

Fog Lamps

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).

DTC	Description	Action
B1046:11	Front Fog Lamp Control Switch: Circuit Short To Ground	GO to Pinpoint Test C
B1047:11	Rear Fog Lamp Control Switch: Circuit Short To Ground	GO to Pinpoint Test D
B1147:11	Left Front Fog Lamps: Circuit Short To Ground	GO to Pinpoint Test B
B1147:15	Left Front Fog Lamps: Circuit Short To Battery or Open	• If the fog lamp is inoperative, GO to Pinpoint Test B • If the fog lamp is always on, GO to Pinpoint Test C
B1148:11	Right Front Fog Lamps: Circuit Short To Ground	GO to Pinpoint Test B
B1148:15	Right Front Fog Lamps: Circuit Short To Battery or Open	• If the fog lamp is inoperative, GO to Pinpoint Test B • If the fog lamp is always on, GO to Pinpoint Test C

B1A79:11	Rear Fog Lamp: Circuit Short To Ground	GO to Pinpoint Test D
B1A79:15	Rear Fog Lamp: Circuit Short To Battery or Open	• If the lamp is inoperative, GO to Pinpoint Test D • If the lamp is always on, GO to Pinpoint Test E
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).
All other BCM Diagnostic Trouble Codes (DTCs)	-	REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Diagnosis and Testing).

Symptom Chart

Symptom Chart: Fog Lamps

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
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, Diagnosis and Testing).
Both front fog lamps are inoperative	Refer to the Pinpoint Test	NOTE: <i>If equipped, when snow plow mode is selected, the fog lamps are disabled. Make sure the vehicle is not in snow plow mode before continuing diagnosis.</i> GO to Pinpoint Test A
An individual front fog lamp is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test B
The front fog lamps are on continuously	Refer to the Pinpoint Test	GO to Pinpoint Test C
The rear fog lamp is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test D
The rear fog lamp is on continuously	Refer to the Pinpoint Test	GO to Pinpoint Test E

Pinpoint Tests

Both Front Fog Lamps Are Inoperative

Refer to Wiring Diagrams Cell 86 for schematic and connector information.

Normal Operation and Fault Conditions

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

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

Possible Sources

- Wiring, terminals or connectors
- Headlamp switch
- Headlamps concern
- BCM

Visual Inspection and Diagnostic Pre-checks

- Inspect the headlamp switch for damage.

PINPOINT TEST A : BOTH FRONT FOG LAMPS ARE INOPERATIVE

A1 CHECK THE LOW BEAM OPERATION	
• Ignition ON. • Place the headlamp switch in the HEADLAMPS then the OFF position.	
Do the low beams operate correctly?	
Yes	GO to A2
No	REFER to: Headlamps (417-01 Exterior Lighting, Diagnosis and Testing).
A2 CHECK THE HEADLAMP SWITCH	

- Ignition OFF.
- Disconnect: Headlamp Switch C205.
- Carry out the headlamp switch component test.
Refer to Wiring Diagrams Cell 149 for schematic and connector information.

Does the headlamp switch pass the component test?

Yes	GO to A3
No	INSTALL a new headlamp switch. REFER to: Headlamp Switch (417-01 Exterior Lighting, Removal and Installation).

A3 CHECK THE BCM (BODY CONTROL MODULE) FOG LAMP SWITCH INPUT CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect: BCM C2280B.

Is the resistance less than 3 ohms?

Yes	GO to A4
No	REPAIR the circuit.

A4 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM and all related in-line 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 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 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.

An Individual Front Fog Lamp Is Inoperative

Refer to Wiring Diagrams Cell 86 for schematic and connector information.

Normal Operation and Fault Conditions

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

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

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1147:11	Left Front Fog 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 fog lamp output circuit.
B1147:15	Left Front Fog Lamps: Circuit Short To Battery or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open from the LH fog lamp output circuit.
B1148:11	Right Front Fog Lamps: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the RH fog lamp output circuit.
B1148:15	Right Front Fog Lamps: Circuit Short To Battery or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open from the RH fog lamp 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.

Possible Sources

- Bulb
- Wiring, terminals or connectors
- BCM

Visual Inspection and Diagnostic Pre-checks

- Inspect the bulbs and make sure they are OK.

