

ZLYMTXHW UT12D

ZLYMTXHW UT12D AC Voltage Tester Detector User Manual

Model: UT12D | Brand: ZLYMTXHW

1. INTRODUCTION

The ZLYMTXHW UT12D is a non-contact AC voltage detector designed for safe and efficient electrical testing. This device is widely used in the maintenance of low voltage equipment such as conductors, cables, sockets, and other electrical instruments. Its non-contact design enhances user safety, making it an essential tool for electricians and DIY enthusiasts.

2. SAFETY INFORMATION

Please read all safety warnings and instructions carefully before using this product. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **CAT IV 1000V Safety Rating:** This device is rated for CAT IV 1000V, indicating a high level of protection against transient overvoltages. Always adhere to this rating.
- **Non-Contact Operation:** The UT12D is designed for non-contact voltage detection. Do not attempt to make direct contact with live circuits unless specifically instructed and qualified to do so with appropriate safety gear.
- **Inspect Before Use:** Before each use, inspect the device for any signs of damage, cracks, or exposed wiring. Do not use if the device appears damaged.
- **Environmental Conditions:** Use the device within its specified operating temperature and humidity ranges. Avoid using in wet or explosive environments.
- **Battery Safety:** Ensure batteries are inserted correctly. Do not mix old and new batteries or different types of batteries. Remove batteries if the device will not be used for an extended period.
- **Qualified Personnel:** Electrical testing should only be performed by qualified personnel who understand the hazards involved.

3. PRODUCT FEATURES

The UT12D AC Voltage Detector offers a range of features for reliable and safe voltage testing:

- **Non-Contact Detection:** Provides a safe method for detecting AC voltage without direct contact.
- **Voltage Range:** Detects AC voltage from 24V to 1000V.
- **Dual Mode Sensitivity:** Features High (90-1000V, red indication) and Low (24-1000V, green indication) sensitivity modes for varied applications.
- **Zero/Fire Line Identification:** Capable of distinguishing between live (fire) and neutral (zero) lines.
- **Audible and Visual Alarm:** Provides clear indications through both buzzer sound and LED light.
- **Built-in Flashlight:** Assists in working in dimly lit conditions.
- **Auto Power Off:** Automatically powers off after 5 minutes of inactivity to conserve battery life.
- **Low Voltage Indication:** Alerts the user when batteries are low.
- **Durable Design:** 1-meter drop-proof construction for enhanced durability.

4. SETUP

4.1 Battery Installation

1. Locate the battery compartment cover at the bottom of the device.
2. Slide the cover open.
3. Insert two (2) 1.5V R03 (AAA) batteries, ensuring correct polarity (+/-). **Note: Batteries are not included.**
4. Close the battery compartment cover securely.

4.2 Power On/Off

Press and hold the power button (usually marked with a power symbol) for approximately 2 seconds to turn the device ON. The device will perform a self-test, and the indicator light may flash. To turn OFF, press and hold the power button again, or the device will automatically power off after 5 minutes of inactivity.

5. OPERATING INSTRUCTIONS

5.1 Non-Contact AC Voltage Detection

The UT12D uses intelligent induction to detect AC voltage without physical contact.

1. Turn on the device.
2. **Select Sensitivity Mode:** Press the sensitivity button (often marked with a 'LOW' or 'HIGH' indicator) to switch between High (90-1000V) and Low (24-1000V) detection modes. The corresponding LED will illuminate (red for High, green for Low).
3. Bring the tip of the detector close to the conductor, cable, or socket you wish to test.
4. If AC voltage is detected, the device will emit an audible beep, and the LED indicator will flash. The frequency of beeps and flashes increases with higher voltage or closer proximity to the voltage source.



Image: Non-contact measurement in progress. The UT12D detects voltage from an electrical outlet, indicated by a red light at the tip.

Non-contact measurement

Safety check, insulation protection level up to CAT IV 1000V



Image: One-button switching sensitivity. The image displays two UT12D units, highlighting the 'HIGH' (90-1000V) and 'LOW' (24-1000V) sensitivity modes with their respective indicator lights.

One-button switching sensitivity



Image: Intelligent induction electric field. The detector is shown sensing an electric field around electrical wiring, demonstrating its non-contact high-sensitivity capability.

5.2 Breakpoint Detection

The UT12D can assist in identifying breaks in live wires.

1. Ensure the wire you are testing is energized.
2. Move the detector along the length of the wire.
3. Where the wire is live, the detector will indicate voltage (audible and visual alarm).
4. If the alarm stops abruptly at a certain point along the wire, it indicates a potential break or disconnection in the line beyond that point.

