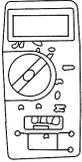
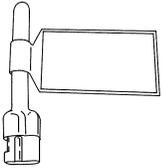
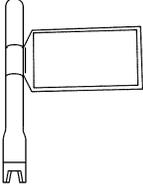
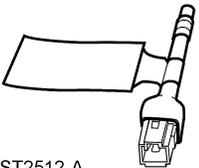
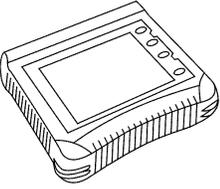


## DIAGNOSIS AND TESTING

### Pinpoint Tests — 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 88 Automotive Meter<br/>105-R0053 or equivalent</p>   |
|  <p>ST2507-A</p>   | <p>Diagnostic Tool, Restraint System (2 Required)<br/>418-133</p>  |
|  <p>ST2502-A</p>  | <p>Diagnostic Tool, Restraint System (4 Required)<br/>418-F395</p>   |
|  <p>ST2512-A</p> | <p>Diagnostic Tool, Restraint System (1 Required)<br/>418-F403</p>   |
|  <p>ST2332-A</p> | <p>Worldwide Diagnostic System (WDS)<br/>Vehicle Communication Module (VCM) with appropriate adapters, or equivalent diagnostic tool</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 diagnostic tools could result in injury and possible violation of vehicle safety standards.

### Pinpoint Test A: The Air Bag Warning Indicator Is Illuminated Continuously — RCM Disconnected or Inoperative

#### Normal Operation

**NOTE:** Be sure to cycle the ignition switch and look for a 6-second indicator prove-out without LFCs.

During normal operation, the air bag indicator will illuminate continuously for approximately 6-seconds and then go out after the ignition switch is placed in the ON or START position and no air bag fault exists. The air bag indicator will remain illuminated continuously after 5 cycles of a lamp fault code (LFC), if a fault exists. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section. Be sure to cycle the ignition switch and look for an approximate 6-second indicator prove-out without LFCs.

The restraints control module (RCM) will communicate diagnostic trouble codes (DTCs) to the diagnostic tool through the data link connector (DLC). If the diagnostic tool displays NO COMMUNICATION when retrieving continuous DTCs, [GO to Pinpoint Test Y](#) to troubleshoot the system.

#### Possible Causes

An air bag indicator that is illuminated continuously can be caused by:

- damaged ignition circuit.
- RCM disconnected from the vehicle harness.
- loss of RCM signal ground.
- faulted RCM.
- damaged wiring, terminals or connectors.
- loss of RCM ignition feed.
- faulted instrument cluster module.

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST A: THE AIR BAG WARNING INDICATOR IS ILLUMINATED CONTINUOUSLY — RCM DISCONNECTED OR INOPERATIVE, LOSS OF IGNITION FEED, OR LOSS OF SIGNAL GROUND**

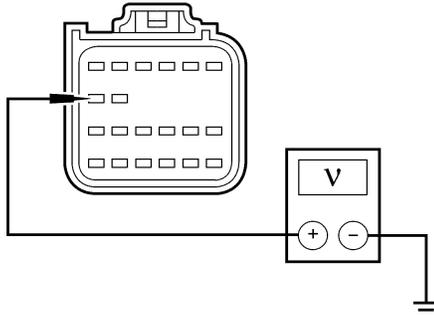
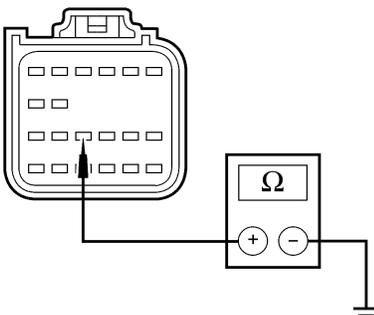
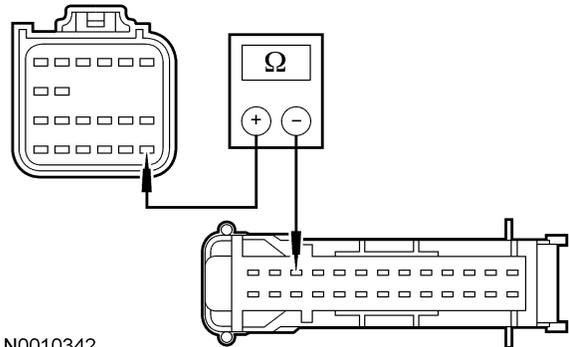
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough inspection and Verification before proceeding with the pinpoint test.

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>A1</b> | <b>CHECK FOR CONTINUOUS OR ON-DEMAND SELF TEST DTCs</b>   |  |
|           | <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Continuous DTCs.</li> <li>• <b>Were any continuous or on-demand self test DTCs retrieved?</b></li> </ul> | <p><b>Yes</b><br/>If continuous DTCs were retrieved, GO to <b>A2</b>. If on-demand DTCs were retrieved, GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>GO to <b>A2</b>.</p> |
| <b>A2</b> | <b>CHECK THE RCM CONNECTION</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Connect: RCM C2041a.<br/>Make sure RCM C2041a is connected and fully seated.</li> <li>• <b>Is RCM C2041a fully connected and the connector locking tab engaged?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>A3</b>.</p> <p><b>No</b><br/>CONNECT C2041a and ENGAGE the locking tab. GO to <b>A7</b>.</p>  |
| <b>A3</b> | <b>CHECK CIRCUIT 937 (RD/WH) FOR AN OPEN</b>  |  |
|           | <ul style="list-style-type: none"> <li>• Deactivate the system. Refer to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section.</li> <li>• Disconnect: RCM C2041a.</li> <li>• Key in ON position.</li> </ul>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

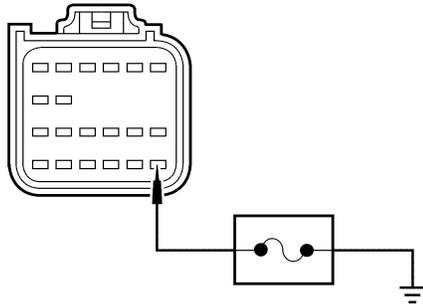
**PINPOINT TEST A: THE AIR BAG WARNING INDICATOR IS ILLUMINATED CONTINUOUSLY — RCM DISCONNECTED OR INOPERATIVE, LOSS OF IGNITION FEED, OR LOSS OF SIGNAL GROUND (Continued)**

| Test Step  | Result / Action to Take   |
|--|---|
| <p><b>A3 CHECK CIRCUIT 937 (RD/WH) FOR AN OPEN (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the voltage between RCM C2041a pin 12, circuit 937 (RD/WH), harness side and ground.</li> </ul>  <p>A0039638</p> <ul style="list-style-type: none"> <li>Is the voltage between 9 and 16 volts?</li> </ul>   | <p><b>Yes</b><br/>GO to <b>A4</b>.</p> <p><b>No</b><br/>REPAIR circuit 937 (RD/WH). GO to <b>A7</b>.</p>  |
| <p><b>A4 CHECK CIRCUIT 1203 (BK/LB) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Measure the resistance between RCM C2041a pin 16, circuit 1203 (BK/LB), harness side and ground.</li> </ul>  <p>A0039639</p> <ul style="list-style-type: none"> <li>Is the resistance less than 5 ohms?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>A5</b>.</p> <p><b>No</b><br/>REPAIR circuit 1203 (BK/LB). GO to <b>A7</b>.</p> |
| <p><b>A5 CHECK CIRCUIT 608 (BK/LG) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>Disconnect: Instrument Cluster Module C220.</li> <li>Measure the resistance between instrument cluster module C220 pin 24, circuit 608 (BK/LG), harness side and RCM C2041a pin 19, circuit 608 (BK/LG), harness side.</li> </ul>  <p>N0010342</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul> | <p><b>Yes</b><br/>GO to <b>A6</b>.</p> <p><b>No</b><br/>REPAIR circuit 608 (BK/LG). GO to <b>A7</b>.</p>  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST A: THE AIR BAG WARNING INDICATOR IS ILLUMINATED CONTINUOUSLY — RCM DISCONNECTED OR INOPERATIVE, LOSS OF IGNITION FEED, OR LOSS OF SIGNAL GROUND (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>A6</b> | <p><b>CHECK THE INDICATOR LAMP OPERATION (DRIVE LAMP OFF)</b></p> <ul style="list-style-type: none"> <li>• Connect: Instrument Cluster Module C220.</li> <li>• Key in ON position.</li> <li>• Connect a fused jumper between the RCM C2041a pin 19, circuit 608 (BK/LG), harness side and ground.</li> </ul>  <p>A0049155</p> <ul style="list-style-type: none"> <li>• Is the indicator lamp off ?</li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>A7</b>.</p> <p><b>No</b><br/>REPAIR or INSTALL a new instrument cluster module. REFER to Section 413-01. GO to <b>A7</b>.</p>  |
| <b>A7</b> | <p><b>CHECK FOR ADDITIONAL DTCs</b></p> <ul style="list-style-type: none"> <li>• Refer to the continuous DTCs recorded during Step A1.</li> <li>• Were any continuous DTCs retrieved during Step A1?</li> </ul>  | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**Pinpoint Test B: DTC B1869 — Lamp Air Bag Warning Indicator Circuit Open or Short to Ground**

**Normal Operation**

During normal operation, the air bag indicator will illuminate continuously for approximately 6-seconds and then go out after the ignition switch is placed to the ON or START and no air bag fault exists. The air bag indicator will remain illuminated continuously after 5 cycles of a lamp fault code (LFC), if a fault exists.

If the restraints control module (RCM) detects an open or short to ground on the air bag warning indicator circuit, it will store diagnostic trouble code (DTC) B1869 in memory.

**Possible Causes**

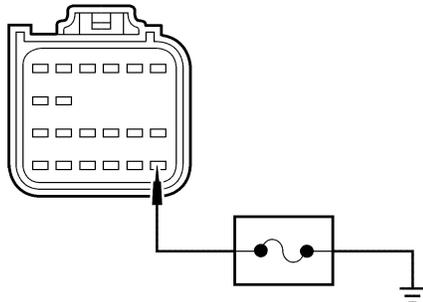
An open air bag indicator circuit can be caused by:

- damaged wiring, terminals or connectors.
- a faulted RCM.
- a faulted instrument cluster module.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST B: DTC B1869 — LAMP AIR BAG WARNING INDICATOR CIRCUIT OPEN OR SHORT TO GROUND**

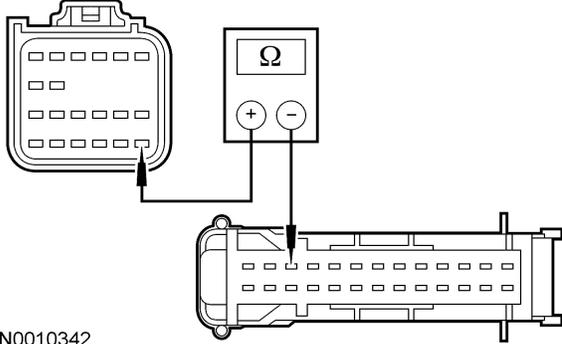
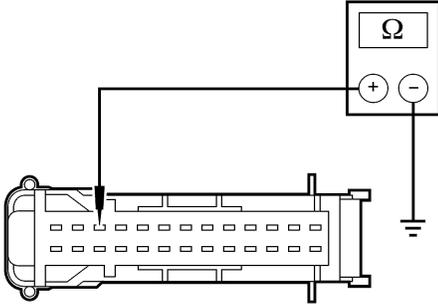
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>B1</b> | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>  |  |
|           | <p><b>⚠ WARNING:</b> 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.</p> <p><b>⚠ WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p><b>⚠ WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Continuous DTCs.</li> <li>• <b>Was DTC B1869 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>If the air bag indicator lamp <b>does</b> illuminate, GO to <b>B2</b>.</p> <p>If the air bag indicator lamp <b>does not</b> illuminate, GO to <b>B4</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>B6</b>.</p> |
| <b>B2</b> | <b>CHECK THE INDICATOR LAMP OPERATION (DRIVE LAMP OFF)</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Deactivate the system. Refer to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Key in ON position.</li> <li>• Connect a fused jumper lead between RCM C2041a pin 19, circuit 608 (BK/LG), harness side and ground.</li> </ul>  <p>A0049155</p> <ul style="list-style-type: none"> <li>• <b>Is the indicator lamp OFF?</b></li> </ul>  | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>B7</b>.</p> <p><b>No</b><br/>GO to <b>B3</b>.</p>  |
| <b>B3</b> | <b>CHECK CIRCUIT 608 (BK/LG) FOR AN OPEN</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Disconnect: Instrument Cluster Module C220.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> </ul>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST B: DTC B1869 — LAMP AIR BAG WARNING INDICATOR CIRCUIT OPEN OR SHORT TO GROUND (Continued)**

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>B3</b> | <b>CHECK CIRCUIT 608 (BK/LG) FOR AN OPEN (Continued)</b>  |  |
|           | <ul style="list-style-type: none"> <li>Measure the resistance between instrument cluster module C220 pin 24, circuit 608 (BK/LG), harness side and RCM C2041a pin 19, circuit 608 (BK/LG), harness side.</li> </ul>  <p>N0010342</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>  | <p><b>Yes</b><br/>REPAIR or INSTALL a new instrument cluster module. REFER to Section 413-01. GO to <b>B7</b>.</p> <p><b>No</b><br/>REPAIR circuit 608 (BK/LG). GO to <b>B7</b>.</p> |
| <b>B4</b> | <b>CHECK THE INDICATOR LAMP OPERATION (DRIVE LAMP ON)</b>   |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> <li>Is the indicator lamp ON?</li> </ul>   | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>B7</b>.</p> <p><b>No</b><br/>GO to <b>B5</b>.</p>                            |
| <b>B5</b> | <b>CHECK CIRCUIT 608 (BK/LG) FOR A SHORT TO GROUND</b>  |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Instrument Cluster Module C220.</li> <li>Measure the resistance between instrument cluster module C220 pin 24, 608 (BK/LG), harness side and ground.</li> </ul>  <p>N0010341</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 10,000 ohms?</li> </ul> | <p><b>Yes</b><br/>REPAIR or INSTALL a new instrument cluster module. REFER to Section 413-00. GO to <b>B7</b>.</p> <p><b>No</b><br/>REPAIR circuit 608 (BK/LG). GO to <b>B7</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST B: DTC B1869 — LAMP AIR BAG WARNING INDICATOR CIRCUIT OPEN OR SHORT TO GROUND (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>B6</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• <b>Was DTC B1869 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>B7</b>.</p> <p><b>No</b><br/>CHECK for causes of intermittent open or short to ground on circuit 608 (BK/LG). ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. REPAIR any intermittent concerns found. GO to <b>B7</b>.</p>   |
| <b>B7</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Refer to the continuous DTCs recorded during Step B1.</li> <li>• <b>Were any continuous DTCs retrieved during Step B1?</b></li> </ul>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**Pinpoint Test C: DTC B1870 — Air Bag Warning Indicator Circuit Short to Battery**

**Normal Operation**

During normal operation, the air bag indicator will illuminate continuously for approximately 6-seconds and then go out after the ignition switch is placed to the ON or START and no air bag fault exists. The air bag indicator will remain illuminated continuously after 5 cycles of a lamp fault code (LFC), if a fault exists.

If the restraints control module detects a short to battery on the air bag warning indicator circuit, it will store diagnostic trouble code (DTC) B1870 in memory. If any other DTCs are detected with this DTC active, the secondary air bag warning will be activated.

**Possible Causes**

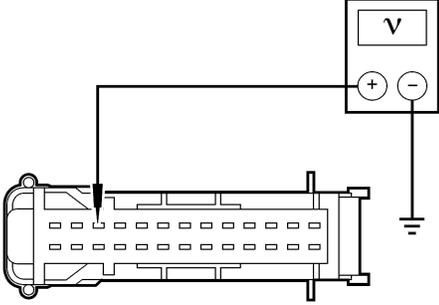
An air bag indicator circuit short to battery can be caused by:

- damaged wiring, terminals or connectors.
- a faulted RCM.
- a faulted instrument cluster module.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST C: DTC B1870 — AIR BAG WARNING INDICATOR CIRCUIT SHORT TO BATTERY**

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>C1</b> | <p><b>CHECK FOR A HARD OR INTERMITTENT DTC</b></p> <p><b>⚠ WARNING:</b> 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.</p> <p><b>⚠ WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p><b>⚠ WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>Retrieve/Record/Continuous DTCs.</li> <li><b>Was DTC B1870 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>C2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>C4</b>.</p> |
| <b>C2</b> | <p><b>CHECK CIRCUIT 608 (BK/LG) FOR A SHORT TO BATTERY</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Instrument Cluster Module C220.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> <li>Measure the voltage between instrument cluster module C220 pin 24, circuit 608 (BK/LG), harness side and ground.</li> </ul> <div style="text-align: center;">  <p>N0010340</p> </div> <ul style="list-style-type: none"> <li><b>Is the voltage less than 0.2 volt?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>C3</b>.</p> <p><b>No</b><br/>REPAIR circuit 608 (BK/LG). GO to <b>C5</b>.</p>   |
| <b>C3</b> | <p><b>CHECK THE RCM</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> </ul>   |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST C: DTC B1870 — AIR BAG WARNING INDICATOR CIRCUIT SHORT TO BATTERY  
(Continued)**

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>C3</b> | <b>CHECK THE RCM (Continued)</b>  |  |
|           | <ul style="list-style-type: none"> <li>Connect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> </ul> <p><b>NOTE:</b> DTC B1869 should be retrieved when carrying out the on-demand self test due to an open on circuit 608 (BK/LG), DTC B1870 should not be retrieved at this time.</p> <ul style="list-style-type: none"> <li><b>Was DTC B1870 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>C5</b>.</p> <p><b>No</b><br/>REPAIR or INSTALL a new instrument cluster module. REFER to Section 413-01. GO to <b>C5</b>.</p>  |
| <b>C4</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>  |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC B1870 retrieved during the on-demand self test?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>C2</b>.</p> <p><b>No</b><br/>CHECK for causes of intermittent short to battery on circuit 608 (BK/LG). ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire bundle. REPAIR any intermittent concerns found. GO to <b>C5</b>.</p>   |
| <b>C5</b> | <b>CHECK FOR ADDITIONAL DTCs</b>  |  |
|           | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step C1.</li> <li><b>Were any continuous DTCs retrieved during Step C1?</b></li> </ul>  | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**Pinpoint Test D: LFC 18/DTC B1884 — PAD Warning Lamp Circuit Failure****Normal Operation**

 **CAUTION:** The passenger air bag deactivation (PAD) indicator is part of the hazard switch assembly and cannot be separately serviced.

When the ignition is in the ON position, the PAD indicator prove-out period is initiated by the RCM. The RCM briefly activates the PAD indicator to verify to the occupants correct functional operation of the PAD indicator. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

If the restraints control module detects an open or short to ground on the PAD indicator circuit, it will store diagnostic trouble code (DTC) B1884 in memory and flash lamp fault code (LFC) 18 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

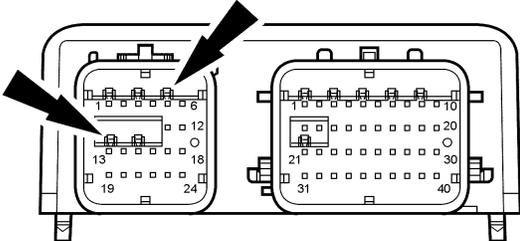
A PAD indicator circuit open can be caused by:

- wiring, terminals or connectors.
- a faulted PAD indicator.
- a faulted RCM.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST D: LFC18/DTC B1884 — PAD WARNING LAMP CIRCUIT FAILURE**

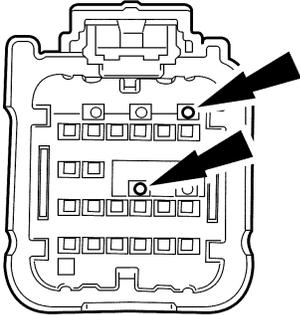
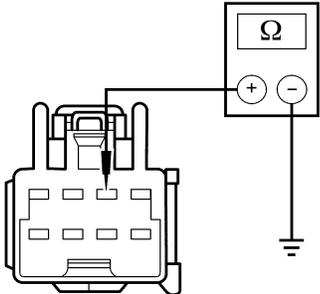
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>D1</b> | <p><b>CHECK FOR A HARD OR INTERMITTENT DTC</b></p> <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, <b>the restraint system diagnostic tools must be removed before operating the vehicle over the road.</b></p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool:<br/>Retrieve/Record/Continuous DTCs.</li> <li>• <b>Was DTC B1884 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>If the PAD indicator <b>does not</b> illuminate, GO to <b>D2</b>.</p> <p>If the PAD indicator <b>does</b> illuminate, GO to <b>D5</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>D9</b>.</p> |
| <b>D2</b> | <p><b>CHECK THE RCM CONNECTOR</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Inspect the RCM C2041a component side for damaged camming beams.</li> </ul>  <p>A0039637</p>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

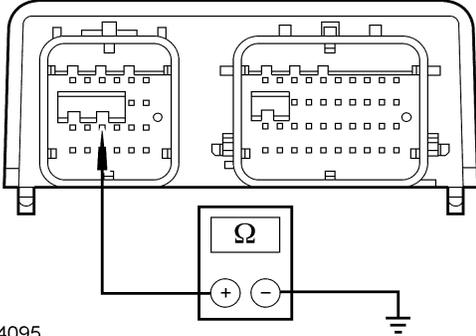
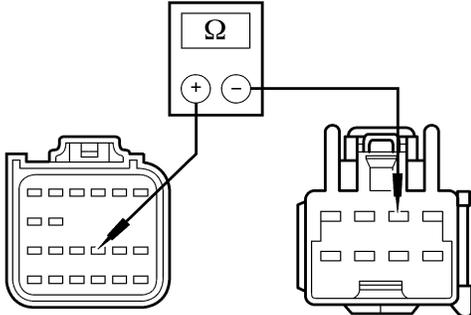
**PINPOINT TEST D: LFC18/DTC B1884 — PAD WARNING LAMP CIRCUIT FAILURE (Continued)**

| Test Step |  | Result / Action to Take   |
|-----------|--|---|
| <b>D2</b> | <p><b>CHECK THE RCM CONNECTOR (Continued)</b></p> <ul style="list-style-type: none"> <li> <p><b>NOTE:</b> The shorting bars can be accessed by prying out the cover from the harness side of the connector. Do not remove or defeat the shorting bars.</p> <p>Inspect RCM C2041a harness side for worn, damaged or dislodged shorting bars. Inspect for foreign material. Inspect for pushed out connector terminals.</p> </li> </ul>  <p>A0040761</p> <ul style="list-style-type: none"> <li> <p><b>Were any RCM connector concerns found?</b></p> </li> </ul> | <p><b>Yes</b><br/>CORRECT the connector concerns. GO to <b>D10</b>.</p> <p><b>No</b><br/>GO to <b>D3</b>.</p> |
| <b>D3</b> | <p><b>CHECK CIRCUIT 1632 (TN/LB) FOR SHORT TO GROUND</b></p> <ul style="list-style-type: none"> <li>Connect: RCM C2041a and C2041b.</li> <li>Disconnect: Passenger Air Bag Deactivation (PAD) Indicator C2039.</li> <li>Measure the resistance between PAD indicator C2039 pin 2, circuit 1632 (TN/LB), harness side and ground.</li> </ul>  <p>N0010339</p> <ul style="list-style-type: none"> <li> <p><b>Is the resistance greater than 10,000 ohms?</b></p> </li> </ul>  | <p><b>Yes</b><br/>GO to <b>D8</b>.</p> <p><b>No</b><br/>GO to <b>D4</b>.</p>                                  |
| <b>D4</b> | <p><b>CHECK THE RCM</b></p> <ul style="list-style-type: none"> <li>Disconnect: RCM C2041a and C2041b.</li> </ul>   |   |

(Continued)

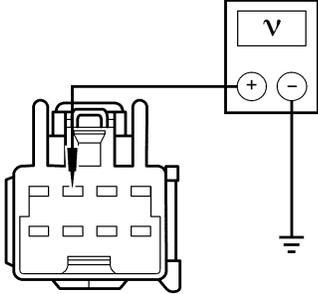
**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST D: LFC18/DTC B1884 — PAD WARNING LAMP CIRCUIT FAILURE (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>D4</b> | <p><b>CHECK THE RCM (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 15, circuit 1632 (TN/LB), component side and ground.</li> </ul>  <p>A0074095</p> <ul style="list-style-type: none"> <li><b>Is the resistance greater than 10,000 ohms?</b></li> </ul>  | <p><b>Yes</b><br/>REPAIR circuit 1632 (TN/LB). GO to <b>D10</b>.</p> <p><b>No</b><br/>GO to <b>D8</b>.</p> |
| <b>D5</b> | <p><b>CHECK PAD THE INDICATOR</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> <li><b>Is the PAD indicator ON?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>D8</b>.</p> <p><b>No</b><br/>GO to <b>D6</b>.</p>                               |
| <b>D6</b> | <p><b>CHECK CIRCUIT 1632 (TN/LB) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Air Bag Deactivation (PAD) Indicator C2039.</li> <li>Measure the resistance between PAD indicator C2039 pin 2, circuit 1632 (TN/LB), harness side and RCM C2041a pin 15, circuit 1632 (TN/LB), harness side.</li> </ul>  <p>N0010338</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 0.5 ohm?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>D7</b>.</p> <p><b>No</b><br/>REPAIR circuit 1632 (TN/LB). GO to <b>D10</b>.</p> |
| <b>D7</b> | <p><b>CHECK CIRCUIT 1850 (YE) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> </ul>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST D: LFC18/DTC B1884 — PAD WARNING LAMP CIRCUIT FAILURE (Continued)**

| Test Step  |   | Result / Action to Take  |
|------------|---|--|
| <b>D7</b>  | <b>CHECK CIRCUIT 1850 (YE) FOR AN OPEN (Continued)</b>  |  |
|            | <ul style="list-style-type: none"> <li>Measure the voltage between PAD indicator C2039 pin 3, circuit 1850 (YE), harness side and ground.</li> </ul>  <p>N0010337</p> <ul style="list-style-type: none"> <li><b>Is the voltage greater than 10 volts?</b></li> </ul>   | <p><b>Yes</b><br/>INSTALL a new PAD Indicator. REFER to Passenger Air Bag Deactivation (PAD) Indicator in this section. GO to <b>D10</b>.</p> <p><b>No</b><br/>REPAIR circuit 1850 (YE). GO to <b>D10</b>.</p>   |
| <b>D8</b>  | <b>CONFIRM THE RCM FAULT</b>  |  |
|            | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Connect: Passenger Air Bag Deactivation (PAD) Indicator C2039 (if previously disconnected).</li> <li>Connect: RCM C2041a and C2041b (if previously disconnected).</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC B1884 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>D10</b>.</p> <p><b>No</b><br/>CHECK for causes of intermittent open or short to ground on circuit 1632 (TN/LB). ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>D10</b>.</p>   |
| <b>D9</b>  | <b>CHECK FOR AN INTERMITTENT FAULT</b>  |  |
|            | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC B1884 retrieved during the on-demand self test?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>D2</b>.</p> <p><b>No</b><br/>CHECK for causes of intermittent open or short to ground on circuit 1632 (TN/LB). ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>D10</b>.</p>   |
| <b>D10</b> | <b>CHECK FOR ADDITIONAL DTCs</b>  |  |
|            | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step D1.</li> <li><b>Were any continuous DTCs retrieved during Step D1?</b></li> </ul>  | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**DIAGNOSIS AND TESTING (Continued)**

**Pinpoint Test E: LFC18/DTC B1890 — PAD Warning Lamp Circuit Short to Battery**

**Normal Operation**

When the ignition is in the ON position, the PAD indicator prove-out period is initiated by the RCM. The RCM briefly activates the PAD indicator to verify to the occupants correct functional operation of the PAD indicator. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

If the restraints control module detects a short to battery on the passenger air bag deactivation (PAD) warning lamp circuit, it will store diagnostic trouble code (DTC) B1890 in memory and flash lamp fault (LFC) 18 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

A PAD indicator circuit short to battery can be caused by:

- damaged wiring, terminals or connectors.
- a faulted PAD indicator.
- a faulted RCM.

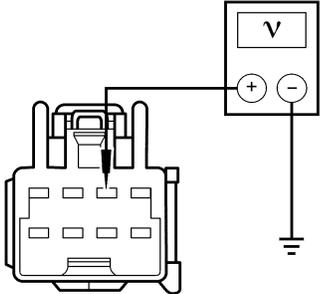
**PINPOINT TEST E: LFC 18/DTC B1890 — PAD WARNING LAMP CIRCUIT SHORT TO BATTERY**

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough inspection and Verification before proceeding with the pinpoint test.

| Test Step   |  | Result / Action to Take  |
|---|--|--|
| <b>E1</b>   | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>              |  |
| <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Continuous DTCs.</li> <li>• Was DTC B1890 retrieved during the on-demand self test?</li> </ul> |  | <p><b>Yes</b><br/>GO to <b>E2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>E4</b>.</p> |
| <b>E2</b>   | <b>CHECK CIRCUIT 1632 (TN/LB) FOR A SHORT TO VOLTAGE</b> |  |
| <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Passenger Air Bag Deactivation (PAD) Indicator C2039.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Key in ON position.</li> </ul>   |  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST E: LFC 18/DTC B1890 — PAD WARNING LAMP CIRCUIT SHORT TO BATTERY (Continued)**

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>E2</b> | <b>CHECK CIRCUIT 1632 (TN/LB) FOR A SHORT TO VOLTAGE (Continued)</b> <ul style="list-style-type: none"> <li>Measure the voltage between PAD indicator C2039 pin 2, circuit 1632 (TN/LB), harness side and ground.</li> </ul>  <p>N0010336</p> <ul style="list-style-type: none"> <li>Is the voltage less than 0.2 volt?</li> </ul>                                       | <p><b>Yes</b><br/>GO to <b>E3</b>.</p> <p><b>No</b><br/>REPAIR circuit 1632 (TN/LB). GO to <b>E5</b>.</p>  |
| <b>E3</b> | <b>CHECK THE RCM</b> <ul style="list-style-type: none"> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> </ul> <p><b>NOTE:</b> DTC B1884 should be retrieved when carrying out the on-demand self test due to an open on circuit 1632 (TN/LB), DTC B1890 should not be retrieved at this time.</p> <ul style="list-style-type: none"> <li>Was DTC B1890 retrieved during the on-demand self test?</li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>E5</b>.</p> <p><b>No</b><br/>INSTALL a new PAD Indicator. REFER to Passenger Air Bag Deactivation (PAD) Indicator in this section. GO to <b>E5</b>.</p>  |
| <b>E4</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li>Was DTC B1890 retrieved during the on-demand self test?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>E2</b>.</p> <p><b>No</b><br/>CHECK for causes of intermittent short to battery on circuit 1632 (TN/LB). ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>E5</b>.</p>   |
| <b>E5</b> | <b>CHECK FOR ADDITIONAL DTCs</b> <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step E1.</li> <li>Were any continuous DTCs retrieved during Step E1?</li> </ul>  | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**DIAGNOSIS AND TESTING (Continued)**

**Pinpoint Test F: LFC 53/DTC B1891 — Air Bag Tone Warning Indicator Circuit Shorted to Voltage**

**Normal Operation**

The connection between the instrument cluster module and RCM is used to signal a chime if the primary air bag indicator is inoperative and another SRS fault exists. The restraints control module (RCM) monitors this connection to the instrument cluster module at C220 pin 23.

If the RCM detects a circuit failure on the connection to the cluster, it will store diagnostic trouble code (DTC) B1891 in memory and flash lamp fault code (LFC) 53 (or a higher priority code if one exists) on the air bag indicator.

**Possible Causes**

An air bag tone warning indicator circuit short to voltage can be caused by:

- wiring, terminals or connectors.
- a short to voltage on circuit 1083 (LB/BK).
- a faulted instrument cluster module.
- a faulted RCM.

**PINPOINT TEST F: LFC 53/DTC B1891 — AIR BAG TONE WARNING INDICATOR CIRCUIT SHORTED TO VOLTAGE**

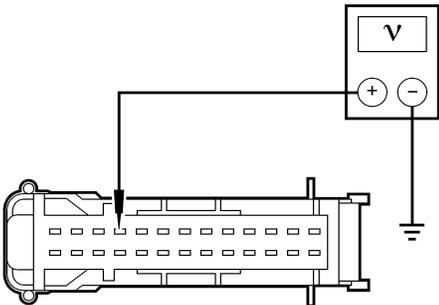
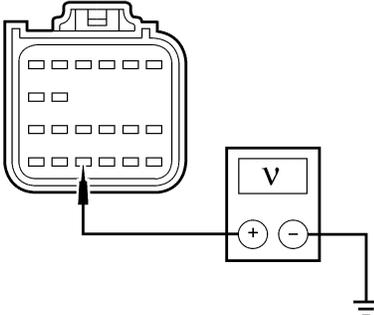
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>F1</b> | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>   |  |
|           | <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool:<br/>Retrieve/Record/Continuous DTCs.</li> <li>• <b>Was DTC B1891 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>F2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>F4</b>.</p> |
| <b>F2</b> | <b>CHECK THE AIR BAG TONE WARNING INDICATOR CIRCUIT</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Disconnect: Instrument Cluster Module C220.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> </ul>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST F: LFC 53/DTC B1891 — AIR BAG TONE WARNING INDICATOR CIRCUIT SHORTED TO VOLTAGE (Continued)**

| Test Step |  | Result / Action to Take   |
|-----------|--|---|
| <b>F2</b> | <p><b>CHECK THE AIR BAG TONE WARNING INDICATOR CIRCUIT (Continued)</b></p> <ul style="list-style-type: none"> <li>Key in ON position.</li> <li>Measure the voltage between instrument cluster module C220 pin 23, circuit 1083 (LB/BK), harness side and ground.</li> </ul>  <p>N0010335</p> <ul style="list-style-type: none"> <li><b>Is the voltage less than 0.2 volt?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>F3</b>.</p> <p><b>No</b><br/>REPAIR circuit 1083 (LB/BK). GO to <b>F5</b>.</p>   |
| <b>F3</b> | <p><b>CHECK THE AIR BAG TONE WARNING INDICATOR CIRCUIT</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Deactivate the system. Refer to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section.</li> <li>Connect: Instrument Cluster Module C220.</li> <li>Key in ON position.</li> <li>Measure the voltage between RCM C2041a pin 22, circuit 1083 (LB/BK), harness side and ground.</li> </ul>  <p>A0039642</p> <ul style="list-style-type: none"> <li><b>Is the voltage greater than 10 volts?</b></li> </ul> | <p><b>Yes</b><br/>CHECK vehicle repair history.<br/>If instrument cluster module has not been replaced, INSTALL a new instrument cluster module. GO to <b>F5</b>.<br/>If instrument cluster module has been replaced, INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>F5</b>.</p> <p><b>No</b><br/>INSTALL a new instrument cluster module. REFER to Section 413-01. GO to <b>F5</b>.</p> |
| <b>F4</b> | <p><b>CHECK FOR AN INTERMITTENT FAULT</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC B1891 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>F2</b>.</p> <p><b>No</b><br/>CHECK for causes of intermittent short to voltage on circuit 1083 (LB/BK). ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. REPAIR any intermittent concerns found. GO to <b>F5</b>.</p>   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST F: LFC 53/DTC B1891 — AIR BAG TONE WARNING INDICATOR CIRCUIT SHORTED TO VOLTAGE (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| F5        | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step F1.</li> <li><b>Were any continuous DTCs retrieved during Step F1?</b></li> </ul> | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**Pinpoint Test G: LFC 53/DTC B1892 — Air Bag Tone Warning Indicator Circuit Failure****Normal Operation**

The connection between the instrument cluster module and RCM is used to signal a chime if the primary air bag indicator is inoperative and another SRS fault exists. The restraints control module (RCM) monitors this connection to the instrument cluster module at C220 pin 23.

