

微電腦數顯控溫  
防靜電 SMD 熱風拆焊台

使  
用  
手  
冊

# 1. Summary of product

## 1-1 Specifications

Voltage of power supply	AC 110V
Consumption of power	When start: maximum 540W When work: maximum 320W
Air pump	Special diaphragm pump
Capacity	24L/min (max)
Temperature of hot air	100~480°C
Overall dimensions	187 (W)×135 (H)×245 (D) mm

## 1-2 Functions

- \* Closed loop of sensor, microcomputer to display digital and control temperature, large power in starting, rapid in temperature raising, accuracy and constant in temperature, no effect caused by amount of air exhaust.
- \* Design of static electricity proof: prevent from damaging PCB caused by static electricity and creepage.
- \* Because of adapting the soldering method of unnecessary touching solder joint, it can avoid the elements displacement and heat shocking.
- \* Can adjust amount of air and temperature greatly and can solder IC of QFP and SOP type. When solder or remove tin, different nozzles can be selected in accordance with different requirement.
- \* Adapt imported heating elements and the nozzle is the same as international brand.
- \* After the work of pulling solder is finished, stop the machine, the air is still blown a little time in order to prolong the life of heating elements and handle.
- \* The function of dormancy can be selected.
- \* The normal setting and on-line setting for temperature two ways can be selected random.

## 1-3 Applications

- \* It is suitable for disassembling soldering for most of parts and the surface, for example, SOIC, CHIP, QFP, PLCC, BGA and so on.
- \* It is suitable for contractive flexible tube.

## 1-4 Accessories parts

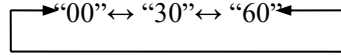
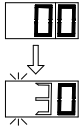
Picking up .....	1 piece
Picking up wire.....	1 piece

# 2. Set sleep and temperature

When set sleep, the heating elements are in the state of electric cutting off.

## 2-1 Choose the function of sleep

Turn off the switch of power supply. The screen has no display. At the same time, press the “UP” and “DOWN” knob. Then press the switch of power supply, the display screen will display “C”. It indicates the temperature of centigrade. Press the knob of “\*”, it display “00”.



“00” indicates unsleeping.

“30” indicates to begin sleeping after work 30 minutes.

“60” indicates to begin sleeping after work 60 minutes.

Press the knob of “\*” to set and store the date of sleep. Meanwhile it indicates the normal work begins.

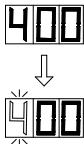
## 2-2 Set temperature normally

When set temperature normally, the heating elements are in the state of electric cutting off.

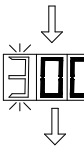
Press the knob of “\*” at least 1 second.

Example: Set 400°C to 350°C

1.

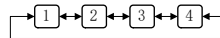


2. Press “UP” or “DOWN”

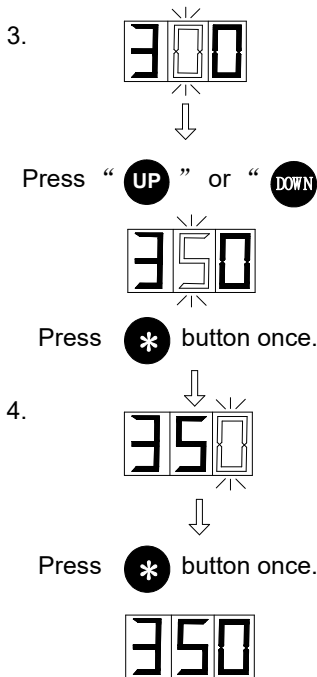


Press \* button once.

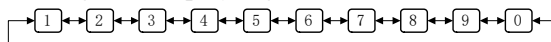
- ① First, display the presetting temperature, then the digital position of 100 will flash. It indicates that it has entered into the setting mode of temperature. The digital position of 100 may be adjusted.
- ② Choose the needed digital to replace the digital position of 100. Use “UP” or “DOWN” knob to change the display digital. It is shown below.



When the needed digital displays, press the knob of “\*” at once. The middle digital (digital position of 10) begins to flash, it indicates that the digital position of 10 may be set.



- ③ Choose the needed digital to replace the digital position of 10. Use “UP” or “DOWN” knob to change the display digital. It is shown below.



Press the knob of “\*”. The right digital position (digital position of 1) begins to flash. It indicates the digital position of 1 may be set.

