EXTERIOR LIGHTING SYSTEM

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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, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, 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 Air Bag Diagnosis Sensor Unit or other Air Bag 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 or batteries, and wait at least three minutes before performing any service.

Precaution for Work

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

PREPARATION

Revision: November 2015

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PREPARATION

Special Service Tool

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

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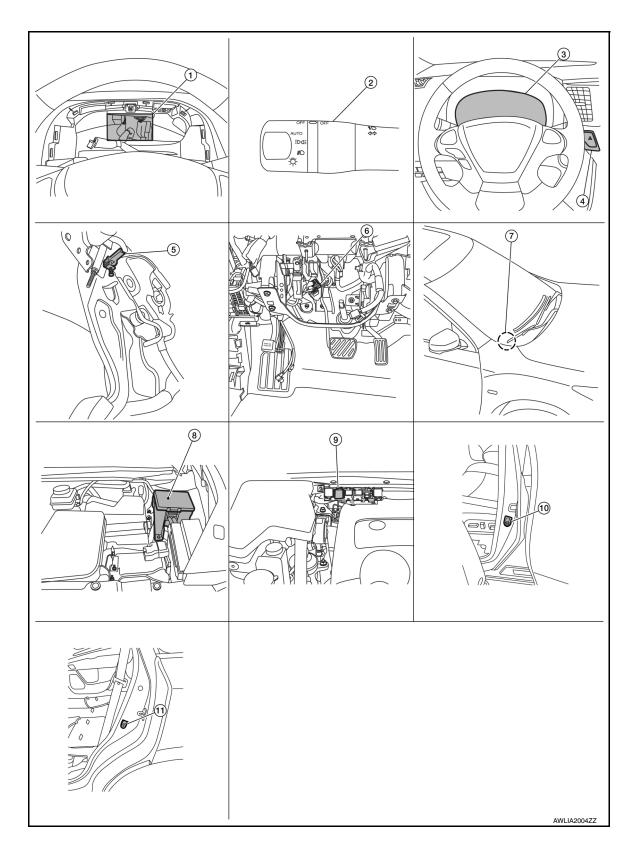
2016 Pathfinder

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION COMPONENT PARTS

Component Parts Location

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

1. BCM 2. Combination switch 3. Combination meter А (view with combination meter re-(lighting and turn signal switch) moved) 4. Hazard switch 5. Parking brake switch 6. Stop lamp switch В IPDM E/R, [Headlamp high relay, 9. 7. Optical sensor (if equipped) 8. Daytime running light relay Headlamp low relay, Taillamp relay, (if equipped) Front fog lamp relay (if equipped)] С 10. Front door switch LH 11. Rear door switch LH (RH similar) (RH similar)

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 stop lamp switch signal to BCM when the brake pedal is pressed to operate stop lamps.				
Combination meter	Refer to MWI-9, "METER SYSTEM : System Description".				
Daytime running light relay (if equipped)	Sends power to the daytime running lamp when operated by the IPDM E/R.				
Front door switch LH/RH	Transmits the data area sized to the DOM to accept the sub-light custom				
Rear door switch LH/RH	Transmits the door open signal to the BCM to operate the autolight system.				
Optical sensor (if equipped)	Optical sensor converts the outside brightness (lux) to voltage and transmits the optical sensor signal to BCM to operate the autolight system.				
Parking brake switch	Transmits the parking brake switch signal to the combination meter to operate the daytime running light system.				
Hazard switch	Inputs the hazard switch signal to BCM.				

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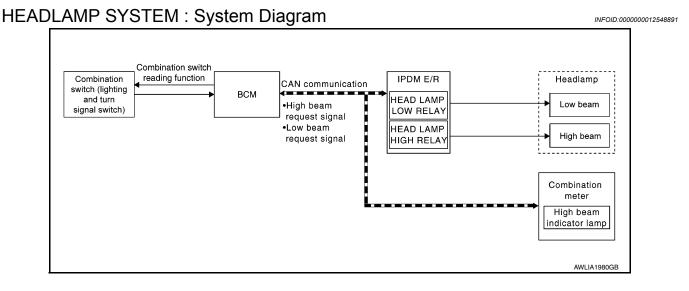
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SYSTEM HEADLAMP SYSTEM



HEADLAMP SYSTEM : System Description

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LOW BEAM OPERATION

When the lighting switch is in the AUTO (if equipped and activated) or headlamp position, the BCM receives input requesting the headlamps to illuminate. This input is communicated to the IPDM E/R across the CAN communication lines. The CPU of the IPDM E/R controls the headlamp low relay coil which supplies power to the low beam headlamps.

HIGH BEAM OPERATION/FLASH-TO-PASS OPERATION

With the lighting switch in the AUTO (if equipped and activated) or headlamp 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 AUTO (if equipped and activated) parking lamp or headlamp position and the ignition switch is turned from ON or ACC to OFF, the battery saver feature is activated.

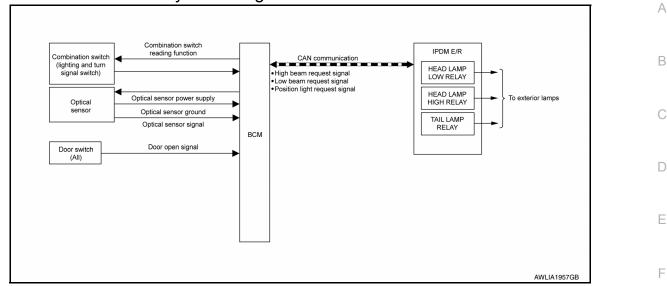
Under this condition, the headlamps remain illuminated for 45 seconds, unless the lighting switch position is changed. If the lighting switch position is changed, then the headlamps are turned off.

AUTO LIGHT SYSTEM

SYSTEM

< SYSTEM DESCRIPTION >

AUTO LIGHT SYSTEM : System Diagram



AUTO LIGHT SYSTEM : System Description

- 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 in four steps. For the details of the setting, Refer to <u>BCS-19</u>, "<u>HEADLAMP</u> : <u>CONSULT Function (BCM - HEADLAMP)</u>".

WIPER LINKED AUTO LIGHTING FUNCTION (IF EQUIPPED)

With the lighting switch in the AUTO position, the BCM will turn on the exterior lamps after detecting 4 operations of the front wiper. The BCM will turn off the exterior lamps 3 seconds after the front wiper switch is turned to the OFF position.

DAYTIME RUNNING LIGHT SYSTEM

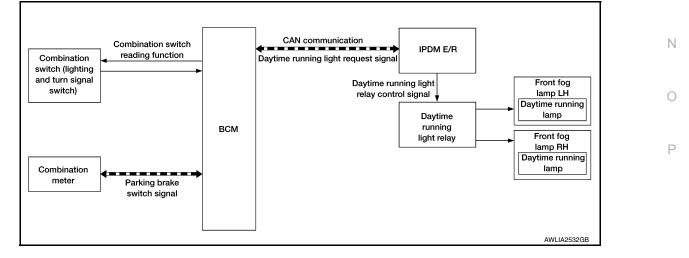
DAYTIME RUNNING LIGHT SYSTEM : System Diagram

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SYSTEM

< SYSTEM DESCRIPTION >

DAYTIME RUNNING LIGHT SYSTEM : System Description

System Description

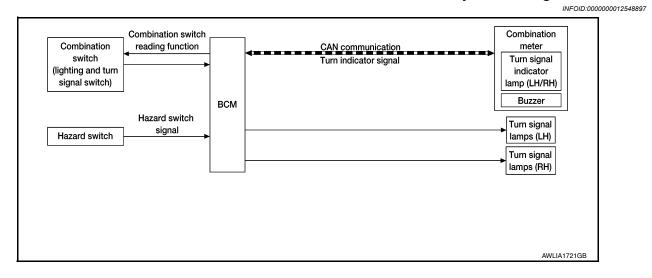
The daytime running light system is equipped with a daytime running light control that activates the daytime running lights within the front fog lamp assembly when the engine is operating. If the parking brake is applied, the daytime running lights will turn OFF. The daytime running lights will turn 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 running light system. The BCM sends a daytime running light request to the IPDM E/R via the CAN communication lines. The IPDM E/R grounds the daytime running light relay which in turn, provides power to the daytime running lights.

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Diagram



TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : 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.

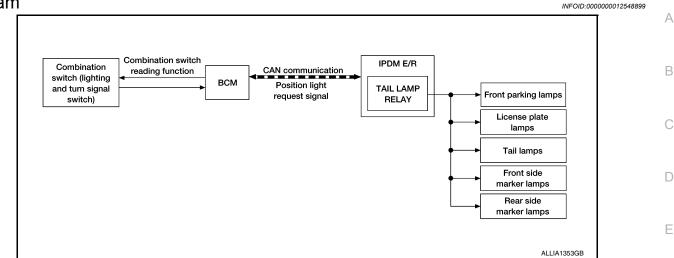
HAZARD LAMP OPERATION

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, SIDE MARKER AND TAIL LAMP SYSTEM PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Di-

< SYSTEM DESCRIPTION >





PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description

PARKING, LICENSE PLATE AND TAIL LAMPS OPERATION

With the lighting switch is in the AUTO (if equipped and activated) or parking lamp position, the BCM receives input requesting the parking lamps to illuminate. 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.

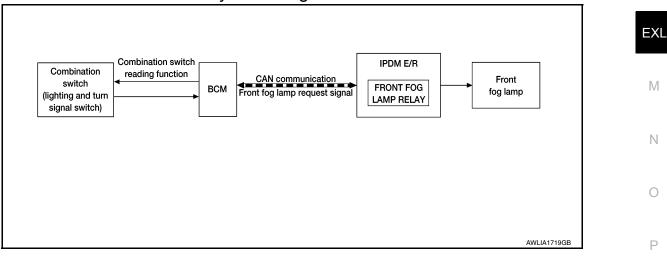
EXTERIOR LAMP BATTERY SAVER CONTROL

With the combination switch (lighting and turn signal switch) in the AUTO (if equipped and activated) or parking lamp 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 45 seconds unless the lighting switch position is changed. If the lighting switch position is changed, then the exterior lamps are turned off.

FRONT FOG LAMP SYSTEM

FRONT FOG LAMP SYSTEM : System Diagram



FRONT FOG LAMP SYSTEM : System Description

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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.

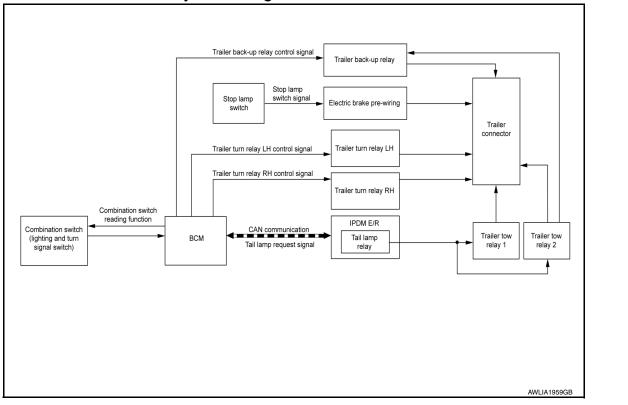
< SYSTEM DESCRIPTION >

FRONT FOG LAMP OPERATION

When the lighting switch position is in the AUTO (if equipped and activated) or headlamp, and the front fog lamp position, the BCM detects front fog lamp signal and then 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.

TRAILER TOW SYSTEM

TRAILER TOW SYSTEM : System Diagram



TRAILER TOW SYSTEM : System Description

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TRAILER TAIL LAMP OPERATION

The trailer tail lamps are controlled by the trailer tow relay 1. With the combination switch (lighting and turn signal switch) in the AUTO (if equipped and activated) or parking lamp position, the BCM detects the lighting switch signal and then 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 activates the trailer tow relay 1 and sends power to the trailer connector.

TRAILER TURN SIGNAL LAMP OPERATION

The trailer turn signal lamps are controlled by the BCM. When the turn signal switch is in the LH or RH position with the ignition switch ON, the combination switch (lighting and turn signal switch) sends a signal to the BCM. The BCM detects the TURN RH or TURN LH ON request. The BCM sends a control signal to the respective trailer turn relay which sends power to the trailer connector.

TRAILER HAZARD LAMP OPERATION

The trailer hazard lamps are controlled by the BCM. When the hazard switch is pressed, the BCM detects the hazard ON request. The BCM then sends a control signal to both trailer turn relays which sends power to the trailer connector.

TRAILER BRAKE LAMP OPERATION

The trailer brake lamps operate when the brake pedal is pressed sending the stop lamp switch signal to the trailer connector.

< 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 no-start condition.

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description	E
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.	F
Active Test	The BCM activates outputs to test components.	
Work support	The settings for BCM functions can be changed.	0
Configuration	The vehicle specification can be read and saved.The vehicle specification can be written when replacing BCM.	
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.	Н

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	J
Door lock	DOOR LOCK		×	×	×	×			EXL
Rear window defogger	REAR DEFOGGER			×	×	×			_
Warning chime	BUZZER			×	×				M
Interior room lamp timer	INT LAMP			×	×	×			
Exterior lamp	HEADLAMP			×	×	×			
Wiper and washer	WIPER			×	×	×			Ν
Turn signal and hazard warning lamps	FLASHER			×	×	×			
Air conditioner	AIR CONDITIONER			×					0
Intelligent Key system	INTELLIGENT KEY		×	×	×	×			
Combination switch	COMB SW			×					
BCM	BCM	×	×			×	×	×	Р
Immobilizer	IMMU		×	×	×				
Interior room lamp battery saver	BATTERY SAVER			×	×				
Back door open	TRUNK			×					
Vehicle security system	THEFT ALM			×	×	×			
RAP system	RETAINED PWR			×					

< SYSTEM DESCRIPTION >

				Direct [Diagnosti	c Mode		
System	Sub System	ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Signal buffer system	SIGNAL BUFFER			×	×			
TPMS	AIR PRESSURE MONITOR		×	×	×			

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEADLAMP)

INFOID:000000012927046

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 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]	1
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 back door 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.
OPTICAL SENSOR [On/Off]	Indicates condition of optical sensor.

ACTIVE TEST

Test Item	Description
FR FOG LAMP	This test is able to check front fog lamp operation [On/Off].

< SYSTEM DESCRIPTION >

Test Item	Description	
DAYTIME RUNNING LIGHT	This test is able to check daytime running lamp operation [On/Off].	— A
ILL DIM SIGNAL	This test is able to check head lamp illumination dimming operation [On/Off].	

WORK SUPPORT

Support Item	Setting	Description		
TWILIGHT On	MODE2*	Autolamp function ON.		
	MODE1	Autolamp function OFF.		
	MODE4	This mode is not used.		
WIPER LINK	MODE3*	Wiper link function operates in INT, LOW and HI.		
	MODE2	Wiper link function operates in LOW and HI.		
	MODE1	Wiper link function OFF.		
CUSTOM A/LIGHT SETTING	MODE4	Less sensitive than normal setting (turns ON later).		
	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			
	MODE 4	Autolome dolou timor		
ILL DELAY SET	MODE 5	 Autolamp delay timer. 		
	MODE 3			
	MODE 2	-		
	MODE 1*			

* : Initial setting

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must EXL 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 no-start condition.

DATA MONITOR

Monitor Item [Unit]	Description	N
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]		
HAZARD SW [On/Off]	Indicates condition of hazard switch.	
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.	
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.	
RKE-PANIC [On/Off]	Indicates condition of panic alarm signal from Intelligent Key.	

ACTIVE TEST

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< SYSTEM DESCRIPTION >

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

WORK SUPPORT

Support Item	Setting	Description
3-TIME FLASHER SETTING	On [*]	3-Time flasher setting ON.
	Off	3-Time flasher setting OFF

*: Initial Setting

< SYSTEM DESCRIPTION >	
DIAGNOSIS SYSTEM (IPDM E/R)	А
Diagnosis Description	1.4
AUTO ACTIVE TEST	В
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	С
 Side marker lamps Tail lamps 	D
 License plate lamps Daytime running lamps (if equipped) Headlamps (LO, HI) A/C compressor Cooling fans (LO, HI) 	E
Operation Procedure	F
CAUTION: Do not start the engine. NOTE: When auto active test is performed with hood opened, sprinkle water on windshield before hand.	G
 NOTE: If auto active test mode cannot be actuated, check door switch system. Refer to <u>DLK-168</u>, <u>"Component Function Check"</u>. 	Н
 When auto active test mode has to be cancelled halfway through test, turn ignition switch OFF. 	
 Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation) 	I
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.	J
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.	Κ
Inspection in Auto Active Test Mode When auto active test mode is actuated, the following operation sequence is repeated 3 times.	EXL

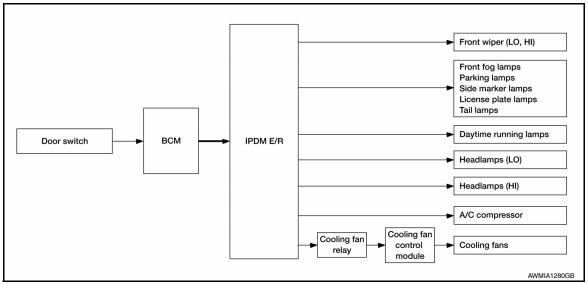
Operation se- quence	Inspection Location	Operation	
1	Front wiper	LO for 3 seconds \rightarrow HI for 3 seconds	IV
2	 Front fog lamps Parking lamps Side marker lamps Tail lamps License plate lamps 	10 seconds	Ν
3	Daytime running lamps (if equipped)	10 seconds	С
4	Headlamps	LO ⇔ HI 5 times	
5	A/C compressor	$ON \Leftrightarrow OFF 5$ times	
6*	Cooling fans	LO for 5 seconds \rightarrow HI for 5 seconds	

*: Outputs duty ratio of 50% for 5 seconds \rightarrow duty ratio of 100% for 5 seconds on the cooling fan control module.

DIAGNOSIS SYSTEM (IPDM E/R)

< 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	
 Front fog lamps Parking lamps Side marker lamps License plate lamps Tail lamps Daytime running lamps (if equipped) Headlamp (HI, LO) Front wiper 	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 	
		YES	 ECM signal input circuit CAN communication signal between ECM and IPDM E/ R 	
Cooling fans do not operate	Perform auto active test. Do the cooling fans operate?	NO	 Cooling fans Harness or connectors be- tween cooling fans and cooling fan control module Cooling fan control module Harness or connectors be- tween cooling fan relay and cooling fan control module Cooling fan relay Harness or connectors be- tween IPDM E/R and cool- ing fan relay IPDM E/R 	

CONSULT Function (IPDM E/R)

INFOID:000000012927050

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 no-start condition.

DIAGNOSIS SYSTEM (IPDM E/R)

< 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.	E	В
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.	(C
Active Test	The IPDM E/R activates outputs to test components.	(C
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
RAD 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 commu- nication line
TAIL&CLR REQ [On/Off]	×	Indicates position light request signal received from BCM on CAN communica- tion 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 communica- tion 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 communica- tion 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 commu- nication line

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DIAGNOSIS SYSTEM (IPDM E/R)

< 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

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-18. "CAN Diagnostic Support Monitor".

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION BCM, IPDM E/R

List of ECU Reference

INFOID:000000012548910

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ECU	Reference	
	BCS-31, "Reference Value"	
DOM	BCS-50, "Fail Safe"	
BCM	BCS-51, "DTC Inspection Priority Chart"	
	BCS-52, "DTC Index"	
	PCS-12, "Reference Value"	
IPDM E/R	PCS-19. "Fail Safe"	
	PCS-20, "DTC Index"	

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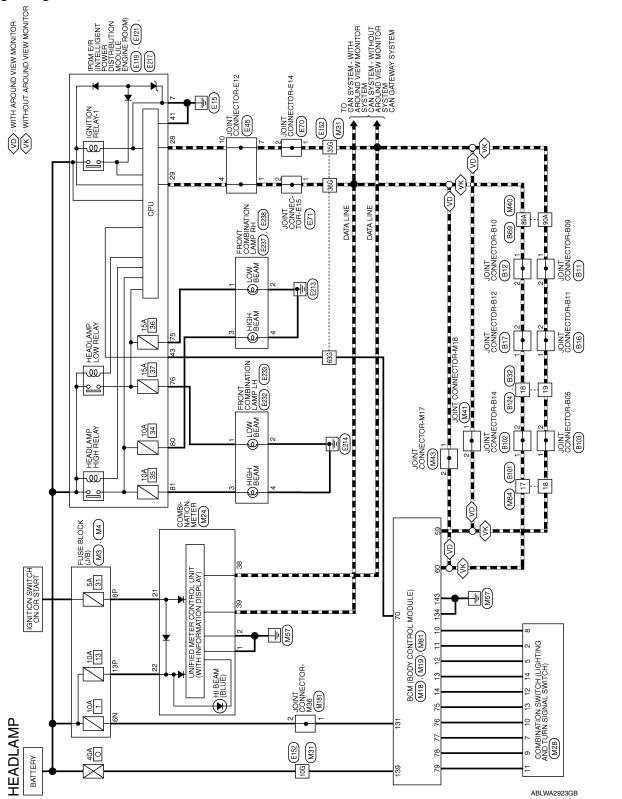
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< WIRING DIAGRAM > WIRING DIAGRAM HEADLAMP

Wiring Diagram

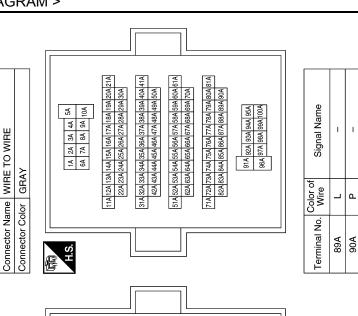


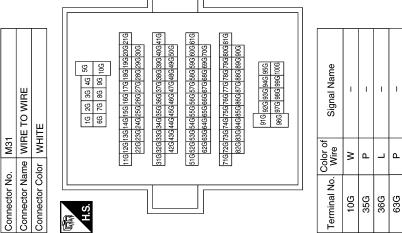
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Connector No. M18 Connector Name BCM (BODY CONTROL Connector Color GREEN	2019 18 17 18 15 14 13 12 11 13 12 14 40 39 37 35 34 33 23 13 23 13 2 14 Terminal No. Color of Signal Name 10 W COMBI SW IN 5 11 BG COMBI SW IN 4 12 R COMBI SW IN 3 13 G COMBI SW IN 3 14 P COMBI SW IN 1		A B C D F
M4 he FUSE BLOCK (J/B) or WHITE Tele [5P 4P3P 2P 1P] 13P [5P] 4P [3P 2P 1P] 13P [5P] 4P [3P 2P 1P]	Signal Name	Signal Name CAN-L CAN-H IGN USM OUT 1 COMBI SW OUT 5 COMBI SW OUT 3 COMBI SW OUT 3 COMBI SW OUT 1	G
0. M4 ame FUSE B olor WHITE (70.69.139.149.139)	Color of Wire W		I
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ADLAMP CONNECTORS Connector No. M3 Connector Name FUSE BLOCK (J/B) Connector Color WHITE MM SN	Signal Name	EDV CONTE	K EXL
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HEADLAMP CONNECTORS Connector No. M3 Connector Name FUSE BLOCK (J/B) Connector Color WHITE MININGN (MINING)	Connector No.	Connector Name Borecor Name Borecor Color Borecor Color Borecor Color Borecor Color Borecor Name Borecor Name	0

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Connector No.

Connector No. M81 Connector Name BCM (BODY CONTROL Connector Color WHITE	Terminal No.Color of WireSignal Name131WBAT BCM FUSE134BGND 2139WBAT POWER F/L143BGND 1	Connector No. E45 Connector Name JOINT CONNECTOR-E12 Connector Name JOINT CONNECTOR-E12 Connector Color BLUE Image: State of the state o	
Connector No. M43 Connector Name JOINT CONNECTOR-M17 Connector Color WHITE	Terminal No. Color of Wire Signal Name 1 L - 2 L -	Connector No. M181 Connector Name JOINT CONNECTOR-M36 Connector Color WHITE Image: Signal Name Image: Signal Name 1 W - 2 W -	
Connector No. M41 Connector Name JOINT CONNECTOR-M18 Connector Color WHITE Image: Imag	Terminal No. Color of Wire Signal Name 1 P - 2 P -	Connector No. M84 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Main Signal Name T L - Terminal No. Color of Wire Signal Name	

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2016 Pathfinder

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Connector No. E119 Connector Name IPDM E/R (INTELLIGENT Connector Name POWER DISTRIBUTION Connector Color WHITE MODULE ENGINE ROOM) Connector Color WHITE Image: State Sta	41 B GND (SIGNAL) 43 L IGN SIGNAL	Terminal No. Color of Wire Signal Name 10G P - 35G P - 36G L - 63G L -
Connector No. E71 Connector Name JOINT CONNECTOR-E15 Connector Color BLACK Image: State of the stat		Solution E152 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHIE TO WIRE Connector Color WHIE Main Use 56 46 100 94 100 96
Connector No. E70 Connector Name JOINT CONNECTOR-E14 Connector Color BLACK Connector Color BLACK Image: State of the stateo		Connector No. E121 Connector Name IPDM E/R (INTELLIGENT MODULE ENGINE ROOM) Connector Color WHITE MODULE ENGINE ROOM) Terminal No. 7 7 B GND (POWER DISTRIBUTION

E233 FRONT COMBINATION LAMP LH BLACK		Signal Name -	Connector No. B11 Connector Name JOINT CONNECTOR-B09 Connector Color WHITE	Signal Name	
		Color of Wire B B	01N 00r WHI 01	P P	
Connector No. Connector Name Connector Color	同 H.S.	Terminal No. 3 4	Connector No. B11 Connector Name JOINT C Connector Color WHITE	Terminal No.	
E232 FRONT COMBINATION LAMP LH BLACK		Signal Name	E238 FRONT COMBINATION LAMP RH BLACK	Signal Name	
2 IP LH CK		Signa			
		Color of Wire L B B		Wire W	
Connector No. Connector Name Connector Color	तित्र H.S.	Terminal No.	Connector No. Connector Name Connector Color	Terminal No. 3 4	
	_				
E217 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	12 20 81	Signal Name HEADLAMP LO RH HEADLAMP LO LH HEADLAMP HI RH HEADLAMP HI LH	E237 FRONT COMBINATION LAMP RH BLACK	Signal Name	
E217 IPDM E/ POWER MODUL	WHITE	Color of Wire R HE C H HE G HI	E237 FRONT C BLACK	Mire B B	
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Revision: November 2015

Connector No. B12 Connector Name JOINT CONNECTOR-B10 Connector Color WHITE	Connector No. B16 Connector Name JOINT CONNECTOR-B11 Connector Color WHITE	Connector No. Connector Name Connector Color	B17 me JOINT (lor WHITE	Connector No. B17 Connector Name JOINT CONNECTOR-B12 Connector Color WHITE
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Connector No. B32 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Mile Mile 1 Mile Signal Name Signal Name 18 L - 19 P -	Somector No. B69 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Solar GRAY Salar Salar Salar Salar Salar Salar Salar Salar Salar Salar Salar Salar Salar Salar Salar Salar Salar Salar Salar <td>Terminal No. 89A 90A</td> <td>Color of Wire P</td> <td>Signal Name</td>	Terminal No. 89A 90A	Color of Wire P	Signal Name

