



HAKKO 941

SOLDERING STATION

電 焊 臺

Instruction Manual

使用說明書

日本白光牌

English

Thank you for purchasing the Hakko 941 soldering station. This high-output, temperature controlled compact soldering station uses a composite tip, incorporating heater and sensor functions into one element. Several process control features, unique to the Hakko 941, make it applicable to a broad range of soldering applications. Please read this manual before operating the Hakko 941. Keep this manual readily accessible for reference.

承蒙惠顧，謹致謝忱。

本產品採用合成組件（發熱元件，傳感器複合體，一體型焊鐵頭），為廣泛適用於微焊接到大容量焊接的高輸出小型調溫式焊鐵。

使用Hakko 941前，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。

目 錄

TABLE OF CONTENTS

目 錄

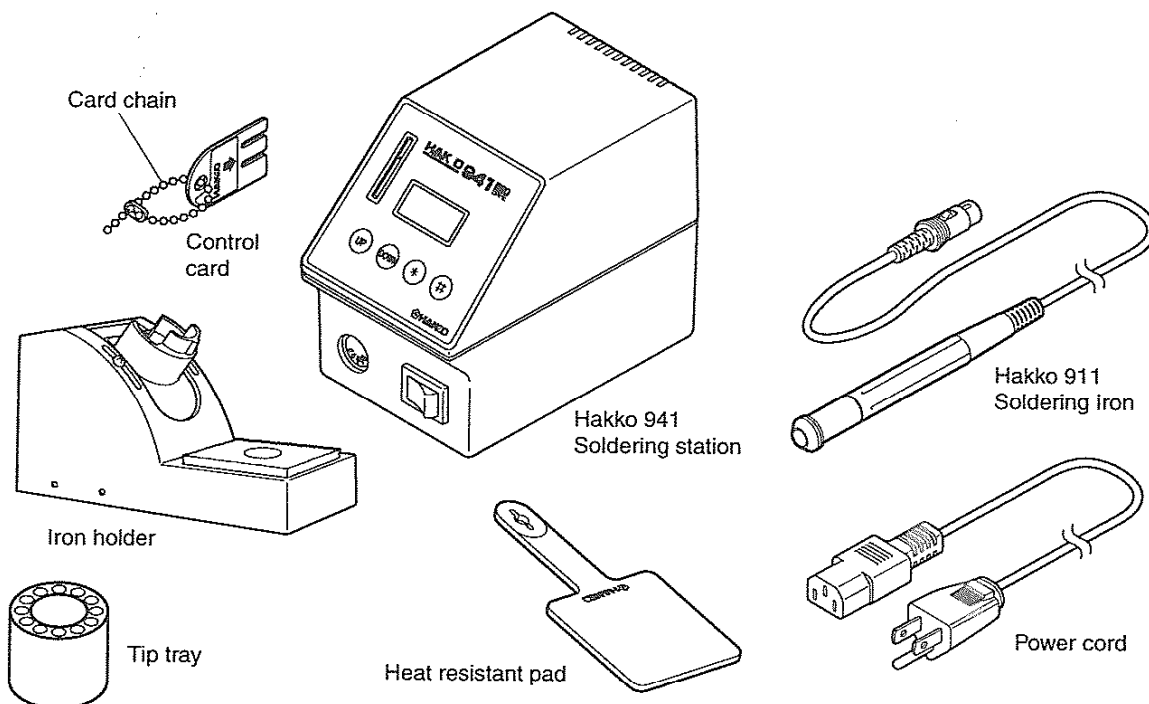
1. PACKING LIST	1
2. SPECIFICATIONS	1
3. WARNINGS, CAUTIONS, NOTES AND EXAMPLES ...	2
4. PART NAMES	3
5. INITIAL SETUP	4
6. OPERATION	6
7. ENTERING TIP OFFSET VALUES	9
8. PARAMETER SETTINGS	10
9. MAINTENANCE	12
10. ERROR MESSAGES	14
11. TROUBLE SHOOTING GUIDE	15
12. PARTS LIST	16
13. TIP STYLES	18
14. WIRING DIAGRAM	19

1. 包裝清單	20
2. 規格	20
3. 警告、注意、備註及例子	21
4. 各部名稱	22
5. 組裝	23
6. 使用方法	25
7. 焊鐵頭補正值的輸入	28
8. 參數設定	29
9. 保養	31
10. 錯誤標記	33
11. 排除故障指南	34
12. 部件清單	35
13. 焊鐵頭之種類	37
14. 電路圖	38

1. PACKING LIST

Hakko 941 soldering station	1	Tip tray	1
Hakko 911 soldering iron	1	Cleaning sponge	1
Power cord	1	Instruction manual	1
Control card	1	Card chain	1
Heat resistant pad	1	Tips (not included)	
Iron holder	1		

English



2. SPECIFICATIONS

● Hakko 941 soldering station

Power consumption	50 W total
Temperature range	200 – 450°C (400 – 840°F)
Temperature stability	±2.5°C (±5°F) at idle temperature See Figure 1.

● Station

Output	15 V
Dimensions (l × w × h)	145 × 85 × 108 mm. (5.7 × 3.3 × 4.3 in.)
Weight	1,300 g (2.9 lb.)

● Hakko 911 soldering iron

Power consumption	45 W (15 V)
Tip to ground resistance	< 2 Ω
Tip to ground potential	< 2 mV
Length, less cord	172 mm (6.8 in.) with 2.4D tip
Weight, less cord	30 g (0.067 lb./1.07 oz.) with 2.4D tip
Length of cord	1.2 m (4 ft.)

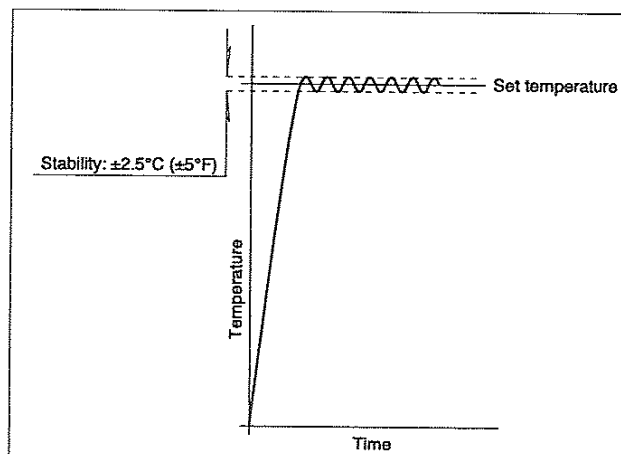



Figure 1. Temperature stability


NOTE:

The temperatures were measured using the Hakko 191 thermometer.
This product is protected against electrostatic discharge.
Specifications and design are subject to change without notice.

3. WARNINGS, CAUTIONS, NOTES AND EXAMPLES

Warnings, cautions and notes 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.

NOTE: A NOTE indicates a procedure or point that is important to the process being described.

EXAMPLE: An EXAMPLE is given to demonstrate a particular procedure, point or process.

CAUTION

When power is ON, tip temperatures will be between 200 and 450°C. (392 to 840°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 when changing parts or storing the Hakko 941.

CAUTION

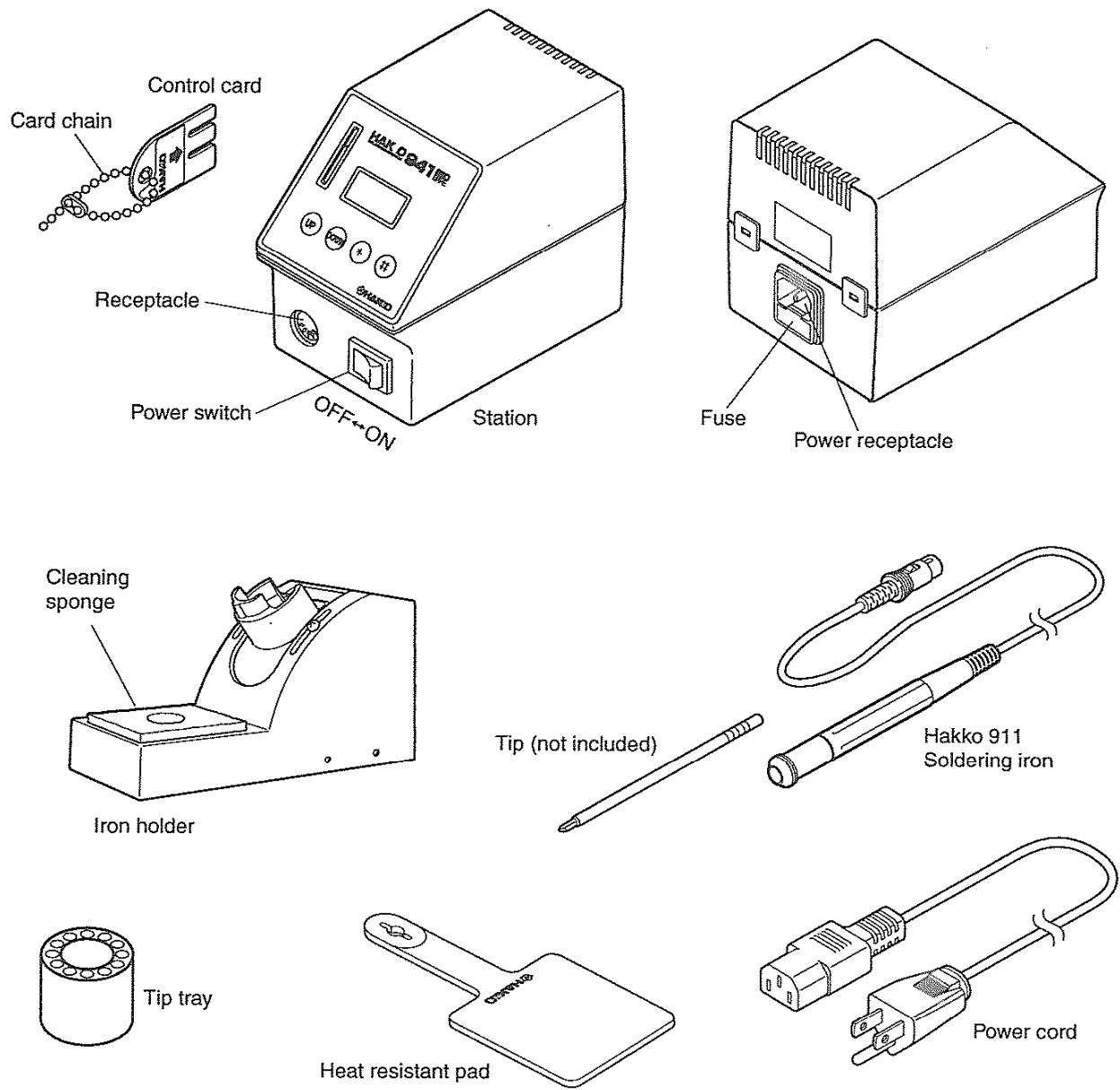
To prevent accidents or damage to the Hakko 941, be sure to observe the following:

- Do not use the Hakko 941 for applications other than soldering.
- Do not allow the Hakko 941 to become wet, or use it when hands are wet.
- Do not modify the Hakko 941.
- Use only genuine Hakko replacement parts.
- Do not bend or damage the control card. If the card does become damaged, do not force the card into the station slot.
- Do not strike the iron against hard objects to remove excess solder. This will damage the iron.
- Remove power and iron cords by holding the plug – not the wires.
- Be sure the work area is well ventilated. Soldering produces smoke.
- The Hakko 941 is not intended for use by children or infirm persons without supervision.
- Children should be supervised to ensure that they do not play with the Hakko 941.

Note: The model Hakko 941 station is not available for sale or use in the United States.

4. PART NAMES

English



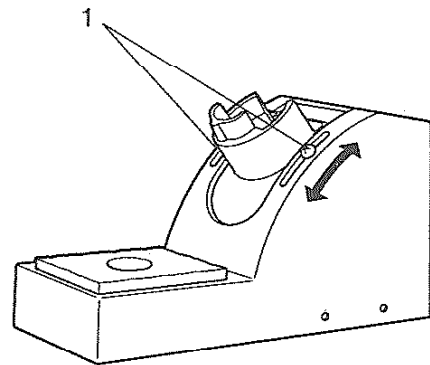
5. INITIAL SETUP

A. Iron holder

1. Adjust the height of the iron holder to suit, as follows:
 - i. Loosen the adjusting screws.
 - ii. Set the iron holder to the desired height.
 - iii. Tighten the screws.
2. Put the small cleaning sponge in one of the four holes in the iron holder base.
3. Add water to the level shown in the accompanying illustration. The small sponge will keep the large sponge moist through capillary action.
4. Wet the large cleaning sponge, squeeze it dry, and put it on the iron holder base.
Procedure 2-4 – OR –
Wet the large cleaning sponge, squeeze it dry, and put it on the iron holder base.
5. Place the spare tips in the tip tray.

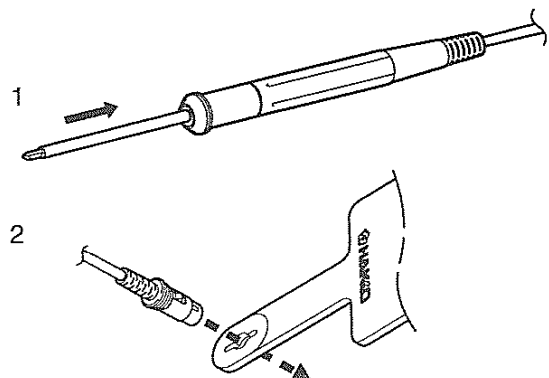
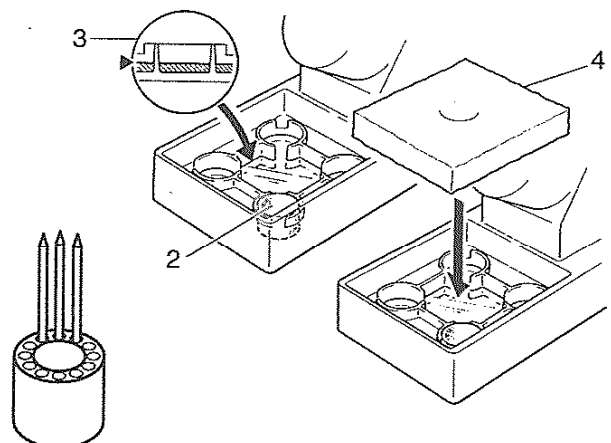
B. Handpiece

1. Insert the tip fully into the handpiece (Hakko 911).
There are no orientation requirements.
2. Pass the iron cord through the hole in the heat resistant pad.