- ④ Choose the needed digital to replace the digital position of 10. Use “UP” or “DOWN” knob to change the display digital. Use the method shown above to choose the digital position of 10.

Press the knob of \*.

Here, press the knob of \*.....

- Input the set temperature into inner memory.
- Display the set temperature, and
- Begin to control heating elements.

Note: If power supply is cutting off when set temperature, the set temperature will not be memory.

- If the pressed time of knob has not 1 second, the present set temperature will display 2 seconds. Then display the temperature at air injecting outlet. When press the knob of the power supply of heating elements will be cut off.
- When the temperature is over the scope, the digital position of 100 will flash again. If the condition takes place, please input correct temperature value again.

## 2-3 Set temperature on—line





In the work, if it is necessary to set temperature quickly and the electricity cannot cut off, the way may be selected.

### Temperature raising:

Don’t press “\*” knob and press “UP” knob directly. If so, the setting temperature will raise 1°C and the display window will display the set temperature. When loose the “UP” knob, the display window will relay the set temperature about 2 seconds. If within 2 seconds of time, press the “UP” knob again, the setting temperature will raise 1°C again. If press the “UP” knob and not loose at least 1 second, the setting temperature will raise rapidly. Till the needed temperature reaches, then loose the “UP” knob.

### Temperature dropping:

Don't press "\*" knob and press "DOWN" knob directly. If so, the setting temperature will drop 1°C and the display window will display the set temperature. When loose the "DOWN" knob, the display window will relay the set temperature about 2 seconds. If 2 seconds later, press the "DOWN" knob again, the setting temperature will drop 1°C again. If press the "DOWN" knob and not loose at least 1 second, the setting temperature will drop rapidly. Till the needed temperature reaches, then loose the "DOWN" knob.

Note: "  " knob equals to "  " and "  " knob equals to "  " .

## 3. Explanation to operation

### 3-1 Preparation before operation

- \* Choose the picking up wire that matches the size of IC. The FP picking up device is equipped with small wire (14mm), but a large picking up wire (30mm) may be necessary. Please choose the suitable picking up wire in accordance with the size of IC.
- \* Choose the nozzle that will be matched with the size of IC.
- \* Loose the screw on the nozzle.
- \* Attach the nozzle as shown in the drawing.
- \* Fasten the screw properly.

### 3-2 Process of detinning

#### \* **Press the switch of power supply.**

The display screen displays the set temperature. After 2 seconds, begin to heat it normal. When air is injected automatically, turn on the switch of power supply at any time. When turn on, the heating raw materials begins to heat.

#### \* **Adjust the airflow and set the knob of temperature control.**

After the temperature is set and the airflow is adjusted, wait for a while till the temperature is stable. We suggest that you may adjust the temperature to 300~350°C. As for airflow, in case of single nozzle, the knob of airflow may be set at 1~5. For other nozzle, the knob of airflow may be set at 4~7.

#### \* **Place the picking up device under IC block.**

Place the picking up device under IC block. If the width of IC block cannot match the size of picking up wire, adjust the width of the wire through pressing.

#### \* **Melt the solder**

Hold the iron and make the nozzle aim at the part to be melted.

Let the hot air melt the solder.

Be carefully not touch the leads of IC.

#### \* **Remove the IC block.**

When the solder is melting, lift the picking up device and remove the IC block.

#### \* **Turn off the switch of power supply.**

After the switch of power supply is turned off, the automatic air injecting function begins to work. The cool air is passed through the pipe. It makes the temperature of heating elements and handle drop. Therefore during the stage of cooling, don't pull out the plug. When the temperature of air at nozzle is below 100 °C , it can be turn off automatically. In case of not use the unit for a long time, pull the plug out.

**\* Remove any residue of solder**

After remove the IC block, remove the residue of solder with a tin socking wire or de-tinning pump.

**Notes: In case of SOP, PLCC, raise the IC block with tweezers.**

### 3-3 Soldering

**\* Apply the solder paste**

Apply proper solder paste and put SMD on the IC board.

**\* Preheat SMD.**

**\* Soldering**

Inject the hot air to lead frame uniformly.

**\* Washing**

After finished, clean the residue of molten materials.

Notes: It is effective to solder it with hot air. But it is possible to cause the defects such as solder balls, solder bridges and so on. We suggest that you should check the condition of solder carefully.

