

## X-DRAGON BLX-XD-USB-7VAC

# X-DRAGON USB Multimeter BLX-XD-USB-7VAC Instruction Manual

Model: BLX-XD-USB-7VAC

## INTRODUCTION

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The X-DRAGON USB Multimeter (Model BLX-XD-USB-7VAC) is a compact digital device designed to accurately measure and display voltage (V), current (A), accumulated capacity (Ah), and power (W) for various USB-powered devices. It features a clear LED display and dual USB output ports, making it an essential tool for monitoring the performance of chargers, power banks, and other USB devices.

## PRODUCT FEATURES

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- **7 Display Modes:** Easily switch between voltage, current, capacity, and power displays with a single button press.
- **Wide Measurement Range:** Measures voltage from 3.2V to 15V and current from 0A to 3A (supports up to 10A peak, but not for continuous operation above 3A).
- **High Accuracy:** Provides measurements with an accuracy of +/- 1% (+/-2 digits).
- **Dual USB Output Ports:**
  - **Output 1:** Supports both device charging and data transfer.
  - **Output 2:** Optimized for high-current fast charging.
- **Micro USB Input Port:** Allows for extending the input cable and helps stabilize voltage when connecting two input power sources.
- **Clear LED Display:** Simultaneous real-time display of voltage and current using distinct red and blue LED segments for enhanced readability.
- **Safety Alarms:** Includes alarms for over-voltage, under-voltage, over-current, and short-circuit conditions to protect your devices.

## PRODUCT OVERVIEW

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Familiarize yourself with the physical components of your X-DRAGON USB Multimeter.

# Reasonable Micro USB Port Design

Add micro USB port, you can choose a longer USB cable to replace the original wire, dual input increases stable voltage, charging efficiency is higher and faster.

X-DRAGON Tester



Other brand tester



**Image:** Front view of the X-DRAGON USB Multimeter, highlighting its input USB connector, two output USB ports, and the digital LED display.

The device features a standard USB-A male connector for input, two USB-A female ports for output (labeled OUTPUT 1 and OUTPUT 2), and a small button for mode selection and resetting. The LED screen displays measurement values.

## SETUP AND CONNECTION

Connecting the X-DRAGON USB Multimeter is straightforward. It acts as an inline tester between your power source and the device you wish to test.

- 1. Connect to Power Source:** Plug the male USB-A connector of the multimeter into a USB power source (e.g., wall charger, power bank, computer USB port, car charger).
- 2. Connect Device(s):** Plug your device's USB charging cable into either OUTPUT 1 or OUTPUT 2 of the multimeter.
  - Use **OUTPUT 1** for standard charging and data transfer.
  - Use **OUTPUT 2** for devices requiring faster, high-current charging.
- 3. Optional Dual Input:** For enhanced voltage stability, especially with longer cables or specific power sources, you can connect a micro USB cable to the multimeter's micro USB port and to an additional power source.



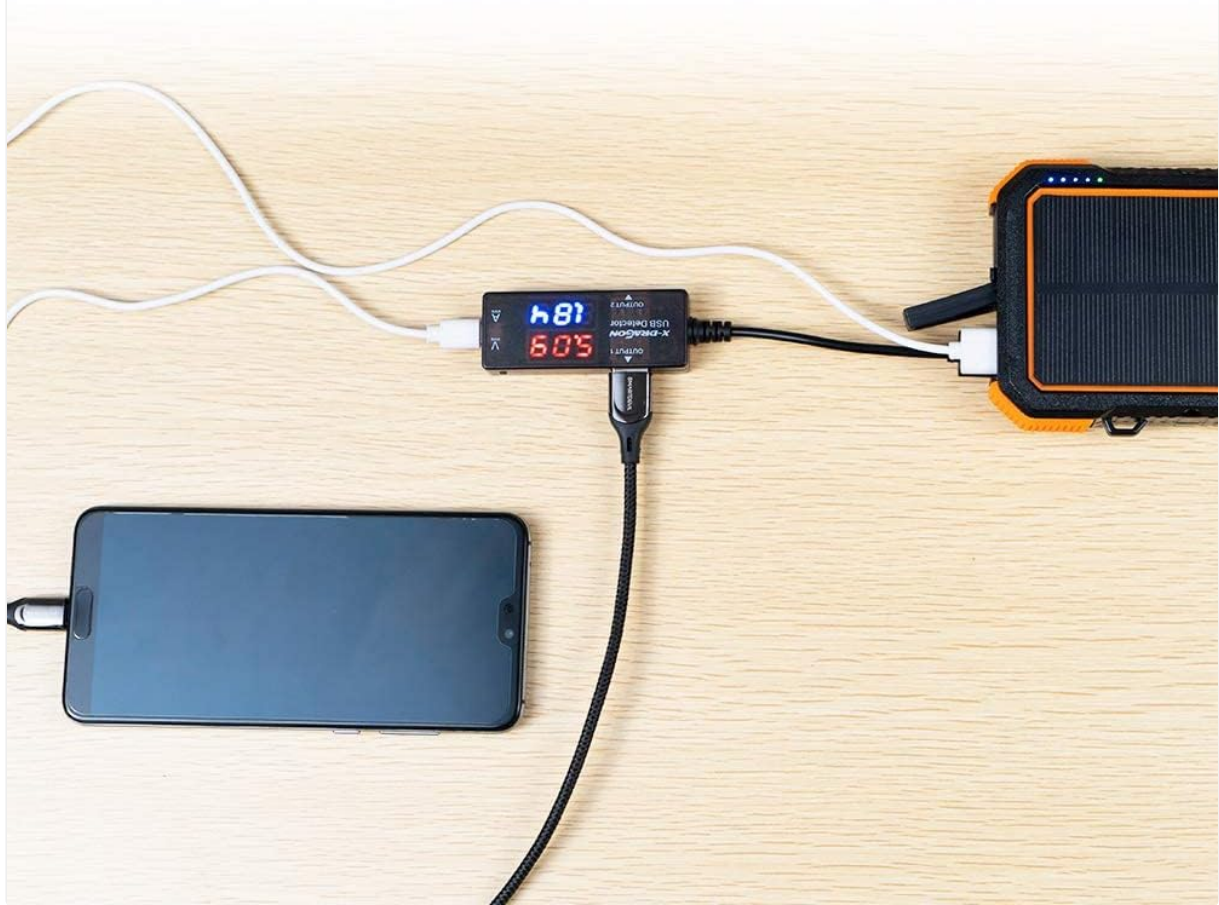
**Image:** The USB Multimeter connected to a power adapter, with two smartphones charging from its output ports. The display shows voltage and current readings.



