




## Anti-Theft

### Special Tool(s)

 ST1137-A	73III Automotive Meter 105-R0057
 ST2834-A	Vehicle Communication Module (VCM) and Integrated Diagnostic System (IDS) software with appropriate hardware, or equivalent scan tool
 ST2574-A	Flex Probe Kit 105-R025C or equivalent

### Principles of Operation

**NOTE:** The Smart Junction Box (SJB) is also known as the Generic Electronic Module (GEM).

When the perimeter alarm is armed, the **SJB** monitors the door ajar switches, the hood switch, the luggage compartment lid ajar switch, and the intrusion/inclination sensor.

If any intrusion is detected without the alarm being deactivated, the **SJB** energizes the anti-theft alarm horn, the traffic horn, and causes the turn signal lamps to flash, all of them in regular intervals.

The system arms when the driver door is locked with the key (does not activate the intrusion or inclination systems), the doors are locked with the Remote Keyless Entry (RKE) transmitter (arms the entire system), or the doors are locked with the door lock control switch (with the door open) and then the accompanying door is closed (also arms the entire system). If the doors are locked using the manual push buttons, no part of the perimeter alarm is armed. The **SJB** monitors the status of all entry points. If any entry point is open, the alarm arms everything except for the open entry point. The **SJB** adds the entry point to the protected status when the closure of the open entry point is detected. Note that only when the system is armed by locking the door using the key in the door lock cylinder is there no intrusion/inclination protection. Arming the system (locking the doors) using the **RKE** transmitter or using the door lock control switch allows the intrusion/inclination protection to also arm.

**NOTE:** The intrusion sensing feature is not activated if either door or the convertible top (if equipped) is open when the vehicle is armed.

The **SJB** inhibits the intrusion/inclination sensor and the luggage compartment lid ajar inputs if the luggage compartment lid is opened with a key or the **RKE** transmitter. Once the luggage compartment lid is closed, the intrusion/inclination sensor and the luggage compartment lid ajar switch are monitored by the **SJB**.

### Perimeter Alarm Arming

The system can be armed using any of the following methods:

- Press the door lock control switch to the LOCK position with the accompanying door open, then close it (then wait 20 seconds for the pre-arm phase to expire)
- Press the LOCK button on the [RKE](#) transmitter (then wait 20 seconds for the pre-arm phase to expire)
- Turn the key in the door lock cylinder to the LOCK position (then wait 20 seconds for the pre-arm phase to expire). This is the only way to arm the perimeter alarm system without also arming the inclination/intrusion feature

### Perimeter Alarm Disarming

The system can be disarmed using any of the following methods (these steps will also deactivate an activated alarm):

- Press the UNLOCK button on the [RKE](#) transmitter
- Turn the key in the door lock cylinder to the UNLOCK position
- Turn a programmed Passive Anti-Theft System (PATS) key in the ignition lock cylinder to the ON position

### Perimeter Alarm Deactivation

To deactivate an activated alarm (this step will not disarm the alarm), press the PANIC button on the [RKE](#) transmitter.

### Perimeter Alarm Inhibit

To inhibit an armed system from activating the alarm (the perimeter alarm will continue to be armed), open the luggage compartment lid using the key in the luggage compartment lid lock cylinder.

### Inspection and Verification

1. Verify the customer concern.
2. Visually inspect for obvious signs of mechanical or electrical damage.

### Visual Inspection Chart

Mechanical	Electrical
<ul style="list-style-type: none"> <li>● Anti-theft alarm horn</li> <li>● Convertible top ajar switch</li> <li>● Door ajar switches</li> <li>● Door disarm switch</li> <li>● Hood switch</li> <li>● Luggage compartment lid ajar switch</li> <li>● Luggage compartment lid disarm switch</li> <li>● Remote Keyless Entry (RKE) transmitter</li> </ul>	<ul style="list-style-type: none"> <li>● Bussed Electrical Center (BEC) fuse(s): <ul style="list-style-type: none"> <li>■ 62 (20A)</li> <li>■ 67 (30A)</li> </ul> </li> <li>● Wiring, terminals or connectors</li> <li>● Intrusion/inclination sensor</li> <li>● Smart Junction Box (SJB)</li> </ul>

3. If an obvious cause for an observed or reported concern is found, correct the cause (if possible) before proceeding to the next step.
4. **NOTE:** Make sure to use the latest scan tool software release.

If the cause is not visually evident, connect the scan tool to the Data Link Connector (DLC).

5. **NOTE:** The Vehicle Communication Module (VCM) LED prove-out confirms power and ground from the [DLC](#) are provided to the [VCM](#).

If the scan tool does not communicate with the [VCM](#):

- Check the [VCM](#) connection to the vehicle.

- Check the scan tool connection to the [VCM](#).
  - Refer to [Section 418-00](#), No Power To The Scan Tool, to diagnose no power to the scan tool.
6. If the scan tool does not communicate with the vehicle:
    - Verify the ignition key is in the ON position.
    - Verify the scan tool operation with a known good vehicle.
    - Refer to [Section 418-00](#) to diagnose no response from the PCM.
  7. Carry out the network test.
    - If the scan tool responds with no communication for one or more modules, refer to [Section 418-00](#).
    - If the network test passes, retrieve and record the continuous memory DTCs.
  8. Clear the continuous DTCs and carry out the self-test diagnostics for the [SJB](#).
  9. If the DTCs retrieved are related to the concern, go to DTC Charts. For all other DTCs, refer to the Diagnostic Trouble Code (DTC) Chart in [Section 419-10](#).
  10. If no DTCs related to the concern are retrieved, GO to [Symptom Chart](#).

## DTC Charts

### Smart Junction Box (SJB) DTC Chart

DTC	Description	Action
B1519	Hood Switch Circuit Failure	<a href="#">GO to Pinpoint Test E</a> .
B1833	Door Unlock Disarm Switch Circuit Short To Ground	<a href="#">GO to Pinpoint Test A</a> .
B200A	<a href="#">VSM</a> Inclination Failure	<a href="#">GO to Pinpoint Test G</a> .
B200B	<a href="#">VSM</a> Ultrasonic Failure	<a href="#">GO to Pinpoint Test G</a> .
B200C	<a href="#">VSM</a> Module Failure	<a href="#">GO to Pinpoint Test G</a> .
B2569	Liftgate Disarm Switch Circuit Short to Ground	<a href="#">GO to Pinpoint Test F</a> .
U2033	<a href="#">VSM</a> Communication Link Failure	<a href="#">GO to Pinpoint Test G</a> .
All other DTCs	—	REFER to the Diagnostic Trouble Code (DTC) Chart in <a href="#">Section 419-10</a> .

