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2006 FORD EcoSport OEM Service and Repair Workshop Manual

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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 [J10](#)

J9 CONFIRM THE RCM (RESTRAINTS CONTROL MODULE) 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 5 for schematic and connector information.

- Connect RCM (restraints control module) C310A and C310B .
- Connect Passenger Seatbelt Buckle C3738 .
- 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?

Was DTC (diagnostic trouble code) B0052:11, B0052:12, B0052:13 or B0052:1D retrieved on-demand during self-test?

Yes	<p>This fault cannot be cleared until it is corrected and the DTC (diagnostic trouble code) is no longer retrieved on-demand during self-test.</p> <p>For DTC (diagnostic trouble code) B0052:11 or B0052:1D, GO to J2 For DTC (diagnostic trouble code) B0052:12, GO to J4 For DTC (diagnostic trouble code) B0052:13, GO to J5</p>
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No	<p>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 J11</p>
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J11 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?

B0054:13	Open	seatbelt buckle switch circuit.
RCM (restraints control module) B0054:1D	Second Row Center Seatbelt Sensor: Circuit Current Out Of Range	A fault is indicated when the RCM (restraints control module) senses current out of an acceptable range between the second row center seatbelt buckle switch circuits.

Possible Sources

- Wiring, terminals or connectors
- Second row center seatbelt buckle
- 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

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 Second Row Center Seatbelt Sensor C3559 .
- 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 second row center seatbelt buckle switch disconnected, an open circuit fault is normally retrieved.

Did the on-demand DTC (diagnostic trouble code) change from B0054:11 or B0054:1D to B0054:13?

Yes	GO to K8
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No	For DTC (diagnostic trouble code) B0054:11, GO to K3 For DTC (diagnostic trouble code) B0054:1D, GO to K9
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K3 CHECK THE SECOND ROW CENTER 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
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Yes	REPAIR the circuit. Refer to Wiring Diagrams Cell 5for schematic and connector information. GO to K11
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No	GO to K9
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K5 CHECK THE SECOND ROW CENTER 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 Second Row Center Seatbelt Sensor C3559 .
- Connect a fused jumper wire:

Lead 1	Measurement / Action	Lead 2
C3559-1		C3559-2

- 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:**

Positive Lead	Measurement / Action	Negative Lead
C310B-53	Ω	C3559-2

Is the resistance less than 3 ohms?

Yes	GO to K9
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No	REPAIR the circuit. Refer to Wiring Diagrams Cell 5 for schematic and connector information. GO to K11
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K8 CONFIRM THE SECOND ROW 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.
 - 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 5 for schematic and connector information.
- Connect RCM (restraints control module) C310A and C310B .
- Connect Second Row Center Seatbelt Sensor C3559 .
- Repower the SRS (supplemental restraint system) .

Do not

- Connect Second Row Center Seatbelt Sensor C3559 .
- 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?

<p>Yes</p>	<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 RCM (restraints control module) .</p> <p>REFER to: Restraints Control Module (RCM) (501-20B Supplemental Restraint System, Removal and Installation).</p> <p>GO to K11</p>
<p>No</p>	<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. Install SRS (supplemental restraint system) components only when directed to do so in the pinpoint test. GO to K10</p>

K10 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 Second Row Center Seatbelt Sensor C3559.
 - 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.

- 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 L : B0070:11, B0070:12, B0070:13, B0070:1A

Refer to Wiring Diagrams Cell 46 for 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)

continuously monitors the driver seatbelt anchor pretensioner circuits for the following faults:

- Resistance out of range
- Unexpected voltage
- Short to ground
- Faulted driver seatbelt anchor pretensioner

If a fault is detected, the RCM (restraints control module)

stores DTC (diagnostic trouble code)

B0070:11, B0070:12, B0070:13 or B0070:1A in memory and sends a message to the IPC (instrument panel cluster)

to illuminate the airbag warning indicator.

The RCM (restraints control module)

analyzes the deployment loop resistance to determine if a fault exists. The value displayed in the PID (parameter identification)

is the deployment loop resistance measured by the RCM (restraints control module)

. If the value displayed is lower or higher than the desired range (refer to diagram below), the RCM (restraints control module)

can set a DTC (diagnostic trouble code)

B0070:12	Short To Battery	seatbelt anchor pretensioner circuit for more than 6 seconds.
RCM (restraints control module) B0070:13	Driver Seatbelt Pretensioner 'A' Deployment Control: Circuit Open	A fault is indicated when the RCM (restraints control module) measures more than the desired resistance between the driver seatbelt anchor pretensioner circuits for more than 6 seconds.
RCM (restraints control module) B0070:1A	Driver Seatbelt Pretensioner 'A' Deployment Control: Circuit Resistance Below Threshold	A fault is indicated when the RCM (restraints control module) measures less than the desired resistance between the driver seatbelt anchor pretensioner circuits for more than 6 seconds.

Possible Sources

- Wiring, terminals or connectors
- Driver seatbelt anchor pretensioner
- 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