

# HAKKO 958·959 SOLDERING GUN

## Instruction Manual

Thank you for purchasing the HAKKO 958/959 soldering gun.  
This soldering gun has a built-in feeding mechanism that enables soldering with one hand.  
Please read this manual before operating the HAKKO 958/959.  
Keep this manual readily accessible for reference.

### CAUTION

- When using this unit for the first time, be sure to calibrate the tip temperature. Specific information can be found in the instruction manual for your particular HAKKO station.

### ■ Packing List

Soldering gun .....	1	Tube unit S .....	1
Tip (installed) .....	1	Guide nozzle $\phi$ 0.6, $\phi$ 0.8, $\phi$ 1.0... 1 ea.	
Hose coupling band.....	5	( $\phi$ 1.0 is attached to the main body.)	
(for binding the cord assembly and the tube unit)		or	
Instruction manual .....	1	Tube unit L.....	1
		Guide nozzle $\phi$ 1.2, $\phi$ 1.6..... 1 ea.	
		( $\phi$ 1.6 is attached to the main body.)	

### ■ Specifications

Name	HAKKO 958	HAKKO 959
Power Consumption	AC 24V 50 W	
Temperature Range	200–480°C/392–896°F	
Tip to Ground Resistance	< 2 $\Omega$	
Tip to Ground Potential	< 2 mV (TYP. 0.6 mV)	
Standard Tip	Shape-B (No.900M-T-B)	Shape-B (No.900L-T-B)
Tube Unit	S: Applicable solder dia. (0.6 ~ 1.0 mm) L: Applicable solder dia. (1.2 ~ 1.6 mm)	
Gguide Nozzle	$\phi$ 0.6, 0.8, 1.0, 1.2, 1.6 mm ( $\phi$ 0.024, 0.031, 0.039, 0.047, 0.063 in.)	
Usable Solder Diameter	$\phi$ 0.6, 0.8, 1.0, 1.2, 1.6 mm ( $\phi$ 0.024, 0.031, 0.039, 0.047, 0.063 in.)	
Cord Assembly	1.1 m (3.6 ft.)	
Dimensions (w/o cord)	170 (W) $\times$ 180 (H) $\times$ 23 (D) mm (6.7 $\times$ 7.1 $\times$ 0.9 in.)	
Weight (w/o cord and tube unit)	177 g (0.39 lb.)	187 g (0.41 lb.)

\*Specifications and design are subject to change without notice.

### ■ Electrostatic Protection

This product includes such features as electrically conductive plastic parts and grounding of the handpiece and station as measures to protect the device to be soldered from the effects of static electricity. Be sure to observe the following instructions:

1. The handle and other plastic parts are not insulators, they are conductors. When replacing parts or repairing, take sufficient care not to expose live electrical parts or damage insulation materials.
2. Be sure to ground the unit during use.

### ■ Applicable Models

Use the HAKKO 958/959 in combination with the HAKKO station; 701, 702B, 928, 936 or 937 and the self feeder; 373 or 374.

### ■ Precautions

#### WARNING

Warnings and cautions are placed at critical points in this manual to direct the operator's attention to significant items. They are defined as follows:

**WARNING:** Failure to comply with a WARNING may result in serious injury or death.

**CAUTION:** Failure to comply with a CAUTION may result in injury to the operator, or damage to the items involved. Two examples are given below.

#### CAUTION

When power is ON, tip temperatures will be between 200°C and 480°C. (392°F to 896°F.) To avoid injury or damage to personnel and items in the work area, observe the following:

