**BSIDE S11 + X1**

# BSIDE S11 Smart Multimeter and X1 Voltage Detector Kit User Manual

Comprehensive instructions for safe and effective use.

## 1. Introduction

This manual provides detailed instructions for the safe operation and maintenance of your BSIDE S11 Smart Multimeter and BSIDE X1 Voltage Detector Kit. This kit is designed to assist in electrical testing for home circuit safety, automotive maintenance, and general electrical repairs in various environments.

## 2. Safety Information

Always adhere to local and national safety codes. Use personal protective equipment (PPE) such as safety glasses and insulated gloves. Before any electrical work, ensure power is disconnected and verified with a known working voltage detector. Do not use the devices if they appear damaged or operate abnormally. Refer to the specific safety warnings on each device.

- Do not exceed the maximum input values specified for each function.
- Exercise extreme caution when working with live circuits.
- Ensure test leads are in good condition and properly connected.
- Replace batteries promptly when the low battery indicator appears.

## 3. Package Contents

Verify that all items are present in your kit:

- 1 x BSIDE S11 Smart Multimeter
- 1 x BSIDE X1 Voltage Detector Pen
- 2 x Test Leads (for S11 Multimeter)
- 1 x Carrying Case
- 1 x USB Charging Cable (for S11 Multimeter)

- 2 x AAA Batteries (for X1 Voltage Detector)
- 1 x User Manual

## 4. Product Overview

### 4.1 BSIDE S11 Smart Multimeter

The S11 Smart Multimeter features an automatic intelligent mode for ease of use, making it suitable for beginners. It provides a large EBTN color LCD screen displaying three test results simultaneously: test value, analog bars, and ambient temperature/frequency. It supports various measurements including AC/DC voltage, resistance, frequency, continuity, capacitance, diode, and duty cycle. It also includes non-contact voltage (NCV) detection and live wire verification.


Figure 1: BSIDE S11 Smart Multimeter with Auto Mode Selection and Function Icons.


Figure 2: BSIDE S11 Smart Multimeter with Rechargeable Li-ion Battery.

### 4.2 BSIDE X1 Voltage Detector

The X1 Voltage Detector is a compact tool with an EBTN LCD screen displaying test values, analog bars, and frequency. It features non-contact voltage (NCV) detection with adjustable sensitivity and 8 LED indicators in three colors to differentiate voltage intensity. It can identify live/neutral wires and locate breakpoints. It also performs automatic tests for AC/DC voltage, resistance, frequency, and continuity.

