
Subject: High Efficiency

Posted by [pretzel_logic](#) on Sat, 27 Sep 2008 15:04:30 GMT

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First of all I have a room 14 x 20 x 8 and am using a Canary Audio 300b push pull amp that puts out 24 watts a channel. Currently I have a pair of Klipsch KLF 10 speakers, 2 8" woofers and horn obviously. These speakers sound ok in general, certainly not in the high end league but the biggest problem I have at this point is not being able to turn the volume dial past 3 on my preamp. That's basically as loud as I would listen and though I don't have a decibal meter it's pretty darn loud for normal rock. I know I'm losing the efficiency of my amp, not getting the most out of it. I tried my little homemade passive preamp thinking the gain of the preamp was just too much but that was even worse, and it didn't sound nearly as good as with the Canary pre in place. So my question is in regards to sensitivity, Should I go with a less efficient speaker in general, I believe the Klipch sensitivity is in the 98 db range. I want the bass extension and slam and these speakers are good at that, but I haven't had anything else in my system in several years and I've had the 300b amps about 6 months. I stayed away from SET thinking they wouldn't have enough power, my old Dynaco MK III's had 35 to 60 watts per channel and I could crank the volume control with those. Obviously the 300b's are a different beast all together but I assumed 24w a channel would be a great fit. Brian

Subject: Re: High Efficiency

Posted by [Matts](#) on Sun, 28 Sep 2008 00:17:27 GMT

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with 98dB efficient speakers, you could go SET, especially with 300B tubes, and be fine in your room for all but the most demanding music. You can't really just go by the # of watts in an amp to match a system, and matching the preamps can be tricky. There's probably a padding resistor in the preamp already to adjust the input, and you could increase the size of that easily and then have more use of your volume control. Big problem now is many sources (cdp's especially) have very high outputs relative to older eqpmt, so many preamps 'overload'. Or you could put an L-pad at the input of the power amp. imho, Pi's way outclass most Klipsch's if you're looking for new speaks...

Subject: Re: High Efficiency

Posted by [Bill Epstein](#) on Sun, 28 Sep 2008 01:35:36 GMT

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The real issue is the output of your pre-amp vs, the sensitivity of your amp. The amp must be very sensitive, (do you have the figures?) and the passive must have a strange attenuation taper to be worse than the pre-amp. To find the answer, post the output in volts of your source (CD player?),

the output of your pre-amp in decibels and the input sensitivity of your amp.

Subject: I will have to find the values for the amp and pre...
Posted by [pretzel_logic](#) on Sun, 28 Sep 2008 12:35:27 GMT
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Both the amp and pre should be matched, they are both Canary Audio and seem to be very high quality and the sound is very good considering the speakers. I mostly listen to LP and don't have a CD player at this time. My phono pre is a Hagerman Cornet and I'm running a Dynavector DV 20x HO cart. I have a Cornet 2 kit here that I haven't had a chance to build yet but that will have a step-up for low output carts. I could always sell the Amp and go SET but that really isn't something I'd like to do at this point. The low power of SET would certainly limit my choices as far as speakers go and though I'm not one to crank the volume all the time I do like having that headroom, now I just seem to have way too much of it. I've been to the Pi site in the past and obviously price is an advantage to these speakers/kits. I would go with the Pi 4 or 3 I'm thinking. Again I mostly listen to 60's, 70's and 80's rock, Stones, Who, Doobies, Beatles... I want the slam and kick but also just great sound overall. I also listen to jazz and some classical. Brian

Subject: Re: I will have to find the values for the amp and pre...
Posted by [Matts](#) on Sun, 28 Sep 2008 16:59:37 GMT
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I looked on the Canary Audio page, and the 300B push/pull amps have an input sensitivity of only 0.72 volts to reach full volume. Looks like the pre-amps have 9dB gain. So...there's the problem. Post your hometown and see if someone has some nice Bottlehead or other diy gear with some good Pi 4's you can listen to... You might make a transition many of us have already made!

