

[Manuals.plus /](#)

- › [GOLDEN BLUE /](#)
- › [GOLDEN BLUE ST213 Digital Clamp Meter User Manual](#)

## GOLDEN BLUE ST213

# GOLDEN BLUE ST213 Digital Clamp Meter User Manual

Model: ST213

## 1. PRODUCT OVERVIEW

The GOLDEN BLUE ST213 is a versatile digital clamp meter designed for accurate measurement of AC/DC current, AC/DC voltage, resistance, frequency, capacitance, and temperature. It features a large color screen, non-contact voltage (NCV) detection, and a built-in flashlight for enhanced usability in various environments.



Image: The GOLDEN BLUE ST213 Digital Clamp Meter, including test leads, temperature probe, and carrying case, alongside its

## Key Features:

- **Multi-functional Measurement:** Capable of measuring AC/DC voltage, AC/DC current (up to 400A), resistance, frequency, capacitance, and temperature.
- **6000 Counts Display:** Provides high-resolution readings for precise measurements.
- **Large Color Screen:** LCD color display with backlight for clear visibility in various lighting conditions.
- **Non-Contact Voltage (NCV) Detection:** Allows for safe detection of AC voltage without direct contact.
- **Data Hold Function:** Freezes the displayed reading for convenient recording.
- **Automatic Range Selection:** Simplifies operation by automatically selecting the appropriate measurement range.
- **Overload Protection:** Ensures safety across the entire measurement range.
- **Built-in Flashlight:** Assists in illuminating dark work areas.
- **Automatic Shutdown:** Conserves battery life.



Image: Diagram illustrating the key components of the ST213 Clamp Meter, including the current clamp head, indicator light, dual display, input jacks, and control buttons.

## 2. SAFETY INFORMATION

---

Always adhere to the following safety precautions to prevent personal injury and damage to the meter:

- Do not exceed the maximum input values for any measurement range.
- Exercise extreme caution when working with voltages above 36V DC or 25V AC RMS, as these can pose a shock hazard.
- Before measuring current, ensure the circuit is de-energized if possible, and always clamp around only one conductor.
- Before measuring resistance or continuity, ensure the circuit is de-energized and all capacitors are discharged.
- Do not operate the meter if it appears damaged or if the test leads are compromised.
- Ensure the battery cover is securely closed before operation.
- Use only the specified test leads and accessories.

## 3. GETTING STARTED (SETUP)

---

### 3.1 Battery Installation

The GOLDEN BLUE ST213 requires two AAA batteries (not included) for operation.

1. Locate the battery compartment on the back of the meter.
2. Use a screwdriver to open the battery compartment cover.
3. Insert two AAA batteries, observing the correct polarity (+ and -) as indicated inside the compartment.
4. Replace the battery compartment cover and secure it with the screw.

# ANENG®



Image: Rear view of the ST213 Clamp Meter, highlighting the battery compartment and its dimensions.

## 3.2 Connecting Test Leads

For voltage, resistance, continuity, capacitance, and diode measurements, connect the test leads:

- Insert the red test lead into the "INPUT" jack.
- Insert the black test lead into the "COM" (common) jack.

## 4. OPERATION

### 4.1 Power On/Off and Function Selection

- To power on the meter, long press the "SEL" button.
- To switch between measurement functions (e.g., AC/DC voltage, resistance), single press the "SEL" button.
- The meter automatically selects the appropriate range for most measurements.

- To power off, long press the "SEL" button again. The meter also features automatic shutdown after a period of inactivity.

**ANENG**<sup>®</sup>



**HD**  
Dual screen display

**AC/DC Clamp Meter**

# Reverse Screen

The VA reverse color screen is displayed when powered on

Image: The ST213 Clamp Meter displaying its VA reverse color screen, which provides clear readings.

## 4.2 Specific Measurement Modes

### 4.2.1 AC/DC Current Measurement (Clamp)

1. Select the AC or DC current measurement mode using the "SEL" button.
2. Press the trigger to open the clamp jaws.
3. Enclose only one conductor within the clamp jaws. Ensure the jaws are fully closed.
4. Read the current value on the display.

# ANENG® DC current gear



Image: Step-by-step guide demonstrating how to measure DC current using the ST213 Clamp Meter, including switching gear, clearing DC current, clamping, and reading the value.

## 4.2.2 AC/DC Voltage Measurement

1. Connect the test leads as described in Section 3.2.
2. Select the AC or DC voltage measurement mode.
3. Touch the test probes to the points where voltage is to be measured (e.g., across a power source or component).
4. Read the voltage value on the display.

