

# Circuit Specialists, Inc

Single Output DC Bench Power Supplies With Large LCD

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CSI3003X.....0-30VDC/ 0-3A Regulated Power Supply  
CSI3005X.....0-50VDC/ 0-3A Regulated Power Supply  
CSI12001X.....0-120VDC/0-1A Regulated Power Supply

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Circuit Specialists Inc  
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## General Description:

Your new DC Regulated Power Source provides accurate & stable DC power. It is ideal for test benches, laboratories, schools & repair facilities. The multi-turn voltage control knob helps the user accurately dial in a precise voltage. The large easy to read LCD accurately displays the outputs (voltage & current) . This product is expertly manufactured for Circuit Specialists, Inc., and incorporates SMT PC boards & a built in cooling fan for reliable performance & long life.

### Features:

- \*SMD adhesive sheet element technology for internal pcb construction
- \*Attractive yellow large liquid crystal display shows voltage & current
- \*Built in cooling fan
- \*Multiloop high precision voltage regulation
- \*Progressive current regulation
- \*Dual terminal system. Safety test style or expandable screw terminals
- \*Overload protection circuit
- \*Low ripple voltage: < 1mV P-P
- \*Output polarity: positive or negative
- \*Rugged reinforced metal frame construction

### Specifications:

	Voltage	Current	Display	
CSI3003X	0-30VDC	0-3A	100mV	10mA
CSI5003X	0-50VDC	0-3A	100mV	10mA
CSI12001X	0-120VDC	0-1A	100mV	1mA

Source effect:  $5 \times 10^{-4} = 2\text{mV}$

Load effect:  $5 \times 10^{-4} = 2\text{mV}$

Ripple coefficient: < 250uV

Stepped current: 30mA +/- 1mA

### Warranty Statement:

Circuit Specialists, Inc. warrants this product to be free from defects caused by workmanship or production error for a period of 12 months after the initial purchase date.

Circuit Specialists Inc. will, at its' option, repair or replace any defective unit with a working unit after the defective product has been returned, freight prepaid to Circuit Specialists, Inc. Should you have a defect that is covered by this limited warranty, please contact Circuit Specialists, Inc. (1-800-528-1417/ 480-464-2485) for an RMA number prior to returning the unit. Products that are damaged from misuse are not covered by this limited warranty.

**General**

**Description :** Utilizes SMD technology  
Single/ Dual Output Light and Compact  
Output Polarity: Positive and Negative  
LCD Display showing Voltage and Current value  
Low Ripple Voltage Less Than 1mV P-P  
Overload Protection Circuit  
Applicable To School, Production Line, Laboratory and Maintenance

**Specifications:**

Input Voltage	110-127VAC +/- 1	
Voltage Regulation	CV $\leq 5 \times 10^{-5}$ mV	CV $\leq 5 \times 10^{-5}$ mV
Load Regulation	CV $\leq 5 \times 10^{-5}$ mV	CV $\leq 5 \times 10^{-5}$ mV
Ripple & Noice	CV < 0.5mV r.m.s.	CC < 2mA r.m.s.
Protection	Current Limiting	
Voltage Indication Accuracy		LCD +/- 1% + 2 Digits
Current Indication Accuracy		LCD +/- 2% + 2 Digits
Ambient Temperature		0 ~ +40 ° C
Humidity	< 90%	
Dimensions (Single)	180(W) x 130(H) x 300(D)	
Weight	6.8kg	
Accessory	Instruction Manual, Power cord, Test Lead	

## 2. Operation

### 2.1 Front Panel Controls.

- (1) Current Indication
- (2) Voltage Indication
- (3) Fine (10 Turn) adjustment of Voltage
- (4) Up/Down Adjustment of Current
- (5) Power On/Off
- (6) Negative Output Terminal
- (7) Positive Output Terminal
- (8) Ground Connection
- (9) Constant Current Indicator
- (10) Constant Current Switch
- (11) External Power Output Connection



The unit has one output display. The display has 2 readings. One is Voltage and the second is Current. The Voltage is 0-30 Volts with 0-3Amps. This unit has a fan that turns on when the temperature reaches 140DegF or 60DegC. It takes a standard 110VAC input only and is fuse protected.

### 2.2 Operating Procedure

2.2.1 For constant Voltage mode make sure #10 is depressed and the LED #9 is off.

By rotating the knob of #3 to the right increases the voltage output and rotating it to the left decreases the voltage output.

## 3. Attention:

3.1 The mains power must be switched off before servicing and servicing should be referred to a qualified person.

3.2 The unit should be stored in a dry and well ventilated place and the power cord removed for long periods.

## 4. Accessories:

- 4.1 Power cord ————— one piece
- 4.2 Instruction Manual ——— one piece
- 4.3 1 set of Banana plug to Alligator Clips
- 4.4 1 set of hook up wires for external hook up.