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Connector No. B103 Connector Name JOINT CONNECTOR-B05 Connector Color WHITE Minal No. [14] 3[2] 1[0] Terminal No. Color of Wire			С
Connector No. B103 Connector Name JOINT Connector Name JUINT Connector Color WHITE			D
Connector No. Connector Nan Connector Colt	- N		Е
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ONNECTOR-B14			G
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Connector No. B10. Connector Name JOIN Connector Color WHI H.S. H.S.			I
Connee Connee H.S.			J
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	L – P – No. B124 Name WIEE TO WIRE Color WHITE 1 2 1 2 1 2 1 2 1 2 1 2	Signal Name	EXL M
B101 WIRE 7 WHITE 20 21 22 21 22 21 22	17 L 18 P 18 P 18 P 18 P Connector No. B124 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE International State International State	Color of Wire P	N
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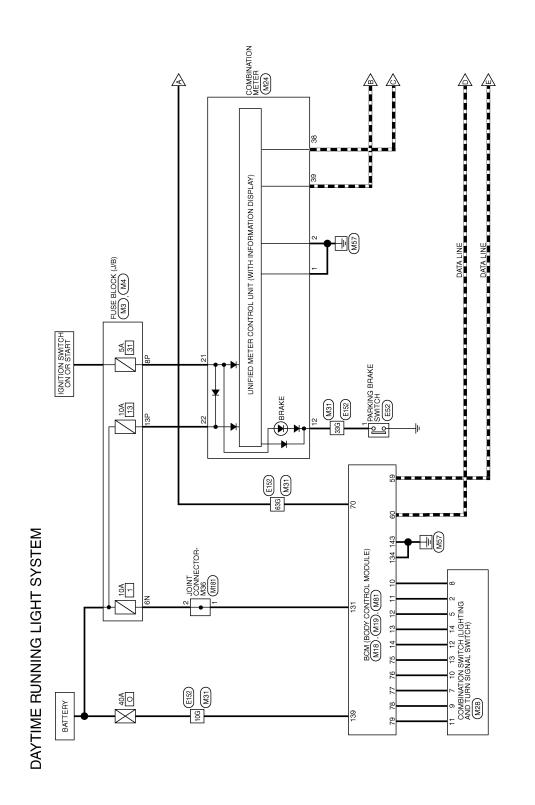
Revision: November 2015

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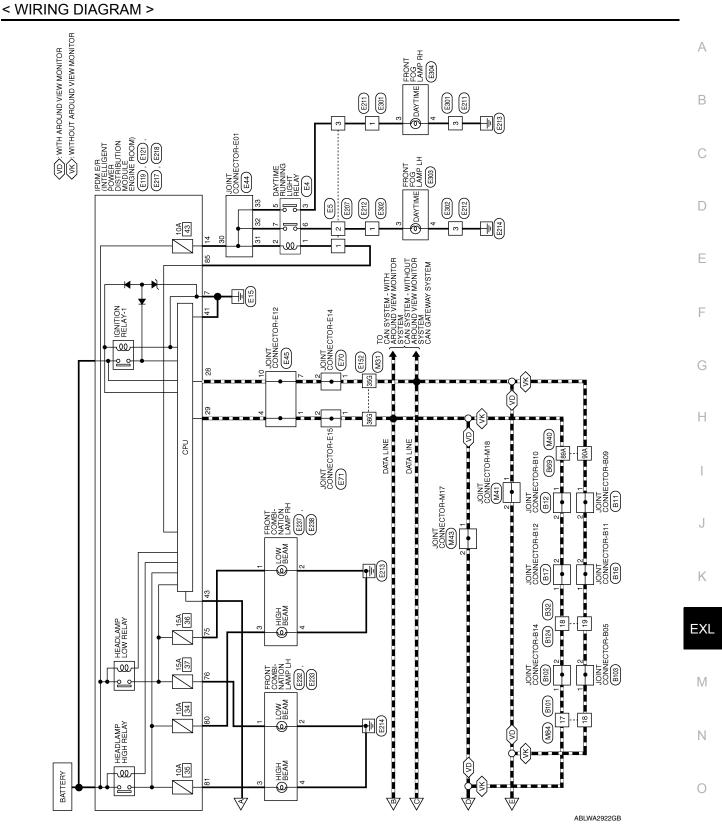
DAYTIME RUNNING LIGHT SYSTEM

Wiring Diagram

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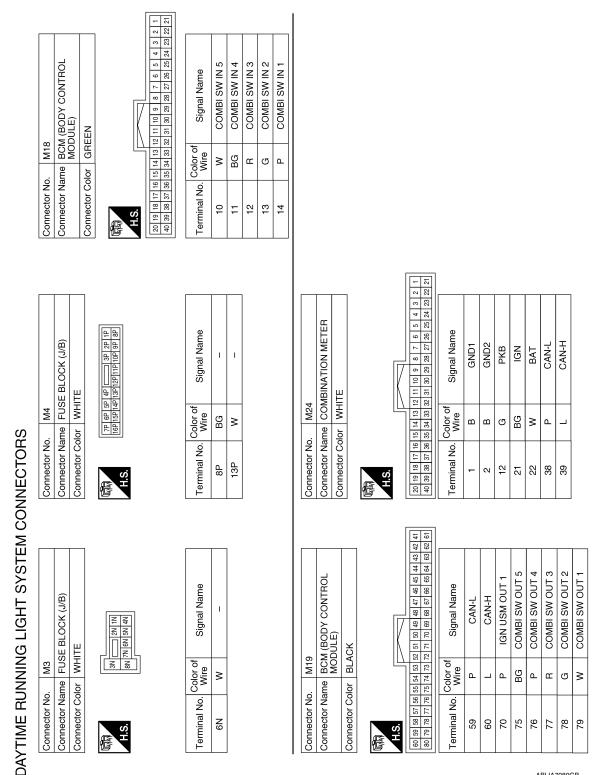


DAYTIME RUNNING LIGHT SYSTEM

Revision: November 2015

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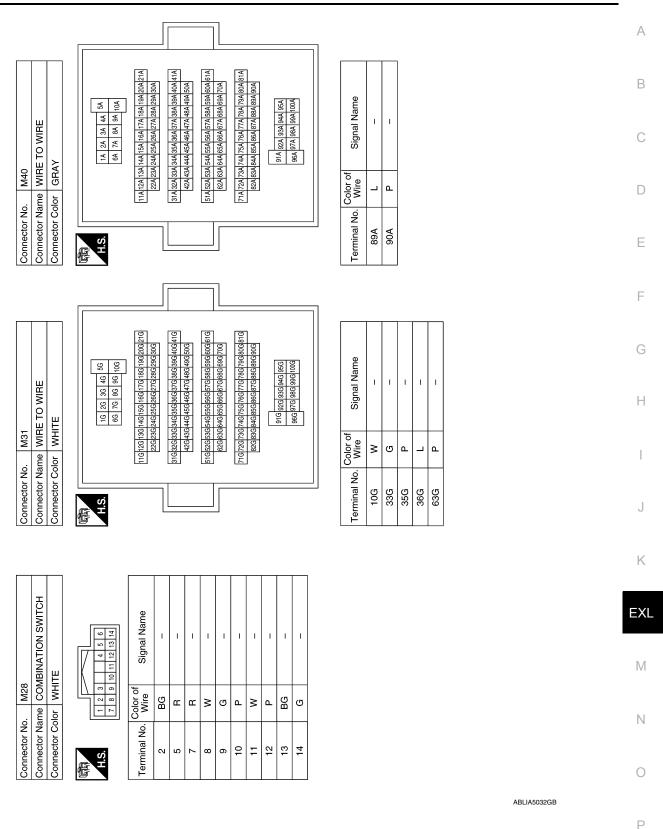
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DAYTIME RUNNING LIGHT SYSTEM

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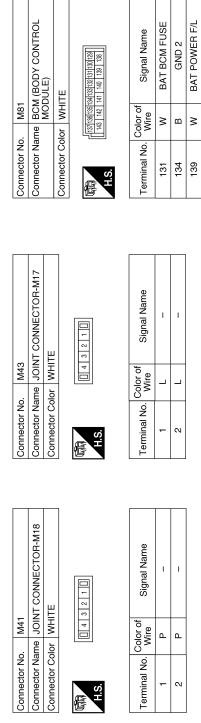
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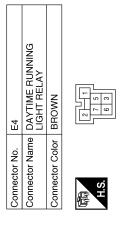
DAYTIME RUNNING LIGHT SYSTEM

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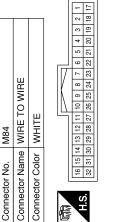




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Terminal No. Color of Wire	-	2	в	5	9	7

Connector No.	M181
Connector Name	Connector Name JOINT CONNECTOR-M36
Connector Color WHITE	WHITE
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Color of Wire	×	Μ
Terminal No.	1	2



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Signal Name	1	I	
Color of Wire	L	Ч	
Terminal No.	17	18	

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Connector No. E44 Connector Name JONT CONNECTOR-E01 Connector Name JONT CONNECTOR-E01 Connector Color WHITE M The state stat	Connector No. E45 Connector Name JOINT CONNECTOR-E12 Connector Color BLUE	Terminal No.Color of WireSignal Name1L-4L-7P-10P-	Connector No. E71 Connector Name JOINT CONNECTOR-E15 Connector Color BLACK Image: Signal Name Image: Signal Name 1 L - 2 L -
Connector Name Connector Name Connector Name Connector Name Connector Name Connector No. Connector N	4 INT CONNECTOR-E01 HITE 8 7 6 5 4 3 2 1 9 18 17 16 15 14 13 12 30 29 28 27 26 25 24 23		D INT CONNECTOR-E14 ACK Signal Name
	Connector No. E4 Connector Name JO Connector Color WH	Terminal No.Color of Wire30LG31LG32V33V	Connector No. E7 Connector Name JO Connector Color BL Terminal No. Wire 2 P

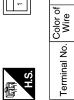
Connector No. E5 Connector Name WIRE Connector Color WHITE 1 2 3

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Terminal No. Wire BB BB ≻ 0 10 -

Connector Name PARKIN Connector Color BLACK -E52 Connector No.



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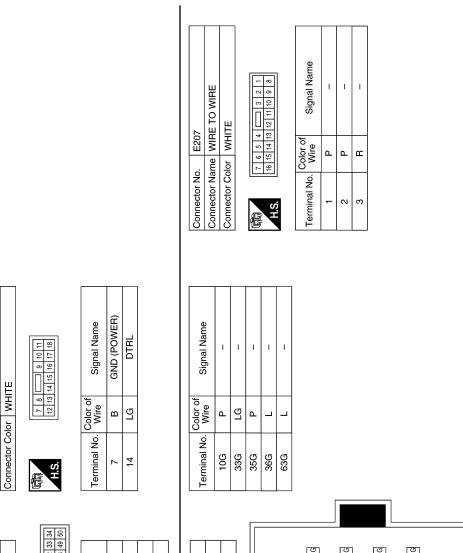
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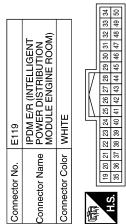
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Revision: November 2015





Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM)

E121

Connector No.

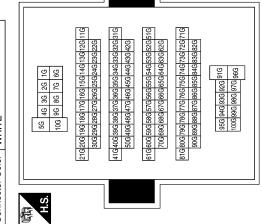
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Connector No.	E152	5
Connector Name WIRE TO WIRE	ne WIF	RE TO WIRE
Connector Color WHITE	or WH	ITE

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DAYTIME RUNNING LIGHT SYSTEM

А IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) В HEADLAMP LO RH HEADLAMP LO LH HEADLAMP HI RH HEADLAMP HI LH Connector Name FRONT COMBINATION Signal Name Signal Name Т L 74 75 76 77 78 79 80 81 С L E BLACK WHITE E233 E217 Color of Wire Color of Wire വ œ _ ≥ വ ш D Connector Name Connector Color Connector Color Connector No. Connector No. Terminal No. Terminal No. 75 76 8 4 80 ო H.S. H.S. Ε E E F Connector Name FRONT COMBINATION Signal Name Signal Name 1 T Т L Connector Name WIRE TO WIRE Н BLACK GRAY E212 E232 Color of Wire Color of Wire ٩ ш ш _ Connector Color Connector Color Connector No. Connector No. Terminal No. Terminal No. ო -N H.S. -H.S. J 佢 佢 Κ IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) EXL Signal Name Signal Name DTRL RLY 88 89 96 97 L Т Connector Name WIRE TO WIRE 84 85 86 87 8 92 93 94 95 9 ► (0) + (0) Μ WHITE GRAY E211 E218 Color of Wire Color of Wire 82 83 8 90 91 9 œ ш ٩ Connector Color Connector Name Connector Color Ν Connector No. Connector No. Terminal No. Terminal No. 85 ო H.S. H.S.

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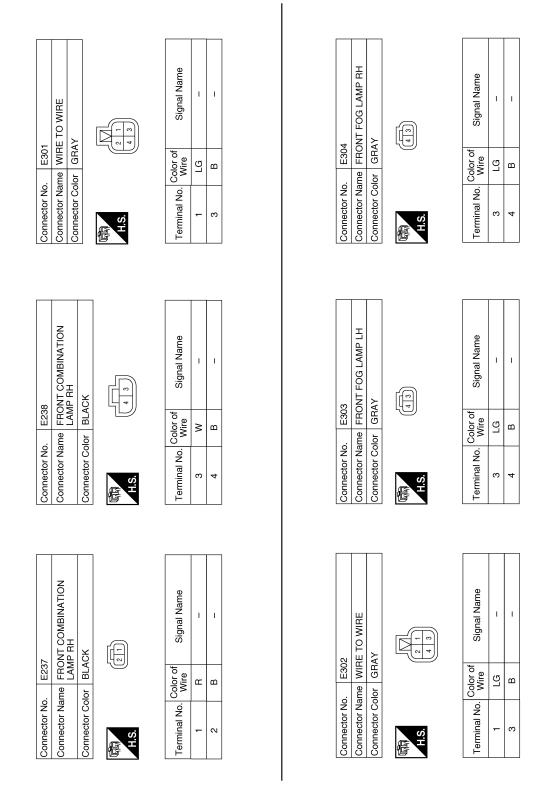
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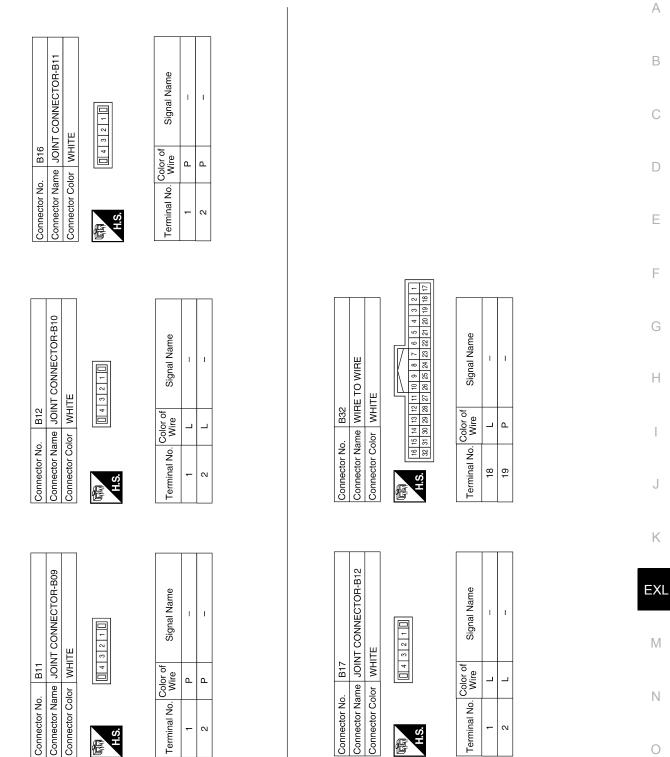
DAYTIME RUNNING LIGHT SYSTEM

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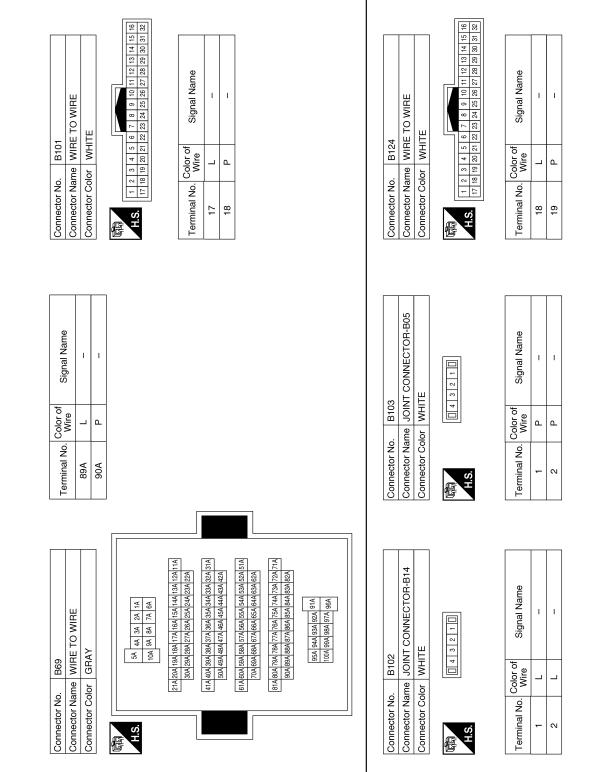
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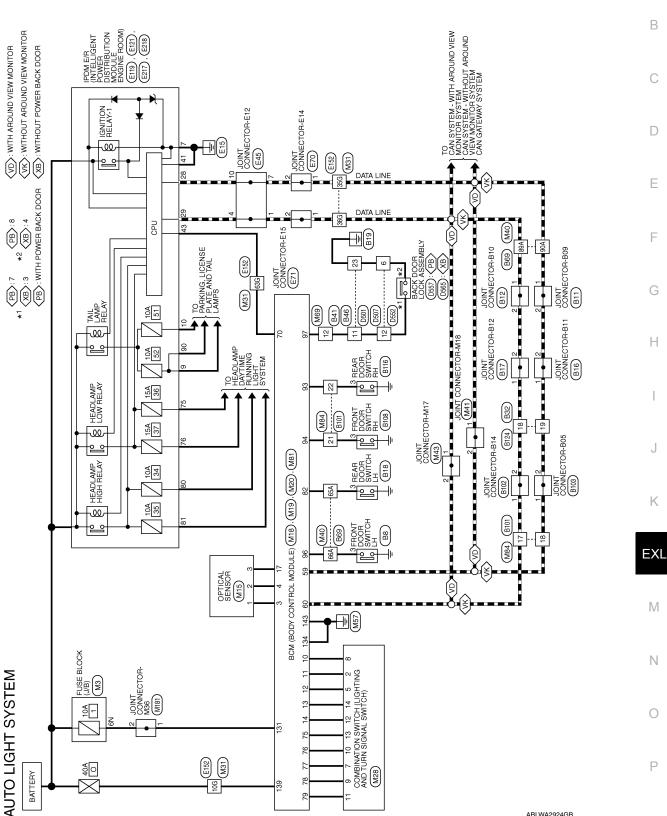
DAYTIME RUNNING LIGHT SYSTEM

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Wiring Diagram



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Revision: November 2015

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Connector No. M18 Connector Name BCM (BODY CONTROL MODINIED	Connector Color GREEN	王 兄	20 19 18 17 16 15 14 10 9 8 7 6 5 4 3 2 1 40 30 30 37 36 35 34 33 23 31 30 29 27 28 25 24 23 2 1	Terminal No. Color of Signal Name	3 W AVL POWER SUPPLY 5V	4 G A/L SIGNAL	10 W COMBI SW IN 5	11 BG COMBI SW IN 4	12 R COMBI SW IN 3	13 G COMBI SW IN 2	14 P COMBI SW IN 1	17 R GND RF A/L		Connector Name BCM (BODY CONTROL MODULE)	Connector Color GRAY			H.S. 92 91 90 89 88 87 86 85 84 83 82 81 Indinanana 20 28 93 90 89 87 95 86 34 33 82 81	±2 22 22		Terminal No. Wire Signal Name	82 W RL DOOR SW	93 R RR DOOR SW	94 G AS DOOR SW	96 BG DR DOOR SW	97 W BACK DOOR SW
	or WHITE			Color of Signal Name	- M	۱ ت	н						Color of Signal Name		L CAN-H	P IGN USM OUT 1	BG COMBI SW OUT 5	P COMBI SW OUT 4	R COMBI SW OUT 3	G COMBI SW OUT 2	W COMBI SW OUT 1					
Connector No. Connector Name	Connector Color	日 H.S.		Terminal No.	-	N	3						Terminal No.		60	70	75	76	77	78	79					
	Connector Color WHITE			Terminal No. Color of Signal Name									M19	Connector Name BCM (BODY CONTROL MODULE)	Connector Color BLACK			H.S.		90 35 35 35 31 30 49 48 41 46 43 42 41 80 79 78 77 77 77 77 77 77 77 77 77 77 77 77 77 77 76 68 68 67 66 65 64 63 62 61	-			ABL 1/	۸714:	GGB

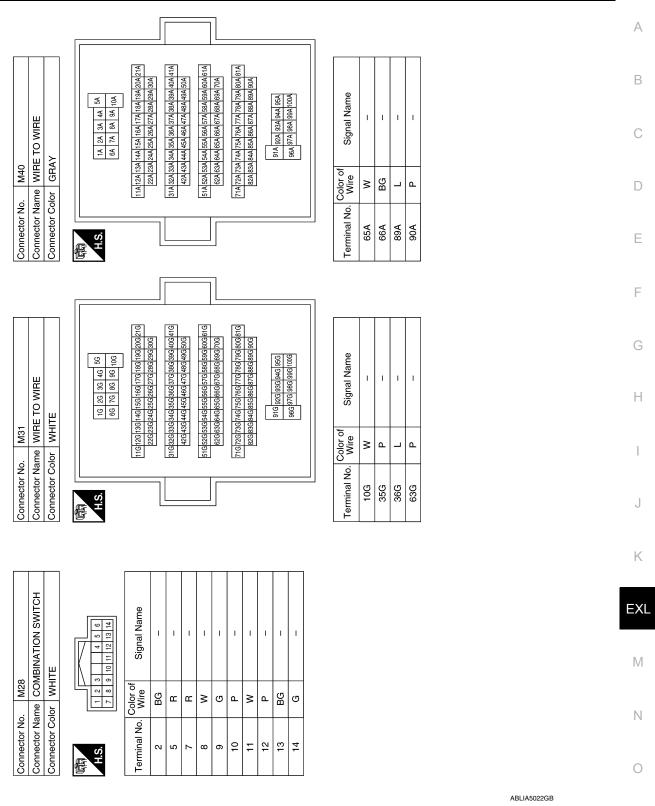
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AUTO LIGHT SYSTEM

Revision: November 2015

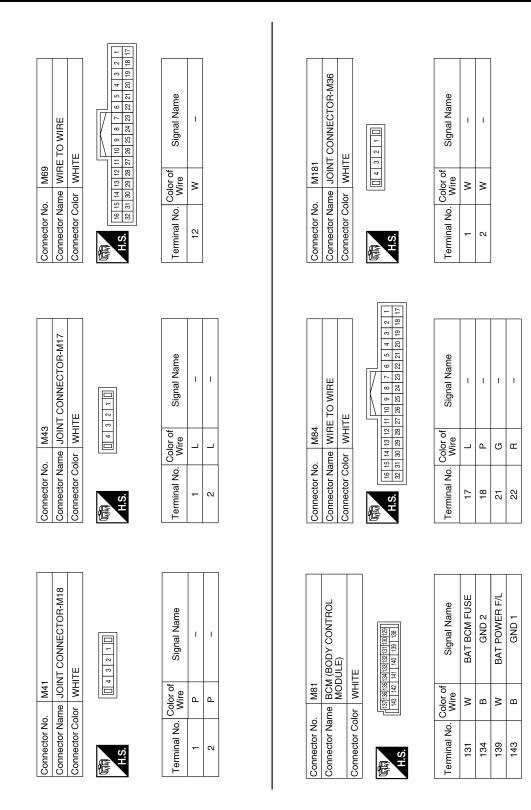
2016 Pathfinder

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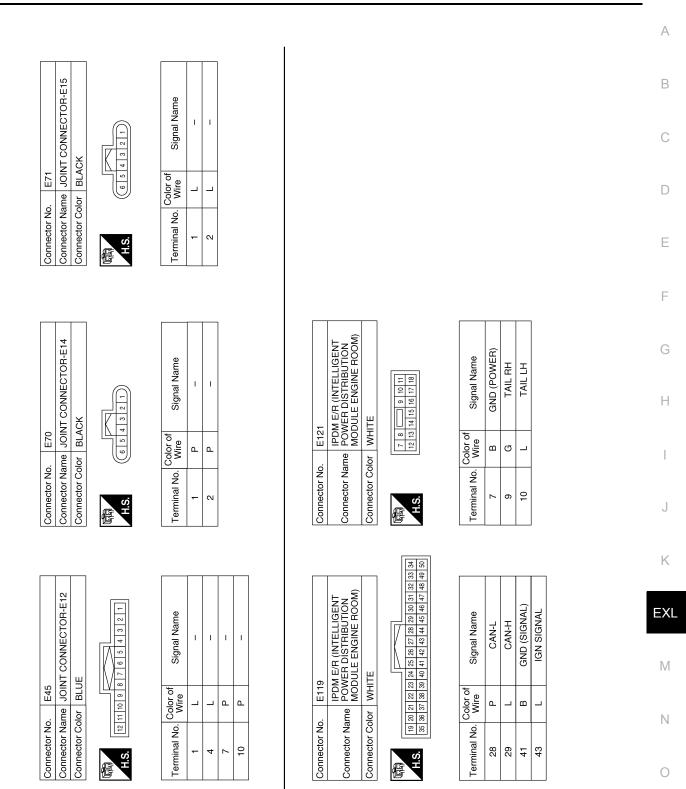


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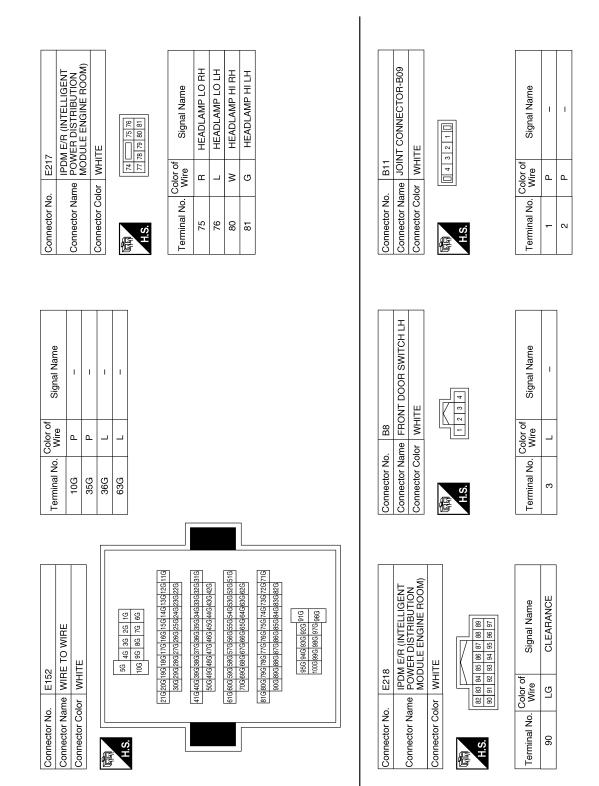


