

Buying A New Microphone Mixer?

By Ron Huisinga

The first time I entered a recording studio, the recording console looked so huge and intimidating. How could one ever use all those buttons and knobs? Several years later, I found myself working very comfortably behind that same console. The recording console had not changed, but I had. With experience, I realized each control had a purpose, and there really weren't too many buttons. In fact, I often wished I had more controls. What was the difference? Training and experience had given me the confidence to operate that large recording console. You are probably asking what that story has to do with deciding how many inputs you need for your new microphone mixer. Well, the answer is you shouldn't be too concerned about the size of your new or potential mixer. If your requirements indicate your church could benefit from having a much larger mixer than you presently have, don't be afraid. After some training and experience, you will be glad your church invested in an appropriate mixer. To answer the original question, a careful analysis of your particular situation is necessary. The following questions will help you analyse your situation.

SPEAKING NEEDS

Ask yourself the following questions:

What microphones does your church need for the speaking aspect of the service?

Is there only one pulpit or do you have a pulpit and a lectern?

How many pastors do you have and do they each need a wireless microphone?

If the pastors each have a wireless, do you still need a microphone on the pulpit and/or lectern?

Do you need a microphone at the altar? Depending on the answers to the previous questions, your church may need from one to six microphones for just the spoken word!

MUSICAL NEEDS

Ask anyone and everyone who is involved in the music program:

What problems do you experience when you sing?

Does the Children's department have the necessary equipment for the Christmas pageant?

Musicians - what are your present and future needs?

Do you want to play music from a CD and/or cassette? Yes, it takes time and energy to get this information, but it will help you plan.

OTHER NEEDS

There are still other areas of needs. Is your service being recorded or broadcast, or would you like to be in the future? That situation requires more microphones. Since the person listening on the radio is not at the church, they will not hear good sound unless proper techniques are used. That means a microphone may have to be used on every instrument if the radio listener is to hear clear and balanced sound. The actual requirements are dependent on the music style and the acoustics of the church. And don't forget the congregation microphone(s). Your listeners will want to hear the congregation singing or hear the responsive reading. Also look at the microphone jack locations. Different programs may require jacks at one area and many more jacks in another location. Rather than run long microphone cables, it is easier and safer to have microphone jacks where you will use them.

OPTIONS AVAILABLE

Now that you have a good idea of the possible number of microphones needed and jack locations, there are several other decisions which need to be made. Let's say you have found a need for twelve different microphone locations. However, you can't imagine using any more than six microphones during the same service. You have some options. The first option is to purchase a 12 input mixer so each input jack has a dedicated mixer input. This option has many advantages. Each jack can be labelled and each mixer input will have a corresponding label. This makes the operation much more simple and foolproof. Anyone with some training will be able to plug a microphone into the jack labelled 10 and know that input number 10 on the mixer needs to be turned up. The other option is to purchase a smaller mixer. Let's use a six input as an example. Six of the microphone cables will plug into the mixer. Now, the extra six input cables and plugs will have to lay behind the mixer. When one of those extra lines are needed, one of the cables presently plugged in will have to be unplugged. The new cable is plugged into that position. The advantage of this system is cost. A six input mixer is less expensive than a twelve input mixer. But on the negative side, it can be more confusing to operate. The labels on the microphone jacks will not always match the labels on the mixer. For instance, input 6 on the mixer may have microphone cable 10 plugged into it. The sound operator should always check to see which cables are plugged into the mixer so he isn't caught with a microphone that is plugged into a dead line. A Word of Caution: When exchanging cables - be sure to turn off the channel or at least turn down the volume. Otherwise, the result could be a loud and disturbing pop over the loudspeaker system. It could even damage the loudspeakers and mixer input. This is especially true when using condenser microphones. Another option to having the extra cables lay behind the mixer is to have a patch panel. A patch panel allows you to have as many input lines as you need. These input lines can then be patched into any mixer input with a patch cable. This system gives the sound technician a good understanding of how the input microphone lines are arranged into the mixer. It also results in clean, organized system wiring. However, patch panels can be expensive and they take time to wire. You may be able to purchase a mixer with more inputs for the same cost as the patch panel. In a way, you will be using the mixer as a patch panel. You will also have more inputs to use at your next program. Invariably, more microphones will be needed than you first anticipated.

A LESSON FROM EXPERIENCE

As your church grows, your requirements will also change. All too often, a church will comment that they should have purchased a larger mixer. You will want to develop a system which does the job now and will continue to satisfy your needs into the future.