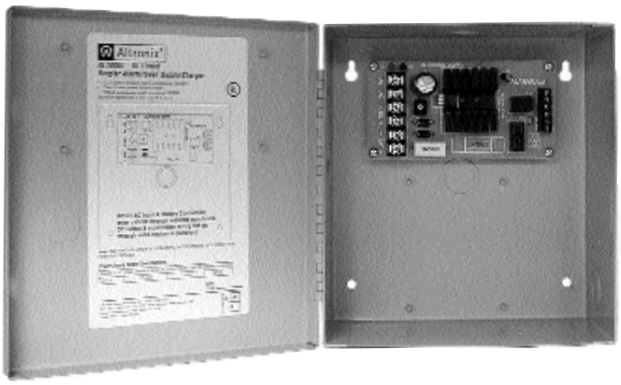
AL100UL - UL Listed Linear Power Supply/Charger

Rev. 062001

Overview:

The AL100UL power supply converts 16.5VAC, 20VA to a 12VDC power limited output (see specifications). The AL100UL is UL Listed for burglar alarm applications.



Specifications:

Agency Listings:

- UL Listed for Burglar Alarm Systems (UL603).
- Class 2 rated power limited output.

Input:

- 16.5VAC, 20VA from UL Listed, Class 2 transformer.

Output:

- 12VDC power limited output.
- Maximum charge current is .5 amp.
- 750mA continuous supply current at 12.5 to 13.9VDC.
- Filtered and electronically regulated output.

Battery Backup:

- Built-in charger for sealed lead acid or gel type batteries.
- Automatic switch over to stand-by battery when AC fails.
- Low battery disconnect prevents batteries from deep discharge.

Supervision:

- Low battery and AC Fail supervision form “C” contacts (1 amp @ 28VDC).

Visual Indiacators:

- AC input and DC output LED indicators.

Additional Features:

- Short circuit and thermal overload protection.
- Unit is complete with power supply and enclosure.
- Includes battery leads.

Enclosure Dimensions:

8”H x 7.25”W x 3.5”D

Installation Instructions:

The AL100UL should be installed in accordance with the National Electric Code and all applicable local regulations.

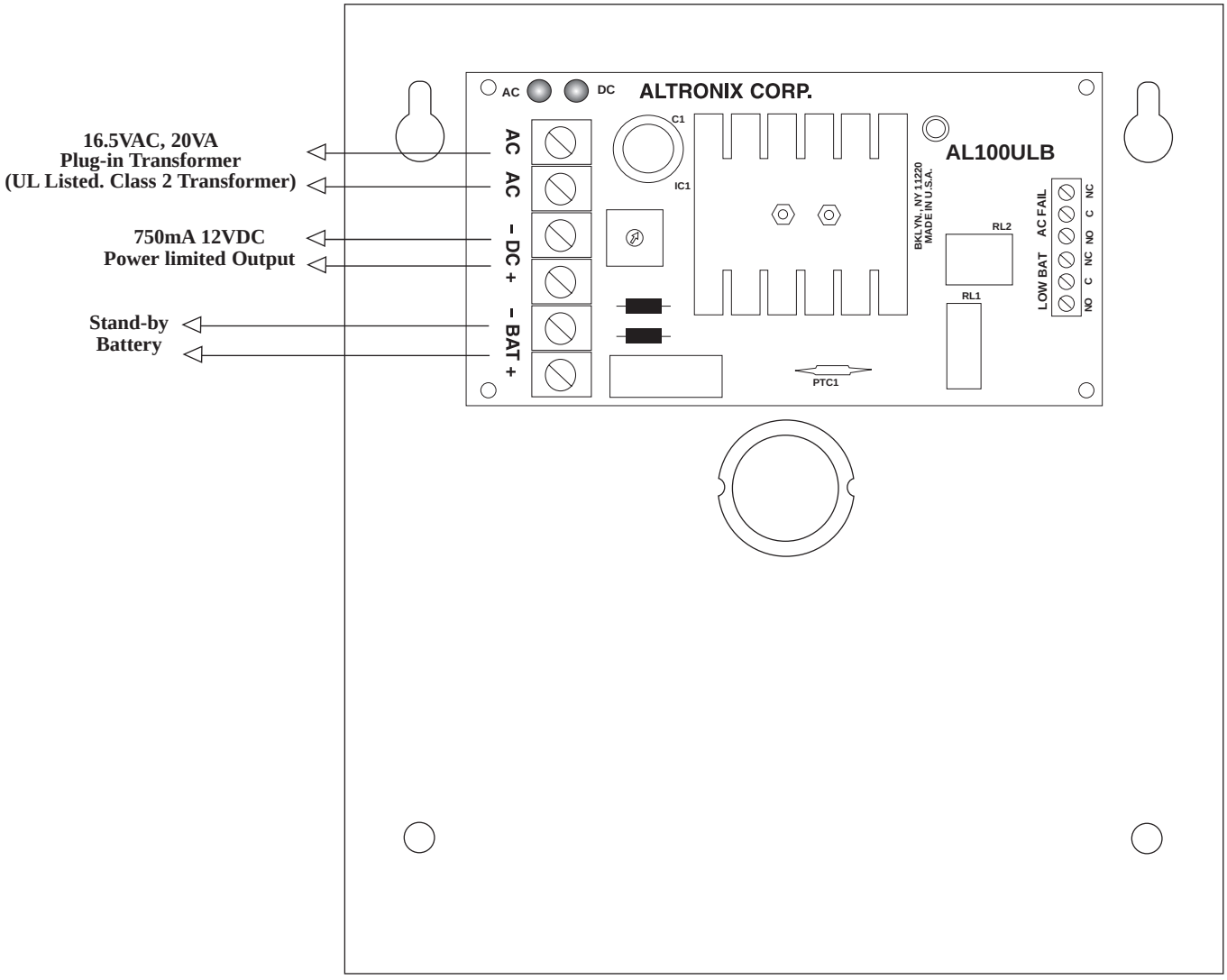
1. Mount the AL100UL in desired location.
2. Connect a 16.5VAC, 20VA Class 2, UL Listed plug-in transformer to the terminals marked AC.
3. Connect devices to be powered to terminals marked [+ DC -].
   Note: It is important to measure output voltage before connecting devices. This helps avoid potential damage.
4. Connect the stand-by battery to terminals marked [- BAT +] (battery leads included).
5. Connect appropriate signaling notification devices to AC Fail and Low Bat supervisory relay outputs.
   Note: To meet UL requirements, AC Supervisory outputs must be connected to the zone of Alarm Control Panel or to visual AC trouble indicator.
   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. When the use of stand-by batteries are desired, they must be lead acid or gel type.

