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2010 FORD Mondeo Wagon OEM Service and Repair Workshop Manual

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- Start the engine.
- For DTC (diagnostic trouble code) U3003:17, turn off all accessories while measuring the battery voltage.
- For DTC (diagnostic trouble code) U3003:16, turn on headlights and HVAC (heating, ventilation and air conditioning) fan on high while measuring the battery voltage.
- With the engine still running at idle, measure and record:

Positive Lead	Measurement / Action	Negative Lead
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Is the voltage between 13 and 15.2 volts?

Yes

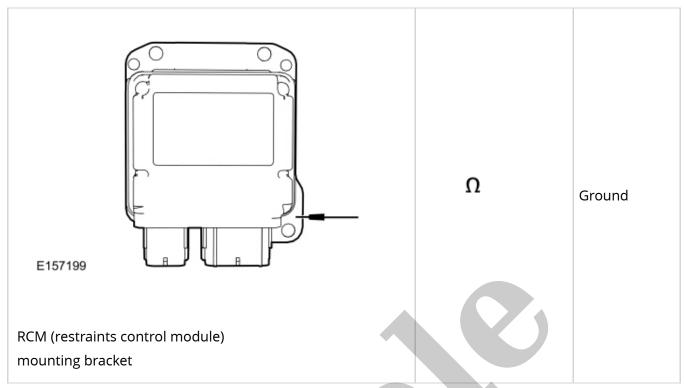
For DTC (diagnostic trouble code) U3003:16, GO to BD5 For DTC (diagnostic trouble code) U3003:17, GO to BD7

No

DIAGNOSE the charging system. Refer to the appropriate section in Group 414for the procedure. CLEAR all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

BD5 CHECK FOR HIGH RESISTANCE IN THE IGNITION CIRCUIT TO THE MODULE

- Ignition OFF.
- Depower the SRS (supplemental restraint system). Refer to REFER to: Supplemental Restraint System (SRS) Depowering(501-20B Supplemental Restraint System, General Procedures).
- Disconnect BCM (body control module) C2280B and C2280E.
- Disconnect the module with the concern:
 - o For the RCM (restraints control module), disconnect C310A and C310B



• For the OCSM (occupant classification system module), measure:

Positive Lead	Measurement / Action	Negative Lead
C3285-4	Ω	Ground

Is the resistance less than 1 ohm?

GO to BD7

Yes

No

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For the RCM (restraints control module), VERIFY there is no corrosion between the RCM (restraints control module) and the mounting surface. VERIFY the fasteners are clean and tightened to specification with no corrosion. REPAIR as necessary.

Refer to Wiring Diagrams Cell 5for schematic and connector information.

For the OCSM (occupant classification system module)

, REPAIR the circuit.

Refer to Wiring Diagrams Cell 5for schematic and connector information.

CLEAR all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

BD7 CHECK FOR MODULE OPERATION

FSA (Field Service Action) . If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions.

If no Technical Service Bulletins (TSBs) address this concern, and DTC (diagnostic trouble code) U3003:16 or U3003:17 was present in the RCM (restraints control module), INSTALL a new RCM (restraints control module).

REFER to: Restraints Control Module (RCM)

(501-20B Supplemental Restraint System, Removal and Installation).

If no Technical Service Bulletins (TSBs) address this concern, and DTC (diagnostic trouble code)

U3003:16 or U3003:17 was present in the OCSM (occupant classification system module),

INSTALL a new OCSM (occupant classification system module).

REFER to: Occupant Classification System (OCS) Sensor - Vehicles With: Multi-Contour Seats (501-20B Supplemental Restraint System, Removal and Installation).

or REFER to: Occupant Classification System (OCS) Sensor - Vehicles Without: Multi-Contour

Seats

(501-20B Supplemental Restraint System, Removal and Installation).

No

The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

PINPOINT TEST BE: B0061:11, B0061:12, B0061:13 AND B0061:64

Refer to Wiring Diagrams Cell 46for schematic and connector information.

Normal Operation and Fault Conditions REFER to: Airbag and Seatbelt Pretensioner Supplemental Restraint System (SRS) - System Operation and Component Description

(501-20B Supplemental Restraint System, Description and Operation).

