
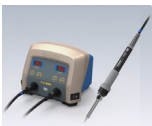


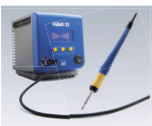








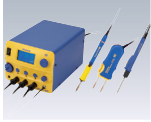




# HAKKO Soldering Iron Lineup

		FX-888D	FX-889	FX-801	FX-838	FX-100
						
Types		All-Round		Heavy Duty		IH
Specifications	Power consumption	70 W	135 W	300 W	158 W	25 W (85 W)
	Power consumption of Handpiece	65 W	65 W × 2 port	260 W	150 W	—
	Temperature Range	50 to 480°C	50 to 480°C	50 to 500°C	200 to 500°C	350°C/400°C/450°C
	Soldering Tip	T18 series	T18 series	T33 series	T20 series	T31 series
Applicable Standard	Lead Free Suggestible	●	●	●	●	●
	ESD Safe	●	●	●	●	●
	RoHS Suggestible	●	●	●	●	●
Accessories	Micro Soldering Iron connectable					●
	N <sub>2</sub> Micro Soldering Iron connectable					
	N <sub>2</sub> Soldering Iron connectable	●	●		●	
	N <sub>2</sub> Heavy Duty Soldering Iron connectable			●	●	
	Self Feeder connectable	●	●	●	●	●
	SMD Hot Tweezers connectable	●	●			
	Desoldering Iron connectable					
	Hot Air Handpiece connectable					
Function	Auto Shutoff Function: When a set time passed, the function stops to supply power to the heating element.					
				●	●	●
	Auto Sleep Function: When a set time passed, the tip temperature decreases to a set lower temperature.					
				●	●	●
	Lock Function: Lockable by password, control card or lock key.					
		Password	Password	Password	Control card	Password
	Lower Temperature Error Alert: When the temperature drops below a set limit, an error is displayed and the buzzer sounds.					
				●	●	
	Offset Temperature Function: Temperature offsettable by analog, digital or adjustment mode.					
		Adjustment mode	Adjustment mode	Digital	Digital	
	Preset Temperature Function: The function allows to input several frequently-used temperatures and recall with one push of a button.					
		●	●	●	●	

FX-951	FX-950	FM-203	FM-206	DASH	FX-901
					
High Performance				Ceramic Heater	Battery-Powered
75 W	75 W	140 W	410 W (max.)	16 W	6 W/5 W
70 W	70 W	70 W × 2 port	70 W × 3 port	—	—
200 to 450°C	200 to 450°C	200 to 450°C	200 to 450°C	—	—
T15 series	T15 series	T15 series	T15 series	T34 series	T11 series
●	●	●	●		
●	●	●	●		
●	●	●	●	●	●
●		●	●		
●		●	●		
●	●	●	●		
		●	●		
●	●	●	●		
		●	●		
		●	●		
			●		
●		●	●		
●	● Option	●	●		
Control card	Lock key	Control card	Password		
●		●			
Digital	Manual	Digital	Digital		
			●		

# Heavy Duty Soldering Station

**HAJKO** **FX-801** **ESD SAFE**  
SOLDERING STATION

Heavy Duty Soldering Station Digital

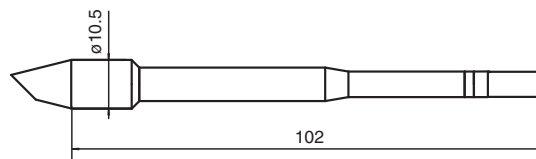
Tip not included



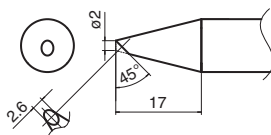
- Super power 300 W
- Best suited for soldering PWB with high heat capacity and high heat dissipation property

## Optional Tips for FX-8002

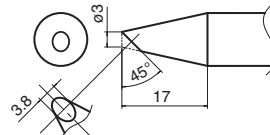
Unit: mm



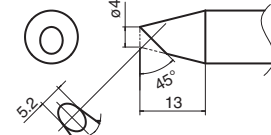
T33-BC2 Shape-2BC



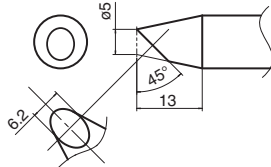
T33-BC3 Shape-3BC



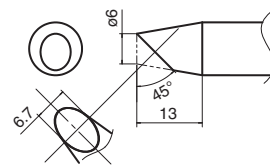
T33-BC4 Shape-4BC



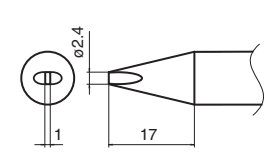
T33-BC5 Shape-5BC



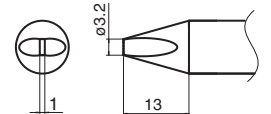
T33-BC6 Shape-6BC



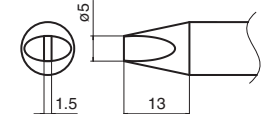
T33-D24 Shape-2.4D



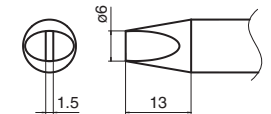
T33-D32 Shape-3.2D



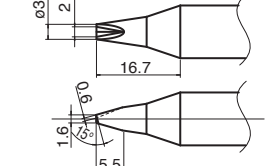
T33-D5 Shape-5D



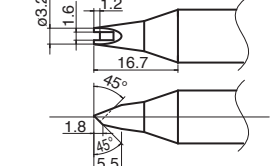
T33-D6 Shape-6D



T33-1610

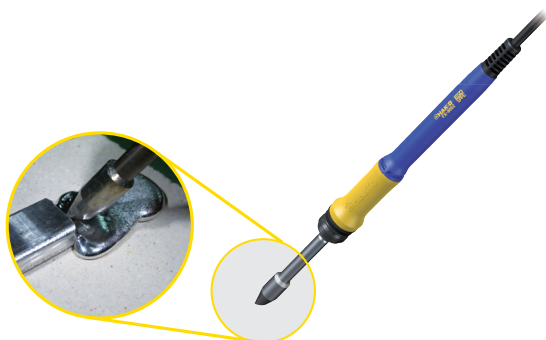


T-33-1611



## Features

### Make the impossible possible with Super Power of 300 W Heater



Check out the powerful performance of FX-801 easily melting a bar solder.

[http://www.hakko.com/mov\\_e\\_fx801\\_feature1](http://www.hakko.com/mov_e_fx801_feature1)



QR code

**Compact and lightweight (50 g) for heavy duty 300 W iron**  
The same weight as the iron part of FX-838, 150 W soldering station, for operator's comfort and better workability.

### Large LED display enables easy viewing and operation.



#### Handles on unit body

Handles on unit body make it easy to carry.

#### Preset mode

Up to 6 settings can be preset and easily called up by Up/Down buttons.

#### Password function

Settings can be locked from unnecessary changes by password function.



Selectable alphabets for password

**Connectable with N<sub>2</sub> soldering iron**  
To improve solder wettability and spreadability

**HAKKO FX-8003** ESD SAFE  
SOLDERING IRON

### N<sub>2</sub> Soldering Iron

Tip not included



For further details, see the N<sub>2</sub> system (P.34 & P.35).

## Packing List

<b>FX-801</b>	Station, Handpiece (FX-8002), Heat resistant pad, Power cord, Connecting cable, Iron holder (with cleaning wire), Instruction manual
<b>FX-8003</b>	Handpiece, Instruction manual

## Specifications

Model No.	FX-801
Power consumption	300 W
Temperature range	50 to 500°C
Temperature stability	±5°C at idle temperature

### Station

Output voltage	AC 29 V
Dimensions	145 (W) × 107 (H) × 211 (D) mm
Weight	3.9 kg

### Soldering Iron

Power consumption	260 W (29 V)
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length*	228 mm (with 4BC tip)
Weight*	50 g (with 4BC tip)

\* Without cord

Model No.	FX-8003
Power consumption	260 W (29 V)
Temperature range	50 to 500°C
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length*	253 mm (with 4BC tip)
Weight*	65 g (with 4BC tip and nozzle assembly A)

\* Without cord



### IH Soldering Station Digital

Tip not included



- Provides the heat to the tip effectively by an 'Induction heater'  
Unique "Power assist" feature that assists the thermal recovery performance of the soldering iron tip
- No calibration is required
- Wide variety of tips available
- Meets or exceeds IPC J-STD-001 and ANSI ESD S20.20.

### Optional Tips for FX-1001

Unit: mm

<b>T31-XX BC1</b> "01" for 450°C (A: 71.5) "02" for 400°C (A: 68.5) "03" for 350°C (A: 68.5)				
<b>T31-01BC1 Shape-1BC</b> <b>T31-02BC1</b> <b>T31-03BC1</b>	<b>T31-01BC28 Shape-2.8BC</b> <b>T31-02BC28</b> <b>T31-03BC28</b>	<b>T31-01BL Shape-BL</b> <b>T31-02BL</b> <b>T31-03BL</b>	<b>T31-01D08 Shape-0.8D</b> <b>T31-02D08</b> <b>T31-03D08</b>	<b>T31-01D16 Shape-1.6D</b> <b>T31-02D16</b> <b>T31-03D16</b>
<b>T31-01D24 Shape-2.4D</b> <b>T31-02D24</b> <b>T31-03D24</b>	<b>T31-01D52 Shape-5.2D</b> <b>T31-02D52</b> <b>T31-03D52</b>	<b>T31-01I Shape-I</b> <b>T31-02I</b> <b>T31-03I</b>	<b>T31-01IL Shape-IL</b> <b>T31-02IL</b> <b>T31-03IL</b>	<b>T31-01J02 Shape-0.2RSB</b> <b>T31-02J02</b> <b>T31-03J02</b>
<b>T31-01JL02 Shape-0.2RLB</b> <b>T31-02JL02</b> <b>T31-03JL02</b>	<b>T31-01JS02 Shape-0.2RSSB</b> <b>T31-02JS02</b> <b>T31-03JS02</b>	<b>T31-01KU Shape-KU</b> <b>T31-02KU</b> <b>T31-03KU</b>	<b>T31-01SBL Shape-SBL</b> <b>T31-02SBL</b> <b>T31-03SBL</b>	<b>T31-01WD08 Shape-0.8WD</b> <b>T31-02WD08</b> <b>T31-03WD08</b>

### Optional Tips for FX-1002

Unit: mm

<b>T35-XX D06</b> "02" for 400°C (A: 64) "03" for 350°C (A: 64)				
<b>T35-02D06 Shape-0.6D</b> <b>T35-03D06</b>	<b>T35-02D1 Shape-1D</b> <b>T35-03D1</b>	<b>T35-02I Shape-I</b> <b>T35-03I</b>	<b>T35-02J Shape-J</b> <b>T35-03J</b>	<b>T35-02KU Shape-KU</b> <b>T35-03KU</b>

## Features

**IH technology delivers the ultimate soldering iron**  
**Excellent heat supply. Ideal for the most challenging soldering jobs.**

FX-100 features IH (induction heater) that continuously powers the soldering iron and maintains the set temperature by automatically detecting even minute drops in temperature, plus HAKKO's proprietary "Power Assist" function.

FX-100 achieves powerful thermal recovery even with fine-shaped tips.

It provides excellent thermal responsiveness that conventional IH and sensor feedback systems cannot offer.

### Boost function

To increase tip temperature by 5 to 10°C (depends on tip shape) for better working efficiency.



### Interactive method by LCD display with 3 buttons

#### PROFILE

```
PROFILE 1
S:HAKKO-1
U:ID-123
S:0.6 LEAD FREE
```

Station ID, user name and solder type can be registered.

#### TIP LOAD

```
TIP LOADS
APPROX.
000025 points
<RESET> <OK>
```

The soldering count is displayed.

#### TIP TIME

```
TIP TIME
0023 hours
<RESET> <OK>
```

The cumulative running time on the iron tip is displayed.

#### TIP TYPE and NORMAL MODE/BOOST MODE

```
<01>
N
■■■■■■
```

Visible tip type (01/02/03) and normal mode (N)/boost mode (B) on display.

