

18SI™ ALTERNATOR INSTALLATION INSTRUCTIONS

HIGH OUTPUT FEATURES:

12 VOLT- 150 - 175 AMPERE RATINGS **24 VOLT-** 70 - 80 - 90 -100 AMPERE RATINGS **28 VOLT-** 80 AMPERE RATING
REMOTE SENSE TECHNOLOGY

FAILURE TO USE PROPER EYE PROTECTION CAN LEAD TO SERIOUS AND PERMANENT EYE DAMAGE.

Only perform the mechanical functions that you are properly qualified to perform. Mechanical repairs that are beyond your technical capabilities should be handled by a professional installation specialist.

DANGER!!! To avoid injury or damage, always disconnect the negative cable at the battery before removing or replacing the alternator. The alternator output terminal is always live ("hot"). If the battery is not disconnected, a tool accidentally touching this terminal and ground can quickly get hot enough to burn skin or damage tools and surrounding parts

FOLLOW ENGINE OR VEHICLE MANUFACTURER'S INSTRUCTIONS FOR REMOVING THE OLD ALTERNATOR FROM THE ENGINE AND INSTALLING THE NEW ALTERNATOR.

NOTICE! This is an extremely high output Alternator. Always ensure your application is equipped with the appropriate size and gauge of cable. CHARGING LINE CABLE VOLTAGE DROP SHOULD NOT EXCEED 0.5 VOLTS ON 12 VOLT SYSTEM AND 1.0 VOLT ON A 24 or 28 VOLTS SYSTEM (ALTERNATOR OUTPUT [B+] TERMINAL TO BATTERY POSITIVE [+] TERMINAL AT FULL OUTPUT). FOR OBTAINING ADDITIONAL WIRING INSTALLATION INFORMATION, SEE HEAVY DUTY APPLICATION MANUALS OR CONTACT A REMY INC. REPRESENTATIVE.

REMOVAL & INSTALLATION INSTRUCTIONS

- ◆ Disconnect the negative (-) cable at the batteries.
- ◆ Identify and tag all leads when removing the old alternator and install them on the same terminals of the new alternator.
- ◆ Insure all leads are reconnected or contained where they cannot ground.
- ◆ **Torque all fasteners to values labeled in diagram below.**

This alternator may have more terminals than the one being replaced had or used. It will charge properly with only the battery and ground leads connected. Use of the other terminals is optional based on need. See "TERMINAL DESCRIPTIONS", Page 2.

NOTICE! DO NOT INSTALL AN EXTERNAL FAN ON AN 18SI ALTERNATOR

USE PULLEY FROM OLD ALTERNATOR IF NEEDED
 (SEE PULLEY INSTRUCTIONS BELOW)