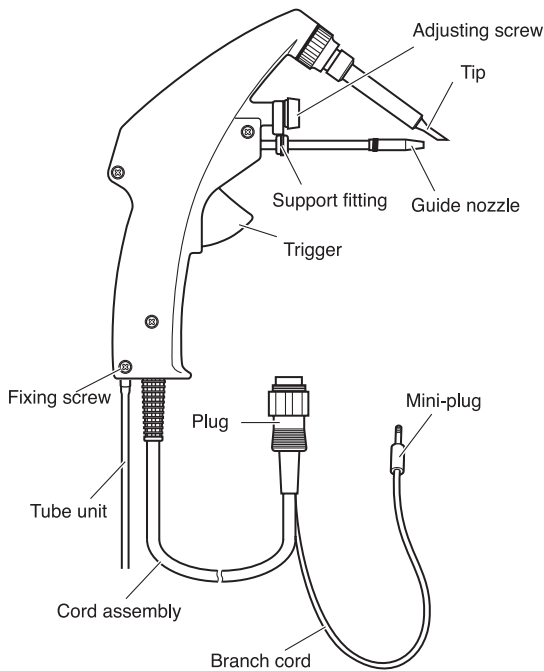
- Do not touch the tip or the metal parts near the tip.
- Do not allow the tip to come close to, or touch, flammable materials.
- Inform others in the area that the unit is hot and should not be touched.
- Turn the power off when not in use, or left unattended.
- Turn the power off and allow the unit to cool to room temperature when changing parts or storing the Hakko 951/952.

#### CAUTION

To prevent accidents or damage to the Hakko 951/952, be sure to observe the following:

- Do not use the unit for applications other than those specifically described in the instruction manual.
- Before using the Hakko 958/959 for the first time, calibrate the tip temperature.
- Do not strike the gun against hard objects to remove excess solder. This will damage the gun.
- Do not modify the Hakko 958/959.
- Use only genuine Hakko replacement parts.
- Do not allow the Hakko 958/959 to become wet, or use it when hands are wet.
- Be sure the work area is well ventilated. Soldering produces smoke.
- Remove power and gun cords by holding the plug – not the wires.

## Part Name



## Operation

Prepare HAKKO Soldering Station (applicable model) and HAKKO 373/374 Self Feeder.

### (1) Inserting the solder

1. Plug the branch cord (mini-plug) of the cord assembly into the jack on the body of the HAKKO 373.
2. Insert the feed nozzle into the feed unit on the upper body of the HAKKO 373 and secure it with the feed nozzle fixing screw.

### (2) Feeding the solder

See the instruction manual for the HAKKO 373.

### (3) Adjusting the guide nozzle

Adjust the position where the solder touches the tip by loosening the adjusting screw and moving the guide nozzle up or down.

#### NOTE:

Use a guide nozzle suitable for the diameter of solder to be used.

### (4) Connections

1. Make sure the station power switch is OFF and connect the plug to the receptacle of the station.
2. Place the HAKKO 958 or 959 on the iron holder (optional).
3. Plug the power cord into a grounded wall socket.  
Be sure the unit is grounded.

### (5) Calibration

Be sure to calibrate the tip temperature before using it. (Refer to the instruction manual for the station.)

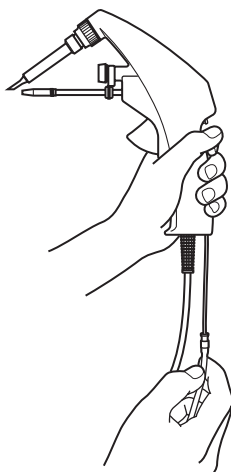
\* Use a HAKKO Thermometer or a HAKKO Soldering Tester to measure the tip temperature.

### Installing the tube unit

1. Loosen the fixing screw.
2. Inserting the tube unit all the way into the soldering gun.  
See the figure to the right.
3. Tighten the fixing screw.

#### CAUTION

- Do not overtighten the fixing screw. Doing so may crack or damage the plastic body of the soldering gun.
- Select a tube unit suitable for the diameter of solder to be used.



## Troubleshooting Guide

For details, refer to the instruction manual for the station with which the unit will be used.

- The solder clogs.

**CHECK** : The tube unit has worn.

**ACTION** : Replace the tube unit.

**CHECK** : The tube unit has strained.

**ACTION** : Increase the bend radius of the tube unit.

**CHECK** : The solder has been inserted improperly

**ACTION** : Refer to "Inserting the solder" under "Operation."  
Make sure the diameter of the tube unit has matched the diameter of the guide nozzle.

