AL600UL3 - Triple Output Access Control Power Supply/Charger

Rev. 092101

Overview:

The AL600UL3 triple output access control power supply/charger is specifically designed for use with access control systems and accessories. The AL600UL3 converts a 115VAC / 60Hz input into three individually circuit breaker protected 5VDC, 12VDC and 24VDC regulated outputs (see specifications).

Specifications:

- UL Listed for Access Control Systems and for Fire protective Signaling Systems (UL294 & UL1481).
- NYC Department of Buildings Approved (MEA).
- California State Fire Marshal Approved (CSFM).
- Class 2 rated (5VDC and 12VDC outputs).
- Input 115VAC / 60Hz, 1.9 amp.
- 1.75 amp continuous supply current @ 5VDC.
- 1.75 amp continuous supply current @ 12VDC.
- 3 amp continuous supply current @ 24VDC.
- Filtered and electronically regulated outputs, 100mV peak output voltage 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.
- Thermal and short circuit protection with auto reset.
- AC input and DC output LED indicators.
- AC fail supervision (form "C" contact).
- Battery fail and battery presence supervision (form "C" contact).
- 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 = 6.0 amp	_____
24VDC / 40 AH Battery	Stand-by = 6.0 amp Alarm = 6.0 amp	Stand-by = 1.0 amp Alarm = 6.0 amp	Stand-by = 300mA Alarm = 6.0 amp

Installation Instructions:

The AL600UL3 should be installed in accordance with The National Electrical Code and all applicable Local Regulations.

1. Mount the AL600UL3 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. 3)***
   LED Diagnostics ***(pg. 3)***
   Note: It is important to measure output voltage before connecting devices. This helps avoid potential damage
2. Connect AC power (115VAC 50/60Hz to terminals marked [L, G, N]. Use 18 AWG or larger for all power connections. Secure green wire lead to earth ground *(Fig. 1, pg. 3).*
   Keep power limited wiring separate from non-power limited wiring (115VAC / 60Hz Input, Battery Wires). Minimum .25" spacing must be provided.
3. Connect devices to be powered at 5VDC to the terminals marked [+ Out 3 -].
4. Connect devices to be powered at 12VDC to the terminals marked [+ Out 2 -].
5. Connect devices to be powered at 24VDC to the terminals marked [+ Out 1 -].

