

# HauntMaven.com - Wolfstone's Haunted Halloween Site



[http://wolfstone.halloweenhost.com/ThunderAndLightning/clsinc\\_IncandescentLightning.html](http://wolfstone.halloweenhost.com/ThunderAndLightning/clsinc_IncandescentLightning.html)

## Incandescent Lightning Implementation

Had enough of the dry dreary schematics and theories? Take a look at what we did for our thunder and lightning simulation.

This is our lightning box that drives incandescent lamps. We also have a page for our purpose-built xenon flash unit.



## External photos



This is the incandescent lightning machine, ready to go. Not terribly sophisticated, some might say it's a bit mickey-mouse, it is easy to build and effective.

The system consists of: two incandescent work-light fixtures and the control box.

Each fixture has an aluminum reflector and bulb. Each fixture has a spring-loaded clamp on the back, making it easy to attach to some solid object.

The following pictures will show details of each component.



The front of the control box has: master level control, power switch, and individual level controls for each channel.

The layout is a little strange: the pair of level control knobs are the farthest apart, with the power switch between them. The panel layout was dictated by the circuit board and large L-pad.

A completed unit would have all controls labeled.



This is the back of the control box. It shows: fuse, speaker-level sound input, and a socket for the lamps on each channel.

Sure would be nice if all that stuff on the back were labeled!

## Electronics Board

The electronics board is a pre-built color organ board. We describe the board here and discuss how it works here.

The modifications are simple:

- put it in a case
- add a power cord
- hook it up to two sockets (where the lamps plug in)
- upgrade the triacs so it can handle more power

The triacs are easily replaced with ones that can handle more power.

- I used [Radio Shack](#) part# 276-1000 (6 Amp, 400 Volt), that can be used for a little over 600 watts.
- Wolfstone reader Brittainkr wrote to me in November 2005, saying that he used NTE 5608 Triac (8 Amp, 400 V). These parts have same pin out as the ones that came on the board. "The

upgrade worked great with 2-250w photo floods! Wow what a difference the photo floods made." Thank you for the feedback!

## Internals



This is the inside of the control box, showing both top and bottom.



The top half of the control box contains the color organ board from Electronic Goldmine.

## Fixtures



The fixtures are quite ordinary. You can get similar work lights as Home Depot. Each one has a socket for a screw-base bulb, an aluminum reflector, and a spring-loaded clamp.

The idea is to clamp the fixture up out of the way, perhaps on a tree limb, and run the cord to the control box.

This particular fixture contains a blue photoflood lamp. The fixture uses a regular white bulb. We tend to like our lightning blue-white.



The clamp on the lamp fixture is simple and solid, but I feel a bit safer with a backup. I add some small bungee cords to each lamp, and use a big one to keep the control box in the tree.

Not shown in this picture is another helpful accessory: extension cord(s) so that the lamps can be located an arbitrary distance from the control box.

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