Subject: Not What I Thought It Would Be
Posted by iLoveiPod on Sun, 25 Nov 2012 04:12:40 GMT
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I bought my husband a 1000 watt speaker system for his birthday this past September, but the system isn't what I thought it would be. Although it does get loud, it doesn't get anywhere near as loud as I thought it would, or as loud as I would LIKE IT TO. I thought higher wattage meant louder; was I wrong?

Subject: Re: Not What I Thought It Would Be
Posted by Wayne Parham on Sun, 25 Nov 2012 15:59:22 GMT
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The power rating of a speaker only tells you how much power it can handle before damage. Its sensitivity rating tells you how loud it is. Sensitivity is a measure of efficiency, in that it tells you how much sound is produced at a specific drive voltage or power level. Typical sensitivity ratings are 93dB@1W/1M or 93dB@1M/2.83v. These examples are interpreted as meaning the speaker produces 93dB when measured one meter away given one watt or 2.83 volts, respectively.

Subject: Re: Not What I Thought It Would Be
Posted by iLoveiPod on Sun, 09 Dec 2012 01:49:12 GMT
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Thanks for the clarification. Obviously I was looking at the wrong specs when I picked out our speaker system.

Would it be true to say that a lower wattage speaker system might play louder than one rated at a higher wattage?

Subject: Re: Not What I Thought It Would Be
Posted by Wayne Parham on Sun, 09 Dec 2012 02:32:50 GMT
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The "wattage" doesn't matter as to how loud a speaker is at a given drive level. That is described by its "sensitivity" specification. However, the maximum output can be known by three values - max power, sensitivity and compression. At low frequencies, the limit is usually excursion and not thermal, but basically if you know the power limit and sensitivity of a speaker, you can know its maximum SPL.

Subject: Re: Not What I Thought It Would Be
Posted by iLoveiPod on Fri, 28 Dec 2012 20:09:46 GMT
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Thanks for explaining this, Wayne. I thought I knew a pretty good bit about stereos and home theaters, but I was completely wrong about what I thought I knew!