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## ANENG A3012

# ANENG A3012 Non-Contact Voltage Tester and Outlet Receptacle Detector User Manual

Model: A3012



## 1. INTRODUCTION

The ANENG A3012 is a versatile electrical testing tool designed for both non-contact voltage detection and comprehensive outlet circuit analysis. This device is suitable for electrical equipment testing, maintenance, and general household electrical safety checks. Its compact, pen-shaped design ensures portability and ease of use.



Image 1: ANENG A3012 Voltage Tester and Outlet Detector, showing its pen-like form factor and integrated display.

# 2 in 1

## Voltage Tester    Socket phaser



Image 2: Illustration highlighting the A3012's dual functionality as a voltage tester and socket circuit analyzer.

## 2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the ANENG A3012. Failure to follow these instructions may result in electric shock, fire, or personal injury.

- Always exercise caution when working with electricity.
- Do not use the device if it appears damaged or is not functioning correctly.
- Ensure the battery is properly installed before use.
- The device complies with IEC rated CAT II 1000V and CAT IV 600V safety standards and is CE certified.
- Before performing a leakage (RCD/GFCI) test, ensure all connected electrical appliances are turned off to prevent damage or unintended tripping of the circuit.
- Do not attempt to repair or modify the device. Refer servicing to qualified personnel.

## 3. PRODUCT FEATURES

The ANENG A3012 offers a range of features for comprehensive electrical testing:

- **Non-Contact Voltage (NCV) Detection:** Detects AC voltage without direct contact.
- **Outlet Circuit Testing:** Identifies common wiring faults in electrical outlets, including correct wiring, open ground, open neutral, live/neutral reverse, live/ground reverse, and open live.
- **Leakage Current (RCD/GFCI) Test:** Verifies the functionality of Residual Current Devices (RCD) or Ground Fault Circuit Interrupters (GFCI).
- **LCD Display with Backlight:** Provides real-time voltage readings and clear indication of test results, even in low-light conditions.
- **Integrated Flashlight:** Assists in illuminating dark work areas.
- **Automatic Shutdown:** Conserves battery life by automatically powering off after a period of inactivity.
- **Low Battery Indication:** Alerts the user when the battery needs replacement.
- **Breakpoint Lookup:** Helps locate breaks in live wires.
- **Live Wire Detection:** Automatically identifies live or neutral wires.

## 4. COMPONENTS AND PARTS

Familiarize yourself with the different parts of the ANENG A3012:



*Image 3: Diagram illustrating the key components of the ANENG A3012.*

1. Test nib (voltage, positive test point)
2. LED flashlight
3. LCD backlit display
4. AC Voltage, 1.5V/9V Battery Detection, On/Off, Electric Field Sensing Finger Contact Point
5. Long press for power switch, single press to switch AC voltage
6. Buzzer alarm exit
7. Leakage test switch button
8. Socket (for 1.5V/9V battery detection, on/off/NCV induction switching; long press the flashlight switch)
9. Power Polarity Indicator

## 5. SETUP

### 5.1 Battery Installation

The ANENG A3012 requires one (1) 1.5V AAA battery for operation.

1. Locate the battery compartment cover on the back of the device.
2. Slide or open the cover to access the battery compartment.
3. Insert one 1.5V AAA battery, ensuring correct polarity (+ and - terminals match the markings inside the compartment).

4. Close the battery compartment cover securely.



*Image 4: Illustration showing the battery compartment and proper battery insertion.*

## 6. OPERATING INSTRUCTIONS

### 6.1 Power On/Off

To power on the device, long press the power button (labeled '4' in Image 3). Long press again to power off. The device features automatic shutdown to conserve battery.

### 6.2 Non-Contact Voltage (NCV) Detection

The NCV function allows for safe detection of AC voltage without direct contact with live conductors.

1. Hold the device with the NCV sensor tip near the wire or outlet you wish to test.
2. If AC voltage is detected, the device will emit an audible alarm and the LED indicator will illuminate. The LCD display may show the detected voltage level.



Image 5: Demonstrating non-contact voltage sensing near a circuit breaker.

### 6.3 Outlet Circuit Test

This function checks the wiring status of standard electrical outlets.

1. Insert the tester's plug into the electrical outlet.
2. Observe the LED indicators on the device. The combination of illuminated LEDs indicates the wiring status.



Image 6: Visual guide to interpreting the LED indicators for various outlet wiring conditions.