## Symptom Chart

### Symptom Chart

Condition	Possible Sources	Action
<ul style="list-style-type: none"> <li>• No communication with the Smart Junction Box (SJB)</li> </ul>	<ul style="list-style-type: none"> <li>• Fuse(s)</li> <li>• Wiring, terminals or connectors</li> <li>• <a href="#">SJB</a></li> </ul>	<ul style="list-style-type: none"> <li>• REFER to <a href="#">Section 418-00</a>.</li> </ul>
<ul style="list-style-type: none"> <li>• The anti-theft system does not arm/disarm — using the door disarm switch</li> </ul>	<ul style="list-style-type: none"> <li>• Wiring, terminals or connectors</li> <li>• Door disarm switch</li> <li>• <a href="#">SJB</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">GO to Pinpoint Test A</a>.</li> </ul>
<ul style="list-style-type: none"> <li>• The anti-theft system does not arm/disarm — using the Remote Keyless Entry (RKE)</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">RKE</a> transmitter</li> <li>• <a href="#">SJB</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">GO to Pinpoint Test B</a>.</li> </ul>

transmitter		
<ul style="list-style-type: none"> <li>The anti-theft system does not disarm — using the ignition lock cylinder</li> </ul>	<ul style="list-style-type: none"> <li>Wiring, terminals or connectors</li> <li>Inoperative/unprogrammed key</li> <li>Passive Anti-Theft System (PATS) transceiver</li> <li>PCM</li> <li><a href="#">SJB</a></li> </ul>	<ul style="list-style-type: none"> <li>REFER to <a href="#">Section 419-01B</a> to continue diagnosis of the PATS.</li> </ul>
<ul style="list-style-type: none"> <li>The anti-theft system does not operate correctly — no anti-theft alarm horn or traffic horn</li> </ul>	<ul style="list-style-type: none"> <li>Wiring, terminals or connectors</li> <li>Traffic horn</li> <li>Anti-theft alarm horn</li> <li><a href="#">SJB</a></li> </ul>	<ul style="list-style-type: none"> <li><a href="#">GO to Pinpoint Test C</a>.</li> </ul>
<ul style="list-style-type: none"> <li>The anti-theft system does not operate correctly — anti-theft alarm horn and traffic horn are continuously on</li> </ul>	<ul style="list-style-type: none"> <li>Wiring, terminals or connectors</li> <li><a href="#">SJB</a></li> </ul>	<ul style="list-style-type: none"> <li><a href="#">GO to Pinpoint Test D</a>.</li> </ul>
<ul style="list-style-type: none"> <li>The anti-theft system does not operate correctly — turn signals do not flash when arming</li> </ul>	<ul style="list-style-type: none"> <li>Wiring, terminals or connectors</li> <li>Door ajar switch(es)</li> <li>Hood switch</li> <li>Luggage compartment lid ajar switch</li> <li><a href="#">SJB</a></li> </ul>	<ul style="list-style-type: none"> <li><a href="#">GO to Pinpoint Test E</a>.</li> </ul>
<ul style="list-style-type: none"> <li>The alarm system does not operate correctly — the alarm activates/does not activate when the luggage compartment is opened with the key</li> </ul>	<ul style="list-style-type: none"> <li>Wiring, terminals or connectors</li> <li>Luggage compartment lid disarm switch</li> <li><a href="#">SJB</a></li> </ul>	<ul style="list-style-type: none"> <li><a href="#">GO to Pinpoint Test F</a>.</li> </ul>
<ul style="list-style-type: none"> <li>The alarm system does not operate correctly — intrusion and inclination sensing</li> </ul>	<ul style="list-style-type: none"> <li>Fuse</li> <li>Wiring, terminals or connectors</li> <li>Intrusion/inclination sensor module</li> <li><a href="#">SJB</a></li> </ul>	<ul style="list-style-type: none"> <li><a href="#">GO to Pinpoint Test G</a>.</li> </ul>

## Pinpoint Tests

### Pinpoint Test A: The Anti-Theft System Does Not Arm/Disarm — Using The Door Disarm Switch

Refer to Wiring Diagrams Cell [117](#), Remote Keyless Entry and Alarm for schematic and connector information.

**NOTE:** The intrusion and inclination protection features cannot be activated when locking the vehicle with the door lock cylinder. This allows raising the vehicle on a hoist, transporting or towing the vehicle, or when authorized motion inside the vehicle is likely.

### Normal Operation

The door disarm switch is located in the driver door lock cylinder and grounds circuit 1315 (LB/PK) or circuit 1313 (LB/BK) to the Smart Junction Box (SJB), which arms or disarms the system. The ajar switches are monitored for a ground signal by the [SJB](#). Ground is supplied to the door disarm switch by circuit 1205 (BK).

- DTC B1833 (Door Unlock Disarm Switch Circuit Short To Ground) — an on-demand DTC that sets when there is a short to ground on circuit 1313 (LB/BK) or if the door disarm switch is shorted internally.

**This pinpoint test is intended to diagnose the following:**

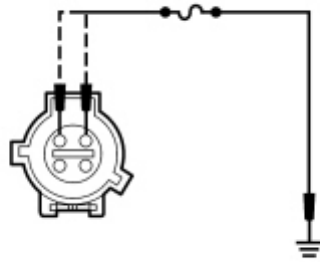
- Wiring, terminals or connectors
- Door disarm switch
- [SJB](#)

**PINPOINT TEST A: THE ANTI-THEFT SYSTEM DOES NOT ARM/DISARM — USING THE DOOR DISARM SWITCH**

**NOTICE:** Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

**NOTE:** Failure to disconnect the battery when instructed will result in false resistance readings. Refer to [Section 414-01](#).

Test Step	Result / Action to Take
<p><b>A1 RETRIEVE THE RECORDED <a href="#">SJB</a> DTCs FROM BOTH CONTINUOUS AND ON-DEMAND SELF-TESTS</b></p> <ul style="list-style-type: none"> <li>• Retrieve the recorded <a href="#">SJB</a> DTCs from the continuous and on-demand self-tests.</li> <li>• <b>Are any DTCs recorded?</b></li> </ul>	<p><b>Yes</b> For DTC B1833, GO to <a href="#">A3</a>.</p> <p>For all other DTCs, REFER to <a href="#">Section 419-10</a>.</p> <p><b>No</b> GO to <a href="#">A2</a>.</p>
<p><b>A2 CHECK THAT THE DRIVER DOOR LOCK AND UNLOCK PID READS CORRECTLY</b></p> <ul style="list-style-type: none"> <li>• Enter the following diagnostic mode on the scan tool: <a href="#">SJB</a> DataLogger.</li> <li>• <b>NOTE:</b> The PIDs should read "ACTIVE" (key in UNLOCK OR LOCK position) and "OFF" (key AT_REST or NEUTRAL position).</li> <li>• Monitor the <a href="#">SJB</a> PID (DRUNLKDIS) (driver door disarm) with the key in the door lock cylinder turned to the UNLOCK position and with the key at-rest.</li> <li>• Monitor the <a href="#">SJB</a> PID (DRLKCYL) (driver door lock) with the key in the door lock cylinder turned to the LOCK position and with the key at-rest.</li> <li>• <b>Do the <a href="#">SJB</a> PID values agree with the door lock cylinder position?</b></li> </ul>	<p><b>Yes</b> GO to <a href="#">A7</a>.</p> <p><b>No</b> GO to <a href="#">A3</a>.</p>
<p><b>A3 CHECK THE DOOR DISARM SWITCH</b></p> <ul style="list-style-type: none"> <li>• Disconnect: Door Disarm Switch C509.</li> <li>• <b>NOTE:</b> The PIDs should read "ACTIVE" (key in UNLOCK OR LOCK position) and "OFF" (key AT_REST or NEUTRAL position).</li> <li>• Monitor the <a href="#">SJB</a> PID (DRUNLKDIS) (driver door disarm) while connecting a fused jumper wire between the door disarm switch C509-1, circuit 1313 (LB/BK) harness side and ground.</li> </ul>	<p><b>Yes</b> REMOVE the jumper wire. GO to <a href="#">A4</a>.</p> <p><b>No</b> REMOVE the jumper wire. GO to <a href="#">A5</a>.</p>

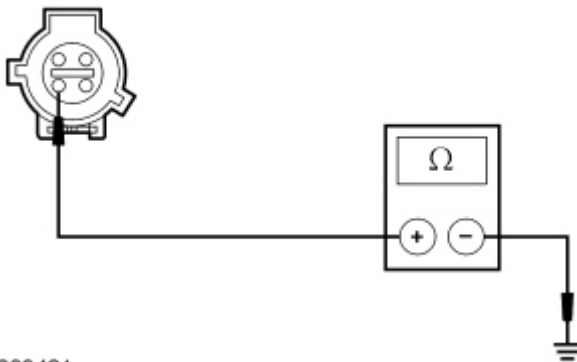


N0056243

- Monitor the **SJB** PID (DRLKCYL) (driver door lock) while connecting a fused jumper wire between the door disarm switch C509-2, circuit 1315 (LB/PK) harness side and ground.
- Do the **SJB** PID values read "ACTIVE"?

