

KAIWEETS HT208F

KAIWEETS HT208F Clamp Multimeter User Manual

Model: HT208F

INTRODUCTION

Thank you for choosing the KAIWEETS HT208F Clamp Multimeter. This device is a professional-grade digital clamp meter designed for accurate measurement of AC/DC current, AC/DC voltage, resistance, capacitance, frequency, temperature, and more. It features a clear black-and-white display, True RMS measurement, Non-Contact Voltage (NCV) detection, Inrush current testing, VFD (Variable Frequency Drive) mode, and LoZ (Low Input Impedance) mode. Please read this manual thoroughly before use to ensure safe and proper operation.

Safety Information

Warning: Electrical measurements can be hazardous. Always exercise extreme caution when working with electrical circuits. Failure to follow safety precautions may result in injury or damage to the meter.

- Always inspect the meter, test leads, and accessories for damage before use. Do not use if damaged.
- Ensure the function switch is in the correct position for the measurement being performed.
- Do not exceed the maximum input limits for any function.
- Use caution when working with voltages above 30V AC RMS, 42V peak, or 60V DC. These voltages pose a shock hazard.
- Always disconnect power to the circuit before making resistance, continuity, or diode measurements.
- Adhere to local and national safety codes.
- The device meets IEC 61010-1 safety standards.

SETUP

Battery Installation

The KAIWEETS HT208F is battery-powered. To install or replace batteries:

1. Ensure the meter is turned off and disconnect all test leads.
2. Locate the battery compartment on the back of the meter.
3. Use a screwdriver to remove the screws securing the battery cover.
4. Insert new batteries, observing correct polarity (+ and -).
5. Replace the battery cover and secure it with the screws.

Connecting Test Leads

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

- Insert the red test lead into the **VΩHzCAP°C** input jack.
- Insert the black test lead into the **COM** input jack.

For current measurements using the clamp, no test leads are required.

OPERATING INSTRUCTIONS

General Operation

Turn the rotary switch to select the desired measurement function. The meter features auto-ranging for most functions, automatically selecting the appropriate range. The display is designed for clear readings, even in direct sunlight, and includes a backlight for dimly lit areas.

HIGH-DEFINITION SCREEN

For clear readings in direct sunlight



Image: KAIWEETS HT208F Clamp Multimeter with a clear black-and-white display showing a temperature reading. The display is designed for high visibility.



MULTI-FUNCTIONS

Meet different measurement needs

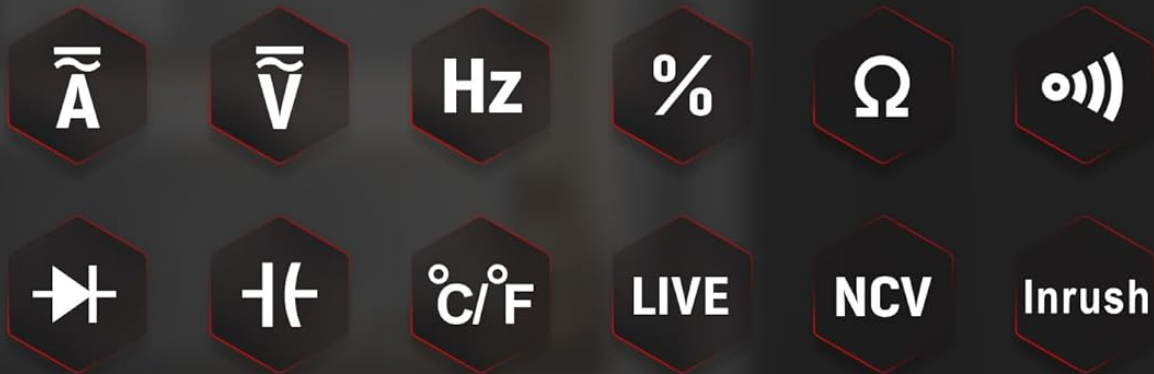


Image: KAIWEETS HT208F Clamp Multimeter in a general view, representing its ease of use in various lighting conditions with its backlight feature.