Subject: Re: I will have to find the values for the amp and pre...
Posted by [pretzel_logic](#) on Sun, 28 Sep 2008 19:05:42 GMT
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Actually the input sensitivity on my amp, CA 306, is .33v for full output and 100,000 Ohms input impedance. The gain on my pre is indeed 9dB with an output impedance 1'600 Ohms. I am going to check with Canary and see if there is anything I can do to drop the gain. I don't know anyone around here that I would be able to listen to there setup, I live way out in the sticks outside Chicago. Brian

Subject: Re:Out in the sticks?

Posted by [Bill Epstein](#) on Mon, 29 Sep 2008 02:08:30 GMT

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Rockford, Freeport or even Carroll county?

Subject: Re: I will have to find the values for the amp and pre...

Posted by [Matts](#) on Mon, 29 Sep 2008 06:04:51 GMT

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good luck with it. I can see why there's a problem- 0.33v for full output is incredibly sensitive. The avg cdp now has approximately 2.5v output, so you have to wonder what they were thinking! Also, watts are in a log scale, so there's not all that much difference between an SET 300B putting out 8 watts and the 24 of yours. It would take 80 watts to double the 8. Lots of people think it's linear and the 24 is 3x as many. Some also think headroom matters...many don't.

Subject: I'm further South

Posted by [pretzel_logic](#) on Wed, 01 Oct 2008 01:06:15 GMT

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South of DeKalb in Sandwich. Not really the sticks anymore but still far from the city except when I just have time to get there. I know there are a few upscale audio centers in the near west burbs and when I get the chance I'll do some speaker auditioning. Truth is I just don't want to spend thousands of dollars on something that might not work for me.Brian

Subject: Re: One solution

Posted by [Bill Epstein](#) on Wed, 01 Oct 2008 02:59:57 GMT

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get in touch with Arne Roatcap of Goldpoint, give hime the sensitivity figures of your amp and speakers and he will build you a custom attenuator. Use it as a passive or substitute for whatever is in your pre-amp. There are also a ton of posts on the Bottlehead forum on this very subject because of the high output of the original Foreplay pre-amp. Paul Joppa has written extensively about using resistors 'tween pre-amp and amp to attenuate the source output. Check it out.

Subject: Re: I'm further South

Posted by [Matts](#) on Wed, 01 Oct 2008 07:57:23 GMT

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ummm, spending thousands of dollars? dealers? you've stumbled into a largely diy community here...we drive friends crazy who have spent tens of thousands of dollars at the high-end dealers and can't figure out why their system doesn't sound anywhere near as good as ours. If you post on here or on Bottlehead forum, or some other diy boards, it's likely you can find someone who will let you listen to their system, or even better, you can find a group get-together and hear a lot of gear at once.

Subject: Re: I'm further South

Posted by [pretzel_logic](#) on Thu, 02 Oct 2008 01:13:57 GMT

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I know this is DIY and I stumbled onto this site originally on Audio Asylum. I don't mind DIY, I've built a couple kits but never speakers. When it comes to this stuff I need good directions but I can build cabinets, the electronics, well I can solder and follow a schematic to a small degree. But as I said I don't want to spend thousands, I already have on my TT and amp, pre... Obviously the source and the final output is what matters most and I know I can do better on the speakers. I still need to somehow lower my gain on the pre if possible because I hate to try and sell my amp and then go SET. I'll just have to try and keep my options open...Brian

Subject: Re: One solution

Posted by [pretzel_logic](#) on Fri, 03 Oct 2008 01:25:33 GMT

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Thanks Bill, I'll do some sleuthing because I know I'm not getting the most from this amp. It sounds great as is but I know it can do a lot better. Seeing as the Klipsch's are a mid fi speaker, at least mine, and I haven't heard better in my system I'm open to all ideas. I definitely want to upgrade the output/speakers as I can only tweak my table so much, or tube roll. I really haven't had a lot of time to do much sleuthing but winters coming so that in itself will free up more time. Brian
