

MITSUBISHI ALTERNATORS

Chrysler Corp. Imports
 Arrow & Colt (2600 cc)
 Arrow & D50 Pickups
 Champ, Challenger, Colt Hatchback & Sapporo
 Courier
 Mazda
 Mazda
 GLC
 RX7
 626
 B2000 Pickup

DESCRIPTION

Mitsubishi alternators are conventional 3-phase, self-rectifying type units containing 6 diodes (3 positive and 3 negative) which are used to rectify current. A case mounted Integrated Circuit (IC) regulator is used on all except Courier, Mazda GLC and B2000 models.

APPLICATION

Model	Type or Part No.
Arrow, Challenger, Sapporo 2600 cc	AQ2250G1
Champ and Colt Hatchback	A2T16371
Colt Wagon, D-50 and Arrow Pickup 2000 and 2600 cc	A2T16471
Courier	ⓐD47Z-10346-A
Mazda	
GLC	8317-18-300
626	8356-18-300
RX7	8871-18-300
B2000 Pickup	0571-18-300A

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

SPECIFICATIONS

Nominal Output@2500 RPM

Application	Amps.	Voltage
AQ2250G1	41-50	13.5
A2T16371	37-42	13.5
A2T16471	37-42	13.5
D47Z-19346-A	35	14
8317-18-300	30	14
8356-18-300	42	13.5
8871-18-300	39	13.5
0571-18-300A	30	14

Brush Wear Limit — To limit line, .22" (5.5 mm), or when one third of original length has worn away, 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

CAUTION — DO NOT short across any alternator terminals nor run vehicle with any wires disconnected.

Output Test — With ignition switch off and battery ground cable disconnected, connect ammeter between alternator terminal "B" and cable. Connect voltmeter between "B" (+) terminal and ground. Connect ground cable and observe battery voltage. Start engine and turn all lights on. Run engine to produce alternator RPM specified and check ammeter for specified output.

NOTE — Alternator RPM is approximately twice engine RPM.

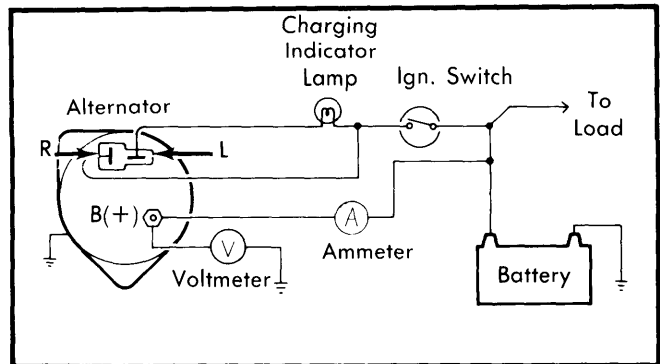


Fig. 1 Alternator Output Test Arrangement

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.

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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.

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

NOTE — See *General Servicing* in this section.

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. 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.

CAUTION — Do not strike diodes to remove them since shock may damage other diodes.

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.

