

INSTRUCTIONAL GUIDE

Contents

- Mini Digital Voltmeter
- Battery

Specifications:

- Size: 58 x 22 x 14 mm
- Range: ± 25.0 V (± 0.01 V / ± 0.1 V)
- Polarity indication: automatic on display
- Battery type: CR1220 (included in box)



Introduction

The Mini Digital Voltmeter is a versatile resource in the electricity exploration toolbox. Primarily designed for use in Arbor Scientific's **Investigating Electrical Circuits Kit (96-1500)**, it functions to give a reliable and accurate reading of electrical potential in real-world electrical circuits. Its easy-to-use nature lets students focus on what's important—learning about electricity!

Use

To get started, press the ON/OFF button before connecting the voltmeter or while there is no current flowing through the circuit. This allows for accurate zero-point calibration. Use the attached alligator leads (one red, one black) to integrate the voltmeter into an electrical circuit. The Mini Digital Voltmeter still allows current to pass through it when it is turned off.

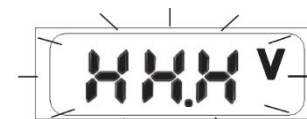


Figure 1

The maximum readable potential is ± 25.0 V. If the potential exceeds this amount, the display will flash without giving a reading as in Figure 1. When the battery needs to be replaced, the display will flash slowly without giving a reading as in Figure 2.



Figure 2

When the potential difference across the voltmeter exceeds 5.00 V, the display will automatically change its voltage resolution as in Figure 3.



Figure 3

Resources

Investigating Electrical Circuits Kit

Digital Bench Ammeter (P6-8060) and **Voltmeter (P6-8070)** Dedicated ammeter or voltmeter allowing students to focus on the concepts of electrical current and potential without the added complication a multi-meter brings.