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# **HAKKO 926**

**SOLDERING STATION**

## **INSTRUCTION MANUAL**

Please read this instruction manual thoroughly before operating the HAKKO 926



# Specification

## ● Station

<b>Power Consumption</b>	60W
<b>Output Voltage</b>	AC24V
<b>Temperature</b>	200~480°C/392~896°F
<b>Temperature Control</b>	Control accuracy of setting at idling temperature. ±0.5°C (±0.9°F)
<b>Outer Dimensions</b>	125(W) x 120(H) x 200(D) mm (without Cord & Holder Part) 4.9(W) x 4.7(H) x 8.1(D) in.
<b>Weight</b>	Approx 1.5 kg (3.3 lb) (without Cord & Holder Part)

## ● Iron

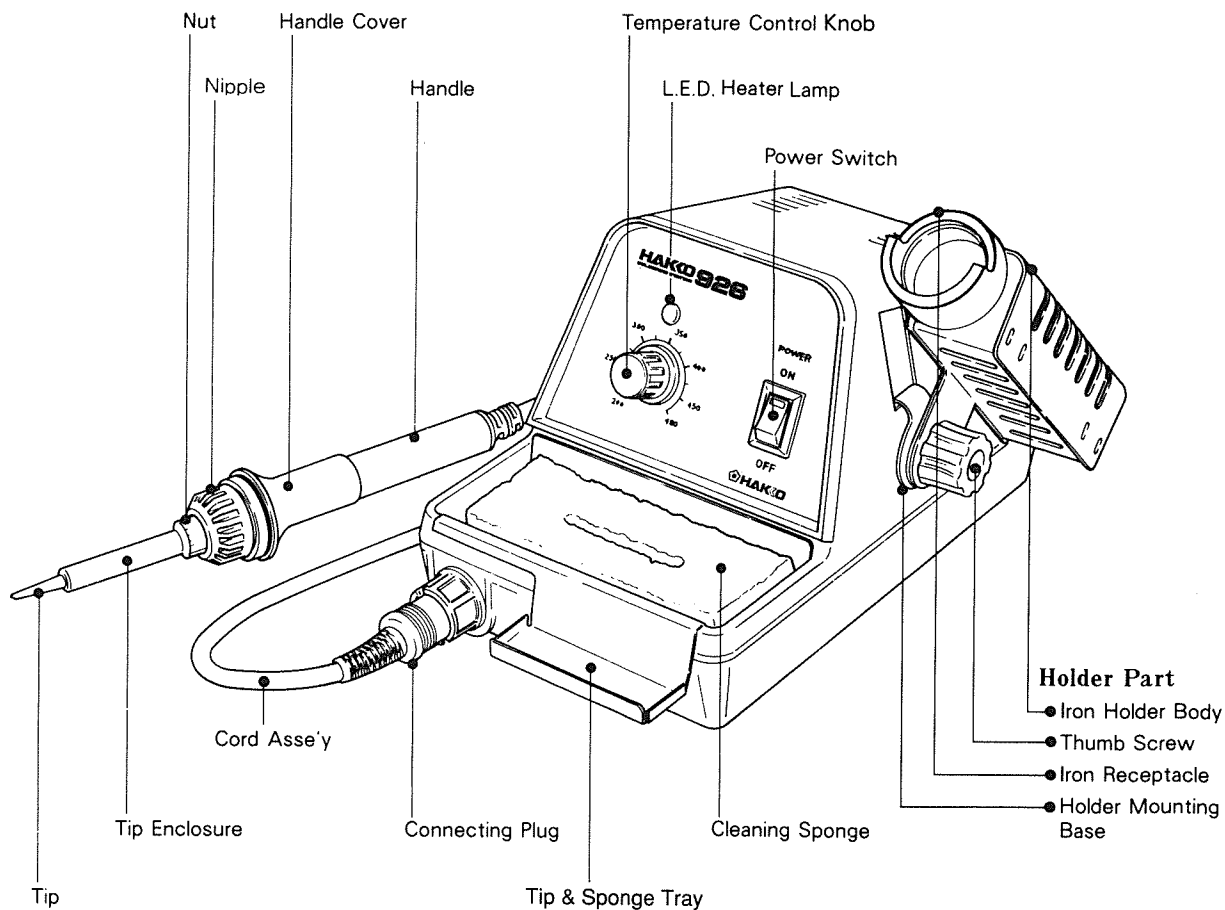
	HAKKO 900M-type		HAKKO 900 L-type	
<b>Part No.</b>	900M	900M-ESD	900L	900L-ESD
<b>Power Consumption</b>	AC24V 50W			
<b>Insulation Resistance</b>	Over 300M ohm at 400°C/750°F by DC500V insulation tester. [50M ohm at 480°C (896°F)]			
<b>Leak Voltage</b>	under 0.6mV (between Tip and Ground)			
<b>Heating Element</b>	Ceramic Heater			
<b>Cord Asse'y</b>	5 wire burn-proof silicone cord, 1.2m (4ft.) with Connecting Plug			
<b>Connecting Plug</b>	5 pin inter-lock system			
<b>Length (w/o cord)</b>	190mm (7.4 in)		210mm (8.2 in)	
<b>Weight</b>	45g (0.09 lb)		55g (0.12 lb)	

