HAKKO

Blue meets yellow
GREEN PROJECT

FRIENDLY innovation

CATALOG

Quality Tools for the electronics Industry



“To deliver excitement to our customers” This statement reflects Hakko’s ideal.

In creating products, we not only make products as a manufacturer, but also add hospitality, in order to express our ideal of delivering excitement to our customers. The ideal is also our basis for continuing to meet the challenges of creating new possibilities.

Hakko’s products offer the best soldering for any component, in any environment, from the latest electronics to hobbies and crafts. Each genre is expanding without limits as the 21st century technology continues to advance and the world becomes increasingly borderless.

We give form to ideas beyond the norm by facing the user’s true needs with a welcoming feeling. Hakko confidently introduces soldering irons and related equipment with world class quality, starting with the new products designed in Blue & Yellow.





The Blue which inherited from the HAKKO corporate blue, this expresses both the tradition that we continue and the beauty of the global environment.
The Yellow which is resonating with HAKKO corporate blue, this yellow express the imagination of every single employee and our team spirit.

HAKKO BLUE & YELLOW

FRIENDLY innovation

Not only has Hakko been approved by ISO 9001 & 14001, but we are also conducting our own campaigns. We are involved in improving quality through 3 “friendlies.”

“Hakko is friendly to customers”
We always strive to take on the perspective of our customers and think outside the normal frameworks to deliver products that amaze and excite customers.

“Hakko is friendly to society”
We take the environment into careful consideration when creating the products so that people and nature co-exist. In addition, each individual carries out activities that are valuable to the society.

“Hakko employees are friendly to each other”
Teamwork is very important in order to deliver the products that excite the customers. Creative power stems from the relations among the employees as well as between the Hakko international groups.

Blue meets yellow
GREEN PROJECT

Hakko, as a specialized manufacturer of soldering irons, has established the Green Project.

We promote the development of products that are friendly to the environment (e.g., conforming to the EU RoHS directives, etc.), starting with products compatible with lead-free soldering.

We rapidly respond to the latest needs of our customers. Our lineup of products, including new products designed in Blue & Yellow and products compatible with lead-free soldering (e.g., soldering irons for various purposes, desoldering stations, etc.), could only be offered by a specialized manufacturer like Hakko.

Furthermore, our Green Project not only eliminates the hazardous materials from the products, but also aims to expand our activities so that our business is friendly to the people and the society. Hakko is always moving forward with our eyes on the future to deliver products that excite customers throughout the world.









Our company has been certified under ISO 9001 (JIS Q 9001), the international quality system standards. We are also certified under ISO 14001 (JIS Q 14001) and are actively involved in preserving the global environment.



Quality Tools for the electronics Industry

Products List

Soldering

Soldering Station



P.6~17, 22~25

N_2 System



P.18~21

Soldering Gun



P.26~27

Self Feeder



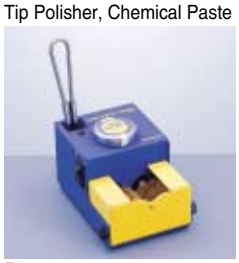
P.28~29

Cordless Soldering Iron



P.30

Tip Polisher, Chemical Paste



P.31

Iron Holder



P.31

Solder Reel Stand



P.31

Soldering Pot



P.32~33

Thermometer, Soldering Tester



P.34~35

Desoldering / Rework

Desoldering Station, Desoldering Tool



P.36~41

SMD Rework Station



P.42~44

Preheater



P.45

SMD-BGA Repair System



P.45

SMD Desoldering



P.46~47

Repair System



P.48

Rework System



P.49

Smoke Cleaner / Static Control

Smoke Cleaner



P.50

Wrist Strap



P.51

System Tester



P.51

Other Tools

Cutting Tool



P.52

Vacuum Pick-up



P.53

Lead Former/Lead Cutter



P.54~55

LEAD FREE Helps you lead-free solder application.

ESD SAFE ESD safe by design.

INDEX

Soldering

HAKKO FX-888 6
HAKKO FM-203 10
HAKKO FM-2027 10
HAKKO MODEL FM-2022 10
HAKKO MODEL FM-2023 10
HAKKO MODEL FM-2024 10
HAKKO FX-951 14
HAKKO FX-950 14
HAKKO N_2 System 18
HAKKO FX-780 19
HAKKO FX-791 19
HAKKO FM-2026 19
HAKKO 957 19
HAKKO 938 22
HAKKO 937 24
HAKKO 951 26
HAKKO 952 26
HAKKO 958 27
HAKKO 959 27
HAKKO 373 28
HAKKO 375 29
HAKKO FX-901 30
HAKKO FT-700 31
HAKKO FS-100 31
IRON HOLDER 31
HAKKO 611 31
HAKKO FX-301B 32
HAKKO FX-300 32
HAKKO 96 33
HAKKO FG-100 34
HAKKO FG-101 34



Desoldering/ Rework

HAKKO FM-204 36
HAKKO MODEL FM-2024 36
HAKKO 474 38
HAKKO 475 38
HAKKO 809 39
HAKKO 815 39
HAKKO 816 39
HAKKO 808 40
HAKKO SPPON 41
HAKKO WICK 41
HAKKO FR-801 42
HAKKO FR-802 42
HAKKO FR-803B 42
HAKKO FR-820 45
Nozzle Tray 45
Omnivise 45
Rework Fixture 45
HAKKO MODEL FM-2022 46
HAKKO MODEL FM-2023 46
HAKKO 950 47
HAKKO 701 48
HAKKO 702B 49



Smoke Cleaner/ Static Control

HAKKO 490 50
HAKKO 442B 51
HAKKO 496 51
HAKKO 498 51



Other Tools

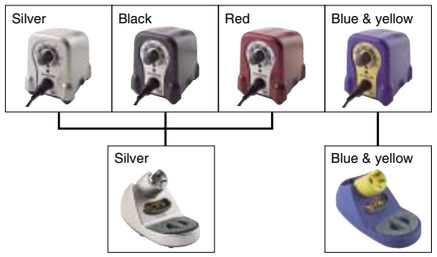
HAKKO CUTTING TOOL 52
HAKKO 394 53
HAKKO 153 54
HAKKO 154 54
HAKKO 155 54
HAKKO DIPLINER 55



HAKKO FX-888 ESD SAFE
SOLDERING STATION



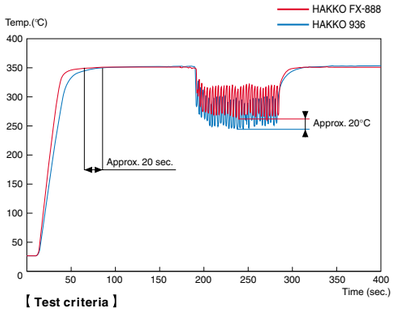
- You can select from 4 color variations, which adds the fun of selecting the color as well as the function.
- Heater output increased to 65W.
- Excellent thermal recovery.
- The calibration (CAL) screwdriver is included as a standard accessory.
- 3 types of cleaning methods available in one soldering iron holder.
- Space-saving compact design.



Heater output increased to 65W

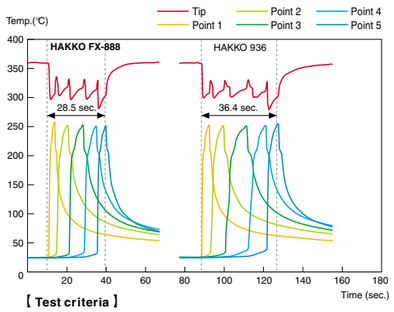
Output has been increased by 30% compared to that of the HAKKO 936. The conventional tip design was reviewed and the shape was improved to provide more efficient heat transfer from the heating element. As a result, the thermal recovery time to 350°C is 20 seconds faster, and the drop in tip temperature during continuous work is reduced (refer to the thermal recovery graph), enabling the time for performing the same work to be shortened (refer to the graph showing performance comparison) and work efficiency to be greatly increased.

Thermal recovery graph



【 Test criteria 】
- Board: Paper phenol copper
  Solder: ø1.6 x 5mm
  Cycle: Every 3 sec.
- Lead-free solder is used.

HAKKO FX-888 performance comparison graph with conventional station



【 Test criteria 】
- Board: Paper phenol copper
  Solder: ø1.6 x 5mm
  Cycle: Every 3 sec.
- Lead-free solder is used.

Downsized to save space

The new FX-888 realizes space savings of approx. 50% in mounting area in comparison with conventional stations. It enables working space to be secured, which is important factor with the introduction of cell production.



Comparison in size between FX-888 and HAKKO 936

The calibration (CAL) screwdriver is included as a standard accessory

The calibration (CAL) screwdriver (resin) is stored in the bottom of station as a standard accessory. This enables temperature compensation to be adjusted easily and reduces the possibility of damage to the calibration volume.



Design improved for easier use

3 types of cleaning methods available in one soldering iron holder

Cleaning sponge

Residual solder and flux adhering on the tip can be wiped off by the sponge soaked with water.



Rubber cleaner

Residual solder and flux adhering on the tip can be wiped off on the silicone rubber cleaner. Use without water prevents the tip temperature from decreasing rapidly or tip oxidation from being promoted.



Cleaning wire

Residual solder and flux adhering on the tip is removed by inserting the tip into a thin metallic wire. This cleaning wire leaves an appropriate amount of solder on the tip end, which prevents the tip from being oxidized. Use without water prevents the tip temperature from decreasing rapidly or tip oxidation from being promoted.





Reduce sounds with storing the iron



A protective cap installed in the iron receptacle is provided to reduce sounds when storing the iron.

Easy trashing of solder waste



The iron holder base is provided with a detachable waste collecting plate, which improves its maintainability.



Specifications

Model No.	FX-888
Main body color choices	Silver; Black; Red; Blue & yellow
Power Consumption	70W
Temperature Range	200-480°C
Temperature Stability	±1°C
Temperature Setting Lock Type	Dial screw type

Station

Voltage	26V
Dimensions	100(W) x 120(H) x 130(D)mm
Weight (w/o cord)	1.3kg

Iron

Model No.	FX-8801
Power Consumption	65W (26V)
Tip to Ground Resistance	< 2Ω
Tip to Ground Potential	< 2mV
Cord	1.2m
Total Length (w/o cord)	190mm
Weight (w/o cord)	44g

Replacement Tips

Please refer to page 8.

Packing List

Model Name	Contents
HAKKO FX-888	Station ..... 1 Iron (FX-8801) ..... 1 Iron holder with rubber cleaner and cleaning sponge (No.FH800-01BY/FH800-01SV) ..... 1 Cleaning wire ..... 1 Hexagon wrench ..... 1 CAL adjustment driver* 1

*CAL adjustment driver is attached to the bottom of the station.

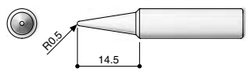
Replacement and Optional Parts

Part No.	Name/Description
FX8801-01	Soldering iron FX-8801/26V-65W
FH800-01BY	Iron holder FH-800/Blue & yellow
FH800-01SV	Iron holder FH-800/Silver
A1559	Cleaning sponge
A1561	Cleaning wire
B3474	Rubber cleaner
A1560	Heating element/26V-65W
B3469	Tip enclosure
B1785	Nut
B2022	Nipple
B3466	CAL adjustment driver

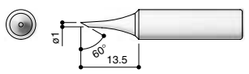
Optional Tips

Unit : mm

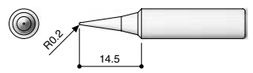
T18-B



T18-C1



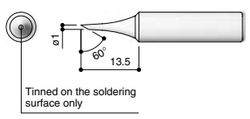
T18-I

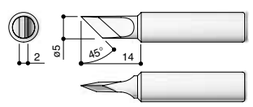


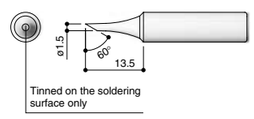
T18-CF1

T18-K

T18-CF15



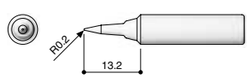


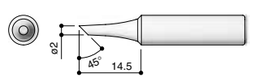


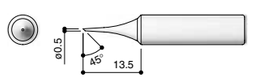
T18-SB

T18-C2

T18-C05



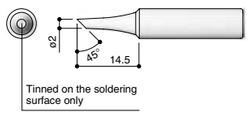


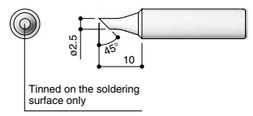


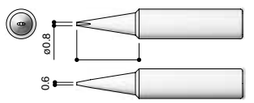
T18-CF2

T18-CSF25

T18-D08



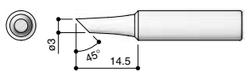


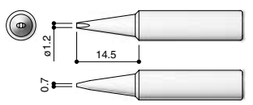


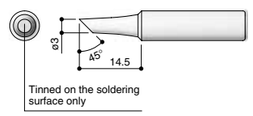
T18-C3

T18-D12

T18-CF3



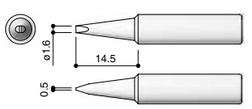


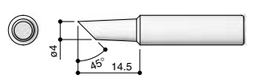


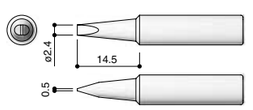
T18-D16

T18-C4

T18-D24

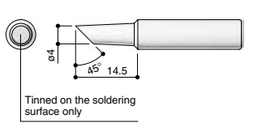


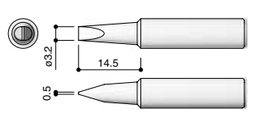




T18-CF4

T18-D32







HAKKO FM-203 ESD SAFE
SOLDERING STATION



A single station plays multiple roles of soldering, desoldering and SMD rework.

- Two connection ports:–
  Two soldering irons can be connected at the same time, which allows users to select and use the appropriate one without having to connect them alternatively.
- Powerful thermal recovery
- Sleep function
- Auto power shut-off function

Soldering



HAKKO FM-2027 ESD SAFE

- Light weight grip provides anti-fatigue work even for extended jobs.
- New colored antibacterial sleeves can be replaced more easily than conventional ones.
- Four colored sleeves are provided. Using color classification for tip shape enables convenient work.

SMD Rework



MODEL FM-2022



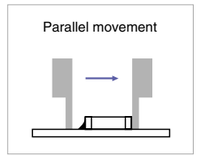
MODEL FM-2023

HAKKO MODEL FM-2022 ESD SAFE · HAKKO MODEL FM-2023 ESD SAFE
PARALLEL REMOVER / MINI PARALLEL REMOVER

- Unique parallel movement of tips allows easy removal.
- Direct heating prevents damage to neighboring sensitive components comparing with hot air.

FM-2022:–
- Can be used for chips and flat packages up to 25mm in size.

FM-2023:–
- Standard or reverse tweezers action can be selected with a switch lever.
- Equipped with a small ergonomic grip.



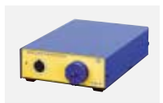
Desoldering - external air compressor type



HAKKO MODEL FM-2024 ESD SAFE
DESOLDERING TOOL

- Small ergonomic style grip with light weight provides anti-fatigue work.
- New design with reduced distance between the nozzle end and filter pipe prevents clogging by sucked solder.
- Easy maintenance:–
  Uses disposable paper filter pipes
  One-touch nozzle replacement
- Detachable handle allows two-way use: gun type or straight type
- Safe design:–
  Equipped with a nozzle lock function
  Nozzles can be safely replaced with the nozzle remover.

* Before using the FM-2024 unit, connect to a compressor.



* Desoldering Control Box (DCB) for MODEL FM-2024

Conversion Kit

FM-2027 Conversion Kit (No.FM2027-03)



FM-2022 Conversion Kit (No.FM2022-05)



FM-2023 Conversion Kit (No.FM2023-06)



FM-2024 Conversion Kit



No.FM2024-34 Conversion kit (UK)
No.FM2024-35 Conversion kit (France)
No.FM2024-33 Conversion kit (Other EU Countries)

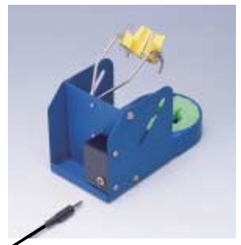
Sleep function

After the iron is inserted into the iron holder, the sleep function activates for a user-settable time (0 to 29 min.) and the tip temperature will decrease to approx. 200°C.

Auto power shut-off function

When 30 minutes have elapsed after inserting the iron into the iron holder, the auto power shut-off function activates and stops to apply power to the heating element.





connecting cable

Connect the FM-203 station and FH-200 iron holder using a connecting cable.

