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## **CABINETS**

Our speaker designs feature massive and inert cabinet construction. Vienna Acoustics cabinets are designed with the latest computer modelling techniques and use a combination of amorphous materials in order to ensure that they are both stiff and well damped. Additionally, our designs feature narrow front baffles in order to promote accurate imaging. The combination of precise build construction using furniture grade finishing techniques and complex internal damping produce designs capable of accurately rendering music.

## **CONNECTIONS**

The massive Vienna Acoustics input terminals are designed to accept banana plugs, spade terminals or bare wire connection. Make certain that all connections are well tightened since poor contact between speaker cable and input connector can lead to degradation of sound quality.

It is also a good idea to make a point of regularly cleaning all connections in your system since oxidation will build up on a regular basis. We use gold plated terminals which do not oxidize, but contaminants or surface build-up on your speaker cables and connectors may degrade sound quality.

While it is popular among some audiophile circles to fit duplicate sets of binding posts for "bi-wiring", we have chosen to follow sound engineering practises. Our crossovers are configured as an organic whole, intended to optimize every known aspect of driver integration.

It is our belief that with the high quality of wire currently available, it is in most cases possible to obtain higher performance from a single run of superior cable to two lesser runs of cable. By keeping a single ground plane in our

crossover design, we are better able to control the many variables that can be negatively affected by poorly executed bi-wiring choices. The result for you is consistently superior musical reproduction.

### **CABLING**

We encourage and recommend the use of high quality speaker cables and believe them to be an important tool for the enthusiast in obtaining maximum enjoyment from their music reproduction system. High quality cabling is a significant tool in the finetuning of a system for performance. As with any purchase, listen carefully and allow your ears to guide you.

It is beyond the scope of this manual to provide a useful compendium concerning cables, or to make specific brand or model recommendations. A number of high quality magazines do in fact list cable recommendations.

### **AMPLIFICATION**

Our speakers demonstrate outstanding sonic results with a variety of amplifier types. They feature a combination of high efficiency and gentle impedance curves that allow them to be used with either solid state or tube electronics.

However, it is still important to select an amplifier with care since the full potential of your system will only be revealed by quality electronics. Amplifier designs do have distinct and different sounds.

It is important to listen carefully to the match of amplifier and loudspeaker to ensure that the combination works well sonically for you. Though rated amplifier wattage bears little

correlation to either sound quality or drive capability the user is cautioned that amplifiers of low wattage ratings, when stressed beyond their limits will produce audible amounts of distortion. This distortion can and will damage loudspeaker components and will not be covered by warranty.

### **BURNING OR BREAKING IN NEW LOUDSPEAKERS**

Your loudspeakers contain a large number of precision built moving parts. These parts require playing time initially to develop their maximum smoothness and extension. Very audible improvements can be observed during about 30 hours of playing. Additional improvements will be evident after 100 hours of playing time, at which point the speakers have reached their full musical potential.

### **POSITIONING**

Room acoustics and positioning of the speakers within the room have an important effect on sound quality. To find the optimal position for your speakers we offer the following hints:

### **FREE AIR SET-UP**

If the room is large and space permits, allow a minimum of 1 meter away from the rear wall (the wall behind the speakers). Small movements of the speaker forwards and backwards will establish where a speaker sits most comfortably. Find the location that gives a full balance without sounding heavy.

Remember, in a free air set-up the distance from the rear wall determines how low the speaker will go in a room and also determines depth of image. Positioning too close to a

rear wall may boost the middle bass frequencies and rob the speaker of some transparency and precision. In general, it is best to avoid corner placement of loudspeakers since the bass tends to become exaggerated and corners rarely are an optimal placement for image quality.

### **NEAR WALL POSITIONING**

Many people will simply find it undesirable or disruptive to place speakers in "free space", that is well away from the back wall. Vienna Acoustics loudspeakers may be set-up close to a rear wall, though keep in mind that less toe-in, as described below, will probably be needed. When working close to a rear wall, even the tiniest movements will have a relatively important effect on sound quality. Work slowly and methodically, following the instructions below and good sound quality can be achieved.

### **DISTANCE BETWEEN THE SPEAKERS AND TOE-IN**

Most stereo systems are set-up with their speakers too close together. As a rough guideline, the distance between speakers should be about 70 % of the room width as a starting point, assuming that your speakers are aiming down the length of the room.

Too close together and they will create "ghost" images, double images that blur clarity and focus. Too far apart and they will begin sounding thin and in extreme cases, will create separate left and right soundstages. Move them inwards and outwards, again in small movements as though you were adjusting the image on a pair of binoculars until a single well-unified image is obtained.

Toe-In: In an ideal room, the speakers may be set-up so that the speakers fire directly forward. For the rest of us, some degree of toe-in, that is rotating the speakers cabinets until they point at the listener is desirable. Toe-in reduces sidewall reflections of the mid and upper frequencies. Though one might reasonably conclude that aiming a speaker at the listener would result in a brighter sound, this is actually NOT the case. Toeing a speaker inward will result in a smoother, warmer and usually more focused sound.

Important Tip:

The distance between speakers is interrelated to the degree of toe-in. If a speaker loses clarity from toeing in, try increasing the distance between them slightly. This will have the effect of "opening up" the speaker and restoring clarity.

## **ROOM TREATMENT**

Good sounding rooms have a well-balanced acoustic. This does not mean that your home should look like a recording studio. Commonly found furnishing such as bookshelves, carpeting and furniture all exhibit beneficial amount of absorption and dispersion. Rooms with little furniture, carpeting or other surfaces will demonstrate poor damping and will produce a hard, bright sound.

As a general rule, it is helpful to have more of these sorts of things in the space immediately around the speakers than scattered throughout the space. A thick carpet or area rug mounted between your listening position and the speakers is of tremendous benefit in controlling reflections off the floor. Tapestries, hanging rugs and/or drapes on the side walls hung slightly ahead of the speaker position will damp reflections off these surfaces.

## **OPTIONAL SANDFILLING**

Some of our floorstanding models feature an additional hidden chamber accessible through the base that may be sand filled for the final touch in system tuning. Sand filling is an easy and cheap way to improve the reproduction of the bass range. It raises the weight and stability of the system and quiets the enclosures throughout a remarkable damping effect. To fill in the sand, put the speaker on the top on a soft cloth to protect the cabinet. Then fill in the sand through the central hole at the base until the chamber is completely filled up and seal it with the black stubble.

!Do not use moist sand - it can damage the wooden cabinet!

## **MAINTENANCE**

Your speaker cabinets can be cleaned periodically with a soft, slightly damp cloth. It is not necessary to wax them. Our cabinets feature a smooth but strong finish. Still, please keep them out of direct sunlight and heat, since the colour of the veneer would pale. Should the bass drivers become dusty, it is safe to use a soft brush to clean the woofers.

\* Under NO circumstances should you attempt to clean dust from the tweeter. Doing so will damage the delicate silk domes.