Subject: Crossover attenuation
Posted by LuxmanLover on Sun, 10 Nov 2002 02:02:13 GMT
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When attenuation is applied to a hf driver, can one assume that the top or the bottom of the frequency range gets cut off. Or put another way, does the top part of the frequnecy graph get evened out, or does it just get "pushed down" however many Db is being applied to it?Kelly

Subject: Re: Crossover attenuation
Posted by bmar on Sun, 10 Nov 2002 02:22:49 GMT
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Hi Kelly,If you use a bypass cap in the attenuation portion. This will tend to equal things out. The lower of the tweeter frequencies are attenuated the full amount and the bypass cap allows (it's values worth) the upper frequencies to pass through the attenuation circuit. If you do not have a bypass cap in the attenuation circuit. then the whole scale will get pushed down. When I use an active crossover, and the tweeter need say 12db attenuation. I still use a compensation circuit. It cuts a lot of the hiss from the HF. So for 12 db total, I have a 6db compensation circuit and use the active crossover for the other 6db. This probably isnt as "pure" as using the active xo for the whole 12db as it is designed, but right now this is giving me a good sound. This is some ball park info and Wayne can give you better details.Bill

Subject: Re: Crossover attenuation
Posted by Wayne Parham on Sun, 10 Nov 2002 06:03:58 GMT
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Bill pretty much said it like it is. The only thing I'd like to add is that "attenuation" just means "reduction of amplitude" or "turning the volume down." So if you've just installed some form of attenuator on your tweeter, then you have lowered the volume of that device.But there are two things to consider. One is "EQ on purpose" and the other is "EQ on accident." The part I'm talking about when I say "EQ on purpose" is what Bill alluded to; When you put a bypass capacitor across the attenuator, it serves to remove attenuation as frequency goes up. That then also augments the highest frequencies by contrast, and that's something you want to do on pretty much every compression horn tweeter. Some need it more than others, and some don't need it much at all. But by and large, all of our HF horns could use some boost in the top octave.The other thing that happens is "on accident." Since the tweeter is a reactive device, a resistive attenuator changes the response. It changes the damping of the circuit, and can cause the tweeter to develop a peak in response. That's the reason that the R1/R2 ratio was carefull chosen, to set the damping of the system.The best way to understand this deal is with pictures.

includes response charts to illustrate their behavior.

Subject: THX Guys!
Posted by LuxmanLover on Sun, 10 Nov 2002 12:53:58 GMT
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I made another post describing where I would like to go with this. Hey Bmar you check out Big Sugar yet?????????Kelly

Subject: Re: THX Guys!
Posted by bmar on Sun, 10 Nov 2002 17:14:27 GMT
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No not yet. I think i will kaza a few songs to see which ones i like then i can go get a cd. I used to think mp3's sounded good. as my system got better i can hear the compression and loss of dynamics. not bad, but not the same. so now i get a few mp3's to sample something and then go buy cd'sbill

Subject: Get.....
Posted by LuxmanLover on Sun, 10 Nov 2002 18:35:38 GMT
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"Diggin a Hole""where I Stand""Round and Round""Sugar in my Coffee"They are some of my fav Big Sugar tunes, but all the songs on "Heated" "Hemi-Vision" & "Five Hundred Pounds" are good, these are some of the few cd's I play right through with no skipping.EnjoyKelly