NIPPONDENSO REGULATORS

Honda
Accord
Civic
Prelude
Toyota
Celica
Corolla
Corona
Cressida
Land Cruiser
Pickup
Starlet
Supra
Tercel

DESCRIPTION

Nippondenso regulators may be either single or double element type. Single element type has a voltage regulator element only while 2 element type has both voltage regulator and a voltage warning relay. Single element type is normally fitted to units with an ammeter, while double element type normally has a charge warning light.

APPLICATION

Model	Part No.①
Honda (All Models)	31200-PC2-671
Toyota	
Celica	27700-38100
Corolla	27700-43010
Corona	27700-43010
Land Cruiser	
Standard Type	27700-13060
IC Type	27700-38100
Pickup	
Diesel	27700-57060
Gas	
Standard	27700-35010
IC Type	27700-38100
Starlet	27700-13060
Supra	27700-41050
Tercel	27700-13060

① — Vehicle manufacturer part number. Some regulators are integrated circuit (IC) type. Part number furnished for information only.

TESTING

VOLTAGE REGULATOR

NOTE — *Substitution of a known good regulator for one suspected of malfunctioning will frequently save time during testing.*

Toyota — Disconnect wire from "B" terminal of alternator and connect to negative of ammeter. Connect test lead from ammeter positive terminal to "B" terminal of alternator. With engine running at varying speeds from idle to 2000 RPM, voltage should be 13.8-14.8 volts and amperage should be less than 10 amps. If not within specifications, adjust or replace regulator as required. See *ADJUSTMENT.*

NOTE — *If a battery/alternator tester is available, connect and test according to tester manufacturer's instructions.*

Honda — Connect voltmeter across battery terminals and ammeter between positive terminal and main fuse. (Main fuse wire from battery disconnected.) Ensure that all lights and accessories are OFF and disconnect negative cable from battery with engine idling. Vary engine speed from 2000 to 4000 RPM and note voltage reading between 13.5 and 14.5 volts. If not within specifications, adjust or replace regulator as required. See *ADJUSTMENT.*

CAUTION — *If engine stops when battery negative cable is removed, DO NOT attempt to restart engine until cable is connected.*

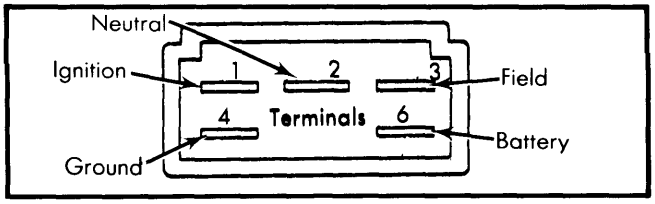

Fig. 1 Terminal Positions for Honda Connector

ADJUSTMENT

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

Voltage Regulator & Relay — 1) For relay, connect voltmeter between "N" terminal (white wire) and ground. Gradually increase engine speed. Voltmeter reading should be 4.0-5.8 volts when indicator light goes out. For regulator, connect voltmeter as described under testing. Adjust regulator and relay by bending adjusting arm as follows.

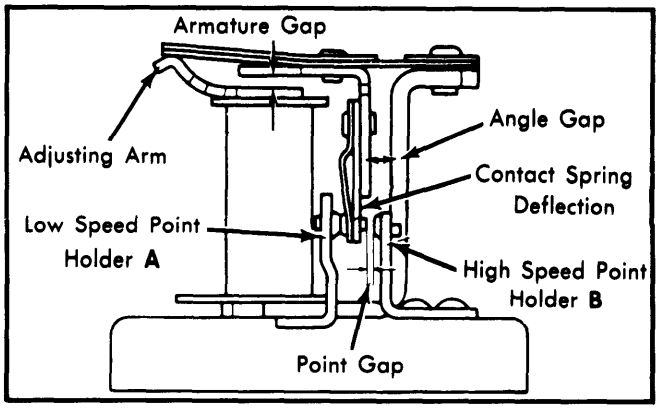

Fig. 2 Adjustments for Voltage Relay. Voltage Regulator Similar.

2) If cut-in or regulated voltage is too high, adjust by bending core adjusting arm down. Bend arm up if voltage is too low. If adjustment of core arm does not correct voltage, proceed with point gap adjustment. Disconnect negative cable from battery.

3) Check armature core gap with armature depressed until moving point is in contact with "B" side point. Armature core gap should be .02" (.5 mm) or more. Adjust by bending point arm "B". Release the armature and adjust the gap between the "B" side point and the moving point by bending point arm "A".

4) Point gap should be .016-.047" (0.4-1.2 mm). Angle gap should be .02" (.5 mm) or more. After adjustment, recheck cut-in or regulated voltage. If not within specifications, repeat voltage adjustment.

NOTE — *Regulator cover must be installed after adjustments prior to further testing.*