

## Anti-Theft

### Special Tool(s)

	Fluke 77-IV Digital Multimeter FLU77-4 or equivalent
	Vehicle Communication Module (VCM) and Integrated Diagnostic System (IDS) software with appropriate hardware, or equivalent scan tool
	Flex Probe Kit NUD105-R025D 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 Body Control Module B (BCM-B) sends a message over the local interconnect network to arm the intrusion and inclination sensor.

If any intrusion is detected without the alarm being deactivated, the SJB activates the perimeter alarm and sounds the horn and flashes the turn signals in regular intervals.

The system arms when:

- the driver door is locked with the key in the door lock cylinder (which does not activate the intrusion or inclination systems)
- the doors are locked with the Remote Keyless Entry (RKE) transmitter (this arms the entire system)
- the doors are locked with the door lock control switch (with the door open) and then the accompanying door is closed (this 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 and inclination sensor and the luggage compartment lid ajar inputs if the luggage compartment lid is opened with the RKE transmitter . Once the luggage compartment lid is closed, the intrusion and 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 also deactivate an activated alarm):

- Press the UNLOCK button on the RKE transmitter (part of the IKT key)
- 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.

### Alarm Event PIDs

The SJB has PIDs available that show what caused the last alarm events. The 4 SJB alarm event PIDs are AL\_EVT1 through 4. The cause for the most recent alarm activation is always listed in the first alarm event PID. These PIDs display what caused the alarm to activate and can be a very useful tool when trying to identify the cause of a false alarm activation.

### 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>• Convertible top ajar switch (if equipped)</li> <li>• Hood switch</li> <li>• Remote Keyless Entry (RKE) transmitter</li> </ul>	<ul style="list-style-type: none"> <li>• Smart Junction Box (SJB) fuse 11 (10A)</li> <li>• Wiring, terminals or connectors</li> <li>• <u>SJB</u></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 Body Control Module B (BCM-B) and 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

#### Body Control Module B (BCM-B) DTC Chart

**NOTE:** *This module utilizes a 5-character DTC followed by a 2-character failure-type code. The failure-type code provides information about specific fault conditions such as opens, or shorts to ground. Continuous memory DTCs have an additional 2-character DTC status code suffix to assist in determining DTC history.*

DTC	Description	Action
B109F:08	Intrusion Sensor Module: Bus Signal / Message Failures	<a href="#">GO to Pinpoint Test E.</a>
B109F:49	Intrusion Sensor Module: Internal Electronic Failure	INSTALL a new intrusion and inclination sensor. REFER to <a href="#">Intrusion and Inclination Sensor</a> in this section. TEST the system for normal operation.
B109F:55	Intrusion Sensor Module: Not Configured	REFER to <a href="#">Section 418-01.</a>
B109F:97	Intrusion Sensor Module: Component Or System Operation Obstructed Or Blocked	<p><b>NOTE:</b> <i>The Body Control Module B (BCM-B) DTC B109F:97 is a continuous memory and on-demand DTC that sets when there are 3 successive failures of the intrusion and inclination sensor module to arm and there is no indication of a module fault and the communication link between the module and the <u>BCM-B</u> appears to have sufficient integrity.</i></p> <p>CHECK for any blockages/restrictions near the intrusion and inclination sensor that may hinder/affect the operation of the sensor.</p>
All other DTCs	—	REFER to the Diagnostic Trouble Code (DTC) Chart in <a href="#">Section 419-10.</a>

### Smart Junction Box (SJB) DTC Chart

DTC	Description	Action
B1520	Hood Switch Circuit Open	<a href="#">GO to Pinpoint Test C.</a>
B2100	Door Driver Key Cylinder Switch Failure	<a href="#">GO to Pinpoint Test A.</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>The alarm system does not arm/disarm from the driver door lock cylinder</li> </ul>	<ul style="list-style-type: none"> <li>Wiring, terminals or connectors</li> <li>Door disarm switch (part of the door latch)</li> <li><u>SJB</u></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 alarm system does not activate from an unauthorized entry at the hood</li> </ul>	<ul style="list-style-type: none"> <li>Wiring, terminals or connectors</li> <li>Hood switch</li> <li><u>SJB</u></li> </ul>	<ul style="list-style-type: none"> <li><a href="#">GO to Pinpoint Test B.</a></li> </ul>
<ul style="list-style-type: none"> <li>The alarm system does not arm/no turn signal flash confirmation</li> </ul>	<ul style="list-style-type: none"> <li>Door ajar input</li> <li>Hood ajar input</li> <li>Luggage compartment lid ajar input</li> <li>Turn signals</li> <li>Intrusion and inclination sensor</li> <li><u>RKE</u> transmitter concern</li> <li><u>SJB</u></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 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 and inclination sensor</li> <li><u>BCM-B</u></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>No horn output during alarm activation</li> </ul>	<ul style="list-style-type: none"> <li>Horn</li> </ul>	<ul style="list-style-type: none"> <li>REFER to <a href="#">Section 413-06</a> to diagnose the horn.</li> </ul>

