

Reversing Lamps

DTC Chart: Body Control Module (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
B1277:11	Reverse Lamp: Circuit Short To Ground	GO to Pinpoint Test A
B1277:15	Reverse Lamp: Circuit Short To Battery or Open	• If the reversing lamps are is inoperative, GO to Pinpoint Test A • If the reversing lamps are always on, GO to Pinpoint Test B
U1000:00	Solid State Driver Protection Active -Driver Disabled: No Sub Type Information	The module has temporarily disabled an output because an excessive current draw exists (such as a short to ground). The BCM cannot enable the output until the cause of the short is corrected. ADDRESS all other Diagnostic Trouble Codes (DTCs) first. After the cause of the concern is corrected, CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the self-test.

U3000:49	Control Module: Internal Electronic Failure	The module has permanently disabled an output because an excessive current draw fault (such as a short to ground) has exceeded the limits that the BCM can withstand. The cause of the excessive current draw MUST be corrected before a new BCM is installed. ADDRESS all other Diagnostic Trouble Codes (DTCs) first. After the cause of the concern is corrected,   Click here to access Guided Routine (BCM).
For other BCM Diagnostic Trouble Codes (DTCs)	-	REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules) .

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: Reversing Lamps

Symptom Chart

Condition	Possible Sources	Actions
A module does not respond to the diagnostic scan tool	• Fuse • Wiring, terminals or connectors • Module	REFER to: Communications Network (418-00 Module Communications Network) .
One or both reversing lamps are inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test A
The reversing lamps are on continuously	Refer to the Pinpoint Test	GO to Pinpoint Test B

Pinpoint Tests

One Or Both Reversing Lamps Are Inoperative

Refer to Wiring Diagrams Cell 93 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting (417-01 Exterior Lighting) .

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1277:11	Reverse Lamp: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the reversing lamps output circuit.
B1277:15	Reverse 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 reversing lamps output circuit.
U1000:00	Solid State Driver Protection Active -Driver Disabled: No Sub Type Information	This DTC sets when the BCM has temporarily shut down the output driver. The module has temporarily disabled an output because an excessive current draw exists (such as a short to ground). The BCM cannot enable the output until the cause of the short is corrected, the Diagnostic Trouble Codes (DTCs) have been cleared and a successful self-test is run.

U3000:49	Control Module: Internal Electronic Failure	This DTC sets when the BCM has permanently shut down the output driver. The module has permanently disabled an output because an excessive current draw fault (such as a short to ground) has exceeded the limits that the BCM can withstand. CORRECT the cause of the excessive current draw before installing a new BCM.
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Possible Sources

- Bulb (incandescent rear lamps only)
- Wiring, terminals or connectors
- Gear range concern
- Rear lamp assembly (LED rear lamps only)
- BCM

Visual Inspection and Diagnostic Pre-checks

- Inspect the bulbs and make sure they are OK.

PINPOINT TEST A : ONE OR BOTH REVERSING LAMPS ARE INOPERATIVE

A1 CHECK THE PCM (POWERTRAIN CONTROL MODULE) TRANSMISSION RANGE PID (PARAMETER IDENTIFICATION)

- Apply the parking brake.
- Ignition ON.
- Using a diagnostic scan tool, view PCM Parameter Identifications (PIDs).
- Monitor the Transmission Range (TR) PID.
- Place the gear selector in REVERSE (R).

Does the PID indicate the gear range is in reverse?

Yes	If both reverse lamps are inoperative, GO to A2 If an individual reverse lamps are inoperative, GO to A4
No	DIAGNOSE the transmission range concern. REFER to: External Controls (307-05 Automatic Transmission External Controls) .

A2 CHECK THE REVERSING LAMP VOLTAGE CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: BCM C2280C.
- Disconnect: For incandescent rear lamps, LH Rear Lamp C4035.
- Disconnect: For LED rear lamps not equipped with BLIS, LH Rear Lamp C412.
- Disconnect: For LED rear lamps equipped with BLIS, LH Rear Lamp C4483.

Is the resistance greater than 10,000 ohms?

Yes	GO to A3
No	REPAIR the in question. 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,   Click here to access Guided Routine (BCM).

A3 CHECK THE REVERSING LAMP VOLTAGE CIRCUITS FOR AN OPEN

Is the resistance less than 3 ohms?