NOTE:

Be sure the cleaning sponge is kept **CLEAN** and **DAMP**. A dirty sponge will transfer contaminants to the soldering tip, reducing thermal efficiency and possibly causing defective solder joints. A dry sponge will abrade the soldering tip, reducing its life.

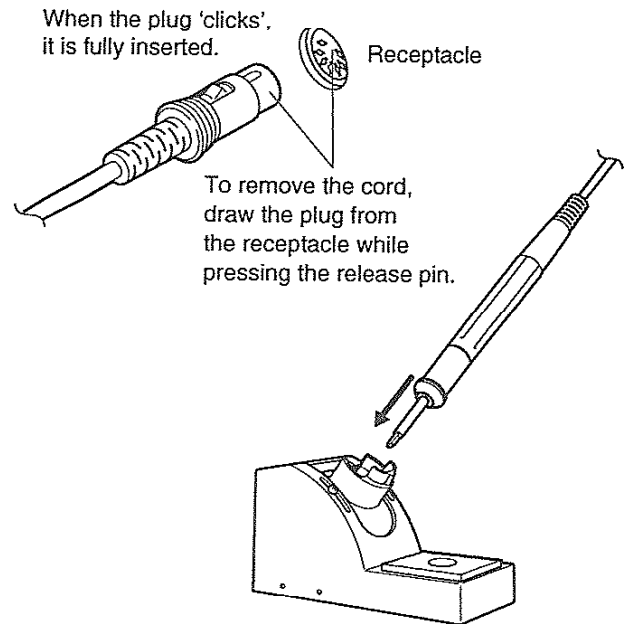


C. Soldering station

⚠ CAUTION:

Be sure the power switch is OFF before connecting or disconnecting the soldering iron cord. Failure to do so may result in damage to the circuit board.

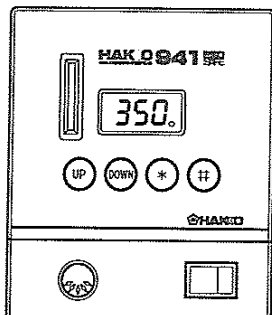
1. Insert the power cord into the receptacle at the back of the station.
Insert the soldering iron cord into the receptacle at the front of the station.
2. Set the iron in the iron holder.
3. Plug the power cord into a grounded wall socket. The Hakko 941 is protected against electrostatic discharge and must be grounded for full efficiency.



6. OPERATION

Controls and displays

Controls



The front panel of the Hakko 941 soldering station has the following controls:

- A power on/off switch.
- Four control buttons:
 - #** – Initiates a data entry mode.
 - *** – End of sequence signal (terminates a phase of a data entry mode); when pressed for less than one second, displays settings already stored.
 - UP** – increases the value in the appropriate display window.
 - DOWN** – decreases the value in the appropriate display window.

1. Turn the power switch ON.
2. Once the temperature is reached, the buzzer sounds. The heater lamp at the lower right of the temperature display **350** starts blinking.
3. If the offset value is not 0°C./0°F., enter the tip offset value following the instructions on page 9.

⚠ CAUTION:

Place the iron in the iron holder when not in use.

Displays

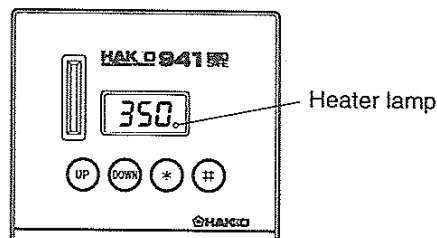
The Hakko 941 has a three-digit display element. Depending upon the selected mode, it will display:

- Normal mode:
Sensor temperature (tip temperature)
- Data entry:
Selected quantity (see 'data entry procedures' for exact characteristics)
- Temperature scale:
°C or °F, depending upon selection
- Error detection:
Refer to 'ERROR MESSAGES' section

In addition, a single heater lamp will flash when the station has reached the desired temperature, indicating that it is ready for use.

An audible buzzer is provided to alert the operator when:

- The station has reached the set temperature. The buzzer will sound once.
- The low temperature threshold has been crossed. This buzzer will shutoff when the sensed temperature returns to the acceptable range.
- A failure has occurred in the sensor or heater (including the sensor circuit). The buzzer will sound continuously.
- The auto power shutoff is activated and the power to the heating element is shutoff, the buzzer will sound three times.



⚠ CAUTION:

The Hakko 941 is preset at 350°C. at the factory. Check the temperature setting by pressing the ***** button. The set temperature will be displayed for two seconds.

● Factory settings

The Hakko 941 comes from the factory with the following values preset:

Temperature scale	Celsius
Auto power shutoff	disabled
Low temperature alarm setting	150°C.
Resetting the supervisor/ operator control setting	4 0
Set temperature	350°C.

● Control card

Each Hakko 941 comes with a small card, which inserts in the control slot in the front of the unit. This card is used when entering data for the process control functions. Any Hakko 941 card can be used with any Hakko 941 soldering station.

Using the control card

The control card is used when a value is to be changed or data are to be entered. The Hakko 941 will operate normally with the card inserted. If power is turned on with the card inserted, the station will heat to the temperature set before the card was inserted.

● Changing the temperature setting

Example: 350° to 400°

1. Insert the control card into the slot in the front of the unit.

- The *hundreds* digit will begin to flash, indicating that the unit is in the TEMPERATURE SET mode and data may be entered.

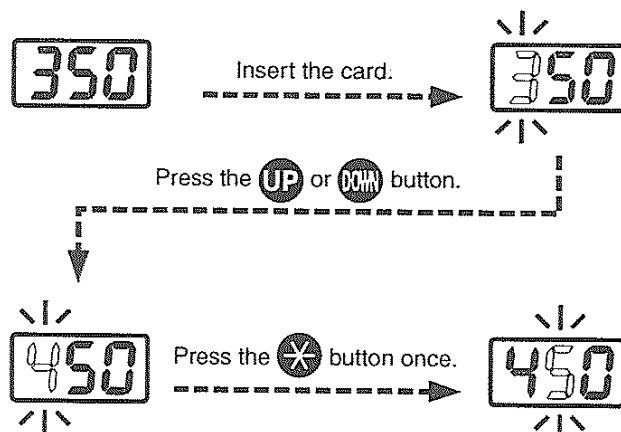
2. Entering the *hundreds* digit

- Press the **UP** or **DOWN** button to set the desired figure. Only 2, 3, or 4 can be selected. (In °F mode, 4, 5, 6, 7, or 8 can be selected).

When the desired figure is displayed, press the **✱** button to enter. The *tens* digit will begin to flash.

⚠ CAUTION:

The card must be inserted into the card slot in the correct direction. The heater is off while you are setting the temperature.



3. Entering the *tens* digit

- Press the **UP** or **DOWN** button to set the desired figure. **Any value from 0 to 9 can be selected.** When the desired figure is displayed, press the **ENTER** button to enter. The *units* digit will begin to flash.

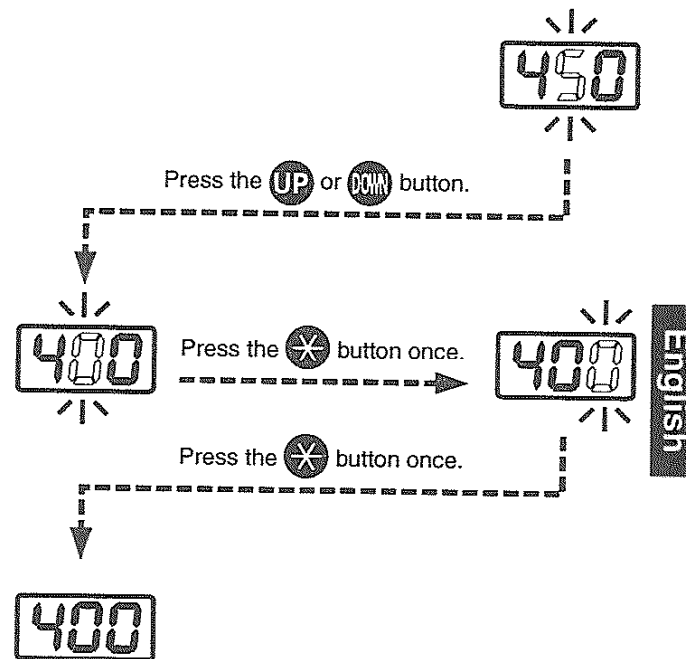
4. Entering the *units* digit

- Press the **UP** or **DOWN** button to set the desired figure. When the desired figure is displayed, press the **ENTER** button to enter. The desired temperature is now entered into the system memory and heater control will begin.

NOTE:

If power is switched off or lost during the execution of this procedure, no data will be entered. The entire procedure must be repeated from step 1.

When the station is ON and the card is in the station, the data entry procedure follows:



- Hold the **ENTER** button down for at least one second.
- The current temperature setting will be displayed, then the *hundreds* digit will begin to flash. This indicates that the station has entered the temperature setting mode.
- Continue with the procedure of 1-4, above.

NOTE:

When the **ENTER** button is pressed for less than one second, the current temperature setting is displayed.

● Replacing the tip

- Always turn the power OFF when removing or inserting a tip.
- Hold the tip with the heat resistant pad and pull it out.
- Insert the new tip fully into the Hakko 911. If the tip is not fully inserted, the display will show a sensor error **S-E** when power is turned on.

CAUTION:

The tip will be HOT! Use the heat resistant pad to remove it. Do not hold the tip with the heat resistant pad for an extended time.


7. ENTERING TIP OFFSET VALUES

Soldering tips have different thermal characteristics, depending upon their mass, shape, and surface area. It is obvious that the tip temperature at idle will not be the same for a fine tip as it will be for a heavy chisel tip, although the set temperature may be the same for each tip. The difference between the set temperature and the temperature measured at the tip is called 'Tip Temperature Offset'. The offset value may be entered into the station to either add to or subtract from the set value, thus producing the desired tip temperature.

The Hakko 941 has the ability to electronically compensate for the variations due to tip temperature offset. When a soldering tip is changed, the proper offset temperature value should be programmed into the 941.

English

● How to enter the tip offset value into the Hakko 941

1. Insert the control card into the slot in the station.
 - The station will default to the temperature setting mode. Set the temperature at 400°C. (750°F.).
2. Press the  button on the front panel and hold for one second.
 - This will set the station to the data entry mode. The existing offset will be displayed.
3. Measure the tip temperature.

NOTE:

Allow the tip temperature to become stable. During offset data entry mode, the tip temperature is controlled using an offset value of 0. The flashing value displayed is not meaningful.

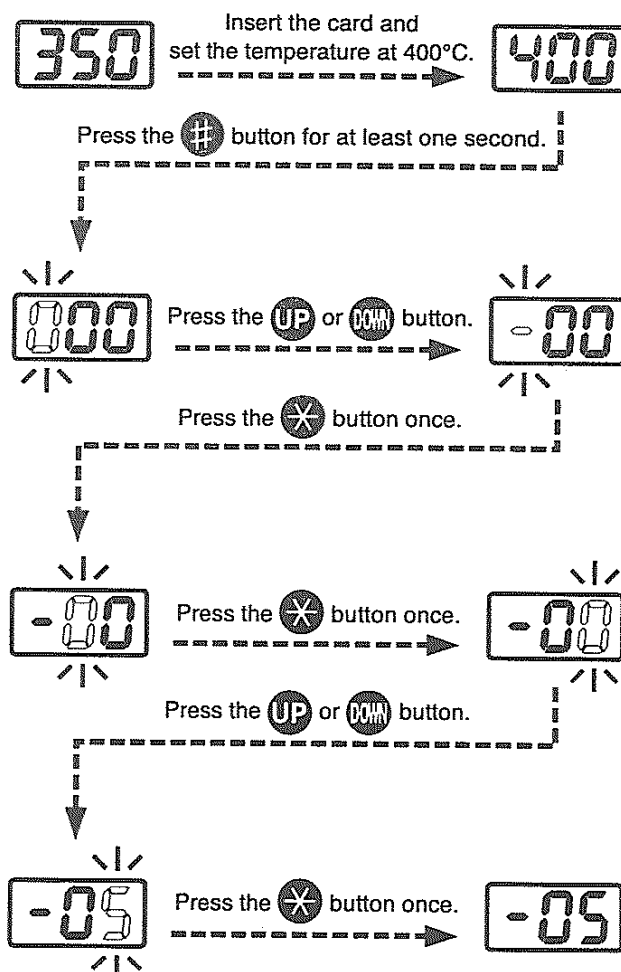
4. Enter the offset value

- Determine the difference, if any, between 400°C. (750°F.) and the measured tip temperature. Record this value. See the example following to determine what value to enter as the offset for that particular tip.
- Enter the actual offset value into system memory by following the procedure given for the above method.

EXAMPLE:

If the measured temperature is 395°C. (740°F.), the difference between the set temperature is +5°C. (+10°F.) (the tip is five (ten) degrees too cool) and the offset is thus +5°C. (+10°F.). If the measured temperature is 405°C./760°F., the difference between the set temperature is -5°C. (-10°F.) (the tip is five (ten) degrees too hot) and the offset is -5°C. (-10°F.).

(Example) When the offset value is -5°C.



8. PARAMETER SETTINGS

● Entering the parameters

(1) °C or °F temperature display

(2) Auto power shutoff

This is an optional setting. When it is activated and the soldering iron is not used for 30 minutes, the power to the heating element is shutoff automatically and the buzzer will sound three times. When the temperature decreases to 100°C./200°F. the display will show **---**. To begin soldering, cycle the power switch OFF, then ON. The power will be turned on if you hit any button before the temperature decreases to 100°C./200°F.

To bypass this procedure and continue to resetting the low temperature alarm tolerance setting press the **✕** button once.

The Hakko 941 has the following four parameters:

- 1) °C or °F temperature display selection
- 2) Auto power shutoff
- 3) Low-temperature alarm tolerance setting
- 4) Resetting the supervisor/operator control setting

Once the station enters parameter mode, set the parameters in the order shown below. After all the parameters have been set, normal operation will be resumed.

1. Turn power OFF.
2. Insert the control card into the card slot in the front of the unit.
3. Press and hold down the **UP** and **DOWN** buttons simultaneously, and then turn power ON.
4. Hold **UP** and **DOWN** buttons down until the display shows **1 C** (Celsius) or **1 F** (Fahrenheit).
When either the display shows either **1 C** or **1 F**, the station is in parameter input mode.
 - Pressing either the **UP** and **DOWN** button will cause the display to alternate between **1 C** or **1 F**.
 - When the desired scale is displayed, select by pressing the **✕** button. The system will automatically sequence to auto power shutoff mode.

