

## The Value of a Professional Church Audio/Video Contractor



- *The local music store*
- *Hi-fi stereo store*
- *Electronics hobby shop*
- *The installation division of a local music store*
- *The local PA company*
- *A commercial sound contractor*

We believe the odds of obtaining a good church sound system from these sources are rather limited at best. You may wonder why this is so. Many people do not realize that the audio market is divided up into several major segments. Each of the above retailers of sound equipment serves different segments of the audio market. Church sound systems are one of these major segments.

While there are basic factors that apply to all segments, the Church sound segment has many unique aspects. Therefore, it's important to seek out an audio contractor that specializes in church sound system design to improve your chances of getting a successful sound system. As an example, you will realize that while many hardware and department stores sell several varieties of light fixtures, to get the proper expertise and wide selection you must go to a store that specializes in lighting fixtures. Similarly, if you are in the market for a truck, many general automobile dealers will not have the product or understanding to offer you. You must go to a truck dealer. So it is with sound systems for churches.

Why is *Horizon Audio* the better choice when your church is looking for a new sound system? We believe there are many reasons.

1. **Everyone** at *Horizon Audio* has been involved in the church for a lifetime. We understand what happens in church. We know what worship is and how good sound can enhance worship.
2. **We** have invested much time, effort, and money in obtaining specialized education and test

equipment to better understand the physics of sound, acoustics, and electronics, so we are able to integrate the proper equipment with the acoustics and the specific audio needs of your church.

3. **We** understand that the money the church has to invest comes from the people who worship in your church each Sunday, and that these people give this money for the work of the church. Proper Stewardship of money is essential. The equipment we recommend takes into consideration several factors to ensure that your church gets the best value for the money in the long-term.
4. **We** understand how the sound system can be effectively used to promote increased church attendance, evangelism, and spiritual growth. We have seen the delight of the elderly person who tells us they have heard the entire service for the first time in years due to the ability of our sound system to provide a high level of speech intelligibility. We understand that a music presentation can have a greater spiritual and emotional impact when the sound system delivers it with undistorted crystal clear fidelity.
5. **Horizon** Audio has more than 21 years of experience in providing high quality sound systems to churches. Churches provide over 95% of our business each year. We don't just do churches when there is nothing more profitable to do; we do churches all the time, virtually exclusively. We have the knowledge and experience necessary to design and install your next sound system.

When your church requires sound system work or acoustics consultation, you can feel confident in calling on *Horizon Audio Services Ltd.*

The purpose of this discussion is to explain the

differences between the design of a sound system by a professional and the relatively easy process of simply quoting a price for a sound system. The differences between these two processes are significant, and largely not understood by church officials.

In the years we have been working in the sound system installation field, we have seen many situations where churches have needlessly spent funds in the purchase of a sound system that was not properly designed, and inevitably did not meet the church's requirements. The result was a short time later the church had to re-invest in a properly engineered system.

The average church is, unfortunately, at a disadvantage because of its size when it comes to the purchase of a sound system. You may realize that in large projects, the building owner will hire an audio consultant whom the owner has confidence in. The consultant will determine through consultation with the owner and building users what the audio requirements are. The consultant then designs the audio system to fulfill the requirements within a given budget and prepares a Request for Quotation document which is sent to a number of audio contractors. The returned quotations are reviewed by the consultant, who determines which quotations meet the specifications and requirements stipulated in the original documentation. Recommendations are made in regards to which contractors the consultant feels can handle the project and the owner then decides which contractor gets the job. The consultant then works with the selected contractor to ensure all work is done properly. After the system is installed, the consultant oversees all final tests and adjustments to the equipment, and then certifies that the project is complete for the owner. Generally, only the largest churches use this method of acquiring a sound system. While the presence of a design consultant can save the large church a sizeable amount of money (usually more than the consultant will cost) and certainly many headaches, most churches simply cannot afford the consultant's fee.

Unfortunately, in many cases, the church ends up letting a sound contractor perform some aspects of the consultant's role in a fashion similar to design-build building contractors. Problems arise when these sound contractors

1. do not have experience in the church market
2. do not understand the needs of the church
3. often do not understand the natural laws of physics and acoustics at work in an auditorium

In addition, the contractor may not perform a complete system design process because he is usually not being paid for this work, and in fact will only be paid at all if he gets the job. Church people, who may know very little about sound systems, have to compare the various

proposals that they receive and decide which one is best for them. They are essentially at the mercy of the contractor with the best sales pitch and/or the .....

The church must come to the realization that just as one would not telephone the auto dealership and ask for a quote on a car, one should also not make the same type of request of an audio contractor. Relatively speaking, there is just as much variation in audio equipment prices as there is with automobiles. The church should also have at least some idea of what they wish the sound system to do. Do they have only one or two people who will use the system? Will there be soloists who wish to perform with cassette or CD accompaniment? Do they wish to record the services? Will the recordings be the entire service including music, or just the sermons? Will it be tied in to a radio station? Will the services be videotaped? There are many more questions that can be asked in the design process.

Perhaps the following example will help. We were once visiting a church that was in the process of preparing to build on a small lobby and elevator for the physically challenged. That day, several general contractors were also visiting the church to have a quick look around. Every one of them had previously received a set of blueprints of the addition plans. Their job was to quote on the cost of the project. We noted that even though, relatively speaking, the lobby addition was no larger a project than the sound system, when we had called the church official to discuss the sound system, we were not given any 'blueprints, rather only a vague statement of what they thought they might need in sound. Nevertheless, we performed a basic design process for them, and then quoted on the sound system.

