



## INTRODUCTION

The Model XP-581 is a solid-state DC power supply. It contains four fully regulated power supplies. Three fixed voltage supplies are +5VDC @ 3A, +12VDC @ 1A and -12VDC @ 1A. A variable voltage is capable of delivering 2.5 - 20V at up to 2A.

All four supplies are precisely held to the desired output voltage by special regulating circuits. The +5V and the variable supplies are protected from overload by a current foldback circuit. The +12V and -12V supplies are protected by special thermal cutoff circuits. These circuit are designed to protect the power supplies against shorts or excessive current demand. The XP-581 is ideal for use in school labs, service shops or anywhere a precise DC voltage is required.

## SAFETY PRECAUTIONS

Certain safety precautions must be observed when this power supply is used with external circuits that are connected to AC power lines. There is always some danger when working with electrical equipment or circuits that operated at hazardous voltages. You should thoroughly familiarize yourself with the equipment before working on it. High voltage may appear at unexpected points in defective equipment.

The XP-581 is equipped with a three wire line cord which grounds the chassis to power line ground. **DO NOT CUT OFF OR DISABLE THE GROUND PLUG.**

The power supply secondary circuits are isolated from the 120V primary circuit via the power transformer. When working with other equipment, this may not always be the case. Always be familiar with the equipment rating. Keep in mind that defective equipment can have dangerous voltage at unexpected places.

**CAUTION:** When replacing the fuse, always disconnect the power cord from the AC socket. Service repair should be done only by qualified personnel who are knowledgeable of electrical hazard.

## SPECIFICATIONS

**INPUT**            Input Voltage            120VAC 60Hz  
                         Current Protection        2A Fuse

### OUTPUT

| Output Voltage     | Fixed +5V | Fixed +12V | Fixed 12V | Variable 2.5 - 20V                |
|--------------------|-----------|------------|-----------|-----------------------------------|
| Output Current     | 3A        | 1A         | 1A        | 1A @ 20V<br>2A @ 15V<br>1.5A @ 5V |
| Load Regulation    | .1V       | .1V        | .1V       | .1V                               |
| Line Regulation    | .1V       | .1V        | .1V       | .1V                               |
| Ripple rms         | .01V      | .01V       | .01V      | .01V                              |
| Current Protection | Foldback  | Thermal    | Thermal   | Foldback                          |

## OPERATING INSTRUCTIONS

Connect the power supply as follows:

1. Check the voltage rating of the equipment to be powered. Care must be taken not to exceed this rating.
2. Plug the line cord into a 120V 60Hz outlet.
3. With the power supply turned off, connect the load to the desired voltage output. The two common (black) terminals are tied together inside the supply. All four XP-581 supplies therefore share a common ground and may be stacked. You can use the -12V and the +12V terminals to get 24VDC @ 1A or use the -12 and variable output terminals to get 14.5 to 32VDC @ 1A output.
4. Turn the power supply on and adjust the variable supply voltage if necessary. The knob on the front panel controls both of these functions. The variable supply output voltage and current may be read with the voltmeter and ampmeter on the front panel.

## WARRANTY POLICY

Your power supply has been tested and conforms to our rigid requirements on performance and durability. It is guaranteed to be free of original factory defects for a period of two years from the date of purchase. For the first three months, you get full coverage at absolutely no charge. For the remaining 21 months, a nominal service charge is required to cover mailing and handling.