

# Hotspot II Heavy Duty Welder

The principal difference between the HotSpot II and the standard HotSpot is its heavier wire welding capability. The HotSpot II can handle wire pairs as heavy as #14 gauge. It can also close larger tubes than the standard unit and can do light duty stud welding as an aid in wire harness attachment and in insulation blanket installation.

The HotSpot II operates only from AC power. A battery-powered version of the unit is not offered. Its less than #14 weight and compact design make it a very portable package.

Includes : HotSpot Welder, Standard 6 " Wire Holding Pliers, Rechargeable Battery, Eye Shielding Protective Goggles, Grounding Magnet, Carbon Block, Instruction Booklet.

International Voltage Market and Usage (240 V) Also Available.





#### Specifications

Product Type	Heavy Duty Thermocouple Welder
Voltage Rating	[International Voltage Market and Usage] 240 V [USA Voltage and Usage] 120 V
Height	3.5 inches
Depth	8.5 inches
Width	11.5 inches
Weight	14 lbs
Stored Weld Energy	5 to 250 Watt
Weld Capability	Welds wire pairs of #14 gauge or finer, and #8 or lighter studs
Cycle Time	Charging time at maximum energy setting is less than 10 seconds
Controls	Provides energy adjustment control, dual 2 position energy range switch, and LED displays to indicate charging and energy storage status.
Power	Uses 120 VAC 60 Hz line power (220 VAC 50 Hz optional) Circuit protected by 3 amp breaker
Wire Gauge	Welds wire pairs of #14 gauge or finer, and #8 or lighter studs

## Controls, Indicators, and Overload Protection

The HotSpot II is powered from the AC line through a step-down transformer and rectifier. Front panel indicators and controls allow the operator to easily monitor the status of the unit, determine the level of energy to be transferred to the storage capacitors, and initiate a weld cycle. The maximum power output of the HotSpot II is approximately 250 Joules. The power level is set by the position of the front panel control knob. The power ranges, normal (low) and turbo (high), are selected by a two position toggle switch. Initiation of the welding discharge is controlled by a snap action push button switch.

The range switch and power level control set the voltage to which the energy storage capacitors are charged. Peak voltage on the low range is approximately 35 VDC and on the high range 75 VDC. The stored energy is proportional to the square of the capacitor voltage. Increasing the setting of the control knob will cause the capacitor to be charged to a higher level. However, decreasing the setting will not immediately reduce the value already stored so a welding cycle will always release an energy pulse equal to the highest power setting since the last recent discharge. A resettable circuit breaker in the primary AC line is accessible on the unit's back panel and protects against damage from internal circuit shorts and similar fault conditions.

#### 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.

#### **Components Included**

HotSpot Welder Standard 6 " Wire Holding Pliers Rechargeable Battery Eye Shielding Protective Goggles Grounding Magnet Carbon Block Instruction Booklet

# **Quick Action**

Give up waiting for ready made thermocouple junctions, and fabricate your own with the Hot Spot welder. It's much faster than gas welding and produces a more reliable contact than mechanical twisting or clamping. The Hot Spot is so small and portable that you can use it right where you want it. And it forms and attaches junctions in one step.

## **Economical**

Not only do you save the time of waiting for prefabricated couples, but you reduce costs by forming junctions from standard thermocouple wire. You also save the cost and effort of using clamps, brackets, glue, and other sensor mounting means

## Easy-to-Use

You don't have to be a welder to be a success with the HotSpot. After a little experimenting to zero-in on the best energy settings and positioning techniques for the wire type and size being used, the inexperienced operator will quickly be producing satisfactory welds

### Flexible

Adjustable weld power output matches the varying requirements of the thermocouple materials and wire gauges. Make butt welds, and third party or free standing junctions, all with the same device.

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#### **Components Included**

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# **Host Spot II Optional Accessories**



#### Consist of :

Diagonal Cutter Dressing File Extra Quick Release Attachment Ferrules High Temperature Utility Cement Holding Vice Magnifier Loupe Miniature 5" Wire Holding Pliers