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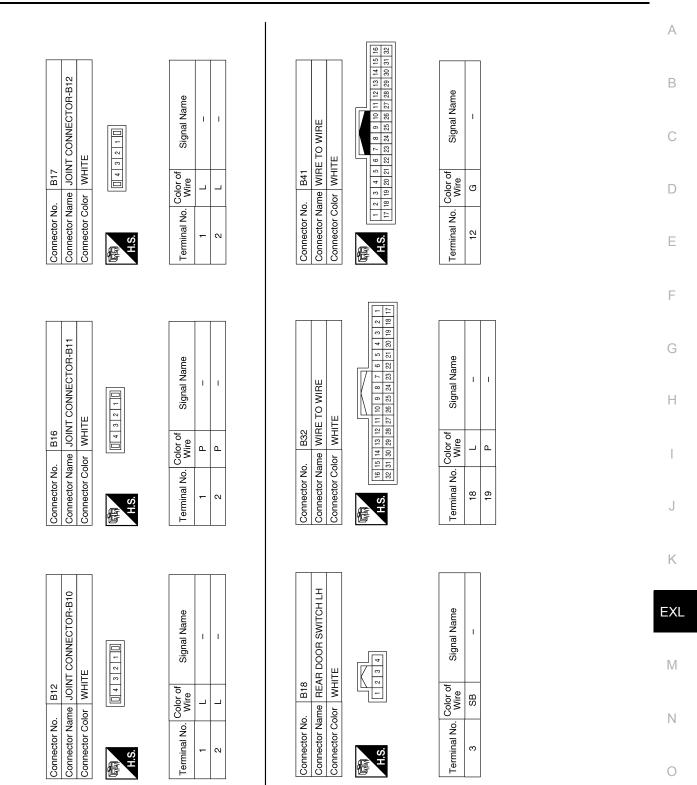
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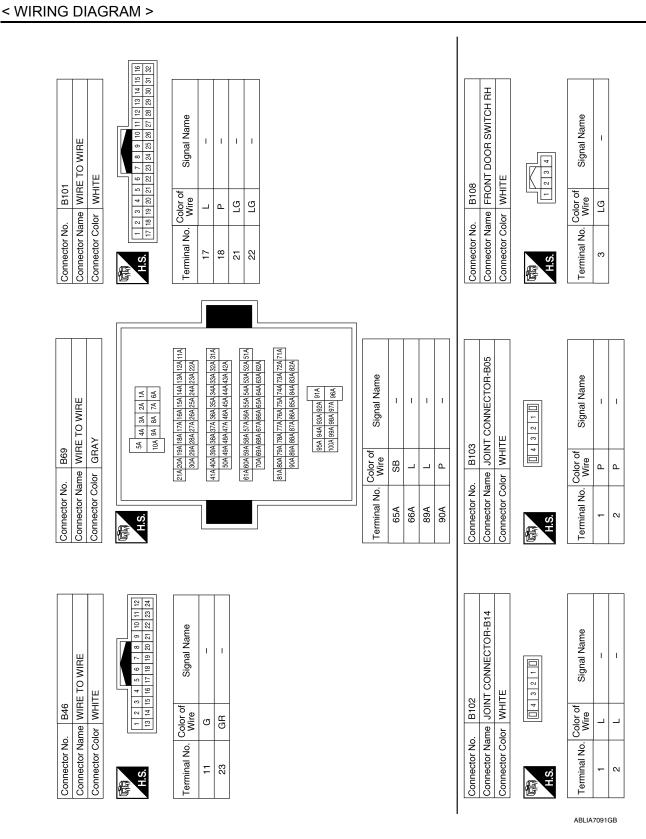
Revision: November 2015



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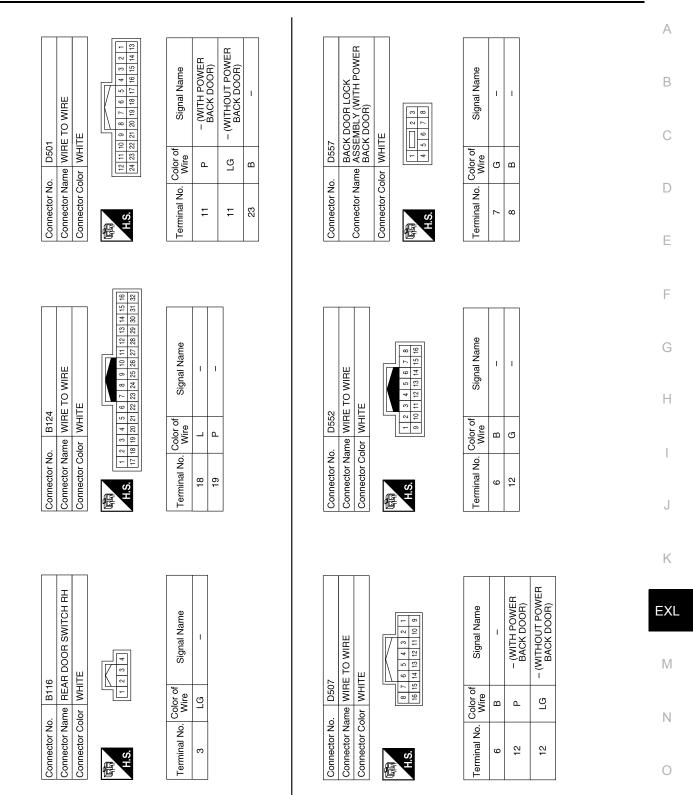


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Revision: November 2015

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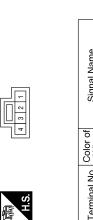
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Connector Name BACK DOOR LOCK ASSEMBLY (WITHOUT POWER BACK DOOR)

D565

Connector No.

Connector Color WHITE

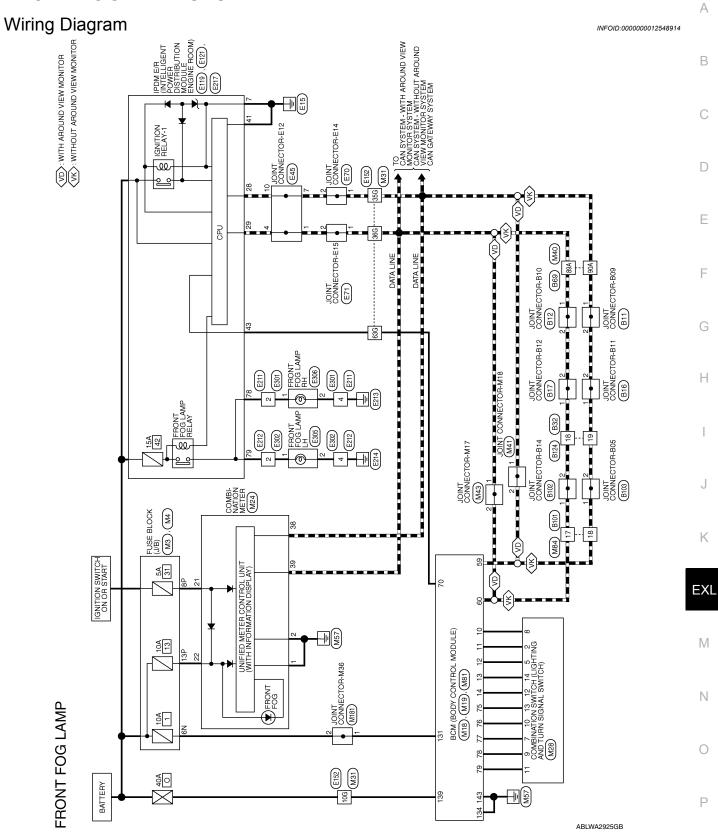


Signal Name	1	ļ	
Color of Wire	J	В	
Terminal No.	e	4	

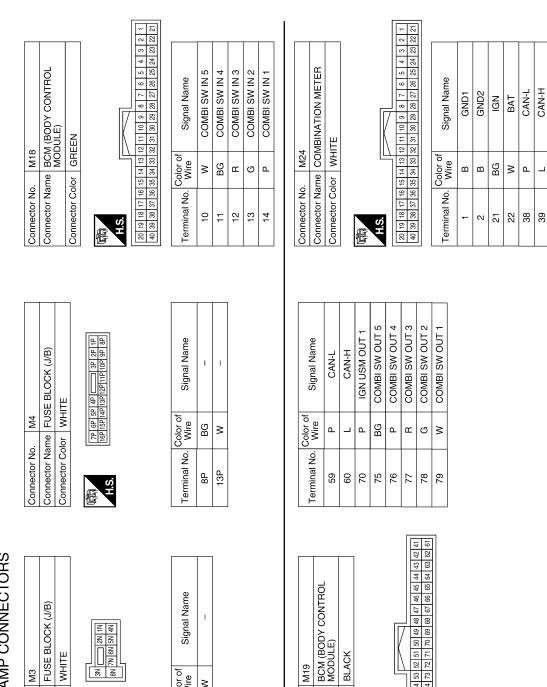
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FRONT FOG LAMP SYSTEM



Revision: November 2015



FRONT FOG LAMP CONNECTORS

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Connector No.

Connector Name

Connector Color

H.S. 佢

< WIRING DIAGRAM >

Revision: November 2015

M19

Connector No.

Connector Name

Connector Color

H.S.

E

Color of Wire

Terminal No. 6N

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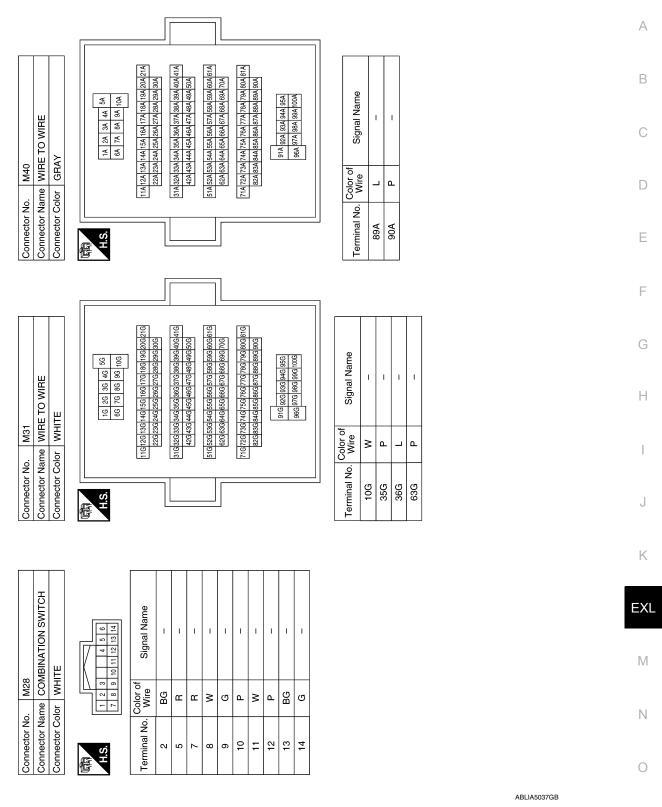
2016 Pathfinder

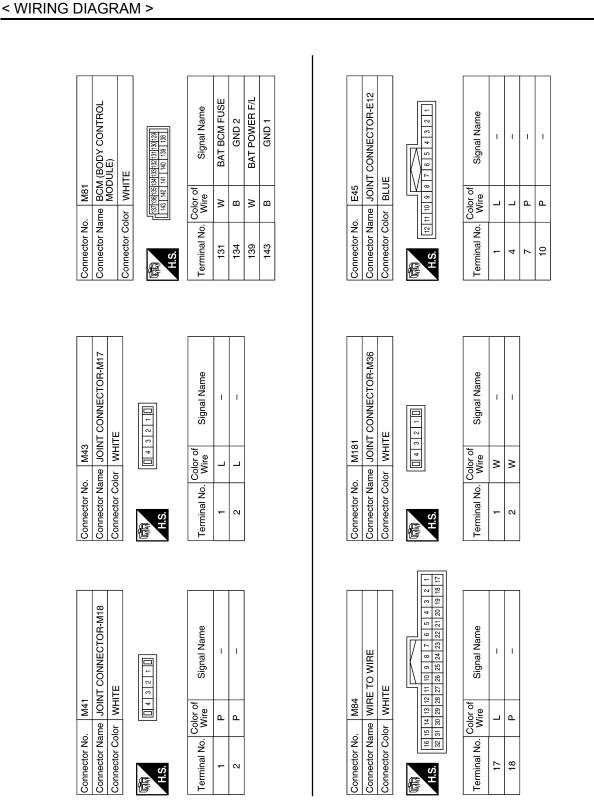
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FRONT FOG LAMP SYSTEM

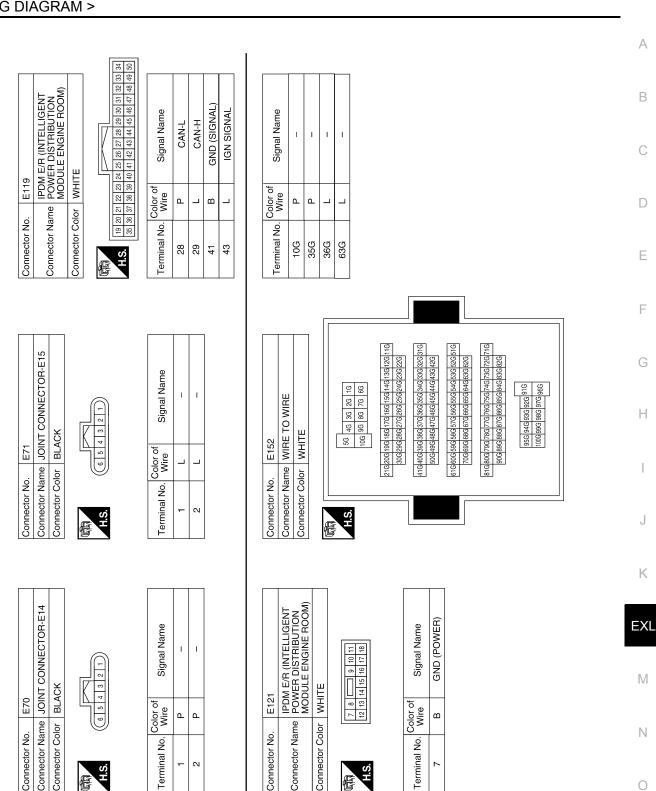
FRONT FOG LAMP SYSTEM

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H.S. E

Color of Wire

Terminal No.

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WHITE

E121

Connector No.

Connector Name Connector Color

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Color of Wire

Terminal No.

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H.S.

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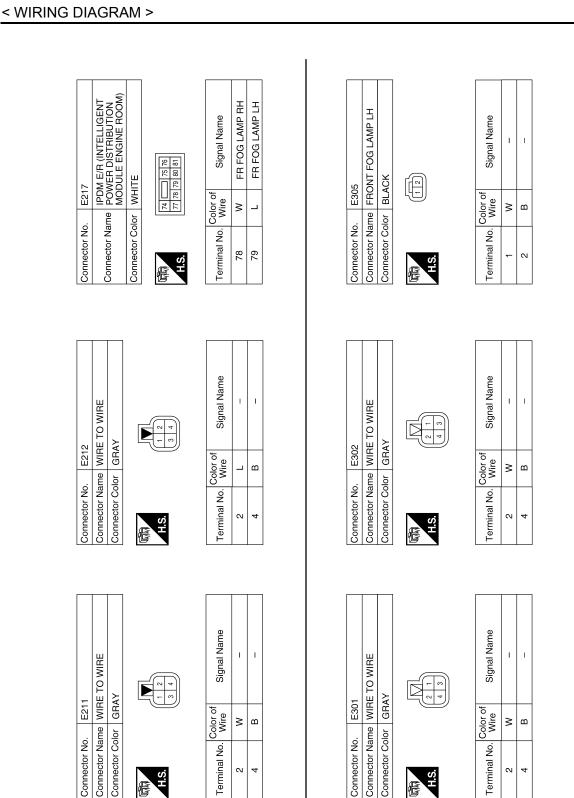
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BLACK

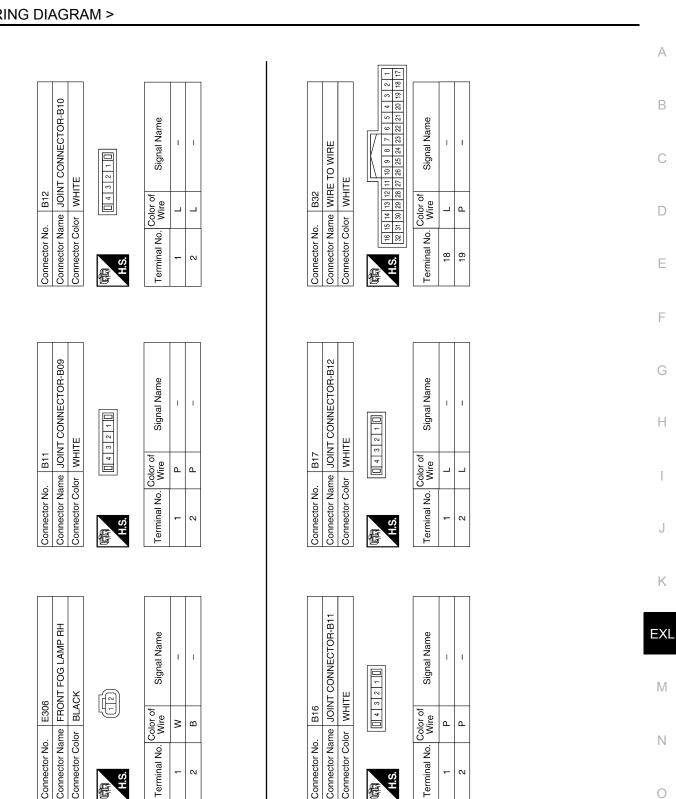
Connector Color

E70

Connector No.



AALIA0917GB



H.S.

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Color of Wire

Terminal No.

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Connector Color WHITE

B16

Connector No.

< WIRING DIAGRAM >

Revision: November 2015

H.S.

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Color of Wire

Terminal No.

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Connector Color | BLACK

Connector Name

E306

Connector No.

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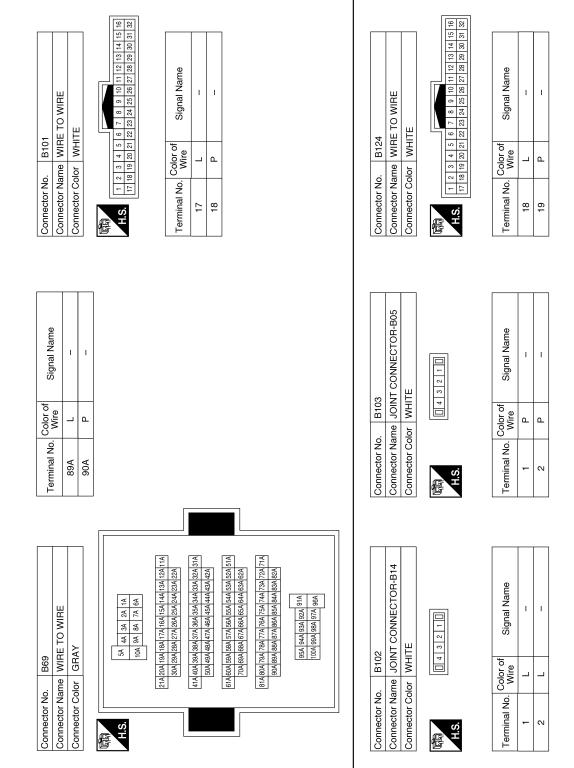
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FRONT FOG LAMP SYSTEM

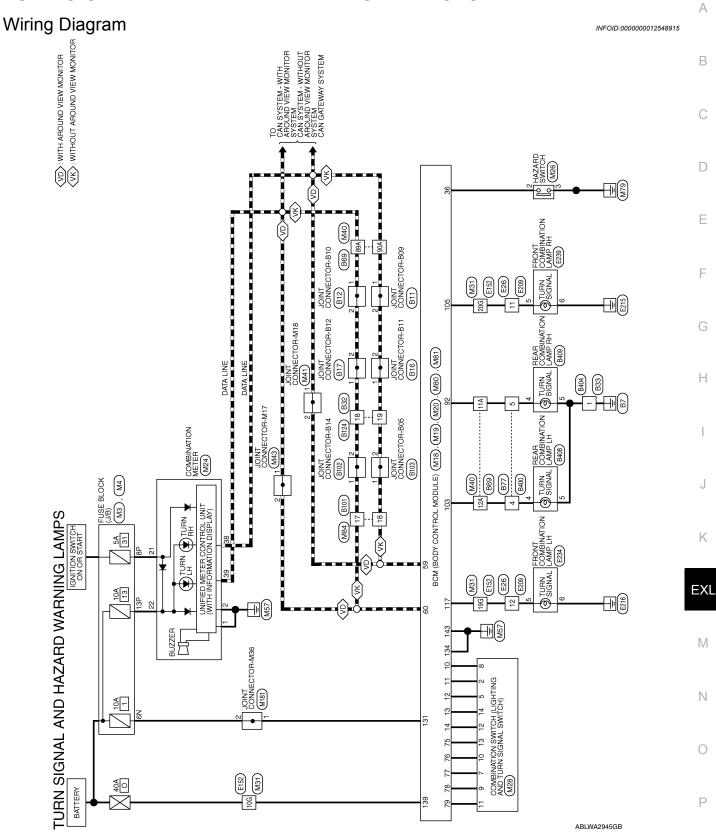


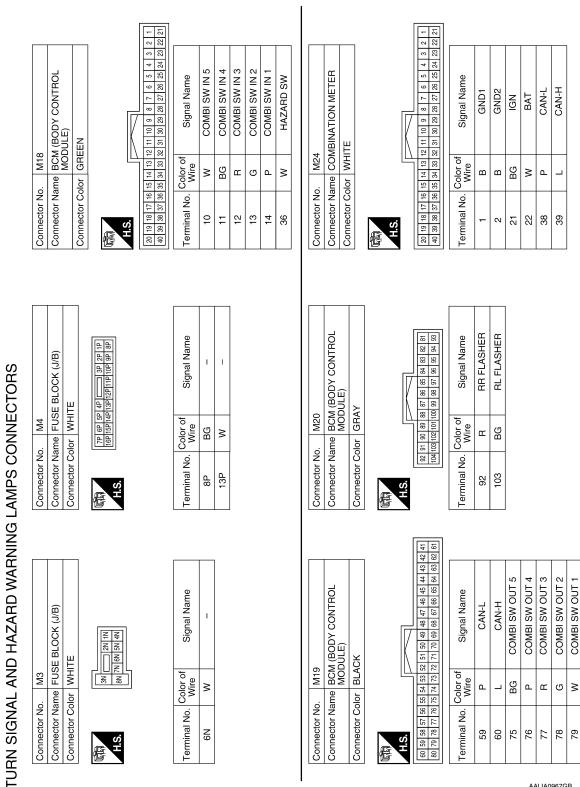
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM





Revision: November 2015

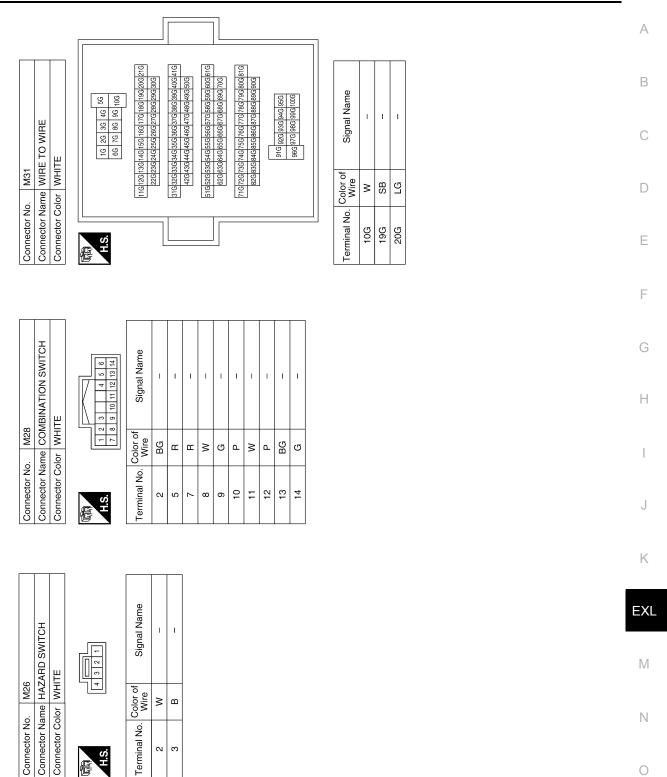
2016 Pathfinder

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

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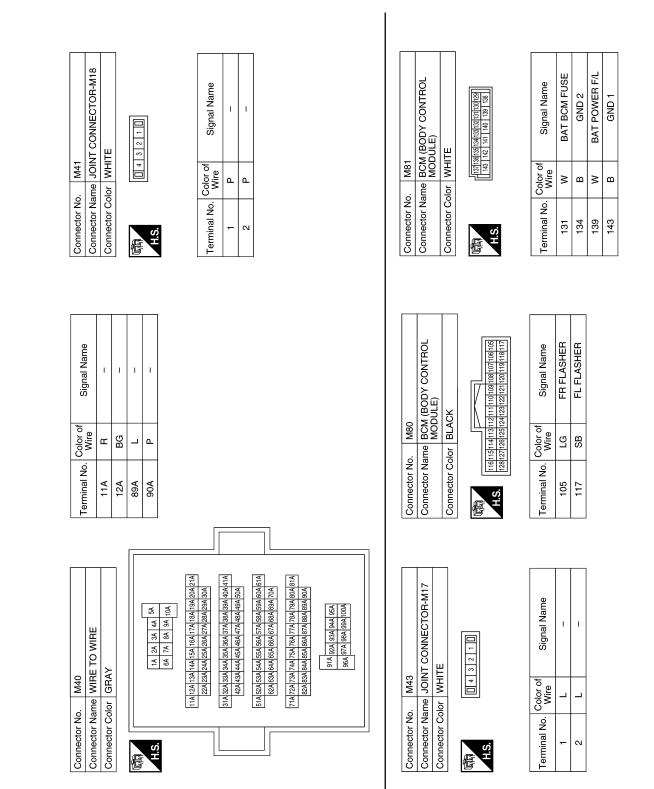
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM < WIRING DIAGRAM >

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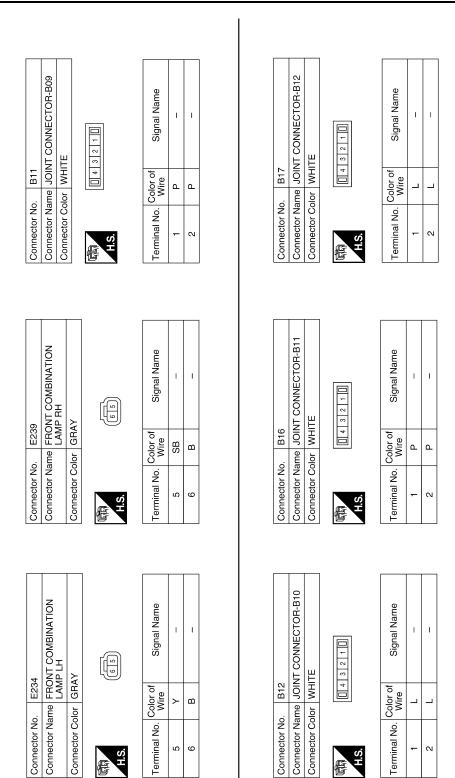
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 Signal Name Signal Name L ī I T Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE С Connector Color WHITE Connector Color WHITE E209 E26 Color of Wire Color of Wire SB G ≥ ≻ D Connector No. Connector No. Terminal No. Terminal No. ÷ ₽ Ξ 12 ALS. H.S. Е E E F Connector Name JOINT CONNECTOR-M36 Signal Name Signal Name I. Т T L ī Н Connector Color WHITE M181 Color of Wire Color of Wire ≥ ≥ ۵. ≥ ശ Connector No. Terminal No. Ferminal No. 10G 19G 20G -N H.S.H. J E Κ 81G80G79G78G77G76G75G74G73G72G71G 90G89G88G87G86G85G84G83G842G 410400390380370360350340330310 500490480470460450450440430420 21G20G19G18G17G16G15G14G13G12G11G 30G29G28G27G26G25G24G23G22G 61G600599G58G57G56G55G54G53G52G51 70G69G68G67G66G65G64G63G62G
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 Signal Name EXL 95G 94G 93G 92G 91G 100G 99G 98G 97G 96G 5G 4G 3G 2G 1G 10G 9G 8G 7G 6G L T Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Μ Connector Color WHITE Connector Color WHITE E152 M84 Color of Wire ٩ _ Ν Connector No. Connector No. **Terminal No.** 17 18 H.S. H.S. E E 0

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Signal Name

Color of Wire

Terminal No.

