

Stoplamps

DTC Chart: BCM

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).

BCM DTC Chart

DTC	Description	Action <i>New: hover over Pinpoint Test links to show title</i>
B1115:11	High Mounted Stop Lamp Control: Circuit Short to Ground	GO to Pinpoint Test B
B1115:15	High Mounted Stop Lamp Control: Circuit Short to Battery or Open	- If the lamp is inoperative, GO to Pinpoint Test B - If the lamp is always on, GO to Pinpoint Test F
B1444:11	Left Rear Stop/Position Lamp Output: Circuit Short To Ground	GO to Pinpoint Test E
B1444:15	Left Rear Stop/Position Lamp Output: Circuit Short To Battery or Open	- If the lamp is inoperative, GO to Pinpoint Test E - If the lamp is always on, GO to Pinpoint Test F
B1448:11	Right Rear Stop/Position Lamp Output: Circuit Short To Ground	GO to Pinpoint Test E
B1448:15	Right Rear Stop/Position Lamp Output: Circuit Short To Battery or Open	- If the lamp is inoperative, GO to Pinpoint Test E - If the lamp is always on, GO to Pinpoint Test F
B14A0:11	Left Tailgate/Liftgate Lamps: Circuit Short To Ground	GO to Pinpoint Test E
B14A0:15	Left Tailgate/Liftgate Lamps: Circuit Short To Battery or Open	- If the lamp is inoperative, GO to Pinpoint Test E - If the lamp is always on, GO to Pinpoint Test F
B14A1:11	Right Tailgate/Liftgate Lamps: Circuit Short To Ground	GO to Pinpoint Test E
B14A1:15	Right Tailgate/Liftgate Lamps: Circuit Short To Battery or Open	- If the lamp is inoperative, GO to Pinpoint Test E - If the lamp is always on, GO to Pinpoint Test F
C0040:12	Brake Pedal Switch "A": Circuit Short To Battery	GO to Pinpoint Test F

Symptom Chart(s)

Symptom Chart: Stoplamps

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

Condition	Possible Sources	Actions

Condition	Possible Sources	Actions
All module does not respond to the diagnostic scan tool	- Fuse - Wiring, terminals or connectors - Module	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
All the stoplamps are inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test A
The high mounted stoplamp is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test B
Both rear stoplamps are inoperative and the high mounted stoplamp operates correctly	Wiring, terminals or connectors	REPAIR the rear stoplamps ground circuit for an open.
Both upper and lower LH stoplamps are inoperative and the high mounted stoplamp operates correctly - incandescent rear lamps	Wiring, terminals or connectors	REPAIR the LH rear stoplamps ground circuit for an open.
Both upper and lower RH stoplamps are inoperative and the high mounted stoplamp operates correctly - incandescent rear lamps	Wiring, terminals or connectors	REPAIR the rear RH stoplamps ground circuit for an open.
An individual rear stoplamp is inoperative - vehicles without a pickup bed	Refer to the Pinpoint Test	- If the turn lamp is also inoperative, REFER to: Turn Signal and Hazard Lamps (417-01 Exterior Lighting, Diagnosis and Testing). - If the turn lamp operates correctly, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
An individual rear upper stoplamp is inoperative - incandescent rear lamps	Refer to the Pinpoint Test	GO to Pinpoint Test C
An individual rear lower stoplamp is inoperative - incandescent rear lamps	Refer to the Pinpoint Test	GO to Pinpoint Test D
An individual rear stoplamp is inoperative - LED rear lamps	Refer to the Pinpoint Test	GO to Pinpoint Test E
One or more stoplamps are on continuously	Refer to the Pinpoint Test	GO to Pinpoint Test F

Pinpoint Tests

Visual Inspection and Diagnostic Pre-checks

- Verify BCM fuse 7 (10A) is OK.

