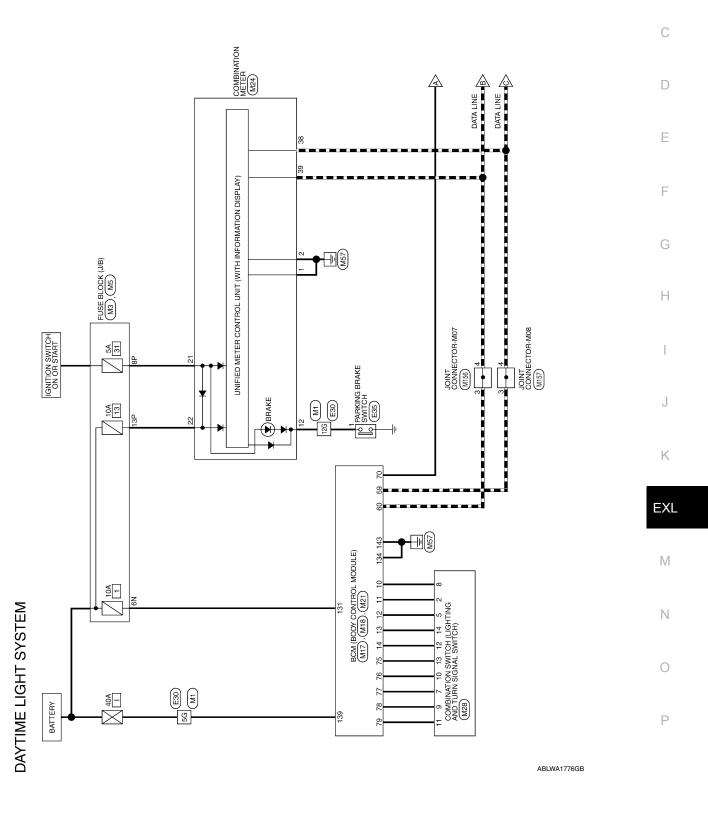
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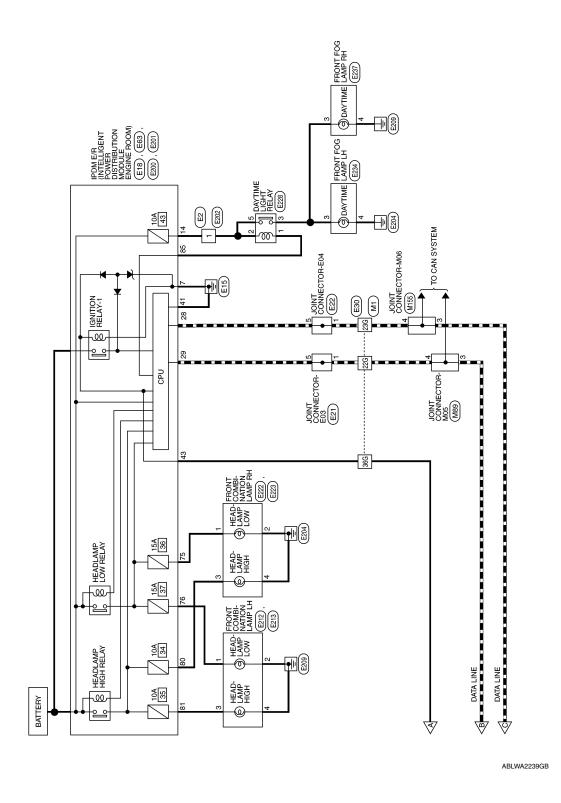
# DAYTIME LIGHT SYSTEM

Wiring Diagram

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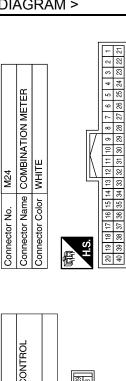
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	Connector No. M3	Connector Color   WHITE			3N 1N		Terminal No. Wire Signal Name 6N W -	Color of	No. Wire	10 W COMBLSW IN 5	2 >	13 G COMBI SW IN 2 14 P COMBI SW IN 1					A B C D
													5 4 3 2 1 25 24 23 22 21				F
	Signal Name	ı	1	ı	ı	I		7	BCM (BODY CONTROL	MODULE)	ורבו ורבו		12 11 10 9 8 7 6 32 31 30 29 28 27 26				G H
	Terminal No. Wire	5G W	12G G	22G L	23G P	36G G		Connector No. M17	Connector Name BC	MC	_	(中)	20 19 18 17 16 15 14 13 40 39 38 37 36 35 34 33				I
CTORS			 						10		2) <u>L</u>			-1			J K
DAYTIME LIGHT SYSTEM CONNECTORS	TOWIRE	) 			16 26 36 46 56	6G 7G 8G 9G 10G	11G 12G 13G 14G 15G 16G 17G 16G 19G 20G 21G 21G 22G 23G 24G 25G 25G 27G 25G 25G 27G 25G 25G 27G 25G 27G 25G 27G 25G 27G 25G 27G 25G 27G 27G 27G 27G 27G 27G 27G 27G 27G 27		FUSE BLOCK (J/B)	ш	3P 2P 1P	48   46   40   41   42	Signal Name	1	ı		EXL
LIGHT SY	Connector No. M1	or Color WHITE					316226362 22623626 3162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 5162263626 516226362 5162262 5	or No. M5	Connector Name FUSE	Connector Color WHITE	7P 6P 5P 4P 3P 2P	16/15/14/13/1	Color of Wire	BB	5		Ν
DAYTIME	Connector No.	Connector Color				Sil.		Connector No.	Connect	Connect		H.S.	Terminal No.	8 <sub>0</sub>	13P	BLIA5154GB	0
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Revision: November 2013 **EXL-41** 2014 Altima NAM



Signal Name	GND1	GND2	PKB	NSI	BAT	CAN-L	CAN-H
Color of Wire	В	В	Э	BR	В	Ь	L
Terminal No.	-	2	12	21	22	38	39

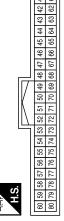
J	Connector Name   JOINT CONNECTOR-M05	ITE	2 1 🗓	Signal Name	I	
. M&9	me JOI	lor WHITE	1 3 2 1	Color of Wire	7	-
Connector No.	Connector Na	Connector Color	明.S.	Terminal No.	3	,





Signal Name	BAT BCM FUSE	GND2	BAT POWER F/L	GND1
Color of Wire	M	В	8	В
Terminal No.	131	134	139	143

	Signal Name	ı	ı	ı	I	I	-	_	_
	Color of Wire	н	≯	Ь	Μ	g	Ь	BG	Б
	Terminal No.	2	8	6	10	11	12	13	14



Signal Name	CAN-L	CAN-H	IGN USM OUT 1	COMBI SW OUT 5	COMBI SW OUT 4	COMBI SW OUT 3	COMBI SW OUT 2	COMBI SW OUT 1
Color of Wire	Ь	_	G	BG	8	ш	Ь	G
Terminal No.	29	09	20	75	92	22	78	62

8	COMBINATION SWITCH	WHITE	10 11 12 13 14	Signal Name	1	I
. M28		-	8 2 3 8 6 8 8 9 8 9	Color of Wire	BG	≯
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	2	2

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## **DAYTIME LIGHT SYSTEM**

Connector No. M157 Connector Name JOINT CONNECTOR-M08 Connector Color WHITE	Terminal No. Wire Signal Name 3 P 4 P P	Connector No. E21 Connector Color GRAY  Connector Color of GRAY  H.S. E21  Connector Color of Signal Name  1 L  5 L	A B C D
CTOR-M07	Signal Name - -	R (INTELLIGENT DISTRIBUTION E ENGINE ROOM)	G
Connector No. M156 Connector Name JOINT CONNECTOR-M07 Connector Color WHITE	Color of Wire	WHITE OF ONLY ONLY ONLY ONLY ONLY ONLY ONLY ONLY	H
Connector No. Connector Cold	Terminal No.	Connector No.  Connector Color  Connector Color  H.S.  T Ool  7 14	J K
T CONNECTOR-MO6  E 211	Signal Name -	ETO WIRE  Signal Name	EXL
Connector No. M155 Connector Name JOINT CONNECTOR-Connector Color WHITE	Terminal No. Wire 3 P P P	Connector No. E2 Connector Name WIRE TO WIRE Connector Color WHITE    1 2	N
<b></b>		ABLIA3726GB	

Revision: November 2013 EXL-43 2014 Altima NAM

Signal Name	ı	ı	ı	1	ı		Signal Name CAN-L CAN-H GND (SIGNAL) IGN SIGNAL
. Wire	۵	FG	_	۵	re		Color of Wire LG LG
Terminal No.	5G	12G	22G	23G	36G		Terminal No. 28 29 29 41 41
Connector Name WIRE TO WIRE		-		56 46 36 26 16	106 96 86 76	21 G 20 G 19 G 1	PDM E/R (INTELLIGENT Connector Name   POWER DISTRIBUTION   MODULE ENGINE ROOM)
Connector Name   JOINT CONNECTOR-E04	GRAY	-		6 5 4 3 2 1		Terminal No. Color of Signal Name  1 P	Connector No. E35 Connector Name PARKING BRAKE SWITCH Connector Color BLACK  H.S.  Terminal No. Color of Signal Name  1 LG -

# **DAYTIME LIGHT SYSTEM**

	E TO WIRE		2 U U	Signal Name	1			
E202	ne WIRI	ŀ	0 8	Solor of Wire	SB			
Connector No.	Connector Name WIRE TO WIRE Connector Color WHITE	Ø	দ্রাদ্র H.S.	Terminal No. Wire	1			
	I							
	Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM)	IE	85 86 87 88 89 93 94 95 96 97	Signal Name	DTRL RLY			
E201	ne POW MOC	or WHI	82 83 84 89 91 92 8	Color of Wire	>			
Connector No.	Connector Nar	Connector Color WHITE	H.S.	Terminal No. Wire	85			
C	Name POWER DISTRIBUTION MODULE ENGINE ROOM)	TE	73 78 80 81	Signal Name	HEADLAMP LO RH	HEADLAMP LO LH	HEADLAMP HI RH	HEADLAMP HI LH
No. E200	IPDI Ime POV MOI	Color WHITE		Color of Wire	Œ	۵	_	<b>&gt;</b>

75 76 80 81

Terminal No.

Connector Name Connector Color

Connector No.

			ı	
72	Connector Name FRONT COMBINATION LAMP RH	4CK	( <del>†</del> 3)	Signal Name
E222	ne FR	or BL/		color of Wire
Connector No.	Connector Nar	Connector Color BLACK	H.S.	Terminal No. Wire
3	onnector Name FRONT COMBINATION LAMP LH	1CK	(¢ †)	Signal Name
E213	ne FR	or BL		Solor of Wire
onnector No.	onnector Na	onnector Color BLACK	H.S.	erminal No. Wire

В

3

3	FRONT COMBINATION LAMP LH	BLACK	(4 B)	Signal Name	I	
. E213				Color of Wire	Υ	a
Connector No.	Connector Name	Connector Color	(所) H.S.	Terminal No.	3	-

	10					
	Connector Name LH (WITHOUT XENON HEADLAMP SYSTEM)	ÇK		Signal Name	1	_
E212	me FE/	lor BLA		Color of Wire	Ь	В
Connector No.	Connector Na	Connector Color BLACK	邸 H.S.	Terminal No.	1	2

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**EXL-45** Revision: November 2013 2014 Altima NAM Α

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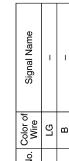
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Connector No.	E234
Connector Name	Connector Name FRONT FOG LAMP LH
Connector Color BLACK	BLACK

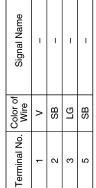




Color of Wire	ГG	В
Terminal No.	င	4



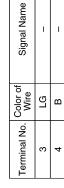






3	FRONT COMBINATION LAMP RH (WITHOUT XENON HEADLAMP SYSTEM)	4CK		Signal Name	-	_
. E223		lor BLACK		Color of Wire	н	В
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	-	2

E237	Connector Name FRONT FOG LAMP	BLACK	
Connector No.	Connector Name	Connector Color BLACK	



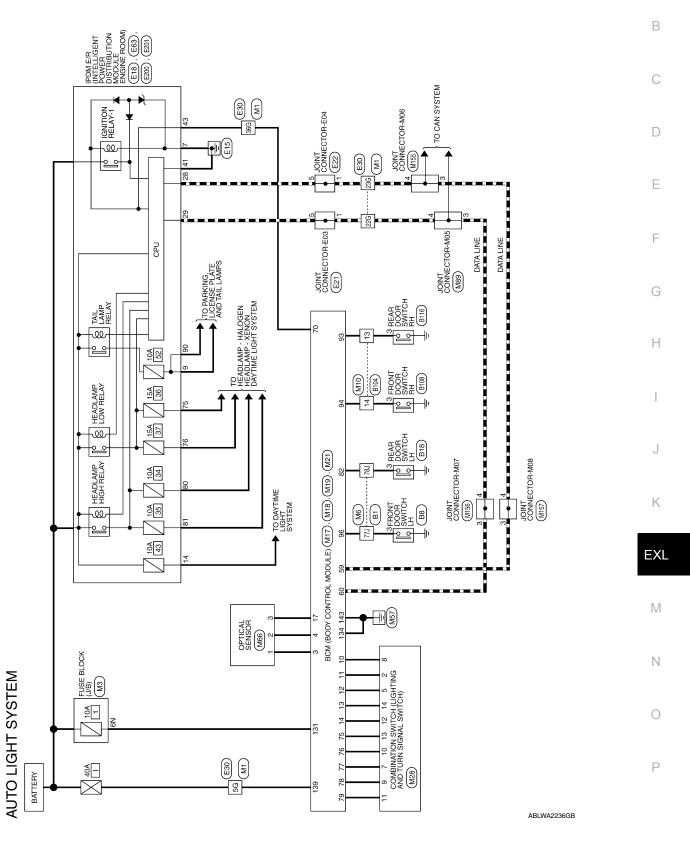


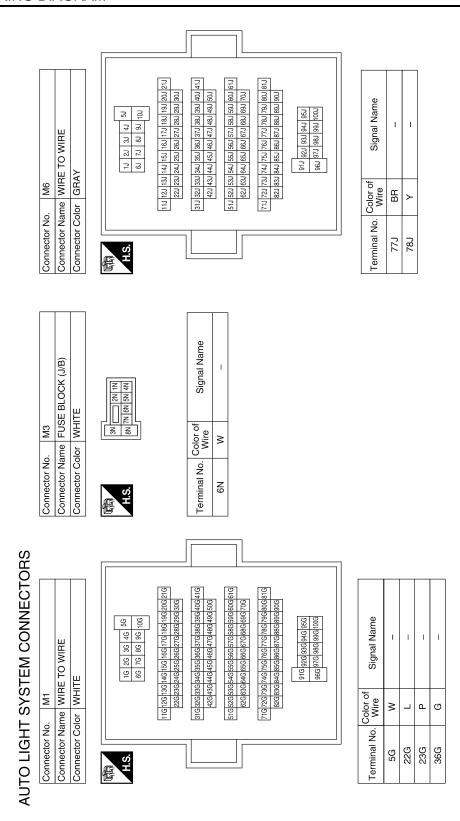
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# **AUTO LIGHT SYSTEM**

Wiring Diagram

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ABLIA3711GB

Signal Name	A/L POWER SUPPLY 5V	A/L SIGNAL	COMBI SW IN 5	COMBI SW IN 4	COMBI SW IN 3	COMBI SW IN 2	COMBI SW IN 1	GND RF A/L
Color of Wire	BR	<b>\</b>	M	BG	M	В	Ь	В
Terminal No.	3	4	10	11	12	13	14	17

							-	21
			1				2	22
							က	23
							4	24
	占						2	25
	Ě						9	26
	ΙŽ						7	27
	18					۲	8	28
	<b>≻</b>					117	9	59
						IV.	10	30
	BCM (BOE MODULE)	곮				IN.	19 18 17 16 15 14 13 12 11 10	31
_	≥₫	Щ				Ш	12	32
Ξ	l‰≌	[5					13	33
_	m	i.					4	34
	Ĕ	힏					15	35
ž	<u>e</u>	ပြ					16	98
ō	<u>5</u>	ō					17	37
ទ	<u>6</u>	당			ιĠ		18	88
Ē	≦	Ē			H.S.			40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21
Connector No.	Connector Name   BCM (BODY CONTROL   MODULE)	Connector Color GREEN		E	1		20	8

	WIRE TO WIRE	NWC	14 13 12 11 10 9 8	Signal Name	ı	1
. M10	me WIF	lor BROWN	7 6 5 14 15 14	Color of Wire	>	SB
Connector No.	Connector Name	Connector Color	S.H	Terminal No.	13	41

M21	Connector Name   BCM (BODY CONTROL MODULE)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	

Connector Name BCM (BODY CONTROL MODULE)	TE	157  738  738  738  738  738    138	Signal Name	BAT BCM FUSE	GND2	BAT POWER F/L	FONO.
ne BCN MOI	or WHITE	143   142   14	Color of Wire	×	В	8	c
Connector Nar	Connector Color	H.S.	Terminal No.	131	134	139	7.40

Image: Control of the contro						
BODY CONTR	Connector No.	M19				
Y 88 88 89 89 89 89 89 89 89 89 89 89 89	onnector Name	BCM (BOI MODULE)	ο Σ	NO.	H	ОГ
87 86 84 83 82 99 98 97 96 95 94	onnector Color	GRAY				
87 86 85 84 83 82 99 98 97 96 95 94			17			[
99 98 97 96 95 94	92 91 90	88 87	85	88		81
	104 103 102	66	97	82		88