## 4. Precautions

\* When attach the nozzle, don't exert too much force on it or pull the edge of nozzle by pliers. Also don't exert too much force to fasten the screw.

\* When attach the nozzle, it is necessary to attach it only when the heating pipe and nozzle have been cooled.

\* Caution—Operation at high temperature

Don't use the disassembling station near easy inflammable gases, paper or other easy inflammable materials. The nozzle and hot air are very hot. It can burn human body. Never touch the heater or allow the hot air to blow against your skin. Initial, the iron may emit white smoke, but this will disappear soon.

\* After use, be sure to cool the unit

After turn off the switch of power supply, the unit will blow cool air for a short time automatically. During the period of cooling, don't pull the plug of power supply out. When the temperature of blowing air is below 100°C, the unit can stop automatically.

\* Don't drop it and shock it heavy

The heating pipe contains quartz glass. If it is dropped or shocked heavily, the quartz

glass will be broken.

\* Don't disassemble the pump.

\* If the unit does not use for a long time, the switch of power supply should be turned off.

\* Use the function of sleeping.

If choose the function of sleeping, when the function of sleeping is action, the heating elements will cut off the power supply and the heating will be stopped. At the time, the cooling air can blow still. When press the knob of “\*”, the work of heating begins again. The time of sleeping function should be calculated from the time when press the knob of “\*” last time.

\* The last decimal on the screen of display means the marks to heat.

\* Don't turn off power supply when set the temperature.

\* When the screen of display appears “S-E” and flashes in a long time, it indicates that the sensor has troubles. It is necessary to repair or exchange.

\* When the temperature of screen flashes, it indicates that the temperature can not be raised. The heating elements could be damaged.

\* When the temperature is over 350°C, when start it, the knob of airflow control should be at 3~8 position.

\* When the working temperature is over 450°C, the knob of airflow control must be over 4 position.

## 5. Replace the heating elements

### 5-1 Replacing parts

NO.	Name /specifications
47007	Heating element / 100V A1143B
47008	Heating element / 110V A1144B
47009	Heating element / 120V A1145B
47010	Heating element / 220~240V A11446B
47183	Picking up device including small and big wire
44025	Picking up wire (small)
44024	Picking up wire (big)

### 5-2 Replace the heating materials

\* **Loose the screw and take out the wire tube.**

Loose three screws of handle and take out the wire tube.

\* **Loose the handle**

Loose the protect sheath of grounding wire and take out the tube. It contains quartz glasses and heat insulator in it. Don't drop or loss them.

**\* Take the heating materials out**

Loose the terminal and take the heating materials out.

**\* Insert new heating material.**

Treat it carefully. Don't rub the electric line of heating materials. Insert new heating material and connect their terminals. The sensor has polar. It is necessary to distinguish its colors. Connect it with same color.

According to the reverse procedures of disassemble to install the handle. Make the protruding part of handle telescope the hold of pipe part.

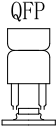

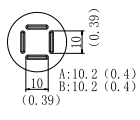
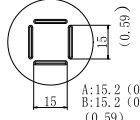
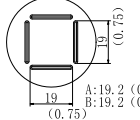
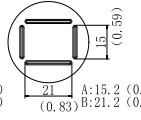
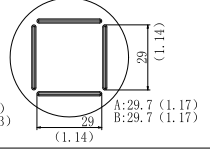
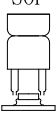





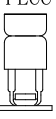
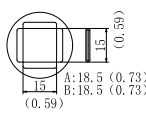
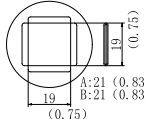
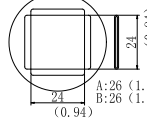
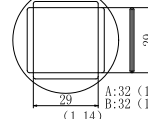
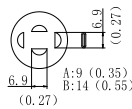
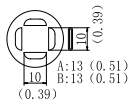
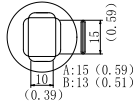
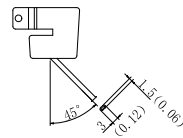
## Parts to be selected

\* The size of each specification will be the size of integrate circuit block.

