Interior Lighting

Diagnostic Trouble Code (DTC) Chart

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

Diagnostic Trouble Code Chart

Module	DTC	Description	Action **New:** *hover over Pinpoint Test links to show title*
BCM	B1175:01	Driver Door Ajar Switch: General Electrical Failure	GO to Pinpoint Test A
BCM	B1175:01	Driver Door Ajar Switch: General Electrical Failure	GO to Pinpoint Test C
BCM	B1176:01	Passenger Door Ajar Switch: General Electrical Failure	GO to Pinpoint Test A
BCM	B1176:01	Passenger Door Ajar Switch: General Electrical Failure	GO to Pinpoint Test C
BCM	B11C0:01	Driver Side Rear Door Ajar Switch: General Electrical Failure	GO to Pinpoint Test A
BCM	B11C0:01	Driver Side Rear Door Ajar Switch: General Electrical Failure	GO to Pinpoint Test C
BCM	B11C1:01	Passenger Side Rear Door Ajar Switch: General Electrical Failure	GO to Pinpoint Test A
BCM	B11C1:01	Passenger Side Rear Door Ajar Switch: General Electrical Failure	GO to Pinpoint Test C
BCM	B12C2:11	Puddle Lamp: Circuit Short To Ground	GO to Pinpoint Test J
BCM	B12C2:15	Puddle Lamp: Circuit Short To Battery or Open	GO to Pinpoint Test J
BCM	B1313:11	Interior Lighting Output: Circuit Short To Ground	GO to Pinpoint Test B
BCM	B1313:15	Interior Lighting Output: Circuit Short To Battery or Open	GO to Pinpoint Test B
BCM	B1313:15	Interior Lighting Output: Circuit Short To Battery or Open	GO to Pinpoint Test D
BCM	B145C:11	Ambient Lighting Power Supply Output: Circuit Short To Ground	GO to Pinpoint Test H
BCM	B145C:15	Ambient Lighting Power Supply Output: Circuit Short To Battery or Open	GO to Pinpoint Test H
BCM	B1465:00	Ambient Lighting Bus 1: No Sub Type Information	GO to Pinpoint Test H
BCM	B1465:00	Ambient Lighting Bus 1: No Sub Type Information	GO to Pinpoint Test I
BCM	B1467:00	Ambient Lighting Bus 3: No Sub Type Information	GO to Pinpoint Test H
BCM	B1467:00	Ambient Lighting Bus 3: No Sub Type Information	GO to Pinpoint Test I
BCM	B14A7:11	Puddle/Cargo Switch Input: Circuit Short To Ground	GO to Pinpoint Test J
BCM	B14AA:11	Demand Lamp Output: Circuit Short To Ground	GO to Pinpoint Test E
BCM	B14AA:15	Demand Lamp Output: Circuit Short To Battery or Open	GO to Pinpoint Test E
BCM	B14AA:15	Demand Lamp Output: Circuit Short To Battery or Open	GO to Pinpoint Test F
BCM	B14D8:11	Bed Lamp Output: Circuit Short To Ground	GO to Pinpoint Test J
BCM	B14D8:15	Bed Lamp Output: Circuit Short To Battery or Open	GO to Pinpoint Test J
BCM	B153B:11	Cargo Lamp Output: Circuit Short To Ground	GO to Pinpoint Test J
BCM	B153B:15	Cargo Lamp Output: Circuit Short To Battery or Open	GO to Pinpoint Test J
DDM	B1165:11	Left Front Puddle Lamp Output: Circuit Short To Ground	GO to Pinpoint Test G
DDM	B1165:15	Left Front Puddle Lamp Output: Circuit Short To Battery Or Open	GO to Pinpoint Test G
PDM	B1166:11	Right Front Puddle Lamp Output: Circuit Short To Ground	GO to Pinpoint Test G
PDM	B1166:15	Right Front Puddle Lamp Output: Circuit Short To Battery Or Open	GO to Pinpoint Test G

Symptom Chart(s)

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

Symptom Chart: Interior Lighting

Condition	Actions
A module does not respond to the scan tool	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
The courtesy lamps do not illuminate with a door open	GO to Pinpoint Test A
One or more interior courtesy lamps are inoperative	GO to Pinpoint Test B
A puddle lamp is inoperative or always on	GO to Pinpoint Test G
All the courtesy lamps stay on continuously	GO to Pinpoint Test C
The interior courtesy lamps stay on continuously	GO to Pinpoint Test D
One or more demand lamps are inoperative	GO to Pinpoint Test E
The cargo lamps, bed lamps, front door scuff plate lamps, running board lamps or trailer assist lamp is inoperative or always on	GO to Pinpoint Test J
The battery saver does not deactivate after time-out	GO to Pinpoint Test F
The ambient lighting is inoperative or always on	GO to Pinpoint Test H
One or more of the ambient lighting Light Emitting Diodes (LEDs) are inoperative	GO to Pinpoint Test I

Pinpoint Tests

PINPOINT TEST A : THE COURTESY LAMPS DO NOT ILLUMINATE WITH A DOOR OPEN

Refer to Wiring Diagrams Cell 117 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Interior Lighting - System Operation and Component Description (417-02 Interior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1175:01	Drivers Door Ajar Switch: General Electrical Failure	An on-demand DTC that sets when the BCM detects a fault on the LH front door ajar circuit.
BCM B1176:01	Passenger Door Ajar Switch: General Electrical Failure	An on-demand DTC that sets when the BCM detects a fault on the RH front door ajar circuit.
BCM B11C0:01	Driver Side Rear Door Ajar Switch: General Electrical Failure	An on-demand DTC that sets when the BCM detects a fault on the LH rear door ajar circuit.
BCM B11C1:01	Passenger Side Rear Door Ajar Switch: General Electrical Failure	An on-demand DTC that sets when the BCM detects a fault on the RH rear door ajar circuit.

Possible Sources

- Wiring, terminals or connectors
- Door latch
- BCM

NOTE: *Make sure the dark car feature is not enabled in the BCM. The dark car feature disables activation of courtesy lamps due to a door unlock, door ajar or removing the key from the ignition cylinder. The feature can be disabled using a scan tool.*

A1 CHECK THE OPERATION OF THE COURTESY LAMP FUNCTION FROM THE FRONT/DRIVER INTERIOR LAMP

- Ignition OFF.
- Use the courtesy lamp switch on the front interior lamp to activate the overhead courtesy lamps.

Do the overhead courtesy lamps illuminate?

Yes	GO to A2
No	GO to Pinpoint Test B

A2 CHECK THE DOOR AJAR SWITCH OPERATION

- Deactivate the overhead courtesy lamps from the front interior lamp.
- Disconnect suspect door latch.

Do the courtesy lamps illuminate?

Yes	For a front door, INSTALL a new front door latch. REFER to: Front Door Latch (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation). For a SuperCab rear door, INSTALL a new rear door ajar switch. For a SuperCrew rear door, INSTALL a new rear door latch. REFER to: Rear Door Latch - Crew Cab (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).
No	GO to A3

A3 CHECK THE DOOR AJAR SWITCH INPUT CIRCUIT FOR A SHORT TO GROUND

- Disconnect BCM C2280E .
- Measure:

FRONT DOOR AJAR SWITCH, LEFT FRONT	

LH Front Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C526-1	Ω	Ground

FRONT DOOR AJAR SWITCH, RIGHT FRONT	

RH Front Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C602-1	Ω	Ground

REAR DOOR AJAR SWITCH LH	

LH Rear Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C715-1	Ω	Ground

REAR DOOR AJAR SWITCH RH	

RH Rear Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead

Positive Lead	Measurement / Action	Negative Lead
C820-1	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to A4
No	REPAIR the circuit.

A4 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors and related in-line connectors.
- Repair:
  - corrosion (install new connector or terminals â€“ clean module pins)
  - damaged or bent pins â€“ install new terminals/pins
  - pushed-out pins â€“ install new pins as necessary
- Reconnect the BCM connectors and related in-line connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues. CLEAR the Diagnostic Trouble Codes (DTCs).

PINPOINT TEST B : ONE OR MORE INTERIOR COURTESY LAMPS ARE INOPERATIVE

Refer to Wiring Diagrams Cell 89 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Interior Lighting - System Operation and Component Description (417-02 Interior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1313:11	Interior Lighting Output: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the interior lighting output circuit.
BCM B1313:15	Interior Lighting Output: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the interior lighting output circuit.

Possible Sources

- Wiring, terminals or connectors
- Interior lamp
- BCM

NOTE: *This is the diagnostic for the courtesy lamp function of the courtesy lamp system. For diagnosis of the demand lamp function of the courtesy lamp system, GO to Pinpoint Test E*

B1 CHECK THE OPERATION OF ALL THE INTERIOR COURTESY LAMPS

- Open a door and observe the interior courtesy lamps.

Is the interior lamp (regular cab) or all the interior courtesy lamps (SuperCab and CrewCab) inoperative?

