



AL600ULX Series - UL Listed, Multi-Agency Approved Power Supply/Charger

Rev. 071402

Overview:

The AL600ULX is a power supply converts a 115 VAC / 60Hz input, to a 12VDC or a 24VDC output, (see specifications). It is a base unit for a series of UL Listed multi-output power supply/chargers, including AL600ULPD4, AL600ULPD4CB, AL600ULPD8, AL600ULPD8CB, AL600ULXPD16, AL600ULXPD16CB (See instruction manuals for PD4/PD8 or PD4CB/PD8CB power distribution accessory modules as described in model number/accessory chart below).

Model Number/Accessory Chart:

Model #	Base Unit	Accessory Modules	Quantity	Enclosure Dimension
AL600ULX	AL600ULX	None		13.5”H x 13”W x 3.25”D
AL600ULPD4	AL600ULX	PD4UL	1	13.5”H x 13”W x 3.25”D
AL600ULPD8	AL600ULX	PD8UL	1	13.5”H x 13”W x 3.25”D
AL600ULXPD16	AL600ULX	PD8UL	2	15.5”H x 12”W x 4.5”D
AL600ULPD4CB	AL600ULX	PD4CBUL	1	13.5”H x 13”W x 3.25”D
AL600ULPD8CB	AL600ULX	PD8CBUL	1	13.5”H x 13”W x 3.25”D
AL600ULXPD16CB	AL600ULX	PD8CBUL	2	15.5”H x 12”W x 4.5”D

Specifications:

Agency Listings:

- UL listed fire, and access control power supply (UL1481,UL294).
- NFPA 72 compliant.
- California State Fire Marshal Approved (CSFM).
- NYC Department of Buildings Approved (MEA).



Input:

- Input 115VAC / 60Hz, 1.9 amp.
- AC input and DC output LED indicators.

Output:

- Switch selectable 12VDC or 24VDC.
- 6 amps continuous supply current at 12VDC or 24VDC.
- Filtered and electronically regulated outputs.
- Short circuit and thermal overload protection.

Battery Backup:

- 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 switched over to battery backup.

Supervision:

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

Added Features:

- Unit is complete with power supply, enclosure, cam lock.
- Includes battery leads.

Power Supply Output Specifications: *

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

Stand-by Specifications:

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 AL600ULX 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 AL600ULX in desired location.
2. Set the AL600ULX to the desired DC output voltage by setting SW1 (Fig. 1) to the appropriate position (see power supply voltage output selections chart).

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.

