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