User Manual

Please read this manual carefully before use and keep it in a safe place for future reference.

Overview

This product is a portable intelligent electric soldering iron that does not require AC 220V power supply. It can be used by plugging into a universal power adapter or power bank, and the soldering iron tip quickly heats up to the solder melting point. The soldering iron is powered by an internal lithium polymer battery, making it suitable for emergency outdoor use. Additionally, it features multimeter functions for measuring voltage, resistance, and continuity, with an ultra-long working time in multimeter mode. It has an OLED display for a clear interface. The compact and exquisite body is easy to carry, with a universal soldering iron handle and a metal casing. The soldering iron tip and measurement probes are replaceable, achieving a perfect combination of soldering iron and multimeter. This product is suitable for various indoor and outdoor soldering and measuring applications.

Safety Precautions

To avoid potential electric shock, fire, and personal injury, please read the safety precautions before use.

1. As this product has a metal casing, to prevent high voltage electric shock, it is prohibited to measure voltages above 36V.
2. To prevent burns during soldering iron heating operation, keep children away and avoid contact.
3. When replacing the soldering iron tip, ensure the device is turned off and wait for the soldering iron tip to cool down before replacing it to avoid hot-swapping.
4. Do not use or store this product in high-temperature, high-dust environments or under direct sunlight for prolonged periods.
5. Do not use this product around explosive gases and vapors or in humid environments.

Specifications

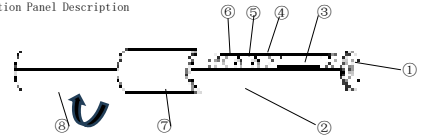
Multimeter Technical Specifications				
Function	Range	Resolution	Accuracy	Maximum Value
DC Voltage (mV/V)	400.0mV	0.1mV	±(0.5%+3)	36V
	4.000V	0.001V		
	36.00V	0.01V		
AC Voltage (V)	4.000V	0.001V	±(1.0%+3)	36V
	36.00V	0.01V		

Resistance	400.0Ω	0.1Ω	±(2%+3)	40MΩ
	4.000kΩ	0.001kΩ	±(1.0%+3)	
	40.00kΩ	0.01kΩ		
	400.0kΩ	0.1kΩ		
	4.000MΩ	0.001MΩ		
	40.00MΩ	0.01MΩ	±(3%+3)	
Continuity	The buzzer sounds when the resistance is below 47Ω.			

General Technical Specifications	
Display Screen	OLED High Definition
Measurement Range	Automatic
Test Rate	3 times/second
Auto Power-Off Time	5 minutes, 10 minutes, 15 minutes, 20 minutes, OFF
Soldering Iron Automatic Sleep Mode	After 5 minutes of inactivity
Soldering Iron Temperature	100℃ ~450℃ (212℉~842℉)
Working Voltage	DC 5V ~ 20V Optional
Power	Maximum 75W
Supports Fast Charging Protocol	PD/QC
Power Supply Port	Type-C
Soldering Iron Tip Temperature Calibration	Supported
Soldering Iron Tip Model	T65
Low Battery Warning	√
Mechanical Technical Specifications	
Dimensions	196*19*19mm
Weight	80g
Battery Type	Lithium Polymer Rechargeable Battery 3.7V 800mAh
Material	Aluminum + ABS + Silicone
Warranty Period	One Year
Environmental	
Operating Environment	Temperature 0~40℃
	Humidity <75%
Storage Environment	Temperature -20~60℃
	Humidity <80%

Usage Instructions

1. Operation Panel Description



Number	Name	Function
1	TYPE-C Port	For connecting the black test lead or power supply line.
2	Body	The body handle is made of aluminum alloy; hold the handle for soldering and measurement operations.
3	OLED Display	Display all interfaces and values
4	Power Button 	1、Long press this power button for 2 seconds to turn on or off. 2、In the main interface, briefly press this button to enter the function menu. 3、In the multimeter measurement interface, briefly press this button to switch the measurement range.
5	Right Direction Button 	1. In the main interface, briefly press this button to move the menu selection to the right. 2. In the usage and settings interface, briefly press this button to move the menu to the right or increase the setting parameters.
6	Left Direction Button 	1. In the main interface, briefly press this button to move the menu selection to the left. 2. In the usage and settings interface, briefly press this button to move the menu to the left or decrease the setting parameters. 3. In the multimeter measurement interface, briefly press this button to switch the measurement range.
7	Silicone Sleeve	Hold the silicone sleeve with your fingers for soldering or measurement operations.
8	Cap	When in use, rotate the cap to the right and pull it out. When not in use, close the cap to protect the soldering iron tip and test probe tip.

