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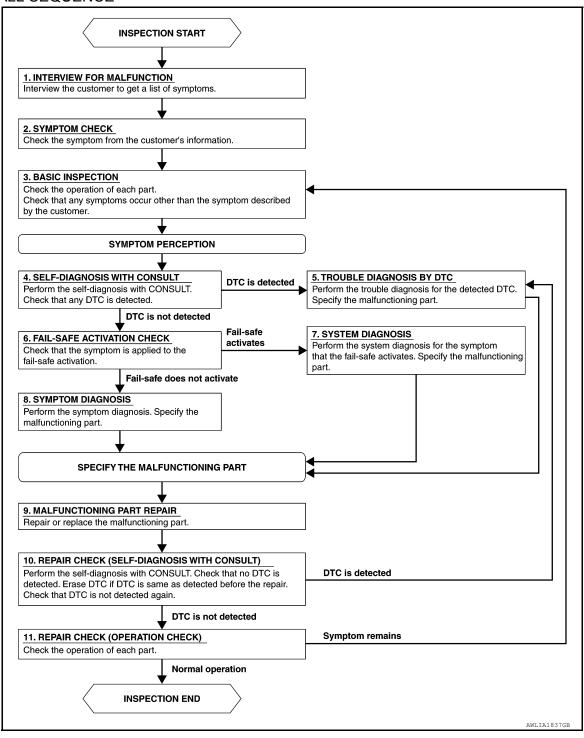
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BASIC INSPECTION

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?

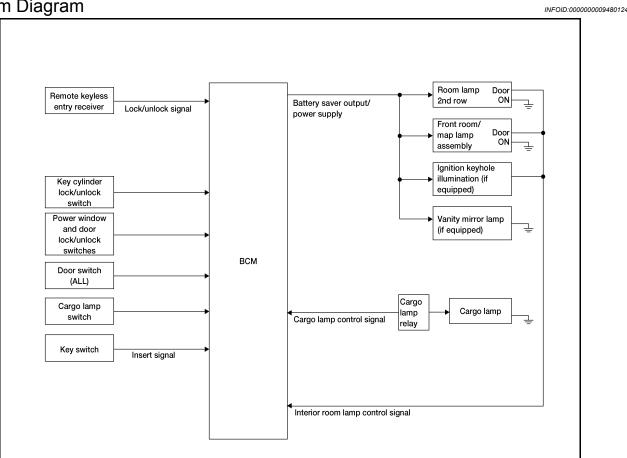
YES >> GO TO 5

DIAGNOSIS AND REPAI < BASIC INSPECTION >	[WITH POWER DOOR LOCKS]
NO >> GO TO 11	<u> </u>
11. REPAIR CHECK (OPERATION CHECK)	
Check the operation of each part.	
Does it operate normally?	
YES >> Inspection End NO >> GO TO 3	
NO 22 00 10 0	
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SYSTEM DESCRIPTION

INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram



System Description

INFOID:0000000009480125

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 and when all conditions below are met, the BCM begins timer control (maximum 30 seconds) for interior room lamp ON/OFF.

- 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

- 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:0000000009480126

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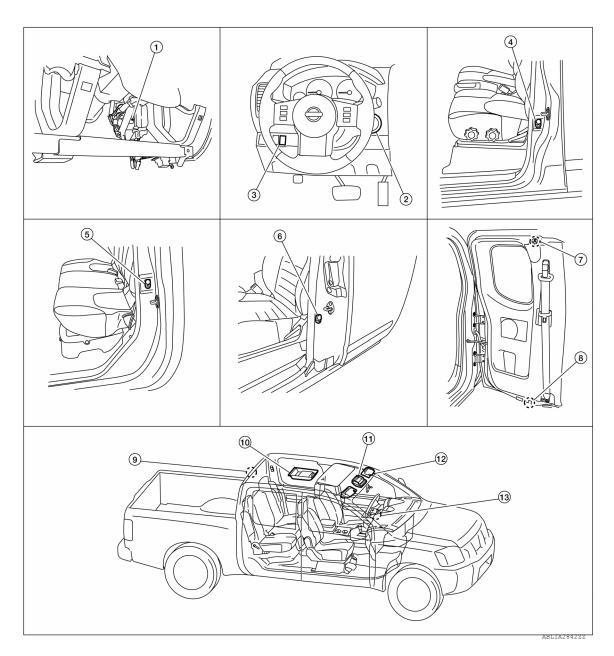
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- BCM M18, M19, M20 (view with lower 2. instrument panel LH removed)
- Front door switch LH B8 (crew cab)
 Front door switch RH B108 (crew cab)
- Rear door switch upper LH D211 (king cab)

Rear door switch upper RH D312 (king cab)

- Key switch M27
- . Rear door switch LH B18 (crew cab) Rear door switch RH B116 (crew cab)
- Rear door switch lower LH D212 (king cab)
- Rear door switch lower RH D313 (king cab)
- Cargo lamp switch M71
- Front door switch LH D213 (king cab)
 Front door switch RH D314 (king cab)
 - Cargo lamp B161

Revision: May 2014 INL-7 2014 Frontier

INTERIOR ROOM LAMP CONTROL SYSTEM

< SYSTEM DESCRIPTION >

[WITH POWER DOOR LOCKS]

- 10. Room lamp 2nd row R10
- 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)

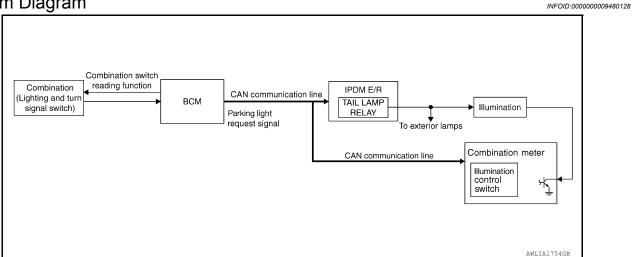
Component Description

INFOID:0000000009480127

Part name	Description
BCM	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	Provides dear leak/uplack position quitab status to the PCM
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

INFOID:0000000009480129

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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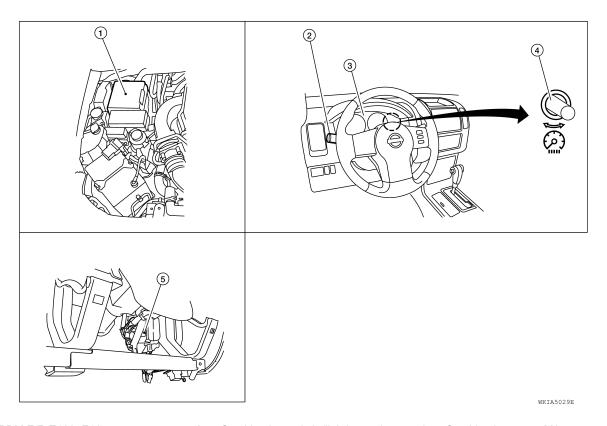
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Component Parts Location

INFOID:0000000009480130



- 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:0000000009480131

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:0000000010228001

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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:0000000010228002

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/E 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:0000000010228003

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	Joels the interior room lamp battery saver timer operating time.

^{*:} Initial setting

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DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM: Diagnosis Procedure

INFOID:0000000010228010

Regarding Wiring Diagram information, refer to BCS-43, "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 cumby	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?

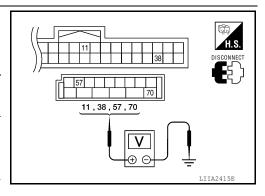
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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]

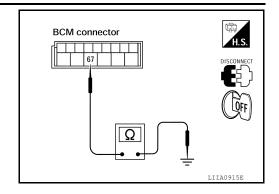
Check continuity between BCM harness connector and ground.

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:000000009480136

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:0000000009480137

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 (if equipped)
- 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:0000000009480138

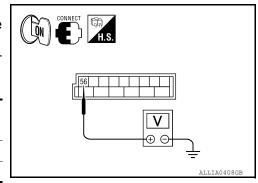
Regarding Wiring Diagram information, refer to INL-37, "Wiring Diagram - With Power Door Lock System".

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
W20 56	30	Ground	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 <u>BCS-49</u>, "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 (if equipped)
- Front room/map lamp assembly
- Vanity lamp LH (if equipped)
- Vanity lamp RH (if equipped)

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	M	Each interior room lamp Connector Terminal		Continuity	•	
Connector	Terminal			Terminal	Continuity	E
		Ignition keyhole illumination (if equipped)	M150	1		-
		Front room/map lamp assembly	R9	1		(
M20	56	Vanity lamp LH (if equipped)	B80	1	Yes	
		Vanity lamp RH (if equipped)	B81	1		
	F	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

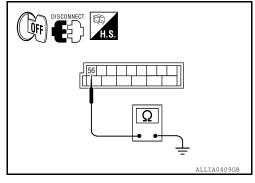
Check continuity between BCM connector M20 terminal 56 and ground.

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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Revision: May 2014 INL-17 2014 Frontier

INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

INTERIOR ROOM LAMP CONTROL CIRCUIT

Description INFOID:00000000948013S

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:0000000009480140

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

${\sf 1.}$ 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:0000000009480141

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.
- While operating the test item, check voltage between BCM connector M20 terminal 63 and ground.

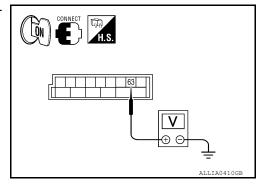
Connector Terminal	(·)	(-)	INT LAMP	Voltage
ON	Connector Terminal	(-)	INT LAWIF	
M20 63 Ground	M20 63	Ground	ON	0V
	M20 63	Ground	OFF	Battery voltage

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]

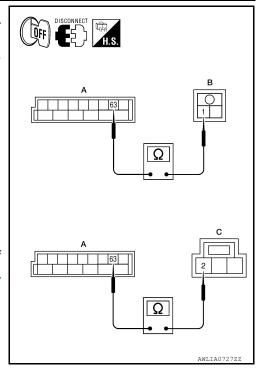
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M20, room lamp 2nd row connector and front room/map lamp connector.
- 3. Check continuity between BCM connector M20 (A) terminal 63 and interior room lamp connectors.

Term	inal	Terminal			Continuity
Connector	Terminal	Component Connector		Terminal	Continuity
M20 (A) 62		Room lamp 2nd row	R10 (B)	1	Yes
M20 (A) 63	03	Front room/map lamp	R9 (C)	2	163

Is the inspection result normal?

YES >> Check interior room lamp for an open. If OK, replace the BCM. Refer to BCS-49, "Removal and Installation". If NG, replace the interior room lamp. Refer to INL-63, "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.
- Check continuity between BCM connector M20 terminal 63 and ground.

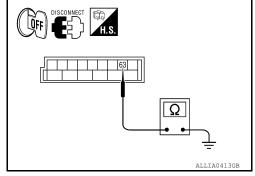
Connector	Terminal	_	Continuity
M20	63	Ground	No

Is the inspection result normal?

YES >> Check interior room lamp for a short circuit. If OK, replace the BCM. Refer to BCS-49, "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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Description INFOID:000000009480142

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

Diagnosis Procedure

INFOID:0000000009480143

[WITH POWER DOOR LOCKS]

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 (if equipped)?

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</u>, "<u>KING CAB</u>: <u>Description</u>" (king cab), <u>DLK-29</u>, "CREW CAB: <u>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.
- 2. 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

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-49, "Removal and Installation".

NO >> Repair harness or connectors.

< 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

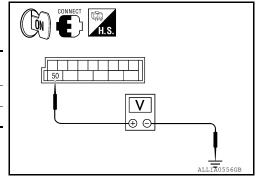
For fixed ON, GO TO 13

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
	50	Ground	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

CHECK CARGO LAMP GROUND CIRCUIT

 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 $^{
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< DTC/CIRCUIT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

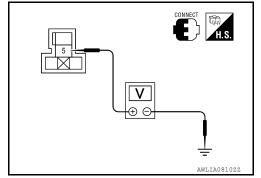
Check voltage between cargo lamp relay connector M165 terminal 5 and ground.

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.

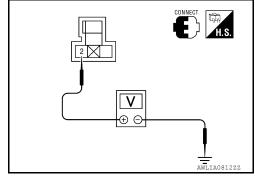
>> Repair harness or connector between splice and cargo NO lamp relay.



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	vollage	
M165	2		Battery voltage	



Is the inspection result normal?

YES >> GO TO 12

>> Repair harness or connectors. NO

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	
Connector	Terminal	Connector	Terminal	Continuity
M19	50	M165	1	Yes

Is the inspection result normal?

- >> Replace BCM. Refer to BCS-49, "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-49, "Removal and Installation".

NO >> Repair harness or connectors.

Component Inspection

INFOID:0000000009480144

CARGO LAMP SWITCH

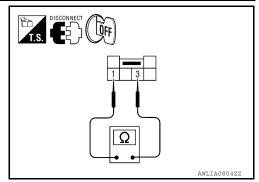
.CHECK CARGO LAMP SWITCH

< 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

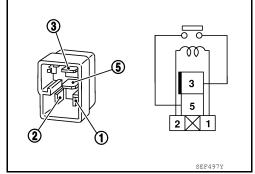
NO >> Replace cargo lamp switch.

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	
Q	5	Power and ground supplied to terminals 1 and 2	Yes
	,	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 [WITH POWER DOOR LOCKS]

< DTC/CIRCUIT DIAGNOSIS >

IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

Description INFOID:0000000009480145

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

Component Function Check

INFOID:0000000009480146

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?

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

Diagnosis Procedure

INFOID:0000000009480147

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	•		OFF	Battery voltage

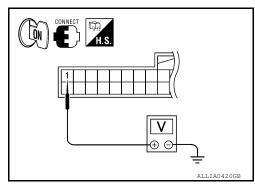
Is the inspection result normal?

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 >

- 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.

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

A B B Q Z

Is the inspection result normal?

- YES >> Check the ignition keyhole illumination for an open. If OK, replace the BCM. Refer to <u>BCS-49</u>. "Removal and Installation". If NG, replace ignition keyhole illumination.
- NO >> Repair harness or connectors.

