

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.

2005 FORD Focus ST 5 Doors OEM Service and Repair Workshop Manual

[Go to manual page](#)


Is the door ajar message center warning indicator off with the door closed then does the message center warning indicator turn on with the door open?

Yes	If the low washer fluid level message center indicator is inoperative, GO to AP2 If the low washer fluid level message center indicator is always on, GO to AP5
------------	---

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

AP2 CHECK THE LOW WASHER FLUID INDICATOR OPERATION

- Ignition OFF.
- Disconnect Low Washer Fluid Level Sensor C138 .
- Connect a fused jumper wire:

Lead 1	Measurement / Action	Lead 2
C138-1		C138-2

- Ignition ON.
- Wait one minute.
- Observe the low washer fluid level message center indicator.

Is the low washer fluid level message center indicator on?

Yes	REMOVE the fused jumper wire. INSTALL a new washer fluid level sensor. REFER to: Windshield Washer Fluid Level Sensor (501-16 Wipers and Washers, Removal and Installation).
------------	--

No	REMOVE the fused jumper wire. GO to AP3
-----------	---

AP3 CHECK THE WASHER FLUID LEVEL SENSOR GROUND CIRCUIT FOR AN OPEN AT THE WASHER FLUID LEVEL SENSOR

- Ignition OFF.
- Measure:

- Wait one minute.
- Observe the low washer fluid level message center indicator.

Did the low washer fluid level message center indicator turn off?

Yes	INSTALL a new washer fluid level sensor. REFER to: Windshield Washer Fluid Level Sensor (501-16 Wipers and Washers, Removal and Installation).
------------	--

No	GO to AP6
-----------	---------------------------

AP6 CHECK THE WASHER FLUID LEVEL INPUT CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect IPC (instrument panel cluster) C220A .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C220A-11	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AP7
------------	---------------------------

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

AP7 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

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

Is the vehicle equipped with a 4-inch display IPC (instrument panel cluster) ?

Yes	GO to AQ3
------------	---------------------------

No	GO to AQ2
-----------	---------------------------

AQ2 CHECK THE MESSAGE CENTER OPERATION

- Ignition ON.
- Close all doors and 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 AQ4
------------	---------------------------

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

AQ3 PERFORM THE IPC (INSTRUMENT PANEL CLUSTER) INDICATOR LAMP CONTROL ACTIVE COMMAND

- Using a diagnostic scan tool, view the IPC (instrument panel cluster) Parameter Identifications (PIDs).
- Access the IPC (instrument panel cluster) and control the MIL (Malfunction Indicator Lamp) PID (parameter identification)
- Command the MIL (malfunction indicator lamp) on and off.

Does the MIL (malfunction indicator lamp) illuminate when commanded on and turn off when commanded off?

Yes	GO to AQ4
------------	---------------------------

- 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	<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 AR : THE ONE-PEDAL TRAIL CONTROL RTT (RECONFIGURABLE TELLTALE) INDICATOR IS NEVER OR ALWAYS ON

Normal Operation and Fault Conditions

See One-pedal Trail Control. REFER to: [Instrument Panel Cluster \(IPC\) - System Operation and Component Description](#)(413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

If the trail one-pedal mode indicator request message is missing or invalid for less than 5 seconds, the IPC (instrument panel cluster) defaults the one-pedal control RTT (reconfigurable telltale) indicator to its last state (on or off) based upon the last known good message received.

If the trail one-pedal mode indicator request message is missing for 5 seconds or longer, the IPC (instrument panel cluster) defaults the one-pedal control RTT (reconfigurable telltale) indicator off.

Possible Sources

- Communication concern
- ABS (anti-lock brake system) module concern
- GWM (gateway module A) concern
- IPC (instrument panel cluster)

AR1 CHECK THE MESSAGE CENTER OPERATION

- Using a diagnostic scan tool, perform the ABS (anti-lock brake system) module self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Anti-Lock Brake System (ABS) and Stability Control (206-09 Anti-Lock Brake System (ABS) and Stability Control, Diagnosis and Testing).
No	DIAGNOSE the one-pedal control (part of trail control). REFER to: Anti-Lock Brake System (ABS) and Stability Control (206-09 Anti-Lock Brake System (ABS) and Stability Control, Diagnosis and Testing).

PINPOINT TEST AS : THE OVERSPEED WARNING RTT (RECONFIGURABLE TELLTALE) INDICATOR IS NEVER OR ALWAYS ON (GULF COOPERATIVE COUNTRIES [GCC])

Normal Operation and Fault Conditions

See Overspeed (Gulf Cooperative Countries [GCC]). REFER to: [Instrument Panel Cluster \(IPC\) - System Operation and Component Description](#)(413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

If the vehicle speed message is missing or invalid for less than 5 seconds, the IPC (instrument panel cluster) defaults the overspeed RTT (reconfigurable telltale) warning indicator to its last state (on or off) based upon the last known good message received.

