USER MANUAL

CM1050

1000A True RMS AC/DC Clamp Meter



Introduction:

Thank you for purchasing the Triplett CM1050 1000A True RMS AC/DC Clamp Meter. This instrument is designed for electricians, HVAC technicians, and maintenance professionals to make safe and accurate measurements of AC/DC current, voltage, resistance, continuity, capacitance, temperature and more.

What's in the box:

- CM1050
- (3) AAA 1.5V Battery
- User Manual
- Test Leads
- (1) Type K Thermocouple

Stay updated:

For the most recent version of the user manual, always visit the official Triplett website: **www.triplett.com** and search for CM1050

Features:

True RMS AC/DC current measurement up to 1000A
AC/DC voltage measurement up to 1000V
VFD (Low-Pass Filter) AC voltage mode for noisy outputs
LoZ (Low Impedance) mode to reduce ghost voltages
Inrush Current Capture mode
Resistance, continuity, diode test, capacitance
Type K temperature measurement (°F/°C)
Non-Contact AC Voltage (NCV) detection
Backlit LCD and work light

Safety Information:

Do not exceed the maximum rated input for any function.
Voltages above 25 VAC or 35 VDC are considered a shock hazard.
Inspect the meter, clamp, and test leads before each use.
Remove test leads before opening the battery compartment.
Remove the batteries if the meter will not be used for more than 60 days.
Use caution when working on or near energized circuits.
Do not use the meter if it appears damaged or operates abnormally.

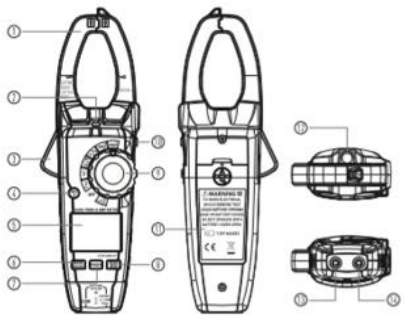
Safety Symbols:

Refer to Manual – Important information; read the user guide.
High Voltage – Hazardous voltage may be present.
Double Insulation – Meter is double insulated.

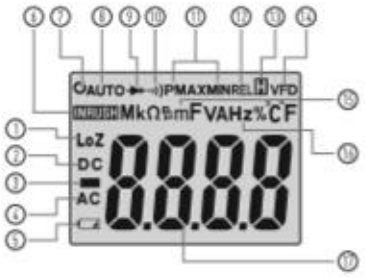
Meter Overview:

Refer to the diagrams below to identify the meter controls and features.

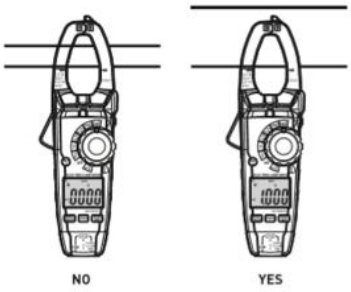
CM1050 Front, Rear & Side Views



LCD Display Indicators



Correct Clamp Positioning



Display Icons:

AC / DC indicators – show the type of measurement.
AUTO – auto-ranging mode is active.
MAX / MIN – maximum or minimum reading is being displayed.
REL – relative (zero) mode is active.
LoZ – low impedance voltage mode.
VFD – low-pass filtered voltage mode for VFD outputs.
Battery icon – low battery indication.
NCV – non-contact voltage detection.
°F / °C – temperature measurement units.

Operation:

Power, Backlight and Work Light:

Turn the rotary switch from OFF to any position to power the meter on.
Press and hold the REL button (approximately 2 seconds) to switch the display backlight on or off.
Press and hold the HOLD button (approximately 2 seconds) to turn the work light on or off.

Measuring AC/DC Current (Clamp):

Set the rotary switch to the A position.
Press MODE to select AC or DC current as needed.
For DC current, close the clamp jaw with no conductor and press REL to zero.
Clamp around a single conductor only. Do not clamp around a cable containing both live and neutral together.
Read the current value on the display.

Inrush Current Mode:

With the clamp around the conductor, press and hold the PEAK/INRUSH button.
Switch the load on. The meter captures and displays the inrush (startup) current.
Press the PEAK/INRUSH button again to return to normal current measurement.

Measuring Voltage (AC/DC):

Insert the black lead into COM and the red lead into V/Ω.
Set the rotary switch to the V position.
Press MODE to select AC or DC voltage.
Touch the probes across the test points.
Read the voltage on the display.

VFD Mode:

Press and hold MODE in AC voltage mode to enable the low-pass filter for measurements on VFD-driven or noisy AC circuits.

LoZ Mode:

Use LoZ mode to reduce ghost voltages on de-energized or floating circuits. Note that LoZ places a load on the circuit.

Resistance, Continuity, Diode and Capacitance:

Connect the black lead to COM and the red lead to V/Ω.
Set the rotary switch to the Ω position.
Press MODE to select resistance, continuity, diode, or capacitance.
Ensure power is OFF and capacitors are discharged before testing.
Read the result on the display. In continuity mode, the meter beeps for low resistance.

Temperature Measurement (Type K):

Connect a Type K thermocouple probe to the meter.
Set the rotary switch to TEMP.
Press MODE to select °F or °C.
Place the probe at the measurement point and wait for the reading to stabilize.

Non-Contact Voltage Detection (NCV):

Set the rotary switch to NCV.
Bring the NCV sensor near AC wiring or an outlet.
The meter beeps and/or the NCV indicator flashes when AC voltage is detected.
Always confirm with a direct voltage measurement before touching conductors.

6. Maintenance:

Clean the meter with a soft, damp cloth. Do not use solvents or abrasive cleaners.
Remove the batteries if the meter will not be used for an extended period.
Store the meter in a clean, dry environment.

Battery Replacement:

Turn the meter OFF and remove all test leads.
Open the battery compartment. Replace the batteries with three (3) AAA 1.5V batteries, observing polarity.
Close the compartment securely.

Feature	Specification
AC/DC Current	0–1000A
AC Voltage	0–750V
DC Voltage	0–1000V
Resistance	0–60 MΩ
Capacitance	0–100 mF
Temperature	–4°F to 1832°F (–20°C to 1000°C)
Dimensions	9.8 × 3.2 × 1.7 in (approx.)
Weight	11.5 oz (approx.)

Warranty:

Triplett warrants this product for one (1) year from the date of purchase against defects in workmanship and materials. This warranty does not cover misuse, abuse, alteration, or unauthorized repair. For service, contact Triplett or an authorized service center.

Warranty Statement

Triplett Test Equipment offers a one-year warranty to the original purchaser of its products. We guarantee that our products will be free from defects in workmanship and materials for one (1) year from the purchase date.

This warranty does not cover:

- Products purchased from unauthorized distributors.
- Items that have been repaired or altered by unauthorized individuals.
- Damage from misuse, abuse, misapplication, negligence, or accidents.
- Products with altered, defaced, or removed serial numbers.
- Accessories, including batteries.

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