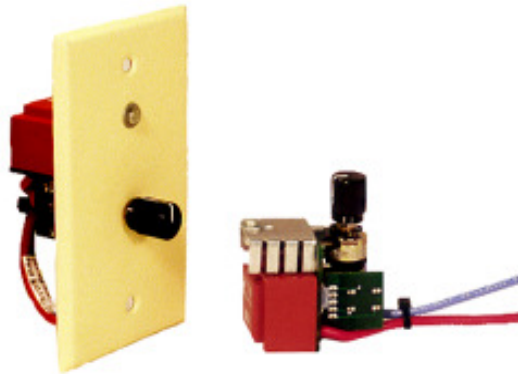


Two-Wire, Low-Voltage AC Dimmer

Packed With Features for Incandescent Lighting



New dimensions in low-voltage AC lighting

With the new ZANE Two-Wire, Low-Voltage AC Dimmer, you can blend safe-to-the-touch 12 or 24 VAC with the superior illumination qualities of low-voltage incandescent lighting in new and innovative ways. Energy efficient. Halogen compatible.

First of all, this ZANE AC Dimmer installs on the low-voltage side of a magnetic step-down transformer for easy system design, fast installation, individual control of fixtures, and affordable price (see diagram, below right).

Plus, the same two-wire hookup as a toggle switch allows installation into a standard outlet box in about five minutes. There is never a grounding or bypass wire to connect, or special components to match. An existing toggle switch can even be directly replaced with zero wiring system modification.

An innovative "pi" trigger circuit delivers flicker-free, wide-band dimming performance -- from warm glow through full-spectrum halogen brightness. Triac-based power circuitry coupled by a low-firing-point diac further minimizes waste heat and maximizes efficiency and brightness.

A quality machined aluminum knob adds elegance and value to the installation. Rotary action is crisp and smooth, while a tactile off position reduces power drain to zero when inactive. An improved response curve allows better control over the important low brightness range. Bugs are not attracted at low settings.

You can even optimize minimum brightness "on the fly" via an included adjustment potentiometer to compensate for low or high AC source voltage, or to create some special effect. Soft start/end extend the life of expensive bulbs.

A heavy RF noise filter delivering about 10 times the suppression of an ordinary filter attenuates interference with nearby radios and other electronic appliances to the nil-to-none range.

Each Dimmer comes complete and ready-to-install with wiring harness, tagged leads, and detailed installation instructions. The standard switch plate is metal (ivory only), with stainless steel optional at nominal extra cost. A resealable clamshell package for counter sales is also optional. 12 and 24 VAC, 10A (125/250W) and 20A (250/500 W) versions are available.

Features

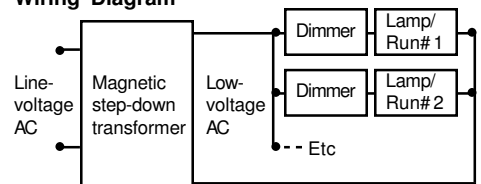
- Installs on the low voltage side of a magnetic step-down transformer for easy design, fast installation, and individual control
- Two-wire hookup: No grounding wire, bypass wire, component matching -- ever
- Wide-band brightness performance -- from warm glow through high intensity. Halogen compatible
- Rotary adjustment with tactile on/off. Soft start/end extend bulb life
- Heavy filtering minimizes RF noise
- 12 and 24 VAC, 10A (125/250W) and 20A (250/500 W) versions available

Applications

- **Yard:** Optimize illumination for pool, patio, spa, pathway, pond, fountain, security. Bugs are not attracted at low settings
- **Architectural and Landscape:** Heighten dramatic effect and improve balance for spot, wash, flood. "Moon Garden" applications. Hard-to-replace bulbs last significantly longer
- **Interior:** "Presentation" lighting, night lighting, stage lighting
- **Mobile:** Variable setting for RV and marine interior and exterior

Protected under US Patent 7,180,250
Made in USA
web: www.zaneinc.com

Wiring Diagram



Technical Specifications

Mode of Operation

Triac-based with pi-configured trigger circuit, low-firing-point diac, and heavy RF filter

Supply Voltage, Breaker

12 VAC or 24 VAC (nominal). Each lighting circuit should be individually fused or breakered for maximum safety

Continuous Output Current

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

Dimming Range

From about 10% min (factory setting) through about 90% max. Can be manually set for about 5% min

Ambient Temperature Range

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

Installation Procedure

Installs directly into a standard 1-gang outlet box with provided plate screws

AC-AC Conversion Efficiency

About 85% at full rated load

Lead Wires

Should be connected as per color coded lead wiring (as shown in installation instructions) for best RF noise suppression

Transient Protection

Pi trigger circuit acts as spike filter for additional protection against transient voltages

Size

About 1.8" (45 mm) by 1.3" (33 mm) by 1.7" (43 mm) high (excluding knob)

Weight

About 6 oz (168 gm) for 10A version; about 8 oz (225 gm) for 20A version

Load Types

Resistive loads (incandescent bulbs, heating elements, etc) only. Not suitable for LED lighting or motors

Line Regulation

Directly proportional to AC line voltage

Load Regulation

Generally less than 3% from minimum load to maximum load at any setting

Voltage Drift

Nil with steady input voltage

Minimum Load

1A (12W) or slight flickering may occur

Service Life of on/off Switch

About 50,000 cycles

Heat Dissipation

The metallic wall plate serves as an external heat dissipater, and should remain out of direct sunlight and unobstructed by thermal insulating material, etc for maximum service life of unit. Temperature rise under maximum load is about 40 F (22 C) above ambient (could become hot to touch under unusual conditions)

Accessories Included

Color coordinated switch plate mounting screws, tagged leads, 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. 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.

Two-Wire AC Dimmer for Outlet Box Installation

Part #	UPC Number	Input Voltage	Maximum Current/Watts
AC2-10AL-12V	27300	12V	10A/125W
AC2-10AL-24V	27400	24V	10A/250W
AC2-20AL-12V	27700	12V	20A/250W
AC2-20AL-24V	27800	24V	20A/500W