Subject: Re: Improving acoustics in living room
Posted by Wayne Parham on Sun, 21 Apr 2019 15:41:08 GMT
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The "most valuable change" is the one that provides the most benefit. That wasn't meant as an impertinent reply, but rather to highlight the fact that different environments have different problems.

The most common problems indoors are related to reflections, and all rooms have these problems to some degree.

High frequency and midrange reflections aren't too bad, usually, as they contribute to the reverberent field. But they should be damped so they aren't as loud as the direct sound. Furniture, drapes and carpets usually help and often are all that is needed. Sometimes foam wedge absorbers or diffraction panels are beneficial.

Low frequency reflections cause room modes. Room treatments at this range are harder to do, and aren't generally provided by traditional home furnishings. Framed drywall construction acts a little bit like a panel absorber, so rooms made that way tend to be a little better than rooms with hard walls like concrete, brick, plaster or stucco. But it's not enough and room modes will still dominate the frequency response below about 150Hz. The best thing to improve this range is use flanking subs and distributed multisubs.

Then there are specific problems like buzzing panels, resonant chambers (like some crawlspaces, attic spaces and closets) and other things. If you have a problem like that, it's usually best to correct it first before dealing with the more common problems like room modes.