SECTION INTERIOR LIGHTING SYSTEM

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CONTENTS

PRECAUTION3	INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)	=
PRECAUTIONS 3	,	
Precaution for Supplemental Restraint System	DIAGNOSIS SYSTEM (IPDM E/R)17	_
(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	Diagnosis Description17	
SIONER"3	CONSULT Function (IPDM E/R)18	
Precaution for Work3	ECU DIAGNOSIS INFORMATION21	-
PREPARATION4	BCM, IPDM E/R21	
PREPARATION4	List of ECU Reference21	
Special Service Tool4	WIRING DIAGRAM22	
SYSTEM DESCRIPTION5	WIKING DIAGRAW22	
5151EW DESCRIPTION5	INTERIOR ROOM LAMP22	J
COMPONENT PARTS5	Wiring Diagram22	
Component Parts Location5	ILLUMINATION33	
Component Description6	Wiring Diagram33	<
INTERIOR ROOM LAMP CONTROL SYSTEM	Villing Blagram	
7	BASIC INSPECTION47	H
System Diagram7	DIAGNOSIS AND REPAIR WORK FLOW47	ĺ
System Description7	Work Flow47	
ILLUMINATION CONTROL SYSTEM9		
System Diagram9	DTC/CIRCUIT DIAGNOSIS49	/
System Description9	POWER SUPPLY AND GROUND CIRCUIT49	
DIAGNOSIS SYSTEM (BCM)11		. 1
DIAGNOSIS STSTEM (BCM)TI	5011	V
COMMON ITEM11	BCM : Diagnosis Procedure49	
COMMON ITEM: CONSULT Function (BCM -	IPDM E/R49	
COMMON ITEM)11	IPDM E/R : Diagnosis Procedure49	J
INT LAMP12	BATTERY SAVER OUTPUT/POWER SUP-	
INT LAMP : CONSULT Function (BCM - INT	PLY CIRCUIT51	5
LAMP)12	Description51	
BATTERY SAVER13	Component Function Check51	
BATTERY SAVER : CONSULT Function (BCM -	Diagnosis Procedure51	
BATTERY SAVER)13	INTERIOR ROOM LAMP CONTROL CIRCUIT	
,	53	
INTELLIGENT KEY13	Description53	

Component Function Check 53	VANITY MIRROR LAMP64
Diagnosis Procedure53	Removal and Installation64
STEP LAMP CIRCUIT55	Bulb or Lens Replacement64
Description 55	GLOVE BOX LAMP 65
Component Function Check55	Removal and Installation65
Diagnosis Procedure 55	Bulb Replacement65
TRUNK ROOM LAMP CIRCUIT57	FRONT STEP LAMP 66
Description 57	Exploded View66
Component Function Check 57	Removal and Installation66
Diagnosis Procedure 57	Bulb or Lens Replacement66
PUSH-BUTTON IGNITION SWITCH ILLUMI-	PERSONAL LAMP 67
NATION CIRCUIT59	Removal and Installation67
Description 59	Bulb or Lens Replacement67
Component Function Check 59	TRUNK BOOM LAMB
Diagnosis Procedure59	TRUNK ROOM LAMP68
CYMPTOM DIA CNOCIC	Removal and Installation68
SYMPTOM DIAGNOSIS61	Bulb Replacement
INTERIOR LIGHTING SYSTEM SYMPTOMS 61	ILLUMINATION CONTROL SWITCH69
Symptom Table61	Removal and Installation69
REMOVAL AND INSTALLATION 62	SERVICE DATA AND SPECIFICATIONS (SDS)70
FRONT ROOM/MAP LAMP ASSEMBLY 62	•
Exploded View 62	SERVICE DATA AND SPECIFICATIONS
Removal and Installation 62	(SDS)70
Bulb Replacement 63	Bulb Specifications70

PRECAUTIONS

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PRECAUTION

PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least three minutes before performing any service.

Precaution for Work

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

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Revision: May 2014 INL-3 2015 Altima Sedan

PREPARATION

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PREPARATION

Special Service Tool

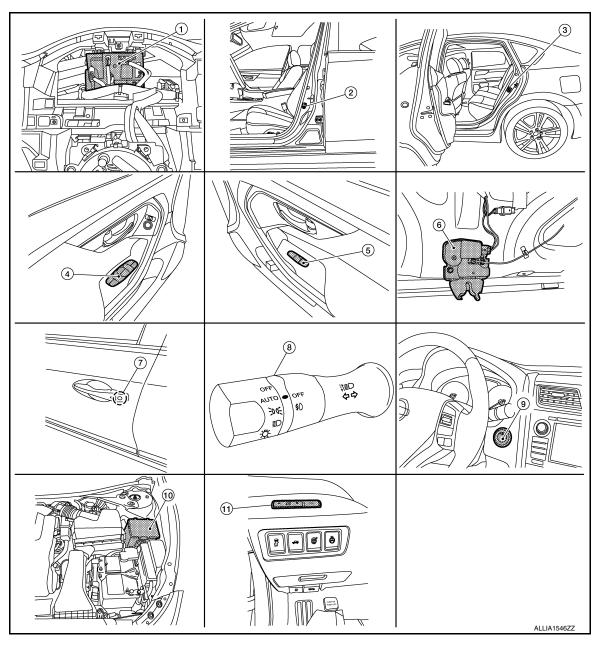
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Tool number (TechMate No.) Tool name		Description
— (J-46534) Trim Tool Set	AWJIA0483ZZ	Removing trim components

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location



- 1. BCM (view with combination meter re- 2. moved)
- Main power window and door lock/un- 5. lock switch
- 7. Front door lock assembly LH (key cylinder switch)
- 10. IPDM E/R (tail lamp relay)

- 2. Front door switch LH (RH similar)
 - . Power window and door lock/unlock switch RH
- 8. Combination switch (lighting and turn signal switch)
- 11. Meter control switch (illumination control switch)
- Rear door switch LH (RH similar)
- Trunk lamp switch and trunk release solenoid (Trunk lamp switch)
 - Push-button ignition switch

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

Component Description

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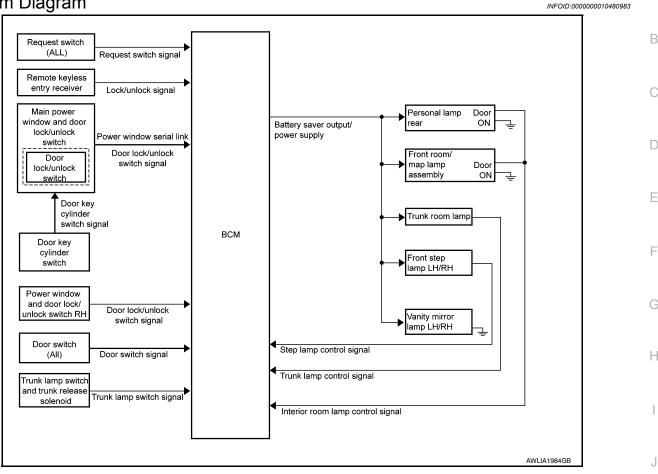
Part name	Description
BCM	The BCM monitors the combination switch (lighting and turn signal switch) position. The BCM requests via CAN communication that the IPDM E/R activate the tail lamp relay.
IPDM E/R	The IPDM E/R activates the tail lamp relay based on inputs received from the BCM via the CAN communication.
Push button ignition switch	Provides ignition switch status to the BCM.
Door switches	Provides door OPEN/CLOSED status to the BCM.
Combination switch (lighting and turn signal switch)	The combination switch (lighting and turn signal switch) provides input to the BCM. The BCM then sends a tail lamp relay request signal to the IPDM E/R via CAN communication to operate the illumination system.
Trunk lamp switch and release solenoid (trunk lamp switch)	Provides trunk lamp switch OPEN/CLOSED status to the BCM.
Power window and door lock/unlock switch RH	Provides door lock/unlock position switch RH status to the BCM.
Main power window and door lock/unlock switch	Provides door lock/unlock position switch LH status to the BCM.
Meter control switch (illumination control switch)	 Adjusts the illumination system and combination meter illumination brightness (with multiple illumination control). Only adjusts the combination meter illumination brightness (with meter illumination control only).
Front door lock assembly LH (key cylinder switch)	Provides front door lock assembly LH (key cylinder switch) door lock/unlock switch position status to the BCM.

INTERIOR ROOM LAMP CONTROL SYSTEM

< SYSTEM DESCRIPTION >

INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram



System Description

OUTLINE

 Front room/map lamps and personal lamps rear are controlled by the room lamp timer control function of the BCM when lamp switch is in the DOOR position.

Front step lamps are controlled by step lamp control function of BCM.

- Trunk room lamp is controlled by trunk lamp control function of BCM.
- Push-button ignition switch illumination is controlled by the push-button ignition switch illumination control function of BCM.
- Interior room lamps are illuminated by the welcome light function of Intelligent Key system. Refer to DLK-32. "WELCOME LIGHT FUNCTION: System Description".

ROOM LAMP TIMER OPERATION

When the interior room lamp switch is in the DOOR position, the BCM begins time control (maximum 30 seconds) for interior room lamp ON/OFF when all of the following conditions are met:

- When the front door LH is unlocked [with Intelligent Key, main power window and door lock/unlock switch or front door lock assembly LH (key cylinder switch)].
- When a door opens → closes.

Timer control is cancelled under the following conditions:

- · When the front door LH is locked [with Intelligent Key, main power window and door lock/unlock switch or front door lock assembly LH (key cylinder switch)].
- A door is opened (door switch turns ON).
- Ignition switch is turned ON.

INTERIOR LAMP BATTERY SAVER CONTROL

If an interior lamp is left ON and does not turn OFF even when the doors are closed, the BCM turns off power to the interior lamps automatically to save the battery 15 minutes after the ignition switch is turned OFF.

INL-7 2015 Altima Sedan Revision: May 2014

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INTERIOR ROOM LAMP CONTROL SYSTEM

< SYSTEM DESCRIPTION >

The BCM controls the following interior lamps:

- Front step lamp LH/RH
- Front room/map lamp LH/RH
- Personal lamp rear LH/RH
- Vanity mirror lamp LH/RH (if equipped)
- Trunk room lamp

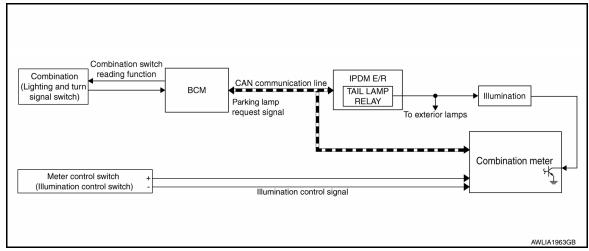
After the battery saver system turns the lamps OFF, the lamps will illuminate again when:

- A signal is received from an Intelligent Key or main power window and door lock/unlock switch or when the front door lock assembly LH (key cylinder switch) is locked or unlocked.
- A door is opened or closed.

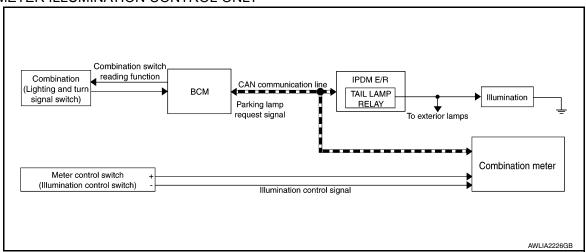
ILLUMINATION CONTROL SYSTEM

System Diagram INFOID:0000000010480985

WITH MULTIPLE ILLUMINATION CONTROL



WITH METER ILLUMINATION CONTROL ONLY



System Description

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WITH MULTIPLE ILLUMINATION CONTROL

The illumination system is activated by the combination switch (lighting and turn signal switch) when the switch is placed in the 1st or 2nd position (or if the auto light system is activated).

The illumination system and combination meter illumination brightness is adjustable using the meter control switch (illumination control switch).

