

# The Model MCW-550 Constant Voltage Power Supply

- WELD parallel-gap, opposed or offset.
- BRAZE connector leads, relay blades.
- BOND thin film, thick film.
- REFLOW SOLDER flat pack (single or multiple lead), discrete components.

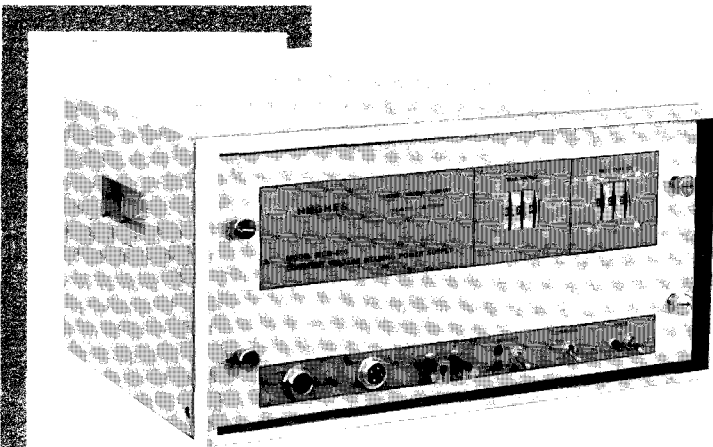
## INDUSTRY LEADER

Clearly a leader, this easy to use unit has earned the title of "the industry's precision microcircuit power supply." Weld voltage and weld duration are dialed into the machine, using simple, positive, digital selectors. The MCW-550 power supply is capable of ultra-fine weld heat control. It is suitable for parallel-gap bonding to the thinnest vacuum-deposited films, or for the heavier requirements of reflow soldering 7 flat pack

leads at once. It is important to note the MCW-550's operating range of both current output and length of pulse compared to those of other equipment.

## AUTOMATIC CURRENT CONTROL

The Model MCW-550 Constant Voltage Welding Power Supply is the heart of an entire family of precision MCW-type bonding systems. With this new energy source, the direct current welding pulse is dynamically controlled during the discharge period to maintain a constant, preset voltage across the work. This is accomplished through an active feedback circuit that constantly monitors the weld joint or work and signals the need for increased or reduced weld current. Current density is thus consistent even though size of materials may vary.



## SPECIFICATIONS—Model MCW-550

Welding Pulse .....	Constant voltage, direct current, solid state circuitry
Pulse Duration .....	Adjustable from 1-9900 milliseconds in 3 ranges: 1-99 milliseconds 10-990 milliseconds, and 100-9900 milliseconds
Voltage Amplitude .....	Adjustable from 0.01 to 1.99 volts, automatically maintains voltage selected
Pulse Waveform .....	Square (pure DC)
Current Available .....	Up to 800 amps. Current varies to maintain constant weld voltage
Repetition Rate .....	More than 100 welds per minute of typical flat pack leads under continuous duty
Response time to load variations .....	Approximately 25 microseconds
Constant Voltage Regulation .....	Within 25 millivolts throughout range
Input Power Requirements .....	105-125 volts single phase—50/60 Hz—3 amp fuse
Standby Power Line Demand .....	Less than 1 amp
Ventilation .....	Forced air, muffin fan
Dimensions .....	10½" high, 20" wide, 13" deep
Weight .....	65 lbs. net
Welding Capabilities .....	Ribbon Leads: Up to 0.008", up to 0.030" wide Wire Leads: Up to 0.017" diameter

Note: Capability is conservatively expressed in terms of largest Kovar leads that can be welded to 2 ounce copper laminate. Crosswire welds and welds to larger, less conductive materials are readily accomplished.

- Outputs .....
- Two 115 volt convenience outlets are provided at rear of power supply. A 6.5 volt source for a Nicholas spot illuminator is built in. An auxiliary switch for control of vacuum pump or other electrical accessory is also provided.
- Optional Accessories .....
- MA-09-28 Dual Heat Selector (factory installed)

Specify MCW-550-MC for factory-set 230 volts/50 Hz operation.