Subject: Best bass from Lowther
Posted by Dynavector on Mon, 14 Apr 2008 17:26:40 GMT
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Hi all,I've heard some Lowther based speakers that sounded pretty good but some are a little too tilted up for my taste. Weird thing is the good ones aren't all big horns or lines. One was a little bass reflex speaker and that surprised me. Maybe they had a crossover in them to voice them but I didn't think most people with Lowthers did that sort of thing. That brings me to my point. What cabinets work best with Lowthers and do you use electronics for voicing them?TIA,David

Subject: Re: Best bass from Lowther
Posted by Duke on Tue, 15 Apr 2008 08:07:38 GMT
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I think that the best bass I ever heard from a Lowther system was one of Bob Brines' creations. They look simple, but last year at Lone Star he told me a little bit about what he's doing. I'm not going to give away any of his secrets, but I'll just say that his design is very, very intelligent and it really works. He had me kicking myself and saying, Now why didn't I think of that??Duke

Subject: Re: Best bass from Lowther
Posted by Dynavector on Tue, 15 Apr 2008 18:45:59 GMT
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I think Brines uses passive electronics to voice them. That maybe the secret sauce what they need for best sound!David

Subject: One Way or the Other
Posted by Skip_Pack on Tue, 15 Apr 2008 19:07:13 GMT
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You end up equalizing them. Bob does use passive filterslike you mentioned. Others go to current drive (highoutput impedance) power amps, like some of the FirstWatt amps. I have been playing with the EQ feature inInguzAudio, a DSP pluging for use with Squeezeboxes. I'mnot sure which approach will ultimately be best, but Ilike the explicit nature of the digital EQ method, it'seasier to vary and assess. I'll have this setup at LSAFin a few weeks.Skip

Subject: Re: One Way or the Other
Posted by Dynavector on Tue, 15 Apr 2008 20:06:50 GMT
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Skip, I am intrigued by your idea of digital processing/EQ for a single driver speaker. Do you use a sound meter and test tones to set EQ? Will you make adjustments for your room at LSAF?David

Subject: Re: One Way or the Other
Posted by Skip_Pack on Tue, 15 Apr 2008 21:18:49 GMT
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I'm not using the digital room correction of Inguzas I don't have a mic and appropriate preamp, andI have been doing the EQ by ear. There's an XML filethat you can edit to specifiy how many bands, thefrequency of each and a positive or negative db change.Starting with a measured flat curve would be a better starting point. I am sure I will be at leasttweaking it at LSAF and will be happy to show theprocess.Skip

Subject: Re: Best bass from Lowther
Posted by Martin on Wed, 16 Apr 2008 03:19:59 GMT
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I have used several different Lowther speakers in a moderately sized floor standing ported enclosure. I also used a BSC circuit to even out the rising frequency response, with some reduction in efficiency, and thus rebalancing the bass with the mid range and high end. It can work very well and provides a bass extension down to 40 Hz. This arrangement really shines with acoustic music like the jazz I listen to most. Without the passive filter the sound is very bright and fatiguing.I have heard other low Qts drivers in moderately sized BLH enclosures and they produce a similar performance. They also benefit from a BSC circuit but maybe require a little less correction and are a little more efficient.My most recent Lowther system is an OB arrangement where I have used 15" high efficiency woofers to produce the bass below 200 Hz and relieve the Lowther of this duty. This has been the best performing of my Lowther systems and has lasted for over years in my listening room. Right now this system is very big, I believe I have found the key for reducing the size to something more reasonable. But I guess technically speaking it does not fall into the catagory of a full range driver system.

Subject: Contour Filters
Posted by Bob Brines on Thu, 17 Apr 2008 13:38:45 GMT
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Yes, I have been using a passive filter. When I sell one of my speakers, it will include the filter. The plan package also includes a parts list for the filter. But....If you were at the LSAF last year, you may remember that I was using a computer for my front end. I used WMP as the player. I thought that it sounded pretty good, but a visitor berated me for foisting such lousy sound on an audiophile convention. Well, I've had a year to play with this and I think I have the ultimate answer. My player is now Foobar2000. The choice of Foobar over WMP is mainly because of Foobar is a much more flexible player. Also the internal equalizer in Foobar has more steps than that in WMP. The final consideration was that Foobar is the only free player that will properly catalog classical music. There are other players around, each with its own set of features, but I doubt that any will sound better than Foobar. On to filters. I have taken the passive filters out of my speakers. All filtering is now done with the equalizer within Foobar. I simply set the sliders to the mirror image of the speaker's frequency response. Flat response! Adjusting BSC for a different room or position is just a matter of adjusting a few sliders. As a bonus,I've remove the last of the harshness from the Lowther driver. Neat, No?Come to my room at the LSAF and I'll give you a demonstration.Bob

