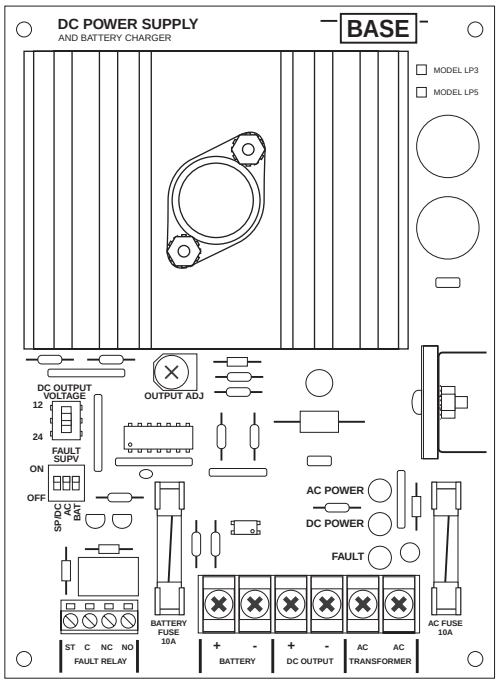
LP3 - LP5 Linear DC Power Supply and Battery Charger

BASE



Features

- *Regulated 12VDC or 24VDC single switch selectable output*
- *Selectable fault supervision with 2A Form-C dry contact output*
- *Charges lead acid or gel type batteries - includes battery cable kit*
- *Uninterrupted ouput on switch over to/from standby battery*
- *Status LEDs for AC input, DC output and Fault conditions*
- *Separately fused AC input and battery circuit*
- *Thermal overload and output short protection*
- *Compact design 5.1"w x 7.0"l x 1.5"h - includes mounting standoffs*

MODEL	OUTPUT		BATTERY	TRANSFORMER		
	VOLTAGE	CURRENT		MODEL	INPUT	OUTPUT
LP3	13.8 VDC	2.5 A	20 AH	XF16144	120 VAC, 1.25 A WHITE & BLACK WIRES	16 VAC, 9.0 A
	27.6 VDC	2.5 A	20 AH	XF29218	120 VAC, 2.50 A WHITE & BLACK WIRES	29 VAC, 7.5 A
LP5	13.8 VDC	4.0 A	38 AH	XF16144	120 VAC, 1.25 A WHITE & BLACK WIRES	16 VAC, 9.0 A
	27.6 VDC	4.0 A	38 AH	XF29218	120 VAC, 2.50 A WHITE & BLACK WIRES	29 VAC, 7.5 A

*** * * WARNING * * ***

Turn off all power feeding the module terminals before installing, servicing or changing any switch settings, wiring or fuses. Failure to observe this warning may cause electrical shock hazard or may damage internal or external circuit components.

Installation Instructions

1. Mounting the Board Locate the unit inside a UL Listed NEMA 1 enclosure (such as a BASE LVPC Low Voltage Power Cabinet). Drill four 0.187" diameter holes (3/16") to match the four corner holes in the printed circuit board. Push the nylon standoffs supplied into each hole and snap the PCB module into place. Mounting with double-sided tape is not recommended.

2. Transformer Wiring Connect the appropriate Transformer input wires (black and white wires) to a 120VAC power source. Connect the two Transformer output wires to the two Transformer 'AC' terminals of the Power Supply.

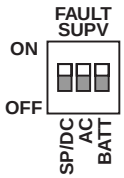
3. DC Output Setup With the tip of a small screwdriver, set the DC Output Voltage switch for the desired output voltage - 12 or 24 VDC. Turn on the 120VAC power source. The AC and DC green LEDs will light. Next, measure the voltage at the DC Output terminals with a voltmeter. The output voltage is factory set as shown in the table above. However, if a field adjustment is desired, use a small screwdriver to slowly adjust the output voltage at the potentiometer labeled **OUTPUT ADJ**. Then turn off the 120VAC power source before proceeding with the installation.

4. Fault Supervision Setup Locate the 3 dip switches labeled **FAULT SUPV**.

SP/DC = Supervision Power / DC Output Supervision. This switch **ON** will enable the Fault Supervision relay and will enable monitoring of the DC Output for short or low output conditions. If fault supervision is not required, place the **SP/DC** dip switch in the **OFF** position. This will reduce the no-load current draw by approx. 40 mA.

AC = AC Input Power Supervision. This switch **ON** will enable monitoring of the AC Input for AC power loss or blown AC power fuse. This switch will have no effect if **SP/DC** is **OFF**.

BATT = Battery Power Supervision. This switch **ON** will enable monitoring of the Battery Set for low battery, shorted battery or reversed polarity hookup (blown battery fuse). Battery presence is not monitored. This switch will have no effect if **SP/DC** is **OFF**. Turn this switch **OFF** if no battery will be used.



5. Fault Relay Ouput Terminals The Fault Relay Form-C contacts are rated at 2 Amps. The terminals are labeled for when the relay is de-energized (selected fault condition is present). The relay is normally energized when no selected fault condition exists. The ST terminal is a Spare Terminal and is not connected to anything. It can be used as an easy splice point for an end-of-line resistor when monitoring the fault relay with a supervised circuit.