#### LED Indication Table:

Indicator Pattern	Wiring Status	Description
Correct	Correct Wiring	Safe and secure use of electricity.
Open Ground	Missing Ground Connection	Unsafe, may cause casing of household appliances to become live.
Open Neutral	Missing Neutral Connection	Unsafe, equipment may not work, live wire is still present.
Live/Neutral Reverse	Live and Neutral Wires Swapped	Unsafe, appliances may be charged, increasing risk of electric shock.
Live/Ground Reverse	Live and Ground Wires Swapped	Unsafe, appliances may not work, high risk of electric shock.
Open Live & Live Neutral Reverse	Missing Live and Live/Neutral Reversed	Extremely unsafe, high potential for electric shock.

### 6.4 Leakage Current (RCD/GFCI) Test

This test verifies the functionality of a Residual Current Device (RCD) or Ground Fault Circuit Interrupter (GFCI) in the circuit.

**WARNING: Before performing this test, ensure all electrical appliances connected to the circuit are turned off to prevent damage or unintended tripping of the circuit.**

1. Plug the tester into the outlet.

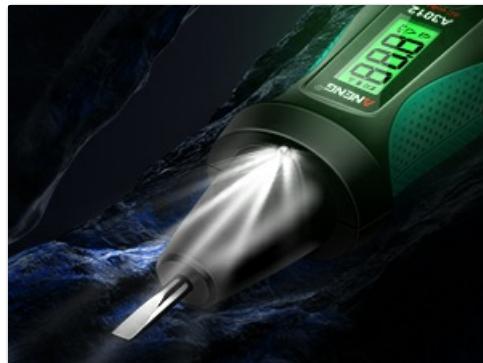
2. Press the 'RCD Test' button (labeled '7' in Image 3).
3. If the RCD/GFCI is functioning correctly, the circuit breaker should trip, cutting power to the outlet. If it does not trip, there may be a problem with the leakage protection.



*Image 7: Visual representation of performing a leakage test and its expected outcomes (tripping vs. no tripping).*

## 6.5 Flashlight Function

To activate the integrated flashlight, long press the button labeled '8' in Image 3 (which is also used for NCV induction switching).



*Image 8: Close-up view of the ANENG A3012 with its flashlight illuminated.*

## 6.6 Breakpoint Lookup

The breakpoint lookup feature helps identify breaks in live wires.

1. Use the NCV sensor tip along the length of a live wire.
2. The device will indicate the presence of electricity until it reaches a break in the wire, where the indication will cease.

# Versatile Socket Tester



Image 9: Illustrates the breakpoint lookup function, showing detection up to a break in a wire.

## 7. MAINTENANCE

### 7.1 Cleaning

Wipe the device with a dry, soft cloth. Do not use abrasive cleaners or solvents. Ensure the device is powered off before cleaning.

### 7.2 Battery Replacement

When the low battery indicator appears on the LCD, replace the 1.5V AAA battery as described in the 'Battery Installation' section (5.1).

### 7.3 Storage

Store the device in a cool, dry place away from direct sunlight and extreme temperatures. If storing for an extended period, remove the battery to prevent leakage.

## 8. TROUBLESHOOTING

If you encounter issues with your ANENG A3012, refer to the following common problems and solutions:

- Device does not power on:** Check if the battery is installed correctly and has sufficient charge. Replace the battery if necessary.
- Inaccurate readings or no detection:** Ensure proper contact with the test point or proximity to the wire for NCV. Verify the battery level. Environmental factors or strong electromagnetic interference can sometimes affect readings.
- RCD/GFCI test does not trip the circuit:** Double-check that the RCD/GFCI is functional and correctly wired. If the issue persists, consult a qualified electrician.
- LED indicators for outlet test are unclear:** Ensure the tester is fully inserted into the outlet. Refer to the LED Indication Table in section 6.3 for correct interpretation.

If problems persist, contact ANENG customer support for assistance.

## 9. SPECIFICATIONS

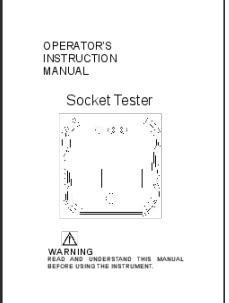
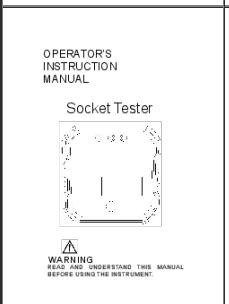
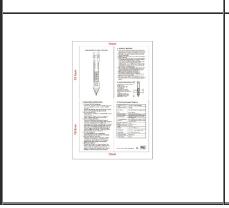
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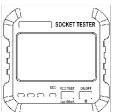
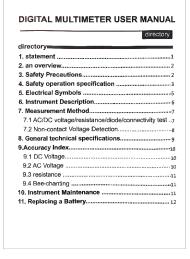
Parameter	Value
Brand	ANENG
Model	A3012
Battery	1.5V AAA Battery * 1
Rated Current (RCD Test)	$I_{\Delta n}=5\text{mA}$
Socket Rated Voltage	Un=200V-250VAC
Alarm Method	Sound light alarm
Material	ABS/Metal
Weight	67g
AC Voltage Range	12-300V 50Hz-60Hz
Precision	$\pm(4\%+10)$
Safety Compliance	IEC CAT II 1000V, CAT IV 600V, CE

## 10. WARRANTY AND SUPPORT

ANENG provides lifetime service and technical support for its electrical testers. For any inquiries, technical assistance, or warranty claims, please contact ANENG customer support through their official channels or the retailer where the product was purchased.

