

# HAKKO FR-830 PRE-HEATER ESD SAFE



- Compact pre-heater best suited for heat processing on localized areas
- Featuring quick heatup and less variations in temperature
- Best suited for pre-heating of multi-layer PWBs

## Specifications

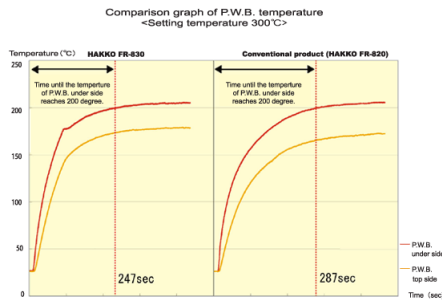
<b>Model No.</b>	<b>FR830</b>
<b>Power consumption</b>	210W (100V)
<b>Air flow</b>	0.15m <sup>3</sup> /min. (fan capability)
<b>Temperature range</b>	150-300°C (Above the blow exit)
<b>Dimensions</b>	140(W)×75(H)×185(D)mm
<b>Weight</b>	0.75kg

## Features

Compact pre-heater with quick start-up and excellent heat recovery.

- Combined with [HAKKO FR-803B](#)(SMD Rework Station)
- Easy attachment with connecting cord which is included in [HAKKO FR-803B](#)
- Upgraded working efficiency by heating parts from top and bottom
- Operating FR-820 with buttons of [HAKKO FR-803B](#)  
(Start Ventilating/Cooling Down by pressing “HOT AIR” button on Handpiece of FR-803B)
- Automatically cool down after turning off the power

- ❖ Temperature regulating function
  - Temperature range 150-300°C(302-572°F)
  - CAL enables fine adjustment of temperature.
- ❖ Preheating in short time
  - The improved air outlet shorten preheat time compared with air conventional product.



\* [Click to enlarge](#)

- \* Please refer to above values, which vary depending on soldering condition.
- Hot air temperature 300°C
- A gap between the hot air outlet and the PWB for 10mm
- Attach sensors to top/under sides of P.W.B and measure temperature.

- ❖ Suitable for multi-layer board preheating
- ❖ Automatic cool-down function mounted.
  - Pushing the "START/STOP" button at the end of work automatically activates the cool-down function.
- ❖ Compact, lightweight, and slightly larger hot air outlet.

**Approximately 700g**

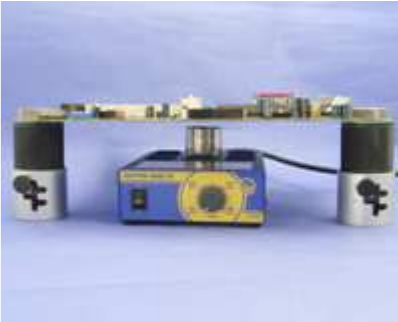


- ❖ Various types of optional functions
    - Local heating enabled.
- A set of [Extension pipe w/ Lid] is available.



- Various types of switching!  
[Hand switch][Foot switch] can be connected.

Using the optional equipments



HAKKO FR-830  
+ Omnivise C1390C (2 used) ([Rework system](#)) + [Extension pipe/with backflow prevention lid B3263 \(option\)](#)

Extension pipe: Used for localized heating

Backflow prevention lid: When using in combination with SMD rework hot air ([HAKKO FR-803B](#), etc.), use the lid so hot air does not flow back into the FR-830 hot air outlet.

**NOTE**

Always use the backflow prevention lid when the FR-830 switch is off.

Set example



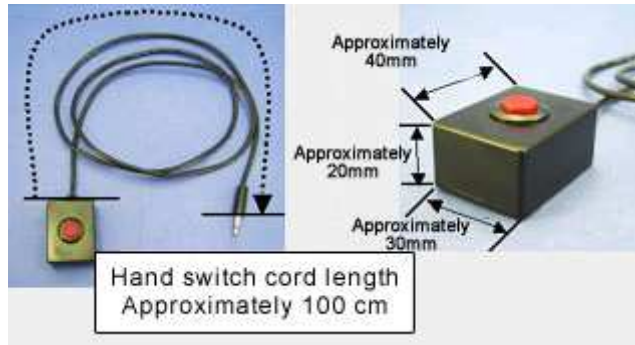
HAKKO FR-830  
+ SMD rework station [HAKKO FR-803B](#)  
+ Rework fixture C1392B\*  
+ Omnivise C1390C\* (2 used)  
( [\\*Rework system](#) )

- Various types of switching!  
[Hand switch][Foot switch] can be connected.

