

# AL201UL Access Control Power Supply/Charger

### **Overview:**

AL201UL is a power limited power supply/charger that converts a 24VAC / 60Hz plug in Transformer input, into 12VDC output, (refer to specifications). The AL201UL is UL Listed for Burglar Alarm Installation (UL603), and for Access Control (UL294). It must be installed in accordance with National and Local Electrical Codes and Regulations.

## **Specifications:**

- UL Listed Burglar Alarm and Access Control (UL603, UL294).
- Input 24VAC, 40VA from UL Listed
- Class 2 direct plug-in transformer.
- 12VDC power limited, Class 2 output.
- 1.75 amp continuous supply current @ 12VDC.
- Filtered and electronically regulated output.
- Maximum charge current: 400mA.
- Automatic switch over to stand-by battery when AC fails (zero voltage drop).
- AC fail supervision (form "C" 1 amp @ 28VDC).
- Low battery supervision (form "C" 1 amp @ 28VDC).
- AC input and DC output LED indicators.
- Short circuit and thermal overload protection.
- Includes power supply, enclosure and battery leads.

Enclosure Dimensions: 8"H x 7.25"W x 3.5"D

## **Power Supply Output Specifications:**

Output VDC	Max. Stand-by Load DC	Max. Alarm Load DC	Battery (optional)
12VDC	1.75 amp	1.75 amp	12VDC / 7AH

## **Stand-by Specifications:**

Output	4 hr. of Stand-by & 5 Minutes of Alarm
12VDC / 7 AH Battery	Stand-by $= 1.25$ amp

## Installation Instructions:

The AL201UL should be installed in accordance with The National Electrical Code as well as all applicable Local Codes. *Refer to Terminal Identification Chart on page 2 for a description of each terminal function.* 

- 1. Mount the AL201UL in desired location.
- Connect 24VAC, 40VA UL Listed Class 2 direct plug-in transformer to terminals "XFMR INPUT". Use 18 AWG or larger for all power connections (Battery). Use 22 AWG to 18 AWG for power limited circuits (DC output, AC FAIL and LOW BAT supervisory relays).

#### Keep power limited wiring separate from non-power limited wiring (Battery Wires). Minimum .25" spacing must be provided.

**Note:** It is important to measure output voltage before connecting devices. This helps avoid potential damage. 3. Connect battery to terminals [+ BAT -] as marked on the unit (battery leads included).

4. 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 *(refer to Power Supply 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 400mA.

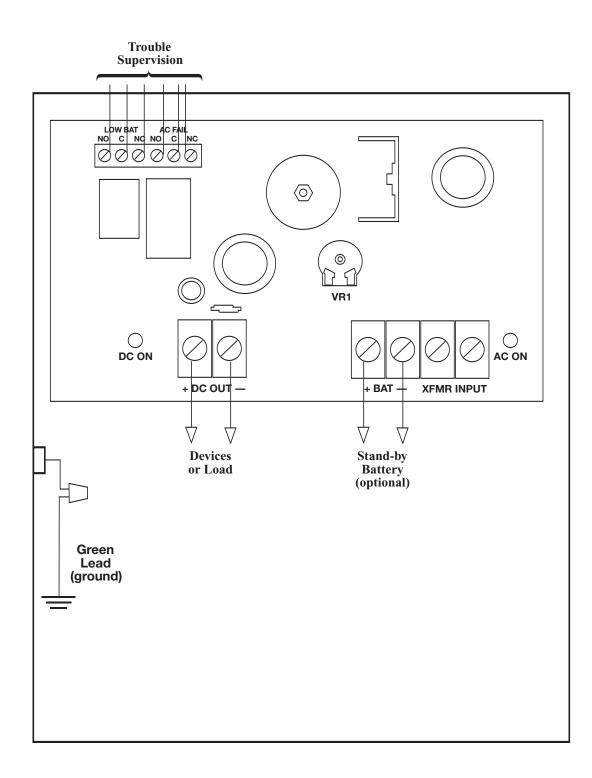
Note: Expected battery life is 5 years, however it is recommended changing batteries in 4 years or less if needed.

## **LED Diagnostics:**

Red (DC)	Green (AC)	Power Supply Status
ON	ON	Normal function
ON	OFF	Battery backup is powering output
OFF	ON	No DC output
OFF	OFF	Loss of AC. Discharged or missing stand-by battery. No DC output.

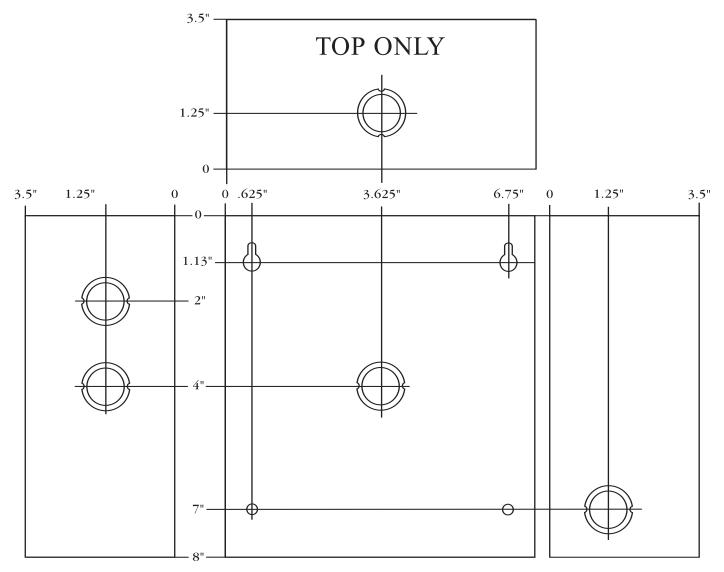
### **Terminal Identification:**

Terminal Legend	Function/Description
XFMR INPUT	Low voltage AC input.
+ DC OUT –	Continuous positive (+) DC power output voltage. Common negative (-) output (ground).
+ BAT -	Stand-by battery connections.
AC FAIL N.O., C, N.C.	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.O., C, N.C.	Used to notify low battery condition e.g connect audible device or alarm panel. Relay is normally energized. Contact rating 1 amp @ 28VDC.



### Enclosure Dimensions:

8.5"H x 7.5"W x 3.5"D



Altronix is not responsible for any typographical errors.



