



AL600ULX Series Power Supply/Charger

Installation Guide

Models Include:

- ***AL600ULX***
 - *Single Output*
- ***AL600ULPD4***
 - *Four (4) Fused Outputs*
- ***AL600ULPD8***
 - *Eight (8) Fused Outputs*
- ***AL600ULXPD16***
 - *Sixteen (16) Fused Outputs*
- ***AL600ULPD4CB***
 - *Four (4) PTC Outputs*
- ***AL600ULPD8CB***
 - *Eight (8) PTC Outputs*
- ***AL600ULXPD16CB***
 - *Sixteen (16) PTC Outputs*


















For a red enclosure, add an "R" suffix to the part # e.g. AL600ULPD8R

Overview:

The AL600ULX is a power supply that converts a 115VAC / 60Hz input, to a 12VDC or 24VDC regulating output (see specifications below).

The AL600ULX is the base power supply unit for the UL Listed multi-output power supply/charger series: AL600ULPD4, AL600ULPD4CB, AL600ULPD8, AL600ULPD8CB, AL600ULXPD16, AL600ULXPD16CB (Refer to AL600ULX Series Power Supply Configuration Reference Chart below).

AL600ULX Series Power Supply Configuration Reference Chart:

| Altronix Model Number | Accessory Power Distribution Module(s) | Number of Outputs | Class 2 Rated Power Limited Outputs | Fused Outputs | PTC Outputs | Output Rating (amp) per Output | Agency Listings | UL Listings and File Numbers |
|-----------------------|--|-------------------|-------------------------------------|---------------|-------------|--------------------------------|--|--|
| AL600ULX(R) | - | 1 | - | - | - | 6 |      | UL File # S4707 UL 1481 UL Listed Standard for Safety for Fire Protective Signaling Systems. UL 294 UL Listed for Access Control System Units. "Signal Equipment" Evaluated to CSA Standard C22.2 No.205-M1983 |
| AL600ULPD4 | PD4UL | 4 | - | x | - | 3.5 |   | |
| AL600ULPD4CB | PD4ULCB | 4 | x | - | x | 2.5 |   | |
| AL600ULPD8 | PD8UL | 8 | - | x | - | 3.5 |   | |
| AL600ULPD8CB | PD8ULCB | 8 | x | - | x | 2.5 |   | |
| AL600ULXPD16 | Two (2) PD8UL | 16 | - | x | - | 3.5 |   | |
| AL600ULXPD16CB | Two (2) PD8ULCB | 16 | x | - | x | 2.5 |   | |

Do not exceed total output rating of 6 amp per unit.

Specifications:

Input:

- Input 115VAC / 60Hz, 1.9 amp.

Output:

- 12VDC or 24VDC selectable output(s).
- 6 amp continuous supply current at 12VDC or 24VDC.
- Filtered and electronically regulated outputs.
- Short circuit and thermal overload protection.

Battery Backup:

- Built-in charger for sealed lead acid or gel type batteries.
- Automatic switch over to stand-by battery when AC fails.
- Maximum charge current .7 amp.

Battery Backup (cont'd):

- Zero voltage drop when switched over to battery backup.

Supervision:

- AC fail supervision (form "C" contacts).
- Low battery supervision (form "C" contacts).
- Battery presence supervision (form "C" contacts).

Additional Features:

- AC input and DC output LED indicators.
- Power supply, enclosure, cam lock and battery leads.
- All models are available in red enclosure (add an "R" suffix to the part # e.g. AL600ULPD8R).

Power Supply Output Specifications:

| Output VDC | Switch Position |
|------------|-----------------|
| 12VDC | SW1 CLOSED |
| 24VDC | SW1 OPEN |

Stand-by Specifications (total current shown):

| Output | 4 hr. of Stand-by & 5 Minutes of Alarm | 24 hr. of Stand-by & 5 Minutes of Alarm | 60 hr. of Stand-by & 5 Minutes of Alarm |
|-----------------------|--|---|---|
| 12VDC / 40 AH Battery | Stand-by = 6 amp Alarm = 6 amp | Stand-by = 1.0 amp Alarm = 6 amp | Stand-by = 300mA Alarm = 6 amp |
| 24VDC / 12 AH Battery | | Stand-by = 200mA Alarm = 6.0 amp | |
| 24VDC / 40 AH Battery | Stand-by = 6 amp Alarm = 6 amp | Stand-by = 1.0 amp Alarm = 6 amp | Stand-by = 300mA Alarm = 6 amp |

