# **IH Soldering Station**







- 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.



Good Design Award has been a sole comprehensive design evaluation and commendation system in Japan since 1957. "G Mark", the symbol of the award has been recognized widely as a mark representing good design.

### **Packing List**

FX-100

Station, Handpiece (FX-1001), Heat resistant pad, Power cord, Sleeve (green), Sleeve (gray), Cleaning wire, 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		
Heating element	IH (Induction heating)	
Cord length	1.3 m	
Total length*	190 mm with 2.4D tip for 400°C and 350°C 193 mm with 2.4D tip for 450°C	
Weight*	31 g (with 2.4D tip for 400°C)	

\* Without cord

S

Unit: mm

### Features

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

The HAKKO 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. The 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.



"03" for 350°C

# Optional Tips for the FX-1001



# **All-Round Soldering Station**

# SOLDERING STATION FX-888D

## All-Round Soldering Station Digital

Tip included







- Features Adjustment mode, Preset mode, and Password function
- Separable tip/heater design provides superior cost performance.

### **Packing List**

FX-888D

Station, Handpiece (FX-8801), Iron holder, Instruction manual

#### **Specifications** Power consumption 70 W Temperature range 50 to 480°C Temperature stability ±1°C at idle temperature Station Output voltage AC 26 V Dimensions 100 (W) $\times$ 120 (H) $\times$ 120 (D) mm Weight 1.2 kg Soldering Iron Power consumption 65 W (26 V) 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)

46 g (with B tip)

Weight\*
\* Without cord

### Features

#### Strict temperature management

### Digital display

The FX-888D'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 the FX-888D.





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

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	Connector	
Tip shape	Shape-1.2D	
Temperature setting	360°C	
Solder	Lead-free solder (Sn/Ag/Cu), diameter: 0.5 mm	

# Graph of a comparison of the performance of the HAKKO FX-888D and a conventional station



# Accessories for HAKKO FX-888D

# N<sub>2</sub> Soldering Iron Tip included HAK:0 FX-8802 ESO

# 

# **Soldering Gun**





# 

# **SMD Hot Tweezers**





Packing List			
FX-8802	Handpiece, Shield plate, Instruction manual		
FX-8803	Handpiece, Instruction manual		
FX-8804	Handpiece, Caution label, Heat resistant pad, Instruction manual		
NOTE: The soldering iron cannot be used as a standalone device.			
Specificatio	ns		
Model No.		FX-8802	
Power consumption		65 W (26 V)	
Temperature range		50 to 480°C	
Tip to ground register		-20	

	1	
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)	
* 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	ø1.0 mm	
Usable solder diameter	0.6, 0.8, 1.0, 1.2, 1.6 mm	
Cord length	1.1 m	
Dimensions	170 (W) × 180 (H) × 23 (D) mm	
Weight*	177 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	

\* Without cord \* 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.

### 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

Soldering Iron



### **Replacement Tips and Nozzles for the FX-8802**

Please see the replacement tips on P.29

### Replacement Tips for the FX-8804

For Chip Com	ponent		
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	A,B 45°
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	A THE
A1392	Tip/SOP 15L	15 mm	U  2 +
A1383	Tip/SOP 18L	18 mm	
A1384	Tip/SOP 20L	20 mm	
A1385	Tip/SOP 25L	25 mm	

# High Performance Soldering Station





# 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 ø1.6 mm × 5 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 x 5 mm	

#### Composite tip



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

### Variety of tips



 $\begin{array}{l} \mbox{Connectable with $N_2$ soldering iron} \\ \mbox{To improve solder wettability and spreadability} \end{array}$ 



# 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

# 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) x 130 (H) x 131 (D) mm FX-950: 80 (W) x 118 (H) x 138 (D) mm	
Weight	1.2 kg	
Soldering Iron		
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		

|--|--|

Part No.	Name	Specifications
FH200-01	Iron holder	With power-save function and cleaning wire
FH200-02	Iron holder	With power-save function and cleaning sponge

\* In order to use the power-save function with the FX-950, the FH200-01 or FH200-02 iron holder is required.



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

Soldering Iron T15-R27 Shape-2.7R T15-R34 Shape-3.4R T15-R48 Shape-4.8R 55 4 T15-SB08 Shape-0.8SB T15-SBS04 Shape-0.4BS 4.5 T15-1004\*\* T15-1005\*\* Tunnel 9.5 x 15.8 Tunnel 9.5 x 13.2 15.8 13.2 T15-1009\*\* T15-1010\*\* Tunnel 13.4 x 20.5 Tunnel 19.5 x 12 14.8 13.4 0 0 σ



These tips are tinned on the soldering surface only.

