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KAIWEETS KC604

KAIWEETS Digital Clamp Meter Multimeter Instruction Manual

Model: KC604

Brand: KAIWEETS

1. INTRODUCTION

The KAIWEETS Digital Clamp Meter Multimeter (Model KC604) is a versatile and essential tool designed for accurate electrical measurements. Featuring a unique D-shaped jaw, auto-ranging capabilities, and a 4000-count display, it is ideal for troubleshooting AC/DC current, AC/DC voltage, temperature, continuity, diode, capacitance, and frequency in various applications, from household solar systems to automotive and industrial electrical issues. Its user-friendly design includes a flashlight, backlight, and automatic shutdown for convenience and safety.



Figure 1: KAIWEETS Digital Clamp Meter Multimeter and Included Accessories

2. WHAT'S IN THE BOX

Upon opening your KAIWEETS Digital Clamp Meter package, you should find the following items:

- KAIWEETS Digital Clamp Meter (Model KC604)
- Test Leads (one red, one black)
- Thermocouple (for temperature measurement)
- AAA Batteries (pre-installed or included separately)
- Carrying Case
- User Manual

3. SAFETY INFORMATION

This device has passed IEC61010-1 and CAT III 600V certification, ensuring a high level of safety. Please adhere to the following safety guidelines:

- Always ensure the device is set to the correct measurement function before testing.
- The screen will turn orange to warn when voltage exceeds 80V or current exceeds 1A, indicating a high voltage/current situation. Exercise extreme caution.
- Do not attempt to measure circuits exceeding the specified CAT III 600V rating.
- Always inspect test leads for damage before use. Replace if any damage is visible.
- Use the Non-Contact Voltage (NCV) function to detect AC voltage without direct contact, enhancing safety.

4. SETUP

4.1 Battery Installation

The KAIWEETS KC604 requires two AAA batteries. These are typically included with your purchase. To install or replace batteries:

1. Locate the battery compartment cover on the back of the device.
2. Use a screwdriver to open the compartment.
3. Insert the two AAA batteries, ensuring correct polarity (+/-).
4. Securely close the battery compartment cover.

4.2 Connecting Test Leads

For most measurements, you will need to connect the test leads:

- Insert the red test lead into the 'VΩmA' input jack.
- Insert the black test lead into the 'COM' (common) input jack.
- Ensure the test leads are fully inserted and securely connected.

The test leads come with protective caps on the tips. These can be removed for finer probing in tight spaces, exposing more of the metal tip.

5. OPERATING MODES AND MEASUREMENTS

The KAIWEETS KC604 features a rotary dial to select various measurement functions. The auto-ranging feature simplifies operation by automatically selecting the appropriate range for the measurement.

5.1 AC/DC Current Measurement (Clamp Function)

The D-shaped jaw allows for convenient and secure clamping around various cables to measure current without breaking the circuit.

1. Turn the rotary dial to the 'A' (Amps) position.
2. Press the 'Z/F' button to zero the reading before measuring DC current.
3. Open the D-shaped jaw and clamp it around a single conductor.
4. Read the current value on the display.

DC/AC CURRENT



DC/AC VOLTAGE



Figure 2: Measuring Current with the D-shaped Jaw

**Suitable for
various wires**



Jaw Design

28mm



Backlight

15min
Auto Shutdown



Figure 3: Zeroing for DC Current Measurement

5.2 AC/DC Voltage Measurement

To measure voltage:

1. Turn the rotary dial to the 'V' (Voltage) position.
2. Connect the test leads across the circuit or component you wish to measure.
3. The display will show the voltage reading. The meter defaults to DC volts in this position.

TEMPERATURE MEASUREMENT



-4°F to 1832°F
(-20°C to 1000°C)



Figure 4: Measuring Voltage

5.3 Temperature Measurement

The included thermocouple allows for temperature readings from -4°F to 1832°F (-20°C to 1000°C).

1. Connect the thermocouple to the appropriate input jacks (refer to the manual for specific ports).
2. Turn the rotary dial to the °C/°F (Temperature) position.
3. Place the thermocouple tip on the object or area whose temperature you wish to measure.
4. Read the temperature on the display.

PROPER MEASUREMENT



Figure 5: Temperature Measurement

5.4 Non-Contact Voltage (NCV) Detection

The NCV function allows for safe detection of AC voltage without direct contact.

1. Turn the rotary dial to the 'NCV' position.
2. Press the NCV button on the side of the multimeter.
3. Move the top of the D-shaped jaw (where the sensor is located) close to the wire or outlet.
4. The device will emit audible and visual alarms (beeps and flashing lights) if AC voltage is detected. The

stronger the signal, the faster the buzzer.

