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2009 FORD Mondeo Wagon OEM Service and Repair Workshop Manual

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No	CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wiring harness and cycling the ignition frequently. ACTIVATE other system in the same wiring harness. Do not install any new SRS (supplemental restraint system) components at this time. Only install SRS (supplemental restraint system) components when directed to do so in the pinpoint test. REPAIR any intermittent concerns found. GO to BE13
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BE13 CHECK FOR ADDITIONAL SRS (SUPPLEMENTAL RESTRAINT SYSTEM) DIAGNOSTIC TROUBLE CODES (DTCs)

- Ignition OFF.
- Connect all disconnected SRS (supplemental restraint system) components.
- 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.

NOTE

When selecting Restraints from the Self Test menu, DTCs are retrieved from the RCM (restraints control module) and OCSM (occupant classification system module) .

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

Restraints

self-test.

Are any RCM (restraints control module) or OCSM (occupant classification system module) Diagnostic Trouble Codes (DTCs) retrieved on-demand during self-test?

Yes	Do not clear any Diagnostic Trouble Codes (DTCs) until all Diagnostic Trouble Codes (DTCs) have been resolved. DIAGNOSE and REPAIR the SRS (supplemental restraint system) Diagnostic Trouble Codes (DTCs). REFER to the DTC (diagnostic trouble code) Chart in this section.
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OCSM (occupant classification system module) B00A0:62	Occupant Classification System: Signal Compare Failure	This DTC (diagnostic trouble code) sets if the seat massage function is disabled (turned OFF) and the total percentage of inflation of the seat cushion massage bladders exceeds a pre-determined threshold for more than 2 minutes, regardless of seat occupancy. When this condition is satisfied, the airbag warning indicator does not illuminate. Once the DTC (diagnostic trouble code) has been set for more than 5 ignition cycles and more than 2 minutes, and the seat is occupied by a passenger within a pre-determined weight classification, the airbag warning indicator illuminates. This DTC (diagnostic trouble code) also sets if the seat massage function is disabled (turned OFF) and the total percentage of inflation of the seat cushion massage bladders exceeds a second, higher, pre-determined threshold while the seat is occupied by a passenger within a pre-determined weight classification. When this occurs, the airbag warning indicator illuminates.
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Possible Sources

- Damaged or kinked seat cushion massage air hoses
- Seat massage system concern
- SCMH (passenger multi-contour seat module)
- OCSM (occupant classification system module)

Visual Inspection and Pre-checks

- Review service history for recent repairs to the passenger seat.
- Inspect for damaged components or any obstructions under the front passenger seat.

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 incorrect SRS (supplemental restraint system) component is installed, Diagnostic Trouble Codes (DTCs) may set.

BF1 VERIFY THE OCSM (OCCUPANT CLASSIFICATION SYSTEM MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- **WARNING**

Yes	<p>If DTC (diagnostic trouble code) was not retrieved during the self-test, GO to BF5.</p> <p>If DTC (diagnostic trouble code) B00A0:62 is still present, 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).</p> <p>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, INSTALL a new OCS (occupant classification system) sensor.</p> <p>REFER to: Occupant Classification System (OCS) Sensor - Vehicles With: Multi-Contour Seats (501-20B Supplemental Restraint System, Removal and Installation).</p> <p>or REFER to: Occupant Classification System (OCS) Sensor - Vehicles Without: Multi-Contour Seats (501-20B Supplemental Restraint System, Removal and Installation).</p> <p>GO to BF5</p>
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No	<p>One or more bladders are not deflating properly. DIAGNOSE the seat cushion massage system concern.</p> <p>REFER to: Front Seats (501-10A Front Seats, Diagnosis and Testing).</p>
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BF4 CHECK FOR AN INTERMITTENT FAULT

- Ignition OFF.
- Inspect for obstructions under the front passenger seat. Remove any obstructions or foreign objects that might come in contact with the seat.
- Inspect for damaged components under the front passenger seat. Repair any damage found.
- Ignition ON.
- Using a diagnostic scan tool, carry out OCSM (occupant classification system module) self-test to retrieve Diagnostic Trouble Codes (DTCs).

Was DTC (diagnostic trouble code) B00A0:62 retrieved on-demand during self-test?

Yes	<p>The fault condition is now present. This fault cannot be cleared until it is corrected and the DTC (diagnostic trouble code) is no longer retrieved on-demand during the self-test. GO to BF2</p>
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- Ignition ON.
- Clear all OCSM (occupant classification system module) Diagnostic Trouble Codes (DTCs).
- Clear all RCM (restraints control module) Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- While sitting in the front passenger seat, activate the front passenger seat cushion massage function using the FDIM (front display interface module) (touchscreen).
 - Refer to the Owner's Literature for information about activating and adjusting the seat cushion massage feature.
- Verify that the front passenger seat cushion massage operates correctly. Turn off the seat cushion massage and wait 2 minutes.
- Cycle the ignition from on to off and back to on. After turning the ignition on, allow at least 30 seconds for the OCSM (occupant classification system module) to carry out a system self-check. Repeat this step 5 more times.

NOTE

When selecting Restraints from the Self Test menu, DTCs are retrieved from the RCM (restraints control module) and OCSM (occupant classification system module) .

Using a diagnostic scan tool, carry out

Restraints

self-test.

Are any RCM (restraints control module) or OCSM (occupant classification system module) Diagnostic Trouble Codes (DTCs) retrieved on-demand during self-test?

