

# HAKKO 951·952

SOLDERING GUN

## Instruction Manual

Thank you for purchasing the Hakko 951/952 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 951/952.  
 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.
- When inserting solder, be sure to push up the trigger and insert the solder until the end of the solder protrudes from the guide nozzle.

### ■ Packing List

Soldering gun

### ■ Applicable Models

In order to function, the Hakko 951/952 must be connected to one of the following Hakko stations: Hakko 700, 701, 702, 702B, 926, 927, 928, 936, 937.

### ■ Specifications

Name	Hakko 951	Hakko 952
Power consumption	AC 24 V 50 W	
Temperature range	200°C–480°C/392°F–896°F	
Tip to ground resistance	Under 2 Ω	
Tip to ground potential	Under 2 mV(TYP. 0.6 mV)	
Heating Element	Ceramic heater	
Standard tip	Shape-3C Pre-tinned surface 55° (No.900M-T-S10)	Shape-B (No.900L-T-B)
Standard guide nozzle (Solder diameter)	ø1.0 mm (0.039 in.)	
Usable solder diameter	ø0.6, 0.8, 1.0, 1.2 1.6 mm (ø0.024, 0.031, 0.039, 0.047, 0.063 in.)	
Cord assembly	1.1 m (3.6 ft.)	
Total length (w/o cord) H × W × D	180 × 170 × 23 mm (7.1 × 6.7 × 0.9 in.)	
Weight (w/o cord)	177 g (0.39 lbs.)	187 g (0.41 lbs.)

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

### ■ 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.

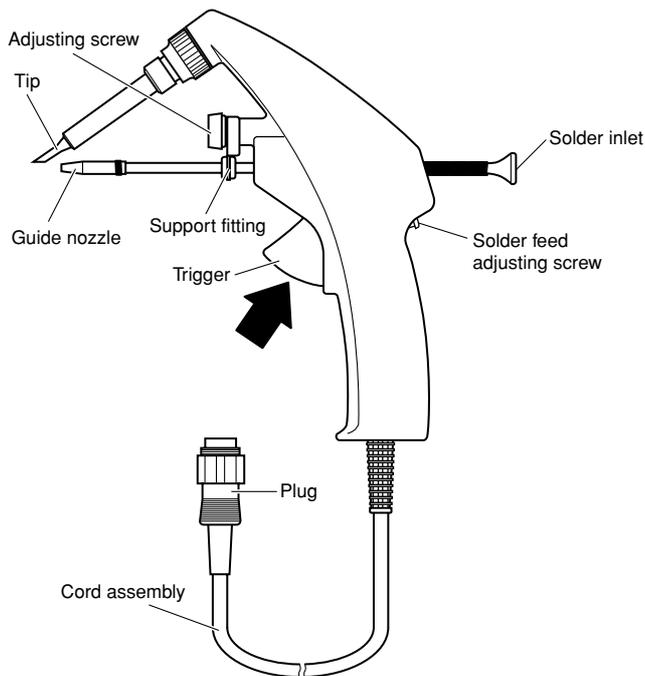
#### ⚠ CAUTION

**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 951/952 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 951/952.
- Use only genuine Hakko replacement parts.
- Do not allow the Hakko 951/952 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

English  
中文



## Operation

### ① Inserting the solder

Push and hold the trigger upward in the direction of the arrow and pass solder through the solder inlet until it protrudes from the guide nozzle.

#### CAUTION

The solder may become stuck inside the unit if the trigger is pulled before the solder protrudes from the guide nozzle.

### ② Feeding the solder

Return the trigger to its original position after inserting the solder. Solder can now be fed by pulling the trigger.

#### CAUTION

Keep the solder loose (without tension) on the solder inlet side at all times while soldering.

### 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.

### ④ Solder feed adjustment

Adjust the solder feed pitch by turning the solder feed adjusting screw with a screwdriver.

The feed pitch decreases as the screw is tightened.

(Range: minimum of 2 mm (0.079 inch) to maximum of 8 mm (0.315 inch))

### ⑤ Changing to a different solder diameter

To change to a different diameter of solder, push and hold the trigger upward in the direction of the arrow and pull the current solder out of the unit via the solder inlet. Then insert the new solder as described under "Inserting solder" above.

### ⑥ Connections

1. Make sure the station power switch is OFF and connect the plug to the receptacle of the station.
2. Place the Hakko 951 or 952 on the iron holder (optional).
3. Plug the power cord into a grounded wall socket.  
Be sure the unit is grounded.

