Subject: Stage 4Pi improvement
Posted by LAL on Sat, 04 Mar 2006 16:39:45 GMT
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I have never been satisfied with some aspects of the Stage 4Pi performance. The dynamic range and "big" sound the speakers produce was their saving grace. The bass on mine was too boomy and woofer's frequency response gave vocals,both male and female an unnatural sound. There was never the sensation that the singer was in the room with you like good quality speakers can produce. On the other hand percussion and brass did have a dynamic quality that regular speakers couldn't produce. These qualities, both good and bad, were evident in various rooms and consequently were not room dependant(although the room and speaker placement still affected the sound). As a result I used the speakers primarily for background music and instrumentals. I have another system available to me which I used for "serious" listening. My cabinets were constructed according to the basic plan for Stage 4's out of 3/4 baltic birch. They are well braced and lined bottom, back and one side with fiberglass. The unlined side was covered with Northcreek "Glop", a mixture of a softglue and drywall mud, used to dampen cabinet wall vibrations. I am a fairly experienced speaker cabinet maker and usually go the nth degree to produce a stiff well damped cabinet. Normally I use a constrained layer walls but certain design constraints required that I limit the Stage 4's to 3/4" thickness. I have never been satisfied with my Stage 4 cabinets. They radiated too much sound from the 15" woofer. I have also suspected that the use of the fiberglass to partially line the walls was insufficient to damped the back wave of the 15" woofer. So I finally decided to do something about it.A couple of days ago I got some "Sonic Barrier" damping material from Parts Express. This is 1 1/4" thick multi layer dampening foam with a 1 lb vinyl barrier. It has an adhesive backing. I removed the existing fiberglass and then covered the bottom, top, back and sides(except the area on one side where the crossover board is attached)with the Sonic Barrier. Since it is charcoaled color it can be place on the wall behind the vent without being noticable. I then took about 1/3 of the fiberglass originally in the cabinet and used it to cover crossover and I place some directly behind the woofer, with alittle more on the bottom. After reinstalling the drivers I sat down for a listen.The results were stunning. The response had smoothed out. The sound was much clearer. Voices now had a natural sound and on good cd's the performers sounded realistic and had that "in the room" quality that was so lacking before. Everything about this speaker is much better now. Had I not known what was done I honestly would not have recognized the sound as coming from the same speaker. I have listened for extended periods of time with no hint of listening fatique. Five sheets of the Sonic Barrier and about 4 hours of my time have absolutely transformed these speakers. I hoped for some improvement but never could have predicted the changes in clarity, smoothness and lack of distortion I am now hearing.Maybe others are completely satisfied with their Stage 4's or my cabinets for some reason sounded differently than others, but if you are interested to see if you can improve your speakers get 5 sheets of the 1 1/4 Sonic Barrier and spend a few hours lining your cabinets, throw in a little fiberglass directly behind the woofer and see what happens. If it doesn't work for you all you will be out is about $125.00 and some time. If it turns out anything like it did for me you will be greatly rewarded. (Incidently so you will know my frame of reference for how a speaker should sound, my primary system used VMPS RM40's with AVA hybred electronics). I know audiophiles are sometimes prone to exaggerate attributing great differences in performance to difference between amps or cables. This is most assuredly not the case with the transformation of my Stage 4's. This has been a major league improvement and couldn't be more pleased about. I hope this post may help someone else make a similar improvement to their

speakers and as a result to their listening enjoyment.

Subject: Re: Stage 4Pi improvement
Posted by Pfenning on Sat, 04 Mar 2006 17:10:29 GMT
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What amp/pre amp are you using on the Stage 4's ?

Subject: Re: Stage 4Pi improvement
Posted by LAL on Sat, 04 Mar 2006 20:18:24 GMT
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I have used them with a NAD stereo receiver and an Outlaw A/V receiverLAL

Subject: Re: Stage 4Pi improvement
Posted by Matts on Sun, 05 Mar 2006 03:50:27 GMT
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Is this a promo? Doesn't sound like my Stage 4's at all....

