
Subject: Hey Wayne! 7 Pi plans
Posted by [doucanoe](#) on Mon, 10 Jan 2011 21:19:12 GMT
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Say, I was wondering if you could send the plans for your 7 Pi design my way?

It's time for me I think.

Thanks,
RC

Subject: Re: Hey Wayne! 7 Pi plans
Posted by [Wayne Parham](#) on Mon, 10 Jan 2011 22:14:45 GMT
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You've got mail!

Subject: Re: Hey Wayne! 7 Pi plans
Posted by [doucanoe](#) on Tue, 11 Jan 2011 01:55:56 GMT
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Thank you sir!

RC

Subject: Re: Hey Wayne! 7 Pi plans
Posted by [doucanoe](#) on Sun, 06 Mar 2011 13:37:29 GMT
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Hi Wayne, A question for you if you have a minute.

I have come to the determination that although I do have corners to place these in, I really can't get the corner loading I need with one of the corners opening up into a living room area.

I seem to recall regarding a thread around here somewhere where a 7pi builder resorted to bass reflex cabs for LF but don't recall the outcome. I still may end up building the LF horn cabs anyway so I can run in a different room but for now, BR LF may have to do. Can you tell me (or an idea anyway) how compromised the system would be running this way?

Also, I need to order the mid horn flat pac's but am not sure if the pricing is for a single horn kit or pair. I just need to order accordingly so I can build a pair.

Thanks, RC

Subject: Re: Hey Wayne! 7 Pi plans

Posted by [Wayne Parham](#) on Sun, 06 Mar 2011 15:50:16 GMT

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The midhorns are sold individually.

The thing you lose is the corner loading, obviously. That's really the point, not so much the midhorn. The midhorn is there to match the directivity of the midrange with the directivity of the tweeter and the woofer (above the Schroeder frequency). Also, the corner aids the midhorn at the lower end of its range, acting as a sort of mouth extension. Down low, the midhorn will lose pattern control outside of corners.

Subject: Re: Hey Wayne! 7 Pi plans

Posted by [Psychoacoustic](#) on Thu, 10 Mar 2011 02:38:34 GMT

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doucanoe- G'day, Spectrum77 here.

Glad you're taking the plunge- you won't regret it.

From my experience using 4 Pi derivative bass bins (JBL 4607?) with 2226H and the 7 Pi mid and high horns I'd say if you've no other option due to lack of corners in your room... go for it.

However, there is a difference in mid reproduction, of course. If possible, can you construct 'false' wall(s) to form corners?

Subject: Re: Hey Wayne! 7 Pi plans

Posted by [doucanoe](#) on Wed, 23 Mar 2011 15:20:09 GMT

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Hey Spectrum77!

I have one proper corner but the other is the problem. One leg projects approx 30" and then opens into a pass through leading to the kitchen. The other leg projects approx 22" then opens to another (8'-0") pass through into the living room. Not much opportunity to create a false corner

here without running the risk of divorce

I do have a couple pair of 5 cu-ft 4507 cabs that I can use for LF. One being loaded with JBL E145's and the other empty but I do have a pair of 2225J's not doing anything presently. A little x-over massaging should take care of that if I go that route I would imagine.

Wayne, I have a pair of Eminence Delta 10A's that I would assume would work well for the mid horns but they are occupied in another speaker at the moment. How particular is the mid horn when using a different driver? I just came into a pair of Audax PR17's (7" mid drivers) and I would be interested in trying them out with the your mid horn kits if it wouldn't frap up the works too much.

File Attachments

1) [086.JPG](#), downloaded 6471 times

Subject: Midhorn drivers

Posted by [Wayne Parham](#) on Wed, 23 Mar 2011 15:47:05 GMT

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I tested the midhorn with a variety of drivers. In addition to the Delta 10, the Alpha 10 works well, as does the JBL 2012.

To be honest, I haven't found a driver smaller than 10" that worked well. I would have expected to be able to use an 8" driver, but I tried several and never found one that I liked. Some get really lumpy on the low end. This even when the throat is made smaller and the flare adjusted to match.

You really need to raise the lower cutoff to use a smaller driver on a horn with this general pattern and shape. If you're comfortable with 500Hz bottom end, for example, then a 6" to 8" driver can be made to work well in a scaled version of this 90°x40° CD horn.

Subject: Re: Midhorn drivers

Posted by [doucanoe](#) on Wed, 23 Mar 2011 19:02:30 GMT

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Hey Wayne,

I'm sure I'm going to stay the course with the tried and true Delta 10 but was curious to hear your opinion based on playing around with different drivers and throat sizes.

I'm in the process of putting together a different all horn loaded system (joint project between a friend and myself). My Delta 10a's are already reside in the mid bass horn cabs we will be using for that project so before buying another pair, I though I would see what you thought first.

Now that I think about it, I still have the original 10" Frazier (Quam) drivers that were in my Dixielander bass horns. I would imagine the mounting would be pretty darn close and will get me started anyway.

Quick question, what horn (other than your spiffy wood horn) were you using on the HF? I have a pair Of 1" threaded Selenium D220Ti's ready to go but need to pick up a suitable horn. I was thinking that the Pyle Pro PH612 would be be fine and dandy until I come up with a more hottsy tottsy driver horn combo.

RC

Subject: Tweeter for stock Pi speaker builds
Posted by [Wayne Parham](#) on Thu, 24 Mar 2011 01:12:12 GMT
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We use the H290 in stock builds. There is a description of it (and other horn/waveguides like it) in the whitepaper about matched-directivity two-way and constant directivity cornerhorn speakers: High-Fidelity Uniform-Directivity Loudspeakers