### Connectable with micro soldering iron

For Micro Soldering applications under a microscope



## Micro Soldering Iron

Tip not included



## Packing List

<b>FX-100</b>	Station, Handpiece (FX-1001), Heat resistant pad, Power cord, Sleeve (green), Sleeve (gray), Cleaning wire, Iron holder, Instruction manual
<b>FX-1002 (Conversion kit)</b>	Handpiece, Sleeve (green), Heat resistant pad, Iron holder, Instruction manual

## Specifications

Model No.	FX-100
Power consumption	28 W (85 W)
Temperature range	T31-01 Series: 450°C, T31-02 Series: 400°C T31-03 Series: 350°C
Temperature stability	±1.1°C

### Station

Output power	50 W
Output frequency	13.56 MHz
Dimensions	127 (W) × 150 (H) × 167 (D) mm
Weight	3 kg

### Soldering Iron

Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	IH (Induction heating)
Cord length	1.3 m
Total length*	190 mm with T31-02D24 or T31-03D24 tip 193 mm with T31-01D24 tip
Weight*	31 g (with T31-02D24 tip)

\* Without cord

Model No.	FX-1002
Temperature range	T35-02 Series: 400°C, T35-03 Series: 350°C
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	IH (Induction heating)
Cord length	1.3 m
Total length*	166 mm (with T35-02D1 tip)
Weight*	21 g (with T35-02D1 tip)

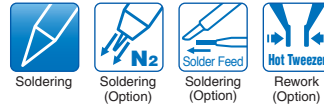
\* Without cord

# All-Round Soldering Station

## HAKKO FX-888D SOLDERING STATION ESD SAFE

### All-Round Soldering Station Digital

Tip included



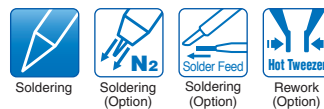
- Features Adjustment mode, Preset mode, and Password function
- Separable tip/heater design provides superior cost performance.
- L type (Large type) soldering iron FX-8805 is added to the lineup.

## HAKKO FX-889 SOLDERING STATION ESD SAFE

### 2-Port All-Round Soldering Station Digital

Tip included

\* 1 piece of FX-8801 is included as standard.



- All the user-friendly functions are succeeded from FX-888D.
- Two applications can be active at the same time.
- Applicable to all the options, N<sub>2</sub> soldering iron, Soldering gun, SMD Hot Tweezers, and L type (Large type) soldering iron.

## Common features

### Strict temperature management

#### ● Digital display

FX-888D's and FX-889's digital display makes it easy to check the set temperature at a glance.

#### ● Password function

Settings can be locked using a password to prevent them from being changed unexpectedly.

#### ● Preset mode

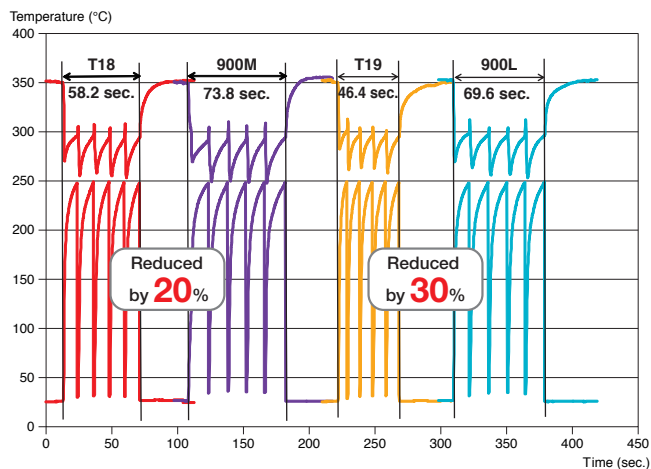
Simply select the desired temperature from a selection of preset temperatures registered in advance. (Up to 5 preset temperatures can be registered.)



#### ● Adjustment mode

With adjustment mode, what used to be a troublesome procedure is now as simple as entering the measured tip temperature in FX-888D and FX-889.

#### ● FX-888D and FX-889 deliver excellent thermal recovery by using T18 and T19 series tips for their terrific heat conductivity.



### Test criteria

Measurement method	Thermocouples are mounted on the tip and the soldered portion on the board, and the time until the soldered portion reaches 250°C is measured for 5 points.
Board	Paper phenol copper board
Component used	Terminal
Tip shape	Shape-2.4D
Temperature setting	350°C
Solder	Lead-free solder (Sn/Ag/Cu), diameter: 0.5 mm



Measuring the tip temperature with a tip thermometer (FG-100)

## Packing List

FX-888D	Station, Handpiece (FX-8801), Iron holder, Instruction manual
FX-889	Station, Handpiece (FX-8801), Power cord, Dual Iron Holder, Color band (qty 2), Instruction Manual

## Specifications

Model No.	FX-888D	FX-889
Power consumption	70 W	135 W
Temperature range	50 to 480°C	50 to 480°C
Temperature stability	±1°C at idle temperature (when set to 200 to 480°C)	

### Station

Output voltage	AC 26 V	AC 26 V
Dimensions	100 (W) × 120 (H) × 120 (D) mm	157 (W) × 121 (H) × 149 (D) mm
Weight	1.2 kg*	2.1 kg

### Soldering Iron

Power consumption	65 W (26 V)	65 W (26 V)
Tip to ground resistance	<2 Ω	<2 Ω
Tip to ground potential	<2 mV	<2 mV
Heating element	Ceramic heater	Ceramic heater
Standard tip	Shape-B (No.T18-B)	Shape-B (No.T18-B)
Cord length	1.2 m	1.2 m
Total length*	217 mm (with B tip)	222 mm (with B tip)
Weight*	46 g (with B tip)	52 g (with B tip)

\* Without cord



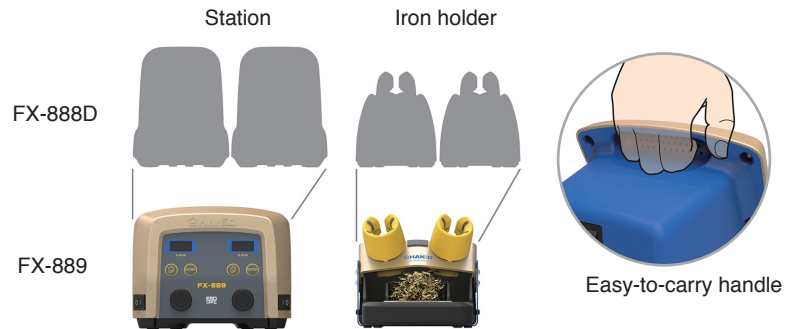
# All-Round Soldering Station and Accessories

## Features of FX-889

### User-Friendly Design

#### ● Space-saving design

The reduced foot print is smaller than 2 of FX-888D and its iron holder. Efficient setup is available even on smaller workbench.



#### ● Power-saving design

Independent switches cut the power for each iron when not in use.

Power-saving design minimizes standby electricity.

#### ● Superior operability

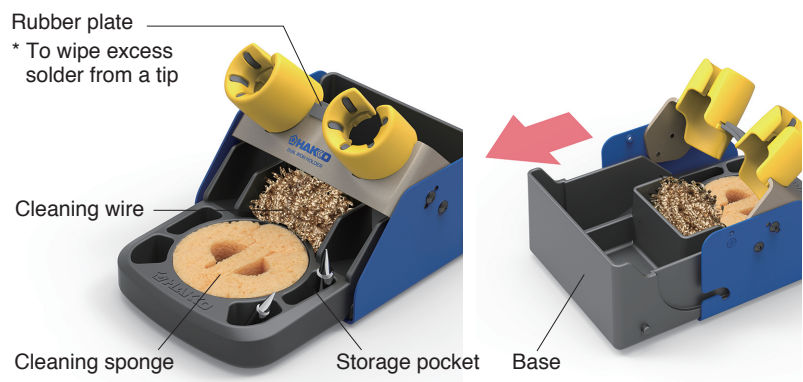
Four buttons were symmetrically placed at the both sides on the front panel. The two buttons on each side allow simple and intuitive operation.

A color band can be attached to the handle, and this makes it possible to see at a glance which side it is connected to. (2 pieces of color band are included as the standard accessories.)



#### ● Rich functions of iron holder

- Convenient pockets to stock soldering tips
- Three different ways for tip cleaning with provided cleaning tools
- Simple and easy cleaning of iron holder inside by removing holder base



## HAKKO FX-8801 ESD SAFE

### Soldering Iron M type

Tip included



## HAKKO FX-8802 ESD SAFE

### N<sub>2</sub> Soldering Iron

Tip included



## HAKKO FX-8803 ESD SAFE

### Soldering Gun

Tip included



## HAKKO FX-8804 ESD SAFE

### SMD Hot Tweezers

Tip included



## HAKKO FX-8805 ESD SAFE

### Soldering Iron L type

Tip included



### Specifications

Model No.	FX-8801
Power consumption	65 W (26 V)
Temperature range	50 to 480°C
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Ceramic heater
Standard tip	Shape-B (No.T18-B)
Cord length	1.2 m
Total length*	217 mm (with B tip)
Weight*	46 g (with B tip)

\* Without cord

Model No.	FX-8802
Power consumption	65 W (26 V)
Temperature range	50 to 480°C
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Ceramic heater
Standard tip	Shape-B (No.T18-B)
Cord length	1.2 m
Total length**	190 mm (with B tip)
Weight**	59 g (with B tip and nozzle assembly A)

\* Use this N<sub>2</sub> soldering iron below 450°C.

\*\* Without cord and tube

Model No.	FX-8803
Power consumption	65 W (26 V)
Temperature range	50 to 480°C
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Ceramic heater
Standard tip	Shape-3C pre-tinned surface 45° (No.T18-CF3)
Standard guide nozzle	ø1 mm
Usable solder diameter	0.6, 0.8, 1, 1.2, 1.6 mm
Cord length	1.1 m
Dimensions	170 (W) × 180 (H) × 23 (D) mm
Weight*	207 g

\* Without cord

Model No.	FX-8804
Power consumption	65 W (26 V)
Temperature range	200 to 400°C
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Ceramic heater
Standard tip	Shape-2L (No. A1378) 2 pcs/set
Cord length	1.2 m
Total length**	186 mm
Weight**	93 g

\* The recommended (process) temperature is from 200°C to 400°C while setting temperature range of FX-888D is from 50°C to 480°C.

\*\* Without cord

Model No.	FX-8805
Power consumption	65 W (26 V)
Temperature range	50 to 480°C
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Ceramic heater
Standard tip	Shape-B (No.T19-B)
Cord length	1.2 m
Total length*	222 mm (with B tip)
Weight*	52 g (with B tip )

\* Without cord

# All-Round Soldering Station and Accessories

## Packing List

<b>FX-8801</b>	Handpiece, Instruction Manual
<b>FX-8802</b>	Handpiece, Shield plate, Instruction manual
<b>FX-8803</b>	Handpiece, Instruction manual
<b>FX-8804</b>	Handpiece, Caution label, Heat resistant pad, Instruction manual
<b>FX-8805</b>	Handpiece, Instruction Manual

NOTE: The soldering iron cannot be used as a standalone device.