Yes	GO to B2
No	If only the front interior lamp is inoperative, for vehicles without an overhead console, INSTALL a new front interior lamp. If only the front interior lamp is inoperative, for vehicles with an overhead console, INSTALL a new overhead console. REFER to: Overhead Console (501-12 Instrument Panel and Console, Removal and Installation). If only one rear interior lamp is inoperative, GO to B7 For vehicles with vista roof, if both rear interior lamps are inoperative, GO to B9

B2 CHECK FOR VOLTAGE TO THE FRONT COURTESY LAMP

- Close the door.
- Disconnect For vehicles without overhead console, Front Interior/Map Lamps Assembly C901 .
- Disconnect For vehicles with overhead console, Overhead Console C930 .
- Ignition ON.
- Open a door.
- Measure:

DOME LAMP, FRONT	

Vehicles Without Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C901-4	V	Ground

OVERHEAD CONSOLE	

Vehicles With Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C930-11	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to B6
No	GO to B3

B3 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR VOLTAGE TO THE FRONT COURTESY LAMP

- Using a diagnostic scan tool, perform the BCM self-test.
- Clear the Diagnostic Trouble Codes (DTCs) and repeat the self-test (required to enable the lamp output driver if DTC U1000:00 is present).
- Measure:

DOME LAMP, FRONT	

Vehicles Without Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C901-4	V	Ground

OVERHEAD CONSOLE	

Vehicles With Overhead Console

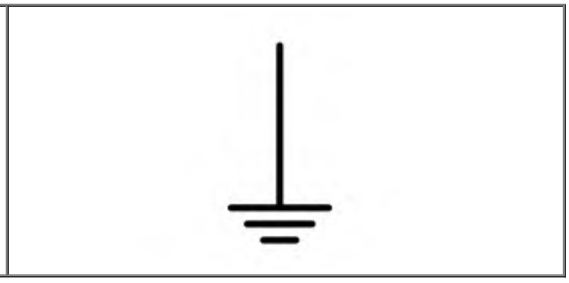
Positive Lead	Measurement / Action	Negative Lead
C930-11	V	Ground

Is the voltage greater than 11 volts?

Yes	For vehicles without an overhead console, INSTALL a new front interior lamp. For vehicles with an overhead console, INSTALL a new overhead console. REFER to: Overhead Console (501-12 Instrument Panel and Console, Removal and Installation).
No	GO to B4

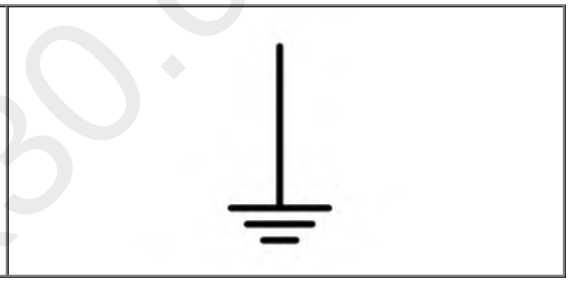
B4 CHECK THE BCM (BODY CONTROL MODULE) COURTESY LAMP OUTPUT CIRCUIT FOR A SHORT TO GROUND

- Disconnect BCM C2280C .
- Measure:

DOME LAMP, FRONT	

Vehicles Without Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C901-4	Ω	Ground

OVERHEAD CONSOLE	

Vehicles With Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C930-11	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to B5
No	REPAIR the circuit. After the repair: If no Diagnostic Trouble Codes (DTCs) are present, TEST the system for normal operation. If DTC U1000:00 is present, CLEAR the Diagnostic Trouble Codes (DTCs) and REPEAT the self-test (required to enable the lamp output driver if DTC U1000:00 is present). If DTC U3000:49 is present, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).

B5 CHECK THE BCM (BODY CONTROL MODULE) COURTESY LAMP OUTPUT CIRCUIT FOR AN OPEN

- Measure:

DOME LAMP, FRONT	BODY CONTROL MODULE (BCM)

Vehicles Without Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C901-4	Ω	C2280C-13

OVERHEAD CONSOLE	BODY CONTROL MODULE (BCM)

Vehicles With Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C930-11	Ω	C2280C-13

Is the resistance less than 3 ohms?

Yes	GO to B12
No	REPAIR the circuit.

B6 CHECK THE FRONT COURTESY LAMP GROUND CIRCUIT

- Measure:

DOME LAMP, FRONT

Vehicles Without Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C901-4		C901-5

OVERHEAD CONSOLE

Vehicles With Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C930-11		C930-1

Is the voltage greater than 11 volts?

Yes	For vehicles without an overhead console, INSTALL a new front interior lamp. For vehicles with an overhead console, INSTALL a new overhead console. REFER to: Overhead Console (501-12 Instrument Panel and Console, Removal and Installation).
No	REPAIR the circuit.

B7 CHECK THE REAR COURTESY LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Close the door.
- Disconnect For vehicles without vista roof, Rear Interior Lamp C932 .
- Disconnect For vehicles with vista roof, LH Rear Interior Lamp C963 or RH Rear Interior Lamp C964 .
- Ignition ON.
- Measure:

DOME LAMP, REAR	

Rear Interior Lamp, Vehicles Without Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C932-1	V	Ground

INTERIOR/MAP LAMPS ASSEMBLY, LEFT REAR	

LH Rear Interior Lamp, Vehicles With Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C963-1	V	Ground

INTERIOR/MAP LAMPS ASSEMBLY, RIGHT REAR	

RH Rear Interior Lamp, Vehicles With Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C964-1		Ground

B8 CHECK THE REAR COURTESY LAMP GROUND CIRCUIT

Is the voltage greater than 11 volts?

- Measure:

Yes	GO to B8
No	REPAIR the circuit. DOME LAMP, REAR

Rear Interior Lamp, Vehicles Without Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C932-1		C932-5

INTERIOR/MAP LAMPS ASSEMBLY, LEFT REAR

LH Rear Interior Lamp, Vehicles With Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C963-1	V	C963-3

INTERIOR/MAP LAMPS ASSEMBLY, RIGHT REAR

RH Rear Interior Lamp, Vehicles With Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C964-1	V	C964-3

Is the voltage greater than 11 volts?

Yes	GO to B9
No	REPAIR the circuit.

B9 CHECK THE REAR LAMP CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect Overhead Console C930 .
- Ignition ON.
- Measure:

OVERHEAD CONSOLE	

Positive Lead	Measurement / Action	Negative Lead
C930-5	V	Ground

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to B10

B10 CHECK THE REAR LAMP CONTROL CIRCUIT FOR AN OPEN

- Measure:

DOME LAMP, REAR	OVERHEAD CONSOLE

Rear Interior Lamp, Vehicles Without Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C932-6	Ω	C930-5

INTERIOR/MAP LAMPS ASSEMBLY, LEFT REAR	OVERHEAD CONSOLE

LH Rear Interior Lamp, Vehicles With Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C963-2	Ω	C930-5

INTERIOR/MAP LAMPS ASSEMBLY, RIGHT REAR	OVERHEAD CONSOLE

RH Rear Interior Lamp, Vehicles With Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C964-2	Ω	C930-5

Is the resistance less than 3 ohms?

Yes	GO to B11
No	REPAIR the circuit.

B11 CHECK THE REAR LAMP CONTROL CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

OVERHEAD CONSOLE	

Positive Lead	Measurement / Action	Negative Lead
C930-5	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	For vehicles not equipped with vista roof, INSTALL a new rear interior lamp. If the condition is still present, INSTALL a new overhead console. REFER to: Overhead Console (501-12 Instrument Panel and Console, Removal and Installation). For vehicles equipped with vista roof, if both rear interior lamps are inoperative, INSTALL a new overhead console. REFER to: Overhead Console (501-12 Instrument Panel and Console, Removal and Installation). For vehicles equipped with vista roof, if only one rear interior lamp is inoperative, INSTALL a new rear interior lamp.
No	REPAIR the circuit.

B12 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors and related in-line connectors.
- Repair:
  - corrosion (install new connector or terminals â€“ clean module pins)
  - damaged or bent pins â€“ install new terminals/pins
  - pushed-out pins â€“ install new pins as necessary
- Reconnect the BCM connectors and related in-line connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues. CLEAR the Diagnostic Trouble Codes (DTCs).

PINPOINT TEST C : ALL THE COURTESY LAMPS STAY ON CONTINUOUSLY

Refer to Wiring Diagrams Cell 117 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Interior Lighting - System Operation and Component Description (417-02 Interior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1175:01	Drivers Door Ajar Switch: General Electrical Failure	An on-demand DTC that sets when the BCM detects a fault on the LH front door ajar circuit.
BCM B1176:01	Passenger Door Ajar Switch: General Electrical Failure	An on-demand DTC that sets when the BCM detects a fault on the RH front door ajar circuit.
BCM B11C0:01	Driver Side Rear Door Ajar Switch: General Electrical Failure	An on-demand DTC that sets when the BCM detects a fault on the LH rear door ajar circuit.
BCM B11C1:01	Passenger Side Rear Door Ajar Switch: General Electrical Failure	An on-demand DTC that sets when the BCM detects a fault on the RH rear door ajar circuit.

Possible Sources

- Wiring, terminals or connectors
- Ajar switch
- BCM

C1 CHECK THE DOOR AJAR SWITCH PARAMETER IDENTIFICATIONS (PIDS)

- Ignition ON.
- Using a diagnostic scan tool, view BCM Parameter Identifications (PIDs).
- Monitor the following BCM Parameter Identifications (PIDs) while opening and closing all the doors
  - Access the BCM and monitor the DOOR_SW_DRVR PID
  - Access the BCM and monitor the DOOR_SW_PSGR PID
  - Access the BCM and monitor the DOOR_SW_LR PID
  - Access the BCM and monitor the DOOR_SW_RR PID

Do all the door ajar switch PID values agree with the door positions?

