

Choosing a Projector

WINTER 2008

INSIDE THIS ISSUE:

The Bottom Line	2
Suggested Lumens	2
Other Considerations	2
Using a Projector	3
Bells and Whistles	3
What Size Screen	3
Using MC Projectors	4

Getting Started

Your church has asked you to look into buying a projector. The choices are mind-boggling. Maybe you are a technical expert, but maybe you are not. What to do?

- **Know how you will use the projector.** Will it be permanently installed or will it be moved around to different locations? Will you use your projector mainly with a DVD player, a computer, a camera, a VCR, or all of the above?
- **Know your room.** What are the dimensions? How many people does it seat? How much ambient light is in the room?
- **Decide where to place the projector.** Will it be mounted? How far away? Where is the screen?
- **Know what your church expects.** Do you want the lowest price now or are you considering future plans?



This Hitachi CP-X445 projector is available from the Media Cen-

- **Decide on a budget.** If you priced projectors a few years ago, you are in for a happy surprise!

Talking the Talk

Don't be intimidated by those who toss about technical terms. Here are some basics.

- **ANSI lumens** are the standard for measuring brightness.
- **Resolution** refers to the number of pixels (color dots) in a projected image. These are expressed as VGA (video graphics array) 640 x 480 pixels, SVGA (super video graphics array) 800 x 600 pixels, XGA (extended graphics array) 1,024 x 768 pixels, super extended graphics array (SXGA) 1,280 x 1,024 pixels, and SXGA+ which is 1400 x 1050 pixels. XGA is the minimum most churches should consider.
- **Uniformity** is the percentage of brightness carried throughout your image. Brightness uniformity should be 85% or higher.

- **Keystoning** is when one side of the projected image is larger than the opposite end and is not perpendicular to the screen. Keystone correction means that you are able to correct the distortion electronically.
- **LCD** (liquid crystal display) projects light through liquid crystals. LCD has been tried and tested in video projectors.
- **DLP** (digital light processing) is a newer technology using tiny mirrors that reflect light.

WHAT YOU WANT TO KNOW MOST

- *Technical Terms*
- *Cost*
- *Lumens*
- *Extras*
- *Screens*

The Bottom Line

The cost of a projector depends on many factors. The lumens on bargain SVGA LCD projectors may be more than adequate for your space, however resolution may be the deciding factor that encourages you to pay more. 2000 lumen XGA LCD projectors are less than \$2000. DLP projectors using the latest technology for installation in a large sanctuary could cost up to \$150,000.

Many projectors come with a three-year warranty covering both parts and labor. This is important since repairs can be costly. Also determine if the vendor has a loaner should yours need repair.

Find a dealer you trust. The Media Center has purchased nine projectors from one dealer. We trust them to give us the best price and they never try to sell us more than we need. We also have an area dealer to advise you on specifics for your church.

Lumens are not the only factor that determine your need or the



What will it cost?

price you expect to pay. Decide which features are important to you based on the way in which the projector will be used in your particular situation. For example, if your projector will be used with your church sound system, the number of speakers will not be important. However, if you plan to take the projector on the road to places that may not have a sound system, you will want to find a projector with several speakers.

Weight is important for the projectors we purchase for the Media Center because they are picked up and returned to the center. This may not be important to your local church.

As in most church business, the **bottom line** is the bottom line. How much will it cost? Projector prices are coming down. Yet, it is not good stewardship to get more than you need. Don't pay for more lumens or bells and whistles than

you require. Your church has other ministries that could use that money.

Suggested Lumens

ANSI lumens are the standard for rating **brightness**. Here are minimum suggested lumens for portable projectors:

- 600 - 800 lumens when there is little light in the room or when lights are turned off
- 1000 lumens when there is some light such as dimmed lights or blinds on windows.
- 2000 lumens with bright light

Don't buy more lumens than you need. Bigger is not necessarily better.

- Permanently installed projectors for your sanctuary or fellowship hall give you the option to go with more lumens.

2500 lumens for gatherings of less than 100
 3000 lumens for gatherings of 100-200
 5000 lumens for gatherings of 1000 and more under bright lights

Other Considerations

Image quality depends on resolution and uniformity. Consider these as important as lumens. Resolution refers to how much detail we can see in an image.

In choosing **resolution**, you will want to match your projector resolution to your computer resolution. XGA (1024x768) resolution currently leads the projector market.



