

KAIWEETS KE2500

KAIWEETS KE2500 Professional Insulation Resistance Tester User Manual

Model: KE2500

1. SAFETY INFORMATION

Before operating the KAIWEETS KE2500 Insulation Resistance Tester, please read and understand all safety warnings and operating instructions. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always adhere to local and national safety codes.
- This device is compliant with IEC/EN 61010-1 CAT III 1000V / CAT IV 600V safety standards.
- Do not use the tester if it appears damaged or if the test leads are compromised.
- Ensure the device is turned off and disconnected from any circuit before changing test leads or batteries.
- Wear appropriate personal protective equipment (PPE), including insulated gloves and safety glasses, when performing electrical tests.
- Avoid contact with live circuits. High voltages are present during insulation resistance testing.
- Do not operate the tester in wet conditions or in the presence of explosive gases or dust.
- Keep hands and fingers behind the probe barriers during testing.

2. PRODUCT OVERVIEW

The KAIWEETS KE2500 is a professional digital insulation resistance tester designed for precise measurements in various electrical maintenance and safety verification tasks. It offers a wide range of test voltages and advanced diagnostic capabilities.

Key Features:

- **5-Range Insulation Testing:** 100V, 250V, 500V, 1000V, 2500V DC.
- **Wide Resistance Range:** 0.1M Ω to 200G Ω .
- **Advanced Diagnostics:** One-touch Absorption Ratio (DAR) and Polarization Index (PI) calculation.
- **Intelligent PASS/FAIL Evaluation:** Customizable thresholds for quick quality control.

- **Multi-functionality:** Measures AC/DC Voltage (up to 750V AC / 1000V DC) and Continuity (buzzer for $<50\Omega$).
- **User-Friendly Design:** Backlit LCD, Data Hold, 15-minute Auto Shutdown, Max/Min recording.

What's Included:

- KAIWEETS KE2500 Insulation Tester (x1)
- 1.5V AA Batteries (x8)
- Test Leads (x2)
- Crocodile Alligator Clips (x2)
- Carrying Bag (x1)
- User Manual (x1)

PRO INSULATION RESISTANCE TESTER

WIDE RANGE

Resistance: 0.1M Ω ~200G Ω

Volatge: 100V/250V/500V/1000V/2500V

Continuty: 0.1~200 Ω



ADVANCED FEATURES

TIMER

Timed Measurement

COMP.

Threshold Comparison

DAR/PI

One-Touch DAR/PI Test



Data Hold



Backlit LCD



Min/Max



CERTIFIED SAFETY



CAT III 1000V
CAT IV 600V

Image: KAIWEETS KE2500 Insulation Resistance Tester and included accessories.

Your browser does not support the video tag.

Video: An overview of the KAIWEETS Professional Insulation Resistance Tester KE2500, demonstrating its features and use.

3. SETUP

Battery Installation:

1. Ensure the tester is powered off.
2. Locate the battery compartment on the back of the device.
3. Open the battery compartment cover.

4. Insert 8 AA batteries, observing the correct polarity (+/-) as indicated inside the compartment.
5. Close the battery compartment cover securely.

USER-FREINDLY DESIGN

Backlit LCD Display



8× AA Batteries Longer Runtime



Durable Case



Image: The KAIWEETS KE2500 with its battery compartment open, showing the placement for 8 AA batteries.

Connecting Test Leads:

1. Connect the red test lead to the 'LINE' terminal and the black test lead to the 'EARTH' terminal for insulation resistance tests.
2. For voltage measurements, connect the red test lead to the 'V' terminal and the black test lead to the 'G' (Ground) terminal.
3. For continuity tests, connect the red test lead to the 'CONTINUITY' terminal and the black test lead to the 'G' (Ground) terminal.

4. Attach the alligator clips to the test leads as needed for secure connections.



**Continuity Testing
Range: 0.1Ω~200Ω**

MULTI-FUNCTIONAL TESTER

**Measure AC Voltage
Up to 750V**

**Measure DC Voltage
Up to 1000V**

Image: Close-up of the KAIWEETS KE2500 showing the input terminals for test leads, labeled LINE, V, G, EARTH, and CONTINUITY.

