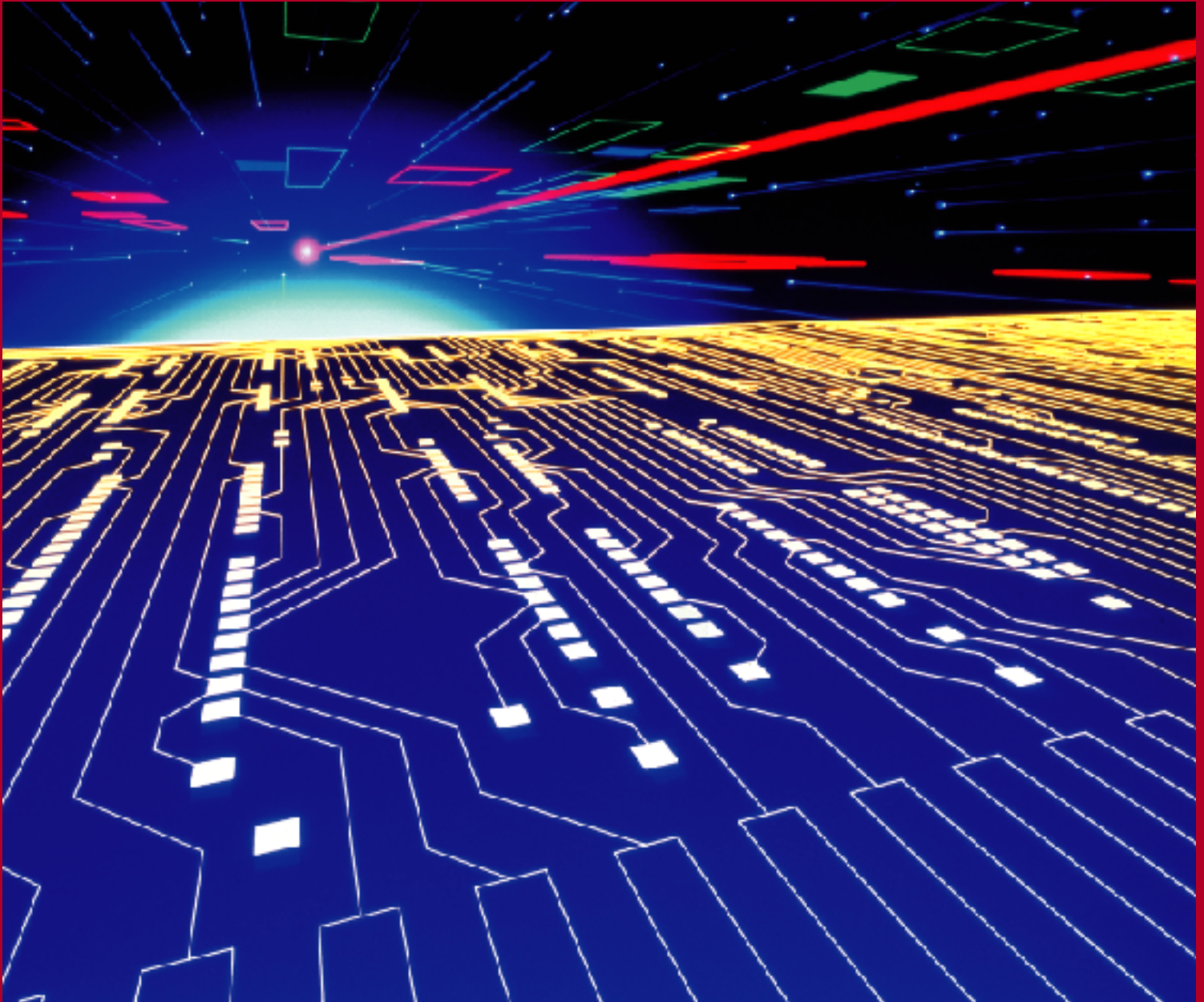


*Quality tools for  
the electronics industry.*



# HAKKO -The first choice in precision soldering tools for the electronics industry.

The Hakko Corporation has been producing high quality soldering tools that are both safe and precise for over 40 years. Their performance and reliability have made Hakko the leading producer of soldering equipment in Japan. Hakko offers over 200 products for the electronics industry, including ultra-precision soldering systems for ICs and SMT devices; precision soldering, desoldering and rework stations; basic soldering tools; and special equipment for special requirements.

Hakko continues to direct their research and development efforts to meet the growing demands of the electronics industry. Some of the results of Hakko's efforts can be seen in these pages. Look at them closely, and you will see why Hakko will continue to be the leader in soldering tools.



The products listed in this catalogue are manufactured for American Hakko Products, inc. by The Hakko Corporation, Osaka, Japan. The Hakko Corporation is an ISO 9001 certified manufacturer.

## Contents


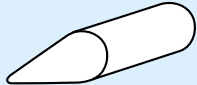


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\*The specifications written here may be subject to change without notice.

# HAKKO SOLDERING TIP

- HAKKO Soldering Iron Tips are shaped from a copper bar, then coated with a protective iron plating.
- Though the coating is thick for improved durability, it has good heat conductivity for more efficient thermal recovery.

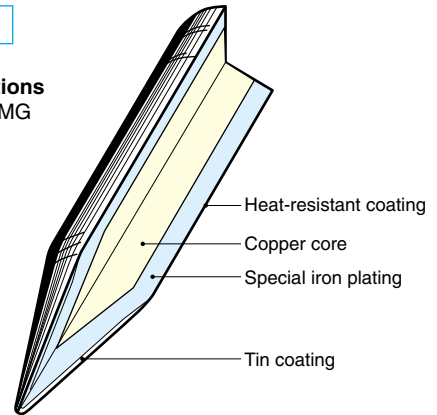
## Basic Style of HAKKO Soldering Tip

		Examples
SHAPE 'A'	 Pyramid	920-T-A
SHAPE 'B'	 Conical	900-M-T-B 918-T-B N452-T-B
SHAPE 'C'	 Bevel	900-M-T-IC 918-T-3C N452-T-C
SHAPE 'D'	 Chisel	900-M-T-1.6D 918-T-3.2D N452-T-D

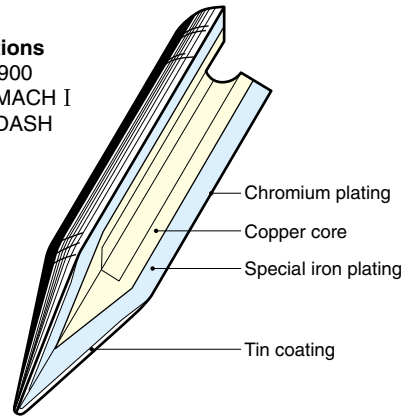
\*Other tip shapes are also available.

## Construction

Applications  
HAKKO MG



Applications  
HAKKO 900  
MACH I  
DASH



## ⚠ CAUTION

When seeking tip replacements, select only 'HAKKO' soldering iron tips that are intended for your particular model of soldering iron. If an incompatible tip or a tip made by another manufacturer is used, the original performance of the soldering iron may not be obtained. Furthermore, the heater unit may be overloaded resulting in failure.

- Compact unit; takes up little space on the workbench.
- Soldering irons have thinner grips for easier use.
- Lock screw prevents inadvertent changes to the temperature setting.
- ESD safe by design.

The HAKKO 936 is also available in a standard configuration, without the ESD features.



## Specifications

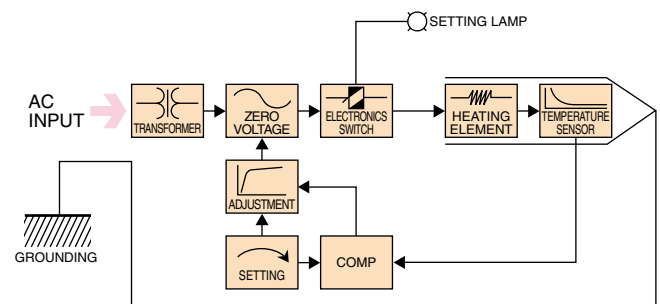
<b>Model Name</b>	936
<b>Power Consumption</b>	60W
<b>Station</b>	
<b>Output Voltage</b>	24V AC
<b>Temperature</b>	200°C—480°C (392°F—896°F)
<b>Temperature Stability</b>	±1.0°C (1.8°F)
<b>Outer Dimensions (w/o cord)</b>	120 (W) x 93 (H) x 170 (D) mm 4.7 (W) x 3.7 (H) x 6.7 (D) in.
<b>Weight (w/o cord)</b>	Approx. 1.3 kg (2.9 lbs)

Iron						
Model Name	900S	900S ESD	907	907ESD	908	908ESD
<b>Type</b>	Small		Medium		Large	
<b>Style</b>	Regular	ESD	Regular	ESD	Regular	ESD
<b>Power Consumption</b>	24V AC/50W					
<b>Standard Tip</b>	900S-T-1	900M-T-1.6D		900L-T-3.2D		
<b>Tip to Ground Resistance</b>	Under 2Ω					
<b>Tip to Ground Potential</b>	Under 2mV (Typ. 0.6mV)					
<b>Heating Element</b>	Ceramic heater					
<b>Total Length (w/o cord)</b>	176 mm (7 in)	190 mm (7.5 in)		200 mm (7.9 in)		
<b>Weight (w/o cord)</b>	25 g (0.06 lbs)	44 g (0.09 lbs)		54 g (0.12 lbs)		

## Contents

Part No.	Style	Description: Model Name	Part No.	Accessories
936-8	Regular	Station Iron/S-type: 900S	900S	Hex wrench (P/N: B2017)
		Iron holder	C1141	
936-9		Station Iron/M-type: 907	C1147	
	Iron holder	C1142		
936-10	Station Iron/L-type: 908	C1149		
	Iron holder	C1142		
936-11	ESD	Station Iron/S-type: 900S ESD	900S-ESD	
		Iron holder	C1141	
936-12		Station Iron/M-type: 907 ESD	C1148	
	Iron holder	C1142		
936-13	Station Iron/L-type: 908 ESD	C1150		
	Iron holder	C1142		

## Electronic Control System



The heater has a capability of 700°C (1,292°F). Therefore, high working efficiency can be expected.

- The digital indicator ensures accurate temperature settings.
- The temperature cannot be changed once set without using the key-card.
- Compact unit; takes up little space on the workbench.
- Soldering irons have thinner grips for easier use.
- ESD safe by design.

## Specifications

<b>Model Name</b>	937
<b>Power Consumption</b>	60W
<b>Station</b>	
<b>Output Voltage</b>	24V AC
<b>Temperature</b>	200°C—480°C (400°F—899°F)
<b>Temperature Stability</b>	±1.0°C (1.8°F)
<b>Outer Dimensions (w/o cord)</b>	120 (W) x 93 (H) x 170 (D) mm 4.7 (W) x 3.7 (H) x 6.7 (D) in.
<b>Weight (w/o cord)</b>	Approx. 1.3 kg (2.91 lbs)

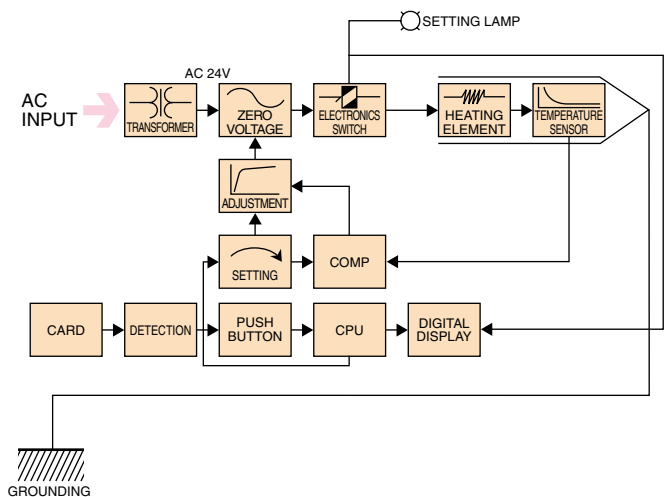
Iron			
<b>Model Name</b>	900S ESD	907 ESD	908 ESD
<b>Type</b>	Small	Medium	Large
<b>Style</b>	ESD		
<b>Power Consumption</b>	24V AC/50W		
<b>Standard Tip</b>	900S-T-1	900M-T-1.6D	900L-T-3.2D
<b>Tip to Ground Resistance</b>	Under 2Ω		
<b>Tip to Ground Potential</b>	Under 2mV (Typ. 0.6mV)		
<b>Heating Element</b>	Ceramic heater		
<b>Total Length (w/o cord)</b>	176 mm (7 in)	190 mm (7.5 in)	200 mm (7.9 in)
<b>Weight (w/o cord)</b>	25 g (0.06 lbs)	44 g (0.09 lbs)	54 g (0.12 lbs)



## Contents

Part No.	Style	Description: Model Name	Part No.	Accessories
937-4	ESD	Station Iron/S-type: 900S ESD Iron holder	900S-ESD C1141	Card (P/N: B2037)
937-5		Station Iron/M-type: 907 ESD Iron holder	C1148 C1142	
937-6		Station Iron/L-type: 908 ESD Iron holder	C1150 C1142	

## Electronic Control System



- A compact unit - two stations in one.
- Two separate, independent controls.
- Accuracy  $\pm 1.0^{\circ}\text{C}$  ( $\pm 1.8^{\circ}\text{F}$ ) of dial setting.
- Two soldering irons of different thermal capacities may be used simultaneously.
- Ultra-quick heat-up and fast thermal recovery permit high-quality soldering at lower temperatures.
- Cost effective and practical for production.



