

NATURAL BASS - Is the bass from the subwoofer clean and natural, or sounding distorted and laboured? Make sure that what you are listening to is clean bass, not just distortion. A lot of poor quality subwoofers put out a lot of distortion, which after a while can become very fatiguing.

Distorted & Laboured 1 2 3 4 5 6 7 8 9 10 Clean & Natural

INTEGRATION - Does the subwoofer integrate well with the rest of the speakers in the system? A good subwoofer will make the whole experience sound complete and pleasing to the ear. A poor quality one will do the opposite, and actually take away from the experience. Compare different models!

Integrates Poorly 1 2 3 4 5 6 7 8 9 10 Integrates Well

FINALLY...

At SuBsonic we want you the customer to get the best system for your money and one that you are happy with. If it ends up being a SuBsonic speaker system - fantastic - if it doesn't - great also, as at least with the help of this brochure you a more educated listener and will have confidence that the system you have selected is the best system for your needs tastes and budget. All of us here at SuBsonic wish you many happy hours of musical and home cinema pleasure. Naturally, we also hope that you will include an audition of our range before you make your final choice. Happy hunting!!

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HOW TO BUY LOUDSPEAKERS

- **Are you about to purchase a new Hi-Fi or home cinema system?**
- **Are you feeling confused and overwhelmed by conflicting information and the enormous amount of advertising mumbo-jumbo?**
- **Do you find all the technical jargon and hi-tech specifications intimidating?**
- **Do you need some simple advice on what features to look for when shopping for speakers?**
- **Would you like to know how to critically listen to speakers, so that you can make up your own mind rather than just depend upon someone else's opinion or recommendation?**

In this brochure, Duncan Best and Graham Dinning (speaker designers for SuBsonic) tell you what you need to know to confidently purchase your next home cinema system. This brochure will help you become a more discerning buyer, which will make purchasing your next home cinema system easier. This brochure will help ensure you get maximum enjoyment from your purchase of home cinema speakers, and enable you to get the best value for your money.



WHY ARE THE SPEAKERS SO IMPORTANT?

The speakers are usually the weak link in any hi-fi or home cinema system. No matter how good the electronics in your system are, they rely totally on your speakers to translate the electrical signals into actual music. Why?

This is because the drivers (woofers, midranges and tweeters) and electrical filters (crossovers) are faced with the task of not only processing an electrical signal, but of compressing air at fantastically fast speeds so that they imitate the noises produced by voices, musical instruments and sound effects of all kinds.

Serious hi-fi and home cinema advice has always been that one should allocate around 40% or more of your overall system budget to the purchase of the speakers. However, in practice, speakers tend to be the most overlooked portion of the hi-fi system. It is important to remember that you will probably have your speakers for fifteen years or so. Quality speakers can last twenty-five years or more and that is a lot of listening! So, it is really worth a little time and effort at this point to ensure that your purchase is as truly satisfying and suits the intended purpose.

SHOULD I ONLY LISTEN TO 'BIG NAME' BRANDS?

Don't be misled by size, price, or brand names. Conduct your listening comparisons with your eyes closed but your mind open! Don't be fooled into thinking that imported speakers are better than speakers built in Australia, simply because they are imported. The fact is, the Australian hi-fi industry is a front-runner in all areas of speaker design, research and development.

Also, many of the so-called 'imported' British, American, or European speakers are frequently assembled in Asia, often using cheap components and poor construction methods. This is particularly noticeable with the 'entry' level models. If uncertain, ask what the differences are between model ranges. In addition, imported speakers have other costs that add to the price you pay. These include import tariffs, hefty freight charges, distributor costs, and above all-an importer! Combine this along with our currency exchange and it is easy to see why you cannot expect the same value for money from imported speakers compared to their Australian counterparts.

WHY IS THE LISTENING ROOM IMPORTANT?

