1. Check service information for specified procedures and voltage drop specifications of the charging circuit.

Evaluation (Enter number from 4, 3, 2, 1) :\_\_\_\_\_\_\_\_\_

Meets ASE Task: A6 – D-4 – P-1

Time on Task:\_\_\_\_\_\_\_\_\_\_\_\_\_

Make/Model/Year:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

VIN:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Charging Circuit Voltage Drop**

2. Connect one test lead of a digital multimeter set to read DC volts to the alternator output terminal and the positive (+) terminal of the battery.

3. Start the engine and run to 2,000 RPM (fast idle).

4. Turn on the headlights to force the alternator to charge the battery.

5. The voltage drop reading should not exceed 0.40 volt.

\_\_\_\_\_ = the voltage drop of the *insulated* (power side) of the charging circuit (between the output terminal of the alternator and the positive (+) terminal of the battery).

OK  \_\_\_\_\_ NOT OK \_\_\_\_\_

6. To test if the generator is properly grounded, continue operating the engine at a fast idle with the lights on, connect the meter leads to the case of the alternator and the negative (-) terminal of the battery. A reading of greater than 0.20 volt indicates a poor alternator ground.

\_\_\_\_\_ = the voltage drop of the *ground side* of the alternator (between the rear housing of the alternator and the negative (-) terminal of the battery).

OK \_\_\_\_\_ NOT OK \_\_\_\_\_

7. Based on the test results, what is the needed action? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