- The BCM (body control module) receives the parking lamp request signal from the combination switch (lighting and turn signal switch) to turn the lights on.
- The BCM sends the parking lamp request signal to the IPDM E/R (intelligent power distribution module engine room) via CAN communication.
- IPDM E/R receives the parking lamp request signal from the BCM to activate the tail lamp relay and provide power to the illumination system.

WITH METER ILLUMINATION CONTROL ONLY

The illumination system is activated by the combination switch (lighting and turn signal switch) when the switch is placed in the 1st or 2nd position (or if the auto light system is activated).

Only the combination meter illumination brightness is adjustable using the meter control switch (illumination control switch).

INL-9 Revision: May 2014 2015 Altima Sedan

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ILLUMINATION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

- The BCM (body control module) receives the parking lamp request signal from the combination switch (lighting and turn signal switch) to turn the lights on.
- The BCM sends the parking lamp request signal to the IPDM E/R (intelligent power distribution module engine room) via CAN communication.
- IPDM E/R receives the parking lamp request signal from the BCM to activate the tail lamp relay and provide power to the illumination system.

BATTERY SAVER CONTROL

When the combination switch (lighting and turn signal switch) is in the 1st or 2nd position and the ignition switch is set from ON or ACC to OFF, the battery saver control feature is activated. Under this condition, the illumination system remains on for 15 minutes unless the combination switch (lighting and turn signal switch) position is changed. If the combination switch (lighting and turn signal switch) position is changed, then the illumination system is turned off after a 30 second delay. When the combination switch (lighting and turn signal switch) is turned from OFF to 1st or 2nd position (or if auto light system is activated) after illumination system has been turned off by the battery saver control, the illumination lights illuminate again.

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

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CAUTION:

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

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

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

SYSTEM APPLICATION

BCM can perform the following functions.

		Direct Diagnostic Mode						
System	Sub System	Ecu Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Remote keyless entry system	MULTI REMOTE ENT			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Trunk open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		

Revision: May 2014 INL-11 2015 Altima Sedan

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< 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
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		

INT LAMP

INT LAMP: CONSULT Function (BCM - INT LAMP)

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CAUTION:

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

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.
PUSH -SW [On/Off]	Indicates condition of push-button ignition switch.
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicates condition of trunk switch.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.
TRNK/HAT MNTR [On/Off]	Indicates condition of trunk room lamp 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.

ACTIVE TEST

Test Item	Description
INT LAMP	This test is able to check interior room lamp operation [On/Off].
STEP LAMP TEST	This test is able to check step lamp operation [On/Off].

WORK SUPPORT

NOTE:

The items listed below are the only applicable Work Support items for this vehicle. If other items are displayed on CONSULT, do not use or change the setting for these other items.

< SYSTEM DESCRIPTION >

Support Item	Setting	Description
SCENARIO LIGHTING SETTING	On	NOTE:
SCENARIO LIGHTING SETTING	Off*	Do not use this function since interior room lamp control is changed.
SET I/L D-UNLCK INTCON	On	Interior room lamp timer function ON.
SET I/L D-UNLER INTOON	Off*	Interior room lamp timer function OFF.
FOG LAMP OVERRIDE	On*	Fog lamp override function ON.
FOG LAMP OVERRIDE	Off	Fog lamp override function OFF.

^{*:} Initial setting

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

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CAUTION:

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

DATA MONITOR

Monitor Item [Unit]	Description	
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.	
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.	
PUSH SW [On/Off]	Indicates condition push-button ignition switch.	
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor.	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.	
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.	
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.	
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.	
DOOR SW-BK [On/Off]	Indicates condition of trunk switch.	
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.	
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.	
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.	
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.	-
TRNK/HAT MNTR [On/Off]	Indicates condition of trunk room lamp 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.	

ACTIVE TEST

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

INTELLIGENT KEY

INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)

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CAUTION:

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

< SYSTEM DESCRIPTION >

SELF DIAGNOSTIC RESULT Refer to <u>BCS-53</u>, "<u>DTC Index</u>".

DATA MONITOR

Monitor Item [Unit]	Main	Description
REQ SW -DR [On/Off]	×	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	×	Indicates condition of door request switch RH.
REQ SW -BD/TR [On/Off]	×	Indicates condition of trunk opener request switch.
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
SHFTLCK SLNID PER SPLY [On/Off]	×	Indicates condition of power supply to shiftlock solenoid.
BRAKE SW 1 [On/Off]	×	Indicates condition of brake switch.
BRAKE SW 2 [On/Off]		Indicates condition of brake switch.
DETE/CANCL SW [On/Off]	×	Indicates condition of P (park) position.
SFT PN/N SW [On/Off]	×	Indicates condition of P (park) or N (neutral) position.
UNLK SEN -DR [On/Off]	×	Indicates condition of door unlock sensor.
PUSH SW -IPDM [On/Off]		Indicates condition of push-button ignition switch received from IPDM E/R on CAN communication line.
IGN RLY1 -F/B [On/Off]		Indicates condition of ignition relay 1 received from IPDM E/R on CAN communication line.
DETE SW -IPDM [On/Off]		Indicates condition of detent switch received from TCM on CAN communication line.
SFT PN -IPDM [On/Off]		Indicates condition of P (park) or N (neutral) position from TCM on CAN communication line.
SFT P -MET [On/Off]		Indicates condition of P (park) position from TCM on CAN communication line.
SFT N -MET [On/Off]		Indicates condition of N (neutral) position from IPDM E/R on CAN communication line.
ENGINE STATE [STOP/START/CRANK/RUN]	×	Indicates condition of engine state from ECM on CAN communication line.
VEH SPEED 1 [mph/km/h]	×	Indicates condition of vehicle speed signal received from ABS on CAN communication line.
VEH SPEED 2 [mph/km/h]	×	Indicates condition of vehicle speed signal received from combination meter on CAN communication line.
DOOR STAT -DR [LOCK/READY/UNLK]	×	Indicates condition of driver side door status.
DOOR STAT -AS [LOCK/READY/UNLK]	×	Indicates condition of passenger side door status.
DOOR STAT -RR [LOCK/READY/UNLK]	×	Indicates condition of rear right side door status.
DOOR STAT -RL [LOCK/READY/UNLK]	×	Indicates condition of rear left side door status.
ID OK FLAG [Set/Reset]		Indicates condition of Intelligent Key ID.
PRMT ENG STRT [Set/Reset]		Indicates condition of engine start possibility.
PRMT RKE STRT [Set/Reset]		Indicates condition of engine start possibility from Intelligent Key.
I-KEY OK FLAG [Key ON/Key OFF]	×	Indicates condition of Intelligent Key OK flag.
PRBT ENG STRT [Set/Reset]		Indicates condition of engine start prohibit.
ID AUTHENT CANCEL TIMER [STOP]		Indicates condition of Intelligent Key ID authentication.
ACC BATTERY SAVER [STOP]		Indicates condition of battery saver.
CRNK PRBT TMR [On/Off]		Indicates condition of crank prohibit timer.
AUT CRNK TMR [On/Off]		Indicates condition of automatic engine crank timer from Intelligent Key.
CRNK PRBT TME [sec]		Indicates condition of engine crank prohibit time.
AUTO CRNK TME [sec]		Indicates condition of automatic engine crank time from Intelligent Key.
CRANKING TME [sec]		Indicates condition of engine cranking time from Intelligent Key.

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< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Main	Description
DETE SW PWR [On/Off]		Indicates condition of detent switch voltage.
ACC RLY -REQ [On/Off]		Indicates condition of accessory relay control request.
RKE OPE COUN1 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
TRNK/HAT MNTR [On/Off]		Indicates condition of trunk room lamp 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-TR/BD [On/Off]		Indicates condition of trunk open signal from Intelligent Key.
RKE-PANIC [On/Off]		Indicates condition of panic signal from Intelligent Key.
RKE-MODE CHG [On/Off]		Indicates condition of mode change signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
INTELLIGENT KEY LINK (CAN)	This test is able to check Intelligent Key identification number [Off/ID No1/ID N02/ID No3/ID No4/ID No5].
INT LAMP	This test is able to check interior room lamp operation [On/Off].
FLASHER	This test is able to check hazard lamp operation [LH/RH/Off].
HORN	This test is able to check horn operation [On].
BATTERY SAVER	This test is able to check battery saver operation [On/Off].
TRUNK/BACK DOOR	This test is able to check trunk actuator operation [Open].
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation [On/Off].
INSIDE BUZZER	This test is able to check combination meter warning chime operation [Take Out/Knob/Key/Off].
INDICATOR	This test is able to check combination meter warning lamp operation [KEY ON/KEY IND/Off].
IGN CONT2	This test is able to check ignition relay-2 control operation [On/Off].
ENGINE SW ILLUMI	This test is able to check push-button ignition switch START indicator operation [On/Off].
PUSH SWITCH INDICATOR	This test is able to check push-button ignition switch indicator operation [On/Off].
ACC CONT	This test is able to check accessory relay control operation [On/Off].
IGN CONT1	This test is able to check ignition relay-1 control operation [On/Off].
ST CONT LOW	This test is able to check starter control relay operation [On/Off].
IGNITION RELAY	This test is able to ignition relay operation [On/Off].
REVERSE LAMP TEST	This test is able to check reverse lamp illumination operation [On/Off].
TRUNK/LUGGAGE LAMP TEST	This test is able to check cargo lamp illumination operation [On/Off].
KEYFOB PW TEST	This test is able to check power window operation using the Intelligent Key [Off/DOWN/UP].
SHIFTLOCK SOLENOID TEST	This test is able to check shift lock solenoid operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
IGN/ACC BATTERY SAVER	On*	Battery saver function ON.
	Off	Battery saver function OFF.
REMOTE ENGINE STARTER	On*	Remote engine start function ON.
NEWOTE ENGINE STANTEN	Off	Remote engine start function OFF.

< SYSTEM DESCRIPTION >

Support Item	Se	tting	Description
	BUZZER		Buzzer reminder function by door lock/unlock request switch ON.
ANSWERBACK I-KEY LOCK UNLOCK	HORN		Horn chirp reminder function by door lock request switch ON.
ANGWENDACK I-KET LOCK UNLOCK	Off*		No reminder function by door lock/unlock request switch.
	INVALID		This mode is not used.
ANSWERBACK KEYLESS LOCK UN-	On		Buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.
LOCK	Off*		No buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.
ANCWED DACK	On*		Horn chirp reminder when doors are locked with Intelligent Key.
ANSWER BACK	Off		No horn chirp reminder when doors are locked with Intelligent Key.
DETRACTABLE MIDDOR SET	On		Retractable mirror set ON.
RETRACTABLE MIRROR SET	Off*		Retractable mirror set OFF.
CONFIRM KEY FOB ID	-	_	Intelligent Key ID code can check.
	On*		Door lock/unlock function from Intelligent Key ON.
LOCK/UNLOCK BY I-KEY	Off		Door lock/unlock function from Intelligent Key OFF.
ENGINE START BY I-KEY	On*		Engine start function from Intelligent Key ON.
ENGINE START BY I-RET	Off		Engine start function from Intelligent Key OFF.
TRUNK/GLASS HATCH OPEN	On*		Buzzer reminder function by trunk opener request switch ON.
TRUNK/GLASS HATCH OPEN	Off		Buzzer reminder function by trunk opener request switch OFF.
INTELLIGENT KEY LINK SET	On		Intelligent Key link set ON.
INTELLIGENT RET LINK SET	Off*		Intelligent Key link set OFF.
		70 msec	
SHORT CRANKING OUTPUT	Start	100 msec	Starter motor operation duration times.
SHORT CRAINING OUTFUT		200 msec	
	End		-
INSIDE ANT DIAGNOSIS	_		This function allows inside key antenna self-diagnosis.
	MODE7	5 min	
	MODE6 4 min		
AUTO LOCK SET	MODE5	3 min	
	MODE4 2 min MODE3* 1 min		Auto door lock time can be set in this mode.
	MODE2	30 sec	
	MODE1 Off		

^{*:} Initial Setting

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

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AUTO ACTIVE TEST

Description

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

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

Operation Procedure

CAUTION:

Do not start the engine.

