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CONTENTS

WITH POWER DOOR LOCKS	BATTERY SAVER OUTPUT/POWER SUP-
BASIC INSPECTION	PLY CIRCUIT16 Description
DIA CNOCIC AND DEDAID WORKELOW	Component Function Check16
DIAGNOSIS AND REPAIR WORKFLOW 3 Work Flow	Diagnosis Procedure16
SYSTEM DESCRIPTION6	INTERIOR ROOM LAMP CONTROL CIRCUIT18
INTERIOR ROOM LAMP CONTROL SYSTEM	Description
6	Component Function Check18
System Diagram6	Diagnosis Procedure18
System Description6	CARGO LAMP CONTROL CIRCUIT20
Component Parts Location7	
Component Description8	Description20 Diagnosis Procedure20
	Component Inspection22
ILLUMINATION CONTROL SYSTEM9	Component inspection22
System Diagram9	IGNITION KEYHOLE ILLUMINATION CON-
System Description9	TROL CIRCUIT24
Component Parts Location10	Description24
Component Description10	Component Function Check24
DIAGNOSIS SYSTEM (BCM)11	Diagnosis Procedure24
COMMON ITEM11	ECU DIAGNOSIS INFORMATION26
COMMON ITEM : CONSULT Function (BCM -	DOM (DODY CONTROL MODULE)
COMMON ITEM)11	BCM (BODY CONTROL MODULE)26
,	Reference Value
INT LAMP11	Terminal Layout
INT LAMP : CONSULT Function (BCM - INT	Physical Values
LAMP)12	Fail Safe34 DTC Inspection Priority Chart34
BATTERY SAVER12	DTC Inspection Fliority Chart
BATTERY SAVER : CONSULT Function (BCM -	DTC Ilidex55
BATTERY SAVER)12	WIRING DIAGRAM37
DTC/CIRCUIT DIAGNOSIS14	INTERIOR ROOM LAMP37
POWER SUPPLY AND GROUND CIRCUIT14	Wiring Diagram - With Power Door Lock System37
	ILLUMINATION50
BCM14	Wiring Diagram50
BCM : Diagnosis Procedure14	

SYMPTOM DIAGNOSIS60

INTERIOR LIGHTING SYSTEM SYMPTOMS.	60	INTERIOR ROOM LAMP	78
Symptom Table	60	Diagnosis Procedure	
PRECAUTION	0.4	Component Inspection (Door Switch)	79
PRECAUTION	61	CARGO LAMP CONTROL CIRCUIT	90
PRECAUTIONS	61	Description	
Precaution for Supplemental Restraint System		Diagnosis Procedure	
(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-		Component Inspection	
SIONER"			
Precaution for Work	61	ECU DIAGNOSIS INFORMATION	84
PREPARATION	62	BCM (BODY CONTROL MODULE)	
PREPARATION	62	Reference Value Terminal Layout	
Special Service Tool		Physical Values	
		Fail Safe	
REMOVAL AND INSTALLATION	63	DTC Inspection Priority Chart	
INTERIOR ROOM LAMP	60	DTC Index	
Removal and Installation			
Removal and installation	63	WIRING DIAGRAM	95
ILLUMINATION	66	INTERIOR ROOM LAMP	0.5
Removal and Installation	66	Wiring Diagram - Without Power Door Lock Sys-	
OFDVIOE DATA AND OBEOIDIOATIONO		tem	
SERVICE DATA AND SPECIFICATIONS			
(SDS)	67	ILLUMINATION	
BULB SPECIFICATIONS	67	Wiring Diagram	104
Bulb Specifications		SYMPTOM DIAGNOSIS	
WITHOUT POWER DOOR LOCKS	07	5 TWIP TOWN DIAGNOSIS	114
WITHOUT FOWER BOOK EOOKS		INTERIOR LIGHTING SYSTEM SYMPTOMS	114
BASIC INSPECTION	68	Symptom Table	
		, .	
DIAGNOSIS AND REPAIR WORKFLOW		PRECAUTION	115
Work Flow	68	PRECAUTIONS	115
SYSTEM DESCRIPTION	71	Precaution for Supplemental Restraint System	113
	•• • •	(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	
INTERIOR ROOM LAMP	71	SIONER"	115
System Diagram	71	Precaution for Work	
System Description			
Component Parts Location		PREPARATION	116
Component Description	72	PREPARATION	446
ILLUMINATION CONTROL SYSTEM	74	Special Service Tool	
System Diagram		Special Service 1001	110
System Description		REMOVAL AND INSTALLATION	117
Component Parts Location			
Component Description		INTERIOR ROOM LAMP	
·		Removal and Installation	117
DIAGNOSIS SYSTEM (BCM)	76	ILLUMINATION	120
COMMON ITEM	76	Removal and Installation	
COMMON ITEM : CONSULT Function (BCM -	•	removal and metallation	120
COMMON ITEM)	76	SERVICE DATA AND SPECIFICATIONS	;
		(SDS)	121
INT LAMP	76	•	
INT LAMP: CONSULT Function (BCM - INT		BULB SPECIFICATIONS	
LAMP)	77	Bulb Specifications	121
DTC/CIRCUIT DIAGNOSIS			

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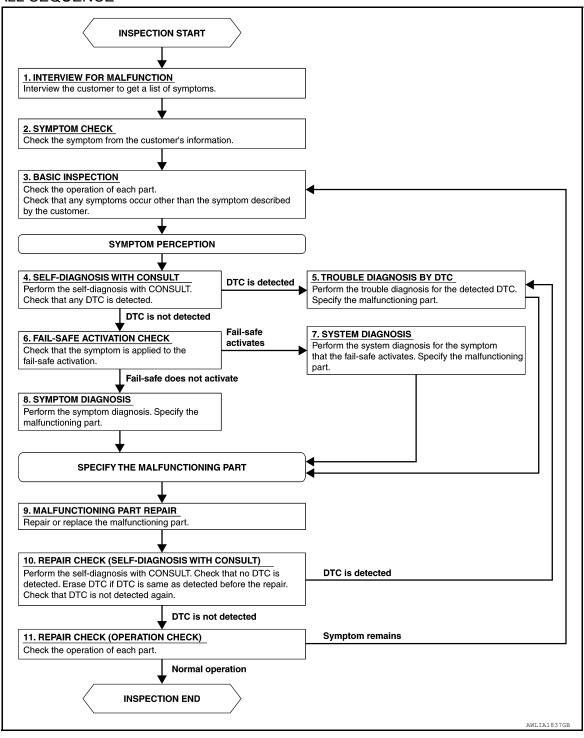
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



DETAILED FLOW

1.INTERVIEW FOR MALFUNCTION

Find out what the customer's concerns are.

>> GO TO 2.

2.SYMPTOM CHECK

Verify the symptom from the customer's information.

>> GO TO 3.

3.BASIC INSPECTION

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

>> GO TO 4.

4. SELF-DIAGNOSIS WITH CONSULT

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

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 6.

5. TROUBLE DIAGNOSIS BY DTC

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

>> GO TO 9.

6. FAIL-SAFE ACTIVATION CHECK

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

Does the fail-safe activate?

YES >> GO TO 7.

NO >> GO TO 8.

7. SYSTEM DIAGNOSIS

Perform the system diagnosis for the system in which the fail-safe activates. Specify the malfunctioning part.

>> GO TO 9.

8.SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 9.

9. MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 10.

10. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)

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

Is any DTC detected?

YES >> GO TO 5.

DIAGNOSIS AND REPAIR < BASIC INSPECTION >	WORKFLOW [WITH POWER DOOR LOCKS]
NO >> GO TO 11.	[
11. REPAIR CHECK (OPERATION CHECK)	А
Check the operation of each part.	
Does it operate normally?	В
YES >> Inspection End. NO >> GO TO 3.	
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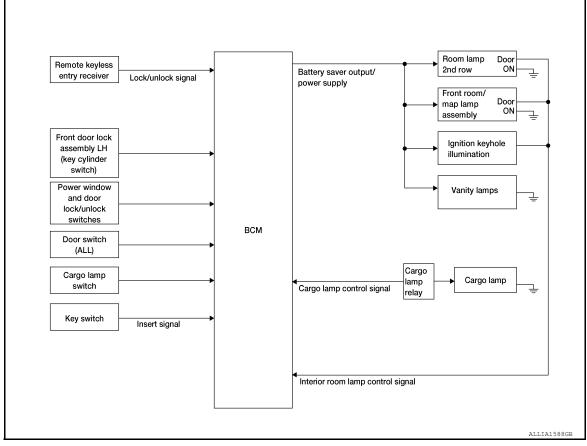
Revision: August 2014 INL-5 2015 Frontier NAM

SYSTEM DESCRIPTION

INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram

INFOID:0000000010711421 Room lamp 2nd row ON Battery saver output/ power supply Front room/ map lamp ON assembly



System Description

INFOID:0000000010711422

OUTLINE

- Front room/map lamp and room lamp 2nd row are controlled by the interior room lamp timer control function of the BCM.
- Cargo lamp is controlled by the cargo lamp control function of the BCM.

The timer control functions of the BCM activate based on inputs from the remote keyless entry receiver, the key cylinder lock/unlock switch, the door switches, the key switch and the power window and door lock/unlock switches.

ROOM LAMP TIMER OPERATION

When the interior room lamp switch is in the DOOR position, the BCM begins timer 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 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 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).
- The ignition switch is placed the ON position.

Interior lamp operational settings can be changed with the CONSULT.

INTERIOR LAMP BATTERY SAVER CONTROL

INTERIOR ROOM LAMP CONTROL SYSTEM

< SYSTEM DESCRIPTION >

[WITH POWER DOOR LOCKS]

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 10 minutes after the ignition switch is turned OFF. The BCM controls power and ground to all interior lamps.

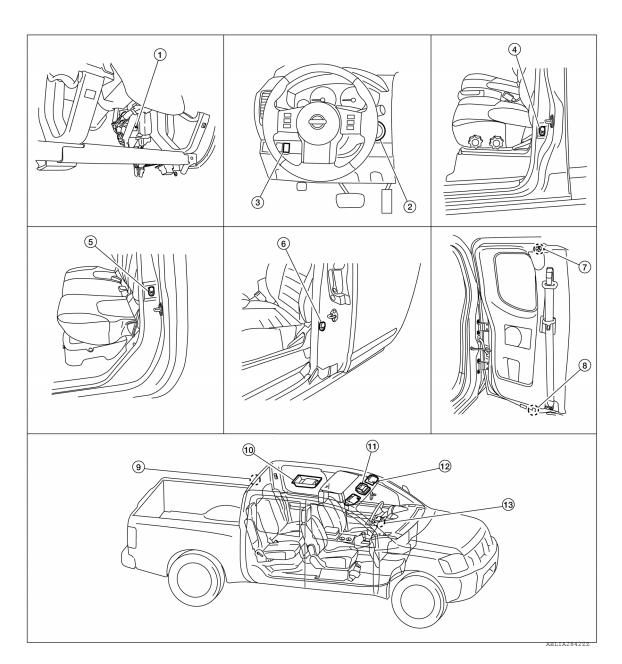
After the battery saver system turns the lamps OFF, the lamps will illuminate again when the following conditions are met:

- a signal is received from a 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

The interior lamp battery saver control time period can be changed with the CONSULT.

Component Parts Location

INFOID:0000000010711423



- BCM M18, M19, M20 (view with lower 2. instrument panel LH removed)
- 4. Front door switch LH B8 (crew cab)
 Front door switch RH B108 (crew cab)
- Key switch M27
- Rear door switch LH B18 (crew cab)
 Rear door switch RH B116 (crew cab)
- 3. Cargo lamp switch M71
- 6. Front door switch LH D213 (king cab) Front door switch RH D314 (king cab)

Revision: August 2014 INL-7 2015 Frontier NAM

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INTERIOR ROOM LAMP CONTROL SYSTEM

< SYSTEM DESCRIPTION >

[WITH POWER DOOR LOCKS]

- Rear door switch upper LH D211 (king 8. Rear door switch upper RH D312 (king
- Rear door switch lower RH D313 (king
- Rear door switch lower LH D212 (king 9. Cargo lamp B161
- 10. Room lamp 2nd row R10

cab)

cab)

11. Front room/map lamp assembly R9

12. Vanity lamp LH B80 (if equipped) Vanity lamp RH B81 (if equipped)

13. Ignition keyhole illumination M150 (if

equipped)

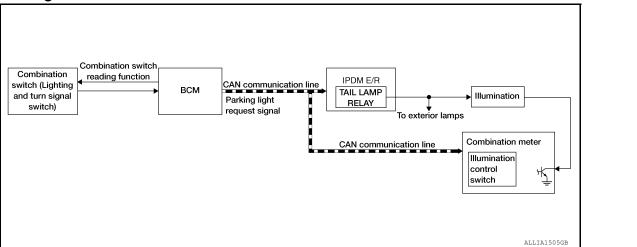
Component Description

INFOID:0000000010711424

Part name	Description
ВСМ	Provides power and ground and controls timer functions for the interior room lamps and cargo lamp.
Key switch	Provides key in ignition status to the BCM.
Door switches	Provides door OPEN/CLOSED status to the BCM.
Cargo lamp switch	Provides cargo lamp ON/OFF request to the BCM.
Main power window and door lock/unlock switch	Dravides deer leek/uplack position quitab status to the DOM
Power window and door lock/unlock switch RH	Provides door lock/unlock position switch status to the BCM.
Front door lock assembly LH (key cylinder switch)	Provides door lock/unlock status to the BCM.

ILLUMINATION CONTROL SYSTEM

System Diagram



System Description

The illumination lamps operation is dependent upon the position of the combination switch (lighting and turn signal switch). When the combination switch (lighting and turn signal switch) is placed in the 1ST or 2ND position (or if the auto light system is activated) the BCM (body control module) receives input requesting the parking lamps to illuminate. This input is communicated to the IPDM E/R (intelligent power distribution module engine room) via the CAN communication lines. The CPU (central processing unit) of the IPDM E/R controls the tail lamp relay coil. When energized, this relay directs power to the parking and illumination lamps, which then illuminate.

BATTERY SAVER CONTROL

When the combination switch (lighting and turn signal switch) is in the 1ST or 2ND position and the ignition switch is turned from ON or ACC to OFF, the battery saver control feature is activated. Under this condition, the illumination lamps remain illuminated for 10 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 lamps are 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 lamps have been turned off by the battery saver control, the illumination lamps illuminate again.

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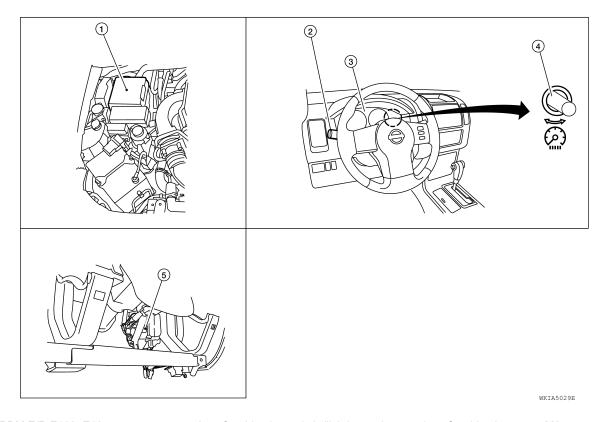
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Component Parts Location

INFOID:0000000010711427



- 1. IPDM E/R E122, E124
- 4. Illumination control switch (built into combination meter)
- Combination switch (lighting and turn 3. Combination meter M24 signal switch) M28
- BCM M18, M20 (view with lower instrument panel LH removed)

Component Description

INFOID:0000000010711428

Part name	Description			
BCM	The BCM monitors the lighting switch position with the combination switch reading function. 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 network.			
Combination meter (illumination control switch)	The illumination control switch is a part of the combination meter. The combination meter controls illumination intensity by varying ground to the illumination lamps based on the illumination control switch position.			
Combination switch (lighting and turn signal switch)	The combination switch (lighting and turn signal switch) provides input to the BCM about the lighting switch position.			

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH POWER DOOR LOCKS]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011341375

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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	HEAD LAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Air conditioner	AIR CONDITIONER			×				
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×	×		
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×	×	×		
Signal buffer system	SIGNAL BUFFER			×	×			
TPMS	AIR PRESSURE MONITOR		×	×	×	×		
Panic alarm system	PANIC ALARM				×			

INT LAMP

[WITH POWER DOOR LOCKS]

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:0000000011341376

DATA MONITOR

Monitor Item [Unit]	Description
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.
KEY ON SW [On/Off]	Indicates condition of key switch.
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.
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.
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.
KEYLESS LOCK [On/Off]	Indicates condition of lock signal from keyfob.
KEYLESS UNLOCK [On/Off]	Indicates condition of unlock signal from keyfob.

ACTIVE TEST

Test Item	Description		
IGN ILLUM	This test is able to check ignition keyhole illumination operation [Off/On].		
INT LAMP	This test is able to check interior room lamp operation [Off/On].		

WORK SUPPORT

Support Item	Setting		Description		
SET I/L D-UNLCK INTCON	Off		Interior room lamp timer function OFF.		
SET I/L D-ONECK INTOON	On*		Interior room lamp timer function ON.		
	MODE7	0 sec.			
	MODE6	5 sec.			
	MODE5	4 sec.			
ROOM LAMP ON TIME SET	MODE4	3 sec.	Sets the interior room lamp gradual brightening time.		
	MODE3	2 sec.			
	MODE2*	1 sec.			
	MODE1	0.5 sec.			
	MODE7	0 sec.			
	MODE6	5 sec.			
	MODE5	4 sec.			
ROOM LAMP OFF TIME SET	MODE4	3 sec.	Sets the interior room lamp gradual dimming time.		
	MODE3	2 sec.			
	MODE2*	1 sec.			
	MODE1	0.5 sec.			

^{* :} Initial setting

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:0000000011341377

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH POWER DOOR LOCKS]

Monitor Item [Unit]	Description	_
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.	
KEY ON SW [On/Off]	Indicates condition of key switch.	
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.	
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.	
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.	
KEYLESS LOCK [On/Off]	Indicates condition of lock signal from keyfob.	
KEYLESS UNLOCK [On/Off]	Indicates condition of unlock signal from keyfob.	

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting		Description
ROOM LAMP TIMER SET	MODE2	60 min	Sets the interior room lamp battery saver timer operating time.
	MODE1*	10 min	Sets the interior room famp battery saver timer operating time.

^{*:} Initial setting

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DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT BCM

BCM: Diagnosis Procedure

INFOID:0000000011341378

Regarding Wiring Diagram information, refer to BCS-45, "Wiring Diagram".

1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
57	Pottory newer cumply	21 (10A)
70	Battery power supply	G (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	1 (10A)

Is the fuse blown?

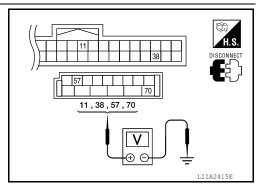
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM.
- Check voltage between BCM harness connector and ground.

Connector	Terminals		Power	Condition	Voltage (V) (Ap-
Connector	(+) (-) source		Condition	prox.)	
M18	11	Ground	ACC power supply	Ignition switch ACC or ON	Battery voltage
	38	Ground	Ignition power supply	Ignition switch ON or START	Battery voltage
M20	57	Ground	Battery power supply	Ignition switch OFF	Battery voltage
M20	70	Ground	Battery power supply	Ignition switch OFF	Battery voltage



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair or replace harness.

 $oldsymbol{3}$. CHECK GROUND CIRCUIT

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

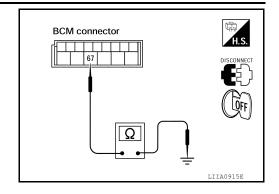
Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Terminal	Ground	Continuity
M20	67		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



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BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

Description INFOID:000000010711433

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

Component Function Check

INFOID:0000000010711434

1. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY FUNCTION

(P)WITH CONSULT

- 1. Turn ignition switch ON.
- 2. Turn each interior room lamp ON.
- Front room/map lamp assembly
- Vanity lamps
- Room lamp 2nd row
- Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
- 4. While operating the test item, check that each interior room lamp turns ON/OFF.

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

Is the inspection result normal?

YES >> Battery saver output/power supply circuit is normal.

NO >> Refer to INL-16, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000010711435

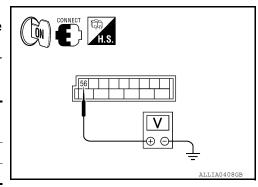
Regarding Wiring Diagram information, refer to INL-37, "Wiring Diagram - With Power Door Lock System".

1. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY OUTPUT

(P)WITH CONSULT

- Turn ignition switch ON.
- Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
- While operating the test item, check voltage between BCM connector M20 terminal 56 and ground.

(+)		()	Test item	Voltage
Connector	Terminal	(-)	BATTERY SAVER	voltage
M20 56	Ground	OFF	0V	
		ON	Battery voltage	



Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace BCM after making sure the battery saver output/power supply circuit is not shorted to voltage. Refer to BCS-51, "Removal and Installation".

