
Subject: Re: series, parallel and speaker sensitivity
Posted by [Wayne Parham](#) on Sat, 21 Feb 2004 16:45:14 GMT
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If you connect two equal value impedances in series, total impedance doubles. In parallel, impedance is halved. Current and power are circuit sensitive though, so decibel differences are somewhat dependent on the amplifier, and not just the speaker configuration. Still, you can generally assume a 3db to 6dB difference between these configurations. I tend to use the conservative figure of 3dB. Assuming a constant voltage source, series connection current flow is halved, so the difference in power is four-fold. Parallel is the other way around - Impedance is cut in half, so current flow doubles. That makes power increase four-fold. Amplifiers aren't perfect voltage sources though. They aren't perfect current sources though either - They're somewhere in between. That's why many amplifiers provide power ratings when different loads are connected.
