CHRYSLER CORP. ELECTRONIC REGULATOR

DESCRIPTION

Regulates electrical system voltage by limiting output voltage generated by alternator. This is accomplished by controlling amount of current that is allowed to pass through alternator field winding. Regulator has no moving parts and requires no adjustment after it is set at factory. Unit contains several semiconductor components, transistors and diodes plus resistors and a capacitor. A large transistor is placed in series with alternator field winding and a control circuit which senses system voltage and turns transistor on and off as required. As alternator speed and electrical system load conditions change, control circuit is turning transistor on and off many times per second most of the time engine is in operation. The only time transistor is not turning on and off rapidly, is during low engine speed operation when high electrical loads are present (which require alternator field to be in the on state continuously). Electronic regulator control circuit can also vary the regulated system voltage up or down as temperature changes.

TESTING

1) Connect positive lead of voltmeter to ignition No. 1 terminal of ballast resistor (end with one or two blue wires connected to it). Connect negative lead of voltmeter to a good body ground. Start and operate engine at 1250 RPM with all lights and accessories turned off. Check voltmeter, regulator is working properly if readings are within specifications.

2) If voltage is below specifications, check for good voltage regulator ground. Check for voltage drop between cover of regulator and body. Turn ignition off, disconnect voltage regulator connector. Turn ignition on, but do not start car, and check for battery voltage at wiring harness terminal connected to blue and green leads. *NOTE — Disconnect wiring harness from voltage regulator when checking leads.* Turn ignition off. If voltage is not present at either lead, problem is in vehicle wiring or alternator field current. *CAUTION — Do not distort terminals with voltmeter probe.* If readings are within specifications, replace voltage regulator and repeat step 1).

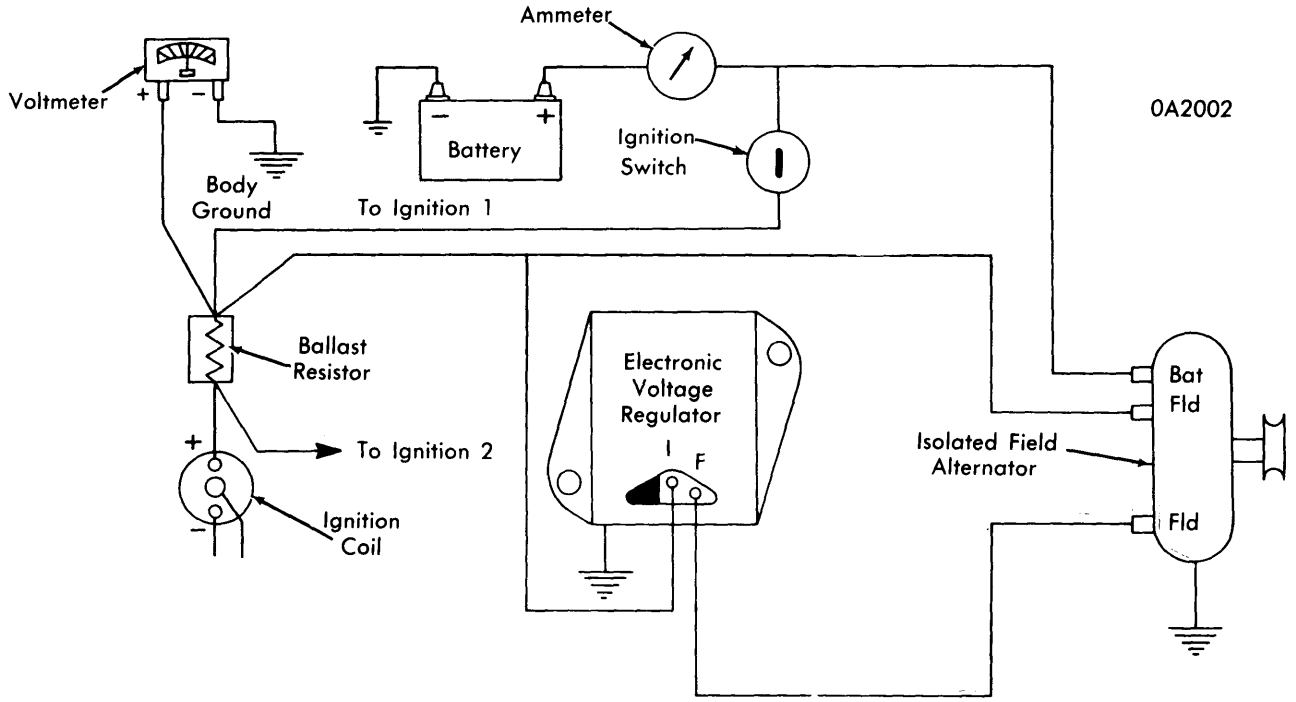
3) If voltage was higher than specifications, check ground between regulator and vehicle body. Check ground between vehicle body and engine. Check ignition switch circuit between battery terminal of switch and voltage regulator. If voltage is more than ½ volt above specifications, replace regulator and repeat step 1).

Specifications

Ambient Temperature	Voltage Range
−20°F	14.3-15.3
80°F	13.8-14.4
140°F	13.3-14.0
Above 140°F	Less than 13.8

ADJUSTMENT

The electronic voltage regulator cannot be adjusted. If specifications are not obtained and investigation has proven that other components of the electrical system are not at fault, regulator must be replaced.



VOLTAGE REGULATOR TEST CONNECTIONS