3. CHECK IGNITION KEYHOLE ILLUMINATION SHORT CIRCUIT

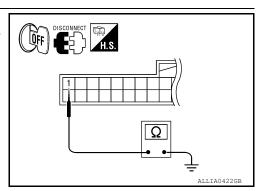
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M18 and ignition keyhole illumination connector.
- 3. Check continuity between BCM connector M18 terminal 1 and ground.

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-49, "Removal and Installation". If NG, replace ignition keyhole illumination.

NO >> Repair harness or connectors.



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Revision: May 2014 INL-25 2014 Frontier

< 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 SW	Ignition switch ACC	On
ACC ON SW AIR COND SW AIR PRESS FL AIR PRESS FR AIR PRESS RR AUTO LIGHT SW BRAKE SW BUCKLE SW BUZZER CARGO LAMP SW CDL LOCK SW CDL UNLOCK SW DOOR SW-AS DOOR SW-DR	A/C switch OFF	Off
AIR COND 3W	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	Lighting switch AUTO	On
DDAKE SW	Brake pedal released	Off
DRAKE SW	Brake pedal applied	On
DUCKLE CW	Seat belt buckle unfastened	Off
BUCKLE SW BUZZER	Seat belt buckle fastened	On
DI 177ED	Buzzer in combination meter OFF	Off
BUZZEK	Buzzer in combination meter ON	On
CARCO LAMP SW	Cargo lamp switch OFF	Off
CARGO LAIVIF 3VV	Cargo lamp switch ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
ODL LOCK SW	Press door lock/unlock switch to the LOCK side	On
CDL LINI OCK SW	Door lock/unlock switch does not operate	Off
CDL UNLOCK 3W	Press door lock/unlock switch to the UNLOCK side	On
DOOD SW AS	Front door RH closed	Off
DOOR SW-AS	Front door RH opened	On
	Front door LH closed	Off
DOOK SW-DIX	Front door LH opened	On
DOOR SW DI	Rear door LH closed	Off
DOOR SW-RL	Rear door LH opened	On
AIR PRESS FR AIR PRESS RL	Rear door RH closed	Off
DOOK GW-KK	Rear door RH opened	On

< ECU DIAGNOSIS INFORMATION >

[WITH POWER DOOR LOCKS]

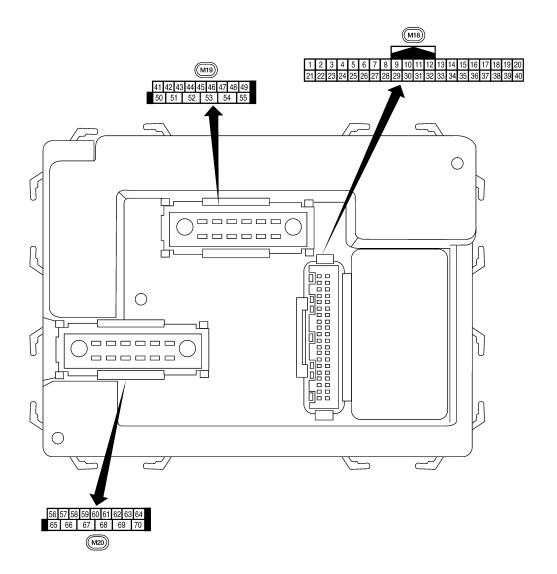
Monitor Item	Condition	Value/Status	
FAN ON SIG	Blower motor fan switch OFF	Off	
-AN ON SIG	Blower motor fan switch ON	On	
R FOG SW	Front fog lamp switch OFF	Off	
K1003W	Front fog lamp switch ON	On	
FR WASHER SW	Front washer switch OFF	Off	
K WASHEK SW	Front washer switch ON	On	
R WIPER LOW	Front wiper switch OFF	Off	
R WIPER LOW	Front wiper switch LO	On	
R WIPER HI	Front wiper switch OFF	Off	
-K WIFEK III	Front wiper switch HI	On	
	Front wiper switch OFF	Off	
R WIPER INT	Front wiper switch INT	On	
D WIDED STOD	Any position other than front wiper stop position	Off	
FR WIPER STOP	Front wiper stop position	On	_
1474DD 0144	When hazard switch is not pressed	Off	_
HAZARD SW	When hazard switch is pressed	On	_
HEAD LAMP SW 1	Headlamp switch OFF	Off	_
1EAD LAMP SW 1	Headlamp switch 1st	On	
15 A D . A A A D . O A A O	Headlamp switch OFF	Off	_
HEAD LAMP SW 2	Headlamp switch 1st	On	
II DE AM CVA	High beam switch OFF	Off	_
HI BEAIN SW	High beam switch HI	On	
D DECOT EL 4	ID registration of front left tire incomplete	YET	
D REGST FLT	ID registration of front left tire complete	DONE	
D DECOT ED4	ID registration of front right tire incomplete	YET	
D REGST FRT	ID registration of front right tire complete	DONE	
D DECCE DI 4	ID registration of rear left tire incomplete	YET	
D REGST RL1	ID registration of rear left tire complete	DONE	_
D DECCT 224	ID registration of rear right tire incomplete	YET	_
D REGST RR1	ID registration of rear right tire complete	DONE	-1
CNI ONI CIAI	Ignition switch OFF or ACC	Off	
GIN OIN SW	Ignition switch ON	On	_
ON OW CAN	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 0VI 114 0V4	Door key cylinder LOCK position	Off	_
REY CYL LK-SW	Door key cylinder other than LOCK position	On	_
VEV 0V(11N; 0)**	Door key cylinder UNLOCK position	Off	_
KEY CYL UN-SW	Door key cylinder other than UNLOCK position	On	_
/=\ / a\ \ a\ \	Mechanical key is removed from key cylinder	Off	
KEY ON SW	Mechanical key is inserted to key cylinder	On	_
(E) (I EOC) 22::	LOCK button of key fob is not pressed	Off	_
D REGST FL1 D REGST FL1 D REGST RL1 D REGST RR1 D REGST RL1 D REGS	LOCK button of key fob is pressed	On	

< ECU DIAGNOSIS INFORMATION >

[WITH POWER DOOR LOCKS]

Monitor Item	Condition	Value/Status
KEYLESS PANIC KEYLESS UNLOCK LIGHT SW 1ST OIL PRESS SW OPTICAL SENSOR PASSING SW TURN SIGNAL L TURN SIGNAL R VEHICLE SPEED	PANIC button of key fob is not pressed	Off
KETLESS PAINIC	PANIC button of key fob is pressed	On
KEALESS TIMI OOK	UNLOCK button of key fob is not pressed	Off
KETLESS UNLOCK	UNLOCK button of key fob is pressed	On
LICUT OW ACT	Lighting switch OFF	Off
LIGHT SW 151	Lighting switch 1st	On
KEYLESS PANIC KEYLESS UNLOCK LIGHT SW 1ST OIL PRESS SW OPTICAL SENSOR PASSING SW REAR DEF SW TURN SIGNAL L TURN SIGNAL R VEHICLE SPEED	Ignition switch OFF or ACC Engine running	Off
	Ignition switch ON	On
	Bright outside of the vehicle	Close to 5V
	Dark outside of the vehicle	Close to 0V
DACCING CW	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
DEAD DEE CW	Rear window defogger switch OFF	Off
OIL PRESS SW • Enging Ignition Deptical Sensor Dark of Other to Lightin Rear was Rear was running signed to the service of	Rear window defogger switch ON	On
OIL PRESS SW • Engine running Ignition switch ON Bright outside of the Dark outside of the Other than lighting Lighting switch PA Rear window defo Rear window defo Turn signal switch Turn signal switch	Turn signal switch OFF	Off
TURN SIGNAL L	Turn signal switch LH	On
TUDNI SIGNIAL D	Turn signal switch OFF	Off
I UNIN SIGNAL K	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
WADNING LAMD	Low tire pressure warning lamp in combination meter OFF	Off
PASSING SW REAR DEF SW TURN SIGNAL L	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				
6	R	Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms SKIA5292E
7	0	Front door lock as-	laaut		ON (open, 2nd turn)	Momentary 1.5V
7	GR	sembly LH (key cylin- der switch) unlock	Input	055	OFF (closed)	0V
	0.5	Front door lock as-		OFF 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]

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	100		Signal		Measuring condition	- · · · ·			
Terminal	Wire color	Item	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)			
13	L	Rear door switch RH	Input	OFF	ON (open)	0V			
13	_	(Crew Cab)	iliput	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	٧	Remote keyless entry receiver (power supply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 •••50 ms			
20	G	Remote keyless entry	Input	OFF	Stand-by (keyfob buttons re- leased)	(V) 6 4 2 0 			
20	G	receiver signal (Signal)	·	,	OFF	put OII		When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2
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			
	V V	nal	input	JIV.	A/C switch ON	0V			
28	R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage			
	- 1	. Tork Slower mornion	input	O.V	Front blower motor ON	0V			
29	G	Hazard switch	Input	OFF	ON	0V			
)	nazaru switch input	Input Of I	OFF	OFF	5V			
31	GR	Cargo lamp switch	Input	OFF	ON	0V			
	5.1	cargo ramp ownor	pat	011	OFF	Battery voltage			

[WITH POWER DOOR LOCKS]

	\\/:ro		Signal		Measuring condition	Deference value or waveform	
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) 64 20 10 10 15 ms 15 ms 15 ms 15 ms	
33	GR	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **-5ms	
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				(V)	
36	LG	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	5ms SKIA5292E	
				2==	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-H		_	_	_	
40	P Y	CAN-L Rear window defogger	— Input	ON	Rear window defogger switch ON		
71	•	switch	mpat		Rear window defogger switch OFF	5V	
45	V	Lock switch	Input	OFF	ON (lock)	0V	
			r		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)			. ,	Dattery Voltage	

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					Measuring cond	dition	
Terminal	Wire	Item	Signal input/	lanition	weasuring cond	altion	Reference value or waveform
	color	ito	output	Ignition switch	-	or condition	(Approx.)
48	Р	Rear door switch LH	Input	OFF	ON (open)		0V
	•	(Crew Cab)		.	OFF (closed)		Battery voltage
50	Р	Cargo lamp	Output	OFF Any door open (ON)		(ON)	0V
	'	Cargo lamp	Output	011	OFF All doors closed (OFF)		Battery voltage
51	BG	Trailer turn signal (right)	Output	ON	Turn right ON		(V) 15 10 5 0 500 ms
52	LG	Trailer turn signal (left)	Output	ON	Turn left ON		(V) 15 10 500 ms SKIA3009J
56	R/Y	Battery saver output	Output	OFF	10 minutes after switch is turned		0V
				ON	ON —		Battery voltage
57	R/Y	Battery power supply	Input	_	_		Battery voltage
58	W	Optical sensor	Innut	ON	When optical s	ensor is illumi-	3.1V or more
56	VV	Optical serisor	Input	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 50 SKIA3009J
61	G	Turn signal (right)	Output	ON	Turn right ON		(V) 15 10 5 0 500 ms SKIA3009J
63	BR	Interior room/map	Output	OFF	Any door switch	ON (open) OFF (closed)	0V Battery voltage
		All door lock actuators			OFF (neutral)	J (5,5554)	0V
65	V	(lock)	Output	OFF	ON (lock)		Battery voltage
					ON (IUCK)		: 3.2. j : 2.1.2. 3 c

< ECU DIAGNOSIS INFORMATION >

[WITH 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
		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
		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:0000000010228015

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	_ /
	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]
4	 C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RL C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR 	ŀ
	C1719: [PRESSDATA ERR] RL C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1722: [CODE ERR] RR	I
	 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-26
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	_	Х	<u>WT-15</u>
C1709: [NO DATA] FR	_	Х	<u>WT-15</u>
C1710: [NO DATA] RR	_	Х	<u>WT-15</u>
C1711: [NO DATA] RL	_	Х	<u>WT-15</u>
C1712: [CHECKSUM ERR] FL	_	Х	<u>WT-17</u>
C1713: [CHECKSUM ERR] FR	_	Х	<u>WT-17</u>
C1714: [CHECKSUM ERR] RR	_	Х	<u>WT-17</u>
C1715: [CHECKSUM ERR] RL	_	Х	<u>WT-17</u>

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< ECU DIAGNOSIS INFORMATION >

[WITH POWER DOOR LOCKS]

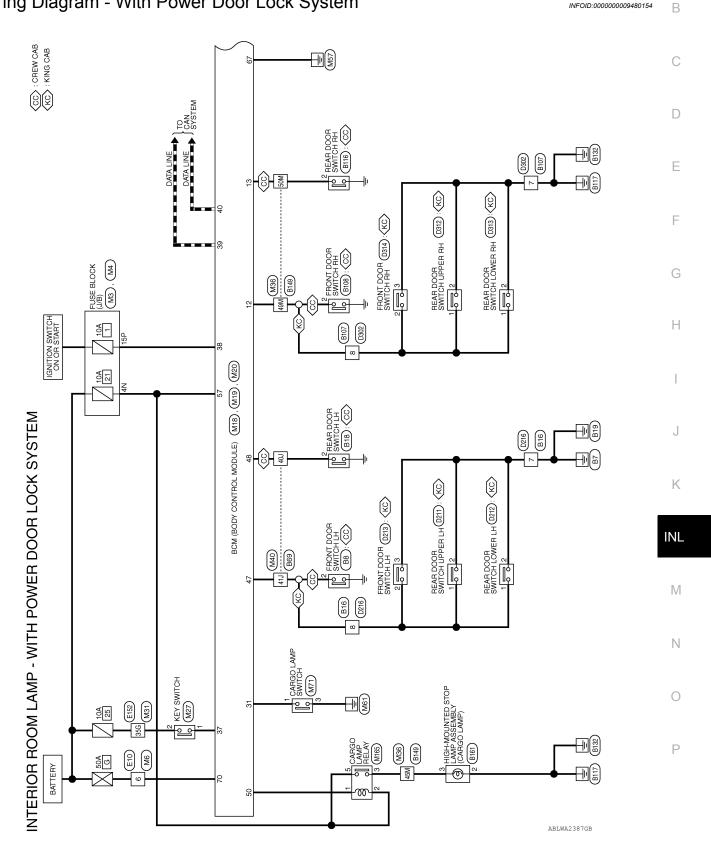
CONSULT display	Fail-safe	Low tire pressure warning lamp ON	Reference page
C1716: [PRESSDATA ERR] FL	_	X	<u>WT-19</u>
C1717: [PRESSDATA ERR] FR	_	Х	<u>WT-19</u>
C1718: [PRESSDATA ERR] RR	_	X	<u>WT-19</u>
C1719: [PRESSDATA ERR] RL	_	X	<u>WT-19</u>
C1720: [CODE ERR] FL	_	X	<u>WT-17</u>
C1721: [CODE ERR] 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	_	X	<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>