## Option

### FX-8803

Part No.	Name	Specifications
C1437	Iron holder (with cleaning sponge)	—

### FX-8804

Part No.	Name	Specifications
FH800-04BY	Iron holder (with cleaning sponge)	Blue & yellow

### FX-8801 & FX-8805

Part No.	Name	Specifications
B5122	Tip enclosure	With nut, required when converting from FX-8801 to FX-8805
B3730	Nut and tip enclosure	Required when converting from FX-8805 to FX-8801

## Replacement Tips for FX-8801 and FX-8803

Unit: mm

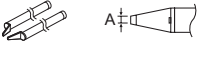
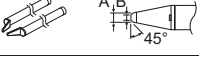
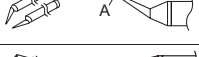
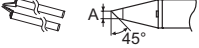
<p>Applicable for FX-8803</p> <p><b>T18-B Shape-B</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-SB Shape-SB</b></p>	<p><b>T18-BR02 Shape-0.2BR</b></p>	<p><b>T18-BL Shape-BL</b></p>	<p><b>T18-C05 Shape-0.5C</b></p>
<p>Applicable for FX-8803</p> <p><b>T18-C08 Shape-0.8C</b></p>	<p>Applicable for FX-8803 (Only C1)</p> <p><b>T18-C1 Shape-1C</b> <b>T18-CF1*</b></p>	<p><b>T18-CF15* Shape-1.5C</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-C2 Shape-2C</b> <b>T18-CF2*</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-CSF25* Shape-2.5CS</b></p>
<p>Applicable for FX-8803</p> <p><b>T18-C3 Shape-3C</b> <b>T18-CF3*</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-C4 Shape-4C</b> <b>T18-CF4*</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-C5 Shape-5C</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-K Shape-K</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-D08 Shape-0.8D</b></p>
<p>Applicable for FX-8803</p> <p><b>T18-D12 Shape-1.2D</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-D16 Shape-1.6D</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-D24 Shape-2.4D</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-D32 Shape-3.2D</b></p>	<p><b>T18-DL12 Shape-1.2DL</b></p>
<p><b>T18-DL2 Shape-2DL</b></p>	<p><b>T18-DL32 Shape-3.2DL</b></p>	<p><b>T18-S3 Shape-S3</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-S4 Shape-S4</b></p>	<p><b>T18-S6 Shape-S6</b></p>
<p>Applicable for FX-8803</p> <p><b>T18-S9 Shape-S9</b></p>	<p>Applicable for FX-8803</p> <p><b>T18-I Shape-I</b></p>	<p>* These tips are tinned on the soldering surface only.</p>		

## Replacement Tips and Nozzles for FX-8802

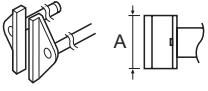
Please see the replacement tips on P.36

## Replacement Tips for FX-8804

### For Chip Component

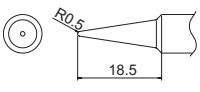
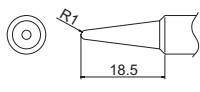
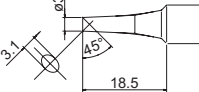
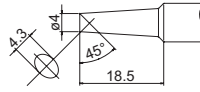
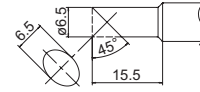
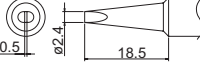
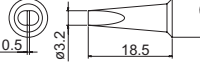
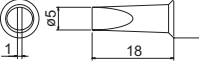
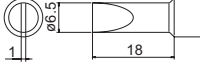
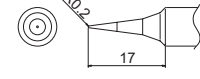
Part No.	Name	Size of A (B)	Tip Shape
A1577	Tip/CHIP 0.5L	0.5 mm	
A1379	Tip/CHIP 1L	1 mm	
A1378	Tip/CHIP 2L	2 mm	
A1388	Tip/CHIP 0.5C	1.5 (0.5) mm	
A1389	Tip/CHIP 0.5I	R0.25 mm	
A1576	Tip/CHIP 2.6C	2.6 mm	

### For SOP Component

Part No.	Name	Size of A	Tip Shape
A1390	Tip/SOP 4L	4 mm	
A1391	Tip/SOP 6L	6 mm	
A1380	Tip/SOP 8L	8 mm	
A1381	Tip/SOP 10L	10 mm	
A1382	Tip/SOP 13L	13 mm	
A1392	Tip/SOP 15L	15 mm	
A1383	Tip/SOP 18L	18 mm	
A1384	Tip/SOP 20L	20 mm	
A1385	Tip/SOP 25L	25 mm	

## Replacement Tips for FX-8805

Unit: mm

<b>T19-B Shape-B</b> 	<b>T19-B2 Shape-2B</b> 	<b>T19-C3 Shape-3C</b> 	<b>T19-C4 Shape-4C</b> 	<b>T19-C65 Shape-6.5C</b> 
<b>T19-D24 Shape-2.4D</b> 	<b>T19-D32 Shape-3.2D</b> 	<b>T19-D5 Shape-5D</b> 	<b>T19-D65 Shape-6.5D</b> 	<b>T19-I Shape-I</b> 

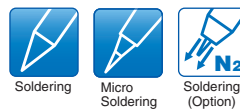


# High Performance Soldering Station

## HAJKO FX-951 SOLDERING STATION ESD SAFE

### High Performance Soldering Station **Digital**

Tip not included



- Compact high-power thermally-controlled soldering iron
- Informs you of errors by a warning buzzer or display

## HAJKO FX-950 SOLDERING STATION ESD SAFE

### High Performance Soldering Station **Analog**

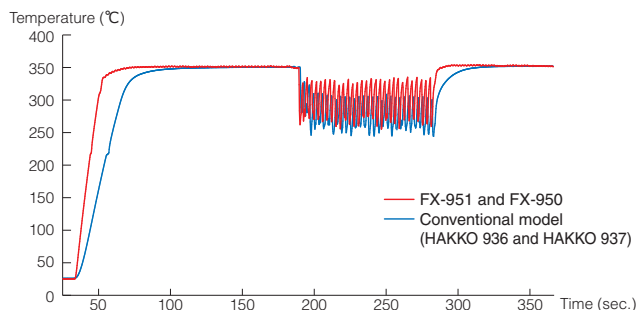
Tip not included



- Analog type high-power thermally-controlled soldering iron
- “Lock key” can lock the temperature setting.
- Informs you of various errors by a lamp

## Features

### Thermal recovery graph (Comparison of HAKKO products)



### Test criteria

Measurement method	A thermocouple is mounted on the tip and the tip temperature is measured when soldering $\phi 1.6 \text{ mm} \times 5 \text{ mm}$ solder to paper phenol copper board once every 3 seconds.
Board	Paper phenol copper board.
Temperature setting	350°C
Solder	Lead-free solder (Sn/Ag/Cu), diameter: 1.6 mm $\times$ 5 mm

### Connectable with micro soldering iron

For Micro Soldering applications under a microscope

**HAKKO FM-2032** ESD SAFE

### Micro Soldering Iron

Tip not included

Please see the optional tips on P.32.



N<sub>2</sub> Soldering is available with optional parts (P.35 & P.37).

### Connectable with N<sub>2</sub> soldering iron

To improve solder wettability and spreadability

**HAKKO FM-2026** ESD SAFE

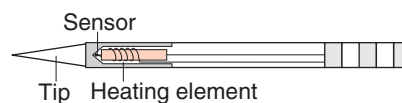
### N<sub>2</sub> Soldering Iron

Tip not included

Please see the optional tips on P.36.



### Composite tip



The composite tip with an integrated heating element and sensor offers superior thermal responsivity and thermal recovery.

## Specifications

Model No.	FX-951	FX-950
Power consumption	75 W	
Temperature range	200 to 450°C	
Temperature stability	±5°C at idle temperature	

### Station

Output voltage	AC 24 V
Dimensions	FX-951: 80 (W) $\times$ 130 (H) $\times$ 131 (D) mm FX-950: 80 (W) $\times$ 118 (H) $\times$ 138 (D) mm
Weight	1.2 kg

### Soldering Iron

Power consumption	70 W (24 V)
Tip to ground resistance	<2 $\Omega$
Tip to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length*	188 mm (with 2.4D tip)
Weight*	30 g (with 2.4D tip)

\* Without cord

Model No.	FM-2032	FM-2026
Power consumption	48 W (24 V)	70 W (24 V)
Temperature range	200 to 450°C	
Tip to ground resistance	<2 $\Omega$	
Tip to ground potential	<2 mV	
Heating element	Composite heater	
Cord length	1.3 m	1.2 m
Total length	170 mm* (with 1D tip)	205 mm** (with 2.4D tip)
Weight	14 g* (with 1D tip)	45 g** (with 2.4D tip and nozzle assembly C)

\* Without cord \*\* Without cord and tube \*\*\* Use this N<sub>2</sub> soldering iron below 400°C.

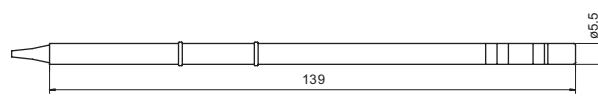
## Packing List

FX-951	Station, Handpiece (FM-2028), Control card, Power cord, Connecting cable, Heat resistant pad, Iron holder, Instruction manual
FX-950	Station, Handpiece (FM-2028), Lock key, Heat resistant pad, Iron holder, Instruction manual
FM-2032 (Conversion kit)	Handpiece, Heat resistant pad, Iron holder, Connecting cable, Instruction manual
FM-2026 (Conversion kit)	Handpiece, Sleeve cover, Sleeve assembly (yellow), Heat resistant pad, Iron holder, Connecting cable, Instruction manual

# High Performance Soldering Station

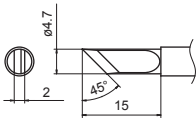
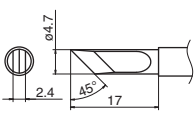
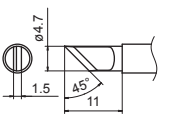
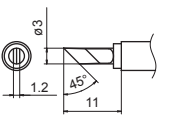
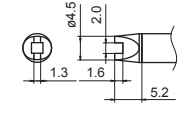
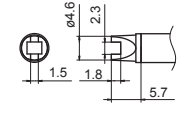
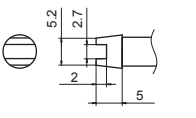
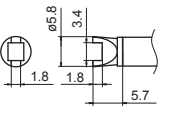
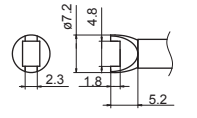
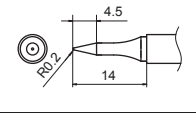
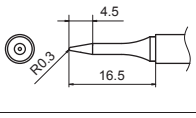
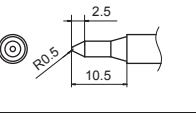
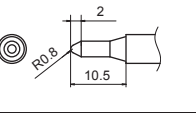
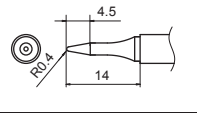
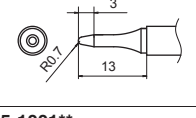

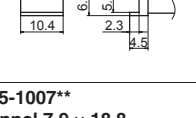
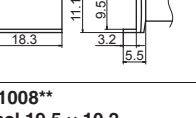
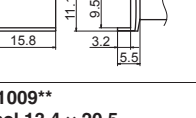
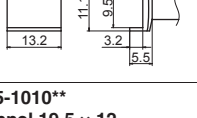
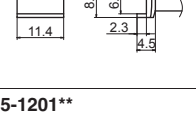
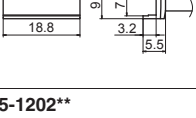
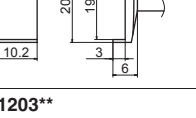
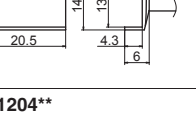
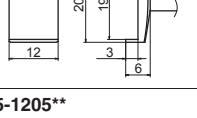
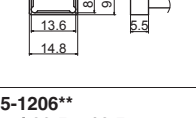
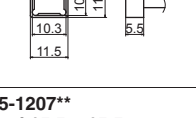

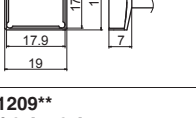
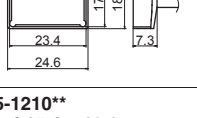
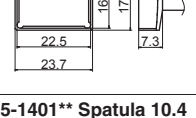
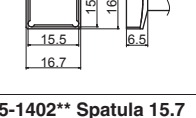


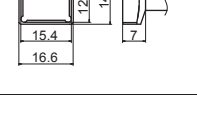
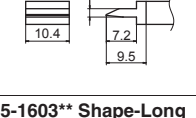
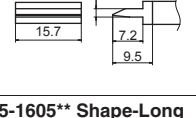
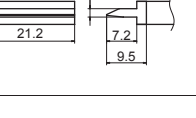
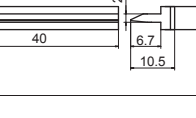
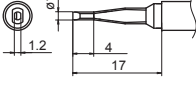
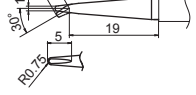
## Optional Tips for FM-2028

Unit: mm



B	T15-B Shape-B 	T15-B2 Shape-0.5B 	T15-B3 Shape-0.7B 	T15-B4 Shape-0.4B 	T15-BLL Shape-BLL 
	T15-BC1 Shape-1BC T15-BCF1* 	T15-BC2 Shape-2BC T15-BCF2* 	T15-BC3 Shape-3BC T15-BCF3* 	T15-BC12 Shape-1.2BC 	T15-BC15 Shape-1.5BC 
BC	T15-BC28 Shape-2.8BC 	T15-BCM2 Shape-2BC Bevel with indent 	T15-BCM3 Shape-3BC Bevel with indent 	T15-SBC04 Shape-0.4SBC 	
	T15-C1 Shape-1C 	T15-CF2* Shape-2C 	T15-CF3* Shape-3C 	T15-C4 Shape-4C T15-CF4* 	
D	T15-D08 Shape-0.8D 	T15-D12 Shape-1.2D 	T15-D16 Shape-1.6D 	T15-D2 Shape-2D 	T15-D24 Shape-2.4D 
	T15-D32 Shape-3.2D 	T15-D4 Shape-4D 	T15-D52 Shape-5.2D 	T15-DL32 Shape-3.2DL 	T15-DL4 Shape-4DL 
	T15-DL52 Shape-5.2DL 	T15-XD15 Shape-1.5XD 			
I	T15-I Shape-I 	T15-IL Shape-IL 	T15-ILS Shape-ILS 		
J	T15-J02 Shape-0.2J 	T15-JD14 Shape-1.4JD 	T15-JD08 Shape-0.8JD 	T15-JD16 Shape-1.6JD 	T15-JL02 Shape-0.2JL 
	T15-JS02 Shape-0.2JS 				

\*These tips are tinned on the soldering surface only.

