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2008 FORD Focus Coupe OEM Service and Repair Workshop Manual

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- Ignition OFF.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C226B-1	Ω	Ground

Is the resistance less than 3 ohms?

Yes	<p>INSTALL a new clockspring.</p> <p>REFER to: Clockspring - Vehicles Without: Adaptive Steering (501-20B Supplemental Restraint System, Removal and Installation).</p> <p>REFER to: Clockspring - Vehicles With: Adaptive Steering (501-20B Supplemental Restraint System, Removal and Installation).</p> <p>If concern is still present, GO to M10</p>
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No	REPAIR the circuit.
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M10 CHECK FOR CORRECT SCCM OPERATION

- Disconnect and inspect all 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 the SCCM (steering column control module) connectors and all other previously disconnected connectors. Make sure they seat and latch correctly.

Is the concern still present?

Yes	<p>CHECK 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)</p> <p>REFER to: Steering Column Control Module (SCCM) (211-05 Steering Wheel and Column Electrical Components, Removal and Installation).</p>
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module) B135C:15		heating element output circuit for more than 1 second. This indicates an open circuit. When this fault sets, the steering wheel heating element output is disabled until the heated steering wheel is commanded ON while the engine is running. If the condition that caused the fault to set is still present, the SECM (steering effort control module) will switch the steering wheel heating element output off within 1 second.
SECM (steering effort control module) B13BD:92	Steering Wheel Heater Module: Performance Or Incorrect Operation	This DTC (diagnostic trouble code) only sets when the heated steering wheel is commanded on and the SECM (steering effort control module) detects less than 0.794 volts on the temperature sensor input circuit for greater than 1 second, indicating a short to ground. When this fault occurs, the steering wheel heating element output is disabled until the ignition is cycled.
SECM (steering effort control module) U1000:00	Solid State Driver Protection Active - Driver Disabled: No Sub Type Information	This DTC (diagnostic trouble code) sets when the SECM (steering effort control module) has disabled a circuit due to a repetitive circuit overload and a progressive threshold is met.
SECM (steering effort control module) U210A:11	Temperature Sensor: Circuit Short To Ground	This DTC (diagnostic trouble code) sets when the heated steering wheel is commanded on and the SECM (steering effort control module) detects less than 0.794 volts on the temperature sensor input circuit for greater than 1 second, indicating a short to ground. When this fault occurs, the steering wheel heating element output is disabled until the ignition is cycled.
SECM (steering effort control module) U210A:15	Temperature Sensor: Circuit Short To Battery Or Open	This DTC (diagnostic trouble code) sets when the heated steering wheel is commanded on and the SECM (steering effort control module) detects voltage greater than or equal to 4.986 volts on the temperature sensor reference circuit for more than 1 second, indicating an open circuit or an open temperature sensor. However, extreme cold temperatures below - 58 °F (- 50 °C) can also cause this DTC (diagnostic trouble code) to set. When this fault occurs, the steering wheel heating element output is disabled until the ignition is cycled.

Possible Sources

- Heated steering wheel

PINPOINT TEST O : DTC B112B:49

Normal Operation and Fault Conditions

REFER to: [Steering Wheel and Column Electrical Components - System Operation and Component Description](#)(211-05 Steering Wheel and Column Electrical Components, Description and Operation).

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
SCCM (steering column control module) B112B:49	Steering Wheel Module: Internal Electronic Failure	This DTC (diagnostic trouble code) sets when there is an Internal Electronic Failure in the SCCM (steering column control module) .

Possible Sources

- SCCM (steering column control module)

O1 CHECK FOR DTC B112B:49

- Ignition ON.
- Using a diagnostic scan tool, carry out the SCCM (steering column control module) self test.

Is DTC B112B:49 present?