T15-R20 Shape-2.0R

R

T15-R23 Shape-2.3R

34.6 2.3

 $\bigcirc$ 

\*\* 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 Iron

# SOLDERING STATION FX-838

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



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

## Features



#### Graph of a comparison of the performance of the HAKKO 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		
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	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.
Component used         Terminal           Tip shape         Shape-1.6D           Temperature setting         340°C           Solder         Lead-free solder (Sn/Ag/Cu), diameters 0.5 mm	Board	Bakelite board
Tip shape     Shape-1.6D       Temperature setting     340°C       Solder     Lead-free solder (Sn/Ag/Cu), diameter: 0.5 mm	Component used	Terminal
Temperature setting     340°C       Solder     Lead-free solder (Sn/Ag/Cu), diameter: 0.5 mm	Tip shape	Shape-1.6D
Solder Lead-free solder (Sn/Ag/Cu),	Temperature setting	340°C
ulameter. 0.5 min	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.





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



For further details, see the N<sub>2</sub> soldering system (P.26 & P.27).

Packing List	
FX-838	Station, Handpiece (FX-8301), Control card, Power cord, Heat resistant pad, Connecting cable, Iron holder, Instruction manual
FX-8302	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 & Accessories



#### Handpiece Combination Examples



Handpiece	Channel D	Channel S
	connector	connector
FM-2027	0	0
FM-2022 *1	0	×
FM-2023 *1	0	×
FM-2024 *2	0	0
FM-2026 *3	0	0
FM-2032	0	0

\*1 When the FM-2022 or FM-2023 is connected to the channel D connector, both channel connectors can't be used at the same time.

\*2 When two FM-2024s are connected to the channel connectors, each FM-2024 must be connected to the desolder control box.

\*3 For the FM-2026, each handpiece needs an N<sub>2</sub> generator (HAKKO FX-780), flow meter (HAKKO FX-791), compressor, regulator, etc. For further details, see the N<sub>2</sub> soldering system (P.26).



\*1 The FM-2024 can be connected to receptacle 2 and 3. However, only one FM-2024 can be used with the station.

\*2 For the FM-2031 and FM-2026, each handpiece needs an N<sub>2</sub> generator (HAKKO FX-780), flow meter (HAKKO FX-791), compressor, regulator, etc. For further details, see the N<sub>2</sub> soldering system (P.26).

NOTE: The FM-2024 and FM-2029 can't be used at the same time



# 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) $\times$ 120 (H) $\times$ 190 (D) mm	
Weight	2.7 kg	
Soldering Iron (FM-2027	)	
Power consumption	70 W (24 V)	
Tip to ground resistance	<2Ω	
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	410 W (max.)	
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	Cylinder type vacuum pump	
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 (EM-2027	)	
Power consumption	70 W (24 V)	
Tip to ground registance	<20	
Tip to ground notential	<2 mV	
Heating element	Composite heater	
Cord length	12 m	
Total length*	188 mm (with 2.4D tip)	
Weight*	30 g (with 2.4D tip)	
Desoldering Tool (EM-2024)		
Power concumption	70 W (24 V)	
Negrale to ground registered	70 W (24 V)	
Nozzle to ground resistance	<2 52	
	Composite neater	
Cord length	1.2 m	
Woight**		
weight	oo y (wiiii øi.0 mm nozzie)	
Hot Air Handpiece (FM-2	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 ø4.0 mm nozzle)	
Weight***	50 g (with ø4.0 mm nozzle)	

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	<2Ω
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 ø1.0 mm nozzle)
Weight*	65 g (with ø1.0 mm nozzle)
Desolder Control Box	
Power consumption	12 W (24 V)
Vacuum generator	Ejector type
Vacuum pressure	Max. 93 kPa (700 mmHg)
Suction flow	28 L/min.
Nozzle to ground potential	<2 mV
Applied air pressure	490 kPa (5.0 kgf/cm <sup>2</sup> ) While trigger or button is pressed
Compressed air consumption	46 L/min.
Outer dimensions	119 (W) x 45 (H) x 172 (D) mm
Weight*	1.2 kg
Without cord	
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)
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)
vveight	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	

FM-2031
140 W (24 V)
<2 Ω
<2 mV
Composite heater
1.2 m
231 mm (with 2.4D tip)
47 g (with 2.4D tip and nozzle assembly E)

Without cord and tube

# Packing List

FM-203	Station, Handpiece (FM-2027), Sleeve assembly, Connecting cable, Power cord, Control card, Iron holder, Tip tray, Heat resistant pad, Instruction manual
FM-206	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), 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
FM-2022 (Conversion kit)	Parallel remover, Heat resistant pad, Iron holder, Connecting cable, Instruction manual
FM-2023 (Conversion kit)	Mini parallel remover, Soldering tip (T9-I), Heat resistant pad, Iron holder, Component bed, Connecting cable, Instruction manual

### FM-2024 Features

Please see the features on P.46.