6. DC Output Wiring Connect output wiring to the DC OUTPUT terminals. Observe and verify correct DC polarity before powering the unit. Incorrect polarity may damage user equipment. See table above for maximum DC output current.

See other side for continuation...

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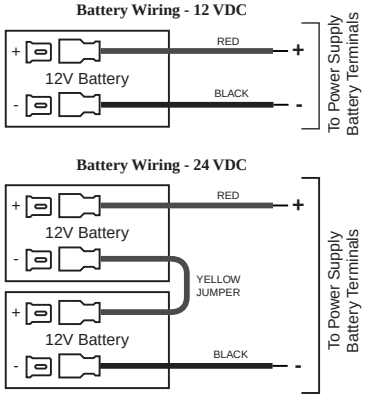
Installation Instructions (...continued from other side)

7. Battery Wiring Connect battery wiring to battery terminals of the Power Supply first, then connect other end to battery set. Observe and verify correct DC polarity before connecting battery set. Incorrect polarity will blow the **BATTERY FUSE**. See table above for maximum Battery AH. Only use recommended battery type - Yuasa, Power Sonic or equivalent sealed lead acid or gel cell.

8. Power Up Re-check all connections and apply AC power to the unit.



Power Status LED Indicators
Green (G), Yellow (Y)

AC POWER (G)	ON =	AC power from transformer present.
	OFF =	AC power fault/failed.
DC POWER (G)	ON =	DC output power present.
	OFF =	DC power fault/failed..
FAULT (Y)	FLASH =	Selected fault condition present.
	OFF =	No fault condition.

Fuses
Replace only with same type and current rating
AC Input Fuse - 10A, 3AG Fast Blow, Battery Fuse - 10A, 3AG Fast Blow

Power System Design Tips

Power Supply Total Current Draw
Add the operating current ratings for each device to be powered to determine the expected continuous operating current required. Do not exceed the specified maximum output current. If the output current value *is* exceeded, the power supply regulator may overheat. The unit has built-in thermal overload protection and the DC output will turn off if overheating occurs.

Cable Resistance
When powering devices over considerable distances, the cabling resistance may be so high that the voltage available at the device has dropped to an unacceptable level. To prevent this from occuring, system cabling should be designed with adequate sized conductors.

Power Distribution
Separately fusing output devices or groups of output devices greatly reduces trouble-shooting efforts when shorts or output device abnormalities occur. The larger the power supply and number of devices powered, the greater the need for power distribution. BASE has a variety of power distribution, interface and control products for a wide range of output devices.

The information in this manual is believed to be accurate in all respects. However, BASE Electronics cannot assume responsibility for any consequences resulting from the use thereof. The information contained herein is subject to change and BASE Electronics may issue a revision to incorporate such changes at any time.

LP3 - LP5 Specifications

• Indoor Temperature Range: -25° C. to +70°C.

• Electrical
Maximum Output: 13.8 or 27.6 VDC, 3A (LP3) or 5A (LP5) - battery charging + DC Output
No Load Current Consumption: 50mA (less than 10mA with SP/DC switch off)
Fault Supervision Relay Form-C Contact Rating: 2A
Connections: Captive Screw Terminals for #14 to #22AWG Wire

• Size: 5.10" wide by 7.00" long by 1.50 high (inches)
• Mounting: (4) 1/4 inch high nylon standoffs included

• Controls and Indicators
Single SPDT Voltage Output Select Switch: 12/24 VDC
Fault Supervision Select 3 pole Dip Switch: SP/DT, AC, BATT
3 LED Indicators for AC Power (Green), DC Power (Green), Fault (Yellow)

• Special Features
On-board selectable Fault Supervision with Relay Form-C Contact Ouput
Charger for Lead Acid or Gel Cell Batteries
Separately fused AC input and battery circuit

Limited Warranty

This LP Series DC Power Supply Module is warranted by BASE Electronics against manufacturing defects in materials and workmanship for a period of 2 years from date of purchase. During this period, any warranty repair required will be made at no charge for parts or labor. This warranty does not apply to any work or materials provided by any outside persons or technicians involved in the installation, unauthorized repair, connection, or testing of this product. This warranty does not cover any damage or failure caused by or attributable to Acts of God, abuse, misuse, improper or abnormal usage, faulty or improper installation or maintenance, neglect or accident. BASE Electronics is not responsible or liable for any special, consequential or indirect damages resulting from or in connection with the use or performance of this product as pertaining to economic loss, property loss, costs for removal or installation, or loss of revenues or profit. Except as provided herein, BASE Electronics makes no expressed or implied warranties. The duration of product performance for its intended purpose is limited to the duration set forth herein.

For Warranty or other repair, send the product postage prepaid to BASE Electronics and include Sender's name, company, address, phone and brief problem description. BASE Electronics will notify sender of any required repair costs not covered under this warranty prior to making such repairs.

This Warranty gives you specific legal rights. You may have other rights that vary from state to state.

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