☐ [PINPOINT TEST A : ALL THE STOPLAMPS ARE INOPERATIVE](#)

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

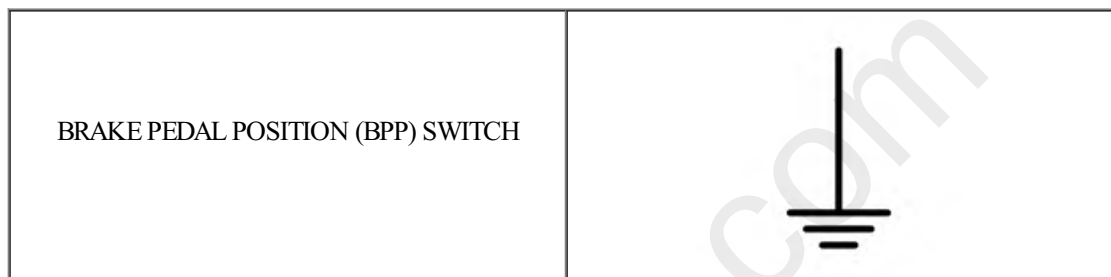
REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

Possible Sources

- Fuse
- Wiring, terminals or connectors
- Stoplamp switch
- BCM

A1 CHECK THE STOPLAMP SWITCH VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect BPP (Stoplamp) Switch [C278](#).
- Measure:



Positive Lead	Measurement / Action	Negative Lead
C278-1		Ground

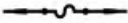
Is the voltage greater than 11 volts?

Yes	GO to A2
No	VERIFY the BCM fuse 7 (10A) is OK. If OK, REPAIR the circuit. If not OK, REFER to the Wiring Diagram manual to identify the possible causes of the circuit short.

A2 BYPASS THE STOPLAMP SWITCH

- Connect a fused jumper:

BRAKE PEDAL POSITION (BPP) SWITCH

Positive Lead	Measurement / Action	Negative Lead
C278-1		C278-4

- Ignition ON.

Do the stoplamps illuminate?

Yes	REMOVE the fused jumper wire. INSTALL a new stoplamp switch. REFER to: Stoplamp Switch (417-01 Exterior Lighting, Removal and Installation).
No	LEAVE the fused jumper wire connected. GO to A3

A3 CHECK THE STOPLAMP SWITCH INPUT CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect BCM [C2280A](#) .
- Measure:

BRAKE PEDAL POSITION (BPP) SWITCH	BODY CONTROL MODULE (BCM)
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Positive Lead	Measurement / Action	Negative Lead
C278-1	Ω	C2280A-1

Is the resistance less than 3 ohms?

Yes	REMOVE the fused jumper wire. GO to A4
No	REMOVE the fused jumper wire. REPAIR the circuit

A4 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors.
- Repair:
 - corrosion (install new connector or terminals “clean module pins)
 - damaged or bent pins “install new terminals/pins
 - pushed-out pins “install new pins as necessary
- Reconnect the BCM 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.

[PINPOINT TEST B : THE HIGH MOUNTED STOPLAMP IS INOPERATIVE](#)

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1115:11	High Mounted Stop Lamp control: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the high mounted stoplamp voltage supply circuit.
BCM B1115:15	High Mounted Stop Lamp control: 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 high mounted stoplamp voltage supply circuit.

Possible Sources

- Bulb (incandescent high mounted stoplamp only)
- Wiring, terminals or connectors
- High mounted stoplamp (LED high mounted stoplamp only)
- BCM

B1 CHECK FOR VOLTAGE TO THE HIGH MOUNTED STOPLAMP

- Ignition OFF.
- Disconnect Incandescent High Mounted Stoplamp [C904](#).
- Disconnect LED High Mounted Stoplamp [C9030](#) (without camera).
- Disconnect LED High Mounted Stoplamp [C9125](#) (with camera).
- Ignition ON.
- While applying the brake pedal, measure:

HIGH MOUNTED STOPLAMP	
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Incandescent High Mounted Stoplamp

Positive Lead	Measurement / Action	Negative Lead
C904-3		Ground

HIGH MOUNTED STOPLAMP/LED	
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LED High Mounted Stoplamp (without camera)

Positive Lead	Measurement / Action	Negative Lead
C9030-3		Ground

HIGH MOUNTED STOPLAMP/CAMERA/LED	
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LED High Mounted Stoplamp (with camera)

Positive Lead	Measurement / Action	Negative Lead
C9125-8		Ground

Is the voltage greater than 11 volts?