**A4 CHECK CIRCUIT 1205 (BK) FOR AN OPEN**

- Ignition OFF.
- Disconnect: Negative Battery Cable.
- Measure the resistance between the door disarm switch C509-3, circuit 1205 (BK), harness side and ground.



N0009481

- Is the resistance less than 5 ohms?

**Yes**

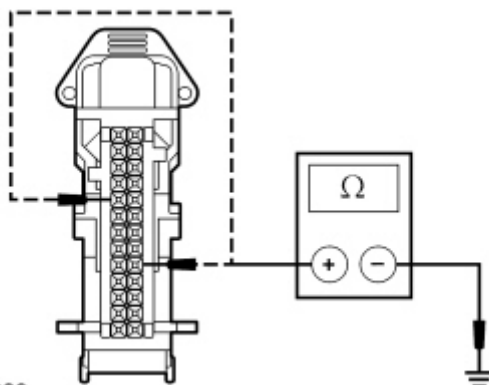
INSTALL a new door disarm switch. REFER to [Door Disarm Switch](#) in this section. TEST the system for normal operation.

**No**

REPAIR the circuit. TEST the system for normal operation.

**A5 CHECK CIRCUITS 1313 (LB/BK) AND 1315 (LB/PK) FOR A SHORT TO GROUND**

- Disconnect: **SJB** C2280e.
- Measure the resistance between the **SJB** C2280e-9, circuit 1313 (LB/BK), harness side and ground; and between the **SJB** C2280e-18, circuit 1315 (LB/PK), harness side and ground.



N0027609

- Are the resistances greater than 10,000 ohms?

**Yes**

GO to [A6](#).

**No**

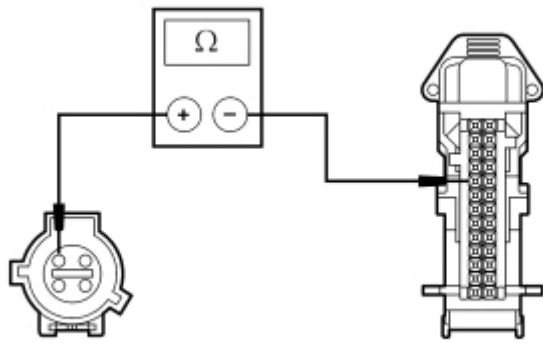
REPAIR the circuit in question. CLEAR the DTCs. REPEAT the self-test.

**A6 CHECK CIRCUITS 1313 (LB/BK) AND 1315 (LB/PK) FOR AN OPEN**

- Measure the resistance between the door disarm switch C509-1,

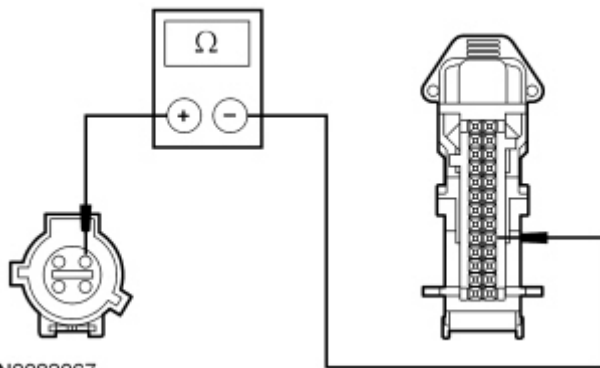
**Yes**

circuit 1313 (LB/BK), harness side and the [SJB](#) C2280e-9, circuit 1313 (LB/BK), harness side.



N0082066

- Measure the resistance between the door disarm switch C509-2, circuit 1315 (LB/PK), harness side and the [SJB](#) C2280e-18, circuit 1315 (LB/PK), harness side.



N0082067

- Are the resistances less than 5 ohms?

GO to [A7](#).

**No**  
REPAIR the circuit in question. TEST the system for normal operation

#### A7 CHECK FOR CORRECT [SJB](#) OPERATION

- Disconnect all the [SJB](#) connectors.
- Check for:
  - corrosion
  - damaged pins
  - pushed-out pins
- Connect all the [SJB](#) connectors and make sure they seat correctly.
- Operate the system and verify the concern is still present.
- **Is the concern still present?**

**Yes**  
INSTALL a new SJB. REFER to [Section 419-10](#). TEST the system for normal operation.

**No**  
The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. TEST the system for normal operation.

### Pinpoint Test B: The Anti-Theft System Does Not Arm/Disarm — Using The Remote Keyless Entry (RKE) Transmitter

#### Normal Operation

The Smart Junction Box (SJB) receives lock/unlock commands from the Remote Keyless Entry (RKE) transmitter. The [SJB](#) then arms/disarms the perimeter alarm system as requested.

**This pinpoint test is intended to diagnose the following:**

- [RKE](#) transmitter
- SJB

**PINPOINT TEST B: THE ANTI-THEFT SYSTEM DOES NOT ARM/DISARM — USING THE REMOTE KEYLESS ENTRY (RKE) TRANSMITTER**

Test Step	Result / Action to Take
<p><b>B1 CHECK THE <u>RKE</u> TRANSMITTER FOR CORRECT DOOR LOCK OPERATION</b></p> <ul style="list-style-type: none"> <li>• Lock and unlock the door locks using the <u>RKE</u> transmitter.</li> <li>• <b>Do the door locks operate correctly?</b></li> </ul>	<p><b>Yes</b> GO to <a href="#">B2</a>.</p> <p><b>No</b> REFER to <a href="#">Section 501-14</a>.</p>
<p><b>B2 CHECK FOR CORRECT <u>SJB</u> OPERATION</b></p> <ul style="list-style-type: none"> <li>• Disconnect all the <u>SJB</u> connectors.</li> <li>• Check for: <ul style="list-style-type: none"> <li>▪ corrosion</li> <li>▪ damaged pins</li> <li>▪ pushed-out pins</li> </ul> </li> <li>• Connect all the <u>SJB</u> connectors and make sure they seat correctly.</li> <li>• Operate the system and verify the concern is still present.</li> <li>• <b>Is the concern still present?</b></li> </ul>	<p><b>Yes</b> INSTALL a new <u>SJB</u>. REFER to <a href="#">Section 419-10</a>. TEST the system for normal operation.</p> <p><b>No</b> The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. TEST the system for normal operation.</p>

**Pinpoint Test C: The Anti-Theft System Does Not Operate Correctly — No Anti-Theft Alarm Horn or Traffic Horn**

Refer to Wiring Diagrams Cell [117](#), Remote Keyless Entry and Alarm for schematic and connector information.

