



AL400UL3 - Triple Output Access Control Power Supply/Charger

Rev. 080301

Overview:

The AL400UL3 multi-output access control power supply/charger is specifically designed for use with access control systems and accessories. The AL400UL3 converts a 115VAC 60Hz input into three (3) individually regulated power limited outputs (see specifications).

Specifications:

- UL Listed for Access Control System Units (UL 294) and UL Listed Standard for Safety for Fire Protective Signaling Systems (UL 1481).
- MEA - NYC Department of Buildings Approved.
- CSFM - California State Fire Marshal Approved.
- NFPA 72 compliant.
- All outputs are Class 2 Rated power limited.
- Input 115VAC 60Hz, 1.45 amp.
- 1.75 amp continuous supply current at 5VDC.
- 1.75 amp continuous supply current at 12VDC.
- 1.5 amp continuous supply current at 24VDC.
- Filtered and electronically regulated outputs.
- 51 mV p/p output ripple.
- Maximum charge current .7 amp.
- Built-in charger for sealed lead acid or gel type batteries.
- Automatic switch over to stand-by battery when AC fails.
- Zero voltage drop when switching over to battery backup.
- Thermal and short circuit protection with auto reset.
- DC output LED indicators.
- AC fail supervision (form "C" contact rated 1amp @28VDC).
- Battery fail and battery presence supervision (form "C" contact rated 1amp @ 28VDC).
- Power supply is complete with enclosure, cam lock, and battery leads.
- Enclosure accommodates up to two (2) 7AH batteries.



Enclosure dimensions: 13"H x 13.5"W x 3.25"D

Stand-by Specifications: (Current is specified on AL3XB input).

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
24VDC / 12 AH Battery	_____	Stand-by = 200mA Alarm = 3.0 amp	_____
24VDC / 40 AH Battery	Stand-by = 3.0 amp Alarm = 3.0 amp	Stand-by = 1.0 amp Alarm = 3.0 amp	Stand-by = 300mA Alarm = 3.0 amp

Installation Instructions:

The AL400UL3 should be installed in accordance with article 760 The National Electrical Code or NFPA 72 and all applicable Local Codes.

1. Mount the AL400UL3 in desired location. It is recommended to first review the following tables for screw terminals, switch selection and LED status indications. This will greatly facilitate installation hook-up.

Carefully review:

Stand-by Specifications

(pg. 1)

Terminal Identification Table

(pg. 2)

LED Diagnostics

(pg. 2)

2. Connect AC power (115VAC 60Hz) to terminals marked [L, G, N] (Fig. 1, pg. 3). Use 18 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, Battery Wires). Minimum .25" spacing must be provided.

3. Measure output voltage before connecting devices. This helps avoid potential damage.
4. Connect devices to be powered at 5VDC to the terminals marked [+ Out 3 -].
5. Connect devices to be powered at 12VDC to the terminals marked [+ Out 2 -].
6. Connect devices to be powered at 24VDC to the terminals marked [+ Out 1 -].
7. Connect two (2) 12V Stand-by batteries.

Note: For Access Control applications batteries are optional. When batteries are not used a loss of AC will result in the loss of output voltage. Batteries must be lead acid or gel type if used. Two (2) 12V Stand-by batteries connected in series to terminals marked [+ BAT -] (Fig. 1, pg. 3).

8. It is required connect supervisory trouble reporting devices to outputs marked [AC FAIL, LOW BAT] (Fig. 1, pg. 3). Use 22 AWG to 18 AWG for AC Fail & Low Battery reporting. AC Failure will report in 5 minutes.

Maintenance:

Unit should be tested at least once a year for the proper operation as follows:

Output Voltage Test: Under normal load conditions, the DC output voltage should be checked for proper voltage level (see Terminal Identification Tables).

Battery Test: Under normal load conditions check that the battery is fully charged, check specified voltage at the battery terminals and at the board terminals marked [+ BAT -] to insure that there is no break in the battery connection wires.

Note: Maximum charge current under discharge is .7 amp.

Note: Expected battery life is 5 years, however it is recommended changing batteries in 4 years or less if necessary.

LED Diagnostics:

AL400ULXB - Power Supply

LED	ON	OFF
AC (Green)	Normal operation.	No AC input.
DC (Red)	Normal operation.	No DC output.

