

**BASIC GUIDELINES FOR
CONGREGATIONS
PLANNING ON BUYING OR
REPLACING THEIR
ORGAN, KEYBOARD,
OR SOUND SYSTEM.**

Preface

The purpose of writing this booklet is not to give you the 'authoritative' last word on what to buy or not to buy. Such a document would be out of date almost immediately since the technology involved is constantly undergoing change and improvement. Even modern pipe organs are undergoing changes since they often contain many electronic components.

The purpose of this booklet is to assist you in making an informed decision so that you will buy the best instrument or system possible for your needs. Our Lord wants us to be good stewards of the resources He has entrusted to us. This means we need to be careful in what we buy. For instance, buying a poor quality instrument/system may cost far more in the long run than doing it right the first time!

Since there are so many unique needs in our parishes, and so many possible solutions, we have tried to stay with the basics – and we expect you to do most of the leg work. Dollar amounts that are quoted are in 2002 dollars and are, of course, only to be used as guidelines. Inflation, exchange rates, location, transportation costs, service considerations, etcetera all combine to make the price of the same item different in different parts of our country.

We hope that this booklet will be a help to you as you seek to find the right instruments and sound system to enhance your worship of our Triune God!

*The Board for Parish Services
Lutheran Church–Canada*

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General Introduction

So faith comes from hearing, and hearing by the word of Christ.

Romans 10:17 (NASB)

One of the most overlooked, yet important, components of our worship services is the quality of the sound that we hear, both musical and spoken. It's a real problem. Since the 1950's, with the advent of inexpensive sound systems, most churches haven't been designed for good sound.¹ The architects apparently thought that inexpensive sound systems could overcome poor acoustical design. In most cases they were wrong. A number of studies have found that over 80% of churches from this era have sound systems that are inadequate. Some systems are so bad that they actually make it harder to understand what is being said or sung. And all of us, I am sure, have been in churches where the organ should have been replaced long, long ago.

If the people in our churches can't clearly hear the gospel message as it is spoken, sung & proclaimed we are doing a disservice to God's people. Quality sound means that people can hear with understanding! People shouldn't have to strain to hear God's word. Two other factors come into play as well.

First, we live in an age of quality sound. Most families have high quality sound systems (*stereo's, receivers, home entertainment centres, etcetera*) in their home and often in their automobiles. What are we saying to these people when they come to our beautiful church buildings only to hear a muddy sounding sermon, soloists who can't be understood, and musical accompaniment which sounds tinny?

The second factor is the aging of our nation and of our congregations. As we get older our hearing usually gets worse. People with hearing aids have an especially hard time in many of our churches. With a good quality sound system the only people who will have trouble hearing are those you have to shout at!

¹ If you are in the process of building a church it is extremely important that you design a structure that is acoustically sound. You can't just put an organ anywhere, nor can you easily overcome poor acoustics with an inexpensive sound system. Usually this means that you must hire an acoustical consultant since most architects are not very familiar with this area. This isn't just a science. It's an art which involves important compromises since a church that sounds great for an organ may not sound good for the spoken word . . .

"He who has ears, let him hear." (Matthew 11:15)

INTRODUCTION TO MUSIC IN WORSHIP

The sounds we hear form a significant portion of our sensory experience, particularly in the context of worship. The purpose, importance, and priority of the variety of different sounds should form a strong theological, philosophical and practical approach to the overall acoustic and aesthetic environment.

Aesthetics is the philosophy of art, which includes artistic sounds, music, oratory, drama, all the sounds in worship, as well as the visual arts. Acoustics is the physics of sound and includes all sounds as well as architecture. Deliberate and overt decisions about these issues must drive choices that affect the sounds in worship. Certainly we place great importance on hearing with Word of God: "So faith comes from hearing, and hearing the Word of God" (Romans 10:17 NASB). Hence the quality of the sounds we make and hear becomes tantamount to our faith experiences in worship.

The sounds in worship can be categorized in several different ways. The first is the direction of the sound. There are one-way (*omni-directional*) sounds with distinct senders and listeners, the pastor speaking to congregation, for example. There are multi-directional sounds where people are both senders and listeners, as in corporate congregational song. Sounds can be categorized as spoken or musical, each with distinct (*and often contrary*) acoustical needs.

