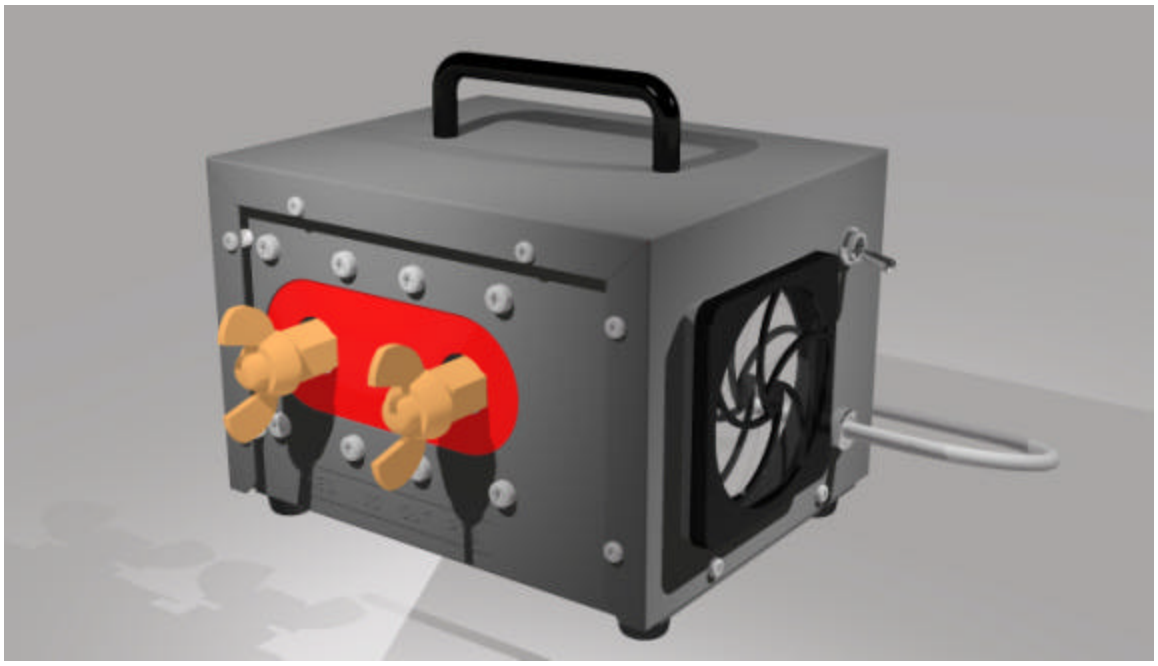
OWNER'S MANUAL
for the
DC Cheater™
Full Wave Welding Rectifier
Model DCC-FW-195



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CAUTION: It is important to read this manual before connecting the DC Cheater to any power source. Improper connection may cause damage and injury.

The DC Cheater can be used with any AC stick welding machine at 80% duty cycle, or the duty cycle rating of your AC welder, if lower. The DC Cheater is installed in-line with your welding cables. You adjust the amperage setting at the AC welder just as you do when AC welding. Do not exceed the amperage rating of the DC Cheater.

NOTE:
The DC Cheater rectifies the current flowing through the ground cable and the electrode holder cable of your ac welding machine. In order to connect the DC Cheater, the cables must be cut, and cable lugs installed on the cut ends of the cable. The cables then can be easily connected as needed for DCEN, DCEP or AC welding.

CABLE CONNECTOR INSTALLATION:
- Before cutting the cables, determine the best location for the DC Cheater and make the cuts in the appropriate location.
- Leave enough cable at the welding machine end to easily connect to all the taps on the machine (if more than one).
- The taps (studs) on the DC Cheater are 1/2-13 UNC (Ø12.7mm)
- Install appropriate cable lugs on the cable ends.
- Trial fit the lugs on the studs.
- Maintain 3/4" (19mm) clearance between the lug and the metal parts of the DC Cheater case. If necessary, put the lugs in a vice and bend to achieve the necessary clearance.
- Screw the wingnuts onto the studs. Hand tighten only. Don't over torque the studs or internal damage could result. If tools are required to remove a wingnut, hold-back on the hex part of the stud with a wrench.

SET-UP FOR DC WELDING:
- Turn off power to your ac welding machine.
- Connect the welding cables for either DCEP (See figure 1) or DCEN welding (See figure 2).
- Plug the fan power cord into a 120vac power source. Turn on the fan switch.

