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2002 FORD Fiesta 5 Doors OEM Service and Repair Workshop Manual

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- Ignition OFF.
- For incandescent rear lamps equipped with BLIS (blind spot information system) , measure:

LH (left-hand) Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C498-8	Ω	C2280F-15

- For LED (light emitting diode) rear lamps, measure:

LH (left-hand) Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4485-8	Ω	C2280F-15

Is the resistance less than 3 ohms?

Yes	GO to B11
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No	REPAIR the circuit in question.
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B9 CHECK THE REVERSING LAMP SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect: For incandescent rear lamps equipped with BLIS (blind spot information system) , inoperative LH (left-hand) Rear Lamp C498 or RH (right-hand) Rear Lamp C499.
- Disconnect: For LED rear lamps, inoperative LH (left-hand) Rear Lamp C4485 or RH (right-hand) Rear Lamp C4487.
- Ignition ON.
- For incandescent rear lamps equipped with BLIS (blind spot information system) , measure:

LH (left-hand) Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
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- Ignition OFF.
- Disconnect: BCM (body control module) C2280F.
- For incandescent rear lamps equipped with BLIS (blind spot information system) , measure:

LH (left-hand) Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C498-8	Ω	C2280F-15

RH (right-hand) Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C499-8	Ω	C2280F-15

- For LED (light emitting diode) rear lamps, measure:

LH (left-hand) Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4485-8	Ω	C2280F-15

RH (right-hand) Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4487-8	Ω	C2280F-15

Is the resistance less than 3 ohms?

Yes	CHECK the rear lamp harness for open or shorted circuits and damaged or pushed-out pins. If the harness is OK, INSTALL a new rear lamp assembly.
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REFER to: [Exterior Lighting - System Operation and Component Description](#)
(417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
BCM (body control module) B1277:11	Reverse Lamp: Circuit Short To Ground	A continuous memory and on-demand DTC (diagnostic trouble code) that sets when the BCM (body control module) detects a short to ground from the reversing lamps output circuit.
BCM (body control module) B1277:15	Reverse Lamp: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC (diagnostic trouble code) that sets when the BCM (body control module) detects an open or short to voltage from the reversing lamps output circuit.

Possible Sources

- Wiring, terminals or connectors
- Gear range concern
- Rear lamp assembly
- BCM (body control module)

Visual Inspection and Pre-checks

- Inspect the bulbs and make sure they are OK.

C1 CHECK THE PCM (POWERTRAIN CONTROL MODULE) TRANSMISSION RANGE PID (PARAMETER IDENTIFICATION)

- Apply the parking brake.
- Ignition ON.
- Access the PCM (powertrain control module) and monitor the TR_CORRECTED (Transmission Range Sensor Position - Corrected) PID (parameter identification)
- Place the gear selector in each gear.

Does the PID (parameter identification) indicate the correct value in each gear selection?

Yes	If all reverse lamps are inoperative, GO to C2 If an individual reverse lamps are inoperative, GO to C4
No	DIAGNOSE the transmission range concern. REFER to: External Controls

Positive Lead	Measurement / Action	Negative Lead
C4485-4	Ω	C2280C-11

Is the resistance less than 3 ohms?

Yes	GO to C7
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No	REPAIR the circuit in question.
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C4 CHECK FOR VOLTAGE TO THE REVERSING LAMP

- Ignition OFF.
- Apply the parking brake.
- Disconnect: For inoperative LH (left-hand) body mounted reversing lamp, LH (left-hand) Rear Lamp C4485.
- Disconnect: For inoperative RH (right-hand) body mounted reversing lamp, RH (right-hand) Rear Lamp C4484.
- Disconnect: For inoperative liftgate mounted reversing lamp, Rear Lightbar Applique C4639.
- Ignition ON.
- Place the gear selector in REVERSE (R).
- For body mounted reversing lamp, measure:

LH (left-hand) Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4485-4	\overline{V}	Ground

RH (right-hand) Rear Lamp

Positive Lead	Measurement / Action	Negative Lead

- For liftgate mounted reversing lamp, measure:

Positive Lead	Measurement / Action	Negative Lead
C4639-2	Ω	C2280C-11

Is the resistance less than 3 ohms?

