ANENG ST181

ANENG ST181 Clamp Meter & VC1019 Voltage Tester User Manual

Brand: ANENG

Model: ST181

1. Product Overview

The ANENG ST181 Clamp Meter and VC1019 Non-Contact Voltage Tester are professional electrical testing tools designed for a wide range of applications, from home use to industrial settings. This comprehensive kit provides accurate measurements and enhanced safety features for electrical troubleshooting and maintenance.

The ST181 Clamp Meter is a versatile multimeter capable of measuring AC current, AC/DC voltage, resistance, capacitance, continuity, diode, and frequency. Its double open clamp design allows for non-invasive current measurement up to 1.42 inches in wire diameter. The VC1019 Non-Contact Voltage Tester offers a safe way to detect AC signals with visual and audible alarms, featuring voice broadcast, breakpoint detection, and infrared laser positioning.

Figure 1.1: ANENG ST181 Clamp Meter and VC1019 Voltage Tester with included accessories.

2. Key Features

- **ANENG ST181 Clamp Meter:** Measures AC current (up to 400A), AC/DC voltage, resistance, capacitance, continuity, diode, and frequency. Features a double open clamp design (up to 36mm/1.42in jaw opening), HD backlit display, and automatic power-off.
- **ANENG VC1019 Non-Contact Voltage Tester:** Detects AC voltage (12V-1000V) with sound and light alarms. Includes voice broadcast function, LED flashlight, low-power indicator, breakpoint detection, and infrared laser positioning.
- **Enhanced Safety:** Both devices prioritize user safety with non-contact measurement capabilities and clear warning indicators.
- **Portability:** Compact and lightweight design suitable for various environments including home, school, factory, and laboratory.
- **Comprehensive Kit:** Package includes multimeter, voltage tester, test leads, combination leads, batteries, and a storage bag.

3. Setup

3.1 Battery Installation

Both the ST181 Clamp Meter and VC1019 Voltage Tester are battery-powered. Ensure you have 4 AAA batteries ready for the kit (typically included).

1. Locate the battery compartment on the rear of each device.
2. Open the battery cover by sliding or unscrewing it.
3. Insert the AAA batteries, observing the correct polarity (+/-) as indicated inside the compartment.
4. Close the battery cover securely.

3.2 Connecting Test Leads (ST181 Clamp Meter)

For measurements requiring direct contact, connect the test leads to the ST181 Clamp Meter:

1. Insert the black test lead into the 'COM' (Common) input jack.
2. Insert the red test lead into the 'INPUT' jack for voltage, resistance, capacitance, diode, and frequency measurements.
3. Ensure connections are firm before use.

4. Operating Instructions

4.1 ANENG ST181 Clamp Meter Operations

Turn the rotary dial to select the desired measurement function.

Figure 4.1: ST181 Clamp Meter showing measurement capabilities and backlit display.

4.1.1 AC Current Measurement

The clamp meter measures AC current without breaking the circuit.

1. Set the rotary dial to the 'A~' (AC Current) position.
2. Open the clamp jaws by pressing the trigger.
3. Enclose only one conductor (wire) within the jaws. Do not clamp around multiple wires carrying current in opposite directions, as this will result in a zero reading.
4. Read the current value on the display. The meter supports measurements up to 400A.

Figure 4.2: Measuring high AC current with the ST181 Clamp Meter.

Figure 4.3: The 36mm (1.42 inch) jaw opening allows for measurement on various wire sizes.

4.1.2 Voltage (AC/DC), Resistance, Capacitance, Diode, Continuity, Frequency Measurement

For these functions, connect the test leads as described in Section 3.2.

1. Set the rotary dial to the desired function (e.g., 'V~' for AC Voltage, 'V=' for DC Voltage, 'Ω' for Resistance, '⏚' for Diode, 'Hz' for Frequency, 'F' for Capacitance, ')))' for Continuity).
2. Touch the test probes to the circuit points you wish to measure.
3. Read the value on the HD backlit display.

Figure 4.4: The HD backlit display ensures clear readings in various lighting conditions.

4.2 ANENG VC1019 Non-Contact Voltage Tester Operations

The VC1019 is designed for safe and quick detection of AC voltage.

