DELCO-REMY TRANSISTOR

BATTERY INSTALLATION, CHARGING, & BOOSTER BATTERY CAUTIONS - Observe cautions for battery installation, battery charging, and using a booster battery as detailed at beginning of Delco-Remy Alternator data.

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. Regulator No. 1116368 and 1116378 also contain a conventional field and light relay.

CHECKING & ADJUSTMENT

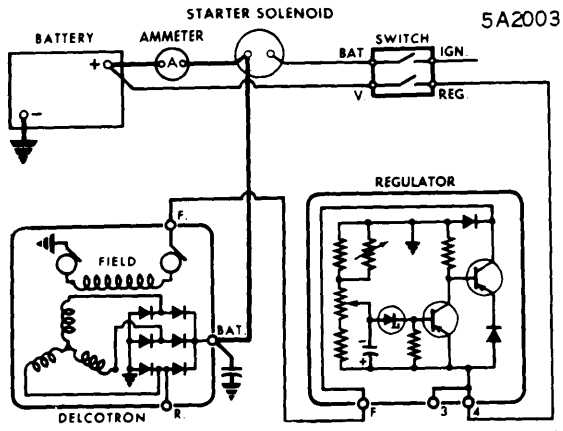
CAUTION - Do not short between or ground any of the terminals on the alternator. DO NOT attempt to polarize the alternator.
BATTERY NOTE - Battery specific gravity must be 1.220 or above before checks are made as outlined below.

Testing

Units With Field Relays - 1) If indicator lamp is inoperative, connect jumper wire from regulator terminal No. 4 to ground. Turn ignition ON for no longer than 10 seconds. If indicator lamp lights, remove jumper wire and connect it from regulator terminal "F" to terminal No. 4. If indicator lamp lights, regulator circuit is open and the unit must be replaced.
2) To test regulator, connect a jumper wire from No. 3 terminal to No. 2 terminal. Engine must be OFF. Do not leave jumper wire in this position longer than 5 minutes. Proceed as for testing regulators without field relay.

Units Without Field Relay - 1) With ignition ON and engine OFF connect voltmeter positive lead to No. 3 regulator terminal and connect voltmeter negative lead to "F" regulator terminal.

2) If voltage is **not** between 0.9 volt and 2.0 volts, regulator must be replaced.



TYPICAL TRANSISTOR REGULATOR INTERNAL CIRCUITS (WITHOUT INDICATOR LIGHT OR FIELD RELAY)

3) If voltage is between 0.9 volt and 2.0 volts, operate engine for 15 minutes at 1500 RPM with headlights ON. Measure temperature of air ¼" from regulator cover (ambient temperature). Connect voltmeter between ground and No. 3 regulator terminal. Check voltage against specifications given in table.
4) If voltage is **not** within specified range, regulator must be replaced.

Adjustment

Remove pipe plug on regulator and insert a small screwdriver into slot and turn counterclockwise for an undercharged battery one or two notches to increase setting. For an overcharged battery, turn clockwise one or two turns to decrease setting. *NOTE - For each notch moved, voltage setting will be changed by .3 volt. Check for an improved battery condition over a service period of reasonable length.*

Voltage Setting (9000590)

13.7-14.3 volts with adjusting screw at "O".

Voltage Setting (1116365, 366, 368)
(With Adjusting Screw At "O")

Temp.	① Volts	Temp.	① Volts
65°F	13.8-14.5	125°F	13.4-14.1
85°F	13.7-14.4	145°F	13.3-14.0
105°F	13.5-14.2		

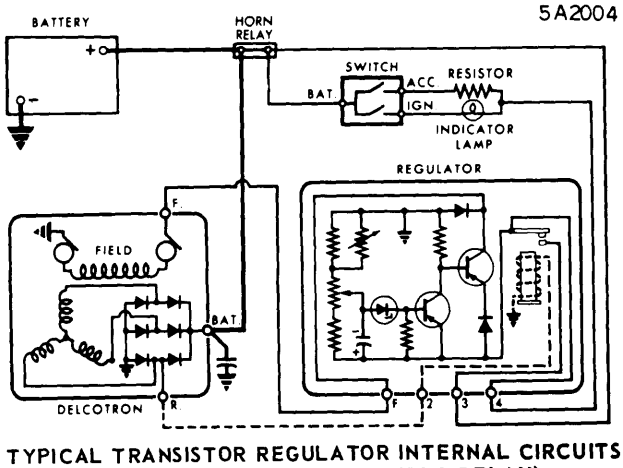
Voltage Setting (All Others)
(With Adjusting Screw At "O")

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

① - Add 0.3 volt to specified range for each notch adjusting screw is moved clockwise. Subtract 0.3 volt for each notch moved counterclockwise .

Field Relay Specifications
(1116368, 1116374, 1116378)

Air Gap	.011-.018"
Point Opening	.020-.030"
Closing Voltage (Except 116374)	2.5-3.5 volts
(1116374)	4.5-6.5 volts



TYPICAL TRANSISTOR REGULATOR INTERNAL CIRCUITS (WITH INDICATOR LIGHT OR FIELD RELAY)