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Subject: Hole on Sub Woofers

Posted by [Lancelot](#) on Fri, 17 Dec 2010 12:44:51 GMT

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What is the purpose of the hole of sub woofers? Does it mean the bigger the hole, the greater the sound output will be? Will my sub woofer be damaged if I cover the cover?

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Subject: Re: Hole on Sub Woofers

Posted by [Wayne Parham](#) on Fri, 17 Dec 2010 17:16:30 GMT

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Which hole are you talking about? Is it on the back of the magnet of the driver itself? That's a cooling vent. Or is it a hole in the box? That's a tuning port.

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Subject: Re: Hole on Sub Woofers

Posted by [Lancelot](#) on Sun, 19 Dec 2010 15:18:27 GMT

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Wayne Parham wrote on Fri, 17 December 2010 11:16

Which hole are you talking about? Is it on the back of the magnet of the driver itself? That's a cooling vent. Or is it a hole in the box? That's a tuning port.

My sub woofer has only one hole and it is in front of it. Most sub woofers have a hole though and is that how the low decibels are produced?

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Subject: Re: Hole on Sub Woofers

Posted by [Adveser](#) on Sun, 19 Dec 2010 16:07:40 GMT

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I'm going to assume any enclosure traps waveforms and based on that, I would also assume the holes negotiate exactly which frequencies escape over a certain period.

I'm just guessing here, but too small would probably sound blocky and resonate and too big would sound dead.

There is a pacing issue too. Lows have to arrive at your ear at a relatively close time as the mids and highs, of course, this would have to be stepped in a way. The bass going the wrong direction or emphasizing the wrong frequencies will arrive late and destroy the pace.

In other words, you have to dial back the lows a bit to have a closer speed to the mids or they

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won't blend.

You wouldn't mix an album with the bass delayed, so I doubt you'd want to hear an album that way either.

Let's see if I am any good at assumptions

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Subject: "Vented Speaker Systems"

Posted by [Wayne Parham](#) on Sun, 19 Dec 2010 16:09:34 GMT

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That's a tuning port. The box becomes a Helmholtz resonator. This is often called a called bass-reflex cabinet.

Suggested reading: "Vented speaker systems", Brian Davies, Electronics Australia (1981 Aug/Sep)

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Subject: Re: "Vented Speaker Systems"

Posted by [Adveser](#) on Sun, 19 Dec 2010 16:21:33 GMT

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Thanks for the link Wayne. It's good to learn something that I've never really had to because it has always been a constant.

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