Yes	For the interior courtesy lamps, GO to Pinpoint Test D For the puddle lamps, GO to Pinpoint Test G
No	GO to C2

C2 BYPASS THE SUSPECT DOOR LATCH

- Disconnect suspect door latch.
- Connect a fused jumper wire:

FRONT DOOR AJAR SWITCH, LEFT FRONT

LH Front Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C526-1		C526-2

FRONT DOOR AJAR SWITCH, RIGHT FRONT

RH Front Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C602-1		C602-2

REAR DOOR AJAR SWITCH LH

LH Rear Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C715-1		C715-2

REAR DOOR AJAR SWITCH RH

RH Rear Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C820-1		C820-2

- Using a diagnostic scan tool, view BCM Parameter Identifications (PIDs).
- Monitor the following BCM Parameter Identifications (PIDs) while opening and closing all the doors
  - Access the BCM and monitor the DOOR_SW_DRVR PID
  - Access the BCM and monitor the DOOR_SW_PSGR PID
  - Access the BCM and monitor the DOOR_SW_LR PID
  - Access the BCM and monitor the DOOR_SW_RR PID

Does the PID indicate the door in question is closed?

Yes	REMOVE the fused jumper wire. For a front door, INSTALL a new front door latch. REFER to: Front Door Latch (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation). For a SuperCab rear door, INSTALL a new rear door ajar switch. For a SuperCrew rear door, INSTALL a new rear door latch. REFER to: Rear Door Latch - Crew Cab (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).
No	REMOVE the fused jumper wire. GO to C3

C3 BYPASS THE DOOR LATCH GROUND CIRCUIT

- Connect a fused jumper wire:

FRONT DOOR AJAR SWITCH, LEFT FRONT	

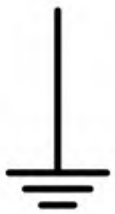
LH Front Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C526-1		Ground

FRONT DOOR AJAR SWITCH, RIGHT FRONT	

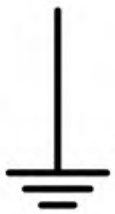
RH Front Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C602-1		Ground

REAR DOOR AJAR SWITCH LH	

LH Rear Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C715-1		Ground

REAR DOOR AJAR SWITCH RH	

RH Rear Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C820-1		Ground

- Monitor the following BCM Parameter Identifications (PIDs) while opening and closing all the doors
  - Access the BCM and monitor the DOOR_SW_DRVR PID
  - Access the BCM and monitor the DOOR_SW_PSGR PID
  - Access the BCM and monitor the DOOR_SW_LR PID
  - Access the BCM and monitor the DOOR_SW_RR PID

Does the PID indicate the door in question is closed?

Yes	REMOVE the fused jumper wire. REPAIR the ground circuit for an open.
No	REMOVE the fused jumper wire. GO to C4

C4 CHECK THE SUSPECT DOOR AJAR SWITCH INPUT CIRCUIT FOR AN OPEN

- Disconnect BCM C2280E .
- Measure:

FRONT DOOR AJAR SWITCH, LEFT FRONT	BODY CONTROL MODULE (BCM)

LH Front Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C526-1	Ω	C2280E-33

FRONT DOOR AJAR SWITCH, RIGHT FRONT	BODY CONTROL MODULE (BCM)

RH Front Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C602-1	Ω	C2280E-21

REAR DOOR AJAR SWITCH LH	BODY CONTROL MODULE (BCM)

LH Rear Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C715-1	Ω	C2280E-46

REAR DOOR AJAR SWITCH RH	BODY CONTROL MODULE (BCM)

RH Rear Door Ajar Switch

Positive Lead	Measurement / Action	Negative Lead
C820-1	Ω	C2280E-19

C5 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

Is the resistance less than 3 ohms?

Yes	GO to C5
No	REPAIR the door ajar input circuit in question.

- Disconnect and inspect all BCM connectors and related in-line connectors.
- Repair:
  - corrosion (install new connector or terminals â€“ clean module pins)
  - damaged or bent pins â€“ install new terminals/pins
  - pushed-out pins â€“ install new pins as necessary
- Reconnect the BCM connectors and related in-line connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues. CLEAR the Diagnostic Trouble Codes (DTCs).

PINPOINT TEST D : THE INTERIOR COURTESY LAMPS STAY ON CONTINUOUSLY

Refer to Wiring Diagrams Cell 89 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Interior Lighting - System Operation and Component Description (417-02 Interior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1313:15	Interior Lighting Output: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the interior lighting output circuit.

Possible Sources

- Wiring, terminals or connectors
- Interior lamp
- BCM

D1 CHECK THE OPERATION OF ALL THE INTERIOR COURTESY LAMPS

- Close all doors and observe the courtesy lamps.

Are only the rear interior courtesy lamp(s) always on?

Yes	INSTALL a new rear interior lamp.
No	GO to D2

D2 ISOLATE THE BCM (BODY CONTROL MODULE)

- Ignition OFF.
- Disconnect BCM C2280C .
- Ignition ON.

Do the interior courtesy lamps continue to illuminate?

Yes	GO to D3
No	GO to D4

D3 CHECK THE BCM (BODY CONTROL MODULE) COURTESY LAMP OUTPUT CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect For vehicles without overhead console, Front Interior/Map Lamps Assembly C901 .
- Disconnect For vehicles with overhead console, Overhead Console C930 .
- Ignition ON.
- Measure:

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280C-13	V	Ground

Is any voltage present?

Yes	REPAIR the circuit.
No	For vehicles without an overhead console, INSTALL a new front interior lamp. For vehicles with an overhead console, INSTALL a new overhead console. REFER to: Overhead Console (501-12 Instrument Panel and Console, Removal and Installation).

D4 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors and related in-line connectors.
- Repair:
  - corrosion (install new connector or terminals â€“ clean module pins)
  - damaged or bent pins â€“ install new terminals/pins
  - pushed-out pins â€“ install new pins as necessary
- Reconnect the BCM connectors and related in-line connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues. CLEAR the Diagnostic Trouble Codes (DTCs).

PINPOINT TEST E : ONE OR MORE DEMAND LAMPS ARE INOPERATIVE

Refer to Wiring Diagrams Cell 89 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Interior Lighting - System Operation and Component Description (417-02 Interior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B14AA:11	Demand Lamp Output: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the demand lighting output circuit.
BCM B14AA:15	Demand Lamp Output: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the demand lighting output circuit.

Possible Sources

- Wiring, terminals or connectors
- Demand lamp
- BCM

Visual Inspection and Pre-checks

- Inspect the interior lamps for damage.

E1 CHECK THE DEMAND LAMP OPERATION

- Ignition ON.
- Check the operation of the LH vanity mirror, RH vanity mirror, overhead map and glove box lamps.

Do any of the LH vanity mirror, RH vanity mirror, overhead map, floor console media bin, floor console storage bin or glove box lamps illuminate?

Yes	If a vanity mirror lamp is inoperative, GO to E4 If the glove compartment lamp is inoperative, GO to E6 If an overhead map lamp is inoperative, GO to E8 If the floor console front or rear bin lamp is inoperative, GO to E10 If the engine compartment lamp is inoperative, GO to E12
No	GO to E2

E2 CHECK THE DEMAND LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect Glove Compartment Lamp C254 .
- Disconnect BCM C2280C .
- Measure:

GLOVE BOX LAMP	BODY CONTROL MODULE (BCM)

Positive Lead	Measurement / Action	Negative Lead
C254-1	Ω	C2280C-14

Is the resistance less than 3 ohms?

Yes	GO to E3
No	REPAIR the circuit.

E3 CHECK THE DEMAND LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO GROUND

- Disconnect BCM C2280G .
- Disconnect Engine Compartment Lamp C1159 .
- Disconnect For vehicles without overhead console, Front Interior/Map Lamps Assembly C901 .
- Disconnect For vehicles with overhead console, Overhead Console C930 .
- Disconnect For vehicles without vista roof, Rear Interior Lamp C932 .
- Disconnect For vehicles with vista roof, LH Rear Interior Lamp C963 and RH Rear Interior Lamp C964 .
- Disconnect For vehicles with vanity mirror lamps, LH Vanity Mirror Lamp C907 and RH Vanity Mirror Lamp C906 .
- Disconnect Console Ambient LED (floor console rear bin lamp) C3554 .
- Disconnect Media Bin Ambient LED C3553 .
- Measure:

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280C-14	Ω	Ground
C2280G-16	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to E14
No	REPAIR the circuit. After the repair: If no Diagnostic Trouble Codes (DTCs) are present, TEST the system for normal operation. If any BCM Diagnostic Trouble Codes (DTCs) other than DTC U3000:49 are present, CLEAR the Diagnostic Trouble Codes (DTCs), REPEAT the self-test (required to enable the lamp output driver) and cycle the ignition OFF and ON. TEST the system for normal operation. If DTC U3000:49 is present, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).

E4 CHECK THE VANITY MIRROR VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect Inoperative LH Vanity Mirror Lamp C907 or RH Vanity Mirror Lamp C906 .
- Ignition ON.
- Measure:

VANITY MIRROR LAMP, LEFT	

LH Vanity Mirror Lamp

Positive Lead	Measurement / Action	Negative Lead
C907-1	V	Ground

VANITY MIRROR LAMP, RIGHT	

RH Vanity Mirror Lamp

Positive Lead	Measurement / Action	Negative Lead
C906-1	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to E5
No	REPAIR the circuit.

