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Subject: Re: Does Volume Matter?

Posted by [Wayne Parham](#) on Sun, 09 Jul 2017 16:20:28 GMT

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Over and above the important matter of hearing loss, there is another thing to consider which is qualitative and that's dynamic range.

Continuous loud volumes may not be a good thing because of the risk of hearing loss. But the ability to reach high volume levels is important for accurate music reproduction. So a sound system should be able to reach high instantaneous SPL levels.

This is the main reason why I think high-efficiency speakers with high-power handling capacity are much better than low-efficiency speakers. Low-efficiency speakers simply cannot reproduce crescendos and impulses properly. Even when hit with large bursts of power, they transform the electrical signal into heat rather than into motion and ultimately to sound.

It's also why I think that power amplifiers should be at least ten watts even with very high-efficiency speakers. Even if a loudspeaker were 100% efficient, there are plenty of things that require more than an acoustic watt to reproduce. Most speakers need at least a hundred watts input power to generate an acoustic watt, and many speakers cannot even reproduce one acoustic watt, no matter how much power you throw at them. An acoustic watt is 120dB over the

So while I would agree that continuous loud volume levels are probably not desirable, I also think that the ability to reach high volume levels is important. That's what dynamic range is - the ability to play a wide range of soft and loud sounds - and it should be done effortlessly and without distortion.

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