

**DIGITAL
DC POWER SUPPLY**

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A) INTRODUCTION

This unit is bench laboratory DC power supply which incorporate 4 pieces of $3\frac{1}{2}$ digital display for two monitoring voltage meters and two monitoring current meters.

This unit is triple output supplies involving two 0 - 30VDC, 0 - 3A output and one fixed 5V/3A output. The two main supplies can be used in series mode.

The unit are ideal DC power supply for use in school, service, testing department and engineering laboratory, even in some battery charging applications.

B) SPECIFICATION :

Output Voltage: 0 - $\pm 30V$ with fine adjuster

Output Current: 0 - 3A aduster

Load REgulation: 0.02% + 3mV

Line REgulation: 0.02% + 3mV

Noise and Ripple: 0.5mVrms

Protection: over load and short circuit protector.

Indication: $3\frac{1}{2}$ digit led volt meter X 2

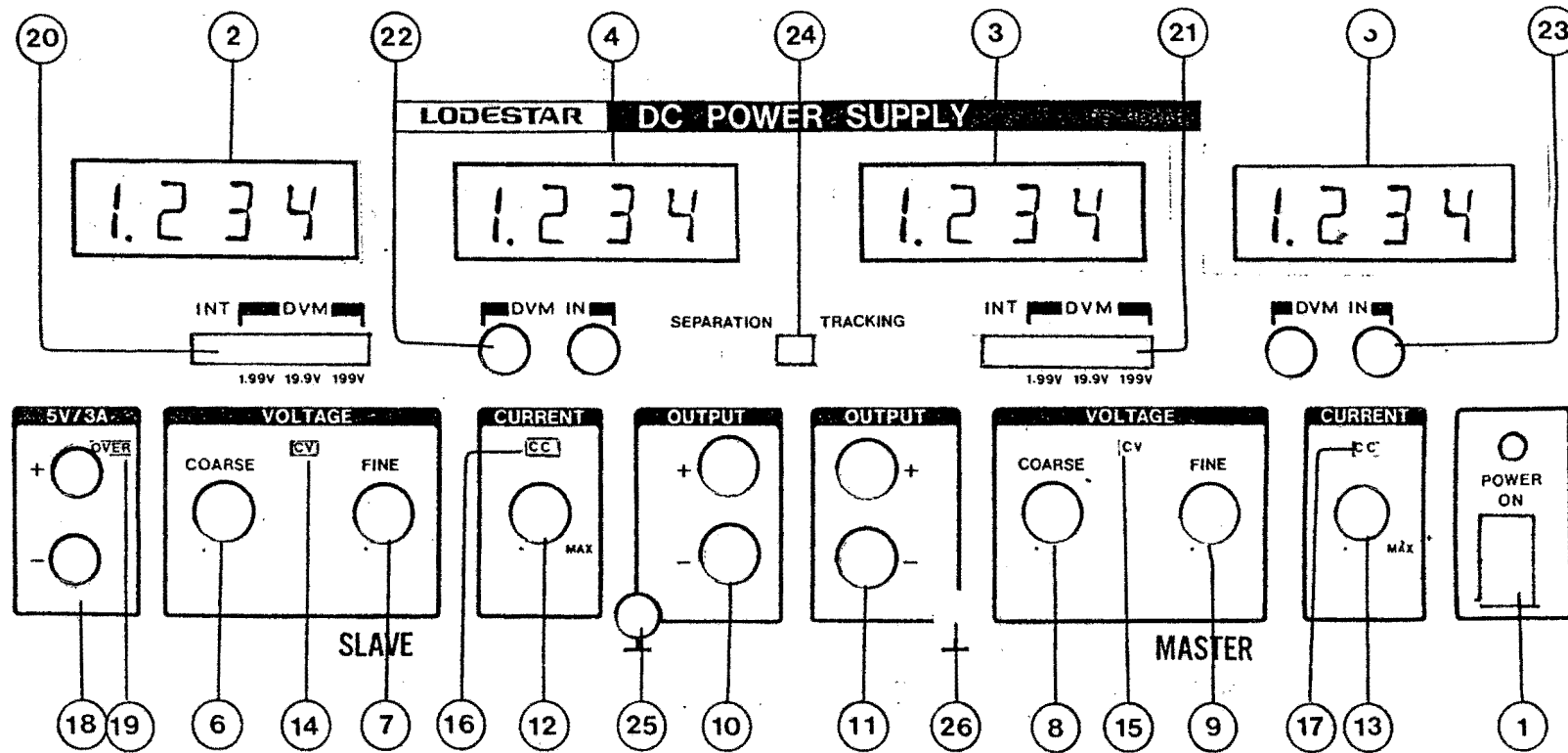
$3\frac{1}{2}$ digit led amp meter X 2

Accuracy: $\pm 0.5\%$ + 2digit

Power Requirement: AC 115/230V, 50/60Hz

Dimension & Weight: 360(W) X 155(H) X 260(D)

C) FRONT PANEL DESCRIPTION



The following lists are a mention of the function of each controls and connectors.

The user can refer to figure for the location

- ① Power On Switch: This is the main power switch.
- ② ③ Voltage Monitor: This monitor displays the internal output voltage or measure the external voltage of the DVM.
- ④ ⑤ Current Monitor: This monitor displays the current.
- ⑥ ⑦ ⑧ ⑨ Voltage Adjustment: The COARSE and FINE adjust for output voltage.
- ⑩ ⑪ Output Voltage Terminal: These two output terminals can be used for SEPARATION and TRACKING mode.
Also, this unit can be used for series, when only the MASTER OUTPUT (-) connect to the SLAVE OUTPUT (+).
- ⑫ ⑬ Current Adjustment: This control sets the output current.
- ⑭ ⑮ CV Lamp: When the unit is in normal working, the lamp will be "ON". But, when the unit is over load or short, the lamp will be light off.
- ⑯ ⑰ CC Lamp: When the unit is in overload or short, the light will be "ON". It means that the unit is oveload and the

output D.C. voltage will be down until output voltage is cut to 0VDC.

- ⑱ Fixed 5V/3A Output Terminal
- ⑲ "OVER" Lamp: When the fixed 5V/5A output is overload, the "OVER" lamp will be "ON".
- ⑳ ㉑ INT/DVM Push Switch: When push down "INT" switch the digital display 2 3 is measuring the internal D.C. voltage.
When push down "1.99V" switch, the 2 3 is measuring external D.C. voltage up to "1.999V". The same function as "19.9V" switch, up to 19.99 D.C. and "199V" switch up to 199.9VDC.
- ㉒ ㉓ DVM In: Input terminal for external D.C. voltage measurement up to 199.9VDC.
- ㉔ SEPARATION/TRACKING Switch: When the switch is push down, the unit is used for "TRACKING".
When the switch is push up, the unit is used for "SEPARATION".
- ㉕ ㉖ Ground Terminal

D) OPERATION INSTRUCTION

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.

E) OPERATION 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.

F) CIRCUIT DIAGRAM

