
Subject: Some advice (involved)

Posted by [RBP](#) on Thu, 29 Mar 2001 07:58:26 GMT

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Hi JI!" You could send me your Heresys' to play with for about a month"....That would not be your best choice...Let's get down to the so called Nitty gritty.The type midrange you want is the mellow, warm, smooth, clean, clear, transparent type that does not sound like a speaker, and is seamless to the rest of the range. It has body, and it has finess. It is understandable at any volume at any distance. It does not hurt you, and at high volumes you hear it all, and can talk over it.I know. Heresy problem:The Woofer has a cloudy sound to it, and the mid horn does not go low enough. I know...this is the situation. The trade off is that they punch nice (woofers) but they simply do not have the finess and body of sound that is required to work with "that" midrange. That is woofer problem 1.Woofer problem 2:They simply are not loaded correctly to keep the rear wave "from" intefering with the phase of the front wave...Meaning that the cabinet is just too damn small for that woofer, the midrange horn is too small for the needed crossover frequency...(and shrill..bites and clusters the sound because not enought throat area for the horn...Paul...please don't haunt me dude...) and the tweeter requires a very special crossover indivigually to have optimum quality. The Tweeters can be "off" so much from one sample to another that sometimes different crossovers for each side on the tweeters are required for acoustical matching with the rest of the system. I have seen so many of the voice coils installed where the tabs are out of phase..(unmarked diaphragms) and it takes a special ear to hear it.The first thing I do to Heresys when I tweak them is remove the crossovers and put a bread board in my lap, and do driver testing at my seat. I pretty much know what it takes for different rooms to straiten out the Heresys and make them world class performers...but their are limits that must be considered .First..the absolute modified -3dB point for that speaker will be 40 hZ...and that is after porting, and extensive woofer modifications, and enclose tweaks. Secondly, to get world class sound from them, you will need to cut overall effeciency of the speaker system 3dB. This is to tame the mid, and mid /tweet/ woofer relationship to get the midrange you are desiring. Thirdly, they will no longer be Klipsch Heresys, and will not resemble the original sound. The mid driver will have to be modified as well. Some spacing, some diaphragm dampning internally....easy if you have done it...but requires test instruments extraodinare...You are looking at about 300 dollars to do this. You will still not have pedal tones...(Partially..but not really)You will also have a different front board scheme. The inset front board will be moved, and the grills will have to be changed to a different design...or go grillless with wire baskets over the woofers. Grill design accounts for another 70 dollars or so.(Baskets 20) The sharp corners of the front edges will have to be rounded. Believe it or not...this will correct some midrange problems as well. You must ask yourself:What is the minimum effeciency I can live with.What is the desired low frequency cutoff...(Low E which is the lowest note on a 4 string bass guitar is 42hZ) Great kick drums need at least 42...preferable 36 to pull them off to full musicallity.I have Paramours. This makes it easy. I also have a reference system and measurement equipment. Unless I have another set here and do the mods, and tell you each step...most of what I am doing is off the cuff "right direction" advice...certainly not complete or tested advice. It takes absolute hands on to do the heresy work from my vantage point correctly. Been too long to remember...and the test equipment is so much better...plus the Paramours too!I know the speaker, but it has been 8 years since I have done hands on with them...and never with SET's. It would take time and perserverance.Now....How far away is you listening position and what sized room would you be in?Also...type of music, volume requirements, sources used...etc...play Rock and Roll loud, Jazz combo's, full scale symphonic?If I had to build something from scratch, I would also consider the size. Hi effeciency and bass

below (usable) 35Hz does not come without size, unless you are biamping with a PAIR of dedicated subs. With SET's that get's you even farther away from the actual goal of having a Phase coherent system..(sounds like music not speakers)You can musically match a pair of Subs to the mains using SET's and a solid state subwoofer amp with a 18/dB Octave. (steep rolloff)Choices are:Optimize the Heresys, and lose 2 to 3 dB of your efficiency.Use two subs, and raise the efficiency of the Heresys as much as 4 extra dB (Modding the Heresys for Hi Pass use (with the subs) can yield extra efficiency by opening up the horns and woofer to a near unity volume (almost crossoverless state) and they can be tamed if a pair of subs are used.Sell the Heresys and build one of Waynes designs...(Don't worry...I am going to visit him in person real soon...and if he needs some help...I will be there..LOL...Which I think he has his stuff together without my 2 cents..... nicely)Remember, I am using Paramours with NS1000M's...(not as efficient as stock Heresys') but extremely balanced.I Would love to have another pair of Klipschorns, and will most likely build a pair within the next 18 months, but I think you can get Klipschorn realism at about 1/3 price with one of Waynes' large designs...providing you have the room and space to use a speaker that large.Sorry so long, but that is what I see from my vantage point.Let me know if I can be of any assistance, and Wayne would be more than happy to hold your hand if you want to create some sawdust and get happy with it.Cheers...Bill