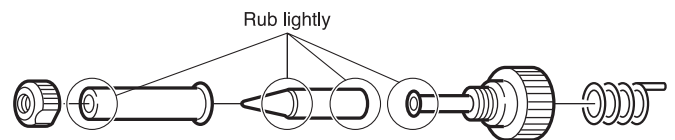
## Checking for breakage of the heating element and cord assembly

Disconnect the plug and measure the resistance between the connecting plug pins as follows.

	a. Between pins 4 & 5 (Heating element)	2.5 – 3.5Ω (room temp.)
	b. Between pins 1 & 2 (Sensor)	43 – 58Ω (room temp.)
	c. Between pin 3 & tip	under 2Ω

If the values of 'a' and 'b' are outside the above value, replace the heating element (sensor) and /or cord assembly.

If the value 'c' is over the above value, remove the oxidization film by lightly rubbing with sand-paper or steel wool the points shown below.



### 1 Broken heating element

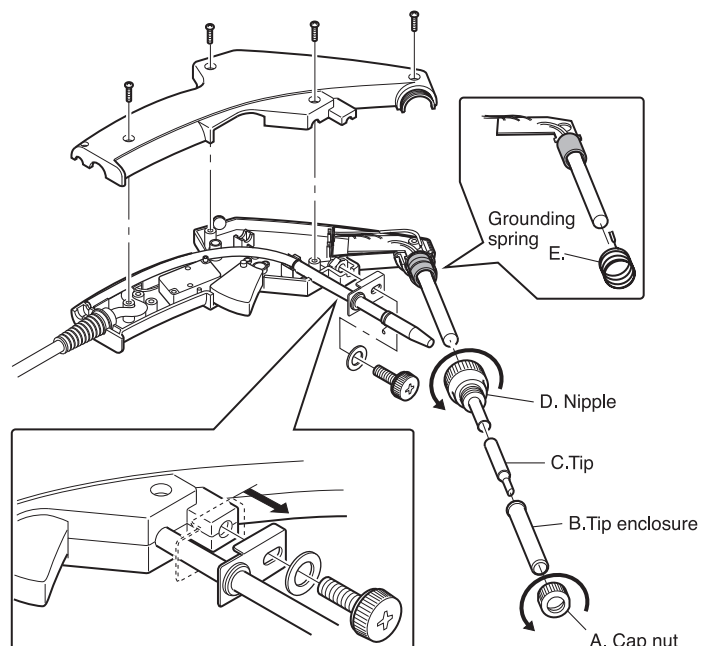
Disassembling the 958/959

1. Remove the adjusting screw and keep the support fitting apart from the housing.
2. Turn the nut A counterclockwise and remove the tip enclosure B and the tip C.

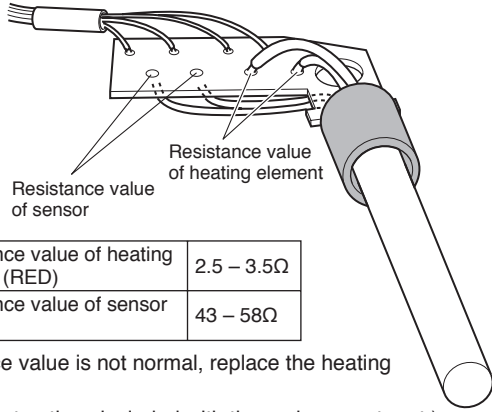
#### CAUTION

Be sure to remove the nut before removing the nipple. Removing the nipple first could cause the heater leads to twist and cause a short circuit.

3. Turn the nipple D counterclockwise and remove it from the gun.
4. Remove the 4 screw securing the housing and open the housing.
5. Pull the grounding spring E out of the sleeve.



\* Measure when the heating element is at room temperature.



Resistance value of heating element (RED)	2.5 – 3.5Ω
Resistance value of sensor (BLUE)	43 – 58Ω

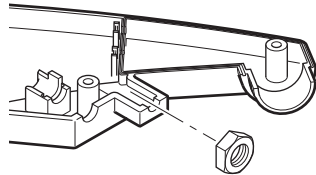
If the resistance value is not normal, replace the heating element.

(Refer to the instructions included with the replacement part.)

