Aneng ST213

Aneng ST213 Digital Clamp Meter Multimeter User Manual

Model: ST213

1. Introduction

Thank you for choosing the Aneng ST213 Digital Clamp Meter Multimeter. This device is a professional, portable measuring instrument with a large LCD display, providing clear readings. It is designed for measuring AC/DC current, AC/DC voltage, resistance, capacitance, frequency, temperature, diode, continuity, and Non-Contact Voltage (NCV) detection. Please read this manual thoroughly before use to ensure safe and proper operation.

1.1 Safety Information

- Always adhere to local and national safety codes.
- Do not exceed the maximum input values specified for each function.
- Exercise extreme caution when working with live circuits.
- Before measuring current, ensure the test leads are disconnected from the meter and the clamp jaw is properly closed around the conductor.
- Replace batteries when the low battery indicator appears to ensure accurate readings.
- Do not operate the meter if it appears damaged or if the case is open.

2. Product Overview

The Aneng ST213 is a compact and versatile digital clamp meter. Below is an illustration of its main components and controls.

Figure 2.1: Front view of the Aneng ST213 Digital Clamp Meter. This image displays the device with its clamp jaw open around a conductor, showing the dual display screen, function dial, and input terminals.

2.1 Display Features

The ST213 features a reverse screen dual display, allowing for simultaneous viewing of primary and secondary measurements. Key indicators include:

- **DC/AC:** Indicates direct or alternating current/voltage.
- **HOLD:** Data hold function active.
- **NCV:** Non-Contact Voltage detection mode.
- **REL:** Relative measurement mode.
- **Hz/kHz:** Frequency unit.
- **°C/°F:** Temperature unit (Celsius/Fahrenheit).
- **Ω:** Resistance unit (Ohms).
- **mV/V:** Voltage units.
- **µA/mA/A:** Current units.
- **CAP:** Capacitance measurement mode.

- **Diode/Continuity:** Diode test and continuity check modes.
- **Low Battery Indicator:** Symbol indicating battery replacement is needed.

2.2 Controls and Input Terminals

- **Function Dial:** Used to select measurement modes.
- **SELECT Button:** Toggles between functions within a single dial position (e.g., AC/DC, Diode/Continuity).
- **HOLD/LIGHT Button:** Freezes the current reading on the display; long press activates backlight.
- **NCV/Hz Button:** Activates Non-Contact Voltage detection or frequency measurement.
- **REL/°C°F Button:** Activates relative measurement mode or toggles temperature units.
- **COM Input Jack:** Common (negative) input for all measurements except clamp current.
- **VΩCAP Input Jack:** Positive input for voltage, resistance, capacitance, frequency, diode, and continuity measurements.

3. Setup

3.1 Battery Installation

The Aneng ST213 requires 2 x AAA batteries (not included). To install or replace batteries:

1. Ensure the meter is turned off and test leads are disconnected.
2. Locate the battery compartment cover on the back of the meter.
3. Use a screwdriver to loosen the screw(s) and remove the cover.
4. Insert the 2 x AAA batteries, observing correct polarity (+/-).
5. Replace the battery compartment cover and secure it with the screw(s).

4. Operating Instructions

Before any measurement, ensure the meter is in good working condition and test leads are properly connected for voltage, resistance, or other non-clamp measurements.

4.1 AC/DC Current Measurement (Clamp)

1. Turn the function dial to the “A” (Ampere) position.
2. Press the SELECT button to choose between AC A or DC A.
3. Open the clamp jaw and enclose only one conductor. Ensure the jaw is fully closed.
4. Read the current value on the display.

4.2 AC/DC Voltage Measurement

1. Insert the red test lead into the VΩCAP jack and the black test lead into the COM jack.
2. Turn the function dial to the “V” (Voltage) position.
3. Press the SELECT button to choose between AC V or DC V.
4. Connect the test probes across the circuit or component to be measured.
5. Read the voltage value on the display.

4.3 Resistance Measurement

1. Insert the red test lead into the VΩCAP jack and the black test lead into the COM jack.
2. Turn the function dial to the Ω (Ohm) position.
3. Ensure the circuit or component is de-energized before connecting the probes.
4. Connect the test probes across the component.
5. Read the resistance value on the display.

4.4 Continuity Test

1. Insert the red test lead into the VΩCAP jack and the black test lead into the COM jack.
2. Turn the function dial to the Ω (Ohm) position and press SELECT until the continuity symbol (♫) appears.
3. Ensure the circuit is de-energized.
4. Connect the test probes across the circuit or component.
5. If resistance is below approximately 50Ω, the buzzer will sound, indicating continuity.

4.5 Diode Test

1. Insert the red test lead into the VΩCAP jack and the black test lead into the COM jack.
2. Turn the function dial to the Ω (Ohm) position and press SELECT until the diode symbol (▲) appears.
3. Ensure the diode is disconnected from the circuit.
4. Connect the red probe to the anode and the black probe to the cathode of the diode.
5. Read the forward voltage drop. Reverse the probes; an open circuit reading indicates a good diode.

