TECHNICAL TIP

TT-648

GM Vehicles 1999 and Newer

New Regulator "All Silicon Voltage Regulator" or simply ASVR are replacing the older CS design

The new ASVR regulator is a computer chip and is a significant improvement over older CS-series designs.

Special considerations are necessary when working with alternators with **ASVR** regulators. GM service manuals specify that the battery must be disconnected before alternator is removed. Failure to do so may cause voltage spikes when B+ terminal is removed which will damage or weaken computerized equipment.

When disconnecting the alternator from the vehicle:

1. Disconnect the regulator plug
2. Disconnect alternator battery cable
3. Remove alternator from it's brackets

When connecting the alternator on a vehicle:

1. Mount alternator to vehicle
2. Connect alternator battery cable
3. Connect regulator plug last

Failure to follow this procedure will "false bias" the regulator and cause a "no charge" condition.

- Voltage spikes or improperly applied lamp terminal voltage will damage, weaken and/or severely shorten the regulator's life.

- Most late model vehicles use the ECM or PCM to turn on the regulator. If a fault code was set when the original alternator failed, the code must be reset for proper alternator operation. If the error code is not cleared, the dashboard warning light may stay on and the alternator may not charge. A scan tool maybe necessary to reset codes.