



# LPS3/LPS3R

## Linear Power Supply/Charger

### Installation Guide

#### Overview:

LPS3/LPS3R linear power supply/chargers convert a low voltage AC input to a low voltage 12VDC/24VDC output. These power supplies are specifically designed to provide the power needed by the most demanding security and access control applications.

#### Specifications:

##### Input:

- 16VAC or 28VAC (refer to Voltage Output/Transformer Selection Table).

##### Output:

- 12VDC/24VDC selectable output.
- 2.5A continuous supply current.\*
- Filtered and electronically regulated output.
- Thermal overload and short circuit protection.

##### Supervision:

- LPS3R is the same as LPS3 with AC Fail supervision (Form “C” contacts.)

##### Battery Backup:

- Built-in charger for sealed lead acid or gel type batteries.
- Maximum charge current 500mA.
- Automatic switch over to stand-by battery.
- Fused battery protection (circuit breaker available).
- Includes battery leads.

##### Visual Indicators:

- AC input and DC output LED indicators.

##### Board Dimensions (L x W x H):

7” x 4” x 2” (177.8mm x 101.6mm x 50.8mm)

\*Specified at 25° C ambient.

#### Voltage Output/Transformer Selection Table:

| Output Voltage | Switch Position | Transformer Requirements<br>(Recommended Altronix Part #'s) |
|----------------|-----------------|-------------------------------------------------------------|
| 12VDC          | ON              | 16VAC / 56 VA (T1656).                                      |
| 24VDC          | OFF             | 24VAC or 28VAC / 100VA (Altronix model T2428100)            |

#### Installation Instructions:

LPS3/LPS3R should be installed in accordance with the National Electrical Code and all applicable local regulations.

1. Mount LPS3/LPS3R in the desired location/enclosure (mounting hardware included).
2. Set DC output voltage using switch SW1 (Fig. 1b, pg. 2) (refer to **Voltage Output/Transformer Selection Table**).
3. Connect proper transformer to the terminals marked [AC] (refer to **Voltage Output/Transformer Selection Table**).
4. Measure output voltage before connecting devices. This helps avoiding potential damage.
5. Connect devices to be powered to the terminals marked [– DC +].
6. When the use of stand-by batteries is desired, they must be lead acid or gel type. Connect battery to the terminals marked [– BAT +] on the unit (battery leads included). Use two (2) 12VDC batteries connected in series for 24VDC operation.
7. When batteries are not used, a loss of AC will result in the loss of output voltage.
8. **LPS3R Only:** AC FAIL NC, C, NO Terminals (Fig. 1a, pg. 2) indicate loss of AC power. Relay is normally energized when AC power is present. Contact rating 1A @ 28VDC. AC Fail condition will report approximately within one (1) minute after loss of AC. Connect supervisory trouble reporting devices to outputs marked [AC Fail].

**IMPORTANT:** SW2 must be in the same voltage setting as SW1.

**CAUTION:** Do not touch exposed metal parts.

Shut branch circuit power before installing or servicing equipment.

There are no user serviceable parts inside. Refer installation and servicing to qualified service personnel.

## LED Diagnostics:

| Red (DC) | Green (AC) | Power Supply Status                                                          |
|----------|------------|------------------------------------------------------------------------------|
| ON       | ON         | Normal operating condition.                                                  |
| ON       | OFF        | Loss of AC. Stand-by battery supplying power.                                |
| OFF      | ON         | No DC output. Short circuit or thermal overload condition or defective unit. |
| OFF      | OFF        | No DC output. Loss of AC. Discharged or no battery present.                  |

## Terminal Identification:

| Terminal Legend                      | Function/Description                                                                                                                                                                                           |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC/AC                                | Low voltage AC input (see <b>Voltage Output/Transformer Selection Table</b> ).<br>For 12VDC output use 16VAC with 56VA power rating or higher.<br>For 24VDC output use 28VAC with 85VA power rating or higher. |
| - DC +                               | 12VDC or 24VDC @ 2.5A continuous output.                                                                                                                                                                       |
| - BAT +                              | Stand-by battery connections. Maximum charge rate 500mA.                                                                                                                                                       |
| AC FAIL<br>NC, C, NO<br>(LPS3R only) | Indicates loss of AC (e.g. connect to audible device or alarm panel).<br>Relay is normally energized when AC power is present.<br>Contact rating 1A @ 120VAC / 28VDC.                                          |

Fig. 1

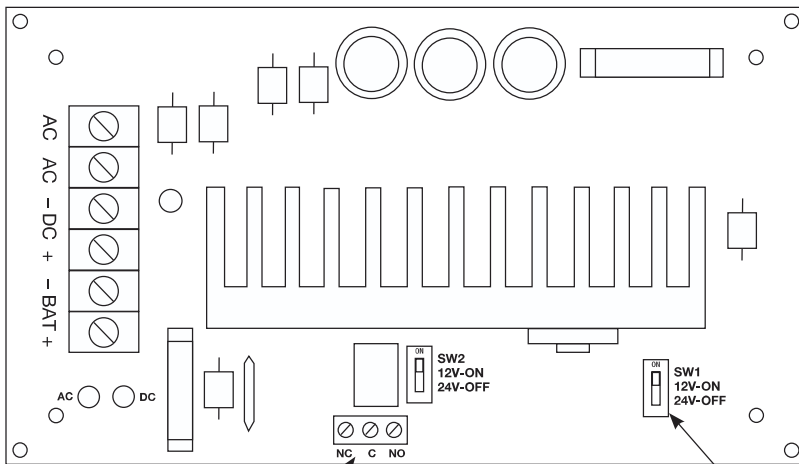
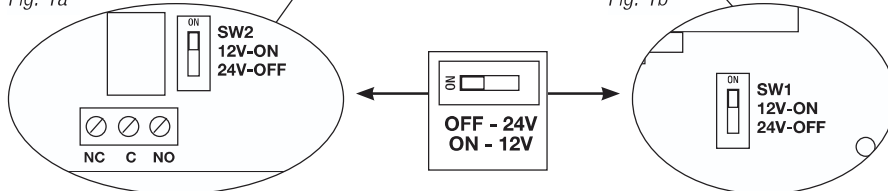


Fig. 1a

Fig. 1b



LPS3R only

Altronix is not responsible for any typographical errors.

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