

Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2010 FORD Focus 5 Doors OEM Service and Repair Workshop Manual

[Go to manual page](#)

No	GO to BT6
----	---------------------------

BT6 CHECK THE GWM (GATEWAY MODULE A) DIAGNOSTIC TROUBLE CODES (DTCs)

- Using a diagnostic scan tool, check the GWM (gateway module A) Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Controller Area Network (CAN) Module Communications Network (418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).
-----	---

No	GO to BT7
----	---------------------------

BT7 CHECK FOR CORRECT IPC (INSTRUMENT PANEL CLUSTER) OPERATION

- Ignition OFF.
- Disconnect and inspect the IPC (instrument panel cluster) connector.
- 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 IPC (instrument panel cluster) connector. Make sure it seats and latches 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
----	--

No	The trailer lighting display is operating correctly. The IPC (instrument panel cluster) was not set to the correct display screen.
BU2 PERFORM THE IPC (INSTRUMENT PANEL CLUSTER) SELF-TEST	
<ul style="list-style-type: none"> Using a diagnostic scan tool, perform the IPC (instrument panel cluster) self-test. Check for recorded Diagnostic Trouble Codes (DTCs). 	
Are any Diagnostic Trouble Codes (DTCs) recorded?	
Yes	REFER to the IPC (instrument panel cluster) DTC (diagnostic trouble code) Chart in this section.
No	GO to BU3
BU3 PERFORM THE BCM (BODY CONTROL MODULE) SELF-TEST	
<ul style="list-style-type: none"> Using a diagnostic scan tool, perform the BCM (body control module) self-test. Check for recorded Diagnostic Trouble Codes (DTCs). 	
Are any Diagnostic Trouble Codes (DTCs) recorded?	
Yes	REFER to the Master DTC (diagnostic trouble code) Chart.
No	GO to BU4
BU4 PERFORM THE TRM (TRAILER MODULE) SELF-TEST	

- PCM (powertrain control module)
- IPC (instrument panel cluster)

BV1 CHECK THE MESSAGE CENTER OPERATION

- Ignition ON.
- Close all doors and the hood.
- Clear all message center warnings by pressing the OK button for each warning present.
- Monitor the door ajar RTT (reconfigurable telltale) warning indicator.
- Open the driver door.
- Clear the message center popup warning.
- Monitor the door ajar RTT (reconfigurable telltale) warning indicator.

Is the door ajar RTT (reconfigurable telltale) warning indicator off with the door closed, and on with the door open?

Yes	GO to BV2
------------	---------------------------

No	GO to Pinpoint Test A
-----------	---------------------------------------

BV2 PERFORM THE IPC (INSTRUMENT PANEL CLUSTER) SELF-TEST

- Using a diagnostic scan tool, perform the IPC (instrument panel cluster) self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to the IPC (instrument panel cluster) DTC (diagnostic trouble code) Chart.
------------	--

No	GO to BV3
-----------	---------------------------

BV3 CHECK THE GWM (GATEWAY MODULE A) DIAGNOSTIC TROUBLE CODES (DTCs)

- Using a diagnostic scan tool, check the GWM (gateway module A) Continuous Memory Diagnostic Trouble Codes (DTCs).

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Controller Area Network (CAN) Module Communications Network (418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).
------------	---

No	GO to Pinpoint Test A
----	---------------------------------------

BW2 PERFORM THE IPC (INSTRUMENT PANEL CLUSTER) SELF-TEST

- Using a diagnostic scan tool, perform the IPC (instrument panel cluster) self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to DTC (diagnostic trouble code) Chart: IPC (instrument panel cluster) in this section.
-----	---

No	GO to BW3
----	---------------------------

BW3 CHECK THE GWM (GATEWAY MODULE A) DIAGNOSTIC TROUBLE CODES (DTCs)

- Using a diagnostic scan tool, check the GWM (gateway module A) Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Controller Area Network (CAN) Module Communications Network (418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).
-----	---

No	DIAGNOSE all PCM (powertrain control module) Diagnostic Trouble Codes (DTCs). REFER to the Master DTC (diagnostic trouble code) Chart.
----	--

PINPOINT TEST BX : THE ENGINE OIL CHANGE MESSAGE ALWAYS DISPLAYED

Normal Operation and Fault Conditions

See Engine Oil Life Display. REFER to: [Message Center - System Operation and Component Description](#)(413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

Possible Sources

- Engine oil life requires reset
- Message center switch concern
- PCM (powertrain control module)
- GWM (gateway module A) concern

Yes	REFER to DTC (diagnostic trouble code) Chart: IPC (instrument panel cluster) in this section.
------------	---

No	GO to BX4
-----------	---------------------------

BX4 PERFORM THE PCM (POWERTRAIN CONTROL MODULE) KOEO (KEY ON, ENGINE OFF) SELF-TEST

- Ignition ON.
- Using a diagnostic scan tool, perform the PCM (powertrain control module) KOEO (key on, engine off) self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to the Master DTC (diagnostic trouble code) Chart.
------------	--

No	GO to BX5
-----------	---------------------------

BX5 CHECK FOR RECENT SERVICE HISTORY

- CHECK the vehicle service history for recent service actions related to PCM (powertrain control module) or IPC (instrument panel cluster) software updates.

