Subject: Dayton Crossover
Posted by KevinP on Sun, 07 Apr 2002 15:17:45 GMT
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I thought I'd also point this fellow out. I havn't read through all your compression tweeter compensation notes but I thought these pose an interesting option.PE# 260-160Has the same 12db low pass & 18db high pass characteristics as the Eminence pxb with a built in L-Pad for the tweeter attenuation. I'd be inclined to replace the cheap pot with a fixed resistor once it was dialed in but might be a nice all in one solution.Any comments Wayne?

Subject: hmm
Posted by dbeardsl on Sun, 07 Apr 2002 19:08:45 GMT
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Not a bad deal. Heck almost exactly the like Eminence cabinet ready ones, but cheaper :-).Notice, Dayton uses air core inductors, didn't eminence use those little iron core ones?Seems like a good product.Still have to add the high freq compensation and replace the POT with a fixed resistor.

Subject: Compensation components require specific R1 and R2 instead of an L-Pad
Posted by Wayne Parham on Sun, 07 Apr 2002 21:51:55 GMT
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The crossover filter sections would probably be fine, but the L-Pad isn't. The ratios of R1 and R2 provide specific damping for the filter that gives the response curve we're looking for when we use compression horn tweeters, and using an L-Pad doesn't allow for this.Response curve of the crossover's tweeter circuitThe response curve shown above is characteristic of the tweeter circuit

shown on the crossover chart distributed with each of the crossover schematics, midrange attenuation values of 6dB to 21dB are given. In each case, the response from the crossover frequency up for the first couple octaves is flat, with 6dB/octave augmentation above that. This response curve is required to compensate for the tweeter. So the moral of the story is that the R1/R2/C1 compensation components are carefully chosen to provide a curve that exactly

conjugates the compression driver's power response.That's why I suggest that L-Pad's not be used, and that the values shown on the crossover document be used instead.

Subject: Re: Compensation components require specific R1 and R2 instead of an L-Pad
Posted by KevinP on Mon, 08 Apr 2002 23:30:06 GMT
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I suppose if you want to try and active crossover you would just leave the compensation network in place? Any thoughts on using an active crossover with 4th order slopes?

Subject: Active crossovers
Posted by Wayne Parham on Tue, 09 Apr 2002 00:34:22 GMT
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Compensation components R1, R2 and C1 don't work independently. Every component in the passive crossover (including the drivers themselves) interact to produce the overall response curve. When implementing an active crossover, it is best to provide tweeter EQ at the preamp level.