2.CHECK BATTERY SAVER OUTPUT/POWER SUPPLY OPEN CIRCUIT

- Turn ignition switch OFF.
- Disconnect the following connectors:
- BCM M20
- Ignition keyhole illumination
- Front room/map lamp assembly
- Vanity lamp LH
- Vanity lamp RH

BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT DIAGNOSIS > [WITH POWER DOOR LOCKS]

< DTC/CIRCUIT DIAGNOSIS >

- Room lamp 2nd row
- 3. Check continuity between BCM connector M20 terminal 56 and each interior room lamp connector.

BCM	М	Each interior room lamp			Continuity
Connector	Terminal	Connector	Continuity		
		Ignition keyhole illumination	M150	1	
		Front room/map lamp assembly	R9	1	
M20	56	Vanity lamp LH	B80	1	Yes
	Vanity lamp RH	B81	1		
	Room lamp 2nd row	R10	2		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the harness or connectors.

3.CHECK BATTERY SAVER OUTPUT/POWER SUPPLY SHORT CIRCUIT

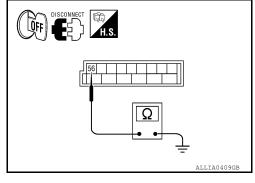
Check continuity between BCM connector M20 terminal 56 and ground.

Connector	Terminal	-	Continuity
M20	56	Ground	No

Is the inspection result normal?

YES >> Replace the interior room lamp. Refer to INL-63, "Removal and Installation".

NO >> Repair the harness or connectors.



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INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

INTERIOR ROOM LAMP CONTROL CIRCUIT

Description INFOID:000000010711436

Controls the following interior room lamps (ground side) by PWM signal:

- Front room/map lamp assembly
- Room lamp 2nd row

NOTE:

PWM signal control period is approximately 250 Hz (in the gradual brightening/dimming).

Component Function Check

INFOID:0000000010711437

CAUTION:

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

- · Battery saver output/power supply
- Front room/map lamp bulbs (if equipped)
- Room lamp 2nd row bulb

${f 1}$.CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

(E)WITH CONSULT

- 1. Switch the front room/map lamp assembly and room lamp 2nd row switches to DOOR.
- 2. Turn ignition switch ON.
- 3. Select "INT LAMP" of BCM (INT LAMP) active test item.
- While operating the test item, check that each interior room lamp turns ON/OFF (gradual brightening/dimming).

ON : Interior room lamp gradual brightening
OFF : Interior room lamp gradual dimming

Is the inspection result normal?

YES >> Interior room lamp control circuit is normal.

NO >> Refer to INL-18. "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000010711438

Regarding Wiring Diagram information, refer to INL-37, "Wiring Diagram - With Power Door Lock System".

1. CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

(P)WITH CONSULT

- 1. Turn ignition switch ON.
- Select "INT LAMP" of BCM (INT LAMP) active test item.
- 3. While operating the test item, check voltage between BCM connector M20 terminal 63 and ground.

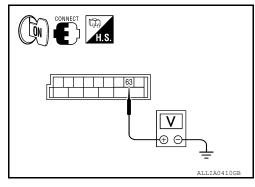
(+)		(-)	INT LAMP	Voltage	
Connector	Terminal	(-)	IIVI LAWII	voitage	
M20	63	Ground	ON	0V	
IVIZU	M20 63		OFF	Battery voltage	

Is the inspection result normal?

YES >> 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



INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

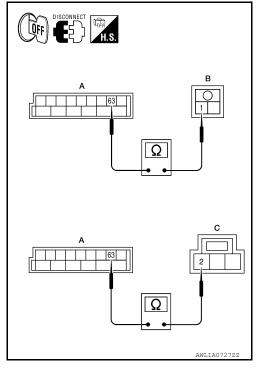
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M20, room lamp 2nd row connector and front room/map lamp connector.
- 3. Check continuity between BCM connector M20 (A) terminal 63 and interior room lamp connectors.

Term	inal	Terminal			Continuity
Connector	Terminal	Component Connector Term		Terminal	Continuity
M20 (A)	63	Room lamp 2nd row	R10 (B)	1	Yes
M20 (A) 63	Front room/map lamp	R9 (C)	2	165	

Is the inspection result normal?

YES >> Check interior room lamp for an open. If OK, replace the BCM. Refer to <u>BCS-51</u>, "Removal and Installation". If NG, replace the interior room lamp. Refer to <u>INL-63</u>, "Removal and Installation".

NO >> Repair the harness or connectors.



${f 3.}$ CHECK INTERIOR ROOM LAMP CONTROL SHORT CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M20, room lamp 2nd row connector and front room/map lamp connector.
- 3. Check continuity between BCM connector M20 terminal 63 and ground.

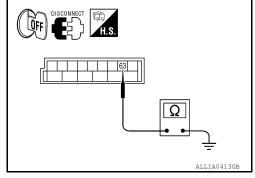
Connector	Terminal	_	Continuity
M20	63	Ground	No

Is the inspection result normal?

YES >> Check interior room lamp for a short circuit. If OK, replace the BCM. Refer to BCS-51, "Removal and

Installation". If NG, replace the interior room lamp. Refer to INL-63, "Removal and Installation".

NO >> Repair the harness or connectors.



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[WITH POWER DOOR LOCKS]

CARGO LAMP CONTROL CIRCUIT

Description INFOID:00000001071143S

Controls the cargo lamp relay coil (ground side) to turn the cargo lamp ON and OFF.

Diagnosis Procedure

INFOID:0000000010711440

Regarding Wiring Diagram information, refer to INL-37, "Wiring Diagram - With Power Door Lock System".

CAUTION:

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

- Fuse
- Cargo lamp bulb

1. CHECK CARGO LAMP OPERATION

Check the cargo lamp operation from the cargo lamp switch, the door switches, and a keyfob (if equipped). Is the cargo lamp operative from all of the above switches and the keyfob?

YES >> At this time, the cargo lamp operates normally.

NO

- >> Inoperative from all the above switches and the keyfob, GO TO 6.
 - Inoperative from cargo lamp switch only, GO TO 2.
 - Inoperative from door switches only, refer to <u>DLK-27, "KING CAB : Description"</u> (king cab), <u>DLK-29, "CREW CAB : Description"</u> (crew cab).
 - Inoperative from keyfob only, refer to <u>DLK-51, "Description"</u>.
 - Fixed ON, GO TO 2.

2.CHECK CARGO LAMP SWITCH

Check the cargo lamp switch. Refer to INL-22, "Component Inspection".

Is the inspection result normal?

YES >> • For inoperative from cargo lamp switch only, GO TO 3.

For fixed ON, GO TO 5.

NO >> Replace the cargo lamp switch.

3.CHECK CARGO LAMP SWITCH CIRCUIT OPEN

- 1. Disconnect BCM connector M18 and cargo lamp switch connector.
- Check continuity between BCM connector M18 terminal 31 and cargo lamp switch connector M71 terminal 1.

В	BCM Cargo lamp switch		Continuity		
Connector	Terminal	Connector Terminal		Continuity	
M18	31	M71	1	Yes	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connectors.

4. CHECK CARGO LAMP SWITCH GROUND CIRCUIT

Check continuity between cargo lamp switch connector M71 terminal 3 and ground.

Connector	Terminal	-	Continuity
M71	3	Ground	Yes

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-51, "Removal and Installation".

NO >> Repair harness or connectors.

Revision: August 2014 IN L - 2 0 2015 Frontier NAM

CARGO LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

5. CHECK CARGO LAMP SWITCH CIRCUIT SHORT

- 1. Disconnect BCM connector M18 and cargo lamp switch connector.
- 2. Check continuity between BCM connector M18 terminal 31 and ground.

Connector	Terminal	-	Continuity
M18	31	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connectors.

6. CHECK CARGO LAMP RELAY

Check the cargo lamp relay. Refer to INL-22, "Component Inspection".

Is the inspection result normal?

YES >> • For fixed OFF, GO TO 7.

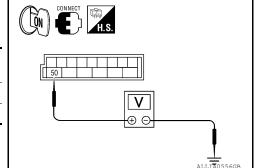
For fixed ON, GO TO 13.

NO >> Replace the cargo lamp relay.

7. CHECK CARGO LAMP RELAY CONTROL

While operating the cargo lamp switch, check voltage between BCM connector M19 terminal 50 and ground.

Connector	Terminal	-	Cargo lamp switch	Voltage
M19	50	Ground	ON 0V	
IVITO	M19 50	Giouna	OFF	Battery voltage



Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 11.

8. CHECK CARGO LAMP VOLTAGE

- 1. Disconnect the cargo lamp connector.
- 2. While operating the cargo lamp switch, check voltage between cargo lamp connector B161 terminal 3 and ground.

Connector	Terminal	-	Cargo lamp switch	Voltage
B161	3	Ground	ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 9.

NO >> GO TO 10.

9. CHECK CARGO LAMP GROUND CIRCUIT

1. While operating the cargo lamp switch, check voltage between cargo lamp connector B161 terminal 3 and terminal 2.

Connector	Terminal (+)	Terminal (-)	Cargo lamp switch	Voltage
B161	3	2	ON	Battery voltage

Is the inspection result normal?

YES >> Replace cargo lamp.

NO >> Repair harness or connectors.

10.CHECK CARGO LAMP RELAY VOLTAGE PART 1

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CARGO LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

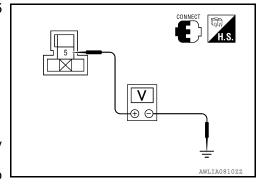
Check voltage between cargo lamp relay connector M165 terminal 5 and ground.

Cargo lamp relay			Voltage
Connector	Terminal	Ground	voltage
M165	5		Battery voltage

Is the inspection result normal?

YES >> Repair harness or connectors between cargo lamp relay and cargo lamp.

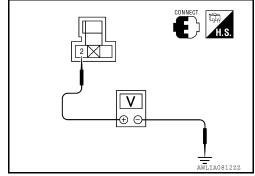
>> Repair harness or connector between splice and cargo NO lamp relay.



11. CHECK CARGO LAMP RELAY VOLTAGE PART 2

Check voltage between cargo lamp relay connector M165 terminal 2 and ground.

Cargo lamp relay			Voltage		
Connector	Terminal	Ground	voltage		
M165	2		Battery voltage		
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Is the inspection result normal?

YES >> GO TO 12.

NO >> Repair harness or connectors.

12. CHECK CARGO LAMP RELAY CONTROL CIRCUIT OPEN

- Disconnect BCM connector M19 and cargo lamp relay.
- Check continuity between BCM connector M19 terminal 50 and cargo lamp relay connector M165 terminal 1.

В	ВСМ		Cargo lamp relay		
Connector	Terminal	Connector Terminal		Continuity	
M19	50	M165	1	Yes	

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-51, "Removal and Installation".

NO >> Repair harness or connectors.

13. CHECK CARGO LAMP RELAY CONTROL CIRCUIT SHORT

- Disconnect BCM connector M19 and cargo lamp relay.
- Check continuity between BCM connector M19 terminal 50 and ground.

Connector	Terminal	-	Continuity
M19	50	Ground	No

Is the inspection result normal?

>> Replace BCM after making sure the cargo lamp power supply circuit is not shorted to voltage. YES Refer to BCS-51, "Removal and Installation".

NO >> Repair harness or connectors.

Component Inspection

INFOID:0000000010711441

CARGO LAMP SWITCH

.CHECK CARGO LAMP SWITCH

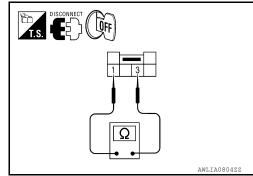
CARGO LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

- 1. Turn ignition switch OFF.
- 2. Disconnect cargo lamp switch connector.
- 3. Check continuity between cargo lamp switch terminals 1 and 3.

Cargo lamp switch	Condition	Continuity	
Terminal	Condition		
1 – 3	ON	Yes	
1 – 3	OFF	No	



Is the inspection result normal?

YES >> Inspection End.

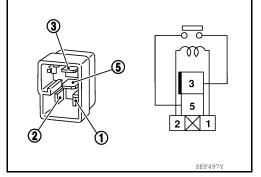
NO >> Replace cargo lamp switch.

CARGO LAMP RELAY

1. CHECK CARGO LAMP RELAY

- 1. Turn ignition switch OFF.
- 2. Disconnect cargo lamp relay.
- 3. Supply power to terminal 2 and ground to terminal 1 of the cargo lamp relay.
- 4. Check continuity between cargo lamp relay terminals 3 and 5.

Terr	minal	nal Condition	
۵	5	Power and ground supplied to terminals 1 and 2	Yes
3	5	No power and ground supplied	No



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace cargo lamp relay.

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IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT T DIAGNOSIS > [WITH POWER DOOR LOCKS]

< DTC/CIRCUIT DIAGNOSIS >

IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

Description INFOID:0000000010711442

Controls the ignition keyhole illumination (ground side) to turn the ignition keyhole illumination ON and OFF.

Component Function Check

INFOID:0000000010711443

CAUTION:

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

- Battery saver output/power supply circuit
- Ignition keyhole illumination bulb
- $1.\mathsf{check}$ ignition keyhole illumination operation

(P)WITH CONSULT

- Turn the ignition switch ON.
- Select "IGN ILLUM" of BCM (INT LAMP) active test item.
- While operating the test item, check that the ignition keyhole illumination turns ON/OFF

ON : Ignition keyhole illumination ON OFF : Ignition keyhole illumination OFF

Is the inspection result normal?

YES >> Ignition keyhole illumination circuit is normal. NO >> Refer to INL-24, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000010711444

Regarding Wiring Diagram information, refer to INL-37, "Wiring Diagram - With Power Door Lock System".

1. CHECK IGNITION KEYHOLE OUTPUT

(P)WITH CONSULT

- Turn ignition switch ON.
- Select "IGN ILLUM" of BCM (INT LAMP) active test item.
- While operating the test item, check voltage between BCM connector M18 terminal 1 and ground.

Connector	Terminal	-	IGN ILLUM	Voltage
M18	1	Ground	ON	0V
IVITO	'	Ground	OFF	Battery voltage

CONNECT H.S. H.S.

Is the inspection result normal?

YES >> Ignition keyhole illumination control circuit is operating normally.

Fixed ON>> GO TO 3.

Fixed OFF>> GO TO 2.

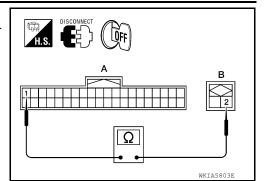
2.CHECK IGNITION KEYHOLE ILLUMINATION OPEN CIRCUIT

IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT T DIAGNOSIS > [WITH POWER DOOR LOCKS]

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- Disconnect BCM connector M18 and ignition keyhole illumination connector.
- 3. Check continuity between BCM connector M18 (A) terminal 1 and ignition keyhole illumination connector M150 (B) terminal 2.

ВСМ		Ignition keyhole illumination		Continuity
Connector	Terminal	Connector Terminal		Continuity
M18 (A)	1	M150 (B)	2	Yes



Is the inspection result normal?

- YES >> Check the ignition keyhole illumination for an open. If OK, replace the BCM. Refer to <u>BCS-51</u>, <u>"Removal and Installation"</u>. If NG, replace ignition keyhole illumination.
- NO >> Repair harness or connectors.

3.check ignition keyhole illumination short circuit

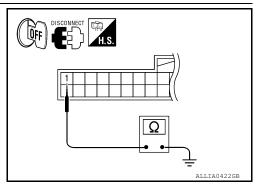
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M18 and ignition keyhole illumination connector.
- 3. Check continuity between BCM connector M18 terminal 1 and ground.

Connector	Terminal	-	Continuity
M18	1	Ground	No

Is the inspection result normal?

YES >> Check the ignition keyhole illumination for a short circuit. If OK, replace the BCM. Refer to BCS-51, "Removal and Installation". If NG, replace ignition keyhole illumination.

NO >> Repair harness or connectors.



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< ECU DIAGNOSIS INFORMATION >

[WITH POWER DOOR LOCKS]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

NOTE:

The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.

- · Activate and display TPMS transmitter IDs
- Display tire pressure reported by the TPMS transmitter
- Read TPMS DTCs
- Register TPMS transmitter IDs
- Test remote keyless entry keyfob relative signal strength

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ACC ON SW	Ignition switch OFF or ON	Off
ACC ON OW	Ignition switch ACC	On
AIR COND SW	A/C switch OFF	Off
AIR COND OW	A/C switch ON	On
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm ² , psi
ALITO LICHT SW	Lighting switch OFF	Off
AUTO LIGHT SW BRAKE SW	Lighting switch AUTO	On
DDAKE SW	Brake pedal released	Off
BRARE SW	Brake pedal applied	On
BUCKLE SW	Seat belt buckle unfastened	Off
	Seat belt buckle fastened	On
BUZZER	Buzzer in combination meter OFF	Off
BOZZEK	Buzzer in combination meter ON	On
CARGO LAMP SW	Cargo lamp switch OFF	Off
CARGO LAMIF SW	Cargo lamp switch ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
CDL LOCK 3W	Press door lock/unlock switch to the LOCK side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
CDL UNLOCK SW	Press door lock/unlock switch to the UNLOCK side	On
DOOR SW-AS	Front door RH closed	Off
DOOK SW-AS	Front door RH opened	On
DOOR SW-DR	Front door LH closed	Off
DOOK SW-DIX	Front door LH opened	On
DOOR SW-RL	Rear door LH closed	Off
DOOR SW-RL	Rear door LH opened	On
DOOR SW-RR	Rear door RH closed	Off
DOOK SW-KK	Rear door RH opened	On

< ECU DIAGNOSIS INFORMATION >

[WITH POWER DOOR LOCKS]

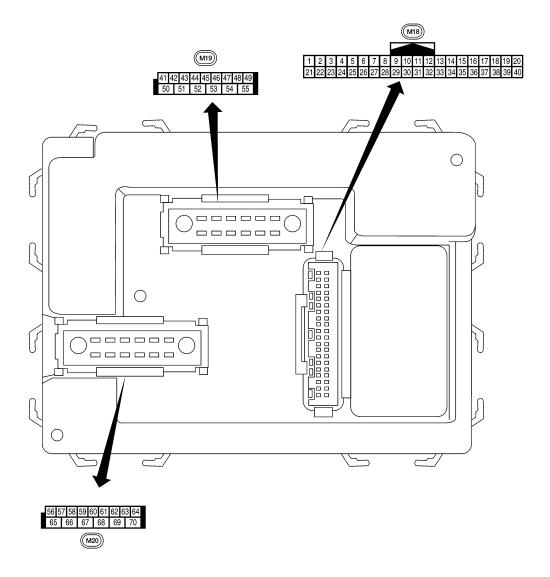
Monitor Item	Condition	Value/Status	
FAN ON SIG	Blower motor fan switch OFF	Off	
-AN ON SIG	Blower motor fan switch ON	On	
FR FOG SW	Front fog lamp switch OFF	Off	
-R FOG SW	Front fog lamp switch ON	On	
	Front washer switch OFF	Off	
FR WASHER SW	Front washer switch ON	On	
	Front wiper switch OFF	Off	
FR WIPER LOW	Front wiper switch LO	On	
ED WIDED III	Front wiper switch OFF	Off	
FR WIPER HI	Front wiper switch HI	On	
-D WIDED INT	Front wiper switch OFF	Off	
FR WIPER INT	Front wiper switch INT	On	
-D WIDED 070D	Any position other than front wiper stop position	Off	
FR WIPER STOP	Front wiper stop position	On	
IAZADD OM	When hazard switch is not pressed	Off	
HAZARD SW	When hazard switch is pressed	On	
IEAD LAMB CVA 4	Headlamp switch OFF	Off	
HEAD LAMP SW 1	Headlamp switch 1st	On	
.=.=	Headlamp switch OFF	Off	
HEAD LAMP SW 2	Headlamp switch 1st	On	
	High beam switch OFF	Off	
HI BEAM SW	High beam switch HI	On	
D DECOT EL 4	ID registration of front left tire incomplete	YET	
D REGST FL1	ID registration of front left tire complete	DONE	
D DECCT ED4	ID registration of front right tire incomplete	YET	
D REGST FR1	ID registration of front right tire complete	DONE	
D DECOT DI 4	ID registration of rear left tire incomplete	YET	
D REGST RL1	ID registration of rear left tire complete	DONE	
	ID registration of rear right tire incomplete	YET	
D REGST RR1	ID registration of rear right tire complete	DONE	
CAL CAL CIAL	Ignition switch OFF or ACC	Off	
GN ON SW	Ignition switch ON	On	
ON OW OAS:	Ignition switch OFF or ACC	Off	
GN SW CAN	Ignition switch ON	On	_
NT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7	
VEV 0V4 114 000	Door key cylinder LOCK position	Off	
KEY CYL LK-SW	Door key cylinder other than LOCK position	On	
(E) (O) (1 11 O) (1	Door key cylinder UNLOCK position	Off	
KEY CYL UN-SW	Door key cylinder other than UNLOCK position	On	
	Mechanical key is removed from key cylinder	Off	
KEY ON SW	Mechanical key is inserted to key cylinder	On	
	LOCK button of key fob is not pressed	Off	
KEYLESS LOCK	LOCK button of key fob is pressed	On	

< ECU DIAGNOSIS INFORMATION >

[WITH POWER DOOR LOCKS]