Yes	GO to B3
No	GO to B2

B2 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR VOLTAGE TO THE HIGH MOUNTED STOPLAMP

- 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).

- Ignition OFF.
- Ignition ON.
- While applying the brake pedal, measure:

HIGH MOUNTED STOPLAMP	
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Incandescent High Mounted Stoplamp

Positive Lead	Measurement / Action	Negative Lead
C904-3		Ground

HIGH MOUNTED STOPLAMP/LED	
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LED High Mounted Stoplamp (without camera)

Positive Lead	Measurement / Action	Negative Lead
C9030-3		Ground

HIGH MOUNTED STOPLAMP/CAMERA/LED	
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LED High Mounted Stoplamp (with camera)

Positive Lead	Measurement / Action	Negative Lead
C9125-8		Ground

Is the voltage greater than 11 volts?

Yes	For incandescent high mounted stoplamp, INSTALL a new high mounted stoplamp bulb. For LED high mounted stoplamp, INSTALL a new high mounted stoplamp. REFER to: High Mounted Stoplamp (417-01 Exterior Lighting, Removal and Installation).
No	GO to B4

B3 CHECK THE HIGH MOUNTED STOPLAMP GROUND CIRCUIT FOR AN OPEN

- While applying the brake pedal, measure:

HIGH MOUNTED STOPLAMP

Incandescent High Mounted Stoplamp

Positive Lead	Measurement / Action	Negative Lead
C904-3		C904-1

HIGH MOUNTED STOPLAMP/LED

LED High Mounted Stoplamp (without camera)

Positive Lead	Measurement / Action	Negative Lead
C9030-3		C9030-1

HIGH MOUNTED STOPLAMP/CAMERA/LED

LED High Mounted Stoplamp (with camera)

Positive Lead	Measurement / Action	Negative Lead
C9125-8		C9125-6

Is the voltage greater than 11 volts?

B4 CHECK THE HIGH MOUNTED STOPLAMP SUPPLY CIRCUIT FOR A SHORT TO GROUND

- | | |
|---------------------|---|
| • Yes | For an incandescent high mounted stoplamp, INSTALL a new high mounted stoplamp bulb.
For LED high mounted stoplamp, INSTALL a new high mounted stoplamp. |
| • Discontin- | REFRM C9280-1 High Mounted Stoplamp (417-01 Exterior Lighting, Removal and Installation). |
| • No | REPAIR the circuit. |

HIGH MOUNTED STOPLAMP	
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Incandescent High Mounted Stoplamp

Positive Lead	Measurement / Action	Negative Lead
C904-3	Ω	Ground

HIGH MOUNTED STOPLAMP/LED	
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LED High Mounted Stoplamp (without camera)

Positive Lead	Measurement / Action	Negative Lead
C9030-3	Ω	Ground

HIGH MOUNTED STOPLAMP/CAMERA/LED	
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LED High Mounted Stoplamp (with camera)

Positive Lead	Measurement / Action	Negative Lead
C9125-8	Ω	Ground

Is the resistance greater than 10,000 ohms?

B5 CHECK THE HIGH MOUNTED STOPLAMP SUPPLY CIRCUIT FOR AN OPEN

- | | |
|-----|--|
| Yes | GO to D5 |
| No | <p>• Measure:</p> <p>REPAIR the circuit. After the repair:</p> <p>If no Diagnostic Trouble Codes (DTCs) are present, TEST the system for normal operation.</p> <p>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).</p> <p>If DTC U3000:49 is present, Click here to access Guided Routine (BCM).</p> |

Incandescent High Mounted Stoplamp

Positive Lead	Measurement / Action	Negative Lead
C904-3	Ω	C2280E-13

HIGH MOUNTED STOPLAMP/LED	BODY CONTROL MODULE (BCM)
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LED High Mounted Stoplamp (without camera)

Positive Lead	Measurement / Action	Negative Lead
C9030-3	Ω	C2280E-13

HIGH MOUNTED STOPLAMP/CAMERA/LED

BODY CONTROL MODULE (BCM)

LED High Mounted Stoplamp (with camera)

Positive Lead	Measurement / Action	Negative Lead
C9125-8	Ω	C2280E-13

B6 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors.