* It is necessary to change unit settings before using sleep and auto power shut-off functions.

Combination examples

Since all handpieces cannot be connected to each connector port, refer to the following table.



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

*1 If the FM-2022 or the FM-2023 handpiece is connected to the channel D connector, the other handpiece connected to the channel S connector can be used with it at the same time. If either handpiece is used, the non-used handpiece will be automatically subject to sleep mode.
*2 If two FM-2024 handpieces are connected to both channel connectors, connect each of them to the desolder control box (DCB).
*3 The N_2 generator and N_2 airflow meter must be connected before using the FM-2026. For further details, refer to pages 18-21.

Specifications

FM-203

Model No.	FM-203
Power Consumption	140W
Temperature Range	200-450°C
Temperature Stability	±5°C at idle temperature

Station

Output	24V
Dimensions	120(W) x 120(H) x 190(D)mm
Weight	2.7kg

FM-2027

Model No.	FM-2027
Power Consumption	70W (24V)
Tip to Ground Resistance	< 2Ω
Tip to Ground Potential	< 2mV
Total Length (w/o cord)	188mm with 2.4D tip
Weight (w/o cord)	30g with 2.4D tip
Cord	1.2m

MODEL FM-2022/MODEL FM-2023

Model No.	FM-2022	FM-2023
Power Consumption	140W (24V)	
Temperature Range	200-400°C	
Tip to Ground Resistance	< 2Ω	
Tip to Ground Potential	< 2mV	
Total Length (w/o cord)	148mm with SOP 25L tip	117mm with I tip
Weight (w/o cord)	64g with SOP 25L tip	37g with I tip
Cord	1.2m	

MODEL FM-2024

Model No.	FM-2024
Power Consumption	70W (24V)
Temperature Range	350-450°C
Tip to Ground Potential	< 2mV
Tip to Ground Resistance	< 2Ω
Total Length (w/o cord)	180mm with ø1.0 nozzle
Weight (w/o cord & hose)	65g with ø1.0 nozzle
Cord	1.2m

Desolder Control Box

Power Consumption	12W
Output	24V
Vacuum Generator	Ejector type
Vacuum Pressure (Max.)	93kPa (700mmHg)
Suction Flow	28ℓ/min.
Nozzle to Ground Potential	< 2mV
Applied Air Pressure	490kPa (5.0kgf/cm²) when in use (trigger or button is pressed)
Compressed Air Consumption	1.62 c.f.m (46ℓ/min.)
Dimensions	119(W) x 45(H) x 172(D)mm
Weight (w/o cord)	1.2kg

Replacement Tips and Nozzles

FM-2027: Please refer to pages 16-17.
MODEL FM-2022, MODEL FM-2023, MODEL FM-2024: Please refer to page 13.

N_2 System



Combination sample with the N_2 system HAKKO FM-203, HAKKO FM-2026, HAKKO FX-780, HAKKO FX-791

* For further details, refer to pages 18-21.

Packing List

Model Name	Contents
HAKKO FM-203	Station ····1 Soldering iron (FM-2027) ····1 Power cord ····1 Iron holder with 599B tip cleaner (No.FH200-01) ····1 Control card ····1 Connecting cable ····1 Tip tray ····1 Heat resistant pad ····1 * Tip is an optional part.
HAKKO FM-2027 (Conversion kit)	Soldering iron (FM-2027) ····1 Iron holder with 599B tip cleaner (No.FH200-01) ····1 Connecting cable ····1 Heat resistant pad ····1 * Tip is an optional part.
HAKKO MODEL FM-2022 (Conversion kit)	Parallel remover (MODEL FM-2022) ····1 Iron holder with cleaning sponge (No.FH200-03) ····1 Connecting cable ····1 Heat resistant pad ····1 * Tip is an optional part.
HAKKO MODEL FM-2023 (Conversion kit)	Mini parallel remover (MODEL FM-2023) ····1 Tips (T9-I/2pcs of set) ····1 Iron holder with cleaning sponge (No.FH200-04) ····1 Connecting cable ····1 Heat resistant pad ····1 Component bed ····1
HAKKO MODEL FM-2024 (Conversion kit)	Desoldering tool (MODEL FM-2024) ····1 Desolder control box (DCB) ····1 Iron holder with 599B tip cleaner (No.FH200-05) ····1 Connecting cable ····1 Cleaning drill ····1 Ceramic paper filter ····10 Filter pipe assembly ····1 Handle (for gun configuration) ····1 Nozzle remover ····1 * Nozzle is an optional part.

Replacement Parts

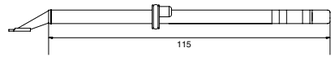
Part No.	Name/Description
FM2027-02	Soldering iron FM-2027/Connector assembly 24V-70W
FM2022-02	Parallel remover MODEL FM-2022/24V-140W
FM2023-02	Mini parallel remover MODEL FM-2023/24V-140W
FM2024-02	Desoldering tool MODEL FM-2024/24V-70W
B3216	Sleeve assembly/yellow
B3218	Sleeve assembly/blue
B3217	Sleeve assembly/orange
B3219	Sleeve assembly/ green
599B-02	Tip cleaner
B3253	Connecting cable
A1514	Ceramic paper filter/10 pcs
A1512	Front holder
A1511	Filter pipe assembly
B2756	Tip tray

Replacement Tips and Nozzles

Unit : mm

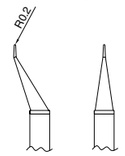
T16 Series For MODEL FM-2022

* 1set: 2pcs.

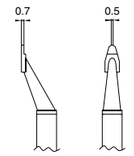


CHIP

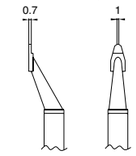
T16-1001 Chip 0.5I



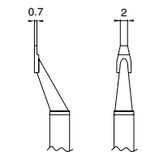
T16-1002 Chip 0.5C



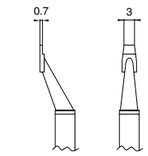
T16-1003 Chip 1L



T16-1004 Chip 2L

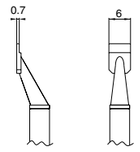


T16-1013 Chip 3L

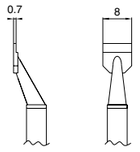


SOP

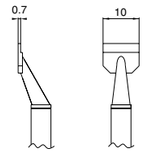
T16-1005 SOP 6L



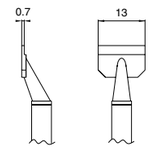
T16-1006 SOP 8L



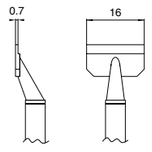
T16-1007 SOP 10L



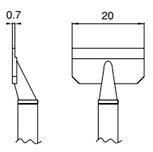
T16-1008 SOP 13L



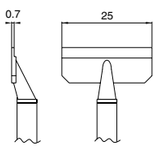
T16-1009 SOP 16L



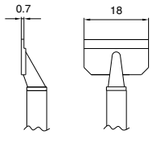
T16-1010 SOP 20L



T16-1011 SOP 25L

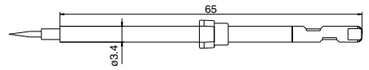


T16-1012 SOP 18L



T9 Series For MODEL FM-2023

* 1set: 2pcs.

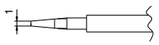


CHIP

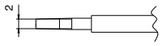
T9-I Chip I



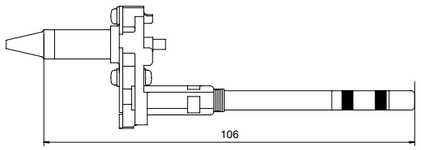
T9-L1 Chip 1L



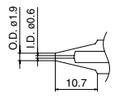
T9-L2 Chip 2L



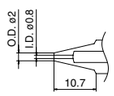
N3 Series For MODEL FM-2024



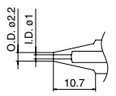
N3-06 Nozzle 0.6mm



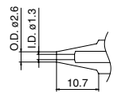
N3-08 Nozzle 0.8mm



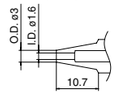
N3-10 Nozzle 1.0mm



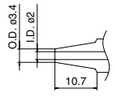
N3-13 Nozzle 1.3mm



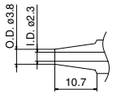
N3-16 Nozzle 1.6mm



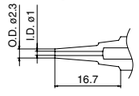
N3-20 Nozzle 2.0mm



N3-23 Nozzle 2.3mm



N3-L10 Long Nozzle 1.0mm



HAKKO FX-951 ESD SAFE

SOLDERING STATION

LEAD FREE · ESD SAFE · CE



Digital type

- Excellent thermal recovery
- Suitable for various kinds of applications from touch up to heavy duty application.
- Informs you of errors via a warning buzzer or display.
- "Control Card" can lock the temperature settings.
- Quick and easy offsetting of tip temperature by the digital offset function.
- Low temperature alarm function is provided.
- Sleep function prevents the tip from being oxidized and extends the tip life.
- Energy-saving automatic power shut-off function.
- Space-saving compact design
- Antibacterial color sleeve enables the tip replacement to be easier and more comfortable.

HAKKO FX-950 ESD SAFE

SOLDERING STATION

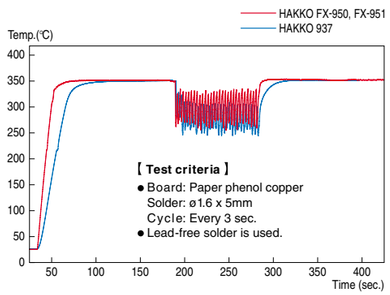
LEAD FREE · ESD SAFE · CE



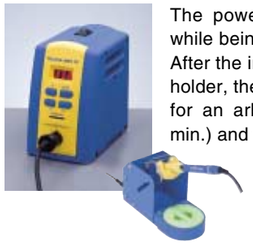
Analog type

- Excellent thermal recovery
- Suitable for various kinds of applications from touch up to heavy duty application.
- "Lock key" can lock the temperature settings.
- Offset function
- Space-saving compact design
- Informing of various errors by lamp.

Thermal Recovery Graph



Power-save Function (HAKKO FX-951)



The power-save function operates while being linked to the iron holder. After the iron is inserted into the iron holder, the sleep function*1 activates for an arbitrarily-set time (0 to 29 min.) and the tip temperature will decrease to 200°C. After 30 minutes have elapsed, the automatic power-off function*2 activates.

*1 To use sleep function, it is necessary to set the desired time arbitrarily in advance.
For using the sleep function with the FX-950, the FH200-01 or the FH 200-02 iron holder is required, which is sold as option. Then, the time before activating the sleep function is fixed by 6 minutes and cannot be changed.

*2 In order to use the automatic power shut-off function, it is necessary to set it in advance.
The FX-950 is not equipped with the automatic power shut-off function.

Performance comparison table

		FX-950	FX-951
Analog/Digital type		Analog	Digital
Thermal setting lock		Lock key	Control card
Power-save function	Auto-power shut-off function	×	○
	Sleep function	○ Optional setting: 6min.	○ Arbitrary: 0 to 29 min.
Low temperature alarm function		×	○

Specifications

Model No.	FX-951	FX-950
Power Consumption	75W	
Temperature Range	200-450°C	
Temperature Stability	±5°C	

Station

Model No.	FX-951	FX-950
Output Voltage	24V	
Dimensions	80(W) x 130(H) x 131(D)mm	80(W) x 118(H) x 138(D)mm
Weight (w/o cord)	1.2kg	

Iron

Model No.	FM-2028
Power Consumption	70W (24V)
Tip to Ground Resistance	< 2Ω
Tip to Ground Potential	< 2mV
Cord	1.2m
Total Length (w/o cord)	188mm with 2.4D tip
Weight (w/o cord)	30g with 2.4D tip

Replacement Tips

Please refer to pages 16-17.

Replacement and Optional Parts

Part No.	Name/Description
FM2028-01	Soldering iron FM-2028 24V/70W w/yellow sleeve
FM2028-02	Soldering iron FM-2028 24V/70W w/blue sleeve
FH200-02	Iron holder FH-200 <cleaning sponge type>
FH101-02	Iron holder FH-101 <cleaning sponge type>
B3253	Connecting cable
A1536	Cleaning sponge/green
599B-02	HAKKO 599B tip cleaner
B2756	Tip tray
B3216	Sleeve assembly/yellow
B3217	Sleeve assembly/orange
B3218	Sleeve assembly/blue
B3219	Sleeve assembly/green

Sleeve Assembly



Four color sleeve assemblies are available. Workability increases if sleeves are changed according to the tip shape and job application.

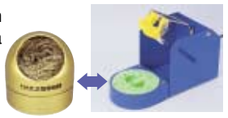
Packing List

Model Name	Contents
HAKKO FX-951	Station ····1
	Iron (FM-2028) ····1
	Power cord ····1
	Iron holder with cleaning sponge (No.FH200-02) ····1
	Control card ····1
	Heat resistant pad ····1
HAKKO FX-950	Station ····1
	Iron (FM-2028) ····1
	Power cord ····1
	Iron holder with cleaning sponge (No.FH101-02) ····1
	Lock key ····1
	Heat resistant pad ····1

* Tips are optional parts.

Iron Holder

The unit can be used with HAKKO 599B instead of a cleaning sponge.



Tip Tray



No. B2756

For storage of tip
* Option
* Tips are not included.

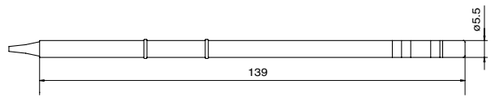
N_2 System



Setting examples with the N_2 system
HAKKO FX-951, HAKKO FM-2026,
HAKKO FX-780, HAKKO FX-791
* For further details, refer to pages 18-21.

