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Subject: Re: A little more help, Wayne?

Posted by [Wayne Parham](#) on Sat, 08 Dec 2001 14:14:30 GMT

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PiAlign suggests 4.0 cubic feet tuned to 15Hz with a 3.3" long x 1.6" dia cylindrical port or a 3" x 1.8" x 3.3" long rectangular port. This makes a nice flat response curve with -3dB at 25Hz, -6dB at 20Hz and -12dB at 15Hz. A 3.5 cubic foot sealed is very similar, having -3dB at 30Hz, -6dB at 24Hz and -12dB at 17Hz. Your proposed 2 cubic foot box is too small for sealed because it becomes underdamped. Not too badly though, so I wouldn't consider it to be unacceptable. A sealed 2 cubic foot box gives a -3dB point of 30Hz, so it is similar to the larger 3.5 cubic foot box but underdamped. My suggestion is that you build the PiAlign recommended cabinet, and that you consider 3.5 cubic feet a minimum chamber volume. If you must run the system in a 2 cubic foot cabinet, you should tune it as low as possible or just leave it sealed. In a cabinet this small, there is nothing you can do to prevent the system from being underdamped.