Subject: crossover help
Posted by gazzamongo on Thu, 11 Dec 2003 16:11:39 GMT
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i've got altec 806/811's and am trying to piece a system together...i got a behringer cx3400 crossover which hisses like a cheap fm tuner between stations and generally sounds nasty so i'm thinking about going passive insteadmy altecs will sit atop a karlson 15 with klipsch k33e-s (not built yet)would anyone be willing to share their crossover circuit design or point me to some resources on this subject as i have little knowledge of crossover design and could use the helpcheersGary McDonnell-Thomas p.s did find this site....would a crossover like the one above do the trick

http://www.lalena.com/audio/

Subject: Re: crossover help
Posted by Wayne Parham on Thu, 11 Dec 2003 17:34:06 GMT
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When using an Altec horn atop a direct radiator, you'll want some padding of the horns. The attenuator will serve double-duty as the damper circuit and can provide top-octave compensation as well. I'd put a standard Zobel on the midwoofer. Other than that, the second-order network you've described will work just fine if you cross-connect the tweeter, wiring "+" to "-". The tweeter motor and the woofer motor should be aligned vertically, within four inches front to back. That gives you a pretty wide position tolerance window where performance will be good.

Subject: thanks but whats a zobel
Posted by gazzamongo on Thu, 11 Dec 2003 18:38:28 GMT
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thanks for quick reply...i am reading through some earlier posts on crossover ..spice "101" etc...but haven't seen a desription of a zobel yetcare to enlighten methanks in advanceGary McDonnell-Thomasbtw are any of the pricier dsp crossovers any good

Subject: Re: thanks but whats a zobel
Posted by GarMan on Thu, 11 Dec 2003 19:08:49 GMT

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Hi Gary,loudspeakers101.com helped me a lot in understanding crossovers. It's also a great online too for calculations too.gar.

loudspeakers101.com

Subject: Zobel dampers
Posted by Wayne Parham on Thu, 11 Dec 2003 19:23:09 GMT
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37 and then again on pages 48-52, where Zobel's on woofers with second-order filters are shown.The short version is that a Zobel circuit for a voice-coil driver loudspeaker is an RC damper that is formed with a capacitor and resistor connected in series. The values for each component

connected directly across the woofer, and it removes a resonant peak that will form due to the interaction between the speaker's voice coil and crossover components. You can see an example of this peak on page 47 of the crossover document. Subsequent pages show the improved response curve resulting from inclusion of the damper in the circuit.

Subject: much obliged, ...(nt)
Posted by gazzamongo on Thu, 11 Dec 2003 20:18:23 GMT
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Subject: Re:Hey Gazzamongo, " Getting there is half the fun"
Posted by BillEpstein on Fri, 12 Dec 2003 10:19:01 GMT
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I had you come over here instead of just posting my x-over so you'd meet Wayne. My level of knowledge is best reflected in the referenced post.But for what it's worth the attenuation circuit I put on the "+" side of the horn is 32 ohm R and .33uF C, with 16 ohms shunt across the "+", "-", ahead of L1. Don't know the sensitivity of the K33 so you'll have to play with the resistance. Live, Nude ResistorsCreating is more like performing than listening

Subject: glad i stopped by
Posted by gazzamongo on Sat, 13 Dec 2003 13:01:04 GMT
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wayne is clearly a treasure trove of useful information as are all the other helpful people on these boardscheers