Monitor Item	Condition	Value/Status
KEYLESS PANIC	PANIC button of key fob is not pressed	Off
RETLESS PAINIC	PANIC button of key fob is pressed	On
KEYLESS UNLOCK	UNLOCK button of key fob is not pressed	Off
RETLESS UNLOCK	UNLOCK button of key fob is pressed	On
LIGHT SW 1ST	Lighting switch OFF	Off
LIGHT SW 131	Lighting switch 1st	On
OIL PRESS SW	Ignition switch OFF or ACC Engine running	Off
	Ignition switch ON	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5V
	Dark outside of the vehicle	Close to 0V
PASSING SW	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
REAR DEF SW	Rear window defogger switch OFF	Off
REAR DEL 3W	Rear window defogger switch ON	On
TURN SIGNAL L	Turn signal switch OFF	Off
TORN SIGNAL L	Turn signal switch LH	On
TURN SIGNAL R	Turn signal switch OFF	Off
TOTAL IN	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
WARNING LAMP	Low tire pressure warning lamp in combination meter OFF	Off
WARNING LAWF	Low tire pressure warning lamp in combination meter ON	On

Terminal Layout



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Physical Values

	Wire		Signal		Measuring condition	Defenses value as well-	
Terminal	color	Item	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)	
1	BR	Ignition keyhole illumi-	Output	OFF	Door is locked (SW OFF)	Battery voltage	
·	ых	nation	Output	011	Door is unlocked (SW ON)	0V	
2	Р	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 4 2 0 **5ms SKIA5291E	
3	SB	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 + • 5ms skias292E	
4	V	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **-5ms	
5	L	Combination switch input 2				0.0	
6	R	Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms	
7	5	Front door lock as-	1		ON (open, 2nd turn)	Momentary 1.5V	
7	GR	sembly LH (key cylin- der switch) unlock	Input	Input	055	OFF (closed)	0V
	65	Front door lock as-		OFF	On (open)	Momentary 1.5V	
8	SB	sembly LH (key cylin- der switch) lock	Input		OFF (closed)	0V	
9	LG	Brake sw	Input	OFF	OFF (brake pedal is not depressed)	0V	
		Liano ovi	прис		ON (brake pedal is depressed)	Battery voltage	
11	G/B	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage	
		Front door switch RH (All)			ON (open)	0V	
12	LG	Rear door switch upper RH (King Cab)	Input	OFF	OFF (closed)	Battery voltage	
		Rear door switch low- er RH (King Cab)					

< ECU DIAGNOSIS INFORMATION >

[WITH POWER DOOR LOCKS]

			Signal		Measuring condition	
Terminal	Wire color	Item	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
		Rear door switch RH		0==	ON (open)	0V
13	L	(Crew Cab)	Input	OFF	OFF (closed)	Battery voltage
15	W	Tire pressure warning check connector	Input	OFF	_	5V
18	BR	Remote keyless entry receiver and optical sensor (Ground)	Output	OFF	_	0V
19	V	Remote keyless entry receiver (power sup- ply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 → •50 ms LIIAL893E
20		Remote keyless entry receiver signal (Sig-		055	Stand-by (keyfob buttons re- leased)	(V) 6 4 2 0
20	G	nal)	·	Input OFF	When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2 0 -50 ms
21	GR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF → ON)	Just after turning ignition switch ON: Pointer of tester should move.
23	G	Security indicator lamp	Output	OFF	Goes OFF → illuminates (Every 2.4 seconds)	Battery voltage → 0V
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF \rightarrow ON)	Just after turning ignition switch ON: Pointer of tester should move.
27	W	Compressor ON sig-	Input	ON	A/C switch OFF	5V
	,,	nal		3	A/C switch ON	0V
28	R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage
			P		Front blower motor ON	0V
29	G	Hazard switch	Input	OFF	ON	0V
					OFF	5V
31	GR	Cargo lamp switch	Input	OFF	ON	0V
		,			OFF	Battery voltage

[WITH POWER DOOR LOCKS]

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Item	input/ output	Ignition switch	Operation or condition	(Approx.)
32	BG	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms
33	GR	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 4 2 0 *-5ms skta5292E
34	G	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0
35	BR	Combination switch output 2				SKIA5291E
36	LG	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	5ms SKIA5292E
27		Kan and da	lana d	055	Key inserted	Battery voltage
37	В	Key switch	Input	OFF	Key removed	0V
38	W/R	Ignition switch (ON)	Input	ON	_	Battery voltage
39	L	CAN high	_	_	_	_
41	P Y	CAN low Rear window defogger switch	— Input	ON	Rear window defogger switch ON	 0V
		SWIGH			Rear window defogger switch OFF	5V
15	V	Lock switch	Innut	OFF	ON (lock)	0V
45	V	Lock switch	Input	OFF	OFF	Battery voltage
46	LG	Unlock switch	Input	OFF	ON (unlock)	0V
		Front door switch LH (All)			OFF ON (open)	Battery voltage 0V
47	GR	Rear door switch up- per LH (King Cab)	Input	OFF	OFF (alasset)	Detter allere
		Rear door switch low- er LH (King Cab)			OFF (closed)	Battery voltage

< ECU DIAGNOSIS INFORMATION >

[WITH POWER DOOR LOCKS]

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			Signal		Measuring cond	dition	
Terminal	Wire color	Item	input/ output	Ignition switch		or condition	Reference value or waveform (Approx.)
40	-	Rear door switch LH	1	OFF	ON (open)		0V
48	Р	(Crew Cab)	Input	OFF	OFF (closed)		Battery voltage
	Б	0	0 1 1	OFF	Any door open (ON)		0V
50	Р	Cargo lamp	Output	OFF	OFF All doors closed (OFF)		Battery voltage
51	BG	Trailer turn signal (right)	Output	ON	Turn right ON		(V) 15 10 5 0
52	LG	Trailer turn signal (left)	Output	ON	Turn left ON		(V) 15 10 500 ms 500 ms
56	R/Y	Battery saver output	Output	OFF	switch is turned OFF		0V
				ON			Battery voltage
57	R/Y	Battery power supply	Input	_	_		Battery voltage
58	w	Optical sensor	Input	ON	When optical s	ensor is illumi-	3.1V or more
				0.1	When optical s minated	ensor is not illu-	0.6V or less
59	GR	Front door lock as-	Output	OFF	OFF (neutral)		0V
	O. C	sembly LH (unlock)	Catput	011	ON (unlock)		Battery voltage
60	LG	Turn signal (left)	Output	ON	Turn left ON		(V) 15 10 500 ms SKIA3009J
61	G	Turn signal (right)	Output	ON	Turn right ON		(V) 15 10 5 0 500 ms
63	BR	Interior room/map	Output	OFF	Any door switch	ON (open) OFF (closed)	0V
					OFF (neutral)	OFF (Closed)	Battery voltage 0V
65	V	All door lock actuators (lock)	Output	OFF	OFF (fleutral) ON (lock)		Battery voltage
		()	0		ON (IUCK)		Dattery voltage

< ECU DIAGNOSIS INFORMATION >

[WITH POWER DOOR LOCKS]

	Wire	ro	Signal		Measuring condition	Reference value or waveform
Terminal	color	Item	input/ output	Ignition switch	Operation or condition	(Approx.)
		Front door lock actua-			OFF (neutral)	0V
66	L	tor RH, rear door lock actuators LH/RH (un- lock)	Output	OFF	ON (unlock)	Battery voltage
67	В	Ground	Input	ON	_	0V
					Ignition switch ON	Battery voltage
		Power window power supply (RAP)	Output		Within 45 seconds after ignition switch OFF	Battery voltage
68 ¹	Ο			_	More than 45 seconds after ignition switch OFF	0V
					When front door LH or RH is open or power window timer operates	0V
					Ignition switch ON	Battery voltage
		SB Power window power supply (RAP)	Output	_	Within 45 seconds after ignition switch OFF	Battery voltage
68 ²	SB				More than 45 seconds after ignition switch OFF	0V
					When front door LH or RH is open or power window timer operates	0V
69	Р	Power window power supply (BAT)	Output	OFF	_	Battery voltage
70	W	Battery power supply	Input	OFF		Battery voltage

^{1:} King cab

Fail Safe

Fail-safe index

BCM performs fail-safe control when any DTC listed below is detected.

Display contents of CONSULT	Fail-safe	Cancellation
U1000: CAN COMM CIRCUIT	Inhibit engine cranking	When the BCM re-establishes communication with the other modules.

DTC Inspection Priority Chart

INFOID:0000000011349833

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

Priority	DTC
1	U1000: CAN COMM CIRCUIT
2	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM

^{2:} Crew cab

< ECU DIAGNOSIS INFORMATION >

[WITH POWER DOOR LOCKS]

Priority	DTC	
3	C1729: VHCL SPEED SIG ERR C1735: IGNITION SIGNAL	1
	 C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL 	
	C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR	ı
4	 C1715: [CHECKSUM ERR] RL C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL 	
	C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RL	
	 C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL 	(

DTC Index

NOTE:

Details of time display

CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.

1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
 remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
 OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Low tire pressure warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_
U1000: CAN COMM CIRCUIT	_	_	BCS-27
B2190: NATS ANTTENA AMP	_	_	<u>SEC-18</u>
B2191: DIFFERENCE OF KEY	_	_	<u>SEC-21</u>
B2192: ID DISCORD BCM-ECM	_	_	SEC-22
B2193: CHAIN OF BCM-ECM	_	_	<u>SEC-24</u>
C1708: [NO DATA] FL	_	X	<u>WT-15</u>
C1709: [NO DATA] FR	_	Х	<u>WT-15</u>
C1710: [NO DATA] RR	_	X	<u>WT-15</u>
C1711: [NO DATA] RL	_	X	<u>WT-15</u>
C1712: [CHECKSUM ERR] FL	_	X	<u>WT-17</u>
C1713: [CHECKSUM ERR] FR	_	Х	<u>WT-17</u>
C1714: [CHECKSUM ERR] RR	_	X	<u>WT-17</u>
C1715: [CHECKSUM ERR] RL	_	Х	<u>WT-17</u>

Revision: August 2014 INL-35 2015 Frontier NAM

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< ECU DIAGNOSIS INFORMATION >

[WITH POWER DOOR LOCKS]

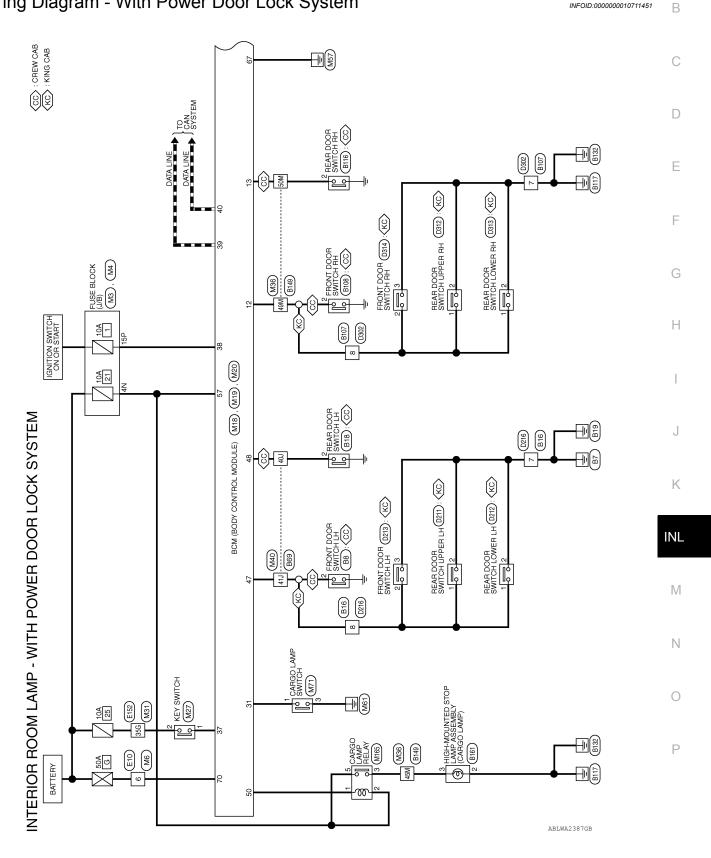
CONSULT display	Fail-safe	Low tire pressure warning lamp ON	Reference page
C1716: [PRESSDATA ERR] FL	_	Х	<u>WT-19</u>
C1717: [PRESSDATA ERR] FR	_	Х	<u>WT-19</u>
C1718: [PRESSDATA ERR] RR	_	Х	<u>WT-19</u>
C1719: [PRESSDATA ERR] RL	_	X	<u>WT-19</u>
C1720: [CODE ERR] FL	_	X	<u>WT-17</u>
C1721: [CODE ERR] FR	_	Х	<u>WT-17</u>
C1722: [CODE ERR] RR	_	Х	<u>WT-17</u>
C1723: [CODE ERR] RL	_	X	<u>WT-17</u>
C1724: [BATT VOLT LOW] FL	_	X	<u>WT-17</u>
C1725: [BATT VOLT LOW] FR	_	Х	<u>WT-17</u>
C1726: [BATT VOLT LOW] RR	_	X	<u>WT-17</u>
C1727: [BATT VOLT LOW] RL	_	X	<u>WT-17</u>
C1729: VHCL SPEED SIG ERR	_	X	<u>WT-21</u>
C1735: IGNITION SIGNAL	_	X	<u>WT-22</u>

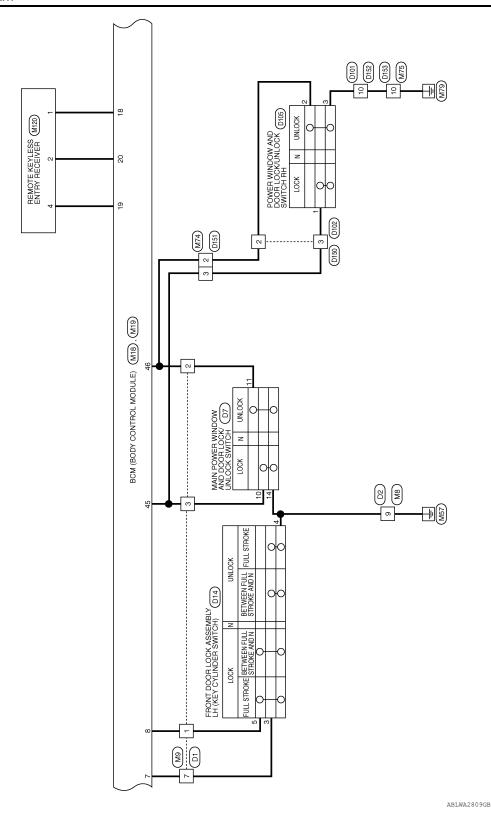
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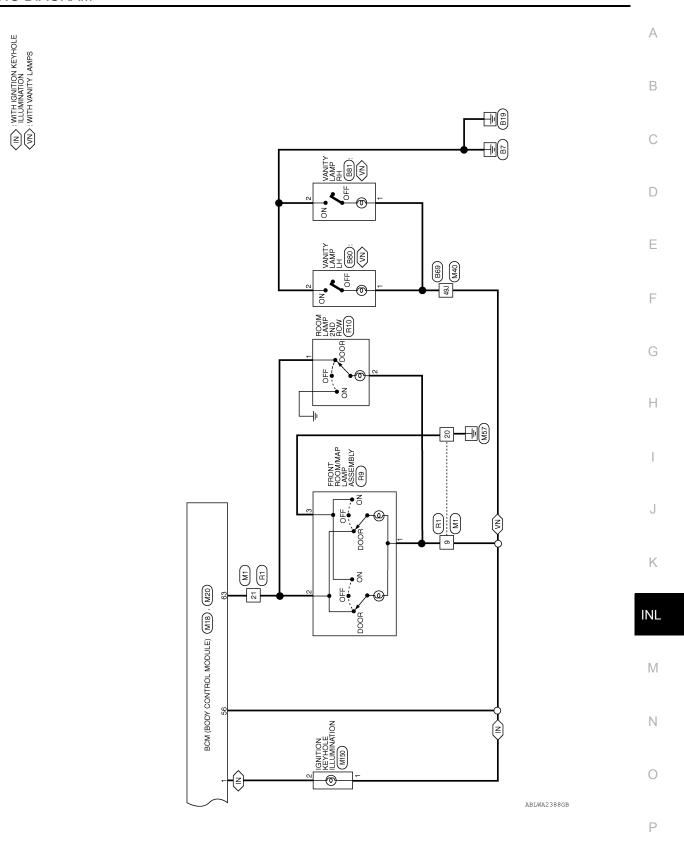
WIRING DIAGRAM

INTERIOR ROOM LAMP

Wiring Diagram - With Power Door Lock System







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INTERIOR ROOM LAMP CONNECTORS - WITH POWER DOOR LOCK SYSTEM

M1	WIRE TO WIRE	WHITE
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE

Connector Name FUSE BLOCK (J/B)

M3

Connector No.

Connector Color WHITE

tor Name WIRE TO WIRE	Je l		-1=	15	0	∣⋝	1 22	1			
tor Color WHITE	ō	≥	=								
L			-								
-	2	က	4	2	9	7	8	6	10	9 10 11 12	12
155	13 14 15 16 17 18 19 20 21 22 23 24	15	16	17	200	19	8	21	22	23	24

		7				
2	24					
1	23		=			
9 10 11 12	22		Signal Name			
6	21		<u> </u>	-1	1	1
œ	20		l g			
^	19		S			
9	18					
Ŋ	17					
4	16		5			
2	15		5 e	Яγ	В	BB
2	13 14 15 16 17 18 19 20 21 22 23 24		Color of Wire	α.		В
-	13		٠.			
Ų.	6	1	Terminal No.	6	20	21

Signal Name

Color of Wire

Terminal No.

R/Y

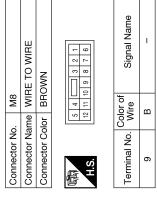
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Connector Name FUSE BLOCK (J/B)	7P 6P 5P 4P 7P 1P	Signal Name	ı
Connector Name FUS	7P 6P 5P 4P [Color of Wire	W/R
Connector Name FUSE E	原 H.S.	Terminal No.	15P

7N 6N 5N 4N

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		_									
	ı			WIRE TO WIRE	WHITE		5 4 3 2 1 1 10 9 8 8 7 7		Signal Name	ı	
D = >	W/R		. M9		$\overline{}$	L	6 2	Jo Joseph	Wire	SB	
	15P		Connector No.	Connector Name	Connector Color		H.S.		Terminal No.	1	
											١



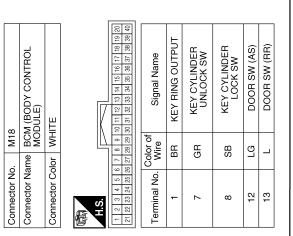
	WIRE TO WIRE	<u> </u>	6 3 2 1	Signal Name	ı
. M6		lor WHITE		Color of Wire	×
Connector No.	Connector Name	Connector Color	原 H.S.	Terminal No.	9

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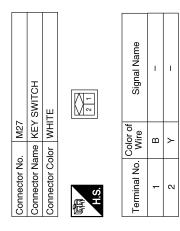
Revision: August 2014

Signal Name	CDL LOCK SW	CDL UNLOCK SW	DOOR SW (DR)	DOOR SW (RL)	CARGO LAMP OUTPUT
Color of Wire	>	LG	GR	Ь	۵
Terminal No.	45	46	47	48	20

Signal Name	KEYLESS & AUTO LIGHT SENSOR GND	KEYLESS TUNER POWER SUPPLY OUTPUT	KEYLESS TUNER SIGNAL	CARGO LAMP SW	KEY SW	IGN SW	CAN-H	CAN-L
Color of Wire	BR	>	9	GR	В	W/R	٦	Ь
Terminal No.	18	19	20	31	37	38	39	40



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Connector No	M20	
nector No.		
Connector Name		BCM (BODY CONTROL MODULE)
Connector Color		BLACK
S. E.S.	56 57 58	05 57 58 59 60 61 62 63 64 70 68 69 70 70 69 69 70 70 70 70 70 70 70 7
Terminal No.	Color of Wire	Signal Name
56	P/A	BATTERY SAVER OUTPUT
57	R∕	BAT (FUSE)
63	BR	ROOM LAMP OUTPUT
29	В	GND (POWER)
02	*	BAT (F/L)

