
Subject: Pyle W820's in a one Pi alignment
Posted by [BobCat](#) on Thu, 26 Jul 2001 02:57:37 GMT
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Hi Wayne,I uncovered from storage a very nice pair of Pyle model W820 8" woofers. Would they work in a One Pi alignment? I have enclosed factory specs. I am not sure of the upper limit of these drivers, but they sound very decent even unenclosed.W820Fs = 56 HzVas = 1.27 cu.ft.Qts = .481Qms = 7.839Qes = .512Zmin = 6.80SPL = 92.6 dBXmax = .125" VentedVb = .75 cu.ft.Port Diameter = 3 inchPort length = 4 inchFb = 56 Hz SealedVb = .75 cu.ft.Fc = 89 hzWhat would you do for "crossover"? What size box and port?Many thanks,BobCat

Subject: Re: Pyle W820's in a one Pi alignment
Posted by [Paul C.](#) on Thu, 26 Jul 2001 03:27:53 GMT
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BobCat: I have two different sets of numbers for these, from the mid 80's to early '90's. I am away from home now, but give me a week, and I can dig up Le and Re for you, too. That is, Le = voice coil inductance, and Re = dc resistance.Also, Pyle had sheets of suggested boxes... but I find running the numbers through BoxPlot gives more and better possibilities.Oh, to interpret those numbers, W820... the W series was a pro audio woofer, and 820...8" dia with a 20 oz magnet.

Subject: Re: Pyle W820's in a one Pi alignment
Posted by [Wayne Parham](#) on Thu, 26 Jul 2001 06:58:03 GMT
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PiAlign recommends a cabinet having the following specifications:Internal volume = 0.65 cubic feetPort diameter = 1.4 inchesPort length = 1.5 inchesI've calculated some volume offsets using CSG:Woofer - 47.5 cubic inchesCone - 8" dia, 2" long - 33.5 cubic inchesCylinder (magnet) - 3" dia, 2" long - 14 cubic inchesTweeter - 5 cubic inchesCone - 3" dia, 2" longPort - 2.5 cubic inches1" Fiberglass insulation (calculated at 1/4 thickness, to compensate for compression volume)Side - 16" x 7" x 0.25" - 28 cubic inchesBottom - 10" x 7" x 0.25" - 17.5 cubic inchesBack - 16" x 10" x 0.25" - 40 cubic inchesTotal displacement: 188 cubic inches (Enter into one of the

offset fields, either LFD or "other")Internal cabinet dimensions:Height - 16.4 inchesWidth - 10.9 inchesDepth - 7.3 inchesI would reccomend 5/8" wood stock, so add 5/8th inch twice, or 1.25 inches to each dimension. (Enter 1.25 into the "wood size" field)Final analysis:Height - 17 5/8"Width - 12 3/16"Depth - 8 1/2"Port is 1.4" diameter and 1.5" long. You may substitute a 1 1/2" diameter port that's 2" long since 1.4" diameter (1 7/16ths) will be hard to find.Let us know how your speaker sounds. It looks like it will probably work out very nicely!

Subject: Pyle T-S sheets

Posted by [Paul C.](#) on Thu, 26 Jul 2001 13:16:52 GMT

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Wayne: The sheets I have list most of the Pyle woofers from the mid 80' into the early 90's. I obtained these directly from Pyle. I will scan and email to you ASAP, for your data archive.The other sheet, filled out by hand, from Pyle, lists suggested box sizes, sometimes both ported and sealed are give. Also suggested LxWxD. Port sizes are given. These are sort of cookbook style practical size boxes.I found Pyle, at that time, very good about sending response graphs and any other data I asked for. Also answering application questions.While much of their line does not meet my needs (mostly car stereo now) their pro audio line of PYMxxxx series of woofers are excellent, economical woofers. About the same bang for the buck as the Eminence woofers. But I find the Pyles many times yield good performance in better sized boxes than most of the Eminence woofers. Perhaps I put too much stress on box sizes I can move around (portable PA gear).

Subject: Re: Pyle T-S sheets

Posted by [Wayne Parham](#) on Thu, 26 Jul 2001 23:54:47 GMT

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Good information, Paul, thanks! Sounds promising.

Subject: Here are TS para from Pyle

Posted by [Paul C.](#) on Tue, 31 Jul 2001 16:36:15 GMT

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Your woofer was formerly listed as W8C200F. $F_s = 44.1$ hz $R_e = 6.29$ ohms $Z_{ohms} @ 400$ hz = 7.3 ohms $Z_{min} = 7.1$ ohms @ 289 hz $Q_{ms} = 9.422$ $Q_{es} = .345$ $Q_{ts} = .333$ $X_{lin} = .150$ " $V_{as} = 1.7$ cu

ftPe = 70 Watts RMSSPL = 95 db/wt/mtAnother chart received at the same time
recommends:Sealed enclosure .5 cu ftPorted enclosure 1.1 cu ft w/ port = 2.5" dia x 1.5"
longHope this info helps.Paul