Optional Tips

Unit : mm

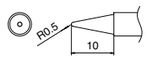


SHAPE B

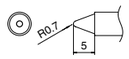
T15-B Shape-B



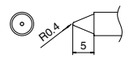
T15-B2 Shape-0.5B



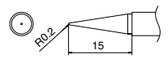
T15-B3 Shape-0.7B



T15-B4 Shape-0.4B

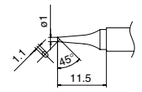


T15-BLL Shape-BL
Long

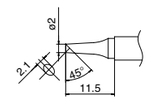


SHAPE BC

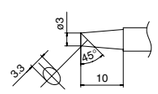
T15-BC1 Shape-1BC
T15-BCF1*



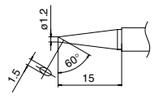
T15-BC2 Shape-2BC
T15-BCF2*



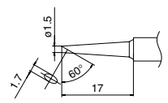
T15-BC3 Shape-3BC
T15-BCF3*



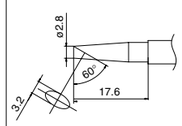
T15-BC12 Shape-1.2BC



T15-BC15 Shape-1.5BC

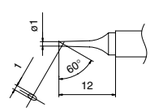


T15-BC28 Shape-2.8BC

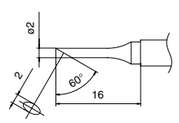


SHAPE C

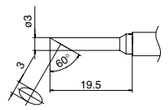
T15-C1 Shape-1C



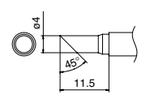
T15-CF2* Shape-2C



T15-CF3* Shape-3C

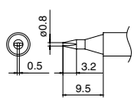


T15-C4
T15-CF4*

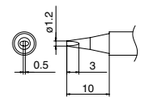


SHAPE D

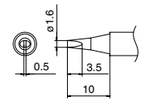
T15-D08 Shape-0.8D



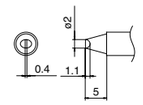
T15-D12 Shape-1.2D



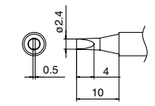
T15-D16 Shape-1.6D



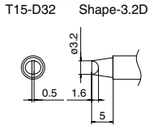
T15-D2 Shape-2D



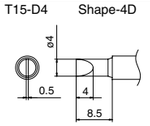
T15-D24 Shape-2.4D



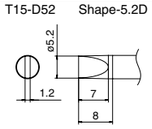
T15-D32 Shape-3.2D



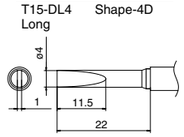
T15-D4 Shape-4D



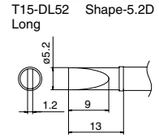
T15-D52 Shape-5.2D



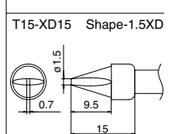
T15-DL4 Shape-4D
Long



T15-DL52 Shape-5.2D
Long

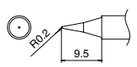


T15-XD15 Shape-1.5XD

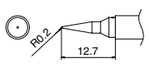


SHAPE I

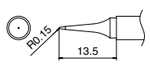
T15-I Shape-I



T15-IL Shape-IL

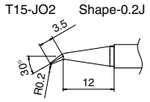


T15-ILS Shape-ILS

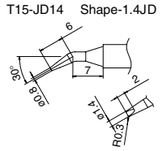


SHAPE J

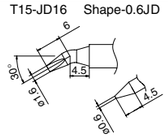
T15-JO2 Shape-0.2J



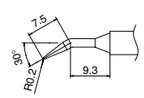
T15-JD14 Shape-1.4JD



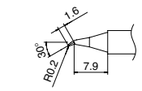
T15-JD16 Shape-0.6JD



T15-JL02 Shape-0.2JL

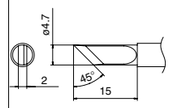


T15-JS02 Shape-0.2JS

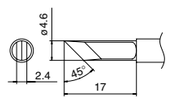


SHAPE K

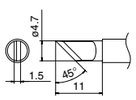
T15-K Shape-K



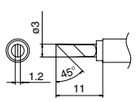
T15-KF Shape-KF



T15-KL Shape-KL

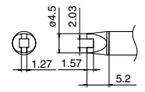


T15-KU Shape-KU



SHAPE R

T15-R20 Shape-2.0R



T15-R23 Shape-2.3R

T15-R27 Shape-2.7R

T15-R34 Shape-3.4R

T15-R48 Shape-4.8R

SHAPE SB

T15-SB02 Shape-0.2SB

T15-SB03 Shape-0.3SB

T15-SB05 Shape-0.5SB

T15-SB08 Shape-0.8SB

T15-SBC04 Shape-0.4SBC

T15-SBS04 Shape-0.4BS

T15-SBS07 Shape-0.7BS

TUNNEL

T15-1001** Tunnel 5.1 x 4.6

T15-1002** Tunnel 5.1 x 10.4

T15-1003** Tunnel 9.5 x 18.3

T15-1004** Tunnel 9.5 x 15.8

T15-1005** Tunnel 9.5 x 13.2

T15-1006** Tunnel 6.9 x 11.4

T15-1007** Tunnel 7.9 x 18.8

T15-1008** Tunnel 19.5 x 10.2

T15-1009** Tunnel 13.4 x 20.5

T15-1010** Tunnel 19.5 x 12

QUAD

T15-1201** Quad 13.6 x 8.5

T15-1202** Quad 10.3 x 10.3

T15-1203** Quad 12.8 x 12.8

T15-1204** Quad 17.9 x 17.9

T15-1205** Quad 23.4 x 17.3

T15-1206** Quad 22.5 x 16.5

T15-1207** Quad 15.5 x 15.5

T15-1208** Quad 15.8 x 15.8

T15-1209** Quad 8.4 x 8.4

T15-1210** Quad 15.4 x 12.8

SPATULA

T15-1401** Spatula 10.4

T15-1402** Spatula 15.7

T15-1403** Spatula 21.2

T15-1406** Spatula 40

SPECIAL APPLICATIONS TYPE

T15-BCM2*** Shape-2BC
Bevel with indent

T15-BCM3*** Shape-3BC
Bevel with indent

T15-1603** Shape-Long
reach chisel

T15-1605** Shape-Long
reach chisel

* 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.
*** T15-BCM2 and T15-BCM3 are not available for sale or use in the U.S.A.

N2 System

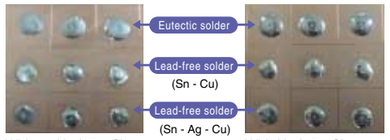


Setting example with the FX-951
* HAKKO FX-951, HAKKO FM-2026
HAKKO FX-780, HAKKO FX-791

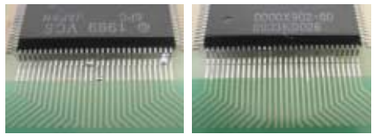
N2 gas and preheating effect improves the solderability greatly!

- The preheating effect is achieved by passing Nitrogen gas along the heating element in the handpiece. Soldering can be done on multilayer PWB and high density PWB sensitive to heat without raising the temperature of the tip excessively, even when the melting point of lead-free solder is high.
- Improvement of wettability and spreadability
- Preventing oxidation
- Space saving:–
  In case of setting with HAKKO FX-951, the dimensions are 163(W) x 280(H) x 110(D)mm
  In case of setting with HAKKO FM-203, the dimensions are 201(W) x 280(H) x 190(D)mm

Comparison of wettability and spreadability



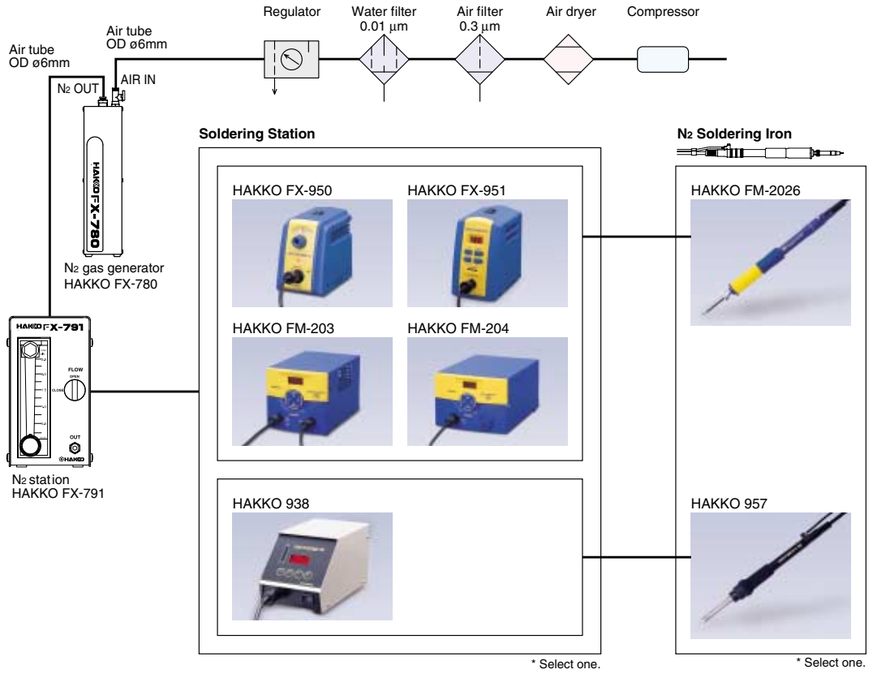
Without N2 (350°C) | With N2 (350°C)



Without N2 | With N2

Less bridge is generated even for components susceptible to bridging.

Connection method



Compact High-Performance N2 Generator



HAKKO FX-780

- HAKKO FX-780 generate Nitrogen gas at a maximum concentration of 99.9%. It is very compact and can be installed in a minimal space. Moreover, it can be placed perpendicularly or horizontally.

Compact N2 Flow Meter



HAKKO FX-791

- This meter is very compact and can be installed in a minimal space next to the soldering station. The flow meter has a range between 0.25-2.5ℓ/min, allowing easy control.
  (Recommended flow rate is 0.5-1.5ℓ /min. Adjust the flow rate depending on the tip shape.)

N2 Soldering Iron

Nitrogen gas passes between the tip and nozzle assembly uniformly and the soldering tip is entirely covered with Nitrogen gas, which intercepts oxygen to prevent the soldering tip and solder from being oxidized and increases the preheating effect. It allows more stable and uniform soldering.



HAKKO FM-2026 ESD SAFE

- N2 Soldering iron with high-output 70W

FM-2026 Conversion Kit (No.FM2026-06)



Iron holder (No.FH200-01) is included.

● Sleep Function

Station / Conversion Kit	FX-950	FX-951		FX-952*		FM-203	FM-204	FM-202*
		Former	Latest	Former	Latest			
FM-2026 Coversion Kit (No.FM2026-06)	○	×	○	×	○	○	○	×

○ ··· Equipped with the sleep function × ··· Not equipped with the sleep function

* Discontinued Product



HAKKO 957 ESD SAFE

- 90W high-power
  – Great thermal recovery
- Easy tip replacement
  – A cartridge type soldering tip can be replaced easily and quickly.

N2 System

Specifications

FX-780

Model No.	FX-780
Air Supply Pressure	0.3-0.7MPa
Concentration of Generated N_2	99.9% (Max.)
Amount of Generated N_2	1.5ℓ/min. (When compressed air of 0.5MPa is supplied at 25°C, the concentration of generated nitrogen is 98%.)
Dimensions (w/o sockets & valve)	73(W) x 282(H) x 71(D)mm
Weight (w/o racks)	1.5kg

FX-791

Model No.	FX-791
Dimensions	70(W) x 121(H) x 134(D)mm
Weight	600g
Pressure Gauge for Discharged Gas	0.2MPa (2.0kgf/cm²)
Gas flow	0.25-2.5ℓ/min

FM-2026

Model No.	FM-2026
Power Consumption	70W (24V)
Tip to Ground Resistance	< 2Ω
Tip to Ground Potential	< 2mV
Cord	1.2m
Total Length (w/o cord)	205mm with 2.4D tip
Weight (w/o cord)	45g w/nozzle assembly C & 2.4D tip

957

Model No.	957
Power Consumption	90W (27V)
Tip to Ground Resistance	< 2Ω
Tip to Ground Potential	< 2mV
Cord	1.2m
Total Length (w/o cord)	215mm with 2.4D tip
Weight (w/o cord)	62g w/nozzle assembly A & 2.4D tip

Packing List

Model Name	Contents
HAKKO FX-780	N_2 generator ·····1 Racks for station ·····2
HAKKO FX-791	N_2 station ·····1
HAKKO FM-2026 (Conversion kit)	N_2 soldering iron (FM-2026) ·····1 Iron holder with 599B tip cleaner (No.FH200-01) ·····1 Connecting cable ·····1 Heat resistant pad ·····1 * This unit does not include a soldering tip or nozzle assembly. When purchasing this unit, please buy your desired soldering tip and nozzle assembly together.
HAKKO 957	N_2 soldering iron (957) ·····1 Nitrogen guard ·····1 * This unit does not include a soldering tip or nozzle assembly. When purchasing this unit, please buy your desired soldering tip and nozzle assembly together.

Replacement and Optional Parts

Part No.	Name/Description
FM2026-02	N_2 soldering iron FM-2026/24V-70W
B2974	Sleeve cover
B2765D	Sleeve assembly/yellow
B2768C	Sleeve assembly/orange
B2769D	Sleeve assembly/blue
B2998*	Nitrogen guard

* When using the soldering iron holder cover, install it into your soldering iron holder.

Sleeve Assemblies

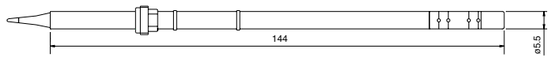


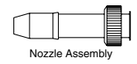
No. B2765D (Yellow) No. B2768C (Orange) No. B2769D (Blue)

Optional Tips and Nozzle Assemblies

Unit : mm

For FM-2026





Tip	Applicable Nozzle Assembly	Tip	Applicable Nozzle Assembly	Tip	Applicable Nozzle Assembly
T17-B2 Shape-0.5B	B2708 Nozzle assembly C	T17-BL Shape-BL	B2898 Nozzle assembly E	T17-BC1 Shape-1BC T17-BCF1*	B2899 Nozzle assembly F
T17-BC2 Shape-2BC T17-BCF2*	B2706 Nozzle assembly A	T17-BC3 Shape-3BC T17-BCF3*	B2900 Nozzle assembly G	T17-D08 Shape-0.8D	B2709 Nozzle assembly D
T17-D16 Shape-1.6D	B2708 Nozzle assembly C	T17-D24 Shape-2.4D	B2708 Nozzle assembly C	T17-J02 Shape-0.2J	B2707 Nozzle assembly B
T17-KF Shape-KF	B2923 Nozzle assembly J	T17-KR Shape-KR	B2902 Nozzle assembly I	T17-KU Shape-KU	B2901 Nozzle assembly H
T17-BCM2 Shape-2BC Bevel with indent**	B2706 Nozzle assembly A	T17-BCM3 Shape-3BC Bevel with indent**	B2900 Nozzle assembly G		

* These tips are tinned on the soldering surface only.
** T17-BCM2 and T17-BCM3 are not available for sale or use in the U.S.A.

For 957

Tip	Applicable Nozzle Assembly	Tip	Applicable Nozzle Assembly	Tip	Applicable Nozzle Assembly
T14-B2 Shape-0.5B	B3121 Nozzle assembly A	T14-BC2 Shape-2BC	B3121 Nozzle assembly A	T14-BC3 Shape-3BC	B3121 Nozzle assembly A
T14-C6 Shape-6C	B3124 Nozzle assembly D	T14-D08 Shape-0.8D	B3121 Nozzle assembly A	T14-D16 Shape-1.6D	B3121 Nozzle assembly A
T14-D24 Shape-2.4D	B3121 Nozzle assembly A	T14-D4 Shape-4D	B3124 Nozzle assembly D	T14-D6 Shape-6D	B3124 Nozzle assembly D
T14-J02 Shape-0.2RSB	B3122 Nozzle assembly B	T14-K Shape-K	B3123 Nozzle assembly C	T14-KU Shape-KU	B3122 Nozzle assembly B
T14-LB Shape-LB	B3121 Nozzle assembly A				

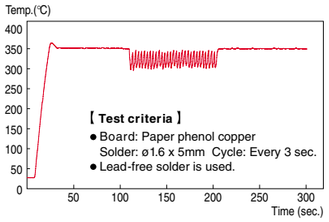
* These tips are tinned on the soldering surface only.

HAKKO 938 SOLDERING STATION ESD SAFE



- Great thermal recovery
- Wide application from micro soldering to heavy duty application.
- Easy and speedy tip replacement is possible.
- Sleep function prevents the tip from being oxidized and extends the tip life.
- Energy-saving automatic power shut-off function.
- The low temperature alarm function is provided.
- Using "Control Card" can lock the temperature settings.
- Quick and easy offsetting of tip temperature by the digital offset function.

Thermal Recovery Graph



Easy Tip Replacement

A cartridge type soldering tip can be replaced easily and quickly.



Loosen the nipple.

Replace the tip and tighten the nipple again.

Specifications

Model No.	938
Power Consumption	100W
Temperature Range	200-450°C
Temperature Stability	±2°C at idle temperature

Station

Output Voltage	27V 3.4A
Dimensions	100(W) x 106(H) x 188(D)mm
Weight (w/o cord)	2.5kg

Iron

Model No.	917
Power Consumption	90W (27V)
Standard Tip	T10-D24 (Shape-2.4D)
Tip to Ground Resistance	< 2Ω
Tip to Ground Potential	< 2mV
Total Length (w/o cord)	175mm with 2.4D tip
Weight (w/o cord)	45g with 2.4D tip
Cord	1.2m

Packing List

Model Name	Contents
Hakko 938	Station ·····1
	Iron (917) ·····1
	Power cord ·····1
	Iron holder with cleaning sponge (No.635-02) ·····1
	Control card ·····1
	Heat resistant pad ·····1

N_2 Soldering Iron (Option)



HAKKO 957 SOLDERING IRON ESD SAFE

N_2 System to Expand the HAKKO 938 Functions



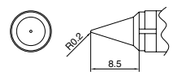
Setting example
HAKKO 938, HAKKO 957*,
HAKKO FX-780,
HAKKO FX-791.

* Optional HAKKO 957 is required to complete N_2 System.