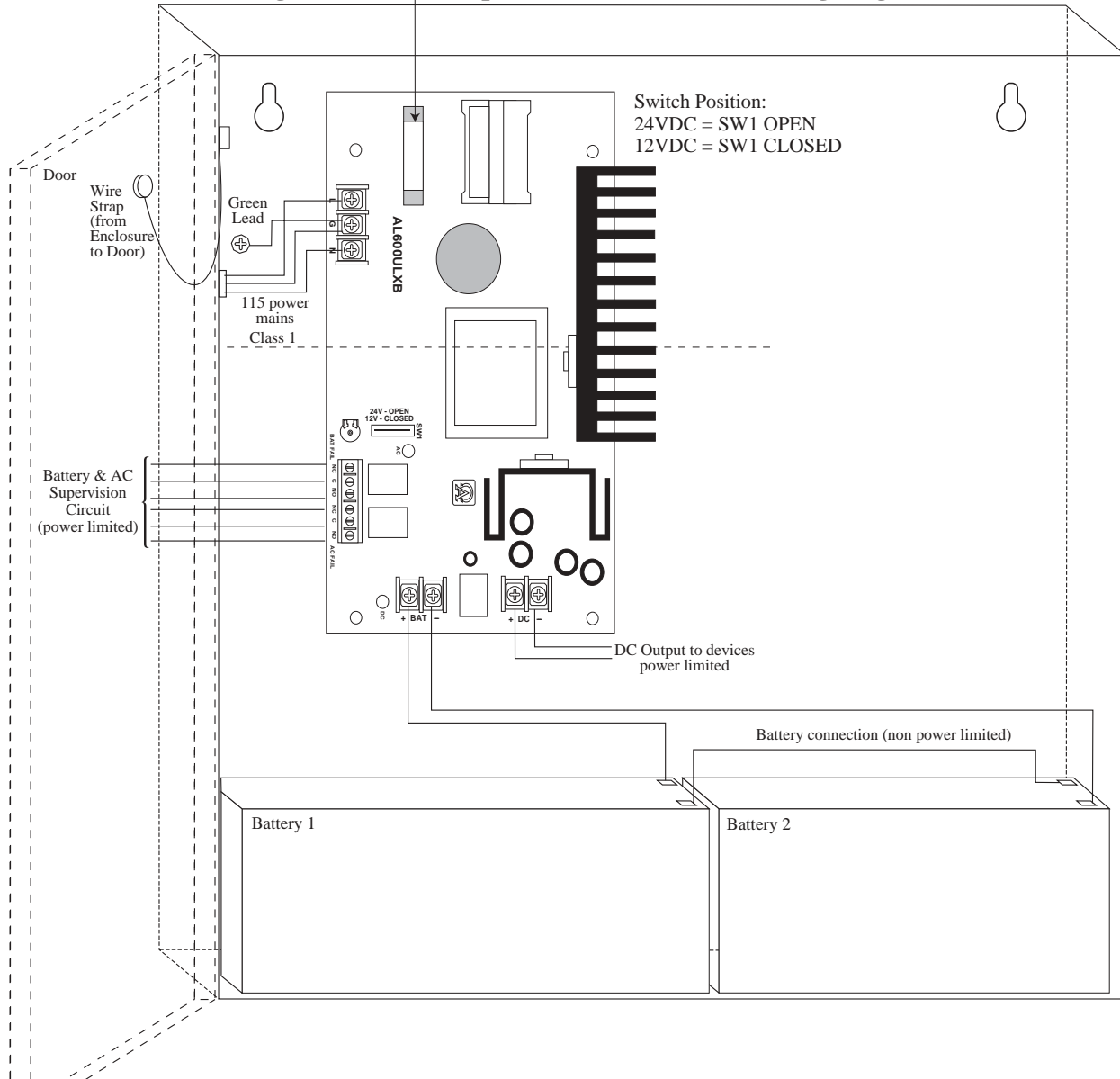


Fig. 1

3. Connect AC power (115VAC / 60 Hz to terminals marked [L, G, N] (*Fig. 1*). 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, Battery Wires). Minimum .25" spacing must be provided.
4. Connect devices to be powered to terminals marked [- DC +] (*Fig. 1*).
Note: It is important to measure output voltage before connecting device. This helps avoid potential damage. When servicing the unit, AC mains should be removed.
5. 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.
6. Connect appropriate signaling notification devices to AC FAIL & BAT FAIL (*Fig. 1*) supervisory relay outputs.
Note: When used in fire alarm, burglar alarm or access control applications, "AC Fail" relay must be used to provide a visual indication of AC power on.

Wiring:

USE 14 AWG or larger for all power connections.

Note: Take care to keep power limited circuits separate from non-power limited wiring.

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 voltage output specifications chart).

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

Note: Maximum charging current under discharges is .7 amp.

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

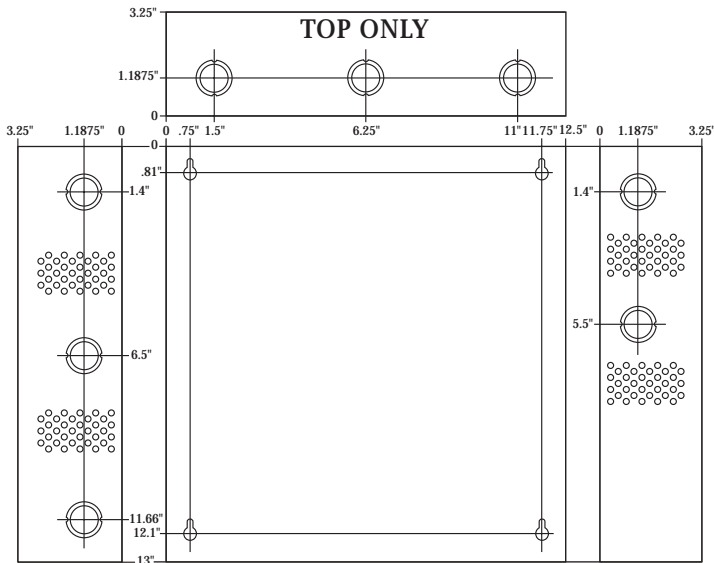
Terminal Identification:

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 nonpower-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.O., C, N.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 @ 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:

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.

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



Enclosure Dimensions: 15.5"H x 12"W x 4.5"D