(2) Setup Operation Instructions

- Select the settings icon menu and briefly press the power button to enter the settings interface.
- Briefly press the left or right direction buttons to choose the temperature unit (TEMP), USB input voltage, auto power-off time (APO), temperature calibration (CAL), turn battery power on or off (SOL SET), or return to the function menu.
- After selecting the desired function, press the power button to enter the settings.
- To exit the settings interface, select the return menu and press the power button to exit.

3) Temperature Calibration Instructions

If users need to calibrate the temperature of the soldering iron tip, follow these instructions:

1. Turn on the soldering iron heating function and contact the soldering iron tip with a standard soldering iron thermometer. Once the temperature stabilizes, observe the temperature difference between the thermometer and the soldering iron screen, and record the difference.
2. Remove the thermometer, enter the temperature calibration interface on the soldering iron, and adjust the calibration parameters based on the recorded temperature difference until the soldering iron display temperature equals the thermometer temperature.
3. After adjustment, press the power button to confirm and complete the calibration.

* Note:

All soldering irons are calibrated for T65 tips before leaving the factory. Perform the above calibration only if installing different specifications of soldering iron tips or if a temperature discrepancy is found during use.

4) Measuring AC/DC Voltage

1. Use the AUTO mode or manually adjust to the voltage mode.
2. Touch the test leads to both ends of the circuit to be measured.
3. Read the measured voltage value displayed on the screen.

* Note:

a. The voltage measurement range must not exceed 36V.

b. When measuring millivolt voltage, switch manually as the AUTO mode cannot recognize millivolt voltage.

5) Measuring Resistance

1. Use the AUTO mode.
2. Touch the test leads to both ends of the resistor to be measured.
3. Read the measured value displayed on the screen.

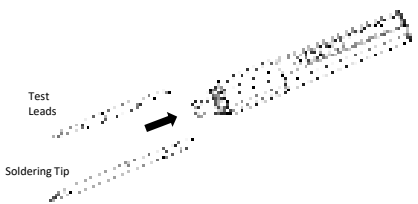
6) Measuring Continuity

1. Use the AUTO mode.
2. Touch the test leads to both ends of the circuit to be measured.
3. Read the measured value displayed on the screen. The buzzer will sound when the value is less than 47Ω.

Multimeter Test Lead Connection Diagram

7) Soldering Iron Operation Instructions

The soldering iron tip and measurement probes of this product can be freely replaced. When you need to use the soldering iron for welding, insert the randomly configured or compatible soldering iron tip.



Operation Method

1. Enter the soldering iron function interface; the soldering iron will start to heat up.

2. Use the left and right direction buttons to set the appropriate temperature for the current soldering task.

3. Once the temperature stabilizes, touch the soldering iron tip to the solder point and begin soldering.

* Note:

a. When using USB power, use a fast-charging adapter and set the power supply to 5V~20V. In principle, the higher the set power supply voltage, the greater the power and the faster the soldering iron tip heats up.

b. When there is no USB power available and outdoor temporary soldering is needed, set SOL SET to "ON."

c. The soldering iron will automatically enter sleep mode after being idle for 5 minutes, and the temperature will drop to the minimum. When you pick up the soldering iron again, the temperature will quickly rise back up.

d. During use, the casing may conduct some heat, which is normal and safe to use.

Maximum temperature corresponding to different voltages					
voltage	5V	9V	12V	15V	20V
temperature	220℃	280℃	350℃	450℃	450℃

8) Low Battery Warning and Charging

When the battery icon in the upper left corner of the screen shows a single red bar after prolonged use, it's time to charge the battery. If you continue to use it, the battery icon will become empty when the battery shutdown voltage is reached, and the device will automatically shut down.

Maintenance

Do not attempt to open, repair, or alter the circuit of this product if you are not a professional.

Clean the device with a damp cloth and mild detergent. Do not use corrosive agents or solvents. Dust or moisture in the test ports may affect reading accuracy.

Tin the new soldering iron tip before first use and after use to prevent oxidation.

Do not heat the soldering iron tip to a high temperature (over 380℃) for long periods to avoid reducing the lifespan of the soldering iron tip.

Limited Warranty and Liability

This product is covered by a one-year warranty from the date of purchase. However, this warranty does not cover damages resulting from accidents, negligence, misuse, modifications, contamination, or abnormal operating conditions.

Changes to this manual may occur without prior notice.
The contents of this manual are believed to be accurate. If users find any errors or omissions, please contact the manufacturer.
The company is not liable for accidents and hazards caused by user errors.
The functions described in this manual do not justify using the product for special purposes.