

BSIDE O1 Oscilloscope Multimeter

BSIDE O1 Digital Multimeter and Portable Oscilloscope User Manual

Model: O1 Oscilloscope Multimeter

1. INTRODUCTION

The BSIDE O1 is a professional, high-precision digital multimeter integrated with a portable oscilloscope. This versatile instrument is designed for a wide range of applications, from electrical equipment review and hardware/software debugging to automotive maintenance and educational purposes. It features a color display, real-time sampling, and an intuitive interface for efficient measurements and waveform analysis.

This manual provides detailed instructions for the safe and effective use of your BSIDE O1 device. Please read it thoroughly before operation.

2. PACKAGE CONTENTS

Verify that all items listed below are present in your package:

- BSIDE O1 Oscilloscope Multimeter
- High-quality Test Leads (Red and Black)
- Protective Carrying Case
- USB Charging Cable
- User Manual (English)



Image 2.1: BSIDE O1 device with included test leads, USB cable, and carrying case.

3. DEVICE OVERVIEW

The BSIDE O1 combines the functionalities of a digital multimeter and an oscilloscope into a single portable unit. It features a 2.8-inch TFT color display for clear readings and waveform visualization. Key controls include a power button, mode selection, function buttons, and navigation keys.



Image 3.1: Front view of the BSIDE O1, highlighting the display and control buttons.

4. SETUP

4.1. Charging the Battery

The BSIDE O1 is equipped with a built-in 2000 mAh rechargeable Li-ion battery. Before initial use, ensure the device is fully charged.

1. Connect the supplied USB charging cable to the charging port on the device.
2. Connect the other end of the USB cable to a standard USB power adapter (not included) or a computer's USB port.
3. The charging indicator will illuminate, typically red, during charging and change color or turn off when fully charged.

Rechargeable Li-ion Battery



Image 4.1: The BSIDE O1 connected to a USB charging cable, illustrating the charging process.

4.2. Connecting Test Leads

The device uses high-quality, all-in-one test leads for both multimeter and oscilloscope functions.

1. Insert the black test lead into the 'COM' (Common) input jack.
2. Insert the red test lead into the 'INPUT' jack for voltage, resistance, capacitance, diode, and oscilloscope measurements.
3. For current measurements (up to 10A), insert the red test lead into the '10A FUSED' jack.

5. OPERATING INSTRUCTIONS

5.1. Power On/Off

Press and hold the power button (**red circle with line**) to turn the device on or off.

5.2. Multimeter Mode

The device defaults to multimeter mode upon power-up. Use the 'MODE' button to cycle through different measurement functions such as AC/DC Voltage, AC/DC Current, Resistance, Capacitance, Diode, and Continuity.

- **Voltage/Current Measurement:** Connect test leads as described in Section 4.2. Select AC or DC mode as needed. The display shows real-time, max, min, and average values.
- **Resistance/Capacitance/Diode/Continuity:** Select the appropriate function using the 'MODE' button.
- **Non-Contact Voltage (NCV) Detection:** Use this feature to detect AC voltage without direct contact.



Image 5.1: The BSIDE O1 displaying a multimeter measurement, showing voltage and other parameters.

5.3. Oscilloscope Mode

Press the 'AUTO' button to switch to oscilloscope mode. This mode allows for graphical visualization and analysis of waveforms.

- **Auto-Adjust Function:** In oscilloscope mode, pressing 'AUTO' automatically recognizes the waveform type and adjusts the amplitude and time base for optimal display.
- **Triggering:** The trigger mode can be adjusted (Auto, Manual, Normal) to stabilize repetitive waveforms.

- **Waveform Parameters:** The display provides key waveform parameters such as frequency, peak-to-peak voltage (VPP), maximum/minimum voltage, RMS, and period.



Image 5.2: The BSIDE O1 displaying a waveform in oscilloscope mode.