If the RCM detects a circuit failure on the connection to the cluster, it will store diagnostic trouble code (DTC) B1891 in memory and flash lamp fault code (LFC) 53 (or a higher priority code if one exists) on the air bag indicator.

**Possible Causes**

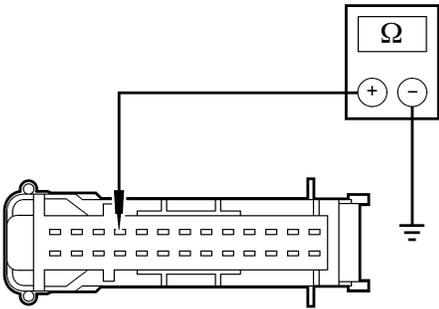
An air bag tone warning indicator circuit short to ground or open can be caused by:

- a short to ground or open on circuit 1083 (LB/BK).
- a faulted instrument cluster module.
- a faulted RCM.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST G: LFC 53/DTC B1892 — AIR BAG TONE WARNING INDICATOR CIRCUIT FAILURE**

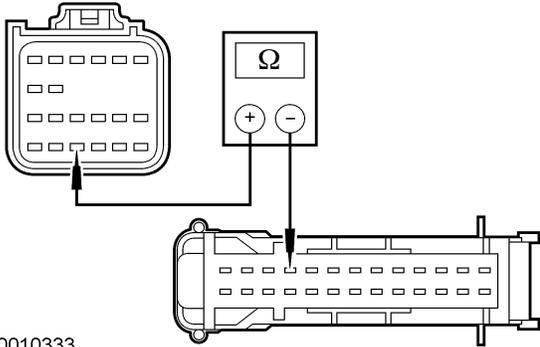
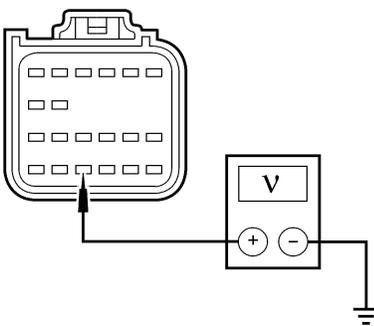
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>G1</b> | <p><b>CHECK FOR A HARD OR INTERMITTENT DTC</b></p> <p>⚠ <b>WARNING:</b> 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.</p> <p>⚠ <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p>⚠ <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, <b>the restraint system diagnostic tools must be removed before operating the vehicle over the road.</b></p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>Retrieve/Record/Continuous DTCs.</li> <li><b>Was DTC B1892 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>G2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>G5</b>.</p> |
| <b>G2</b> | <p><b>CHECK THE AIR BAG TONE WARNING INDICATOR CIRCUIT FOR A SHORT TO GROUND</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Disconnect: Instrument Cluster Module C220.</li> <li>Measure the resistance between instrument cluster module C220 pin 23, circuit 1083 (LB/BK), harness side and ground.</li> </ul> <div style="text-align: center;">  </div> <p>N0010334</p> <ul style="list-style-type: none"> <li><b>Is the resistance greater than 1,000,000 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>G3</b>.</p> <p><b>No</b><br/>REPAIR circuit 1083 (LB/BK). GO to <b>G6</b>.</p>  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST G: LFC 53/DTC B1892 — AIR BAG TONE WARNING INDICATOR CIRCUIT FAILURE (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>G3</b> | <p><b>CHECK THE AIR BAG TONE WARNING INDICATOR CIRCUIT FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 22, circuit 1083 (LB/BK), harness side, and instrument cluster module C220 pin 23, circuit 1083 (LB/BK), harness side.</li> </ul>  <p>N0010333</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 5 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>G4</b>.</p> <p><b>No</b><br/>REPAIR circuit 1083 (LB/BK). GO to <b>G6</b>.</p>  |
| <b>G4</b> | <p><b>CHECK THE AIR BAG TONE WARNING INDICATOR</b></p> <ul style="list-style-type: none"> <li>Deactivate the system. Refer to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section.</li> <li>Connect: Instrument Cluster Module C220.</li> <li>Key in ON position.</li> <li>Measure the voltage between RCM C2041a pin 22, circuit 1083 (LB/BK), harness side and ground.</li> </ul>  <p>A0039642</p> <ul style="list-style-type: none"> <li><b>Is the voltage greater than 10 volts?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>G6</b>.</p> <p><b>No</b><br/>INSTALL a new instrument cluster module. REFER to Section 413-00. GO to <b>G6</b>.</p>  |
| <b>G5</b> | <p><b>CHECK FOR AN INTERMITTENT FAULT</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC B1892 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>G2</b>.</p> <p><b>No</b><br/>CHECK for causes of intermittent open or short to ground on circuit 1083 (LB/BK). ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. REPAIR any intermittent concerns found. GO to <b>G6</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST G: LFC 53/DTC B1892 — AIR BAG TONE WARNING INDICATOR CIRCUIT FAILURE (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| G6        | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step G1.</li> <li><b>Were any continuous DTCs retrieved during Step G1?</b></li> </ul> | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**Pinpoint Test H: LFC 14/DTC B1921 — Air Bag Diagnostic Monitor Ground Circuit Open****Normal Operation**

 **WARNING:** The tightening torque of the restraints control module (RCM) retaining bolts is critical for correct air bag supplemental restraint system (SRS) operation. Refer to Restraints Control Module (RCM) in this section for correct torque values.

**NOTE:** A resistance difference as low as 10 ohms may set the LFC.

The restraints control module (RCM) monitors the resistance between the ground connections at the mounting bolts and the reference ground at C2041a pin 16, circuit 1203 (BK/LB). If the RCM detects a difference in resistance, it will store diagnostic trouble code (DTC) B1921 in memory and flash lamp fault code (LFC) 14 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

A resistance difference between the RCM mounting bolts ground and harness ground can be caused by:

- wiring, terminals or connectors.
- RCM not securely mounted.
- RCM is faulted.

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST H: LFC 14/DTC B1921 — AIR BAG DIAGNOSTIC MONITOR GROUND CIRCUIT OPEN**

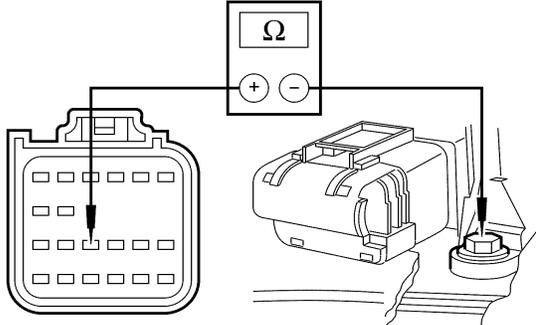
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>H1</b> | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>   |  |
|           | <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, <b>the restraint system diagnostic tools must be removed before operating the vehicle over the road.</b></p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>Retrieve/Record/Continuous DTCs.</li> <li><b>Was DTC B1921 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>H2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>H5</b>.</p> |
| <b>H2</b> | <b>INSPECT THE RCM MOUNTING AND MOUNTING SURFACE</b>  |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Inspect the RCM mounting and make sure that the retaining bolts are fully seated and tightened correctly.</li> <li>Remove the RCM. Refer to Restraints Control Module (RCM) in this section.</li> <li>Visually inspect the RCM and mounting surface for damage, corrosion or dirt.</li> <li><b>Was a significant amount of corrosion or dirt found, the RCM attached to the mounting surface incorrectly or were the RCM bolts not fully seated and tightened correctly?</b></li> </ul>   | <p><b>Yes</b><br/>CLEAN, TIGHTEN bolts or REPAIR the mounting surface as necessary. REINSTALL the RCM to the mounting surface. GO to <b>H6</b>.</p> <p><b>No</b><br/>GO to <b>H3</b>.</p>  |
| <b>H3</b> | <b>INSTALL THE RCM AND CARRY OUT THE ON-DEMAND SELF TEST</b>  |  |
|           | <ul style="list-style-type: none"> <li>Clean the RCM mounting surfaces and bolts.</li> <li>Install the RCM. Refer to Restraints Control Module (RCM) in this section.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li><b>Was DTC B1921 retrieved during the on-demand self test?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>H4</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>H6</b>.</p>  |
| <b>H4</b> | <b>CHECK GROUND CIRCUIT 1203 (BK/LB) FOR HIGH RESISTANCE</b>  |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: RCM C2041a and C2041b.</li> </ul>   |  |

(Continued)

## DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST H: LFC 14/DTC B1921 — AIR BAG DIAGNOSTIC MONITOR GROUND CIRCUIT OPEN  
(Continued)

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>H4</b> | <b>CHECK GROUND CIRCUIT 1203 (BK/LB) FOR HIGH RESISTANCE (Continued)</b> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 16, circuit 1203 (BK/LB), harness side and the RCM case ground.</li> </ul>  <p>A0039644</p> <ul style="list-style-type: none"> <li>Is the resistance less than 5 ohms?</li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>H6</b>.</p> <p><b>No</b><br/>REPAIR circuit 1203 (BK/LB). GO to <b>H6</b>.</p>   |
| <b>H5</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Was DTC B1921 retrieved during the on-demand self test?</li> </ul>   | <p><b>Yes</b><br/>GO to <b>H2</b>.</p> <p><b>No</b><br/>CHECK for causes of intermittent high resistance on circuit 1203 (BK/LB) or the chassis ground. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. REPAIR any intermittent concerns found. GO to <b>H6</b>.</p>   |
| <b>H6</b> | <b>CHECK FOR ADDITIONAL DTCs</b> <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step H1.</li> <li>Were any continuous DTCs retrieved during Step H1?</li> </ul>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**DIAGNOSIS AND TESTING (Continued)****Pinpoint Test I: LFC 16/DTC B2290 — Occupant Classification System (OCS) Fault****Normal Operation**

**NOTE:** LFC 16 is shared between DTC B2290 and DTC B2909.

The OCS is used to classify the front passenger seat occupant in the event of a deployable impact. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

The restraints control module (RCM) monitors for fault conditions reported by the occupant classification sensor (OCS) system. If the RCM detects one of the following faults reported by the OCS system, it will store diagnostic trouble code (DTC) B2290 in memory and flash lamp fault code (LFC) 16 (or higher priority code if one exists) on the air bag indicator.

The OCS system components (seat cushion foam pad, bladder with pressure sensor, electronic control unit (ECU) and seat wiring harness) are calibrated to each other and are serviced as an assembly. The OCS system components are not to be installed separately. If a new OCS system, OCS system component or seat cushion foam pad are needed, a new OCS system service kit (seat cushion foam pad, bladder with pressure sensor, electronic control unit (ECU) and seat wiring harness) must be installed as an assembly.

**Fault Conditions**

The OCS system reports the following fault conditions to the RCM:

- Low resistance
- Circuit open
- Circuit short to battery
- Circuit short to ground
- A faulted pressure sensor
- A faulted ECU mounting condition

**Possible Causes**

An occupant classification sensor (OCS) circuit fault can be caused by:

- wiring, terminals or connectors.
- a faulty OCS system component.
- a faulted RCM.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT**

**NOTE:** To identify between a production OCS system and a service OCS system (OCS service kit) inspect the OCS ECU electrical connector. A production OCS system allows the disconnect of the electrical connector from the OCS ECU. A service OCS system (OCS service kit) has the OCS ECU electrical connector glued to the ECU, it cannot and should not be disconnected or altered.

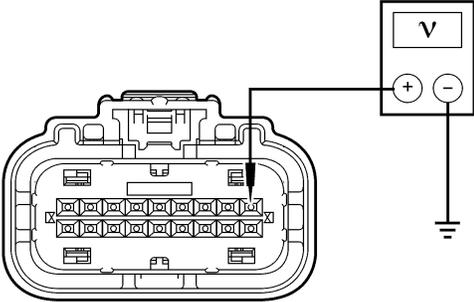
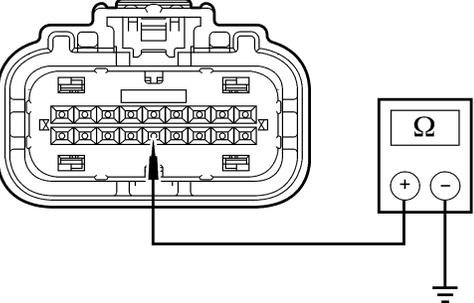
**NOTE:** Mounting and orientation of the OCS ECU is critical for correct system operation. Failure to correctly position and securely fasten the OCS ECU in place can set a diagnostic trouble code (DTC) in the restraints control module (RCM). If the vehicle has been in a collision in which the passenger seat may have been damaged, inspect the OCS ECU mounting area for deformation. If damaged, a new OCS service kit must be installed. In addition, make sure the mounting area of the OCS system is restored to the original production configuration (install new as necessary).

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step   |   | Result / Action to Take   |
|---|---|---|
| <b>11</b>   | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b> |   |
| <p> <b>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.</b></p> <p> <b>WARNING: Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</b></p> <p> <b>WARNING: The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in personal injury.</b></p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2290/Record All Flagged Faults.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Flag/Record Continuous DTCs.</li> <li>• <b>Was DTC B2290 retrieved during the on-demand self test?</b></li> </ul> |   | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test.</p> <p>If a flagged fault of “?” was recorded, multiple faults exist and the entire pinpoint test must be carried out.</p> <p><b>Vehicles with a production OCS system</b><br/>For OCS system with a communications fault, GO to <b>I2</b>.<br/>For OCS system with an internal fault, GO to <b>I19</b>.<br/>For OCS system with a calibration fault, GO to <b>I29</b>.<br/>For OCS system with a pressure sensor fault, GO to <b>I11</b>.</p> <p><b>Vehicles with a service OCS system</b><br/>For OCS system with a communications fault, GO to <b>I20</b>.<br/>For OCS system with an internal fault, GO to <b>I19</b>.<br/>For OCS system with a calibration fault, GO to <b>I29</b>.<br/>For OCS system with a pressure sensor fault, INSTALL a new OCS system service kit. Refer to Occupant Classification Sensor, in this section. GO to <b>I31</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>I30</b>.</p> |
| <b>12</b>   | <b>CHECK THE SEAT WIRING AND CONNECTORS</b> |   |
| <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Carry out a thorough visual inspection of the OCS system wiring, terminals and connectors, the RCM wiring, terminals and connectors at RCM C2041b pins 17 and 18, and the related seat wiring harness and body wiring harness terminals and connectors.</li> <li>• <b>Were any problems noted?</b></li> </ul>   |   | <p><b>Yes</b><br/>REPAIR the seat connectors and wiring as needed. GO to <b>I31</b>.</p> <p><b>No</b><br/>GO to <b>I3</b>.</p>  |

(Continued)

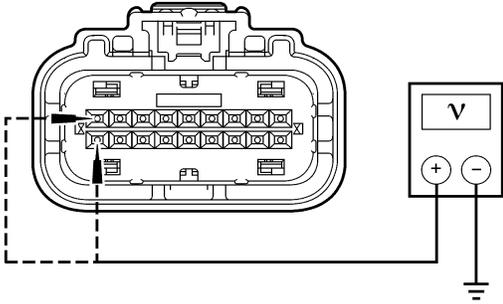
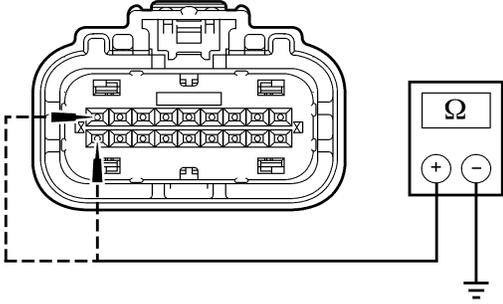
**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT (Continued)**

|    | Test Step  | Result / Action to Take  |
|----|--|--|
| 13 | <p><b>CHECK IGNITION CIRCUIT 937 (RD/WH) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>For vehicles equipped with seat side air bags, carry out the following: <ul style="list-style-type: none"> <li>Disconnect passenger seat side air bag C337.</li> <li>Connect restraint system diagnostic tool 418-133 to passenger seat side air bag C337.</li> </ul> </li> <li>Disconnect: OCS ECU C3043.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> <li>Measure the voltage between OCS ECU C3043 pin 1, circuit 937 (RD/WH), harness side and ground.</li> </ul>  <p>N0003691</p> <ul style="list-style-type: none"> <li>Is the voltage greater than 10 volts?</li> </ul> | <p><b>Yes</b><br/>GO to <b>I4</b>.</p> <p><b>No</b><br/>REPAIR circuit 937 (RD/WH). GO to <b>I31</b>.</p>  |
| 14 | <p><b>CHECK GROUND CIRCUIT 1203 (BK/LB) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Measure the resistance between OCS ECU C3043 pin 14, circuit 676 (PK/OG), harness side and ground.</li> </ul>  <p>N0003692</p> <ul style="list-style-type: none"> <li>Is the resistance less than 5 ohms?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>I5</b>.</p> <p><b>No</b><br/>REPAIR circuit 1203 (BK/LB). GO to <b>I31</b>.</p> |
| 15 | <p><b>CHECK CIRCUITS 1918 (BN/WH) AND 1919 (PK/OG) FOR A SHORT TO VOLTAGE BETWEEN THE OCS AND THE RCM</b></p> <ul style="list-style-type: none"> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> </ul>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT (Continued)**

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>15</b> | <p><b>CHECK CIRCUITS 1918 (BN/WH) AND 1919 (PK/OG) FOR A SHORT TO VOLTAGE BETWEEN THE OCS AND THE RCM (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the voltage between OCS ECU C3043 pin 18, circuit 1918 (BN/WH), harness side and ground; and between OCS ECU C3043 pin 9, circuit 1919 (PK/OG), harness side and ground.</li> </ul>  <p>N0003693</p> <ul style="list-style-type: none"> <li><b>Are the voltages less than 0.2 volt?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>I6</b>.</p> <p><b>No</b><br/>REPAIR circuit 1918 (BN/WH) or circuit 1919 (PK/OG). GO to <b>I31</b>.</p> |
| <b>16</b> | <p><b>CHECK CIRCUITS 1918 (BN/WH) AND 1919 (PK/OG) FOR A SHORT TO GROUND BETWEEN THE OCS AND THE RCM</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Measure the resistance between OCS ECU C3043 pin 18, circuit 1918 (BN/WH), harness side and ground; and between OCS ECU C3043 pin 9, circuit 1919 (PK/OG), harness side and ground.</li> </ul>  <p>N0003694</p> <ul style="list-style-type: none"> <li><b>Are the resistances greater than 1,000,000 ohms?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>I7</b>.</p> <p><b>No</b><br/>REPAIR circuit 1918 (BN/WH) or circuit 1919 (PK/OG). GO to <b>I31</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

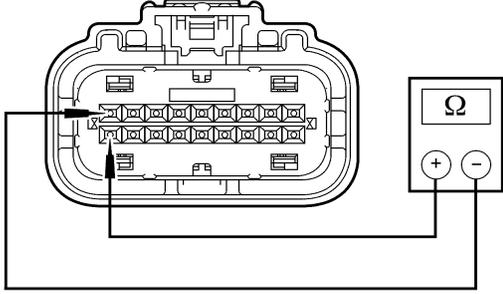
**PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>17</b> | <p><b>CHECK CIRCUIT 1918 (BN/WH) FOR AN OPEN BETWEEN THE OCS AND THE RCM</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041b pin 17, circuit 1918 (BN/WH), harness side and OCS ECU C3043 pin 18, circuit 1918 (BN/WH), harness side.</li> </ul> <p style="text-align: center;">N0010346</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul> | <p><b>Yes</b><br/>GO to <b>I8</b>.</p> <p><b>No</b><br/>REPAIR circuit 1918 (BN/WH). GO to <b>I31</b>.</p> |
| <b>18</b> | <p><b>CHECK CIRCUIT 1919 (PK/OG) FOR AN OPEN BETWEEN THE OCS AND THE RCM</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041b pin 18, circuit 1919 (PK/OG), harness side and OCS ECU C3043 pin 9, circuit 1919 (PK/OG), harness side.</li> </ul> <p style="text-align: center;">N0010347</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>I9</b>.</p> <p><b>No</b><br/>REPAIR circuit 1919 (PK/OG). GO to <b>I31</b>.</p> |

(Continued)

## DIAGNOSIS AND TESTING (Continued)

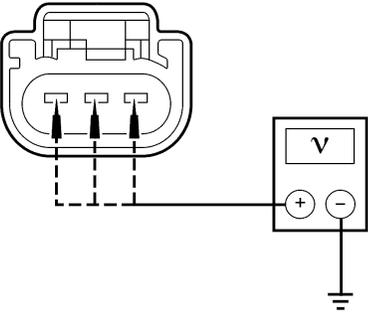
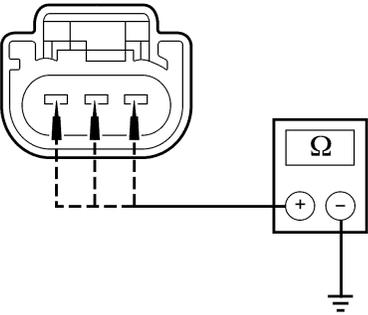
PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT  
(Continued)

| Test Step  |  | Result / Action to Take  |
|------------|--|--|
| <b>I9</b>  | <p><b>CHECK CIRCUIT 1918 (BN/WH) FOR A SHORT TO CIRCUIT 1919 (PK/OG) BETWEEN THE OCS AND THE RCM</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between OCS ECU C3043 pin 18, circuit 1918 (BN/WH), harness side and OCS ECU C3043 pin 9, circuit 1919 (PK/OG), harness side.</li> </ul>  <p>N0003697</p> <ul style="list-style-type: none"> <li><b>Is the resistance greater than 1,000,000 ohms?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>I10</b>.</p> <p><b>No</b><br/>REPAIR circuits 1918 (BN/WH) and 1919 (PK/OG). GO to <b>I31</b>.</p>  |
| <b>I10</b> | <p><b>CHECK THE RCM</b></p> <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Install a known good RCM. Refer to Restraints Control Module (RCM) in this section.</li> <li>Connect: OCS ECU C3043.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2290/Record All Flagged Faults.</li> <li><b>Was DTC B2290 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>If a flagged fault of “?” was recorded, multiple faults exist and the entire pinpoint test must be carried out.<br/>INSTALL a new OCS service kit. Refer to Occupant Classification Sensor, in this section. GO to <b>I31</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>I31</b>.</p> |
| <b>I11</b> | <p><b>CHECK THE SEAT WIRING AND CONNECTORS</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Carry out a thorough visual inspection of the OCS system wiring, terminals and connectors and the related seat wiring harness and body wiring harness terminals and connectors.</li> <li><b>Were any problems noted?</b></li> </ul>   | <p><b>Yes</b><br/>REPAIR the seat connectors and wiring as needed. GO to <b>I31</b>.</p> <p><b>No</b><br/>GO to <b>I12</b>.</p>  |
| <b>I12</b> | <p><b>CHECK CIRCUITS 1568 (RD/WH), 1569 (GY/LB) AND 1570 (TN/BK) FOR A SHORT TO VOLTAGE</b></p> <ul style="list-style-type: none"> <li>For vehicles equipped with seat side air bags, carry out the following: <ul style="list-style-type: none"> <li>Disconnect passenger seat side air bag C337.</li> <li>Connect restraint system diagnostic tool 418-133 to passenger seat side air bag C337.</li> </ul> </li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Disconnect: OCS Pressure Sensor C3159.</li> <li>Disconnect: OCS ECU C3043.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> </ul>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

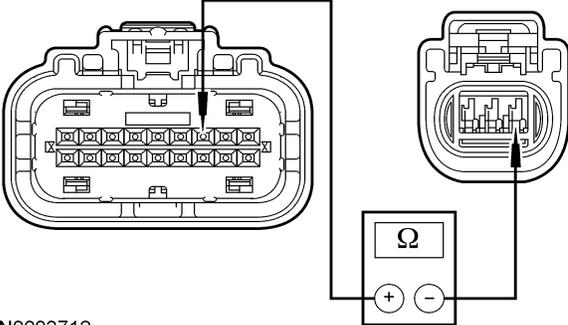
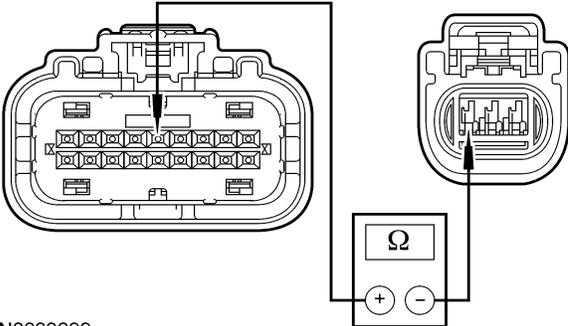
**PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT (Continued)**

| Test Step  |  | Result / Action to Take   |
|--|--|---|
| <p><b>I12</b></p> <p><b>CHECK CIRCUITS 1568 (RD/WH), 1569 (GY/LB) AND 1570 (TN/BK) FOR A SHORT TO VOLTAGE (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the voltage between OCS pressure sensor C3159 pin 1, circuit 1568 (RD/WH), harness side and ground; between OCS pressure sensor C3159 pin 2, circuit 1570 (TN/BK), harness side and ground; and between OCS pressure sensor C3159 pin 3, circuit 1569 (GY/LB), harness side and ground.</li> </ul>  <p>A0074066</p> <ul style="list-style-type: none"> <li><b>Are the voltages less than 0.2 volt?</b></li> </ul>  |  | <p><b>Yes</b><br/>GO to <b>I13</b>.</p> <p><b>No</b><br/>REPAIR circuit 1568 (RD/WH), circuit 1569 (GY/LB) or circuit 1570 (TN/BK). GO to <b>I31</b>.</p> |
| <p><b>I13</b></p> <p><b>CHECK CIRCUITS 1568 (RD/WH), 1569 (GY/LB) AND 1570 (TN/BK) FOR A SHORT TO GROUND</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Measure the resistance between OCS pressure sensor C3159 pin 1, circuit 1568 (RD/WH), harness side and ground; between OCS pressure sensor C3159 pin 2, circuit 1570 (TN/BK), harness side and ground; and between OCS pressure sensor C3159 pin 3, circuit 1569 (GY/LB), harness side and ground.</li> </ul>  <p>A0074067</p> <ul style="list-style-type: none"> <li><b>Are the resistances greater than 1,000,000 ohms?</b></li> </ul> |  | <p><b>Yes</b><br/>GO to <b>I14</b>.</p> <p><b>No</b><br/>REPAIR circuit 1568 (RD/WH), circuit 1569 (GY/LB) or circuit 1570 (TN/BK). GO to <b>I31</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

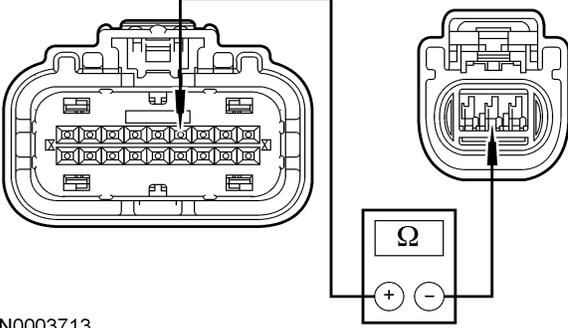
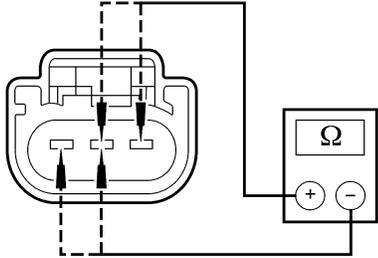
**PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT (Continued)**

| Test Step  |   | Result / Action to Take   |
|------------|---|---|
| <b>I14</b> | <p><b>CHECK CIRCUIT 1568 (RD/WH) FOR AN OPEN BETWEEN THE OCS ECU AND THE PRESSURE SENSOR</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between OCS ECU C3043 pin 3, circuit 1568 (RD/WH), harness side and OCS pressure sensor C3159 pin 1, circuit 1568 (RD/WH), harness side.</li> </ul>  <p>N0003712</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>   | <p><b>Yes</b><br/>GO to <b>I15</b>.</p> <p><b>No</b><br/>REPAIR circuit 1568 (RD/WH). GO to <b>I31</b>.</p> |
| <b>I15</b> | <p><b>CHECK CIRCUIT 1569 (GY/LB) FOR AN OPEN BETWEEN THE OCS ECU AND THE PRESSURE SENSOR</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between OCS ECU C3043 pin 5, circuit 1569 (GY/DB), harness side and OCS pressure sensor C3159 pin 3, circuit 1569 (GY/DB), harness side.</li> </ul>  <p>N0003699</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul> | <p><b>Yes</b><br/>GO to <b>I16</b>.</p> <p><b>No</b><br/>REPAIR circuit 1569 (GY/LB). GO to <b>I31</b>.</p> |

(Continued)

## DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT  
(Continued)

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| I16       | <p><b>CHECK CIRCUIT 1570 (TN/BK) FOR AN OPEN BETWEEN THE OCS ECU AND THE PRESSURE SENSOR</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between OCS ECU C3043 pin 4, circuit 1570 (TN/BK), harness side and OCS pressure sensor C3159 pin 2, circuit 1570 (TN/BK), harness side.</li> </ul>  <p>N0003713</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>   | <p><b>Yes</b><br/>GO to <b>I17</b>.</p> <p><b>No</b><br/>REPAIR circuit 1570 (TN/BK). GO to <b>I31</b>.</p>   |
| I17       | <p><b>CHECK CIRCUITS 1568 (RD/WH), 1569 (GY/LB) AND 1570 (TN/BK) FOR A SHORT</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between the OCS pressure sensor C3159: <ul style="list-style-type: none"> <li>pin 1, circuit 1568 (RD/WH), harness side and pin 2, circuit 1570 (TN/BK), harness side.</li> <li>pin 1, circuit 1568 (RD/WH), harness side and pin 3, circuit 1569 (GY/LB), harness side.</li> <li>pin 2, circuit 1570 (TN/BK), harness side and pin 3, circuit 1569 (GY/LB), harness side.</li> </ul> </li> </ul>  <p>A0074071</p> <ul style="list-style-type: none"> <li>Are the resistances greater than 1,000,000 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>I18</b>.</p> <p><b>No</b><br/>REPAIR circuit 1568 (RD/WH), circuit 1569 (GY/LB) and/or circuit 1570 (TN/BK). GO to <b>I31</b>.</p> |
| I18       | <p><b>CHECK THE OCS SYSTEM</b></p> <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Install a new OCS system service kit. Refer to Occupant Classification Sensor, in this section.</li> <li>Connect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> </ul>   |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

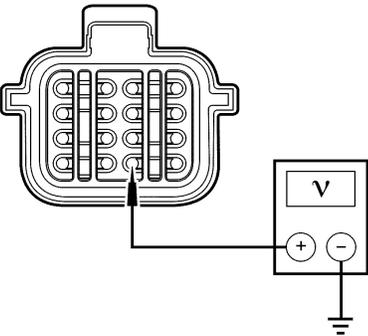
**PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT (Continued)**

|     | Test Step  | Result / Action to Take   |
|-----|--|---|
| I18 | <b>CHECK THE OCS SYSTEM (Continued)</b>  |   |
|     | <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: OCS Rezeroing.</li> </ul> <p style="margin-left: 20px;">⚠ <b>CAUTION:</b> It is necessary to rezero the OCS system when a front passenger seat cushion is disassembled, a new trim cover installed or an OCS service kit is installed. A diagnostic tool is used to trigger the active command to carry out rezeroing of the OCS system.</p> <p style="margin-left: 20px;">⚠ <b>CAUTION:</b> Make sure the seat is completely assembled before rezeroing.</p> <p style="margin-left: 20px;">⚠ <b>CAUTION:</b> The following precautions must be taken before rezeroing the OCS system:</p> <ul style="list-style-type: none"> <li>— Make sure the OCS system components are connected and no faults are present.</li> <li>— Make sure the OCS system is not at a temperature below 0°C (32°F) or above 45°C (113°F) when initiating the rezeroing process. If the vehicle has been exposed to extreme cold or hot temperatures, the vehicle must be exposed and kept at a temperature within the limits (0°C to 45°C [32°F to 113°F]) for a minimum of 30 minutes.</li> <li>— Make sure nothing is present on the passenger seat before rezeroing and nothing is placed on the seat during the rezeroing process.</li> <li>— Make sure a minimum 8-second time period has passed after cycling the ignition switch ON before the rezeroing process.</li> </ul> <p><b>NOTE:</b> For best results in rezeroing, the OCS system should be at or near room temperature, 10°C to 29°C (50°F to 85°F).</p> <p><b>NOTE:</b> When using a NGS+ (NGS with Vehicle Communication Module (VCM) and the latest software) to rezero the OCS system:</p> <ul style="list-style-type: none"> <li>• select “FUNCTION TEST”</li> <li>• select “SYSTEM RESET”</li> <li>• view the on-screen information then press “TRIGGER”</li> </ul> <p>The NGS+ screen will then display “OCS RESET: REZERO.” Press “DONE” (button 8) to rezero the OCS system. The NGS+ will display “TEST/FUNCTION SUCCESSFUL” once rezeroing of the OCS system is complete.</p> <p><b>NOTE:</b> To rezero the OCS system using the Worldwide Diagnostic System (WDS):</p> <ul style="list-style-type: none"> <li>• select the “Toolbox” icon</li> <li>• select “Body” from the menu</li> <li>• select “Restraints” from the menu</li> <li>• select “Seat Weight Sensor ReZero”</li> </ul> <p>After selecting “Seat Weight Sensor ReZero”, follow the on-screen prompts to carry out rezeroing of the OCS system.</p> <p><b>NOTE:</b> If the first attempt to rezero the OCS system is unsuccessful, a second attempt must be made.</p> <p>Carry out rezeroing of the OCS system using the diagnostic tool.</p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> </ul> <p><b>NOTE:</b> The ignition switch must be cycled after rezeroing the OCS system.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2290/Record All Flagged Faults.</li> <li>• <b>Was DTC B2290 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>If a flagged fault of “?” was recorded, multiple faults exist and the entire pinpoint test must be carried out.</p> <p>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>I31</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>I31</b>.</p> |

