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Subject: Re: Corner Horn Recommendations

Posted by [Wayne Parham](#) on Tue, 22 Feb 2005 00:54:24 GMT

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I think maybe I should point out that it isn't the corner or even the room that we've focused on mostly in this discussion, it's the distance between speakers. The room will play a roll because of its dimensions too, but the thing we've focused on mostly has been the distance between speakers, and the frequency that is  $1/2$  wavelength there. Please don't think that this is an insurmountable problem. We probably shouldn't be focused solely on the distance between speakers in your room; I merely brought it up because the distance along one wall was less than 18 feet, which meant that if speakers were placed at opposite ends there would be  $1/2$  wavelength between them somewhere in the bass range. It is just something to think about, and probably you shouldn't base your whole installation on it. Otherwise, you can't even get started because the furthest you can position speakers apart in your room is only about 16 feet, at opposite diagonal corners. There are other placement conditions that cause the same sort of condition as placing two speakers 8-12 feet apart. For example, when a speaker is raised 4 feet off the ground or pulled 4 feet from a wall, this creates a notch at 70Hz because of self-cancellation. The reflection from the surface makes the wave travel 8 feet back to the source, which is nearly the same distance your speakers will be from each other. It's the same sort of problem. But look at how many people prefer to put their speakers on stands or bookshelves. Honestly, most people don't notice  $1/2$  wavelength bass cancellation from a pair of stereo speakers in a small room like yours because there are other effects that mask it. The room is so small, it tends to become pressurized uniformly inside and bass seems to be stronger. And also the room isn't a perfectly sealed loss-free system. North American homes typically have drywall with R13 insulation behind them, and this tends to damp standing waves to some degree. There are also things in your room that will also absorb sound and interact with the loudspeakers. All this makes the acoustic environment something between reflective and anechoic. So I don't think you would hear a null in the center of your room. If you did find a null, you could always add a subwoofer later. You'll need a pair of speakers anyway, so you might as well start off with a good pair and try them out first. If you think the bass is missing at 50Hz, go ahead and spring for the sub. But I don't really think you'll be lacking for bass, unless you choose speakers that have weak bass output. Tower two

and you surely won't be wanting for bass with them. Honestly, I think you would be very impressed

though. If you have the budget, go for it. I'm confident you wouldn't be disappointed. But on the speakers would probably be very enjoyable for you. They are inexpensive and very nice.