## Specifications

Station			
Model Name	928		
Power Consumption	120W (60W x 2)		
Output Voltage	24V AC (Both irons)		
Temperature	200°C—480°C (392°F—896°F) (Both irons)		
Temperature Stability	$\pm 1.0^{\circ}\text{C}$ ( $\pm 1.8^{\circ}\text{F}$ )		
Outer Dimensions (w/o cord)	135 (W) x 88 (H) x 190 (D) mm 5.3 (W) x 3.5 (H) x 7.5 (D) in.		
Weight (w/o cord)	Approx. 2.7 kgs. (6 lbs)		
Soldering Iron			
Part No.	900S-ESD	900M-ESD	900L-ESD
Type	Small	Medium	Large
Style	ESD		
Power Consumption	24V AC/50W		
Standard Tip	900S-T-1	900M-T-1.6D	900L-T-3.2D
Tip to Ground Resistance	Under 2 $\Omega$		
Tip to Ground Potential	Under 2mV (Typ. 0.6mV)		
Heating Element	Ceramic heater		
Length (w/o cord)	176 mm (7 in)	190 mm (7.5 in)	210 mm (8.3 in)
Weight (w/o cord)	25 g (0.06 lbs)	45 g (0.1 lbs)	55 g (0.12 lbs)

## Heating Elements

Part No.	Specification
A1321 (900M-H)	Heating element 24V/50W for 900M-ESD, 900L-ESD
A1322 (900S-H)	Heating element 24V/50W for 900S-ESD

## Contents

Part No.	Style	Description: Model Name	Part No.
928LLM-V12ESD	ESD	Station Iron/L-type: 900L ESD Iron/L-type: 900L ESD Iron holder: 631	900L-ESD 900L-ESD
928LMM-V12ESD		Station Iron/L-type: 900L ESD Iron/M-type: 900M ESD Iron holder: 631	900L-ESD 900M-ESD
928LSM-V12ESD		Station Iron/L-type: 900L ESD Iron/S-type: 900S ESD Iron holder: 631	900L-ESD 900S-ESD
928MMM-V12ESD		Station Iron/M-type: 900M ESD Iron/M-type: 900M ESD Iron holder: 631	900M-ESD 900M-ESD
928MSM-V12ESD		Station Iron/M-type: 900M ESD Iron/S-type: 900S ESD Iron holder: 631	900S-ESD 900S-ESD
928SSM-V12ESD		Station Iron/S-type: 900S ESD Iron/S-type: 900S ESD Iron holder: 631	900S-ESD 900S-ESD

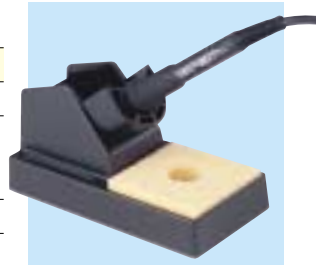


## Heating Elements

Part No.	Description
A1321	Heating element: 24V/50W for 900M, 900M ESD, 900L, 900L ESD, 907, 907 ESD, 908, 908 ESD, 913, 914
A1322	Heating element: 24V/50W for 900S, 900S ESD

## Iron Holders

Part No.	Description
C1141	Iron holder for 900S, 900S ESD
C1142	Iron holder for 907, 907 ESD, 908, 908 ESD, 913, 914
A1042	Cleaning sponge



## Replacement Tips Unit: mm(in.)

### Small For 900S, 900S ESD

900S-T-1.2D  
900S-T-1.6D  
900S-T-1C  
900S-T-2C  
900S-T-B  
900S-T-I

Tip Out Dia.  $\phi$ 5.8 mm

### Medium For 900M, 900M ESD, 907, 907 ESD, 913

900M-T-0.8D  
900M-T-1.2D  
900M-T-1.6D  
900M-T-2.4D  
900M-T-3.2D  
900M-T-1.2LD  
900M-T-B  
900M-T-LB  
900M-T-1C  
900M-T-1CF\*  
900M-T-2C  
900M-T-2CF\*  
900M-T-3C  
900M-T-3CF\*  
900M-T-4C  
900M-T-4CF\*  
900M-T-K  
900M-T-R  
900M-T-RT  
900M-T-I

900M-T-H  
900M-T-1.8H  
900M-T-S4  
900M-T-0.5C  
900M-T-0.8C  
900M-T-1.5CF\*  
900M-T-SB  
900M-T-SI  
900M-T-S9  
900M-T-S3  
900M-T-S6  
900M-T-S7  
900M-T-2LD  
900M-T-3.2LD  
900M-T-0.2RB

Tip Out Dia.  $\phi$ 6.5 mm

### Large For 900L, 900L ESD, 908, 908 ESD, 914

900L-T-B  
900L-T-2B  
900L-T-2.4D  
900L-T-3.2D  
900L-T-2C  
900L-T-2CF\*  
900L-T-3C  
900L-T-3CF\*  
900L-T-4C  
900L-T-4CF\*  
900L-T-5C  
900L-T-5CF\*  
900L-T-I  
900L-T-K  
900L-T-1.6D  
900L-T-S1  
900L-T-LB

Tip Out Dia.  $\phi$ 8.5 mm

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

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

## For SMD Desoldering

907	907 ESD	900M	900M ESD
-----	---------	------	----------

+

Tip Holder (P/N: 900M-1000)

+

Tip (Please refer to page 29 for HAKKO MACH-FP)

# HAKKO 950 ESD SAFE SMD HOT TWEEZER

HAKKO 950: Please refer to page 30 for detail.



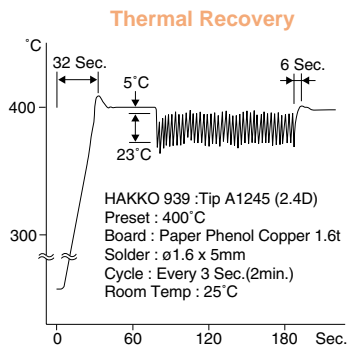


# HAKKO 939 ESD SAFE

SOLDERING STATION

The HAKKO 939 incorporates a new type of heating system. The tip and heating element form a single unit. This one-piece design offers superior thermal recovery, thus permitting soldering at lower temperatures and precluding damage to boards and components.

- Unique temperature lock. The temperature cannot be changed once it is set without the key-card.
- Convenient digital front panel temperature adjustment.
- Accurate between 400°F and 899°F.
- One step change from °C to °F.
- Very fast thermal recovery.
- ESD safe by design.



## Specifications

<b>Model Name</b>	939
<b>Power Consumption</b>	60W

### Station

<b>Output Voltage</b>	24V AC
<b>Temperature</b>	200°C—480°C (400°F—899°F)
<b>Temperature Stability</b>	±1.0°C (1.8°F)
<b>Outer Dimensions (w/o cord)</b>	110 (W) x 88 (H) x 190 (D) mm 4.3 (W) x 3.3 (H) x 7.5 (D) in.
<b>Weight</b>	Approx. 1.6 kgs. (3.5 lbs.)

### Iron

<b>Model Name</b>	903
<b>Power Consumption</b>	24V AC/50W
<b>Standard Tip</b>	A1244
<b>Tip to Ground Resistance</b>	Under 2Ω
<b>Tip to Ground Potential</b>	Under 2mV (Typical: 0.6mV)
<b>Heating Element</b>	Ceramic heater
<b>Total Length(w/o cord)</b>	190 mm (7.5 in.)
<b>Weight (w/o cord)</b>	approx. 45 g (0.01 lbs.)



## Contents

Part No.	Style	Description: Model Name	Part No.	Accessories
939-1	ESD	Station Iron: 903 Iron holder: 631	C1112	Card (P/N: B2052) Cap nut wrench (P/N: B1126)

## HAKKO TRUE HEAT™

The HAKKO 939 soldering station is a high-performance tool. In conjunction with the HAKKO 903 soldering iron, it gives you the best possible control over soldering temperature. We achieve this by providing a key-pad at the station for entering temperature, and integrating the tip, heating element, and sensor into one assembly.

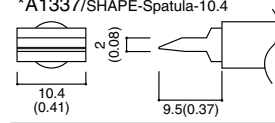
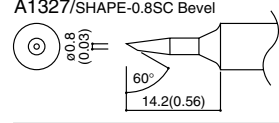
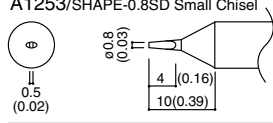
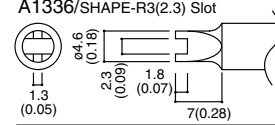
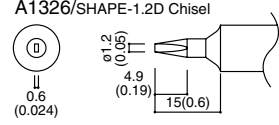
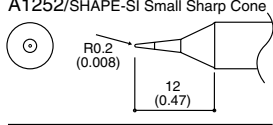
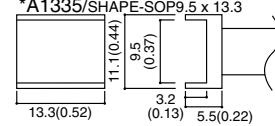
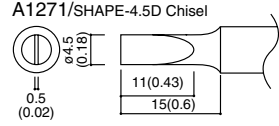
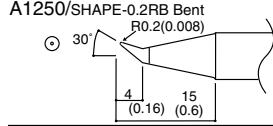
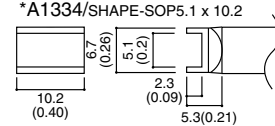
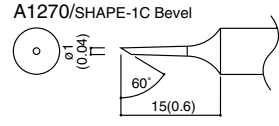
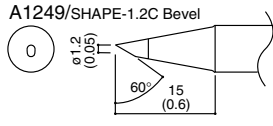
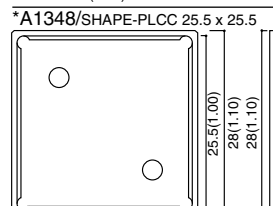
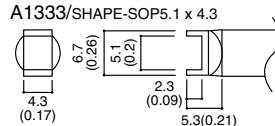
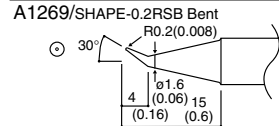
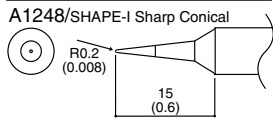
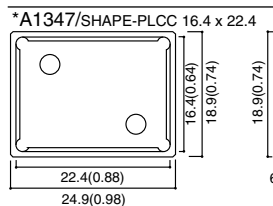
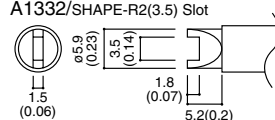
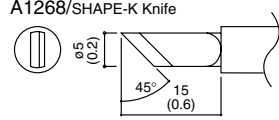
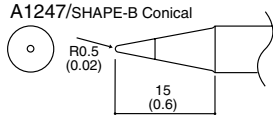
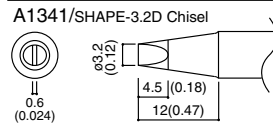
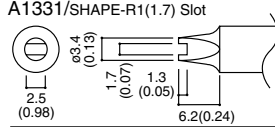
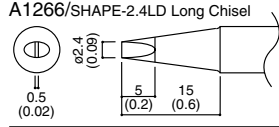
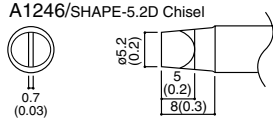
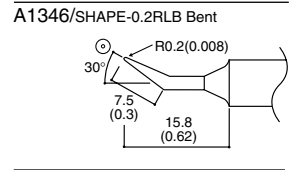
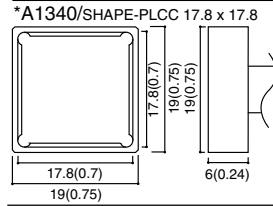
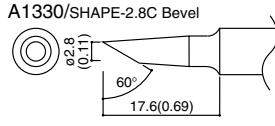
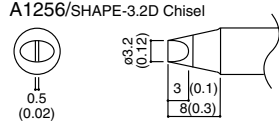
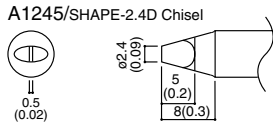
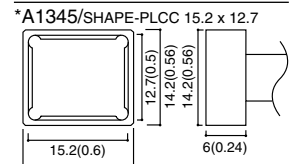
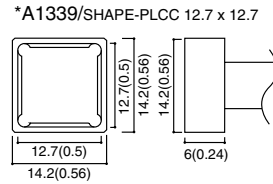
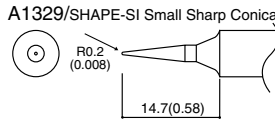
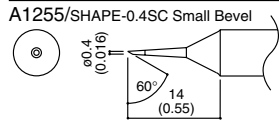
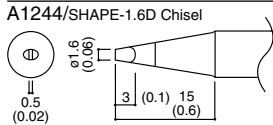
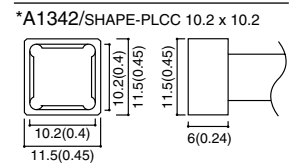
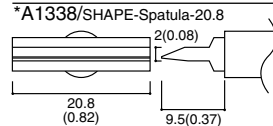
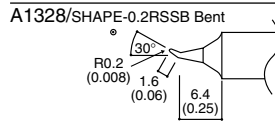
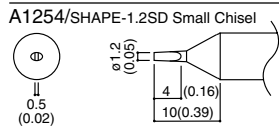
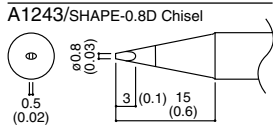
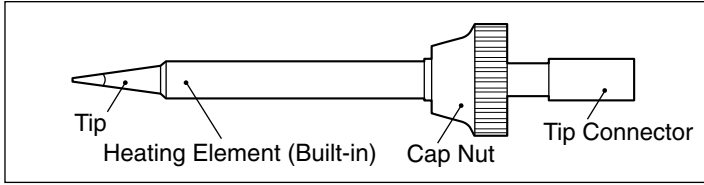
Because of the differences in tip mass and heater resistance, each HAKKO 903 tip has a characteristic 'offset temperature', which is measured at the factory. This offset must be considered when setting the tip temperature at the 939 station. You will find the offset marked on the tip.