Measurement Functions Overview

The HT208F offers a wide range of measurement capabilities, indicated by the rotary switch and function buttons.



MULTI-FUNCTIONS

Meet different measurement needs

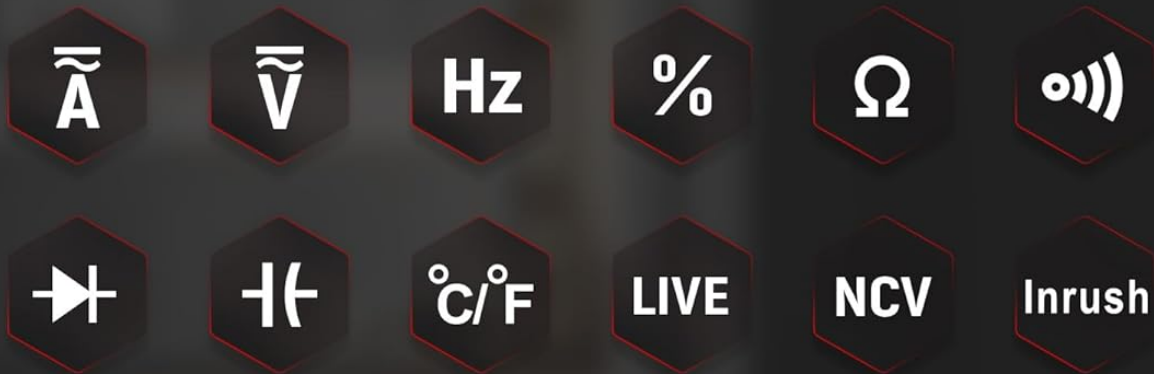


Image: KAIWEETS HT208F Clamp Multimeter, illustrating its multi-function capabilities via the rotary switch and display.

AC/DC Current Measurement (Clamp)

To measure AC or DC current, rotate the dial to the **A~** or **A=** position. Open the clamp jaws and enclose a single conductor. The current reading will appear on the display. Ensure the conductor is centered within the jaws for accuracy.

INRUSH CURRENT TEST

Only available in AC current mode



60/600A GEAR: 10-600A
1000A GEAR: 100-1000A

Image: The KAIWEETS HT208F performing a current test by clamping around a single conductor in an electrical panel.

AC/DC Voltage Measurement

Set the rotary switch to the $V\sim$ (AC Voltage) or $V=$ (DC Voltage) position. Connect the test leads in parallel to the circuit or component under test. The voltage reading will be displayed.

ADVANCED FUNCTIONS



VFD

Accurate Voltage and Current Measurements for Variable Frequency Motor Drives



LoZ

Low Input Impedance to Avoid External Circuit Interference

Image: The KAIWEETS HT208F with test leads connected, demonstrating setup for voltage measurement.

Resistance, Continuity, Diode, Capacitance, Frequency, Temperature

Select the appropriate function on the rotary switch. For resistance, continuity, and diode tests, ensure the circuit is de-energized. Connect the test leads to the component. For temperature, use the included temperature probe.

Non-Contact Voltage (NCV) Detection

The NCV function allows for detection of AC voltage without direct contact. Rotate the dial to the NCV position. Bring the top of the meter near a live conductor. The meter will indicate the presence of voltage with an audible

beep and visual indicator (low or high voltage). This feature is for indication only and should not be used for precise voltage measurement.

6000 COUNTS T-RMS DIGITAL CLAMP METER



The image shows a red and black KAIWEETS HT208F digital clamp meter. The meter has a large LCD screen displaying '52.12' with 'AC' and 'A' indicators. The dial has various settings including 'OFF', 'VFD Inrush 1000A', 'VFD 60/800A', 'Hz%', 'Ω', '°C/°F', 'LoZ V', and 'NCV/LIVE'. The meter is clamped around a black cable with a blue lightning bolt graphic indicating NCV detection. The background is dark red with a subtle grid pattern.

- Auto Shutdown
- Auto-Ranging
- CAT.III 1000V;
CAT.IV 600V

1000 $\bar{A}$

Image: KAIWEETS HT208F Clamp Multimeter, illustrating its NCV detection feature for identifying live conductors without direct contact.