Signal Name

Color of Wire

Terminal No.

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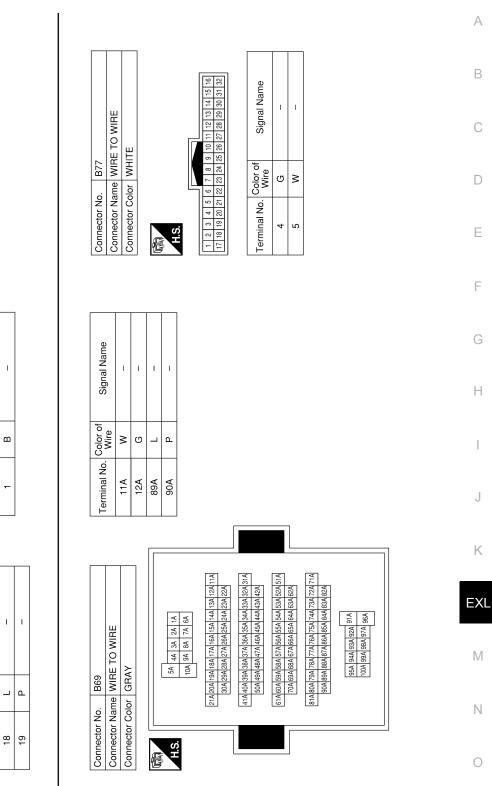
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Connector Name WIRE TO WIRE

Connector Name WIRE TO WIRE

B32

Connector No.

Connector Color WHITE

B33

Connector No.

Connector Color BLACK

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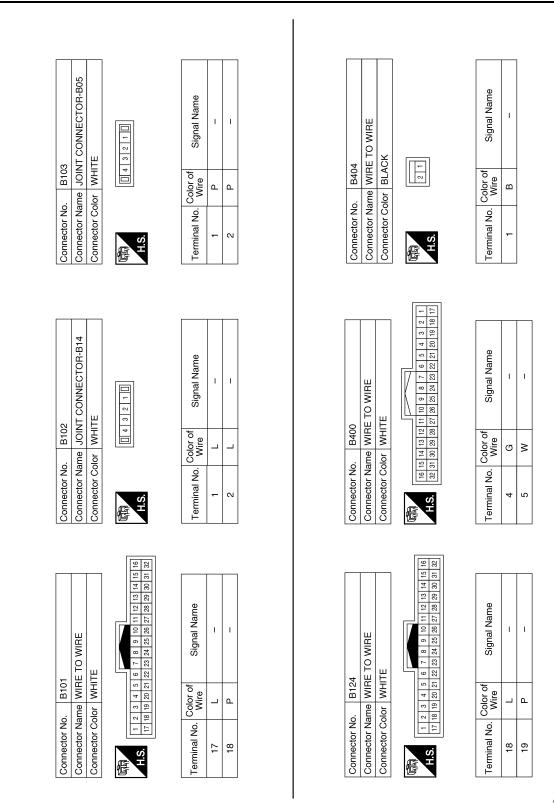
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H.S.

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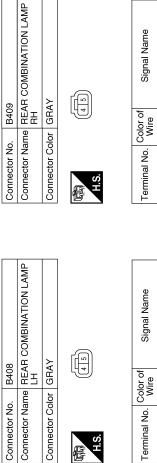
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM < WIRING DIAGRAM >



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H.S. 佢

Connector Color GRAY

B408

Connector No.

Signal Name	I	I
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Terminal No.	4	5

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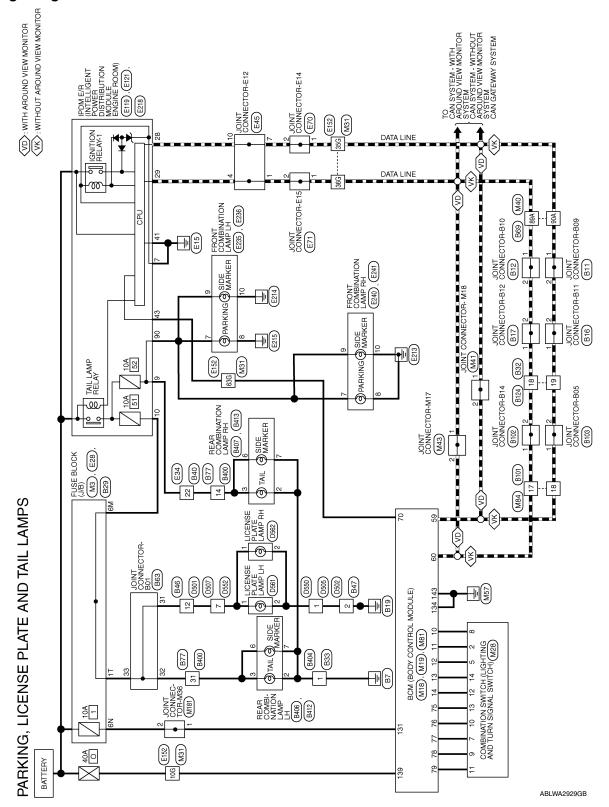
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Wiring Diagram

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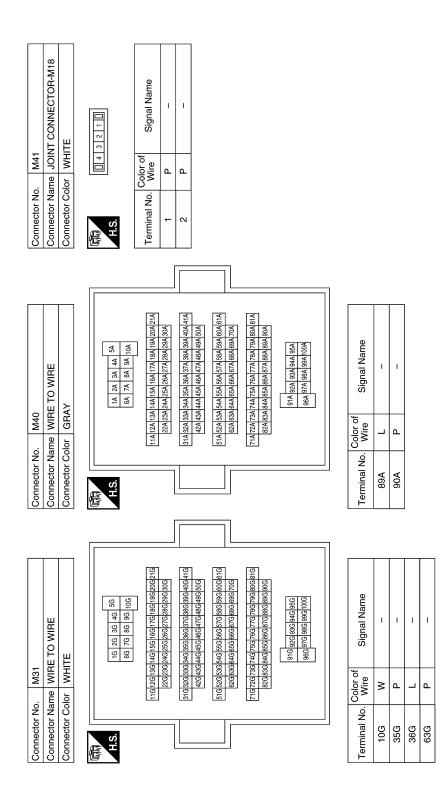


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No. M19 Name BCM (BODY CONTROL Name BCM (BODY CONTROL Color BLACK Color BLACK Signal Name CAN-L Color of Signal Name R COMBI SW OUT 1 Color of Color of N Color of Signal Name CAN-L N Color of R COMBI SW OUT 1 COMBI SW OUT 2 COMBI SW OUT 2	В
M19 BLACK BLACK BLACK BLACK BLACK BLACK Signal Name CAN-L CAN-L CAN-L CAN-L CAN-L CAN-L COMBI SW OUT COMBI SW OUT COMBI SW OUT	С
No. Color of Color of Color of No. M19 No. No. No. No. No.	D
Connector No. Connector Name Connector Name Connector Name Connector Name Connector Color Terminal No. Color 75 E 77 P 79 V	Е
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RS DPY CONTROL E) Signal Name Signal Name COMBI SW IN 5 COMBI SW IN 2 COMBI SW IN 2 COMBI SW IN 1 COMBI SW IN 2 COMBI SW IN 2 COMB	G
ECTORS M18 M18 BCM (BODY CONTROL MODULE) GREEN GREEN GREEN COMBI SW IN 3 COMBI SW IN 1 COMBI SW IN 1	Η
IPS CONNECTORS Connector Name BCM (BODY Connector Color GREEN Module Color of Vire Sig Maine I 1 BG COM 11 BG COM 12 R COM 13 G COM 14 P COM 11 W Sig 12 R Sig 13 G COM 14 P COM 11 W Sig 12 R Sig 13 BG I 14 G Sig 13 BG I 14 G 13 BG 14 G	
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CCK (J/B) CCK (J/B)	EXL
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Sking Matrix Connector No M3 Connector Name FUSE BLOCK (JB) Manual Matrix Manual Signal Name Image: Signal Name Image: Signal Name Image: Signal Nam Image: Si	Ν
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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM < WIRING DIAGRAM >



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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM < WIRING DIAGRAM >

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 В 4 3 2 1 16 15 14 13 Signal Name Signal Name Connector Name WIRE TO WIRE Т Т Connector Name WIRE TO WIRE ī 8 7 6 5 1 20 19 18 17 1 С Connector Color WHITE Connector Color WHITE M84 E34 Color of Wire Color of Wire 12 11 10 9 24 23 22 21 2 _ ۰ G D Connector No. Connector No. Terminal No. Terminal No. 17 18 22 H.S. H.S. Е E 佢 F BCM (BODY CONTROL MODULE) BAT BCM FUSE **BAT POWER F/L** Signal Name Signal Name GND 2 Connector Name FUSE BLOCK (J/B) GND 1 T 137136135134133132131130129 143 142 141 140 139 138
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 Н Connector Color WHITE WHITE M81 Color of Wire E28 Color of Wire ≥ ш ≥ മ _ Connector Name Connector Color Connector No. Connector No. Terminal No. Terminal No. 134 139 143 6M 131 H.S. H.S. J E Æ Κ Connector Name JOINT CONNECTOR-M36 Connector Name JOINT CONNECTOR-M17 EXL Signal Name Signal Name I. Т T I 043210 Μ WHITE Connector Color WHITE M181 M43 Color of Wire Color of Wire _ ≥ ≥ _ Connector Color Connector No. Ν Connector No. Terminal No. Terminal No. N N H.S. --H.S.

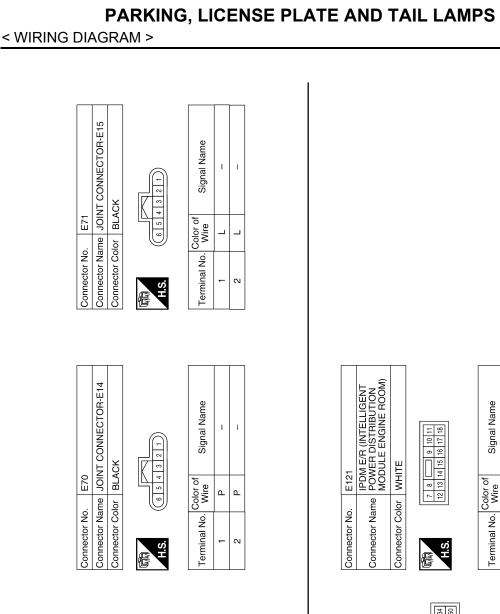
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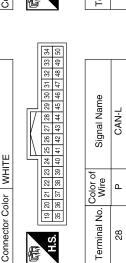
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Connector Name

E119

Connector No.

Signal Name	CAN-L	CAN-H	GND (SIGNAL)	IGN SIGNAL	
Color of Wire	٩	L	В	L	
Terminal No.	28	29	41	43	

GND (POWER)

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TAIL LH TAIL RH

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JOINT CONNECTOR-E12

Connector Name Connector Color

E45

Connector No.

BLUE

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H.S.

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Signal Name

Color of Wire

Terminal No.

I. I. I. T

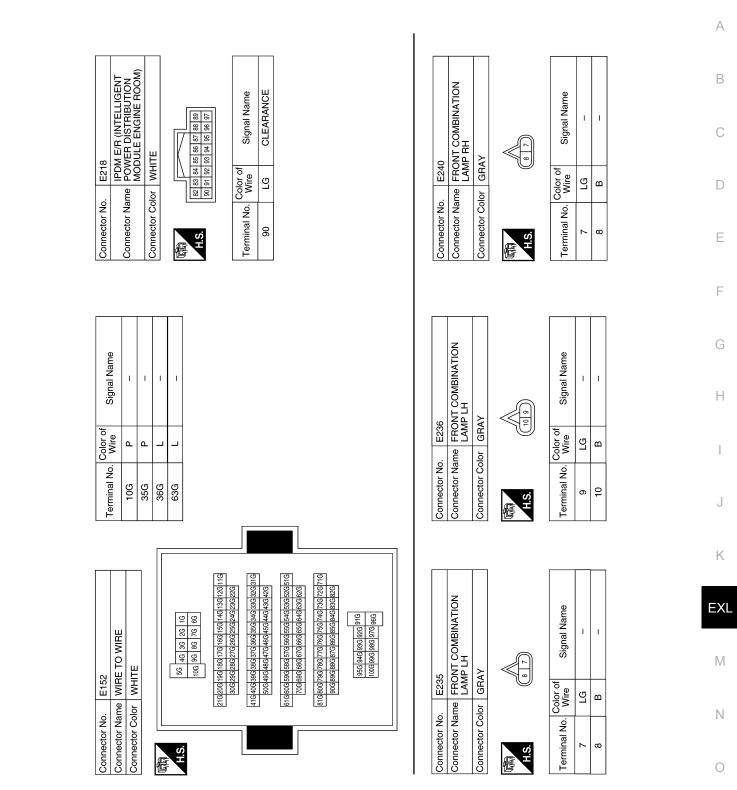
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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM < WIRING DIAGRAM >



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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM < WIRING DIAGRAM >

Signal Name

Terminal No.

Signal Name I. I

Terminal No.

Signal Name I.

Terminal No.

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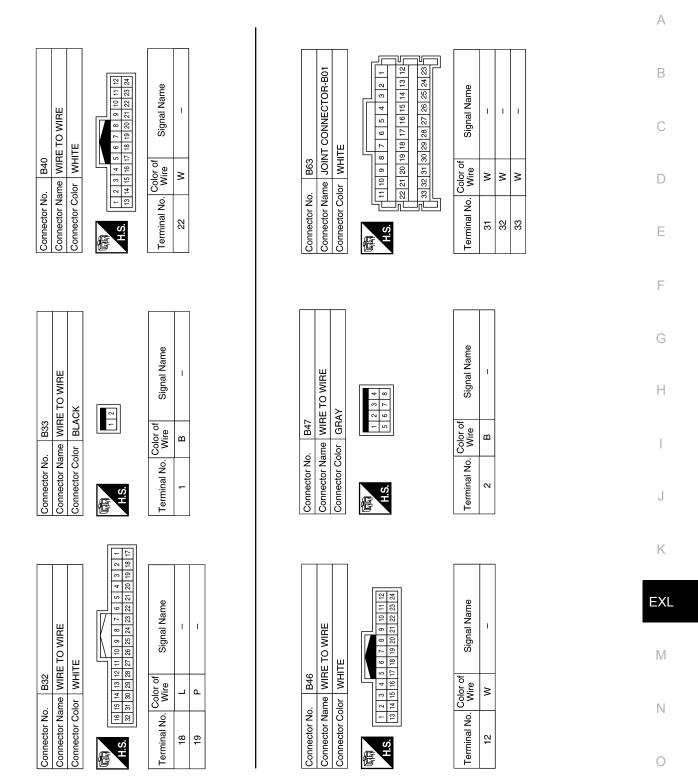
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Connector Name JOINT CONNECTOR-B10 Signal Name Connector Name FUSE BLOCK (J/B) L. Т 2T 11 6T 5T 4T 3T Connector Color WHITE WHITE B12 Color of Wire B29 Color of Wire _ _ Connector Color Connector No. Connector No. Terminal No. N H.S. -H.S. Æ E Connector Name JOINT CONNECTOR-B09 Connector Name JOINT CONNECTOR-B12 Signal Name T. Т Connector Color WHITE Connector Color WHITE B17 B11 Color of Wire Color of Wire ٩ ٩ Connector No. Connector No. Terminal No. N H.S. H.S. E 俉 Connector Name JOINT CONNECTOR-B11 Connector Name FRONT COMBINATION Signal Name I. T **1** Connector Color WHITE GRAY E241 B16 Color of Wire Color of Wire പ് ш Connector Color Connector No. Connector No. Terminal No. 10 ი H.S. H.S.

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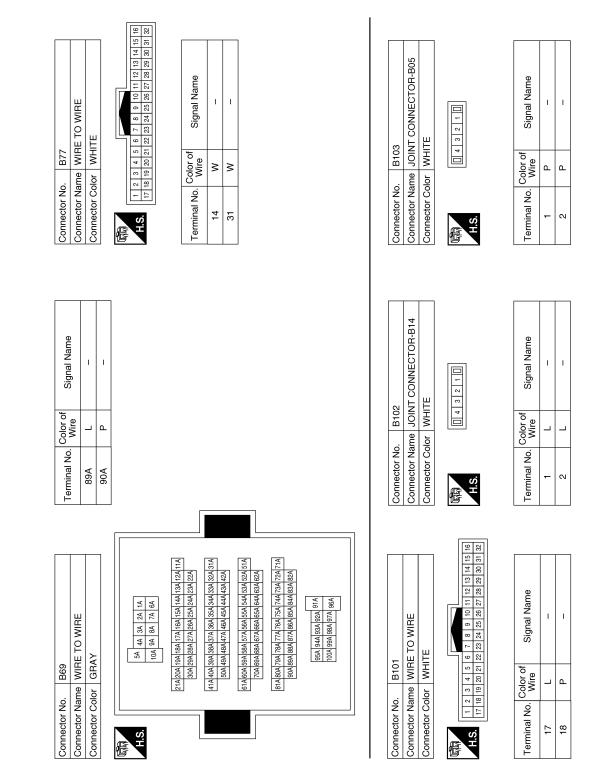
< WIRING DIAGRAM >



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< WIRING DIAGRAM >



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А В Connector Name REAR COMBINATION LAMP LH Signal Name Signal Name T T Т Connector Name WIRE TO WIRE С 2 1 Connector Color BLACK WHITE B404 B412 Color of Wire Color of Wire ۵ ≥ В D Connector Color Connector No. Connector No. Terminal No. Terminal No. 9 \sim -H.S. H.S. Ε e ſ F
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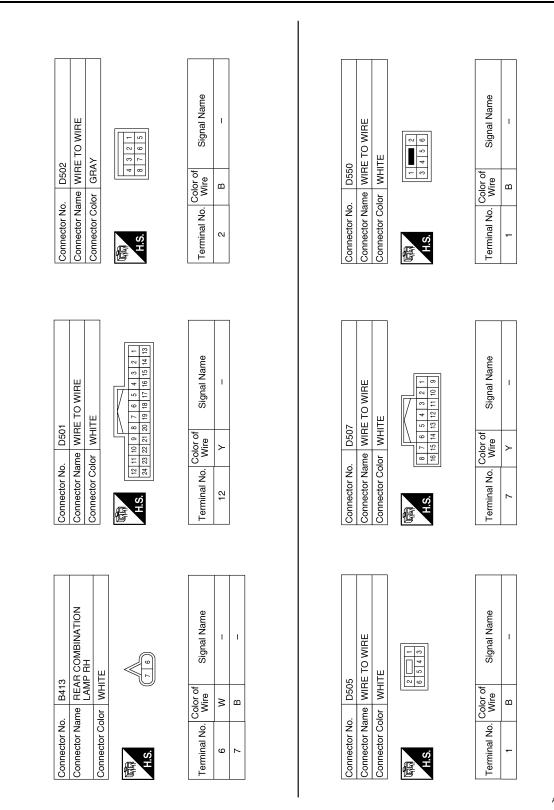
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 Connector Name REAR COMBINATION LAMP RH Signal Name Signal Name I Т Т I. Connector Name WIRE TO WIRE Н Connector Color WHITE GRAY B400 B407 Color of Wire Color of Wire ш ≥ ≥ ≥ Connector Color Connector No. Connector No. Terminal No. Terminal No. 4 3 С \sim H.S. H.S. J 佢 旧 Κ
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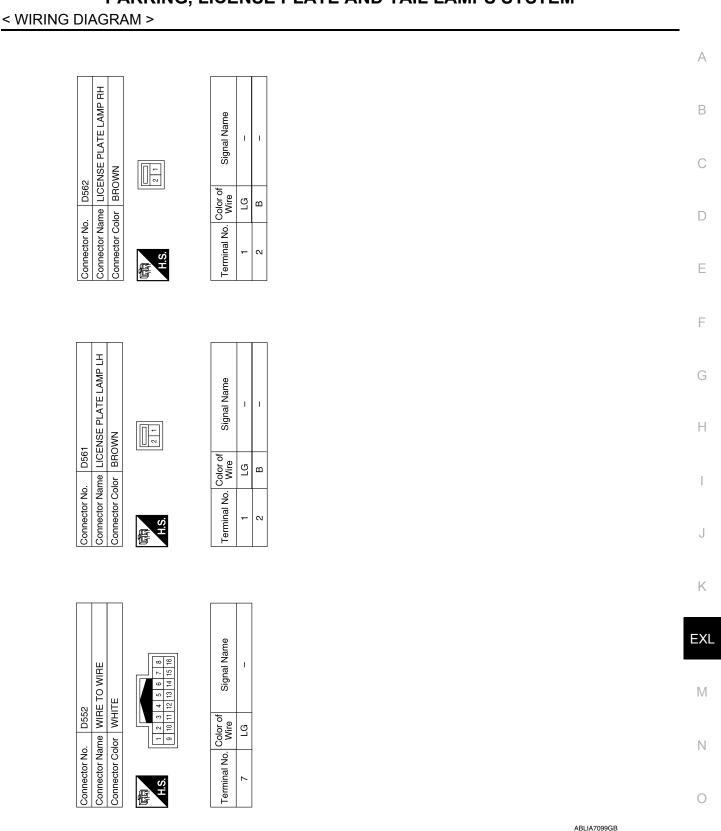
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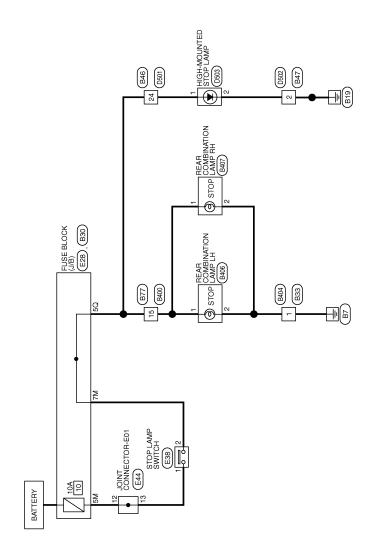


Revision: November 2015

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Wiring Diagram

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STOP LAMP

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0. E44 lame JOINT CONNECTOR-E01 color WHITE 1109 8 7 6 5 4 3 2 1 22 21 20 19 18 17 16 15 14 13 12 23 23 130 29 28 27 28 25 24 23	Signal Name	No. B46 Vame WIRE TO WIRE Color WHITE 1 2 3 4 5 6 7 8 9 10 11 12 1 1 1 1 16 17 18 9 10 11 12 1 1 16 17 18 10 11 12 1 4 5 6 7 8 9 10 11 12 1 4 15 16 17 18 90 21 22 23 24 Mire Signal Name - - - - - -	E
Connector No. E44 Connector Name JOINT CONNECTOR-E01 Connector Color WHITE	Terminal No. Color of Wire 12 Y 13 Y	Connector No. B46 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Isi 1 1 Vire Signal 24 G	E
			F
E38 STOP LAMP SWITCH WHITE	Signal Name	Signal Name	G
Connector No. E38 Connector Name STOP L Connector Color WHITE	Terminal No. Color of Wire 1 Y Y 2 R	Connector No. B33 Connector Name WIRE TO WIRE Connector Color BLACK Terminal No. Color of Signal	l J
	e	e l	K EX
Connector No. E28 Connector Name FUSE BLOCK (J/B) Connector Color WHITE Minimum Image: Connector Color	Color of Signal Name Wire	Connector No. B30 Connector Name EUSE BLOCK (J/B) Connector Color WHITE Mile Signal Name 5Q G	IV.
Connector No. E28 Connector Name FUSE B Connector Color WHITE H.S.	5M 5M 7M	Connector No. B30 Connector Name FUSE B Connector Color WHITE HS FUSE B SQ 5Q G G G Connector Color of	N

Revision: November 2015

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Connector No. B47 Connector Name WIRE TO WIRE Connector Color GRAY	Connector No. B77 Connector Name WIRE TO WIRE Connector Color WHITE	Connector No. B400 Connector Name WIRE TO WIRE Connector Clar WHITE
HS 1 2 3 4 5 6 7 8	-	
Terminal No. Color of Signal Name 2 B -	Terminal No. Color of Signal Name 15 G	Terminal No. Color of Signal Name 15 G – –
Connector No. B404 Connector Name WIRE TO WIRE Connector Color BLACK	Connector No. B406 Connector Name REAR COMBINATION LAMP LH Connector Color GRAY	Connector No. B407 Connector Name REAR COMBINATION LAMP RH Connector Color GRAY
国 H.S.	LS HS	H.S.
Terminal No. Color of Signal Name	Terminal No.Color of WireSignal Name1G-2B-	Terminal No.Color of WireSignal Name1G-2B-

< WIRING DIAGRAM >

B47	WIRE TO WIRE	GRAY	1 2 3 4 5 6 7 8 8
Connector No.	Connector Name WIRE TO WIRE	Connector Color GRAY	国 H.S.

