



www.PerihelionDesign.com



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**For Experimental Aircraft Use Only**

## The Very Best \$39.95 “13 Volt Idiot Light” *Since Hector was a Pup!*

They call these “*Idiot Lights*”. An “*Idiot*” is defined as an epithet that can be directed at anyone but you. So do this for your friends—they really need it.

Since your alternator and battery voltage is about 14.5 volts when the alternator is working, a Low Voltage Warning Indicator trips at 13 volts to tell you that your alternator has failed—and from that point you’re going to be losing electrical energy—so you’d better start making plans if you need the electrical power.

### Specs:

Trip: 13.0 volts, +/-0.02 volts  
Standby current: appx. 80  $\mu$ A, Tripped current: appx. 32 mA  
Automatic hysteresis (glitch suppressor)  
Viewing angle 60 degrees  
Color: Blinking Super-Bright Red 630 nm  
Gallium Aluminum Arsenide >600 mcd  
10mm LED

Less expensive, lighter weight, longer life, more rugged and far more accurate than Aircraft Spruce’s and free shipping to boot.

### Price at Aircraft Spruce

LOW VOLTAGE WARNING INDICATOR  
P/N 33-2013

**\$156.95 + Shipping**

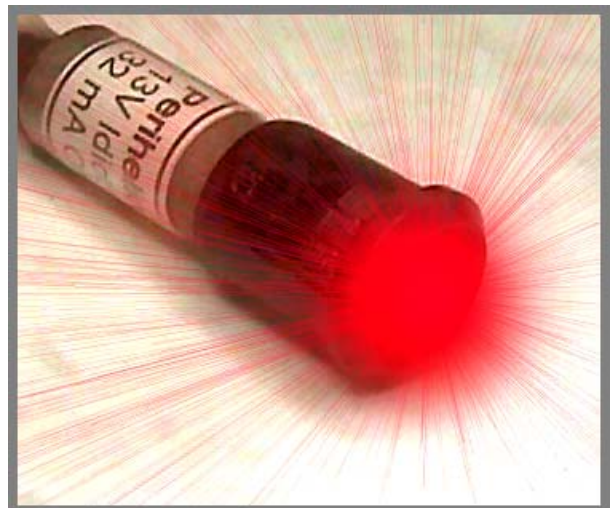
### Price at Perihelion Design

LOW VOLTAGE WARNING INDICATOR

**\$39.95**

**Free Shipping**

(Really!) Worldwide



**Description Installation and Notes:**

We suggest mounting the Low Voltage Warning Indicator up as high as possible in the line of sight. It should also be within the instrument scan, preferably within 30 degrees of the pilot's forward view.

Decide how to connect the device. As supplied (Simple Connection), there is a red (+) and black (—) lead. Mark and drill a 14 mm (0.552") hole in the panel. Insert the black collar from the front. The electronic module snaps in from the rear. A drop of RTV adhesive would be a good idea.

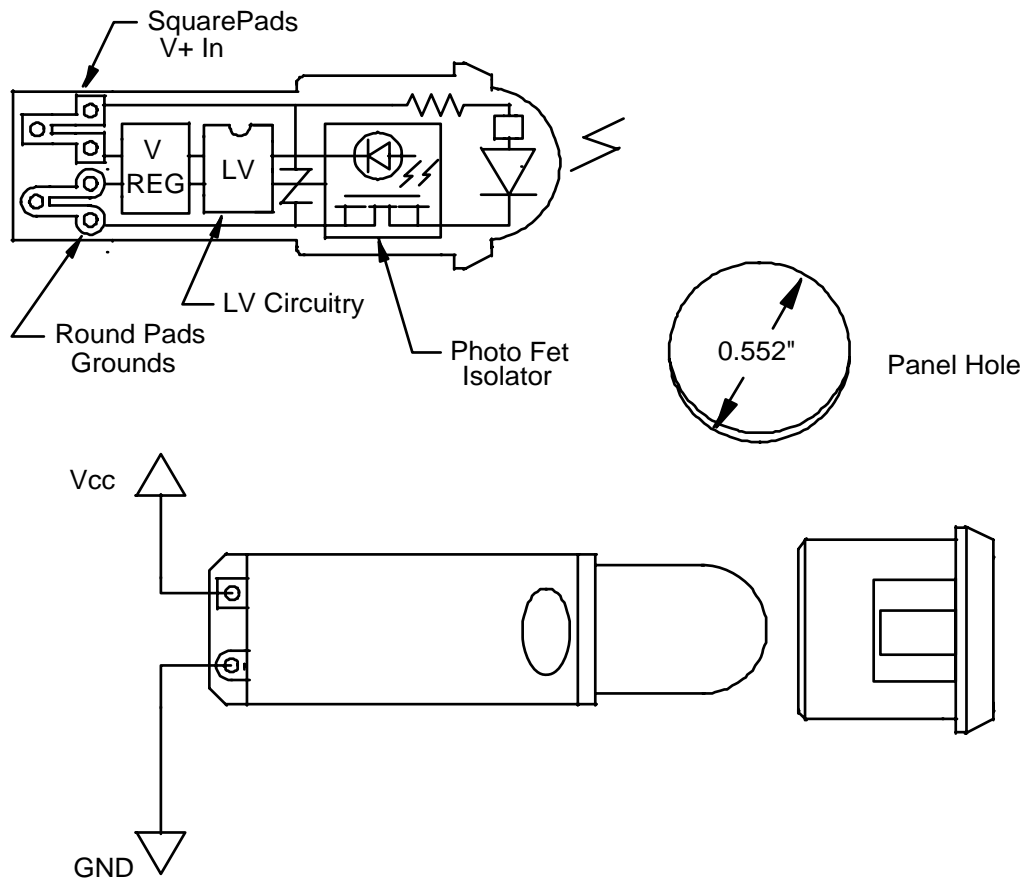
**Explanation of Operation:** This Low Voltage Warning Indicator uses a 10 mm blinking LED for maximum visibility, a regulator, a precision low voltage monitor IC and a photo-FET relay. It also has a bi-directional 18V Zener transient voltage protector, and several more resistors and a capacitor.

In the Simple Connection (as supplied) both the LED and the detector circuitry voltage operate off the same voltage circuit.

**NOTE:** More advanced connections are possible (please request). This allows several methods of connecting the unit. Obviously the LED brightness cannot be dimmed in a two-wire device that monitors the voltage, because dimming the LED would change the monitored voltage, too. So the voltage-measuring circuitry and the LED must have different supplies and/or different grounds.

**NOTE:** For application where the builder chooses to dim or turn off the LED from the high- or low- line side, please request the "4-wire version" of this device (same price).

**NOTE:** For builders who go crazy when LEDs blink, we have a steady LED version (same price).



Please inquire regarding special modifications, or technical assistance.

Thanks for buying my product.

Eric M. Jones

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