Subject: Four Pi Driver Spacing
Posted by Stollie on Sun, 16 Aug 2009 15:04:23 GMT
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Wayne, I'm thinking about building the 4 Pi,but with the intention of being able to upgrade at a later time to a 7 pi hybrid, adding the mid horn. I would like to move the HF driver out of the 4 bass bin and have it sit on top of the cabinet. Do you know what the approximate driver spacing is so I can move the LF driver higher in the box to compensate? Thank you.

Subject: Re: Four Pi Driver Spacing
Posted by Wayne Parham on Sun, 16 Aug 2009 15:20:30 GMT
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The edges of the woofer and tweeter are less than an inch apart, making center to center spacing just under a foot. You're going top have to push the woofer all the way up in the cabinet, basically touch the edge to the top panel inside of the cabinet.

Subject: Re: Four Pi Driver Spacing
Posted by Stollie on Mon, 17 Aug 2009 15:05:03 GMT
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Thanks for the reply. So this sounds do-able withought affecting the overall sound. I also noticed in you 3pi upgrade video clip than you have your 4 pi's on stands, so I'm guessing this is an OK approach, correct?

Posted by Wayne Parham on Mon, 17 Aug 2009 20:18:51 GMT
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When I don't run subs, I always position the woofer close to the floor to avoid floor bounce. I recommend floor standing or angled risers or no more than a few inches, if subs aren't used.

If subs are used, then I usually put the main speakers on a stand between 12" and 18". This brings the sound sources up to approximately ear level (seated) but also introduces floor bounce. However, properly positioned subs can smooth this with a multisub technique. I usually use what I call flanking subs placed just a few feet from the mains and low-passed at a relatively high frequency. Those smooth the upper modal range, up to the Schroeder frequency (including floor bounce). In some cases, I suggest other subs be used as well, placed further away and low-passed at a lower frequency. These provide additional smoothing at lower frequencies.