## 6. REPLACEMENT PARTS AND OPTIONS

● **Replacement Parts**

| Item No. | Part Name | Specifications |
|---|---|---|
| 191-212 | Sensor / Lead-free | qty 10. |

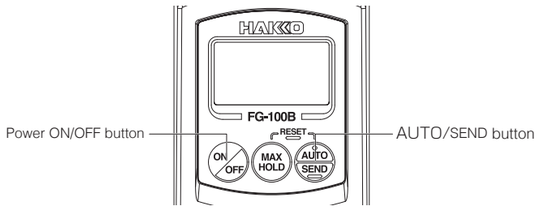
● **Options**

| Item No. | Part Name | Specifications |
|---|---|---|
| A1310 | Temperature probe/soldering pot | |
| C1541 | Temperature probe/hot air | with sensor A/B |
| CX1002 | Temperature probe/robot | |
| A1556 | Sensor A | |
| A1557 | Sensor B | |

* Remove the sensor, and connect the red connector of this option to the red terminal of the thermometer and the blue connector to the blue terminal.

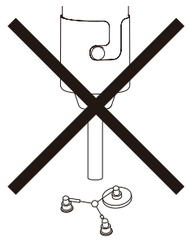
**⚠ CAUTION**

**When the power turned on by pushing the power ON/OFF button while pressing the AUTO/SEND button, the display of °C and °F is replaced.**




**⚠ CAUTION**

**Do not directly expose the HAKKO FG-100B body to hot air when taking measurements. Direct exposure to hot air can damage the HAKKO FG-100B body.**

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（有一部分的產品沒有設定外語對應、請見諒）
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(Please note that some languages may not be available depending on the product.)

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HAKKO

# THERMOMETER

## FG-100B

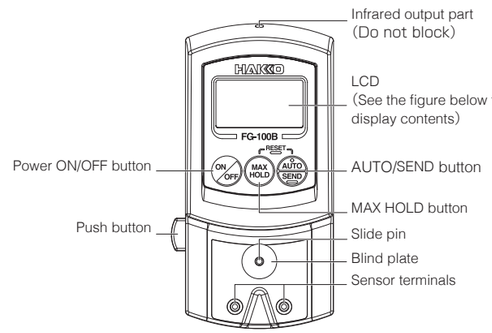
## Instruction Manual

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

## 1. PACKING LIST AND PART NAMES

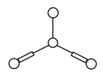
Please check to make sure that all items listed below are included in the package.

HAKKO FG-100B..... 1
006P 9V Dry battery (For trial)..... 1
Sensors (qty 10)..... 1
Instruction manual..... 1




**HAKKO FG-100B**

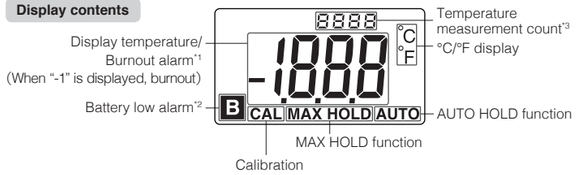
**Dry battery (For trial)**



**Sensor**

**Instruction manual**

**Display contents**




*1 This alarm indicates a sensor burnout. If this alarm occurs, replace the sensor.
*2 When **B** appears, be sure to replace the battery. Failure to do so will result in incorrect temperature measurements.
*3 When pressing the MAX HOLD and AUTO SEND button for longer, the count is reset.

## 2. SPECIFICATIONS

| **Type** | Celsius type | Fahrenheit type |
|---|---|---|
| **Model name** | HAKKO FG-100B | |
| **Resolution** | 1°C | 1°F |
| **Temperature measurement range** | 0 - 700°C*1 | 32 - 1,300°F*1 |
| **Applicable sensor** | K (CA) type thermocouple | |
| **Measurement tolerance** | ±3°C (between 300 and 600°C) | ±6°F (between 572 and 1,112°F) |
| | ±5°C (Other than above) | ±10°F (Other than above) |
| **Power supply** | 006P 9 V dry battery (alkaline cell recommended) | |
| **Outline dimensions** | 75 (W) × 44 (H) × 140 (D) mm | |
| **Weight** | 125 g (excluding battery) | |
| **Operating environment** | Ambient Temperature/Humidity Range: 0 to 40°C (32 to 104°F), max.80% RH (without condensation) | |
| **Environmental conditions** | Applicable rated pollution degree 2 (according to IEC/UL61010-1) | |

*1 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 "6. REPLACEMENT PARTS AND OPTIONS").

The specifications may be subject to change without notice.

## 3. SAFETY NOTICE

**⚠ CAUTION**

**When using the thermometer to measure the temperature of the soldering iron tip or desoldering 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.**

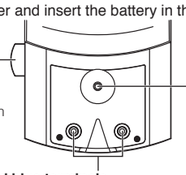
## 4. OPERATION

**⚠ CAUTION**

**Handle the sensor with care. Inadvertent handling may break the K (CA) type thermocouple as it is as thin as 0.2 mm in diameter.**

1. Open the battery cover and insert the battery in the correct direction.
2. Attach the sensor:

**1) Press the push button** to move the slide pin down to the terminal side.



**2) Moving down the slide pin during sensor installation**

**3) Red and blue terminals**
Match a colours and attach a sensor to the terminal.

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

**— NOTE —**
- 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 until all screen elements are displayed after the power is turned on.

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

**⚠ CAUTION**

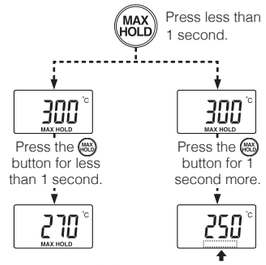
- **Do not bring the hot iron tip into contact with the plastic body, slide pin and terminals of the thermometer. Doing so will damage them.**
- **The measuring point of the sensor generally undergoes degradation as a result of repeated measurement activities. It is recommend that the sensor be replaced 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 benzin for cleaning.**
- **Please read when the temperature stabilizes.**

## 5. FUNCTION AND OPERATION OF EACH BUTTON

● **Auto shutoff function**
If no measurement is taken within three minutes after power on, the power will be turned off automatically. Measurement of a temperature higher than 100°C (212°F) within three minutes will reset the auto shutoff. To turn on the power, press the power button again.

● **MAX HOLD function**
When quickly pressing the MAX HOLD button (less than 1 second), "MAX HOLD" is displayed at the lower of the screen.
As long as "MAX HOLD" appears, the maximum temperature will stay displayed

The MAX HOLD button has the following other functions.
- When "MAX HOLD" is displayed, quickly pressing the MAX HOLD button (less than 1 second) displays the updated maximum temperature.
- When "MAX HOLD" is displayed, pressing the button for longer (1 second or longer) releases the MAX HOLD function and returns to normal display.




● **AUTO HOLD function**
When quickly pressing the AUTO SEND button, **"AUTO"** blinks at the lower right of the LCD. While **"AUTO"** blinks, touch the soldering iron tip to the sensor. After detecting the stabilization of the temperature of the tip, the average temperature will be calculated. After the average value has been calculated, "AUTO" will stop blinking and stay lit, and the calculation result will be displayed.
Each time the AUTO SEND button is pressed, the AUTO HOLD function toggles between ON and OFF.
The AUTO HOLD function does not assume the measurement by temperature probes such as the hot air.

● **Temperature sending function**
Press the AUTO SEND button for longer than one second. Temperature data will be sent by infrared output from the upper part of the thermometer. Temperature display blinks during sending.
The temperature sending function can only send messages to the receiving machine. When the fixed value can be sent.

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