
Subject: 4pi Baffle length

Posted by [dmeckstr](#) on Tue, 24 Dec 2013 22:21:56 GMT

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Hi,

So I've only been planning to build these 4pi's for like 5 years, but I think I am almost at the point of doing it. I know it's a no-no to mess with the width of the baffle, but I am wondering if there is a downside to extending the length? I was thinking it might be convenient for tweaking to put the crossover in a compartment underneath the speaker. Would that work? Or have a negative effect? Also, would I need to make any allowance in the speaker cabinet for the space left by removing the crossover?

I have some of those big oil can caps that I want to try, but also, like, seriously, the WAF is too much on the border with these--they really need to go larger!!

Thanks for a great forum!

David

Subject: Re: 4pi Baffle length

Posted by [Wayne Parham](#) on Wed, 25 Dec 2013 07:35:59 GMT

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Oil filled caps are great, but don't change the cabinet dimensions or the port. There's a lot of R&D invested in these, and if you modify them, you throw that investment out the window.

It's not so much the Helmholtz frequency I'm worried about, although that would change and not for the better, it's set right now. But even more importantly, you'd change where standing waves lined up internally, which might create an anomaly in the midrange, possibly causing some response ripple. So unless you have the time to go through a build/test development cycle, don't do mods like that.

Subject: Re: 4pi Baffle length

Posted by [dmeckstr](#) on Thu, 26 Dec 2013 20:52:03 GMT

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Hi Wayne,

I definitely don't want to mess up anything having to do with the performance. I was re-reading my post and maybe I didn't explain myself very well. I just wanted to clarify that I don't intend to do anything to the dimensions of the speaker cabinet. I was wondering if adding a separate compartment below the baffle would have a negative effect.

File Attachments

1) [Illustration.jpg](#), downloaded 1906 times

Subject: Re: 4pi Baffle length

Posted by [Wayne Parham](#) on Thu, 26 Dec 2013 21:31:08 GMT

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Oh, I see what you're saying now. That's fine, no problem at all.
