KAIWEETS KM100

KAIWEETS Digital Multimeter (KM100) & Non-Contact Voltage Tester (HT100s) User Manual

Model: KM100 & HT100s

1. Introduction

Thank you for choosing the KAIWEETS Digital Multimeter (KM100) and Non-Contact Voltage Tester (HT100s). This manual provides essential information for the safe and effective operation of these devices. The KM100 is a versatile digital multimeter capable of measuring AC/DC Voltage, DC Current, Resistance, Continuity, and Diode. The HT100s is a non-contact voltage tester designed for quick and safe detection of AC voltage, live/null wires, and circuit breakpoints.
Please read this manual thoroughly before use and retain it for future reference.

2. Safety Information

WARNING: To avoid possible electric shock, fire, or personal injury, please read all safety information before using the product. Improper use can cause damage to the meter, severe injury, or death.

- Always ensure the rotary switch on the multimeter is set to the correct range before making any measurements.
- Do not attempt to measure AC current with the KM100 multimeter, as it is designed only for DC current measurement.
- Verify the meter's operation by measuring a known voltage or current before use.
- Do not use the meter if it appears damaged or if the test leads are damaged.
- Exercise extreme caution when working with voltages above 30V AC RMS, 42V peak, or 60V DC. These voltages pose a shock hazard.
- Keep fingers behind the finger guards on the test probes during measurements.
- Replace the battery immediately when the low battery indicator appears to ensure accurate readings.
- Adhere to local and national safety codes.
- The NCV tester will indicate voltage presence with sound and light. A red screen and higher frequency beep indicate high voltage/live wire, while a green screen indicates low voltage/null wire.

3. Product Overview

3.1 KAIWEETS KM100 Digital Multimeter

Figure 3.1: KAIWEETS KM100 Digital Multimeter (left) and HT100s Non-Contact Voltage Tester (right). This image displays both devices, highlighting their compact design and clear displays. The multimeter features a large LCD, a central rotary switch for function selection, and input jacks for test leads. The voltage tester has a distinct red and black body with an NCV tip and indicator lights.

- **Display:** Large LCD for clear readings.
- **Rotary Switch:** Selects measurement functions (Voltage, Current, Resistance, Continuity, Diode).
- **Input Jacks:** For connecting test leads (COM, VΩmA, 10A).
- **Data Hold Button:** Freezes the displayed reading.
- **Backlight Button:** Illuminates the display for use in dim conditions.

3.2 KAIWEETS HT100s Non-Contact Voltage Tester

- **NCV Inductive Probe:** Detects AC voltage without direct contact.
- **LED Indicator:** Flashes red when voltage is detected.
- **Power Button:** Turns the device on/off.
- **Sensitivity Button (S):** Toggles between high (12-1000V AC) and low (70-1000V AC) sensitivity modes.

- **Flashlight:** Integrated LED light for illuminating work areas.
- **Display:** Shows percentage value of signal intensity and indicates live/null wire.

4. Setup

4.1 Battery Installation

Both the KM100 Multimeter and HT100s Voltage Tester require batteries for operation. Typically, these devices use AAA or 9V batteries. Refer to the battery compartment on the back of each device for specific battery type and polarity.

1. Locate the battery compartment cover on the back of the device.
2. Use a screwdriver (if necessary) to open the cover.
3. Insert the correct type and number of batteries, observing the polarity markings (+ and -).
4. Replace the battery compartment cover and secure it.

Figure 4.1: Back view of the KAIWEETS KM100 Digital Multimeter. This image shows the rear of the multimeter, including the kickstand for hands-free operation and the battery compartment cover (usually located behind the kickstand or a separate panel).

4.2 Connecting Test Leads (KM100 Multimeter)

For most measurements, connect the red and black test leads to the appropriate input jacks on the multimeter.

- Insert the **black** test lead into the **COM** (Common) jack.
- For Voltage, Resistance, Continuity, and Diode measurements, insert the **red** test lead into the **VΩmA** jack.
- For DC Current measurements up to 10A, insert the **red** test lead into the **10A** jack.

5. Operating Instructions

5.1 KAIWEETS KM100 Digital Multimeter Operation

5.1.1 AC/DC Voltage Measurement

1. Connect the red test lead to the VΩmA jack and the black test lead to the COM jack.
2. Turn the rotary switch to the desired ACV (V~) or DCV (V-) range.
3. Touch the test probes to the circuit points where voltage is to be measured.
4. Read the voltage value on the display.

