Subject: Re: Subwoofers
Posted by Wayne Parham on Sat, 01 Jan 2011 16:02:49 GMT
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Two subs are definitely better than one.

I wouldn't suggest driving them with tubes. You could, but I think it's a waste. Wrong tool for the job, in my opinion. Use tubes for mains, solid state for subs. Use plate amps for the subs or press an old stereo into service for sub power. If you want to really be purist, go Class A. Get a SET amp (single-ended triode) for the mains and maybe a Class A FET amp for the subs.

Have you ever heard of CARA? You might check it out, use it to help you find places to put your subs. There's also a link in that thread to a document about the Multisub concept.

A few observations about Multisubs:

You'll notice Welti finds two subs placed at opposite wall midpoints works well. I have also found this to be true.

But if the subs are crossed low enough that localization isn't a problem, then the mains must be providing some good LF output too, in which case you actually have four LF sound sources, not two. In this case, there are other setups that may work better.

My assumption above is that you will blend the mains and subs instead of high-passing the mains. That's part of the multisub concept. It trades IMD for modal smoothing. Of course, you can also high-pass the mains and run local subs nearby if you want to take the LF load off the mains. In this scenario, you probably wouldn't want the subs too far away because they might be localized. That may prohibit the two-wall-midpoint approach.

I've found a handful of scenarios that work well for me. Each blend the mains with the subs, because my main speakers have adequate LF output for this to be the best option. If that's not the case for you, your situation may be different. But for mains with plenty of LF capacity, I suggest blending them.

If the mains are placed on stands, and if the sound source generating the 100-200Hz range is a couple feet off the ground, it will generate a floor bounce notch in that region. This can be smoothed with local subs blended fairly high, with low-pass at 80-120Hz. That's generally higher than what I'd normally cross subs, but when they're physically close to the mains, like a few feet away, they can't be localized. I sometimes call these "flanking subs". They don't do much smoothing down low, but they do smooth the range up high, being particularly effective at smoothing what would otherwise haave been a floor bounce notch.

If your mains aren't on stands, or if they're just not suffering from a floor bounce notch for whatever other reason, then putting the subs on the opposite wall in corners, or in adjacent wall midpoints often works very well. They should be low-passed much lower, like 50-60Hz and no higher than 80Hz to prevent localization.