After replacing the heating element,

1. Measure the resistance value between pins 4 & 1 and 4 & 2, and pins 5 & 1 and 5 & 2. If the resistance value is not infinite for all four measurements, the heating element and sensor leads are touching. This will damage the P.W.B. When reassembling, be sure that the heating element and sensor leads do not touch each other.
2. Measure the resistance value 'a' 'b' 'c' to confirm that the leads are not twisted and that the grounding spring is properly connected.

**CAUTION**  
When reassembling, match the convex part of the hexagon nut to concave part of the housing.



Hexagon nut M4

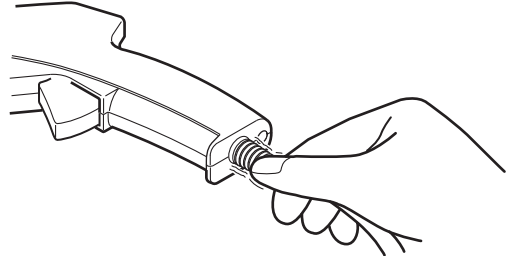
## 2 Broken soldering gun cord

There are two methods of testing the soldering gun cord.

1. Turn the unit on and set the temperature to 480°C (896°F). Before the tip temperature reaches to 480°C (896°F) wiggle and kink the gun cord at various locations along its length, including strain relief area. If the LED heater lamp flickers, then the cord needs to be replaced.

### CAUTION

The LED heater lamp will flicker even with a normal gun cord if the temperature reaches 480°C (896°F).



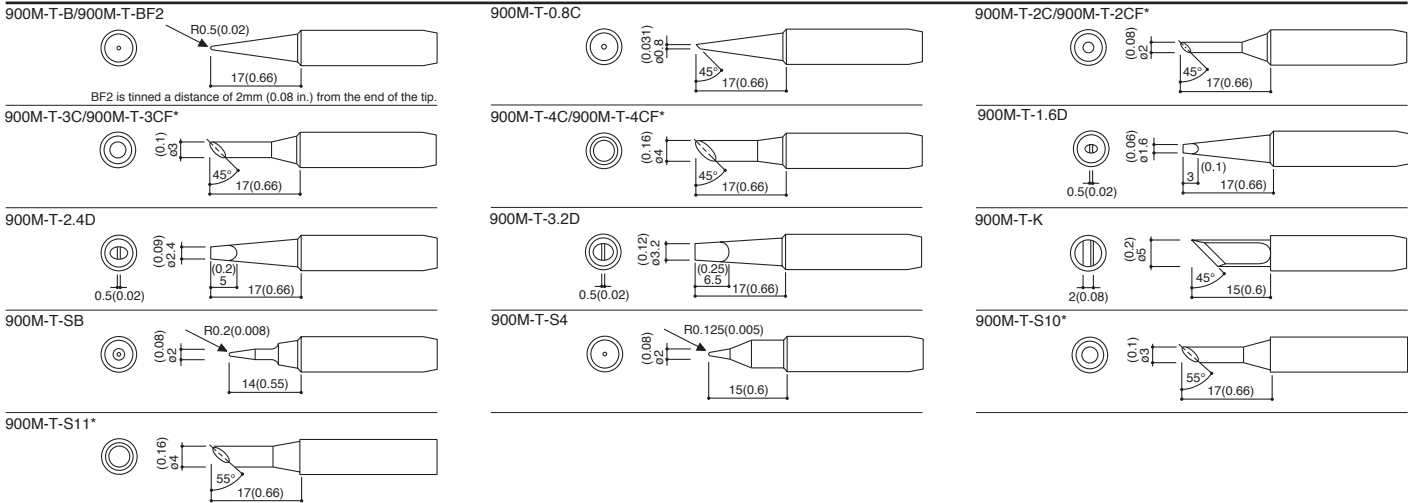
2. Check the resistance values between the pins of the plug and the wires on the terminal.  
Pin 1 - Red Pin 2 - Blue Pin 3 - Green Pin 4 - White Pin 5 - Black  
The value should be 0Ω.  
If any value is greater than 0Ω or is infinite, the cord should be replaced.