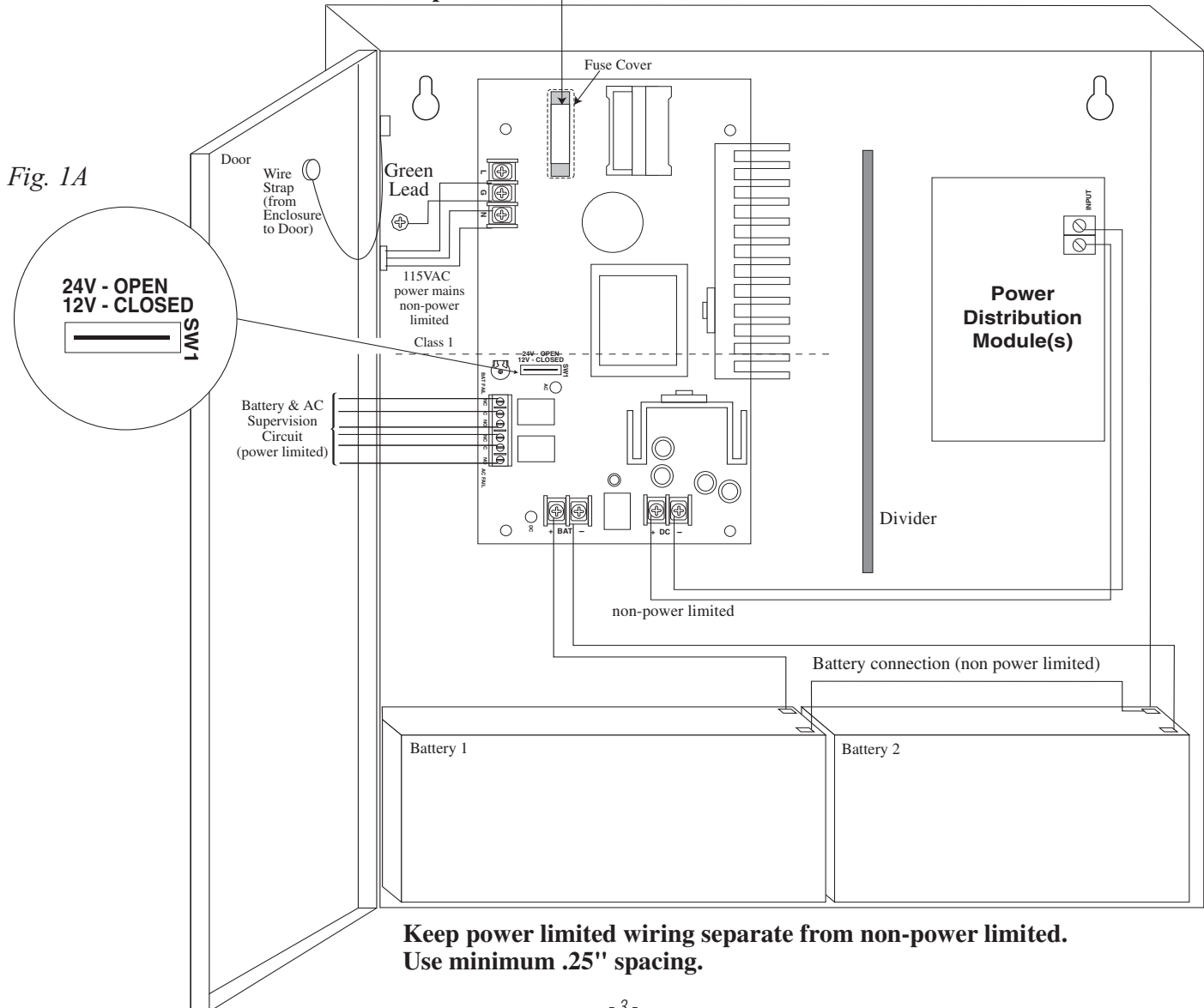
Installation Instructions:

The unit should be installed in accordance with article 760 of The National Electrical Code as well as NFPA 72 and all applicable Local Codes.

