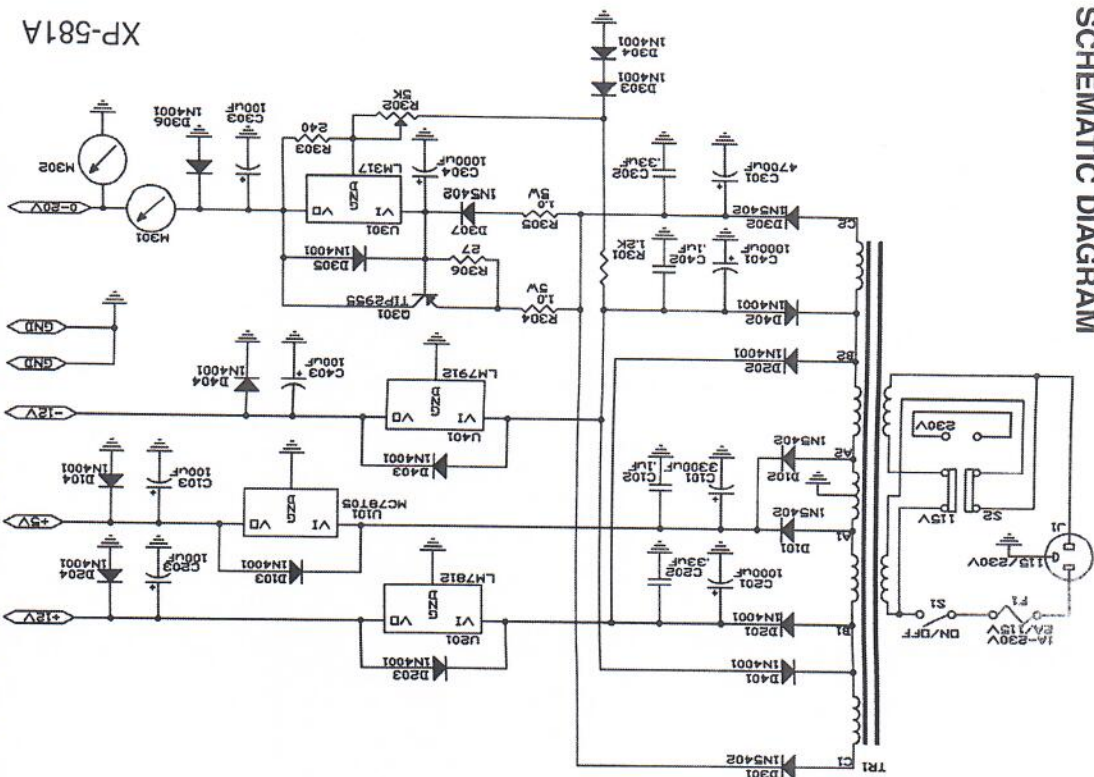


SCHEMATIC DIAGRAM



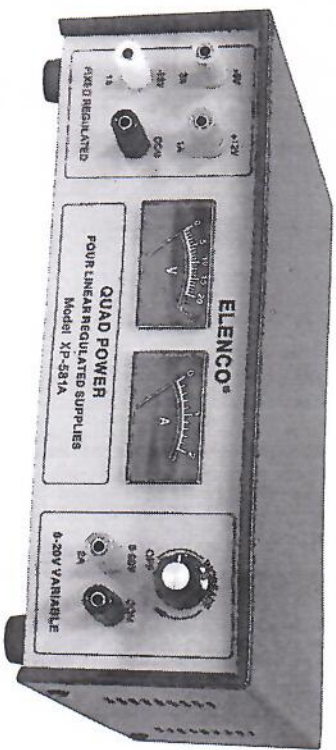
WARRANTY POLICY

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.

**Four Linear
Regulated Supplies**

**Instruction
Manual**

Model XP-581A



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REV-C

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INTRODUCTION

The Model XP-581A is a solid-state DC power supply. It contains four fully regulated power supplies. Three fixed voltage supplies are +5VDC @ 3A, +12VDC @ 1A, -12VDC @ 1A. A variable voltage power supply is capable of delivering 0-20VDC at up to 2A.

