



# Affordable

## DC GENERATORS

Congratulations on your Affordable DC Generator purchase. Please read through the following disclaimers, locations for assembly directions, and component sources.

### PRODUCT DISCLAIMER

Affordable DC Generators and its owner in no way provides any warranty, express or implied, towards the products sold that require final assembly by the customer. It is the customer and operator responsibility to assemble, maintain, properly connect to other devices, and be clear of any safety hazards such as rotating, hot, and explosive components.

The Affordable DC Generators kit is intended to provide the majority of components required to mount an alternator and engine together. This kit is intended to be assembled by persons having appropriate technical skill and is to be used at the customer and operators discretion and risk.

By purchasing and using components within this kit you are agreeing to hold Affordable DC Generators and its owner in no way liable for any direct, indirect, punitive, incidental, special, or consequential damages whatsoever.

### ADDITIONAL COMPONENTS REQUIRED

The JR Kit requires an engine and alternator assembly which are sold separately. The vertical engine is a Honda GC160 with a horizontal Q type straight 3/4" keyed PTO shaft with a part number of GC160LAQHG or 60594. This engine is very narrow and compact. The vertical aluminum bracket mounts directly to this engine.

A lower priced 45 degree engine can be used as well, these are sold also by Honda and clone versions include Predator, Duromax, Lifan, etc. All of these will work as long as the crankshaft is 3/4" keyed.

The alternator can be an AC Delco 10si or 12s unit. An automotive based unit will have a 3/8" pulley which causes the belt to ride slightly high in the pulley which is not a problem. A commercial based unit will have a 1/2" pulley and most tractor applications have a 5/8" pulley. The automotive pulley works fine for lower power outputs or short run times. If you intend on running the generator at maximum output for extended periods of time the supplied belt will have a reduced life. A suggested upgrade is a 5/8 tractor pulley (part number 247100) on the alternator with a matching "B" pulley for the engine that utilizes a B Belt. A larger diameter will lower the engine speed a bit and keep the belt temperature lower.

The alternator installed must be a 1 wire, self exciting, negative ground model. The most common 12v unit is a 12si 12v 94amp, part number: 7294-SEN. Other 6 and 24 variants are available if your system voltage differs. I use <https://store.alternatorparts.com> and [www.dbelectrical.com](http://www.dbelectrical.com) for alternators and parts.

### ASSEMBLY REQUIRED

The following 10 minute video shows the step by step procedure for assembling the JR Kit. Tools required are a 4mm and 3/8" hex key or socket along with a socket and/or wrench combination in the following sizes: 7/16", 1/2", 9/16", 13mm, and 17mm.



<https://www.youtube.com/watch?v=QehgkKCq3jE>

ALWAYS connect the generator to a battery and shut down before disconnecting or the alternator regulator will be damaged. When the generator is started, bump the engine RPM up first to get the alternator charging.