NOTE:

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

NOTE:

- If auto active test mode cannot be actuated, check door switch system. Refer to <u>DLK-100</u>, "Component Function Check".
- When auto active test mode has to be cancelled halfway through test, turn ignition switch OFF.
- 1. Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation)
- 2. Turn ignition switch OFF.
- 3. Turn the ignition switch ON, and within 20 seconds, press the front door switch LH 10 times. Then turn the ignition switch OFF.
- Turn the ignition switch ON within 10 seconds. After that the horn sounds once, and the auto active test starts.
- 5. After a series of the following operations is repeated 3 times, auto active test is completed.

Inspection in Auto Active Test Mode

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

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

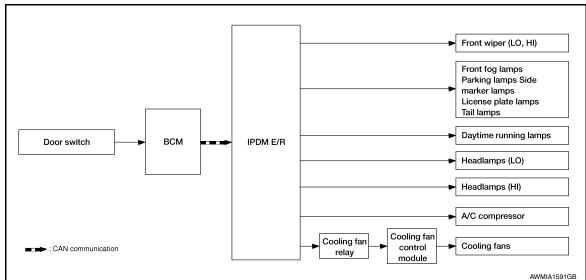
^{*:} Outputs duty ratio of 50% for 5 seconds → duty ratio of 100% for 5 seconds on the cooling fan control module.

Revision: May 2014 INL-17 2015 Altima Sedan

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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 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 between cooling fans and cooling fan control module Cooling fan control module Harness or connectors between cooling fan relay and cooling fan control module Cooling fan relay Harness or connectors between IPDM E/R and cooling fan relay IPDM E/R

CONSULT Function (IPDM E/R)

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CAUTION:

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

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.
Self Diagnostic Result	The IPDM E/R self diagnostic results are displayed.
Data Monitor	The IPDM E/R input/output data is displayed in real time.
Active Test	The IPDM E/R activates outputs to test components.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

The IPDM E/R part number is displayed.

SELF DIAGNOSTIC RESULT

Refer to PCS-20, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Main Signals	Description
MOTOR FAN REQ [1/2/3/4]	×	Indicates cooling fan speed signal received from ECM on CAN communication line
AC COMP REQ [On/Off]	×	Indicates A/C compressor request signal received from ECM on CAN communication line
TAIL&CLR REQ [On/Off]	×	Indicates position light request signal received from BCM on CAN communication line
HL LO REQ [On/Off]	×	Indicates low beam request signal received from BCM on CAN communication line
HL HI REQ [On/Off]	×	Indicates high beam request signal received from BCM on CAN communication line
FR FOG REQ [On/Off]	×	Indicates front fog light request signal received from BCM on CAN communication line
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Indicates front wiper request signal received from BCM on CAN communication line
WIP AUTO STOP [STOP P/ACT P]	×	Indicates condition of front wiper auto stop signal
WIP PROT [Off/BLOCK]	×	Indicates condition of front wiper fail-safe operation
IGN RLY1 -REQ [On/Off]		Indicates ignition switch ON signal received from BCM on CAN communication line
IGN RLY [On/Off]	×	Indicates condition of ignition relay
PUSH SW [On/Off]		Indicates condition of push-button ignition switch
INTER/NP SW [On/Off]		Indicates condition of CVT shift position
ST RLY CONT [On/Off]		Indicates starter relay status signal received from BCM on CAN communication line
IHBT RLY -REQ [On/Off]		Indicates starter control relay signal received from BCM on CAN communication line
ST/INHI RLY [Off/ ST /INHI]		Indicates condition of starter relay and starter control relay
DETENT SW [On/Off]		Indicates condition of CVT shift selector (park position switch)
DTRL REQ [Off]		Indicates daytime light request signal received from BCM on CAN communication line
HOOD SW [On/Off]		Indicates condition of hood switch
THFT HRN REQ [On/Off]		Indicates theft warning horn request signal received from BCM on CAN communication line

Revision: May 2014 INL-19 2015 Altima Sedan

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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 2

ACTIVE TEST

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

CAN DIAG SUPPORT MNTR

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

BCM, IPDM E/R

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM, IPDM E/R

List of ECU Reference

ECU	Reference
	BCS-32, "Reference Value"
DOM	BCS-51, "Fail Safe"
ВСМ	BCS-52, "DTC Inspection Priority Chart"
	BCS-53, "DTC Index"
	PCS-12, "Reference Value"
IPDM E/R	PCS-19, "Fail Safe"
	PCS-20, "DTC Index"

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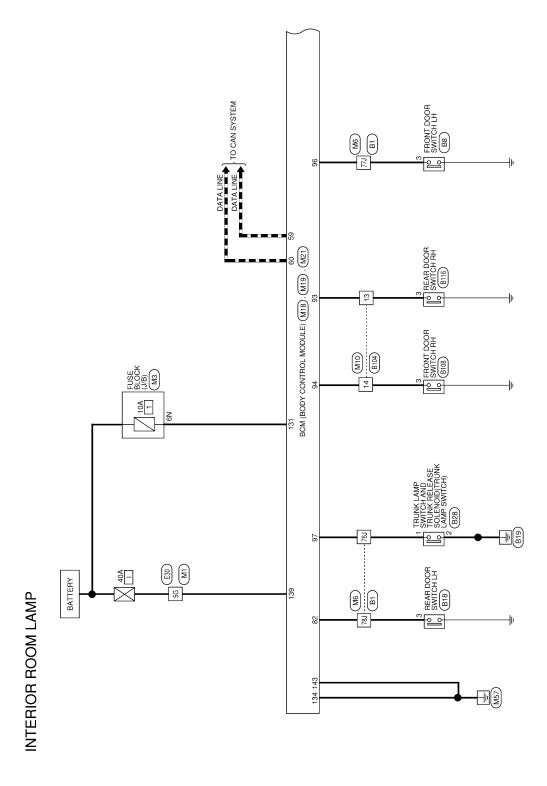
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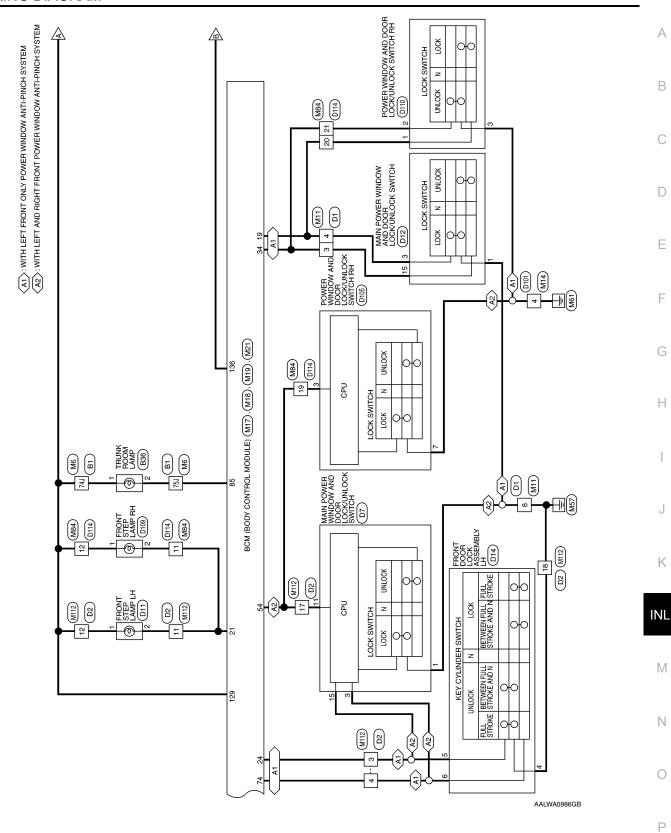
WIRING DIAGRAM

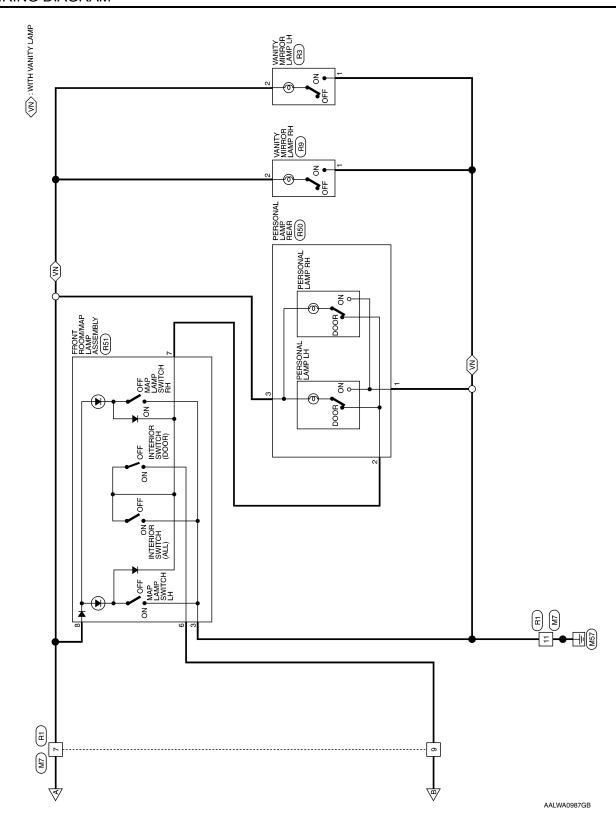
INTERIOR ROOM LAMP

Wiring Diagram

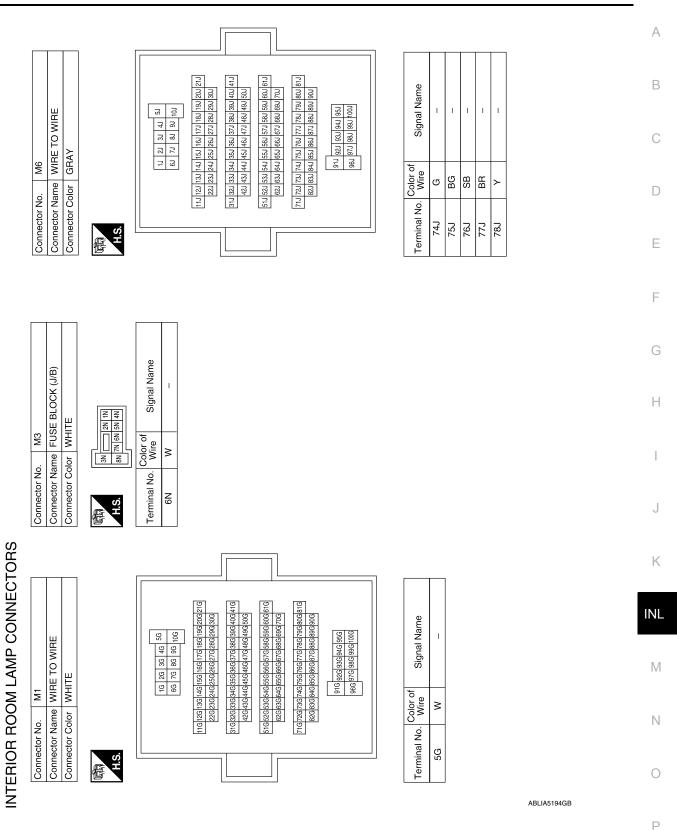


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< WIRING DIAGRAM >



Revision: May 2014 INL-25 2015 Altima Sedan

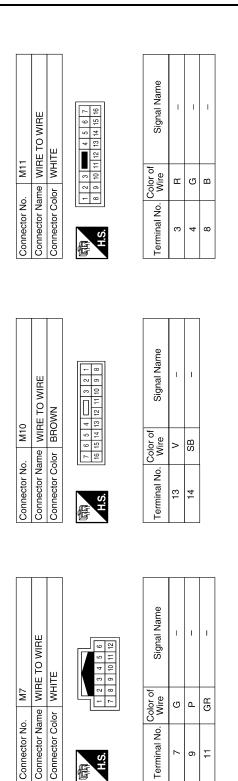
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Connector No.

