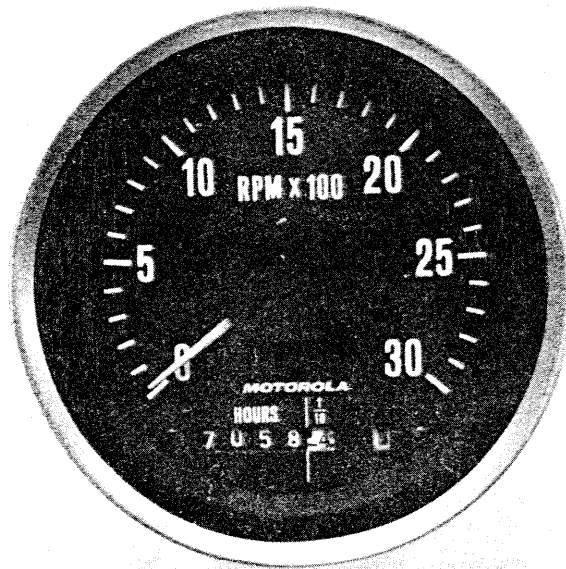


## **MOTOROLA TACHOMETER SERVICE**



## MOTOROLA TACHOMETER SERVICE

Motorola Hourmeter - Alternator Tachometer calibration and service is as follows: ALTERNATOR DRIVE BELTS, PRIMARY AND SECONDARY, MUST BE TIGHT. LOOSE BELTS WILL ALLOW ALTERNATOR ROTOR SPEED TO DECREASE WITH ELECTRICAL LOAD, CAUSING TACHOMETER TO INDICATE LOWER ENGINE RPM.

Motorola Alternator Tachometers are designed for use with an A.C. Generator (alternator). The tachometer with the letters "HT" in the model number identify hourmeter-tachometer combination assemblies. The alternator tachometer is energized by pulses generated by any one of the three alternator phases. The pulse frequency (alternator or A.C. output) is determined by alternator design and the speed of the alternator rotor. The rotor speed is dependent upon the engine crankshaft speed and the ratio of the driving (engine) and the driven (alternator) pulleys. FIGURE 1 shows the negative ground connections for the Motorola Hourmeter Tachometer "HT" models.

