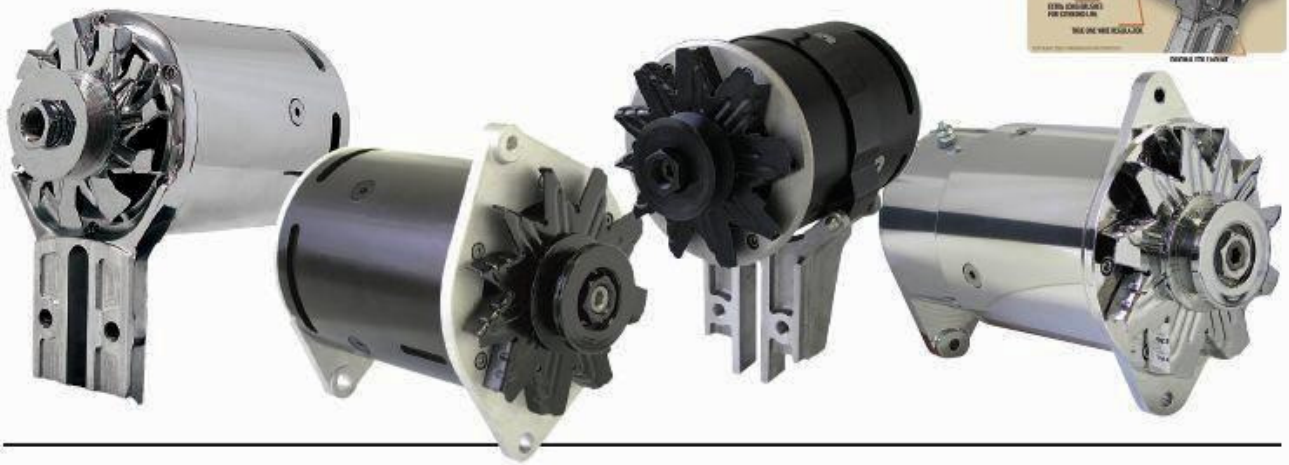
INSTRUCTION SHEET

PN's 82011, 82021, 82101, 82051, 82111, 82091, 282011, 282021, 282101, 282051, 282111, 282091, 182051, & 182111

Powermaster's PowerGEN series are alternators that look like generators. Aluminum housings and mounts were designed and manufactured to replicate original generators. Durable "all new" alternator components were incorporated in the PowerGEN to give the retro look, and high reliability with substantial amperage output. All mounting, as well as most dimensions, are the same as the original generator with the exception of a slightly larger body diameter.



System voltages:
Early vehicle applications were originally 6-volt systems with a positive ground. PowerGENs will work only with 12-volt, negative ground systems. If used with other systems, damage to the unit and/or the electrical system can occur.

Charge wire:
Because of the additional amperage and the routing of some original charge wires through the external regulator, a 10 gauge (minimum) charge wire should be run from the PowerGEN charge post to the positive post on the battery. If desired, the original charge wire can be connected here as well. Use care not to over tighten the charge post connection.

Grounding:
To promote good grounding, a wire should be run from the chassis to one of the rear cover bolts. This is essential on all black powder coated units like the 82021.

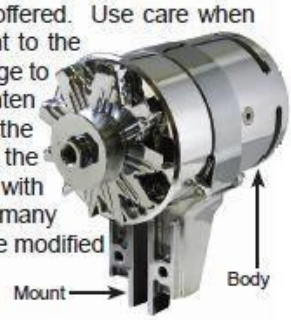
Original external regulators:
This is a "one wire" alternator. Only a charge wire and an adequate ground path are required. The original external regulator wires can be taped off and rolled up or removed all together as can the regulator itself.

Belt sizes:
<u>Early Ford</u> applications use a 5/8" wide v-belt. If your application has the later 3/8" wide belt and your PowerGEN came with the 5/8" pulley,

<u>Early GM</u> applications use a 1/2" wide v-belt. If your application requires a 1/2" pulley, instead of the supplied 3/8" pulley, you will need **p/n 1132 chrome, or 1133 black.**

Belt alignment and mounting:
Good belt alignment and rigid mounting is important to eliminate belt slippage and promote long PowerGEN life. Inspect your pulley alignment and bracket and repair as needed.

PowerGEN part numbers 82021 and 282021:
These units offer a slot to allow variable belt alignment during installation. This is an improvement over the two-hole option the original generator offered. Use care when installing and positioning the mount to the PowerGEN body or cosmetic damage to the body can occur. Do not over tighten the mounting strap bolt. Because the body is 1/4" larger in diameter than the original generator, it will not work with aftermarket mounts. However, in many cases the aftermarket mount can be modified to work with the PowerGEN.



Belt tension:
Because early generators used bushings and were low amperage, low belt tension was acceptable and often desirable. Since the PowerGEN is actually a **90**-amp alternator with oversized ball bearings, belt tension with **1/4"** deflection is optimal.