Is the resistance less than 3 ohms?

- Repair:

Yes	Corrosion: install new connector or terminals â€ clean module pins)
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No	damaged or bent pins â€ install new terminals/pins REPAIR the circuit. pushed-out pins â€ install new pins as necessary
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- Reconnect the BCM 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.

PINPOINT TEST C : AN INDIVIDUAL REAR UPPER STOPLAMP IS INOPERATIVE - INCANDESCENT REAR LAMPS

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1448:11	Right Rear Stop/Position 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 LH rear stoplamp voltage supply circuit.
BCM B1448:15	Right Rear Stop/Position 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 LH rear stoplamp voltage supply circuit.
BCM B1531:11	Left Side Turn Repeater: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the LH rear stoplamp voltage supply circuit.
BCM B1531:15	Left Side Turn Repeater: 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 LH rear stoplamp voltage supply circuit.
BCM B156E:11	Left Rear Stop Lamp Output 2: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the LH rear stoplamp voltage supply circuit.
BCM B156E:15	Left Rear Stop Lamp Output 2: 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 LH rear stoplamp voltage supply circuit.

Possible Sources

- Bulb
- Wiring, terminals or connectors
- BCM

C1 CHECK FOR VOLTAGE TO THE REAR LAMP ASSEMBLY

- Ignition OFF.
- Disconnect Inoperative LH Rear Park/Stop/Turn Lamp 1 [C4112](#) or RH Rear Park/Stop/Turn Lamp 1 [C4114](#) .
- Ignition ON.
- While applying the brake pedal, measure:

PARK/STOP/TURN LAMP 1, LEFT REAR	
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LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4112-3		Ground

PARK/STOP/TURN LAMP 1, RIGHT REAR	
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RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4114-3		Ground

Is the voltage greater than 11 volts?

Yes	GO to C3
No	GO to C2

C2 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR VOLTAGE TO THE REAR LAMP ASSEMBLY

- 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).
- Ignition OFF.
- Ignition ON.
- While applying the brake pedal, measure:

PARK/STOP/TURN LAMP 1, LEFT REAR	
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LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4112-3		Ground

PARK/STOP/TURN LAMP 1, RIGHT REAR	
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RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4114-3		Ground

Is the voltage greater than 11 volts?

Yes	INSTALL a new rear park/stop/turn lamp bulb. REFER to: Rear Lamp Bulb (417-01 Exterior Lighting, Removal and Installation).
No	GO to C4

C3 CHECK THE REAR STOPLAMP GROUND CIRCUIT FOR AN OPEN

- While applying the brake pedal, measure:

PARK/STOP/TURN LAMP 1, LEFT REAR

LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4112-3		C4112-1

PARK/STOP/TURN LAMP 1, RIGHT REAR

RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4114-3		C4114-1

Is the voltage greater than 11 volts?

Yes	INSTALL a new rear park/stop/turn lamp bulb. REFER to: Rear Lamp Bulb (417-01 Exterior Lighting, Removal and Installation).
No	REPAIR the circuit.

C4 CHECK THE REAR STOPLAMP SUPPLY CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect For inoperative LH stoplamp, BCM [C2280D](#).
- Disconnect For inoperative RH stoplamp, BCM [C2280E](#).
- Measure:

PARK/STOP/TURN LAMP 1, LEFT REAR	
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LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4112-3	Ω	Ground

PARK/STOP/TURN LAMP 1, RIGHT REAR	
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RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4114-3	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to C5

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).
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C5 CHECK THE REAR STOPLAMP SUPPLY CIRCUITS FOR AN OPEN

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- Ignition OFF.
- Measure:

PARK/STOP/TURN LAMP 1, LEFT REAR	BODY CONTROL MODULE (BCM)
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LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4112-3	Ω	C2280D-1

PARK/STOP/TURN LAMP 1, RIGHT REAR	BODY CONTROL MODULE (BCM)
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RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4114-3	Ω	C2280E-23

Is the resistance less than 3 ohms?