K	<b>T15-K Shape-K</b> 	<b>T15-KF Shape-KF</b> 	<b>T15-KL Shape-KL</b> 	<b>T15-KU Shape-KU</b> 	
	<b>T15-R20 Shape-2.0R</b> 	<b>T15-R23 Shape-2.3R</b> 	<b>T15-R27 Shape-2.7R</b> 	<b>T15-R34 Shape-3.4R</b> 	<b>T15-R48 Shape-4.8R</b> 
SB	<b>T15-SB02 Shape-0.2SB</b> 	<b>T15-SB03 Shape-0.3SB</b> 	<b>T15-SB05 Shape-0.5SB</b> 	<b>T15-SB08 Shape-0.8SB</b> 	<b>T15-SBS04 Shape-0.4SBS</b> 
	<b>T15-SBS07 Shape-0.7SBS</b> 				
TUNNEL	<b>T15-1001** Tunnel 5.1 x 4.6</b> 	<b>T15-1002** Tunnel 5.1 x 10.4</b> 	<b>T15-1003** Tunnel 9.5 x 18.3</b> 	<b>T15-1004** Tunnel 9.5 x 15.8</b> 	<b>T15-1005** Tunnel 9.5 x 13.2</b> 
	<b>T15-1006** Tunnel 6.9 x 11.4</b> 	<b>T15-1007** Tunnel 7.9 x 18.8</b> 	<b>T15-1008** Tunnel 19.5 x 10.2</b> 	<b>T15-1009** Tunnel 13.4 x 20.5</b> 	<b>T15-1010** Tunnel 19.5 x 12</b> 
QUAD	<b>T15-1201** Quad 13.6 x 8.5</b> 	<b>T15-1202** Quad 10.3 x 10.3</b> 	<b>T15-1203** Quad 12.8 x 12.8</b> 	<b>T15-1204** Quad 17.9 x 17.9</b> 	<b>T15-1205** Quad 23.4 x 17.3</b> 
	<b>T15-1206** Quad 22.5 x 16.5</b> 	<b>T15-1207** Quad 15.5 x 15.5</b> 	<b>T15-1208** Quad 15.8 x 15.8</b> 	<b>T15-1209** Quad 8.4 x 8.4</b> 	<b>T15-1210** Quad 15.4 x 12.8</b> 
SPATULA	<b>T15-1401** Spatula 10.4</b> 	<b>T15-1402** Spatula 15.7</b> 	<b>T15-1403** Spatula 21.2</b> 	<b>T15-1406** Spatula 40</b> 	
	<b>T15-1603** Shape-Long reach chisel</b> 	<b>T15-1605** Shape-Long reach bent chisel</b> 			
SPECIAL APPLICATIONS TYPE					

\* These tips are tinned on the soldering surface only.

\*\* The iron tips marked with double asterisk (\*\*) have a temperature accuracy of 25°C. Others have a temperature accuracy of 15°C.

# Heavy Duty Soldering Station

**HAKO** **FX-838** **ESD SAFE**  
SOLDERING STATION

Heavy Duty Soldering Iron Digital

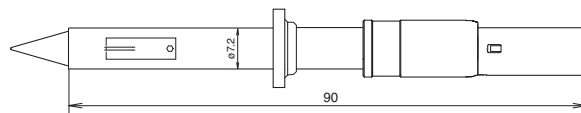
Tip not included



- High powered 150 W soldering iron
- Best suited for soldering of power-supply boards, heat sinks, and shield cases
- Applicable also to the soldering of multilayer boards with micro components

## Optional Tips for FX-8301

Unit: mm

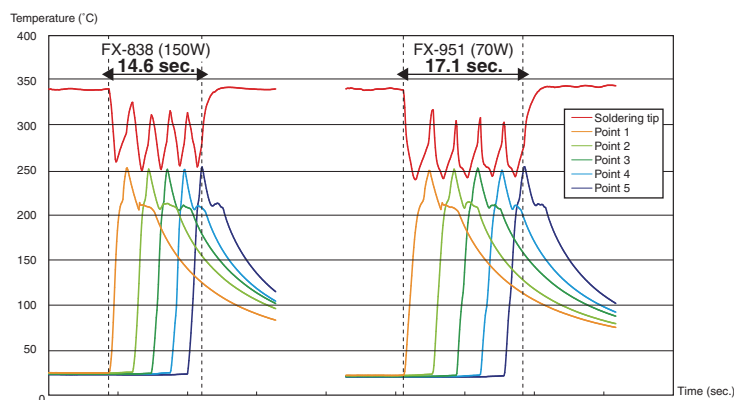


<b>T20-B2 Shape-0.5B</b> 	<b>T20-BC2 Shape-2BC T20-BCF2*</b> 	<b>T20-BC3 Shape-3BC T20-BCF3*</b> 	<b>T20-BC4 Shape-4BC T20-BCF4*</b> 	<b>T20-BCM2 Shape-2BC Bevel with indent</b> 
<b>T20-BCM3 Shape-3BC Bevel with indent</b> 	<b>T20-BL Shape-BL</b> 	<b>T20-BL2 Shape-2BL</b> 	<b>T20-BL3 Shape-3BL</b> 	<b>T20-C5 Shape-5C</b> 
<b>T20-C6 Shape-6C</b> 	<b>T20-D16 Shape-1.6D</b> 	<b>T20-D24 Shape-2.4D</b> 	<b>T20-D32 Shape-3.2D</b> 	<b>T20-D6 Shape-6D</b> 
<b>T20-J02 Shape-0.2J</b> 	<b>T20-K Shape-K</b> 	<b>T20-KU Shape-KU</b> 	<b>T20-1610</b> 	<b>T20-1611</b> 

\* These tips are tinned on the soldering surface only.

## Features

### Graph of a comparison of the performance of FX-838 and a conventional station



#### Test criteria

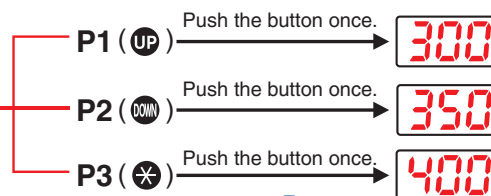
Measurement method	Thermocouples are mounted on the tip and the soldered portion on the board, and the time until the soldered portion reaches 250°C is measured for 5 points.
Board	Bakelite board
Component used	Terminal
Tip shape	Shape-1.6D
Temperature setting	340°C
Solder	Lead-free solder (Sn/Ag/Cu), diameter: 0.5 mm

### Temperature preset mode

The temperature preset mode allows you to input three frequently-used temperatures in advance and recall them with one push of a button.



#### Preset example



One push of a button can quickly recall each setting.

### Connectable with N<sub>2</sub> soldering iron

To improve solder wettability and spreadability

**HAKKO FX-8302** ESD SAFE

### N<sub>2</sub> Soldering Iron

Tip not included



For further details, see the N<sub>2</sub> system (P.34 & P.35).

## Packing List

<b>FX-838</b>	Station, Handpiece (FX-8301), Control card, Power cord, Heat resistant pad, Connecting cable, Iron holder, Instruction manual
<b>FX-8302</b>	Handpiece, Instruction manual

## Specifications

Model No.	FX-838
Power consumption	158 W
Temperature range	200 to 500°C
Temperature stability	±5°C at idle temperature

### Station

Output voltage	AC 27 V
Dimensions	110 (W) × 110 (H) × 205 (D) mm
Weight	3.2 kg

### Soldering Iron

Power consumption	150 W (27 V)
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Ceramic heater
Cord length	1.2 m
Total length*	175 mm (with 2.4D tip)
Weight*	31 g (with 2.4D tip)

\* Without cord

Model No.	FX-8302
Power consumption	150 W (27 V)
Temperature range	200 to 500°C
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Ceramic heater
Cord length	1.2 m
Total length*	195 mm (with 2.4D tip)
Weight*	41 g (with 2.4D tip and nozzle assembly D)

\* Without cord and tube



# High Performance Rework Station and Accessories

## HAKKO FM-203 ESD SAFE SOLDERING STATION

### 2-Port High Performance Rework Station

Digital

Tip not included



- 2 handpieces can be connected at the same time.

## HAKKO FM-206 ESD SAFE REWORK SYSTEM

### 3-Port High Performance Rework Station

Digital

Tip not included

Nozzle not included



- 3-port rework station that enables soldering, desoldering, and SMD rework all with a single unit
- Graphic LCD enables easy viewing and operation.

### Handpiece Combination Examples

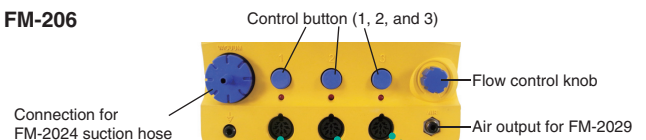
#### FM-203



Handpiece	Channel D connector	Channel S connector
FM-207	○	○
FM-2022 <sup>*1</sup>	○	×
FM-2023 <sup>*1</sup>	○	×
FM-2024 <sup>*2</sup>	○	○
FM-2026 <sup>*3</sup>	○	○
FM-2032	○	○
FM-2030	○	×
FM-2031	○	×

- <sup>\*1</sup> When FM-2022 or FM-2023 is connected to the channel D connector, both channel connectors can't be used at the same time.
- <sup>\*2</sup> When two FM-2024s are connected to the channel connectors, each FM-2024 must be connected to the desolder control box.
- <sup>\*3</sup> For FM-2026, each handpiece needs an N<sub>2</sub> generator (FX-780), flow meter (FX-791), compressor, regulator, etc. For further details, see N<sub>2</sub> system (P.34 & P.35).

#### FM-206



Handpiece	Receptacle 1	Receptacle 2	Receptacle 3
FM-207	○	○	○
FM-2024	○ <sup>*1</sup>	○	○ <sup>*1</sup>
FM-2029	×	×	○
FM-2022	×	○	×
FM-2023	×	○	×
FM-2026	○	○	○
FM-2030	×	○	○
FM-2031	×	○ <sup>*2</sup>	○ <sup>*2</sup>
FM-2032	○	○	○

- <sup>\*1</sup> FM-2024 can be connected to receptacle 2 and 3. However, only one FM-2024 can be used with the station.
- <sup>\*2</sup> For FM-2031 and FM-2026, each handpiece needs an N<sub>2</sub> generator (FX-780), flow meter (FX-791), compressor, regulator, etc. For further details, see N<sub>2</sub> system (P.34 & P.35).
- NOTE:** FM-2024 and FM-2029 can't be used at the same time.

