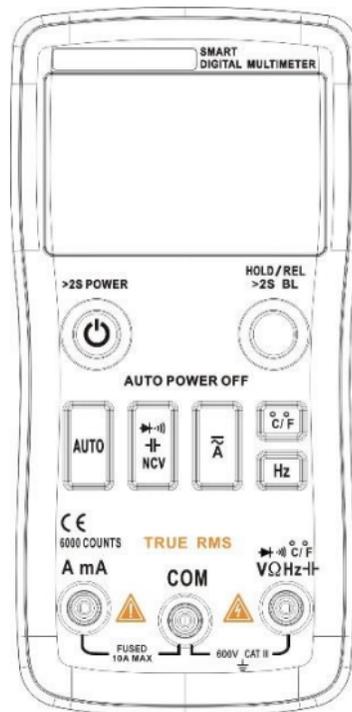


## User Manual



## Introduction

This product is a battery-powered, auto-ranging, true RMS digital multimeter with a 6000 counts LCD display.

## Safety Information

To avoid possible electrical shock, fire, or personal injury, please read all safety information before you use the product. Please use the product only as specified, or the protection supplied by the product can be compromised.

- Examine the case before you use the product. Look for cracks or missing plastic. Carefully look at the insulation around the terminals.
- The measurement must be made **within the allowable measuring range**.
- Do not use the product around explosive gas, vapor, or in damp or wet environments.
- When the voltage to be measured exceeds 36V DC or 25V AC, the operator shall be careful enough to avoid electric shock.
- Misuse of mode or range can lead to hazards, be cautious. "OL" will be shown on the display when the input is out of range.
- Low level of a battery will result in incorrect readings. Change the batteries when battery level is low. Do not make measurements when the battery door is not properly placed.

## Instruction Buttons

	<p>Push this button over 2 seconds to turn on or turn off the product.</p> <p>The product will automatically turn off after 15 minutes of inactivity and the built-in beeper beeps 5 times in 1 minute before auto power off.</p> <p>To cancel auto power off, push HOLD/REL button before turning on the product, after 5 beeps to cancel the auto power off successfully.</p>
	<p>Push once to hold the current reading on the display in non-capacitive mode ; push once to clear data in the capacitive mode; push for more than 2 seconds to turn on the backlight. And long-push again to turn off.</p>
	<p>Press this button to enter auto mode. Automatically switch to enter other functions include temperature , frequency , AC/DC voltage , resistance and continuity.</p>
	<p>Short press this button to automatically switch to test diode/continuity, capacitance and NCV.</p>
	<p>Press this button to enter current test mode. It can automatically switch to test AC and DC current.</p>
	<p>In AC voltage mode, it can identify frequency Automatically.</p>
	<p>Press to test temperature.</p>

## Measurements

### Measure DC/AC Voltage (>0.8V)

1. Only when the voltage is higher than 0.8V, this product will show the display;
2. The DC or AC voltage will be auto matched;
3. Touch the probes to the correct test points of the circuit to measure the voltage;
4. Read the measured voltage on the display.

### Test for Current

1. Press the current button to enter current test mode;
2. Touch the probes to the correct test points of the circuit to measure the current;
3. Read the measured current on the display.

### Measure Resistance

1. The resistance measure will be auto matched;
2. Touch the probes to the desired test points of the circuit to measure the resistance;
3. Read the measured resistance on the display.

### Test for frequency

1. In AC mode, press Hz button to enter frequency test mode.
2. Touch the probes to the desired test points of the circuit to measure the frequency.
3. Read the measured frequency value on the display.

### Measure Temperature

1. Press to enter in temperature test mode;
2. Touch the probes to the desired test points.
3. Read the measured temperature on the display.

### Continuity test

1. This product can test continuity automatically.
2. Touch the probes to the desired test points.
3. The built-in beeper will beep when the resistance is lower than 50Ω, which indicates a short circuit while the central LED light will light .

### Diode/continuity test

1. Connect the red probe to the positive electrode of the diode and the black probe to the negative electrode;
2. Read the forward voltage value it display;
3. It will display "OL" if connect wrong electrodes or diode damaged;
4. It will beep if there is a short circuit.

### Capacitance test

1. Put the black probe into COM jack and put the red probe into the  $\overline{\text{NCV}}$  jack;

2. Press  $\overline{\text{NCV}}$  twice to test capacitance;
3. Connect the red probe to the positive electrode of the capacitance and the black probe to the negative electrode;
4. Read the capacitance value on the screen when the value stable.

