

Alternator: Testing and Inspection

Generator Testing

CAUTION:

- ^ To prevent damage to the generator, do not make the jumper wire connections except as directed.
- ^ Do not allow any metal object to come in contact with the housing and the internal diode cooling fins with key on or off. A short circuit will result and burn out the diodes.

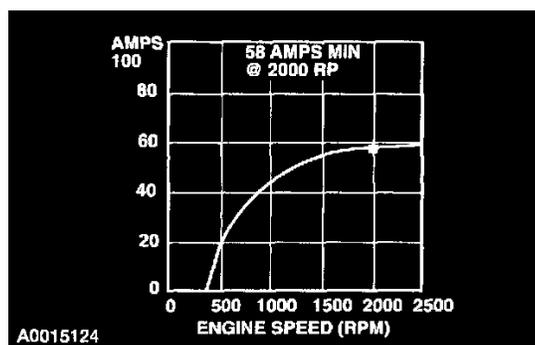
NOTE:

- ^ Battery posts and cable clamps must be clean and tight for accurate meter indications.
- ^ Refer to the battery tester manual for complete directions for testing the charging system.

1. Turn off all lamps and electrical components.
2. Place the transmission range selector lever in NEUTRAL and apply the parking brake.
3. Carry out the Load Test and No-Load Test according to the following component tests:

Generator On-Vehicle Test-Load Test

1. Switch the battery tester to the ammeter function.
2. Connect the positive and negative leads of the battery tester to the corresponding battery terminals.
3. Connect the current probe to the generator B+ output terminal, circuit 36 (YE/WH).
4. With the engine running, turn the A/C on, the blower motor on high speed and the headlamps on high beam.
5. Increase the engine speed to approximately **2,000 rpm**. The voltage should increase a minimum of **0.5 volt** above the base voltage.
 - ^ If the voltage does not increase as specified, carry out the Generator On-Vehicle Tests.
 - ^ If the voltage increases as specified, the charging system is operating normally.



6. Adjust the tester load bank to determine the output of the generator. Generator output should be at least **58 amps**.

Generator On-Vehicle Test-No Load Test

1. Switch the battery tester to the voltmeter function.
2. Connect the voltmeter positive lead to the generator B+ output terminal, circuit 36 (YE/WH) and the negative lead to ground.
3. Turn all electrical accessories off.
4. With the engine running at **2,000 rpm**, check the generator output voltage. The voltage should be between **13.0 and 15.0 volts**. If not, refer to the Symptom Chart. See: Testing and Inspection/Diagnosis By Symptom