**Normal Operation**

When the perimeter alarm (anti-theft) system is armed, the door ajar switches, the hood switch, and the luggage compartment lid ajar switch are all monitored by the Smart Junction Box (SJB). If the SJB detects an opening of any of these entry points without a disarm command, or if the ignition switch is cycled to the ON position without the PCM sensing a valid Passive Anti-Theft System (PATS) key, the SJB supplies voltage to the anti-theft alarm horn on circuit 1324 (BK/LG) and grounds the horn relay control circuit for the traffic horn, cycling them both in regular intervals. The anti-theft alarm horn is grounded on circuit 1205 (BK). The SJB also flashes the turn signal lamps in regular intervals.

**This pinpoint test is intended to diagnose the following:**

- Wiring, terminals or connectors
- Anti-theft alarm horn
- Traffic horn
- SJB

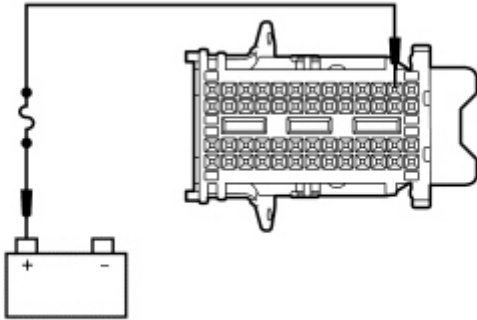
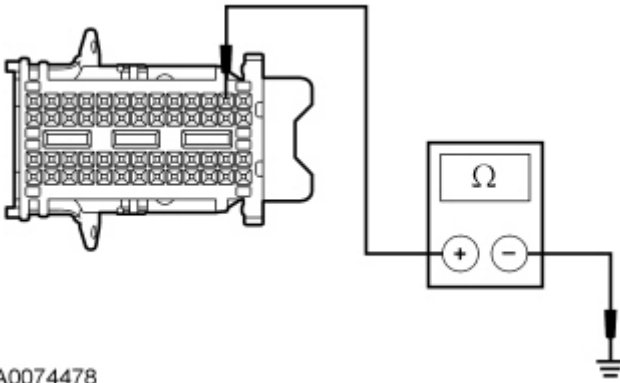
**PINPOINT TEST C: THE ANTI-THEFT SYSTEM DOES NOT OPERATE CORRECTLY — NO ANTI-THEFT ALARM HORN OR TRAFFIC HORN**

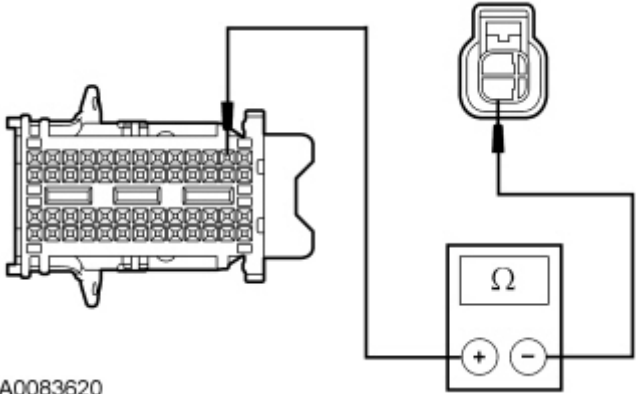
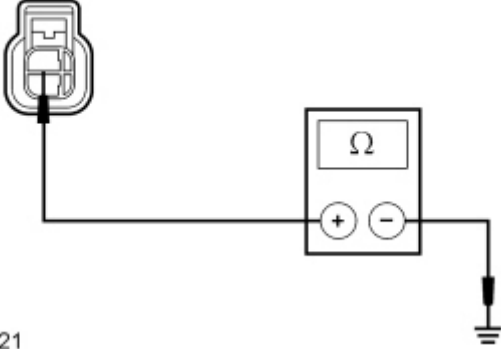
**NOTICE:** Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

**NOTE:** Failure to disconnect the battery when instructed will result in false resistance readings. Refer to [Section 414-01](#).

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Test Step	Result / Action to Take
<p><b>C1 CHECK THE TRAFFIC HORN OPERATION</b></p> <ul style="list-style-type: none"> <li>Press the horn button.</li> <li><b>Does the traffic horn sound?</b></li> </ul>	<p><b>Yes</b> GO to <a href="#">C2</a>.</p> <p><b>No</b> REFER to <a href="#">Section 413-06</a>.</p>
<p><b>C2 CHECK THE ANTI-THEFT ALARM HORN OPERATION</b></p> <ul style="list-style-type: none"> <li>Ignition OFF.</li> <li>Disconnect: <a href="#">SJB C2280d</a>.</li> <li>Connect a fused jumper wire between the positive battery terminal and the <a href="#">SJB C2280d-12</a>, circuit 1324 (BK/LG), harness side.</li> </ul>  <p>N0082084</p> <ul style="list-style-type: none"> <li><b>Does the anti-theft alarm horn sound?</b></li> </ul>	<p><b>Yes</b> GO to <a href="#">C6</a>.</p> <p><b>No</b> GO to <a href="#">C3</a>.</p>
<p><b>C3 CHECK CIRCUIT 1324 (BK/LG) FOR A SHORT TO GROUND</b></p> <ul style="list-style-type: none"> <li>Disconnect: Anti-Theft Alarm Horn C3069.</li> <li>Measure the resistance between the <a href="#">SJB C2280d-12</a>, circuit 1324 (BK/LG), harness side and ground.</li> </ul>  <p>A0074478</p> <ul style="list-style-type: none"> <li><b>Is the resistance greater than 10,000 ohms?</b></li> </ul>	<p><b>Yes</b> GO to <a href="#">C4</a>.</p> <p><b>No</b> REPAIR the circuit. TEST the system for normal operation.</p>
<p><b>C4 CHECK CIRCUIT 1324 (BK/LG) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>Measure the resistance between the <a href="#">SJB C2280d-12</a>, circuit 1324 (BK/LG), harness side and the anti-theft alarm horn C3069-2, circuit 1324 (BK/LG), harness side.</li> </ul>	<p><b>Yes</b> GO to <a href="#">C5</a>.</p> <p><b>No</b> REPAIR the circuit. TEST the system for normal operation.</p>

 <p>A0083620</p> <ul style="list-style-type: none"> <li>• Is the resistance less than 5 ohms?</li> </ul>	
<p><b>C5 CHECK CIRCUIT 1205 (BK) FOR AN OPEN</b></p>	
<ul style="list-style-type: none"> <li>• Disconnect: Negative Battery Cable.</li> <li>• Measure the resistance between the anti-theft alarm horn C3069-1, circuit 1205 (BK), harness side and ground.</li> </ul>  <p>A0083621</p> <ul style="list-style-type: none"> <li>• Is the resistance less than 5 ohms?</li> </ul>	<p><b>Yes</b> INSTALL a new anti-theft alarm horn. REFER to <a href="#">Anti-Theft Alarm Horn</a> in this section. TEST the system for normal operation.</p> <p><b>No</b> REPAIR the circuit. TEST the system for normal operation.</p>
<p><b>C6 CHECK FOR CORRECT <u>SJB</u> OPERATION</b></p>	
<ul style="list-style-type: none"> <li>• Disconnect all the <u>SJB</u> connectors.</li> <li>• Check for: <ul style="list-style-type: none"> <li>■ corrosion</li> <li>■ damaged pins</li> <li>■ pushed-out pins</li> </ul> </li> <li>• Connect all the <u>SJB</u> connectors and make sure they seat correctly.</li> <li>• Operate the system and verify the concern is still present.</li> <li>• <b>Is the concern still present?</b></li> </ul>	<p><b>Yes</b> INSTALL a new <u>SJB</u>. REFER to <a href="#">Section 419-10</a>. TEST the system for normal operation.</p> <p><b>No</b> The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. TEST the system for normal operation.</p>

**Pinpoint Test D: The Anti-Theft System Does Not Operate Correctly — Anti-Theft Alarm Horn and Traffic Horn Continuously On**

Refer to Wiring Diagrams Cell [117](#), Remote Keyless Entry and Alarm for schematic and connector information.

