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