To change the auto power shutoff setting, the procedure is as follows.

- The display will show **2 1** or **2 0** when this mode is entered.
- Using **UP** or **DOWN** button will change **2 1** and **2 0**.

The auto power shutoff is operational only when **2 1** is selected.

- Press the **✕** button to enter the parameter. This will store the auto power shutoff setting in system memory. The system will automatically sequence to the low temperature alarm tolerance setting.

⚠ CAUTION:

It is possible that the auto power shutoff function could be activated, shutting off the heating element even though soldering is being done, if the thermal load is very small. Should this occur, follow the instructions above to disable the auto power shutoff parameter.

(3) Resetting the low temperature alarm tolerance setting


This unique function alerts the operator when the sensed temperature falls below a set limit. If the sensed temperature drops below the alarm level, an error message **H-E** will be displayed, and the buzzer will sound. When the temperature returns within the allowable range, the buzzer will stop. The value is stored in the Hakko 941 as described in the example below:

EXAMPLE:

If the set temperature is 350°C and the low temperature alarm is 100°C, the alarm will trip when the sensed temperature drops below 250°C.

NOTE:

The threshold limits are: 30 – 150°C; 50 – 300°F.
If a value exceeding these limits should be entered, the system will revert to the beginning of the mode (the hundreds digit will flash) and the procedure must be begun anew.

To bypass this procedure, press the  button three times.

Range of allowable low-temperature alarm tolerance

For °C: 30 – 150°C

For °F: 50 – 300°F


(4) Resetting the supervisor/operator control setting

- When the station enters low-temperature alarm tolerance setting mode, the hundreds digit begun flashing. Enter and store the value in the same manner as described in “Changing the temperature setting.”
- If you enter a value exceeding the allowable range shown to the left, you will be brought back to entering a value in the hundreds digit. If this occurs, re-enter a correct value.
- Once the value is stored, the system will automatically sequence to the resetting the supervisor/operator control setting.

To change the supervisor/operator control settings, the procedure is as follows.

- The display will show **4 0** or **4 1** when this mode is entered.
4 0: No offset value can be entered without inserting the card.
4 1: An offset value can be entered without inserting the card.

Pressing the  or  button will change **4 0** and **4 1**.

When the desired setting is displayed, select by pressing  button.

The system will exit the parameter setting mode and begin heater control.

It is now ready for normal operation.

9. MAINTENANCE

● Tip maintenance

1. Tip temperature

High temperatures shorten tip life and may cause thermal shock to components. Always use the lowest possible temperature when soldering. The excellent thermal recovery characteristics of the Hakko 941 ensure effective soldering at low temperatures.

2. Cleaning

Always clean the soldering tip before use, to remove any residual solder or flux adhering to it. Use a *clean and moist* cleaning sponge (provided with the Hakko 941) or the Hakko 599 tip cleaner. Contaminants on the tip have many deleterious effects, including reduced heat conductivity, which contribute to poor soldering performance.

3. After use

Always clean the tip and coat it with fresh solder after use. This guards against oxidation.

4. When the unit is not being used and the auto power shutoff is not active.

Never allow the unit to idle at a high temperature for extended periods. This will allow the tip to become oxidized. Turn the power switch OFF. If it is to be out of service for several hours, it is advisable to pull the power plug as well.

5. Inspecting and cleaning the tip

This procedure, if followed daily, will materially add to tip life.

- Set the temperature to 250°C (482°F)
- When the temperature stabilizes, clean the tip (see 2, above) and check the condition of the tip. If the tip is badly worn or deformed, replace it.
- If the solder plated part of the tip is covered with black oxide, apply fresh solder, containing flux, and clean the tip again. Repeat until all the oxide is removed, then coat the tip with fresh solder.

⚠ CAUTION:

NEVER file the tip to remove oxides!

- Turn the power OFF and remove the tip, using the heat resistant pad. Set the tip aside to cool.
- Remaining oxides, such as the yellow discoloration on the tip shaft, can be removed with isopropyl alcohol.

● Hakko 911 maintenance

Cleaning the nipple and replacing the O-ring.

When the nipple contaminated with flux, check the O-ring located inside the nipple (see page 17). If the O-ring contaminated with flux, replace the O-ring.

● Checking Procedure

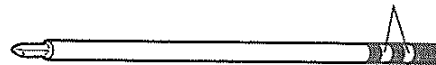
⚠ WARNING:

Unless otherwise directed, carry out these procedures with the power switch OFF and the power UNPLUGGED.

■ Check for a broken heater or sensor

1. Check for a broken heater or sensor

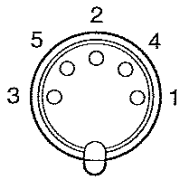
Measure the resistance across this position.



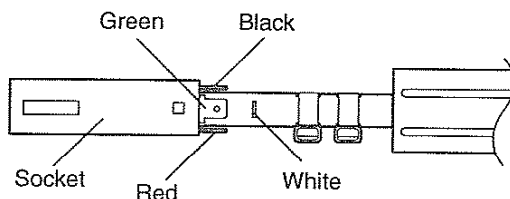
Verify the electrical integrity of the heater and sensor.

Measure the resistance of the heater and sensor while at room temperature (15 to 25°C.; 59 to 77°F.). It should be $5\Omega \pm 10\%$. If the resistance exceeds these limits, replace the tip.

■ Check the grounding line



■ Checking the connection cord for breakage



⚠ CAUTION:

Do not lose the O-ring located inside the nipple. When reassembling, match the convex part of the handle assembly with the concave parts of the O-ring spacer and socket.

1. Unplug the connection cord from the station.
2. Measure the resistance value between Pin 2 and the tip.
3. If the value exceeds 2Ω (at room temperature), perform the tip maintenance described on p.12. If the value still does not decrease, check the connection cord for breakage.

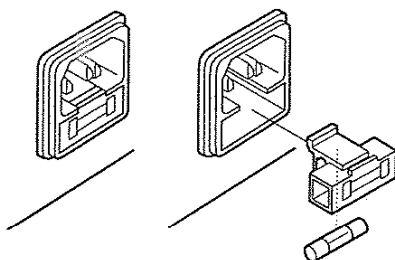
1. Remove the soldering tip and the nipple.
2. Push the socket out from inside the handle assembly.
3. Measure the resistance values between the connector and the lead wires at the socket as follows:

Pin 1 – Red Pin 2 – Green

Pin 3 – Black Pin 5 – White

If any value exceeds 0Ω or is ∞ , replace the handle assembly.

■ Replacing the fuse



1. Unplug the power cord from the power receptacle.
2. Remove the fuse holder.
3. Replace the fuse.
4. Put the fuse holder back in place.

10. ERROR MESSAGES

● Sensor Error



When there is the possibility that a failure has occurred in the sensor or heater (including the sensor circuit), **S-E** is displayed and the power is shut down with the buzzer sounding continuously.

⚠ CAUTION:

The sensor error also occurs if the tip is not inserted properly. Once the tip is inserted properly, the HAKKO 941 is restarted.

● Low-temperature alarm tolerance error



If the sensor temperature falls below the difference between the current temperature setting and the low-temperature alarm tolerance, **H-E** is displayed and the warning buzzer sounds. When the tip temperature rises to a value within the set tolerance, the buzzer will stop sounding.

EXAMPLE:

Assume that the temperature setting is 400°C/750°F, and the tolerance 50°C/100°F. If the temperature continues to decrease and finally falls below the value indicated below while the heating element is on, the displayed value starts blinking to indicate that the tip temperature has dropped.

350°C (400°C – 50°C)
 Set temperature ——— Low-temperature alarm tolerance

OR

650°F (750°F – 100°F)
 Set temperature ——— Low-temperature alarm tolerance

11. TROUBLE SHOOTING GUIDE

WARNING:

- Before checking the inside of the Hakko 941 or replacing parts, be sure to disconnect the power plug. Failure to do so may result in electric shock.

English

- The unit does not operate when the power switch is turned on.

CHECK: Is the power cord and/or the connection plug disconnected?

ACTION: Connect it.

CHECK: Is the fuse blown?

ACTION: Investigate why the fuse blew and then replace the fuse. If the cause can not be determined, replace the fuse. If the fuse blows again, send the unit in for repair.

- The tip does not heat up.

- The sensor error **S-E** is displayed.

CHECK: Is the power cord and/or the connection plug disconnected?

ACTION: Connect it.

CHECK: Is the tip inserted properly?

ACTION: Insert the tip completely.

CHECK: Is the connection cord and/or the heater/sensor broken?

ACTION: See the appropriate section of this manual regarding how to check the connection cord and/or the heater/sensor for breakage.

- Solder does not wet the tip.

CHECK: Is the tip temperature too high?

ACTION: Set the appropriate temperature.

CHECK: Is the tip contaminated with oxide?

ACTION: Remove the oxide (see "Tip maintenance" on P. 12).

- The tip temperature is too high.

CHECK: Is the connection cord broken?

ACTION: See "Checking the connection cord for breakage" on P. 13.

CHECK: Is the entered offset value correct?

ACTION: Enter the correct value.

- The tip temperature is too low.

CHECK: Is the tip contaminated with oxide?

ACTION: Remove the oxide (see "Tip maintenance" on P. 12).

CHECK: Is the entered offset value correct?

ACTION: Enter the correct value.

- The low-temperature alarm tolerance error occurs frequently.

CHECK: Is the tip too small for the items to be soldered?

ACTION: Use a tip with a larger thermal capacity.

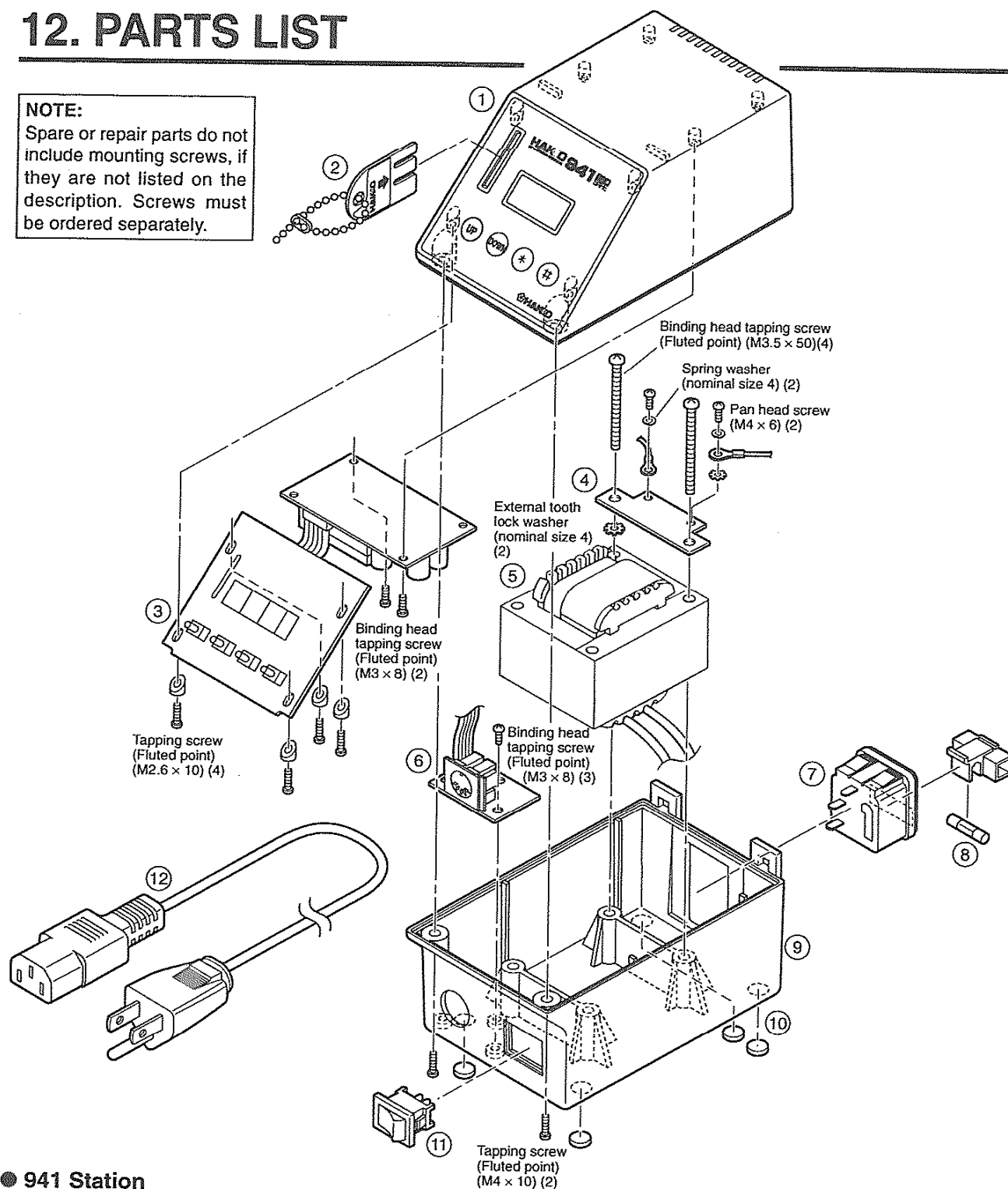
CHECK: Is the setting value for the low-temperature alarm tolerance too low?

ACTION: Increase the setting value.

12. 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.

