

HAKKO FR-810 ESD
SAFE
SMD REWORK STATION

Turbine powered
digital SMD hot air rework station
for a various kinds of boards



High volume airflow and high output for a various kinds of rework

Fine setting can be arranged for various types of boards due to wide range of temperature and airflow.

The FR-810 makes it possible to supply hot air with high volume airflow and high output when repairing heavy duty boards. And just the right airflow and high output can be set for high density boards with fine components.

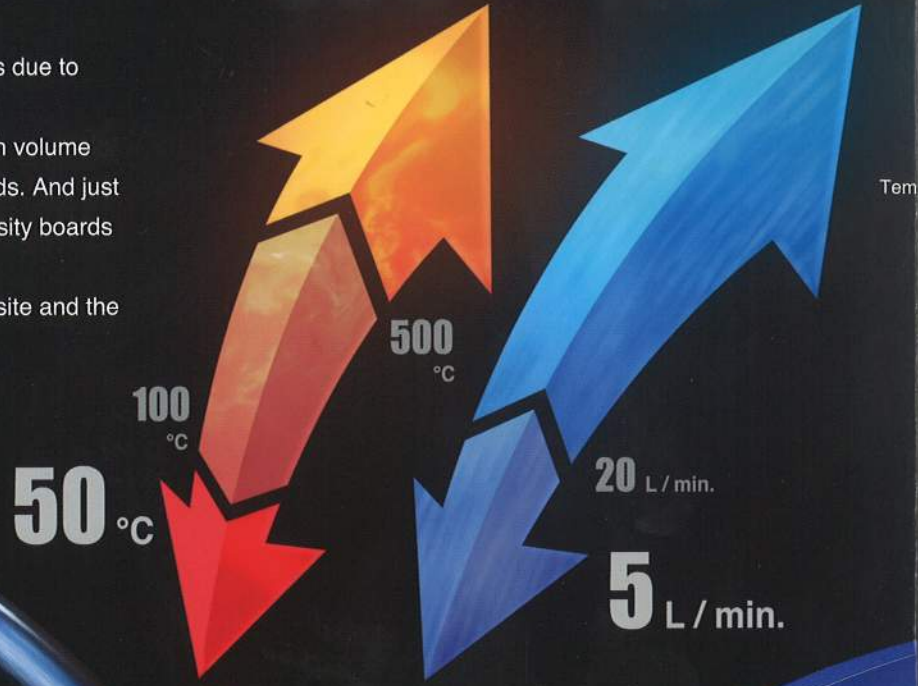
Together with digital control, this creates the ideal worksite and the workpiece, and improves rework efficiently.

Hottest in hot air series

600 °C

5 times maximum airflow^{*1}

115 L/min.^{*2}



Easy-to-read display

Simple buttons for intuitive operation

Start or stop using switches on the handpiece or station

Simple nozzle removal and easy maintenance

Nozzle can be changed quickly when working with a wide range of components. Conventional HAKKO nozzles can be used by using a special conversion adapter (option). (See back cover for details.)

Heater replacement is also simple.

■ Quick-change N51 nozzles



Simple, tool-free removal and attachment.

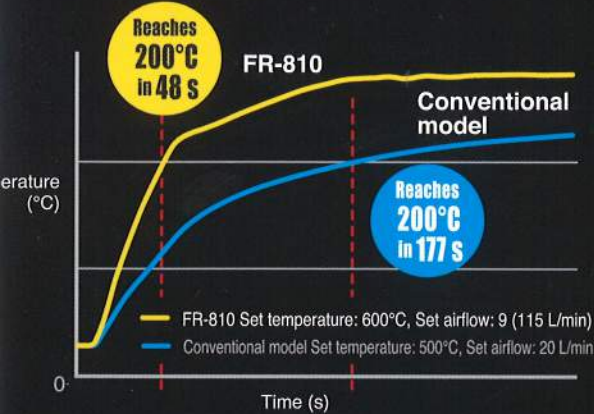
■ Simple heater replacement



Simply remove four screws to replace heater.