	5	-					
35	99 88	8 87 86	/ 8	28 88	88	20	
1041	104 103 102 101 100 99	86 66 0	97	96 98	8	88	
							1
Terminal No.	Color of Wire		Sig	Signal Name	g	🖺	
82	>		RL DOOR SW	l ŏ	H.	S	>
93	>		RR DOOR SW	<u> </u>	HC HC	S	>
94	SB		AS DOOR SW	000	ЭR	S	۸
96	BR		DR DOOR SW	Ř	SH	5	>

Connector No.	M18
Connector Name	Connector Name   BCM (BODY CONTROL MODULE)
Connector Color BLACK	BLACK

	5	63	
	45 44 43	64	
	45	65	
	46	99	
	47	67	
	48 47	89	
117	<b>₽</b>	69	
17	20	70	
- 11	51	7	
	52	72	
	53	73	
	54	74	
	55	75	
	56	9/	
	22	11	
<b>16</b>	88	78	
H.S.	29	79	
j T	99	8	
_			_

							_	
Signal Name	CAN-L	CAN-H	IGN USM OUT 1	COMBI SW OUT 5	COMBI SW OUT 4	COMBI SW OUT 3	COMBI SW OUT 2	COMBI SW OUT 1
Color of Wire	Ь	٦	g	BG	M	В	Ь	G
Terminal No.	26	09	0/	75	9/	22	2/8	6/

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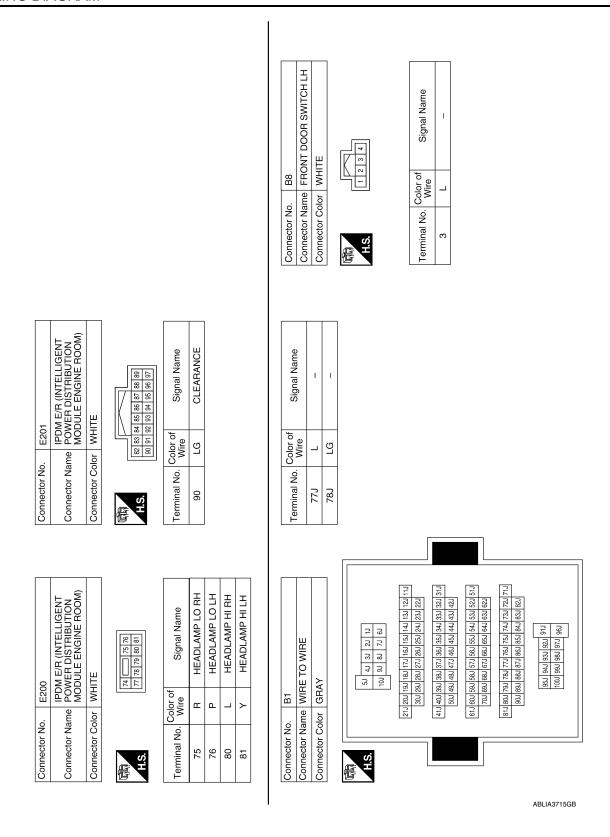
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Connector No. M89 Connector Name JOINT CONNECTOR-M05 Connector Color WHITE	2 1	Signal Name	1 1									Connector Name JOINT CONNECTOR-M08	<b>2</b>	043210	Signal Name	1	ı
M89 JOINT (	4 3 2	Color of Wire									. M157	me JOIN	lor WHITE	4 9	Color of Wire	۵	۵
Connector No. Connector Name	H.S.	Terminal No.	0 4								Connector No.	Connector Na	Connector Color	H.S.	Terminal No.	ဇ	4
Connector No. M66 Connector Name OPTICAL SENSOR Connector Color WHITE		Signal Name	1 1	I								Connector Name JOINT CONNECTOR-M07	Щ	0 4 3 2 1 0	Signal Name	1	1
M66 ne OPTICA or WHITE	-	Color of Wire	۲ ×	В							M156	ne JOIN	or WHITE	4 3	Color of Wire	_	_
Connector No. Connector Name	H.S.	Terminal No.	- 2	က							Connector No.	Connector Nar	Connector Color	用.S.	Terminal No.	3	4
ctor No. M28  ctor Name COMBINATION SWITCH  ctor Color WHITE	01 4 11 6 12 21 7 14 15 16 16 16 16 16 16 16 16 16 16 16 16 16	Signal Name		1	I	I	ı	I	ı	ı	5	ctor Name JOINT CONNECTOR-M06	TE	2 1 0	Signal Name	1	ı
ctor No. M28 ctor Name COMBI	7 1 2 8 9 9 3	Color of Wire	×	۾ ع	۵.	M	5	Ъ	BG	g	). M155	ume JOIN	olor WHITE	φ 8	Color of Wire	۵	۵
ctor No.		nal No.						0.1		4	ctor No.	ctor Na	ctor Color		nal No.		

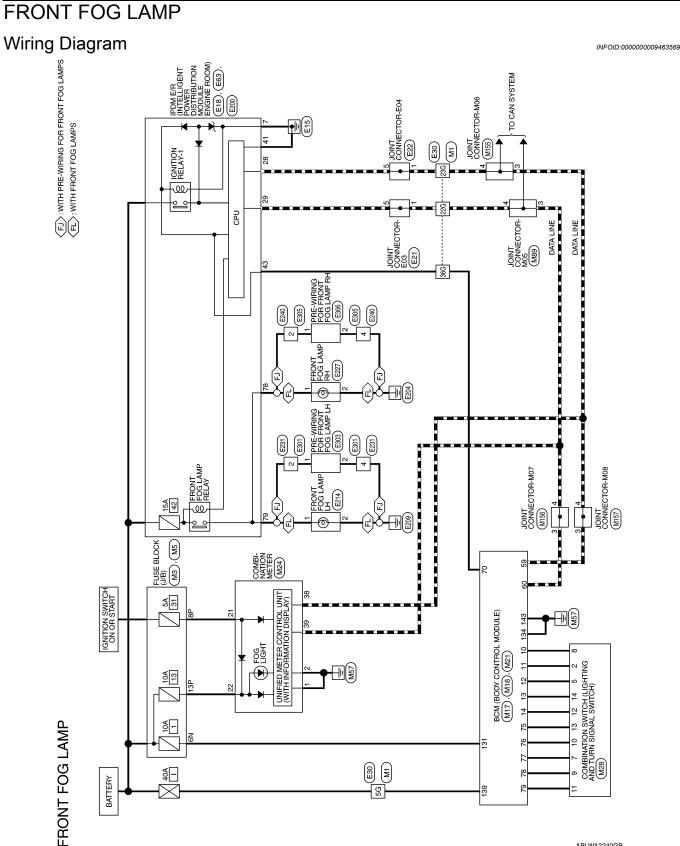
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Connector No.   E22	A B C D
	F
Connector No.   E21  Connector Name   JOINT CONNECTOR-E03  Connector Color   GRAY  Terminal No.   Wire   Signal Name   5	Н
Color of Wire P LG	I
Connector No.  Connector Name Connector Color Terminal No. W  56 226 236 366 L	J
	K
E18   IPDM E/R (INTELLIGENT   MODULE ENGINE ROOM)   MODULE ENGINE ROOM)   MODULE ENGINE ROOM)   Mire   Signal Name   Mire   Mire   Mire   To Wire   Signal Name   Mire	996 93.6 998 998 998 998 998 998 998 998 998 99
	056 056 056 056 056 056 056 056 056 056
Connector Name Connector Color Terminal No. Will A.S. Terminal No. Color Connector No. Connector Name Connector No. Lift A.S.  A.S.  Bitter  A.S.  Bitter  A.S.  Bitter  A.S.  Bitter  A.S.  Bitter  A.S.  Bitter  Bit	N O
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Revision: November 2013 **EXL-51** 2014 Altima NAM

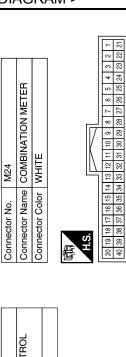


			А
WITCH RH			В
NT DOOR SWITCH			С
Connector No. B108 Connector Name FRONT DOOR SWITCH RH Connector Color WHITE  Terminal No. Color of Signal Name  3 L -			D
Connector No. Connector Color Connector Color H.S. 3			Е
			F
WIRE    4   5   7     2   13   14   15   16     2   13   14   15   16     3   14   15   16     4   5   7     7   7     7   7     8   7     9   7     10			G
0 1			Н
Connector No. B10 Connector Name WIR Connector Color BRC R.S. H.S. 13 V 14 L			I
Connector Nar. Connector Col. Terminal No. Col. 13			J
			K
B18  REAR DOOR SWITCH LH  WHITE  I 2 3 4  G	R SWITCH R	Signal Name	EXL
B18 WHITE Or of of GG GG Signature	B116 REAR DOO! WHITE		M
ctor No.	in i	Terminal No. Color or 3 Virginal No.	Ν
Conne Conne Termit	Conne	통 호 ABLIA3716GB	0
			Р



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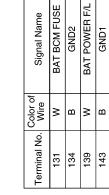
		А
LOCK (J/B) Signal Name	Signal Name COMBI SW IN 5 COMBI SW IN 2 COMBI SW IN 1 COMBI SW IN 1	В
		С
No. Name FUS	Color of Wire Wine W BG W BG	D
Connector No. M3 Connector Name FUSE BLOCK (J/B) Connector Color WHITE  M.S. MINEM SN 4N  Terminal No. Color of Signal Nam  6N Wire Signal Nam  6N W	Terminal No. 10 11 12 13 13 14	E
	23 22 1 23 22 21	F
Signal Name	M17  BCM (BODY CONTROL  MODULE)  GREEN  [13] 12   11   10   9   8   7   6   5   4   3   3   3   3   3   3   3   3   3	G
	M17 M0DULE) GREEN GREEN GRESN HISTERHIOF	Н
Color of Wire G	S   S   S   S   S   S   S   S   S   S	I
Terminal No.  5G 22G 23G 36G	Connector Na. Connector Cold Light 18 17 16 1 40 39 38 73 8 37 38 38 38 38 38 38 38 38 38 38 38 38 38	J
		K
2TORS  3		EXL
M1   M1   M1   M1   M1   M1   M1   M1	LOCK (J/B)  □ 3P 2P 1P  □ 1P 10P 9P 8P	
NT FOG LAMP CONNEC   Connector No.   M1   Connector No.   M1   Connector No.   M1   Connector Color   WHITE   Color   Color	M5 FUSE B WHITE Or of the little litt	M
Connector No.   M1	Connector No.  Connector Name Connector Color Terminal No. WW 8P B 13P Color Terminal No. WW	Ν
Connector No.   M1   Connector No.   M1   Connector No.   WHITE   Connector Color	Connector No Connector No Connector No Connector Co	0
<u> </u>	ABLIA5157GB	Р



Signal Name	GND1	GND2	IGN	BAT	CAN-L	CAN-H
Color of Wire	В	В	BB	മ	Ь	_
Terminal No.	-	7	21	22	88	39

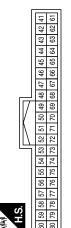
6	JOINT CONNECTOR-MOS	WHITE	2 1 0	Signal Name	-	_
M89			4 3	Color of Wire	٦	٦
Connector No.	Connector Name	Connector Color	赋利 H.S.	Terminal No.	ε	4

M21	Connector Name BCM (BODY CONTRO) MODULE)	WHITE
Connector No.	Connector Name	Connector Color WHITE



Signal Name	1	1	1	I	1	1	-	1
Color of Wire	ш	>	Д	Μ	5	Ь	BG	В
Terminal No.	7	8	6	10	1	12	13	14

. M18	Connector Name BCM (BODY CONTROL MODULE)	lor BLACK
Connector No.	Connector Name	Connector Color BLACK



Signal Name	CAN-L	CAN-H	IGN USM OUT 1	COMBI SW OUT 5	COMBI SW OUT 4	COMBI SW OUT 3	COMBI SW OUT 2	COMBI SW OUT 1
Color of Wire	Ъ	_	ŋ	BG	>	œ	Ъ	σ
Terminal No.	59	09	20	75	9/	77	28	79

8	COMBINATION SWITCH	WHITE	10 11 12 13 14	Signal Name	1	ı
. M28		-	8 2 3 8 2 3	Color of Wire	BG	×
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	2	2

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M157 JOINT CONNECTOR-M08 WHITE  4 3 2 1 1	Connector No. E22 Connector Name JOINT CONNECTOR-E04 Connector Color GRAY	Signal Name
	E22 me JOINT or GRAY	Wire P
ctor Nc ctor Co	Connector No. Connector Color Connector Color	Terminal No.
Conne Termir	Conne	Termii
M156 JOINT CONNECTOR-M07 WHITE Or of Signal Name	Connector No. E21 Connector Color GRAY Connector Color GRAY  LLS  E 5 4 3 2 1	Signal Name
	or GRAY	Color of Wire
ctor Nc	Connector Name Connector Color	Terminal No.
Conne Termir 3 3	Conne	Termi
M155  JOINT CONNECTOR-M06  WHITE  A 3 2 1 1	POWER DISTRIBUTION MODULE ENGINE ROOM) WHITE	Signal Name GND (POWER)
		Wire Wire B
Connector No.  Connector Name Connector Color  H.S.  3 F A A F F F F	Connector No. Connector Name Connector Color	Terminal No.
		<u>- 1                                   </u>

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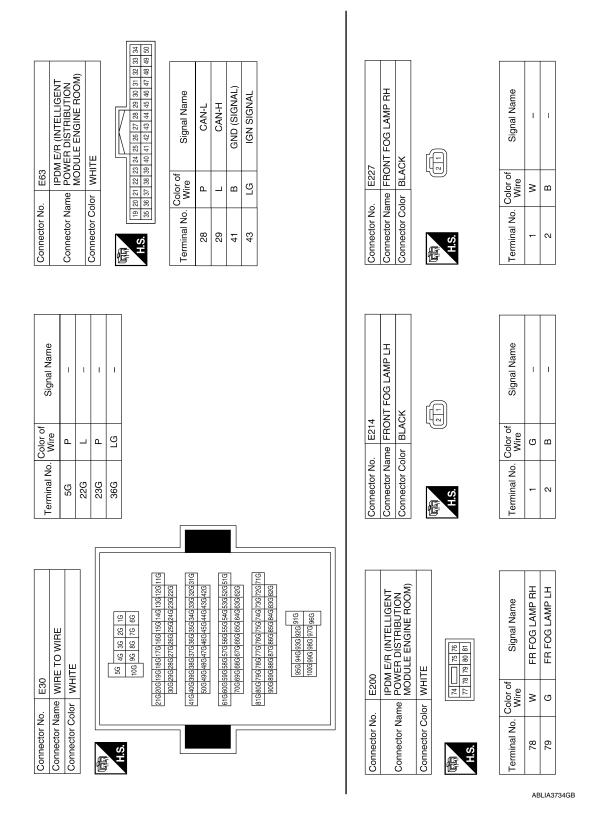
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## **FRONT FOG LAMP**

										]
_	E TO WIRE	١٨.			3		Signal Name	ı	1	
E301	me WIR	or GR/	l	<del>-</del>	2 4	リ	Color of Wire	G	В	
Connector No.	Connector Name WIRE TO WIRE	Connector Color GRAY		僵	H.S.		Terminal No. Wire	2	4	
										]
9	RE TO WIRE	AY			8 4 2		Signal Name	1	ı	
. E24	me WIF	lor GR		(		9	Color of Wire	>	<u>m</u>	
Connector No.   E240	Connector Name WIRE TO WIRE	Connector Color GRAY		僵	H.S.		Terminal No. Wire	2	4	
			]							]
31	RE TO WIRE	AY			3 4		Signal Name	ı	ı	
. E231	me WIF	or GR		0		<i>'</i>	Color of Wire	g	В	
Connector No.	Connector Name WIRE TO WIRE	Connector Color GRAY		僵	H.S.		Terminal No. Color of Wire	2	4	

Signal Name	Connector No. E305 Connector No. E306	Connector Name WIRE TO WIRE Connector Name PRE-WIRING FOR FRONT	Connector Color GRAY FOG LAMP RH	Connector Color BLACK	H.S. (21)	Terminal No. Color of Signal Name Terminal No. Wire Signal Name	W t
12510	Sonnector No.   E303	PRE-WIRING FOR FRONT	FOG LAMP LH	Connector Color BLACK		Terminal No. Color of Wire Signal Name	- 5



