

---

Subject: Re: Voice Coil Inductance

Posted by [Adrian Mack](#) on Sat, 30 Aug 2003 03:27:23 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Hey Wayne, Adire Audio, in their technical notes section has an article on voice coil inductance. Its located at [http://www.adireaudio.com/tech\\_papers/woofer\\_speed.html](http://www.adireaudio.com/tech_papers/woofer_speed.html) If you have the time to read it, can you please go through it and tell me your thoughts. Its really just making a simple point, but a point nonetheless. If we go by what that article has to say on inductance - that it holds the signal for a bit then "lets it go" (which is basically what inductors do) - do you think that the motor acting as an inductor will hold low frequencies for longer than high frequencies? Or would it act sort of like a constant delay like a flat GD curve? I believe there are some that place all this emphasis on voice coil inductance, but they dont even know what it is. Thats why I'd like to get a better picture of this aspect. BTW: On DVC woofers - wiring the VC's together in series doubles  $L_e$ , and parallel halves it. I guess thats because in series the wire length is seen as doubled (which explains why  $B_l$  is doubled with series wiring). In parallel, for some reason it doesn't affect  $B_l$  at all... Siegfried Linkwitz says on his website that wire length is not made any longer or shorter in parallel so  $B_l$  is not affected in parallel wiring. But parallel wiring does halve the  $L_e$  value. Why is this? Linkwitz also said voice coil inductance has little influence on low frequencies.... is this true? If so, then... we could say that for subwoofers,  $L_e$  is not important. And on midrange/high frequency units inductance is always going to be low anyway, because they are tuned higher, so its not important to know what  $L_e$  is on these units either. Or is this too simplistic? Thanks! Adrian