### ⑦ Calibration

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

\* Use a Hakko 191 Thermometer or a Hakko 192 Soldering Tester to measure the tip temperature.

## Troubleshooting guide

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

### The solder clogs.

**CHECK** : Are you attempting to pull solder from a reel with the operation of the trigger?

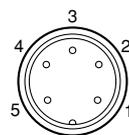
**ACTION** : Do not pull solder from a heavy reel with the trigger. Keep the solder loose (without tension) on the solder inlet side at all times while soldering.

**CHECK** : Was the solder inserted properly?

**ACTION** : Refer to "Inserting the solder" under "Operation."

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

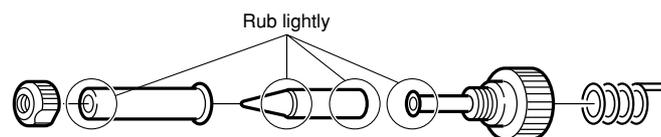
Disconnect the plug and measure the resistance between the connecting plug pins as follows.



a. Between pins 4 & 5 (Heating element)	2.5 – 3.5Ω (Normal)
b. Between pins 1 & 2 (Sensor)	43 – 58Ω (Normal)
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

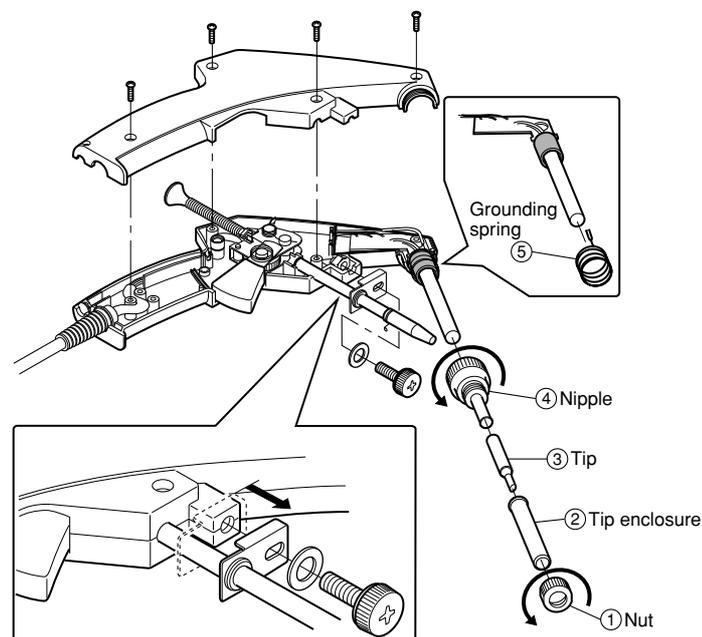
#### Disassembling the 951/952

1. Remove the adjusting screw and keep the support fitting apart from the housing.
2. Turn the nut ① counterclockwise and remove the tip enclosure ②, the tip ③.

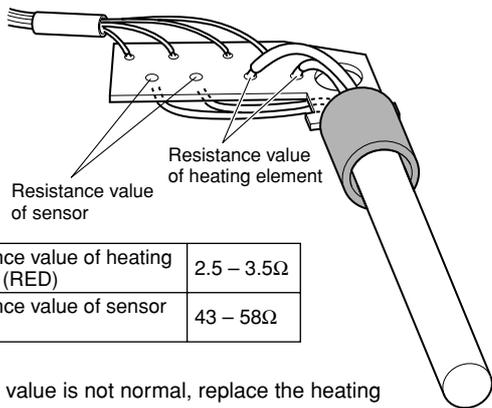
#### CAUTION

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 ④ counterclockwise and remove it from the gun.
4. Remove the 4 screw securing the housing and open the housing.
5. Pull the grounding spring ⑤ 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.

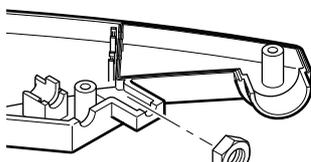
(Refer to the instructions included with the replacement part.)

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.
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

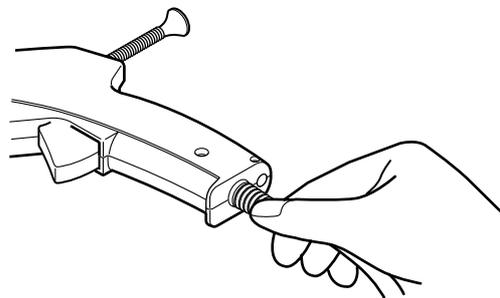
② **Broken soldering gun cord**

There are two methods of testing the soldering gun cord.