E5 CHECK THE VANITY MIRROR GROUND CIRCUIT FOR AN OPEN

- Measure:

VANITY MIRROR LAMP, LEFT

LH Vanity Mirror Lamp

Positive Lead	Measurement / Action	Negative Lead
C907-1		C907-2

VANITY MIRROR LAMP, RIGHT

RH Vanity Mirror Lamp

Positive Lead	Measurement / Action	Negative Lead
C906-1		C906-2

Is the voltage greater than 11 volts?

Yes	INSTALL a new sun visor for the lamp in question.
No	REPAIR the circuit.

E6 CHECK THE GLOVE COMPARTMENT LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect Glove Compartment Lamp C254 .
- Ignition ON.
- Measure:

GLOVE BOX LAMP	

Positive Lead	Measurement / Action	Negative Lead
C254-1	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to E7
No	REPAIR the circuit.

E7 CHECK THE GLOVE COMPARTMENT LAMP GROUND CIRCUIT FOR AN OPEN

- Measure:

GLOVE BOX LAMP

Positive Lead	Measurement / Action	Negative Lead
C254-1	V	C254-3

Is the voltage greater than 11 volts?

Yes	INSTALL a new glove compartment lamp.
No	REPAIR the circuit.

E8 CHECK THE OVERHEAD INTERIOR LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect For vehicles without overhead console, Front Interior/Map Lamps Assembly C901 .
- Disconnect For vehicles with overhead console, Overhead Console C930 .
- Disconnect For vehicles without vista roof, Rear Interior Lamp C932 .
- Disconnect For vehicles with vista roof, LH Rear Interior Lamp C963 or RH Rear Interior Lamp C964 .
- Ignition ON.
- Measure:

DOME LAMP, FRONT	

Front Map Lamp, Vehicles Without Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C901-1	V	Ground

OVERHEAD CONSOLE	

Front Map Lamp, Vehicles With Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C930-12	V	Ground

DOME LAMP, REAR	

Rear Map Lamp, Vehicles Without Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C932-1		Ground

INTERIOR/MAP LAMPS ASSEMBLY, LEFT REAR	

LH Rear Map Lamp, Vehicles With Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C963-1		Ground

INTERIOR/MAP LAMPS ASSEMBLY, RIGHT REAR	

RH Rear Map Lamp, Vehicles With Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C964-1		Ground

Is the voltage greater than 11 volts?

Yes	GO to E9
No	REPAIR the circuit.

E9 CHECK THE OVERHEAD INTERIOR LAMP GROUND CIRCUIT FOR AN OPEN

- Measure:

DOME LAMP, FRONT

Front Map Lamp, Vehicles Without Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C901-1		C901-5

OVERHEAD CONSOLE

Front Map Lamp, Vehicles With Overhead Console

Positive Lead	Measurement / Action	Negative Lead
C930-12		C930-1

DOME LAMP, REAR

Rear Map Lamp, Vehicles Without Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C932-1		C932-5

INTERIOR/MAP LAMPS ASSEMBLY, LEFT REAR

LH Rear Map Lamp, Vehicles With Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C963-1		C963-3

INTERIOR/MAP LAMPS ASSEMBLY, RIGHT REAR

RH Rear Map Lamp, Vehicles With Vista Roof

Positive Lead	Measurement / Action	Negative Lead
C964-1		C964-3

Is the voltage greater than 11 volts?

Yes	For the front interior lamp, vehicles without an overhead console, INSTALL a new front interior lamp. For the front interior lamp, vehicles with an overhead console, INSTALL a new overhead console. REFER to: Overhead Console (501-12 Instrument Panel and Console, Removal and Installation). For a rear interior lamp, INSTALL a new rear interior lamp.
No	REPAIR the circuit.

E10 CHECK THE FLOOR CONSOLE BIN LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect Inoperative Console Ambient LED (floor console rear bin lamp) C3554 or Media Bin Ambient LED C3553 .
- Ignition ON.
- Measure:

AMBIENT LIGHTING, CONSOLE	

Floor Console Rear Bin Lamp

Positive Lead	Measurement / Action	Negative Lead
C3554-1		Ground

MEDIA BIN AMBIENT LED	

Floor Console Media Bin Lamp

Positive Lead	Measurement / Action	Negative Lead
C3553-1		Ground

Is the voltage greater than 11 volts?

Yes	GO to E11
No	REPAIR the circuit.

E11 CHECK THE FLOOR CONSOLE BIN LAMP GROUND CIRCUIT FOR AN OPEN

- Measure:

AMBIENT LIGHTING, CONSOLE

Floor Console Rear Bin Lamp

Positive Lead	Measurement / Action	Negative Lead
C3554-1		C3554-3

MEDIA BIN AMBIENT LED

Floor Console Media Bin Lamp

Positive Lead	Measurement / Action	Negative Lead
C3553-1		C3553-3

Is the voltage greater than 11 volts?

Yes	INSTALL a new bin lamp in question.
No	REPAIR the circuit.

E12 CHECK THE ENGINE COMPARTMENT LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect Engine Compartment Lamp C1159 .
- Ignition ON.
- Measure:

ENGINE COMPARTMENT LAMP	

Positive Lead	Measurement / Action	Negative Lead
C1159-1	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to E13
No	REPAIR the circuit.

E13 CHECK THE ENGINE COMPARTMENT LAMP GROUND CIRCUIT FOR AN OPEN

- Measure:

ENGINE COMPARTMENT LAMP

Positive Lead	Measurement / Action	Negative Lead
C1159-1	V	C1159-2

Is the voltage greater than 11 volts?

Yes	INSTALL a new engine compartment lamp.
No	REPAIR the circuit.

E14 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors and related in-line connectors.
- Repair:
  - corrosion (install new connector or terminals â€“ clean module pins)
  - damaged or bent pins â€“ install new terminals/pins
  - pushed-out pins â€“ install new pins as necessary
- Reconnect the BCM connectors and related in-line connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues. CLEAR the Diagnostic Trouble Codes (DTCs).

PINPOINT TEST F : THE BATTERY SAVER DOES NOT DEACTIVATE AFTER TIME-OUT

Refer to Wiring Diagrams Cell 89 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Interior Lighting - System Operation and Component Description (417-02 Interior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B14AA:15	Demand Lamp Output: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the demand lighting output circuit.

Possible Sources

- Wiring, terminals or connectors
- BCM

F1 CHECK THE DEMAND LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM C2280C .
- Turn any demand (map or vanity mirror) lamp on.

Does the demand lamp turn on?

Yes	REPAIR the circuit.
No	GO to F2

F2 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors and related in-line connectors.
- Repair:
  - corrosion (install new connector or terminals â€“ clean module pins)
  - damaged or bent pins â€“ install new terminals/pins
  - pushed-out pins â€“ install new pins as necessary
- Reconnect the BCM connectors and related in-line connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues. CLEAR the Diagnostic Trouble Codes (DTCs).

PINPOINT TEST G : A PUDDLE LAMP IS INOPERATIVE OR ALWAYS ON

Refer to Wiring Diagrams Cell 89 for schematic and connector information.

Refer to Wiring Diagrams Cell 124 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Interior Lighting - System Operation and Component Description (417-02 Interior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
DDM B1165:11	Left Front Puddle Lamp Output: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the DDM detects a short to ground from the puddle lamp output circuit.
DDM B1165:15	Left Front Puddle Lamp Output: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the DDM detects an open or a short to voltage from the puddle lamp output circuit.
PDM B1166:11	Right Front Puddle Lamp Output: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the PDM detects a short to ground from the puddle lamp output circuit.
PDM B1166:15	Right Front Puddle Lamp Output: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the PDM detects an open or a short to voltage from the puddle lamp output circuit.

Possible Sources

- Wiring, terminals or connectors
- Puddle lamp
- Exterior mirror
- DDM
- PDM

Visual Inspection and Pre-checks

- Inspect the exterior mirror for damage.

G1 CHECK THE OPERATION OF THE INTERIOR COURTESY LAMPS

- Ignition ON.
- Ignition OFF.
- Open and close a door.
- Observe the interior courtesy lamp operation for 30 seconds.

Do the interior courtesy lamps operate correctly?

Yes	If a puddle lamp is always on, GO to G2 If a puddle lamp is inoperative, GO to G3
No	REFER to the Interior Lamps Symptom Chart in this section and diagnose the interior courtesy lamps.

G2 CHECK THE PUDDLE LAMP POWER SUPPLY CIRCUIT FOR A SHORT TO VOLTAGE

- Disconnect DDM C501B (LH puddle lamp).
- Disconnect PDM C652B (RH puddle lamp).
- Ignition ON.

Does the puddle lamp continue to illuminate?

Yes	REPAIR the circuit.
No	For the LH door puddle lamp, GO to G8 For the RH door puddle lamp, GO to G9

G3 CHECK THE MIRROR OPERATION

- Ignition ON.
- Using the exterior mirror control switch, operate the exterior power mirrors.

Do the exterior power mirrors operate?

Yes	GO to G4
No	REFER to: Rear View Mirrors (501-09 Rear View Mirrors, Diagnosis and Testing).

G4 CHECK FOR VOLTAGE TO THE PUDDLE LAMP

- Ignition OFF.
- Disconnect Inoperative LH Exterior Mirror C521 or RH Exterior Mirror C622 .
- Ignition ON.
- Open any door.
- Measure:

EXTERIOR MIRROR LH	

LH Exterior Mirror

Positive Lead	Measurement / Action	Negative Lead
C521-14	V	Ground

EXTERIOR MIRROR RH	

RH Exterior Mirror

Positive Lead	Measurement / Action	Negative Lead
C622-14	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to G7
No	GO to G5

G5 CHECK THE PUDDLE LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect DDM C501B (LH puddle lamp).
- Disconnect PDM C652B (RH puddle lamp).
- Measure:

EXTERIOR MIRROR LH	

LH Exterior Mirror

Positive Lead	Measurement / Action	Negative Lead
C521-14	Ω	Ground

EXTERIOR MIRROR RH	

RH Exterior Mirror

Positive Lead	Measurement / Action	Negative Lead
C622-14	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to G6
No	REPAIR the circuit.