Connector No. M14
Connector Name WIRE TO WIRE

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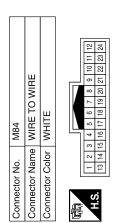
			, 1	3 3	Ι.					
	BCM (BODY CONTROL MODULE)	ÇK		52 51 50 49 48 47 46 45 44 43 47 72 71 70 69 68 67 66 65 64 63		Signal Name	PW LIN	CAN-L	CAN-H	DOOR KEY/C LOCK SW
. M18		lor BLACK		55 54 53 75 74 73		Color of Wire	۵	▄	_	₾
Connector No.	Connector Name	Connector Color	南 H.S.	60 59 58 57 56 80 79 78 77 76		Terminal No.	54	59	09	74

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BCM (BODY CONTROL MODULE)	GREEN				12 11 10 9 8 7 6 5 4 3 32 31 30 29 28 27 26 25 24 23	Signal Name	CENTRAL DOOR LOCK SW	STEP LAMP CONT	DOOR KEY/C UNLOCK SW	CENTRAL DOOR UNLOCK SW
				1	15 14 13 35 34 33	Color of Wire	g	Μ	ŋ	BG
Connector Name	Connector Color	僵	H.S.		20 19 18 17 16 40 39 38 37 36	Terminal No.	19	21	24	34

ITE	2 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Signal Name	I
lor WH	<u> 4</u>	Color of Wire	GR
Connector Color WHITE	(引) H.S.	Terminal No.	4

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Signal Name	ı	1	1	1	ı
Color of Wire	8	ŋ	Ь	BG	g
Terminal No.	11	12	19	20	21

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



Terminal No.	Color of Wire	Signal Name
129	9	BATTERY SAVER OUT
131	>	BAT BCM FUSE
134	В	GND2
136	۵	ROOM LAMP CONT
139	8	BAT POWER F/L
143	В	GND1

Signal Name	RL DOOR SW	TRUNK LAMP CONT	RR DOOR SW	AS DOOR SW	DR DOOR SW	TRUNK SW
Color of Wire	>	BG	>	SB	BR	SB
Terminal No.	82	82	93	94	96	26

Signal Name	-	-	-	-
Color of Wire	Μ	В	Ь	В
Terminal No.	11	12	17	18

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Signal Name	_	_
Color of Wire	9	Д
Terminal No.	3	4

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Signal Name	ı	1	I	1	1		B28 TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID WHITE	(c a	Signal Name	1	I
o. Wire	۵	BG	8	_	LG				Color of Wire	×	GR
Terminal No.	74J	757	76J	L77	787		Connector No. Connector Name Connector Color	雨 H.S.	Terminal No.	-	2
			F								
B1 WIBE TO WIBE	GRAY			50 41 31 21 11	91 81 72	21.1 200, 193 183, 173 163, 153, 144, 153, 122 11.1 30.1 293, 283, 273, 283, 253, 244, 253, 223, 223, 244, 253, 253, 254, 253, 253, 254, 254, 254, 253, 254, 254, 254, 254, 254, 254, 254, 254	B18 REAR DOOR SWITCH LH WHITE	2 3 4	Signal Name	ı	
Connector No. B1	- 1	\dashv				811 801 7 701 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Connector No. B18 Connector Name REA Connector Color WHI		al No. Wire	PI	
Connec	Connec			S H			Connec	H.S.	Terminal No.	8	
		7								ı	1
E30 WIBE TO WIBE	Н			46 36 26 16	8 8	100 200 300	B8 FRONT DOOR SWITCH LH WHITE	4	Signal Name	ı	
	_	-		99	100				Color of Wire	_	
Connector No.	Connector Color			S II	2	Terminal No.	Connector No. Connector Name Connector Color	H.S.	Terminal No.	က	

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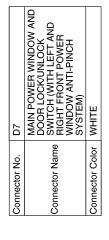
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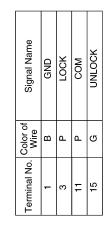
Connector No. B108 Connector Name FRONT DOOR SWITCH RH Connector Color WHITE Terminal No. Wire Signal Name 3 L -	Connector No. R3 Connector Name VANITY MIRROR LAMP LH Connector Color WHITE Terminal No. Wire Signal Name 1 B - 2 B/W -
Connector No. B104	Connector No. R1
Connector No. B36 Connector Name TRUNK ROOM LAMP Connector Color WHITE Terminal No. Wire Signal Name 1 P 2 BG	Connector No. B116 Connector Name REAR DOOR SWITCH RH Connector Color WHITE Terminal No. Wire Signal Name 3 V -

Revision: May 2014 INL-29 2015 Altima Sedan

Connector No. R51

1	I	-	-	
В	В	M/L	B/W	
ဇ	9	7	8	



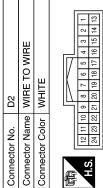






Signal N	1	I	I
Color of Wire	В	M/L	B/W
Terminal No.	-	2	3

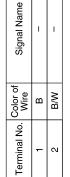
_	I	
M/L	B/W	
2	3	



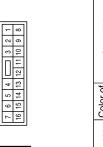
Signal Name	1	1	_	1	-	1
Color of Wire	В	Ь	G	W	Ь	В
Terminal No. Color of Wire	3	4	11	12	17	18

R9	Connector Name VANITY MIRROR LAMP RH	WHITE	
Connector No. R	onnector Name V	Connector Color W	







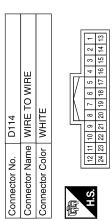


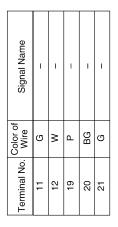
Signal Nam	I	I	I
Color of Wire	В	В	В
Terminal No.	3	4	8

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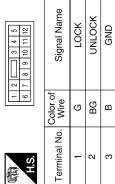
Connector No. D14 Connector Name FRONT DOOR LOCK ASSEMBLY LH Connector Color GRAY L1 2 3 4 5 6	Terminal No. Color of Wire Signal Name 4 B - 5 G - 6 P -	Connector No. D109 Connector Name FRONT STEP LAMP RH Connector Color WHITE Terminal No. Wire Signal Name 1 W - 2 G -	A B C D
Connector No. D12 MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM) Connector Color WHITE T 6 5 4 T 3 2 1 8 9 10 11 12 13 14 15 16	Terminal No. Color of Wire Signal Name 1 B GND 3 G LOCK SW 15 R UNLOCK SW	Connector No. D105 POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT SYSTEM) Connector Color WHITE Terminal No. Color of Signal Name 3 P COM 7 B GND	G H J
Connector No. D11 Connector Color WHITE MH.S.	Terminal No. Color of Wire Signal Name	Connector No. D101 Connector Name WIRE TO WIRE Connector Color WHITE Range September 1	INL M N

INL-31 Revision: May 2014 2015 Altima Sedan

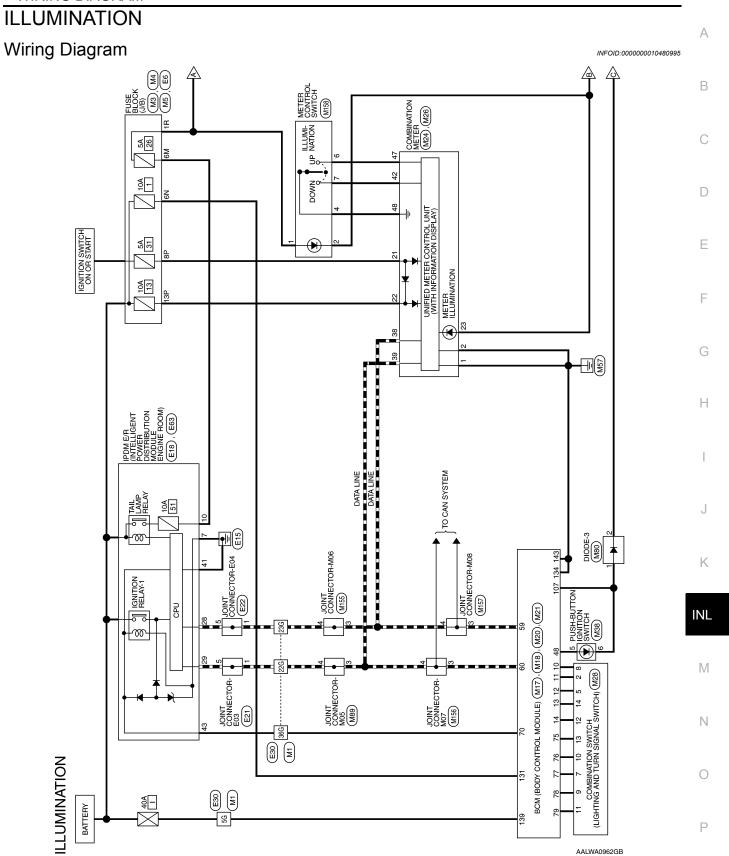




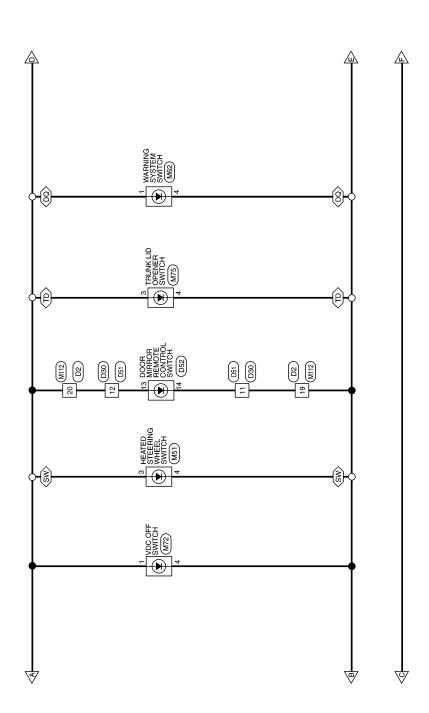
Connector No.	D110
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color WHITE	WHITE



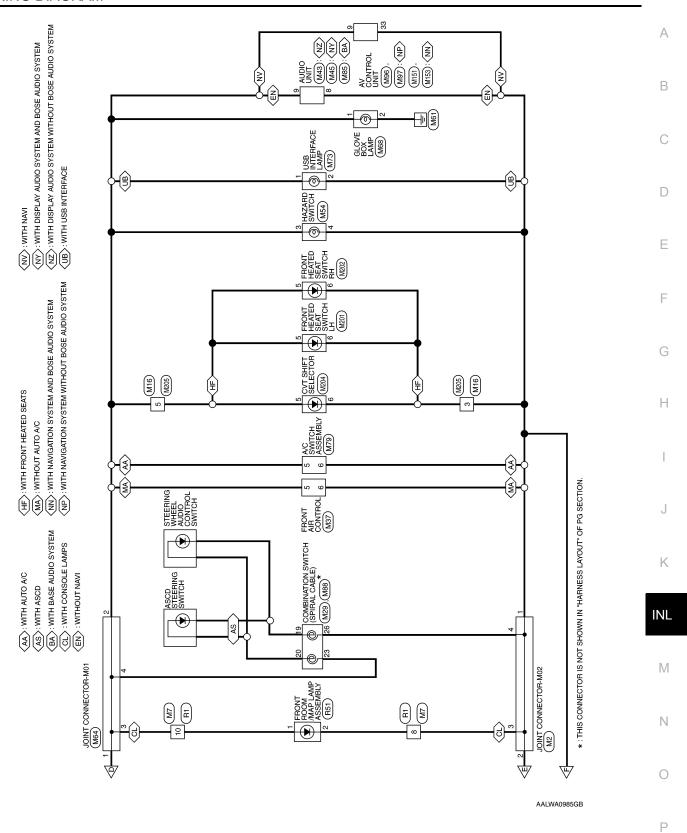
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 $\begin{tabular}{ll} $\langle \underline{\rm DQ} \rangle$: WITH DRIVER ASSISTANCE SYSTEM \\ $\langle \underline{\rm SW} \rangle$: WITH HEATED STEERING WHEEL \\ $\langle \overline{\rm TD} \rangle$: WITH TRUNK LID OPENER SWITCH \\ \end{tabular}$



