Subject: Hey, Wayne! You Rock!
Posted by Bill Epstein on Wed, 24 Jan 2007 21:16:22 GMT
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This file has been on my desktop ever since I came to grips with the reality of losing the 1812s.Wayne wrote' "That G3Si ribbon looks very good, but the midhorn does not have response high enough to reach it. The 2123 as a direct radiator would do nicely paired with it though. That would make a very sweet sounding speaker, I'll bet.Here's what I would do: I'd run the 2226 and the 2123 as direct radiators. Put the 2226 in 2.5ft3 cabinet tuned to 40Hz and put the 2123 in a sealed box larger than 0.2ft3. Mount them both on the same baffle, one on top of the other. Then place the ribbon above that.With the midrange cabinet inside the main cabinet, you have a pretty nice external box size. It will end up being 3.5ft3 to 5.0ft3 outside, something like that. I think this is a real good speaker size range, because it is large enough to look substantial without being overwhelmingly large. It also makes it easy to put the mid and tweeter high enough to be over the furnature, great for seated listening.The lower crossover point isn't critical, because wavelengths are long. The 2123 is going to have natural rolloff at 200Hz, so use that to set your woofer crossover point. I'd wouldn't even use a capacitor on the 2123, and for the woofer, I'd just use a 6.0mH coil in series and that's it. I've done a lot of speakers just like this and it sounds fantastic.You could also go second-order on the woofer to match the rolloff of the sealed box mid, using a 12.0mH coil and a 47uF capacitor on the woofer and adding a Zobel. But I'd go with the simple first-order in this situation because it sounds great and the parts count is low.The mid/tweeter crossover is going to be more tricky, both because wavelengths are shorter and also because most ribbon tweeters are fragile if you hit them with low frequencies. They're excellent, but you mustn't send them low frequencies. That is something they have in common with compression drivers - Not a lot of wiggle room. So my first thought is a second or third-order for the mid/tweeter crossover. I can't be more specific because I've used compresion horns and slot tweeters more than ribbons, and I've never used the Aurum Cantus G3Si. But I think this is probably where I'd start and see how it sounds."....That's exactly what I did except for using the Fountek CD2 instead of the more expensive Aurum Cantus. John Kalinowski recommended it.The BatSpeakers could be the basis for a 13 Pi!Borrowed a pair of Delta 10's from the One Speakerman. With just a coil; way too bright. I put back the attenuation from the 2123: 15ohm R parallel and 10hm R series. Tamed the Delta right in line. Tone, imaging and dynamics are great. The ribbon passed the Alison Krause test with high marks and the 2.5mV cartridge really appreciates the extra 3dB over the 1812's. (Did I tell you I don't even play CDs while I cook anymore.) With the Delta available at $150 and all those 2226s floatin' around, the BatSpeakers become affordable and available. I'm sure the Vifa would do but the Fountek ribbon isn't that expensive compared to the JBL woofer. Total driver cost $700 for stereo.This system obviously sounds quite a bit different from the 1812. There's less low-level detail and the bass is diminished from thephysical presence of the 2241. But it sounds familiar to someone who's "owned" the 1812s for over 8 months. I'm listening to Emmy Lou Harris' Blue Kentucky Girl now and Dire Strait's Brothers In Arms before that and loving it!

Subject: Re: Hey, Wayne! You Rock!
Posted by dB on Thu, 25 Jan 2007 02:53:17 GMT

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Pay attention bill. The JBL 2123H 8 ohm is only 4.2 ohm and the JBL 2123J 16 ohm is only 8.7 ohm, remember?They are really cool anyway. Just look at their frequency response curve... is flat! Do they have extremely rare magnets ??? ...or what is it. Maybe just to many years of "secret" practice, way distant from public view.

Subject: Re: Huh?
Posted by Bill Epstein on Thu, 25 Jan 2007 03:02:23 GMT
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Subject: Re: Hey, Wayne! You Rock!
Posted by Wayne Parham on Thu, 25 Jan 2007 05:27:05 GMT
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I really love what you've done there, Bill. Kind of reminds me of the early Infinity speakers, back when they had those great sounding EMIT tweeters. But you've done it with much better parts, particularly on the bass and midrange. That's a top-notch speaker, and I'll bet it sounds great!

Subject: Re: Huh?
Posted by Wayne Parham on Thu, 25 Jan 2007 14:30:45 GMT
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I think he is saying he really likes the drivers a lot. He probably mentions the different impedances as an explanation for the different voltage sensitivities.