G6 CHECK THE PUDDLE LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Measure:

EXTERIOR MIRROR LH	DRIVER DOOR MODULE (DDM)

LH Exterior Mirror

Positive Lead	Measurement / Action	Negative Lead
C521-14	Ω	C501B-10

EXTERIOR MIRROR RH	PASSENGER DOOR MODULE (PDM)

RH Exterior Mirror

Positive Lead	Measurement / Action	Negative Lead
C622-14	Ω	C652B-10

Is the resistance less than 3 ohms?

Yes	For the LH door puddle lamp, GO to G8 For the RH door puddle lamp, GO to G9
No	REPAIR the circuit.

G7 CHECK THE EXTERIOR MIRROR GROUND CIRCUIT FOR AN OPEN

- Measure:

EXTERIOR MIRROR LH

LH Exterior Mirror

Positive Lead	Measurement / Action	Negative Lead
C521-14	V	C521-8

EXTERIOR MIRROR RH

RH Exterior Mirror

Positive Lead	Measurement / Action	Negative Lead
C622-14	V	C622-8

Is the voltage greater than 11 volts?

Yes	CHECK the exterior mirror jumper harness between the vehicle harness and the puddle lamp for open circuits and damaged or pushed-out pins. If the jumper harness is OK, INSTALL a new puddle lamp. REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation).
No	REPAIR the circuit.

G8 CHECK FOR CORRECT DDM (DRIVER DOOR MODULE) OPERATION

- Disconnect and inspect all DDM connectors.
- Repair:
  - corrosion (install new connector or terminals â€“ clean module pins)
  - damaged or bent pins â€“ install new terminals/pins
  - pushed-out pins â€“ install new pins as necessary
- Reconnect the DDM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new DDM. REFER to: Driver Door Module (DDM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

G9 CHECK FOR CORRECT PDM (PASSENGER DOOR MODULE) OPERATION

- Disconnect and inspect all PDM connectors.
- Repair:
  - corrosion (install new connector or terminals â€“ clean module pins)
  - damaged or bent pins â€“ install new terminals/pins
  - pushed-out pins â€“ install new pins as necessary
- Reconnect the PDM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new PDM. REFER to: Passenger Door Module (PDM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

PINPOINT TEST H : THE AMBIENT LIGHTING IS INOPERATIVE OR ALWAYS ON

Refer to Wiring Diagrams Cell 89 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Interior Lighting - System Operation and Component Description (417-02 Interior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B145C:11	Ambient Lighting Power Supply Output: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the ambient light module conditioned power supply output circuit.
BCM B145C:15	Ambient Lighting Power Supply Output: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the ambient light module conditioned power supply output circuit.
BCM B1465:00	Ambient Lighting Bus 1: No Sub Type Information	A continuous memory DTC that sets when the BCM detects a fault on an ambient lighting LIN circuit.
BCM B1467:00	Ambient Lighting Bus 3: No Sub Type Information	A continuous memory DTC that sets when the BCM detects a fault on an ambient lighting LIN circuit.

Possible Sources

- Wiring, terminals or connectors
- FDIM
- BCM

H1 CHECK THE FDIM (FRONT DISPLAY INTERFACE MODULE) AUDIO CONTROLS

- Ignition ON.
- Check the operation of the audio system using the FDIM (touchscreen) controls.

Does the audio system operate correctly from the touchscreen controls?

Yes	GO to H2
No	For vehicles not equipped with SonyÂ® audio, For vehicles equipped with SonyÂ® audio, REFER to: Information and Entertainment System (415-00 Information and Entertainment System - General Information, Diagnosis and Testing).

H2 CHECK FOR BCM (BODY CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Using a diagnostic scan tool, perform the BCM self-test.

Is DTC B1465:00, B1467:00, B145C:11 or B145C:15 present?

Yes	For DTC B1465:00, GO to H3 For DTC B1467:00, GO to H6 For DTC B145C:11, GO to H9 For DTC B145C:15, GO to H10
No	GO to H12

H3 CHECK THE DOOR AND FRONT SEAT (REAR FOOTWELL) AMBIENT LIGHTING LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM C2280C .
- Disconnect BCM C2280E .
- Ignition ON.
- Measure:

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280E-38		Ground

Is voltage present?

Yes	REPAIR the circuit.
No	GO to H4

H4 CHECK THE DOOR AND FRONT SEAT (REAR FOOTWELL) AMBIENT LIGHTING LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect LH Front Door C573 .
- Measure:

INTERIOR DOOR HANDLE AMBIENT LIGHTING LAMP, LEFT FRONT	BODY CONTROL MODULE (BCM)

Positive Lead	Measurement / Action	Negative Lead
C573-1	Ω	C2280E-38

Is the resistance less than 3 ohms?

Yes	GO to H5
No	REPAIR the circuit.

H5 CHECK THE DOOR AND FRONT SEAT (REAR FOOTWELL) AMBIENT LIGHTING LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR A SHORT TO GROUND

- Disconnect RH Front Door C649 .
- Disconnect For SuperCrew, LH Rear Door C737 .
- Disconnect For SuperCrew, RH Rear Door C837 .
- Disconnect For SuperCrew, LH Front Seat Ambient Lighting Lamp (rear footwell) C3458 .
- Disconnect For SuperCrew, RH Front Seat Ambient Lighting Lamp (rear footwell) C3457 .
- Measure:

INTERIOR DOOR HANDLE AMBIENT LIGHTING LAMP, LEFT FRONT	

Positive Lead	Measurement / Action	Negative Lead
C573-1	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to H12
No	REPAIR the circuit. After the repair: If no Diagnostic Trouble Codes (DTCs) are present, TEST the system for normal operation. If DTC U1000:00 is present, CLEAR the Diagnostic Trouble Codes (DTCs) and REPEAT the self-test (required to enable the lamp output driver if DTC U1000:00 is present). If DTC U3000:49 is present, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).

H6 CHECK THE AMBIENT LIGHTING LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM C2280C .
- Ignition ON.
- Disconnect BCM C2280B .
- Measure:

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280B-13		Ground

Is voltage present?

Yes	REPAIR the circuit.
No	GO to H7

H7 CHECK THE AMBIENT LIGHTING LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect LH Front Footwell Lamp C209 .
- Measure:

BODY CONTROL MODULE (BCM)	FOOTWELL LAMP, LEFT FRONT

Positive Lead	Measurement / Action	Negative Lead
C2280B-13	Ω	C209-2

Is the resistance less than 3 ohms?

Yes	GO to H8
No	REPAIR the circuit.

H8 CHECK THE AMBIENT LIGHTING LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR A SHORT TO GROUND

- Disconnect RH Front Footwell Lamp C266 .
- Disconnect Floor Console Cup Holder Ambient Lighting Lamp C3349 .
- Measure:

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280B-13	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to H12
No	REPAIR the circuit.

H9 CHECK THE AMBIENT LIGHTING VOLTAGE CIRCUIT FOR A SHORT TO GROUND

- Disconnect BCM C2280C .
- Disconnect LH Front Door C573 .
- Disconnect RH Front Door C649 .
- Disconnect LH Rear Door C737 (SuperCrew only).
- Disconnect RH Rear Door C837 (SuperCrew only).
- Disconnect LH Front Footwell Lamp C209 .
- Disconnect RH Front Footwell Lamp C266 .
- Disconnect Floor Console Cup Holder Ambient Lighting Lamp C3349 .
- Disconnect LH Front Seat (Rear Footwell) Lamp C3458 .
- Disconnect RH Front Seat (Rear Footwell) Lamp C3457 .
- Measure:

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280C-4	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to H12
No	REPAIR the circuit. After the repair: If no Diagnostic Trouble Codes (DTCs) are present, TEST the system for normal operation. If DTC U1000:00 is present, CLEAR the Diagnostic Trouble Codes (DTCs) and REPEAT the self-test (required to enable the lamp output driver if DTC U1000:00 is present). If DTC U3000:49 is present, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).

H10 CHECK THE AMBIENT LIGHTING VOLTAGE CIRCUIT FOR AN OPEN

- Disconnect BCM C2280C .
- Disconnect LH Front Footwell Lamp C209 .
- Measure:

BODY CONTROL MODULE (BCM)	FOOTWELL LAMP, LEFT FRONT

Positive Lead	Measurement / Action	Negative Lead
C2280C-4	Ω	C209-1

Is the resistance greater than 10,000 ohms?

Yes	GO to H11
No	REPAIR the circuit.

H11 CHECK THE AMBIENT LIGHTING VOLTAGE CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280C-4		Ground

Is voltage present?

Yes	REPAIR the circuit.
No	GO to H12

H12 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors and related in-line connectors.
- Repair:
  - corrosion (install new connector or terminals â€“ clean module pins)
  - damaged or bent pins â€“ install new terminals/pins
  - pushed-out pins â€“ install new pins as necessary
- Reconnect the BCM connectors and related in-line connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues. CLEAR the Diagnostic Trouble Codes (DTCs).