Was the software updated in either the PCM (powertrain control module) or IPC (instrument panel cluster) ?

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, UPDATE the software in the module in question.</p> <p>ATTEMPT to reset the engine oil life again. If the engine oil change message cannot be cleared, INSTALL a new module in question.</p> <p>For the PCM (powertrain control module) , GO to BX6 For the IPC (instrument panel cluster) , GO to BX7</p>
------------	--

- Reconnect the IPC (instrument panel cluster) connector. 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 IPC (instrument panel cluster) .</p> <p>REFER to: Instrument Panel Cluster (IPC) (413-01 Instrumentation, Message Center and Warning Chimes, 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 BY : THE ENGINE OIL LIFE MESSAGE IS NEVER DISPLAYED

Normal Operation and Fault Conditions

See Engine Oil Life message. REFER to: [Message Center - System Operation and Component Description](#)(413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

Possible Sources

- Message center concern
- The PCM (powertrain control module) has not reached the programmed mileage/time based on the criteria required to display the message.

BY1 VERIFY MESSAGE CENTER OPERATION

- Ignition ON.
- Open then close the driver door while observing the message center.

Does the driver door ajar message appear in the message center with the driver door ajar and turn off with the driver door closed?

Yes	GO to BY2
-----	---------------------------

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 BZ : THE LOW ENGINE OIL LEVEL MESSAGE IS ALWAYS DISPLAYED (5.0L)

Refer to Wiring Diagrams Cell 26 for schematic and connector information.

Normal Operation and Fault Conditions See Engine Oil Level Message. REFER to: [Message Center - System Operation and Component Description](#)

(413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

Possible Sources

- Communication concern
- Engine oil level (EOL) sensor
- PCM (powertrain control module) concern
- GWM (gateway module A)
- IPC (instrument panel cluster)

BZ1 CHECK ENGINE OIL LEVEL

- Check the engine oil level.

Is the engine oil at the recommended level?

Yes	GO to BZ2
------------	---------------------------

No	DIAGNOSE an engine oil level concern. REFER to: Engine - Flex Fuel – Ethanol/Full Hybrid Electric Vehicle (FHEV)/Gasoline (303-00 Engine System - General Information, Diagnosis and Testing).
-----------	---

BZ2 PERFORM THE IPC (INSTRUMENT PANEL CLUSTER) SELF-TEST

- Ignition ON.
- Using a diagnostic scan tool, perform the IPC (instrument panel cluster) self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to the IPC (instrument panel cluster) DTC (diagnostic trouble code) Chart.
------------	--

Is the resistance less than 3 ohms?

Yes	GO to BZ6
------------	---------------------------

No	REPAIR the circuit.
-----------	---------------------

BZ6 CHECK THE ENGINE OIL LEVEL (EOL) SENSOR RETURN CIRCUIT FOR AN OPEN

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1381B-65	Ω	C1149-2

Is the resistance less than 3 ohms?

Yes	GO to BZ7
------------	---------------------------


No	REPAIR the circuit.
-----------	---------------------

BZ7 CHECK THE ENGINE OIL LEVEL (EOL) SENSOR SIGNAL CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1149-1	\bar{V}	Ground

Is voltage 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,</p> <p></p> <p>Guided Routine available in the on-line Workshop Manual.</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 CA : A TIRE TRAINING MESSAGE IS NEVER ON OR TIRES NOT TRAINED MESSAGE IS ALWAYS ON

NOTE

This message only appears during the TPMS (tire pressure monitoring system) sensor training procedure.

Normal Operation and Fault Conditions

See TPMS (tire pressure monitoring system) . REFER to: [Message Center - System Operation and Component Description](#)(413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

Possible Sources

- TPMS (tire pressure monitoring system) warning indicator concern
- TPMS (tire pressure monitoring system) sensor training concern

CA1 VERIFY THE TPMS (TIRE PRESSURE MONITORING SYSTEM) WARNING INDICATOR FUNCTIONS

- Ignition ON.
- Verify the TPMS (tire pressure monitoring system) warning indicator functions.

Does the TPMS (tire pressure monitoring system) warning indicator function?