



American Hakko Products, Inc.

# PRODUCT BULLETIN

**Bulletin No:** PB358

**Product Description:**

HAKKO FR-870B 2-Bank IR Preheater

**Part No:**

FR870B-04



**Contents:**

Part No.	Description
--	FR-870B 2-Bank IR Preheater
B2419	Power Cord
B3516	Thermocouple
A5003	Spare Heating Lamp

**Specification:**

Model	FR-870B
Input Voltage	120 VAC 50/60 Hz
Power Consumption	730W
Heater Area (W x D)	248 x 140 mm (9.8 x 5.5 in.)
Effective Heating Area (W x D)	190 x 80 mm (7.5 x 3.2 in.)
Maximum Board Depth	220 mm (8.7 in.)
Heating Zones	2
Operating Modes	Manual – Power; Manual – Thermocouple Automatic – Power; Automatic – Thermocouple
External T/C Range	50 – 200°C (122 – 392°F)
External T/C Stability	±5°C (±9°F)
Power Range	0 – 100% (1% increments)
T/C Inputs	1
Heater Control	Power – Percentage-based Thermocouple – PID Control
Heater Type	High Efficiency Carbon Filament
Heater Lamp MTBF	Approx. 2100 hours
External Connections <sup>1</sup>	1 – Integrate w/ FR-803B or FM-206
ESD Safe	Yes


<sup>1</sup> Requires optional cable (not included)

Specifications continued on page 2



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**Specification (continued):**

<b>Dimensions (W x H x D)</b>	296 x 100 x 311 mm (11.7 x 3.9 x 12.2 in.)
<b>Weight</b>	3.2 kg (7.1 lb.)
<b>Shipping Dimensions (W x H x D)</b>	407 x 203 x 425 mm (16 x 6 x 16.7 in.)
<b>Shipping Weight</b>	4.77 kg (10.5 lb.)
<b>Safety Approval</b>	

**Comments:**

The HAKKO FR-870B 2-Bank IR Preheater is an updated replacement for the popular HAKKO FR-870 IR Preheater that includes and upgrade to use the new high efficiency carbon filament lamps that nearly eliminates the visible spectrum while maintaining a very high output in the infrared spectrum with minimal shadowing, allowing for a very even preheating of the PCB.

The HAKKO FR-870B also includes an upgrade to use the new software features found in the FR-872 4-Bank IR Preheater, allowing you to control the ramp rate at 1, 2, or 3 degrees Celsius per second when you are in one of the two thermocouple modes.

The HAKKO FR-870B has 2 switchable zones for heating and still offers the same low profile and with a simple integrated PCB holder that is very easy to setup, automatic operation modes allowing for a 3-heating zone profile that can be programmed into the system, and a total of 10 profiles that can be stored for each automatic operation mode. The HAKKO FR-870B can also be integrated for start/stop operation in conjunction with the popular HAKKO FR-803B Hot Air Rework Station, or the HAKKO FM-206 3-Port Rework System (integration requires an optional connection cable that is not included).