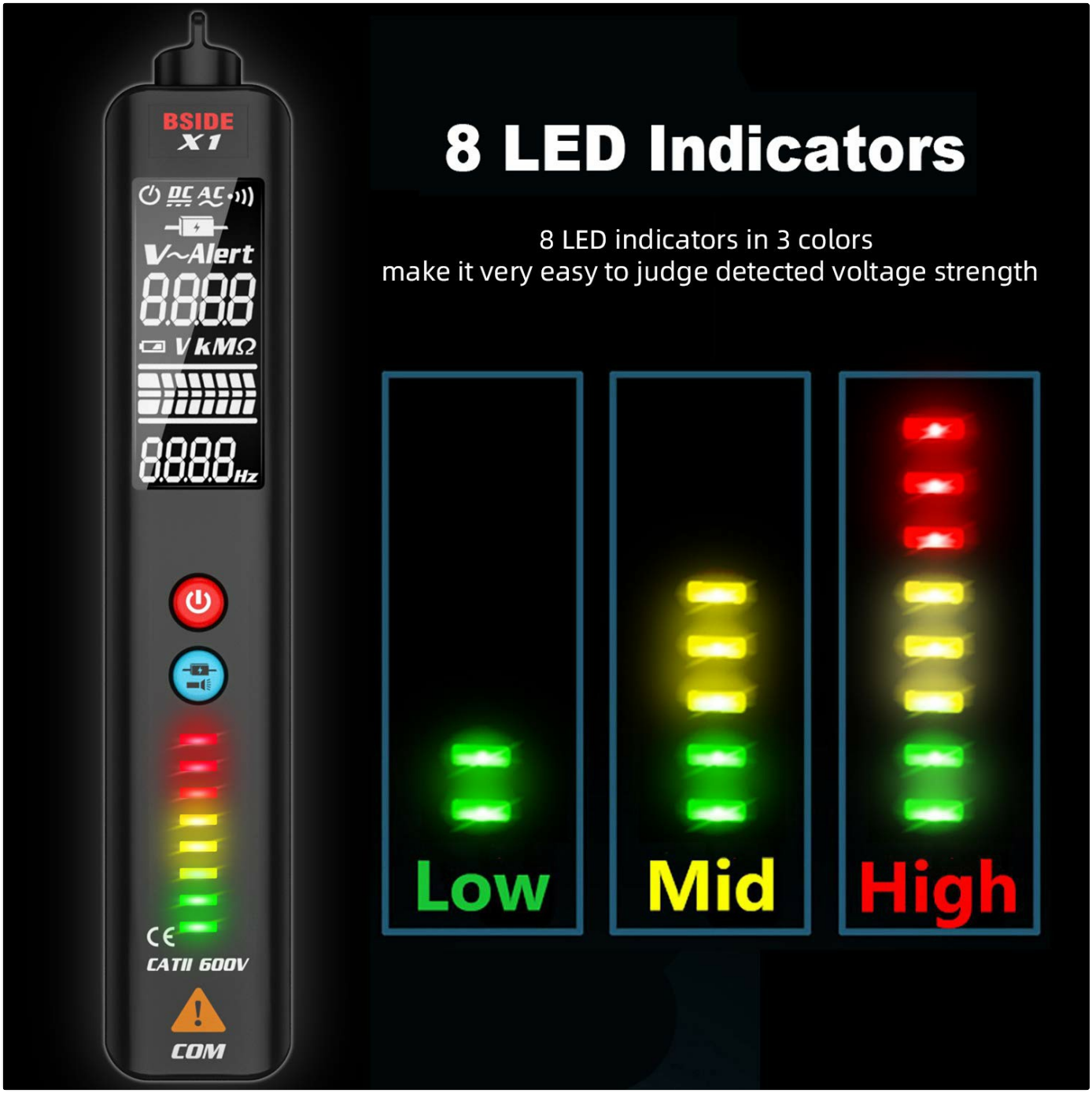


Figure 3: BSIDE X1 Voltage Detector with 8 LED Indicators.


Figure 4: BSIDE X1 Voltage Detector with Integrated LED Flashlight.

## 5. Setup

### 5.1 BSIDE S11 Smart Multimeter Charging

The S11 Multimeter comes with a built-in rechargeable 3.7V Li-ion battery. Before first use, fully charge the device using the provided USB charging cable. Connect the USB cable to the multimeter's charging port and to a standard USB power source (e.g., computer, USB wall adapter). The battery indicator on the display will show charging status.

### 5.2 BSIDE X1 Voltage Detector Battery Installation

The X1 Voltage Detector requires 2 x 1.5V AAA batteries. To install or replace batteries:

1. Locate the battery compartment cover on the back of the device.
2. Use a small screwdriver to loosen the screw securing the cover.
3. Remove the cover and insert the two AAA batteries, ensuring correct polarity (+/-).

4. Replace the cover and tighten the screw.

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Video 1: Unboxing and battery installation for the BSIDE X1 Voltage Detector. This video demonstrates how to open the battery compartment and insert the AAA batteries.

### 5.3 Connecting Test Leads (S11 Multimeter)

Insert the red test lead into the "INPUT" jack and the black test lead into the "COM" jack on the S11 Multimeter. Ensure they are securely connected before taking any measurements.

## 6. Operating Instructions

### 6.1 BSIDE S11 Smart Multimeter Operation

Press the power button to turn on the S11 Multimeter. It will typically start in intelligent auto mode.

1. **Auto Mode:** In auto mode, the multimeter automatically identifies and measures AC/DC voltage, resistance, and continuity. Simply connect the test leads to the circuit or component, and the device will display the appropriate reading.

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Video 2: Demonstration of the BSIDE S11 Smart Multimeter's auto-ranging capabilities for measuring AC voltage, DC voltage, resistance, and continuity.

