

ANENG V02A

ANENG V02A Digital Multimeter User Manual

Model: V02A

1. SAFETY INFORMATION

Please read and understand all safety instructions before operating the ANENG V02A Digital Multimeter. Failure to follow these instructions may result in electric shock, fire, or damage to the device.

- **Electric Shock Hazard:** Avoid contact with live circuits. When measuring voltages exceeding 36V DC or 25V AC, exercise extreme caution to prevent electric shock.
- **Overload Protection:** Do not exceed the maximum input limits for any measurement range. If the input is out of range, the display will show "OL".
- **Battery Condition:** Low battery power can lead to inaccurate readings. Replace batteries promptly when the low battery indicator appears to ensure measurement accuracy.
- **Environmental Factors:** Significant changes in ambient temperature or humidity, or the presence of strong electric or magnetic fields, can affect measurement stability, particularly in the mV range. If the mV reading does not return to zero, short the red and black test leads. If "0000" is displayed, the multimeter is functioning correctly, and environmental interference is the cause. Minimize environmental interference for optimal accuracy.
- **Proper Use:** Ensure the correct function and range are selected before making any measurements. Incorrect settings can cause damage to the meter or the circuit being tested.

2. PRODUCT OVERVIEW

The ANENG V02A is a battery-powered, auto-ranging, True RMS digital multimeter featuring a 4000-count LCD display. It is designed for accurate measurement of various electrical parameters.

Key Features:

- **Measurement Functions:** DC Voltage, AC Voltage, Resistance, Continuity, NCV (Non-Contact Voltage), Battery Test (1.5V, 9V, 12V).
- **Display:** 4000 counts LCD.
- **Ranging:** Automatic.
- **True RMS:** Provides accurate readings for non-sinusoidal waveforms.
- **Additional Features:** Data Hold, Backlight, Flashlight, Auto Power Off, Low Battery Indication.

- **Construction:** Durable ABS+PVC material.



Figure 2.1: Front view of the ANENG V02A Digital Multimeter, showing the display, function buttons, and input jacks.

3. SETUP

3.1 Battery Installation

The ANENG V02A Multimeter requires two AAA batteries for operation. Batteries are typically not included.

1. Locate the battery compartment cover on the back of the multimeter.
2. Use a screwdriver to open the battery compartment.
3. Insert two AAA batteries, ensuring correct polarity (+ and -).

4. Replace the battery compartment cover and secure it with the screw.

3.2 Initial Power On

Press the red power button (labeled with a power symbol) located in the center of the multimeter to turn it on. The LCD display will illuminate, and the meter will enter auto-ranging mode.

4. OPERATING INSTRUCTIONS

The ANENG V02A features auto-ranging, simplifying operation by automatically selecting the appropriate measurement range.

4.1 Measuring DC Voltage (VDC)

1. Insert the red test lead into the " $V\Omega$)") input jack and the black test lead into the "COM" input jack.
2. Turn on the multimeter. It will automatically enter auto-ranging mode.
3. Connect the test leads in parallel to the DC voltage source or component you wish to measure.
4. Read the DC voltage value displayed on the LCD screen. The "DC" indicator will be visible.

4.2 Measuring AC Voltage (VAC)

1. Insert the red test lead into the " $V\Omega$)") input jack and the black test lead into the "COM" input jack.
2. Turn on the multimeter.
3. Connect the test leads in parallel to the AC voltage source or component.
4. Read the AC voltage value displayed on the LCD screen. The "AC" indicator will be visible.



Figure 4.1: The multimeter connected to an AC outlet to measure voltage.

4.3 Measuring Resistance (Ω)

1. Insert the red test lead into the "V Ω " input jack and the black test lead into the "COM" input jack.
2. Ensure the circuit or component is de-energized before measuring resistance.
3. Connect the test leads across the component whose resistance you want to measure.
4. Read the resistance value displayed on the LCD screen.

4.4 Continuity Test ()))

1. Insert the red test lead into the "V Ω " input jack and the black test lead into the "COM" input jack.
2. Ensure the circuit or component is de-energized.
3. Touch the test leads to the two points you want to check for continuity.
4. If continuity exists (low resistance), the multimeter will emit an audible beep, and the display will show a low resistance value.

4.5 Non-Contact Voltage (NCV) Detection

1. Press the "NCV" button on the multimeter. The NCV indicator will light up.
2. Move the top end of the multimeter near a live AC voltage source (e.g., an electrical outlet or wire).

3. If AC voltage is detected, the multimeter will beep and the NCV indicator will flash, with the frequency of beeps and flashes increasing as the meter gets closer to the voltage source.

Product size

Actual contrast
Almost the same height



Figure 4.2: Using the NCV function to detect live voltage without direct contact.

4.6 Battery Measurement (1.5V, 9V, 12V)

1. Insert the red test lead into the "VΩ)))" input jack and the black test lead into the "COM" input jack.
2. Connect the test leads to the positive and negative terminals of the battery (1.5V, 9V, or 12V).
3. The multimeter will display the battery voltage. The "BATTERY TEST" indicator will be visible.



Figure 4.3: The multimeter displaying the voltage of a 9V battery during a battery test.