EXL-82

2016 Pathfinder

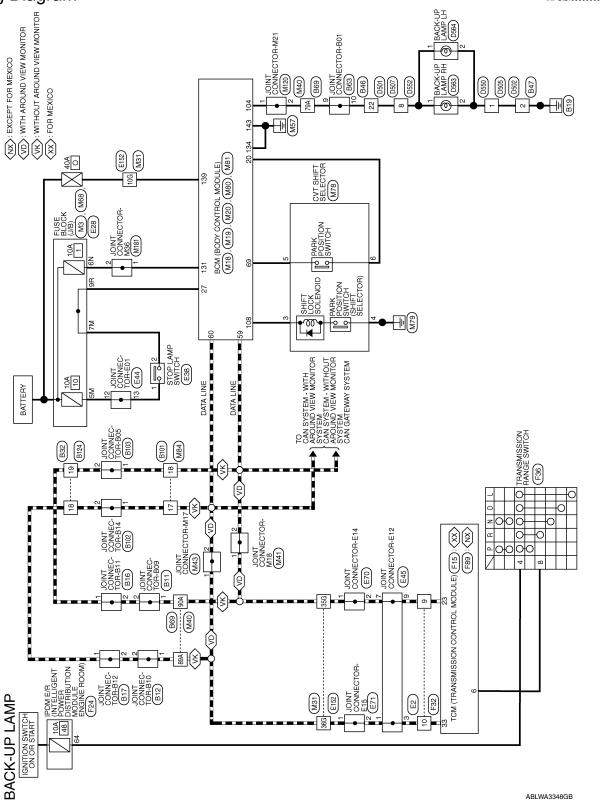
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Connector Name HIGH-MOUNTED STOP Connector Color BROWN	Signal Name	
Connector Name HIGH-MC Connector Color BROWN	Wire B B	
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	Signal Name	
Connector Name WIRE TO WIRE Connector Color GRAY		
r Name WIRE 1 Color GRAY	No. Color of Wire of B	
Connector Name Connector Color H.S.	Terminal No. 2	
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IRE	Signal Name	
Connector Name WIRE TO WIRE Connector Color WHITE H.S.		
Connector Name WIRE T Connector Color WHITE H.S.	No. Color of Wire of LG	
Connecto Connecto	24 24	

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< WIRING DIAGRAM >







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	M19 BCM (BODY CONTROL MODULE) BLACK SS 51 50 49 48 47 44 43 44 13 42 41 SS 25 151 50 49 48 47 46 45 44 43 42 41 SS 27 17 170 69 68 67 66 66 64 66 62 61	Signal Name CAN-L CAN-L CAN-H AT DEVICE OUT Signal Name	E
	M19 BCM (B MODUL BLACK 438.82 51 438.82 51	Color of Col	
	Connector No. Connector Name Connector Color	Terminal No. 59 60	E
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	nector No. nector Name nector Color 0. 0. 11 16 15 14 19 18 17 16 15 14	Z0 W Signal No. 20 W Signal No. 20 W Signal No. 27 G BRAKE SN 27 G BRAKE SN 27 G BRAKE SN 28 Mile Stignal No. 29 Mile Stignal No. 20 W Stignal No. 20 W Stignal No. 20 W Mile 20 Mile Stignal No. 20 Wile Mile 20 Mile Stignal No. 20 Mile Mile 20 Mile Stignal No. 20 Mile Mile 20 Mile Stignal No. 20 Mile Stignal No. 20 Mile Stignal No. 20 Mile Stignal No. 310 Stignal No. Stignal No. 20 Stignal No. Stignal No. 20 Stignal No. Stignal No. 310 Stignal No. Stignal No. 311 Stignal No. Stignal No. 311 Stignal No. Stignal No. 311 Stignal No. Stignal No	
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BACK-UP LAMP CONNECTOR			N
BACK-UP	Connector No. Connector Name Connector Color	B95680VITVV B9568	(

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Connector No. M41 Connector Name .IOINT CONNECTOR-M18	Connector Name JOINT CONNECTOR-M18 Connector Color WHITE	-			Connector No. M78	Connector Name CVT SHIFT SELECTOR Connector Color WHITE	H.S. 7 8 9 10 11 12	Terminal No. Color of Signal Name	3 GR	4 B -
Signal Name	1	1	I			FUSE BLOCK (J/B) BROWN	78 661 561 461 (391 281 181 1661 1561 141 1361 281 1161 1061 361 881	Signal Name	1	
Terminal No. Wire	79A LG	89A L	90A P		Connector No. M68	Connector Name FUSE BI Connector Color BROWN	(1781 681 587 [1681 587 445 H.S.	Terminal No. Wire	9R 9	
OWIRF	Connector Name WIRE TO WIRE Connector Color GRAY			1A 2A 3A 4A 5A 6A 7A 8A 9A 10A 11A 15A 1A4 15A 10A 12A 23A 12A 15A 14A 15A 12A 15A 15A 15A 15A 12A 15A 15A 15A 15A 15A 15A <td>M43</td> <td>JOINT CONNECTOR-M17 WHITE</td> <td>0432110</td> <td>Color of Signal Name</td> <td>1</td> <td>I</td>	M43	JOINT CONNECTOR-M17 WHITE	0432110	Color of Signal Name	1	I

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<pre>< WIRING DIAGRAM ></pre>	IP LAMP	
Connector No. M84 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Main Image: Second	Connector No. E2 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WIRE TO WIRE Connector Color WIRE Time Time Image: Connector Color Wire Signal Name Image: Connector Color Co)
M81 me BCM (BODY CONTROL me BCM (BODY CONTROL MoDULE) Meric Monoule Signal marginalization More w BAT BCM FUSE W BAT BCM FUSE W BAT POWER F/L B GND 1	M181 M181 JOINT CONNECTOR-M36 Joint Connector-M36 Mine Vine Vine Vine Vine L)
Connector No. Connector Name Connector Color 131 No. Color 139 V	Connector No. M181 Connector Name JOINT C Connector Color WHITE Terminal No. Color of 2 W	
Connector No. M80 Connector Name BCM (BODY CONTROL Connector Name BCM (BODY CONTROL Connector Color BLACK Connector Color BLACK Itali 11411311211111101081081001 Itali 114113112111111101081081001 Itali 1141131121111111101081081001 Itali 1141131121111111101081081001 Itali 1141131121111111101081081001 Itali 11411311211111111101081081001 Itali 114113112111111111111111111111111111111	Connector No. M120 Connector Name JOINT CONNECTOR-M21 Connector Name JOINT CONNECTOR-M21 Connector Color WHITE Image: Color Signal Name Image: Color Color Image: Color Signal Name Image: Color Image: Color Image: Color Signal Name Image: Color Image: Color Image: Color Signal Name Image: Color Image: Color Image: Color	1
	X X Y <td>)</td>)

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Connector No. E44 Connector Name JOINT CONNECTOR-E01 Connector Color WHITE Ministry 111109 8 7 6 3 2 1 22221 201918 17 16 13 12 1 12 1	Signal Name	1	I	Connector No. E71 Connector Name JOINT CONNECTOR-E15 Connector Color BLACK	I
E44 me JOINT CON or WHITE 10 9 8 7 6 12 120 19 18 17 21 20 19 18 17	Color of Wire	~	~	E71 me JOINT (or BLACK (6 [5 4] 3 Wire Vire	_
Connector No. E44 Connector Name JOINT (Connector Color WHITE 22221201911	Terminal No.	12	13	Connector No. Connector Name Connector Color H.S.	0
E38 STOP LAMP SWITCH WHITE	Signal Name	1	I	Connector No. E70 Connector Name JOINT CONNECTOR-E14 Connector Color BLACK	I
E38 me STOP L/ or WHITE	Color of Wire	~	œ	P P P P P P P P P P P P P P P P P P P	٩
Connector No. E38 Connector Name STOP L Connector Color WHITE	Terminal No.	-	2	Connector No. Connector Name Connector Color A.S. Terminal No. C	0
E28 FUSE BLOCK (J/B) WHITE	Signal Name	1	I	CONNECTOR-E12	I
· E28 me FUSE Ior WHITE	Color of Wire	~	æ	10. E45 2010r BLUE 2010r BLUE 2010r 01 8	_
Connector No. E28 Connector Name FUSE BLOCK (J/B) Connector Color WHITE Militian Image: Connector Color	Terminal No.	5M	Μζ	al No.	e

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BACK-UP LAMP

Revision: November 2015

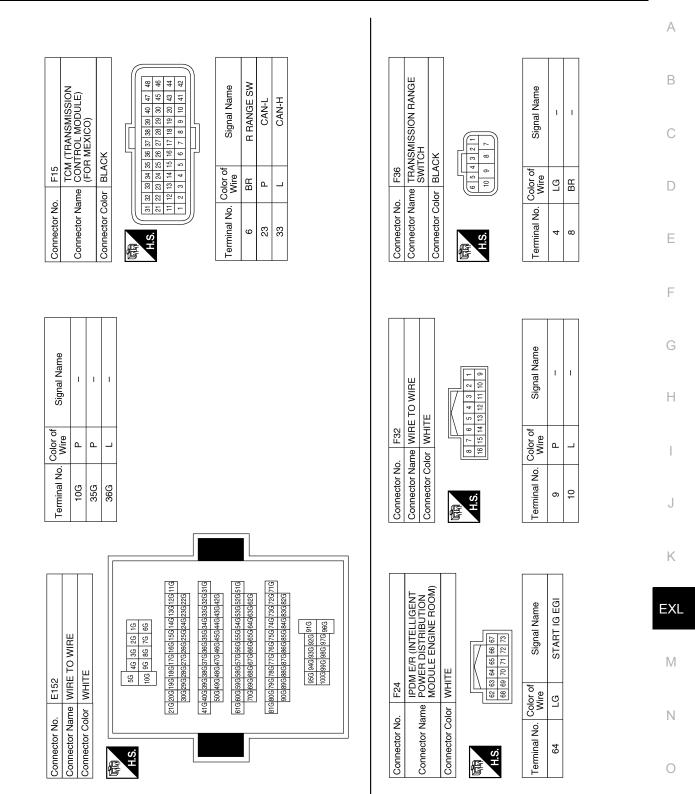
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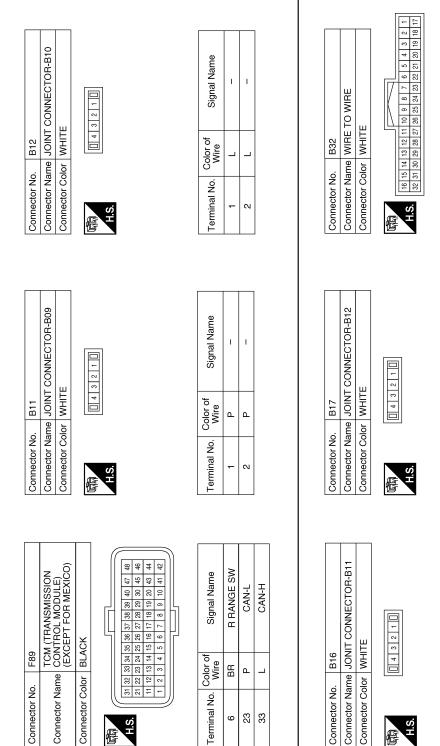
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BACK-UP LAMP



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Terminal No.



Signal Name

Color of Wire

Terminal No. 18 19

Signal Name

Color of Wire

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Signal Name

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Connector Name Connector Color

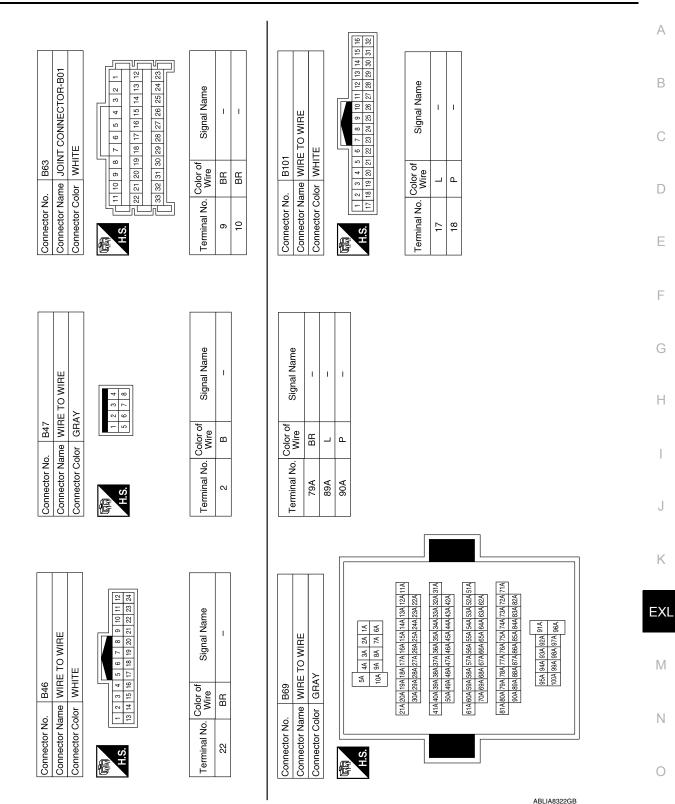
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Connector No.

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Connector No.

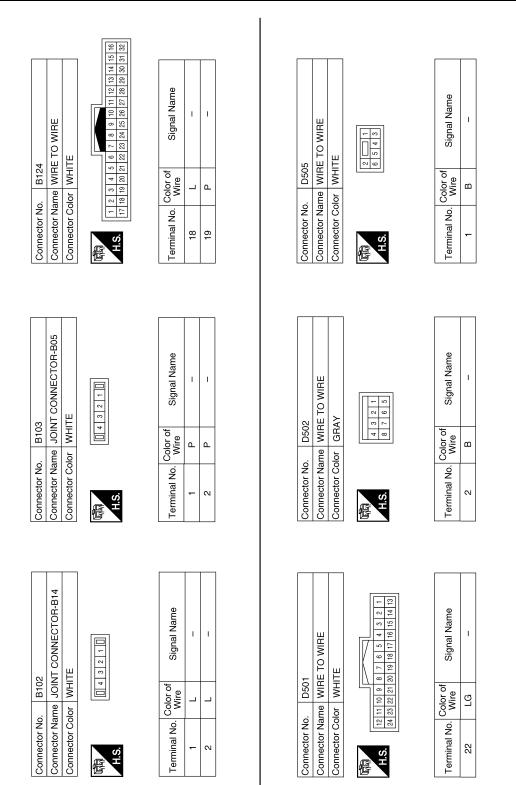


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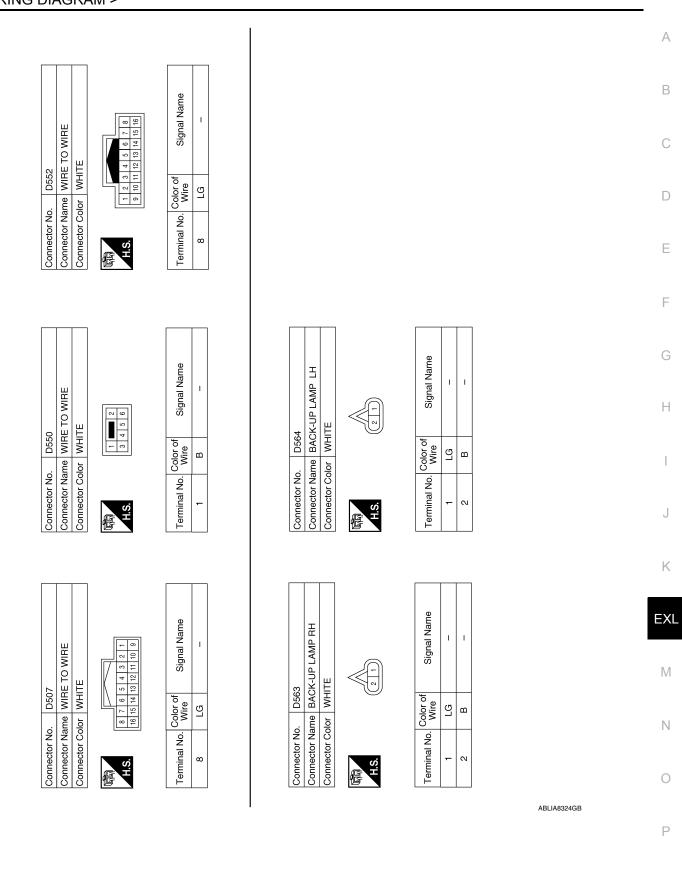
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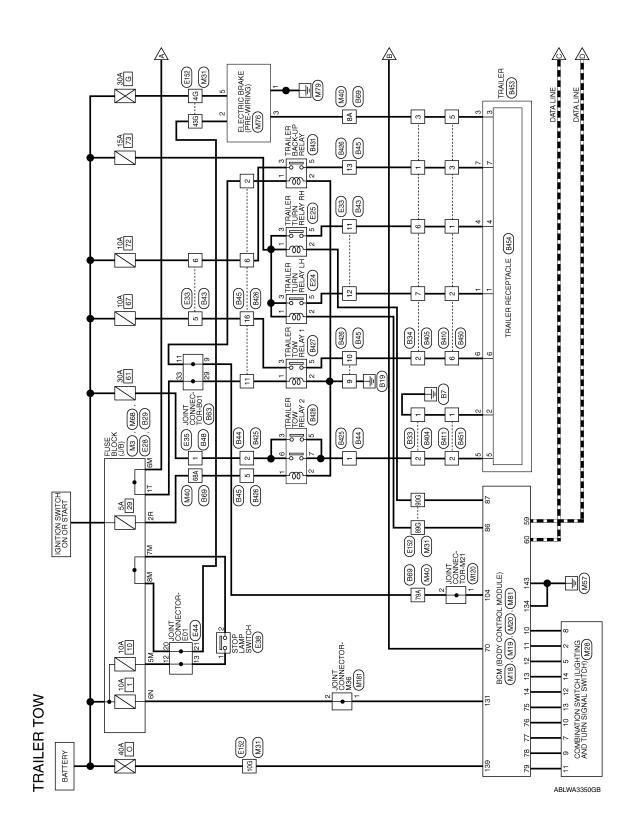


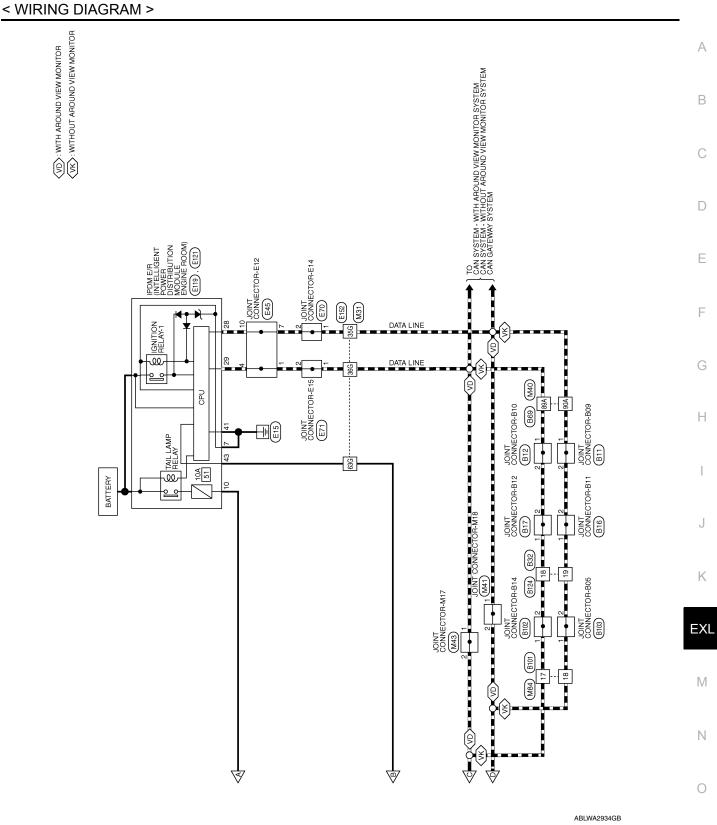
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TRAILER TOW

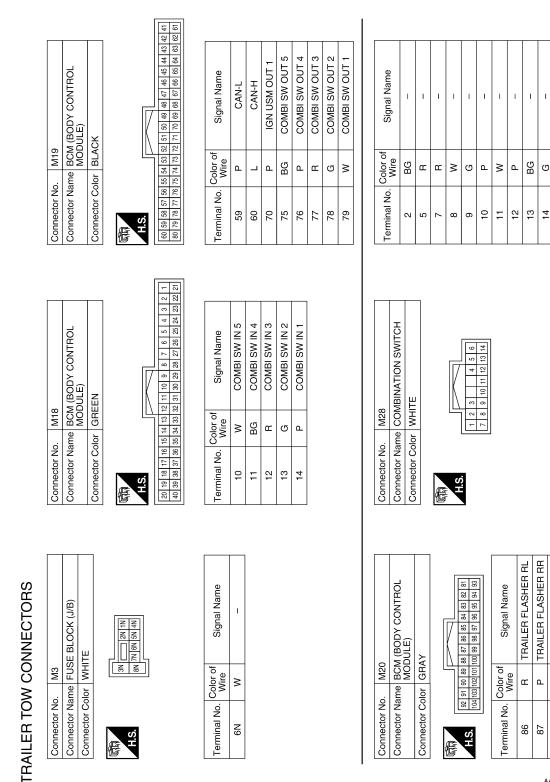
Wiring Diagram

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Revision: November 2015

2016 Pathfinder

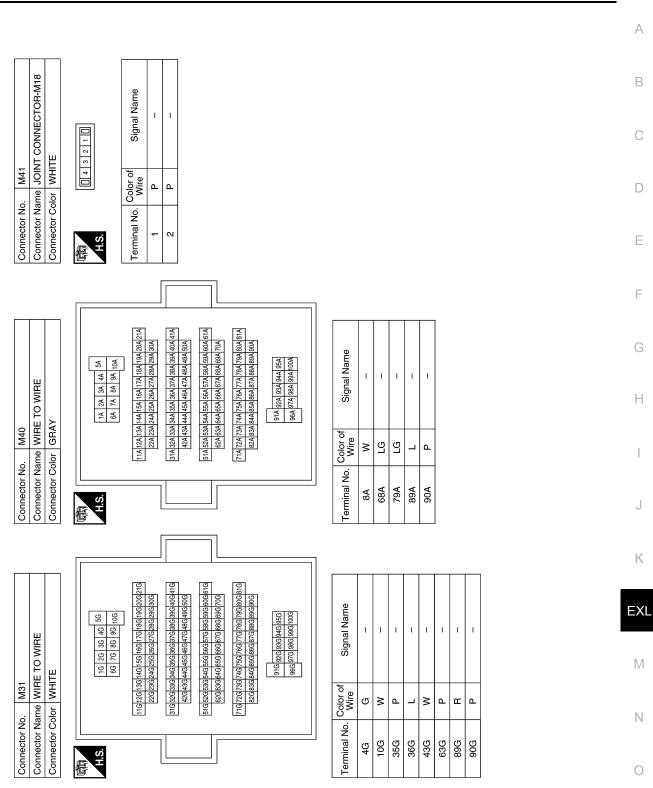
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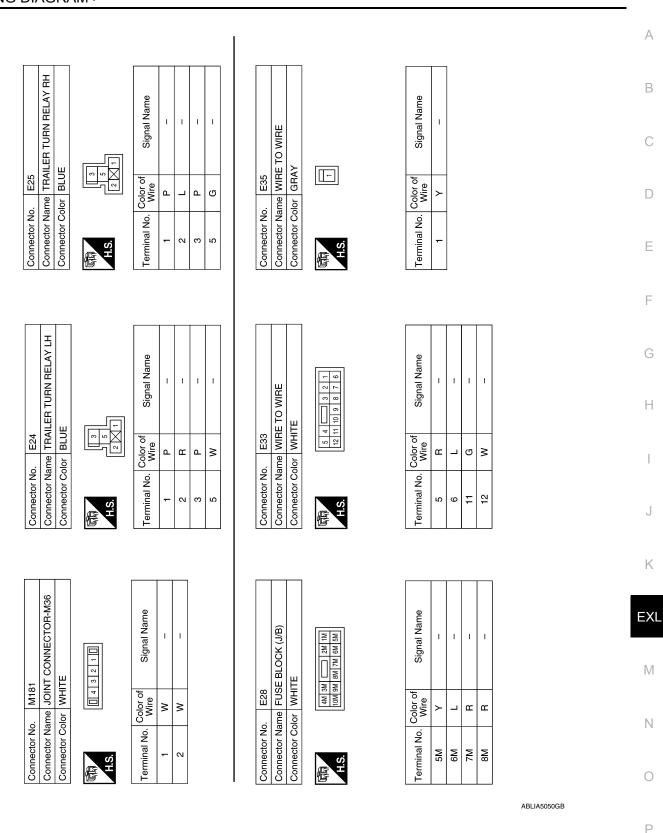
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TRAILER TOW

Connector No. M76 Connector Name ELECTRIC BRAKE Connector Name (PRE-WIRING) Connector Color WHITE Image: State St	Terminal No.Color of WireSignal Name1B-2W-3W-5G-	Connector No. M120 Connector Name JOINT CONNECTOR-M21 Connector Color WHITE Main [14]][1]]	Terminal No.Color of WireSignal Name1LG-2LG-	
Connector No. M68 Connector Name FUSE BLOCK (J/B) Connector Color BROWN Image: State of the stateoo the state of	Terminal No. Color of Signal Name 2R LG –	Connector No. M84 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Image: State of the state	Terminal No.Color of WireSignal Name17L-18P-	
Connector No. M43 Connector Name JOINT CONNECTOR-M17 Connector Color WHITE	Terminal No. Color of Signal Name 1 L – – 2 L – –	Connector No. M81 Connector Name BCM (BODY CONTROL Connector Color WHITE		139 W BAT POWER F/L 143 B GND 1

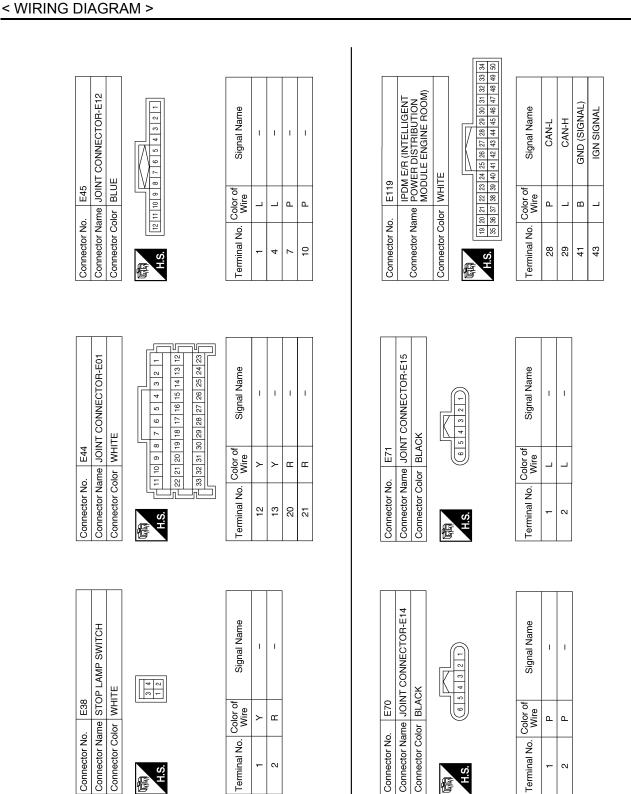
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< WIRING DIAGRAM >

Revision: November 2015



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Signal Name -	1	1		1	1				Connector No. B16 Connector Name JOINT CONNECTOR-B11 Connector Color WHITE		Signal Name	I	1	
Color of Wire R	. @			œ	_				B16 me JOINT C		Color of Wire	٩	<u> </u>	
Terminal No. 4G	35G	36G	43G 63G	89G	90G				Connector No. B16 Connector Name JOINT (Connector Color WHITE	同日 S.H	Terminal No.	-	~	
	ſŗ]						
E TO WIRE		56 46 36 26 16	106 96 86 76 66	216206196186176166156146136126116	828G27G26G25G24G23G22G	41G40G39G38G37G36G35G34G33G32G31G 50G49G4AG47G47G45G45G44G43G42G	100008003800457045804580458046830510 70058098804570458045804683058205 81068805804670468804840583058205 8108805804980580440583058205 8105880588058040583058205 910588058805805805805805805805805 910588058805805805805805805805805 91058805805805805805805805805805 910588058805805805805805805805805805805 910588058805805805805805805805805805805 910588058805805805805805805805805805805805		Connector No. B12 Connector Name JOINT CONNECTOR-B10 Connector Color WHITE		Signal Name	I	1	
o. E152 ame WIRE 1 olor WHITE			-	21G20G190	306/29(41G 40G 390	61G 600 590 70G 690 90G 690 779 (90G 690 6779 (11		lo. B12 lame JOIN color WHI		Color of Wire	_		
Connector No. E152 Connector Name WIRE TO WIRE Connector Color WHITE		H.S.							Connector No. B12 Connector Name JOINT (Connector Color WHITE	际场 H.S.	Terminal No.	÷	5	
				[_	
E121 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)			12 13 14 15 16 17 18		Signal Name	GND (POWER)	IAILLH		Connector No. B11 Connector Name JOINT CONNECTOR-B09 Connector Color WHITE	2 1	Signal Name	I	1	
	r WHITE		12 13 14		Color of Wire	В			B11 e JOINT (r WHITE	4 3	Color of Wire	Ч	<u>م</u>	
Connector No. Connector Name	Connector Color		H.S.		Terminal No.	2			Connector No. B11 Connector Name JOINT (Connector Color WHITE	H.S.	Terminal No.	.	2	