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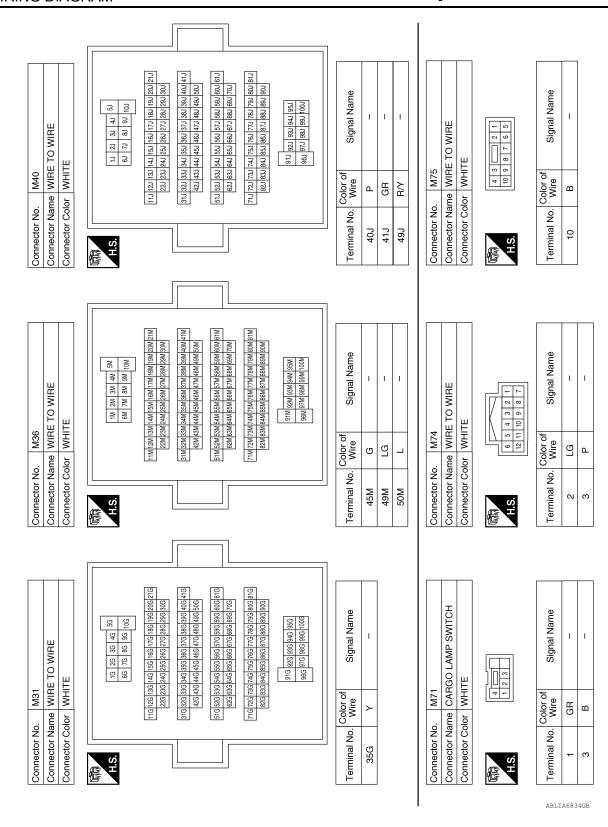
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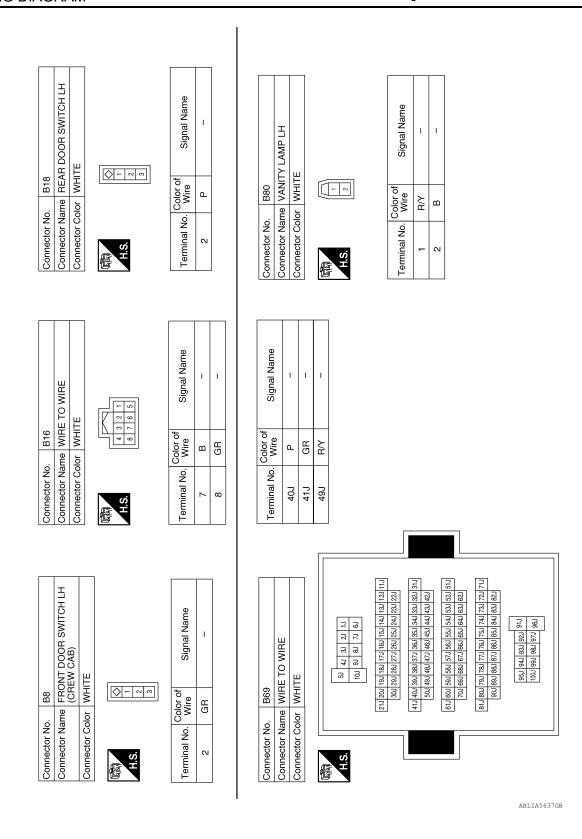
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CARGO LAMP RELAY BLUE	Signal Name	Signal Name
	Color of Wire BYY BYY	Color of Wire
Connector Name	7 Terminal No. 2 3 3 5 5 5	35G 35G
IGNITION KEYHOLE ILLUMINATION WHITE	Signal Name	E152 WIRE TO WIRE 100 90 90 70 60 100 90 90 70 70 70 70 70
	Color of Wire BRY BR	102 103 103 104 105
Connector Name Connector Color	Terminal No.	Connector No. E152 Connector Name WIRE T Connector Color WHITE Connector Color WHITE 106 106 106 106 106 106 106 106 106 10
REMOTE KEYLESS ENTRY RECEIVER WHITE		Signal Name
ame REMOT	Color of Wire BR C	Color of Wire Wire W
Connector Name Connector Color	Terminal No.	Connector No. E10 Connector Name WIRE TO WIRE Connector Color WHITE H.S. E10 Terminal No. Wire 6 W Signa



	7			
Connector Name FRONT DOOR SWITCH RH (CREW CAB)		Signal Name	Signal Name	
lame FRONT (CREW Children WHITE		Color of Wire LG	Color of Wire LG LG LG	
Connector No. Connector Name	H.S.	Terminal No.	Terminal No. 45M 49M 50M	
		Signal Name - -	B149	
Connector Name WIRE TO WIRE Connector Color WHITE	7 6 5 1		B149	
Connector Name WIRE T	4 8	o. Wire B	No. B149 Name WIRE T Color WHITE 20M/29M/28 A1M40M/39M/38 61M60M/39M/38 61M60M/39M/38 61M60M/39M/38 61M60M/39M/38 61M60M/39M/38 61M60M/39M/39 61M60M/39M/39M/39 61M60M/39M/39 61M60M/39M/39 61M60M/39M/39 61M60M/39M/3	
Connector Nar Connector Col	H.S.	Terminal No.	Connector No. Connector Name Connector Color H.S. Eth Eth	
Y LAMP RH		Signal Name	Connector No. B116 Connector Name REAR DOOR SWITCH RH Connector Color WHITE Terminal No. Wire Signal Name 2 L	
ame VANITY	- 0	Color of Wire BY	B116 Slor WHITE Wire L	
Connector No. Connector Color WHITE	南南 H.S.	Terminal No.	Connector No. Connector Color Connector Color A.S. Terminal No. Co	
	,		ABLIA5638GB	

ctor No.). B161		Connector No.	E		Conne	Connector No.	R9		
ctor Name		HIGH-MOUNTED STOP LAMP ASSEMBLY	Connector Name WIRE TO WIRE	ime WIRE T	TO WIRE	Conne	Connector Name		FRONT ROOM/MAP LAMP ASSEMBLY	
ctor Color	olor WHITE			_	Ш	Conne	Connector Color	-		
				12 11 10 9	8 7 6 5 4 3 2 1	E				
	- 1-	· ©	Ġ.	24 23 22 21	20 19 18 17 16 15 14 13	H.S.		2		
ial No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Termi	Terminal No.	Color of Wire	Signal Name	
	В	ı	6	Ρ/Α	I		-	₽	1	
	5	ı	20	В	ı		2	>	1	
		1	21	BR	ı		က	В	I	
ctor No.). R10		Connector No.	. 01		Conne	Connector No.	D2		
ctor Name		ROOM LAMP 2ND ROW	Connector Name WIRE TO WIRE	ıme WIRE	TO WIRE	Conne	ector Nan	Connector Name WIRE TO WIRE	TO WIRE	
ctor Color	olor WHITE		Connector Color	olor WHITE	ш	Conne	Connector Color	or BROWN	Z	
	0 - 2		H.S.	7 7 8 8 2	9 3 4 5 6 9 10 112	原 用.S.		6 7 8 9	9 10 11 12	
nal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Termi	Terminal No.	Color of Wire	Signal Name	
	BR	ı	-	SB	ı		6	В	ı	
	R/Υ	ı	2	W	ı					
			3	LG	-					
			7	B/W	-					

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Connector No.	o. D7		Connector No.	D14		Connector No.). D101		
Connector Name		MAIN POWER WINDOW AND DOOR LOCK/UNLOCK	Connector Name FRONT DOOR LOCK ASSEMBLY LH	ne FRONT D ASSEMBL	OOR LOCK .Y LH	Connector Name WIRE TO WIRE	tme WIRE	TO WIRE	
Connector Color	SWITCH olor WHITE		Connector Color GRAY	or GRAY					7
H.S.	8 9 10 11 12	3 4 5 6 7	高 H.S.	8 8 8 8	2 1	国有 H.S.	5 6 2 7	7 8 9 10	
	90			37 17			30		
Terminal No.	Wire	Signal Name	Terminal No.	Wire	Signal Name	Terminal No.	Wire	Signal Name	
10	P	ı	3	R/W	-	10	В	_	
=	8	ı	4	В	1				
14	В	ı	5	SB	1				
Connector No.	o. D102		Connector No.	D105		Connector No.	o. D150		
Connector Name	Connector Name WIRE TO WIRE Connector Color WHITE	O WIRE	Connector Name	POWER V BOOR LO SWITCH F	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH	Connector Name WIRE TO WIRE Connector Color WHITE	ame WIRE	TO WIRE	
•			Connector Color WHITE	yr WHITE					
H.S.	7 1 7 8 9 9	4 5 6 10 11 12		1 2 1	8 8 9	H.S.	6 5 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	

RE TO WIRE	HTE	5 4 1 1 1 1 0 9 8 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Signal Name	- (WITH KING CAB)	- (WITH CREW CAB)	- (WITH KING CAB)	- (WITH CREW CAB)
ıme WIF	lor WH	8 27	Color of Wire	LG	Ъ	Ь	>
Connector Name WIRE TO WIRE	Connector Color WHITE	(中)	Terminal No.	2	2	3	8

WER WINDOW AND DR LOCK/UNLOCK TCH RH	TE TE	7 8 9 10 11 12	Signal Name	-	-	I
me DO(- 0	Color of Wire	ГG	Μ	В
Connector Na	Connector Co	H.S.	Terminal No.	-	2	3
	Connector Name DOOR LOCK/UNLOCK SWITCH RH	Connector Name DOOR LOCK/UNLOCK SWITCH RH Connector Color WHITE	Connector Name DOOR LOCK/UNLOCK SWITCH RH Connector Color WHITE	Connector Name POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH Connector Color WHITE L.S. Terminal No. Color of Signal Name	Connector Name POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH Connector Color WHITE H.S. Terminal No. Color of Signal Name 1 LG	Connector Name BOOK LOCK/UNLOCK SWITCH RH Connector Color WHITE Terminal No. Color of Signal Name 1 LG

Signal Name	1	ı	
Color of Wire	Μ	LG	
Terminal No. Wire	2	3	

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Connector No. D151	Connector No. D152	Connector No. D153
Connector Name WIRE TO WIRE	Connector Name WIRE TO WIRE	Connector Name WIRE TO WIRE
Connector Color WHITE	Connector Color WHITE	Connector Color WHITE
H.S. 1 2 3 4 5 6 7 8 9 10 11 12	H.S. (10 9 8 7 6 5	H.S.
Color of Wire Signal Name	Terminal No. Color of Signal Name	Terminal No. Color of Signal Name
Connector No. D211	Connector No. D212	Connector No. D213
Connector Name REAR DOOR SWITCH UPPER LH	Connector Name REAR DOOR SWITCH LOWER LH	Connector Name FRONT DOOR SWITCH LH (KING CAB)
Connector Color BLACK	Connector Color BLACK	Connector Color WHITE
H.S.	H.S.	H.S.
Terminal No. Color of Wire Signal Name	Terminal No. Color of Signal Name	Terminal No. Wire Signal Name
		2 LG –

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o. D312	Connector Name REAR DOOR SWITCH	UPPER AH	olor BLACK		Color of Signal Name	-	٥
Connector No. D312	Connector Na		Connector Color BLACK	赋 H.S.	Terminal No. Wire	-	
20	RE TO WIRE	HTE		48	Signal Name	ı	
Connector No. D302	Connector Name WIRE TO WIRE	Connector Color WHITE		H.S.	Terminal No. Wire	7 B	-
					ial Name	1	
Connector No. D216	Connector Name WIRE TO WIRE	Connector Color WHITE		1 2 3 4 8 F 7 8	Color of Sign	В	-
Connector ♪	Connector	Connector (原. R.S.	Terminal No. Wire	7	,

Connector No. D313	D313	Connector No. D314	D314
Connector Name	Connector Name REAR DOOR SWITCH LOWER RH	Connector Name	Connector Name FRONT DOOR SWITCH RH (KING CAB)
Connector Color BLACK	BLACK	Connector Color WHITE	WHITE
₩.S.	[2]	(中)	
Terminal No	or of Signal Name	Terminal No Witz	or of Signal Name

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

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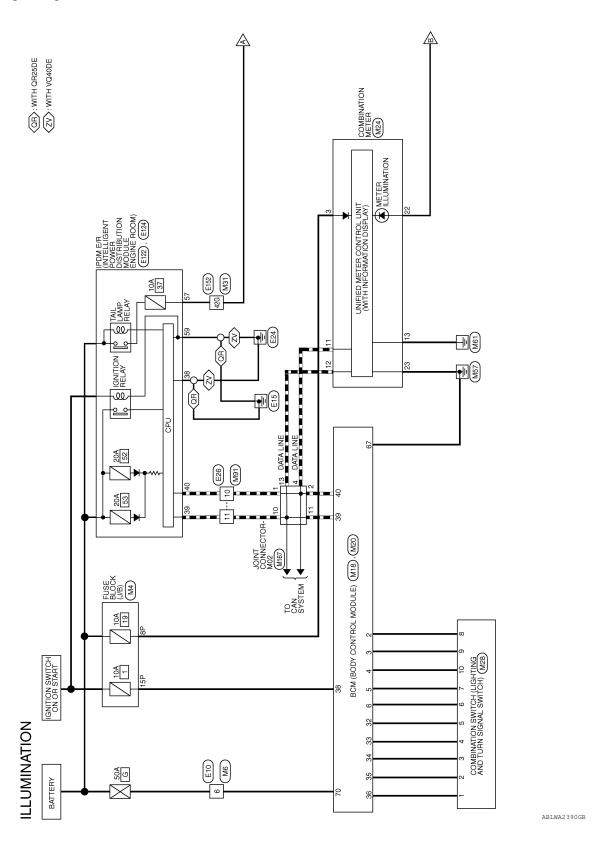
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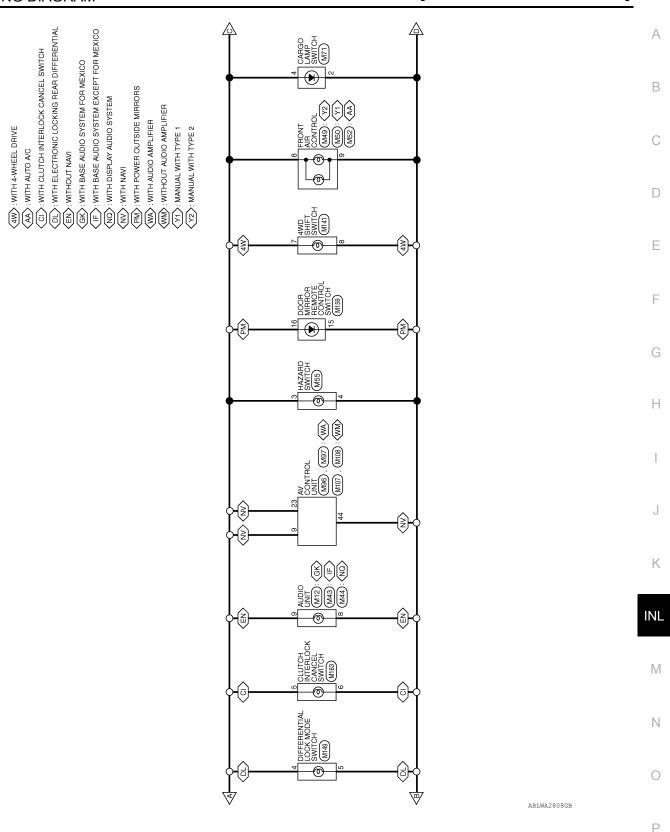
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ILLUMINATION

Wiring Diagram





(AS): WITH AT

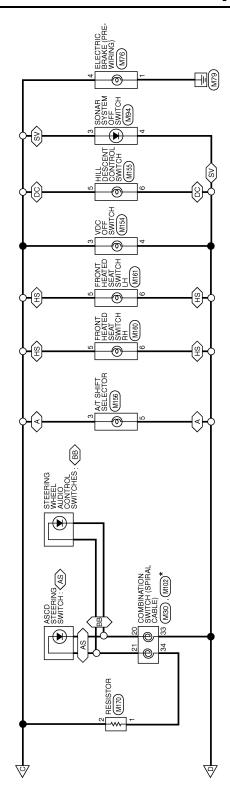
(AS): WITH ASCD

(BB): WITH BLUETOOTH®

(DC): WITH HILL DESCENT CONTROL

(HS): WITH HEATED SEATS

(SV): WITH SONAR SYSTEM



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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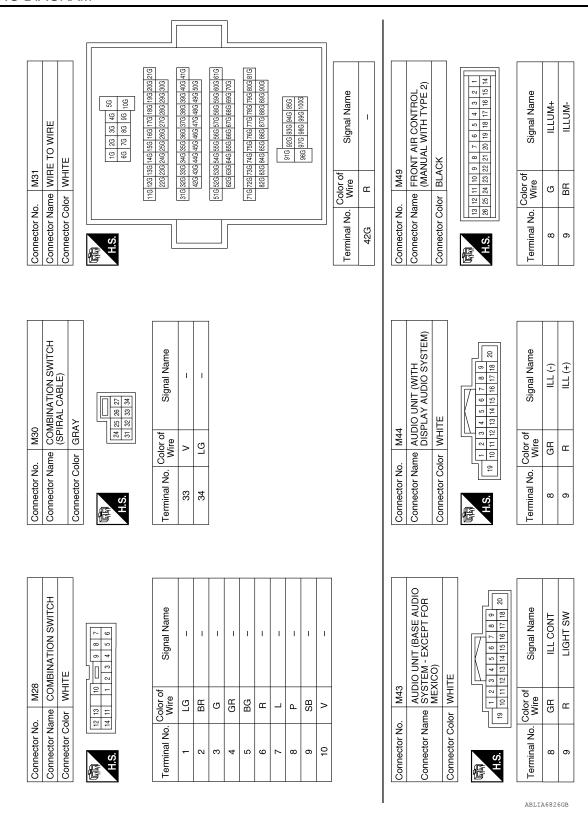
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	Connector Name AUDIO UNIT (BASE AUDIO SYSTEM - FOR MEXICO) Connector Color WHITE	⊣ I II ∃II	Terminal No. Color of Wire Signal Name 8 GR ILL CONT 9 R LIGHT SW	Connector No. M24 Connector Name COMBINATION METER Connector Color WHITE		H.S.	20 39 38 37 36 35 34 33 22 31 30 29 28 27 26 25 24 23 22 21	Terminal No. Color of Signal Name	3 R/Y BATTERY	11 P CAN-L	12 L CAN-H	13 GR GROUND	22 BR ILLUMINATION CONTROL	23 B POWER GND						
	Connector No. M6 Connector Name WIRE TO WIRE Connector Color WHITE	H.S.	Terminal No. Color of Signal Name 6 W -	Connector No. M20 Connector Name BCM (BODY CONTROL MODULE)	Connector Color BLACK	[新] [66] 57] 58] 59] 60] 61] 62] 63] 63] 63] 63] 63] 63] 63] 63] 63] 63		Terminal No. Wire Signal Name	67 B GND (POWER)	70 W BAT (F/L)										
ILLUMINATION CONNECTORS	Connector No. M4 Connector Name FUSE BLOCK (J/B) Connector Color WHITE	77 66 56 47 17 17 18 17 18 17 18 18	Terminal No. Color of Wire Signal Name 8P R/Y - 15P W/R -	Connector No. M18 Connector Name BCM (BODY CONTROL MODULE)	Connector Color WHITE	是 H.S.	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 28 26 27 28 29 30 31 32 34 35 36 35 39 38 39 39 40	Terminal No. Color of Signal Name	2 P INPUT 5	3 SB INPUT 4	V INPUT	LNPUI	32 BG OUTPUT 5	33 GR OUTPUT 4	34 G OUTPUT 3	35 BR OUTPUT 2	36 LG OUTPUT 1	38 W/R IGN SW	39 L CAN-H	40 P CAN-L

Revision: August 2014 INL-53 2015 Frontier NAM



		7							1
	RD SWITCH	1		1 2 4		Signal Name	1	1	
M55	ne HAZA		٦	8		Color of Wire	œ	BR	
Connector No.	Connector Name HAZARD SWITCH			H.S.		Terminal No. Wire	က	4	
			1 -					ı	1
	Connector Name FRONT AIR CONTROL (WITH AUTO A/C)	*		9 8 7 6 5 4 3 2 1 22 21 20 19 18 17 16 15 14		Signal Name	ILLUM+	ILLUM-	
M52	ne FROM (WITH	or BLAC		12 11 10 25 24 23		Color of Wire	ŋ	BR	
Connector No.	Connector Na	Connector Color BLACK		13 13	_	Terminal No. Wire	80	6	
			1						
	ONT AIR CONTROL NUAL WITH TYPE 1)	CK		10 9 8 7 6 5 4 3 2 1 23 22 21 20 19 18 17 16 15 14		Signal Name	ILLUM+	ILLUM-	
. M50	me FRO (MAI	lor BLA		= %		Color of Wire	G	BR	
Connector No.	Connector Name FRONT AIR CONT	Connector Color BLACK		13 12 H S 26 25		Terminal No. Wire	8	6	

Connector No.). M91	
Connector Name	me WIR	WIRE TO WIRE
Connector Color WHITE	olor WHI	TE
原 H.S.	7 6 5 4 16 15 14 13	13 12 11 10 9 8
Terminal No. Wire	Color of Wire	Signal Name
10	Ь	ı
-	-	1

Connector No.). M76	"
Connector Name		ELECTRIC BRAKE (PRE- WIRING)
Connector Color WHITE	olor WH	ІТЕ
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Terminal No.	Color of Wire	Signal Name
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Connector Na	ıme CAF	Connector Name CARGO LAMP SWITCH
Connector Color WHITE	lor WH	ΠE
原引 H.S.		
Terminal No.	Color of Wire	Signal Name
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Revision: August 2014 INL-55 2015 Frontier NAM

Connector No. M71

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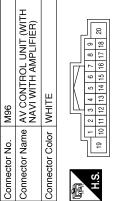
Connector No. M97	Connector Name AV CONTROL UNIT (WITH NAVI WITH AMPLIFIER)	Connector Color WHITE
	JNIT (WITH PLIFIER)	