### Related Documents - A3012

	<p><a href="#"><u>ANENG AC28 Socket Tester: Operator's Instruction Manual</u></a></p> <p>Operator's instruction manual for the ANENG AC28 Socket Tester, detailing its use for polarity detection, leakage switch testing, and voltage measurement. Includes technical specifications, safety warnings, and operating procedures.</p>
	<p><a href="#"><u>ANENG Socket Tester Operator's Instruction Manual</u></a></p> <p>This manual provides instructions for the ANENG Socket Tester, detailing its functions for polarity detection, leakage switch testing, and voltage measurement. It includes technical specifications, safety warnings, operating procedures, and cleaning guidelines.</p>
	<p><a href="#"><u>ANENG VD802 Non-Contact Voltage Detector: User Manual &amp; Specifications</u></a></p> <p>Comprehensive user manual for the ANENG VD802 non-contact voltage detector. Features include AC voltage testing (12-1000V), adjustable sensitivity, LED torch, and safety guidelines. Get detailed operation instructions and technical specifications.</p>

 <p>Socket tester user manual</p>	<p><a href="#">ANENG AC10 Digital Smart Socket Tester User Manual</a></p> <p>Comprehensive user manual for the ANENG AC10 Digital Smart Socket Tester. Learn how to test socket polarity, detect wiring faults, and verify RCD safety with clear instructions, technical specifications, and safety warnings.</p>																																				
 <p>ANENG VC1010 Smart Induction Pen: AC Voltage Detector</p>	<p>Discover the ANENG VC1010 Smart Induction Pen, a contactless AC voltage detector offering high and low sensitivity switching, zero line recognition, non-contact measurement, flashlight lighting, and sound/light alarms. Learn about its features, specifications, and battery installation.</p>																																				
 <p>DIGITAL MULTIMETER USER MANUAL</p> <table border="0"> <tr> <td>directory</td> <td>directory</td> </tr> <tr> <td>1. statement</td> <td>1</td> </tr> <tr> <td>2. an overview</td> <td>2</td> </tr> <tr> <td>3. Safety Precautions</td> <td>2</td> </tr> <tr> <td>4. Measurement specification</td> <td>3</td> </tr> <tr> <td>5. Electrical Symbols</td> <td>5</td> </tr> <tr> <td>6. Instrument Description</td> <td>6</td> </tr> <tr> <td>7. Measurement Method</td> <td>7</td> </tr> <tr> <td>7.1 AC/DC voltage/resistance/continuity test</td> <td>7</td> </tr> <tr> <td>7.2 Frequency</td> <td>8</td> </tr> <tr> <td>7.3 Capacitance</td> <td>9</td> </tr> <tr> <td>8. General technical specifications</td> <td>10</td> </tr> <tr> <td>8.1 DC Voltage</td> <td>10</td> </tr> <tr> <td>8.2 AC Voltage</td> <td>10</td> </tr> <tr> <td>8.3 Resistance</td> <td>11</td> </tr> <tr> <td>8.4 Continuity</td> <td>12</td> </tr> <tr> <td>9. Instrument Maintenance</td> <td>13</td> </tr> <tr> <td>10. Replacing a Battery</td> <td>13</td> </tr> </table>	directory	directory	1. statement	1	2. an overview	2	3. Safety Precautions	2	4. Measurement specification	3	5. Electrical Symbols	5	6. Instrument Description	6	7. Measurement Method	7	7.1 AC/DC voltage/resistance/continuity test	7	7.2 Frequency	8	7.3 Capacitance	9	8. General technical specifications	10	8.1 DC Voltage	10	8.2 AC Voltage	10	8.3 Resistance	11	8.4 Continuity	12	9. Instrument Maintenance	13	10. Replacing a Battery	13	<p><a href="#">ANENG M113 Digital Multimeter User Manual - Features, Specifications, and Operation</a></p> <p>Comprehensive user manual for the ANENG M113 digital multimeter, covering its features, safety precautions, measurement methods, technical specifications, accuracy indicators, and maintenance procedures.</p>
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