Subject: Is it safe to position a Sub facing a room's side walls?
Posted by mikehende on Tue, 11 May 2021 16:16:45 GMT
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Hello all, I am new here seeking some advice/opinions for my issue please.

I have storage cabinets, shelving and whatever else placed along the back and side walls of the rectangular shaped garage which measures 10'W x 25'L and 8'H.

I have always had an issue with hearing the bass in different ways or lower tones at different spots in my Garage. I can't do anything about the room itself, it is what it is. Few days ago, I wasn't getting any sound from my EAW SB1000 Sub so I pulled it out and plugged it's cable from the Amp into my Full Range EV Eliminators to rule out any equipment issues. I then checked and it was the SB1000's speakon connection which had failed.

Thing is when I plugged the Bass Amp into the EV's, the EV's was in the middle of the room facing the side walls and I noticed that no matter where I stood in the room the bass was constant. So I decided to experiment further and placed the EV's where the EAW Sub was but placed them facing sideways towards the side walls between the 2 Shelving at the back wall and now the bass sounds equal at any spot in the Garage.

Please see attached pic of the back wall of my Garage. I am thinking of trying the EAW sb1000 sub in the same position but right now those are the EV's showing on the bottom of the pic facing

on each side facing the shelves. Now if I were to place the EAW sub in that same way there would hardly be any free space on either side so might this be safe for the woofers please, if I should get the same results? Thanks guys.

File Attachments
1) IMG_2777.jpg, downloaded 507 times

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by Wayne Parham on Tue, 11 May 2021 17:23:05 GMT
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It doesn't matter what direction you face subs if they are crossed over below 80Hz or so. But if they are run higher than that - and you need the upper-end response - then orientation can matter. The only times I would want subs run high are when they are used as flanking subs.

I think you might be interested in reading about multisubs and flanking subs. Click the link below to search this site, and maybe even search the rest of the internet for more information on those configurations.
Multisubs and flanking subs

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by mikehende on Tue, 11 May 2021 17:55:18 GMT
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Thanks. I looked at this thread here:

https://audioroundtable.com/forum/index.php?t=msg&goto=92847&&srch=multisubs+flanking+subs#msg_92847

and another on Flanking subs. There some terminologies there which is confusing to me tbh but if I am understanding those 2 threads correctly it involves using more than one sub strategically placed in the room? If yes, I don't have the physical space to add more than one sub and only in the middle of the right side wall.

The EAW SB1000 is crossed at 80hz as that is the recommended setting for it and also I get the best bass tone from it.

Getting back to my original question though, I am thinking since this sub has 2 port holes and also a big opening between the 2 woofers on the front that maybe air is being pushed through these openings and if any objects should be placed in front of them then this might restrict the air flow and might cause some physical damage to the woofers so may not be a good idea. Is this accurate please or would it not matter?

File Attachments
1) SB1000e.jpg, downloaded 476 times

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by Wayne Parham on Tue, 11 May 2021 18:35:54 GMT
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If you really crank those subs up, the airflow through the ports will increase and things nearby might cause an obstruction. But if you're not really pushing them hard, airspeed won't get high enough to matter.

Put a sheet of cardboard where your nearest obstruction is. If the cardboard flutters from port airflow, then consider moving the obstruction. If it doesn't, don't worry about it.

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by mikehende on Tue, 11 May 2021 18:44:52 GMT

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Nice! Thank you very much. I will need to wait until whenever my bud can come across to fix the connector issue so will report back then, should be done by early next week.

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by mikehende on Tue, 11 May 2021 19:20:36 GMT
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Meantime, as a potential idea. I am thinking I might try a pair of the EV subwoofer version which will give a little more power and more bass depth. These are the 2 versions of the EV's below, the 15" I have:

https://av.loyola.com/products/audio/ev-eliminator-i.html

and the Subwoofer version:

https://av.loyola.com/products/audio/ev-eliminator-i-sub.html

This is a screenshot of the specs from both of them, the 15" full range specs is on top, do you think the 18" Sub version might work better for me please?

File Attachments
1) Screen Shot 2021-05-11 at 3.18.15 PM.png, downloaded 324 times

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by Wayne Parham on Tue, 11 May 2021 19:25:39 GMT
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There are few generalities that always prove true in audio or anything else.

But this is one of them:

All else being equal, a number of subs distributed throughout the room always works better than one.

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by mikehende on Tue, 11 May 2021 19:35:15 GMT
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So then maybe I can try placing one of the subs at the back wall under my mids/tops and the other Sub on the side wall, can that setup work?

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by Wayne Parham on Tue, 11 May 2021 19:52:54 GMT
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Yes, if both are crossed-over low enough that you can't localize them. You might start with 80Hz 4th-order and see how that works for you.

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by mikehende on Tue, 11 May 2021 20:11:32 GMT
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Thanks, think I should go with the 18" subs instead or continue using the 15' full range as Subs please?

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by Wayne Parham on Tue, 11 May 2021 20:43:21 GMT
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The eighteens appear to go lower from the spec sheet, so I'd use those for subs if I could.

If we were considering flanking subs, I might lean towards a midbass driver 'cause it's used higher. Actually, probably both of your options are clean high enough to be used as flanking subs. But I am under the impression that won't work for you anyway.

I am a big proponent of the flanking sub configuration. I tend to setup flanking subs as my initial option, if space or funds constrain the installation to few subs. Then if I can go further, I use one or two more distributed subs in a Welti or Geddes configuration, whichever works best in the room.

But I didn't consider that approach 'cause I assumed from your descriptions that you cannot setup subs as flanking subs due to space constraints. Similarly, I also assumed that you couldn't use Welti or Geddes sub layouts because of limited placement options. Which left the approach of "just use more," placed wherever you can. That works too, as long as the subs aren't close to one another, which defeats the purpose of spreading them around.

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by mikehende on Wed, 12 May 2021 12:04:15 GMT
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I will try to get a pair of the Subs should they ever become available in my area and will try placing one at the back wall and the other on the side wall in the middle of it. Will report back should I ever get those subs and will report back on the eaw placement issue, thanks.

Subject: Re: Is it safe to position a Sub facing a room's side walls?
Posted by mikehende on Wed, 12 May 2021 18:34:33 GMT
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On further testing with using the full range EV's as subs. I realize if i keep the bass volume level high but at a certain level and not overdriven there is only one area in the room like 8' away from the speaker where I hear a vibration type nolse but nothing is actually vibrating.
There is a sidedoor at that location, the door is closed but it's along the line of that door from left wall to right wall that I hear the noise and that spot seems to be where the bass is the weakest.
This was the same situation with the EAW's placed in it's normal spot at the back wall and facing forward.