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## 2009 FORD Fiesta 5 Doors OEM Service and Repair Workshop Manual

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- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, perform the continuous memory self-test.
- Retrieve the Continuous Memory Diagnostic Trouble Codes (CMDTCs) from all modules.

**Is DTC (diagnostic trouble code) U0131:87 set in the BCM (body control module) ?**

Yes	INSTALL a new PSCM (power steering control module) For vehicles without adaptive steering, REFER to: <a href="#">Steering Gear</a> (211-02 Power Steering, Removal and Installation).
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No	INSTALL a new TRM (trailer module) . REFER to: <a href="#">Trailer Module (TRM)</a> (417-01 Exterior Lighting, Removal and Installation).
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**PINPOINT TEST J : U0140:87**

Refer to Wiring Diagrams Cell 95for 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
TRM (trailer module) Continuous U0140:87	Lost Communication With Body Control Module: Missing Message	A continuous memory DTC (diagnostic trouble code) that sets when the TRM (trailer module) if messages received from the BCM (body control module) are missing.

**Possible Sources**

- Communication concern
- BCM (body control module)
- TRM (trailer module)

- Wait 10 seconds.
- Ignition OFF.
- Ignition ON.
- Using a diagnostic scan tool, perform the TRM (trailer module) self-test.

**Is DTC (diagnostic trouble code) U0140:87 still present?**

<b>Yes</b>	GO to <a href="#">J5</a>
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<b>No</b>	The system is operating correctly at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or an intermittent fault condition.
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**J5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0140 SET IN OTHER MODULES**

- Using a diagnostic scan tool, clear all Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Using a diagnostic scan tool, perform the self-test.
- Retrieve the Diagnostic Trouble Codes (DTCs) from all modules.

**Is DTC (diagnostic trouble code) U0140 set in any other module?**

<b>Yes</b>	GO to <a href="#">J6</a>
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<b>No</b>	GO to <a href="#">J7</a>
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**J6 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION**

- 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?**

## PINPOINT TEST K : U0143:87

Refer to Wiring Diagrams Cell 95 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
TRM (trailer module) Continuous U0143:87	Lost Communication With Body Control Module 'C': Missing Message	A continuous memory DTC (diagnostic trouble code) that sets when the TRM (trailer module) if messages received from the BCMC (body control module C) are missing.

### Possible Sources

- Communication concern
- BCMC (body control module C)
- TRM (trailer module)

### K1 VERIFY THE CUSTOMER CONCERN

- Ignition ON.
- Verify that there is an observable symptom present.

**Is an observable symptom present?**

<b>Yes</b>	GO to <a href="#">K2</a>
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<b>No</b>	The system is operating normally at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or an intermittent fault condition. CLEAR the DTC (diagnostic trouble code) .
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### K2 CHECK THE COMMUNICATION NETWORK

- Using a diagnostic scan tool, perform a network test.

**Does the TRM (trailer module) pass the network test?**

- Ignition OFF.
- Ignition ON.
- Using a diagnostic scan tool, perform the self-test.
- Retrieve the Diagnostic Trouble Codes (DTCs) from all modules.

**Is DTC (diagnostic trouble code) U0143 set in any other module?**

<b>Yes</b>	GO to <a href="#">K6</a>
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<b>No</b>	GO to <a href="#">K7</a>
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## **K6 CHECK FOR CORRECT BCMC (BODY CONTROL MODULE C) OPERATION**

- Disconnect and inspect all BCMC (body control module C) 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 BCMC (body control module C) connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

**Is the concern still present?**

<b>Yes</b>	<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 BCMC (body control module C) .</p> <p>REFER to: <a href="#">Body Control Module C (BCMC)</a> (419-10 Multifunction Electronic Modules, Removal and Installation).</p>
<b>No</b>	<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>

## **K7 CHECK FOR CORRECT TRM (TRAILER MODULE) OPERATION**

- Disconnect and inspect all TRM (trailer module) connectors.

### Possible Sources

- Communication concern
- IPC (instrument panel cluster)
- TRM (trailer module)

### L1 VERIFY THE CUSTOMER CONCERN

- Ignition ON.
- Verify that there is an observable symptom present.

#### Is an observable symptom present?

Yes	GO to <a href="#">L2</a>
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No	The system is operating normally at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or an intermittent fault condition. CLEAR the DTC (diagnostic trouble code) .
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### L2 CHECK THE COMMUNICATION NETWORK

- Using a diagnostic scan tool, perform a network test.