Yes	GO to A7
No	REPAIR the circuit in question.

A4 CHECK FOR VOLTAGE TO THE REVERSING LAMP

- Ignition OFF.
- Apply the parking brake.
- Disconnect: For incandescent rear lamps, inoperative LH Rear Lamp C4035 or RH Rear Lamp C4032.
- Disconnect: For LED rear lamps not equipped with BLIS, inoperative LH Rear Lamp C412 or RH Rear Lamp C415.
- Disconnect: For LED rear lamps equipped with BLIS, inoperative LH Rear Lamp C4483 or RH Rear Lamp C4484.
- Ignition ON.
- Place the gear selector in REVERSE (R).
- For incandescent rear lamps, measure:

Click to display connectors

RH Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4032-2		Ground

- For LED rear lamps not equipped with BLIS, measure:

Click to display connectors

RH Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C415-4		Ground

- For LED rear lamps equipped with BLIS, measure:

Click to display connectors

RH Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-4		Ground

Is the voltage greater than 11 volts?

Yes	GO to A6
No	GO to A5

A5 CHECK THE REVERSING LAMP SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- For incandescent rear lamps, measure:

Click to display connectors

RH Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4032-2	Ω	C2280C-11

- For LED rear lamps not equipped with BLIS, measure:

Click to display connectors

RH Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C415-4	Ω	C2280C-11

- For LED rear lamps equipped with BLIS, measure:

Click to display connectors

RH Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-4	Ω	C2280C-11

Is the resistance less than 3 ohms?

Yes	GO to A7
No	REPAIR the circuit.

A6 CHECK THE REVERSING LAMP GROUND CIRCUIT FOR AN OPEN

- For incandescent rear lamps, measure:

Click to display connectors

RH Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4032-2		C4032-6

- For LED rear lamps not equipped with BLIS, measure:

Click to display connectors

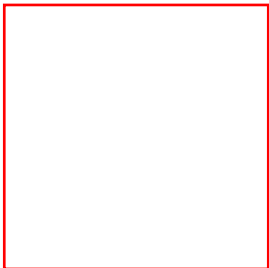
RH Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C415-4		C415-1

- For LED rear lamps equipped with BLIS, measure:

Click to display connectors

RH Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-4		C4484-1
C4484-4		C4484-9

Is the voltage greater than 11 volts?

Yes	For an incandescent rear lamp, CHECK the rear lamp harness for open or shorted circuits and damaged or pushed-out pins. If the harness is OK, INSTALL a new reversing lamp bulb. REFER to: Rear Lamp Bulb (417-01 Exterior Lighting, Removal and Installation). If the harness is not OK, REPAIR the harness. If the harness cannot be repaired, INSTALL a new rear lamp harness. For LED rear lamps, INSTALL a new rear lamp assembly. REFER to: Headlamp Assembly (417-01 Exterior Lighting) .
No	REPAIR the circuit in question.

A7 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 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 (BCM).
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.

The Reversing Lamps Are On Continuously

Refer to Wiring Diagrams Cell 93 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting (417-01 Exterior Lighting) .

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1277:15	Reverse 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 reversing lamps output circuit.

Possible Sources

- Wiring, terminals or connectors
- Gear range input
- BCM

PINPOINT TEST B : THE REVERSING LAMPS ARE ON CONTINUOUSLY

B1 CHECK THE PCM (POWERTRAIN CONTROL MODULE) TRANSMISSION RANGE PID (PARAMETER IDENTIFICATION)
• Apply the parking brake. • Ignition ON. • Using a diagnostic scan tool, view PCM Parameter Identifications (PIDs). • Monitor the Transmission Range (TR) PID. • Place the gear selector lever in each position.

Does the PID indicate reverse when the gear selector is not in reverse?

Yes	DIAGNOSE the transmission range concern. REFER to: External Controls (307-05 Automatic Transmission External Controls) .
No	GO to B2

B2 CHECK THE REVERSING LAMPS SUPPLY CIRCUIT FOR A SHORT TO VOLTAGE

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

Does either reversing lamp continue to illuminate?

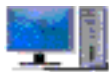
Yes	REPAIR the affected circuit.
No	GO to B3

B3 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 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,
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[Click here to access Guided Routine \(BCM\).](#)

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.
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