Because many of the churches that *Horizon Audio* works with are small and medium sized, we perform basic design consultation work as part of our overall proposal to the churches, with no specific charge. If further consulting work is required, we do it after the church has selected our company as their audio contractor.

It is imperative that the church check into the previous work of contractors they talk to. This will help to ensure a successful system is installed. We usually provide a reference list of churches, which represents a wide cross section of the more than 300 churches in which we have installed sound systems.

I trust this discussion has helped in the understanding of the process of selecting a good audio contractor to work with your church. The money that a church is steward over should be wisely invested. The cheapest sound system proposed will not usually be the wisest

investment. Many times we have heard the comment “our last sound system was inadequate from the day it was installed.” A church should not have to tolerate such a sound system and the wasted money it represents. Our goal is to provide sound systems that will work properly for many years, and will be entirely adequate every day of those years.

## Horizon Audio History

Over 30 years ago, as a teenager, David Wettlaufer began tinkering with hi-fi equipment and put together a small sound system for a five piece band that operated at his home church in Listowel, Ontario. His technical interest in sound and electronics expanded into recording when his father purchased a reel-to-reel tape recorder for the family hi-fi system. For several years during high school and college David worked at on-location recording and the operation of sound systems for his gospel music band and other groups. In 1979-80 David purchased a portable multi-track recording system and turned his recording and live sound hobby into a part time business, while he worked toward his Electrician’s license. In 1982 David and his wife Frances, a clinical audiologist by profession, decided to start *Horizon Audio Services Ltd*

David then became involved on a full time basis in audio multi-track recording, live sound for small bands and church/business conferences, and shortly thereafter, the design, sales and installation of permanent sound systems for church sanctuaries. In 1984 Frances left her position as chief audiologist at St. Joseph’s Hospital, London, to work with David in Horizon Audio. In 1985, as business expanded, Mr. Dieter Kunz, a Fanshawe College Recording Engineering graduate, was hired to assist full time in the Horizon 16 track recording studio, and in the installation of permanent sound systems. In February 1992, due to continuing expansion in installation work, Mr. Don Klassen was hired. In January 1999, Laurie Foote (now “Acres” following her marriage in May of 2003) was hired as office manager to take care of the day-to-day business activities of the office. James Kent, a part time worker, began helping out with installation work on a regular basis in 2000, and came on full time in September 2001. In October 2003, Ron Mills will be hired as General Manager.

Due to the development of sophisticated computer programs to accurately model room acoustics and sound system design, in 1997 *Horizon Audio* began offering consulting services for both existing and yet to be built sanctuaries.

In 1999, with the increasing popularity of video data projection in churches, projectors were added to the product offering, along with projector installation services.

Today, approximately 95% of total business revenue comes from church sound and projection consulting, system sales and installation, with the remainder coming from equipment rental and live sound for conventions work.

In the live sound field, *Horizon Audio* has supplied and operated systems for gospel musical drama productions, church services and conferences in such venues as Massey Hall, the Bassett Theatre in the Metro Convention Center, Cleary Auditorium, and many church sanctuaries, school/university auditoriums and arenas. David was the engineer on The Salvation Army London Citadel Band’s series of ‘Old Timer’ hymn cassette albums, which have been distributed around the world in The Salvation Army. Dieter Kunz has worked with such Gospel artists as Steve Green, Sheila Walsh, Bobby Michaels and Connie Scott, as well as many other Gospel bands and vocal groups in Ontario concert dates. Don Klassen has toured extensively as concert sound engineer for the Continental Singers and Orchestra. *Horizon Audio* provides and operates the audio systems for the Evangelical Missionary Church Pitch ‘n Praise youth retreat, which attracted over 1600 young people in 2003. Pitch ‘n Praise features many current contemporary bands and artists from across Canada and the USA.

To date, *Horizon Audio* has completed well over 300 sound system projects in churches with seating from under 150 to over 1200 people, in addition to working together with associate Yake Engineered Systems, owned by David Yake, on numerous projects seating up to 2500 people.

David Wettlaufer’s educational credits include diplomas from Fanshawe College, London, in Radio-Television Broadcast Arts, and as an Electronic Engineering Technician. David holds his license as a construction and maintenance Electrician, with the inter-provincial seal. Dave, Dieter and Don have all studied under Don & Carolyn Davis of Synergetic Audio Concepts, and have studied extensively in the areas of Electro-Acoustics and Architectural Acoustics.

*Horizon Audio's* philosophy on church sound and video is to design and install systems that represent versatility, high quality and good long-term value, while enhancing the worship of the congregation.

## What's the Most Important Part of a Sound System?

Over the years that I have been involved in the installation of sound systems in churches, I have found that many people mistakenly think that the electronic components of the sound system are the most important part in determining the overall quality of the system. Many people are surprised to learn that simply replacing the old tube amplifier with a new transistor model will only marginally increase overall system performance. The question then asked is – what is the most important part?

I would point out that all parts of the sound system are important, however, the most important part is the speaker system. It must accomplish two important functions.

1. *The speaker must convert the electrical voltage from the amplifier into acoustic energy.*

Even very inexpensive speakers can convert electrical energy into acoustic energy, however, the acoustic energy is not a 'mirror image' of the electrical energy that entered the voice-coil of the speaker. Thus, the speaker is not accurate.

ORIGINALLY COMPOSED BY DAVID WETTLAUER  
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