Color of Wire	9	В
Terminal No.	1	2

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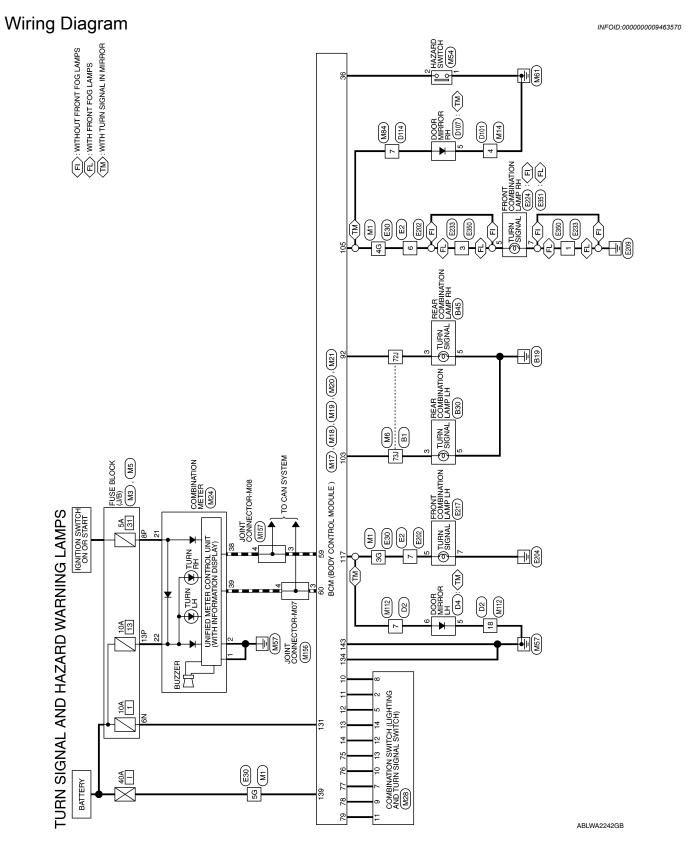
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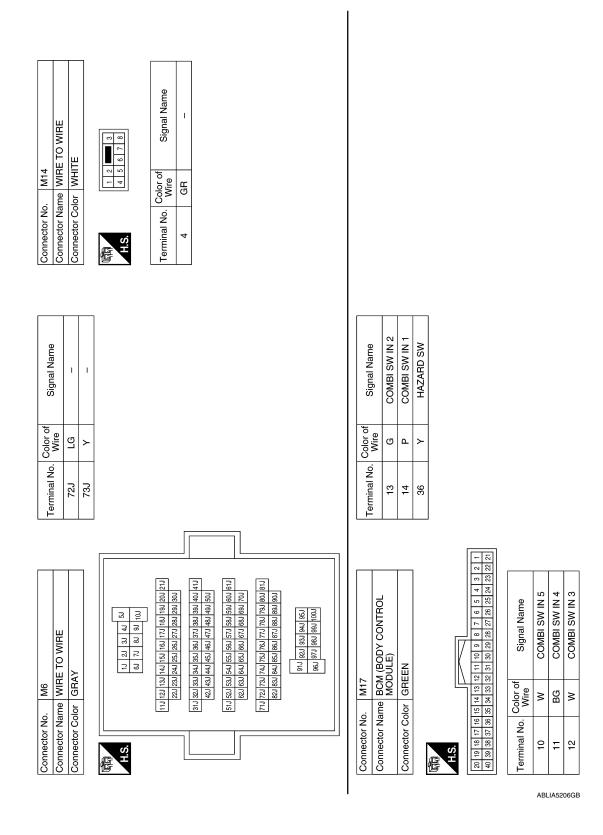
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**EXL-59** Revision: November 2013 2014 Altima NAM



K (J/B)	38 29 1P 1P10P 9P 8P	Signal Name	
Connector No. M5 Connector Name FUSE BLOCK (J/B) Connector Color WHITE	TP   6P   5P   4P	Color of Wire BR	
Connector No. M5 Connector Name FUSE E Connector Color WHITE	H.S.	Terminal No. 13P	
BLOCK (J/B)	IN I	Signal Name	
Connector No. M3 Connector Name FUSE BLOCK (J/B) Connector Color WHITE	N8   N8   N8   N8   N8   N8   N8   N8	No. Color of Wire	
Connector No. Connector Name Connector Color	E.S.	Terminal No.	
Connector No.         M1         M3           Connector Name         WIRE TO WIRE         Connector Name         FUSE BLOCK           Connector Color         WHITE         WHITE	16 26 36 46 56 66 76 86 96 106 116   26   36   46   56   116   26   36   46   56   26   26   36   46   56   56   56   56   56   56   5	150   220   230   240   250   230	
M1 e WIRE TO	16 66 16 16 12 16 16 16 16 16 16 16 16 16 16 16 16 16	116   220   330   340	
Connector No. M1  WIRE TO WIRE  Connector Color WHITE	v;	Terminal No. C	
	E T	Te	ABLIA5164GB

Revision: November 2013 **EXL-61** 2014 Altima NAM



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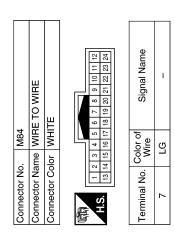
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### < WIRING DIAGRAM >

Connector Name BCM (BODY CONTROL MODULE)  Connector Color BLACK  Tights 114119 112 111 101 108 108 108 108 108 108 108 108	-	Terminal No. Color of Signal Name Wire	105 BR FR FLASHER	117 SB FL FLASHER																		
CONTROL			RR FLASHER	RL FLASHER							IATION METER			7	10 9 8 7 6 5 4 3 2 1 30 29 28 27 26 25 24 23 22 21	Signal Name	GND1	GND2	NSI	ВАТ	CAN-L	CAN-H
Connector Name BCM (BODY MODULE) Connector Color GRAY  REST SE		Terminal No. Wire	92 LG	103 Y						Connector No. M24	Connector Name   COMBINATION METER		南	H.S.	20 19 18 17 16 15 14 13 12 11 10 9 40 39 38 37 36 35 34 33 32 31 30 29	Terminal No. Color of Wire	- В	2 B	21 BR	22 G	38 P	39 L
BLACK BLACK  MODULE)  BLACK	2 71 70 69 68 67 66 65 64 63 62	Color of Signal Name Wire	P CAN-L	L CAN-H		W COMBISW OUT 4			G COMBI SW OUT 1	M21	Connector Name   BCM (BODY CONTROL   MODULE)	or WHITE	ज्यस्वर्धियाः । स्व	143   142   141   140   139   138		Color of Signal Name	W BAT BCM FUSE	B GND2	W BAT POWER F/L	B GND1		
Connector Name Connector Color Missing In Itel Earl	80 79 78 77 76 75	Terminal No.	59	09	75	76	1 -	78	79	Connector No.	Connector Nam	Connector Color				Terminal No.	131	134	139	143		

Revision: November 2013 **EXL-63** 2014 Altima NAM



	WITCH			lame											
	COMBINATION SWITCH	<u> </u>	10 11 12 13 14	Signal Name		I	1 1	1 1 1	1 1 1 1		1 1 1 1 1 1				
_		lor WHITE	7 1 7 8 9 9 3	Color of Wire	0	5	5 ×	2 × α	2 × × ×	2	20 × \( \times \) \( \times \)	20 8 8 8 9 8 0	20 8 8 8 9 9 9	20	20 8 C 8 C 8 C C C C
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	6	1	7 2	1 2 7	2 2 8	2 2 2 8 6	5 7 7 8 9 9	7 7 8 8 11 10 11 11	5 7 7 8 8 9 9 10 11 12	5 7 7 8 8 9 9 10 11 11 12	5 7 7 8 8 9 9 9 11 1 1 1 1 1 1 1 1 1 1 1 1 1

			1					
2	Connector Name JOINT CONNECTOR-M08	TE		3 2 1 🔲		Signal Name	1	ı
. M157	me JOII	lor WH		4		Color of Wire	Ь	۵
Connector No.	Connector Na	Connector Color WHITE		僵	H.S.	Terminal No. Wire	3	4
	22							

Q	Connector Name JOINT CONNECTOR-MO	TE	0 4 3 2 1 0	Signal Name	ı	
QC I M	ne JOII	or WHITE	4	Color of Wire	٦	-
Connector No.	Connector Nar	Connector Color	赋利 H.S.	Terminal No.	ဇ	,

2	WIRE TO WIRE	TE	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Signal Name	-	1
. M112	me WIR	lor WHI	1 2 3 4 15 16	Color of Wire	SB	В
Connector No.	Connector Name	Connector Color WHITE	赋 H.S.	Ferminal No.	7	18

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			Α
ше	NOT- (S)	ame	В
Signal Name	E224 FRONT COMBINATION LAMP BH (WITHOUT FRONT FOG LAMPS) GRAY	Signal Name	С
Color of Wire Paragraph of Para	I <del></del>	Oolor of Wire B B	D
3G 3G 4G 5G 5G	Connector No. Connector Name Connector Color H.S.	Terminal No. 5	Е
			F
E30   WIRE TO WIRE   WHITE   106   46   36   26   16   16   16   16   16   16   1	Connector No. E217 Connector Name FRONT COMBINATION LAMP LH Connector Color GRAY  H.S.	Signal Name	G H
E30   NHITE   SG   106   SG   SG   SG   SG   SG   SG   SG   S	ame FRON' LAMP  Jor GRAY	Color of Wire W	
Connector No. Connector Color Al.S.  Al.S.  Bit	Connector No. Connector Name Connector Color H.S.	Terminal No. 5	J
			K
WIRE TO WIRE  WHITE  WHITE  Or of Signal Name  Signal Name	E E E E E E E E E E E E E E E E E E E	Signal Na	EXL
	0. E202 ame WIRE T blor WHITE	Color of Wire W	N
Connector No. Connector Name Connector Color H.S.  Terminal No.  6 6 7 7	Connector No. E202 Connector Name WIRE TO WIRE Connector Color WHITE	Terminal No. 6 7	0
	l	ABLIA5166GB	Р

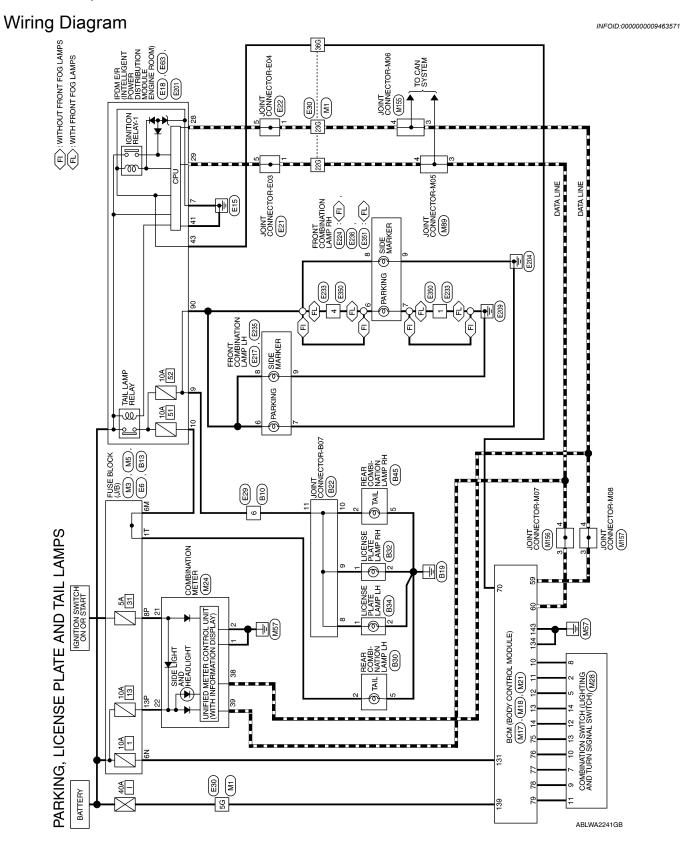
Revision: November 2013 **EXL-65** 2014 Altima NAM

Connector No. E351  FRONT COMBINATION Connector Name LAMP RH (WITH FRONT FOG LAMPS) Connector Color (GRAY		Terminal No. Wire Signal Name		Connector No. B30	Connector Name REAR COMBINATION LAMP	Connector Color WHITE	2 m 1 6 5 4 3 H.S.	Terminal No. Color of Wire Signal Name	3 У –	5 GR –			
) WIRE	(a)	Signal Name	ı	Omol Nome	ס מוועם ואפווס	1 1							
Connector No. E350 Connector Name WIRE TO WIRE Connector Color BLACK	(A)	Terminal No. Color of Wire		Color of Color of		/2.0 BH 73.0 Y							
Conr	H.S.	Term		F									
33 RE TO WIRE VCK		Signal Name	1		RE TO WIRE	AY	54 44 33 24 14 100 99 84 77 64	21.J 200   19.J   18.J   17.J   16.J   15.J   14.J   13.J   12.J   11.J   30.J   28.J   28.J   27.J   28.J   25.J   24.J   23.J   22.J		41.0 400 380 380 37.0 380 380 380 380 380 380 380 380 380 38	61.1 60.1 59.1 58.1 57.1 56.1 55.1 54.1 53.1 52.0 51.1 70.1 69.1 68.1 67.1 66.1 65.1 64.1 63.1 62.1	81.] 80.] 78.] 77.] 78.] 75.] 77.] 77.] 77.] 77.] 77.] 77.] 90.] 89.] 88.] 88.] 88.] 88.] 88.] 88.] 88	95J 94J 93J 92J 91J 100/ 99J 98J 97J 96J
Connector No. E233  Connector Name WIRE TO WIRE  Connector Color BLACK	H.S.	Terminal No.   Color of   Wire	- ·	Connector No. B1	-	Connector Color GRAY	H.S.	21, 20, 1		500 4	613 603 5		
818181													

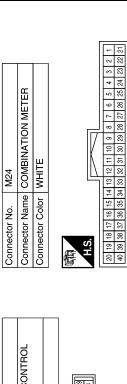
Connector Name DOOR MIRROR LH Connector Color WHITE	H.S. (4 ) 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Terminal No. Color of Signal Name 5 B - 6 LG -	Connector No. D114 Connector Name WIRE TO WIRE Connector Color WHITE	H.S. [12   11   10   9   8   7   6   5   4   3   2   1	Terminal No. Color of Signal Name 7 LG –	
Connector No. D2 Connector Name WIRE TO WIRE Connector Color WHITE	12 11 10 9 8 7 6 5 4 3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Terminal No. Color of Signal Name 7 LG – 18 B –	Connector No. D107 Connector Name DOOR MIRROR RH Connector Color WHITE	HS. 8 7 6 5	Terminal No. Color of Signal Name  5 B - 6 LG -	
Connector No. B45 Connector Name REAR COMBINATION LAMP RH Connector Color WHITE	(In) 2	Terminal No. Color of Signal Name 3 BR - 5 B -	Connector No. D101 Connector Name WIRE TO WIRE Connector Color WHITE	(新) (3 (三) (2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Terminal No. Color of Wire Wire A B B - A B B - A B B - A B B - A B B - A B B - A B B - A B B B B	E

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# PARKING, LICENSE PLATE AND TAIL LAMPS



Color of Signal Name	A B C C
<u> </u>	E F
CONTROL S	G
CM (BODYLE) INDERIN	Н
	I
Connecto Connecto List H.S.  A 38 88 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	J
	K
	EX
OCK (J/B)	
MS FUSE B WHITE INPROPERSION OF THE PROPERSION O	N
I No. Color Name I No. Color No. Col	Ν
Connect Connect Connect Terminal 8P 8P 13P	
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	Connector No.         M5           Connector No.         M7           Connector Name         FUSE BLOCK (J/B)           Connector Name         BCM (BODY CONTROL)           Connector Color         GREEN           MODULE)         W           Tonnector Color         GREEN           MODULE)         W           Tonnector Color         GREEN           MADULE)         W           Tonnector Color         GREEN           HS         Table           BR         Table           BR         Table           Table         Table



						_
Signal Name	GND1	GND2	NSI	BAT	CAN-L	CAN-H
Color of Wire	В	В	BR	ŋ	Ь	Г
Terminal No.	1	2	21	22	38	39

4 3 2 1	
WHITE	Connector Color
Connector Name   JOINT CONNECTOR-N	Connector Name
M89	Connector No.

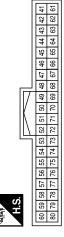
6	JOINT CONNECTOR-M05	ТЕ	2 1 0	Signal Name	ı	1
		lor WHITE	1 4 3 2 1	Color of Wire	_	_
COLLINGTON INC.	Connector Name	Connector Color	明.S.	Terminal No.	3	_

M21	Connector Name BCM (BODY CONTROL MODULE)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	



Terminal No.	Color of Wire	Signal Name
131	Μ	BAT BCM FUSE
134	В	GND2
139	Μ	BAT POWER F/L
143	В	GND1

Terminal No.	Color of Wire	Signal Name
7	н	ı
8	Μ	I
6	۵	1
10	Μ	1
11	Э	ı
12	۵	1
13	BG	1
14	Э	ı



Signal Name	CAN-L	CAN-H	IGN USM OUT 1	COMBI SW OUT 5	COMBI SW OUT 4	COMBI SW OUT 3	COMBI SW OUT 2	COMBI SW OUT 1
Color of Wire	Ь	_	g	BG	8	Œ	Ь	g
Terminal No.	29	09	02	75	9/	22	78	62

Connector No.	). IMZ0	0
Connector Name		COMBINATION SWITCH
Connector Color		WHITE
H.S.	7 1 1 8 6 8	10 11 12 13 14
Terminal No.	Color of Wire	Signal Name
2	BB	1
5	Μ	1

