

VEVOR EM4370

VEVOR EM4370 Digital Clamp Meter T-RMS User Manual

Model: EM4370

1. IMPORTANT SAFETY INFORMATION

Please read and understand all safety warnings and operating instructions before using this instrument. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always ensure the meter is in good working condition before use. Inspect the test leads for any damage.
- Do not apply voltage or current that exceeds the maximum rated values specified for the meter.
- Exercise extreme caution when working with live circuits. High voltages can cause severe injury or death.
- Do not operate the meter if it appears damaged or if the battery cover is not properly closed.
- Use the correct function and range for each measurement.
- Keep fingers behind the finger guards on the test leads during measurements.
- Replace batteries as soon as the low battery indicator appears to ensure accurate readings.

2. PACKAGE CONTENTS

Verify that all items listed below are included in your package. If any items are missing or damaged, please contact VEVOR customer support.

- 1 x VEVOR EM4370 Digital Clamp Meter
- 1 x Pair of Test Leads (Stylus)
- 1 x K-type Thermocouple Probe
- 3 x AAA Batteries (1.5V)
- 1 x Storage Bag
- 1 x User Manual



Image: The VEVOR EM4370 Digital Clamp Meter shown with its test leads, K-type thermocouple probe, AAA batteries, storage bag, and user manual. Product dimensions are also indicated.

3. PRODUCT OVERVIEW

The VEVOR EM4370 is a True RMS digital clamp meter designed for accurate and reliable electrical measurements. It features a robust design and a clear LCD display.

3.1 Components

- **Clamp Jaw:** Used for non-contact AC/DC current measurement.
- **NCV Sensor:** Non-Contact Voltage detection area.
- **Function Dial:** Selects measurement modes.
- **LCD Display:** Shows measurement readings and indicators.
- **Input Jacks:** For connecting test leads (COM, VΩHzCAPTEMP).
- **Buttons:** MAX/MIN, SEL/FUNC, HOLD/LIGHT.
- **Flashlight:** Integrated LED for illuminating dark work areas.



Image: Front view of the VEVOR EM4370 Digital Clamp Meter, showing the clamp jaw, display, function dial, and buttons.



Image: A detailed view of the function dial on the VEVOR EM4370, highlighting settings for current (60A, 600A), temperature, resistance, frequency/duty cycle, voltage, and NCV.

4. SETUP

4.1 Battery Installation

1. Ensure the meter is turned OFF.
2. Locate the battery compartment on the back of the meter.
3. Use a screwdriver to open the battery compartment cover.
4. Insert three (3) AAA 1.5V batteries, observing the correct polarity (+/-).
5. Replace the battery compartment cover and secure it with the screw.

The meter will display a low battery indicator when the batteries need replacement.

5. OPERATING INSTRUCTIONS

This section details how to perform various measurements using the VEVOR EM4370 Digital Clamp Meter.

5.1 Function Selection

Rotate the function dial to select the desired measurement mode. Use the 'SEL/FUNC' button to toggle between different sub-functions within a mode (e.g., AC/DC voltage, Diode/Continuity).

5.2 AC/DC Current Measurement (Clamp)

1. Turn the function dial to the '60A' or '600A' AC/DC current range.
2. Press the clamp trigger to open the clamp jaw.
3. Enclose only one conductor (wire) within the clamp jaw. Ensure the jaw is fully closed.
4. Read the current value on the LCD display.



Image: The VEVOR EM4370 clamp meter in use, with its jaw clamped around a single electrical wire to measure current.

5.3 AC/DC Voltage Measurement

1. Connect the red test lead to the 'V Ω HzCAPTEMP' jack and the black test lead to the 'COM' jack.
2. Turn the function dial to the 'V' (Voltage) range. Use the 'SEL/FUNC' button to select AC or DC voltage.
3. Touch the test probes to the circuit points where voltage is to be measured.
4. Read the voltage value on the LCD display.

5.4 Resistance Measurement

1. Connect the test leads as for voltage measurement.
2. Turn the function dial to the ' Ω ' (Resistance) range.
3. Ensure the circuit or component under test is de-energized before measuring resistance.
4. Touch the test probes across the component.
5. Read the resistance value on the LCD display.

5.5 Non-Contact Voltage (NCV) Detection

1. Turn the function dial to the 'NCV' position.
2. Move the NCV sensor (top part of the clamp jaw) close to the conductor or outlet.
3. The meter will beep and the NCV indicator light will flash when AC voltage is detected. The frequency of beeps and flashes increases with stronger voltage.