⇒ ***NEVER*** *use the DC Cheater without the fan running, unless AC welding – see below.*

- Select the amperage desired on your ac welding machine, *not to exceed the rating of the DC Cheater.*
- Turn on power to the machine and weld.
- If you haven't experienced DC welding before, you'll find that it usually requires a lower amperage setting than doing the same weld with AC.

SHUT-DOWN:
After using the DC Cheater, leave the fan running for five minutes for proper cool-down.

SET-UP FOR AC WELDING: (See figure 3)

- Turn off power to your ac welding machine
- Disconnect the cables from the DC output studs of the DC Cheater and connect the cables together on the AC input studs as shown in figure 3. This takes the DC Cheater out of the circuit and the studs are just used to reconnect the cables. You may prefer to use bolts for this purpose but then you must insulate the cables.
- There is no need to run the fan on the DC Cheater when AC welding.

CARE AND MAINTENANCE

- The DC Cheater is simple in design, and rugged in construction. If not abused, it should function properly indefinitely. The only regular maintenance required is to remove the foam filter element at the fan intake and clean it -- with compressed air, or running water. The filter element is accessible by unsnapping the plastic filter-retainer.

WARRANTY

- All parts of the DC Cheater, except the rectifiers, are guaranteed for one year from the date of purchase. The rectifiers are guaranteed 90 days. The rectifiers should last indefinitely if not subjected to over-current, or run without the cooling fan.
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REPLACEMENT PARTS:

- ***Proto-Power, Inc.*** stocks replacement parts for the DC Cheater for immediate shipping. For information and pricing, contact us at the following address. We will need to know the Model and Serial Number of your DC Cheater.

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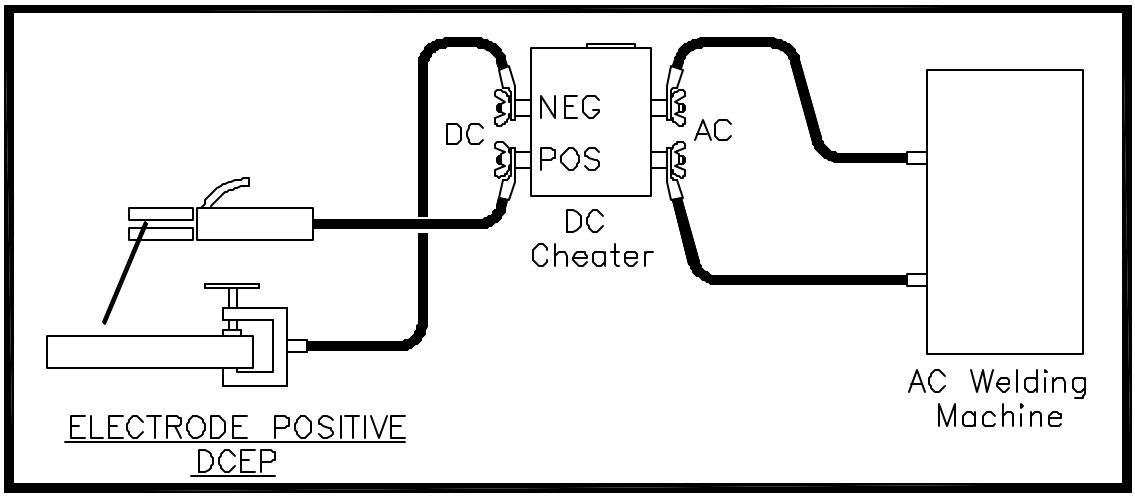

