

FG-100

Thermometer

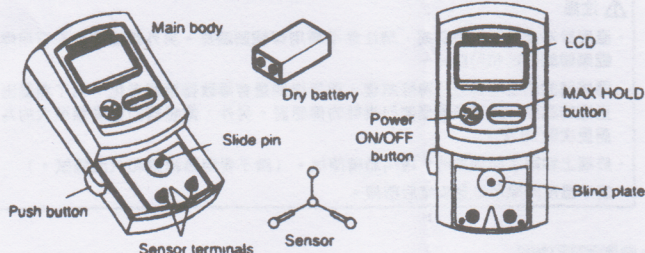
Instruction Manual

Thank you for purchasing the FG-100 thermometer.
Please read this manual before operating the FG-100.
Keep this manual readily accessible for reference.

1. PACKING LIST AND PART NAMES

Please check to make sure that all items listed below are included in the package.

Main body 1 Sensors (10 pcs/set) 1
006P 9V Manganese dry battery 1 Instruction manual 1



* The display is covered with a protective film

2. SPECIFICATIONS

	Celsius type	Fahrenheit type
Model name	FG-100	
Resolution	1°C	1°F
Temperature measurement range	0 - 700°C ¹	32 - 1300°F ¹
Applicable sensor	K (CA) type thermocouple	
Measurement tolerance	±3°C (between 300 and 600°C)	±6°F (between 572 and 1112°F)
	±5°C (Other than above)	±10°F (Other than above)
Display	Besides measured temperatures, display indications include the following: 	
Power supply	006P 9V dry battery (alkaline cell recommended)	
Outline dimensions	68 (W) x 140 (H) x 38 (D) mm (excluding protrusions)	
Weight	115 g (excluding battery)	
Ambient temperature/humidity range	0 - 40°C, 20 - 90%RH, without condensation	
Environmental Condition	Applicable rated pollution degree 2 (According to IEC/UL61010-1)	

- ¹ - Temperature sensor (191-212) can only be used to measure temperatures below 500°C (932°F). To measure higher temperatures, use an applicable temperature probe (see "5. REPLACEMENT PARTS AND OPTIONS").
- ² When appears, be sure to replace the battery. Failure to do so will result in incorrect temperature measurements.
- ³ This alarm indicates a sensor burnout. If this alarm occurs, replace the sensor.
- * The specifications may be subject to change without notice.

3. SAFETY NOTICE

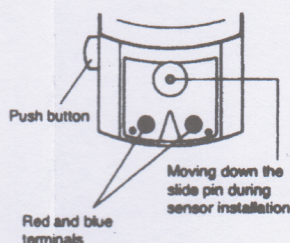
● Failure to do so may result in serious problems.

CAUTION

When using the thermometer to measure the temperature of the soldering iron tip or de-soldering nozzle, pay great attention to the temperature of the tip or nozzle that will be as high as 200 to 450°C (392 to 842°F). Careless handling of such a hot object may result in a burn or fire.

4. OPERATION

- Open the battery cover and insert the battery in the correct direction.
- Attach the sensor:
 - Press the push button to move the slide pin down to the terminal side.
 - While moving down the slide pin, attach a sensor to the slide pin and terminals by connecting the red connector of the sensor to the red terminal and the blue connector to the blue terminal.



CAUTION

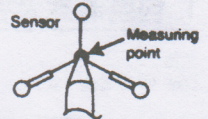
Handle the sensor with care. Inadvertent handling may break the CA sensor wire as it is as thin as 0.2 mm in diameter.

- Turn on the power. When the room temperature appears on the LCD, the thermometer is ready for measurement.

NOTES :

- Pressing the power button for a short duration may result in failure to turn on the power. In such a case, press the button again for a longer duration.
- The power cannot be turned off during which all screen elements are displayed directly after the power is turned on.

- Wet the soldering iron tip with solder and put the tip to the measuring point.