Inrush Current Test

This function measures the peak starting current of motors or other inductive loads. It is only available in AC current mode. Select the Inrush function and clamp around the conductor. The meter will capture the maximum current surge during startup.

INRUSH CURRENT TEST

Only available in AC current mode



60/600A GEAR: 10-600A
1000A GEAR: 100-1000A

Image: The KAIWEETS HT208F conducting an Inrush Current Test, showing the measurement of a motor's starting current.

Advanced Functions: VFD and LoZ

The HT208F includes advanced features for specialized measurements:

- **VFD (Variable Frequency Drive) Mode:** Provides accurate voltage and current measurements for variable frequency motor drives, filtering out high-frequency noise.
- **LoZ (Low Input Impedance) Mode:** Helps to avoid false readings caused by ghost voltages by providing a low impedance path to ground.

ADVANCED FUNCTIONS



VFD

Accurate Voltage and Current Measurements for Variable Frequency Motor Drives



LoZ

Low Input Impedance to Avoid External Circuit Interference

Image: KAIWEETS HT208F Clamp Multimeter in use, illustrating its advanced VFD and LoZ functions for specialized electrical measurements.

Auto Shutdown and Auto-Ranging

The meter features an auto-shutdown function to conserve battery life when not in use. Auto-ranging simplifies operation by automatically selecting the correct measurement range.

6000 COUNTS T-RMS DIGITAL CLAMP METER



 Auto Shutdown

 Auto-Ranging

 CAT.III 1000V;
CAT.IV 600V

Image: KAIWEETS HT208F Clamp Multimeter, demonstrating its Auto Shutdown and Auto-Ranging features for efficient and user-friendly operation.

MAINTENANCE

Cleaning

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

clean for optimal visibility.

Battery Replacement

When the low battery indicator appears on the display, replace the batteries promptly to ensure accurate readings. Refer to the "Battery Installation" section under Setup for detailed instructions. Always use the specified battery type.

Storage

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

TROUBLESHOOTING

Problem	Possible Cause	Solution
Meter does not power on.	Dead or incorrectly installed batteries.	Check battery polarity or replace batteries.
No reading or "OL" displayed.	Open circuit, out of range, or incorrect function selected.	Verify circuit connection, select appropriate range/function, or check if value exceeds meter's maximum.
Inaccurate NCV readings.	Environmental interference or NCV used for precise measurement.	NCV is for indication only. For precise voltage, use test leads. Minimize external interference.
Temperature readings are consistently off.	Sensor calibration or environmental factors.	Ensure proper contact with the object being measured. Note that some meters may have minor offsets; consider a known reference for critical measurements.
Display is dim or flickering.	Low battery.	Replace batteries.

SPECIFICATIONS

Feature	Detail
Brand	KAIWEETS
Model	HT208F (XSC-US-HT208F)
Display	Black-white screen
Power Source	Battery-powered

Feature	Detail
Item Dimensions (LxWxH)	28.5 x 6.2 x 13.7 cm
Safety Standard	IEC 61010-1
Measurement Type	Voltmeter, Ohmmeter, Amperemeter, Multimeter
Upper Temperature Limit	120 Degrees Celsius
Included Components	Clamp Multimeter, User Manual
CAT Rating	CAT.III 1000V, CAT.IV 600V
Counts	6000 Counts
True RMS	Yes
Auto Shutdown	Yes
Auto-Ranging	Yes

WARRANTY INFORMATION

Specific warranty details are typically provided with the product packaging or on the manufacturer's official website. KAIWEETS products generally come with a standard manufacturer's warranty covering defects in materials and workmanship. Please retain your proof of purchase for warranty claims. For detailed terms and conditions, refer to the documentation included with your product or visit the KAIWEETS website.

CUSTOMER SUPPORT

If you encounter any issues or have questions regarding your KAIWEETS HT208F Clamp Multimeter that are not covered in this manual, please contact KAIWEETS customer support. You can usually find contact information (email, phone, or support portal) on the official KAIWEETS website or through the retailer where you purchased the product.

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