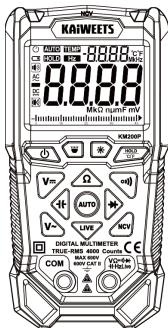




User Manual

Digital Multimeter **KM200P**

4000 Counts T-RMS



Contact Us: support@kaiweets.com

Contents

User Manual–EN.....	1–17
Benutzerhandbuch–DE.....	18–36
Manuel de l'utilisateur–FR.....	37–54
Manuale d'uso–IT.....	55–71
Manual del usuario–ES.....	72–88
3 Years Warranty.....	89

- Please read this manual carefully before using and keep it for future reference.
- Special attention is required when using this instrument. Improper use may result in electric shock or damage to the instrument. Always observe standard safety regulations and implement effective safety precautions during use.
- This instrument complies with the safety requirements for electronic measuring equipment specified in IEC-61010-1, IEC-61010-2-030, and IEC-61010-2-032. It is classified as a Pollution Degree 2 and overvoltage category CAT II (600 V). Please follow the safety operation guidelines to use the instrument safely.

1. Safety Instructions

1.1 Safety Notice

- While using the instrument, the user must observe standard safety regulations:
 - General protection against electric shock
 - Prevention of improper use of the instrument
- Upon receipt, inspect the instrument for any damage that may have occurred during shipping.
- After storage or shipment under harsh conditions,

examine and verify that the instrument is free from damage.

- Test leads must be in good condition. Before use, check the insulation for damage and ensure no conductor wires are exposed.

1.2 Safety Symbols

	Caution (Important safety information —refer to the operating instructions)
	Double insulation protection (Class II)
CAT II	CAT II — Overvoltage (installation) Category II and Pollution Degree 2 per IEC-61010-1, indicating the level of impulse withstand voltage protection provided.
	Conforms to European Union (EU) standards
	Ground (Earth)

1.3 Maintenance

- Do not attempt to open the case. Internal service must be done by qualified personnel only.
- Before opening the bottom case, always disconnect the test leads from the circuit under test.

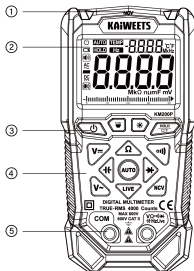
- When the  symbol appears on the display, replace the battery immediately to prevent electric shock hazards caused by incorrect readings.
- To clean the instrument, first gently wipe away surface dust with a soft, dry cloth. For deeper cleaning, lightly dampen a soft cloth with a mild detergent solution (wring it out so that no liquid drips), wipe the housing gently, then dry thoroughly with a clean, dry cloth. Do not use abrasive, organic solvents, or corrosive cleaners.
- If the meter will not be used for an extended period, turn it off and remove the batteries.

2. Product Overview

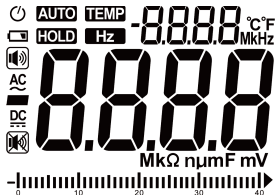
The KM200P True RMS Digital Multimeter features full-keypad control and precisely measures most common parameters: DC voltage, AC voltage (with frequency), resistance, capacitance, diode, continuity, NCV non-contact voltage detection, and LIVE wire identification. One instrument, countless capabilities—ready for professional electricians, electronics enthusiasts, and everyday household users alike, delivering efficiency and reliability straight out of the box.

3. Panel Description

- ① NCV Sensor
- ② Display Screen
- ③ Function Buttons
- ④ Measurement Mode Selection Buttons
- ⑤ Terminal



3.1 Display Screen



	DC (Direct Current)
	AC (Alternating Current)
NCV	Non-contact Voltage Measurement
LIVE	Live Wire Detection
AUTO	Intelligent Measurement Mode
	Auto Power-off Indication
	Low Battery Indication
HOLD	Data Hold
	Continuity Test
	Diode Test
°C/°F	°C/°F — Temperature Unit
Hz	Hz — Frequency Unit