Terminal Identification Tables:

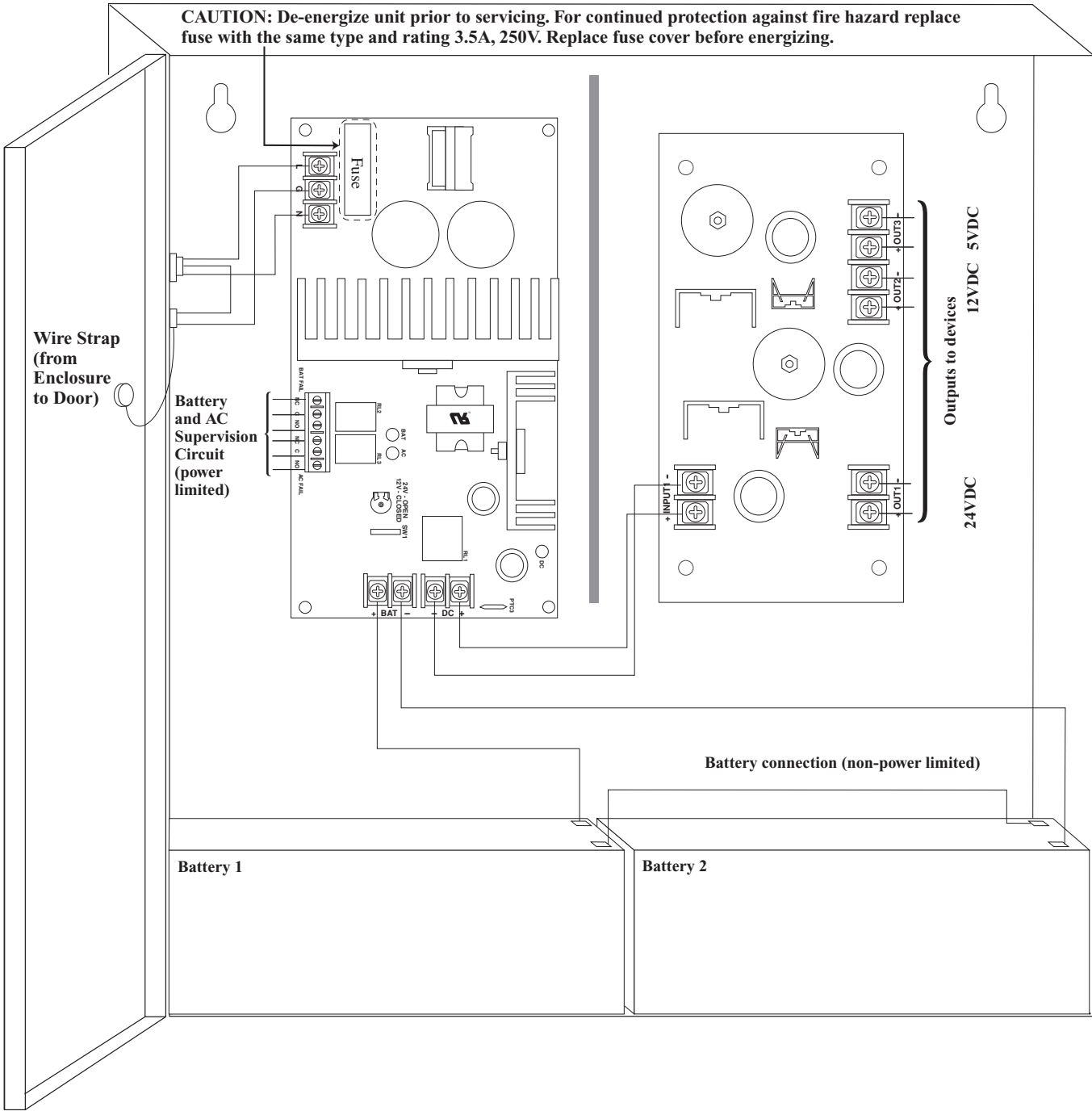
AL400ULXB - Power Supply

Terminal Legend	Function/Description
L, G, N	115VAC 60Hz input.
- DC +	24VDC @ 3 amp total continuous output (supplies power to ALX3B).
AC FAIL N.C., C, N.O.	Used to report loss of AC (e.g. connect to audible device or alarm panel). Relay normally energized when AC power is present. Contact rating 1 amp @ 28VDC.
BAT FAIL N.C., C, N.O.	Used to report low battery condition, no battery presence, (e.g. connect to alarm panel). Relay normally energized when battery power is present. Contact rating 1 amp @ 28VDC. Low battery threshold: 24VDC output threshold is set @ approximately 21VDC.
+ BAT -	Stand-by battery connections. Maximum charge rate is .7 amp.

