



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

Rev. 091800

Overview:

The AL600ULX power supply converts a 115 VAC / 60Hz input, to a 12VDC or 24VDC non-power limited output, (see specifications). The AL600ULX is UL Listed for all fire alarm, and access control applications.

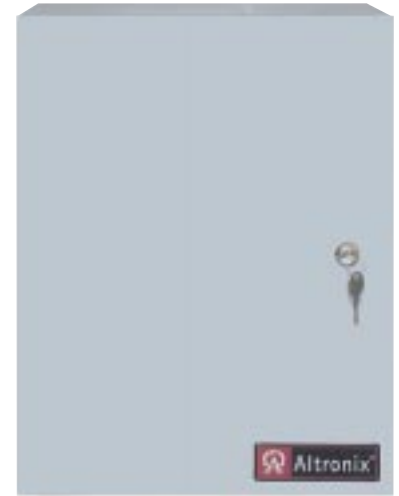
Specifications:

- UL listed fire and access control power supply (UL1481, UL294).
- CSFM approved - California State Fire Marshal.
- MEA approved - NYC Department of Buildings.
- CSA approved (Canada).
- NFPA 72 compliant.
- Field selectable 12VDC or 24VDC non-power limited output.
- Input 115VAC / 60Hz, 1.9 amp.
- Maximum charge current .7 amp.
- 6 amps continuous supply current at 12VDC / 24VDC.
- Filtered and electronically regulated output, 100mV peak output voltage ripple.
- 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.
- AC input and DC output LED indicators.
- AC fail supervision (form "C" contacts).
- Low battery and battery presence supervision (form "C" contacts).
- Thermal overload protection.
- Short circuit protection.
- Unit is complete with power supply, enclosure and cam lock.
- Includes battery leads.

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

Note: Enclosure accommodates up to two (2) 12AH batteries

AL600ULX-R Enclosure Dimensions: 15.5”H x 12”W x 4.5”D



Power Supply Voltage Output Selections: *

Output	Switch Position
12VDC	SW 1 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 = 6.0 amps Alarm = 6.0 amps	Stand-by = 1.0 amp Alarm = 6.0 amps	Stand-by = 300mA Alarm = 6.0 amps
24VDC / 12 AH Battery		Stand-by = 200mA Alarm = 6.0 amps	
24VDC / 40 AH Battery	Stand-by = 6.0 amps Alarm = 6.0 amps	Stand-by = 1.0 amps Alarm = 6.0 amps	Stand-by = 300mA Alarm = 6.0 amps

Installation Instructions:

The AL600ULX should be installed in accordance with article 760 of The National Electrical Code or NFPA 72 as well as all applicable Local Codes.

1. Mount the AL600ULX in desired location.

- 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).
- Connect AC power (115VAC 50/60Hz) to terminals marked [L, G, N] (Fig. 1). Use 18 AWG or larger for all power connections (Battery, AC input, DC output). 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). DC output Minimum .25" spacing must be provided.

- Connect devices to be powered to terminals marked [-DC +] (Fig. 1). **Note:** It is good operating practice to measure and verify output voltage before connecting devices to ensure proper operation of equipment. ***Note:** Power switch is used to turn off DC output voltage (However if battery is connected, its voltage will appear on the output). It disconnects the L (HOT) terminal from the rest of the board. When servicing the unit, AC mains should be removed.

- 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.

Connect battery to terminals marked [-BAT +] (Fig. 1). Use two (2) 12VDC batteries connected in series for 24VDC operation (battery leads included).

- It is required to connect appropriate signaling notification devices to AC FAIL & BAT FAIL (Fig. 1) supervisory relay outputs. Use 22AWG to 18AWG wires. AC FAIL will report in 5 minutes. To delay report 6 hours cut "AC delay" jumper.

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.

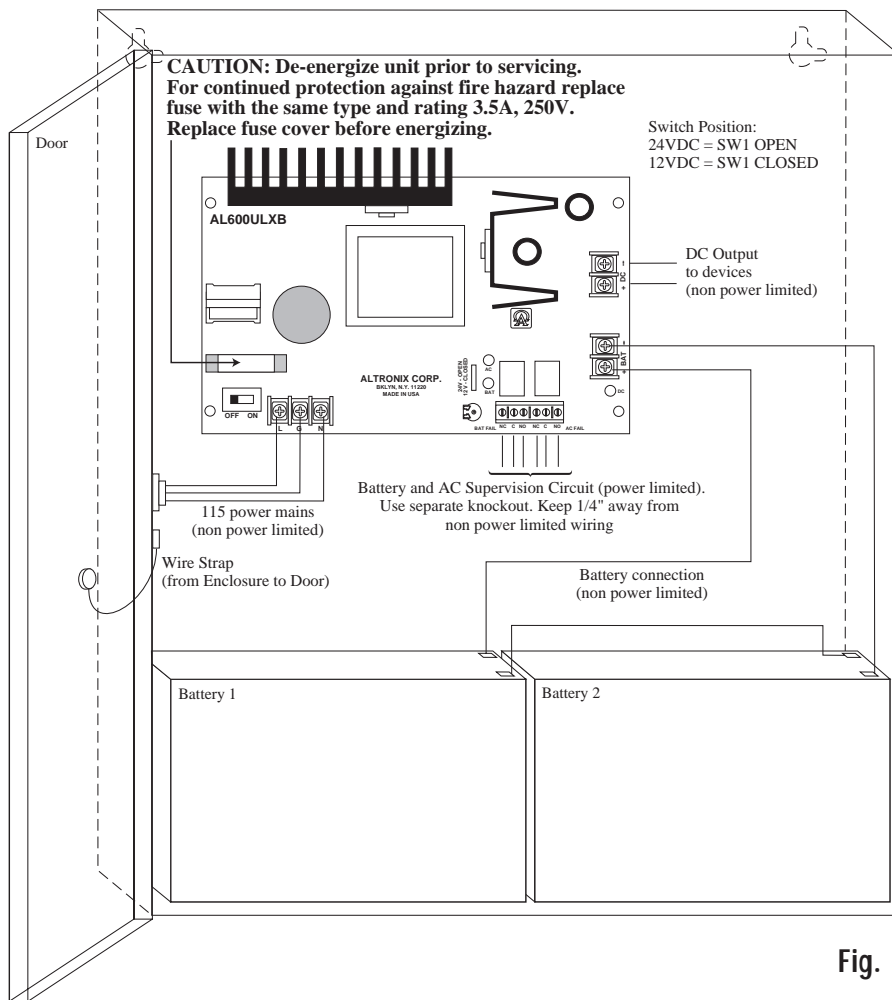


Fig. 1

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

Terminal Identification:

Terminal Legend	Function/Description
L, G, N	Connect 115 VAC to these terminals: L to hot, N to neutral, G to ground.
+ DC -	12VDC / 24VDC @ 6 amps continuous non-power limited output.
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: 12VDC output threshold set @ approximately 10.5VDC, 24VDC output threshold set @ approximately 21VDC.
- BAT +	Stand-by battery connections. Maximum charge rate .7 amp.

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