Subject: Re: Huh?
Posted by dB on Thu, 25 Jan 2007 17:23:10 GMT
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Posted by bill epstein [65.189.211.118] on January 17, 2007 at 17:59:59:In Reply to: Re:Very

bad news about the 2123's posted by dB on January 17, 2007 at 15:41:35:Thanks for the suggestion. I wish it were that. The 2226 and 2123 are both 16 ohm.Pressing lightly on the cone in just the right place while playing makes the distortion worse.Game over.However, just to be certain, I'm taking them down to Speakerman's on Saturday to put them on Woofer Tester.-----Thanks, Wayne that's absolutely right. bill, look, I am not saying that's why they failed.Also sometimes what is misleading with this speakers (cause they are so good) is that their rated nominal impedance is away to far from their T/S Re (for the JBL 2226G/H/J) of 2.5 ohms, 5.0 ohms, 10.0 ohms.And for the 8/16 ohms JBL 2123H/J Re=4.2/Re=8.7 ohms. Some DIY's might have a problem some of the times, with to much power on them, or when they parallel them, thinking in terms of nominal impedance.They also publish the Minimum Impedance. That doesn't mean you can't go lower than that, does it? The same with tweeters. I posted here before about the same problem and xover frequency, I think. ...So this guy just changed for a low impedance tweeter and he could not understand why the speaker was away above 5K, when his Xover freq. was much lower maybe close to 2K. This new tweeter was a very sensitive Vifa XT25TG30-04 (XT-Series now) w/Re=2.9 ohms. I think from what I remember that he had his speaker and Xover (8 ohms) and he was asking for a way to change that without touching the crossover in the speaker box. You can't have both worlds, can you?Regards
http://www.pispeakers.com/JBL_2226.pdf

Subject: Re: Huh?
Posted by Wayne Parham on Fri, 26 Jan 2007 03:14:58 GMT
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I don't think Bill overpowered his JBL 2123 drivers. He's a tube amp guy. More than likely they were damaged when he received them. At any rate, Bill said he replaced them with Eminence Delta 10 mids, and he is happy with them. Admittedly, they aren't 2123's, but a pair of new Delta 10's definitely sounds better than a pair of blown 2123's.

Subject: Re: Huh?
Posted by dB on Fri, 26 Jan 2007 08:24:37 GMT
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No, of course not Wayne, I am sorry bill, it was just talk.You make an excellent job with speakers, I already had the opportunity to say that.

Subject: Re: 12 Ohms and 1.8 Watts
Posted by Bill Epstein on Sat, 27 Jan 2007 01:14:32 GMT
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Thanks for your reply. Wasn't offended. Just didn't understand. But there was that "pay attention"...I'm sure about the 1.8 Watts. Is the resistance calculation right? 16 Ohm JBL and 8 Ohm Delta.The Delta is grainy and shrill; it won't do. I'll have to sell the truck and get the 2123's reconed.

Subject: Re: This just in....
Posted by Bill Epstein on Sat, 27 Jan 2007 16:25:05 GMT
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...The Speakerman says the Deltas are brand new and need to break in. You know I'm big on the idea of initial impression but I'll giv'm 50 hours and see.

Subject: Delta 10's need break-in!
Posted by spkrman57 on Sat, 27 Jan 2007 16:48:33 GMT
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Bill, I'm sure they will sound better after break-in(as we discussed on the phone. db: You lost me on what you were trying to convey in your previous posts. As to the different impedances of the drivers, Wayne and I have schooled Bill into what will work. I have fairly extensive experience with the JBL 2226 drivers as does Wayne. Also, we covered the many possible problems that may come up. Bill: You might consider a smallish series resistor on the Delta 10 to smooth it out also. Maybe a 4 ohm or 6 ohm to see what it does!Regards, Ron

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Subject: Re: 12 Ohms and 1.8 Watts
Posted by dB on Sat, 27 Jan 2007 17:11:28 GMT
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bill thanks,Speakers are different (as Wayne tell us all the time) from resistors. They change with frequency and resonance.T/S Re for the JBL 2226J = 10.0 ohmsT/S Re for Eminence Delta10 = 5.42 ohms“With just a coil; way too bright.” “I put back the attenuation from the 2123: 15ohm R parallel and 10hm R series. Tamed the Delta right in line.” “ and for the woofer, I'd just use a 6.0mH coil in series and that's it.”– billIs this your setup bill? Are you using only this 3 components for the two woofers/mid part? I'am just curious.DB
In 1986, I purchased locally a pair of AR94 speakers.

Subject: Re: Delta 10's need break-in!
Posted by dB on Sat, 27 Jan 2007 18:15:05 GMT
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Yes spkrman57,I would trust Wayne. If I had a speaker factory I would give r&d, sales/marketing and front office to Wayne. I would be happy in the back mailroom desk/counter. Only that I wouldn't have the time to be seated.dB

Subject: Re: Delta 10's need break-in!
Posted by Stollie on Tue, 13 Feb 2007 21:10:47 GMT
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Broken in yet? Any improvement? To be honest, this mid driver is the only thing keeping me from going with the 7pi. And the JBL mid driver puts the project out of my range.

Subject: Re: Delta 10's need break-in!
Posted by Wayne Parham on Tue, 13 Feb 2007 23:04:56 GMT
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how you like it. The price is right.You may know that I tend to favor JBL Profesional Series woofers. The addition of a shorting ring and the build quality of the JBL 22xx woofers is much better than comparable Eminence woofers, in my opinion. But not so much with the mids. Especially since the driver is horn loaded, which reduces excursion and low-passes the overtones, tending to attenuate harmonics.My suggestion: Go with a JBL 2226 in the Profesional

and you're set.