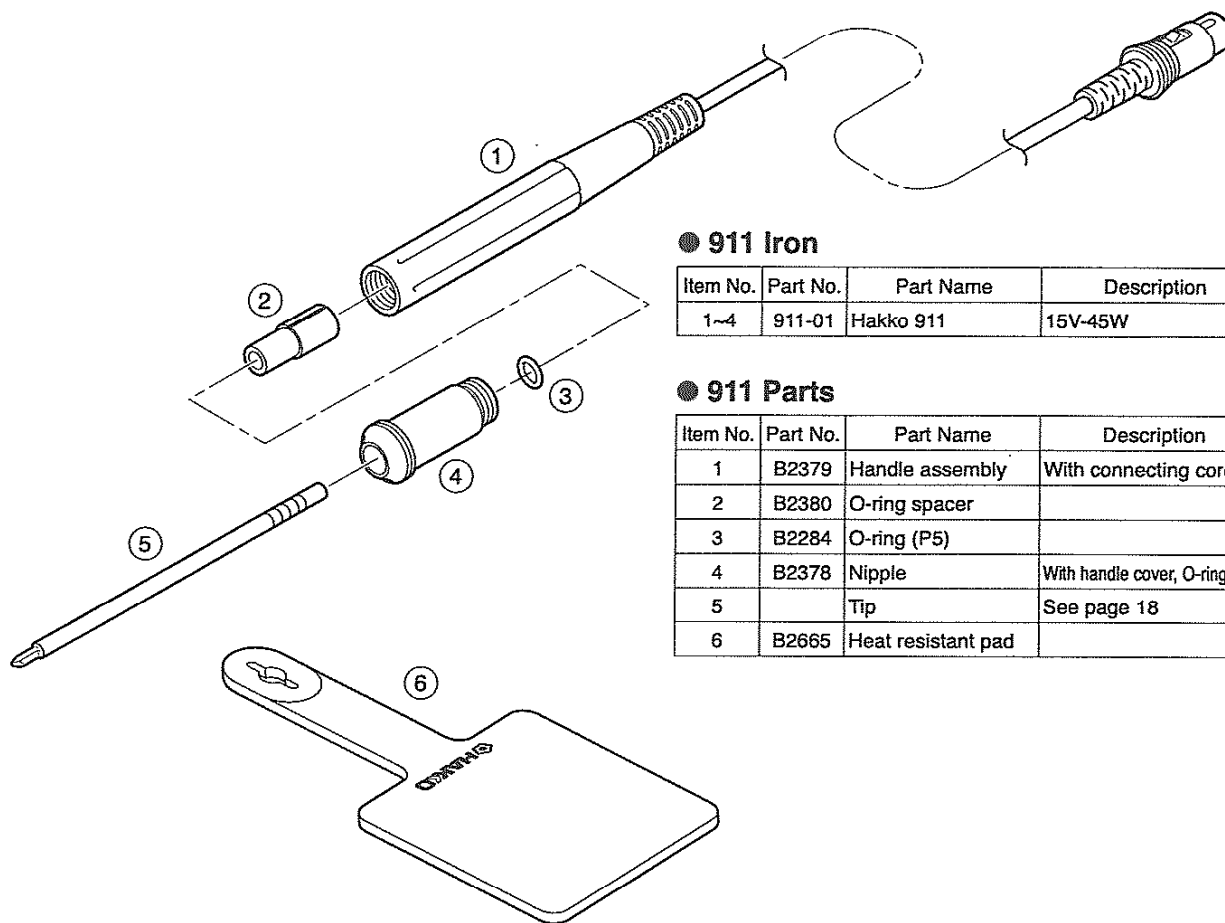


English

● 941 Station

Item No.	Part No.	Part Name	Description
1	B2568	Upper case	With membrane sheet
2	B2388	Control card	
3	B2569	P.W.B. (temperature control & power supply) — 2 pcs.	
4	B2664	Grounding plate	
5	B2570	Transformer	100-15V
	B2599	Transformer	110-15V
	B2590	Transformer	120-15V
	B2600	Transformer	220-15V
	B2591	Transformer	230-15V
	B2592	Transformer	230-15V (CE)
	B2594	Transformer	240-15V
6	B2383	Connector board	
7	B2666	Power receptacle	
8	B2403	Fuse, 250V-2A	100-120V
	B2404	Fuse, 250V-1A	220-240V

Item No.	Part No.	Part Name	Description
9	B2571	Bottom case	With power receptacle, rubber feet
10	B2667	Rubber foot	4 ea.
11	B2663	Power switch	
12	B2668	Power cord, 3 core & American plug	
	B2421	Power cord, 3 core, no plug	
	B2422	Power cord, 3 core, BS plug	India
	B2423	Power cord, 3 core, European plug	Korea
	B2424	Power cord, 3 core, European plug	Eur.
	B2425	Power cord, 3 core, BS plug	U.K.
	B2426	Power cord, 3 core, Australian plug	
	B2436	Power cord, 3 core, CH plug	China

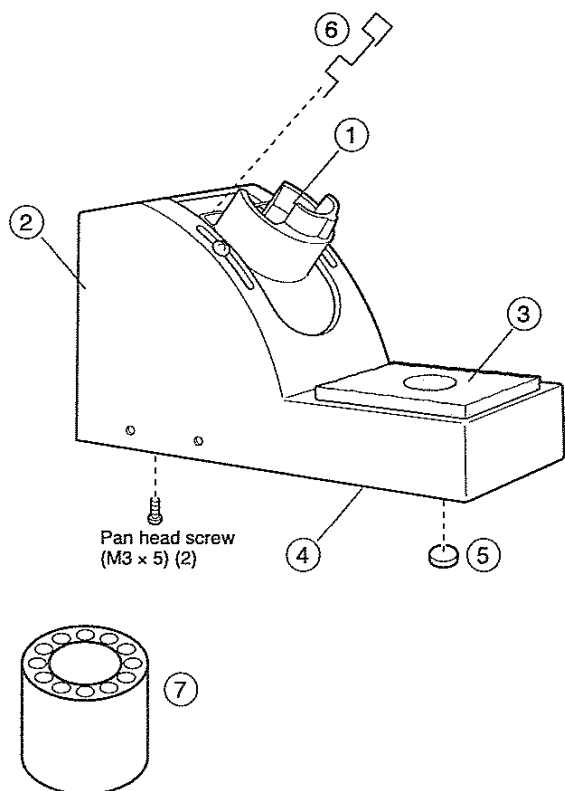


● 911 Iron

Item No.	Part No.	Part Name	Description
1~4	911-01	Hakko 911	15V-45W

● 911 Parts

Item No.	Part No.	Part Name	Description
1	B2379	Handle assembly	With connecting cord
2	B2380	O-ring spacer	
3	B2284	O-ring (P5)	
4	B2378	Nipple	With handle cover, O-ring (P5)
5		Tip	See page 18
6	B2665	Heat resistant pad	



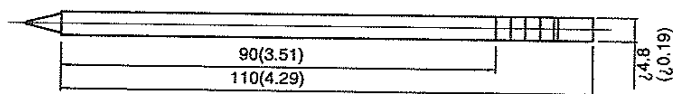
● Iron Holder

Item No.	Part No.	Part Name	Description
1~6	C1413	Iron holder	For HAKKO 911, 912

● Iron Holder Parts

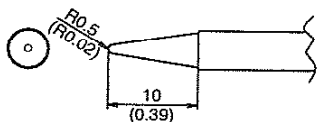
Item No.	Part No.	Part Name	Description
1	B2390	Iron receptacle	With two screws
2	B2389	Iron holder base	(With bottom plate)
3	A1427	Cleaning sponge	
4	B2391	Bottom plate	
5	B2405	Rubber foot	4 ea.
6	B2572	Retaining clip	
7	B2607	Tip tray	

13. TIP STYLES

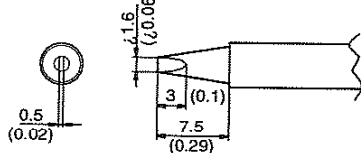


Unit: mm (in.)

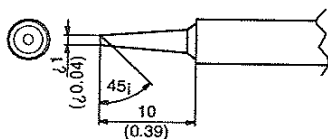
T1-2B Shape-2B



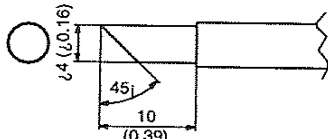
T1-16D Shape-1.6D



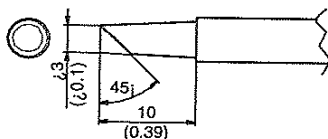
T1-1BC Shape-1BC



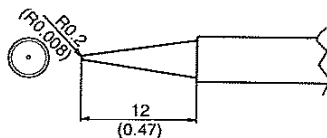
T1-4C Shape-4C



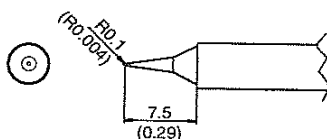
T1-3BCF Shape-3BC
Cut Surface Pre-tinned



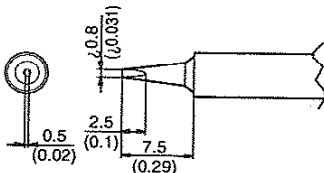
T1-LB Shape-LB



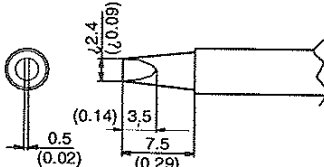
T1-I Shape-I



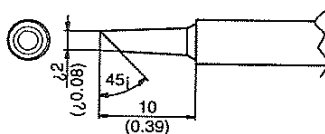
T1-08D Shape-0.8D



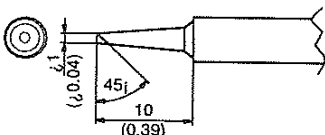
T1-24D Shape-2.4D



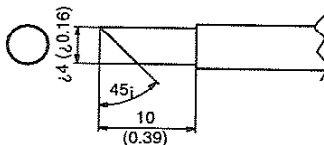
T1-2BC Shape-2BC



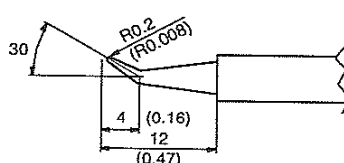
T1-1BCF Shape-1BC
Cut Surface Pre-tinned



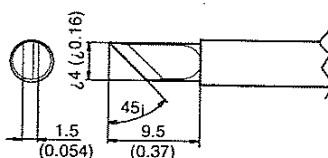
T1-4CF Shape-4C
Cut Surface Pre-tinned



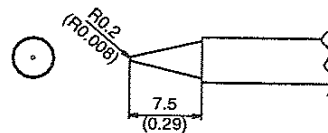
T1-02J Shape-0.2RB



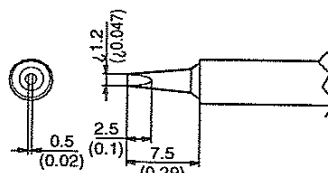
T1-K Shape-K



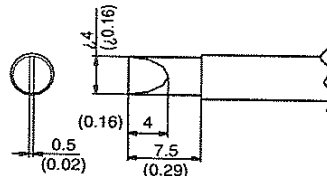
T1-B Shape-B



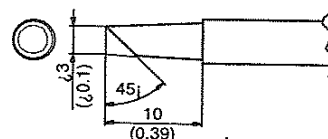
T1-12D Shape-1.2D



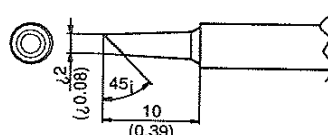
T1-4D Shape-4D



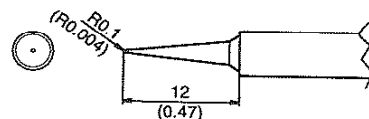
T1-3BC Shape-3BC



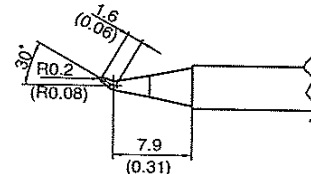
T1-2BCF Shape-2BC
Cut Surface Pre-tinned