**Image:** A smartphone connected to a wall charger via the X-DRAGON USB Multimeter, displaying real-time charging parameters.

# Dual Input Test Design

Dual input test design can stabilize voltage and charge more efficiently



**Image:** The multimeter connected to a solar charger and a smartphone, demonstrating its dual input capability for stable voltage.

## OPERATING INSTRUCTIONS

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The X-DRAGON USB Multimeter features a single button for navigating through its various display modes and for resetting the accumulated capacity.

### Display Modes

Upon connecting the multimeter, it will automatically power on and display readings. Short presses of the button will cycle through the following 7 display modes:

1. **Mode 1 (Standard):** Displays real-time Voltage (V) and Current (A). This is the default display when the device is first connected.
2. **Mode 2 (Capacity):** Displays the accumulated charge Capacity in Ampere-hours (Ah).
3. **Mode 3 (Power):** Displays the instantaneous Power in Watts (W). This value is calculated as Voltage  $\times$  Current.
4. **Mode 4:** Alternates the display between Voltage/Current (Mode 1) and Capacity (Mode 2).
5. **Mode 5:** Alternates the display between Voltage/Current (Mode 1) and Power (Mode 3).
6. **Mode 6:** Alternates the display between Capacity (Mode 2) and Power (Mode 3).
7. **Mode 7:** Alternates the display sequentially through Voltage/Current (Mode 1), Capacity (Mode 2), and Power (Mode 3).

