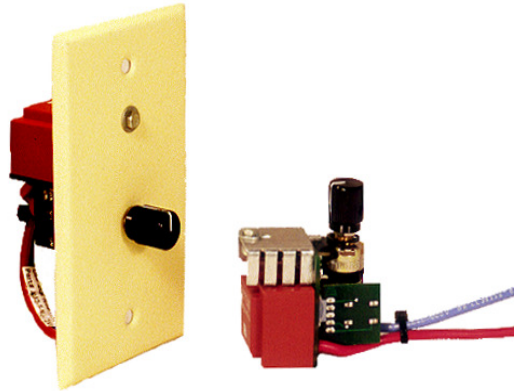


Two-Wire, Low-Voltage AC Dimmer

Packed With Features for Incandescent Lighting



New dimensions in low-voltage AC lighting

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

First, this ZANE AC Dimmer uniquely installs on the low-voltage side of a magnetic step-down transformer (see Wiring Diagram, below right). This means easy system design, individual control of fixtures, and affordable price.

Plus, the same two-wire hookup as a toggle switch allows 5-minute installation into a standard wall box. There is never a grounding or bypass wire to connect, or special components to match. An existing toggle switch can even be directly replaced in a retrofit application 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. An improved response curve allows more knob control over the important low brightness range.

Triac-based power circuitry coupled with a low-firing-point diac further minimizes waste heat and maximizes efficiency and brightness. A heavy RF noise filter delivering about 10x the suppression of an ordinary filter reduces interference with nearby radios and other electronic appliances to the nil-to-none range.

You can even optimize minimum brightness "on the fly" with the included adjustment potentiometer to compensate for high or low AC source voltage, or to set some special effect. Bugs are not attracted at low settings. Soft start/end extend the life of expensive bulbs.

A premium quality machined aluminum control knob with tactile on/off position adds value and function to the application.

Each Dimmer comes complete and ready-to-install with wiring harness, marked leads, and detailed installation instructions. A predrilled metal (ivory) or stainless steel wall plate can be optionally included at extra cost. 12 and 24 VAC, 10A (125/250W) and 20A (250/500 W) versions are available.

Features

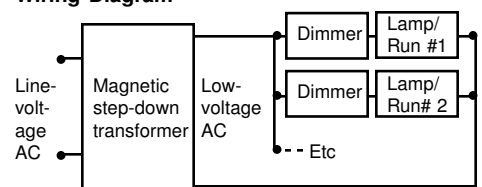
- Installs on the low-voltage side a magnetic transformer for easy installation, individually dimming, low cost
- Two-wire hookup: No grounding wire, bypass wire, component matching -- ever
- Wide-band brightness control -- from warm glow through high intensity
- Rotary adjustment with on/off. Soft start/end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

Applications

- Yard: Pool, patio, spa, pathway, pond, fountain. Bugs are not attracted at low settings
- Mobile: Marine and RV, interior and exterior
- Architectural and Landscape: Spot, wash, flood. "Moon Garden" applications. Hard-to-replace bulbs last significantly longer
- Interior "presentation" lighting
- Stage lighting

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, heavy RF filter

Supply Voltage/Breaker

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

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

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 to attenuate transient voltages

Size

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

Weight

About 3 oz (84 gm) for 10A version; about 8 oz (225 gm) for 20A version

Installation

Installs onto a metal panel or metal wall plate via 1/4" and 1/8" drilled holes on 1.3" centers. Mounting hardware included. Lugs, keys, flats unneeded

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 panel or wall plate serves as a heat dissipater, and should be mounted out of direct sunlight and unobstructed by thermal insulating material, etc. Temperature rise under maximum load is about 40 F (22 C) above ambient (could become hot to the touch in some unusual conditions)

Included Accessories

Detailed installation instructions, mounting hardware (bolt, nuts, washer, locking star washer, "o" ring). External heat sink is optionally available

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 Panel Installation

Part #	UPC Number	Input Voltage	Maximum Current/Watts
AC2-10AR-12V	26100	12V	10A/125W
AC2-10AR-24V	26200	24V	10A/250W
AC2-20AR-12V	26500	12V	20A/250W
AC2-20AR-24V	26600	24V	20A/500W