

CHECKING THE CHARGING CIRCUIT

To check the alternator **connections on the positive side** for excessive resistance;

- A. Set volt meter on 2 volt DC scale.
- B. Connect the meter positive lead to the alternator output stud (B+ terminal).
- C. Connect the meter negative lead to the positive (+) battery post.
- D. With the engine running and with all lights on check the voltage drop reading. It should be 0.5 volts or less. If higher, the connections between the alternator output stud and battery need to be cleaned. Also look for loose connections, corroded terminals and signs of verdigree.

To check the alternator **connections on the negative side** for excessive resistance;

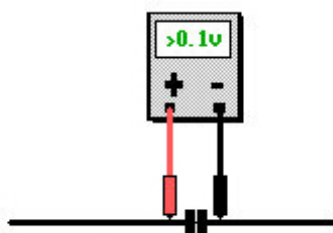
- A. Set volt meter on 2 volt DC scale.
- B. Connect meter negative lead to alternator case.
- C. Connect meter positive lead to battery negative (-) post.
- D. With engine running and with all lights on check the voltage drop reading. On the negative side, it should be 0.2 volts or less. If excessive all the connections between the alternator earth stud and battery need to be cleaned. Also look for loose connections, corroded terminals and signs of verdigree.

WHY VOLTAGE DROP ?

A voltage drop test is the only effective way to find excessive resistance in high amperage circuits. It's a quick and easy test that doesn't require any disassembly and will quickly show you whether or not you've got a good connection or a bad one.

To do a voltage drop test, you create a load in the circuit that's being tested. Then you use a digital volt meter to measure the voltage drop across the connection while it is under the load. Voltage always follows the path of least resistance, so if the circuit or connection being tested has too much resistance some of the voltage will flow through the volt meter and create a voltage reading.

VOLTAGE DROP



Usual safety procedures should be adhered to at all times