PINPOINT TEST I : ONE OR MORE OF THE AMBIENT LIGHTING LIGHT EMITTING DIODES (LEDS) ARE INOPERATIVE

Refer to Wiring Diagrams Cell 89 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Interior Lighting - System Operation and Component Description (417-02 Interior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1465:00	Ambient Lighting Bus 1: No Sub Type Information	Sets when the BCM detects a fault in the LIN circuit to the door ambient lighting Light Emitting Diodes (LEDs).
BCM B1467:00	Ambient Lighting Bus 3: No Sub Type Information	Sets when the BCM detects a fault in the LIN circuit to the footwell and center console ambient lighting Light Emitting Diodes (LEDs).

Possible Sources

- Wiring, terminals or connectors
- Ambient lighting LED
- BCM

I1 CHECK THE AMBIENT LIGHTING LIGHT EMITTING DIODES (LEDS)

- Ignition ON.
- Place the headlamp switch in the PARKING LAMPS ON position.
- Observe the operation of all the ambient lighting Light Emitting Diodes (LEDs).

Are all the front and rear door, cup holder and footwell ambient lighting Light Emitting Diodes (LEDs) inoperative?

Yes	GO to Pinpoint Test H
No	GO to I2

I2 CHECK FOR VOLTAGE TO THE LED (LIGHT EMITTING DIODE)

- Ignition OFF.
- Disconnect Inoperative ambient lighting LED .
- Ignition ON.
- Place the headlamp switch in the PARKLAMPS position.
- Measure:

FLOOR CONSOLE CUP HOLDER AMBIENT LIGHTING LAMP	

Cup Holder

Positive Lead	Measurement / Action	Negative Lead

Positive Lead	Measurement / Action	Negative Lead
C3349-1		Ground

FOOTWELL LAMP, LEFT FRONT	

LH Front Footwell

Positive Lead	Measurement / Action	Negative Lead
C209-1		Ground

FOOTWELL LAMP, RIGHT FRONT	

RH Front Footwell

Positive Lead	Measurement / Action	Negative Lead
C266-1		Ground

FRONT SEAT AMBIENT LIGHTING LAMP, DRIVER	

LH Front Seat (Rear Footwell)

Positive Lead	Measurement / Action	Negative Lead
C3458-1		Ground

FRONT SEAT AMBIENT LIGHTING LAMP, PASSENGER	

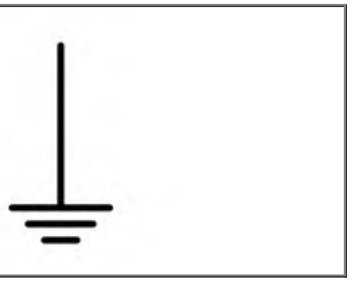
RH Front Seat (Rear Footwell)

Positive Lead	Measurement / Action	Negative Lead
C3457-1		Ground

INTERIOR DOOR HANDLE AMBIENT LIGHTING LAMP, LEFT FRONT	

LH Front Door

Positive Lead	Measurement / Action	Negative Lead
C573-3		Ground

INTERIOR REAR DOOR HANDLE AMBIENT LIGHTING LAMP LH	

LH Rear Door

Positive Lead	Measurement / Action	Negative Lead
C737-1		Ground

INTERIOR DOOR HANDLE AMBIENT LIGHTING LAMP, RIGHT FRONT	

RH Front Door

Positive Lead	Measurement / Action	Negative Lead
C649-3		Ground

INTERIOR REAR DOOR HANDLE AMBIENT LIGHTING LAMP RH	

RH Rear Door

Positive Lead	Measurement / Action	Negative Lead
C837-1		Ground

Is the voltage greater than 11 volts?

Yes	GO to I3
No	REPAIR the LED voltage supply circuit in question.

I3 CHECK THE LED (LIGHT EMITTING DIODE) GROUND CIRCUIT FOR AN OPEN

- Measure:

FLOOR CONSOLE CUP HOLDER AMBIENT LIGHTING LAMP

Cup Holder

Positive Lead	Measurement / Action	Negative Lead
C3349-3		C3349-1

FOOTWELL LAMP, LEFT FRONT

LH Front Footwell

Positive Lead	Measurement / Action	Negative Lead

Positive Lead	Measurement / Action	Negative Lead
C209-3		C209-1

FOOTWELL LAMP, RIGHT FRONT

RH Front Footwell

Positive Lead	Measurement / Action	Negative Lead
C266-3		C266-1

FRONT SEAT AMBIENT LIGHTING LAMP, DRIVER

LH Front Seat (Rear Footwell)

Positive Lead	Measurement / Action	Negative Lead
C3458-3		C3458-1

FRONT SEAT AMBIENT LIGHTING LAMP, PASSENGER

RH Front Seat (Rear Footwell)

Positive Lead	Measurement / Action	Negative Lead
C3457-3		C3457-1

INTERIOR DOOR HANDLE AMBIENT LIGHTING LAMP, LEFT FRONT

LH Front Door

Positive Lead	Measurement / Action	Negative Lead
C573-4		C573-3

INTERIOR REAR DOOR HANDLE AMBIENT LIGHTING LAMP LH

LH Rear Door

Positive Lead	Measurement / Action	Negative Lead
C737-4		C737-1

INTERIOR DOOR HANDLE AMBIENT LIGHTING LAMP, RIGHT FRONT

RH Front Door

Positive Lead	Measurement / Action	Negative Lead
C649-4		C649-3

INTERIOR REAR DOOR HANDLE AMBIENT LIGHTING LAMP RH

RH Rear Door

Positive Lead	Measurement / Action	Negative Lead
C837-4		C837-1

Is the voltage greater than 11 volts?

Yes	GO to I4
No	REPAIR the ground circuit in question.

I4 CHECK THE AMBIENT LIGHTING LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR AN OPEN

- Ignition OFF.
- Place the headlamp switch in the OFF position.
- Disconnect BCM C2280E (door and rear footwell Light Emitting Diodes (LEDs)).
- Disconnect BCM C2280B (cup holder and front footwell Light Emitting Diodes (LEDs)).

- Measure:

FLOOR CONSOLE CUP HOLDER AMBIENT LIGHTING LAMP	BODY CONTROL MODULE (BCM)

Cup Holder

Positive Lead	Measurement / Action	Negative Lead
C3349-2	Ω	C2280B-13

FOOTWELL LAMP, LEFT FRONT	BODY CONTROL MODULE (BCM)

LH Front Footwell

Positive Lead	Measurement / Action	Negative Lead
C209-2	Ω	C2280B-13

FOOTWELL LAMP, RIGHT FRONT	BODY CONTROL MODULE (BCM)

RH Front Footwell

Positive Lead	Measurement / Action	Negative Lead
C266-2	Ω	C2280B-13

FRONT SEAT AMBIENT LIGHTING LAMP, DRIVER	BODY CONTROL MODULE (BCM)

LH Front Seat (Rear Footwell)

Positive Lead	Measurement / Action	Negative Lead
C3458-2	Ω	C2280E-38

FRONT SEAT AMBIENT LIGHTING LAMP, PASSENGER	BODY CONTROL MODULE (BCM)

RH Front Seat (Rear Footwell)

Positive Lead	Measurement / Action	Negative Lead
C3457-2	Ω	C2280E-38

INTERIOR DOOR HANDLE AMBIENT LIGHTING LAMP, LEFT FRONT	BODY CONTROL MODULE (BCM)

LH Front Door

Positive Lead	Measurement / Action	Negative Lead
C573-1	Ω	C2280E-38

INTERIOR REAR DOOR HANDLE AMBIENT LIGHTING LAMP LH	BODY CONTROL MODULE (BCM)

LH Rear Door

Positive Lead	Measurement / Action	Negative Lead
C737-2	Ω	C2280E-38

INTERIOR DOOR HANDLE AMBIENT LIGHTING LAMP, RIGHT FRONT	BODY CONTROL MODULE (BCM)

RH Front Door

Positive Lead	Measurement / Action	Negative Lead
C649-1	Ω	C2280E-38

INTERIOR REAR DOOR HANDLE AMBIENT LIGHTING LAMP RH	BODY CONTROL MODULE (BCM)

RH Rear Door

Positive Lead	Measurement / Action	Negative Lead
C837-2	Ω	C2280E-38

Is the resistance less than 3 ohms?

Yes	INSTALL a new ambient lighting LED in question.
No	REPAIR the circuit.

PINPOINT TEST J : THE CARGO LAMPS, BED LAMPS, FRONT DOOR SCUFF PLATE LAMPS, RUNNING BOARD LAMPS OR TRAILER ASSIST LAMP IS INOPERATIVE OR ALWAYS ON

Refer to Wiring Diagrams Cell 89 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Interior Lighting - System Operation and Component Description (417-02 Interior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B12C2:11	Puddle Lamp: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the cargo, scuff plate, running board and trailer assist lamps output circuit.
BCM B12C2:15	Puddle Lamp: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the cargo, scuff plate, running board and trailer assist lamps output circuit.
BCM B14A7:11	Puddle/Cargo Switch Input: Circuit Short To Ground	A continuous and on-demand DTC that sets when the BCM detects a short to ground on the cargo lamp switch (integrated into the headlamp switch) input circuit.
BCM B14D8:11	Bed Lamp Output: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the bed lamps output circuit.
BCM B14D8:15	Bed Lamp Output: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the bed lamps output circuit.
BCM B153B:11	Cargo Lamp Output: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the cargo lamps output circuit.
BCM B153B:15	Cargo Lamp Output: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the cargo lamps output circuit.

