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2010 FORD Focus ST 5 Doors OEM Service and Repair Workshop Manual

[Go to manual page](#)

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	<p>If the TPMS (tire pressure monitoring system) warning indicator is never on, the system is operating correctly.</p> <p>If the TPMS (tire pressure monitoring system) warning indicator is always on, DIAGNOSE the TPMS (tire pressure monitoring system) .</p> <p>REFER to: Tire Pressure Monitoring System (TPMS) (204-04B Tire Pressure Monitoring System (TPMS), Diagnosis and Testing).</p>

BC8 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>

- 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 DTC (diagnostic trouble code) Chart: IPC (instrument panel cluster) in this section.
No	GO to BD3

BD3 PERFORM THE ABS (ANTI-LOCK BRAKE SYSTEM) MODULE SELF-TEST

- Ignition ON.
- 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 the Master DTC (diagnostic trouble code) Chart.
No	GO to BD4

BD4 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 BD5

BD5 PERFORM THE PCM (POWERTRAIN CONTROL MODULE) KOEO (KEY ON, ENGINE OFF) SELF-TEST

- Ignition ON.

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

Yes	GO to BE2
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No	GO to Pinpoint Test A
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BE2 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 DTC (diagnostic trouble code) Chart in this section.
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No	GO to BE3
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BE3 PERFORM THE ABS (ANTI-LOCK BRAKE SYSTEM) MODULE SELF-TEST

- 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).
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No	DIAGNOSE the automatic braking system. REFER to: Anti-Lock Brake System (ABS) and Stability Control (206-09 Anti-Lock Brake System (ABS) and Stability Control, Diagnosis and Testing).
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PINPOINT TEST BF : THE WAIT TO START INDICATOR OR RTT (RECONFIGURABLE TELLTALE) INDICATOR IS NEVER OR ALWAYS ON

Normal Operation and Fault Conditions

No	GO to BF3
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BF3 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.

BF4 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).
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No	GO to Pinpoint Test A
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BG2 RETRIEVE THE RECORDED DIAGNOSTIC TROUBLE CODES (DTCs) FROM 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 DTC (diagnostic trouble code) Chart: IPC (instrument panel cluster) in this section.
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No	GO to BG3
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BG3 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).
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No	DIAGNOSE all PCM (powertrain control module) Diagnostic Trouble Codes (DTCs). REFER to the Master DTC (diagnostic trouble code) Chart.
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PINPOINT TEST BH : THE MESSAGE CENTER IS NOT OPERATING CORRECTLY (WITHOUT ADAPTIVE STEERING)

Refer to Wiring Diagrams Cell 60for schematic and connector information.

Normal Operation and Fault Conditions See Steering Wheel Switch-Message Center (in Component Description). REFER to: [Message Center - System Operation and Component Description](#) (413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

DTC Fault Trigger Conditions

Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

BH1 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.
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No	GO to BH2
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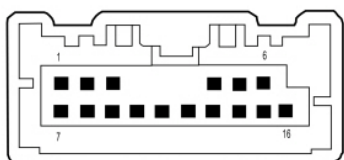
BH2 CHECK FOR VOLTAGE SIGNAL TO THE STEERING WHEEL SWITCH

WARNING

Turn the ignition OFF and wait one minute to deplete the backup power supply. Failure to follow this instruction may result in serious personal injury or death in the event of an accidental deployment.

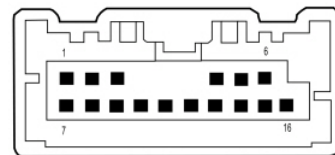
- Ignition OFF.
- Remove the driver airbag.
REFER to: [Driver Airbag - Vehicles Without: Adaptive Steering](#)(501-20B Supplemental Restraint System, Removal and Installation).
- Disconnect RH (right-hand) Steering Wheel Switch C2999 .
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2999-2		C2999-5
C2999-3		C2999-5



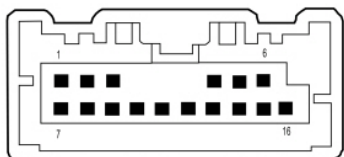
E253177

Upper Clockspring C218B, pin 12
(component side)



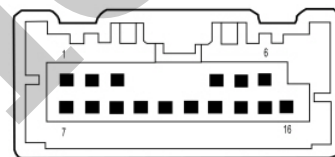
E253177

Upper Clockspring C218B, pin 13
(component side)



E253177

Upper Clockspring C218B, pin 14
(component side, Raptor only)



E253177

Upper Clockspring C218B, pin 13
(component side)

Is the voltage approximately 5 volts?

Yes

REPAIR the steering wheel harness (open or short is present) or INSTALL a new steering wheel as necessary.

No

GO to [BH4](#)

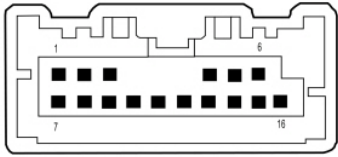
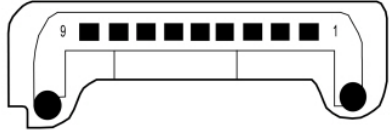
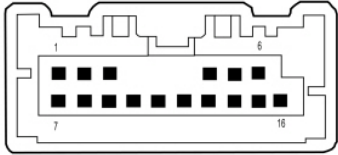

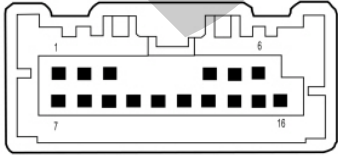

BH4 PERFORM THE SCCM (STEERING COLUMN CONTROL MODULE) SELF-TEST

- Using a diagnostic scan tool, perform the SCCM (steering column control module) self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes

For DTC (diagnostic trouble code) B1380:11, GO to [BH5](#) For DTC (diagnostic trouble code) B1380:13, GO to [BH6](#)

Positive Lead	Measurement / Action	Negative Lead
 <p>E253177</p> <p>Upper clockspring C218B-11 (component side)</p>	Ω	 <p>E253175</p> <p>Lower clockspring, pin 5 (component side)</p>
 <p>E253177</p> <p>Upper clockspring C218B-12 (component side)</p>	Ω	 <p>E253175</p> <p>Lower clockspring, pin 6 (component side)</p>
 <p>E253177</p> <p>Upper clockspring C218B-14 (component side, Raptor only)</p>	Ω	 <p>E253175</p> <p>Lower clockspring, pin 8 (component side)</p>

Is the resistance less than 3 ohms?

- Ignition OFF.
- Disconnect and inspect the SCCM (steering column 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 all the SCCM (steering column 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	CHECK On-Line Automotive Service Information System (OASIS) 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 SCCM (steering column control module) . REFER to: Steering Column Control Module (SCCM) (211-05 Steering Wheel and Column Electrical Components, 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.

PINPOINT TEST BI : THE MESSAGE CENTER IS NOT OPERATING CORRECTLY (WITH ADAPTIVE STEERING)

Refer to Wiring Diagrams Cell 60 for schematic and connector information.

Normal Operation and Fault Conditions See Steering Wheel Switch-Message Center (in Component Description). REFER to: [Message Center - System Operation and Component Description](#) (413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
SECM (steering effort control)	Steering Wheel Right Switch Pack: Circuit Short To Ground	A continuous memory DTC (diagnostic trouble code) that sets in the SECM (steering effort control module) when the