

Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2016 FORD Ecosport OEM Service and Repair Workshop Manual

[Go to manual page](#)

B007E:12	Circuit Short To Battery	seatbelt retractor pretensioner circuit for approximately 6 seconds.
RCM (restraints control module) B007E:13	Driver Seatbelt Pretensioner 'C' Deployment Control: Circuit Open	A fault is indicated when the RCM (restraints control module) measures more than the desired resistance range between driver seatbelt retractor pretensioner circuits for approximately 6 seconds.
RCM (restraints control module) B007E:1A	Driver Seatbelt Pretensioner 'C' Deployment Control: Circuit Resistance Below Threshold	A fault is indicated when the RCM (restraints control module) measures less than the desired resistance range between driver seatbelt retractor pretensioner circuits for approximately 6 seconds.

Possible Sources

- Wiring, terminals or connectors
- Driver seatbelt retractor 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

For DTC (diagnostic trouble code) B007E:13 or B007E:1A, GO to [N2](#) For DTC (diagnostic trouble code) B007E:11, GO to [N8](#) For DTC (diagnostic trouble code) B007E:12, GO to [N10](#)

No

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

For DTC (diagnostic trouble code) B007E:13 or B007E:1A, GO to [N13](#) For DTC (diagnostic trouble code) B007E:11, GO to [N14](#) For DTC (diagnostic trouble code) B007E:12, GO to [N15](#)

N2 CHECK THE DRIVER SEATBELT RETRACTOR PRETENSIONER DEPLOYMENT CONTROL RESISTANCE (DEPLOY_23_R) PID (PARAMETER IDENTIFICATION)

- Using the diagnostic scan tool,
Access the RCM (restraints control module) and monitor the DEPLOY_23_R (Driver Seatbelt Retractor Pretensioner Deployment Control Resistance) (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?

Yes

GO to [N12](#)

No

GO to [N3](#)

N3 CHECK THE DRIVER SEATBELT RETRACTOR PRETENSIONER DEPLOYMENT CONTROL RESISTANCE (DEPLOY_23_R) PID (PARAMETER IDENTIFICATION) WHILE CARRYING OUT THE HARNESS TEST

- Using the diagnostic scan tool,
Access the RCM (restraints control module) and monitor the DEPLOY_23_R (Driver Seatbelt Retractor Pretensioner Deployment Control Resistance) (mOhm) PID (parameter identification)
- While monitoring the PID (parameter identification) , carry out the harness test of the driver seatbelt retractor pretensioner circuits and accessible connectors (including any inline connectors) by wiggling and flexing the wire harness and connectors frequently.

Does the PID (parameter identification) value stay between 1.7 and 2.98 ohms while carrying out the wiggle test?

Yes

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

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

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 Retractor Pretensioner C323A (Regular Cab).
- Disconnect Driver Seatbelt Retractor Pretensioner C3636A (SuperCrew Cab).
- Disconnect Driver Seatbelt Retractor Pretensioner C727A (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 retractor pretensioner disconnected, an open circuit fault is normally retrieved.

Did the on-demand DTC (diagnostic trouble code) change from B007E:1A to B007E:13?

Yes	GO to N11
------------	---------------------------

No	GO to N5
-----------	--------------------------

N5 CHECK FOR A SHORT BETWEEN DRIVER SEATBELT RETRACTOR PRETENSIONER 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 .
- For Regular cab, measure:

- Disconnect Driver Seatbelt Retractor Pretensioner C727A (SuperCab).
- Disconnect RCM (restraints control module) C310A and C310B .
- For Regular cab, measure:

Positive Lead	Measurement / Action	Negative Lead
C310B-52	Ω	C323A-1
C310B-51	Ω	C323A-2

- For SuperCrew cab, measure:

Positive Lead	Measurement / Action	Negative Lead
C310B-52	Ω	C3636A-1
C310B-51	Ω	C3636A-2

- With SuperCab, measure:

Positive Lead	Measurement / Action	Negative Lead
C310B-52	Ω	C727A-1
C310B-51	Ω	C727A-2

Are the resistances less than 0.5 ohm?

Yes	GO to N7
------------	--------------------------

- 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 retractor pretensioner circuits shorted together, a low resistance fault is normally retrieved.

Did the on-demand DTC (diagnostic trouble code) change from B007E:13 to B007E:1A?

Yes	REMOVE the fused jumper wire and GO to N11
------------	--

No	REMOVE the fused jumper wire and GO to N12
-----------	--

N8 CHECK THE DRIVER SEATBELT RETRACTOR 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 Retractor Pretensioner C323A (Regular cab).
- Disconnect Driver Seatbelt Retractor Pretensioner C3636A (SuperCrew cab).
- Disconnect Driver Seatbelt Retractor Pretensioner C727A (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).

C3636A-2	Ω	Ground
----------	----------	--------

- With SuperCab, measure:

Positive Lead	Measurement / Action	Negative Lead
C727A-1	Ω	Ground
C727A-2	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to N12
------------	---------------------------

No	REPAIR the circuit(s). Refer to Wiring Diagrams Cell 5 for schematic and connector information. GO to N17
-----------	---

N10 CHECK THE DRIVER SEATBELT RETRACTOR 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 Retractor Pretensioner C323A (Regular cab).
- Disconnect Driver Seatbelt Retractor Pretensioner C3636A (SuperCrew cab).
- Disconnect Driver Seatbelt Retractor Pretensioner C727A (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).

GO to [N17](#)

No

GO to [N12](#)

N11 CONFIRM THE DRIVER SEATBELT RETRACTOR 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).
- Disconnect RCM (restraints control module) C310A and C310B .
- 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 Driver Seatbelt Retractor Pretensioner C323A (Regular cab).
- Connect Driver Seatbelt Retractor Pretensioner C3636A (SuperCrew cab).
- Connect Driver Seatbelt Retractor Pretensioner C727A (SuperCab).
- Connect 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.
- 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?

- Connect Driver Seatbelt Retractor Pretensioner C727A (SuperCab).
- Connect 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.
- 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	<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 N17</p>
No	<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.</p> <p>For DTC (diagnostic trouble code) B007E:13 or B007E:1A, GO to N13 For DTC (diagnostic trouble code) B007E:11, GO to N14 For DTC (diagnostic trouble code) B007E:12, GO to N15</p>

N13 CHECK THE DRIVER SEATBELT RETRACTOR PRETENSIONER DEPLOYMENT CONTROL RESISTANCE (DEPLOY_23_R) PID (PARAMETER IDENTIFICATION) FOR AN INTERMITTENT LOW RESISTANCE OR OPEN CIRCUIT FAULT

- Using the diagnostic scan tool,
Access the RCM (restraints control module) and monitor the DEPLOY_23_R (Driver Seatbelt Retractor Pretensioner Deployment Control Resistance) (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?

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) B007E:12 retrieved on-demand during self-test?

Yes	DEPOWER the SRS (supplemental restraint system) and REPAIR as necessary. Refer to Wiring Diagrams Cell 5for schematic and connector information. GO to N17
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 N16

N16 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 Driver Seatbelt Retractor Pretensioner C323A (Regular cab).
- Disconnect Driver Seatbelt Retractor Pretensioner C3636A (SuperCrew cab).
- Disconnect Driver Seatbelt Retractor Pretensioner C727A (SuperCab).
- 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.

Were any concerns found?

Yes	REPAIR as necessary. Refer to Wiring Diagrams Cell 5for schematic and connector information.
------------	---