Subject: Frequency responce slope question
Posted by Garland on Wed, 21 Jun 2006 18:37:38 GMT
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Hi guys, I posed this question over on the Bottlehead forum but thought I'd ask Wayne and anyone else here. The problem I have is not new and not really a problem except when I listen at louder levels which is fairly often. I'm looking for a way to cool the treble a bit and was wondering if there was a way to do this gradually with a constant slope through out the compression driver's range. Here is my question as posed on the B'head forum:"I recall reading a few years back about some way to affect the responce curve of an amplifier to compensate for room/ loudspeaker characteristics. A quick search turned up nothing. What I was hoping to try was a way to tame the upward sounding tilt in my system's responce without adding room treatments (Wife says no stuff). Any ideas? I guess I'm looking for a very long slow roll-off of the highs. (Amps are Paramours, speaks are Pi Theater 4: 15" bass reflex/ horn loaded compression driver.)"What about doing this in the crossover, ie. the tweeter compensation circuit?Thanks for any tips!G.

Subject: Re: Frequency response slope question
Posted by Wayne Parham on Wed, 21 Jun 2006 20:03:04 GMT
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If you're looking for a generic answer, an easy way to rolloff highs is with shunt capacitance. Change the value of capacitance to affect where it starts; Resistance can be placed in series with

tweeter compensation circuit. Remove the bypass capacitor and possibly increase attenuation.

desired. There's a chart showing what resistors to use in the crossover document.

Subject: Re: Frequency responce slope question
Posted by GarMan on Wed, 21 Jun 2006 22:36:32 GMT
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Garland. I read your first paragraph several times and wonder if it's not an issue with different compression rates between woofer and drivers. It sounds like the treble is hot as volume goes up. I've experienced the same thing with high volumes and wonder if the woofer is compressing before tweeter.

Subject: Re: Frequency responce slope question
Posted by dB on Thu, 22 Jun 2006 07:29:16 GMT
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Hi,After testing various configurations values for the attenuation (confirm with Wayne) you can also use a 3 point attenuator selector as in the old times or a continuos L-Pad knob from many manufactures.VISATON LC 95 100W, Monacor, Parts Express. (http://www.partsexpress.com/projectshowcase/d2w/2-Mann-DW2.jpg)Your problem might be different if you get a crazy peak like the one's from inductive resistors. But you might have good one's already (non inductive). Did you checked the voltage on the cap and the wattage, is it high enough in the resistors? If not they will get hot.Keep us informed.Best Regards
Attenuator