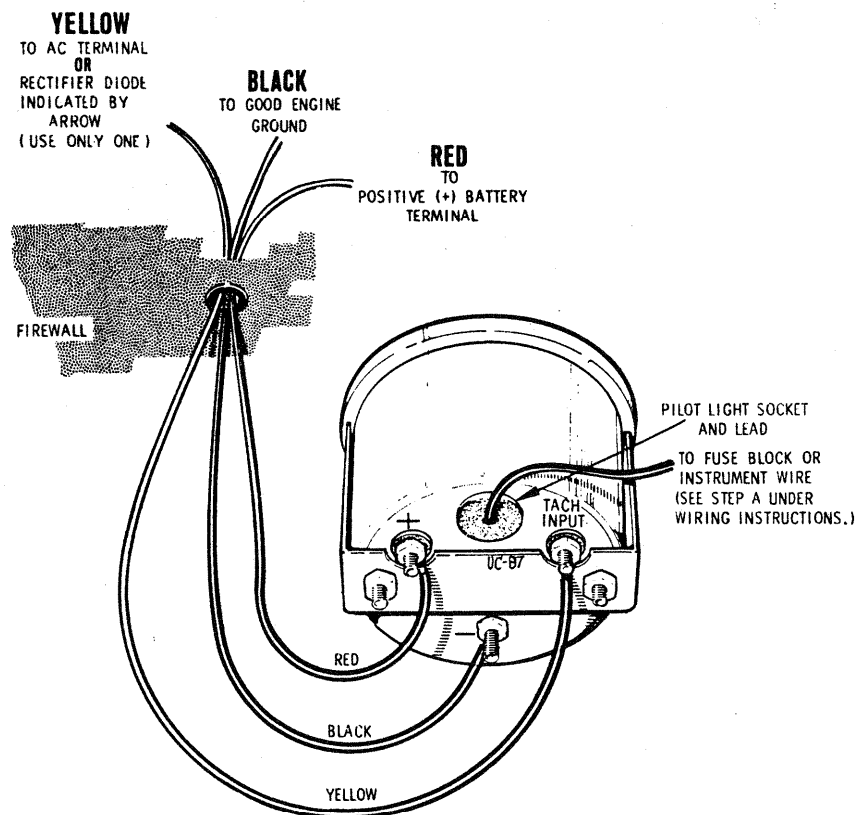


FIGURE 1

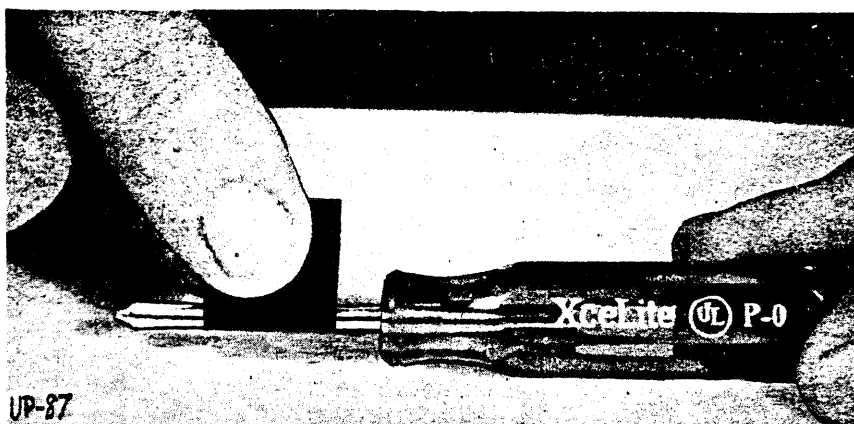


FIGURE 2

In all installations the leads between the tachometer and the alternator must provide a secure circuit with minimum resistance. To calibrate the tachometer for a particular installation, the following adjustment can be made before or after the tachometer is installed. However, for installations where the rear of the tachometer is inaccessible, the calibration should be made before installation is complete. Both tachometer leads must be securely connected to the unit.

Proceed as follows:

1. Insulate the shaft of a small (No. 0) Phillips type screwdriver, with a layer of plastic tape, FIGURE 2.
2. Remove plastic cover from access hole in rear of tachometer housing, see FIGURE 3, note arrow.
3. Connect a master tachometer or strobe light to engine.
4. Start engine and bring up to normal operating temperature. Set throttle to at least 80% RPM or full bore and note RPM on the master.
5. Now set the alternator tachometer with a screwdriver.
6. Replace plastic plug in access hole, disconnect the master tachometer.

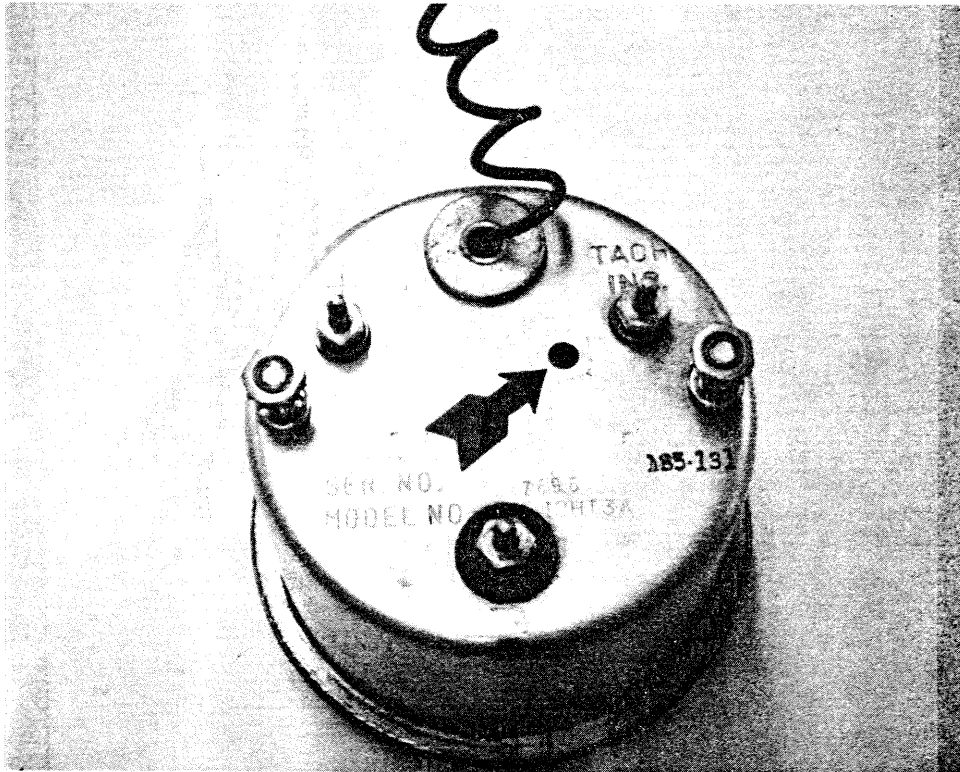


FIGURE 3