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 cheapdrivers, ie, I have a $600 magnetic planer and I also have the'PT2' $30 planars and I still prefer the expensive beast over anarray of the smaller ones.But... there is alot of talk on the forums about the 'NSB' midrangefrom partsexpress, part #269-570 (black cone), there is another onewith a gray cone. For $49 cents I decided to build an array for afriend on a very low budget, in fact I will be giving him my PT2planars for this array. The 49 cent midrange seemed like a greatchoice for someone who has little money. I ordered 'one batch' of these, 32 drivers for $16 but shipping costabout $30 as it weighs about 60 pounds. Expect to pay about $1.25 to $1.50 per driver when you factor in shipping. Still nota bad deal.I got the shipment today of the 49 cent drivers. These are cool littlespeakers.*They are shielded, placing the magnet on the CRT barelyregisters visual gremlins.*The rubber surround is a nice touch, the cool factor.*Xmax is rated at 1mm, the spider seems loose enoughto allow me to move the cone up 3mm, down 3mm.*The frame has a 'bead' which makes installing them more difficult ifyou want to seal the driver in the chamber. Some creative routing maybe required to roundover the edge. :unsure:*Mouting hole size is 3 11/16" but I can't find a hole saw that size,instead a standard 3 3/4" holesaw may work well. McMaster.com sellsa carbide tiped holesaw for $21.67 (drill arbor $9).I used my ancient test bench to audition these drivers. Adcom 555Mk2(200w/ch @ 8 Ohm), active crossover 18db/octave, paragraphic equalizer.Since most people mate this midrange with the 50 cent tweeter andcrossover around 5-6khz, they complain about the 7khz gremlin and use extra methods to tame it. Since I plan to mate this with the PT2planar ($30 tweeter), the crossover point that I like is 2.5khzplus or minus 500hz, therefore I don't see a need to do anydriver 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" PVCpipe 19" long in the garage. I taped the driver in there and left theback of the pipe open. The sound I heard was pretty cool. I got somegood bass out of this, more bass than my 6.5" PHL 1120 in a sealedbox.I only performed the audition with one midrange and one tweeter, notstereo! /lol .. It sounds good. The teenage boy next door listened toit 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 audion the PHL vs. 49 cent driver and Itold 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 ?/heheWhich one do you like I asked? She said, I like the small one becauseit has better bass but the PHL has a clearer sound.Two woman who auditioned claimed that the PHL had a clearer sound butthe 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 throught theaudition as it seemed to work well even though I drove it pretty hardplaying thrash music, jazz, progressive rock, and my lady likes JoshGroban. For the mellow tunes I can push this driver hard and it takesmy abuse, but if I crank the thrash music and place my nose near thecone I can start to smell something (getting hot -> burning), but thatis 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 istaking my 200w amp + my thrash music abuse.A while back when auditioning my Seas Excel 8" midwoofer driven by600w (bridged Adcom), I was able to see smoke when cranking the samethrash tunes and the Seas is rated for ~120 watts. /heheIf I remove the midrange from that pipe the bass is gone and I'm lessexcited as I miss the small boom that adds body to the sound. I thinkit's time to do a ported box test this weekend. I got

some ideas totry.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" PVCpipe, install the driver and place a grill on it. Cut a hole in thepipe for a port or leave the other end open, perhaps make somevariable height pipe holder to change the bass tuning. /hehe ... Since the driver is aimed up, off axis listening masks the gremlin and it's sounds fine to me, assuming you run it full range to keep costdown (no crossover).I visualize two pipes near the couch, one on each end for a 'dollar' surround speaker -- ROFL.When I use the paragraphic EQ with about 18db of trebleboost, they thought I had a tweeter hooked up with it -- hehe Itreally sound pretty good with heavy EQ'ing. Even if you used the50 cent tweeter it should work well trying to keep the speakerstill in the 'dollar' price range.I like this 'little monster' driver, I placed another order today for 192 pieces. --- muhwahahaBuy some of these 'sleeper' speakers and mess with them, they are toocool.