<ul style="list-style-type: none"> <li>No turn signal flash during alarm activation</li> </ul>	<ul style="list-style-type: none"> <li>Turn signals</li> </ul>	<ul style="list-style-type: none"> <li>REFER to <a href="#">Section 417-01</a> to diagnose the turn signals.</li> </ul>
<ul style="list-style-type: none"> <li>False alarm activation</li> </ul>	<ul style="list-style-type: none"> <li>Door ajar input</li> <li>Hood ajar input</li> <li>Luggage compartment lid ajar input</li> <li>Intrusion and inclination sensor input</li> <li>Panic button pressed on an <a href="#">IKT</a></li> <li>A valid Passive Anti-Theft System (PATS) key read is <b>NOT</b> received when the ignition is turned to RUN</li> </ul>	<ul style="list-style-type: none"> <li>An intermittent fault exists. MONITOR the <a href="#">SJB</a> alarm event PIDs AL_EVT1 through 4 to identify and isolate the cause of the last alarm activations.</li> </ul>

**Pinpoint Tests**

**Pinpoint Test A: The Alarm System Does Not Arm/Disarm From The Driver Door Lock Cylinder**

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 Smart Junction Box (SJB) monitors the driver door lock through the set/reset switch (part of the driver door latch) and the set and reset input circuits. When a key in the door lock cylinder is turned to the lock position it grounds the set circuit signalling the [SJB](#) to arm the alarm. When a key in the door lock cylinder is turned to the unlock position it grounds the reset circuit signalling the [SJB](#) to disarm the alarm. The driver door latch has a dedicated ground circuit that is used for the door ajar and set/reset switches.

- DTC B2100 (Door Driver Key Cylinder Switch Failure) — an on-demand that sets when the [SJB](#) detects a short to ground from the driver door lock cylinder set or reset input circuits.

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

- Wiring, terminals or connectors
- Door disarm switch (part of the door latch)
- [SJB](#)

**PINPOINT TEST A : THE ALARM SYSTEM DOES NOT ARM/DISARM FROM THE DRIVER DOOR LOCK CYLINDER**

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

**A1 CHECK THE RECORDED SJB DTCS FROM THE SELF-TEST**

- Check the recorded results from the [SJB](#) self-test.

**Is DTC B2100 present?**

<b>Yes</b>	GO to <a href="#">A2</a> .
<b>No</b>	GO to <a href="#">A4</a> .

**A2 CHECK THE DRIVER DOOR LATCH FOR A SHORT TO GROUND**

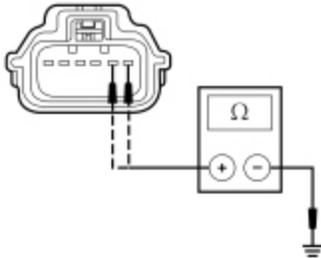
- Disconnect: Driver Door Latch [C501](#) .
- Clear the [SJB](#) DTCs.
- Repeat the [SJB](#) self-test.

**Is DTC B2100 still present?**

<b>Yes</b>	GO to <a href="#">A3</a> .
<b>No</b>	INSTALL a new driver door latch. REFER to <a href="#">Section 501-14</a> . TEST the system for normal operation.

### A3 CHECK THE SET/RESET CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: [SJB C2280C](#) .
- Measure the resistance between the driver door latch [C501](#) Pin 1, circuit CRT19 (GN/VT), harness side and ground, and between the driver door latch [C501](#) Pin 2, circuit CPL29 (YE/GY), harness side and ground.



N0109412

Are the resistances greater than 10,000 ohms?

<b>Yes</b>	GO to <a href="#">A7</a> .
<b>No</b>	REPAIR the circuit in question. TEST the system for normal operation.

### A4 CHECK THE COURTESY LAMP OPERATION

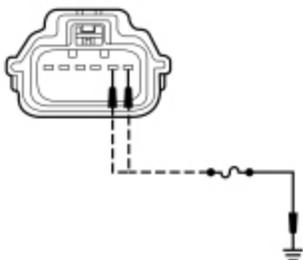
- Open and close the driver door while checking the courtesy lamp operation.