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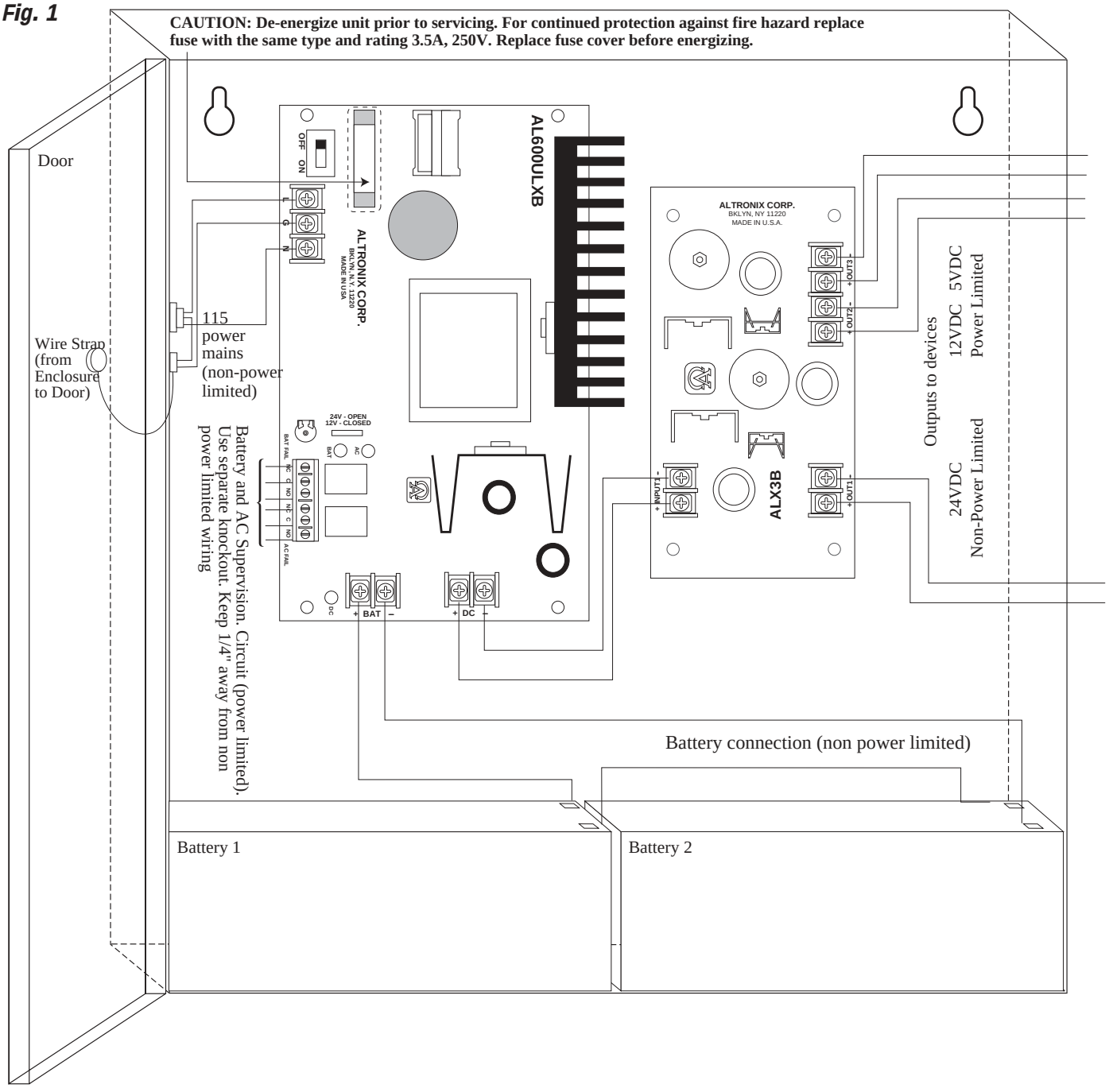
6. Connect two (2) 12V Stand-by batteries.
   Note: For Access Control applications batteries are optional. When batteries are not used a loss of AC will result in the loss of output voltage. Batteries must be lead acid or gel type if used. Two (2) 12V Stand-by batteries connected in series to terminals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

Fig. 1



connection wires.
Note: Maximum charge current under discharge is 0.7 amp.
Note: Expected battery life is 5 years, however it is recommended changing batteries in 4 years or less if necessary.

LED Diagnostics:

AL600ULXB - Power Supply

LED		
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.
OFF	OFF	No DC output. Loss of AC. Discharged battery.

Terminal Identification:

