

AUDIOTRENDS

L E A R N I N G C E N T R E

Planning Ahead For Home Cinema

You turn on your system, tear off the wrapper from the brand new DVD you just bought, put it in and dim the lights. You're excited! Almost immediately, the crisp, bright images and swelling surround sound draw you into another world...

You know, when it comes to getting this kind of home cinema — the kind that really puts you in the middle of the movie action — your room plays a crucial role. So, have a quick look at some of the points to keep in mind **before** you get that new system, because the size, shape and layout of your room affect just about every aspect of your home cinema system including the sonic performance, picture quality and overall operation.



In this article, we'll explore things like room size, speaker placement and how a little bit of planning before you buy can help you make better choices that will better suit your specific room. You'll also find tips for maximising the performance and usability of your system. Let's start with a look at room sizes...

How big is your room? Are you installing your home cinema system in a small flat, apartment or nicely decorated living room? Or will you have a bigger

dedicated room, just for home cinema? Some A/V components that work beautifully in small rooms don't make much sense for larger spaces; the amplifier may not have enough power and the speakers may be just too small. Your room's size makes a big difference when selecting these and other items like a new TV. Below are some tips on choosing home cinema gear for small, medium sized and larger rooms.

I have a small room. If you're buying a system for a bedroom, study or small lounge room, you may prefer a compact, all-in-one DVD home cinema system. These include an in-built DVD player, surround sound decoder, amplification and all the speakers you need. Although most of these systems place emphasis on being décor-friendly, the better ones can sound very good when properly set-up in a small room.

However, if you prefer to mix and match the components rather than buying a 'package-deal' system where the speakers are usually poor quality, then consider matching a receiver and DVD player with satellite speakers and a separate subwoofer. Compact satellite speakers blend nicely into most rooms and usually deliver plenty of sound to fill a small to medium-sized space. Depending on your specific room, larger speakers could potentially dominate the floor space, make seating uncomfortable and be overpowering sonically. Big speakers in a small room usually cause problems with bass performance.

In a small room, the lack of available space may also limit your choice of Television. The good news is that newer

LCD and **plasma flat-panel TVs** can be mounted on the wall, allowing them to take up **zero** floor space — a big plus for those folk in small to medium sized rooms.

Beyond the simple fact of taking up floor space, some TVs might be too large for your room based on the size of their screen. In a small room where you need to sit close to the TV, the "structure" of the screen — scan lines, or pixels — may become noticeable, distracting your attention and taking away from the overall effectiveness of your home cinema. This can be a difficult area to make a good compromise as most of us want the biggest picture. That's fine, but remember that most people like to sit in the back rows at the cinema! Why? Because the picture is better! Sit too close and you start to see the 'structure' of the picture. A smaller or a High Definition set with more pixels is the better way to go.

I have a medium-sized room. Are you installing a home cinema system into what you would describe as an average sized living room or area? Your options are wide and varied. Some people would still prefer the more discreet option of a DVD home cinema system for this kind of space, but unless you are playing it as background levels, it may just not have enough oomph. Most consumers are either recommended or simply prefer the performance advantages and flexibility of **separate components** and hand-picked home cinema speakers. You'll also need a **powered subwoofer** and the good news is that you'll find several compact models that deliver plenty of bass without taking up much floor space.

When choosing a TV for a medium sized room, the same principles apply as considered above. You need to decide what the distance will be between the

screen and your average seating position. We usually recommend that customers sit **no closer** than 3 times the diagonal screen size. Therefore, since medium-sized rooms allow for so many options, let factors such as personal listening and viewing preferences, décor and furniture layout be your guide. A good sales person will take all these factors into consideration **before** he recommends anything.



My room is large. Bigger rooms place greater demands on the audio portion of your home cinema system. Using larger, **floor-standing speakers** as your front speakers (and even as your surrounds!) can help your system have impressive performance. Of course, depending on furniture layout, you may opt for bookshelf speakers for your front and/or surrounds. Either way, a **powered subwoofer** is a must-have for achieving the room-filling bass that makes movie soundtracks, good CDs and music DVDs come to life.

Some A/V enthusiasts even opt for *two* powered subs to more fully experience the low frequencies in a big room.

When choosing an **A/V Receiver** for larger home cinema rooms, you will need to carefully consider the quantity (and quality!) of amplifier power. More Watts is not necessarily the solution. Models featuring high-current power output though, help give your home cinema's speaker system better clarity and definition at all volume levels.

Consider going with a **Big-Screen TV** for your larger room. The bigger the screen, the more impact your home cinema will have; we recommend that you choose the biggest TV that your room layout, viewing distance, and budget will accommodate. If décor is a factor in your larger room, then you may want to consider a larger **Plasma or LCD flat-panel TV** screen.

Room lighting and your TV's picture:

We've already mentioned that the size of your room, as it affects your viewing distance, is an important factor in choosing a TV. The lighting conditions in your home cinema room are also important; some screen types perform better than others when it comes to dealing with room light. If you have a hard time controlling the amount of sunlight in your room, a **Direct-View TV** is the best choice. Plasma, LCD flat-panel TVs and rear projection models have improved and will handle diffused light better than earlier models and are the only choice if you want something bigger than 80cm. Projectors likewise need a darkened room – not cave-like – but definitely with direct light minimised.