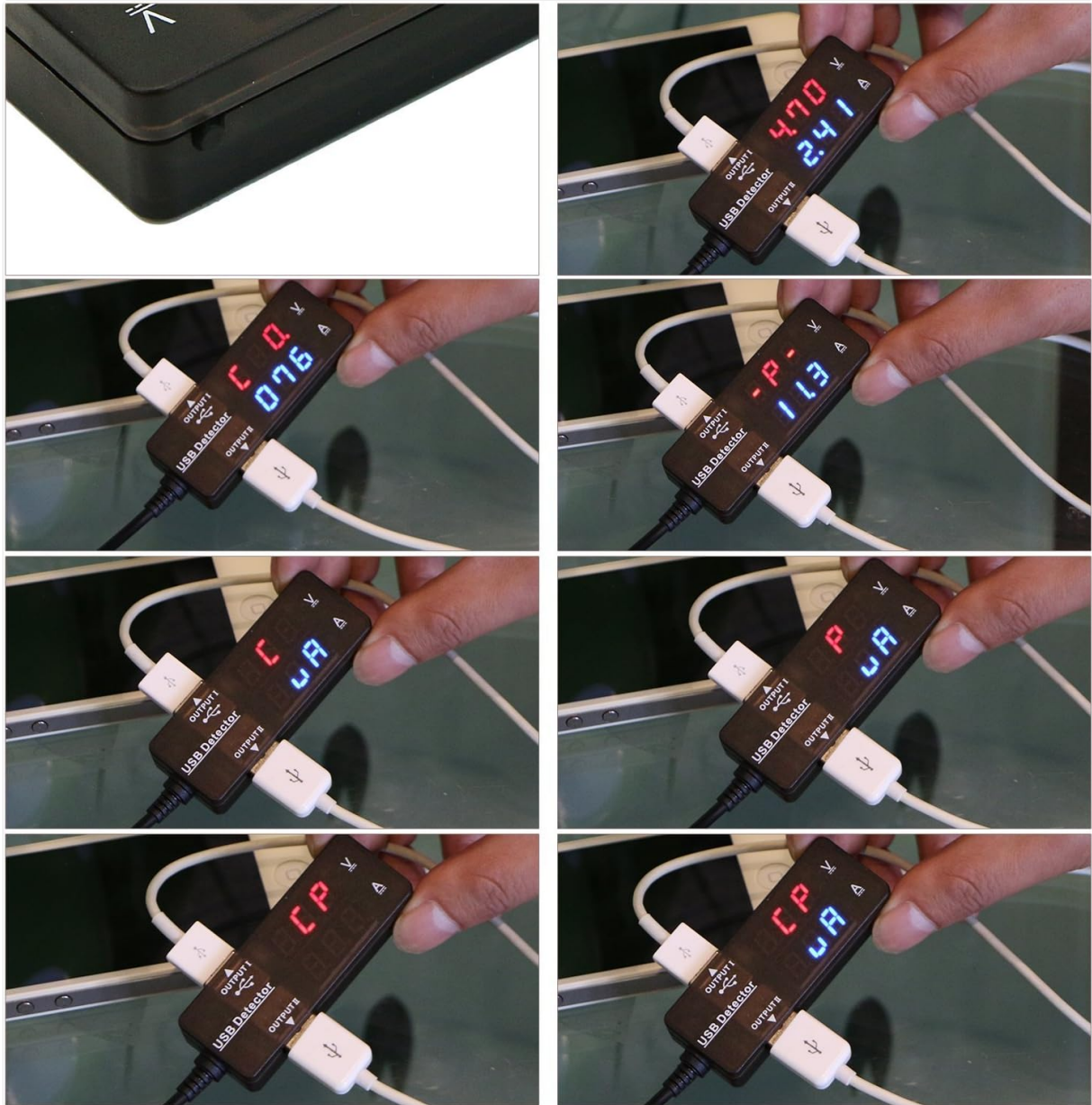


Image: A sequence of images illustrating how to press the button on the multimeter to cycle through its various measurement display modes.

## Clearing Accumulated Capacity

The multimeter stores the accumulated capacity even after being disconnected from a power source. To reset this value:

1. Ensure the multimeter is powered on and connected.
2. Press the button repeatedly until the display shows **Mode 2 (Capacity)**.
3. Once in Capacity Mode, press and hold the button for approximately 2 seconds. The accumulated capacity value will reset to zero.

## Important Measurement Note

The multimeter itself consumes a small amount of power (approximately 15mA) to operate. This internal consumption is not subtracted from the displayed current and capacity readings. For measurements involving very low currents (e.g., below 200mA), this internal consumption may introduce a noticeable difference in the displayed values compared to the actual current drawn by the connected device.

## SUPPORTED DEVICES AND APPLICATIONS

This USB multimeter is versatile and can be used with a wide range of electronic devices and power

sources that utilize USB for charging or power delivery.



**Image:** An illustrative diagram demonstrating the compatibility of the USB Multimeter with various electronic devices and charging accessories, including phones, tablets, computers, power banks, wall chargers, laptops, and car chargers.

Common applications include:

- Testing the output of USB wall chargers, car chargers, and power banks.
- Monitoring the charging speed and efficiency of smartphones, tablets, and other USB-powered gadgets.
- Evaluating the quality and performance of USB cables.
- Diagnosing charging issues with various electronic devices.

## SPECIFICATIONS

Parameter	Value
Brand	X-DRAGON

Parameter	Value
Model Number	BLX-XD-USB-7VAC
Input/Output Voltage Range	DC 3.2V - 15V
Input/Output Current Range	DC 0A - 3A (Max 10A peak, not continuous)
Working Current	< 20mA
Accuracy	1% (+/-2 digits)
Display Type	LED (Red/Blue)
Measurement Rate	≥ 500 mS/time
Product Dimensions	69 x 26 x 14 mm
USB Extension Cable (if included)	Approx. 120 mm

## CARE AND MAINTENANCE

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- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use liquid cleaners or solvents.
- **Storage:** Store the multimeter in a cool, dry place away from direct sunlight and extreme temperatures.
- **Handling:** Avoid dropping the device or subjecting it to strong impacts, as this may damage internal components or the display.
- **Moisture:** Keep the device away from water and high humidity to prevent electrical damage.

## TROUBLESHOOTING

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- **No Display:**
  - Ensure the multimeter is securely plugged into a functioning USB power source.
  - Verify that the power source is active and providing voltage.
- **Incorrect Readings:**
  - Check all connections to ensure they are firm.
  - Ensure the connected device is drawing power.
  - Remember the multimeter's internal power consumption (approx. 15mA) may affect very low current readings.
- **Device Not Charging:**
  - Bypass the multimeter and connect your device directly to the power source to confirm the power source and cable are working.
  - Try a different output port on the multimeter (Output 1 vs. Output 2).
- **Capacity Not Resetting:** Ensure you are in Mode 2 (Capacity display) before pressing and holding the button for 2 seconds to reset.

## WARRANTY AND SUPPORT

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For warranty information and technical support, please refer to the product packaging or contact X-

DRAGON customer service directly. Keep your purchase receipt as proof of purchase.

For further assistance, you may visit the official X-DRAGON website or contact their support channels as provided with your product.