CHARGING SYSTEMTROUBLESHOOTING

GENERAL

Alternator

The alternator consists of two main components: the rotor which is mounted on the engine sprocket shaft, and the stator, which is bolted to the engine crankcase.

Regulator

The regulator is a series regulator with shunt control. The circuit combines the functions of rectifying and regulating.

TROUBLESHOOTING

Special Tools	Torque Values
Ammeter Load tester Ohmmeter AC voltmeter	None

Preliminary Checks

When the charging system fails or does not charge at a satisfactory rate, it is recommended that the following checks be made:

BATTERY

Check for a weak or dead battery. See the BATTERY section. Battery must be fully charged in order to perform any electrical tests.

WIRING

See FLT models charging. Check for corroded or loose connections in the charging circuit.

Regulator Inspection

The regulator base must have a clean, tight connection for proper grounding. Check by using an ohmmeter with one lead on a known good ground, such as battery ground cable, and the other on the regulator base.

Connector plug at engine crankcase must be clean and tight.

Regulator Bleed Test

Be sure regulator is connected to battery. Unplug regulator connector at engine crankcase. Use a trouble light and touch one probe to a known good ground and the other to the regulator pins, one at a time. If light glows, replace regulator.

MILLIAMP DRAW TEST

NOTE

Be sure accessories are not wired so they stay on at all times. Check for this by connecting ammeter between negative battery terminal and battery

See Figure 8-15. Connect ammeter between negative battery terminal and battery. With this arrangement, you will also pick up any regulator drain.

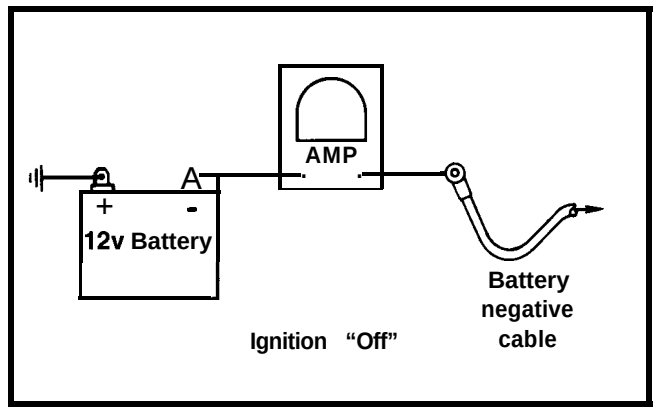

Figure 8-15. Milliamp Draw Test

The limits for these drains are listed in the tabulation below:

Any accessories must be considered and checked for excessive drain.

This condition could drain battery completely if vehicle is parked for a long time.

NOTE

A battery with surface discharge condition or over full could cause a static drain. Correct by lowering levels in cells and cleaning battery case.

MODEL	METER READING (milliamperes)
FLHTC	**Less** than 10 (radio memory)
FLTC Ultra & FLHTC Ultra	Less than 15 (radio & CB memory)
All models without radio	Less than 3 (regulator leakage)

NOTE

Any reading that exceeds the above "Meter reading" values indicates excessive current draw. Check for bad radio, CB, regulator or a short in the interconnecting wiring. Isolate problem by disconnecting suspect components and observe change in meter reading.