Connector No. B32 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Image: State	Terminal No. Color of Wire Signal Name 18 L - 19 P -	TO WIRI	S 6 7 8 10 5 R No. Color of Si 6 L Nire 11 G 12 W G No No
Connector No. B29 Connector Name FUSE BLOCK (J/B) Connector Color WHITE	Terminal No. Color of Signal Name 1T W -	Connector No. B34 Connector Name WIRE TO WIRE Connector Color WHITE	S. Ininal No. Color of S. A. S. A. S. A. S. A. S. S. A. S.
Connector No. B17 Connector Name JOINT CONNECTOR-B12 Connector Color WHITE Image: The second	Terminal No. Color of Signal Name 1 L – – 2 L – –	Connector No. B33 Connector Name WIRE TO WIRE Connector Color BLACK	Terminal No. Color of Signal Name 2 W – –

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	TO WIRE			Signal Name	1								Signal Name	1	I	I	I	I							
). B48	ame WIRE	olor GRAY	-	Color of Wire	M								Color of Wire	g	٩	BR		٩.							
Connector No.	Connector Name WIRE TO WIRE	Connector Color	同 H.S.	Terminal No.	-								Terminal No.	8A	68A	79A	89A	90A							
															_	Γ									
	Connector Name WIRE TO WIRE	LE	2 3 4 5 6 7 9 10 11 12 13 14 15 16	Signal Name	1	1	1	I	I	1	I	1		WIRE TO WIRE GDAV	Ē			10A 9A 8A 7A 6A	21A 20A 19A 18A 17A 16A 15A 14A 13A 12A 11A 30A 29A 28A 27A 26A 25A 24A 23A 22A	41A 40A 39A 38A 37A 36A 35A 34A 33A 32A 31A 50A 49A 48A 47A 46A 45A 44A 43A 42A		61A 60A 59A 58A 57A 56A 55A 54A 53A 52A 51A 70A 69A 68A 67A 66A 65A 66A 63A 63A 63A		81A 80A 79A 78A 77A 76A 75A 74A 73A 72A 71A 90A 89A 88A 87A 86A 85A 84A 83A 82A	95A 94A 93A 92A 91A 100A 99A 98A 97A 96
o. B45	ame WIF	olor WHITE	8 9	Color of Wire	BR	٩	_	GR	8	8	≻	æ	o. B69	ame WIRE	_				21A 20A 19 30A 29	41A 40A 39 50A 49		61A 60A 59		81A 80A 79 90A 89]
Connector No.	Connector N	Connector Color	回 H.S.	Terminal No.	5	5	9	6	10	5	13	16	Connector No.	Connector Name				-Cill							
	WIRE			Signal Name	1	I											6 5 4 3 2 1	17 16 15 14 13 12	28 27 26 25 24 23	Signal Name	1	1	1	I	
B44	Connector Name WIRE TO WIRE	or BLACK	1 2	Color of Wire	N	N							B63	Connector Calar WHITE			10 9 8 7	22 21 20 19 18 1	33 32 31 30 29 2	Color of Wire	BR	BR	×	8	
Connector No.	ector Nam	Connector Color	H.S.	Terminal No.	-	2							Connector No.	Connector Name Connector Color			F L V H			Terminal No.	6	1	29	33	

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TRAILER TOW

< WIRING DIAGRAM >

Revision: November 2015

Connector No. B103 Connector Name JOINT CONNECTOR-B05 Connector Color WHITE	Signal Name		E TO WIRE	<u>6 5 1</u>	Signal Name	1	I	I	I
· B103 me JOINT C Ior WHITE	Color of Wire P		0. B405 time WIRE T blor WHITE	<u>8</u>	Color of Wire	~	M	თ	თ
Connector No. Connector Name Connector Color	Terminal No. 1 2	-	Connector No. B405 Connector Name WIRE TO WIRE Connector Color WHITE	品 H.S.	Terminal No.	-	2	e	6
		Г							
Connector No. B102 Connector Name JOINT CONNECTOR-B14 Connector Color WHITE	Signal Name		4 E TO WIRE CK		Signal Name	I	I		
. B102 me JOINT dor WHIT	Color of Wire L		. B404 tme WIRE T vlor BLACK		Color of Wire	В	Ν		
Connector No. B102 Connector Name JOINT Connector Color WHITE	Terminal No. 1 2		Connector No. B404 Connector Name WIRE TO WIRE Connector Color BLACK	围 H.S	Terminal No.	1	2		
81 82 82 82 82		Г		14 15 16 30 31 32				1	
1 IE TO WIRE ITE 22 23 24 82 80 27 28 29 30 31	Signal Name		4 E TO WIRE TE	6 7 8 9 10 11 12 13 22 23 24 25 26 27 28 29	Signal Name	1	I		
0. B101 ame WIRE T olor WHITE	Color of Wire P		. B124 Ime WIRE T Nor WHITE	1 2 3 4 5 17 18 19 20 21	Color of Wire	_	٩.		
Connector No. B101 Connector Name WIRE TO WIRE Connector Color WHITE	Terminal No. 17 18		Connector No. B124 Connector Name WIRE TO WIRE Connector Color WHITE	H.S.	Terminal No.	18	19		

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Connector No. B425 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Terminal No. Color of Signal Name 1 V - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L - 2 L 2 L 2 L 2 L 2 L 2 L 2 L 2 L 2 L 2 L 2 L 2 2	С
Name WIRE 7 Name WIRE 7 Color BLACK Vire 6 Vire 1 V V	D
Connector No. Connector Name Connector Name Connector Name Connector No. Connector No. Con	Е
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WIRE Signal Name Signal Name Signal Name	G
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Connector No. B411 Connector Name WIRE T Connector Name WIRE T Connector Name WIRE T Connector Name WIRE T Connector No. B427 Connector No. B427 Connector No. B427 Connector No. B427 Connector No. B427 Connector Name TRAILE Connector No. B427 Connector No. Color of Mice No. Color of Mice No. Color of Mice No. Color of No. Co	I
Connector No. Connector Name Connector Name Connector No. Connector No. Conn	J
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< WIRING DIAGRAM >

Revision: November 2015

		ame						ame	IN LH	ŋ	3RAKE	N RH	۲۶	AMPS	AMPS				
Connector No. B451 Connector Name WIRE TO WIRE Connector Color BLACK	ŕA	Signal Name	1	1				Signal Name	STOP/TURN LH	GROUND	ELECTRIC BRAKE	STOP/TURN RH	BATTERY	RUNNING LAMPS	BACK-UP LAMPS				
r No. B451 r Name WIRE r Color BLAC		Color of Wire	m	≥				Color of Wire	ı	I	I	ı	I	I	I				
Connector No. Connector Name Connector Color	ित्रम R.H	Terminal No.	-	2				Terminal No.	-	2	ო	4	5	9	7				
]																		
E TO WIRE		Signal Name	1	I	1	I	I	B454 TRAILER RECEPTACLE	X			(
B450 me WIRE or GRAY	0 0	Color of Wire	σ	×	≻	J	8	B454	or BLACK				<u> </u>						
Connector No. B450 Connector Name WIRE TO WIRE Connector Color GRAY	配 H.S.H	Terminal No.	-	5	n	ى ا	9	Connector No.	Connector Color		£	T.S.							
										7									_
B431 TRAILER BACK-UP RELAY BLUE		Signal Name	1	I	I	1			X				413		Signal Name	I	1	I	
		Color of Wire	σ	в	~	ГG		B453	Ior BIAC		_''	(5	V		Color of Wire	×	в	σ	
Connector No. Connector Name Connector Color	品. H.S.	Terminal No.	-	2	e	5		Connector No.	Connector Color BI ACK		E	S.H	1		Terminal No.	-	N	ю	

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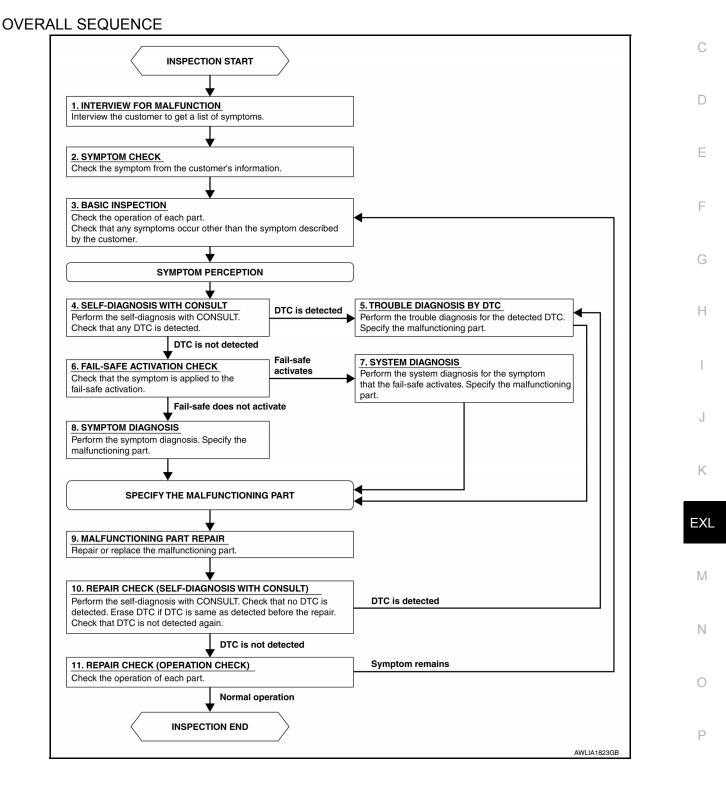
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BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

DETAILED FLOW

1.INTERVIEW FOR MALFUNCTION

Find out what the customer's concerns are.

>> 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 any concerns that occur other than those mentioned in the customer interview.

>> GO TO 4.

4.SELF-DIAGNOSIS WITH CONSULT

Perform the self-diagnosis with CONSULT. Check that any DTC is detected.

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 6.

5.TROUBLE DIAGNOSIS BY DTC

Perform the trouble diagnosis for the detected DTC. Specify the malfunctioning part.

>> GO TO 9.

6.FAIL-SAFE ACTIVATION CHECK

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

Does the fail-safe activate? 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 part.

>> GO TO 9.

8.SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Refer to EXL-133. "Symptom Table".

>> GO TO 9.

9.MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 10.

10. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)

Perform the self-diagnosis with CONSULT. Verify that no DTCs are detected. Erase all DTCs detected prior to the repair. Verify that DTC is not detected again. Is any DTC detected?

CNOCIO AND DEDAID WORKELOW

DIAGNOSIS AND REPAIR WORKFLOW	
< BASIC INSPECTION >	
YES >> GO TO 5. NO >> GO TO 11.	А
11. REPAIR CHECK (OPERATION CHECK)	
Check the operation of each part.	
Does it operate normally?	В
YES >> Inspection End. NO >> GO TO 3.	С
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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

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	O (40A)
131	BCM battery fuse	1 (10A)

Is the fuse or fusible link blown?

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

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

Disconnect BCM connector M81. 1.

Check voltage between BCM connector M81 terminals 131, 139 and ground. 2.

B	BCM		Voltage (Approx.)	
Connector	Connector Terminal			
 M81	131		Pattony voltago	
IVIO I	139		Battery voltage	

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

 $\mathbf{3}$. CHECK GROUND CIRCUIT

Check continuity between BCM connector M81 terminals 134, 143 and ground.

В	BCM		Continuity	
Connector	Connector Terminal			
 M81	134		Yes	
	143	—	165	

Is the inspection result normal?

YES >> Inspection End.

NO >> 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

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

1. CHECK FUSIBLE LINKS

Terminal No.	Signal name	Fusible link No.	В
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), K (40A)	С

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 E118 and E120.

2. Check voltage between IPDM E/R connectors and ground.

IPDM	E/R	Ground	Voltage	F
Connector	Terminal	Giouna	(Approx.)	
E119	1			_
E118 -	2	—	Battery voltage	G
E120	3			
s the inspection result norm	al?			— н
YES >> GO TO 3				

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

1. Disconnect IPDM E/R connectors E119 and E121.

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

IPDM	E/R	Ground	Continuity	
Connector	Terminal	Giouria	Continuity	K
E121	7		Yes	
E119	41		103	

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

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< DTC/CIRCUIT DIAGNOSIS >

HEADLAMP (HI) CIRCUIT

Description

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

1.CHECK HEADLAMP (HI) OPERATION

WITHOUT CONSULT

- 1. Start IPDM E/R auto active test. Refer to PCS-8, "Diagnosis Description".
- 2. Check that the headlamp switches to the high beam.

WITH CONSULT

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

HI : Headlamp switches to the high beam.

OFF : Headlamp OFF

Does the headlamp switch to the high beam?

- YES >> Headlamp (HI) circuit is normal.
- NO >> Refer to <u>EXL-112</u>, "Diagnosis Procedure".

Diagnosis Procedure

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Regarding Wiring Diagram - Refer to EXL-22, "Wiring Diagram".

1.CHECK HEADLAMP (HI) FUSES

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

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 blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2.CHECK HEADLAMP (HI) OUTPUT VOLTAGE

CONSULT ACTIVE TEST

- 1. Turn the ignition switch OFF.
- 2. Disconnect the front combination lamp harness connector E233 or E238.
- 3. Turn the ignition switch ON.
- 4. Select EXTERNAL LAMPS of IPDM E/R active test item.
- 5. With EXTERNAL LAMP ON, check the voltage between the combination lamp harness connector and ground.

(+)			Voltage	
Connector		Terminal	(-)	vollage
RH E238		3	Ground	Battery voltage
LH	E233	5	Ground	Battery voltage

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HEADLAMP (HI) CIRCUIT

NO >> (GO TO 4. GO TO 3.				
		II) CIRCUIT FOR OF	PEN		
	ignition switc ect IPDM E/R	h OFF. harness connector E	217.		
	ontinuity betw		arness connector E217 a	nd the front combina	ation lamp harness
	IPDM E/R		Front combinatio	n lamp	Continuity
Conn	ector	Terminal	Connector	Terminal	Continuity
RH	5047	80	E238	2	Vee
LH	E217	81	E233	3	Yes
s the inspect	tion result noi	mal?			
		I E/R. Refer to <u>PCS-</u> ace the harness or c	<u>32, "Removal and Installa</u> onnector.	ation".	
4. CHECK F	RONT COME	SINATION LAMP (HI)	GROUND CIRCUIT		
	ignition switc ontinuity betw		ation lamp harness conn	ector terminal 4 and	l ground.

	Connector	Terminal	—	Continuity	Н
RH	E238	4	Ground	Yes	
LH	E233	- 4	Ground	165	
the inspection result normal?					

Is the inspection result normal?

>> Replace the headlamp bulb. YES

NO >> Repair or replace the harness or connector.

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< DTC/CIRCUIT DIAGNOSIS >

HEADLAMP (LO) CIRCUIT

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.

Component Function Check

1.CHECK HEADLAMP (LO) OPERATION

WITHOUT CONSULT

- i. 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.

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

LO : Headlamp ON

OFF : Headlamp OFF

Is the headlamp turned ON?

YES >> Headlamp (LO) is normal.

NO >> Refer to <u>EXL-114</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012548928

Regarding Wiring Diagram information - Refer to EXL-22, "Wiring Diagram".

1.CHECK HEADLAMP (LO) FUSES

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

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

Is the fuse blown?

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

NO >> GO TO 2.

2.CHECK HEADLAMP (LO) OUTPUT VOLTAGE

CONSULT

- 1. Turn the ignition switch OFF.
- 2. Disconnect the front combination lamp harness connector E232 or E237.
- 3. Turn the ignition switch ON.
- 4. Select EXTERNAL LAMPS of IPDM E/R active test item.
- 5. With EXTERNAL LAMP ON, check the voltage between the front combination lamp harness connector E232 or E237 terminal 1 and ground.

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

INFOID:000000012548926

INFOID:000000012548927

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

RH	E237	1	Ground	Battery voltage	0
LH	E232		Ground	Ballery vollage	A
Is the inspectio	n result normal?				
	D TO 4.				В

NO >> GO TO 3.

3.CHECK HEADLAMP (LO) CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.

2. Disconnect IPDM E/R connector E217.

3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector E232 or E237.

Continuity	IPDM E/R Front combination lamp				
E	Terminal	Connector	Terminal	nector	Conr
Yes	1	E237	75	E217	RH
		E232	76		LH

Is the inspection result normal?

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

NO >> Repair or replace the harness or connector.

4.CHECK FRONT COMBINATION LAMP (LO) GROUND CIRCUIT

- 1. Turn the ignition switch OFF.
- Check continuity between the front combination lamp harness connector E232 or E237 terminal 2 and ^H ground.

Connector		Terminal		Continuity	
RH	E237	2	Ground	Yes	
LH	E232	Σ	Glouina	163	J

Is the inspection result normal?

- YES >> Replace the headlamp bulb.
- NO >> Repair or replace the harness or connector.

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DAYTIME RUNNING LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DAYTIME RUNNING LIGHT RELAY CIRCUIT

Description

INFOID:000000012548929

The BCM sends a daytime running 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 running light relay coil. When the IPDM E/R operates the daytime running light relay, power is sent to the daytime running lamps.

Diagnosis Procedure

INFOID:000000012548930

Regarding Wiring Diagram information, refer to EXL-30, "Wiring Diagram".

1. CHECK DAYTIME RUNNING LIGHT RELAY VOLTAGE SUPPLY

- 1. Turn the ignition switch OFF.
- 2. Disconnect the daytime running light relay harness connector E4.
- 3. Turn the ignition switch ON.
- 4. Check the voltage between the following daytime running light relay harness connector E4 terminals and ground.

(+)	(_)	Voltage	
Connector	Terminal	(-)		
	2			
E4	5	Ground	Battery voltage	
	7			

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK DAYTIME RUNNING LIGHT RELAY CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector E121.
- Check continuity between the IPDM E/R harness connector E121 and the daytime running light relay harness connector E4.

Daytime	Daytime running light relay		M E/R	Continuity
Connector	Terminal	Connector Terminal		
	2			
E4	5	E121	14	Yes
	7			

4. Check continuity between the IPDM E/R harness connector E121 and ground.

Connector	Terminal	(—)	Continuity
E121	14	Ground	No

Is the inspection result normal?

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

NO >> Repair or replace the harness or connector.

3.CHECK DAYTIME RUNNING LAMP RELAY COIL CIRCUIT

1. Check continuity between the IPDM E/R harness connector E218 and daytime running light relay harness connector E4.

DAYTIME RUNNING LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

	E/R	Daytime running light relay Continuity		Continuity
Connector	Terminal	Connector	Terminal	Continuity
E218	85	E4	1	Yes
. Check continuity	between the IPDM	I E/R harness conne	ector E218 and gro	und.
Connector	Terminal			Continuity
E218	85	(Ground	No
s the inspection resu	Ilt normal?			
YES >> GO TO				
· ·	r replace the harne			
1. CHECK DAYTIME				
Check the daytime ru		tefer to <u>EXL-117, "C</u>	omponent Inspecti	<u>on"</u> .
s the inspection results YES >> GO TO 5				
NO >> Replace				
5. CHECK DAYTIME	RUNNING LAMP	CIRCUIT FOR OPI	EN	
. Turn the ignition				
2. Disconnect the f	ont fog lamp harne	ess connector E303		
	or E303 or E304.	ime running light re	ay harness conne	ector E4 and the front fog la
Front foo	lamp	Daytime rur	nning light relay	Continuity
Connector	Terminal	Connector	Terminal	Continuity
LH E303	3	E4	6	Yes
RH E304	-		3	
s the inspection resu				
YES >> GO TO (NO >> Repair o	r replace the harne	ess or connector.		
· ·	RUNNING LAMP			
J. CHECK DAY HML			FUR UPEN	
	fog lamp harness			
1. Disconnect front		connector E303 or E	E304 in question.	304 terminal 4 and ground.
 Disconnect front Check continuity 	between the front	connector E303 or E fog lamp harness co	E304 in question. onnector E303 or E	
 Disconnect front Check continuity Connector 		connector E303 or E fog lamp harness co	E304 in question.	304 terminal 4 and ground. Continuity
 Disconnect front Check continuity Connector LH E303 	between the front	connector E303 or E fog lamp harness co	E304 in question. onnector E303 or E	
1. Disconnect front 2. Check continuity Connector LH E303 RH E304	between the front Termir 4	connector E303 or E fog lamp harness co	E304 in question. onnector E303 or E (-)	Continuity
1. Disconnect front 2. Check continuity Connector LH E303 RH E304 s the inspection resi	Termin 4 Ilt normal?	connector E303 or E fog lamp harness co nal	E304 in question. onnector E303 or E (-) Ground	Continuity Yes
1. Disconnect front 2. Check continuity Connector LH E303 RH E304 s the inspection resu YES >> Check th	Termin 4 Ilt normal?	connector E303 or E fog lamp harness co nal	E304 in question. onnector E303 or E (-) Ground	Continuity Yes
1. Disconnect front 2. Check continuity Connector LH E303 RH E304 s the inspection resi YES >> Check th NO >> Repair o	between the front Termin 4 Ilt normal? e daytime running r replace the harne	connector E303 or E fog lamp harness co nal	E304 in question. onnector E303 or E (-) Ground	Continuity Yes
1. Disconnect front 2. Check continuity Connector LH E303 RH E304 s the inspection resu YES >> Check th NO >> Repair o Component Insp	Termin 4 <u>It normal?</u> e daytime running r replace the harne ection	connector E303 or E fog lamp harness co nal light relay. Refer to ess or connector.	E304 in question. onnector E303 or E (-) Ground EXL-117, "Compor	Continuity Yes
1. Disconnect front 2. Check continuity Connector LH E303 RH E304 s the inspection resi YES >> Check th NO >> Repair o	Termin 4 <u>It normal?</u> e daytime running r replace the harne ection	connector E303 or E fog lamp harness co nal light relay. Refer to ess or connector.	E304 in question. onnector E303 or E (-) Ground EXL-117, "Compor	Continuity Yes
Disconnect front Check continuity Connector LH E303 RH E304 sthe inspection resu YES >> Check tr NO >> Repair o Component Insp CHECK DAYTIM Turn ignition swi	between the front Termin 4 Ilt normal? e daytime running r replace the harne ection E RUNNING LIGH cch OFF.	connector E303 or E fog lamp harness co nal light relay. Refer to ess or connector.	E304 in question. onnector E303 or E (-) Ground EXL-117, "Compor	Continuity Yes
Disconnect front Check continuity Connector LH E303 RH E304 he inspection resu ES >> Check th O >> Repair o omponent Insp CHECK DAYTIM Turn ignition swi	between the front Termin 4 Ilt normal? Ilt normal? Ilt addition the harne Contact th	connector E303 or E fog lamp harness co nal light relay. Refer to ess or connector.	E304 in question. onnector E303 or E (-) Ground EXL-117, "Compor	Continuity Yes

DAYTIME RUNNING LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Terminal	Condition	Continuity
3 - 5	12V direct current applied between terminals 1 and 2.	Yes
6 - 7	No current applied.	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace daytime running light relay.

FROM	IT FOG LAMP CIRCU	JIT	
< DTC/CIRCUIT DIAGNOSIS >			
FRONT FOG LAMP CIRCUIT			A
Description			INFOID:000000012548932
The IPDM E/R (intelligent power distribution inputs from the BCM via the CAN communiforms from the front fog lamp relay in the IF	inication lines. When the fr	ont fog lamp relay	
Component Function Check			INFOID:000000012548933
1. CHECK FRONT FOG LAMP OPERATIO	ON		
 WITHOUT CONSULT Activate IPDM E/R auto active test. Re Check that the front fog lamp is turned 		escription".	D
 WITH CONSULT Select EXTERNAL LAMPS of IPDM E While operating the test items, Check 	/R active test item.	ned ON.	E
Fog : Front fog lamp ON Off : Front fog lamp OFF			F
Is the front fog lamp turned ON? YES >> Front fog lamp circuit is norma NO >> Refer to EXL-119, "Diagnosis			G
Diagnosis Procedure			H
Regarding Wiring Diagram information, ref	er to <u>EXL-51, "Wiring Diagra</u>	<u>am"</u> .	I
1.CHECK FRONT FOG LAMP FUSE			J
 Turn the ignition switch OFF. Check that the following fuse is not block 	own.		K
Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	42	15A EX
Is the fuse blown? YES >> Replace the blown fuse after re NO >> GO TO 2.	epairing the affected circuit.		M
2. CHECK FRONT FOG LAMP OUTPUT	VOLTAGE		
 Turn the ignition switch OFF. Disconnect the front fog lamp harness Turn the ignition switch ON. 	connector E305 or E306.		Ν

3. Turn the ignition switch ON.

Turn the front fog lamps ON. 4.

Check the voltage between the fog lamp harness connector E305 or E306 terminal 1 and ground. 5.

(+)		()	Voltage (Approx.)	_	
C	onnector	Terminal	(-)	(Approx.)	Р
LH	E305	1	Ground	Pattony voltago	_
RH	E306		Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4. NO >> GO TO 3. Ο

FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

3. CHECK FRONT FOG LAMP OPEN CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector E217.
- Check continuity between the IPDM E/R harness connector E217 and the front fog lamp harness connector E305 or E306.

	IPDM E/R		Front fog lamp		Continuity
Con	nector	Terminal	Connector	Terminal	Continuity
LH	E217	79	E305	1	Voc
RH		78	E306	- 1	Yes

Is the inspection result normal?

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

NO >> Repair or replace the harness or connector.

4.CHECK FRONT FOG LAMP GROUND CIRCUIT

1. Turn the ignition switch OFF.

2. Check continuity between the front fog lamp harness connector E305 or E306 terminal 2 and ground.

Conr	Connector Terminal			Continuity
LH	E305	2	Ground	Yes
RH	E306	2	Glouid	163

Is the inspection result normal?

YES >> Inspect the fog lamp bulb.

NO >> Repair or replace the harness or connector.

< DTC/CIRCUIT DIAGNOSIS >

PARKING LAMP CIRCUIT

Description

The IPDM E/R (intelligent power distribution module engine room) controls the tail lamp relay based on inputs from the BCM via the CAN communication lines. When the tail lamp relay is energized, power flows through fuse 51 and 52, located in the IPDM E/R. Power then flows to the front combination lamps, rear combination lamps and license plate lamps.

Component Function Check

1. CHECK PARKING LAMP OPERATION		D
 WITHOUT CONSULT Activate IPDM E/R auto active test. Refer to <u>PCS-8</u>, "<u>Diagnosis Description</u>". Check that the parking lamp is turned ON. WITH CONSULT Select EXTERNAL LAMPS of IPDM E/R active test item. 		E
 Select EXTERNAL LAMPS of IPDM E/R active test item. While operating the test items, check that the parking lamp is turned ON. 		F
TAIL : Parking lamp ON		
Off : Parking lamp OFF		G
Is the parking lamp turned ON?		0
YES >> Parking lamp circuit is normal. NO >> Refer to <u>EXL-121, "Diagnosis Procedure"</u> .		Н
Diagnosis Procedure	INFOID:000000012548937	
		I
Regarding Wiring Diagram information, refer to EXL-68, "Wiring Diagram".		

