



American Hakko Products, Inc.

PRODUCT BULLETIN

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Product Description:


HAKKO FR-410 Desoldering Station with N61 Series Nozzles

Part No:

FR410-02 (with FR-4101 Gun-Type Handpiece)
 FR410-03 (with FR-4102 Pencil-Type Handpiece)
 N61-01 through N61-17



Specification:

Model	FR-410	
Part No.	FR410-02	FR410-03
Input Voltage	120 VAC 50/60 Hz	
Power Consumption	190W	
Temperature Range	330°C – 450°C (620°F – 850°F)	
Temperature Stability	±5°C (±9°F) at idle	
ESD Safe	Yes	
Safety Approval		

Contents:

Part No.	Description
--	FR-410 Desoldering Station
FR4101-81 or FR4102-81	FR-4101 Gun-Type Handpiece or FR-4102 Pencil-Type Handpiece
FH410-81 or FH410-02	Holder for FR-4101 or Holder for FR-4102
C5030	Maintenance Kit Includes: <ul style="list-style-type: none"> • B1087 – 1.0mm Cleaning Pin • B1215 – Heater Cleaning Pin • B1303 – 1.0mm Cleaning Drill • B5106 – Nozzle Wrench • A5020 – Station Filter (x2) • A1033 – Handpiece Filter (x4)
B2419	Power Cord
--	Instruction Manual

Specifications continued on Page 2

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Specifications (continued):

Station

Output Voltage	24 V
Vacuum Generator	Pump – Double Cylinder
Vacuum Pressure	80 kPa / 600 mm Hg (24 in. Hg)
Suction Flow	15 L/min
Temperature Control	Microprocessor control using closed-loop sensor
Temperature Presets	3 – User Programmable
Sleep Enabled	Yes
Auto Power Off Safety	Yes
Low Temp Alarm	Yes
Process Control Lockout	Yes - Password
Dimension (W x H x D)	Station 165 x 137 x 244 mm (6.5 x 5.4 x 9.6 in.)
	Shipping 394 x 229 x 312 mm (15.5 x 9.0 x 12.25 in.)
Weight	Station 4.8 kg (10.6 lb.)
	Shipping 7.4 kg (16.2 lb.)

Handpieces

Model	FR-4101	FR-4102
Part No.	FR4101-81	FR4102-81
Power Consumption	140W	
Nozzle-to-Ground Resistance	< 2 ohms	
Nozzle-to-Ground Potential	< 2 mV	
Heater	HAKKO Composite Ceramic™	
Nozzles	N61 Series	
Standard Nozzle (Included)	N61-05 (1.0 mm (0.04 in.))	
Cord Length	1.2 m (4 ft.)	
Total Length (w/o Cord)¹	168 mm (6.6 in.)	206 mm (8.1 in.)
Weight (w/o Cord)¹	170 g (0.38 lb.)	160 g (0.35 lb.)

¹ – As measured with N61-05 nozzle installed



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Specifications (continued):

N61 Series Nozzles

<p>N61-01</p> <p>Units: mm(in.)</p>	<p>N61-02</p> <p>Units: mm(in.)</p>	<p>N61-03</p> <p>Units: mm(in.)</p>
<p>N61-04</p> <p>Units: mm(in.)</p>	<p>N61-05</p> <p>Units: mm(in.)</p>	<p>N61-06</p> <p>Units: mm(in.)</p>
<p>N61-07</p> <p>Units: mm(in.)</p>	<p>N61-08</p> <p>Units: mm(in.)</p>	<p>N61-09</p> <p>Units: mm(in.)</p>
<p>N61-10</p> <p>Units: mm(in.)</p>	<p>N61-11</p> <p>Units: mm(in.)</p>	<p>N61-12</p> <p>Units: mm(in.)</p>
<p>N61-13</p> <p>Units: mm(in.)</p>	<p>N61-14</p> <p>Units: mm(in.)</p>	<p>N61-15</p> <p>Units: mm(in.)</p>
<p>N61-16</p> <p>Units: mm(in.)</p>	<p>N61-17</p> <p>Units: mm(in.)</p>	



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Comments:

As the design of PCBs evolve, the need for higher power desoldering tools with a wide arrange of nozzle configurations grows. The HAKKO FR-410 Desoldering Station is designed to fit that need and bridge the gap in power between the 70W HAKKO FM-204 Desoldering Station, and the 300W HAKKO FR-400 Ultra Heavy Duty Desoldering Station.

The HAKKO FR-410 provides 140W of power and has the widest selection of nozzle configurations that can meet almost every need. The station also includes the same popular features from the HAKKO FR-400 which include an anti-clogging feature which helps ensure instantaneous application of peak vacuum pressure to the solder joint, a delay timer to prevent premature release of the vacuum system before solder has cleared the heater and is captured in the solder collection chamber, a large, easy to read display that includes a vacuum level indicator to let you know if there are restrictions building that will need to be cleaned out, 3 user programmable presets, and process control password lockout to prevent any unauthorized changes to the systems operation or setup.

The HAKKO FR-410 is available in two different versions... one for those that prefer a gun-type handpiece using the HAKKO FR-4101, and one for those that prefer a pencil-type handpiece using the HAKKO FR-4102, both of which are lightweight and ergonomic. Both handpieces feature an easy access solder collection chamber that is simple to clean, an easy to change heater cartridge that uses HAKKO Composite Ceramic™ technology, and an independent nozzle which provides a low cost of operation. Each station also includes a basic maintenance kit with cleaning tools and replacement filters.

For more information, please visit us at www.HakkoUSA.com