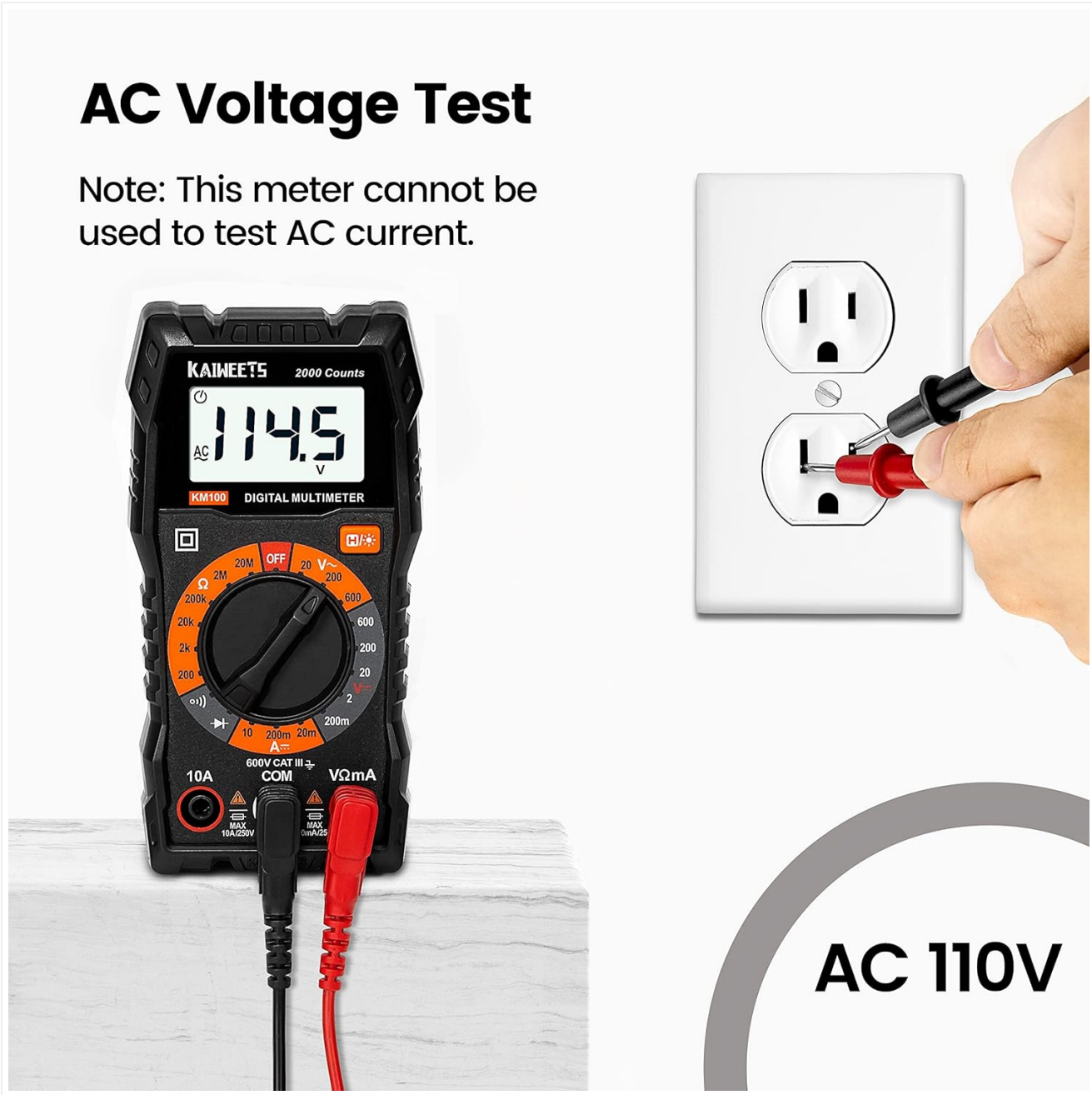


Figure 5.1: AC Voltage Test using the KM100 Multimeter. The image shows the multimeter displaying an AC voltage reading (114.5V) while its test leads are inserted into a standard wall outlet. This demonstrates the process of measuring AC voltage.

Note: This meter cannot be used to test AC current.

5.1.2 DC Current Measurement

1. Connect the black test lead to the COM jack. For current up to 200mA, connect the red test lead to the VΩmA jack. For current up to 10A, connect the red test lead to the 10A jack.
2. Turn the rotary switch to the desired DCA (A-) range (e.g., 200m, 10A).
3. Open the circuit where current is to be measured and connect the meter in series with the load.
4. Read the current value on the display.

Figure 5.2: Multimeter in use for automotive electrical testing. The image shows the KM100 Multimeter displaying a reading (14.38) while its test leads are connected to components within a car engine bay, illustrating its application in DC voltage or current measurement in vehicles.