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Revision: May 2014 INL-35 2015 Altima Sedan

ILLUMINATION CONNECTORS

Connector No.	M1	Terminal No	Color of	Signal Name	Connector No.	M2
Connector Name	unector Name WIRE TO WIRE		Wire		Connector Name JOINT	JOINT
	!					
Connector Color	WHITE	56	>	ı	Connector Color WHITE	WHITE
	1	311				
			_	ı		
Q.		750	۵			
		000	_	ı		4
						+

M2	onnector Name JOINT CONNECTOR-M02	WHITE	
onnector No.	onnector Name	onnector Color WHITE	

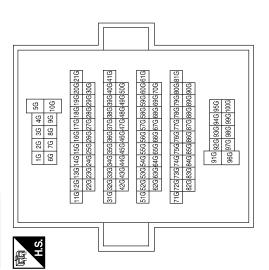


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Signal Name	Ι	ı	ı	1
Color of Wire	В	GR	В	В
Terminal No. Color of Wire	1	2	3	4

Terminal No	-



M5	Connector Name FUSE BLOCK (J/B)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	





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Color of Wire	В
Terminal No.	1R

Signal Name



Connector Name FUSE BLOCK (J/B)
Connector Color WHITE

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Connector No.

Signal Name
Color of Wire

Signal Nam
Color of Wire

Color
Terminal No.

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ILLUMINATION

< WIRING DIAGRAM >

				22 21								
	Connector Name BCM (BODY CONTROL MODULE)	NE		10 9 8 7 6 5 4 3 30 29 28 27 26 25 24 23	Signal Name	COMBI SW IN 5	COMBI SW IN 4	COMBI SW IN 3	COMBI SW IN 2	COMBI SW IN 1		
M17	ne BCM CONJ	or GREEN		17 16 15 14 13 12 11 37 36 35 34 33 32 31	Color of Wire	>	BG	8	ŋ	۵		
Connector No.	Connector Nan	Connector Color		_	Terminal No.	10	7	12	13	14		
	TO WIRE		12 11 10 9 8		Signal Name	1	1					
M16	ne WIRE		7 6 5 4 16 15 14 13		Solor of Wire	GR	<u>«</u>					
Connector No.	Connector Name WIRE TO WIRE		H.S.		Terminal No. Color of Wire	က	2					
		7						7				
	TO WIRE		01 11 12 6		Signal Name	I	1					
M7	me WIRE		7 1 2 3		Color of Wire	В	æ					
Connector No.	Connector Name WIRE TO WIRE		师 H.S.		Terminal No.	8	10					

	Т			1						_		
	1 (BODY	CONTROL MODULE)	Š			116 115 114 113 112 111 110 109 108 107 106 105	124 129 127 121 121 131 131 17			Signal Namo	Olginal Ivalind	LOW SIDE START SW LED
M20	ne BCN	Ś	or BLA			115 114 113	27 97 77			Color of	Wire	>
Connector No.	Connector Na		Connector Color BLACK		恒	ď	=			- ON legiman	all	107
Torming Color of Signal Name		BR HIGH SIDE		P CAN-L	L CAN-H	G IGN USM OUT 1	BG COMBI SW OUT 5	W COMBI SW OUT 4	R COMBI SW OUT 3	P COMBI SW OUT 2	G COMBI SW OUT 1	

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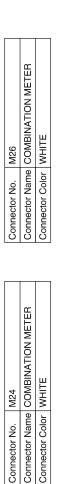
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					59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41	61	
			1		4,5	85	
					43	83	
					4	65 64	
	_				45	92	
	Щ́				46	99	
	5				47	67	
	BCM (BODY CONTROL MODULE)				48	89	
	∠Σ			Τ	49	76 75 74 73 72 71 70 69	
	딩딩			/	20	2	
	æ Œ	×		\	51	7	
ω	ΣŻ	AC		\	52	72	
M18	88	3Ľ		Ť	53	73	
	0	-			54	74	
	Ĕ	lor			55	75	
ž	Na	သ			56	92	
ō	JO.	or			57	77	
슳	ect	ect			58	79 78	
Ĕ	Ü	и	S. E		59	79	
Connector No.	Connector Name BCM (BODY CONTROL N	Connector Color BLACK	停工		60	8	
_				_		_	ı

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INL-37 Revision: May 2014 2015 Altima Sedan







Signal Name

Color of Wire

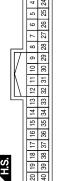
Terminal No.

В В

GND2 GND1







H.S. 18 17 16 15 14 13 10 10 10 10 10 10 10	16 15 14 36 35 34			
16 15 14	16 15 14		13	CC
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H.S.	H.S. 20 19 18 17 16			30
H.S.	H.S.		16	96
H.S.	H.S.		17	97
H.S.	H.S.		18	90
		<u> </u>	19	00
		暦マー	20	40

Connector Color WHITE

M24

Connector No.

M21

Connector No.

Connector Name BCM (BODY CONTROL MODULE) Connector Color WHITE		
<u> </u>	Connector Name	BCM (BODY CONTROL MODULE)
	Connector Color	WHITE
		137 136 136 134 139 138



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

)	ILLUMI UP SW	SW GND	
)	Å	9	
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ILLUMI CONT OUT

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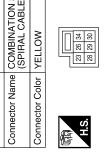
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M29	Connector Name COMBINATION SWITC (SPIRAL CABLE)	YELLOW	
Connector No.	Connector Name	Connector Color YELLOW	



Signal Name

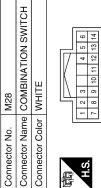
Color of Wire

Terminal No.

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Signal Name	1	1	ı	I	1	ı
Color of Wire	Ь	×	G	Ь	BG	G
Terminal No. Wire	6	10	11	12	13	14





Signal Name	ı	ı	_	1
Color of Wire	BG	M	В	M
Terminal No. Wire	2	5	7	8

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3	Connector Name DISPLAY AUDIO SYSTEM	WITHOUT BOSE AUDIO SYSTEM)	IITE			2 3 4 5 6 7 8 9	10 11 12 13 14 15 16 17 18 20	Signal Name	(-)	ILL (+), LIGHT SW
M4	me DIS	≅≿	lor W			曱	19 10 1	Color of Wire	GR	۳
Connector No. M43	Connector Na		Connector Color WHITE			O F		Terminal No. Wire	8	o
	Connector Name PUSH-BUTTON IGNITION SWITCH	끧	Ī	- [1			Signal Name	1	ı
M38	me PUSI	or WHI		1	4 6	0		Color of Wire	BB	>
Connector No.	Connector Na	Connector Color WHITE	ą.		H.S.			Terminal No. Color of Wire	2	ý
	NT AIR CONTROL HOUT AUTO A/C)	Щ.			4	12 13 14 15		Signal Name	ILL+	-=
. M37	me FROI (WIT	or WHIT			2	9 10 11		Color of Wire	Œ	GB.
Connector No.	Connector Name FRONT AIR CON (WITHOUT AUTO	Connector Color WHITE	A		H.S.			Terminal No. Wire	ro	ď

						T
	RD SWITCH E		4	Signal Name	ı	1
. M54	me HAZA lor WHIT			Color of Wire	œ	GB
Connector No.	Connector Name HAZARD SWITCH Connector Color WHITE		H.S.	Terminal No. Color of Wire	ო	4
						1
	Connector Name HEATED STEERING WHEEL SWITCH			Signal Name	1	ı
M51	me HEAT	ol BLUE	4 2	Color of Wire	æ	В
Connector No.	Connector Na		H.S.	Terminal No. Wire	က	4
	'					
	Connector Name AUDIO UNIT (WITH DISPLAY AUDIO SYSTEM AND BOSE AUDIO SYSTEM)	Į Į	12 13 14 15 16 17 18 20	Signal Name	ILL (-)	ILL (+). LIGHT SW
. M45	me AUDI AUDI	lor WHIT	19 10 11 .	Color of Wire	GR	<u>~</u>
Connector No.	Connector Na	Connector Color WHITE	赋利 H.S.	Terminal No. Wire	8	6

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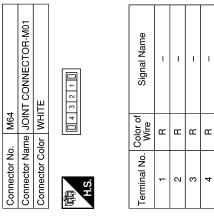
	Connector No.	M68
ECTOR-M01	Connector Name	Connector Name GLOVE BOX LAMP
	Connector Color WHITE	WHITE

Connector Name WARNING SYSTEM SWITCH

Connector No. M62

Connector Color GRAY

Connector Name GLOVE BOX LAMP	ПЕ	№	Signal Name	I	ı
ime GL(lor WH		Color of Wire	Ж	GR
Connector Na	Connector Color WHITE	赋到 H.S.	Terminal No. Wire	1	2



Signal Name	I	1	
Color of Wire	Н	ВĐ	
Terminal No. Wire	-	4	

	Connector Name TRUNK LID OPENER SWITCH	EEN	8	Signal Name	-	-
. M75	me TRI	lor GR	4 2	Color of Wire	æ	В
Connector No.	Connector Na	Connector Color GREEN	H.S.	Terminal No.	က	4

Connector No.	. M73	
or Na	me USB	Connector Name USB INTERFACE LAMP
or Co	Connector Color WHITE	TE
Terminal No.	Color of Wire	Signal Name
	ш	ı
	GB	I

2 3 6 7	Signal Name	I	1
4 8	Color of Wire	ш	В
H.S.	Terminal No. Color of Wire	1	4

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Connector Name VDC OFF SWITCH

Connector No. M72

Connector Color BLACK

ILLUMINATION

	Connector No.	lo. M80		Connector No.	No. M85	
Connector Name A/C SWITCH ASSEMBLY	Connector Name DIODE-3	lame DIOL)E-3	Connector	Vame AUI	Connector Name AUDIO UNIT (WITH BASE
	Connector Color BLACK	olor BLA	X		AUI	DIO SYSTEM)
				Connector Color WHITE	Solor WH	ТЕ
	(所) H.S.	5	-	H.S.	19 10 11 11	3 4 5 6 7 8 9 20
Signal Name	Terminal No. Color of Wire	Color of Wire	Signal Name	Terminal No. Wire	Color of Wire	Signal Name
	-	8	ı	8	GR	ILLUMINATION GND
	2	GR	I	o	Œ	ILL+, LIGHT SW

M89	6		Connector No.	. M96	
	JOINT CONNECTOR-M05			AV	AV CONTROL UNIT (WITH
WHITE	ITE		Connector Na	me NAV	Connector Name NAVIGATION SYSTEM WITHOUT BOSE AUDIO
				SYS	SYSTEM)
	4 3 2 1	_	Connector Color WHITE	lor WHI	TE
			H.S.	 	1 2 3 4 5 6 7 8 9 9 10 11 12 13 14 15 16 17 16 20
olor of Vire	Signal Name	•	Terminal No. Wire	Color of Wire	Signal Name

ILL (+), LIGHT SW

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6	JOINT CONNECTOR-M	WHITE	4 3 2 1 0	Signal Name	1	ı
. M89				Color of Wire	_	_
Connector No.	Connector Name	Connector Color	赋可 H.S.	Terminal No.	က	4