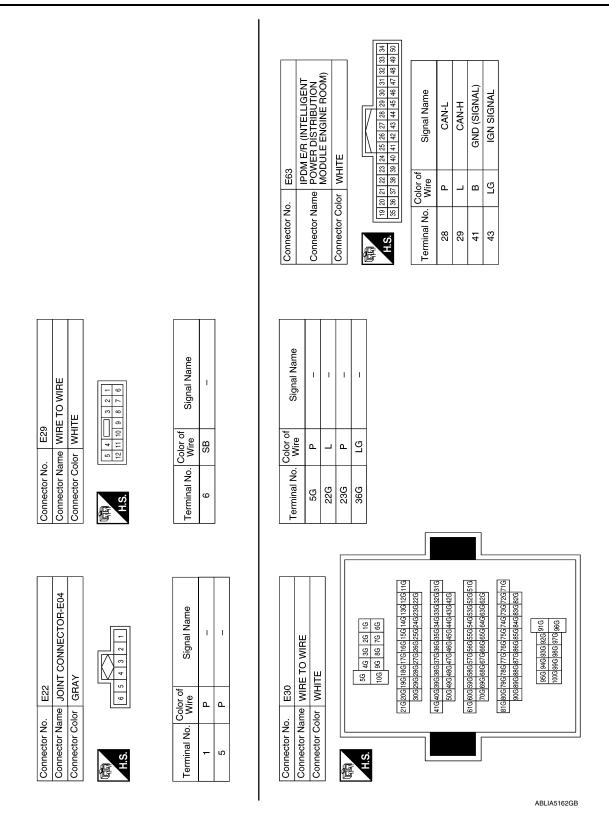
ABLIA5160GB

# PARKING, LICENSE PLATE AND TAIL LAMPS

### < WIRING DIAGRAM >

Connector No. M155 Connector No. M155 Connector Name JOINT CONNECTOR-MOT Connector Name JOINT CONNECTOR-MOT Connector Name JOINT CONNECTOR-MOT Terminal No. Wire Connector Name FILEBELOCK (JB) Connector Color WHITE Signal Name FILEBELOCK (JB) Connector Color White Connector Color	or No.   M157  or Name   JOINT CONNECTOR-M08  or Color   WHITE	No. Wire Signal Name P – – P – P – – P – – – – – – – – – –	or No. E21  or Name JOINT CONNECTOR-E03  or Color GRAY	No. Wire Signal Name L	A B C
Connector No.   M155   Connector No.   M156   Connector No.   M156   Connector No.   M156   Connector No.   M156   Connector Name   JOINT CONNECTOR-MOT   Connector Name   JOINT CONNECTOR-MOT   Connector Name   L.     _   _   _   _   _   _   _	Connector No. Connector Name Connector Color	Terminal No.	Connector No. Connector Name Connector Color	Terminal No.	Е
Connector No. M155 Connector No. M155 Connector No. M155 Connector No. C					F
Connector No. M155 Connector No. M155 Connector No. M155 Connector No. C	S T CONNECTOR-M07  F	Signal Name	IE/R (INTELLIGENT FER DISTRIBUTION ULE ENGINE ROOM) IE	Signal Name GND (POWER) TAIL RH TAIL LH	G
Connector No. M155 Connector Name Joint Connector Adme Joint Connector Name Joint Connector Color WHITE    Connector Name FUSE BLOCK (J/B)   Connector Color WHITE					
Connector No. M155 Connector Name Joint Connector Name Connector Color WHITE  Signal Name  3 P P	Connector N. Connector O. Connector O. H.S.	Terminal No.	Connector N. Connector O.	Terminal No.	
Connector No. M155 Connector Name JOINT CONNECTOR Connector No. E6 Connector Name FUSE BLOCK (J/B) Connector Name FUSE BLOCK (J/B) Connector Name FUSE BLOCK (J/B) Connector No. E6 Connector Name FUSE BLOCK (J/B) Connector No. E6 Connector No. E7 Connector No. E6 Connector No. E7 Connector No. E					K
ABLIA5161GB	F CONNECTOR-M06	Signal Name	E E S S S S S S S S S S S S S S S S S S	Signal Name	EXI
ABLIA5161GB	me JOINT lor WHIT	Color of Wire	or WHIT	Color of Wire	N
	Connector No. Connector Col	Terminal No. 3	Connector No. Connector Col	GM GM	
				ABLIA5161GB	Р

Revision: November 2013 EXL-71 2014 Altima NAM



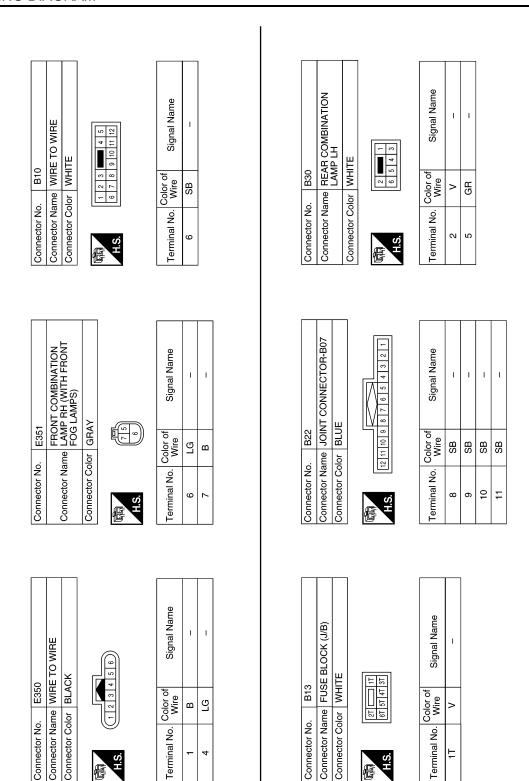
## PARKING, LICENSE PLATE AND TAIL LAMPS

### < WIRING DIAGRAM >

	А
Signal Name  Signal Name  Signal Name	В
4   1   1   1   1   1   1   1   1   1	С
No. E224 Name LAMP LAMP LAMP LAMP LAMP LAMP LAMP LAMP	D
Connector No. Connector Color Terminal No. Color Connector No. Connector No. Connector No. Connector No. B LAS. H.S. H.S.	Е
	F
Signal Name  Signal Name  Signal Name	G
	Н
No. E235 No. Color of BB BB Color of Co	I
Connector No.  Connector Name Connector Color  Framinal No.  Connector Name Connector Name Connector No.  Connector Name B L B B L B B L B B B L	J
	К
POWER DISTRIBUTION MODULE ENGINE ROOM) WHITE  In of Signal Name  Signal Name  CLEARANCE  BLACK  Signal Name	EXL
	M
Connector No.  Connector Name  Connector No.  Connector No.  Connector No.  Connector No.  Connector No.  Connector No.  1 1 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N
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Revision: November 2013 EXL-73 2014 Altima NAM

### PARKING, LICENSE PLATE AND TAIL LAMPS



ABLIA5163GB

## PARKING, LICENSE PLATE AND TAIL LAMPS

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### < WIRING DIAGRAM >

		7			
	Connector Name REAR COMBINATION LAMP RH	<u> </u>	Signal Name	ı	1
. B45	me REAR C		Color of Wire	SB	В
Connector No.	Connector Name	H.S.	Terminal No.	2	5
	Connector Name   LICENSE PLATE LAMP LH Connector Color   BROWN		Signal Name	ı	1
. B34	me LICENSE lor BROWN	2	Color of Wire	SB	GR
Connector No.	Connector Name Connector Color	H.S.	Terminal No.	-	2
	Name   LICENSE PLATE LAMP RH Color   BROWN		Signal Name	ı	I
No. B32	Name LICENSE Color BROWN	2 1	do. Color of Wire	SB	GR

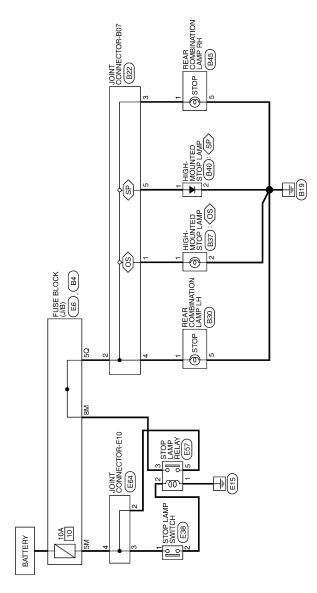
Revision: November 2013 EXL-75 2014 Altima NAM

# STOP LAMP

# Wiring Diagram

INFOID:0000000009463572





STOP LAMP

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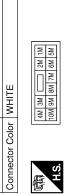
Connector Name STOP LAMP RELAY
Connector Color BLUE

E57

Connector No.

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Connector No.	E6	Connector No.	E38
Connector Name	FUSE BLOCK (J/B)	Connector Name	connector Name STOP LAMP SWITCH
Connector Color	WHITE	Connector Color	WHITE



3 4

Signal Name	ı	_	
Color of Wire	ŋ	M	
Terminal No.	5M	8M	

Signal Name	ı	I	ı	I
Color of Wire	В	Н	8	9
erminal No. Wire	-	2	ဗ	5

Signal Name	I	I	
Color of Wire	ŋ	н	
al No.			

Sig			
Color of Wire	ŋ	н	
Terminal No.	-	2	

Color of Wire	9	Я	
Terminal No.	-	2	

nector No. nector Colo	B22	Connector Name JOINT CONNECTOR-B07	r BLUE	12 11 10 9 8 7 6 5 4 3 2 1
	Connector No. B22	nector Name JOIN	Connector Color BLUE	.S.

Connector Name JOINT	tme JOII	Connector Name JOINT CONNECTOR-B0 Connector Color BLUE
 H.S.	12 11 10 9 8 7	7 0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Terminal No. Wire	Color of Wire	Signal Name

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	FUSE BLOCK (J/B)	丑	80 70 60 50 40	Signal Name	1
B4		lor WH	<u> </u>	Color of Wire	٦
Connector No.	Connector Name	Connector Color WHITE	H.S.	Terminal No. Wire	50

USE BL	WHITE	30 00	of Of	
ame F			Color of Wire	-
Connector Name FUSE BL	Connector Color	所 H.S.	Terminal No.	50

Connector No.	o. E64	
Connector Name	ame JOII	JOINT CONNECTOR-E10
Connector Color WHITE	olor WH	TE
H.S.	4	4 3 2 1
Terminal No.	Color of Wire	Signal Name
2	g	=
3	В	-
4	9	ı

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**EXL-77** Revision: November 2013 2014 Altima NAM Α

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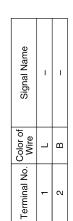
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Connector No.	B40
Connector Name	HIGH-MOUNTED STOP LAMP (WITH REAR SPOILER)
Connector Color BROWN	BROWN





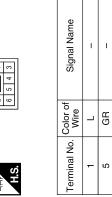
Signal Name	-	ı
No. Color of Wire	٦	В
Š.		





Color of Wire	٦	В	
Terminal No.	1	2	

0£8	Connector Name REAR COMBINATION LAMP LH	WHITE	
Connector No.	Connector Name	Connector Color WHITE	





Connector Name REAR COMBINATION LAMP RH

B45

Connector No.

Connector Color WHITE



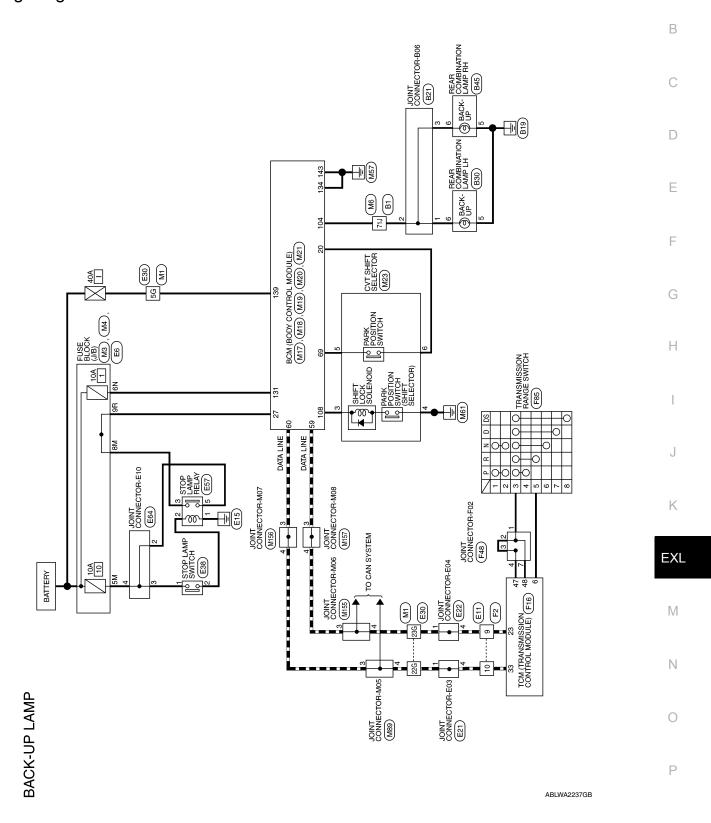
Signal Name	1	I
Color of Wire	_	В
Terminal No.	-	5

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## **BACK-UP LAMP**

Wiring Diagram

NFOID:000000009463573



Connector No. M3	Connector Name FUSE BLOCK (J/B) Connector Color WHITE			Terminal No. Wire Signal Name						
Signal Name		ı	1							
Color of	N N	_	۵							
Terminal No.	56	22G	23G							
TORS	Connector Name WIRE TO WIRE			1.6   26   36   46   56   16   16   16   16   16   16   1	Connector No MA	_ e	78   68   58   48   (	Terminal No. Color of Signal Name	U U U U U U U U U U U U U U U U U U U	7GB

Connector Name   BCM (BODY CONTROL   MODULE)   Connector Color   GREEN	Connector No. M20 Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK  Telfinst Hinstratini totos (color of Residual r	A B C D
Terminal No. Wire Signal Name 71J BR –	Connector No. M19 Connector Name BCM (BODY CONTROL MODULE) Connector Color GRAY  Terminal No. Wire Signal Name Terminal No. Wire Signal Name  104 BR REVERSE LAMP OUT	G H I
Connector No.   M6   Connector Name   WIRE TO WIRE	Connector No.   M18   Connector No.   M18   Connector Name   BCM (BODY CONTROL   MODULE)   Connector Color   BLACK     Connector Color   BLACK     Connector Color   BLACK     Connector Color   BLACK     Connector Color   Connector Color   Connector Color   Connector Color   Connector   Connector Color   Connector	K EXL M N O

M89 JOINT CONNECTOR-M05 WHITE	3 2 1 1	Signal Name	ı	I				
M89 ne JOIN	4	Color of Wire	_					
Connector No. M89 Connector Name JOINT C	H.S.	Terminal No.	ဇာ	4				
Connector No. M23 Connector Name CVT SHIFT SELECTOR Connector Color WHITE	9 10 11 12	Signal Name	1	I	ı	-		
M23 or WHIT	- 1 2 8	Color of Wire	BG	В	_	M		
Connector No. M23 Connector Name CVT SH Connector Color WHITE	呵引 H.S.	Terminal No.	ဇ	4	5	9		
Connector No. M21 Connector Name BCM (BODY CONTROL MODULE) Connector Color WHITE	137 056 136 139 139 139  143   142   141   140   139   138	Signal Name	BAT BCM FUSE	GND2	BAT POWER F/L	GND1		
me BCM MOD lor WHIT	137 136 135 1 143 142	Color of Wire	>	В	>	В		
Connector Name BCM (B MODUL Connector Color WHITE	H.S.	Terminal No. Wire	131	134	139	143		

IOTOTOTI MENTE TO THE TOTAL THE TOTA	Connector No.   M157	Connector Name JOINT CONNECTOR-M08	Connector Color WHITE	順列 H.S.	Terminal No. Wire Signal Name	3 Р	4 Р
	Connector No. M156	Connector Name JOINT CONNECTOR-M07	Connector Color WHITE		Terminal No. Wire	_	

55	JOINT CONNECTOR-M06	IITE	0 4 3 2 1 0	Signal Name	1	
. M155		lor WHITE		Color of Wire	۵	٥
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	က	,

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CTOR-E03		Signal Name - -	Signal Name	В
Connector No. E21 Connector Name JOINT CONNECTOR-E03 Connector Color GRAY	4 6 7			С
No. E21 Name JOINT Color GRAY	<u> </u>	Color of Wire	Color of P P P P P P P P P P P P P P P P P P	D
Connector No. Connector Name	H.S.	Terminal No.	22G 23G 23G	Е
				F
	8 91	Name	16 66 66 66 66 66 66 66 66 66	G
E TO WIRE	2 3 4 5 6 7 7 11 12 13 14 15 14 15	Signal Name	### F30  WHITE  ### 106   166	Н
Connector No. E11 Connector Name WIRE TO WIRE Connector Color WHITE	9 10 2 11 11 11 11 11 11 11 11 11 11 11 11 1	Color of Wire		I
Connector No. Connector Name Connector Color	H.S.	Terminal No. 9	Connector No. Connector Colc	J
				K
Connector No.   E6 Connector Name   FUSE BLOCK (J/B) Connector Color   WHITE	4M 3M 2M 2M 1M 10M 9M 8M 7M 6M 5M	Signal Name -	Connector No. E22 Connector Name JOINT CONNECTOR-E04 Connector Color GRAY  H.S. E 5 4 3 2 1  Terminal No. Wire Signal Name  1 P	EXL
Vo. E6 Name FUSE B	4M 3A 10M 9N	Color of Wire	No. E22 Name JOINT Color of Mire P P P	N
Connector No. Connector Color	山) H.S.	Terminal No. 5M 8M	Connector No. Connector Color Terminal No. W  1 1 4 8	0
	<del>_</del>		ABLIA3720GB	Р

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Connector No. E38 Connector Name STOP LAMP SWITCH Connector Color WHITE	Connector No. E57 Connector Name STOP LAMP RELAY Connector Color BLUE	Connector No. E64 Connector Name JOINT CONNECTOR-E10 Connector Color WHITE
(3) 4 H.S.	H.S.	H.S.
Terminal No. Wire Signal Name  1 G	Terminal No. Wire Signal Name  1 B 2 R 3 W 5 G	Terminal No.         Color of Wire         Signal Name           2         G         -           3         G         -           4         G         -
Connector No. F2  Connector Name WIRE TO WIRE  Connector Color WHITE  (A) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	Connector No. F16  Connector Name TCM (TRANSMISSION CONTROL MODULE)  Connector Color BLACK  In 2 22 23 24 25 27 28 29 30 45 46 In 12 13 14 15 16 17 18 19 20 43 44 In 2 3 4 5 6 7 8 9 10 41 42	Connector No. F48 Connector Name JOINT CONNECTOR-F02 Connector Color BLACK  State
Terminal No. Wire Signal Name	Terminal No. Wire Signal Name	Terminal No. Wire Signal Name

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Signal Name R RANGE SW CAN-L