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## DIAGNOSIS AND TESTING (Continued)

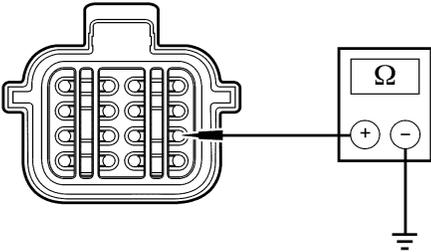
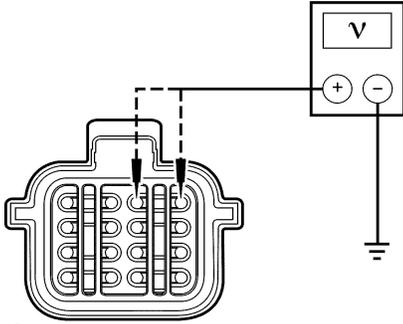
PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT  
(Continued)

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| I19       | <b>CHECK FOR AN OCS MOUNTING FAULT</b>  |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li><b>NOTE:</b> The ECU must be correctly positioned and securely fastened in place. Failure to do so can set a diagnostic trouble code (DTC) in the restraints control module (RCM).<br/>Inspect the OCS ECU for correct mounting location and direction, for OCS fastener tightness, for damage to the OCS ECU and seat cushion pan.</li> <li><b>Is the OCS ECU correctly located and are the fasteners tight and is there no damage to components?</b></li> </ul>   | <p><b>Yes</b><br/>INSTALL a new OCS system service kit. REFER to Occupant Classification Sensor in this section. GO to <a href="#">I31</a>.</p> <p><b>No</b><br/>REPAIR as necessary. REFER to Occupant Classification Sensor in this section for correct mounting location/direction of the ECU, the correct fasteners for mounting of the ECU. If the seat cushion pan is damaged, refer to the appropriate procedure in Section 501-10 for repair. GO to <a href="#">I31</a>.</p> |
| I20       | <b>CHECK THE SEAT WIRING AND CONNECTORS</b>   |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Carry out a thorough visual inspection of the OCS system wiring, terminals and connectors, the RCM wiring, terminals and connectors at RCM C2041b pins 17 and 18, and the related seat wiring harness and body wiring harness terminals and connectors.</li> <li><b>Were any problems noted?</b></li> </ul>   | <p><b>Yes</b><br/>REPAIR the seat connectors and wiring as needed. GO to <a href="#">I21</a>.</p> <p><b>No</b><br/>GO to <a href="#">I21</a>.</p>  |
| I21       | <b>CHECK IGNITION CIRCUIT 937 (RD/WH) FOR AN OPEN</b>   |  |
|           | <ul style="list-style-type: none"> <li>For vehicles equipped with seat side air bags, carry out the following: <ul style="list-style-type: none"> <li>Disconnect passenger seat side air bag C337.</li> <li>Connect restraint system diagnostic tool 418-133 to passenger seat side air bag C337.</li> </ul> </li> <li>Disconnect: Passenger Seat C300.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> <li>Measure the voltage between passenger seat C300 pin 14, circuit 937 (RD/WH), body harness side and ground.</li> </ul> <div style="text-align: center;">  <p>N0011646</p> </div> <ul style="list-style-type: none"> <li><b>Is the voltage greater than 10 volts?</b></li> </ul> | <p><b>Yes</b><br/>GO to <a href="#">I22</a>.</p> <p><b>No</b><br/>REPAIR circuit 937 (RD/WH). GO to <a href="#">I31</a>.</p>   |
| I22       | <b>CHECK GROUND CIRCUIT 1203 (BK/LB) FOR AN OPEN</b>  |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> </ul>   |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

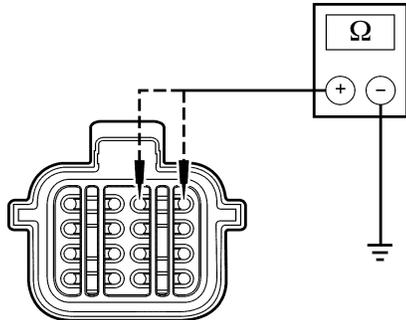
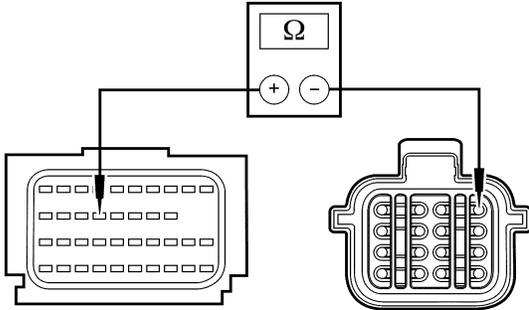
**PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT (Continued)**

| Test Step |  | Result / Action to Take   |
|-----------|--|---|
| I22       | <p><b>CHECK GROUND CIRCUIT 1203 (BK/LB) FOR AN OPEN (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between passenger seat C300 pin 9, circuit 1203 (BK/LB), body harness side and ground.</li> </ul>  <p style="text-align: center;">N0011647</p> <ul style="list-style-type: none"> <li>Is the resistance less than 5 ohms?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>I23</b>.</p> <p><b>No</b><br/>REPAIR circuit 1203 (BK/LB). GO to <b>I31</b>.</p>                         |
| I23       | <p><b>CHECK CIRCUITS 1918 (BN/WH) AND 1919 (PK/OG) FOR A SHORT TO VOLTAGE BETWEEN THE PASSENGER SEAT AND THE RCM</b></p> <ul style="list-style-type: none"> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> <li>Measure the voltage between passenger seat C300 pin 1, circuit 1918 (BN/WH), body harness side and ground; and between passenger seat C300 pin 2, circuit 1919 (PK/OG), body harness side and ground.</li> </ul>  <p style="text-align: center;">N0011648</p> <ul style="list-style-type: none"> <li>Are the voltages less than 0.2 volt?</li> </ul> | <p><b>Yes</b><br/>GO to <b>I24</b>.</p> <p><b>No</b><br/>REPAIR circuit 1918 (BN/WH) or circuit 1919 (PK/OG). GO to <b>I31</b>.</p> |
| I24       | <p><b>CHECK CIRCUITS 1918 (BN/WH) AND 1919 (PK/OG) FOR A SHORT TO GROUND BETWEEN THE PASSENGER SEAT AND THE RCM</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> </ul>  |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

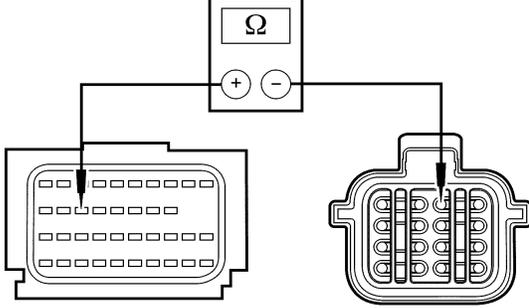
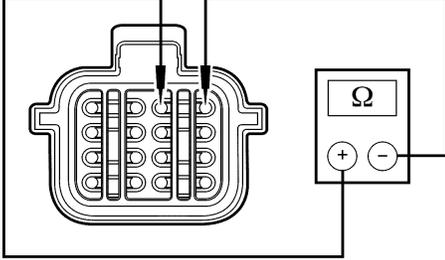
**PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT (Continued)**

| Test Step  |  | Result / Action to Take   |
|------------|--|---|
| <b>I24</b> | <p><b>CHECK CIRCUITS 1918 (BN/WH) AND 1919 (PK/OG) FOR A SHORT TO GROUND BETWEEN THE PASSENGER SEAT AND THE RCM (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between passenger seat C300 pin 1, circuit 1918 (BN/WH), body harness side and ground; and between passenger seat C300 pin 2, circuit 1919 (PK/OG), body harness side and ground.</li> </ul>  <p>N0011649</p> <ul style="list-style-type: none"> <li><b>Are the resistances greater than 1,000,000 ohms?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>I25</b>.</p> <p><b>No</b><br/>REPAIR circuit 1918 (BN/WH) or circuit 1919 (PK/OG). GO to <b>I31</b>.</p> |
| <b>I25</b> | <p><b>CHECK CIRCUIT 1918 (BN/WH) FOR AN OPEN BETWEEN THE PASSENGER SEAT AND THE RCM</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041b pin 17, circuit 1918 (BN/WH), harness side and passenger seat C300 pin 1, circuit 1918 (BN/WH), body harness side.</li> </ul>  <p>N0011650</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 0.5 ohm?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>I26</b>.</p> <p><b>No</b><br/>REPAIR circuit 1918 (BN/WH). GO to <b>I31</b>.</p>                         |

(Continued)

## DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT  
(Continued)

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| I26       | <p><b>CHECK CIRCUIT 1919 (PK/OG) FOR AN OPEN BETWEEN THE PASSENGER SEAT AND THE RCM</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041b pin 18, circuit 1919 (PK/OG), harness side and passenger seat C300 pin 2, circuit 1919 (PK/OG), body harness side.</li> </ul>  <p>N0011651</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>  | <p><b>Yes</b><br/>GO to I27.</p> <p><b>No</b><br/>REPAIR circuit 1919 (PK/OG). GO to I31.</p>  |
| I27       | <p><b>CHECK CIRCUIT 1918 (BN/WH) FOR A SHORT TO CIRCUIT 1919 (PK/OG) BETWEEN THE PASSENGER SEAT AND THE RCM</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between passenger seat C300 pin 1, circuit 1918 (BN/WH), body harness side and passenger seat C300 pin 2, circuit 1919 (PK/OG), body harness side.</li> </ul>  <p>N0011652</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 1,000,000 ohms?</li> </ul>   | <p><b>Yes</b><br/>GO to I28.</p> <p><b>No</b><br/>REPAIR circuits 1918 (BN/WH) and 1919 (PK/OG). GO to I31.</p>  |
| I28       | <p><b>CHECK THE RCM</b></p> <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Install a known good RCM. Refer to Restraints Control Module (RCM) in this section.</li> <li>Connect: Passenger Seat C300.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2290/Record All Flagged Faults.</li> <li><b>Was DTC B2290 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>If a flagged fault of “?” was recorded, multiple faults exist and the entire pinpoint test must be carried out.<br/>INSTALL a new OCS service kit. REFER to Occupant Classification Sensor, in this section. GO to I31.</p> <p><b>No</b><br/>Fault corrected. GO to I31.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT  
(Continued)**

| Test Step  |                             | Result / Action to Take |
|--|-----------------------------|-------------------------|
| I29  | <b>CHECK THE OCS SYSTEM</b> |                         |
| <b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded. <ul style="list-style-type: none"><li>• Key in OFF position.</li></ul> |                             |                         |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT (Continued)**

|     | Test Step  | Result / Action to Take   |
|-----|--|---|
| I29 | <b>CHECK THE OCS SYSTEM (Continued)</b>  |   |
|     | <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: OCS Rezeroing.</li> </ul> <p style="margin-left: 20px;">⚠ <b>CAUTION:</b> It is necessary to rezero the OCS system when a front passenger seat cushion is disassembled, a new trim cover installed or an OCS service kit is installed. A diagnostic tool is used to trigger the active command to carry out rezeroing of the OCS system.</p> <p style="margin-left: 20px;">⚠ <b>CAUTION:</b> Make sure the seat is completely assembled before rezeroing.</p> <p style="margin-left: 20px;">⚠ <b>CAUTION:</b> The following precautions must be taken before rezeroing of the OCS system:</p> <ul style="list-style-type: none"> <li>— Make sure the OCS system components are connected and no faults are present.</li> <li>— Make sure the OCS system is not at a temperature below 0°C (32°F) or above 45°C (113°F) when initiating the rezeroing process. If the vehicle has been exposed to extreme cold or hot temperatures, the vehicle must be exposed and kept at a temperature within the limits, 0°C to 45°C (32°F to 113°F) for a minimum of 30 minutes.</li> <li>— Make sure nothing is present on the passenger seat before rezeroing and nothing is placed on the seat during the rezeroing process.</li> <li>— Make sure a minimum 8-second time period has passed after cycling the ignition switch ON before the rezeroing process.</li> </ul> <p><b>NOTE:</b> For best results in rezeroing, the OCS system should be at or near room temperature, 10°C to 29°C (50°F to 85°F).</p> <p><b>NOTE:</b> When using a NGS+ (NGS with Vehicle Communication Module (VCM) and the latest software) to rezero the OCS system:</p> <ul style="list-style-type: none"> <li>• select “FUNCTION TEST”</li> <li>• select “SYSTEM RESET”</li> <li>• view the on-screen information then press “TRIGGER”</li> </ul> <p>The NGS+ screen will then display “OCS RESET: REZERO.” Press “DONE” (button 8) to rezero the OCS system. The NGS+ will display “TEST/FUNCTION SUCCESSFUL” once rezeroing of the OCS system is complete.</p> <p><b>NOTE:</b> To rezero the OCS system using the Worldwide Diagnostic System (WDS):</p> <ul style="list-style-type: none"> <li>• select the “Toolbox” icon</li> <li>• select “Body” from the menu</li> <li>• select “Restraints” from the menu</li> <li>• select “Seat Weight Sensor ReZero”</li> </ul> <p>After selecting “Seat Weight Sensor ReZero”, follow the on-screen prompts to carry out rezeroing of the OCS system.</p> <p><b>NOTE:</b> If the first attempt to rezero the OCS system is unsuccessful, a second attempt must be made.</p> <p>Using the diagnostic tool, carry out rezeroing of the OCS system.</p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> </ul> <p><b>NOTE:</b> The ignition switch must be cycled after rezeroing the OCS system.</p> <ul style="list-style-type: none"> <li>• Key in ON position.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2290/Record All Flagged Faults.</li> <li>• <b>Was DTC B2290 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>If a flagged fault of “?” was recorded, multiple faults exist and the entire pinpoint test must be carried out.</p> <p>INSTALL a new OCS system service kit. REFER to Occupant Classification Sensor in this section. GO to <b>I31</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>I31</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST I: LFC 16/DTC B2290 — OCCUPANT CLASSIFICATION SYSTEM (OCS) FAULT (Continued)**

| Test Step  |  | Result / Action to Take  |
|------------|--|--|
| <b>I30</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|            | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>For vehicles equipped with seat side air bags, carry out the following: <ul style="list-style-type: none"> <li>Disconnect passenger seat side air bag C337.</li> <li>Connect restraint system diagnostic tool 418-133 to passenger seat side air bag C337.</li> </ul> </li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2290/Record All Flagged Faults.</li> <li><b>Was DTC B2290 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is now present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test.</p> <p>Using the flagged faults, GO to the appropriate pinpoint test step.</p> <p>If a flagged fault of “?” was recorded, multiple faults exist and the entire pinpoint test must be carried out.</p> <p><b>Vehicles with a production OCS system</b><br/>For OCS system with a communications fault, GO to <b>I2</b>.<br/>For OCS system with an internal fault, GO to <b>I19</b>.<br/>For OCS system with a calibration fault, GO to <b>I29</b>.<br/>For OCS system with a pressure sensor fault, GO to <b>I11</b>.</p> <p><b>Vehicles with a service OCS system</b><br/>For OCS system with a communications fault, GO to <b>I20</b>.<br/>For OCS system with an internal fault, GO to <b>I19</b>.<br/>For OCS system with a calibration fault, GO to <b>I29</b>.<br/>For OCS system with a pressure sensor fault, INSTALL a new OCS system service kit. REFER to Occupant Classification Sensor in this section. GO to <b>I31</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>I31</b>.</p> |
| <b>I31</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|            | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step I1.</li> <li><b>Were any continuous DTCs retrieved during Step I1?</b></li> </ul>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p>   |

**DIAGNOSIS AND TESTING (Continued)**

**Pinpoint Test J: LFC 33 and 34/DTC B2292 — Restraint System — Safety Belt Pretensioner Status**

**Normal Operation**

The safety belt pretensioners are activated by the RCM to remove excessive slack from the safety belt webbing when an impact exceeding preprogrammed limits is detected. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

The restraints control module (RCM) checks all of the safety belt pretensioners for faults. If the RCM detects one of the following faults on any of the safety belt pretensioner circuits, it will store diagnostic trouble code (DTC) B2292 in memory and flash, depending on the fault indicator, or lamp fault code (LFC) 33 or 34 depending on the fault (or higher priority code if one exists) on the air bag indicator.

**Fault Conditions**

The RCM monitors for the following fault conditions:

- Low resistance
- High resistance or circuit open
- Circuit short to voltage
- Circuit short to ground

**Possible Causes**

A safety belt pretensioner status fault can be caused by:

- wiring, terminals or connectors.
- a faulty safety belt pretensioner.
- a faulted RCM.

**PINPOINT TEST J: LFC 33 AND 34/DTC B2292 — RESTRAINT SYSTEM — SAFETY BELT PRETENSIONER STATUS**

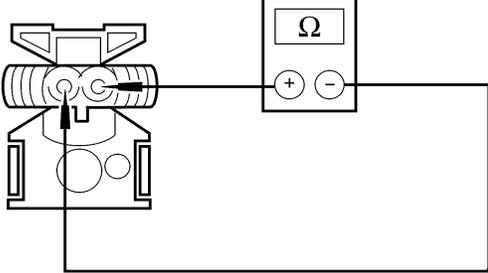
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough inspection and Verification before proceeding with the pinpoint test.

| Test Step   |                                      | Result / Action to Take   |
|---|--------------------------------------|---|
| J1  | CHECK FOR A HARD OR INTERMITTENT DTC |   |
| <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2292/Record All Flagged Faults.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Continuous DTCs.</li> <li>• <b>Was DTC B2292 retrieved during the on-demand self test?</b></li> </ul> |                                      | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>J2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>J12</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

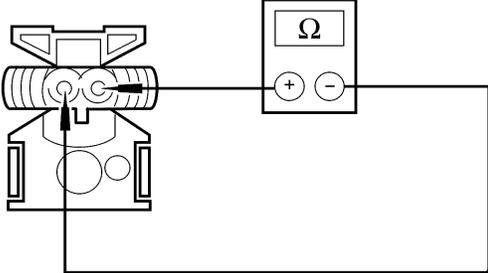
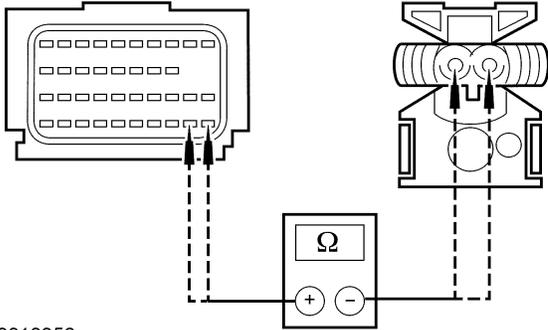
**PINPOINT TEST J: LFC 33 AND 34/DTC B2292 — RESTRAINT SYSTEM — SAFETY BELT PRETENSIONER STATUS (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>J2</b> | <b>CHECK THE PRETENSIONERS</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: The Affected Safety Belt Pretensioner C3014 (Driver) or C303 (Passenger).</li> <li>• Connect: Restraint System Diagnostic Tool 418-F395 to the Affected Safety Belt Pretensioner C3014 (Driver) or C303 (Passenger).</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2292/Record All Flagged Faults.</li> <li>• <b>Was DTC B2292 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>Using the flagged fault(s) recorded in Step J1, GO to the appropriate pinpoint test step.</p> <p>If a flagged fault of “?” was recorded in Step J1, multiple faults exist and the entire pinpoint test must be carried out.</p> <p>For driver safety belt pretensioner (DF__RET) with a low resistance (LOWRES) fault, GO to <b>J3</b>.</p> <p>For DF__RET with an open circuit (O__CIR) fault, GO to <b>J5</b>.</p> <p>For DF__RET with a short to battery (STB) fault, GO to <b>J7</b>.</p> <p>For DF__RET with a short to ground (STG) fault, GO to <b>J9</b>.</p> <p>For passenger safety belt pretensioner (PF__RET) with a low resistance (LOWRES), GO to <b>J4</b>.</p> <p>For PF__RET with an open circuit (O__CIR) fault, GO to <b>J6</b>.</p> <p>For PF__RET with a short to battery (STB) fault, GO to <b>J8</b>.</p> <p>For PF__RET with a short to ground (STG) fault, GO to <b>J10</b>.</p> <p><b>No</b><br/>INSTALL a new driver or passenger safety belt pretensioner. REFER to Section 501-20A. GO to <b>J13</b>.</p> |
| <b>J3</b> | <b>CHECK THE DRIVER SAFETY BELT PRETENSIONER CIRCUITS FOR LOW RESISTANCE</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Driver Safety Belt Pretensioner Restraint Diagnostic System Tool.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Measure the resistance between driver safety belt pretensioner C3014, circuit 1079 (LG/RD), harness side and circuit 1080 (LG/BK), harness side.</li> </ul> <div style="text-align: center;">  </div> <p>A0030495</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance greater than 1,000,000 ohms?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>J11</b>.</p> <p><b>No</b><br/>REPAIR circuits 1079 (LG/RD) and 1080 (LG/BK). GO to <b>J13</b>.</p>  |
| <b>J4</b> | <b>CHECK THE PASSENGER SAFETY BELT PRETENSIONER CIRCUITS FOR LOW RESISTANCE</b>  |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> </ul>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

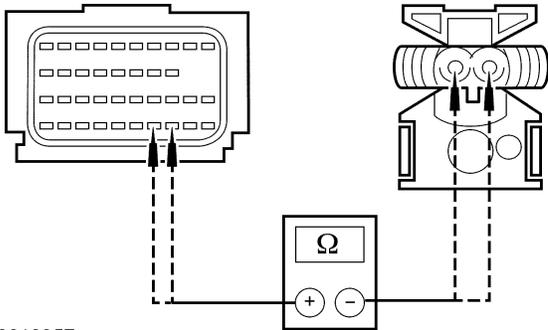
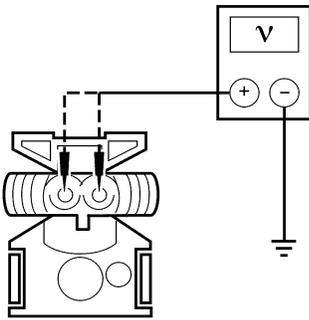
**PINPOINT TEST J: LFC 33 AND 34/DTC B2292 — RESTRAINT SYSTEM — SAFETY BELT PRETENSIONER STATUS (Continued)**

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| <b>J4</b> | <p><b>CHECK THE PASSENGER SAFETY BELT PRETENSIONER CIRCUITS FOR LOW RESISTANCE (Continued)</b></p> <ul style="list-style-type: none"> <li>• Disconnect: Passenger Safety Belt Pretensioner Restraint Diagnostic System Tool.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Measure the resistance between passenger safety belt pretensioner C303, circuit 1081 (YE/RD) and circuit 1082 (LB/BK), harness side.</li> </ul>  <p>A0030495</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance greater than 1,000,000 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>J11</b>.</p> <p><b>No</b><br/>REPAIR circuits 1081 (YE/RD) and 1082 (LB/BK). GO to <b>J13</b>.</p>       |
| <b>J5</b> | <p><b>CHECK CIRCUIT 1079 (LG/RD) AND CIRCUIT 1080 (LG/BK) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Driver Safety Belt Pretensioner Restraint Diagnostic System Tool.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Measure the resistance between RCM C2041b pin 31, circuit 1079 (LG/RD), harness side and driver safety belt pretensioner C3014, circuit 1079 (LG/RD), harness side; and between RCM C2041b pin 32, circuit 1080 (LG/BK), harness side and the driver safety belt pretensioner C3014, circuit 1080 (LG/BK), harness side</li> </ul>  <p>N0010356</p> <ul style="list-style-type: none"> <li>• <b>Are the resistances less than 0.5 ohm?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>J11</b>.</p> <p><b>No</b><br/>REPAIR circuit 1079 (LG/RD) or circuit 1080 (LG/BK). GO to <b>J13</b>.</p> |
| <b>J6</b> | <p><b>CHECK CIRCUIT 1081 (YE/RD) AND CIRCUIT 1082 (LB/BK) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Passenger Safety Belt Pretensioner Restraint Diagnostic System Tool.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> </ul>   |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

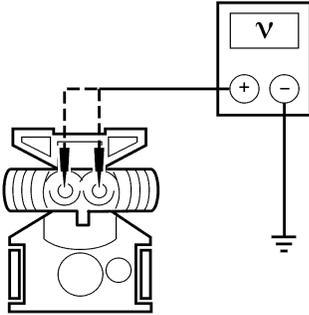
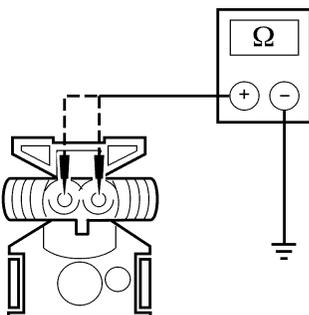
**PINPOINT TEST J: LFC 33 AND 34/DTC B2292 — RESTRAINT SYSTEM — SAFETY BELT PRETENSIONER STATUS (Continued)**

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| <b>J6</b> | <p><b>CHECK CIRCUIT 1081 (YE/RD) AND CIRCUIT 1082 (LB/BK) FOR AN OPEN (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041b pin 33, circuit 1081 (YE/RD), harness side and passenger safety belt pretensioner C303, circuit 1081 (YE/RD), harness side; and between RCM C2041b pin 34, circuit 1082 (LB/BK), harness side and passenger safety belt pretensioner C303, circuit 1082 (LB/BK), harness side.</li> </ul>  <p>N0010357</p> <ul style="list-style-type: none"> <li><b>Are the resistances less than 0.5 ohm?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>J11</b>.</p> <p><b>No</b><br/>REPAIR circuit 1081 (YE/RD) or circuit 1082 (LB/BK). GO to <b>J13</b>.</p> |
| <b>J7</b> | <p><b>CHECK CIRCUIT 1079 (LG/RD) AND CIRCUIT 1080 (LG/BK) FOR A SHORT TO VOLTAGE</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Driver Safety Belt Pretensioner Restraint Diagnostic System Tool.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> <li>Measure the voltage between driver safety belt pretensioner C3014, circuit 1079 (LG/RD), harness side and ground; and between driver safety belt pretensioner C3014, circuit 1080 (LG/BK), harness side and ground.</li> </ul>  <p>A0094162</p> <ul style="list-style-type: none"> <li><b>Is the voltage less than 0.2 volt?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>J11</b>.</p> <p><b>No</b><br/>REPAIR circuit 1079 (LG/RD) or circuit 1080 (LG/BK). GO to <b>J13</b>.</p> |
| <b>J8</b> | <p><b>CHECK CIRCUIT 1081 (YE/RD) AND CIRCUIT 1082 (LB/BK) FOR A SHORT TO VOLTAGE</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Safety Belt Pretensioner Restraint Diagnostic System Tool.</li> </ul>  |   |

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**DIAGNOSIS AND TESTING (Continued)**

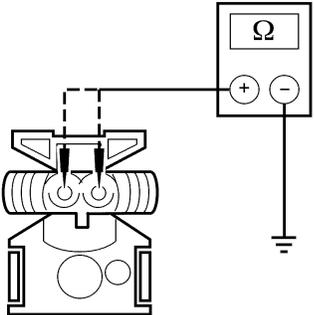
**PINPOINT TEST J: LFC 33 AND 34/DTC B2292 — RESTRAINT SYSTEM — SAFETY BELT PRETENSIONER STATUS (Continued)**

| Test Step  |  | Result / Action to Take   |
|------------|--|---|
| <b>J8</b>  | <p><b>CHECK CIRCUIT 1081 (YE/RD) AND CIRCUIT 1082 (LB/BK) FOR A SHORT TO VOLTAGE (Continued)</b></p> <ul style="list-style-type: none"> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Key in ON position.</li> <li>• Measure the voltage between passenger safety belt pretensioner C303, circuit 1082 (LB/BK), harness side and ground; and between passenger safety belt pretensioner C303, circuit 1081 (YE/RD), harness side and ground.</li> </ul>  <p>A0094162</p> <ul style="list-style-type: none"> <li>• <b>Is the voltage less than 0.2 volt?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>J11</b>.</p> <p><b>No</b><br/>REPAIR circuit 1081 (YE/RD) or circuit 1082 (LB/BK). GO to <b>J13</b>.</p> |
| <b>J9</b>  | <p><b>CHECK CIRCUIT 1079 (LG/RD) AND CIRCUIT 1080 (LG/BK) FOR A SHORT TO GROUND</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Driver Safety Belt Pretensioner Restraint Diagnostic System Tool.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Measure the resistance between driver safety belt pretensioner C3014, circuit 1079 (LG/RD), harness side and ground; and between driver safety belt pretensioner C3014, circuit 1080 (LG/BK), harness side and ground.</li> </ul>  <p>A0094161</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance greater than 1,000,000 ohms?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>J11</b>.</p> <p><b>No</b><br/>REPAIR circuit 1079 (LG/RD) or circuit 1080 (LG/BK). GO to <b>J13</b>.</p> |
| <b>J10</b> | <p><b>CHECK CIRCUIT 1081 (YE/RD) AND CIRCUIT 1082 (LB/BK) FOR A SHORT TO GROUND</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Passenger Safety Belt Pretensioner Restraint Diagnostic System Tool.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> </ul>  |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST J: LFC 33 AND 34/DTC B2292 — RESTRAINT SYSTEM — SAFETY BELT PRETENSIONER STATUS (Continued)**

| Test Step  |   | Result / Action to Take   |
|------------|---|---|
| <b>J10</b> | <p><b>CHECK CIRCUIT 1081 (YE/RD) AND CIRCUIT 1082 (LB/BK) FOR A SHORT TO GROUND (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between passenger safety belt pretensioner C303, circuit 1081 (YE/RD), harness side and ground; and between passenger safety belt pretensioner C303, circuit 1082 (LB/BK).</li> </ul>  <p>A0094161</p> <ul style="list-style-type: none"> <li><b>Is the resistance greater than 1,000,000 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>J11</b>.</p> <p><b>No</b><br/>REPAIR circuit 1081 (YE/RD) or circuit 1082 (LB/BK). GO to <b>J13</b>.</p>   |
| <b>J11</b> | <p><b>CONFIRM THE RCM FAULT</b></p> <p><b>NOTE:</b> Make sure the safety belt pretensioner restraint system diagnostic tool, sensor electrical connectors, and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Connect: Driver and Passenger Safety Belt Pretensioner Restraint System Diagnostic Tools.</li> <li>Connect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2292.</li> <li><b>Was DTC B2292 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>If a “?” was flagged by the diagnostic tool, CARRY OUT the entire pinpoint test. INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>J13</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>J13</b>.</p>   |
| <b>J12</b> | <p><b>CHECK FOR AN INTERMITTENT FAULT</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: The Affected Safety Belt Pretensioner C3014 (Driver) C303 (Passenger).</li> <li>Connect: Restraint System Diagnostic Tool 418-F395 to the Affected Safety Belt Pretensioner C3014 (Driver) C303 (Passenger).</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2292.</li> <li><b>Was DTC B2292 retrieved during the on-demand self test?</b></li> </ul>  | <p><b>Yes</b><br/>CHECK for causes of the intermittent fault at or near the affected safety belt pretensioner connector. REPAIR any intermittent concerns found.<br/>If an intermittent concern <b>was</b> found and repaired, GO to <b>J13</b>.<br/>If an intermittent concern <b>was not</b> found and repaired, GO to <b>J2</b>.<br/>If a flagged fault of “?” was recorded, multiple faults exist and the entire pinpoint test must be carried out.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>J13</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST J: LFC 33 AND 34/DTC B2292 — RESTRAINT SYSTEM — SAFETY BELT PRETENSIONER STATUS (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| J13       | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step J1.</li> <li><b>Were any continuous DTCs retrieved during Step J1?</b></li> </ul> | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**Pinpoint Test K: LFC 19 and 21/DTC B2293 — Restraint System — Air Bag Status**

**Normal Operation**

The front air bags will deploy upon receiving a flow of current from the restraints control module (RCM). Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

The restraints control module (RCM) checks all of the front air bag circuits for faults. If the RCM detects one of the following faults on any of the front air bag circuits, it will store diagnostic trouble code (DTC) B2293 in memory and flash either lamp fault code (LFC) 19 or 21 depending on the fault (or higher priority code if one exists) on the air bag indicator.

**Fault Conditions**

The RCM monitors for the following fault conditions:

- Low resistance
- High resistance or circuit open
- Circuit short to voltage
- Circuit short to ground

**Possible Causes**

A driver air bag status fault can be caused by:

- wiring, terminals or connectors.
- a faulty clockspring.
- a faulty driver air bag module.
- a faulted RCM.