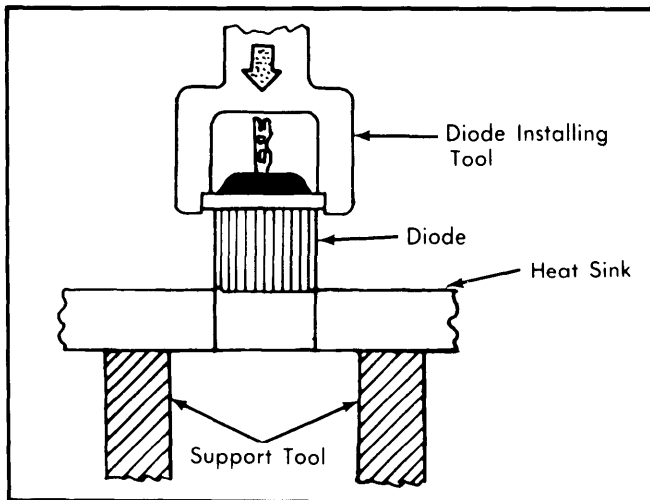


Fig. 2 Using Special Tool to Install Diode

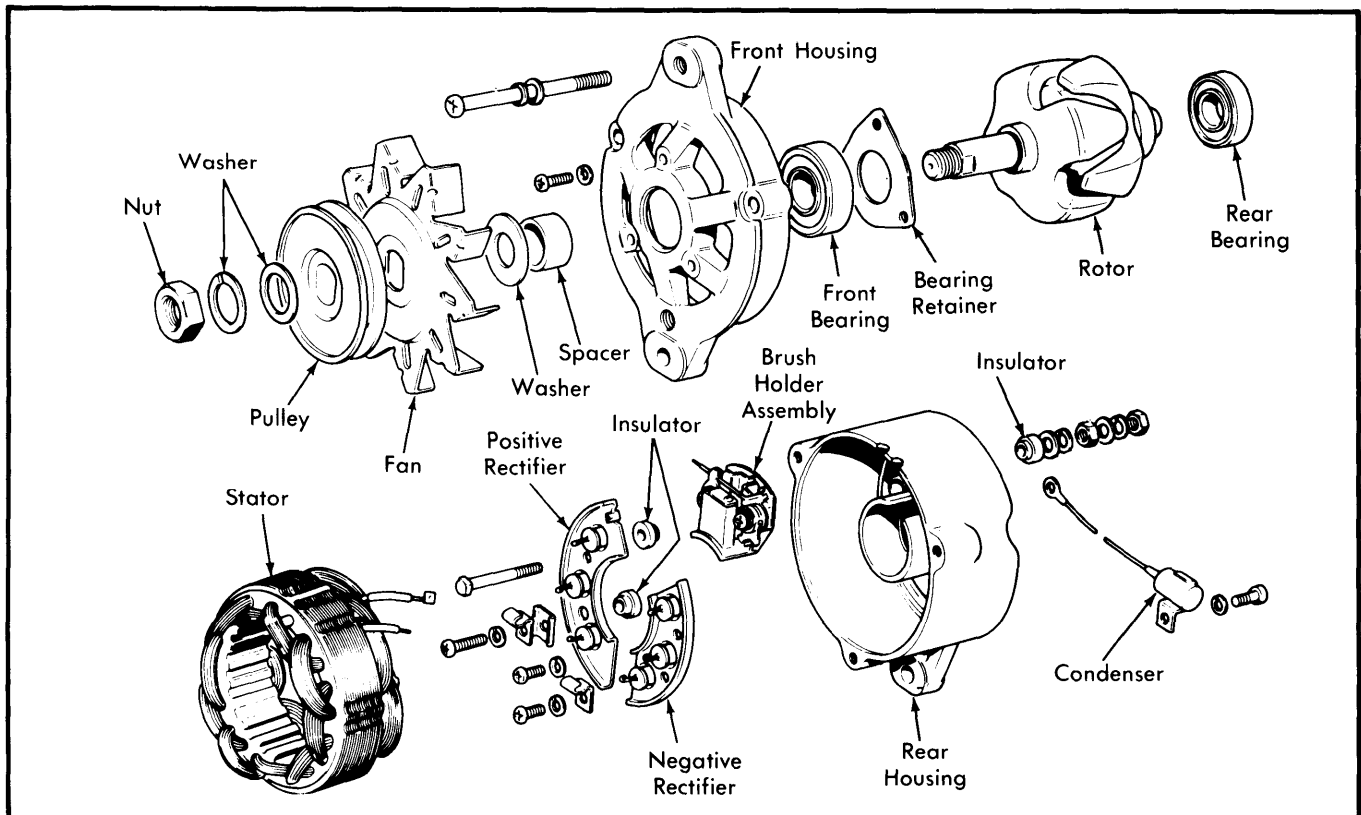


Fig. 3 Exploded View of Mitsubishi Alternator (Courier Application Shown)