Subject: Re: Stage 4Pi improvement
Posted by LAL on Sun, 05 Mar 2006 16:23:24 GMT
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Matts,A promo? Did you actually read the entire post? If your Stage 4's are entirely satisfactory to you that's great. Mine weren't to me. They are now however. The modification worked wonders for my speakers. I would highly recommend Stage 4's to anyone who asked. But I would also recommend they try the Sonic Barrier. Black Hole #5 might work just as well. The Sonic Barrier however is only about half the price. So is it a promo? Yes, I guess it is. A promo for the Stage 4 with Sonic Barrier or similar treatment to dampen the back way of the woofer. Now its is entirely possible that you somehow made a much more effective use of fiberglass in the construction of your Stage 4's and haven't encountered the same problems I did, although I believe I followed the instructions pretty close. It may also be possible that you have grown used to their presentation and have nothing else to compare them to. Whatever the case, if yours sound the way you want

them enjoy it and don't take this post as a put down of the State 4's. I just think I found a way to make them better and I wanted to share it with Wayne and other owners since I am enjoying them now so much.

Subject: Re: No offense, Matts, but
Posted by Bill Epstein on Sun, 05 Mar 2006 18:32:09 GMT
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I'm bothered by what many consider a perfectly reasonable suspicion of invidious commercial interest.It's reached a point where every post praising something has to have a disclaimer. "I have no connection with or derive no benefit from..."Why?Consider this: If the positive comments concern a new product, or at least new to me, I'm happy the Internet gave me the opportunity to expand my awareness. If the opinion is that of a conscienceless salesman or someone with imperfect knowledge of the product, in either case, I trust my own ability to discover the truth. Quite often, I think, the poster might have valuable information coincident with a commercial interest.The problem with Audiophiles is the same as with present-day society, everyone's afraid of everyone else!With the exception of 'falsely crying FIRE! in a crowded theatre' I want my freedom of speech. And I want you to have yours.

Subject: Re: No offense, Matts, but
Posted by Matts on Sun, 05 Mar 2006 19:06:58 GMT
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"I'm bothered by what many consider a perfectly reasonable suspicion of invidious commercial interest." ...."I want my freedom of speech. And I want you to have yours." Chill out & don't be bothered, then! The reason I asked here, which is a firstl for me, is because the post seemed to follow a formula that I've seen in a lot of promotional lit on the web of 1)seriously overstating a problem I didn't see, then 2) leading through the dark valley, then 3) the "Eureka!" moment, then 4)the spend this pittance of an amount of $$ on this product and you'll be saved!! Here, even if there had been a disclaimer, I still would have wondered, but maybe it's just his style & it's fine with me.I've had so many people tell me singers (or sax players, etc.) sound like they are right in the living room with us, that I just don't see this issue- but, if you or Wayne tries this stuff out & also say it's the bomb, I'll try it too!

Subject: Re: No offense, Matts, but
Posted by Manualblock on Mon, 06 Mar 2006 00:34:34 GMT
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Jeez; an interesting post. You guys started to open the can of worms now. Because In my perception of the audio net lately; I find a sneaky suspician that everyone is on the make. Can't exactly put my finger on it with a clear certainty; but in this life I recognise when I see a hustle. And I am seeing a lot of tracks lately.

Subject: Re: No offense, Matts, but
Posted by Bill Epstein on Mon, 06 Mar 2006 00:54:24 GMT
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"Chill-out"? I'm very relaxed towards LAL's post. Whether or not he has a commercial interest in the product isn't an issue for me. I don't believe he does. And what of a "disclaimer"? I have no use for "disclaimers". If we're questioning the integrity of a poster why believe a disclaimer? We're also looking at a product that has information available beyond what LAL has told us. If, in this case, or any other I would be informed by the post, warmed by the description of the improvement and then decide for my self whether to pursue an investment. The I.D. of the "profile" of the promotional post is something I wouldn't have thought of but is interesting. It does follow that plan, doesn't it? But then so does the legitimate tableau of discovering a problem and finding a solution.My problem is that we have arrived at a time when: if you work for an American Corporation you are required to check your Bill Of Rights at the door; everyone has to be respectful of whatever any group other than white-american-born-males says or does no matter how outlandish or obscene; cleverness is cause for immediate termination; all of us have become needlesly paranoid and suspicious of everyone else' motives.And we're nearly all too fat!