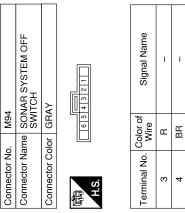
<u> </u>	26 25 24 23 22 21	44 43 42 41 40 39 38 37 36 35 34 33	Signal Name	MR OUTPUT	ILL CONT
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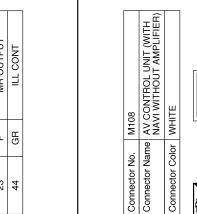
Signal Name LIGHT SW

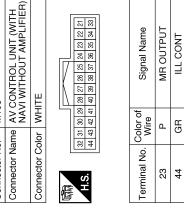
Color of Wire Œ

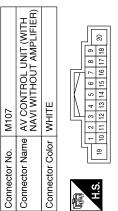
Terminal No. 6





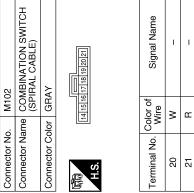






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Connector Color	olor WHITE	ІТЕ
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Terminal No. Color of Wire	Color of Wire	Signal Name
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nnector No.	M102
nnector Name	nnector Name COMBINATION SWITCH (SPIRAL CABLE)
nnector Color GRAY	GRAY
	14 [15 [16 17 18 19 20 21]



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Connector Color GRAY H.S. Terminal No. Color of Wire	Connector Color GRAY Connector Color GRAY H.S. Terminal No. Color of Signal Name	Connector Name DIFFER SWITCH Connector Color WHITE ALS.	ame DIFF SWIT Solor WHI A Color of Wire	Connector Name SWITCH Connector Color WHITE ALS Terminal No. Color of Wire Signal Name	Connector Name VDC C Connector Color GRAY H.S. Terminal No. Color of Wire	ame VDC Olor GRA	Connector Name VDC OFF SWITCH Connector Color GRAY H.S. Terminal No. Color of Signal Name
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	1	5	BR	1	4	BB	1

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6	Connector Name DOOR MIRROR REMOTE CONTROL SWITCH	II.	1 12 13 14 15 16	Signal Name	ı	1
M15	ne DOC	or WHI	8 10 2 3	Color of Wire	BB	æ
Connector No. M159	Connector Na	Connector Color WHITE	原.S.H	Terminal No. Wire	15	16
		7			I	
9	Connector Name A/T SHIFT SELECTOR	1	2 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Signal Name	ı	1
M15	ne A/T	5	<u>- 2</u>	Color of Wire	œ	BB
Connector No. M156	Connector Name A/T SHI		S.H.	Terminal No. Wire	က	2
	HILL DESCENT CONTROL SWITCH	E		Signal Name	ı	ı
M155	HILL DE	WHITE	\Q	olor of Vire	<u>~</u>	BR

HILL DESCENT CON SWITCH	ITE	0100	Signal Nar	-	I
me HIL SW	lor WHITE	ß	Color of Wire	ш	BB
Connector Name	Connector Color	明.S.	Terminal No.	2	9

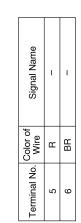
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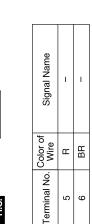
INL-57 2015 Frontier NAM Revision: August 2014

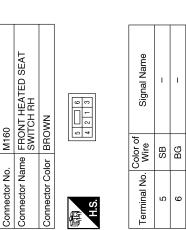
Connector No.

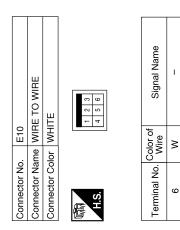
Connector No. M163	CANCEL SWITCH CANCEL SWITCH	Connector Color WHITE
Connector	Connector	Connector
	F	
onnector No. M161	Connector Name FRONT HEATED SEAT SWITCH LH	Connector Color WHITE

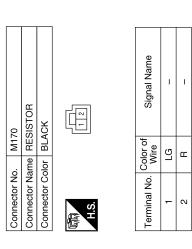
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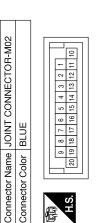






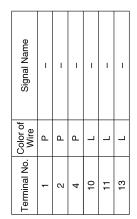






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Connector No.



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Connector No. E124 Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color BLACK SS SS ST SS SS ST SS SS SS SS SS SS SS S	Terminal No. Color of Signal Name 57 GR TAIL LAMP 59 B GND (POWER)	
Connector No. E122 Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color WHITE ### A	Terminal No. Color of Wire Signal Name 38 B GND (SIGNAL) 39 L CAN-H 40 P CAN-L	Terminal No. Wire Signal Name 42G R –
Connector No. E26	Terminal No. Color of Signal Name 10 P – 11 L – 11 L	Connector No. E152 Connector Name WIRE TO WIRE Connector Color WHITE Connector Color WHITE Connector Color WHITE Connector Color WHITE S6 46 36 26 16 Connector Color Connector Connector Color Connector Color Connector Connector Color Connector Connector Color Connector Co

INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITH POWER DOOR LOCKS]

SYMPTOM DIAGNOSIS

INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table INFOID:00000000107111453

CAUTION:

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

Symptom	Possible cause	Inspection item
All of the following lamps do not turn ON Front room/map lamp assembly Room lamp 2nd row Vanity mirror lamps Ignition keyhole illumination	Harness between BCM and each interior room lamp Harness between BCM and each door switch BCM	Battery saver output/power supply circuit Refer to INL-16.
Some or all of the following interior room lamps do not turn ON/OFF • Front room/map lamp assembly • Room lamp 2nd row	Harness between BCM and each interior room lamp BCM	Interior room lamp control circuit Refer to INL-18.
Cargo lamp does not turn ON/OFF	Harness between fuse block (J/B) and cargo lamp relay Harness between cargo lamp relay and cargo lamp Harness between BCM and cargo lamp relay BCM	Cargo lamp control circuit Refer to <u>INL-20</u> .
Ignition keyhole illumination does not turn ON/ OFF	Harness between BCM and ignition keyhole illumination BCM	Ignition keyhole illumination circuit Refer to INL-24
Interior room lamp timer does not activate. (It turns ON/ OFF when the door opens/closes.)	_	Check the interior room lamp setting. Refer to INL-12, "INT LAMP: CON- SULT Function (BCM - INT LAMP)".
Interior room lamp battery saver does not activate.	_	Check the interior room lamp battery saver setting. Refer to BCS-23. "BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)".

PRECAUTION

PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the 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
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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PREPARATION

< PREPARATION >

[WITH POWER DOOR LOCKS]

PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000010711456

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

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INFOID:0000000010711457

REMOVAL AND INSTALLATION

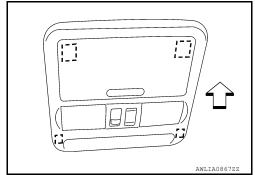
INTERIOR ROOM LAMP

Removal and Installation

FRONT ROOM/MAP LAMP ASSEMBLY

Removal

- 1. Using a suitable tool, release the metal clips and drop the front room/map lamp assembly away from the headlining.
 - ⟨□: Front
 - : Metal clip
- 2. Disconnect the harness connectors from the front room/map lamp assembly and remove.



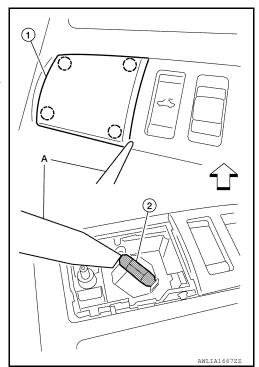
Installation

Installation is in the reverse order of removal.

Bulb or Lens Replacement

- 1. Using a suitable tool (A), remove the front room/map lamp RH and/or LH lenses (1) as necessary.
 - ⟨
 ⇒: Front
 - (): Pawl
- 2. Release one side of the bulb (2) from the tab using a suitable tool, then pull straight downward to remove.

Front room/ : 12V - 8W map lamp assembly bulb



- 3. Install the new bulb into the socket tabs.
- 4. Install the front room/map lamp lens(es).

VANITY LAMP

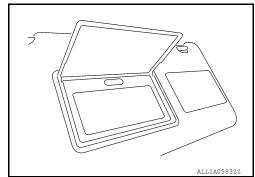
Removal

INTERIOR ROOM LAMP

< REMOVAL AND INSTALLATION >

[WITH POWER DOOR LOCKS]

The vanity lamp is replaced as part of the sun visor assembly. Refer to INT-25, "Removal and Installation".



Installation

Installation is in the reverse order of removal.

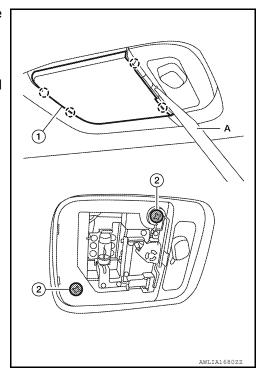
Bulb Replacement

The vanity mirror lamp bulb is replaced as part of the sun visor assembly. Refer to INT-25, "Removal and Installation".

ROOM LAMP 2ND ROW

Removal

- 1. Using a suitable tool (A), release the pawls and remove the room lamp lens (1).
 - (): Pawl
- 2. Remove room lamp screws (2).
- 3. Disconnect the harness connector from the room lamp and remove.



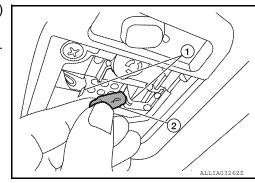
Installation

Installation is in the reverse order of removal.

Bulb or Lens Replacement

- 1. Using a suitable tool, release the pawls and remove the room lamp lens.
- 2. Release the room lamp bulb retainers (1), then pull bulb (2) straight out to remove.
- 3. Install the bulb (2) securely into the room lamp bulb retainers (1).

Room lamp bulb : 12V - 8W



INTERIOR ROOM LAMP

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- 4. Install the room lamp lens.

ILLUMINATION

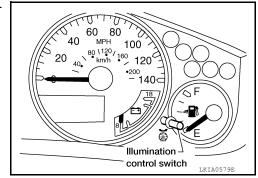
Removal and Installation

INFOID:0000000010711458

ILLUMINATION CONTROL SWITCH

Removal

The illumination control switch is replaced as a part of the combination meter. Refer to MWI-91, "Removal and Installation".



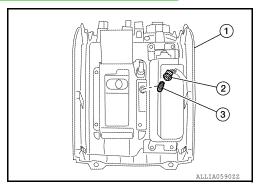
Installation

Installation is in the reverse order of removal.

SHIFT SELECTOR FINISHER LAMP

Removal

- Remove shift selector finisher from center console. Refer to <u>IP-25, "Removal and Installation"</u>.
- 2. Rotate shift selector finisher lamp socket (2) with bulb (3) counterclockwise, then pull away from finisher (1).



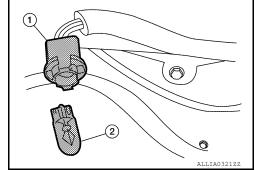
Installation

Installation is in the reverse order of removal.

Bulb Replacement

- Remove shift selector finisher from center console. Refer to IP-25, "Removal and Installation".
- 2. Remove shift selector finisher lamp socket (1), then pull bulb (2) straight out away from socket.
- 3. Install the bulb (2) into the shift selector finisher socket (1).

AT finisher lamp bulb : 12V - 3W



4. Install shift selector finisher in center console. Refer to IP-25, "Removal and Installation".

BULB SPECIFICATIONS

< SERVICE DATA AND SPECIFICATIONS (SDS)

[WITH POWER DOOR LOCKS]

SERVICE DATA AND SPECIFICATIONS (SDS)

BULB SPECIFICATIONS

Bulb Specifications

INFOID:0000000010711459		

Item	Wattage (W)*
Front room/map lamp	8
Vanity lamp	-
Room lamp 2nd row	8
Shift selector finisher lamp	3

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

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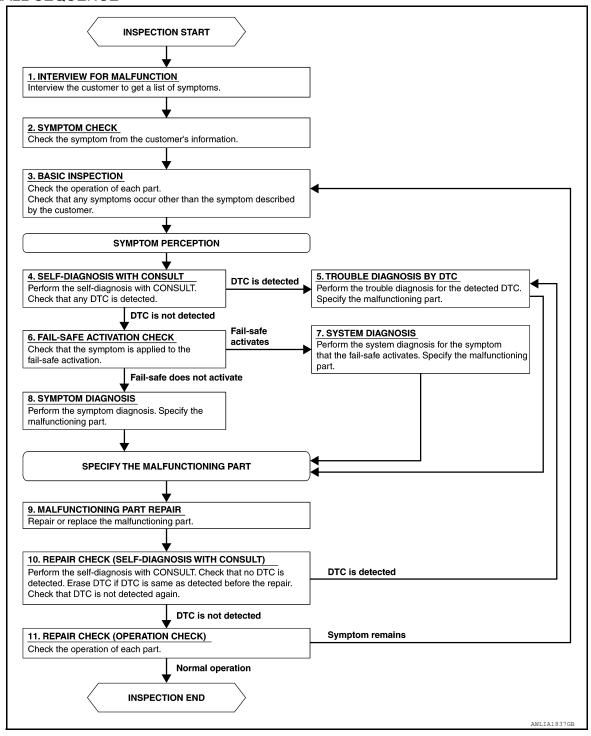
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >	[WITHOUT POWER DOOR LOCKS]
DETAILED FLOW	
1.INTERVIEW FOR MALFUNCTION	
Find out what the customer's concerns are.	
>> GO TO 2.	
2.SYMPTOM CHECK	
Verify the symptom from the customer's information.	
>> GO TO 3.	
3.BASIC INSPECTION	
Check the operation of each part. Check that any concerns of interview.	cur other than those mentioned in the customer
>> GO TO 4.	
4.SELF-DIAGNOSIS WITH CONSULT	
Perform the self-diagnosis with CONSULT. Check that any DT	C is detected.
Is any DTC detected? YES >> GO TO 5.	
NO >> GO TO 6.	
5. TROUBLE DIAGNOSIS BY DTC	
Perform the trouble diagnosis for the detected DTC. Specify the	ne malfunctioning part.
>> GO TO 9.	
6. FAIL-SAFE ACTIVATION CHECK	
Determine if the customer's concern is related to fail-safe acti	vation.
Does the fail-safe activate?	
YES >> GO TO 7.	
NO >> GO TO 8. 7. SYSTEM DIAGNOSIS	
	age activates Charify the malfy nationing part
Perform the system diagnosis for the system in which the fail-	safe activates. Specify the manufictioning part.
>> GO TO 9.	
8.SYMPTOM DIAGNOSIS	
Perform the symptom diagnosis. Specify the malfunctioning pa	art.
>> GO TO 9.	
9. MALFUNCTION PART REPAIR	
Repair or replace the malfunctioning part.	
>> GO TO 10.	
10. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)	
Perform the self-diagnosis with CONSULT. Verify that no DTC the repair. Verify that DTC is not detected again.	s are detected. Erase all DTCs detected prior to
Is any DTC detected?	

YES >> GO TO 5.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[WITHOUT POWER DOOR LOCKS]

NO >> GO TO 11.

11. REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

Does it operate normally?

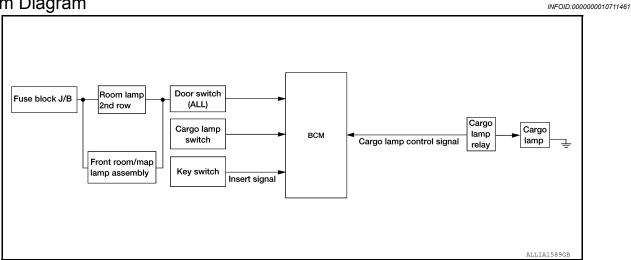
YES >> Inspection End.

NO >> GO TO 3.

SYSTEM DESCRIPTION

INTERIOR ROOM LAMP

System Diagram



System Description

INFOID:0000000010711462

OUTLINE

• Room lamp 2nd row and front room/map lamp are powered by fuse block (J/B) fuse number 21 (10A). When the lamp is set to the DOOR position, ground is provided through the door switches.

Cargo lamp is controlled by the cargo lamp control function of the BCM.

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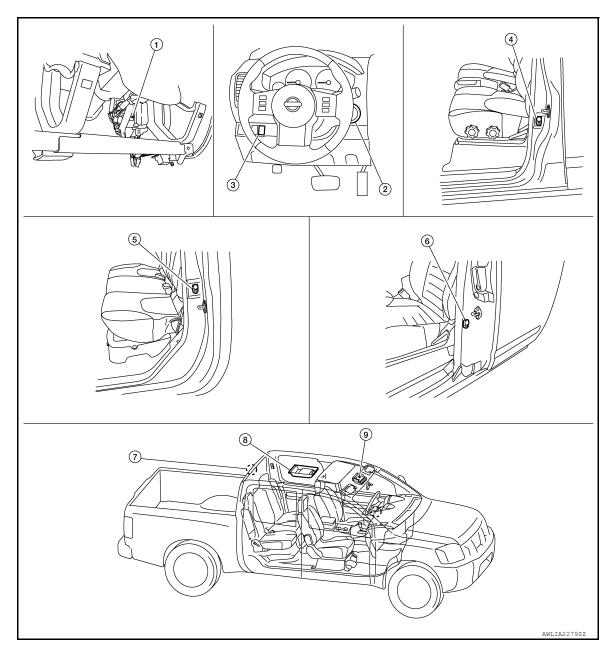
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Component Parts Location

INFOID:0000000010711463



- 1. BCM M18, M19, M20 (view with lower 2. instrument panel LH removed)
- 4. Front door switch LH B8 (crew cab)
 Front door switch RH B108 (crew cab)
- 7. Cargo lamp B161

- Key switch M27
- Rear door switch LH B18 (crew cab)
 Rear door switch RH B116 (crew cab)
- 3. Room lamp 2nd row R10
- 3. Cargo lamp switch M71
- Front door switch LH D213 (king cab)
 Front door switch RH D314 (king cab)
- Front room/map lamp assembly R9 (if equipped)

Component Description

INFOID:0000000010711464

Part name	Description
BCM	Provides ground for the cargo lamp relay.
Key switch	Provides key in ignition status to the BCM.

INTERIOR ROOM LAMP

< SYSTEM DESCRIPTION >

[WITHOUT POWER DOOR LOCKS]

Door switches	Provides door OPEN/CLOSED status to the BCM. Provides ground for the room lamp 2nd row.
Cargo lamp switch	Provides cargo lamp ON/OFF request to the BCM.

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ILLUMINATION CONTROL SYSTEM

System Diagram

INFOID:0000000010711465 Combination switch Combination reading function IPDM E/R switch (Lighting CAN communication line BCM TAIL LAMP Illumination and turn signal Parking light RELAY switch) request signal To exterior lamps Combination meter CAN communication line Illumination control switch

System Description

INFOID:0000000010711466

The illumination lamps operation is dependent upon the position of the combination switch (lighting and turn signal switch). When the combination switch (lighting and turn signal switch) is placed in the 1ST or 2ND position (or if the auto light system is activated) the BCM (body control module) receives input requesting the parking lamps to illuminate. This input is communicated to the IPDM E/R (intelligent power distribution module engine room) via the CAN communication lines. The CPU (central processing unit) of the IPDM E/R controls the tail lamp relay coil. When energized, this relay directs power to the parking and illumination lamps, which then illuminate.

BATTERY SAVER CONTROL

When the combination switch (lighting and turn signal switch) is in the 1ST or 2ND position and the ignition switch is turned from ON or ACC to OFF, the battery saver control feature is activated. Under this condition, the illumination lamps remain illuminated for 10 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 lamps are 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 lamps have been turned off by the battery saver control, the illumination lamps illuminate again.

Component Parts Location

INFOID:0000000010711467

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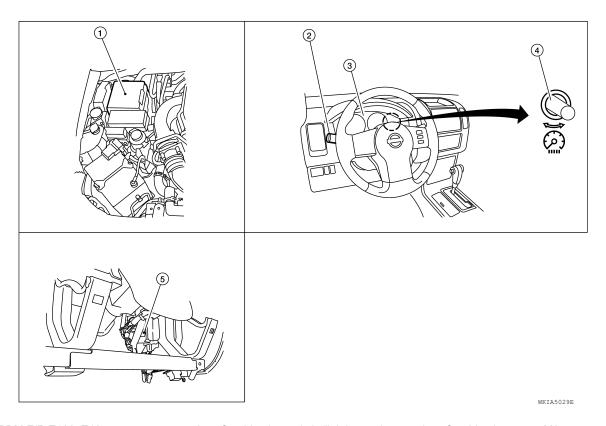
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- IPDM E/R E122, E124
- Illumination control switch (built into combination meter)
- Combination switch (lighting and turn 3. Combination meter M24 signal switch) M28
- BCM M18, M20 (view with lower instrument panel LH removed)

INFOID:0000000010711468

Component Description

Part name	Description
ВСМ	The BCM monitors the lighting switch position with the combination switch reading function. 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 network.
Combination meter (illumination control switch)	The illumination control switch is a part of the combination meter. The combination meter controls illumination intensity by varying ground to the illumination lamps based on the illumination control switch position.
Combination switch (lighting and turn signal switch)	The combination switch (lighting and turn signal switch) provides input to the BCM about the lighting switch position.