• Option Parts

mm(inch)

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

	A1124 Single QFP (0.09)	A1125 QFP 10×10 (0.39×0.39)	A1126 QFP 14×14 (0.55×0.55)	A1127 QFP 17.5×17.5 (0.68×0.68)	A1128 QFP 14×20 (0.55×0.78)	A1129 QFP 28×28 (1.1×1.1)
						
	A1130 Single SOP 04.4 (0.17)	A1131 SOP 4.4×10 (0.17×0.39)	A1132 SOP 5.6×13 (0.22×0.51)	A1133 SOP 7.5×15 (0.3×0.59)	A1134 SOP 7.5×18 (0.3×0.7)	
						
	A1135 PLCC 17.5×17.5 (0.68×0.68) (44 Pins)	A1136 PLCC 20×20 (0.78×0.78) (52 Pins)	A1137 PLCC 25×25 (0.98×0.98) (68 Pins)	A1138 PLCC 30×30 (1.18×1.18) (84 Pins)		
						
	A1139 PLCC 12.5×7.3 (0.49×0.29) (84 Pins)	A1140 PLCC 11.5×11.5 (0.45×0.45) (28 Pins)	A1141 PLCC 11.5×14 (0.45×0.55) (32 Pins)	A1142 Bent Singel 1.5×3 (0.06×0.12)		
						

## 1. 產品概要

### 1-1 規格

電源電壓

AC 110V

功率消耗

起動時：最大 540W

工作時：最大 320W



空氣泵	膜片式專用泵
容量	24L/min 最高
溫度範圍	100°C-480°C
外形尺寸	187 (W)×135 (H)×245 (D) mm

## 1-2 功能

- \* 感測器閉合回路，微電腦數顯控溫，功率大，升溫迅速，溫度精確穩定，不受出風量的影響。
- \* 防靜電設計，防止因靜電及漏電而損壞 PCB 板。
- \* 不需接觸焊點的錫焊方式可免除零件移位元及熱衝擊。
- \* 能大幅度調節空氣量及溫度，可焊接 QFP 及 SOP 型 IC，焊接及除錫可根據要求選用不同噴嘴。
- \* 採用進口發熱體，噴嘴與發熱體與國際品牌共同。
- \* 拔焊工作完畢關機後送風延時工作，延長了發熱體與手柄的壽命。
- \* 休眠功能可以選擇。
- \* 溫度設定有常規設定和即時設定兩種方法可供選擇。

## 1-3 用途

- \* 適用於大多數表面貼裝元件的拆焊，如 SOIC、CHIP、QFP、PLCC、BGA 等。
- \* 可用於收縮軟管等。

## 1-4 附件

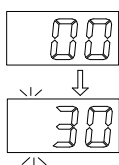
起拔器.....	1 件
起拔鋼絲.....	1 件

## 2. 休眠及溫度設定

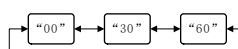
設定休眠時，發熱元件是斷電源。

### 2.1 休眠功能選擇

關閉電源開關，顯示幕無顯示時同時按下“UP”和“DOWN”鈕，然後打開電源開關，顯示幕顯示“C”，表示攝氏溫度。按“\*”鈕，顯示“00”。



按“UP”鈕或“DOWN”鈕，顯示幕改換顯示數值如下圖所示：



- “00”：表示不休眠。
- “30”：表示工作 30 分鐘後休眠開始。
- “60”：表示工作 60 分鐘後休眠開始。

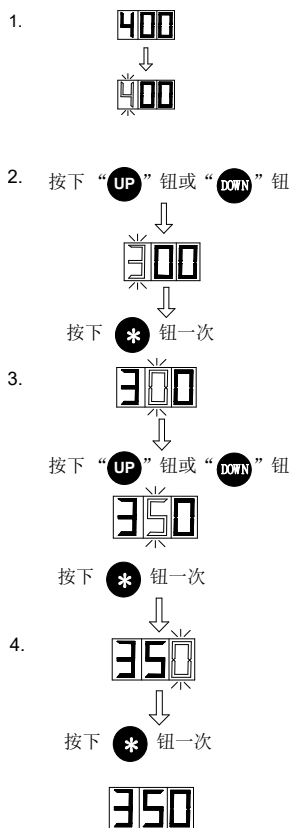
按“\*”鈕，存儲設定休眠資料，並開始正常工作。

## 2-2 溫度常規設定

溫度常規設定時，發熱元件是斷電源。

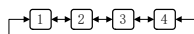
按“\*”鈕，並且按著不放至少 1 秒鐘。

例子：攝氏 400 度改換為 350 度。



① 首先顯示預設溫度，然後 100 數位開始閃亮，表示已經進入溫度設定模式。100 數位可以進行調節。

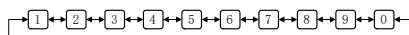
② 選擇所需數值以取代 100 數位。利用“UP”或“DOWN”鈕以改換顯示數值。如下圖所示：



