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1999 FORD Mondeo Wagon OEM Service and Repair Workshop Manual

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- 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) B1404:11 retrieved on-demand during self-test?

Yes	<p>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 Y17</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 Y16</p>
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Y15 CHECK THE DRIVER SIDE 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).
 - Disconnect Driver Side Airbag (Inline) C3051 .
 - 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) B1404:12 retrieved on-demand during self-test?

Yes	<p>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.</p>
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all

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) .

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 Z : B1405:11, B1405:12, B1405:13, B1405:1A

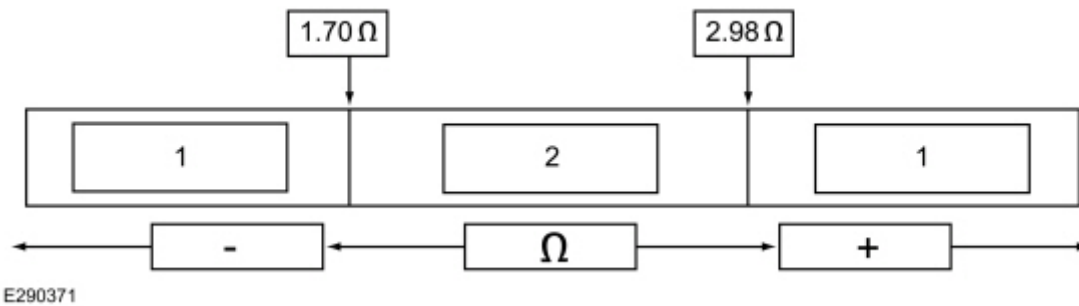
Refer to Wiring Diagrams Cell 46for schematic and connector information.

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).

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 side curtain airbag circuits for the following faults:



- 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) B1405:11	Driver Side Curtain Deployment Control 1: Circuit Short To Ground	A fault is indicated when the RCM (restraints control module) senses a short to ground on either driver side curtain airbag circuit for more than 6 seconds.
RCM (restraints control module) B1405:12	Driver Side Curtain Deployment Control 1: Circuit Short To Battery	A fault is indicated when the RCM (restraints control module) senses a short to voltage on either driver side curtain airbag circuit for more than 6 seconds.
RCM (restraints control module) B1405:13	Driver Side Curtain Deployment Control 1: Circuit Open	A fault is indicated when the RCM (restraints control module) measures more than the desired resistance between the driver side curtain airbag circuits for more than 6 seconds.
RCM (restraints control module) B1405:1A	Driver Side Curtain Deployment Control 1: Circuit Resistance Below Threshold	A fault is indicated when the RCM (restraints control module) measures less than the desired resistance between the driver side curtain airbag circuits for more than 6 seconds.

Possible Sources

- Wiring, terminals or connectors
- Driver side curtain airbag
- RCM (restraints control module)

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

Z1 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) B1405:11, B1405:12, B1405:13 and B1405:1A 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>If DTC (diagnostic trouble code) U3003:16 or U3003:17 is also retrieved on-demand, GO to Pinpoint Test BD</p> <p>If DTC (diagnostic trouble code) U3003:16 or U3003:17 is not retrieved on-demand during self-test, DIAGNOSE the Driver side curtain airbag Diagnostic Trouble Codes (DTCs).</p> <p>For DTC (diagnostic trouble code) B1405:13 or B1405:1A, GO to Z2 For DTC (diagnostic trouble code) B1405:11, GO to Z8 For DTC (diagnostic trouble code) B1405:12, GO to Z10</p>
No	<p>This is an intermittent fault when present as a CMDTC (continuous memory diagnostic trouble code) only.</p> <p>If DTC (diagnostic trouble code) U3003:16 or U3003:17 is also retrieved on-demand, GO to Pinpoint Test BD</p> <p>If DTC (diagnostic trouble code) U3003:16 or U3003:17 is not retrieved on-demand during self-test, DIAGNOSE the driver side curtain airbag Continuous Memory Diagnostic Trouble Codes (CMDTCs).</p> <p>For DTC (diagnostic trouble code) B1405:13 or B1405:1A, GO to Z13 For DTC (diagnostic trouble code) B1405:11, GO to Z14 For DTC (diagnostic trouble code) B1405:12, GO to Z15</p>

Z2 CHECK THE DRIVER SIDE CURTAIN DEPLOYMENT CONTROL 1 RESISTANCE (DEPLOY_11_R) PID (PARAMETER IDENTIFICATION)

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 Side Air Curtain C9031 .
- 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 side curtain airbag disconnected, an open circuit fault is normally retrieved.

Did the on-demand DTC (diagnostic trouble code) change from B1405:1A to B1405:13?

Yes	GO to Z11
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No	GO to Z5
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Z5 CHECK FOR A SHORT BETWEEN THE DRIVER SIDE AIR CURTAIN 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
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Refer to Wiring Diagrams Cell 5 for schematic and connector information.
GO to [Z17](#)

Z7 CHECK THE DRIVER SIDE AIR CURTAIN 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
- Connect a fused jumper wire:

Lead 1	Measurement / Action	Lead 2
C9031-1		C9031-2

- 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:

When viewing Diagnostic Trouble Codes (DTCs) with the driver side curtain airbag circuits shorted together, a low resistance fault is normally retrieved.

Did the on-demand DTC (diagnostic trouble code) change from B1405:13 to B1405:1A?

Yes REMOVE the fused jumper wire and GO to [Z11](#)

No REMOVE the fused jumper wire and GO to [Z12](#)

Positive Lead	Measurement / Action	Negative Lead
C9031-1	Ω	Ground
C9031-2	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to Z12
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No	REPAIR the circuit(s). Refer to Wiring Diagrams Cell 5 for schematic and connector information. GO to Z17
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Z10 CHECK THE DRIVER SIDE AIR CURTAIN 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 Side Air Curtain C9031 .
- 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
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- Connect Driver Side Air Curtain C9031 .
- 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>INSTALL a new driver side curtain airbag. REFER to: Side Curtain Airbag - Regular Cab (501-20B Supplemental Restraint System, Removal and Installation). , or REFER to: Side Curtain Airbag - SuperCab (501-20B Supplemental Restraint System, Removal and Installation). , or REFER to: Side Curtain Airbag - SuperCrew (501-20B Supplemental Restraint System, Removal and Installation). GO to Z17</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. For DTC (diagnostic trouble code) B1405:13 or B1405:1A, GO to Z13 For DTC (diagnostic trouble code) B1405:11, GO to Z14 For DTC (diagnostic trouble code) B1405:12, GO to Z15</p>

Z12 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:

Access the RCM (restraints control module) and monitor the DEPLOY_11_R (Driver Side Curtain Deployment Control 1 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?

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 Z16
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No	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 5 for schematic and connector information. GO to Z17
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Z14 CHECK THE DRIVER SIDE AIR CURTAIN 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) B1405:11 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 Z17
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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 Z16
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