DELCO-REMY TRANSISTOR

DESCRIPTION

Externally adjusted transistor regulator containing two transistors, two diodes, and a thermistor to control the alternator field current and limit alternator voltage to a preset value. There are no moving parts and unit cannot be disassembled for service. Regulators contain a conventional field and light relay.

TESTING

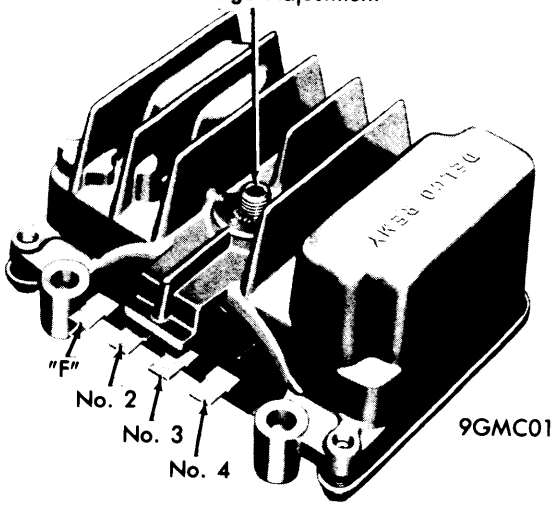
REGULATOR VOLTAGE TEST

1) Connect a jumper wire between regulator terminals No. 2 and 3. *CAUTION — Do not leave jumper lead connected longer than five minutes.* Connect voltmeter positive lead to regulator terminal No. 3 and voltmeter negative lead to regulator terminal "F". Turn ignition switch to "ON" position and read voltage. If voltage is less than .9 or more than 2.0, replace regulator.

2) If voltage is between .9 and 2.0, leave jumper wire connected between terminals No. 2 and 3. Connect voltmeter positive lead to battery positive post and voltmeter negative lead to regulator No. 3 terminal. Turn ignition to "ON" position and record voltage drop.

3) With jumper wire still in position, connect voltmeter positive lead to regulator mounting bolt, and voltmeter negative lead to battery negative post. Turn ignition to "ON" position and record voltage drop. Add voltage from step 2) and step 3) together. If total voltage is greater than .25 volt, check system wiring and ground circuits for high resistance and regulator for proper ground.

4) If total voltage is less than .25 volts, remove jumper wire from regulator terminals No. 2 and 3. Connect voltmeter positive terminal to No. 3 regulator terminal and voltmeter negative lead to regulator ground. Operate engine at 1500 RPM for 15 minutes with lower beam headlights on. A thermometer should be placed ¼" from regulator cover. Compare voltage reading with specifications for temperature recorded. If voltage is not within specified range, replace the regulator.



TRANSISTOR TYPE REGULATOR

ADJUSTMENT

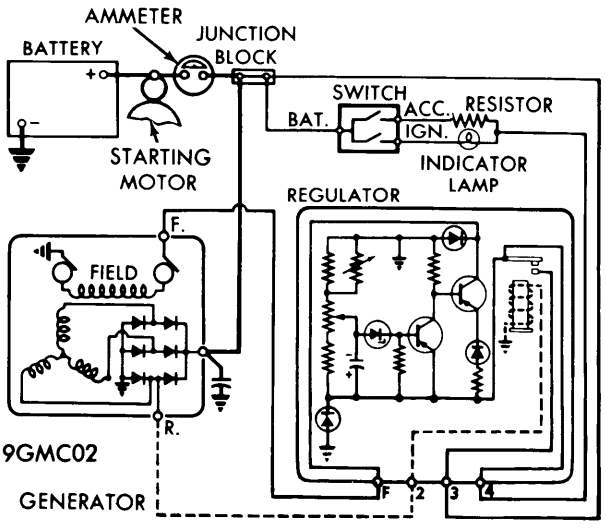
1) For an undercharged battery raise voltage setting by turning adjusting screw, remove access plug from regulator cover, clockwise one notch. Check for an improved battery condition after a service period of reasonable length and turn adjusting screw one additional notch clockwise if necessary. *NOTE — After two notches there is a positive stop.* If regulator cannot be adjusted to a value within the specified range, replace the regulator.

2) For an overcharged battery, lower voltage setting by turning adjusting screw, counterclockwise one notch. Check for an improved battery condition after a service period of reasonable length and turn adjusting screw one more notch counterclockwise if necessary. *NOTE — After two notches there is a positive stop.* If regulator cannot be adjusted to a value within the specified range, replace the regulator.

Voltage Test Specifications

Temperature	①Volts
65°F	14.1-14.9
85°F	13.9-14.7
105°F	13.7-14.5
125°F	13.5-14.3
145°F	13.4-14.2

① — Add 0.3 volt to specified range for each notch adjusting screw is moved clockwise from "O" position and subtract 0.3 volt for each notch moved counterclockwise.



TRANSISTOR REGULATOR INTERNAL CIRCUITS (TYPICAL)