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2007 FORD EcoSport OEM Service and Repair Workshop Manual

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- Disconnect RCM (restraints control module) C310A and C310B.
- For regular cab, measure:

Positive Lead	Measurement / Action	Negative Lead
C3858-1	Ω	Ground
C3858-1	Ω	C3858-2

• For SuperCrew or SuperCab, measure:

Positive Lead	Measurement / Action	Negative Lead
C3859-1	Ω	Ground
C3859-1	Ω	C3859-2

# Are the resistances greater than 10,000 ohms?

Yes	GO to	19

REPAIR the circuit.

No

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

GO to 111

#### 14 CHECK THE FRONT CENTER SEATBELT BUCKLE SWITCH 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).

This pinpoint test step attempts to change the fault reported by the RCM (restraints control module) by inducing a different fault condition. If the reported fault changes, this indicates the RCM (restraints control module) is functioning correctly and is not the source of the fault.

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

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

- Disconnect Front Center Seatbelt Buckle C3858 (with regular cab).
- Disconnect Front Center Seatbelt Buckle C3859 (with SuperCrew or SuperCab).
- For regular cab, connect a fused jumper wire:

Lead 1	Measurement / Action	Lead 2
C3858-1		C3858-2

For SuperCrew or SuperCab, connect a fused jumper wire:

Lead 1	Measurement / Action	Lead 2
C3859-1		C3859-2

• 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.
- Using a diagnostic scan tool, perform RCM (restraints control module) self-test.
- DIAGNOSTIC TIP:

When viewing Diagnostic Trouble Codes (DTCs) with the front center seatbelt buckle switch circuits shorted together, a short to ground fault is normally retrieved.

Did the on-demand DTC (diagnostic trouble code) change from B0051:13 to B0051:11?

Yes	REMOVE the fused jumper wire and GO to	18

Positive Lead	Measurement / Action	Negative Lead
C310B-53	Ω	C3858-2

• For SuperCrew or SuperCab, measure:

Positive Lead	Measurement / Action	Negative Lead
C310B-53	Ω	C3859-2

#### Is the resistance less than 3 ohms?



REPAIR the circuit.

No

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

GO to 111

# 18 CONFIRM THE FRONT CENTER SEATBELT BUCKLE SWITCH FAULT

### NOTE

Make sure all SRS (supplemental restraint system) components and the RCM (restraints control module) electrical connectors are connected before carrying out the self-test. If not, Diagnostic Trouble Codes (DTCs) will be recorded.

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

- Depower the SRS (supplemental restraint system).
   REFER to: Supplemental Restraint System (SRS) Depowering(501-20B Supplemental Restraint System, General Procedures).
- 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 wire harness for any damaged, pinched, cut or pierced wires.
  - inspect RCM (restraints control module) C310A and C310B Connector Position Assurance (CPA) lever/lock for correct operation.
  - repair any concerns found.
     Refer to Wiring Diagrams Cell 5for schematic and connector information.
- Connect RCM (restraints control module) C310A and C310B.
- Connect Front Center Seatbelt Buckle C3858 (with regular cab).
- Connect Front Center Seatbelt Buckle C3859 (with SuperCrew or SuperCab).
- 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.
- Using a diagnostic scan tool, perform RCM (restraints control module) self-test.

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

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 RCM (restraints control module).

Yes

REFER to: Restraints Control Module (RCM)

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

GO to 111

No

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. Install SRS (supplemental restraint system) components only when directed to do so in the pinpoint test. GO to 110

#### **110 CHECK FOR AN INTERMITTENT FAULT**

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

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

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

Connect

#### all

previously disconnected components and connectors.

• 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).

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 J: B0052:11, B0052:12, B0052:13, B0052:1D

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

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

# **NOTE**

• 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.
- Using a diagnostic scan tool, perform RCM (restraints control module) self-test.
- DIAGNOSTIC TIP:

When viewing Diagnostic Trouble Codes (DTCs) with the passenger seatbelt buckle switch disconnected, an open circuit fault is normally retrieved. Due to the inline connector being disconnected, a fault is also normally retrieved for the passenger seat position sensor and passenger side airbag circuits.

# Did the on-demand DTC (diagnostic trouble code) change from B0052:11 or B0052:1D to B0052:13?

Yes GO to J8
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No

For DTC (diagnostic trouble code) B0052:11, GO to J3 For DTC (diagnostic trouble code) B0052:1D, GO to J9

# J3 CHECK THE PASSENGER SEATBELT BUCKLE SWITCH CIRCUIT FOR A SHORT TO GROUND

- 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
C3738-5	Ω	Ground

# Is the resistance greater than 10,000 ohms?



J5 CHECK THE PASSENGER SEATBELT SENSOR DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (OPEN INDICATED)



# J6 CHECK THE PASSENGER SEATBELT BUCKLE SWITCH CIRCUIT 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
C310B-55	Ω	C3738-5

#### Is the resistance less than 0.5 ohm?



REPAIR the circuit.

No

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

GO to J11

# J7 CHECK THE PASSENGER SEATBELT BUCKLE SWITCH RETURN CIRCUIT FOR AN OPEN

• Measure:

Positive Lead	Measurement / Action	Negative Lead
C3738-6	Ω	Ground

#### Is the resistance less than 3 ohms?