

# Lab-Volt®

## POWER STATIONS

Models 74, 187-AP, and 189-A0



**Ideal for:**

- **Basic Electricity**
- **Electronics**
- **Physics**
- **Chemistry**
- **And more!**

# Lab-Volt®

# LAB-VOLT KNOWS...

## Basic Power Stations

### Models 187-AP and 189-A0

The Basic Power Stations, Model 187-AP and 189-A0, are ideal for use in classroom laboratories where science programs such as basic electricity, electronics, physics, and chemistry are taught. Both stations have the same functionality but have different enclosures. Each Basic Power Station has two variable-voltage AC outputs (high and low voltages), one fixed-voltage AC output, and one variable-voltage DC output (filtered). A control knob on the front panel sets the voltage of all

variable outputs. Two standard grounding-type, simplex receptacles and a pair of color-coded banana jacks provide access to the AC power outputs. A pair of color-coded banana jacks provides access to the DC power output. The Basic Power Station is powered from a standard AC power outlet and turned on by a rocker switch on the front panel. The switch lamp illuminates when the unit is powered on.

#### Model 187-AP – UL and CSA Compliant

#### Model 189-A0 – UL and CSA Compliant



#### Model 189-A0

The Basic Power Station, Model 189-A0, is recessed for semi-flush mounting in wood or metal rails using screws.

#### Model 187-AP

The Basic Power Station, Model 187-AP, is a handy portable unit that can be placed on any work surface in classroom laboratories.

#### Basic Power Stations...

... are made of 16-gauge steel and finished with scuff-resistant, powder coating. Each station is supplied complete with installation and operating instructions, one set of alligator-clip leads, and mounting hardware when required.

# ...POWER!

## Model 74 Power Station

The electrical characteristics and voltage ranges of the Model 74 Power Station make it ideal for student research projects and teacher demonstrations at all levels. Four AC outputs and two DC outputs are provided. All variable voltage circuits and components are protected by combination thermal magnetic circuit breakers, resettable at the front of the station. This power station plugs into any standard 120Vac

outlet and is turned on and off by a switch. Output connection for fixed and variable 120Vac is a standard grounding-type receptacle. Standard color-coded binding posts are used for low-voltage AC and DC outputs. Enclosure is 16-gauge steel, finished in scuff-resistant, baked enamel. Operating instructions, one set of alligator leads, and required mounting hardware are supplied upon installation.

Model 74



### Model 74

Permanent station Model 74 is recessed for semi-flush mounting in wood or metal apron rails with four Phillips head screws. This Power Station has two variable-voltage AC outputs (high and low voltages), one fixed-voltage AC output and one variable-voltage DC output (filtered). A control knob on the front panel sets the voltage of all variable outputs. Two standard grounding-type, simplex receptacles and a pair of color-coded banana jacks provide access to the AC power outputs. A pair of color-coded banana jacks provides access to the DC power output. The Model 74 Station is powered from a standard AC power outlet and turned on by a toggle switch on the front panel. A pilot light illuminates when the unit is powered on.

**See last page for product specifications.**

# Power Station Specifications

Models 187-AP and 189-A0 Basic Power Stations		
Input Power Requirements		120 V – 10 A – 60 Hz
Certification Compliance		CAN / CSAC22.2 No. 61010-1-04 / UL61010-1
Variable-Voltage DC Output	Voltage Maximum Current Ripple Overload Protection Isolation	0 to 12 V 2.0 A Less than 10% Thermal-magnetic circuit breaker, trip and reset type Floating - isolated from line and chassis grounds
Fixed-Voltage AC Output	Voltage Maximum Current Overload Protection	120 V 10 A Thermal-magnetic circuit breaker, trip and reset type
Variable High-Voltage AC Output	Voltage Maximum Current Overload Protection	0 to 120 V 1.0 A Thermal-magnetic circuit breaker, trip and reset type
Variable Low-Voltage AC Output	Voltage Maximum Current Overload Protection Isolation	0 to 12 V 2.0 A Thermal-magnetic circuit breaker, trip and reset type Floating - isolated from line and chassis ground
Model 187-AP Physical Characteristics	Dimensions (H x W x D) Net Weight	190 x 146 x 170 mm (7.5 x 5.75 x 6.7 in) 3.9 kg (8.6 lb)
Model 189-A0 Physical Characteristics	Dimensions (H x W x D) Dimensions (H x W) Cutout Net Weight Clearances	101 x 213 x 180 mm (4.0 x 8.4 x 7.1 in) 92 x 187 mm (3.6 x 7.4 in) 3.5 kg (7.7 lb) 2 inches from all sides of the enclosure

Model 74 provides the following outputs from a standard 120Vac input:	
<b>DC Variable 0-18 Volt Supply</b>	
Output Voltage	0 to 18 Vdc
Output Current	10 Adc (max.)
Ripple	Less than 10% RMS
Load Regulation	2 Volts no load – full load
Overload Protection	Thermal-magnetic circuit breaker, trip and reset type
Isolation	Floating - isolated from line and chassis grounds
<b>DC Variable 0-36 Volt Supply</b>	
Output Voltage	0-36 Vdc
Output Current	5.0 Adc (max.)
Ripple	Less than 3% RMS
Load Regulation	4.5 Volts no load – full load
Overload Protection	Thermal-magnetic circuit breaker, trip and reset type
Isolation	Floating - isolated from line and chassis grounds
<b>AC High-Voltage Supply</b>	
Output Voltage	120 Vac
Output Current	10.0 Aac (max.)
Overload Protection	Thermal-magnetic circuit breaker, trip and reset type
<b>AC Variable 0-120 Volt Supply</b>	
Output Voltage	0-120 Vac
Output Current	3.5 Aac (max.)
Overload Protection	Thermal-magnetic circuit breaker, trip and reset type
<b>AC Variable 0-45 Volt Supply</b>	
Output Voltage	0-45 Vac
Output Current	5.0 Aac (max.)
Overload Protection	Thermal-magnetic circuit breaker, trip and reset type
Isolation	Floating - isolated from line and chassis grounds
<b>AC Variable 0-22.5 Volt Supply</b>	
Output Voltage	0-22.5 Vac
Output Current	10.0 Aac (max.)
Overload Protection	Thermal-magnetic circuit breaker, trip and reset type
Isolation	Floating - isolated from line and chassis grounds
<b>Overall Dimensions</b>	
Face Plate	13-1/4 x 5-1/2 x 1 in (33.6 x 13.9 x 2.5 cm)
Cutout	12-1/8 x 5-1/8 in (30.8 x 13 cm)
Clearance	7 in (17.7cm) behind surface mounting, 1 in (2.5cm) above station

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