AL3XB - Power Output Module

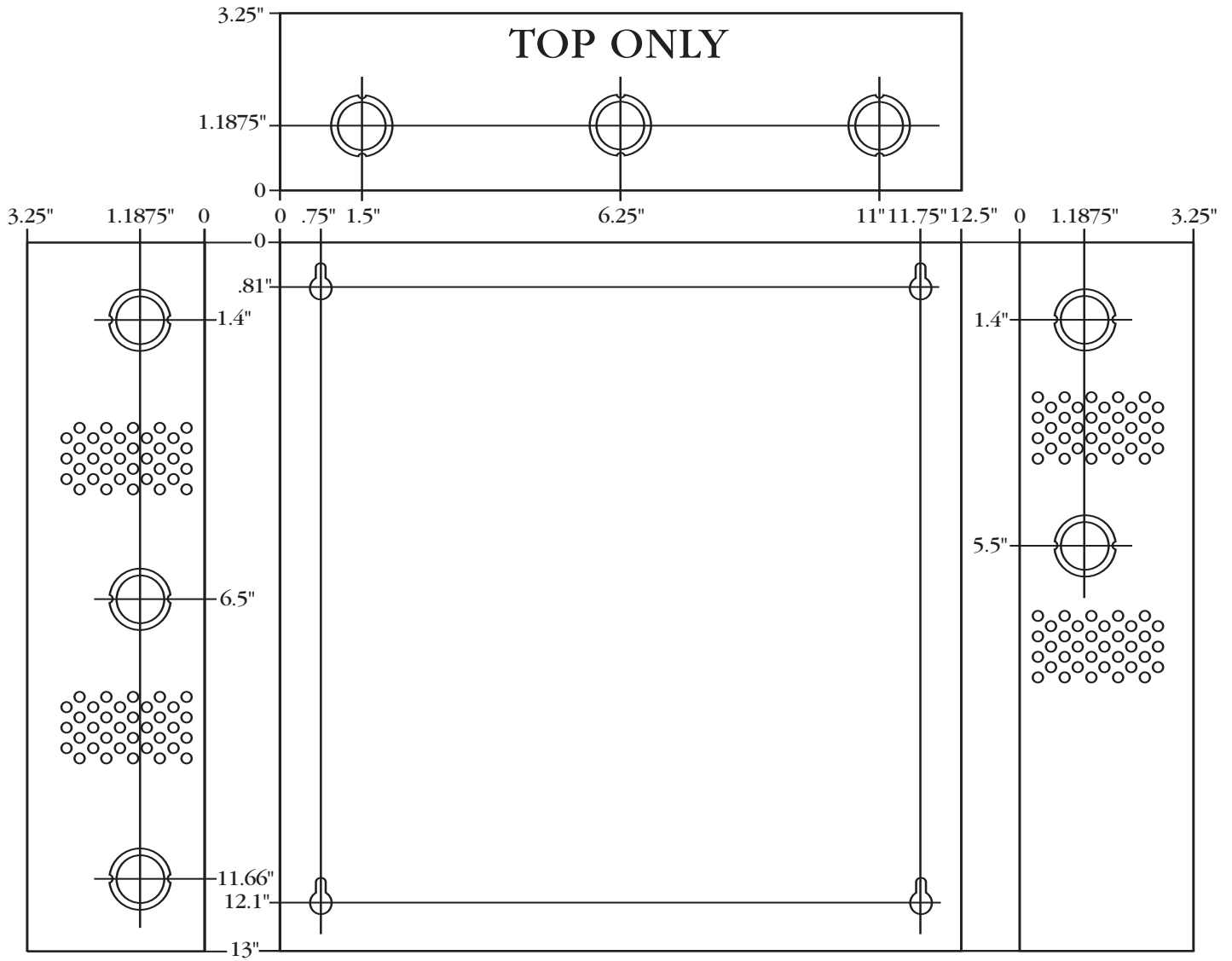
Terminal Legend	Function/Description
- INPUT +	24VDC from power supply (AL400ULXB).
- OUT 1 +	24VDC @ 1.5 amp continuous power limited output.
- OUT 2 +	12VDC @ 1.75 amp continuous power limited output.
- OUT 3 +	5VDC @ 1.75 amp continuous power limited output.

Fig. 1



Enclosure Dimensions:

13"H x 13.5"W x 3.25"D



Altronix is not responsible for any typographical errors.

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