

Cen-Tech 96308

Cen-Tech 96308 6-Function Digital Clamp Meter User Manual

Model: 96308

1. INTRODUCTION

This manual provides detailed instructions for the safe and effective operation of the Cen-Tech 96308 6-Function Digital Clamp Meter. This device is designed for measuring AC voltage, DC voltage, AC current, and resistance. It features an easy-to-read 3-1/2 digit LCD display and data hold functionality.

2. SAFETY INFORMATION

WARNING: Read all safety warnings and instructions before using this product. Failure to follow the warnings and instructions may result in electric shock, fire, or serious injury.

- Always ensure the meter is in the correct function and range before making measurements.
- Do not attempt to measure voltages or currents exceeding the maximum specified limits (AC/DC Voltage up to 300V, AC Current 20-400A).
- Inspect test leads for damage before each use. Do not use if insulation is cracked or damaged.
- Do not operate the meter if it appears damaged or is not operating properly.
- Use caution when working with live circuits. Avoid contact with bare wires or terminals.
- Keep hands and fingers behind the probe barriers during measurements.
- Do not use the meter in wet environments or in the presence of explosive gases or fumes.
- Always disconnect power to the circuit before connecting or disconnecting test leads, especially when measuring resistance.

3. PACKAGE CONTENTS

- Cen-Tech 96308 6-Function Digital Clamp Meter
- (2) 36-inch Test Leads (Red and Black)

- (3) 3V Lithium Batteries (pre-installed or included separately)
- User Manual (this document)

4. PRODUCT OVERVIEW



Figure 4.1: Front view of the Cen-Tech 96308 Digital Clamp Meter with its red and black test leads connected. The meter features a large clamp jaw at the top, a rotary dial for function selection, an LCD display, and input jacks for the test leads.



Figure 4.2: Angled view of the Cen-Tech 96308 Digital Clamp Meter, highlighting the digital display, rotary function selector, and the input ports for the test leads. The clamp jaw is visible at the top.

The Cen-Tech 96308 Digital Clamp Meter consists of the following main components:

- **Clamp Jaw:** Used for non-contact measurement of AC current.
- **Rotary Function Switch:** Selects the desired measurement function (ACV, DCV, ACA, Resistance, OFF).
- **LCD Display:** Shows measurement readings, units, and indicators.
- **"HOLD" Button:** Freezes the current reading on the display.
- **"COM" Input Jack:** Common (negative) input for test lead.
- **"V/ Ω /" Input Jack:** Positive input for voltage and resistance measurements.
- **Test Leads:** Red and black leads for connecting to circuits.

5. SETUP

5.1 Battery Installation

The meter requires three 3V Lithium batteries. These are typically included. If replacement is needed:

1. Ensure the meter is turned OFF.
2. Locate the battery compartment cover on the back of the meter.
3. Use a screwdriver to remove the screw(s) securing the cover.
4. Remove the old batteries (if any) and insert new 3V Lithium batteries, observing correct polarity (+ and -).
5. Replace the battery compartment cover and secure it with the screw(s).

5.2 Connecting Test Leads

For voltage and resistance measurements, connect the test leads as follows:

- Insert the black test lead into the "COM" (common) input jack.
- Insert the red test lead into the "V/ Ω /" input jack.

Note: Test leads are not used for AC current measurements with the clamp jaw.

6. OPERATING INSTRUCTIONS

6.1 Measuring AC Voltage (ACV)

1. Set the rotary switch to the "300V~" position.
2. Connect the black test lead to the "COM" jack and the red test lead to the "V/Ω/+" jack.
3. Connect the test probes in parallel across the circuit or component to be measured.
4. Read the voltage value on the LCD display.

6.2 Measuring DC Voltage (DCV)

1. Set the rotary switch to the "300V " position.
2. Connect the black test lead to the "COM" jack and the red test lead to the "V/Ω/+" jack.
3. Connect the test probes in parallel across the circuit or component to be measured, observing polarity.
4. Read the voltage value on the LCD display.

6.3 Measuring AC Current (ACA) with Clamp

This meter measures AC current using its clamp jaw, without breaking the circuit.

1. Set the rotary switch to the desired AC current range (e.g., "20A~" or "200A~" or "400A~").
2. Open the clamp jaw by pressing the trigger.
3. Enclose only one conductor of the circuit within the clamp jaw. Ensure the jaw is fully closed.
4. Read the current value on the LCD display.
5. Remove the conductor from the clamp jaw after measurement.

Note: Do not attempt to clamp around multiple conductors, as this will result in an inaccurate reading (the magnetic fields will cancel each other out).

6.4 Measuring Resistance (Ω)

1. Ensure the circuit or component to be measured is de-energized (power off).
2. Set the rotary switch to the desired resistance range (e.g., "200Ω", "2000Ω", "20KΩ", "200KΩ").
3. Connect the black test lead to the "COM" jack and the red test lead to the "V/Ω/+" jack.
4. Connect the test probes across the component whose resistance you want to measure.
5. Read the resistance value on the LCD display.

Note: If the display shows "OL" (Overload), the resistance is higher than the selected range. Select a higher range or the component is open circuit.

6.5 Data Hold Function

To freeze the current reading on the display:

- While taking a measurement, press the "HOLD" button. The reading will be frozen.
- Press the "HOLD" button again to release the reading and return to live measurement.

6.6 Automatic Zero Adjust

The meter features automatic zero adjustment for resistance measurements, ensuring accurate readings by compensating for internal resistance.

7. MAINTENANCE

7.1 Cleaning

- Wipe the meter casing with a damp cloth and mild detergent. Do not use abrasives or solvents.
- Keep the display clean and dry.

7.2 Battery Replacement

Refer to Section 5.1 for battery installation instructions. Replace batteries when the low battery indicator appears on the display.

7.3 Storage

- When not in use for extended periods, turn the meter OFF and remove the batteries to prevent leakage.
- Store the meter in a cool, dry place, away from direct sunlight and extreme temperatures.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Meter does not turn on.	Dead or incorrectly installed batteries.	Check battery polarity; replace batteries.
"OL" (Overload) displayed during resistance measurement.	Resistance is too high for the selected range; open circuit.	Select a higher resistance range; check for open circuit.
Inaccurate AC current reading.	Multiple conductors inside the clamp jaw; clamp not fully closed.	Ensure only one conductor is clamped; close jaw completely.
No reading or unstable reading.	Poor connection; incorrect function/range; damaged test leads.	Ensure firm connections; select correct function/range; inspect and replace test leads if damaged.

9. SPECIFICATIONS

Feature	Specification
Brand	Gen-Tech
Model Number	96308
Functions	6 (AC Voltage, DC Voltage, AC Current, Resistance, Data Hold, Automatic Zero Adjust)
Display	3-1/2 Digit LCD
AC Voltage Range	Up to 300V
DC Voltage Range	Up to 300V
AC Current Range	20A, 200A, 400A
Resistance Range	200Ω, 2000Ω, 20KΩ, 200KΩ

Feature	Specification
Min. Operating Voltage	2 Volts
Power Source	3 x 3V Lithium Batteries (included)
Item Weight	8 ounces
Color	Black
Material	Other
UPC	792363963084

10. WARRANTY AND SUPPORT

No specific warranty information is provided in the product details. For product support, technical assistance, or warranty inquiries, please refer to the contact information provided by the retailer or manufacturer at the time of purchase. Keep your purchase receipt for any warranty claims.

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

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Email

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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