**CAUTION**

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

1. Turn the unit on and set the temperature to 480°C (896°F). Then 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.



2. Check the resistance value between the pin of the plug and the wire on the terminal.  
Pin 1: Red Pin 2: Blue Pin 3: Green Pin 4: White Pin 5: Black  
The value should be 0Ω.  
If it 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.

**Examples:** When using a 900M-T-0.8C tip at 400°C (750°F), the difference between this tip and standard tip is -10°C (-18°F). Set the temperature to 410°C (768°F). Refer to the chart for the correct adjustment values.

**951** 951 tip out diam. ø6.5mm

900M-T-1.6D 0°C 	900M-T-0.8C -10°C/-18°F 	900M-T-S4 0°C 
900M-T-2.4D 0°C 	900M-T-2C/900M-T-2CF* 0°C 	900M-T-S10* 0°C 
900M-T-3.2D 0°C 	900M-T-3C/900M-T-3CF* 0°C 	900M-T-S11* 0°C 
900M-T-SB 0°C 	900M-T-4C/900M-T-4CF* 0°C 	
900M-T-B/900M-T-BF2* 0°C 	900M-T-K +30°C/+54°F 	

\*BF2 is tinned a distance of 2mm (0.08 in.) from the end of the tip.

**952** • For heavy duty soldering Hakko recommends the 952 gun with heavier tips. 952 tip out diam. ø8.5mm

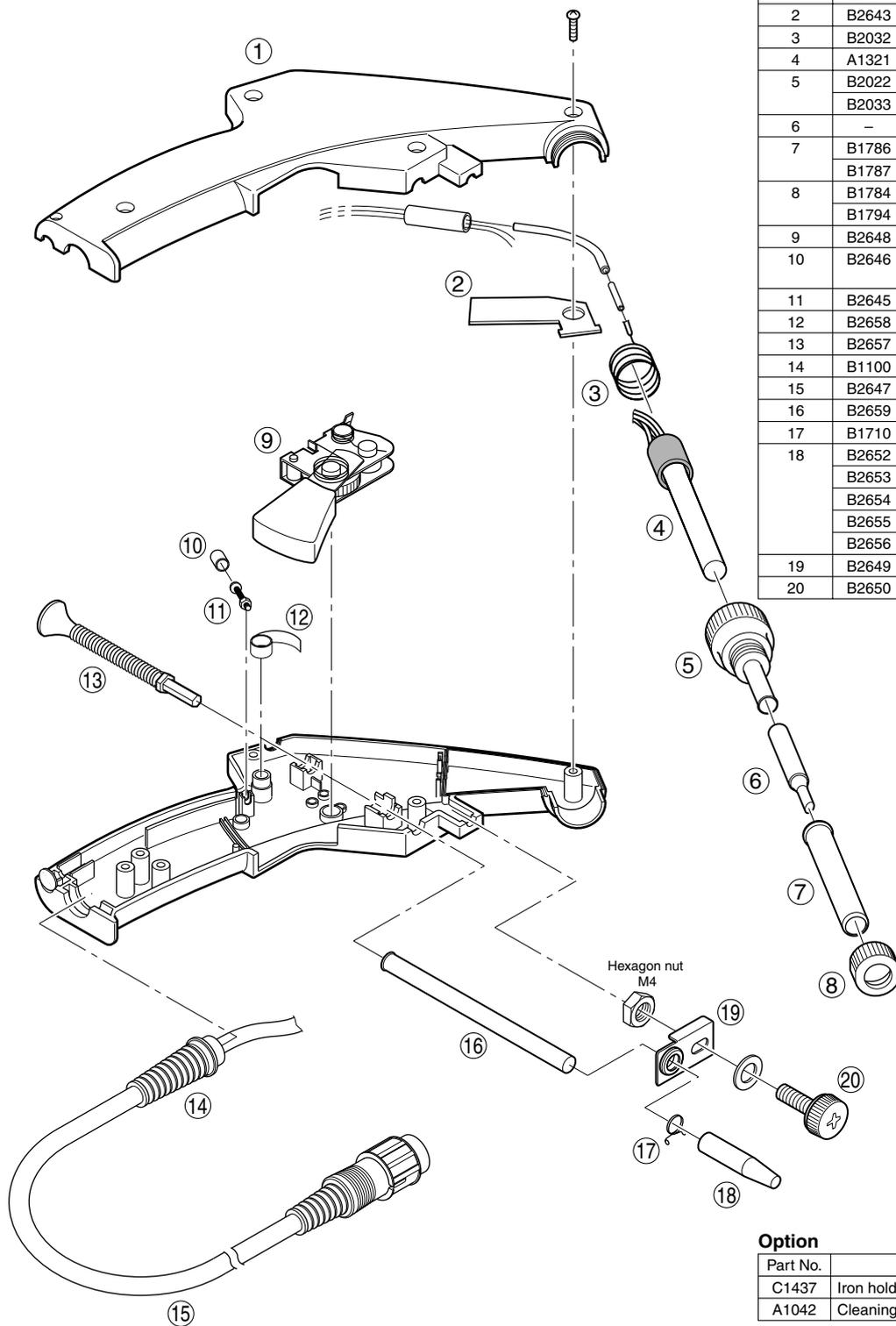
900L-T-B 0°C 	900L-T-3.2D 0°C 	900L-T-4C/900L-T-4CF* 0°C 
900L-T-2B 0°C 	900L-T-2C/900L-T-2CF* -20°C/-36°F 	900L-T-5C/900L-T-5CF* 0°C 
900L-T-2.4D 0°C 	900L-T-3C/900L-T-3CF* 0°C 	900L-T-K +20°C/+36°F 

