

USB-BUG™

USB Tester & Data Masker

INTRODUCTION

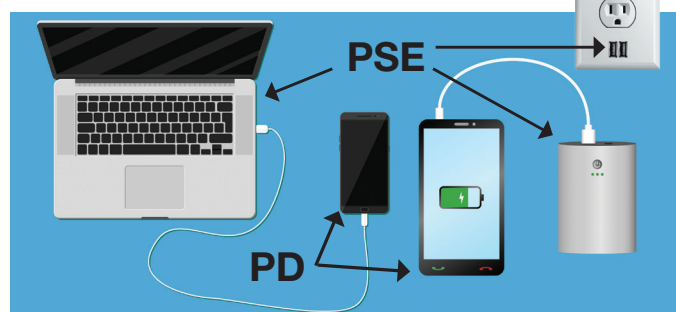
Thank you for purchasing the Triplett USB-BUG. It is a versatile tool designed to test and monitor the power, voltage, and current supplied by USB-A Power Sourcing Equipment (PSE), such as USB wall chargers, computer USB ports, and portable power banks. The device connects inline between the power source and the Powered Device (PD), allowing you to verify charging performance while the device is operating. In addition to testing USB power delivery, it can function as a splitter, enabling two Powered Devices to charge simultaneously from a single USB-A power source.

The USB-BUG features two output ports. One output port supports both power and data communication, allowing connected devices to charge and exchange data normally. The second output port blocks data communication while still providing power, helping protect connected devices from unauthorized data access when charging from public or unknown USB sources. Both output ports incorporate Intelligent Charging technology, which automatically delivers the maximum safe charging current supported by the connected device.

Examples of Power Sourcing Equipment (PSE) include USB wall chargers, USB ports on desktop or laptop computers, and portable battery packs. Examples of Powered Devices (PD) include smartphones, tablets, wireless headsets, computer mice, portable electronics, and other USB-powered devices that charge and/or communicate through a USB connection.

SPECIFICATIONS	
USB Plug	USB-A male plug
USB Port	USB-A ports (1 with data and power pass-through; the other only power pass-through)
Operating Voltage	3.2VDC to 30VDC
Over-Voltage Indicator	≥5.6VDC
Under-Voltage Indicator	≤4.4VDC
Current	0 to 3A
Over-Current Indicator	≥3A
Working Current	<20mA
Accuracy	1%
Measurement Rate	2 readings/second
Operating Temperature	14°F to 149°F (-10°C to 65°C)
Dimensions	2.7 × 1 × 4.72" (69mm × 26mm × 120mm)
USB Cable Length	~4.7" (120mm)

PSE & PD EXAMPLES



SAFETY

To ensure safe operation of this product, read the user manual carefully and follow all Cautions and Warnings provided. Retain this manual for future reference.

- Comply with all applicable local electrical safety and electromagnetic compatibility (EMC) regulations when using this product.
- Do not expose the product to rain, liquids, excessive moisture, or direct sunlight, as damage may occur.
- Do not use or store the product in dusty or high-particulate environments.
- Avoid dropping the product or subjecting it to physical shock or excessive vibration.
- Do not use in environments containing flammable gases or vapors.
- Do not attempt to disassemble the product. There are no user-serviceable parts inside. Disassembly may damage the product. Contact Triplett Customer Support if the unit does not operate properly.
- Do not use the product near equipment that generates strong electromagnetic fields.
- Do not handle or operate the product with wet hands.
- Do not use harsh detergents, abrasive cleaners, or solvents to clean the product. Remove dirt with a soft, dry cloth, or a soft cloth lightly dampened with water or a mild cleaning solution.

VOLTAGE & CURRENT CAPACITY TESTS

The USB-BUG is also able to test Capacity, and has warnings built in to indicate when it detects an over-voltage problem, under-voltage problem, or over-current problem.

PRODUCT DESCRIPTION



1		Unmasked Port - Provides Power and Data pass-through.
2		Masked Port - Provides Power but will not allow Data to pass through.
3	USB-A plug	This plugs into the USB-A port of the PSE.
4	A/W/mAh	Lower Display Readout - This will show Amps, Watts, or Milliamp hours, depending on which Mode you have chosen to display.
5	V/Ah	Upper Display Readout - This will show Voltage or Amp Hours, depending on which Display Mode you are in.
6	Selector Button	Press this button (on top of the Tester) to change the Display Mode. (See details on reverse.)

