

* CHARGING SYSTEM NO CODE

Tests 65 - 69

TEST	ACTION	APPLICABILITY
65	Ignition Off Note: Battery condition must be verified prior to this test. Inspect the Generator Belt tension and condition. Is the Generator Belt OK? Yes → Go To 66 No → Repair as necessary. Perform Powertrain Verification Test VER-3A	All
66	Start Engine. Turn on all accessories. Raise engine speed to 2000 RPM for 30 seconds then return to idle. Read codes. Are there any Charging System Trouble Codes? Yes → Refer to Symptom list for problems related to Charging. Perform Powertrain Verification Test VER-3A No → Go To 67	All
67	Ignition On, Engine Not Running. Using the DRB, read the Battery voltage and record the results. Using a Voltmeter, measure Battery voltage B(+) to B(-) Terminal and record the results. Compare the two voltage readings. Is the voltage difference less than one volt? Yes → Test Complete. Perform Powertrain Verification Test VER-3A No → Go To 68	All
68	Turn Engine Off, Key On. With the DRB, actuate the Generator Field. Using a 12-volt test light, backprobe the Generator Field Driver at the Generator. Note: The 12-volt test light should cycle on and off every 1.4 seconds. While monitoring the test light, wiggle the Field Circuits from the PCM to the Generator Field Connections. Was there any interruption in the normal cycle of the test light? Yes → Repair the wire where wiggling interrupted the voltage cycle. Perform Powertrain Verification Test VER-3A No → Go To 69	All
69	Ignition On, Engine Not Running. Using a Voltmeter, measure between the Generator (12V) (B+) Terminal and the Battery (+) side. Caution: Ensure all Wires are clear of the Engine's moving parts. Start the engine. Is the voltage above 0.4 volt? Yes → Repair the B(+) Circuit for high resistance between the Generator and Battery. Perform Powertrain Verification Test VER-3A No → Go To 70	All

Tests 70 -73

TEST	ACTION	APPLICABILITY
70	Turn Engine Off, Key On. With the DRB, read trouble codes. Are there any Charging System trouble codes? Yes → Refer to Symptom list for problems related to Charging. Perform Powertrain Verification Test VER-3A . No → Go To 71	All
71	Ignition Key Off. Using a Voltmeter, measure the voltage between the Generator Case and Battery (-) side. Caution: Ensure all wires are clear of the engine's moving parts. Start the engine. Is the voltage above 0.1 volt? Yes → Repair the Generator Ground high resistance Generator Case to Battery (-) side. Perform Powertrain Verification Test VER-3A . No → Go To 72	All
72	Ignition On, Engine Not Running Using the DRB, read Battery voltage and record results. Ignition Off Disconnect the Powertrain Control Module. Note: Check connectors - Clean/repair as necessary. Turn ignition on. Using a Voltmeter, measure the Fused B(+) at PCM Connector. Is the voltage within one volt of the DRB recorded reading? Yes → Repair the B(+) Circuit for high resistance between the PCM Fused B (+) and the Battery. Perform Powertrain Verification Test VER-3A . No → Go To 73	All
73	If there are no potential causes remaining, the PCM is assumed to be defective. View repair options. Repair Replace the PCM. Perform Powertrain Verification Test VER-3A .	All

SYMPTOM

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POSSIBLE CAUSES

- Trouble codes present **2000 rpm**
- Trouble codes present
- Voltage difference < **1 volt**
- Generator field terminal intermittent defect
- Generator ground circuit high resistance
- Generator belt condition
- B(+) circuit high resistance (**0.4 volt**)
- B(+) circuit high resistance (**1.0 volt**)
- PCM defective (charging system no code)