A passenger air bag status fault can be caused by:

- wiring, terminals or connectors.
- a faulty passenger air bag module.
- a faulted RCM.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS**

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |  | Result / Action to Take   |
|-----------|--|---|
| K1        | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>  |   |
|           | <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, <b>the restraint system diagnostic tools must be removed before operating the vehicle over the road.</b></p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2293/Record All Flagged Faults.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record Continuous DTCs.</li> <li>• <b>Was DTC B2293 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>K2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>K38</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

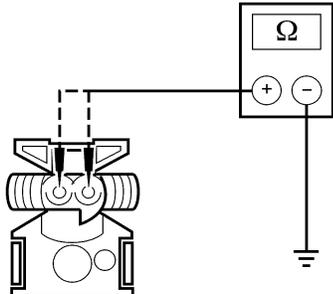
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

|    | Test Step  | Result / Action to Take   |
|----|--|---|
| K2 | <b>CHECK THE DRIVER AND THE PASSENGER AIR BAG MODULES</b>  |   |
|    | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• If the flagged fault was reported for the driver air bag module:                             <ul style="list-style-type: none"> <li>— Remove the driver air bag module. Refer to Driver Air Bag Module in this section.</li> <li>— Connect restraint system diagnostic tools 418-F395 (2 required) to the driver air bag module squib 1 and squib 2 connectors.</li> </ul> </li> <li>• If the flagged fault was reported for the passenger air bag module:                             <ul style="list-style-type: none"> <li>— Disconnect passenger air bag module C256.</li> <li>— Connect restraint system diagnostic tool 418-F403 to passenger air bag module C256.</li> </ul> </li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2293/Record All Flagged Faults.</li> <li>• <b>Was DTC B2293 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>                     Using the flagged faults recorded in Step K1, GO to the appropriate pinpoint test step.</p> <p>If a flagged fault of “?” was recorded in Step K1, multiple faults exist and the entire pinpoint test must be carried out.</p> <p>For driver air bag module squib 1 (D__ABAG) with a short to ground (STG) fault, GO to <b>K3</b>.</p> <p>For driver air bag module squib 1 (D__ABAG) with a short to battery (STB) fault, GO to <b>K5</b>.</p> <p>For driver air bag module squib 1 (D__ABAG) with an open circuit (O__CIR) fault, GO to <b>K7</b>.</p> <p>For driver air bag module squib 1 (D__ABAG) with a low resistance (LOWRES) fault, GO to <b>K11</b>.</p> <p>For passenger air bag module squib 1 (P__ABAG) with a short to ground (STG) fault, GO to <b>K14</b>.</p> <p>For passenger air bag module squib 1 (P__ABAG) with a short to battery (STB) fault, GO to <b>K15</b>.</p> <p>For passenger air bag module squib 1 (P__ABAG) with an open circuit (O__CIR) fault, GO to <b>K16</b>.</p> <p>For passenger air bag module squib 1 (P__ABAG) with a low resistance (LOWRES) fault, GO to <b>K18</b>.</p> <p>For driver air bag module squib 2 (D__ABAG2) with a short to ground (STG) fault, GO to <b>K20</b>.</p> <p>For driver air bag module squib 2 (D__ABAG2) with a short to battery (STB) fault, GO to <b>K22</b>.</p> <p>For driver air bag module squib 2 (D__ABAG2) with an open circuit (O__CIR) fault, GO to <b>K24</b>.</p> <p>For driver air bag module squib 2 (D__ABAG2) with a low resistance (LOWRES) fault, GO to <b>K28</b>.</p> <p>For passenger air bag module squib 2 (P__ABAG2) with a short to ground (STG) fault, GO to <b>K31</b>.</p> <p>For passenger air bag module squib 2 (P__ABAG2) with a short to battery (STB) fault, GO to <b>K32</b>.</p> <p>For passenger air bag module squib 2 (P__ABAG2) with an open circuit (O__CIR) fault, GO to <b>K33</b>.</p> <p>For passenger air bag module squib 2 (P__ABAG2) with a low resistance (LOWRES) fault, GO to <b>K35</b>.</p> <p><b>No</b><br/>                     If a flagged fault of “?” was recorded in Step K1, multiple faults exist and the entire pinpoint test must be carried out.</p> <p>If a fault was flagged against driver air bag module in Step K1, INSTALL a new driver</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

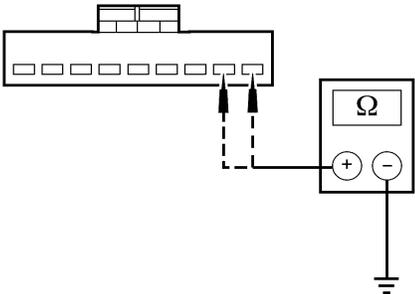
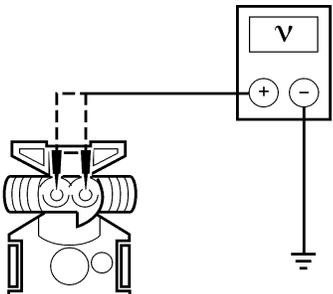
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step |  | Result / Action to Take   |
|-----------|--|---|
| <b>K2</b> | <b>CHECK THE DRIVER AND THE PASSENGER AIR BAG MODULES (Continued)</b>  | <p><b>No (Continued)</b><br/>                     air bag module. REFER to Driver Air Bag Module in this section. GO to <b>K39</b>.</p> <p>If a fault was flagged against passenger air bag module in Step K1, INSTALL a new passenger air bag module. REFER to Passenger Air Bag Module in this section. GO to <b>K39</b>.</p> |
| <b>K3</b> | <b>CHECK CIRCUITS 614 (GY/OG) AND 615 (GY/WH) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 1</b>  |   |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Disconnect: Driver Air Bag Module Squib 1 Restraint System Diagnostic Tool.</li> <li>• Measure the resistance between driver air bag module squib 1 electrical connector, circuit 614 (GY/OG), harness side and ground; and between driver air bag module squib 1 electrical connector, circuit 615 (GY/WH), harness side and ground.</li> </ul> | <p><b>Yes</b><br/>                     GO to <b>K37</b>.</p> <p><b>No</b><br/>                     GO to <b>K4</b>.</p>   |
|           |  <p>A0088716</p> <ul style="list-style-type: none"> <li>• <b>Are the resistances greater than 1,000,000 ohms?</b></li> </ul>   |   |
| <b>K4</b> | <b>CHECK CIRCUITS 614 (GY/OG) AND 615 (GY/WH) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE CLOCKSPrING</b>  |   |
|           | <ul style="list-style-type: none"> <li>• Disconnect: Clockspring C2274.</li> </ul>   |   |

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## DIAGNOSIS AND TESTING (Continued)

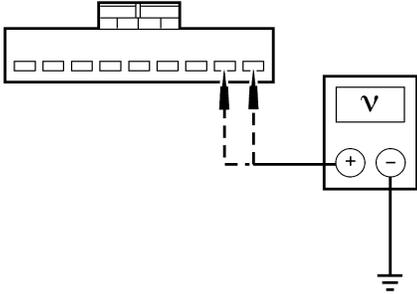
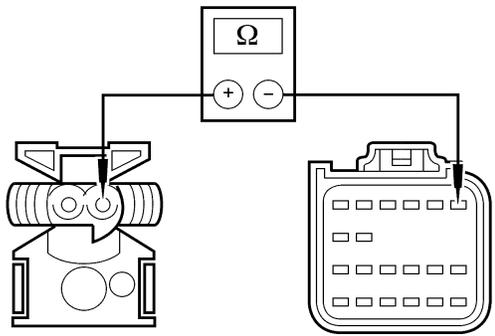
PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS  
(Continued)

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>K4</b> | <b>CHECK CIRCUITS 614 (GY/OG) AND 615 (GY/WH) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE CLOCKSPRING (Continued)</b>  |  |
|           | <ul style="list-style-type: none"> <li>Measure the resistance between clockspring C2274 pin 1, circuit 614 (GY/OG), harness side and ground; and between clockspring C2274 pin 2, circuit 615 (GY/WH), harness side and ground.</li> </ul>  <p>A0088717</p> <ul style="list-style-type: none"> <li><b>Are the resistances greater than 1,000,000 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>INSTALL a new clockspring. REFER to Clockspring in this section. GO to <b>K39</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 614 (GY/OG) or 615 (GY/WH). GO to <b>K39</b>.</p> |
| <b>K5</b> | <b>CHECK CIRCUITS 614 (GY/OG) AND 615 (GY/WH) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 1</b>   |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Driver Air Bag Module Squib 1 Restraint System Diagnostic Tool.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> <li>Measure the voltage between driver air bag module squib 1 electrical connector, circuit 614 (GY/OG), harness side and ground; and between driver air bag module squib 1 electrical connector, circuit 615 (GY/WH), harness side and ground.</li> </ul>  <p>A0088715</p> <ul style="list-style-type: none"> <li><b>Are the voltages less than 0.2 volt?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>GO to <b>K6</b>.</p>  |
| <b>K6</b> | <b>CHECK CIRCUITS 614 (GY/OG) AND 615 (GY/WH) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE CLOCKSPRING</b>   |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Disconnect: Clockspring C2274.</li> <li>Key in ON position.</li> </ul>  |  |

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**DIAGNOSIS AND TESTING (Continued)**

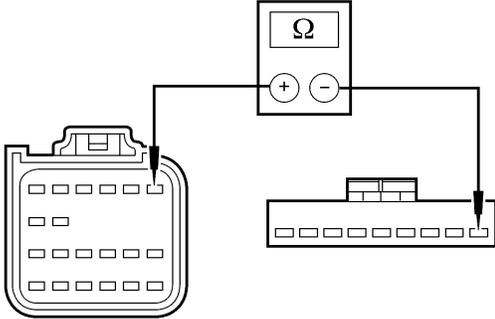
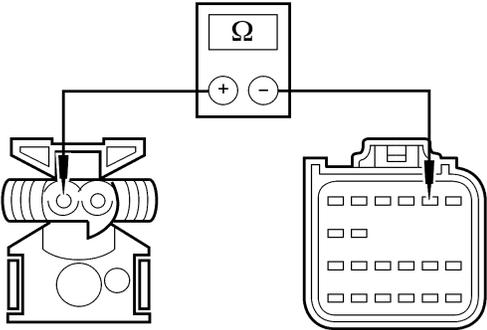
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>K6</b> | <p><b>CHECK CIRCUITS 614 (GY/OG) AND 615 (GY/WH) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE CLOCKSPRING (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the voltage between clockspring C2274 pin 1, circuit 614 (GY/OG), harness side and ground; and between clockspring C2274 pin 2, circuit 615 (GY/WH), harness side and ground.</li> </ul>  <p>A0088718</p> <ul style="list-style-type: none"> <li><b>Are the voltages less than 0.2 volt?</b></li> </ul>   | <p><b>Yes</b><br/>INSTALL a new clockspring. REFER to Clockspring in this section. GO to <b>K39</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 614 (GY/OG) or 615 (GY/WH). GO to <b>K39</b>.</p> |
| <b>K7</b> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 614 (GY/OG) BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 1</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Driver Air Bag Module Squib 1 Restraint System Diagnostic Tool.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Measure the resistance between RCM C2041a pin 1, circuit 614 (GY/OG), harness side and driver air bag module squib 1, circuit 614 (GY/OG), harness side.</li> </ul>  <p>N0004692</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 0.5 ohm?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>K9</b>.</p> <p><b>No</b><br/>GO to <b>K8</b>.</p>   |
| <b>K8</b> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 614 (GY/OG) BETWEEN THE RCM AND THE CLOCKSPRING</b></p> <ul style="list-style-type: none"> <li>Disconnect: Clockspring C2274.</li> </ul>   |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

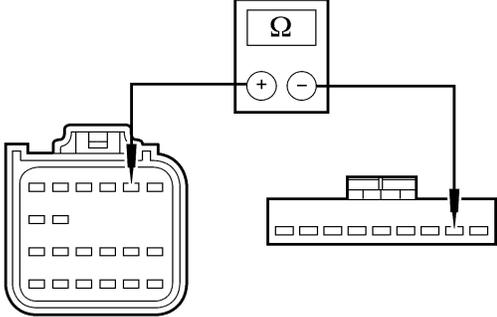
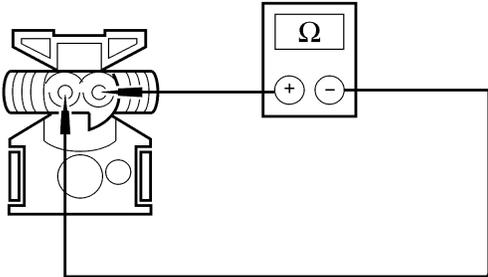
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step  |  | Result / Action to Take   |
|------------|--|---|
| <b>K8</b>  | <b>CHECK FOR AN OPEN ON CIRCUIT 614 (GY/OG) BETWEEN THE RCM AND THE CLOCKSPRING (Continued)</b>  |   |
|            | <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 1, circuit 614 (GY/OG), harness side and clockspring C2274 pin 1, circuit 614 (GY/OG), harness side.</li> </ul>  <p>N0005029</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 0.5 ohm?</b></li> </ul>         | <p><b>Yes</b><br/>INSTALL a new clockspring. REFER to Clockspring in this section. GO to <b>K39</b>.</p> <p><b>No</b><br/>REPAIR circuit 614 (GY/OG). GO to <b>K39</b>.</p> |
| <b>K9</b>  | <b>CHECK FOR AN OPEN ON CIRCUIT 615 (GY/WH) BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 1</b>  |   |
|            | <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 2, circuit 615 (GY/WH), harness side and driver air bag module squib 1, circuit 615 (GY/WH), harness side.</li> </ul>  <p>N0004693</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 0.5 ohm?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>GO to <b>K10</b>.</p>  |
| <b>K10</b> | <b>CHECK FOR AN OPEN ON CIRCUIT 615 (GY/WH) BETWEEN THE RCM AND THE CLOCKSPRING</b>  |   |
|            | <ul style="list-style-type: none"> <li>Disconnect: Clockspring C2274.</li> </ul>   |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

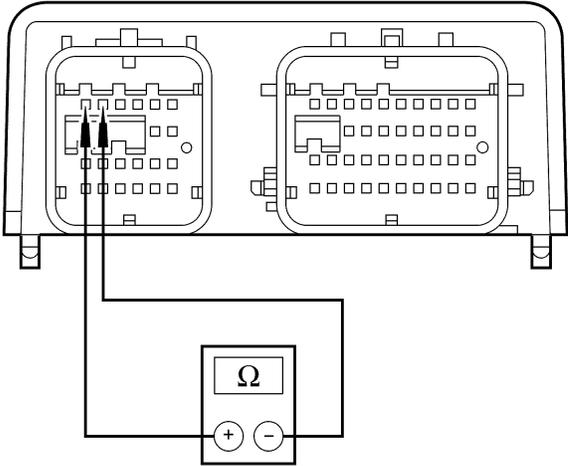
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step  |  | Result / Action to Take   |
|------------|--|---|
| <b>K10</b> | <b>CHECK FOR AN OPEN ON CIRCUIT 615 (GY/WH) BETWEEN THE RCM AND THE CLOCKSPRING (Continued)</b>  |   |
|            | <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 2, circuit 615 (GY/WH), harness side and clockspring C2274 pin 2, circuit 615 (GY/WH), harness side.</li> </ul>  <p>N0005030</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>  | <p><b>Yes</b><br/>INSTALL a new clockspring. REFER to Clockspring in this section. GO to <b>K39</b>.</p> <p><b>No</b><br/>REPAIR circuit 615 (GY/WH). GO to <b>K39</b>.</p> |
| <b>K11</b> | <b>CHECK FOR LOW RESISTANCE ON CIRCUITS 614 (GY/OG) AND 615 (GY/WH) BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 1</b>  |   |
|            | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Driver Air Bag Module Squib 1 Restraint System Diagnostic Tool.</li> <li>Measure the resistance between driver air bag module squib 1, circuit 614 (GY/OG), harness side and circuit 615 (GY/WH), harness side.</li> </ul>  <p>A0030492</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 10,000 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>GO to <b>K12</b>.</p>  |
| <b>K12</b> | <b>MEASURE THE RESISTANCE BETWEEN THE RCM CIRCUITS 614 (GY/OG) AND 615 (GY/WH)</b>   |   |
|            | <ul style="list-style-type: none"> <li>Disconnect: RCM C2041a and C2041b.</li> </ul>   |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

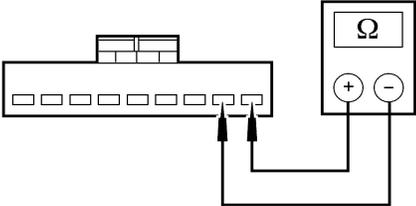
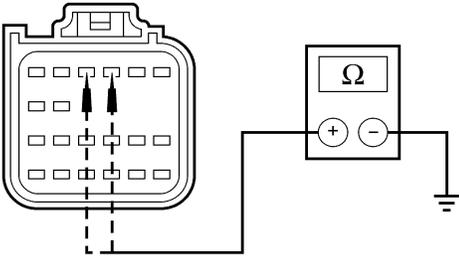
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step  |   | Result / Action to Take  |
|------------|---|--|
| <b>K12</b> | <p><b>MEASURE THE RESISTANCE BETWEEN THE RCM CIRCUITS 614 (GY/OG) AND 615 (GY/WH) (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 1, circuit 614 (GY/OG), component side and pin 2, circuit 615 (GY/WH), component side.</li> </ul>  <p>A0041266</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 10,000 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>K13</b>.</p> <p><b>No</b><br/>GO to <b>K37</b>.</p> |
| <b>K13</b> | <p><b>CHECK FOR LOW RESISTANCE ON CIRCUITS 614 (GY/OG) AND 615 (GY/WH) BETWEEN THE RCM AND THE CLOCKSPRING</b></p> <ul style="list-style-type: none"> <li>Connect: RCM C2041a and C2041b.</li> <li>Disconnect: Clockspring C2274.</li> </ul>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

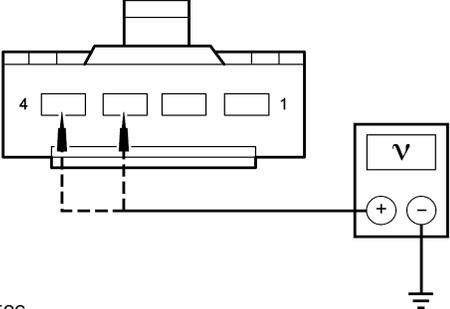
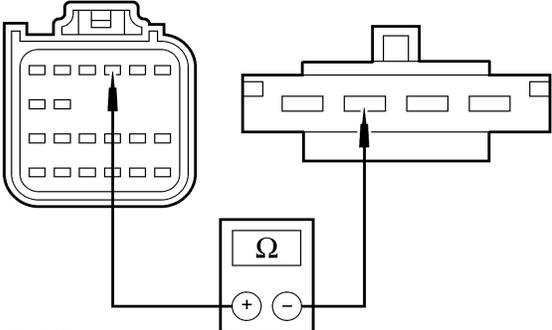
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step  |  | Result / Action to Take   |
|------------|--|---|
| <b>K13</b> | <b>CHECK FOR LOW RESISTANCE ON CIRCUITS 614 (GY/OG) AND 615 (GY/WH) BETWEEN THE RCM AND THE CLOCKSPRING (Continued)</b>  |   |
|            | <ul style="list-style-type: none"> <li>Measure the resistance between clockspring C2274 pin 1, circuit 614 (GY/OG), harness side and pin 2, circuit 615 (GY/WH), harness side.</li> </ul>  <p>A0088719</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 10,000 ohms?</li> </ul>  | <p><b>Yes</b><br/>INSTALL a new clockspring. REFER to Clockspring in this section. GO to <b>K39</b>.</p> <p><b>No</b><br/>REPAIR circuit 614 (GY/OG) and 615 (GY/WH). GO to <b>K39</b>.</p>   |
| <b>K14</b> | <b>CHECK CIRCUITS 607 (LB/OG) AND 616 (PK/BK) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE SQUIB 1</b>   |   |
|            | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Air Bag Module Restraint System Diagnostic Tool.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Measure the resistance between RCM C2041a pin 3, circuit 607 (LB/OG), harness side and ground; and between RCM C2041a pin 4, circuit 616 (PK/BK), harness side and ground.</li> </ul>  <p>A0041267</p> <ul style="list-style-type: none"> <li>Are the resistances greater than 1,000,000 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 607 (LB/OG) or 616 (PK/BK). GO to <b>K39</b>.</p> |
| <b>K15</b> | <b>CHECK CIRCUITS 607 (LB/OG) AND 616 (PK/BK) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE SQUIB 1</b>  |   |
|            | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Air Bag Module Restraint System Diagnostic Tool.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> </ul>   |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

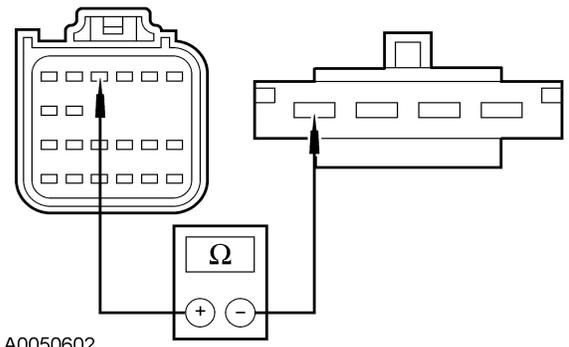
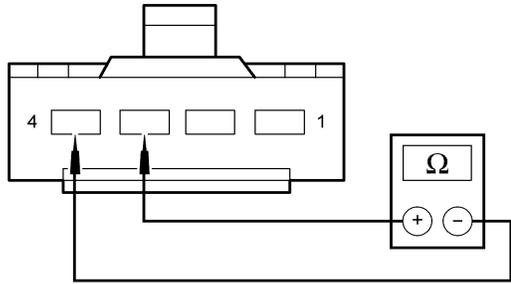
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

|                   | Test Step   | Result / Action to Take   |
|-------------------|---|---|
| <p><b>K15</b></p> | <p><b>CHECK CIRCUITS 607 (LB/OG) AND 616 (PK/BK) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE SQUIB 1 (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the voltage between passenger air bag module C256 pin 3, circuit 607 (LB/OG), harness side and ground; and between passenger air bag module C256 pin 4, circuit 616 (PK/BK), harness side and ground.</li> </ul>  <p>A0088586</p> <ul style="list-style-type: none"> <li><b>Are the voltages less than 0.2 volt?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 607 (LB/OG) or 616 (PK/BK). GO to <b>K39</b>.</p> |
| <p><b>K16</b></p> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 607 (LB/OG) BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE SQUIB 1</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Air Bag Module Restraint System Diagnostic Tool.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Measure the resistance between RCM C2041a pin 3, circuit 607 (LB/OG), harness side and passenger air bag module C256 pin 3, circuit 607 (LB/OG), harness side.</li> </ul>  <p>A0050601</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 0.5 ohm?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>K17</b>.</p> <p><b>No</b><br/>REPAIR circuit 607 (LB/OG). GO to <b>K39</b>.</p>  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

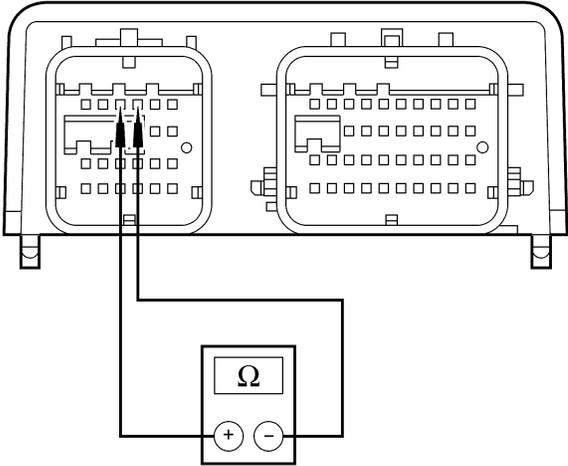
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step  |  | Result / Action to Take  |
|------------|--|--|
| <b>K17</b> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 616 (PK/BK) BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE SQUIB 1</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 4, circuit 616 (PK/BK), harness side and passenger air bag module C256 pin 4, circuit 616 (PK/BK), harness side.</li> </ul>  <p>A0050602</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>REPAIR circuit 616 (PK/BK). GO to <b>K39</b>.</p> |
| <b>K18</b> | <p><b>CHECK FOR LOW RESISTANCE ON CIRCUITS 607 (LB/OG) AND 616 (PK/BK) BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE SQUIB 1</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Air Bag Module Restraint System Diagnostic Tool.</li> <li>Measure the resistance between passenger air bag module C256 pin 3, circuit 607 (LB/OG), harness side and pin 4, circuit 616 (PK/BK), harness side.</li> </ul>  <p>A0029872</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 10,000 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>GO to <b>K19</b>.</p>                             |
| <b>K19</b> | <p><b>CHECK THE RESISTANCE BETWEEN THE RCM CIRCUITS 607 (LB/OG) AND 616 (PK/BK)</b></p> <ul style="list-style-type: none"> <li>Disconnect: RCM C2041a and C2041b.</li> </ul>   |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

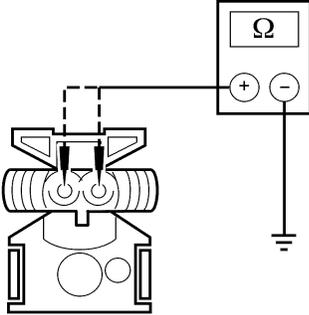
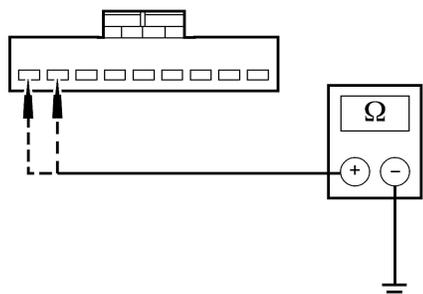
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

|                   | Test Step   | Result / Action to Take   |
|-------------------|---|---|
| <p><b>K19</b></p> | <p><b>CHECK THE RESISTANCE BETWEEN THE RCM CIRCUITS 607 (LB/OG) AND 616 (PK/BK) (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 3, circuit 607 (LB/OG), component side and pin 4, circuit 616 (PK/BK), component side.</li> </ul>  <p>A0041271</p>   | <p><b>Yes</b><br/>REPAIR circuits 607 (LB/OG) and 616 (PK/BK). GO to <b>K39</b>.</p> <p><b>No</b><br/>GO to <b>K37</b>.</p> |
| <p><b>K20</b></p> | <p><b>CHECK CIRCUITS 1516 (YE/WH) AND 1517 (RD/OG) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 2</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Disconnect: Driver Air Bag Module Squib 2 Restraint System Diagnostic Tool.</li> </ul> |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

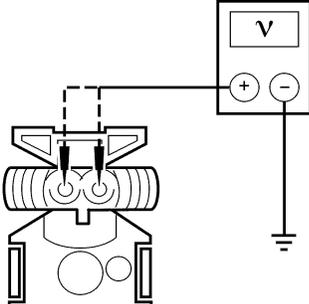
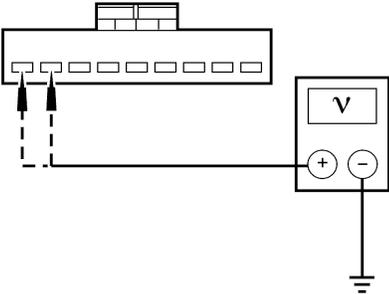
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step  |   | Result / Action to Take  |
|------------|---|--|
| <b>K20</b> | <p><b>CHECK CIRCUITS 1516 (YE/WH) AND 1517 (RD/OG) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 2 (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between driver air bag module squib 2, circuit 1516 (YE/WH), harness side and ground; and between driver air bag module squib 2, circuit 1517 (RD/OG), harness side and ground.</li> </ul>  <p>A0094161</p> <ul style="list-style-type: none"> <li><b>Are the resistances greater than 1,000,000 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>GO to <b>K21</b>.</p>   |
| <b>K21</b> | <p><b>CHECK CIRCUITS 1516 (YE/WH) AND 1517 (RD/OG) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE CLOCKSPRING</b></p> <ul style="list-style-type: none"> <li>Disconnect: Clockspring C2274.</li> <li>Measure the resistance between clockspring C2274 pin 8, circuit 1516 (YE/WH), harness side and ground; and between clockspring C2274 pin 9, circuit 1517 (RD/OG), harness side and ground.</li> </ul>  <p>A0088721</p> <ul style="list-style-type: none"> <li><b>Are the resistances greater than 1,000,000 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>INSTALL a new clockspring. REFER to Clockspring in this section. GO to <b>K39</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 1516 (YE/WH) or 1517 (RD/OG). GO to <b>K39</b>.</p> |
| <b>K22</b> | <p><b>CHECK CIRCUITS 1516 (YE/WH) AND 1517 (RD/OG) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 2</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Driver Air Bag Module Squib 2 Restraint System Diagnostic Tool.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> </ul> |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

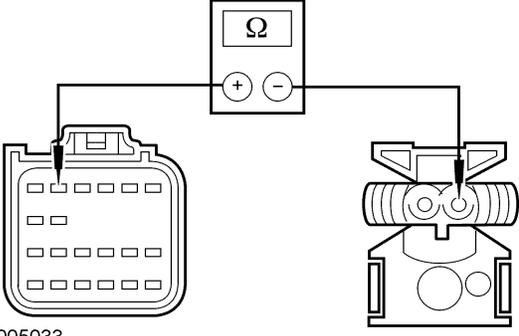
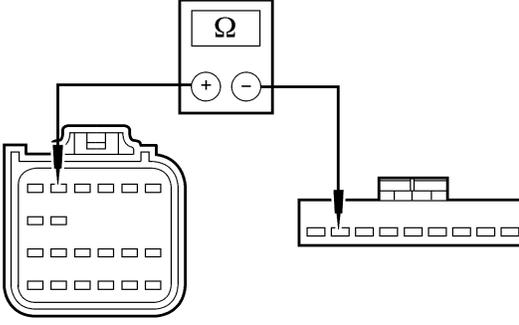
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step  |  | Result / Action to Take  |
|--|--|--|
| <b>K22</b>   | <b>CHECK CIRCUITS 1516 (YE/WH) AND 1517 (RD/OG) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 2 (Continued)</b> |  |
| <ul style="list-style-type: none"> <li>Measure the voltage between driver air bag module squib 2, circuit 1516 (YE/WH), harness side and ground; and between driver air bag module squib 2, circuit 1517 (RD/OG), harness side and ground.</li> </ul>  <p>A0094162</p> <ul style="list-style-type: none"> <li><b>Are the voltages less than 0.2 volt?</b></li> </ul>  |  | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>GO to <b>K23</b>.</p>   |
| <b>K23</b>   | <b>CHECK CIRCUITS 1516 (YE/WH) AND 1517 (RD/OG) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE CLOCKSPRING</b>                               |  |
| <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Disconnect: Clockspring C2274.</li> <li>Key in ON position.</li> <li>Measure the voltage between clockspring C2274 pin 8, circuit 1516 (YE/WH), harness side and ground; and between clockspring C2274 pin 9, circuit 1517 (RD/OG), harness side and ground.</li> </ul>  <p>A0088722</p> <ul style="list-style-type: none"> <li><b>Are the voltages less than 0.2 volt?</b></li> </ul> |  | <p><b>Yes</b><br/>INSTALL a new clockspring. REFER to Clockspring in this section. GO to <b>K39</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 1516 (YE/WH) or 1517 (RD/OG). GO to <b>K39</b>.</p> |
| <b>K24</b>   | <b>CHECK FOR AN OPEN ON CIRCUIT 1516 (YE/WH) BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 2</b>                                       |  |
| <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Driver Air Bag Module Squib 2 Restraint System Diagnostic Tool.</li> <li>Disconnect: RCM C2041a and C2041b.</li> </ul>   |  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

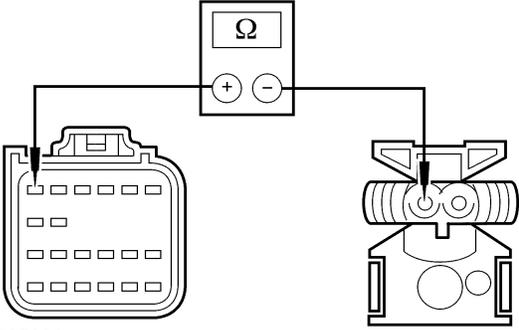
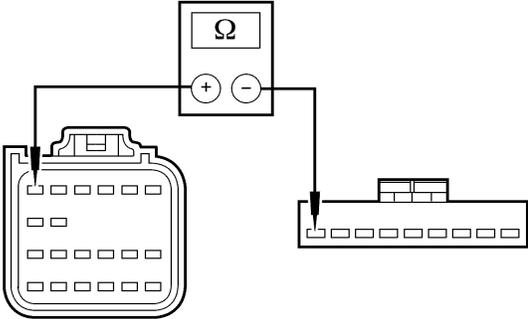
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| K24       | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1516 (YE/WH) BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 2 (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 5, circuit 1516 (YE/WH), harness side and driver air bag module squib 2, circuit 1516 (YE/WH), harness side.</li> </ul>  <p>N0005033</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>       | <p><b>Yes</b><br/>GO to <b>K26</b>.</p> <p><b>No</b><br/>GO to <b>K25</b>.</p>   |
| K25       | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1516 (YE/WH) BETWEEN THE RCM AND THE CLOCKSPRING</b></p> <ul style="list-style-type: none"> <li>Disconnect: Clockspring C2274.</li> <li>Measure the resistance between RCM C2041a pin 5, circuit 1516 (YE/WH), harness side and clockspring C2274 pin 8, circuit 1516 (YE/WH), harness side.</li> </ul>  <p>N0005034</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul> | <p><b>Yes</b><br/>INSTALL a new clockspring. REFER to Clockspring in this section. GO to <b>K39</b>.</p> <p><b>No</b><br/>REPAIR circuit 1516 (YE/WH). GO to <b>K39</b>.</p> |

(Continued)

