

**POWER SUPPLY**

**SINGLE-OUTPUT**

**(16V/10A)**

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**Operation**

**Manual**

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## 1. INTRODUCTION

This unit is a bench top single output D.C. power supply with output D.C. voltage from 0 - 16VDC continuously variable and current from 0 - 10A continuously variable.

This unit is designed in the following feature

- a) Continuously variable over automotive DC voltage range (0 - 16VDC)
- b) Continuously variable current over the 10 A load range
- c) Operates in constant-voltage and constant current modes
- d) Analog meters provided for voltage and current monitoring
- e) 2A AND 10A switch range limits current to either range avoiding meter and circuit damage
- f) Ideal as bench source for servicing high-performance car audio equipment, Land Mobile Radio, CB's, radar detectors, etc.

## 2. SPECIFICATION

### CONSTANT VOLTAGE MODE

Output Voltage: 0V - 16V, continuously variable

Load Regulation:  $\pm(0.04\% + 2\text{mV})$

Line Regulation:  $\pm(0.2\% + 2\text{mV})$ , 100 -130VAC

Noise and Ripple:  $1\text{mVrms}(8\text{mVp-p})$

### CONSTANT CURRENT MODE

Current Limit: 10A Range: 0 - 10A adjustable, 2A Range: 0-2A adjustable

Load Regulation:  $\pm(0.4\% + 2\text{mA})$

Line REgulation:  $\pm(0.4\% + 5\text{mA})$

Noise and Ripple: 1mArms (8mA<sub>p-p</sub>)

#### METERING

Voltmeter: Range: Expanded, 18V

Accuracy:  $\pm 2.5\%$  of Full Scale

Ammeter (2 ranges, switch-selectable) 2A Range: 0 to 2.4A,

10A Range: 0 to 12A

Accuracy: 2A RANGE:  $\pm 2.5\%$  of Full Scale, 10A Range:  $\pm 3\%$  of Full Scale

Protection: Electronic protection for short circuit and overload Fused  
primary protection

Temperature RANGE: Operation 0° to 40°C STORAGE -15° to +70°C

Power REquirements: 105 - 130/210 - 250VAC 50/60Hz

### 3. FRONT PANEL DESCRIPTION

The following is the explanation of the function of each of the front panel controls and connectors.

- 1) POWER ON-This is the main power switch
- 2) POWER ON LED-This LED indicates that the power is on.
- 3) VOLTAGE/CURRENT METERS-This is one meter indicate the output voltage and current as measured at the output terminals.
- 4) COARSE/FINE VOLTAGE ADJUST-These two controls adjsut the output voltage of the supply.

- 5) CURRENT ADJUST-This control adjusts the maximum output current that the supply will put out.
- 6) OUTPUT TERMINALS-There are three terminals. They represent positive, negative and ground.
- 7) HI/LO SWITCH: Put on "HI" position means that the needle indicates the upside high scale of AMPERES meter and on "LO" position means to indicate the low scale of meter.
- 8) CURRENT LIMITING LAMP: When the load of this unit is over the current limiting ampere, this lamp will be light on. It means that this unit is overload current limit and the output D.C voltage will be down until output voltage is cut until to OVDC. And no output voltage.
- 9) OUTPUT VOLTAGE LAMP: When the output voltage of this unit is in the normal working, the lamp will be light on. But, when the unit is overload or short circuit, its lamp will be light off.

#### 4. OPERATING INSTRUCTIONS

WARNING-Before applying power supply, make sure that the AC input voltage setting is correctly set for your available power.

- 1) Connect the instrument to an AC power source using the line cord provided and turn the POWER ON switch on. For maximum stability, allow the instrument to warm up for at least 20 minutes.
- 2) Set the voltage and current adjustment knobs as you desire.

## 5. OPERATING CAUTIONS

Please follow the following cautions when using your power supply to prevent damage to the unit.

- 1) Verify that the AC voltage setting is the same as your available power BEFORE you apply power the instrument.
- 2) Do not connect a voltage that is greater than the current output voltage to the terminals of the instrument.
- 3) Do not parallel the output of two or more.