18SI™ WIRING DIAGRAM 5-PIN

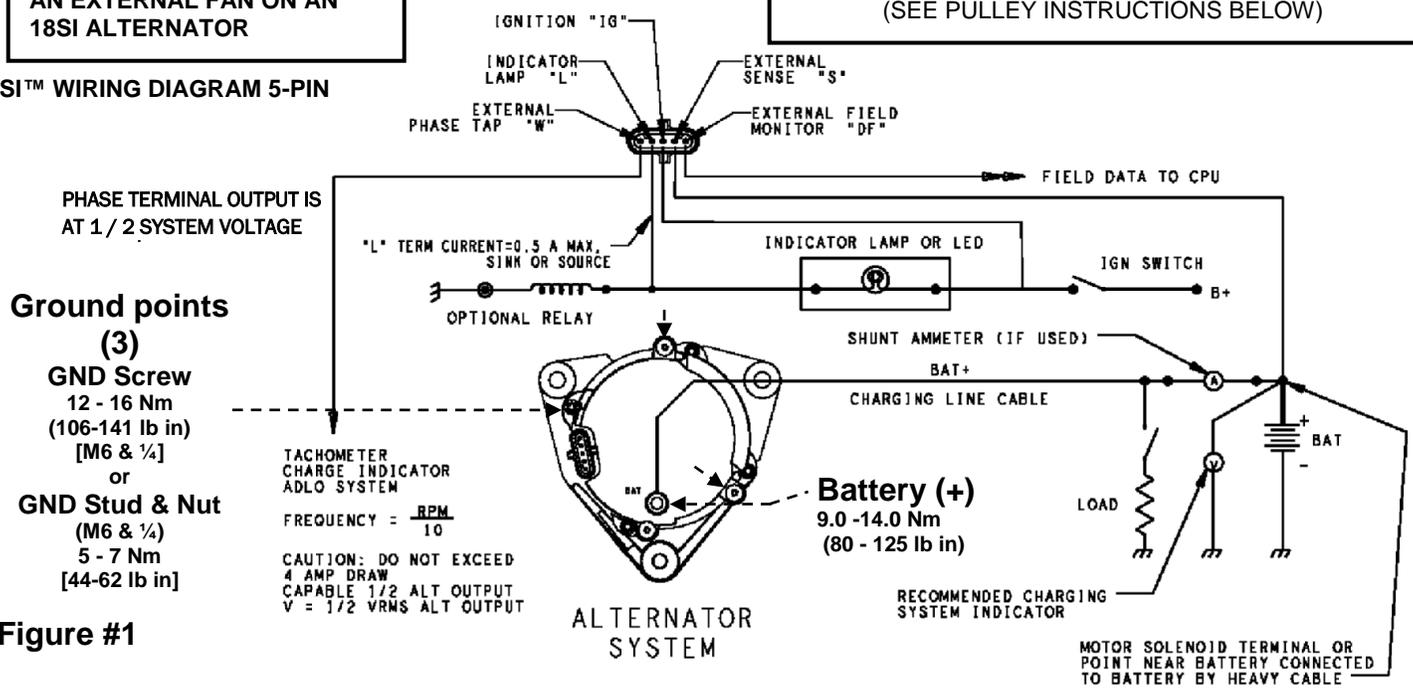


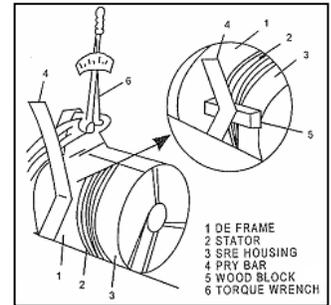
Figure #1

NOTICE - Only licensed Remy International, Inc. product and component parts should be used, and the use of other parts or modifications not approved by Remy International, Inc. will void all applicable warranties. The failure to carefully follow these Installation Instructions, set forth above, will void all applicable warranties. DELCO REMY is a registered trademark of General Motors Corporation, licensed to Remy International, Inc. Pendleton, IN 46064.

PULLEY INSTRUCTIONS: Use pulley from old alternator if this alternator does not have one or pulley supplied is different from pulley on alternator being replaced. **NOTICE!** When changing the pulley, keep the alternator shaft in the horizontal position and do not apply any pressure to end of the shaft. Internal damage may occur if the shaft is pushed back and turned. All alternators are shipped with spacers that go behind the pulley. During installation of the pulley, assure these parts are in the same order as received. If the old alternator has different spacers, use them and install on this alternator in same order as removed. Assure the pulley turns freely prior to installation.

