




Smart Junction Box (SJB)

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).

The [SJB](#) is a combination of a multifunction electronic module and an interior fuse panel. The [SJB](#) functions control multiple vehicle functions which include:

- Battery saver
- Convertible top (if equipped)
- Convertible top drop window function (if equipped)
- Exterior lighting
- Heated rear window (if equipped)
- Interior lighting
- Perimeter anti-theft (if equipped)
- Power locks
- Remote Keyless Entry (RKE)
- Tire Pressure Monitoring System (TPMS)
- Interface between the Instrument Cluster (IC) [TPMS](#) warning lamp and other warning chimes

The [SJB](#) is connected to the Medium Speed Controller Area Network (MS-CAN). The [SJB](#) controls both interior and exterior lighting, body functions, active anti-theft functions (perimeter alarm), [RKE](#) functions, and the [TPMS](#). The [SJB](#) receives wireless signals from both the [RKE](#) transmitters and the [TPMS](#) sensors via a [TPMS/ RKE](#) antenna that is fixed to the exterior of the [SJB](#) plastic casing.

The [SJB](#) has programmable parameters that can be programmed using the scan tool. Refer to [Section 418-01](#) for programmable parameters in the [SJB](#).

Inspection and Verification

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

Visual Inspection Chart

Electrical
<ul style="list-style-type: none"> ● Bussed Electrical Center (BEC) fuse(s): <ul style="list-style-type: none"> ■ 59 (30A) ■ 63 (30A) ■ 67 (30A) ■ 68 (20A) ● Wiring, terminals or connectors ● Smart Junction Box (SJB)

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 communication with 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. **NOTE:** In order to correctly run the self-test, the convertible top (if equipped) must be in the full-down position and the doors must be closed. If these conditions are not met, DTCs B1141, B1142, B1319 and/or B1327 may be set. In this case, they would be product characteristic and diagnostics should not be followed for these DTCs at this time.

Clear the DTCs. Repeat the self-test with the convertible top (if equipped) in the full-down position and both doors closed. If the DTCs retrieved are related to the concern, refer to [Diagnostic Trouble Code \(DTC\) Chart](#) in this section.

10. If no DTCs related to the concern are retrieved, GO to [Symptom Chart](#).

Symptom Chart

Symptom Chart

Condition	Possible Sources	Action
<ul style="list-style-type: none">No communication with the Smart Junction Box (SJB)	<ul style="list-style-type: none">Fuse(s)Wiring, terminals or connectorsSJB	<ul style="list-style-type: none">REFER to Section 418-00.