#### Does the TRM (trailer module) pass the network test?

Yes	GO to <a href="#">L3</a>
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No	REFER to: <a href="#">Exterior Lighting - System Operation and Component Description</a> (417-01 Exterior Lighting, Description and Operation).
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### L3 RETRIEVE THE IPC (INSTRUMENT PANEL CLUSTER) DIAGNOSTIC TROUBLE CODES (DTCS)

No

GO to [L7](#)

## L6 CHECK FOR CORRECT IPC (INSTRUMENT PANEL CLUSTER) OPERATION

- Disconnect and inspect all IPC (instrument panel cluster) 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 BCMC (body control module C) 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 (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 IPC (instrument panel cluster) .

REFER to: [Instrument Panel Cluster \(IPC\)](#)  
(413-01 Instrumentation, Message Center and Warning Chimes, 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.

## L7 CHECK FOR CORRECT TRM (TRAILER MODULE) OPERATION

- Disconnect and inspect all TRM (trailer 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 TRM (trailer 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?

Continuous U0415:83	Value Of Signal Protection Calculation Incorrect	(trailer module) receives invalid network data from the ABS (anti-lock brake system) module.
TRM (trailer module) Continuous U0423:56	Invalid Data Received from Instrument Panel Cluster Control Module: Invalid/Incompatible Configuration	A continuous memory DTC (diagnostic trouble code) that sets when the TRM (trailer module) receives invalid network data from the IPC (instrument panel cluster) .

#### Possible Sources

- TRM (trailer module)

#### M1 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCs)

- For DTC (diagnostic trouble code) U0415:81, U0415:82, or U0415:83 Using a diagnostic scan tool, repeat the ABS (anti-lock brake system) module self-test.
- For DTC (diagnostic trouble code) U0423:56, Using a diagnostic scan tool, repeat the IPC (instrument panel cluster) self-test.

#### Are any non-network Diagnostic Trouble Codes (DTCs) present?

<b>Yes</b>	<p>For DTC (diagnostic trouble code) U0415:81, U0415:82, or U0415:83, REPAIR the ABS (anti-lock brake system) Diagnostic Trouble Codes (DTCs).</p> <p>REFER to: <a href="#">Anti-Lock Brake System (ABS) and Stability Control</a> (206-09 Anti-Lock Brake System (ABS) and Stability Control, Diagnosis and Testing).</p> <p>For DTC (diagnostic trouble code) U0423:56, REPAIR the IPC (instrument panel cluster) Diagnostic Trouble Codes (DTCs).</p> <p>REFER to: <a href="#">Instrumentation, Message Center and Warning Chimes</a> (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).</p>
<b>No</b>	<p>Diagnose all network Diagnostic Trouble Codes (DTCs).</p> <p>REFER to: <a href="#">Exterior Lighting - System Operation and Component Description</a> (417-01 Exterior Lighting, Description and Operation).</p>

#### PINPOINT TEST N : U0422:82



(417-01 Exterior Lighting, Description and Operation).

### DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
TRM (trailer module) Continuous U0444:82	Invalid Data Received From Body Control Module 'C': Alive/Sequence Counter Incorrect/Not Updated	A continuous memory DTC (diagnostic trouble code) that sets when the TRM (trailer module) receives invalid network data from the BCMC (body control module C) module.

### Possible Sources

- TRM (trailer module)

### 01 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCs)

- Using a diagnostic scan tool, repeat the BCMC (body control module C) module self-test.

### Are any non-network Diagnostic Trouble Codes (DTCs) present?

<b>Yes</b>	REPAIR the BCMC (body control module C) Diagnostic Trouble Codes (DTCs). REFER to: <a href="#">Body Control Module C (BCMC)</a> (419-10 Multifunction Electronic Modules, Diagnosis and Testing).
<b>No</b>	Diagnose all network Diagnostic Trouble Codes (DTCs). REFER to: <a href="#">Exterior Lighting - System Operation and Component Description</a> (417-01 Exterior Lighting, Description and Operation).

### PINPOINT TEST P : P0604:94, U2100:00, U2200:00

Refer to Wiring Diagrams Cell 92 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

No	GO to <a href="#">P2</a>
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## P2 CHECK FOR CORRECT TRM (TRAILER MODULE) OPERATION

- Disconnect and inspect the TRM (trailer module) and 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 TRM (trailer module) and related in-line connectors. Make sure it seats and latches 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 TRM (trailer module) .</p> <p>REFER to: <a href="#">Trailer Module (TRM)</a> (417-01 Exterior Lighting, Removal and Installation).</p>
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>

## PINPOINT TEST Q : U1000:00, U3000:49

Refer to Wiring Diagrams Cell 92for 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