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

## Accessories

- **Holder Part** (consists of : Iron receptacle, Iron Holder Body, Holder Mounting Base, Thumb Screw)
- **Cleaning Sponge**
- **Tip & Sponge Tray**

## Part Name



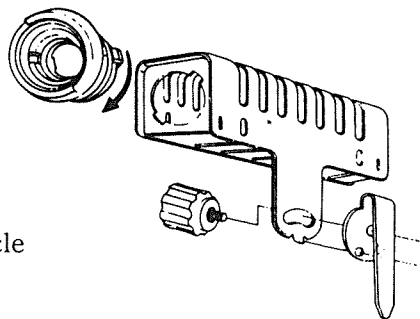
## Precautions

- 1) Ceramic Heating Element cannot stand excessive force. Never strike Soldering Iron against work-bench or solid surface.
- 2) Make sure the Nut securing the Tip Enclosure is properly tightened.
- 3) Use exclusive Tips for 900 only.
- 4) Operate in lower tip temperature.  
Exceptionally high thermal recovery allows a lower temperature setting thereby protecting sensitive components and extending tip life.
- 5) Power off when replace the tip. Or Heating Element or Tip may be damaged.
- 6) Never file the specially plated tip.

## Operating Instruction

### ● Set Up the Holder Part.

- 1) Attach the Holder Part to Station with Thumb Screw.
- 2) Holder Mounting Base is located on right side of Station. Re-position to left side if necessary refer to the drawing.
- 3) Angle of the Holder Part may be adjusted by loosening Thumb Screw.



### ● Connection

Insert 5 - pin Connecting Plug into the Receptacle on the Station, and lock it by turning the outside ring of plug clockwise.

Warning : Connect or disconnect Cord Asse'y after power off. Or Control PWB inside of the Station may be damaged.

Then, plug into properly grounded A.C. Outlet.

### ● Cleaning Sponge


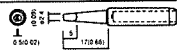

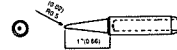

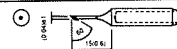
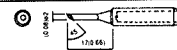
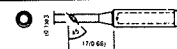
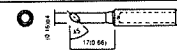
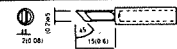
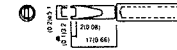
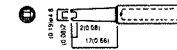

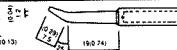

Dampen Cleaning Sponge with water.

Special coted Tip may be damaged if cleaned in dry condition.



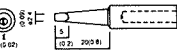
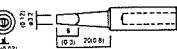


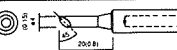

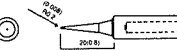
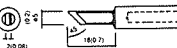
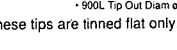



- Set the Temperature Control Knob to your desired temperature and turn on the Power Switch. L.E.D. Heater Lamp comes on and off when Tip temperature reaches to the figure you set. Now you can start the soldering work.

# Replacement Tip

※ Temp. comparison with the standard tip.  
(At 480°C, 896°F)

900M	
900M-T-1.6D	 0 (480°C, 896°F)
900M-T-2.4D	 0 (480°C, 896°F)
900M-T-3.2D	 0 (480°C, 896°F)
900M-T-B	 0 (480°C, 896°F)
900M-T-LB	 -10°C, -18°F (470°C, 878°F)
900M-T-1C 900M-T-1CF*	 0 (480°C, 896°F)
900M-T-2C 900M-T-2CF*	 0 (480°C, 896°F)
900M-T-3C 900M-T-3CF*	 0 (480°C, 896°F)
900M-T-4C 900M-T-4CF*	 0 (480°C, 896°F)
900M-T-K	 +30°C, +54°F (510°C, 590°F)
900M-T-R	 0 (480°C, 896°F)
900M-T-RT	 0 (480°C, 896°F)
900M-T-I	 -10°C, -18°F (470°C, 878°F)
900M-T-H	 -20°C, -36°F (460°C, 860°F)
900M-T-1.8H	 -10°C, -18°F (470°C, 878°F)

\* 900M Tip Out Diam Ø6.5

900L	
900L-T-B	 0 (480°C, 896°F)
900L-T-2B	 0 (480°C, 896°F)
900L-T-2.4D	 0 (480°C, 896°F)
900L-T-3.2D	 0 (480°C, 896°F)
900L-T-2C	 -20°C, -36°F (460°C, 860°F)
900L-T-2CF*	 0 (480°C, 896°F)
900L-T-3C	 0 (480°C, 896°F)
900L-T-3CF*	 0 (480°C, 896°F)
900L-T-4C	 0 (480°C, 896°F)
900L-T-4CF*	 0 (480°C, 896°F)
900L-T-5C	 0 (480°C, 896°F)
900L-T-5CF*	 0 (480°C, 896°F)
900L-T-I	 -20°C, -36°F (460°C, 860°F)
900L-T-K	 +20°C, +36°F (500°C, 932°F)

\* 900L Tip Out Diam ø8.5

★ These tips are tinned flat only.

