


Inspection And Verification

Special Tool(s)

 <p>ST2834-A</p>	Vehicle Communication Module (VCM) and Integrated Diagnostic System (IDS) software with appropriate hardware, or equivalent scan tool
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⚠ WARNING: Batteries contain sulfuric acid and produce explosive gases. Work in a well-ventilated area. Do not allow the battery to come in contact with flames, sparks or burning substances. Avoid contact with skin, eyes or clothing. Shield eyes when working near the battery to protect against possible splashing of acid solution. In case of acid contact with skin or eyes, flush immediately with water for a minimum of 15 minutes, then get prompt medical attention. If acid is swallowed, call a physician immediately. Failure to follow these instructions may result in serious personal injury.

⚠ WARNING: Always lift a plastic-cased battery with a battery carrier or with hands on opposite corners. Excessive pressure on the battery end walls may cause acid to flow through the vent caps, resulting in personal injury and/or damage to the vehicle or battery.

NOTICE: Do not make jumper connections except as directed. Incorrect connections may damage the voltage regulator test terminals, fuses or fusible links.

NOTICE: Do not allow any metal object to come in contact with the generator housing and internal diode cooling fins. A short circuit may result and burn out the diodes.

NOTE: While carrying out any pinpoint test, disregard any DTCs set while following a specific pinpoint test. After the completion of a test, be sure to clear all DTCs in the PCM.

NOTE: All voltage measurements are referenced to the negative (-) battery post unless otherwise specified.

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"> • Battery • Front End Accessory Drive (FEAD) belt • Generator pulley 	<ul style="list-style-type: none"> • Wiring, terminals or connectors • Cables • Battery • Generator • Fusible links • Fuses • Radial arm adapter

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. Verify the battery condition. Refer to [Section 414-01](#).

5. **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).

6. **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.

7. If the scan tool does not communicate with the vehicle:

- verify the ignition is ON.
 - The air bag warning indicator prove-out (other indicators may NOT prove ignition is ON) confirms ignition ON. If ignition does not turn ON, refer to [Section 211-05](#) to diagnose no power in RUN.
- refer to [Section 418-00](#) Inspection and Verification to establish a scan tool session (without the ignition ON).
- verify the scan tool operation with a known good vehicle.

8. Carry out the network test.

- If the scan tool responds with no communication for one or more modules, refer to [Section 418-00](#).

NOTE: Use the Integrated Diagnostic System (IDS) feature that retrieves all Continuous Memory Diagnostic Trouble Codes (CMDTCs) from all modules at one time.

9. Retrieve [CMDTCs](#) from all modules.

10. **NOTE:** If no charging system DTCs are present, the charging system is operating correctly. If the charging system has a concern, it will usually set a charging system DTC.

If the DTCs retrieved are related to the concern, go to the [Diagnostic Trouble Code \(DTC\) Chart](#) in this section. For all other DTCs, refer to the Master DTC Chart in [Section 419-10](#) or Powertrain Control/Emissions Diagnosis (PC/ED) manual.

11. If no DTCs related to the concern are retrieved, go to the [Symptom Chart](#) in this section.
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