4. Technical Specifications

4.1 Overall Specifications

- Full-range overload protection
- Max. voltage between any input terminal and ground: DC 600 V / AC 600 V
- Operating altitude: Maximum 6562 ft (2000m)
- Display type: LCD

- Display count: 4000 counts
- Polarity indication: automatic; “–” for negative polarity
- Over-range indication: “OL” or “–OL”
- Sampling rate: ≈ 3 readings/s
- Auto power-off: after 15 minutes
- Power supply: 2×1.5 V AAA batteries
- Low-battery warning:  symbol on LCD
- Temperature coefficient: $< 0.1 \times \text{accuracy} / ^\circ\text{C}$
- Operating temperature: $32^\circ\text{F} - 104^\circ\text{F}$ ($0^\circ\text{C} - 40^\circ\text{C}$)
- Storage temperature: $50^\circ\text{F} - 122^\circ\text{F}$ ($10^\circ\text{C} - 50^\circ\text{C}$)

4.2 Technical Specifications

Accuracy is guaranteed for one year after calibration.

Reference conditions: ambient temperature $64^\circ\text{F} - 82^\circ\text{F}$ ($18^\circ\text{C} - 28^\circ\text{C}$), relative humidity $\leq 80\%$.

Accuracy: $\pm(\%$ of reading + digit)

DC Voltage

Range	Resolution	Accuracy
400mV	0.1mV	$\pm (0.5\% \text{ of reading} + 3 \text{ digits})$

4V	0.001V	
40V	0.01V	
400V	0.1V	
600V	1V	$\pm (0.8\% \text{ of reading} + 3 \text{ digits})$

- Input impedance: 10 M Ω
- Overload protection: 610 V DC
- Maximum measurable voltage: 600 V DC

AC Voltage

Range	Resolution	Accuracy
4V	0.001V	$\pm (0.8\% \text{ of reading} + 3 \text{ digits})$
40V	0.01V	
400V	0.1V	
600V	1V	$\pm (1.2\% \text{ of reading} + 3 \text{ digits})$

- Input impedance: 10 M Ω
- Overload protection: 610 V AC

- Maximum measurable voltage: 600 V AC
- Frequency range: 40 Hz — 1 kHz (accuracy not guaranteed outside this range)
- Response: True RMS

Resistance

Range	Resolution	Accuracy
400Ω	0.1Ω	± (0.8% of reading + 3 digits)
4kΩ	0.001kΩ	
40kΩ	0.01kΩ	
400kΩ	0.1kΩ	
4MΩ	0.001MΩ	± (1.0% of reading + 5 digits)
40MΩ	0.01MΩ	

- Overload protection: 250 V

Capacitance

Range	Resolution	Accuracy
4nF	0.001nF	$\pm$ (4.0% of reading + 5 digits)
40nF	0.01nF	
400nF	0.1nF	
4 μ F	0.001 μ F	
40 μ F	0.01 μ F	
400 μ F	0.1 μ F	
4mF	0.001mF	$\pm$ (10% of reading + 5 digits)
40mF	0.01mF	

- Overload protection: 250 V

Note: Specifications do not include errors caused by test-lead capacitance or substrate capacitance.

Diode Test

Range	Function	Forward DC current: $\approx$ 1 mA Overload protection: 250 V
	Displays the approximate forward voltage drop of the diode.	

Continuity Test

Range	Function	
	If the measured resistance is $< 50 \Omega$, the built-in buzzer will sound and the indicator light will illuminate.	Reverse DC voltage: approx. 1 V Overload protection: 250 V

5. Operating Instructions

5.1 Auto Measurement Mode

- Auto mode supports measurement of **AC voltage**, **DC voltage**, **resistance**, and **continuity**.
- Press and hold the  button for about 2 s to turn the meter on. The meter defaults to Auto mode, indicated by “**Auto**” on the display. From any interface, a short press of the **AUTO** button returns the meter to Auto mode at any time.
- Insert the black test lead into the **COM** jack and the red test lead into the  **V Ω HzLive** jack.
- Connect the test leads to the two points under test; the meter automatically identifies AC voltage, DC voltage, resistance, or continuity.
- When the reading stabilizes, read the result

directly from the display.