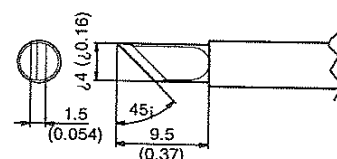
T1-LI Shape-LI



T1-02JS Shape-0.2RSSB



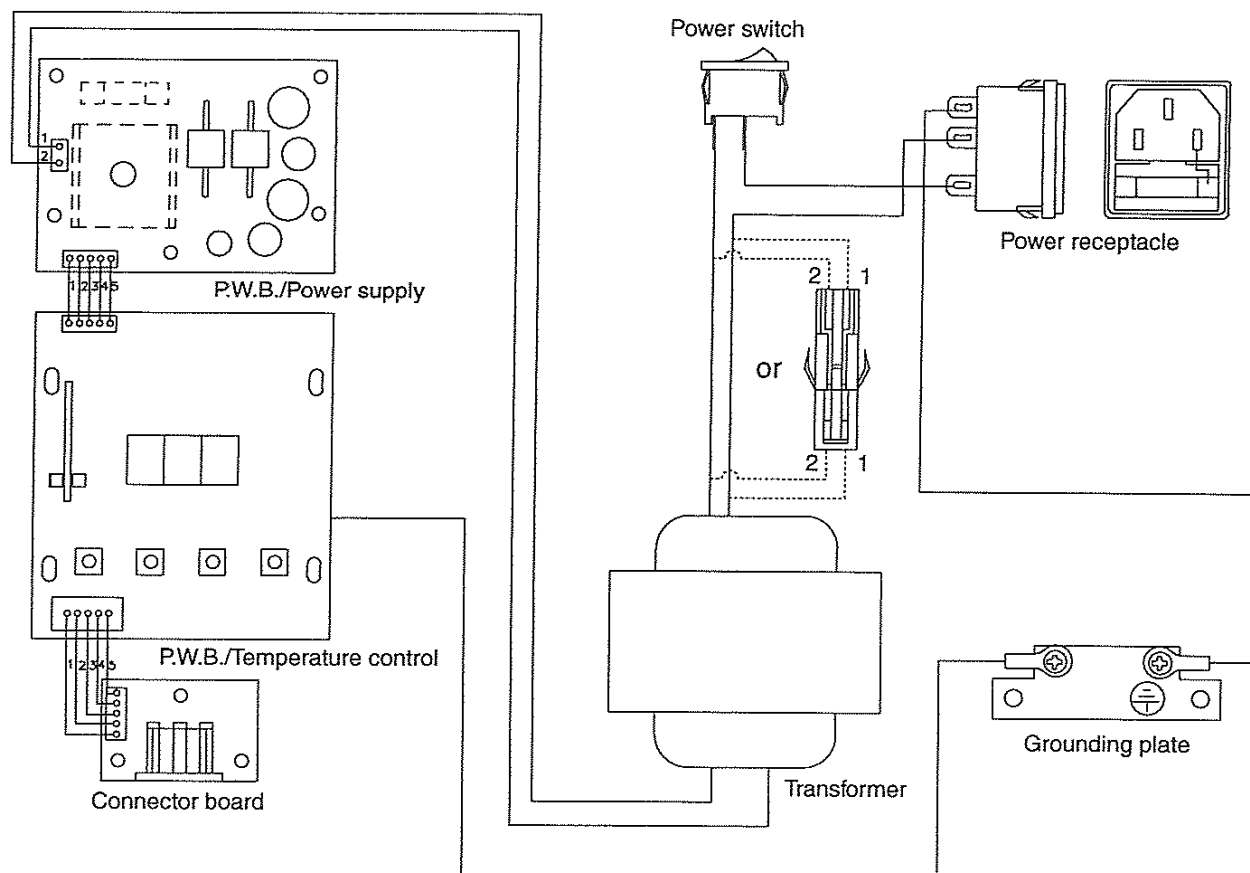
T1-KL Shape-KL



English

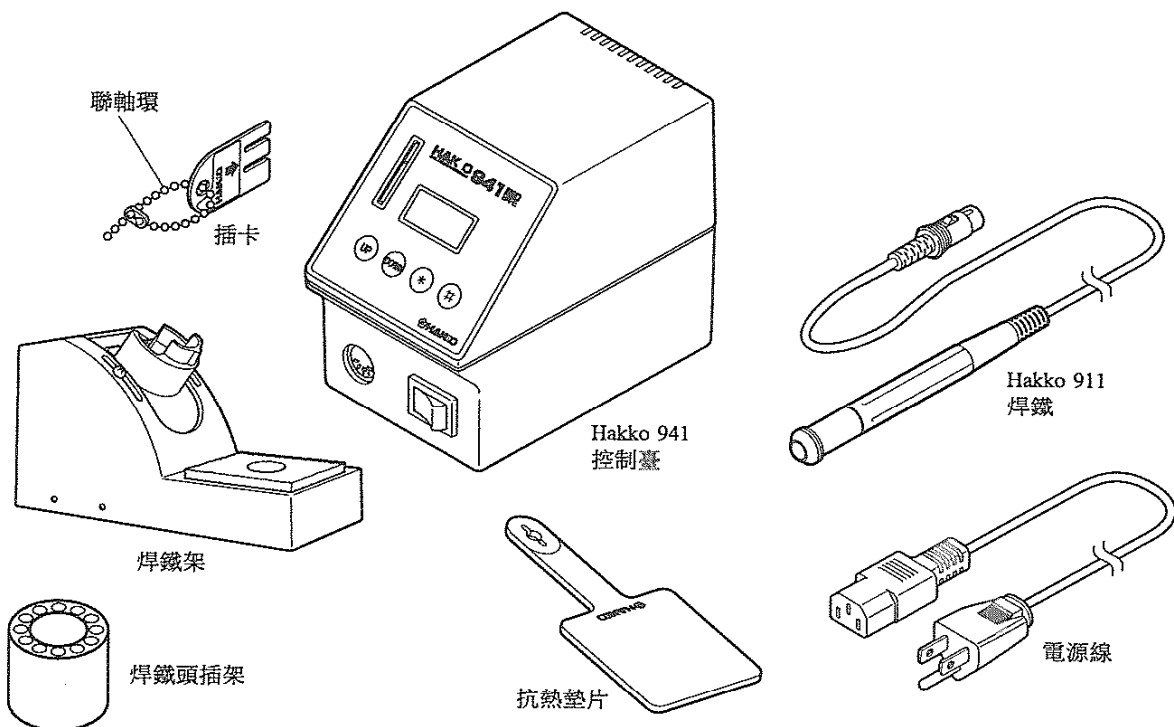
14. WIRING DIAGRAM

English



1. 包裝清單

Hakko 941控制臺	1	焊鐵頭插架	1
Hakko 911焊鐵	1	清潔海綿	1
電源線	1	使用說明書	1
插卡	1	聯軸環	1
抗熱墊片	1	(本產品未含焊鐵頭)	



2. 規格

●Hakko 941電焊臺

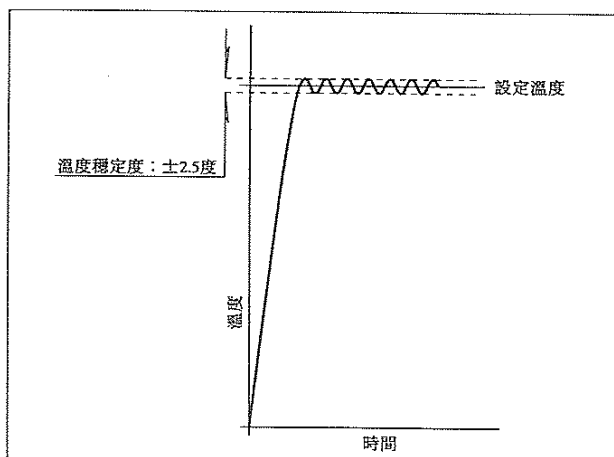
功率消耗	50瓦特總共
溫度範圍	攝氏200度~450度/華氏400度~840度
溫度穩定度	非使用狀態時為攝氏±2.5度 (華氏±5度) 請參考圖1

●控制臺部分

輸出	15伏特
外形體積	145(深)×85(寬)×108(高) 毫米 (5.7×3.3×4.3英寸)
重量	1,300公斤 (2.9磅)

●Hakko 911焊鐵部分

耗電	45瓦特 (15伏特)
焊鐵頭至接地電阻	2歐姆以下
焊鐵頭至接地電勢	2毫伏以下
長度 (無電線)	172毫米 (6.8英寸) 若附2.4D焊鐵頭
重量 (無電線)	30克 (0.067磅/1.07英兩) 若附2.4D焊鐵頭
電線組件	1.2米 (4英尺)




註：

- 上述溫度是用Hakko 191溫度計所測量。
- 本產品有防靜電處理。
- 規格及外觀有可能改良變更，恕不先行通知。

3. 警告、注意、備註及例子

本說明書注意事項區分為如下之「警告」「注意」「備註」三者加以表示。
請充分了解其內容後再閱讀本文。

 **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。

備註：表示所示操作必須注意之重點。

例子：舉例說明特殊程序、要點或處理。

注意

當電源接通時，焊鐵頭溫度會達到攝氏200~450度(華氏400~840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。

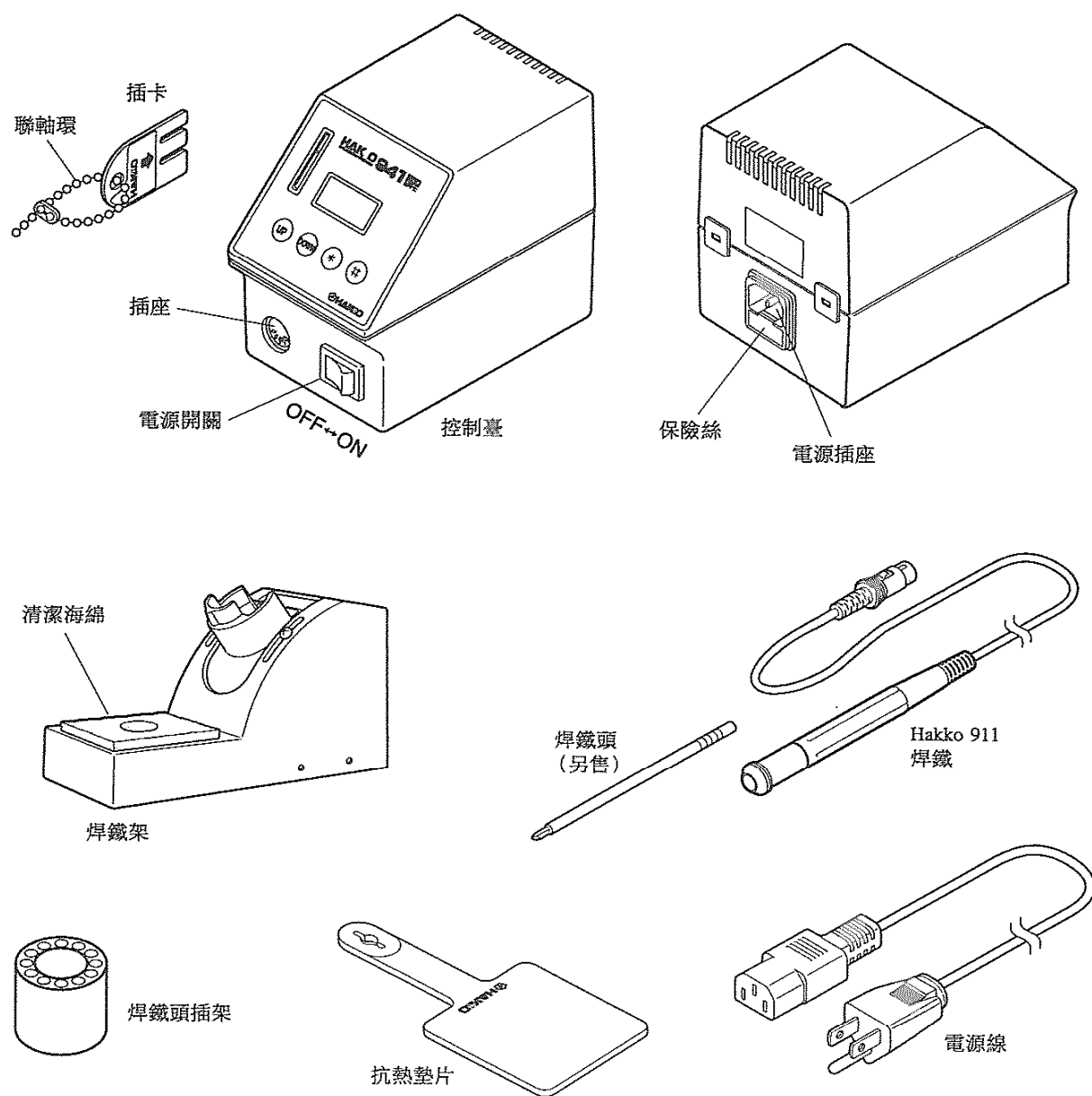
注意

以下注意事項與Hakko 941之事故或故障有關，請務必遵守。

- 切勿使用Hakko 941於焊接以外的工作。
- 切勿將Hakko 941泡水或用濕手使用。
- 切勿改裝本產品。
- 更換零件時，使用Hakko正廠部件。
- 插卡不要損傷彎折。彎折的插卡不要勉強插入。
- 切勿為了弄掉焊鐵上的錫屑而用力敲打。此舉會損及焊鐵。
- 拔出電線時，請抓住插頭。切勿拉住電線。
- 焊接時會冒煙，請做好通風。
- Hakko 941不是給小孩或是沒有監上人員下的工人使用的。
- 必須確保切勿讓小孩用Hakko 941當遊戲玩。

注記：請勿銷售及使用Hakko 941在美國。

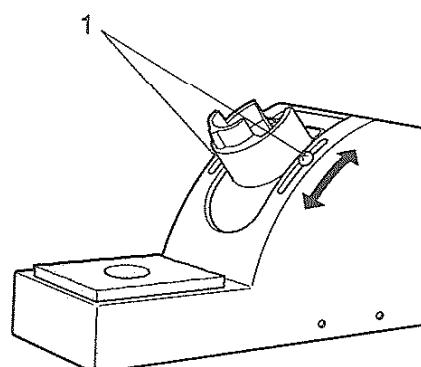
4. 各部名稱



5. 組裝

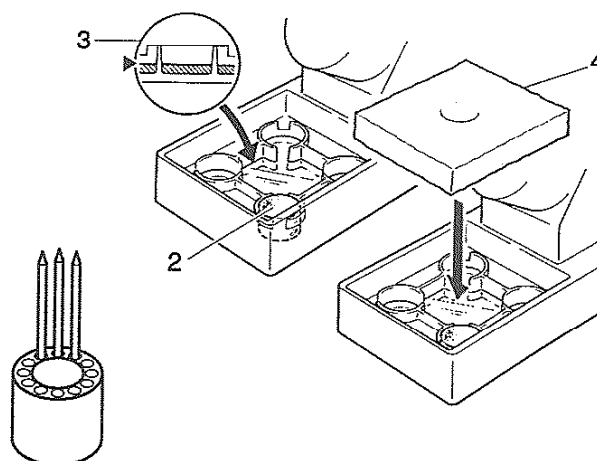
A. 焊鐵架

1. 依照下述，調整焊鐵架的所需角度：
 - i. 鬆開調整螺絲。
 - ii. 依照需要，調整焊鐵架的高度。
 - iii. 鎖緊調整螺絲。
2. 將小塊清潔海綿放在焊鐵架基座的4個凹洞內之任何一個。
3. 如圖所示，放入適量的水。由於毛細管作用，小塊海綿會將水吸上來，使大塊海綿常保潮濕狀態。
4. 將大塊海綿沾濕後擰乾，放進焊鐵架基座。
第2項至第4項 一或一只單用大塊海綿沾濕後擰乾，放進焊鐵架基座。
5. 將備用焊鐵頭插在焊鐵頭插架。



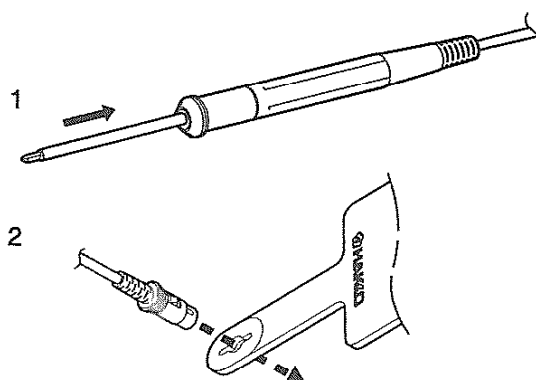
註：

清潔海綿請保持清潔與潮濕。骯髒的海綿會汙染焊鐵頭，減低傳熱效率而可能使焊接不良。
乾燥的海綿會磨損焊鐵頭而減低其壽命。



B. 焊鐵

1. 將焊鐵頭插進Hakko 911手柄到底。焊鐵頭沒有方向性。
2. 將焊鐵電線組件穿過抗熱墊片的洞口。

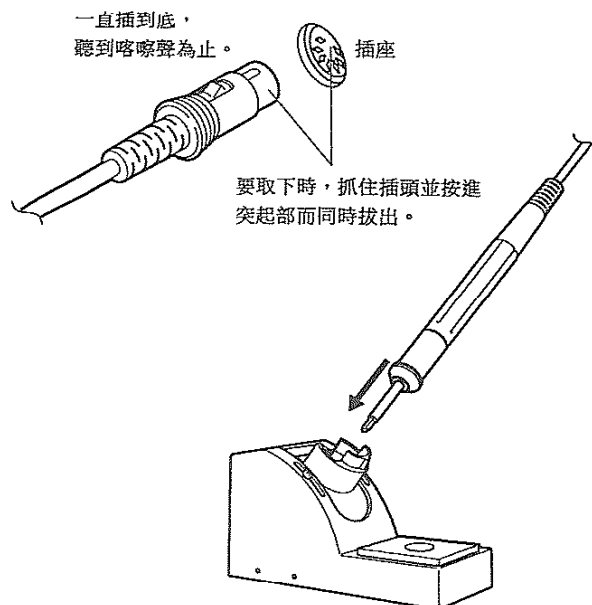


C. 控制臺

⚠注意：

進行連接或拆開焊鐵時，切記要關掉電源，以免損壞電焊臺。

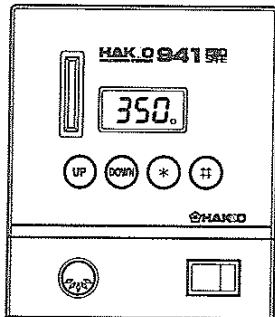
1. 將電源線連接到控制臺後面的插座。
將焊鐵電線組件連接到控制臺前面的插座。
2. 將焊鐵放在焊鐵架上。
3. 將電源線插到已接地之電源插座。Hakko 941 實施防靜電處理，所以務必請接地之後再使用，以充分發揮功效。