2. **Manual Mode Selection:** Use the side buttons to cycle through specific measurement functions such as capacitance, diode, and duty cycle if needed. The display will indicate the selected mode.
3. **Non-Contact Voltage (NCV) Detection:** Hold the multimeter near a live wire or outlet. The NCV indicator will illuminate, and an audible alarm will sound if AC voltage is detected without direct contact.
4. **Live Wire Detection:** Use the red test lead to touch the suspected live wire. The display will indicate "LIVE" and provide a reading if a live wire is detected.

### 6.2 BSIDE X1 Voltage Detector Operation

Press the red power button to turn on the X1 Voltage Detector. It will typically enter auto mode for voltage detection.

1. **Non-Contact Voltage (NCV) Detection:** Bring the tip of the detector close to a wire, outlet, or electrical component. The device will detect AC voltage in the range of 90V-1000V (standard sensitivity) or 6V-1000V (high sensitivity, activated via the blue button). The 8 LED indicators will light up in green, yellow, or red, and an audible alarm will sound, indicating the intensity of the detected voltage.
2. **Live/Neutral Wire Identification:** Insert the detector's tip into the slots of an outlet. It will differentiate between live and neutral wires based on the detection intensity and display.
3. **Breakpoint Search:** Move the detector along an insulated wire. A change in the NCV indication can help locate breaks in the wire.
4. **Using Test Leads:** The X1 also supports direct measurements using test leads for AC/DC voltage, resistance, frequency, and continuity. Connect the test leads to the input jacks and select the desired function using the mode button.

## 7. Maintenance

- **Cleaning:** Wipe the devices with a dry, soft cloth. Do not use abrasive cleaners or solvents.
- **Battery Replacement (X1):** Replace the AAA batteries when the low battery indicator appears on the display. Refer

to section 5.2 for instructions.

- **Charging (S11):** Recharge the S11 Multimeter when the battery level is low to ensure optimal performance.
- **Storage:** Store the kit in its carrying case in a cool, dry place, away from direct sunlight and extreme temperatures. If storing for extended periods, remove batteries from the X1 Voltage Detector to prevent leakage.

## 8. Troubleshooting

| Problem | Possible Cause | Solution |
|---|---|---|
| Device does not power on. | Low or dead battery (S11) / Incorrectly installed or dead batteries (X1). | Charge the S11 Multimeter. Replace or correctly install AAA batteries in the X1 Voltage Detector. |
| Inaccurate readings. | Poor contact with test leads / Device not in correct mode / Environmental factors. | Ensure firm contact with test leads. Verify the correct measurement mode is selected. Allow device to acclimate to ambient temperature. |
| NCV detection is inconsistent. | Low battery / Interference from other electrical fields / Incorrect sensitivity setting (X1). | Charge/replace batteries. Move away from other electrical devices. Adjust NCV sensitivity on X1. |
| Continuity test does not beep. | Open circuit / Test leads not making contact. | Check the circuit for breaks. Ensure test leads are firmly connected to the component. |

## 9. Specifications

### 9.1 BSIDE S11 Smart Multimeter

- **Power Supply:** 3.7V Rechargeable Li-ion Battery
- **Display:** EBTN Color LCD
- **Dimensions:** 143 x 69 x 17 mm
- **Weight:** 320 g
- **Measurement Functions:** AC/DC Voltage, Resistance, Frequency, Continuity, Capacitance, Diode, Duty Cycle, NCV, Live Wire Detection
- **Safety Rating:** CAT III 600V, CAT II 300V

### 9.2 BSIDE X1 Voltage Detector

- **Power Supply:** 2 x 1.5V AAA Batteries
- **Display:** EBTN LCD
- **NCV Detection:** 90V-1000V (standard), 6V-1000V (high sensitivity)
- **Indicators:** 8 LED (3 colors) for voltage intensity
- **Measurement Functions:** AC/DC Voltage, Resistance, Frequency, Continuity, Live/Neutral Wire Identification, Breakpoint Search
- **Safety Rating:** CAT II 600V

## 10. Warranty and Support

For warranty information, technical support, or service inquiries, please refer to the contact details provided with your

purchase or visit the official BSIDE website. Keep your proof of purchase for warranty claims.