1. Mount the unit in desired location.
2. Set the unit to the desired DC output voltage by setting SW1 (Fig. 1A, below) to the appropriate position (Power Supply Voltage Output Selections Chart, pg. 2).

Fig. 1

CAUTION: De-energize unit prior to servicing. For continued protection against risk of electric shock and fire hazard replace fuse with the same type and rating 3.5A, 250V. Replace fuse cover before energizing. Do not expose to rain or moisture.



3. Secure cabinet to earth ground. Connect AC power (115VAC / 60 Hz to terminals marked [L, G, N] (*Fig. 1, pg. 3*). Use 14 AWG or larger for all power connections (Battery, DC output, AC input). Use 22 AWG to 18 AWG for power limited circuits (AC Fail/Low Battery reporting).
Keep power limited wiring separate from non-power limited wiring (115VAC / 60Hz Input, DC Output, Battery Wires). Minimum .25" spacing must be provided.
4. Measure output voltage before connecting device. This helps avoid potential damage. When servicing the unit, AC mains should be removed.
5. Connect devices to be powered:
 - a. For AL600ULX Power Supply connect devices to terminals marked [+ DC -]. (*Fig. 1, pg. 3*)
 - b. For other Power Distribution Models connect devices to be powered to terminal pairs 1 to 4 marked [1P & 1N thru 4P & 4N] (*Fig. 2A & 2B, pg. 5*) or 1 to 8 marked [1P & 1N thru 8P & 8N] (*Fig. 3A & 3B, pg. 5*) carefully observing correct polarity.
6. For Access Control applications, batteries are optional. When batteries are not used a loss of AC will result in the loss of output voltage. When the use of stand-by batteries is desired, they must be lead acid or gel type.
7. Connect appropriate signaling notification devices to terminals marked [AC FAIL & BAT FAIL] (*Fig. 1, pg. 3*) supervisory relay outputs.
Note: When used in fire alarm or access control applications, "AC Fail" relay must be used to provide a visual indication of AC power on.
8. Please insure that the cover is secured with the provided Key Lock.

**LED Diagnostics:
AL600ULXB - Power Supply Board**

| 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 |
| OFF | OFF | Loss of AC. Discharged or no stand-by battery. No DC output. |

**Terminal Identification:
AL600ULXB - Power Supply Board**

| Terminal Legend | Function/Description |
|---------------------------|--|
| L, G, N | Connect 115VAC to these terminals: L to Hot, N to Neutral, G to ground. |
| + DC - | 12VDC or 24VDC @ 6 amp continuous non-power limited output. |
| AC FAIL N.C., C, N.O. | Used to notify loss of AC power, e.g. connect to annunciator/alarm panel. Relay normally energized when AC power is present. Contact rating 1 amp @ 30VDC. AC Fail condition will report approximately one (1) to one minute after loss of AC. To delay report for 6 hours cut jumper J1 on the Power Supply Board (AC trouble output delay option). If this mode is selected the Power Supply Board must be reset by removing all power to it for 30 seconds. |
| BAT FAIL N.C., C, N.O. | Used to indicate low battery condition, e.g. connect to alarm panel. Relay normally energized when DC power is present. Contact rating 1 amp @ 30VDC. Low battery conditions will report approximately 21VDC (24VDC output setting) or approximately 10.5VDC (12VDC output setting). Battery presence detection will report approximately 1 minute after battery remains undetected (missing or removed). |
| + BAT - | Stand-by battery connections. Maximum charge rate .7 amp. |

LED Diagnostics:

PD4UL/PD4ULCB/PD8UL/PD8ULCB - Power Distribution Module

| | |
|-------|----------------------------------|
| Green | Power Distribution Module Status |
| ON | Normal operating condition. |

Terminal Identification:

PD4UL/PD4ULCB/PD8UL/PD8ULCB - Power Distribution Module

| Terminal Legend | | Function/ Description |
|-----------------|---------------|----------------------------|
| PD4UL/PD4ULCB | PD8UL/PD8ULCB | |
| 1P to 4P | 1P to 8P | Positive DC power outputs. |
| 1N to 4N | 1N to 8N | Negative DC power outputs. |

Power Distribution Module(s):

Fig. 2A

Replace fuses with the same type and rating 3.5A, 250V.

