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2012 FORD EcoSport OEM Service and Repair Workshop Manual

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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 knee airbag circuits shorted together, a low resistance fault is normally retrieved.

Did the on-demand DTC (diagnostic trouble code) change from B0004:13 to B0004:1A?

Yes	REMOVE the fused jumper wire and GO to C11
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No	REMOVE the fused jumper wire and GO to C12
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C8 CHECK THE DRIVER KNEE AIRBAG DEPLOYMENT CONTROL DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (SHORT TO GROUND 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).
- Remove the driver knee airbag.
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#)(501-20B Supplemental Restraint System, General Procedures).

- 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:**

C10 CHECK THE DRIVER KNEE AIRBAG CIRCUITS 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).
- Remove the driver knee airbag.
REFER to: [Driver Knee Airbag](#)(501-20B Supplemental Restraint System, Removal and Installation).
- Disconnect RCM (restraints control module) C310A and C310B .
- 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
C2432-1	\bar{V}	Ground
C2432-2	\bar{V}	Ground

Is any voltage present?

Yes	REPAIR the circuit(s). Refer to Wiring Diagrams Cell 5 for schematic and connector information. GO to C17
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No	GO to C12
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C11 CONFIRM THE DRIVER KNEE AIRBAG FAULT

restraint system) components only when directed to do so in the pinpoint test.

For DTC (diagnostic trouble code) B0004:13 or B0004:1A, GO to [C13](#) For DTC (diagnostic trouble code) B0004:11, GO to [C14](#) For DTC (diagnostic trouble code) B0004:12, GO to [C15](#)

C12 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.
- Install the driver knee airbag (if previously removed).
REFER to: [Driver Knee Airbag](#)(501-20B Supplemental Restraint System, Removal and Installation).
- Connect RCM (restraints control module) C310A and C310B (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.
- 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?

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
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C14 CHECK THE DRIVER 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) B0004:11 retrieved on-demand during self-test?

Yes	DEPOWER the SRS (supplemental restraint system) and REPAIR as necessary. REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures). Refer to Wiring Diagrams Cell 5 for schematic and connector information. GO to C17
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 C16

C15 CHECK THE DRIVER 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 driver knee airbag.
REFER to: [Driver Knee Airbag](#)(501-20B Supplemental Restraint System, Removal and Installation).
- 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.
- 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) B0004:12 retrieved on-demand during self-test?

C17 CHECK FOR ADDITIONAL SRS (SUPPLEMENTAL RESTRAINT SYSTEM) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition OFF.
- Connect

all

previously disconnected components and connectors.

- Install the driver knee airbag (if previously removed).
REFER to: [Driver Knee Airbag](#)(501-20B Supplemental Restraint System, Removal and Installation).
- 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) .

Using a diagnostic scan tool, perform

Restraints

self-test.

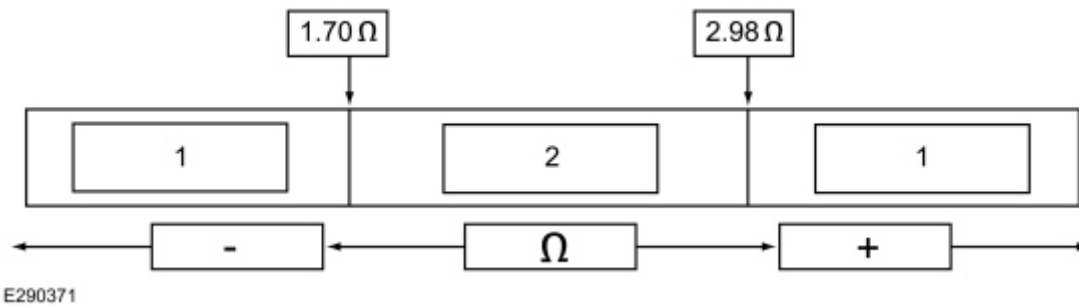
Are any RCM (restraints control module) or OCSM (occupant classification system module) Diagnostic Trouble Codes (DTCs) retrieved on-demand during self-test?