Yes	GO to C6
No	REPAIR the circuit in question.

C6 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM 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. 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.

PINPOINT TEST D : AN INDIVIDUAL REAR LOWER STOPLAMP IS INOPERATIVE - INCANDESCENT REAR LAMPS

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1444:11	Left Rear Stop/Position 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 LH rear stoplamp voltage supply circuit.
BCM B1444:15	Left Rear Stop/Position 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 LH rear stoplamp voltage supply circuit.
BCM B1532:11	Right Side Turn Repeater: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the right RH stoplamp voltage supply circuit.
BCM B1532:15	Right Side Turn Repeater: 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 right RH stoplamp voltage supply circuit.
BCM B156F:11	Right Rear Stop Lamp Output 2: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the right RH stoplamp voltage supply circuit.
BCM B156F:15	Right Rear Stop Lamp Output 2: 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 right RH stoplamp voltage supply circuit.

Possible Sources

- Bulb
- Wiring, terminals or connectors
- BCM

D1 CHECK FOR VOLTAGE TO THE REAR LAMP ASSEMBLY

- Ignition OFF.
- Disconnect Inoperative LH Rear Park/Stop/Turn Lamp 2 [C4113](#) or RH Rear Park/Stop/Turn Lamp 2 [C4115](#).
- Ignition ON.
- While applying the brake pedal, measure:

PARK/STOP/TURN LAMP 2, LEFT REAR	
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LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4113-3		Ground

PARK/STOP/TURN LAMP 2, RIGHT REAR	
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RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4115-3		Ground

Is the voltage greater than 11 volts?

Yes	GO to D3
No	GO to D2

D2 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR VOLTAGE TO THE REAR LAMP ASSEMBLY

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- 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).
- Ignition OFF.
- Ignition ON.
- While applying the brake pedal, measure:

PARK/STOP/TURN LAMP 2, LEFT REAR	
----------------------------------	--

LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4113-3		Ground

PARK/STOP/TURN LAMP 2, RIGHT REAR	
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RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4115-3		Ground

Is the voltage greater than 11 volts?

Yes	INSTALL a new rear park/stop/turn lamp bulb. REFER to: Rear Lamp Bulb (417-01 Exterior Lighting, Removal and Installation).
No	GO to D4

D3 CHECK THE REAR STOPLAMP GROUND CIRCUIT FOR AN OPEN

- While applying the brake pedal, measure:

PARK/STOP/TURN LAMP 2, LEFT REAR

LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4113-3		C4113-1

PARK/STOP/TURN LAMP 2, RIGHT REAR

RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4115-3		C4115-1

Is the voltage greater than 11 volts?

Yes	INSTALL a new rear park/stop/turn lamp bulb. REFER to: Rear Lamp Bulb (417-01 Exterior Lighting, Removal and Installation).
No	REPAIR the circuit.

D4 CHECK THE REAR STOPLAMP SUPPLY CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect For inoperative LH stoplamp, BCM [C2280E](#) .
- Disconnect For inoperative RH stoplamp, BCM [C2280D](#) .

- Ignition ON.
- Measure:

PARK/STOP/TURN LAMP 2, LEFT REAR	
----------------------------------	--

LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4113-3	Ω	Ground

PARK/STOP/TURN LAMP 2, RIGHT REAR	
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RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4115-3	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to D5
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).

D5 CHECK THE REAR STOPLAMP SUPPLY CIRCUITS FOR AN OPEN

- Ignition OFF.
- Measure:

PARK/STOP/TURN LAMP 2, LEFT REAR	BODY CONTROL MODULE (BCM)
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LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4113-3	Ω	C2280E-24

PARK/STOP/TURN LAMP 2, RIGHT REAR	BODY CONTROL MODULE (BCM)
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RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4115-3	Ω	C2280D-2

Is the resistance less than 3 ohms?

Yes	GO to D6
No	REPAIR the circuit in question.

- Disconnect and inspect all BCM and all 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 and all 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.