**Normal Operation**

When the perimeter alarm (anti-theft) system is armed, the door ajar switches, the hood switch, and the luggage compartment lid ajar switch are all monitored by the Smart Junction Box (SJB). If the SJB detects any unauthorized entry of these entry points without a disarm command, or if the ignition switch is cycled to the ON position without the PCM sensing a valid Passive Anti-Theft System (PATS) key, the SJB supplies voltage to the anti-theft alarm horn on circuit 1324 (BK/LG) and grounds the horn relay control circuit for the traffic horn, cycling

them both in regular intervals. The anti-theft alarm horn is grounded on circuit 1205 (BK). The [SJB](#) also flashes the turn signal lamps in regular intervals.

**This pinpoint test is intended to diagnose the following:**

- Wiring, terminals or connectors
- [SJB](#)

**PINPOINT TEST D: THE ANTI-THEFT SYSTEM DOES NOT OPERATE CORRECTLY — ANTI-THEFT ALARM HORN AND TRAFFIC HORN CONTINUOUSLY ON**

Test Step	Result / Action to Take
<p><b>D1 CHECK THE HORN OPERATION</b></p> <ul style="list-style-type: none"> <li>• Verify the operation of the anti-theft alarm horn and traffic horn.</li> <li>• <b>Are both the anti-theft alarm horn and the traffic horn on?</b></li> </ul>	<p><b>Yes</b> GO to <a href="#">D3</a>.</p> <p><b>No</b> If only the traffic horn is on, REFER to <a href="#">Section 413-06</a> .  If only the anti-theft alarm horn is on, GO to <a href="#">D2</a> .</p>
<p><b>D2 CHECK THE ANTI-THEFT ALARM HORN OPERATION</b></p> <ul style="list-style-type: none"> <li>• Ignition OFF.</li> <li>• Disconnect: <a href="#">SJB</a> C2280d.</li> <li>• Verify the anti-theft alarm horn operation.</li> <li>• <b>Is the anti-theft alarm horn on?</b></li> </ul>	<p><b>Yes</b> REPAIR circuit 1324 (BK/LG) for a short to voltage. TEST the system for normal operation.</p> <p><b>No</b> GO to <a href="#">D3</a> .</p>
<p><b>D3 CHECK FOR CORRECT <a href="#">SJB</a> OPERATION</b></p> <ul style="list-style-type: none"> <li>• Disconnect all the <a href="#">SJB</a> connectors.</li> <li>• Check for: <ul style="list-style-type: none"> <li>■ corrosion</li> <li>■ damaged pins</li> <li>■ pushed-out pins</li> </ul> </li> <li>• Connect all the <a href="#">SJB</a> connectors and make sure they seat correctly.</li> <li>• Operate the system and verify the concern is still present.</li> <li>• <b>Is the concern still present?</b></li> </ul>	<p><b>Yes</b> INSTALL a new <a href="#">SJB</a> . REFER to <a href="#">Section 419-10</a> . TEST the system for normal operation.</p> <p><b>No</b> The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. TEST the system for normal operation.</p>

**Pinpoint Test E: The Anti-Theft System Does Not Operate Correctly — Turn Signals Do Not Flash When Arming**

Refer to Wiring Diagrams Cell [117](#) , Remote Keyless Entry and Alarm for schematic and connector information.

**Normal Operation**

When the perimeter alarm (anti-theft) system is armed, the turn signal lamps flash once if all the ajar switches indicate a closed position. If any of them indicate an open position and the system is commanded to arm, the turn signal lamps will not flash.

- DTC B1519 (Hood Switch Circuit Failure) — an on-demand DTC that sets when there is an open, or a short to voltage on circuit 1711 (VT/OG), if the hood switch is opened internally or the Smart Junction Box (SJB) may be damaged.

**This pinpoint test is intended to diagnose the following:**

- Wiring, terminals or connectors
- Door ajar switch(es)
- Hood switch
- Luggage compartment lid ajar switch
- [SJB](#)

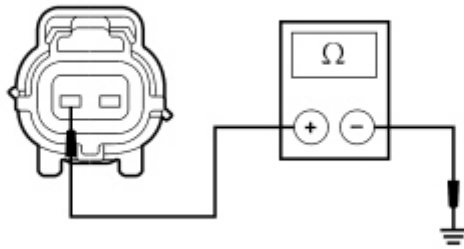
**PINPOINT TEST E: THE ANTI-THEFT SYSTEM DOES NOT OPERATE CORRECTLY — TURN SIGNALS DO NOT FLASH WHEN ARMING**

**NOTICE:** Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

**NOTE:** Failure to disconnect the battery when instructed will result in false resistance readings. Refer to [Section 414-01](#).

Test Step	Result / Action to Take
<b>E1 RETRIEVE THE RECORDED <a href="#">SJB</a> DTCs FROM BOTH THE CONTINUOUS AND ON-DEMAND SELF-TESTS</b>	
<ul style="list-style-type: none"> <li>• Retrieve the recorded <a href="#">SJB</a> DTCs from the continuous and on-demand self-tests.</li> <li>• <b>Is DTC B1519 recorded?</b></li> </ul>	<b>Yes</b> GO to <a href="#">E3</a> .  <b>No</b> GO to <a href="#">E2</a> .
<b>E2 CHECK THE AJAR SWITCH STATUS TO THE SJB</b>	
<ul style="list-style-type: none"> <li>• Close the hood, luggage compartment lid and the doors.</li> <li>• Ignition ON.</li> <li>• Enter the following diagnostic mode on the scan tool: <a href="#">SJB</a> DataLogger.</li> <li>• Monitor the <a href="#">SJB</a> PIDs D_DR_SW (driver door ajar switch status), P_DR_SW (passenger door ajar switch status), HOOD_SW (hood ajar switch status), DECKLID (luggage compartment lid ajar switch status) for the door ajar switches, the hood switch and the luggage compartment lid ajar switch.</li> <li>• <b>Do the PIDs indicate the doors, hood and the luggage compartment lid are closed?</b></li> </ul>	<b>Yes</b> GO to <a href="#">E9</a> .  <b>No</b> REFER to <a href="#">Section 417-02</a> .
<b>E3 CHECK THE HOOD SWITCH FOR CORRECT OPERATION</b>	
<ul style="list-style-type: none"> <li>• Ignition OFF.</li> <li>• Disconnect: Hood Switch C127.</li> <li>• Measure the resistance between the hood switch C127 pin 1, component side and the hood switch C127 pin 2, component side while pressing and releasing the switch.</li> </ul> <div data-bbox="411 1576 671 1980" style="text-align: center;"> </div> <p>N0012767</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance less than 5 ohms with the hood switch pressed, and greater than 10,000 ohms with the hood switch released?</b></li> </ul>	<b>Yes</b> GO to <a href="#">E4</a> .  <b>No</b> INSTALL a new hood switch. CLEAR the DTCs. REPEAT the self-test.
<b>E4 CHECK CIRCUIT 1205 (BK) FOR AN OPEN</b>	

- Disconnect: Negative Battery Cable.
- Measure the resistance between the hood switch C127-2, circuit 1205 (BK), harness side and ground.