### FM-2029 Features

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



### FM-2032 Size



FM-2024 (Conversion kit, with DCB)	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
FM-2026 (Conversion kit)	Handpiece, Sleeve cover, Sleeve assembly (yellow), Heat resistant pad, Iron holder, Connecting cable, Instruction manual
FM-2027 (Conversion kit)	Handpiece, Sleeve assembly (yellow), Heat resistant pad, Iron holder, Connecting cable
FM-2029 (Conversion kit)	Handpiece (hot air), Handpiece holder, Heat resistant pad, Connecting cable, Instruction manual
FM-2030 (Conversion kit)	Handpiece (soldering), Heat resistant pad, Iron holder, Connecting cable, Instruction manual
FM-2031 (Conversion kit)	Handpiece (soldering), Heat resistance pad, Iron holder, Connecting cable, Instruction manual
FM-2032 (Conversion kit)	Handpiece, Heat resistant pad, Iron holder, Connecting cable, Instruction manual

### FM-2030 Features

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

Temperature (°C)



#### 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: 1.0 mm	

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# **High Performance Rework Station & Accessories**



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



\* 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 & Accessories**



# **Optional Tips for the FM-2030**

Unit: mm T22-BL Shape-BL T22-BC2 Shape-2BC T22-C5 Shape-5C T22-C6 Shape-6C T22-BL2 Shape-2BL T22-C3 Shape-3C 17 10 T22-D24 Shape-2.4D T22-D32 Shape-3.2D T22-D08 Shape-0.8D T22-D12 Shape-1.2D T22-D16 Shape-1.6D T22-D45 Shape-4.5D (()L 0.5 10 T22-D52 Shape-5.2D T22-J02 Shape-0.2J T22-JD08 Shape-0.8JD T22-K Shape-K 0.7 11

#### **Optional Nozzles for the FM-2024** Unit: mm N3-06 Nozzle ø0.6 N3-08 Nozzle ø0.8 N3-10 Nozzle ø1.0 N3-16 Nozzle ø1.6 N3-13 Nozzle ø1.3 ø1.9 ø0.6 ø0.8 ø2.2 ø2.6 ø1.3 82 ø3 10.7 10.7 10.7 10.7 10.7 N3-20 Nozzle ø2.0 N3-23 Nozzle ø2.3 N3-L10 Nozzle ø1.0 Long ø3.8 ø2.3 ø3.4 ø2.3 02 2 10.7 10.7

#### **Optional Nozzles for the FM-2029** Unit: mm øВ ØÅ øΑ øΒ $\bigcirc$ N4-01 Nozzle ø2.0 2.0 2.5 N4-02 Nozzle ø4.0 4.0 5.0 N4-03 Nozzle ø6.0 6.0 7.0 N4-04 Nozzle ø8.0 8.0 9.0

# Optional Tips for the FM-2026

Please see the optional tips on P.28.

# **Optional Tips for the FM-2031**

Please see the optional tips on P.28.

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



# HAKOFX-791

# N<sub>2</sub> Flowmeter



#### LEAD FREE ROHS

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

### Improved Solderability

· Wettability and spreadability comparisons



Approx. 50% up



 Less bridging occurs even for components susceptible to bridging.

0.2 MPa (2.0 kgf/cm<sup>2</sup>)

0.25 to 2.5 L/min.

70 (W)  $\times$  121 (H)  $\times$  134 (D) mm

600 g



Pressure of discharged gas

Gas flow

Weight

Dimensions

### **Specifications**

Model No.	FX-780	FX781
Air supply pressure	0.3 to 0.7 MPa	
Concentration of generated $N_2$	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) $\times$ 407 (H) $\times$ 71 (L) mm
Weight**	1.5 kg	2 kg

\* Without sockets and valve

\*\* Without racks

### **Packing List**

FX-780	Unit, Rack for unit (2 pcs), Instruction manual	FX-781	Unit, Racks for unit (4 pcs), Instruction manual
FX-791	Unit, Instruction manual		

Soldering Iron





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



\*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)





Nozzle assembly C

Soldering Iron



# Replacement Tips and Nozzles Assemblies for the FX-8802 Tip and nozzle assembly are supplied separately. Please purchase a compatible nozzle assembly for your tip referring the chart below. Unit: mm

Nozzle assembly				
T18-B Shape-B	T18-C05 Shape-0.5C	T18-C1 Shape-1C T18-CF1*	T18-C2 Shape-2C T18-CF2*	T18-C3 Shape-3C T18-CF3*
(c) *0.5 14.5	52 A5 13.5	- - - - - - - - - - - - - - - - - - -	2 45	32 45 14.5
B3662 Nozzle assembly A	B3664 Nozzle assembly C	B3664 Nozzle assembly C	B3662 Nozzle assembly A	B3663 Nozzle assembly B
T18-D08 Shape-0.8D	T18-D12 Shape-1.2D	T18-D16 Shape-1.6D	T18-D24 Shape-2.4D	T18-K Shape-K
	0.7 14.5			
B3662	B3662	B3663	B3663	B3665
Nozzle assembly A	Nozzle assembly A	Nozzle assembly B	Nozzle assembly B	Nozzle assembly D
T18-I Shape-I				
14.5				
B3664		<i>.</i> .		