All four supplies are precisely held to the desired output voltage by special regulating circuits with thermal shutdown, current limiting and short circuit protected.

The XP-581A is ideal for use in school, laboratories, service shops or anywhere a precise DC voltage is required.

FEATURES

- Two analog meters for voltage and current (variable output)
- Operation -12V and +12V power supplies in series to get 24VDC @ 1A output
- Operation -12V and variable power supplies in series to get 12-32VDC @ 1A output
- Operation with bulb load (12V up to 25W)
- Selectable AC input voltage, 115 or 230VAC

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 operate 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-581A 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 115/230V 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 voltages at unexpected places.

CAUTION: Service repair should be performed only by qualified personnel who are knowledgeable of electrical hazards. The unit must be unplugged before servicing. Never place any objects on the power supply. Do not obstruct the ventilation holes. Avoid contacting the heat sink of the power supply as it can become very hot. Contacting the heat sink when it is hot could result in skin burns or damage to the equipment in contact with them. Never move or pull the power supply with power cord or output lead.
The XP-581A is designed for INDOOR USE ONLY.

SPECIFICATIONS

Number of Outputs

Four (one variable and three fixed)

Range

0-20VDC 2A 5V \pm 0.25V @ 3A
12V \pm 0.6V @ 1A -12V \pm 0.6V @ 1A

Load Regulation

Less than 100mV for each output

SPECIFICATIONS (continued)

Line Regulation

Less than 100mV for each output

Ripple

Less than 10mV rms for each output

Input Voltage

115/230VAC \pm 10% 50/60Hz

Protection

Thermal, current limit, short circuit for each output; fuse for primary AC voltage.

Operating Environment

32°F to 104°F (0°C to 40°C) 90% R.H.

Dimensions (W x H x D)

10.2" (25.9cm) x 3.7" (9.4cm) x 10" (25.4cm)

Weight

8.11 lbs. (3.7kg.)

OPERATING INSTRUCTIONS

Precaution

Before connecting the power cord to an AC outlet, check that the AC input voltage switch is in the correct position.

CAUTION: The unit may not operate properly or may be damaged if it is connected to the wrong AC voltage line. If the input voltage is changed, the fuse must also change. (Fuse 2A 250V for 115VAC, 1A 250V for 230VAC)

Connect the power supply as follows:

1. Check the voltage rating of the equipment to the powered. Care must be taken not to exceed this rating.
2. Disconnect any load and turn OFF power switch.
3. Plug the line cord into an AC outlet.
4. Connect the load to the desired voltage output. The two common (black) terminals are tied together inside the power supply. All four outputs therefore share a common ground and may be stacked. You can use the -12V and +12V terminals to get 24VDC @ 1A or use the -12V and variable output terminals to get 12 to 32VDC @ 1A.
5. Turn the power supply ON and adjust the variable voltage if necessary. The knob on the front panel controls both of these functions. The variable output voltage and current may be read with the voltmeter and ammeter on the front panel.

FUSE REPLACEMENT

The power supply will not work if its fuse is blown or not installed. Check and repair any existing problems before installing new fuse. Only use fuses with same specification as original the one.

Warning - To prevent fire use only 250V or greater with the specified current.

1. Disconnect the AC power before replacing the fuse.
 2. Insert a small screwdriver into fuse holder slot and pry fuse holder from receptacle.
 3. Replace the blown fuse and insert holder into receptacle. Be sure that the fuse is installed so that the correct line voltage is selected.
- Elenco® fuse part numbers:
- | | |
|-------------------------------------|---------------|
| AC Power 115V 2A fuse 250V (5x20mm) | Part # 533020 |
| AC Power 230V 1A fuse 250V (5x20mm) | Part # 533010 |
4. Plug line cord back into the AC output and test unit.