Do the courtesy lamps operate correctly?

<b>Yes</b>	GO to <a href="#">A5</a> .
<b>No</b>	REFER to <a href="#">Section 417-02</a> to diagnose the driver door ajar input concern.

### A5 CHECK THE DRIVER DOOR LATCH

- Disconnect: Driver Door Latch [C501](#) .
- Enter the following diagnostic mode on the scan tool: [SJB DataLogger](#) .
- Monitor the [SJB](#) PID (D\_KCS) while connecting and disconnecting a fused jumper wire between the driver door latch [C501](#) Pin 1, circuit CRT19 (GN/VT), harness side and ground, and between the driver door latch [C501](#) Pin 2, circuit CPL29 (YE/GY), harness side and ground.



N0109413

Does the PID indicate LOCKED and UNLOCKED?

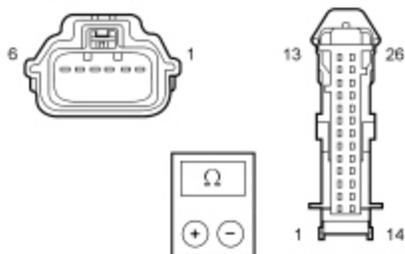
<b>Yes</b>	INSTALL a new driver door latch. REFER to <a href="#">Section 501-14</a> . TEST the system for normal operation.
<b>No</b>	GO to <a href="#">A6</a> .

### A6 CHECK THE SET/RESET CIRCUITS FOR AN OPEN

- Ignition OFF.

- Disconnect: [SJB C2280C](#) .
- Measure the resistance between the driver door latch, harness side and the [SJB](#) , harness side as follows:

Driver Door Latch Connector-Pin	Circuit	<a href="#">SJB</a> Connector-Pin
<a href="#">C501</a> Pin 1	CRT19 (GN/VT)	<a href="#">C2280C</a> Pin 8
<a href="#">C501</a> Pin 2	CPL29 (YE/GY)	<a href="#">C2280C</a> Pin 9



N0104237

**Are the resistances less than 5 ohms?**

<b>Yes</b>	GO to <a href="#">A7</a> .
<b>No</b>	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?**

<b>Yes</b>	INSTALL a new <a href="#">SJB</a> . REFER to <a href="#">Section 419-10</a> . TEST the system for normal operation.
<b>No</b>	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

#### **Pinpoint Test B: The Alarm System Does Not Activate From An Unauthorized Entry At The Hood**

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

#### **Normal Operation**

When the alarm system is armed, the Smart Junction Box (SJB) monitors the hood ajar switch. If the hood is opened while the alarm is armed, the hood ajar switch removes ground from the signal circuit. This signals the [SJB](#) that an unauthorized intrusion to the engine compartment has occurred and the [SJB](#) activates the alarm.

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

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

## PINPOINT TEST B : THE ALARM SYSTEM DOES NOT ACTIVATE FROM AN UNAUTHORIZED ENTRY AT THE HOOD

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

### B1 RETRIEVE THE RECORDED DTCS IN THE SJB

**NOTE:** DTC B1520 sets if the hood is open. Make sure the hood is closed prior to running the self-test.

- Ignition ON.
- Retrieve the recorded DTCs from the SJB self-test.

Is DTC B1520 present?

<b>Yes</b>	GO to <a href="#">Pinpoint Test C</a> .
<b>No</b>	GO to <a href="#">B2</a> .

### B2 CHECK THE HOOD SWITCH

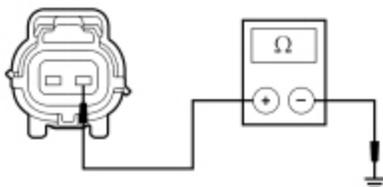
- Ignition OFF.
- Disconnect: Hood Switch [C127](#) .
- Ignition ON.
- Enter the following diagnostic mode on the scan tool: SJB DataLogger .
- Monitor the SJB PID (HOOD\_SW) while disconnecting the hood switch.

Does the SJB PID read AJAR when the switch is disconnected?

<b>Yes</b>	INSTALL a new hood switch. TEST the system for normal operation.
<b>No</b>	GO to <a href="#">B3</a> .

### B3 CHECK THE HOOD SWITCH SENSE CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: SJB [C2280F](#) .
- Measure the resistance between the hood switch [C127](#) Pin 1, circuit CPL25 (BU/OG), harness side and ground.