## Accessories

**HAKKO FM-2027** ESD SAFE  
SOLDERING IRON

## Soldering Iron

Tip not included

**HAKKO FM-2026** ESD SAFE  
SOLDERING IRONN<sub>2</sub> Soldering Iron

Tip not included

**HAKKO FM-2029** ESD SAFE  
HOT AIR HANDPIECE

## Hot-Air Pencil

Nozzle not included

**HAKKO FM-2030** ESD SAFE  
SOLDERING IRON

## Heavy Duty Soldering Iron

Tip not included

**HAKKO FM-2031** ESD SAFE  
SOLDERING IRONN<sub>2</sub> Heavy Duty Soldering Iron

Tip not included

**HAKKO FM-2032** ESD SAFE  
SOLDERING IRON

## Micro Soldering Iron

Tip not included

N<sub>2</sub> Soldering is available with optional parts (P.35 & P.37).**HAKKO MODEL FM-2022** ESD SAFE  
PARALLEL REMOVER

## SMD Hot Tweezers

Tip not included

**HAKKO MODEL FM-2023** ESD SAFE  
MINI PARALLEL REMOVER

## Mini SMD Hot Tweezers

Tip included

**HAKKO MODEL FM-2024** ESD SAFE  
DESOLDERING TOOL

## Desoldering Tool

Nozzle not included





# High Performance Rework Station and Accessories

## Specifications

Model No.	FM-203
Power consumption	140 W
Temperature range	FM-2026/2027: 200 to 450°C FM-2022/2023: 200 to 400°C FM-2032: 200 to 450°C FM-2024: 350 to 450°C
Temperature stability	±5°C at idle temperature

### Station

Output voltage	AC 24 V
Dimensions	120 (W) × 120 (H) × 190 (D) mm
Weight	2.7 kg

### Soldering Iron (FM-2027)

Power consumption	70 W (24 V)
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length*	188 mm (with 2.4D tip)
Weight*	30 g (with 2.4D tip)

\* Without cord

Model No.	FM-206
Power consumption	Max. 410 W (450 W)
Temperature range	FM-2026/2027: 200 to 450°C FM-2022/2023: 200 to 400°C FM-2024: 350 to 450°C FM-2029: 100 to 550°C FM-2030: 200 to 500°C FM-2031: 200 to 500°C FM-2032: 200 to 450°C
Temperature stability	±5°C at idle temperature

### Station

Output voltage	AC 24 V
Vacuum generator	Vacuum pump, cylinder type
Vacuum pressure	80 kPa (600 mmHg, max.)
Suction flow	14 L/min.
Air flow	6 L/min. (max.)
Dimensions	162 (W) × 136 (H) × 245 (D) mm
Weight*	6.2 kg

### Soldering Iron (FM-2027)

Power consumption	70 W (24 V)
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length*	188 mm (with 2.4D tip)
Weight*	30 g (with 2.4D tip)

### Desoldering Tool (FM-2024)

Power consumption	70 W (24 V)
Nozzle to ground resistance	<2 Ω
Nozzle to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length*	180 mm (with ø1 mm nozzle)
Weight**	65 g (with ø1 mm nozzle)

### Hot Air Handpiece (FM-2029)

Power consumption	140 W (24 V)
Nozzle to ground resistance	<2 Ω
Nozzle to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length***	232 mm (with ø4 mm nozzle)
Weight***	50 g (with ø4 mm nozzle)

\* Without cord    \*\* Without cord and hose    \*\*\* Without cord and tube

Model No.	FM-2022
Power consumption	140 W (24 V)
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length*	148 mm (with SOP 25L tip)
Weight*	64 g (with SOP 25L tip)

\* Without cord

Model No.	FM-2023
Power consumption	140 W (24 V)
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Composite heater
Standard tip	Shape-I: 2 pcs/set (No. T9-I)
Cord length	1.2 m
Total length*	117 mm (with I tip)
Weight*	37 g (with I tip)

\* Without cord

Model No.	FM-2024
-----------	---------

### Desoldering Tool

Power consumption	70 W (24 V)
Nozzle to ground resistance	<2 Ω
Nozzle to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length**	180 mm (with ø1 mm nozzle)
Weight**	65 g (with ø1 mm nozzle)

### Desolder Control Box

Power consumption	12 W (24 V)
Vacuum generator	Ejector type
Vacuum pressure	Max. 93 kPa (700 mmHg)
Suction flow	20 L/min.
Nozzle to ground potential	<2 mV
Applied air pressure	490 kPa (5 kgf/cm <sup>2</sup> ) While in use (trigger or button is pressed)
Compressed air consumption	46 L/min.
Outer dimensions	119 (W) × 45 (H) × 172 (D) mm
Weight*	1.2 kg

\* Without cord    \*\* Without cord and hose

Model No.	FM-2026
Power consumption	70 W (24 V)
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length**	205 mm (with 2.4D tip)
Weight**	45 g (with 2.4D tip and nozzle assembly C)

\* Use this N<sub>2</sub> soldering iron below 400°C.

\*\* Without cord and tube

Model No.	FM-2027
Power consumption	70 W (24 V)
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length*	188 mm (with 2.4D tip)
Weight*	30 g (with 2.4D tip)

\* Without cord

## Specifications

Model No.	FM-2030
Power consumption	140 W (24 V)
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.3 m
Total length*	224 mm (with 2.4D tip)
Weight*	41 g (with 2.4D tip)

\* Without cord

Model No.	FM-2032
Power consumption	48 W (24 V)
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.3 m
Total length*	170 mm (with 1D tip)
Weight*	14 g (with 1D tip)

\* Without cord

Model No.	FM-2031
Power consumption	140 W (24 V)
Tip to ground resistance	<2 Ω
Tip to ground potential	<2 mV
Heating element	Composite heater
Cord length	1.2 m
Total length*	231 mm (with 2.4D tip)
Weight*	47 g (with 2.4D tip and nozzle assembly E)

\* Without cord and tube

## Packing List

<b>FM-203</b>	Station, Handpiece (FM-2027), Sleeve assembly, Connecting cable, Power cord, Control card, Iron holder, Tip tray, Heat resistant pad, Instruction manual
<b>FM-206</b>	Station, Power cord, Tip tray, Desoldering tool (FM-2024), Handle (for gun configuration for FM-2024), Iron holder (for FM-2024), Ceramic paper filter (10 pcs; for FM-2024), Nozzle remover (for FM-2024), Cleaning drill for heating element (for FM-2024), Connecting cable (for FM-2024), Handpiece (FM-2027), Iron holder (for FM-2027), Heat resistant pad (for FM-2027), Connecting cable (for FM-2027), Hot air handpiece (FM-2029), Iron holder (for FM-2029), Heat resistant pad (for FM-2029), Connecting cable (for FM-2029), Instruction manual
<b>FM-2022 (Conversion kit)</b>	Parallel remover, Heat resistant pad, Iron holder, Connecting cable, Instruction manual
<b>FM-2023 (Conversion kit)</b>	Mini parallel remover, Soldering tip (T9-I), Heat resistant pad, Iron holder, Component bed, Connecting cable, Instruction manual

<b>FM-2024 (Conversion kit, with DCB)</b>	Desoldering tool, Handle (for gun configuration), Desoldering control box, Filter pipe assembly, Iron holder, Cleaning drill for heating element, Nozzle remover, Ceramic paper filter (10 pcs), Connecting cable, Instruction manual
<b>FM-2026 (Conversion kit)</b>	Handpiece, Sleeve cover, Sleeve assembly (yellow), Heat resistant pad, Iron holder, Connecting cable, Instruction manual
<b>FM-2027 (Conversion kit)</b>	Handpiece, Sleeve assembly (yellow), Heat resistant pad, Iron holder, Connecting cable
<b>FM-2029 (Conversion kit)</b>	Handpiece (hot air), Handpiece holder, Heat resistant pad, Connecting cable, Instruction manual
<b>FM-2030 (Conversion kit)</b>	Handpiece (soldering), Heat resistant pad, Iron holder, Connecting cable, Instruction manual
<b>FM-2031 (Conversion kit)</b>	Handpiece (soldering), Heat resistance pad, Iron holder, Connecting cable, Instruction manual
<b>FM-2032 (Conversion kit)</b>	Handpiece, Heat resistant pad, Iron holder, Connecting cable, Instruction manual

## FM-2024 Features

Please see the features on P.60.

## FM-2029 Features

Securely and easily remove 10 × 10 (mm) chips.

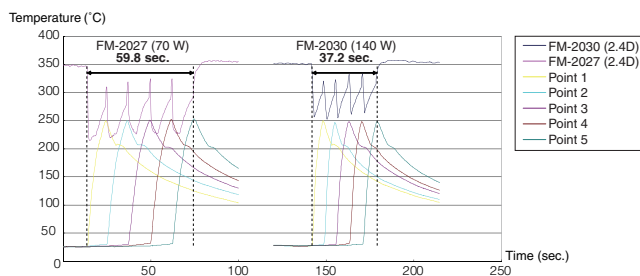


## FM-2032 Size



## FM-2030 Features

Graph of a comparison of the performance of FM-2027 (70 W) and FM-2030 (140 W)



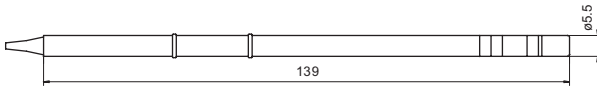

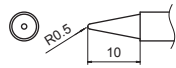
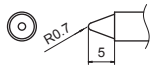

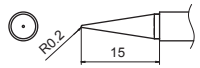
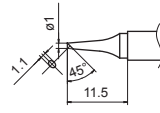
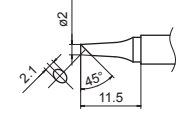
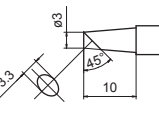
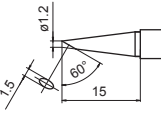
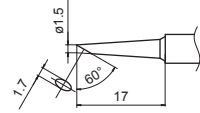
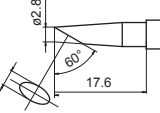
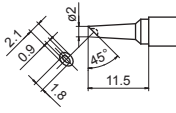
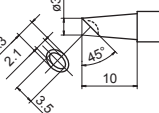
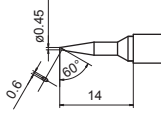
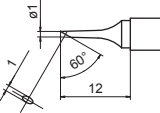
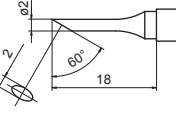
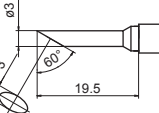
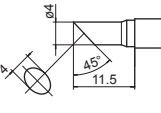
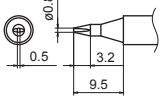
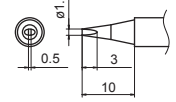
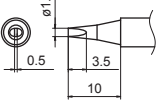
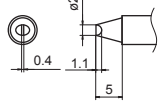
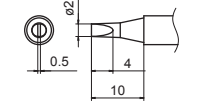
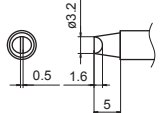
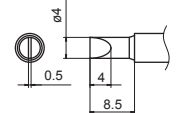
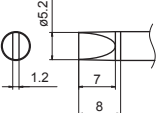
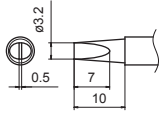
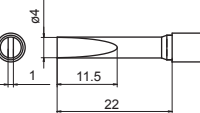
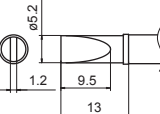
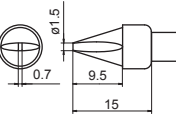
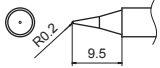
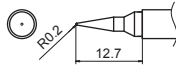
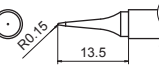
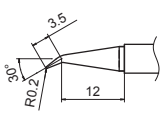
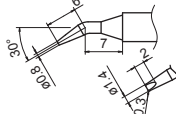
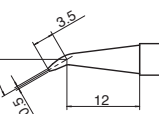
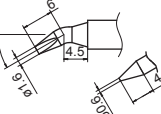
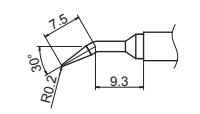
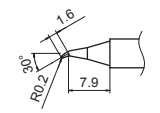
### Test criteria

Test method	Solder at 5 points and measure the time until the temperature of the workpiece reaches 250°C.
Board	Bakelite board
Component used	Screw
Tip shape	Shape-2.4D
Temperature setting	350°C
Solder	Lead-free solder (Sn/Ag/Cu), diameter: 1 mm

# High Performance Rework Station and Accessories

## Optional Tips for FM-2027

Unit: mm

					
B	T15-B Shape-B 	T15-B2 Shape-0.5B 	T15-B3 Shape-0.7B 	T15-B4 Shape-0.4B 	T15-BLL Shape-BL Long 
	T15-BC1 Shape-1BC T15-BCF1* 	T15-BC2 Shape-2BC T15-BCF2* 	T15-BC3 Shape-3BC T15-BCF3* 	T15-BC12 Shape-1.2BC 	T15-BC15 Shape-1.5BC 
BC	T15-BC28 Shape-2.8BC 	T15-BCM2 Shape-2BC Bevel with indent 	T15-BCM3 Shape-3BC Bevel with indent 	T15-SBC04 Shape-0.4SBC 	
	T15-C1 Shape-1C 	T15-CF2* Shape-2C 	T15-CF3* Shape-3C 	T15-C4 Shape-4C T15-CF4* 	
D	T15-D08 Shape-0.8D 	T15-D12 Shape-1.2D 	T15-D16 Shape-1.6D 	T15-D2 Shape-2D 	T15-D24 Shape-2.4D 
	T15-D32 Shape-3.2D 	T15-D4 Shape-4D 	T15-D52 Shape-5.2D 	T15-DL32 Shape-3.2DL 	T15-DL4 Shape-4DL 
	T15-DL52 Shape-5.2DL 	T15-XD15 Shape-1.5XD 			
I	T15-I Shape-I 	T15-IL Shape-IL 	T15-ILS Shape-ILS 		
J	T15-J02 Shape-0.2J 	T15-JD14 Shape-1.4JD 	T15-JD08 Shape-0.8JD 	T15-JD16 Shape-1.6JD 	T15-JL02 Shape-0.2JL 
	T15-JS02 Shape-0.2JS 				

\*These tips are tinned on the soldering surface only.