Figure 4.5: VC1019 Voice Broadcasting features for enhanced user feedback.

4.2.1 NCV (Non-Contact Voltage) Detection

This feature allows you to detect the presence of AC voltage without direct contact.

1. Turn on the VC1019.
2. Place the tip of the tester near an AC power socket or an insulated AC cable.
3. If AC voltage is detected, the LED lights will activate, and the tester will emit beeping sounds with varying frequencies (faster beeps indicate higher voltage). The voice broadcast function will also announce the voltage level (e.g., "Danger! High Voltage" or "Low Voltage").

Figure 4.6: Firewire and Zero line detection using the VC1019 NCV Tester.

4.2.2 Breakpoint Detection

The VC1019 can help locate breaks in live wires.

1. Turn on the VC1019.
2. Run the tip of the tester along the insulated wire.
3. The tester will indicate voltage presence up to the point of the break. The absence of a signal beyond a certain point indicates a wire break.

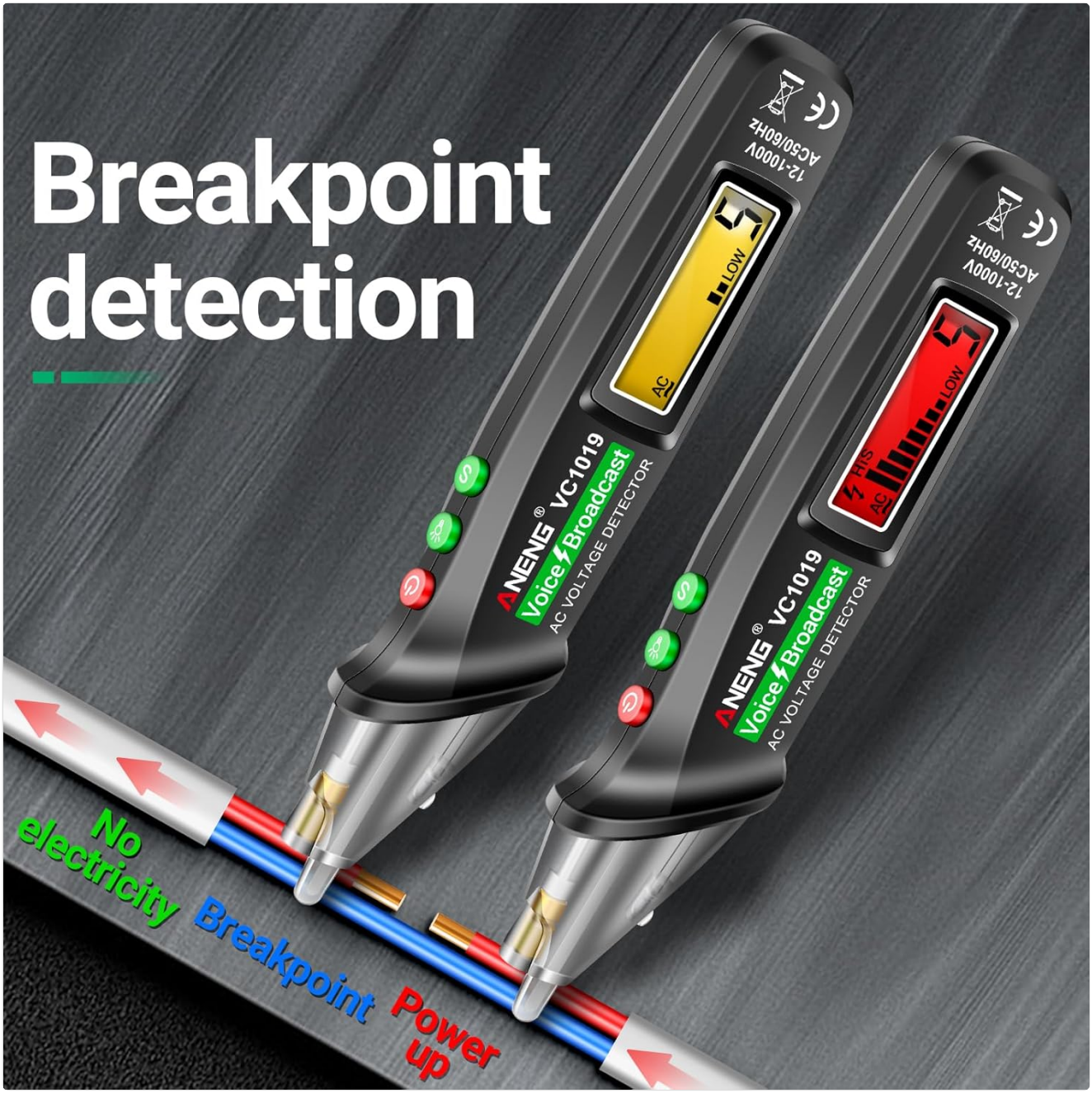

Figure 4.7: Using the VC1019 for breakpoint detection in electrical wiring.

4.2.3 Infrared Laser Positioning

The VC1019 features an infrared laser for precise positioning.

1. Activate the laser function (refer to device buttons).
2. Use the laser dot to pinpoint specific areas for testing or marking.

Figure 4.8: Infrared laser positioning for accurate targeting.

4.2.4 LED Flashlight

The VC1019 includes a built-in LED flashlight for illuminating dark work areas.

1. Press the flashlight button to turn it on/off.

5. Maintenance

5.1 Cleaning

To ensure longevity and accurate readings, keep your devices clean.

- Wipe the exterior of the devices with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- Ensure the devices are completely dry before storage or next use.

5.2 Battery Replacement

Replace batteries when the low-power indicator appears on the display to ensure accurate operation.

- Follow the battery installation steps outlined in Section 3.1.
- Dispose of old batteries responsibly according to local regulations.

5.3 Storage

When not in use, store the devices in a cool, dry place, away from direct sunlight and extreme temperatures. Use the provided storage bag to protect them from dust and physical damage.