N0056246

Is the resistance greater than 10,000 ohms?

<b>Yes</b>	GO to <a href="#">B4</a> .
<b>No</b>	REPAIR the circuit. TEST the system for normal operation.

### B4 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?

<b>Yes</b>	INSTALL a new <u>SJB</u> . REFER to <a href="#">Section 419-10</a> . TEST the system for normal operation.
<b>No</b>	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

### Pinpoint Test C: DTC B1520

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

#### Normal Operation

When the alarm system is armed, the Smart Junction Box (SJB) monitors the hood ajar switch. If the hood is opened while the alarm is armed, the hood ajar switch removes ground from the signal circuit. This signals the SJB that an unauthorized intrusion to the engine compartment has occurred and the SJB activates the perimeter alarm.

- DTC B1520 (Hood Switch Circuit Open) — sets when the SJB detects an open from the hood switch input circuit during the self-test. This DTC sets if the hood is open during the self-test.

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

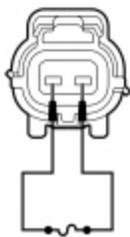
- Wiring, terminals or connectors
- Hood switch
- SJB

### PINPOINT TEST C : DTC B1520

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

#### C1 CHECK THE HOOD SWITCH

- Ignition OFF.
- Disconnect: Hood Switch [C127](#) .
- Connect a fused jumper wire between the hood switch [C127](#) Pin 1, circuit CPL25 (BU/OG), harness side and the hood switch [C127](#) Pin 2, circuit GD123 (BK/GY), harness side.



N0112495

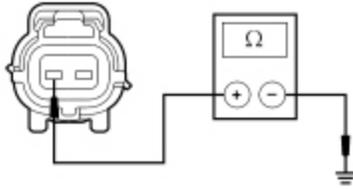
- Ignition ON.
- Clear the SJB DTCs.
- Repeat the SJB self-test.

#### Is DTC B1520 still present?

<b>Yes</b>	REMOVE the jumper wire. GO to <a href="#">C2</a> .
<b>No</b>	REMOVE the jumper wire. INSTALL a new hood switch. CLEAR the DTCs. REPEAT the self-test.

#### C2 CHECK THE HOOD SWITCH GROUND CIRCUIT FOR AN OPEN

- Ignition OFF.
- Measure the resistance between the hood switch [C127](#) Pin 2, circuit GD123 (BK/GY), harness side and ground.



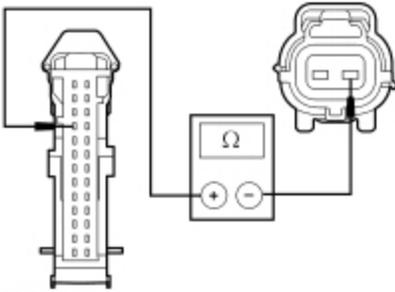
N0082085

Is the resistance less than 5 ohms?

<b>Yes</b>	GO to <a href="#">C3</a> .
<b>No</b>	REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.

### C3 CHECK THE HOOD SWITCH SENSE CIRCUIT FOR AN OPEN

- Disconnect: [SJB C2280F](#) .
- Measure the resistance between the [SJB C2280F](#) Pin 10, circuit CPL25 (BU/OG), harness side and the hood switch [C127](#) Pin 1, circuit CPL25 (BU/OG), harness side.



N0090449

Is the resistance less than 5 ohms?

<b>Yes</b>	GO to <a href="#">C4</a> .
<b>No</b>	REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.

### C4 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?

<b>Yes</b>	INSTALL a new <a href="#">SJB</a> . REFER to <a href="#">Section 419-10</a> . CLEAR the DTCs. REPEAT the self-test.
<b>No</b>	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

**Normal Operation**

The Smart Junction Box (SJB) controls the perimeter alarm system and based on inputs either arms, disarms or activates the alarm. When the alarm is activated, the SJB sounds the horn and flashes the turn signals in regular intervals. The SJB receives inputs for the door lock status, hood ajar, door ajar, luggage compartment lid ajar and the intrusion and inclination sensor. The SJB also receives signals from the Remote Keyless Entry (RKE) transmitters.

For the perimeter alarm to arm and provide a flash of the turn signals, the following conditions must be met:

- Ignition must be OFF
- The hood closed
- All doors closed
- The luggage compartment lid closed
- An electronic lock command received from an RKE transmitter or door lock control switch (a door opened and then shut after lock is pressed).