## DIAGNOSIS AND TESTING (Continued)

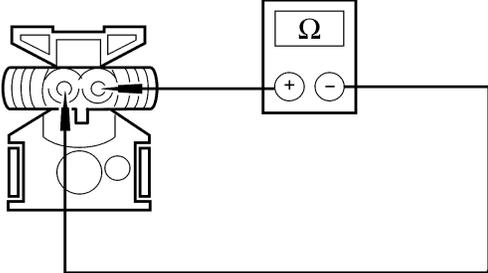
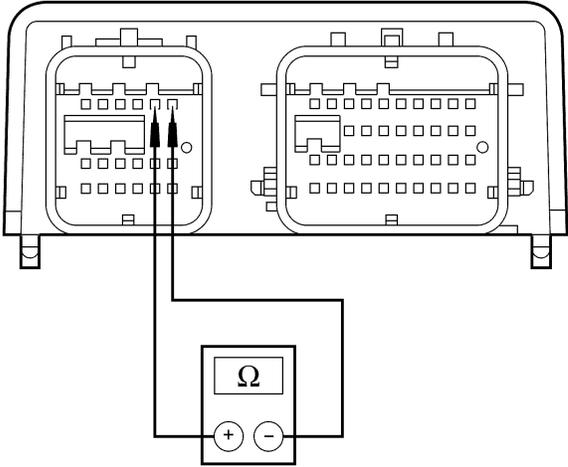
PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS  
(Continued)

| Test Step  |  | Result / Action to Take  |
|------------|--|--|
| <b>K26</b> | <b>CHECK FOR AN OPEN ON CIRCUIT 1517 (RD/OG) BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 2</b> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 6, circuit 1517 (RD/OG), harness side and driver air bag module squib 2, circuit 1517 (RD/OG), harness side.</li> </ul>  <p>N0005036</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>                   | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>GO to <b>K27</b>.</p>   |
| <b>K27</b> | <b>CHECK FOR AN OPEN ON CIRCUIT 1517 (RD/OG) BETWEEN THE RCM AND THE CLOCKSPRING</b> <ul style="list-style-type: none"> <li>Disconnect: Clockspring C2274.</li> <li>Measure the resistance between RCM C2041a pin 6, circuit 1517 (RD/OG), harness side and clockspring C2274 pin 9, circuit 1517 (RD/OG), harness side.</li> </ul>  <p>N0005035</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul> | <p><b>Yes</b><br/>INSTALL a new clockspring. REFER to Clockspring in this section. GO to <b>K39</b>.</p> <p><b>No</b><br/>REPAIR circuit 1517 (RD/OG). GO to <b>K39</b>.</p> |
| <b>K28</b> | <b>CHECK FOR LOW RESISTANCE ON CIRCUITS 1516 (YE/WH) AND 1517 (RD/OG) BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 2</b> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Driver Air Bag Module Squib 2 Restraint System Diagnostic Tool.</li> </ul>   |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

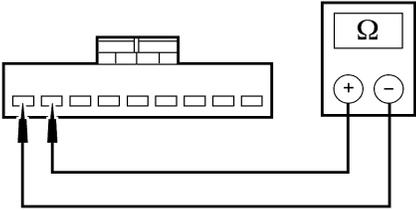
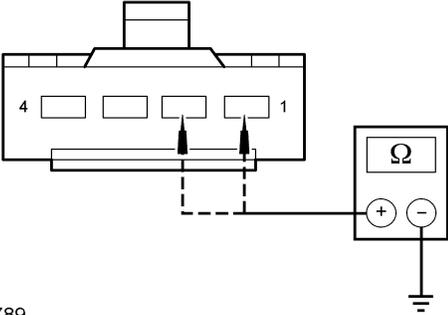
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

|     | Test Step  | Result / Action to Take  |
|-----|--|--|
| K28 | <p><b>CHECK FOR LOW RESISTANCE ON CIRCUITS 1516 (YE/WH) AND 1517 (RD/OG) BETWEEN THE RCM AND THE DRIVER AIR BAG MODULE SQUIB 2 (Continued)</b></p>   |  |
|     | <ul style="list-style-type: none"> <li>Measure the resistance between driver air bag module squib 2, circuit 1516 (YE/WH), harness side, and circuit 1517 (RD/OG), harness side.</li> </ul>  <p>A0030495</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 10,000 ohms?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>GO to <b>K29</b>.</p> |
| K29 | <p><b>MEASURE THE RESISTANCE BETWEEN THE RCM CIRCUITS 1516 (YE/WH) AND 1517 (RD/OG)</b></p>  |  |
|     | <ul style="list-style-type: none"> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Measure the resistance between RCM C2041a pin 5, circuit 1516 (YE/WH), component side and pin 6, circuit 1517 (RD/OG), component side.</li> </ul>  <p>A0041276</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 10,000 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>K30</b>.</p> <p><b>No</b><br/>GO to <b>K37</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

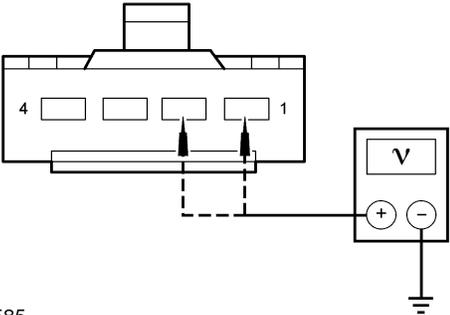
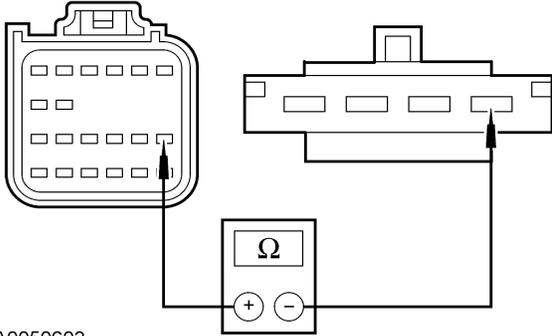
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step  |   | Result / Action to Take   |
|------------|---|---|
| <b>K30</b> | <p><b>CHECK FOR LOW RESISTANCE ON CIRCUITS 1516 (YE/WH) AND 1517 (RD/OG) BETWEEN THE DRIVER AIR BAG MODULE AND THE CLOCKSPRING</b></p> <ul style="list-style-type: none"> <li>• Connect: RCM C2041a and C2041b.</li> <li>• Disconnect: Clockspring C2274.</li> <li>• Measure the resistance between clockspring C2274 pin 8, circuit 1516 (YE/WH), harness side and pin 9, circuit 1517 (RD/OG), harness side.</li> </ul>  <p>A0088725</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance greater than 10,000 ohms?</b></li> </ul>  | <p><b>Yes</b><br/>INSTALL a new clockspring. REFER to Clockspring in this section. GO to <b>K39</b>.</p> <p><b>No</b><br/>REPAIR circuits 1516 (YE/WH) and 1517 (RD/OG). GO to <b>K39</b>.</p>  |
| <b>K31</b> | <p><b>CHECK CIRCUITS 1518 (RD/WH) AND 1519 (LG/RD) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE SQUIB 2</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Passenger Air Bag Module Restraint System Diagnostic Tool.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Measure the resistance between passenger air bag module C256 pin 1, circuit 1518 (RD/WH), harness side and ground; and between passenger air bag module C256 pin 2, circuit 1519 (LG/RD), harness side and ground.</li> </ul>  <p>A0088789</p> <ul style="list-style-type: none"> <li>• <b>Are the resistances greater than 1,000,000 ohms?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 1518 (RD/WH) or 1519 (LG/RD). GO to <b>K39</b>.</p> |
| <b>K32</b> | <p><b>CHECK CIRCUITS 1518 (RD/WH) AND 1519 (LG/RD) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE SQUIB 2</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Passenger Air Bag Module Restraint System Diagnostic Tool.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> </ul>  |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

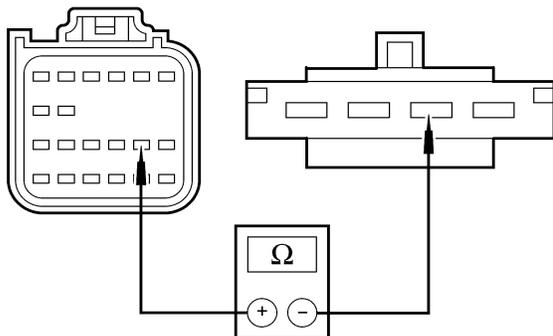
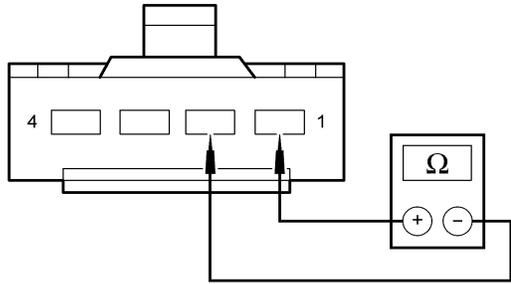
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

|                   | Test Step   | Result / Action to Take   |
|-------------------|---|---|
| <p><b>K32</b></p> | <p><b>CHECK CIRCUITS 1518 (RD/WH) AND 1519 (LG/RD) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE SQUIB 2 (Continued)</b></p> <ul style="list-style-type: none"> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Key in ON position.</li> <li>• Measure the voltage between passenger air bag module C256 pin 1, circuit 1518 (RD/WH), harness side and ground; and between passenger air bag module C256 pin 2, circuit 1519 (LG/RD), harness side and ground.</li> </ul>  <p>A0088585</p> <ul style="list-style-type: none"> <li>• <b>Are the measurements less than 0.2 volt?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 1518 (RD/WH) or 1519 (LG/RD). GO to <b>K39</b>.</p> |
| <p><b>K33</b></p> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1518 (RD/WH) BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE SQUIB 2</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Passenger Air Bag Module Restraint System Diagnostic Tool.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Measure the resistance between RCM C2041a pin 13, circuit 1518 (RD/WH), harness side and passenger air bag module C256 pin 1, circuit 1518 (RD/WH), harness side.</li> </ul>  <p>A0050603</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance less than 0.5 ohm?</b></li> </ul>       | <p><b>Yes</b><br/>GO to <b>K34</b>.</p> <p><b>No</b><br/>REPAIR circuit 1518 (RD/WH). GO to <b>K39</b>.</p>   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

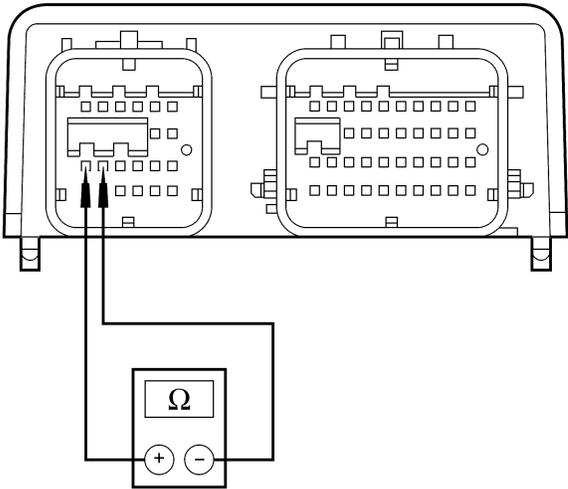
**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step  |  | Result / Action to Take   |
|------------|--|---|
| <b>K34</b> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1519 (LG/RD) BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 14, circuit 1519 (LG/RD), harness side and passenger air bag module C256 pin 2, circuit 1519 (LG/RD), harness side.</li> </ul>  <p>A0050604</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>REPAIR circuit 1519 (LG/RD). GO to <b>K39</b>.</p> |
| <b>K35</b> | <p><b>CHECK FOR LOW RESISTANCE ON CIRCUITS 1518 (RD/WH) AND 1519 (LG/RD) BETWEEN THE RCM AND THE PASSENGER AIR BAG MODULE SQUIB 2</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Air Bag Module Restraint System Diagnostic Tool.</li> <li>Measure the resistance between passenger air bag module C256 pin 1, circuit 1518 (RD/WH), harness side and pin 2, circuit 1519 (LG/RD), harness side.</li> </ul>  <p>A0029882</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 10,000 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>K37</b>.</p> <p><b>No</b><br/>GO to <b>K36</b>.</p>                              |
| <b>K36</b> | <p><b>MEASURE THE RESISTANCE BETWEEN THE RCM CIRCUITS 1518 (RD/WH) AND 1519 (LG/RD)</b></p> <ul style="list-style-type: none"> <li>Disconnect: RCM C2041a and C2041b.</li> </ul>   |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step  |   | Result / Action to Take   |
|------------|---|---|
| <b>K36</b> | <p><b>MEASURE THE RESISTANCE BETWEEN THE RCM CIRCUITS 1518 (RD/WH) AND 1519 (LG/RD) (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 13, circuit 1518 (RD/WH), component side and pin 14, circuit 1519 (LG/RD), component side.</li> </ul>  <p>A0041281</p> <ul style="list-style-type: none"> <li><b>Is the resistance greater than 10,000 ohms?</b></li> </ul>  | <p><b>Yes</b><br/>REPAIR circuit 1518 (RD/WH) and 1519 (LG/RD). GO to <b>K39</b>.</p> <p><b>No</b><br/>GO to <b>K37</b>.</p>  |
| <b>K37</b> | <p><b>CONFIRM THE RCM FAULT</b></p> <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Connect: Driver or Passenger Air Bag Module Restraint System Diagnostic Tool(s).</li> <li>Connect: RCM C2041a and C2041b.</li> <li>Connect: Clockspring C2274 (if previously disconnected).</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2293.</li> <li><b>Was DTC B2293 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>If a “?” was flagged by the diagnostic tool, CARRY OUT the entire pinpoint test. INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>K39</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>K39</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS (Continued)**

| Test Step  |  | Result / Action to Take  |
|------------|--|--|
| <b>K38</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|            | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• If the flagged fault was reported for the driver air bag module:                             <ul style="list-style-type: none"> <li>— Remove the driver air bag module. Refer to Driver Air Bag Module in this section.</li> <li>— Connect restraint system diagnostic tools 418-F395 (2 required) to driver air bag module squib 1 and squib 2 connectors.</li> </ul> </li> <li>• If the flagged fault was reported for the passenger air bag module:                             <ul style="list-style-type: none"> <li>— Disconnect passenger air bag module C256.</li> <li>— Connect restraint system diagnostic tool 418-F403 to passenger air bag module C256.</li> </ul> </li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2293/Record All Flagged Faults.</li> <li>• <b>Was DTC B2293 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>CHECK for causes of the intermittent fault at or near the affected air bag module connector. REPAIR any intermittent concerns found.</p> <p>If an intermittent concern <b>was</b> found and repaired, GO to <b>K39</b>.</p> <p>If an intermittent concern <b>was not</b> found and repaired, use the flagged faults recorded and GO to the appropriate pinpoint test step.</p> <p>If a flagged fault of “?” was recorded, multiple faults exist and the entire pinpoint test must be carried out.</p> <p>For driver air bag module squib 1 (D__ABAG) with a short to ground (STG) fault, GO to <b>K3</b>.</p> <p>For driver air bag module squib 1 (D__ABAG) with a short to battery (STB) fault, GO to <b>K5</b>.</p> <p>For driver air bag module squib 1 (D__ABAG) with an open circuit (O__CIR) fault, GO to <b>K7</b>.</p> <p>For driver air bag module squib 1 (D__ABAG) with a low resistance (LOWRES) fault, GO to <b>K11</b>.</p> <p>For passenger air bag module squib 1 (P__ABAG) with a short to ground (STG) fault, GO to <b>K14</b>.</p> <p>For passenger air bag module squib 1 (P__ABAG) with a short to battery (STB) fault, GO to <b>K15</b>.</p> <p>For passenger air bag module squib 1 (P__ABAG) with an open circuit (O__CIR) fault, GO to <b>K16</b>.</p> <p>For passenger air bag module squib 1 (P__ABAG) with a low resistance (LOWRES) fault, GO to <b>K18</b>.</p> <p>For driver air bag module squib 2 (D__ABAG2) with a short to ground (STG) fault, GO to <b>K20</b>.</p> <p>For driver air bag module squib 2 (D__ABAG2) with a short to battery (STB) fault, GO to <b>K22</b>.</p> <p>For driver air bag module squib 2 (D__ABAG2) with an open circuit (O__CIR) fault, GO to <b>K24</b>.</p> <p>For driver air bag module squib 2 (D__ABAG2) with a low resistance (LOWRES) fault, GO to <b>K28</b>.</p> <p>For passenger air bag module squib 2 (P__ABAG2) with a short to ground (STG) fault, GO to <b>K31</b>.</p> <p>For passenger air bag module squib 2 (P__ABAG2) with a short to battery (STB) fault, GO to <b>K32</b>.</p> <p>For passenger air bag module squib 2 (P__ABAG2) with an open circuit (O__CIR) fault, GO to <b>K33</b>.</p> <p>For passenger air bag module squib 2 (P__ABAG2) with a low resistance (LOWRES) fault, GO to <b>K35</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST K: LFC 19 AND 21/DTC B2293 — RESTRAINT SYSTEM — AIR BAG STATUS  
(Continued)**

| Test Step  |  | Result / Action to Take  |
|------------|--|--|
| <b>K38</b> | <b>CHECK FOR AN INTERMITTENT FAULT (Continued)</b>   | <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness, cycling the ignition key frequently, and rotating the steering wheel (driver air bag module fault). REPAIR any intermittent concerns found. GO to <b>K39</b>.</p>   |
|            |  |  |
| <b>K39</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |
|            | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step K1.</li> <li><b>Were any continuous DTCs retrieved during Step K1?</b></li> </ul> |  |

**Pinpoint Test L: LFC 22 and 23/DTC B2295 — Restraint System — Side Air Bag Status****Normal Operation**

The seat side air bags will deploy upon receiving a flow of current from the restraints control module (RCM). Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

The restraints control module (RCM) checks all of the seat side air bag circuits for faults. If the RCM detects one of the following faults on any of the seat side air bag circuits, it will store diagnostic trouble code (DTC) B2295 in memory and flash either lamp fault code (LFC) 22 or 23 depending on the fault (or higher priority code if one exists) on the air bag indicator.

**Fault Conditions**

The RCM monitors for the following fault conditions:

- Low resistance
- High resistance or circuit open
- Circuit short to voltage
- Circuit short to ground

**Possible Causes**

A seat side air bag status fault can be caused by:

- wiring, terminals or connectors.
- a faulty seat side air bag module.
- a faulted RCM.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS**

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| L1        | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>   |   |
|           | <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, <b>the restraint system diagnostic tools must be removed before operating the vehicle over the road.</b></p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2295/Record all flagged faults.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Flag/Record Continuous DTCs.</li> <li>• <b>Was DTC B2295 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/> <b>Vehicles with seat side air bag modules</b><br/>                     This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <a href="#">L3</a>.</p> <p><b>Vehicles without seat side air bag modules</b><br/>                     This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <a href="#">L2</a>.</p> <p><b>No</b><br/>                     This is an intermittent fault. The fault condition is not present at this time. GO to <a href="#">L17</a>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS (Continued)**

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| <b>L2</b> | <b>CHECK THE SEAT SIDE AIR BAG BRIDGE RESISTOR</b>  |   |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Driver and Passenger Seat Side Air Bag Bridge Resistors.</li> <li>• Transfer the driver seat side air bag bridge resistor to the passenger side, and the passenger seat side air bag bridge resistor to the driver side.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2295/Record all flagged faults.</li> <li>• <b>Did the flagged fault transfer between the driver side (DFSIDE) and the passenger side (PFSIDE)?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new seat side air bag bridge resistor. GO to <b>L18</b>.</p> <p><b>No</b><br/>Using the flagged faults recorded, GO to the appropriate pinpoint test step.<br/>If a flagged fault of “?” was recorded in Step L1, multiple faults exist and the entire pinpoint test must be carried out.<br/>For driver seat side air bag module (DFSIDE) with a short to battery (STB) fault, GO to <b>L4</b>.<br/>For driver seat side air bag module (DFSIDE) with a short to ground (STG) fault, GO to <b>L5</b>.<br/>For driver seat side air bag module (DFSIDE) with an open circuit (O_CIR) fault, GO to <b>L6</b>.<br/>For driver seat side air bag module (DFSIDE) with a low resistance (LOWRES) fault, GO to <b>L8</b>.<br/>For passenger seat side air bag module (PFSIDE) with a short to battery (STB) fault, GO to <b>L10</b>.<br/>For passenger seat side air bag module (PFSIDE) with a short to ground (STG) fault, GO to <b>L11</b>.<br/>For passenger seat side air bag module (PFSIDE) with an open circuit (O_CIR) fault, GO to <b>L12</b>.<br/>For passenger seat side air bag module (PFSIDE) with a low resistance (LOWRES) fault, GO to <b>L14</b>.</p> |

(Continued)

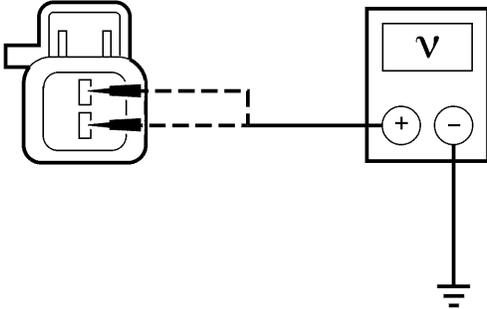
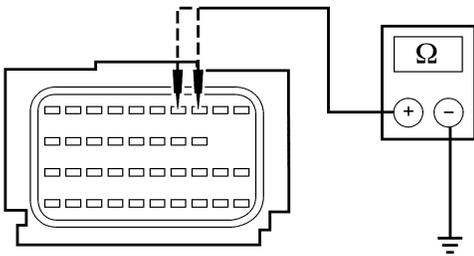
**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS  
(Continued)**

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| <b>L3</b> | <b>CHEK THE DRIVER AND PASSENGER SEAT SIDE AIR BAG MODULES</b>  |   |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: The Affected Seat Side Air Bag Module C367 (Driver) or C337 (Passenger).</li> <li>• Connect: Restraint System Diagnostic Tool 418-133 to the Affected Seat Side Air Bag Module C367 (Driver) or C337 (Passenger).</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2295/Record All Flagged Faults.</li> <li>• <b>Was DTC B2295 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>Using the flagged faults recorded in Step L1, GO to the appropriate pinpoint test step.</p> <p>If a flagged fault of “?” was recorded in Step L1, multiple faults exist and the entire pinpoint test must be carried out.</p> <p>For driver seat side air bag module (DFSIDE) with a short to battery (STB) fault, GO to <b>L4</b>.</p> <p>For driver seat side air bag module (DFSIDE) with a short to ground (STG) fault, GO to <b>L5</b>.</p> <p>For driver seat side air bag module (DFSIDE) with an open circuit (O__CIR) fault, GO to <b>L6</b>.</p> <p>For driver seat side air bag module (DFSIDE) with a low resistance (LOWRES) fault, GO to <b>L8</b>.</p> <p>For passenger seat side air bag module (PFSIDE) with a short to battery (STB) fault, GO to <b>L10</b>.</p> <p>For passenger seat side air bag module (PFSIDE) with a short to ground (STG) fault, GO to <b>L11</b>.</p> <p>For passenger seat side air bag module (PFSIDE) with an open circuit (O__CIR) fault, GO to <b>L12</b>.</p> <p>For passenger seat side air bag module (PFSIDE) with a low resistance (LOWRES) fault, GO to <b>L14</b>.</p> <p><b>No</b><br/>REMOVE and INSPECT the seat side air bag module jumper harness for damage. If a concern is found, REPAIR the harness. If no problem is found in the harness or the harness cannot be repaired, INSTALL a new seat side air bag module. REFER to Side Air Bag Module in this section. GO to <b>L18</b>.</p> |
| <b>L4</b> | <b>CHECK CIRCUITS 1257 (WH/LB) AND 1258 (RD) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE DRIVER SEAT SIDE AIR BAG MODULE</b>   |   |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Driver Seat Side Air Bag Module Restraint System Diagnostic Tool (With Seat Side Air Bags).</li> <li>• Disconnect: Driver Seat Side Air Bag Bridge Resistor (Without Seat Side Air Bags).</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Key in ON position.</li> </ul>   |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

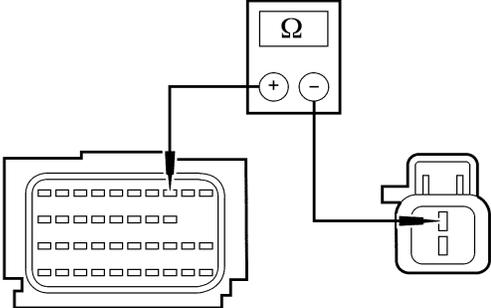
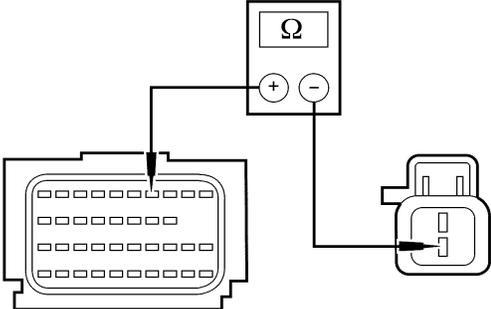
**PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS (Continued)**

|    | Test Step  | Result / Action to Take  |
|----|--|--|
| L4 | <p><b>CHECK CIRCUITS 1257 (WH/LB) AND 1258 (RD) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE DRIVER SEAT SIDE AIR BAG MODULE (Continued)</b></p>   |  |
|    | <ul style="list-style-type: none"> <li>Measure the voltage between driver seat side air bag module C367 (or driver seat air bag bridge resistor C3108) pin 1, circuit 1257 (WH/LB), harness side and ground; and between driver seat side air bag module C367 (or driver seat air bag bridge resistor C3108) pin 2, circuit 1258 (RD), harness side and ground.</li> </ul>  <p>A0088573</p> <ul style="list-style-type: none"> <li>Are the voltages less than 0.2 volt?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>L16</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 1257 (WH/LB) or 1258 (RD). GO to <b>L18</b>.</p> |
| L5 | <p><b>CHECK CIRCUITS 1257 (WH/LB) AND 1258 (RD) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE DRIVER SEAT SIDE AIR BAG MODULE</b></p>  |  |
|    | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Driver Seat Side Air Bag Module Restraint System Diagnostic Tool (With Seat Side Air Bags).</li> <li>Disconnect: Driver Seat Side Air Bag Bridge Resistor (Without Seat Side Air Bags).</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Measure the resistance between RCM C2041b pin 3, circuit 1257 (WH/LB), harness side and ground; and between RCM C2041b pin 4, circuit 1258 (RD), harness side and ground.</li> </ul>  <p>A0079102</p> <ul style="list-style-type: none"> <li>Are the resistances greater than 1,000,000 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>L16</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 1257 (WH/LB) or 1258 (RD). GO to <b>L18</b>.</p> |
| L6 | <p><b>CHECK FOR AN OPEN ON CIRCUITS 1257 (WH/LB) BETWEEN THE RCM AND THE DRIVER SEAT SIDE AIR BAG MODULE</b></p>   |  |
|    | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Driver Seat Side Air Bag Module Restraint System Diagnostic Tool (With Seat Side Air Bags).</li> </ul>   |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

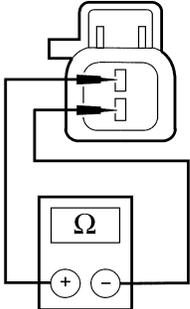
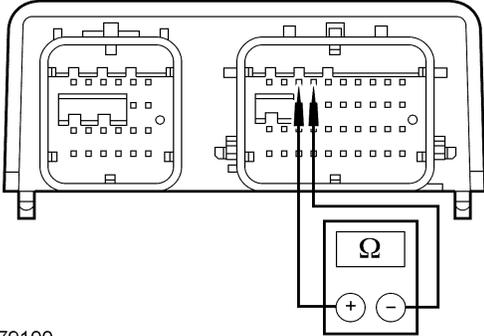
**PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS (Continued)**

|    | Test Step  | Result / Action to Take  |
|----|--|--|
| L6 | <p><b>CHECK FOR AN OPEN ON CIRCUITS 1257 (WH/LB) BETWEEN THE RCM AND THE DRIVER SEAT SIDE AIR BAG MODULE (Continued)</b></p>   |  |
|    | <ul style="list-style-type: none"> <li>• Disconnect: Driver Seat Side Air Bag Bridge Resistor (Without Seat Side Air Bags).</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Measure the resistance between RCM C2041b pin 3, circuit 1257 (WH/LB), harness side and driver seat side air bag module C367 (or driver seat air bag bridge resistor C3108) pin 1, circuit 1257 (WH/LB), harness side.</li> </ul>  <p>N0010355</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance less than 0.5 ohm?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>L7</b>.</p> <p><b>No</b><br/>REPAIR circuit 1257 (WH/LB). GO to <b>L18</b>.</p> |
| L7 | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1258 (RD) BETWEEN THE RCM AND THE DRIVER SEAT SIDE AIR BAG MODULE</b></p>   |  |
|    | <ul style="list-style-type: none"> <li>• Measure the resistance between RCM C2041b pin 4, circuit 1258 (RD), harness side and driver seat side air bag module C367 (or driver seat air bag bridge resistor C3108) pin 2, circuit 1258 (RD), harness side.</li> </ul>  <p>N0010354</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance less than 0.5 ohm?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>L16</b>.</p> <p><b>No</b><br/>REPAIR circuit 1258 (RD). GO to <b>L18</b>.</p>   |
| L8 | <p><b>CHECK FOR LOW RESISTANCE ON CIRCUITS 1257 (WH/LB) AND 1258 (RD) BETWEEN THE RCM AND THE DRIVER SEAT SIDE AIR BAG MODULE</b></p>  |  |
|    | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Driver Seat Side Air Bag Module Restraint System Diagnostic Tool (With Seat Side Air Bags).</li> <li>• Disconnect: Driver Seat Side Air Bag Bridge Resistor (Without Seat Side Air Bags).</li> </ul>   |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

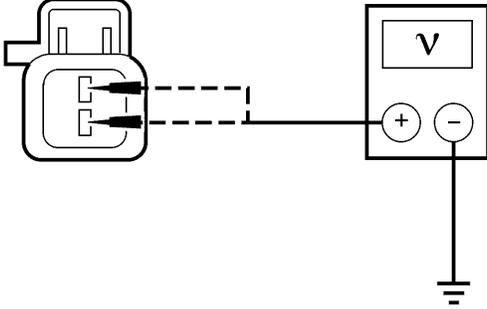
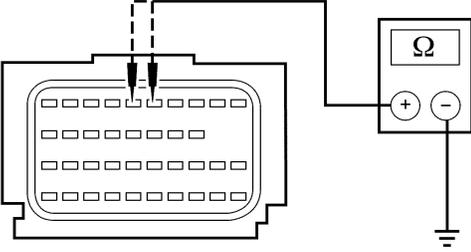
**PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS (Continued)**

| Test Step  |  | Result / Action to Take   |
|------------|--|---|
| <b>L8</b>  | <p><b>CHECK FOR LOW RESISTANCE ON CIRCUITS 1257 (WH/LB) AND 1258 (RD) BETWEEN THE RCM AND THE DRIVER SEAT SIDE AIR BAG MODULE (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between driver seat side air bag module C367 (or driver seat air bag bridge resistor C3108) pin 1, circuit 1257 (WH/LB), harness side and pin 2, circuit 1258 (RD), harness side.</li> </ul>  <p>A0029887</p> <ul style="list-style-type: none"> <li><b>Is the resistance greater than 10,000 ohms?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>L16</b>.</p> <p><b>No</b><br/>GO to <b>L9</b>.</p>   |
| <b>L9</b>  | <p><b>MEASURE THE RESISTANCE BETWEEN RCM CIRCUITS 1257 (WH/LB) AND 1258 (RD)</b></p> <ul style="list-style-type: none"> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Measure the resistance between RCM C2041b pin 3, circuit 1257 (WH/LB), component side and pin 4, circuit 1258 (RD), component side.</li> </ul>  <p>A0079100</p> <ul style="list-style-type: none"> <li><b>Is the resistance greater than 10,000 ohms?</b></li> </ul>  | <p><b>Yes</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 1257 (WH/LB) and circuit 1258 (RD). GO to <b>L18</b>.</p> <p><b>No</b><br/>GO to <b>L16</b>.</p> |
| <b>L10</b> | <p><b>CHECK CIRCUITS 1259 (WH/YE) AND 1260 (BN/YE) FOR A SHORT TO BATTERY BETWEEN THE RCM AND THE PASSENGER SEAT SIDE AIR BAG MODULE</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Seat Side Air Bag Module Restraint System Diagnostic Tool (With Seat Side Air Bags).</li> <li>Disconnect: Passenger Seat Side Air Bag Bridge Resistor (Without Seat Side Air Bags).</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> </ul> |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

