NIPPONDENSO

Honda
Toyota

DESCRIPTION

Nippondenso regulators are of two designs: a single element type and a two element type. Two element types consists of a voltage regulator and voltage relay. The single element type has a voltage regulator only.

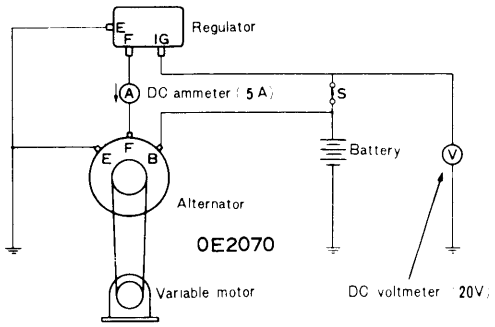
APPLICATION

Engine	Part No.
Toyota	
3KC & 2TC	27700-22010
18RC & 4M	27700-36010
FJ40	27700-60080
FJ55	27700-36010
Honda	0260002420

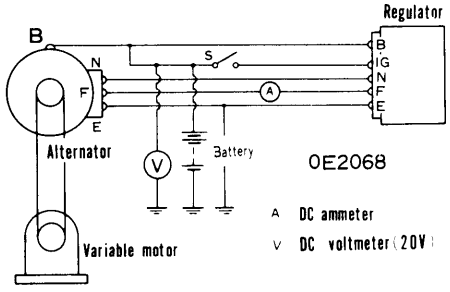
TESTING

VOLTAGE REGULATOR

Connect tests meters to voltage regulator circuit as shown in illustrations. Vary alternator RPM and check voltmeter reading. Increase alternator RPM and check voltage when ammeter registers 1/2 of maximum rated alternator output. Voltage should be 13.8-14.8 volts. Adjust alternator speed to 3,000 RPM, voltage output should again be 13.8-14.8 volts. If voltage is not within specified range, adjust voltage regulator by bending arm to obtain correct setting.



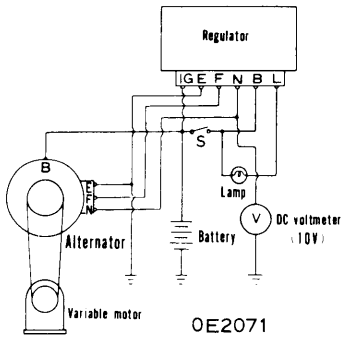
SINGLE ELEMENT TYPE TEST CIRCUIT



TWO ELEMENT TYPE TEST CIRCUIT

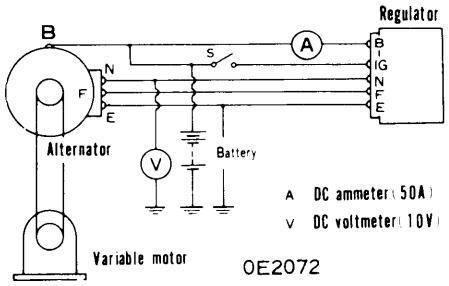
VOLTAGE RELAY

Charge Warning Lamp Type – Connect tests meters as shown in illustration. Increase alternator RPM gradually and note voltage when charge warning lamp goes out. Cut-in voltage should be 4.5-5.8 volts. If voltage is not as specified, bend voltage relay adjusting arm to obtain correct setting.

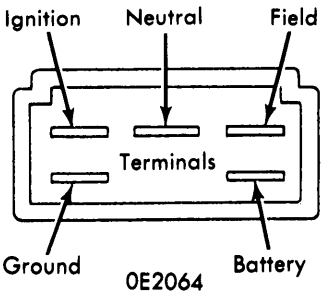


RELAY - WARNING LAMP TYPE TEST CIRCUIT

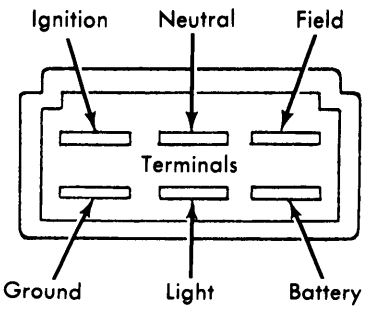
Ammeter Type – Connect tests meters as shown in illustration. Increase alternator RPM gradually and note voltage. Voltage should be 4.5-5.8 volts, if necessary, adjust voltage by bending adjusting arm.



RELAY - AMMETER TYPE TEST CIRCUIT



TERMINAL POSITION FOR TWO ELEMENT TYPE REGULATOR WIRING CONNECTOR



TERMINAL POSITION FOR TWO ELEMENT REGULATOR WITH WARNING LAMP CIRCUIT

NIPPONDENSO (Cont.)

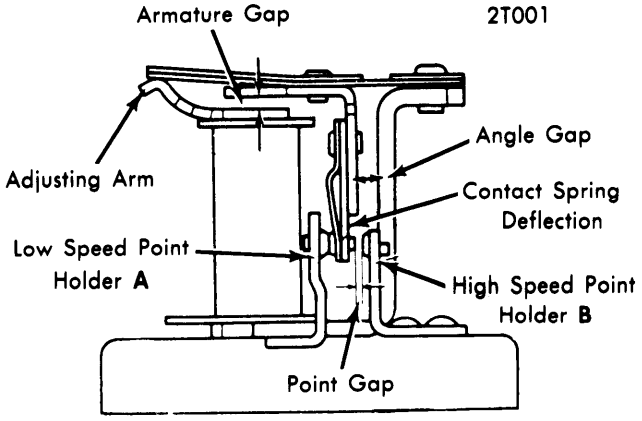
ADJUSTMENT

NOTE — Adjustments are not applicable to sealed units. If points are slightly oxidized or pitted, dress contacts with suitable emery cloth (about 400 grit). If points are oxidized or pitted excessively, replace regulator assembly.

VOLTAGE RELAY

Contact Spring Deflection — Press on armature and use a feeler gauge to check clearance between armature and point spring. Clearance should be .008-.018" (.20-45 mm). Adjust by bending point holder "A" on relay unit.

Point Gap — Check point gap with a feeler gauge. Specified point gap is .016-.047" (.4-1.2 mm), if necessary, adjust by bending point holder "B".



VOLTAGE REGULATOR

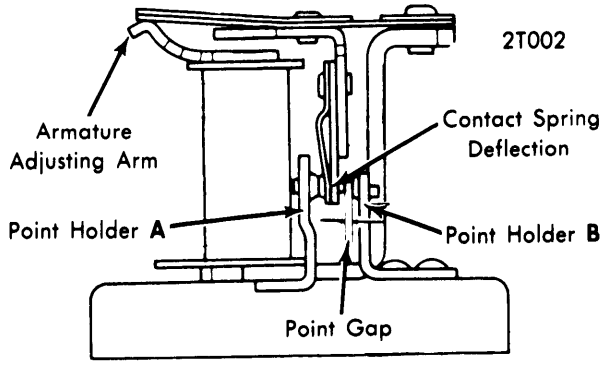
VOLTAGE REGULATOR

Armature Gap — Check with a feeler gauge, specified clearance is .024-.032" (.6-.8 mm). adjust by bending point holder "A".

Point Gap — Specified point gap is .010-.018" (.25-.45 mm). Adjust gap by bending spring holder "B".

Contact Spring Deflection — With armature depressed, check spring deflection with a feeler gauge. Specified deflection should be .008-.024" (.2-.6 mm). If deflection is not as specified, replace regulator assembly.

Angle Gap — With armature depressed, check gap with a feeler gauge (see illustration). Specified gap is .008" (.20 mm).



VOLTAGE RELAY