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2005 FORD EcoSport OEM Service and Repair Workshop Manual

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	This is an intermittent fault when present as a CMDTC (continuous memory diagnostic trouble code) only.
	If DTC (diagnostic trouble code) U3003:16 or U3003:17 is also retrieved on-demand, GO to Pinpoint Test BD
No	If DTC (diagnostic trouble code) U3003:16 or U3003:17 is not retrieved on-demand during self- test, DIAGNOSE the driver seatbelt anchor pretensioner Continuous Memory Diagnostic Trouble Codes (CMDTCs).
	For DTC (diagnostic trouble code) B0070:13 or B0070:1A, GO to L13 For DTC (diagnostic trouble code) B0070:11, GO to L14 For DTC (diagnostic trouble code) B0070:12, GO to L15
	CK THE DRIVER SEATBELT ANCHOR PRETENSIONER DEPLOYMENT CONTROL (DEPLOY_29_RES) ARAMETER IDENTIFICATION)
Ac Pr • Mo	sing the diagnostic scan tool, ccess the RCM (restraints control module) and monitor the DEPLOY_29_RES (Driver Seatbelt Anchor retensioner Deployment Control) (mOhm) PID (parameter identification) onitor and record the value of the PID (parameter identification) . <b>he PID (parameter identification) value read between 1.7 and 2.98 ohms?</b> GO to L12
	CK THE DRIVER SEATBELT ANCHOR PRETENSIONER DEPLOYMENT CONTROL (DEPLOY_29_RES) ARAMETER IDENTIFICATION) WHILE CARRYING OUT THE HARNESS TEST
	sing the diagnostic scan tool, ccess the RCM (restraints control module) and monitor the DEPLOY_29_RES (Driver Seatbelt Anchor
Pr	etensioner Deployment Control) (mOhm) PID (parameter identification)
an	hile monitoring the PID (parameter identification) , carry out the harness test of the driver seatbelt achor pretensioner circuits and accessible connectors (including any inline connectors) by wiggling ad flexing the wire harness and connectors frequently.
Does tl wiggle	he PID (parameter identification) value stay between 1.7 and 2.98 ohms while carrying out the test?

		1	
'es	GO to L11		
lo	GO to L5		
			VER ANCHOR PRETENSIONER CIRCUITS
P De RE Ge Di: Fo	FER to: Supp eneral Proced sconnect RCM	ures).	em (SRS) Depowering(501-20B Supplemental Restraint System, dule) C310A and C310B .
C	3065-1	Ω	C3065-2
• Wi	ith SuperCab,	measure:	
P	ositive Lead	Measurement / Action	Negative Lead
	757 1	Ω	C757 2

# Is the resistance greater than 10,000 ohms?

C757-1

DEDAID the circuit(c)	Yes	GO to L12
<ul> <li>No</li> <li>Refer to Wiring Diagrams Cell 5for schematic and connector information.</li> <li>GO to L17</li> </ul>	Νο	

C757-2

- 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 Anchor Pretensioner C3065 (Regular or SuperCrew).
- Disconnect Driver Seatbelt Anchor Pretensioner C757 (SuperCab).
- Disconnect RCM (restraints control module) C310A and C310B .
- For Regular or SuperCrew cabs, measure:

Positive Lead	Measurement / Action	Negative Lead	
C310B-9	Ω	C3065-1	
C310B-10	Ω	C3065-2	

• With SuperCab, measure:

Positive Lead	Measurement / Action	Negative Lead
C310B-9	Ω	C757-1
C310B-10	Ω	C757-2

## Are the resistances less than 0.5 ohm?

Yes GO to L7

When viewing Diagnostic Trouble Codes (DTCs) with the driver seatbelt anchor pretensioner circuits shorted together, a low resistance fault is normally retrieved.

### Did the on-demand DTC (diagnostic trouble code) change from B0070:13 to B0070:1A?

Yes REMOVE the fused jumper wire and GO to L11

No

REMOVE the fused jumper wire and GO to L12

L8 CHECK THE DRIVER SEATBELT ANCHOR PRETENSIONER 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).
- Disconnect Driver Seatbelt Anchor Pretensioner C3065 (Regular or SuperCrew).
- Disconnect Driver Seatbelt Anchor Pretensioner C757 (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 driver seatbelt anchor pretensioner disconnected, an open circuit fault is normally retrieved.

Did the on-demand DTC (diagnostic trouble code) change from B0070:11 to B0070:13?