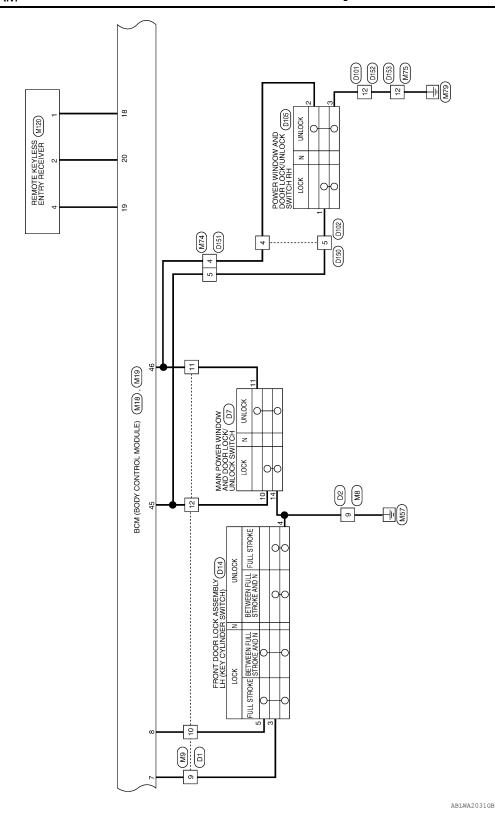
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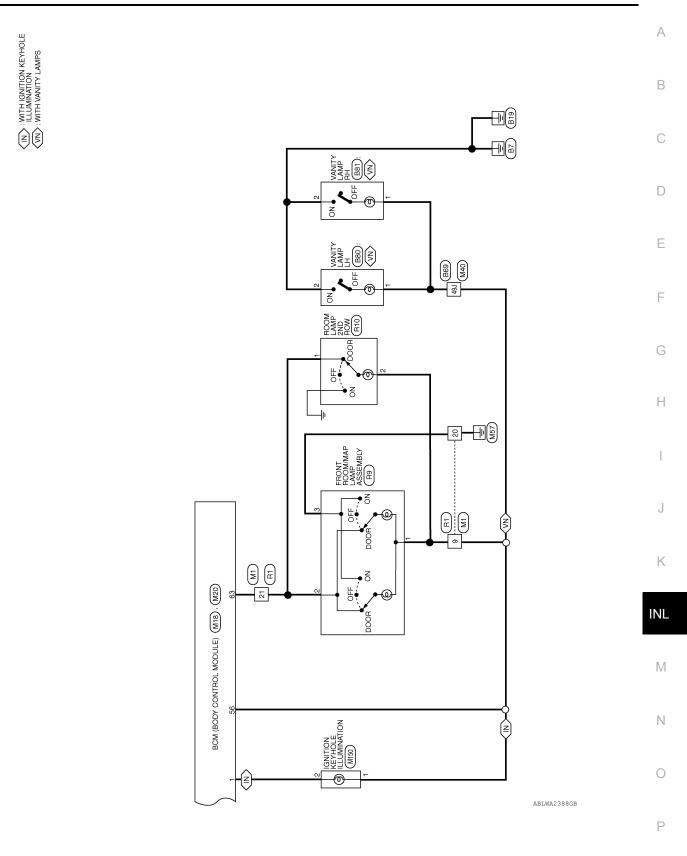
WIRING DIAGRAM

INTERIOR ROOM LAMP

Wiring Diagram - With Power Door Lock System







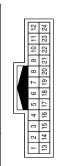
Connector No. M4
Connector Name FUSE BLOCK (J/B)

Connector Color WHITE

INTERIOR ROOM LAMP CONNECTORS - WITH POWER DOOR LOCK SYSTEM

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

M3	Connector Name FUSE BLOCK (J/B)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	



7N 6N 5N 4N

8 8



Signal Name	-	I	ı
Color of Wire	R/Υ	В	BB
Terminal No.	6	20	21

Signal Name	_	
Color of Wire	W/R	
Terminal No.	15P	

Signal Name

Color of Wire R/Y

Terminal No. 4

1	
W/R	
15P	
	,

			r		
	/IRE			1 1	
	۷С		$\overline{\Gamma}$	က	l
) <u> </u>	Ш	W	6 5 4	
6	IRE	둦	$\ \cdot \ $	2	L
6W	8	≥	Щ	9	ŀ
	ЭС	×		3	ŀ
<u>o</u>	lan	ŏ	L		L
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE			
Jun (June	nuc	1	É	4
[ŏ	ŭ	ŏ	G	: \	•

	WIRE TO WIRE	WHITE	8 7 6 5 4 3 2 1 16 15 14 13 12 11 10 9	Signal Name	-	I	_	-
ω -		_	8 7 6 16 15 14	Color of Wire	GR	SB	ГG	>
Connector No.	Connector Name	Connector Color	高 H.S.	Terminal No.	6	10	11	12

) WIRE		7 6 1
M8	WIRE TO	BROWN	25 4 7 7 10 9 8
Connector No.	Connector Name WIRE TO WIRE	Connector Color BROWN	H.S.

	RE TO WIRE	BROWN	0 9 8 7 6	Signal Name	-
ο <u>ν</u>	me WIF	lor BR	12 11 10 9	Color of Wire	В
COILLIECTOL INO.	Connector Name WIRE TO WIRE	Connector Color	响 H.S.	Terminal No.	6
		•			

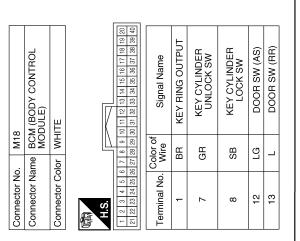
	WIRE TO WIRE	里	5 2 4 1	Signal Name	1
. M6		lor WHITE	m (g)	Color of Wire	M
Connector No.	Connector Name	Connector Color	၏ H.S.	Terminal No.	9

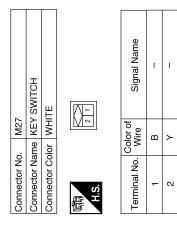
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M19	Connector Name BCM (BODY CONTROL MODULE)	WHITE	
Connector No.	onnector Name	Connector Color WHITE	

					_
Signal Name	CDL LOCK SW	CDL UNLOCK SW	DOOR SW (DR)	DOOR SW (RL)	CARGO LAMP OUTPUT
Color of Wire	>	LG	GR	Ь	Ь
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	BB	>	g	GR	В	W/R	٦	۵
Terminal No.	18	19	20	31	37	38	39	40





Connector No.	. M20	
Connector Name		BCM (BODY CONTROL MODULE)
Connector Color		BLACK
Į į		
斯斯 H.S.	65 66 6	56 57 58 59 60 61 62 64 65 66 67 68 69 70
Terminal No.	Color of Wire	Signal Name
56	R/Y	BATTERY SAVER OUTPUT
57	R/Y	BAT (FUSE)
63	BR	ROOM LAMP OUTPUT
29	В	GND (POWER)
0/	Μ	BAT (F/L)

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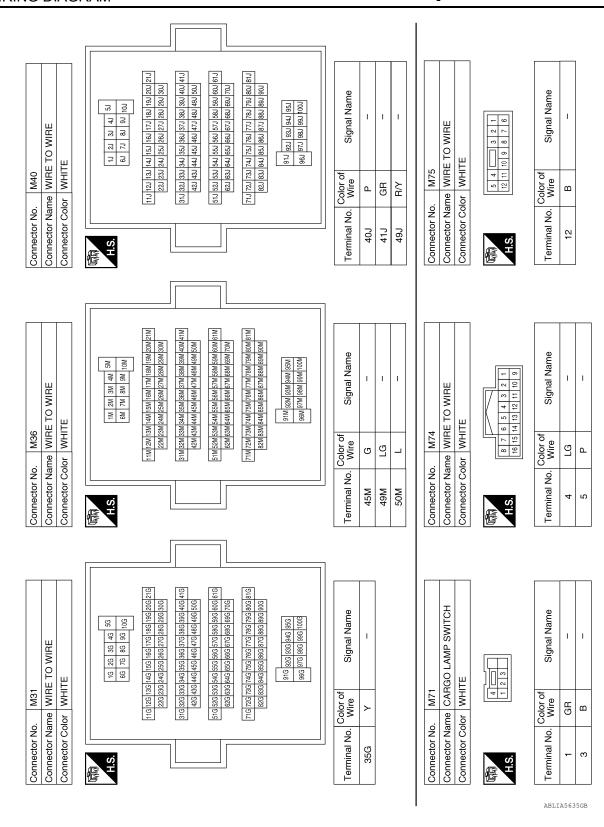
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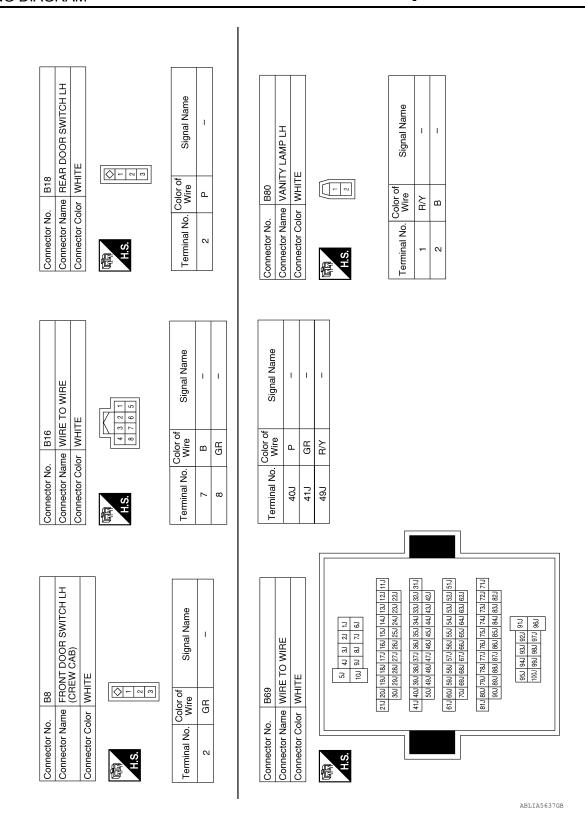
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	_			
AP RELAY		Signal Name	Signal Name	
Connector No. M165 Connector Name CARGO LAMP RELAY		Color of Wire P P P R/Y R/Y R/Y	Color of Wire Si	
Connector No.	Management Color	Terminal No.	35G CONTRACTOR OF THE CONTRACT	
01010				
M150 IGNITION KEYHOLE ILLUMINATION		Signal Name	E152 WINE TO WINE MAINTE 100 96 80 76 60 16 100 96 80 76 60 16 100 96 80 76 60 60 60 60 60 60 60 60 60 60 60 60 60	
		Vo. Color of Wire BRY		
Connector No.	Connector Color	Terminal No.	Connector Nor Connector Cold	
.				
M120 REMOTE KEYLESS ENTRY RECEIVER		Signal Name	NE TO WIRE TE Signal Name	
	Color WHITE	lo. Wire BR BR C	Solor of WHIF	
Connector No.	Connector Color	Terminal No.	Connector Nor. Connector Colc Connector Colc Terminal No.	
			ABLIA5636GB	



	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 Slor WHITE Slor 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	

Connector No. R1 Connector No. R9	STOP Connector Name WIRE TO WIRE Connector Name FRONT ROOM/MAP LAMP Connector Color WHITE Connector Color WHITE	(成)	Terminal No. Wire Signal Name Terminal No. Wire Signal Name	9 R/Y – 1 R/Y –	20	21 BR - 3 B -	Connector No. D1	D ROW Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Connector Color BROWN	(本) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Terminal No Color of Sinnal Name Sinnal Name	Wile object while	<u>ი</u>	10	11 W -	
or No. B161	or Name HIGH-MOUNTED STOP LAMP ASSEMBLY or Color WHITE	1 2 3	l No. Wire Signal Name	I B	- B		or No. R10	or Name ROOM LAMP 2ND ROW or Color WHITE		Color of Signal Name	Wire	- L			

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	Name .	WIRE	В
3	Signal Name	0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	С
3. D101 ame WIRE blor WHIT	Color of Wire B	Cok Williams	D
Connector No. D101 Connector Name WIRE TO WIRE Connector Color WHITE 2	Terminal No.	Connector No. Connector Name Connector Color H.S. H.S. 4 L. 4 L. 5 F. 5 F.	Е
			F
FRONT DOOR LOCK ASSEMBLY LH GRAY 5 4 3 2 1	Signal Name - -	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH WHITE 2 3 4 5 5 5 9 10 11 12	G
D14 ASSEMBLY GRAY 5 4 3		D105 POWER WII SWITCH RH WHITE I 2 8 9 1	Н
	Color of Wire R/W B B SB		I
Connector No. Connector Name Connector Color H.S.	Terminal No.	Connector No. Connector Color Connector Color H.S. 1 L 2 V 3 U	J
			К
MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH WHITE 2 3 4	Signal Name	TO WIRE 12 13 14 15 16 Signal Name	INL M
D7 MAIN PG SWITCH OF WHITE	Color of Wire LG W	Connector No. D102 Connector Name WIRE TO WIRE Connector Color WHITE T 2 3 4 5 6 1 1 1 2 13 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	B-1
ctor Na.	Terminal No. C 10 11 14	Connector No. Connector Name Connector Color H.S. H.S. 4	N
Conne	Tem	Connel Connel Termir	0
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Connector No. D153 Connector Name WIRE TO WIRE Connector Color WHITE	H.S.	Terminal No. Wire Signal Name	Connector No. D213 Connector Name FRONT DOOR SWITCH LH (KING CAB) Connector Color WHITE	H.S. Color of Signal Name Signal Name
Connector No. D152 Connector Name WIRE TO WIRE Connector Color WHITE		Terminal No. Color of Wire Signal Name	Connector No. D212 Connector Name REAR DOOR SWITCH LOWER LH Connector Color BLACK	H.S. Color of Signal Name Terminal No. Wire
Connector No. D151 Connector Name WIRE TO WIRE Connector Color WHITE	H.S. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Terminal No. Color of Wire Signal Name 4 LG - (WITH KING CAB) 5 P - (WITH KING CAB) 5 W - (WITH KING CAB) 5 W - (WITH CREW CAB)	Connector No. D211 Connector Name REAR DOOR SWITCH UPPER LH Connector Color BLACK	H.S. Terminal No. Color of Signal Name Color of Signal Name Color of Color o