N0082085

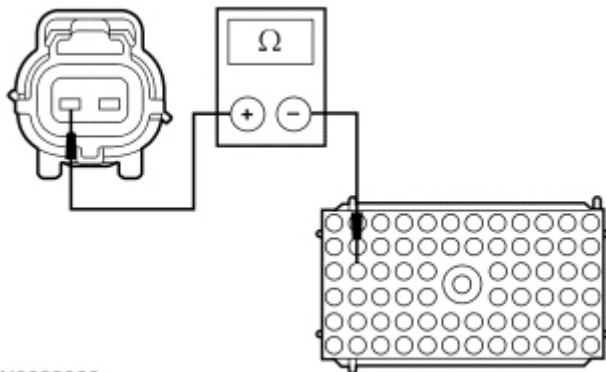
- Is the resistance less than 5 ohms?

**Yes**  
GO to [E7](#).

**No**  
GO to [E5](#).

**E5 CHECK CIRCUIT 1205 (BK) FOR AN OPEN BETWEEN THE HOOD SWITCH AND THE BUSSED ELECTRICAL CENTER (BEC)**

- Disconnect: [BEC C1035c](#).
- Measure the resistance between the hood switch C127-2, circuit 1205 (BK), harness side and the [BEC C1035c-D11](#), circuit 1205 (BK), harness side.



N0082086

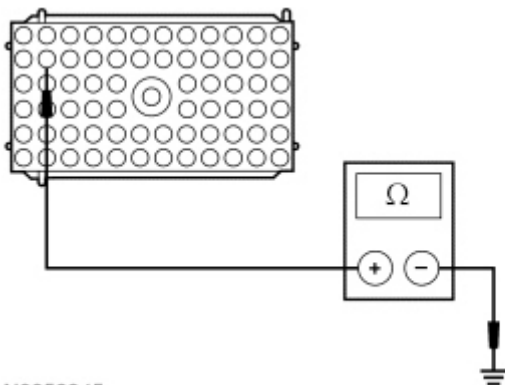
- Is the resistance less than 5 ohms?

**Yes**  
GO to [E6](#).

**No**  
REPAIR the circuit.  
CLEAR the DTCs.  
REPEAT the self-test.

**E6 CHECK CIRCUIT 1205 (BK) FOR AN OPEN BETWEEN THE [BEC](#) AND GROUND**

- Measure the resistance between the [BEC C1035c-E11](#), circuit 1205 (BK), harness side and ground.



N0056245

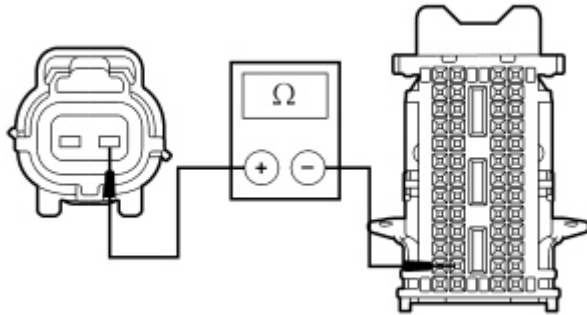
- Is the resistance less than 5 ohms?

**Yes**  
INSTALL a new [BEC](#).  
CLEAR the DTCs.  
REPEAT the self-test.

**No**  
REPAIR the circuit.  
CLEAR the DTCs.  
REPEAT the self-test.

**E7 CHECK CIRCUIT 1711 (VT/OG) FOR AN OPEN**

- Connect: Negative Battery Cable.
- Disconnect: [SJB\\_C2280c](#).
- Measure the resistance between the hood switch C127-1, circuit 1711 (VT/OG), harness side and the [SJB\\_C2280c-15](#), circuit 1711 (VT/OG), harness side.



N0082087

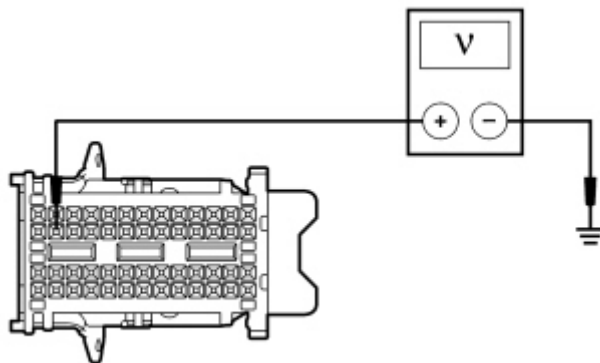
- Is the resistance less than 5 ohms?

**Yes**  
GO to [E8](#).

**No**  
REPAIR the circuit.  
CLEAR the DTCs.  
REPEAT the self-test.

### E8 CHECK CIRCUIT 1711 (VT/OG) FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure the voltage between the [SJB\\_C2280c-15](#), circuit 1711 (VT/OG), harness side and ground.



A0074482

- Is any voltage indicated?

**Yes**  
REPAIR the circuit.  
CLEAR the DTCs.  
REPEAT the self-test.

**No**  
GO to [E9](#).

### E9 CHECK FOR CORRECT [SJB](#) OPERATION

- Disconnect all the [SJB](#) connectors.
- Check for:
  - corrosion
  - damaged pins
  - pushed-out pins
- Connect all the [SJB](#) connectors and make sure they seat correctly.
- Operate the system and verify the concern is still present.
- Is the concern still present?

**Yes**  
INSTALL a new [SJB](#).  
REFER to [Section 419-10](#). REPEAT the self-test. TEST the system for normal operation.

**No**  
The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. CLEAR the DTCs. REPEAT the self-test. TEST the system for normal operation.

Refer to Wiring Diagrams Cell [117](#), Remote Keyless Entry and Alarm for schematic and connector information.

### Normal Operation

The Smart Junction Box (SJB) monitors the luggage compartment lid disarm switch status. The luggage compartment lid disarm switch grounds circuit 1350 (WH/PK) when the luggage compartment lid lock cylinder is turned to open with the key, completing the ground path to circuit 1205 (BK). The [SJB](#) receives this ground signal and inhibits (stops) the alarm from activating due to the luggage compartment lid. The intrusion sensor does not arm, but the alarm is still armed for the doors and the hood. When the luggage compartment lid is closed, the luggage compartment lid and the intrusion sensor are again monitored by the SJB. After the 20 second pre-arm phase, the luggage compartment lid and the intrusion sensor also become armed again.

- DTC B2569 (Liftgate Disarm Switch Circuit Short to Ground) — an on-demand DTC that sets when either the luggage compartment lid disarm switch is internally shorted, circuit 1350 (WH/PK) is shorted to ground, or the [SJB](#) is damaged.