Waveform Measurement

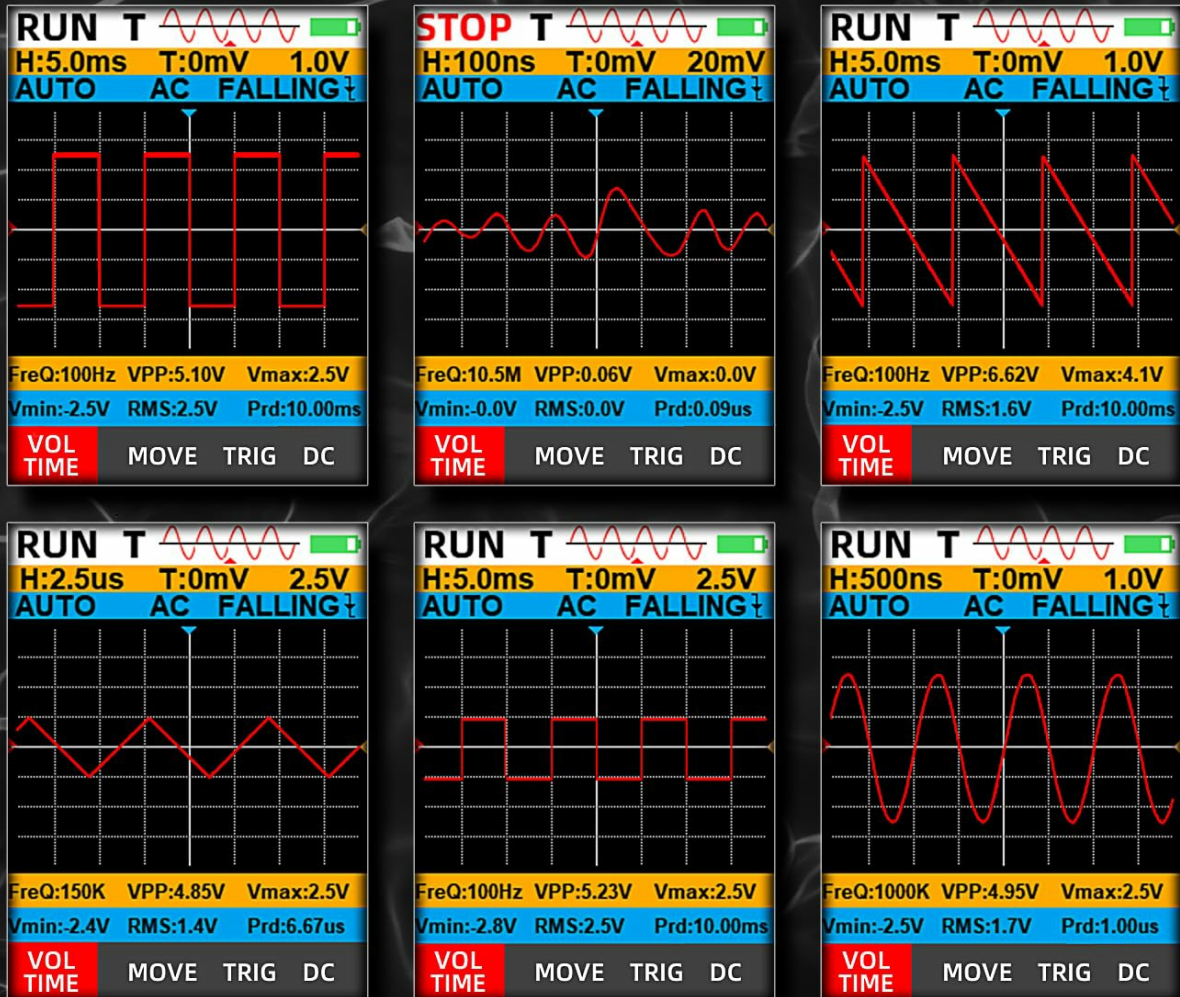


Image 5.3: Various waveform examples captured and displayed by the BSIDE O1 oscilloscope function.

5.4. Data Storage and PC Connection

The BSIDE O1 can capture screenshots of measurements and waveforms. These images are automatically saved and can be transferred to a PC for further analysis.