When you change tips, entering the offset temperature for the new tip ensures that the temperature you set at the HAKKO 939 station will be the temperature you get at the tip. This is **HAKKO TRUE HEAT™**

A label with the instructions for entering tip offset temperature is included for your convenience with every HAKKO 939 soldering station.

# Replacement Tips Unit: mm(in.)

The integrated tip/heating element



\* B2266 is the iron holder part for SMD tips.

# HAKKO MACH-I

SOLDERING IRON

The MACH-I series of irons features faster heat transmission for quicker heating. Quicker heating means faster start-up as well as faster thermal recovery during high volume soldering operations. This, in turn, gives a great improvement in work efficiency. Faster thermal recovery also permits lower tip temperatures, which reduce the possibility of damage to boards and components; prevents seizing; reduces the temperature of the handles and extends tip life. The ideal soldering temperature is maintained constantly for perfect results every time. The highly insulated ceramic heater prevents overheating, which can damage IC boards.

- **Quick Heating**  
Begin soldering in only ten seconds!
- **Faster Thermal Recovery**  
Greater thermal capacity and rapid transmission to the tip means faster thermal recovery.
- **Stable Temperature Control**  
The temperature control sensor is built into the heating element for faster, more stable temperature control.
- **High Insulation**  
The highly insulated ceramic heater never overheats. An insulation factor of over 100MΩ can be maintained even during actual use.
- **Improved Work Efficiency**  
The compact, lightweight design with high cooling efficiency at the handle permits fatigue-free soldering over long periods for maximum work efficiency.



## Specifications

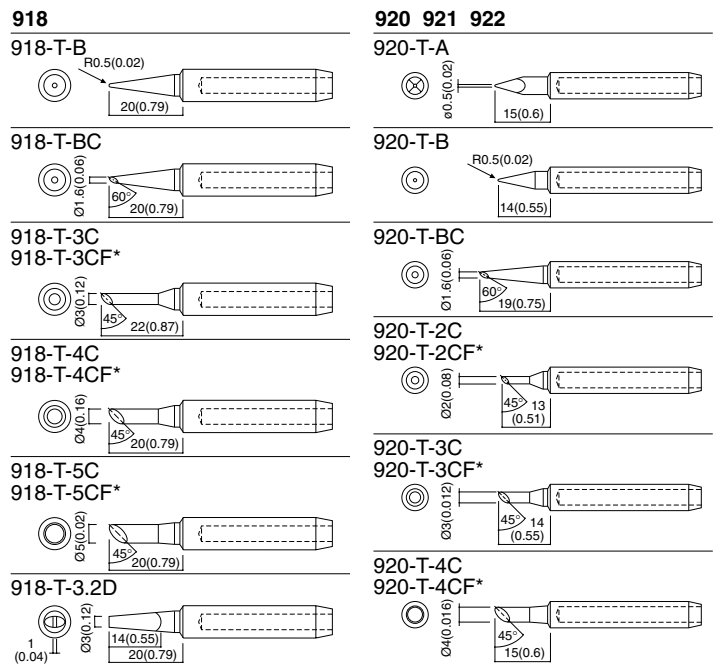
Part No.	918M-V12	920M-V12	921M-V12	922M-V12
<b>Power Consumption</b>	85W	95W	85W	85W
<b>Standard Tip</b>	918-T-3.2D		920-T-2.4D	
<b>Heating Element</b>	Ceramic heater			
<b>Temperature Control</b>	420°C (788°F)	300°C (572°F)	370°C (698°F)	420°C (788°F)
<b>Insulation Resistance</b>	100MΩ			
<b>Total Length</b>	220 mm (8.7 in)		210 mm (8.27 in)	
<b>Weight</b>	Approx. 70 g (0.15 lb.)		Approx. 50 g (0.11 lb.)	

## Heating Elements

Part No.	Description
<b>918-H-V12</b>	Heating element for 918 85W/120V
<b>920-H-V12</b>	Heating element for 920 95W/120V
<b>921-H-V12</b>	Heating element for 921 85W/120V
<b>922-H-V12</b>	Heating element for 922 85W/120V



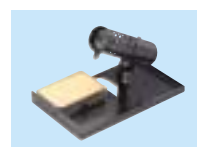
## Replacement Tips Unit: mm(in.)



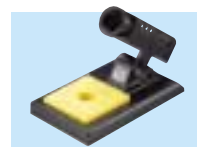
## Recommended Iron Holders



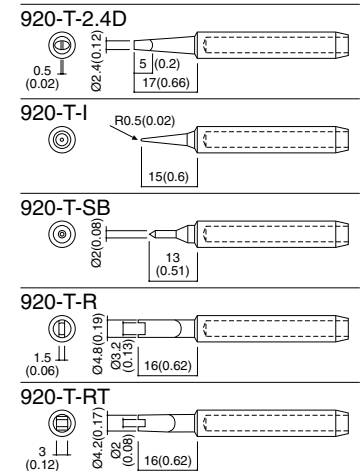
HAKKO 601  
(P/N: 601)



HAKKO 606  
(P/N: 606)



HAKKO 609  
(P/N: 609)



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

Compact, lightweight design with a slender handle for a more comfortable grip.

The rod-type ceramic heater provides high insulation and reduces the handle-to-tip distance for faster soldering with a minimum of motion.

The special alloy heating element is printed in the alumina ceramic insulating layer, then sintered to the ceramic main body. This completely seals the heating element from air, thus protecting it from oxidation. You are ensured years of trouble-free use.

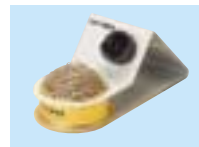
## Specifications

Part No.	N452JN-V12	N453JN-V12	N454JN-V12
Power Consumption	15W	20W	25W
Standard Tip	N452-T-B		N454-T-B
Heating Element	Ceramic heater		
Typical Temperature	370°C(698°F)	420°C(788°F)	450°C(842°F)
Insulation Resistance	200MΩ	100MΩ	100MΩ
Total Length	185 mm (7.28 in.)	185 mm (7.28 in.)	192 mm (7.5 in.)
Weight[with cord]	47 g (0.1 lb.) [120 g(0.26 lb)]	47 g (0.1 lb.) [120 g(0.26 lb)]	57 g (0.12 lb.) [130 g(0.28 lb)]

## Heating Elements

Part No.	Description
N452-H-V12	Heating element for N452 15W/120V
N453-H-V12	Heating element for N453 20W/120V
N454-H-V12	Heating element for N454 25W/120V

## Recommended Iron Holders



HAKKO 601  
(P/N: 601)



HAKKO 606  
(P/N: 606)



HAKKO 609  
(P/N: 609)



## Replacement Tips Unit: mm(in.)

<b>N452 N453</b> N452-T-B 	<b>N454</b> N454-T-B 
N452-T-C 	N454-T-2C N454-T-2CF* 
N452-T-1C N452-T-1CF* 	N454-T-3C N454-T-3CF* 
N452-T-2C N452-T-2CF* 	N454-T-4C N454-T-4CF* 
N452-T-3C N452-T-3CF* 	N454-T-5C N454-T-5CF* 
N452-T-4C N452-T-4CF* 	N454-T-D 
N452-T-D 	N454-T-I 
N452-T-I 	
N452-T-SB 	
N452-T-SC 	
N452-T-SD 	

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

# HAKKO 455.456

SOLDERING IRON

- Both the HAKKO 455 and 456 incorporate a ceramic heating element, which provides a longer service life than the conventional nichrome-iron element.
- Alloy-coated iron tips ensure long-lasting protection from corrosion.
- The HAKKO 455 is perfect for soldering tuners, inverters, and similar small components.
- The HAKKO 456 is ideal for soldering chassis, dynamos, large harnesses, transformers and other large components and assemblies.



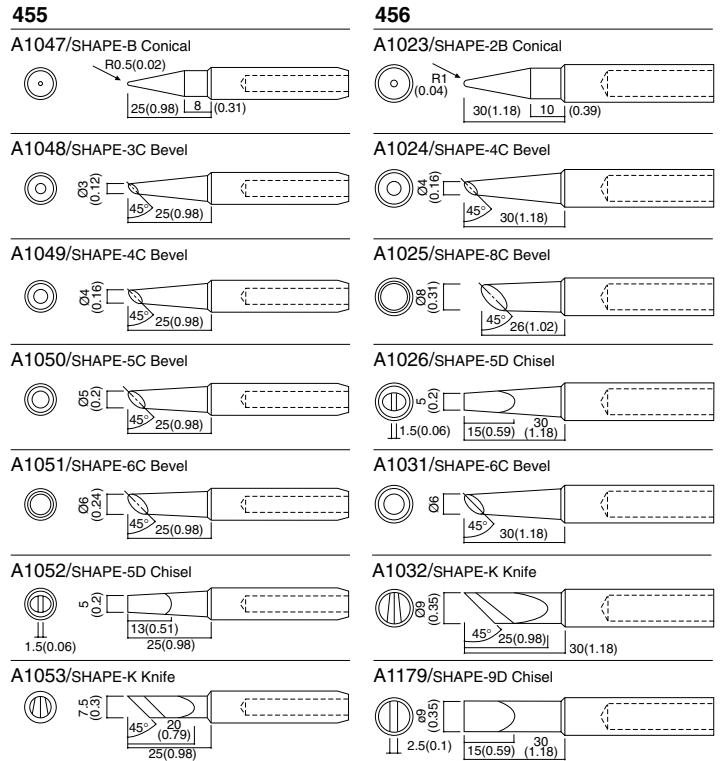
## Specifications

<b>Part No.</b>	455-16	456-16
<b>Power Consumption</b>	40W	60W
<b>Standard Tip</b>	A1052	A1026
<b>Heating Element</b>	Ceramic heater	
<b>Max. Temperature</b>	599°C (1110°F)	599°C (1110°F)
<b>Total Length</b>	215 mm (8.5 in.)	250 mm (9.8 in.)
<b>Weight</b>	100 g (0.2 lb.)	150 g (0.31 lb.)

## Heating Elements

Part No.	Description
A1178	Heating element for 455 40W/120V
A1177	Heating element for 456 60W/120V

## Replacement Tips Unit: mm(in.)



## Recommended Iron Holder



HAKKO 632  
(P/N: 632-1)

- By fully automating the solder feeding process, soldering can be performed with one hand, freeing the other hand for other tasks.
- 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.
- ESD safe—helps protect electrically sensitive parts.
- Adjustable solder return function reduces waste, permits fully automatic soldering.

## Specifications

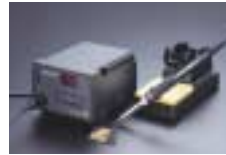
<b>Part No.</b>	373-11
<b>Power Consumption</b>	6W
<b>Motor Rating</b>	24V DC/32W
<b>Outer Dimensions</b>	107(W) x 110(H) x 215(D) mm [4.2 x 4.3 x 8.5 in.]
<b>Weight</b>	Approx. 1.5 kg (3.3 lbs.)
<b>Solder Feed Time</b>	0—7 sec. (Auto mode)
<b>Solder Feed Speed</b>	4.5—26 mm/sec. (0.18—1.0 in./sec.)
<b>Solder Return Qty.</b>	0—5 mm (0—0.2 in.) (Fixed speed)
<b>Mode Switch</b>	Auto/Manual
<b>Solder Diameter</b>	0.6, 0.65, 0.8, 1.0, 1.2, 1.6 mm (0.024, 0.026, 0.031, 0.039, 0.04, 0.063 in.)
<b>Coiled Solder</b>	Maximum 1 kg bobbin (2.2 lbs.)

## Compatible Soldering Irons

**HAKKO 936**



**HAKKO 937**



**HAKKO 939**



**HAKKO 926**



**HAKKO 927**



**HAKKO 928**



**HAKKO DASH**



**HAKKO MACH-I**



**Notes:**

- HAKKO 900S soldering irons available for HAKKO 936, 937, 927, 928 soldering stations; are not compatible with HAKKO 373.
- HAKKO MACH-I; requires foot switch, sold separately.



## HAKKO 373 Set up.

**HAKKO 373 Self Feeder** P/N: 373-11



**Soldering station or soldering iron**



**Solder dia. adjustment ring** (Selected according to solder dia.)

0.6, 0.65 mm (0.024, 0.026 in.)	0.8 mm (0.031 in.)	1.0 mm (0.039 in.)	1.2 mm (0.047 in.)	1.6 mm (0.063 in.)
B1626	B1627	B1628	B1629	B1630



**Tube unit** (Selected according to solder dia. & soldering iron)

Iron	Solder dia.	
	0.6—1.0 mm (0.024~0.039 in.)	1.2—1.6 mm (0.047~0.063 in.)
900M, 900L N452, N453, N454	A B1631	B B1672
918, 920, 921, 922	C B1632	D B1673
903	E B1957	F B1958
907, 908	J B2143	K B2144



**Guide pipe assembly** (Selected according to solder dia. & soldering iron)

Iron	Solder dia.				
	0.6, 0.65 mm (0.024, 0.026 in.)	0.8 mm (0.031 in.)	1.0 mm (0.039 in.)	1.2 mm (0.047 in.)	1.6 mm (0.063 in.)
900M, N452 N453	B1674	B1675	B1676	B1677	B1678
900L, N454	B1679	B1680	B1681	B1682	B1683
920, 921, 922	B1684	B1685	B1686	B1687	B1688
918	B1689	B1690	B1691	B1692	B1693
903	B1694	B1695	B1696	B1697	B1698
907	B2146	B2147	B2148	B2149	B2150
908	B2151	B2152	B2153	B2154	B2155

## Optional Parts

Part No.	Description
<b>B1647</b>	Spring iron holder (A) for 926
<b>B1648</b>	Spring iron holder (B) for 927, 928, 939
<b>B1649</b>	Foot switch

# HAKKO 470B·471

DESOLDERING TOOL

ESD SAFE

The HAKKO 470B and 471 provide a gun-type desoldering tool with great suction power.

