



# TELEVISIONS

Shopping for a television (TV) doesn't have to be stressful! You don't have to be an expert to get a great deal on a TV. It just takes a little time and patience and you need to know what you want in the product before you can make a wise decision.

## Key Terms

- **3-D Capability** – A feature which allows for content to be viewed in 3-D. For example a DVD that is in 3-D could be viewed properly if this feature is included in that TV model.
- **Anti-burn-in Features** – A feature on plasma TV's which prevent static images from permanently etching into the TV's phosphor coating. Examples include screensavers and motion adaptive technology where the picture shifts on the screen every few seconds when the program is paused.
- **Anti-glare Screens** – Generally on a plasma TV, a screen that reduces the reflectivity on the viewing area, making the picture quality better.
- **Component-Video Inputs** – Connections that allow for other devices to be hooked up to the TV. Examples include DVD player, video games, or other such items. The inputs are usually color coded as green, blue and red.
- **Digital Tuner** – A feature that enables the TV to receive free digital TV signals, including high definition programming via an over-the-air antenna. This feature has been required on all TV's since March 2007.
- **Extended Warranty** – A warranty that can be purchased when a TV is bought that will extend beyond the factory warranty on the item. Extended warranty coverage varies depending on the policies offered, the number of years the policy will last, and more.
- **Film Mode** – This feature improves the appearance of movies converted from film to video. Other terms used to describe this feature include: 3:2 pull down, motion compensation, or brand-specific names such as CineMotion and Film Mode.
- **Flat Screen** -- A type of television that is only 4-6 inches thick that can be put on a stand or mounted on the wall like a picture.
- **Front Projection** – A projector that is used with a screen to project movies or television on to a larger surface. Front projection systems require additional equipment such as speakers, cables, and a screen to work properly.
- **HDMI Inputs** – Connections on a TV that allow for HD capable input devices to be connect to things such as cable and satellite boxes, Blue-ray DVD players, or other HD equipment.
- **High Definition** – Refers to video having a resolution substantially higher than traditional television systems. Sometimes referred to as "HD" or "HDTV".
- **Internet-enabled** – Televisions that provide a broadband internet connection without using a computer. Internet-enabled TV's can be used to subscribe to services such as movie rentals (Netflix, Blockbuster, or Amazon on Demand), music from services such as Pandora, YouTube, Twitter, Flickr photos, and more. Also known as "web services."
- **LCD** – The use of lights behind the display screen to help illuminate it. These are typically fluorescent bulbs or some new sets use LED (light-emitting diode) backlights. LCD stands for "liquid crystal display."
- **LED-lit** – LED means "light-emitting diode. This refers to backlights used behind the display screen to help illuminate it.
- **Picture in Picture (PIP)** – This feature allows the viewer to watch two channels at once. One channel is in a small window while the other is shown on the full screen.
- **Plasma Screen** – A type of TV which has many tiny cells between two panels of glass which hold a mixture of noble gasses. The gas in the cells is electrically turned into a plasma which emits ultraviolet light to create the picture.
- **Rear Projection** – The technology used in large-screen TV's to generate the image on the screen from behind the viewing monitor. The technology uses a series of lenses and mirrors to direct the image toward the screen.
- **Resolution** – The degree of sharpness or clarity of a displayed image. Resolution is defined as a matrix of "pixels" per inch. For example, a screen resolution of 1920 X 1080 means that the first number is the number of horizontal rows of pixels on the screen and the second number is the number of vertical rows of pixels on the screen. Some models may list only one number such as 1080p. This number references the vertical rows of



pixels.

- **Screen Size** – The dimension of the screen on a TV measured on the diagonal and includes only the display area, not binet or housing.
- **Viewing Angle** – The maximum angle at which a display can be viewed with acceptable visual performance.
- **Wall Mount** – The installation of a TV on the wall similar to a picture frame or mirror.

### Shopping for Televisions

When shopping for televisions, there are a number of considerations that may need to be reviewed before a decision is made. Below are brief explanations of some of the important aspects to take into account in selecting a TV.

