Installation Instructions for 1-Wire Alternators

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.

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

INSTALLATION
To install a 1-wire alternator, disconnect the positive battery cable, unbolt and remove the original alternator, install the new JEGS 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. 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.

<table>
<thead>
<tr>
<th>Alternator Rating</th>
<th>Wire Size</th>
<th>Available Kits</th>
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</thead>
<tbody>
<tr>
<td>75 Amps</td>
<td>10 gauge</td>
<td>High Output Alternator Wiring Kit 555-10510</td>
</tr>
<tr>
<td>100 Amps</td>
<td>8 gauge</td>
<td></td>
</tr>
<tr>
<td>150 Amps</td>
<td>6 gauge</td>
<td></td>
</tr>
<tr>
<td>200 Amps</td>
<td>4 gauge</td>
<td></td>
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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 JEGS alternators include a grounding tab that should be used to ground the alternator. For this installation we recommend Alternator Ground Wire # 555-10141 (sold separately).

To complete your installation, we also recommend our 50 amp fuse with block and cover (# 555-10520) for even more safety. Should a power surge or spike occur, a fuse is replaced easily compared to a fusible link that requires rewiring the circuit (sold separately).

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 JEGS 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 JEGS alternators. All JEGS alternators charge at very low engine RPM’s. Also note that JEGS 1-wire alternators are bi-directional and will charge when spun in either direction.

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 JEGS alternators noted below 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.

555-10100 555-10110 555-10121
555-10101 555-10111 555-10126
555-10103 555-10120 555-10127

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