當所需數位顯示時，按下\*鈕。

中間數位(10 數位)開始閃爍，表示 10 數位可以設定。

③ 擇所需數值以取代 10 數位。利用“UP”或“DOWN”鈕以改換顯示數值。如下圖所示：



按下\*鈕。

右邊個數位開始閃亮，表示 1 數位可以設定。

④ 選擇所需數值以取代 1 數字位。利用“UP”或“DOWN”鈕以改換顯示數值，一如上面所示選擇 10 數位方法。按下“\*”鈕。

在此，按下\*鈕……

- 將所設定溫度輸入內部記憶體。
- 顯示所設定的溫度。
- 開始發熱器控制。

注：如果在設置溫度時電源斷開，所設數值將不存入記憶體。

\* 如果按下“\*”鈕不少於 1 秒鐘，現存的設定溫度將顯示兩秒鐘，然後顯示噴氣口溫度。按“\*”鈕時發熱體斷電源。





\* 當輸入的溫度值超過允許的溫度範圍，百位元數將再次閃亮，發生這種情況時，請再輸入正確的溫度值。

## 2-3 溫度即時設定

在工作中若需加熱體不斷電源的情況下快速設置溫度，則應選擇此法。

**升溫：**不按“\*”鈕，直接按一次“UP”鈕，則設定溫度上升 1 ℃，顯示視窗顯示設定溫度，釋放“UP”鈕後，顯示視窗延時顯示設定溫度約 2 秒，若在延時 2 秒內再按一次“UP”鈕，則設定溫度再上升 1 ℃；若按住“UP”鈕不放至少一秒鐘，則設定溫度快速上升，直到所需設定溫度時釋放“UP”鈕。

**降溫：**不按“\*”鈕，直接按一次“DOWN”鈕，則設定溫度下降 1℃，顯示視窗顯示設定溫度，釋放“DOWN”鈕後，顯示視窗延時顯示設定溫度約 2 秒，若在延時 2 秒內再按一次“DOWN”鈕，則設定溫度再下降 1℃；若按住“DOWN”鈕不放至少一秒鐘，則設定溫度快速下降，直到所需設定溫度時釋放“DOWN”鈕。

注：“”鈕同“”鈕，“”鈕同“”鈕。

## 3. 使用說明

### 3-1 使用前準備工作

- \* 選擇與晶片尺寸相配合的起拔鋼絲。  
FP 起拔器配有小鋼線（14 毫米），但可能需要大起拔鋼線（30 毫米）。請依照電路塊尺寸，選擇適合的起拔鋼線。
- \* 選擇與積體電路塊尺寸相匹配的噴嘴。
- \* 鬆開噴嘴螺絲。
- \* 按圖裝置噴嘴。
- \* 適當緊固螺絲。

### 3-2 除錫過程

- \* 按開電源開關  
顯示幕顯示所示設定加熱溫度 2 秒後，開始正常加熱。  
自動噴氣時，可隨時按開電源。開電後，發熱材料即開始發熱。
- \* 調節氣流和溫控鈕。  
設定好溫度和調節氣流後，稍等一會兒，待溫度穩定下來。我們建議，您可調節溫度在 300℃~350℃之間。在氣流方面，如果是單噴嘴，氣流控制鈕可設在 1-5 檔，其他噴嘴可設定在 4-7 檔。
- \* 將拔起器置於積體電路塊底下  
將拔起器置於積體電路塊底下。如果積體電路塊寬度不配合起拔鋼線尺寸，可擠壓鋼線寬度以適應之。
- \* 熔化焊劑。  
握住手柄，使噴嘴對準所要熔化的焊劑部分，讓噴出的熱氣流熔化焊劑。噴嘴不可觸及積體電路塊引線。
- \* 移開集成電路塊。  
焊劑熔化時，用鑷子鉗提起並移開積體電路塊。
- \* 按開電源。  
關閉電源開關後，自動噴氣功能開始工作，通過管件輸送涼氣，使發熱材料和手柄降溫。因此，在冷卻時段，不可拔出電源插頭。當噴嘴氣溫低於 100℃時，自動開機。如果您往後有一段長時間不使用本機身，應拔出電插頭。