1. CHECK PARKING LAMP FUSES

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

Unit	Location	Fuse No.	Capacity	EXL
Parking Jampa	IPDM E/R	51	10A	
Parking lamps		52	10A	
Is the fuse blown?				M

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

NO >> GO TO 2.

2. CHECK TAIL LAMP RELAY OUTPUT (VOLTAGE)

1. Disconnect the front or rear combination lamp connector or license plate lamp connector in question.

2. Turn the ignition switch ON.

3. Turn the parking lamps ON.

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

Front combination lamp (parking)			()	Voltage	
	Connector	Terminal	(-)	(Approx.)	
LH	E235	7	Ground	Pottony voltago	
RH	E240	I	Ground	Battery voltage	

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INFOID:000000012548935

INFOID:000000012548936

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

	Front combination lamp (side marker)		(-)	Voltage (Approx.)	
	Connector	Terminal	(-)	(Approx.)	
LH	E236	0 Cround		Pottonyvoltago	
RH	E241	9	9 Ground	Battery voltage	

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

Rear o	combination lamp (tail)		()	Voltage
	Connector	Terminal	(-)	(Approx.)
LH	B406	2	Ground	Battery voltage
RH	B407	- 3	Ground	

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

Rear comb	Rear combination lamp (side marker)		(-)	Voltage
	Connector	Terminal		(Approx.)
LH	B412	6	Ground	Battery voltage
RH	B413	0	Ground	

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

Li	cense plate lamp	(-)		Voltage	
	Connector	Terminal	(-)	(Approx.)	
LH	D561	1	Ground	Battery voltage	
RH	D562		Ground		

Are the inspection result 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.

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

	IPDM E/R		Front combination lamp (parking) Connector Terminal		Continuity
Conne	ector	Terminal			Continuity
LH	E218	90	E235	7	Vec
RH	LZIO	90	E240	7	Yes

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

IPDM E/R		Front combination lamp (side marker)		
Connector	Terminal	Connector	Terminal	

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

LH	E218	90	E236	٥	Vec	٨
RH	E218	90	E241	9	165	A

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

Continuity	on lamp (tail)	Rear combination		IPDM E/R	
Continuity	Terminal	Connector	Terminal	ector	Conne
Vaa	2	B406	10	E121	LH
Yes	3	B407	9	E121	RH

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

IPDM E/R		Rear combination lamp (side marker)			F	
Co	nnector	Terminal	Connector	Terminal		-
LH	E121	10	B412	6	Yes	G
RH		9	B413	0	165	0

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

	IPDM E/R		License plate lamp		Continuity	
	Connector	Terminal	Connector	Terminal	Continuity	
LH	E121	10	D561	1	Yes	
RH		10	E121 10 D562			165

Are the inspection result normal?

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

NO >> Repair or replace the harness or connector.

4.CHECK PARKING LAMP GROUND CIRCUITS

1. Turn the ignition switch OFF.

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

	Continuity	()	Front combination lamp (parking)			
M	Continuity			Connector		
	Yes	Ground	8	0	E235	LH
	fes	Ground		E240	RH	
N						

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

(–) Continuity	Front combination lamp (side marker)		
(-) Continuity	Terminal	Connector	
Ground Yes	10	E236	LH
	10	E241	RH

4. Check continuity between the rear combination lamp (tail) harness connector and ground.

Rear combination lamp (tail)		(_)	Continuity
Connector	Terminal	(-)	Continuity

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PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

LH	B406	2	Ground	Ver
RH	B407	Ζ.	Ground	res

5. Check continuity between the rear combination lamp (side marker) harness connector and ground.

	Rear combination lamp (side marker)			Continuity	
	Connector	Terminal	(-)	Continuity	
LH	B412	7	Ground	Yes	
RH	B413	7	Ground		

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

Li	License plate lamp		()	Continuity	
	Connector	Terminal	(-)	Continuity	
LH	D561	2	Ground	Yes	
RH	D562	2	Ground		

Are the inspection result normal?

YES >> Inspect the parking, side marker or license plate lamp bulb.

NO >> Repair or replace the harness or connector.

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS > TURN SIGNAL LAMP CIRCUIT Description INFOID:000000012548938 The BCM monitors inputs from the combination switch (lighting and turn signal switch) to determine when to activate the turn signals. The BCM outputs voltage 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:000000012548939 1.CHECK TURN SIGNAL LAMP (P)CONSULT Select FLASHER of BCM (FLASHER) active test item. While operating the test items, check that the turn signal lamp blinks. LH : Turn signal lamps (LH) ON RH : Turn signal lamps (RH) ON Off : Turn signal lamps OFF Is the inspection result normal? YES >> Turn signal lamp circuit is normal. >> Refer to EXL-125, "Diagnosis Procedure". NO Diagnosis Procedure INEOID-000000012548940 Regarding Wiring Diagram information, refer to EXL-59, "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 inspection result normal? YES >> GO TO 2. NO >> Replace the bulb. 2.CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE 1. Turn the ignition switch OFF. 2. Disconnect the front or rear combination lamp harness connector in question. 3. 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.)	Р

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TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

RH	E239			40
LH	E234	5	Ground	(V) 15 10 5 0 → → → → → → → → → → → → → → → → → → →

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

	(+)		()	Voltage (Approx.)
	Connector	Terminal	(-)	(Approx.)
RH	B409			
LH	B408	4	Ground	(V) 15 10 0 0 15 15 10 15 15 15 15 15 15 15 15 15 15 15 15 15

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 3.

 $\mathbf{3}$. Check turn signal lamp circuit for open

1. Turn the ignition switch OFF.

2. Disconnect BCM harness connector M20 or M80.

3. Check continuity between the BCM harness connector M80 and the front combination lamp harness connector.

	BCM			ination lamp	Continuity
Cor	nnector	Terminal	Connector	Terminal	Continuity
LH	M80	117	E234	5	Yes
RH		105	E239	5	165

4. Check continuity between the BCM harness connector M20 and the rear combination lamp harness connector.

	BCM			ination lamp	Continuity
Cor	nnector	Terminal	Connector	Terminal	Continuity
LH	M20	103	B408	1	Yes
RH	IVI20	92	B409	+	165

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the harness or connector.

4.CHECK TURN SIGNAL LAMP SHORT CIRCUIT

1. Check continuity between the BCM harness connector M80 and ground.

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector Terminal Ground Order No LH M80 117 No No RH M80 105 No No Check continuity between the BCM harness connector M20 and ground. Continuity BCM Ground Continuity LH M20 103 Ground Continuity LH M20 92 92 No No te inspection result normal? S S Replace BCM. Refer to BCS-81. "Removal and Installation". No No D >> Replace BCM. Refer to BCS-81. "Removal and Installation". No No No D >> Replace BCM. Refer to BCS-81. "Removal and Installation". No No No D >> Repair or replace the harness or connector. CHECK TURN SIGNAL LAMP GROUND CIRCUIT Turn the ignition switch OFF. Check continuity between the front combination lamp harness connector and ground. Continuity LH E239 6 Ground Yes Check continuity between the rear combination lamp harness connector and ground. Yes Continuity LH E239 6 Ground		BCM				Continuity
LH RHM80117 105NoCheck continuity between the BCM harness connector M20 and ground.ECM ConnectorTerminal 103 92GroundContinuityLH RHM20103 920Nohe inspection result normal?92NoNoS Contector result normal?S S S S S S S S S S S S S S S S Continuity between the front combination lamp harness connector and ground.NoTurn the ignition switch OFF. Check continuity between the front combination lamp harness connector and ground.ContinuityLHE234 E2396GroundYesCheck continuity between the rear combination lamp harness connector and ground.YesCheck continuity between the rear combination lamp harness connector and ground.YesCheck continuity between the rear combination lamp harness connector and ground.YesLHE408 E4085GroundYes		ector		1	Ground	
RH 105 Check continuity between the BCM harness connector M20 and ground. BCM Continuity Connector Terminal Connector Terminal Ground Ore LH M20 92 ne inspection result normal? S SS >> Replace BCM. Refer to BCS-81, "Removal and Installation". >>> Repair or replace the harness or connector. CHECK TURN SIGNAL LAMP GROUND CIRCUIT Turn the ignition switch OFF. Check continuity between the front combination lamp harness connector and ground. Front combination lamp (-) Continuity LH E234 6 Ground Yes Check continuity between the rear combination lamp harness connector and ground. Check continuity between the rear combination lamp harness connector and ground. Continuity 6 Ground Yes Check continuity between the rear combination lamp harness connector and ground. Continuity Connector Terminal (-) Continuity LH E408 5 Ground Yes	LH	M80	117			No
$\begin{tabular}{ c c c c c } \hline BCM & & & & & & & & & & & & & & & & & & &$	RH		105			
$\begin{tabular}{ c c c c c } \hline Connector & Terminal & Ground & Continuity & Continuity & & & & & & & & & & & & & & & & & & &$	Check continu	ity between th	ne BCM harness	connector M20	and ground.	
ConnectorTerminal 103GroundLHM20103NoRHM2092None inspection result normal?ES>> Replace BCM. Refer to BCS-81, "Removal and Installation". D>> Repair or replace the harness or connector.CHECK TURN SIGNAL LAMP GROUND CIRCUITTurn the ignition switch OFF. Check continuity between the front combination lamp harness connector and ground.Front combination lamp Connector(-)ContinuityLHE2346GroundYesCheck continuity between the rear combination lamp harness connector and ground.LHE239Check continuity between the rear combination lamp harness connector and ground.Check continuity between the rear combination lamp harness connector and ground.LHB4085GroundYes		BCM				Continuity
$\begin{tabular}{ c c c c c c c c c c } \hline LH & $M20$ & 103 & 92 & No \\ \hline RH & $M20$ & 92 & No \\ \hline $Re inspection result normal? \\ \hline S >> Replace BCM. Refer to BCS-81, "Removal and Installation". \\ \hline S >> Replace BCM. Refer to BCS-81, "Removal and Installation". \\ \hline S >> Replace BCM. Refer to BCS-81, "Removal and Installation". \\ \hline S >> Replace BCM. Refer to BCS-81, "Removal and Installation". \\ \hline S >> Replace BCM. Refer to BCS-81, "Removal and Installation". \\ \hline S >> Replace BCM. Refer to BCS-81, "Removal and Installation". \\ \hline S >> Replace BCM. Refer to BCS-81, "Removal and Installation". \\ \hline $CHECK TURN SIGNAL LAMP GROUND CIRCUIT \\ \hline $Turn the ignition switch OFF. \\ \hline $Check continuity between the front combination lamp harness connector and ground. \\ \hline $Front combination lamp & $(-)$ & $Continuity \\ \hline LH & $E239$ & 6 & $Ground$ & Yes \\ \hline $Check continuity between the rear combination lamp harness connector and ground. \\ \hline RH & $E239$ & $(-)$ & $Continuity \\ \hline $Connector$ & $Terminal & $(-)$ & $Continuity \\ \hline $Connector$ & $Terminal & $(-)$ & $Continuity \\ \hline LH & $B408$ & 5 & $Ground$ & Yes \\ \hline \end{tabular}$	Connect	or	Terminal	_	Ground	Continuity
he inspection result normal? ES >> Replace BCM. Refer to BCS-81, "Removal and Installation". D >> Repair or replace the harness or connector. CHECK TURN SIGNAL LAMP GROUND CIRCUIT Turn the ignition switch OFF. Check continuity between the front combination lamp harness connector and ground. Front combination lamp (-) Connector Terminal LH E239 Check continuity between the rear combination lamp harness connector and ground. Check continuity between the rear combination lamp harness connector and ground. RH E239 Check continuity between the rear combination lamp harness connector and ground. Rear combination lamp (-) Continuity Continuity LH B408 5		M20		_		No
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			92			
ConnectorTerminal(-)ContinuityLHE2346GroundYesRHE2396GroundYesCheck continuity between the rear combination lamp harness connector and ground.ContinuityRear combination lamp ConnectorTerminal(-)ContinuityConnectorTerminal(-)ContinuityLHB4085GroundYes	Turn the ignition	on switch OFF			ess connector and grou	und.
$ \begin{array}{c c c c c } & E234 & & & & & & & & & & & & & & & & & & &$				— (–)	Continuity	
RHE2396GroundYesCheck continuity between the rear combination lamp harness connector and ground.Rear combination lampConnectorTerminalLHB4085GroundYes				— • •		
Check continuity between the rear combination lamp harness connector and ground. Rear combination lamp (-) Continuity Connector Terminal LH B408 5 Ground Yes		Connector	5004	Terminal		
Connector Terminal LH B408 5 Ground	LH RH	Connector	E239	6	Ground	Yes
5 Ground Yes	LH RH Check continu	ity between the Rear comi	E239	6 ion lamp harne	Ground ss connector and grou	Yes
	LH RH Check continu	ity between th Rear com	E239	6 ion lamp harne	Ground ss connector and grou	Yes
S >> Replace the malfunctioning lamp.	LH RH Check continu Check continu Check continu Check continu Check continu Check continu	ity between th Rear com Connector	E239 The rear combinat Dination lamp B408 B409	6 ion lamp harne Terminal	Ground ss connector and grou	Yes Ind. Continuity

OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

OPTICAL SENSOR

Description

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

Component Function Check

1. CHECK OPTICAL SENSOR SIGNAL TO BCM

CONSULT

- 1. Turn the ignition switch ON.
- 2. Select OPTI SEN (DTCT) of BCM (HEAD LAMP) DATA MONITOR item.
- 3. Turn the lighting switch to AUTO.

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

*:Outside light varies. 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-128. "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012548943

Regarding Wiring Diagram information, refer to EXL-41, "Wiring Diagram".

1.CHECK OPTICAL SENSOR POWER SUPPLY INPUT

- 1. Turn ignition switch ON.
- 2. Turn lighting switch AUTO.

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

(+	(+)		
Optical sensor		(-)	Voltage (Approx.)
Connector	Terminal		
M15	1	Ground	5 V

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 4.

2. CHECK OPTICAL SENSOR GROUND INPUT

Check voltage between optical sensor harness connector and ground.

	(+)		
Optio	al sensor	(-)	Voltage (Approx.)
Connector	Terminal		
M15	3	Ground	0 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 6.

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

INFOID:000000012548941

INFOID:000000012548942

OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

)				Valtaca
Optical	sensor	(-)	Condition		Voltage (Approx.)
Connector	Terminal				× FF/
M15	2	Ground	Optical sensor	When illuminating	3.1 V or more *
WHO	2	Crodina	Optical Scribbl	When shutting off light	0.6 V or less
the inspection r ES >> GO T O >> Repla CHECK OPTIO Turn ignition s Disconnect of Check contine	O 7. ace the optical s CAL SENSOR C switch OFF. ptical sensor co	ensor. Refer PEN CIRCU nnector and I	to <u>EXL-150, "Re</u> IT BCM connector. harness connect	emoval and Installation	
Connector	Termir		Connector	Terminal	Continuity
M15	1		M18	3	Yes
CHECK OPTIC				nd ground.	Continuity
Connector		Terminal		Ground	Continuity
M15		1			No
		to BCS-81 "	Removal and In	stallation"	
NO >> Repa .CHECK OPTIC . Turn ignition s 2. Disconnect optics	ir or replace the CAL SENSOR G switch OFF. ptical sensor co	harness or o ROUND OP nnector and I	EN CIRCUIT		onnector.
YES >> Repla NO >> Repa CHECK OPTIC Turn ignitions Disconnect of Check continu	ir or replace the CAL SENSOR G switch OFF. ptical sensor col uity between op	harness or o ROUND OP nnector and I	EN CIRCUIT BCM connector. narness connect		
YES >> Repla NO >> Repa .CHECK OPTIC . Turn ignition s . Disconnect of . Check continu	ir or replace the CAL SENSOR G switch OFF. ptical sensor co	harness or c ROUND OP nnector and I tical sensor h	EN CIRCUIT BCM connector. narness connect	tor and BCM harness c	onnector. Continuity
ES >> Repla O >> Repa CHECK OPTIC Turn ignition s Disconnect of Check continu	ir or replace the CAL SENSOR G switch OFF. ptical sensor coluity between op otical sensor Termi 3	harness or c ROUND OP nnector and I tical sensor h	EN CIRCUIT BCM connector. harness connect	tor and BCM harness c	

OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Optica	l sensor	BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M15	2	M18	4	Yes

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace the harness or connector.

8.CHECK OPTICAL SENSOR SHORT CIRCUIT

Check continuity between optical sensor harness connector and ground.

Optica	l sensor		Continuity
Connector	Terminal	Ground	Continuity
M15	2		No

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-81, "Removal and Installation"</u>.

NO >> Repair or replace the harness or connector.

HAZARD SWITCH

	ПА		=	
< DTC/CIRCUIT DIAGNO	SIS >			
HAZARD SWITCH				
Component Function	Check			INFOID:00000001254894
1.CHECK HAZARD SWIT	CH SIGNAL BY CO	NSULT		
 CONSULT DATA MONIT Turn ignition switch ON Select HAZARD SW of While operating the haz 	OR I. [•] BCM (FLASHER) [DATA MONITOR ite	em.	
Monitor item		Condition		Monitor status
			ON	On
HAZARD SW	Hazard switch	n	OFF	Off
YES >> Hazard switch o NO >> Refer to <u>EXL-1</u> Diagnosis Procedure	circuit is normal. 31. "Diagnosis Proc	<u>edure"</u> .		INFOID:00000001254894
Regarding Wiring Diagram	information, refer to	EXL-59, "Wiring D	<u>)iagram"</u> .	
1.CHECK HAZARD SWIT				
 Turn ignition switch OF Disconnect hazard swit Turn ignition switch ON Check voltage between 	F. tch harness connect I. n hazard switch harn		6 and ground.	
 Turn ignition switch OF Disconnect hazard swit Turn ignition switch ON Check voltage betweer (+ 	F. tch harness connect I. n hazard switch harn	ness connector M2	Va	pltage
 Turn ignition switch OF Disconnect hazard swit Turn ignition switch ON Check voltage between 	F. tch harness connect I. n hazard switch harn		Va	oltage oprox.)
 Turn ignition switch OF Disconnect hazard swit Turn ignition switch ON Check voltage between (+ Hazard 	F. tch harness connect I. h hazard switch harn) switch	ness connector M2	Va	pprox.)
 Turn ignition switch OF Disconnect hazard swit Turn ignition switch ON Check voltage between (+ Hazard Connector M26 	F. tch harness connect I. hazard switch harn) switch Terminal 2	(–)	(V) 15 10 5 0	pprox.)
1. Turn ignition switch OF 2. Disconnect hazard swit 3. Turn ignition switch ON 4. Check voltage between (+ Hazard Connector M26 Is the inspection result norm YES >> GO TO 4. NO >> GO TO 2.	F. tch harness connect I. n hazard switch harn) switch Terminal 2 <u>nal?</u>	Ground	(V) 15 10 5 0	pprox.)
 Turn ignition switch OF Disconnect hazard swit Turn ignition switch ON Check voltage between (+ Hazard Connector M26 Is the inspection result norm YES >> GO TO 4. NO >> GO TO 2. 	F. tch harness connect I. n hazard switch harn) switch Terminal 2 <u>nal?</u>	Ground	(V) 15 10 5 0	pprox.)
 Turn ignition switch OF Disconnect hazard swit Turn ignition switch ON Check voltage between (+ Hazard Connector M26 Is the inspection result norm YES >> GO TO 4. NO >> GO TO 2. CHECK HAZARD SWIT Turn ignition switch OF Disconnect BCM harne 	F. tch harness connect I. hazard switch harn) switch Terminal 2 <u>nal?</u> CH SIGNAL OPEN F. ess connector M18.	Ground	(V) 15 10 5 0 10	JPMIA0154GB
 Turn ignition switch OF Disconnect hazard swit Turn ignition switch ON Check voltage between (+ Hazard Connector M26 Is the inspection result norm YES >> GO TO 4. NO >> GO TO 2. CHECK HAZARD SWIT Turn ignition switch OF Disconnect BCM harne 	F. tch harness connect I. hazard switch harn) switch Terminal 2 <u>nal?</u> CH SIGNAL OPEN F. ess connector M18. een hazard switch ha	Ground	(V) 15 10 5 0 	onnector.
 Turn ignition switch OF Disconnect hazard swit Turn ignition switch ON Check voltage between (+ Hazard Connector M26 Is the inspection result norm YES >> GO TO 4. NO >> GO TO 2. CHECK HAZARD SWIT Turn ignition switch OF Disconnect BCM harne Check continuity betwee 	F. tch harness connect I. hazard switch harn) switch Terminal 2 <u>nal?</u> CH SIGNAL OPEN F. ess connector M18. een hazard switch ha	Ground	(V) 15 10 5 0 	JPMIA0154GB

< DTC/CIRCUIT DIAGNOSIS >

3.CHECK HAZARD SWITCH SIGNAL SHORT CIRCUIT

Check continuity between hazard switch harness connector and ground.

Hazaro	d switch		Continuity
Connector	Terminal	Ground	Continuity
M26	2		No

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-81, "Removal and Installation"</u>.

NO >> Repair or replace the 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	
M26	3		Yes

Is the inspection result normal?

YES >> Replace hazard switch. Refer to EXL-152, "Removal and Installation".

NO >> Repair or replace the harness or connectors.

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:000000012548946

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CAUTION:

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

Sym	otom	Possible cause	Inspection item
Headlamp does not	One side	 Fuse Harness between IPDM E/R and the front combination lamp Harness between the front com- bination lamp and ground 	Headlamp (HI) circuit Refer to <u>EXL-112</u> .
switch to the high beam.	Both sides	_	Symptom diagnosis BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM Refer to <u>EXL-136</u> .
High beam indicator lamp is not turned ON (Head- lamp switched to the high beam).		BCMCombination meter	 Combination meter Data monitor HI-BEAM IND BCM (HEAD LAMP) Active test "HEADLAMP"
Headlamp does not switch to the low beam.		 Combination switch (lighting and turn signal switch) Harness between the combina- tion switch and BCM BCM IPDM E/R 	Combination switch (lighting and turn signal switch) Refer to <u>BCS-79</u> .
		High beam request signal • BCM • IPDM E/R	IPDM E/R Data monitorHL HI REQ
Headlamp does not turn ON.	One side	 Fuse Harness between IPDM E/R and the front combination lamp Front combination lamp Harness between the front com- bination lamp and ground 	Headlamp (LO) circuit Refer to <u>EXL-114</u> .
	Both sides	_	Symptom diagnosis BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON Refer to <u>EXL-137</u> .
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 $\frac{BCS}{79}$.
Headlamp does not turn OFF.	The ignition switch is turned OFF (After acti- vating the battery sav- er).	IPDM E/R	_
Headlamp is not turned ON/OFF with lighting switch		 Combination switch (lighting and turn signal switch) Harness between combination switch and BCM BCM 	Combination switch Refer to <u>BCS-79</u> .
AUTO.		 Optical sensor Harness between optical sensor and BCM BCM 	Optical sensor Refer to <u>EXL-128</u> .

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

Symp	otom	Possible cause	Inspection item
Daytime running light system does not activate. (if equipped)		 Fuse Harness between IPDM E/R and the daytime running light relay Harness between daytime running light relay and the daytime running lamp Harness between the daytime running lamp and ground Daytime running light bulb IPDM E/R Daytime running light relay BCM 	Symptom diagnosis Daytime running light system inop- erative. Refer to <u>EXL-140</u> .
Front fog lamp is not	One side	 Front fog lamp bulb Harness between IPDM E/R and front fog lamp Front fog lamp IPDM E/R 	Front fog lamp circuit Refer to <u>EXL-119</u> .
turned ON.	Both sides	_	Symptom diagnosis BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON Refer to <u>EXL-139</u> .
Parking lamp is not turned ON.	One side	 Parking lamp bulb Harness between IPDM E/R and front/rear combination lamp Harness between front/rear combination lamp and ground Front/rear combination lamp IPDM E/R 	Parking lamp circuit Refer to <u>EXL-121</u> .
	Both sides	_	Symptom diagnosis PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON Refer to <u>EXL-138</u> .
Turn signal lamp does not blink.	Indicator lamp is nor- mal. (The applicable side performs the high flash- er activation).	 Hazard BCM and each turn signal lamp Turn signal lamp bulb 	Turn signal lamp circuit Refer to <u>EXL-125</u> .
	One side	Combination meter	
Turn signal indicator lamp does not blink.	Both sides (Always)	 Turn signal indicator lamp sig- nal BCM Combination meter 	 Combination meter Data monitor TURN IND BCM (FLASHER) Active test FLASHER
	Both sides (Does blink when acti- vating hazard warning lamp with the ignition switch OFF)	 Combination meter power supply and ground circuit Combination meter 	Combination meter Power supply and ground circuit Refer to <u>MWI-61</u> .
 Hazard warning lamp does not activate. Hazard warning lamp continues activating (Turn signal is normal). 		 Hazard switch Harness between the hazard switch and BCM BCM 	Hazard switch Refer to <u>EXL-131</u> .

NORMAL OPERATING CONDITION

Description

AUTO LIGHT SYSTEM

< SYMPTOM DIAGNOSIS >

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

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INFOID:000000012548947

BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

< SYMPTOM DIAGNOSIS >

BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

Description

INFOID:000000012548948

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

Diagnosis Procedure

INFOID:000000012548949

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

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

Is the inspection result 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	REQ Lighting switch position	HI or PASS	ON
THE THINE Q		Except for HI or PASS	OFF

Is the inspection results normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to <u>BCS-81, "Removal and Installation"</u>.

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to EXL-112, "Diagnosis Procedure".

Is the inspection results normal?

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

NO >> Repair or replace the malfunctioning part.

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

	INFOID:000000012548950
The headlamps (both sides) do not turn ON in any lighting switch setting. Diagnosis Procedure	
Diagnosis Procedure	
	INFOID:00000001254895
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 results normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning part.	
2.CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT	
1. Select HL LO REQ of IPDM E/R DATA MONITOR item.	
1. Select HL LO REQ of IPDM E/R DATA MONITOR item.	
 Select HL LO REQ of IPDM E/R DATA MONITOR item. While operating the lighting switch, check the monitor status. 	Aonitor status
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 Meadlamp	Aonitor status ON
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	
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 HL LO REQ Lighting switch position Use the inspection results normal?	ON
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 HL LO REQ Lighting switch position HE to REQ Lighting switch position OFF Is the inspection results normal? YES >> GO TO 3.	ON
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 HL LO REQ Lighting switch position Is the inspection results normal? YES >> GO TO 3. NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".	ON
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 HL LO REQ Lighting switch position HE adlamp Is the inspection results normal? YES >> GO TO 3. NO >> Replace BCM. Refer to BCS-81, "Removal and Installation". 3. HEADLAMP (LO) CIRCUIT INSPECTION	ON
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 HL LO REQ Lighting switch position HE adlamp OFF Is the inspection results normal? YES >> GO TO 3. NO >> Replace BCM. Refer to BCS-81, "Removal and Installation". 3. HEADLAMP (LO) CIRCUIT INSPECTION Check the headlamp (LO) circuit. Refer to EXL-114, "Diagnosis Procedure".	ON
2. While operating the lighting switch, check the monitor status. Monitor item Condition M HL LO REQ Lighting switch position Headlamp Headlamp Is the inspection results normal? YES >> GO TO 3.	ON

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

< SYMPTOM DIAGNOSIS >

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

Description

INFOID:000000012548952

The parking, license plate, tail lamps and side marker lamps do not turn ON with the combination switch in any setting.

