## INSTRUCTIONS FOR INSTALLING VOLTAGE REGULATORS

You have bought a quality voltage regulator. This unit is engineered and built to give you maximum service when properly installed. The fact that you are replacing the voltage regulator indicates the possibility that some trouble may exist in the electrical system that caused the old regulator to fail. To avoid damaging the new regulator follow these instructions carefully.

# BEFORE INSTALLATION DO NOT REMOVE OLD REGULATOR UNTIL THESE TESTS HAVE BEEN MADE

## IF CHARGING RATE IS LOW OR NO CHARGE AT ALL, MAKE THESE TESTS:

- 1. Check battery water and general battery conditions to see if it will take and hold a charge. Check for specific gravity of 1.240 to 1.290 and make load test with a cell tester.
- Check wiring for damage. Make sure all wiring connections at generator, regulator and battery are tight and free from corrosion.
- 3. Check fan belt for tension. Set to vehicle manufacturer's specifications.
- **4.** Run motor at medium speed, using a wire to touch one end to regulator base and other end to a good ground. If generator now charges, regulator is not properly grounded.
- 5. If, after the preceding test, the generator still does not charge, run the engine at medium speed and make the following tests illustrated.

## FORD REGULATORS ONLY:

Connect a piece of number 10 or larger copper wire between the ARM terminal and the BAT terminal. Touch one end of another piece of wire to the FLD terminal and the other end to the ARM terminal. If the generator now charges, replace the regulator. If the generator does not charge, the trouble is in the generator.

## **DELCO REMY AND AUTOLITE REGULATORS ONLY:**

Connect a piece of number 10 or larger copper wire between the ARM terminal and the BAT terminal. Touch one end of another piece of wire to the FLD terminal and the other end to a GOOD GROUND. If the generator now charges, replace the regulator. If the generator does not charge, the trouble is in the generator.

- **6.** Remove all jumpers and extra wires from the regulator after completing test
- If the above tests do not indicate a faulty regulator, recheck steps #1 and #2 as well as the generator.

# IF CHARGING RATE IS HIGH AND REMAINS HIGH AS INDICATED BY EXCESSIVE USE OF BATTERY WATER AND BURNED OUT LAMPS, MAKE THESE TESTS:

- 1. Make sure the regulator base is well grounded to car.
- 2. With motor running at medium speed disconnect FLD terminal of regulator. If the generator stops charging, replace the regulator. If the generator continues to charge, the trouble is in the wiring and or the generator.
- 3. If the charging rate remains high, the generator field is shorted at the generator or in the wires to the regulator.

# DELCO REMY BAT ARM FLD BAT AUTOLITE BAT GROUND GROUND GROUND

## **INSTALLATION**

- 1. Be sure the new regulator you have is right for the application. Each regulator is stamped with the make, voltage and amperage. This regulator will work equally well on a positive or negative ground electrical system.
- 2. When disconnecting the wires from the old regulator, temporarily tape the terminal end of the battery wire. TAG THE WIRES WITH IDENTIFICATION TAGS FURNISHED.
- **3.** Be sure the wires are connected to the proper terminal on the voltage regulator. Reversal of wires can Instantly damage a new regulator or burn out the generator.
- **4.** Be sure a good ground is made between the regulator base and the mounting surface. This is accomplished by a ground strap on the base for rubber grommet mounted models. Other models bolt directly to the mounting surface. Scrape the area before mounting. On some applications there is a ground wire in the harness. This ground wire can be connected to the regulator base with a sheet metal screw in the hole provided.

## **AFTER INSTALLATION**

Before starting the engine, Polarize the generator as follows:

## FORD REGULATORS ONLY:

With the ARM and BAT wires connected to the correct terminals of the regulator, touch the FLD wire momentarily to the BAT terminal of the regulator. Then connect the FLD wire to the FLD terminal of the regulator.

## **DELCO REMY AND AUTOLITE REGULATORS ONLY:**

Connect all three wires to their proper terminals on the regulator.

Touch one end of a piece of wire to the ARM terminal and touch the other end to the BAT terminal. DO NOT TOUCH FLD TERMINAL as regulator will be damaged.

### START MOTOR

If trouble still exists, repeat tests shown above to locate fault. Otherwise new regulator will be damaged.