Figure 1

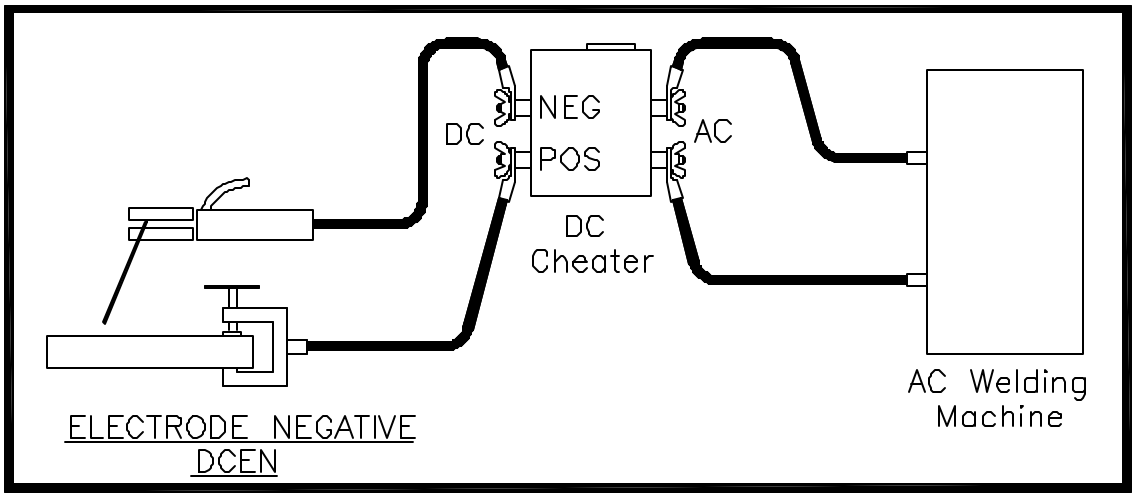

Figure 2

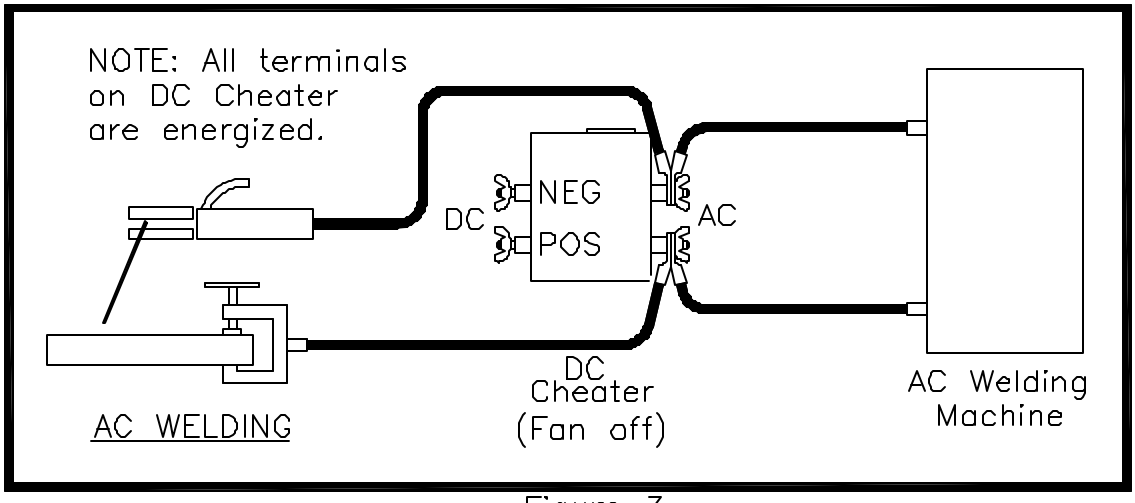

Figure 3

ELECTRODE CHARACTERISTICS:

This is a partial list of electrodes available for welding mild steel.

⇒ **E6010**

- Basic fast-freeze electrode for general purpose DC welding.
- Light slag, good wash-in, excellent control of the arc.
- Good for out-of-position welding.
- Use DCEP.

⇒ **E6011**

- General fast-freeze electrode for use with AC welders.
- Preferred electrode for sheetmetal edge, corner and butt welds with DCEN.
- Good for vertical-down welding.

⇒ **E6012**

- Basic fill-freeze electrode for general purpose and production welding.
- Good for low current welding, such as sheetmetal. (See E6013 below.)
- Use AC or DCEN.

⇒ **E6013**

- Use in place of E6012 for sheetmetal welding where appearance and ease of operation are more important than speed.
- Use AC, DCEN or DCEP.

⇒ **E6019**

- Deep arc penetration.
- Produces weld metal that meets Grade 1 radiographic standards.
- Suitable for multi-pass welding of steel up to 1" (25mm) thick.
- Use with AC, DCEN or DCEP.

⇒ **E7014**

- High deposition rate.
- Exceptional operating characteristics. Preferred by many welders.
- Suitable for down hill, fast-fill joints.

TYPICAL CURRENT RANGES FOR SOME ELECTRODES

ELECTRODE	CURRENT RANGE -- AMPS.			
DIAMETER—>	1/16"	3/32"	1/8"	5/32"
E6010	-	40-80	75-125	110-170
E6011	-	40-80	75-125	110-170
E6012	20-40	35-85	80-140	110-190
E6013	20-40	45-90	80-130	105-180
E6019	-	50-90	80-140	130-190
E7014	-	80-125	110-160	150-210