

# reflow soldering

# Uniflow<sup>®</sup> 2 Reflow Power Supply

Uniflow 2 is a power supply for pulse-heated selective soldering, conductive adhesive bonding and thermocompression bonding

- Closed loop temperature and time control
- Displays summary process data
- Real time temperature graph
- Stores 15 heating profiles
- Statistical and graphical data output to PC
- Process alarms and counters.
- Remote programming via PC



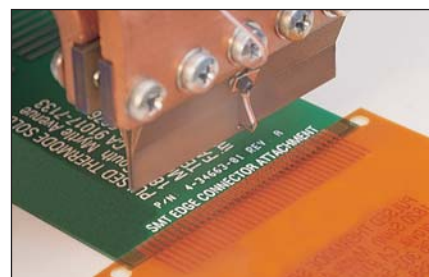
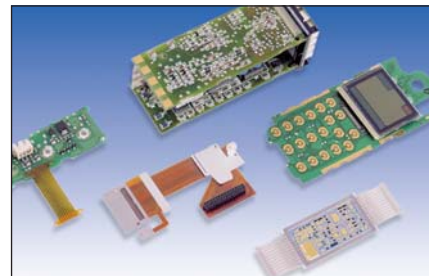
Utilizing pulsed heat technology, the Uniflow 2 power supply provides targeted heating and precision temperature control for a variety of joining applications:

- Flex circuits
- Ribbon cables
- Wires
- Coaxial cables
- SMT components
- Single or dual sided edge connectors
- Thermocompression bonding of gold ribbon

## Application Solutions

Cellular phones, pagers, handsets, LCD monitors, laptops, palmtops, disk drives, industrial instrumentation, dashboards, satellite navigation systems, cassette players, on-board computers, home audio and video, calculators, watches, cameras, electronic games, CD players, cockpit instrumentation and displays, medical devices, and many more . . .

## TYPICAL APPLICATIONS



## TECHNICAL SPECIFICATIONS

Temperature Profile Specifications	
<i>Temperature Range</i>	
<i>Preheat</i>	60 to 300°C
<i>Heat</i>	60 to 600°C
<i>Heat Extended Range</i>	60 to 999°C
<i>Time Periods (in 0.1 Sec. Increments)</i>	
<i>Preheat</i>	0 to 99.9 seconds or continuous
<i>Rise Time</i>	0 to 9.9 seconds
<i>Heat</i>	0.1 to 99.9 seconds
<i>Temperature Control</i>	
<i>Accuracy</i>	±2% of reading or ±6°C, whichever is greater
<i>Repeatability</i>	±1% of reading
<i>Thermocouple Input</i>	Type E, J or K
<i>Heating Rate Control</i>	Four coarse adjustments: fast, medium, slow, very slow
<i>Programmable Heat Profiles</i>	Fifteen (15) non-volatile memory

Switched Input Electrical Specifications	
<i>Operator Initiation</i>	1 or 2 Level Footswitch
<i>Dedicated Relays</i>	24 VAC/0.3A
<i>Head Cool</i>	ON/OFF for cooling thermode holder
<i>Solder Cool</i>	ON@COOL, OFF@PREHEAT
<i>Programmable Relays</i>	4 each, electromechanical (24VAC or +24DC)
<i>Contact Rating</i>	24VAC/24DC, 0.3A
<i>Communication Ports</i>	RS-232, RS-485
<i>Programmable Relay Functions –</i>	Reflow, preheat, alarm, clean thermode, replace thermode, end reflow, head valve active, system ready

Physical/Environmental	
<i>Dimensions H x W x D Inches (mm)</i>	12.5 x 10.0 x 20.8 (317 x 254 x 527)
<i>Operating Temperatures</i>	104°F (40°C)
<i>Weight Lbs. (kg)</i>	4kVA Model – 58 (26.31) 2kVA Model – 46 (20.86)
<i>Relative Humidity, Maximum</i>	93% @ 104°F (40°C)

## ORDERING GUIDE

Power Supply Ordering Guide		
Power Supplies	Description	Electrical
UNFC2/120	Uniflow Power Supply, 120 VAC, 2kVA Transformer	15A, Single Phase, 50 or 60 Hz
UNFC4/240	Uniflow Power Supply, 240 VAC, 4kVA Transformer	15A, Single Phase, 50 or 60 Hz
UNFC4/240 EAPRO	Uniflow Power Supply, 240 VAC, 4kVA Transformer	15A, Single Phase, 50 or 60 Hz



The Uniflow 2 matches up with SA Style Heads

Optional Equipment Ordering Guide		
Suggested Basic System:	Power Supply, Reflow Head, Thermode, Footswitch	
<i>Reflow Heads</i>	Force Range lbs. (Newtons)	Application Guideline
50F/LRF	0.08 to 2.2 (.4 to 9.8)	Light Force Pinpoint Soldering
50F/RF	0.275 to 2.2 (1.22 to 9.8)	Light Force Pinpoint Soldering
87A/24	0.25 to 20 (1.1 to 89)	Small/Medium Soldering
87F	0.25 to 20 (1.1 to 89)	Small/Medium Soldering
87SA/24	2 to 20 (8.9 to 88.9)	Flex Soldering/Bonding
84SA/24	5 to 40 (22.2 to 177.9)	Flex Soldering/Bonding
180SA/24	7 to 100 (31.1 to 444.0)	Flex Soldering/Bonding

For more information on Miyachi Unitek weld heads, request literature #991-100.

Pulse Heated Thermodes	Description	Application/Size*: Inches (mm)
17P	Peg Tip	Thermocompression Bonding-Single Point Soldering / .020 to .093 (0.5 to 2.4)
17T	"T" Tip	Thermocompression Bonding-Single Point Soldering / .008 x .010 (0.2 x 0.25)
17BM	Blade	Multiple Contacts / .030 to 1.0 (0.76 to 25.4)
17F	Nichrome Fold-Up	Multiple Contacts / .250 to 1.0 (6.45 to 25.4)
17TD	Three Dimensional	Multiple Contacts / 1.0 to 3.0 (25.4 to 76.2)

For more information on pulse heated thermodes, request literature #991-410.

\*NOTE: Standard size ranges are listed, consult Miyachi Unitek for custom requirements and application advice.

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