- The output circuit is isolated from the power input and insulated transformer.
- ESD safe by design.
- The HAKKO 470B has 25% more suction power than the 470.



## Specifications

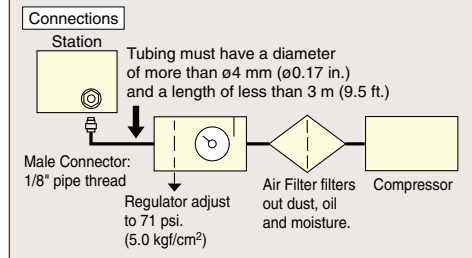
Part No.	470B-1	471-2
Output Voltage	24V AC	
Power Consumption	110W	70W
Vacuum Generator	Vacuum pump double cylinder type	Ejector type
Suction Flow	15 l/min.	28 l/min.
Vacuum Pressure	600 mm Hg (24 in.Hg)	700 mm Hg (28 in.Hg)
Motor Output	18W	
Applied Air Pressure		71 psi (5.0 kgf/cm <sup>2</sup> )
Compressed Air Consumption		1.62 cfm (46 l/min.)
Weight	Approx. 5.0 kg (11.02 lb.)	Approx. 3.0 kg (6.6 lb.)
Outer Dimensions	165(W) x 135(H) x 260(D) mm [6.5 x 5.31 x 10.24 in.]	



## Contents

Part No.	Description: Model Name	Part No.	Accessories	Part No.
470B-1	Station Desoldering gun: 802 Iron holder: 631	C1054 631-06	Filter pipe with front holder, spring filter and ceramic paper filter (Large)	B1128
			Cleaning pin for nozzle $\phi$ 1.0 mm (0.04 in.)	B1087
			Cleaning pin for heating element	B1215
			Cleaning drill for nozzle $\phi$ 1.0 mm (0.04 in.)	B1303
471-2	Station Desoldering gun: 802 Iron holder: 631	C1054 631-06	Ceramic paper filter (Large)/4pcs.	A1030 (Set of 10 pcs.)
			Ceramic paper filter (Small)/2pcs.	A1033 (Set of 10 pcs.)
			Cleaning pin holder	A1009 (Set of 10 pcs.)
			Silicon grease	B1095
			Wrench	A1028 B2100

## HAKKO 471- external air compressor type



# HAKKO 472B·473

DESOLDERING TOOL **ESD SAFE**

The HAKKO 472B and 473 provide a pencil-type desoldering tool with great suction power.

The short, straight heating portion aids ease of operation.

- The output circuit is isolated from the power input and insulated transformer.
- ESD safe by design.
- Zero crossover switching on motor.
- The HAKKO 472B has 25% more suction power than the 472.



## Specifications

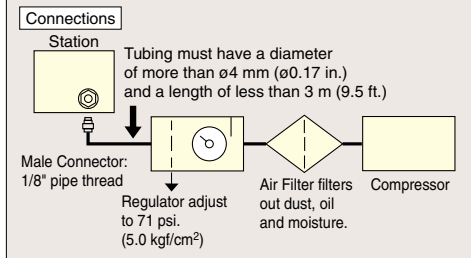
Part No.	472B-1	473-1
Output Voltage	24V AC	
Power Consumption	110W	80W
Vacuum Generator	Vacuum pump double cylinder type	Ejector type
Suction Flow	15 l/min.	28 l/min.
Vacuum Pressure	600 mm Hg (24 in.Hg)	700 mm Hg (28 in.Hg)
Motor Output	18W	
Applied Air Pressure		71 psi (5.0 kgf/cm <sup>2</sup> )
Compressed Air Consumption		1.62 cfm (46 l/min.)
Weight	Approx. 5.0 kg (11.02 lb.)	Approx. 3.0 kg (6.6 lb.)
Outer Dimensions	165(W) x 135(H) x 260(D) mm [6.5 x 5.31 x 10.24 in.]	



## Contents

Part No.	Description: Model Name	Part No.	Accessories	Part No.
472B-1	Station Desoldering iron: 807 Iron holder	C1091 C1316	Filter pipe with filter holder, spring (Filter pipe only)	B1916 (Filter pipe only)
			filter and ceramic paper filter (Large) (Filter holder)	B1915 (Filter holder)
			Cleaning pin for nozzle ø1.0 mm (0.04 in.)	B1087
			Cleaning pin for heating element	B1215
			Cleaning drill for nozzle ø1.0 mm (0.04 in.)	B1303
473-1	Station Desoldering iron: 807 Iron holder	C1091 C1316	Spring filter/3pcs.	A1030 (Set of 10 pcs.)
			Ceramic paper filter (Large)/4pcs.	A1033 (Set of 10 pcs.)
			Ceramic paper filter (Small)/2pcs.	A1009 (Set of 10 pcs.)
			Cleaning pin holder	B1095
			Silicon grease	A1028
			Wrench	B2100
			Cleaning brush	B1670

## HAKKO 473- external air compressor type





# HAKKO 802 ESD SAFE

DESOLDERING GUN

## Desoldering Gun for HAKKO 470B and 471

### Specifications

Model Name	802
Part No.	C1054
Power Consumption	24V AC/50W
Temperature	380°C—480°C (716°F— 896°F)
Nozzle to Ground resistance	Under 2 Ω
Nozzle to Ground potential	Under 2 mV
Standard Nozzle	A1003 (ø1.0 mm/0.04 in.)
Weight (w/o cord, hose)	Approx. 200 g (0.44 lbs.)
Outer Dimensions	135(W) x 174(H) mm [5.13 x 6.85 in.]



The color of the indicator will tell you when it is time to replace the filter.

# HAKKO 807 ESD SAFE

DESOLDERING IRON

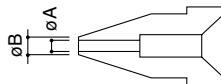
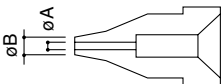
## Desoldering Iron for HAKKO 472B and 473

### Specifications

Model Name	807
Part No.	C1091
Power Consumption	24V AC/60W
Temperature	350°C—450°C (662°F— 842°F)
Nozzle to Ground resistance	Under 2 Ω
Nozzle to Ground potential	Under 2 mV
Standard Nozzle	A1003 (ø1.0 mm/0.04 in.)
Weight (w/o cord, hose)	Approx. 150 g (0.35 lbs.)
Length	250 mm (8.07 in.)

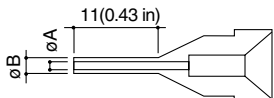


### Nozzles for HAKKO 470B, 471, 472B and 473



Part No.	øA	øB
A1002	0.8 (0.03 in)	1.8 (0.07 in)
A1003	1.0 (0.04 in)	2.0 (0.08 in)
A1393	1.0 (0.04 in)	1.4 (0.055 in)
A1395	1.3 (0.05 in)	2.1 (0.083 in)

Part No.	øA	øB
A1004	0.8 (0.03 in)	2.3 (0.09 in)
A1005	1.0 (0.04 in)	2.5 (0.1 in)
A1006	1.3 (0.05 in)	3.0 (0.12 in)
A1007	1.6 (0.06 in)	3.0 (0.12 in)
A1396	2.3 (0.09 in)	3.8 (0.15 in)



Part No.	øA	øB
A1394	1.0 (0.04 in)	2.1 (0.083 in)

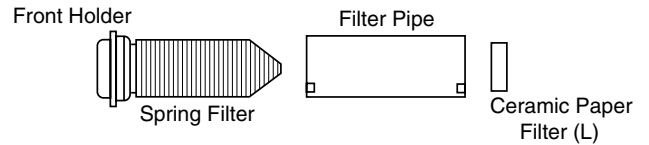
## Replacement Parts

### For HAKKO 470B and 471

Part No.	Description
A1029	Heating element 24V/50W
A1011	Front holder
B1128	Filter pipe with front holder, spring filter and ceramic paper filter (Large)



The dual structure filter pipe (P/N:B1128)

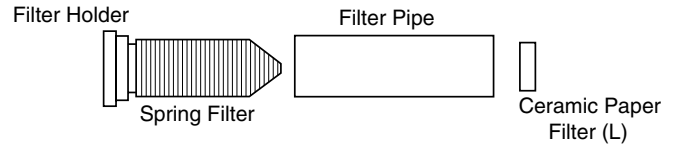


### For HAKKO 472B and 473

Part No.	Description
A1174	Heating element 24V/60W
A1304	Front holder
B1670	Cleaning brush
B1915	Filter holder
B1916	Filter pipe
B2517	Filter pipe with front holder, spring filter and ceramic paper filter (Large)



The dual structure filter pipe (P/N:B2517)

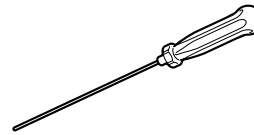


### Common Parts for HAKKO 470B, 471, 472B and 473

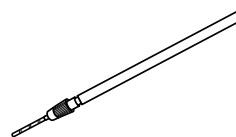
Part No.	Description
B1215	Cleaning pin for heating element
B1086	Cleaning pin for ø0.8 mm (0.03 in.) nozzle
B1087	Cleaning pin for ø1.0 mm (0.04 in.) nozzle
B1088	Cleaning pin for ø1.3 mm (0.05 in.) nozzle
B1089	Cleaning pin for ø1.6 mm (0.06 in.) nozzle
B1302	Cleaning drill for ø0.8 mm (0.03 in.) nozzle
B1303	Cleaning drill for ø1.0 mm (0.04 in.) nozzle
B1304	Cleaning drill for ø1.3 mm (0.05 in.) nozzle
B1305	Cleaning drill for ø1.6 mm (0.06 in.) nozzle
A1030	Spring filter (set of 10 pcs.)
A1028	Silicon grease
A1042	Cleaning sponge
A1033	Ceramic paper filter (large) set of 10 pcs.
A1009	Ceramic paper filter (small) set of 10 pcs.



Cleaning Pin for  
Ø1.0mm (0.04in.) Nozzle



Cleaning Pin for  
Heating Element



Cleaning Drill for  
ø1.0mm (0.04 in.) Nozzle

- Digital indicator for accurate temperature settings.
- Includes:
  - Straight-handle desoldering tool.
  - Two medium soldering irons.
- ESD safe by design.
- The compact design takes up less bench space.

## Specifications

<b>Part No.</b>	703B-1
<b>Power Consumption</b>	220W

### Station

<b>Soldering</b>	<b>Output Voltage</b>	24V AC
	<b>Temperature</b>	200°C—480°C (400°F—899°F)
	<b>Temperature Stability</b>	±1.0°C (1.8°F)
<b>Desoldering</b>	<b>Output Voltage</b>	24V AC
	<b>Vacuum Generator</b>	Vacuum pump, double cylinder type
	<b>Vacuum Pressure</b>	600 mmHg (24 in. Hg)
	<b>Suction Flow</b>	15 l/min.
	<b>Temperature</b>	350°C—450°C (662°F—842°F)
<b>Outer Dimensions</b>		215(W) x 257(D) x 170(H) mm (8.5(W) x 10.1(D) x 6.7(H) in.)
<b>Weight (w/o cord)</b>		6.0 kg. (13.2 lb.)

### Soldering Iron (x 2)

<b>Model Name</b>	907 ESD
<b>Type</b>	Medium
<b>Style</b>	ESD
<b>Power Consumption</b>	24V AC/50W
<b>Tip to Ground Resistance</b>	Under 2Ω
<b>Tip to Ground Potential</b>	Under 2mV
<b>Heating Element</b>	Ceramic heater
<b>Standard Tip</b>	900M-T-1.6D
<b>Total Length, less cord</b>	190 mm (7.5 in.)
<b>Weight (w/o cord)</b>	44 g (0.09 lb.)

\*Replacement tip: Please refer to page 8 for the medium iron.



### Desoldering Iron

<b>Model Name</b>	807
<b>Power Consumption</b>	24V AC/60W
<b>Nozzle to Ground Resistance</b>	Under 2Ω
<b>Nozzle to Ground Potential</b>	Under 2mV
<b>Standard Nozzle</b>	A1003 (Nozzle ø1.0 mm)
<b>Total Length, less cord</b>	205 mm (8.07 in.)
<b>Weight (w/o cord)</b>	Approx. 160 g (0.35 lb.)

\*Replacement nozzles: Please refer to page 17.