4. OPERATING INSTRUCTIONS

Powering On/Off:

Rotate the central dial from 'OFF' to any desired measurement function to power on the device. Rotate back to 'OFF' to power off. The device also features a 15-minute auto-shutdown to conserve battery life.

Insulation Resistance Testing:

1. Ensure the test leads are correctly connected to the 'LINE' and 'EARTH' terminals.
2. Rotate the dial to select the desired test voltage (100V, 250V, 500V, 1000V, or 2500V).
3. Connect the test leads to the circuit or component under test.
4. Press the 'TEST' button to initiate the insulation resistance measurement. The display will show the resistance value.
5. Release the 'TEST' button to stop the measurement.



Image: The KE2500 displaying an insulation resistance measurement, showing the range up to 200GΩ.

Timed Measurement Function:

1. After selecting the test voltage, press the 'TIMER' button.
2. Use the 'HOLD' and 'MAX/MIN' buttons to adjust the desired test duration (e.g., 1 minute, 5 minutes).
3. Press 'TEST' to start the timed measurement. The device will automatically stop after the set time.



Image: The KE2500 displaying a timed insulation resistance test, showing the elapsed time.

DAR/PI Calculation:

The Absorption Ratio (DAR) and Polarization Index (PI) are indicators of insulation quality. The KE2500 can calculate these automatically.

1. Perform an insulation resistance test as described above.
2. Press the 'DAR/PI' button. The device will display the calculated DAR or PI value.

- DAR is calculated as the ratio of 60-second insulation resistance to 15-second insulation resistance.
- PI is calculated as the ratio of 10-minute insulation resistance to 1-minute insulation resistance.



Image: The KE2500 showing the DAR/PI calculation function, indicating the ratio of resistance measurements over time.

Threshold Comparison (PASS/FAIL):

- Press the 'COMP' button to enter comparison mode.
- Use the 'HOLD' and 'MAX/MIN' buttons to set your desired insulation resistance threshold.
- Perform an insulation resistance test. The display will indicate 'PASS' or 'FAIL' based on your set threshold.



Image: The KE2500 displaying a PASS/FAIL result based on a user-defined threshold for insulation resistance.

AC/DC Voltage Measurement:

- Connect the test leads to the 'V' and 'G' terminals.
- Rotate the dial to the 'AC/DC-V' position.
- Connect the test probes to the circuit to measure AC or DC voltage. The device automatically detects AC or DC.



Image: The KE2500 measuring AC voltage in an electrical panel, showing the display with AC voltage reading.