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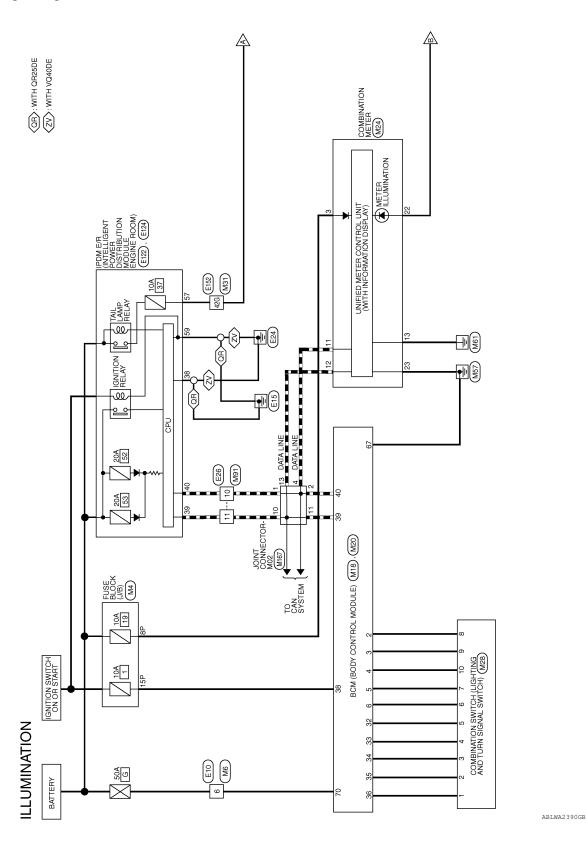
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Agme Agme	В
Connector No. D312 Connector Name REAR DOOR SWITCH Connector Color of Signal Name 1 L 2 B	С
loo. D312 loolor BLACK Color of L L L L L L L L L L L L L	D
Connector No. Connector Name Connector Color 1 2 2	Е
	F
WIRE TO WIRE WHITE WHITE Or of Signal Name B3	G
Connector No. D302 Connector Name WIRE TO WIRE Connector Color of Signal Terminal No. Wire Connector Name FRONT DOOR 8 RH (KING CAB) Connector Color of RH (KING CAB) Connector Color of Signal Terminal No. Wire 3 B Connector No. D314 Connec	Н
	I
Connector No. Connector No. Connector No. Connector No. Connector No. Connector No. Connector No. Connector No. 2 H.S. Terminal No. Connector Color 3 R. Connector Color Solution No. So	J
	K
D216 WIRE TO WIRE WHITE I 2 3 4 4 Signal Name S	INL M
Color of Wire B B LACK Note B Color of Wire B Color of B Color of Wire B Color of Wire B Color of B C	
nector No nector	N
Connec Connec Connec Connec Connec	0

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ILLUMINATION

Wiring Diagram



(4W): WITH 4-WHEEL DRIVE

(AA): WITH AUTO AC

(BA): WITH AUTO AC

(BA): WITH BASE AUDIO SYSTEM

(C): WITH ELECTRONIC LOCKING REAR DIFFERENTIAL

(EN): WITH CLUTCH INTERLOCK CANCEL SWITCH

(DL): WITH ELECTRONIC LOCKING REAR DIFFERENTIAL

(EN): WITH DUTH NAVI

(GK): WITH BASE AUDIO SYSTEM FOR MEXICO

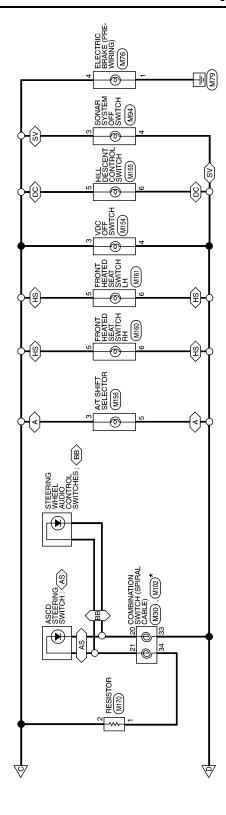
(VV): WITH DISPLAY AUDIO AND AMPLIFIER

(WY): WITH DISPLAY AUDIO AND AMPLIFIER

(WZ): WITH DISPLAY AUDIO WITHOUT AMPLIFIER

(YZ): MANUAL WITH TYPE 1 Α В С D Е F G Н J M443 : GK M464 : WZ M465 : WY K INL \mathbb{N} Ν 0 ABLWA2399GB Р

(A): 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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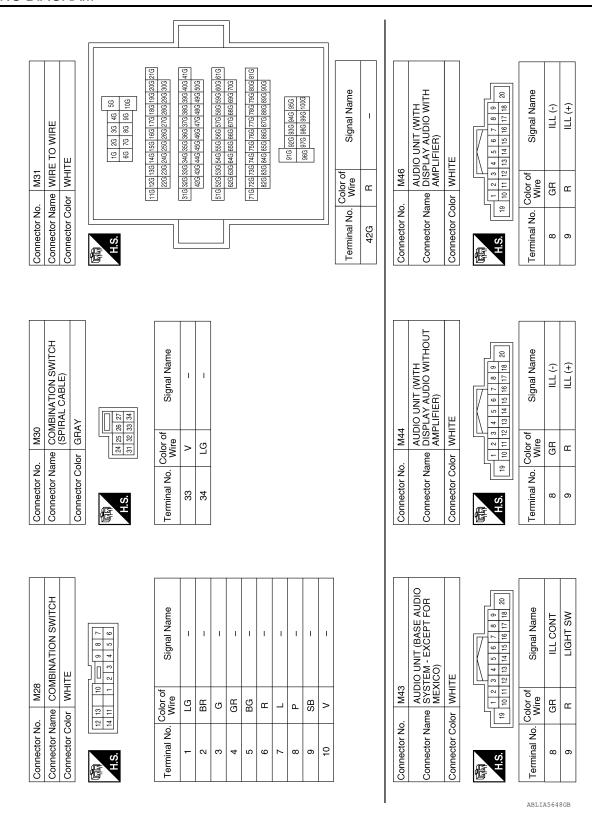
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Connector No. Connector No. Connector No. B Connector No. Connector No. Connector No. Connector No. Connector No. ALS. Terminal No. M.S. Terminal No. M.S. R.S. R.S.		12	13	22 BR	23 B	_					
Connector No. M6	X										
Connector No. M4 Connector No. M4 Connector No. M4 Connector Color WHITE Signal Name RP RPY Connector Name RPY RPY Connector Name RPY RPY RPY Connector Name RPY	SB INPUT 4			6 R INPUT 1 32 BG OUTPUT 5	GB GB	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

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-	Connector Name FRONT AIR CONTROL (WITH AUTO A/C)	CK	22 21 20 19 18 17 16 15 14	Signal Name	ILLUM+	ILLUM-	
M52	e FRC	r BLA	26 25 24 23 22 21	Color of Wire	g	BB	
Connector No.	Connector Nan	Connector Color BLACK	H.S.	Terminal No. Wire	ω	6	
	Connector Name FRONT AIR CONTROL (MANUAL WITH TYPE 1)	¥	21 20 19 18 17 16 15 14 22 1	Signal Name	ILLUM+	ILLUM-	
M50	FRON (MANI	BLACI	12 11 10 9 8 25 24 23 22 21	Color of Wire	ŋ	BR	
Connector No.	Connector Name	Connector Color BLACK	H.S. 26 25	Terminal No. Wire	8	6	
	FRONT AIR CONTROL (MANUAL WITH TYPE 2)	Y	21 20 19 18 17 16 15 14	Signal Name	ILLUM+	ІГГОМ-	
M49	ne FRON (MANU	or BLAC	25 24 23 22	Color of Wire	9	BR	
Connector No.	Connector Name FRONT AIR CON (MANUAL WITH	Connector Color BLACK	H.S. 26	Terminal No. Wire	80	6	

Connector No.). M76	
Connector Name		ELECTRIC BRAKE (PRE- WIRING)
Connector Color WHITE	olor WH	ΠE
原 H.S.	0 -	3 4 5 6
Terminal No.	Color of Wire	Signal Name
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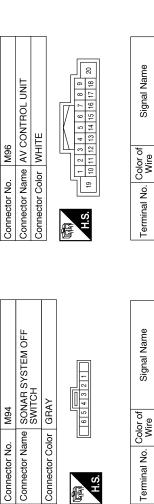
	Connector Name CARGO LAMP SWITCH	TE		Signal Name	ı	1
Ξ.	me CAF	lor WH	4 - 2	Color of Wire	۵	^
Connector No.	Connector Na	Connector Color WHITE	所 H.S.	Terminal No.	2	4

HAZARD SWITCH WHITE	1 2 4	of Signal Name	1	-
e z		Color of Wire	ш	a
Connector No. M55 Connector Name HAZAR Connector Color WHITE	H.S.	Terminal No.	3	V

Signal Name	1	1	
Color of Wire	Н	BR	
Terminal No.	3	4	

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Connector Color GRAY

M94

Connector No.

Connector Name | WIRE TO WIRE Connector Color WHITE

M91

Connector No.

19 10 11 12 13 14 15 16 17 18 20	Signal Name	LIGHT SW	
10 11 12 1	Color of Wire	œ	
H.S.	Terminal No. Wire	6	
_			•
5 4 3 2 1	Signal Name	1	ı
2	75		Н

Colo	Н			
Terminal No. Wir	6			
Signal Name	ı	I		
	Œ	BR		
Terminal No. Color of Wire	3	4		
Signal Name	ı	ı		
Color of Wire	Ь	_		
Terminal No. Wire	10	11		

Н	4WD SHIFT SWITCH	٨٨	12345678	Signal Name	-	-
. M141		lor GRAY	12	Color of Wire	Œ	BB
Connector No.	Connector Name	Connector Color	明 H.S.	Terminal No.	7	8

COMBINATION SWITCH (SPIRAL CABLE)	٩٧	[4 5 6 7 18 9 20 21]	Signal Name	-	-
	lor GR.	14 15 16 17	Color of Wire	Χ	Я
Connector Name	Connector Color GRAY	所 H.S.	Terminal No.	20	21

M102

Connector No.

Connector Name AV CONTROL UNIT Connector Color WHITE A	NTROL UNIT	Connector No.	. No.	M97	_								
7 26 25 24 23 22 8 38 34 38 37 36 35 34	7 28 25 24 23 22 8 8 35 34 8 35 34	Connector	. Name	٨٧	$^{\circ}$	Z	l R	7	5	⋾			
32 31 30 28 28 27 86 25 24 23 22 42 44 44 44 44 44 41 40 39 38 37 36 38 37 36 5 34	32 31 30 29 28 77 26 25 24 23 22 44 43 42 41 40 39 38 37 38 35 34	Connector	Color	×	E								
32 31 30 29 28 27 26 25 24 23 22 44 43 42 41 40 39 38 37 36 35 34	32 31 30 29 28 27 26 25 24 23 22 44 45 42 42 41 40 39 38 37 38 35 34					- 11	- IV	- 117					
44 43 42 41 40 39 38 37 36 35 34	44 43 42 41 40 39 38 37 36 35 34 34	, P	32 31	30	28	27	26	32	24	23	22	21	
		Ċ	44 43 4	12 41	9	ස	æ	37	ဗွ	35	34	33	

Signal Name	MR OUTPUT	ILL CONT	
Color of Wire	Д	GR	
Terminal No.	23	44	

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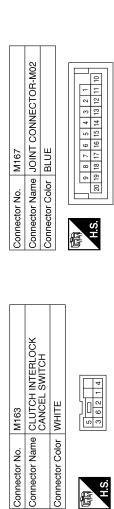
Connector No.). M149	•	Connector No. M154	. M154		Connector No. M155	No.	55
Sonnector Name DIFFERENTIAL SWITCH	ame DIFFERE SWITCH	ERENTIAL LOCK MODE	Connector Name VDC C	me VDC	Connector Name VDC OFF SWITCH	Connector	Name HIL SW	Connector Name HILL DESCENT CONTROL SWITCH
Connector Color WHITE	olor WHI	IE .		5		Connector Color WHITE	Color WH	ITE
刷.S.	4 0	2 1	H.S.	9	4 3 2 1	是 H.S.		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Ferminal No. Wire	Color of Wire	Signal Name	Terminal No. Wire	Color of Wire	Signal Name	Terminal No. Wire	lo. Color of Wire	Signal Name
4	Œ	1	м	<u>د</u>	ı	rc.	۳	ı
5	BB	1	4	BB	I	9	BB	ı

Connector No.		M159	Connector No.	M160
Connector Na	me CC	Connector Name DOOR MIRROR REMOTE CONTROL SWITCH	Connector Nar	Connector Name FRONT HEATED SEAT SWITCH RH
Connector Color WHITE	lor Wh	111	Connector Color BROWN	or BROWN
H.S.	0 0	3 4 6 7 10 11 12 13 14 15 16	S.H.	2 - 2 - 1 - 3 - 6 - 8 - 1 - 3 - 9 - 1 - 1 - 3 - 9 - 1 - 1 - 3 - 9 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
Terminal No. Wire	Color o Wire	f Signal Name	Terminal No. Wire	Solor of Signal Name
15	BB	1	5	SB –
16	Œ	ı	9	BG –

