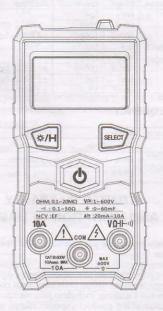
# **User Manual**



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Specifications are subject to change without notice.

#### 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 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.

Ins	struction	Buttons
1 To	(0)	Turn on and off buttons: Short press this button to turn on,And into the voltage/resistance automatic recognition mode .(Can be directly measured voltage, resistance or Current.) hold down this button for about 2 seconds and then turn off.
	H/*	Push once to hold the current reading on the display; Push for more than 2 seconds to turn on the flashlight backlight. And longpush again to turn off. In capacitance mode, it can clean the reading on the screen.!
	SELECT	Function switch button: Short press this key to manually select the exclusive measurement function, press once to switch a gear.  Long press this button for approximately 2 seconds to exit the function mode and enter the voltage/resistance automatic recognition mode. (At the Proprietary measurement mode, Measurement is not subject to thresholds.)

#### Measurements

Measure DC/AC Voltage (> 1V)

1. Only when the voltage is higher than 1V, this product will show the display.

2. Put the red lead into the VOH-) terminal, put the black lead to the COM terminal.

3. The DC or AC voltage will be auto matched. (If it is an upgraded version, you can also SELECT ac or DC voltage exclusive measurement mode by SELECT key

Touch the probes to the correct test points of the circuit to measure the voltage.

5. Read the measured voltage on the display.

### Measure Resistance

1. Put the red lead into the VaH-1) terminal, put the black lead to the COM terminal.

2. The resistance measure will be auto matched. (If it is an upgraded version, you can also SELECT Resistance exclusive measurement mode by SELECT key

Touch the probes to the desired test points of the circuit to measure the resistance.

4. Read the measured resistance on the display.

### **Test for Continuity**

1. Put the red lead into the  $V\Omega H^{-\eta}$ ) terminal, put the black lead to the COM terminal.

2. The resistance measure will be auto matched.

3. Touch the probes to the desired test points of the circuit.

4. The built-in beeper will beep when the resistance is lower than  $50\Omega\pm5\Omega$ , which indicates a short circuit while the central LED light will light .

#### Test for NCV

- 1. Press "SELECT" to selectively enter NCV test mode.
- 2. Pick up the tester and move it around, thebuilt-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.

Test for capacitance

- 1. Connect the black test lead to the COM terminal and the red lead to the VA-II-III Terminal.
- 2. Press "SELECT" to selectively enter Capacitance test
- 3. Connect the red probe to the anode side and the black probe to the cathode side of the capacitor being tested.

  4. Read the measured capacitance value on the display
- once the reading is stablized.

#### **Test for Current**

- 1. Connect the black test lead to the "COM" and the red lead to the " 10A " Terminal.
- 2. Current measurement can be recognized automatically in AUTO mode.(If it is an upgraded version, you can also SELECT ac or DC Current exclusive measurement mode by SELECT key)
- 3. Touch the probes to the correct test points of the circuit to measure the current.
- 4. Read the measured current on the display
- 5. When you input the current over 2 A, the testing time should be less than 3 seconds.

## **Test for frequency**

- Connect the black test lead to the COM terminal and the red lead to the VMH→) Terminal.
   Press "SELECT" to selectively enter Frequency mode.
   Contact the probe with the test point to be measured.

- 4. The measured frequency values are displayed on the screen.

**Specifications** 

Enviro	nmental Specifica	tions
Enviro	Temperature	0~40°C
Operating	Humidity	< 75%
	Temperature	-20~60°C
Storage	Humidity	< 80%

	General Specifi	cations	
Display	6000 counts	Ture RMS	V
	Auto	Data Hold	V
Ranging	ABS	Backlight	V
Material	3/s	Flashlight	V
Update Rate	3/3	Auto Power	May 1
Low Battery Indication	<b>√</b>	Off	V

# **Electrical Specifications**

# 1. Continuity and NCV

Continuity	1
	- 1
NCV	V

2. DC/AC VOLTAGE

Function	Range	Resolution	Accuracy	Max	
DC	6V	0.001V	Andrews and the s	· · · · ·	
VOLTAGE	60V	0.01V	±( 1.0%+5d)	600V	
(V)	600V	0.1V			
	600V	1V	±( 1.2%+5d)		
AC	6V	0.001V			
VOLTAGE	60V	0.01V	±( 1.2%+5d)		
(V)	600V	0.1V		600V	
,	600V	1V	±( 1.5%+8d)		

Frequency response at AC modes: 40Hz ~ 400Hz.

Note: To prevent burning, do not measure voltage over 600V!

### 3. RESISTANCE

Function	Range	Resolution	Accuracy	Max	
	600.0Ω	0.1Ω	DOMESTIC NO.	60ΜΩ	
	6.000kΩ	1Ω	± (1.3%+5d)		
Resistance	60.00kΩ	10Ω	THE PERSON NAMED IN		
	600.0kΩ	100Ω	± (1.0%+5d)		
	6.000MΩ	1kΩ	( /		
A constant	60.00MΩ	10kΩ	± (1.5%+5d)		

### 4. AC/DC CURRENT

Function	Range	Resolution	Accuracy	Max	
DCA	1A	1mA	± (1.5%+5d)	ivida	
	10A	10mA	± (2.5%+8d)	10A	
ACA	1A	1mA	± (1.8%+6d)		
requency	10A	10mA	± (3.0%+8d)		

Frequency response at AC modes: 40Hz ~ 400Hz.

## 5. CAPACITANCE

Function	Range	Resolution	Accuracy	
For the	6nF	1pF	Accuracy	Max
	60nF	10pF	±(3.0%+5d)	60mF
	600nF	100pF		
Capacit	6uF	1nF		
ance	60uF	10nF		
	600uF	100nF	±(3.5%+5d)	
	6mF	1uF	$\pm (5.0\% + 6d)$	
	60mF	10uF	± (10%+8d)	

## 6. FREQUENCY

Function	Range	Accura	
Freque ncy(Hz)	10Hz~100kHz	Accuracy ± (1. 5%+5d)	Max
	1MHz	± (3.0%+5d)	20MHz
	10MHz	± (4. 0%+10d)	

# 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.