Subject: Re: No offense, Matts, but
Posted by LAL on Mon, 06 Mar 2006 01:44:45 GMT
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All right guys you caught me, I confess, I am the major stockholder in the company that produces Sonic Barrier. A couple of years ago I hatched a plan to increase the value of my stock holdings. I decided to purchase a Stage 4 Pi from Wayne, wait a couple of years then post on this forum how the cabinet performance could be improved by using Sonic Barrier. I thought if I could just seduce about 10 readers here each to buy around $120.00 worth of the product, that $1,200.00 of retail sales would net the company around $300.00 profit and consequently make my holdings that much more valuable, which in turn I could then sell and retire. I should have known someone would find me out. Rats, foiled again. I guess what did me in was trying to state the problem, show the process of working out a possible solution and the results of its implimentation. Oh well, maybe I should try it over on the Madisound forum, who knows I just might pick up a few bucks there before anybody catches on. LAL

Subject: Re: No offense, Matts, but
Posted by Matts on Mon, 06 Mar 2006 03:02:14 GMT
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If it's that well thought out, I am definitely going to get some and try it out!No worries- I will keep this in mind and check it out sometime, although I don't think I have such a pressing need for it. I wasn't trying to make a big deal out of it, but just wondered & asked. Hope you post your next discovery, too!

Subject: Re: No offense, Matts, but
Posted by Matts on Mon, 06 Mar 2006 03:06:35 GMT
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I meant towards MY post! Anyway, sounds like you have the weight of the world on your shoulders- hope all is well other than working for the American Corporation in this day and age where senses of humor are so rare. The waistlines reflect all the stress....mine included!!

Subject: Re: No offense, Matts, but
Posted by LAL on Mon, 06 Mar 2006 03:22:33 GMT
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Well, now that you mention it, I do have a new discovery. Its a low density open cell polyurethane foam plug you put in your ears to eliminate HOM(Higher Order Modes) when listening to compression drivers with horns. Wait until Earl Geddes hears about this invention. I"m going to make a bundle off these.LAL

Subject: Re: Stage 4Pi improvement
Posted by GarMan on Mon, 06 Mar 2006 14:54:01 GMT
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Hey LAL. Thanks for the report. I noticed that your cabinets were lined live-side/dead-side with fibreglass, but pretty much all around with Sonic Barrier. No doubt, the resulting improvements were probbably a combination of different material and placement. I'd be interested in knowing how much of it was gained with material vs placement (ie. would you get the same results if five sides were lined with fibreglass). Unfortunately, it sounds like it's impossible for you to remove the Sonic Barrier to test.Also, was there a reason why "Glop" was originally only used on the unlined sides? Fibreglass does a good job of absorbing soundwaves but not much to dampen panels.

I've found that putting some type of Glop-like material on all internal walls before lining with absorbant works very well to reduce boom.Gar.

Subject: ** TRUE SONICS **
Posted by j.luis cruz . on Mon, 06 Mar 2006 15:19:20 GMT
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What a debate the true only the true this forum need more debate like this .regarding if the Pi speakers in this case the stage 4 sound better sotck that after modified I dont know because I need to make them but I encourage all the people in this forum to arm with you keyboard and figth to make this great great dedication named audio a lot more and better . BTW in the latest issue of AudioXpress magazine come a very interesanting article by Mr Mark Sanfilipo about lowering a loudspeaker mechanical noise floor .

Subject: Earplugs
Posted by Wayne Parham on Mon, 06 Mar 2006 15:28:30 GMT
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Earl's open cell foam in the horn might be good, but I'm thinking a closed cell foam would be better for direct insertion in the ear. (Particularly if the family has a newborn or other sources for a high noise floor)

Subject: Re: No offense, Matts, but
Posted by Manualblock on Mon, 06 Mar 2006 15:43:33 GMT
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Naah; it's not you; your post would be too obvious and anyway it has the ring of truth. It's something other than a specific charge or post. Its a thing we are beginning to see where there are literally dozens of websites popping up presenting themselves as audio hobby forums then in reality providing an outlet for supposedly citizen posters to flog their wares. Not here becuase the Pi site is older and more established. But you see the same posters leapfrogging sites with all these bits of info geared to direct attention to something inparticular. Then sites that used to present themselves as hobbiest sites offer tons of stuff for sale.

