
Subject: Request...plans

Posted by [Slybean](#) on Thu, 10 Feb 2011 15:11:07 GMT

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Hi Wayne,

I would like to built my first Horn speakers. Is it possible to get the plans of the eight pi speakers? Is it the model you would recommand...

regards

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Subject: Re: Request...plans

Posted by [Wayne Parham](#) on Thu, 10 Feb 2011 15:39:19 GMT

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There is a brief explanation of the differences between each of our models in the following link:

High-Fidelity Uniform-Directivity Loudspeakers
After reading these documents and looking through the model line, please write back and let me know which model you're most interested in. I'll send plans right away. If you have other questions, don't hesitate to ask.

Subject: Re: Request...plans

Posted by [Slybean](#) on Fri, 11 Feb 2011 17:22:29 GMT

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Thanks for the info. I've been looking at Geddes design and playing with is Speak software. I must say he directivity issue wasn't always optimize in my design.

Can you provide me the plan of the eight pi speakers and the three pi. The 8pi seems a cheapest way to go but does it goes as low as the 3pi? I would like to compare then before making my first set.

Thanks for been so generous.

Sylvain

Subject: Re: Request...plans

Posted by [Wayne Parham](#) on Fri, 11 Feb 2011 19:18:35 GMT

upgrade path, and when you go with all the best options, it's a best-of-class loudspeaker.

Subject: Re: Request...plans

Posted by [Slybean](#) on Fri, 11 Feb 2011 23:23:40 GMT

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What intrigue me about the 8pi is the front loaded woofer and how you control directivity. it also have the look of the Klipsch Lascala. Which a like. You know it may sound good but you still have to live with it in your living room...

The design of the 3pi is something that seems more popular (smaller size maybe...). Both are quite tempting to do.

Did you send the plans to my email and is it accessible for you?

Sylvain

Subject: Re: Request...plans

Posted by [Wayne Parham](#) on Sat, 12 Feb 2011 00:33:07 GMT

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Yes, the midhorn does control the pattern from the crossover point down. It is required when using midwoofers smaller than 12" because otherwise, the midwoofer pattern is wide up to a higher frequency, too wide, in my opinion. So the midhorn limits the coverage angle up to the crossover point.

However, it is important to realize that even direct radiating drivers become directional at high frequencies. A 12" midwoofer presents as narrow a beamwidth as the midhorn does at about 1.2kHz and a 15" midwoofer is as narrow by about 1.0kHz. This makes them blend real nicely with the tweeter in this region, and is the basis of the matched-directory loudspeaker design philosophy.

On the other hand, the midhorn does one thing the direct radiator cannot do, which is to maintain constant directivity below the crossover point. The pattern of direct radiators widens as frequency drops, whereas the midhorn pattern remains constant. However, it really needs "reinforcement" from corner placement to maintain pattern control all the way down through its passband. If it is placed in freespace, it can only maintain pattern control for about an octave below crossover.

frequencies, then as the horn gains pattern control it narrows, approximating the flare angle. If corner setting the pattern down low. It is sort of like an entry-level cornerhorn model, but can be used outside of corners too.

Subject: Re: Request...plans
Posted by [Slybean](#) on Sat, 12 Feb 2011 14:05:16 GMT
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Thanks a lot. Got to go in the shop now. Hum the smell of MDF in the morning....

S
