Subject: Basshorn in Car
Posted by Mike.e on Sat, 24 Jan 2004 15:07:01 GMT
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Hello and welcome to the madhouse of Mike.e's basshorn projects.quick facts122db with sine at 50-55hz20watt input40hz horn (with good 50hz loading)8" driver (25watt rms,xmax=3.5mm,Fs=40,Qts=0.45,Vas=40L)ExplanationI have always loved the idea of horns.Even when i bought my speaker design book by Ray Alden,i saw melhuish's site on the internet and thought that a basshorn would be great.Soon after finding AA and other forums,i found hornresp program.This was amazing,as it was free,and basicaly shows reality for basshorns.for about 6months i played with this program and learned alot.ALso i learned certain woofers require small throat long horns,and other seem fine on shorter high throat area horns...My horn designs are extremely compromised-but wisely so-as no one can fit a full size horn,with hornresp the right compromise can be made and frequency response wobble can be known to some extent.basshorn builtSound quality at 122db is extremely good,ofcourse resonances are ignited in the car with ferocity!I expect the woofer has ~8-10db power compressionThe car is a 1991 nissan pulsar , the rear quarter panels vibrate along with everything else..bad SPL wise...Soon il use Speaker WOrkshop to measure lots of things-FR properly..-Impedence graph-measure some woofer specsAlso soon im borrowing a Digital Designs 12" woofer. This driver looks promising in a horn.Bear in mind that even car audio drivers-if they are of sufficient sound quality can be used in small basshorns.

Subject: Re: Basshorn in Car
Posted by Wayne Parham on Sun, 25 Jan 2004 00:08:18 GMT
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What a whallop that thing must put out! I realized when reading your post that your new horn with the high-power driver might generate more than 10dB greater than the old one. My thinking in my last reply to you was that with the greater power, there would also be a little more compression. But this overlooks the fact that the original driver would suffer from compression too, and maybe (probably) more than the better one.I hope all your interior trim pieces are well attached. But I'll bet they don't stay that way!

Subject: Re: Basshorn in Car
Posted by Mike.e on Sun, 25 Jan 2004 00:12:06 GMT
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Thats my thinking too-the higher quality driver will suffer less power compression,perhaps closer to what my jbl supposedly experiences-~5db at rms rating. I want to measure SPL accurately and then i can know -cabin gain-power compression-max SPL (with curves)-inside and outside of

car...all this requires SW to do correctly and quicklyAnd NOW the guy who has the spare DD2012-he has a spare 1ohm stable amp *(750watts) !!! i feel it would be rude to ask to borrow that too-its not like i know him THAT well.....and he doesnt live in my city...Cheers!Mike.eCheers!

Subject: 126db!
Posted by Mike.e on Mon, 26 Jan 2004 12:47:25 GMT
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Subject: Re: 126db!
Posted by Wayne Parham on Mon, 26 Jan 2004 14:41:54 GMT
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No doubt your head hurts!And your dashboard must have been shaken apart too!!!