Possible Sources

- Wiring, terminals or connectors
- Bed lamp
- Front door scuff plate
- Running board lamp
- Cargo lamp (integrated into the high mounted stoplamp)
- Cargo lamp bulb (if not equipped with LED cargo lamps)
- Trailer assist lamp
- Cargo lamp switch (integrated into the headlamp switch)
- BCM

J1 CHECK THE OPERATION OF THE BED, TRAILER ASSIST AND CARGO LAMPS

- Close all the doors and observe the cargo, bed and trailer assist lamps.
- Observe the bed (if equipped), trailer assist (if equipped), running board (if equipped), front door scuff plate and cargo lamp operation for 30 seconds.

Do all the bed (if equipped), trailer assist (if equipped), running board (if equipped), front door scuff plate and cargo lamps stay on after 30 seconds?

Yes	GO to J5
No	If only the trailer assist lamp (if equipped), running board (if equipped), front door scuff plate and cargo lamps are inoperative, GO to J9 If only the trailer assist lamp is inoperative, GO to J14 If only the bed lamp(s) are inoperative, GO to J20 If only the running board lamp(s) are inoperative, GO to J16 If only the front door scuff plate lamp(s) are inoperative, GO to J18 If only the bed lamps are always on, GO to J25 If all the bed (if equipped), trailer assist (if equipped), running board (if equipped), front door scuff plate and cargo lamps are inoperative, GO to J26 If all lamps operate, but are inoperative from the cargo lamp or truck bed lamp switch(es), GO to J2

J2 CHECK THE OPERATION OF THE CARGO/BED LAMP SWITCH(ES)

- Disconnect BCM C2280E .
- While switching the switch(es) ON and OFF, measure:

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280E-8	Ω	Ground

Is the resistance greater than 10,000 ohms with the switch(es) OFF and less than 3 ohms with the switch(es) ON?

Yes	GO to J26
No	GO to J3

J3 CHECK THE CARGO/BED LAMP SWITCH(ES)

- Disconnect Suspect Switch.
- Connect a fused jumper wire:

HEADLAMP SWITCH

Headlamp Switch

Positive Lead	Measurement / Action	Negative Lead
C205-2		C205-4

TRUCK BED LAMP SWITCH

Truck Bed Lamp Switch

Positive Lead	Measurement / Action	Negative Lead
C4496-1		C4496-2

- Measure:

BODY CONTROL MODULE (BCM)	

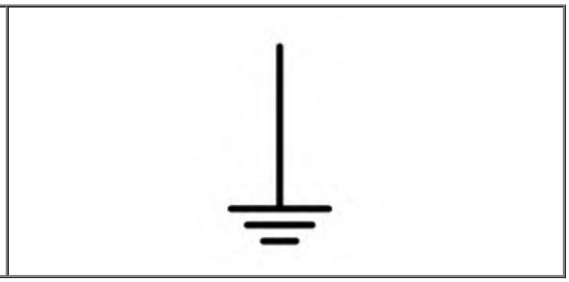
Positive Lead	Measurement / Action	Negative Lead
C2280E-8	Ω	Ground

Is the resistance less than 3 ohms?

Yes	INSTALL a new headlamp switch or bed lamp switch.
No	GO to J4

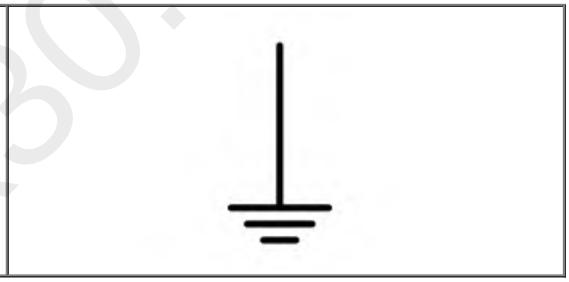
J4 CHECK THE CARGO/BED LAMP SWITCH GROUND CIRCUIT

- Connect a fused jumper wire:

HEADLAMP SWITCH	

Headlamp Switch

Positive Lead	Measurement / Action	Negative Lead
C205-2		Ground

TRUCK BED LAMP SWITCH	

Truck Bed Lamp Switch

Positive Lead	Measurement / Action	Negative Lead
C4496-1		Ground

- Measure:

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280E-8	Ω	Ground

J5 CHECK THE CARGO/BED LAMP SWITCHES INPUT CIRCUIT FOR GROUND

Is the resistance less than 3 ohms?

- Ignition OFF.
- Disconnect BCM C2280E.
- Make sure the cargo lamp switch (integrated into the headlamp switch) is OFF.
- Make sure the truck bed lamp switch is OFF (if equipped).
- Measure:

Yes	REPAIR the ground circuit for an open.
No	REPAIR the cargo/bed lamp switches input circuit for an open.

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280E-8	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	For vehicles not equipped with bed lamps, GO to J8 For vehicles equipped with bed lamps, GO to J26
No	GO to J6

J6 ISOLATE THE CARGO LAMP SWITCH

- Disconnect Headlamp Switch C205 .
- Measure:

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280E-8	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	INSTALL a new headlamp switch. REFER to: Headlamp Switch (417-01 Exterior Lighting, Removal and Installation).
No	If not equipped with truck bed lamps, REPAIR the cargo lamp switch input circuit for a short to ground. If equipped with truck bed lamps, GO to J7

J7 ISOLATE THE TRUCK BED LAMP SWITCH

- Disconnect Truck Lamp Bed Switch C4496 .
- Measure:

BODY CONTROL MODULE (BCM)	

Positive Lead	Measurement / Action	Negative Lead
C2280E-8	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	INSTALL a new truck bed lamp switch.
No	REPAIR the cargo/bed lamp switches input circuit for a short to ground.

J8 CHECK THE BCM (BODY CONTROL MODULE) CARGO/TRAILER ASSIST LAMP OUTPUT CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM C2280C .
- Ignition ON.

Are the lamps still illuminated?

Yes	REPAIR the circuit.
No	GO to J26

J9 CHECK FOR VOLTAGE TO THE CARGO LAMPS

- Disconnect For vehicles with incandescent high mounted stoplamp, High Mounted Stoplamp C904 .
- Disconnect For vehicles with LED high mounted stoplamp without camera, High Mounted Stoplamp C9030 .
- Disconnect For vehicles with LED high mounted stoplamp with camera, High Mounted Stoplamp C9125 .

- Ignition ON.
- Open a door.
- Measure:

HIGH MOUNTED STOPLAMP	

Incandescent High Mounted Stoplamp

Positive Lead	Measurement / Action	Negative Lead
C904-2		Ground

HIGH MOUNTED STOPLAMP/LED	

LED High Mounted Stoplamp Without Camera

Positive Lead	Measurement / Action	Negative Lead
C9030-2		Ground

HIGH MOUNTED STOPLAMP/CAMERA/LED	

LED High Mounted Stoplamp With Camera

Positive Lead	Measurement / Action	Negative Lead
C9125-7		Ground

Is the voltage greater than 11 volts?

Yes	GO to J13
No	GO to J10

J10 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR VOLTAGE TO THE CARGO LAMPS

- Using a diagnostic scan tool, perform the BCM self-test.
- Clear the Diagnostic Trouble Codes (DTCs) and repeat the self-test (required to enable the lamp output driver if DTC U1000:00 is present).
- Measure:

HIGH MOUNTED STOPLAMP	

Incandescent High Mounted Stoplamp

Positive Lead	Measurement / Action	Negative Lead
C904-2		Ground

HIGH MOUNTED STOPLAMP/LED	

LED High Mounted Stoplamp Without Camera

Positive Lead	Measurement / Action	Negative Lead
C9030-2		Ground

HIGH MOUNTED STOPLAMP/CAMERA/LED	

LED High Mounted Stoplamp With Camera

Positive Lead	Measurement / Action	Negative Lead
C9125-7		Ground

Is the voltage greater than 11 volts?

Yes	INSTALL a new high mounted stoplamp.
No	GO to J11

J11 CHECK THE BCM (BODY CONTROL MODULE) EXTERIOR LIGHTING REAR ASSIST LAMPS OUTPUT CIRCUIT FOR A SHORT TO GROUND

- Disconnect BCM C2280C .
- Measure:

HIGH MOUNTED STOPLAMP	

Incandescent High Mounted Stoplamp

Positive Lead	Measurement / Action	Negative Lead
C904-2	Ω	Ground

HIGH MOUNTED STOPLAMP/LED	

LED High Mounted Stoplamp Without Camera

Positive Lead	Measurement / Action	Negative Lead
C9030-2	Ω	Ground

HIGH MOUNTED STOPLAMP/CAMERA/LED	

LED High Mounted Stoplamp With Camera

Positive Lead	Measurement / Action	Negative Lead

Positive Lead	Measurement / Action	Negative Lead
C9125-7	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to J12
No	REPAIR the circuit. After the repair: If no Diagnostic Trouble Codes (DTCs) are present, TEST the system for normal operation. If DTC U1000:00 is present, CLEAR the Diagnostic Trouble Codes (DTCs) and REPEAT the self-test (required to enable the lamp output driver if DTC U1000:00 is present). If DTC U3000:49 is present, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).