Yes	GO to	L11	

Refer to Wiring Diagrams Cell 5for schematic and connector information. GO to L17

### L10 CHECK THE DRIVER SEATBELT ANCHOR PRETENSIONER 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).
- Disconnect Driver Seatbelt Anchor Pretensioner C3065 (Regular or SuperCrew).
- Disconnect Driver Seatbelt Anchor Pretensioner C757 (SuperCab).
- 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.
- For Regular or SuperCrew cabs, measure:

Positive Lead	Measurement / Action	Negative Lead
C3065-1	Ÿ	Ground
C3065-2	Ÿ	Ground

• With SuperCab, measure:

Positive Lead	Measurement / Action	Negative Lead
C757-1	Ϋ́	Ground

#### 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?

	INSTALL a new driver seatbelt anchor pretensioner.
	REFER to: Front Seatbelt Retractor and Pretensioner - Regular Cab
	(501-20A Seatbelt Systems, Removal and Installation).
Voc	, or REFER to: Front Seatbelt Retractor and Pretensioner - SuperCab
Yes	(501-20A Seatbelt Systems, Removal and Installation).
	, or REFER to: Front Seatbelt Retractor and Pretensioner - SuperCrew
	(501-20A Seatbelt Systems, Removal and Installation).
	GO to L17

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) B0070:13 or B0070:1A, GO to L13 For DTC (diagnostic trouble code) B0070:11, GO to L14 For DTC (diagnostic trouble code) B0070:12, GO to L15

# L12 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.

- Using the diagnostic scan tool, Access the RCM (restraints control module) and monitor the DEPLOY\_29\_RES (Driver Seatbelt Anchor Pretensioner Deployment Control) (mOhm) PID (parameter identification)
- While monitoring the PID (parameter identification), attempt to recreate the fault by wiggling connectors (including any inline connectors) and flexing the wire harness frequently.

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

The fault is not present and cannot be recreated at this time. Do not install any new SRSYes(supplemental restraint system) components at this time. Install SRS (supplemental restraint<br/>system) components only when directed to do so in the pinpoint test. GO to L16

DEPOWER the SRS (supplemental restraint system) . REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures). REPAIR as necessary. Refer to Wiring Diagrams Cell 5for schematic and connector information. GO to L17

No

# L14 CHECK THE DRIVER SEATBELT ANCHOR PRETENSIONER 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) B0070:11 retrieved on-demand during self-test?

DEPOWER the SRS (supplemental restraint system) and REPAIR as necessary.REFER to:Supplemental Restraint System (SRS) DepoweringYes(501-20B Supplemental Restraint System, General Procedures).Refer to Wiring Diagrams Cell 5for schematic and connector information.GO to L17

Νο	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 L16

- Inspect:
  - 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.
  - Inspect RCM (restraints control module) C310A and C310B Connector Position Assurance (CPA) lever/lock for correct operation.
  - Inspect Driver Seatbelt Anchor Pretensioner C3065 and make sure the Connector Position Assurance (CPA) tabs are not broken and the clip is not damaged.

#### Were any concerns found?

REPAIR as necessary.

YesRefer to Wiring Diagrams Cell 5for schematic and connector information.GO to L17

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 L17

# L17 CHECK FOR ADDITIONAL SRS (SUPPLEMENTAL RESTRAINT SYSTEM) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition OFF.
- Connect

all

No

previously disconnected components and connectors.

• 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).

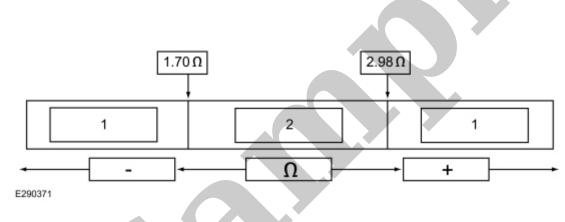
. As the deployment loop resistance drifts farther outside the desired range, the chance for a DTC (diagnostic trouble code)

increases. Small variations in resistance can occur due to the effect of road vibrations on terminal fit. Crimps and terminals can be affected by stress and harness movement and can cause an increase in resistance due to wire strain. These variables can result in an intermittent fault. For this reason, the test requires the PID (parameter identification)

value to be within the desired range before the fault is considered repaired, regardless if the module is reporting an on-demand DTC (diagnostic trouble code)

at the time of diagnosis. Following this direction helps make sure that minor changes in resistance do not create a repeat concern. This test uses process of elimination to diagnose each part of the deployment loop circuit including:

- Wiring
- Connections
- Passenger seatbelt anchor pretensioner
- RCM (restraints control module)



- 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) B0072:11	Passenger Seatbelt Pretensioner 'A' Deployment Control: Circuit Short To Ground	A fault is indicated when the RCM (restraints control module) senses a short to ground on either passenger seatbelt anchor pretensioner circuit for more than 6 seconds.	
	RCM (restraints control module)	Passenger Seatbelt Pretensioner 'A' Deployment	A fault is indicated when the RCM (restraints control module) senses a short to voltage on either	