Once all the conditions are met, the alarm system enters a pre-arm phase and begins a 20-second countdown. After 20 seconds have passed and no unlock command is received or any hood or door is opened, the perimeter alarm arms.

The perimeter alarm is activated when:

- any door, the hood, or the luggage compartment lid is opened without an electronic unlock command from an RKE transmitter or driver door lock cylinder first.
- the intrusion and inclination sensor detects movement inside the vehicle or the vehicle angle has been changed.
- the ignition is turned to the RUN position without a valid Passive Anti-Theft System (PATS) key read received.

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

- Door ajar input
- Hood ajar input
- Luggage compartment lid ajar input
- Turn signals
- Intrusion and inclination sensor
- RKE transmitter concern
- SJB

**PINPOINT TEST D : THE ALARM SYSTEM DOES NOT ARM/NO TURN SIGNAL FLASH CONFIRMATION**

**D1 RETRIEVE THE RECORDED DTCS IN THE SJB AND BCM-B**

- Ignition ON.
- Retrieve the recorded DTCs from the SJB and the Body Control Module B (BCM-B) self-tests.

**Are any DTCs present?**

<b>Yes</b>	REFER to DTC Charts in this section.
<b>No</b>	GO to <a href="#">D2</a> .

**D2 CHECK THE COURTESY LAMP OPERATION**

- Open and close all the doors while checking the courtesy lamp operation.

**Do the courtesy lamps operate correctly?**

<b>Yes</b>	GO to <a href="#">D3</a> .
<b>No</b>	REFER to <a href="#">Section 417-02</a> to diagnose the door ajar inputs.

**D3 CHECK THE LUGGAGE COMPARTMENT AJAR INDICATION**

- Observe the message center and instrument cluster. Release and latch the luggage compartment lid.

**Does the luggage compartment lid ajar warning operate correctly?**

<b>Yes</b>	GO to <a href="#">D4</a> .
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No	REFER to <a href="#">Section 417-02</a> to diagnose the luggage compartment lid lamp.
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#### D4 VERIFY THE HAZARD LAMP OPERATION

- Activate the hazard lamps.

Do the hazard lamps operate correctly?

Yes	GO to <a href="#">D5</a> .
No	REFER to <a href="#">Section 417-01</a> to diagnose the hazard lamps.

#### D5 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 <u>SJB</u> . REFER to <a href="#">Section 419-10</a> . 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.

#### Pinpoint Test E: 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:** 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

Arming the perimeter alarm system using the key in the door lock cylinder 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. The convertible top (if equipped), the luggage compartment lid, and all the doors must be closed for the intrusion sensing feature to activate. The intrusion and inclination sensor receives voltage at all times. When the sensor senses a change in motion or in inclination, the change is communicated to the Body Control Module B (BCM-B) through the local interconnect network. The BCM-B sends a message over the Medium Speed Controller Area Network (MS-CAN) to the Smart Junction Box (SJB) . The SJB then activates the perimeter alarm.

- DTC B109F:08 (Intrusion Sensor Module: Bus Signal / Message Failures) — sets when the BCM-B fails to communicate with the intrusion sensor module.

This pinpoint test is intended to diagnose the following:

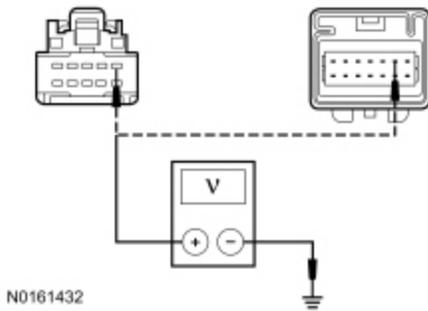
- Fuse
- Wiring, terminals or connectors
- Intrusion and inclination sensor
- BCM-B

#### PINPOINT TEST E : 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.

## E1 CHECK THE INTRUSION AND INCLINATION SENSOR POWER CIRCUIT FOR VOLTAGE

- Ignition OFF.
- Disconnect: Overhead Console [C930](#) (Coupe) or [C9013](#) (Convertible) .
- Measure the voltage between the overhead console [C930](#) Pin 1 (coupe) or [C9013](#) Pin 6 (convertible), circuit SBP11 (BU/RD), harness side and ground.

