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Subject: Wacky results for Rat Shack 90-1197 in PiAlign?  
Posted by [AudioLapDance](#) on Fri, 09 Nov 2001 12:53:02 GMT  
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Hey Wayne et al; long time, no see! Someone was looking for RS1197 (4" fullrange, factory "seconds" of Fostex FE103) TS specs a long time ago--I hope you're still lurking around. I found some over at the full range driver forum. It's now in the archives under "40-1197s for Home Theater???" The specs are:  $F_s=85\text{Hz}$ ,  $Q_t=0.37$ ,  $Q_d=2.7$ ,  $V_{ad}=0.17$  cuft (4.9 l) I think PiAlign is having some problems with the low  $V_{ad}$  because when I plug them in the  $\text{Encl Vol}=6.3$  cuft and the Ideal  $Q=40.5$ ! The dimensions indicate a reasonable 0.08 cuft cab (9.2" x 6.6" x 4.5" w 3/4" wood) and 0.8" dia X 2.2" port but I'm not sure if I should trust them?! Wayne, could you run these numbers for me? Thanks. For those interested, another cheap full range is the Pioneer B20FU20-51FW (I got mine for \$40 CND each!) Specs:  $F_s=36\text{Hz}$ ,  $Q_t=0.25$ ,  $Q_d=4$ ,  $V_{ad}=3.2$  cuft (92 l) The results in a nice 0.8 cuft cab (18.5" x 12.75" x 9" w 3/4" wood) with a 2.2" diam x 2.3" port. I'll be finishing my Theater Seven Pi's this weekend (finally!). I'll keep you posted. Cheers, Jeff

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Subject: Re: Wacky results for Rat Shack 90-1197 in PiAlign?  
Posted by [Chris R.](#) on Fri, 09 Nov 2001 13:05:24 GMT  
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I did finally find the data sheet on Fostex's site, but through a wierd path. Anyway, I made a pair of boxes with four each. I can't remember the dimensions. They sound OK. Obviously no real bass, and the highs roll off maybe around 10-12K, but they do have very nice sound in the middle. RS is clearing these out for \$5 ea. Thanks, Chris

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Subject: Exponential notation  
Posted by [Wayne Parham](#) on Sat, 10 Nov 2001 01:20:14 GMT  
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Enclosure volume for this loudspeaker is actually 104 cubic inches, which is  $6.3 \times 10^{-2}$  cubic feet. So the cabinet size is 7.16" x 4.77" x 3.18" - even before calculating displacement volumes for the components inside or adding wood thickness. With wood thickness and driver displacements, 9.2" x 6.6" x 4.5" is just about right.