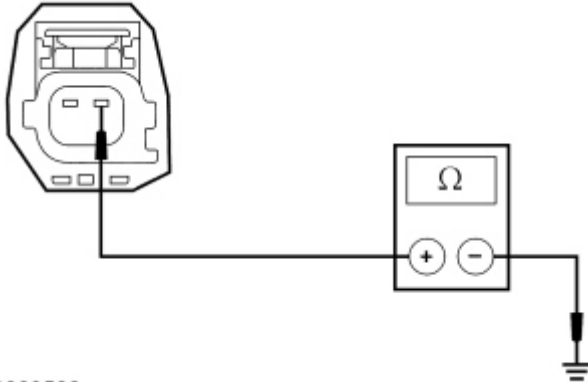
**This pinpoint test is intended to diagnose the following:**

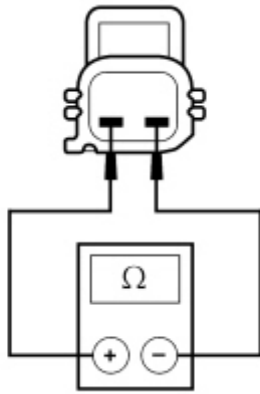
- Wiring, terminals or connectors
- Luggage compartment lid disarm switch
- [SJB](#)

**PINPOINT TEST F: THE ALARM SYSTEM DOES NOT OPERATE CORRECTLY — THE ALARM ACTIVATES/DOES NOT ACTIVATE WHEN THE LUGGAGE COMPARTMENT LID IS OPENED WITH THE KEY**

**NOTICE:** Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

**NOTE:** Failure to disconnect the battery when instructed will result in false resistance readings. Refer to [Section 414-01](#).

Test Step	Result / Action to Take
<p><b>F1 CHECK CIRCUIT 1205 (BK) FOR AN OPEN</b></p> <ul style="list-style-type: none"> <li>• Ignition OFF.</li> <li>• Disconnect: Negative Battery Cable.</li> <li>• Disconnect: Luggage Compartment Lid Disarm Switch C483.</li> <li>• Measure the resistance between the luggage compartment lid disarm switch C483-1, circuit 1205 (BK), harness side and ground.</li> </ul>  <p>N0009502</p> <ul style="list-style-type: none"> <li>• Is the resistance less than 5 ohms?</li> </ul>	<p><b>Yes</b> GO to <a href="#">F2</a>.</p> <p><b>No</b> REPAIR the circuit. TEST the system for normal operation.</p>
<p><b>F2 CHECK THE LUGGAGE COMPARTMENT LID DISARM SWITCH</b></p> <ul style="list-style-type: none"> <li>• Measure the resistance between the luggage compartment lid disarm switch C483 pin 1 and pin 2, component side while turning and releasing the key in the luggage compartment lock cylinder.</li> </ul>	<p><b>Yes</b> GO to <a href="#">F3</a>.</p> <p><b>No</b> INSTALL a new luggage</p>



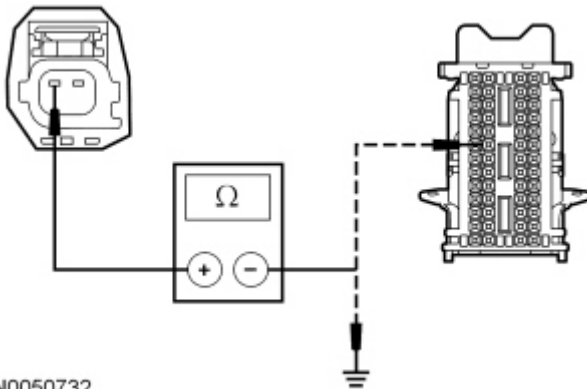
N0009486

- Is the resistance less than 5 ohms with the key unlocking the luggage compartment lid lock cylinder and greater than 10,000 ohms otherwise?

compartment lid disarm switch. REFER to luggage compartment lid lock cylinder in [Section 501-14](#). CLEAR the DTCs. REPEAT the self-test.

### F3 CHECK CIRCUIT 1350 (WH/PK) FOR AN OPEN OR SHORT TO GROUND

- Disconnect: [SJB](#) C2280c.
- Measure the resistance between the luggage compartment lid disarm switch C483-2, circuit 1350 (WH/PK), harness side and the [SJB](#) C2280c-21, circuit 1350 (WH/PK), harness side; and between the luggage compartment lid disarm switch C483-2, circuit 1350 (WH/PK), harness side and ground.



N0050732

- Is the resistance less than 5 ohms between the luggage compartment lid disarm switch and the SJB; and greater than 10,000 ohms between the luggage compartment lid disarm switch and ground?

**Yes**  
GO to [F4](#).

**No**  
REPAIR the circuit.  
CLEAR the DTCs.  
REPEAT the self-test.

### F4 CHECK FOR CORRECT [SJB](#) OPERATION

- Disconnect all the [SJB](#) connectors.
- Check for:
  - corrosion
  - damaged pins
  - pushed-out pins
- Connect all the [SJB](#) connectors and make sure they seat correctly.
- Operate the system and verify the concern is still present.
- Is the concern still present?

**Yes**  
INSTALL a new [SJB](#).  
REFER to [Section 419-10](#). REPEAT the self-test. TEST the system for normal operation.

**No**  
The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. CLEAR the DTCs. REPEAT the self-test. TEST the system for normal operation.



## Pinpoint Test G: The Alarm System Does Not Operate Correctly — Intrusion and Inclination Sensing

Refer to Wiring Diagrams Cell [117](#), Remote Keyless Entry and Alarm for schematic and connector information.

**NOTE:** Arming the perimeter alarm (anti-theft) system by using the key in the door lock cylinder (door disarm switch) inhibits the intrusion and inclination sensing features. The intrusion and inclination sensing features can be activated by using the Remote Keyless Entry (RKE) transmitter or the door lock control switch to lock the vehicle and arm the perimeter alarm system. The convertible top, the luggage compartment, and all the doors must be closed for the intrusion sensing feature to activate.

**NOTE:** All the windows must be closed for correct intrusion sensing operation.

**NOTE:** The inclination sensing feature must be disarmed before raising the vehicle on a hoist to prevent false alarms.

### Normal Operation

The intrusion and inclination sensor receives voltage on circuit 645 (WH/LB) and ground on circuit 1205 (BK). The sensor begins monitoring the interior volume and senses an intrusion through a change in interior volume or a change in vehicle inclination. When the intrusion sensor senses a change in state, the change is communicated to the Smart Junction Box (SJB) through circuit 340 (RD/LB). The [SJB](#) then sounds the horns in regular intervals and flashes the turn signal lamps in regular intervals.

DTC Description	Fault Trigger Conditions
<ul style="list-style-type: none"> <li>B200A — <a href="#">VSM</a> Inclination Failure</li> </ul>	A continuous memory and an on-demand DTC that sets when there is a failure in the inclination sensor.
<ul style="list-style-type: none"> <li>B200B — <a href="#">VSM</a> Ultrasonic Failure</li> </ul>	A continuous memory and an on-demand DTC that sets when there is a failure in the intrusion sensor.
<ul style="list-style-type: none"> <li>B200C — <a href="#">VSM</a> Module Failure</li> </ul>	A continuous memory and an on-demand DTC that sets when there is a failure in the intrusion/inclination sensor module.
<ul style="list-style-type: none"> <li>U2033 — <a href="#">VSM</a> Communication Link Failure</li> </ul>	A continuous memory and an on-demand DTC that sets when there is a failure in the intrusion/inclination sensor module communication link between the module and the <a href="#">SJB</a> .

