



AL400ULB - UL Recognized Power Supply/Charger

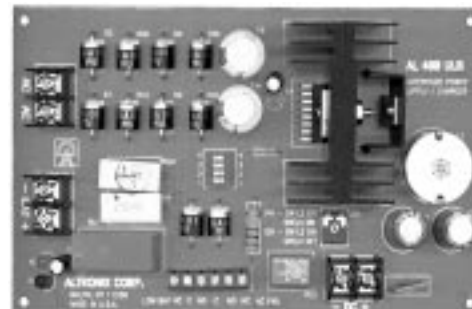
Overview:

The AL400ULB is a power limited supply/chargers that will convert a 28VAC input, into a power limited 12VDC or 24VDC output, (see specifications)

Specifications:

- UL recognized component.
- Switch selectable 12VDC or 24VDC **power limited output.**
- Class 2 rated.
- Input 28VAC 175VA (Altronix model #T28140).
- Maximum charge current 1.25 amp.
- 4 amps continuous supply current at 12VDC.
- 3 amps continuous supply current at 24VDC.
- Filtered and electronically regulated outputs.
- Built-in charger for sealed lead acid or gel type batteries.
- Automatic switch over to stand-by battery when AC fails.
- AC input and DC output LED indicators.
- AC fail supervision (form "C" contacts).
- Low battery supervision (form "C" contact).
- Low battery disconnect prevents batteries from deep discharge.
- Thermal overload protection.
- Short circuit protection.

Power Supply Board Dimensions: 4.25"H x 7"W x 1.75"D



Power Supply Output Specifications:

Output VDC	Switch Position	Max. Stand-by Load DC	Max. Alarm Load DC	Stand-by Battery
12VDC	SW 1, 2 On, SW3, 4 Off	4.0 amps 200mA	4.0 amps 4.0 amps	24V/40AH 12V/12AH
24VDC	SW1, 2 Off, SW3, 4 On	3.0 amps 200mA	3.0 amps 3.0 amps	24VDC 24V/12AH

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 = 4.0 amps Alarm = 4.0 amps	Stand-by = 1.0 amp Alarm = 4.0 amps	Stand-by = 300mA Alarm = 4.0 amps
24VDC / 12 AH Battery		Stand-by = 200mA Alarm = 3.0 amps	
24VDC / 40 AH Battery	Stand-by = 3.0 amps Alarm = 3.0 amps	Stand-by = 1.0 amp Alarm = 3.0 amps	Stand-by = 300mA Alarm = 3.0 amps

Installation Instructions:

The AL400ULB 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 AL400ULB in desired location/enclosure.
2. Connect 28VAC 175VA (Altronix model #T28140) transformer to terminals marked [AC, AC]. (Fig. 1)
Use 18 AWG or larger for all power connections (Battery, 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). Minimum .25" spacing must be provided.

3. Set the AL400ULB to the desired DC output voltage setting the switches to the appropriate positions (see power supply output specification table).
4. 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.
- 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 [- BAT +] (Fig. 1) as marked on the unit (battery leads included). Use two (2) 12VDC batteries connected in series for 24VDC operation.
 - Connect supervisory trouble reporting devices to outputs marked [LOW BAT, AC FAIL] (Fig. 1) supervisory relays marked [N.O., C, N.C.]. Use 22 AWG to 18 AWG for AC Fail & Low Battery reporting.

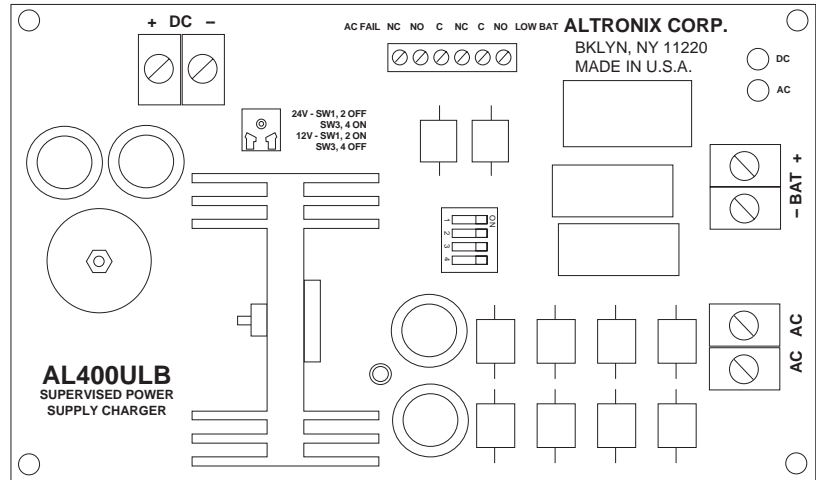


Fig. 1

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 1.25 amps.

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
AC/ AC	Low voltage AC input 28VAC 175VA (Altronix model #T28140).
+ DC -	12VDC 4 amps continuous power limited output. 24VDC 3 amps continuous power limited output.
AC FAIL C, N.O., N.C.	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.
LOW BAT 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 rate 1.25 amp.



MEMBER

Altronix is not responsible for any typographical errors. Product specifications are subject to change without notice.