Yes	GO to C7
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No	REPAIR the circuit.
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C6 CHECK THE REVERSING LAMP GROUND CIRCUIT FOR AN OPEN

- For body mounted reversing lamp, measure:

LH (left-hand) Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4485-4	\overline{V}	C4485-3

RH (right-hand) Rear Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-4	\overline{V}	C4484-3

- For liftgate mounted reversing lamp, measure:

Positive Lead	Measurement / Action	Negative Lead

- Disconnect and inspect all BCM (body control module) 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 (body control module) 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	<p>CHECK OASIS (Online Automotive Service Information System) for any applicable service articles: TSB (Technical Service Bulletin) , GSB (General Service Bulletin) , SSM (special service message) or FSA (Field Service Action) . 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 (body control module) .</p> <p>REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).</p>
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No	<p>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.</p>
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PINPOINT TEST D : 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 - 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 (diagnostic trouble code)	Description	Fault Trigger Condition
BCM (body control module) B1277:15	Reverse Lamp: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC (diagnostic trouble code) that sets when the BCM (body control module) detects an open or short to voltage from the reversing lamps output circuit.

- Apply the parking brake.
- Ignition ON.
- Access the PCM (powertrain control module) and monitor the TR_CORRECTED (Transmission Range Sensor Position - Corrected) PID (parameter identification)
- Place the gear selector lever in each position.

Does the PID (parameter identification) indicate reverse when the gear selector is not in reverse?

Yes	<p>DIAGNOSE the transmission range concern.</p> <p>For 10R80 transmission, with column shift, REFER to: External Controls - Vehicles With: Column Shift (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).</p> <p>For 10R80 transmission, with console shift, REFER to: External Controls - Vehicles With: Column Shift (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).</p> <p>For 10R80 MHT transmission, with column shift, REFER to: External Controls - Vehicles With: Column Shift (307-05C Automatic Transmission External Controls - 10-Speed Automatic Transmission – 10R80 MHT, Diagnosis and Testing).</p> <p>For 10R80 MHT transmission, with console shift, REFER to: External Controls - Vehicles With: Console Shift (307-05C Automatic Transmission External Controls - 10-Speed Automatic Transmission – 10R80 MHT, Diagnosis and Testing).</p> <p>For electric vehicles only with 1-Speed Automatic Transmission, REFER to: External Controls (307-05A Automatic Transmission External Controls - 1-Speed Automatic Transmission, Diagnosis and Testing).</p>
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No	GO to D2
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D2 CHECK THE REVERSING LAMPS SUPPLY CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: BCM (body control module) C2280C.
- Ignition ON.

Does either reversing lamp continue to illuminate?

Spot Lamps

417-01 Exterior Lighting	2022 F-150
Diagnosis and Testing	Procedure revision date: 10/1/2020

Spot Lamps

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 (diagnostic trouble code)	Description	Action
DDM (driver door module)	B14AB:11	Spotlight Mirror Output: Circuit Short To Ground	GO to Pinpoint Test B
DDM (driver door module)	B14AB:15	Spotlight Mirror Output: Circuit Short To Battery or Open	GO to Pinpoint Test B
PDM (passenger door module)	B14AB:11	Spotlight Mirror Output: Circuit Short To Ground	GO to Pinpoint Test B
PDM (passenger door module)	B14AB:15	Spotlight Mirror Output: Circuit Short To Battery or Open	GO to Pinpoint Test B
PDM (passenger door module)	B15F1:11	Right Spotlight Indicator LED: Circuit Short To Ground	GO to Pinpoint Test D

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	<ul style="list-style-type: none">• Fuse• Wiring, terminals or connectors• Module	REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).
Both spot lamps are inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test A
An individual spot lamp is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test B
One or both spot lamps are on continuously	Refer to the Pinpoint Test	GO to Pinpoint Test C
A spot lamp switch indicator is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test D

Pinpoint Tests

PINPOINT TEST A : BOTH SPOT LAMPS ARE INOPERATIVE

Refer to Wiring Diagrams Cell 124for 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

- Wiring, terminals or connectors
- Spot lamp switch
- PDM (passenger door module)

Visual Inspection and Pre-checks