Connection cord length: Approximately 100 cm  
Switch size: Approx. 30mm (W) × 40mm (D) × 20mm (H)

Hand  
switch

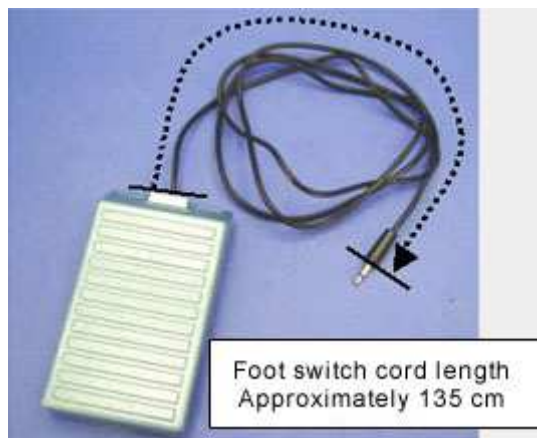
When using the hand switch, switching is not possible on the main device.



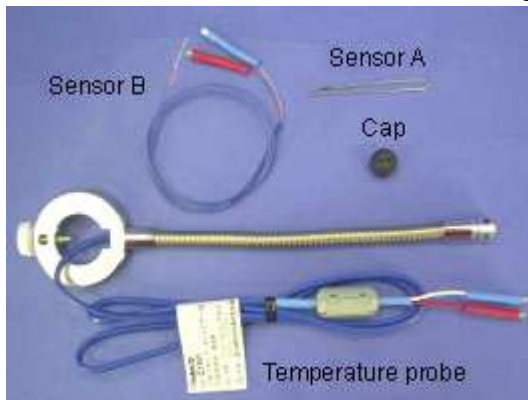
Connection cord length: Approximately 135 cm

When using the foot switch, switching is not possible on the main device.

Foot switch



- Controlling the temperatures of Hot Air Rework System and workpiece using the Temperature Probe **new**  
 Measure temperatures of Hot Air Rework System and workpiece using the Temperature Probe for Hot Air Rework System (No. C1541) and thermometer ([HAKKO FG-100/HAKKO FG-101](#)) to protect the workpiece.



### Measuring example



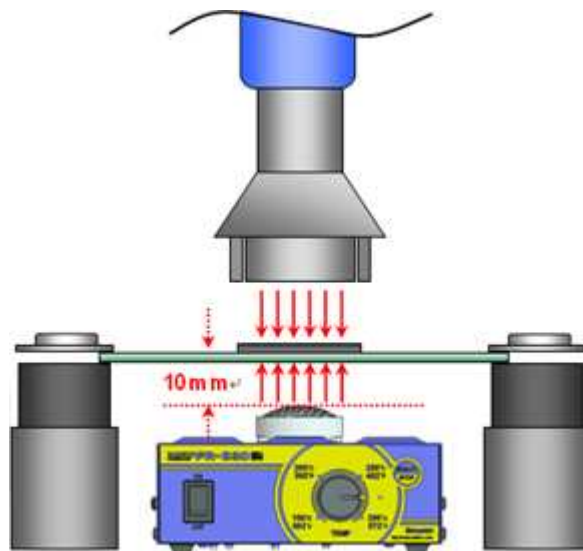
\* Please refer to above values, which vary depending on soldering condition.

#### Measuring condition

- Hot air temperature 300°C
- A gap between the hot air outlet and the PWB for 10mm
- Attach sensors to top/under sides of P.W.B and measure temperature.

### Usage / Applications

Please keep a gap between the hot air outlet and the PWB for more than **10mm** to allow the air to flow. When there is not enough space for the air to flow, the fuse may blow up.



#### How to use



**When should the optional Temperature Probe for Hot Air Rework System(No. C1541) be used?**

The Temperature Probe for Hot Air Rework System (No. C1541) is equipped with 2 types of sensors. Before measuring temperatures as follows, connect the sensor to the thermometer.

**Sensor A:** When measuring the temperature of hot air blown from the nozzle:

Correcting thermal control can be made by confirming the temperature of the hot air that is actually blown.

**Sensor B:** When measuring the temperature of applicable parts (workpieces):

Rework can be performed without causing damage to the parts being reworked (QFP, etc.)