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Subject: EQing and efficiency
Posted by akhilesh on Mon, 21 Apr 2008 20:30:35 GMT
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I have tried EQing extensively in the past with different speakers, and to me: electronic EQing usually ends up sounding artificial over the long run. Maybe I just wasn;t doing it right, but it never sounds "natural" to me. Perhaps it's the decay of instruments. The one EQ that does sound OK to me is when I turn up the "loudness" button on an old Yamaha natural sound solid state amp, and turn the bass up by 2 nothces. THat does crank up the bass.Another thing to note: no matter what EQ you do, it will casue a drop in efficiency. If you want ultra high eff, then crossing them off in a sealed box or open baffle at 150-200 hz is probably ab etter solution. Of course then you no longer get teh "full range" effect. -akhilesh

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Subject: Re: EQing and efficiency
Posted by RC Daniel on Tue, 22 Apr 2008 06:06:00 GMT
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I am far from an expert, so perhaps I am way off, but I thought the eq'ing before an output stage was just a matter of reducing / increasing the voltage at the desired frequency. Providing you have enough voltage and gain, you can still drive the output to max, which is passed to the driver. This seems in contrast to passive eq', which would pass off the output power (as heat?) at the speakers' filters, thereby reducing efficiency.So, if you have enough drive voltage and gain there should be no loss of efficiency, no? As for other detriment to musical presentation, I have heard that digital processing may not be as innocuous as first thought... Perhaps if that is the case, it

becomes a matter of what matters to the listener?Just tossing some ill-thought out ideas around...Cheers

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Subject: Re: EQing and efficiency
Posted by Bob Brines on Wed, 23 Apr 2008 15:37:15 GMT
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The rated SPL of full(wide)-range drivers is universally overstated. The SPL rated is usually stated at 1kHz or even farther up the rising frequency response. Look at the frequency response curve of your driver. Note the frequency where mass roll-off begins. THAT'S the best you can do. When you EQ a speaker for something that approximates flat, with passive EQ, all you can do is cut the treble to match the bass. With DSP, you can either boost the bass or cut the treble, but in either case, you wind up with the same maximum power handling. Why? Because single-driver speakers are always excursion limited in the bass. Power handling is not the same as efficiency, but the end result is the same. Single-driver speakers are power limited in the bass. End of story.When I start EQ'ing a speaker, I first get a FR curve of the speaker in the position I intend to use it. Then I set the sliders to a mirror image of the FR with the 1kHz slider at 0dB. The job is 90% complete. Only a bit of tweaking remains.BTW, I rarely wind up with a speaker EQ'ed flat. That seems too laid back for me. I usually wind up cutting the bass a bit.Bob

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Subject: Why EQ may not sound good
Posted by akhilesh on Wed, 07 May 2008 17:48:46 GMT
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1. As Bob said, Eqing a speaker means getting the eff of the speaker at lower frqiencies, which tends to be lower. 2. Just a bald boost in EQ frequency below a certain range, with a certain slope is crude and may give novice listners a bit of aan ahh feeling but IMHO is not conducive towards accurate sonic reproduction of any sort. I have worked extensively with parametric EQ (passive)in high end systems. It just never sounded right. I think it;s best left to an individual EQ mix for each track for a particular instrument/voice. Not very good in a hifi system that is supposed to play it all (mergded tracks playing through 2 or more channels) Check out:http://www.mhsecure.com/products/ChannelStrip/EQTech-CS.phpPAY attention to this line:It is very difficult to characterize the precise nature of what frequency range corresponds to what timbre. You'll find (as you gain experience) that it is often the relative balance of frequencies that count; sometimes it is better to cut the midrange than to boost the highs. Hope this helps.
-akhilesh
 EQ basics

Subject: Re: Best bass from Lowther
Posted by Retsel on Thu, 25 Sep 2008 00:23:28 GMT
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If it is a back loaded horn, you can adjust the compression chamber throat to balance the frequency response. The stronger the magnet, the smaller that the compression chamber and the narrower that the throat needs to be to achieve a balanced sound. I have my Lowther DX4s mountd on open baffle. This is the most transparent sound for them, but then equalization is required. With mounting them on open baffle, even with the the passive components in the signal path, the sound of Lowthers is more transparent than mounting them in back horns without such devices in the signal path.Retsel