6. 使用方法

控制與顯示

控 制



Hakko 941 焊鐵控制臺之前面板具有下列控制裝置：

- 電源開關
- 四個控制按鈕
 - # — 起動數值輸入模式。
 - * — 結束一系列輸入（數值輸入模式段落暫停）；按下不足一秒鐘時，顯示所存設定。
 - UP — 增加顯示幕所示數值。
 - DOWN — 減少顯示幕所示數值。

顯 示

Hakko 941 具有一個三位數顯示幕。依據所選模式，會顯示：

- 通常模式
傳感器溫度（焊鐵頭溫度）
- 輸入數值
所選數值（詳細特性請參照「數值輸入程序」）
- 溫度顯示
依據所選，攝氏或華氏
- 錯誤標記
請參照「錯誤標記」一節

此外，控制臺達到所要溫度時，發熱器指示燈會閃亮，表示已可使用。

下列情況，有一蜂音器提醒操作者：

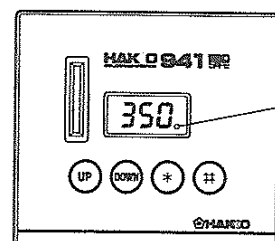
- 控制臺達到所要溫度時，蜂音器響一下。
- 超過低溫下限時。當溫度回到可接受範圍時，蜂音器即停止。
- 自動電源關閉機能動作時。當發熱元件的電源關閉時，蜂鳴器會響三下。



1. 按開電源開關。
2. 達到設定溫度時，蜂音器會響。而且 **350** 顯示部右下的發熱器通電指示燈變為閃亮狀態。
3. 如果補正值否 0°C/0°F，參照第28頁輸入補正值。

⚠ 注意：

不使用時將焊鐵放到焊鐵架上。



發熱器通電指示燈

⚠ 注意：

工廠出貨時設定在攝氏350度。
想確認設定溫度時請按下 * 鈕。
設定溫度就會顯示2秒鐘。

● 工廠設定

Hakko 941出廠時，具有預設值如下：

溫度單位	攝氏
自動電源關閉	無
下限設定溫度	攝氏150度
主管或操作員補正限制設定	4 0
設定溫度	攝氏350度

● 插卡

每一臺Hakko 941皆附一小插卡，可插入卡孔。此卡供設定管理機能輸入數值之用。插卡可適用於所有的Hakko 941焊鐵控制臺。

使用插卡

插卡供輸入或變更數值之用。此卡插入狀態下，Hakko 941仍然能正常操作。若在插入狀態下按開電源，控制臺會加熱到插卡前所設定溫度。

● 變更設定溫度

例子：從攝氏350度變更為攝氏400度時

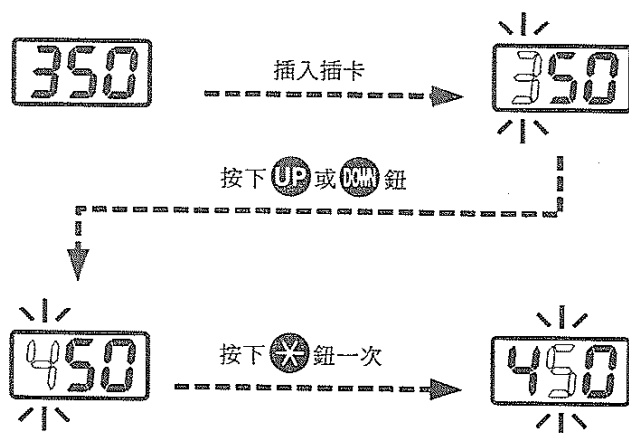
1. 將插卡插入卡孔

- 最左邊數位（第三位數）將會閃亮。表示電焊臺溫度正在設定模式，第三位數可進行調節。

2. 第三位數的輸入

- 選擇所需數值以取代第三位數。利用“上”**UP**“下”**DOWN** 鈕以改換顯示數值為2、3、4。（華氏模式時為4、5、6、7、8）所需數值顯示後，按下**ENTER** 鈕。中間數位（第二位數）開始閃亮，表示二位數可以設定。

△注意：
確認以正確方位將插卡插入卡孔。設定溫度時，發熱元件是斷電源。



3. 第二位數的輸入

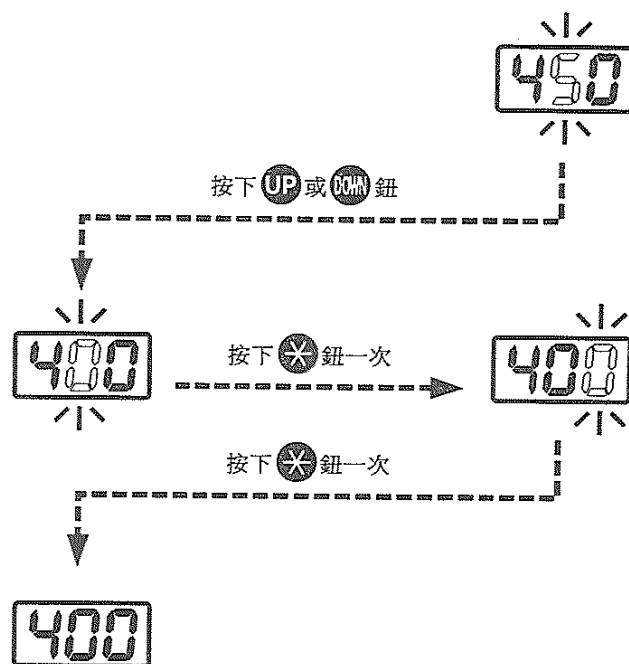
- 使用 **UP** 或 **DOWN** 鈕決定第二位數的數值。可以輸入的數值是0至9整個數。所需數值顯示後，按下 **ENTER** 鈕。最右邊位數（第一位數）開始閃亮。

4. 第一位數的輸入

- 使用 **UP** 或 **DOWN** 鈕設定所需數值。所需數值顯示後，按下 **ENTER** 鈕。這樣就會存在內部記憶體內，顯示新的設定溫度後，開始發熱元件控制。

註：

如果在設定溫度時關掉電源開關，所設數值將不存入記憶體。整個程序必須從1重來。



當控制臺為ON而插卡在控制臺時，
數值輸入程序如下：

- 按下 **ENTER** 按鈕至少一秒鐘。
- 顯示目前之溫度設定值，然後百位數開始閃亮，表示控制臺已進入溫度設定模式。
- 繼續進行上述1至4之程序。

註：

按下 **ENTER** 鈕被按的時間如果未滿1秒時，設定溫度會顯示。

● 更換焊鐵頭

- 每次取下或插入焊鐵頭，務必關閉電源。
- 以抗熱墊片抓住焊鐵頭而拉出。
將焊鐵頭放在焊鐵頭支架上。
- 將新焊鐵頭充分插入Hakko 911最後到底。
如果未充分插入，按開電源時會顯示傳感器錯誤 **S-E**。

△注意：

焊鐵頭會很燙。使用抗熱墊片將其取下並放在支架上。請勿以抗熱墊片拿焊鐵頭太久。

7. 焊鐵頭補正值的輸入

焊鐵頭依據其不同的質量、形狀及表面積而有不同的溫度特性。很明顯的是，雖然每支焊鐵頭可以有同樣的設定溫度，但是一支很細的焊鐵頭與一支鑿形焊鐵頭，其非使用狀態時的溫度不會相同。設定溫度與在焊鐵頭所測量的溫度，兩者之差稱為「焊鐵頭溫度補正值」。補正值可以被輸入控制臺而加減到設定值，即可產生所希望的焊鐵頭溫度。

Hakko 941在電子方面有能力補償因焊鐵頭溫度補正所引起的偏差。當焊鐵頭被更換時，適當的補正溫度值就必須輸入到941的程式內。

●如何將焊鐵頭補正值輸入到Hakko 941

1. 將插卡插入卡孔。

- 控制臺會直接進入溫度設定模式。設定溫度為400度。

2. 按 $\#$ 鈕並按住一秒鐘。

- 進入補正值輸入模式。顯示既存的補正值。

3. 使用焊鐵頭溫度計測量焊鐵頭溫度。

註：

進入補正值輸入模式時，無論補正值顯示如何數值，焊鐵頭溫度是以補正值0被控制。

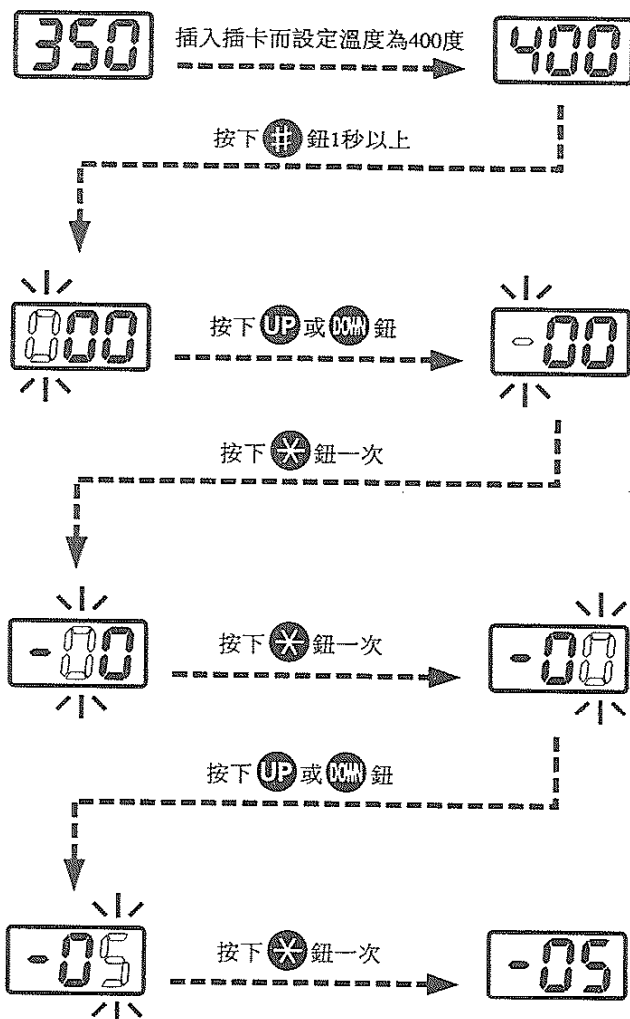
4. 輸入補正值

- 查出400度與焊鐵頭測量溫度，記錄此數值。參照上述例子決定該焊鐵頭所需輸入的補正值。
- 按照上述方法，輸入實際的補正值到記憶系統。

例子：

如果測量溫度為攝氏395度（華氏740度）時，溫差為攝氏+5度（華氏+10度）（焊鐵頭稍冷五度（十度）），因此補正值為攝氏+5度（華氏+10度）。如果測量溫度為攝氏405度（華氏750度）時，溫差為攝氏-5度（華氏-10度）（焊鐵頭稍熱五度（十度）），因此補正值為攝氏-5度（華氏-10度）。

例子：焊鐵頭的補正值為攝氏-5度時



8. 參數設定

● 參數設定

(1) °C(攝氏) °F(華氏) 之選擇

(2) 自動電源關閉

這是一項選購機能之設定。如果設定為有效，並且焊鐵經30分鐘未使用的話，發熱元件的電源會自動關閉，而蜂鳴器會響三下。當溫度降到100°C/200°F時，顯示幕會顯示 $\boxed{---}$ 。要開始焊接時，將電源開關轉到OFF，然後轉到ON。如果在溫度降到100°C/200°F之前按下任何按鈕的話，電源就會開啟。

要跳過此程序而繼續到低溫告警限度設定之復歸時，可按一次 \otimes 按鈕。

Hakko 941具有4個參數。

1. 溫度顯示 攝氏 (°C) 與華氏 (°F) 選擇
2. 自動電源關閉
3. 下限設定溫度
4. 主管或操作員補正值限制設定

一旦進入參數模式時，即依照以下的順序進行設定。設定所有的參數之後，回到通常的動作。

1. 關掉電源開關。
2. 將插卡插入裝置前面的卡孔。
3. 同時按住 \uparrow 及 \downarrow 二鈕，並按開電源。
4. 按住 \uparrow 及 \downarrow 二鈕，直到顯示 $\boxed{1C}$ (攝氏) 或 $\boxed{1F}$ (華氏) 為止。顯示 $\boxed{1C}$ 或 $\boxed{1F}$ 時，控制臺是在參數輸入模式之下。
 - 按住 \uparrow 及 \downarrow 鈕時，會交替顯示 $\boxed{1C}$ 或 $\boxed{1F}$ 。
 - 所要決定顯示時，按下 \otimes 鈕。系統即自動進入自動電源關閉的輸入。

要變更自動電源關閉之設定時，其程序如下。

- 進入此模式時，顯示幕會顯示 $\boxed{21}$ 或 $\boxed{20}$ 。
- 使用 \uparrow 或 \downarrow 按鈕時會變更 $\boxed{21}$ 及 $\boxed{20}$ 。只有選擇 $\boxed{21}$ 時，自動電源關閉才會作用。
- 按下 \otimes 按鈕以輸入參數。如此會把自動電源關閉的設定儲存在系統記憶體內。系統接著自動進到低溫告警限度之設定。

⚠注意：

進行熱容量小的焊接時，有可能自動電源關閉機能會作用。如果有這情況，按照上述所說明的程序，將此機能取消。

(3) 下限設定溫度警告之復位

此獨特功能在所偵測溫度降到設定限度以下時，會警告操作者。如果偵測溫度降到告警準位以下的話，會顯示錯誤訊息 **H-E**，而且響起蜂鳴器。當溫度回到容許範圍之內時，蜂鳴器會停止響聲。此值儲存在Hakko 941之內，如以下例子所述：