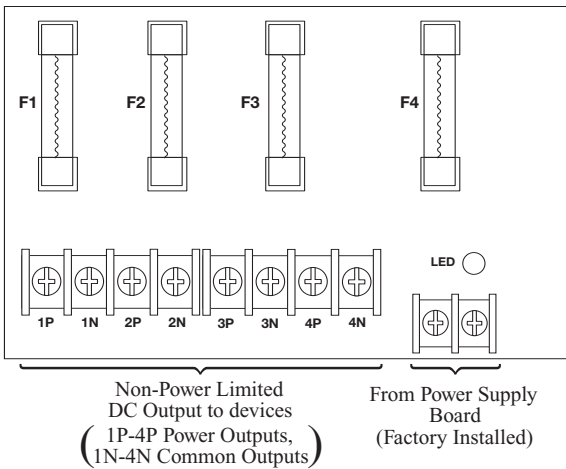


Fig. 2B

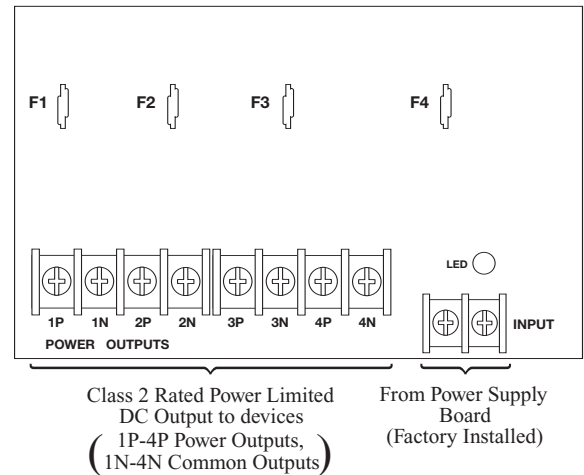


Fig. 3A

Replace fuses with the same type and rating 3.5A, 250V.