4.6 Capacitance Measurement

1. Insert the red test lead into the VΩCAP jack and the black test lead into the COM jack.
2. Turn the function dial to the CAP position.
3. Ensure the capacitor is fully discharged before connecting the probes.
4. Connect the test probes across the capacitor.
5. Read the capacitance value on the display.

4.7 Frequency Measurement

1. Insert the red test lead into the VΩCAP jack and the black test lead into the COM jack.
2. Turn the function dial to the Hz position or press the NCV/Hz button in a voltage/current mode.
3. Connect the test probes across the circuit where frequency is to be measured.
4. Read the frequency value on the display.

4.8 Non-Contact Voltage (NCV) Detection

1. Turn the function dial to the NCV position or press the NCV/Hz button.
2. Move the meter's NCV sensor (located at the top of the clamp jaw) close to the conductor or outlet.
3. The meter will beep and the NCV indicator will light up, with increasing intensity/frequency as it gets closer to a live voltage source.

5. Maintenance

5.1 Cleaning

Wipe the meter's case with a damp cloth and a mild detergent. Do not use abrasives or solvents. Ensure the meter is dry before use.

5.2 Battery Replacement

Refer to Section 3.1 for battery replacement instructions. Replace batteries promptly when the low battery indicator appears to maintain measurement accuracy.

5.3 Storage

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

6. Troubleshooting

Problem	Possible Cause	Solution
Meter does not power on	Dead or incorrectly installed batteries	Check battery polarity; replace batteries.
No reading or 'OL' displayed	Overload, open circuit, or incorrect range/mode	Check connections, select appropriate range/mode, ensure circuit is closed.
Inaccurate readings	Low battery, external interference, or incorrect measurement technique	Replace batteries, move away from strong magnetic fields, review operating instructions.
Continuity buzzer not sounding	Resistance too high or circuit open	Ensure circuit is closed and resistance is below threshold.

7. Specifications

Feature	Specification
Display	6000 Counts, Dual Display, Reverse Screen
DC Voltage	Up to 600V
AC Voltage	Up to 600V
DC Current (Clamp)	Up to 600A
AC Current (Clamp)	Up to 600A
Resistance	Up to 60MΩ

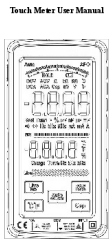
Feature	Specification
Capacitance	Up to 60mF
Frequency	Up to 10MHz
Temperature	Yes (probe dependent)
Diode Test	Yes
Continuity Test	Yes (with buzzer)
NCV Detection	Yes
Power Supply	2 x AAA Batteries
Safety Rating	CAT III 600V

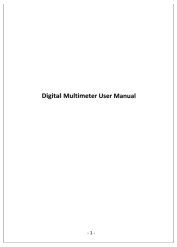
8. Warranty and Support

This product is manufactured by MRRIEKSEFEN. For warranty information or technical support, please refer to the documentation provided with your purchase or contact your retailer. Keep your purchase receipt as proof of purchase for any warranty claims.

For further assistance, please contact customer support through your point of purchase.

Related Documents - ST213

	ANENG ST183 Digital Clamp Meter User Manual - Specifications and Instructions Comprehensive user manual for the ANENG ST183 Digital Clamp Meter, detailing its specifications, safety precautions, operating instructions for various measurements (voltage, current, resistance, capacitance, frequency, NCV), maintenance, and troubleshooting.
	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.
	ANENG 616 Digital Intelligent Multimeter: Operating Instructions and Specifications Comprehensive operating instructions and detailed specifications for the ANENG 616 digital intelligent multimeter. Learn how to measure voltage, current, resistance, capacitance, frequency, and temperature safely and effectively.

	[ANENG ST180 Digital Clamp-On Multimeter Operating Manual] This comprehensive operating manual details the ANENG ST180 Digital Clamp-On Multimeter. It covers essential safety information, step-by-step operating instructions for various measurements (AC/DC Voltage, Current, Resistance, Frequency, Capacitance, Temperature, NCV), general characteristics, and detailed specifications. Essential for safe and effective use of the device.
	[ANENG AL01 Inductance Digital Multimeter User Manual] User manual for the ANENG AL01 Inductance Digital Multimeter, featuring 6000 Counts, True-RMS AC/DC voltage and current measurement, and inductance testing for professional electricians.
	[ANENG ST184 Digital Clamp Meter Operating Manual] Comprehensive operating manual for the ANENG ST184 Digital Clamp Meter, detailing safety instructions, specifications, and how to perform various electrical measurements including AC/DC voltage, current, resistance, and temperature.

Documents - Aneng – ST213


ST213 miernik cęgowy True RMS AC/DC
0-600V 0-400A VA NCV Aneng

Cena brutto	145.00 zł
Cena netto	117.89 zł
Czas wysyłki	24 godziny
Numer katalogowy	ST213
Producent	Aneng

Opis produktu

ST213 miernik cęgowy True RMS AC/DC 0-600V 0-400A VA NCV Aneng

[Aneng ST213 True RMS AC/DC Clamp Meter - 600V 400A NCV]
Detailed specifications and features of the Aneng ST213 True RMS AC/DC clamp meter, capable of measuring up to 600V and 400A, with NCV, temperature, resistance, capacitance, and frequency functions. Includes technical data, package contents, and product overview.
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