**CAUTION** Use only genuine replacement tips for Hakko 951,952. 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



Item No.	Part No.	Part Name	Description
1	B2644	Housing	With screws, labels
2	B2643	Terminal board	
3	B2032	Grounding spring	
4	A1321	Heating element	
5	B2022	Nipple	For 951
	B2033	Nipple	For 952
6	-	Soldering tip	See page 3
7	B1786	Tip enclosure	For 951
	B1787	Tip enclosure	For 952
8	B1784	Nut	For 951
	B1794	Nut	For 952
9	B2648	Trigger set	
10	B2646	Solder feed adjusting screw guide	
11	B2645	Solder feed adjusting screw	With nut
12	B2658	Spring for trigger asse'y	
13	B2657	Solder inlet	
14	B1100	Cord bushing	
15	B2647	Cord asse'y	
16	B2659	Guide pipe	
17	B1710	Nozzle securing ring	
18	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	
19	B2649	Support fitting	With grommet
20	B2650	Adjusting screw	For guide pipe

### Option

Part No.	Part Name	Description
C1437	Iron holder	
A1042	Cleaning sponge	

# HAKKO 951·952

SOLDERING GUN

## 使用說明書

### 日本白光牌

承蒙惠顧，謹致謝忱

本商品為內裝焊錫推送機構之焊鐵，而可用單手進行焊接。  
 請詳閱本使用說明書，正確使用。閱後請妥為收存，以備日後查閱。

#### ⚠ 注意

- 初次使用本品之前，請務必校正焊鐵頭溫度。詳細請參閱要組裝使用之各電焊臺之說明書。
- 插入焊錫時，請務必推上扳機，並插入到底直到焊錫之前端露出導管嘴為止。

#### ■包裝內容

本體

#### ■適應之電焊臺

Hakko951.952請組合使用下述之電鐵臺。  
 Hakko700.701.702.702B.926.927.928.936.937

#### ■規格

名稱	Hakko951	Hakko952
功率消耗	AC24V 50W	
控制溫度	200-480度	
焊鐵頭與接地間阻抗	低於2Ω	
焊鐵頭與接地間電位	低於2mV(代表電位值 0.6mV)	
發熱元件	陶瓷發熱元件	
標準焊鐵頭	3CF(55°)型 (No.900M-T-S10)	B型 (No.900L-T-B)
標準導管嘴錫線直徑	φ 1.0	
使用錫線直徑	φ 0.6, 0.8, 1.0, 1.2, 1.6	
電線	1.1m	
尺寸(不包括電線) (H)×(W)×(D)	180×170×23mm	
重量(不包括電線)	177g	187g