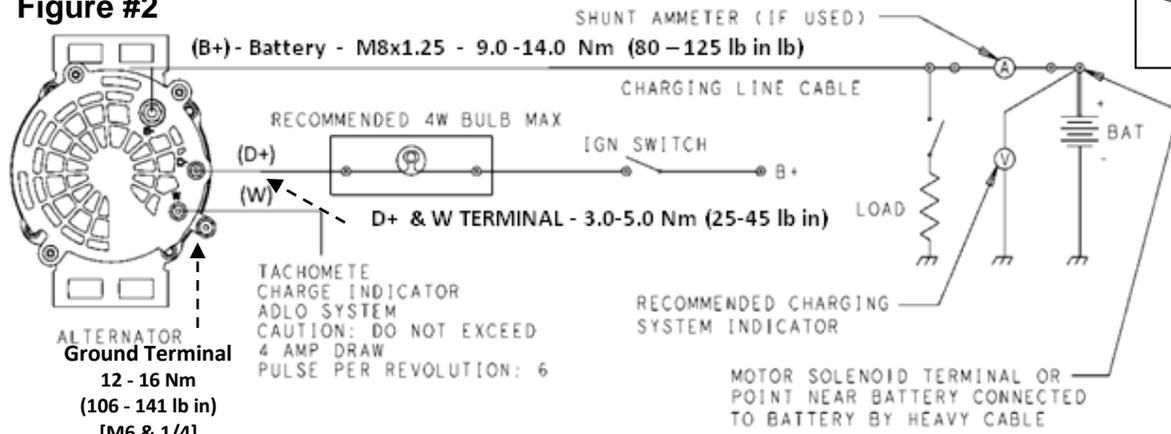
Hold the shaft by placing a hex wrench in the hexagonal hole in the shaft while removing or installing the pulley. Tighten the pulley nut to 80-110 Nm (59-81 lb ft). Do not install the fan.

BELT TENSIONING INSTRUCTIONS: Improper belt tension can cause premature alternator failure. If the belt must be tightened manually, place a wood block between the alternator and pry bar, as illustrated at right. Pry as close to the center of the unit as possible. Use a torque wrench to tighten mounting bolts to the proper torque as specified in vehicle or engine manufacturer's specifications for belt tension and mounting bolts torque. **DO NOT OVER TIGHTEN BELT!**



18SI™ WIRING DIAGRAM 3 STUD

Figure #2



TERMINAL DESCRIPTIONS (Alternator will function properly without connecting the W, L, S, or DF terminals):

“B+” Terminal - Output terminal connects to the positive (+) battery terminal.

“W” Terminal - Relay / Phase terminal carries half system voltage and may be used for certain types of control relays, charge indicators, tachometers or similar devices. The current draw should not exceed four (4) amperes. Frequency = Alternator RPM/10.

“L” or “D+” Terminal - The Lamp terminal can serve as a current source, sink or both, depending on how it is connected. The diagram 1 & 2 show both configurations. Current capability is 0.5 Amp in either direction.

“IG” Terminal – Alternator can be energized and de-energized via the Regulator IG-terminal. If not connected, the regulator will function in Emergency Start (Autostart) mode.

Excitation: When terminal “IG” is “ON” (>13 ± 2V) through ignition circuit (Key-On)

De-excitation (terminal “IG” to GND): When terminal “IG” is connected to GND (<3V), alternator must switch-off within 250ms. No alternator output and no fault indication.

“DF” Terminal – External (inverted) field monitor for diagnostics.

“Ground Terminal” – Ground lead ensures alternator is grounded and usage is strongly recommended for optimum performance.

“S” Remote Sense Terminal – Connect to system voltage at the battery or a common distribution point.

◆ If installing this alternator with Remote Sense terminal in a vehicle that does not have a sense line, connect a fused (5 Amp) insulated wire from the Alternator Voltage Sense terminal to the positive (+) battery terminal or the common distribution point at the starter solenoid battery (+) terminal. Connection of this terminal is best for optimum performance; however, the alternator will function without Remote Sense connected.

Use a #16 gauge red insulated wire, preferably with a 1/4" ID Convuluted Polyethylene Conduit. Also install a standard inline fuse holder with a protective cap. Use a low voltage automotive standard blade style fuse, 5 Amp.

◆ Only connect the Remote Sense terminal line to the Remote Sense™ terminal. The “W” and “L” Terminals are not the Remote Sense Terminal!

Technical support: USA 800 372 0222, Mexico 01 800 000 7378, Brazil 0800 703 3526, South America 55 11 2106 6510 or visit delcoremy.com

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