CAUTIONS

- Do not bring the hot iron tip into contact with the plastic body, slide pin and terminals of the thermometer. Doing so will damage them.
- The measuring point of the sensor generally undergoes degradation as a result of repeated measurement activities. It is recommended that the sensor be replaced every 50 measurements as a guideline to ensure measurement accuracy.
- If the terminals are contaminated with the soldering flux, wipe them clean with alcohol. Do not use thinner or benzine for cleaning.
- Please read when the temperature stabilizes.

● Auto shutoff function

If no measurement is done about three minutes after power on, the power will be turned off automatically. But if the value of 100°C (212°F) or higher temperature is measured within three minutes, this function will be reset. To turn on the power, press the power button again.

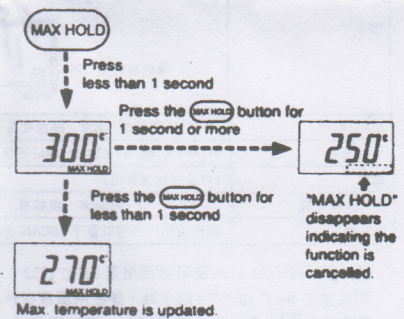
● MAX HOLD function

When pressing the button, "MAX HOLD" is displayed at the lower right of the LCD. As long as appears, the maximum temperature will stay displayed.

OPERATION

The button provides two additional functions: The max. temperature update function when shortly pressing the button and the MAX HOLD cancellation function when pressing the button longer.

- Short pressing the button with "MAX HOLD" displayed updates the maximum temperature. Short pressing the button be pressed for less than one second. See the figure to the right.



- Long pressing the button with "MAX HOLD" displayed cancels the MAX HOLD function. Long pressing means the button be pressed for one second or longer. See the figure to the right.

NOTE:

Turning off the power always cancels the MAX HOLD function.

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5. REPLACEMENT PARTS AND OPTIONS

● Replacement Parts

Item No.	Part Name	
191-212	Sensor / Lead-free	10 pcs.

● Options

Item No.	Part Name	
A1310*	Temperature probe for soldering pot	
C1220	Temperature probe for automatic	

- * Remove the standard sensor, and connect the red connector of this option to the red terminal of the thermometer and the blue connector to the blue terminal. Insert the top of the probe into solder to measure the temperature.

FG-100

溫度計

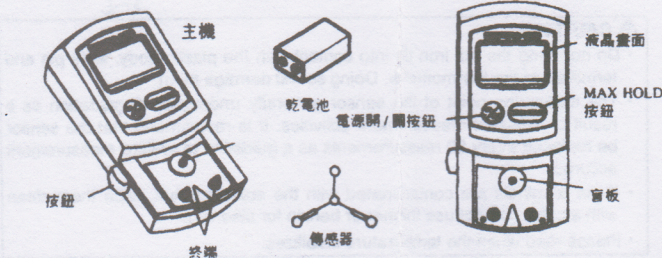
使用說明書

承蒙惠顧，謹致謝忱。
使用 FG-100 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。

1. 包裝清單及各部名稱

首先請確認包裝內容。

主機 1 傳感器 10 個
006P 9V 乾電池 (錳) 1 使用說明書 1



*顯示部貼有保護膜。

2. 規格

	攝氏型	華氏型
型號	FG-100	
分解	1°C	1°F
量度範圍	0~700°C ¹⁾	32~1300°F ¹⁾
傳感器	K(CA)熱電偶	
測定容許差	±3°C (範圍 300~600°C) ±5°C (其他溫度範圍)	±6°F (範圍 572~1112°F) ±10°F (其他溫度範圍)
	一般顯示測溫部的溫度，下面列舉其它的顯示項目。	
顯示		
電源(電池)	006P 9V 乾電池(推薦: 鹼性乾電池)	
外部尺寸	68(W)×140(H)×38(D)mm(不包含突起部分)	
重量	115g(不包含電池)	
使用溫度範圍	0~40°C · 20~90%RH · 無結露	
環境條件	適用規格污染度2(基于 IEC/UL 61010-1)	

¹⁾ 溫度傳感器 (191-212) 是可以使用至 500°C (932°F)。
如果測定 500°C (932°F) 以上時，請使用溫度探針(請參照 5. 更換部件 / 選購部品)。
²⁾ 如果顯示 表示乾電池含量不夠，不能正確測量溫度。必須更換新的乾電池。
³⁾ 傳感器斷裂時，會顯示傳感器損壞。請更換新的傳感器。
*規格及外觀有可能改良變更，恕不另行通知。

