

Reflow Soldering Power Supplies

Reflow Soldering

Reflow soldering is a specialized soldering process by which two metal parts, each being previously coated with solder, are bonded together by the application of heat, and in many of the processes by pressure. The heat causes the solder to melt. If the two parts are in good mechanical contact when the solder is melted, the solder from each piece will flow and coalesce. When the solder again solidifies, the two parts will be joined by the solid solder which is between them and wetted to them.

Hughes makes two models of pulse heated resistance reflow soldering power supplies. The HTT-600/650 is designed primarily for manual reflow soldering jobs. The HTT-1000 offers expanded capabilities for manual operation as well as automation using the RS-232 interface.

Solderite Reflow Solder Power Supplies

Thermocouple Controlled Time-at-Temperature Power Supply



- Fine control of time and heating rate—allows for precise reflow scheduling and virtually eliminates temperature overshoot.
- Noise immunity—design features have been incorporated to keep power line noises out of the control circuitry.

Model HTT-650

For systems requiring air latch or air drive, the Model HTT-650 has these additional features:

- Air activation—built-in valve and control circuit for air latch or air drive operation.
- Process complete signal—available at the rear of the unit to make the HTT-650 compatible with automated systems.

Model HTT-600

This closed-loop-controlled ac power supply furnishes an accurate and repeatable timed pulse for reflow soldering operations to assure consistently high quality reflow solder connections. Important features include:

- Idle temperature—maintains a "preheat" temperature on the heater bar.
- Cool temperature—sets a threshold to tell the operator when the temperature is cool enough to safely lift the heater bar.
- TC fault detect—disables the heating circuit whenever a thermocouple opens or detaches from the heater bar.
- Built-in meter—allows constant temperature monitoring.

SPECIFICATIONS • Model HTT-600/650

Time at temperature	1 to 999 ac cycles
Temperature range	Ambient to 750°C
Power ranges	4 position coarse control with additional fine adjustment
Condition indicator	Power on, heating, TC fault, and slow heat
Input power	115 V, 50-60 Hz (Models 700 and 750 available for 230V, 50-60 Hz operation)
Thermocouple type	Type E
Dimensions (H × W × D)	10 × 8.5 × 12.5 in (255 × 217 × 322 mm)
Weight	35 lb (16 kg) net 40 lb (18 kg) shipping