J12 CHECK THE BCM (BODY CONTROL MODULE) CARGO/TRAILER ASSIST LAMPS OUTPUT CIRCUIT FOR AN OPEN

- Measure:

HIGH MOUNTED STOPLAMP	BODY CONTROL MODULE (BCM)

Incandescent High Mounted Stoplamp

Positive Lead	Measurement / Action	Negative Lead
C904-2	Ω	C2280C-26

HIGH MOUNTED STOPLAMP/LED	BODY CONTROL MODULE (BCM)

LED High Mounted Stoplamp Without Camera

Positive Lead	Measurement / Action	Negative Lead
C9030-2	Ω	C2280C-26

HIGH MOUNTED STOPLAMP/CAMERA/LED	BODY CONTROL MODULE (BCM)

LED High Mounted Stoplamp With Camera

Positive Lead	Measurement / Action	Negative Lead
C9125-7	Ω	C2280C-26

Is the resistance less than 3 ohms?

Yes	GO to J26
No	REPAIR the circuit.

J13 CHECK THE CARGO LAMP GROUND CIRCUIT

- Measure:

HIGH MOUNTED STOPLAMP

Incandescent High Mounted Stoplamp

Positive Lead	Measurement / Action	Negative Lead
C904-2	V	C904-1

HIGH MOUNTED STOPLAMP/LED

LED High Mounted Stoplamp Without Camera

Positive Lead	Measurement / Action	Negative Lead
C9030-2		C9030-1

HIGH MOUNTED STOPLAMP/CAMERA/LED

LED High Mounted Stoplamp With Camera

Positive Lead	Measurement / Action	Negative Lead
C9125-7		C9125-6

Is the voltage greater than 11 volts?

Yes	INSTALL a new high mounted stoplamp. REFER to: High Mounted Stoplamp (417-01 Exterior Lighting, Removal and Installation).
No	REPAIR the trailer tow assist lamp voltage supply circuit for an open.

J14 CHECK THE TRAILER ASSIST LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Close the door.
- Disconnect Trailer Assist Lamp C4500 .
- Ignition ON.
- Open a door.
- Measure:

TRAILER ASSIST LAMP	

Positive Lead	Measurement / Action	Negative Lead
C4500-1		Ground

Is the voltage greater than 11 volts?

Yes	GO to J15
No	REPAIR the circuit.

J15 CHECK THE TRAILER ASSIST LAMP GROUND CIRCUIT FOR AN OPEN

- Measure:

TRAILER ASSIST LAMP

Positive Lead	Measurement / Action	Negative Lead
C4500-1		C4500-2

Is the voltage greater than 11 volts?

Yes	INSTALL a new trailer assist lamp.
No	REPAIR the circuit.

J16 CHECK THE RUNNING BOARD LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Close the door.
- Disconnect Inoperative LH Running Board Lamp C3085 or RH Running Board Lamp C3087 .
- Ignition ON.
- Open a door.
- Measure:

RUNNING BOARD LAMP, LEFT REAR	

LH Running Board Lamp

Positive Lead	Measurement / Action	Negative Lead
C3085-1		Ground

RUNNING BOARD LAMP, RIGHT REAR	

RH Running Board Lamp

Positive Lead	Measurement / Action	Negative Lead
C3087-1		Ground

Is the voltage greater than 11 volts?

Yes	GO to J17
No	REPAIR the circuit.

J17 CHECK THE RUNNING BOARD LAMP GROUND CIRCUIT FOR AN OPEN

- Measure:

RUNNING BOARD LAMP, LEFT REAR

LH Running Board Lamp

Positive Lead	Measurement / Action	Negative Lead
C3085-1		C3085-2

RUNNING BOARD LAMP, RIGHT REAR

RH Running Board Lamp

Positive Lead	Measurement / Action	Negative Lead
C3087-1		C3087-2

Is the voltage greater than 11 volts?

Yes	INSTALL a new running board lamp.
No	REPAIR the circuit.

J18 CHECK THE FRONT DOOR SCUFF PLATE LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Close the door.
- Disconnect Inoperative LH Scuff Plate Lamp C3251 or RH Scuff Plate Lamp C3250 .
- Ignition ON.
- Open a door.
- Measure:

SCUFF PLATE LAMP LH	

LH Running Board Lamp

Positive Lead	Measurement / Action	Negative Lead
C3251-1	V	Ground

SCUFF PLATE LAMP RH	

RH Running Board Lamp

Positive Lead	Measurement / Action	Negative Lead
C3250-1	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to J19
No	REPAIR the circuit.

J19 CHECK THE FRONT DOOR SCUFF PLATE GROUND CIRCUIT FOR AN OPEN

- Measure:

SCUFF PLATE LAMP LH

LH Running Board Lamp

Positive Lead	Measurement / Action	Negative Lead
C3251-1		C3251-2

SCUFF PLATE LAMP RH

RH Running Board Lamp

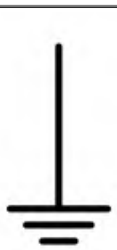
Positive Lead	Measurement / Action	Negative Lead
C3250-1		C3250-2

Is the voltage greater than 11 volts?

Yes	INSTALL a new front door scuff plate.
No	REPAIR the circuit.

J20 CHECK FOR VOLTAGE TO THE BED LAMPS

- Disconnect If one bed lamp is inoperative, LH Truck Bed Lamp C4494 or RH Truck Bed Lamp C4495 .
- Disconnect If both bed lamps are inoperative, LH Truck Bed Lamp C4494 and RH Truck Bed Lamp C4495 .
- Ignition ON.
- Open a door.
- If one bed lamp is inoperative, measure:

TRUCK BED LAMP LH	

LH Truck Bed Lamp

Positive Lead	Measurement / Action	Negative Lead
C4494-1		Ground

TRUCK BED LAMP RH	

RH Truck Bed Lamp

Positive Lead	Measurement / Action	Negative Lead
C4495-1		Ground

- If both bed lamps are inoperative, measure:

TRUCK BED LAMP LH	

LH Truck Bed Lamp

Positive Lead	Measurement / Action	Negative Lead

Positive Lead	Measurement / Action	Negative Lead
C4494-1		Ground

Is the voltage greater than 11 volts?

Yes	If both bed lamps are inoperative, REPAIR the truck bed lamps ground circuit. If a single bed lamp is inoperative, GO to J24
No	If both bed lamps are inoperative, GO to J21 If a single bed lamp is inoperative, GO to J23

J21 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR VOLTAGE TO THE BED LAMPS

- Using a diagnostic scan tool, perform the BCM self-test.
- Clear the Diagnostic Trouble Codes (DTCs) and repeat the self-test (required to enable the lamp output driver if DTC U1000:00 is present).
- Measure:

TRUCK BED LAMP LH	

LH Truck Bed Lamp

Positive Lead	Measurement / Action	Negative Lead
C4494-1		Ground

Is the voltage greater than 11 volts?

Yes	INSTALL a new truck bed lamp.
No	GO to J22

J22 CHECK THE BCM (BODY CONTROL MODULE) BED LAMPS OUTPUT CIRCUIT FOR A SHORT TO GROUND

- Disconnect BCM C2280B .
- Measure:

TRUCK BED LAMP LH	

LH Truck Bed Lamp

Positive Lead	Measurement / Action	Negative Lead
C4494-1	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to J23
No	REPAIR the circuit. After the repair: If no Diagnostic Trouble Codes (DTCs) are present, TEST the system for normal operation. If DTC U1000:00 is present, CLEAR the Diagnostic Trouble Codes (DTCs) and REPEAT the self-test (required to enable the lamp output driver if DTC U1000:00 is present). If DTC U3000:49 is present, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).

J23 CHECK THE BCM (BODY CONTROL MODULE) BED LAMPS OUTPUT CIRCUIT FOR AN OPEN

- If one bed lamp is inoperative, measure:

TRUCK BED LAMP LH	BODY CONTROL MODULE (BCM)

LH Truck Bed Lamp

Positive Lead	Measurement / Action	Negative Lead
C4494-1	Ω	C2280B-44

TRUCK BED LAMP RH	BODY CONTROL MODULE (BCM)

RH Truck Bed Lamp

Positive Lead	Measurement / Action	Negative Lead
C4495-1	Ω	C2280B-44

- If both bed lamps are inoperative, measure:

TRUCK BED LAMP LH	BODY CONTROL MODULE (BCM)

LH Truck Bed Lamp

Positive Lead	Measurement / Action	Negative Lead
C4494-1	Ω	C2280B-44

Is the resistance less than 3 ohms?

Yes	GO to J26
No	REPAIR the circuit.

J24 CHECK THE BED LAMP GROUND CIRCUIT

- If one bed lamp is inoperative, measure:

TRUCK BED LAMP LH

LH Truck Bed Lamp

Positive Lead	Measurement / Action	Negative Lead
C4494-1		C4494-2

TRUCK BED LAMP RH

RH Truck Bed Lamp

Positive Lead	Measurement / Action	Negative Lead
C4495-1		C4495-2

Is the voltage greater than 11 volts?

Yes	INSTALL a new truck bed lamp.
No	REPAIR the circuit.

J25 CHECK THE BCM (BODY CONTROL MODULE) BED LAMPS OUTPUT CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Disconnect BCM C2280B .

Are the bed lamps still illuminated?

Yes	REPAIR the circuit.
No	GO to J26

J26 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors and related in-line connectors.
- Repair:
  - corrosion (install new connector or terminals â€“ clean module pins)
  - damaged or bent pins â€“ install new terminals/pins
  - pushed-out pins â€“ install new pins as necessary
- Reconnect the BCM connectors and related in-line connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues. CLEAR the Diagnostic Trouble Codes (DTCs).