4.7 Data Hold (H)

Press the "H/✱" button briefly to activate the Data Hold function. The current reading on the display will be frozen. Press the button again to release the hold and resume live measurements.

4.8 Backlight and Flashlight (☀)

Press and hold the "H/☀" button for a few seconds to turn on the display backlight and the integrated flashlight. Press and hold again to turn them off.

4.9 Auto Power Off

The multimeter will automatically power off after approximately 15 minutes of inactivity to conserve battery life. Press the power button to turn it back on.

5. MAINTENANCE

5.1 Battery Replacement

When the low battery indicator appears on the display, replace the two AAA batteries as described in Section 3.1. Always use fresh batteries of the correct type.

5.2 Cleaning

Wipe the multimeter casing with a damp cloth and a mild detergent. Do not use abrasive cleaners or solvents. Ensure the device is completely dry before use.

5.3 Storage

If the multimeter will not be used for an extended period, remove the batteries to prevent leakage and damage. Store the device in a cool, dry place, away from direct sunlight and extreme temperatures.

6. TROUBLESHOOTING

- **"OL" Display:** This indicates that the measured value exceeds the selected range or the maximum input limit of the multimeter. Select a higher range if available, or ensure the input is within the device's specifications.
- **Inaccurate Readings:** Check the battery level. Low batteries can cause incorrect measurements. Replace batteries if necessary. Also, ensure test leads are properly connected and the correct function is selected.
- **mV Reading Not Zero:** If the mV reading is not zero when no input is connected, it may be due to environmental factors like temperature/humidity changes or strong electromagnetic interference. Short the test leads; if it reads "0000", the meter is fine, and environmental factors are the cause. Try to minimize these interferences.
- **No Display/Power:** Check battery installation and ensure batteries are fresh. Press the power button firmly.

7. SPECIFICATIONS

Parameter	Specification
DC Voltage (V)	4.000V, 40.00V, 400.0V, 600V (Accuracy: $\pm(0.5\%+3)$)
AC Voltage (V)	4.000V, 40.00V, 400.0V, 600V (Accuracy: $\pm(1\%+3)$)
Resistance (Ω)	4.000K, 40.00K, 400.0K, 4.000M, 40.00M (Accuracy: $\pm(1.5\%+3)$)
Battery Measurement	1.5V, 9V, 12V
Display	4000 counts LCD
Ranging	Auto
True RMS	Yes
NCV (Non-Contact Voltage)	Yes
Continuity	Yes
Data Hold	Yes
Backlight	Yes
Flashlight	Yes
Auto Power Off	Yes

Parameter	Specification
Update Rate	3/s
Low Battery Indication	Yes
Working Environment Temperature	0-40°C (32-104°F)
Working Environment Humidity	Less than 70%
Power Source	2 x AAA Batteries
Material	ABS+PVC
Product Size	119.5mm x 60mm x 28.5mm (4.70in x 2.35in x 1.12in)





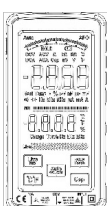
Figure 7.1: Detailed dimensions of the multimeter and a size comparison for reference.

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact the seller directly. Keep your purchase receipt as proof of purchase.





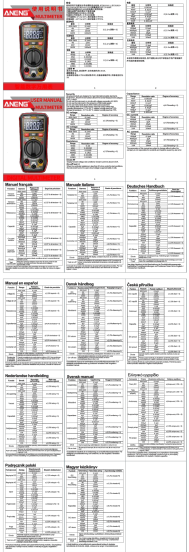
Related Documents - V02A

Touch Meter User Manual



[ANENG 683 Touch Meter User Manual: Features, Specs & Operation Guide](#)

Comprehensive user manual for the ANENG 683 digital multimeter. Covers safety, specifications, measurement functions (voltage, current, resistance, etc.), and operational guidance for electrical testing.

	<p>ANENG ST212 Clamp Meter Multimeter User Manual</p> <p>User manual for the ANENG ST212 clamp meter multimeter, providing detailed instructions on its features, operation, and various measurement functions including voltage, current, resistance, capacitance, and temperature.</p>
	<p>ANENG A3005 Digital Pen Multimeter User Manual and Specifications</p> <p>Comprehensive user manual for the ANENG A3005 digital pen multimeter, covering its features, operation, safety precautions, and technical specifications for measuring voltage, resistance, continuity, and more.</p>
	<p>ANENG M107 Mini Multimeter: Features, Specifications, and Usage Guide</p> <p>Discover the ANENG M107, a compact and intelligent smart digital multimeter. This guide covers its automatic measurement capabilities, AC/DC voltage and current testing, resistance measurement, NCV detection, flashlight, innovative storage, and detailed functional parameters.</p>
	<p>ANENG PN200 Multifunctional Clamp Ammeter: Features, Specifications, and Usage</p> <p>Explore the ANENG PN200, a versatile AC/DC clamp ammeter for electrical testing. Learn about its functions including current, voltage, resistance, capacitance, frequency, NCV detection, and its key specifications and accessories.</p>
	<p>ANENG SZ202 Digital Multimeter User Manual and Specifications</p> <p>Comprehensive user manual and technical specifications for the ANENG SZ202 Digital Multimeter, detailing its features, functions, and applications for electrical testing.</p>