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Subject: Review: 4Pi Pros, or... Walnut Pi  
Posted by [Bill Epstein](#) on Fri, 12 Sep 2008 16:12:49 GMT  
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I spent 3 serious hours with the new speakers early this AM and I'm satisfied these are the best sounding I've ever built. They needed a \$4 tweak to get there, though. oops, still have to touch-up that port. My first impression yesterday was disappointment with a 'plasticky' coloration from the treble that spoiled the sound and I was filled with regret over abandoning the wood horns. I decided to try damping the H-290s even tho' there was limited success doing that to Altec 811s some years ago. And these horns aren't even 'cowbell' aluminum. I completely covered the outsides of the horns with M-D rope caulk, \$4 bucks a package. It made a fantastic difference, completely eliminating the coloration. This is a mandatory tweak for anyone using the H-290 in whatever speaker. That done, I was able to hear the most remarkable soundstage, a true stage that extends from wall-to-wall with instruments and voices placed exactly right in relation to each other and the hall (or mixing board!). One of the weaknesses of the BatSpeakers was accurately portraying the piano keyboard; whether Diana Krall or Emil Gilels, the octaves were a muddle. No more. Now there is no question about the orientation of the Steinway or hands upon the keys. The combination of the new crossover and positioning of the woofer and horn in the baffle results in the kind of image single-driver advocates go on about and beyond. No 4" or 6" single driver can do what the JBL and B&C combo does. The first few bars of Dire Straits Ride Across The River reveals the wonderful and eerie tone of the flute backed by the impact of the percussion. This track from the SACD re-issue is one of my top five benchmarks and shows off all the strengths of the 4Pis: natural tone, impactful, fast transients and the sensation of vast amounts of air moving. Her Latest Trick showcases Mark Knopflers guitar sound in a way never before heard, with little details of the mix coming and going that, until now, were lost. On Jacinthis Autumn Leaves, the upright bass intro to track one is just so real with tone that describes the wooden hollow body and vibration of the strings. Her voice is also "the sweetest sound I've ever heard". 'Deed I Do, Diana Krall, reveals the one remaining flaw of the sound I'm getting in room. Her attacks on vowels that open phrases are too sharp and become fatiguing. I'm certain this is my room even with the conditioning I've done because it was there before. I had mostly eliminated it with the corner placement and extreme toe-in of the BatSpeakers but it's back somewhat with the 4Pis. I feel this is owing to the more accurate reproduction of the 4Pis as well as the need to reduce the toe-in to better attain the other positive attributes of the sound. The H-290s want to be heard more on-axis in my room than the wood horns. So be it. Given enough time and fiberglass, this will be tamed. Getting my room back was high on my list of priorities for building the 4 Pi Pros and for the first time in years I have speakers with "indoor plumbing" and plenty of walking and breathing room. Only the sound dominates the room. Everything I've done in years past has been with exotic veneers and I felt that walnut went out with Acoustic Research. I'd forgotten how interesting the grain and rich the color could be with the right finish. In my mind, I carry around with me memories of great speakers that function as standards of comparison: Infinite Slope Model 3s, Dunlavy Sovereigns, John Wolfe's Hartsfield reproductions, Von Schwiekert 7s and most recently, the XLH 1812s. Wayne's 4Pi pros easily join that company and I expect to enjoy them for many years.

Subject: Re: One more thing  
Posted by [Bill Epstein](#) on Fri, 12 Sep 2008 17:06:25 GMT  
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I recalled reading that Wayne recommended placing a 3/4" riser under the cabinet front. I had been meaning to try something to improve the speaker/suspended floor interface so I put a pair of Vibrapod 2's under them, one in each front corner. A little better height to the soundstage and tighter bass resulted.

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Subject: Re: Review: 4Pi Pros, or... Walnut Pi  
Posted by [Wayne-o](#) on Fri, 12 Sep 2008 17:53:38 GMT  
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Hey !!! They look nice. Wish mine looked like that. If you move to Indiana I liked to come over and see them.

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Subject: Re: Review: 4Pi Pros, or... Walnut Pi  
Posted by [Wayne Parham](#) on Fri, 12 Sep 2008 18:46:42 GMT  
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Excellent review, Bill, thanks for writing it up! Beautiful work on the cabinets. Just lovely!

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Subject: Re: Review: 4Pi Pros, or... Walnut Pi  
Posted by [jimbop](#) on Fri, 12 Sep 2008 18:54:20 GMT  
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Very nice! Thanks for the review. One question: Do you feel like they get enough breathing room so close to the walls? I was under the impression that these cabinets needed to be placed further out into the room to perform their best. I asked about this a few years ago, and went with a pair of Wayne's Theater 4's based on his recommendation that the Theater 4's would work better than his other designs if I needed to keep the speakers close to the back wall. Wayne, can you comment on this? Jim D.