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Signal Name	1							B45 REAR COMBINATION		5 6 7 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Signal Name	1	1		
ŏ-	SB									0 0	Color of Wire	В	88		
Terminal No.	71)							Connector No. Connector Name	Connector Color	赋 H.S.	Terminal No.	2	9		
TO WIRE	<b>&gt;</b>	54 41 33 24 14 100 94 84 74 64	21.J 20J 19J 18J 17J 16J 15J 14J 13J 12J 11J 30J 29J 29J 28J 25J 24J 23J 22J	41.1 40.1 39.1 38.1 37.1 36.1 35.1 34.1 33.1 32.1 31.1 50.1 49.1 48.1 47.1 46.1 45.1 44.1 43.1 42.1	61.) 60.) 58.) 58.) 57.) 56.) 55.) 54.) 53.) 52.) 51.) 70.) 69.) 68.) 67.) 66.) 65.) 64.) 63.) 62.)	81.1 80.1 78.1 78.1 77.1 78.1 75.1 74.1 73.1 72.1 77.1 90.1 89.1 88.1 87.1 86.1 88.1 84.1 83.1 82.1	95.] 94.] 93.] 92.] 91.] 100.] 99.] 98.] 96.]	B30 REAR COMBINATION	H) c	27 @ 20 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0	Signal Name	1	1		
ne WIRE	or GRAY		21,20,19	41J 40J 39 50J 49	61,1 60,1 59	81,1 80,1 79	(w) F		-	6 6	Color of Wire	GR	SB B		
Connector No. B1 Connector Name WIRE TO WIRE	Connector Color	H.S.						Connector No.	Connector Color	(A)	Terminal No.	2	9		
NSMISSION RANGE		\$ 3 <u>7</u> <u>7</u>		Signal Name	1			Connector No. B21 Connector Name JOINT CONNECTOR-B06	2		Signal Name	1	1	1	E
		8 2	30,000	Wire ~				me JOIN	lor WHITE		Color of Wire	SB	8 8	200	
Connector No.	Connector Color	师 H.S.		Terminal No.	ro			Connector No. Connector Nan	Connector Color	H.S.	Terminal No.	-	2 0	n	
			_									Al	BLIA51	153GB	

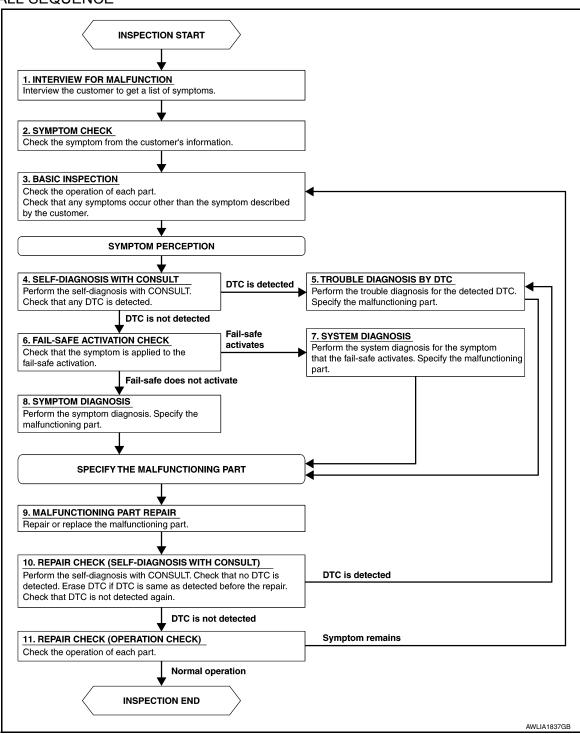
Revision: November 2013 **EXL-85** 2014 Altima NAM

## **BASIC INSPECTION**

### DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

### **OVERALL SEQUENCE**



#### **DETAILED FLOW**

### ${f 1}$ . INTERVIEW FOR MALFUNCTION

Find out what the customer's concerns are.

## **DIAGNOSIS AND REPAIR WORKFLOW**

< 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 custo nterview.	mer
>> GO TO 4	
4.self-diagnosis with consult	
Perform the self diagnosis with CONSULT. Check that any DTC is detected.	
s any DTC detected?	
YES >> GO TO 5 NO >> GO TO 6	
TROUBLE DIAGNOSIS BY DTC	
Perform the trouble diagnosis for the detected DTC. Specify the malfunctioning part.	
renorm the trouble diagnosis for the detected DTC. Specify the manufictioning part.	
>> GO TO 9	
FAIL-SAFE ACTIVATION CHECK	
Petermine if the customer's concern is related to fail-safe activation.	
Ooes the fail-safe activate?	
YES >> GO TO 7 NO >> GO TO 8	
7. SYSTEM DIAGNOSIS	
Perform the system diagnosis for the system in which the fail-safe activates. Specify the malfunctioning pa	ort.
renorm the system diagnosis for the system in which the fair-sale activates. Specify the manufictioning pa	גווג.
>> GO TO 9	
3.SYMPTOM DIAGNOSIS	
Perform the symptom diagnosis. Specify the malfunctioning part.	
>> GO TO 9	
MALFUNCTION PART REPAIR	
Repair or replace the malfunctioning part.	
>> GO TO 10	
0.REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)	
Perform the self diagnosis with CONSULT. Verify that no DTCs are detected. Erase all DTCs detected price	or to
he repair. Verify that DTC is not detected again.	טו נט
s any DTC detected?	
YES >> GO TO 5	
NO >> GO TO 11  11 DEDAID CHECK (ODEDATION CHECK)	
11.REPAIR CHECK (OPERATION CHECK)	
Check the operation of each part.	
Does it operate normally?	

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### **DIAGNOSIS AND REPAIR WORKFLOW**

### < BASIC INSPECTION >

>> Inspection End. >> GO TO 3 YES

NO

### POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT **BCM (BODY CONTROL MODULE)** 

BCM (BODY CONTROL MODULE): Diagnosis Procedure

INFOID:0000000009956493

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Regarding Wiring Diagram information, refer to BCS-55, "Wiring Diagram".

### 1. CHECK FUSE AND FUSIBLE LINK

Check that the following fuse and fusible link are not blown.

Terminal No.	Signal name	Fuse and fusible link No.
139	Fusible link battery power	I (40A)
131	BCM battery fuse	1 (10A)

#### Is the fuse or fusible link blown?

>> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

### 2. CHECK POWER SUPPLY CIRCUIT

- Disconnect BCM connector M21.
- Check voltage between BCM connector M21 terminals 131, 139 and ground.

В	CM	Ground	Voltage	
Connector	Terminal	Ground	(Approx.)	
M21	131		Potton, voltago	
IVIZ I	139	<del>_</del>	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

### 3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M21 terminals 134, 143 and ground.

В	CM	Ground	Continuity	
Connector	Terminal	Giodila	Continuity	
M21	134		Yes	
IVIZ I	143	_	res	

#### Is the inspection result normal?

YES >> Inspection End.

>> Repair or replace harness or connectors.

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

#### IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM): Diagnosis Procedure INFOID:0000000009956494

Regarding Wiring Diagram information, refer to PCS-21, "Wiring Diagram".

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**EXL-89** Revision: November 2013 2014 Altima NAM

### POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

## 1. CHECK FUSIBLE LINKS

Check that the following fusible links are not blown.

Terminal No.	Signal name	Fusible link No.
1	Fusible link main	E (80A)
2	Fusible link IPDM E/R	A (250A), C (80A)
3	Fusible link ignition switch	A (250A), B (100A), M (40A)

### Is the fusible link blown?

YES >> Replace the blown fusible link after repairing the affected circuit.

NO >> GO TO 2

# 2. CHECK POWER SUPPLY CIRCUIT

- 1. Disconnect IPDM E/R connectors E16 and E17.
- 2. Check voltage between IPDM E/R connectors and ground.

IPDI	M E/R	Ground	Voltage (Approx.)		
Connector	Terminal	Ground	(Approx.)		
E16	1		Battery voltage		
EIO	2	_			
E17	3				

### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

## 3. CHECK GROUND CIRCUIT

- 1. Disconnect IPDM E/R connectors E18 and E63.
- Check continuity between IPDM E/R connectors and ground.

IPDM E	E/R	Ground	Continuity	
Connector	Terminal	Ground	Continuity	
E18	7		Yes	
E63	41	_	165	

### Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

#### < DTC/CIRCUIT DIAGNOSIS >

## HEADLAMP (HI) CIRCUIT

Description INFOID:0000000009463577

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 34 and 35, located in the IPDM E/R. Power then flows to the front combination lamps to the headlamp high beam.

### Component Function Check

INFOID:0000000009463578

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## 1. CHECK HEADLAMP (HI) OPERATION

### **MWITHOUT CONSULT**

- Start IPDM E/R auto active test. Refer to PCS-8, "Diagnosis Description".
- 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

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

ΗΙ : Headlamp switches to the high beam.

**OFF** : Headlamp OFF

#### Is the inspection result normal?

YES >> Headlamp (HI) circuit is normal.

NO >> Refer to EXL-91, "Diagnosis Procedure".

### Diagnosis Procedure

INFOID:0000000009463579

Regarding Wiring Diagram information, refer to EXL-27, "Wiring Diagram - Halogen" or EXL-33, "Wiring Diagram - Xenon".

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## 1.CHECK HEADLAMP (HI) FUSES

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

IV	/I

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	35	10A
Headlamp HI (RH)	IPDM E/R	34	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.
- Disconnect the front combination lamp harness connector E213 or E222 in question.
- 3. 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.

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#### < DTC/CIRCUIT DIAGNOSIS >

(+)			( )	Voltago	
	Connector	Terminal (-)		Voltage	
RH	E222	2	Ground	Rattery voltage	
LH	E213	3	Giouna	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 E200.
- 3. Check continuity between the IPDM E/R harness connector E200 and the front combination lamp harness connector.

	IPDM E/R		Front combination lamp		Continuity
Coni	nector	Terminal	Connector	Terminal	Continuity
RH	E200	80	E222	2	Yes
LH	E200	81	E213	3	165

#### Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".

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 4 and ground.

Connector		Terminal	_	Continuity
RH	E222	4	Ground	Yes
LH	E213	7	Ground	163

### Is the inspection result normal?

YES >> Inspect the headlamp bulb.

NO >> Repair or replace the harness or connector.

#### < DTC/CIRCUIT DIAGNOSIS >

## HEADLAMP (LO) CIRCUIT **HEADLAMP (HALOGEN)**

### HEADLAMP (HALOGEN): Description

INFOID:0000000009463580

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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 36 and 37, located in the IPDM E/R. Power then flows to the front combination lamps to the headlamp low beam.

### HEADLAMP (HALOGEN): Component Function Check

INFOID:0000000009463581

## 1. CHECK HEADLAMP (LO) OPERATION

### 

Start IPDM E/R auto active test. Refer to PCS-8, "Diagnosis Description".

Check that the headlamp is turned ON.

#### NOTE:

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

#### CONSULT

LO

**OFF** 

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

: Headlamp OFF

2. While operating the test items, check that the headlamp is turned ON.

: Headlamp ON

## Is the inspection result normal?

>> Headlamp (LO) is normal. YES

NO >> Refer to EXL-93, "HEADLAMP (HALOGEN): Diagnosis Procedure".

### HEADLAMP (HALOGEN): Diagnosis Procedure

INFOID:0000000009463582

Regarding Wiring Diagram information, refer to EXL-27, "Wiring Diagram - Halogen".

## 1. CHECK HEADLAMP (LO) FUSES

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

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Unit	Location	Fuse No.	Capacity
Headlamp LO (RH)	IPDM E/R	36	15A
Headlamp LO (LH)	IPDM E/R	37	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 E212 or E223 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 E212 or E223 terminal 1 and ground.

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#### < DTC/CIRCUIT DIAGNOSIS >

	(+)	(-)		Voltage	
C	onnector	Terminal	(-)	voltage	
RH	E223	1	Ground	Pattory voltage	
LH	E212	<b>'</b>	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

# $3. {\sf CHECK}$ HEADLAMP (LO) CIRCUIT FOR OPEN

- 1. Turn the ignition switch OFF.
- 2. Disconnect IPDM E/R connector E200.
- Check continuity between the IPDM E/R harness connector E200 and the front combination lamp harness connector E223 or E212.

	IPDM E/R		Front combination lamp		Continuity
Conr	nector	Terminal	Connector	Terminal	Continuity
RH	E200	75	E223	1	Yes
LH	E200	76	E212	- 1	res

#### Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".

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 E223 or E212 terminal 2 and ground.

Conr	nector	Terminal	_	Continuity
RH	E223	2	Ground	Yes
LH	E212	2	Ground	163

#### Is the inspection result normal?

YES >> Inspect the headlamp bulb.

NO >> Repair or replace the harness or connector.

### HEADLAMP (XENON)

## **HEADLAMP (XENON): Description**

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 36 and 37, located in the IPDM E/R. Power then flows to the front combination lamps to the headlamp low beam.

## HEADLAMP (XENON): Component Function Check

INFOID:0000000009463584

INFOID:0000000009463583

## 1. CHECK HEADLAMP (LO) OPERATION

#### **NWITHOUT CONSULT**

- Start IPDM E/R auto active test. Refer to PCS-8, "Diagnosis Description".
- 2. 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.

### < DTC/CIRCUIT DIAGNOSIS >

LO : Headlamp ON **OFF** : Headlamp OFF

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### Is the inspection result normal?

>> Headlamp (LO) is normal.

В

NO >> Refer to EXL-95, "HEADLAMP (XENON): Diagnosis Procedure".

HEADLAMP (XENON): Diagnosis Procedure

INFOID:0000000009463585

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

## 1.CHECK HEADLAMP (LO) FUSES

Turn the ignition switch OFF.

Check that the following fuses are not blown.

D

Unit	Location	Fuse No.	Capacity
Headlamp LO (RH)	IPDM E/R	36	15A
Headlamp LO (LH)	IPDM E/R	37	15A

#### Is the fuse blown?

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

NO >> GO TO 2. Н

## 2.CHECK HEADLAMP (LO) OUTPUT VOLTAGE

### (P)CONSULT

Turn the ignition switch OFF.

- Disconnect the front combination lamp harness connector E232 or E243 in question.
- Turn the ignition switch ON.

Select EXTERNAL LAMP of IPDM E/R active test item.

5. With EXTERNAL LAMP ON, check the voltage between the combination lamp connector E243 or E232 terminal 1 and ground.

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(+)		(-)	Voltage	
C	Connector	Terminal (-)		voltage
RH	E243	1	Ground	Pattony voltago
LH	E232	1	Ground	Battery voltage

## $\mathsf{EXL}$

#### Is the inspection result normal?

YES

NO

>> GO TO 4. >> GO TO 3.

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- Turn the ignition switch OFF.
- 2. Disconnect IPDM E/R connector E200.

3.CHECK HEADLAMP (LO) CIRCUIT FOR OPEN

3. Check continuity between the IPDM E/R harness connector E200 and the front combination lamp harness connector E243 or E232.

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	IPDM E/R		Front combina	Continuity	
Conr	nector	Terminal	Connector	Terminal	Continuity
RH	E200	75	E243	1	Yes
LH	L200	76	E232	<del>-</del> 1	res

### Is the inspection result normal?

>> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation". YES

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### < DTC/CIRCUIT DIAGNOSIS >

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 terminal and ground.

Coni	nector	Terminal	_	Continuity
RH	E243	2	Ground	Yes
LH	E232	2	Ground	163

### Is the inspection result normal?

YES >> Perform xenon headlamp diagnosis. Refer to EXL-97. "Diagnosis Procedure".

NO >> Repair or replace the harness or connector.

### **XENON HEADLAMP**

#### < DTC/CIRCUIT DIAGNOSIS >

# XENON HEADLAMP

Description INFOID:000000009463586

### **OPERATION**

Refer to EXL-9. "HEADLAMP SYSTEM: System Description".

#### PRECAUTIONS FOR TROUBLE DIAGNOSIS

- Installation or removal of the connector must be done with the lighting switch OFF.
- When the lamp is illuminated (when the lighting switch is ON), do not touch the harness, HID control unit, inside of the lamp, or the lamp metal parts.
- To check illumination, temporarily install lamp in the vehicle. Be sure to connect power at the vehicle-side connector.
- If the malfunction can be traced directly to the electrical system, first check for items such as blown fuses
  and fusible links, broken wires or loose connectors, pulled-out terminals, and improper connections.
- · Do not work with wet hands.
- Using a tester for HID control unit circuit trouble diagnosis is prohibited.
- Disassembling the HID control unit or harnesses (bulb socket harness, ballast harness) is prohibited.
- Immediately after illumination, the light intensity and color will fluctuate, this is normal.
- When the bulb has reached the end of its lifetime, the brightness may drop significantly, it may flash repeatedly, or the light may turn a reddish color.

### Diagnosis Procedure

## 1. CHECK XENON BULB

Install a known good bulb to the applicable headlamp. Check that the headlamp operates.

### Is the inspection result normal?

YES >> Replace the xenon bulb.

NO >> GO TO 2.

### 2. CHECK HID CONTROL UNIT

Install a known good HID control unit to the applicable headlamp. Check that the headlamp operates.

#### Is the inspection result normal?

YES >> Replace HID control unit.

NO >> Inspection End.

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### **DAYTIME LIGHT RELAY CIRCUIT**

#### < DTC/CIRCUIT DIAGNOSIS >

### DAYTIME LIGHT RELAY CIRCUIT

Description INFOID:0000000009463588

The BCM sends a daytime light request to the IPDM E/R via the CAN communication lines. The power flows through fuse 43 located in IPDM E/R 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:0000000009463589

Regarding Wiring Diagram information, refer to EXL-39. "Wiring Diagram".

