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2008 FORD EcoSport OEM Service and Repair Workshop Manual

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		DEPOWER the SRS (supplemental restraint system) .
		REFER to: Supplemental Restraint System (SRS) Depowering
No	No	(501-20B Supplemental Restraint System, General Procedures).
	NO	REPAIR as necessary.
		Refer to Wiring Diagrams Cell 5for schematic and connector information.
		GO to G17

G14 CHECK THE PASSENGER KNEE AIRBAG DEPLOYMENT CONTROL CIRCUITS FOR AN INTERMITTENT SHORT TO GROUND FAULT

- Attempt to recreate the fault by wiggling connectors (including any inline connectors) and flexing the wire harness frequently.
- Using a diagnostic scan tool, perform RCM (restraints control module) self-test.

Was DTC (diagnostic trouble code) B0013:11 retrieved on-demand during self-test?

	DEPOWER the SRS (supplemental restraint system) and REPAIR as necessary.
Yes	Refer to Wiring Diagrams Cell 5for schematic and connector information.
	GO to G17

The fault is not present and cannot be recreated at this time. Do not install any new SRS
 No (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 G16

G15 CHECK THE PASSENGER KNEE AIRBAG DEPLOYMENT CONTROL CIRCUITS FOR AN INTERMITTENT SHORT TO BATTERY FAULT

- Ignition OFF.
- Depower the SRS (supplemental restraint system).
 REFER to: Supplemental Restraint System (SRS) Depowering(501-20B Supplemental Restraint System, General Procedures).
- Remove the glove compartment. REFER to: Glove Compartment(501-12 Instrument Panel and Console, Removal and Installation).
- Disconnect Passenger Knee Airbag C2433 .
- Repower the SRS (supplemental restraint system) .

Do not

prove out the SRS (supplemental restraint system) at this time.

No	The fault is not present and cannot be recreated at this time. 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 G17
G17 CH (DTCS)	ECK FOR ADDITIONAL SRS (SUPPLEMENTAL RESTRAINT SYSTEM) DIAGNOSTIC TROUBLE CODES
 Co all pre If p (su Do pro RE Ge 	ation OFF. nnect eviously disconnected components and connectors. previously directed to depower the SRS (supplemental restraint system) , repower the SRS pplemental restraint system) . not pove out the SRS (supplemental restraint system) at this time. FER to: Supplemental Restraint System (SRS) Repowering(501-20B Supplemental Restraint System, neral Procedures). ition ON.
V	NOTE When selecting Restraints from the Self Test menu, DTCs are retrieved from the RCM (restraints ontrol module) and OCSM (occupant classification system module) .
Re sel Are any	ing a diagnostic scan tool, perform straints f-test. v RCM (restraints control module) or OCSM (occupant classification system module) stic 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.

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

NOTE

•	Repower the	e SRS (sup	plemental	l restraint s	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 driver 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 driver seat position sensor and driver side airbag circuits.

Did the on-demand DTC (diagnostic trouble code) change from B0050:11 or B0050:1D to B0050:13?

Yes	GO to H8			
No	No For DTC (diagnostic trouble code) B0050:11, GO to H3 For DTC (diagnostic trouble code) B0050:1D, GO to H9			
H3 C	H3 CHECK THE DRIVER 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	
	C3201-5	Ω	Ground	

Is the resistance greater than 10,000 ohms?

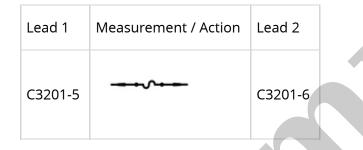
Yes GO to H9

H5 CHECK THE DRIVER SEATBELT SENSOR DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (OPEN INDICATED)

NOTE

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 Driver Seatbelt Buckle C3201 .
- Connect a fused jumper wire:



• 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 driver seatbelt buckle switch circuits shorted together, a short to ground fault is normally retrieved. Due to the inline connector being disconnected, a fault is also normally retrieved for the driver seat position sensor and driver side airbag circuits.

Did the on-demand DTC (diagnostic trouble code) change from B0050:13 to B0050:11?

Yes	REMOVE the fused jumper wire and GO to	H8
	5 1	

No

GO to H9

REPAIR the circuit.

Refer to Wiring Diagrams Cell 5for schematic and connector information. GO to H11

H8 CONFIRM THE DRIVER 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.
 - 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 Driver Seatbelt Buckle C3201 .
- 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?

• 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). REFER to: Restraints Control Module (RCM)

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

GO to H11

Yes

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 H10

H10 CHECK FOR AN INTERMITTENT FAULT

- Ignition OFF.
- Depower the SRS (supplemental restraint system).
 REFER to: Supplemental Restraint System (SRS) Depowering(501-20B Supplemental Restraint System, General Procedures).
- Disconnect Driver Seatbelt Buckle C3201 .
 - Inspect connector(s) (including any inline connectors) for corrosion, loose or spread terminals and loose or frayed wire connections at terminals.
 - Inspect wire harness for any damage, pinched, cut or pierced wires.
 - Repair any concerns found.
 - Refer to Wiring Diagrams Cell 5for schematic and connector information.
- Inspect RCM (restraints control module) C310A and C310B Connector Position Assurance (CPA) lever/lock for correct operation.
- 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.

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 Di been resolved. DIAGNOSE and REPAIR the SRS (supplemental Trouble Codes (DTCs). REFER to the DTC (diagnostic trouble co	restraint system) Diagnostic
Νο	The repair is complete. RETURN the vehicle to the customer.	

PINPOINT TEST I : B0051:11, B0051:12, B0051:13, B0051:1D

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 RCM (restraints control module)

monitors the front center seatbelt buckle switch circuits for the following faults:

- Open circuit
- Short to voltage
- Short to ground
- Current out of range
- Faulted front center buckle switch

If a fault is detected, the RCM (restraints control module) stores DTC (diagnostic trouble code) B0051:11, B0051:12, B0051:13 or B0051:1D in memory and sends a message to the IPC (instrument panel cluster) to illuminate the airbag warning indicator. **DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
RCM (restraints control module) B0051:11	First Row Center Seatbelt Sensor: Circuit Short To Ground	A fault is indicated when the RCM (restraints control module) senses a short to ground on the front center seatbelt buckle switch circuit.
RCM (restraints control module)	First Row Center Seatbelt Sensor: Circuit Short To	A fault is indicated when the RCM (restraints control module) senses a short to voltage on the front center

(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.

I1 RETRIEVE RCM (RESTRAINTS CONTROL 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 RCM (restraints control module) self-test.

Was DTC (diagnostic trouble code) B0051:11, B0051:12, B0051:13 or B0051:1D retrieved on-demand during self-test?

For DTC (diagnostic trouble code) B0051:11 or B0051:1D, GO to 12 For DTC (diagnostic trouble code) B0051:12, GO to 14 For DTC (diagnostic trouble code) B0051:13, GO to 15
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No	This is an intermittent fault when present as a CMDTC (continuous memory diagnostic trouble code) only. GO to 110