The Belt Tension Sensor (BTS) operates in conjunction with the OCS (occupant classification system)

. The OCS (occupant classification system)

interprets a variable voltage signal provided by the Belt Tension Sensor (BTS) to identify the possible presence of a child safety seat in the front passenger seat. The voltage output of the Belt Tension Sensor (BTS) is proportional to the amount of tension applied to the sensor by the belt: no belt tension causes a low voltage (approximately 0.95 volt) to be output and high belt tension causes a high voltage (approximately 3.8 volts) to be returned to the OCSM (occupant classification system module)

The OCSM (occupant classification system module) monitors the Belt Tension Sensor (BTS) and related circuits for the following faults:

- Resistance out of range
- Unexpected voltage

- Inspect for anything pushing or pulling on the seatbelt buckle.
- Inspect for a damaged passenger seatbelt buckle or Belt Tension Sensor (BTS).
- Inspect for a damaged passenger seat cushion wiring harness.
- Inspect for a loose or damaged OCSM (occupant classification system module) or Belt Tension Sensor (BTS) connector.
- Inspect for a damaged OCSM (occupant classification system module).

WARNING

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.

NOTICE

Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may cause damage to the connector.

NOTE

Most faults are due to connector and/or wiring concerns. Carry out a thorough inspection and verification before proceeding with the pinpoint test.

NOTE

Only disconnect or reconnect SRS (supplemental restraint system) components when instructed to do so within a pinpoint test step. Failure to follow this instruction may result in incorrect diagnosis of the SRS (supplemental restraint system).

NOTE

Always make sure the correct SRS (supplemental restraint system) component is being installed. Parts released for other vehicles may not be compatible even if they appear physically similar. Check the part number listed in the Ford parts catalog to make sure the correct component is being installed. If an

OCSM (occupant classification system module) is functioning correctly and is not the source of the fault.

- Ignition OFF.
- Disconnect Passenger Seatbelt Buckle C3738 .
- Ignition ON.
- Ignition OFF.
- Ignition ON.

NOTE

After turning the ignition on, it is important to wait a minimum of 10 seconds before carrying out the OCSM (occupant classification system module) self-test. This ensures that the OCSM (occupant classification system module) self-diagnostics have completed prior to the self-test.

Using a diagnostic scan tool, perform OCSM (occupant classification system module) self-test.

• DIAGNOSTIC TIP:

When viewing Diagnostic Trouble Codes (DTCs) with the Belt Tension Sensor (BTS) disconnected, an open circuit fault is normally retrieved. The Belt Tension Sensor (BTS) shares a connector with the passenger seatbelt buckle switch, and a passenger seatbelt buckle switch circuit fault is also present in the RCM (restraints control module).

Was DTC (diagnostic trouble code) B0061:11 retrieved on-demand during self-test?

Yes	GO to	BE3

No
INSTALL a new front passenger seatbelt buckle.

REFER to: Front Seatbelt Buckle
(501-20A Seatbelt Systems, Removal and Installation).

GO to BE13

BE3 CHECK THE BELT TENSION SENSOR (BTS) SIGNAL CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect OCSM (occupant classification system module) C3285.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
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- Disconnect Passenger Side Airbag (Inline) C3053.
- Disconnect Passenger Seatbelt Buckle C3738.
- Disconnect OCSM (occupant classification system module) C3285.
- Repower the SRS (supplemental restraint system) . Do not prove out the SRS (supplemental restraint system) at this time.

REFER to: Supplemental Restraint System (SRS) Repowering(501-20B Supplemental Restraint System, General Procedures).

- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3285-6	₩	Ground

Is any voltage present?

REPAIR the circuit.

Yes Refer to Wiring Di

Refer to Wiring Diagrams Cell 5for schematic and connector information.

GO to BE13

No GO to BE6

BE6 CHECK THE BELT TENSION SENSOR (BTS) GROUND CIRCUITS FOR AN OPEN

- Ignition OFF.
- Depower the SRS (supplemental restraint system) .

REFER to: Supplemental Restraint System (SRS) Depowering(501-20B Supplemental Restraint System, General Procedures).

- Disconnect RCM (restraints control module) C310A and C310B.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3738-3	Ω	Ground

REFER to: Supplemental Restraint System (SRS) Repowering(501-20B Supplemental Restraint System, General Procedures).

