



FR-410

HIGH-POWER DESOLDERING STATION



The **HAKKO FR-410 Desoldering Station** is a high-power, 190W desoldering station for desoldering components on multi-layer printed circuit boards, with small land patterns, and in difficult to reach areas and narrow spaces.

DESOLDERING



FEATURES & BENEFITS

- Wide selection of nozzle configurations
- Large, easy-to-read display that includes a vacuum level indicator
- Three (3) user-programmable presets
- Password lockout to prevent any unauthorized changes to the systems operation or setup
- Vacuum system with 0.2 second delay timer to ensure application of maximum vacuum
- Easy-access solder collection chamber that is simple to clean
- Easy-to-change heater cartridge with HAKKO Composite Ceramic™
- Quick change mechanism for nozzle replacement



SPECIFICATIONS For Part No. FR410-52 & FR410-53

STATION	
Nozzle Series	N61 see page 59 (N61-05 standard nozzle included)
Input Voltage	120 VAC 50/60 Hz
Power Consumption	190 W
Temperature Range	620 °F - 850 °F / 330 °C - 450 °C
Temperature Stability	±9 °F / ±5 °C at idle
Temperature Control	Microprocessor control using closed-loop sensor
Temperature Presets	3 — User programmable
Vacuum Generator	Vacuum Type, Double Cylinder Type
Vacuum Pressure (max.)	80 kPa (24in. Hg / 600 mm Hg)
Output Voltage	24 V
Suction Flow	15 L/min.
Dimensions (W x H x D)	6.5 x 5.4 x 9.6 in. / 165 x 137 x 244 mm
ESD Safe	Yes

**FR-4103
DESOLDERING GUN**
P/N: FR4103-81



CONTENTS For Part No. FR410-52 & FR410-53

	Part No.	Description
FR410-52	FR4103-81 FH410-81	FR-410 w/ Gun-Style Handpiece Holder for FR-4103 Handpiece
FR410-53	FR4104-81 FH410-02	FR-410 w/ Pencil-Style Handpiece Holder for FR-4104 Handpiece
FR410-52 FR410-53	C5030 B1087 B1215 B1303 B5106 A5020 A5044 B2419 N61-05 --	Maintenance kit (includes the below 6 pcs) • 1.0mm cleaning pin • Heater cleaning pin • 1.0mm cleaning drill • Nozzle wrench • Station filter (x2) • Handpiece filter (x4) Power cord Standard nozzle Instruction manual

**FR-4104
DESOLDERING PENCIL**
P/N: FR4104-81



**FR410-52 & FR410-53
MAINTENANCE KIT**
P/N: C5030

Basic Maintenance Kit with an assortment of basic tools included.



For more information [Scan QR Code.](#)

FR-4103 DESOLDERING GUN

The **HAKKO FR-4103 Desoldering Gun** handpiece is designed to work with the FR-410 Desoldering Station. The handpiece operates between a temperature range of 330° - 450°C (620° - 850°F) through a composite ceramic heating core and also features a solder collection chamber for efficient solder removal.



For more information
Scan QR Code.



FR-4104 DESOLDERING PENCIL

The **HAKKO FR-4104 Desoldering Pencil** is the pencil-style version of the desoldering handpiece. The FR-4104 features the same performance specifications as the FR-4103.



For more information
Scan QR Code.



SPECIFICATIONS For Part No. FR4103-81 & FR4104-81

Nozzle Series	N61 see page 59 (Nozzles Sold Separately)
Station Compatibility	FR-410 see page 56
Power Consumption	140 W
Nozzle-to-Ground Resistance	< 2 Ω
Nozzle-to-Ground Potential	< 2 mV
Heater	HAKKO Composite Ceramic™
Standard Nozzle (Included)	N61-05 (0.04 in. / 1.0 mm)



FILTERS For Part No. FR4103-81 & FR4104-81

Part No.	Description
A1030 (Only for FR-4104) B5185 (Only for FR-4103) A5044	Spring filters (10 pack) Filter assembly pipe Ceramic filters (10 pack)



CLEANING PINS & DRILLS For Part No. FR4103-81 & FR4104-81

Part No.	Description
B2874 B1086 B1087 B1088 B1089 B2875 B1215	0.6 mm cleaning pin 0.8 mm cleaning pin 1.0 mm cleaning pin 1.3 mm cleaning pin 1.6 mm cleaning pin 2.0 - 2.3 mm cleaning pin Heater cleaning pin
B5141 B1302 B1303 B1304 B1305	0.6 mm cleaning drill 0.8 mm cleaning drill 1.0 mm cleaning drill 1.3 mm cleaning drill 1.6 mm cleaning drill



FEATURES & BENEFITS For Part No. FR4103-81 & FR4104-81

- Designed for the FR-410 Desoldering Station
- Improved handpiece with quick change nozzle mechanism
- Solder Collection Chamber



FR-410 ACCESSORY

NOZZLE QUICK CHANGER P/N: C5046

Easily change your FR-410 nozzles with just a twist on the Nozzle Quick Changer. See page 103