## Light Up Your Headlight Switch
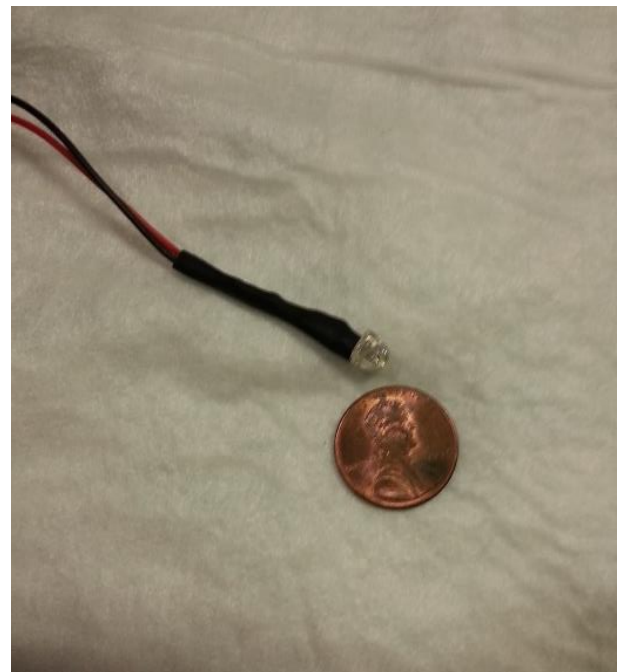### by Russ Austin

This has been a long standing project that has sit on my bench for many years.  The headlight switch lens is a dark spot on the dash, creating an unbalanced look on the elegantly lit up dash, of our 63 and 64 Cadillac's.   I first tried this about 5 years ago, and used a regular filament bulb.  It worked then, but I wanted to use a LED light.  I couldn't find what I needed, so I had to let technology catch up with my ambitions.

A generic search on eBay solved the technology problem, and I soon had some 12 volt mini LED white lights sitting in my mail box. I had to find the box that had the original project, and get back to the drawing board.  I made all marks with a marker, as it easily wiped off with brake parts cleaner.  The LED bulb is super small, super bright bulb.

**ABOVE: 12 volt mini LED with white light**

What I did to prep the car, was disconnect the negative battery cable, take the dash pad off, and remove the headlight switch.  Then take the headlight switch mount bezel off.  Two bolts hold the mount bezel in place.

**LEFT:  Headlight switch bezel removed**

**Installing the LED.**  A 3/16 hole was drilled into the headlight switch mount bezel. That's the dimeter of the LED light.  The notch in the center hole marks the top of the bezel.  I chose to put the LED light on the right side, as I didn't want the light to shine through the edge on the left side, and the right side is shielded from view, as the driver sites in the seat.   On the first proto type, I had the light on the left side, and the light shined through, creating a light ring on the left side.  The tool is pointing to the LED.

**The LED light is held in place with a hot glue gun.**  I ended up using epoxy, as the glue gun rubber didn't stick well to the unpolished chrome.

**Taking Apart the Lens Housing:** It's easy to take apart the lens housing.  There are 3 crimp marks holding the backing plate and lens into the housing.  I used pliers to pull the metal back, and the backing plate and lens popped right out.





**Backing plate pictured above**.  You will need to make an alignment mark on the backing, so it aligns with a corresponding alignment mark on the lens housing.  Now make a mark on the backing plate, where the LED bulb will directly shine onto it.

**The Yellow dots in picture above are 3/16 in inch, and mark the point where the lens sits.** The red marks are where you do not want to go past, when you grind or notch out the 2 grooves. And if you go past that point, you will have a bright light shining through the lens.

## Making the Notches

On the backing plate, locate the mark you made, that shows where the LED bulb will shine. You can see the red dot on the back of the plate. Now measure out 13/16 along the edge, and make a mark. Make a mark on both sides of the LED mark. The notch should be at an angle, so the light will shine through. Imagine the letter V. The LED is at the bottom, and the light will shine up the notches you make.

I used a Dremel tool, and clogged up the grinder bit. So I used a cutting wheel bit on the Dremel tool, and that worked the best. I made the notches about 2/16 wide. If you want more light coming through, try making the notches wider, or more notches. The 2/16 notch just lit up the white letters on the lens. I ended up slotted the notch to just under 3/16, and that put a very soft light behind the lens, matching the clock lighting. Too large of a notch will have the effect of a neon glow on the lens.

## Test it Out

I tested out the light, before I crimped the housing back together. Just put the lens and backing plate into the housing. I used a nut from my bin of extra nuts, and the mount nut to the headlight switch. That fills the hole so light won't shine through. Put the lens housing into the headlight switch mount bezel, and connect a 12-volt power source to the LED. Ground to the black wire, and power to the red. I tested the light in a pitch black garage. The light lit up the wording on the lens, and gives a faint back light to the lens.

## Putting the Lens Housing Together

Put the lens into the lens housing. Be sure that the lettering is not backwards. Alight the marks you made on the backing plate and lens housing. That will put the LED in the middle of the 2 notches. Re crimp the metal to hold the backing plate still.

## Wiring up the Light

Crimp an eyelet to the black wire on the LED. The black wire will be grounded to one of the headlight bezel mount bolts. Install the headlight mount bezel back into the car. Tap the red wire on the LED into the gray wire on the headlight wire connector. The gray wire is for the dash lights. Put the headlight switch back in, and test the light.

**Put your dash pad back on, and enjoy a better looking dash at night!**

*Enjoy your car, and remember to drive it. They were not meant to be stored.*

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