

OPERATING INSTRUCTIONS

Cenco Electronic Module System Low-Voltage Power Supply No. 32390

1. Introduction

This power supply can be used in experiments in which low voltages and high currents are required — for example, investigating standing waves in wires or performing the electrolysis of copper.

2. Description

The 32390 Low-Voltage Power Supply is an all-solid-state design that generates voltages up to 10 volts at low loads and currents up to 5 amps at voltages of 6 volts. The power supply circuitry is protected from over current by a thermal overload that opens at excessive load conditions, and which can be reset with a push button located on the top of the supply.

3. Setup

Plug the power supply into a 110-120VAC source. Make sure the on/off switch is in the “off” position and that the voltage adjust knob is fully counterclockwise to the “zero volts” position. Connect the power supply to the circuit you wish to power using the red and white binding posts on the power supply for ungrounded operation or the red and black binding posts for grounded operation. Turn the power supply on by switching the on/off switch to “on”, and adjust the voltage with the voltage control knob.

Note: If the thermal overload trips during power supply operation, turn the power supply off and check the circuit being energized for fault. The thermal overload will trip if a load exceeds 5 amps for an extended time. Allow the power supply to cool for a few minutes and reset the thermal overload by pressing the reset button on top of the power supply.

The “floating” voltage output between the red and white jacks on the power supply allows the user to connect two low-voltage power supplies together in series in order to generate 0-12 volts at currents up to 5 amps. To do this, connect the red jack on one supply to the white jack of the other supply. The potential between the free red jack and the free white jack on the two supplies can then be adjusted with the two voltage control knobs to give up to 20 volts at small loads or 12 volts at 5 amps.

4. Operation

For descriptions of experiments using the 32390 Low-Voltage Power Supply, refer to the 30195-02 Student Lab Manual for the Cenco Electronic Module System.

5. Maintenance

The Low-Voltage Power Supply needs no special maintenance. If you should experience any difficulty with a low-voltage power supply, please contact Central Scientific Company, giving details of the problem. To ensure better service, please do not return any apparatus to Central Scientific Company until we have sent you authorization.

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