# 1. CHECK DAYTIME LIGHT RELAY VOLTAGE SUPPLY

- 1. Turn the ignition switch OFF.
- Remove the daytime light relay.
- Check the voltage between the daytime light relay harness connector E228 and ground.

Daytime	light relay	( )	Voltage	
Connector	Terminal	(-)		
E228	2	Ground	Rattory voltage	
E220	5	Giouna	Battery voltage	

#### Is the inspection result normal?

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

## 2.CHECK DAYTIME LIGHT RELAY CIRCUIT

- 1. Turn the ignition switch OFF.
- Disconnect IPDM E/R harness connector E18.
- 3. Check continuity between the IPDM E/R harness connector E18 and the daytime light relay harness connector E228.

Daytime light relay		IPDM E	Continuity		
Connector	Terminal	Connector Terminal		Continuity	
E220	2	E18	14	Yes	
E228 5		□ □ □	14		

4. Check continuity between the IPDM E/R harness connector E18 and ground.

Connector	Terminal	_	Continuity
E18	14	Ground	No

#### Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".

NO >> Repair or replace the harness or connector.

# 3.check daytime light relay control circuit

- Turn the ignition switch OFF.
- 2. Check continuity between the IPDM E/R harness connector E201 and the daytime light relay harness connector E228.

Daytime light relay		IPDM E	Continuity	
Connector	Terminal	Connector Terminal		
E228	1	E201	85	Yes

### DAYTIME LIGHT RELAY CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

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

Connector	Terminal	_	Continuity
E228	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-99, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace relay.

## 5. CHECK DAYTIME LIGHT CIRCUIT (OPEN OR SHORT TO GROUND)

Turn the ignition switch OFF.

Check continuity between the daytime light relay harness connector E228 and the front fog lamp harness connector.

Daytime li	ight relay	Front fog lamp			Continuity	
Connector	Terminal		Connector	Terminal	Continuity	
E228	3	LH	E234	3	Yes	
LZZO	3	RH	E237	3	165	

Check continuity between the daytime light relay harness connector E228 and ground.

Daytime light relay		(-)	Continuity	
Connector	Terminal	(-)		
E228	3	Ground	No	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the harness or connector.

### $oldsymbol{6}$ .CHECK DAYTIME LIGHT GROUND CIRCUIT FOR OPEN

- Turn the ignition switch OFF.
- Disconnect front fog lamp connector E234 or E237 in question. 2.
- Check continuity between the front fog lamp connector E234 or E237 and ground.

Connector	Terminal	_	Continuity
LH E234	4	Ground	Yes
RH E237	7	Ground	165

#### Is the inspection result normal?

YES >> Inspect daytime light bulb.

NO >> Repair or replace the harness or connector.

### Component Inspection

### 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.

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INFOID:000000009463590

### **DAYTIME LIGHT RELAY CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

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

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace daytime light relay.

### FRONT FOG LAMP CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

### FRONT FOG LAMP CIRCUIT

Description INFOID:000000009463591

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

# ${f 1}$ .CHECK FRONT FOG LAMP OPERATION

### ®WITHOUT CONSULT

- Activate IPDM E/R auto active test. Refer to PCS-9, "CONSULT Function (IPDM E/R)".
- Check that the front fog lamp is turned ON.

### (P)WITH CONSULT

- 1. Select EXTERNAL LAMP of IPDM E/R active test item.
- 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.

>> Refer to EXL-101, "Diagnosis Procedure". NO

### Diagnosis Procedure

Regarding Wiring Diagram information, refer to EXL-54, "Wiring Diagram".

## 1. CHECK FRONT FOG LAMP FUSE

Turn the ignition switch OFF.

Check that the following fuse is not blown.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	42	15A

#### Is the fuse blown?

>> Replace the fuse after repairing the affected circuit.

NO >> GO TO 2.

### 2.CHECK FRONT FOG LAMP OUTPUT VOLTAGE

#### (P)CONSULT

- Turn the ignition switch OFF.
- Disconnect the front fog lamp harness connector E214 or E227 in guestion.
- Turn the ignition switch ON.
- Turn the front fog lamps ON.
- Check the voltage between the front fog lamp harness connector E214 or E227 terminal 1 and ground.

	(+)		( )	Voltago	
С	onnector	Terminal	(-)	Voltage	
LH	E214	1	Ground	Pattory voltage	
RH	E227	<b>1</b>	Giouria	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 4. EXL

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### FRONT FOG LAMP CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

NO >> GO TO 3.

# ${f 3}.$ CHECK FRONT FOG LAMP OPEN CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect IPDM E/R connector E200.
- 3. Check continuity between the IPDM E/R harness connector and the front fog lamp harness connector.

	IPDM E/R		Front fog lamp  Connector Terminal		Continuity
Conr	nector	Terminal			Continuity
RH	E200	78	E227	1	Yes
LH	L200	79	E214		

### Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".

NO >> Repair or replace the harness or connector.

## 4. CHECK FRONT FOG LAMP GROUND CIRCUIT

Check continuity between the front fog lamp harness connector terminal 2 and ground.

Connector		Terminal	_	Continuity
RH	E227	2	Ground	Yes
LH	E214	2	Ground	165

#### Is the inspection result normal?

YES >> Inspect the fog lamp bulb.

NO >> Repair or replace the harness or connector.

### PARKING LAMP CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

### PARKING LAMP CIRCUIT

Description INFOID:000000009463594

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 fuses 51 and 52, located in the IPDM E/R. Power then flows to the front and rear combination lamps, license plate lamps.

### Component Function Check

INFOID:0000000009463595

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### 1. CHECK PARKING LAMP OPERATION

### **NWITHOUT CONSULT**

- 1. Activate IPDM E/R auto active test. Refer to PCS-8, "Diagnosis Description".
- Check that the parking lamp is turned ON.

### (P)WITH CONSULT

- 1. Select EXTERNAL LAMP of IPDM E/R active test item.
- 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.

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

### Diagnosis Procedure

INFOID:0000000009463596

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

## 1. CHECK PARKING LAMP FUSES

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

Unit	Location	Fuse No.	Capacity
Parking lamps	IPDM E/R	51	10A
Parking lamps	IPDW E/R	52	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)

- Disconnect the front or rear combination lamp connector or license plate lamp connector in question.
- 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	
Connector		Terminal	(-)	(Approx.)	
LH	E217				
RH	E224 (without front fog lamps)	6	Ground	Battery voltage	
KII	E351 (with front fog lamps)				

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### **PARKING LAMP CIRCUIT**

#### < DTC/CIRCUIT DIAGNOSIS >

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

	(+)		(-)	Voltage	
	Connector	Terminal	(-)	(Approx.)	
LH	E235	0	Ground	Pottony voltage	
RH	E236	0	Ground	Battery voltage	

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

	(+)		(-)	Voltage (Approx.)	
	Connector	Terminal	(-)		
LH	B30	2	Ground	Rattony voltago	
RH	B45	2	Ground	Battery voltage	

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

	(+)		( )	Voltage	
	Connector	Terminal	(-)	(Approx.)	
LH	B34	1	Ground	Battery voltage	
RH	B32	<b>'</b>	Ground	Dattery Voltage	

#### Are the inspection results normal?

YES >> GO TO 4.

NO >> GO TO 3.

## 3.CHECK PARKING LAMP CIRCUIT (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 (parking) harness connector.

IPDM E/R		Front combination lam	Continuity		
Conne	ector	Terminal	Connector	Terminal	Continuity
LH			E217		
RH	E201 90	E224 (without front fog lamps)	6	Yes	
RH		E351 (with front fog lamps)			

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

	IPE	M E/R	Front combination lamp (side marker)  Connector Terminal		Continuity	
Cor	nnector	Terminal			Continuity	
LH	E201	90	E235	0	Yes	
RH	E201	90	E236	0	res	

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

IPDM E/R		Rear combination lamp		Continuity
Connector	Terminal	Connector	Terminal	Continuity

### **PARKING LAMP CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

LH	E18	10	B30	2	Voc
RH		9	B45	2	res

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	E18	0	B34	1	Yes	
RH	- □ □ □	y	B32	<b>, ,</b>	res	

### Are the inspection results normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".

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	E217				
RH	E224 (without front fog lamps)	7	Ground	Yes	
КП	E351 (with front fog lamps)				

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

	(+)	(-)	Continuity		
	Connector		(-)	Continuity	
LH	E235	0	Ground	Yes	
RH	E236	9	Ground	165	

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

(+)			(-)	Continuity	
	Connector		(-)	Continuity	
LH	B30	5	Ground	Voc	
RH	B45	5	Ground	Yes	

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

	(+)	(-)	Continuity		
Connector		Terminal	(-)	Continuity	
LH	B34	2	Ground	Yes	
RH	B32	2			

#### Are the inspection results normal?

YES >> Inspect the parking lamp bulb.

NO >> Repair or replace the harness or connector.

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### TURN SIGNAL LAMP CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

### TURN SIGNAL LAMP CIRCUIT

Description INFOID.000000009463597

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

INFOID:0000000009463598

### 1.CHECK TURN SIGNAL LAMP

### 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-106, "Diagnosis Procedure".

### Diagnosis Procedure

INFOID:0000000009463599

Regarding Wiring Diagram information, refer to EXL-60, "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.
- Turn the ignition switch ON.
- 4. Operate the turn signal switch.
- 5. While the turn signal is operating, check the voltage between the front combination lamp harness connector and ground.

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

### **TURN SIGNAL LAMP CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

RH	E224 (without front fog lamps)			
	E351 (with front fog lamps)			(V) 15
LH	E217	5	Ground	10 5 0 

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

	(+) Connector Terminal		(-)	Voltage (Approx.)	
			(–)	(Approx.)	
RH	B45				
LH	B30	3	Ground	(V) 15 10 5 0 1 s	

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

(+)			(-)	Voltage (Approx.)	
	Connector	Terminal	( )	(Approx.)	
RH	D107				
LH	D4	6	Ground	(V) 15 10 5 0 PKID0926E	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 3.

# 3.check turn signal lamp circuit for open

- Turn the ignition switch OFF.
- Disconnect BCM harness connector M19 or M20 in question.
- Check continuity between the BCM harness connector M20 and the front combination lamp harness connector.

BCM			Front combination I	Continuity	
Cor	Connector Terminal		Connector	Terminal	Continuity
LH		117	E217		
RH	M20	105	E224 (without front fog lamps)	5	Yes
KH		105	E351 (with front fog lamps)		

4. Check continuity between the BCM harness connector M19 and the rear combination lamp harness connector.

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### TURN SIGNAL LAMP CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

BCM			Rear comb	ination lamp	Continuity
Cor	Connector Terminal		Connector	Terminal	Continuity
LH	M19	103	B30	2	Yes
RH	IVITS	92	B45	3	165

5. Check continuity between the BCM harness connector M20 and the door mirror harness connector in question.

BCM			Door	mirror	Continuity	
Connector Term		Terminal	Connector	Terminal	Continuity	
LH	M20	117	D4	6	Yes	
RH	IVIZU	105	D107	0	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

1. Check continuity between the BCM harness connector M19 or M20 and ground.

BCM			Continuity	
Connector	Terminal	Ground	Continuity	
M19	92		No	
	103			
M20	105			
	117			

### Are the inspection results normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace the harness or connectors.

# 5. CHECK TURN SIGNAL LAMP GROUND CIRCUIT

1. 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
LH	E217			
RH	E224 (without front fog lamps)	7	Ground	Yes
	E351 (with front fog lamps)			

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

Rear combination lamp			( )	Continuity
Connector		Terminal	(-)	Continuity
LH	B30	E	Ground	Yes
RH	B45	5	Ground	ies

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

Door mirror		(_)	Continuity
Connector	Terminal	(-)	Continuity

# **TURN SIGNAL LAMP CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

LH	D4	5	Cround	Voc
RH	D107	5	Ground	Yes

Are the inspection results normal?

YES

>> Replace the malfunctioning lamp. >> Repair or replace the harness or connectors. NO

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### **OPTICAL SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

# **OPTICAL SENSOR**

Description INFOID:000000009463600

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

# Component Function Check

INFOID:0000000009463601

# 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

<sup>\*:</sup> 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-110, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000009463602

Regarding Wiring Diagram information, refer to EXL-47, "Wiring Diagram".

# 1. CHECK OPTICAL SENSOR POWER SUPPLY INPUT

- 1. Turn the ignition switch OFF.
- Disconnect the optical sensor harness connector M66.
- 3. Turn the ignition switch ON.
- 4. Turn the lighting switch to AUTO.
- Check the voltage between the optical sensor harness connector M66 and ground.

(+)		(_)	Voltage	
Connector	Terminal	( )	(Approx.)	
M66	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 M15 and ground.

(+)		(-)	Continuity	
Connector	Terminal	(-)	Continuity	
M66	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

- Turn the ignition switch OFF.
- 2. Disconnect the BCM harness connector M17.

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### **OPTICAL SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

3. Check continuity between optical sensor harness connector M66 and BCM harness connector M17.

Optica	Optical sensor BCM		всм	
Connector	Terminal	Connector Terminal		Continuity
M66	1	M17	3	Yes

4. Check continuity between optical sensor harness connector M66 terminal 1 and ground.

(+)		(_)	Continuity	
Connector	Terminal	(-)	Continuity	
M66	1	Ground	No	

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace the harness or connectors.

# 4. CHECK OPTICAL SENSOR SIGNAL OPEN CIRCUIT

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

Optica	sensor	BCM		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M66	2	M17	4	Yes	

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

Connector	Terminal	(-)	Continuity
M66	2	Ground	No

#### Is the inspection result normal?

YES >> Replace the optical sensor. Refer to EXL-141, "Removal and Installation".

NO >> Repair or replace harness or connectors.

# 5. CHECK OPTICAL SENSOR GROUND FOR OPEN CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect the BCM harness connector M17.
- 3. Check continuity between optical sensor harness connector M66 terminal 3 and BCM harness connector M17 terminal 17.

Optica	Optical sensor		BCM	
Connector	Terminal	Connector Terminal		Continuity
M66	3	M17	17	Yes

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness or connector.

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# HAZARD SWITCH

# Component Function Check

INFOID:0000000009463603

# 1. CHECK HAZARD SWITCH SIGNAL BY CONSULT

### **(E)**CONSULT DATA MONITOR

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

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

### Is the inspection result normal?

YES >> Hazard switch circuit is normal.

NO >> Refer to EXL-112, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000009463604

Regarding Wiring Diagram information, refer to EXL-60, "Wiring Diagram".

# 1. CHECK HAZARD SWITCH SIGNAL INPUT

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

	+) d switch	(-)	Voltage (Approx.)
Connector	Terminal		( , , , , , , , , , , , , , , , , , , ,
M54	2	Ground	(V) 15 10 5 0 → ←10ms JPMIA0154GB

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# $2.\mathsf{CHECK}$ HAZARD SWITCH SIGNAL OPEN CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect BCM connector M17.
- 3. Check continuity between hazard harness connector and BCM harness connector.

Hazard	Hazard switch		ВСМ	
Connector	Terminal	Connector Terminal		Continuity
M54	2	M17	36	Yes

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

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### **HAZARD SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

# 3. CHECK HAZARD SWITCH SIGNAL SHORT CIRCUIT

Check continuity between hazard switch harness connector and ground.

Hazard switch			Continuity
Connector	Terminal	Ground	Continuity
M54	2		No

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

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
M54	1		Yes

### Is the inspection result normal?

YES >> Replace hazard switch. Refer to EXL-140, "Removal and Installation".

NO >> Repair or replace harness or connector.

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Revision: November 2013 EXL-113 2014 Altima NAM

# **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.

Symp	otom	Possible cause	Inspection item
One side  Headlamp does not switch to the high beam.		Bulb Fuse Harness between IPDM E/R and the front combination lamp Harness between the front combination lamp and ground IPDM E/R	Headlamp (HI) circuit Refer to <u>EXL-91</u> .
	Both sides	_	Symptom diagnosis "BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM" Refer to EXL-117.
High beam indicator lamp (Headlamp switches to the		Combination meter     BCM	Combination meter.     Data monitor "HI-BEAM IND"     BCM (HEAD LAMP)     Active test "HEADLAMP"
Headlamp does not switch to the low beam.	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 BCS-79.
		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 Halogen, refer to EXL-93. Xenon, refer to EXL-95
	Both sides	_	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-119.
Headlamp does not turn	When the ignition switch is turned ON	BCM     Combination switch (lighting and turn signal switch)	Combination switch (lighting and turn signal switch) Refer to BCS-8.
OFF.	The ignition switch is turned OFF (After activating the battery saver).	IPDM E/R	_

# **EXTERIOR LIGHTING SYSTEM SYMPTOMS**

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# < SYMPTOM DIAGNOSIS >

Symp	otom	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 BCS-79.
		Optical sensor     Harness between the optical sensor and BCM     BCM	Optical sensor Refer to <u>EXL-110</u> .
Daytime light system does	not activate.		Symptom diagnosis "DAYTIME LIGHT SYSTEM INOP- ERATIVE" Refer to <u>EXL-118</u> .
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-101</u> .
	Both side	_	Symptom diagnosis "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to EXL-121.
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-103</u> .
	Both sides	_	Symptom diagnosis "PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-120.
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-106</u> .
	One side	Combination meter	_
Turn signal indicator lamp does not blink.	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 circuit Refer to MWI-58.
<ul> <li>Hazard warning lamp does not activate.</li> <li>Hazard warning lamp continues activating. (Turn signal is normal)</li> </ul>		Hazard switch     Harness between the hazard switch and BCM     BCM	Hazard switch Refer to <u>EXL-112</u> .

