

# FR-811

## SMD Hot Air Rework Station with Vacuum Pickup

### SPECIFICATIONS

Part No.	FR811-04
Input Voltage	120 VAC 50/60 Hz
Power Consumption	820 W
Heater Power Consumption	790 W
Airflow Source	Turbine
Airflow Capacity <sup>1</sup>	Setting 1-100% (115 L/min Max)
Vacuum Function	Yes
Temperature Range <sup>2</sup>	50°C - 600°C (120°F - 1120°F)
Thermocouple Inputs	2 - Type K
External Connections	1 - USB-A 1 - USB Mini B
Operating Modes	Manual or Automatic
Memory	50 x 6 Stage + Preheat
Process Control	Password Lockout
Auto Power Off Safety	Yes
Auto Cooling Safety	Yes
Presets	6 - User Programmable
Handpiece Length (w/o Cord) <sup>1</sup>	250 mm (9.8 in.)
Handpiece Weight (w/o Cord) <sup>1</sup>	180 g (0.40 lb.)
Nozzles (not included)	N51 Series
Station Dimensions (W x H x D)	160 x 145 x 220 mm (6.3 x 5.7 x 8.7 in.)
Station Weight (w/o Cord)	1.5 kg (3.3 lb.)
Safety Approval	cMETus
ESD Safe	Yes

<sup>1</sup> Airflow capacity is rated as free flowing. Restrictions created by various nozzles may reduce the maximum airflow capacity.

<sup>2</sup> Under certain airflow and temperature setting conditions, the station may not attain the maximum allowable temperature selection.

### Features:

- Stand-alone holder with safety shield
- Auto power off for safety
- Clear and easy to read graphic user interface
- Incorporates continuous closed-loop feedback control
- Thin wall nozzle design to fit densely populated PCBs

The HAKKO FR-811 SMD Rework System is an affordable and easy to use system that simplifies the hot air rework of SMD components including BTCs such as QFN/DFN and BGA using up to 6 stages for a rework profile, and includes a board only preheating stage to allow for proper reflow at lower top heater temperatures. One thermocouple input provides closed-loop top heat control based on part temperature while the other input provides closed-loop bottom heat control based on PCB temperature.

Included with the HAKKO FR-811 is communication software that allows for PC control of the system, enabling the user to create and modify rework profiles, and the ability to upload them to, or download them from the system.



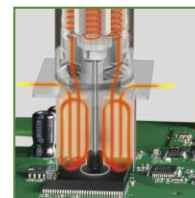
Integrated vacuum pickup with visual reflow indicator that safely lifts the component off the PCB at the right time.



USB to PC interface to allow for PC communication with the system.



USB port for flash drive storage of rework profiles.



Nozzle design to optimize heating and mitigate adjacent reflow, even on densely populated PCBs.

Two remote thermocouple inputs for integrated closed-loop process control



- Nozzle vent system to mitigate adjacent reflow
- Integrated vacuum pickup system that includes a visual indicator for reflow
- External USB connection for flash drive profile storage
- Optional PCB fixture with fine adjustment and quick release capability
- Optional Handpiece fixtures for use with the HAKKO C5016 Bottom Heater or other pre-heaters



The FR-811 SMD Rework System can be used as a stand-alone system or as a complete solution using the optional accessories shown below



Stand-alone holder with safety shield and integrated auto top and cooldown



Optional C5016 Bottom heater that seamlessly integrates with the FR-811 System for complete reflow control.



One-touch adjustable board holder with fine adjustment capability



Option PCB holder (P/N: C5027) is versatile and simple to use.



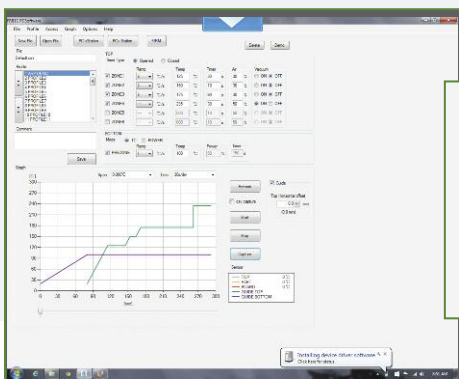
Optional fixturing and support options for PCBs of various sizes and shapes.



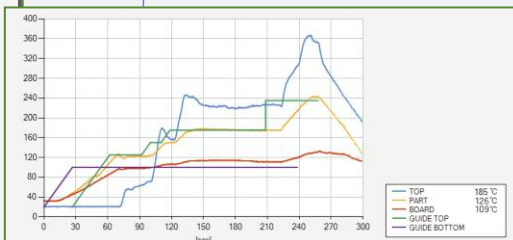
Optional handpiece fixture (P/N: C5028) for use with other preheaters.



Optional handpiece fixture (P/N: C5029) for use with the C5016 Bottom Heater.



Easy to use software for profile creation and monitoring



Integrated component nest assembly compatible with standard CPF stencils or flux trays.