

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.

Model HTT-1000



SPECIFICATIONS • Model HTT-1000

Input voltage	115 V, $\pm 15\%$ (HTT-1000)
	230 V, $\pm 15\%$ (HTT-1000-MC)
Input frequency	50 or 60 Hz, automatically selected

Solder sequence time interval ranges

Idle	Indefinite*
Preheat	0 to 99.99 seconds*
Ramp	0 to 99.99 seconds**
Reflow	0 to 99.99 seconds**
Cool	Not programmed

*Reflow tip saver: If the HTT-1000 is not fired for a programmable time, all heat is shut off. Pressing ENTER restarts the idle sequence.

**RS-232 interface allows time intervals to 540 seconds.

Solder sequence temperature range

	From:	To:
Idle	80°C	150°C, preheat temp, or reflow temp
Preheat	Idle temp or 80°C	300°C or reflow temp
Ramp	Idle temp or preheat temp	Reflow temp
Reflow	80°C, idle temp, or preheat temp	600°C
Cool	80°C	Reflow temp

Thermocouple type	ANSI type E or J
Dimensions (H x W x D)	12 x 9 x 16.5 in (305 x 229 x 419 mm)
Weight	50 lb (23 kg)
Power cord	5ft (1.5m), terminated with a standard 120 Vac 3-prong plug

Programmable Power Supply

The easy-to-use Model HTT-1000 programmable reflow solder power supply gives a continuous display of an entire weld schedule along with an analog temperature meter and a digital temperature display. Its simple pushbutton programming incorporates context-sensitive HELP messages for program editing, which has password protection. While it has been designed for ease of manual operation, the Model HTT-1000 can also be integrated into an automated soldering system through its RS-232 interface.

LCD Display

- Shows solder schedule time and temperature settings
- Offers step-by-step programming instructions
- Updates the current heater bar temperature reading every second
- Identifies the active sequence (IDLE, PREHEAT, etc.) with an indicator arrow

Sequence Keys

- Provide pushbutton programming of solder schedule settings

Program Keys

- Provide pushbutton selection of four programmable solder schedules
- Identify the schedule in use with an LED indicator

Inputs

- Head-actuated switch (FIRE)
- Footswitch
- Head-up switch
- General purpose input

Outputs

- Internal head cooling valve
- Internal head drive valve
- Internal solder cool valve
- Process complete opto-isolated signal
- Three additional opto-isolated signals (valves 4, 5 and 6)

RS-232 Interface

- Allows communication between the HTT-1000 power supply and other computers for automating soldering control
- Bypasses standard front panel programs to add up to 50 steps of soldering functions in any order