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### NORMAL OPERATING CONDITION

### < SYMPTOM DIAGNOSIS >

# NORMAL OPERATING CONDITION

Description INFOID:000000009463606

#### XENON HEADLAMP

- The brightness and color of the light may vary slightly immediately after turning the headlamp ON. This condition will remain until the xenon bulb becomes stable. This is normal.
- Illumination time lag may occur between right and left. This is normal.

#### **AUTO LIGHT SYSTEM**

The 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.

### BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

< SYMPTOM DIAGNOSIS >

# BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

Description INFOID:000000009463607

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

# Diagnosis Procedure

# 1.combination switch (lighting and turn signal switch) inspection

Check the combination switch (lighting and turn signal switch). Refer to BCS-79, "Symptom Table".

### Is the inspection results normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part.

# 2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

### **©CONSULT DATA MONITOR**

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

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

### Is the inspection results normal?

YES >> GO TO 3

NO >> Replace BCM. Refer to BCS-80, "Removal and Installation".

# 3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to EXL-91, "Diagnosis Procedure".

#### Is the inspection results normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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### DAYTIME LIGHT SYSTEM INOPERATIVE

### < SYMPTOM DIAGNOSIS >

# DAYTIME LIGHT SYSTEM INOPERATIVE

Description INFOID.000000009463609

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

INFOID:0000000009463610

# 1. CHECK DAYTIME LIGHT OPERATION

- Perform BCM(HEADLAMP) DAYTIME RUNNING LIGHT active test. Refer to <u>BCS-19</u>, "HEADLAMP : <u>CONSULT Function (BCM - HEADLAMP)"</u>.
- Check that the daytime lights turn on.

### Is the inspection results normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> GO TO 2.

# 2.CHECK DAYTIME LIGHT RELAY FUSE

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

Unit	Fuse No.	Capacity
Daytime light	43	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.

# 4. PERFORM DAYTIME LIGHT CIRCUIT INSPECTION

Check the daytime light circuit. Refer to EXL-98, "Diagnosis Procedure".

#### Is the inspection results normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

# **BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON**

#### < SYMPTOM DIAGNOSIS >

# BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description INFOID:000000009463611

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

# Diagnosis Procedure

INFOID:0000000009463612

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

Check the combination switch (lighting and turn signal switch). Refer to BCS-79, "Symptom Table".

### 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**

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

Monitor item	Condition		Monitor status
HL LO REQ Lighting switch	Lighting switch	2nd	ON
	OFF	OFF	

### Is the inspection result normal?

YES >> GO TO 3

NO >> Replace BCM. Refer to BCS-80, "Removal and Installation".

# 3.HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to <u>EXL-93</u>, "<u>HEADLAMP (HALOGEN)</u>: <u>Diagnosis Procedure</u>". <u>Is the inspection result normal?</u>

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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Revision: November 2013 EXL-119 2014 Altima NAM

### PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

# PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

Description INFOID:000000009463613

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

# Diagnosis Procedure

INFOID:0000000009463614

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

Check the combination switch (lighting and turn signal switch). Refer to BCS-79, "Symptom Table".

# 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

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

Monitor item	Condition		Monitor status
TAIL & CLR REQ Lighting switch	Lighting switch	1st	ON
	Lighting Switch	OFF	OFF

### Is the inspection results normal?

YES >> GO TO 3

NO >> Replace BCM. Refer to BCS-80, "Removal and Installation".

# 3. PARK LAMP CIRCUIT INSPECTION

Check the parking lamp circuit. Refer to EXL-103, "Diagnosis Procedure".

### Is the inspection results normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

### BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

#### < SYMPTOM DIAGNOSIS >

# BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description INFOID:000000000463615

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

# Diagnosis Procedure

INFOID:0000000009463616

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# 1.combination switch (lighting and turn signal switch) inspection

Check the combination switch (lighting and turn signal switch). Refer to BCS-79, "Symptom Table".

### 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

- 1. 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
(Lighting switch 3rd)	OFF	OFF	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to BCS-80, "Removal and Installation".

# 3. FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to EXL-101, "Diagnosis Procedure".

#### Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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Revision: November 2013 EXL-121 2014 Altima NAM

# PERIODIC MAINTENANCE

### **HEADLAMP**

# Aiming Adjustment

INFOID:000000009463617

#### 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.

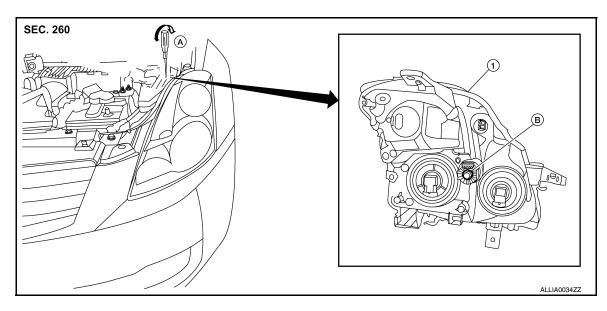
#### **CAUTION:**

### 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.

#### 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.



1. Front combination lamp

A. Suitable tool (for aiming adjustment) B. Adjusting screw

#### Aiming Adjustment procedure

1. Position the screen.

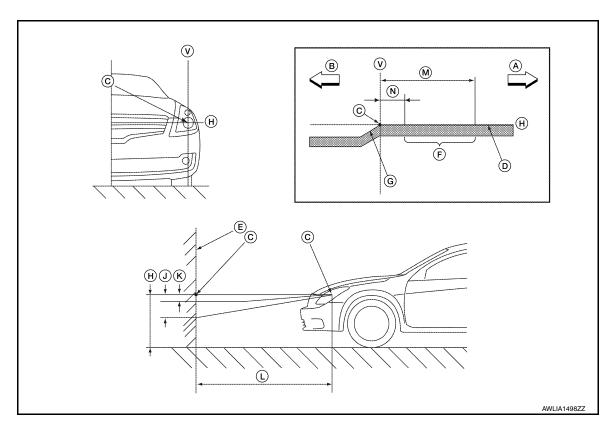
#### NOTE:

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

#### **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
- D. Cutoff line
- G. Step

- Screen
- Horizontal center line of head lamp
- K. -13.3 mm (-0.52 in) 10 m (33 ft)
- N. 133 mm (5.24 in) V. Vertical center line of headlamp
- C. Center of headlamp bulb (H-V point)
- Aim evaluation segment
- J. 53.2 mm (2.09 in)
- 399 mm (15.71 in)

 Basic illuminating area for adjustment should be within the range shown on the aiming chart. Adjust headlamps accordingly.

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## FRONT FOG LAMP

# Aiming Adjustment

INFOID:0000000009463618

#### 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.

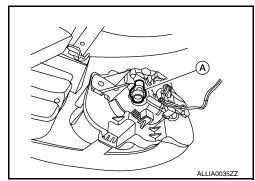
#### NOTE:

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

#### **CAUTION:**

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

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



# **FRONT FOG LAMP**

### < PERIODIC MAINTENANCE >

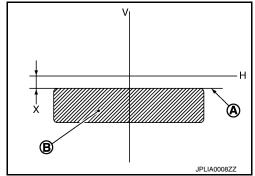
5. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 100 mm (4 in).

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



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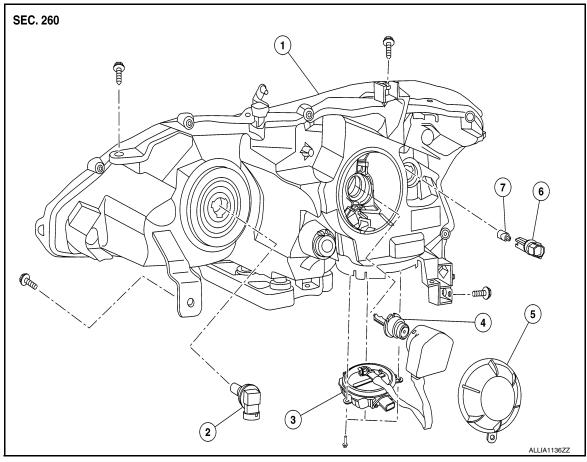
# REMOVAL AND INSTALLATION

# FRONT COMBINATION LAMP

Exploded View - Xenon

INFOID:0000000009463619

#### **COMBINATION LAMP - XENON**



- 1. Front combination lamp
- 4. Xenon lamp bulb
- 7. Side marker lamp bulb
- 2. Halogen lamp bulb (high beam) 3.
- 5. Plastic cover
- 6. Side marker bulb socket

Ballast

### Removal and Installation - Xenon

INFOID:0000000009463620

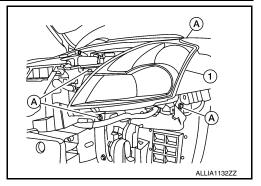
### FRONT COMBINATION LAMP - XENON

#### Removal

- 1. Disconnect the battery negative terminal. Refer to PG-73, "Removal and Installation (Battery)".
- Remove the front bumper fascia. Refer to <u>EXT-17</u>, "Removal and Installation".
- 3. Ensure the lighting switch is OFF.

#### < REMOVAL AND INSTALLATION >

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



Installation

Installation is in the reverse order of removal.

NOTE:

After installation perform headlamp aiming adjustment. Refer to EXL-122, "Aiming Adjustment".

Bulb Replacement - Xenon

INFOID:0000000009463621

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**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. Position the front fender protector aside. Refer to <a href="EXT-26">EXT-26</a>, "FENDER PROTECTOR: Removal and Installation".
- 2. Rotate the headlamp high beam socket counterclockwise and remove from front combination lamp.

Installation

Installation is in the reverse order of removal.

**CAUTION:** 

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

HEADLAMP LOW BEAM XENON

**CAUTION:** 

- Disconnect the battery negative terminal or remove the fuse.
- HID control unit and xenon bulb socket cannot be disassembled.

Removal

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- Disconnect the battery negative terminal (xenon only). Refer to <u>PG-73, "Removal and Installation (Battery)"</u>.
- Position the front fender protector aside. Refer to <u>EXT-26</u>, "FENDER PROTECTOR: Removal and Installation".
- 3. Rotate the plastic cover counterclockwise and remove from the front combination lamp.
- 4. Rotate the xenon bulb socket counterclockwise and remove from xenon bulb.
- Remove the retaining spring and the xenon bulb from the front combination lamp. CAUTION:

Do not break the xenon bulb ceramic tube when replacing the bulb.

Installation

Installation is in the reverse order of removal.

#### **CAUTION:**

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

SIDE MARKER LAMP

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#### < REMOVAL AND INSTALLATION >

#### Removal

- 1. Position the front fender protector aside. Refer to <a href="EXT-26">EXT-26</a>, "FENDER PROTECTOR: Removal and Installation".
- 2. Rotate the side marker lamp bulb socket counterclockwise and remove.
- 3. Remove the side marker bulb from the front combination lamp.

#### Installation

Installation is in the reverse order of removal.

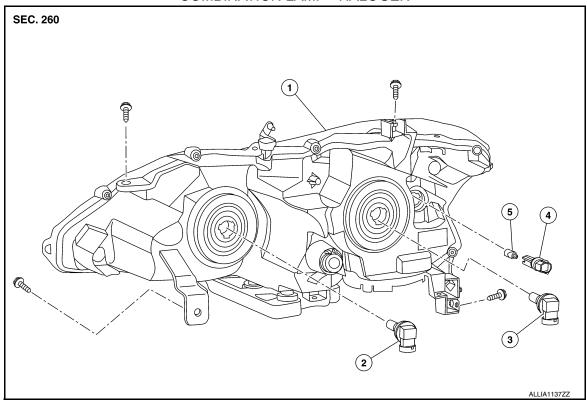
#### **CAUTION:**

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

## Exploded View - Halogen

INFOID:0000000009463622

### **COMBINATION LAMP - HALOGEN**



- 1. Front combination lamp
- 2. Halogen lamp bulb (high beam)
- 5. Side marker bulb
- 3. Halogen lamp bulb (low beam)

# Removal and Installation - Halogen

Side marker bulb socket

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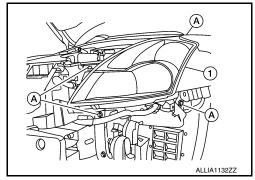
## FRONT COMBINATION LAMP - Halogen

#### Removal

- 1. Remove the front bumper fascia. Refer to EXT-17, "Removal and Installation".
- Ensure the lighting switch is OFF.

#### < REMOVAL AND INSTALLATION >

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



Installation

Installation is in the reverse order of removal.

NOTE:

After installation perform headlamp aiming adjustment. Refer to EXL-122, "Aiming Adjustment".

Bulb Replacement - Halogen

INFOID:000000009463624

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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

- Position the front fender protector aside. Refer to EXT-26, "FENDER PROTECTOR: Removal and Installation".
- Rotate the headlamp high beam socket counterclockwise and remove from front combination lamp. 2.

Installation

Installation is in the reverse order of removal.

**CAUTION:** 

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

HEADLAMP LOW BEAM HALOGEN

Removal

- Position the front fender protector aside. Refer to EXT-26, "FENDER PROTECTOR: Removal and Instal-
- 2. Rotate the headlamp low beam sockets counterclockwise and remove from front combination lamp.

Installation

Installation is in the reverse order of removal.

CAUTION:

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

SIDE MARKER LAMP

Removal

- 1. Position the front fender protector aside. Refer to EXT-26, "FENDER PROTECTOR: Removal and Installation".
- Rotate the side marker lamp bulb socket counterclockwise and remove.
- Remove the side marker bulb from the front combination lamp.

Installation

Installation is in the reverse order of removal.

**CAUTION:** 

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

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### TURN SIGNAL AND HAZARD WARNING LAMPS

### < REMOVAL AND INSTALLATION >

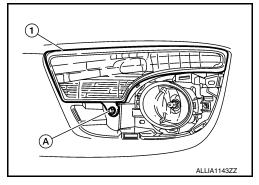
# TURN SIGNAL AND HAZARD WARNING LAMPS

### Removal and Installation

INFOID:0000000009463625

#### **REMOVAL**

- 1. Remove the front fender protector side cover.
- 2. Position the fender protector aside. Refer to <a href="EXT-26">EXT-26</a>, "FENDER PROTECTOR: Removal and Installation".
- 3. Disconnect the harness connector from the turn signal and hazard warning lamp.
- 4. Remove front fog lamp finisher. Refer to EXT-17, "Removal and Installation".
- 5. Remove the screw (A) from the turn signal and hazard warning lamp (1) and remove.



#### INSTALLATION

Installation is in the reverse order of removal.

# **Bulb Replacement**

INFOID:0000000009463626

#### **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.

#### REMOVAL

- 1. Remove the front fender protector side cover.
- 2. Position the front fender protector aside. Refer to <a href="EXT-26">EXT-26</a>, "FENDER PROTECTOR: Removal and Installation".
- 3. Disconnect the harness connector from the turn signal and hazard warning lamp.
- 4. Rotate the turn signal and hazard warning lamp bulb socket counterclockwise and remove it.
- 5. Remove turn signal and hazard warning lamp bulb from the 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.

### FRONT FOG LAMP

#### < REMOVAL AND INSTALLATION >

## FRONT FOG LAMP

### Removal and Installation

#### INFOID:000000009463627

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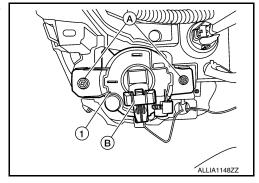
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#### REMOVAL

- 1. Remove the front fender protector side cover.
- 2. Position the fender protector aside. Refer to EXT-26, "FENDER PROTECTOR: Removal and Installation".
- Disconnect the harness connector (B) from the front fog lamp
- 4. Remove the screws (A) and the front fog lamp (1).



#### INSTALLATION

Installation is in the reverse order of removal.

#### NOTE:

After installing, perform fog lamp aiming adjustment. Refer to EXL-124, "Aiming Adjustment".

## Bulb Replacement

#### INFOID:0000000009463628

#### 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.

#### FRONT FOG LAMP BULB

#### Removal

- Remove the front fender protector side cover.
- Position the front fender protector aside. Refer to <u>EXT-26</u>, "FENDER PROTECTOR: Removal and Installation".
- 3. Disconnect the harness connector from the front fog lamp bulb.
- 4. 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.

### DAYTIME LIGHT BULB (IF EQUIPPED)

#### Removal

- 1. Remove the front fender protector side cover.
- Position the front fender protector aside. Refer to EXT-26, "FENDER PROTECTOR: Removal and Installation".
- 3. Disconnect the harness connector from the daytime light lamp.
- Release the pawls and remove the daytime light lamp bulb.

#### Installation

Installation is in the reverse order of removal.

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# **FRONT FOG LAMP**

# < REMOVAL AND INSTALLATION >

### **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

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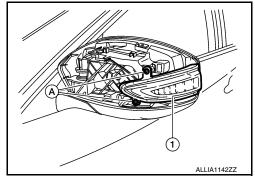
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#### **REMOVAL**

- 1. Remove the door mirror rear finisher. Refer to MIR-20, "Removal and Installation".
- 2. Remove the screws (A) and door mirror side turn signal lamp (1).



3. Disconnect the harness connector from the door mirror side turn signal lamp and remove.

### **INSTALLATION**

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:0000000009463630

#### DOOR MIRROR SIDE TURN SIGNAL LAMP

The door mirror side turn signal lamp bulb is integrated into the door mirror side turn signal lamp and is serviced as an assembly. Refer to <a href="EXL-133">EXL-133</a>, "Removal and Installation".