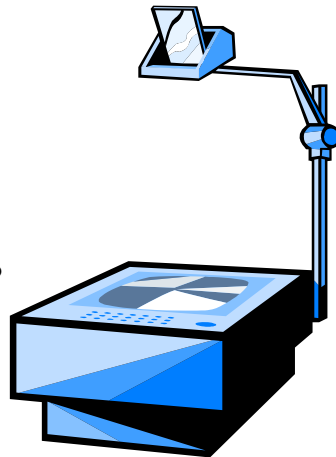
Brightness and Resolution determine image quality

Uniformity is the percentage of brightness carried throughout your image. Look for a higher uniformity rating for better consistency. Brightness uniformity should be 85% or higher.

Using a Projector

Most portable projectors are very **easy to use**. Remember, a projector is basically a monitor. You connect it to your computer, DVD player, or VCR just as you would a monitor. Projectors come with just a few cords - usually you will find that a power cord, a n RGB cable, and audio/video cables are standard. Newer projectors pack up just like a laptop in a similarly sized bag. Projectors are user-friendly and can be easily be set-up. Often the most difficult problem is finding a power outlet. You may want to invest in a surge protector/power strip to solve that one.

- Most projectors are plug-and-play.
- Most projectors come with very few cables
- Most projectors can be set up in minutes.



Remember when?

Actually, portable projectors are easier to use than overheads or slide projectors. You just place it on a level table or stand and align the projector with your screen, making sure to not block the ventilation holes. All cables should be snugly connected before you turn on the power.. Turn the projector on first. The main problem we sometimes see is that when using a laptop computer, you may need to disable your monitor.

Projector **bulbs** last a very long time, often 2000 hours or more. The manual that comes with your projector will tell you the bulb's projected hours of use. Some models have an economy mode in which you may operate the projector giving the bulb more hours of use. Bulbs do not suddenly go out as does a light bulb in your kitchen. That is good because replacement bulbs are very expensive. It is wise to plan ahead so that you are prepared for when a bulb needs to be replaced. Find the best price for replacement bulbs but also consider the expected delivery time.

Bells and Whistles

What other **features** should you look for? You may not need all of these bells and whistles, but here are some you may consider:

- Wireless projectors
- Long-life bulb
- A monitor loop
- The ability to network from a remote location
- Component video inputs
- Keystone correction
- A wireless mouse
- HDTV compatibility

Extra features often drive up the cost. Decide whether or not these are important to you.

- An audio amplifier
- A warranty and a dealer that provides a loaner

What Size Screen?

There are several general rules of thumb as to what size screen you need. One is that a screen should measure 1" diagonally for each person in the viewing group. Or divide the distance from the screen to the front row by two and that should be the approximate width of the screen. Another is this chart formulated by the Society of Motion Picture and Television Engineers. Since your screen and your projector work together, you will want a screen big enough so that it is easy to read, but remembering that a sanctuary is a house of worship and not a theater. The screen should not take over the sacred space. Classroom screens are generally retractable or portable.

Audience Size	Screen Width
20—50	5 feet
50—200	7 feet
200—350	8 feet
350—500	10 feet
500—750	12 feet
750—1,000	14 feet
1,000 or more	20 feet or more

Media Center information on

East Ohio Conference United Methodist Church
8800 Cleveland Ave., N.W.
P.O. Box 2800
North Canton, Ohio 44720
Phone: 800-831-3972 x 139
Fax: 330-499-3279
Email: ray@eocumc.com

Telling the story

Projectors are an effective tool in sharing the Gospel of Christ.



Some of us are technically savvy, but all of us know that it is crucial to tell the story of Christ in the language of the people. Today, that language is technology. Media Center member churches may borrow one of our projectors to test in their church. But after that, what do you look for? We hope these tips help you in your decision-making. Feel free to call us if we can be of help.

When Using Media Center Projectors

- A deposit of \$100 is required. We do not deposit checks or credit cards provided our rules are followed.
- Projectors must be picked up at the Media Center. Failure to return a projector on time means your deposit will be forfeited.
- In case of an emergency and you cannot return a projector as planned, **call the Media Center immediately**. If someone else is scheduled to use it that day, you must find someone else to return it or deliver it to the next user.
- A projector returned to another part of the Area Center is not returning it. It must be returned to the Media Center. If you give it to someone else to return, notify the Media Center.
- Carefully read all operating instructions before use.
- Be certain that all pieces and parts are returned with the projector. Returning a projector with parts missing results in forfeiture of your deposit.
- Never yank on a connector cord or cable; gently remove them.
- Always let the fan run to cool the projector before unplugging.
- If your church breaks or loses the projector or a part of the projector, your church is responsible for its repair or replacement. These are costly so be careful!
- Your Media Center has given you access to expensive equipment. It is costly to purchase or rent this equipment. Free use does not mean the equipment is of no value.
- Use care so that we can continue providing this equipment.
- Respect others who want to use the equipment. Please respect the Media Center's equipment as much as you would your own.
- **Media Center projectors may ONLY be used by Media Center member churches.**