Subject: Re: Stage 4Pi improvement

Posted by ToFo on Mon, 06 Mar 2006 19:17:53 GMT
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Hey Gar,I share your interest in the placement part of this. I can't attest to this specific instance, but I went through a round of experiments with my Theater Fours. I tried stock first, then both sides + back & bottom. The best thing I tried was when Wayne was talking about fiberglass working better at the frequencies of interest when spaced away from surfaces. I put a blanket of glass on a shelf brace about 10" from the top, now the midbass is so clear and stiff. The worst thing I tried was too much or too thick a material(clear sound, but spongy on kick drums & toms). I ended up with stock plus the brace blanket and a little piece on the unlined side about 12 x 8 right next to the driver. The Little piece seems to help the mids, but It is not something so blatant that I would swear on it. The bisecting blanket however is serious goodness.Thomas

Subject: Understandable Results
Posted by FredT on Mon, 06 Mar 2006 19:35:17 GMT
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My 3 Pi's sounded very live to me with 3/4" mdf as the enclosure material and a single window frame brace between the woofer and tweeter. I subsequently lined the interior with 3/8" plywood panels attached with a generous layer of liquid nails, and this tamed quite a bit of the boominess. I suspect the culprit was the vibration in the enclosure walls, which I could easily feel by holding my hand on a panel while playing a recording with strong bass content. Adding the plywood panels did compromise the interior volume a bit, but the overall result was worth it. The 1-1/4" sonic barrier that LAL used is a multi constrained layer damping material which I would expect to make a difference if the speaker's liveliness is caused by the panels ringing.

Subject: Re: No offense, Matts, but
Posted by dB on Tue, 07 Mar 2006 11:43:26 GMT
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Hi,I don't mind reviews, if the material is good.Only when it's a SCAM (and, nowadays, clones included).Like this stock of fake SHURE Mic's (no I am not selling them!?). Thousands of SM58, SM57, Beta 58 & Beta 57, on Ebay and from China and Vietnam.(http://www.laboitenoire.net/sono/index.php) in FrenchBy the way, is anybody using Diaural series x-over's (capacitor less) Pat.#6115475. Do they work (well)?Regards

Subject: Re: Stage 4Pi improvement
Posted by LAL on Tue, 07 Mar 2006 20:32:51 GMT

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Gar,The reason I didn't originally line all surfaces with "Glop" is that I was trying to build it according to the instructions. Lining one side was a concession to my suspicion that the bare wall was going to be too reflective and ring too much. Looking back on it I could have lined all sides with "Glop" to control the cabinet ringing issue and experimented with varying decrees of fiberglass coverage. I have used Black Hole #5 on smaller cabinets with apparent success so when I saw a similar product for half the price which I thought might be effective to control both cabinet ringing and the back wave from the woofer I went for it. As I indicated in my prior post, I am very satisfied with how it turned out, but there certainly might been other approaches that would have worked better and cheaper. LAL

Subject: Re: No offense, Matts, but
Posted by Manualblock on Wed, 08 Mar 2006 12:52:10 GMT
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There are commercial speakers using that configuration and the explanation of it's use is on the net for years, even before the so-called patent. Even before the net.

Subject: Re: Stage 4Pi improvement
Posted by GarMan on Wed, 08 Mar 2006 13:30:59 GMT
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I agree that damp and absorb are both important, especially with large cabinets. Also agree that there's more than one approach, whether you layer different material, suspend material, or use an all-in-one like Sonic Barrier. There's still a premium on price for Sonic Barrier compared to basic fibreglass or eggcrate, but I'm sure plenty of people see value in its convenience.

Subject: Re: First order x-over
Posted by dB on Wed, 08 Mar 2006 13:37:51 GMT
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Hi,(note: I think I don't need to make a new post on this subject because is not that complex) That's what I mean. Why a patent (Diaur.) for a series x-over that only works for first order (does it?) and you can't (deal with) work on attenuation properly. I just want to know if anybody tryed -- or listen to -- a coil in parallel with a tweeter instead of a cap in series and the main difference in sound, if any. Regards

Subject: Re: First order x-over
Posted by Manualblock on Wed, 08 Mar 2006 19:18:20 GMT
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I'd like to help but years ago I tried on a pair of University Speakers. That was about when I read the first article concerning the Diaural in Audiophile Times. I liked it however I also tossed the cabinet and mounted the speakers on a baffleboard at the same time. So take it with a grain of salt. But that system everyone who heard it liked it. It had an eerie way of disappearing in the room to the point that people would glance around looking for them initially.I would suggest you try it.