

Wiring Instructions Powermaster Ford 3G Alternator

Alternator P/N's 37759 47757 47759 57759 Adapter harness included



Powermaster 3G Ford Upgrade Alternator



Replaces these OEM Alternators

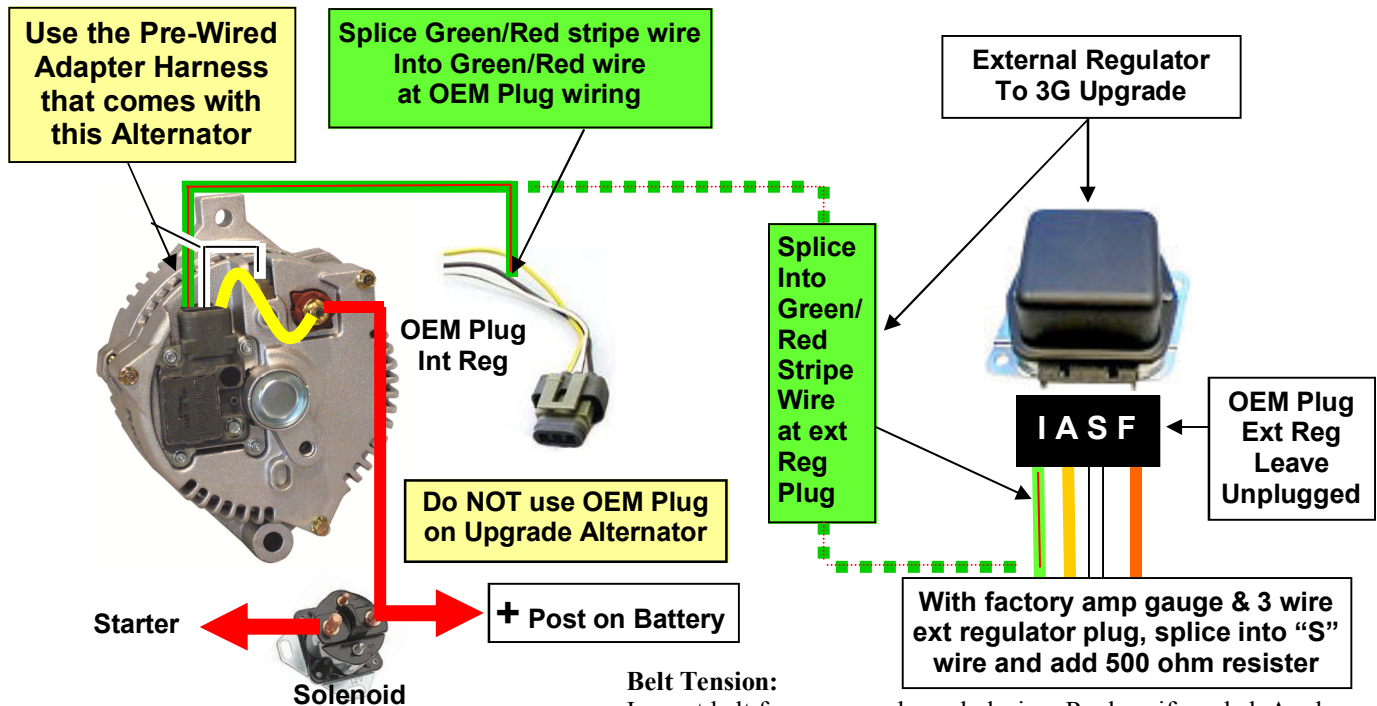


OEM Ford 2G Int
Regulator
1987-93



OEM Ford External
Regulator
1965-86

Wiring Instructions from Internal & External Regulator to 3G Upgrade



READ ALL INSTRUCTIONS IN BOX!

Charge Wires: (OEM Battery Plug-in NOT Used)

130 Amp Alt. use 4 gauge charge cable
200 Amp Alt. use 2 gauge charge cable

Alternator Ground:

Many mounting brackets are powder coated or plated. The alternator can not ground properly with these coatings. Check ground resistance or just run a ground from the alternator to engine. Using at least an 8 gauge wire.