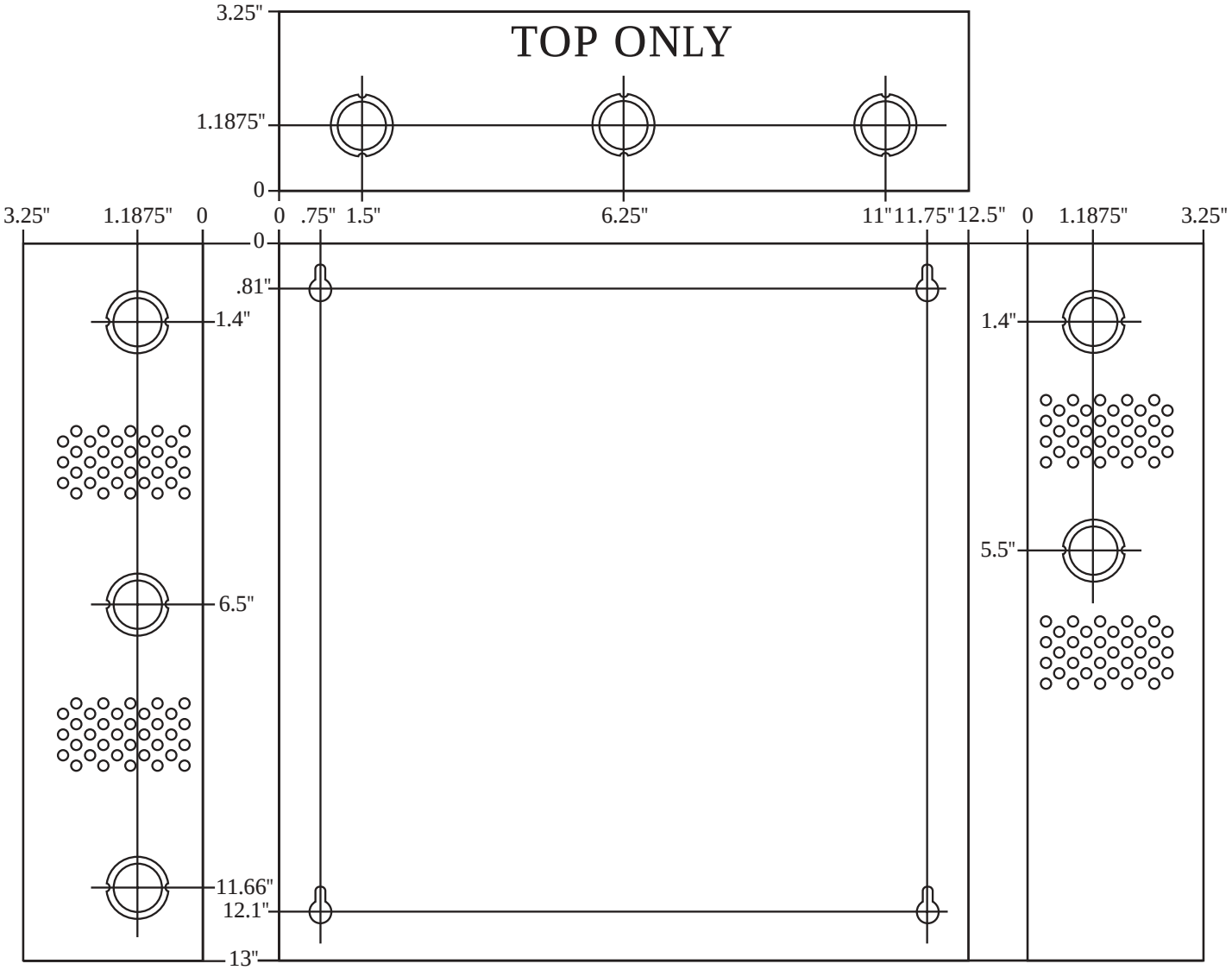
AL600ULXB - Power Supply

Terminal Legend	**Function/Description**
L, G, N	Connect 115 VAC to these terminals: L to hot, N to neutral, G to ground.
+ DC -	24VDC @ 6 amp continuous non-power limited output. Supplies power to AL3XB.
AC FAIL C, N.C., N.O.	Used to notify loss of AC power, e.g. connect to audible device or alarm panel. Relay normally energized when AC power is present. Contact rating 1 amp @ 28VDC. AC or brownout fail is reported within 1 minute of event. To delay reporting of up to 6 hrs., cut “AC delay” jumper and reset power to unit.
BAT FAIL N.O., N.C., C	Used to indicate low battery condition, e.g. connect to alarm panel. Relay normally energized when DC power is present. Contact rating 1 amp @ 28VDC. A removed battery is reported within 5 minutes. Battery reconnection is reported within 1 minute. Low battery threshold is set @ approximately 21VDC.
- BAT +	Stand-by battery connections. Maximum charge rate .7 amp.

AL3XB - Power Output Module

Terminal Legend	**Function/Description**
- INPUT +	24VDC from power supply (AL600ULXB).
- OUT 1 +	24VDC @ 3 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.

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



MEMBER

Altronix Corp.
140 58th Street, Brooklyn, New York 11220 USA, 718-567-8181, fax: 718-567-9056
web site: www.altronix.com, e-mail: info@altronix.com, Lifetime Warranty, Made in U.S.A.