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 discharge is 500mA.
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.



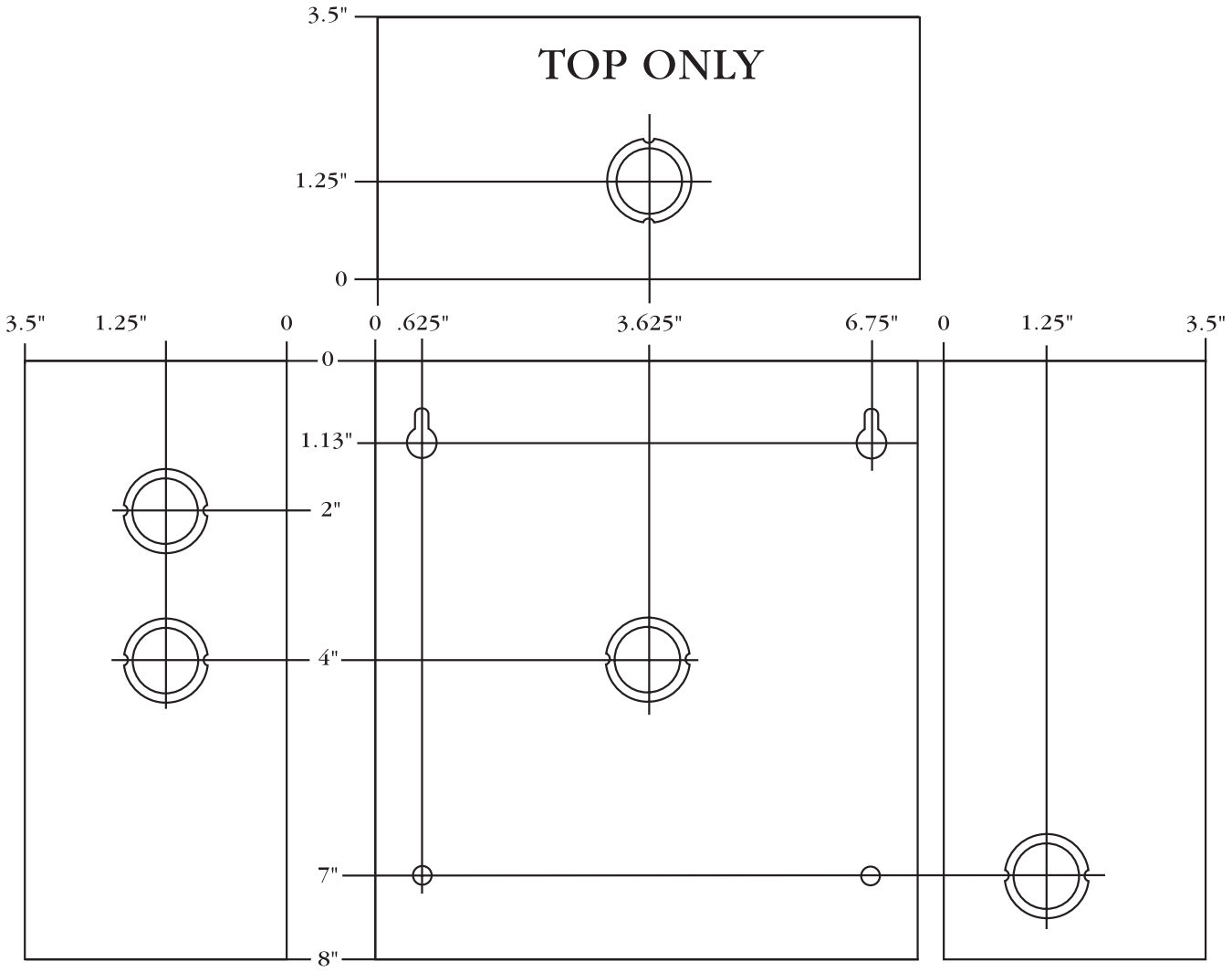
Stand-by Specifications (Using (1) 4AH 12VDC Battery):

Current Draw	Stand-by Time	Alarm Time
750mA	4 hours	15 mins.

Terminal Identification:

Terminal Legend	**Function/Description**
AC/AC	Low voltage AC input (16.5VAC/20VA). UL Listed. Class 2 plug-in transformer.
+ DC -	12VDC @ 750mA continuous power limited output.
- BAT +	Stand-by battery connections. Maximum charge rate 500mA.
AC FAIL N.C., C, N.O.	Used to notify loss of AC e.g connect audible device or alarm panel. Relay is normally energized when AC power is present. Contact rating 1 amp @ 28VDC.
LOW BAT N.C., C, N.O.	Used to notify low battery condition e.g connect audible device or alarm panel. Relay is normally energized. Contact rating 1 amp @ 28VDC.

Enclosure Specifications:
8.5”H x 7.25” W x 3.5” D



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