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Subject: How do I keep deep bass from the neighbors?

Posted by [FloydV](#) on Thu, 09 Feb 2012 23:11:41 GMT

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I can't remember if I asked this before, but here it is anyway:

Is there some kind of insulation or acoustic treatment that will dampen the bass enough to keep neighbors at bay?

I hate it myself when someone has their music playing, and I can hear bass radiating through my walls.

I thought mine was fairly well contained until I walked out into the yard with my house sealed behind me and I could hear bass distinctly a hundred feet away.

I don't play music that loud. I keep the average room level sound somewhere around 90 db or less for the most part. There are peaks that might hit a hundred, but only momentarily. I actually like to be able to speak to someone in the room when it's necessary.

I don't keep the bass at ridiculous levels like some of the hip hop and rap stuff you here rolling down the street.

The worst offender seems to be a wall of glass that the front speakers and sub face away from.

We are buying a new house within the next six months, and I'm wondering what I might put in the walls to diminish bass leakage, which seems to permeate everything.

As always, thanks.

Floyd

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Subject: Re: How do I keep deep bass from the neighbors?

Posted by [Wayne Parham](#) on Fri, 10 Feb 2012 01:18:28 GMT

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The way to do it is to use panel absorbers surrounded by a thick, solid set of walls. The panel absorbers form inner walls which absorb energy. This both attenuates sound going out and damps standing waves, smoothing room modes. The outer walls block what's left and help keep it contained.

That's a lot more than a little rework though. It's a complete, ground-up, room rebuild. Short of that, you just have to go with the panel dampers. They'll help, especially taming room modes, but a lot of bass energy will still pass through.

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Subject: Re: How do I keep deep bass from the neighbors?

Posted by [FloydV](#) on Sun, 12 Feb 2012 00:20:46 GMT

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Can you give me a link about panel absorbers?

As far as the room rebuild, I think I'm going to need to knock out an existing wall to get the large rectangle I need.

Even though the house I pick will be five years or less old, even 2500 sq feet won't get me there. The mold they use to stamp out houses today parcels them into a lot of small rooms, or rooms that have inconvenient doors or angled walls, etc.

This (better damn well) be my last move. I'm not going to be interested in re-sale (I'm 65), so I can change a lot of things to suit my wife and I.

Any links or references to room treatments in general for sound?

Floyd

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Subject: Re: How do I keep deep bass from the neighbors?

Posted by [Wayne Parham](#) on Sun, 12 Feb 2012 15:12:35 GMT

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Panel Absorbers

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Subject: Re: How do I keep deep bass from the neighbors?

Posted by [VDNorman](#) on Wed, 15 Feb 2012 16:56:21 GMT

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FloydV, you likely have two types of sound transmission occurring; airborne (sound finding its way through the partitions), and structureborne (sound energy causing the structure to vibrate). You'll need to apply a systems approach that incorporates breaks, blocks, absorption and/or isolation along the transmission path(s). When you find your new home, the scenario can be investigated to discover what solutions will meet your goals. This can likely be done via modeling and without on-site testing.

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Subject: Re: How do I keep deep bass from the neighbors?

Posted by [FloydV](#) on Wed, 15 Feb 2012 21:06:10 GMT

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Thanks Wayne, you're always helpful.

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The best situation I had was at my last house. I had my equipment in a basement. It had the usual heavy concrete walls, with framing, and it was 12' underground. The only people likely to complain would be people on the ground floor doing something else.

I usually put on some music with really heavy bass and have the volume up as loud as I would play it at what I considered loud.

Then I would (at about midnight) walk around my house exterior and see what I could hear.

I will put some thought into this, since it is easier to do it right before I fill a room with equipment and furniture. The dampers sound good. So does the additional frame work. I will look at the CARA link you listed.

One last question. If I locate my AV room upstairs, do you think it would become a radiating tower, or would the sound tend to pass over most lower level surrounding structures?

Floyd

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Subject: Re: How do I keep deep bass from the neighbors?

Posted by [Wayne Parham](#) on Wed, 15 Feb 2012 21:43:34 GMT

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The good news about being upstairs in a traditional North American framed home is that the rooms are naturally damped somewhat. There are no rigid surfaces on any side, so all become panel absorbers, of sorts. The walls and ceiling are drywall, which acts a little bit like a panel absorber. Even the floor is somewhat lossy, and yet, the next boundary below it is several feet away, so it doesn't become a resonator (like crawlspaces do). This is pretty good for reducing the strength of room modes.

The bad news is bass passes right through. It radiates pretty much omnidirectionally, and even travels along the structure to be re-radiated by the surfaces in other rooms, as VDNorman mentioned. There is nothing to prevent the bass from being nearly as loud in an adjacent room (to the side, above or below) as it is in the listening room.

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