

Buying guide – HOME THEATER SYSTEM

Introduction

A [home theater system](#) is ultimate in home entertainment. A treat for movie buffs and just about anyone, home theater systems get pulses racing by bringing the cinematic experience, right into our homes. Most home theater systems, or home theaters in a box, include a DVD or up-scaling DVD player, an A/V Receiver, five -- but in some sets seven – speakers, and a Sub-woofer. These speakers are strategically placed around the listener - creating an immersive theatrical experience. A home theater experience is the next best thing to the movie theater's sound system. It's true that the sound effects, dialogue, and ambient sounds from movie sound tracks can be heard as they were intended when played through these systems, but the true essence of a home theater system is, convenience. Their greatest draw is their ability to streamline shopping. Unless you're a serious audiophile, or looking to get the cops called for disturbing the peace, you won't want to build a system from components purchased separately, and you'll find the sound output quality from HTiBs to be outstanding.

What's Available

- 1. With or without a DVD player:** Some systems include only a receiver and matching speakers, matching in look as well as in power handling.
- 2. Player types:** Many systems include up-scaling players that process and reformat DVDs to High Definition. Blu-ray home theater systems are a relatively new offering and prices are becoming very reasonable. Players integrated into the receiver are also available for those that prefer a cleaner look.
- 3. Wireless speakers or multi-room audio:** Rear channel wireless speakers eliminate the need for wire running from the front to the back of the room. On some systems all the speakers are wireless. A few systems offer transmitters that can send the audio signal from your receiver to other compatible wireless speaker situated in other rooms of your home.
- 4. iPod dock, WiFi connectivity:** iPod docks allow you to easily interface your iPod with the sound system, as well as charge its battery. WiFi connectivity is a feature that allows the home theater system to interface with your computer's HDD, any media files can then be accessed for play thru
- 5. The speakers:** Speakers come in different shapes and sizes, micro speakers that either sit on a shelf or mount to the wall or stand are a popular option, but, Increasing speakers styling has emulated TV designs by going thinner and taller, or being framed in piano black or silver. It is the speakers that distinguish a home theater system from any audio entertainment system. The mandatory speakers that a package must have to be considered a home theater system are:
 - **Center channel speaker:** This speaker directly faces the viewer and can be placed either under the television or above it. This speaker emits the main dialog and sound effects.
 - **Left and right front speakers:** These speakers could also be placed at approximately a 45 degree angle on either side of the television or preferably at the two front corners of the room with the sound waves converging on the center of the rear wall of the room These are the primary pair of speakers in the

system, providing the first level of sound output. If the sound jars, these speakers should be placed directly facing the viewer.

- **Left and right rear satellite surround sound speakers:** These speakers should be ideally placed in either corner of the rear wall. It is these speakers that are responsible for the viewer getting the feeling of actually being 'into' the scene of the movie. Any audio related to occurrences at the corners of the screen, such as a character talking towards one side of the screen or a vehicle driving past or approaching the camera, is transmitted to these speakers, on the same side as the action on the screen.
- **Subwoofer:** This speaker is responsible for the low frequency bass sounds. Great for viewing a rock concert, this speaker adds to the feel of the home theater system.

6. **Audio/Video receiver:** Almost no home theater system is complete without this component. The receiver controls the video display on the screen and the sound output from all the speakers. The receiver has the audio/video inputs for the DVD player or the VCR, a surround sound decoder, a preamplifier, power amplifiers for each sound channel, as well as outputs to the speakers and the television or projector. The decoder can be either analog or digital, this device being responsible for the picture on the screen and sound from the speakers. The video output is sent to the display device and the sound output is sent to the decoder which separates sound input with respect to the relevant sound channels, the relevant outputs being sent to the correct speaker.

What to look for in a home theater system

Considering the various components of a home theater system and the many surround sound speakers available in the market, purchasing the system of your choice may not always be easy. Below we have listed a few pointers which would help at the time of purchase:

1. **Surround sound format:** This requirement ensures proper sound. The home theater receiver should be able to split sound signals from all audio formats, such as DTS, (Digital Theater System), Dolby Digital, Dolby Pro Logic, and Dolby Pro Logic-II (an encoding system that digitally compresses 5 to 7 unique audio channels). A 5.1 speaker system includes 5 speakers and one subwoofer. This is the most common configuration for home theater system speakers.
2. **Wide spectrum speaker system:** The speaker system should encompass the whole audible audio frequency range. Thus, reproduction of even the faintest sound effects is possible with almost negligible phase and time distortion. The audible frequency range in humans varies from 20 to 20,000 Hz.
3. **Recording format compatibility:** This point is concerned with the DVD player. The DVD player of your home theater system should be compatible with all disc formats that include DVD-Audio, DVD-Video, DVD-RW, DVD-R, +RW, +R, CD, CD-R/RW, SVCD/VCD, MP3/WMA/JPEG Digital Still (CD-R/RW, DVD-R/RW), MPEG-4 (ASP)/DivX (CD-R/RW, DVD-R/RW). MPEG-4 and DivX are especially important today where movies in these formats are increasingly becoming available.
4. **Video Up-sampling:** This has to do with improving video quality by increasing the signal bandwidth. The system should have an up-sampling rate of 4x.

- 5. Digital to Analog converter (DAC):** Before display on the screen, all digital signals of a video transmission need to be converted to analog signals. The DAC ensures that this task is carried out. Higher the bit range used by the DAC, better the signal quality. The home theater system should have a minimum 24 bit DAC converter.
- 6. Signal to Noise ratio:** This represents the ratio of the audio signals to the noise output, measured in decibels. Higher the S/N ratio the better the sound quality.
- 7. Progressive scan:** Earlier technologies created images on the display screen line-wise, with odd lines being drawn first and then, even lines, resulting in a picture that was not all that clear. However, in progressive scan technology, both lines are displayed together, making for a sharper picture.
- 8. Aspect ratio:** This is the ratio of image width to image height. While analog television pictures have an aspect ratio of 4:3, High Definition TVs (HDTVs) have an aspect ratio of 16:9.
- 9. Impedance:** This implies the total resistance offered by a conductor to the flow of alternating current across a circuit at a certain frequency. Low impedance translates into more efficient distribution of power.

Making the right decision

After going through this buying guide, you will have got an idea of what exactly is a home theater system and the various components included in the system. View the various home theater options on www.etrronics.com.

Buying the home theater system from a trusted name such as [Yamaha](#) makes sense. The price-wise distribution of the various systems offered by Yamaha can be viewed at the following links: [\\$100 - \\$200](#), [\\$200 - \\$300](#), [\\$300 - \\$500](#), [\\$500 - \\$1000](#).

Before purchasing the system, ask an expert to advise you on the best home theater system taking into consideration the layout of your room. Some systems have a karaoke facility whereby the vocal sound output is muted to a certain extent and the instrumental output is maintained at a steady volume so that you can sing along with the music. With a sound decision, the home theater system will give you years of viewing and listening pleasure.