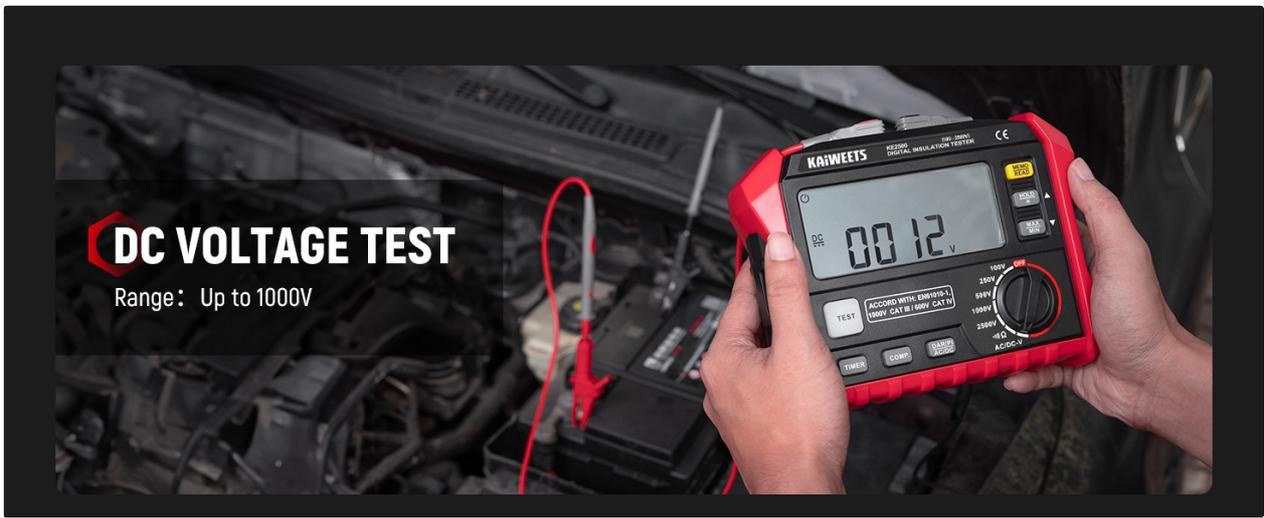


Image: The KE2500 measuring DC voltage on a car battery, showing the display with DC voltage reading.

Continuity Test:

1. Connect the test leads to the 'CONTINUITY' and 'G' terminals.
2. Rotate the dial to the ' Ω ' position.
3. Connect the test probes to the circuit or component. A buzzer will sound if the resistance is less than 50Ω .

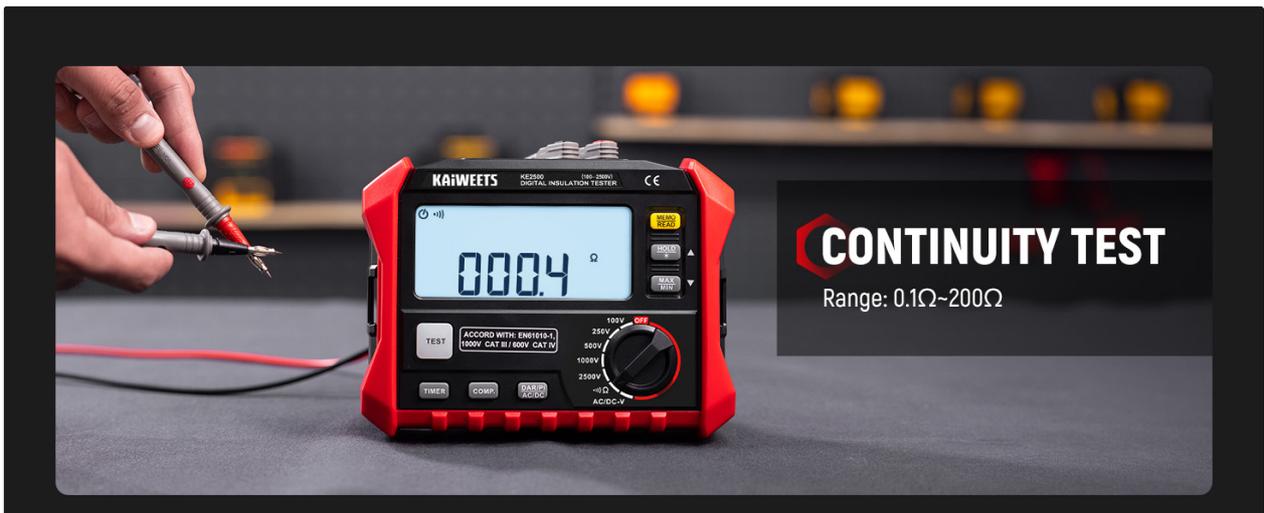


Image: The KE2500 performing a continuity test, showing the display with a low resistance reading and indicating continuity.

Data Hold, Max/Min, and Backlight:

- Press 'HOLD' to freeze the current reading on the display. Press again to release.
- Press 'MAX/MIN' to cycle through maximum, minimum, and average readings during a measurement session.
- Press the backlight button (often combined with 'HOLD' or a separate button) to illuminate the LCD for low-light conditions.