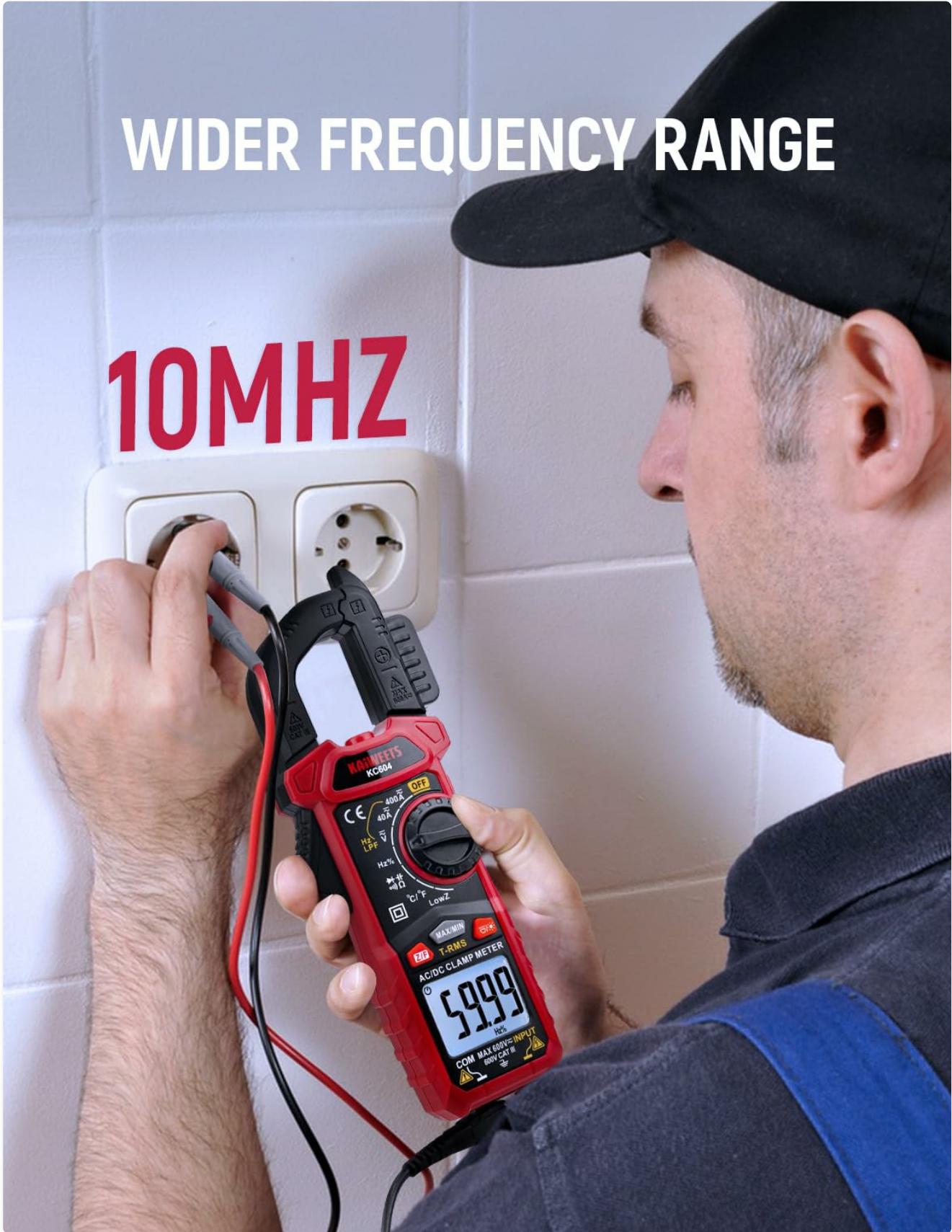


Figure 6: NCV Detection (Low and High Voltage)

5.5 Other Functions

The KC604 also supports the following measurements:

- **Resistance (Ω):** Measure electrical resistance.
- **Continuity:** Test for a complete circuit with an audible buzzer.
- **Diode:** Test the functionality of diodes.

- **Capacitance:** Measure the capacitance of components.
- **Frequency (Hz):** Measure the frequency of an AC signal.
- **LowZ (Low Impedance):** For ghost voltage detection.



Figure 7: Capacitance Test



Figure 8: Detecting Common Electrical Faults

5.6 User-Friendly Features

- **LCD Backlight Screen:** Ensures clear readings even in dimly lit areas.
- **Flashlight:** Integrated flashlight for illuminating work areas.
- **Low Battery Indicator:** Alerts you when batteries need replacement.
- **Auto Shutdown:** The ammeter automatically shuts off after 15 minutes of inactivity to conserve power.
- **Test Lead Storage:** Convenient storage for test leads when not in use.