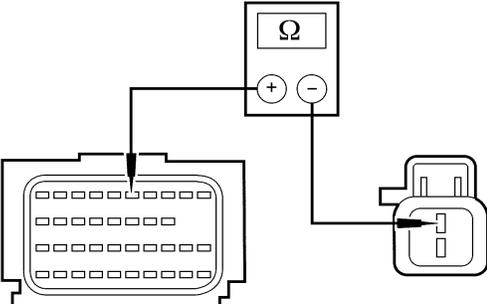
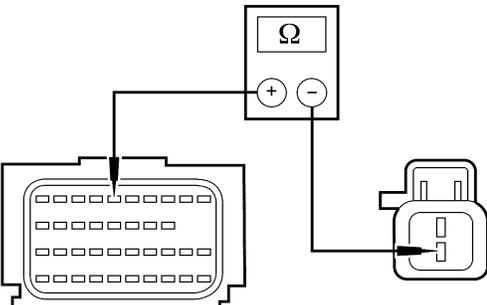
**PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS (Continued)**

| Test Step  |   | Result / Action to Take   |
|------------|---|---|
| <b>L10</b> | <p><b>CHECK CIRCUITS 1259 (WH/YE) AND 1260 (BN/YE) FOR A SHORT TO BATTERY BETWEEN THE RCM AND THE PASSENGER SEAT SIDE AIR BAG MODULE (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the voltage between passenger seat air bag module C337 (or passenger seat air bag bridge resistor C3109) pin 1, circuit 1259 (WH/YE), harness side and ground; and between passenger seat air bag module C337 pin 2, circuit 1260 (BN/YE), harness side and ground.</li> </ul>  <p>A0088573</p> <ul style="list-style-type: none"> <li>Are the voltages less than 0.2 volt?</li> </ul>   | <p><b>Yes</b><br/>GO to <b>L16</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 1259 (WH/YE) or 1260 (BN/YE). GO to <b>L18</b>.</p> |
| <b>L11</b> | <p><b>CHECK CIRCUITS 1259 (WH/YE) AND 1260 (BN/YE) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE PASSENGER SEAT SIDE AIR BAG MODULE</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Seat Side Air Bag Module Restraint System Diagnostic Tool (With Seat Side Air Bags).</li> <li>Disconnect: Passenger Seat Side Air Bag Bridge Resistor (Without Seat Side Air Bags).</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Measure the resistance between RCM C2041b pin 5, circuit 1259 (WH/YE), harness side and ground; and between RCM C2041b pin 6, circuit 1260 (BN/YE), harness side and ground.</li> </ul>  <p>A0079098</p> <ul style="list-style-type: none"> <li>Are the resistances greater than 1,000,000 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>L16</b>.</p> <p><b>No</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 1259 (WH/YE) or 1260 (BN/YE). GO to <b>L18</b>.</p> |
| <b>L12</b> | <p><b>CHECK FOR AN OPEN ON CIRCUITS 1259 (WH/YE) BETWEEN THE RCM AND THE PASSENGER SEAT SIDE AIR BAG MODULE</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Seat Side Air Bag Module Restraint System Diagnostic Tool (With Seat Side Air Bags).</li> </ul>   |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

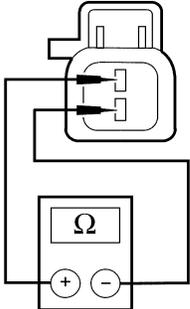
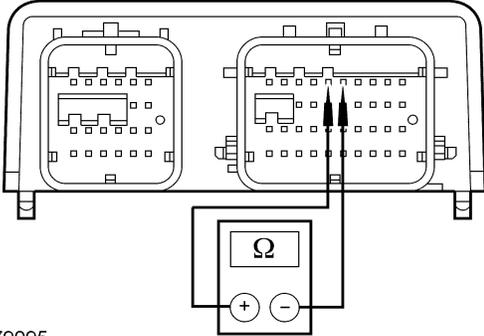
**PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS (Continued)**

| Test Step   | Result / Action to Take   |
|---|---|
| <p><b>L12 CHECK FOR AN OPEN ON CIRCUITS 1259 (WH/YE) BETWEEN THE RCM AND THE PASSENGER SEAT SIDE AIR BAG MODULE (Continued)</b></p> <ul style="list-style-type: none"> <li>• Disconnect: Passenger Seat Side Air Bag Bridge Resistor (Without Seat Side Air Bags).</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Measure the resistance between RCM C2041b pin 5, circuit 1259 (WH/YE), harness side and passenger seat side air bag module C337 (or passenger seat air bag bridge resistor C3109) pin 1, circuit 1259 (WH/YE), harness side.</li> </ul>  <p>N0010353</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance less than 0.5 ohm?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>L13</b>.</p> <p><b>No</b><br/>REPAIR circuit 1259 (WH/YE). GO to <b>L18</b>.</p> |
| <p><b>L13 CHECK FOR AN OPEN ON CIRCUIT 1260 (BN/YE) BETWEEN THE RCM AND THE PASSENGER SEAT SIDE AIR BAG MODULE</b></p> <ul style="list-style-type: none"> <li>• Measure the resistance between RCM C2041b pin 6, circuit 1260 (BN/YE), harness side and passenger seat side air bag module C337 (or passenger seat air bag bridge resistor C3109) pin 2, circuit 1260 (BN/YE), harness side.</li> </ul>  <p>N0010352</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance less than 0.5 ohm?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>L16</b>.</p> <p><b>No</b><br/>REPAIR circuit 1260 (BN/YE). GO to <b>L18</b>.</p> |
| <p><b>L14 CHECK FOR LOW RESISTANCE ON CIRCUITS 1259 (WH/YE) AND 1260 (BN/YE) BETWEEN THE RCM AND THE PASSENGER SEAT SIDE AIR BAG MODULE</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Passenger Seat Side Air Bag Module Restraint System Diagnostic Tool (With Seat Side Air Bags).</li> <li>• Disconnect: Passenger Seat Side Air Bag Bridge Resistor (Without Seat Side Air Bags).</li> </ul>  |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS (Continued)**

| Test Step   |   | Result / Action to Take  |
|---|---|--|
| <p><b>L14</b></p> <p><b>CHECK FOR LOW RESISTANCE ON CIRCUITS 1259 (WH/YE) AND 1260 (BN/YE) BETWEEN THE RCM AND THE PASSENGER SEAT SIDE AIR BAG MODULE (Continued)</b></p> | <ul style="list-style-type: none"> <li>Measure the resistance between passenger seat side air bag module C337 (or passenger seat air bag bridge resistor C3109) pin 1, circuit 1259 (WH/YE), harness side and pin 2, circuit 1260 (BN/YE), harness side.</li> </ul>  <p>A0029887</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 10,000 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>L16</b>.</p> <p><b>No</b><br/>GO to <b>L15</b>.</p>   |
| <p><b>L15</b></p> <p><b>MEASURE THE RESISTANCE BETWEEN RCM CIRCUITS 1259 (WH/YE) AND 1260 (BN/YE)</b></p>   | <ul style="list-style-type: none"> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Measure the resistance between RCM C2041b pin 5, circuit 1259 (WH/YE), component side and pin 6, circuit 1260 (BN/YE), component side.</li> </ul>  <p>A0079095</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 10,000 ohms?</li> </ul>                              | <p><b>Yes</b><br/>Due to the shorting bar feature in the electrical connector, the fault can exist in either circuit. Do not remove or defeat the shorting bar.<br/>REPAIR circuit 1259 (WH/YE) and circuit 1260 (BN/YE). GO to <b>L18</b>.</p> <p><b>No</b><br/>GO to <b>L16</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS  
(Continued)**

| Test Step |  | Result / Action to Take   |
|-----------|--|---|
| L16       | <b>CONFIRM THE RCM FAULT</b>   |   |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Connect: Driver and Passenger Seat Side Air Bag Module Restraint System Diagnostic Tool (With Seat Side Air Bags).</li> <li>• Connect: Driver and Passenger Seat Side Air Bag Bridge Resistor (Without Seat Side Air Bags).</li> <li>• Connect: RCM C2041a and C2041b.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2295.</li> <li>• <b>Was DTC B2295 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>If a “?” was flagged by the diagnostic tool, CARRY OUT the entire pinpoint test. INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>L18</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>L18</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS (Continued)**

|     | Test Step   | Result / Action to Take   |
|-----|---|---|
| L17 | <b>CHECK FOR AN INTERMITTENT FAULT</b>  |   |
|     | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: The Affected Seat Side Air Bag Module C367 (Driver) or C337 (Passenger).</li> <li>• Connect: Restraint System Diagnostic Tool 418-133 to the Affected Seat Side Air Bag Module C367 (Driver) or C337 (Passenger).</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2295.</li> <li>• <b>Was DTC B2295 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/> <b>All vehicles</b><br/>                     CHECK for causes of the intermittent fault at or near the affected seat side air bag connector. REPAIR any intermittent concerns found.<br/>                     If an intermittent concern <b>was</b> found and repaired, GO to <b>L18</b>.<br/>                     If an intermittent concern <b>was not</b> found and repaired, USE the flagged faults recorded and GO to the appropriate pinpoint test step.<br/>                     If a flagged fault of “?” was recorded in Step L1, multiple faults exist and the entire pinpoint test must be carried out.</p> <p><b>Vehicles with seat side air bag modules</b><br/>                     For driver seat side air bag module (DFSIDE) with a short to battery (STB) fault, GO to <b>L4</b>.<br/>                     For driver seat side air bag module (DFSIDE) with a short to ground (STG) fault, GO to <b>L5</b>.<br/>                     For driver seat side air bag module (DFSIDE) with an open circuit (O_CIR) fault, GO to <b>L6</b>.<br/>                     For driver seat side air bag module (DFSIDE) with a low resistance (LOWRES) fault, GO to <b>L8</b>.<br/>                     For passenger seat side air bag module (PFSIDE) with a short to battery (STB) fault, GO to <b>L10</b>.<br/>                     For passenger seat side air bag module (PFSIDE) with a short to ground (STG) fault, GO to <b>L11</b>.<br/>                     For passenger seat side air bag module (PFSIDE) with an open circuit (O_CIR) fault, GO to <b>L12</b>.<br/>                     For passenger seat side air bag module (PFSIDE) with a low resistance (LOWRES) fault, GO to <b>L14</b>.</p> <p><b>Vehicles without seat side air bag modules</b><br/>                     GO to <b>L2</b>.</p> <p><b>No</b><br/>                     CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>L18</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST L: LFC 22 AND 23/DTC B2295 — RESTRAINT SYSTEM — SIDE AIR BAG STATUS (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| L18       | CHECK FOR ADDITIONAL DTCs  |  |
|           | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step L1.</li> <li><b>Were any continuous DTCs retrieved during Step L1?</b></li> </ul> | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**Pinpoint Test M: LFC 42, 43 and 44/DTC B2296 — Restraint System — Impact Sensor Status**

**Normal Operation**

The impact sensor(s) provide data to the RCM for use in calculating impact severity. This is accomplished using various electrical and electro-mechanical sensor(s) throughout the vehicle. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

The restraints control module (RCM) checks all of the impact sensor circuits for faults. If the RCM detects one of the following faults on any of the impact sensor circuits, it will store diagnostic trouble code (DTC) B2296 in memory and flash either lamp fault code (LFC) 42, 43 or 44 depending on the fault (or higher priority code if one exists) on the air bag indicator.

**Fault Conditions**

The RCM monitors for the following fault conditions:

- Mounting resistance high
- Low resistance (short) between feed and return circuits

- Circuit open
- Circuit short to battery
- Circuit short to ground

**Possible Causes**

A front impact severity sensor status fault can be caused by:

- wiring, terminals or connectors.
- a faulty front impact severity sensor.
- incorrect front impact severity sensor mounting.
- a faulted RCM.

A side impact sensor status fault can be caused by:

- wiring, terminals or connectors.
- a faulty side impact sensor.
- incorrect side impact sensor mounting.
- a faulty RCM.

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS**

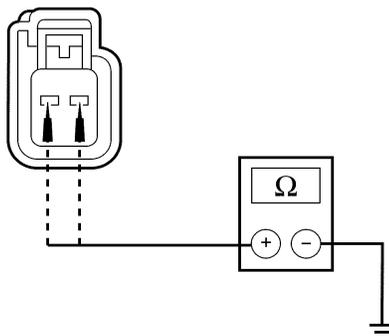
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough inspection and verification before proceeding with the pinpoint test.

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| <b>M1</b> | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>   |   |
|           | <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Flag/Record Continuous DTCs.</li> <li><b>Was DTC B2296 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test.</p> <p>If a flagged fault of “?” was recorded in Step M1, multiple faults exist and the entire pinpoint test must be carried out.</p> <p>For driver side impact sensor with a mounting/communications (COMM) fault, GO to <b>M2</b>.</p> <p>For driver side impact sensor with an internal fault (INT) fault, INSTALL a new driver side impact sensor. GO to <b>M34</b>.</p> <p>For passenger side impact sensor with a mounting/communications (COMM) fault, GO to <b>M12</b>.</p> <p>For passenger side impact sensor with an internal fault (INT) fault, INSTALL a new passenger side impact sensor. GO to <b>M34</b>.</p> <p>For front severity crash impact sensor with a mounting/communications (COMM) fault, GO to <b>M22</b>.</p> <p>For front severity crash impact sensor with an internal fault (INT) fault, INSTALL a new front severity crash impact sensor. GO to <b>M34</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>M33</b>.</p> |
| <b>M2</b> | <b>INSPECT THE DRIVER SIDE IMPACT SENSOR MOUNTING, MOUNTING BRACKET AND MOUNTING SURFACE</b>  |   |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Inspect the driver side impact sensor mounting and make sure that the retaining bolt is fully seated and tightened correctly.</li> <li>Remove the driver side impact sensor. Refer to Side Impact Sensor in this section.</li> <li>Visually inspect the driver side impact sensor, mounting bracket and mounting surface for damage, corrosion or dirt.</li> <li><b>Was a significant amount of corrosion or dirt found, the driver side impact sensor mounting bracket attached to the mounting surface incorrectly or was the driver side impact sensor bolt not fully seated and tightened correctly?</b></li> </ul>   | <p><b>Yes</b><br/>CLEAN, TIGHTEN bolt or REPAIR the mounting surface as necessary. REINSTALL the driver side impact sensor. GO to <b>M34</b>.</p> <p><b>No</b><br/>GO to <b>M3</b>.</p>   |
| <b>M3</b> | <b>INSTALL THE DRIVER SIDE IMPACT SENSOR AND CARRY OUT AN ON-DEMAND SELF TEST</b>   |   |
|           | <ul style="list-style-type: none"> <li>Clean and repair the mounting surface as necessary.</li> <li>Clean the driver side impact sensor mounting bolt.</li> <li>Install the driver side impact sensor. Refer to Side Impact Sensor.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> </ul>  |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

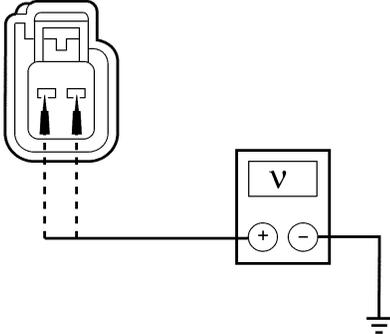
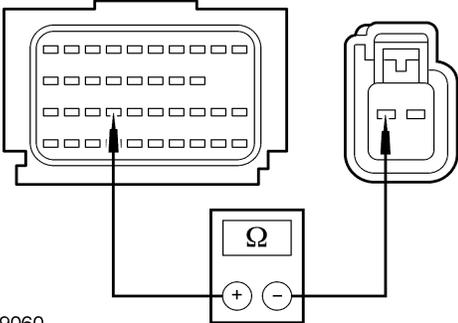
**PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>M3</b> | <b>INSTALL THE DRIVER SIDE IMPACT SENSOR AND CARRY OUT AN ON-DEMAND SELF TEST (Continued)</b>  |  |
|           | <ul style="list-style-type: none"> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li><b>Was DTC B2296 retrieved during the on-demand self test?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>M4</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>M34</b>.</p>                             |
| <b>M4</b> | <b>CHECK THE DRIVER SIDE IMPACT SENSOR GROUND CIRCUIT 1262 (BN/LG) FOR HIGH RESISTANCE</b>   |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Driver Side Impact Sensor C3209.</li> <li>Measure the resistance between driver side impact sensor C3209 pin 1, circuit 1262 (BN/LG), harness side and the driver side impact sensor case ground.</li> <li><b>Is the resistance less than 100 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>M6</b>.</p> <p><b>No</b><br/>GO to <b>M5</b>.</p>   |
| <b>M5</b> | <b>CLEAN THE DRIVER SIDE IMPACT SENSOR MOUNTING SURFACE AND CARRY OUT AN ON-DEMAND SELF TEST</b>   |  |
|           | <ul style="list-style-type: none"> <li>Remove the driver side impact sensor. Refer to Side Impact Sensor.</li> <li>Clean and repair the mounting surface as necessary.</li> <li>Clean the driver side impact sensor mounting bolt.</li> <li>Install the driver side impact sensor. Refer to Side Impact Sensor.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li><b>Was DTC B2296 retrieved during the on-demand self test?</b></li> </ul>              | <p><b>Yes</b><br/>GO to <b>M6</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>M34</b>.</p>                             |
| <b>M6</b> | <b>CHECK CIRCUITS 1261 (WH/LG) AND 1262 (BN/LG) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE DRIVER SIDE IMPACT SENSOR</b>  |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Driver Side Impact Sensor C3209.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Measure the resistance between driver side impact sensor C3209 pin 2, circuit 1261 (WH/LG), harness side and ground; and between driver side impact sensor C3209 pin 1, circuit 1262 (BN/LG), harness side and ground.</li> </ul> <div style="text-align: center;">  <p>A0058373</p> </div> <ul style="list-style-type: none"> <li><b>Are the resistances greater than 1,000,000 ohms?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>M7</b>.</p> <p><b>No</b><br/>REPAIR circuit 1261 (WH/LG) or 1262 (BN/LG). GO to <b>M34</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

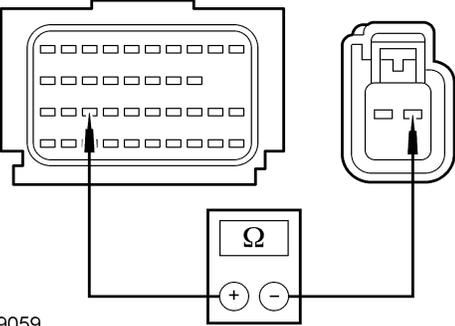
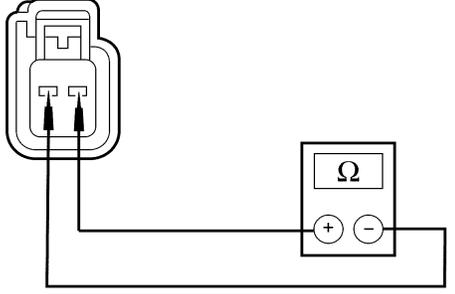
**PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>M7</b> | <p><b>CHECK CIRCUITS 1261 (WH/LG) AND 1262 (BN/LG) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE DRIVER SIDE IMPACT SENSOR</b></p> <ul style="list-style-type: none"> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Key in ON position.</li> <li>• Measure the voltage between driver side impact sensor C3209 pin 2, circuit 1261 (WH/LG), harness side and ground; and between driver side impact sensor C3209 pin 1, circuit 1262 (BN/LG), harness side and ground.</li> </ul>  <p style="text-align: center;">A0058374</p> <ul style="list-style-type: none"> <li>• <b>Are the voltages less than 0.2 volt?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>M8</b>.</p> <p><b>No</b><br/>REPAIR circuit 1261 (WH/LG) or 1262 (BN/LG). GO to <b>M34</b>.</p> |
| <b>M8</b> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1261 (WH/LG) BETWEEN THE RCM AND THE DRIVER SIDE IMPACT SENSOR</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Measure the resistance between RCM C2041b pin 27, circuit 1261 (WH/LG), harness side and driver side impact sensor C3209 pin 1, circuit 1261 (WH/LG), harness side.</li> </ul>  <p style="text-align: center;">A0079060</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance less than 0.5 ohm?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>M9</b>.</p> <p><b>No</b><br/>REPAIR circuit 1261 (WH/LG). GO to <b>M34</b>.</p>                 |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)**

| Test Step  |   | Result / Action to Take   |
|------------|---|---|
| <b>M9</b>  | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1262 (BN/LG) BETWEEN THE RCM AND THE DRIVER SIDE IMPACT SENSOR</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041b pin 28, circuit 1262 (BN/LG), harness side and driver side impact sensor C3209 pin 1, circuit 1262 (BN/LG), harness side.</li> </ul>  <p>A0079059</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>M10</b>.</p> <p><b>No</b><br/>REPAIR circuit 1262 (BN/LG). GO to <b>M34</b>.</p>                   |
| <b>M10</b> | <p><b>CHECK CIRCUIT 1261 (WH/LG) FOR A SHORT TO CIRCUIT 1262 (BN/LG) BETWEEN THE RCM AND THE DRIVER SIDE IMPACT SENSOR</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between driver side impact sensor C3209 pin 2, circuit 1261 (WH/LG) and pin 1, circuit 1262 (BN/LG), harness side.</li> </ul>  <p>A0058377</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 1,000,000 ohms?</li> </ul>   | <p><b>Yes</b><br/>GO to <b>M11</b>.</p> <p><b>No</b><br/>REPAIR circuits 1261 (WH/LG) and 1262 (BN/LG). GO to <b>M34</b>.</p> |
| <b>M11</b> | <p><b>CHECK THE DRIVER SIDE IMPACT SENSOR</b></p> <ul style="list-style-type: none"> <li>Install a known good driver side impact sensor. Refer to Side Impact Sensor in this section.</li> <li>Connect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li><b>Were any faults flagged against the driver side impact sensor?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>M32</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>M34</b>.</p>                               |
| <b>M12</b> | <p><b>INSPECT THE PASSENGER SIDE IMPACT SENSOR MOUNTING, MOUNTING BRACKET AND MOUNTING SURFACE</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> </ul>  |   |

(Continued)

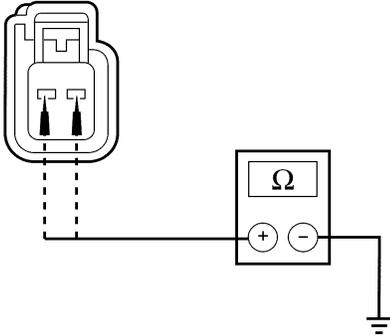
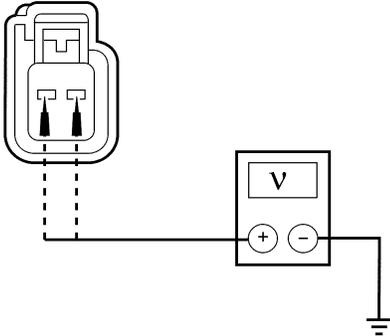
**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)**

| Test Step  |  | Result / Action to Take   |
|------------|--|---|
| <b>M12</b> | <b>INSPECT THE PASSENGER SIDE IMPACT SENSOR MOUNTING, MOUNTING BRACKET AND MOUNTING SURFACE (Continued)</b>  |   |
|            | <ul style="list-style-type: none"> <li>Inspect the passenger side impact sensor mounting and make sure that the retaining bolt is fully seated and tightened correctly.</li> <li>Remove the passenger side impact sensor. Refer to Side Impact Sensor in this section.</li> <li>Visually inspect the passenger side impact sensor, mounting bracket and mounting surface for damage, corrosion or dirt.</li> <li><b>Was a significant amount of corrosion or dirt found, the passenger side impact sensor mounting bracket attached to the mounting surface incorrectly or was the passenger side impact sensor bolt not fully seated and tightened correctly?</b></li> </ul>  | <p><b>Yes</b><br/>CLEAN, TIGHTEN bolt or REPAIR the mounting surface as necessary. REINSTALL the passenger side impact sensor. GO to <b>M34</b>.</p> <p><b>No</b><br/>GO to <b>M13</b>.</p> |
| <b>M13</b> | <b>INSTALL THE PASSENGER SIDE IMPACT SENSOR AND CARRY OUT THE ON-DEMAND SELF TEST</b>  |   |
|            | <ul style="list-style-type: none"> <li>Clean and repair the mounting surface as necessary.</li> <li>Clean the passenger side impact sensor mounting bolt.</li> <li>Install the passenger side impact sensor. Refer to Side Impact Sensor in this section.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li><b>Was DTC B2296 retrieved during the on-demand self test?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>M14</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>M34</b>.</p>   |
| <b>M14</b> | <b>CHECK THE PASSENGER SIDE IMPACT SENSOR GROUND CIRCUIT 1264 (BN) FOR HIGH RESISTANCE</b>   |   |
|            | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Side Impact Sensor C3211.</li> <li>Measure the resistance between passenger side impact sensor C3211 pin 1, circuit 1264 (BN), harness side and the passenger side impact sensor case ground.</li> <li><b>Is the resistance less than 100 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>M16</b>.</p> <p><b>No</b><br/>GO to <b>M15</b>.</p>  |
| <b>M15</b> | <b>CLEAN THE PASSENGER SIDE IMPACT SENSOR MOUNTING SURFACE AND CARRY OUT THE ON-DEMAND SELF TEST</b>   |   |
|            | <ul style="list-style-type: none"> <li>Remove the passenger side impact sensor. Refer to Side Impact Sensor in this section.</li> <li>Clean and repair the mounting surface as necessary.</li> <li>Clean the passenger side impact sensor mounting bolt.</li> <li>Install the passenger side impact sensor. Refer to Side Impact Sensor in this section.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li><b>Was DTC B2296 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>M16</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>M34</b>.</p>   |
| <b>M16</b> | <b>CHECK CIRCUITS 1263 (WH) AND 1264 (BN) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE PASSENGER SIDE IMPACT SENSOR</b>   |   |
|            | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Passenger Side Impact Sensor C3211.</li> <li>Disconnect: RCM C2041a and C2041b.</li> </ul>   |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

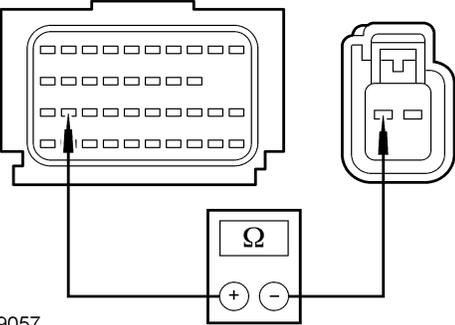
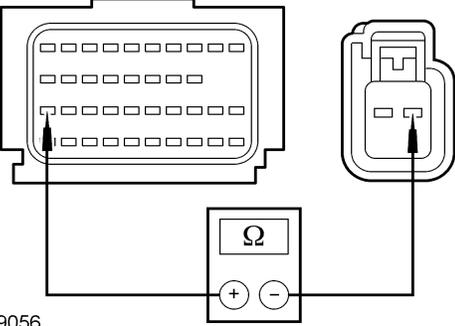
**PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)**

| Test Step |  | Result / Action to Take   |
|-----------|--|---|
| M16       | <p><b>CHECK CIRCUITS 1263 (WH) AND 1264 (BN) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE PASSENGER SIDE IMPACT SENSOR (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between passenger side impact sensor C3211 pin 2, circuit 1263 (WH), harness side and ground; and between passenger side impact sensor C3211 pin 1, circuit 1264 (BN), harness side and ground.</li> </ul>  <p>A0058373</p> <ul style="list-style-type: none"> <li><b>Are the resistances greater than 1,000,000 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>M17</b>.</p> <p><b>No</b><br/>REPAIR circuit 1263 (WH) or 1264 (BN).<br/>GO to <b>M34</b>.</p> |
| M17       | <ul style="list-style-type: none"> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> <li>Measure the voltage between passenger side impact sensor C3211 pin 2, circuit 1263 (WH), harness side and ground; and between passenger side impact sensor C3211 pin 1, circuit 1264 (BN), harness side and ground.</li> </ul>  <p>A0058374</p> <ul style="list-style-type: none"> <li><b>Are the voltages less than 0.2 volt?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>M18</b>.</p> <p><b>No</b><br/>REPAIR circuit 1263 (WH) or 1264 (BN).<br/>GO to <b>M34</b>.</p> |
| M18       | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1263 (WH) BETWEEN THE RCM AND THE PASSENGER SIDE IMPACT SENSOR</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> </ul>  |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

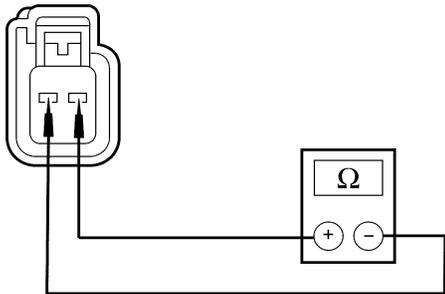
**PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)**

| Test Step  |   | Result / Action to Take  |
|------------|---|--|
| <b>M18</b> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1263 (WH) BETWEEN THE RCM AND THE PASSENGER SIDE IMPACT SENSOR (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041b pin 29, circuit 1263 (WH), harness side and passenger side impact sensor C3211 pin 2, circuit 1263 (WH), harness side.</li> </ul>  <p>A0079057</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul> | <p><b>Yes</b><br/>GO to <b>M19</b>.</p> <p><b>No</b><br/>REPAIR circuit 1263 (WH). GO to <b>M34</b>.</p> |
| <b>M19</b> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1264 (BN) BETWEEN THE RCM AND THE PASSENGER SIDE IMPACT SENSOR</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041b pin 30, circuit 1264 (BN), harness side and passenger side impact sensor C3211 pin 1, circuit 1264 (BN), harness side.</li> </ul>  <p>A0079056</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>           | <p><b>Yes</b><br/>GO to <b>M20</b>.</p> <p><b>No</b><br/>REPAIR circuit 1264 (BN). GO to <b>M34</b>.</p> |

(Continued)

## DIAGNOSIS AND TESTING (Continued)

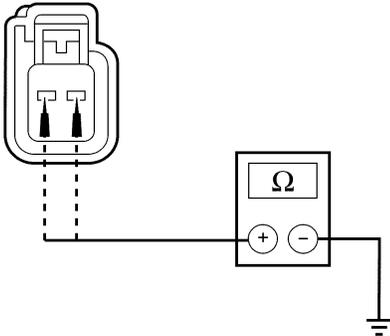
## PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| M20       | <b>CHECK CIRCUIT 1263 (WH) FOR A SHORT TO CIRCUIT 1264 (BN) BETWEEN THE RCM AND THE PASSENGER SIDE IMPACT SENSOR</b>   |  |
|           | <ul style="list-style-type: none"> <li>Measure the resistance between passenger side impact sensor C3211 pin 2, circuit 1263 (WH) and pin 1, circuit 1264 (BN), harness side.</li> </ul>  <p>A0058377</p> <ul style="list-style-type: none"> <li><b>Is the resistance greater than 1,000,000 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <a href="#">M21</a>.</p> <p><b>No</b><br/>REPAIR circuits 1263 (WH) and 1264 (BN). GO to <a href="#">M34</a>.</p>  |
| M21       | <b>CHECK THE PASSENGER SIDE IMPACT SENSOR</b>  |  |
|           | <ul style="list-style-type: none"> <li>Install a known good passenger side impact sensor. Refer to Side Impact Sensor in this section.</li> <li>Connect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li><b>Were any faults flagged against the passenger side impact sensor?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <a href="#">M32</a>.</p> <p><b>No</b><br/>Fault corrected. GO to <a href="#">M34</a>.</p>  |
| M22       | <b>INSPECT THE FRONT IMPACT SEVERITY SENSOR MOUNTING, MOUNTING BRACKET AND MOUNTING SURFACE</b>  |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Inspect the front impact severity sensor mounting and make sure that the retaining nut is fully seated and tightened correctly.</li> <li>Remove the front impact severity sensor. Refer to Front Impact Severity Sensor in this section.</li> <li>Visually inspect the front impact severity sensor, mounting bracket and mounting surface for damage, corrosion or dirt.</li> <li><b>Was a significant amount of corrosion or dirt found, the front impact severity sensor mounting bracket attached to the mounting surface incorrectly or was the front impact severity sensor nut not fully seated and tightened correctly?</b></li> </ul> | <p><b>Yes</b><br/>CLEAN, TIGHTEN nut or REPAIR the mounting surface as necessary. REINSTALL the front impact severity sensor. GO to <a href="#">M34</a>.</p> <p><b>No</b><br/>GO to <a href="#">M23</a>.</p> |
| M23       | <b>INSTALL THE FRONT IMPACT SEVERITY SENSOR AND CARRY OUT THE ON-DEMAND SELF TEST</b>  |  |
|           | <ul style="list-style-type: none"> <li>Clean and repair the mounting surface as necessary.</li> <li>Clean the front impact severity sensor retaining nut.</li> <li>Install the front impact severity sensor. Refer to Front Impact Severity Sensor in this section.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li><b>Was DTC B2296 retrieved during the on-demand self test?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <a href="#">M24</a>.</p> <p><b>No</b><br/>Fault corrected. GO to <a href="#">M34</a>.</p>  |

(Continued)

## DIAGNOSIS AND TESTING (Continued)

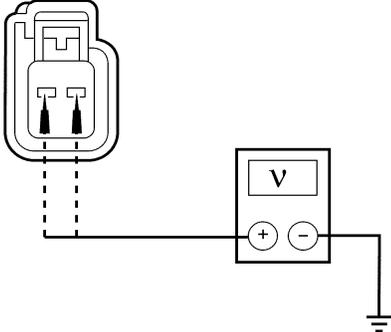
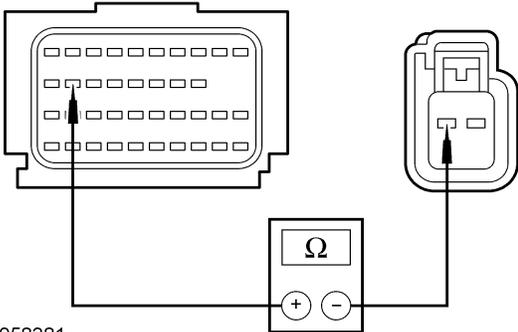
## PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| M24       | <b>CHECK THE FRONT IMPACT SEVERITY SENSOR GROUND CIRCUIT 618 (VT/LG) FOR HIGH RESISTANCE</b>   |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Front Impact Severity Sensor C177.</li> <li>Measure the resistance between front impact severity sensor C177 pin 1, circuit 618 (VT/LG), harness side and the front impact severity sensor case ground.</li> <li><b>Is the resistance less than 100 ohms?</b></li> </ul>   | <b>Yes</b><br>GO to <a href="#">M26</a> .<br><b>No</b><br>GO to <a href="#">M25</a> .  |
| M25       | <b>CLEAN THE FRONT IMPACT SEVERITY SENSOR MOUNTING SURFACE AND CARRY OUT THE ON-DEMAND SELF TEST</b>   |  |
|           | <ul style="list-style-type: none"> <li>Remove the front impact severity sensor. Refer to Front Impact Severity Sensor in this section.</li> <li>Clean and repair the mounting surface as necessary.</li> <li>Clean the front impact severity sensor retaining nut.</li> <li>Install the front impact severity sensor. Refer to Front Impact Severity Sensor in this section.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li><b>Was DTC B2296 retrieved during the on-demand self test?</b></li> </ul> | <b>Yes</b><br>GO to <a href="#">M26</a> .<br><b>No</b><br>Fault corrected. GO to <a href="#">M34</a> .                           |
| M26       | <b>CHECK CIRCUITS 617 (PK/OG) AND 618 (VT/LG) FOR A SHORT TO GROUND BETWEEN THE RCM AND THE FRONT IMPACT SEVERITY SENSOR</b>   |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Disconnect: Front Impact Severity Sensor C177.</li> <li>Disconnect: RCM C2041a and C2041b.</li> <li>Measure the resistance between front impact severity sensor C177 pin 2, circuit 617 (PK/OG), harness side and ground; and between front impact severity sensor C177 pin 1, circuit 618 (VT/LG), harness side and ground.</li> </ul>  <p>A0058373</p> <ul style="list-style-type: none"> <li><b>Are the resistances greater than 1,000,000 ohms?</b></li> </ul>  | <b>Yes</b><br>GO to <a href="#">M27</a> .<br><b>No</b><br>REPAIR circuit 617 (PK/OG) or 618 (VT/LG). GO to <a href="#">M34</a> . |
| M27       | <b>CHECK CIRCUITS 617 (PK/OG) AND 618 (VT/LG) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE FRONT IMPACT SEVERITY SENSOR</b>  |  |
|           | <ul style="list-style-type: none"> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> </ul>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