## Parts List (Tips)

The tip temperature will vary according to the shape of the tip. The preferred method of adjustment uses a tip thermometer. (Refer to the instruction manual for the station.) A less accurate method involves adjusting the temperature settings according to the adjustment value for each tips.

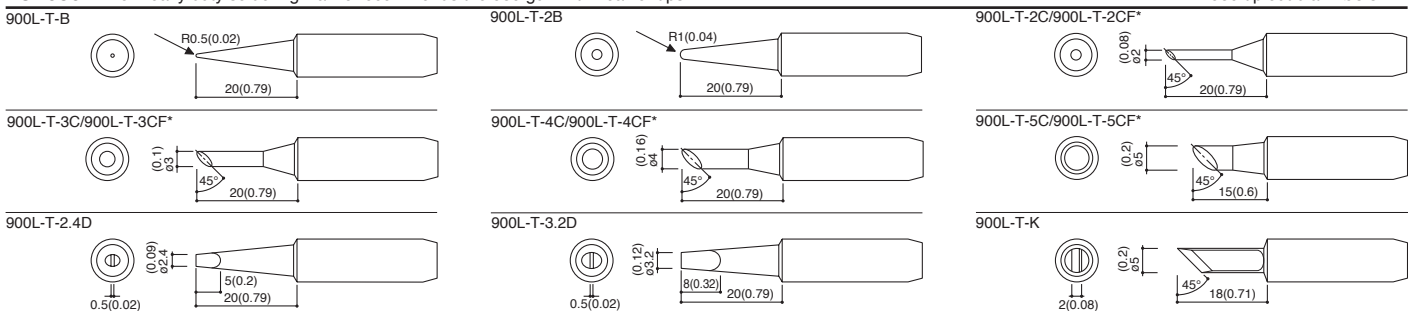
### For 958

958 tip out diam. ø6.5mm



### For 959 • For heavy duty soldering Hakko recommends the 959 gun with heavier tips.

959 tip out diam. ø8.5mm

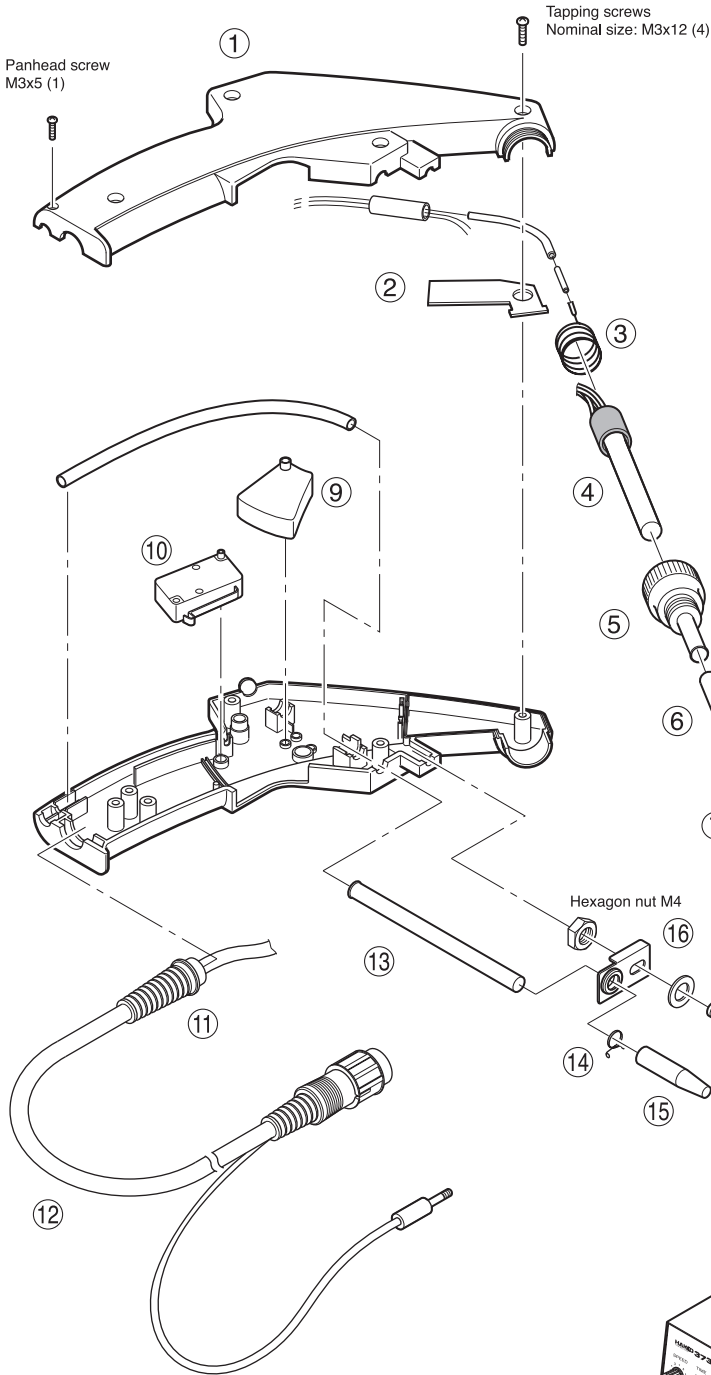


**CAUTION** Use only genuine replacement tips for Hakko 958,959. The tips for Hakko Dash are not available to use. \* These tips are tinned flat only.

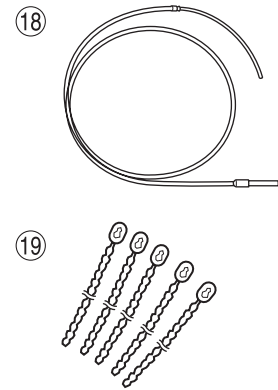
# Parts List

Note: Spare or repair parts do not include mounting screws, if they are not listed on the description. Screws must be ordered separately.

English 中文 日本文



Item No.	Part No.	Part Name	Specifications
1	B3264	Housing	With screws
2	B2643	Terminal board	
3	B2032	Grounding spring	
4	A1321	Heating element	
5	B2022	Nipple	For 958
	B2033	Nipple	For 959
6	B1786	Soldering tip	See page 11
	B1787	Tip enclosure	For 958
7	B1784	Nut	For 958
	B1794	Nut	For 959