PINPOINT TEST E : AN INDIVIDUAL REAR STOPLAMP IS INOPERATIVE - LED (LIGHT EMITTING DIODE) REAR LAMPS

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1444:11	Left Rear Stop/Position 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 LH rear stoplamp voltage supply circuit.
BCM B1444:15	Left Rear Stop/Position 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 LH rear stoplamp voltage supply circuit.
BCM B1448:11	Right Rear Stop/Position 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 right RH stoplamp voltage supply circuit.
BCM B1448:15	Right Rear Stop/Position 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 right RH stoplamp voltage supply circuit.
BCM B14A0:11	Left Tailgate/Liftgate Lamps: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the LH rear stoplamp voltage supply circuit.
BCM B14A0:15	Left Tailgate/Liftgate Lamps: 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 LH rear stoplamp voltage supply circuit.
BCM B14A1:11	Right Tailgate/Liftgate Lamps: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the right RH stoplamp voltage supply circuit.
BCM B14A1:15	Right Tailgate/Liftgate Lamps: 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 right RH stoplamp voltage supply circuit.

Possible Sources

- Wiring, terminals or connectors
- Rear lamp assembly
- BCM

E1 CHECK FOR VOLTAGE TO THE REAR LAMP ASSEMBLY

- Ignition OFF.
- Disconnect Inoperative LH Rear Lamp [C4483](#) or RH Rear Lamp [C4484](#) .
- Ignition ON.
- While applying the brake pedal, measure:

REAR LAMP ASSEMBLY LH	
-----------------------	--

LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-2		Ground

REAR LAMP ASSEMBLY RH	
-----------------------	--

RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-2		Ground

Is the voltage greater than 11 volts?

Yes	GO to E3
No	GO to E2

E2 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR VOLTAGE TO THE REAR LAMP ASSEMBLY

- 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).
- Ignition OFF.
- Ignition ON.
- While applying the brake pedal, measure:

REAR LAMP ASSEMBLY LH	
-----------------------	--

LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-2		Ground

REAR LAMP ASSEMBLY RH	
-----------------------	--

RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-2		Ground

Is the voltage greater than 11 volts?

Yes	INSTALL a new rear lamp assembly. REFER to: Rear Lamp Assembly (417-01 Exterior Lighting Removal and Installation).
No	GO to E4

E3 CHECK THE REAR STOPLAMP GROUND CIRCUIT FOR AN OPEN

- While applying the brake pedal, measure:

REAR LAMP ASSEMBLY LH

LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-2		C4483-8

REAR LAMP ASSEMBLY RH

RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-2		C4484-1
C4484-2		C4484-8

Is the voltage greater than 11 volts?

Yes	INSTALL a new rear lamp assembly. REFER to: Rear Lamp Assembly (417-01 Exterior Lighting, Removal and Installation).
No	REPAIR the circuit in question.

E4 CHECK THE REAR STOPLAMP SUPPLY CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect BCM [C2280E](#) .
- Measure:

REAR LAMP ASSEMBLY LH	
-----------------------	--

LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-2	Ω	Ground

REAR LAMP ASSEMBLY RH	
-----------------------	--

RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-2	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to E5
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).

E5 CHECK THE REAR STOPLAMP SUPPLY CIRCUITS FOR AN OPEN

- Measure:

REAR LAMP ASSEMBLY LH	BODY CONTROL MODULE (BCM)
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LH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-2	Ω	C2280E-24

REAR LAMP ASSEMBLY RH	BODY CONTROL MODULE (BCM)
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RH Stop Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-2	Ω	C2280E-23

Is the resistance less than 3 ohms?

Yes	GO to E6
No	REPAIR the circuit in question.

E6 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors.
- Repair:
 - corrosion (install new connector or terminals – clean module pins)
 - damaged or bent pins – install new terminals/pins
 - pushed-out pins – install new pins as necessary
- Reconnect the BCM 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.