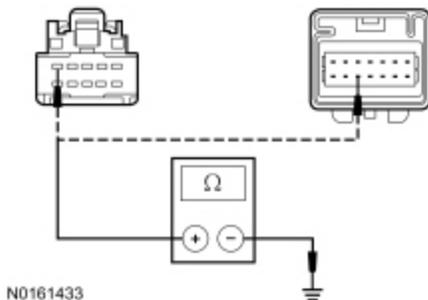


Is the voltage greater than 10 volts?

<b>Yes</b>	GO to <a href="#">E2</a> .
<b>No</b>	VERIFY the <a href="#">SJB</a> fuse 11 (10A) is OK. If OK, REPAIR the circuit for an open. If not OK, REFER to the Wiring Diagrams Manual to identify the possible causes of the circuit short. CLEAR the DTCs. REPEAT the self-test.

## E2 CHECK THE INTRUSION AND INCLINATION SENSOR GROUND CIRCUIT FOR AN OPEN

- Measure the resistance between the overhead console [C930](#) Pin 5 (coupe) or [C9013](#) Pin 10 (convertible), circuit GD139 (BK/YE), harness side and ground.

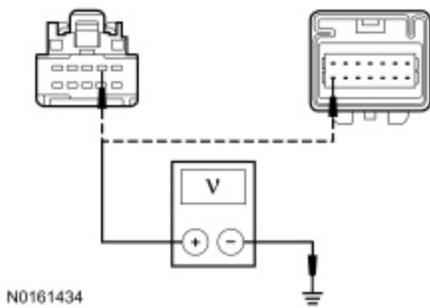


Is the resistance less than 5 ohms?

<b>Yes</b>	GO to <a href="#">E3</a> .
<b>No</b>	REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.

## E3 CHECK THE LOCAL INTERCONNECT NETWORK COMMUNICATION LINK FOR A SHORT TO VOLTAGE

- Disconnect: [BCM-B C4368A](#) .
- Ignition ON.
- Measure the voltage between the overhead console [C930](#) Pin 2 (coupe) or [C9013](#) Pin 8 (convertible), circuit VRT26 (VT), harness side and ground.

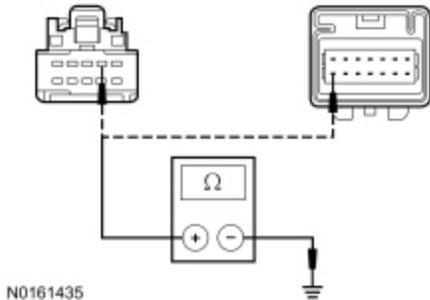


Is the voltage greater than 10 volts?

<b>Yes</b>	REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.
<b>No</b>	GO to <a href="#">E4</a> .

#### E4 CHECK THE LOCAL INTERCONNECT NETWORK COMMUNICATION LINK FOR A SHORT TO GROUND

- Ignition OFF.
- Measure the resistance between the overhead console [C930](#) Pin 2 (coupe) or [C9013](#) Pin 8 (convertible), circuit VRT26 (VT), harness side and ground.

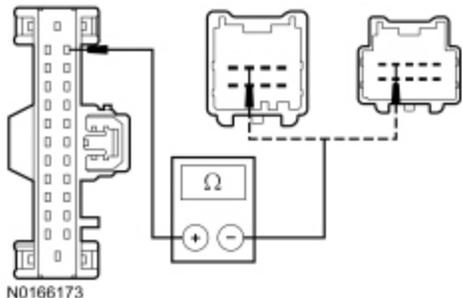


Is the resistance greater than 10,000 ohms?

<b>Yes</b>	GO to <a href="#">E5</a> .
<b>No</b>	REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.

#### E5 CHECK THE LOCAL INTERCONNECT NETWORK COMMUNICATION LINK FOR AN OPEN

- Measure the resistance between the [BCM-B C4368A](#) Pin 12, circuit VRT26 (VT), harness side and the overhead console [C930](#) Pin 2 (coupe) or [C9013](#) Pin 8 (convertible), circuit VRT26 (VT), harness side.



Is the resistance less than 5 ohms?

<b>Yes</b>	INSTALL a new intrusion and inclination sensor. REFER to <a href="#">Intrusion and Inclination Sensor</a> in this section. CLEAR the DTCs. REPEAT the self-test. If the concern is still present, GO to <a href="#">E6</a> .
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<b>No</b>	REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.
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## E6 CHECK FOR CORRECT BCM-B OPERATION

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

### Is the concern still present?

<b>Yes</b>	INSTALL a new <u>BCM-B</u> . REFER to <a href="#">Section 419-10</a> . TEST the system for normal operation.
<b>No</b>	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.