※規格及外觀，可能改良變更，恕不另行通知。

#### ■警告、注意

##### ⚠ 警告

本說明書注意事項區分為如下之「警告」「注意」以表示。

- ⚠警告：濫用可能致人死亡或負重傷者。
- ⚠注意：濫用可能使人員負傷或財物受損者。

##### ⚠ 注意

當電源接通時，焊鐵頭溫度會達到攝氏200~480度的高溫。  
 鑑於濫用可能導致使用者灼傷、火患。請嚴格遵守以下注意事項：

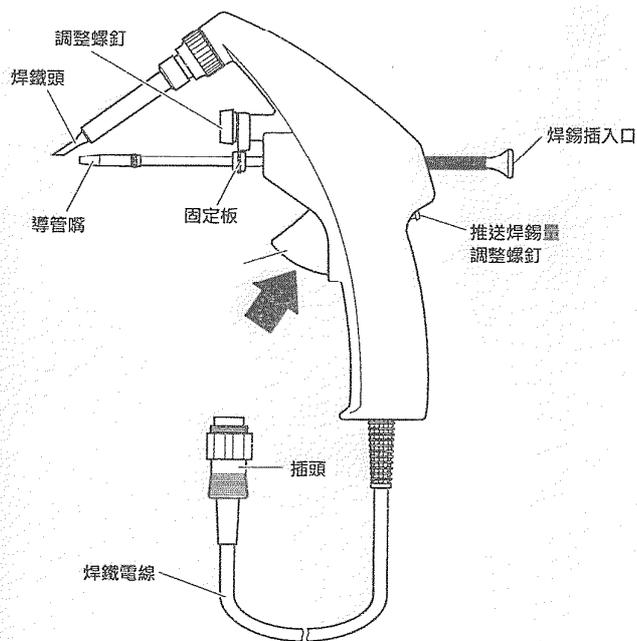
- 切勿碰觸焊鐵頭或其周圍的金屬部分。
- 切勿在易燃物附近使用焊鐵頭。
- 通知周圍的人，焊鐵頭極為灼熱，切勿碰觸。
- 使用暫停、結束或要離開時關閉電源。
- 更換部件或裝置焊鐵頭時，應關掉電源，並待焊鐵冷卻室溫。

##### ⚠ 注意

以下注意事項與事故或故障有關，請務必遵守。

- 切勿使用本說明書所述的內容以外的用途。
- 初次使用之前，請務必校正焊鐵頭溫度。
- 切勿為了弄掉焊鐵上的錫屑而用力敲打。此舉會損及焊鐵。
- 切勿改裝本產品。
- 更換零件時，使用Hakko正廠部件。
- 切勿將本品泡水或用濕手使用。
- 焊接時會冒煙，請做好通風。
- 拔出電線時，請抓住插頭。切勿拉住電線。

## ■各部名稱



## ■使用方法

### ① 焊錫之插入

朝箭頭之方向推上扳機並它按住不動，將焊錫筆直插進插入口而從導管嘴露出。



如果焊錫從導管嘴露出之前扳動扳機的話，可能使焊錫塞在內部。

### ② 推送焊錫

使扳機回到原來的位置並扳動之，即可推送焊錫。



插進插入口之焊錫請經常保持鬆弛之狀態而使用。

### ③ 導管嘴之調整

調整焊鐵頭與焊錫對準之位置。

請鬆開調整螺釘，將導管嘴上下移動而調整。

### ④ 推送焊錫量之調整

推送焊錫量之調整，請以起子轉動推送焊錫量調整螺釘。

鎖進愈緊，焊錫線推送量變為愈少。

(最小約2mm—最大8mm)

### ⑤ 變更焊錫線之線徑

變更焊錫線之線徑時，朝箭頭之方向推上扳機並它按住不動而拉動焊錫線，即可輕易拔出。

插入新焊錫時，按照①焊錫之插入方法插入。

### ⑥ 連接

1. 確認電焊臺之電源開關為OFF，將插頭連接到電焊臺之插座。

2. 將Hakko951、952放在焊鐵架(選購品)上。

3. 將電源插頭插入電源插座。

請務必接地後使用之。電源線為2芯時，請將接地線連到主機後面之接地端子以進行接地。

### ⑦ 校正

使用之前請務必進行校準焊鐵頭溫度。

(請參照電焊台之處理說明書。)

※焊鐵頭溫度之測定，請使用Hakko191焊鐵頭溫度計或Hakko192測試器。

## ■排除故障指南

詳細請參閱電焊臺之說明書。

### 焊錫塞住

**檢查**：操作扳機時，焊錫是否直接從焊線軸拉出？

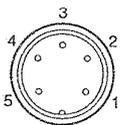
**處置**：請勿以扳機操作來拉動重的焊線軸。  
插入口之焊錫請經常保持鬆弛之狀態而使用之。

