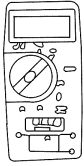
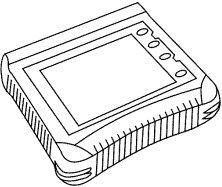
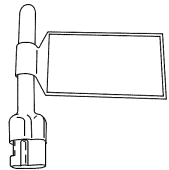
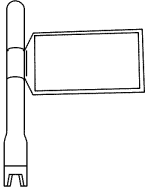
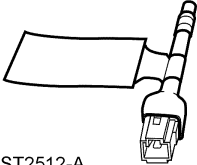


DIAGNOSIS AND TESTING


Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS)

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

Special Tool(s)

 <p>ST1137-A</p>	<p>FLUKE 73III Automotive Meter 105-R0057 or equivalent</p>
 <p>ST2332-A</p>	<p>Worldwide Diagnostic System (WDS) Vehicle Communication Module (VCM) with appropriate adapters, or equivalent diagnostic tool</p>
 <p>ST2507-A</p>	<p>Diagnostic Tool, Restraint System (2 Required) 418-133</p>
 <p>ST2502-A</p>	<p>Diagnostic Tool, Restraint System (3 Required) 418-F395</p>
 <p>ST2512-A</p>	<p>Diagnostic Tool, Restraint System (1 Required) 418-F403</p>

Restraint System Diagnostic Tool Warning

 **WARNING:** Restraint system diagnostic tools are for service only. Tools must be removed prior to operating the vehicle over the road. Failure to remove restraint system diagnostic tools could result in injury and possible violation of vehicle safety standards.

Air Bag Module 2nd Stage Deployment Check

Because the driver and passenger front air bags each have 2 deployment stages, it is possible that stage 1 has deployed and the 2nd stage has not.

If a front air bag module has deployed, it is **mandatory** that the front air bag module be remotely deployed using the appropriate air bag disposal procedure.

- For additional information on driver air bag module and/or passenger air bag module remote deployment, refer to Pyrotechnic Device Disposal in this section.

Diagnosing Customer Concerns Without Hard DTCs

If a lamp fault code (LFC) is reported by the customer but is not present when the vehicle comes in for service, follow the Diagnostic Instruction procedures in this section to identify the intermittent DTC.

Once the DTC is known, read the Normal Operation section of the pinpoint test for the DTC involved.

- Follow the deactivation or depowering procedure as directed in this section.
- Determine the location of components involved in creating the DTC.
- Carry out a thorough visual inspection of:
 - components.
 - connectors.
 - splices and wiring harnesses.
 - pinched wires.
 - worn insulation on conductors.

Refer to the Possible Causes section of the pinpoint test for the DTC involved, which lists the common concerns that relate to the DTC. Concerns are listed according to priority.

DIAGNOSIS AND TESTING (Continued)

Diagnosing Customer Concerns with Hard DTCs

Most supplemental restraint system (SRS) diagnostic procedures will require deactivation and reactivation or depowering and repowering of the system.

Deactivation and reactivation requires the disconnection of most SRS components and the installation of restraint system diagnostic tools.

Depowering and repowering requires disconnecting of the battery and removal of the restraints control module (RCM) fuse. This reduces the risk of inadvertent deployment of SRS components while diagnostic procedures are being carried out.

Restraint system diagnostic tools are required for the diagnosis and testing of the SRS. It is not acceptable to short-circuit the air bag module connections with a jumper wire. If a jumper wire is used to short-circuit the air bag module connections, a lamp fault code (LFC) will be displayed.

Prove Out Procedure

Turn the ignition switch from the OFF to the ON position and visually monitor the air bag indicator with all SRS components connected or restraint system diagnostic tools installed. The air bag indicator will light continuously for approximately 6 seconds and then turn off. If an SRS fault is present, the air bag indicator will:

- fail to light.
- remain lit continuously.
- flash.

The flashing might not occur until approximately 30 seconds after the ignition switch has been turned from the OFF to the ON position. This is the time required for the RCM to complete the testing of the SRS. If the air bag indicator is inoperative and an SRS fault exists, a chime will sound in a pattern of 5 sets of 5 beeps. If this occurs, the air bag indicator will need to be repaired before diagnosis can continue.

Glossary

Secondary Air Bag Warning

The secondary air bag warning is an audible fault format that consists of 5 sets of 5 tone bursts, with each set of 5 tone bursts separated by a 5-second quiet period. One tone burst cycle will consist of 1-second ON and 1-second OFF. This series of 5 activations is repeated every 30 minutes.

Air Bag/Pretensioner Restraint System Diagnostic Tools

Air bag/pretensioner restraint system diagnostic tools are used to simulate the equivalent resistance of an air bag module or safety belt pretensioner during certain diagnostic procedures.

Disconnect the Component

Disconnect the component means to disconnect the component vehicle harness connector, not to remove the component. Do not reconnect a disconnected component unless instructed to do so.

Deactivate the System

Deactivate the system means to carry out a deactivation procedure. For additional information, refer to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section.

Depower the System

Depower the system means to disconnect the battery and remove the RCM fuse. For additional information, refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.

Prove Out the System

Prove out the system means to turn the ignition switch from the OFF to the ON position, and to visually monitor the air bag indicator with the air bag modules and safety belt pretensioners or restraint system diagnostic tools installed. For additional information, refer to Prove Out Procedure in this section.

Reactivate the System

Reactivate the system means to carry out the reactivation procedure. For additional information, refer to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section.

Repower the System

Repower the system means to remove any restraint system diagnostic tools that may have been installed, turn the ignition ON, install the RCM fuse and connect the battery ground cable. For additional information, refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.

Reconnect the System

Reconnect the system means to reconnect all system components. For additional information, refer to Air Bag System Reconnect Checklist in this section.

DIAGNOSIS AND TESTING (Continued)**Install a New Component**

Install a new component means to remove the existing component and install a new authorized part obtained from Ford Customer Service Division.

Verify the System

Verify the system means to prove out the system with restraint system diagnostic tools installed in place of the SRS components.

Air Bag Reconnect Checklist

The checklist below should be completed following diagnosis or repair of any air bag system concern:

- Clockspring connectors connected?
- All in-seat harness connectors connected?

- Occupant classification sensor (OCS) system connected?
 - All air bag modules connected?
 - Safety belt pretensioner connectors connected?
 - Restraints control module (RCM) connected?
 - All sensors (front and side impact, seat position and safety belt tension) connected?
 - All bridge resistors connected?
 - RCM fuse installed?
 - Battery connected?
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