## ● Caution

- 1) Use exclusive tips for HAKKO 900 only.
- 2) The set temperature should be adjusted according to the tip configuration.

If required, adjust the temperature with “CAL” potentiometer on bottom of station when changing tip configurations.

The temperature is increased by turning “CAL” clockwise.

- 3) When using the Soldering Iron continuously loosen Tip and remove oxide once a week.

This helps prevent seizure and reduction of Tip temperature.

- 4) Tin the tip daily as follows ;

1. Clean the Tip.
2. Set the temperature at 200°C (392°F).
3. Melt the solder gradually at the tip.

- 5) For heavy duty soldering, HAKKO recommends The 900L Iron with heavier tips.

■ The tip temperature may vary depending on the figure. Refer to the left chart for the quick and temporary adjustment.

## Trouble Shooting Guide

**Problem : Turn the power switch on, but Tip does not heat up or over heating.**

Condition : The power lamp doesn't light up.

CheckPoint : Is the fuse blown?

Condition : The fuse is blown.

CheckPoints : 1. Is the inside of the iron short-circuited?

2. Is the grounding spring touching the Heating Element?

3. Is the Heating Element Lead twisted and short-circuited?

Condition : The power lamp lights up but the LED Heater Lamp doesn't blink.

CheckPoints : 1. Is the Connecting Plug connected correctly?

2. Is the Heating Element Lead broken?

Condition : The Power Lamp and The LED Heater Lamp lights up.

CheckPoints : 1. Is the Heating Element broken?

2. Is the Cord Asse'y broken?

**Problem : The Tip heats up intermittently.**

CheckPoint : 1. Is the Cord Asse'y almost broken?

**Problem : The Tip doesn't wet.**

CheckPoints : 1. Is the Tip temperature too high?

2. Is the Tip cleaned?

**Problem : The Tip doesn't have desired temperature.**

CheckPoint : Is the iron calibrated correctly?

**Problem : The Tip can not be pulled off.**

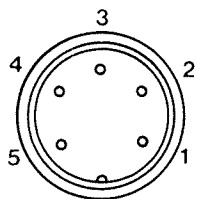
CheckPoints : 1. Is the Tip seised?

2. Is the Tip expanded by deterioration.

NOTE: When repairs are needed, please send both the Soldering Iron and the station to your sales agent.

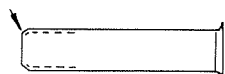
■ How to check the breakage of Heating Element and Cord Asse'y.

Disconnect the Connecting Plug and measure the resistance value between pins of Connecting Plug as follows :

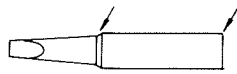


a	Between pin 4 & pin 5 (Heating Element)	2.5~3.5 ohm (Normal)
b	Between pin 1 & pin 2 (Sensor)	43~58 ohm (Normal)
c	Between pin 3 & Tip (Grounding)	Under 10 ohm

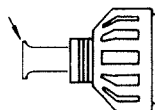
- (1) If the value of "a" & "b" is different from above value, replace the Heating Element (Sensor) or Cord Asse'y.
- (2) If the value of "c" — between pin 3 and tip (Grounding) is over above value, remove the oxidization film by rubbing lightly points shown as under with sand-paper or steel wool.



Tip Enclosure



Tip



Nipple

- If the problem remains unsolved after check in the Soldering Iron, the Station may have a problem.

Please contact your nearest HAKKO representative.

■ If the tip doesn't wet.

- Tip temperature is higher than desired.

Recalibrate by adjusting "CAL" on the bottom of the Station.

- Tip is oxidized or dirty,

1. Clean up with Cleaning Sponge.

2. Set the Tip temperature at 250°C (482°F), and clean oxidized or dirty Tip with steel wool.

※ Never file or rub excessively specially plated tip.

3. Melt the solder gradually at the tip.



## **Recalibrating of Iron Temperature**

After replacing the Heating Element or replacing the tip, recalibrate the temperature of the Soldering Iron.

- 1) Connect the Plug of Soldering Iron to the Station and lock it.
- 2) Set Temperature Control Dial at 400°C (752°F).
- 3) Turn the Power Switch on and wait till the L.E.D. Heater Lamp comes on and off.
- 4) Adjust the temperature of Tip at 400°C (752°F) by “CAL” on the bottom of the Station using thermometer.

