Subject: experience with compression drivers.
Posted by jeff p on Wed, 14 Jan 2009 17:07:09 GMT
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just wondering what everyone has been using.it seems the psd2002 isn't bad but the DE250 is recommended.what about the B&C de400, de400tn and the de500?the de400tn seems to almost be a de250 with a shorting while the de500 has a shorting ring but is titanium instead of polyamide.the de400 fr doesn't look as flat as the 250 and the 500 though.can anyone comment on the sounds of these or has nobody tried them?the de400 isn't much more than the de250.

Subject: Re: experience with compression drivers.
Posted by Wayne Parham on Wed, 14 Jan 2009 17:36:01 GMT
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I evaluated both the DE250 and DE500 drivers, and liked them both. The DE250 sounded a little smoother to me, but that may have been because I knew the DE500 had a titanium diaphragm. They actually measure pretty much the same. The DE500 is very well behaved, in my opinion. It also has a neodymium magnet. But the DE250 is still my favorite of the two.There is one area that I'm still evaluating. That is long term reliability. I have used Eminence and JBL compression drivers for years and I know what to expect from them in just about every situation. They are very durable, handle power well, and last a long time. I expect a PSD2002 or 2426 to last a lifetime. The B&C drivers are relatively new for me, and I am wondering how the polyimide diaphragms (used in the DE250) will hold up over the years. This has yet to be seen.

Subject: Re: experience with compression drivers.
Posted by jeff p on Wed, 14 Jan 2009 19:16:35 GMT
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being it's a pro sound driver i would think the reliability would be fine for the home audio demands.i'm going to be building the 3pi soon and getting the delta12lfa and psd2002 used.trying to decide if i should upgrade to the de250 right away...i'm thinking it would be best since that is the driver that handles the most frequencies.

Subject: Re: experience with compression drivers.
Posted by Wayne Parham on Wed, 14 Jan 2009 20:07:27 GMT
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The PSD2002 sounds nice, but I think the DE250 is worth the extra money. It really sounds smoother, and has greater extension too. More sparkle, less splash.

Subject: Re: experience with compression drivers.
Posted by jeff p on Thu, 15 Jan 2009 23:32:29 GMT
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i'm almost certain then that i'll build a 3pi something like this.eminence lense, de250 and delta 12lfa.i'm probably going to shoot for a 4 cubic foot enclosure and tune to either 40hz or 35hz. according to winisd that will give f3 around 45hz and the gain starts rising just a bit around 200hz so that might help just a bit with BSC if i want to pull the speakers out from the walls. i think it only rises 2db at most though and it's a nice smooth curve.not sure on exact dimensions yet but i think it will be a little taller and skinnier, maybe 38inches tall and 14inches wide.the room is 15ft wide, 25ft long with 9ft ceilings.do you see an problem with booming bass with that enclosure and tuning?

Subject: Speakers and room as a system
Posted by Wayne Parham on Fri, 16 Jan 2009 00:07:00 GMT
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I generally design speakers to be slightly overdamped in the bass. This yields a response curve that rolls off gradually, which is useful in most cases. For one thing, it is tolerant of electro-mechanical shifts due to increased power. As power is increased, the speaker may shift towards being less damped, but it cannot shift far enough to become underdamped and sound boomy. For another thing, the gradual rolloff is close to a conjugate of room gain, so it sounds natural in most environments.

You can also add subs, which can increase bass extension and make bass smoother at the same time. Room modes are hopefully reasonably well damped in the room, but you can almost always improve energy distribution by distributing bass sound sources. Proper placement of the mains and the subs can yield a uniform sound field that covers a wide listening area.
Positioning and subs