- \* 清除焊劑殘餘。

移開積體電路塊後，可用吸錫線或吸錫泵清除焊劑殘餘。

注：如果是 SOP、PLCC，可用鑷鉗提起積體電路塊。

### 3-3 焊接

- \* 塗抹錫膏。

塗抹適量的錫膏，將表面貼裝元器件（SMD）放在電路板上。

- \* 預熱 SMD

- \* 焊接

向引線框平均的噴出熱氣。

- \* 清理

焊接完畢，清除殘餘的焊料。

注：用熱氣進行焊接是有效的，但也可能導致焊劑球、焊劑搭連等問題。我們建議您仔細檢查焊接條件。

## 4. 注意事項

- \* 裝置噴嘴時勿使勁裝置噴嘴，或用鉗子拉動噴嘴邊緣，勿使勁緊拴螺絲。

- \* 裝置噴嘴時必須在發熱管與噴嘴都冷卻時，才能裝置噴嘴。

- \* 小心，高溫操作。

切勿在靠近易燃氣體、紙張、或其他易燃物體附近使用本拆焊台，噴嘴和熱氣都十分炙熱，能灼傷人體。切勿觸摸發熱管，或以熱氣直噴皮膚。起動初時，可能會冒出白煙，但不一會兒就沒事了。

- \* 使用後，切記冷卻機身。

關閉電源開關後，發熱管會自動短暫噴出涼氣。在此冷卻時段，請勿拔去電源插頭。當噴氣溫度低於 100°C 時，自動關機。

- \* 切勿掉落或重震。

發熱管含有石英玻璃。如果掉落或重震，會使玻璃破碎。

- \* 勿拆開泵。

- \* 長久不使用，應拔出電源插頭。

- \* 使用休眠功能

若選擇休眠功能，當休眠時，發熱體斷電源，停止加熱，但冷風繼續送，不會停止。

當再次按“\*”時，恢復加熱工作。休眠功能時間計算應從開機或最近一次按“\*”鈕開始算起。

- \* 顯示幕最後一位元小數點是加熱指示標誌。

- \* 設定溫度時，請不要關電源。

- \* 當顯示幕長時間出現“S-E”並閃爍時，表示感測器部分有故障，需修復或更換。

- \* 當顯示幕所顯示溫度閃爍時，表示溫度升不上，發熱體有可能損壞，或處於休眠狀態。
- \* 當溫度超過 350℃時，開機起動時氣流控制鈕應儘量在 3~8 檔。
- \* 當使用溫度超過 450℃時，請務必把氣流控制鈕旋到 4 檔以上。

## 5. 替換發熱材料

### 5-1 替換部件

編號	名稱 / 規格
47007	發熱材料 100V A1143B
47008	發熱材料 110V A1144B
47009	發熱材料 120V A1145B
47010	發熱材料 220V~240V A1146B
47183	起拔器，包括大小鋼絲
44025	起拔鋼絲（小）
44024	起拔鋼絲（大）













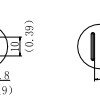

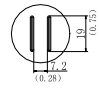
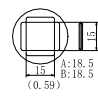
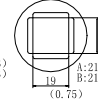
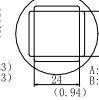
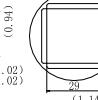
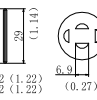
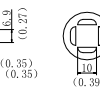
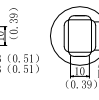






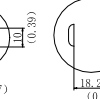

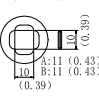
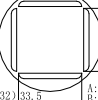
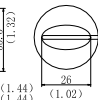
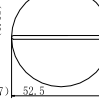
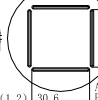
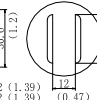

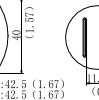






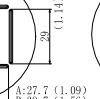
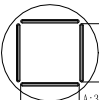
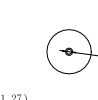
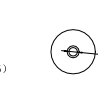
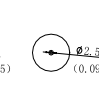
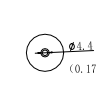
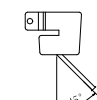
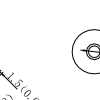
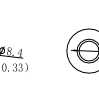
### 5-2 替換發熱材料

