

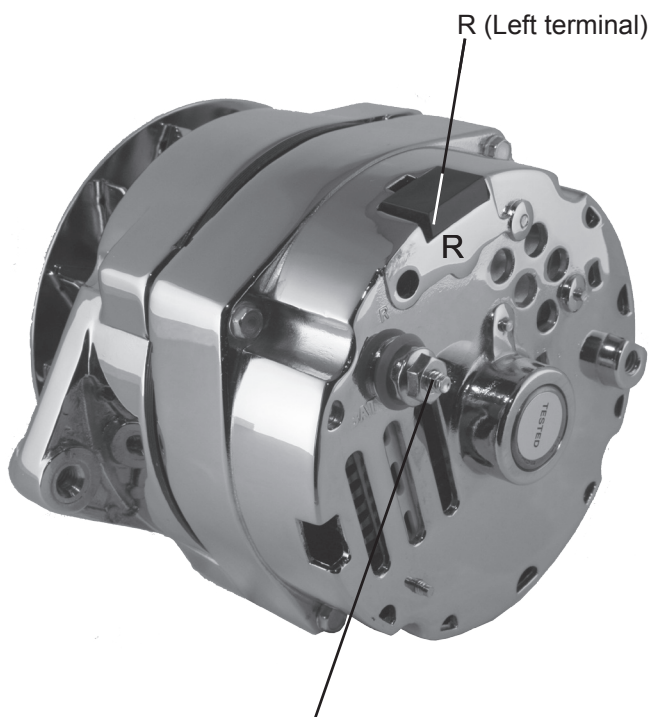


1-WIRE ALTERNATOR INSTALLATION INSTRUCTIONS

CAREFULLY READ THESE INSTRUCTIONS BEFORE ATTEMPTING ANY MODIFICATIONS!

Proper installation of this alternator is the responsibility of the installer. Improper modification or installation will void your warranty and may result in vehicle damage or personal injury. If you have any installation questions, call our Tech Service personnel at 216-961-1800 from 7am to 4pm EDT.

One wire alternators eliminate the unsightly factory wiring harness and simplifies installation by using only one wire for charging.



Simply connect one wire from the positive battery terminal to the positive alternator terminal. It's that easy!

INSTALLATION

To install a 1-wire alternator, disconnect the positive battery cable, unbolt and remove the original alternator, install the new Tuff Stuff 1-wire alternator and re-tension the drive belts. Then simply run one wire from the alternator 'battery' terminal to the positive terminal of the battery or to the starter solenoid main lug, which is connected to the positive battery post. **Make sure that the battery is fully charged.** Reconnect the positive battery cable, start the engine and using a VOM meter, verify that the alternator is charging at least 13.8 volts @ 1,000 engine RPM's.

CORRECT WIRE SIZE IS CRITICAL

It is very important to use the correct wire size to connect the alternator to the battery. A wire size too small can allow the wire to overheat, melt the insulation and cause a fire or worse. Depending upon the maximum output of the alternator, use the following chart as a minimum wire size guide. Wire size is based on 4' battery cables. Trunk mounted batteries require heavier gauge battery cables - contact Tech Service for recommendation.

Alternator Rating	Wire Size
75 Amps	10 gauge
100 Amps	8 gauge
150 Amps	6 gauge
200 Amps	4 gauge

REQUIRES A GOOD GROUND

In order for an alternator to charge properly, an alternator must be grounded to the engine block. If an alternator has paint or clear-coat on the mounting surfaces, it may not be grounded and will not charge. For these reasons, many Tuff Stuff alternators include a grounding tab that should be used to ground the alternator.

NO WARNING LIGHT

Note that a 1-wire alternator does NOT permit the use of a charge warning (idiot) light. Most hot rodders and muscle car enthusiasts prefer the use of a volt meter or ammeter to monitor charging. However, certain Tuff Stuff alternators like the 7127, 7139 and 7140 series have terminals that may be used for a warning light. To wire a warning light using one of these alternators, simply remove the terminal plug cover and connect the R (Left terminal, looking from the back of the alternator) to the warning light wire.

ROTATION SPEED

Alternators spin at approximately 2.5 times that of crankshaft RPM, so an engine at a 700 RPM idle would spin the alternator at 1,750 RPM. Note that the maximum RPM of any Tuff Stuff alternator should not exceed 15,000 RPM's (6,000 engine RPM's). There is no need to worry about use of an underdrive pulley system or an ignition regulator turn on with Tuff Stuff alternators. All Tuff Stuff alternators charge at very low engine RPM's. No other manufacturer in the industry has an alternator that produces more amps at low RPM's than Tuff Stuff. Also note that Tuff Stuff 1-wire alternators are bi-directional and will charge when spun in either direction.