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> User Manual: uxcell® Digital Voltage Tester, Electric Pen Screwdriver LCD Circuit Tester Detector Break Point Contact Test Pen 3mm Slot, AC12-220V

## uxcell a18102900ux0218

# User Manual: uxcell® Digital Voltage Tester

Model: a18102900ux0218

## 1. INTRODUCTION

This manual provides comprehensive instructions for the safe and effective use of the uxcell® Digital Voltage Tester. This versatile tool is designed for directly measuring AC/DC voltage from 12V to 220V, and for indirectly detecting null lines, phase lines, and continuity in AC/DC circuits. It can also test the continuity of non-conductive materials.

The tester features a digital LCD display for clear readings and a soft handle for comfortable grip. All operations are performed using two intuitive buttons.



Figure 1: Front view of the uxcell Digital Voltage Tester, showing the LCD display and two buttons.

## 2. SAFETY INFORMATION

Always observe the following safety precautions when using the voltage tester:

- Do not use the tester if it appears damaged or is not functioning correctly.
- Always ensure your hands are dry before handling electrical equipment.
- Do not exceed the specified voltage range (12-220V AC/DC).
- This device is for testing purposes only and should not be used as a substitute for proper electrical safety procedures.
- Keep out of reach of children.

## 3. PRODUCT OVERVIEW

The uxcell Digital Voltage Tester is a compact and easy-to-use device. Key components include:

- **Screwdriver Tip:** Used for probing electrical contacts.
- **LCD Display:** Shows voltage readings and indicators.
- **"DIRECT" Button:** For direct voltage testing.

- **"INDUCTANCE" Button:** For inductance break-point testing.
- **Pocket Clip:** For convenient carrying.



Figure 2: Back view of the voltage tester, showing the pocket clip.

#### 4. SPECIFICATIONS

| Feature                | Detail                                  |
|------------------------|---|
| Product Name           | Voltage Tester Pen                      |
| Material               | Plastic, 55# Steel                      |
| Voltage Range          | 12-220V AC/DC                           |
| Tip Size               | 3mm                                     |
| Total Size (L x W x H) | 130 x 19 x 13mm / 5.12" x 0.75" x 0.51" |
| Handle Color           | Yellow                                  |
| Net Weight             | 34g                                     |

Power Source

Battery Powered (internal, non-replaceable)



Figure 3: Detailed dimensions of the voltage tester, highlighting its compact size and 3mm tip.

## 5. SETUP

Before first use, or to ensure the tester is functioning correctly, perform a self-check test:

1. Hold the metal screwdriver tip in one hand.
2. Press the "DIRECT" test button with your other hand.
3. If the circuit pen battery is sufficient, the LCD display will light up, indicating readiness for use.

## 6. OPERATING INSTRUCTIONS

### 6.1. Direct Voltage Measurement (Contact Test)

This method is used to directly measure AC/DC voltage within the 12-220V range.

1. Probe the live metal contact (wire or terminal) with the screwdriver tip.
2. Press the "DIRECT" button.

3. The voltage level will be indicated on the digital display on a rising scale: 12V, 36V, 55V, 110V, 220V.



Figure 4: Demonstrating direct voltage testing on an electrical outlet.

## 6.2. Voltage Reading Display Instructions

The LCD display provides specific indications for voltage ranges:

- **Display 12:** Indicates voltage between 9V-12V.
- **Display 12-36:** Indicates voltage between 12V-36V.
- **Display 12-36-55:** Indicates voltage between 36V-55V.
- **Display 12-36-110:** Indicates voltage between 55V-110V.
- **Display 12-36-110-220:** Indicates voltage above 220V.



Figure 5: Close-up of the LCD display, showing the voltage indicators.

### 6.3. Inductance Break-Point Test

This feature helps locate breaks in wires without direct contact.

1. Press the "INDUCTANCE" button.
2. Move the screwdriver tip along the wire.
3. A ">" symbol will appear on the display when the tip is over a live section of the wire.
4. The point where the ">" symbol disappears indicates a break in the wire.

### 6.4. Fire Line Test

To identify the live (fire) line in an AC circuit:

1. Touch the "DIRECT" detection button with your finger.
2. Insert the copper core (screwdriver tip) into the suspected fire wire contact.
3. The display will show a voltage value (12V/36V/55V/110V/220V) if it is the fire line.

### 6.5. Null Line Test

To identify the neutral (null) line in an AC circuit:

1. Touch the "DIRECT" detection button with your finger.
2. Insert the copper core (screwdriver tip) into the suspected null wire contact.
3. The display will show a "↯" symbol if it is the null line.

## 7. MAINTENANCE

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To ensure the longevity and accuracy of your uxcell Digital Voltage Tester:

- Clean the tester with a dry, soft cloth. Do not use abrasive cleaners or solvents.
- Store the tester in a dry environment, away from direct sunlight and extreme temperatures.
- Avoid dropping the tester or subjecting it to strong impacts.
- The internal battery is not designed to be user-replaceable. If the tester no longer powers on after performing the self-check, it may indicate the end of the battery's life.

## 8. TROUBLESHOOTING

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If you encounter issues with your voltage tester, consider the following:

- **Tester does not power on or display anything:** Perform the self-check test (Section 5). If it still does not light up, the internal battery may be depleted. As the battery is not user-replaceable, the unit may need to be replaced.
- **Inaccurate readings:** Ensure proper contact with the conductor. Verify that you are within the specified voltage range (12-220V).
- **Difficulty reading the display:** Ensure adequate lighting. The display is an LCD and may be harder to read in very dim or very bright conditions.

## 9. SUPPORT

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For further assistance or inquiries regarding your uxcell Digital Voltage Tester, please contact uxcell customer support through their official channels or the retailer from whom you purchased the product.

Please have your model number (a18102900ux0218) ready when contacting support.