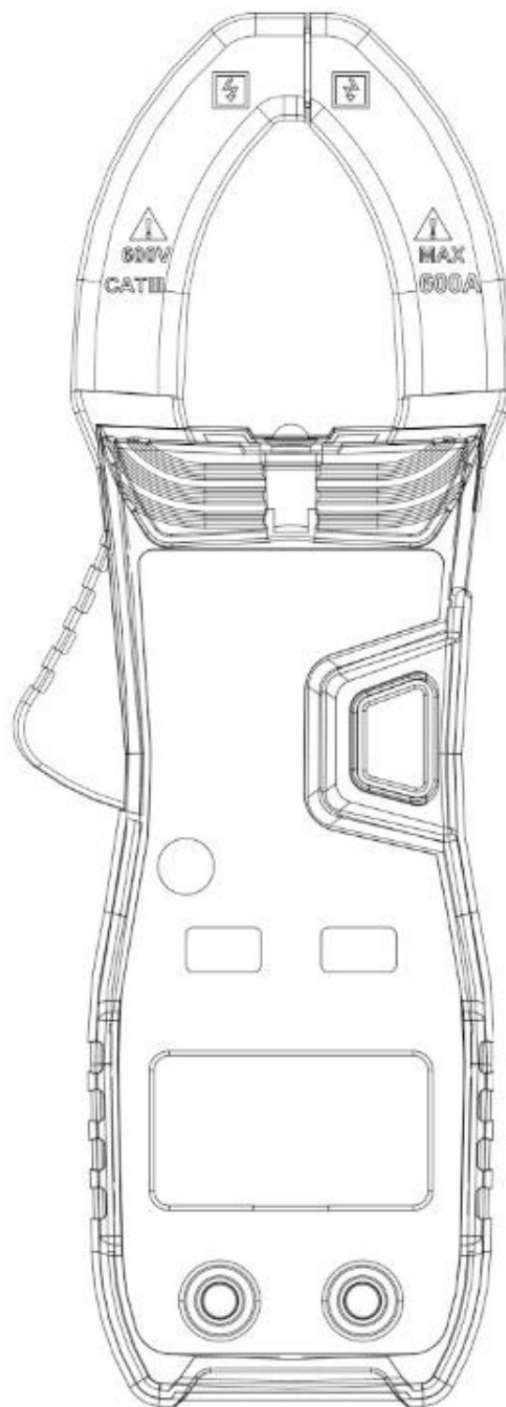


User Manual









1. Introduction

This product is a battery-powered, true-rms, auto ranging digital clamp multimeter with a 6000 counts LCD display and a backlight.

2. Safety Information

To avoid possible electrical shock, fire, or personal injury, please read all safety information before you use the product.

- (1) Do NOT exceed the "maximum value" indicated in the Specification.
- (2) Examine the connection of the test leads and the insulation of the product before measuring voltage higher than 36V DC or 25V AC.
- (3) Disconnect the test leads from the circuit before changing the mode.
- (4) 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.
- (5) Safety symbols:

	Hazardous Voltage		Earth
	Double Insulated		Low Battery
	Risk of Danger. Check the User Manual.		N/L Wire Judgement

3. Specifications

Electrical Specifications					
Function	Range	Resolution	Accuracy	MAX.Value	Frequency Response
DC Voltage (V)	6V	0.001V	$\pm(1\%+5d)$	600V	
	60V	0.01V			
	600V	0.1V	$\pm(1.2\%+5d)$		
AC Voltage (V)	6V	0.001V	$\pm(1.3\%+5d)$	600V	40Hz~400Hz
	60V	0.01V	$\pm(1.5\%+8d)$		
	600V	0.1V			
AC Current (A)	6A	0.001A	$\pm(2.5\%+5d)$	600A	40Hz~400Hz
	60A	0.01A	$\pm(2.5\%+5d)$		
	600A	0.1A	$\pm(2.8\%+8d)$		
Resistance	600.0 Ω	0.1 Ω	$\pm(1.3\%+5d)$	60M Ω	
	6.000k Ω	1 Ω	$\pm(1.0\%+5d)$		
	60.00k Ω	10 Ω			
	600.0k Ω	100 Ω			
	6.000M Ω	1k Ω			
	60.00M Ω	10k Ω	$\pm(1.5\%+5d)$		

