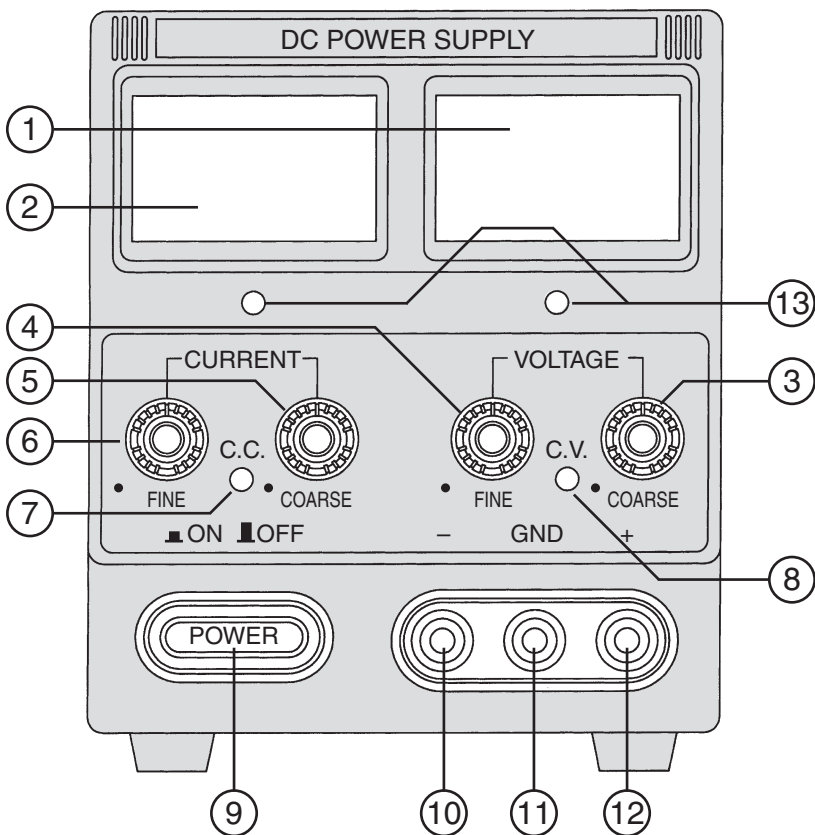


Variable Regulated Voltage Power Supply

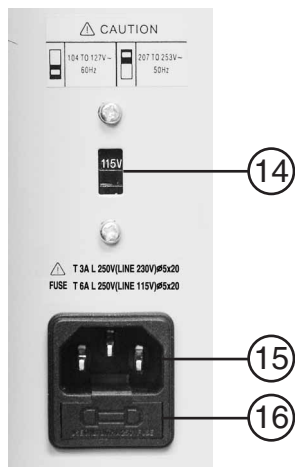
Instruction Manual



Model XP-605 / XP-752A



1. Voltage Meter
2. Ammeter
3. Coarse Voltage Adjustment
4. Fine Voltage Adjustment
5. Coarse Current Adjustment
6. Fine Current Adjustment
7. Constant Current Mode Indicator LED
8. Constant Voltage Mode Indicator LED
9. Power Switch
10. Negative Output Terminal
11. Ground Terminal
12. Positive Output Terminal
13. Zero Adjust (XP-605 only)
14. AC Input Voltage Switch
15. AC Input
16. Fuse Holder



INTRODUCTION

Congratulations on your selection of a top quality power supply! The XP-605 has an output of 0-30VDC @ 5A; the XP-752A has an output of 0-50VDC @ 3A. Their features include fine and coarse controls for voltage and current, and contains two analog volt/amp meters (XP-605); two digital volt/amp meters (XP-752A).

The supply incorporates an externally controlled current cutoff circuit with an LED indicating current overload. Protected against short circuits and overloads.

FEATURES

Displays for voltage & current

(analog - XP-605, LCD - XP-752A)

Independent voltage and current controls

Constant voltage (CV) or constant current (CC) operation

LED indication for CV and CC for variable outputs

Overload and short protected.

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 using it. High voltage may appear at unexpected points in defective equipment.

The unit 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 in unexpected places.

OPERATING INSTRUCTIONS

1. Set the AC input voltage switch on the back to the correct setting and the correct fuse (6A - 115V, 3A - 230V) installed.
2. Set the power switch to the off position.
3. Plug the power cord into the power socket on the back of the unit.
4. Plug the power cord into an AC output. Note: Make sure enough space is left for heat dissipation.
5. Check that the voltage rating of the equipment does not exceed the power supply's rating.