Keep in mind that TVs which feature a flat screen (including many of today's tube TVs) are less susceptible to reflected glare than TVs with a rounded screen. Here are some more suggestions for optimising your home cinema room's lighting:

- Windows that let in bright sunlight should have easily adjustable blinds and/or curtains capable of eliminating any reflections off the screen.
- Light from a window behind the TV makes it difficult for your eyes to adjust to the very different brightness of the television. For watching during daylight hours, consider treating these windows with curtains *and* blinds.
- If you're using a **tube TV**, it's best to have a little bit of light shining on the wall behind it. If you watch in total darkness, the TV's range of brightness can cause eyestrain.
- If you're using a **plasma** or **LCD TV**, a little bit of controlled background lighting can improve picture quality. With these types of displays, the background light helps give the black portions of the picture a deeper, darker look.
- By using dimmers in your home cinema room, you can precisely

control the amount of background light for optimum viewing comfort, plus you can achieve elegant lighting effects. For the greatest convenience (and the biggest "wow" factor!), look for dimmers that are remote-controllable.

Viewing angle: more notes on TV placement:

Viewing angle is another factor that affects a TV's performance. Your TV will look its best when viewed on-axis (from straight ahead), at a height where your eyes are level with the middle of the screen. Audio Trends carries a wide selection of TV stands to support your TV and raise it to the correct viewing height. If you choose a **flat-panel TV**, you can either go with a matching stand, or use a TV wall mount for on-wall placement — an arrangement that saves considerable floor space and gives your home cinema a nice, finished look.



One reminder, if you're using a **rear-projection TV**, you'll probably want to be especially careful to arrange your room for maximum seating either directly in front or just to the side of the screen. These have a 'slightly' narrower viewing angle than a traditional tube, plasma or LCD TV. Rear projection TVs also need to be placed at the correct viewing height as the picture tends to look dimmer when viewed off-axis either horizontally or vertically. This is done from the normal seated position. The big advantage of

either CRT or DLP rear projection TVs is the size/price ratio and the fact that they will work very well in bright (not direct sunlight) rooms.

Where will you place your speakers?

Because seamless surround sound plays such a big role in the overall home cinema experience, where and how you place your speakers is very important. When planning out the TV placement, **speaker placement** and seating in your home cinema room, keep the following very basic points in mind:

- Your **centre channel speaker** should go on top of, or just underneath, your TV. It should be as close as possible to the picture. It needs to give the illusion that the sound is actually coming from the screen, when in actuality it isn't!



- Your **front left and right speakers** need to be placed on opposite sides of your TV, or to the left and right of the screen. Ideally, all three front speakers should be the same/similar distance from your primary listening position.

- Your **surround speakers** should be located up off the floor (1.5 to 1.8m) and on the side walls of your home cinema room, or behind your listening position or both. In 6.1 and 7.1 systems, surround speakers are usually placed to the sides *and* in the rear.)
- Since low bass frequencies are omnidirectional, (in other words you cannot easily discern where they emanate from) you can usually place your **subwoofer** anywhere in the room. Placing it in a corner generally results in the most bass output. This is not always the best position! But, it is a good idea to experiment with different locations for your sub, to see what sounds best. Two subwoofers for a larger home cinema room need careful thought as to location and we would recommend consultation before purchasing.
- As you plan your speaker locations, try to envision the path along which you'll run your **speaker cable**. Measure the distances so you can order the right amount of cable, adding an extra few feet per speaker to allow yourself a margin of error. **Tip:** Remember that the further you run the cable, the better it will need to be. Keep speaker cable lengths as short as possible. Do not over order and then loop the excess behind the speaker as this can increase the possibilities of interference. An extra couple of feet is OK.

A home for your home cinema components:

Your other home cinema components — DVD player, A/V receiver, VCR, etc. — will also need a home. If you already own or have selected a **TV stand**, you may have a nice, sturdy spot to store some (or even all) of your components, since many of today's TV stands feature integrated component shelves. However, remember that most audio and A/V components have their own front-panel displays filled with lights, which some people find distracting if

placed directly under the TV screen.

If you'd prefer to place your components where they'll be out of the direct line of sight (like against a side or rear wall), or if your system will also include several stereo components like a CD player, cassette deck or turntable, you may want to consider using a separate component stand or custom-made cabinet.

When choosing a stand or cabinet for your home cinema gear, you'll definitely need to compare the **dimensions** of the shelves to those of your TV and/or components. It's also important to check the stand's **weight capacity** versus the weight of your A/V equipment — many of today's TVs, receivers, and amplifiers are quite heavy. Here are some more pointers on choosing a stand or cabinet for your home cinema components:

- **Number of shelves.** Look for a cabinet with enough shelves to accommodate the gear that you already own, plus the components that you might add in the future. Giving yourself an extra shelf or two for possible system expansion will save you a headache later.
- **Easy access to back panels.** Stands with an open-back or open-air design allow easy access to your components' rear panel connections — which you'll really appreciate when it comes time to hook up or service your components. A stand equipped with casters can be rotated, making it even easier to get to back-panel connections. Castors are an option on some models.

- **Adequate ventilation.** Home cinema components, particularly ones containing built-in amplification, generate heat during normal operation. If you're planning on keeping your gear in a fully enclosed cabinet (or custom-built wall unit), consider installing vents in the top and bottom of the cabinet's back panel. Of course, open-back or open-air racks and cabinets usually provide ample ventilation for cooling.
- **Cable management.** Many A/V stands and cabinets feature some type of cable management system, which helps give your system a clean, clutter-free look, even after your components are hooked up. Cable management can also reduce the "tangle factor," making it easier to move or service components.



Of course, Audio Trends can custom manufacture the ultimate in audio visual furniture, housing all your home cinema components, DVDs, Big TV etc. Some models even allow you to enjoy the best of both worlds and include a projector screen. So talk to us about what you need.

First posted October 2005

AudioTrends Showroom

10 Argent Place, Ringwood, VIC 3134

Phone 9874 8233

Hours: Mon - Thurs 10am to 5.30pm
Fri 10am to 7pm, Sat 10am to 4pm