Connector No.	. M156	9
Connector Na	me A/T	Connector Name A/T SHIFT SELECTOR
Connector Color WHITE	lor WHI	IE.
H.S.	L 2	01889
Terminal No.	Color of Wire	Signal Name
3	ш	ı
5	BR	ı

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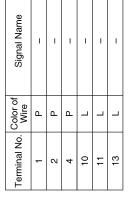


WHITE

Connector Color

Connector No. M163

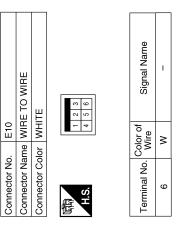
Signal Name	1	1	-	1	1	1
Color of Wire	Д	Ь	Ь	_	Γ	Т
Terminal No. Wire	-	2	4	10	11	13



Signal Name	_	_	
Color of Wire	В	BR	
Terminal No. Wire	2	9	

_	Connector Name FRONT HEATED SEAT SWITCH LH	ПЕ	98	Signal Name	-	_
. M161	me FRC SW	lor WH	2 4	Color of Wire	æ	BR
Connector No.	Connector Na	Connector Color WHITE	原 H.S.	Terminal No. Wire	2	9

Connector No.	. E26	
Connector Name WIRE TO WIRE	me WIR	E TO WIRE
Connector Color WHITE	lor WHI	12
所 H.S.	8 9 10	3
Terminal No. Wire	Color of Wire	Signal Name
10	Ъ	ı
11	٦	ı



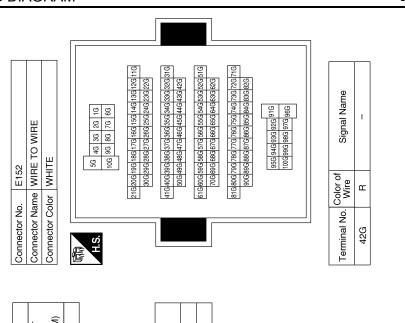
	r	
Connector No.		M170
Connector Name		RESISTOR
Connector Color BLACK	olor BI	ACK
E.S.		
Terminal No. Wire	Color o Wire	f Signal Name

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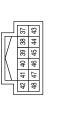
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Connector No.	E124
Connector Name	Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Color BLACK	BLACK

82 88 57 82 61 60	Signal Name	TAIL LAMP	GND (POWER)
62 39	Color of Wire	GR	В
H.S.	Terminal No.	57	29

E122	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	



Signal Nar	GND (SIGN	CAN-H	CAN-L
Color of	B	_	Ь
Terminal No.	38	39	40

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INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITH 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
All of the following lamps do not turn ON Front room/map lamp assembly Room lamp 2nd row Vanity mirror lamps (if equipped) Ignition keyhole illumination (if equipped)	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-22, "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 area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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PREPARATION

< PREPARATION >

[WITH POWER DOOR LOCKS]

PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000009480159

Tool number (TechMate No.) Tool name		Description
— (J-46534) Trim Tool Set	AWJIAO483ZZ	Removing trim components

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REMOVAL AND INSTALLATION

INTERIOR ROOM LAMP

Removal and Installation

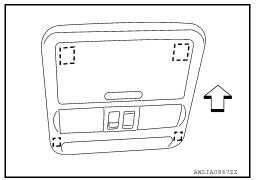
FRONT ROOM/MAP LAMP ASSEMBLY

Removal

The front room/map lamp assembly is replaced as part of the roof console. Refer to INT-25, "Removal and Installation".

<: Front

[]: Metal clip



Installation

Installation is in the reverse order of removal.

Bulb or Lens Replacement

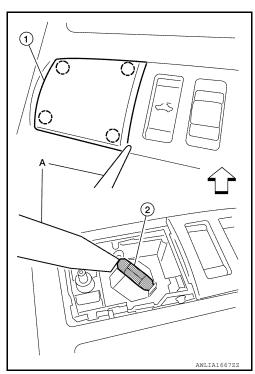
1. Using a suitable tool (A), remove the front room/map lamp RH and/or LH lenses (1) as necessary.

⟨
⇒: 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

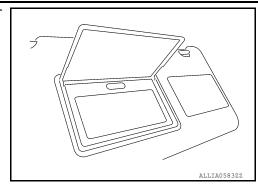
Revision: May 2014 INL-63 2014 Frontier

INTERIOR ROOM LAMP

[WITH POWER DOOR LOCKS]

< REMOVAL AND INSTALLATION >

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.

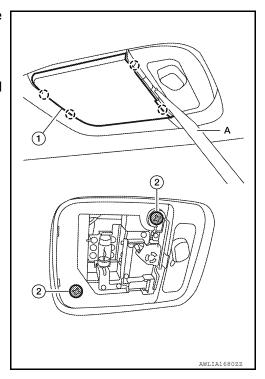
Bulb Replacement

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.



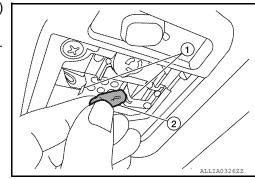
Installation

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

< REMOVAL AND INSTALLATION >	[WITH POWER DOOR LOCKS]
Install the room lamp lens.	

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ILLUMINATION

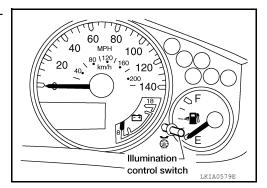
Removal and Installation

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ILLUMINATION CONTROL SWITCH

Removal

The illumination control switch is replaced as a part of the combination meter. Refer to MWI-90, "Removal and Installation".



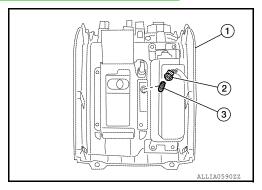
Installation

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).



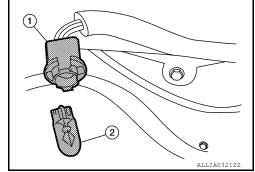
Installation

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

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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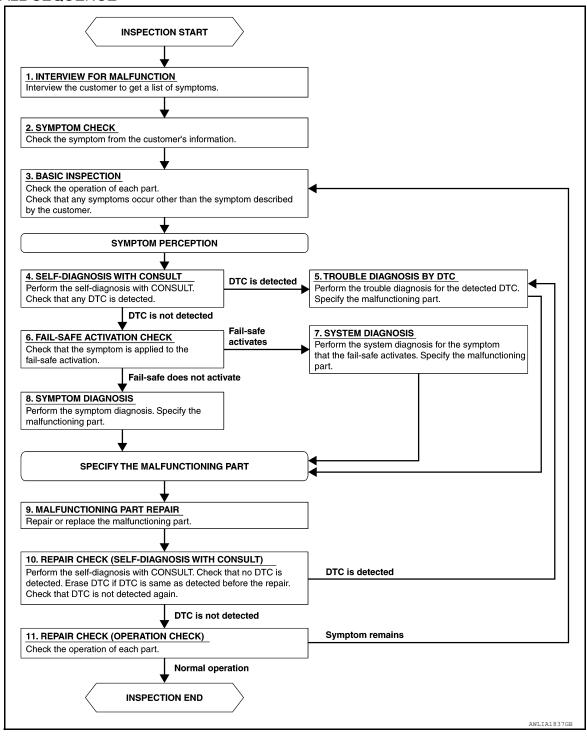
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BASIC INSPECTION

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 interview.	occur other than those mentioned in the customer
>> 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 a <u>Does the fail-safe activate?</u>	ctivation.
YES >> GO TO 7	
_NO >> GO TO 8	
7.SYSTEM DIAGNOSIS	
Perform the system diagnosis for the system in which the fa	ail-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	Γ)
Perform the self-diagnosis with CONSULT. Verify that no D	
the repair. Verify that DTC is not detected again.	1 00 are detected. Liabe all D 1 03 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?

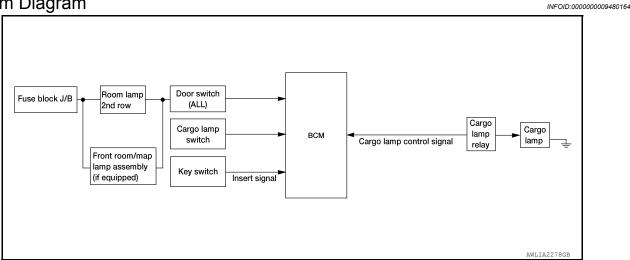
YES >> Inspection End

NO >> GO TO 3

SYSTEM DESCRIPTION

INTERIOR ROOM LAMP

System Diagram



System Description

INFOID:0000000009480165

OUTLINE

• Room lamp 2nd row and front room/map lamp (if equipped) 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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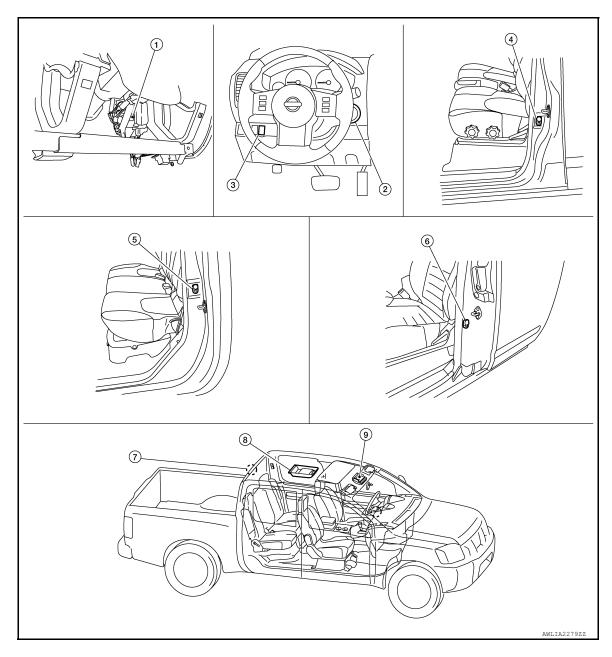
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Component Parts Location

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- 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:0000000009480167

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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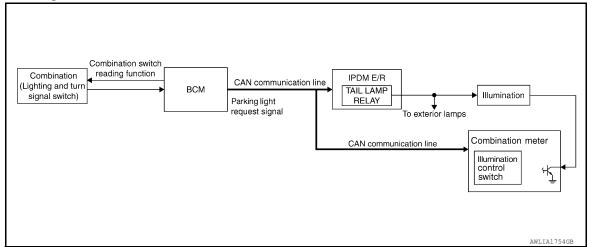
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ILLUMINATION CONTROL SYSTEM

System Diagram

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System Description

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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

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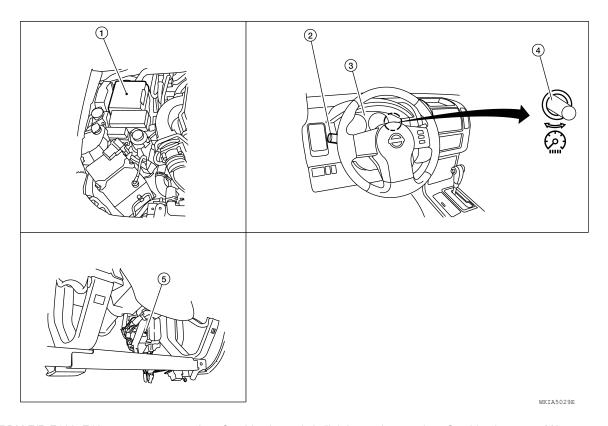
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- 1. IPDM E/R E122, E124
- 4. Illumination control switch (built into combination meter)
- Combination switch (lighting and turn 3. Combination meter M24 signal switch) M28
- BCM M18, M20 (view with lower instrument panel LH removed)

Component Description

INFOID:0000000009480171

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.

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT POWER DOOR LOCKS]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000010229282

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)

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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-UNLCK INTCOM	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

INFOID:0000000009480174

DTC/CIRCUIT DIAGNOSIS

INTERIOR ROOM LAMP

Diagnosis Procedure

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

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the harness or connectors.

2.CHECK INTERIOR ROOM LAMP GROUND

- 1. 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	Terminal	(-)	Door states	Continuity	
Room lamp 2nd row	R10	D10 1		Open	Yes	
Room lamp 2nd row	KIO	'	Ground	Closed	No	
Front room/man Jamn	nt room/map lamp R9 2	2	Ground	Open	Yes	
т топт тоопитпар таптр		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	(-)		
Front door switch LH	D213	3	Ground	Yes	
Front door switch RH	D314	3	Ground	165	

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.

DISCONNECT THIS.

INFOID:0000000009480175

Component Inspection (Door Switch)

CREW CAB

1. CHECK DOOR SWITCHES

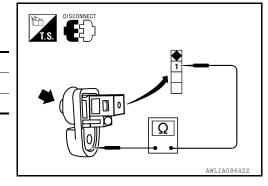
- 1. Disconnect door switch.
- 2. Check continuity between door switch terminal 1 and ground.

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

Is the inspection result normal?

YES >> Inspection End

NO >> Replace door switch.



KING CAB

1. CHECK DOOR SWITCHES

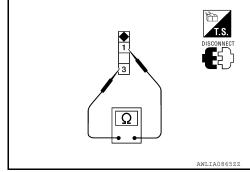
- 1. Disconnect door switch.
- 2. Check continuity between door switch terminals 1 and 3.

Item	Terminal	Condition	Continuity
Door switches	Door switches 1 – 3	Open	Yes
Door switches		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:000000009480176

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

Diagnosis Procedure

INFOID:0000000009480177

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 (if equipped)?

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

В	BCM		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-49, "Removal and Installation".

NO >> Repair harness or connectors.

< 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

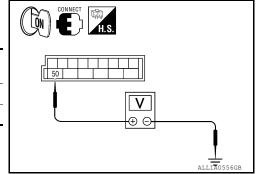
For fixed ON, GO TO 13

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 G	Ground	ON	0V
	Giodila	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

 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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[WITHOUT POWER DOOR LOCKS]

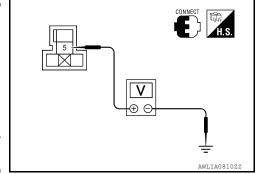
Check voltage between cargo lamp relay connector M165 terminal 5 and ground.

