

## MITSUBISHI ALTERNATORS

Arrow/Colt  
Challenger/Sapporo  
Courier  
Mazda

### DESCRIPTION

Mitsubishi alternators are conventional three-phase, self-rectifying type units containing six diodes (three positive and three negative) which are used to rectify current.

### APPLICATION

Model	Part No.
Arrow/Colt 2000cc & 2600cc	AH2050M1
Challenger/Sapporo 1600cc	AH2250L1
2000cc & 2600cc	AH2050M1
Courier	ⓐD47Z-10346-A
Mazda RX-4, Cosmo	8527 18 300
B1800 Pickup	0571 18 300A
GLC	0483 18 300

ⓐ — Ford part number. (Check number stamped on housing for individual application.)

### SPECIFICATIONS

#### Nominal Output at 2500 RPM

Application	Amps.	Voltage
AH2050M1	42	14
AH2250L1	42	14
D47Z-10346-A	35	14.5
8527 18 300	56	14
0571 18 300A	30	14
0483 18 300	30	14

#### Coil Resistance (Ohms)

Application	Rotor	Stator
Arrow/Colt, Challenger/Sapporo	ⓐ	ⓐ
Courier	5-6	ⓐ
Mazda	5-6	ⓐ

ⓐ — Test must show continuity, no given value.

**Brush Wear Limit** — To limit line, one third of original length, or .22" (5.5 mm), whichever is greater.

**Brush Spring Pressure** — Standard tension should be 12-16 oz. Replace if less than 8 oz. or if springs are corroded.

### TESTING

**NOTE** — Some testing is done as part of Overhaul procedure.

#### ON CAR TEST

Whenever battery is discharged and charging rate is low, following test should be made to determine whether fault lies

in alternator or regulator. First, place ammeter between "A" terminal of regulator and battery. Disconnect wire at "F" terminal of regulator and touch lead "A" terminal of regulator. If charging rate remains constant, alternator is defective. If current increases greatly, then regulator is faulty.

### OVERHAUL

#### DISASSEMBLY

- 1) Remove brush cover and through bolts. Separate diode end housing from drive housing by tapping front bracket lightly with a soft mallet.
- 2) Place rotor shaft in padded vise, using caution. Remove pulley nut, pulley, fan, and spacer. Remove rotor drive end housing by lightly tapping end housing with a soft mallet.
- 3) To separate stator from diode end housing, unsolder three negative diode leads and connections between diodes.

#### TESTING

**Diode Assemblies** — Disconnect heat sink and check each diode with tester on continuity in forward or reverse direction. If the diode shows large resistance in one direction and small resistance in other direction, diode is normal. If it shows small resistance in both directions it is shorted. If large resistance is shown in both directions, diode is open.

**CAUTION** — If excessive temperature is allowed, diode will become inoperative.

**Rotor Field Continuity** — Check continuity across field coil slip rings. No continuity indicates broken wire. Rotor must be replaced.

**Rotor Field Coil Ground** — Check continuity between individual slip rings and rotor core/shaft. If there is continuity, coil or slip ring is grounded. Rotor must be replaced.

**Stator Coil Ground** — Check to ensure no continuity between stator coil leads and stator core.

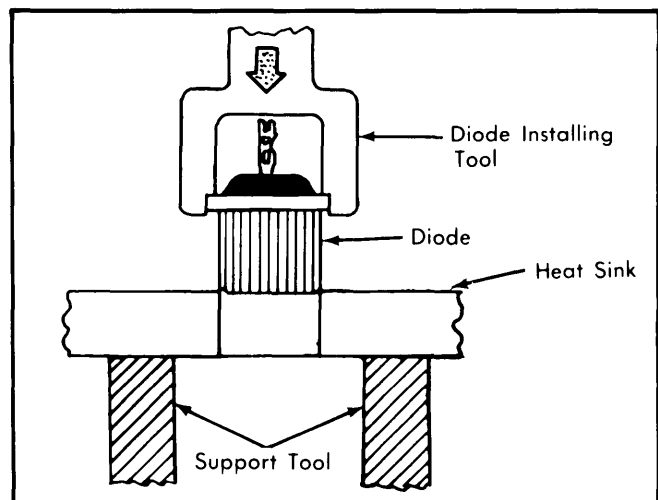


Fig. 1 Using Special Tool to Install Diode

# Alternators & Regulators

## MITSUBISHI ALTERNATORS (Cont.)

**Stator Coil Continuity** — Check continuity between leads of stator coil. If there is no continuity, coil has broken wire and must be replaced.

