UNI-T UT18C

UNI-T UT18C Professional Voltage and Continuity Tester User Manual

Model: UT18C

Brand: UNI-T

1. Introduction

The UNI-T UT18C is a professional voltage and continuity tester designed for electrical professionals and enthusiasts. It accurately measures AC/DC voltage, performs three-phase AC power indication, RCD tests, continuity checks, and single-pen live wire identification. This device is built for safety and reliability, meeting CAT III 690V and CAT IV 600V standards, and features an IP65 waterproof rating.



Figure 1: The UNI-T UT18C Professional Voltage and Continuity Tester.

2. Safety Information

Always adhere to local electrical safety codes and regulations. Ensure the device is in good working condition before use. Do not use the tester if it appears damaged. The UT18C is rated for CAT III 690V and CAT IV 600V environments, indicating its suitability for various electrical installations. It is IP65 waterproof, providing protection against dust and water jets, but avoid intentional submersion. This device should **NOT** be used with 110V electrical systems.

- Always wear appropriate personal protective equipment (PPE) when working with electricity.
- Verify the tester's functionality on a known live circuit before use.
- Do not exceed the maximum input ratings of the device.
- Keep fingers behind the finger guards on the probes during testing.

3. Product Overview

The UT18C features a robust design with two test probes, an LCD display for voltage and frequency, and LED

indicators for various voltage levels. It includes a built-in flashlight for dark environments and buttons for functions like HOLD and mode selection.



Figure 2: Close-up of the UT18C showing LED voltage indication and built-in lighting feature.

4. Setup

1. Battery Installation: The UT18C requires two 1.5V (R03) batteries. To install, open the battery compartment located on the back of the device. Insert the batteries according to the polarity markings. Close the compartment securely. *Note: Batteries are not included.*

Specifications	Range	UT18C	UT18D
Voltage (V)	6V		5V±1V
	12V	8V±1V	8V±1V
	24V	18V±2V	18V±2V
	50V	38V±4V	38V±4V
	120V	94V±8V	94V±8V
	230V	180V±14V	180V±14V
	400V	325V±15V	325V±15V
	690V	562V±24V	562V±24V
Phase rotation test	57Vac～400Vac (3 phase) Frequency: 50Hz~400Hz	√	√
Single lead (L2) voltage detection	Operating voltage: 100V~690V Frequency: 50Hz~400Hz	√	√
Continuity test	Resistance: 0Ω~100kΩ (+50% accuracy) Beeper and LED light indication	√	√
RCD test	Operating voltage: 230V (50Hz~400Hz)	√	√
Polarity detection	Positive & Negative	√	√
Self-inspection	All LED or LCD	√	√
No power test	Operating voltage: 100~690V	√	
Voltage indication		LED	LCD
Exceed voltage	Voltage range: 713V~788V	√	√
Auto standby	Standby current＜10μA	√	√
Slient mode	All range	√	√
Work light		√	√
Low battery indication	Around 2.5V	√	√
LCD backlight			√
LCD display (voltage)	6V~690V	±(1.5%+5)	±(1.5%+5)
LCD display (Frequency)	40Hz~400Hz	±(3%+5)	±(3%+5)
IP65		√	√

Figure 3: Battery compartment for two 1.5V (R03) batteries.

2. Initial Self-Test: Upon power-on, the device performs a self-test to ensure proper functionality. The LCD and LEDs will briefly illuminate.

5. Operating Instructions

General Operation: The UT18C automatically powers on when connected to a circuit with voltage greater than 12V. It can also perform simple detection without batteries when the operating voltage is between 100V and 690V.

- **Voltage Measurement (AC/DC):** Connect the two test probes to the circuit points where voltage measurement is required. The LCD will display the voltage and frequency, and the LED indicators will light up corresponding to the detected voltage level.
- **Three-Phase AC Power Indicator Phase:** Use the probes to test three-phase AC power lines. The device will indicate the phase sequence.
- **Continuity Test:** Connect the probes across the component or circuit path to be tested for continuity. A beep sound and LED light will indicate continuity.
- **RCD Test:** For RCD testing, connect the probes to the appropriate points in the circuit. The device will perform the RCD trip test. Operating voltage for RCD test is 230V (50Hz-400Hz).

- **Single Pen Measurement (N/L cable identification):** Hold one probe and touch the other probe to the conductor. The device can identify 'N' (Neutral) or 'L' (Live) cables.
- **No Power Test:** The UT18C can perform basic voltage detection (100-690V) even without batteries installed, drawing power directly from the circuit being tested.
- **Buzz and Mute Mode:** The device offers selectable buzz and mute modes for audible alerts. Refer to the device buttons for switching between modes.
- **Built-in Lighting:** Press the dedicated button to activate the built-in flashlight, useful for working in dimly lit areas.
- **Hold Function:** Press the 'HOLD' button to freeze the current measurement on the LCD display for easier reading.



Figure 4: The UT18C demonstrating 3-phase voltage test, single pen measurement, continuity test, and RCD test.



Figure 5: The UT18C performing a 'No Power Test' without batteries, operating on circuit voltage.

6. Maintenance

1. Cleaning: Wipe the device with a damp cloth. Do not use abrasive cleaners or solvents. Ensure the device is dry before storage or next use.

2. Battery Replacement: Replace batteries when the low battery indicator appears on the display to ensure accurate measurements.

3. Storage: Store the tester in a cool, dry place, away from direct sunlight and extreme temperatures. If storing for extended periods, remove the batteries.

4. Waterproof Care: While IP65 rated, avoid prolonged exposure to water or harsh environments. Ensure probe caps are properly seated when not in use to maintain its waterproof integrity.



Figure 6: The UT18C demonstrating its IP65 waterproof design.

7. Troubleshooting

- **Device Not Powering On:** Ensure batteries are correctly installed and charged. The device requires at least 12V to automatically power on with batteries. For no-power test, ensure voltage is within 100-690V.
- **Inaccurate Readings:** Check battery level. Low batteries can affect accuracy. Ensure probes are making good contact with the circuit.
- **Single Probe Phase Detector Not Working:** Verify proper contact and ensure the circuit is live. If issues persist, contact customer support.
- **Rapid Battery Drain:** This can occur if buttons are accidentally pressed during storage. Ensure the device is stored in a way that prevents accidental button activation.
- **'Out of Range' Indication:** The device will indicate if the measured voltage exceeds its specified range (e.g., >690V). Disconnect immediately to prevent damage.

8. Specifications

Below are key specifications for the UNI-T UT18C. For a detailed comparison with other models, please refer to the specifications table image.

- **Model:** UT18C
- **Voltage Range (AC/DC):** 12V ~ 690V
- **Safety Rating:** CAT III 690V, CAT IV 600V
- **Ingress Protection:** IP65 (Waterproof and Dustproof)
- **Power Source:** 2 x 1.5V (R03) batteries (not included)
- **Dimensions:** Approximately 12.2 x 3.35 x 2.36 inches
- **Weight:** Approximately 15.2 ounces



Figure 7: Detailed specifications table for UNI-T UT18C and UT18D models.

9. Warranty and Support

The UNI-T UT18C comes with a 6-month worry-free warranty. For technical support or any questions regarding your order, please contact UNI-T customer service. They aim to respond within 24 hours. Please refer to your purchase documentation for specific contact details.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question