Yes	Do not clear any Diagnostic Trouble Codes (DTCs) until all Diagnostic Trouble Codes (DTCs) have been resolved. REFER to the DTC (diagnostic trouble code) Chart in this section.
No	The repair is complete. RETURN the vehicle to the customer.

PINPOINT TEST BG : OCS (OCCUPANT CLASSIFICATION SYSTEM) CONCERNS

Normal Operation and Fault Conditions

The OCS (occupant classification system) sensor is internal to the OCSM (occupant classification system module) and cannot be serviced separately. For more information refer to REFER to: [Airbag and Seatbelt Pretensioner Supplemental Restraint System \(SRS\) - System Operation and Component Description](#)(501-20B Supplemental Restraint System, Description and Operation).

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

- Inspect the passenger seat for damage or incorrect installation.

REFER to: [Front Seat](#)(501-10A Front Seats, Removal and Installation).

- Inspect the OCS (occupant classification system) sensor installation and make sure that the hardware is fully seated and tightened correctly.
- Inspect the OCS (occupant classification system) sensor hose for kinks, damage, or improper routing.

Were any concerns found?

Yes	REPAIR as necessary.
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No	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).
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PINPOINT TEST BH : B00C2:11 AND B00C2:12

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

Normal Operation and Fault Conditions The Belt Tension Sensor (BTS) operates in conjunction with the OCS (occupant classification system). The OCSM (occupant classification system module) provides a reference voltage (**VREF**) to the Belt Tension Sensor (BTS), which changes as it passes through the sensor, based on how much tension is applied to the seatbelt and Belt Tension Sensor (BTS). The OCSM (occupant classification system module) monitors the Belt Tension Sensor (BTS) reference voltage circuit for a short to voltage or a short to ground. For more information, REFER to: [Airbag and Seatbelt Pretensioner Supplemental Restraint System \(SRS\) - System Operation and Component Description](#) (501-20B Supplemental Restraint System, Description and Operation).

If a fault is detected, the OCSM (occupant classification system module) stores DTC (diagnostic trouble code) B00C2:11 or B00C2:12 in memory and sends a message to the RCM (restraints control module) over the HS-CAN2 (high-speed controller area network 2) indicating that an OCS (occupant classification system) fault is present. Upon receipt of this message, the RCM (restraints control module) sets DTC (diagnostic trouble code) B00A0:09 and sends a message to the IPC (instrument panel cluster) to illuminate the airbag warning indicator. **DTC Fault Trigger Conditions**

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 incorrect SRS (supplemental restraint system) component is installed, Diagnostic Trouble Codes (DTCs) may set.

NOTE

The SRS (supplemental restraint system) must be fully operational and free of faults before releasing the vehicle to the customer.

BH1 RETRIEVE OCSM (OCCUPANT CLASSIFICATION SYSTEM MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

WARNING

Before beginning any service procedure in this section, refer to Safety Warnings in section 100-00 General Information. Failure to follow this instruction may result in serious personal injury.

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

Was DTC (diagnostic trouble code) B00C2:11 or B00C2:12 retrieved on-demand during self-test?

Yes

This fault cannot be cleared until it is corrected and the DTC (diagnostic trouble code) is no longer retrieved on-demand during the self-test.

(501-20A Seatbelt Systems, Removal and Installation).
GO to [BH7](#)

BH3 CHECK THE BELT TENSION SENSOR (BTS) VREF CIRCUIT FOR A SHORT TO GROUND

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

Positive Lead	Measurement / Action	Negative Lead
C3738-2	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to BH5
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No	REPAIR the circuit. Refer to Wiring Diagrams Cell 5 for schematic and connector information. GO to BH7
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BH4 CHECK THE BELT TENSION SENSOR (BTS) VREF CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Depower the SRS (supplemental restraint system) .
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#)(501-20B Supplemental Restraint System, General Procedures).
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#)(501-20B Supplemental Restraint System, General Procedures).

- repair any concerns found.

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

- Connect OCSM (occupant classification system module) C3285 (if previously disconnected).
- Connect Passenger Seatbelt Buckle C3738 .
- 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).
- 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	<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 OCS (occupant classification system) sensor.</p> <p>REFER to: Occupant Classification System (OCS) Sensor - Vehicles With: Multi-Contour Seats (501-20B Supplemental Restraint System, Removal and Installation).</p> <p>or REFER to: Occupant Classification System (OCS) Sensor - Vehicles Without: Multi-Contour Seats (501-20B Supplemental Restraint System, Removal and Installation).</p> <p>GO to BH7</p>
No	<p>In the process of diagnosing the fault, the fault condition has become intermittent. Do not install any new SRS (supplemental restraint system) components at this time. SRS (supplemental</p>

BH7 CHECK FOR ADDITIONAL SRS (SUPPLEMENTAL RESTRAINT SYSTEM) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition OFF.
- Connect

all

previously disconnected components and connectors.

- 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.

NOTE

When selecting Restraints from the Self Test menu, DTCs are retrieved from the RCM (restraints control module) and OCSM (occupant classification system module) .

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

Restraints

self-test.

Are any RCM (restraints control module) or OCSM (occupant classification system module) Diagnostic Trouble Codes (DTCs) retrieved on-demand during self-test?

Yes

Do not clear any Diagnostic Trouble Codes (DTCs) until **all** Diagnostic Trouble Codes (DTCs) have been resolved. DIAGNOSE and REPAIR the SRS (supplemental restraint system) Diagnostic Trouble Codes (DTCs). REFER to the DTC (diagnostic trouble code) Chart in this section.

No

The repair is complete. RETURN the vehicle to the customer.

PINPOINT TEST BI : B1193:00