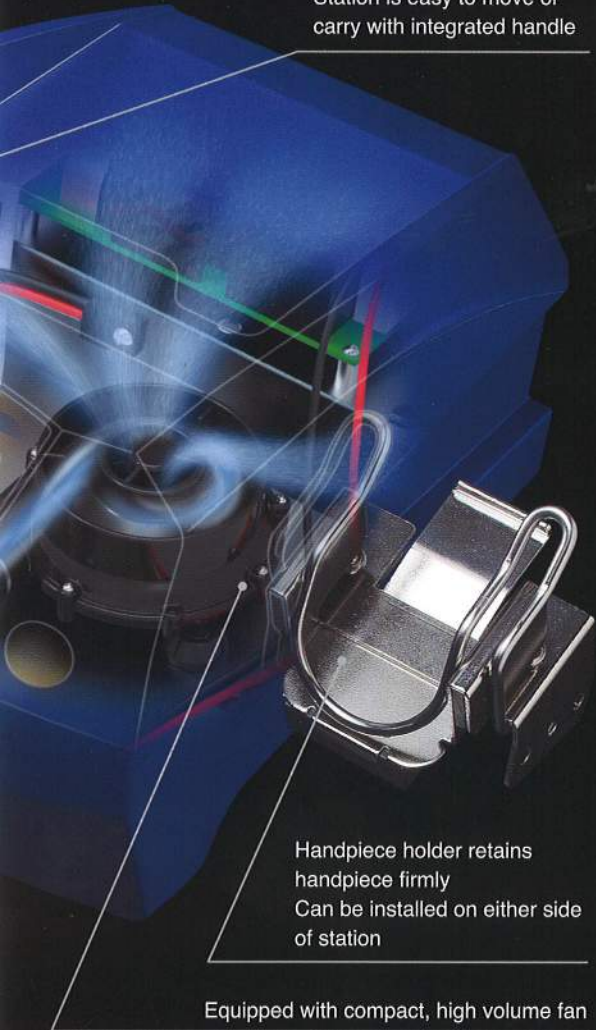
■ **Efficiency improvement**

The FR-810's high volume airflow and high output make it possible to perform the same work in only one-third of the time required when using a conventional model. This reduces the thermal impact on boards and components.



*Examination of time taken for connector sections soldered onto a ceramic board to be heated to 200 °C with maximum temperature and airflow settings selected. Single nozzles with an approximately 4mm diameter were used.

Station is easy to move or carry with integrated handle



Handpiece holder retains handpiece firmly
Can be installed on either side of station

Equipped with compact, high volume fan

*1 Compared to previous HAKKO model
*2 Differs according to nozzle shape

Full digital control of temperature, airflow, and time



Timer function

A new timer function allows for repeatably consistent work times. This can help to prevent parts from overheating and can improve the overall quality of your work.



Preset mode

Preset mode allows you to change the settings easily to suit a variety of boards and workpieces. (You can program temperature, time and airflow settings for up to five presets)

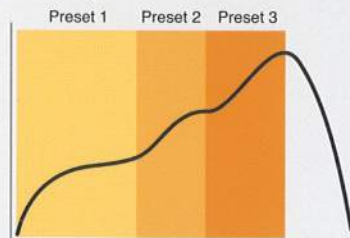
Simply switch to the desired setting for variety of jobs.

	Preset 1	Preset 2	Preset 3	Preset 4	Preset 5
Temperature (°C)	250.	300.	350.	400.	450.
Time (s)	100.	80.	50.	120.	150.
Airflow (level)	6.	7.	8.	4.	5.

Chain Presets function

The Chain Presets function allows you to create a simple temperature profile by combining settings registered in preset mode. (Up to five steps can be created).

It also supports sophisticated removal work, and significantly improves efficiency.



