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Subject: Re: 6 Pi

Posted by [Wayne Parham](#) on Thu, 20 Oct 2011 14:24:27 GMT

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wavefront propagation. That's a real big deal.

One of the dirty little secrets we rarely talk about is the fact that floor bounce, rear wall bounce and vertical modes make a mess of the lower midrange. It almost doesn't matter how nice the response of a midwoofer is once the vertical modes and rear wall notch chop it up.

The only way around this is to make the speaker be acoustically close to its nearest boundaries. This limits us to two choices: soffit mount the speaker or use a constant directivity cornerhorn. The next best thing is to use flanking subs to smooth the response in the 80-200Hz range.

So my suggestion has always been to use constant directivity cornerhorns where you can, and DI-matched two-ways with flanking subs where you can't. The constant directivity cornerhorn will always be better, provided the room has the right corners. It doesn't need flanking subs, because the problem solved by them doesn't exist in constant directivity cornerhorns. They're acoustically close to the adjacent walls. But the truth is, most people don't have the right corners, so I developed the flanking sub approach to solve the problem of self-interference from the closest boundaries when using more traditional loudspeakers.