



## LIGHTING TECHNIQUES FOR LIGHTNING SIMULATION

Choosing the right type of lights and proper placement of those lights is nearly as important as your choice in lightning simulator devices. Your lighting options will vary depending on the type of lightning simulator you select, so be sure to choose carefully. Multiple lightning channels is always a plus as lightning comes from multiple areas in nature so multiple channel simulators are certainly more realistic.

We've noticed that some dealers recommend a high powered work light sitting on the ground and pointing at the house or building. In our opinion, this is the absolute worst choice. These incandescent or halogen work lights have extremely heavy filaments, which means that, unlike lightning, they're very slow to react. Plus, they have an orange cast that simply isn't realistic. As to sitting them on the ground, lightning comes from the sky, not your yard.

If you have an older style lightning simulator that limits you to incandescent or halogen lighting, then we highly recommend the use of lower wattage halogen bulbs in PAR cans with light blue theatrical gels to produce a whiter light. The lower wattage bulbs will react much faster. It's always better to have many smaller bulbs rather than just one large one. The other option is to use a string of standard household bulbs, such as GE brand Reveal lights. The blue cast to the glass in these bulbs yields a much whiter light than ordinary bulbs. Of course you must make sure that your bulbs and fixtures are outdoor rated or at least keep them out of the weather.

The ideal light source for lightning simulation is LED, but special circuitry is required in your lightning simulator in order for it to support LEDs. Another good choice is dimmable Compact Fluorescent Lamps. Both use very little power and react instantly for a much more realistic effect. In addition, the better lightning simulators don't just pulse lights on and off... they dim the lights proportionately to the intensity of the "lightning strike". Incandescent and halogen lights produce extremely orange light when dimmed, but LEDs and CFLs retain their white color. Like with LEDs, your lightning simulator must be designed to support CFL bulbs.

Many haunters ask about using strobes for lightning. Since a strobe is a simple on or off device that flashes at a preset speed, it is generally not a good choice for realistic lightning. It is bright and it is white, but it still is not realistic. There is a little trick though. A couple lightning simulators have limited compatibility with certain strobes. If you're stuck with incandescent or halogen as your primary light source, you could add a strobe if you have one of the controllers that are semi-compatible. The conventional lights will be the source for most lightning strikes, but the major strikes will produce enough voltage to fire the strobe a few times in addition to the other lights. This can be a convincing combination. The strobe adds the white light and quick response, while the incandescent or halogen lights handle the dimmer situations and provide more light over a sustained period of time.

After you have determined the type(s) of lights you will be using, the next issue is to plan where they will be placed. Sitting on the ground is the easiest, but also the least realistic. When is the last time you saw lightning originate from your yard? If you can get the light sources up in the air, by all means, do so. And you should always put multiple lights around your house or haunt. As we said earlier, lightning comes from multiple directions. Always try to hide the bulbs. You don't want visitors looking at your lights. They should just be experiencing the effect.

If you want realistic lightning, you need to light your surroundings in addition to your building. Trees, bushes and even your yard are good candidates. The more things you light, the more realistic the effect. don't forget the fog. Fogging an area adds a lot of realism to the effect. You must remember that you're doing the equivalent of theatrical lighting here. Pure white light is great for many things, but if you're lighting a blue building, consider using a blue gel over your light. If you're lighting trees, bushes or grass, a light green filter or even green bulbs adds to the richness of the scene and overall realism. Just remember, if you're lighting a colored object, light it with that color bulb or gel. Of course when lighting fog, make sure to use white.



Lastly, if you've chosen a lightning simulator with dimming option (and you should), we would always recommend using conventional incandescent lights for this channel. With a good white light source for the "lightning" and the rather orange coloration from the incandescent lights on the dimmer channel, the contrast between the lights makes this effect rather dramatic. For a residence, the dimmer channel can be connected to porch lights, pole lights in the yard, lamps in front of windows, garage door lights or anywhere else that "house lights" would be visible. In commercial haunts, dimming channels can be connected to wall wash lights, signs, hall lights, etc. Be sure not to overload your lightning simulator's dimming channel by connecting too many lights.

To recap, LED or CFLs are best when possible, but halogen and incandescent are okay as long as you choose lower wattage and either use gel filters or purchase bulbs with a blue tint so the resulting light will be as white as possible. If using LED or CFL lights, make sure they're dimmable and that your lightning simulator supports their use. Strobes are okay as a secondary source in some instances, but should never be the primary lighting. Multiple channels and multiple bulbs are best. Light sources should be as high off the ground as possible and should cover everything (trees, bushes, ground, etc.), not just the structure. Gel filters should be used when lighting colored objects, such as trees, grass, etc.

Additional information on lighting simulation is available at:

[http://www.lightsalive.com/skin/frontend/lightsalive/default/pdf/Lightning\\_FAQ.pdf](http://www.lightsalive.com/skin/frontend/lightsalive/default/pdf/Lightning_FAQ.pdf)

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