

ANENG

ANENG 621A Smart Multimeter User Manual

Model: 621A
Brand: ANENG

1. SAFETY INFORMATION

Please read and understand all safety information before operating the ANENG 621A Smart Multimeter. Failure to follow these instructions may result in electric shock, fire, or damage to the device.

- Always ensure the multimeter is in the correct measurement mode before connecting test leads to a circuit.
- Do not attempt to measure voltages or currents exceeding the specified maximum ratings.
- Exercise extreme caution when working with live electrical circuits.
- Inspect test leads for damage before each use. Replace damaged leads immediately.
- The device features double fuse anti-burn protection. Do not bypass or use incorrect fuses.
- Keep the device dry and clean. Do not operate in wet or damp conditions.

2. PRODUCT OVERVIEW

The ANENG 621A is a smart, auto-ranging digital multimeter designed for accurate and versatile electrical measurements. Its compact, touch-screen design makes it ideal for both industrial and household use.

2.1 Key Features

- Measures AC/DC Current, AC/DC Voltage, Resistance, Frequency, Duty Cycle, Capacitance, Continuity, Diode, and Temperature.
- Smart Mode for automatic identification of measurement content and range selection.
- 9999 Counts True-RMS display with a large LCD color screen and backlight for clear readings.
- Non-Contact Voltage (NCV) detection and Live/Zero wire identification.
- Built-in flashlight for improved visibility in dim environments.
- Rechargeable lithium battery via 5V charger (USB Type-C).
- Durable Hi-Impact Resistant ABS housing with soft over-molded rubber for shockproof protection.

2.2 Package Contents

The package includes the following items:

- 1 x ANENG 621A Digital Multimeter
- 1 x Combination Lead Set (includes 4 connection sockets, 2 PVC cables, 2 copper needles, 2 U-shaped inserts, 2 meter pens, 2 alligator clips, 2 puncture needles)
- 1 x Multimeter Test Lead
- 1 x Temperature Line (Thermocouple)
- 1 x Charging Cable (USB Type-C)
- 1 x Instruction Manual
- 1 x Storage Bag



Figure 2.1: ANENG 621A Smart Multimeter and its comprehensive accessory kit.



Figure 2.2: Overview of the ANENG 621A's smart features and capabilities.



Figure 2.3: Compact and portable design of the ANENG 621A Multimeter.

Shockproof Silicone sleeve



Figure 2.4: The shockproof silicone sleeve provides enhanced durability.

3. SETUP

3.1 Charging the Multimeter

The ANENG 621A is equipped with a rechargeable lithium battery. Before first use, or when the low battery indicator appears, charge the device using the provided USB Type-C charging cable and a 5V charger (e.g., a phone charger).

LITHIUM BATTERIES RECHARGEABLE VERSION



Figure 3.1: Connect the USB Type-C cable to the multimeter's charging port and a 5V power source.

Your browser does not support the video tag.

Video 3.1: Demonstrates the charging process and initial setup of the ANENG 621A Multimeter.

3.2 Connecting Test Leads

To perform measurements, connect the test leads to the appropriate input jacks on the multimeter. Ensure a secure connection to prevent inaccurate readings or potential hazards.

- Insert the black test lead into the 'COM' (Common) jack.
- Insert the red test lead into the 'INPUT' jack for voltage, resistance, capacitance, frequency, diode, and continuity measurements.
- For current measurements (mA/A), insert the red test lead into the '10A/10SEC MAX' or '600mA' jack as appropriate for the expected current range.



Figure 3.2: Proper connection of test leads for various measurements.

4. OPERATING INSTRUCTIONS

4.1 Power On/Off and Smart Mode

Press the power button to turn the multimeter on. The device defaults to Smart Mode, automatically identifying the measurement type (voltage, resistance, continuity) and selecting the optimal range. This simplifies operation for common tasks.

SENSITIVE TOUCH SCREEN



Figure 4.1: The sensitive touch screen allows for intuitive mode selection.