K	<b>T15-K Shape-K</b> 	<b>T15-KF Shape-KF</b> 	<b>T15-KL Shape-KL</b> 	<b>T15-KU Shape-KU</b> 	
	<b>T15-R20 Shape-2.0R</b> 	<b>T15-R23 Shape-2.3R</b> 	<b>T15-R27 Shape-2.7R</b> 	<b>T15-R34 Shape-3.4R</b> 	<b>T15-R48 Shape-4.8R</b> 
R	<b>T15-SB02 Shape-0.2SB</b> 	<b>T15-SB03 Shape-0.3SB</b> 	<b>T15-SB05 Shape-0.5SB</b> 	<b>T15-SB08 Shape-0.8SB</b> 	<b>T15-SBS04 Shape-0.4SBS</b> 
	<b>T15-SBS07 Shape-0.7SBS</b> 				
SB	<b>T15-1001** Tunnel 5.1 x 4.6</b> 	<b>T15-1002** Tunnel 5.1 x 10.4</b> 	<b>T15-1003** Tunnel 9.5 x 18.3</b> 	<b>T15-1004** Tunnel 9.5 x 15.8</b> 	<b>T15-1005** Tunnel 9.5 x 13.2</b> 
	<b>T15-1006** Tunnel 6.9 x 11.4</b> 	<b>T15-1007** Tunnel 7.9 x 18.8</b> 	<b>T15-1008** Tunnel 19.5 x 10.2</b> 	<b>T15-1009** Tunnel 13.4 x 20.5</b> 	<b>T15-1010** Tunnel 19.5 x 12</b> 
TUNNEL	<b>T15-1201** Quad 13.6 x 8.5</b> 	<b>T15-1202** Quad 10.3 x 10.3</b> 	<b>T15-1203** Quad 12.8 x 12.8</b> 	<b>T15-1204** Quad 17.9 x 17.9</b> 	<b>T15-1205** Quad 23.4 x 17.3</b> 
	<b>T15-1206** Quad 22.5 x 16.5</b> 	<b>T15-1207** Quad 15.5 x 15.5</b> 	<b>T15-1208** Quad 15.8 x 15.8</b> 	<b>T15-1209** Quad 8.4 x 8.4</b> 	<b>T15-1210** Quad 15.4 x 12.8</b> 
QUAD	<b>T15-1401** Spatula 10.4</b> 	<b>T15-1402** Spatula 15.7</b> 	<b>T15-1403** Spatula 21.2</b> 	<b>T15-1406** Spatula 40</b> 	
	<b>T15-1603** Shape-Long reach chisel</b> 	<b>T15-1605** Shape-Long reach bent chisel</b> 			
SPATULA					
SPECIAL APPLICATIONS TYPE					

\* These tips are tinned on the soldering surface only.

\*\* The iron tips marked with double asterisk (\*\*) have a temperature accuracy of 25°C. Others have a temperature accuracy of 15°C.

# High Performance Rework Station and Accessories

## Optional Tips for FM-2032

Unit: mm

<b>T30-D06 Shape-0.6D</b> 	<b>T30-D1 Shape-1D</b> 	<b>T30-I Shape-I</b> 	<b>T30-J Shape-J</b> 	<b>T30-KU Shape-KU</b> 	<b>T30-KN Shape-KN</b> 
-------------------------------	----------------------------	--------------------------	--------------------------	----------------------------	----------------------------

## Optional Tips for FM-2022

Unit: mm

### CHIP

\*1 set: 2 pcs

<b>T16-1001 Chip 0.5L</b> 	<b>T16-1002 Chip 0.5C</b> 	<b>T16-1003 Chip 1L</b> 	<b>T16-1004 Chip 2L</b> 	<b>T16-1013 Chip 3L</b> 
-------------------------------	-------------------------------	-----------------------------	-----------------------------	-----------------------------

### SOP

<b>T16-1005 SOP 6L</b> 	<b>T16-1006 SOP 8L</b> 	<b>T16-1007 SOP 10L</b> 	<b>T16-1008 SOP 13L</b> 	<b>T16-1009 SOP 16L</b> 
<b>T16-1010 SOP 20L</b> 	<b>T16-1011 SOP 25L</b> 	<b>T16-1012 SOP 18L</b> 		

## Replacement Tips for FM-2023

Unit: mm

### CHIP

\*1 set: 2 pcs

<b>T9-I Chip I</b> 	<b>T9-L1 Chip 1L</b> 	<b>T9-L2 Chip 2L</b> 
------------------------	--------------------------	--------------------------

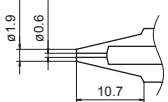
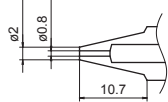
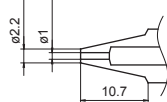
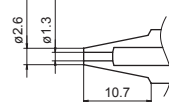
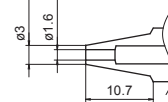
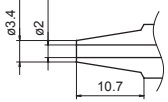
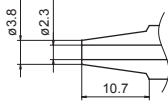
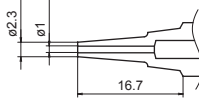
## Optional Tips for FM-2030

Unit: mm

<b>T22-BL Shape-BL</b> 	<b>T22-BL2 Shape-2BL</b> 	<b>T22-BC2 Shape-2BC</b> 	<b>T22-C3 Shape-3C</b> 	<b>T22-C5 Shape-5C</b> 	<b>T22-C6 Shape-6C</b> 
<b>T22-D08 Shape-0.8D</b> 	<b>T22-D12 Shape-1.2D</b> 	<b>T22-D16 Shape-1.6D</b> 	<b>T22-D24 Shape-2.4D</b> 	<b>T22-D32 Shape-3.2D</b> 	<b>T22-D45 Shape-4.5D</b> 
<b>T22-D52 Shape-5.2D</b> 	<b>T22-J02 Shape-0.2J</b> 	<b>T22-JD08 Shape-0.8JD</b> 	<b>T22-K Shape-K</b> 		

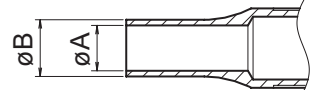




**Optional Nozzles for FM-2024**

Unit: mm

<b>N3-06 Nozzle <math>\phi 0.6</math></b> 	<b>N3-08 Nozzle <math>\phi 0.8</math></b> 	<b>N3-10 Nozzle <math>\phi 1</math></b> 	<b>N3-13 Nozzle <math>\phi 1.3</math></b> 	<b>N3-16 Nozzle <math>\phi 1.6</math></b> 
<b>N3-20 Nozzle <math>\phi 2</math></b> 	<b>N3-23 Nozzle <math>\phi 2.3</math></b> 	<b>N3-L10 Nozzle <math>\phi 1</math> long</b> 		

**Optional Nozzles for FM-2029**

Unit: mm

			
		$\phi A$	$\phi B$
<b>N4-01 Nozzle <math>\phi 2</math></b>		2	2.5
<b>N4-02 Nozzle <math>\phi 4</math></b>		4	5
<b>N4-03 Nozzle <math>\phi 6</math></b>		6	7
<b>N4-04 Nozzle <math>\phi 8</math></b>		8	9

**Optional Tips for FM-2026**

Please see the optional tips on P.36.

**Optional Tips for FM-2031**

Please see the optional tips on P.36.



## HAKKO FX-780 / FX-781

### N<sub>2</sub> Generator



- Highest concentration of nitrogen gas: 99.9%
- Compact design reduces footprint.
- Large-capacity type accepts 2 soldering irons (FX-781).

## HAKKO FX-791

### N<sub>2</sub> Flowmeter

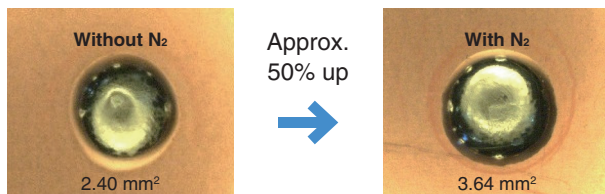


- Flowmeter for N<sub>2</sub> soldering iron with flow control valve and regulator

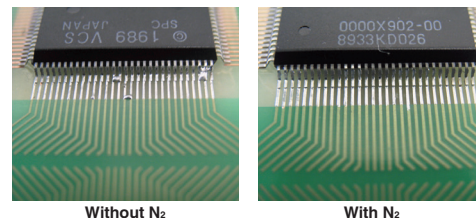
- The preheating effect is achieved by passing Nitrogen gas along the heating element in the hand piece.
- Improvement of wettability and spreadability
- Preventing oxidation

### Improved Solderability

- Wettability and spreadability comparisons



- Less bridging occurs even for components susceptible to bridging.



### Specifications

Model No.	FX-780	FX-781
Air supply pressure	0.3 to 0.7 MPa	
Concentration of generated N <sub>2</sub>	99.9% (max.)	
Amount of generated N <sub>2</sub>	1.5 L/min. (When compressed air of 0.5 MPa is supplied at 25°C, the concentration of the generated nitrogen is 98%.)	2.4 L/min. (When compressed air of 0.5 MPa is supplied at 25°C, the concentration of the generated nitrogen is 98%.)
Dimensions*	73 (W) × 282 (H) × 71 (L) mm	73 (W) × 407 (H) × 71 (L) mm
Weight**	1.5 kg	2 kg

\* Without sockets and valve

\*\* Without racks

Model No.	FX-791
Pressure of discharged gas	0.2 MPa (2 kgf/cm <sup>2</sup> )
Gas flow	0.25 to 2.5 L/min.
Dimensions	70 (W) × 121 (H) × 134 (D) mm
Weight	600 g

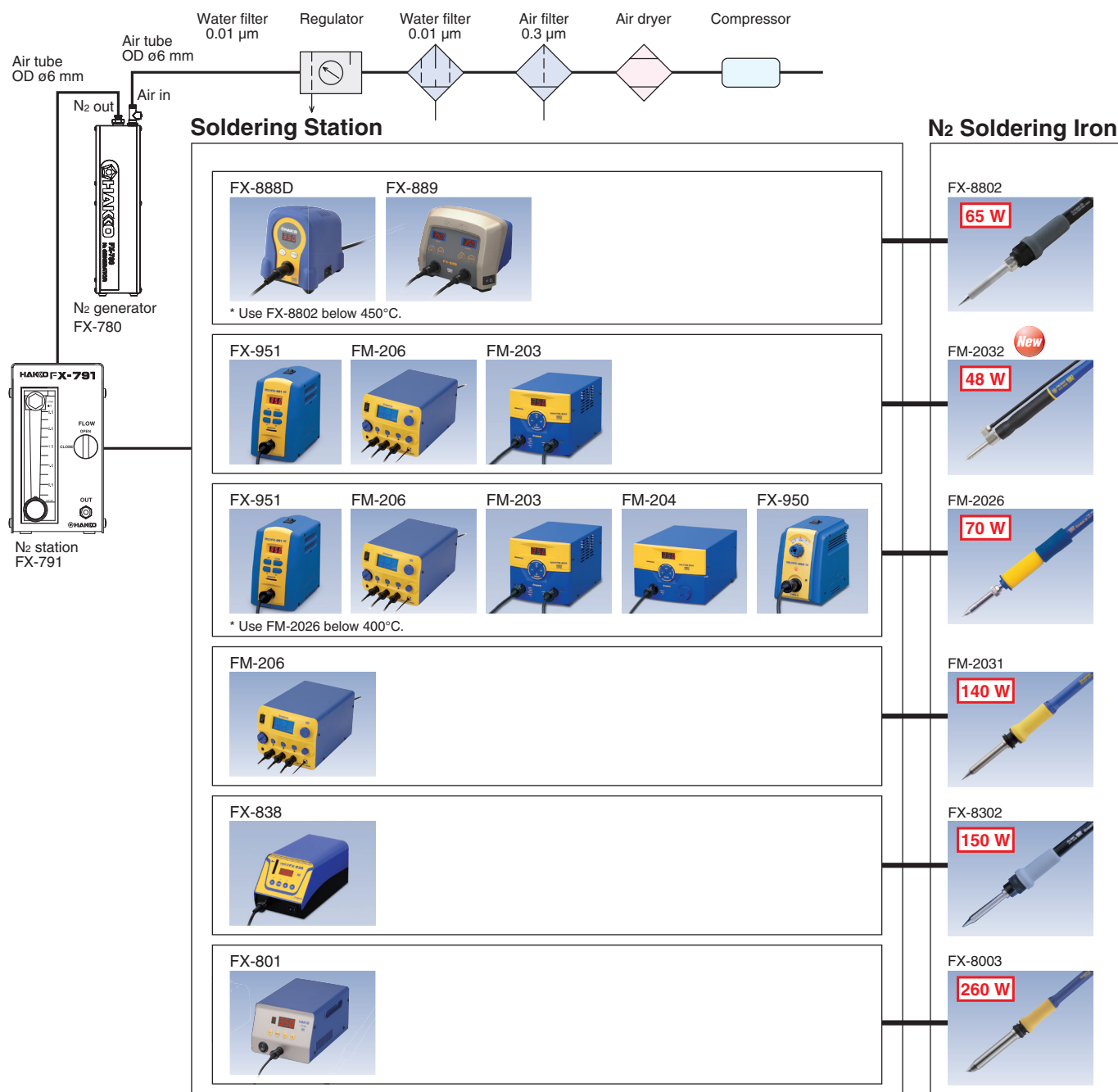
### Packing List

FX-780	Unit, Rack for unit (2 pcs), Instruction manual
FX-791	Unit, Instruction manual