Function	Range	Resolution	Accuracy	MAX.Value	Frequency Response
Capacitance	6.000nF	1pF	$\pm (30\%+5d)$	60mF	
	60.00nF	10pF			
	600.0nF	100pF			
	6.000uF	1nF			
	60.00uF	10nF			
	600.0uF	100nF	$\pm (3.5\%+5d)$		
	6.000mF	1uF	$\pm (4.5\%+8d)$		
	40.00mF	10uF	$\pm (6\%+10d)$		
Frequency	100Hz	0.1Hz	$\pm (3.0\%+5d)$	10mHz	10Hz~10MHz
	1kHz	1Hz	$\pm (1.5\%+5d)$		
	10kHz	10Hz			
	100kHz	100Hz	$\pm (2.0\%+5d)$		
	1MHz	1kHz	$\pm (3.0\%+5d)$		
	10.00mHz	10kHz	$\pm (4.0\%+10d)$		
DIODE		DC forward current is 5mA, voltage is 2.8V			
Continuity		no more than 50 Ω			
TEMP		0~400°C/32~752°F	$\pm(3.0\% + 1^{\circ}\text{C})$		
		400~750°C/752~1382°F	$\pm(3.5\% + 2^{\circ}\text{C})$		
NCV		√			

General Specific ations	
Display (LCD)	6000 counts
Ranging	Auto
Material	ABS
Update Rate	3 times/second
Ture RMS	√
Data Hold	√
Low Battery Alert	√
Auto Power Off	√

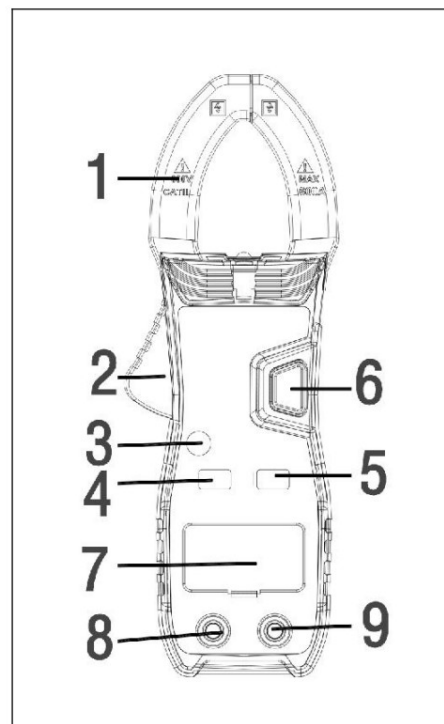
Mechanical Specifications	
Dimension	185x65x32mm
Weight	150g
Battery Type	1.5V AA Battery x 2

Environmental Specifications		
Operating	Temperature	0~40°C
	Humidity	< 75%
Storage	Temperature	-20~60°C
	Humidity	< 80%

4. Instruction

(1) Front Panel (see the picture on the right)

1. Jaw
2. Jaw release
3. "NCV " Indicator light
4. *** / H**: Numeric hold/screen backlit: (short press this key to keep or cancel the value; Long press this button for about 2 seconds: backlight on or off.) The key is also used to clear data in capacitive mode.
5. **SELECT**: Press this button in automatic identification mode and select "▶-H-Hz-NCV -TEMP"; Long press this button for about 2 seconds to return to automatic identification mode.
6. **⏻**: Press this button to start the machine and enter the automatic voltage, resistance and current identification mode by default. Long press this button for about 2 seconds to turn off the machine.
7. LCD display
8. COM: Test the negative input jack.
9. INPUT :Test the positive input jack.



(2) Measure AC/DC Voltage

1. The minimum voltage of this product is 1V. When the measured voltage is higher than 1V, the product will display the reading;.
2. Connect the black test lead to the COM Terminal and connect the red test lead to the **INPUT** Terminal;
- 3, The DC or AC voltage will be matched automatically;
- 4, Touch the probes to the correct test points of the circuit to measure the voltage;
- 5, Read the measured voltage on the display.

*** Caution:**

- a. Do not measure voltage that exceeds the MAX Value as indicated in the Specifications.
- b. Do not touch high voltage circuit during measurements.

(3) AC Current

1. Power on, enter automatic identification mode by default, the current can be automatically identified
2. Pull the trigger of the tongs, pass the single wire through the center of the tongs, and tighten the tongs.
3. The monitor displays the measured current value.