5.1.3 Resistance Measurement

1. Connect the red test lead to the VΩmA jack and the black test lead to the COM jack.
2. Turn the rotary switch to the desired Resistance (Ω) range.
3. Ensure the circuit or component under test is de-energized.
4. Touch the test probes across the component.
5. Read the resistance value on the display.

5.1.4 Continuity Test

1. Connect the red test lead to the VΩmA jack and the black test lead to the COM jack.
2. Turn the rotary switch to the Continuity (sound wave symbol) range.
3. Ensure the circuit or component under test is de-energized.
4. Touch the test probes to the two points of the circuit.

5. If there is continuity (low resistance), the meter will emit an audible beep.

Figure 5.3: Continuity Test using the KM100 Multimeter. The image shows the multimeter's test leads touching the ends of a wire, indicating a continuity test. The display shows "0.70" and a "buzz" graphic, signifying a successful continuity detection with an audible alert.

5.1.5 Diode Measurement

1. Connect the red test lead to the VΩmA jack and the black test lead to the COM jack.
2. Turn the rotary switch to the Diode (diode symbol) range.
3. Ensure the diode is disconnected from the circuit.
4. Place the red probe on the anode and the black probe on the cathode. The display will show the forward voltage drop.
5. Reverse the probes. The display should show "OL" (Open Loop) for a good diode.

5.1.6 Data Hold and Backlight Functions

- Press the "HOLD" button to freeze the current reading on the display. Press again to release.
- Press the "Backlight" button (often combined with HOLD or a separate button) to turn on the display backlight

for improved visibility in low-light conditions. Press again to turn off.

5.2 KAIWEETS HT100s Non-Contact Voltage Tester Operation

5.2.1 Power On/Off and Sensitivity Adjustment

- Press the Power button (usually marked with a power symbol) to turn the device on.
- Press the 'S' button to toggle between high sensitivity mode (12-1000V AC) and low sensitivity mode (70-1000V AC). High sensitivity is suitable for detecting lower voltages or from a greater distance, while low sensitivity helps avoid false positives in noisy environments.
- Press and hold the Power button to turn the device off.