INL-75 Revision: August 2014 2015 Frontier NAM INL

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DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011343362

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

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

SYSTEM APPLICATION

BCM can perform the following functions.

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

INT LAMP

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT POWER DOOR LOCKS]

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:0000000011343364

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DATA MONITOR

Monitor Item [Unit]	Description
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.
KEY ON SW [On/Off]	Indicates condition of key switch.
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.
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.
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.
KEYLESS LOCK [On/Off]	Indicates condition of lock signal from keyfob.
KEYLESS UNLOCK [On/Off]	Indicates condition of unlock signal from keyfob.

ACTIVE TEST

Test Item	Description	
IGN ILLUM	This test is able to check ignition keyhole illumination operation [Off/On].	
INT LAMP	This test is able to check interior room lamp operation [Off/On].	

WORK SUPPORT

Support Item	Set	ting	Description	
SET I/L D-UNLCK INTCON	Off		Interior room lamp timer function OFF.	
SET I/E D-GINEON INTOON	On*		Interior room lamp timer function ON.	
	MODE7	0 sec.		
	MODE6	5 sec.		
	MODE5	4 sec.		11
ROOM LAMP ON TIME SET	MODE4	3 sec.	Sets the interior room lamp gradual brightening time.	
	MODE3	2 sec.		
	MODE2*	1 sec.		
	MODE1	0.5 sec.		
	MODE7	0 sec.		
	MODE6	5 sec.		
	MODE5	4 sec.		
ROOM LAMP OFF TIME SET	MODE4	3 sec.	Sets the interior room lamp gradual dimming time.	
	MODE3	2 sec.		
	MODE2*	1 sec.		
	MODE1	0.5 sec.		

^{*:} Initial setting

DTC/CIRCUIT DIAGNOSIS

INTERIOR ROOM LAMP

Diagnosis Procedure

INFOID:0000000010711471

Regarding Wiring Diagram information, refer to INL-95, "Wiring Diagram - Without Power Door Lock System".

CAUTION:

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

- Fuse
- Interior room lamp bulbs

1. CHECK INTERIOR ROOM LAMP POWER SUPPLY

Check voltage between interior room lamp connectors and ground.

Component	(+)	()	Voltago	
	Connector	Terminal	(-)	Voltage	
Room lamp 2nd row	R10	2	Ground	Battery voltage	
Front room/map lamp	R9	1	Giouna		

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the harness or connectors.

2. CHECK INTERIOR ROOM LAMP GROUND

- Turn ignition switch OFF.
- Disconnect BCM connectors M18, M19, room lamp 2nd row connector R10 and front room/map lamp connector R9.
- Check continuity between interior room lamp connectors and ground while opening/closing the door.

Component	(+)		(-)	Door states	Continuity	
Component	Connector	r Terminal (-)		Door states	Continuity	
Room lamp 2nd row	R10 1	Ground	Open	Yes		
Room lamp 2nd row			Closed	No		
Front room/man Jamn	R9	2	Ground	Open	Yes	
Front room/map lamp RS	149	2		Closed	No	

Is the inspection result normal?

YES >> Replace the interior room lamp. Refer to INL-63, "Removal and Installation".

NO >> GO TO 3.

3.check door switches

Check the door switches. Refer to INL-79, "Component Inspection (Door Switch)".

Is the inspection result normal?

YES >> • Crew cab models, repair the harness or connectors between the interior room lamp and the door switches.

• King cab models, GO TO 4.

NO >> Replace the door switch.

4. CHECK DOOR SWITCH GROUND (KING CAB)

INTERIOR ROOM LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT POWER DOOR LOCKS]

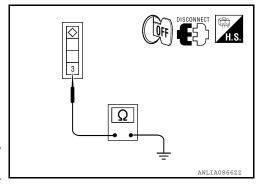
Check continuity between door switch connectors and ground.

Component	(+)	(-)	Continuity	
Component	Connector	Terminal	(-)	Continuity	
Front door switch LH	D213	3	Ground	Yes	
Front door switch RH	D314	3	Ground	res	

Is the inspection result normal?

YES >> Repair the harness or connectors between the interior room lamp and the door switches.

NO >> Repair the harness or connectors between the door switch and ground.



INFOID:0000000010711472

Component Inspection (Door Switch)

CREW CAB

1. CHECK DOOR SWITCHES

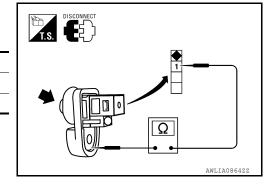
- 1. Disconnect door switch.
- 2. Check continuity between door switch terminal 1 and ground.

	Terminal	Condition	Continuity
Door switch	1 – Ground	Open	Yes
	i – Ground	Closed	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door switch.



KING CAB

1. CHECK DOOR SWITCHES

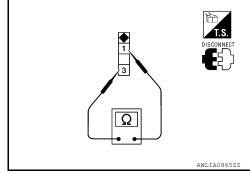
- 1. Disconnect door switch.
- 2. Check continuity between door switch terminals 1 and 3.

Item	Terminal	Condition	Continuity
Door switches	1 – 3	Open	Yes
Door switches	1-3	Closed	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door switch.



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< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT POWER DOOR LOCKS]

CARGO LAMP CONTROL CIRCUIT

Description INFOID:000000010711473

Controls the cargo lamp relay coil (ground side) to turn the cargo lamp ON and OFF.

Diagnosis Procedure

INFOID:0000000010711474

Regarding Wiring Diagram information, refer to INL-95, "Wiring Diagram - Without Power Door Lock System".

CAUTION:

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

- Fuse
- Cargo lamp bulb

1. CHECK CARGO LAMP OPERATION

Check the cargo lamp operation from the cargo lamp switch, the door switches, and a keyfob (if equipped). Is the cargo lamp operative from all of the above switches and the keyfob?

YES >> At this time, the cargo lamp operates normally.

NO

- >> Inoperative from all the above switches and the keyfob, GO TO 6.
 - Inoperative from cargo lamp switch only, GO TO 2.
 - Inoperative from door switches only, refer to <u>DLK-27, "KING CAB : Description"</u> (king cab), <u>DLK-29, "CREW CAB : Description"</u> (crew cab).
 - Inoperative from keyfob only, refer to <u>DLK-51, "Description"</u>.
 - Fixed ON, GO TO 2.

2.CHECK CARGO LAMP SWITCH

Check the cargo lamp switch. Refer to INL-82, "Component Inspection".

Is the inspection result normal?

YES >> • For inoperative from cargo lamp switch only, GO TO 3.

For fixed ON, GO TO 5.

NO >> Replace the cargo lamp switch.

3.CHECK CARGO LAMP SWITCH CIRCUIT OPEN

- 1. Disconnect BCM connector M18 and cargo lamp switch connector.
- Check continuity between BCM connector M18 terminal 31 and cargo lamp switch connector M71 terminal 1.

В	ВСМ		Cargo lamp switch	
Connector	Terminal	Connector Terminal		Continuity
M18	31	M71	1	Yes

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connectors.

4. CHECK CARGO LAMP SWITCH GROUND CIRCUIT

1. Check continuity between cargo lamp switch connector M71 terminal 3 and ground.

Connector	Terminal	-	Continuity
M71	3	Ground	Yes

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-51, "Removal and Installation".

NO >> Repair harness or connectors.

Revision: August 2014 IN L - 8 0 2015 Frontier NAM

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT POWER DOOR LOCKS]

5. CHECK CARGO LAMP SWITCH CIRCUIT SHORT

- 1. Disconnect BCM connector M18 and cargo lamp switch connector.
- 2. Check continuity between BCM connector M18 terminal 31 and ground.

Connector	Terminal	-	Continuity
M18	31	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connectors.

6. CHECK CARGO LAMP RELAY

Check the cargo lamp relay. Refer to INL-82, "Component Inspection".

Is the inspection result normal?

YES >> • For fixed OFF, GO TO 7.

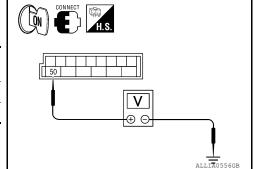
For fixed ON, GO TO 13.

NO >> Replace the cargo lamp relay.

7. CHECK CARGO LAMP RELAY CONTROL

While operating the cargo lamp switch, check voltage between BCM connector M19 terminal 50 and ground.

Connector	Terminal	-	Cargo lamp switch	Voltage
M19 50	50	50 Ground	ON	0V
	Giouria	OFF	Battery voltage	



Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 11.

8. CHECK CARGO LAMP VOLTAGE

- Disconnect the cargo lamp connector.
- 2. While operating the cargo lamp switch, check voltage between cargo lamp connector B161 terminal 3 and ground.

Connector	Terminal	-	Cargo lamp switch	Voltage
B161	3	Ground	ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 9.

NO >> GO TO 10.

9. CHECK CARGO LAMP GROUND CIRCUIT

1. While operating the cargo lamp switch, check voltage between cargo lamp connector B161 terminal 3 and terminal 2.

Connector	Terminal (+)	Terminal (-)	Cargo lamp switch	Voltage
B161	3	2	ON	Battery voltage

Is the inspection result normal?

YES >> Replace cargo lamp.

NO >> Repair harness or connectors.

10.CHECK CARGO LAMP RELAY VOLTAGE PART 1

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< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT POWER DOOR LOCKS]

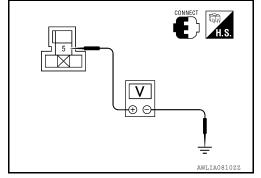
Check voltage between cargo lamp relay connector M165 terminal 5 and ground.

Cargo la	Cargo lamp relay		Voltage
Connector	Terminal	Ground	voltage
M165	5		Battery voltage

Is the inspection result normal?

YES >> Repair harness or connectors between cargo lamp relay and cargo lamp.

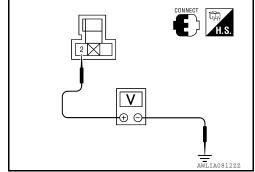
>> Repair harness or connector between splice and cargo NO lamp relay.



11. CHECK CARGO LAMP RELAY VOLTAGE PART 2

Check voltage between cargo lamp relay connector M165 terminal 2 and ground.

Cargo la	ımp relay		Voltage
Connector	Terminal	Ground	Voltage
M165	2		Battery voltage
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Is the inspection result normal?

YES >> GO TO 12.

NO >> Repair harness or connectors.

12. CHECK CARGO LAMP RELAY CONTROL CIRCUIT OPEN

- Disconnect BCM connector M19 and cargo lamp relay.
- Check continuity between BCM connector M19 terminal 50 and cargo lamp relay connector M165 terminal 1.

В	BCM Cargo lamp relay		Cargo lamp relay	
Connector	Terminal	Connector	Connector Terminal	
M19	50	M165	1	Yes

Is the inspection result normal?

>> Replace BCM. Refer to BCS-51, "Removal and Installation".

NO >> Repair harness or connectors.

13. CHECK CARGO LAMP RELAY CONTROL CIRCUIT SHORT

- Disconnect BCM connector M19 and cargo lamp relay.
- Check continuity between BCM connector M19 terminal 50 and ground.

Connector	Terminal	-	Continuity
M19	50	Ground	No

Is the inspection result normal?

>> Replace BCM after making sure the cargo lamp power supply circuit is not shorted to voltage. YES Refer to BCS-51, "Removal and Installation".

NO >> Repair harness or connectors.

Component Inspection

INFOID:0000000010711475

CARGO LAMP SWITCH

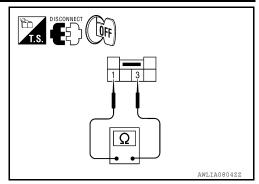
.CHECK CARGO LAMP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT POWER DOOR LOCKS]

- 1. Turn ignition switch OFF.
- 2. Disconnect cargo lamp switch connector.
- 3. Check continuity between cargo lamp switch terminals 1 and 3.

Cargo lamp switch	Condition	Continuity	
Terminal	Condition		
1 – 3	ON	Yes	
1 – 3	OFF	No	



Is the inspection result normal?

YES >> Inspection End.

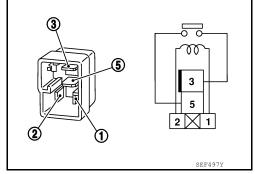
NO >> Replace cargo lamp switch.

CARGO LAMP RELAY

1. CHECK CARGO LAMP RELAY

- 1. Turn ignition switch OFF.
- 2. Disconnect cargo lamp relay.
- 3. Supply power to terminal 2 and ground to terminal 1 of the cargo lamp relay.
- 4. Check continuity between cargo lamp relay terminals 3 and 5.

Terr	Terminal Condition		Continuity
Q	5	Power and ground supplied to terminals 1 and 2	Yes
	7	No power and ground supplied	No



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace cargo lamp relay.

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< ECU DIAGNOSIS INFORMATION >

[WITHOUT POWER DOOR LOCKS]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

NOTE:

The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.

- · Activate and display TPMS transmitter IDs
- Display tire pressure reported by the TPMS transmitter
- Read TPMS DTCs
- Register TPMS transmitter IDs
- Test remote keyless entry keyfob relative signal strength

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ACC ON SW	Ignition switch OFF or ON	Off
ACC ON OW	Ignition switch ACC	On
AIR COND SW	A/C switch OFF	Off
AIR COND OW	A/C switch ON	On
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm ² , psi
AUTO LIGHT SW	Lighting switch OFF	Off
AUTO LIGHT SW	Lighting switch AUTO	On
BRAKE SW	Brake pedal released	Off
BRARE SW	Brake pedal applied	On
BUCKLE SW	Seat belt buckle unfastened	Off
	Seat belt buckle fastened	On
BUZZER	Buzzer in combination meter OFF	Off
BOZZEK	Buzzer in combination meter ON	On
CARGO LAMP SW	Cargo lamp switch OFF	Off
CARGO LAMIF SW	Cargo lamp switch ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
CDL LOCK SW	Press door lock/unlock switch to the LOCK side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
CDL UNLOCK SW	Press door lock/unlock switch to the UNLOCK side	On
DOOR SW-AS	Front door RH closed	Off
DOOK SW-AS	Front door RH opened	On
DOOR SW-DR	Front door LH closed	Off
DOOK SW-DR	Front door LH opened	On
DOOR SW-RL	Rear door LH closed	Off
DOOR SW-RL	Rear door LH opened	On
DOOR SW-RR	Rear door RH closed	Off
DOOK SW-KK	Rear door RH opened	On

< ECU DIAGNOSIS INFORMATION >

[WITHOUT POWER DOOR LOCKS]

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Monitor Item	Condition	Value/Status
FANLON CIC	Blower motor fan switch OFF	Off
FAN ON SIG	Blower motor fan switch ON	On
ED FOC CW	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
ED WACHED CW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
ED MIDED LOW	Front wiper switch OFF	Off
FR WIPER LOW	Front wiper switch LO	On
FR WIPER HI	Front wiper switch OFF	Off
FR WIPER HI	Front wiper switch HI	On
ED WIDED INT	Front wiper switch OFF	Off
FR WIPER INT	Front wiper switch INT	On
ED WIDED STOD	Any position other than front wiper stop position	Off
FR WIPER STOP	Front wiper stop position	On
LIAZADD CW	When hazard switch is not pressed	Off
HAZARD SW	When hazard switch is pressed	On
LIEAD LAMD CW/4	Headlamp switch OFF	Off
HEAD LAMP SW 1	Headlamp switch 1st	On
LIEAD LAMB OM O	Headlamp switch OFF	Off
HEAD LAMP SW 2	Headlamp switch 1st	On
	High beam switch OFF	Off
HI BEAM SW	High beam switch HI	On
ID DECOT ELA	ID registration of front left tire incomplete	YET
ID REGST FL1	ID registration of front left tire complete	DONE
ID DECOT ED4	ID registration of front right tire incomplete	YET
ID REGST FR1	ID registration of front right tire complete	DONE
ID REGST RL1	ID registration of rear left tire incomplete	YET
ID REGST RLT	ID registration of rear left tire complete	DONE
ID REGST RR1	ID registration of rear right tire incomplete	YET
ID REGST RRT	ID registration of rear right tire complete	DONE
IGN ON SW	Ignition switch OFF or ACC	Off
IGN ON SW	Ignition switch ON	On
IGN SW CAN	Ignition switch OFF or ACC	Off
IGN SW CAN	Ignition switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
KEA CALLK 6/W	Door key cylinder LOCK position	Off
KEY CYL LK-SW	Door key cylinder other than LOCK position	On
KEA CALTINI 6/W	Door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Door key cylinder other than UNLOCK position	On
KEN ON SW	Mechanical key is removed from key cylinder	Off
KEY ON SW	Mechanical key is inserted to key cylinder	On
KENI ESS I OCK	LOCK button of key fob is not pressed	Off
KEYLESS LOCK	LOCK button of key fob is pressed	On

< ECU DIAGNOSIS INFORMATION >

[WITHOUT POWER DOOR LOCKS]

Monitor Item	Condition	Value/Status
KEYLESS PANIC	PANIC button of key fob is not pressed	Off
KETLESS PAINIC	PANIC button of key fob is pressed	On
KEYLESS UNLOCK	UNLOCK button of key fob is not pressed	Off
KETLESS UNLOCK	UNLOCK button of key fob is pressed	On
LIGHT SW 1ST	Lighting switch OFF	Off
LIGHT SW 151	Lighting switch 1st	On
OIL PRESS SW	Ignition switch OFF or ACC Engine running	Off
	Ignition switch ON	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5V
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0V
DACCING CVV	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
REAR DEF SW	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
TURN SIGNAL L	Turn signal switch OFF	Off
TURN SIGNAL L	Turn signal switch LH	On
TURN SIGNAL R	Turn signal switch OFF	Off
I URIN SIGNAL K	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
MADNING LAMD	Low tire pressure warning lamp in combination meter OFF	Off
WARNING LAMP	Low tire pressure warning lamp in combination meter ON	On

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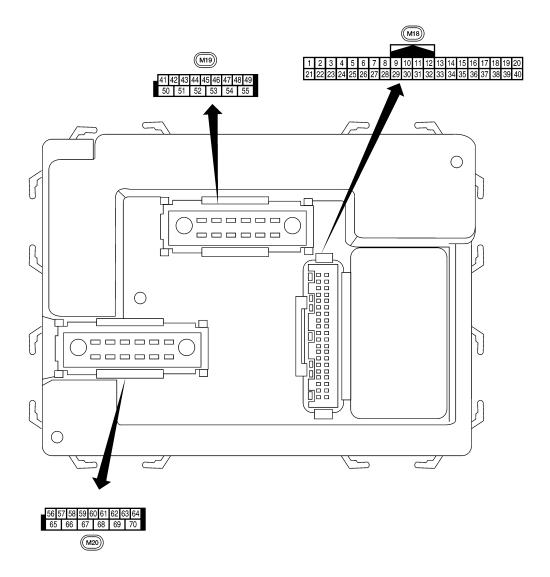
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Terminal Layout



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Physical Values

[WITHOUT POWER DOOR LOCKS]

	\A/'		Signal		Measuring condition	Defended all and a referen
Terminal	Wire color	Item	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
1	BR	Ignition keyhole illumi-	Output	OFF	Door is locked (SW OFF)	Battery voltage
· .	DIX	nation	Output	011	Door is unlocked (SW ON)	0V
2	Р	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 4 2 0 +5ms SKIA5291E
3	SB	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ***5ms
4	V	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 4 2 0 **-5ms
5	L	Combination switch input 2				(V)
6	R	Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	5ms SKIA5292E
		Front door lock as-			ON (open, 2nd turn)	Momentary 1.5V
7	GR	sembly LH (key cylin- der switch) unlock	Input		OFF (closed)	0V
		Front door lock as-		OFF	On (open)	Momentary 1.5V
8	SB	sembly LH (key cylin- der switch) lock	Input		OFF (closed)	0V
9	LG	Brake sw	Input	OFF	OFF (brake pedal is not depressed)	ov
ਝ	LG	DIAKE SW	Input	OFF	ON (brake pedal is depressed)	Battery voltage
11	G/B	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
		Front door switch RH (All)			ON (open)	0V
12	LG	Rear door switch up- per RH (King Cab)	Input	OFF	OFF (closed)	Battery voltage
		Rear door switch low- er RH (King Cab)			- (,	

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			Signal		Measuring condition	
Terminal	Wire color	Item	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
	,	Rear door switch RH	lanut	OFF	ON (open)	0V
13	L	(Crew Cab)	Input	OFF	OFF (closed)	Battery voltage
15	W	Tire pressure warning check connector	Input	OFF	_	5V
18	BR	Remote keyless entry receiver and optical sensor (Ground)	Output	OFF	_	0V
19	V	Remote keyless entry receiver (power sup- ply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 • • • 50 ms
20		Remote keyless entry receiver signal (Sig-		055	Stand-by (keyfob buttons released)	(V) 6 4 2 0 **50 ms
20	G	nal)	Input	OFF	When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2 -1
21	GR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF → ON)	Just after turning ignition switch ON: Pointer of tester should move.
23	G	Security indicator lamp	Output	OFF	Goes OFF → illuminates (Every 2.4 seconds)	Battery voltage → 0V
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF \rightarrow ON)	Just after turning ignition switch ON: Pointer of tester should move.
27	W	Compressor ON sig-	Input	ON	A/C switch OFF	5V
	**	nal	iiiput	511	A/C switch ON	0V
28	R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage
	1		put	3.1	Front blower motor ON	0V
29	G	Hazard switch	Input	OFF	ON	0V
	J		r · · ·		OFF	5V
31	GR	Cargo lamp switch	Input	OFF	ON	0V
-		ů ,	'		OFF	Battery voltage