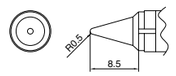
Replacement Tips

Unit : mm

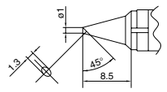
T10-B Shape-B



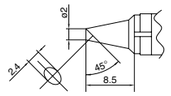
T10-B2 Shape-0.5B



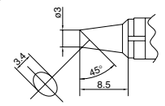
T10-BC1
T10-BCF1* Shape-1BC



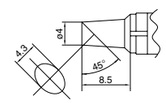
T10-BC2
T10-BCF2* Shape-2BC



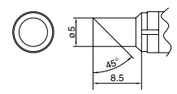
T10-BC3
T10-BCF3* Shape-3BC



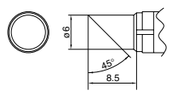
T10-BC4
T10-BCF4* Shape-4BC



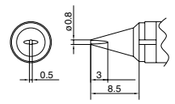
T10-C5
T10-CF5* Shape-5C



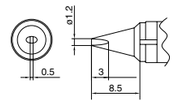
T10-C6 Shape-6C



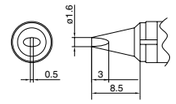
T10-D08 Shape-0.8D



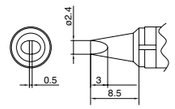
T10-D12 Shape-1.2D



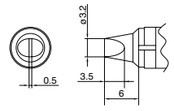
T10-D16 Shape-1.6D



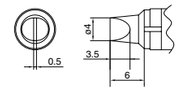
T10-D24 Shape-2.4D



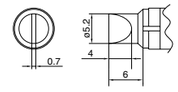
T10-D32 Shape-3.2D



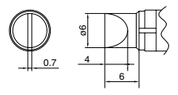
T10-D4 Shape-4D



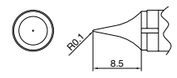
T10-D52 Shape-5.2D



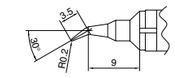
T10-D6 Shape-6D



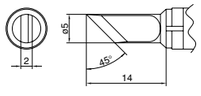
T10-I Shape-I



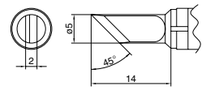
T10-J02 Shape-0.2RSB



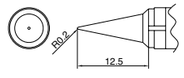
T10-K Shape-K



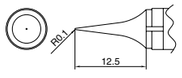
T10-KL Shape-KL



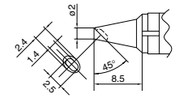
T10-LB Shape-LB



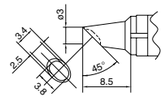
T10-LI Shape-LI



T10-BCM2** Shape-2BC Bevel with indent



T10-BCM3** Shape-3BC Bevel with indent



* These tips are tinned on the soldering surface only.
** T10-BCM2 and T10-BCM3 are not available for sale or use in the U.S.A.

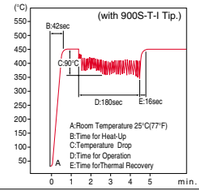
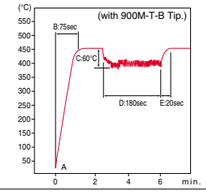
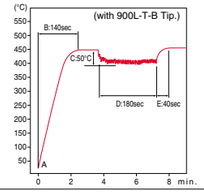
HAKKO 937 SOLDERING STATION ESD SAFE



- Digital indicator ensures accurate temperature setting by all personnel.
- Once set, temperature cannot be changed without inserting the control card, providing easy temperature management.
- Compact unit takes up little space on the workbench.
- Thinner grip for easier use.

Irons for Soldering Stations

3 Types of iron available: for HAKKO 937 Soldering Stations

Type	Small: For micro soldering	Medium: Standard	Large: For heavy duty soldering
Model No.	 900S-ESD	 907-ESD	 908-ESD
Thermal recovery graph*			

* Test criteria
Board: Paper phenol copper
Solder: ø1.6 x 5mm
Cycle: Every 3 sec.

Specifications

Model No.	937		
Power Consumption	60W		
Station			
Output Voltage	AC 24V		
Temperature Range	200-480°C		
Dimensions	120(W) x 93(H) x 170(D)mm		
Weight (w/o cord)	1.3kg		
Iron			
Model No.	900S	907	908
Type	S	M	L
Style	ESD		
Power Consumption	50W (24V)		
Standard Tip	900S-T-I	900M-T-B	900L-T-B
Tip to Ground Resistance	< 2Ω		
Tip to Ground Potential	< 2mV (Typ.0.6mV)		
Heating Element	Ceramic Heater		
Total Length (w/o cord)	176mm	190mm	200mm
Weight (w/o cord)	25g	44g	54g

Packing List

Model Name	Contents
HAKKO 937	Station 1
	Iron (900S-ESD/907-ESD/908-ESD) 1
	Iron holder with cleaning sponge (900S-No.C1141, 907/908-No.C1142) 1
	Control card 1

When ordering or HAKKO 937, please specify the type of Iron (S, M or L).

Replacement Tips

Please refer to page 25.

Optional Parts

Please refer to page 26, 47.



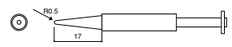
Stackable design puts two units in the bench space of one unit.

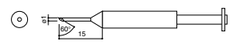
Replacement Tips

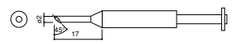
Unit : mm

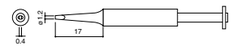
Small For 900S-ESD

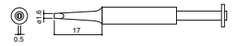
Tip Out Dia.ø5.8mm

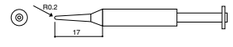
900S-T-B Shape-B


900S-T-1C Shape-1C


900S-T-2C Shape-2C


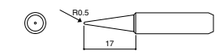
900S-T-1.2D Shape-1.2D


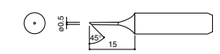
900S-T-1.6D Shape-1.6D


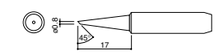
900S-T-I Shape-I


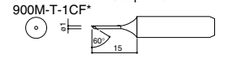
Medium For 900M-ESD, 907-ESD

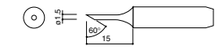
Tip Out Dia.ø6.5mm

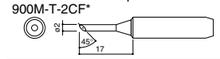
900M-T-B Shape-B


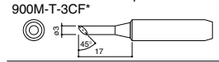
900M-T-0.5C Shape-0.5C


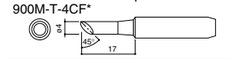
900M-T-0.8C Shape-0.8C


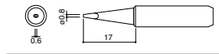
900M-T-1C Shape-1C
900M-T-1CF* Shape-1C


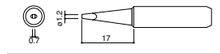
900M-T-1.5CF* Shape-1.5C


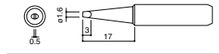
900M-T-2C Shape-2C
900M-T-2CF* Shape-2C


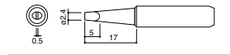
900M-T-3C Shape-3C
900M-T-3CF* Shape-3C


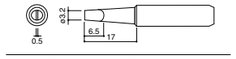
900M-T-4C Shape-4C
900M-T-4CF* Shape-4C


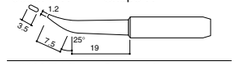
900M-T-0.8D Shape-0.8D


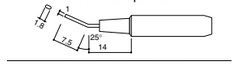
900M-T-1.2D Shape-1.2D


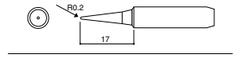
900M-T-1.6D Shape-1.6D


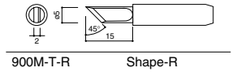
900M-T-2.4D Shape-2.4D


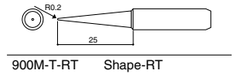
900M-T-3.2D Shape-3.2D


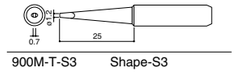
900M-T-H Shape-H


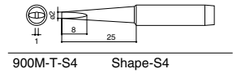
900M-T-1.8H Shape-1.8H


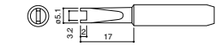
900M-T-I Shape-I


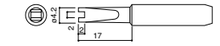
900M-T-K Shape-K


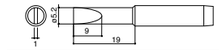
900M-T-LB Shape-LB


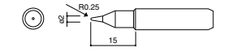
900M-T-1.2LD Shape-1.2LD


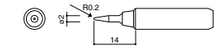
900M-T-2LD Shape-2LD


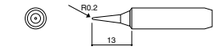
900M-T-R Shape-R


900M-T-RT Shape-RT


900M-T-S3 Shape-S3


900M-T-S4 Shape-S4


900M-T-SB Shape-SB


900M-T-SI Shape-SI


Large For 900L-ESD, 908-ESD

Tip Out Dia.ø8.5mm

900L-T-B Shape-B

900L-T-2B Shape-2B

900L-T-2C Shape-2C
900L-T-2CF* Shape-2C

900L-T-3C Shape-3C
900L-T-3CF* Shape-3C

900L-T-4C Shape-4C
900L-T-4CF* Shape-4C

900L-T-5C Shape-5C
900L-T-5CF* Shape-5C

900L-T-2.4D Shape-2.4D

900L-T-3.2D Shape-3.2D

900L-T-I Shape-I

900L-T-K Shape-K

900L-T-S1 Shape-S1

* These tips are tinned on the soldering surface only.

For SMD Desoldering

907 ESD + 900M ESD
+
Tip Holder (No.900M-1000)
+
Tip

No.900M-1000

* Tip is not included.

Optional Tips

Unit : mm

Part No.	Tip Size			
	A	B	C	D
924-T-1002	12.5	9.5	12.5	9.5
924-T-1003	15.5	12.5	15.5	12.5
924-T-1004	16.3	13.3	16.3	13.3
924-T-1005	17.0	14.0	17.0	14.0
924-T-1006	23.0	20.0	17.0	14.0
924-T-1007	20.0	17.0	20.0	17.0

Part No.	Tip Size	
	A	B
924-T-1010	6.0	5.0
924-T-1011	6.0	10.0
924-T-1012	7.0	12.5
924-T-1013	9.0	15.2
924-T-1014	9.0	18.0

Part No.	Type
924-T-1020	Spatula 9.5

HAKKO 951·952 ESD SAFE
SOLDERING GUN

LEAD FREE ESD SAFE CE



- Available for your Hakko 701, 702B, or 937.
- Compact design and light weight.
- Easy positioning for the solder feeding.
- A variety of tip type.

Specifications

Model No.	951	952
Type	M	L
Power Consumption	50W (24V)	
Temperature Range	200-480°C	
Tip to Ground Resistance	< 2Ω	
Tip to Ground Potential	< 2mV (Typ.0.6mV)	
Heating Element	Ceramic Heater	
Standard Tip	900M-T-S10 (Shape-S10)	900L-T-B (Shape-B)
Standard Guide Nozzle	ø1.0mm (No.B2654)	
Usable Solder Dia.	ø0.6, 0.8, 1.0, 1.2, 1.6mm	
Cord	1.1m	
Dimensions (w/o cord)	170(W) x 180(H)mm	
Weight (w/o cord)	177g	187g

Packing List

Model Name	Contents
HAKKO 951	Soldering gun ·····1
HAKKO 952	Soldering gun ·····1

Optional Parts

Part No.	Name/Description
B2652	Guide nozzle/ø0.6mm ESD
B2653	Guide nozzle/ø0.8mm ESD
B2654	Guide nozzle/ø1.0mm ESD
B2655	Guide nozzle/ø1.2mm ESD
B2656	Guide nozzle/ø1.6mm ESD
C1437	Iron holder

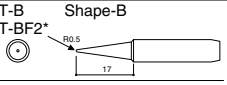
Replacement Tips

Unit : mm

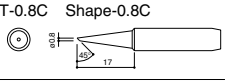
Medium For 951, 958

Tip Out Dia ø6.5mm

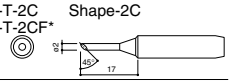
900M-T-B Shape-B
900M-T-BF2*



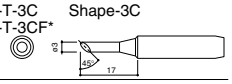
900M-T-0.8C Shape-0.8C



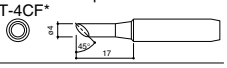
900M-T-2C Shape-2C
900M-T-2CF*



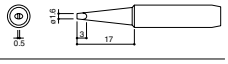
900M-T-3C Shape-3C
900M-T-3CF*



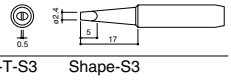
900M-T-4C Shape-4C
900M-T-4CF*



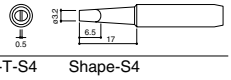
900M-T-1.6D Shape-1.6D



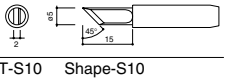
900M-T-2.4D Shape-2.4D



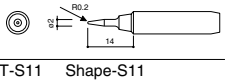
900M-T-3.2D Shape-3.2D



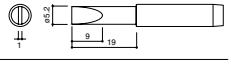
900M-T-K Shape-K



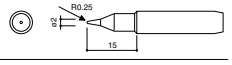
900M-T-SB Shape-SB



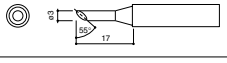
900M-T-S3 Shape-S3



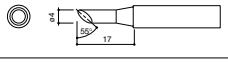
900M-T-S4 Shape-S4



900M-T-S10 Shape-S10



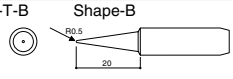
900M-T-S11 Shape-S11



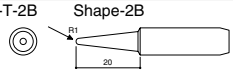
Large For 952, 959

Tip Out Dia ø8.5mm

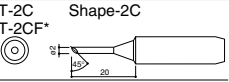
900L-T-B Shape-B



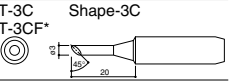
900L-T-2B Shape-2B



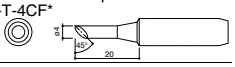
900L-T-2C Shape-2C
900L-T-2CF*



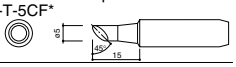
900L-T-3C Shape-3C
900L-T-3CF*



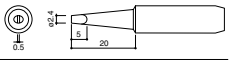
900L-T-4C Shape-4C
900L-T-4CF*



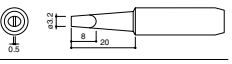
900L-T-5C Shape-5C
900L-T-5CF*



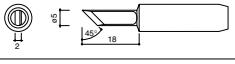
900L-T-2.4D Shape-2.4D



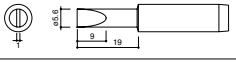
900L-T-3.2D Shape-3.2D



900L-T-K Shape-K



900L-T-S1 Shape-S1



* These tips are tinned on the soldering surface only.
* 900M-T-BF2 is tinned a distance of 2mm from the end of the tip.
• For heavy duty soldering HAKKO recommends the 952 and the 959 gun with heavier tips.

CAUTION
Use only genuine replacement tips for Hakko 951, 952, 958 and 959.
The tips for Hakko Dash are not available to use.

HAKKO 958·959 SOLDERING GUN ESD SAFE

LEAD FREE ESD SAFE CE



* Setting example: HAKKO 958, HAKKO 937 and HAKKO 373.
(HAKKO 937, HAKKO 373 and the iron holder are sold separately.)

- Easy one-hand soldering.
- Uniform soldering work.
- High-accuracy thermal control allows lead-free soldering.
- Thermal capacity can be selected according to the soldering applications.
- Space-saving design.

Setting Example

Soldering gun

M type : HAKKO 958



L type : HAKKO 959



* Select one.

Soldering station

HAKKO 701



HAKKO 937



HAKKO 702B



* Select one.

Solder-feeding unit

HAKKO 373



Solder dia. adjustment ring



* Select one.

Option

Mounting plate No.B3270



* For 937 only.

Iron holder No.C1437



* Soldering gun is not included.

Specifications

Model No.	958	959
Type	M	L
Power Consumption	50W (24V)	
Temperature Range	200-480°C	
Tip to Ground Resistance	< 2Ω	
Tip to Ground Potential	< 2mV (Typ.0.6mV)	
Heating Element	Ceramic Heater	
Standard Tip	900M-T-B (Shape-B)	900L-T-B (Shape-B)
Tube Unit	S: Applicable solder dia. (ø0.6~1.0mm) L: Applicable solder dia. (ø1.2~1.6mm)	
Guide Nozzle	ø0.6, 0.8, 1.0, 1.2, 1.6mm	
Usable Solder Dia.	ø0.6, 0.8, 1.0, 1.2, 1.6mm	
Cord	1.1m	
Dimensions (w/o cord)	170(W) x 180(H) x 23(D)mm	
Weight (w/o cord and tube unit)	177g	187g

Replacement Tips

Please refer to page 26.

Packing List

Part No.	Contents
958-01	Soldering gun with guide nozzle (ø1.0mm-No.B2654) ·····1 Guide nozzle (ø0.6mm-No.B2652, ø0.8mm-No.B2653) ····2 Tube unit S (No.B3268) ·····1
958-02	Soldering gun with guide nozzle (ø1.6mm-No.B2656) ·····1 Guide nozzle (ø1.2mm-No.B2655) ·····1 Tube unit L (No.B3269) ·····1
959-01	Soldering gun with guide nozzle (ø1.0mm-No.B2654) ·····1 Guide nozzle (ø0.6mm-No.B2652, ø0.8mm-No.B2653) ····2 Tube unit S (No.B3268) ·····1
959-02	Soldering gun with guide nozzle (ø1.6mm-No.B2656) ·····1 Guide nozzle (ø1.2mm-No.B2655) ·····1 Tube unit L (No.B3269) ·····1

* When ordering HAKKO 958 or 959, please select the suitable model for your using solder wire diameter.