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 D : B0005:11, B0005:12, B0005:13, B0005:1A

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

Normal Operation and Fault Conditions



- 1 - May set DTC (diagnostic trouble code)
- 2 - Desired range

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
RCM (restraints control module) B0005:11	Collapsible Steering Column Deployment Control: Circuit Short To Ground	A fault is indicated when the RCM (restraints control module) senses a short to ground on either adaptive energy absorption steering column circuit for more than 6 seconds.
RCM (restraints control module) B0005:12	Collapsible Steering Column Deployment Control: Circuit Short To Battery	A fault is indicated when the RCM (restraints control module) senses a short to voltage on either adaptive energy absorption steering column circuit for more than 6 seconds.
RCM (restraints control module) B0005:13	Collapsible Steering Column Deployment Control: Circuit Open	A fault is indicated when the RCM (restraints control module) measures more than the desired resistance between the adaptive energy absorption steering column circuits for more than 6 seconds.
RCM (restraints control module) B0005:1A	Collapsible Steering Column Deployment Control: Circuit Resistance Below Threshold	A fault is indicated when the RCM (restraints control module) measures less than the desired resistance between the adaptive energy absorption steering column circuits for more than 6 seconds.

Possible Sources

- Wiring, terminals or connectors

NOTE

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

D1 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, carry out RCM (restraints control module) self-test.

Was DTC (diagnostic trouble code) B0005:11, B0005:12, B0005:13 and B0005:1A 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 self-test.

For DTC (diagnostic trouble code) B0005:13 or B0005:1A, GO to [D2](#) For DTC (diagnostic trouble code) B0005:11, GO to [D8](#) For DTC (diagnostic trouble code) B0005:12, GO to [D10](#)

No

This is an intermittent fault when present as a CMDTC (continuous memory diagnostic trouble code) only.

For DTC (diagnostic trouble code) B0005:13 or B0005:1A, GO to [D13](#) For DTC (diagnostic trouble code) B0005:11, GO to [D14](#) For DTC (diagnostic trouble code) B0005:12, GO to [D15](#)

D2 CHECK THE ADAPTIVE ENERGY ABSORPTION STEERING COLUMN DEPLOYMENT CONTROL (DEPLOY_04_R) PID (PARAMETER IDENTIFICATION)

- Using the diagnostic scan tool,
Access the RCM (restraints control module) and monitor the DEPLOY_04_R (Collapsible Steering Column Deployment Control) (mOhm) PID (parameter identification)
- Monitor and record the value of the PID (parameter identification) .

Does the PID (parameter identification) value read between 1.7 and 2.98 ohms?

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

- Disconnect Adaptive Energy Absorption Steering Column C2360 .
- 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, carry out RCM (restraints control module) self-test.
- **DIAGNOSTIC TIP:**

When viewing Diagnostic Trouble Codes (DTCs) with the adaptive energy absorption steering column disconnected, an open circuit fault is normally retrieved.

Did the on-demand DTC (diagnostic trouble code) change from B0005:1A to B0005:13?

Yes	GO to D11
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No	GO to D5
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D5 CHECK FOR A SHORT BETWEEN THE ADAPTIVE ENERGY ABSORPTION STEERING COLUMN CIRCUITS

- 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
C2360-1	Ω	C2360-2


Is the resistance greater than 10,000 ohms?

Yes	GO to D12
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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.

- Connect RCM (restraints control module) C310A and C310B .
- Connect a fused jumper wire:

Lead 1	Measurement / Action	Lead 2
C2360-1		C2360-2

- 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, carry out RCM (restraints control module) self-test.
- **DIAGNOSTIC TIP:**

When viewing Diagnostic Trouble Codes (DTCs) with the adaptive energy absorption steering column circuits shorted together, a low resistance fault is normally retrieved.

Did the on-demand DTC (diagnostic trouble code) change from B0005:13 to B0005:1A?

Yes	REMOVE the fused jumper wire and GO to D11
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No	REMOVE the fused jumper wire and GO to D12
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D8 CHECK THE ADAPTIVE ENERGY ABSORPTION STEERING COLUMN DEPLOYMENT CONTROL DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (SHORT TO GROUND INDICATED)

NOTE