3. 安全及使用上的注意事項

●為安全起見，請嚴格遵守“注意事項”。

注意

測量焊鐵的焊鐵頭和焊鐵除去器的吸嘴溫度時，焊鐵頭的溫度會高達 200~450°C。
測量其它高溫產品時，濫用可能導致灼傷或火患，請注意。

4. 使用方法

1. 打開電池蓋，按正確的方向放入電池。
2. 安裝附帶的傳感器。

- 按下按鈕，可動杆向終端方向移動。
- 在可動杆移動到終端方向的状态下，將傳感器安裝到可動杆上。
- 將傳感器紅邊置入紅色終端，藍邊置入藍色終端。



注意

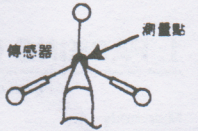
傳感器是用非常纖細 (直徑 0.2) CA 線制成，宜小心使用，切勿擠壓，否則會導致斷裂。

3. 傳感器安裝完畢後打開電源開關。當顯示屏顯示室溫時，溫度計便可使用。

注記:

- 按電源開關的時間太短，可能無法打開。請長按電源開關。
- 電源打開後的液晶顯示全部點亮時，電源無法立即關閉。

4. 請在焊鐵頭上放上新的焊錫，使用焊鐵頭觸及傳感器的測量點。



注意

- 溫度計本身是用塑料制成，請注意不要用焊鐵頭觸及。另外請注意也不要讓焊鐵頭碰觸終端和可動杆。
- 傳感器的測溫部有進行特殊處理，但反覆測量會導致傳感器老化。為了測量出正確的溫度，請更換測溫部已損耗的傳感器。另外，傳感器的更換標準大約為測量次數 50 次。
- 終端上粘附了助焊劑時，請用酒精擦拭。(請不要用稀釋劑和汽油擦拭。)
- 請于溫度的顯示狀態安定後辨識。

●自動關閉功能

電源打開後，如果 3 分鐘以內沒有測試 100°C 以上的溫度的話，電源會自動關閉。3 分鐘以內有測試 100°C 以上的溫度的話，液晶顯示會延長 3 分鐘。當經過 3 分鐘後電源關閉時，請重新打開電源。

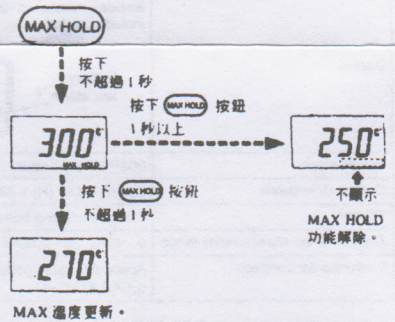
●MAX HOLD 功能

按下 按鈕，畫面右下方則顯示 MAX HOLD。此狀態下顯示溫度最大值。另外， 按鈕還具備其它功能。操作方法如下所述。

操作方法

短時間按下 按鈕時，具有 MAX 溫度更新功能，長時間按下 按鈕時具有解除功能。

- 短時間按下時 (不超過 1 秒)
MAX HOLD 狀態下僅顯示 MAX 溫度，但短時間按下 按鈕時，MAX 溫度會重新設置一次，顯示按下按鈕後的 MAX 溫度。



- 長時間按下時 (1 秒以上)
MAX HOLD 功能解除，返回通常顯示。

注記:

無論在何種狀態下關閉電源一次，下次投入電源時就會返回通常顯示。

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5. 更換部件 / 選購部品

●更換部件

編號	部件名稱	
191-212	傳感器(無鉛對應)	10 個

●選購部品

編號	部件名稱	
A1310 ¹⁾	適用於測量焊錫槽溫度探針	
C1220	適用於測量自動機器溫度探針	

- 1) 焊錫槽專用探針。將傳感器拆下，再把探針連接部的紅色對紅色終端，藍色對藍色終端連接到 FG-100 機身，然後用探針前端插入錫槽即可測量溫度。