
Subject: Re: Horn mouth vs. front baffle or "speaker cone"
Posted by [johnnycamp5](#) on Tue, 04 Sep 2018 00:02:02 GMT
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I think I understand what you mean by "vertical nulls".

I had something like that in my living room system due to room dimensions or nulls that I attributed to a low 7.5' ceiling.

While sitting on the couch listening to my system (4pi's with flanking subs), the music sounded awesome...

nice and punchy, especially with those flanking subs...

but when you stood up, almost all the punch went away, as if you had shut off the subs and half of the woofers!!

To confirm my hunch of vertical room nulls (what else could it be?), I built a set of high flanking subs (using a pair of 2226H) with the centers about 2' below the ceiling.

I used the single bass array concept -

For my room it equals= $\frac{1}{2}$ of the ceiling height (3.75) vertical distance between each woofer center (in my case the 4pi and flanking sub) and $\frac{1}{2}$ of that distance (1.875') between the top woofer and the ceiling/bottom woofer and the floor.

The woofer in the 4pi was somewhat less than that, but I did not bother to raise them.

Also, the single bass array $\frac{1}{2}$ - $\frac{1}{4}$ distances are applied horizontally as well (left wall to right wall), but I could not do this in my room (but it wasn't far off).

The bottom line is it worked! The deep extension wasn't there with the JBL's.. but the mid-bass punch was back.

Stand or sit...the bass response was the same.

Every ones experience is unique...but needless to say, this got me liking the (vertical) bass array concept lol.

P.S.- The high flanking JBL's were low passed at 150Hz. 24db/octave slope.