When auditioning speakers, pay close attention to the listening environment or room and compare it to your room at home, as speakers can give quite different results depending on the acoustics. The differences can be fairly dramatic! If the room that you are auditioning in is smaller than your room at home, then the speakers will have less bass when you take them home. If the room is larger than your room at home, the speakers will have more bass when you take them home.

Think about what furnishings you have in your room and keep this in mind when listening in the store. A room with a lot of glass and tiles or polished timber floors will make the speakers sound brighter and livelier. A room with heavy drapes and carpets will make the speakers sound less lively and a bit duller. So, keep this in mind, will your room at home make the speakers sound brighter or duller than they do in the store? Arrange for a home demonstration if in doubt.

FULL RANGE SOUND - Are the rear speakers full range speakers or do they just sound tinny? Would you be happy listening to music through them?

Nowhere near full range 1 2 3 4 5 6 7 8 9 10 Full Range

4. THE SUBWOOFER

Subwoofers are designed to move large amounts of air to produce the very low bass that your other speakers can't produce. They can give you the impact and room shaking appeal that makes home cinema so popular.

However, don't let yourself be sold on a subwoofer just because it causes things to rattle in the hi-fi shop. This is more due to positioning than anything else. Almost any subwoofer can make things rattle when placed in the right position.

Tip. It is a common belief and myth that a subwoofer can be located in any position within a room. Subwoofers always perform better when positioned in a 'solid' corner away from door openings and windows.

Woofer size is not always a sign of a good subwoofer. A pair of 8" woofers have the same piston area as a single 12" woofer and can move just as much air. Don't worry too much about specifications either - the real key is how does it sound.

Subwoofers are definitely not created equal! Budget priced subwoofers (under \$700) are very limited in their performance abilities and are usually confined to the 'movie' experience. Bass is often over exaggerated, bloated and boomy. If you want your subwoofer to perform with music as well as movies, then it would be wise to consider something better. Do a comparison, even with something twice the price you intend to spend. This will be an excellent reference and you will probably be surprised at the differences, never mind the fact that you can actually hear the difference!

CABINET QUALITY - Yes, check this out again. If this cabinet is to move copious amounts of air, it really has to be inert and super rigid. If a cabinet is going to rattle because of poor construction, it's going to be most obvious in a subwoofer.

Poor Construction 1 2 3 4 5 6 7 8 9 10 Good Construction

SUBWOOFER DISCRETION - Is it difficult to 'localise' the subwoofer in the room or is it quite obvious where the origin of the sound is? A good subwoofer should be difficult to locate in the room when it is being played. It should add to the overall impact and not distract and draw attention to itself.

Very Obvious 1 2 3 4 5 6 7 8 9 10 Very Discreet

BASS SPEED - Does the subwoofer keep up with the rest of the speakers, or does it lag behind? A good subwoofer will keep up with the music from the rest of the speakers, a poor quality one will be sluggish and lag behind.

Boomy & Slow 1 2 3 4 5 6 7 8 9 10 Controlled & Fast

MATCHED DRIVERS - Does the Centre Channel use the same drivers as the main speakers? This is always a good start for a well-matched system.

Totally Different 1 2 3 4 5 6 7 8 9 10 Perfectly Matched

TONAL MATCHING - Is the Centre speaker tonally matched to the main speakers. How well does the sound pan from left to centre to right? Is it a seamless transition? The more seamless the transition, the better the tonal match.

Not matched 1 2 3 4 5 6 7 8 9 10 Perfectly matched

LEVEL OF INVOLVEMENT - Does the Centre Channel have the same impact, involvement and punch the main speakers? The closer the excitement factor between the centre and the mains, the better.