## Contents

Part No.	Description: Model Name	Part No.
<b>703B-1</b>	Station	
	Soldering iron, medium: 907 ESD/ 2 pcs.	C1148
	Desoldering iron : 807	C1091
	Iron holder	C1317
	Filter pipe with filter holder, spring filter and ceramic paper filter (Large)	B1916 (Filter pipe only)
		B1915 (Filter holder)
	Spring filter/3 pcs.	A1030 (Set of 10 pcs.)
	Ceramic paper filter (Large)/4 pcs.	A1033 (Set of 10 pcs.)
	Ceramic paper filter (Small)/2 pcs.	A1009 (Set of 10 pcs.)
	Cleaning pin for nozzle ø1.0 mm (0.04 in.)	B1087
	Cleaning pin for heating element	B1215
	Cleaning drill for nozzle ø1.0 mm (0.04 in.)	B1303
	Cleaning brush	B1670
	Wrench	B2100
Silicone grease	A1028	

# HAKKO 808

DESOLDERING TOOL

The HAKKO 808 is a handy, portable desoldering tool with a built-in vacuum pump. No separate station is required.

- **Thin, comfortable grip and low vibration.**  
This unique HAKKO design places the pump and motor above, not inside, the grip. Vibration is kept to a minimum, and the grip is thin and easy to hold. Delicate tasks are performed with greater ease; the tool can be used for long periods without operator fatigue.
- **Simple and inexpensive pump maintenance.**  
The new, miniature, high-performance diaphragm pump is housed in the chamber at the rear of the HAKKO 808. Pump maintenance is quick and easy—simply remove the cover. If repairs are ever needed, replacement parts are inexpensive.
- **Tip-to-ground potential difference no greater than 2mV.**  
**Tip-to-ground resistance no greater than 2Ω.**
- **Adjustable temperature control (380°C—480°C/715°F—895°F).**

## Specifications

<b>Part No.</b>	808-5
<b>Power Consumption</b>	120V AC/70W
<b>Heating Element</b>	Ceramic heater
<b>Motor Output</b>	6.5W
<b>Temperature</b>	380°C—480°C ( 715°F—895°F)
<b>Tip to Ground Resistance</b>	Under 2Ω
<b>Tip to Ground Potential</b>	Under 2mV
<b>Vacuum Pump</b>	Double-cylinder diaphragm pump
<b>Vacuum Pressure</b>	600 mm Hg (24 in. Hg)
<b>Suction Flow</b>	10 l/min.
<b>Dimensions</b>	170(H) x 235(W) mm [6.7(H) x 9.3(W) in.]
<b>Weight</b>	420 g (0.9 lb.)
<b>Standard Nozzle</b>	A1005 (Nozzle ø1.0 mm)

## Optional Parts



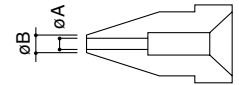
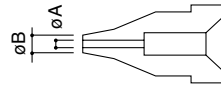
Iron holder (P/N: C1100)



Carrying case (P/N: C1099)

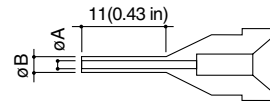


## Replacement Nozzles



Part No.	ø A	ø B
A1002	0.8 (0.03 in)	1.8 (0.07 in)
A1003	1.0 (0.04 in)	2.0 (0.08 in)
A1393	1.0 (0.04 in)	1.4 (0.055 in)
A1395	1.3 (0.05 in)	2.1 (0.083 in)

Part No.	ø A	ø B
A1004	0.8 (0.03 in)	2.3 (0.09 in)
A1005	1.0 (0.04 in)	2.5 (0.1 in)
A1006	1.3 (0.05 in)	3.0 (0.12 in)
A1007	1.6 (0.06 in)	3.0 (0.12 in)
A1396	2.3 (0.09 in)	3.8 (0.15 in)



Part No.	ø A	ø B
A1394	1.0 (0.04 in)	2.1 (0.083 in)

## Replacement Parts

Part No.	Description
A1234	Heating element 50W/120V
A1229	Pre-filter set of 10 pcs.
A1267	Pre-filter (Aluminum) set of 5 pcs.
A1033	Ceramic paper filter (Large) set of 10 pcs.
B1725	Filter pipe
A1217	Front holder
B1747	Filter holder
A1042	Cleaning sponge

## Contents

Part No.	Description	Part No.
808-5	Desoldering gun	B1725 (Filter pipe only)
	Filter pipe with filter holder and pre-filter (Aluminum)	B1747 (Filter holder)
	Cleaning pin for nozzle ø1.0 mm (0.04 in.)	B1087
	Cleaning pin for heating element	B1215
	Pre-filter (Aluminum)/3 pcs.	A1267 (Set of 5 pcs.)
	Ceramic paper filter (Large)/4 pcs.	A1033 (Set of 10 pcs.)
	Wrench	B2100

New

# HAKKO 852 ESD SAFE

SMD REWORK STATION

- Built-in vacuum pick up.
- Two modes of operation.
  - Manual ; Simple operation
  - Auto ; Programmable process control.
- Digital temperature display.
- Digital hot air dwell time display.
- Airflow meter.
- Self-contained air source.
- ESD safe by design.
- Auto cool-down mode for safety.



## Specifications

<b>Part No.</b>	852-3
<b>Power Consumption</b>	410W/120V AC

### Station

<b>Power Consumption</b>	30W
<b>Pump</b>	Diaphragm pump
<b>Capacity</b>	7 l/min (min.) — 20 l/min (max.)
<b>Mode</b>	Manual/Auto (Install & Remove)
<b>Timer</b>	15-999sec. (max.)
<b>Outer Dimensions</b>	180(W) x 170(H) x 260(D) mm [7.1 x 6.7 x 10.3 in.]
<b>Weight</b>	Approx. 5kg (11.02 lb.)



### Iron

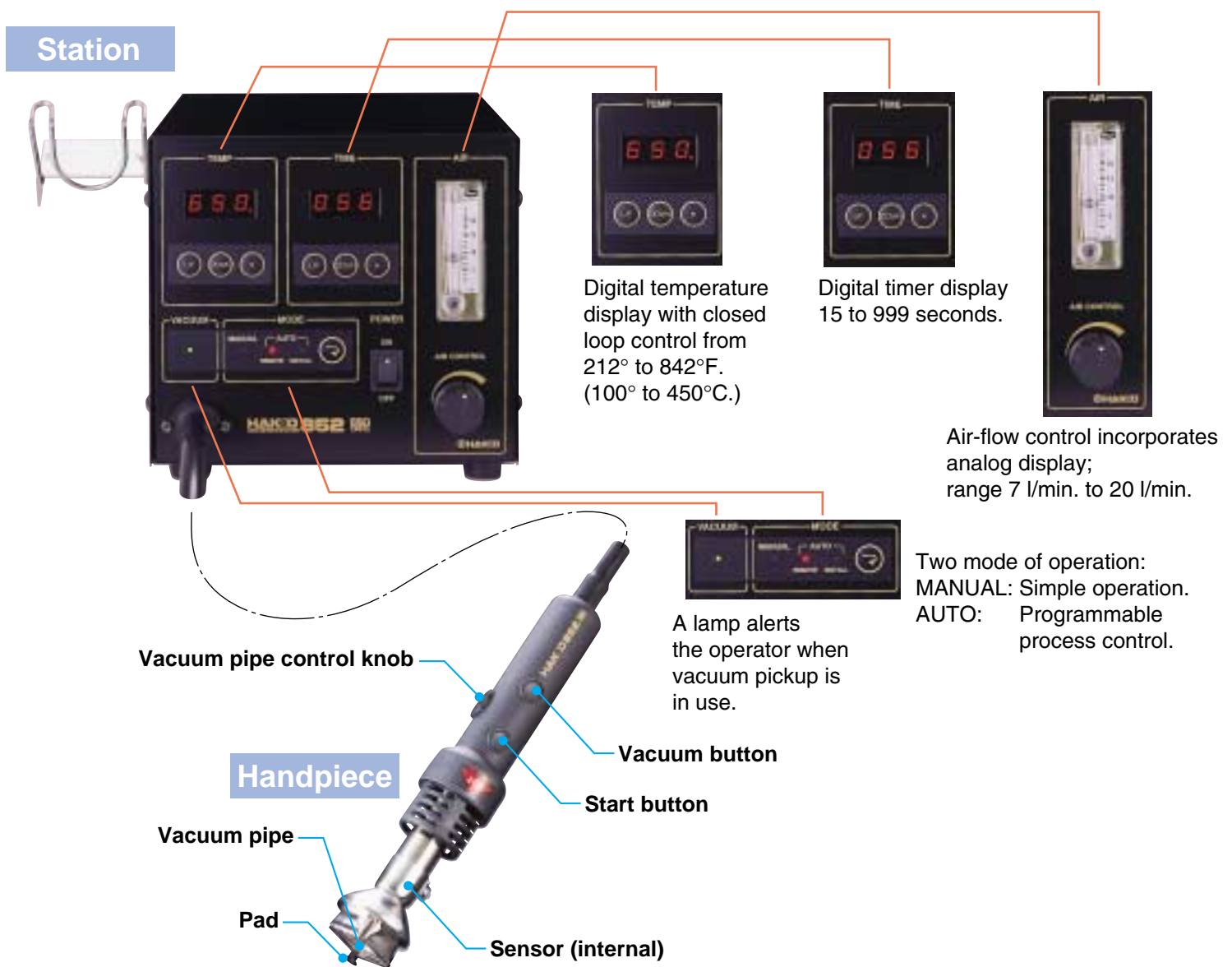
<b>Power Consumption</b>	380W
<b>Method of Temperature Control</b>	Sensor feed back
<b>Hot Air Temperature</b>	*100°C — 450°C (212°F — 842°F)
<b>Switch for Start &amp; Vacuum</b>	Built into the handle
<b>Vacuum Pad</b>	7.6 mm (0.3 in.) / 5.0 mm (0.2 in.) (ESD Safe)
<b>Length (w/o cord &amp; hose)</b>	200 mm (7.87 in.)
<b>Weight (w/o cord &amp; hose)</b>	200 g (0.44 lb.)

\*Measured at the sensor  
Note: Nozzles are optional

## Contents

Part No.	Description	Part No.
852-3	Station	
	Hot air rework iron (Connected to station)	
	Handpiece holder	B2477
	Power cord	B2419
	Pad ø7.6 mm (5pcs)	A1438
	Pad ø5.0 mm (5pcs)	A1439

# The Hakko 852 is operator friendly.



## Replacement Parts

Part No.	Description
A1438	Pad ø7.6 mm (5pcs)
A1439	Pad ø5.0 mm (5pcs)
A1434	Heating Element
B2452	Pipe (glass pipe and mica are included)
B2453	Vacuum Pipe
B2478	Foot switch

New

# HAKKO 853

PREHEATER ESD SAFE

- Compact design. Measures only 5.5(W) x 2.0(H) x 6.7(D) in.
- Fast heating.
- Temperature range 120°C to 250°C (248°F to 482°F).
- Excellent thermal stability.
- Closed loop variable temperature control.
- ESD safe by design.

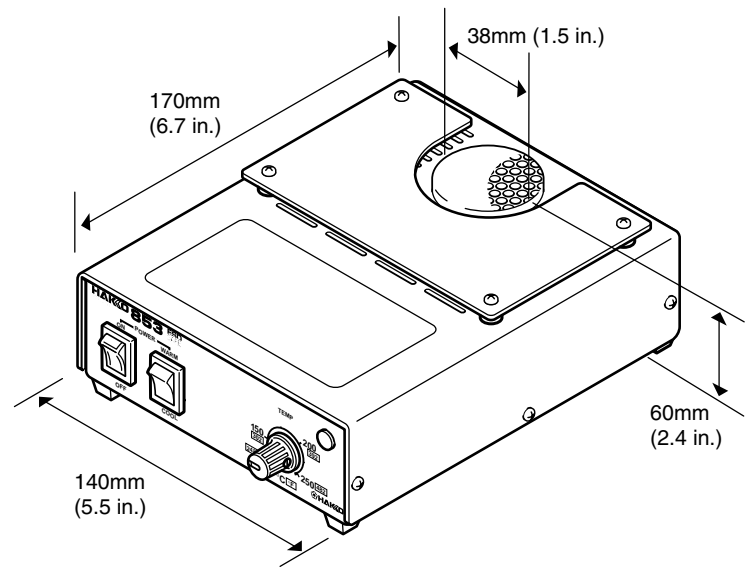


## Specifications

Part No.	853-2
Power Consumption	500W/120V AC
Hot Air Temperature	120°C—250°C (248°F—482°F)
Air Flow	0.18mm <sup>3</sup> /min.
Outer Dimensions	140(W) x 50(H) x 170(D)mm [5.5 x 2.0 x 6.7 in.]
Weight (w/o cord)	Approx. 1.0kg (2.2 lb.)

## Replacement Parts

Part No.	Description
A1432	Heater
A1433	Sensor



*New*

## Combination of Hakko 852 and Hakko 853

### C1390C Omnivise™

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



### C1391B Nozzle Tray

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



### C1392B Rework Fixture

Rack and pinion action for smooth vertical motion. Makes repetitive component removal and installation simple. Delta theta capability allows the operator to align the nozzle to the component.



Note; The design depicted herein and all specifications hereto obtaining are subjected to change without notice.

Nos. C1390C—C1392B are not included with the HAKKO 852 and HAKKO 853. They must be purchased separately.

## Nozzles for Hakko 850/852

See page 26





# HAKKO 850B ESD SAFE

SMD REWORK STATION

- Air efficient and economical tool for soldering and desoldering surface mount components.
- ESD safe by design.
- Automatic cooling mode for safety.
- The compact design takes up less bench space.

## Specifications

Part No.	850B-3
----------	--------

### Station

Power Consumption	30W (Stand-by power consumption 120V 2W)
Pump	Diaphragm pump
Capacity	23 l/min. (max.)
Outer Dimensions	160(W) x 145(H) x 225(D) mm [6.3 x 5.7 x 8.9 in.]
Weight	4 kg (8.82 lb.)