6. Troubleshooting

- **Device does not power on:** Check battery installation and ensure batteries are not depleted. Replace if necessary.
- **Inaccurate readings:** Ensure test leads are properly connected (for ST181). Verify the correct function is selected on the rotary dial. Check for low battery.
- **VC1019 not detecting voltage:** Ensure the device is powered on. Confirm the voltage range is within 12V-1000V AC.
- **No voice broadcast from VC1019:** Check if the voice function is enabled (if applicable via a button) or if the speaker is obstructed.

7. Specifications

Feature	Specification
Brand	ANENG
Model Number	ST181 (Clamp Meter), VC1019 (Voltage Tester)
Measurement Type	Multimeter, Non-contact Voltage Tester
Power Source	Battery Powered (AAA batteries)
ST181 AC Current Range	Up to 400A
ST181 Jaw Opening	Max 36mm (1.42 inches)
VC1019 AC Voltage Range	12V-1000V
Display	HD Backlit Digital Display (ST181)
Additional Features	Voice Broadcast, LED Flashlight, Low-Power Indicator, Automatic Power-Off, Breakpoint Detection, Infrared Laser Positioning

8. Safety Information

Always adhere to standard electrical safety practices when using these tools. Failure to do so may result in injury or damage to the equipment.

- Do not attempt to measure voltages or currents exceeding the specified maximum ratings.
- Ensure the device is set to the correct function before making any measurements.
- Never touch exposed wires or circuit components with your hands while testing.
- Always assume a circuit is live until proven otherwise with a reliable voltage tester.
- Do not use the devices if they appear damaged or are operating abnormally.
- Keep out of reach of children.

9. Warranty and Support

For warranty information and technical support, please refer to the product packaging or contact ANENG customer service directly. You can also visit the official ANENG store on Amazon for more information and support resources.

ANENG is dedicated to providing reliable electrical tools and customer satisfaction. For further assistance, please visit the ANENG Store.