1. Press the 'SAVE' button to capture a screenshot.
2. Connect the device to a PC using the USB charging cable.
3. The device will appear as a removable storage device, allowing you to access and transfer the saved images.

Efficient Data Storage and Export

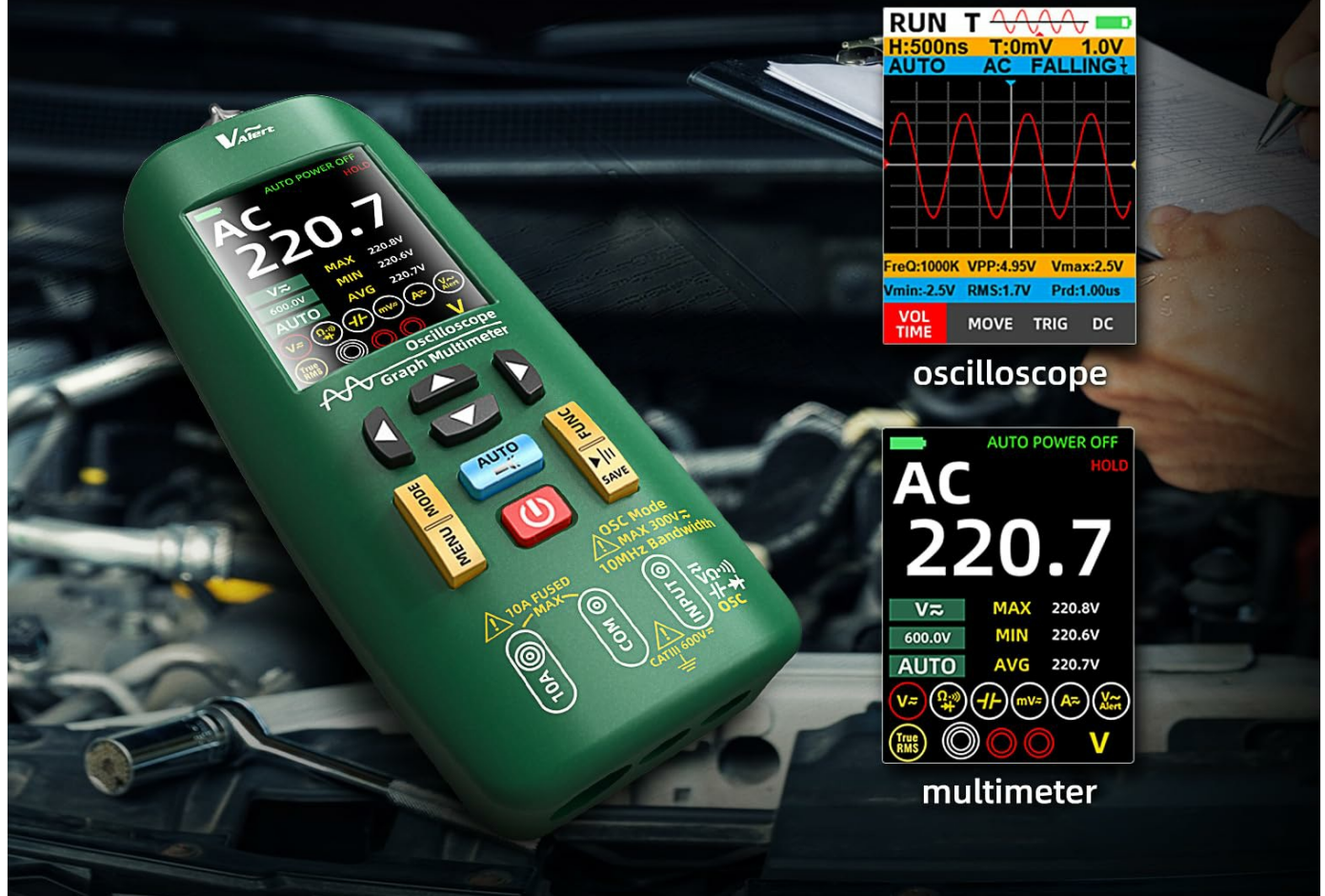


Image 5.4: The BSIDE O1 connected to a laptop, demonstrating its data storage and export capabilities.

