



Thermocouple Welder

Product Type	Thermocouple Welder
Voltage Rating	International Voltage Market and Usage] 240 V [USA Voltage and Usage] 120 V
Height	82mm
Depth	158mm
Width	152mm
Weight	2.83kg
Stored Weld Energy	5 to 50 watt/sec
Weld Capability	Welds wire pairs of #24 gauge or finer (#20 for J, K & E)
Cycle Time	Can perform 5 to 10 welds per minute, depending on energy setting.
Controls	Provides energy adjustment control, and visual and audio indication of weld charge cycle completion.
Power	Will operate from either AC lines or self-charging internal battery. Will perform several hundred welds on charged battery. 120 VAC 60 Hz line power (220 VAC 50 Hz optional)
Wire Gauge	Welds wire pairs of #24 gauge or finer (#20 for J, K & E)

Controls, Indicators, and Overload Protection

The power level available for welding is set by the position of the front of the control knob. This control also functions as the on/off switch. The knob is calibrated in Watt seconds or Joules. The maximum available power is approximately 50-Watt seconds. The control actually regulates the voltage to which the energy storage capacitor is charged. The stored energy is proportional to the square of the voltage, and the voltage can be varied between 15V and 80V. Increasing the setting of the control knob will cause the capacitor to be charged to the higher level. However, decreasing the setting will not reduce the value already stored, so a welding cycle will always release an energy pulse equal to the highest setting since last recent discharge.

When the internal circuitry has charged the energy storage capacitor to the level set by the control knob, the front panel LED and internal sounder are activated. These inform the operator that the unit is ready for another cycle. The sounder also helps to conserve battery energy during portable operation by reminding the operator that the welder had been left on.

A circuit breaker protects against overloads. The circuit breaker opens the low voltage AC/DC supply if excessive current is being drawn. A 1/4 Amp fuse mounted on the internal circuit board is in series with the AC power cord.