Constant Voltage Mode

1. Turn the current control (coarse and fine) knobs fully clockwise and the voltage control knobs fully counter-clockwise.
2. Press the power ON/OFF switch to ON. The CV LED should be lit.
3. Turn the voltage control knobs clockwise to the desired output voltage.
4. Connect the positive and the negative output terminals to a load or similar component.

Constant Current Mode

1. Turn the voltage control knobs (coarse and fine) fully clockwise and the current control knobs (coarse and fine) fully counter-clockwise.
2. Press the power ON/OFF switch to ON. The CC LED should be lit.
3. Connect the positive and the negative output terminals to a load or similar component.
4. Turn the current control knobs clockwise to the desired output current value.

Note XP-752A: Current limiting less than 1/2A or a shorted output activates the short circuit protection, turning the unit off. To reset unit, remove the short or load and readjust current limiting control.

Setting Current Limit Protection Mode

1. Adjust the current and voltage control knobs to the desired output voltage.
2. Short the positive to the negative output terminal.
3. Press the power ON/OFF switch to ON. The CC LED should be lit.
4. Turn the voltage coarse knob clockwise 1/4 turn.
5. Set the maximum output current by turning the current coarse knob clockwise.

This now limits the output current to your setting.

CAUTION:

- In the event of a short circuit at the output, the current will limit at the value set by the current controls. However, the unit should be turned OFF and the short circuit removed before continuing use.
- The unit must be unplugged before servicing. Servicing should be performed by a qualified repairperson with knowledge in electrical hazards.
- The unit should be stored in a dry and well-ventilated place and the power cord removed if storing for a long period of time.
- 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 using the power cord or output lead.
- The unit is designed for INDOOR USE ONLY.

SPECIFICATIONS

Model	Output Current	Line Regulation		Load Regulation		Ripple & Noise	
		CV	CC	CV	CC	CV	CC
XP-752A 0-50V	3A	≤ 0.01% +1mV	≤ 0.2% +1mA	≤ 0.01% +3mV	≤ 0.2% +3mA	≤ 0.5mV rms	≤ 3mA rms
XP-605 0-30V	5A	≤ 0.01% +1mV	≤ 0.2% +1mA	≤ 0.01% +3mV ≤ 3A	≤ 0.2% +3mA ≤ 3A	≤ 0.5mV rms ≤ 3A	≤ 3mA rms ≤ 3A
				≤ 0.01% +5mV > 3A	≤ 0.2% +5mA > 3A	≤ 1.0mV rms > 3A	≤ 6mA rms > 3A

Input Voltage 104 – 127VAC (60Hz)
 207 – 253VAC (50Hz)

Protection Current limit and
 short circuit protection

Voltage Display Accuracy LCD ±1% +2 digits,
 Analog ±2.5% FSR

Current Display Accuracy LCD ±2% +2 digits,
 Analog ±2.5% FSR

Environment: 32°F - 104°F (0°F - +40°C),
 relative humidity <90%

Dimensions (H x W x L) 6¼" x 5¼" x 11½"
 (15.9 cm x 13.3 cm x 29.2 cm)

Weight 10.1 lbs. / 4.58 kg. (XP-605)
 9.85 lbs. / 4.47kg. (XP-752A)

MAINTENANCE

Cleaning – Using a soft moistened cloth, remove any dirt on the outside of the case. The power supply should be used in a normal working environment.

Servicing – If the unit becomes inoperative or damage, Elenco® Electronics or a qualified repairperson should only perform the repair and calibration.

Fuse Replacement

The power supply will not work if the 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 (located between fuse holder and receptacle) 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 230V	3A fuse 250V (5 x 20mm)	Part #: 530300
AC Power 115V	6A fuse 250V (5 x 20mm)	Part #: 531030

4. Plug line cord back into the AC output and test unit.

TWO YEAR WARRANTY

All Elenco® models are guaranteed for two full years on all parts and service. For the first 3 months, your power supply is covered at absolutely no charge. For the remaining 21 months, a nominal service charge is required to cover shipping and handling.

When returning merchandise for repair, please include proof of purchase, a brief letter of explanation of problem, and sufficient packing material. Before returning any merchandise please call our service department at (847) 541-3800 to obtain a return authorization number (RMA).

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