[WITHOUT POWER DOOR LOCKS]

	\\/iro		Signal		Measuring condition	Potoronoo valuo or waveterm	
Terminal	Wire color	Item	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)	
32	BG	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 + + 5ms SKIA5291E	
33	GR	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 4 2 0 **5ms SKIA5292E	
34	G	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms	
35	BR	Combination switch output 2					
36	LG	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 2 0 **5ms SKIA5292E	
37	В	Key switch	Input	OFF	Key inserted	Battery voltage	
					Key removed	0V	
38	W/R	Ignition switch (ON)	Input	ON	_	Battery voltage	
39	L	CAN high	_	_	_		
40	Р	CAN low	_	_	— Deprisingly defended as 2015	_	
		Rear window defogger			Rear window defogger switch ON	0V	
41	Y	switch	Input	ON	Rear window defogger switch OFF	5V	
45	V	Lock switch	Input	OFF	ON (lock)	0V	
	V		pat	J. 1	OFF	Battery voltage	
46	LG	Unlock switch	Input	OFF	ON (unlock) OFF	0V Battery voltage	
		Front door switch LH (All)			ON (open)	0V	
47	GR	Rear door switch upper LH (King Cab)	Input	OFF	OFF (closed)	Battery voltage	
		Rear door switch low- er LH (King Cab)			Of F (Gloseu)	Dattery voitage	

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				Management				
Terminal	Wire	Item	Signal input/		Measuring cond	dition	Reference value or waveform	
	color	item	output	Ignition switch	Operation	or condition	(Approx.)	
48	Р	Rear door switch LH	Input	OFF	ON (open)		0V	
	'	(Crew Cab)	прас	011	OFF (closed)		Battery voltage	
50	Р	Cargo lamp	Output	OFF	Any door open	(ON)	0V	
30	'	Cargo lamp	Output	011	All doors close	d (OFF)	Battery voltage	
51	BG	Trailer turn signal (right)	Output	ON	Turn right ON		(V) 15 10 500 ms SKIA3009J	
52	LG	Trailer turn signal (left)	Output	ON	Turn left ON		(V) 15 10 500 ms 500 ms	
56	R/Y	Battery saver output	Output	OFF	10 minutes after ignition switch is turned OFF		0V	
				ON	-	_	Battery voltage	
57	R/Y	Battery power supply	Input	_	_	_	Battery voltage	
58	w	Optical sensor	Input	ON	When optical s nated	ensor is illumi-	3.1V or more	
30	VV	Optical serisor	mput	ON	When optical s minated	ensor is not illu-	0.6V or less	
59	GR	Front door lock as-	Output	OFF	OFF (neutral)		0V	
59	GR	sembly LH (unlock)	Output	OFF	ON (unlock)		Battery voltage	
60	LG	Turn signal (left)	Output	ON	Turn left ON		(V) 15 10 5 5 500 ms	
61	G	Turn signal (right)	Output	ON	Turn right ON		(V) 15 10 5 0 500 ms	
63	BR	Interior room/map	Output	OFF	Any door switch	ON (open)	0V	
-		lamp	•			OFF (closed)	Battery voltage	
65	V	All door lock actuators (lock)	Output	OFF	OFF (neutral)		0V	
		(IUCK)			ON (lock)		Battery voltage	

< ECU DIAGNOSIS INFORMATION >

[WITHOUT POWER DOOR LOCKS]

	Wire		Signal		Measuring condition	Reference value or waveform	
Terminal	color	Item	input/ output	Ignition switch	Operation or condition	(Approx.)	
		Front door lock actua-		OFF (neutral)		0V	
66	L	tor RH, rear door lock actuators LH/RH (un- lock)	Output	OFF	ON (unlock)	Battery voltage	
67	В	Ground	Input	ON	_	0V	
					Ignition switch ON	Battery voltage	
		O Power window power supply (RAP)	Output	_	Within 45 seconds after ignition switch OFF	Battery voltage	
68 ¹	0				More than 45 seconds after ignition switch OFF	0V	
					When front door LH or RH is open or power window timer operates	0V	
					Ignition switch ON	Battery voltage	
		SB Power window power supply (RAP)	Output	_	Within 45 seconds after ignition switch OFF	Battery voltage	
68 ²	SB				More than 45 seconds after ignition switch OFF	0V	
					When front door LH or RH is open or power window timer operates	0V	
69	Р	Power window power supply (BAT)	Output	OFF	_	Battery voltage	
70	W	Battery power supply	Input	OFF		Battery voltage	

^{1:} King cab

Fail Safe

Fail-safe index

BCM performs fail-safe control when any DTC listed below is detected.

Display contents of CONSULT	Fail-safe	Cancellation
U1000: CAN COMM CIRCUIT	Inhibit engine cranking	When the BCM re-establishes communication with the other modules.

DTC Inspection Priority Chart

INFOID:0000000011343374

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

Priority	DTC
1	U1000: CAN COMM CIRCUIT
2	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM

^{2:} Crew cab

< ECU DIAGNOSIS INFORMATION >

[WITHOUT POWER DOOR LOCKS]

Priority	DTC	
3	C1729: VHCL SPEED SIG ERR C1735: IGNITION SIGNAL	
	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL	
	 C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL 	
	C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR	
4	C1715: [CHECKSUM ERR] RL C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR	
	 C1719: [PRESSDATA ERR] RL C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1722: [CODE ERR] RR 	
	C1723: [CODE ERR] RL C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR	
	C1727: [BATT VOLT LOW] RL	

DTC Index

NOTE:

Details of time display

CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.

1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
 remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
 OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Low tire pressure warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_
U1000: CAN COMM CIRCUIT	_	_	BCS-27
B2190: NATS ANTTENA AMP	_	_	<u>SEC-18</u>
B2191: DIFFERENCE OF KEY	_	_	<u>SEC-21</u>
B2192: ID DISCORD BCM-ECM	_	_	SEC-22
B2193: CHAIN OF BCM-ECM	_	_	<u>SEC-24</u>
C1708: [NO DATA] FL	_	X	<u>WT-15</u>
C1709: [NO DATA] FR	_	Х	<u>WT-15</u>
C1710: [NO DATA] RR	_	X	<u>WT-15</u>
C1711: [NO DATA] RL	_	X	<u>WT-15</u>
C1712: [CHECKSUM ERR] FL	_	X	<u>WT-17</u>
C1713: [CHECKSUM ERR] FR	_	Х	<u>WT-17</u>
C1714: [CHECKSUM ERR] RR	_	X	<u>WT-17</u>
C1715: [CHECKSUM ERR] RL	_	Х	<u>WT-17</u>

Revision: August 2014 INL-93 2015 Frontier NAM

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< ECU DIAGNOSIS INFORMATION >

[WITHOUT POWER DOOR LOCKS]

CONSULT display	Fail-safe	Low tire pressure warning lamp ON	Reference page
C1716: [PRESSDATA ERR] FL	_	X	<u>WT-19</u>
C1717: [PRESSDATA ERR] FR	_	Х	<u>WT-19</u>
C1718: [PRESSDATA ERR] RR	_	X	<u>WT-19</u>
C1719: [PRESSDATA ERR] RL	_	X	<u>WT-19</u>
C1720: [CODE ERR] FL	_	X	<u>WT-17</u>
C1721: [CODE ERR] FR	_	X	<u>WT-17</u>
C1722: [CODE ERR] RR	_	Х	<u>WT-17</u>
C1723: [CODE ERR] RL	_	X	<u>WT-17</u>
C1724: [BATT VOLT LOW] FL	_	X	<u>WT-17</u>
C1725: [BATT VOLT LOW] FR	_	Х	<u>WT-17</u>
C1726: [BATT VOLT LOW] RR	_	X	<u>WT-17</u>
C1727: [BATT VOLT LOW] RL	_	X	<u>WT-17</u>
C1729: VHCL SPEED SIG ERR	_	X	<u>WT-21</u>
C1735: IGNITION SIGNAL	_	X	<u>WT-22</u>

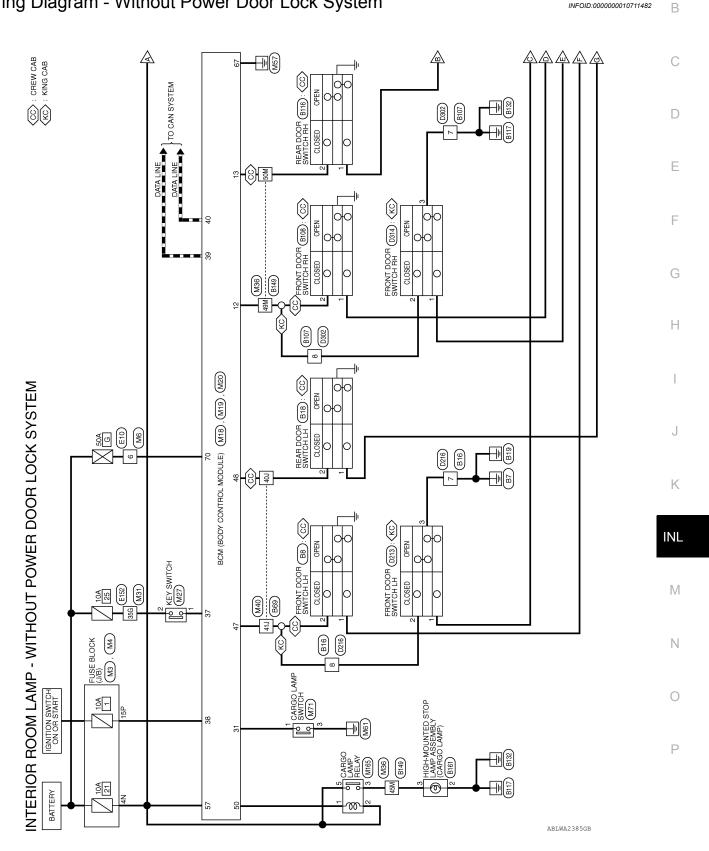
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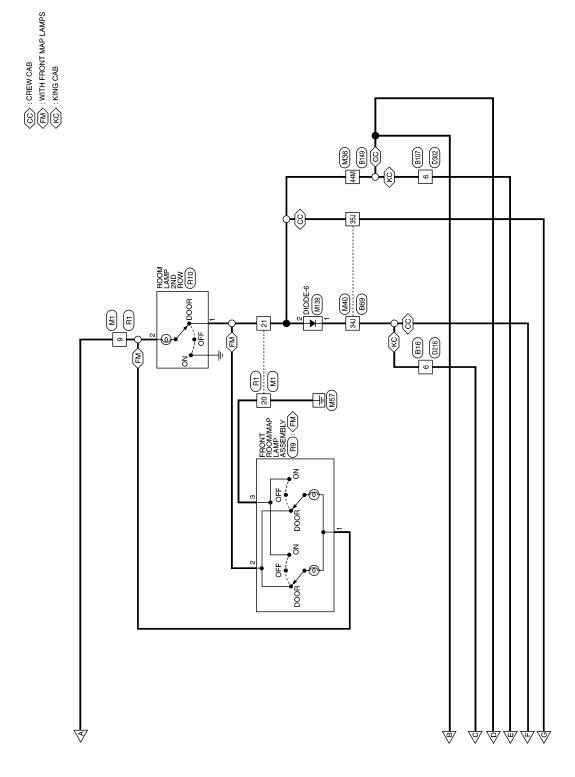
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WIRING DIAGRAM

INTERIOR ROOM LAMP

Wiring Diagram - Without Power Door Lock System





CARGO LAMP OUTPUT DOOR SW (RL) DOOR SW (DR) Signal Name

Color of Wire

Terminal No.

GR 凸 ۵

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INTERIOR ROOM LAMP CONNECTORS - WITHOUT POWFR DOOR I OCK SYSTEM

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Connector No.	M1	Connector No. M3	M3	8	Connector No. M4	M4
Connector Name WIRE TO WIRE	WIRE TO WIRE	Connector Name	Connector Name FUSE BLOCK (J/B)	8	Connector Name FUSE I	FUSE
Connector Color WHITE	WHITE	Connector Color WHITE	WHITE	8	Connector Color WHITE	WHITE

Connector Name FUSE E	onnector No. M3 onnector Name FUSE BLOCK (J/B) connector Color WHITE	Connector No. M4 Connector Name FUSE B Connector Color WHITE	onnector No. M4 nnector Name FUSE BLOCK (J/B) nnector Color WHITE
-			
	Nt lwc	19 142	SP 4P [] 3P 2P 1P

2N 1N NN 6N 5N 4N	Signal Name	ı
	Color of Wire	R/Y
H.S.	Terminal No.	N4

Signal Name

Color of Wire W/R

Terminal No.

15P

Signal Name	ı	ı	I	
Color of Wire	R/Y	В	BR	
Terminal No.	6	20	21	

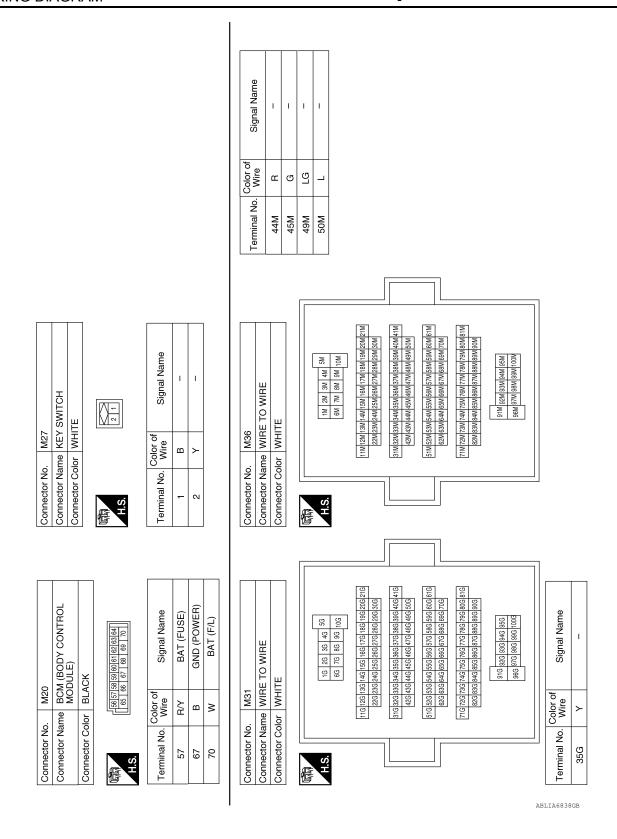
	BCM (BODY CONTROL MODULE)		47 480 491 54 55
M19	BCM (BOD) MODULE)	WHITE	41 42 43 44 45 46 47 48 49 49 49 49 49 49 49
Connector No.	Connector Name	Connector Color WHITE	(41) (41) (41) (41)

DOOR SW (AS) DOOR SW (RR) CARGO LAMP SW KEY SW IGN SW CAN-H
A SW (RR) SO LAMP SW EFY SW GN SW CAN-H
H SW (RR) O LAMP SW KEY SW GN SW CAN-H
io Lamp SW GEY SW GN SW CAN-H
GY SW GN SW CAN-H
GN SW CAN-H
CAN-H

Connector No.). M6	
Connector Name	ı	WIRE TO WIRE
Connector Color		WHITE
H.S.	[1 4 0 0
Terminal No.	Color of Wire	Signal Name
9	8	ı

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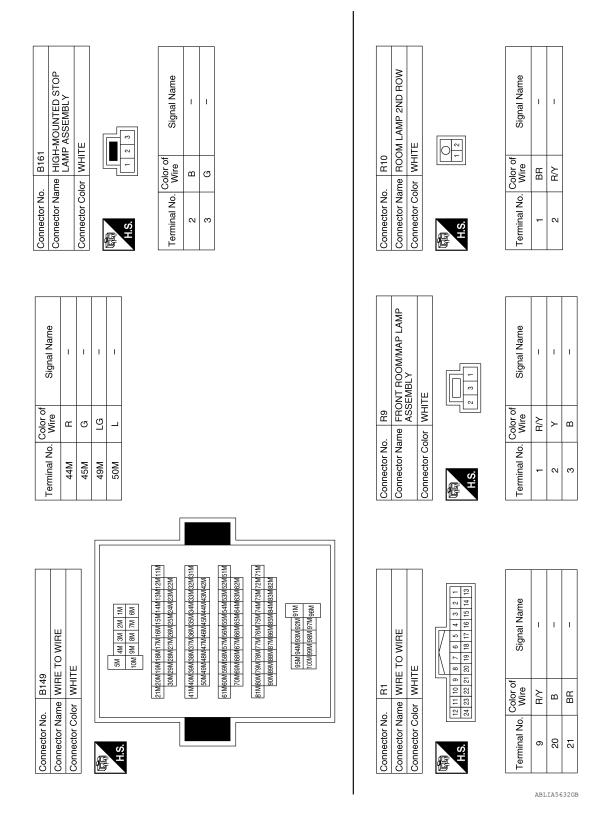
INTERIOR ROOM LAMP

Connector Color WHITE	Connector Name WIBE TO WIBE		Terminal No.	. Wire	Signal Name		Connector No.	ame CABC	Connector No. M71 Connector Name CARGO I AMP SWITCH
	1) · LL		34)	_	ı		Connector Color	color WHITE) ; ; і
			35.1	œ	ı				ı
		Г	400	۵	ı	1	E	4	
H.S.	11 21 31 41 51		410	GR	1		H.S.	-	1 2 3
11162	[[[] [] [] [] [] [] [] [] []						Terminal No.	Color of	Signal Name
227							-	GR)
31, 32, 3	31.] 32.] 33.] 34.] 35.] 36.] 37.] 38.] 39.] 40.] 41.]						က	В	1
420	433 443 453 463 473 483 493 503 531 541 551 561 573 581 583 603 613								
623 6	62) 63) 64) 65) 66) 67) 68) 69) 70)								
127,177	77.1 72.1 73.1 74.1 75.1 76.1 77.1 78.1 79.1 80.0 81.1 82.1 83.1 84.1 85.1 86.1 87.1 88.1 89.1 90.1								
	91) 021 031 041 051								
	96.1 98.1 98.1 100.1								
Connector No. M139	39		Connector No.	o. M165			Connector No.	lo. E10	
Connector Name DIODE-6	ODE-6		Connector N	ame CARG	Connector Name CARGO LAMP RELAY		Connector Name WIRE TO WIRE	ame WIRE	TO WIRE
Connector Color BLA	BLACK		Connector Color	olor BLUE			Connector Color	olor WHITE	ш
原 H.S.			S.H		2 2 3		南 H.S.	<u> </u>	- 4 2 3 8 9
Terminal No. Wire	f Signal Name		Terminal No.	Color of Wire	Signal Name		Terminal No.	Color of Wire	Signal Name
1	ı		-	۵	1		9	M	ı
2 BR	ı		2	R/Y	ı	T			
			က	o	1				
			5	R/Υ	1				
N O	INL M	K	J		G	F	D E	С	В

Revision: August 2014 INL-99 2015 Frontier NAM

Connector No. E152 Connector No. WHETE TO WHEE Signal Name S	Connector Name FRONT DOOR SWITCH LH (CREW CAB) Connector Color WHITE	Terminal No. Wire Signal Name 1 L 2 GR -		
State	Signal Name		E E	Signal Name -
### E152 WHRE TO WIRE WHITE \$56				
Signal Name WIRE TO WIRE Signal Name	me L		Conn	Term
ector No. E15 Pector No. B16 Ector No. B16 Ector No. B16 Ector No. B16 Ector No. WIFE Ector No. B16 Ector No. B17 Ector No. B17 Ector No. B18 Ector No. B17 Ector No. B18	28 TO WIRE ITE TO WIRE ITE TO WIRE ITE ITE ITE ITE ITE ITE ITE ITE ITE IT	99 89 70 100	RE TO WIRE	Signa
Connin Co	nector No. nector Nam nector Colo	10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	nector No. nector Name nector Color S.	al No.