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

Is the inspection result normal?

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

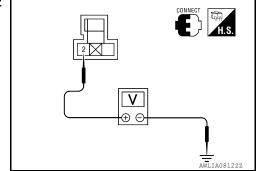
>> Repair harness or connector between splice and cargo NO lamp relay.



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



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		
Connector	Terminal	Connector Terminal		Continuity	
M19	50	M165	1	Yes	

Is the inspection result normal?

- >> Replace BCM. Refer to BCS-49, "Removal and Installation". YES
- 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-49, "Removal and Installation".

NO >> Repair harness or connectors.

Component Inspection

INFOID:0000000009480178

CARGO LAMP SWITCH

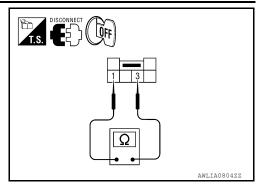
.CHECK CARGO LAMP SWITCH

< 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	Continuity	
1 – 3	ON	Yes	
1 – 3	OFF	No	



Is the inspection result normal?

YES >> Inspection End

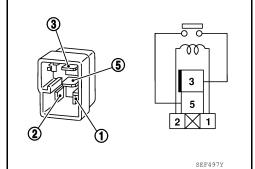
NO >> Replace cargo lamp switch.

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.

Terminal Condition		Condition	Continuity
	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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< 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 SW	Ignition switch ACC	On
AIR COND SW	A/C switch OFF	Off
AIR COND 3W	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	Lighting switch AUTO	On
BRAKE SW	Brake pedal released	Off
DRAKE SW	Brake pedal applied	On
BUCKLE SW	Seat belt buckle unfastened	Off
	Seat belt buckle fastened	On
BUZZER	Buzzer in combination meter OFF	Off
BUZZEK	Buzzer in combination meter ON	On
CARGO LAMP SW	Cargo lamp switch OFF	Off
CARGO LAIVIF 3VV	Cargo lamp switch ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
ODL 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 3W	Press door lock/unlock switch to the UNLOCK side	On
DOOR SW-AS	Front door RH closed	Off
DOOR 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 GW-KK	Rear door RH opened	On

< ECU DIAGNOSIS INFORMATION >

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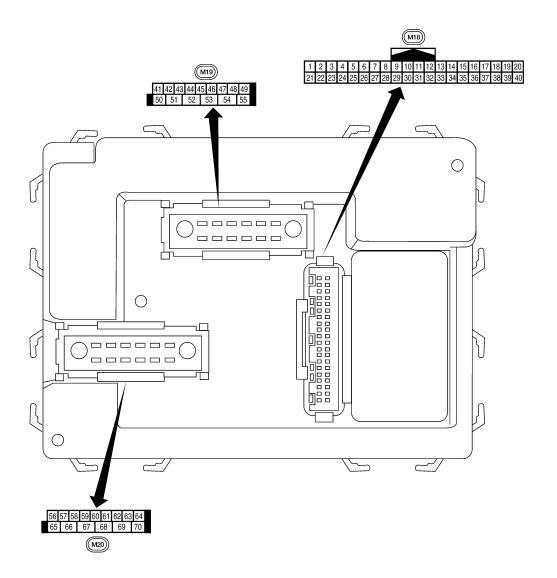
Monitor Item	Condition	Value/Status
FAN ON SIG	Blower motor fan switch OFF	Off
TAN ON SIG	Blower motor fan switch ON	On
FR FOG SW	Front fog lamp switch OFF	Off
1 K 1 OO OW	Front fog lamp switch ON	On
FR WASHER SW	Front washer switch OFF	Off
I IV WASHEIV SW	Front washer switch ON	On
FR WIPER LOW	Front wiper switch OFF	Off
TR WII LICEOW	Front wiper switch LO	On
FR WIPER HI	Front wiper switch OFF	Off
	Front wiper switch HI	On
FR WIPER INT	Front wiper switch OFF	Off
I IV VVII LIVIIVI	Front wiper switch INT	On
FR WIPER STOP	Any position other than front wiper stop position	Off
	Front wiper stop position	On
HAZARD SW	When hazard switch is not pressed	Off
HAZARD SW	When hazard switch is pressed	On
HEAD LAMP SW 1	Headlamp switch OFF	Off
HEAD LAWF SW 1	Headlamp switch 1st	On
HEAD LAMD SW/2	Headlamp switch OFF	Off
HEAD LAMP SW 2	Headlamp switch 1st	On
LI DEAM CW	High beam switch OFF	Off
HI BEAM SW	High beam switch HI	On
ID REGST FL1	ID registration of front left tire incomplete	YET
ID REGOT FLT	ID registration of front left tire complete	DONE
ID DECCT 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 REGGI REI	ID registration of rear left tire complete	DONE
ID REGST RR1	ID registration of rear right tire incomplete	YET
ID REGOT 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
KEN CALLK SW	Door key cylinder LOCK position	Off
KEY CYL LK-SW	Door key cylinder other than LOCK position	On
KEY CYL UN-SW	Door key cylinder UNLOCK position	Off
NET GTE UN-3VV	Door key cylinder other than UNLOCK position	On
KEN ON OM	Mechanical key is removed from key cylinder	Off
KEY ON SW	Mechanical key is inserted to key cylinder	On
VEVI ESS LOCK	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
OPTION OFNOOD	Bright outside of the vehicle	Close to 5V
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0V
DA COINIO OW	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 UNIN SIGNAL K	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
WADNING LAMD	Low tire pressure warning lamp in combination meter OFF	Off
WARNING LAMP	Low tire pressure warning lamp in combination meter ON	On

Terminal Layout



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Physical Values

[WITHOUT POWER DOOR LOCKS]

	\\\':		Signal		Measuring condition	Deference value as words
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) 4 2 0 ***5ms SKIA5292E
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	Innut	OFF	OFF (brake pedal is not depressed)	ov
J	LG	DIANG SW	Input	OLE	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)			(,	- International Control of the Contr

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	100		Signal		Measuring condition	- · · · · ·
Terminal	Wire color	Item	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
13	L	Rear door switch RH	Input	OFF	ON (open)	0V
13	_	(Crew Cab)	iliput	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	٧	Remote keyless entry receiver (power supply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 •••50 ms
20	G	Remote keyless entry			Stand-by (keyfob buttons re- leased)	(V) 6 4 2 0
20	G	receiver signal (Signal)	Input	OFF	When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2
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
	V V	nal	input	JIV.	A/C switch ON	0V
28	R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage
	- 1	. Tork Slower mornion	input	O.V	Front blower motor ON	0V
29	G	Hazard switch	Input	OFF	ON	0V
)	. razara ovitori	input		OFF	5V
31	GR	Cargo lamp switch	Input	OFF	ON	0V
	5.1	cargo ramp ownor	pat	OFF		Battery voltage

[WITHOUT 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) 6 4 2 0 ***5ms	
34	G	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms SKIA5291E	
35	BR	Combination switch output 2				0.0	
36	LG	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 + 5ms SKIA5292E	
27	D.	Kov owitch	Innut	OFF	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-H	_	_	_	_	
40	Р	CAN-L	_	_	_	_	
41	Y	Rear window defogger	Input	ON	Rear window defogger switch ON	0V	
71	,	switch	трис	OIV	Rear window defogger switch OFF	5V	
45	V	Lock switch	Input	OFF	ON (lock)	0V	
-1 0	v	LOCK GWILOT	mput	511	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)	Pattonwaltoss	
		Rear door switch low- er LH (King Cab)			OFF (closed)	Battery voltage	

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	Wire		Signal		Measuring cond	dition	Reference value or waveform
Terminal	color	Item	input/ output	Ignition switch	Operation	or condition	(Approx.)
48	Р	Rear door switch LH	Input	OFF	ON (open)		0V
40	Г	(Crew Cab)	iliput	OFF	OFF (closed)		Battery voltage
	1	Corne lower	0.44	OFF	Any door open	(ON)	0V
50	Р	Cargo lamp	Output	OFF	All doors close	d (OFF)	Battery voltage
51	BG	Trailer turn signal (right)	Output	ON	Turn right ON		(V) 15 10 5 0 SKIA3009J
52	LG	Trailer turn signal (left)	Output	ON	Turn left ON		(V) 15 10 50 500 ms SKIA3009J
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	ensor is illumi-	3.1V or more
30	VV	Optical Selisor	прис	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 50 SKIA3009J
61	G	Turn signal (right)	Output	ON	Turn right ON		(V) 15 10 500 ms 500 ms
63	BR	Interior room/map	Output	OFF	Any door switch	ON (open) OFF (closed)	0V Battery voltage
					OFF (neutral)	J (0.000a)	0V
65	V	All door lock actuators (lock)	Output	OFF	ON (lock)		Battery voltage
		, ,			ON (IOCK)		Dattery 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)		_	Within 45 seconds after ignition switch OFF	Battery voltage	
68 ¹	0		Output		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	
		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:0000000010229411

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	
	C1703: LOW PRESSURE TR 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] PR	
	C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL	
	• C1720: [CODE ERR] FL	
	C1721: [CODE ERR] FR	
	C1722: [CODE ERR] RR	
	C1723: [CODE ERR] RL C4734: [PATT VOLT L CAN EL	
	C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR	
	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-26
B2190: NATS ANTTENA AMP	_	_	<u>SEC-18</u>
B2191: DIFFERENCE OF KEY	_	_	<u>SEC-21</u>
B2192: ID DISCORD BCM-ECM	_	_	<u>SEC-22</u>
B2193: CHAIN OF BCM-ECM	_	_	<u>SEC-24</u>
C1708: [NO DATA] FL	_	Х	<u>WT-15</u>
C1709: [NO DATA] FR	_	Х	<u>WT-15</u>
C1710: [NO DATA] RR	_	Х	<u>WT-15</u>
C1711: [NO DATA] RL	_	Х	<u>WT-15</u>
C1712: [CHECKSUM ERR] FL	_	Х	<u>WT-17</u>
C1713: [CHECKSUM ERR] FR	_	X	<u>WT-17</u>
C1714: [CHECKSUM ERR] RR	_	Х	<u>WT-17</u>
C1715: [CHECKSUM ERR] RL	_	Х	<u>WT-17</u>

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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	_	Х	<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	_	X	<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	_	X	<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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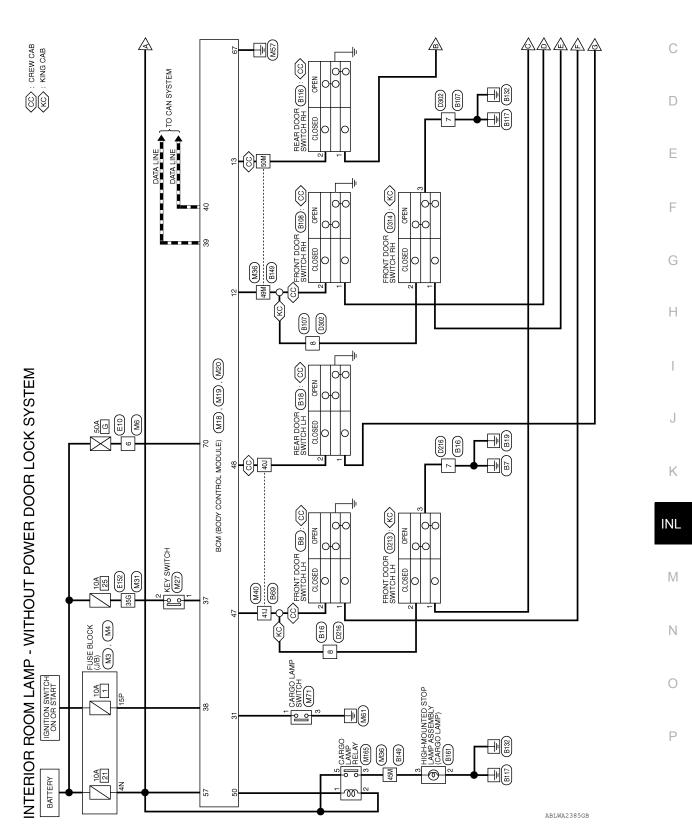
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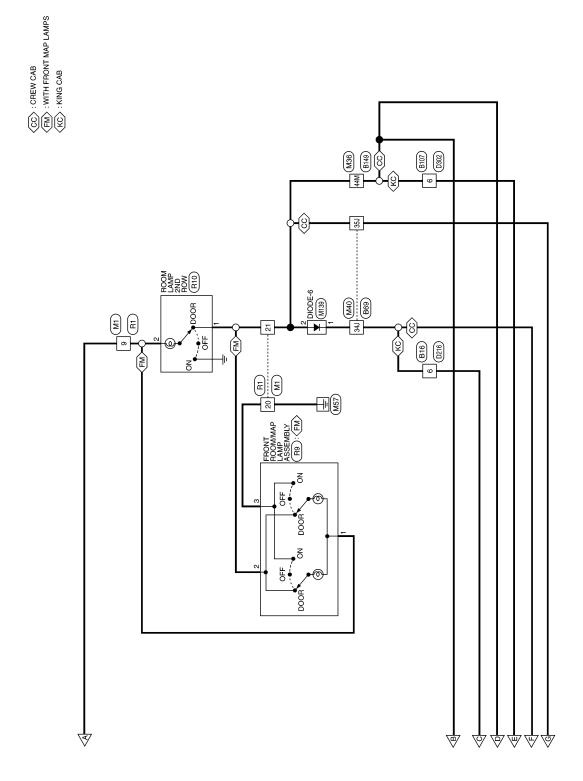
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WIRING DIAGRAM

INTERIOR ROOM LAMP

Wiring Diagram - Without Power Door Lock System





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KEY SW IGN SW CAN-H CAN-L

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Connector Name FUSE BLOCK (J/B)

Connector No.