**檢查**：是否弄錯焊錫之插入方法？

**處置**：請確認使用方法之"焊錫之插入"。

## ■發熱元件、焊鐵電線破損之檢查方法

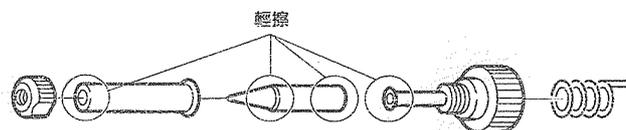
拔出電線之插頭，測試焊鐵之腳電阻值。



a. 第4腳與第5腳之間(發熱元件)	2.5-3.5歐姆(正常)
b. 第1腳與第2腳之間(傳感器)	43-58歐姆(正常)
c. 第3腳與焊鐵頭之間	2歐姆以下

如果"a"與"b"之間的電阻值有異於上表電阻值，需更換發熱元件(傳感器)和/或電線。

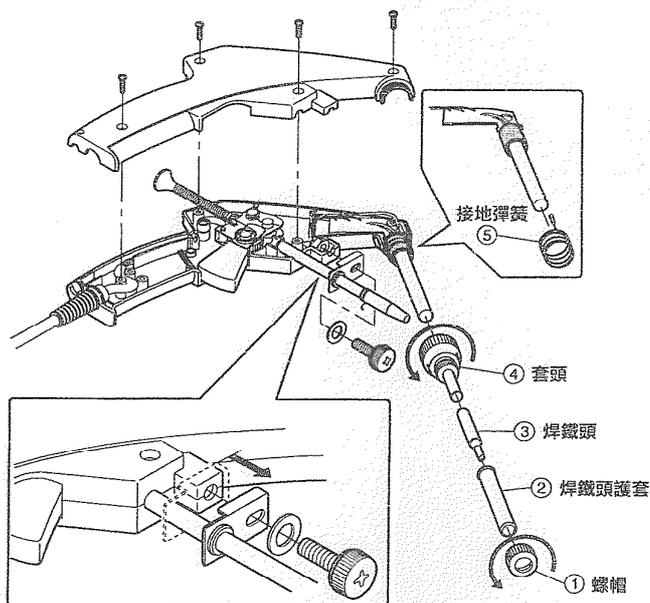
如果"c"電阻值大於上表電阻值，則要用砂紙或鋼絨輕輕擦除下圖所示部位的氧化層。



### ① 發熱元件破損

#### 951,952分解方法

- 取出調整螺釘，將固定板從護殼隔開
  - 向反時針方向扭開螺帽①，取出焊鐵頭護套②和焊鐵頭③。
- 注意**
- 必須取出螺帽①之後才取出套頭④。如果先取出套頭，發熱元件之引線會被扭曲，可能引起短路。
- 向反時針方向扭開套頭④，從焊鐵中拉出套頭。
  - 取出4個螺釘打開護殼。
  - 從套管中拉出接地彈簧⑤。



※當發熱元件回復到室溫時測。



發熱元件電阻值(紅色)	2.5-3.5歐姆
傳感器電阻值(藍色)	43-58歐姆

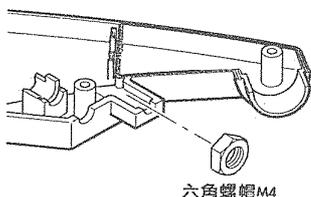
如果電阻值反常，更換發熱元件。

(關於更換程序，請參閱更換部件內的說明書。)

1. 測量第4腳和第1或第2腳之間，第5腳和第1或第2腳之間電阻值。如果不是 $\infty$ ，則是發熱元件和傳感器受觸及，這將會損壞印刷電路板。
2. 測量"a""b""c"電阻值以確定引線未被扭曲，而接地彈簧也連接妥當。