Not Involving 1 2 3 4 5 6 7 8 9 10 Very Involving

3. THE REAR SPEAKERS

Rear speakers have become increasingly more important in the last few years, with the introduction of Dolby Digital and DTS Surround Sound. Whereas in the past they were used to 'fill in' and were limited in their frequency bandwidth, these days they are required to be full range speakers and therefore must be able to produce a stereo image with the other speakers in the room. Some speaker manufacturers just throw any small, cheap, crap drivers in their rear speakers and as a result the home cinema experience suffers. Rear speakers need to be treated just as seriously as the rest of the speakers in the system if you want the best result.

CABINET CONSTRUCTION - Look at their construction - cheap plastic or thin timber rear speakers will make as much noise from the cabinet as they will from the drivers! The rear speakers must still have sturdy, rugged construction - like the rest of the speakers in the system.

Poor Construction 1 2 3 4 5 6 7 8 9 10 Good Construction

MATCHED DRIVERS - Do the rear speakers use the same drivers as the main and centre speakers? Are they similar in performance to your main and centre speakers? They should be if you want the best results.

Not Matched 1 2 3 4 5 6 7 8 9 10 Perfectly Matched

TONAL MATCHING - Are the rear speakers tonally matched to the main and centre speakers? Does the sound integrate well with the rest of the speakers you are using? The sound should be as seamless as possible between the mains, centre and rear speakers. Note that the rear speakers do not have to be identical in size to your other speakers to be tonally matched. Also, your room and the domestic authorities can often influence your final choice!

Not matched 1 2 3 4 5 6 7 8 9 10 Perfectly Matched

HOW LOUD SHOULD I LISTEN TO THE SPEAKERS?

Listen to the speakers at normal listening levels. Do not be tempted to make your choice purely at high listening levels. Some speakers sound fine at high levels, but sound confined and compressed at low or normal listening levels. A good speaker should be good irrespective of the listening levels, whether played soft or loud.

WHAT MUSIC SHOULD I SELECT WHEN AUDITIONING SPEAKERS?

Your choice of music is really important when auditioning speakers. Firstly, take along just two or three discs with which you are completely familiar. Secondly, choose program material that has been well recorded as a poor recording will not allow you to hear the speakers perform at their best. Rather, you will only hear the imperfections of the recording. Unfortunately, not all discs are created equal!

For the main speakers, take along discs that cover the following areas:

- Male and female vocals that are natural and not over-engineered
- Bass & Drums that have speed and attack in the recordings
- Instruments like cymbals, piano and woodwind instruments

As we go further, we will tell what to listen for in these CD's.

For home cinema auditioning, ask the dealer for some DVD tracks that have vocals and effects that can be heard in all 5 speakers. Make sure it isn't all just explosions and sound effects etc. as you want to be able to listen for things like voice reproduction, sound size and imaging, and subtle things too, like whispered conversations and how well each of the speakers in the system match each other tonally. Today, there is a fantastic range of DVD music, something to suit all tastes.

TRUST YOUR SENSES!

We have been in the hi-fi industry for many years now and we never cease to be amazed at how many people ask us to decide on the best home cinema speakers for them. While we can offer suggestions based on technical and practical experience, no-one can quantify perfectly for another person that thing which makes us all different - our individual personal taste.

Remember that it is what sounds best to you - and what you like is what matters the most. So, have confidence in your own judgements and above all, TRUST YOUR SENSES. They are highly tuned instruments and within a short period of time, can pick up things that no computer test equipment could ever pick up.

Tip. Give yourself quality time - twenty minutes in a good store is not enough and much more than an hour of auditioning can be confusing.

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WHERE SHOULD I BUY?

The answer to this is very simple. Choose a store that is happy to take as long as you need to make the right choice. You'll need a quiet listening area, free from distractions, with friendly staff to assist and a no pressure atmosphere in which to listen. Frankly, it is impossible to listen to speakers properly with background noise, customers moving about and insufficient time to establish a peaceful and attentive state of mind, so make sure you're both comfortable and at ease.

TIME TO AUDITION!!

