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Subject: Suspension on HiEff woofers

Posted by [Crystal](#) on Mon, 10 Dec 2007 18:25:07 GMT

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Do high efficiency woofers need some power to overcome suspension stiffness and open them up? I was wondering because even though they are efficient enough to listen to with a watt or less, they seem to make more bass at about 10 watts. I spent the weekend with a friend that has some HiEff JBL's and I noticed this about them. Are speaker like these best used with 10 watts or more or are there some that can be used with low power tubes?Crystal

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Subject: Re: Suspension on HiEff woofers

Posted by [Sam P.](#) on Mon, 10 Dec 2007 19:28:44 GMT

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This topic comes up from time to time (see below). I think it has more to do with the Fletcher-Munson curve (shown above) than anything else. What this curve shows is perceived loudness at various levels. At 70-80dB you need more bass for PERCIEVED loudness to be the same as you do at 100-110dB. This is because of the way your EARS work, not the speakers suspension or anything else in the audio chain. Some receiver/amps have loudness contour circuits built in. Press the button and it adds more bass and a smidge more treble when volume is low.

4 Pis at low volumes

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Subject: Re: Suspension on HiEff woofers

Posted by [Scholl](#) on Thu, 28 Feb 2008 17:21:31 GMT

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"Do high efficiency woofers need some power to overcome suspension stiffness and open them up?"I think so. From my trial and errors I've found rolled surrounds and loose suspensions, lower compliance, higher Vas, get punchy at lower levels. I think this is why some folks like Altecs vs. new pro-sound types. I've tried only 6 different 15s and found the woofer from the Pioneer CS99A and Cerwin Vega S2 to sound best at low levels, the EV DL15W has excellent bass but a little disconnected in the mids so likes lower crossover,

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