

MITSUBISHI ALTERNATORS

Chrysler Corp. Imports	Courier
Arrow Pickup	Mazda
Challenger	B2000 Pickup
Champ	GLC
Colt	RX7
Ram-50 Pickup	626
Sapporo	

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 models except Courier, Mazda GLC Wagon and B2000.

APPLICATION

Model	Type or Part No.
Arrow & D-50 Pickups	A2T16471
Challenger & Sapporo	AQ225061
Champ & Colt	AQ2245K1
Courier	①D47Z-10346-A
Mazda	
B2000	0571-18-300A
GLC	8317-18-300
RX7	8841-18-300
626	8356-18-300

① — Ford part number. Check number stamped on housing for individual application.

SPECIFICATIONS

Nominal Output@2500 RPM

Application	Amps.	Voltage
AQ2250G1	41-50	13.5
AQ2245K1	34-37	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 — Brushes must be replaced when worn to .315" (8.9 mm), to limit line or when 1/3 of original length, 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.

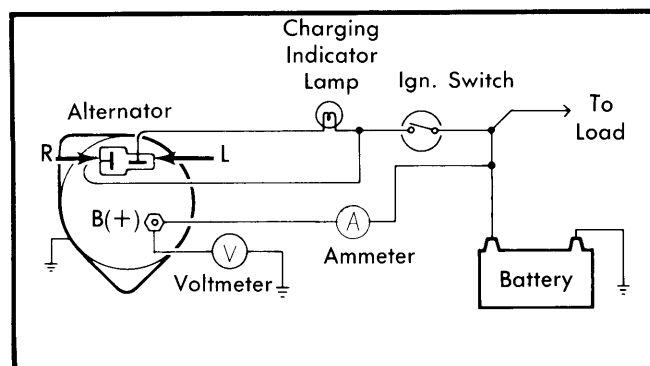


Fig. 1 Alternator Output Test Arrangement

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

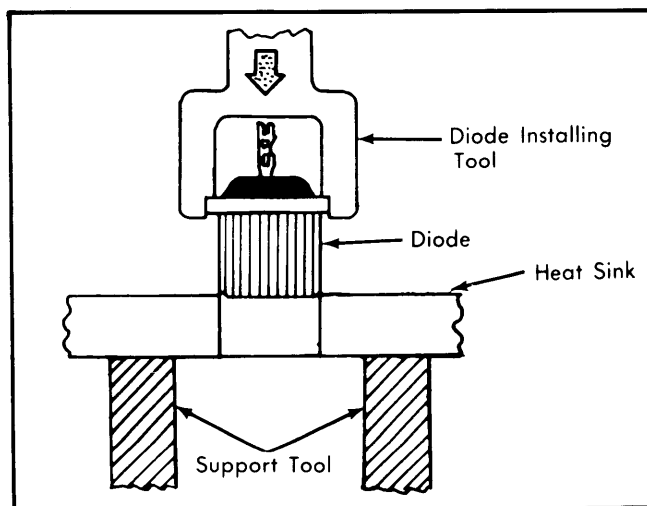


Fig. 2 Using Special Tool to Install Diode

Alternators & Regulators

MITSUBISHI ALTERNATORS (Cont.)

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.

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. 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.

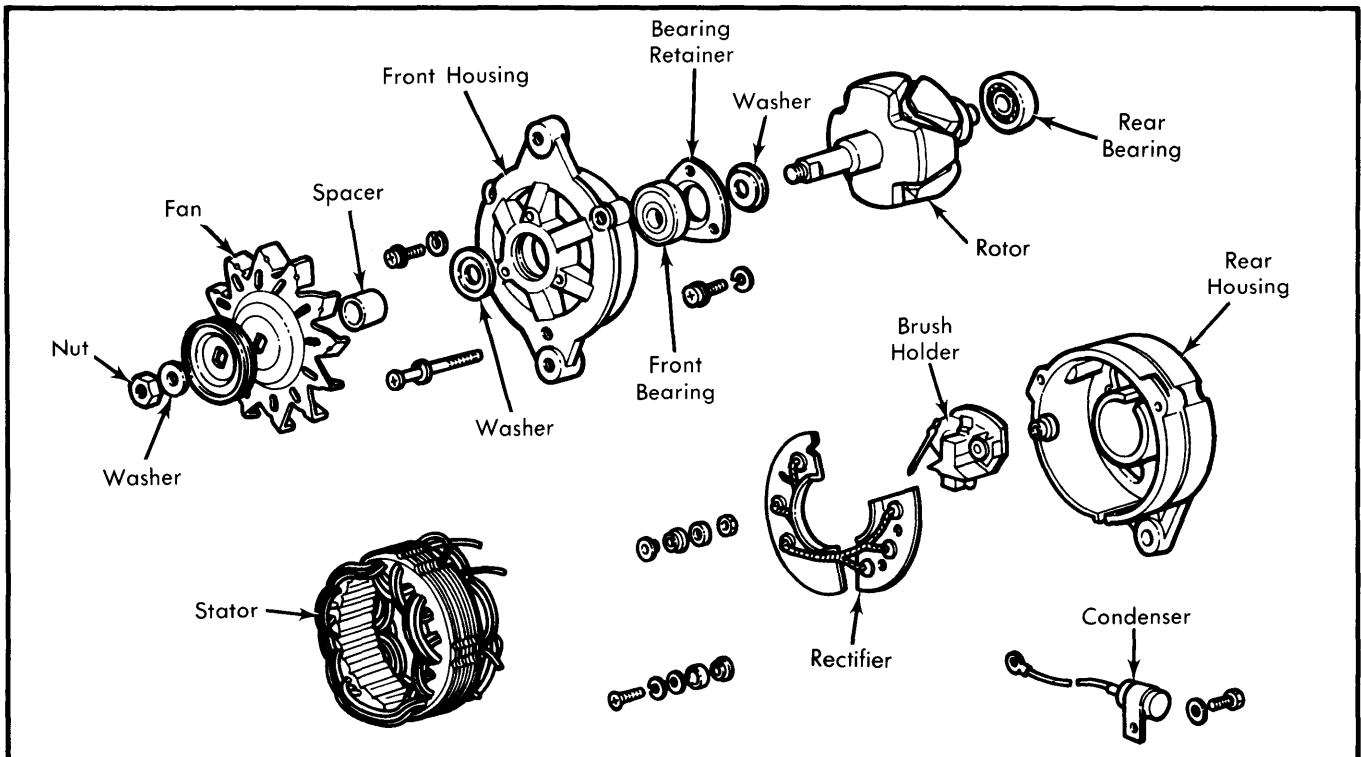


Fig. 3 Exploded View of Mitsubishi Alternator (Courier Application Shown)