1. **Price Range** – It is important to know how much money is budgeted for this purchase. This type of product is not an expendable item or something that is replaced often. There will be several choices of products, depending on how much money is available to spend.
2. **TV Type** – There are several different types of TV's on the market today. Most models are now flat screens, but there are different types of flat screens. The most common types are plasma or LCD. They look very similar but the technologies are different. There are also front projection models available. A front projection TV is a good choice for a large home theater but not very practical for everyday use.
  - **LCD TV** – This type of TV is lightweight, comes in a range of sizes and well suited for viewing in a bright room. Screen size can range from 23-60 inches from most manufacturers, but a few offer screens as large as 100 inches. Most LCD TV's are only 4-5 inches thick. Prices vary, depending on screen size and other features. There are more companies selling LCD TV's than plasma TV's, but LCD TV's generally cost more than plasma sets, but the gap is narrowing. Many LCD sets 40 inches or larger have 1080p resolution.
  - **Plasma TV** – This type of TV is 42 inches or larger. Most common sizes are 42-58 inches. Most models are 6 inches or less in depth and some new ultra-slim models are becoming available. Prices vary, depending on the screen size and other features. There are more models which have 1080p resolution.
  - **Front Projectors** – This type of TV is best for a theater-like experience at home. The projector is a separate piece from the screen and is usually mounted on the ceiling. The screen area is typically 70 to 200 inches. Price begins at \$1000 and goes up from there. Screens are an additional cost of several hundred dollars, depending on the size. The size of the picture can be altered, depending on the distance the projector is from the screen, if the projector is not mounted on the ceiling. Other items that must be purchased separately include speakers, TV tuner, cables, mounting brackets, and possibly other items.
3. **Screen Size** – In order to determine what size TV to purchase, it is important to know how big the space is where the TV is going to be placed. This will impact the size of the screen that is chosen. If the TV is going to be placed in a cabinet, be sure to measure the opening, allowing for a few inches of clearance to be able to insert the TV. If the TV is going to be mounted on the wall and there is a limited amount of space, be sure to measure the wall space.

Screen size is measured on the diagonal of the TV viewing area. It will be important to take a tape measure when looking for TV's so that the actual width and height can be measured on the TV if those dimensions are not provided on the product information or box.

Another consideration is the size of the room. It is recommended that for an average size room such as a living room, a 37-inch screen is recommended. For smaller rooms such as a bedroom or kitchens, smaller screens are recommended.

The distance that seating is from the TV may also impact the screen size. It is recommended that seating be at least 5 feet from 40-47 inch screen or six feet for 50-inch or larger screens. The larger the screen, the farther from it the viewer should be. When viewing a TV close up, the picture may not be as clear or look "snowy" or lines may be visible on the screen.
4. **Screen Resolution** – This refers to the number of pixels, or picture elements, a screen contains. The higher the resolution, the better the picture. The resolution may be given in a set of two numbers such as: 1920 X 1080. This means that the first number is the number of horizontal rows of pixels on the screen and the second



number is the number of vertical rows of pixels on the screen. Some models may list only one number such as 1080p. This number references the vertical rows of pixels.

The screen resolution chosen will determine if specific other features will be available. In order to be able to access HD signal formats or use Blue Ray DVD players, the screen resolution must be at least 1080p.

5. Features – What are the features that are most appealing to the buyer? Are those features available within your budget? Features may include but are not limited to the items listed below. Be sure to review the Key Terms for additional features.
  - Flat Screen
  - High Definition
  - Rear Projection
  - Video Conferencing Capabilities
  - Wireless connectivity
6. Brand – Research the different brands of TV's and choose brands that provide the features that are wanted. How well a brand is rated could have bearing on the decision.
7. Customer Reviews -- There may be helpful information that can be gained from customer reviews about specific products or brands. Take the time to read customer reviews if they are available and take that input into consideration.

#### References

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