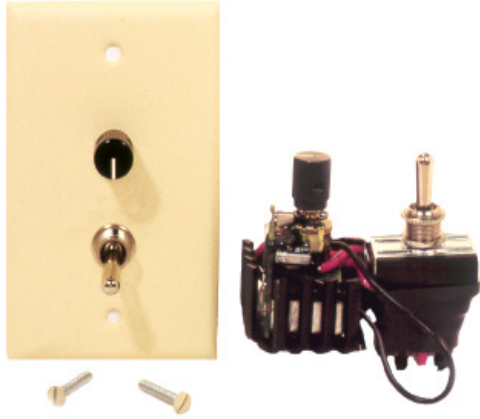


Variable Speed DC Fan Control

An All-in-one System for Optimal Air Delivery



Have it all your way with the ZANE DC Fan Speed Control: Air delivery adjustable between a gentle breeze and a cooling stream, overall lower energy draw, reduced acoustical noise. When operating a fan for extended periods between battery recharges, why use anything else?

With this ZANE Fan Speed Control, blade speed is continuously variable between complete stop and full speed, while blade direction is reversible to either circulate air during summer months, or destratify air during winter.

An efficiency of 97 percent at all speeds and directions dramatically minimizes battery drain, while about 99 percent of battery voltage is delivered to the fan at full setting for maximum fan performance that truly equals a toggle switch. A center-off switch position allows easy duplication of an optimal speed setting, while a tactile on feature eliminates power draw when inactive.

Ruggedized, high quality construction means reliability you can count on under adverse electrical and environmental conditions. Capacitive silencing reduces motor hum to the vanishing point, while double filtering

dampens radio interference to the nil-to-none range. An included activation wire allows the fan to be on/off switched by the contacts of a standard wall thermostat at a few milliamps current, for example, to deactivate the fan as night temperatures fall, and reactivate the fan once again as day temperatures rise.

12V versions are available for your choice of either 1.5 or 2.5 amps rated capacity, while the 24V version has a rated capacity of 1.5 amps. A Voltage Doubler module can be included for operating a 24V fan from a 12V battery source. The reversing switch can be eliminated if unneeded (see table, reverse side).

Installation into a standard outlet box only takes about 10 minutes using common hand tools.

A resealable clamshell package can be included for counter sales. Transparent front label with supersized text lists key electrical ratings and displays package contents. Accessible control knob lets customer evaluate quality feel and smooth rotary action. Rear text panels highlight applications and benefits.

Features

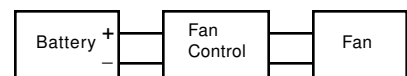
- Full range speed control plus tactile on/off
- Blade reversal for summer and winter use
- Silencing capacitor delivers truly quiet operation
- Nil radio interference
- 12V or 24V operation
- Easy installation

Applications

- Adjust ceiling or portable fan anywhere between a gentle breeze and a cooling stream. Reverse blade rotation to best circulate/destratify air during summer and winter months
- Turn up an exhaust fan located over a stove, counter, or sink to vent air fast, then down for a comfortable air exchange. Reverse blade direction to draw in cool night air
- Use on/off activation wire and a thermostat to automatically disable and enable fan as temperatures change over the day

Protected under US Patent 5,237,263
Pat Pend
Made in USA
web: www.zaneinc.com

Wiring Diagram



Technical Specifications

Mode of Operation

Continuously variable, pulse width modulation

Supply Voltage

12V Version: 8 to 20 vdc working, up to 32 vdc momentary.

24V Version: 18 to 30 vdc working, up to 40 vdc momentary.

Unit must be fused at electrical box. Turn unit off during battery equalization to avoid life-shortening overvoltage

Output Voltage Range

From zero vdc to essentially supply voltage

Continuous Output Current

Full rated current up to 105 F (40 C) ambient, 75% of rated current up to 115 F (46 C)

Ambient Temperature Range

- 40 F (- 40 C) to 115 F (46 C) (with restrictions noted)

DC-DC Conversion Efficiency

About 97% at full setting

Load Types

Optimized for fans

Reverse Polarity Protection

Power can be reverse connected across the input leads for a short period without damage. Fuse link on rear of circuit board blows if power is connected across negative leads

Forward Transient Protection

Double resistive/capacitive filtering, zener diode clamping

Size

Sized to fit a standard 1-gang outlet box

Weight

From 3 to about 5 oz (84 to 140 gm) depending on options

Load Regulation

At a given setting a relatively constant voltage (within about 3%) is delivered to the motor under full load

Line Regulation

Directly proportional to supply voltage

Voltage Drift

Nil with steady input voltage

Power Dissipation of Drive Circuitry

Nominally about 0.038W. Nil current used in click-off position

Service Life of on/off Switch

About 50,000 cycles

Heat Sink

Heat sink is electrically isolated from voltage and acts as an open frame circuit enclosure. Temperature rise under maximum load is about 40 F (22 C) above ambient

Accessories Included

Color coordinated switch plate mounting screws and detailed installation instructions

Safety Construction

Conforms with ANSI-12V Standards

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. Quotation, order acknowledgment, purchase, etc. does not grant or imply a license under any present or future patents owned by seller except to extent purchases are made from seller.

Any goods returned under warranty must be returned freight prepaid to ZANE International Inc., Minden, NV.

Variable Speed Fan Control for Outlet Box Installation

Part #	UPC Number	Input Voltage	Maximum Current
AFN-44L-12V	09800	12V	1 1/2A
AFN-44L-NR-12V (same but no reversing)	09807		
AFN-44L-24V	09900	24V	1 1/2A
AFN-44L-NR-24V (same but no reversing)	09907		
AFN-48L-12V	10000	12V	2 1/2A
AFN-48L-NR-12V (same but no reversing)	10007		
AFN-44L-VD-24V Includes Voltage Doubler Module, on 2-gang wall plate	09906	12V	1 1/2A
AFN-44L-NRVD-24V (same but no reversing)	09981		