- Ignition ON.
- · Ignition OFF.
- Ignition ON.

NOTE

After turning the ignition on, it is important to wait a minimum of 10 seconds before carrying out the OCSM (occupant classification system module) self-test. This ensures that the OCSM (occupant classification system module) self-diagnostics have completed prior to the self-test.

Using a diagnostic scan tool, perform OCSM (occupant classification system module) self-test.

• DIAGNOSTIC TIP:

When viewing Diagnostic Trouble Codes (DTCs) with the Belt Tension Sensor (BTS) circuits shorted together, a short to ground fault is normally retrieved. The Belt Tension Sensor (BTS) shares a connector with the passenger seatbelt buckle switch, and a passenger seatbelt buckle switch circuit fault is also present in the RCM (restraints control module).

Did the on-demand DTC (diagnostic trouble code) change from B0061:13 to B0061:11?

Yes

REMOVE the fused jumper wire and INSTALL a new front passenger seatbelt buckle.

REFER to: Front Seatbelt Buckle

(501-20A Seatbelt Systems, Removal and Installation).

GO to BE13

No REMOVE the fused jumper wire and GO to BE8

BE8 CHECK THE BELT TENSION SENSOR (BTS) SIGNAL CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect OCSM (occupant classification system module) C3285.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3738-1	Ω	C3285-6

- Ignition OFF.
- Depower the SRS (supplemental restraint system).
 REFER to: Supplemental Restraint System (SRS) Depowering(501-20B Supplemental Restraint System, General Procedures).
- Connect OCSM (occupant classification system module) C3285.
- Disconnect Passenger Side Airbag (Inline) C3053.
- Connect fused jumper wires:

Lead 1	Measurement / Action	Lead 2
E155161		E155160
C3738 , pin 2, harness side		C3738, pin 2, component side
		6
E155161		E155160
C3738, pin 3, harness side		C3738, pin 3, component side

• Repower the SRS (supplemental restraint system) . Do not prove out the SRS (supplemental restraint system) at this time.

REFER to: Supplemental Restraint System (SRS) Repowering(501-20B Supplemental Restraint System, General Procedures).

- Ignition ON.
- Buckle the front passenger seatbelt.
- While applying tension to the front passenger seatbelt at the seatbelt buckle, measure:

- Prior to reconnecting any previously disconnected SRS (supplemental restraint system) component:
 - Inspect connector(s) (including any inline connectors) for pushed-out, loose or spread terminals and loose or frayed wire connections at terminals.
 - Inspect wiring harness for any damage, pinched, cut or pierced wires.
 - Repair any concerns found.
 Refer to Wiring Diagrams Cell 5for schematic and connector information.
- Connect OCSM (occupant classification system module) C3285.
- Connect Passenger Seatbelt Buckle C3738 (if previously disconnected).
- If previously directed to disconnect Passenger Side Airbag (Inline) C3053, depower the SRS (supplemental restraint system).

REFER to: Supplemental Restraint System (SRS) Depowering(501-20B Supplemental Restraint System, General Procedures).

- Connect Passenger Side Airbag (Inline) C3053 (if previously disconnected).
- If previously directed to depower the SRS (supplemental restraint system), repower the SRS (supplemental restraint system). Do not prove out the SRS (supplemental restraint system) at this time.

REFER to: Supplemental Restraint System (SRS) Repowering(501-20B Supplemental Restraint System, General Procedures).

- Ignition ON.
- Ignition OFF.
- Ignition ON.

NOTE

After turning the ignition on, it is important to wait a minimum of 10 seconds before carrying out the OCSM (occupant classification system module) self-test. This ensures that the OCSM (occupant classification system module) self-diagnostics have completed prior to the self-test.

Using a diagnostic scan tool, perform OCSM (occupant classification system module) self-test.

Was the original DTC (diagnostic trouble code) retrieved on-demand during self-test?

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 OCS (occupant classification system) sensor.

REFER to: Occupant Classification System (OCS) Sensor - Vehicles With: Multi-Contour Seats (501-20B Supplemental Restraint System, Removal and Installation).

or REFER to: Occupant Classification System (OCS) Sensor - Vehicles Without: Multi-Contour Seats

(501-20B Supplemental Restraint System, Removal and Installation).