Subject: port/duct position question in a simple ported system
Posted by Herbsbuddy on Sat, 24 Mar 2007 15:03:04 GMT
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Hello, Does anyone know if port position in a simple ported system has any significant effect on output/tuning? For example, in many speaker books and speaker modelling programs I have seen they usually show the woofer and port on the same side of the enclosure (such as on the front baffle). I am wondering what would happen if I put the woofer and port on totally opposite sides of the box. One reason is I am using a 12" woofer and there is really no room for a 6" diameter port on the same side as the woofer but there is plenty of room on the opposite side. Since the woofer is virtually silent at Fb in a simple ported system (the port makes virtually all the bass) and low bass is non directional, I am thinking there wont be any conflict with that design. Another advantage of positioning the port on the far opposite end is you can use a much longer port with a wider duct. For example, the box I plan to build is 8.2 cu. ft. and the internal dimensions are 48"x18.5"x16". The box will lie flat on the floor like a coffin on it's back and would be about 16" high. I want to put the 12" woofer on the one 16" tall side and the port on the other 16" tall side. This gives me 48" of room between sides. The woofer is about 6" inches deep but I would still have over 40 inches for the duct allowing me to use a much larger diameter duct such as 6" ID. That should cut down on air particle movement noise at the port opening. I am just wondering what bad effects (if any) this may have. Does anyone know of any speaker book or technical paper that addresses this concern? If so I would be interested in reading it. I will go ahead and build the ported box this way and post my results although I can only really test frequency response not really distortion/group delay... Thank you.