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Subject: Two Pi with off-sized speaker box  
Posted by [BrianG](#) on Sat, 23 Oct 2004 17:22:52 GMT  
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Wayne,I'd like to convert an old pair of speakers to Two Pis. The box size is ~5000 cubic inches - between the regular and tower two pi boxes. Is there a tool to calculate whether there is a valid alignment at that size? Or are the two proper alignments only available at the regular and tower box sizes?thanks,Brian

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Subject: Re: Two Pi with off-sized speaker box  
Posted by [Wayne Parham](#) on Sat, 23 Oct 2004 18:00:32 GMT  
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tune the box to 40Hz.Here's a little BASIC program that will calculate the formulas for you, if you can still find an old BASIC interpreter around somewhere.

```
10 INPUT"Enclosure Volume";VE20
INPUT"Diameter of Port";PD30 INPUT"Length of Port";PL40
VB=VE*1728:PI=3.1415926535:AP=PI*((PD/2)^2):LC=PL+((8*PD)/(3*PI))50
FR=(13548/(2*PI))*(AP/(VB*LC))^.560 PRINT"Fr =";FR;"Hz."70 GOTO 10
```

5000 cubic inches is 2.9ft<sup>3</sup>, which is a nice size for the Alpha 10 driver. You could go with a 4" diameter port that's 4" long or a 3" diameter port that's 2" long.