



**INSTALLATION**

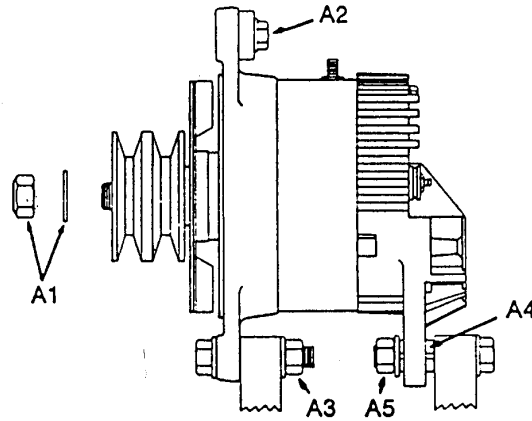


Figure A

**1. MOUNT FAN AND PULLEY (Figure A)**

Torque to 70 ft. lbs. using locknut and hardened washer (A1) supplied on alternator shaft.

**2. INSTALL ALTERNATOR (Figure A)**

- a. Attach belt adjusting bracket with bolt (A2) included in parts package.
- b. Insert front mounting bolt and hand tighten nut (A3). Bolt should be new and SAE Grade 5 or better. Nut should be self locking or coated with "Loctite Lock and Seal" or equivalent.
- c. Tap sliding bushing (A4) in rear housing against the mounting bracket before installing second mounting bolt.
- d. Insert mounting bolt and hand tighten nut (A5). Bolt and nut same as in Step b.

**3. SET BELT TENSION (Figure A)**

- a. On engines where the belt drives only the alternator, use a belt tension gauge and set tension at 40 to 50 lbs. New belts should be set at 75 lbs. On engines where the belt also drives other accessories, consult manufacturer's specifications. If belt tension gauge is not available, set tension so that the fan cannot be turned by hand. **CAUTION: DO NOT SET TENSION TOO HIGH AS THIS WILL CAUSE PREMATURE BEARING FAILURE.**
- b. Tighten bolt (A2) on belt adjusting bracket. Torque to 40 ft. lbs.
- c. Tighten mounting nuts (A3 & A5). Torque to 75 ft. lbs.

**WIRING**

**CAUTION:** Do not ground "REL" or "R" terminal to frame.

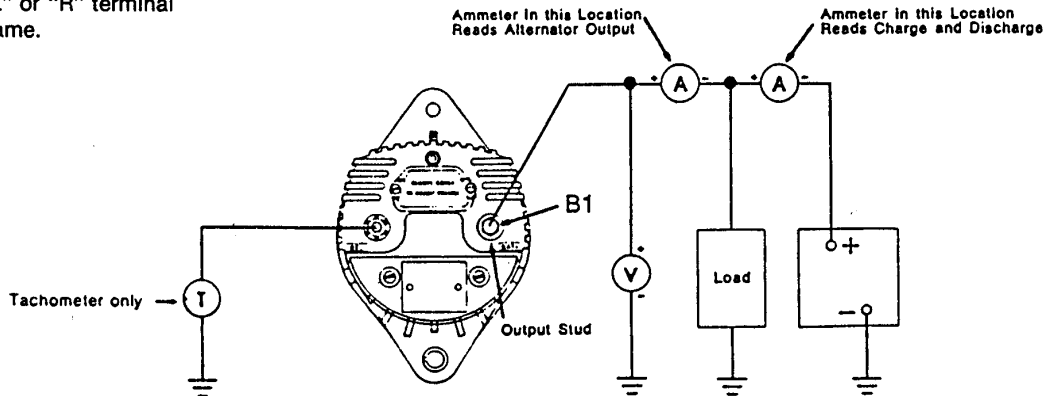


Figure B

**CAUTION:** Connecting the alternator improperly can cause serious damage.  
1. Connect existing battery wire to "BAT+" (B1) on alternator.

# TROUBLE SHOOTING

If, after installation, the system does not meet specifications:

1. Review installation instructions step by step.
2. Check all wiring for clean and secure connections.
3. Check battery for condition and state of charge. Battery should be fully charged.
4. If system still does not operate properly connect ammeter and voltmeter to read alternator output. Set engine at 1500 to 2000 R.P.M. Read amps and volts and compare to chart.

AMPS	VOLTS	
LOW OR 0	NORMAL	Charging system operating properly.
LOW OR 0	LOW Less than *	1. Check belt tension. 2. Bypass regulator. See Figure D.
HIGH	HIGH More than *	1. Check regulator connections and grounds. 2. If voltage is still high, replace regulator.
HIGH	LOW Less than *	Discharged or defective battery Charge or replace battery

\*See Voltage Regulator Specifications: Normal Voltage Range Column

## VOLTAGE REGULATOR SPECIFICATIONS

REGULATOR SETTING	NORMAL VOLTAGE RANGE
27.0	26.2-27.8
27.6	27.0-28.2
28.4	27.6-29.2
29.4	28.6-30.2

To determine voltage setting, remove voltage adjust cover from end housing and locate voltage adjust screw (Figure C)

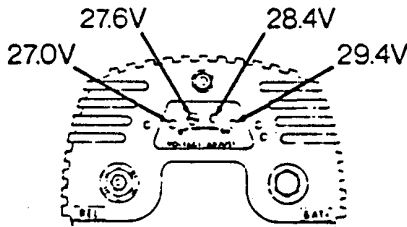


Figure C

NOTE: Voltage is set at the factory to 27.6 volts. This is the proper setting for continuous operation and moderate climate. For arctic or short duty operation increase the voltage setting, for tropical operation reduce the voltage setting.

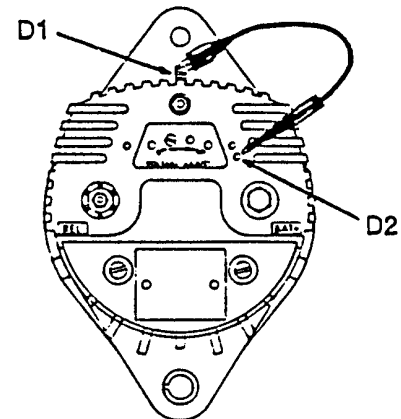


Figure D

## TO BYPASS REGULATOR

Connect alligator clip of jumper wire to alternator ground (D1). Using moderate pressure, momentarily insert the probe end of the jumper wire into hole (D2) in the end cover with engine running.

If output is obtained: Replace integral regulator (See Service Manual).

If no output is obtained: See Service Manual for specific alternator tests.

## FAN AND PULLEY INFORMATION

Use Fan A3-102 (supplied with alternator) and A3-204, A3-205 or A3-206 Pulley. Any keyed alternator pulley with appropriate dimensions can be used with this fan.