Image: The VEVOR EM4370 clamp meter detecting non-contact voltage near an electrical outlet, indicated by a visual alert on the meter's display.

5.6 Temperature Measurement

1. Turn the function dial to the 'TEMP' position.
2. Connect the K-type thermocouple probe to the input jacks, observing polarity.
3. Place the tip of the thermocouple probe on or near the object whose temperature is to be measured.
4. Read the temperature value on the LCD display. Use the 'SEL/FUNC' button to switch between Celsius (°C) and Fahrenheit (°F).



Image: The VEVOR EM4370 clamp meter displaying a temperature reading, with examples of its application in measuring temperatures of electrical appliances, liquids, gases, and in greenhouses.

5.7 Other Functions

- **True RMS:** The meter features True RMS detection for accurate measurements of non-sinusoidal AC waveforms.
- **Data Hold:** Press the 'HOLD/LIGHT' button briefly to freeze the current reading on the display. Press again to release.
- **Backlight & Flashlight:** Press and hold the 'HOLD/LIGHT' button to turn on/off the display backlight and the integrated flashlight.
- **MAX/MIN Measurement:** Press the 'MAX/MIN' button to record the maximum and minimum values during a measurement session.
- **Capacitance:** Select the 'CAP' range on the dial. Ensure capacitors are discharged before testing.
- **Frequency/Duty Cycle:** Select the 'Hz%' range on the dial.
- **Diode Test & Continuity:** Select the 'Diode/Continuity' range. Use 'SEL/FUNC' to switch between modes. Continuity test will beep if resistance is below a certain threshold.
- **Smart Sleep Mode:** The meter automatically powers off after approximately 15 minutes of inactivity to conserve battery life.



Image: The VEVOR EM4370 clamp meter display showing a True RMS reading, emphasizing its accuracy feature.



Image: The VEVOR EM4370 clamp meter demonstrating its LED backlit display for easy reading in low light, an integrated flashlight, and the automatic sleep mode function for energy saving.

6. MAINTENANCE

6.1 Cleaning

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

6.2 Battery Replacement

Refer to Section 4.1 for battery installation instructions. Replace batteries promptly when the low battery indicator appears to maintain measurement accuracy.

6.3 Storage

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

7. TROUBLESHOOTING

If you encounter issues with your VEVOR EM4370, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Meter does not power on	Dead or incorrectly installed batteries	Check battery polarity; replace batteries.
Inaccurate readings	Low battery; incorrect function/range; external interference	Replace batteries; select correct function/range; move away from strong electromagnetic fields.
No NCV detection	No AC voltage present; NCV sensor not close enough	Verify voltage presence with test leads; ensure sensor is near the live conductor.
Display shows 'OL'	Overload (measurement exceeds range)	Select a higher range or ensure the measured value is within the meter's limits.

If the problem persists after attempting these solutions, please contact VEVOR customer support for further assistance.

8. SPECIFICATIONS

Detailed technical specifications for the VEVOR EM4370 Digital Clamp Meter.

Parameter	Value
Model	EM4370
Max. Display Count	5999 (up to 9999 for some functions)

Parameter	Value
DC Voltage Range	600mV / 6V / 60V / 600V
AC Voltage Range	6V / 60V / 600V
DC Current Range	60A / 600A
AC Current Range	60A / 600A
Resistance Range	600Ω / 6kΩ / 60kΩ / 600kΩ / 6MΩ / 60MΩ
Temperature Range	-20 to 1000°C / -4 to 1832°F
Frequency Range	9.999Hz / 99.99Hz / 999.9Hz / 9.99kHz / 99.99kHz / 999.9kHz / 9.999MHz
Capacitance Range	6nF / 60nF / 600nF / 6μF / 60μF / 600μF / 6mF / 60mF
Duty Cycle	5% - 95%
Measurement Accuracy	+/-0.5% (typical)
Functions	Diode Test, Continuity Test, Data Retention, NCV, Relative Value, Max./Min. Value, True RMS
Power Source	3 x AAA 1.5V Batteries
Product Dimensions (L x W x H)	8.5 x 2.8 x 1.7 in (21.59 x 7.11 x 4.32 cm)
Item Weight	454 g (1 lb)
Certifications	CE, FCC

9. WARRANTY AND SUPPORT

VEVOR products are designed for durability and performance. For warranty information or technical support, please refer to the warranty card included with your product or visit the official VEVOR website. You can also contact VEVOR customer service directly for assistance with product operation, maintenance, or troubleshooting.

VEVOR Official Website: www.vevor.com