We will now guide you through what to listen and look for when buying hi-fi or home cinema speakers. We have included a grading system on this brochure so that you can grade the speakers you audition and have confidence that the speakers you choose are the best for you. The more points the speaker scores the better the speaker is. And don't forget - there's no right or wrong in personal taste - just TRUST YOUR SENSES - as you will be living with the system you choose, not someone else!

1. THE MAIN SPEAKERS

The main speakers are your left and right channel speakers in a home cinema system and will usually double as your stereo speakers when playing normal music. So make sure you audition them on music as well as home cinema. Many speakers sound great in home cinema, but very ordinary in stereo mode. You want them to sound great for both.

Tip. Experience and customer feedback has also shown that if customers like a speaker on music, then it is usually more than satisfactory for home cinema purposes.

Make sure your speakers are magnetically shielded if they are going to be placed near a TV set. Unshielded speakers can badly disfigure the picture on your TV.

Think about the size of the room your speakers are going in. As was mentioned previously, the larger the room, the larger the speakers will need to be to fill the room with sound (especially bass).

CABINET CONSTRUCTION - Look for rugged and durable construction, making sure it is solid, and inert. Ask the salesperson if the speaker is well braced internally and if the speaker has acoustic dampening to absorb unwanted soundwaves bouncing around in the cabinet. These all help to make a better loudspeaker. Manufacturers brochures will contain this important information.

Tip. If you cannot obtain literature about the product from either the store, manufacturer/distributor or off their website, then it is probably a product that you should avoid! Good suppliers always have this available.

Poor Construction 1 2 3 4 5 6 7 8 9 10 Good Construction

BASS - Notes should be individually 'tight' and well defined. Boomy, exaggerated, or muddy bass is almost always a sign of poor design or cheap design. Listen for the speed, control and overall enjoyment of the bass.

Boomy and Slow 1 2 3 4 5 6 7 8 9 10 Controlled and Fast

VOCALS AND INSTRUMENTS - voices should be clear and natural, with no trace of nasality or ringing. Ask yourself - Does this voice sound natural and 'live' - is it right there in the room with me? Are the instruments sounding very natural? Does the crash of the cymbals sound metallic? Do the other instruments sound very natural and real? A good speaker makes the illusion of a live performance very believable.

Unnatural & Unrealistic 1 2 3 4 5 6 7 8 9 10 Natural & Realistic

STEREO IMAGING AND DEPTH - Instruments and vocals should be easy to locate in terms of where they are in the soundstage and how far away from the microphone they were with the original recording.

Poor imaging 1 2 3 4 5 6 7 8 9 10 Good Imaging

LEVEL OF INVOLVEMENT - The speakers should involve you in the music. They should have a very 'live' feel and a sense of excitement, as if the performers were right there with you in the room.

Not involving 1 2 3 4 5 6 7 8 9 10 Very Involving

2. THE CENTRE SPEAKER

The Centre Channel is extremely important in home cinema. Up to 85% of the sound information comes from this single speaker - It can make or break your home cinema system. All centre channels these days are magnetically shielded, so you don't have to worry about it distorting your TV picture.

A centre speaker must be clear and concise and detailed when it comes to dialogue, but must also be able to have the excitement and impact needed to make action movies realistic. It must match tonally your left and right main speakers and the size of the sound field must match the size of the screen. This makes for a far more realistic home cinema experience.

CABINET CONSTRUCTION - Is the centre well constructed? Check it out like you did with the main speakers.

Poor Construction 1 2 3 4 5 6 7 8 9 10 Good Construction

SOUND STAGE - Is the sound stage from the centre wide and open? Does the sound coming from the centre speaker sound as big as the size of the screen you will be putting it with?

Narrow and constricted 1 2 3 4 5 6 7 8 9 10 Wide and open

VOCALS - Are vocals and music clear and detailed? Remember 85% of the sound will be coming from here, so you want to be able to hear every word and note (even whispers).

Unclear and Undetailed 1 2 3 4 5 6 7 8 9 10 Clear and Detailed