	Temperature (°C)	Time (s)	Airflow
Preset 1	250	100	6
Preset 2	300	40	6
Preset 3	350	50	6
Preset 4	100	000	6
Preset 5	100	000	6

*Presets 4 and 5 have been set to "000", so they are skipped.



Auto sleep and auto shutoff features

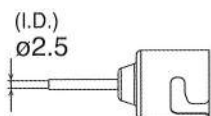


To ensure safety and conserve power, when the handpiece is placed in the handpiece holder, the auto sleep function is activated and it starts cooling automatically.

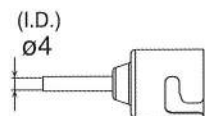
If the handpiece has not been removed from the handpiece holder (Ex. Using it in a rework fixture) and after it has been idle for 30 minutes, auto shutoff function is activated. It is automatically powered off. Access to settings can be restricted via the password function for easy management.

Optional Nozzles

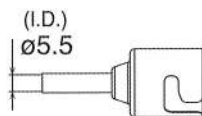
N51-01



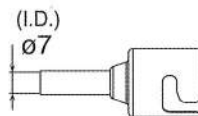
N51-02



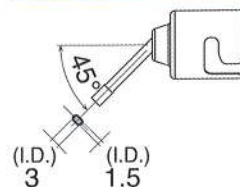
N51-03



N51-04



N51-05



FR-810

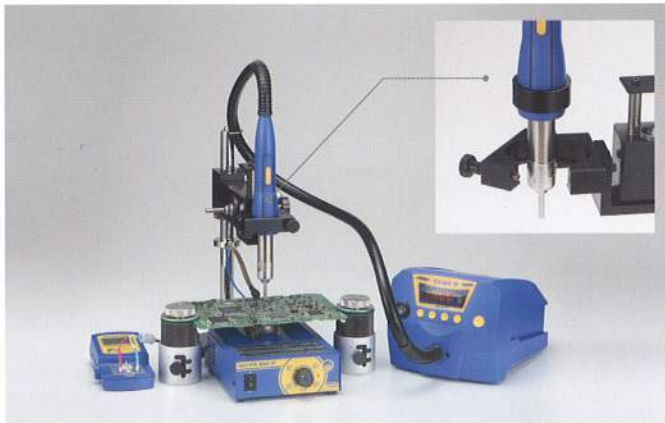
Packing List



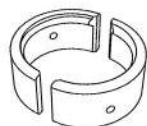
HAKKO FR-810 Hot Air

HAKKO FR-810 station, handpiece holder, FP pick-up (with pick-up wire SS), heat resistant pad, power cord, nozzle (ø4), instruction manual

Fixture adapter



B5059



When using the FR-810 handpiece with a rework fixture No.C1392B, attach a fixture adapter No.B5059 (option).

Specifications

Power consumption	700W (100V), 840W (110V), 820W (120V), 1100W (220V), 1200W (230V), 1300W (240V)
Temperature range	50 to 600°C (120 to 1120°F)

Station

Power consumption	30 W
Airflow setting range	1 to 9 (5 to 115L/min.)
Dimensions	160 (W) × 145 (H) × 220 (D) mm (6.3 × 5.7 × 8.7 in.)
Weight	1.5 kg (3.3 lb.)

Handpiece

Power consumption	670W (100V), 810W (110V), 790W (120V), 1070W (220V), 1170W (230V), 1270W (240V)
Standard nozzle	ø4 mm (No. N51-02)
Total length	250 mm (9.8 in.)
Weight	180 g (0.40 lb.)

*Total length and weight do not include cord.

*Values for airflow are approximate. Actual volume of airflow may be affected by the size and shape of the nozzle used.

Optional parts

Part No.	Part name
B5058	Conversion adapter

Conversion adapter



When using the FR-810 with a conventional nozzle, attach a conversion adapter No.B5058 (option).

Nozzle set

No. N51-50



Set contains the following four nozzles: N51-01, N51-03, N51-04, and N51-05 (option).
*N51-02 included with station.

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