Documents - ANENG – ST181

Цифровой мини-мультиметр Aneng ST181 с токовыми клещами: Руководство по эксплуатации
Подробное руководство пользователя для цифрового мини-мультиметра Aneng ST181 с токовыми клещами. Включает информацию по безопасности, инструкции по эксплуатации, технические характеристики для измерения переменного/постоянного напряжения, тока, сопротивления, частоты, емкости и бесконтактного определения напряжения (NCV), а также правила замены батареи.
lang:en score:30 filesize: 576.86 K page_count: 11 document date: 2024-11-03

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Microsoft Word ST180 ST181 ANENG ИНСТРУКЦИЯ НА РУССКОМ Пользователь ЦИФРОВОЙ МИНИ МУЛЬТИМЕТР С токовыми клещами AnengAneng Инструкция S–LINE RU Page 2 Руководство по эксплуатации 1 ИНФОРМАЦИЯ О БЕЗОПАСНОСТИ Этот мини мультиметр разработан в соответствии с IEC61010ST180 INSTRUKTSIYA NA RUSSKOMs line ru upload iblock af8 3uvduba0gmhb4r51yoo4rldy4wp9fy4x RUSSKOM srsltid AfmBOooet6oI8xXliwKzOKfb 7XsqX2GT83DcXjv0HRBQ8WFMUXE46aJ AnengЦИФРОВОЙ IEC61010Aneng RUSSKOMST180 7XsqX2GT83DcXjv0HRBQ8WFMUXE46aJs AfmBOopu8igPXhVQ9CBISBssP75iP5G zjdKIr0Zx1 QqL0jkdsAJr A IEC61010Размер ВхШхГ 183x65x32 мм при открытой челюсти ψ 24 м Вес ≈ 133 г Принадлежности Аккумулятор Тестовые провода 5 ST180 As AfmBOopjiP hvfbaZ3IV3pSvElcWr7J BbMLT6IKz9vaxDfL3UkmVNpO ||| ||| - Aneng ST181 S-LINE.RU S-LINE.RU 1. - IEC61010 CAT II 600 , : a. , . , . , . b. . . , . . , . d. , . e. , , , . f. , . g. . h. . i. 30 rms, 42 , 60 . . j. . S-LINE.RU k. . . . l. . m. of the cover removed . n. , , , . o. CAT II - I , , . ||| - Aneng ST181 S-LINE.RU S-LINE.RU 1. - IEC61010 CAT II 600 , : a. , . , . , . b. . . , . . , . d. , . e. , , , . f. , . g. . h. . i. 30 rms, 42 , 60 . . j. . S-LINE.RU k. . . . l. . m. of the cover removed . n. , , , . o. CAT II - I , , .
- Aneng **ST181** S-LINE.RU S-LINE.RU 1. - IEC61010 CAT II 600 , : a. , . , . , . b. . . . . , . . , . d. , . e. , , , . f. , . g. . h. . i. 30 rms, 42 , 60 . ...
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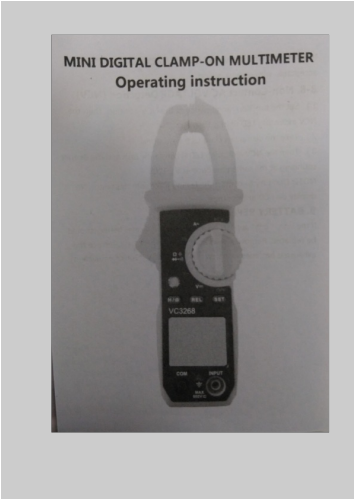
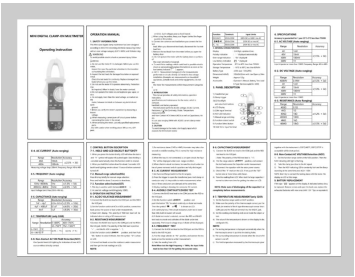


[VC3268 Mini Digital Clamp-On Multimeter Operating Instruction Manual]
Comprehensive operating instruction manual for the VC3268 Mini Digital Clamp-On Multimeter, covering safety information, general characteristics, detailed specifications for AC/DC voltage, current, resistance, frequency, capacitance, temperature, and non-contact AC voltage detection, along with step-by-step operation guides and battery replacement instructions.
lang:en score:17 filesize: 2.48 M page_count: 10 document date: 2022-04-11



[ANENG ST181 Mini Digital Clamp-On Multimeter Operation Manual]
Operation manual for the ANENG ST181 Mini Digital Clamp-On Multimeter, covering safety, panel description, specifications, and detailed instructions for various electrical measurements including voltage, current, resistance, capacitance, frequency, and temperature.
lang:en score:13 filesize: 517.22 K page_count: 2 document date: 2025-06-02