Yes	<p>CHECK 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) .</p> <p>REFER to: Steering Column Control Module (SCCM) (211-05 Steering Wheel and Column Electrical Components, Removal and Installation).</p> <p>REFER to: Steering Column Control Module (SCCM) - Vehicles With: Adaptive Steering (211-05 Steering Wheel and Column Electrical Components, Removal and Installation).</p>
No	<p>The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.</p>

PINPOINT TEST P : NETWORK COMMUNICATION CONCERNS U0140:08, U0146:08, U0151:00, U0155:08, U0164:00, U023A:08 OR U0241:08

SCCM (steering column control module) U0155:08	Lost Communication With Instrument Panel Cluster (IPC) Control Module: Bus Signal/Message Failures	NOTE: This DTC sets in a module that is reporting a missing or invalid message from another module on the data bus. The module that reports the fault is not the problem module. Do not install a new SCCM (steering column control module) as part of the repair unless directed to do so in a pinpoint test. This DTC (diagnostic trouble code) sets when the SCCM (steering column control module) detects a missing or invalid message from the IPC (instrument panel cluster) .
SCCM (steering column control module) U0164:08	Lost Communication With HVAC Control Module 'A': Bus Signal/Message Failures	NOTE: This DTC sets in a module that is reporting a missing or invalid message from another module on the data bus. The module that reports the fault is not the problem module. Do not install a new SCCM (steering column control module) as part of the repair unless directed to do so in a pinpoint test. This DTC (diagnostic trouble code) sets when the SCCM (steering column control module) detects a missing or invalid message from the HVAC (heating, ventilation and air conditioning) .
SCCM (steering column control module) U023A:08	Lost Communication With Image Processing Module A: Bus Signal/Message Failures	NOTE: This DTC sets in a module that is reporting a missing or invalid message from another module on the data bus. The module that reports the fault is not the problem module. Do not install a new SCCM (steering column control module) as part of the repair unless directed to do so in a pinpoint test. This DTC (diagnostic trouble code) sets when the SCCM (steering column control module) detects a missing or invalid message from the IPMA (image processing module A) .
SCCM (steering column control module) U0241:08	Lost Communication With Headlamp Control Module 'A': Bus Signal/Message Failures	NOTE: This DTC sets in a module that is reporting a missing or invalid message from another module on the data bus. The module that reports the fault is not the problem module. Do not install a new SCCM (steering column control module) as part of the repair unless directed to do so in a pinpoint test. This DTC (diagnostic trouble code) sets when the SCCM (steering column control module) detects a missing or invalid message from the HCM (headlamp control module) .

Possible Sources

- Network communication concern
- SCCM (steering column control module) concern

No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.
P3 REVIEW THE RECORDED DIAGNOSTIC TROUBLE CODES (DTCs) FROM THE SCCM (STEERING COLUMN CONTROL MODULE) SELF-TEST	
<ul style="list-style-type: none"> Check the recorded Diagnostic Trouble Codes (DTCs) from the SCCM (steering column control module) self-test. Are any non network DTCs present in the SCCM (steering column control module) ?	
Yes	DIAGNOSE all non network Diagnostic Trouble Codes (DTCs) first. REFER to the appropriate DTC (diagnostic trouble code) chart in this section.
No	GO to P4
P4 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCs) IN THE GWM (GATEWAY MODULE A)	
<ul style="list-style-type: none"> Using a diagnostic scan tool, carry out the GWM (gateway module A) self-test. Are any Diagnostic Trouble Codes (DTCs) present in the GWM (gateway module A) ?	
Yes	DIAGNOSE the GWM (gateway module A) Diagnostic Trouble Codes (DTCs). REFER to: Controller Area Network (CAN) Module Communications Network (418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).
No	For U0140:08 GO to P5 For U0146:08 GO to P6 For U0151:00 GO to P7 For U0155:08 GO to P8 For U0164:00 GO to P9 For U023A:08 GO to P10 For U0241:08 GO to P11
P5 U0140:08 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCs) IN THE BCM (BODY CONTROL MODULE)	
<ul style="list-style-type: none"> Using a diagnostic scan tool, carry out the BCM (body control module) self-test. Are any Diagnostic Trouble Codes (DTCs) present in the BCM (body control module) ?	
Yes	DIAGNOSE the BCM (body control module) Diagnostic Trouble Codes (DTCs).

