Subject: Taking the shout out of piezo tweeters
Posted by Oscarl on Tue, 21 Jan 2003 11:58:05 GMT
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There was a recent post on this subject, with reference to the two pi.I recently came across this website, while I'm not technically minded, it may prove useful. Share your opinion.http://misty.com/people/don/pzfix.html

Subject: Re: What is this "shout" people refer to?
Posted by BillEpstein on Tue, 21 Jan 2003 12:07:47 GMT
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I don't hear "shout" with the piezo or tractrix or CD or any horns.I hear realistic dynamics and extremely low levels of distortion. Is it yelling into a cupped hand? Or is it one of these "the Absolute Sound said this stuff was thus and so" and ten years later it has been repeated often enough that it becomes what the 'social scientists' (there's an oxymoron) call the "conventional wisdom". Without any basis in fact. Black cat's are bad luck. You'll poke your eye out. Digital sucks! That's more analog-sounding.Sorry, Oscar, not picking on you. This is just one of my favorite peeves.

Subject: Re: What is this "shout" people refer to?
Posted by wasteh202 on Tue, 21 Jan 2003 13:49:52 GMT
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I think that because the Piezo-electric is so cheap that many assume that it is "junk", I do find it somewhat "harsh" (why I don't know) but I realize that at the price point of the Piezo that it is very cost effective and the best thing about it in the Studio series is the fact that no xo is in the mix. This a actually becomes a big plus.

Subject: In my Studio 2 Pi's, it (or some other flaw) is real.
Posted by Patrick Kopson on Tue, 21 Jan 2003 16:53:26 GMT
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Something is wrong with the sound of my recently completed Studio 2 Pi's. Call it "shouty" or "harsh" or "shrill", but it IS there. It is irritating enough to my wife that she is willing to let me build

different speakers already. That will be fun, but I am not giving up that easily--I am going to try isolate the problem and fix it first.I am investigating three posible causes:1. The 1038 is just more efficient than the Alpha 10-A. This can be corrected with just a cap in series with the piezo--as Wayne already explained below.2. The plastic housing of the 1038 is resonating. This might be cured by applying a mixture of silicone calking and sand to the extrior of the back side of the 1030 for damping.3. The Alpha 10-A and the 1038 may overlap a bit too much. The Alpha 10-A has fairly flat response up to 5KHz while the 1038 is prety flat from 3.5KHz up. I make this comment based only on the published response curves of the drivers and my intepretation of them. Any feed back on this posibility will be most appreciated.Items one and two are simple to experiment on. Item three, however would be difficult to "fix" or even verify. I'll borrow a real time analyzer to check it out.

Subject: wonder how much it relates
Posted by Sam P. on Tue, 21 Jan 2003 22:27:04 GMT
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to sound inside the enclosure bouncing back thru the cone, and muddying things up. I've noticed that a lot of the time a project involves a narrow baffle, and no padding on some of the surfaces next to the cone. Also, if the box tuning, however closely to plan you build, comes out wrong, an early lowend rolloff may be percieved as a tonal balance with the MIDS "in your face". I call that "tv" sound more than shouting, hey wait, my tv shouts at ME all the time, where's Elvis when you need him:). Look in BOXPLOT at the effect of variations in Vb or Fs, sometimes a few Hz. off will really move you away from "flat" to dropping off or peaking.. Hmmn, might mean, turn those wires over to the tweeter and give it a listen:) Even with no crossover...the tweeter motor is behind the woofer...at 5kHz. 1/2 wave is pretty small:).ARE YOU GUYS USING THE INDUCTOR that Wayne mentioned for trimming the midrange rise? Sam

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Subject: Re: I agree with you, Till E.!
Posted by Matts on Tue, 21 Jan 2003 23:34:49 GMT
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I've heard this several times. Even had people listen to my Two Pis, be knocked out, then when they find out it's got a piezo tweeter they act like it's got some contagious disease. The reality of the speakers is they sound great, and that's all that matters. I just got some old Amperex Bugle Boys (made in Holland) today for my CDP, and I'm getting some fine treble from the system with them- cymbals are outrageous! Some people hear things so often it affects their perception more than reality. Now on the subject of black cats, Buddy Guy and Junior Wells just told me that they can help with the mojo and hoochee coochee factor...that can't be all bad....