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Subject: Re: Great Looking!

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Posted by [Matts](#) on Fri, 12 Sep 2008 19:08:48 GMT

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Those look excellent, and look really good with the rest of the room. They fit in very nicely with the other woods! It's a really good looking box that's not too large for a bass reflex. I've come to put a small piece of plywood under the front of mine when I'm playing something with a louder electric bass or anything that's bass heavy, and I leave 'em flat on the floor when listening to acoustic bass or naturally recorded small combo. Enjoy!!

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Subject: Re: Review: 4Pi Pros, or... Walnut Pi

Posted by [Wayne Parham](#) on Fri, 12 Sep 2008 20:47:36 GMT

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I think there may have been some miscommunication. All of my speakers (except subs) are designed to be used in quarter-space or eighth-space, meaning against a wall or in a corner, facing into the room. You can pull them away from a wall in some cases, but none are designed to be out in open space.

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Subject: Re: Review: 4Pi Pros, or... Walnut Pi

Posted by [SteveBrown](#) on Fri, 12 Sep 2008 20:54:20 GMT

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Outstanding, Bill! What great work!

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Subject: Re: Review: 4Pi Pros, or... Walnut Pi

Posted by [Norbert](#) on Fri, 12 Sep 2008 21:05:08 GMT

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Great work Bill!! I'm a little lost with your comment below. Can you post a pic or explain a little bit more about?" I decided to try damping the H-290s even tho' there was limited success doing that to Altec 811s some years ago. And these horns aren't even 'cowbell' aluminum. I completely covered the outsides of the horns with M-D rope caulk, \$4 bucks a package. It made a fantastic difference, completely eliminating the coloration. This is a mandatory tweak for anyone using the H-290 in whatever speaker. " Thanks, Norbert

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Subject: Re: Review: 4Pi Pros, or... Walnut Pi  
Posted by [Norris Wilson](#) on Fri, 12 Sep 2008 22:30:52 GMT  
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Hey Bill, Fantastic wood working on the cabinets, they really look beautiful. Thanks for the review, very infomative and helpful regarding my quest. Enjoy! And please keep us posted on any new sonic discoveries with your new 4 Pi's as you play around with their positioning and tweaks. Norris

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Subject: Re: Review: 4Pi Pros, or... Walnut Pi  
Posted by [Bill Epstein](#) on Sat, 13 Sep 2008 04:56:21 GMT  
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Rope caulk, aka mortite, is putty that comes in a roll with 5 -1/8" wide 'ropes' making kind of a flat ribbon. Every hardware store sells it as weatherstripping. Just unroll it and pack the strands against whatever you want to damp. maybe I'll take out a horn one day and take a pic.

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Subject: Re: Review: 4Pi Pros, or... Walnut Pi  
Posted by [Norbert](#) on Sat, 13 Sep 2008 06:03:27 GMT  
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Got it! Thanks.

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Subject: Re: Review: 4Pi Pros, or... Walnut Pi  
Posted by [RC Daniel](#) on Sat, 13 Sep 2008 07:38:40 GMT  
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Really nice work! Great post too - I have been sweating on it a little... it was worth the wait. Seems I now know what my next set of speakers will be. Thanx Bill.

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Subject: Re: I'm moving this follow-up here  
Posted by [Bill Epstein](#) on Sun, 14 Sep 2008 18:54:42 GMT  
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In Reply to: Re: 1 on the ramp, 1 in the hanger posted by Norris Wilson on September 10, 2008 at 16:50:32:I mentioned in the text that the soundstage is much improved (see the comment about piano position) and the bass is very good but I can expand on that a bit. One of my worries was that the smaller cabinet wouldn't yield the bass impact of the larger and it doesn't, quite. The bass is somewhat softer, most noticeable with the 70 watt solid state Classe, less so with the 1.8 watt parafeed 45 tube amp. Parafeed is really something! The quality of the bass, tho', is improved. Bass notes are better delineated; it's easier to follow the bass line whether acoustic upright or electric and the pedal tones of the organ, at least above 40 Hz (I guess) seem somehow louder. I'm not a fan of sub-woofers, I've always found them to muddy the mid-range, but I have a pair of 15" Dayton's, a pair of 250 watt plate amps, and the BatSpeaker boxes so I'm going to see what subs do for the bass. I can easily live without reinforcement, but I'll give it a try in the coming months. The impression of players on a stage is really important to me, number 2 in importance after accurate tone. I recall my Theatre 4 Pis having little depth to the stage; the BatSpeakers had good width and depth and the players or singers were more or less well-positioned. The Pros, however, are in a different constellation. The Union Station CD, Live is a great reference because I also have the DVD and know where the players are. What's amazing to me, and something I've never heard before, is that the hall ambience stretches from wall-to-wall but the music doesn't. Just as you can see in the DVD, Jerry Douglas is positioned well away from stage right but, as seen from the audience, on the left side of the group. That's exactly what you hear on the CD through the 4Pi Pros: there is an ambience, a sense of air extending to the left wall of my room but the sound of his Dobro, instead of being all the to the left wall, is coming from a spot a few feet closer to the center. Moving to the right you hear Alison, then Dan and finally Ron Block, with a similar gap to the right wall. Once again, however, there is a sense of the stage extending all the way to the right wall. That's incredibly unique! Both amplifiers, BTW, convey the same impression. So how do the pros compare to the BatSpeakers? Well, with the horn damped and the room sorted out, if the boxes don't work out as subs, they'll wind up in that graveyard of speaker cabinets, Spkrmans garage.