- \* 鬆開螺絲，移出電線管。  
鬆開拴緊手柄的 3 枚螺絲，移出電線管。
- \* 拆開手柄。  
鬆開接地電線護套，取出管件，管內裝置有石英玻璃和熱絕緣體。切勿掉落或遺失。
- \* 取出發熱芯。  
鬆開終端，取出發熱芯。
- \* 插入新發熱材料  
小心處理，切勿摩擦發熱材料電線。插入新發熱材料，重接終端。感測器線有極性，應注意顏色區別，相同顏色線接對。  
依拆開時的相反程式，回裝手柄。將手柄凸起部分套入管件孔徑。

## 選用部件

\* 名稱規格之尺寸，是集成塊之尺寸氣流  
共用噴咀

噴咀的規格及尺寸  
表示該IC的尺寸

								mm (inch)
A1125 QFP 10×10 (0.39×0.39)	A1126 QFP 14×14 (0.55×0.55)	A1127 QFP 17.5×17.5 (0.68×0.68)	A1128 QFP 14×20 (0.55×0.78)	A1129 QFP 28×28 (1.1×1.1)	A1131 SOP 4.4×10 (0.17×0.39)	A1132 SOP 5.6×13 (0.22×0.51)	A1133 SOP 7.5×15 (0.3×0.59)	
								
A1134 SOP 7.5×18 (0.3×0.7)	A1135 PLCC 17.5×17.5 (44 Pins) (0.68×0.68)	A1136 PLCC 20×20 (52 Pins) (0.78×0.78)	A1137 PLCC 25×25 (68 Pins) (0.98×0.98)	A1138 PLCC 30×30 (84 Pins) (1.18×1.18)	A1139 PLCC 12.5×7.3 (84 Pins) (0.49×0.29)	A1140 PLCC 11.5×11.5 (28 Pins) (0.45×0.45)	A1141 PLCC 11.5×14 (32 Pins) (0.45×0.55)	
								
A1180 BQFP 17×17 (0.67×0.67)	A1181 BQFP 19×19 (0.75×0.75)	A1182 BQFP 24×24 (0.94×0.94)	A1183 SOJ 15×8 (0.59×0.31)	A1184 SOJ 18×8 (0.71×0.31)	A1185 TSOJ 13×10 (0.51×0.39)	A1186 TSOJ 18×10 (0.71×0.39)	A1187 TSOJ 18.5×8 (0.73×0.31)	
								
A1188 PLCC 9×9 (0.35×0.35) (20 Pins)	A1189 PLCC 34×34 (1.34×1.34×100 Pins)	A1191 SIP 25L (0.98)	A1192 SIP 50L (1.97)	A1203 QFP 35×35 (1.38×1.38)	A1214 SOJ 10×26 (0.39×1.02)	A1215 QFP 42.5×42.5 (1.67×1.67)	A1257 SOP 11×21 (0.43×0.83)	
								
A1258 SOP 7.6×12.7 (0.3×0.5)	A1259 SOP 13×28 (0.51×1.1)	A1260 SOP 8.6×18 (0.34×0.71)	A1261 QFP 20×20 (0.78×0.78)	A1262 QFP 12×12 (0.47×0.47)	A1263 QFP 28×40 (1.1×1.57)	A1264 QFP 40×40 (1.57×1.57)		
								
A1265 QFP 32×32 (1.26×1.26)	A1120 Single Ø4 (0.16)	A1121 Single Ø6.4 (0.25)	A1124 Single Ø2.5 (0.09)	A1130 Single Ø4.4 (0.17)	A1142 Bent Singel 1.5×3 (0.06×0.12)	A1300 Single Ø8.4 (0.33)	A1301 Single Ø12.7 (0.5)	
								
A1280 BGA 24×24 (0.94×0.94)	A1281 BGA 26×26 (1.02×1.02)	A1282 BGA 31×31 (1.22×1.22)	A1283 BGA 38×38 (1.5×1.5)	A1284 BGA 41×41 (1.6×1.6)	A1285 BGA 44×44 (1.7×1.7)	A1286 BGA 15×15 (0.6×0.6)		
