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Subject: Re: Can't reproduce a square wave

Posted by [Wayne Parham](#) on Thu, 18 Mar 2004 18:39:21 GMT

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Agreed. If the box is sealed then pressure will rise as volume is decreased by the woofer. But if the woofer is driving open air, then a change in volume doesn't mean much. Speakers are a constant displacement pump. We'd need a constant volume pump to do the low frequency square wave thing we're talking about here, and I'm not sure we would want a pump like that for sound reproduction. It's kinda cool to think about though. To change atmospheric pressure in an open space requires a constant flow of a large volume of air, which requires a different kind of system. The larger the space, the more volume required of the pump. This is the kind of thing important to engineers setting up cabin pressurization systems, 'cause their systems must modulate the amount of pressure to compensate for altitude. Neat stuff.

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