## 4.2.3 Resistance Measurement

1. Ensure the circuit is de-energized and all capacitors are discharged before measurement.
2. Connect the test leads.
3. Select the resistance measurement mode.
4. Touch the test probes across the component or circuit to measure resistance.
5. Read the resistance value on the display.

## 4.2.4 Non-Contact Voltage (NCV) Detection

- Long press the "REL NCV" key to enter NCV mode.
- Move the NCV sensing area of the meter close to the conductor or outlet.
- If AC voltage is detected, the LED indicator will flash and an audible beep will sound.



Image: The ST213 Clamp Meter in use, showing its NCV (Non-Contact Voltage) sensing capability with an active LED indicator and audible alert.

#### 4.2.5 Flashlight Function

- Long press the flashlight button (often integrated with data hold or REL NCV) to turn the flashlight on or off.

**ANENG**<sup>®</sup>

AC/DC Clamp Meter

# Flashlight lighting

The lighting plays a role in assisting the measurement work at night



Image: The ST213 Clamp Meter with its built-in flashlight illuminated, demonstrating its utility in low-light conditions.

# Multiple functions



Image: A composite image illustrating the ST213 Clamp Meter performing various measurements, including AC voltage, DC voltage, temperature, mV DC voltage, resistance, diode test, continuity (buzzer), and capacitance.

## 5. SPECIFICATIONS

Measurement Function	Range	Accuracy
AC Voltage	600mV / 600V	(0.5% + 3)
DC Voltage	600mV / 600V	(0.8% + 5)
Resistance	600Ω / 6kΩ / 60kΩ / 600kΩ / 6MΩ / 60MΩ	(0.8% + 3)
AC/DC Current	60A / 400A	(2.5% + 8)
Frequency	60Hz ~ 1000Hz	(1.0% + 5)
Capacitance	6nF / 600nF / 6uF / 60uF / 600uF / 6mF / 60mF	(2.5% + 20)
Temperature	-40°C ~ 999°C	(1.0% + 3)

Measurement Function	Range	Accuracy
Display	6000 Counts, VA Reverse Color Screen	
Power Supply	2 x AAA Batteries (not included)	
Included Components	Probes	
Dimensions (Approx.)	185mm (7.28in) Length, 62.5mm (2.46in) Width, 32.2mm (1.27in) Thickness	

## 6. MAINTENANCE

- **Cleaning:** Wipe the meter casing with a damp cloth and mild detergent. Do not use abrasives or solvents.
- **Battery Replacement:** Replace batteries when the low battery indicator appears on the display. Refer to Section 3.1 for instructions.
- **Storage:** If the meter is not used for an extended period, remove the batteries to prevent leakage. Store in a cool, dry place away from direct sunlight.
- **Calibration:** For professional use, periodic calibration by a qualified technician is recommended to maintain accuracy.

## 7. TROUBLESHOOTING

Problem	Possible Cause / Solution
Meter does not power on.	<ul style="list-style-type: none"> <li>◦ Batteries are dead or incorrectly installed. Replace batteries and check polarity.</li> <li>◦ Battery compartment cover is not securely closed.</li> </ul>
"OL" or "OVER" displayed.	<ul style="list-style-type: none"> <li>◦ Measurement exceeds the selected range. The meter has automatic ranging, but extreme values may still exceed its capacity.</li> <li>◦ Incorrect function selected for the measurement.</li> </ul>
Inaccurate readings.	<ul style="list-style-type: none"> <li>◦ Test leads are damaged or not properly connected.</li> <li>◦ Batteries are low. Replace them.</li> <li>◦ Interference from strong electromagnetic fields. Move away from sources of interference.</li> <li>◦ For current measurement, ensure only one conductor is clamped.</li> </ul>
NCV not detecting voltage.	<ul style="list-style-type: none"> <li>◦ Not in NCV mode. Long press "REL NCV" button.</li> <li>◦ Voltage is too low or outside the detection range.</li> <li>◦ Meter is not close enough to the AC voltage source.</li> </ul>

## 8. WARRANTY AND SUPPORT

This product is designed for reliability and performance. While specific warranty details are not provided in this manual, most GOLDEN BLUE products come with a standard manufacturer's warranty covering defects in materials and workmanship.

For warranty claims, technical support, or service inquiries, please refer to the contact information provided with your

purchase or visit the official GOLDEN BLUE website. Please have your product model (ST213) and purchase details ready when contacting support.

*Note: Keep your purchase receipt as proof of purchase for warranty purposes.*



© 2024 GOLDEN BLUE. All rights reserved.