Connector Color WHITE

INTERIOR ROOM LAMP CONNECTORS - WITHOUT POWER DOOR LOCK SYSTEM

Connector No.	M1	Connector No.	M3	

M3	Connector Name FUSE BLOCK (J/B)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	
	0	O	

Connector Name WIRE TO WIRE

Connector Color WHITE

Connector No.	M3
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE



7N 6N 5N 4N

[2] [2] [2] [2] [2] [2] [2] [2] [2] [2]	Signal Name	_	-	_
2 2	Color of Wire	R/Y	В	BR
	Terminal No. Wire	6	20	21

Signal Name

Color of Wire W/R

Terminal No. 15P

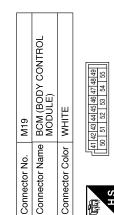
Signal Name

Color of Wire

Terminal No. 4 N

₽Y

Signal Name	I	ı	_	
Color of Wire	R/Y	В	BR	
Color of Wire	6	20	21	





BCM (BODY CONTROL MODULE)

M18

Connector No.

M6

Connector No.

Signal Name	DOOR SW (DR)	DOOR SW (RL)	CARGO LAMP OUTPUT
Color of Wire	GR	Ь	Р
Terminal No.	47	48	20

		9	38
		8	38
		17	37
		16	36
		15	35
		14	34
		13	33
	117	9 10 11 12 13 14 15 16 17 18 19	30 31 32 33
ı		Ξ	31
		9	30
:		တ	29
	- 5	8	28
;		7	26 27
5		9	56
		'n	52
?		4	54
2	(Ó	က	23
	H.S.	2	1 22 23 24 25
'		I -	Ξ

	10 11 12 13 14 15 16 17 18 19	30 31 32 33 34 35 36 37 38 39	Signal Name	DOOR SW (AS)	DOOR SW (RR)	CARGO LAMP SW
	7 8 9	5 27 28 29	Color of Wire	ГG	٦	GR
H.S.	1 2 3 4 5 6	21 22 23 24 25 26 27 28 29 30 31 32	Terminal No.	12	13	31

8 9

	1	
Connector Name	Connector Color	原 H.S.

RE TO WIRE	ПЕ	5 7 1 1	Signal Name
me WIF	lor WHITE	8 9	Color of
Connector Name WIRE TO WIRE	Connector Color	H.S.	Terminal No.

Signal Name	ı	
Color of Wire	Μ	
Terminal No.	9	

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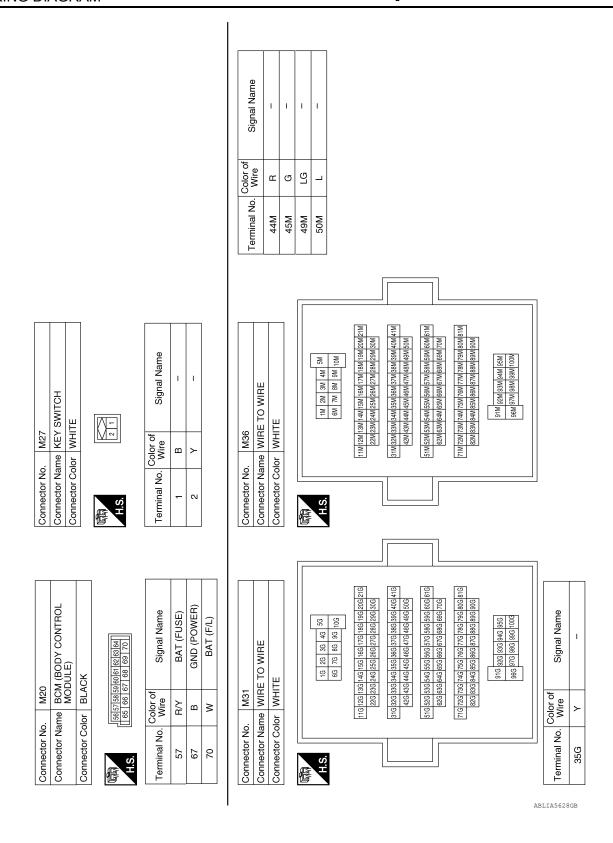
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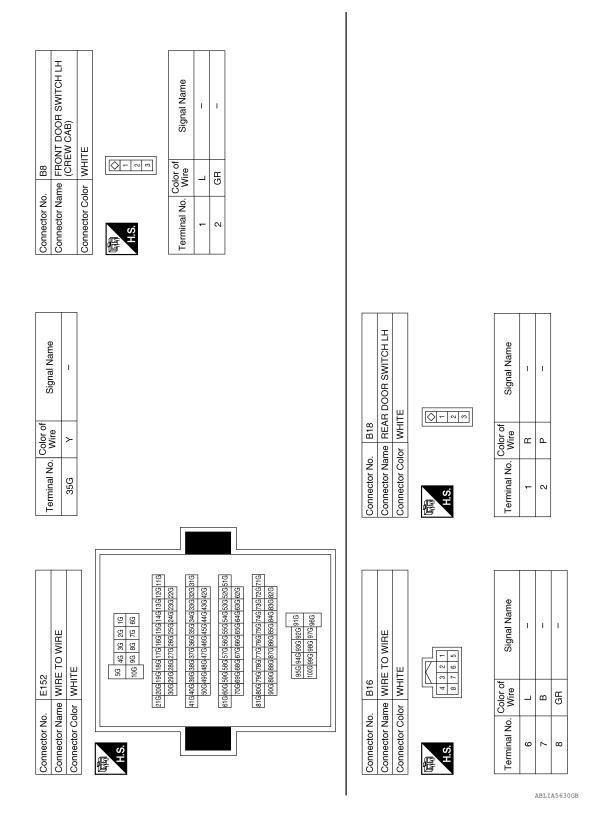
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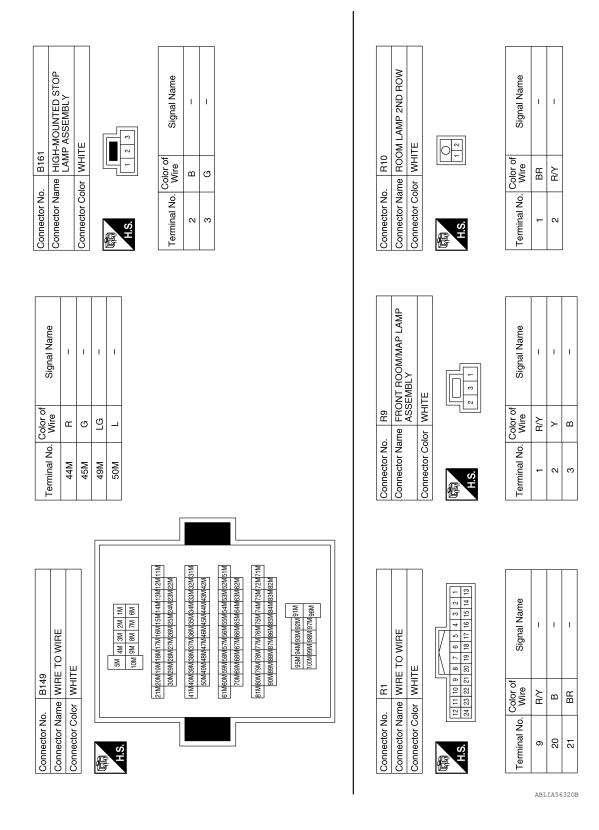
INTERIOR ROOM LAMP

Terminal No. Color of Signal Name 34J L -	Salar No. Color of Salar No. Wire Salar No. Wire Salar No. Salar No. Salar No. Salar No. Salar S	Connector No. M71	Connector Color WHITE		- P	H.S.		Color of Color of Terminal No. Wire Signal Name	1 GB -	- B									Connector No. E10	Connector Name WIRE TO WIRE	Connector Color WHITE		H.S. 4 5 6		Terminal No. Color of Signal Name	- M 9					
1 Name	WHITE WIRE TO WIRE WHITE WHITE	Signal Name	ı	1	1	ı														LAMP RELAY				ī	Signal Name	ı	1	ı	1		
1 Ses Ses	WHITE WIRE TO WIRE WHITE WHITE	erminal No. Wire																		connector Name CARGC			H.S.								
	M40 M40 M40 M40 M40 M40 M40 M41 M41						91 101	J 18J 19J 20J 21J	J 28J 29J 30J	1 380 390 400 413	1 480 490 500	J 58J 59J 60J 61J	7 683 693 703	J 78J 79J 80J 81J	7 887 887 807 A	130 150	990 1000					Ľ	- ⁴						1	_	



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Signal Name		В
		С
No. Name WIRE Color of 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		D
Connector No. Connector Name Connector Color Terminal No. Co 7 7 8 1		Е
		F
Signal Name	Connector No. B116 Connector Name REAR DOOR SWITCH RH Connector Color WHITE H.S. A	G
Color of Wire R R L GR	Mire REAR I Solor of Real Real Real Real Real Real Real Real	ı
34.3 35.4 40.0 41.0 41.0	Connector No. Connector Name Connector Color H.S. Terminal No. V	J
		K
869 WHITE WHITE Su 41 31 21 11 100 591 841 77 641 132 1221 110 590 891 881 77 164 153 1541 133 1221 111 400 891 881 77 164 153 1541 233 223 111 400 891 881 77 165 155 1541 233 223 111 600 891 881 77 165 155 1541 233 223 111 600 891 881 77 165 155 1541 233 223 111 600 891 881 77 165 155 1541 233 223 111 600 891 881 77 165 155 1541 233 223 111 600 891 881 77 165 155 1541 233 152 173 110 891 891 877 165 155 1541 233 152 173 110 891 891 877 165 155 1541 233 152 173 110 891 891 877 165 155 1541 233 152 173 110 891 891 873 165 157 157 173 173 173 173 173 173 173 173 173 17	FRONT DOOR SWITCH RH (CREW CAB) WHITE or of Signal Name R C G C C C C C C C C C C C C C C C C C	INL M
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Connector No. B69	Connector No.	0
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INTERIOR ROOM LAMP

[WITHOUT POWER DOOR LOCKS]

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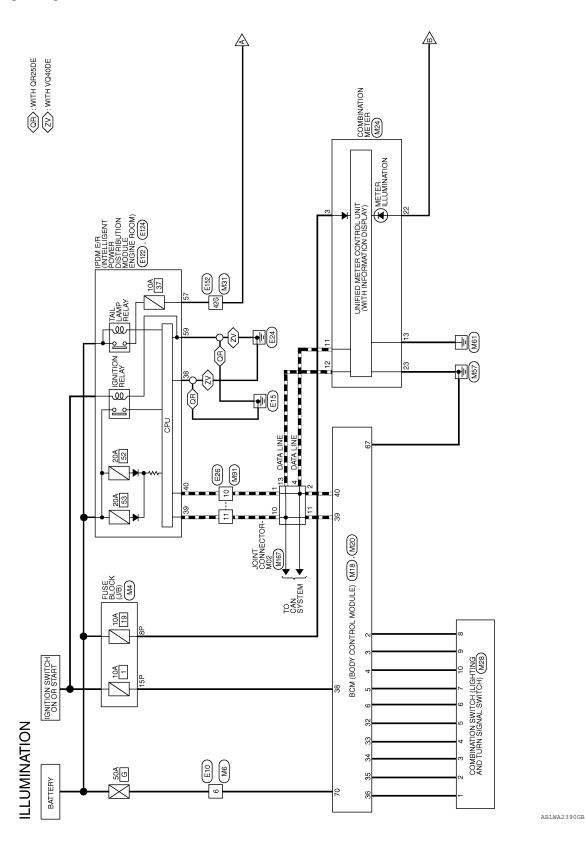
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		_			_		
	E TO WIRE	<u>"</u>	4 8	Signal Name	ı	1	1
D302	me WIR	or WHI	- v	Color of Wire	œ	В	LG
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHIIE	是 H.S.	Terminal No. Wire	9	7	8
D216	Connector Name WIRE TO WIRE		1	f Signal Name	ı	ı	ı
D2	me M	N W		Color o Wire	_	<u>m</u>	LG
Connector No.	Connector Na	Connector Color WHITE	H.S.	Terminal No. Wire	9	7	80
1.							
(a)	IME FRONT DOOR SWITCH LH (KING CAB)	TE		Signal Name	1	1	1
D213	ne (KIN	lor WHITE	3 2 1	Color of Wire	Г	ГG	В

₹1	FRONT DOOR SWITCH RH (KING CAB)	TE		Signal Name	-	1	-
D314		or WHITE		Color of Wire	В	LG	В
Connector No.	Connector Name	Connector Color	赋 H.S.	Terminal No.		2	3