### Iron

Power Consumption	270W
Hot Air Temperature	100°C—420°C (212°F—788°F) with A1126B nozzle
Length	196 mm (7.72 in.)
Weight	120 g (0.26 lb)

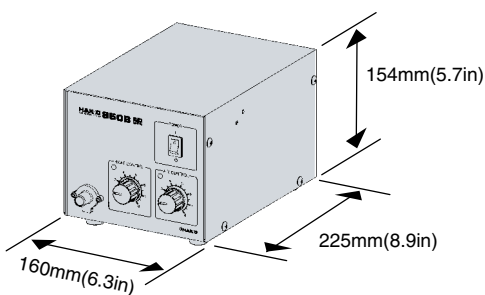
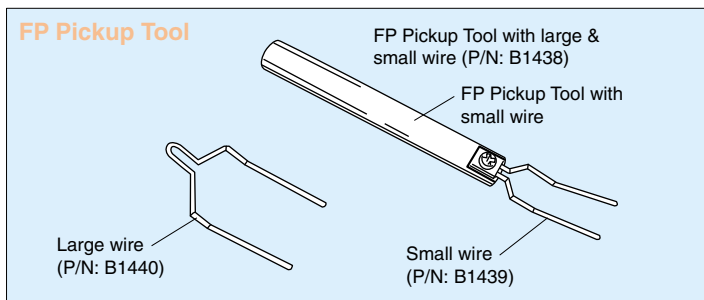
## Heating Element

Part No.	Description
A1145	Heating element 120V/270W

## Contents

Part No.	Description	Part No.
850B-3	Station	*
	Hot air rework iron (Connected to station)	
	Iron holder	B2477
	FP Pickup Tool with large & small wire	B1438

\*Hot air rework iron is not sold separately.



Note: Nozzles are optional parts. They are not included with the HAKKO 850B.

## Operation—QFP Desoldering



1. Place the FP pickup into the lead frame.  
Place the 850 over the lead frame and melt the solder.
2. Gently lift the SMD from the printed circuit board.

## QFP Soldering



1. Apply solder paste and install the SMD on the PCB.
2. Preheat SMD.
3. Heat the lead frame evenly.
4. When soldering is completed, wash away the flux.

\*Inspect the PCB for solder balls and bridges.

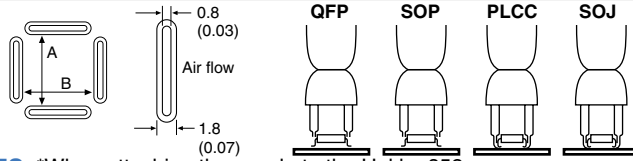
# Optional nozzles for Hakko 850B/852

mm (inch)

## •Nozzles

### NOTE

The size in Name/Specification indicates the size of IC package.



## •VACUUM FUNCTION OPERATIVE NOZZLES. \*When attaching the nozzle to the Hakko 852

<b>A1125B</b> QFP 10 x 10 (0.39 x 0.39)  A:10.2 (0.4) B:10.2 (0.4)	<b>A1126B</b> QFP 14 x 14 (0.55 x 0.55)  A:15.2 (0.6) B:15.2 (0.6)	<b>A1127B</b> QFP 17.5 x 17.5 (0.68 x 0.68)  A:19.2 (0.76) B:19.2 (0.76)	<b>A1128B</b> QFP 14 x 20 (0.55 x 0.78)  A:15.2 (0.6) B:21.2 (0.83)	<b>A1129B</b> QFP 28 x 28 (1.1 x 1.1)  A:29.7 (1.17) B:29.7 (1.17)	<b>A1135B</b> PLCC 17.5 x 17.5 (0.68 x 0.68) (44 Pins)  A:18.5 (0.73) B:18.5 (0.73)
<b>A1136B</b> PLCC 20 x 20 (0.78 x 0.78) (52 Pins)  A:21 (0.83) B:21 (0.83)	<b>A1137B</b> PLCC 25 x 25 (0.98 x 0.98) (68 Pins)  A:26 (1.02) B:26 (1.02)	<b>A1138B</b> PLCC 30 x 30 (1.18 x 1.18) (84 Pins)  A:31 (1.22) B:31 (1.22)	<b>A1139B</b> PLCC 12.5 x 7.3 (0.49 x 0.29) (18 Pins)  A: 9 (0.35) B:14 (0.55)	<b>A1140B</b> PLCC 11.5 x 11.5 (0.45 x 0.45) (28 Pins)  A:13 (0.51) B:13 (0.51)	<b>A1141B</b> PLCC 11.5 x 14 (0.45 x 0.55) (32 Pins)  A:15 (0.59) B:13 (0.51)
<b>A1180B</b> BQFP 17 x 17 (0.67 x 0.67)  A:18.2 (0.72) B:18.2 (0.72)	<b>A1181B</b> BQFP 19 x 19 (0.75 x 0.75)  A:19.2 (0.76) B:19.2 (0.76)	<b>A1182B</b> BQFP 24 x 24 (0.94 x 0.94)  A:24.2 (0.95) B:24.2 (0.95)	<b>A1184B</b> SOJ 18 x 8 (0.71 x 0.31)  10 (0.39)	<b>A1185B</b> TSOL 13 x 10 (0.51 x 0.39)  11.9 (0.47)	<b>A1186B</b> TSOL 18 x 10 (0.71 x 0.39)  18.2 (0.72)
<b>A1187B</b> TSOL 18.5 x 8 (0.73 x 0.31)  18.5 (0.73)	<b>A1188B</b> PLCC 9 x 9 (0.35 x 0.35) (20 Pins)  A:11 (0.43) B:11 (0.43)	<b>A1189B</b> PLCC 34 x 34 (1.34 x 1.34) (100 Pins)  A:36.5 (1.44) B:36.5 (1.44)	<b>A1203B</b> QFP 35 x 35 (1.38 x 1.38)  A:35.2 (1.39) B:35.2 (1.39)	<b>A1214B</b> SOJ 10 x 26 (0.39 x 1.02)  12 (0.47)	<b>A1215B</b> QFP 42.5 x 42.5 (1.67 x 1.67)  A:42.5 (1.67) B:42.5 (1.67)
<b>A1257B</b> SOP 11 x 21 (0.43 x 0.83)  11.7 (0.46)	<b>A1258B</b> SOP 7.6 x 12.7 (0.3 x 0.5)  8.2 (0.32)	<b>A1259B</b> SOP 13 x 28 (0.51 x 1.1)  13.5 (0.53)	<b>A1260B</b> SOP 8.6 x 18 (0.34 x 0.71)  8.7 (0.34)	<b>A1261B</b> QFP 20 x 20 (0.78 x 0.78)  A:20.2 (0.8) B:20.2 (0.8)	<b>A1262B</b> QFP 12 x 12 (0.47 x 0.47)  A:12.2 (0.48) B:12.2 (0.48)
<b>A1263B</b> QFP 28 x 40 (1.1 x 1.57)  A:27.7 (1.09) B:39.7 (1.56)	<b>A1264B</b> QFP 40 x 40 (1.57 x 1.57)  A:40.2 (1.58) B:40.2 (1.58)	<b>A1265B</b> QFP 32 x 32 (1.26 x 1.26)  A:32.2 (1.27) B:32.2 (1.27)			

## •VACUUM FUNCTION INOPERATIVE NOZZLES. \*When attaching the nozzle to the Hakko 852

<b>A1124B</b> Single $\varnothing$ 2.5 (0.09)  $\varnothing$ 2.5 (I.D) (0.09)	<b>A1130</b> Single $\varnothing$ 4.4 (0.17)  $\varnothing$ 4.4 (I.D) (0.17)	<b>A1131</b> SOP 4.4 x 10 (0.17 x 0.39)  4.8 (0.19)	<b>A1132</b> SOP 5.6 x 13 (0.22 x 0.51)  5.7 (0.22)	<b>A1133</b> SOP 7.5 x 15 (0.3 x 0.59)  7.2 (0.28)	<b>A1134</b> SOP 7.5 x 18 (0.3 x 0.7)  7.2 (0.28)
<b>A1142B</b> Bent Single 1.5 x 3 (0.06 x 0.12)  1.5 (0.06) (I.D) 0.12 (0.12) (I.D)	<b>A1183</b> SOJ 15 x 8 (0.59 x 0.31)  8 (0.31)	<b>A1190</b> Dual Single 2.5 x 9.5 Pitch (0.09 x 0.37)  $\varnothing$ 2.5 (I.D) (0.09)	<b>A1191</b> SIP 25L (0.98)  2 (0.08)	<b>A1192</b> SIP 50L (1.97)  2 (0.08)	<b>A1325</b> Dual Single $\varnothing$ 1.5 x 5-10 (0.06 x 0.2-0.39) Adjustable Pitch  The pitch between the two nozzles is adjustable. 5 (0.2) 10 (0.39)

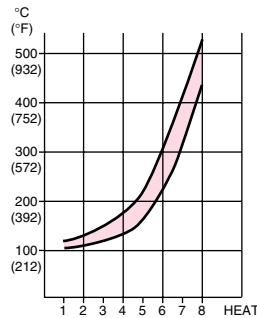
- Adjustable temperature control from 100°C to 540°C (212°F to 1004°F).
- The air volume sensor has an 'ultra-light' setting.
- ESD-safe by design.

## Uses

- Soldering and desoldering of small surface-mounted chip components.
- Shrinking tubing, heating tests and other local heating operations.

## Temperature Distribution Chart

Measurement conditions: Maximum air temperature measured 2 mm (0.08 in.) from blow exit aperture.  
Using standard nozzle  $\varnothing 2.0$  mm (0.08 in.).



## Specifications

<b>Part No.</b>	851-2
<b>Power Consumption</b>	85W

### Station

<b>Power Consumption</b>	5W
<b>Pump</b>	Diaphragm type
<b>Capacity</b>	6 l/min. (max.)
<b>Fuse</b>	2A
<b>Outer Dimensions (w/o handle &amp; iron)</b>	167(W) x 101(H) x 182(D) mm (6.57 in x 3.98 in x 7.15 in)

### Iron

<b>Power Consumption</b>	80W
<b>Heating Element</b>	Ceramic heater
<b>Hot Air Temperature</b>	100°C to 540°C (212°F to 1004°F)
<b>Standard Nozzle</b>	A1066 (Nozzle $\varnothing 2$ mm)
<b>Length (w/o hose)</b>	217 mm (8.54 in.)

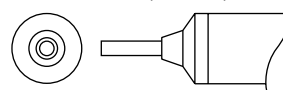


## Replacement Nozzles

Part No.	Description
<b>A1065</b>	Nozzle $\varnothing 1.5$ mm (0.06 in.)
<b>A1066</b>	Nozzle $\varnothing 2.0$ mm (0.08 in.)
<b>A1067</b>	Nozzle $\varnothing 3.0$ mm (0.12 in.)
<b>A1147</b>	Nozzle $\varnothing 1.0$ mm (0.04 in.)
<b>A1344</b>	Nozzle/dual single bent $\varnothing 1.0$ mm (0.04 in.)

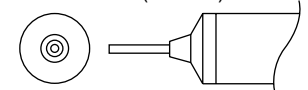
### Part No. A1065

Inside dia 1.5 mm (0.06 in.)



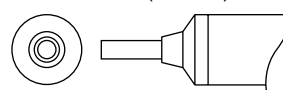
### Part No. A1147

Inside dia 1.0 mm (0.04 in.)



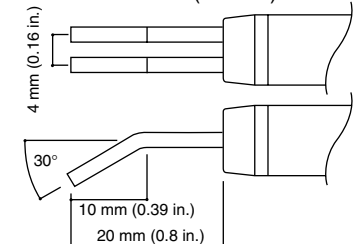
### Part No. A1066

Inside dia 2.0 mm (0.08 in.)



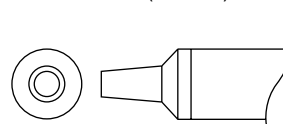
### Part No. A1344

Inside dia 1.0 mm (0.04 in.)



### Part No. A1067

Inside dia 3.0 mm (0.12 in.)



## Heating Element

Part No.	Description
<b>A1068</b>	Heating element 80W/120V

## Contents

Part No.	Description	Part No.
<b>851-2</b>	Station	
	Hot air rework iron (Connected to station)	
	Iron holder	*
	Nozzle holder	B1190
	Nozzle $\varnothing 1.5$ mm (0.06 in.)	B1212
	Nozzle $\varnothing 2.0$ mm (0.08 in.)	A1065
	(Attached to iron)	A1066
	Nozzle $\varnothing 3.0$ mm (0.12 in.)	A1067

\*Hot air rework iron is not sold separately.

# HAKKO 493 ESD SAFE SMOKE ABSORBER

Soldering work involves both metallic and organic compounds; the solders themselves, and the fluxes necessary for soldering. These compounds release noxious fumes when heated, which can lead to both short and long term operator irritations and illness.

- The HAKKO 493 is designed to remove these noxious fumes quickly, safely and efficiently.
- The replaceable filter is made by joining a specific urethane foam with refined, activated high absorption carbon.
- The fan is fully adjustable, quiet, and efficient.
- ESD-safe by design. The entire unit is processed with a non-sloughing static dissipative conductive material.

