

# Voltage Probe

## (Order Code VP-BTA)

The Voltage Probe is a simple, low-cost solution for voltage measurement in the  $\pm 10$  V range.

**Note:** Vernier products are designed for educational use. Our products are not designed nor are they recommended for any industrial, medical, or commercial process such as life support, patient diagnosis, control of a manufacturing process, or industrial testing of any kind.

### Compatible Software and Interfaces

See [www.vernier.com/manuals/vp-bta](http://www.vernier.com/manuals/vp-bta) for a list of interfaces and software compatible with the Voltage Probe.

### Getting Started

1. Connect the sensor to the interface (LabQuest Mini, LabQuest 2, etc.).
2. Start the appropriate data-collection software (Logger Pro, Logger Lite, LabQuest App) if not already running, and choose New from File menu.

The software will identify the sensor and load a default data-collection setup. You are now ready to collect data.

If you are collecting data using a Chromebook™, mobile device such as iPad® or Android™ tablet, or a Vernier wireless sensor or interface, please see the following link for up-to-date connection information:

[www.vernier.com/start/vp-bta](http://www.vernier.com/start/vp-bta)

### Using the Product

Connect the sensor following the steps in the Getting Started section of this user manual.

To measure a potential difference between two points in a circuit, connect the red and black clips to the two points. A positive reading means the red clip is at a higher potential than the black clip.

### Calibration

The Voltage Probe does not require calibration. Zeroing can be helpful in improving the accuracy of measurements. Zero the Voltage Probe before a measurement by connecting the two leads together and zeroing the reading in the software.

### How the Sensor Works

The Voltage Probe is a direct connection to the inputs of the particular interface. As a result, it is not a true differential voltage sensor and should not be expected to behave like a traditional voltmeter.

- The black lead is directly connected to the common ground point of the interface. In some circumstances, this means the black lead is grounded.

Because of this connection to the common ground point of the interface, it is easy to unintentionally ground part of your circuit without realizing it. Connect the black lead only to a point in your circuit that can safely be grounded.

- Because of the common black connection, when two or more voltage probes are used, the black leads must be connected to a common point in the circuit or unexpected short circuits will be introduced.
- The voltage probe may give unexpected non-zero readings when disconnected or open-circuited. This is normal and is due to the technical details of the particular interface used.

### Troubleshooting

If you are getting unexpected or unusual measurements from your Voltage Probe, first check that the red and black leads are properly and securely attached, according to the experimental setup. If you suspect that the readings are not correct, make sure you have zeroed the probe correctly. To do this, connect the red and black clips together. Zero the probe in the software. The reading should go to zero. If it does not, the wires may be damaged.

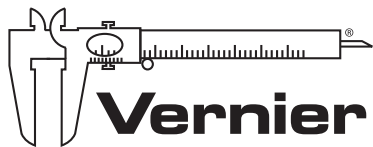
For additional troubleshooting tips and FAQs, see [www.vernier.com/til/1425](http://www.vernier.com/til/1425)

### Repair Information

If you have followed the troubleshooting steps and are still having trouble with your Voltage Probe, contact Vernier Technical Support at [support@vernier.com](mailto:support@vernier.com) or call 888-837-6437. Support specialists will work with you to determine if the unit needs to be sent in for repair. At that time, a Return Merchandise Authorization (RMA) number will be issued and instructions will be communicated on how to return the unit for repair.

### Warranty

Vernier warrants this product to be free from defects in materials and workmanship for a period of five years from the date of shipment to the customer. This warranty does not cover damage to the product caused by abuse or improper use. This warranty covers educational institutions only.



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