

1760A

## Model 1760A

**Triple Output DC Power Supply** 

- Two 0-30 VDC, 2 A sections capable of independent, series or parallel operation
- One 4-6.5 VDC, 5 A section
- Switchable series/parallel operation 30 V sections
- Adjustable current limit controls 30 V sections
- Two 3 digit LED displays one reads volts or amps of "B" supply one reads volts or amps of "A" supply or 4V-6.5V supply
- Unique variable tracking, B track A at 5% to 100%

## Model 1651A

Compact Triple Output DC Power Supply

- Two 0 to 24 VDC outputs (0.5A)
- One fixed 5V output (4A)
- Independent or tracking operation
- Adjustable current limiting
- Designed to operate continuously at rated output
- Short circuit protection, overvoltage protection, reverse polarity protection
- Connect outputs in series for higher voltage output or in parallel for higher current output (switch selectable)

## Model 1670A

**Triple Output DC Power Supply** 

- One variable 0-30 VDC, 3 A section
- One I2 VDC fixed section
- One 5 VDC fixed section
- Ideal for general electronic servicing, school electronics labs, and powering up hobbyists projects



Triple Output DC Power Supplies



1651A

1670A

| Specifica                  | 1760A                                                                         | 1651A                        | models<br>1670A                 |
|----------------------------|-------------------------------------------------------------------------------|------------------------------|---------------------------------|
|                            | 1/008                                                                         | 10314                        | 10/08                           |
| Output Voltage             | 0-30V (A & B)                                                                 | 0-24 V (A&B)                 | Main 0-30 VDC                   |
|                            | 4-6.5 V (C)                                                                   | Fixed 5V output              | Fixed 12VDC ±5%                 |
|                            |                                                                               |                              | Fixed 5 VDC ±5%                 |
| Output Current             | 0-2A (A & B)                                                                  | 0-500 mA (A&B)               | Variable 0-3 A Main             |
|                            | 5A (C)                                                                        | Fixed Supply <4 A            | Fixed 0-500 mA continuous       |
|                            |                                                                               |                              | Fixed 0-500 mA continuous       |
| Constant Voltage Operation |                                                                               |                              |                                 |
| Voltage Regulation         |                                                                               |                              |                                 |
| Line (120VAC ±10%)         | ≤ 0.01% +3 mV                                                                 | ≤ 0.01% +3 mV Main           | ≤ 0.05% + 10mV Main             |
|                            |                                                                               | ≤ 5 mV for line Fixed supply | ≤ 1% (A & B)                    |
| Load                       | ≤ 0.01% +3 mV                                                                 | ≤ 0.01% +3 mV Main           | (0 to rated load) ≤ 0.05% + 10m |
|                            |                                                                               | ≤ 10 mV (Fixed)              | ≤ 1% (A & B)                    |
| Recovery Time              | 100µs                                                                         | 100μs                        | 100µs                           |
| Ripple & Noise             | ≤ I mVrms                                                                     | ≤ I mVrms                    | ≤ I mVrms                       |
| Temperature Coefficient    | ≤ 300 ppm°C                                                                   | ≤ 300 ppm°C                  | ≤ 300 ppm°C                     |
| Constant Current Operation |                                                                               |                              |                                 |
| Adjustable Current Range   | 5% to 100% (A&B)                                                              | 5% to 100% (A&B)             | 5% to 100% (Main)               |
| Current Regulation         |                                                                               |                              |                                 |
| Line (120VAC $\pm$ 10%)    | ≤ 0.2% + 3mA                                                                  | ≤ 0.2% + 6 mA                | ≤ 0.4% + 10mA                   |
| Load                       | ≤ 0.2% + 3 mA                                                                 | $\leq 0.2\% + 3\mu A$        | ≤ 0.4% + 10mA                   |
| Current Ripple             | ≤ 3 mA                                                                        | ≤ 3 mA rms                   | ≤ 10mA rms                      |
| Metering                   |                                                                               |                              |                                 |
| Display                    | 2 digital LED                                                                 | 2 Analog                     | 2 digital LCD                   |
| Voltmeter Range            | 0-99.9 V (A & B)                                                              | 0 to 25 V                    | 0 to 12 VDC 0 to 5 VDC          |
|                            | 0-99.99 V (C)                                                                 |                              |                                 |
| Voltmeter Accuracy         | ± (0.5% rdg + 2 digits)                                                       | 2.5% of full scale           | ±(1% reading + 2 digit)         |
| Ammeter Range              | 0-9.99 A                                                                      | 0 to 600 mA                  | 0-3 A                           |
| Ammeter Accuracy           | ± (0.5% rdg + 2 digits)                                                       | 2.5% of full scale           | ±(1% reading + 2 digit)         |
| Overload Protection        | Current limiting, Reverse polarity, overvoltage, Short circuit                |                              |                                 |
| Power Requirements         | 108-132 VAC 60 Hz,120/220/230/240/ VAC, $\pm$ 10%, 50/60 Hz version available |                              |                                 |
| Power Consumption          | 350 W                                                                         | 165 W                        | 170 W                           |
| Operating Temperature      | -0° to 40°C ≤ 85% R.H.                                                        | 0° to 40°C ≤ 85% R.H.        | 0 to 40°C ≤ 75% R.H.            |
| Storage Temperature        | -15° to 70°C ≤ 85% R.H.                                                       | -15° to 70°C ≤ 85% R.H.      | -15° to 70°C ≤ 85% R.H.         |
| Dimensions (H x W x D)     | 5.7 x 10.5 x 15"                                                              | 5.5 x 11.75 x 10.975"        | 4.9" x 8.5" x 11.5"             |
|                            | (145 x 267 x 381 mm)                                                          | (140 x 298 x 264 mm)         | (124 x 216 x 292 mm)            |
| Weight                     | 21 lbs (9.5 kg)                                                               | 10.5 lbs (4.8 kg)            | 11.5 lbs (5.2 kg)               |
| Accessories                | Two Year Warranty                                                             | 0 V.                         | r Warranty                      |

| Accessories | Two Year Warranty              | One Year Warranty                   |                    |  |
|-------------|--------------------------------|-------------------------------------|--------------------|--|
|             |                                |                                     |                    |  |
| SUPPLIED:   | Instruction Manual, Spare Fuse | Instruction Manual,                 | Instruction Manual |  |
|             |                                | Test LeadsTL-5(3 pairs), Spare Fuse |                    |  |
|             | OPTIONAL (for all              | models): TL-5A Hook up cables.      |                    |  |