## Specifications

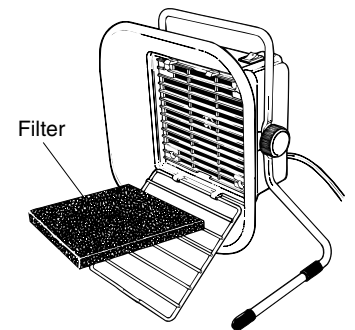
<b>Part No.</b>	493-10
<b>Power Consumption</b>	17W
<b>Absorption Capacity (w/o filter)</b>	Approx. 1.07 m <sup>3</sup> /min. (37.79 ft <sup>3</sup> /min)
<b>Outer Dimensions</b>	220(W) x 270(H) x 168(D) mm (8.7 x 10.6 x 6.6 in.)
<b>Weight</b>	1.5 kg (3.3 lb.)
<b>Accessories</b>	Filter/3pcs.

## Activated-Carbon Filter

<b>Size</b>	130 x 130 x 10 mm (5.1 x 5.1 x 0.4 in.)
<b>Amount of Activated-Carbon filter</b>	7 g (0.02 lb.)
<b>Max. Absorbing weight of noxious components per one filter</b>	2 g (0.004 lb.)



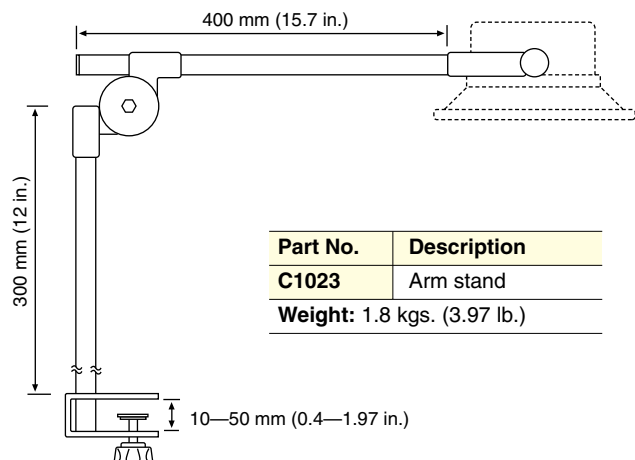
HAKKO 493 with arm stand.



## Replacement Parts

Part No.	Description
<b>A1001</b>	Activated carbon filter, set of 5

## Optional Parts



Part No.	Description
<b>C1023</b>	Arm stand
<b>Weight: 1.8 kgs. (3.97 lb.)</b>	

- The economical iron for SMD desoldering.
- The ceramic heating element provides faster heat transmission and excellent insulation.
- An insulation factor of over 100 MΩ can be maintained even during use.



Note: Tips are optional parts, they are not included with HAKKO 924.

## Specifications

<b>Part No.</b>	924M-V12
<b>Power Consumption</b>	85W
<b>Temperature Control</b>	304°C (580°F)
<b>Insulation Resistance</b>	Over 100 MΩ
<b>Total Length</b>	210 mm (8.27 in.)
<b>Weight[with cord]</b>	Approx. 60 g (0.13 lb.)



## Replacement Tips

Flat IC				
Part No.	Tip Size [mm (in.)]			
	A	B	C	D
924-T-1002	12.5( 0.5)	9.5(0.37)	12.5( 0.5)	9.5(0.37)
924-T-1003	15.5( 0.6)	12.5( 0.5)	15.5( 0.6)	12.5( 0.5)
924-T-1004	16.3(0.64)	13.3(0.52)	16.3(0.64)	13.3(0.52)
924-T-1005	17.0(0.66)	14.0(0.55)	17.0(0.66)	14.0(0.55)
924-T-1006	23.0( 0.9)	20.0(0.78)	17.0(0.66)	14.0(0.55)
924-T-1007	20.0(0.78)	17.0(0.66)	20.0(0.78)	17.0(0.66)

Flat IC		
Part No.	Tip Size [mm (in.)]	
	A	B
924-T-1010	6.0(0.23)	5.0(0.19)
924-T-1011	6.0(0.23)	10.0(0.39)
924-T-1012	7.0(0.27)	12.5(0.5)
924-T-1013	9.0(0.35)	15.2(0.6)
924-T-1014	9.0(0.35)	18.0(0.7)

Part No.	Spatula Type
924-T-1020	

# HAKKO 950 ESD SAFE

SMD HOT TWEEZER

- Available for your HAKKO 936, 937, 939, 702, 703, 926, 927, 928, stations.
- Direct heating - less effect upon surrounding components on crowded boards.
- Easily removes SMD chips and flat packs up to 25mm.
- The collet allows easy replacement of the tips.
- Specially designed tool allows easy and precise tip alignment.



Easy replacement of tip



Easy alignment of tip

## Specifications

Model Name	950
Part No.	C1311
Power Consumption	24V AC/50W
Standard Tip	2mm (P/N: A1378)
Temperature	200°C–400°C (392°F–752°F)
Tip to Ground Resistance	Under 2 Ω
Tip to Ground Potential	Under 2mV (Typ. 0.6mV)
Heating Element	Ceramic heater
Cord Length	1.2m (4 ft.)
Total Length (w/o cord)	186mm (7.3 in.)
Weight (w/o cord)	93g(0.2 lbs.)

## Compatible Soldering Stations



**HAKKO 936**  
SOLDERING STATION



**HAKKO 937**  
SOLDERING STATION



**HAKKO 939**  
SOLDERING STATION



**HAKKO 702**  
REWORK SYSTEM  
\*Soldering Side



**HAKKO 703**  
REWORK SYSTEM  
\*Soldering Side



**HAKKO 926**  
SOLDERING STATION



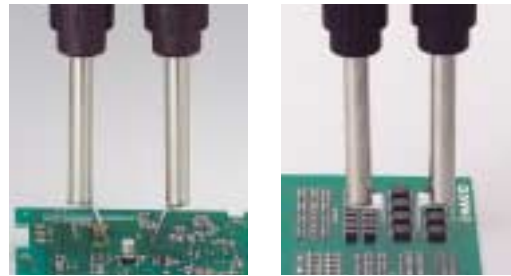
**HAKKO 927**  
SOLDERING STATION



**HAKKO 928**  
SOLDERING STATION



Note: HAKKO 950 is available as an option to your station.



## Replacement Parts

		Size A [B] x W Unit: mm(in.)	Part No.	Name
CHIP		1.0 x 1.0 (0.04 x 0.04)	A1379	Tip/Chip 1L
		2.0 x 1.0 (0.08 x 0.04)	A1378	Tip/Chip 2L
		1.5 [0.5] x 1.0 (0.06 [0.02] x 0.04)	A1388	Tip/Chip 0.5C
			R0.25 (R0.01)	A1389
SOP		4 x 1.0 (0.16 x 0.04)	A1390	Tip/SOP 4L
		6 x 1.0 (0.24 x 0.04)	A1391	Tip/SOP 6L
		8.0 x 1.0 (0.31 x 0.04)	A1380	Tip/SOP 8L
		10.0 x 1.0 (0.39 x 0.04)	A1381	Tip/SOP 10L
		13.0 x 1.0 (0.51 x 0.04)	A1382	Tip/SOP 13L
		15.0 x 1.0 (0.59 x 0.04)	A1392	Tip/SOP 15L
		18.0 x 1.0 (0.71 x 0.04)	A1383	Tip/SOP 18L
		20.0 x 1.0 (0.79 x 0.04)	A1384	Tip/SOP 20L
25.0 x 1.0 (0.98 x 0.04)	A1385	Tip/SOP 25L		

Part No.	Description
A1377	Heating element 24V/50W (25W x 2)

## Optional Parts

Part No.	Description
C1313	Iron holder (with cleaning sponge)
A1386	Cleaning sponge

Iron holder (with cleaning sponge)



## Contents

Part No.	Description	Part No.
C1311	SMD hot tweezer Heat resistance pad Tip alignment tool	B2300 B2301

# HAKKO 485

SOLDERING SYSTEM

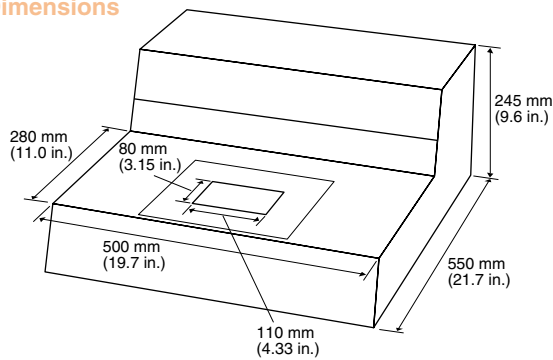
HAKKO 485 is a compact, high performance soldering system developed exclusively for soldering and desoldering components and connectors mounted on PC boards.

- Solder flow is time controlled and temperature controlled.
- Soldering and desoldering cycles are automatic and precise.
- A built-in locator light pinpoints the exact position for placing components.
- Solder remaining in through holes is completely removed by using the air unit.
- A large selection of nozzle sizes is available.

## Specifications

<b>Part No.</b>	485-V12	
<b>Power Consumption</b>	850W	
<b>Room Temperature</b>	Between -5°C (23°F) and 40°C (104°F)	
<b>Temperature Control</b>	Normal temperature—299°C (570°F)	
<b>Solder</b>	10 kg (22 lb.)	
<b>Heating Element</b>	800W (400W x 2)	
<b>Air Pressure</b>	2 kg/cm <sup>2</sup> (4.4 lb)—10 kg/cm <sup>2</sup> (22 lb)	
<b>Dimensions</b>	485(Body)	500(W) x 245(H) x 550(D) mm (19.7 x 9.6 x 21.7 in.)
	486(Air unit)	150(W) x 100(H) x 300(D) mm (5.9 x 3.9 x 11.8 in.)
<b>Weight</b>	485(Body)	35 kg (77 lb) without solder
	486(Air unit)	3.5 kg (7.7 lb)

## Outer Dimensions



## Operation



1. Observe closely to see when the solder comes from the IC holes. At that time remove IC.

2. Compressed air cleaning—after removal of IC.



## Replacement Parts

Part No.	Description
486-1	Air unit
485-N-01	14/16 Pin nozzle
485-N-02	18/20 Pin nozzle
485-N-03	28 Pin nozzle
485-N-04	42 Pin nozzle
485-28	14/16 Pin air hood
485-29	18/20 Pin air hood
485-30	28 Pin air hood
485-31	42 Pin air hood
485-026	Anti-oxidizer
485-09	Spatula
485-10	Lamp (6V-10W)
485-H-V12	Heating element 400W/120V
485-06	Sensor/CA
485-07	IC tweezers

## Contents

Part No.	Description	Part No.
485-V12	Body	
	Air unit	486-1
	14/16 Pin nozzle	485-N-01
	18/20 Pin nozzle	485-N-02
	28 Pin nozzle	485-N-03
	42 Pin nozzle	485-N-04
	14/16 Pin nozzle	485-28
	18/20 Pin air hood	485-29
	28 Pin air hood	485-30
	42 Pin air hood	485-31
	IC tweezers	485-07
	Anti-oxidizer	485-026
	Spatula	485-09
	Lamp (6V-10W)	485-10
	Horizontal gauge	485-22
	Positioning board	485-20
	Waste collector	485-23
	Locator light	485-26
	Air hood holder with hose	485-24
	Cable	
Foot switch (connected to body)	485-60	

# HAKKO 96

SOLDERING POT

- The large-capacity solder bath holds up to 1.2 kg (2.64 lb.).
- The solder temperature remains high even during continuous operation.
- Precise temperature control enhances efficiency.
- The stainless steel solder bath and other heavy-duty components offer great durability; the solder overflow prevention rim provides greater safety and enhances efficiency.
- The waste collector around the overflow rim helps keep the work area clean.



## Specifications

<b>Part No.</b>	96E-V12	96-1E-V12
<b>Power Consumption</b>	200W	
<b>Heating Element</b>	100W Ceramic heater x2	
<b>Temperature of Solder Bath</b>	100°C—450°C (212°F—842°F)	100°C—380°C (212°F—716°F)
<b>Insulation Resistance</b>	Over 100 MΩ (at 250°C)	
<b>Dimensions of Solder Bath</b>	50(W) x 50(D) x 54(H) mm (1.96 x 1.96 x 2.12 in.)	70(W) x 70(D) x 64(H) mm (2.75 x 2.75 x 2.5 in.)
<b>Capacity of Solder Bath</b>	Approx. 0.85 kg (1.87 lb.) of melted solder	Approx. 1.2 kg (2.64 lb.) of melted solder
<b>Weight</b>	1.5 kg (3.3 lb.)	1.6 kg (3.5 lb.)
<b>Outer Dimensions</b>	135(W) x 224(D) x 105(H) mm (5.3 x 8.8 x 4.1 in.)	135(W) x 224(D) x 120(H) mm (5.3 x 8.8 x 4.7 in.)



## Replacement Parts

Part No.	Description
96-HC-V12	Heating element 200W/120V for 96, 96-1
96-2	Solder bath □50mm (1.96 in.) for 96
96-1-2	Solder bath □70mm (2.75 in.) for 96-1
485-09	Spatula

## Contents

Part No.	Description	Accessories
96E-V12	Body	Spatula (P/N : 485-09)
96-1E-V12	Body	



# HAKKO 191

THERMOMETER

- Fast, accurate tip temperature measurements using a fine CA wire sensor (ø0.2).
- Large easy-to-read digital temperature display.
- The sensor with special metal alloy coating (pat. pend.) resists corrosion and oxidation.
- Quick and easy sensor replacement.

