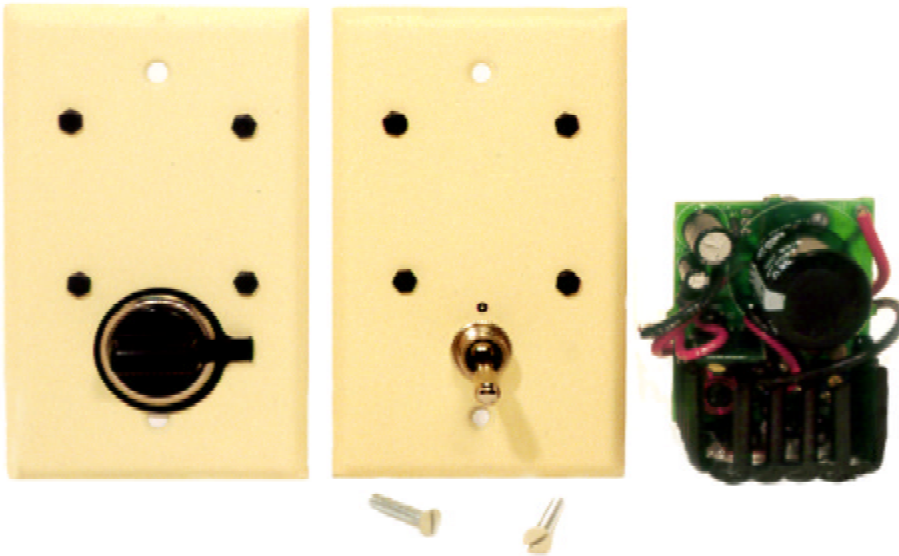


Linear Power Supply, 2 Amp

Adjustable, Regulated Power for Electronics



Crystal-clear performance from a battery bank

With this DC Linear Power Supply, you can power cell phones, stereos, alarm systems, and most other electronics directly from a bulk storage battery or direct from a solar panel with crystal-clear performance. Gone forever is the interference so often associated with AC inverters and complex wiring systems. The "shot noise", squeal, and short life so characteristic of low cost, single stage converters are never a problem

Voltage is not only reduced to a preset, adjustable level, but held steady regardless of shifting parameters including low or charging battery or load variations. Meanwhile, annoying and potentially harmful spikes and power surges are heavily dampened by the patented, two-stage design. "Ground loops", which result in hum in audio system and false triggering in alarms, are also eliminated.

A powerful 2 amps continuous current capacity (up to 3 amps surge) is ample for most appliances, while a nominal 88 percent conversion efficiency holds battery drain to an absolute minimum.

If overloaded, power is automatically reduced to a safe level and restored once the overload is removed. A no-load current draw of 14mA -- about the same as an LED -- delivers negligible battery drain while in standby mode.

Resetting the output voltage, even to match newer battery chemistries such as 7.2V, is easy using only a voltmeter and small screwdriver. 12V units can even be set for 12V and 24V units for 24V to condition output and prevent damaging overvoltage such as might be caused by a multistage or "equalizing" battery charger, or nicad.

Units are ready-to-install in a 1-gang outlet box. Standard is either a lighter-type receptacle for easy attachment of appliances via a standard, fused adapter cord (such as Radio Shack part# 270-1528), or an on/off switch.

A Voltage Doubler module to adjust a 12V battery input anywhere between a 5V and 24V regulated output can also be included. See table, reverse side.

Features

- Reduces battery voltage to a preset, adjustable level
- Holds delivered voltage steady
- Removes annoying interference
- 12V and 24V battery versions at same price
- Low cost, high reliability

Applications

- Cell phones
- Stereos
- Alarm systems
- Preventing overvoltage from an "equalizing" or multistage battery charger

LINEAR POWER SUPPLY 24V SYSTEM PERFORMANCE		
DELIVERED VOLTAGE	CONTINUOUS CURRENT	EFFICIENCY
24V	2A	95%
20V	2A	88%
18V	2A	86%
15V	2A	83%
12V	2A	80%
9V	2A	77%
7.4V	2A	73%
6V	1.3A	68%
5V	1A	62%
Operation below 5V not recommended		

Technical Specifications

Mode of Operation

Two stage (PWM and linear) with optical interstage coupler. Non-isolated, point-of-use design

Supply Voltage and Adjustment Range

12V Version: 10 to 20 vdc battery working range. Absolute max is 32 vdc (point where transient suppressor activates). Adjustment range is from 1.2 vdc to supply voltage minus about 0.5 vdc.

24V Version: 20 to 28 vdc battery working range. Absolute max is 40 vdc (point where transient suppressor activates). Adjustment range is from 1.2 vdc to supply voltage minus about 0.5 vdc. Do not adjust for over 25 vdc

Output Current (general)

System can deliver 2A continuous at most settings and ambient temperatures, and up to 3A surge where current limiting activates. Output current is automatically reduced to a safe level in the event of a thermal or other overload, and restored once the overload is removed. Includes "foldback" current limiting for continuous short circuit protection

Ambient Temperature Range

Rated current between - 40 F (- 40 C) and 90 F (32 C) ambient; 75% of rated up to 115 F (46 C)

Load Types

Resistive and capacitive. Use with motors is application-specific, and therefore not recommended

Reverse Polarity Protection

Standard blade-type 15A fuse blows if input leads are reverse connected to the battery

Line Regulation

Nil as long as supply voltage remains within specified range

Load Regulation

Nil from zero load to maximum rated load at any output setting

No-Load Current Draw

About 14mA

Size

Sized to fit a standard, 1-gang outlet box

Transient Protection

Delivered voltage is decoupled from spikes in supply voltage via heavy filter capacitors and transient suppressors (both input and output). An additional external transient suppressor (such as Radio Shack part# 43-10) is recommended when using telephone equipment in lightning prone areas

Output Ripple Voltage

12V Version: About 50mV peak-to-peak at full load rated load

24V Version: About 100mV peak-to-peak at full rated load

Weight

About 4 oz (120 gm)

Accessories Included

Color coordinated switch plate mounting screws and detailed installation instructions

Warranty and Disclaimer

Although Manufacturer warrants the goods, so far as the same are of its manufacturer, against defects in materials and workmanship under normal use and service for which they were designed for a period of 90 days after invoice date, Manufacturer's obligation under this warranty are limited, at its option, to the replacement of the part or parts determined to be defective or to the refund of the purchase price.

Claims made in this data sheet are based on extensive testing and are believed to be true. Manufacturer shall under no circumstances be liable for any special, indirect, incidental, or consequential damages owing to failure of the goods. Manufacturer makes no warranty of fitness for a particular purpose or merchantability or any other warranty, oral or written, expressed or implied, except as specifically set forth herein. Do not use ZANE products as critical components in life support devices or systems, aircraft, or other hazardous applications.

Any goods returned under warranty must be returned freight prepaid

Linear Power Supply, 2A Packaging Options

Part #	UPC Number	Input Voltage	Max Current
ALN-30L-SK-12V With socket on 1-gang plate	12104	12V	2A
ALN-30L-SK-24V With socket on 1-gang plate	12204	24V	2A
ALN-30L-SW-12V With switch on 1-gang plate	12105	12V	2A
ALN-30L-SW-24V With switch on 1-gang plate	12205	24V	2A
ALN-30L-VDSK-24V Voltage Doubler, socket on 2-gang plate	12296	12V	2A
ALN-30L-VDSW-24V Voltage Doubler, switch on 2-gang plate. Adjustable out up to 24V from a 12V input	12297	12V	2A