There are three major factors when dealing with sounds in worship. The first is the physical acoustic environment itself, the building's acoustical design (*or lack thereof*). In the process of building a church building, it is important that a structure is designed which is acoustically sound. [See *Acoustics in the Worship Space* by Scott Riedel, CPH 99-1271] Acoustical consultants are important partners with architects, since acoustics is a complex science as well as a complex art. A balance between the spoken and sung word and between presentational and participatory sounds is critical to the resulting worship. Location of sound-producers, instruments, speakers, and even people, is also a very important consideration. Poor acoustics are extremely difficult to overcome. Unfortunately, many congregations are faced with substandard acoustics. Many of these try to compensate with various electronic sound systems that more often than not, compound the problem.

The advent of technological resources in the mid-twentieth century, including a variety of different sound systems, has resulted in the second major factor affecting sound. Since the 1950's churches haven't been constructed for good acoustics. This has led to many problems. Quality sound means that people can hear with understanding! People should not have to strain to hear God's Word, nor to fully participate in congregational song.

Finally, the third major factor with sound is the use of musical instruments in worship. Technological innovations have often taken precedence over acoustic instruments and the rationale of why we have instruments (*or even music!*) in the first place.

Carl Schalk, in his pamphlet, *Music in Lutheran Worship (CPH 99-1253)* addresses the question of the place of music in a Lutheran understanding of worship. Music in Lutheran worship, he says, helps to nourish the faith as it works to the glory of God and the edification of His people. As such it is part of corporate, congregational worship where Christians gather to hear the Word and share the Sacrament. This worship is the indispensable and central work of the gathered Christian community from which all other facets of the church's life and mission derive their strength, purpose, and direction. Worship is ordered, characterized neither by eccentricity, nor faddishness, underscoring elements of stability and continuity in concert with Christian believers of all times and places. It possesses a richness and variety of forms and practices that give fullness to the celebration of corporate worship, as we receive a strong heritage that also serves as a basis for moving toward the future. Music in Lutheran worship is purposeful in that it serves a corporate, ordered, varied, Word-and-Sacrament worship.

A significant part of that worship is congregational song that forms the heart of all church music. Congregational song is a unique gift for the entire gathering of believers, an inter-generational, multi-gifted, varied congregation of God's people, who are empowered to sing actively, enthusiastically, and expressively. The theology and expression of the text in congregational song is joined with the aesthetic and expression of the tune to form something that neither can say alone. Congregational song is to be sung, so every effort must be made to inspire, lead, and complement human singing. It is purposeful, existing in time and space (*live and acoustic*), unhindered by artificial technologies. Congregational song can express the entire gamut of faith in worship, unlimited by style or extraneous purposes that shift music making away from accepting God's gift of song.

Instruments function in worship first and foremost to lead the singing of the congregation. That means:

1. producing a clear and unobstructed melody (*since that's what the people are supposed to sing*)
2. serving as a model for vocally healthy and expressive singing (*since that's what the people are supposed to do*)
3. providing unified and deliberate leadership in the education, inspiration, and support of the congregation.

Historically, these functions were naturally assumed by the pipe organ, since it produces a clear melody using air through a tube (*like the human voice*), and has ample variety of tone quality and dynamic to teach, inspire and support different types and sizes of congregations. Certainly the organ isn't the only instrument that can do this but it does remain one of the best in serving the primary functions of instruments in worship.

Finally, when proper considerations are given to the very nature of sound in the church, including musical sounds, only then can other important questions be reasonably asked and answered.

Dr. John Hooper – Concordia University College of Alberta

THE ORGAN

A short history of the Organ:²

The origin of the organ is lost in history. It was invented in a very basic form at least four centuries before Christ was born. In the early days it was very loud and, as far as we can tell, it was used almost exclusively for secular (*non-worship*) purposes. Shortly after the fall of Rome the organ disappeared from recorded history in the western world. In 757 A.D. the Pepin, King of the Franks was given an organ by the Byzantine (*Eastern*) Emperor Constantine. This marks the introduction of the organ into the Christian Culture of the Western (*Roman*) Church. During the Gothic period (*1100-1400 A.D.*) small organs were introduced intended for use within the Church but the sound was considered to be violent, brutal and piercing. However, by the beginning of the Renaissance (*1400-1450 A.D.*) the brutal sound of the organ had been mellowed and the variety and range of stops (*sounds*) increased. Thus the organ became an instrument that began to be widely used in the Church.