If the vehicle speed message is missing for 5 seconds or longer, the IPC (instrument panel cluster) defaults the overspeed RTT (reconfigurable telltale) warning indicator off.

Possible Sources

- Speedometer indication concern
- IPC (instrument panel cluster) configuration concern
- IPC (instrument panel cluster)

AS1 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.

PINPOINT TEST AT : THE POLICE IDLE MODE RTT (RECONFIGURABLE TELLTALE) INDICATOR IS NEVER OR ALWAYS ON

Normal Operation and Fault Conditions

See Police Idle Mode. REFER to: [Instrument Panel Cluster \(IPC\) - System Operation and Component Description](#)(413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

If the police idle mode status message is missing or invalid for less than 5 seconds, the IPC (instrument panel cluster) defaults the police idle mode RTT (reconfigurable telltale) indicator to its last state (on or off) based upon the last known good message received.

If the police idle mode status message is missing for 5 seconds or longer, the IPC (instrument panel cluster) defaults the police idle mode RTT (reconfigurable telltale) indicator on.

Possible Sources

- Speedometer indication concern
- BCM (body control module) concern
- GWM (gateway module A) concern
- IPC (instrument panel cluster)

AT1 CHECK THE MESSAGE CENTER OPERATION

- Ignition ON.
- Close all doors, liftgate and 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 AT2
------------	---------------------------

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

AT2 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?

If the engine service required, transmission service required, 4WD (four-wheel drive) service required or body service required request messages are missing or invalid for less than 5 seconds, the IPC (instrument panel cluster) defaults the powertrain malfunction (wrench) indicator or powertrain malfunction (wrench) RTT (reconfigurable telltale) indicator to its last state (on or off) based upon the last message received. If the engine service required, transmission service required, 4WD (four-wheel drive) service required or body service required request messages are missing for 5 seconds or longer, the IPC (instrument panel cluster) defaults the powertrain malfunction (wrench) indicator or powertrain malfunction (wrench) RTT (reconfigurable telltale) indicator on.

Possible Sources

- Communication concern
- Message center concern
- 4WD (four-wheel drive) concern
- BCM (body control module) concern
- GWM (gateway module A) concern
- PCM (powertrain control module) concern
- TCM (transmission control module) concern (diesel)
- IPC (instrument panel cluster)

AU1 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) indicator.
- Open the driver door.
- Clear the message center popup warning.
- Monitor the door ajar RTT (reconfigurable telltale) indicator.

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

Yes	GO to AU2
------------	---------------------------

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

AU2 RETRIEVE THE RECORDED DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE IPC (INSTRUMENT PANEL CLUSTER) SELF-TEST

- Ignition ON.

Yes	REFER to: Controller Area Network (CAN) Module Communications Network (418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).
No	<p>If the powertrain malfunction (wrench) indicator is always on, DIAGNOSE all PCM (powertrain control module) Diagnostic Trouble Codes (DTCs). REFER to the Master DTC (diagnostic trouble code) Chart.</p> <p>If the powertrain malfunction (wrench) indicator is never on, the system is operating correctly at this time.</p>

PINPOINT TEST AV : THE PRNDM INDICATOR OR PROGRESSIVE RANGE SELECT DISPLAY IS NEVER ON OR NEVER DISPLAYS P

Normal Operation and Fault Conditions

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

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

If the transmission gear display, transmission gear display mode or transmission range display message is missing for less than 5 seconds, the display remains in the last indication state (on or off), based upon the last message received.

If the transmission gear display, transmission gear display mode or transmission range display message is missing for 5 seconds or longer, the IPC (instrument panel cluster) defaults the display off.

Possible Sources

- Wiring, terminals or connectors
- Communication concern
- Transmission concern
- GWM (gateway module A)
- PCM (powertrain control module)
- TCM (transmission control module) (diesel)
- IPC (instrument panel cluster)

Visual Inspection and Pre-checks

- Verify the vehicle is not in transport mode.

AV1 PERFORM THE IPC (INSTRUMENT PANEL CLUSTER) SELF-TEST

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

No	GO to AV5
----	---------------------------

AV5 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	<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 AW : THE READY TO DRIVE RTT (RECONFIGURABLE TELLTALE) INDICATOR IS NEVER ON (HEV (HYBRID ELECTRIC VEHICLE))

Normal Operation and Fault Conditions

See Ready to Drive (HEV (hybrid electric vehicle)). REFER to: [Instrument Panel Cluster \(IPC\) - System Operation and Component Description](#)(413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

If the ready to drive indication request message is missing for less than 5 seconds, the IPC (instrument panel cluster) defaults the ready to drive RTT (reconfigurable telltale) indicator to the last indication state (on or off), based upon the last message received.