

## Home Theaters

### *BRINGING THE MOVIE EXPERIENCE TO YOUR HOME*



Imagine a room that gives you the feeling of being at the movies. With Bravo AV's custom home theater designs, you can get the excitement of a night at the theater without ever leaving the comfort of your own home. Get the power of the latest technology, coupled with ease of use and great aesthetics.

A home theater is a room specifically designed to watch picture perfect movies and shows using the latest technological advances. Bravo AV's goal is to complement your lifestyle by demystifying the home theater and delivering to you:

- The Best Picture
- The Greatest Sound
- The Most Comfortable Environment

A good home theater plan is the combination of electronics and room design, developed to recreate the experience of going to the movie theater, but without leaving home. The components of a home theater plan are as follows:

**Projector:** An optical instrument that projects large images onto a screen. Today's HD projectors can project incredibly detailed, bright images on screen from 100 to 135 inches and beyond.

**AV Receiver (AVR)** or audio-video receiver's primary purpose is to amplify sound from a multitude of possible audio sources as well as route video signals to your TV or projector from various sources. The AVR is the brains and brawn of your theater. An AV Receiver usually combines the functions of two components:

- 1. The Brains.** A Preamplifier that switches and controls which audio and video source is selected (such as a Blu-ray player, cable box, CD player, etc.) and processes the incoming stereo or surround sound signals and distributes them to the correct amplifier channels and the subwoofer output. The preamp in an AV receiver can also route video signals coming from source components (such as a Blu-ray player) and direct the video signal to the projector.
- 2. The brawn (muscle).** A built-in Multi-channel amplifier (5.1, or 7.1 channels) that sends the surround sound signals and power to the speaker system.

**Preamplifier (Processor) & Amplifier Combo:** Same as receiver, but can be provided in two components rather than one for a higher fidelity. By separating the pre-amp or processor from the amplifier the manufacturer is able to focus more on increasing the performance and optimizing the controller or amplifier

**Speakers:** Also known as loudspeakers, are devices for audio playback. Typically a theater has at least 5 speakers. Left, Center, Right, and two side-surround speakers. In some larger theaters two additional rear speakers are added on the back wall. In components and speaker systems, a channel is a separate signal path made up of the following:

- **Center Channel:** The center speaker in a home theater setup carries the primary amount of information and all the dialogue. Ideally, center speakers are placed within one or two feet above or below the horizontal plane of the left and right speakers and above or below the display device, unless placed behind a perforated screen.
- **Left Channel:** The left speaker carries the left audio channel information.
- **Right Channel:** The right speaker carries the right channel audio information.
- **Side Surround Speakers:** Speakers located beside the listener that reproduce the surround sound channels of surround-sound-encoded audio programs.
- **Rear Surround Speakers:** Speakers located behind the listener that reproduce the surround sound channels of surround-sound-encoded audio programs.
- **Subwoofer:** A loudspeaker dedicated to producing bass (sound with low frequencies.) Subwoofers typically add that shake and rumble to your home theater.

**Sources:** Source components are devices that provide audio & video signals to your theater system. Blu-ray players, Cable Boxes, Satellite Receivers, video games and digital media servers are all great examples of sources.

**Wire and Cables:** Wire and cables connect the entire system together. Examples of wire & cables necessary to outfit a complete home theater would be:

- **Speaker Wire** connects the speakers to the amplifier (a minimum thickness of 14 gauge copper wire is recommended. 10 gauge is preferred.)
- **Coax or RG6 Wire** is typically used for Cable TV, DSS.
- **CAT-5/6 Wire:** Category-5 is a communications wire used for many applications. Networking, telephones, infrared communications and keypad communications are some basic examples of the many uses of cat-5.
- **HDMI Cable:** (High Definition Multimedia Interface) sends both audio & video on one cable. HDMI also supports the highest quality video available on the market today.

*For more information on wire and cable see Bravos AV's:*

- **Theater Connectivity Diagram**
- **Classification of Low Voltage Network Wire** and
- **Structured Wiring Approach.**

**Surge Protection:** In today's world electronics and electronic systems have become very expensive, even at the inexpensive level. Surge Protection helps to protect your expensive electronics from lightning, power surges, brownouts, blackouts, and many other possible dangerous signals that can come in through the electrical systems in your home.

**Power Conditioning:** Modern electronics have become increasingly better at displaying very high levels of detail in video and audio images. Noise on your electrical system from appliances and various other devices plugged in throughout the home can easily become magnified through your home theater system. Power conditioning takes the incoming electricity, cleans all noise and interference off the line and then provides clean pure power to your electronics system for a much-improved viewing and listening experience.

**Theater Chairs:** Theater chairs come in all sizes, color, firmness and styles. Many chairs have motorized options and some have heaters. We also have custom cabinet craftspeople and interior design consultation available to help you design a home theater that looks as good as it sounds.



Integration.  
Automation.  
Imagination.

Bravo AV will help you design a home theater that looks as good as it sounds. With our custom cabinet crafters, interior design consultation and nearly limitless options available, you and your family will be sitting in your own personal theater in no time!

For a more complete picture of Home Theaters please refer to Bravo AV's Home Theater Series of Articles:

- **Home Theater Acoustics**
- **Home Theater Chairs**
- **Home Theater HVAC (Heating, Ventilation and Air Conditioning)**
- **Home Theater Questionnaire**
- **Home Theater Process Checklist**