This pinpoint test is intended to diagnose the following:

- Fuse
- Wiring, terminals or connectors
- Intrusion and inclination sensor
- [SJB](#)

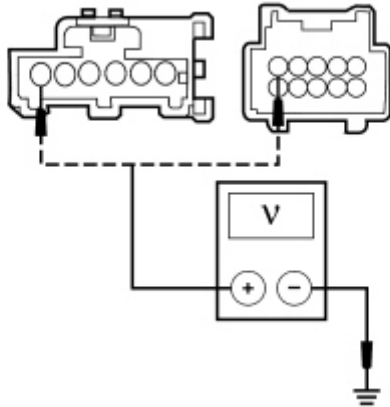
### PINPOINT TEST G: THE ALARM SYSTEM DOES NOT OPERATE CORRECTLY — INTRUSION AND INCLINATION SENSING

**NOTICE:** Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

**NOTE:** Failure to disconnect the battery when instructed will result in false resistance readings. Refer to [Section 414-01](#).

Test Step	Result / Action to Take
<b>G1 CHECK CIRCUIT 645 (WH/LB) FOR VOLTAGE</b>	
<ul style="list-style-type: none"> <li>• Close all the doors, the hood, the luggage compartment, and the convertible top (if equipped).</li> </ul>	Yes GO to <a href="#">G2</a> .

- Disconnect: Overhead Console C930 (Coupe) or C9013 (Convertible).
- Measure the voltage between the overhead console C930-1 (coupe) or C9013-1 (convertible), circuit 645 (WH/LB), harness side and ground.



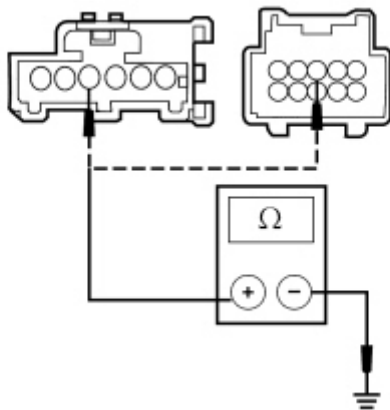
N0062191

- Is the voltage greater than 10 volts?

**No**  
 VERIFY the [SJB](#) fuse 10 (5A) is OK. If OK, REPAIR the circuit. If not OK, REFER to the Wiring Diagrams Manual to identify the possible causes of the short circuit. CLEAR the DTCs. REPEAT the self-test.

### G2 CHECK CIRCUIT 1205 (BK) FOR AN OPEN

- Ignition OFF.
- Disconnect: Negative Battery Cable.
- Measure the resistance between the overhead console C930-3 (coupe) or C9013-3 (convertible), circuit 1205 (BK), harness side and ground.



N0062192

- Is the resistance less than 5 ohms?

**Yes**  
 GO to [G3](#).

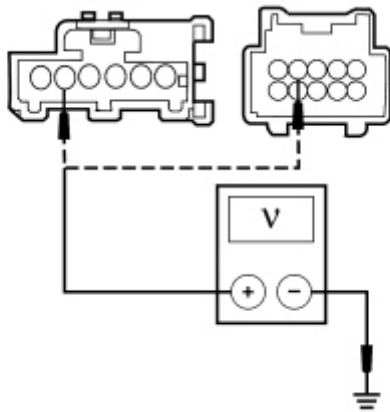
**No**  
 REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.

### G3 CHECK THE COMMUNICATION LINK CIRCUIT 340 (RD/LB) FOR VOLTAGE

- Connect: Negative Battery Cable.
- Measure the voltage between the overhead console C930-2 (coupe) or C9013-2 (convertible), circuit 340 (RD/LB), harness side and ground.

**Yes**  
 GO to [G5](#).

**No**  
 GO to [G4](#).

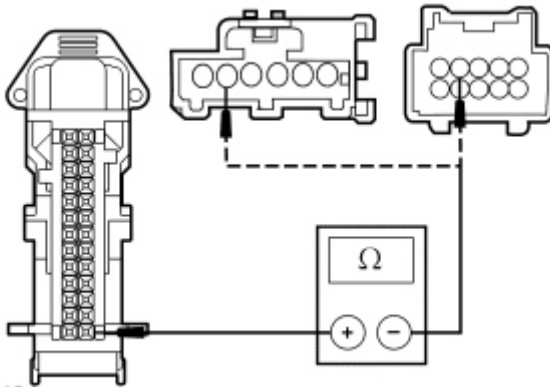


N0062193

- Is the voltage greater than 10 volts?

#### G4 CHECK THE COMMUNICATION LINK CIRCUIT 340 (RD/LB) FOR AN OPEN

- Disconnect: [SJB](#) C2280f.
- Measure the resistance between the [SJB](#) C2280f-14, circuit 340 (RD/LB), harness side and the overhead console C930-2 (coupe) or C9013-2 (convertible), circuit 340 (RD/LB), harness side.

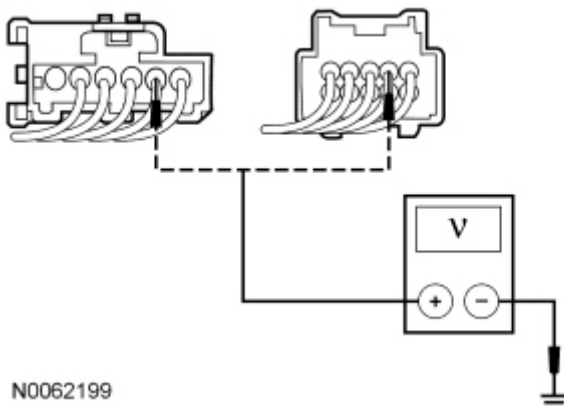


N0062194

- Is the resistance less than 5 ohms?

#### G5 CHECK FOR AN INTRUSION SENSOR ACTIVE SIGNAL

- Connect: Overhead Console C930 (Coupe) or C9013 (Convertible).
- Ignition ON.
- Enter the following diagnostic mode on the scan tool: [SJB](#) DataLogger.
- Trigger the [SJB](#) active command ISM ACTIVE ON.
- While backprobing, measure the voltage between the overhead console C930-2 (coupe) or C9013-2 (convertible), circuit 340 (RD/LB), harness side and ground while triggering the active command ON.



N0062199

- Does the voltage momentarily drop to less than 10 volts?

**Yes**  
GO to [G6](#).

**No**  
REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.

**Yes**  
INSTALL a new intrusion and inclination sensor. REFER to [Intrusion and Inclination Sensor](#) in this section. CLEAR the DTCs. REPEAT the self-test.

**No**  
GO to [G6](#).

## G6 CHECK FOR CORRECT SJB OPERATION

- Disconnect all the SJB connectors.
- Check for:
  - corrosion
  - damaged pins
  - pushed-out pins
- Connect all the SJB connectors and make sure they seat correctly.
- Operate the system and verify the concern is still present.
- **Is the concern still present?**

### **Yes**

INSTALL a new SJB.  
REFER to [Section 419-10](#).  
REPEAT the self-test. TEST the system for normal operation.

### **No**

The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. CLEAR the DTCs. REPEAT the self-test.