NON-CONTACT VOLTAGE TEST



Low Voltage



High Voltage

Figure 9: Easy to Read Display with Backlight and Flashlight

6. MAINTENANCE

To ensure the longevity and accuracy of your KAIWEETS Digital Clamp Meter, follow these maintenance guidelines:

- **Cleaning:** Wipe the device with a dry, clean cloth. Do not use abrasive cleaners or solvents.
- **Battery Replacement:** Replace batteries promptly when the low battery indicator appears to ensure accurate

readings and prevent damage from battery leakage.

- **Storage:** Store the meter in its provided carrying case in a cool, dry place when not in use.
- **Test Leads:** Regularly inspect test leads for any signs of wear, cuts, or damage. Replace them if necessary to maintain safety and performance.

7. TROUBLESHOOTING

If you encounter issues with your KAIWEETS KC604, consider the following common troubleshooting steps:

- **No Display/Faint Display:** Check battery levels and replace if low. Ensure batteries are inserted with correct polarity.
- **Inaccurate Readings:** Verify that the correct function is selected on the rotary dial. Ensure test leads are properly connected and not damaged. For DC current, ensure the meter is zeroed before measurement.
- **No NCV Detection:** Ensure the NCV function is activated and the sensor area (top of the D-shaped jaw) is close to the AC voltage source.
- **Meter Shuts Off Unexpectedly:** This is likely the auto-shutdown feature. If it occurs too frequently, ensure you are actively using the device or disable the auto-shutdown if possible (refer to the full manual for advanced settings).

For more complex issues, please refer to the detailed user manual or contact KAIWEETS customer support.

8. SPECIFICATIONS

Specification	Value
Product Dimensions	7.62 x 3.11 x 1.36 inches
Item Model Number	KC604
Item Weight	14.46 ounces (0.41 Kilograms)
Brand	KAIWEETS
Power Source	Battery Powered (2x AAA)
Style	AC/DC Current
Color	Red
Safety Rating	CAT III 600V
Display Counts	4000 Counts
Jaw Opening	Up to 1.1 inches (2.87 cm)
Temperature Range	-4°F to 1832°F (-20°C to 1000°C)

9. WARRANTY AND SUPPORT

KAIWEETS provides 36 months of high-quality service and lifetime technical support for the KC604 Digital Clamp Meter. For any inquiries, technical assistance, or warranty claims, please contact KAIWEETS customer service through their official website or the retailer where the product was purchased.

For further assistance, please visit the [KAIWEETS Store on Amazon](#).

Related Documents - KC604

	<p>KAIWEETS HT206D Digital Clamp Meter User Manual and Specifications</p> <p>Comprehensive user manual for the KAIWEETS HT206D digital clamp meter. Includes detailed instructions on operation, safety precautions, features, specifications, and maintenance for this T-RMS auto-ranging AC/DC clamp meter.</p>
	<p>KAIWEETS HT206D True-RMS Digital Clamp Meter User Manual</p> <p>Comprehensive user manual for the KAIWEETS HT206D True-RMS Digital Clamp Meter. Learn about its features, safety information, operating instructions, and specifications for accurate electrical measurements.</p>
	<p>KAIWEETS HT118A Digital Multimeter User Manual</p> <p>Comprehensive user manual for the KAIWEETS HT118A Digital Multimeter, covering safety instructions, product description, multimeter features, measurement functions, and specifications.</p>
	<p>Kaiweets KM601 Smart Digital Multimeter User Manual</p> <p>Comprehensive user manual for the Kaiweets KM601 Smart Digital Multimeter, covering safety information, product features, measurement modes (SMART and MANUAL), terminal descriptions, maintenance, specifications, and warranty.</p>
	<p>KAIWEETS HT206B True-RMS Digital Clamp Meter User Manual</p> <p>Comprehensive user manual for the KAIWEETS HT206B True-RMS Digital Clamp Meter, detailing its features, safety information, operating instructions, and specifications for various electrical measurements.</p>
	<p>KAIWEETS KC604 TRUE-RMS Digital Clamp Meter User Manual</p> <p>User manual for the KAIWEETS KC604 TRUE-RMS 400A AC/DC Digital Clamp Meter. This guide details features, safety precautions, and operating instructions for electrical measurements, including True RMS, LPF, LowZ, and NCV functions, adhering to IEC 61010 standards.</p>