Reminder: DC voltage shows polarity (+/–); AC voltage does not.

5.2 Manual Mode

DC Voltage Test

- Press the  button for about 2 s to power on the meter, then press  button to select DC voltage measurement; the screen will show “DC.”
- Insert the black test lead into the **COM** jack and the red test lead into the  jack.
- Touch the test leads to the two terminals of the power source or across the load to measure its DC voltage.
- When the reading stabilizes, read the result from the display.

AC Voltage Test

- Press the  button for about 2 s to power on the meter, then press  button to select AC voltage measurement; the screen will show “AC.”
- Insert the black test lead into the **COM** jack and the red test lead into the  jack.
- Connect the test leads to the two terminals of the power source under test; the meter displays both the

AC voltage and its frequency.

- When the reading stabilizes, read the result from the display.

Resistance Test

- Press the  button for about 2 s to power on the meter, then press  button to select resistance measurement.
- Insert the black test lead into the **COM** jack and the red test lead into the  jack.
- Connect the test leads across the resistor or in series with the circuit under test.
- When the reading stabilizes, read the result from the display.

Capacitance Test

- Press the  button for about 2 s to power on the meter, then press  button to select capacitance measurement.
- Insert the black test lead into the **COM** jack and the red test lead into the  jack.
- Connect the test leads across the capacitor or insert them into the circuit. When measuring a polarized capacitor, connect the red lead to the positive and the black lead to the negative terminal.

- Wait until the reading stabilizes, then read the value from the display.

Continuity Test

- Press the  button for about 2 s to power on the meter, then press  button to select continuity test.
- Insert the black test lead into the **COM** jack and the red test lead into the  jack.
- Connect the test leads across the resistor or into the circuit.
- Once the reading stabilizes, read the result from the display.

Note: If the resistance is below 50 Ω , the buzzer sounds and the screen turns red.

Diode Test

- Press the  button for about 2 s to power on the meter, then press  button to select diode measurement.
- Insert the black test lead into the **COM** jack and the red test lead into the  jack.
- Connect the test leads to the diode or across the circuit: red lead to the anode, black lead to the cathode.

- Wait for the reading to stabilize, then read the result on the display. If the lead polarity is reversed relative to the diode, the meter will show “OL,” this can be used to identify the anode and cathode.

Note:

- Typical forward voltage drop of a diode is 0.3 V — 1.5 V.
- Common LEDs with forward drops below 2 V can be illuminated using the diode test function.

Non-contact Voltage (NCV)

- Press the  button for about 2 s to power on the meter, then press **NCV** button to select NCV function; the screen will show “EF”.
- Remove the test leads and bring the NCV sensor area close to the wire under test.
- When AC voltage is detected, the meter’s buzzer sounds and the on-screen bar graph shows the signal strength; on the third and fourth segments the display turns red.

Note: Voltage may still be present even if no warning is given. Do not rely on the non-contact voltage detector to confirm that a wire is voltage-free. Detection can be affected by factors such as socket design and insulation thickness or type.

Single–Probe Live–Wire (LIVE) Detection

- Press the  button for about 2 s to power on the meter, then press **LIVE** button to select Live detection function; the screen will show “Live”.
- Remove the black test lead; insert the red lead Only into the  jack.
- Touch the red probe tip to the conductor under test.
- When weak AC is sensed, the buzzer beeps slowly and the screen shows “---L”; when strong AC is sensed, the buzzer beeps rapidly and the screen shows “---H” while turning red.

Warning: When testing live/neutral wires, never touch the metal part of the probe to avoid electric shock.

6. Using Additional Functions

6.1 Auto Power–Off

After powering on, the meter will automatically shut off after about 15 minutes of inactivity to conserve battery life.

6.2 Disabling Auto Power–Off

With the meter off, press and hold the $\frac{\text{HOLD}}{\text{C/F}}$ button, then press and hold  button to power on — auto–off is disabled. Turning the meter off and on