## Why choose an LCD projector?

LCD projectors are changing the way people communicate in many fields because they can deliver colorful, electronic presentations to anyone, anywhere in the world. LCD projectors allow you to display computer and video images, as well as audio information, which allow greater flexibility in your ability to make an impact. This guide has been designed to help you choose between the many models out there today.

## Comparing LCD projector features:

When comparing features, it's important to remember what your own individual needs and priorities are. The more expensive the projector, the more features it will have, which may not always be desired. Only you can ultimately decide which projector is best suited for your application.

### 1. Image Quality

The quality of any image is comprised of 4 elements. Those elements are contrast, color, brightness and how even the illumination is across the picture.

**Contrast**

Contrast is simply the difference between the brightest and the darkest parts of the image. Contrast helps define the depth of an image, and is important when projecting video images. A good projector will have a contrast ratio of 250:1 or more. High contrast is useful when displaying high quality video, but not as necessary when displaying simple computer data such as spreadsheets.

**Color**

The more colors your projector can support, the better. Color also helps define the depth of an image, by adding shades to the objects displayed. Typically projectors display 16 million colors or more, which is adequate for both video and computer data.

**Brightness**

The brightness level you need depends on the kind of environment in which you display your information. Trade show floors and other lighted environments require brighter images, while darkened room displays need less brightness. Typically you will want 1000 lumens or more in a lighted room.

Brightness can be listed in various units. Manufacturer's typically list brightness in either lumens or ANSI lumens. The difference between the two is that ANSI lumens are measured by a specific method, set down by the American National Standards Institute. If a unit has its brightness listed in just lumens, then the measurements taken to obtain that value, do not follow any standardized routine. ANSI lumen listings are closer to the real value of the projector's brightness, than non-ANSI lumen listings.

**Illumination**

As you compare projectors, notice how the illumination fills the screen. Is it even from side to side and top to bottom? You want to avoid bright centers and dark corners, or vice-versa. This criteria should be followed for both video and computer data projections.

## 2. Portability

LCD projectors offer a portable presentation package for highly mobile users. Their small, lightweight frames make them easy to transport via the usual modes of transportation (car, airplane, A/V cart, or on foot). You'll want to make sure you use an ATA approved shipping case or a case designed for local transport, depending on your needs.

Some projectors are more portable than others. If you are on the road quite often, you will generally want a 5 pounds or less projector. If your projector will reside at one location for a majority of the time, heavier projectors are not such a hassle. The heavier projectors tend to have more features than their lighter weight cousins, so you have to be the judge when compromising weight for function.

**In-house usage**

The portability of LCD projectors also makes them an excellent choice for in-house users who need to move a projector from room to room. Another example of in-house usage is in permanent fixtures.

For many permanently mounted projectors, the requirement for light weight or small size can be traded for increased light output or other features.

Mounting your projector on the ceiling gives it a stable, out of the way home. Rear-screen projection capability allows you to project your image from behind a transparent screen.

## 3. Ease of Use

The easier your projector is to use, the less time you will have to spend setting it up. Comparing the ease-of-use of one projector versus another doesn't have to be difficult. Just remember to look at the following items:

**Remote control**

A remote control offers the user the most mobility while making a presentation. It allows the user to make adjustments to the image and control projector functions from anywhere in the room. Look for a simple, yet intuitive interface on the remote.

Should your remote have the ability to control a mouse, be sure that it is easy and accurate to use. It becomes considerably more difficult to rapidly position the cursor when situated before an audience.

**Input panel**

It is important to think about what you will be attaching to your projector. A well labeled input panel can help cut down setup time. If your application results in a ceiling mounted projector, this is not as critical.

Make sure your projector has the necessary inputs for whatever you are using during your presentation. This can include multiple computer inputs, various types of video such as S-Video, composite or component (R, G, B, H, V) and audio channels.

**External peripherals**

Most projectors allow the user to attach a monitor to the unit. This allows the presenter to view what is being projected without having to turn their back on the audience. Keep this in mind if you plan on using an extra monitor.

**External speakers**

If you plan on presenting before a medium to large size audience, you may want a projector with a separate audio output. Having a separate audio output allows you to connect external speakers to the projector. Usually the audio system built into most LCD projectors, averages around 2 to 4 watts of power. By connecting to external speakers, you can carry your message across with whatever power level you want. This is important in environments with lots of ambient noise.

**Powered lens**

Power zoom and power focus lenses provide quick and easy adjustment of your image. This is another plus if you intend to be moving about during the presentation. If you plan on permanently mounting your projector, this feature is not as important.

## 4. Data and video compatibility

When you're selecting an LCD projector, you'll need to know your image resolution requirements. Whether you are running your presentation from a workstation or a DVD player, it's best to know ahead of time what your needs are.

**Data**

Common resolutions for projectors are 640x480 (VGA), 800x600 (SVGA) and 1024x768 (XGA). 1280x1024 (SXGA) is now available for high resolution requirements. Look for a projector that has a native resolution which matches your requirement. You can easily tell what your requirement is, by the nature of the data being projected. Spreadsheets and simple PowerPoint presentations only need SVGA or XGA at the most. Highly detailed CAD drawings require XGA to SXGA projectors.

**Video**

Composite video standards include NTSC, SECAM and PAL. Your projector should be able to support the video standard you require. It is a good idea to at least have an

NTSC supported projector, which is the standard used in North America. International users should consider the formats of the countries they visit the most.

## Warranty

Today manufacturer projector warranties range from 1-5 years. It makes most economical sense to purchase the data/video projector that has the longest warranty!

## Making the choice

After considering all of the features above against what your needs are, making a decision on a projector becomes much easier. Following this guide will help you make an informed buy that you can feel confident about.