5.5. Flashlight Function

The device includes a bright LED flashlight for illumination in low-light conditions.

- Locate the flashlight button (often integrated with another function or a dedicated button).
- Press the button to turn the flashlight on or off.

Bright LED Flashlight

High brightness flashlight
not afraid of the dark



Image 5.5: The BSIDE O1 with its integrated LED flashlight activated, providing illumination.

5.6. Applications

The BSIDE O1 is suitable for various applications, including:

- Electrical equipment maintenance (e.g., air conditioning, power supplies, elevators).
- Hardware and software debugging (e.g., RS232, RS485, I2C, CAN communication circuits).
- Automotive electrical system diagnostics.
- Observing slow signal changes (e.g., relay fluctuations, battery charge/discharge curves).
- Educational and laboratory use.



Image 5.6: The BSIDE O1 being used for automotive maintenance, connected to a vehicle's electrical system.

6. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your BSIDE O1.

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents.
- **Battery Care:** Recharge the battery regularly, especially if the device will not be used for an extended period, to maintain battery health.
- **Fuse Replacement:** The device has a replaceable fuse (250V/10A, 5x20mm). If the current measurement function fails, the fuse may need replacement. Refer to the internal diagram for location and ensure the device is powered off and disconnected from all circuits before attempting replacement.
- **Firmware Updates:** The firmware version can be updated. Contact technical support for instructions and files.

Electronic Maintenance



Image 6.1: The BSIDE O1 positioned near electronic components, illustrating its use in electronic maintenance and repair.

7. TROUBLESHOOTING

If you encounter issues with your BSIDE O1, refer to the following common problems and solutions:

- **Device does not power on:** Ensure the battery is charged. Connect the device to a USB power source and try again.
- **Inaccurate readings:** Check test lead connections. Ensure the correct measurement mode is selected. Verify that the battery level is sufficient.
- **No display in oscilloscope mode:** Ensure the 'AUTO' function has been used to adjust the waveform. Check trigger settings.
- **Current measurement not working:** The fuse may be blown. Refer to Section 6 for fuse replacement instructions.
- **Cannot connect to PC:** Ensure the USB cable is securely connected to both the device and the PC. Try a different USB port or cable.

For persistent issues, please contact technical support.

8. SPECIFICATIONS

Detailed technical specifications for the BSIDE O1 Oscilloscope Multimeter:

Parameter	Value
Display	6000 counts, 2.8" TFT Color Screen
Bandwidth	10MHz
Real-time Sample Rate	48MSa/s
Horizontal Time Base Scale	100ns/div - 20s/div
Vertical Voltage Scale	20mV/div - 100V/div
DC Voltage	0-600V (0.01mV resolution) $\pm(1\%+5)$
AC Voltage (True RMS)	0-600V (0.01mV resolution) $\pm(1.2\%+5)$
DC Current	0-10A (0.001A resolution) $\pm(1.2\%+3)$
AC Current (True RMS)	0-10A (0.001A resolution) $\pm(1.2\%+3)$
Max Input Voltage (Osc Mode)	300V (DC+AC peak)
Resistance	0 Ω -60M Ω (0.1 Ω resolution) $\pm(1.2\%+5)$
Capacitance	0-99.99mF (0.01nF resolution) $\pm(5.0\%+10)$
Diode Test	Less than 3V
Fuse	250V/10A, 5x20mm
Battery	2000 mAh Rechargeable Li-ion
Product Dimensions	18.7 x 7.4 x 4.05 cm
Product Weight	269 g
Compliance	CE
Operating Temperature	Up to 70°C

9. WARRANTY AND SUPPORT

BSIDE products are manufactured to high-quality standards. For warranty information, please refer to the documentation provided with your purchase or contact your retailer.

For technical assistance, troubleshooting, or firmware updates, please contact BSIDE customer support. Technical support is available in English and Spanish.

You can typically find contact information on the BSIDE official website or through your product's purchase platform.

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