

UNI-T UT125C

UNI-T UT125C Digital Multimeter User Manual

Model: UT125C

Brand: UNI-T

1. INTRODUCTION

The UNI-T UT125C is a compact and versatile digital multimeter designed for a wide range of electrical measurements. It is suitable for electricians, DIY enthusiasts, and professionals for various applications including household issues, automotive troubleshooting, and general electrical testing.



Figure 1: The UNI-T UT125C Digital Multimeter in use, demonstrating its compact size.

2. SAFETY INFORMATION

Always adhere to safety precautions when using the multimeter to prevent electric shock or personal injury. This device is rated CAT III 600 V.

- Do not apply voltage or current that exceeds the specified maximums.
- Ensure test leads are in good condition and properly connected before measurements.
- Do not use the meter if it is damaged or operating abnormally.
- Exercise extreme caution when working with live circuits.
- The device features NCV (Non-Contact Voltage) detection for added safety.

3. PRODUCT FEATURES

The UT125C offers a comprehensive set of features for various electrical testing needs:

- Measures AC/DC voltage (up to 600V max).
- Measures AC/DC current (up to 400mA max).
- Resistance, Capacitance, Frequency, and Duty Cycle measurements.

- Diode Test and Continuity Test functions.
- Hand-held 4000 Counts display with LCD backlight.
- Data Hold function for convenient reading.
- Auto Power Off feature to conserve battery life.
- Low battery indication.
- Durable design, tested for 1m drop resistance.



Figure 2: The UT125C Multimeter shown with its included test leads.



Figure 3: Physical dimensions of the UT125C Multimeter.

4. SETUP

4.1 Battery Installation

The UT125C is powered by batteries. To install or replace batteries:

1. Ensure the multimeter is turned off and test leads are disconnected.
2. Locate the battery compartment cover on the rear of the device.
3. Use a screwdriver to open the cover.
4. Insert new batteries, observing correct polarity.
5. Replace the cover and secure it with the screw.

4.2 Connecting Test Leads

Connect the red test lead to the positive (+) input jack and the black test lead to the common (COM) input jack for most measurements. Refer to specific measurement sections for proper lead connection for current measurements.



Figure 4: Rear view of the UT125C, showing integrated test lead storage.

5. OPERATING INSTRUCTIONS

The UT125C features a rotary dial for function selection and buttons for additional features.

5.1 Function Selection

Rotate the central dial to select the desired measurement function (e.g., $V\sim$ for AC Voltage, $V-$ for DC Voltage, Ω for Resistance, $A\sim$ for AC Current, $A-$ for DC Current, etc.).



Figure 5: Detailed view of the function dial and control buttons.

5.2 Taking Measurements

After selecting the function, connect the test leads to the circuit or component under test. The measurement will be displayed on the LCD screen.

- **Voltage Measurement:** Connect leads in parallel with the circuit.
- **Current Measurement:** Connect leads in series with the circuit. Ensure correct input jack for current range (mA or A).
- **Resistance Measurement:** Ensure the circuit is de-energized before measuring resistance.
- **Continuity Test:** Use to check for open or closed circuits. An audible beep indicates continuity.
- **NCV (Non-Contact Voltage) Detection:** Hold the NCV sensor near a live conductor to detect AC voltage without direct contact.



Figure 6: The UT125C Multimeter being used to measure voltage in an electrical panel.

6. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your UNI-T UT125C multimeter.

- **Cleaning:** Use a soft, damp cloth to clean the casing. Do not use abrasives or solvents.
- **Storage:** Store the multimeter in a cool, dry place away from direct sunlight and extreme temperatures. If storing for extended periods, remove the batteries.
- **Battery Replacement:** Replace batteries promptly when the low battery indicator appears to ensure accurate readings and proper operation.

7. TROUBLESHOOTING

If you encounter issues with your UT125C multimeter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No display or dim display	Low batteries or incorrect battery installation.	Replace batteries, ensuring correct polarity.
Inaccurate readings	Incorrect function selected, damaged test leads, or external interference.	Verify function, check/replace leads, move away from strong electromagnetic fields.
Continuity test not beeping	Open circuit, high resistance, or faulty test leads.	Check circuit for breaks, clean probe tips, test leads for damage.

8. SPECIFICATIONS

Key technical specifications for the UNI-T UT125C Digital Multimeter:

Specification	Value
Model Number	UT125C
Display Counts	4000
AC/DC Voltage	Up to 600V
AC/DC Current	Up to 400mA
Resistance	Yes
Capacitance	Yes
Frequency	Yes
Duty Cycle	Yes
Diode Test	Yes
Continuity Test	Yes
NCV Detection	Yes
Safety Rating	CAT III 600 V
Power Source	Battery Powered (1.5 Volts Min. Operating Voltage)
Dimensions	5.59 x 3.62 x 1.89 inches
Weight	8.08 ounces

9. WARRANTY AND SUPPORT

UNI-T provides dedicated customer support for its products.

- For any issues during use, please contact UNI-T customer service directly via email for 7/24 1-to-1 user support.
- Additional documentation, including the Installation Manual and Instructions for Use, may be

available for download from the official UNI-T website or product page.

Note: Always refer to the latest official documentation for the most up-to-date information.