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2004 FORD EcoSport OEM Service and Repair Workshop Manual

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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.

M1 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) B0072:11, B0072:12, B0072:13 and B0072:1A retrieved on-demand during self-test?

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

If DTC (diagnostic trouble code) U3003:16 or U3003:17 is also retrieved on-demand, GO to Pinpoint Test BD

Yes

If DTC (diagnostic trouble code) U3003:16 or U3003:17 is not retrieved on-demand during self-test, DIAGNOSE the passenger seatbelt anchor pretensioner Diagnostic Trouble Codes (DTCs). For DTC (diagnostic trouble code) B0072:13 or B0072:1A, GO to M2 For DTC (diagnostic trouble code) B0072:11, GO to M8 For DTC (diagnostic trouble code) B0072:12, GO to M10

DEPOWER the SRS (supplemental restraint system) and REPAIR the connector, terminals or wire harness as needed.

Yes

REFER to: Supplemental Restraint System (SRS) Depowering

(501-20B Supplemental Restraint System, General Procedures).

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

GO to M17

No

For PID (parameter identification) value less than 1.7 ohms, GO to $\,$ M4 For PID (parameter identification) value greater than 2.98 ohms, GO to $\,$ M6

M4 CHECK THE PASSENGER SEATBELT ANCHOR PRETENSIONER DEPLOYMENT CONTROL DTC (DIAGNOSTIC TROUBLE CODE) FOR A FAULT STATUS CHANGE (LOW RESISTANCE 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 Passenger Seatbelt Anchor Pretensioner C3066 (Regular or SuperCrew).
- Disconnect Passenger Seatbelt Anchor Pretensioner C857 (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.
- DIAGNOSTIC TIP:

When viewing Diagnostic Trouble Codes (DTCs) with the passenger seatbelt anchor pretensioner disconnected, an open circuit fault is normally retrieved.

Did the on-demand DTC (diagnostic trouble code) change from B0072:1A to B0072:13?



REPAIR the circuits.

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

GO to M17

M7 CHECK THE PASSENGER SEATBELT ANCHOR PRETENSIONER DEPLOYMENT CONTROL 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.

- Connect RCM (restraints control module) C310A and C310B.
- For Regular or SuperCrew, connect a fused jumper wire:

Lead 1	Measurement / Action	Lead 2
C3066-1		C3066-2

• With SuperCab, connect a fused jumper wire:

Lead 1	Measurement / Action	Lead 2
C857-1		C857-2

• 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:

No

M9 CHECK THE PASSENGER SEATBELT ANCHOR PRETENSIONER CIRCUITS 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.
- For Regular or SuperCrew cabs, measure:

Positive Lead	Measurement / Action	Negative Lead
C3066-1	Ω	Ground
C3066-2	Ω	Ground

• With SuperCab, measure:

Positive Lead	Measurement / Action	Negative Lead
C857-1	Ω	Ground
C857-2	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to	M12
163	GO 10	IVIIZ

No	REPAIR the circuit(s).



Is any voltage present?

	REPAIR the circuit(s).
Yes	Refer to Wiring Diagrams Cell 5for schematic and connector information.
	GO to M17

No GO to M12

M11 CONFIRM THE PASSENGER SEATBELT ANCHOR PRETENSIONER 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.
 - Inspect Passenger Seatbelt Anchor Pretensioner C3066 and make sure the Connector Position Assurance (CPA) tabs are not broken and the clip is not damaged.
 - Repair any concerns found.
 Refer to Wiring Diagrams Cell 5for schematic and connector information.
- Connect Passenger Seatbelt Anchor Pretensioner C3066 (Regular or SuperCrew).
- Connect Passenger Seatbelt Anchor Pretensioner C857 (SuperCab).
- Repower the SRS (supplemental restraint system).

- 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 Passenger Seatbelt Anchor Pretensioner C3066 (Regular or SuperCrew) (if previously disconnected).
- Connect Passenger Seatbelt Anchor Pretensioner C857 (SuperCab) (if previously disconnected).
- 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?

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 M17

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.

For DTC (diagnostic trouble code) B0072:13 or B0072:1A, GO to M13 For DTC (diagnostic trouble code) B0072:11, GO to M14 For DTC (diagnostic trouble code) B0072:12, GO to M15

M13 CHECK THE PASSENGER SEATBELT ANCHOR PRETENSIONER DEPLOYMENT CONTROL (DEPLOY_30_RES) PID (PARAMETER IDENTIFICATION) FOR AN INTERMITTENT LOW RESISTANCE OR OPEN CIRCUIT FAULT

M15 CHECK THE PASSENGER SEATBELT ANCHOR PRETENSIONER 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).

- Disconnect Passenger Seatbelt Anchor Pretensioner C3066 (Regular or SuperCrew).
- Disconnect Passenger Seatbelt Anchor Pretensioner C857 (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.
- 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) B0072:12 retrieved on-demand during self-test?

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 5for schematic and connector information.

GO to M17

No

Yes

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 M16

M16 CHECK THE HARNESS AND CONNECTORS

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

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

- Disconnect Passenger Seatbelt Anchor Pretensioner C3066 (Regular or SuperCrew).
- Disconnect Passenger Seatbelt Anchor Pretensioner C857 (SuperCab).

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 N: B007E:11, B007E:12, B007E:13, B007E:1A

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)

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

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

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

stores DTC (diagnostic trouble code)

B007E:11, B007E:12, B007E:13 or B007E: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)