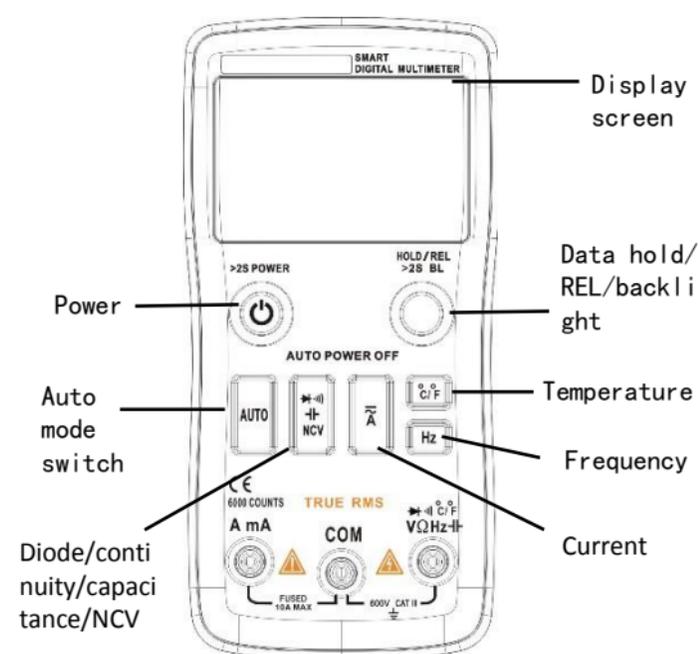
### Test for NCV

1. Keep pushing the NCV button to enter the NCV mode.
2. Hold the product and move it around, the built-in beeper will beep when the inner sensor detects AC voltage nearby. The stronger the voltage is, the quicker the beeper beeps while the central LED light will twinkle.

## Specifications

General Specifications				
Display (LCD)	6000 counts			
Range	Auto			
Material	ABS			
Update Rate	3times/Second			
True RMS	✓			
REL	✓			
Data Hold	✓			
Backlight	✓			
Auto Power Off	✓			
Low Battery Indication	✓			
Environmental Specifications				
Operating	Temperature	0~40°C		
	Humidity	<75%		
Storage	Temperature	-20~60°C		
	Humidity	<80%		
Electrical Specifications				
Function	Range	Resolution	Accuracy	Max
DC voltage (V)	6.000V	0.001V	± (0.5%+3)	600.0V
	60.00V	0.01V		
	600.0V	0.1V		
AC voltage (V)	6.000V	0.001V	± (1.0%+3)	600.0V
	60.00V	0.01V		
	600.0V	0.1V		

DC current	999.9mA	0.1mA	± (1.0%+4)	9.999A		
	9.999A	0.001A				
AC current	999.9mA	0.1mA	± (2.0%+3)	9.999A		
	9.999A	0.001A				
Resistance	600.0Ω	0.1Ω	± (1.5%+3)	60.00MΩ		
	6.000kΩ	0.001kΩ				
	60.00kΩ	0.01kΩ				
	600.0kΩ	0.1kΩ	± (0.5%+3)			
	6.000MΩ	0.001MΩ				
	60.00MΩ	0.01MΩ				
Capacitance	6.000nF	0.001nF	± (1.5%+3)	60.00mF		
	60.00nF	0.01nF				
	600.0nF	0.1nF	± (3.5%+4)			
	6.000μF	0.001μF				
	60.00μF	0.01μF				
	600.0μF	0.1μF	± (5.0%+5)			
	6.000mF	0.001mF				
	60.00mF	1mF				
	Frequency	6.000Hz	0.001Hz		± (1%+2)	10.00MHz
		60.00Hz	0.01Hz			
600.0Hz		0.1Hz				
6.000kHz		0.001kHz				
60.00kHz		0.01kHz				
600.0kHz		0.1kHz				
6.000MHz		0.001MHz				
10.00MHz		0.01MHz				
Temperature	-30~1000° C (-22~1832° F)					
Diode	✓					
Continuity	✓					
NCV	✓					
Frequency response at AC modes: 40Hz ~ 1kHz						



### LIMITED WARRANTY AND LIMITATION OF LIABILITY

Customers enjoy one-year warranty from the date of purchase. This warranty does not cover fuses, disposable batteries, damage from misuse accident, neglect, alteration, contamination, or abnormal conditions of operation or handling, including failures caused by use outside of the product's specifications, or normal wear and tear of mechanical components.