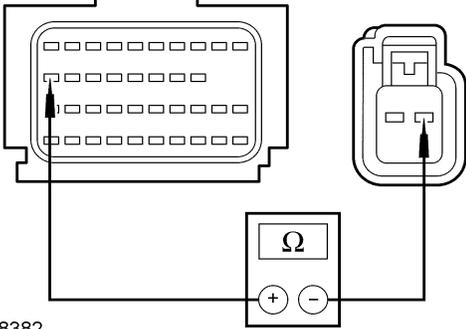
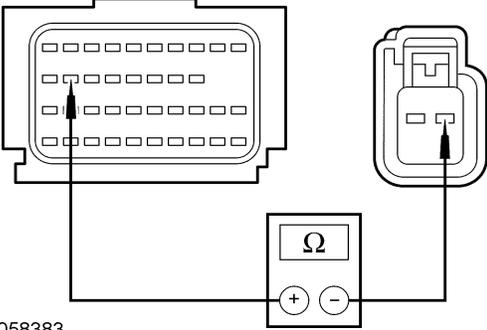
**PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)**

| Test Step  |  | Result / Action to Take   |
|------------|--|---|
| <b>M27</b> | <p><b>CHECK CIRCUITS 617 (PK/OG) AND 618 (VT/LG) FOR A SHORT TO VOLTAGE BETWEEN THE RCM AND THE FRONT IMPACT SEVERITY SENSOR (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the voltage between front impact severity sensor C177 pin 2, circuit 617 (PK/OG), harness side and ground; and between front impact severity sensor C177 pin 1, circuit 618 (VT/LG), harness side and ground.</li> </ul>  <p>A0058374</p> <ul style="list-style-type: none"> <li><b>Are the voltages less than 0.2 volt?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>M28</b>.</p> <p><b>No</b><br/>REPAIR circuit 617 (PK/OG) or 618 (VT/LG). GO to <b>M34</b>.</p> |
| <b>M28</b> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 617 (PK/OG) BETWEEN THE RCM AND THE FRONT IMPACT SEVERITY SENSOR</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Measure the resistance between RCM C2041b pin 19, circuit 617 (PK/OG), harness side and front impact severity sensor C177 pin 2, circuit 617 (PK/OG), harness side.</li> </ul>  <p>A0058381</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 0.5 ohm?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>M29</b>.</p> <p><b>No</b><br/>REPAIR circuit 617 (PK/OG). GO to <b>M34</b>.</p>                |

(Continued)

## DIAGNOSIS AND TESTING (Continued)

## PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)

| Test Step |  | Result / Action to Take   |
|-----------|--|---|
| M29       | <p><b>CHECK FOR AN OPEN ON CIRCUIT 618 (VT/LG) BETWEEN THE RCM AND THE FRONT IMPACT SEVERITY SENSOR</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041b pin 20, circuit 618 (VT/LG), harness side and front impact severity sensor C177 pin 1, circuit 618 (VT/LG), harness side.</li> </ul>  <p>A0058382</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>   | <p><b>Yes</b><br/>GO to <b>M30</b>.</p> <p><b>No</b><br/>REPAIR circuit 618 (VT/LG). GO to <b>M34</b>.</p>                  |
| M30       | <p><b>CHECK CIRCUIT 617 (PK/OG) FOR A SHORT TO CIRCUIT 618 (VT/LG) BETWEEN THE RCM AND THE FRONT IMPACT SEVERITY SENSOR</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041b pin 19, circuit 617 (PK/OG), harness side and front impact severity sensor C177 pin 1, circuit 618 (VT/LG), harness side.</li> </ul>  <p>A0058383</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 1,000,000 ohms?</li> </ul>   | <p><b>Yes</b><br/>GO to <b>M31</b>.</p> <p><b>No</b><br/>REPAIR circuits 617 (PK/OG) and 618 (VT/LG). GO to <b>M34</b>.</p> |
| M31       | <p><b>CHECK THE FRONT IMPACT SEVERITY SENSOR</b></p> <ul style="list-style-type: none"> <li>Install a known good front impact severity sensor. Refer to Front Impact Severity Sensor in this section.</li> <li>Connect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li><b>Were any faults flagged against the front impact severity sensor?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>M32</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>M34</b>.</p>                             |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)**

| Test Step  |  | Result / Action to Take  |
|------------|--|--|
| <b>M32</b> | <b>CONFIRM THE RCM FAULT</b>   |  |
|            | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Install the original impact sensor.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li>• <b>Was DTC B2296 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>If a “?” was flagged by the diagnostic tool, CARRY OUT the entire pinpoint test. INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>M34</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>M34</b>.</p>  |
| <b>M33</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|            | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Flag DTC B2296.</li> <li>• <b>Was DTC B2296 retrieved during the on-demand self test?</b></li> </ul>  | <p><b>Yes</b><br/>This is a hard fault. The fault condition is now present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test.</p> <p>If a flagged fault of “?” was recorded, multiple faults exist and the entire pinpoint test must be carried out.</p> <p>For driver side impact sensor with a mounting/communications (COMM) fault, GO to <b>M2</b>.</p> <p>For driver side impact sensor with a internal fault (INT) fault, INSTALL a new driver side impact sensor. GO to <b>M34</b>.</p> <p>For passenger side impact sensor with a mounting/communications (COMM) fault, GO to <b>M12</b>.</p> <p>For passenger side impact sensor with a internal fault (INT) fault, INSTALL a new passenger side impact sensor. GO to <b>M34</b>.</p> <p>For front severity crash impact sensor with a mounting/communications (COMM) fault, GO to <b>M22</b>.</p> <p>For front severity crash impact sensor with an internal fault (INT) fault, INSTALL a new front severity crash impact sensor. GO to <b>M34</b>.</p> <p><b>No</b><br/>VISUALLY INSPECT the affected impact sensor, mounting brackets and mounting surface for damage, corrosion or dirt. INSPECT the wiring, terminals and connectors for damage, corrosion or dirt. CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>M34</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST M: LFC 42, 43 AND 44/DTC B2296 — RESTRAINT SYSTEM — IMPACT SENSOR STATUS (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| M34       | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step M1.</li> <li><b>Were any continuous DTCs retrieved during Step M1?</b></li> </ul> | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**Pinpoint Test N: LFC 51/DTC B2434 — Driver Safety Belt Buckle Switch Circuit Short to Ground****Normal Operation**

As part of the SRS, the driver and passenger safety belt buckles are equipped with Hall-effect switches. The safety belt switches indicate to the RCM whether the safety belts are buckled or unbuckled. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

The restraints control module (RCM) checks the driver safety belt buckle switch circuits for faults. If the RCM detects a short to ground fault, it will store diagnostic trouble code (DTC) B2434 in memory and flash lamp fault code (LFC) 51 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

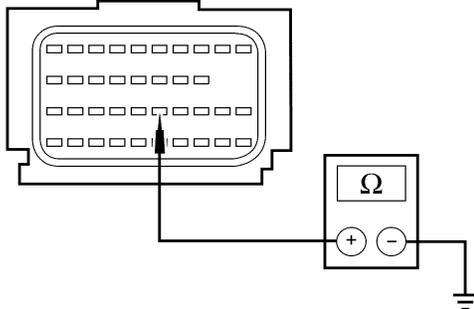
A driver safety belt buckle switch open circuit fault can be caused by:

- wiring, terminals or connectors.
- a faulty driver safety belt buckle switch.
- a faulted RCM.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST N: LFC 51/DTC B2434 — DRIVER SAFETY BELT BUCKLE SWITCH CIRCUIT SHORT TO GROUND**

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough inspection and verification before proceeding with the pinpoint test.

| Test Step  |   | Result / Action to Take  |
|--|---|--|
| <b>N1</b>  | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>   |  |
| <p><b>⚠ WARNING:</b> 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.</p> <p><b>⚠ WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p><b>⚠ WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record Continuous DTCs.</li> <li>• <b>Was DTC B2434 retrieved during the on-demand self test?</b></li> </ul> |   | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>N2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>N5</b>.</p> |
| <b>N2</b>  | <b>CHECK FOR A SHORT TO GROUND ON CIRCUIT 85 (BN/LB) BETWEEN THE RCM AND THE DRIVER SAFETY BELT BUCKLE SWITCH</b> |  |
| <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Driver Safety Belt Buckle Switch C323.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Measure the resistance between RCM C2041b pin 25, circuit 85 (BN/LB), harness side and ground.</li> </ul>  <p>A0041580</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance greater than 1,000,000 ohms?</b></li> </ul>  |   | <p><b>Yes</b><br/>GO to <b>N3</b>.</p> <p><b>No</b><br/>REPAIR circuit 85 (BN/LB). GO to <b>N6</b>.</p>  |
| <b>N3</b>  | <b>CHECK THE SAFETY BELT BUCKLE SWITCH</b>  |  |
| <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p>   |   |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST N: LFC 51/DTC B2434 — DRIVER SAFETY BELT BUCKLE SWITCH CIRCUIT SHORT TO GROUND (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>N3</b> | <b>CHECK THE SAFETY BELT BUCKLE SWITCH (Continued)</b>   |  |
|           | <ul style="list-style-type: none"> <li>Install a known good driver safety belt buckle. Refer to Section 501-20A.</li> <li>Connect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li><b>Was DTC B2434 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>N4</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>N6</b>.</p>  |
| <b>N4</b> | <b>CONFIRM THE RCM FAULT</b>   |  |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Reinstall the original safety belt buckle.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self-Test.</li> <li><b>Was DTC B2434 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>N6</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>N6</b>.</p>   |
| <b>N5</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li><b>Was DTC B2434 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>N2</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>N6</b>.</p>  |
| <b>N6</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step N1.</li> <li><b>Were any continuous DTCs retrieved during Step N1?</b></li> </ul>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**DIAGNOSIS AND TESTING (Continued)**

**Pinpoint Test O: LFC 51/DTC B2435 — Driver Safety Belt Buckle Switch Resistance Out of Range**

**Normal Operation**

As part of the SRS, the driver and passenger safety belt buckles are equipped with Hall-effect switches. The safety belt switches indicate to the RCM whether the safety belts are buckled or unbuckled. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

The restraints control module (RCM) checks the driver safety belt buckle switch circuits for faults. If the RCM detects a current out of range fault, it will store diagnostic trouble code (DTC) B2435 in memory and flash lamp fault code (LFC) 51 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

A driver safety belt buckle switch current out of range fault can be caused by:

- wiring, terminals or connectors.
- a faulty driver safety belt buckle switch.
- a faulted RCM.

**PINPOINT TEST O: LFC 51/DTC B2435 — DRIVER SAFETY BELT BUCKLE SWITCH RESISTANCE OUT OF RANGE**

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step  |   | Result / Action to Take  |
|--|---|--|
| <b>O1</b>  | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>       |  |
| <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record Continuous DTCs.</li> <li>• <b>Was DTC B2435 retrieved during the on-demand self test?</b></li> </ul> |   | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>O2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>O4</b>.</p> |
| <b>O2</b>  | <b>CHECK THE DRIVER SAFETY BELT BUCKLE SWITCH</b> |  |
| <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Install a known good driver safety belt buckle switch. Refer to Section 501-20A.</li> </ul>  |   |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST O: LFC 51/DTC B2435 — DRIVER SAFETY BELT BUCKLE SWITCH RESISTANCE OUT OF RANGE (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>O2</b> | <b>CHECK THE DRIVER SAFETY BELT BUCKLE SWITCH (Continued)</b>  |  |
|           | <ul style="list-style-type: none"> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC B2435 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>O3</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>O5</b>.</p>  |
| <b>O3</b> | <b>CONFIRM THE RCM FAULT</b>   |  |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Reinstall the original safety belt buckle.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self-Test.</li> <li><b>Was DTC B2435 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>O5</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>O5</b>.</p>   |
| <b>O4</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC B2435 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>O2</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>O5</b>.</p>  |
| <b>O5</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step O1.</li> <li><b>Were any continuous DTCs retrieved during Step O1?</b></li> </ul>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**DIAGNOSIS AND TESTING (Continued)**

**Pinpoint Test P: LFC 52/DTC B2438 — Passenger Safety Belt Buckle Switch Circuit Short to Ground**

**Normal Operation**

As part of the SRS, the driver and passenger safety belt buckles are equipped with Hall-effect switches. The safety belt switches indicate to the RCM whether the safety belts are buckled or unbuckled. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

The restraints control module (RCM) checks the passenger safety belt buckle switch circuits for faults. If the RCM detects a short to ground fault, it will store diagnostic trouble code (DTC) B2438 in memory and flash lamp fault code (LFC) 52 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

A driver safety belt buckle switch open circuit fault can be caused by:

- wiring, terminals or connectors.
- a faulty passenger safety belt buckle switch.
- a faulted RCM.

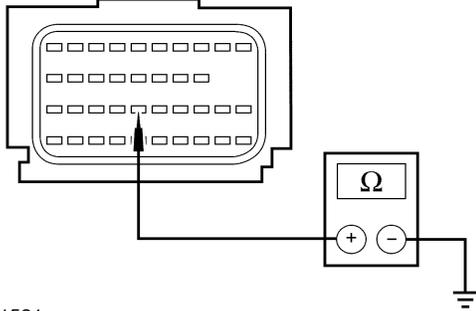
**PINPOINT TEST P: LFC 52/DTC B2438 — PASSENGER SAFETY BELT BUCKLE SWITCH CIRCUIT SHORT TO GROUND**

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step  |  | Result / Action to Take  |
|--|--|--|
| P1   | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>  |  |
| <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Continuous DTCs.</li> <li>• <b>Was DTC B2438 retrieved during the on-demand self test?</b></li> </ul> |  | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>P2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>P5</b>.</p> |
| P2   | <b>CHECK FOR A SHORT TO GROUND ON CIRCUIT 1514 (RD/BK) BETWEEN THE RCM AND THE PASSENGER SAFETY BELT BUCKLE SWITCH</b> |  |
| <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: Safety Belt Buckle Switch C3066.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> </ul>  |  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST P: LFC 52/DTC B2438 — PASSENGER SAFETY BELT BUCKLE SWITCH CIRCUIT SHORT TO GROUND (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>P2</b> | <b>CHECK FOR A SHORT TO GROUND ON CIRCUIT 1514 (RD/BK) BETWEEN THE RCM AND THE PASSENGER SAFETY BELT BUCKLE SWITCH (Continued)</b>   |  |
|           | <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041b pin 26, circuit 1514 (RD/BK), harness side and ground.</li> </ul>  <p>A0041581</p> <ul style="list-style-type: none"> <li><b>Is the resistance greater than 1,000,000 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>P3</b>.</p> <p><b>No</b><br/>REPAIR circuit 1514 (RD/BK). GO to <b>P6</b>.</p>  |
| <b>P3</b> | <b>CHECK THE SAFETY BELT BUCKLE SWITCH</b>   |  |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Install a known good passenger safety belt buckle. Refer to Section 501-20A.</li> <li>Connect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC B2438 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>P4</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>P6</b>.</p>  |
| <b>P4</b> | <b>CONFIRM THE RCM FAULT</b>   |  |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Reinstall the original safety belt buckle.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self-Test.</li> <li><b>Was DTC B2438 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>P6</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>P6</b>.</p> |
| <b>P5</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC B2438 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>P2</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>P6</b>.</p>  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST P: LFC 52/DTC B2438 — PASSENGER SAFETY BELT BUCKLE SWITCH CIRCUIT SHORT TO GROUND (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| P6        | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step P1.</li> <li><b>Were any continuous DTCs retrieved during Step P1?</b></li> </ul> | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**Pinpoint Test Q: LFC 52/DTC B2439 — Passenger Safety Belt Buckle Switch Resistance Out of Range**

**Normal Operation**

As part of the SRS, the driver and passenger safety belt buckles are equipped with Hall-effect switches. The safety belt switches indicate to the RCM whether the safety belts are buckled or unbuckled. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

The restraints control module (RCM) checks the passenger safety belt buckle switch circuits for faults. If the RCM detects a current out of range fault, it will store diagnostic trouble code (DTC) B2439 in memory and flash lamp fault code (LFC) 52 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

A passenger safety belt buckle switch current out of range fault can be caused by:

- wiring, terminals or connectors.
- a faulty passenger safety belt buckle switch.
- a faulted RCM.

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST Q: LFC 52/DTC B2439 — PASSENGER SAFETY BELT BUCKLE SWITCH RESISTANCE OUT OF RANGE**

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough inspection and verification before proceeding with the pinpoint test.

| Test Step |  | Result / Action to Take   |
|-----------|--|---|
| <b>Q1</b> | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>  |   |
|           | <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Continuous DTCs.</li> <li><b>Was the DTC B2439 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>Q2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>Q4</b>.</p>  |
| <b>Q2</b> | <b>CHECK THE PASSENGER SAFETY BELT BUCKLE SWITCH</b>   |   |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Install a known good passenger safety belt buckle. Refer to Section 501-20A.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC B2439 retrieved during the on-demand self test?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>Q3</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>Q5</b>.</p>   |
| <b>Q3</b> | <b>CONFIRM THE RCM FAULT</b>   |   |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Reinstall the original safety belt buckle.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self-Test.</li> <li><b>Was DTC B2439 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/><b>INSTALL</b> a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>Q5</b>.</p> <p><b>No</b><br/><b>CHECK</b> for causes of the intermittent fault. <b>ATTEMPT</b> to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. <b>ACTIVATE</b> other systems in the same wire harness. <b>REPAIR</b> any intermittent concerns found. GO to <b>Q5</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST Q: LFC 52/DTC B2439 — PASSENGER SAFETY BELT BUCKLE SWITCH RESISTANCE OUT OF RANGE (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>Q4</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|           | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li><b>Was the DTC B2439 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>Q2</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>Q5</b>.</p>  |
| <b>Q5</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>Refer to the continuous DTCs recorded during Step Q1.</li> <li><b>Were any continuous DTCs retrieved during Step Q1?</b></li> </ul>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**Pinpoint Test R: LFC 51/DTC B2691 — Driver Safety Belt Buckle Switch Circuit Fault****Normal Operation**

As part of the SRS, the driver and passenger safety belt buckles are equipped with Hall-effect switches. The safety belt switches indicate to the RCM whether the safety belts are buckled or unbuckled. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

The restraints control module (RCM) checks the driver safety belt buckle switch circuits for faults. If the RCM detects an open circuit or short to voltage fault, it will store diagnostic trouble code (DTC) B2691 in memory and flash lamp fault code (LFC) 51 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

A driver safety belt buckle switch open circuit or short to voltage fault can be caused by:

- wiring, terminals or connectors.
- a faulty driver safety belt buckle switch.
- a faulted RCM.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST R: LFC 51/DTC B2691 — DRIVER SAFETY BELT BUCKLE SWITCH CIRCUIT FAULT**

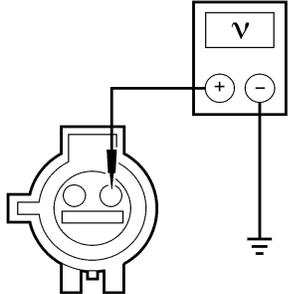
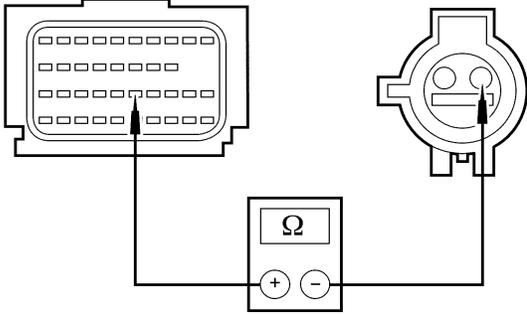
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>R1</b> | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>   |  |
|           | <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, <b>the restraint system diagnostic tools must be removed before operating the vehicle over the road.</b></p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool:<br/>Retrieve/Record/Continuous DTCs.</li> <li>• <b>Was the DTC B2691 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>R2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>R8</b>.</p> |
| <b>R2</b> | <b>CHECK FOR A SHORT TO VOLTAGE ON CIRCUIT 85 (BN/LB)</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• For vehicles equipped with seat side air bags, carry out the following: <ul style="list-style-type: none"> <li>— Disconnect driver seat side air bag C367.</li> <li>— Connect restraint system diagnostic tool 418-133 to driver seat side air bag C367.</li> </ul> </li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Disconnect: Driver Safety Belt Buckle Switch C323.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Key in ON position.</li> </ul>  |  |

(Continued)

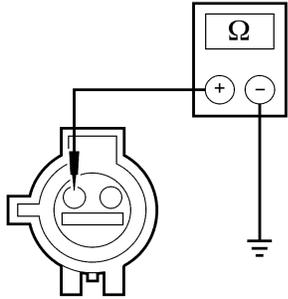
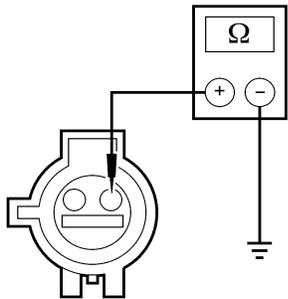
**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST R: LFC 51/DTC B2691 — DRIVER SAFETY BELT BUCKLE SWITCH CIRCUIT FAULT (Continued)**

| Test Step |  | Result / Action to Take   |
|-----------|--|---|
| <b>R2</b> | <p><b>CHECK FOR A SHORT TO VOLTAGE ON CIRCUIT 85 (BN/LB) (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the voltage between driver safety belt buckle switch C323 pin 2, circuit 85 (BN/LB), harness side and ground.</li> </ul>  <p>N0010351</p> <ul style="list-style-type: none"> <li><b>Is the voltage less than 0.2 volt?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>R3</b>.</p> <p><b>No</b><br/>REPAIR circuit 85 (BN/LB). GO to <b>R9</b>.</p> |
| <b>R3</b> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 85 (BN/LB)</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Measure the resistance between RCM C2041b pin 25, circuit 85 (BN/LB), harness side and driver safety belt buckle switch C323 pin 2, circuit 85 (BN/LB), harness side.</li> </ul>  <p>N0010349</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 0.5 ohm?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>R4</b>.</p> <p><b>No</b><br/>REPAIR circuit 85 (BN/LB). GO to <b>R9</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST R: LFC 51/DTC B2691 — DRIVER SAFETY BELT BUCKLE SWITCH CIRCUIT FAULT (Continued)**

| Test Step |  | Result / Action to Take   |
|-----------|--|---|
| <b>R4</b> | <b>CHECK FOR AN OPEN GROUND CIRCUIT</b>  |   |
|           | <ul style="list-style-type: none"> <li>Measure the resistance between driver safety belt buckle switch C381 pin 1, circuit 1203 (BK/LB), harness side and ground.</li> </ul>  <p>N0010409</p> <ul style="list-style-type: none"> <li>Is the resistance less than 0.5 ohm?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>R5</b>.</p> <p><b>No</b><br/>REPAIR circuit 1203 (BK/LB). GO to <b>R9</b>.</p> |
| <b>R5</b> | <b>CHECK CIRCUIT 85 (BN/LB) FOR A SHORT TO GROUND</b>  |   |
|           | <ul style="list-style-type: none"> <li>Measure the resistance between driver safety belt buckle switch C323 pin 2, circuit 85 (BN/LB), harness side and ground.</li> </ul>  <p>N0010350</p> <ul style="list-style-type: none"> <li>Is the resistance greater than 1,000,000 ohms?</li> </ul>   | <p><b>Yes</b><br/>GO to <b>R6</b>.</p> <p><b>No</b><br/>REPAIR circuit 85 (BN/LB). GO to <b>R9</b>.</p>   |
| <b>R6</b> | <b>CHECK THE SAFETY BELT BUCKLE SWITCH</b>   |   |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connectors are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Install a known good driver safety belt buckle. Refer to Section 501-20A.</li> <li>Connect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li><b>Was DTC B2691 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>R7</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>R9</b>.</p>             |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST R: LFC 51/DTC B2691 — DRIVER SAFETY BELT BUCKLE SWITCH CIRCUIT FAULT (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>R7</b> | <b>CONFIRM THE RCM FAULT</b>   | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>R9</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>R9</b>.</p>   |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Reinstall the original safety belt buckle.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self-Test.</li> <li>• <b>Was DTC B2691 retrieved during the on-demand self test?</b></li> </ul> |  |
| <b>R8</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• <b>Was the DTC B2691 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>R2</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>R9</b>.</p>  |
| <b>R9</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |
|           | <ul style="list-style-type: none"> <li>• Refer to the continuous DTCs recorded during Step R1.</li> <li>• <b>Were any continuous DTCs retrieved during Step R1?</b></li> </ul>   |  |

**Pinpoint Test S: LFC 52/DTC B2692 — Passenger Safety Belt Buckle Switch Circuit Fault****Normal Operation**

As part of the SRS, the driver and passenger safety belt buckles are equipped with Hall-effect switches. The safety belt switches indicate to the RCM whether the safety belts are buckled or unbuckled. Refer to Air Bag and Safety Belt Pretensioner Supplemental Restraint System (SRS) in this section.

The restraints control module (RCM) checks the passenger safety belt buckle switch circuits for faults. If the RCM detects an open circuit or short to voltage fault, it will store diagnostic trouble code (DTC) B2692 in memory and flash lamp fault code (LFC) 52 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

A passenger safety belt buckle switch open circuit or short to voltage fault can be caused by:

- wiring, terminals or connectors.
- a faulty passenger safety belt buckle switch.
- a faulted RCM.

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST S: LFC 52/DTC B2692 — PASSENGER SAFETY BELT BUCKLE SWITCH CIRCUIT FAULT**

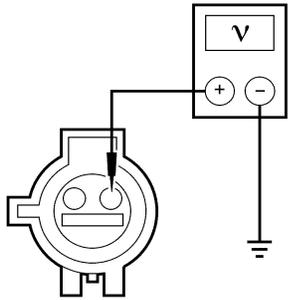
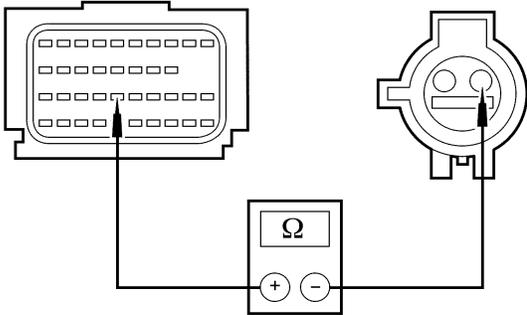
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough inspection and verification before proceeding with the pinpoint test.

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>S1</b> | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>  |  |
|           | <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Continuous DTCs.</li> <li>• <b>Was the DTC B2692 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>S2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>S8</b>.</p> |
| <b>S2</b> | <b>CHECK FOR A SHORT TO VOLTAGE ON CIRCUIT 1514 (RD/BK)</b>  |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• For vehicles equipped with seat side air bags, carry out the following: <ul style="list-style-type: none"> <li>— Disconnect passenger seat side air bag C337.</li> <li>— Connect restraint system diagnostic tool 418-133 to passenger seat side air bag C337.</li> </ul> </li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Disconnect: Passenger Safety Belt Buckle Switch C337.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Key in ON position.</li> </ul>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

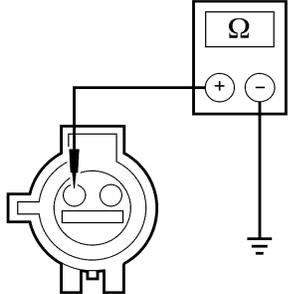
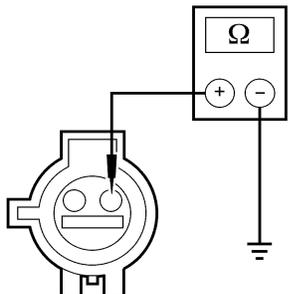
**PINPOINT TEST S: LFC 52/DTC B2692 — PASSENGER SAFETY BELT BUCKLE SWITCH CIRCUIT FAULT (Continued)**

|                  | Test Step  | Result / Action to Take   |
|------------------|--|---|
| <p><b>S2</b></p> | <p><b>CHECK FOR A SHORT TO VOLTAGE ON CIRCUIT 1514 (RD/BK) (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the voltage between passenger safety belt buckle switch C337 pin 2, circuit 1514 (RD/BK), harness side and ground.</li> </ul>  <p>N0010351</p> <ul style="list-style-type: none"> <li><b>Is the voltage less than 0.2 volt?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>S3</b>.</p> <p><b>No</b><br/>REPAIR circuit 1514 (RD/BK). GO to <b>S9</b>.</p> |
| <p><b>S3</b></p> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1514 (RD/BK)</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Measure the resistance between RCM C2041b pin 26, circuit 1514 (RD/BK), harness side and passenger safety belt buckle switch C3066 pin 2, circuit 1514 (RD/BK), harness side.</li> </ul>  <p>N0010348</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 0.5 ohm?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>S4</b>.</p> <p><b>No</b><br/>REPAIR circuit 1514 (RD/BK). GO to <b>S9</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST S: LFC 52/DTC B2692 — PASSENGER SAFETY BELT BUCKLE SWITCH CIRCUIT FAULT (Continued)**

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| <b>S4</b> | <b>CHECK FOR AN OPEN GROUND CIRCUIT 1203 (BK/LB)</b>  |   |
|           | <ul style="list-style-type: none"> <li>Measure the resistance between passenger safety belt buckle switch C3066 pin 1, circuit 1203 (BK/LB), harness side and ground.</li> </ul>  <p>N0010409</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 0.5 ohm?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>S5</b>.</p> <p><b>No</b><br/>REPAIR circuit 1203 (BK/LB). GO to <b>S9</b>.</p> |
| <b>S5</b> | <b>CHECK FOR A SHORT TO GROUND ON CIRCUIT 1514 (RD/BK)</b>  |   |
|           | <ul style="list-style-type: none"> <li>Measure the resistance between passenger safety belt buckle switch C3066 pin 2, circuit 1514 (RD/BK), harness side and ground.</li> </ul>  <p>N0010350</p> <ul style="list-style-type: none"> <li><b>Is the resistance greater than 1,000,000 ohms?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>S6</b>.</p> <p><b>No</b><br/>REPAIR circuit 1203 (BK/LB). GO to <b>S9</b>.</p> |
| <b>S6</b> | <b>CHECK THE SAFETY BELT BUCKLE SWITCH</b>  |   |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connectors are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>Install a known good passenger safety belt buckle. Refer to Section 501-20A.</li> <li>Connect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC B2692 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>S7</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>S9</b>.</p>             |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST S: LFC 52/DTC B2692 — PASSENGER SAFETY BELT BUCKLE SWITCH CIRCUIT FAULT (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>S7</b> | <b>CONFIRM THE RCM FAULT</b>   |  |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Reinstall the original safety belt buckle.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self-Test.</li> <li>• <b>Was DTC B2692 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>S9</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>S9</b>.</p>   |
| <b>S8</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• <b>Was the DTC B2692 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>S2</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>S9</b>.</p>  |
| <b>S9</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Refer to the continuous DTCs recorded during Step S1.</li> <li>• <b>Were any continuous DTCs retrieved during Step S1?</b></li> </ul>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**DIAGNOSIS AND TESTING (Continued)****Pinpoint Test T: LFC 16/DTC B2909 —  
Belt Tension Sensor Fault****Normal Operation**

**NOTE:** LFC 16 is shared between DTC B2290 and DTC B2909.

The belt tension sensor is part of the occupant classification sensor (OCS) system. The OCS system interprets a variable voltage signal provided by the safety belt tension sensor to identify the possible presence of a child safety seat in the front passenger seat. The voltage output of the belt tension sensor is proportional to the amount of tension applied to the sensor by the belt, no tension-low voltage (approximately 0.95 volt), high tension-high voltage, (approximately 3.8 volts).

The occupant classification sensor (OCS) system checks the belt tension sensor circuits for faults. If the OCS detects one of the following faults on any of the belt tension sensor circuits, it will report the failure to the RCM. The RCM will store diagnostic trouble code (DTC) B2909 in memory and flash either lamp fault code (LFC) 16 (or higher priority code if one exists) on the air bag indicator.

The occupant classification sensor (OCS) system components (seat cushion foam pad, bladder with pressure sensor and electronic control unit) are calibrated to each other and are serviced as an assembly. The OCS system components are not to be installed separately with the exception of the belt tension sensor. If a new OCS system, OCS system component or seat cushion foam pad are needed, a new OCS system service kit (seat cushion foam pad, bladder with pressure sensor and electronic control unit) must be installed as an assembly.