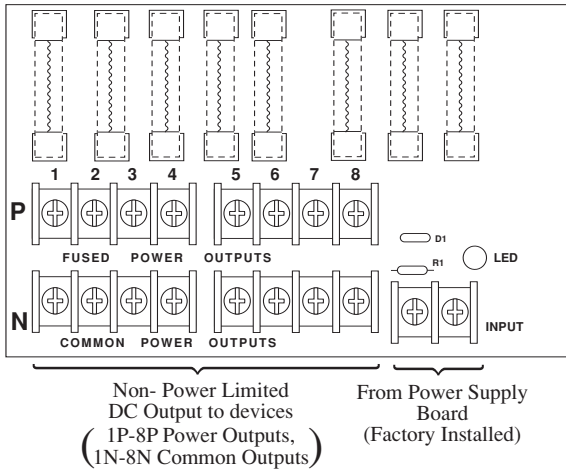
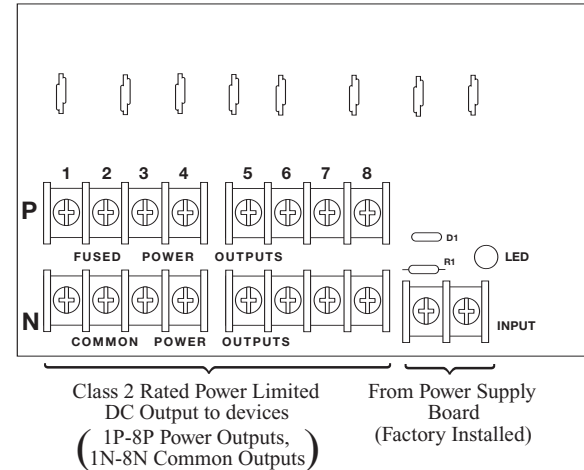
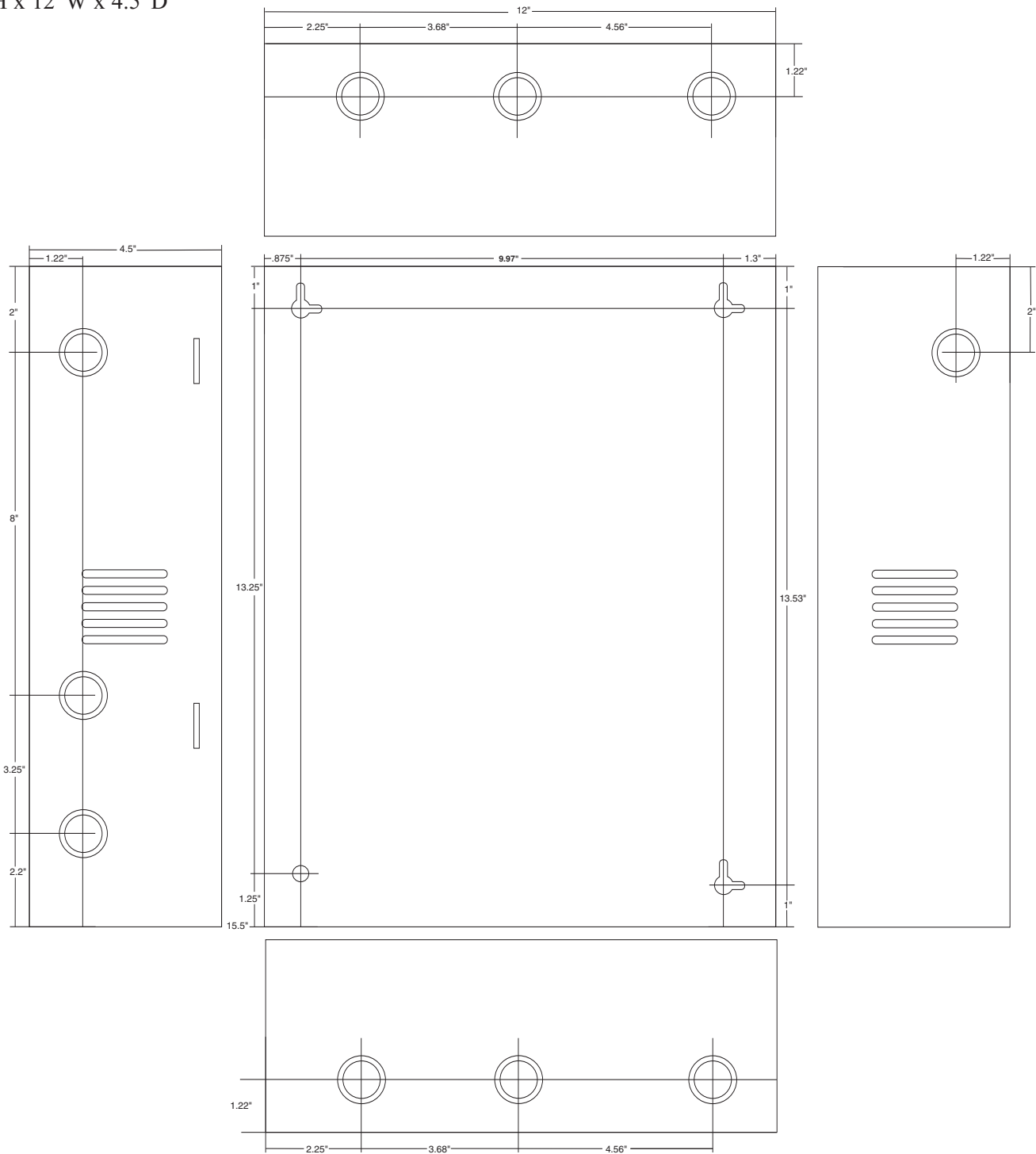


Fig. 3B



Enclosure Dimensions:

- AL600ULXPD16
 - AL600ULXPD16CB
- 15.5"H x 12"W x 4.5"D



Notes:

Altronix is not responsible for any typographical errors.

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