ILLUMINATION

Wiring Diagram



(AM): WITH 4-WHEEL DRIVE

(AA): WITH AUTO A/C

(BA): WITH AUTO A/C

(C): WITH CLUTCH INTERLOCK CANCEL SWITCH

(CD): WITH CLUTCH INTERLOCK CANCEL SWITCH

(CD): WITH ELECTRONIC LOCKING REAR DIFFERENTIAL

(EN): WITH ELECTRONIC LOCKING REAR DIFFERENTIAL

(EN): WITH BASE AUDIO SYSTEM FOR MEXICO

(IF): WITH BASE AUDIO SYSTEM EXCEPT FOR MEXICO

(IV): WITH POWER OUTSIDE MIRRORS

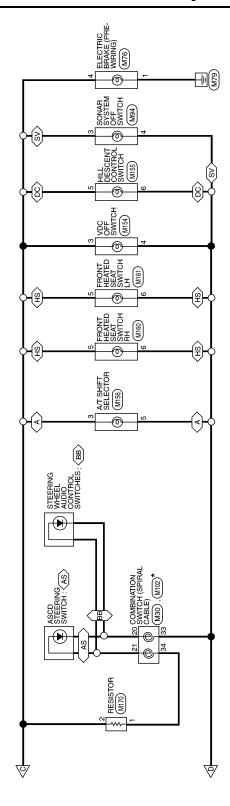
(WY): WITH DISPLAY AUDIO AND AMPLIFIER

(WZ): WITH DISPLAY AUDIO WITHOUT AMPLIFIER

(YZ): MANUAL WITH TYPE 1

Α В С D Е F G Н J M443: GK M4643: GK M4645: WY K INL M Ν 0 ABLWA2399GB Р

(A): 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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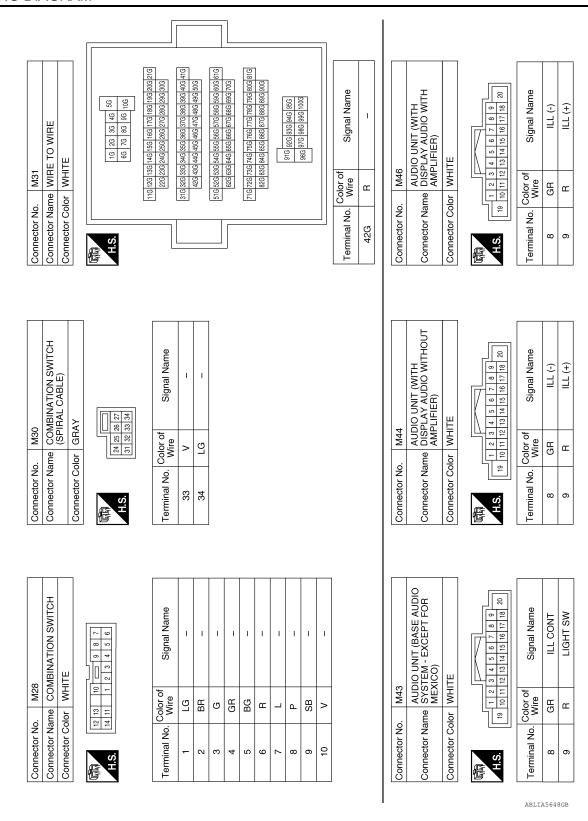
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	Connector No. M12 Connector Name AUDIO UNIT (BASE AUDIO SYSTEM - FOR MEXICO) Connector Color WHITE	- ∾ ∓	me Terminal No. Wire Color of Wire Signal Name 8 GR ILL CONT 9 R LIGHT SW	Connector No. M24
	Connector No. M6 Connector Name WIRE TO WIRE Connector Color WHITE	H.S. (6 5 4 1	Terminal No. Wire Signal Name 6 W –	Connector No. M20 Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK LS. Signal Name 67 B GND (POWER) 70 WIRE 67 B GND (POWER)
ILLUMINATION CONNECTORS	io. M4 lame FUSE BLOCK (J/B) rolor WHITE	7P (6P SP 4P 3P 2P 1P 16P 15P 14P 13P 17P 10P 9P 8P	Color of Signal Name Wire	M18 M18 M0DULE M0DULE
ILLUMINATI	Connector No. Connector Name Connector Color	京 A.S.	Terminal No. 8P 15P	Connector Name Conn

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	Connector Name FRONT AIR CONTROL (WITH AUTO A/C)	*	2 27 20 19 18 17 16 15 14	Signal Name	ILLUM+	ILLUM-	
M52	e FRON (WITH	r BLAC	26 25 24 23 22 21	Color of Wire	g	BB	
Connector No.	Connector Nam	Connector Color BLACK	H.S.	Terminal No.	8	6	
	Connector Name FRONT AIR CONTROL (MANUAL WITH TYPE 1)	X	26 25 24 25 22 21 20 19 18 17 16 15 14 20 2	Signal Name	ILLUM+	ILLUM-	
M50	ne FROM (MAN	or BLAC	25 24 23 22	Color of Wire	G	BR	
Connector No.	Connector Nan	Connector Color BLACK	H.S.	Terminal No.	8	6	
					1		
	NT AIR CONTROL JUAL WITH TYPE 2)	X	2 21 20 19 18 17 16 15 14	Signal Name	ILLUM+	ILLUM-	
M49	ne FROI (MAN	or BLAC	26 25 24 23 22	Color of Wire	ŋ	BR	
Connector No.	Connector Name FRONT AIR CON (MANUAL WITH 1	Connector Color BLACK	H.S. 26	Terminal No.	8	6	

Connector No.	. M76	
Connector Name	me ELE WIF	ELECTRIC BRAKE (PRE- WIRING)
Connector Color WHITE	lor	ITE
顾 H.S.	2 +	3 4 5
Terminal No. Wire	Color of Wire	Signal Name
-	æ	I
4	۳	1

Connector No.). M71	
Connector Na	ume CAI	Connector Name CARGO LAMP SWITCH
Connector Color WHITE	olor WH	ПЕ
	4 -	2 3
H.S.		
Terminal No.	Color of Wire	Signal Name
2	۵	ı
4	>	ı

	Connector Name HAZARD SWITCH	ПЕ	2 4	Signal Name	-	_
. M55	me HAZ	lor WH		Color of Wire	œ	BB
Connector No.	Connector Na	Connector Color WHITE	H.S.	Terminal No. Wire	က	4

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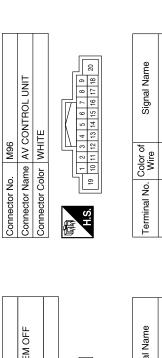
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Connector Name 4WD SHIFT SWITCH

Connector No. M141

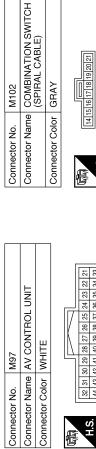
M102

Connector Color GRAY



91	Connector Name AV CONTROL UNIT		2 4 5 6 7 8 9 20 12 13 14 15 16 17 18 20	Signal Name	LIGHT SW			
). M96	ame AV		10 11 11 11 11 11 11 11 11 11 11 11 11 1	Color c Wire	н			
Connector No.	Connector Name AV CON		H.S.	Terminal No. Wire	6			
			1					
	Connector Name SONAR SYSTEM OFF SWITCH	١٧	6543211	Signal Name	ı	ı		
M94	ne SON SWI	or GRA	6 5	Solor of Wire	Ж	BR		
Connector No.	Connector Nar	Connector Color GRAY	南 H.S.	Terminal No. Wire	3	4		
	E TO WIRE	!	4	Signal Name	I	_		
M91	ne WIRI		7 6 5 1	Color of Wire	Ь	٦		
Connector No.	Connector Name WIRE TO WIRE Connector Color WHITE		H.S.	Terminal No. Wire	10	11		





Signal Name	MR OUTPUT	ILL CONT
Color of Wire	۵	GR
Terminal No.	23	44

Signal Name	1	ı	
Color of Wire	В	BR	
Terminal No.	7	8	

Signal Name

Terminal No. | Color of | Wire

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1155	Connector Name HILL DESCENT CONTROL SWITCH	VHITE	0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	of Signal Name	ı	ı
2	me F	lor V		Color Wire	Н	BB
Connector No. M155	Connector Na	Connector Color WHITE	明.S.	Terminal No. Wire	5	9
	FF SWITCH		3 2 1	Signal Name	ı	ı
. M154	me VDC C	5	8 8	Color of Wire	æ	BB
Connector No. M154	Connector Name VDC OFF SWITCH		H.S.	Terminal No. Wire	က	4
)E					
149	Sonnector Name DIFFERENTIAL LOCK MODE SWITCH	HITE	2 4 2 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	of Signal Name	ı	ı
Σ	me DI SV	lor W		Color c Wire	<u>~</u>	BB
Connector No. M149	nector Nai	Connector Color WHITE	用.S.	Terminal No. Wire	4	2

Connector No.	M159	29	Connector No.	. M160	0
onnector Na	00 e e	Connector Name DOOR MIRROR REMOTE CONTROL SWITCH	Connector Na	me FRC SWI	Sonnector Name FRONT HEATED SEAT SWITCH RH
Connector Color WHITE	or WH	ITE	Connector Color BROWN	lor BRC	NWO
H.S.	0 0	3 4 5 6 7	语 S:	C 4	3 0 0
Terminal No. Wire	Color of Wire	Signal Name	Terminal No. Wire	Color of Wire	Signal Name
15	BB	I	ιC	SB	ı
16	œ	1	9	BG	1

99	Connector Name A/T SHIFT SELECTOR	<u></u>	5 6 8 10	Signal Name
. M156	me A/T	lor WH	<u>+ 2</u>	Color of Wire
Connector No.	Connector Na	Connector Color WHITE	明 H.S.	Terminal No.
				

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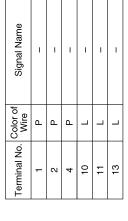
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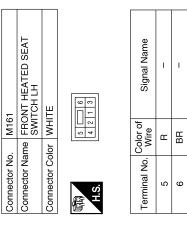
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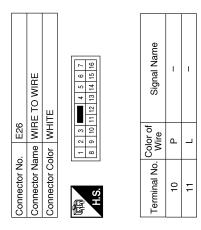


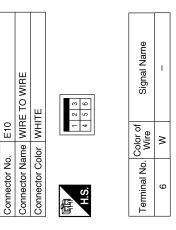
Signal Name	ı	-	-	ı	-	-
Color of Wire	۵	Ь	Ь	_	Т	٦
Terminal No. Wire	-	2	4	10	11	13



3	CLUTCH INTERLOCK CANCEL SWITCH	正	3 6 2 1 4	Signal Name	ı	ı
. MI163		lor WHI	000	Color of Wire	æ	BR
Connector No.	Connector Name	Connector Color WHITE	原 H.S.	Terminal No.	5	9







Connector No.). M170	70
Connector Name RESISTOR	ame RE	SISTOR
Connector Color BLACK	olor BLA	ICK
H.S.		
Terminal No. Wire	Color of Wire	Signal Name

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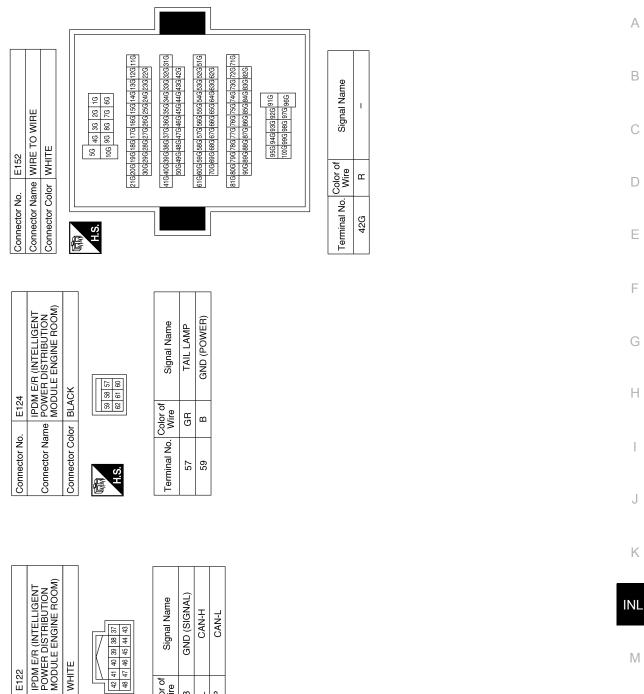
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Connector Name Connector Color

Connector No.



Color of Wire ш Д Terminal No. 38 33 40

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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 area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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PREPARATION

< PREPARATION >

[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

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REMOVAL AND INSTALLATION

INTERIOR ROOM LAMP

Removal and Installation

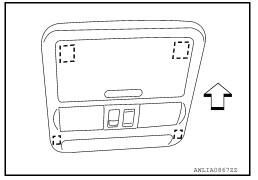
FRONT ROOM/MAP LAMP ASSEMBLY (IF EQUIPPED)

Removal

The front room/map lamp assembly is replaced as part of the roof console. Refer to INT-25, "Removal and Installation".

<: Front

[]: Metal clip



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.

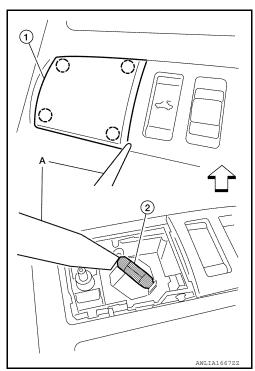
⟨
⇒: Front

(): Pawl

2. Release one side of the bulb (2) from the tab using a suitable tool, then pull straight downward to remove.

: 12V - 8W

Front room/ map lamp assembly bulb



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

VANITY LAMP

Removal

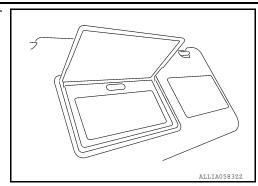
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INTERIOR ROOM LAMP

< 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.

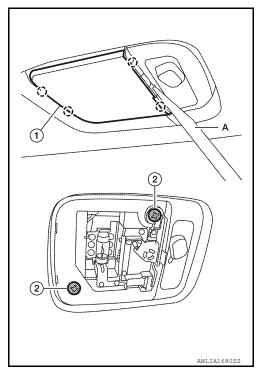
Bulb Replacement

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.



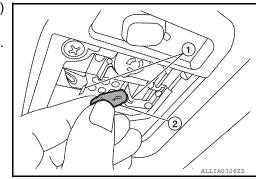
Installation

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

< REMOVAL AND INSTALLATION >		[WITHOUT POWER DOOR LOCKS]	
4.	Install the room lamp lens.		

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ILLUMINATION

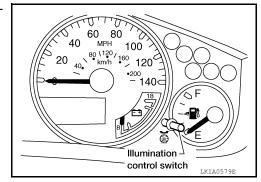
Removal and Installation

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ILLUMINATION CONTROL SWITCH

Removal

The illumination control switch is replaced as a part of the combination meter. Refer to MWI-90, "Removal and Installation".



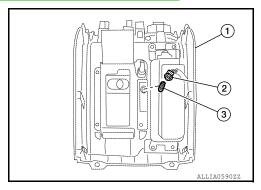
Installation

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).



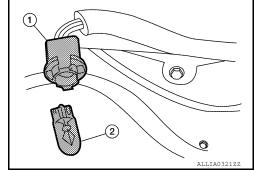
Installation

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]

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SERVICE DATA AND SPECIFICATIONS (SDS)

BULB SPECIFICATIONS

Bulb Specifications

Shift selector finisher lamp

Item	Wattage (W)*	0
Front room/map lamp (if equipped)	8	
Vanity lamp	_	
Room lamp 2nd row	8	D

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

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