Battery must be grounded to engine block.

Wire Connections:

Be sure all terminals are crimped and soldered, and connections are clean and tight.

Carbureted Engines w/Electric Choke:

Connect choke wire to white/black stripe wire at alt. plug

Belt Tension:

Inspect belt for wear cracks and glazing. Replace if needed. Apply leverage to front housing only. Tighten belt, then check deflection normally 3/8-1/2". Place a pull handle and socket on pulley nut and turn clock-wise, try to make pulley slip. If pulley slips, re-tighten belt.. Recheck belt tension after running for 15 minutes.

V-belts will slip unless they are very tight.

Battery Condition:

Charge and load test battery before starting engine. The alternator isn't designed to recharge a weak or defective battery. Alternator damage can occur.

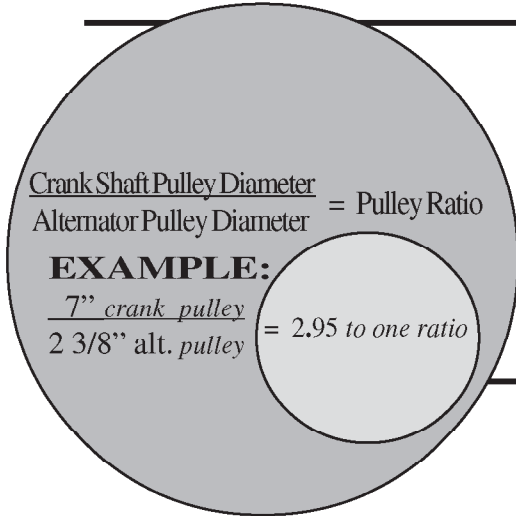
Never disconnect the battery with engine running. High voltage spikes will occur that damage the alternator and other components.



WARNING



This alternator should not be allowed to exceed 18000 RPMs at any time. Alternator components are not designed to withstand the increased stress resulting from excessive RPMs. Powermaster recommends that you calculate your pulley ratio and multiply it times your highest expected engine RPM to determine if your alternator will operate within the acceptable range.



To calculate a vehicle's pulley ratio, the engine's crank pulley diameter should be divided by the alternator's pulley diameter. This ratio should then be multiplied times the highest expected engine RPMs. The result will be that vehicle's maximum alternator RPM.

$$(\text{Pulley Ratio}) \times (\text{Max. Engine RPM}) = \text{Max. Alternator RPM}$$

$$2.95 \times 6000 \text{ max. rpm} = 17700 \text{ max. alternator rpm}$$

If your situation allows for greater than 18000 alternator RPMs, Powermaster recommends increasing the alternator pulley diameter or decreasing the crank pulley diameter to compensate. Powermaster has various pulleys available to help. If pulley ratio compensation is not an option, installing a rev limiter on the engine is recommended.

Excessive RPMs can cause the alternator fan to flex and contact the drive belt. This could cause property damage and/or personal injury. In addition to RPMs, there are other factors that will substantially increase the likelihood of alternator fan-to-belt contact.

- ALTERNATOR BRACKET ALIGNMENT AND STABILITY:**
Alternator brackets can be misaligned in such a way that the clearance between the alternator fan and belt is reduced. Loose or nonrigid brackets can also increase the likelihood of contact.
- WORN OR LOOSE BELTS:**
Belts that allow for side-to-side movement or deflection will decrease the effective gap between the fan and belt and increase the likelihood of contact.
- IMPROPER BELTS:**
Powermaster supplied V-type pulleys are designed to accommodate up to a 10mm or 3/8" belt. Larger belts will not seat into the pulley groove properly and will increase the likelihood of belt-to-fan contact. If the application requires a belt of greater than 10mm or 3/8" width, Powermaster recommends the original equipment pulley be used instead of the supplied pulley.



NOTE: Powermaster is not responsible for vehicle damage or any other damage resulting from improper use of this product.