## Specifications

Part No.	191B	191
Type	Fahrenheit	Centigrade
Resolution	1°F	1°C
Range of Measurement	0°F—1200°F	0°C—600°C
Applied Sensor	K(CA) thermocouple	
Precision	±6°F(in 572°F—932°F range)	±3°C(in 300°C—500°C range)
Display	a) 3.5—digit liquid crystal display b) Battery alarm <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> c) Burn out <input type="checkbox"/> - / <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Power Supply	006P, 9V dry battery	
Battery Life	More than 150 hours	
Outer Dimensions	160(W) x 45(H) x 80(D) mm 6.3(W) x 1.8(H) x 3.1(D) in	
Weight	Approx. 200g (0.441 lbs.)	
Environmental Temperature Range	0°F—104°F	0°C—40°C



## Optional Parts

Part No.	Description
191B-251	Thermocoupled tip type K *Nipple is not included.
A1310	Temperature probe *For measuring the temperature of solder in pots, other applications as required.



## Replacement Parts

Part No.	Description
191-211	Sensor, set of 10 pcs.

## Contents

Part No.	Description	Accessories	Part No.
191B	Thermometer (°F Type)	Sensor/10 pcs. Ring plate	191-211
191	Thermometer (°C Type)		

# HAKKO 192

SOLDERING TESTER

The HAKKO 192 measures tip temperature, leak voltage and tip to ground resistance.

- True root-mean-square values are measured and displayed.
- The tester is resistant to drift and ambient temperature variations, ensuring highly reliable and accurate measurements.
- Measurements may be sent to a variety of monitors for recording.
- Meets MIL-STD-2000 leak voltage measurement requirements. ('Leak voltage' is that potential resulting from the small current 'leaking' from the tip of a soldering iron, even though the tip may be grounded. This current can damage sensitive components. The HAKKO 192 provides a quick and accurate means of measuring this leak voltage.)
- Easily replaceable temperature sensors ensure accuracy.

## Specifications

Part No.	192-5	
<b>Temperature</b>	Resolution	1°F
	Measurement range	0°F—1200°F
	Precision	± 6°F (in 572°F—932°F range)
	Sensor	K(CA) thermocouple
<b>Voltage</b>	Resolution	0.1mv
	Measurement range	0—90mv(AC)
	Accuracy	± (5% of reading + 1 digit)
	Conforms to MIL-STD-2000	
<b>Resistance</b>	Resolution	0.1Ω
	Measurement range	0—90 Ω
	Accuracy	± (5% of reading + 1 digit)
<b>Display</b>	Liquid crystal display (LCD)	3½ digits
	Over range	□-□□□□
<b>Monitor Output</b>	Temperature	1mv/°C, °F
	Voltage	10mv/mv
	Resistance	10mv/ Ω
	Burn out	-7V (max.)
<b>Power Consumption</b>	1W	
<b>Dimensions</b>	200(W) x 50(H) x 120(D) mm 7.9(W) x 2.0(H) x 4.7(D) in	
<b>Weight</b>	Approximately 1.1 kg/2.4 lbs.	
<b>Operation Environment</b>	0~104°F 0~80% RH	

Caution: The HAKKO 192 cannot be used with soldering irons equipped with ungrounded tips.



## Replacement Parts

Part No.	Description
191-211	Temperature sensors, set of 10 pcs.
B1752	Conduction plate
B1950	Conduction wire
B1754	Ground clip

## Optional Parts

Part No.	Description
B1753	Monitor cord
A1310**	Temperature probe

\*Calibration service is also available.

\*\*For measuring the temperature of solder in pots, other applications as required.

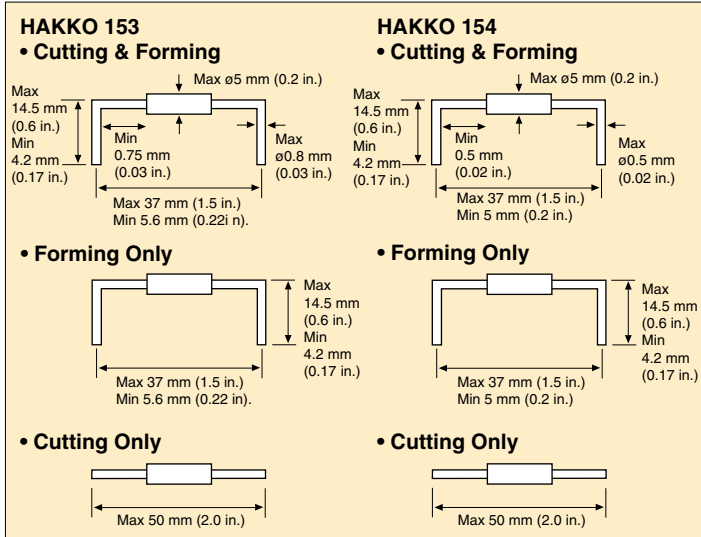
## Contents

Part No.	Description	Part No.
192-5	Soldering tester Sensor/10 pcs. Conduction wire Ground clip Midget fuse (5A) Ring plate	191-211 B1950 B1754

# HAKKO 153·154

LEAD FORMER

- Sealed ball bearings make the HAKKO 153 and 154 durable and efficient.
- The unique component removal plate protects components from damage caused by the leads touching while being removed.
- Wide adjustable bending length (see the drawings below.)
- High-quality cutting blade for a clean, smooth cut and long life.



<b>Part No.</b>	153-2	154-2
<b>Forming Size</b>	5.6 mm (0.22 in.) Pitch	5 mm (0.2 in.) Pitch
<b>*Max. Diameter of Lead</b>	ø0.8 mm (0.03 in.)	ø0.5 mm (0.02 in.)
<b>Size</b>	125(W) x 130(H) x 110(D) mm 4.9(W) x 5.1(H) x 4.3(D) in.	
<b>Weight</b>	Approx. 2 kgs. (4.4 lbs.)(with handle & clamp)	

\*For annealed copper lead only.

### Compatible Taping Dimension

<b>Outer width of tape</b>	Max. 85 mm (3.3 in.)
<b>Pitch</b>	5 mm (0.2 in.)

# HAKKO 156

PARTS FEEDER

- The HAKKO 156 parts feeder can accept loose parts ranging in size from 1/8 watt to 1/2 watt by simply adjusting the click-type inner (gold) drum. There is no need to change drums for different component types.
- The 156 mounts easily on either the 153 or 154 lead former. Adjusting the bending and cutting wheels is quick and easy.
- One-touch lock levers provide simple adjustment of the component and drum centering guides.

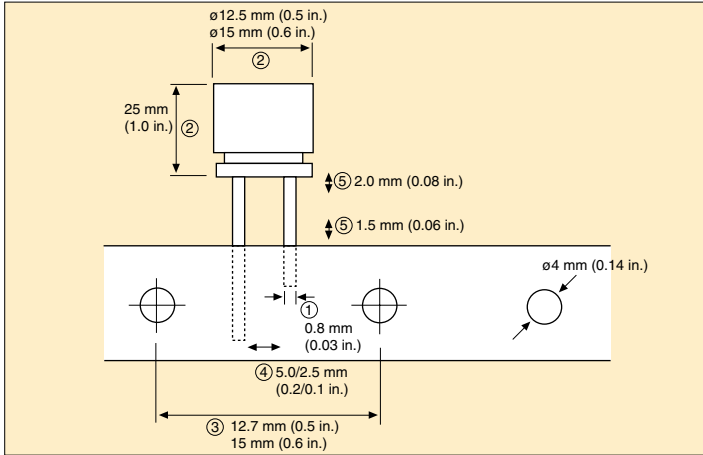


<b>Part No.</b>	156
<b>Size</b>	131(W) x 49(H) x 136(D) mm 5.2(W) x 1.9(H) x 5.4(D) in.
<b>Weight</b>	0.4 kgs. (0.9 lbs.)

# HAKKO 155

LEAD CUTTER

- Sealed ball bearings make the HAKKO 155 durable and efficient.
- Continuous operation ensures faster and more efficient processing.
- Easy to use. Simply set the component tape in place and turn the handle. The super-sharp, high quality cutting blade allows you to cut all taped radial parts cleanly and smoothly.



<b>Part No.</b>	155-1	155-2
<b>Size</b>	125(W) x 140(H) x 110(D) mm 4.9(W) x 5.5(H) x 4.3(D) in.	
<b>Weight</b>	Approx. 1.7 kgs. (3.7 lbs.)(with handle & clamp)	

<b>① Maximum Diameter of Lead Wire</b>	$\phi 0.8$ mm (0.03 in.)	
<b>② Maximum Processing Part Size</b>	$\phi 12.5$ x 25 mm (0.5 x 1.0 in.)	$\phi 15$ x 25 mm (0.6 x 1.0 in.)
<b>③ Feed Hole Pitch</b>	12.7 mm (0.5 in.)	15 mm (0.6 in.)
<b>④ Lead Pitch</b>	5.0 mm (0.2 in.), 2.5 mm (0.1 in.)*	5.0 mm (0.2 in.)
<b>⑤ Minimum Processing Size</b>	1.5 mm (0.06 in.) from taping end 2.0 mm (0.08 in.) from part end	

\*When processing a part with a lead pitch of 2.5 mm (0.1 in.), be sure to adjust the cutting wheel. Parts with a pitch of 2.5 mm (0.1 in.) can be processed only on the No. 155-1.

# HAKKO DIP LINER

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

Part No.	Width of IC	Number of IC leads
FT100	7.5 mm (0.3 in.)	8, 14, 16, 18, 20
FT150	10 mm (0.4 in.)	22
FT200	15 mm (0.6 in.)	24, 28, 40, 42
FT300	19 mm (0.7 in.)	64



# HAKKO 498

SYSTEM TESTER

## Quickly and simply checks for

1. Wrist straps and grounding wires.
  2. The contact resistance between the wrist strap and the skin.
- Can be used anywhere to quickly and easily check grounding systems.
  - Ensures employee safety.
  - Eliminates product defects caused by static electricity

## Specifications

<b>Part No.</b>	498
<b>Power Supply</b>	9V battery *
<b>Grounding Wire</b>	2.5 m (6.2ft) *
<b>Outer Dimensions</b>	80(W) x 40(H) x 117(D) mm (31 x 1.5 x 4.6 in.)

\* Standard accessories

Indication	Calibration Resistance
LOW	$R < 800K\Omega$
GOOD	$800K\Omega \leq R \leq 9M\Omega$
HIGH	$R > 9M\Omega$



## Operation

Simply connect the grounding wire and press the pad. If the grounding system is safe, the green "GOOD" lamp will light and audio signal will be heard.

## Caution

After approximately 50,000 operations, the green "GOOD" lamp will light but no audio signal will be heard. This shows that it is time to change the battery.

# HAKKO 599

TIP CLEANER

# HAKKO 601

IRON HOLDER

## HAKKO 599

- Cleans better than conventional sponges.
- No water required.
- Will not reduce the tip temperature.
- Replacement cartridge for the 601 iron holder.
- May be used as a portable tool holder and cleaner.

## HAKKO 601

- Made of temperature-resistant materials.
- Non-skid base.
- Holds many different sizes of soldering irons.
- The HAKKO 599 cleaner never needs wetting-saves time.

## Specifications

<b>Dimensions</b>	84(W) X 80(H) X 185(D) mm (3.31 X 3.15 X 7.28 in.)
<b>Weight</b>	Approx. 560 g (1.23 lb)



# HAKKO IRON HOLDER

## Specifications

Part No.	Size in.	Weight oz.	Cleaning Sponge	Use with
602	3.5 x 4.2	3	P/N: 602-029	N452, N453, N454(DASH), 918, 920, 921, 922(MACH-I) 455, 456
603	3.7 x 3.1	18	P/N: 603-029	N452, N453, N454(DASH), 918, 920, 921, 922(MACH-I)
* 605M			NONE	N452, N453, N454(DASH), 918, 920, 921, 922(MACH-I) 455
606	6.3 x 3.9	11	P/N: 602-029	N452, N453, N454(DASH), 918, 920, 921, 922(MACH-I)
607	3.8 x 6.5	21	P/N: A1042	583, 585, 587, 589(MG)
609	3.8 x 6.5	21	P/N: A1042	N452, N453, N454(DASH), 918, 920, 921, 922(MACH-I)
631-01	3.1 x 5.4	21	P/N: A1042	N452, N453, N454(DASH), 918, 920, 921, 922(MACH-I)
632-1	4.2 x 6.4	16	P/N: A1042	455, 456

### \* HAKKO 605M

The HAKKO 605 iron holder offers superior heat resistance and thermal insulation.

With the HAKKO 605, the soldering iron can be placed in the toolbox immediately after finishing soldering work.

## HAKKO 611 ESD SAFE SOLDER REEL STAND

- Keep your bench neat.
- Draw out the solder wire smoothly.
- Max. 1kg (2.2 lbs.) rolled solder wire can be used.

## Specifications

Part No.	611-1
Outer Dimensions	87(W) X 78(H) X 141(D) mm (3.4 X 3.1 X 5.6 in.)
Shaft Dia	ø15mm (0.6 in.)
Weight	450 g (1.0 lbs.)



Many different models available select the holder to fit your needs.

- Holds two reels of solder wire.  
Maximum weight of reel is 1kg (2.2lbs).
- Different diameters of solder wire can be used on the two reels.
- The solder wire can be pulled smoothly from either reel, which contributes to operator efficiency.
- ESD safe by design.

## Specifications

Part No.	611-2
Outer Dimensions	87(W) X 200(H) X 141(D) mm (3.4 X 7.9 X 5.6 in.)
Shaft Dia	ø15mm (0.6 in.)
Weight	750 g (1.7 lbs.)

