



Owner's Manual Supplement

Gasoline Engine Powered Welder Generators 180W, 180W EL



Welding is potentially a very hazardous activity. It should only be attempted by a trained welder with a thorough knowledge of proper welding techniques and safety procedures. Be sure to read and follow the safety instructions and precautions described below.

Failure to use the proper gage of cable may lead to painful burns.

Precautions:

1. When using the welder, do not connect the generator to a household circuit. This could cause damage to the generator or to electrical wiring or appliances in the house.
2. For continuous operations, DO NOT exceed the rated load capacity (6.0 kW). Substantial overloading will cause the circuit breaker to switch off. Marginal overloading may not cause the circuit breaker to switch off but it will shorten the service life of your welder/generator.
3. Notice: Voltage is present at the welding cables whenever the engine is running.

Welder Operation:

1. Put the engine switch in the OFF position. Turn the AC circuit breaker OFF and remove any plugs from the AC receptacles.
2. Connect the welding cables to the welder's DC terminals. See section on Welding Cable Selection to select the appropriate cable size.
3. Start the engine and allow it to warm up for at least 3 minutes.
4. Turn the AC/DC (WELD) selector to the DC (WELD) position.
5. Set the current adjustment knob to the proper current level for the job being done. Make a sample weld on scrap material to verify the correct electrode and current setting.

Welding Cable Selection:

An undersized cable will result in unacceptably high resistance to current flow. This resistance will shorten the life of the generator and can potentially make the welding cables hot enough to cause painful burns. **Whenever possible, refer to the cable manufacturer's recommendations.**

Cable Gauge	Cable Diameter	Length in Feet		
		0-50 ft.	50-100 ft.	100-125 ft.
Current Capacity (Amps)				
1	.644	250	200	170
2	.604	200	195	-

Note: The cable lengths above are the combined lengths of the positive and negative cables.

Welding Duty Cycle:

The duty cycle is the percentage of time the welder can be operated within a 10 minute period. DO NOT operate the welder beyond its duty cycle or performance may decrease and the service life of the welder may be shortened.

Current	170A	150A	130A	110A	90A
Duty Cycle	15%	25%	50%	65%	100%

Polarity Selection:

The welding terminals are labeled "+" positive and "-" (negative). Changing the polarity of the cables will affect the weld. Correct polarity selection is dependent on the type of electrode you are using and the type of material you are welding. Refer to the electrode manufacturer's recommendations for best results. For straight polarity, attach the electrode cable to the negative terminal and the ground cable to the positive terminal.

Plate Thickness in Inches	Electrode Diameter in Inches	Current Setting
Up to 3/16	1/16	50-100
Up to 1/4	3/32	100-150
Above 1/8	1/8	125-175
Above 1/4	5/32	150-200