例子：

如果設定溫度為350°C而低溫告警為100°C的話，當所偵測溫度降到250°C以下時，告警即啟動。

註：

上下限為30°C – 150°C；50°F – 300°F。

如果輸入值超出此限度的話，系統會回到此模式的開頭（百位數會閃爍）而程序必須重新開始。

要跳過此程序時，將  按鈕按三次。

下限設定溫度警告限度之容許範圍

攝氏溫度：30°C – 150°C


華氏溫度：50°F – 300°F

(4) 主管或操作員補正限制設定

- 當控制臺進入低溫告警限度設定模式時，百位數開始閃爍。依照“變更溫度設定”所述之相同方法輸入並儲存設定值。
- 如果輸入值超出左側所示之限度的話，系統會跳回百位數之輸入。此時必須重新輸入正確值。
- 一旦該值被儲存後，系統會自動接著進行主管或操作員補正限制設定。

要變更主管或操作員補正限制設定時，其程序如下：

- 進入本模式後，顯示幕會顯示 **4 0** 或 **4 1**。
4 0 插卡不插入的話，無法輸入焊鐵頭補正值。
4 1 插卡不插入，即可輸入焊鐵頭補正值。

所要之設定顯示後，按下  鈕加以選擇。系統即離開參數設定模式，並開始控制發熱器。此時即就可進行正常操作。

9. 保養

● 焊鐵頭保養

1. 焊鐵頭溫度

溫度過高會縮短焊鐵頭壽命並可能造成對組件的熱擊。焊接時經常用盡可能的低溫。Hakko 941具有絕佳溫度回復特性，確保有效的低溫焊接。

2. 清理

在焊接之前，請將焊鐵頭的氧化物或舊錫屑擦乾淨。請使用乾淨而潮濕之清潔海綿（Hakko 941所提供）或Hakko 599焊鐵頭清咀器。焊接後，焊鐵頭的殘餘焊劑所衍生的氧化物和碳化物會損害焊鐵頭，造成焊接差誤，或者使焊鐵頭導熱功能減退。長時間連續使用焊鐵時，應每周一次開焊鐵頭清除氧化物，防止焊鐵頭受損而減低溫度。

3. 使用後

使用後，應抹淨焊鐵頭，鍍上新錫層，以防止焊鐵頭的氧化。

4. 當不使用而自動電源關閉無動時

請勿將焊鐵設定為很高的溫度而長時間放置。焊鐵頭的焊錫電鍍層會被氧化物覆蓋而使熱傳導惡化。請關閉電源。如果數小時不使用，最好將電源插頭也拔掉。

5. 檢查及清理

如果每日使用，請進行下述檢查及清理延長焊鐵頭之壽命。

- 設定溫度為攝氏250度（華氏482度）。
- 溫度穩定時，以清潔海綿擦拭（參照上述2.）並檢查焊鐵頭之狀況。如果焊鐵頭已經變形或耗損嚴重時，請更換之。
- 如果焊鐵的鍍錫部分有黑色氧化物時，可鍍上新錫層，再用清潔海綿抹淨焊鐵頭。如此重複清理，直到徹底除去氧化物為止，然後再鍍上新錫層。

⚠ 注意：

請勿以銼刀挫掉氧化物。

- 關閉電源，以抗熱墊片取下焊鐵頭。放置使其冷卻。
- 如果助焊劑殘渣等附著在焊鐵頭上顏色變黃時，可用酒精等擦拭。

● Hakko 911焊鐵保養

清理焊鐵及更換圓環

套頭被助焊劑弄髒時，檢查套頭里面的圓環（參照36頁）。如果圓環被助焊劑弄髒，要更換圓環。

● 檢查方法

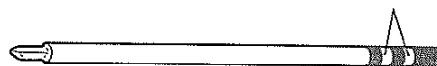
⚠警告：

更換部件時請務必關閉電源並拔掉電源插頭。

■ 檢查發熱元件傳感器破損

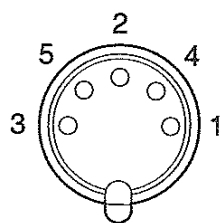
1. 檢查發熱元件傳感器破損

測定此部份的電阻值。

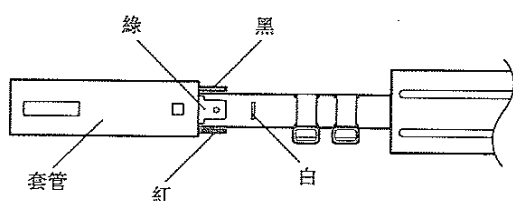


正常值是5歐姆（±10%）常溫時（攝氏15度至25度／華氏59度至77度）。如果電阻值反常，更換焊鐵頭。

■ 檢查接地線



■ 組裝電線破損檢查方法

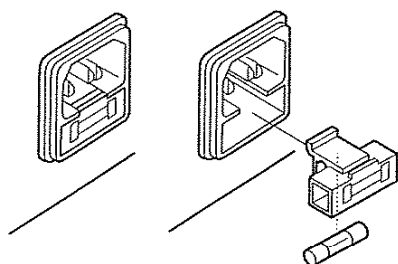


⚠注意：

請勿弄掉套頭內部的圓環。

組裝時，請將手柄的凸起與圓環襯墊及套管的凹進相互對合。

■ 更換保險絲



1. 將焊鐵的組裝電線插頭從控制臺拔下。
2. 測定接腳2與焊鐵頭之間的電阻值。
3. 電阻值超過2歐姆（常溫時）時，請實行第31頁的檢查和清理焊鐵頭。
如果還是無法降低，請檢查組裝電線是否斷線。

1. 取下焊鐵頭與套頭。
2. 壓出在手柄內部的套管。
3. 測定插頭接腳與套管引線之間的電阻值。

接腳1—紅 接腳2—綠

接腳3—黑 接腳4—白

比0歐姆大或無限大（ ∞ ）時，請更換手柄組件。

1. 從自進入口拔出電線。
2. 拔出保險絲座。
3. 更換新的保險絲。
4. 組裝成原樣。

10. 錯誤標記

● 傳感器失誤

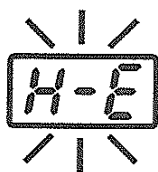


如有是傳感器/發熱元件（含傳感器電路）任何部份失靈時，會顯示錯誤標記 **S-E**，輸送到焊鐵之電流被停頓。蜂音器並會連續響起。

註：

焊鐵頭沒有完全插入時也會產生傳感器錯誤。再次插好焊鐵頭，Hakko 941再開始。

● 下限設定溫度失誤



如果傳感器溫度已降到下限設定溫度以下時，會顯示錯誤標記 **H-E**，而蜂音器亦會作響。溫度回到容許範圍時，蜂音器才會停止。

例子：

設立溫度為攝氏400度／華氏750度。低溫警告限度為攝氏50度／華氏100度。發熱元件雖然已經通電，溫度繼續下降。顯示會閃亮，表示焊鐵頭溫度已經下降。

350°C (400°C – 50°C)

設定溫度

下限設定溫度警告

或

650°F (750°F – 100°F)