The organ made its way into the Lutheran Church despite some initial opposition. Some Lutheran leaders (*Karlstadt among them*) denied the organ any part in the liturgy, and even Luther was less than sure about its use. Yet the organ held its place. At first the Lutheran practice only allowed the organ to alternate with minister and choir. But eventually the organ began to accompany the singing of the congregation, a position it still holds. Today we can say that the organ has been the primary musical instrument assisting our congregations in song for most of our history. Today, other instruments are joining the organ in leading congregational singing with the two most popular being the Keyboard and Piano.

² Main sources include: *Key Words in Church Music*, CPH 1978; *The Church of the Lutheran Reformation – A Historical Survey of Lutheranism*, CPH 1967; *Four Hundred Years: Commemorative Essays on the Reformation of Dr. Martin Luther and its Blessed Results*, CPH 1917; *Lutheran Worship: History and Practice*, CPH 1993.

Organ Terms:

Organ Stop: This refers to the various sounds that the organ can make at any given time. (*25 stops = 25 sounds (voices) playing at one time.*) This differs greatly from most ‘keyboards’ which are very limited in the number of ‘sounds’ they can play at one time. For instance, to duplicate the ‘sound options’ of a 25 stop organ with the average keyboard would take multiple keyboards played simultaneously. The organ sound(s) found on most keyboards are digital recordings of an organ with the most popular stops turned on. These usually do not allow for much variety in the sounds.³ **Voices** refers to the different sounds – it is important to note that the number of sounds is not as important as the quality and types of sound. (*If the sounds don’t sound good, or they aren’t something you would use in worship why pay for them?*) Most organs offer more voices than stops. The great versatility of the organ has earned it the title “King” of instruments.

Midi: This is a computer language designed to record musical information. It becomes important to have on an organ for two reasons, first it enables you to ‘record’ exactly what you have played on the organ via a **Sequencer** (*essentially a digital recorder*). This is useful in many ways. For example, choir practice and solos can be recorded for practice sessions without the organist having to be present at the keyboard. Some churches have even recorded the entire liturgy and hymns for use when the organist is sick or away. Secondly, Midi allows you to ‘add’ new sounds to the organ. Rodgers/Roland currently has 354 sounds for their sound module; Allen has 100. These sounds can be ‘played’ independently on the organ or they can be added to the presets and played like any other organ stop. In other words you can add ‘new sounds (*Voices*)’ to the organ at a very low price via these midi connected ‘sound modules.’

Manuals: This refers to the organ “keyboard.” Your basic organ has two manuals, many have three or more. As well you have the pedals, the keyboard for the feet! The basic stops/voices are divided up among these keyboards, the basic ones are the Great, the Swell and the Pedal.

³ Some companies are trying to ‘bridge the gap’ in this area by giving keyboards true organ sounds with the ability to play many voices at once. A current example of this is the C-180 Classic Portable Organ by Rodgers’/Roland.

CHOOSING YOUR CHURCH ORGAN

Step One: Establishing the Organ Committee

Choosing a church organ is a daunting, demanding task. There is a great deal of work involved in selecting an organ. Members of the committee should be willing to spend quite a bit of time reading, researching, and listening to organs. Because the purchase of the organ is a major long-term investment for the congregation, this careful planning and research is needed.

Since the organ is used for worship the pastor needs to be a part of the committee. As well, some or all of the congregation's organists need to be involved. They, after all, are going to be the ones playing the instrument. Finally someone with some technical knowledge is definitely an asset, as is a person with a really good ear for music. It is important to have an odd number of people on the committee as this will resolve any 'tie' votes. Don't have too many people on the committee or you may take forever reaching a joint decision!