PINPOINT TEST B : AN INDIVIDUAL FRONT FOG LAMP IS INOPERATIVE

B1 CHECK FOR VOLTAGE TO THE INOPERATIVE FOG LAMP

- Ignition OFF.
- Disconnect: Inoperative LH Fog Lamp C152 or RH Fog Lamp C162.
- Ignition ON.
- Place the headlamp switch in the PARKLAMPS position and engage the fog lamp switch.
- Measure:

Click to display connectors

RH Fog Lamp

Positive Lead	Measurement / Action	Negative Lead
C162-B		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 FOG 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:

Click to display connectors

RH Fog Lamp

Positive Lead	Measurement / Action	Negative Lead
C162-B		Ground

Is the voltage greater than 11 volts?

Yes	INSTALL a new front fog lamp bulb. REFER to: Front Fog Lamp Bulb (417-01 Exterior Lighting, Removal and Installation).
No	GO to B4

B3 CHECK THE INOPERATIVE FOG LAMP GROUND CIRCUIT FOR AN OPEN

- Measure:

Click to display connectors

RH Fog Lamp

Positive Lead	Measurement / Action	Negative Lead
C162-B		C162-A

Is the voltage greater than 11 volts?

Yes	INSTALL a new front fog lamp bulb. REFER to: Front Fog Lamp Bulb (417-01 Exterior Lighting, Removal and Installation).
No	REPAIR the circuit.

B4 CHECK FOG LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO GROUND

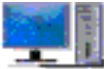
- Place the headlamp switch in the OFF position.
- Ignition OFF.
- Disconnect: BCM C2280G.
- Measure:

Click to display connectors

RH Fog Lamp

Positive Lead	Measurement / Action	Negative Lead
C162-B	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,   Click here to access Guided Routine (BCM).

B5 CHECK FOG LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Measure:

Click to display connectors

RH Fog Lamp

Positive Lead	Measurement / Action	Negative Lead
C162-B	Ω	C2280G-5

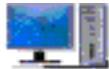
Is the resistance less than 3 ohms?

Yes	GO to B6
No	REPAIR the circuit.

B6 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM and all related in-line 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 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 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).
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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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The Front Fog Lamps Are On Continuously

Refer to Wiring Diagrams Cell 86 for schematic and connector information.

Normal Operation and Fault Conditions

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

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

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1046:11	Front Fog Lamp Control Switch: Circuit Short To Ground	A continuous and on-demand DTC that sets when the BCM detects a short to ground on the headlamp switch input circuits.
B1147:15	Left Front Fog Lamps: Circuit Short To Battery or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open from the LH fog lamp output circuit.
B1148:15	Right Front Fog Lamps: Circuit Short To Battery or Open	A continuous and on-demand DTC that sets when the BCM detects a short to voltage from the RH fog lamp beam output circuit.

Possible Sources

- Wiring, terminals or connectors
- Headlamp switch

- BCM

Visual Inspection and Diagnostic Pre-checks

- Inspect the headlamp switch for damage.

PINPOINT TEST C : THE FRONT FOG LAMPS ARE ON CONTINUOUSLY

C1 CHECK THE HEADLAMP SWITCH

- Ignition OFF.
- Disconnect: Headlamp Switch C205.
- Carry out the headlamp switch component test.
Refer to Wiring Diagrams Cell 149 for schematic and connector information.

Does the headlamp switch pass the component test?

Yes	GO to C2
No	INSTALL a new headlamp switch. REFER to: Headlamp Switch (417-01 Exterior Lighting, Removal and Installation).

C2 CHECK THE FOG LAMP VOLTAGE SUPPLY CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: BCM C2280G.
- Ignition ON.

Do the fog lamps continue to illuminate?

Yes	GO to C3
No	REPAIR the circuits.

C3 CHECK THE BCM (BODY CONTROL MODULE) FOG LAMP SWITCH INPUT CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: BCM C2280B.

Is the resistance greater than 10,000 ohms?

Yes	GO to C4
No	REPAIR the circuit.

C4 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM and all related in-line 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 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 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 Rear Fog Lamp Is Inoperative

Refer to Wiring Diagrams Cell 86 for schematic and connector information.

