Subject: Compensation circuit when using active crossover
Posted by ccvogel on Sun, 26 Mar 2006 19:35:24 GMT
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Wayne,I plan to use an active crossover between the 2226 woofer and 2426/2370 horn. What would your compensation circuit look like if it didn't have to perform the crossover duties? I have your Four-Pi crossover document; do some of the values just go to zero, or is the circuit completely different?Thanks,Craig Vogel

Subject: Re: Compensation circuit when using active crossover
Posted by Wayne Parham on Mon, 27 Mar 2006 14:32:29 GMT
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See if you have the option to configure CD compensation in the active crossover, either by jumper or setup menu. If you can, use it instead of compensation in the passive circuit.

Subject: Re: Compensation circuit when using active crossover
Posted by Larry Acklin on Mon, 27 Mar 2006 15:50:24 GMT
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The "textbook" answer from Peavey- a 6 db per octave boost, starting at 4K or so. I can get a close approximation using a graphic eq.You can vary to taste.Larry

Subject: Re: Compensation circuit when using active crossover
Posted by ccvogel on Mon, 27 Mar 2006 16:45:21 GMT
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Wayne,I have a very simple active crossover - no compensation options. Any other suggestions would be appreciated.Thanks,ccvogel

Subject: Re: Compensation circuit when using active crossover
Posted by ccvogel on Mon, 27 Mar 2006 16:50:19 GMT
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Thanks, LarryI can use this information to build a very simple compensation circuit.ccvogel

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Subject: Re: Compensation circuit when using active crossover
Posted by Wayne Parham on Mon, 27 Mar 2006 17:26:52 GMT
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If your crossover has no options, then you'll have to provide your own EQ. The curve you want has a pretty simple shape, a flat shelf from the crossover point up to 4kHz and then rising response after that.If you don't have an equalizer, you could use a series resistor and bypass cap in line at the preamp level. That will give you the rising response part of the curve. It won't provide the flat shelf from crossover up to 4kHz, but it is a simple circuit that would be better than no compensation at all.

Subject: Re: Compensation circuit when using active crossover
Posted by ccvogel on Mon, 27 Mar 2006 20:56:21 GMT
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Thanks, Wayne.Do you have the formulas for determining the series resistor and bypass [= parallel?] cap values? I seem to recall the the Loudspeaker Design Handbook had the formulas, but I no longer have a copy.ccvogel

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Subject: Re: Compensation circuit when using active crossover
Posted by Wayne Parham on Mon, 27 Mar 2006 21:51:11 GMT
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The series resistor will be dependant on load impedance. Bypass cap is found using the

up and down doubling or halving values 'till you get where you want to be.

Subject: Thanks
Posted by ccvogel on Mon, 27 Mar 2006 22:03:44 GMT
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Thanks for all your help!