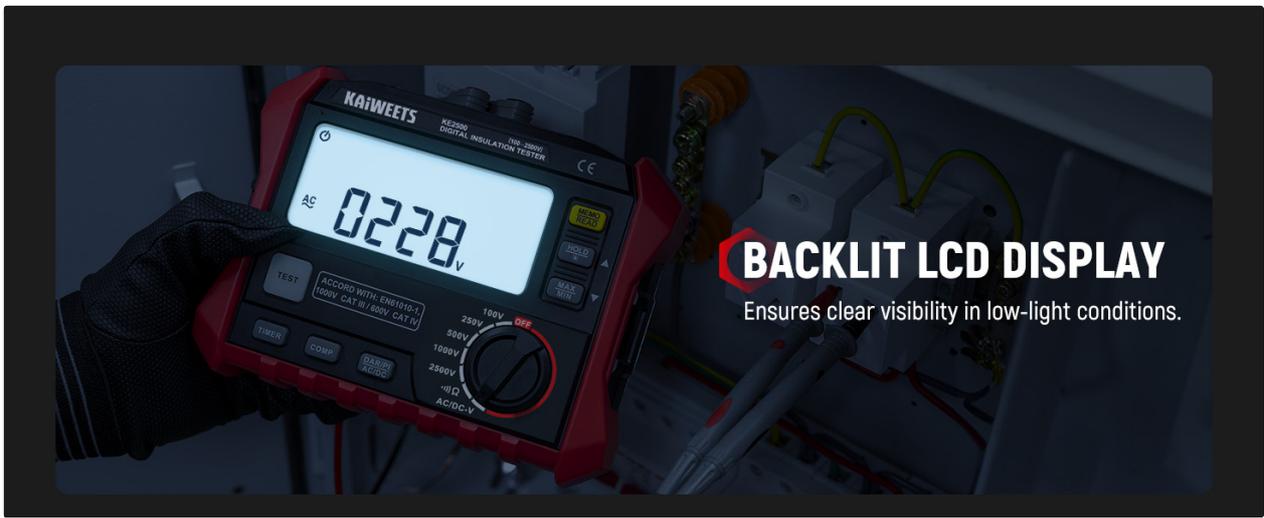


Image: The KE2500 with its backlit LCD display illuminated, showing clear visibility of readings.

5. MAINTENANCE

Cleaning:

Wipe the device with a dry, soft cloth. Do not use abrasive cleaners or solvents. Ensure the device is off and disconnected from any power source before cleaning.

Battery Replacement:

When the low battery indicator appears on the display, replace all 8 AA batteries promptly to ensure accurate readings and proper operation. Refer to the 'Battery Installation' section for detailed steps.

Storage:

Store the tester in its carrying bag in a cool, dry place away from direct sunlight and extreme temperatures. If storing for extended periods, remove the batteries to prevent leakage.

6. TROUBLESHOOTING

- **No Display/Power On:** Check battery installation and ensure batteries are not depleted. Replace if necessary.
- **Inaccurate Readings:** Ensure test leads are securely connected and not damaged. Verify the correct measurement function and voltage range are selected. Clean the test probes if they are dirty.
- **'OL' (Overload) Display:** This indicates the measured value is outside the device's range. For insulation resistance, it means the resistance is too high to measure. For voltage, it means the voltage exceeds the maximum input.
- **No Continuity Buzzer:** Ensure the device is in continuity mode and the resistance is below 50Ω. Check test leads for proper connection.

7. SPECIFICATIONS

Specification	Value
Brand	KAIWEETS
Model Number	KE2500

Power Source	8 AA Batteries (included)
Insulation Resistance Range	0.1MΩ to 200GΩ
DC Test Voltages	100V, 250V, 500V, 1000V, 2500V
AC Voltage Measurement	Up to 750V AC
DC Voltage Measurement	Up to 1000V DC
Continuity Buzzer	<50Ω
Safety Rating	IEC/EN 61010-1 CAT III 1000V / CAT IV 600V
Auto Shutdown	15 minutes
Item Weight	3.53 pounds (1600 Grams)
Product Dimensions	11.81 x 9.06 x 2.76 inches

8. WARRANTY AND SUPPORT

KAIWEETS provides a 36-month after-sales service for the KE2500 Insulation Resistance Tester. For any technical assistance or inquiries, please contact KAIWEETS customer support. Round-the-clock lifetime technical support is available to ensure your satisfaction and proper use of the product.

For further information or support, please visit the official KAIWEETS website or contact their customer service directly.