4.2 Measurement Functions

The ANENG 621A offers a wide range of measurement capabilities:

- **AC/DC Voltage:** Automatically detected in Smart Mode. Connect leads across the component or circuit to measure.
- **Resistance:** Automatically detected in Smart Mode. Connect leads across the resistor or circuit.
- **Continuity:** Automatically detected in Smart Mode. The buzzer will sound if continuity is detected.
- **Diode:** Select the diode mode. Connect leads across the diode to test its forward voltage drop.
- **Capacitance:** Select the capacitance mode. Ensure capacitors are fully discharged before testing.
- **Frequency & Duty Cycle:** Select the appropriate mode to measure signal frequency and duty cycle.
- **Temperature:** Use the included temperature line (thermocouple) to measure temperature.
- **NCV (Non-Contact Voltage):** Hold the multimeter near a live wire or outlet to detect AC voltage without direct contact. The signal bar and buzzer indicate voltage presence.
- **Live/Zero Wire Detection:** Use the NCV function or specific live wire detection mode to distinguish between live and neutral wires in an outlet. A strong signal indicates the live wire.

- **AC/DC Current:** Connect the red test lead to the appropriate current input jack (mA or 10A) and connect the multimeter in series with the circuit.



Figure 4.2: Measuring AC voltage using the Smart Mode.

Autoranging

Functional measurement



Figure 4.3: Visual examples of various functional measurements.

Non-contact Voltage Test

Safe Design with Beep Audial Alarm



Figure 4.4: Performing a Non-Contact Voltage (NCV) test.



Figure 4.5: Measuring AC current in a circuit.

Your browser does not support the video tag.

Video 4.1: A demonstration of various measurement functions of the ANENG 621A Multimeter.

4.3 Backlight and Flashlight

The multimeter features a backlit color screen for easy reading in various lighting conditions. It also includes a built-in flashlight to illuminate the measurement area.

FLASHLIGHT/BRIGHT SCREEN



Figure 4.6: The backlit screen and flashlight enhance usability in low-light conditions.

5. MAINTENANCE

5.1 Cleaning

To maintain the accuracy and longevity of your multimeter, regularly clean its exterior with a soft, damp cloth. Do not use abrasive cleaners or solvents.

5.2 Battery Care

The built-in lithium battery should be charged regularly, especially if the device is not used for extended periods, to maintain battery health. Avoid fully discharging the battery frequently.

5.3 Fuse Replacement

The ANENG 621A is equipped with double fuses for protection against overloading. If the multimeter displays a 'damaged fuse' prompt or fails to measure current, the fuse may need replacement. Refer to the detailed instructions in the included

printed manual for fuse access and replacement procedures. Always use fuses of the correct type and rating.

6. TROUBLESHOOTING

If you encounter issues with your ANENG 621A Multimeter, consider the following common troubleshooting steps:

Problem	Possible Cause	Solution
Multimeter does not power on.	Low or depleted battery.	Charge the multimeter using the provided USB Type-C cable.
Inaccurate readings.	Incorrect mode selection; damaged test leads; environmental interference.	Ensure correct mode (Smart Mode is recommended for general use); inspect and replace test leads if damaged; move away from strong electromagnetic fields.
No current measurement.	Blown fuse; incorrect test lead connection for current.	Check for 'damaged fuse' prompt; ensure red lead is in the correct current input jack (10A or mA) and connected in series. Replace fuse if necessary.
Screen is dim or unresponsive.	Low battery; screen protection film still on; device malfunction.	Charge the battery; remove any protective film; if issue persists, contact support.

7. SPECIFICATIONS

Specification	Value
Model Number	621A
Display Counts	9999 Counts
True RMS	Yes
Power Source	Rechargeable Lithium Metal Battery (included)
Product Dimensions	3.94 x 3.94 x 0.79 inches
Item Weight	0.02 ounces (0.6 Grams)
Color	Red, Black
Country of Origin	China

8. WARRANTY AND SUPPORT

ANENG is committed to providing high-quality products and excellent customer service. Your ANENG 621A Smart Multimeter comes with dedicated service and technical support.

For any questions, technical assistance, or warranty claims, please contact ANENG customer support through the official channels provided at the time of purchase or visit the ANENG website. Please retain your proof of purchase for warranty purposes.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Answered questions about this manual

How do I get a voltage reading instead of a milliampere (mA) reading on the ANENG 621A Smart Multimeter?

To switch from measuring current (mA) to voltage on the ANENG 621A Smart Multimeter, you must change both the physical lead connections and the software mode: Change the Test Lead Position: Remove the red test...

[Read full answer](#)