Are any Diagnostic Trouble Codes (DTCs) present in the IPC (instrument panel cluster) ?

Yes	DIAGNOSE the IPC (instrument panel cluster) Diagnostic Trouble Codes (DTCs). REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).
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No	GO to P12
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P9 U0164:00 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCs) IN THE HVAC (HEATING, VENTILATION AND AIR CONDITIONING)

- Using a diagnostic scan tool, carry out the HVAC (heating, ventilation and air conditioning) self-test.

Are any Diagnostic Trouble Codes (DTCs) present in the HVAC (heating, ventilation and air conditioning) ?

Yes	DIAGNOSE the HVAC (heating, ventilation and air conditioning) Diagnostic Trouble Codes (DTCs). REFER to: Climate Control System - Vehicles With: Dual Automatic Temperature Control (DATC) (412-00 Climate Control System - General Information, Diagnosis and Testing). REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
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No	GO to P12
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P10 U023A:08 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCs) IN THE IPMA (IMAGE PROCESSING MODULE A)

- verify the configuration of replacement module was correct.
 - re-configure the module using as-built data if prior configuration is suspect.
- verify the module was not obtained from a like vehicle and installed into customer vehicle.
 - return the swapped module to source vehicle and obtain new replacement module.
- Operate the system and determine if the observable symptom is still present.

Is the observable symptom still present?

Yes	GO to P13
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No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.
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P13 CHECK FOR CORRECT SUSPECT MODULE OPERATION

- Ignition OFF.
- Disconnect and inspect all Suspect 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 Suspect Module connectors and all other previously disconnected 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 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 Suspect Module.</p> <p>For U0140:08 INSTALL a new BCM (body control module) .</p> <p>REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).</p> <p>For U0146:08 INSTALL a new GWM (gateway module A)</p> <p>. Refer to the appropriate section in Group 418for the procedure.</p> <p>For U0151:00 INSTALL a new RCM (restraints control module) .</p> <p>REFER to: Restraints Control Module (RCM) (501-20B Supplemental Restraint System, Removal and Installation).</p>
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- SCCM (steering column control module)

Q1 CHECK FOR DTC U0422:08, U053B:08

- Ignition ON.
- Using a diagnostic scan tool, carry out the SCCM (steering column control module) self test.

Is DTC U0422:08 or U053B:08 present?

Yes	For U0422:08 REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Diagnosis and Testing). For U053B:08, REFER to: Lane Keeping System (419-07 Lane Keeping System, Diagnosis and Testing).
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

PINPOINT TEST R : U2100:00, U2101:00

Normal Operation and Fault Conditions

REFER to: [Steering Wheel and Column Electrical Components - System Operation and Component Description](#)(211-05 Steering Wheel and Column Electrical Components, Description and Operation).

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
SCCM (steering column control module) U2100:00	Initial Configuration Not Complete: No Sub Type Information	This DTC (diagnostic trouble code) sets when the SCCM (steering column control module) has been improperly programmed.
SCCM (steering column control module) U2101:00	Control Module Configuration Incompatible: No Sub Type Information	This DTC (diagnostic trouble code) sets when an incorrect SCCM (steering column control module) has been installed.

Possible Sources

- Ignition ON.
- Using a diagnostic scan tool, carry out the SCCM (steering column control module) self test.

Is DTC U3000:49 present?

Yes	<p>CHECK 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) .</p> <p>REFER to: Steering Column Control Module (SCCM) (211-05 Steering Wheel and Column Electrical Components, Removal and Installation).</p> <p>REFER to: Steering Column Control Module (SCCM) - Vehicles With: Adaptive Steering (211-05 Steering Wheel and Column Electrical Components, Removal and Installation).</p>
No	<p>The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.</p>