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Subject: Re: Review: 4Pi Pros, or... Walnut Pi  
Posted by [bmartinelli](#) on Sun, 14 Sep 2008 23:28:37 GMT  
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Great job Bill. A wonderful example in fine craftsmanship. I especially like the the way the grain pattern is carried from the front to over the top. Even better, Your pleased with the sound. Bill

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Subject: Thanks Bill for the update  
Posted by [Norris Wilson](#) on Sun, 14 Sep 2008 23:45:34 GMT  
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I appreciate that you have given me some detailed information regarding the differences between the Bat speakers and 4 Pi Pro's. As I stated before this is helpful for me to formulate what I need to

do about my future speakers. I have listened to Wayne's 4 Pi Pro's and Steve Brown's 4 - Pi's with GPA 399-16 and Edgar 500Hz salad bowl horns. Thanks Wayne and Steve. For some reason I keep detecting a slightly bright spot in the upper mid to lower treble region, and I can't put my finger on where it is originating from. Either it is the JBL 2226 breaking up in that region, horn reflections, room reflections, or on axis listening. And finally, it could just be my hearing that is the source. Your reference to the bright, or clean sound character that you feel is possibly coming from a reflection bouncing off of your wood paneling, gives me another possibility to obsess over. My ideal speaker would be able to have it all. Like 30Hz to 20kHz -3db, capable of playing at 110 db sound levels cleanly on a SET, maintain a realistic soundstage with depth that is well balanced, and image like a mini-monitor while maintaining the overall coherence intended in the recording. I am not asking for much, am I? So far, I have not found that fictional speaker. Wayne's 4 Pi Pro two-way do get me most of the way there though. I will be experimenting with the 4 Pi Pro using The Beyma CP-385Nd 1" drivers and TD-250 horns for starters. The JBL 90 by 50 degree wave guide that was used in the Audio Karma group collaboration looks like a good horn to try as well. Another monitor style speaker consisting of the above Beyma components and a 12" Ciare woofer down to 80Hz is in the works. I want to find out if a smaller diameter woofer, 10" - 12" will eliminate this upper range brightness. Therefore starting with the Ciare due to its lower frequency ability and efficiency over most 10" drivers. After listening to Wayne's and Steve's 4 Pi speaker systems. I feel like the bottom frequencies will have to be filled in with subwoofers, three to four of them, while using the 4 Pi's as monitors, likely from 50Hz - 60Hz and up. That is if my Bass fix is to be fulfilled. Please keep us updated on the changes in your system and their sonic benefits, pros and cons? And a final few questions, is your wooden tone arm DIY, or store bought? And what is the source of its design? It looks great! Thanks again! Norris

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Subject: Re: Thanks, teach'

Posted by [Bill Epstein](#) on Mon, 15 Sep 2008 01:28:17 GMT

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I learned it from you.

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Subject: Re: Thanks Bill for the update

Posted by [Wayne Parham](#) on Mon, 15 Sep 2008 05:52:10 GMT

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uses a tractrix round horn and all mine use axisymmetrical flares. That's a pretty big deal, really, because the null angles are set outside the pattern which is not possible with a round horn. Beyond that, I think you heard Steve's speakers when they had a torn voice coil cap, and that can cause all sorts of mayhem, buzzes and other nasties, particularly in the midrange and upper

I'll have you over sometime soon when I get everything setup in the new house. That way you

them.

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Subject: Re: Thanks Bill for the update

Posted by [Norris Wilson](#) on Mon, 15 Sep 2008 14:36:48 GMT

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Thanks Wayne for reminding me of possible sources of my listening experiences, slight objections. You are correct about Steve's Four Pi arrangement, it is Four Pi like in design. And certainly a different animal from your present Pro variant. I hope to make it back over to Steve's house in the future to hear his speakers after all of the recent changes that he has made. I know Steve has been too busy for his own life with his job and responsibilities. I am hoping that he will get a mind break soon, he deserves it. I am game for coming over for a listen to your Four Pi Pro's. Just let me know when you are up and running again? Thanks Norris

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