8	B3266	Trigger	
9	B1026	Micro switch	
10	B1100	Cord bushing	
11	B3265	Cord asse'y	
12	B2659	Guide pipe	
13	B1710	Nozzle securing ring	
14	B2652	Guide nozzle/0.6mm ESD	
	B2653	Guide nozzle/0.8mm ESD	
	B2654	Guide nozzle/1.0mm ESD	
	B2655	Guide nozzle/1.2mm ESD	
	B2656	Guide nozzle/1.6mm ESD	
15	B2649	Supporting fitting	With grommet
16	B2650	Adjusting screw	For guide pipe



18	B3268	Tube unit/S	For 958 and 959
	B3269	Tube unit/L	
19	B1290	Hose coupling band	5 pcs.

## Option

Part No.	Part Name	Specifications
C1437	Iron holder	
A1042	Cleaning sponge	
B3270	Mounting plate	For 373 & 374/With screws



**HAKKO CORPORATION**

HEAD OFFICE

TEL: +81-6-6561-3225 FAX: +81-6-6561-8466

http://www.hakko.com E-mail: sales@hakko.com

OVERSEAS AFFILIATES

U.S.A.: AMERICAN HAKKO PRODUCTS, INC.

TEL: (661) 294-0090 FAX: (661) 294-0096

Toll Free (800)88-HAKKO

http://www.hakkousa.com

HONG KONG: HAKKO DEVELOPMENT CO., LTD.

TEL: 2811-5588 FAX: 2590-0217

http://www.hakko.com.hk

E-mail: info@hakko.com.hk

SINGAPORE: HAKKO PRODUCTS PTE., LTD.

TEL: 6748-2277 FAX: 6744-0033

http://www.hakko.com.sg

E-mail: sales@hakko.com.sg

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

<http://www.hakko.com>