Subject: Re: What is this "shout" people refer to?
Posted by Tom Brennan on Wed, 22 Jan 2003 00:41:40 GMT
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IME some piezos sound good and some sound bad. The one with the somewhat larger driver and horn that goes down to 2khz sounds very good. The one Wayne uses is good. The old "superhorn" could sound like Hell but there are tricks for taming it. My buddy used them laying on the floor BEHIND his Altec 605s to add a little bit of "shine" on the top, that sounded OK.

Subject: Fifty bucks buys a lot of speaker
Posted by Wayne Parham on Wed, 22 Jan 2003 04:54:33 GMT
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The Motorola KSN-1038 is the best sounding piezoelectric tweeter I've found. For that matter, it's the best sounding ten dollar tweeter I've found. Everyone is entitled to their own opinion, that's fine. But I've used lots of them and found the KSN-1038, 1041 and 1056 to be the most pleasant, both by specifications and by my ear.The KSN-1005 with its long snout is the one I never really liked. It is more efficient, but sounds noticably different. There are some others that I don't like, such as the versions that aren't horn loaded and most of the generic knock-offs. But I like the Motorola KSN-1038 and I've stuck with them for the low cost two-ways for over twenty-five years. There's just a sound that I like and a simplicity of the design that appeals to me.There is a slight rise in both the current Alpha 8 and the Alpha 10 in the upper vocal overtone region, around the

build a more expensive speaker, you can always make different choices.As for me, I think the one

so much satisfaction for fifty bucks.

Subject: Just thought, i'd throw the cat amongst the pigeons.....
Posted by ozzi on Wed, 22 Jan 2003 06:37:04 GMT
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I haven't heard it for myself yet, but as soon as I have my towers completed, I will give my opinion. But for now,I'll take advice from the experts

Subject: parts vary in their specs
Posted by Sam P. on Wed, 22 Jan 2003 12:51:16 GMT
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more than some people realize between production lots. The last 4 drivers I ordered, I specifically asked that they be taken from the same carton. I got 3 the same, and one different lot number...the bastards:) DCR of all 4 was 6.3 ohms, Fs was a uniform 41Hz., but the free air Z peak of the oddball was 48.3 ohms, 10% higher than the others(44.0, 44.0, 44.6 ohms). The pair I have from a couple of years ago measured 37.2 ohms/40Hz. and 37.8 ohms/42Hz. PE measured Fs of 43.13 last year. Pioneer still claims 36Hz....My POINT, that even within the same lot, the manufacturers only try to hit a certain tolerance. One year something comes marked taiwan, the next time china, etc. Then "rooms" differ alot, and why the heck would anyone drive a ford? So an EXPECTATION that a speaker can be built and be "turn key perfect" in every room for every person is ludicrous. I am sure after suitable break in, listening sessions and trying different room positions and/or treatments improvements will be heard. If not, get out the soldering iron, add a choke to the woofer, maybe pad the tweet slightly, or at $10 a pop, why not try a pair from a different BATCH of the same item. Or a different part number within the same "family"? Sam

Subject: Actually, a lot of VERY GOOD speaker
Posted by Patrick Kopson on Wed, 22 Jan 2003 13:07:29 GMT
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I had not meant to imply that my 2 Pi's are bad. In fact, they sound far better than I had expected for 50 bucks each. They provide the most articulate (and possibly lowest) bass of all (about a dozen) speakers (up to $3000/pr) I've had in my system. The "excessive forwardness" is only a problem because everything else is so good.When I got home from the office yesterday, my wife had The Propellerheads cranked way up on the 2 Pi's; so her initial reaction seems to have tempered a little.After several more hours of listening, I am now conviced that the "problem" I hear is indeed in the upper vocal range. Maybe a different or larger inductor than the .47mH Goertz copper foil I used is all I need. I was also thinking of trying the 1038 mated to a Delta 12-LF (in an appropriately larger box) for another experiment.

Subject: Re: How long have you listened to these?
Posted by Matts on Wed, 22 Jan 2003 14:37:39 GMT

Are these brand new? Cause if they are it's possible that you need to let the Eminence break in some. If I remember, I thought the tweeter was right there off the bat, but the woofer opened up over a few weeks. Makes sense, cause it's got a lot more mass to move and groove in. I've found this to be true of most equipment, but especially mechanicals- just takes awhile to break in. If yours are brand new, I'd wait at least a month or two before you start tinkering so you know what you're trying to change. otherwise you won't know whether it's your mods or the break-in process that's causing the differences.