Normal Operation and Fault Conditions

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

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

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1A79:11	Rear Fog Lamp: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the rear fog lamp output circuit.
B1A79:15	Rear Fog 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 rear fog lamp 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

- Wiring, terminals or connectors
- Headlamp switch
- Reversing lamp
- BCM

Visual Inspection and Diagnostic Pre-checks

- Inspect the headlamp switch for damage.

PINPOINT TEST D : THE REAR FOG LAMP IS INOPERATIVE

D1 CHECK THE HEADLAMP SWITCH

- Ignition OFF.
- Disconnect: Headlamp Switch C205.
- Carry out the headlamp switch component test.
Refer to Wiring Diagrams Cell 149 for schematic and connector information.

Does the headlamp switch pass the component test?

Yes	GO to D2
No	INSTALL a new headlamp switch. REFER to: Headlamp Switch (417-01 Exterior Lighting, Removal and Installation).

D2 CHECK THE HEADLAMP SWITCH FOG LAMP ENABLE CIRCUIT FOR AN OPEN

- Disconnect: BCM C2280B.

Is the resistance less than 3 ohms?

Yes	GO to D3
No	REPAIR the circuit.

D3 CHECK FOR VOLTAGE TO THE REAR FOG LAMP

- Connect: Headlamp Switch C205.
- Connect: BCM C2280C.
- Disconnect: Rear Fog Lamp C436.
- Ignition ON.
- Place the headlamp switch in the PARKING LAMPS position and engage the rear fog lamp switch.

Is the voltage greater than 11 volts?

Yes	GO to D5
No	GO to D4

D4 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR VOLTAGE TO THE REAR FOG LAMP

- Disengage the rear fog lamp switch and place the headlamp switch in the OFF position.
- 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.
- Place the headlamp switch in the PARKING LAMPS position and engage the rear fog lamp switch.

Is the voltage greater than 11 volts?

Yes	INSTALL a new rear fog lamp. REFER to: Rear Fog Lamp (417-01 Exterior Lighting) .
No	GO to D6

D5 CHECK REAR FOG LAMP GROUND CIRCUIT FOR AN OPEN

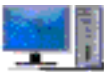
Is the voltage greater than 11 volts?

Yes	INSTALL a new rear fog lamp. REFER to: Rear Fog Lamp (417-01 Exterior Lighting) .
No	REPAIR the circuit.

D6 CHECK REAR FOG LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO GROUND

- Place the headlamp switch in the OFF position.
- Ignition OFF.
- Disconnect: BCM C2280C.

Is the resistance greater than 10,000 ohms?

Yes	GO to D7
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,   Click here to access Guided Routine (BCM).

D7 CHECK REAR FOG LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

Is the resistance less than 3 ohms?

Yes	GO to D8
No	REPAIR the circuit.

D8 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM and all related in-line 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 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 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 Rear Fog Lamp Is On Continuously

Refer to Wiring Diagrams Cell 86 for schematic and connector information.

Normal Operation and Fault Conditions

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

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

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1047:11	Rear Fog Lamp Control Switch: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground on the rear fog lamp on input circuit.
B1A79:15	Rear Fog 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 rear fog lamp output circuit.

Possible Sources

- Wiring, terminals or connectors
- Headlamp switch
- BCM

Visual Inspection and Diagnostic Pre-checks

- Inspect the headlamp switch for damage.

PINPOINT TEST E : THE REAR FOG LAMP IS ON CONTINUOUSLY

E1 CHECK THE HEADLAMP SWITCH

- Ignition OFF.
- Disconnect: Headlamp Switch C205.
- Carry out the headlamp switch component test.
Refer to Wiring Diagrams Cell 149 for schematic and connector information.

Does the headlamp switch pass the component test?

Yes	GO to E2
No	INSTALL a new headlamp switch. REFER to: Headlamp Switch (417-01 Exterior Lighting, Removal and Installation).

E2 CHECK THE REAR FOG LAMP SWITCH CIRCUIT FOR A SHORT TO GROUND

- Disconnect: BCM C2280B.

Is the resistance greater than 10,000 ohms?

Yes	GO to E3
No	REPAIR the circuit.

E3 CHECK THE REAR FOG LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO VOLTAGE

- Disconnect: BCM C2280C.
- Ignition ON.

Does the rear fog lamp continue to illuminate?

Yes	REPAIR the circuit.
No	GO to E4

E4 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM and all related in-line 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 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 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.