設定溫度

下限設定溫度警告

11. 排除故障指南

警告

· 檢查Hakko 941內部或更換部件之前，請務必拔掉電源插頭，否則可能造成觸電。

● 電源開關打開後，機器無法操作。

檢查：電源線及/或連接插頭未插上嗎？

動作：請插上。

檢查：保險絲燒掉了嗎？

動作：檢查保險絲為什麼燒掉，然後更換保險絲。
如果無法判斷原因，更換保險絲。如果保險絲再次燒掉，請將機器送修。

● 焊鐵頭無法加熱。

· 顯示傳感器錯誤 **S-E**。

檢查：電源線及/或連接插頭未插上嗎？

動作：請插上。

檢查：焊鐵頭插入正確嗎？

動作：請完全插入。

檢查：電源線及/或發熱元件/傳感器壞了嗎？

動作：請參閱本說明書關於如何檢查電源線及/或發熱器/傳感器損壞之適當章節。

● 焊錫無法沾上焊鐵頭。

檢查：焊鐵頭溫度太高嗎？

動作：調整適當溫度。

檢查：焊鐵頭被氧化物弄髒了嗎？

動作：清除氧化物（參閱31頁“焊鐵頭保養”）。

● 焊鐵頭溫度太高。

檢查：電源線壞了嗎？

動作：請參閱32頁“組裝電線破損檢查方法”。

檢查：所輸入補正值正確嗎？

動作：輸入正確值。

● 焊鐵頭溫度太低。

檢查：焊鐵頭被氧化物弄髒了嗎？

動作：清除氧化物（參閱31頁“焊鐵頭保養”）。

檢查：所輸入補正值正確嗎？

動作：輸入正確值。

● 下限設定溫度失誤經常發生。

檢查：對於所焊物件所用焊鐵頭是否太小？

動作：請用熱容量較大之焊鐵頭。

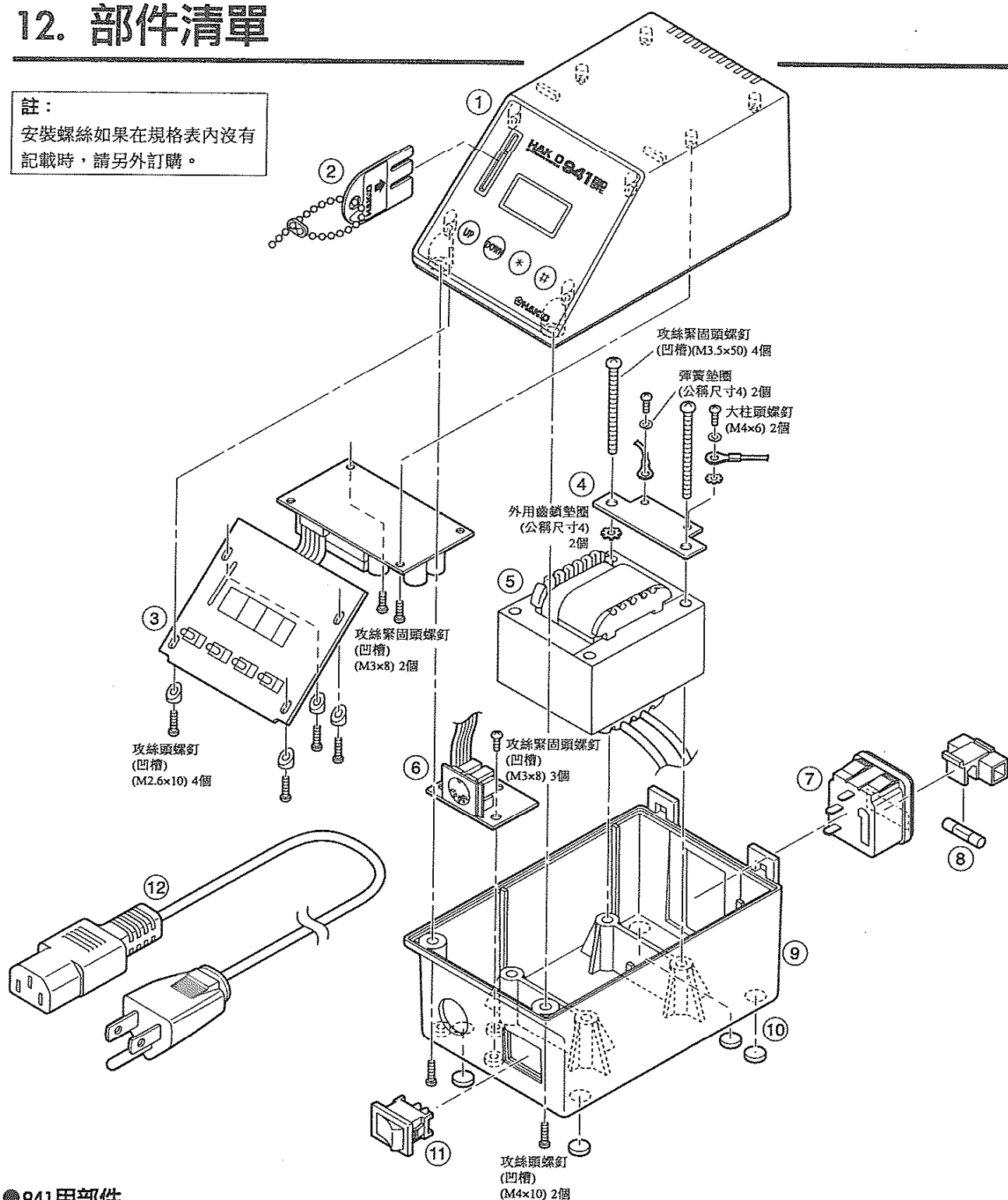
檢查：下限設定溫度設定值太低嗎？

動作：增加設定值。

12. 部件清單

註：

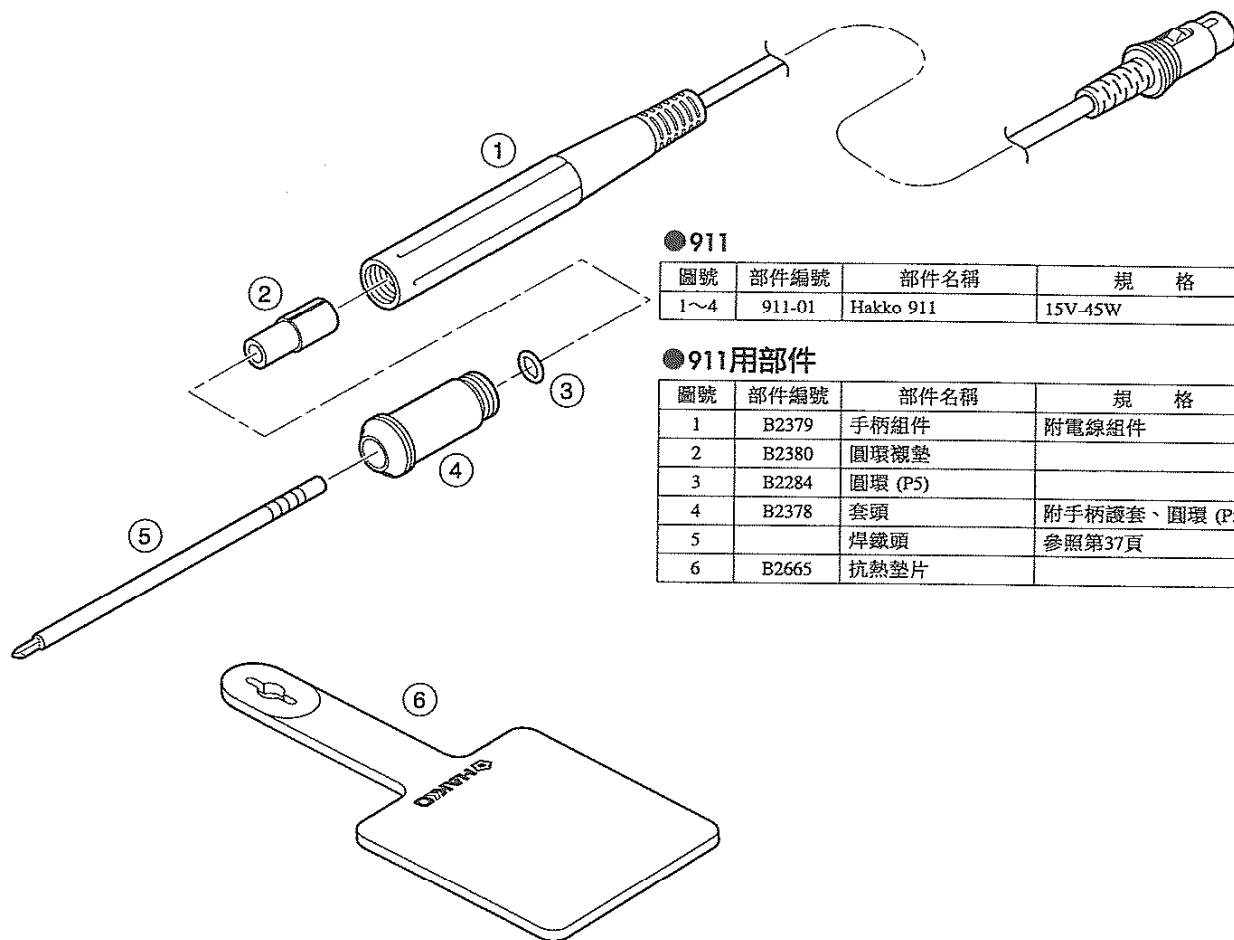
安裝螺絲如果在規格表內沒有記載時，請另外訂購。



●941用部件

圖號	部件編號	部件名稱	規格
1	B2568	上蓋	附貼薄膜
2	B2388	插卡	
3	B2569	印刷電路板/控制、電源用	2塊
4	B2664	接地板	
5	B2570	變壓器	100-15伏特
	B2599	變壓器	110-15伏特
	B2590	變壓器	120-15伏特
	B2600	變壓器	220-15伏特
	B2591	變壓器	230-15伏特
	B2592	變壓器	230-15伏特CE
	B2594	變壓器	240-15伏特
6	B2383	接頭板	
7	B2666	電源插座	

圖號	部件編號	部件名稱	規格
8	B2403	保險絲/250伏特-2安培	100-120伏特
	B2404	保險絲/250伏特-1安培	220-240伏特
9	B2571	下蓋	附電源插座、橡膠腳
10	B2667	橡膠腳	附4個
11	B2663	電源開關	
12	B2668	電源線 三芯美式插頭	
	B2421	電源線 三芯沒有插頭	
	B2422	電源線 三芯英國標準插頭	印度
	B2423	電源線 橡膠三芯歐式插頭	韓國
	B2424	電源線 三芯歐式插頭	(CE規格)
	B2425	電源線 三芯英國標準插頭	(CE規格)
	B2426	電源線 三芯澳大利亞插頭	
	B2436	電源線 三芯中式插頭	中國

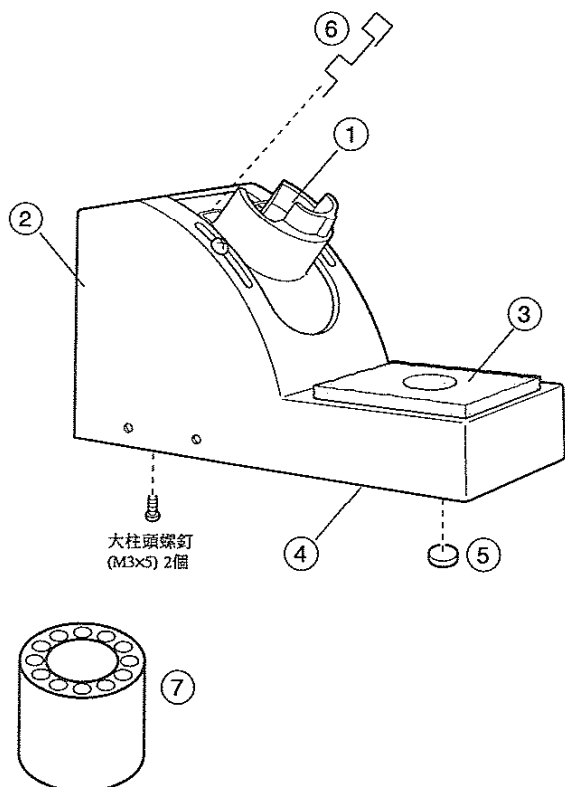


●911

圖號	部件編號	部件名稱	規 格
1~4	911-01	Hakko 911	15V-45W

●911用部件

圖號	部件編號	部件名稱	規 格
1	B2379	手柄組件	附電線組件
2	B2380	圓環襯墊	
3	B2284	圓環 (P5)	
4	B2378	套頭	附手柄護套、圓環 (P5)
5		焊鐵頭	參照第37頁
6	B2665	抗熱墊片	



大柱頭螺釘
(M3×5) 2個

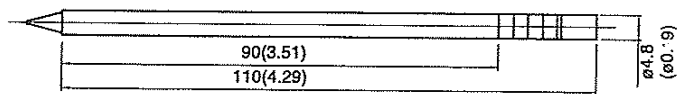
●焊鐵架

圖號	部件編號	部件名稱	規 格
1~6	C1413	焊鐵架	Hakko 911, 912用

●焊鐵架用部件

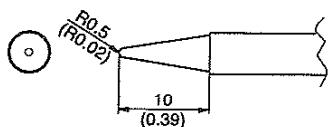
圖號	部件編號	部件名稱	規 格
1	B2390	焊鐵插座	附2個螺絲
2	B2389	焊鐵架基座	附底板
3	A1427	清潔海綿	
4	B2391	焊鐵架底板	
5	B2405	橡膠腳	附4個
6	B2572	護夾子	
7	B2607	焊鐵頭插架	

13. 焊鐵頭之種類

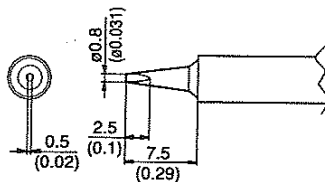


單位：mm(in.)

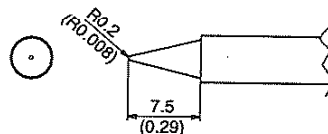
T1-2B2B型



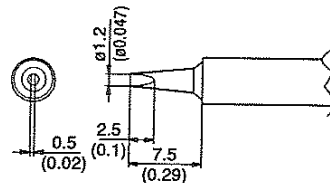
T1-08D0.8D型



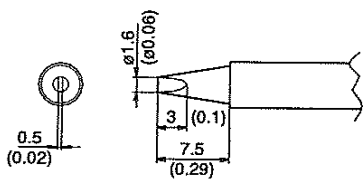
T1-BB型



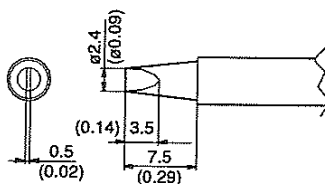
T1-12D1.2D型



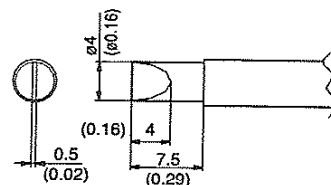
T1-16D1.6D型



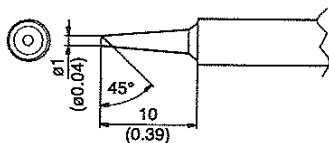
T1-24D2.4D型



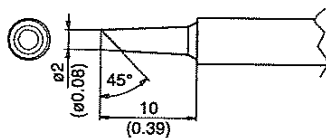
T1-4D4D型



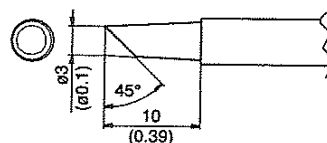
T1-1BC1BC型



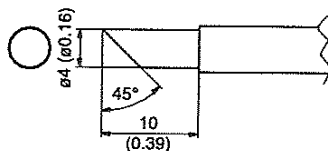
T1-2BC2BC型



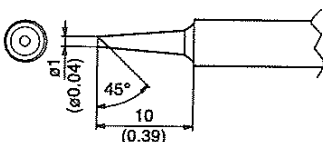
T1-3BC3BC型



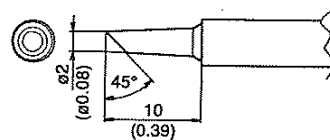
T1-4C4C型



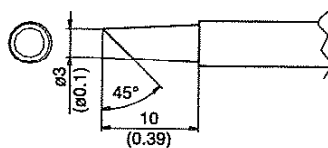
T1-1BCF 1BC型切面鍍錫



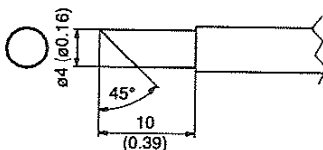
T1-2BCF 2BC型切面鍍錫



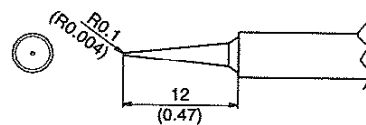
T1-3BCF 3BC型切面鍍錫



T1-4CF4C型切面鍍錫

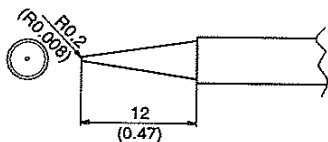


T1-LILI型

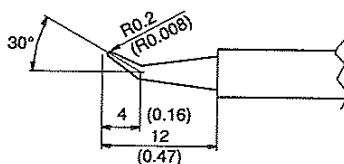


中文

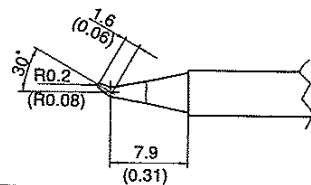
T1-LBLB型



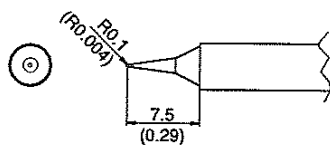
T1-02J0.2RB型



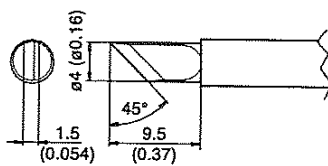
T1-02JS0.2RSSB型



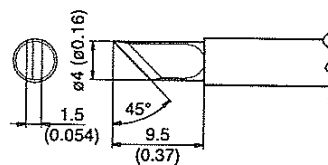
T1-II型



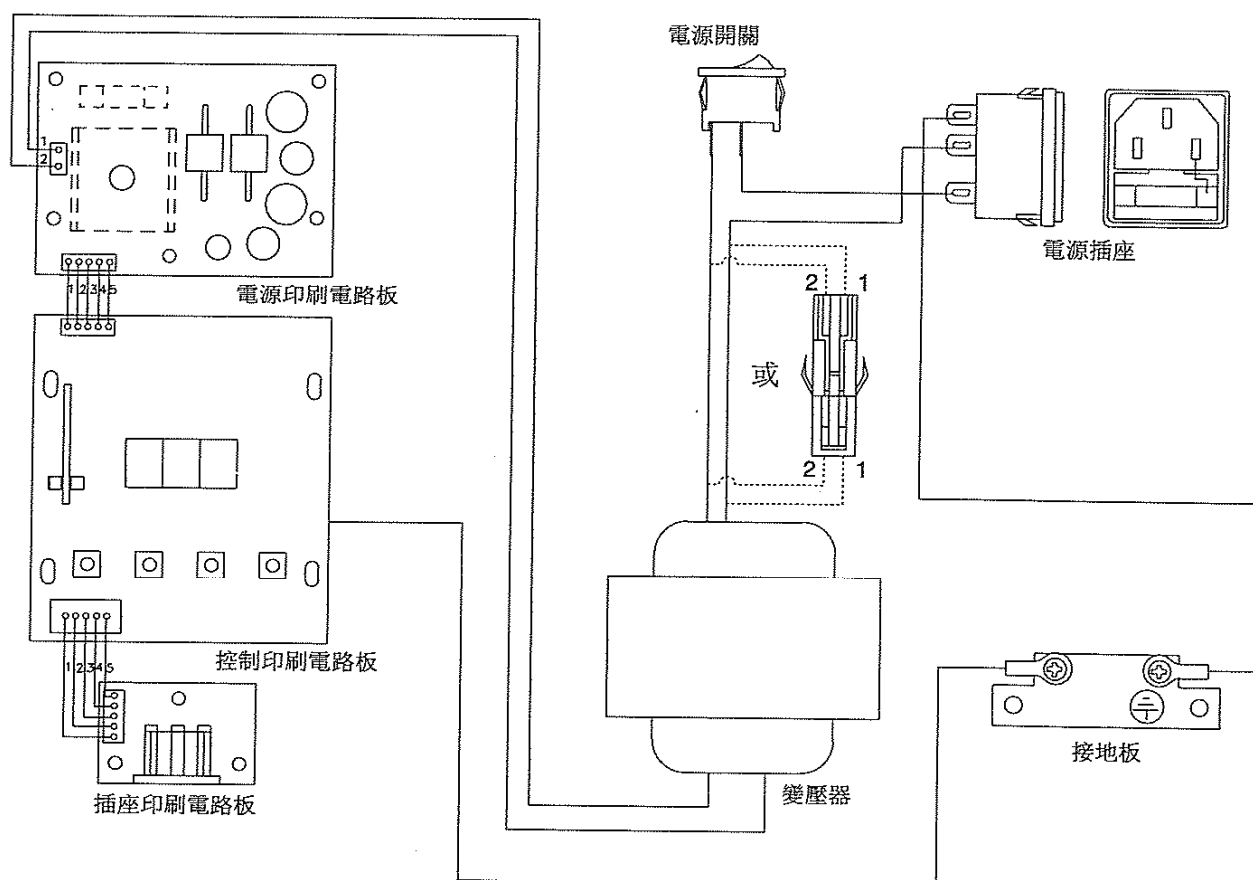
T1-KK型



T1-KLKL型



14. 電路圖





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/address>

Oct. 2002
MA00919JB021004