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# Church Production

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## A Simple Look at Lighting Consoles

## Principles for Portable Church Technology

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# A Simple Look at Lighting Consoles

BY GREG PERSINGER

**AS A LIGHTING CONSULTANT I GET TO WORK WITH ALL SORTS OF PEOPLE, IN ALL DIFFERENT SIZE ROOMS, WITH ALL KINDS OF LIGHTING GEAR. SOME OF THIS GEAR IS GOOD AND SOME IS NOT SO GOOD, SOME ROOMS ARE LARGE WHILE OTHERS ARE SMALL, BUT REGARDLESS OF THE QUALITY OF THE GEAR OR THE SIZE OF THE ROOM THERE IS ALWAYS ONE CONSTANT: THERE IS ALWAYS A PERSON BEHIND THE CONSOLE MAKING IT RUN.**

Because lighting consoles are the main point of interaction between people and a lighting rig, I tend to get a lot of questions about them and spend a lot of time discussing them. They also tend to cause a lot of contention between lighting professionals as to which one is best, and a lot of angst with amateurs as to which console to purchase and how to best program and operate it.

In an effort to simplify the subject here are a few insights into lighting consoles that will help you make an informed purchase decision or be a better programmer/operator

**1** **A lighting console is just a specialized user interface,** one tailored to accept the kind of input that allows us to quickly and effectively manipulate lighting equipment.

With a computer keyboard we write letters and numbers; with a lighting console we are manipulating light intensity levels or various automated light parameters or telling the console to execute commands with the push of a button. For these actions linear or rotary encoders and push buttons tend to be a more effective interface than a keyboard or mouse.

We sometimes use a keyboard to input levels or assign names and a mouse to select items on consoles with graphical interfaces, but typically our main control input comes from the faders and buttons.

So the more control surface you have the faster and easier the console is to operate

but it is also more expensive. Balance the surface size and the resulting expense with your needs.

**2** **The brain of a lighting console is nothing more than a specialized computer.** As such, lighting consoles are prone to all the failings computers have.

A hardware-based console tends to be very stable as everything in the console, including the computer, has been optimized to work together in harmony and is built physically robust to withstand the rigors of touring.

The other type of console is a software-based console running on a Mac or PC, possibly with a control surface connected via a USB port.

These consoles tend to be more economical, as you supply the processor in the form of an external computer; however they tend to only be as stable as the computer you are running.

**3** **Since a lighting console is just a specialized computer**—don't be

afraid of it. Many times I work with church volunteers who have never done lighting before and it is very difficult to get them to touch the lighting console. They have lots of computer experience, but unlike their laptop, they are always afraid they are gong to break the lighting console. I promise that if you don't do something like pour a Coke into the console you are not going to break it. Besides, that would be a horrible waste of a Coke.

Do the same things you would with a computer like save often, save before you make major changes, backup your files often, and keep backups in a separate place away from your console.

**4  All lighting consoles do similar things.**
All lighting consoles, big or small, do similar things. Generally any console can run any light.

This doesn't mean that all consoles are made equally and that there aren't better consoles than others, it just means all the lighting consoles out there strive to provide the same lighting control functionality. Some succeed and some don't.

When looking to purchase a console look for manufacturers that have been in business for a long time, provide great service, and tend to be popular with professionals.

**5  Each console will have a similar but different command syntax.**
The command syntax is the "language" that the console wants you to "speak" to tell it what to do. It is very important to understand this command syntax "language" if you are going to be able to tell the console what to do, also known as programming.

If you are looking to purchase a console, spend time with it before you buy and make sure that the command syntax makes sense to you and your team. Remember that the console isn't going to know what to do if you don't speak its language.

> **THE MORE FADERS AND BUTTONS A CONSOLE HAS THE EASIER AND FASTER THE CONSOLE TENDS TO BE TO OPERATE, BUT THEY ALSO ADD EXPENSE.**

**6  A good working understanding of lighting terminology** and system theory will go a long way to helping you be a better programmer.

Many times I am told by clients that programming a lighting console makes no sense and that they are having problems with their programming. As I work toward the root of the problem I realize they don't understand what I'm asking because they don't understand basic lighting terminology or basic lighting system theory.

Although knowing the command syntax for your console allows you to tell the lighting console what to do, you also have to know some lighting basics so you know what to do.

**7  You don't have to know how to program a computer** or be an engineer to program a lighting console.

I don't know how many times I have encountered volunteer teams that have engineers or computer programmers who tell me that it will be easy to program the lighting console because they are an engineer or computer programmer. This doesn't always work out the way they think it will.

Sometimes a junior high student becomes a better programmer than them because they took the time to learn the syntax, terminology, and theory and put it in practice.

**8** **Which console a top lighting programmer uses depends primarily on one thing: personal choice.** Typically this choice is based on what console the programmer is most familiar with, while the requirements of the show, and how large of a budget there is for gear rental play slightly into the equation.

Lighting consoles tend to be very personal to lighting programmers. While most of the top name consoles do all the same things, how they do it is another matter completely.

**9** **A good lighting console is not a magic bullet.** Just because you have a top-of-the-line console doesn't mean that your lights will look great.

Many times I find out an organization has decided to purchase a particular console because that is what Programmer X is using and Programmer X says it's the absolute best and it will make their lighting look great.

You should only install Programmer X's favorite console if it meets your needs and your team understands the operation and the command syntax of the console because next month when Programmer Y comes through town with a different tour, Programmer Y will have a different console that he says is the absolute best.

**10** **A lighting console doesn't do the work for you—it makes it easier** to do the work. It requires an investment of time.

A lighting console is a blank slate. I've often worked with churches that think consoles come preprogrammed, and you just have to press a button to make the system go. That's simply not the case. It is going to require an investment of time. The actual amount of time will depend on the size and complexity of the lighting system, and the complexity of the programming you are trying to do.

Programming your lighting console is going to take an investment of time.

And here is a bonus for you.

**11** **Yes, all of the instructions really are in the manual;** you just have to read it. I am amazed at how many people never read or consult the instruction manual, or if they do they come away complaining they didn't understand what they read.

The Internet is full of discussion boards, forums and other resources designed to answer your questions. Most major manufacturers offer great tech support, too.

These insights should help you think about lighting consoles in simple terms and help you figure out the best console to purchase for your team, or how to get the most out of the console you currently own.

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