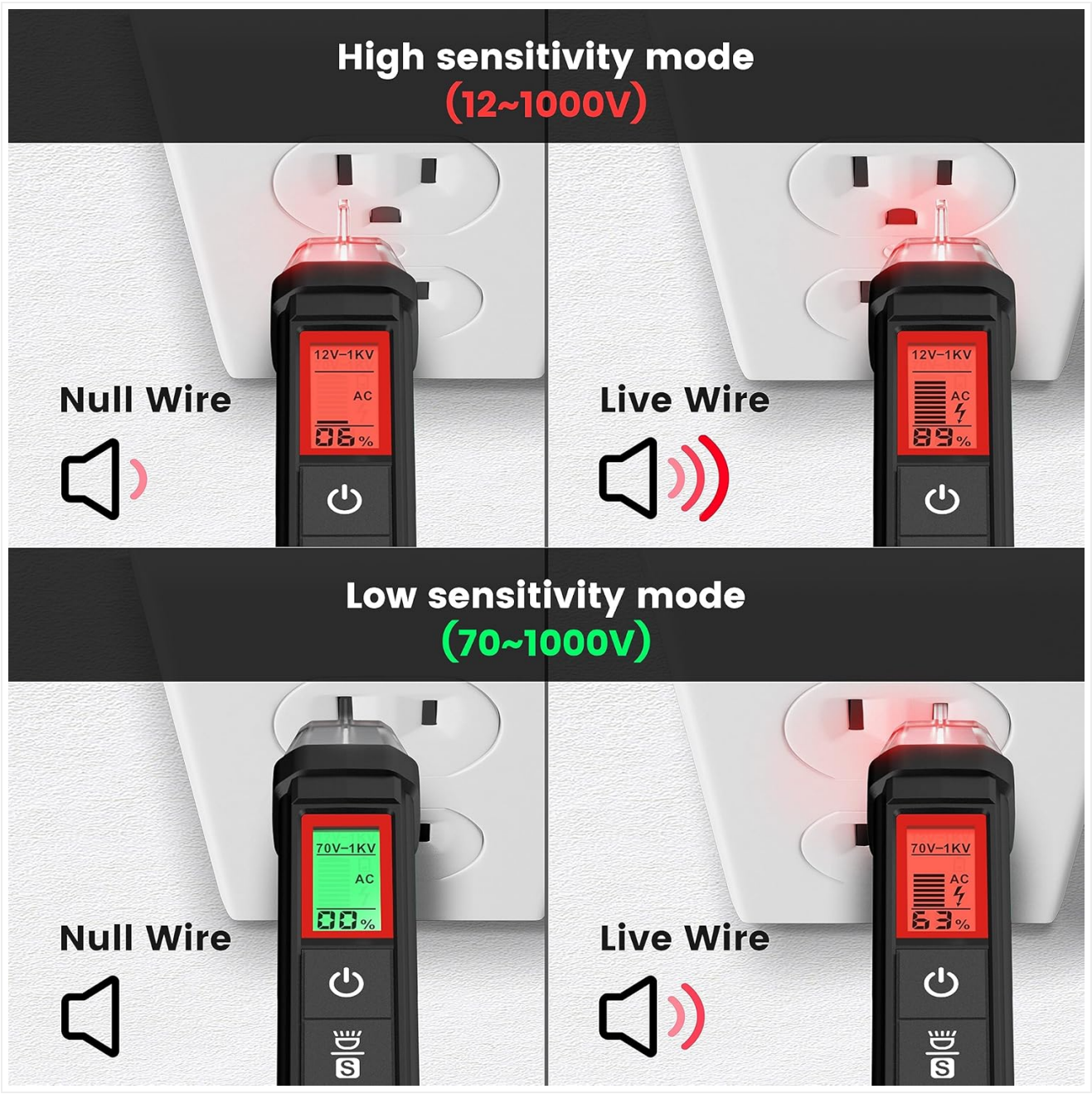


Figure 5.4: High and Low Sensitivity Modes of the HT100s NCV Tester. This image illustrates the difference in detection for null and live wires in both high sensitivity (12-1000V) and low sensitivity (70-1000V) modes. It shows how the tester's display and audible alerts change based on the detected voltage and sensitivity setting.

5.2.2 Non-Contact Voltage Detection

1. Turn on the HT100s.
2. Place the NCV inductive probe tip near a terminal strip, outlet, or supply cord.

3. If AC voltage is present, the tip will glow red, and the device will beep. The screen will display a percentage value indicating signal intensity.
4. The screen color will be red for high voltage/live wire and green for low voltage/null wire.

Figure 5.5: NCV Tester in use on an electrical outlet. The image shows the HT100s NCV tester's tip near the wiring of an exposed electrical outlet, with the tip glowing red, indicating the presence of voltage. This demonstrates the non-contact voltage detection feature.

5.2.3 Live/Null Wire Detection and Breakpoint Test

- The HT100s can automatically detect live or null wires. A red screen and higher frequency beep indicate a live wire, while a green screen indicates a null wire.
- For breakpoint testing, run the NCV tip along an insulated wire. The tester will stop indicating voltage at the point where the circuit is broken.

Figure 5.6: Breakpoint Test using the HT100s NCV Tester. The image shows two HT100s testers, one indicating voltage on a transparent cable (showing internal wires) and another further along the cable not indicating voltage, demonstrating how to locate a break in a wire.

5.2.4 LED Flashlight

- Press the flashlight button (often combined with the power button or a separate button) to activate the integrated LED flashlight. This helps illuminate dark work areas.
- Press the button again to turn off the flashlight.

Figure 5.7: Bright LED Flashlight on the HT100s NCV Tester. The image shows the HT100s tester's LED flashlight illuminating a dimly lit circuit breaker panel, demonstrating its utility for working in dark environments.

6. Maintenance

- **Cleaning:** Wipe the device with a damp cloth and mild detergent. Do not use abrasives or solvents. Ensure the device is completely dry before use.
- **Battery Replacement:** Replace batteries when the low battery indicator appears on the display to ensure accurate measurements. Refer to Section 4.1 for battery installation.
- **Storage:** If the device is not used for an extended period, remove the batteries to prevent leakage. Store in a cool, dry place away from direct sunlight and extreme temperatures.
- **Test Leads:** Regularly inspect test leads for any signs of damage (cuts, cracks, exposed wiring). Replace damaged leads immediately.

7. Troubleshooting

Problem	Possible Cause	Solution
Meter does not power on.	Dead or incorrectly installed batteries.	Check battery polarity and replace with new batteries.
Inaccurate readings.	Low battery; incorrect range selection; damaged test leads.	Replace batteries; ensure rotary switch is on the correct range; inspect and replace test leads if damaged.
No continuity beep.	Open circuit; meter not in continuity mode; dead battery.	Verify circuit integrity; set rotary switch to continuity mode; replace batteries.
HT100s NCV tester not detecting voltage.	Low battery; incorrect sensitivity mode; no voltage present.	Replace batteries; switch to high sensitivity mode; verify voltage presence with a known live source.
HT100s NCV tester gives false positives.	High sensitivity mode in a noisy electrical environment.	Switch to low sensitivity mode (70-1000V AC).

