

SMD METER

USER'S MANUAL

1. Introduction

The Meter is a handheld and battery operated very convenient small Tool, that is specially used to measuring SMD(Surface Mounting Device),there are resistor, Capacitor, Diode, Zenger and LED, Moreover, the Meter have the continuity checking function And MAX DC 36V Measurement.

The Meter is automatically identified the passive Component as has been indicated above. Therefore, the measurement are allowed by fully automatic detection.

The Meter is designed to meet IEC1010-1 standard and Stipulation of 2-Pollution Grade.

The Meter conform to the European Union's following Requirement: CE regulation 89/336 (EMC Electromagnetic Compatibility).

The entire outer surface of the Meter case has been with thermo plastic elastomer, and the two testing pins has been gold-plated, so that it is reduce pin contact resistance and prevent to get rusty.

This operating instruction covers information on safety and caution, so please read relevant information carefully and observe all the warming and note strictly.

2. Safety Note

The following safety notes should be observed prior to using this Meter and any associated accessory. Although the Meter do not used to measuring to exceed safety Voltage, but

there are situations where hazardous condition may be present.

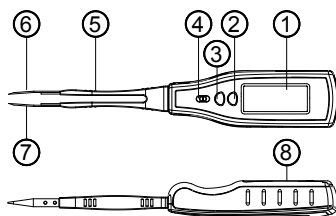
- Inspect the Meter case before using. Do Not use damaged device.
- Inspect the Pin Holder and Pin gold-plated state.
- Do not attempt use the Meter as tweezers to prevent the pin tip from damage.
- Do not apply external voltage between the two pins on no DC 36V Range.
- Do not used in the environment with explosive gas,vapor,or dust.

Caution

Never use the Meter on alive circuits on no DC 36V Range.

3. Explanation of Control and Indicators

3.1 Product Illustration



- ① LCD
- ② "HOLD" Push Button
- ③ "FUN" Push Button Function Select
- ④ FUNCTION Switch
- ⑤ Pin Holder
- ⑥ Test Pin (Gold plated, 'INPUT' Terminal)
- ⑦ Test Pin (Gold plated, 'COM' Terminal)
- ⑧ Battery cover

3.2.Push Buttons

[1]"FUN":it is the function select key that acts trigger.

Use the Push Button as switch of Resistance/Capacitance/Diode/Continuity when the FUNCTION Switch turn on "R/D/C" Range.

The Meter is have not Power Key. When install the 1.5V(AAA)×2 Battery,The Meter immediately Power ON. Only on "R/D/C" Range, Push 'FUN' Key to last 2S, the Meter turn off, Press again to switch it on again.

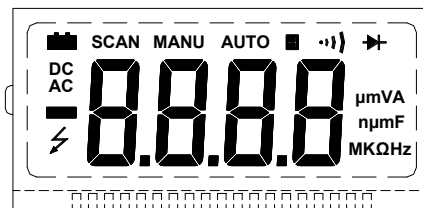
[2]"HOLD" Key: Press "HOLD" Button to Enter or exit the hold mode in any Measurement mode. The key is act with trigger.

In the data hold mode, the Meter stop updating LCD, stored current measuring data and displayed the measured data, and then the holding

the data until press the "HOLD" key once again.

Note: after auto power-OFF is active, pushing the "HOLD" key can turn on the Meter again or pushing the "FUN" key can turn on the Meter again on "R/D/C" Range.

3-3.LCD Display

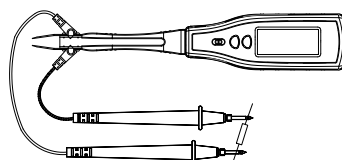


NO	Indicator	Meaning
1	SCAN	Auto Scanning Mode
2	AUTO	Auto Ranging
3		Data Hold
4		Diode Checking Mode
5		Continuity Checking Mode
6	n μ mF	Capacitance Units(nF, μ F,mF)
7	MKΩ	Resistance Units(Ω, KΩ,MΩ)
8	μ mVA	Voltage Units
9		Low Battery Indicator

4. Specification

4-1.General Feature

- 3000 count LCD display.
- Full automatic measurement:
 - Auto scanning the Resistance/Capacitance/ Dilde.
- Function selection by one "FUN" Push Button
- Data Hold function
- Continuity Checking function
- Zenger diode Test
- LED Test
- DC 36V (MAX) Test
- Specialized SMD TEST or TEST DIP Component with leads.



