

CIRCUIT-TEST

Single Output Digital Display Power Supplies

0-30 VDC @ 3A

PS-3030D (3A)

0-30 VDC @ 5A

PS-5030D (5A)

OPERATION MANUAL

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Introduction

This unit is a bench top single-output power supply. The power supply has two meters; one to monitor the output voltage and one to monitor the output current.

The power supply will find wide application in schools, laboratories, and commercial engineering and testing departments, as well as with the advanced hobbyist.

Operating Instructions

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

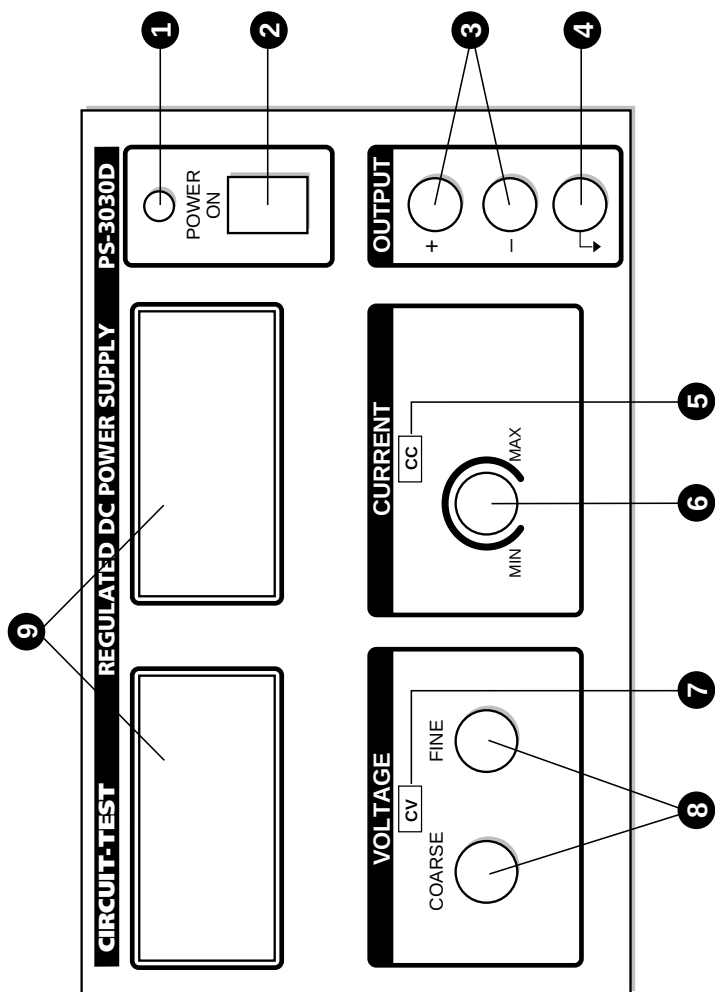
Operating Cautions

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

- (1) Do not connect to equipment until all settings are complete.
- (2) Verify that the AC voltage setting is the same as your available power BEFORE you apply power for the instrument.
- (3) Do not connect a voltage that is greater than the output voltage to the terminals of the instrument.

Specifications

Output Voltage:	0 – 30 VDC
Output Current:	0 – 3 Amps (PS-3030D) 0 – 5 Amps (PS-5030D)
Current Limiting:	0–3 Amps continuously variable (PS-3030D) 0–5 Amps continuously variable (PS-5030D)
Load Regulation:	$\pm (0.25\% + 3\text{mV})$ (1% to 100% of rated load)
Line Regulation:	$\pm (0.025\% + 2\text{mV})$ ($\pm 10\%$ input variation)
Ripple and Noise:	Less than 5mV peak to peak; 0.5mV rms typical (to 10KHz)
Output Impedance:	Less than 0.2Ω typical (to 10KHz)
Meter Ranges:	Voltage... 0 – 30V Current... 0 – 3A (PS-3030D) Current... 0 – 5A (PS-5030D)
Meter Accuracy:	2.5% of full scale
Protection Features:	Protected against: Short circuits
Fuse:	Replace only with 3 Amp fast blow fuse, AGC3 (PS-3030D) Replace only with 5 Amp fast blow fuse, AGC5 (PS-5030D)
Power Requirements:	120 VAC $\pm 10\%$; 60Hz 180 Watts (PS-3030D) 250 Watts (PS-5030D)
Dimensions:	215 (W) x 155 (H) x 267 (D) mm 8.5 (W) x 6.25 (H) x 10.5 (D) inches
Weight:	5.5kg / 12lbs (PS-3030D) 7kg / 15.5lbs (PS-5030D)



Front Panel Description

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

- (1) POWER ON LED - This LED indicates that the power is on.
- (2) POWER ON - This is the main power switch.
- (3) OUTPUT TERMINALS
- (4) GROUND TERMINAL
- (5) CC LAMP - Indicates that current is being limited.
- (6) CURRENT ADJUST - This control adjusts the maximum current that the supply will output.
- (7) CV LAMP - Indicates that voltage is being limited.
- (8) COARSE/FINE VOLTAGE ADJUST - These two controls adjust the output voltage of the supply.
- (9) VOLTAGE/CURRENT METERS - These two meters indicate the output voltage and current as measured at the output terminals.

Warranty

Circuit-Test Power Supplies are warranted to be free of defect in workmanship and materials for a period of two years. Should this product require any repairs within this time, return the unit freight prepaid to Circuit-Test Electronics or to a Circuit-Test distributor.

**** IMPORTANT ****

When shipping the unit, always pack the power supply in its original carton and packing materials. Then place into another carton for added protection. If the original carton and materials are not available, pack the unit in a strong carton with at least three inches of resilient packing material on all sides.

DOUBLE BOXING THE UNIT IS MANDATORY.

WE ARE NOT RESPONSIBLE FOR DAMAGES INCURRED DURING
SHIPPING DUE TO IMPROPERLY PACKAGED UNITS.

When returning a power supply include the following:

- (1) Your name, return address and phone number.
- (2) Description of problem and state whether fault is intermittent or continuous. If problem is not obvious, indicate hook-up used when problem occurs.
- (3) Indicate warranty or non-warranty. For warranty repair, include a photocopy of your purchase invoice.
For non-warranty repair, give us instructions and authorization to bill your Mastercard or Visa, or to ship the unit back to you C.O.D. for service and shipping charges.
- (4) Ship freight prepaid by COURIER ONLY. Never ship by parcel post.

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Division of R.P. Electronic Components Ltd.

TEL: (604) 482-5210 FAX: (604) 738-3002

Notes

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Division of R.P. Electronic Components Ltd.
BURNABY, BC CANADA V5J 5M8

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