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### **HIGH-MOUNTED STOP LAMP**

### < REMOVAL AND INSTALLATION >

## HIGH-MOUNTED STOP LAMP

#### Removal and Installation

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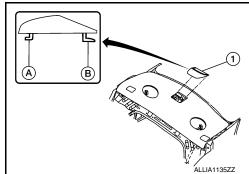
### HIGH-MOUNTED STOP LAMP - WITH REAR SPOILER

The high-mount stop lamp is integrated into the rear spoiler and is serviced as an assembly. Refer to <a href="EXT-38">EXT-38</a>, <a href="Removal and Installation"</a>.

#### HIGH-MOUNTED STOP LAMP - WITH PARCEL SHELF

#### 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**

INFOID:0000000009463632

#### HIGH-MOUNTED STOP LAMP - WITH REAR SPOILER

The high-mounted stop lamp bulb is integrated into the rear spoiler and is serviced as an assembly. Refer to EXT-38, "Removal and Installation".

#### HIGH-MOUNTED STOP LAMP - WITH PARCEL SHELF

The high-mounted stop lamp bulb is integrated into the high-mounted stop lamp and is serviced as an assembly. Refer to <a href="EXL-134">EXL-134</a>, "Removal and Installation".

### LICENSE PLATE LAMP

#### < REMOVAL AND INSTALLATION >

# LICENSE PLATE LAMP

### Removal and Installation

#### INFOID:0000000009463633

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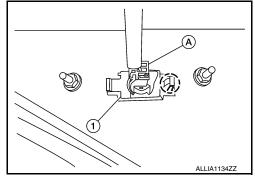
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#### **REMOVAL**

- 1. Remove the license lamp finisher. Refer to EXT-37, "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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#### **WARNING:**

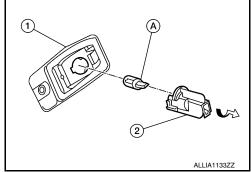
Do not touch bulb while it is lit or right after being turned off. Burning may result.

#### **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.

### REMOVAL

- 1. Position trunk lid finisher (if equipped) aside. Refer to INT-33, "Exploded View".
- 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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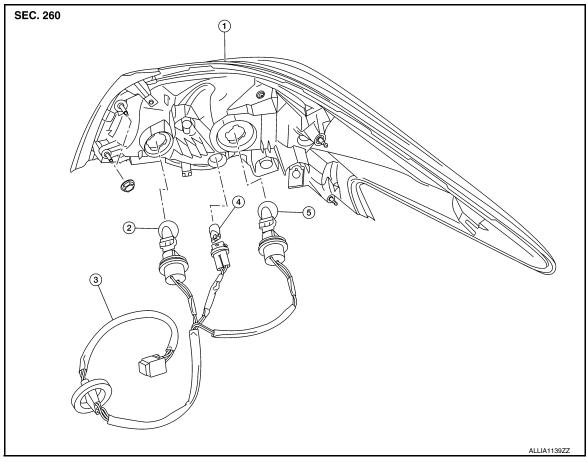
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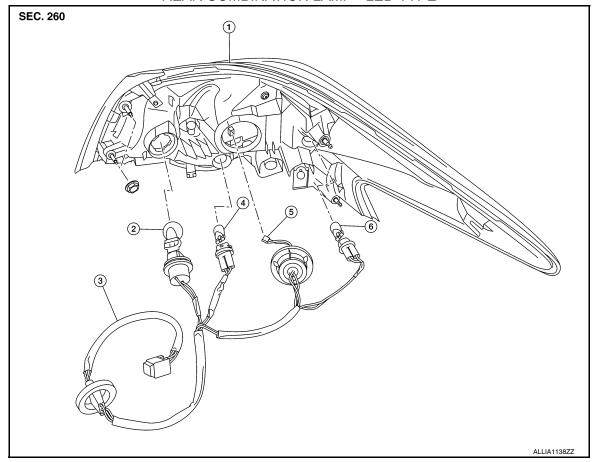
Exploded View

### REAR COMBINATION LAMP - NON LED TYPE



- 1. Rear combination lamp
- 4. Back-up lamp bulb
- 2. Rear turn signal lamp bulb
- 5. Stop/Tail lamp bulb
- 3. Rear combination lamp harness

### REAR COMBINATION LAMP - LED TYPE

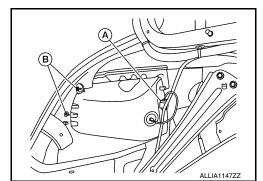


- 1. Rear combination lamp
- 4. Back-up lamp bulb
- 2. Rear turn signal lamp bulb
- 5. LED lamp harness connector
- 3. Rear combination lamp harness
- 6. Side marker lamp bulb

#### Removal and Installation

Removal

- 1. Remove trunk rear finisher. Refer to INT-33, "TRUNK LID FINISHER: Removal and Installation".
- Partially remove trunk side finisher. Refer to <u>INT-34, "TRUNK SIDE FINISHER: Removal and Installation"</u>.
- 3. Remove the rear combination lamp nuts (B).
- 4. Disconnect the harness connector (A).



5. Pull the rear combination lamp rearward and remove.

Installation

Installation is the reverse order of removal.

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#### < REMOVAL AND INSTALLATION >

### **Bulb Replacement**

INFOID:000000009463637

#### 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.

#### REAR TURN SIGNAL LAMP BULB

#### Removal

- Remove the rear combination lamp. Refer to <u>EXL-137</u>, "Removal and Installation".
- Rotate the rear turn signal lamp bulb socket counterclockwise and remove.
- 3. Remove the rear turn signal lamp bulb from the 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 BULB (IF EQUIPPED)

#### Removal

- Remove the rear combination lamp. Refer to <u>EXL-137</u>, "Removal and Installation".
- 2. Rotate the stop/tail lamp bulb socket counterclockwise and remove.
- 3. Remove the stop/tail lamp bulb from the 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 LED (IF EQUIPPED)

The stop/tail lamp LED is integrated into the rear combination lamp and is serviced as an assembly. Refer to EXL-137, "Removal and Installation".

#### **BACK-UP LAMP BULB**

#### Removal

- 1. Remove the rear combination lamp. Refer to EXL-137, "Removal and Installation".
- Rotate the back-up lamp bulb socket counterclockwise and remove.
- Remove the back-up lamp bulb from the 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.

### SIDE MARKER LAMP BULB

#### Removal

- Remove the rear combination lamp. Refer to EXL-137, "Removal and Installation".
- Rotate the side marker lamp bulb socket counterclockwise and remove.
- Remove the side marker lamp bulb from the bulb socket.

#### Installation

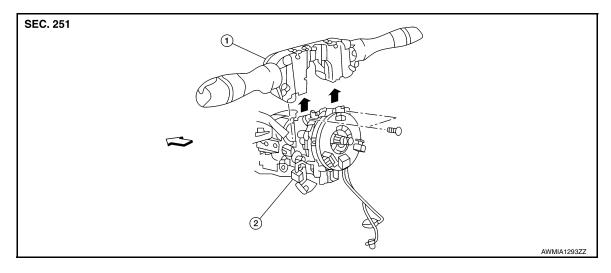
Installation is in the reverse order of removal.

#### **CAUTION:**

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

# **COMBINATION SWITCH**

**Exploded View** INFOID:000000009463638



Combination switch

Combination switch harness connector 2.

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□ Front

#### NOTE:

Shown with the steering wheel removed for clarity only.

## Removal and Installation

INFOID:0000000009463639

#### REMOVAL

#### **CAUTION:**

- Before servicing, turn the ignition switch OFF, disconnect both battery terminals and wait at least three minutes.
- · Do not use air tools or electric tools for servicing.
- Disconnect both the negative and positive battery terminals, then wait at least three minutes. Refer to PG-73, "Removal and Installation (Battery)".
- Remove the steering column covers. Refer to IP-17, "Removal and Installation".
- 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.
- Disconnect the harness connector from the combination switch and remove. 5.

## 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-42, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

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# **HAZARD SWITCH**

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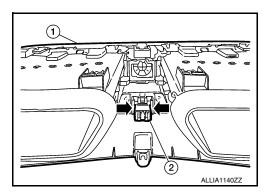
# **HAZARD SWITCH**

# Removal and Installation

#### INFOID:0000000009463640

### **REMOVAL**

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



### **INSTALLATION**

Installation is in the reverse order of removal.

# **OPTICAL SENSOR**

### < REMOVAL AND INSTALLATION >

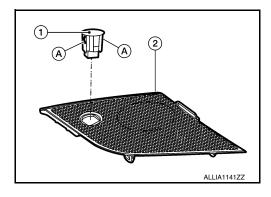
# **OPTICAL SENSOR**

# Removal and Installation

#### INFOID:0000000009463641

### **REMOVAL**

- 1. Release the front speaker grille RH (2) using a suitable tool.
- 2. Disconnect the harness connector from the optical sensor (1).
- 3. Release pawls (A) and remove the optical sensor.



### **INSTALLATION**

Installation is in the reverse order of removal.

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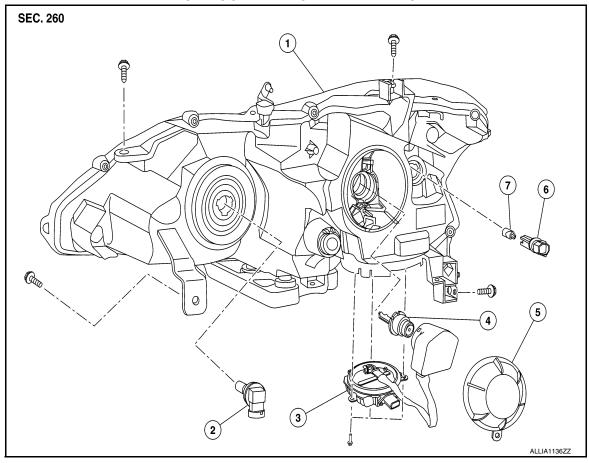
# UNIT DISASSEMBLY AND ASSEMBLY

# FRONT COMBINATION LAMP

Exploded View - Xenon

INFOID:0000000009463642

#### FRONT COMBINATION LAMP - XENON



- Front combination lamp
- 4. Xenon lamp bulb
- 7. Side marker lamp bulb
- 2. Halogen lamp bulb (high beam) 3.
- 5. Plastic cover
- 6. Side marker bulb socket

Ballast

# Disassembly and Assembly - Xenon

INFOID:0000000009463643

### FRONT COMBINATION LAMP - XENON

#### **WARNING:**

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

- Disconnect the battery negative terminal or remove the fuse.
- HID control unit and xenon bulb socket cannot be disassembled.
- 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.

#### Disassembly

- 1. Remove front combination lamp. Refer to <a>EXL-126</a>, "Removal and Installation Xenon"</a>.
- 2. Rotate plastic cover counterclockwise and remove from the front combination lamp.
- 3. Rotate xenon bulb socket counterclockwise and remove.
- 4. Remove retaining spring and remove xenon bulb from the front combination lamp.

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#### < UNIT DISASSEMBLY AND ASSEMBLY >

- 5. Rotate the halogen lamp bulb (high beam) counterclockwise and remove.
- 6. Rotate the side marker bulb socket counterclockwise and remove.
- 7. Remove the side marker lamp bulb from the sidemarker bulb socket.

#### Assembly

Assembly is in the reverse order of disassembly.

#### **CAUTION:**

- · After installing the xenon bulb, be sure to install plastic cover securely to ensure watertightness.
- After installing, be sure to install the bulb sockets securely to ensure watertightness.

### Exploded View - Halogen

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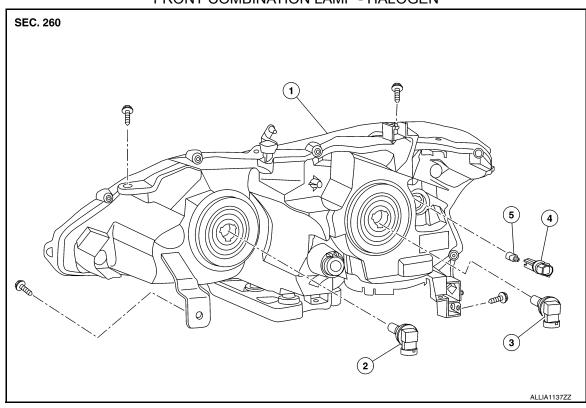
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#### FRONT COMBINATION LAMP - HALOGEN



- 1. Front combination lamp
- 2. Halogen lamp bulb (high beam)
- 5. Side marker bulb
- 3. Halogen lamp bulb (low beam)

### Disassembly and Assembly - Halogen

Side marker bulb socket

### FRONT COMBINATION LAMP - HALOGEN

#### **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.

#### Disassembly

- Remove front combination lamp. Refer to EXL-128, "Removal and Installation Halogen".
- Rotate the halogen lamp bulb (low beam) counterclockwise and remove.
- 3. Rotate the halogen lamp bulb (high beam) counterclockwise and remove.
- 4. Rotate the side marker bulb socket counterclockwise and remove.
- 5. Remove the side marker bulb from the side marker bulb socket.

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### < UNIT DISASSEMBLY AND ASSEMBLY >

Assembly

Assembly is in the reverse order of disassembly.

**CAUTION:** 

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

# Exploded View - Non LED

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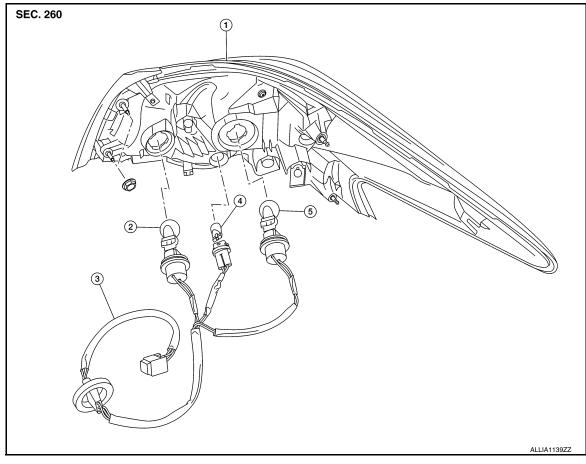
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### REAR COMBINATION LAMP - NON LED



1. Rear combination lamp

4. Back-up lamp bulb

- 2. Rear turn signal lamp bulb
- 5. Stop/Tail lamp bulb
- 3. Rear combination lamp harness

# Disassembly and Assembly - Non LED

INFOID:0000000009463647

### REAR COMBINATION LAMP - NON LED

#### WARNING:

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

- 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.

### Disassembly

- 1. Remove rear combination lamp. Refer to EXL-137, "Removal and Installation".
- 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.
- Rotate stop/tail lamp bulb socket counterclockwise to remove from rear combination lamp.
- 7. Remove the stop/tail lamp bulb from bulb socket.

#### Assembly

**EXL-145** Revision: November 2013 2014 Altima NAM EXL

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#### < UNIT DISASSEMBLY AND ASSEMBLY >

Assembly is in the reverse order of disassembly.

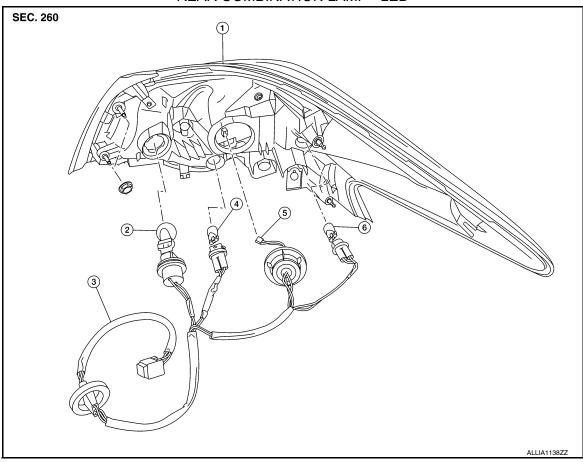
**CAUTION:** 

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

Exploded View - LED

INFOID:0000000009463648

#### **REAR COMBINATION LAMP - LED**



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

# Disassembly and Assembly - LED

INFOID:0000000009463649

#### **REAR COMBINATION LAMP - LED**

#### **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.

#### Disassembly

- Remove rear combination lamp. Refer to EXL-137, "Removal and Installation".
- 2. Rotate rear turn signal lamp bulb socket counterclockwise to remove from rear combination lamp.
- Remove the rear turn signal lamp bulb from bulb socket.
- 4. Rotate back-up lamp bulb socket counterclockwise to remove from rear combination lamp.
- 5. Remove the back-up lamp bulb from bulb socket.
- 6. Disconnect the harness connector from the LED lamp.
- Rotate side marker lamp bulb socket counterclockwise to remove from rear combination lamp.

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### < UNIT DISASSEMBLY AND ASSEMBLY >

8. Remove the side marker lamp bulb from bulb socket.

Assembly

Assembly is in the reverse order of disassembly.

**CAUTION:** 

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

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# **SERVICE DATA AND SPECIFICATIONS (SDS)**

< SERVICE DATA AND SPECIFICATIONS (SDS)

# SERVICE DATA AND SPECIFICATIONS (SDS)

# SERVICE DATA AND SPECIFICATIONS (SDS)

# **Bulb Specifications**

INFOID:0000000009463650

	Item	Wattage (W)*
	Low beam (halogen)	55
	Low beam (xenon)	35
Front combination lamp	High beam	65
	Side marker lamp	5
Turn signal/Park lamp		28/8 (amber)
Door mirror side turn signal	lamp (if equipped)	LED
Rear combination lamp	Stop/Tail lamp	21/5
		LED
	Turn signal lamp	27
	Back-up lamp	16
	Side marker lamp	5
Fog lamp (if equipped)		55
Daytime running lamp built-in fog lamp (Canada only)		19
License plate lamp		5
High-mounted stop lamp	Parcel shelf mounted	LED
	Rear spoiler mounted	LED

<sup>\*:</sup> Always check with the Parts Department for the latest parts information.