If possible, the committee should be empowered to actually make a proposal/recommendation to the congregation. This will leave much of the decision making in the hands of those who have actually spent time and energy studying the various options, while still leaving the final decision in the hands of the congregation. If the congregation does not like the proposal given by the committee. It should simply refer the issue back to the committee so they can submit another proposal. This avoids the danger of the congregation making a decision merely on the basis of price or looks. *(Or, a really good sales pitch! It probably isn't a good idea to have the organ salesman present at the voter's meeting which debates this question.)*

NOTE: If this is your 'first' organ and you are in the process of building a Sanctuary – you should strongly consider hiring an acoustical engineer to assist you in the design of your building. The organ is not a piece of furniture that can be dropped down anywhere in the building. Depending on the type of organ pipe/electronic you plan to use, you may need to make some changes in your building design. This is best done before you build! Structural changes after the fact are often quite expensive! This sound engineer would also assist you with regards to the sound system so you can “kill two birds with one stone.”

Step Two: Examine your options

What are the needs of your congregation? This is the first question that needs to be addressed. There are two dangers which congregations face here. The first is to buy “a Chevy organ for a Cadillac Church” and the second is buy a “Cadillac organ for a Chevy Church.” What do I mean by this? Quite simply some of our congregations buy far more organ than they need or can really afford. Others do the exact opposite. Namely, they buy a very limited organ that does not suit their needs. Each congregation must assess its own needs. One shoe does not fit all! Here are some factors you should consider with regards to your organ:

- a. The size and location of your congregation. Obviously, smaller remote congregations cannot afford the high-end premium organs that the larger congregations are able to afford. Likewise the size of your building will to a certain extent determine the organ you buy. *(Ranks of pipes, size of amplifiers etcetera, so that you can fill the space with quality sound.)* In many cases location becomes a big factor with regards to service and support.⁴
- b. The skill and interest level of your organists. Realistically, the pool of highly trained organists is shrinking. Buying a top of the line organ may seem like a poor investment for most churches. However, a good quality instrument is a very important investment. Not only can you allow your organist's to 'grow' in improving their skills, you are also more likely to attract qualified organists who appreciate a fine instrument. Look for an instrument that is more than you 'think' you need now. You won't regret it.
- c. What type of worship are you currently doing? What do you plan on doing in the future? Is the organ capable of utilizing modern technologies like midi? Don't buy an instrument that limits you.

⁴ One major factor here is the distance the technician has to travel, one church spent \$600 *(travel, meals and lodging)* just to bring the technician to the Church.

Should you hire a consultant? This is the next big question that needs to be addressed. To begin with it should be stated that ‘organ salesmen’ are not consultants. They are probably able to point you toward the best instrument from their line for your building. But, they are very limited and biased in what they suggest. Organs come in a vast array. There are mechanical, electro-pneumatic, and electric action pipe organs, electronic organs and electronic/pipe organ hybrids. Organs are also big ticket items that last a long time. The industry is very competitive and sometimes not very Christian. Thus hiring an unbiased consultant, not linked to any organ or company is usually a wise investment. Universities as well as local chapters of the Royal Canadian College of Organists (*RCCO*) are places to start looking for a consultant. That said, in some cases you may decide not to hire a consultant.⁵ This will often be the case for smaller congregations on a limited budget – or for churches that have decided to buy an electronic organ.⁶ In these cases you can find out quite a bit about the various organs and manufacturers by talking to ‘independent’⁷ technicians in your area and elsewhere. (*The internet gives you access to technicians around the world!*) You can also call congregations that have installed the various organs that you are interested in and find out first hand what they think of them. This along with the actual physical on site inspection by your committee members can tell you quite a bit about the organ. You should also check into the reputation and financial health of the manufacturer to make an assessment with regards to rather or not they will be around for the life of the organ.

⁵ If you are buying a pipe-organ — hire a consultant, especially if it is a used one! Pipe Organs are extremely complex instruments that can have many problems not visible to the naked eye. To inspect one properly involves literally taking it apart! Other things, like making sure you have a proper sized blower require expert knowledge. If you buy a lemon – it will cost you greatly. One of our congregations just repaired an eight rank pipe organ. The technicians lived in the same town so travel expenses were not an issue. The final bill came to \$32,000.