Breakpoint detection

In the case of electrification, the line is disconnected, and the power-off position can be detected when the other end of the wire is not energized (and may have a weak voltage).

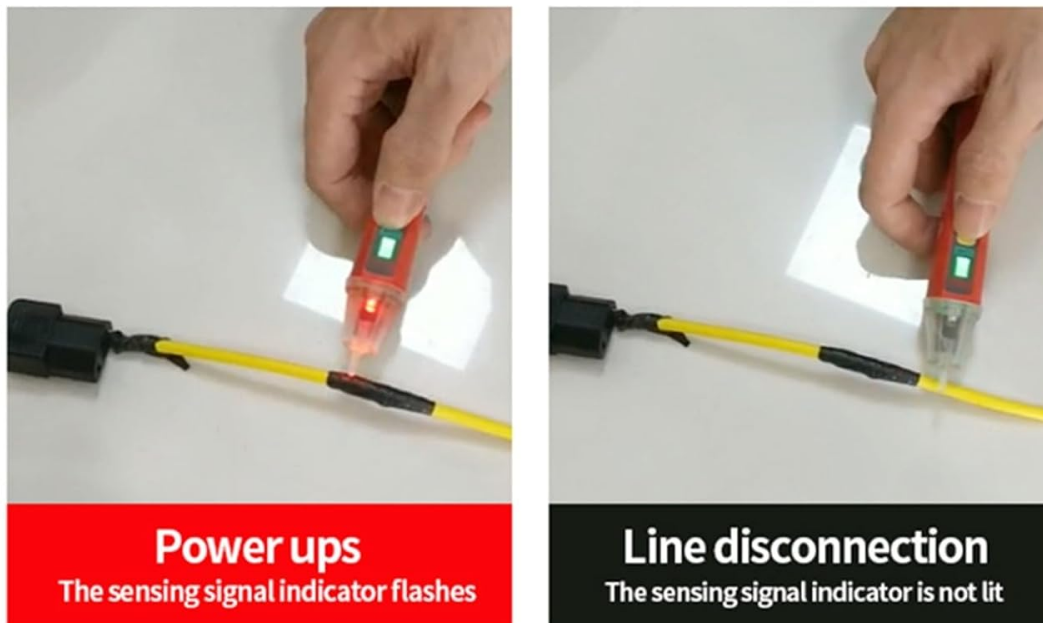


Image: Breakpoint detection. The left panel shows 'Power ups' where the sensing signal indicator flashes. The right panel shows 'Line disconnection' where the sensing signal indicator is not lit, indicating a break in the wire.

5.3 Flashlight Operation

Press the flashlight button (usually marked with a light bulb icon) to turn the built-in LED flashlight ON or OFF. This feature is useful for illuminating work areas in low-light conditions.

6. MAINTENANCE

6.1 Cleaning

Wipe the device with a dry, clean cloth. Do not use abrasive cleaners or solvents. Ensure no moisture enters the device.

6.2 Battery Replacement

When the low voltage indicator appears, replace the batteries promptly to ensure accurate readings and proper device function. Refer to Section 4.1 for battery installation instructions.

6.3 Storage

Store the device in a cool, dry place away from direct sunlight and extreme temperatures. If storing for an extended period, remove the batteries to prevent leakage.

7. TROUBLESHOOTING

If you encounter issues with your UT12D, refer to the following common problems and solutions:

- **Device does not power on:**
 - Check if batteries are installed correctly with the right polarity.
 - Replace with fresh batteries.
- **No indication when testing a known live circuit:**
 - Ensure the device is powered on.
 - Check battery level; replace if low.
 - Ensure the tip of the detector is sufficiently close to the voltage source.
 - Try switching between High and Low sensitivity modes.
- **False positives or inconsistent readings:**
 - Ensure there are no strong electromagnetic fields nearby that could interfere with the detector.
 - Test in an open area or away from other electrical devices if possible.

8. SPECIFICATIONS

Parameter	Specification
AC Voltage (Low)	24V ~ 1000V
AC Voltage (High)	90V ~ 1000V
Frequency Range	50/60Hz
Power	2 x 1.5V AAA (R03) batteries
Product Color	Red and Grey
Product Net Weight	50g
Product Size	150mm x 18mm x 23mm
Safety Rating	CAT IV 1000V
Drop Test	1m
Auto Power Off	Yes (after 5 minutes)
Low Voltage Indication	Yes
Built-in Flashlight	Yes

9. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the documentation provided with your purchase or contact the manufacturer directly. Keep your purchase receipt as proof of purchase.