Connector No.		M88	
Connector Na	ame	CON (SPI	Connector Name COMBINATION SWITCH (SPIRAL CABLE)
Connector Color	olor	GRAY	47
原 H.S.	50	91 61	20 19 18 17 16 15 14 13
Terminal No.	Color of Wire	olor of Wire	Signal Name
19	_		ı
		İ	

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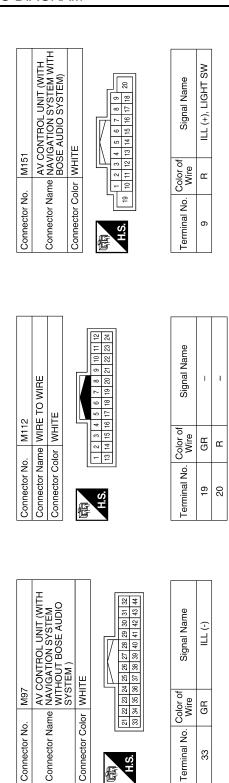
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Sonnector No. M153	o. M15	3	Connector No. M155	No. M15	35	ပိ	Connector No. M156	M156	
onnector N	AV C ame NAV	Connector Name NAVIGATION SYSTEM WITH	Connector	Vame JOII	Connector Name JOINT CONNECTOR-M06	8 8	onnector Nam	FUIOL at	Connector Name JOINT CONNECTOR-M07
	BOS	E AUDIO SYSTEM)		IOIO		3	Cofinector Color WHILE	M M	
Connector Color WHITE	olor WHI	TE .							
			H.S.	<u>-</u>	1 4 3 2 1 1 1	T	H.S.	4	4 3 2 1 1
رن ن	21 22 23 24 25 26 27 33 34 35 36 37 38 39	21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44							
Terminal No. Wire	Color of Wire	Signal Name	Terminal No. Wire	Color of Wire	Signal Name	Tel	Terminal No. Wire	Solor of Wire	Signal Name
33	GR	(-)	က	Д	ı		ဇ	_	1
			4	Ь	-		4	_	1

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	I		1			1	1		
71	Connector Name FRONT HEATED SEAT SWITCH LH	<u> </u>	4 4 5 5 1 3 8 6	Signal Name	ı	ı			
M2	ne FR(or WH	[6]4]	Color of Wire	۳	В			
Connector No. M201	Connector Nar	Connector Color WHITE	H.S.	Terminal No. Wire	2	9			
		٦				ı			
28	Connector Name METER CONTROL SWITCH Connector Color WHITE		8 7 8 4 8	Signal Name	ı	ı	ı	ı	ı
M158	me ME	5	- 10	Color of Wire	æ	В	_o	>	SB
Connector No.	Connector Name METER Connector Color WHITE		H.S.	Terminal No. Color of Wire	+	2	4	9	7
		7					ı		
_	Connector Name JOINT CONNECTOR-M08 Connector Color WHITE	1	4 3 2 1	Signal Name	I	ı			
M15.	me JOIN		4	Solor of Wire	Д	۵			
Connector No. M157	Connector Name JOINT Connector Color WHITE		呵 H.S.	Ferminal No. Wire	3	4			

5	E TO WIRE	TE	4 5 6 7	Signal Name	ı	1
M205	ne WIF	or WH	8 9 10	Solor of Wire	В	œ
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	所 H.S.	Terminal No. Color of Wire	က	2
Connector No. M204	Connector Name CVT SHIFT SELECTOR	Connector Color BROWN	(a)	o. Color of Signal Name Wire	п п	В
Connector N	Connector N	Connector C	H.S.	Terminal No. Wire	2	9
			_			
	HEATED	E L	<u> </u>	Signal Name	ı	ı

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Revision: May 2014 INL-43 2015 Altima Sedan

Connector Name FRONT HEATED SEAT SWITCH RH

M202

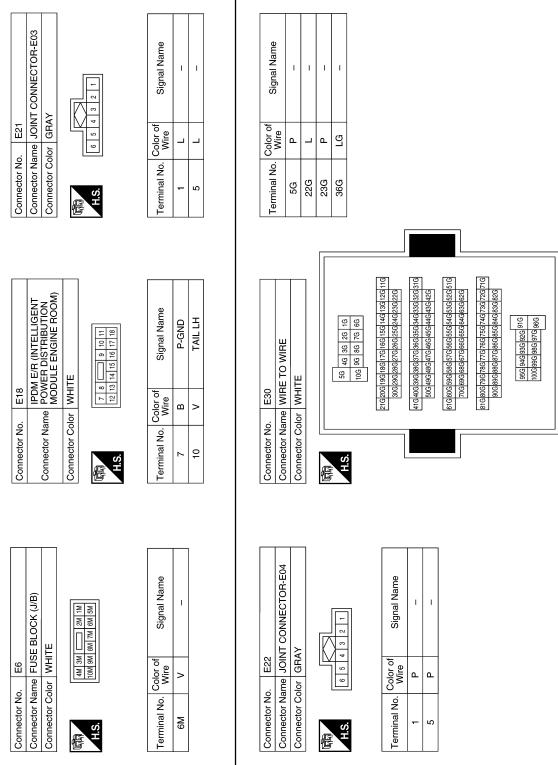
Connector No.

Connector Color BROWN

Color of Wire

Terminal No. 5 6

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Connector No.	E93		Connector No.	E		Connector No.	o. R51	
ector Nam	ne POW	Connector Name POWER DISTRIBUTION MODILI E ENGINE ROOM)	Connector Name WIRE TO WIRE Connector Color WHITE	ame WIRE	E TO WIRE	Connector N	ame FRC LAN	Connector Name FRONT ROOM/MAP LAMP ASSEMBLY
Connector Color	or WHITE		£			Connector Color WHITE	olor WHI	
H.S. (19 20 2	19 20 21 22 23 24 25 26 35 36 37 38 39 40 41 42	10 41 42 43 44 45 46 47 48 49 50	H.S.	12 6 5 1 1 10 4	- L	所 H.S.	8 7 6	4 0 0 1
Terminal No. Color of Wire	Solor of Wire	Signal Name	Terminal No. Color of Wire	Color of Wire	Signal Name	Terminal No. Color of Wire	Color of Wire	Signal Name
28	۵	CAN-L	8	M/R	ı	-	SB	1
29	١	CAN-H	10	SB	ı	2	W/R	ı
41	В	GND (SIGNAL)						
43	P _C	IGN SIGNAL						

Connector No. D2		Connector No. D30	lo. D30		S	Connector No.	. D51	
Connector Name WIRE TO WIRE	TO WIRE	Connector Name WIRE TO WIRE	Jame WIRE	TO WIRE	Col	nnector Na	Connector Name WIRE TO WIRE	TO WIRE
Connector Color WHITE	Ш	Connector Color WHITE	Solor WHIT	E	Co	nnector Co	Connector Color WHITE	
H.S. 24 23 22 21 20 19 18	8 7 6 5 4 3 2 1 20 19 18 17 16 15 14 13	E H.S.	8 7 6 5 14 13	5 4 3 2 1 1 10 9	E T	H.S.	1 2 3 4 9 10 11 12	5 6 7 8 13 14 15 16
70					L		9	
Terminal No. Wire	Signal Name	Terminal No. Wire	. Wire	Signal Name	Ter	Terminal No. Wire	Color or Wire	Signal Name
19 R	ı	#	œ	1		11	œ	ı
20 G	1	12	ŋ	1		12	5	ı

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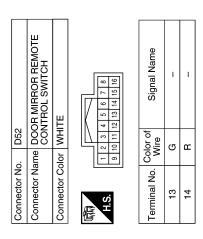
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Revision: May 2014 INL-45 2015 Altima Sedan



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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow INFOID:0000000011030045 В

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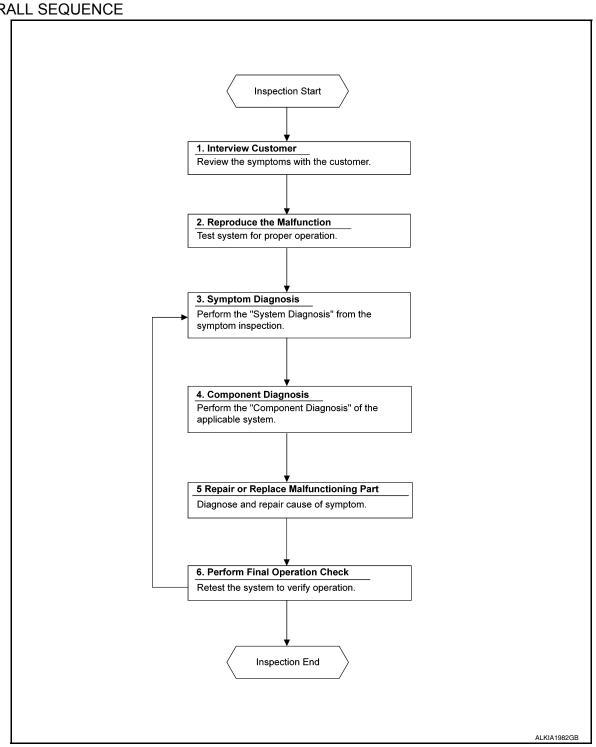
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OVERALL SEQUENCE



DETAILED FLOW

1. OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain as much information as possible about the conditions and environment under which the malfunction occurred.

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

>> GO TO 2.

2. CONFIRM THE SYMPTOM

Check the malfunction on the vehicle that the customer describes.

Inspect the relation of the symptoms and the condition when the symptoms occur.

>> GO TO 3.

3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH SYMPTOM DIAGNOSIS

Use Symptom diagnosis from the symptom inspection result in step 2 and then identify where to start performing the diagnosis based on possible causes and symptoms.

>> GO TO 4.

4. PERFORM THE COMPONENT DIAGNOSIS OF THE OF THE APPLICABLE SYSTEM

Perform the diagnosis with Component diagnosis of the applicable system.

>> GO TO 5.

${f 5}$. REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6. FINAL CHECK

Check that malfunctions are not reproduced when obtaining the malfunction information from the customer, referring to the symptom inspection result in step 2.

Are the malfunctions corrected?

YES >> Inspection End.

NO >> GO TO 3.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM: Diagnosis Procedure

INFOID:0000000011014863

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Regarding Wiring Diagram information, refer to BCS-56, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse or fusible link blown?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

В	CM	Ground	Voltage
Connector	Terminal	Giodila	(Approx.)
M21	131		Pottoni voltago
IVIZ I	139	_	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

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

В	CM	Ground	Continuity
Connector	Terminal	Ground	Continuity
M21	134		Yes
IVIZ I	143	_	165

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

IPDM E/R

IPDM E/R: Diagnosis Procedure

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

1. CHECK FUSIBLE LINKS

INL-49 Revision: May 2014 2015 Altima Sedan INL

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INFOID:0000000011014864

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Check that the following fusible links are not blown.

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

Is the fusible link blown?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

Description INFOID:000000010480999

Provides the interior room lamp power supply. Also cuts the power supply when the interior room lamp battery saver is activating.

Component Function Check

INFOID:0000000010481000

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1. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY FUNCTION

(P)CONSULT

- 1. Turn ignition switch ON.
- 2. Turn each interior room lamp ON.
- Front room/map lamps
- Personal lamps rear
- Front step lamps
- Vanity mirror lamps (if equipped)
- Trunk room lamp
- 3. Open the driver door to turn ON the front step lamps.
- 4. Select "BATTERY SAVER" in "Active Test" of "BCM (BATTERY SAVER)".
- 5. While operating the test item, check that each interior room lamp turn ON/OFF.

OFF : Interior room lamp OFF
ON : Interior room lamp ON

Is the inspection result normal?

YES >> Interior room lamp power supply circuit is normal.

NO >> Refer to <u>INL-51</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000010481001

Regarding Wiring Diagram information, refer to INL-22, "Wiring Diagram".

1. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY OUTPUT

(P)CONSULT

- Turn ignition switch ON.
- Select "BATTERY SAVER" in "Active Test" of "BCM (BATTERY SAVER)".
- 3. While operating the test item, check voltage between BCM connector M21 terminal 129 and ground.

	(+)	(-)	Test item	Voltage
Connector	Terminal	(-)	BATTERY SAVER	(Approx.)
M21	129	Ground	OFF	0V
IVIZ I	129	Giouna	ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace BCM after making sure battery saver output/power supply circuit is not shorted to voltage. Refer to BCS-81, "Removal and Installation".

2.CHECK BATTERY SAVER OUTPUT/POWER SUPPLY OPEN CIRCUIT

- Turn ignition switch OFF.
- Disconnect the following connectors:
- BCM M21
- Front step lamp LH D11
- Front step lamp RH D109
- Front room/map lamp assembly R51

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Revision: May 2014 INL-51 2015 Altima Sedan

BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

- Vanity mirror lamp LH (if equipped) R3
- Vanity mirror lamp RH (if equipped) R9
- Trunk room lamp B36
- Personal lamp rear R50
- 3. Check continuity between BCM connector M21 terminal 129 and each interior room lamp connector.

BCI	M	Each interior room lamp			Continuity
Connector	Terminal	Conne	ctor	Terminal	Continuity
		Front step lamp LH	D11	1	
		Front step lamp RH	D109	1	
		Front room/map lamp assembly	R51	8	
M21	129	Vanity mirror lamp LH	R3	2	Yes
		Vanity mirror lamp RH	R9	2	
		Trunk room lamp	B36	1	
		Personal lamp rear	R50	3	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY SHORT CIRCUIT

Check continuity between BCM connector M21 terminal 129 and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M21	129		No

Is the inspection result normal?

YES >> Check that each interior room lamp has no internal short circuit.

NO >> Repair or replace harness or connectors.

INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

INTERIOR ROOM LAMP CONTROL CIRCUIT

Description INFOID:0000000010481002

Controls the room lamp control circuit (ground side) to turn the room lamps ON and OFF.

Component Function Check

INFOID:0000000010481003

INFOID:0000000010481004

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CAUTION:

Before performing the diagnosis, check that the following is normal:

- Battery saver output/power supply
- Front room/map lamp assembly bulbs
- Personal lamp bulbs

1.CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

(P)CONSULT

- Switch the front room/map lamp assembly switch to DOOR.
- Turn ignition switch ON.
- Select "INT LAMP" in "Active Test" of "BCM (INT LAMP)".
- While operating the test item, check that each interior room lamp turn ON/OFF.

ON : Interior room lamp ON **OFF** : Interior room lamp OFF

Is the inspection result normal?

YES >> Interior room lamp control circuit is normal.

NO >> Refer to INL-53, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to INL-22, "Wiring Diagram".

$1.\mathsf{CHECK}$ INTERIOR ROOM LAMP CONTROL OUTPUT

CONSULT

- Turn ignition switch ON.
- Select "INT LAMP" in "Active Test" of "BCM (INT LAMP)".
- While operating the test item, check voltage between BCM connector M21 terminal 136 and ground.

В	ВСМ		Test item	Voltago	
Connector	Terminal	Ground	INT LAMP	- Voltage	
M21	126	Ground	ON	0V	
M21 136		OFF	Battery voltage		

Is the inspection result normal?

>> Interior room lamp control circuit is operating normally.

Fixed ON>>GO TO 3.

Fixed OFF>>GO TO 2.

2.CHECK INTERIOR ROOM LAMP CONTROL OPEN CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect BCM harness connector M21, front room/map lamp harness connector R51.
- Check continuity between BCM harness connector M21 terminal 136 and front room/map lamp assembly harness connector R51 terminal 6.

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INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

ВСМ		Front room/map lamp		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M21	136	R51	6	Yes	

- 4. Reconnect the front room/map lamp assembly harness connector.
- Check continuity between BCM harness connector M21 terminal 136 and personal lamp rear harness connector R50 terminal 2.

В	CM	Personal	lamp rear	Continuity
Connector	Terminal	Connector Terminal		Continuity
M21	136	R50	2	Yes

Is the inspection result normal?

- YES >> Check interior room lamps for an open. If NG, replace lamp in question. Refer to INL-62, "Removal and Installation" (front room/map lamp assembly) or refer to INL-67, "Removal and Installation" (personal lamp rear). If OK, replace BCM. Refer to BCS-81, "Removal and Installation".
- NO >> Repair or replace harness or connectors.

3.check interior room Lamp control short circuit

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connector M21 and front room/map lamp harness connector R51 lamp harness.
- 3. Check continuity between BCM harness connector M21 terminal 136 and ground.

В	CM		Continuity	
Connector	Terminal	Ground	Continuity	
M21	136		No	

Is the inspection result normal?

- YES >> Check the interior room lamps for a short circuit. If NG, replace the interior room lamp. Refer to INL-62, "Removal and Installation" (front room/map lamp assembly) or refer to INL-67, "Removal and Installation" (personal lamp rear). If OK, replace BCM. Refer to BCS-81, "Removal and Installation"
- NO >> Repair or replace the harness or connectors.

STEP LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

STEP LAMP CIRCUIT

Description INFOID:0000000010481005

Controls the step lamp control circuit (ground side) to turn the step lamp ON and OFF.

Component Function Check

INFOID:0000000010481006

INFOID:0000000010481007

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CAUTION:

Before performing the diagnosis, check that the following is normal:

- Battery saver output/power supply
- Step lamp bulbs

1. CHECK STEP LAMP OPERATION

- 1. Turn ignition switch ON.
- Select "STEP LAMP" in "Active Test" of "BCM (INT LAMP)".
- While operating the test item, check that step lamps turn ON/OFF.

ON : Step lamp ON OFF : Step lamp OFF

Is the inspection result normal?

YES >> Step lamp circuit is normal.

>> Refer to INL-55, "Diagnosis Procedure". NO

Diagnosis Procedure

Regarding Wiring Diagram information, refer to INL-22, "Wiring Diagram".

1. CHECK STEP LAMP OUTPUT

(P)CONSULT

- 1. Turn ignition switch ON.
- 2. Select "STEP LAMP" in "Active Test" of "BCM (INT LAMP)".
- While operating the test item, check voltage between BCM connector M17 terminal 21 and ground.

В	ВСМ		Test item	Voltage
Connector	Terminal	Ground	STEP LAMP TEST	voltage
M17	M47 24	Ground	ON	0V
IVI I 7	21		OFF	Battery voltage

Is the inspection result normal?

YES >> Step lamp circuit is operating normally.

Fixed ON>>GO TO 3.

Fixed OFF>>GO TO 2.

2. CHECK STEP LAMP OPEN CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect BCM connector M17 and step lamp LH and RH connectors. 2.
- Check continuity between BCM connector M17 terminal 21 and step lamp connector terminal 2.

В	CM	Step lamp		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M17	21	LH	D11	2	Yes
	21	RH	D109	2	163

INL-55 Revision: May 2014 2015 Altima Sedan INL

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STEP LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Check the step lamps for an open. If OK, replace BCM. Refer to <u>BCS-81</u>, "Removal and Installation". If NG, replace the step lamp. Refer to <u>INL-66</u>, "Bulb or Lens Replacement".
- NO >> Repair or replace harness or connectors.

3.CHECK STEP LAMP SHORT CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M17 and step lamp LH and RH connectors.
- 3. Check continuity between BCM connector M17 terminal 21 and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M17	21		No

Is the inspection result normal?

YES >> Check the step lamps for a short circuit. If OK, replace BCM. Refer to <u>BCS-81, "Removal and Installation"</u>. If NG, replace the interior room lamp. Refer to <u>INL-66, "Bulb or Lens Replacement"</u>.

NO >> Repair or replace harness or connectors.

TRUNK ROOM LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

TRUNK ROOM LAMP CIRCUIT

Description INFOID:0000000010481008

Controls the trunk room lamp (ground side) to turn the trunk room lamp ON and OFF.

Component Function Check

INFOID:0000000010481009

CAUTION:

Before performing the diagnosis, check that the following is normal:

- Battery saver output/power supply
- Trunk room lamp bulb
- $1.\mathsf{CHECK}$ TRUNK ROOM LAMP OPERATION

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- 1. Turn ignition switch ON.
- Select "TRUNK/BACK DOOR" in "Active Test" of "BCM (INTELLIGENT KEY)".
- While operating the test item, check that the trunk room lamp turns ON/OFF.

ON : Trunk room lamp ON **OFF** : Trunk room lamp OFF

Is the inspection result normal?

YFS >> Trunk room lamp circuit is normal.

>> Refer to INL-57, "Diagnosis Procedure". NO

INFOID:0000000010481010

Diagnosis Procedure

Regarding Wiring Diagram information, refer to INL-22, "Wiring Diagram".

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${f 1}$.CHECK TRUNK ROOM LAMP OUTPUT (P)CONSULT

- Turn ignition switch ON.
- Select "TRUNK/BACK DOOR" in "Active Test" of "BCM (INTELLIGENT KEY)".
- While operating the test item, check voltage between BCM connector M19 terminal 85 and ground.

В	CM		Test item	Voltage
Connector	Terminal	Ground	TRUNK/BACK DOOR	voltage
M19	95	Oround	ON	0V
	M19 85		OFF	Battery voltage

Is the inspection result normal?

>> Trunk room lamp circuit is operating normally.

Fixed ON>>GO TO 3.

Fixed OFF>>GO TO 2.

2.CHECK TRUNK ROOM LAMP OPEN CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM connector M19 and trunk room lamp connector.
- Check continuity between BCM connector M19 terminal 85 and trunk room lamp connector B36 terminal

В	ВСМ		Trunk room lamp		
Connector	Terminal	Connector Terminal		Continuity	
M19	85	B36	2	Yes	

INL-57 Revision: May 2014 2015 Altima Sedan INL

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TRUNK ROOM LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Check the trunk room lamp for an open. If OK, replace BCM. Refer to <u>BCS-81, "Removal and Installation"</u>. If NG, replace the trunk room lamp. Refer to <u>INL-68, "Removal and Installation"</u>.
- NO >> Repair or replace harness or connectors.

3.CHECK TRUNK ROOM LAMP SHORT CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M19 and trunk room lamp connector.
- 3. Check continuity between BCM connector M19 terminal 85 and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M19	85		No

Is the inspection result normal?

YES >> Check the trunk room lamp for a short circuit. If OK, replace BCM. Refer to BCS-81, "Removal and Installation". If NG, replace the trunk room lamp. Refer to INL-68, "Removal and Installation".

NO >> Repair or replace harness or connectors.

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

Provides the power supply and the ground to control the push-button ignition switch illumination.

Component Function Check

INFOID:0000000010481012

INFOID:0000000010481011

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1. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION OPERATION

CONSULT

Description

- 1. Turn the ignition switch ON.
- 2. Select "ENGINE SW ILLUMI" in "Active Test" of "BCM (INTELLGENT KEY)".
- 3. While operating the test item, check that the push-button ignition switch illumination turns ON/OFF.

ON : Push-button ignition switch illumination ON

OFF : Push-button ignition switch illumination OFF

Is the inspection result normal?

YES >> Push-button ignition switch illumination circuit is normal.

NO >> Refer to INL-59, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000010481013

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

1. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION OPERATION

(P)CONSULT

- 1. Turn the ignition switch ON.
- Select "ENGINE SW ILLUMI" in "Active Test" of "BCM (INTELLIGENT KEY)".
- 3. While operating the test item, check voltage between push-button ignition switch connector M38 terminal 5 and ground.

	Terminals				
((+)		(-) Test item		
Push-button	Push-button ignition switch		ENGINE SW ILLUMI	Voltage	
Connector	Terminal	Ground	LIVOINE OW ILLOWI		
M38	F	Giodila	ON	5 V	
IVIO	W138 5		OFF	0 V	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

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2.CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION POWER SUPPLY OPEN CIRCUIT

- Turn the ignition switch OFF.
- 2. Disconnect BCM connector M18 and push-button ignition switch connector.
- 3. Check continuity between BCM connector M18 terminal 48 and push-button ignition switch connector M38 terminal 5.

