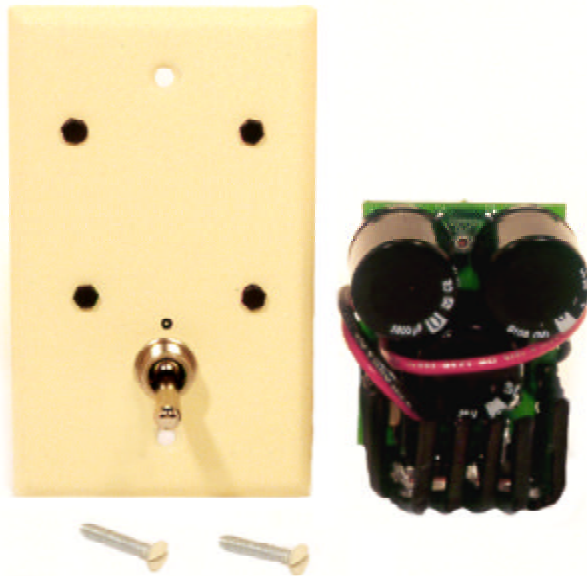


# Voltage Doubler, 2 and 7.5 Amp Versions

## Double Voltage From a 6V or 12V Battery Bank



### Features

- Convenient, low cost source of double voltage from a 6V/12V battery
- Easy outlet box installation in minutes
- Amazingly efficient
- Powers almost any load including electronic
- Electrically quiet: nil radio interference
- Low standby current

### Low-cost source of double voltage

With this DC Voltage Doubler, you can power higher voltage fans, lights, and electronics directly from a lower voltage battery bank: Units to double both a 6V and a 12V source voltage at a powerful 2 amp or 7.5 amp output now available. An included switch plate allows easy installation almost anywhere increased voltage is needed with zero electrical system modification.

Standby current draw is a low 16 mA (about the same as an LED). Conversion efficiency as high as 99 percent -- the highest of any typology -- minimizes battery drain under light or continuous use, or anything in-between.

Because of the close approximation to double battery voltage, a 12V/24V battery can even be charged in parallel. A maximum backflow of about 10mA virtually eliminates the requirement for a blocking diode.

A ruggedized, top quality construction means high reliability in the adverse electrical and environmental conditions encountered in electrical systems -- even under continuous use at high current. Double filtering reduces radio interference to the nil-to-none point, while an included on/off switch reduces current draw to zero when inactive. Each unit is silicone sealed for extra corrosion protection.

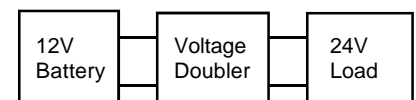
Each Voltage Doubler comes complete and ready-to-install into a standard, outlet box (1-gang, 2-gang respectively) with color-coordinated mounting screws and detailed installation instructions. Installation only takes about 10 minutes using common hand tools.

### Applications

- Double voltage from solar panel to power electronics
- Charge parallel battery bank of twice source voltage
- Power fluorescent and incandescent lights

Protected under US Patent 5,237,263

#### Wiring Diagram(example):



# Technical Specifications

## Mode of Operation

Dual stage voltage doubler. Point-of-use design

## Supply Voltage

**6V Battery Version:** Operates from 4 to 11 vdc (working range). Can take up to 13 vdc for a short time.

**12V Battery Version:** Operates from 8 to 15 vdc (working range). Can take up to 19 vdc (absolute maximum) for a short time.

Fuse unit in electrical box. Driven device should be fused separately at rating recommended by device manufacturer

Output voltage at positive and negative output leads differs from those at input leads and cannot be connected back in any way. Paralleling is not possible. Battery or filtered dc only.

## Output Voltage Range

Essentially double that of input voltage

## Output Current (general)

System can deliver about 2A or 7.5A (depending on version) before exceeding a 10% voltage drop where some appliances may fail to operate satisfactorily. Output leads must remain isolated from input leads or aberrant operation and damage may result

## Ambient Temperature Range

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

## Load Types

Resistive, capacitive, and inductive. Can also drive mixed loads

## Voltage Drift

Nil with steady input voltage

## Reverse Polarity Protection

User-installed input fuse blows if input leads are reverse connected. Included fuse link blows if no user installed fuse is present

## Power Dissipation of Drive Circuitry

No-load current draw is about 16mA. Nil current used in click-off position

## DC-DC Conversion Efficiency

About 99% at full rated load

## Transient Protection

Double resistive/capacitive filtering, zener diode clamping

## Size

Sized to fit a standard, 1-gang outlet box

## Output Ripple Voltage

About 0.1V peak-to-peak at full rated current

## Weight

About 4 oz (120 gm)

## Heat Sink

Heat sink is electrically isolated from voltage and acts as an open frame circuit enclosure. Temperature rise under maximum load is about 20 F (11 C) above ambient

## Accessories Included

Color-coordinated 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

## DC Voltage Doubler Outlet Box Installation

	Part #	UPC Number	Input Voltage	Maximum Current
<b>Load Types</b> Resistive, capacitive, and inductive. Can also drive mixed loads	AVD-34L-6V (Switch, 1-gang plate)	18805	6V	2A
<b>Voltage Drift</b> Nil with steady input voltage	AVD-34L-12V (Switch, 1-gang plate)	18905	12V	2A
<b>Reverse Polarity Protection</b> User-installed input fuse blows if input leads are reverse connected. Included fuse link blows if no user installed fuse is present	AVD-48L-6V (Switch, 2-gang plate)	19005	6V	7.5A
<b>Power Dissipation of Drive Circuitry</b> No-load current draw is about 16mA. Nil current used in click-off position	AVD-48L-12V (Switch, 2-gang plate)	19105	12V	7.5A