Optional Parts

Please refer to page 26.

HAKKO 373 SELF FEEDER ESD SAFE



- Can be used with a wide range of Hakko brand soldering irons, permitting selection of the most appropriate iron for the task at hand. If you already own one of these compatible Hakko soldering irons, you won't need to buy another.
- Can be connected to simple soldering equipment by using a switching jack.
- Adjustable solder return function reduces waste, permits fully automatic soldering.

Set Up


HAKKO 373

+


Solder Dia.
Adjustment Ring

+

1

Tube Unit

Guide Pipe
Assembly

2

Tube Unit
for MACH-I

Foot Switch

Guide Pipe
Assembly

3

Feeder Pen

Feeder Switch

4

Feeder Pen

Foot Switch

Compatible Soldering Iron


HAKKO FX-888 (4 colors)
Silver/Black/Red/Blue & yellow


HAKKO FX-951


HAKKO FX-950


HAKKO FM-203


HAKKO 937*


HAKKO 958 · 959

* 900S soldering iron is not compatible with HAKKO 373.

Specifications

Model No.	373
Power Consumption	6W
Motor Output	DC 24V, 3.2W
Solder Feed Time	0-7sec. (Auto Mode)
Solder Feed Speed	4.5-26mm/sec.
Solder Feed Q´ty	0-182mm (Auto Mode)
Solder Return Q´ty	0-5mm
Usable Solder Dia.	ø0.6, 0.65, 0.8, 1.0, 1.2, 1.6mm*
Usable Solder	1kg roll bobbin (Max.)
Dimensions	107(W) x 110(H) x 215(D)mm
Weight (w/o cord)	1.5kg

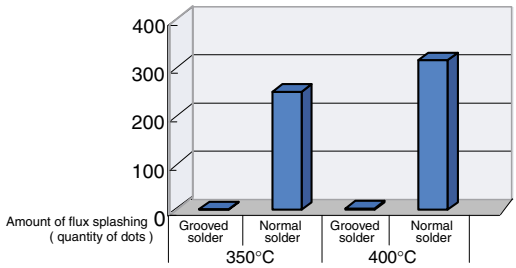
* ø1.6mm "Lead-free solder" is not available for use.

HAKKO 375
SELF FEEDER



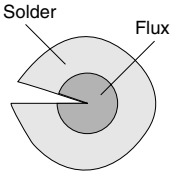
- Reducing flux splashing and solder balls generated during soldering operation.
- Compact design to save work bench.
- Can be installed to your solder reel stand.

Effects of Using Cut Solder

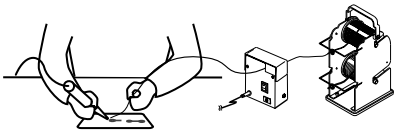


• Test criteria
Feed ø1.0 x 500 mm of lead-free solder (Sn-3Ag-0.5Cu) to one of our soldering irons, which has tip temperature setting at 350 and 400°C and measure the amount of flux splashing. The effects of flux splashing prevention may differ under different test criteria.

Cross Section of Solder



Set Up



Specifications

Model No.	375
Rating	DC24V 75mA
Motor rating	DC24V 130mA
Dimensions	76(W) x 96(H) x 50(D)mm
Weight (w/o cord)	590g

AC adapter

Rating	DC24V 250mA

Packing List

Model Name	Contents
HAKKO 375	Unit ·····1
	AC adapter ·····1

Optional Parts

Part No.	Name
B1649	Foot switch
B2763	Hand switch


No.B1649


No.B2763

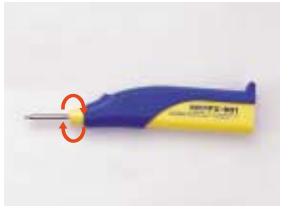
HAKKO FX-901

CORDLESS IRON



- Various soldering application is available such as hobby, field service and repair.
- Quick & Easy tip replacement.
- Various types of batteries are available such as Alkaline Battery, Nickel-Cadmium Battery, and Nickel-Hydrogen Battery.

Tip: Easy Replacement

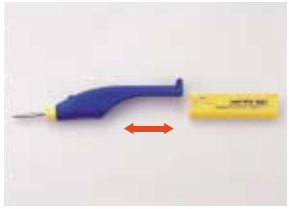


Loosen the nipple.



Replace the tip and tighten the nipple.

Battery: Selectable. Can use like cartridge type.





Specifications

Model No.	FX-901
Power Supply	"AA" x 4 pcs.
*Battery Life	Alkaline Batteries: Aprrox. 60 min.
	Nickel-Hydrogen Batteries (2150mAh): Aprrox. 120 min.
Power Consumption	Alkaline Batteries: 6V (6W)
	Nickel-Hydrogen Batteries (2150mAh): 4.8V (5W)
Standard Tip	T11-B (Shape-B)
Weight (w/o battery)	76g
Total Length (w/o cap)	212mm

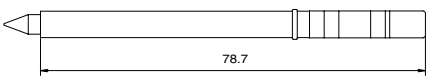
* Measurement conditions
Service life varies even new batteries.
Assuming that the soldering temperature should be 300°C or more, the life time was measured from when switched on.
* When using the batteries except specified above, performance and hours operation will vary.

Packing List

Model Name	Contents
HAKKO FX-901	Cordless iron 1
	Cap 1

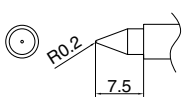
* Battery is not included.

Replacement Tips

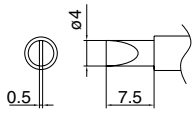


Unit : mm

T11-B Shape-B



T11-D4 Shape-4D



HAKKO FT-700 · HAKKO FS-100

TIP POLISHER · CHEMICAL PASTE

LEAD FREE



FT-700


FS-100

- Removes oxides without damaging the tip.
- Does not contain any diammonium phosphate, so it is safe to tip, P.W.B., operator and global environment.
- Energy-saving design consumes only 4.5W.

Specifications

FT-700

Model No.	FT-700
Power Consumption	4.5W
Dimensions	70(W) x 54(H) x 101(D)mm
Weight (w/o cord)	650g

FS-100

Model No.	FS-100
Amount	10g
Contents	Flux paste, tin
Dimensions	ø34 x 9(H)mm

Packing List

Model Name	Contents
HAKKO FT-700	Tip polisher ····· 1 Chemical paste ····· 1 Brush ····· 1

HAKKO IRON HOLDER



Specifications

Model No.	Dimensions of Cleaner	Dimensions	Weight
599B*		ø70 x 71(H)mm	65g
602	65 x 45 x 15mm	92(W) x 108(D)mm	80g
603	70 x 70 x 15mm	82(W) x 95(D)mm	500g
606	65 x 45 x 15mm (w/Alminum Case)	100(W) x 160(D)mm	310g
607	70 x 70 x 15mm	98(W) x 166(D)mm	600g
633-01	ø70 x 71(H)mm	84(W) x 186(D)mm	380g
633-02	ø70 x 15mm	84(W) x 186(D)mm	340g

HAKKO 599B*
- Replacement cartridge for HAKKO 633.
- No water required.
- Helps your lead-free solder application.

HAKKO 611 ESD SAFE

SOLDER REEL STAND

ESD SAFE


No. 611-1


No. 611-2

- Keep your bench neat.
- Draw out the solder wire smoothly.

Specifications

Part No.	611-1	611-2
Dimensions	86(W) x 114(H) x 78(D)mm	87(W) x 200(H) x 141(D)mm
Shaft Dia.	ø15mm	
Usable Solder	1kg roll bobbin (Max.) x 1	1kg roll bobbin (Max.) x 2
Weight	550g	750g

HAKKO FX-301B
SOLDERING POT

LEAD FREE CE



Digital type

- Easy pot replacement.
- Selectable heating programs allows to get optimum temperature quickly.
- Select from four heating programs: Sn-Pb (Tin/Lead), Sn-Ag-Cu (Tin/Silver/Copper), Sn-Cu (Tin/Copper), and Sn (Tin).
- Special coating pot for long life as standard.
- Precise temperature control by digital temperature display & offset function.
- A timer function helps you keep tabs on how long the soldering pot has been in use, making it easy to judge the time for pot replacement.

HAKKO FX-300
SOLDERING POT

LEAD FREE CE



Analog type

- Easy pot replacement.
  - Use different pots for different composition solder, or different pot sizes (50 mm square and 75 mm square) with the same unit.
- Special coating pot for long life. (Option)

Easy Pot Replacement

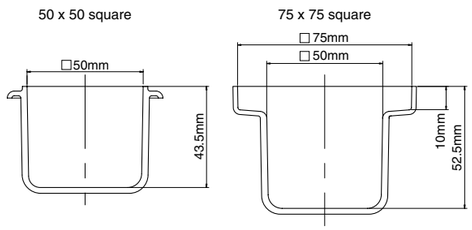


Loosen the screws on both sides of the pot.



Replace the pot and retighten the screws.

Dimensions of Solder Pot



Performance comparison table

	FX-300	FX-301B
Analog/Digital type	Analog	Digital
Parameter setting	×	○ Four heating programs
Offset function	×	○
Timer function	×	○
Standard pot/Special coating pot (50mm square and 75mm square)	○	○

Specifications

Model No.	FX-301B	FX-300
Power Consumption	200W	195W
Dimensions	143(W) x 100(H) x 220(D)mm	
Weight (w/o solder & cord)	1.7kg	

Soldering Pot

	50 x 50 Square	75 x 75 Square
Temperature Range	200-450°C	200-380°C
Dimensions	50(W) x 43.5(H) x 50(D)mm	75(W) x 52.5(H) x 75(D)mm
Molten Solder Capacity	0.85kg	1.2kg

* Only a 50 x 50 square solder pot is included in this product.
* The 75 x 75 square solder pot is an optional part.

Replacement and Optional Parts

Part No.	Name/Description
A1517	Solder pot/50 x 50mm
A1518	Solder pot/75 x 75mm
A1539*	Solder pot/50 x 50mm Special coating for long life
A1540*	Solder pot/75 x 75mm Special coating for long life

* A special coating is applied to increase the corrosion resistance of the solder pot and provide extended life. The corrosion resistance test© shows that the life of this solder pot is more than 5 times longer compared to that of the standard pot. This pot is compatible with both lead-free and tin-lead soldering.

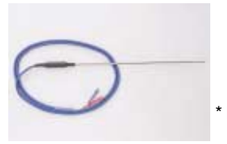
© The data are based on our comparison test. Actual life varies depending on the use conditions.

Packing List

Model Name	Contents
HAKKO FX-301B	Unit ····1 Spatula ····1 J-shaped waste collector ····1 Hexagon wrench ····1
HAKKO FX-300	Unit ····1 Spatula ····1 J-shaped waste collector ····1 Hexagon wrench ····1

Temperature Probe

Part No.	Name/Description
A1310	Temperature probe for solder in pots



* For further details, refer to page 35.

HAKKO 96
SOLDERING POT

CE



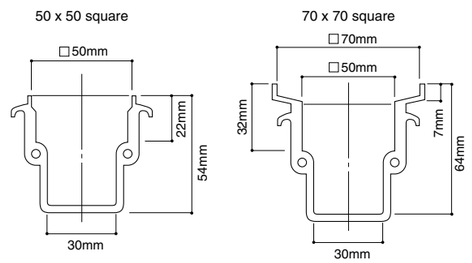
- Large-capacity solder pot holds a larger amount of solder, the solder temperature remains high even during continuous soldering operations.
- The stainless steel solder pot and other heavy-duty components offer greater durability, while the solder overflow prevention rim around the pot provides greater safety.
- The raised rim around the pot enhances soldering and desoldering efficiency.



Specifications

Model No.	96	96-1
Power Consumption	200W	
Heating Element	Ceramic Heater	
Dimensions	135(W) x 107(H) x 222(D)mm	135(W) x 117(H) x 222(D)mm
Weight (w/o cord)	1.5kg	1.6kg
Temperature	100-450°C	100-380°C
Insulation Resistance	Over 100MΩ (250°C)	
Dimension of Solder Pot	50(W) x 54(H) x 50(D)mm	70(W) x 64(H) x 70(D)mm
Molten Solder Capacity	0.85kg	1.2kg

Dimensions of Solder Pot



Packing List

Model Name	Contents
HAKKO 96	Unit ····1 Spatula ····1

HAKKO FG-100 THERMOMETER



Enables you to perform temperature control surely and easily, which is essential during lead-free soldering.

- Suitable for Lead-Free solder:–
  Quick and accurate tip temperature measurement using a fine CA wire sensor (Dia.0.2mm).
  Disposable sensor always maintains accurate temperature measurement.
  Long service life.
- MAX HOLD function
- Auto shut-off function
- Compact size

3-Dimensional Measurement



Allows you to measure from any desired direction according to tip shape.

HAKKO FG-101 SOLDERING TESTER



- Tip temperature, leak voltage and ground resistance of soldering irons can be measured.
- Soldering irons can be controlled based on the MIL-HDBK-263B standard.
- Soldering irons can be controlled based on the IPC J-STD.
- MAX HOLD function
- Leak voltage and ground resistance can be easily measured.

Specifications

HAKKO FG-100

Resolution	1°C
Temperature measurement range	0-700°C
Applicable sensor	K (CA) type thermocouple
Measurement tolerance	±3°C (between 300 and 600°C)
Display	Besides measured temperatures, display indications include the following: Battery low alarm, Burnout alarm*2, MAX HOLD
Power Supply	006P 9V dry battery (alkaline cell recommended)
Outline dimensions	68(W) x 140(H) x 38(D)mm (excluding protrusions)
Weight	115g (excluding battery)
Ambient temperature/humidity range	0-40°C, 20-90%RH, (Non condensing)
Environmental Condition	Applicable rated pollution degree 2 (According to IEC/UL61010-1)

*1 When B appears, be sure to replace the battery. Failure to do so will result in incorrect temperature measurements.
*2 This alarm indicates a sensor burnout. If this alarm occurs, replace the sensor.

HAKKO FG-101

Temperature	Resolution	1°C
	Measurement Range	0-700°C*1
	Precision	±3°C (between 300 and 600°C)
		±5°C (other than above)
	Sensor	K (CA) type thermocouple
Voltage	Resolution	0.1mV
	Measurement Range	0 to 40mV (AC)
	Precision	±(5% of reading +1 digit)
Resistance	Resolution	0.1Ω
	Measurement Range	0 to 40Ω
	Precision	±(5% of reading +1 digit)
Display	LCD	3 1/2 digits
	Over Range*2 Burnout*3	-1
	MAX HOLD	Shown as "MAX HOLD" in the lower right on the display
Power Consumption	2.8W (230V)	
Dimensions	200(W) x 50(H) x 120(D)mm	
Weight	1kg	
Ambient Temperature/ Humidity Range	0-40°C, 20-90%RH (Non condensing)	
Environmental Condition	Applicable rated pollution degree 2 (According to IEC/UL61010-1)	

*1 Temperature sensor (No.191-212) can only be used to measure temperatures below 500°C. To measure higher temperature, use an applicable temperature probe.
*2 An Over Range alarm occurs during temperature measurement when the temperature sensor is not attached, and during voltage and resistance measurement when the tip is not in contact with the conduction plate.
*3 When a sensor burns out, the same alarm symbol as the one for Over Range alarm is also displayed. If this alarm occurs, replace the sensor.

Packing List

Model Name	Contents
HAKKO FG-100	Thermometer ····1
	006P 9V battery ····1
	Sensor ····10
HAKKO FG-101	Soldering tester ····1
	Fuse ····1
	Conduction wire ····1
	Multi-adapter ····1
	Ground clip ····1
	Power cord ····1
	Sensor ····10

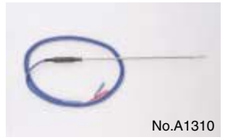
Replacement and Optional Parts

Part No.	Name/Description
191-212	Sensor/10 pcs
A1310	Temperature probe for solder in pots
C1220	Temperature probe for automatic solder machine
C1541	Temperature probe for hot air

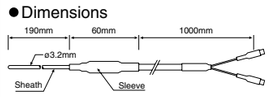
Temperature Probe

For measuring the temperature of solder in pots, automatic solder machine and hot air.

