Subject: Eminence horn
Posted by LuxmanLover on Thu, 22 May 2003 20:01:59 GMT
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What is the effect/result of having your crossover less than the resonance of a given horn ie. using a 800hz crossover on a H290 horn.Kelly

Subject: Damping and crossover filter Q
Posted by Wayne Parham on Thu, 22 May 2003 21:15:01 GMT
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You should never operate a tweeter horn below it's cutoff because the compression driver will be unloaded. This will allow the diaphragm to move back and forth much further than it was intended at even low power levels and can damage the driver. Output will also be reduced below cutoff, so it will probably sound bad for that reason too.Beyond the basic crossover function, the tweeter

for two octaves.2. It begins to remove attenuation two octaves above the crossover point to add HF augmentation.3. It provides specific damping in the crossover region so that the response curve is neither peaked (underdamped) or too rolled-off (overdamped).

Subject: Re: Damping and crossover filter Q (or lost in Saskatoon)
Posted by LuxmanLover on Thu, 22 May 2003 21:38:40 GMT
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Either I worded my question poorly or I'm too dumb to understand the answer!!!! I'll try again.....I would like to install a JBL 2421a into my 4 Pi pro's....and cross the tweeter over at 800Hz.....my concern is that the eminence H290 has a resonance of 1000Hz....I'm wondering what the consequence (sp) of this combo will be or in the laymans terms that I can understand will it sound shitty (can you say shitty on this forum, !@#$ I said it again).

Subject: Use of a horn under Fc
Posted by Wayne Parham on Fri, 23 May 2003 01:53:25 GMT
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I wouldn't crossover the H290 below 1kHz because the diaphragm will be unloaded at low

frequencies. Output under 1kHz will be reduced, distortion will be higher and you could damage the driver. But you can certainly try it - Just be careful with the volume knob.

Subject: Re: pull the h290's
Posted by Sam P. on Fri, 23 May 2003 09:49:15 GMT
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and install jbl 2370a flares, and "all will be well". The 2421's MAY not have the HF extension you need, look at the specs on the jbl site regarding their F10 at the top to be sure. Sam

Subject: Re: pull the h290's
Posted by LuxmanLover on Fri, 23 May 2003 10:36:54 GMT
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Hey Sam....I've read the reference to the Eminence have more extention on the top end many times on the Pi forum yet when comparing at least the published specs it appears the 2421 actually goes a little higher? I guess it will be a try it and see deal. As far as using the H290 horn it's just a matter of using the parts I have on hand. I do have a set of 2345's which can play down to 800Hz but they are much larger than the H290, not a big deal in itself , it's just that they won't the present cabints. You know how this hobby works, anyway I'll post my impressions after I do some experimenting.THX Kelly

Subject: Re: why not x at 1kHz?nt
Posted by Sam P. on Fri, 23 May 2003 13:26:59 GMT
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nt

Subject: Re: why not x at 1kHz?nt
Posted by LuxmanLover on Fri, 23 May 2003 19:31:18 GMT

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Well that's definitely an option but then I'd have to get Wayne to spec out a 1000 Hz Pi crossover using a 2226H and a 2421b 1" compression driver(wink wink nudge nudge) (b as in 16 ohms).Kelly

Subject: 1kHz crossover values
Posted by Wayne Parham on Fri, 23 May 2003 20:28:39 GMT
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The values for an eight ohm 1kHz crossover are shown in the post called "Pi Speakers Crossover" and its response is shown on the post called "Pi Speakers Crossover SPICE values." Sorry, but I haven't done one for a 16 ohm circuit. It would be very easy to do in Spice though. Modify the values for R1, R2 and C1 to set the Q and get the response curve you want. Make it look just like Adrian's from the post above and you're set!