

# Pre-heating Systems



## ST 1600

The ST 1600 from PACE is the most powerful and flexible pre-heating system available on the market today. The system features four 400 Watt IR (Infrared) heaters for a total power output of 1600 Watts. Each of the four heaters can be turned on or off independently and can be set to its own unique temperature giving the user complete control and flexibility. The ST 1600 fits easily onto any electronics workbench. The system comes standard with an integrated PCB holder with a 305mm x 406mm (12" x 16") capacity.

The ST 1600 is fully programmable and possesses the unique programming features that you'd expect from PACE. These features include: password protection, auto-off timer, °C/°F and "Scan Mode" where the system will display the "set" and "actual" temperatures of the individual heaters. Additionally, the system can be put into a closed-loop control mode where the heater activity is controlled by a thermocouple placed on the PCB being worked on.

High-mass, lead-free PCBs are no longer a problem when using the ST 1600! Using auxiliary heating or pre-heating allows the successful completion of soldering or desoldering operations without having to use dangerous, potentially damaging high temperatures. The ST 1600 improves productivity, allows for a safe process, and reduces operator frustration when working with challenging PCBs.

The ST 1600 features a steel housing and frame for maximum durability and has four adjustable feet to elevate, lower, or angle the system.

Description	ST 1600
<b>Part Number</b>	8007-0563 (120 V System) 8007-0564 (230 V System)
<b>Dimensions</b>	127mm (5") <b>H</b> x 381mm (15") <b>W</b> x 457.2mm (18") <b>D</b>
<b>Weight</b>	13.15kgs (29lbs)
<b>Power Requirements</b>	120 VAC, (Domestic), 14 Amps (1600W) 230 VAC, (Export), 7 Amps (1600W)
<b>Pre-heaters</b>	4 Ceramic Infrared (IR) Heaters Each heater is 400 Watts for a total output of 1600 Watts.
<b>Control</b>	LED Digital Display & Keypad
<b>PC Board Size</b>	305mm (12") x 406mm (16")
<b>RoHS Compliant</b>	Yes
<b>Calibration Required</b>	No
<b>Temp Range</b>	38°C - 232°C (100°F - 450°F)



# Preheaters

## ST 400

Preheating allows for the use of significantly lower and safer temperatures when conductive or convective tools are used for component installation or removals. Preheating is also required when installing area array components and large leaded devices. The application of heat from the bottom side of the PCB serves several functions: **1)** it keeps the PCB from twisting or warping, **2)** it maintains the planarity of the rework site, **3)** it warms the PCB so heat applied by the top heater is not drawn away from the rework site, and **4)** it ensures that homogenous temperatures across the package and PCB are maintained, allowing the use of safe, low temperatures for the top heater.

ST 400



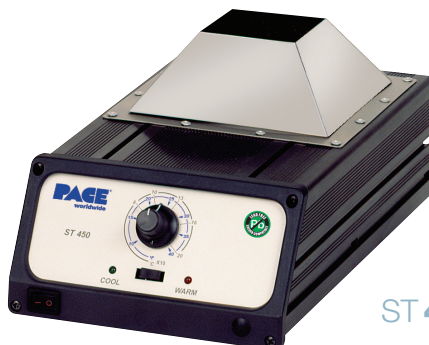
The ST 400 is an analog, closed loop, temperature controlled radiant 400 W pre heater. The heating area is 140mm (5.5") x 140mm (5.5"). This preheater is ideal for heavy PCBs and for area array applications as the medium wave IR delivers the most penetrating and even heating available. The ST 400 can be used as a stand-alone unit with either the ST 525/ST 550 PCB holder or can be used with the ST 300, ST 325, or ST 350.

Specifications	ST 400
<b>Part Numbers</b>	8007-0435 ST 400 8007-0436 ST 400E
<b>Power Requirements</b>	97-127 VAC, 50/60 Hz or 425 Watts max. 197-253 VAC, 50/60 Hz 425 Watts max.
<b>Dimensions</b>	105mm (4.1") <b>H</b> x 178mm (7") <b>W</b> x 318mm (12.5") <b>D</b>
<b>Weight</b>	2.3Kg (5lbs.)
<b>Temperature Stability</b>	± 3°C (± 5°F) at idle tip temp.
<b>Absolute Temperature Stability</b>	Meets or exceeds ANSI-J-STD
<b>Temperature Range</b>	37-205°C (100-400°F)

## ST 450

The ST 450 is an analog, closed loop, temperature controlled convective 1500 W preheater. The heating area is 140mm (5.5") x 140mm (5.5"). This preheater is ideal for applications where focused hot air is desirable or where cooling air is required after the application of heat such as area array applications. Additionally, the nature of hot air allows heat to get into those hard to reach places all too common on today's electronics.

The ST 450 can be used as is, or one of 3 "air wash" nozzles can be attached to focus the heat where it is needed. The ST 450 can be used as a stand-alone unit with either the ST 525/ST 550 PCB holder or can be used with the ST 300, ST 325, or ST 350. When used with the ST 325/ST 350 (with the optional software package) the heater activity of the ST 450 can be controlled through the ST 325 or ST 350. The ST 450 is completely self-contained and when in cooling mode, the airflow is increased to 50 cfm.



ST 450

Specifications	ST 450
<b>Part Numbers</b>	8007-0433 ST 450 8007-0434 ST 450E
<b>Power Requirements</b>	97-127 VAC, 50/60 Hz or 1000 Watts max. 197-253 VAC, 50/60 Hz 1500 Watts max.
<b>Dimensions</b>	105mm (4.1") <b>H</b> x 178mm (7") <b>W</b> x 318mm (12.5") <b>D</b>
<b>Weight</b>	2.4Kg (5.3lbs.)
<b>Temperature Stability</b>	± 3°C (± 5°F) at idle tip temp.
<b>Absolute Temperature Stability</b>	Meets or exceeds ANSI-J-STD
<b>Temperature Range</b>	37-205°C (100-400°F)
<b>Heating Airflow</b>	35 cfm
<b>Cooling Airflow</b>	50 cfm
<b>Focus Nozzle Part Numbers</b>	4058-0001-P1 1.5" Square Nozzle 4058-0002-P1 3" Square Nozzle 4058-0003-P1 4.5" Square Nozzle* (*Included with the system)