8. Specifications

Feature	Detail
Brand	KAIWEETS
Model Number	KM100
Measurement Type	Multimeter (KM100) & Voltage Tester (HT100s)
Power Source	Battery Powered
Min. Operating Voltage (HT100s)	12 Volts (AC) in high sensitivity mode
AC Voltage Range (HT100s)	12-1000V AC (High Sensitivity) / 70-1000V AC (Low Sensitivity)
Multimeter Functions (KM100)	AC/DC Voltage, DC Current, Resistance, Continuity, Diode
Display Counts (KM100)	2000 Counts
Safety Rating	600V CAT III (KM100)

9. Warranty and Support

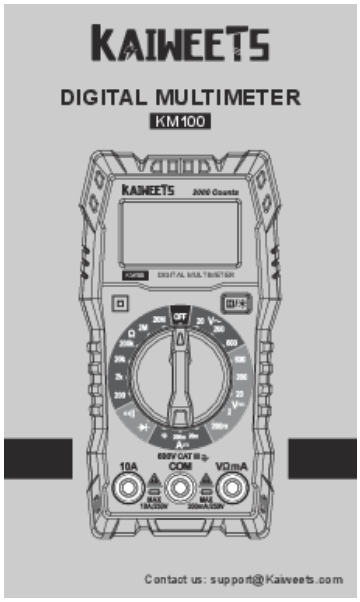
For warranty information, technical support, or customer service inquiries, please refer to the warranty card included with your product or visit the official KAIWEETS website. You may also contact KAIWEETS customer support directly through their provided contact channels.

Manufacturer: KAIWEETS

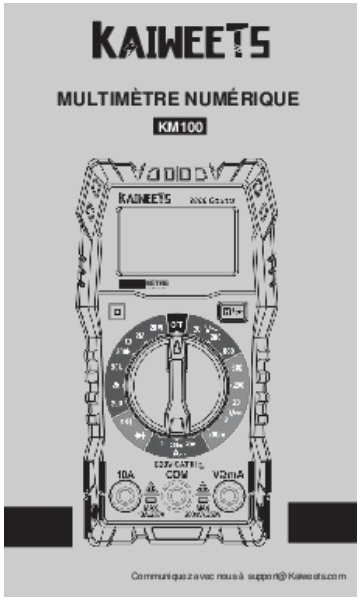
Related Documents

	KAIWEETS HT206D True-RMS Digital Clamp Meter User Manual 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.
	KAIWEETS KM100 Digital Multimeter User Manual Comprehensive guide to the KAIWEETS KM100 Digital Multimeter, covering safety operations, meter diagram, functions, measurement procedures for DC/AC voltage, DC current, resistance, continuity, and diode testing, along with technical specifications and maintenance.
	KAIWEETS HT113B Digital Multimeter User Manual Comprehensive user manual for the KAIWEETS HT113B Digital Multimeter, detailing its features, specifications, and operating instructions for accurate electrical testing.
	KAIWEETS HT200B Digital Clamp Meter User Manual Comprehensive user manual for the KAIWEETS HT200B Digital Clamp Meter, covering safety information, product overview, operating instructions, measurement operations for AC current, AC/DC voltage, resistance, continuity, diode, and capacitance, along with specifications, accuracy, maintenance, and warranty details.

Documents - KAIWEETS – KM100



KAIWEETS KM100 Digital Multimeter User Manual
Comprehensive guide to the KAIWEETS KM100 Digital Multimeter, covering safety operations, meter diagram, functions, measurement procedures for DC/AC voltage, DC current, resistance, continuity, and diode testing, along with technical specifications and maintenance.
lang:en score:34 filesize: 603.28 K page_count: 21 document date: 2020-09-25



[pdf]

Admin MULTIMÈTRE NUMÉRIQUE KAIWEETS km 100 2000 comptes Le multimètre numérique est conçu pour être utilisé de façon sûre et précise par des professionnels dans un environnement 91VfAWuOcFL ref dp product quick view m media amazon images I |||

MULTIMTRE NUMRIQUE **KM100** MULTIMTRE NUMRIQUE **KM100** Communiquez avec nous support Kaiweets.com Contenu Introduction ..... 1 Opration de scurit ..... 1 Schma du compteur .....

lang:fr score:20 filesize: 814.34 K page_count: 21 document date: 2022-01-31