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Subject: Re: 4 Pi Home Theater Build

Posted by [Wayne Parham](#) on Fri, 02 Sep 2011 02:10:46 GMT

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Bass traps are effective, provided they actually absorb enough energy. Panel absorbers work best. They can be made as a false wall, and therefore can be somewhat inconspicuous.

Too bad you can't get more subs. Even just a couple more small car subs in boxes would help you a lot, provided they sounded good in the midbass. There's not much you can do to smooth room modes with just one sub. You can't do anything about the primary room mode, because there will be only one sound source from 20Hz to 40Hz, where the first mode will be. A single sub probably can't be used to smooth the midbass/midrange either because that requires flanking subs, which are paired with the mains.

Without flanking subs, you'll have a pretty deep notch around 120Hz or so. That will make the vocals and instrumentals sound odd. It can make a sort of "singing in the bathroom" sound, which will seem like it boosts some instruments and/or vocals and makes others a little too thin sounding.

What you might try is to put your sub right in the middle between the mains, sort of like a shared flanking sub. It should be a couple feet behind the mains and a couple feet below, assuming the mains are on stands or risers of some sort. Of course, the subwoofer will also be a few feet to the inside of each main speaker. That might help smooth the upper midbass / lower midrange like flanking subs do. It might be tricky to get it to blend in such a way that it smoothes that range without giving away its position, drawing the lower range of instruments and vocals towards the center.