

INSTRUCTIONAL GUIDE

Contents

- Dual Ammeter/Voltmeter
- **Range:**
Current: 0-100 μ A; 0-100mA; 0-1A; 0-5A
Voltage: 0-100mV; 0-1V; 0-10V; 0-50V
- Instructional Guide

Recommended for activities:

- [AC/DC Precision Variable Power Supply \(P4-3300\)](#)



Background

The Dual Ammeter/Voltmeter can be used to measure either current or voltage in a circuit. The auto-switching mechanism covers the unused terminals when the others are in use.

Instructions

1. Before use, make sure that the pointer points to zero. If not, use a screwdriver to turn the zero adjust knob.
2. To measure current:
 - a. Slide the mechanism to the right. Wire the meter in series, connecting the positive side to the highest range (5A) terminal on the left of the meter. Connect the negative side to the center terminal below the gauge. If the pointer goes below zero, reverse the wires.
 - b. Estimate the current on this large scale, and then move the positive lead to an appropriate terminal on the left. This will help avoid overloading the meter with high currents.
 - c. Read the meter, using the number label on the terminal as the maximum value on the gauge. For instance, if you are using the 100mA terminal, and the pointer points to 60, the current is 60mA.
3. To measure voltage:
 - a. Slide the mechanism to the left. Wire the meter in parallel, connecting the positive side to the highest range (50V) terminal on the right of the meter. Connect the negative side to the center terminal below the gauge.
 - b. If the pointer goes below zero, reverse the wires.
 - c. Estimate the voltage on this large scale, and then move the positive lead to an appropriate terminal on the right. This will help avoid overloading the meter with high currents.
 - d. Read the meter, using the number label on the terminal as the maximum value on the gauge. For instance, if you are using the 1V terminal, and the pointer points to 60, the current is 0.6V.

Related Products

Digital Bench Voltmeter (P6-8070) and **Digital Bench Ammeter (P6-8060)** Dedicated voltmeter and ammeter allow students to focus on the concepts of potential and current without the added complication a multi-meter brings. Features a 50-minute “auto-off” circuitry to conserve battery life, and an LED indicator notifying when a battery change is necessary.

Mini Digital Voltmeter (96-8085) and **Mini Digital Ammeter (96-8080)** These miniature meters are designed to clip right into your circuit. They come with alligator-clip leads, have a small size, and feature an elegant design that makes it easy to measure potential and current—especially for the novice.