FX-781	Unit, Racks for unit (4 pcs), Instruction manual
--------	--

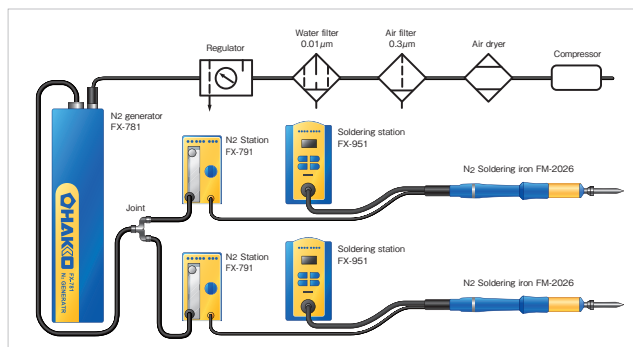


## Connection Method



### For two soldering irons

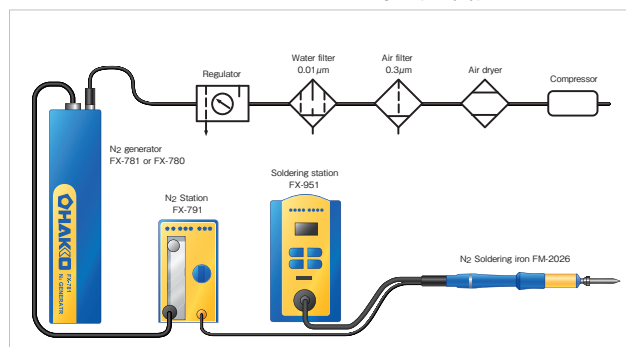
Large-capacity type : FX-781



\* It is capable to supply high concentration Nitrogen of 97% at the output rate approx. 1L/min.  
(at air supply pressure of 0.5MPa)

### For one soldering iron

Small-capacity type : FX-780  
Large-capacity type : FX-781



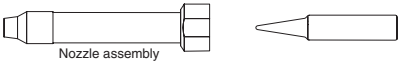
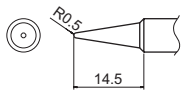
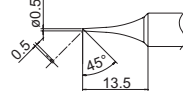
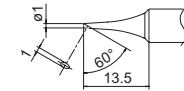
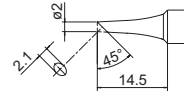
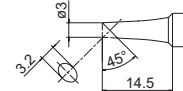
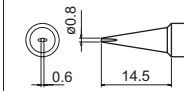
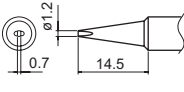
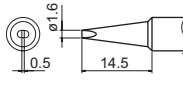
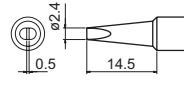
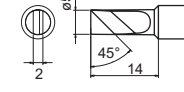
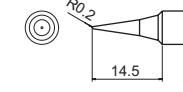
\* It is capable to supply high concentration Nitrogen of 99.9% at the output rate approx. 1L/min.  
(at air supply pressure of 0.7MPa)



## Replacement Tips and Nozzle Assemblies for FX-8802

Tip and nozzle assembly are supplied separately. Please purchase a compatible nozzle assembly for your tip referring the chart below.

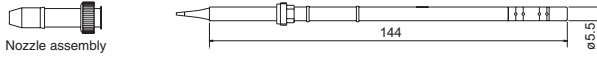
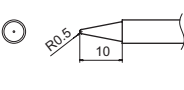
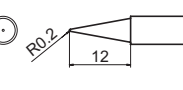
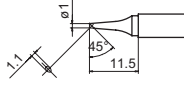
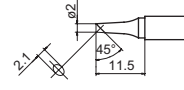
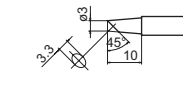
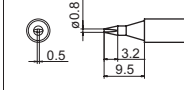
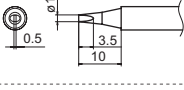
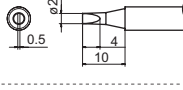
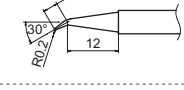
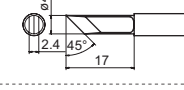
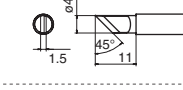
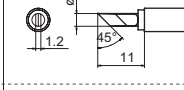
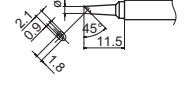
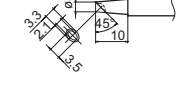
Unit: mm

					
<b>T18-B Shape-B</b> 	<b>T18-C05 Shape-0.5C</b> 	<b>T18-C1 Shape-1C</b> <b>T18-CF1*</b> 	<b>T18-C2 Shape-2C</b> <b>T18-CF2*</b> 	<b>T18-C3 Shape-3C</b> <b>T18-CF3*</b> 	<b>T18-D08 Shape-0.8D</b> 
B3662 Nozzle assembly A	B3664 Nozzle assembly C	B3664 Nozzle assembly C	B3662 Nozzle assembly A	B3663 Nozzle assembly B	B3662 Nozzle assembly A
<b>T18-D12 Shape-1.2D</b> 	<b>T18-D16 Shape-1.6D</b> 	<b>T18-D24 Shape-2.4D</b> 	<b>T18-K Shape-K</b> 	<b>T18-I Shape-I</b> 	* These tips are tinned on the soldering surface only.
B3662 Nozzle assembly A	B3663 Nozzle assembly B	B3663 Nozzle assembly B	B3665 Nozzle assembly D	B3664 Nozzle assembly C	

## Optional Tips and Nozzle Assemblies for FM-2026

Tip and nozzle assembly are supplied separately. Please purchase a compatible nozzle assembly for your tip referring the chart below.

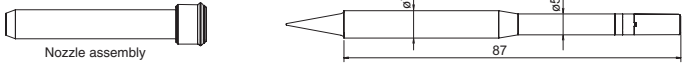
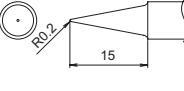
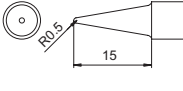
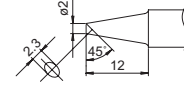
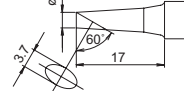
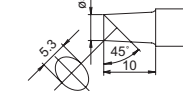

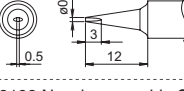
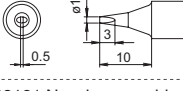
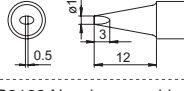
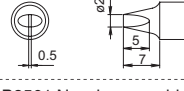
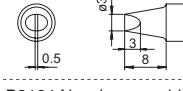
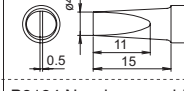
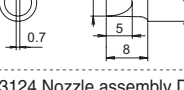

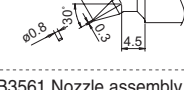
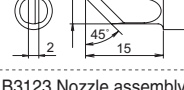
Unit: mm

					
<b>T13-B2 Shape-0.5B</b> 	<b>T13-BL Shape-BL</b> 	<b>T13-BC1 Shape-1BC</b> <b>T13-BCF1*</b> 	<b>T13-BC2 Shape-2BC</b> <b>T13-BCF2*</b> 	<b>T13-BC3 Shape-3BC</b> <b>T13-BCF3*</b> 	<b>T13-D08 Shape-0.8D</b> 
B2708 Nozzle assembly C	B2898 Nozzle assembly E	B2899 Nozzle assembly F	B2706 Nozzle assembly A	B2900 Nozzle assembly G	B2709 Nozzle assembly D
<b>T13-D16 Shape-1.6D</b> 	<b>T13-D24 Shape-2.4D</b> 	<b>T13-J02 Shape-0.2J</b> 	<b>T13-KF Shape-KF</b> 	<b>T13-KR Shape-KR</b> 	<b>T13-KU Shape-KU</b> 
B2708 Nozzle assembly C	B2708 Nozzle assembly C	B2707 Nozzle assembly B	B2923 Nozzle assembly J	B2902 Nozzle assembly I	B2901 Nozzle assembly H
<b>T13-BCM2 Shape-2BC</b> <b>Bevel with indent</b> 	<b>T13-BCM3 Shape-3BC</b> <b>Bevel with indent</b> 	* These tips are tinned on the soldering surface only.			
B2706 Nozzle assembly A	B2900 Nozzle assembly G				

## Optional Tips and Nozzle Assemblies for FM-2031

Tip and nozzle assembly are supplied separately. Please purchase a compatible nozzle assembly for your tip referring the chart below.

Unit: mm

					
<b>T22-BL Shape-BL</b> 	<b>T22-BL2 Shape-2BL</b> 	<b>T22-BC2 Shape-2BC</b> 	<b>T22-C3 Shape-3C</b> 	<b>T22-C5 Shape-5C</b> 	<b>T22-C6 Shape-6C</b> 
B3121 Nozzle assembly A	B3121 Nozzle assembly A	B3121 Nozzle assembly A	B3121 Nozzle assembly A	B3124 Nozzle assembly D	B3124 Nozzle assembly D
<b>T22-D08 Shape-0.8D</b> 	<b>T22-D12 Shape-1.2D</b> 	<b>T22-D16 Shape-1.6D</b> 	<b>T22-D24 Shape-2.4D</b> 	<b>T22-D32 Shape-3.2D</b> 	<b>T22-D45 Shape-4.5D</b> 
B3123 Nozzle assembly C	B3121 Nozzle assembly A	B3123 Nozzle assembly C	B3561 Nozzle assembly E	B3124 Nozzle assembly D	B3124 Nozzle assembly D
<b>T22-D52 Shape-5.2D</b> 	<b>T22-J02 Shape-0.2J</b> 	<b>T22-JD08 Shape-0.8JD</b> 	<b>T22-K Shape-K</b> 		
B3124 Nozzle assembly D	B3121 Nozzle assembly A	B3561 Nozzle assembly E	B3123 Nozzle assembly C		

## Optional Tips and Nozzle Assemblies for FM-2032

Tip and nozzle assembly are supplied separately. Please purchase a compatible nozzle assembly for your tip referring the chart below.

Unit: mm

<b>T30-D1 Shape-1D</b>	<b>T30-D06 Shape-0.6D</b>	<b>T30-I Shape-I</b>	<b>T30-J Shape-J</b>	<b>T30-KU Shape-KU</b>	<b>T30-KN Shape-KN</b>
C5038 Nozzle assembly A C5039 Nozzle assembly B C5040 Nozzle assembly C C5041 Nozzle assembly D*	C5038 Nozzle assembly A C5041 Nozzle assembly D*	C5038 Nozzle assembly A C5041 Nozzle assembly D*	C5040 Nozzle assembly C C5041 Nozzle assembly D*	C5038 Nozzle assembly A C5041 Nozzle assembly D*	C5039 Nozzle assembly B C5041 Nozzle assembly D*

\* Shorter nozzle design provides better visibility.  
For further information, visit our website.

## Optional Tips and Nozzle Assemblies for FX-8302

Tip and nozzle assembly are supplied separately. Please purchase a compatible nozzle assembly for your tip referring the chart below.

