

HOW TO INSTALL THE ALTERNATOR

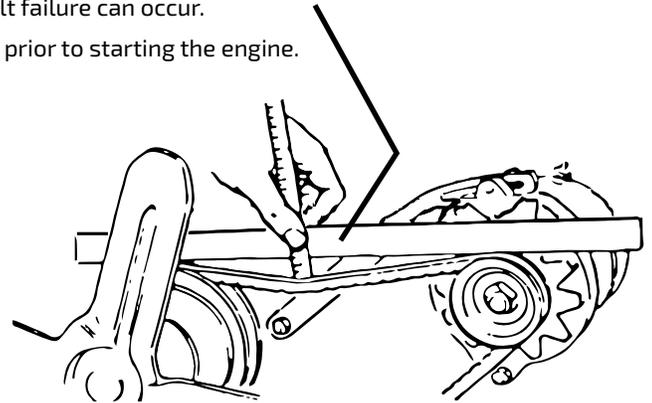
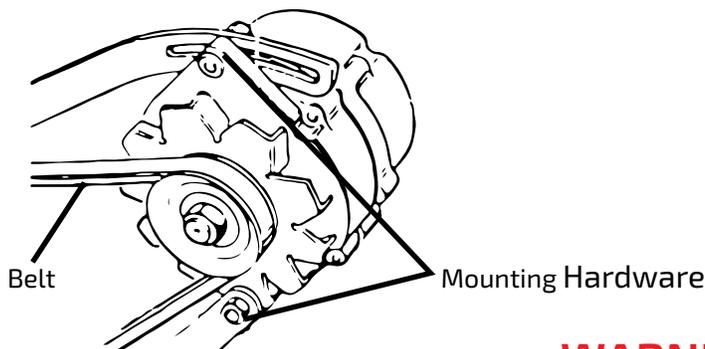
PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE BEGINNING ANY ALTERNATOR INSTALLATION.

*Note that descriptions and diagrams are for a typical alternator installation.

1. DISCONNECT the negative battery cable before proceeding to the steps below. This is a MUST.

Now is a good time to have the battery tested to be sure it is in good shape. The battery must be fully charged prior to re-starting the engine in step #9 below. Do NOT let the alternator charge a weak or dead battery, as this may lead to premature alternator failure.

2. Disconnect all wires going to the existing alternator, marking and / or identifying each wire carefully to insure proper re-connection.
3. Next loosen the mounting bolts (top and bottom, and rear if used), then remove the belt (note the routing of the belt over other pulleys on the engine), and finally remove the mounting bolts, along with any washers, lockwashers, nuts, etc. and save them for the re-installation.
4. Set the new alternator in place, and re-install all mounting hardware that was removed in step #3. Note that the hardware should NOT be fully tightened at this time, but should be hand-tightened only.
5. Now set the belt in place by routing it in the same manner it came off in step #3. Be sure the belt fits into the groove of the pulleys properly. Also make sure the groove in the pulley on the new alternator is the same width as the one that came off. It may be necessary to re-use the pulley from the old alternator if the new pulley does not match it exactly.
6. Once the belt has been loosely placed in position, apply outward pressure on the front housing of the alternator so as to increase the tension of the belt. DO NOT apply pressure to the rear housing of the alternator, as this can cause damage to the alternator, and also will not allow for proper belt tension.
7. Once proper belt tension is achieved, tighten all mounting hardware. Then re-connect all wires to the alternator in the same spots that were removed from in step #2. It is very important that the wires be routed in the same manner they were prior to installation.
8. Proper belt tension can be measured using a straight edge and ruler. While applying light tension to the belt as shown below, measure the distance from the straight edge to the belt. The amount of "deflection" should be $1/2$ " to $3/4$ ". If the belt is too loose, proper charging may not occur. If the belt is too tight, alternator and belt failure can occur.
9. Re-check all steps above and then re-install the negative battery cable prior to starting the engine.



WARNING!

1. Never "Polarize" an alternator. Alternators do not require this, and doing so will cause damage to the alternator.
2. Never run an alternator without all the harness wires connected properly. NEVER remove the battery wire from an alternator while the engine is running, or while the negative cable is still attached to the battery.
3. Never attempt to "ground" any alternator terminal for any reason, and do NOT ground the voltage regulator tab.
4. Never reverse battery terminal connections, and always make sure the battery cables are connected positive to positive and negative to negative. Never charge a battery unless the cables are removed first. Never use this alternator in a positive ground system.
5. In order for the alternator to work properly the battery MUST be fully charged upon installation, and must be able to hold a full charge. A weak battery will cause early alternator failure. Also, all wires in the circuit must be clean and not frayed or cracked. All connections must be tight.