### PARTS REPLACEMENT

**Diodes** — To remove diode, use a suitable tool to support heat sink and remove diode by use of a suitable press. Press out carefully to avoid damaging mounting bore of heat sink.

**CAUTION** — Do not strike diode as shock may damage other diodes. To install diode, support heat sink as in removal, select correct type diode (positive diodes have red markings;

negative diodes have black markings), and press diode into heat sink.

**Drive End Bearing** — Remove bearing retainer by unscrewing set screws and press out bearing, using a suitable press.

**Rear Bearing** — Remove rear bearing from housing assembly, using a suitable press or bearing puller.

### REASSEMBLY

Reassemble by reversing disassembly procedures, making sure polarity of diodes is correct.

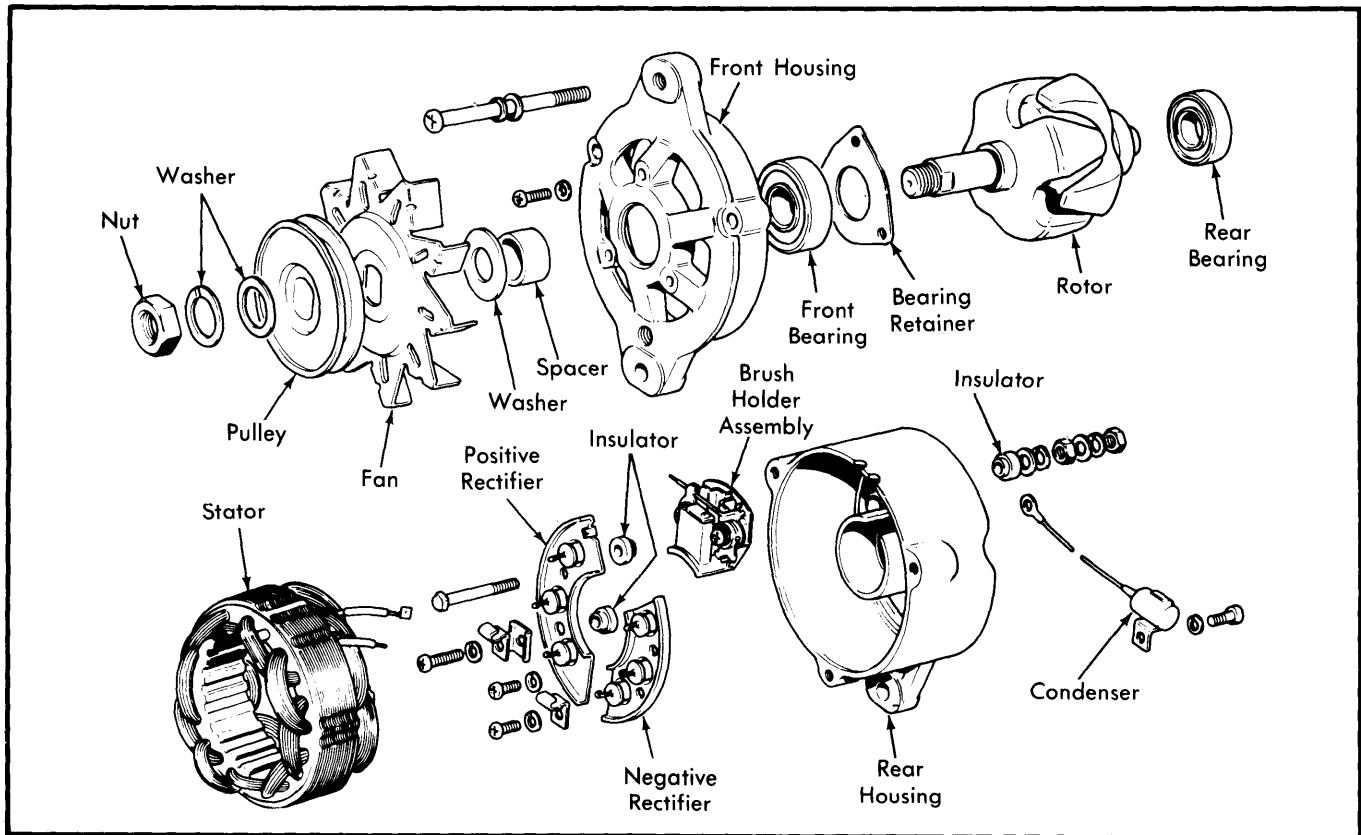


Fig. 2 Exploded View of Mitsubishi Alternator