- Over Load Indication ('OL')
- Low Battery Indication
- Power Supply: 1.5V (AAA)×2 Battery
- Auto Power OFF: If the Meter is idle for more than 10 minutes, the Meter automatically turns the power off.

Operating temperature & Humidity: 0-40°C (32-104°F) & <80%RH

Storage temperature & Humidity: -10-50°C (14-122°F) & <70%RH

- Safety Class: IEC1010-1, CAT III
- EMC: According to CE regulation 89/336.
- Dimension (L×W×H) & Weight: 207 X36 X 24mm, Approx.50 g

- Environmental condition:

- (1) Indoor use;
- (2) Altitude up to 2000meter.

- Accessory:

1. Spare Test Pin: 2PCS
2. Special Test Leads: electric rating 500V 10A

4-2. Electrical Specification

7.2. Electrical Specification

Function.	Range	Resolution	Accuracy
Resistance	300Ω	0.1Ω	±(1.2%rdg+3dgt)
	3KΩ	1Ω	
	30K	10Ω	
	300K	100Ω	
	3MΩ	1kΩ	
	30MΩ	10kΩ	±(1.2rdg%+5dgt)
Capacitance	3nF	1pF	±(2.5%rdg+3dgt)
	30nF	10 pF	
	300nF	100 pF	
	3μF	1nF	
	30μF	10nF	
	300μF	100nF	
	3mF	1μF	±(3%rdg+3dgt)
	30mF	10μF	
Diode Test	Open Voltage : 2.8V, Testing Current : 2mA		
Continuity Check	When the resistance is less than 30Ω, The Buzzer is sounded.		
Zener/LED	Open Voltage : MIN 20V, Testing Current: Appr. 1mA		
Voltage	DC 36V	0.1V	±(1.2rd%+3dgt)

5. Testing Operation

5-1 Scanning Mode

When install the Battery, the Meter immediately power ON. On "R/D/C" Range, the 'SCAN' and '---' sign is displayed on the LCD. This is indicate the Meter is inter to the auto scanning mode and automatically identified the resistor capacitor, diode and continuity, and then enter to the corresponding measurement mode. In the Scanning Mode, when two pins are in touch with the object being measured, the measured value will be displayed on the LCD.

⚠Caution

when measuring SMD device on the PCB, you must be Disconnect power and discharge all high-voltage capacitors.

5-2. Resistance Measurement

[1] Auto scanning Mode & Auto range: 300.0-3Ω-3.000MΩ

[2] Selected Resistance measurement Mode by the "FUN" key:

The range is extended to 30 MΩ ,i.e.300.0Ω —30.00MΩ

When over load, the 'OL' symbol will be displayed on the LCD.

5-3. Capacitance Measurement

[1] Auto scanning & Auto range: 3.000nF- 300.0 μ F.

[2] Selected Capacitance Mode by the 'FUN' key:

The range is extended to 30.00mF, i.e. 3.000nF-30.00mF.

⚠Caution

To avoid damage to the Meter or to the equipment under test, disconnect power and discharge all high-voltage capacitors before measurement capacitance.

5-4 Diode Check
You can selecting the Scanning Mode or The Diode Mode by The 'FUN' push button.

① Connect 'INPUT' Test Pin to the cathode and Connect 'COM' Test Pin to the anode of the diode under testing.

② The measured value show on the LCD. A good silicon junction drop between 0.5V-0.8V.

5-5. Continuity Check May selecting Scanning Mode or Continuity Mode by 'FUN' push button.

When the resistance reading is less than 30 Ω, the buzzer generates 2kHz beep to indicate continuity.

5-6. Zenger or LED Check

① Move the FUNCTION Switch to ZENER/LED Range.

② Connect 'INPUT' Test Pin to the cathode and .Connect 'COM' Test Pin to the anode of the ZENER/LED under testing.

③ The measured value of Zenger Voltage show on the LCD, Or show LED working Voltage on the LCD.

5-7 DC Voltage Measure

① Move the FUNCTION Switch to "DC 36V" Range.

② Connect Test Pins across the source or load under measurement.

③ The measured Voltage value show on the LCD.

6. Maintenance

6-1. Replacing The Battery

When meter display "E3", the battery must be replace to maintain normal operation.

① Open the battery cover on the bottom case by pushing the battery cover.

② Remove old battery and put new two into battery holder.

Note:

Battery type: 1.5V(AAA)×2

6-2. Cleaning

The meter can be cleaned with soft clean cloth to remove any oil, grease or grim.]

Do not use liquid solvent or detergent.

Above picture and content just for your reference. Please be subject to the actual products if anything different or updated. Please pardon for not informing in advance.