***Caution:**

- a. Do not measure current that exceeds the MAX Value as indicated in the Specifications;
- b. Measure one wire at a time because current moving in different directions will cancel each other out.

(4) Measure Resistance and Continuity

1. Connect the black test lead to the COM Terminal and connect the red test lead to The **INPUT** Terminal;
2. Resistance can be identified automatically;
3. Touch the probes to the desired test points of the circuit to measure the resistance;
4. The monitor displays the measured resistance value.
5. When the measured resistance value is less than 50 Ω , automatically enter the Continuity mode, the buzzer sounded the alarm.

***Caution:**

- a. Disconnect circuit power and discharge all capacitors before you test resistance.
- b. Do not input voltage at the Resistance Mode.

(5) Measure Diode

1. Connect the black test lead to the "COM" Terminal and the red lead to the **INPUT** Terminal.
2. Press the button "⏻" to start the machine, Then press the "Select" button once to enter the DIODE measurement mode.
3. Connect the red probe to the anode side and the black probe to the cathode side of the diode to be tested.
4. The display displays the measured values

(6) Measure Capacitance

1. Discharge all capacitors before you test capacitance.
2. Connect the black test lead to the "COM" Terminal and the red lead to the **INPUT** Terminal.
3. Press the button "⏻" to start the machine, then press the "SELECT" button twice to enter the capacitance measurement mode.
4. Connect the red probe to the anode side and the black probe to the cathode side of the capacitor to be tested.
5. The monitor reads the measured capacitance value.

(7) Frequency measurement

1. Press "⏻" to start the machine, Press "SELECT" three times to enter "Hz" mode.
2. Connect the black test lead to the "COM" Terminal and the red lead to the **INPUT** Terminal.
3. Use a test pen to measure the frequency of the line voltage.
4. The display screen reads the measured frequency.

(8) Measure NCV

1. Press "⏻" to start the machine, Then press "Select" four times to enter "NCV" mode.
2. 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.

(9) Temperature measurement


1. Press "⏻" to start the machine, Press the "Select" button 5 times to enter the "°C" mode, or Press "Select" six times to enter "°F" mode.
2. The temperature inside the meter is displayed on the screen, If you want to measure the ambient temperature, it needs to be placed for a period of time.
3. If you want to measure the temperature of other objects or liquids, you need to use the corresponding temperature probe. Insert the temperature probe into the "COM" and "INPUT" sockets, and use the detection end of the sensor to contact the temperature of the measuring object

(10) Auto Power off

1. The product automatically powers off after 15 minutes of inactivity;
2. The builtin beeper beeps 5 times 1 minute before power off;
3. To disable the Auto Power Off function, hold down the “SELECT” button when turning on the product, you will hear five beeps if you have successfully disabled the function.

E. General Maintenance

Beyond replacing batteries and fuses, do not attempt to repair or service the product unless you are qualified to do so and have the relevant calibration, performancetest, and service instructions.


- (1) Do not operate the product around hot, wet, flammable, explosive or magnetic environments.
- (2) Clean the product with damp cloth and mild detergent; do not use abrasives or solvents.
- (3) Remove the in put signals before you dean the product.
- (4) Remove the batteries if you will not use the product for a long time to prevent possible battery leak.
- (5) When “” is shown on the display, batteries shall be replaced as below:
 1. Loosen the screw and remove the battery cover;
 2. Replace the used batteries with new batteries of the same type;
 3. Place the battery cover back and fasten the screw.
- (6) Replace fuses as above steps. Use only fuses of the same type as the original ones.

Warning:

1. Do NOT exceed the “maximum value” indicated in the Specification;
2. Do NOT input voltage at the CurrentMode, the Resistance Mode, the Diode Mode, the Continuity Mode, or the Temperature Mode;
3. Do NOT use the productwhen the batteries or the battery cover is not placed properly;
4. Turn off the product and remove the test leads from the test points before changing batteries or fuses.

F. Troubleshooting

If your product do not function as normal, the fllowing steps may help you. If the problem still cannot be solved, please contact your dealer.

Problem	Possible Reason
Display Malfunction	Low battery; replace batteries
 Symbol	Replace batteries

**LIMITED WARRANTY
AND LIMITATION OF LIABILITY**

Customers enjoy one-year warranty from the date of purchase. This warranty does not cover fuses, disposable batteries, or damage from accident, neglect, misuse, alternation, contamination, or abnormal conditions of operation or handling.