DISPLAY MODES

When the Tester is first connected to a PSE, it will automatically display MODE 1 (see the 7 display modes below). Press the Selector Button on top of the Tester to cycle through to the Display Mode you want to view. For those Modes that cycle through readings, the display will rotate every 4 seconds.

The digital display has two separate colors—the top row displays in red, while the bottom row displays in blue. The only reason for this is ease of distinguishing between the two functions; the colors themselves are not indicative of anything during testing.

MODE 1 Voltage Current	Voltage (V) Current (A)
MODE 2 Capacity (C) Amp hour (Ah) milliAmp hour (mAh)	Capacity (C) Ah mAh
MODE 3 Power (-P-) Watts (W)	-P- Watts
MODE 4: CVA Cycle Modes: Voltage (V), Current (A), then Capacity	Voltage / "C" Ah Current / Capacity mAh
MODE 5: PVA Cycle Modes: Voltage, Current, then Power	Voltage / "-P-" Current / Watts
MODE 6: CP Cycle Modes: Capacity then Power	"C" Ah / "-P-" mAh / Watts
MODE 7: CPVA Cycle Modes: Voltage, Current, then Capacity, then Power	Voltage / "C" Ah / "-P-" Current / mAh / Watts

OPERATIONS

The USB-Bug is designed to display the current, voltage, power, or capacity being output from the PSE's USB-A port.

Current Function

The USB-Bug will test current from 0 to 3A. If the current is over 3A, the decimal point will flash rapidly.

The USB-Bug uses <20 mA to power itself.

Voltage Function

The USB-BUG will test voltage from 3.2VDC to 30VDC. If the voltage is greater than or equal to 5.6VDC, the decimal point indicator on the voltage measurement will flash quickly. If the voltage is less than 4.4VDC, the decimal point indicator on the voltage measurement will flash slowly.

Power Function

The USB-Bug will test power from 0 to 99.9W.

Capacity Function

The USB-BUG will display the Amp hours (Ah) and milliAmp hours (mAh) that have passed through the Tester. This displays as a cumulative number, and is useful when determining how quickly/effectively a portable battery charger is working.

After the USB-BUG is disconnected from the PSE, the USB-BUG will automatically reset the Capacity reading to zero and start a new reading the next time you plug it into a PSE. You can also long-press the button to reset the Capacity reading to zero and start a new reading.

NOTE: The Capacity readout is split between the top row and the bottom row. The whole number appears on the top row of the display, hence the decimal point is on the right of the last digit, and the Ah unit is labeled on the housing. The bottom row shows the milliAmp hour reading with the mAh unit.

SMART FEATURES

The USB-BUG can be used for other things, including security while charging your tablet or phone, or faster charging.

Intelligent Charging

The USB-BUG has a built-in Smart Chip that allows it to determine the safest maximum current your PD can accept. This means the USB-BUG can charge your phone or tablet up to 50% faster than aftermarket/generic chargers.

NOTE: When plugged into a USB 2.0 port, the Current output from the PSE is likely only 0.5A (unless it is specifically designed to be higher). Thus, if you use the USB-BUG to charge two devices at the same time, the current will be split to the receiving devices, and you may see a "trickle" charge (i.e., 0.25A charging each device) that may not be optimal.

Data Masking

There are two USB ports on the USB-BUG. The top port, called the Unmasked Port, , allows data to transfer while charging. The bottom port, called the Masked Port, , blocks any data from being transferred. You can use the Masked Port to charge your phone or tablet securely without having to worry about anyone accessing your data.

WARRANTY

Triplett offers warranty to the original purchaser of its products. We guarantee that our products will be free from defects in workmanship and materials for one (1) year from the purchase date.

This warranty does not cover:

- Products purchased from unauthorized distributors.
- Items that have been repaired or altered by unauthorized individuals.
- Damage from misuse, abuse, misapplication, negligence, or accidents.
- Products with altered, defaced, or removed serial numbers.
- Accessories, including batteries.

For product support, registration, FAQs, or to request calibration or repair services, visit www.triplett.com/support.



Imagery is for reference and may be enhanced for clarity. Actual product appearance and screen content may vary slightly. Specifications are subject to change without notice. For the latest information, visit www.triplett.com.

Copyright © 2026 Triplett. All rights reserved.