**注意**

組裝時，請確認六角螺帽之凸部分與護體的凹部分適合。



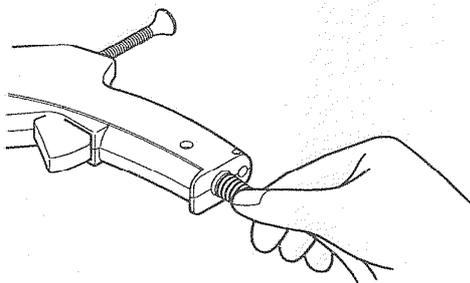
**② 焊鐵電線破損**

測試焊鐵電線有以下兩個方法：

**注意**

雖然焊鐵電線正常，當溫度達到480度時，發熱器指示燈會閃亮。

1. 按開焊鐵電源，溫度設定為480度。在焊鐵電線的各個不同部位(包括鬆緊部位)搖動或纏結，如果發熱器指示燈閃亮，則應更換電線。



2. 測試焊鐵插頭腳和終端板電線之間的電阻值。

腳1—紅色腳2—藍色腳3—綠色腳4—白色腳5—黑色電阻值應為0歐姆，若大過0歐姆或 $\infty$ ，應更換電線。

**■ 部件清單(焊鐵頭)**

不同款型焊鐵頭的溫度可能有所不同。調節的最理想方法是使用測量焊鐵頭溫度計。

除了以上的調節方法以外，也可以採用下述方法調節。

利用控溫旋鈕按照各款型焊鐵頭溫度調節。

例如：當使用900M-T-0.8型溫度在於400度時，與標準焊鐵頭溫度相差-10度。因此必須調節控溫旋鈕為410度。

**951**

900M-T-1.6D 0°C Ø1.6 0.5 3 17	900M-T-0.8C -10°C/-18°F Ø0.8 45° 17	900M-T-S4 0°C Ø2 R0.25 15
900M-T-2.4D 0°C Ø2.4 0.5 5 17	900M-T-2C/900M-T-2CF* 0°C Ø2 45° 17	900M-T-S10* 0°C Ø2 55° 17
900M-T-3.2D 0°C Ø3.2 0.5 6.5 17	900M-T-3C/900M-T-3CF* 0°C Ø3 45° 17	900M-T-S11* 0°C Ø3 55° 17
900M-T-SB 0°C Ø2 R0.2 14	900M-T-4C/900M-T-4CF* 0°C Ø4 45° 17	
900M-T-B/900M-T-BF2* 0°C Ø2 R0.5 17	900M-T-K +30°C/+54°F Ø2 45° 15	

※BF2有2mm鍍錫

951焊鐵頭外徑Ø6.5

**952** ※若進行繁重焊接工作，我方建議您選用配備有較強功能焊鐵頭的952型焊鐵。

900L-T-B 0°C Ø0.5 R0.5 20	900L-T-3.2D 0°C Ø3.2 0.5 8 20	900L-T-4C/900L-T-4CF* 0°C Ø4 45° 20
900L-T-2B 0°C Ø1 R1 20	900L-T-2C/900L-T-2CF* -20°C/-36°F Ø2 45° 20	900L-T-5C/900L-T-5CF* 0°C Ø5 45° 15
900L-T-2.4D 0°C Ø2.4 0.5 5 20	900L-T-3C/900L-T-3CF* 0°C Ø3 45° 20	900L-T-K +20°C/+36°F Ø2 45° 18