⁶ If you are thinking of buying a used electronic instrument — hire a consultant. (*He will probably talk you out of it!*)

⁷ Technicians that aren’t linked to any organ manufacturer.

Should you buy a pipe or an electronic organ? This is an emotionally charged question for many. I will attempt to give you some pro’s and con’s so that you can make a more informed choice on this matter.

Longevity: Next to their awesome sound, the biggest selling point for pipe-organs is their life span. It is pointed out that many pipe-organs have been playing for hundreds of years. While this is true. It is also true that to keep them playing for this length of time has involved many ‘repairs.’ Anything with moving parts eventually wears out. Pipe Organs, no matter what type you buy have many moving parts which will eventually wear out. Since pipe-organ builders usually use only the best quality parts, these parts do last for a long time. But eventually they must be replaced and the replacements, as well as the labour to replace them are quite expensive. One technician we talked to pointed out that in areas of high humidity and air pollution (*Southern Ontario*) – the leather used in most pipe organs doesn’t last as long as it does in areas which don’t have these problems! He was aware of organs that have had to replace much of their leather (*leather controls the air flow to the pipes*) in less than 20 years. This is an extremely expensive repair. It should also be pointed out that the console’s used in many modern pipe organs (*the console contains the keyboards, etc.*) often use the same parts (*contacts & switches*) that you find on the high end electronic organs.⁸ The life expectancy of these components will thus be the same as that of the electronic organs. A good quality electronic organ can be expected to give reasonable service for 30 to 40 years according to the independent technicians we consulted.⁹ This would probably be a fair estimate for the amount of time a pipe-organ would go before needing some major repairs. It is at this point that the pipe-organ may become more cost effective since you would normally only replace/repair the manuals, maybe the blower, and perhaps re-leather the organ. (*Note: In the case of the pipe-organ repair mentioned earlier, it would have been cheaper for them to have bought a new high-quality electronic organ.*)

⁸ Unless you buy a classic ‘tracker’ (*mechanical*) organ console.

⁹ You get what you pay for. Cheaper organs will not last as long as the quality ones. Low-end organs will probably only have a reasonable service life of 20-30 years.

Insurance: Pipe organs, being considered part of the building, are depreciated at 1% to 3% a year. In other words, your insurance coverage lasts much longer! (*Make sure you are covered for water damage. If that is at all possible!*) Older electronic organs, like older cars aren't worth much even if they are in excellent condition. This means that after 10 years you won't get much, if anything, for your electronic organ if something should happen to it.

Size: Both pipe and electronic organs take up room. The console plus speakers required for many modern electronic organs can take up almost as much room as a small pipe-organ.

Heating & Humidity: Any fine instrument will last much longer if not exposed to temperature and humidity extremes. This applies to electronic organs as well as pipe organs. Electronic organs have problems due to expansion and contraction of plastic and metals, condensation, and corrosion. Pipe organs which do not contain electronic/electric components (*mechanical tracker actions*) are subject to damage the same way any piece of fine furniture is if exposed to extreme conditions. (*Wood swells and cracks . . .*)

Sound: The biggest selling point of the pipe-organ is the pipe-organ sound! It is truly awe-inspiring. That said, technology has come a long way towards the duplication of that sound. Top of the line electronic organs such as the Allen – Renaissance, or the Rodgers – Trillium (*these organs start around \$55,000!*), properly installed and voiced are difficult to distinguish from a real pipe-organ. One pipe-organ enthusiast/builder I talked to said that he has been in a church that has a pipe organ installed on one side and one of these new organs on the other. With his eyes closed, he couldn't tell which one was playing. One independent technician we talked to pointed out that in churches with poor acoustics these new electronic organs can be adjusted to compensate for the room acoustics, something a pipe organ can't do. (*For a pipe organ, you have to physically change the room acoustics, if that is possible. Namely, remove carpeting, sound tiles etcetera.*) In other words he claimed that in some buildings these electronic organs may sound better than a pipe organ. Ultimately, the sound of the organ is a subjective opinion for each individual.