Nozzle assembly C

These tips are tinned on the soldering surface only.

# **Ceramic Heater Soldering Iron**



# **Ceramic Heater Soldering Iron**





# C E

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

### **Packing List**

FX-650

### **Features**

Slim handle improves your work efficiency!

Unit



#### Simple and easy tip replacement



Quick change just loosing a screw

### **Replacement Tips for the DASH**

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		
Without cord			

### Option

Part No.	Name	Specifications
633-01	Iron holder	With 599B
633-02	Iron holder	With cleaning sponge

#### Unit: mm Т34-В T34-C08 80 0? T34-C2 T34-C3 T34-C4 T34-D32 T34-I . 8 $(\bigcirc$ $( \square )$ 45 6.5 0.5

# **Battery-Powered Soldering Iron**

# HAKOFX-901

**Battery-Powered Soldering Iron** 





# 

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

# Easy Replacement



# **Packing List**

FX-901	Unit, Cap
Pottorioo pot 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 minut	
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 in 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

### **Replacement Tips for the FX-901**



Unit: mm

# **Soldering Pot**

# SOLDERING POT

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.

# 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

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



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



### Easy Pot Replacement





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**

FX-301B	Unit (with solder pot, 50 × 50 durable type), Spatula, J-shaped waste collector, Hexagon wrench, Instruction manual
FX-300	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) × 43.5 (H) × 50 (D) mm 75 × 75 square durable type: 75 (W) × 52.5 (H) × 75 (D) mm	
Molten solder capacity**	50 × 50 square: 0.85 kg 75 × 75 square: 1.2 kg	
Model No.	FX-300	
Model No. Power consumption	FX-300 205 W	
Model No. Power consumption Dimensions	FX-300 205 W 143 (W) × 100 (H) × 220 (D) mm	
Nodel No. Power consumption Dimensions Weight*	FX-300 205 W 143 (W) × 100 (H) × 220 (D) mm 1.7 kg	
Model No. Power consumption Dimensions Weight* •Pot	FX-300 205 W 143 (W) × 100 (H) × 220 (D) mm 1.7 kg	
Model No. Power consumption Dimensions Weight* •Pot Temperature range	FX-300           205 W           143 (W) × 100 (H) × 220 (D) mm           1.7 kg           50 × 50 square: 200 to 450°C           75 × 75 square: 200 to 380°C	
Model No. Power consumption Dimensions Weight* •Pot Temperature range Dimensions of solder pot	FX-300           205 W           143 (W) × 100 (H) × 220 (D) mm           1.7 kg           50 × 50 square: 200 to 450°C           75 × 75 square: 200 to 380°C           50 × 50 square standard type:           50 (W) × 43.5 (H) × 50 (D) mm           75 × 75 square standard type:           50 (W) × 43.5 (H) × 50 (D) mm           75 × 75 square standard type:           75 (W) × 52.5 (H) × 75 (D) mm	
Model No. Power consumption Dimensions Weight* • Pot Temperature range Dimensions of solder pot Molten solder capacity**	FX-300           205 W           143 (W) × 100 (H) × 220 (D) mm           1.7 kg           50 × 50 square: 200 to 450°C           75 × 75 square: 200 to 380°C           50 × 50 square standard type:           50 (W) × 43.5 (H) × 50 (D) mm           75 × 75 square standard type:           75 (W) × 52.5 (H) × 75 (D) mm           50 × 50 square standard type:           75 (W) × 52.5 (H) × 75 (D) mm           50 × 50 square: 0.85 kg           75 × 75 square: 1.2 kg	

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

#### **Option / Replacements** A1539 Solder pot $50 \times 50$ durable type $75 \times 75$ durable type A1540 Solder pot $50 \times 50$ A1517 Solder pot 75 × 75 A1518 Solder pot For solder bath and A1310 Temperature probe pot

# **Dimensions of Solder Pot**







# Soldering Pot



**Soldering Pot** 



### **Features**

#### **Dimensions of Solder Pot**





# 

• Temperature can be adjusted just by turning a knob during 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		
A Cale a set a small				

Without cord

#### Operation

