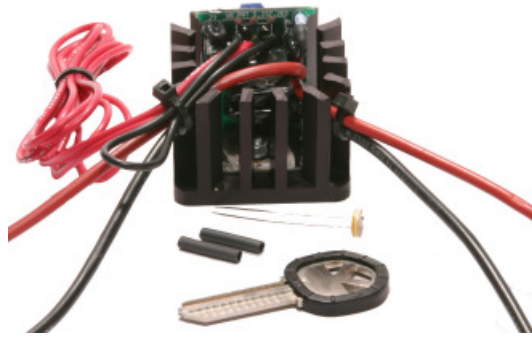


DC Beacon Flasher With Automatic Dimming

Energy Savings Plus Improved Lighting Effectiveness



Reduces power up to 50%, improves visibility

To conserve energy, protect the night vision of drivers, or meet local requirements, this ZANE DC Beacon Flasher With Automatic Dimming for incandescent and LED delivers a truly effective solution: a bright flash in full daylight, a progressively more muted flash as night falls, about half brightness at full dark.

An included photoresistor continuously samples ambient brightness and adjusts flash output accordingly. Degree of automatic dimming is even tunable "on the fly" to meet exact conditions via an included adjustment screw:

- * Full CCW delivers zero dimming (same performance as our Standard Flasher).
- * Full CW delivers maximum dimming, about one-quarter brightness at full dark, for example to prolong run time during dark winter months.
- * Center position restores factory preset of about half brightness at full dark.

Corresponding battery pack and solar array can be proportionally reduced to save cost, weight, and space for substantial savings.

A premium-cost tantalum timing capacitor greatly enhances flash stability under temperature and age stress, while open frame circuit construction and a heavy heat sink promotes long life and high reliability. Electrical connections are 100 percent soldered for long-term reliability. State-of-the-art control circuitry maintains a constant flash rate over normal battery voltage range, while low battery (below 11V) triggers a decreased rate as a visible indicator.

Installation is fast and sure with tagged leads, detailed installation instructions, and baseplate mounting holes. Only six electrical connections are required (see wiring diagram, below right). The included photoresistor typically mounts on the base of the control box to sample ambient conditions, but can alternately be mounted on the front of the box to brighten the warning flash in response to oncoming headlights. Leads can be reverse connected without damage.

The standard 60 flashes/minute rate is hand trimmed for extra accuracy, and all custom rates (50, 55 etc) are available. Silicon sealing provides extra protection against moisture, corrosive fumes, and other contaminants. Units for both 12V and 24V battery are available. A remote activation wire is included for such purposes as on/off radio-controlled activation for timed applications.

Features

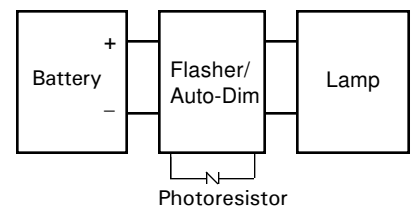
- Flash intensity automatically optimized to ambient conditions
- Single adjustment screw allows fine-tuning, with "normal" center position
- Modular package for fast installation into limited space
- Open frame circuit construction promotes long life and high reliability
- Accurate, stable flash rate -- standard 60 flashes/minute, all customs
- Drives incandescent and LED devices

Applications

- Highway beacons
- Marine buoys
- Continuous-duty flasher for mobile applications
- Towers
- Signage

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

Wiring Diagram



Technical Specifications

Mode of Operation

Pulse width modulation, with 50%/50% flash duty cycle. Automatic dimming circuitry applies an additional pulse width modulation over each flash pulse to control brightness

Flash Rate

Standard flash rate is 60 flashes/minute. Custom rates such as 50, 55 flashes/minute available

Flash Accuracy and Stability

Accuracy and stability are each about +/- 1 flash/minute typical

Supply Voltage Range

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

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

Continuous Output Current

Full 4A rated current up to 125 F (52 C) ambient, 3A up to 150 F (66 C)

Ambient Temperature Range

- 40 F (- 40 C) to 150 F (66 C) with restrictions noted

DC-DC Conversion Efficiency

About 98% at full rated load, slighter higher under partial loading

Reverse Polarity Protection

Input leads can be reverse connected without damage. Fuse link on rear side of circuit board blows if battery voltage is reverse connected across negative leads

Transient Protection

Double resistive/capacitive filtering, zener diode clamping

Size

About a 1.8" (42 mm) cube

Weight

About 3.5 oz (98 gm)

Installation

Installs through 1/8" holes drilled in a 1 1/2" square pattern. In some cases may be left hanging on the loom for fast field installation and improved cooling.

Line Regulation

Directly proportional to supply voltage

Voltage Drift

Nil with steady input voltage

Power Dissipation of Drive Circuitry

Less than 0.038W

Load Types

Incandescent and LED

Accessories Included

Detailed installation instructions, photoresistor, heat shrink insulators x2

Heat Sink

Heat sink is electrically isolated from voltage and acts as a protective, open frame circuit enclosure. Maximum temperature rise under load is about 15 F (8.5 C) above ambient

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.

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Part #	UPC Number	Input Voltage	Maximum Current
AFL-48R-TSAD-12V	08486	12V	4A
AFL-48R-TSAD-24V	08586	24V	4A