## **Conditions of Measurement**

### **●Tip Temperature**

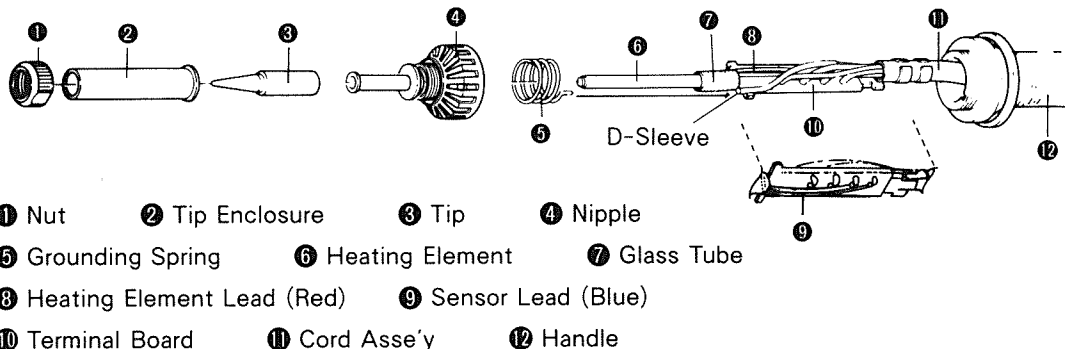
The tip temperature was measured using HAKKO 191 thermometer.

### **●Insulation Resistance**

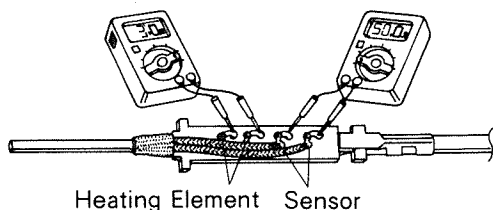
The insulation resistance was measured between the tip and the lead of the Heating Element using a 500V DC insulation resistance meter.

Caution : The insulation resistance cannot be measured between the tip and the power plug as the transformer between the secondary part (Heating Element) and the primary part acts as an insulator.

# Replacing Heating Element



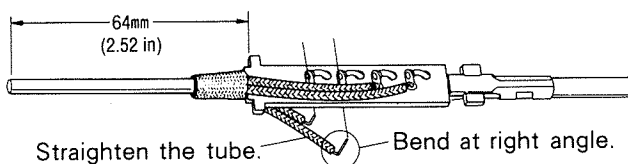
- 1) Turn the Nut ① counterclockwise and remove the Tip Enclosure ②, the Tip ③.
- 2) Turn the Nipple ④ counterclockwise and remove it from Iron.
- 3) Pull both the Heating Element ⑥ and the Cord Asse'y ⑪ out of the Handle ⑫ (toward the tip of the Iron).
- 4) Pull the Grounding Spring ⑤ out of the D-Sleeve.
- 5) Measure the resistance value at the Sensor and Heating Element of the Terminal.



Resistance Value of Heating Element	2.5~3.5Ω
Resistance Value of Sensor	43~58Ω

Measure in normal condition

- If the resistance value is not normal, replace the Heating Element.
  - If the resistance value is normal, the Cord Asse'y may be broken.
- 6) Desolder the Heating Element Leads.
  - In the above Item 5 & 6, be careful not to damage the leads with soldering iron.



- 7) Solder the new Heating Element. Solder two Sensor Leads (blue) and Heating Element Leads (red) on the Terminal Board ⑩ as above drawing.
- There is no polarity between leads of the same color.
- 8) Insert the Grounding Spring into the Heating Element. And connect the Grounding Spring and D-sleeve on the side of the Heating Element Leads.
- 9) Pull the Power Cord and fix the Heating Element in the Handle to prevent rolling.
- 10) Turn the Nipple and secure the Handle.
- 11) Replace the Nipple ④, the Tip ③, the Tip Enclosure ② and secure the Nut ①.

## Replacement Parts

No.	Name/Specifications
900M-H	Heating Element for 900M Ceramic 24V 50W
B1784	Nut for 900M
B1786	Tip Enclosure for 900M
900M-044	Nipple for 900M
900M-044S	Nipple for 900M (ESD Type)
900M-036	Grounding Spring for 900M
900L-H	Heating Element for 900L, Ceramic 24V 50W
B1794	Nut for 900L
B1787	Tip Enclosure for 900L
900L-044	Nipple for 900L
900L-044S	Nipple for 900L (ESD Type)
900L-036	Grounding Spring for 900L
900-039	Cord Asse'y for 900M and 900L
900-039S	Cord Asse'y for 900M and 900L (ESD Type)
926-029	Cleaning Sponge
926-022	Holder Part
609-041	Iron Receptacle



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