

Overview:

The AL300ULXB is a power supply/charger that converts a 115VAC 50/60Hz input, into a Class 2 Rated power limited 12VDC or 24VDC output (see specifications).

Specifications:

Agency Listings:

- UL Recognized component for: Access Control System Units (UL 294), Power Supplies for use with Burglar-Alarm Systems (UL 603), Hospital Signaling and Nurse Call Equipment (UL 1069), Power Supplies for Fire Protective Signaling Systems (UL 1481).

Input:

- Input 115VAC 50/60Hz, 1.45 amp.

Output:

- Class 2 Rated power limited output.
- 12VDC or 24VDC selectable output.
- 2.5 amp continuous supply current.
- Filtered and electronically regulated output.

Battery Backup:

- Built-in charger for sealed lead acid or gel type batteries.

Battery Backup (continued):

- Maximum charge current .7 amp.
- Automatic switch over to stand-by battery when AC fails.
- Zero voltage drop when switched over to battery backup.

Visual Indicators:

- AC input and DC output LED indicators.

Supervision:

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

Additional Features:

- Short circuit and thermal overload protection.

Board Dimensions (approximate):

4.6"W x 7.5"L x 2.7"H

Power Supply Voltage Output Selections:

Output	Switch Position
12VDC	SW1 CLOSED (<i>Fig. 1</i>)
24VDC	SW1 OPEN (<i>Fig. 1</i>)

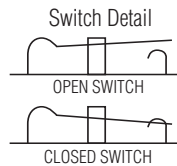
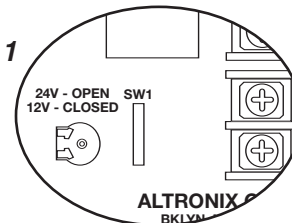


Fig. 1



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 = 2.5 amp Alarm = 2.5 amp	Stand-by = 1.0 amp Alarm = 2.5 amp	Stand-by = 300mA Alarm = 2.5 amp
24VDC / 12 AH Battery		Stand-by = 200mA Alarm = 2.5 amp	
24VDC / 40 AH Battery	Stand-by = 2.5 amp Alarm = 2.5 amp	Stand-by = 1.0 amp Alarm = 2.5 amp	Stand-by = 300mA Alarm = 2.5 amp

Installation Instructions:

The AL300ULXB should be installed in accordance with article 760 of The National Electrical Code or NFPA 72 as well as all applicable Local Codes.

- Mount the AL300ULXB in desired location/enclosure.
- Set the AL300ULXB to the desired DC output voltage by setting SW1 (*Fig. 1*) to the appropriate position (*refer to Power Supply Voltage Output Selections Chart*).
- Connect AC power (115VAC 50/60Hz) to terminals marked [L, G, N] (*Fig. 2*). 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.

- Measure output voltage before connecting devices. This helps avoid potential damage.
- Connect devices to be powered to terminals marked [- DC +] (*Fig. 2*).

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

7. Connect appropriate signaling notification devices to AC FAIL & BAT FAIL (Fig. 2) 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.

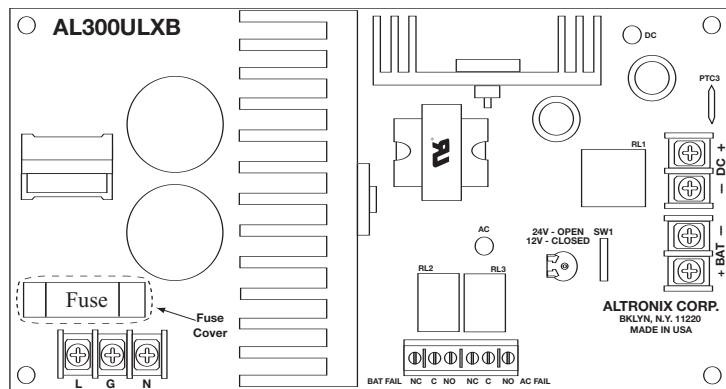


Fig. 2

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 (refer to 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 discharge is .7 amp.

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

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 115VAC 50/60Hz to these terminals: L to hot, N to neutral, G to ground.
- DC +	12VDC or 24VDC @ 2.5 amp continuous power limited output.
AC FAIL N.C., C, N.O.	Used to notify loss of AC power, e.g. connect to local annunciator/alarm panel. Relay normally energized when AC power is present. Contact rating 1 amp @ 28VDC
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 @ 28VDC
+ BAT -	Stand-by battery connections. Maximum charge current .7 amp.

Altronix is not responsible for any typographical errors.