В	ВСМ		Push-button ignition switch		
Connector	Terminal	Connector Terminal		Continuity	
M18	48	M38	5	Yes	

Is the inspection result normal?

Revision: May 2014 INL-59 2015 Altima Sedan

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3.

NO >> Repair or replace the harness or connectors.

3.check push-button ignition switch illumination power supply short circuit

Check continuity between BCM connector M18 terminal 48 and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M18	48		No

Is the inspection result normal?

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

NO >> Repair or replace the harness or connectors.

4.CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION GROUND CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect push-button ignition switch connector.
- 3. Check continuity between push-button ignition switch connector M38 terminal 6 and ground.

Push-button ignition switch			Continuity
Connector	Terminal	Ground	Continuity
M38	6		Yes

Is the inspection result normal?

YES >> Replace push-button ignition switch.

NO >> GO TO 5.

5. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION GROUND OPEN CIRCUIT

- 1. Disconnect BCM connector M20.
- Check continuity between BCM connector M20 terminal 107 and push-button ignition switch connector M38 terminal 6.

В	CM	Push-button ignition switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M20	107	M38	6	Yes

Is the inspection result normal?

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

NO >> Repair or replace the harness or connectors.

INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

CAUTION:

Perform the "Self Diagnostic Result" with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom	Possible cause	Inspection item
All the following lamps do not turn ON: Front room/map lamp LH/RH Personal lamp rear LH/ RH Trunk room lamp Front step lamp LH/RH Vanity mirror lamp LH/RH (if equipped)	Harness between BCM and each interior room lamp BCM	Battery saver output/power supply circuit Refer to INL-51.
 Interior room lamp does not turn ON even though the door is open. (It turns ON when turning the interior room lamp ON.) Interior room lamp does not turn OFF even though the door is closed. 	Harness between BCM and each door switch Harness between BCM and each interior room lamp BCM	Door switch circuit Refer to DLK-100. Interior room lamp control circuit Refer to INL-53.
Interior room lamp timer does not activate. (It turns ON/ OFF when the door opens/closes.)	_	Check the interior room lamp setting. Refer to BCS-18.
Front step lamps do not turn ON. (The front room/map lamps and the personal lamps turn ON.)	Harness between BCM and each step lamp	Step lamp circuit Refer to <u>INL-55</u> .
Front step lamps do not turn OFF. (The front room/map lamps and the personal lamps turn OFF.)	• BCM	
Trunk room lamp does not turn ON.	Harness between BCM and trunk room lamp switch	Trunk room lamp switch circuit Refer to DLK-126.
(The bulb is normal.)Trunk room lamp does not turn OFF.	Harness between BCM and trunk room lamp BCM	Trunk room lamp circuit Refer to INL-57.
 Push-button ignition switch illumination does not turn ON. Push-button ignition switch illumination does not turn OFF. 	Harness between BCM and combi- nation switch (lighting and turn sig- nal switch)	Combination switch (lighting and turn signal switch) input circuit Refer to BCS-80.
	Harness between BCM and push- button ignition switch BCM	Push-button ignition switch illumination circuit Refer to INL-59.
Interior room lamp battery saver does not activate.	_	Check the interior room lamp battery saver setting. Refer to BCS-27.

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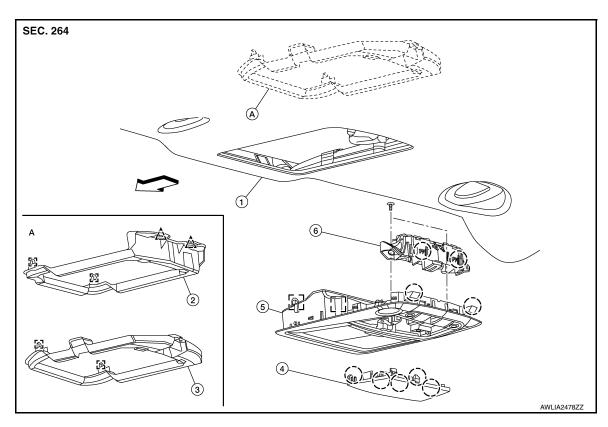
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REMOVAL AND INSTALLATION

FRONT ROOM/MAP LAMP ASSEMBLY

Exploded View INFOID:0000000011133870



- Headlining
- Moonroof switch finisher
- Metal clip
- Front

- Front room/map lamp assem- 3. bly bracket (without moonroof)
- Front room/map lamp assem- 6.
- Plastic clip

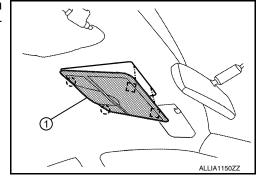
- Front room/map lamp assembly bracket (with moonroof)
- LED unit
- Pawl

Removal and Installation

INFOID:0000000010481015

REMOVAL

- Lower front edge of front room/map lamp assembly (1) down from the headlining by releasing the metal clips, then slide forward to clear pawls at rear.
 - : Metal clip (): Pawl



Disconnect the harness connectors from the front room/map lamp assembly and remove.

INSTALLATION

Installation is in the reverse order of removal.

INL-62 Revision: May 2014 2015 Altima Sedan

FRONT ROOM/MAP LAMP ASSEMBLY

< REMOVAL AND INSTALLATION >

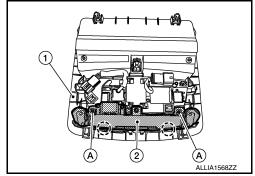
Bulb Replacement

NOTE:

The LED bulbs are replaced as part of the LED unit.

REMOVAL

- 1. Remove the front room/map lamp assembly. Refer to INL-62, "Removal and Installation".
- 2. Remove screws (A) from LED unit (2).
- 3. Remove the LED unit from the front room/map lamp assembly (1).



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INSTALLATION

Installation is in the reverse order of removal.

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VANITY MIRROR LAMP

< REMOVAL AND INSTALLATION >

VANITY MIRROR LAMP

Removal and Installation

INFOID:0000000010481017

CAUTION:

Do not attempt to separate the vanity mirror lamp from the sun visor or damage to the components may occur.

The vanity mirror lamp is replaced as part of the sun visor. Refer to INT-30. "Removal and Installation".

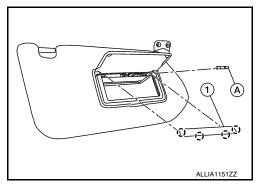
Bulb or Lens Replacement

INFOID:0000000010481018

WARNING:

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

- Do not attempt to separate the vanity mirror lamp from the sun visor or damage to the components may occur.
- 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.
- Release the pawls on the vanity mirror lamp lens (1) using a suitable tool.
 - (): Pawl
- 2. Remove the bulb (A) using a suitable tool.



- 3. Install bulb to vanity mirror lamp.
- 4. Install the vanity mirror lamp lens.

GLOVE BOX LAMP

< REMOVAL AND INSTALLATION >

GLOVE BOX LAMP

Removal and Installation

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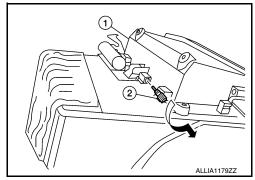
WARNING:

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

Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.

REMOVAL

- 1. Remove the glove box assembly (1). Refer to <u>IP-22, "Removal and Installation"</u>.
- Rotate the glove box lamp socket assembly (2) counterclockwise and remove.



INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:0000000010481020

The glove box lamp bulb is serviced as part of the glove box lamp socket. Refer to INL-65, "Removal and <a href="Installation".

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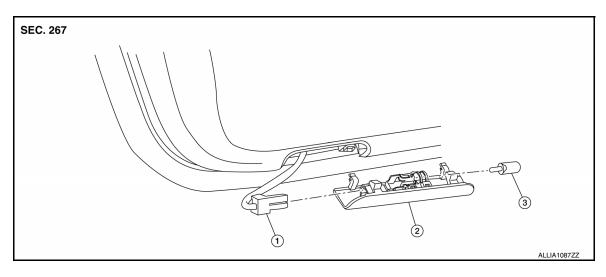
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FRONT STEP LAMP

Exploded View



 Front step lamp harness connector 2. Front step lamp

3. Bulb

Removal and Installation

INFOID:0000000011087377

REMOVAL

- Insert a suitable tool into the gap between the front step lamp and front door finisher and gently release the pawls and the front step lamp.
- 2. Disconnect the harness connector from the front step lamp and remove.

INSTALLATION

Installation is in the reverse order of removal.

Bulb or Lens Replacement

INFOID:0000000010481021

WARNING:

Do not touch the glass surface of a bulb while it is lit or right after being turned OFF to prevent burns. CAUTION:

- Do not touch the glass of bulb directly by hand. Keep grease and other oily substances away from bulb surface.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of lamp.
- 1. Remove the front step lamp. Refer to INL-66, "Removal and Installation".
- 2. Grasp the bulb and pull straight out from the front step lamp to remove.
- 3. Install the front step lamp bulb to front step lamp.
- 4. Install the front step lamp. Refer to INL-66, "Removal and Installation"

PERSONAL LAMP

< REMOVAL AND INSTALLATION >

PERSONAL LAMP

Removal and Installation

INFOID:0000000010481022

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CAUTION:

Do not attempt to separate the personal lamp rear from the headlining or damage to the components may occur.

The personal lamp rear is replaced as part of the headlining. Refer to INT-30, "Removal and Installation".

Bulb or Lens Replacement

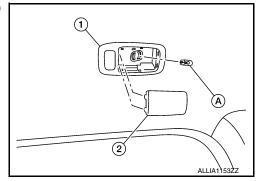
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WARNING:

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

Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.

- 1. Using a suitable tool, release the pawls and remove lens (2) from the personal lamp rear (1).
- 2. Remove personal lamp rear bulb (A).



- 3. Install personal lamp bulb to personal lamp rear.
- 4. Install the personal lamp rear lens.

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Revision: May 2014 INL-67 2015 Altima Sedan

TRUNK ROOM LAMP

< REMOVAL AND INSTALLATION >

TRUNK ROOM LAMP

Removal and Installation

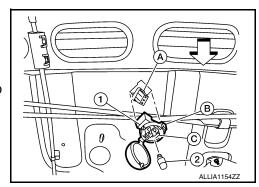
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WARNING:

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

Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.

- 1. Release the tab (B) to open the lens. ⟨⊐: Front
- 2. Remove the trunk room bulb (2).
- 3. Release tab (C), then pull trunk room lamp (1) down to remove.
- Disconnect the harness connector (A) from the trunk room lamp and remove.



INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:0000000010481025

WARNING:

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

Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.

- 1. Release the tab to open the lens.
- Remove bulb from trunk room lamp.
- 3. Install bulb to trunk room lamp.
- 4. Close lens.

ILLUMINATION CONTROL SWITCH

< REMOVAL AND INSTALLATION >

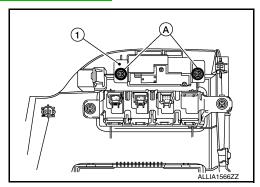
ILLUMINATION CONTROL SWITCH

Removal and Installation

INFOID:0000000010481026

REMOVAL

- 1. Remove the instrument lower panel LH. Refer to IP-21, "Removal and Installation".
- 2. Remove screws (A) and remove illumination control switch (1).



INSTALLATION

Installation is in the reverse order of removal.

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SERVICE DATA AND SPECIFICATIONS (SDS)

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SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:0000000010481027

Item	Wattage (W)*
Front room/map lamp	LED
Vanity mirror lamp (if equipped)	1.8
Glove box lamp	-
Front step lamp	3.8
Personal lamp rear	8
Trunk room lamp	3.4

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