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1994 FORD Mondeo Wagon 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

Install new components only when directed to do so in the pinpoint test.

### **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.

W1 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.

- REFER to: Pyrotechnic Device Health and Safety Precautions(100-00 General Information, Description and Operation).
- Ignition ON.
- Using a diagnostic scan tool, perform the RCM (restraints control module) self-test to retrieve Diagnostic Trouble Codes (DTCs).

Was DTC (diagnostic trouble code) B11D8:11, B11D8:12 or B11D8:13 retrieved on-demand during self-test?

### W3 CHECK THE BCM (BODY CONTROL MODULE) FOR A FAULT STATUS CHANGE

- Ignition OFF.
- Prior to reconnecting any previously disconnected 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 damage, pinched, cut or pierced wires.
  - Repair any concerns found.
     Refer to Wiring Diagrams Cell 5for schematic and connector information.
- Connect the PCM (powertrain control module) connector.
- Disconnect BCM (body control module) C2280E.
- Ignition ON.
- Using a diagnostic scan tool, perform the RCM (restraints control module) self-test to retrieve Diagnostic Trouble Codes (DTCs).

### Was DTC (diagnostic trouble code) B11D8:11 retrieved on-demand during self-test?

| Yes | GO to | W4 |
|-----|-------|----|
|     |       |    |

No

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 BCM (body control module).

REFER to: Body Control Module (BCM)

(419-10 Multifunction Electronic Modules, Removal and Installation).

### W4 CHECK THE EVENT NOTIFICATION SIGNAL CIRCUIT 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 PCM (powertrain control module) C1232B (with 2.7L engine).
- Disconnect PCM (powertrain control module) C1233B (with 3.0L diesel).
- Disconnect PCM (powertrain control module) C1551B (with 3.3L engine).
- Disconnect PCM (powertrain control module) C175B (with 3.5L engine).
- Disconnect PCM (powertrain control module) C1381B (with 5.0L engine).
- Disconnect BECM (battery energy control module) C4237A (HEV (hybrid electric vehicle)).

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C310B-42      | Ω                    | C1232B-24     |

### • With 3.0L diesel, measure:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C310B-42      | Ω                    | C1233B-51     |

# • For 3.3L engine, measure:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C310B-42      | Ω                    | C1551B-24     |

# • For 3.5L engine, measure:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C310B-42      | U                    | C175B-24      |

## • For 5.0L engine, measure:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C310B-42      | Ω                    | C1381B-24     |

• For HEV (hybrid electric vehicle) , measure:



Guided Routine available in the on-line Workshop Manual. GO to W11

### W7 CHECK THE BCM (BODY CONTROL MODULE) FOR A FAULT STATUS CHANGE

- Ignition OFF.
- Prior to reconnecting any previously disconnected 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 damage, pinched, cut or pierced wires.
  - Repair any concerns found.
     Refer to Wiring Diagrams Cell 5for schematic and connector information.
- Connect the PCM (powertrain control module) connector.
- Disconnect BCM (body control module) C2280E.
- Ignition ON.
- Using a diagnostic scan tool, perform the RCM (restraints control module) self-test to retrieve Diagnostic Trouble Codes (DTCs).

### Was DTC (diagnostic trouble code) B11D8:12 retrieved on-demand during self-test?

| Yes | GO to W8 |  |  |
|-----|----------|--|--|
|-----|----------|--|--|

No

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 BCM (body control module).

REFER to: Body Control Module (BCM)

(419-10 Multifunction Electronic Modules, Removal and Installation).

GO to W11 GO to W8

### W8 CHECK THE EVENT NOTIFICATION SIGNAL CIRCUIT FOR A SHORT TO VOLTAGE

Ignition OFF.

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 components:

- 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 damage, pinched, cut or pierced wires.
- repair any concerns found.
   Refer to Wiring Diagrams Cell 5for schematic and connector information.
- Reconnect

#### all

previously disconnected components.

• 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 the RCM (restraints control module) self-test to retrieve Diagnostic Trouble Codes (DTCs).

### 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 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).

REFER to: Restraints Control Module (RCM)

(501-20B Supplemental Restraint System, Removal and Installation).

GO to W11

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. SRS (supplemental restraint system) components should only be installed when directed to do so in the pinpoint test. GO to W10

No

CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition frequently. ACTIVATE other systems in the same wire harness. Do not install any new SRS (supplemental restraint system) components at this time. Only install SRS (supplemental restraint system) components when directed to do so in the pinpoint test. REPAIR any intermittent concerns found. GO to W11

# W11 CHECK FOR ADDITIONAL SRS (SUPPLEMENTAL RESTRAINT SYSTEM) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition OFF.
- Reconnect

all

previously disconnected components.

• 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.
- Using a diagnostic scan tool, carry out RCM (restraints control module) self-test.

Are any RCM (restraints control module), OCSM (occupant classification system module) and/or BECMB (battery energy control module B) 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 Diagnostic Trouble Codes (DTCs). REFER to the RCM (restraints control module) DTC chart in this section.

No

The repair is complete. RETURN the vehicle to the customer.

### PINPOINT TEST X: B1202:11, B1202:12, B1202:13

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

### **Possible Sources**

- Wiring, terminals or connectors
- PAD (passenger airbag deactivation) indicator
- 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**

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.

### Is the resistance greater than 10,000 ohms?

| Yes | GO to | X10 |
|-----|-------|-----|
|     |       |     |

| No | GO to | Х3 |
|----|-------|----|
|    |       |    |

### X3 CHECK THE RCM (RESTRAINTS CONTROL MODULE) FOR LOW RESISTANCE

• 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 |
|---------------|----------------------|---------------|
| C930-9        | Ω                    | Ground        |

### Is the resistance greater than 10,000 ohms?

Yes GO to X10

REPAIR the circuit.

No
Refer to Wiring Diagrams Cell 5for schematic and connector information.

GO to X12

# X4 CHECK THE PAD (PASSENGER AIRBAG DEACTIVATION) INDICATOR 'ON' LED (LIGHT EMITTING DIODE) CIRCUIT FOR AN OPEN

- Ignition OFF.
- Depower the SRS (supplemental restraint system).
   REFER to: Supplemental Restraint System (SRS) Depowering(501-20B Supplemental Restraint System, General Procedures).

| Yes | GO to | X7 |
|-----|-------|----|
|     |       |    |
| No  | GO to | X6 |

### X6 CHECK THE IGNITION CIRCUIT TO THE PAD (PASSENGER AIRBAG DEACTIVATION) INDICATOR

- Ignition OFF.
- Measure:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C2280E-6      | Ω                    | C930-7        |

### Is the resistance less than 3 ohms?

Yes

Using a diagnostic scan tool, perform BCM (body control module) self-test. For any BCM (body control module) Diagnostic Trouble Codes (DTCs), REFER to the BCM (body control module) DTC chart in this section. If **no** BCM (body control module) Diagnostic Trouble Codes (DTCs) are retrieved, replace the BCM (body control module).

REFER to: Body Control Module (BCM)

(419-10 Multifunction Electronic Modules, Removal and Installation).

No

REPAIR the circuit.

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

### X7 CHECK THE PAD (PASSENGER AIRBAG DEACTIVATION) INDICATOR

- Ignition OFF.
- Connect: PAD (passenger airbag deactivation) Indicator C930.
- Connect a fused jumper wire:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
|               |                      |               |