Subject: crossover
Posted by replay on Fri, 20 Feb 2004 17:07:51 GMT
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hi wayne, how are you doing? quick question. i'm currently using the rane active crossover with great success. i have a bryston crossover which bryston will program to x-over at 1.7khz. they tell me in mono the slope is 24db/octave however in stereo it will be 18db/octave. should this worry me or will it perform fine?cheers george

Subject: Re: crossover
Posted by Wayne Parham on Fri, 20 Feb 2004 17:54:16 GMT
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It'll be just perfect.And I'm doing fine, thanks. How've you been? What's the weather like today in Toronto?

Subject: Re: crossover
Posted by replay on Fri, 20 Feb 2004 22:12:14 GMT
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i've been well. we were supposed to get an ice storm but it passed us by. temperature today is 38 f.cheers,george

Subject: Re: crossover
Posted by dr.joe on Wed, 25 Feb 2004 23:26:24 GMT
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Hi Wayne,Speaking of crossovers, would it be possible to add the HF compensation required for the JBL 244* series compression drivers to an electronic crossover? I have a Marchand XM-9 with 24 dB slopes that I'd like to compare to the Pi crossover, but in its stock form it only has regular level controls for LF and HF, plus a "damping" adjustment to boost or attentuate the signal at the crossover point.I also have lying around an old Audio Logic X22 crossover, which only has XLR inputs and outputs. This crossover has a "CD EQ" button. Is this equivalent to the HF compensation that the Pi crossover uses?Thanks and best regards,Joel.

Subject: Re: crossover
Posted by Adrian Mack on Thu, 26 Feb 2004 10:10:14 GMT
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Hi JoelI'm not Wayne of course, though I think your looking for a line level active crossover which provides a compensation curve the same as the Pi Passive crossover? Wayne has designed one of these before, see http://www.audioroundtable.com/PiSpeakers/messages/8750.htmlAdrian

Subject: Re: crossover
Posted by dr.joe on Mon, 01 Mar 2004 19:27:17 GMT
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Adrian,Thanks for the reference. The aim was to find some use for my Marchand crossover. If I could supply Phil Marchand with basic parameters to add to the crossover circuitry, it would be worth a try, but I do not have the knowledge to extract that information from Wayne's schematic.Also, if I remember correctly, the Pi crossover uses 12 dB low pass and 18 dB high pass, while the Marchand (and many other electronic crossovers) use 24 dB slopes for both. Is this likely to present a problem? This question occurs to me because I used the stock Marchand for biamping a pair of Altec 604-8K, and they sounded absolutely terrible. By comparison, the 20 year old stock crossover, which, like the Pi crossover uses 12 dB low pass and 18 dB high pass, is heavenly. My thought at the time was that the Altec passive crossover has compensation built in as well as the asymmetrical slopes.Anyway, I guess there's no easy way around or through this issue. Thanks very much for your help.Regards,Joel.

Subject: Re: crossover
Posted by Adrian Mack on Tue, 02 Mar 2004 09:39:41 GMT
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G'day Joel> Also, if I remember correctly, the Pi crossover uses 12 dB low > pass and 18 dB high pass, while the Marchand (and many other > electronic crossovers) use 24 dB slopes for both. Is this likely > to present a problem? Thats right. The Pi xover has 3rd order on the HP and 2nd order on the LP. If both slopes are 24db/oct, it should not present a problem in itself. But make sure that you get the same sorted of shelved response for the HF compensation. > This question occurs to me because I used the stock Marchand for > biamping a pair of Altec 604-8K, and they sounded absolutely > terrible. By comparison, the 20 year old stock crossover, which, > like the Pi crossover uses 12 dB low pass and 18 dB high pass, is > heavenly. My thought at the time was that the Altec passive > crossover has compensation built in as well as the asymmetrical > slopes. Hmmm. In itself, the difference between a 3rd HP/2nd LP and adjacent 4th order filters shouldn't make a huge difference in perception of sound which you noticed. Can you describe the sound of the Marchand a little more? Were you using a compression horn and found a lack of HF response? (by ommitance of compensation components, hence sounding really "honky"). Did the

Marchand crossover have any other filters or equalizers or "special effects" inbuilt which may have been accidently switched on? Perhaps you had a sensitivity mismatch between the tweeter and woofer because of the bi-amping so that caused one of them to be over or under-emphasized. It could be the type of components used in the Marchand crossover which caused it to sound terrible - some types of caps for example become incredibly nonlinear and can add considerble distortion or colourations. Or it might be that one or more components in the Marchand crossover failed, causing a completely different response function from the 4th order symmetrical which could very easily caused the entire thing to sound terrible or even damage the driver's, depending on what it is. Or it could just have been wired up wrong (simple, though always a possibility). I can't think of anything else for the moment, hope that may have given you clues to tracking down what happened. Adrian