
Subject: Parts Express Pioneer 4" Extended Range Driver

Posted by [Anonymous](#) on Fri, 04 Feb 2005 05:46:34 GMT

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I'm one of those people that prefers the expensive drivers as I'd rather have one good quality driver over an array of cheap drivers, ie, I have a \$600 magnetic planer and I also have the 'PT2' \$30 planars and I still prefer the expensive beast over an array of the smaller ones. But... there is a lot of talk on the forums about the 'NSB' midrange from partsexpress, part #269-570 (black cone), there is another one with a gray cone. For \$49 cents I decided to build an array for a friend on a very low budget, in fact I will be giving him my PT2 planars for this array. The 49 cent midrange seemed like a great choice for someone who has little money. I ordered 'one batch' of these, 32 drivers for \$16 but shipping cost about \$30 as it weighs about 60 pounds. Expect to pay about \$1.25 to \$1.50 per driver when you factor in shipping. Still not a bad deal. I got the shipment today of the 49 cent drivers. These are cool little speakers. *They are shielded, placing the magnet on the CRT barely registers visual gremlins. *The rubber surround is a nice touch, the cool factor. *Xmax is rated at 1mm, the spider seems loose enough to allow me to move the cone up 3mm, down 3mm. *The frame has a 'bead' which makes installing them more difficult if you want to seal the driver in the chamber. Some creative routing maybe required to round over the edge.

:unsure: *Mounting hole size is 3 11/16" but I can't find a hole saw that size, instead a standard 3 3/4" hole saw may work well. McMaster.com sells a carbide tipped hole saw for \$21.67 (drill arbor \$9). I used my ancient test bench to audition these drivers. Adcom 555 Mk2 (200w/ch @ 8 Ohm), active crossover 18db/octave, paragraphic equalizer. Since most people mate this midrange with the 50 cent tweeter and crossover around 5-6khz, they complain about the 7khz gremlin and use extra methods to tame it. Since I plan to mate this with the PT2 planar (\$30 tweeter), the crossover point that I like is 2.5khz plus or minus 500hz, therefore I don't see a need to do any driver mods as the gremlins are filtered out, ie it sounded fine. I didn't make my test enclosure yet but I found an old piece of 4" PVC pipe 19" long in the garage. I taped the driver in there and left the back of the pipe open. The sound I heard was pretty cool. I got some good bass out of this, more bass than my 6.5" PHL 1120 in a sealed box. I only performed the audition with one midrange and one tweeter, not stereo! /lol .. It sounds good. The teenage boy next door listened to it and I asked him how much he thinks the speaker cost, he answered ... \$200 ??/// ROFL /// 49 cents! no way! He thought I was BS'ing. Later, his sister came over to audition the PHL vs. 49 cent driver and I told her how much the PHL cost, \$129. I said to her, based on the sound you heard how much do you think the other speaker cost? she answered \$100 ?/hehe Which one do you like I asked? She said, I like the small one because it has better bass but the PHL has a clearer sound. Two women who auditioned claimed that the PHL had a clearer sound but the 49 cent driver is pretty dang good. It's really not a fair comparison, 4" vs. 6.5"... /heh 49 cent vs. \$129 .. I ran the crossover 100hz high pass, 2.5khz low pass through the audition as it seemed to work well even though I drove it pretty hard playing thrash music, jazz, progressive rock, and my lady likes Josh Groban. For the mellow tunes I can push this driver hard and it takes my abuse, but if I crank the thrash music and place my nose near the cone I can start to smell something (getting hot -> burning), but that is pretty hard abuse. Also, if I do abuse it I tend to favor a 150hz -250hz high pass. Overall, pretty dang good for a 5w rms rated driver that is taking my 200w amp + my thrash music abuse. A while back when auditioning my Seas Excel 8" midwoofer driven by 600w (bridged Adcom), I was able to see smoke when cranking the same thrash tunes and the Seas is rated for ~120 watts. /heh If I remove the midrange from that pipe the bass is gone and I'm less excited as I miss the small boom that adds body to the sound. I think it's time to do a ported box test this weekend. I got

some ideas to try. Aside from the line array, I think you can make a nice surround or ambience speaker with this 49 cent driver. Take a 2 - 3 foot 4" PVC pipe, install the driver and place a grill on it. Cut a hole in the pipe for a port or leave the other end open, perhaps make some variable height pipe holder to change the bass tuning. /hehe ... Since the driver is aimed up, off axis listening masks the gremlin and it sounds fine to me, assuming you run it full range to keep cost down (no crossover). I visualize two pipes near the couch, one on each end for a 'dollar' surround speaker -- ROFL. When I use the parametric EQ with about 18db of treble boost, they thought I had a tweeter hooked up with it -- hehe It really sounds pretty good with heavy EQ'ing. Even if you used the 50 cent tweeter it should work well trying to keep the speaker still in the 'dollar' price range. I like this 'little monster' driver, I placed another order today for 192 pieces. --- muhahaha Buy some of these 'sleeper' speakers and mess with them, they are too cool.