■ For Solder in Pots



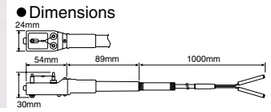
● Dimensions



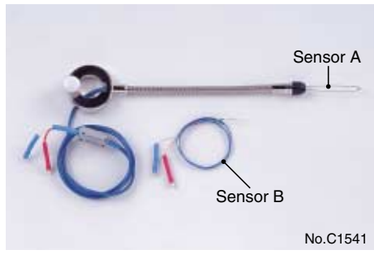
■ For Automatic Solder Machine



● Dimensions



■ For Hot Air



● Sensor A
Sensor A is primarily used to measure the temperature of hot air.

● Sensor B
Sensor B is primarily used to measure the temperature of works.

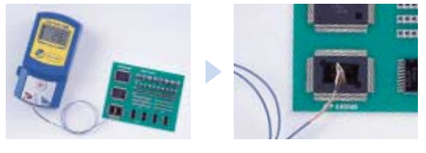
How to use 1 Hot Air (FR-803B)



How to use 2 Hot Air (SMD-BGA Repair System)



How to use 3 Works



HAKKO FM-204 ESD SAFE

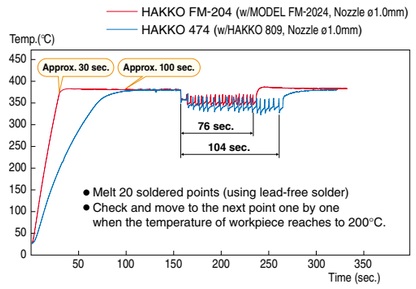
DESOLDERING TOOL



Easier to use!

- Excellent thermal recovery:–
  The integrated nozzle contains both heater and sensor to provide more powerful thermal recovery than conventional tips.
- New design with reduced distance between the nozzle end and filter pipe prevents clogging by sucked solder.
- Easy maintenance:–
  The use of disposable paper filter pipes allows paper and solder to be disposed of separately.
  One-touch nozzle for replacement. Nozzle can be replaced safely with the provided nozzle remover.
- Safe design:–
  Equipped with a nozzle lock function. Inserting a nozzle into the grip automatically locks it in place and prevents the nozzle cartridge from being pulled out suddenly.
- Sleep function
- Auto power shut-off function
- Detachable handle allows two-way use: gun type or straight type

Thermal Recovery Graph



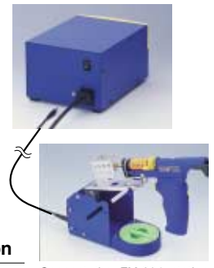
Sleep function

After the iron is inserted into the iron holder, the sleep function activates after a user-settable time (0 to 29 min.) and the tip temperature will decrease to approximately 200°C.

Auto power shut-off function

After 30 minutes have elapsed after inserting the iron into the iron holder, the auto power shut-off function activates and stops to apply power to the heating element.

* It is necessary to change unit settings before using sleep and auto power shut-off functions.



Connect the FM-204 station and FH-200 iron holder using a connecting cable.

Simple and Safe Nozzle Replacement



Detach the nozzle remover.



Insert the nozzle remover into the nozzle cartridge.



Press the nozzle lock release button on the back side.



Pull out the nozzle to replace.

Specifications

HAKKO FM-204

Power Consumption	120W
Temperature Range	200-450°C
Temperature Stability	±5°C at idle temperature

Station

Output	24V
Dimensions	160(W) x 120(H) x 225(D)mm
Weight	3.7kg
Vacuum Generator	Vacuum pump, double cylinder type
Vacuum Pressure (Max.)	80kPa (600mmHg)
Suction Flow	15ℓ/min

MODEL FM-2024 Desoldering Tool

Power Consumption	70W (24V)
Temperature Range	350-450°C
Nozzle to Ground Resistance	< 2Ω
Nozzle to Ground Potential	< 2mV
Total Length (w/o cord)	180mm with ø1.0 nozzle
Weight (w/o cord & hose)	65g with ø1.0 nozzle
Cord	1.2m

Replacement and Optional Parts

Part No.	Name/Description
FM2024-02	Desoldering tool MODEL FM-2024 24V/70W
A1514	Ceramic paper filter/10 pcs
A1512	Front holder
A1511	Filter pipe assembly
B3253	Connecting cable
FM2027-03*	Soldering iron FM-2027 Conversion kit
FM2026-06*	N_2 soldering iron FM-2026 Conversion kit

* Iron holder (No.FH200-01) is included.

Packing List

Model Name	Contents
HAKKO FM-204	Station ····1 Desoldering tool (MODEL FM-2024) ····1 Control card ····1 Power cord ····1 Connecting cable ····1 Ceramic paper filter ····10 Filter pipe assembly (Originally equipped x 1, additional replacement x 1) ····2 Handle (for gun configuration) ····1 Nozzle remover ····1 Iron holder with 599B tip cleaner (No.FH200-05) ····1 Cleaning drill ····1

* Nozzle is an optional part.

Increase your options

The FM-204 is a desoldering station as standard, but it can be operated with optional FM-2027 and FM-2026 soldering handpieces.
A single station plays multiple roles: soldering and desoldering.

■ Soldering



HAKKO FM-2027

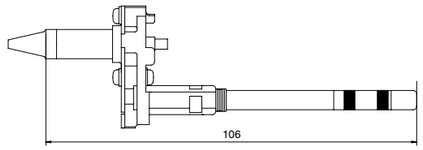
■ N_2 System



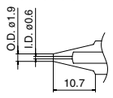
* For further details, refer to pages 18-21.

Optional Nozzle

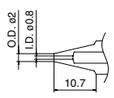
Unit : mm



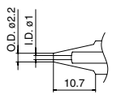
N3-06 Nozzle 0.6mm



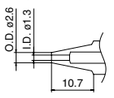
N3-08 Nozzle 0.8mm



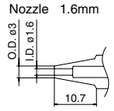
N3-10 Nozzle 1.0mm



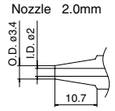
N3-13 Nozzle 1.3mm



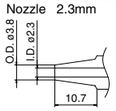
N3-16 Nozzle 1.6mm



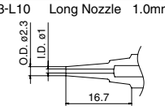
N3-20 Nozzle 2.0mm



N3-23 Nozzle 2.3mm



N3-L10 Long Nozzle 1.0mm



HAKKO 474·475 ESD SAFE

DESOLDERING TOOL

LEAD FREE · ESD SAFE · CE · D/E · GS · TYPE EMV



Choose the system that best fits your needs!
The portable HAKKO 474 vacuum pump type or the economical HAKKO 475 air compressor type.

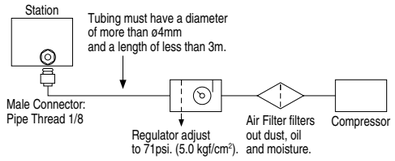
- Heating element and motor features zero-cross switching in order to prevent electrical surges.
- An insulated transformer completely isolated the output circuit from the power input circuit.



HAKKO 475 - external air compressor type

- Use filtered air to clean away any dust, oil and moisture.
- With the trigger pulled and air flowing, adjust the regulator air pressure to 71 psi (5.0kgf/cm²).

Connections



Specifications

Model No.	474	475
Power Consumption	100W	70W

Station

Output Voltage	AC 24V	
Vacuum Generator	Double Cylinder Type	Ejector Type
Vacuum Pressure (Max.)	80kPa (600mmHg)	93kPa (700mmHg)
Suction Flow	15ℓ/min.	28ℓ/min.
Nozzle to Ground Resistance	< 2Ω	
Nozzle to Ground Potential	< 2mV (Typ. 1.2mV)	
Applied Air Pressure	---	71dsi (5.0kgf/cm²)(490kPa)
Compressed Air Consumption	---	1.62 c.f.m. (46ℓ/min.)
Dimensions	165(W) x 135(H) x 260(D)mm	
Weight (w/o cord)	3.8kg	3.0kg

Packing List

Model Name	Contents
HAKKO 474 with 809 HAKKO 475 with 809	Station ····1 Desoldering gun (809) ····1 Filter pipe ····1 Cleaning pin for ø1.0mm nozzle ····1 Cleaning pin for heating element ····1 Cleaning drill for ø1.0mm nozzle ····1 Ceramic paper filter (S) ····2 Ceramic paper filter (L) ····4 Spring filter ····3 Silicone grease ····1 Iron holder (No.631-06) ····1 Spanner wrench ····1
HAKKO 474 with 815/816 HAKKO 475 with 815/816	Station ····1 Desoldering gun (815/816) ····1 Filter pipe ····1 Cleaning pin for ø1.0mm nozzle ····1 Cleaning pin for heating element ····1 Cleaning drill for ø1.0mm nozzle ····1 Ceramic paper filter (S) ····2 Ceramic paper filter (L) ····4 Spring filter ····3 Silicone grease ····1 Iron holder (No.635-01) ····1 Wrench ····1 Anti-seizure ····1

Desoldering Tools for HAKKO 474 . 475


809



815



816

Specifications

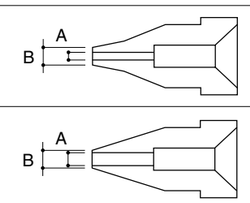
Model No.	809	815	816
Type	Gun	Pen	Gun
Power Consumption	50W (24V)		
Temperature Range	380-480°C		
Standard Nozzle	A1003 (ø1.0mm S type)	A1499 (ø1.0mm S type)	
Dimensions	135(W) x 174(H)mm	200(W) x 80(H)mm	180(W) x 150(H)mm
Weight (w/o cord)	200g	100g	120g

Replacement Nozzles

Unit : mm

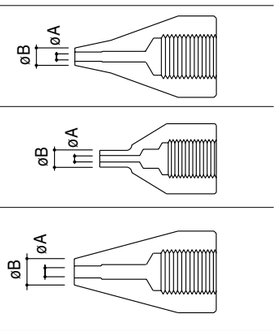
For 809

Part No.	A	B
A1002	0.8	1.8
A1003	1.0	2.0
A1004	0.8	2.3
A1005	1.0	2.5
A1006	1.3	3.0
A1007	1.6	3.0



For 815, 816

Part No.	A	B
A1496	0.8	1.8
A1499	1.0	2.0
A1497	0.8	2.2
A1498	0.8	2.3
A1500	1.0	2.5
A1501	1.3	3.0
A1502	1.6	3.0
A1503	2.0	3.6



HAKKO 808
DESOLDERING TOOL

CE



- The unique Hakko design places the pump and motor above, not inside the grip, so vibration is minimal and the grip is thin and easy to hold.
- The new, miniature, high-performance diaphragm pump is housed in the pump chamber at the rear of the unit. So, pump maintenance is quick and easy-simply remove the cover of the pump chamber.
- The optional carrying case makes it easy to transport the unit to wherever it is needed.

Specifications

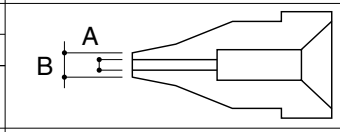
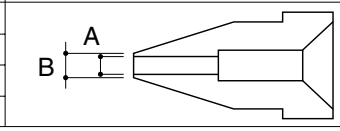
Model No.	808
Power Consumption	70W
Motor Output	6.5W
Temperature Range	380-480°C
Standard Nozzle	A1005 (ø1.0mm)
Nozzle to Ground Resistance	< 2Ω
Nozzle to Ground Potential	< 2mV
Vacuum Generator	Double-Cylinder Type
Vacuum Pressure	80kPa (600mmHg)
Suction Flow	10ℓ/min
Dimensions	235(W) x 170(H)mm
Weight (w/o cord)	420g

Packing List

Model Name	Contents
HAKKO 808	Desoldering gun ····1
	Filter pipe with filter holder and pre-filter (Alum.) ····1
	Cleaning pin for nozzle ø1.0mm ····1
	Cleaning pin for heating element ····1
	Pre-filter (Alum.) ····3
	Ceramic paper filter (L) ····4
	Wrench ····1

Replacement Nozzles

Unit : mm

Part No.	A	B	
A1002	0.8	1.8	
A1003	1.0	2.0	
A1004	0.8	2.3	
A1005	1.0	2.5	
A1006	1.3	3.0	
A1007	1.6	3.0	

Carrying Case



No. C1099

Iron Holder



No.C1100

HAKKO FR-801·FR-802·FR-803B

For lead-free soldering with sufficiently high power HAKKO hot air lineup allows easier thermal control.



HAKKO FR-801 — Analog

The air outlet is provided with new mechanism to reduce the temperature irregularity in hot air.

- The air outlet is provided with a new mechanism to reduce the temperature irregularity. Supplies hot air at a stable temperature.
- Comes with an airflow meter to allow more accurate and easier control of flow rate.



New mechanism to reduce temperature irregularity



HAKKO FR-802 — Digital display

The digital thermal display allows easier temperature control.

- Comes with the offset function to compensate for difference of air outlet temperatures depending on the nozzle size.
- The power saving function (30 min./60 min./∞ can be selected) will automatically stop the hot airflow after a specific time passes.
- Comes with the auto cool-down function. If the power is turned off and then continues to supply air until the temperature in the nozzle pipe decreases down to 100°C to protect the heating element.
- Card lock function to lock the setting details.

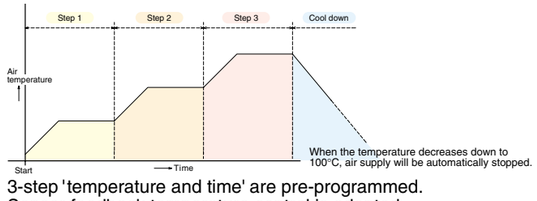


HAKKO FR-803B — Digital display with 50 memories/ 3 steps temperature profile

Preheating, main heating and cooling down 50 memories/3 steps temperature profile can be set.

- For more effective rework operation, it can be interfaced to the HAKKO FR-820.
- The heating conditions can be recreated due to the sensor feedback temperature control. 50 memories/3 steps temperature profile can be set, allowing easier control for temperature, flow rate and time. Highly accurate job can be standardized.
- The power saving function (30 min/60 min/∞ can be selected) will automatically stop the hot airflow after a specific time passes.
- Comes with an offset function.

3 steps Temperature Profile



3-step 'temperature and time' are pre-programmed.
Sensor feedback temperature control is adopted.

Performance comparison table

		FR-801	FR-802	FR-803B
Basic Ability	●The air outlet is provided with new mechanism ●Comes with an airflow meter ●Space-saving design ●ESD safe by design	○	○	○
Digital Function	●Offset function ●Auto cool-down function ●Power-saving design ●Card-lock function		○	○
Ideal Function	●3-step temperature profile can be set ●Comes with a vacuum pipe			○

Specifications

Model No.	FR-801	FR-802	FR-803B
Power Consumption	630W (230V)		
Station			
Model No.	FR-801	FR-802	FR-803B
Power Consumption	30W (Stand-by power consumption 220-240V 7W)	30W (Stand-by power consumption 220-240V 4W)	
Capacity (Air blow)	5-20ℓ/min. (Max.)		
Temperature Range	100-500°C (in A1130 use)	100-500°C (at sensing point)	
Modes	–	–	Manual/Auto
Timer	–	–	50 memories/3 steps temperature profile
Dimensions	160(W) x 145(H) x 230(D)mm		
Weight (w/o cord)	4kg	4.3kg	5kg
Handpiece			
Power Consumption	600W (230V)		
Total Length (w/o hose)	185(L)mm	200(L)mm	
Weight (w/o hose)	115g	200g	

Packing List

Model Name	Contents
HAKKO FR-801	Station ····1 Handpiece ····1 Power cord ····1 Handpiece holder ····1 FP pick-up ····1 FP pick-up wire (S) ····1 FP pick-up wire (L) ····1
HAKKO FR-802	Station ····1 Handpiece ····1 Power cord ····1 Handpiece holder ····1 Control card ····1 FP pick-up ····1 FP pick-up wire (S) ····1 FP pick-up wire (L) ····1
HAKKO FR-803B	Station ····1 Handpiece ····1 Power cord ····1 Handpiece holder ····1 Control card ····1 Vacuum pipe control knob (L) ····1 Pad (ø3mm) ····2 Pad (ø5mm) ····2 Pad (ø7.6mm) ····2

* Nozzle is an optional part.