Unit: mm

<b>T20-B2 Shape-0.5B</b>	<b>T20-BL Shape-BL</b>	<b>T20-BL2 Shape-2BL</b>	<b>T20-J02 Shape-0.2J (0.2RSB)</b>	<b>T20-KU Shape-KU</b>	<b>T20-BL3 Shape-3BL</b>
B3121 Nozzle assembly A	B3121 Nozzle assembly A	B3121 Nozzle assembly A	B3122 Nozzle assembly B	B3122 Nozzle assembly B	B3123 Nozzle assembly C
<b>T20-D16 Shape-1.6D</b>	<b>T20-K Shape-K</b>	<b>T20-BC2 Shape-2BC T20-BCF2*</b>	<b>T20-BC3 Shape-3BC T20-BCF3*</b>	<b>T20-BC4 Shape-4BC T20-BCF4*</b>	<b>T20-C5 Shape-5C</b>
B3123 Nozzle assembly C	B3123 Nozzle assembly C	B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3124 Nozzle assembly D
<b>T20-C6 Shape-6C</b>	<b>T20-D24 Shape-2.4D</b>	<b>T20-D32 Shape-3.2D</b>	<b>T20-BCM2 Shape-2BC Bevel with indent</b>	<b>T20-BCM3 Shape-3BC Bevel with indent</b>	<b>T20-D6 Shape-6D</b>
B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3561 Nozzle assembly E
<b>T20-1610</b>	<b>T20-1611</b>				
B3124 Nozzle assembly D	B3124 Nozzle assembly D				

\* These tips are tinned on the soldering surface only.

## Optional Tips and Nozzle Assemblies for FX-8003

Tip and nozzle assembly are supplied separately. Please purchase a compatible nozzle assembly for your tip referring the chart below.

Unit: mm

<b>T33-BC2 Shape 2BC</b>	<b>T33-BC3 Shape 3BC</b>	<b>T33-BC4 Shape 4BC</b>	<b>T33-BC5 Shape 5BC</b>	<b>T33-BC6 Shape 6BC</b>	<b>T33-D24 Shape 2.4D</b>
B5070 Nozzle assembly B	B5070 Nozzle assembly B	B5069 Nozzle assembly A	B5069 Nozzle assembly A	B5069 Nozzle assembly A	B5070 Nozzle assembly B
<b>T33-D32 Shape 3.2D</b>	<b>T33-D5 Shape 5D</b>	<b>T33-D6 Shape 6D</b>	<b>T33-1610</b>	<b>T33-1611</b>	
B5069 Nozzle assembly A	B5069 Nozzle assembly A	B5069 Nozzle assembly A	B5070 Nozzle assembly B	B5070 Nozzle assembly B	

# Ceramic Heater Soldering Iron

**HAKKO DASH**  
SOLDERING IRON

## Ceramic Heater Soldering Iron

Tip included



- An entry model of ceramic heater soldering iron
- Ideal for electronic circuit assembly

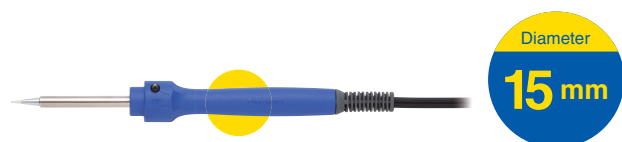


### Packing List

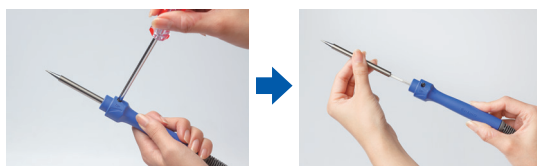
FX-650	Unit
--------	------

### Features

Slim handle improves your work efficiency!



Simple and easy tip replacement



Quick change just loosening a screw

### Specifications

Model No.	FX-650
Power consumption	16 W
Heating element	Ceramic heater
Standard tip	Shape-B (No.T34-B)
Total length*	224 mm
Weight*	60 g (with B tip)

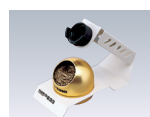
\* Without cord

### Option

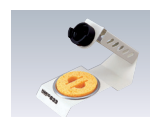
Part No.	Name	Specifications
FH300-81	Iron holder	With cleaning sponge
633-01	Iron holder	With 599B
633-02	Iron holder	With cleaning sponge
605M	Iron cover	—



No.FH300-81



No.633-01



No.633-02



No.605M (with FX-650)

### Replacement Tips for DASH

Unit: mm

<b>T34-B Shape-B</b> 	<b>T34-C08 Shape-0.8C</b> 	<b>T34-C2 Shape-2C</b> 	<b>T34-C3 Shape-3C</b> 	<b>T34-C4 Shape-4C</b> 
<b>T34-D32 Shape-3.2D</b> 	<b>T34-I Shape-I</b> 			

## HAKO FX-901

CORDLESS IRON

### Battery-Powered Soldering Iron

Tip included



- Easy-to-carry soldering iron powered by AA alkaline batteries
- Cordless design makes this iron very handy and usable virtually anywhere.

### Easy Replacement

#### Easy tip replacement

Turn the nipple  
90° clockwise.



#### Easy battery replacement



### Packing List

FX-901	Unit, Cap
--------	-----------

\* Batteries not included

### Specifications

Model No.	FX-901
Power supply	AA × 4 pcs
Power consumption	Alkaline batteries: 6 W (6 V) Nickel hydrogen batteries (2150 mAh): 5 W (4.8 V)
Standard tip	Shape-B (No.T11-B)
Battery life*	Alkaline batteries: 60 minutes Nickel hydrogen batteries (2150 mAh): 120 minutes
Total length**	212 mm
Weight***	76 g

Measurement conditions

- When using new batteries, performance will vary depending on the batteries.
- The operating time was measured from the point that the soldering iron was turned on to the point at which the temperature dropped below 300°C, which is the minimum temperature at which soldering can be performed.

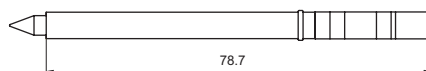
\* When using batteries other than those specified above, the performance and the operating time will vary.

\*\* Without cap

\*\*\* Without battery

### Replacement Tips for FX-901

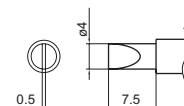
Unit: mm



T11-B Shape-B



T11-D4 Shape-4D



## HAKO FX-301B SOLDERING POT ESD SAFE

High Performance Soldering Pot **Digital**



- Digital display ensures reliable temperature control and realizes precise temperature adjustment.
- Soldering pot is coated in a special long-life material, which is best suited for lead-free solder. This is provided as a standard feature.

## HAKO FX-300 SOLDERING POT

High Performance Soldering Pot **Analog**



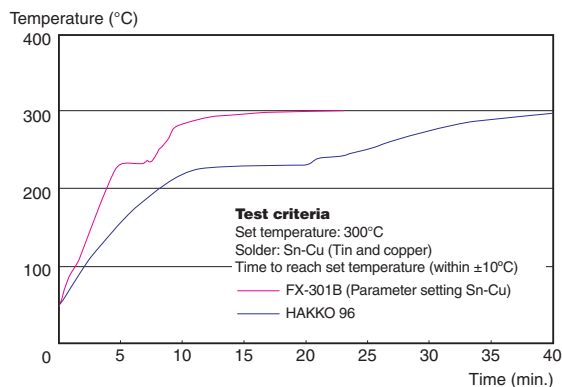
- Temperature can be adjusted just by turning a knob during operation.
- Adding an optional specially coated stainless-steel pot provides compatibility with lead-free solder.



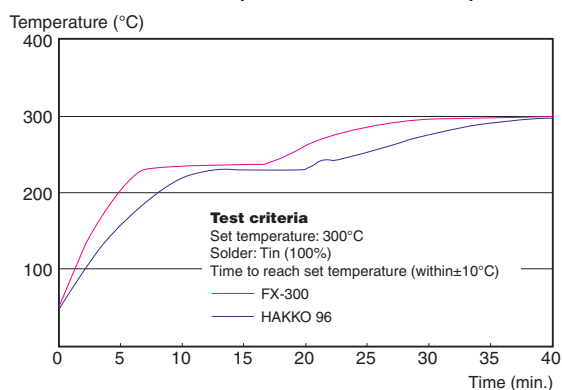
## Quick Heat Up

### Time comparison to reach set temperature

#### FX-301B vs. HAKKO 96 (conventional model)



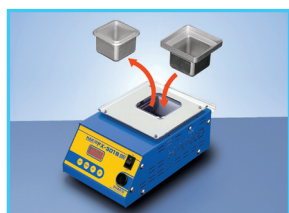
#### FX-300 vs. HAKKO 96 (conventional model)



## Easy Pot Replacement



Loosen the screw on both sides.



Change the pot and tighten the screws.

\* For your safety, be sure to replace the pot after the solder completely cools.

## Specially Coated Solder Pot (Durable type)

The special coating prevents the solder pot from corroding, which ensures that the solder pot has a long service life.



Standard solder pot



Specially coated solder pot

## Packing List

<b>FX-301B</b>	Unit (with solder pot, 50 × 50 durable type), Spatula, J-shaped waste collector, Hexagon wrench, Instruction manual
<b>FX-300</b>	Unit (with solder pot, 50 × 50), Spatula, J-shaped waste collector, Hexagon wrench, Instruction manual

## Specifications

Model No.	FX-301B
Power consumption	260 W
Dimensions	143 (W) × 100 (H) × 220 (D) mm
Weight*	1.7 kg

### Pot

Temperature range	50 × 50 square: 200 to 450°C 75 × 75 square: 200 to 380°C
Dimensions of solder pot	50 × 50 square durable type: 50 (W) × 42.2 (H) × 50 (D) mm 75 × 75 square durable type: 75 (W) × 51.2 (H) × 75 (D) mm
Molten solder capacity**	50 × 50 square: 0.85 kg 75 × 75 square: 1.2 kg

Model No.	FX-300
Power consumption	205 W
Dimensions	143 (W) × 100 (H) × 220 (D) mm
Weight*	1.7 kg

### Pot

Temperature range	50 × 50 square: 200 to 450°C 75 × 75 square: 200 to 380°C
Dimensions of solder pot	50 × 50 square standard type: 50 (W) × 42.2 (H) × 50 (D) mm 75 × 75 square standard type: 75 (W) × 51.2 (H) × 75 (D) mm
Molten solder capacity**	50 × 50 square: 0.85 kg 75 × 75 square: 1.2 kg

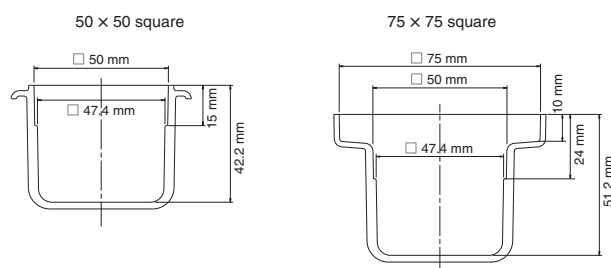
\* Without solder and cord

\*\* The 50 × 50 square solder pot is originally installed. The 75 × 75 square solder pot is an optional part.

## Option / Replacements

Part No.	Name	Specifications
A1539	Solder pot	50 × 50 durable type
A1540	Solder pot	75 × 75 durable type
A1517	Solder pot	50 × 50
A1518	Solder pot	75 × 75
A1310	Temperature probe	For solder bath and pot

## Dimensions of Solder Pot



## HA-KO 96 SOLDERING POT

### Soldering Pot

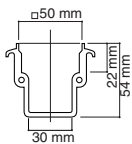


- Temperature can be adjusted just by turning a knob during operation.

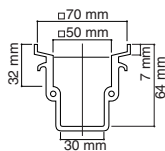
### Features

#### Dimensions of Solder Pot

50 x 50 square



70 x 70 square



#### Operation



### Packing List

96, 96-1	Unit, Spatula, Instruction manual
----------	-----------------------------------

### Specifications

Part No.	96	96-1
Power consumption	200 W	
Dimensions	135 (W) × 105 (H) × 224 (D) mm	135 (W) × 120 (H) × 224 (D) mm
Weight*	1.5 kg	1.6 kg
Temperature range	100 to 450°C	100 to 380°C
Dimensions of solder pot	50 (W) × 54 (H) × 50 (D) mm	70 (W) × 64 (H) × 70 (D) mm
Molten solder capacity	0.85 kg	1.2 kg

\* Without cord