Signal Name		
Number 10 Number		
Connector No. Connector Cold Connector Cold A.S. Terminal No. 6 6 7 7 8		
Signal Name	B116 REAR DOOR SWITCH RH WHITE Or of Signal Name Tree C C C C C C C C C C C C	
Color of Wire GR R R R R	Oolor of Color of Col	
34J 35J 40J 41J	Connector No. Connector Color Connector Color H.S. Terminal No. Vol. Terminal No. Term	
## WINE TO WINE Su	FRONT DOOR SWITCH RH (CREW CAB) WHITE or of Signal Name GG	
20.0 B69 ame WIRE 21.1 20.1 13.0 13.0 13.0 13.0 13.0 13.0 13.0 1	ame FRON WHITE Color of Wire R R LG	
Connector No. B69	Connector No. B108 Connector Name FRONT (CREW Connector Color WHITE A.S. Terminal No. Wire 1 R 2 LG	
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			7			[
	TO WIRE	E,		4			Signal Name	1	1	1
D305	ne WIRE	r WHIT			- LO		Solor of Wire	œ	В	LG
Connector No. D302	Connector Name WIRE TO WIRE	Connector Color WHITE			S.		Terminal No. Wire	9	7	80
			7			Г				
9	RE TO WIRE	ITE		4	9 - 2 - 9		Signal Name	ı	ı	ı
D21	ne WIR	or WH					Color of Wire	~	<u>m</u>	ГG
Connector No. D216	Connector Name WIRE TO WIRE	Connector Color WHITE			S.		Terminal No. Wire	9	7	8
						Г				
13	ctor Name FRONT DOOR SWITCH LH	NG CAB)	ITE	\bigcirc	3 2 1		Signal Name	ı	-	ı
. D213	me FR(<u>Z</u>	ctor Color WHITE				Color of Wire	В	Ы	В
ctor No.	ctor Na		ctor Co				al No.			

Connector No.	. D314	4
Connector Name		FRONT DOOR SWITCH RH (KING CAB)
Connector Color	lor WHITE	TE
赋利 H.S.		
Terminal No.	Color of Wire	Signal Name
-	Я	_
2	ГG	-
ဧ	В	ı

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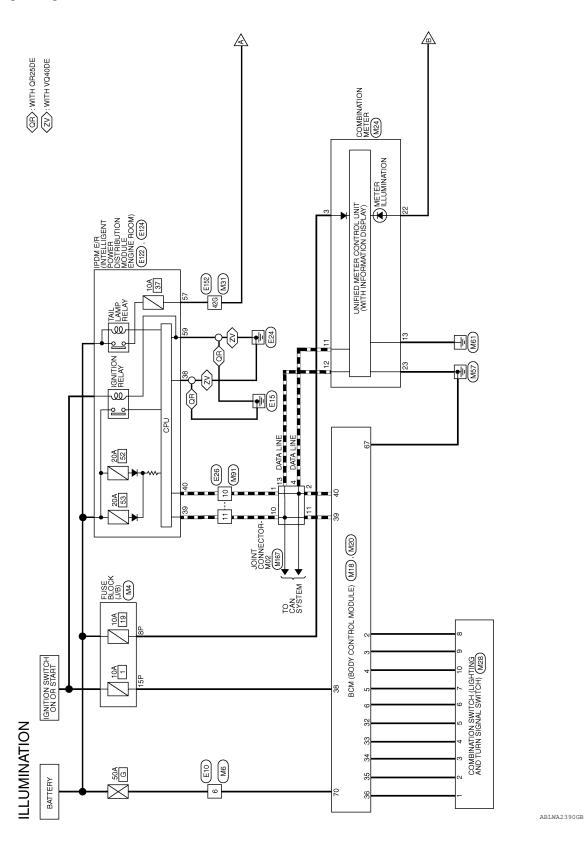
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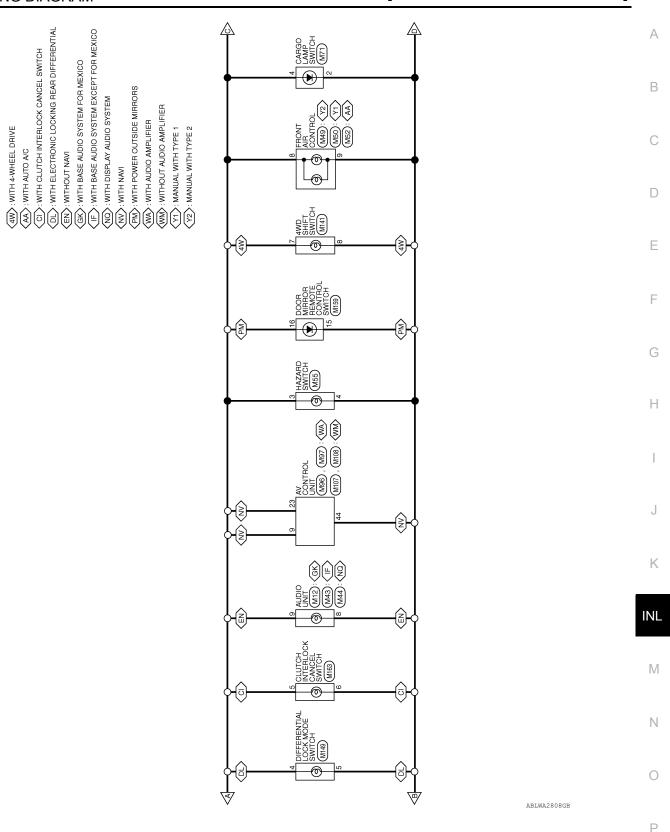
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ILLUMINATION

Wiring Diagram





(AS): WITH AT

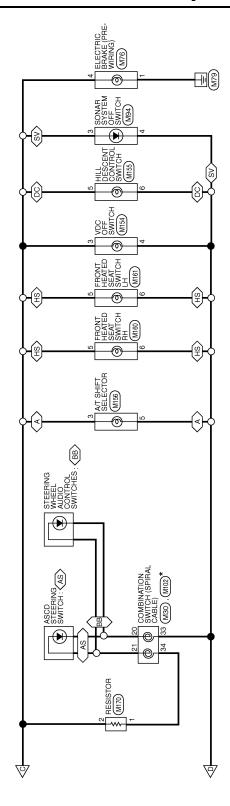
(AS): WITH ASCD

(BB): WITH BLUETOOTH®

(DC): WITH HILL DESCENT CONTROL

(HS): WITH HEATED SEATS

(SV): WITH SONAR SYSTEM



* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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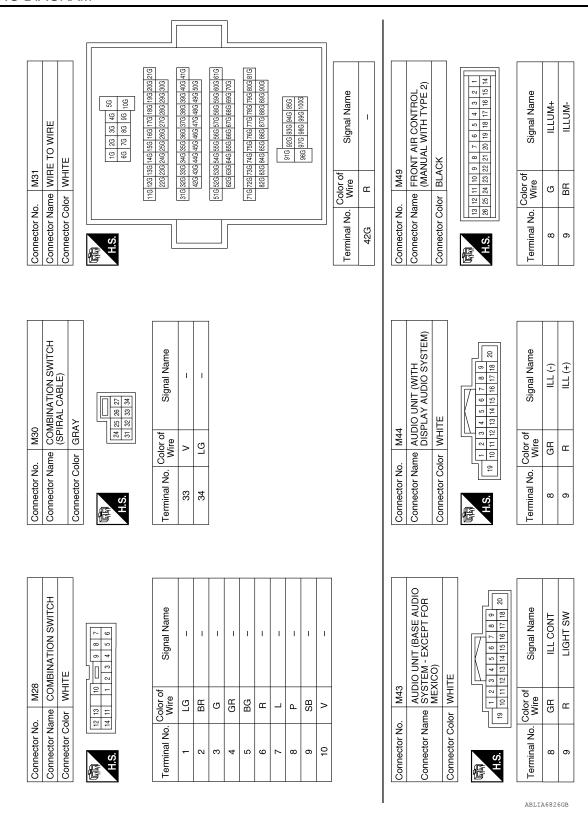
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Connector No. M12	<u>5</u> œ	Connector No. M24
Connector No. M6 Connector Name WIRE TO WIRE Connector Color WHITE A		Connector No. M20 Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK Est E
Connector No. M4 Connector Name FUSE BLOCK (J/B) Connector Color WHITE Terminal No. Wire Signal Name RP R/N	W/B	Connector No. M18 BCM (BODY CONTROL MODULE)

Revision: August 2014 INL-107 2015 Frontier NAM



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	RD SWITCH		1 2 1			Signal Name	1	1	
M55	ne HAZA		7[Solor of Wire	۳	BR	
Connector No.	Connector Name HAZARD SWITCH Connector Color WHITE			H.S.		Terminal No. Wire	ღ	4	
					1				
	Connector Name FRONT AIR CONTROL (WITH AUTO A/C)	K	-	13 12 11 10 9 8 7 6 5 4 3 2 1 1 26 25 24 23 22 21 20 19 18 17 16 15 14		Signal Name	ILLUM+	ILLUM-	
M52	WITH (WITH	or BLACE		13 12 11 10 9 26 25 24 23 22		Solor of Wire	ŋ	BR	
Connector No.	Connector Nan	Connector Color BLACK		رن ن		Terminal No. Wire	80	6	
			1						
	NT AIR CONTROL IUAL WITH TYPE 1)	X	-	21 20 19 18 17 16 15 14		Signal Name	ILLUM+	ILLUM-	
M50	ne FRON (MAN	or BLAC		13 12 11 10 9 8 26 25 24 23 22 21		Solor of Wire	g	BB	
Connector No.	Connector Name FRONT AIR CONT (MANUAL WITH T	Connector Color BLACK		κį		Terminal No. Wire	∞	6	

Connector No.	. M91	
Connector Name	me WIR	WIRE TO WIRE
Connector Color WHITE	lor WH	TE
原列 H.S.	7 6 5 14 15 14	13 12 11 10 9 8
Terminal No.	Color of Wire	Signal Name
10	Ь	I
11	Т	ı

	Connector Name ELECTRIC BRAKE (PRE-WIRING)	ПЕ	3 4 6	Signal Name	ı	1
. M76	me ELE WIF	lor WH		Color of Wire	æ	æ
Connector No.	Connector Na	Connector Color WHITE	H.S.	Terminal No.	-	4

Connector Name CARGO LAMP SWITCH	ПЕ		Signal Name	-	_
me CAF	lor WH		Color of Wire	۵	>
Connector Na	Connector Color WHITE	明. H.S.	Terminal No. Wire	2	4

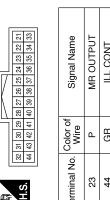
M71

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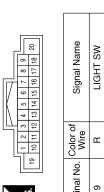
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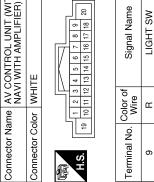
	Connector No. M97	M97
NIT (WITH LIFIER)	Connector Name	Connector Name AV CONTROL UNIT (WITH NAVI WITH AMPLIFIER)
	Connector Color WHITE	WHITE

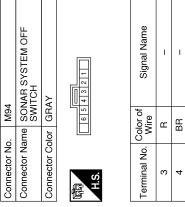
Connector No.

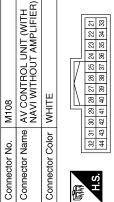














Connector Color WHITE	32 31 30 29 28 27 26 25 24 23 22 21	44 43 42 41 40 39 38 37 36 35 34 33	Terminal No. Color of Wire	P MR OUTPUT	TINOC
Connector Cc		6	Terminal No.	23	77

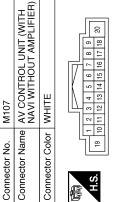
Signal Name

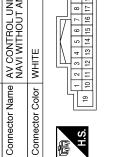
Color of Wire

Terminal No.

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			l - -
M102	COMBINATION SWITCH (SPIRAL CABLE)	GRAY	14 15 16 17 18 19 20 21

Connector No.

COMBINATION SWITCH (SPIRAL CABLE)	ΑΥ	1415 1617 18 1920 21]	Signal Name	_
	or GR,	14 15 16	Color of Wire	W
Connector Name	Connector Color GRAY	赋利 H.S.	Terminal No.	20

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Signal Name Signal Name Signal Name Connector No. M149 Connector Name DIFFERENTIAL LOCK MODE SWITCH Connector Color WHITE A R R - A R R - A R R - Connector No. Wire Signal Name A R R - A R R - A R R - A R R - A R R - A R R - B C C R R C C C C C C C C C C C C C C C	M154	Connector Name VDC OFF SWITCH	зВАУ		1 2 6 4 3 2 1 1	of Signal Name	ı	1
Signal Name	Connector No. M154	Connector Name	Connector Color GRAY		H.S.	Terminal No. Wire		A BB
Signal Name	M149	DIFFERENTIAL LOCK MODE	SWIICH	WHILE	4 2			
Signal Name	connector No.	connector Name	- (0	connector Color V	S.H.S.	erminal No. Wir.	4 R	
	Conne			Conne	7 B	ame	ı	1
	Connector No. M141	tor Na	Connector Color GRAY			Terminal No. Wire		α

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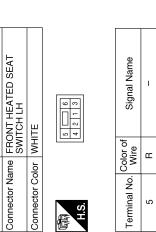
	Connector No. M163	M163
HEATED SEAT	Connector Name	Connector Name CLUTCH INTERLOCK
		CANCEL SWITCH
	Connector Color WHITE	WHITE

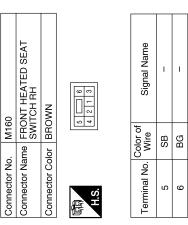
Connector No. M161

Signal Name	1	1
Color of Wire	В	BR
Terminal No. Wire	9	9

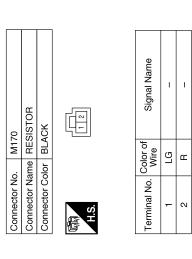
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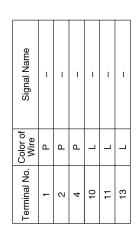




E10	Connector Name WIRE TO WIRE	MHITE	- 4 0 0	of Signal Name	ı
	me V	lor		Color Wire	Χ
Connector No.	Connector Na	Connector Color	H.S.	Terminal No. Wire	9



Connector Name JOINT CONNECTOR-M02 Connector Color BLUE	Connector Name JOIN Connector Color BLUI	IOINT CONNECTOR-M02
Connector Color BLUE	Connector Color BLUI	
原列 H.S.		
H.S. (20 19 18 17 16 15 14 13 12 11 10		-
H.S.		
H.S. 20 19 18 17 16 15 14 13 12 11 10	7 8 8 7	7 6 5 4
	20 19 18 17	18 17 16 15 14 13 12 11 10



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POWER (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) BLACK	SS SS 57 SS 61 80	Signal Name TAIL LAMP	GND (POWER)		
	8 8	Color of Wire	<u> </u>		
Connector Name	刷.S.	Terminal No.	29		
<u> </u>		ĽĚ L			
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) WHITE	42 41 40 39 38 37 46 45 44 43	Signal Name	CAN-H CAN-L	Signal Name	
	42 41	Color of Wire	7 - 6	Color of Wire B	
Connector Name	S. S.	Terminal No.	39	A2G 42G	
ၓ ၓ	€ [±]	#			
) WIRE		Signal Name	1	E152 	
191 1 15	11 12	Color of Wire	. _	Connector No. E152 Connector Name WIRE TO WIRE Connector Color WHITE 100 96 86 70 100 96 86 70 210 000 190 190 170 170 170 170 170 170 170 170 170 17	
Connector Name WIRE T	<u> </u>	al No. Vol		Connector No. Connector Name Connector Color H.S. #16	
Connector Nar	H.S.	Terminal No.		Connector Na. Connector Nam Connector Cold	
				ABLIA6831GB	

INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITHOUT POWER DOOR LOCKS]

SYMPTOM DIAGNOSIS

INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

CAUTION:

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

Symptom	Possible cause	Inspection item	
interior room lamps do not turn ON/OFF Room lamp 2nd row Front room/map lamp assembly	Harness between fuse block (J/B) and each interior room lamp Harness between each interior room lamp and door switches Door switches	Interior room lamp Refer to INL-78.	
Cargo lamp does not turn ON/OFF	Harness between fuse block (J/B) and cargo lamp relay Harness between cargo lamp relay and cargo lamp Harness between BCM and cargo lamp relay BCM	Cargo lamp control circuit Refer to <u>INL-80</u> .	

PRECAUTION

PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the 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
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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PREPARATION

< PREPARATION >

[WITHOUT POWER DOOR LOCKS]

PREPARATION

PREPARATION

Special Service Tool

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

REMOVAL AND INSTALLATION

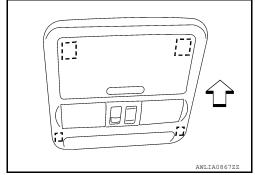
INTERIOR ROOM LAMP

Removal and Installation

FRONT ROOM/MAP LAMP ASSEMBLY (IF EQUIPPED)

Removal

- 1. Using a suitable tool, release the metal clips and drop the front room/map lamp assembly away from the headlining.
 - ⟨□: Front
 - : Metal clip
- 2. Disconnect the harness connectors from the front room/map lamp assembly and remove.



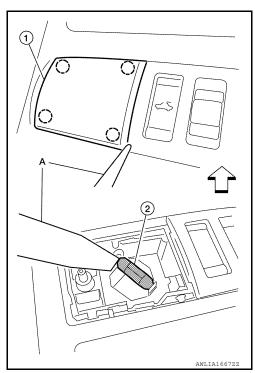
Installation

Installation is in the reverse order of removal.

Bulb or Lens Replacement

- 1. Using a suitable tool (A), remove the front room/map lamp RH and/or LH lenses (1) as necessary.
 - ⟨
 ⇒: Front
 - (): Pawl
- 2. Release one side of the bulb (2) from the tab using a suitable tool, then pull straight downward to remove.

Front room/ : 12V - 8W map lamp assembly bulb



- 3. Install the new bulb into the socket tabs.
- 4. Install the front room/map lamp lens(es).

VANITY LAMP

Removal

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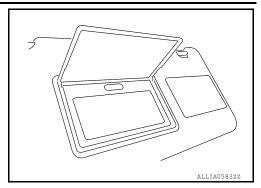
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INTERIOR ROOM LAMP

< REMOVAL AND INSTALLATION >

[WITHOUT POWER DOOR LOCKS]

The vanity lamp is replaced as part of the sun visor assembly. Refer to INT-25, "Removal and Installation".



Installation

Installation is in the reverse order of removal.

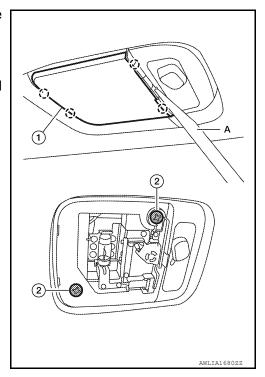
Bulb Replacement

The vanity mirror lamp bulb is replaced as part of the sun visor assembly. Refer to INT-25, "Removal and Installation".

ROOM LAMP 2ND ROW

Removal

- 1. Using a suitable tool (A), release the pawls and remove the room lamp lens (1).
 - (): Pawl
- 2. Remove room lamp screws (2).
- 3. Disconnect the harness connector from the room lamp and remove.



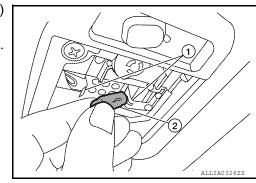
Installation

Installation is in the reverse order of removal.

Bulb or Lens Replacement

- 1. Using a suitable tool, release the pawls and remove the room lamp lens.
- 2. Release the room lamp bulb retainers (1), then pull bulb (2) straight out to remove.
- 3. Install the bulb (2) securely into the room lamp bulb retainers (1).

Room lamp bulb : 12V - 8W



INTERIOR ROOM LAMP

4. Install the room lamp lens.BC

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ILLUMINATION

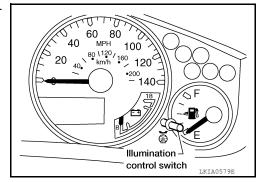
Removal and Installation

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ILLUMINATION CONTROL SWITCH

Removal

The illumination control switch is replaced as a part of the combination meter. Refer to MWI-91, "Removal and Installation".



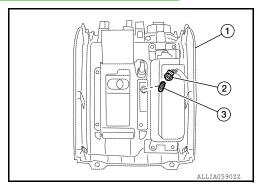
Installation

Installation is in the reverse order of removal.

SHIFT SELECTOR FINISHER LAMP

Removal

- Remove shift selector finisher from center console. Refer to <u>IP-25, "Removal and Installation"</u>.
- 2. Rotate shift selector finisher lamp socket (2) with bulb (3) counterclockwise, then pull away from finisher (1).



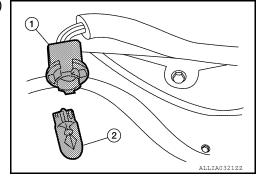
Installation

Installation is in the reverse order of removal.

Bulb Replacement

- Remove shift selector finisher from center console. Refer to IP-25, "Removal and Installation".
- 2. Remove shift selector finisher lamp socket (1), then pull bulb (2) straight out away from socket.
- 3. Install the bulb (2) into the shift selector finisher socket (1).

AT finisher lamp bulb : 12V - 3W



4. Install shift selector finisher in center console. Refer to IP-25, "Removal and Installation".

BULB SPECIFICATIONS

< SERVICE DATA AND SPECIFICATIONS (SDS)

[WITHOUT POWER DOOR LOCKS]

SERVICE DATA AND SPECIFICATIONS (SDS)

BULB SPECIFICATIONS

Bulb Specifications

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Item	Wattage (W)*
Front room/map lamp (if equipped)	8
Vanity lamp	-
Room lamp 2nd row	8
Shift selector finisher lamp	3

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

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