Optional Nozzles

Please refer to page 44.

SMD-BGA Repair System



Combination of HAKKO FR-803B and FR-820 allows the SMD and BGA rework equipment to set up at a lower price.

* For further details, refer to page 45.

Temperature Probe

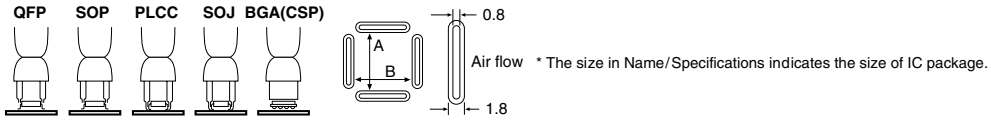


- For measuring the temperature of hot air.

* For further details, refer to page 35.

Optional Nozzles

Unit : mm



* The size in Name/Specifications indicates the size of IC package.

Vacuum Function Operative Nozzles

A1125B
QFP 10 x 10



A1126B
QFP 14 x 14



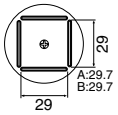
A1127B
QFP 17.5 x 17.5



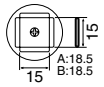
A1128B
QFP 14 x 20



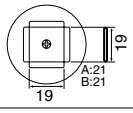
A1129B
QFP 28 x 28



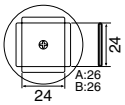
A1135B
PLCC 17.5 x 17.5
(44 Pins)



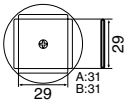
A1136B
PLCC 20 x 20
(52 Pins)



A1137B
PLCC 25 x 25
(68 Pins)



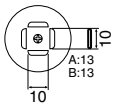
A1138B
PLCC 30 x 30
(84 Pins)



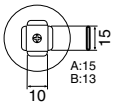
A1139B
PLCC 12.5 x 7.3
(18 Pins)



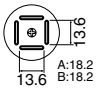
A1140B
PLCC 11.5 x 11.5
(28 Pins)



A1141B
PLCC 11.5 x 14
(32 Pins)



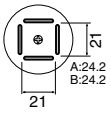
A1180B
BQFP 17 x 17



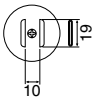
A1181B
BQFP 19 x 19



A1182B
BQFP 24 x 24



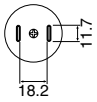
A1184B
SOJ 18 x 8



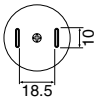
A1185B
TSOL 13 x 10



A1186B
TSOL 18 x 10



A1187B
TSOL 18.5 x 8



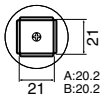
A1259B
SOP 13 x 28



A1260B
SOP 8.6 x 18



A1261B
QFP 20 x 20



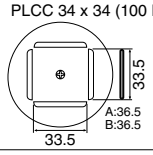
A1262B
QFP 12 x 12



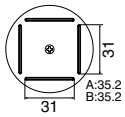
A1188B
PLCC 9 x 9
(20 Pins)



A1189B
PLCC 34 x 34 (100 Pins)



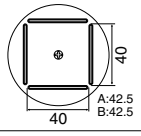
A1203B
QFP 35 x 35



A1214B
SOJ 10 x 26



A1215B
QFP 42.5 x 42.5



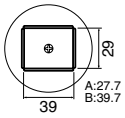
A1257B
SOP 11 x 21



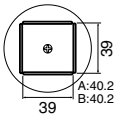
A1258B
SOP 7.6 x 12.7



A1263B
QFP 28 x 40



A1264B
QFP 40 x 40



A1265B
QFP 32 x 32



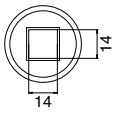
A1470
BGA 8 x 8



A1471
BGA 12 x 12



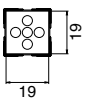
A1472
BGA 13 x 13



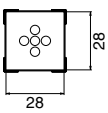
A1473
BGA 15 x 15



A1474
BGA 18 x 18



A1475
BGA 27 x 27



A1476
BGA 35 x 35

A1477
BGA 38 x 38

A1478
BGA 40 x 40

Vacuum Function Inoperative Nozzles

A1124B*
Single ø2.5

A1130*
Single ø4.4

A1131*
SOP 4.4 x 10

A1132*
SOP 5.6 x 13

A1133*
SOP 7.5 x 15

A1134*
SOP 7.5 x 18

A1142B* Bent Single
1.5 x 3

A1183*
SOJ 15 x 8

A1190* Dual Single
2.5 x 9.5

A1191* SIP 25L

A1192* SIP 50L

A1325*
Dual Singleø 1.5 x 5-10
Adjustable Pitch

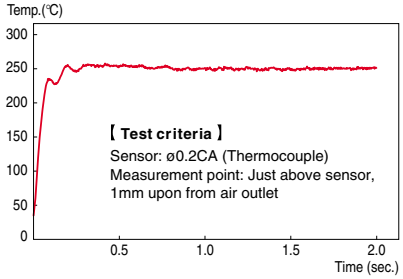
* These nozzles are vacuum function inoperative.
The vacuum function is not available in the FR-801 and the FR-802.

HAKKO FR-820 PREHEATER ESD SAFE

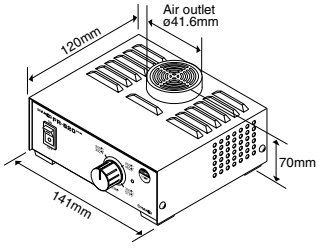


- Temperature range: 150 to 300°C.
- Off-set function is provided.
- Adopts a new mechanism to reduce temperature irregularity at the air outlet.
- Auto cool-down function

Temperature characteristics graph



Space-saving design



Specifications

Power Consumption	330W
Temperature Range	150-300°C (Above the blow exit)
Dimensions	140(W) x 70*(H) x 170(D)mm
Weight (w/o cord)	600g
Air Flow	0.18m³/min

* Height is measured from the establishment side to the blow exit.

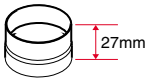
Packing List

Model Name	Contents
HAKKO FR-820	Preheater ·····1 Power cord ·····1

Extension pipe w/Lid



For local heating



No. B3263

Hand switch



No. B2763

Foot switch



No. B1649

SMD-BGA Repair System



Setting example
HAKKO FR-803B, HAKKO FR-820, Rework Fixture, Omnivise

- Combination of HAKKO FR-803B and FR-820 allows the SMD and BGA rework equipment to set up at a lower price.

Omnivise



Hold boards easily, safety and securely. Unique design allows 360° use.
Five(5) adjustable heights.
Can accommodate any board size.

No. C1390C

Rework Fixture



The rework fixture is compact and stable.
Smooth vertical motion makes operation easy.

No. C1392B

Nozzle Tray



Convenient storage for nozzles.
Removal and installation slots make changing nozzles safe, fast and easy.

No. C1391B

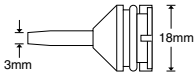
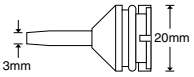
HAKKO SPPON
DESOLDERING TOOL



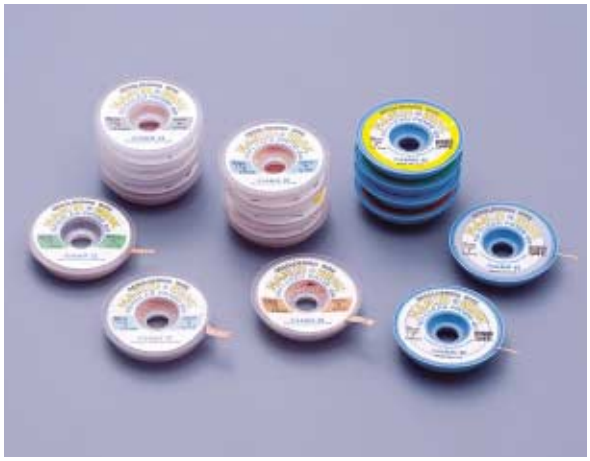


- Light weight and economical design.
- Powerful enough for both occasional and heavy duty desoldering applications efficiently.
- Unique cleaning shaft allows you to clean the nozzle quickly and easily.

Specifications

Model No.	18	18G	20	20G
	---	w/guard	---	w/guard
Absorption Capacity	12cm³ (12 c.c.)		20cm³ (20 c.c.)	
Spare Nozzle	18-N 		20-N 	

HAKKO WICK
DESOLDERING WIRE



- Regular Type
- Unflux Type
- No Clean Type

Removal for thru-hole...





Removal for bridging...





Specifications

Regular Type < Flux >

Part No.	Name/Description
FR100-00	HAKKO WICK <REGULAR> 1.5m x 0.6mm
FR100-01	HAKKO WICK <REGULAR> 1.5m x 0.9mm
FR100-02	HAKKO WICK <REGULAR> 1.5m x 1.4mm
FR100-03	HAKKO WICK <REGULAR> 1.5m x 1.9mm
FR100-04	HAKKO WICK <REGULAR> 1.5m x 2.5mm
FR100-05	HAKKO WICK <REGULAR> 1.5m x 3.3mm
87-2-30	HAKKO WICK <REGULAR> 30m x 1.5mm
87-3-30	HAKKO WICK <REGULAR> 30m x 2.0mm
87-4-30	HAKKO WICK <REGULAR> 30m x 2.5mm
87-4-100	HAKKO WICK <REGULAR> 100m x 2.5mm

Unflux Type < Unflux >

Part No.	Name/Description
FR110-00	HAKKO WICK <UNFLUXED> 1.5m x 0.6mm
FR110-02	HAKKO WICK <UNFLUXED> 1.5m x 1.4mm
FR110-03	HAKKO WICK <UNFLUXED> 1.5m x 1.9mm
FR110-04	HAKKO WICK <UNFLUXED> 1.5m x 2.5mm
FR110-05	HAKKO WICK <UNFLUXED> 1.5m x 3.3mm

No Clean Type < No Clean Type >

Part No.	Name/Description
FR120-00	HAKKO WICK <NO CLEAN> 1.5m x 0.6mm
FR120-01	HAKKO WICK <NO CLEAN> 1.5m x 0.9mm
FR120-02	HAKKO WICK <NO CLEAN> 1.5m x 1.4mm
FR120-03	HAKKO WICK <NO CLEAN> 1.5m x 1.9mm
FR120-04	HAKKO WICK <NO CLEAN> 1.5m x 2.5mm
FR120-05	HAKKO WICK <NO CLEAN> 1.5m x 3.3mm

HAKKO MODEL FM-2022 PARALLEL REMOVER · HAKKO MODEL FM-2023 MINI PARALLEL REMOVER



MODEL FM-2022



MODEL FM-2023

- Unique parallel movement of tips allows easy removal.
- Direct heating prevents damage to neighboring sensitive components comparing with hot air.

FM-2022:-

- Can be used for chips and flat packages up to 25mm in size.

FM-2023:-

- Standard or reverse tweezers action can be selected with a switch lever.
- Equipped with a small ergonomic grip.

* MODEL FM-2022, FM-2023 must be used with MODEL FM-202① or FM-203. Please refer to pages 10-13 about FM-203.
① Discontinue product

Specifications

Model No.	FM-2022	FM-2023
Power Consumption	140W (24V)	
Temperature Range	200-400°C	
Tip to Ground Resistance	< 2Ω	
Tip to Ground Potential	< 2mV	
Total Length (w/o cord)	148mm with SOP 25L tip	117mm with I tip
Weight (w/o cord)	64g with SOP 25L tip	37g with I tip
Cord	1.2m	

Replacement Tips

Please refer to page 13.

Packing List

Model Name	Contents
HAKKO MODEL FM-2022 (Conversion kit)	Parallel remover (MODEL FM-2022) ·····1 Iron holder with cleaning sponge (No.FH200-03) ·····1 Connecting cable ·····1 Heat resistant pad·····1 * Tip is an optional part.
HAKKO MODEL FM-2023 (Conversion kit)	Mini parallel remover (MODEL FM-2023) ·····1 Tips (T9-I/2pcs of set) ·····1 Iron holder with cleaning sponge (No.FH200-04) ·····1 Connecting cable ·····1 Heat resistant pad ·····1 Component bed ·····1

Set Up





* The MODEL FM-2022 and FM-2023 are not included with the FM-203 station.

Conversion Kit



FM-2022 Conversion Kit (No.FM2022-05)



FM-2023 Conversion Kit (No.FM2023-06)

HAKKO 950 ESD SAFE
SMD HOT TWEEZER



- Available for your HAKKO 937, 701, 702B stations.
- Direct heating; less influence upon surrounding components on crowded boards.
- Easy removes SMD chips and flat pack's up to 25mm.
- The collet allows easy replacement and alignment of the tips.

* The HAKKO 950 is not included with the stations.

Operation



Easy Replacement of Tip



Easy Alignment of Tip



Recommended Iron Holder



No.C1313

Specifications

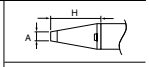
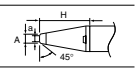
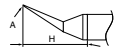
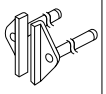
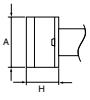
Output Voltage	AC 24V
Power Consumption	50W
Temperature Range	200-400°C
Standard Tip	A1378 (Chip 2L)
Tip to Ground Resistance	< 2Ω
Tip to Ground Potential	< 2mV (Typ.0.6mV)
Heating Element	Ceramic Heater
Total Length (w/o cord)	186mm
Weight (w/o cord)	93g

Packing List

Model Name	Contents
HAKKO 950	SMD hot tweezers ·····1 Heat resistant pad ·····1 Tip alignment tool ·····1

Replacement Tips

Unit : mm

	Part No.	Name	A(a)	T	H	Size A (a) x T (Thickness) x H (Height)	
CHIP	A1379	Tip/Chip 1L	1.0	1.0	13.0		
	A1378	Tip/Chip 2L	2.0	1.0	13.0		
	A1388	Tip/Chip 0.5C	1.5(0.5)	1.0	13.0		
	A1389	Tip/Chip 0.5I	R0.25		18.5		
SOP	A1390	Tip/Chip 4L	4.0	1.0	8.0		
	A1391	Tip/Chip 6L	6.0	1.0	8.0		
	A1380	Tip/Chip 8L	8.0	1.0	8.0		
	A1381	Tip/Chip 10L	10.0	1.0	8.0		
	A1382	Tip/Chip 13L	13.0	1.0	8.0		
	A1392	Tip/Chip 15L	15.0	1.0	8.0		
	A1383	Tip/Chip 18L	18.0	1.0	8.0		
	A1384	Tip/Chip 20L	20.0	1.0	8.0		
	A1385	Tip/Chip 25L	25.0	1.0	8.0		

HAKKO 701 ESD SAFE
REPAIR SYSTEM



- The all-in-one systems for soldering and desoldering.
- ESD safe by design.
- Compact design for minimum use of bench space.

Specifications

Model No.	701
Power Consumption	150W

Station

Soldering	Output Voltage	AC 24V
	Temperature Range	200-480°C
Desoldering	Output Voltage	AC 24V
	Vacuum Generator	Double Cylinder Type
	Vacuum Pressure	80kPa (600mmHg)
	Motor Output	12W
	Temperature Range	380-480°C
	Suction Flow	15ℓ/min
Dimensions	190(W) x 130(H) x 250(D)mm	
Weight (w/o cord)	5kg	

Soldering Iron

Model No.	907-ESD
Power Consumption	50W (24V)
Standard Tip	900M-T-B (Shape-B)
Tip to Ground Resistance	< 2Ω
Tip to Ground Potential	< 2mV
Heating Element	Ceramic Heater
Total Length (w/o cord)	190mm
Weight (w/o cord)	44g

Desoldering Gun

Model No.	809
Power Consumption	50W (24V)
Standard Nozzle	A1003 (ø1.0mm S Type)
Heating Element	Ceramic Heater
Dimensions	135(W) x 174(H)mm
Weight (w/o cord)	200g

Packing List

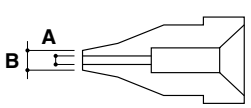
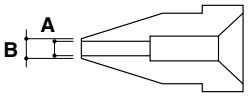
Model Name	Contents
HAKKO 701	Station ····· 1
	Soldering iron (907-ESD) ····· 1
	Desoldering gun (809) ····· 1
	Filter pipe ····· 1
	Cleaning pin for ø1.0mm nozzle ····· 1
	Cleaning pin for heating element ····· 1
	Cleaning drill for ø1.0mm nozzle ····· 1
	Ceramic paper filter (S) ····· 2
	Ceramic paper filter (L) ····· 4
	Spring filter ····· 3
	Silicone grease ····· 1
	Wrench ····· 1
	Iron holder for soldering iron (No.C1142) ····· 1
	Iron holder for desoldering gun (No.631-06) ····· 1

Replacement Tips

Please refer to page 25 (for M-Type iron).

