

## **LCD**

LCD television sets are capable of a lot for their relatively compact sizes; their bright, high resolution displays are often complimented by an attractive, thin, light frame which adds a decorative element to a device which traditionally lacked such a thing. Due to this combination of form and function, LCD televisions have become the most popular type of display in Canada.

## **LED**

Although the market for LCD's has grown, there are still other options which have the potential to better suit your needs. LED televisions for example are a subset of LCDs, the main difference being that LED technology employs tiny light-emitting diodes as opposed to LCD's cold cathode florescent lamps in order to display a picture. In essence, LED televisions are the next evolutionary step in flat-panel displays – they contain all the positive aspects of LCD sets (no burn-in, high resolution) but add new features such as deeper blacks and higher energy efficiency in addition to being thinner as well. If benefits such as a super slim profile, higher energy savings and better black levels appeal to you, LED televisions are an excellent buy.

## **Projectors**

If your primary concern is size, it might be worth looking into projectors as opposed to traditional television sets. These devices can easily display images at several times the size of even the largest home televisions, which serves to offer more of a theatre-like experience that traditional televisions simply can't replicate. However, it should be noted that the use of projectors *should* be limited to viewing sports, DVDs, or Blu-ray films due to the relatively short lifespan of the projectors bulb. Bulb life ranges between 2000-3000 hours, and when they burn out, they cost a few hundred dollars to replace. If this doesn't bother you, and the thought of having your own personal projector intrigues you, keep them in mind as your decision making progresses.

## **The Basics**

Though there are differences between LCD and LED televisions, most of the basics resonate with both. Before purchasing either set, it's important to break down the most important factors:

### *Screen Size*

Most often the primary decision when considering a television is how big you'd like it to be. In order to make this decision a little easier, consider where the television is going to be sitting in relation to you and choose the most appropriate size from there; the further away you are, the larger the television should be.

### *Native Resolution*

Native resolutions are the maximum resolutions of which any certain television can display a signal. For example, if a television's native resolution is advertised at 1920x1080, it is capable of playing content at 1080p. However, if the native resolution is anything lower than this number, your set will only, at best, be able to display content at

720p. If you want the full Blu-ray or video gaming experience and desire the full 1080p experience, it is important to choose a television with a native resolution of 1920x1080.

### *Refresh Rate*

This term refers to the amount of times the on-screen image is updated on a per second basis. Most televisions operate at 60Hz with higher end televisions giving you the option of 120Hz to even 240Hz. What this technology does is reduce motion blur in fast moving images by inserting more fields between the ones received by the television. In essence, televisions with higher refresh rates work to lessen or remove judder, creating smoother looking transition between frames. If you're looking to watch a lot of fast-paced programming such as sports games, this option may be right for you.

### *Response Time*

This is the direct measurement of how long a television set can react to the signal it's being fed. The lower the number, the fewer "after images" or "ghosting" can be seen. For standard television and movie viewing, 8ms is acceptable, but for gaming you should stick below 5ms.

### *True Contrast Ratio vs. Dynamic Contrast Ratio*

True contrast ratio refers to the measurement between the darkest black and brightest white that a television can produce. For a true (or *native*) contrast ratio measurement, both the darkest black and brightest white are displayed and measured on screen at the same time, giving you a more authentic indication of what you would experience during typical household viewing. Dynamic contrast ratio takes these values one at a time, giving a somewhat skewed representation and inflated results. When considering contrast ratios, be sure to compare the true (or *native*) ratios.

### *Colour Gamut*

This term refers to the percentage of viewable colour spectrum of which the television set can display. The higher the number, the more colours the TV can display. This value ranges between 75-95% for most televisions.

### *Connections*

Before purchasing your set, consider how you plan to connect your various components to it; if you have a Blu-ray player, set-top box or videogame system which uses an HDMI connection, you're going to want to ensure that your television has enough inputs to support them all. Take an inventory of your components as well as their inputs to ensure your new set can support all of your peripherals at once, otherwise you might have to deal with cumbersome cable swapping.

### *HDMI*

HDMI is a single cable which carries a component's high definition video and uncompressed audio signals. It is the only cable capable of transferring the full digital 1080p signal, and has become the standard for high definition applications.

## **Extras**

### *Networking and Media*

Several television sets come with the ability to connect them to your home network; reasons for doing so range from checking the weather to streaming media from your networked computers. Each television varies in this type of functionality, so it's best to read up on them individually.