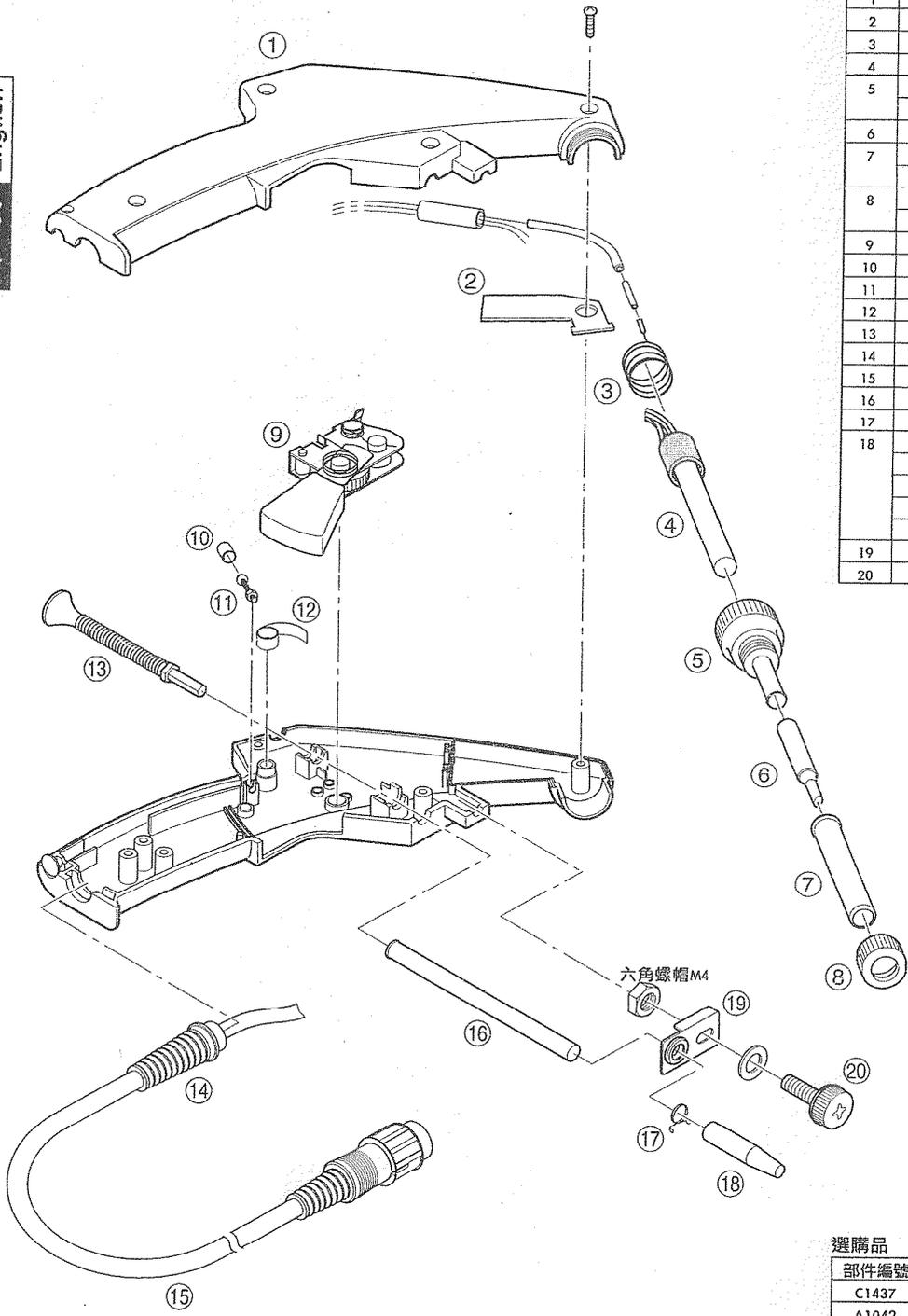
952焊鐵頭外徑Ø8.5

**注意** 請使用951.952用的焊鐵頭。不能使用HakkoDASH之焊鐵頭。 ★此款鏢咀只在平坦部鍍錫。

# ■ 部件清單

註：安裝螺絲如果在規格表內沒有記載時，請另外訂購。

中文 English



圖號	部件編號	部件名稱	規格
1	B2644	護脷	附螺釘, 貼紙
2	B2643	終端板	
3	B2032	接地彈簧	
4	A1321	發熱元件	
5	B2022	套頭	
	B2033	套頭	
6	—	焊鐵頭	參照第3頁
7	B1786	發熱元件護套	
	B1787	發熱元件護套	
8	B1784	螺帽	
	B1794	螺帽	
9	B2648	扳機組件	
10	B2646	推送焊錫調整螺釘導承	
11	B2645	推送焊錫調整螺釘	
12	B2658	扳機齒輪塞彈簧	
13	B2657	焊錫插入口	
14	B1100	電線束	
15	B2647	焊鐵電線附插頭	
16	B2659	導承管	
17	B1710	固定導管嘴圈	
18	B2652	導管嘴 / 0.6MM ESD	
	B2653	導管嘴 / 0.8MM ESD	
	B2654	導管嘴 / 1.0MM ESD	
	B2655	導管嘴 / 1.2MM ESD	
	B2656	導管嘴 / 1.6MM ESD	
19	B2649	固定板	
20	B2650	調節螺釘	

### 選購品

部件編號	部件名稱	規格
C1437	錫鐵架	
A1042	清潔海綿	



## 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) 898-HAKKO

HONG KONG: HAKKO DEVELOPMENT CO., LTD.  
TEL: 2811-5588 FAX: 2590-0217  
http://www.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

E-mail: info@hakko.com.hk

E-mail: sales@hakko.com

E-mail: sales@hakko.com.sg

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

<http://www.hakko.com/address>