

Clarisy's Audio

LOUDSPEAKER SET-UP GUIDE



Preface

The setup you are about to learn about has come from hours of consultation with the legendary speaker whisperer, Jim Smith, author of "Get Better Sound", a book I highly recommend everyone read. Jim has been traveling the country and setting up loudspeakers for more than 50 years. I have personally known Jim for more than 15 years and have had the privilege of having him at my home and store many many times. We have enjoyed more than a few stories over a few glasses of wine and a fine meal.

To those who know Jim, he is best known for his days as the North American Avantgarde distributor. Jim literally established Avantgarde in North America for the company. But what many people don't know is that Jim has set up more pairs of Apogees in more homes than anyone. He was also one of the top 2 Apogee speaker sales reps during the great reign of Apogee speakers in America. To say Jim has an intimate knowledge of setting up Apogees is an understatement. I have heard from several Apogee owners who told me, "Jim set up my Apogees 30 years ago, and I haven't moved them since. They're perfect." That's saying something.

Jim wrote all of the setup manuals for Magnepan loudspeakers. He understands how to set up a panel dipole.

So the setup you are about to review has come from many many hours of consultation with Jim Smith and experimentation on our own.

This guide is meant to be just that, "in a perfect world...." scenario. We completely understand that 90% of the people out there, for one reason or another, will not be able to accomplish 100% of the setup goals below. We cannot possibly provide a guide for every single living environment and mutually happy matrimonial situation. However, many have asked for an ideal setup guide to give them parameters. This is what our guide is meant to do.

If you are able to achieve the setup below, we can assure you of two things: 1. It will look quite odd from what you are used to. 2. It will sound so incredible that you will quickly forget how the setup is so different from what you had before!

Introduction

This guide is not meant to be the ultimate and only way to achieve best sound with Clarisys Audio Loudspeakers. We are fully aware that living environments and matrimonial harmony often take precedence over sonic harmony. We understand that the best seating position for bass may not be acceptable to your other half or for your particular living space. We understand that the best position for the speakers may not meet the WAF or any semblance of acceptability for your living space. Compromises in our setups often have to be made just like compromises in life!

However, this guide is meant to provide you with a roadmap to get as close as possible to the ideal setup within your living space and within what is acceptable for your family.

Step 1:

The first step in achieving the ideal setup is finding the flattest bass response. This does not mean finding the listening position where there is the least amount of bass or where there is the most amount of bass, but rather, finding the listening seat where the FLATTEST frequency response occurs between 20hz and 100hz. You are not concerned, or should I say, overly concerned, with much above 100hz. We are most focused on that 20-100hz region. This is our foundation. The bass foundation is how we will build the best sound from here forward.

Using a measuring software setup with a CALIBRATED microphone, play full frequency (20hz to 20KHZ) pink noise. While only focusing on the 20-100hz range, SLOWLY move the microphone around the room - often forwards and backward in small increments (inches), noting the subtle changes in the 20-100hz. You are watching the screen to observe the FLATTEST measurement. Meaning the measurement with the least amount of peaks and valleys. IT WILL NEVER BE PERFECT! We are not looking for perfection; we are looking for "best,"... and that is "flattest,"... not "perfectly flat." Please note that we cannot provide support on the measuring of your room, which software to use, how to use that software, etc. There are just too many makes/models/brands to provide this.

But I'm certain with a quick Google search, you can find many good ones to achieve the above mentioned goals. Once you have identified this spot - mark it with painters tape. Your ears will align with this spot when you sit. This will be your listening position and from where all the rest of the setup is based upon.

Step 2:

Move the speakers into a rough area. We aren't looking for anything close to final here. Measure from your ear (left ear to left tweeter, right ear to right tweeter). We want a distance of between 9-12 feet. This will depend largely on the size and overall length of your room. Longer room, strive for 11-12 feet. Smaller room and 9-10 or so is fine. But no more than 12 feet as you will begin to lose energy and presence. This is critical.

Once the initial setup is in place, it's time to fine-tune. Gradually adjust the speakers to ensure they are at the same distance from your ears to the tweeters. Remember, this is not the final stage, so perfection is not yet required. This gradual approach will help you achieve the best sound quality.

If you have a very long room, you may say, "But my speakers are 14 feet into the room??" YES! Good, you're doing it right. In a perfect scenario, and we know this is not always possible for many reasons, but if your speakers are a considerable distance into the room, you would want to set up diffusion exactly 6 feet behind the speakers. Tall plants, diffusion panels, whatever works fine. Diffusion, never absorption in this case! This is not required but can take things to "11" if you know what we mean.

Step 3:

This is a very, very important step. Now, take the overall distance from the ear to the tweeter and calculate it in inches (for example, 12 feet = 144 inches). Take the total inches from ear to tweeter and multiply it by .83.



This is the distance, the IDEAL distance for tweeter to tweeter distance between the speakers. In the 144-inch example, you measured the left ear to the left tweeter and achieved 144 inches.

Let's break it down. Take the 144 x .83 and you get 119.52. This means you want the left tweeter to be 119.52 inches away from the right tweeter (the distance between the speakers). If you measured 11 feet, then it's 132 inches x .83 = 109.56 inches between the tweeters. See, it's not that complicated, right?

Ensure that the speakers are at equal distance to the side walls - IF POSSIBLE!

At this stage, you might be thinking, "Well, my ideal listening position is 4 feet from the back wall, and given my long, narrow room, the speakers are well into the room, given your suggested measurements." That's Great! You're on track.

We do not care about the distance behind the speaker, EVEN THOUGH this is a dipole. The closer the speakers are to the wall behind them, the more we encounter reverse phase and canceling out/hurting our soundstage!

If you live in an environment where moving the speakers out into the room is not possible, then some form of absorption behind the speaker CAN help absorb these wave cancellations. But this is not encouraged, only a last resort. Certainly take this approach rather than divorce court!

Step 4:

Toe in! Now we want to toe in the speakers. Aim the tweeter at your ears. Left tweeter at the left ear and right tweeter at the right ear. Use a laser! Avoid eye contact with the laser if working with another person. Simply estimate based on firing the laser from the tweeter to the listening chair and looking where it fires at on the chair. If using the tweeter is a challenge, use the entire front baffle of the speaker as a guide for toe-in.

If you encounter a little more treble energy than you like, then continue to move the tweeter back (more toe-in) so that the tweeters cross just in front of your nose. This is highly unlikely to be required, but if using an old 80's solid state amp, this could be a technique. Modern solid-state amps are quite tame by comparison to the early days of solid-state!

Step 5:

Recheck your numbers. Recheck your listening spot as being the best for the flattest bass response and recheck your measurements. Keep everything as equal as possible to sidewalls, etc.

Once again, these are suggestions for best practices. We fully understand that the ideal setup might not be possible in your living environment. Don't worry, it's not in mine either! But using these tips and tricks, we can get close! If you are fortunate enough to have a dedicated room to do as you please, then count yourself lucky. These tips should allow you to fully maximize your new Clarisys speakers to the extreme.

Please consult with your dealer for any questions you may have.

Sincerely,

Michael Bovaird & Florian Wiegand

Clarisys Audio