Replacement Nozzles

Unit : mm

Part No.	A	B	
A1002	0.8	1.8	
A1003	1.0	2.0	
A1004	0.8	2.3	
A1005	1.0	2.5	
A1006	1.3	3.0	
A1007	1.6	3.0	

HAKKO 702B ESD SAFE

REWORK SYSTEM



- Compact design for minimum use of bench space, incorporating : two soldering irons.
  desoldering gun.
  handpiece for hot-air SMD rework.
- Replacement tip/nozzle are available from Hakko's well-known series.
- ESD safe by design.

Specifications

Model No.	702B	
Power Consumption	500W	
Station		
Soldering	Output Voltage	AC 24V
	Temperature Range	200-480°C
Desoldering	Output Voltage	AC 24V
	Vacuum Generator	Double Cylinder Type
	Vacuum Pressure	80kPa (600mmHg)
	Suction Flow	15ℓ/min
	Temperature Range	380-480°C
SMD Rework	Input Voltage	230V
	Pump	Diaphragm Pump
	Capacity	23ℓ/min (Max.)
	Temperature Range	100-420°C (Use A1126B)
Dimensions	360(W) x 266(H) x 150(D)mm	
Weight (w/o cord)	10kg	

Soldering Iron

Model No.	900S-ESD	907-ESD
Power Consumption	50W (24V)	
Tip to Ground Resistance	< 2Ω	
Tip to Ground Potential	< 2mV	
Heating Element	Ceramic Heater	
Standard Tip	900S-T-I (Shape-I)	900M-T-B (Shape-B)
Cord	1.2m	
Total Length (w/o cord)	176mm	190mm
Weight (w/o cord)	25g	44g

Desoldering Gun

Model No.	809
Power Consumption	50W (24V)
Nozzle to Ground Resistance	< 2Ω
Nozzle to Ground Potential	< 2mV
Standard Nozzle	A1003 (ø1.0mm S Type)
Dimensions	135(W) x 174(H)mm
Weight (w/o cord & hose)	200g

Handpiece for SMD Rework

Power Consumption	250W
Total Length (w/o cord)	196mm
Weight (w/o hose)	120g

Packing List

Model Name	Contents
HAKKO 702B	Station ····1 Soldering iron (900S-ESD & 907-ESD) ····2 Desoldering gun (809) ····1 Handpiece for SMD rework ····1 Iron holder for soldering iron (No.C1121 & No.C1142) ····2 Iron holder for desoldering gun (No.631-06) ····1 Handpiece holder ····1 Nozzle tray ····1 Filter pipe ····1 Cleaning pin for ø1.0mm nozzle ····1 Cleaning pin for heating element ····1 Cleaning drill for ø1.0mm nozzle ····1 Ceramic paper filter (S) ····2 Ceramic paper filter (L) ····4 Spring filter ····3 Silicone grease ····1 Wrench ····1 FP pick-up ····1 FP pick-up wire (S & L) ····2 Nozzle for SMD rework handpiece (No.A1124B & A1128B) ····2

Replacement Tips and Nozzles

Soldering iron: Please refer to page 25.
Desoldering gun: Please refer to page 39.
Nozzle for SMD Rework: Please refer to page 44.

HAKKO 490
SMOKE CLEANER



- Compact and noise free, making it perfect for low-noise environments and desktop use.
- Use compressed air- no power supply is necessary.

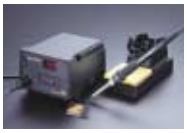
Compatible Soldering Iron


HAKKO FX-950


HAKKO FX-951


HAKKO FM-203


HAKKO 938
(Iron: 917)


HAKKO 937*
(Iron: 907/908)

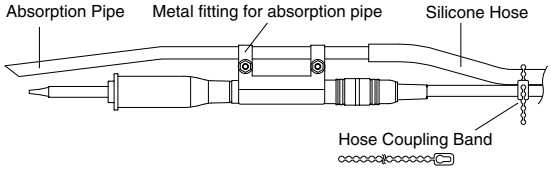

HAKKO 701*
(Iron: 907/908)


HAKKO 702B*
(Iron: 907/908)

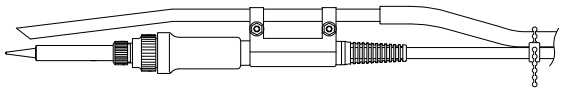
* 900S soldering iron and any desoldering guns are not compatible with HAKKO 490.

Set Up

■ **FM-2028, FM-2027**



■ **917, 907-ESD, 908-ESD**



Specifications

Model No.	490
Height	200mm
Diameter	120mm
Weight	1.5kg
Noise Level	39db
Working Pressure	4~7kgsf/cm² (392~686kPa)
Air Consumption	40ℓ/min (5kgsf/cm²)
Suction Flow	2.3ℓ/min (5kgsf/cm²)

Packing List

Model Name	Contents
HAKKO 490	Unit ·····1
	Absorption pipe set (No.C1540) ·····1

* A second soldering iron can be attached to HAKKO 490 by purchasing an additional Absorption pipe set.

HAKKO 442B WRIST STRAP



- Comfortable and light weight.
- Banana plug plus alligator clip for ground connection.
- With adjustable wrist band.

Specifications

Part No.	442B-01	442B-02
Color	Blue	
Grounding Wire	1.5m	2.5m

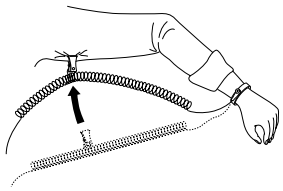
Packing List

Model Name	Contents
HAKKO 442B	Wrist band ····1
	Grounding wire ····1
	Cord helper ····1

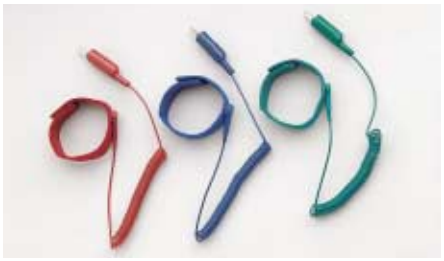
Replacement Parts

Part No.	Name/Description
B2760	Strap
B2758	Grounding wire/1.5m
B2759	Grounding wire/2.5m

How To Use The Cord Helper



HAKKO 496 WRIST STRAP



- Comfortable and light weight.
- Available in blue, wine and green color.
- 'Velcro' & 'Snap' help quick and easy adjusting.
- Standard ground termination is alligator clip.

Specifications

Part No.	496B	496R	496G
Color	Blue	Wine	Green
Grounding Wire	2m w/alligator chip		

Replacement Parts

Part Name	Name/Description
496-1B	Wrist band <Blue>
496-1R	Wrist band <Wine>
496-1G	Wrist band <Green>
496-2B	Grounding wire <Blue>
496-2R	Grounding wire <Wine>
496-2G	Grounding wire <Green>

HAKKO 498 SYSTEM TESTER

CE



- Can be used anywhere to check a variety of grounding systems quickly and easily.
- Ensures employee's safety.
- Eliminates product defects caused by static electricity.



Quickly and simply checks
- Wrist straps and grounding wires.
- The contact resistance between the wrist strap and the skin.

Operation
- Simply connect the grounding wire and press the pad.
- If the grounding system is safe, the green 'GOOD' lamp will light up and an audible signal will be heard.

Specifications

Model No.	498
Power Supply	9V Battery
Grounding Wire	2.5m
Operating Environment	0 to 40°C, 20 to 90%RH, no dew formation

LED Indication	Calibration Resistance	Buzzer
LOW (Red)	R<800KΩ	OFF
GOOD (Green)	800KΩ≦R≦9MΩ	ON
HIGH (Red)	R>9MΩ	OFF

HAKKO CUTTING TOOL



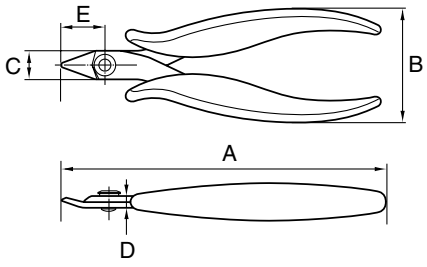
- Designed for precision assembly of delicate, complex electronic work.
- Soft-touch grip ensures long and comfortable work.
- Recommend to cut copper & soft lead wires.

Specifications

Model No.	Name	Maximum cutting capability for copper wire
106-01	Flush Cut with Safety Clip	1.3mm
106-02	Flush Cut with Angled Blade	1.3mm
106-03	Flush Cut with Small Blade	0.8mm
106-04	For a Front, Flush Cut	1.0mm
106-05	Flush Cut	1.3mm
106-06	Short Nose Pliers	–
106-07	Long Nose Pliers	–
106-08	Bent Nose Pliers	–

Unit : mm

Model No.	A	B	C	D	E
106-01	132	54	13.5	5	20
106-02	129	54	13.5	5	16
106-03	130	54	9.5	4	18
106-04	138	54	14	6	27
106-05	132	54	13.5	5	20
106-06	140	54	13	6	29
106-07	154	54	13	6	40
106-08	146	54	13	4	35



HAKKO 394
VACUUM PICK-UP



- A built-in very small, but powerful pump eliminates the needs of power cord and air tube.
- Easy to handle for continuous pickup.
- Anti-static materials are used.

Service Life of Battery

Pickup repetition limit*1	Continuous pickup time*2
Approx. 30,000 pickup times (With alkaline batteries)	Approx. 15 hours

*1 26mm x 26mm QFP is picked up for 2 seconds using a 10 mm dia. pad and then released for 1 second. This cycle is repeated continuously until the QFP is no longer picked up.
*2 This is the time period from the moment 26mm x 26mm QFP starts being picked up using a 10 mm dia. pad to the moment the QFP drops.





Applicable for chip components
(With A1164 Bent Nozzle)

Specifications

Model No.	394
Power Supply	Alkaline Battery "AAA" x 2
Dimensions	130(L) x 22(W) x 29(H)mm
Weight (w/o batteries)	43g

Replacement Parts

Part No.	Name/Description
A1164	Bent nozzle 0.4mm
A1165	Bent nozzle 1.1mm with stopper
A1198	Bent nozzle 0.26mm
A1486	Straight Nozzle 1.1mm with stopper
A1166	Pad 3mm
A1312	Pad 5mm
A1167	Pad 7mm
A1311	Pad 10mm

Packing List

Model Name	Contents
HAKKO 394	Unit ····· 1
	Bent nozzle 1.1mm with stopper (No.A1165) ····· 1
	Pad 5mm (No.A1312) ····· 1
	Pad 10mm (No.A1311) ····· 1
	Alkaline battery "AAA" ····· 2

Pickup Power

Part No.	Name/Description	Pickup Performance
A1166	Pad 3mm	6 gf
A1312	Pad 5mm	40 gf
A1167	Pad 7mm	80 gf
A1311	Pad 10mm	120 gf

* The max. pickup performance shown above slightly differs depending on the surface of the object.

HAKKO 153·154 LEAD FORMER

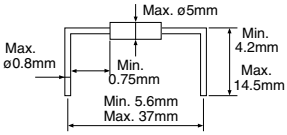


Cutting and forming for tape-type axial components

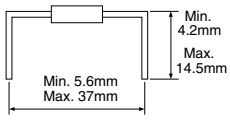
- Easy to use-simply set the taped components in place and turn the handle. Ideal for processing tape-type components.
- Improved, longer-life cutting blade for a clean, smooth cut.
- Sealed bearings for longer service life and greater durability and efficiency.
- Can be used for forming and cutting, forming only, or cutting only.

HAKKO 153

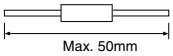
· Cutting & Forming



· Forming only

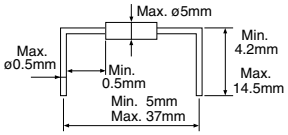


· Cutting only

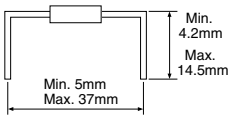


HAKKO 154

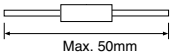
· Cutting & Forming



· Forming only



· Cutting only



Specifications

Part No.		153-1	154-1
Forming Size		5.6mm Pitch	5mm Pitch
Max. Diameter of Lead*		ø0.8mm	ø0.5mm
Compatible Taping Dimension	Outer Width of Tape	Max. 85mm	
	Pitch	5mm	
Dimensions		125(W) x 130(H) x 110(D)mm	
Weight		2kg	

CAUTION * For annealed copper lead only.

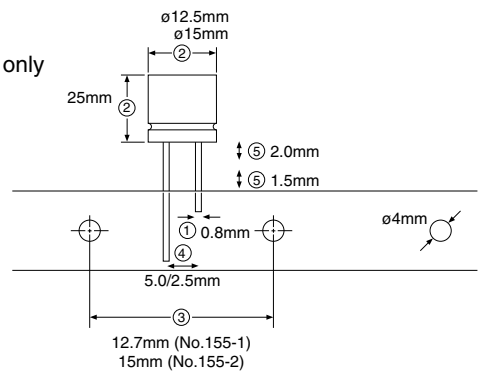
HAKKO 155 LEAD CUTTER



Cutting for tape-type radial components

- Easy to use-simply set the taped components in place and turn the handle. The super-sharp, high quality cutting blade allows you to cut all types of tape-type radial parts, including resistors, capacitors, transistors, etc. cleanly and smoothly. Continuous operation ensures faster, more efficient processing.
- Sealed bearings make it long-lasting, durable and efficient.
- The compact design allows you to place it virtually anywhere.

· Cutting only



Specifications

Part No.	155-1	155-2
① Max. Diameter of Lead Wire	ø0.8mm	
② Max. Processing Part Size	ø12.5mm~25mm	ø15mm~25mm
③ Feed Hole Pitch	12.7mm	15mm
④ Lead Pitch	2.5mm*, 5.0mm	5.0mm
⑤ Min. Processing Size	1.5mm from taping end	2.0mm from part end
Dimensions	125(W) x 110(H) x 140(D)mm	
Weight	1.7kg	

* When processing a part with a lead pitch of 2.5mm, be sure to adjust the cutting wheel. Parts with a pitch of 2.5mm can be processed only on the No.155-1.

HAKKO DIPLINER
LEAD STRAIGHTENER



- Low-cost, high-performance tool for reforming IC and LSI leads.
- Speeds IC and LSI insertion.
- No more broken leads during IC and LSI insertion or transportation.
- Simply insert the IC case into the Dipliner chute, and the leads are protected right through circuit board insertion.
- Adjustable lead former fits all types, sizes and makes of ICs and LSIs.
- Simple mechanism for maintenance-free operation.



Specifications

Model No.	Width of IC	Number of IC Leads
FT100	7.5mm	8, 14, 16, 18, 20
FT150	10mm	22
FT200	15mm	24, 28, 40, 42
FT300	19mm	64

Hakko Global Network



Global and Niche:
The Hakko brand is much loved in more than 50 countries worldwide.

We have grown into a global brand. Currently, Hakko soldering irons and related equipment are desired in more than 50 countries in overseas markets. We have local corporations and sales representatives in various regions worldwide, and continue to expand our global network. Again, we believe that creative power stems from connections between the Hakko international groups. Hakko promises to fulfill our customers' needs with our global network of friendly relationships.

HAKKO

http://www.hakko.com

Please access to the above address for the other Sales affiliates.

CATALOG

Quality Tools for the electronics Industry

HAKKO

HAKKO CORPORATION

HEAD OFFICE
4-5, SHIOKUSA 2-CHOME, NANIWA-KU, OSAKA, 556-0024 JAPAN
TEL:+81-6-6561-3225 FAX:+81-6-6561-8466
http://www.hakko.com E-mail:sales@hakko.com

Please access to the following address for the other Sales affiliates.
http://www.hakko.com

Specifications and design are subject to change without notice.
Copyright HAKKO Corporation. All right reserved.

CA00264BbKb002 Jul. 2009