**Possible Causes**

A belt tension sensor circuit fault can be caused by one of the following:

- wiring, terminals or connectors.
- a faulted belt tension sensor.
- a faulted OCS ECU.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST T: LFC 16/DTC B2909 — BELT TENSION SENSOR FAULT**

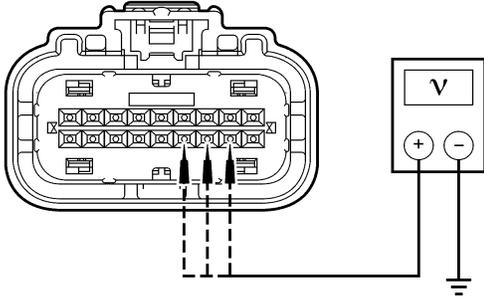
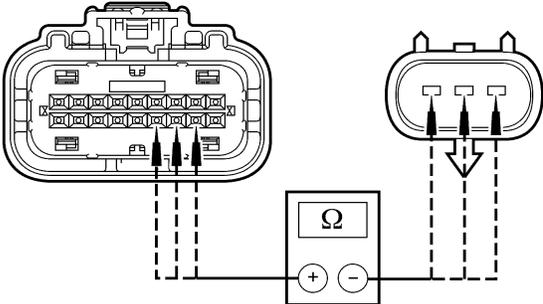
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| <b>T1</b> | <b>CHECK FOR CONTINUOUS OR ON-DEMAND SELF TEST DTCs</b>   |   |
|           | <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, <b>the restraint system diagnostic tools must be removed before operating the vehicle over the road.</b></p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2909/Record All Flagged Faults.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Flag/Record Continuous DTCs.</li> <li>• <b>Was DTC B2909 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test.</p> <p>Using the flagged faults recorded, GO to the appropriate pinpoint test step.</p> <p>If a flagged fault of “?” was recorded, multiple faults exist and the entire pinpoint test must be carried out.</p> <p>For Belt tension sensor with a circuit fault (FPTS_F), GO to <b>T2</b>.</p> <p>For belt tension sensor with a short to ground fault (FPTS_SG), GO to <b>T4</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>T9</b>.</p> |
| <b>T2</b> | <b>CHECK THE BELT TENSION SENSOR CIRCUITS FOR A SHORT TO VOLTAGE</b>  |   |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• For vehicles equipped with seat side air bags, carry out the following: <ul style="list-style-type: none"> <li>— Disconnect passenger seat side air bag C337.</li> <li>— Connect restraint system diagnostic tool 418-133 to passenger seat side air bag C337.</li> </ul> </li> <li>• Disconnect: Belt Tension Sensor C3238.</li> <li>• Disconnect: OCS ECU C3043.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Key in ON position.</li> </ul>  |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

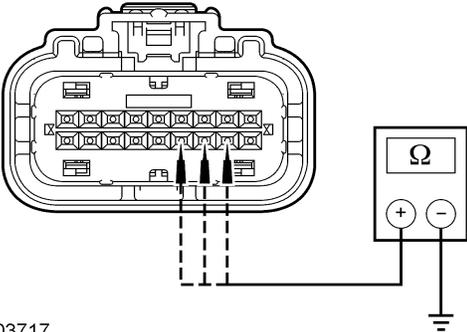
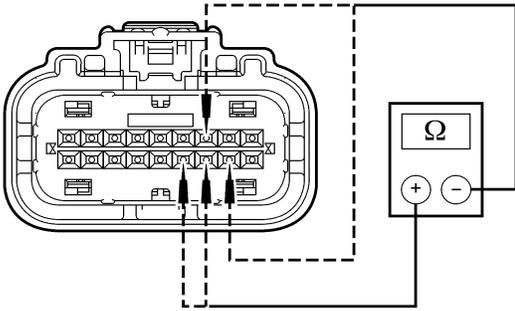
**PINPOINT TEST T: LFC 16/DTC B2909 — BELT TENSION SENSOR FAULT (Continued)**

|                  | Test Step  | Result / Action to Take  |
|------------------|--|--|
| <p><b>T2</b></p> | <p><b>CHECK THE BELT TENSION SENSOR CIRCUITS FOR A SHORT TO VOLTAGE (Continued)</b></p>  |  |
|                  | <ul style="list-style-type: none"> <li>Measure the voltage between OCS ECU C3043 pin 11, circuit 2088 (TN/RD), harness side and ground; between OCS ECU C3043 pin 13, circuit 2090 (DB/OG), harness side and ground; and between OCS ECU C3043 pin 12, circuit 2089 (OG/BK), harness side and ground.</li> </ul>  <p>N0003715</p> <ul style="list-style-type: none"> <li>Are the voltages less than 0.2 volt?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>T3</b>.</p> <p><b>No</b><br/>REPAIR circuit 2088 (TN/RD), circuit 2089 (OG/BK) or circuit 2090 (DB/OG). GO to <b>T10</b>.</p> |
| <p><b>T3</b></p> | <p><b>CHECK THE BELT TENSION SENSOR CIRCUITS FOR AN OPEN</b></p>   |  |
|                  | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Measure the resistance between OCS C3043 pin 11, circuit 2088 (TN/RD), harness side and belt tension sensor C3238 pin 1, circuit 2088 (TN/RD), harness side; between OCS C3043 pin 13, circuit 2090 (DB/OG), harness side and belt tension sensor C3238 pin 2, circuit 2090 (DB/OG), harness side; and between OCS C3043 pin 12, circuit 2089 (OG/BK), harness side and belt tension sensor C3238 pin 3, circuit 2089 (OG/BK), harness side.</li> </ul>  <p>N0011641</p> <ul style="list-style-type: none"> <li>Are the resistances less than 0.5 ohm?</li> </ul> | <p><b>Yes</b><br/>GO to <b>T5</b>.</p> <p><b>No</b><br/>REPAIR circuit 2088 (TN/RD), circuit 2089 (OG/BK) or circuit 2090 (DB/OG). GO to <b>T10</b>.</p> |
| <p><b>T4</b></p> | <p><b>CHECK THE BELT TENSION SENSOR CIRCUITS FOR A SHORT TO GROUND</b></p>   |  |
|                  | <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>For vehicles equipped with seat side air bags, carry out the following:                             <ul style="list-style-type: none"> <li>Disconnect passenger seat side air bag C337.</li> <li>Connect restraint system diagnostic tool 418-133 to passenger seat side air bag C337.</li> </ul> </li> <li>Disconnect: OCS ECU C3043.</li> </ul>  |  |

(Continued)

## DIAGNOSIS AND TESTING (Continued)

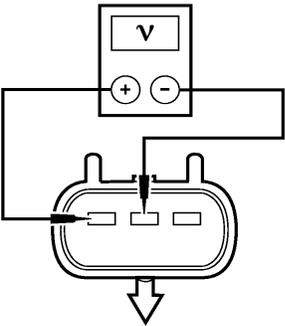
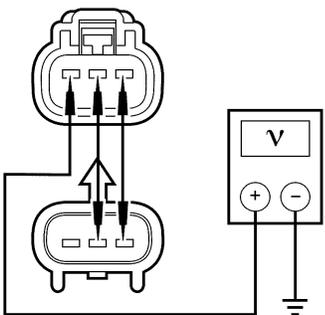
## PINPOINT TEST T: LFC 16/DTC B2909 — BELT TENSION SENSOR FAULT (Continued)

|    | Test Step   | Result / Action to Take  |
|----|---|--|
| T4 | <b>CHECK THE BELT TENSION SENSOR CIRCUITS FOR A SHORT TO GROUND (Continued)</b>   |  |
|    | <ul style="list-style-type: none"> <li>Measure the resistance between OCS ECU C3043 pin 11 circuit 2088 (TN/RD), harness side and ground; between OCS ECU C3043 pin 12, circuit 2089 (OG/BK), harness side and ground; and between OCS ECU C3043 pin 13, circuit 2090 (DB/OG), harness side and ground.</li> </ul>  <p>N0003717</p> <ul style="list-style-type: none"> <li>Are the resistances greater than 10,000 ohms?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>T5</b>.</p> <p><b>No</b><br/>REPAIR circuit 2088 (TN/RD), circuit 2089 (OG/BK) or circuit 2090 (DB/OG). GO to <b>T10</b>.</p> |
| T5 | <b>CHECK CIRCUITS 2088 (TN/RD), 2089 (OG/BK) AND 2090 (DB/OG) FOR A SHORT TOGETHER</b>  |  |
|    | <ul style="list-style-type: none"> <li>Measure the resistance between OCS ECU C3043: <ul style="list-style-type: none"> <li>pin 11, circuit 2088 (TN/RD), harness side and pin 12, circuit 2089 (OG/BK), harness side.</li> <li>pin 11, circuit 2088 (TN/RD), harness side and pin 13, circuit 2090 (DB/OG), harness side.</li> <li>pin 12, circuit 2089 (OG/BK), harness side and pin 13, circuit 2090 (DB/OG), harness side.</li> </ul> </li> </ul>  <p>N0003719</p> <ul style="list-style-type: none"> <li>Are the resistances greater than 10,000 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>T6</b>.</p> <p><b>No</b><br/>REPAIR circuit 2088 (TN/RD), circuit 2089 (OG/BK) or circuit 2090 (DB/OG). GO to <b>T10</b>.</p> |
| T6 | <b>CHECK THE OCS ECU OUTPUT</b>   |  |
|    | <ul style="list-style-type: none"> <li>Connect: OCS ECU C3043.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> </ul>  |  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST T: LFC 16/DTC B2909 — BELT TENSION SENSOR FAULT (Continued)**

|                  | Test Step  | Result / Action to Take   |
|------------------|--|---|
| <p><b>T6</b></p> | <p><b>CHECK THE OCS ECU OUTPUT (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the voltage between belt tension sensor C3238 pin 1, circuit 2088 (TN/RD), harness side and pin 2, circuit 2090 (DB/OG), harness side.</li> </ul>  <p>A0083314</p> <ul style="list-style-type: none"> <li><b>Is the voltage approximately 5 volts?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>T7</b>.</p> <p><b>No</b><br/>INSTALL a new OCS service kit. REFER to Occupant Classification Sensor, in this section. GO to <b>T10</b>.</p>    |
| <p><b>T7</b></p> | <p><b>CHECK THE BELT TENSION SENSOR VOLTAGE OUTPUT</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Connect a fused jumper lead between belt tension sensor C3238 pin 1, circuit 2088 (TN/RD), harness side and pin 1, circuit 2088 (TN/RD), component side.</li> <li>Connect a fused jumper lead between belt tension sensor C3238 pin 2, circuit 2090 (DB/OG), harness side and pin 2, circuit 2090 (DB/OG), component side.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Key in ON position.</li> <li>Measure the voltage between belt tension sensor C3238 pin 3, circuit 2089 (OG/BK), component side and ground as you vary the tension of the belt tension sensor.</li> </ul>  <p>A0080136</p> <ul style="list-style-type: none"> <li><b>Does the voltage vary from approximately 0.95 volt with no tension applied to the sensor, to approximately 3.8 volts with full tension applied to the sensor?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>T8</b>.</p> <p><b>No</b><br/>INSTALL a new belt tension sensor. REFER to Front Safety Belt Retractor in Section 501-20A. GO to <b>T10</b>.</p> |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST T: LFC 16/DTC B2909 — BELT TENSION SENSOR FAULT (Continued)**

| Test Step  |  | Result / Action to Take   |
|------------|--|---|
| <b>T8</b>  | <b>CONFIRM THE BELT TENSION SENSOR FAULT</b>   |   |
|            | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Connect: Belt Tension Sensor C3238.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2909/Record All Flagged Faults.</li> <li>• <b>Was DTC B2909 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new OCS service kit. REFER to Occupant Classification Sensor in this section. GO to <b>T10</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>T10</b>.</p>   |
| <b>T9</b>  | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |   |
|            | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Flag DTC B2909/Record All Flagged Faults.</li> <li>• <b>Was DTC B2909 retrieved during the on-demand self test?</b></li> </ul>  | <p><b>Yes</b><br/>This is a hard fault. The fault condition is now present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test.</p> <p>Using the flagged faults recorded, GO to the appropriate pinpoint test step.</p> <p>If a flagged fault of “?” was recorded, multiple faults exist and the entire pinpoint test must be carried out.</p> <p>For belt tension sensor with a circuit fault (FPTS_F), GO to <b>T2</b>.</p> <p>For belt tension sensor with a short to ground fault (FPTS_SG), GO to <b>T4</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>T10</b>.</p> |
| <b>T10</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   |   |
|            | <ul style="list-style-type: none"> <li>• Refer to the continuous DTCs recorded during Step T1.</li> <li>• <b>Were any continuous DTCs retrieved during Step T1?</b></li> </ul>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p>  |

**DIAGNOSIS AND TESTING (Continued)**

**Pinpoint Test U: LFC 15/DTC C1414 — Incorrect Module Design Level**

**Normal Operation**

The RCM monitors the communication condition and circuits of the OCS sensor for an embedded vehicle ID. If the RCM detects an unexpected condition or code from the OCS system, it will store diagnostic trouble code (DTC) C1414 in memory and flash lamp fault code (LFC) 15 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

An incorrect vehicle identification code can be caused by:

- incorrect RCM for vehicle.
- incorrect OCS system for vehicle.

**PINPOINT TEST U: LFC 15/DTC C1414 — INCORRECT MODULE DESIGN LEVEL**

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>U1</b> | <b>CHECK FOR A HARD OR INTERMITTENT DTC</b>   |  |
|           | <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Continuous DTCs.</li> <li>• <b>Was DTC C1414 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>U2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>U5</b>.</p> |
| <b>U2</b> | <b>CHECK THE OCS PART NUMBER</b>  |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Check the part number of the OCS against the part number listed in the master parts catalog.</li> <li>• <b>Did the part number on the OCS match the part number listed in the master parts catalog?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>U3</b>.</p> <p><b>No</b><br/>INSTALL a new OCS with the correct part number. REFER to Occupant Classification Sensor in this section. GO to <b>U6</b>.</p>  |
| <b>U3</b> | <b>CHECK THE RCM PART NUMBER</b>  |  |
|           | <ul style="list-style-type: none"> <li>• Check the part number on the RCM against the part number listed in the master parts catalog.</li> <li>• <b>Did the part number on the RCM match the part number listed in the master parts catalog?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>U4</b>.</p> <p><b>No</b><br/>INSTALL a new RCM with the correct part number. REFER to Restraints Control Module (RCM) in this section. GO to <b>U6</b>.</p>   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST U: LFC 15/DTC C1414 — INCORRECT MODULE DESIGN LEVEL (Continued)**

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| <b>U4</b> | <b>CONFIRM THE RCM FAULT</b>  | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>U6</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>U6</b>.</p> <p><b>Yes</b><br/>GO to <b>U2</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>U6</b>.</p> <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• <b>Was the DTC C1414 retrieved during the on-demand self test?</b></li> </ul> |   |
| <b>U5</b> | <b>CHECK FOR INTERMITTENT FAULTS</b>  |   |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Continuous DTCs.</li> <li>• <b>Was DTC C1414 retrieved during the on-demand self test?</b></li> </ul>  |   |
| <b>U6</b> | <b>CHECK FOR ADDITIONAL DTCs</b>  |   |
|           | <ul style="list-style-type: none"> <li>• Refer to the continuous DTCs recorded during Step U1.</li> <li>• <b>Were any continuous DTCs retrieved during Step U1?</b></li> </ul>  |   |

**Pinpoint Test V: LFC 49/DTC C1947 — Seat Track Position Switch Circuit Short to Ground****Normal Operation**

The seat track position sensor informs the RCM of the driver seat position.

The restraints control module (RCM) monitors the driver seat track position sensor circuits. If the RCM detects a short to ground, it will store diagnostic trouble code (DTC) C1947 in memory and flash lamp fault code (LFC) 49 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

A driver seat track position sensor short to ground fault can be caused by:

- wiring, terminals or connectors.
- a faulty driver seat track position sensor.
- a faulted RCM.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST V: LFC 49/DTC C1947 — SEAT TRACK POSITION SWITCH CIRCUIT SHORT TO GROUND**

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough inspection and verification before proceeding with the pinpoint test.

|           | Test Step   | Result / Action to Take  |
|-----------|---|--|
| <p>V1</p> | <p><b>CHECK FOR A HARD OR INTERMITTENT DTC</b></p> <p><b>⚠ WARNING:</b> 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.</p> <p><b>⚠ WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p><b>⚠ WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Continuous DTCs.</li> <li>• <b>Was the DTC C1947 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>V2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>V5</b>.</p> |
| <p>V2</p> | <p><b>CHECK FOR A SHORT TO GROUND ON CIRCUITS 1520 (LG) AND 1203 (BK/LG) BETWEEN THE RCM AND THE DRIVER SEAT</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• For vehicles equipped with seat side air bags, carry out the following:             <ul style="list-style-type: none"> <li>— Disconnect driver seat side air bag C367.</li> <li>— Connect restraint system diagnostic tool 418-133 to driver seat side air bag C367.</li> </ul> </li> <li>• Disconnect: Driver Seat Track Position Sensor C356.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Measure the resistance between RCM C2041b pin 23, circuit 1520 (LG), harness side and ground.</li> </ul> <div> </div> <p>A0074754</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance greater than 1,000,000 ohms?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>V3</b>.</p> <p><b>No</b><br/>REPAIR circuit 1520 (LG). GO to <b>V6</b>.</p>   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST V: LFC 49/DTC C1947 — SEAT TRACK POSITION SWITCH CIRCUIT SHORT TO GROUND (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>V3</b> | <b>CHECK THE SEAT TRACK POSITION SENSOR</b>  |  |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>• Install a known good seat track position sensor. Refer to Seat Position Sensor in this section.</li> <li>• Connect: RCM C2041a and C2041b.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• <b>Was the DTC C1947 retrieved during the on-demand self test?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>V4</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>V6</b>.</p>  |
| <b>V4</b> | <b>CONFIRM THE RCM FAULT</b>   |  |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Reinstall the original seat track position sensor.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self-Test.</li> <li>• <b>Was DTC C1947 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>V6</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>V6</b>.</p>   |
| <b>V5</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• <b>Was DTC C1947 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>V2</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>V6</b>.</p>  |
| <b>V6</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Refer to the continuous DTCs recorded during Step V1.</li> <li>• <b>Were any continuous DTCs retrieved during Step V1?</b></li> </ul>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**DIAGNOSIS AND TESTING (Continued)**

**Pinpoint Test W: LFC 49/DTC C1948 — Seat Track Position Switch Circuit Resistance Out of Range**

**NOTE:** Due to the seat track position sensor being a Hall-effect type sensor, this pinpoint test will be diagnosing a current out of range fault instead of the current DTC definition for a resistance out of range fault.

**Normal Operation**

The seat track position sensor informs the RCM of the driver seat position.

The restraints control module (RCM) monitors the driver seat track position sensor circuits. If the RCM detects a current out of range condition, it will store diagnostic trouble code (DTC) C1948 in memory and flash lamp fault code (LFC) 49 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

A seat track position sensor current out of range fault can be caused by:

- a faulty seat track position sensor.
- RCM is faulted.

**PINPOINT TEST W: LFC 49/DTC C1948 — SEAT TRACK POSITION SWITCH CIRCUIT RESISTANCE OUT OF RANGE**

**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |   | Result / Action to Take  |
|-----------|---|--|
| <b>W1</b> | <p><b>CHECK FOR A HARD OR INTERMITTENT DTC</b></p> <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, the restraint system diagnostic tools must be removed before operating the vehicle over the road.</p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool: Retrieve/Record/Continuous DTCs.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• <b>Was DTC C1948 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to <b>W2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>W4</b>.</p> |
| <b>W2</b> | <p><b>CHECK THE SEAT TRACK POSITION SENSOR</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Install a known good seat track position sensor. Refer to Seat Position Sensor in this section.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• <b>Was DTC C1948 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>W3</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>W5</b>.</p>  |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST W: LFC 49/DTC C1948 — SEAT TRACK POSITION SWITCH CIRCUIT RESISTANCE OUT OF RANGE (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>W3</b> | <b>CONFIRM THE RCM FAULT</b>   |  |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Reinstall the original seat track position sensor.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• <b>Was DTC C1948 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>W5</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>W5</b>.</p>   |
| <b>W4</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• <b>Was DTC C1948 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>W2</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>W5</b>.</p>  |
| <b>W5</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Refer to the continuous DTCs recorded during Step W1.</li> <li>• <b>Were any continuous DTCs retrieved during Step W1?</b></li> </ul>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |

**Pinpoint Test X: LFC 49/DTC C1981 — Seat Track Position Switch Circuit Fault****Normal Operation**

The seat track position sensor informs the RCM of the driver's seat position.

The restraints control module (RCM) monitors the driver seat track position sensor circuits. If the RCM detects an open circuit or short to voltage, it will store diagnostic trouble code (DTC) C1981 in memory and flash lamp fault code (LFC) 49 (or higher priority code if one exists) on the air bag indicator.

**Possible Causes**

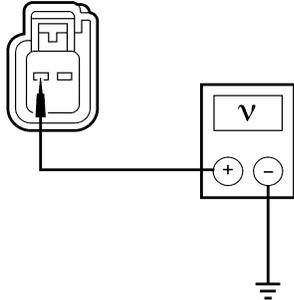
A seat track position sensor open circuit or short to voltage fault can be caused by:

- wiring, terminals or connectors.
- a faulted seat track position switch.
- a faulted RCM.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST X: LFC 49/DTC C1981 — SEAT TRACK POSITION SWITCH CIRCUIT FAULT**

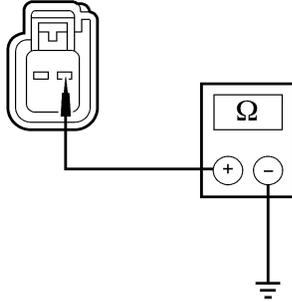
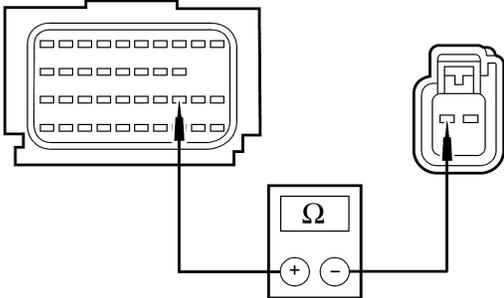
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

|                  | Test Step  | Result / Action to Take  |
|------------------|--|--|
| <p><b>X1</b></p> | <p><b>CHECK FOR A HARD OR INTERMITTENT DTC</b></p> <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, <b>the restraint system diagnostic tools must be removed before operating the vehicle over the road.</b></p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li>• Enter the following diagnostic mode on the diagnostic tool:<br/>Retrieve/Record/Continuous DTCs.</li> <li>• <b>Was DTC C1981 retrieved during the on-demand self test?</b></li> </ul> | <p><b>Yes</b><br/>This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test.<br/>GO to <b>X2</b>.</p> <p><b>No</b><br/>This is an intermittent fault. The fault condition is not present at this time. GO to <b>X7</b>.</p> |
| <p><b>X2</b></p> | <p><b>CHECK FOR A SHORT TO VOLTAGE ON CIRCUIT 1520 (LG)</b></p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• For vehicles equipped with seat side air bags, carry out the following: <ul style="list-style-type: none"> <li>— Disconnect driver seat side air bag C367.</li> <li>— Connect restraint system diagnostic tool 418-133 to driver seat side air bag C367.</li> </ul> </li> <li>• Disconnect: Driver Seat Track Position Sensor C356.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Key in ON position.</li> <li>• Measure the voltage between driver seat track position sensor C356 pin 2, circuit 1520 (LG), harness side and ground.</li> </ul> <div style="text-align: center;">  </div> <p>A0088603</p> <ul style="list-style-type: none"> <li>• <b>Is the voltage less than 0.2 volt?</b></li> </ul>  | <p><b>Yes</b><br/>GO to <b>X3</b>.</p> <p><b>No</b><br/>REPAIR circuit 1520 (LG). GO to <b>X8</b>.</p>   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST X: LFC 49/DTC C1981 — SEAT TRACK POSITION SWITCH CIRCUIT FAULT (Continued)**

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| <b>X3</b> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1203 (BK/LB)</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Measure the resistance between driver seat track position sensor C356 pin 1, circuit 1203 (BK/LB), harness side and ground.</li> </ul>  <p>A0088601</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 5 ohms?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>X4</b>.</p> <p><b>No</b><br/>REPAIR circuit 1203 (BK/LB). GO to <b>X8</b>.</p> |
| <b>X4</b> | <p><b>CHECK FOR AN OPEN ON CIRCUIT 1520 (LG)</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Measure the resistance between RCM C2041b pin 23, circuit 1520 (LG), harness side and driver seat track position sensor C356 pin 2, circuit 1520 (LG), harness side.</li> </ul>  <p>A0048716</p> <ul style="list-style-type: none"> <li><b>Is the resistance less than 0.5 ohm?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>X5</b>.</p> <p><b>No</b><br/>REPAIR circuit 1520 (LG). GO to <b>X8</b>.</p>    |
| <b>X5</b> | <p><b>CHECK THE SEAT TRACK POSITION SENSOR</b></p> <ul style="list-style-type: none"> <li>Install a known good seat track position sensor. Refer to Seat Position Sensor in this section.</li> <li>Connect: RCM C2041a and C2041b.</li> <li>Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li><b>Was DTC C1981 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>X6</b>.</p> <p><b>No</b><br/>Fault corrected. GO to <b>X8</b>.</p>             |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST X: LFC 49/DTC C1981 — SEAT TRACK POSITION SWITCH CIRCUIT FAULT (Continued)**

| Test Step |  | Result / Action to Take  |
|-----------|--|--|
| <b>X6</b> | <b>CONFIRM THE RCM FAULT</b>   | <p><b>Yes</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. GO to <b>X8</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>X8</b>.</p>   |
|           | <p><b>NOTE:</b> Make sure all restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Reinstall the original seat track position sensor.</li> <li>• Repower the system. <b>Do not</b> prove out the system at this time. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li>• <b>Was DTC C1981 retrieved during the on-demand self test?</b></li> </ul> |  |
| <b>X7</b> | <b>CHECK FOR AN INTERMITTENT FAULT</b>   |  |
|           | <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Enter the following diagnostic mode on the diagnostic tool:<br/>On-Demand Self Test.</li> <li>• <b>Was DTC C1981 retrieved during the on-demand self test?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>X2</b>.</p> <p><b>No</b><br/>CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. ACTIVATE other systems in the same wire harness. REPAIR any intermittent concerns found. GO to <b>X8</b>.</p>  |
| <b>X8</b> | <b>CHECK FOR ADDITIONAL DTCs</b>   | <p><b>Yes</b><br/>Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Table in this section for pinpoint test direction.</p> <p><b>No</b><br/>RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |
|           | <ul style="list-style-type: none"> <li>• Refer to the continuous DTCs recorded during Step X1.</li> <li>• <b>Were any continuous DTCs retrieved during Step X1?</b></li> </ul>   |  |

**Pinpoint Test Y: No Communication With The Restraints Control Module (RCM)****Normal Operation**

The diagnostic tool communicates with the restraints control module (RCM) monitors through the data link connector (DLC) C251 pin 7, 70 (LB/WH).

**Possible Causes**

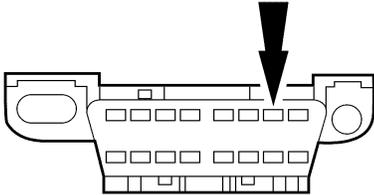
A no communication with the RCM fault can be caused by:

- wiring, terminals or connectors.
- a faulty data link connector (DLC).
- RCM is faulted.

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST Y: NO COMMUNICATION WITH THE RESTRAINTS CONTROL MODULE (RCM)**

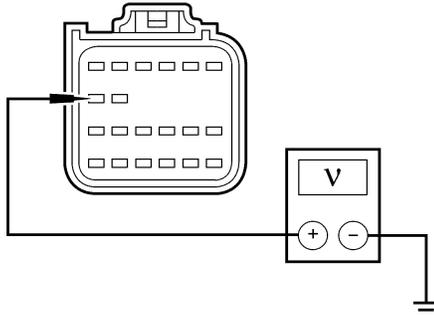
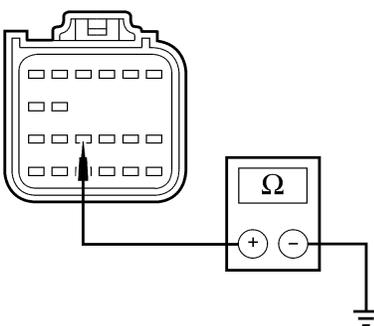
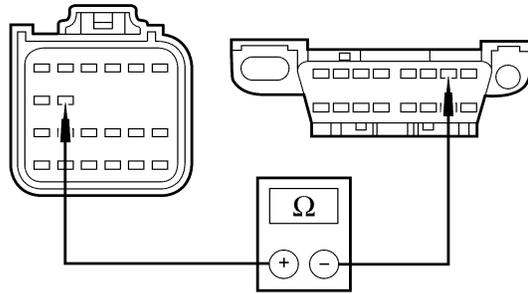
**NOTE:** Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the pinpoint test.

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| Y1        | <p><b>CHECK RCM C2041a PIN 11 FOR DAMAGE</b></p> <p> <b>WARNING:</b> 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.</p> <p> <b>WARNING:</b> Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.</p> <p> <b>WARNING:</b> The safety belt pretensioner is a pyrotechnic device. Always wear safety glasses when repairing an air bag equipped vehicle and when handling a safety belt buckle pretensioner or safety belt retractor pretensioner. Never probe a pretensioner electrical connector. Doing so could result in pretensioner or air bag deployment and could result in personal injury.</p> <p><b>NOTE:</b> If a seat equipped with a supplemental restraint system (SRS) component is being serviced, the (SRS) must be depowered.</p> <p><b>NOTE:</b> After diagnosing or repairing an SRS, <b>the restraint system diagnostic tools must be removed before operating the vehicle over the road.</b></p> <p><b>NOTE:</b> The SRS must be fully operational and free of faults before releasing the vehicle to the customer.</p> <ul style="list-style-type: none"> <li>• Key in OFF position.</li> <li>• Depower the system. Refer to Supplemental Restraint System (SRS) Depowering and Repowering in this section.</li> <li>• Disconnect: RCM C2041a and C2041b.</li> <li>• Inspect RCM C2041a, harness side and RCM C2041a, component side, pin 11 for damage.</li> <li>• <b>Are RCM C2041a and RCM C2041a pin 11 OK?</b></li> </ul> | <p><b>Yes</b><br/>GO to <b>Y2</b>.</p> <p><b>No</b><br/>REPAIR RCM C2041a or RCM C2041a pin 11 as necessary. RETEST the communication to the RCM. RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |
| Y2        | <p><b>CHECK DLC C251 PIN 7 FOR DAMAGE</b></p> <ul style="list-style-type: none"> <li>• Inspect DLC C251 and DLC C251 pin 7 for damage.</li> </ul> <div style="text-align: center;">  </div> <p>A0030459</p> <ul style="list-style-type: none"> <li>• <b>Are DLC C251 and DLC C251 pin 7 OK?</b></li> </ul>   | <p><b>Yes</b><br/>GO to <b>Y3</b>.</p> <p><b>No</b><br/>REPAIR DLC C251 or DLC C251 pin 7 as necessary. RETEST the communication to the RCM. RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p>      |
| Y3        | <p><b>CHECK THE IGNITION CIRCUIT 937 (RD/WH) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>• Deactivate the system. Refer to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section.</li> <li>• Key in ON position.</li> </ul>  |   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)**

**PINPOINT TEST Y: NO COMMUNICATION WITH THE RESTRAINTS CONTROL MODULE (RCM)  
(Continued)**

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| <b>Y3</b> | <p><b>CHECK THE IGNITION CIRCUIT 937 (RD/WH) FOR AN OPEN (Continued)</b></p> <ul style="list-style-type: none"> <li>Measure the voltage between RCM C2041a pin 12, circuit 937 (RD/WH), harness side and ground.</li> </ul>  <p>A0039638</p> <ul style="list-style-type: none"> <li>Is the voltage between 9 and 16 volts?</li> </ul>  | <p><b>Yes</b><br/>GO to <b>Y4</b>.</p> <p><b>No</b><br/>REPAIR circuit 937 (RD/WH). RETEST the communication to the RCM. RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p>  |
| <b>Y4</b> | <p><b>CHECK THE GROUND CIRCUIT 1203 (BK/LB) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>Key in OFF position.</li> <li>Measure the resistance between RCM C2041a pin 16, circuit 1203 (BK/LB), harness side and a sheet metal ground near the RCM.</li> </ul>  <p>A0039639</p> <ul style="list-style-type: none"> <li>Is the resistance less than 5 ohms?</li> </ul> | <p><b>Yes</b><br/>GO to <b>Y5</b>.</p> <p><b>No</b><br/>REPAIR circuit 1203 (BK/LB). RETEST the communication to the RCM. RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |
| <b>Y5</b> | <p><b>CHECK CIRCUIT 70 (LB/WH) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between RCM C2041a pin 11, circuit 70 (LB/WH), harness side and DLC C251 pin 7, circuit 70 (LB/WH), harness side.</li> </ul>  <p>A0041599</p> <ul style="list-style-type: none"> <li>Is the resistance less than 5 ohms?</li> </ul>                               | <p><b>Yes</b><br/>GO to <b>Y6</b>.</p> <p><b>No</b><br/>REPAIR circuit 70 (LB/WH). RETEST the communication to the RCM. RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p>   |

(Continued)

**DIAGNOSIS AND TESTING (Continued)****PINPOINT TEST Y: NO COMMUNICATION WITH THE RESTRAINTS CONTROL MODULE (RCM)  
(Continued)**

| Test Step |   | Result / Action to Take   |
|-----------|---|---|
| <b>Y6</b> | <b>CONFIRM THE RCM FAULT</b>  |   |
|           | <p><b>NOTE:</b> Make sure the safety belt pretensioner restraint system diagnostic tools, sensor electrical connectors and the RCM electrical connector are connected before carrying out the on-demand self test. If not, erroneous DTCs will be recorded.</p> <ul style="list-style-type: none"> <li>• Connect: RCM C2041a and C2041b.</li> <li>• Enter the following diagnostic mode on the diagnostic tool: On-Demand Self Test.</li> <li>• <b>Did the diagnostic tool communicate with the RCM?</b></li> </ul> | <p><b>Yes</b><br/>Fault corrected. RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> <p><b>No</b><br/>INSTALL a new RCM. REFER to Restraints Control Module (RCM) in this section. RETEST the communication to the RCM. RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REFER to Supplemental Restraint System (SRS) Deactivation and Reactivation in this section. REPOWER the system. REFER to Supplemental Restraint System (SRS) Depowering and Repowering in this section. PROVE OUT the system. CLEAR all DTCs.</p> |