

voltage drop test may be performed at each connection to locate the connection with excessive resistance. If the charging circuit resistance tested satisfactorily, reduce engine speed, turn off carbon pile and turn off ignition switch.

- (1) Disconnect battery ground cable.
- (2) Remove test ammeter, voltmeter and carbon pile.
- (3) Remove "jumper wire" between alternator field terminal and ground. Connect the green field wire to the alternator field terminal.
- (4) Reconnect the battery ground cable.

**CURRENT OUTPUT TEST (Fig. 5)**

The current output test determines whether or not the alternator is capable of delivering its rated current output.

**Preparation**

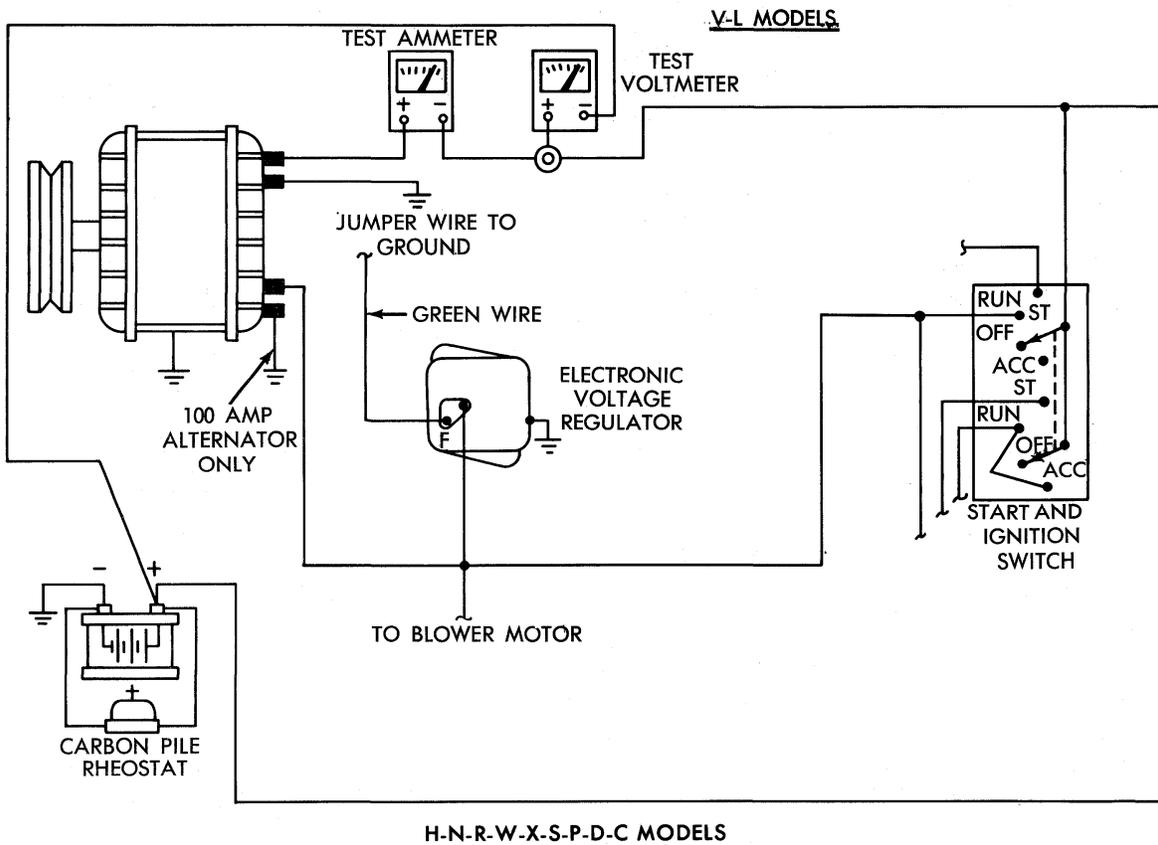
- (1) Disconnect the battery ground cable.
- (2) Disconnect the "BAT" lead wire at the alternator output terminal.
- (3) Connect an ammeter (range 0-100 amps minimum) in series between the alternator "BAT" terminal and the disconnected "BAT" lead wire.
- (4) Connect the positive lead of a voltmeter (range

0-15 volts minimum) to the "BAT" terminal of the alternator.

- (5) Connect the negative lead of the voltmeter to a good ground.
- (6) Disconnect the green field wire (to voltage regulator) at the alternator.
- (7) Connect a "jumper wire" from the alternator field terminal to ground.
- (8) Connect an engine tachometer and reconnect the battery ground cable.
- (9) Connect a variable carbon pile rheostat between the battery terminals. (Be sure the carbon pile is in the "open" or "off" position before connecting leads.)

**Test**

- (1) Start the engine and operate at idle. **Immediately after starting reduce engine speed to idle.**
  - (2) Adjust carbon pile and engine speed in increments until a speed of 1250 RPM (900 RPM for 100 amp alternator) and voltmeter reading of 15 volts (13 volts 100 amp alternator) is obtained.
- CAUTION:** Do not allow voltage meter to read above 16 volts.
- (3) The ammeter reading must be within the limits shown in the "alternator specification chart" for that size of alternator being tested.



**Fig. 4—Charging Circuit Resistance Test**