PINPOINT TEST F : ONE OR MORE STOPLAMPS ARE ON CONTINUOUSLY

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1115:15	High Mounted Stop Lamp control: 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 high mounted stoplamp voltage supply circuit.
BCM B1444:15	Left Rear Stop/Position 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 LH rear stoplamp voltage supply circuit.
BCM B1448:15	Right Rear Stop/Position 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 LH rear stoplamp voltage supply circuit.
BCM B14A0:15	Left Tailgate/Liftgate Lamps: 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 LH rear stoplamp voltage supply circuit.
BCM B14A1:15	Right Tailgate/Liftgate Lamps: 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 LH rear stoplamp voltage supply circuit.
BCM B1531:15	Left Side Turn Repeater: 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 LH rear stoplamp voltage supply circuit.
BCM B1532:15	Right Side Turn Repeater: 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 right RH stoplamp voltage supply circuit.
BCM B156E:15	Left Rear Stop Lamp Output 2: 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 LH rear stoplamp voltage supply circuit.

Possible Sources

- Wiring, terminals or connectors
- Stoplamp switch
- PCM
- BCM

F1 IDENTIFY THE CONTINUOUSLY ILLUMINATED STOPLAMPS

- Ignition ON.
- Observe the stoplamps.

Are all the stoplamps illuminated?

Yes	GO to F4
No	For incandescent rear lamps without pickup bed, LED rear lamps or high mounted stoplamp, GO to F2 For incandescent rear lamps with pickup bed, GO to F3

F2 CHECK THE BCM (BODY CONTROL MODULE) STOPLAMP OUTPUT CIRCUITS FOR A SHORT TO VOLTAGE (WITHOUT PICKUP BED OR LED REAR LAMPS)

- Ignition OFF.
- Disconnect BCM [C2280E](#) .
- Ignition ON.

Does the stoplamp in question continue to illuminate?

Yes	REPAIR the circuit in question.
No	GO to F8

F3 CHECK THE BCM (BODY CONTROL MODULE) STOPLAMP OUTPUT CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect For LH upper or RH lower stoplamp, BCM [C2280D](#) .
- Disconnect For LH lower or RH upper stoplamp, BCM [C2280E](#) .
- Ignition ON.

Does the stoplamp in question continue to illuminate?

Yes	REPAIR the circuit in question.
No	GO to F8

F4 CHECK THE STOPLAMP SWITCH

- Ignition OFF.
- Disconnect BPP (stoplamp) Switch [C278](#) .
- Ignition ON.

Do the stoplamps continue to illuminate?

Yes	GO to F5
No	INSTALL a new stoplamp switch. REFER to: Stoplamp Switch (417-01 Exterior Lighting, Removal and Installation).

F5 CHECK THE PCM (POWERTRAIN CONTROL MODULE)

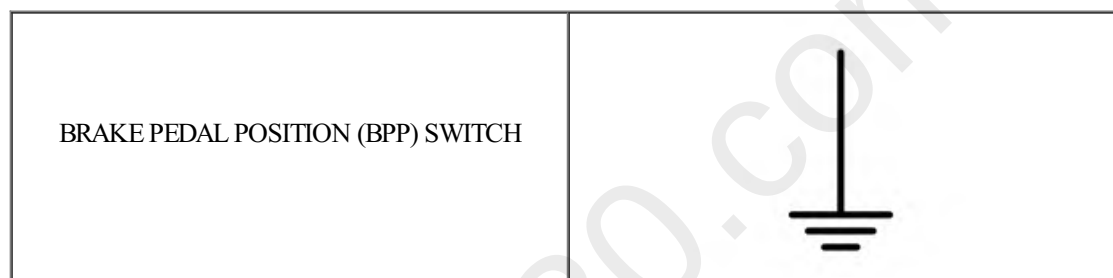
- Ignition OFF.
- Disconnect PCM [C1232B](#) (diesel engine).
- Disconnect PCM [C175B](#) (gasoline engine).
- Ignition ON.

Do the stoplamps continue to illuminate?

Yes	GO to F6
No	GO to F7

F6 CHECK THE STOPLAMP SWITCH INPUT CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM [C2280A](#) .
- Ignition ON.
- Measure:



Positive Lead	Measurement / Action	Negative Lead
C278-4		Ground

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to F8

F7 CHECK FOR CORRECT PCM (POWERTRAIN CONTROL MODULE) OPERATION

- Disconnect and inspect all PCM 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 PCM 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 Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, Click here to access Guided Routine (PCM) .
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.

F8 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM 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. 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.