Price: The biggest selling point of the electronic organ is price. On the average to buy a quality electronic organ will cost from 1/4 to 1/3 the price of a pipe organ. Current pricing on new pipe organs runs from \$12,000 to \$15,000 per rank. Our smaller

church buildings should have at least an 8 rank organ. (*The larger the church building the more ranks you should have!*) This would cost between \$96,000 and \$120,000. It is possible to buy a used one for considerably less — but be careful. (*Hire that consultant!*) I am not aware of an electronic organ that is as small (*with regards to ranks*) as an 8 rank pipe-organ. The smallest Allen organ has roughly three times as many 'ranks' and costs around \$25,000. A new pipe-organ with that many ranks would cost between \$288,000 and \$360,000.

Hopefully, this information gives you some things to think about and discuss with your organ consultant.

Establishing your criteria: Each church is unique and has unique needs and possibilities. You need to sit down as a committee and discuss what is possible, what you want – and what you need. Establishing this criteria will narrow down the number of organs you will be taking a look at. The resources section which follows contains information that will help you in this area.

What is your budget? There is usually quite a difference in price between what you want and what you need. Somewhere between these two is probably where you should be looking. I can almost guarantee that whatever organ you select will end up costing more than most people expect. You must work with a dollar amount that is 'possible' in your church. Remember, this is a large ticket, long term purchase. Buying quality usually pays off over the life of the instrument. Namely, you save a great deal of money on repairs and maintenance. Being too cheap – may end up costing you a great deal down the road!

Step Three: Research the various organs that meet your criteria.

Pipe Organ: Pipe organs are custom built instruments. This means that you must select a builder. Selecting a builder begins with phoning as many reputable organists and organ teachers as possible and asking for the names of good organ builders. The five or six who are mentioned most often should then be contacted. It is a good idea, not mention an enormous learning experience, for the committee to visit the workshops of these builders and present them with an information package which includes the congregation's musical needs as well other necessary information. Proposals can then be gained from each builder. The final decision should be based on how well the committee likes a particular builder's organs, how comfortable they feel working with him, time required to build the organ, track record, integrity . . .

Electronic Organs: There is a bewildering array of organs on the market today. However, many companies can be quickly eliminated narrowing down the field to a manageable level. Leaving out the very small and custom manufacturers, we find that most church organs are built either in North America (*Allen Organs & Rodger's Trillium Series Organs*), in Holland (*Content and Johannes Organs*), and in Italy, (*Low-end Rodgers, Ahlborn-Galanti – and pretty well every other organ, or at least their parts . . .*). Quality and sound-wise the technicians and others we consulted felt that the North American built organs Allen, & Rodger's (*Trillium Series*), and Holland's Johannes are currently the organs to take a serious look at.

- Allen Organs have the reputation of being the best built electronic organs on the market. They are also considered the industry leader in service and support. They are also the most expensive.
- Rodger's (*Trillium Series*) has arguably the best integration of modern technology with a classical organ. (*Roland's influence*) They have a beautiful sound but a number of technicians felt that the quality of some of their components was less than Allen's. They are slightly less expensive than Allen.
- Johannes gives you a very solid organ for a very fair price. They do not have the latest and best sound technology, the best parts etcetera (*like Allen*) but they are considerably cheaper. They have the second best service and repair record in the industry according to the technicians we consulted.

The technicians we consulted stated that each of these companies builds a quality organ and that they would be a good place to start looking. (*This information is subject to change! Please check this area out for yourself. New organs and products are coming out all of the time.*)

Basic Information to Collect: Here are four areas you may wish to collect information about to help you with your decision making process. (*You may also wish to take a tape recorder along – to get the entire sales pitch!*)

First, the construction and quality of the instrument. Listen to the salesmen & company technicians. Then check with independent sources. Finally, what did you see when you looked at the instrument?

Secondly, listen to the sound. This is, after all, the most important quality. This is also a subjective opinion on the part of the committee members.

Thirdly, ask your organists to rate 'playability.' Is it a comfortable and enjoyable instrument to play? Give them some time to sit and play the organ. See if it is easy to access the various 'enhancements' on the organ.

Fourthly, check the prices on the organ and its various options.

Once you have narrowed it down to two organs – you probably should go back for a second look/evaluation. This preferably will occur on the same day. From these two organs you make your final choice.

Step Four: Make your recommendation to the Congregation.

