

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.

The ST 400 is an analog, closed loop, temperature controlled radiant 400 W pre heater. The heating area is 140mm x 140mm ($5.5'' \times 5.5''$). 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
Part Numbers	8007-0435 ST 400 8007-0436 ST 400E
Power Requirements	97-127 VAC, 50/60 Hz or, 425 Watts max. 197-253 VAC, 50/60 Hz 425 Watts max.
Dimensions	105mm H x 178mm W x 318mm D (4.1" H x 7" W x 12.5" D)
Weight	2.3Kg (5lbs.)
Temperature Stability	± 3 °C (± 5 °F) at idle temp.
Absolute Temperature Stability	Meets or exceeds ANSI-J-STD
Temperature Range	37-205°C (100-400°F)



The ST 450 is an analog, closed loop, temperature controlled convective 1500 W preheater. The heating area is 140mm $(5.5'' \times 5.5'')$. 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.

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

