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 (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 seting 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 **Voltage Output/Transformer Selection Table**). For 12VDC output use 16VAC with 56VA power rating or higher. 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 NC, C, NO (LPS3R only)	Indicates loss of AC (e.g. connect to audible device or alarm panel). Relay is normally energized when AC power is present. Contact rating 1A @ 28VDC.

Fig. 1

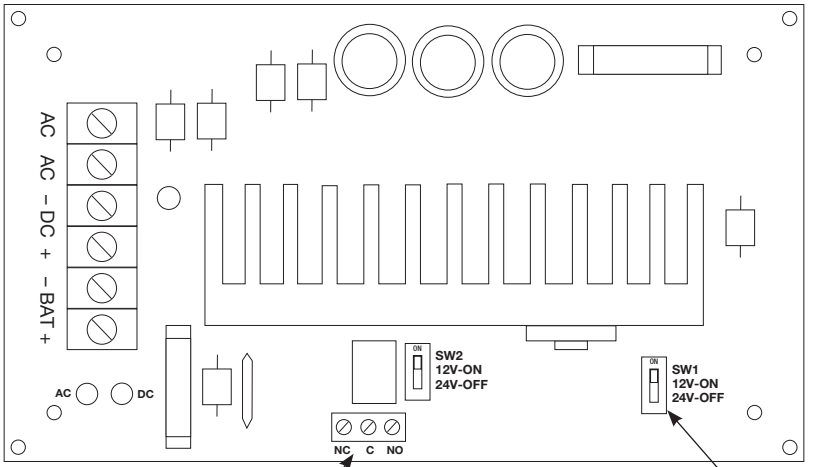
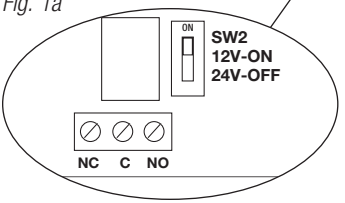


Fig. 1a



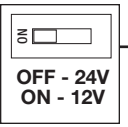
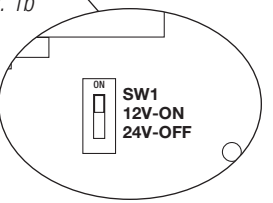


Fig. 1b



LPS3R only