The final recommendation you bring to the congregation should reflect the amount of time and research you have put into this effort. Make sure that you share your rationale and reasoning for the proposal you are making. With regards to the cost it may be helpful for you to give the price the congregation paid for the instrument you are in the process of replacing – adjusted for inflation of course. (*The Bank of Canada website can help with this!* http://www.bankofcanada.ca/en/inflation_calc.htm) If the congregation does not accept your recommendation. Don't take hasty action. Take the directions, counsel and advice you were given back to the committee and rethink your proposal.

God's blessings on your efforts!

Organ Resources:

The Royal Canadian College of Organists:

112 St. Clair Avenue West, Suite 403

Toronto Ontario, M4V 2Y3

Telephone (416) 929-6400 : FAX (416) 929-0415

<http://www.capitalnet.com/~rjewell/rcco.html>

The Organ Resource Centre

515 McLeod Building

10136-100 Street

Edmonton, AB T5J 0P1

<http://www.rcco.edmonton.ab.ca/orc/index.html>

The Royal College of Organists [England]:

<http://www.rco.org.uk/>

The American Guild of Organists [United States]:
<http://www.agohq.org/home.html>

Organ Clearing House:
<http://www.organclearinghouse.com/>

American Institute of Organ Builders
<http://www.pipeorgan.org/>

Organtek – Church Organ & Carillon Service
*James Baysinger - Proprietor Phone 865-689-7525
Knoxville, Tennessee USA*
<http://www.organtek.com/>

Allen Organ Company
*P.O. Box 36
Macungie, PA 18062-0036 USA
Phone: (610)-966-2202
Fax: (610)-965-3098*
<http://www.allenorgan.com/>

Johannus Organs Orgelbouw (Holland):
<http://www.johannus.com/en/index.html>

Canadian Representative for Johannus:
Willem Flink
*RR #1
Otterville, ON N0J 1R0
(519) 688-3540*
flinkw@bigfoot.com

Rodgers Instruments LLC (503) 648-4181
*1300 NE. 25th Ave.
Hillsboro, OR 97124*
<http://www.rodgersinstruments.com/>

The Organ Magazine. Musical Opinion Ltd: Organ Links page
<http://www.theorganmag.com/links/links.htm>

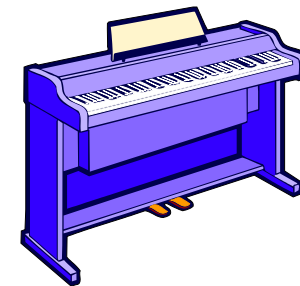
***Hopefully these links/addresses will get you started.
Once you have a specific organ in mind use some
search engines to find out specific information on that
organ.***

THE KEYBOARD

What to look for: This is an area where there are quite literally hundreds of possible keyboards to purchase. New ones are introduced almost monthly. Therefore, rather than give you some outdated information we would like to give you a few things to look for when you purchase a keyboard.

- 1) A full length keyboard – all 88 keys!
- 2) Weighted keys which have the feel of a real piano.
- 3) Pedals
- 4) Quality construction – will it last?
- 5) Good Sound: This is the most important feature to look for, quality not quantity is what you want.
- 6) Full midi and other needed jacks
- 7) Decent amplification and speakers for private practice.
(Normally you will be playing the keyboard through the Church sound system.)
- 8) A company that stands behind its products. *(So that you can get parts when it breaks.)*
- 9) . . .

Electronic versus Mechanical: You should also seriously consider buying a real piano. They tend to sound better, they last much longer and they need fewer repairs. You do lose out on a few areas: 1) no midi; 2) you need a good mike (s) for amplification. The major difference is cost. A quality piano costs a great deal more than a keyboard. Most churches should consider nothing smaller than a full-upright. A grand piano should not be ruled out!



THE SOUND SYSTEM

Basic Requirements for 'good sound' in Church. A Church Sound System is critically important – we are here to preach and teach the Word of God. If people can't hear that word clearly and understand it; we can't accomplish this task. It is also important to be able to clearly hear our musicians and singers as they enhance and add to our worship and share God's word through their music.