Diagnosis Procedure

INFOID:000000012548953

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

Check the combination switch (lighting and turn signal switch). Refer to <u>BCS-79, "Symptom Table"</u>. <u>Is the inspection results normal?</u>

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2. CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

CONSULT DATA MONITOR

T. 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 position	Parking lamp	ON
TAILQUENTEQ	Lighting switch position	OFF	OFF

Is the inspection results normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to <u>BCS-81, "Removal and Installation"</u>.

3. PARK LAMP CIRCUIT INSPECTION

Check the parking lamp circuit. Refer to EXL-121. "Diagnosis Procedure".

Is the inspection results normal?

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

NO >> Repair or replace the malfunctioning part.

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description			
•			INFOID:000000012548954
The front fog lamps do not t	turn ON in any setting.		
Diagnosis Procedure			INFOID:000000012548955
1.COMBINATION SWITCH	H (LIGHTING AND TUP	RN SIGNAL SWITCH) INSPECTIO	ON
<u>s the inspection results nor</u> YES >> GO TO 2.		gnal switch). Refer to <u>BCS-79, "Sy</u> art.	<u>mpiom ladie"</u> .
2.CHECK FRONT FOG LA WITH CONSULT DATA N 1. Select FR FOG REQ of 2. While operating the from	/ONITOR f IPDM E/R DATA MON	IITOR item. ck the monitor status.	
WITH CONSULT DATA N 1. Select FR FOG REQ of	/ONITOR f IPDM E/R DATA MON	IITOR item. ck the monitor status.	Monitor status
WITH CONSULT DATA N Select FR FOG REQ of While operating the fror	/ONITOR f IPDM E/R DATA MON	IITOR item. ck the monitor status.	Monitor status ON OFF

YES >> Replace IPDM E/R. Refer to <u>PCS-32</u>, "<u>Removal and Installation</u>".
 NO >> Repair or replace the malfunctioning part.

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DAYTIME LIGHT SYSTEM INOPERATIVE

< SYMPTOM DIAGNOSIS >

DAYTIME LIGHT SYSTEM INOPERATIVE

Description

INFOID:000000012548956

The daytime running 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 the engine is operating.

Diagnosis Procedure

INFOID:000000012548957

1. CHECK DAYTIME RUNNING LIGHT OPERATION

 Perform BCM(HEADLAMP) DAYTIME RUNNING LIGHT active test. Refer to <u>BCS-19</u>, "<u>HEADLAMP</u>: <u>CONSULT Function (BCM - HEADLAMP)</u>".

2. Check that the daytime running lights turn on.

Is the inspection results normal?

YES >> Replace BCM. Refer to <u>BCS-81, "Removal and Installation"</u>.

NO >> GO TO 2.

2.CHECK DAYTIME RUNNING LIGHT RELAY FUSE

1. Turn ignition switch OFF.

2. Check that the following fuse is not blown.

Unit	Fuse No.	Capacity
Daytime running light	43	10 A

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace the blown fuse after repairing the affected circuit.

3.CHECK DAYTIME RUNNING LIGHT BULBS

Check that the daytime running light bulbs are not open.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace the bulbs.

4.PERFORM DAYTIME RUNNING LIGHT CIRCUIT INSPECTION

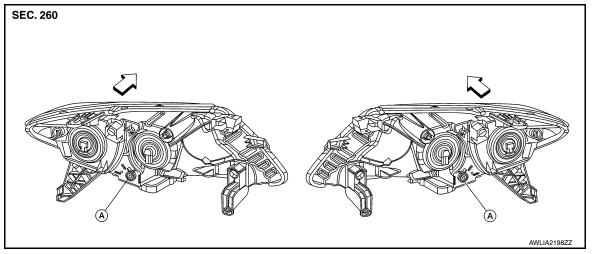
Check the daytime running light circuit. Refer to <u>EXL-116, "Diagnosis Procedure"</u>. Is the inspection results normal?

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

NO >> Repair or replace the malfunctioning part.

< PERIODIC MAINTENANCE > PERIODIC MAINTENANCE HEADLAMP

Inspection	В
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.	С
 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. 	D
 Confirm spare tire, jack and tools are properly stowed. Carefully wipe off any dirt from headlamp lens. CAUTION: 	E
 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. 	F
 NOTE: For headlamp aiming details, refer to regulations in your area. 	G
 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: 	Н
 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 SCREW	J



A. Headlamp HI/LO (UP/DOWN)

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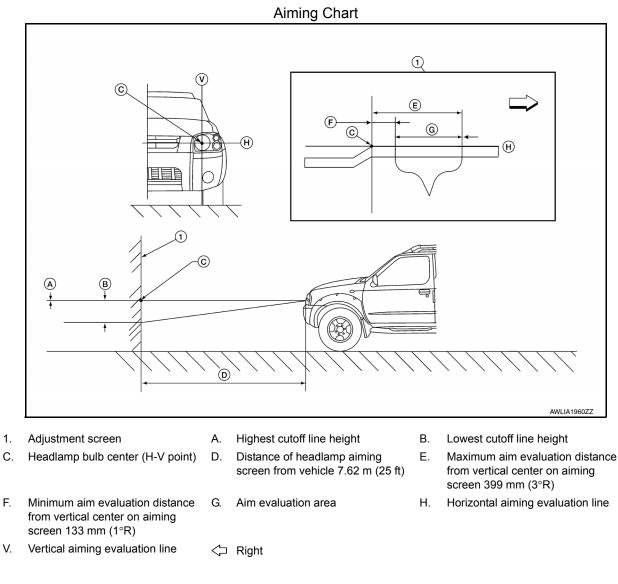
А

HEADLAMP

< PERIODIC MAINTENANCE >

Aiming Adjustment Procedure

INFOID:000000012548959



A (Highest cutoff line height) B (Lowest cutoff line height)

-13.3 mm (-0.5 in) 53.2 mm (2.1 in)

0.1° up 0.4° down

LOW BEAM AND HIGH BEAM NOTE:

F.

- Basic illuminating area for evaluation and/or adjustment should be within range shown on aiming chart.
- Use adjustment screw to perform aiming adjustment. 1. · Ensure fog lamps (if equipped) are turned off.
- Block the opposite headlamp from projecting a beam pattern onto the adjustment screen, using a suitable 2. object. Aim each headlamp individually. CAUTION:

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

- Place the screen on the same level and flat surface as the vehicle. 3. NOTE:
 - · Surface should be free of any debris that would cause a difference between the headlamp center and the adjustment screen.
- Face the front of the vehicle to the screen and measure distance between the headlamp center and the 4. screen surface.

Distance (D) between the headlamp center and the screen : 7.62 m (25 ft)	A
Determine the preferred vertical aim range dimensions, using the aiming chart.	В
Adjust the beam pattern of each headlamp until the aim evaluation segment (the area relative to both the highest and lowest cutoff line height) is positioned within the vertical aim range dimensions shown on the aiming chart.	С
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	Start the engine and turn the headlamp on. Determine the preferred vertical aim range dimensions, using the aiming chart. Measure the projected beam within the aim evaluation segment on the screen. Adjust the beam pattern of each headlamp until the aim evaluation segment (the area relative to both the highest and lowest cutoff line height) is positioned within the vertical aim range dimensions shown on the

Ρ

FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

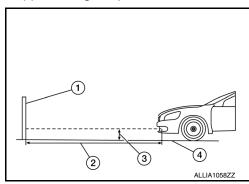
FRONT FOG LAMP AIMING ADJUSTMENT

Aiming Adjustment

NOTE:

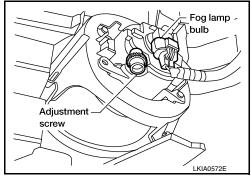
Check the following conditions before performing the aiming adjustment.

- Keep all tires inflated to correct pressure.
- Place vehicle on level ground.
- See that vehicle is unloaded (except for full levels of coolant, engine oil and fuel, and spare tire, jack, and tools). Have the driver or equivalent weight placed in driver seat.
- When performing adjustment, if necessary, cover the headlamps and opposite fog lamp.
- 1. Set the distance between the screen and the center of the fog
 - lamp lens as shown.
 - (1) Aiming screen or a matte white surface
 - (2) 7.62 m (25 ft)
 - (3) Floor to center of fog lamp lens
 - (4) Floor

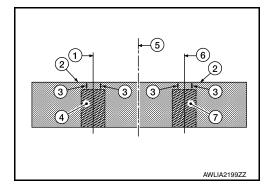


INFOID:000000012548960

- 2. Turn front fog lamps ON.
- 3. Access adjustment screw from underneath front bumper. Use a suitable tool to adjust. Turn screw clockwise to raise pattern and counterclockwise to lower pattern. Adjust front fog lamps using adjusting screw so that the top edge of the high intensity zone is 100 mm (4 in) below the height of the fog lamp centers as shown.



- (1) Vertical center line of left fog lamp.
- (2) Lamp center above ground.
- (3) 100 mm (4 in) (0.76 deg) below lamp center above ground.
- (4) Left fog lamp high intensity area.
- (5) Vehicle center axis.
- (6) Vertical center line of right fog lamp.
- (7) Right fog lamp high intensity area.

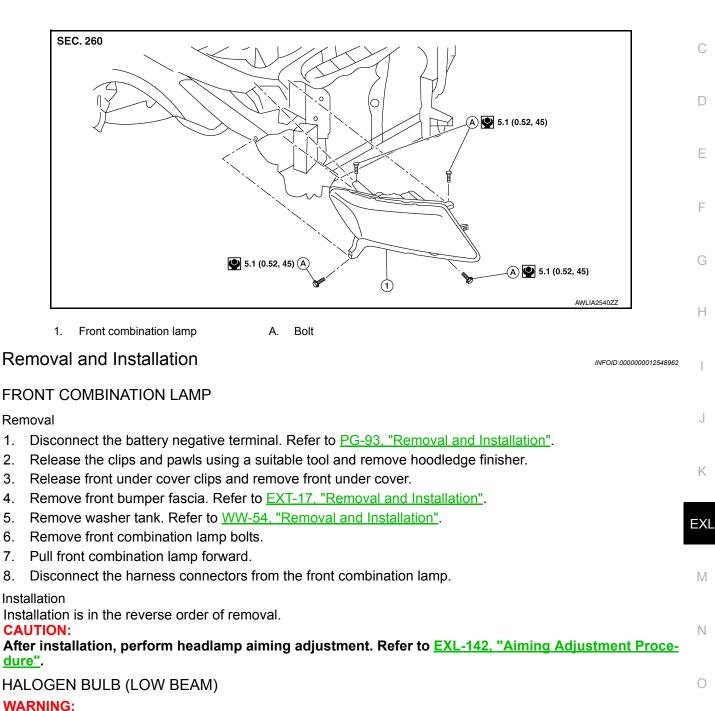


REMOVAL AND INSTALLATION FRONT COMBINATION LAMP

Exploded View

INFOID:000000012548961 В

А



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

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Rotate low beam bulb counterclockwise and remove. 1.

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FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

2. Disconnect the harness connector from the low beam bulb.

Installation

Installation is in the reverse order of removal.

HALOGEN BULB (HIGH BEAM)

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. Rotate high beam bulb counterclockwise and remove.
- 2. Disconnect the harness connector from the high beam bulb.

Installation

Installation is in the reverse order of removal.

PARKING LAMP BULB

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. Release the clips and pawls using a suitable tool and remove hoodledge finisher.
- 2. Remove washer tank. Refer to WW-54, "Removal and Installation".
- 3. Rotate parking lamp socket counterclockwise and remove.
- 4. Remove parking lamp bulb from the bulb socket.

Installation

CAUTION:

Installation is in the reverse order of removal.

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

FRONT TURN SIGNAL LAMP BULB

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. Release the clips and pawls using a suitable tool and remove hoodledge finisher.
- 2. Rotate front turn signal lamp socket counterclockwise and remove.
- 3. Remove front turn signal lamp bulb from the bulb socket.

Installation

CAUTION:

Installation is in the reverse order of removal.

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

FRONT SIDE MARKER LAMP BULB

WARNING:

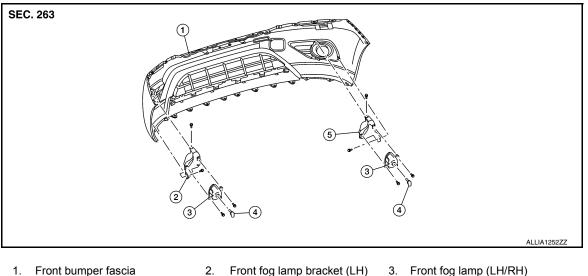
< REMOVAL AND INSTALLATION >	
Do not touch bulb by hand while it is lit or right after being turned off. Burning may result. CAUTION:	A
• Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.	
 Do not leave the bulb out of the lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of the lamp. 	В
Removal	
1. Release the clips and pawls using a suitable tool and remove hoodledge finisher.	С
2. Remove washer tank. Refer to <u>WW-54, "Removal and Installation"</u> .	
 Rotate front side marker lamp socket counterclockwise and remove. Demove front side marker lamp bulk from the bulk cooket. 	D
4. Remove front side marker lamp bulb from the bulb socket.	D
Installation Installation is in the reverse order of removal. CAUTION:	E
After installing, be sure to install the bulb socket securely to ensure watertightness.	
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FRONT FOG LAMP

Exploded View

INFOID:000000012548963



- 4. Front fog lamp bulb
- 5. Front fog lamp bracket (RH)
- A. Bolts

INFOID:000000012548964

Removal and Installation

FRONT FOG LAMP

Removal

- Partially remove the fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installa-1. tion".
- 2. Disconnect the harness connector(s) from the front fog lamp and daytime running lamp (if equipped).
- Remove bolts and front fog lamp. 3.

Installation

Installation in the reverse order of removal.

CAUTION:

After installation, perform fog lamp aiming adjustment. Refer to EXL-144, "Aiming Adjustment".

FRONT FOG LAMP BULB

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.

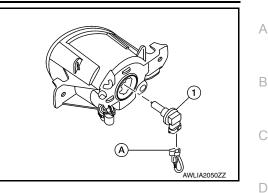
Removal

Partially remove the front fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and 1. Installation".

FRONT FOG LAMP

< REMOVAL AND INSTALLATION >

- 2. Disconnect the harness connector (A) from the front fog lamp.
- 3. Rotate bulb (1) counterclockwise and remove.



Installation Installation is in the reverse order of removal.

DAYTIME LAMP BULB (CANADA ONLY)

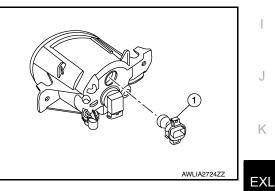
WARNING:

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. G may affect the performance of the lamp.

Removal

- 1. Partially remove the front fender protector. Refer to <u>EXT-28</u>, "FENDER PROTECTOR : Removal and ^H <u>Installation"</u>.
- Disconnect the harness connector from the daytime lamp bulb (1).
- 3. Rotate bulb (1) counterclockwise and remove.



Installation Installation is in the reverse order of removal.

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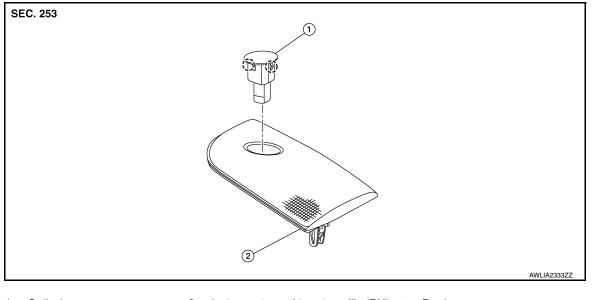
OPTICAL SENSOR

< REMOVAL AND INSTALLATION >

OPTICAL SENSOR

Exploded View

INFOID:000000012548965



1. Optical sensor

2. Instrument panel tweeter grille (RH) (Pawl

Removal and Installation

INFOID:000000012548966

REMOVAL

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

INSTALLATION

Installation is in the reverse order of removal.

< REMOVAL AND INSTALLATION >		
LIGHTING & TURN SIGNAL SWITCH		A
Removal and Installation	INFOID:000000012548967	~
The lighting and turn signal switch is integrated into the combination switch and is replaced as Refer to <u>BCS-82. "Removal and Installation"</u> .	an assembly.	В
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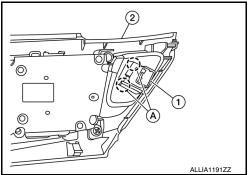
Ρ

HAZARD SWITCH

Removal and Installation

REMOVAL

- 1. Remove cluster lid C. Refer to <u>IP-22, "CLUSTER LID C : Removal and Installation"</u>.
- Release the pawls (A) and remove the hazard switch (1) from cluster lid C (2).
 (⁻):Pawl



INSTALLATION Installation is in the reverse order of removal. INFOID:000000012548968

REAR COMBINATION LAMP

< REMOVAL AND INSTALLATION >

REAR COMBINATION LAMP

Exploded View

INFOID:000000012548969

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AWLIA2725ZZ	F
1. Rear combination lamp 2. Rear combination lamp bolt cover A. Bolt	G
Removal and Installation	
REAR COMBINATION LAMP	Н
 Removal Release clips using a suitable tool and remove rear combination lamp bolt cover. Remove rear combination lamp bolts. 	I
 Pull rear combination lamp rearward. Disconnect the harness connector from the rear combination lamp and remove. 	J
Installation Installation is in the reverse order of removal.	K
REAR TURN SIGNAL LAMP BULB	
WARNING: Do not touch bulb by hand while it is lit or right after being turned OFF. Burning may result. CAUTION:	EX
 Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to preve damage to bulb. Do not leave the bulb out of the lamp reflector for a long time because dust, moisture, smoke, et may affect the performance of the lamp. 	M
Removal	Ν
 Remove the rear combination lamp. Refer to <u>EXL-153</u>, "Removal and Installation" Retate the rear turn signal lamp cocket counterclockwise and remove 	
 Rotate the rear turn signal lamp socket counterclockwise and remove. Remove the bulb from rear turn signal bulb socket. 	0
Installation Installation is in the reverse order of removal.	P
STOP/TAIL LAMP BULB	
 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 the prevent of the bulb with bare hands or allow oil or grease to get on it to prevent the prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on it to prevent of the bulb with bare hands or allow oil or grease to get on the bulb with bare hands or allow oil or grease to get on the bulb with bare hands or allow oil or grease to get on the bulb with bare hands or allow oil or grease to get on the bulb with bare hands or allow oil or grease to get on the bulb with bare hands or allow oil or grease to ge	ent
damage to bulb.	-

REAR COMBINATION LAMP

< REMOVAL AND INSTALLATION >

• 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 rear combination lamp. Refer to EXL-153, "Removal and Installation"
- 2. Rotate the stop/tail lamp socket counterclockwise and remove.
- 3. Remove the bulb from stop/tail lamp bulb socket.

Installation

Installation is in the reverse order of removal.

SIDE MARKER LAMP BULB

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 rear combination lamp. Refer to EXL-153, "Removal and Installation"
- 2. Rotate the side marker lamp socket counterclockwise and remove.
- 3. Remove the bulb from side marker bulb socket.

Installation

Installation is in the reverse order of removal.

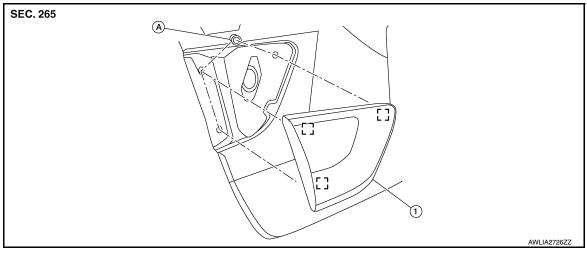
HIGH-MOUNTED STOP LAMP

< REMOVAL AND INSTALLATION > HIGH-MOUNTED STOP LAMP	
Removal and Installation	А
REMOVAL 1. Remove rear spoiler. Refer to EXT-41, "Removal and Installation".	В
INSTALLATION Installation is in the reverse order of removal.	С
HIGH-MOUNTED STOP LAMP BULB The high-mounted stop lamp bulb is LED and is serviced as part of the high-mounted stop lamp. Refer to <u>EXL-</u> 155, "Removal and Installation"	D
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BACK-UP LAMP

Exploded View

INFOID:000000012548972



1. Back-up lamp

A. Nut

Stud

Removal and Installation

INFOID:000000012548973

BACK-UP LAMP

Removal

- 1. Remove back door lower finisher. Refer to <u>INT-35, "BACK DOOR LOWER FINISHER : Removal and Installation"</u>.
- 2. Disconnect the harness connector from the back-up lamp.
- 3. Remove back-up lamp nuts and remove.

Installation

Installation is in the reverse order of removal.

BACK-UP LAMP BULB

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 back door trim access panel.
- 2. Rotate back-up lamp socket counterclockwise and remove.
- 3. Remove back-up lamp bulb from bulb socket.

Installation

Installation is in the reverse order of removal.

LICENSE PLATE LAMP

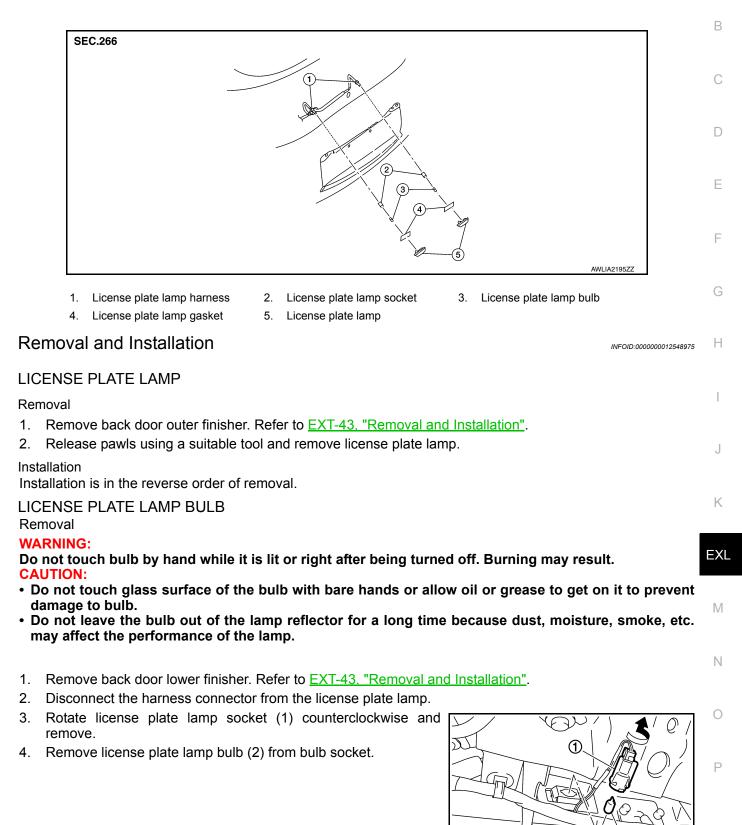
< REMOVAL AND INSTALLATION >

LICENSE PLATE LAMP

Exploded View

INFOID:000000012548974

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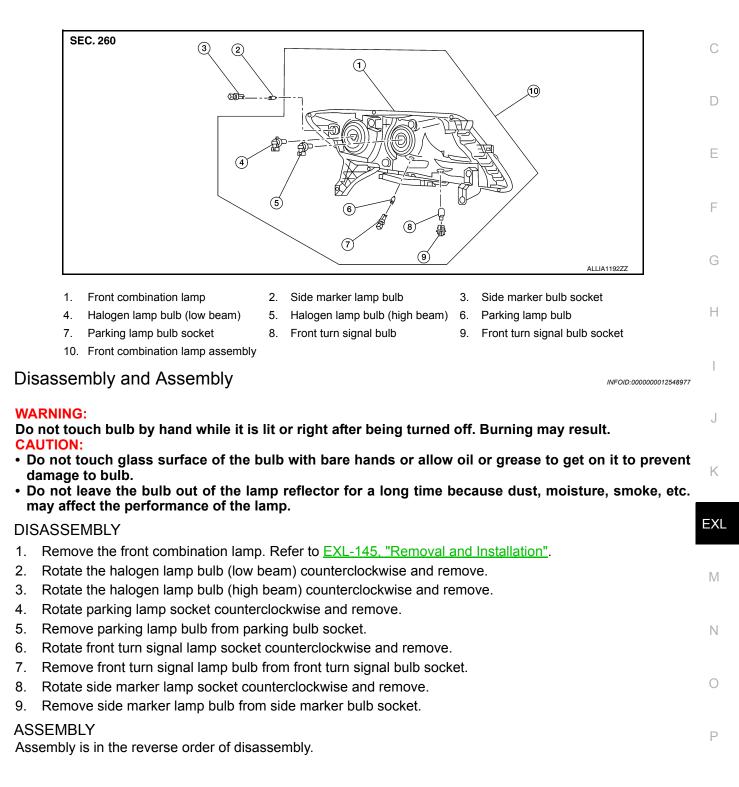
Installation Installation is in the reverse order of removal.

FRONT COMBINATION LAMP

Exploded View

INFOID:000000012548976 B

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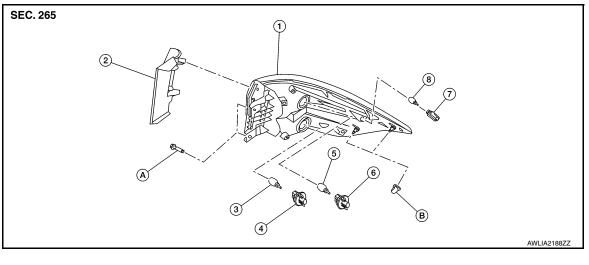
REAR COMBINATION LAMP

< UNIT DISASSEMBLY AND ASSEMBLY >

REAR COMBINATION LAMP

Exploded View

INFOID:000000012548978



1. Rear combination lamp

4. Rear turn signal bulb socket

- 2. Rear combination lamp bolt cover 3.
- 5. Stop/Tail lamp bulb
- 7. Side marker bulb socket 8. Side marker lamp bulb
- B. Locator pin

Disassembly and Assembly

- Rear turn signal lamp bulb
- 6. Stop/Tail bulb socket
- A. Bolt

INFOID:000000012548979

WARNING:

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

- After installing, be sure to install the bulb sockets securely to ensure watertightness.
- 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 bulb out of lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.

DISASSEMBLY

- 1. Remove rear combination lamp. Refer to EXL-153, "Removal and Installation".
- 2. Rotate rear turn signal lamp bulb socket counterclockwise and remove.
- 3. Remove rear turn signal bulb from bulb socket.
- 4. Rotate stop/tail lamp bulb socket counterclockwise and remove.
- 5. Remove stop/tail bulb from bulb socket.
- 6. Rotate side marker lamp bulb socket counterclockwise and remove.
- 7. Remove side marker bulb from bulb socket.

ASSEMBLY

Assembly is in the reverse order of disassembly.

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS) SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:000000012548980

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	Item	Wattage (W) *	
	High beam	60	
Front combination lamp	Low beam	55	
	Front turn signal lamp	21	
	Parking lamp	5	
	Side marker lamp	5	
Front fog lamp	Fog lamp (if equipped)	55	
Daytime running lamp built-in fog lamp (Canada only)		19	
Rear combination lamp	Stop/Tail lamp	21/5	
	Turn signal lamp	21	
	Side marker lamp	5	
Back-up lamp		16	
License plate lamp		5	
High-mounted stop lamp			

*: Always check with the Parts Department for the latest parts info.

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