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Subject: Re: Voice Coil Inductance

Posted by [Wayne Parham](#) on Sat, 30 Aug 2003 02:21:59 GMT

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Voice coil inductance is just a physical property of the motor. There are some things that tend to raise inductance and some things that tend to reduce it. But generally, drivers that are tuned lower tend to also have more voice coil inductance. One might say that a perfect motor would be one that exhibited a pure resistance as a load. This would certainly be easier to design crossover filters and amplifiers for, at least if flat frequency response was desired. But that's sort of like talking about a "frictionless motor" - If you don't have friction then there is no drag to reduce efficiency and power, but there is also no way to transfer power because there is nothing to "push against." So I guess it really boils down to whether you view the issue reductionistically or holistically. If you look at voice coil inductance all by itself, you will find some issues that present themselves. But when you look at the system as a whole, voice coil inductance becomes just one factor of many, and it becomes less of an "advantage" or "disadvantage." That's just the way a motor is, and it is one of the speaker's properties. "Intended use" really dictates what is suitable for this property as it does many of the others.

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