Over the years a number of studies have looked into church sound systems and found that almost 80% of 'professional' installations don't meet basic sound standards. In some cases it is so bad that people can actually hear better with the sound system turned off! It is important to realize that most churches have special needs that many professionals aren't aware of. Most professionals work largely with institutions in which good sound isn't very important. (*Ever been at a sports event? How do you like the sound system at the hospital or nursing home? Remember the school PA system?*) To put it another way.

Working with professionals who do church installs on the side often leads to unsatisfactory results. This leads many churches to junk what are often quite expensive sound systems in favor of one that actually works for their special needs. Still others put up with terrible sound because they spent so much on it. It is far better to do the job right the first time. One writer put it this way: "*There is never enough money to do the job right in the first place but there is always enough money to do it four times.*" As Christians we are to be good stewards of our resources. In this case it means doing it right the first time! **Hire a professional who specializes in Churches.**

Another important point with regards to purchasing a system is to look to future anticipated needs of your church. You don't want to shut doors on current or future ministry possibilities by buying a sound system which limits you. To give you an example, think of a sixteen channel mixer [up to sixteen mikes or input devices] – that would probably seem like overkill for a Church. However, these inputs go quickly. If you have special children's programs or concerts you will probably find that 16 channels is not enough. (*Most churches use at least five channels each week, altar, lectern, pulpit, wireless & a mike to record congregational singing. If you use a keyboard or have soloists there go some more channels. . .*)

A number of considerations go into a good Sound System:

1. Clarity for the hearing impaired. They need to hear clearly. (*intelligibility*) This includes both those with hearing aids and those with an average hearing loss. As well, in most buildings people with normal hearing need sound reinforcement. To accomplish this you need a sound system that:
 - a. . . . sounds natural. A perfect sound system should not be noticed by the congregation. (*Tonal quality should be as natural as possible.*)
 - b. . . . is quiet and stable that allows us to have a number of mikes open and working at any given time. (*Limited hissing and feedback*)
 - c. . . . that does not degrade the performance of the Organ or compete with congregational singing when mikes are left on.
 - d. . . . that does not degrade the reverberation time of the room. (*Echos*)
 - e. . . . that when your eyes are closed and you turn your head to the sound you hear, when you open your eyes you find yourself looking at the person speaking or singing.
 - f. . . . uses the proper wiring. If possible continuous lines from the mike to mixer. (*Not using multi-pair cabling or snakes that are not individually jacketed.*)
 - g. . . . that does not pick up radio stations or CB's . . .
2. A sound system should also be able to handle music (*Piano, keyboard, guitar etc.*) and singing as well as speaking.
3. Proper equipment for your musicians so that they can do their ministry, namely, fold-back monitors, proper mike stands, mikes, etcetera.
4. Recording capabilities (*tape deck or video camera, and a proper mike for recording congregational singing, etcetera.*).
5. Balcony, cry room and overflow monitors so that those who aren't on the main floor of the sanctuary can hear as well.

How much should we spend? Most experts I consulted calculate that you should spend at least \$40 per person on your sound system. That means if your sanctuary seats 100 you should look at spending at least \$4,000. If you seat 300 you should look at spending \$12,000. Sound is important. Don't skimp on this important area. The Sound System allows people to clearly hear God's Word as it comes through the liturgy, hymns and message.

Resources:

Church Sound Systems – Church Acoustics
Sanctuary Designer – Architectural Supervisor
*An independent Full Time Consulting Company
Working exclusively with Churches since 1981
in over 400 successive projects.
PH. 416-248-9007*

E-mail address is - jdbwork@jdbsound.com
<http://www.jdbsound.com/11.htm>
<http://home.eol.ca/~jdbsound/b1.html>

Church Sound Network Home Page
*63 Lockerbie Avenue
Toronto, Ontario Canada M9N 3A3
PH. 416-248-9007*
<http://www.jdbsound.com/index.html>

Advent Lutheran Church in Boca Raton, Florida has some excellent pages on Church sound systems (SALT):
<http://www.adventelca.org/>

SALT Training Manual
Table Of Contents
<http://www.kodachrome.org/salt/>

Sound, Light, and Video Links
<http://www.kodachrome.org/salt/slinks.htm>

Hopefully these links/addresses will get you started.